



ACCURATE  
MANUFACTURED  
PRODUCTS  
GROUP

# Shoulder Screws





# “Beautiful Parts, Right Now”



## Longevity

AMPG is a privately-owned family business started by current management in 1987. With the second generation in the business, already for many years, we are realizing a future of serving our customers, collaborating with our employees, and contributing to a vibrant domestic manufacturing economy.

## Philosophy

We are proud to be an American manufacturer dedicated to solving large problems that affect small numbers of customers. We are committed to our team, our products, and our customers.

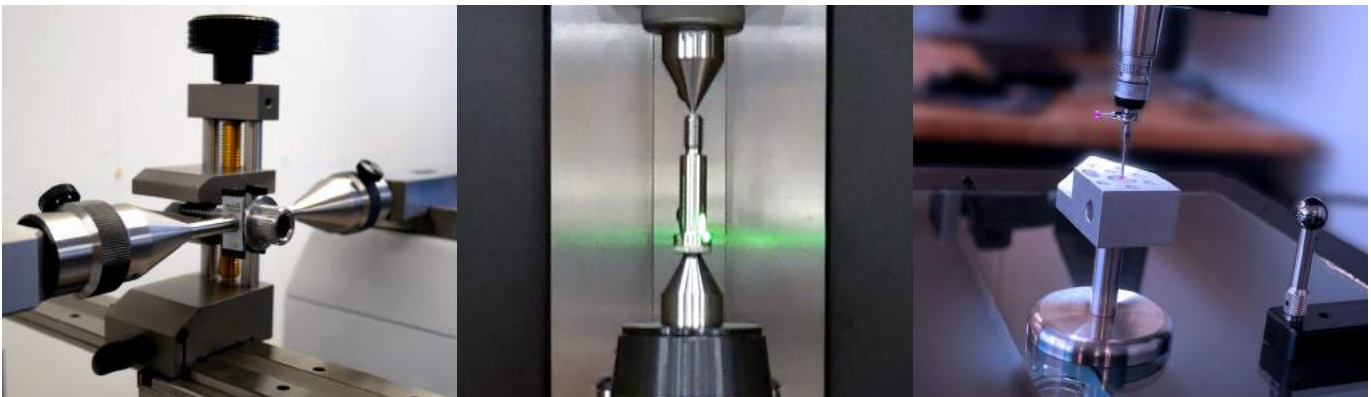
Our continuous capital investments in production equipment, employees, automation, and inspection technologies allows us to design thousands of new items a year, get them into large distributor channels and produce on demand small quantities in a few days.

## Stock & Custom...**FAST**

As a precision manufacturer of specialized fasteners, architectural hardware, mechanical components and industrial accessories, AMPG stocks over 35,000 products. We also offer custom manufacturing supported by design, product testing and engineering services. To see the latest and most complete catalog of our over 35,000 different items, visit [www.ampg.com](http://www.ampg.com).

## How to Buy Our Products

Visit us [online](#), email us at [sales@ampg.com](mailto:sales@ampg.com) or give us a call at **317.472.9000** and we can help you with your inquiry. Our stock line of parts ships same day from Indianapolis, Indiana.



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# About AMPG



## We Make Beautiful Parts, Right Now

AMPG (Accurate Manufactured Products Group) is a privately owned family business started by current management in 1987. Our 2nd generation is well experienced and active in the business and dedicated to keeping AMPG a closely held family firm.

## We are Proud to be an American Manufacturer

AMPG is a Make to Stock Manufacturer of over 50,000 unique items. New products are our lifeblood, and we have a long term strategic plan in place to introduce thousands of new products each and every year.

Our 147,000 Sq Ft facility in Indianapolis supports low to medium volume manufacturing runs with over 70 late model and brand new CNC Lathes, Mills, and Thread Rolling equipment. AMPG has an aggressive investment program in the latest and most advanced Production, Automation, and Inspection equipment, as well as software and engineering systems to run our business as efficiently as possible.

ISO Certification to 9001:2015 was attained to anchor the culture of continual improvement both on and off the production floor. ISO 17065 Product Certification will be applied for in 2023, and ISO 17025 will be used to certify our in house Lab also in 2023. The latest in measuring, testing, and monitoring equipment is used to insure product quality and fast lead times. Lean principles guide the manufacturing process using robots, vision systems, and machine monitoring to enable continuous unmanned production around the clock.

## Family Owned, Family Operated

AMPG began in Plainview, NY in 1987, and moved to Indianapolis, Indiana in 2004 in order to find the skilled machinists that are the foundation of our success. We are especially proud of our employee retention (as of 2022 all of our core team members will have over 15 years with the company), and the families second generation has over 18 years experience. We have a unique training method that allows us to grow our manufacturing capabilities to match our product and sales plan.

Our dedication to our employees is evidenced by their longevity and the numerous safety and healthiest employer awards we have won over the years.

## Product Quality, Appearance and Quick Deliveries are Foundational Goals

AMPG makes and stocks hard-to-find fasteners, components, and fittings. We ship same day from our Indianapolis facility. We offer custom manufacturing capabilities including design, product testing, and engineering services. Our Made-to-Order program produces as little as one part within 7 days.

## A Simple Philosophy

Provide a great customer experience by having beautiful, precise, and hard to find products ready to ship today.

## “All AMPG Shoulder Screws are Precision Made”

AMPG has assembled the most complete line of nonferrous shoulder screws manufactured in North America. Each shoulder bolt is made in one operation on state of the art Swiss Lathes. AMPG begins with precision ground DFARS compliant material. A finished part is made in one operation without the need for secondary broaching, slotting or thread rolling which can lead to many inconsistencies. AMPG’s process ensures shoulder diameter concentricity and tight tolerances. Each part is then carefully cleaned and packaged.

AMPG manufactures two types of precision shoulder screws, Knurled Head and Smooth Head. Both types have shoulders that are held to a precise diameter. This dimension determines the type of component the shoulder can accommodate.

Knurled head shoulder screws are made to ASME shoulder tolerance and have been the industry standard suitable for use in machinery, and other critical mechanical applications. Smooth head, also known as precision-grade shoulder screws, have tighter shoulder tolerances making them ideal for use with ball bearings and other precision components.

**Ordering Shoulder Screws:** Shoulder screws are specified by shoulder diameter and shoulder length. For instance, a 5/16 x 3/8-inch shoulder screw has a shoulder diameter of 5/16-inch and shoulder length of 3/8 inch. This differs from other screws and bolts, where this size represents the screws thread size and a thread length.

Some guidelines for choosing between the materials we produce are shown below.

Material Type	Specification	Tensile, psi	Yield, psi	Estimated Shear, psi	Elongation	Brinell Hardness	Rockwell Hardness
<b>Aluminum 6061-T6</b>	ASTM B211	45,000	40,000	22,500	17%	BHN 95	B56
<b>Brass 360</b>	ASTM B16	58,000	45,000	29,000	25%	BHN 143	B78
<b>Nickel Alloy 405 (Monel)</b>	ASTM B164	85,000	60,000	42,500	24%	BHN 163	B85
<b>Stainless Steel 18-8 (303)</b>	ASTM A582	90,000	35,000	45,000	50%	BHN 160	B83
<b>Stainless Steel 316 (316/316L)</b>	ASTM A276	75,000	30,000	37,500	45%	BHN 160	B83
<b>Stainless Steel High Five® (316 H5)</b>	ASTM A276	125,000	100,000	62,500	26%	BHN 250	C25
<b>Stainless Steel 416</b>	Cond A	75,000	40,000	37,500	30%	BHN 155	B82
	ASTM A582 Cond T	123,000	110,000	61,500	11%	BHN 245	C24
<b>Stainless Steel 17-4 PH</b>	Cond A ASTM A564 TYPE 630	160,000	145,000	80,000	15%	BHN 332	C36
<b>Stainless Steel A286</b>	ASTM A638 GR 660	160,000	120,000	80,000	27%	BHN 248	C24
<b>Steel 12L14</b>	ASTM A108	78,000	60,000	39,000	15%	BHN 160	B84
<b>Steel Alloy C4140/41L40 (Alloy)</b>	ASTM A108 Cold	105,000	85,000	52,500	15%	BHN 187	B91
	ASTM A108 Thru Hard	140,000	n/a	70,000	n/a	BHN 300	C32
<b>Steel Grade 2</b>	ASTM A307 Equivalent	60,000	36,000	30,000	18%	BHN160	B70
<b>Titanium Grade 2</b>	ASTM B348 GR 2	75,000	55,000	37,500	20%	BHN 163	B85
<b>Titanium Grade 5 (6AL-4V)</b>	ASTM B348 GR 5	140,000	125,000	70,000	18%	BHN 296	C32

*Note: Listed Mechanical Properties are obtained from various suppliers and is intended for comparison of materials, only. Values are based on raw material specifications. AMPG assumes no obligation and liability for the accuracy of this information. For critical applications, product testing may be appropriate.*

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# Shoulder Screws

## About Our Materials

### Aluminum

- Aluminum has the strength of mild steel with one third the weight.
- Resists corrosion in wet environments.
- Lightweight material used for fittings, hardware and fasteners.
- Nonmagnetic.

### Brass

- Brass is a softer material approximately two-thirds copper and one-third zinc.
- Provides good resistance to rust and atmospheric corrosion.
- Friction-resistant material used for gears, bearings, fasteners and valves.
- Nonmagnetic.

### Nickel Alloy 405 (Monel)

- Nickel (Monel) aka nickel-copper alloy is a higher-strength material.
- Excellent resistance in corrosive environments: sea water, some acids, alkalis.
- Marine industry material used for propellers, heat exchangers and valves.
- May be mildly magnetic.

### Stainless Steel 18-8 (303)

- Type 303 stainless offers excellent corrosion resistance.
- Resists chemicals, most dyes, food and nitric acid.
- Corrosion-resistant material used for screws, bushings, nuts and hardware.
- May be mildly magnetic.

### Stainless Steel 316 (316/316L)

- Type 316 stainless offers superior corrosion resistance than Type 303 stainless.
- Resists salt water, acids, chlorides, alkalis and other industrial solvents.
- Low-maintenance material used in commercial kitchens and food processing.
- May be mildly magnetic.

*\*AMPG uses dual certified Type 316/316L stainless material. Meets all 316 stainless properties but has lower carbon content, making it more suitable for welding.*

### Stainless Steel High Five® (316H5)

- High Five® Stainless is AMPG's higher strength grade of 316 stainless steel.
- Resists salt water, acids, chlorides, alkalis and other industrial solvents.
- Corrosion-resistance material with strength equivalent to Grade 5 steel materials.
- May be mildly magnetic.

### Stainless Steel 416

- Type 416 stainless can be hardened up to Maximum Rockwell C40 after heat treatment.
- Resists acids, alkalis, fresh water and dry air.
- Non-galling and hardenable material used for fittings, gears, shafts and screws.
- Magnetic.



Aluminum



Brass



Stainless Steel



Steel

### Stainless Steel 17-4 PH

- Type 17-4 PH stainless maintains excellent corrosion resistance and strength at high temperatures.
- Resists chemicals, most dyes, food and nitric acid.
- High-strength material used for fittings, valves, bolts and shafts.
- Mildly magnetic.

### Stainless Steel A286

- Type A286 stainless maintains superior corrosion resistance and strength at high temperatures, exceeding 17-4 PH performance.
- Resists salt water, acids, chlorides, alkalis and other industrial solvents.
- High-strength material used for fittings, valves, bolts and shafts. Used in high heat/stress applications such as jet engines, gas turbines, and super-charges.
- Nonmagnetic.

### Steel Carbon 12L14

- 12L14 steel is used in many general-purpose applications.
- Material requires a finish to resist rust, such as black-oxide treatment or zinc plating.
- Low-strength material used for bushings, washers, inserts, fittings, screws and nuts.
- Magnetic.

### Steel Alloy 4140/41L40 (Alloy Steel)

- Alloy 4140 is a "primary" material used high strength fasteners and components.
- Material requires a finish to resist rust, such as black-oxide treatment or zinc plating.
- High-strength material that exceed Grade 8 used for socket screws, studs and components, only after heat treatment.
- Magnetic.

### Titanium Gr 2

- Titanium Grade 2 is best known for being strong, lightweight and corrosion resistant.
- Resists chlorides, hypochlorites, chlorates, perchlorates and chlorine dioxide.
- Lightweight material used for chemical-processing equipment, heat exchangers and fasteners.
- Nonmagnetic.

### Titanium Gr 5 (6AL-4V)

- Titanium Grade 5 is two times stronger than Grade 2, and four times stronger than 316 stainless at nearly half the weight.
- Resists chlorides, hypochlorites, chlorates, perchlorates and chlorine dioxide.
- Lightweight material used for higher-strength fasteners, racing components and marine hardware.
- Nonmagnetic.

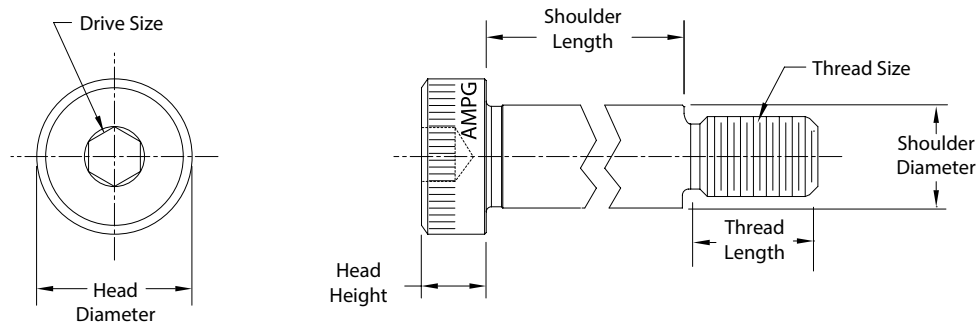


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## Knurled Head Shoulder Screws – Inch

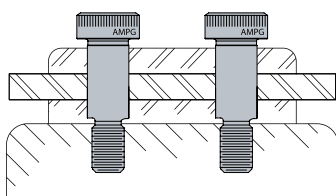
Also known as stripper bolts, they're commonly used as a stationary guide for stripper plates, as a pivot point for moving parts, and as a shaft for rolling parts. Shoulder screws have an unthreaded shoulder made with an undersized tolerance to fit most machinery and equipment. The unthreaded shoulder is held to a precise diameter and length. Screws are machined with a precision hex socket for maximum wrenching strength, knurled heads for sure finger grip, and an undercut portion between the thread and shoulder, allowing a close fit. The shoulder diameter tolerance is  $-.002$  to  $-.004$  inches and the shoulder length tolerance is  $\pm .005$  inches. ASME tolerance shoulder screws have a Class 3A thread fit. \*Heads are knurled, stamped, or both to provide finger grip. Black oxide plating is available for 18-8 and 316 ASME Shoulder Screws. Black Oxide plating enhances appearance and cuts down on light reflection and glare.



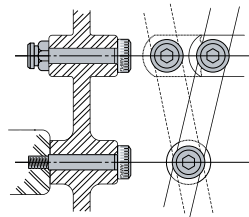
**Dimensions and Tolerance Table – Inch**

Shoulder Diameter	Shoulder Diameter Max to Min.	Head Diameter	Head Height	Drive Size	*Head Appearance
3/32	.091 to .089	5/32	3/32	5/64	Knurl Only (Screws produced prior to 2/1/2021 may have finger-grip AMPG Mark only)
1/8	.123 to .121	1/4	1/8	5/64	
5/32	.154 to .152	9/32	1/8	3/32	
3/16	.185 to .183	5/16	5/32	3/32	
7/32	.216 to .214	5/16	5/32	3/32	
1/4	.248 to .246	3/8	3/16	1/8	Head Mark and Knurl
5/16	.310 to .308	7/16	7/32	5/32	
3/8	.373 to .371	9/16	1/4	3/16	
1/2	.498 to .496	3/4	5/16	1/4	Head Mark and Knurl
5/8	.623 to .621	7/8	3/8	5/16	
3/4	.748 to .746	1	1/2	3/8	
7/8	.873 to .871	1-5/16	5/8	1/2	
1	.998 to .996	1-5/16	5/8	1/2	Head Mark and Knurl
1-1/4	1.248 to 1.246	1-3/4	3/4	5/8	
1-1/2	1.498 to 1.496	2-1/8	1	7/8	

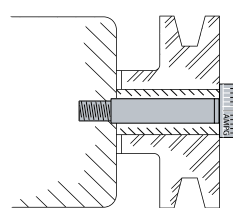
Head appearance may be knurled and/or head marked. 18-8 Stainless Steel is manufactured from Type 303 Stainless Steel Bar.



Shoulder Screw as a Guide



Shoulder Screw as a Pivot Point



Shoulder Screw as a Shaft



**Black Oxide**  
18-8 SS and 316 SS is available with black oxide plating option.

Add "-BX" to the end of the part number.

# Shoulder Screws

For technical drawings and charts, please see page B-2

18-8 SS, 316 SS,  
Black Oxide

## ASME Tolerance Knurled Head — Inch

### 18-8 and 316 Stainless Steels — Hex Drive

- Shoulder diameters of 1/8, 5/32, 3/16 and 7/32 meet our internal specification AMPG 2012 ZS.01.
- Shoulder diameters of 1/4 and larger meet or exceed ANSI/ASME B18.3.
- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- 18-8 and 316 stainless steel screws adhere to environmental regulations established by European Union RoHS directive.



STR60133S164-13



STR60118S348-13

#### 3/32 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
3/32 x .130	1-64 x 1/8	STR60133S164-13	STR60233S164-13
3/32 x .160		STR60133S164-16	STR60233S164-16
3/32 x 1/16	2-56 x 1/8	STR60133C01	STR60233C01
3/32 x 3/32		STR60133C01.5	STR60233C01.5
3/32 x 1/8		STR60133C02	STR60233C02
3/32 x 5/32		STR60133C02.5	STR60233C02.5
3/32 x 1/4		STR60133C03	STR60233C03
3/32 x 3/16	2-56 x 1/8	STR60133C03.5	STR60233C03.5
3/32 x 7/32		STR60133C04	STR60233C04
3/32 x 1/4		STR60133C04.5	STR60233C04.5
3/32 x 9/32		STR60133C05	STR60233C05
3/32 x 5/16		STR60133C06	STR60233C06
3/32 x 3/8	2-56 x 1/8	STR60133C07	STR60233C07
3/32 x 7/16		STR60133C08	STR60233C08
3/32 x 1/2	2-56 x 1/8	STR60133C10	STR60233C10
3/32 x 5/8		STR60133C12	STR60233C12
3/32 x 3/4		STR60133C14	STR60233C14
3/32 x 7/8		STR60133C16	STR60233C16
3/32 x 1	2-56 x 1/8	STR60133C20	STR60233C20
3/32 x 1-1/4		STR60133C24	STR60233C24
3/32 x 1-1/2			

#### 1/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
1/8 x .130	3-48 x 5/32	STR60118S348-13	STR60218S348-13
1/8 x .160		STR60118S348-16	STR60218S348-16
1/8 x 1/8	4-40 x 5/32	STR60118C02	STR60218C02
1/8 x 5/32		STR60118C02.5	STR60218C02.5
1/8 x 3/16		STR60118C03	STR60218C03
1/8 x 7/32		STR60118C03.5	STR60218C03.5
1/8 x 1/4		STR60118C04	STR60218C04
1/8 x .310	3-48 x 5/32	STR60118S348-25	STR60218S348-25
1/8 x .310		STR60118S348-31	STR60218S348-31
1/8 x 1/4	4-40 x 5/32	STR60118C04.5	STR60218C04.5
1/8 x 9/32		STR60118C05	STR60218C05
1/8 x 5/16		STR60118C05.5	STR60218C05.5
1/8 x 11/32		STR60118C06	STR60218C06
1/8 x .380		STR60118S348-38	STR60218S348-38
1/8 x 3/8	4-40 x 5/32	STR60118C06.5	STR60218C06.5
1/8 x 13/32		STR60118C07	STR60218C07
1/8 x 7/16	3-48 x 5/32	STR60118C07.5	STR60218C07.5
1/8 x 15/32		STR60118S348-50	STR60218S348-50
1/8 x 1/2		STR60118C08	STR60218C08
1/8 x 1/2	4-40 x 5/32	STR60118C09	STR60218C09
1/8 x 9/16		STR60118C10	STR60218C10
1/8 x 5/8		STR60118C11	STR60218C11
1/8 x 11/16	3-48 x 5/32	STR60118S348-75	STR60218S348-75
1/8 x 3/4		STR60118C12	STR60218C12
1/8 x 3/4	4-40 x 5/32	STR60118C13	STR60218C13
1/8 x 13/16		STR60118C14	STR60218C14
1/8 x 7/8		STR60118C15	STR60218C15
1/8 x 15/16	3-48 x 5/32	STR60118S348-1.00	STR60218S348-1.00
1/8 x 1		STR60118S348-1.25	STR60218S348-1.25
1/8 x 1-1/4			



#### Black Oxide

18-8 SS and 316 SS is available with black oxide plating option.

Add "-BX" to the end of the part number.

Chart continued on next page



## ASME Tolerance Knurled Head – Inch



STR60118C16

### 1/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
1/8 x 1	4-40 x 5/32	STR60118C16	STR60218C16
1/8 x 1-1/8		STR60118C18	STR60218C18
1/8 x 1-1/4		STR60118C20	STR60218C20
1/8 x 1-3/8		STR60118C22	STR60218C22
1/8 x 1-1/2	3-48 x 5/32	STR60118S348-1.50	STR60218S348-1.50
1/8 x 1-1/2	4-40 x 5/32	STR60118C24	STR60218C24
1/8 x 1-5/8		STR60118C26	STR60218C26
1/8 x 1-3/4		STR60118C28	STR60218C28
1/8 x 1-7/8		STR60118C30	STR60218C30
1/8 x 2	4-40 x 5/32	STR60118C32	STR60218C32
1/8 x 2-1/4		STR60118C36	STR60218C36
1/8 x 2-1/2		STR60118C40	STR60218C40
1/8 x 3		STR60118C48	STR60218C48



STR60153S540-.13

### 5/32 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
5/32 x .130	5-40 x 3/16	STR60153S540-.13	STR60253S540-.13
5/32 x .160		STR60153S540-.16	STR60253S540-.16
5/32 x .190		STR60153S540-.19	STR60253S540-.19
5/32 x 1/8	6-32 x 3/16	STR60153C02	STR60253C02
5/32 x 5/32		STR60153C02.5	STR60253C02.5
5/32 x 3/16		STR60153C03	STR60253C03
5/32 x 7/32		STR60153C03.5	STR60253C03.5
5/32 x 1/4	5-40 x 3/16	STR60153S540-.25	STR60253S540-.25
5/32 x .310		STR60153S540-.31	STR60253S540-.31
5/32 x 1/4	6-32 x 3/16	STR60153C04	STR60253C04
5/32 x 9/32		STR60153C04.5	STR60253C04.5
5/32 x 5/16		STR60153C05	STR60253C05
5/32 x 11/32		STR60153C05.5	STR60253C05.5
5/32 x .380	5-40 x 3/16	STR60153S540-.38	STR60253S540-.38



STR60153C06

### 5/32 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
5/32 x 3/8	6-32 x 3/16	STR60153C06	STR60253C06
5/32 x 13/32		STR60153C06.5	STR60253C06.5
5/32 x 7/16		STR60153C07	STR60253C07
5/32 x 15/32		STR60153C07.5	STR60253C07.5
5/32 x 1/2	5-40 x 3/16	STR60153S540-.50	STR60253S540-.50
5/32 x 1/2	6-32 x 3/16	STR60153C08	STR60253C08
5/32 x 9/16		STR60153C09	STR60253C09
5/32 x 5/8		STR60153C10	STR60253C10
5/32 x 11/16		STR60153C11	STR60253C11
5/32 x 3/4	5-40 x 3/16	STR60153S540-.75	STR60253S540-.75
5/32 x 3/4	6-32 x 3/16	STR60153C12	STR60253C12
5/32 x 13/16		STR60153C13	STR60253C13
5/32 x 7/8		STR60153C14	STR60253C14
5/32 x 15/16		STR60153C15	STR60253C15
5/32 x 1	5-40 x 3/16	STR60153S540-1.00	STR60253S540-1.00
5/32 x 1	6-32 x 3/16	STR60153C16	STR60253C16
5/32 x 1-1/8		STR60153C18	STR60253C18
5/32 x 1-1/4		STR60153C20	STR60253C20
5/32 x 1-3/8		STR60153C22	STR60253C22
5/32 x 1-1/2	6-32 x 3/16	STR60153C24	STR60253C24
5/32 x 1-5/8		STR60153C26	STR60253C26
5/32 x 1-3/4		STR60153C28	STR60253C28
5/32 x 1-7/8		STR60153C30	STR60253C30
5/32 x 2	6-32 x 3/16	STR60153C32	STR60253C32



STR60131S632-.13

### 3/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
3/16 x .130	6-32 x 3/16	STR60131S632-.13	STR60231S632-.13
3/16 x .190		STR60131S632-.19	STR60231S632-.19
3/16 x 1/8	8-32 x 3/16	STR60131C02	STR60231C02
3/16 x 5/32		STR60131C02.5	STR60231C02.5
3/16 x 3/16		STR60131C03	STR60231C03
3/16 x 7/32		STR60131C03.5	STR60231C03.5
3/16 x 1/4	6-32 x 3/16	STR60131S632-.25	STR60231S632-.25

Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-2

18-8 SS, 316 SS,  
Black Oxide

## ASME Tolerance Knurled Head – Inch



STR60131S632-31



STR60173S632-13

### 3/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
3/16 x .310	6-32 x 3/16	STR60131S632-31	STR60231S632-31
3/16 x 1/4		STR60131C04	STR60231C04
3/16 x 9/32	8-32 x 3/16	STR60131C04.5	STR60231C04.5
3/16 x 5/16		STR60131C05	STR60231C05
3/16 x 11/32		STR60131C05.5	STR60231C05.5
3/6 x .380	6-32 x 3/16	STR60131S632-38	STR60231S632-38
3/16 x 3/8		STR60131C06	STR60231C06
3/16 x 13/32	8-32 x 3/16	STR60131C06.5	STR60231C06.5
3/16 x 7/16		STR60131C07	STR60231C07
3/16 x 15/32		STR60131C07.5	STR60231C07.5
3/16 x 1/2	6-32 x 3/16	STR60131S632-50	STR60231S632-50
3/16 x 1/2		STR60131C08	STR60231C08
3/16 x 9/16	8-32 x 3/16	STR60131C09	STR60231C09
3/16 x 5/8		STR60131C10	STR60231C10
3/16 x 11/16		STR60131C11	STR60231C11
3/16 x 3/4	6-32 x 3/16	STR60131S632-750	STR60231S632-750
3/16 x 3/4		STR60131C12	STR60231C12
3/16 x 13/16	8-32 x 3/16	STR60131C13	STR60231C13
3/16 x 7/8		STR60131C14	STR60231C14
3/16 x 15/16		STR60131C15	STR60231C15
3/16 x 1	6-32 x 3/16	STR60131S632-1.00	STR60231S632-1.00
3/16 x 1-1/2		STR60131S632-1.50	STR60231S632-1.50
3/16 x 1		STR60131C16	STR60231C16
3/16 x 1-1/8	8-32 x 3/16	STR60131C18	STR60231C18
3/16 x 1-1/4		STR60131C20	STR60231C20
3/16 x 1-3/8		STR60131C22	STR60231C22
3/16 x 1-1/2		STR60131C24	STR60231C24
3/16 x 1-5/8	8-32 x 3/16	STR60131C26	STR60231C26
3/16 x 1-3/4		STR60131C28	STR60231C28
3/16 x 1-7/8		STR60131C30	STR60231C30
3/16 x 2	6-32 x 3/16	STR60131L632-2.00	STR60231L632-2.00
3/16 x 2		STR60131C32	STR60231C32
3/16 x 2-1/4	8-32 x 3/16	STR60131C36	STR60231C36
3/16 x 2-1/2		STR60131C40	STR60231C40
3/16 x 3		STR60131C48	STR60231C48

### 7/32 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
7/32 x .130	6-32 x 3/16	STR60173S632-13	STR60273S632-13
7/32 x 1/8		STR60173C02	STR60273C02
7/32 x 5/32	8-32 x 3/16	STR60173C02.5	STR60273C02.5
7/32 x 3/16		STR60173C03	STR60273C03
7/32 x 7/32		STR60173C03.5	STR60273C03.5
7/32 x 1/4	6-32 x 3/16	STR60173S632-25	STR60273S632-25
7/32 x 1/4		STR60173C04	STR60273C04
7/32 x 9/32	8-32 x 3/16	STR60173C04.5	STR60273C04.5
7/32 x 5/16		STR60173C05	STR60273C05
7/32 x 11/32		STR60173C05.5	STR60273C05.5
7/32 x .380	6-32 x 3/16	STR60173S632-38	STR60273S632-38
7/32 x 3/8		STR60173C06	STR60273C06
7/32 x 13/32	8-32 x 3/16	STR60173C06.5	STR60273C06.5
7/32 x 7/16		STR60173C07	STR60273C07
7/32 x 15/32		STR60173C07.5	STR60273C07.5
7/32 x 1/2	6-32 x 3/16	STR60173S632-50	STR60273S632-50
7/32 x 1/2		STR60173C08	STR60273C08
7/32 x 9/16	8-32 x 3/16	STR60173C09	STR60273C09
7/32 x 5/8		STR60173C10	STR60273C10
7/32 x 3/4	6-32 x 3/16	STR60173S632-75	STR60273S632-75
7/32 x 11/16		STR60173C11	STR60273C11
7/32 x 3/4	8-32 x 3/16	STR60173C12	STR60273C12
7/32 x 13/16		STR60173C13	STR60273C13
7/32 x 7/8		STR60173C14	STR60273C14
7/32 x 1	6-32 x 3/16	STR60173S632-1.00	STR60273S632-1.00
7/32 x 15/16		STR60173C15	STR60273C15
7/32 x 1	8-32 x 3/16	STR60173C16	STR60273C16
7/32 x 1-1/8		STR60173C18	STR60273C18
7/32 x 1-1/4		STR60173C20	STR60273C20
7/32 x 1-1/2	6-32 x 3/16	STR60173S632-1.50	STR60273S632-1.50
7/32 x 1-3/8		STR60173C22	STR60273C22
7/32 x 1-1/2	8-32 x 3/16	STR60173C24	STR60273C24
7/32 x 1-5/8		STR60173C26	STR60273C26

Chart continued on next page

## ASME Tolerance Knurled Head – Inch



STR60173C28



STR60214S832-.38

### 7/32 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
7/32 x 1-3/4	8-32 x 3/16	STR60173C28	STR60273C28
7/32 x 1-7/8		STR60173C30	STR60273C30
7/32 x 2	6-32 x 3/16	STR60173L632-2.00	STR60273L632-2.00
7/32 x 2		STR60173C32	STR60273C32
7/32 x 2-1/4	8-32 x 3/16	STR60173C36	STR60273C36
7/32 x 2-1/2		STR60173C40	STR60273C40



STR60114S832-.13

### 1/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
1/4 x .130	8-32 x 3/8	STR60114S832-.13	STR60214S832-.13
1/4 x .190		STR60114S832-.19	STR60214S832-.19
1/4 x 1/8		STR60114C02	STR60214C02
1/4 x 5/32	10-24 x 3/8	STR60114C02.5	STR60214C02.5
1/4 x 3/16		STR60114C03	STR60214C03
1/4 x 7/32		STR60114C03.5	STR60214C03.5
1/4 x 1/8		STR60114F02	STR60214F02
1/4 x 5/32	10-32 x 1/4	STR60114F02.5	STR60214F02.5
1/4 x 3/16		STR60114F03	STR60214F03
1/4 x 7/32		STR60114F03.5	STR60214F03.5
1/4 x 1/4	8-32 x 3/8	STR60114S832-.25	STR60214S832-.25
1/4 x .310		STR60114S832-.31	STR60214S832-.31
1/4 x 1/4		STR60114C04	STR60214C04
1/4 x 9/32	10-24 x 3/8	STR60114C04.5	STR60214C04.5
1/4 x 5/16		STR60114C05	STR60214C05
1/4 x 11/32		STR60114C05.5	STR60214C05.5
1/4 x 1/4		STR60114F04	STR60214F04
1/4 x 9/32	10-32 x 1/4	STR60114F04.5	STR60214F04.5
1/4 x 5/16		STR60114F05	STR60214F05
1/4 x 11/32		STR60114F05.5	STR60214F05.5

### 1/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
1/4 x .380	8-32 x 3/8	STR60114S832-.38	STR60214S832-.38
1/4 x 3/8		STR60114C06	STR60214C06
1/4 x 13/32	10-24 x 3/8	STR60114C06.5	STR60214C06.5
1/4 x 7/16		STR60114C07	STR60214C07
1/4 x 15/32		STR60114C07.5	STR60214C07.5
1/4 x 3/8		STR60114F06	STR60214F06
1/4 x 13/32	10-32 x 1/4	STR60114F06.5	STR60214F06.5
1/4 x 7/16		STR60114F07	STR60214F07
1/4 x 15/32		STR60114F07.5	STR60214F07.5
1/4 x 1/2	8-32 x 3/8	STR60114S832-.50	STR60214S832-.50
1/4 x 1/2		STR60114C08	STR60214C08
1/4 x 9/16	10-24 x 3/8	STR60114C09	STR60214C09
1/4 x 5/8		STR60114C10	STR60214C10
1/4 x 11/16		STR60114C11	STR60214C11
1/4 x 1/2		STR60114F08	STR60214F08
1/4 x 9/16	10-32 x 1/4	STR60114F09	STR60214F09
1/4 x 5/8		STR60114F10	STR60214F10
1/4 x 11/16		STR60114F11	STR60214F11
1/4 x 3/4	8-32 x 3/8	STR60114S832-.75	STR60214S832-.75
1/4 x .880		STR60114S832-.88	STR60214S832-.88
1/4 x 3/4		STR60114C12	STR60214C12
1/4 x 13/16	10-24 x 3/8	STR60114C13	STR60214C13
1/4 x 7/8		STR60114C14	STR60214C14
1/4 x 15/16		STR60114C15	STR60214C15
1/4 x 3/4		STR60114F12	STR60214F12
1/4 x 13/16	10-32 x 1/4	STR60114F13	STR60214F13
1/4 x 7/8		STR60114F14	STR60214F14
1/4 x 15/16		STR60114F15	STR60214F15
1/4 x 1	8-32 x 3/8	STR60114S832-1.00	STR60214S832-1.00
1/4 x 1		STR60114C16	STR60214C16
1/4 x 1-1/8	10-24 x 3/8	STR60114C18	STR60214C18
1/4 x 1-1/4		STR60114C20	STR60214C20
1/4 x 1-3/8		STR60114C22	STR60214C22
1/4 x 1	10-32 x 1/4	STR60114F16	STR60214F16

Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-2

18-8 SS, 316 SS,  
Black Oxide

## ASME Tolerance Knurled Head – Inch



STR60114F18



STR60151S1024-13

### 1/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
1/4 x 1-1/8		STR60114F18	STR60214F18
1/4 x 1-1/4		STR60114F20	STR60214F20
1/4 x 1-3/8	10-32 x 1/4	STR60114F22	STR60214F22
1/4 x 1-1/2		STR60114F24	STR60214F24
1/4 x 1-1/2		STR60114C24	STR60214C24
1/4 x 1-5/8		STR60114C26	STR60214C26
1/4 x 1-3/4	10-24 x 3/8	STR60114C28	STR60214C28
1/4 x 1-7/8		STR60114C30	STR60214C30
1/4 x 1-1/2	8-32 x 3/8	STR60114S832-1.50	STR60214S832-1.50
1/4 x 1-5/8		STR60114F26	STR60214F26
1/4 x 1-3/4		STR60114F28	STR60214F28
1/4 x 1-7/8	10-32 x 1/4	STR60114F30	STR60214F30
1/4 x 2		STR60114F32	STR60214F32
1/4 x 2-1/8		STR60114F34	STR60214F34
1/4 x 2	8-32 x 3/8	STR60114L832-2.00	STR60214L832-2.00
1/4 x 2		STR60114C32	STR60214C32
1/4 x 2-1/8		STR60114C34	STR60214C34
1/4 x 2-1/4	10-24 x 3/8	STR60114C36	STR60214C36
1/4 x 2-1/2		STR60114C40	STR60214C40
1/4 x 2-3/4	10-24 x 3/8	STR60114C44	STR60214C44
1/4 x 2-1/8		STR60114F34	STR60214F34
1/4 x 2-1/4		STR60114F36	STR60214F36
1/4 x 2-1/2	10-32 x 1/4	STR60114F40	STR60214F40
1/4 x 2-3/4		STR60114F44	STR60214F44
1/4 x 3	10-32 x 1/4	STR60114F48	STR60214F48
1/4 x 3		STR60114C48	STR60214C48
1/4 x 3-1/4		STR60114C52	STR60214C52
1/4 x 3-1/2	10-24 x 3/8	STR60114C56	STR60214C56
1/4 x 3-3/4		STR60114C60	STR60214C60
1/4 x 4		STR60114C64	STR60214C64
1/4 x 4-1/2		STR60114C72	STR60214C72
1/4 x 5	10-24 x 3/8	STR60114C80	STR60214C80
1/4 x 5-1/2		STR60114C88	STR60214C88
1/4 x 6	10-24 x 3/8	STR60114C96	STR60214C96

### 5/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
5/16 x .130	10-24 x 7/16	STR60151S1024-13	STR60251S1024-13
5/16 x 1/8	1/4-28 x 5/16	STR60151F02	STR60251F02
5/16 x 1/8		STR60151C02	STR60251C02
5/16 x 5/32		STR60151C02.5	STR60251C02.5
5/16 x 3/16	1/4-20 x 7/16	STR60151C03	STR60251C03
5/16 x 7/32		STR60151C03.5	STR60251C03.5
5/16 x 1/4		STR60151S1024-25	STR60251S1024-25
5/16 x .310	10-24 x 7/16	STR60151S1024-31	STR60251S1024-31
5/16 x 1/4		STR60151F04	STR60251F04
5/16 x 5/16	1/4-28 x 5/16	STR60151F05	STR60251F05
5/16 x 1/4		STR60151C04	STR60251C04
5/16 x 9/32		STR60151C04.5	STR60251C04.5
5/16 x 5/16	1/4-20 x 7/16	STR60151C05	STR60251C05
5/16 x 11/32		STR60151C05.5	STR60251C05.5
5/16 x .380	10-24 x 7/16	STR60151S1024-38	STR60251S1024-38
5/16 x 3/8	1/4-28 x 5/16	STR60151F06	STR60251F06
5/16 x 3/8		STR60151C06	STR60251C06
5/16 x 13/32		STR60151C06.5	STR60251C06.5
5/16 x 7/16	1/4-20 x 7/16	STR60151C07	STR60251C07
5/16 x 15/32		STR60151C07.5	STR60251C07.5
5/16 x 1/2	10-24 x 7/16	STR60151S1024-50	STR60251S1024-50
5/16 x 1/2	1/4-28 x 5/16	STR60151F08	STR60251F08
5/16 x 1/2		STR60151C08	STR60251C08
5/16 x 9/16		STR60151C09	STR60251C09
5/16 x 5/8	1/4-20 x 7/16	STR60151C10	STR60251C10
5/16 x 11/16		STR60151C11	STR60251C11
5/16 x 3/4	10-24 x 7/16	STR60151S1024-75	STR60251S1024-75
5/16 x 3/4	1/4-28 x 5/16	STR60151F12	STR60251F12

Chart continued on next page



## ASME Tolerance Knurled Head — Inch



STR60151C12



STR60138C02-1420

### 5/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
5/16 x 3/4		STR60151C12	STR60251C12
5/16 x 13/16	1/4-20 x 7/16	STR60151C13	STR60251C13
5/16 x 7/8		STR60151C14	STR60251C14
5/16 x 15/16		STR60151C15	STR60251C15
5/16 x 1	10-24 x 7/16	STR60151S1024-1.00	STR60251S1024-1.00
5/16 x 1	1/4-28 x 5/16	STR60151F16	STR60251F16
5/16 x 1-1/4		STR60151F20	STR60251F20
5/16 x 1		STR60151C16	STR60251C16
5/16 x 1-1/8	1/4-20 x 7/16	STR60151C18	STR60251C18
5/16 x 1-1/4		STR60151C20	STR60251C20
5/16 x 1-3/8		STR60151C22	STR60251C22
5/16 x 1-1/2	1/4-28 x 5/16	STR60151F24	STR60251F24
5/16 x 1-3/4		STR60151F28	STR60251F28
5/16 x 1-1/2		STR60151C24	STR60251C24
5/16 x 1-5/8	1/4-20 x 7/16	STR60151C26	STR60251C26
5/16 x 1-3/4		STR60151C28	STR60251C28
5/16 x 1-7/8		STR60151C30	STR60251C30
5/16 x 2	1/4-28 x 5/16	STR60151F32	STR60251F32
5/16 x 2-1/2		STR60151F40	STR60251F40
5/16 x 2		STR60151C32	STR60251C32
5/16 x 2-1/8	1/4-20 x 7/16	STR60151C34	STR60251C34
5/16 x 2-1/4		STR60151C36	STR60251C36
5/16 x 2-1/2		STR60151C40	STR60251C40
5/16 x 3	1/4-28 x 5/16	STR60151F48	STR60251F48
5/16 x 2-3/4		STR60151C44	STR60251C44
5/16 x 3	1/4-20 x 7/16	STR60151C48	STR60251C48
5/16 x 3-1/4		STR60151C52	STR60251C52
5/16 x 3-1/2		STR60151C56	STR60251C56
5/16 x 3-3/4		STR60151C60	STR60251C60
5/16 x 4	1/4-20 x 7/16	STR60151C64	STR60251C64
5/16 x 4-1/2		STR60151C72	STR60251C72
5/16 x 5		STR60151C80	STR60251C80
5/16 x 5-1/2	1/4-20 x 7/16	STR60151C88	STR60251C88
5/16 x 6		STR60151C96	STR60251C96

### 3/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
3/8 x 1/8		STR60138C02-1420	STR60238C02-1420
3/8 x 3/16	1/4-20 x 3/4	STR60138C03-1420	STR60238C03-1420
3/8 x 7/32		STR60138C03.5-1420	STR60238C03.5-1420
3/8 x 1/4		STR60138C04-1420	STR60238C04-1420
3/8 x 1/8		STR60138F02-1428	STR60238F02-1428
3/8 x 3/16	1/4-28 x 3/8	STR60138F03-1428	STR60238F03-1428
3/8 x 1/4		STR60138F04-1428	STR60238F04-1428
3/8 x 5/16		STR60138F05-1428	STR60238F05-1428
3/8 x 1/8		STR60138F02	STR60238F02
3/8 x 3/16	5/16-24 x 3/8	STR60138F03	STR60238F03
3/8 x 1/4		STR60138F04	STR60238F04
3/8 x 1/8		STR60138C02	STR60238C02
3/8 x 3/16	5/16-18 x 1/2	STR60138C03	STR60238C03
3/8 x 7/32		STR60138C03.5	STR60238C03.5
3/8 x 1/4		STR60138C04	STR60238C04
3/8 x 9/32	1/4-20 x 3/4	STR60138C04.5-1420	STR60238C04.5-1420
3/8 x 9/32		STR60138C04.5	STR60238C04.5
3/8 x 5/16	5/16-18 x 1/2	STR60138C05	STR60238C05
3/8 x 11/32		STR60138C05.5	STR60238C05.5
3/8 x 3/8		STR60138C06	STR60238C06
3/8 x 5/16	5/16-24 x 3/8	STR60138F05	STR60238F05
3/8 x 3/8		STR60138F06	STR60238F06
3/8 x 13/32	5/16-18 x 1/2	STR60138C06.5	STR60238C06.5
3/8 x 5/16		STR60138C05-1420	STR60238C05-1420
3/8 x 11/32	1/4-20 x 3/4	STR60138C05.5-1420	STR60238C05.5-1420
3/8 x 3/8		STR60138C06-1420	STR60238C06-1420
3/8 x 13/32		STR60138C06.5-1420	STR60238C06.5-1420
3/8 x 3/8		STR60138F06-1428	STR60238F06-1428
3/8 x 1/2	1/4-28 x 3/8	STR60138F08-1428	STR60238F08-1428
3/8 x 3/4		STR60138F12-1428	STR60238F12-1428
3/8 x 1		STR60138F16-1428	STR60238F16-1428
3/8 x 1/2	5/16-24 x 3/8	STR60138F08	STR60238F08
3/8 x 7/16		STR60138C07	STR60238C07
3/8 x 15/32	5/16-18 x 1/2	STR60138C07.5	STR60238C07.5
3/8 x 1/2		STR60138C08	STR60238C08
3/8 x 9/16		STR60138C09	STR60238C09

Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-2

18-8 SS, 316 SS,  
Black Oxide

## ASME Tolerance Knurled Head – Inch



STR60138C10



STR60138C30

### 3/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
3/8 x 7/16		STR60138C07-1420	STR60238C07-1420
3/8 x 15/32	1/4-20 x 3/4	STR60138C07.5-1420	STR60238C07.5-1420
3/8 x 1/2		STR60138C08-1420	STR60238C08-1420
3/8 x 9/16		STR60138C09-1420	STR60238C09-1420
3/8 x 5/8		STR60138C10	STR60238C10
3/8 x 11/16	5/16-18 x 1/2	STR60138C11	STR60238C11
3/8 x 3/4		STR60138C12	STR60238C12
3/8 x 13/16		STR60138C13	STR60238C13
3/8 x 5/8		STR60138C10-1420	STR60238C10-1420
3/8 x 11/16	1/4-20 x 3/4	STR60138C11-1420	STR60238C11-1420
3/8 x 3/4		STR60138C12-1420	STR60238C12-1420
3/8 x 13/16		STR60138C13-1420	STR60238C13-1420
3/8 x 3/4	5/16-24 x 3/8	STR60138F12	STR60251F12
3/8 x 7/8		STR60138C14	STR60238C14
3/8 x 15/16	5/16-18 x 1/2	STR60138C15	STR60238C15
3/8 x 1		STR60138C16	STR60238C16
3/8 x 1-1/8		STR60138C18	STR60238C18
3/8 x 7/8		STR60138C14-1420	STR60238C14-1420
3/8 x 15/16	1/4-20 x 3/4	STR60138C15-1420	STR60238C15-1420
3/8 x 1		STR60138C16-1420	STR60238C16-1420
3/8 x 1-1/8		STR60138C18-1420	STR60238C18-1420
3/8 x 1		STR60138F16	STR60238F16
3/8 x 1-1/4	5/16-24 x 3/8	STR60138F20	STR60238F20
3/8 x 1-1/2		STR60138F24	STR60238F24
3/8 x 1-3/4		STR60138F28	STR60238F28
3/8 x 1-1/4		STR60138C20	STR60238C20
3/8 x 1-3/8	5/16-18 x 1/2	STR60138C22	STR60238C22
3/8 x 1-1/2		STR60138C24	STR60238C24
3/8 x 1-5/8		STR60138C26	STR60238C26
3/8 x 1-1/4		STR60138C20-1420	STR60238C20-1420
3/8 x 1-3/8	1/4-20 x 3/4	STR60138C22-1420	STR60238C22-1420
3/8 x 1-1/2		STR60138C24-1420	STR60238C24-1420
3/8 x 1-5/8		STR60138C26-1420	STR60238C26-1420
3/8 x 1-1/4		STR60138F20-1428	STR60238F20-1428
3/8 x 1-1/2	1/4-28 x 3/8	STR60138F24-1428	STR60238F24-1428
3/8 x 1-3/4		STR60138F28-1428	STR60238F28-1428
3/8 x 2		STR60138F32-1428	STR60238F32-1428
3/8 x 2	5/16-24 x 3/8	STR60138F32	STR60238F32

### 3/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
3/8 x 1-3/4		STR60138C28	STR60238C28
3/8 x 1-7/8	5/16-18 x 1/2	STR60138C30	STR60238C30
3/8 x 2		STR60138C32	STR60238C32
3/8 x 2-1/8		STR60138C34	STR60238C34
3/8 x 1-3/4		STR60138C28-1420	STR60238C28-1420
3/8 x 1-7/8	1/4-20 x 3/4	STR60138C30-1420	STR60238C30-1420
3/8 x 2		STR60138C32-1420	STR60238C32-1420
3/8 x 2-1/4		STR60138C36-1420	STR60238C36-1420
3/8 x 2-1/4		STR60138C36	STR60238C36
3/8 x 2-1/2	5/16-18 x 1/2	STR60138C40	STR60238C40
3/8 x 2-3/4		STR60138C44	STR60238C44
3/8 x 3		STR60138C48	STR60238C48
3/8 x 2-1/2	5/16-24 x 3/8	STR60138F40	STR60238F40
3/8 x 3		STR60138F48	STR60238F48
3/8 x 2-1/2		STR60138C40-1420	STR60238C40-1420
3/8 x 2-3/4	1/4-20 x 3/4	STR60138C44-1420	STR60238C44-1420
3/8 x 3		STR60138C48-1420	STR60238C48-1420
3/8 x 2-1/2	1/4-28 x 3/8	STR60138F40-1428	STR60238F40-1428
3/8 x 3		STR60138F48-1428	STR60238F48-1428
3/8 x 3-1/4		STR60138C52	STR60238C52
3/8 x 3-1/2	5/16-18 x 1/2	STR60138C56	STR60238C56
3/8 x 3-3/4		STR60138C60	STR60238C60
3/8 x 4		STR60138C64	STR60238C64
3/8 x 4-1/4		STR60138C68	STR60238C68
3/8 x 4-1/2	5/16-18 x 1/2	STR60138C72	STR60238C72
3/8 x 4-3/4		STR60138C76	STR60238C76
3/8 x 5		STR60138C80	STR60238C80
3/8 x 5-1/2		STR60138C88	STR60238C88
3/8 x 6		STR60138C96	STR60238C96
3/8 x 6-1/2	5/16-18 x 1/2	STR60138C104	STR60238C104
3/8 x 7		STR60138C112	STR60238C112
3/8 x 7-1/2		STR60138C120	STR60238C120
3/8 x 8	5/16-18 x 1/2	STR60138C128	STR60238C128

Chart continued on next page

## ASME Tolerance Knurled Head – Inch



STR60112S51618-.25



STR60112C24

### 1/2 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
1/2 x 1/4		STR60112S51618-.25	STR60212S51618-.25
1/2 x .310	5/16-18 x 5/8	STR60112S51618-.31	STR60212S51618-.31
1/2 x .380		STR60112S51618-.38	STR60212S51618-.38
1/2 x 1/4		STR60112F04	STR60212F04
1/2 x 5/16	3/8-24 x 1/2	STR60112F05	STR60212F05
1/2 x 3/8		STR60112F06	STR60212F06
1/2 x 1/4		STR60112C04	STR60212C04
1/2 x 5/16	3/8-16 x 5/8	STR60112C05	STR60212C05
1/2 x 3/8		STR60112C06	STR60212C06
1/2 x 7/16		STR60112C07	STR60212C07
1/2 x 1/2	5/16-18 x 5/8	STR60112S51618-.50	STR60212S51618-.50
1/2 x 3/4		STR60112S51618-.75	STR60212S51618-.75
1/2 x 1/2	3/8-24 x 1/2	STR60112F08	STR60212F08
1/2 x 3/4		STR60112F12	STR60212F12
1/2 x 1/2		STR60112C08	STR60212C08
1/2 x 5/8	3/8-16 x 5/8	STR60112C10	STR60212C10
1/2 x 3/4		STR60112C12	STR60212C12
1/2 x 7/8		STR60112C14	STR60212C14
1/2 x 1	5/16-18 x 5/8	STR60112S51618-1.00	STR60212S51618-1.00
1/2 x 1-1/4		STR60112S51618-1.25	STR60212S51618-1.25
1/2 x 1	3/8-24 x 1/2	STR60112F16	STR60212F16
1/2 x 1-1/4		STR60112F20	STR60212F20
1/2 x 1		STR60112C16	STR60212C16
1/2 x 1-1/8	3/8-16 x 5/8	STR60112C18	STR60212C18
1/2 x 1-1/4		STR60112C20	STR60212C20
1/2 x 1-3/8		STR60112C22	STR60212C22
1/2 x 1-1/2	5/16-18 x 5/8	STR60112S51618-1.50	STR60212S51618-1.50
1/2 x 1-3/4		STR60112S51618-1.75	STR60212S51618-1.75
1/2 x 1-1/2	3/8-24 x 1/2	STR60112F24	STR60212F24
1/2 x 1-3/4		STR60112F28	STR60212F28

### 1/2 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
1/2 x 1-1/2		STR60112C24	STR60212C24
1/2 x 1-5/8	3/8-16 x 5/8	STR60112C26	STR60212C26
1/2 x 1-3/4		STR60112C28	STR60212C28
1/2 x 1-7/8		STR60112C30	STR60212C30
1/2 x 2	5/16-18 x 5/8	STR60112L51618-2.00	STR60212L51618-2.00
1/2 x 2-1/2		STR60112L51618-2.50	STR60212L51618-2.50
1/2 x 2	3/8-24 x 1/2	STR60112F32	STR60212F32
1/2 x 2-1/2		STR60112F40	STR60212F40
1/2 x 2		STR60112C32	STR60212C32
1/2 x 2-1/8	3/8-16 x 5/8	STR60112C34	STR60212C34
1/2 x 2-1/4		STR60112C36	STR60212C36
1/2 x 2-1/2		STR60112C40	STR60212C40
1/2 x 3	5/16-18 x 5/8	STR60112L51618-3.00	STR60212L51618-3.00
1/2 x 3	3/8-24 x 1/2	STR60112F48	STR60212F48
1/2 x 2-3/4		STR60112C44	STR60212C44
1/2 x 3	3/8-16 x 5/8	STR60112C48	STR60212C48
1/2 x 3-1/4		STR60112C52	STR60212C52
1/2 x 3-1/2		STR60112C56	STR60212C56
1/2 x 3-3/4		STR60112C60	STR60212C60
1/2 x 4	3/8-16 x 5/8	STR60112C64	STR60212C64
1/2 x 4-1/4		STR60112C68	STR60212C68
1/2 x 4-1/2		STR60112C72	STR60212C72
1/2 x 4-3/4		STR60112C76	STR60212C76
1/2 x 5	3/8-16 x 5/8	STR60112C80	STR60212C80
1/2 x 5-1/2		STR60112C88	STR60212C88
1/2 x 6		STR60112C96	STR60212C96
1/2 x 6-1/2		STR60112C104	STR60212C104
1/2 x 7	3/8-16 x 5/8	STR60112C112	STR60212C112
1/2 x 7-1/2		STR60112C120	STR60212C120
1/2 x 8		STR60112C128	STR60212C128

Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-2

18-8 SS, 316 SS,  
Black Oxide

## ASME Tolerance Knurled Head – Inch



STR60158S3816-25



STR60158L3816-2.00

### 5/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
5/8 x 1/4		STR60158S3816-25	STR60258S3816-25
5/8 x .310	3/8-16 x 1/4	STR60158S3816-31	STR60258S3816-31
5/8 x .380		STR60158S3816-38	STR60258S3816-38
5/8 x 1/4	1/2-13 x 3/4	STR60158C04	STR60258C04
5/8 x 5/16		STR60158C05	STR60258C05
5/8 x 3/8	1/2-13 x 3/4	STR60158C06	STR60258C06
5/8 x 7/16		STR60158C07	STR60258C07
5/8 x 1/2	3/8-16 x 1/4	STR60158S3816-.50	STR60258S3816-.50
5/8 x 3/4		STR60158S3816-.75	STR60258S3816-.75
5/8 x 1/2		STR60158C08	STR60258C08
5/8 x 5/8	1/2-13 x 3/4	STR60158C10	STR60258C10
5/8 x 3/4		STR60158C12	STR60258C12
5/8 x 7/8		STR60158C14	STR60258C14
5/8 x 1	3/8-16 x 1/4	STR60158S3816-1.00	STR60258S3816-1.00
5/8 x 1-1/4		STR60158S3816-1.25	STR60258S3816-1.25
5/8 x 1		STR60158C16	STR60258C16
5/8 x 1-1/8	1/2-13 x 3/4	STR60158C18	STR60258C18
5/8 x 1-1/4		STR60158C20	STR60258C20
5/8 x 1-3/8		STR60158C22	STR60258C22
5/8 x 1-1/2	3/8-16 x 1/4	STR60158S3816-1.50	STR60258S3816-1.50
5/8 x 1-1/2		STR60158C24	STR60258C24
5/8 x 1-5/8	1/2-13 x 3/4	STR60158C26	STR60258C26
5/8 x 1-3/4		STR60158C28	STR60258C28
5/8 x 1-7/8		STR60158C30	STR60258C30

### 5/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
5/8 x 2	3/8-16 x 1/4	STR60158L3816-2.00	STR60258L3816-2.00
5/8 x 2-1/2		STR60158L3816-2.50	STR60258L3816-2.50
5/8 x 2		STR60158C32	STR60258C32
5/8 x 2-1/8	1/2-13 x 3/4	STR60158C34	STR60258C34
5/8 x 2-1/4		STR60158C36	STR60258C36
5/8 x 2-1/2		STR60158C40	STR60258C40
5/8 x 3	3/8-16 x 1/4	STR60158L3816-3.00	STR60258L3816-3.00
5/8 x 2-3/4		STR60158C44	STR60258C44
5/8 x 3	1/2-13 x 3/4	STR60158C48	STR60258C48
5/8 x 3-1/4		STR60158C52	STR60258C52
5/8 x 3-1/2		STR60158C56	STR60258C56
5/8 x 3-3/4		STR60158C60	STR60258C60
5/8 x 4	1/2-13 x 3/4	STR60158C64	STR60258C64
5/8 x 4-1/4		STR60158C68	STR60258C68
5/8 x 4-1/2		STR60158C72	STR60258C72
5/8 x 4-3/4		STR60158C76	STR60258C76
5/8 x 5	1/2-13 x 3/4	STR60158C80	STR60258C80
5/8 x 5-1/2		STR60158C88	STR60258C88
5/8 x 6		STR60158C96	STR60258C96
5/8 x 6-1/2		STR60158C104	STR60258C104
5/8 x 7	1/2-13 x 3/4	STR60158C112	STR60258C112
5/8 x 7-1/2		STR60158C120	STR60258C120
5/8 x 8		STR60158C128	STR60258C128

Chart continued on next page



## ASME Tolerance Knurled Head – Inch



STR60134S1213-50



STR60134C60

### 3/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
3/4 x 1/2	1/2-13 x 7/8	STR60134S1213-50	STR60234S1213-50
3/4 x 3/8		STR60134C06	STR60234C06
3/4 x 7/16	5/8-11 x 7/8	STR60134C07	STR60234C07
3/4 x 1/2		STR60134C08	STR60234C08
3/4 x 5/8		STR60134C10	STR60234C10
3/4 x 3/4	1/2-13 x 7/8	STR60134S1213-75	STR60234S1213-75
3/4 x 3/4	5/8-11 x 7/8	STR60134C12	STR60234C12
3/4 x 7/8		STR60134C14	STR60234C14
3/4 x 1	1/2-13 x 7/8	STR60134S1213-1.00	STR60234S1213-1.00
3/4 x 1-1/4		STR60134S1213-1.25	STR60234S1213-1.25
3/4 x 1		STR60134C16	STR60234C16
3/4 x 1-1/8	5/8-11 x 7/8	STR60134C18	STR60234C18
3/4 x 1-1/4		STR60134C20	STR60234C20
3/4 x 1-3/8		STR60134C22	STR60234C22
3/4 x 1-1/2	1/2-13 x 7/8	STR60134S1213-1.50	STR60234S1213-1.50
3/4 x 1-1/2		STR60134C24	STR60234C24
3/4 x 1-5/8	5/8-11 x 7/8	STR60134C26	STR60234C26
3/4 x 1-3/4		STR60134C28	STR60234C28
3/4 x 1-7/8		STR60134C30	STR60234C30
3/4 x 2	1/2-13 x 7/8	STR60134L1213-2.00	STR60234L1213-2.00
3/4 x 2-1/2		STR60134L1213-2.50	STR60234L1213-2.50
3/4 x 2		STR60134C32	STR60234C32
3/4 x 2-1/8	5/8-11 x 7/8	STR60134C34	STR60234C34
3/4 x 2-1/4		STR60134C36	STR60234C36
3/4 x 2-1/2		STR60134C40	STR60234C40
3/4 x 3	1/2-13 x 7/8	STR60134L1213-3.00	STR60234L1213-3.00
3/4 x 2-3/4		STR60134C44	STR60234C44
3/4 x 3	5/8-11 x 7/8	STR60134C48	STR60234C48
3/4 x 3-1/4		STR60134C52	STR60234C52
3/4 x 3-1/2		STR60134C56	STR60234C56

### 3/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
3/4 x 3-3/4		STR60134C60	STR60234C60
3/4 x 4	5/8-11 x 7/8	STR60134C64	STR60234C64
3/4 x 4-1/4		STR60134C68	STR60234C68
3/4 x 4-1/2		STR60134C72	STR60234C72
3/4 x 4-3/4		STR60134C76	STR60234C76
3/4 x 5	5/8-11 x 7/8	STR60134C80	STR60234C80
3/4 x 5-1/2		STR60134C88	STR60234C88
3/4 x 6		STR60134C96	STR60234C96
3/4 x 6-1/2		STR60134C104	STR60234C104
3/4 x 7	5/8-11 x 7/8	STR60134C112	STR60234C112
3/4 x 7-1/2		STR60134C120	STR60234C120
3/4 x 8		STR60134C128	STR60234C128



STR60178C16

### 7/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
7/8 x 1		STR60178C16	STR60278C16
7/8 x 1-1/2	3/4-10 x 1	STR60178C24	STR60278C24
7/8 x 1-3/4		STR60178C28	STR60278C28
7/8 x 2		STR60178C32	STR60278C32
7/8 x 2-1/2		STR60178C40	STR60278C40
7/8 x 3	3/4-10 x 1	STR60178C48	STR60278C48
7/8 x 3-1/2		STR60178C56	STR60278C56
7/8 x 4		STR60178C64	STR60278C64
7/8 x 5	3/4-10 x 1	STR60178C80	STR60278C80
7/8 x 6		STR60178C96	STR60278C96

Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-2

18-8 SS, 316 SS,  
Black Oxide

## ASME Tolerance Knurled Head – Inch



STR60101C08



STR601012C16

### 1 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
1 x 1/2	3/4-10 x 1	STR60101C08	STR60201C08
1 x 5/8		STR60101C10	STR60201C10
1 x 3/4		STR60101C12	STR60201C12
1 x 1		STR60101C16	STR60201C16
1 x 1-1/4	3/4-10 x 1	STR60101C20	STR60201C20
1 x 1-1/2		STR60101C24	STR60201C24
1 x 1-3/4		STR60101C28	STR60201C28
1 x 2		STR60101C32	STR60201C32
1 x 2-1/4		STR60101C36	STR60201C36
1 x 2-1/2		STR60101C40	STR60201C40
1 x 2-3/4		STR60101C44	STR60201C44
1 x 3		STR60101C48	STR60201C48
1 x 3-1/4	3/4-10 x 1	STR60101C52	STR60201C52
1 x 3-1/2		STR60101C56	STR60201C56
1 x 3-3/4		STR60101C60	STR60201C60
1 x 4		STR60101C64	STR60201C64
1 x 4-1/4		STR60101C68	STR60201C68
1 x 4-1/2		STR60101C72	STR60201C72
1 x 4-3/4		STR60101C76	STR60201C76
1 x 5		STR60101C80	STR60201C80
1 x 5-1/2	3/4-10 x 1	STR60101C88	STR60201C88
1 x 6		STR60101C96	STR60201C96
1 x 6-1/2		STR60101C104	STR60201C104
1 x 7		STR60101C112	STR60201C112
1 x 7-1/2		STR60101C120	STR60201C120
1 x 8		STR60101C128	STR60201C128

### 1-1/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
1-1/4 x 1	7/8-9 x 1-1/8	STR601012C16	STR602012C16
1-1/4 x 1-1/4		STR601012C20	STR602012C20
1-1/4 x 1-1/2		STR601012C24	STR602012C24
1-1/4 x 1-3/4		STR601012C28	STR602012C28
1-1/4 x 2	7/8-9 x 1-1/8	STR601012C32	STR602012C32
1-1/4 x 2-1/2		STR601012C40	STR602012C40
1-1/4 x 3		STR601012C48	STR602012C48
1-1/4 x 3-1/2		STR601012C56	STR602012C56
1-1/4 x 4	7/8-9 x 1-1/8	STR601012C64	STR602012C64
1-1/4 x 5		STR601012C80	STR602012C80
1-1/4 x 6		STR601012C96	STR602012C96



STR601015C16

### 1-1/2 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
1-1/2 x 1	1-1/8-7 x 1-1/2	STR601015C16	STR602015C16
1-1/2 x 1-1/4		STR601015C20	STR602015C20
1-1/2 x 1-1/2		STR601015C24	STR602015C24
1-1/2 x 1-3/4		STR601015C28	STR602015C28
1-1/2 x 2	1-1/8-7 x 1-1/2	STR601015C32	STR602015C32
1-1/2 x 2-1/2		STR601015C40	STR602015C40
1-1/2 x 3		STR601015C48	STR602015C48
1-1/2 x 3-1/2		STR601015C56	STR602015C56
1-1/2 x 4	1-1/8-7 x 1-1/2	STR601015C64	STR602015C64
1-1/2 x 5		STR601015C80	STR602015C80
1-1/2 x 6		STR601015C96	STR602015C96



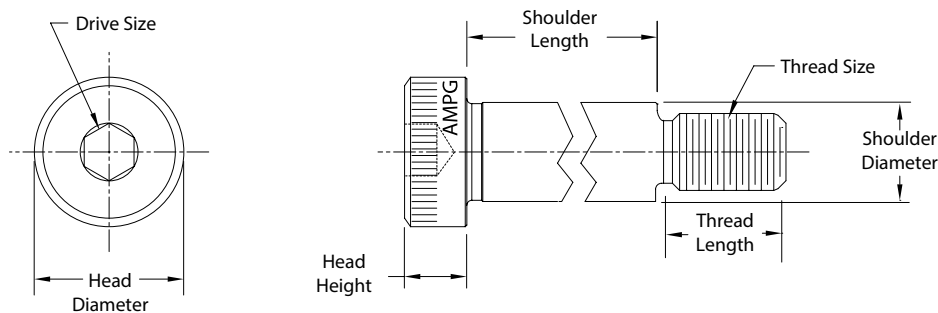
**Black Oxide**

18-8 SS and 316 SS is available with black oxide plating option.

Add "-BX" to the end of the part number.

## ASME Tolerance Knurled Head – Metric

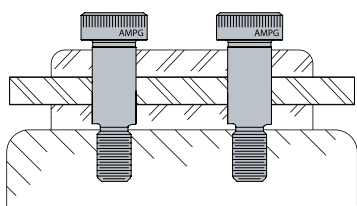
Also known as stripper bolts, they're commonly used as a stationary guide for stripper plates, as a pivot point for moving parts, and as a shaft for rolling parts. Screws are machined with a precision hex socket for maximum wrenching strength, knurled heads for sure finger grip, and an undercut portion between the thread and shoulder, allowing a close fit. AMPG shoulder screws meet or exceed general industrial acceptance for nonferrous screws and ANSI/ASME B18.3 dimensional specifications. Shoulder screws have an unthreaded shoulder made with an undersized tolerance to fit most machinery and equipment. The unthreaded shoulder is held to a precise diameter and length. Minimum to maximum shoulder diameter is listed in table. Shoulder length tolerance is  $+0.25$  to  $-0.00$ mm. Screws have a Class 5g6g thread fit. \*Heads are knurled, stamped, or both to provide finger grip. Black oxide plating is available for 18-8 and 316 ASME Shoulder Screws. Black Oxide plating enhances appearance and cuts down on light reflection and glare.



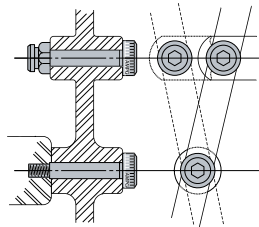
Dimensions and Tolerance Table – Metric, mm

Shoulder Diameter	Shoulder Diameter Max. to Min.	Head Diameter	Head Height	Drive Size	*Head Appearance
2	1.99 to 1.96	5.00	2.00	1.5	Knurl Only (Screws produced prior to 2/1/2021 may have finger-grip AMPG Mark only)
3	2.99 to 2.96	5.00	2.00	1.5	
4	3.99 to 3.96	6.00	3.00	2	
5	4.99 to 4.96	9.00	4.00	2.5	
6	5.99 to 5.96	10.00	4.50	3	
6.5	6.49 to 6.45	10.00	5.00	3	
8	7.99 to 7.95	13.00	5.50	4	Head Mark and Knurl
10	9.99 to 9.95	16.00	7.00	5	
12	11.98 to 11.94	18.00	9.00	6	
13	12.98 to 12.94	19.00	10.00	6	
16	15.98 to 15.94	24.00	11.00	8	Head Mark and Knurl
20	19.98 to 19.92	30.00	14.00	10	
24	23.98 to 23.92	36.00	16.00	12	
30	29.98 to 29.92	45.00	20.00	14	
36	35.98 to 35.92	54.00	22.00	17	

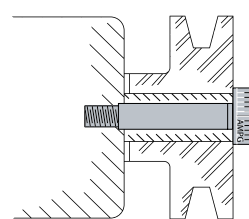
Head appearance may be knurled and/or head marked. 18-8 Stainless Steel is manufactured from Type 303 Stainless Steel Bar.



Shoulder Screw as a Guide



Shoulder Screw as a Pivot Point



Shoulder Screw as a Shaft



**Black Oxide**  
18-8 SS and 316 SS is available with black oxide plating option.

Add "-BX" to the end of the part number.

# Shoulder Screws

For technical drawings and charts, please see page B-14

18-8 SS (A2)  
316 SS (A4)  
Black Oxide

## ASME Tolerance Knurled Head — Metric

### 18-8 (A2) and 316 (A4) Stainless Steels — Hex Drive

- Shoulder diameters of 2, 3, 4, 5, 6, 6.5, 12, 30 and 36mm meet our internal specification AMPG 2013 ZS.02.
- Shoulder diameters of 8, 10, 13, 16, 20 and 24mm meet or exceed ANSI/ASME B18.3.3M, ISO 7379.
- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- 18-8 (A2) and 316 (A4) stainless steel screws adhere to environmental regulations established by European Union RoHS directive.



STR601M2X4

### 2mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
2 x 4	M1.6 x 0.35 x 3	STR601M2X4	STR602M2X4
2 x 5		STR601M2X5	STR602M2X5
2 x 6		STR601M2X6	STR602M2X6
2 x 8		STR601M2X8	STR602M2X8
2 x 10	M1.6 x 0.35 x 3	STR601M2X10	STR602M2X10
2 x 12		STR601M2X12	STR602M2X12
2 x 14		STR601M2X14	STR602M2X14
2 x 16		STR601M2X16	STR602M2X16
2 x 18	M1.6 x 0.35 x 3	STR601M2X18	STR602M2X18
2 x 20		STR601M2X20	STR602M2X20
2 x 25		STR601M2X25	STR602M2X25
2 x 30		STR601M2X30	STR602M2X30



#### Black Oxide

18-8 SS and 316 SS is available with black oxide plating option.

Add "-BX" to the end of the part number.



STR6013SM1.6-4.00

### 3mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
3 x 4	M1.6 x 0.35 x 4	STR6013SM1.6-4.00	STR6023SM1.6-4.00
3 x 5		STR6013SM1.6-5.00	STR6023SM1.6-5.00
3 x 6		STR6013SM1.6-6.00	STR6023SM1.6-6.00
3 x 8		STR6013SM1.6-8.00	STR6023SM1.6-8.00
3 x 3	M2 x 0.4 x 3.8	STR601M3X3	STR602M3X3
3 x 4		STR601M3X4	STR602M3X4
3 x 5		STR601M3X5	STR602M3X5
3 x 6		STR601M3X6	STR602M3X6
3 x 10	M1.6 x 0.35 x 4	STR6013SM1.6-10.00	STR6023SM1.6-10.00
3 x 7	M2 x 0.4 x 3.8	STR601M3X7	STR602M3X7
3 x 8		STR601M3X8	STR602M3X8
3 x 9		STR601M3X9	STR602M3X9
3 x 10		STR601M3X10	STR602M3X10
3 x 11		STR601M3X11	—
3 x 12		STR601M3X12	STR602M3X12
3 x 14	STR601M3X14	STR602M3X14	
3 x 15	—	—	STR602M3X15
3 x 16	M2 x 0.4 x 3.8	STR601M3X16	STR602M3X16
3 x 18		STR601M3X18	STR602M3X18
3 x 20		STR601M3X20	STR602M3X20
3 x 22		STR601M3X22	STR602M3X22
3 x 25	M2 x 0.4 x 3.8	STR601M3X25	STR602M3X25
3 x 30		STR601M3X30	STR602M3X30
3 x 35		STR601M3X35	STR602M3X35
3 x 40		STR601M3X40	STR602M3X40
3 x 45	M2 x 0.4 x 3.8	STR601M3X45	STR602M3X45
3 x 50		STR601M3X50	STR602M3X50

Chart continued on next page



18-8 SS (A2)  
316 SS (A4)  
Black Oxide

# Shoulder Screws

For technical drawings and charts, please see page B-14

## ASME Tolerance Knurled Head – Metric



STR6014SM2-4.00

### 4mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
4 x 4		STR6014SM2-4.00	STR6024SM2-4.00
4 x 5	M2 x 0.4 x 5	STR6014SM2-5.00	STR6024SM2-5.00
4 x 6		STR6014SM2-6.00	STR6024SM2-6.00
4 x 8		STR6014SM2-8.00	STR6024SM2-8.00
4 x 3		STR601M4X3	STR602M4X3
4 x 4	M3 x 0.5 x 4.5	STR601M4X4	STR602M4X4
4 x 5		STR601M4X5	STR602M4X5
4 x 6		STR601M4X6	STR602M4X6
4 x 10		STR6014SM2-10.00	STR6024SM2-10.00
4 x 7		STR601M4X7	STR602M4X7
4 x 8	M3 x 0.5 x 4.5	STR601M4X8	STR602M4X8
4 x 9		STR601M4X9	STR602M4X9
4 x 10		STR601M4X10	STR602M4X10
4 x 12		STR601M4X12	STR602M4X12
4 x 14	M3 x 0.5 x 4.5	STR601M4X14	STR602M4X14
4 x 15		STR601M4X15	STR602M4X15
4 x 16		STR601M4X16	STR602M4X16
4 x 18		STR601M4X18	STR602M4X18
4 x 20	M3 x 0.5 x 4.5	STR601M4X20	STR602M4X20
4 x 22		STR601M4X22	STR602M4X22
4 x 25		STR601M4X25	STR602M4X25
4 x 28		STR601M4X28	STR602M4X28
4 x 30	M3 x 0.5 x 4.5	STR601M4X30	STR602M4X30
4 x 35		STR601M4X35	STR602M4X35
4 x 40		STR601M4X40	STR602M4X40
4 x 45	M3 x 0.5 x 4.5	STR601M4X45	STR602M4X45
4 x 50		STR601M4X50	STR602M4X50



STR6015SM3-4.00

### 5mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
5 x 4		STR6015SM3-4.00	STR6025SM3-4.00
5 x 5	M3 x 0.5 x 5	STR6015SM3-5.00	STR6025SM3-5.00
5 x 6		STR6015SM3-6.00	STR6025SM3-6.00
5 x 7		STR6015SM3-7.00	STR6025SM3-7.00
5 x 4		STR601M5X4	STR602M5X4
5 x 5	M4 x 0.7 x 4.5	STR601M5X5	STR602M5X5
5 x 6		STR601M5X6	STR602M5X6
5 x 7		STR601M5X7	STR602M5X7
5 x 8	M3 x 0.5 x 5	STR6015SM3-8.00	STR6025SM3-8.00
5 x 10		STR6015SM3-10.00	STR6025SM3-10.00
5 x 8		STR601M5X8	STR602M5X8
5 x 9	M4 x 0.7 x 4.5	STR601M5X9	STR602M5X9
5 x 10		STR601M5X10	STR602M5X10
5 x 11		STR601M5X11	STR602M5X11
5 x 12		STR601M5X12	STR602M5X12
5 x 13	M4 x 0.7 x 4.5	STR601M5X13	STR602M5X13
5 x 14		STR601M5X14	STR602M5X14
5 x 15		STR601M5X15	STR602M5X15
5 x 17	M3 x 0.5 x 5	STR6015SM3-17.00	STR6025SM3-17.00
5 x 16		STR601M5X16	STR602M5X16
5 x 17	M4 x 0.7 x 4.5	STR601M5X17	STR602M5X17
5 x 18		STR601M5X18	STR602M5X18
5 x 19		STR601M5X19	STR602M5X19
5 x 20	M3 x 0.5 x 5	STR6015SM3-20.00	STR6025SM3-20.00
5 x 20		STR601M5X20	STR602M5X20
5 x 22	M4 x 0.7 x 4.5	STR601M5X22	STR602M5X22
5 x 25		STR601M5X25	STR602M5X25
5 x 30		STR601M5X30	STR602M5X30
5 x 35		STR601M5X35	STR602M5X35
5 x 40	M4 x 0.7 x 4.5	STR601M5X40	STR602M5X40
5 x 45		STR601M5X45	STR602M5X45
5 x 50		STR601M5X50	STR602M5X50
5 x 60	M4 x 0.7 x 4.5	STR601M5X60	STR602M5X60
5 x 70		STR601M5X70	STR602M5X70

Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-14

18-8 SS (A2)  
316 SS (A4)  
Black Oxide

## ASME Tolerance Knurled Head – Metric



STR6016SM4-4.00



STR601M6X40

### 6mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
6 x 4		STR6016SM4-4.00	STR6026SM4-4.00
6 x 5	M4 x 0.7 x 10	STR6016SM4-5.00	STR6026SM4-5.00
6 x 6		STR6016SM4-6.00	STR6026SM4-6.00
6 x 7		STR6016SM4-7.00	STR6026SM4-7.00
6 x 4	M5 x 0.8 x 9.5	STR601M6X4	STR602M6X4
6 x 5		STR601M6X5	STR602M6X5
6 x 6		STR601M6X6	STR602M6X6
6 x 7		STR601M6X7	STR602M6X7
6 x 8	M4 x 0.7 x 10	STR6016SM4-8.00	STR6026SM4-8.00
6 x 10		STR6016SM4-10.00	STR6026SM4-10.00
6 x 12		STR6016SM4-12.00	STR6026SM4-12.00
6 x 14		STR6016SM4-14.00	STR6026SM4-14.00
6 x 8	M5 x 0.8 x 9.5	STR601M6X8	STR602M6X8
6 x 10		STR601M6X10	STR602M6X10
6 x 11		STR601M6X11	STR602M6X11
6 x 12		STR601M6X12	STR602M6X12
6 x 15	M4 x 0.7 x 10	STR6016SM4-15.00	STR6026SM4-15.00
6 x 16		STR6016SM4-16.00	STR6026SM4-16.00
6 x 13	M5 x 0.8 x 9.5	STR601M6X13	STR602M6X13
6 x 14		STR601M6X14	STR602M6X14
6 x 15		STR601M6X15	STR602M6X15
6 x 16		STR601M6X16	STR602M6X16
6 x 19	M4 x 0.7 x 10	STR6016SM4-19.00	STR6026SM4-19.00
6 x 20		STR6016SM4-20.00	STR6026SM4-20.00
6 x 17	M5 x 0.8 x 9.5	STR601M6X17	STR602M6X17
6 x 18		STR601M6X18	STR602M6X18
6 x 19		STR601M6X19	STR602M6X19
6 x 20		STR601M6X20	STR602M6X20
6 x 25	M4 x 0.7 x 10	STR6016SM4-25.00	STR6026SM4-25.00
6 x 22	M5 x 0.8 x 9.5	STR601M6X22	STR602M6X22
6 x 25		STR601M6X25	STR602M6X25
6 x 30		STR601M6X30	STR602M6X30
6 x 35		STR601M6X35	STR602M6X35

### 6mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
6 x 40		STR601M6X40	STR602M6X40
6 x 45	M5 x 0.8 x 9.5	STR601M6X45	STR602M6X45
6 x 50		STR601M6X50	STR602M6X50
6 x 52		STR601M6X52	STR602M6X52
6 x 60	M5 x 0.8 x 9.5	STR601M6X60	STR602M6X60
6 x 70		STR601M6X70	STR602M6X70
6 x 80		STR601M6X80	STR602M6X80
6 x 90		STR601M6X90	STR602M6X90
6 x 100	M5 x 0.8 x 9.5	STR601M6X100	STR602M6X100
6 x 110		STR601M6X110	STR602M6X110



STR601M6.5X6

### 6.5mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
6.5 x 6		STR601M6.5X6	STR602M6.5X6
6.5 x 8	M5 x 0.8 x 10	STR601M6.5X8	STR602M6.5X8
6.5 x 10		STR601M6.5X10	STR602M6.5X10
6.5 x 12		STR601M6.5X12	STR602M6.5X12
6.5 x 16	M5 x 0.8 x 10	STR601M6.5X16	STR602M6.5X16
6.5 x 20		STR601M6.5X20	STR602M6.5X20
6.5 x 25		STR601M6.5X25	STR602M6.5X25
6.5 x 30		STR601M6.5X30	STR602M6.5X30
6.5 x 35	M5 x 0.8 x 10	STR601M6.5X35	STR602M6.5X35
6.5 x 40		STR601M6.5X40	STR602M6.5X40
6.5 x 50		STR601M6.5X50	STR602M6.5X50



#### Black Oxide

18-8 SS and 316 SS is available with black oxide plating option.

Add "-BX" to the end of the part number.

Chart continued on next page

18-8 SS (A2)  
316 SS (A4)  
Black Oxide

# Shoulder Screws

For technical drawings and charts, please see page B-14

## ASME Tolerance Knurled Head – Metric



STR6018SM5-4.00



STR601M8X22

### 8mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
8 x 4		STR6018SM5-4.00	STR6028SM5-4.00
8 x 5	M5 x 0.8 x 11	STR6018SM5-5.00	STR6028SM5-5.00
8 x 6		STR6018SM5-6.00	STR6028SM5-6.00
8 x 8		STR6018SM5-8.00	STR6028SM5-8.00
8 x 4		STR601M8X4	STR602M8X4
8 x 5	M6 x 1 x 11	STR601M8X5	STR602M8X5
8 x 6		STR601M8X6	STR602M8X6
8 x 8		STR601M8X8	STR602M8X8
8 x 10	M5 x 0.8 x 11	STR6018SM5-10.00	STR6028SM5-10.00
8 x 12		STR6018SM5-12.00	STR6028SM5-12.00
8 x 9		STR601M8X9	STR602M8X9
8 x 10	M6 x 1 x 11	STR601M8X10	STR602M8X10
8 x 11		STR601M8X11	STR602M8X11
8 x 12		STR601M8X12	STR602M8X12
8 x 15	M5 x 0.8 x 11	STR6018SM5-15.00	STR6028SM5-15.00
8 x 16		STR6018SM5-16.00	STR6028SM5-16.00
8 x 13		STR601M8X13	STR602M8X13
8 x 14	M6 x 1 x 11	STR601M8X14	STR602M8X14
8 x 15		STR601M8X15	STR602M8X15
8 x 16		STR601M8X16	STR602M8X16
8 x 20	M5 x 0.8 x 11	STR6018SM5-20.00	STR6028SM5-20.00
8 x 17		STR601M8X17	STR602M8X17
8 x 18	M6 x 1 x 11	STR601M8X18	STR602M8X18
8 x 19		STR601M8X19	STR602M8X19
8 x 20		STR601M8X20	STR602M8X20
8 x 25	M5 x 0.8 x 11	STR6018SM5-25.00	STR6028SM5-25.00

### 8mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
8 x 22		STR601M8X22	STR602M8X22
8 x 25	M6 x 1 x 11	STR601M8X25	STR602M8X25
8 x 28		STR601M8X28	STR602M8X28
8 x 30		STR601M8X30	STR602M8X30
8 x 35		STR601M8X35	STR602M8X35
8 x 40	M6 x 1 x 11	STR601M8X40	STR602M8X40
8 x 45		STR601M8X45	STR602M8X45
8 x 50		STR601M8X50	STR602M8X50
8 x 55		STR601M8X55	STR602M8X55
8 x 60	M6 x 1 x 11	STR601M8X60	STR602M8X60
8 x 65		STR601M8X65	STR602M8X65
8 x 70		STR601M8X70	STR602M8X70
8 x 75		STR601M8X75	STR602M8X75
8 x 80	M6 x 1 x 11	STR601M8X80	STR602M8X80
8 x 90		STR601M8X90	STR602M8X90
8 x 100		STR601M8X100	STR602M8X100
8 x 120	M5 x 0.8 x 11	STR601M8X120	—
8 x 110		STR601M8X110	STR602M8X110
8 x 120	M6 x 1 x 11	STR601M8X120	STR602M8X120
8 x 125		STR601M8X125	STR602M8X125
8 x 130		STR601M8X130	STR602M8X130
8 x 140	M6 x 1 x 11	STR601M8X140	STR602M8X140



#### Black Oxide

18-8 SS and 316 SS is available with black oxide plating option.

Add "-BX" to the end of the part number.

Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-14

18-8 SS (A2)  
316 SS (A4)  
Black Oxide

## ASME Tolerance Knurled Head – Metric



STR60110SM6-4.00



STR60110SM6-15.00

### 10mm Shoulder Diameter

### 10mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	
10 x 4		STR60110SM6-4.00	STR60210SM6-4.00	
10 x 6	M6 x 1 x 13	STR60110SM6-6.00	STR60210SM6-6.00	
10 x 8		STR60110SM6-8.00	STR60210SM6-8.00	
10 x 10		STR60110SM6-10.00	STR60210SM6-10.00	
10 x 4	M8 x 1.25 x 13	STR601M10X4	STR602M10X4	
10 x 6		STR601M10X6	STR602M10X6	
10 x 8		STR601M10X8	STR602M10X8	
10 x 9		STR601M10X9	STR602M10X9	
10 x 10		STR601M10X10	STR602M10X10	
10 x 11	M8 x 1.25 x 13	STR601M10X11	STR602M10X11	
10 x 12		STR601M10X12	STR602M10X12	
10 x 13		STR601M10X13	STR602M10X13	
10 x 15	M6 x 1 x 13	STR60110SM6-15.00	STR60210SM6-15.00	
10 x 16		STR60110SM6-16.00	STR60210SM6-16.00	
10 x 14	M8 x 1.25 x 13	STR601M10X14	STR602M10X14	
10 x 15		STR601M10X15	STR602M10X15	
10 x 16		STR601M10X16	STR602M10X16	
10 x 17		STR601M10X17	STR602M10X17	
10 x 20		M6 x 1 x 13	STR60110SM6-20.00	STR60210SM6-20.00
10 x 18		STR601M10X18	STR602M10X18	
10 x 19		M8 x 1.25 x 13	STR601M10X19	STR602M10X19
10 x 20	STR601M10X20		STR602M10X20	
10 x 22	STR601M10X22		STR602M10X22	

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
10 x 25		STR60110SM6-25.00	STR60210SM6-25.00
10 x 30	M6 x 1 x 13	STR60110SM6-30.00	STR60210SM6-30.00
10 x 40		STR60110SM6-40.00	STR60210SM6-40.00
10 x 25	M8 x 1.25 x 13	STR601M10X25	STR602M10X25
10 x 30		STR601M10X30	STR602M10X30
10 x 35		STR601M10X35	STR602M10X35
10 x 40		STR601M10X40	STR602M10X40
10 x 50	M6 x 1 x 13	STR60110LM6-50.00	STR60210LM6-50.00
10 x 45	M8 x 1.25 x 13	STR601M10X45	STR602M10X45
10 x 50		STR601M10X50	STR602M10X50
10 x 55		STR601M10X55	STR602M10X55
10 x 60		STR601M10X60	STR602M10X60
10 x 65		STR601M10X65	STR602M10X65
10 x 70	M8 x 1.25 x 13	STR601M10X70	STR602M10X70
10 x 75		STR601M10X75	STR602M10X75
10 x 80	M8 x 1.25 x 13	STR601M10X80	STR602M10X80
10 x 90		STR601M10X90	STR602M10X90
10 x 100		STR601M10X100	STR602M10X100
10 x 110		STR601M10X110	STR602M10X110
10 x 120	M8 x 1.25 x 13	STR601M10X120	STR602M10X120
10 x 130		STR601M10X130	STR602M10X130
10 x 140		STR601M10X140	STR602M10X140
10 x 150		STR601M10X150	STR602M10X150

Chart continued on next page



18-8 SS (A2)  
316 SS (A4)  
Black Oxide

# Shoulder Screws

For technical drawings and charts, please see page B-14

## ASME Tolerance Knurled Head – Metric



STR60112SM8-6.00



STR601M12X50

### 12mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
12 x 6		STR60112SM8-6.00	STR60212SM8-6.00
12 x 8	M8 x 1.25 x 16	STR60112SM8-8.00	STR60212SM8-8.00
12 x 10		STR60112SM8-10.00	STR60212SM8-10.00
12 x 6		STR601M12X6	STR602M12X6
12 x 8	M10 x 1.5 x 16	STR601M12X8	STR602M12X8
12 x 9		STR601M12X9	STR602M12X9
12 x 10		STR601M12X10	STR602M12X10
12 x 12	M8 x 1.25 x 16	STR60112SM8-12.00	STR60212SM8-12.00
12 x 14		STR60112SM8-14.00	STR60212SM8-14.00
12 x 11		STR601M12X11	STR602M12X11
12 x 12	M10 x 1.5 x 16	STR601M12X12	STR602M12X12
12 x 13		STR601M12X13	STR602M12X13
12 x 14		STR601M12X14	STR602M12X14
12 x 15	M8 x 1.25 x 16	STR60112SM8-15.00	STR60212SM8-15.00
12 x 16		STR60112SM8-16.00	STR60212SM8-16.00
12 x 15		STR601M12X15	STR602M12X15
12 x 16	M10 x 1.5 x 16	STR601M12X16	STR602M12X16
12 x 17		STR601M12X17	STR602M12X17
12 x 18		STR601M12X18	STR602M12X18
12 x 20	M8 x 1.25 x 16	STR60112SM8-20.00	STR60212SM8-20.00
12 x 25		STR60112SM8-25.00	STR60212SM8-25.00
12 x 19		STR601M12X19	STR602M12X19
12 x 20	M10 x 1.5 x 16	STR601M12X20	STR602M12X20
12 x 22		STR601M12X22	STR602M12X22
12 x 25		STR601M12X25	STR602M12X25
12 x 30	M8 x 1.25 x 16	STR60112SM8-30.00	STR60212SM8-30.00
12 x 40		STR60112SM8-40.00	STR60212SM8-40.00
12 x 30		STR601M12X30	STR602M12X30
12 x 35	M10 x 1.5 x 16	STR601M12X35	STR602M12X35
12 x 40		STR601M12X40	STR602M12X40
12 x 45		STR601M12X45	STR602M12X45
12 x 50		STR60112LM8-50.00	STR60212LM8-50.00
12 x 55	M8 x 1.25 x 16	STR60112LM8-55.00	STR60212LM8-55.00
12 x 60		STR60112LM8-60.00	STR60212LM8-60.00

### 12mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
12 x 50		STR601M12X50	STR602M12X50
12 x 55	M10 x 1.5 x 16	STR601M12X55	STR602M12X55
12 x 60		STR601M12X60	STR602M12X60
12 x 65		STR601M12X65	STR602M12X65
12 x 70	M8 x 1.25 x 16	STR60112LM8-70.00	STR60212LM8-70.00
12 x 70		STR601M12X70	STR602M12X70
12 x 75	M10 x 1.5 x 16	STR601M12X75	STR602M12X75
12 x 80		STR601M12X80	STR602M12X80
12 x 90		STR601M12X90	STR602M12X90
12 x 100		STR601M12X100	STR602M12X100
12 x 110	M10 x 1.5 x 16	STR601M12X110	STR602M12X110
12 x 120		STR601M12X120	STR602M12X120
12 x 130		STR601M12X130	STR602M12X130
12 x 140		STR601M12X140	STR602M12X140
12 x 150	M10 x 1.5 x 16	STR601M12X150	STR602M12X150
12 x 160		STR601M12X160	STR602M12X160
12 x 170		STR601M12X170	STR602M12X170
12 x 180	M10 x 1.5 x 16	STR601M12X180	STR602M12X180



STR601M13X8

### 13mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
13 x 8		STR601M13X8	STR602M13X8
13 x 10	M10 x 1.5 x 16	STR601M13X10	STR602M13X10
13 x 12		STR601M13X12	STR602M13X12
13 x 16		STR601M13X16	STR602M13X16
13 x 20		STR601M13X20	STR602M13X20
13 x 25	M10 x 1.5 x 16	STR601M13X25	STR602M13X25
13 x 30		STR601M13X30	STR602M13X30
13 x 35		STR601M13X35	STR602M13X35
13 x 40	M10 x 1.5 x 16	STR601M13X40	STR602M13X40
13 x 50		STR601M13X50	STR602M13X50

Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-14

18-8 SS (A2)  
316 SS (A4)  
Black Oxide

## ASME Tolerance Knurled Head – Metric



STR60116SM10-14.00



STR60120SM12-14.00

### 16mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
16 x 14	M10 x 1.5 x 18	STR60116SM10-14.00	STR60216SM10-14.00
16 x 16		STR60116SM10-16.00	STR60216SM10-16.00
16 x 10	M12 x 1.75 x 18	STR601M16X10	STR602M16X10
16 x 12		STR601M16X12	STR602M16X12
16 x 14		STR601M16X14	STR602M16X14
16 x 16		STR601M16X16	STR602M16X16
16 x 20	M10 x 1.5 x 18	STR60116SM10-20.00	STR60216SM10-20.00
16 x 25		STR60116SM10-25.00	STR60216SM10-25.00
16 x 30		STR60116SM10-30.00	STR60216SM10-30.00
16 x 20	M12 x 1.75 x 18	STR601M16X20	STR602M16X20
16 x 22		STR601M16X22	STR602M16X22
16 x 25		STR601M16X25	STR602M16X25
16 x 30		STR601M16X30	STR602M16X30
16 x 40	M10 x 1.5 x 18	STR60116SM10-40.00	STR60216SM10-40.00
16 x 50		STR60116LM10-50.00	STR60216LM10-50.00
16 x 35	M12 x 1.75 x 18	STR601M16X35	STR602M16X35
16 x 40		STR601M16X40	STR602M16X40
16 x 45		STR601M16X45	STR602M16X45
16 x 50		STR601M16X50	STR602M16X50
16 x 55	M12 x 1.75 x 18	STR601M16X55	STR602M16X55
16 x 60		STR601M16X60	STR602M16X60
16 x 70		STR601M16X70	STR602M16X70
16 x 80	M12 x 1.75 x 18	STR601M16X80	STR602M16X80
16 x 90		STR601M16X90	STR602M16X90
16 x 100		STR601M16X100	STR602M16X100
16 x 110		STR601M16X110	STR602M16X110
16 x 120	M12 x 1.75 x 18	STR601M16X120	STR602M16X120
16 x 130		STR601M16X130	STR602M16X130
16 x 140		STR601M16X140	STR602M16X140
16 x 150	M12 x 1.75 x 18	STR601M16X150	STR602M16X150
16 x 160		STR601M16X160	STR602M16X160
16 x 170	M12 x 1.75 x 18	STR601M16X170	STR602M16X170
16 x 180		STR601M16X180	STR602M16X180
16 x 190		STR601M16X190	STR602M16X190

### 20mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
20 x 14	M12 x 1.75 x 22	STR60120SM12-14.00	STR60220SM12-14.00
20 x 20		STR60120SM12-20.00	STR60220SM12-20.00
20 x 12	M16 x 2 x 22	STR601M20X12	STR602M20X12
20 x 14		STR601M20X14	STR602M20X14
20 x 16		STR601M20X16	STR602M20X16
20 x 20		STR601M20X20	STR602M20X20
20 x 25	M12 x 1.75 x 22	STR60120SM12-25.00	STR60220SM12-25.00
20 x 30		STR60120SM12-30.00	STR60220SM12-30.00
20 x 40		STR60120SM12-40.00	STR60220SM12-40.00
20 x 25	M16 x 2 x 22	STR601M20X25	STR602M20X25
20 x 30		STR601M20X30	STR602M20X30
20 x 35		STR601M20X35	STR602M20X35
20 x 40		STR601M20X40	STR602M20X40
20 x 50	M12 x 1.75 x 22	STR60120LM12-50.00	STR60220LM12-50.00
20 x 45	M16 x 2 x 22	STR601M20X45	STR602M20X45
20 x 50		STR601M20X50	STR602M20X50
20 x 55		STR601M20X55	STR602M20X55
20 x 60		STR601M20X60	STR602M20X60
20 x 70	M16 x 2 x 22	STR601M20X70	STR602M20X70
20 x 80		STR601M20X80	STR602M20X80
20 x 90		STR601M20X90	STR602M20X90
20 x 100	M16 x 2 x 22	STR601M20X100	STR602M20X100
20 x 110		STR601M20X110	STR602M20X110
20 x 120		STR601M20X120	STR602M20X120
20 x 130		STR601M20X130	STR602M20X130
20 x 140	M16 x 2 x 22	STR601M20X140	STR602M20X140
20 x 150		STR601M20X150	STR602M20X150
20 x 160		STR601M20X160	STR602M20X160
20 x 170	M16 x 2 x 22	STR601M20X170	STR602M20X170
20 x 180		STR601M20X180	STR602M20X180
20 x 190	M16 x 2 x 22	STR601M20X190	STR602M20X190



#### Black Oxide

18-8 SS and 316 SS is available with black oxide plating option.

Add "-BX" to the end of the part number.

Chart continued on next page

18-8 SS (A2)  
316 SS (A4)  
Black Oxide

# Shoulder Screws

For technical drawings and charts, please see page B-14

## ASME Tolerance Knurled Head – Metric



STR601M24X12



STR601M30X50

### 24mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
24 x 12		STR601M24X12	STR602M24X12
24 x 16	M20 x 2.5 x 27	STR601M24X16	STR602M24X16
24 x 20		STR601M24X20	STR602M24X20
24 x 25		STR601M24X25	STR602M24X25
24 x 30		STR601M24X30	STR602M24X30
24 x 35	M20 x 2.5 x 27	STR601M24X35	STR602M24X35
24 x 40		STR601M24X40	STR602M24X40
24 x 45		STR601M24X45	STR602M24X45
24 x 50		STR601M24X50	STR602M24X50
24 x 55	M20 x 2.5 x 27	STR601M24X55	STR602M24X55
24 x 60		STR601M24X60	STR602M24X60
24 x 70		STR601M24X70	STR602M24X70
24 x 80		STR601M24X80	STR602M24X80
24 x 90		STR601M24X90	STR602M24X90
24 x 100	M20 x 2.5 x 27	STR601M24X100	STR602M24X100
24 x 110		STR601M24X110	STR602M24X110
24 x 120		STR601M24X120	STR602M24X120
24 x 130		STR601M24X130	STR602M24X130
24 x 140	M20 x 2.5 x 27	STR601M24X140	STR602M24X140
24 x 150		STR601M24X150	STR602M24X150
24 x 160		STR601M24X160	STR602M24X160
24 x 170		STR601M24X170	STR602M24X170
24 x 180	M20 x 2.5 x 27	STR601M24X180	STR602M24X180
24 x 190		STR601M24X190	STR602M24X190

### 30mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
30 x 50		STR601M30X50	STR602M30X50
30 x 60	M27 x 3 x 35	STR601M30X60	STR602M30X60
30 x 70		STR601M30X70	STR602M30X70
30 x 80		STR601M30X80	STR602M30X80
30 x 90		STR601M30X90	STR602M30X90
30 x 100	M27 x 3 x 35	STR601M30X100	STR602M30X100
30 x 120		STR601M30X120	STR602M30X120
30 x 130		STR601M30X130	STR602M30X130
30 x 140		STR601M30X140	STR602M30X140
30 x 150	M27 x 3 x 35	STR601M30X150	STR602M30X150



STR601M36X50

### 36mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
36 x 50		STR601M36X50	STR602M36X50
36 x 60	M33 x 3.5 x 40	STR601M36X60	STR602M36X60
36 x 70		STR601M36X70	STR602M36X70
36 x 80		STR601M36X80	STR602M36X80
36 x 90		STR601M36X90	STR602M36X90
36 x 100	M33 x 3.5 x 40	STR601M36X100	STR602M36X100
36 x 120		STR601M36X120	STR602M36X120
36 x 130		STR601M36X130	STR602M36X130
36 x 140		STR601M36X140	STR602M36X140
36 x 150	M33 x 3.5 x 40	STR601M36X150	STR602M36X150



#### Black Oxide

18-8 SS and 316 SS is available with black oxide plating option.

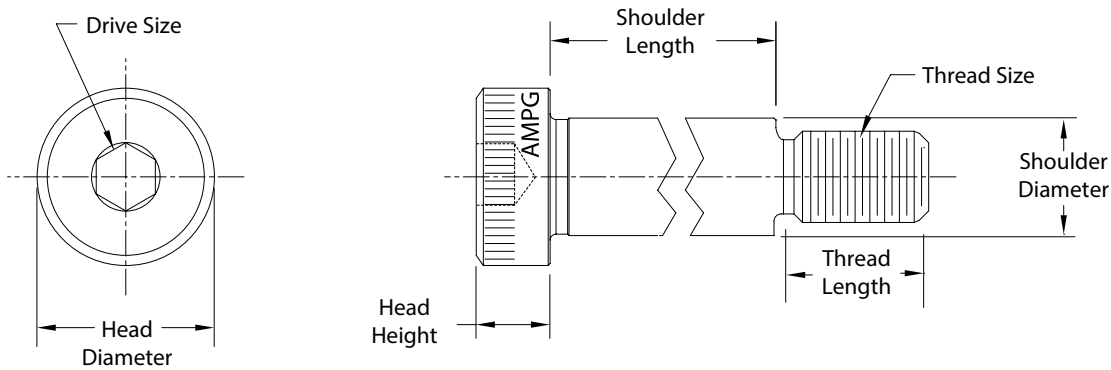
Add "-BX" to the end of the part number.

# Shoulder Screws

## ASME Tolerance Knurled Head – Inch

### Alloy Steel – Hex Drive

AMPG shoulder screws meet or exceed general industrial acceptance for nonferrous screws and ANSI/ASME B18.3 dimensional specifications. Shoulder screws have an unthreaded shoulder made with an undersized tolerance to fit most machinery and equipment. The unthreaded shoulder is held to a precise diameter and length. These components are suitable for use in many industrial and machinery applications. Alloy Steel Screw material exceeds Grade 8 steel in strength and has a black-oxide finish. The diameter tolerance is  $-.002$  to  $-.004$  inches and the shoulder length tolerance is  $\pm .005$  inches. Screws have a Class 3A thread fit. \*Heads are knurled, stamped, or both to provide finger grip. Heads are knurled, stamped, or both to provide finger grip.



Dimensions and Tolerance Table – Inch

Shoulder Diameter	Shoulder Diameter Max. to Min.	Head Diameter	Head Height	Drive Size	*Head Appearance
3/32	.092 to .090	3/16	1/8	5/64	
1/8	.123 to .121	1/4	1/8	5/64	Knurl Only (Screws produced prior to 2/1/2021 may have finger-grip AMPG Mark only)
5/32	.154 to .152	9/32	1/8	3/32	
3/16	.185 to .183	5/16	5/32	3/32	
7/32	.216 to .214	5/16	5/32	3/32	
1/4	.248 to .246	3/8	3/16	1/8	
5/16	.310 to .308	7/16	7/32	5/32	Head Mark and Knurl
3/8	.373 to .371	9/16	1/4	3/16	
1/2	.498 to .496	3/4	5/16	1/4	
5/8	.623 to .621	7/8	3/8	5/16	Head Mark and Knurl
3/4	.748 to .746	1	1/2	3/8	
7/8	.873 to .871	1-1/4	9/16	1/4	
1	.998 to .996	1-5/16	5/8	1/2	
1-1/4	1.248 to 1.246	1-3/4	3/4	5/8	Head Mark and Knurl
1-1/2	1.498 to 1.496	2-1/8	1	7/8	
1-3/4	1.748 to 1.746	2-3/8	1-1/8	1	
2	1.998 to 1.996	2-3/4	1-1/4	1-1/4	

Head appearance may be knurled and/or head marked.

## ASME Tolerance Knurled Head — Inch

## Alloy Steel — Hex Drive

- Steel Alloy Shoulder Screws meet our internal specification AMPG 2018 ZS.04.
- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- Certified test reports are available for both the corrosion resistance and physical properties.
- Black oxide finish offers mild resistance from rust.



STR70033C02



STR70018C01



STR70053C01

## 3/32 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
3/32 x 1/8		STR70033C02
3/32 x 5/32	2-56 x 1/8	STR70033C02.5
3/32 x 3/16		STR70033C03
3/32 x 7/32		STR70033C03.5
3/32 x 1/4		STR70033C04
3/32 x 9/32	2-56 x 1/8	STR70033C04.5
3/32 x 5/16		STR70033C05
3/32 x 11/32		STR70033C05.5
3/32 x 3/8		STR70033C06
3/32 x 13/32	2-56 x 1/8	STR70033C06.5
3/32 x 7/16		STR70033C07
3/32 x 15/32		STR70033C07.5
3/32 x 1/2		STR70033C08
3/32 x 17/32	2-56 x 1/8	STR70033C08.5
3/32 x 9/16		STR70033C09
3/32 x 19/32		STR70033C09.5
3/32 x 5/8		STR70033C10
3/32 x 11/16	2-56 x 1/8	STR70033C11
3/32 x 3/4		STR70033C12
3/32 x 13/16		STR70033C13
3/32 x 7/8		STR70033C14
3/32 x 15/16	2-56 x 1/8	STR70033C15
3/32 x 1		STR70033C16
3/32 x 1-1/4		STR70033C20
3/32 x 1-1/2	2-56 x 1/8	STR70033C24

## 1/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
1/8 x 1/16		STR70018C01
1/8 x 3/32	4-40 x 5/32	STR70018C01.5
1/8 x 1/8		STR70018C02
1/8 x 5/32		STR70018C02.5
1/8 x 3/16		STR70018C03
1/8 x 7/32	4-40 x 5/32	STR70018C03.5
1/8 x 1/4		STR70018C04
1/8 x 9/32		STR70018C04.5
1/8 x 5/16		STR70018C05
1/8 x 11/32	4-40 x 5/32	STR70018C05.5
1/8 x 3/8		STR70018C06
1/8 x 13/32		STR70018C06.5
1/8 x 7/16		STR70018C07
1/8 x 15/32	4-40 x 5/32	STR70018C07.5
1/8 x 1/2		STR70018C08
1/8 x 9/16		STR70018C09
1/8 x 5/8		STR70018C10
1/8 x 11/16	4-40 x 5/32	STR70018C11
1/8 x 3/4		STR70018C12
1/8 x 13/16		STR70018C13
1/8 x 7/8		STR70018C14
1/8 x 15/16	4-40 x 5/32	STR70018C15
1/8 x 1		STR70018C16

## 5/32 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
5/32 x 1/16		STR70053C01
5/32 x 3/32	6-32 x 3/16	STR70053C01.5
5/32 x 1/8		STR70053C02
5/32 x 5/32		STR70053C02.5
5/32 x 3/16		STR70053C03
5/32 x 7/32	6-32 x 3/16	STR70053C03.5
5/32 x 1/4		STR70053C04
5/32 x 9/32		STR70053C04.5
5/32 x 5/16		STR70053C05
5/32 x 11/32	6-32 x 3/16	STR70053C05.5
5/32 x 3/8		STR70053C06
5/32 x 13/32		STR70053C06.5
5/32 x 7/16		STR70053C07
5/32 x 15/32	6-32 x 3/16	STR70053C07.5
5/32 x 1/2		STR70053C08
5/32 x 9/16		STR70053C09
5/32 x 5/8		STR70053C10
5/32 x 11/16	6-32 x 3/16	STR70053C11
5/32 x 3/4		STR70053C12
5/32 x 13/16		STR70053C13
5/32 x 7/8		STR70053C14
5/32 x 15/16	6-32 x 3/16	STR70053C15
5/32 x 1		STR70053C16

Chart continued on next page



# Shoulder Screws

For technical drawings and charts, please see page B-23

Alloy

## ASME Tolerance Knurled Head – Inch



STR70031C02



STR70073C02



STR70014C02

### 3/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
3/16 x 1/8		STR70031C02
3/16 x 5/32		STR70031C02.5
3/16 x 3/16	8-32 x 3/16	STR70031C03
3/16 x 7/32		STR70031C03.5
3/16 x 1/4		STR70031C04
3/16 x 9/32		STR70031C04.5
3/16 x 5/16	8-32 x 3/16	STR70031C05
3/16 x 11/32		STR70031C05.5
3/16 x 3/8		STR70031C06
3/16 x 13/32		STR70031C06.5
3/16 x 7/16	8-32 x 3/16	STR70031C07
3/16 x 15/32		STR70031C07.5
3/16 x 1/2		STR70031C08
3/16 x 9/16		STR70031C09
3/16 x 5/8	8-32 x 3/16	STR70031C10
3/16 x 11/16		STR70031C11
3/16 x 3/4		STR70031C12
3/16 x 13/16		STR70031C13
3/16 x 7/8	8-32 x 3/16	STR70031C14
3/16 x 15/16		STR70031C15
3/16 x 1		STR70031C16
3/16 x 1-1/8		STR70031C18
3/16 x 1-1/4	8-32 x 3/16	STR70031C20
3/16 x 1-3/8		STR70031C22
3/16 x 1-1/2		STR70031C24
3/16 x 1-5/8		STR70031C26
3/16 x 1-3/4	8-32 x 3/16	STR70031C28
3/16 x 1-7/8		STR70031C30
3/16 x 2	8-32 x 3/16	STR70031C32

### 7/32 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
7/32 x 1/8		STR70073C02
7/32 x 5/32		STR70073C02.5
7/32 x 3/16	8-32 x 3/16	STR70073C03
7/32 x 7/32		STR70073C03.5
7/32 x 1/4		STR70073C04
7/32 x 9/32		STR70073C04.5
7/32 x 5/16	8-32 x 3/16	STR70073C05
7/32 x 11/32		STR70073C05.5
7/32 x 3/8		STR70073C06
7/32 x 13/32		STR70073C06.5
7/32 x 7/16	8-32 x 3/16	STR70073C07
7/32 x 15/32		STR70073C07.5
7/32 x 1/2		STR70073C08
7/32 x 9/16		STR70073C09
7/32 x 5/8	8-32 x 3/16	STR70073C10
7/32 x 11/16		STR70073C11
7/32 x 3/4		STR70073C12
7/32 x 13/16		STR70073C13
7/32 x 7/8	8-32 x 3/16	STR70073C14
7/32 x 15/16		STR70073C15
7/32 x 1	8-32 x 3/16	STR70073C16

### 1/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
1/4 x 1/8		STR70014C02
1/4 x 5/32		STR70014C02.5
1/4 x 3/16	10-24 x 3/8	STR70014C03
1/4 x 7/32		STR70014C03.5
1/4 x 1/4	10-24 x 3/8	STR70014C04
1/4 x 1/4	10-32 x 1/4	STR70014F04
1/4 x 9/32		STR70014C04.5
1/4 x 5/16		STR70014C05
1/4 x 11/32	10-24 x 3/8	STR70014C05.5
1/4 x 3/8		STR70014C06
1/4 x 13/32		STR70014C06.5
1/4 x 7/16		STR70014C07
1/4 x 15/32	10-24 x 3/8	STR70014C07.5
1/4 x 1/2		STR70014C08
1/4 x 1/2	10-32 x 1/4	STR70014F08
1/4 x 9/16		STR70014C09
1/4 x 5/8		STR70014C10
1/4 x 11/16	10-24 x 3/8	STR70014C11
1/4 x 3/4		STR70014C12
1/4 x 3/4	10-32 x 1/4	STR70014F12
1/4 x 13/16		STR70014C13
1/4 x 7/8		STR70014C14
1/4 x 15/16	10-24 x 3/8	STR70014C15
1/4 x 1		STR70014C16

Chart continued on next page

## ASME Tolerance Knurled Head – Inch



STR70014F16



STR70051C02



STR70051C20

### 1/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
1/4 x 1	10-32 x 1/4	STR70014F16
1/4 x 1-1/8		STR70014C18
1/4 x 1-1/4	10-24 x 3/8	STR70014C20
1/4 x 1-3/8		STR70014C22
1/4 x 1-1/2		STR70014C24
1/4 x 1-5/8		STR70014C26
1/4 x 1-3/4	10-24 x 3/8	STR70014C28
1/4 x 1-7/8		STR70014C30
1/4 x 2		STR70014C32
1/4 x 2-1/8		STR70014C34
1/4 x 2-1/4	10-24 x 3/8	STR70014C36
1/4 x 2-1/2		STR70014C40
1/4 x 2-3/4		STR70014C44
1/4 x 3		STR70014C48
1/4 x 3-1/4	10-24 x 3/8	STR70014C52
1/4 x 3-1/2		STR70014C56
1/4 x 3-3/4		STR70014C60
1/4 x 4		STR70014C64
1/4 x 4-1/2	10-24 x 3/8	STR70014C72
1/4 x 5		STR70014C80
1/4 x 5-1/2		STR70014C88
1/4 x 6	10-24 x 3/8	STR70014C96

### 5/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
5/16 x 1/8		STR70051C02
5/16 x 5/32		STR70051C02.5
5/16 x 3/16	1/4-20 x 7/16	STR70051C03
5/16 x 7/32		STR70051C03.5
5/16 x 1/4		STR70051C04
5/16 x 9/32	1/4-20 x 7/16	STR70051C04.5
5/16 x 5/16		STR70051C05
5/16 x 11/32		STR70051C05.5
5/16 x 3/8		STR70051C06
5/16 x 13/32	1/4-20 x 7/16	STR70051C06.5
5/16 x 7/16		STR70051C07
5/16 x 15/32		STR70051C07.5
5/16 x 1/2		STR70051C08
5/16 x 9/16	1/4-20 x 7/16	STR70051C09
5/16 x 5/8		STR70051C10
5/16 x 11/16		STR70051C11
5/16 x 3/4		STR70051C12
5/16 x 13/16	1/4-20 x 7/16	STR70051C13
5/16 x 7/8		STR70051C14
5/16 x 15/16		STR70051C15
5/16 x 1	1/4-20 x 7/16	STR70051C16
5/16 x 1-1/8		STR70051C18

### 5/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
5/16 x 1-1/4		STR70051C20
5/16 x 1-3/8	1/4-20 x 7/16	STR70051C22
5/16 x 1-1/2		STR70051C24
5/16 x 1-5/8		STR70051C26
5/16 x 1-3/4		STR70051C28
5/16 x 1-7/8	1/4-20 x 7/16	STR70051C30
5/16 x 2		STR70051C32
5/16 x 2-1/8		STR70051C34
5/16 x 2-1/4		STR70051C36
5/16 x 2-1/2	1/4-20 x 7/16	STR70051C40
5/16 x 2-3/4		STR70051C44
5/16 x 3		STR70051C48
5/16 x 3-1/4		STR70051C52
5/16 x 3-1/2	1/4-20 x 7/16	STR70051C56
5/16 x 3-3/4		STR70051C60
5/16 x 4		STR70051C64
5/16 x 4-1/2		STR70051C72
5/16 x 5	1/4-20 x 7/16	STR70051C80
5/16 x 5-1/2		STR70051C88
5/16 x 6		STR70051C96

Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-23

Alloy

## ASME Tolerance Knurled Head – Inch



STR70038C02



STR70038C22



STR70012C02

### 3/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
3/8 x 1/8		STR70038C02
3/8 x 5/32	5/16-18 x 1/2	STR70038C02.5
3/8 x 3/16		STR70038C03
3/8 x 7/32		STR70038C03.5
3/8 x 1/4		STR70038C04
3/8 x 9/32	5/16-18 x 1/2	STR70038C04.5
3/8 x 5/16		STR70038C05
3/8 x 11/32		STR70038C05.5
3/8 x 3/8		STR70038C06
3/8 x 13/32	5/16-18 x 1/2	STR70038C06.5
3/8 x 7/16		STR70038C07
3/8 x 15/32		STR70038C07.5
3/8 x 1/2		STR70038C08
3/8 x 9/16	5/16-18 x 1/2	STR70038C09
3/8 x 5/8		STR70038C10
3/8 x 11/16		STR70038C11
3/8 x 3/4	5/16-18 x 1/2	STR70038C12
3/8 x 13/16		STR70038C13
3/8 x 7/8		STR70038C14
3/8 x 15/16		STR70038C15
3/8 x 1	5/16-18 x 1/2	STR70038C16
3/8 x 1-1/8		STR70038C18
3/8 x 1-1/4		STR70038C20

### 3/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
3/8 x 1-3/8		STR70038C22
3/8 x 1-1/2	5/16-18 x 1/2	STR70038C24
3/8 x 1-5/8		STR70038C26
3/8 x 1-3/4		STR70038C28
3/8 x 1-7/8		STR70038C30
3/8 x 2	5/16-18 x 1/2	STR70038C32
3/8 x 2-1/8		STR70038C34
3/8 x 2-1/4		STR70038C36
3/8 x 2-1/2		STR70038C40
3/8 x 2-3/4	5/16-18 x 1/2	STR70038C44
3/8 x 3		STR70038C48
3/8 x 3-1/4		STR70038C52
3/8 x 3-1/2		STR70038C56
3/8 x 3-3/4	5/16-18 x 1/2	STR70038C60
3/8 x 4		STR70038C64
3/8 x 4-1/4		STR70038C68
3/8 x 4-1/2		STR70038C72
3/8 x 4-3/4	5/16-18 x 1/2	STR70038C76
3/8 x 5		STR70038C80
3/8 x 5-1/2		STR70038C88
3/8 x 6		STR70038C96
3/8 x 6-1/2	5/16-18 x 1/2	STR70038C104
3/8 x 7		STR70038C112

### 1/2 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
1/2 x 1/8		STR70012C02
1/2 x 5/32	3/8-16 x 5/8	STR70012C02.5
1/2 x 3/16		STR70012C03
1/2 x 7/32		STR70012C03.5
1/2 x 1/4		STR70012C04
1/2 x 9/32	3/8-16 x 5/8	STR70012C04.5
1/2 x 5/16		STR70012C05
1/2 x 11/32		STR70012C05.5
1/2 x 3/8		STR70012C06
1/2 x 13/32	3/8-16 x 5/8	STR70012C06.5
1/2 x 7/16		STR70012C07
1/2 x 15/32		STR70012C07.5
1/2 x 1/2		STR70012C08
1/2 x 9/16	3/8-16 x 5/8	STR70012C09
1/2 x 5/8		STR70012C10
1/2 x 11/16		STR70012C11
1/2 x 3/4		STR70012C12
1/2 x 13/16	3/8-16 x 5/8	STR70012C13
1/2 x 7/8		STR70012C14
1/2 x 15/16		STR70012C15
1/2 x 1		STR70012C16
1/2 x 1-1/8	3/8-16 x 5/8	STR70012C18
1/2 x 1-1/4		STR70012C20
1/2 x 1-3/8		STR70012C22
1/2 x 1-1/2		STR70012C24
1/2 x 1-5/8	3/8-16 x 5/8	STR70012C26
1/2 x 1-3/4		STR70012C28
1/2 x 1-7/8		STR70012C30
1/2 x 2		STR70012C32
1/2 x 2-1/8	3/8-16 x 5/8	STR70012C34
1/2 x 2-1/4		STR70012C36
1/2 x 2-1/2		STR70012C40

Chart continued on next page

## ASME Tolerance Knurled Head – Inch



STR70012C44



STR70058C09



STR70034C04

## 1/2 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
1/2 x 2-3/4		STR70012C44
1/2 x 3	3/8-16 x 5/8	STR70012C48
1/2 x 3-1/4		STR70012C52
1/2 x 3-1/2		STR70012C56
1/2 x 3-3/4		STR70012C60
1/2 x 4	3/8-16 x 5/8	STR70012C64
1/2 x 4-1/4		STR70012C68
1/2 x 4-1/2		STR70012C72
1/2 x 4-3/4		STR70012C76
1/2 x 5	3/8-16 x 5/8	STR70012C80
1/2 x 5-1/2		STR70012C88
1/2 x 6		STR70012C96
1/2 x 6-1/2		STR70012C104
1/2 x 7	3/8-16 x 5/8	STR70012C112
1/2 x 8		STR70012C128

## 5/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
5/8 x 9/16		STR70058C09
5/8 x 5/8	1/2-13 x 3/4	STR70058C10
5/8 x 11/16		STR70058C11
5/8 x 3/4		STR70058C12
5/8 x 13/16		STR70058C13
5/8 x 7/8	1/2-13 x 3/4	STR70058C14
5/8 x 15/16		STR70058C15
5/8 x 1		STR70058C16
5/8 x 1-1/8		STR70058C18
5/8 x 1-1/4	1/2-13 x 3/4	STR70058C20
5/8 x 1-3/8		STR70058C22
5/8 x 1-1/2		STR70058C24
5/8 x 1-5/8		STR70058C26
5/8 x 1-3/4		STR70058C28
5/8 x 1-7/8	1/2-13 x 3/4	STR70058C30
5/8 x 2		STR70058C32
5/8 x 2-1/8		STR70058C34
5/8 x 2-1/4		STR70058C36
5/8 x 2-1/2	1/2-13 x 3/4	STR70058C40
5/8 x 2-3/4		STR70058C44
5/8 x 3		STR70058C48
5/8 x 3-1/4		STR70058C52
5/8 x 3-1/2	1/2-13 x 3/4	STR70058C56
5/8 x 3-3/4		STR70058C60
5/8 x 4		STR70058C64
5/8 x 4-1/4		STR70058C68
5/8 x 4-1/2	1/2-13 x 3/4	STR70058C72
5/8 x 4-3/4		STR70058C76
5/8 x 5		STR70058C80
5/8 x 5-1/2		STR70058C88
5/8 x 6	1/2-13 x 3/4	STR70058C96
5/8 x 6-1/2		STR70058C104
5/8 x 7		STR70058C112

## 3/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
3/4 x 1/4		STR70034C04
3/4 x 9/32	5/8-11 x 7/8	STR70034C04.5
3/4 x 5/16		STR70034C05
3/4 x 11/32		STR70034C05.5
3/4 x 3/8		STR70034C06
3/4 x 13/32	5/8-11 x 7/8	STR70034C06.5
3/4 x 7/16		STR70034C07
3/4 x 15/32		STR70034C07.5
3/4 x 1/2		STR70034C08
3/4 x 9/16	5/8-11 x 7/8	STR70034C09
3/4 x 5/8		STR70034C10
3/4 x 11/16		STR70034C11
3/4 x 3/4		STR70034C12
3/4 x 13/16	5/8-11 x 7/8	STR70034C13
3/4 x 7/8		STR70034C14
3/4 x 15/16		STR70034C15
3/4 x 1		STR70034C16
3/4 x 1-1/8	5/8-11 x 7/8	STR70034C18
3/4 x 1-1/4		STR70034C20
3/4 x 1-3/8		STR70034C22
3/4 x 1-1/2		STR70034C24
3/4 x 1-5/8	5/8-11 x 7/8	STR70034C26
3/4 x 1-3/4		STR70034C28
3/4 x 1-7/8		STR70034C30
3/4 x 2	5/8-11 x 7/8	STR70034C32
3/4 x 2-1/8		STR70034C34



STR70058C03

## 5/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
5/8 x 3/16		STR70058C03
5/8 x 7/32	1/2-13 x 3/4	STR70058C03.5
5/8 x 1/4		STR70058C04
5/8 x 9/32		STR70058C04.5
5/8 x 5/16		STR70058C05
5/8 x 11/32	1/2-13 x 3/4	STR70058C05.5
5/8 x 3/8		STR70058C06
5/8 x 13/32		STR70058C06.5
5/8 x 7/16		STR70058C07
5/8 x 15/32	1/2-13 x 3/4	STR70058C07.5
5/8 x 1/2		STR70058C08

Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-23

Alloy

## ASME Tolerance Knurled Head – Inch



STR70034C36



STR70078C04



STR7001C04

### 3/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
3/4 x 2-1/4		STR70034C36
3/4 x 2-1/2		STR70034C40
3/4 x 2-3/4	5/8-11 x 7/8	STR70034C44
3/4 x 3		STR70034C48
3/4 x 3-1/4		STR70034C52
3/4 x 3-1/2		STR70034C56
3/4 x 3-3/4	5/8-11 x 7/8	STR70034C60
3/4 x 4		STR70034C64
3/4 x 4-1/4		STR70034C68
3/4 x 4-1/2		STR70034C72
3/4 x 4-3/4	5/8-11 x 7/8	STR70034C76
3/4 x 5		STR70034C80
3/4 x 5-1/2		STR70034C88
3/4 x 6		STR70034C96
3/4 x 6-1/2	5/8-11 x 7/8	STR70034C104
3/4 x 7		STR70034C112
3/4 x 7-1/2		STR70034C120
3/4 x 8	5/8-11 x 7/8	STR70034C128

### 7/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
7/8 x 1/4		STR70078C04
7/8 x 9/32		STR70078C04.5
7/8 x 5/16	3/4-10 x 1	STR70078C05
7/8 x 11/32		STR70078C05.5
7/8 x 3/8		STR70078C06
7/8 x 13/32		STR70078C06.5
7/8 x 7/16	3/4-10 x 1	STR70078C07
7/8 x 15/32		STR70078C07.5
7/8 x 1/2		STR70078C08
7/8 x 9/16		STR70078C09
7/8 x 5/8	3/4-10 x 1	STR70078C10
7/8 x 11/16		STR70078C11
7/8 x 3/4		STR70078C12
7/8 x 13/16		STR70078C13
7/8 x 7/8	3/4-10 x 1	STR70078C14
7/8 x 15/16		STR70078C15
7/8 x 1		STR70078C16
7/8 x 1-1/2	3/4-10 x 1	STR70078C24

### 1 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
1 x 1/4		STR70001C04
1 x 9/32		STR70001C04.5
1 x 5/16	3/4-10 x 1	STR70001C05
1 x 11/32		STR70001C05.5
1 x 3/8		STR70001C06
1 x 13/32		STR70001C06.5
1 x 7/16	3/4-10 x 1	STR70001C07
1 x 15/32		STR70001C07.5
1 x 1/2		STR70001C08
1 x 9/16		STR70001C09
1 x 5/8	3/4-10 x 1	STR70001C10
1 x 11/16		STR70001C11
1 x 3/4		STR70001C12
1 x 13/16		STR70001C13
1 x 7/8	3/4-10 x 1	STR70001C14
1 x 15/16		STR70001C15
1 x 1		STR70001C16
1 x 1-1/2		STR70001C24
1 x 1-3/4	3/4-10 x 1	STR70001C28
1 x 2		STR70001C32
1 x 2-1/2		STR70001C40
1 x 3		STR70001C48
1 x 3-1/2	3/4-10 x 1	STR70001C56
1 x 4		STR70001C64
1 x 4-1/2		STR70001C72
1 x 5		STR70001C80
1 x 5-1/2	3/4-10 x 1	STR70001C88
1 x 6		STR70001C96
1 x 6-1/2		STR70001C104
1 x 7	3/4-10 x 1	STR70001C112

Chart continued on next page



## ASME Tolerance Knurled Head – Inch



STR700012C24

## 1-1/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
1-1/4 x 1-1/2		STR700012C24
1-1/4 x 1-3/4		STR700012C28
1-1/4 x 2	7/8-9 x 1-1/8	STR700012C32
1-1/4 x 2-1/2		STR700012C40
1-1/4 x 3		STR700012C48
1-1/4 x 3-1/2	7/8-9 x 1-1/8	STR700012C56
1-1/4 x 4		STR700012C64
1-1/4 x 5		STR700012C80
1-1/4 x 6	7/8-9 x 1-1/8	STR700012C96



STR700015C16

## 1-1/2 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
1-1/2 x 1		STR700015C16
1-1/2 x 1-1/2		STR700015C24
1-1/2 x 1-3/4	1-1/8-7 x 1-1/2	STR700015C28
1-1/2 x 2		STR700015C32
1-1/2 x 2-1/2		STR700015C40
1-1/2 x 3		STR700015C48
1-1/2 x 3-1/2	1-1/8-7 x 1-1/2	STR700015C56
1-1/2 x 4		STR700015C64
1-1/2 x 5		STR700015C80
1-1/2 x 6	1-1/8-7 x 1-1/2	STR700015C96



STR700017C16

## 1-3/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
1-3/4 x 1		STR700017C16
1-3/4 x 1-1/2		STR700017C24
1-3/4 x 2	1-1/4-7 x 1-3/4	STR700017C32
1-3/4 x 2-1/4		STR700017C36
1-3/4 x 2-1/2		STR700017C40
1-3/4 x 2-3/4		STR700017C44
1-3/4 x 3	1-1/4-7 x 1-3/4	STR700017C48
1-3/4 x 3-1/2		STR700017C56
1-3/4 x 4		STR700017C64
1-3/4 x 4-1/2		STR700017C72
1-3/4 x 5	1-1/4-7 x 1-3/4	STR700017C80
1-3/4 x 5-1/2		STR700017C88
1-3/4 x 6	1-1/4-7 x 1-3/4	STR700017C96



STR70002C16

## 2 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
2 x 1		STR70002C16
2 x 1-1/2		STR70002C24
2 x 2	1-1/2-6 x 2	STR70002C32
2 x 2-1/4		STR70002C36
2 x 2-1/2		STR70002C40
2 x 2-3/4		STR70002C44
2 x 3	1-1/2-6 x 2	STR70002C48
2 x 3-1/2		STR70002C56
2 x 4		STR70002C64
2 x 4-1/2		STR70002C72
2 x 5	1-1/2-6 x 2	STR70002C80
2 x 5-1/2		STR70002C88
2 x 6	1-1/2-6 x 2	STR70002C96

Chart continued on next page

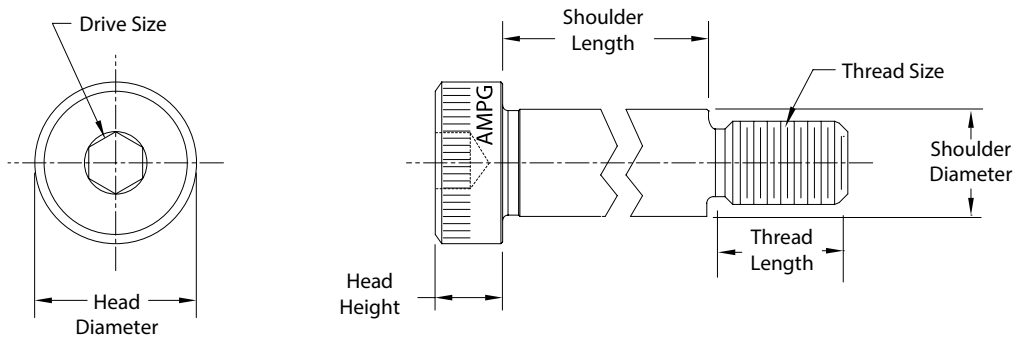
# Shoulder Screws

## ASME Tolerance Knurled Head – Metric

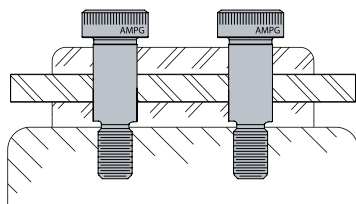
### Alloy Steel – Hex Drive

Also known as stripper bolts, they're commonly used as a stationary guide for stripper plates, as a pivot point for moving parts, and as a shaft for rolling parts. Screws are machined with a precision hex socket for maximum wrenching strength, knurled heads for sure finger grip, and an undercut portion between the thread and shoulder, allowing a close fit. AMPG shoulder screws meet or exceed general industrial acceptance for nonferrous screws and ANSI/ASME B18.3 dimensional specifications. Shoulder screws have an unthreaded shoulder made with an undersized tolerance to fit most machinery and equipment. The unthreaded shoulder is held to a precise diameter and length. Minimum to maximum shoulder diameter is listed in table. Shoulder length tolerance is +.25 to -.00mm. Screws have a Class 5g6g thread fit.

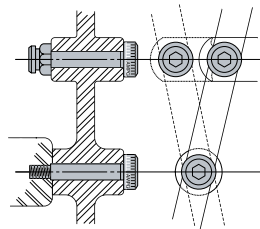
\*Heads are knurled, stamped, or both to provide finger grip. Black Oxide plating enhances appearance and cuts down on light reflection and glare.



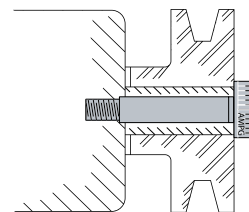
Dimensions and Tolerance Table – Metric, mm					
Shoulder Diameter	Shoulder Diameter Max. to Min.	Head Diameter	Head Height	Drive Size	*Head Appearance
2	1.99 to 1.96	5.00	2.00	1.5	Knurl Only (Screws produced prior to 2/1/2021 may have finger-grip AMPG Mark only)
3	2.99 to 2.96	5.00	2.00	1.5	
4	3.99 to 3.96	6.00	3.00	2	
5	4.99 to 4.96	9.00	4.00	2.5	
6	5.99 to 5.96	10.00	4.50	3	Head Mark Only
6.5	6.49 to 6.45	10.00	5.00	3	
8	7.99 to 7.96	13.00	5.50	4	Head Mark and Knurl
10	9.99 to 9.96	16.00	7.00	5	
12	11.99 to 11.94	18.00	9.00	6	
13	12.98 to 12.94	19.00	10.00	6	
16	15.98 to 15.94	24.00	11.00	8	Head Mark and Knurl
20	19.98 to 19.92	30.00	14.00	10	
24	23.98 to 23.92	36.00	16.00	12	



Shoulder Screw as a Guide



Shoulder Screw as a Pivot Point



Shoulder Screw as a Shaft

## ASME Tolerance Knurled Head – Metric

## Alloy Steel – Hex Drive

- Shoulder diameters of 2, 3 and 12mm meet our internal specification AMPG 2013 ZS.02.
- Shoulder diameters of 4, 5, 6, 6.5, 8, 10, 12, 13, 16, 20 and 24mm meet or exceed ANSI/ASME B18.3.3M, ISO 7379.
- Certified test reports are available for both the corrosion resistance and physical properties.
- Black oxide finish offers mild resistance from rust.



STR700M2X4

## 2mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
2 x 4	M1.6 x 0.35 x 3	STR700M2X4
2 x 5		STR700M2X5
2 x 6		STR700M2X6
2 x 8		STR700M2X8
2 x 10	M1.6 x 0.35 x 3	STR700M2X10
2 x 12		STR700M2X12
2 x 14		STR700M2X14
2 x 16		STR700M2X16
2 x 18	M1.6 x 0.35 x 3	STR700M2X18
2 x 20		STR700M2X20
2 x 25		STR700M2X25
2 x 30		STR700M2X30



STR700M3X3

## 3mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
3 x 3	M2 x 0.4 x 4	STR700M3X3
3 x 4		STR700M3X4
3 x 6		STR700M3X6
3 x 8		STR700M3X8
3 x 10	M2 x 0.4 x 4	STR700M3X10
3 x 12		STR700M3X12
3 x 16		STR700M3X16
3 x 20		STR700M3X20
3 x 25	M2 x 0.4 x 4	STR700M3X25
3 x 30		STR700M3X30



STR700M4X4

## 4mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
4 x 4	M3 x 0.5 x 3.8	STR700M4X4
4 x 6		STR700M4X6
4 x 8		STR700M4X8
4 x 10		STR700M4X10
4 x 12	M3 x 0.5 x 3.8	STR700M4X12
4 x 15		STR700M4X15
4 x 16		STR700M4X16
4 x 18		STR700M4X18
4 x 20	M3 x 0.5 x 3.8	STR700M4X20
4 x 25		STR700M4X25
4 x 30		STR700M4X30



STR700M5X4

## 5mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
5 x 4	M4 x 0.7 x 9	STR700M5X4
5 x 6		STR700M5X6
5 x 8		STR700M5X8
5 x 10		STR700M5X10
5 x 12	M4 x 0.7 x 9	STR700M5X12
5 x 15		STR700M5X15
5 x 16		STR700M5X16
5 x 18		STR700M5X18
5 x 20	M4 x 0.7 x 9	STR700M5X20
5 x 25		STR700M5X25
5 x 30		STR700M5X30
5 x 35		STR700M5X35
5 x 40	M4 x 0.7 x 4.5	STR700M5X40
5 x 50		STR700M5X50
5 x 60		STR700M5X60

Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-31

Alloy

## ASME Tolerance Knurled Head – Metric

Alloy Steel – Hex Drive



STR700M6X4

### 6mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
6 x 4		STR700M6X4
6 x 6	M5 x 0.8 x 9.5	STR700M6X6
6 x 8		STR700M6X8
6 x 10		STR700M6X10
6 x 12		STR700M6X12
6 x 14	M5 x 0.8 x 9.5	STR700M6X14
6 x 15		STR700M6X15
6 x 16		STR700M6X16
6 x 18		STR700M6X18
6 x 20	M5 x 0.8 x 9.5	STR700M6X20
6 x 25		STR700M6X25
6 x 30		STR700M6X30
6 x 35		STR700M6X35
6 x 40	M5 x 0.8 x 9.5	STR700M6X40
6 x 45		STR700M6X45
6 x 50		STR700M6X50
6 x 60		STR700M6X60
6 x 70	M5 x 0.8 x 9.5	STR700M6X70
6 x 80		STR700M6X80



STR700M6.5X6

### 6.5mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
6.5 x 6		STR700M6.5X6
6.5 x 8	M5 x 0.8 x 9.5	STR700M6.5X8
6.5 x 10		STR700M6.5X10
6.5 x 12		STR700M6.5X12
6.5 x 16		STR700M6.5X16
6.5 x 20	M5 x 0.8 x 9.5	STR700M6.5X20
6.5 x 25		STR700M6.5X25
6.5 x 30		STR700M6.5X30
6.5 x 35		STR700M6.5X35
6.5 x 40	M5 x 0.8 x 9.5	STR700M6.5X40
6.5 x 50		STR700M6.5X50



STR601M8X6

### 8mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
8 x 6		STR700M8X6
8 x 8	M6 x 1 x 11	STR700M8X8
8 x 10		STR700M8X10
8 x 12		STR700M8X12
8 x 14		STR700M8X14
8 x 15	M6 x 1 x 11	STR700M8X15
8 x 16		STR700M8X16
8 x 18		STR700M8X18
8 x 20		STR700M8X20
8 x 25	M6 x 1 x 11	STR700M8X25
8 x 30		STR700M8X30
8 x 35		STR700M8X35
8 x 40		STR700M8X40
8 x 45	M6 x 1 x 11	STR700M8X45
8 x 50		STR700M8X50
8 x 55		STR700M8X55
8 x 60		STR700M8X60
8 x 65	M6 x 1 x 11	STR700M8X65
8 x 70		STR700M8X70
8 x 75		STR700M8X75
8 x 80		STR700M8X80
8 x 90	M6 x 1 x 11	STR700M8X90
8 x 100		STR700M8X100
8 x 110		STR700M8X110

## ASME Tolerance Knurled Head – Metric



STR700M10X6

## 10mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
10 x 6		STR700M10X6
10 x 8	M8 x 1.25 x 13	STR700M10X8
10 x 10		STR700M10X10
10 x 12		STR700M10X12
10 x 14		STR700M10X14
10 x 15	M8 x 1.25 x 13	STR700M10X15
10 x 16		STR700M10X16
10 x 18		STR700M10X18
10 x 20		STR700M10X20
10 x 25	M8 x 1.25 x 13	STR700M10X25
10 x 30		STR700M10X30
10 x 35		STR700M10X35
10 x 40		STR700M10X40
10 x 45	M8 x 1.25 x 13	STR700M10X45
10 x 50		STR700M10X50
10 x 55		STR700M10X55
10 x 60		STR700M10X60
10 x 65	M8 x 1.25 x 13	STR700M10X65
10 x 70		STR700M10X70
10 x 75		STR700M10X75
10 x 80		STR700M10X80
10 x 90	M8 x 1.25 x 13	STR700M10X90
10 x 100		STR700M10X100
10 x 110		STR700M10X110
10 x 120		STR700M10X120
10 x 130	M8 x 1.25 x 13	STR700M10X130
10 x 140		STR700M10X140
10 x 150		STR700M10X150



STR700M12X6

## 12mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
12 x 6		STR700M12X6
12 x 8	M10 x 1.5x 16	STR700M12X8
12 x 10		STR700M12X10
12 x 12		STR700M12X12
12 x 14		STR700M12X14
12 x 15	M10 x 1.5x 16	STR700M12X15
12 x 16		STR700M12X16
12 x 18		STR700M12X18
12 x 20		STR700M12X20
12 x 25	M10 x 1.5x 16	STR700M12X25
12 x 30		STR700M12X30
12 x 35		STR700M12X35
12 x 40		STR700M12X40
12 x 45	M10 x 1.5x 16	STR700M12X45
12 x 50		STR700M12X50
12 x 55		STR700M12X55
12 x 60		STR700M12X60
12 x 65	M10 x 1.5x 16	STR700M12X65
12 x 70		STR700M12X70
12 x 75		STR700M12X75
12 x 80		STR700M12X80
12 x 90	M10 x 1.5x 16	STR700M12X90
12 x 100		STR700M12X100
12 x 110		STR700M12X110
12 x 120	M10 x 1.5x 16	STR700M12X120



STR700M13X8

## 13mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
13 x 8		STR700M13X8
13 x 10	M10 x 1.5 x 16	STR700M13X10
13 x 12		STR700M13X12
13 x 16		STR700M13X16
13 x 20		STR700M13X20
13 x 25	M10 x 1.5 x 16	STR700M13X25
13 x 30		STR700M13X30
13 x 35		STR700M13X35
13 x 40	M10 x 1.5 x 16	STR700M13X40
13 x 50		STR700M13X50

Chart continued on next page



# Shoulder Screws

For technical drawings and charts, please see page B-31

Alloy

## ASME Tolerance Knurled Head – Metric

Alloy Steel – Hex Drive



STR700M16X10

### 16mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
16 x 10		STR700M16X10
16 x 12	M12 x 1.75x 18	STR700M16X12
16 x 14		STR700M16X14
16 x 16		STR700M16X16
16 x 20		STR700M16X20
16 x 25	M12 x 1.75x 18	STR700M16X25
16 x 30		STR700M16X30
16 x 35		STR700M16X35
16 x 40		STR700M16X40
16 x 45	M12 x 1.75x 18	STR700M16X45
16 x 50		STR700M16X50
16 x 55		STR700M16X55
16 x 60		STR700M16X60
16 x 70	M12 x 1.75x 18	STR700M16X70
16 x 80		STR700M16X80
16 x 90		STR700M16X90
16 x 100	M12 x 1.75x 18	STR700M16X100
16 x 120		STR700M16X120



STR700M20X20

### 20mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
20 x 20		STR700M20X20
20 x 25	M16 x 2 x 22	STR700M20X25
20 x 30		STR700M20X30
20 x 35		STR700M20X35
20 x 40		STR700M20X40
20 x 45	M16 x 2 x 22	STR700M20X45
20 x 50		STR700M20X50
20 x 55		STR700M20X55
20 x 60		STR700M20X60
20 x 70	M16 x 2 x 22	STR700M20X70
20 x 80		STR700M20X80
20 x 90		STR700M20X90
20 x 100	M16 x 2 x 22	STR700M20X100
20 x 120		STR700M20X120



STR700M24X40

### 24mm Shoulder Diameter

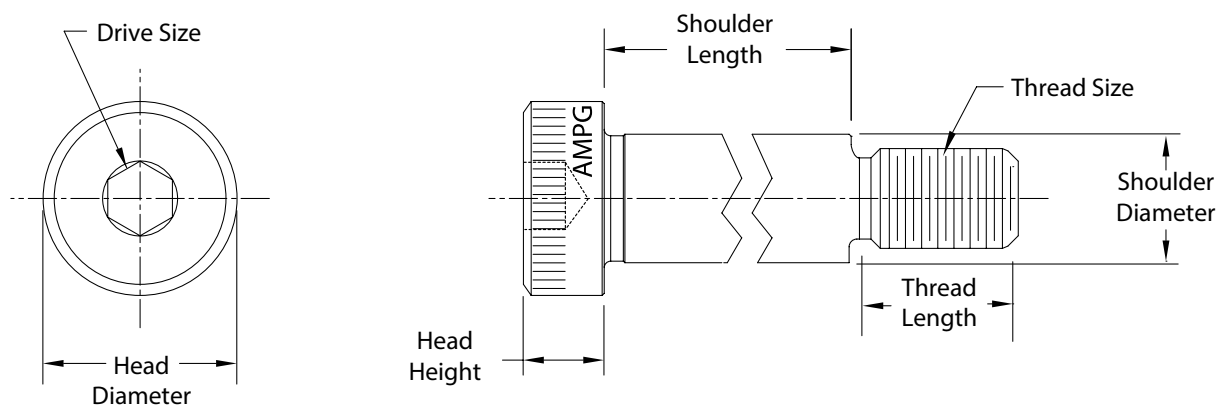
Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
24 x 40		STR700M24X40
24 x 45	M20 x 2.5 x 27	STR700M24X45
24 x 50		STR700M24X50
24 x 55		STR700M24X55
24 x 60		STR700M24X60
24 x 80	M20 x 2.5 x 27	STR700M24X80
24 x 90		STR700M24X90
24 x 100		STR700M24X100
24 x 120	M20 x 2.5 x 27	STR700M24X120

## ASME Tolerance Knurled Head – Inch

17-4 PH SS, 316 H5 SS, Aluminum, Monel, and Grade 2 Titanium – Hex Drive

Shoulder screws have an unthreaded shoulder made with an undersized tolerance to fit most machinery and equipment. The unthreaded shoulder is held to a precise diameter and length. Screws are machined with a precision hex socket for maximum wrenching strength, knurled heads for sure finger grip, and an undercut portion between the thread and shoulder, allowing a close fit. AMPG shoulder screws meet or exceed general industrial acceptance for shoulder screws made to ANSI/ASME B18.3 dimensional specifications. The diameter tolerance is -.002 to -.004 inches and the shoulder length tolerance is  $\pm .005$  inches. ASME tolerance shoulder screws have a Class 3A thread fit. \*Heads are knurled, stamped, or both to provide finger grip.

Exotic materials offer exceptional properties for applications in corrosive, high-temperature and chemical-rich environments. Please see 'About Our Materials', page iii for detailed material information.



Dimensions and Tolerance Table – Inch

Shoulder Diameter	Shoulder Diameter Max to Min.	Head Diameter	Head Height	Drive Size	*Head Appearance
1/8	.123 to .121	1/4	1/8	5/64	Knurl Only (Screws produced prior to 2/1/2021 may have finger-grip AMPG Mark only)
5/32	.154 to .152	9/32	1/8	3/32	
3/16	.185 to .183	5/16	5/32	3/32	
7/32	.216 to .214	5/16	5/32	3/32	
1/4	.248 to .246	3/8	3/16	1/8	Head Mark and Knurl
5/16	.310 to .308	7/16	7/32	5/32	
3/8	.373 to .371	9/16	1/4	3/16	
1/2	.498 to .496	3/4	5/16	1/4	
5/8	.623 to .621	7/8	3/8	5/16	
3/4	.748 to .746	1	1/2	3/8	
1	.998 to .996	1-5/16	5/8	1/2	Head Mark and Knurl
1-1/4	1.248 to 1.246	1-3/4	3/4	5/8	
1-1/2	1.498 to 1.496	2-1/8	1	7/8	

Head appearance may be knurled and/or head marked.

## ASME Tolerance Knurled Head — Inch

### 17-4 PH SS, 316H5 SS, Aluminum, Nickel (Monel), and Grade 2 Titanium — Hex Drive

- Shoulder diameters of 1/8, 5/32, 3/16 and 7/32 meet our internal specification AMPG 2012 ZS.01.
- Shoulder diameters of 1/4 and larger meet or exceed ANSI/ASME B18.3.
- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- Largest line of shoulder screws offered in high performance materials: 17-4 PH SS, 316 High Five SS, Aluminum, Nickel (Monel) and Grade 2 Titanium.



STR70518C02

#### 1/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	17-4 PH SS Part Number	316H5 SS Part Number	Aluminum Part Number	Nickel (Monel) Part Number	Titanium Gr2 Part Number
1/8 x 1/8		STR74418C02	STR61618C02	STR72018C02	STR71018C02	STR70518C02
1/8 x 5/32	4-40 x 5/32	STR74418C02.5	—	STR72018C02.5	STR71018C02.5	STR70518C02.5
1/8 x 3/16		STR74418C03	STR61618C03	STR72018C03	STR71018C03	STR70518C03
1/8 x 7/32		STR74418C03.5	—	STR72018C03.5	STR71018C03.5	STR70518C03.5
1/8 x 1/4		STR74418C04	STR61618C04	STR72018C04	STR71018C04	STR70518C04
1/8 x 9/32	4-40 x 5/32	STR74418C04.5	—	STR72018C04.5	STR71018C04.5	STR70518C04.5
1/8 x 5/16		STR74418C05	STR61618C05	STR72018C05	STR71018C05	STR70518C05
1/8 x 11/32		STR74418C05.5	—	STR72018C05.5	STR71018C05.5	STR70518C05.5
1/8 x 3/8		STR74418C06	STR61618C06	STR72018C06	STR71018C06	STR70518C06
1/8 x 13/32	4-40 x 5/32	STR74418C06.5	—	STR72018C06.5	STR71018C06.5	STR70518C06.5
1/8 x 7/16		STR74418C07	STR61618C07	STR72018C07	STR71018C07	STR70518C07
1/8 x 15/32		STR74418C07.5	—	STR72018C07.5	STR71018C07.5	STR70518C07.5
1/8 x 1/2		STR74418C08	STR61618C08	STR72018C08	STR71018C08	STR70518C08
1/8 x 9/16	4-40 x 5/32	STR74418C09	STR61618C09	STR72018C09	STR71018C09	STR70518C09
1/8 x 5/8		STR74418C10	STR61618C10	STR72018C10	STR71018C10	STR70518C10
1/8 x 3/4		STR74418C12	STR61618C12	STR72018C12	STR71018C12	STR70518C12
1/8 x 1		STR74418C16	—	STR72018C16	STR71018C16	STR70518C16
1/8 x 1-1/4	4-40 x 5/32	STR74418C20	—	STR72018C20	STR71018C20	STR70518C20
1/8 x 1-1/2		STR74418C24	—	STR72018C24	STR71018C24	STR70518C24

Chart continued on next page

## ASME Tolerance Knurled Head – Inch



STR70553C02

### 5/32 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	17-4 PH SS Part Number	316H5 SS Part Number	Aluminum Part Number	Nickel (Monel) Part Number	Titanium Gr2 Part Number
5/32 x 1/8	6-32 x 3/16	STR74453C02	STR61653C02	STR72053C02	STR71053C02	STR70553C02
5/32 x 5/32		STR74453C02.5	–	STR72053C02.5	STR71053C02.5	STR70553C02.5
5/32 x 3/16		STR74453C03	STR61653C03	STR72053C03	STR71053C03	STR70553C03
5/32 x 7/32		STR74453C03.5	–	STR72053C03.5	STR71053C03.5	STR70553C03.5
5/32 x 1/4	6-32 x 3/16	STR74453C04	STR61653C04	STR72053C04	STR71053C04	STR70553C04
5/32 x 9/32		STR74453C04.5	–	STR72053C04.5	STR71053C04.5	STR70553C04.5
5/32 x 5/16		STR74453C05	–	STR72053C05	STR71053C05	STR70553C05
5/32 x 11/32		STR74453C05.5	–	STR72053C05.5	STR71053C05.5	STR70553C05.5
5/32 x 3/8	6-32 x 3/16	STR74453C06	STR61653C06	STR72053C06	STR71053C06	STR70553C06
5/32 x 13/32		STR74453C06.5	–	STR72053C06.5	STR71053C06.5	STR70553C06.5
5/32 x 7/16		STR74453C07	STR61653C07	STR72053C07	STR71053C07	STR70553C07
5/32 x 15/32		STR74453C07.5	–	STR72053C07.5	STR71053C07.5	STR70553C07.5
5/32 x 1/2	6-32 x 3/16	STR74453C08	STR61653C08	STR72053C08	STR71053C08	STR70553C08
5/32 x 9/16		STR74453C09	STR61653C09	STR72053C09	STR71053C09	STR70553C09
5/32 x 5/8		STR74453C10	STR61653C10	STR72053C10	STR71053C10	STR70553C10
5/32 x 3/4		STR74453C12	STR61653C12	STR72053C12	STR71053C12	STR70553C12
5/32 x 1	6-32 x 3/16	STR74453C16	STR61653C16	STR72053C16	STR71053C16	STR70553C16



STR70531C02

### 3/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	17-4 PH SS Part Number	316H5 SS Part Number	Aluminum Part Number	Nickel (Monel) Part Number	Titanium Gr2 Part Number
3/16 x 1/8	8-32 x 3/16	STR74431C02	STR61631C02	STR72031C02	STR71031C02	STR70531C02
3/16 x 5/32		STR74431C02.5	STR61631C02.5	STR72031C02.5	STR71031C02.5	STR70531C02.5
3/16 x 3/16		STR74431C03	STR61631C03	STR72031C03	STR71031C03	STR70531C03
3/16 x 7/32		STR74431C03.5	STR61631C03.5	STR72031C03.5	STR71031C03.5	STR70531C03.5
3/16 x 1/4	8-32 x 3/16	STR74431C04	STR61631C04	STR72031C04	STR71031C04	STR70531C04
3/16 x 9/32		STR74431C04.5	STR61631C04.5	STR72031C04.5	STR71031C04.5	STR70531C04.5
3/16 x 5/16		STR74431C05	STR61631C05	STR72031C05	STR71031C05	STR70531C05
3/16 x 11/32		STR74431C05.5	–	STR72031C05.5	STR71031C05.5	STR70531C05.5
3/16 x 3/8	8-32 x 3/16	STR74431C06	STR61631C06	STR72031C06	STR71031C06	STR70531C06
3/16 x 13/32		STR74431C06.5	–	STR72031C06.5	STR71031C06.5	STR70531C06.5
3/16 x 7/16		STR74431C07	STR61631C07	STR72031C07	STR71031C07	STR70531C07
3/16 x 15/32		STR74431C07.5	–	STR72031C07.5	STR71031C07.5	STR70531C07.5

Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-36

17-4, 316H5,  
Al, Ni, Ti2

## ASME Tolerance Knurled Head – Inch



STR70531C08

### 3/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	17-4 PH SS Part Number	316H5 SS Part Number	Aluminum Part Number	Nickel (Monel) Part Number	Titanium Gr2 Part Number
3/16 x 1/2	8-32 x 3/16	STR74431C08	STR61631C08	STR72031C08	STR71031C08	STR70531C08
3/16 x 9/16		STR74431C09	STR61631C09	STR72031C09	STR71031C09	STR70531C09
3/16 x 5/8		STR74431C10	STR61631C10	STR72031C10	STR71031C10	STR70531C10
3/16 x 3/4		STR74431C12	STR61631C12	STR72031C12	STR71031C12	STR70531C12
3/16 x 7/8	8-32 x 3/16	STR74431C14	–	STR72031C14	STR71031C14	STR70531C14
3/16 x 1		STR74431C16	STR61631C16	STR72031C16	STR71031C16	STR70531C16
3/16 x 1-1/8		STR74431C18	–	STR72031C18	STR71031C18	STR70531C18
3/16 x 1-1/4		STR74431C20	–	STR72031C20	STR71031C20	STR70531C20
3/16 x 1-3/8	8-32 x 3/16	STR74431C22	–	STR72031C22	STR71031C22	STR70531C22
3/16 x 1-1/2		STR74431C24	–	STR72031C24	STR71031C24	STR70531C24
3/16 x 1-5/8		STR74431C26	–	STR72031C26	STR71031C26	STR70531C26
3/16 x 1-3/4		STR74431C28	–	STR72031C28	STR71031C28	STR70531C28
3/16 x 2	8-32 x 3/16	STR74431C32	–	STR72031C32	STR71031C32	STR70531C32



STR70573C02

### 7/32 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	17-4 PH SS Part Number	316H5 SS Part Number	Aluminum Part Number	Nickel (Monel) Part Number	Titanium Gr2 Part Number
7/32 x 1/8	8-32 x 3/16	STR74473C02	–	STR72073C02	STR71073C02	STR70573C02
7/32 x 5/32		STR74473C02.5	–	STR72073C02.5	STR71073C02.5	STR70573C02.5
7/32 x 3/16		STR74473C03	–	STR72073C03	STR71073C03	STR70573C03
7/32 x 7/32		STR74473C03.5	–	STR72073C03.5	STR71073C03.5	STR70573C03.5
7/32 x 1/4	8-32 x 3/16	STR74473C04	–	STR72073C04	STR71073C04	STR70573C04
7/32 x 9/32		STR74473C04.5	–	STR72073C04.5	STR71073C04.5	STR70573C04.5
7/32 x 5/16		STR74473C05	–	STR72073C05	STR71073C05	STR70573C05
7/32 x 11/32		STR74473C05.5	–	STR72073C05.5	STR71073C05.5	STR70573C05.5
7/32 x 3/8	8-32 x 3/16	STR74473C06	–	STR72073C06	STR71073C06	STR70573C06
7/32 x 13/32		STR74473C06.5	–	STR72073C06.5	STR71073C06.5	STR70573C06.5
7/32 x 7/16		STR74473C07	–	STR72073C07	STR71073C07	STR70573C07
7/32 x 15/32		STR74473C07.5	–	STR72073C07.5	STR71073C07.5	STR70573C07.5
7/32 x 1/2	8-32 x 3/16	STR74473C08	–	STR72073C08	STR71073C08	STR70573C08
7/32 x 5/8		STR74473C10	–	STR72073C10	STR71073C10	STR70573C10
7/32 x 3/4		STR74473C12	–	STR72073C12	STR71073C12	STR70573C12

Chart continued on next page



## ASME Tolerance Knurled Head – Inch



STR70573C14

### 7/32 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	17-4 PH SS Part Number	316H5 SS Part Number	Aluminum Part Number	Nickel (Monel) Part Number	Titanium Gr2 Part Number
7/32 x 7/8	8-32 x 3/16	STR74473C14	–	STR72073C14	STR71073C14	STR70573C14
7/32 x 1		STR74473C16	–	STR72073C16	STR71073C16	STR70573C16
7/32 x 1-1/8		STR74473C18	–	STR72073C18	STR71073C18	STR70573C18
7/32 x 1-1/4		STR74473C20	–	STR72073C20	STR71073C20	STR70573C20
7/32 x 1-3/8	8-32 x 3/16	STR74473C22	–	STR72073C22	STR71073C22	STR70573C22
7/32 x 1-1/2		STR74473C24	–	STR72073C24	STR71073C24	STR70573C24
7/32 x 1-5/8		STR74473C26	–	STR72073C26	STR71073C26	STR70573C26
7/32 x 1-3/4		STR74473C28	–	STR72073C28	STR71073C28	STR70573C28
7/32 x 2	8-32 x 3/16	STR74473C32	–	STR72073C32	STR71073C32	STR70573C32



STR70514C02

### 1/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	17-4 PH SS Part Number	316H5 SS Part Number	Aluminum Part Number	Nickel (Monel) Part Number	Titanium Gr2 Part Number
1/4 x 1/8	10-24 x 3/8	STR74414C02	STR61614C02	STR72014C02	STR71014C02	STR70514C02
1/4 x 5/32		STR74414C02.5	–	STR72014C02.5	STR71014C02.5	STR70514C02.5
1/4 x 3/16		STR74414C03	–	STR72014C03	STR71014C03	STR70514C03
1/4 x 7/32		STR74414C03.5	–	STR72014C03.5	STR71014C03.5	STR70514C03.5
1/4 x 1/4	10-24 x 3/8	STR74414C04	STR61614C04	STR72014C04	STR71014C04	STR70514C04
1/4 x 9/32		STR74414C04.5	–	STR72014C04.5	STR71014C04.5	STR70514C04.5
1/4 x 5/16		STR74414C05	–	STR72014C05	STR71014C05	STR70514C05
1/4 x 11/32		STR74414C05.5	–	STR72014C05.5	STR71014C05.5	STR70514C05.5
1/4 x 3/8	10-24 x 3/8	STR74414C06	STR61614C06	STR72014C06	STR71014C06	STR70514C06
1/4 x 13/32		STR74414C06.5	–	STR72014C06.5	STR71014C06.5	STR70514C06.5
1/4 x 7/16		STR74414C07	STR61614C07	STR72014C07	STR71014C07	STR70514C07
1/4 x 15/32		STR74414C07.5	–	STR72014C07.5	STR71014C07.5	STR70514C07.5
1/4 x 1/2	10-24 x 3/8	STR74414C08	STR61614C08	STR72014C08	STR71014C08	STR70514C08
1/4 x 9/16		STR74414C09	STR61614C09	STR72014C09	STR71014C09	STR70514C09
1/4 x 5/8		STR74414C10	STR61614C10	STR72014C10	STR71014C10	STR70514C10
1/4 x 3/4		STR74414C12	STR61614C12	STR72014C12	STR71014C12	STR70514C12
1/4 x 1	10-24 x 3/8	STR74414C16	STR61614C16	STR72014C16	STR71014C16	STR70514C16
1/4 x 1-1/8		STR74414C18	STR61614C18	STR72014C18	STR71014C18	STR70514C18
1/4 x 1-1/4		STR74414C20	STR61614C20	STR72014C20	STR71014C20	STR70514C20

Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-36

17-4, 316H5,  
Al, Ni, Ti2

## ASME Tolerance Knurled Head – Inch



STR70514C22

### 1/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	17-4 PH SS Part Number	316H5 SS Part Number	Aluminum Part Number	Nickel (Monel) Part Number	Titanium Gr2 Part Number
1/4 x 1-3/8	10-24 x 3/8	STR74414C22	STR61614C22	STR72014C22	STR71014C22	STR70514C22
1/4 x 1-1/2		STR74414C24	STR61614C24	STR72014C24	STR71014C24	STR70514C24
1/4 x 1-5/8		STR74414C26	—	STR72014C26	STR71014C26	STR70514C26
1/4 x 1-3/4		STR74414C28	—	STR72014C28	STR71014C28	STR70514C28
1/4 x 2	10-24 x 3/8	STR74414C32	STR61614C32	STR72014C32	STR71014C32	STR70514C32
1/4 x 2-1/4		STR74414C36	—	STR72014C36	STR71014C36	STR70514C36
1/4 x 2-1/2		STR74414C40	—	STR72014C40	STR71014C40	STR70514C40
1/4 x 2-3/4		STR74414C44	—	STR72014C44	STR71014C44	STR70514C44
1/4 x 3	10-24 x 3/8	STR74414C48	—	STR72014C48	STR71014C48	STR70514C48
1/4 x 3-1/2		STR74414C56	—	STR72014C56	STR71014C56	STR70514C56
1/4 x 4		STR74414C64	—	STR72014C64	STR71014C64	STR70514C64
1/4 x 4-1/2		STR74414C72	—	STR72014C72	STR71014C72	STR70514C72
1/4 x 5	10-24 x 3/8	STR74414C80	—	STR72014C80	STR71014C80	STR70514C80



STR70551C02

### 5/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	17-4 PH SS Part Number	316H5 SS Part Number	Aluminum Part Number	Nickel (Monel) Part Number	Titanium Gr2 Part Number
5/16 x 1/8	1/4-20 x 7/16	STR74451C02	STR61651C02	STR72051C02	STR71051C02	STR70551C02
5/16 x 3/16		STR74451C03	STR61651C03	STR72051C03	STR71051C03	STR70551C03
5/16 x 1/4		STR74451C04	STR61651C04	STR72051C04	STR71051C04	STR70551C04
5/16 x 5/16		STR74451C05	STR61651C05	STR72051C05	STR71051C05	STR70551C05
5/16 x 3/8	1/4-20 x 7/16	STR74451C06	STR61651C06	STR72051C06	STR71051C06	STR70551C06
5/16 x 7/16		STR74451C07	STR61651C07	STR72051C07	STR71051C07	STR70551C07
5/16 x 1/2		STR74451C08	STR61651C08	STR72051C08	STR71051C08	STR70551C08
5/16 x 9/16		STR74451C09	STR61651C09	STR72051C09	STR71051C09	STR70551C09
5/16 x 5/8	1/4-20 x 7/16	STR74451C10	STR61651C10	STR72051C10	STR71051C10	STR70551C10
5/16 x 3/4		STR74451C12	STR61651C12	STR72051C12	STR71051C12	STR70551C12
5/16 x 7/8		STR74451C14	STR61651C14	STR72051C14	STR71051C14	STR70551C14
5/16 x 1		STR74451C16	STR61651C16	STR72051C16	STR71051C16	STR70551C16
5/16 x 1-1/8	1/4-20 x 7/16	STR74451C18	STR61651C18	STR72051C18	STR71051C18	STR70551C18
5/16 x 1-1/4		STR74451C20	STR61651C20	STR72051C20	STR71051C20	STR70551C20
5/16 x 1-3/8		STR74451C22	STR61651C22	STR72051C22	STR71051C22	STR70551C22

Chart continued on next page

## ASME Tolerance Knurled Head – Inch



STR70551C24

### 5/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	17-4 PH SS Part Number	316H5 SS Part Number	Aluminum Part Number	Nickel (Monel) Part Number	Titanium Gr2 Part Number
5/16 x 1-1/2	1/4-20 x 7/16	STR74451C24	STR61651C24	STR72051C24	STR71051C24	STR70551C24
5/16 x 1-5/8		STR74451C26	STR61651C26	STR72051C26	STR71051C26	STR70551C26
5/16 x 1-3/4		STR74451C28	—	STR72051C28	STR71051C28	STR70551C28
5/16 x 2	1/4-20 x 7/16	STR74451C32	STR61651C32	STR72051C32	STR71051C32	STR70551C32
5/16 x 2-1/4		STR74451C36	—	STR72051C36	STR71051C36	STR70551C36
5/16 x 2-1/2		STR74451C40	—	STR72051C40	STR71051C40	STR70551C40
5/16 x 2-3/4	1/4-20 x 7/16	STR74451C44	—	STR72051C44	STR71051C44	STR70551C44
5/16 x 3		STR74451C48	—	STR72051C48	STR71051C48	STR70551C48
5/16 x 3-1/2		STR74451C56	—	STR72051C56	STR71051C56	STR70551C56
5/16 x 4	1/4-20 x 7/16	STR74451C64	—	STR72051C64	STR71051C64	STR70551C64
5/16 x 4-1/2		STR74451C72	—	STR72051C72	STR71051C72	STR70551C72
5/16 x 5		STR74451C80	—	STR72051C80	STR71051C80	STR70551C80
5/16 x 5-1/2	1/4-20 x 7/16	STR74451C88	—	STR72051C88	STR71051C88	STR70551C88
5/16 x 6		STR74451C96	—	STR72051C96	STR71051C96	STR70551C96



STR70538C03

### 3/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	17-4 PH SS Part Number	316H5 SS Part Number	Aluminum Part Number	Nickel (Monel) Part Number	Titanium Gr2 Part Number
3/8 x 3/16	5/16-18 x 1/2	STR74438C03	STR61638C03	STR72038C03	STR71038C03	STR70538C03
3/8 x 1/4		STR74438C04	STR61638C04	STR72038C04	STR71038C04	STR70538C04
3/8 x 5/16		STR74438C05	STR61638C05	STR72038C05	STR71038C05	STR70538C05
3/8 x 3/8	5/16-18 x 1/2	STR74438C06	STR61638C06	STR72038C06	STR71038C06	STR70538C06
3/8 x 7/16		STR74438C07	STR61638C07	STR72038C07	STR71038C07	STR70538C07
3/8 x 1/2		STR74438C08	STR61638C08	STR72038C08	STR71038C08	STR70538C08
3/8 x 5/8	5/16-18 x 1/2	STR74438C10	STR61638C10	STR72038C10	STR71038C10	STR70538C10
3/8 x 3/4		STR74438C12	STR61638C12	STR72038C12	STR71038C12	STR70538C12
3/8 x 7/8		STR74438C14	STR61638C14	STR72038C14	STR71038C14	STR70538C14
3/8 x 1	5/16-18 x 1/2	STR74438C16	STR61638C16	STR72038C16	STR71038C16	STR70538C16
3/8 x 1-1/8		STR74438C18	STR61638C18	STR72038C18	STR71038C18	STR70538C18
3/8 x 1-1/4		STR74438C20	STR61638C20	STR72038C20	STR71038C20	STR70538C20
3/8 x 1-3/8	5/16-18 x 1/2	STR74438C22	STR61638C22	STR72038C22	STR71038C22	STR70538C22
3/8 x 1-1/2		STR74438C24	STR61638C24	STR72038C24	STR71038C24	STR70538C24

Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-36

17-4, 316H5,  
Al, Ni, Ti2

## ASME Tolerance Knurled Head – Inch



STR70538C28

### 3/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	17-4 PH SS Part Number	316H5 SS Part Number	Aluminum Part Number	Nickel (Monel) Part Number	Titanium Gr2 Part Number
3/8 x 1-3/4	5/16-18 x 1/2	STR74438C28	STR61638C28	STR72038C28	STR71038C28	STR70538C28
3/8 x 2		STR74438C32	STR61638C32	STR72038C32	STR71038C32	STR70538C32
3/8 x 2-1/4		STR74438C36	—	STR72038C36	STR71038C36	STR70538C36
3/8 x 2-1/2		STR74438C40	—	STR72038C40	STR71038C40	STR70538C40
3/8 x 2-3/4	5/16-18 x 1/2	STR74438C44	—	STR72038C44	STR71038C44	STR70538C44
3/8 x 3		STR74438C48	—	STR72038C48	STR71038C48	STR70538C48
3/8 x 3-1/4		STR74438C52	—	STR72038C52	STR71038C52	STR70538C52
3/8 x 3-1/2		STR74438C56	—	STR72038C56	STR71038C56	STR70538C56
3/8 x 3-3/4	5/16-18 x 1/2	STR74438C60	—	STR72038C60	STR71038C60	STR70538C60
3/8 x 4		STR74438C64	—	STR72038C64	STR71038C64	STR70538C64
3/8 x 4-1/2		STR74438C72	—	STR72038C72	STR71038C72	STR70538C72
3/8 x 5		STR74438C80	—	STR72038C80	STR71038C80	STR70538C80
3/8 x 5-1/2	5/16-18 x 1/2	STR74438C88	—	STR72038C88	STR71038C88	STR70538C88
3/8 x 6		STR74438C96	—	STR72038C96	STR71038C96	STR70538C96
3/8 x 6-1/2		STR74438C104	—	STR72038C104	STR71038C104	STR70538C104
3/8 x 7		STR74438C112	—	STR72038C112	STR71038C112	STR70538C112
3/8 x 7-1/2	5/16-18 x 1/2	STR74438C120	—	STR72038C120	STR71038C120	STR70538C120
3/8 x 8		STR74438C128	—	STR72038C128	STR71038C128	STR70538C128



STR70512C04

### 1/2 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	17-4 PH SS Part Number	316H5 SS Part Number	Aluminum Part Number	Nickel (Monel) Part Number	Titanium Gr2 Part Number
1/2 x 1/4	3/8-16 x 5/8	STR74412C04	STR61612C04	STR72012C04	STR71012C04	STR70512C04
1/2 x 5/16		STR74412C05	STR61612C05	STR72012C05	STR71012C05	STR70512C05
1/2 x 3/8		STR74412C06	STR61612C06	STR72012C06	STR71012C06	STR70512C06
1/2 x 7/16		STR74412C07	STR61612C07	STR72012C07	STR71012C07	STR70512C07
1/2 x 1/2	3/8-16 x 5/8	STR74412C08	STR61612C08	STR72012C08	STR71012C08	STR70512C08
1/2 x 5/8		STR74412C10	STR61612C10	STR72012C10	STR71012C10	STR70512C10
1/2 x 3/4		STR74412C12	STR61612C12	STR72012C12	STR71012C12	STR70512C12
1/2 x 7/8		STR74412C14	STR61612C14	STR72012C14	STR71012C14	STR70512C14
1/2 x 1	3/8-16 x 5/8	STR74412C16	STR61612C16	STR72012C16	STR71012C16	STR70512C16
1/2 x 1-1/4		STR74412C20	STR61612C20	STR72012C20	STR71012C20	STR70512C20
1/2 x 1-1/2		STR74412C24	STR61612C24	STR72012C24	STR71012C24	STR70512C24

Chart continued on next page

## ASME Tolerance Knurled Head — Inch



STR70512C28

### 1/2 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	17-4 PH SS Part Number	316H5 SS Part Number	Aluminum Part Number	Nickel (Monel) Part Number	Titanium Gr2 Part Number
1/2 x 1-3/4	3/8-16 x 5/8	STR74412C28	STR61612C28	STR72012C28	STR71012C28	STR70512C28
1/2 x 2		STR74412C32	STR61612C32	STR72012C32	STR71012C32	STR70512C32
1/2 x 2-1/4		STR74412C36	STR61612C36	STR72012C36	STR71012C36	STR70512C36
1/2 x 2-1/2		STR74412C40	STR61612C40	STR72012C40	STR71012C40	STR70512C40
1/2 x 2-3/4	3/8-16 x 5/8	STR74412C44	—	STR72012C44	STR71012C44	STR70512C44
1/2 x 3		STR74412C48	—	STR72012C48	STR71012C48	STR70512C48
1/2 x 3-1/4		STR74412C52	—	STR72012C52	STR71012C52	STR70512C52
1/2 x 3-1/2		STR74412C56	—	STR72012C56	STR71012C56	STR70512C56
1/2 x 3-3/4	3/8-16 x 5/8	STR74412C60	—	STR72012C60	STR71012C60	STR70512C60
1/2 x 4		STR74412C64	—	STR72012C64	STR71012C64	STR70512C64
1/2 x 4-1/4		STR74412C68	—	STR72012C68	STR71012C68	STR70512C68
1/2 x 4-1/2		STR74412C72	—	STR72012C72	STR71012C72	STR70512C72
1/2 x 4-3/4	3/8-16 x 5/8	STR74412C76	—	STR72012C76	STR71012C76	STR70512C76
1/2 x 5		STR74412C80	—	STR72012C80	STR71012C80	STR70512C80
1/2 x 5-1/2		STR74412C88	—	STR72012C88	STR71012C88	STR70512C88
1/2 x 6		STR74412C96	—	STR72012C96	STR71012C96	STR70512C96
1/2 x 6-1/2	3/8-16 x 5/8	STR74412C104	—	STR72012C104	STR71012C104	STR70512C104
1/2 x 7		STR74412C112	—	STR72012C112	STR71012C112	STR70512C112
1/2 x 7-1/2		STR74412C120	—	STR72012C120	STR71012C120	STR70512C120
1/2 x 8		STR74412C128	—	STR72012C128	STR71012C128	STR70512C128



STR70558C04

### 5/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	17-4 PH SS Part Number	316H5 SS Part Number	Aluminum Part Number	Nickel (Monel) Part Number	Titanium Gr2 Part Number
5/8 x 1/4	1/2-13 x 3/4	STR74458C04	STR61658C04	STR72058C04	STR71058C04	STR70558C04
5/8 x 1/2		STR74458C08	STR61658C08	STR72058C08	STR71058C08	STR70558C08
5/8 x 5/8		STR74458C10	—	STR72058C10	STR71058C10	STR70558C10
5/8 x 3/4		STR74458C12	STR61658C12	STR72058C12	STR71058C12	STR70558C12
5/8 x 1	1/2-13 x 3/4	STR74458C16	STR61658C16	STR72058C16	STR71058C16	STR70558C16
5/8 x 1-1/4		STR74458C20	STR61658C20	STR72058C20	STR71058C20	STR70558C20
5/8 x 1-1/2		STR74458C24	STR61658C24	STR72058C24	STR71058C24	STR70558C24
5/8 x 1-3/4		STR74458C28	—	STR72058C28	STR71058C28	STR70558C28
5/8 x 2	1/2-13 x 3/4	STR74458C32	—	STR72058C32	STR71058C32	STR70558C32

Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-36

17-4, Al,  
Ni, Ti2

## ASME Tolerance Knurled Head – Inch



STR70558C36

### 5/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	17-4 PH SS Part Number	316H5 SS Part Number	Aluminum Part Number	Nickel (Monel) Part Number	Titanium Gr2 Part Number
5/8 x 2-1/4	1/2-13 x 3/4	STR74458C36	–	STR72058C36	STR71058C36	STR70558C36
5/8 x 2-1/2		STR74458C40	–	STR72058C40	STR71058C40	STR70558C40
5/8 x 2-3/4		STR74458C44	–	STR72058C44	STR71058C44	STR70558C44
5/8 x 3		STR74458C48	–	STR72058C48	STR71058C48	STR70558C48
5/8 x 3-1/4	1/2-13 x 3/4	STR74458C52	–	STR72058C52	STR71058C52	STR70558C52
5/8 x 3-1/2		STR74458C56	–	STR72058C56	STR71058C56	STR70558C56
5/8 x 3-3/4		STR74458C60	–	STR72058C60	STR71058C60	STR70558C60
5/8 x 4		STR74458C64	–	STR72058C64	STR71058C64	STR70558C64
5/8 x 4-1/4	1/2-13 x 3/4	STR74458C68	–	STR72058C68	STR71058C68	STR70558C68
5/8 x 4-1/2		STR74458C72	–	STR72058C72	STR71058C72	STR70558C72
5/8 x 4-3/4		STR74458C76	–	STR72058C76	STR71058C76	STR70558C76
5/8 x 5		STR74458C80	–	STR72058C80	STR71058C80	STR70558C80
5/8 x 5-1/2	1/2-13 x 3/4	STR74458C88	–	STR72058C88	STR71058C88	STR70558C88
5/8 x 6		STR74458C96	–	STR72058C96	STR71058C96	STR70558C96
5/8 x 6-1/2		STR74458C104	–	STR72058C104	STR71058C104	STR70558C104
5/8 x 7		STR74458C112	–	STR72058C112	STR71058C112	STR70558C112
5/8 x 7-1/2	1/2-13 x 3/4	STR74458C120	–	STR72058C120	STR71058C120	STR70558C120
5/8 x 8		STR74458C128	–	STR72058C128	STR71058C128	STR70558C128



STR70534C08

### 3/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	17-4 PH SS Part Number	Aluminum Part Number	Nickel (Monel) Part Number	Titanium Gr2 Part Number
3/4 x 1/2	5/8-11 x 7/8	STR74434C08	STR72034C08	STR71034C08	STR70534C08
3/4 x 5/8		STR74434C10	STR72034C10	STR71034C10	STR70534C10
3/4 x 3/4		STR74434C12	STR72034C12	STR71034C12	STR70534C12
3/4 x 1		STR74434C16	STR72034C16	STR71034C16	STR70534C16
3/4 x 1-1/4	5/8-11 x 7/8	STR74434C20	STR72034C20	STR71034C20	STR70534C20
3/4 x 1-1/2		STR74434C24	STR72034C24	STR71034C24	STR70534C24
3/4 x 1-3/4		STR74434C28	STR72034C28	STR71034C28	STR70534C28
3/4 x 2		STR74434C32	STR72034C32	STR71034C32	STR70534C32
3/4 x 2-1/4	5/8-11 x 7/8	STR74434C36	STR72034C36	STR71034C36	STR70534C36
3/4 x 2-1/2		STR74434C40	STR72034C40	STR71034C40	STR70534C40
3/4 x 2-3/4		STR74434C44	STR72034C44	STR71034C44	STR70534C44

Chart continued on next page



## ASME Tolerance Knurled Head – Inch



STR70534C48

## 3/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	17-4 PH SS Part Number	Aluminum Part Number	Nickel (Monel) Part Number	Titanium Gr2 Part Number
3/4 x 3		STR74434C48	STR72034C48	STR71034C48	STR70534C48
3/4 x 3-1/4		STR74434C52	STR72034C52	STR71034C52	STR70534C52
3/4 x 3-1/2	5/8-11 x 7/8	STR74434C56	STR72034C56	STR71034C56	STR70534C56
3/4 x 3-3/4		STR74434C60	STR72034C60	STR71034C60	STR70534C60
3/4 x 4		STR74434C64	STR72034C64	STR71034C64	STR70534C64
3/4 x 4-1/4		STR74434C68	STR72034C68	STR71034C68	STR70534C68
3/4 x 4-1/2	5/8-11 x 7/8	STR74434C72	STR72034C72	STR71034C72	STR70534C72
3/4 x 4-3/4		STR74434C76	STR72034C76	STR71034C76	STR70534C76
3/4 x 5		STR74434C80	STR72034C80	STR71034C80	STR70534C80
3/4 x 5-1/2	5/8-11 x 7/8	STR74434C88	STR72034C88	STR71034C88	STR70534C88
3/4 x 6		STR74434C96	STR72034C96	STR71034C96	STR70534C96
3/4 x 6-1/2		STR74434C104	STR72034C104	STR71034C104	STR70534C104
3/4 x 7		STR74434C112	STR72034C112	STR71034C112	STR70534C112
3/4 x 7-1/2	5/8-11 x 7/8	STR74434C120	STR72034C120	STR71034C120	STR70534C120
3/4 x 8		STR74434C128	STR72034C128	STR71034C128	STR70534C128



STR70501C16

## 1 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	17-4 PH SS Part Number	Aluminum Part Number	Nickel (Monel) Part Number	Titanium Gr2 Part Number
1 x 1		STR74401C16	STR72001C16	STR71001C16	STR70501C16
1 x 1-1/4		STR74401C20	STR72001C20	STR71001C20	STR70501C20
1 x 1-1/2	3/4-10 x 1	STR74401C24	STR72001C24	STR71001C24	STR70501C24
1 x 1-3/4		STR74401C28	STR72001C28	STR71001C28	STR70501C28
1 x 2		STR74401C32	STR72001C32	STR71001C32	STR70501C32
1 x 2-1/4		STR74401C36	STR72001C36	STR71001C36	STR70501C36
1 x 2-1/2	3/4-10 x 1	STR74401C40	STR72001C40	STR71001C40	STR70501C40
1 x 2-3/4		STR74401C44	STR72001C44	STR71001C44	STR70501C44
1 x 3		STR74401C48	STR72001C48	STR71001C48	STR70501C48
1 x 3-1/2		STR74401C56	STR72001C56	STR71001C56	STR70501C56
1 x 4	3/4-10 x 1	STR74401C64	STR72001C64	STR71001C64	STR70501C64
1 x 4-1/2		STR74401C72	STR72001C72	STR71001C72	STR70501C72
1 x 5		STR74401C80	STR72001C80	STR71001C80	STR70501C80
1 x 5-1/2	3/4-10 x 1	STR74401C88	STR72001C88	STR71001C88	STR70501C88
1 x 6		STR74401C96	STR72001C96	STR71001C96	STR70501C96
1 x 6-1/2		STR74401C104	STR72001C104	STR71001C104	STR70501C104
1 x 7		STR74401C112	STR72001C112	STR71001C112	STR70501C112
1 x 7-1/2	3/4-10 x 1	STR74401C120	STR72001C120	STR71001C120	STR70501C120
1 x 8		STR74401C128	STR72001C128	STR71001C128	STR70501C128

Chart continued on next page

## ASME Tolerance Knurled Head – Inch



STR705012C16

### 1-1/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	17-4 PH SS Part Number	Aluminum Part Number	Nickel (Monel) Part Number	Titanium Gr2 Part Number
1-1/4 x 1		STR744012C16	STR720012C16	STR710012C16	STR705012C16
1-1/4 x 1-1/4	7/8-9 x 1-1/8	STR744012C20	STR720012C20	STR710012C20	STR705012C20
1-1/4 x 1-1/2		STR744012C24	STR720012C24	STR710012C24	STR705012C24
1-1/4 x 1-3/4		STR744012C28	STR720012C28	STR710012C28	STR705012C28
1-1/4 x 2		STR744012C32	STR720012C32	STR710012C32	STR705012C32
1-1/4 x 2-1/2	7/8-9 x 1-1/8	STR744012C40	STR720012C40	STR710012C40	STR705012C40
1-1/4 x 3		STR744012C48	STR720012C48	STR710012C48	STR705012C48
1-1/4 x 3-1/2		STR744012C56	STR720012C56	STR710012C56	STR705012C56
1-1/4 x 4	7/8-9 x 1-1/8	STR744012C64	STR720012C64	STR710012C64	STR705012C64



STR705015C16

### 1-1/2 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	17-4 PH SS Part Number	Aluminum Part Number	Nickel (Monel) Part Number	Titanium Gr2 Part Number
1-1/2 x 1		STR744015C16	STR720015C16	STR710015C16	STR705015C16
1-1/2 x 1-1/4	1-1/8-7 x 1-1/2	STR744015C20	STR720015C20	STR710015C20	STR705015C20
1-1/2 x 1-1/2		STR744015C24	STR720015C24	STR710015C24	STR705015C24
1-1/2 x 1-3/4		STR744015C28	STR720015C28	STR710015C28	STR705015C28
1-1/2 x 2		STR744015C32	STR720015C32	STR710015C32	STR705015C32
1-1/2 x 2-1/2	1-1/8-7 x 1-1/2	STR744015C40	STR720015C40	STR710015C40	STR705015C40
1-1/2 x 3		STR744015C48	STR720015C48	STR710015C48	STR705015C48

## ASME Tolerance Knurled Head – Metric

### 17-4 PH SS, 316H5 SS, Aluminum, Nickel (Monel), and Grade 2 Titanium – Hex Drive

- Shoulder diameters of 4, 5 and 12mm meet our internal specification AMPG 2013 ZS.02.
- Shoulder diameters of 8 and 10mm meet or exceed ANSI/ASME B18.3.3M, ISO 7379.
- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- Largest line of shoulder screws offered in high performance materials: 17-4 PH SS, High Five SS, Aluminum, Nickel (Monel) and Grade 2 Titanium.



STR705M4X4

#### 4mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	17-4 PH SS Part Number	316H5 SS Part Number	Aluminum Part Number	Nickel (Monel) Part Number	Titanium Gr2 Part Number
4 x 4		STR744M4X4	STR616M4X4	STR720M4X4	STR710M4X4	STR705M4X4
4 x 5	M3 x 0.5 x 4.5	STR744M4X5	STR616M4X5	STR720M4X5	STR710M4X5	STR705M4X5
4 x 6		STR744M4X6	STR616M4X6	STR720M4X6	STR710M4X6	STR705M4X6
4 x 8		STR744M4X8	STR616M4X8	STR720M4X8	STR710M4X8	STR705M4X8
4 x 10	M3 x 0.5 x 4.5	STR744M4X10	STR616M4X10	STR720M4X10	STR710M4X10	STR705M4X10



STR705M5X4

#### 5mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	17-4 PH SS Part Number	316H5 SS Part Number	Aluminum Part Number	Nickel (Monel) Part Number	Titanium Gr2 Part Number
5 x 4		STR744M5X4	STR616M5X4	STR720M5X4	STR710M5X4	STR705M5X4
5 x 5	M4 x 0.7 x 4.5	STR744M5X5	STR616M5X5	STR720M5X5	STR710M5X5	STR705M5X5
5 x 6		STR744M5X6	STR616M5X6	STR720M5X6	STR710M5X6	STR705M5X6
5 x 8		STR744M5X8	STR616M5X8	STR720M5X8	STR710M5X8	STR705M5X8
5 x 10		STR744M5X10	STR616M5X10	STR720M5X10	STR710M5X10	STR705M5X10
5 x 12	M4 x 0.7 x 4.5	STR744M5X12	STR616M5X12	STR720M5X12	STR710M5X12	STR705M5X12
5 x 16		STR744M5X16	STR616M5X16	STR720M5X16	STR710M5X16	STR705M5X16
5 x 20		STR744M5X20	STR616M5X20	STR720M5X20	STR710M5X20	STR705M5X20
5 x 25		STR744M5X25	STR616M5X25	STR720M5X25	STR710M5X25	STR705M5X25
5 x 30	M4 x 0.7 x 4.5	STR744M5X30	STR616M5X30	STR720M5X30	STR710M5X30	STR705M5X30

Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-14

17-4, 316H5,  
Al, Ni, Ti2

## ASME Tolerance Knurled Head – Metric



STR705M6X4

### 6mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	17-4 PH SS Part Number	316H5 SS Part Number	Aluminum Part Number	Nickel (Monel) Part Number	Titanium Gr2 Part Number
6 x 4		STR744M6X4	STR616M6X4	STR720M6X4	STR710M6X4	STR705M6X4
6 x 5	M5 x 0.8 x 9.5	STR744M6X5	STR616M6X5	STR720M6X5	STR710M6X5	STR705M6X5
6 x 6		STR744M6X6	STR616M6X6	STR720M6X6	STR710M6X6	STR705M6X6
6 x 8		STR744M6X8	STR616M6X8	STR720M6X8	STR710M6X8	STR705M6X8
6 x 10	M5 x 0.8 x 9.5	STR744M6X10	STR616M6X10	STR720M6X10	STR710M6X10	STR705M6X10
6 x 12		STR744M6X12	STR616M6X12	STR720M6X12	STR710M6X12	STR705M6X12
6 x 16		STR744M6X16	STR616M6X16	STR720M6X16	STR710M6X16	STR705M6X16
6 x 20		STR744M6X20	STR616M6X20	STR720M6X20	STR710M6X20	STR705M6X20
6 x 25	M5 x 0.8 x 9.5	STR744M6X25	STR616M6X25	STR720M6X25	STR710M6X25	STR705M6X25
6 x 30		STR744M6X30	STR616M6X30	STR720M6X30	STR710M6X30	STR705M6X30



STR705M8X8

### 8mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	17-4 PH SS Part Number	316H5 SS Part Number	Aluminum Part Number	Nickel (Monel) Part Number	Titanium Gr2 Part Number
8 x 8		STR744M8X8	STR616M8X8	STR720M8X8	STR710M8X8	STR705M8X8
8 x 10	M6 x 1 x 11	STR744M8X10	STR616M8X10	STR720M8X10	STR710M8X10	STR705M8X10
8 x 12		STR744M8X12	STR616M8X12	STR720M8X12	STR710M8X12	STR705M8X12
8 x 16		STR744M8X16	STR616M8X16	STR720M8X16	STR710M8X16	STR705M8X16
8 x 20	M6 x 1 x 11	STR744M8X20	STR616M8X20	STR720M8X20	STR710M8X20	STR705M8X20
8 x 25		STR744M8X25	STR616M8X25	STR720M8X25	STR710M8X25	STR705M8X25
8 x 30		STR744M8X30	STR616M8X30	STR720M8X30	STR710M8X30	STR705M8X30
8 x 40	M6 x 1 x 11	STR744M8X40	STR616M8X40	STR720M8X40	STR710M8X40	STR705M8X40
8 x 50		STR744M8X50	STR616M8X50	STR720M8X50	STR710M8X50	STR705M8X50

Chart continued on next page

## ASME Tolerance Knurled Head – Metric



STR705M10X8

### 10mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	17-4 PH SS Part Number	316H5 SS Part Number	Aluminum Part Number	Nickel (Monel) Part Number	Titanium Gr2 Part Number
10 x 8	M8 x 1.25 x 13	STR744M10X8	STR616M10X8	STR720M10X8	STR710M10X8	STR705M10X8
10 x 10		STR744M10X10	STR616M10X10	STR720M10X10	STR710M10X10	STR705M10X10
10 x 12		STR744M10X12	STR616M10X12	STR720M10X12	STR710M10X12	STR705M10X12
10 x 16		STR744M10X16	STR616M10X16	STR720M10X16	STR710M10X16	STR705M10X16
10 x 20	M8 x 1.25 x 13	STR744M10X20	STR616M10X20	STR720M10X20	STR710M10X20	STR705M10X20
10 x 25		STR744M10X25	STR616M10X25	STR720M10X25	STR710M10X25	STR705M10X25
10 x 30		STR744M10X30	STR616M10X30	STR720M10X30	STR710M10X30	STR705M10X30
10 x 40		STR744M10X40	STR616M10X40	STR720M10X40	STR710M10X40	STR705M10X40
10 x 50	M8 x 1.25 x 13	STR744M10X50	STR616M10X50	STR720M10X50	STR710M10X50	STR705M10X50



STR705M12X8

### 12mm Shoulder Diameter

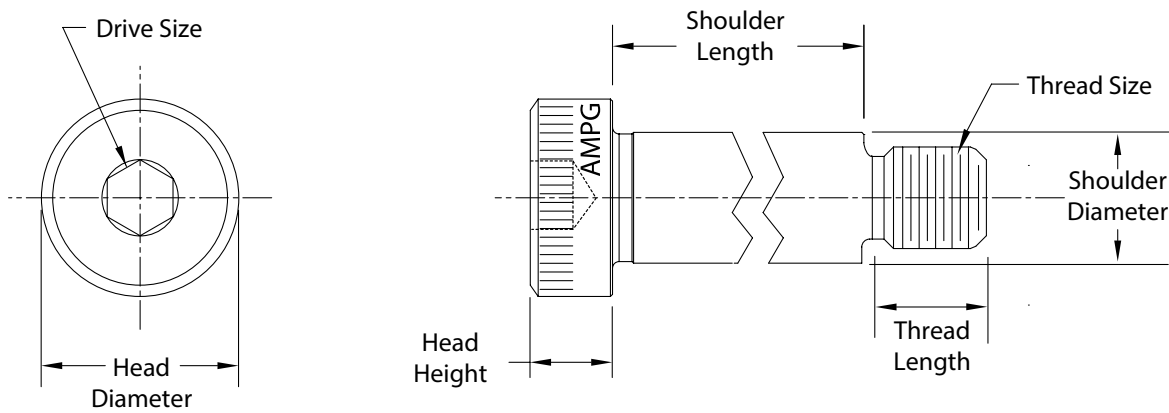
Shoulder Dia. x Lg.	Thread Size x Lg.	17-4 PH SS Part Number	316H5 SS Part Number	Aluminum Part Number	Nickel (Monel) Part Number	Titanium Gr2 Part Number
12 x 8	M10 x 1.5 x 16	STR744M12X8	STR616M12X8	STR720M12X8	STR710M12X8	STR705M12X8
12 x 10		STR744M12X10	STR616M12X10	STR720M12X10	STR710M12X10	STR705M12X10
12 x 12		STR744M12X12	STR616M12X12	STR720M12X12	STR710M12X12	STR705M12X12
12 x 16		STR744M12X16	STR616M12X16	STR720M12X16	STR710M12X16	STR705M12X16
12 x 20	M10 x 1.5 x 16	STR744M12X20	STR616M12X20	STR720M12X20	STR710M12X20	STR705M12X20
12 x 25		STR744M12X25	STR616M12X25	STR720M12X25	STR710M12X25	STR705M12X25
12 x 30		STR744M12X30	STR616M12X30	STR720M12X30	STR710M12X30	STR705M12X30
12 x 40		STR744M12X40	STR616M12X40	STR720M12X40	STR710M12X40	STR705M12X40
12 x 50	M10 x 1.5 x 16	STR744M12X50	STR616M12X50	STR720M12X50	STR710M12X50	STR705M12X50

# Shoulder Screws

## Shortened Thread Knurled Head — Inch

### 18-8, 316 Stainless Steel and Alloy Steel — Hex Drive

These speciality shoulder screws have thread lengths that are shorter than our standard knurled head shoulder screws. Nonstandard inch shoulder screws with thread lengths to fit shortened internal thread depth applications. Made in the USA with DFARS compliant material, each screw is manufactured in one complete operation, which produces a tightly controlled consistent and concentric product. Shoulder length tolerance is  $\pm 0.005$  inches. Alloy Steel Screw material exceeds Grade 8 steel in strength and has a black-oxide finish. These totally black alloy steel parts are unique from AMPG — they are being made with pre-heated alloy rods that avoid the need to grind the screws shoulder. Screws have a Class 3A thread fit. \*Heads are knurled, stamped, or both to provide finger grip.



Dimensions and Tolerance Table — Inch

Shoulder Diameter	Shoulder Diameter Max. to Min.	Head Diameter	Head Height	Drive Size	*Head Appearance
1/4	.248 to .246	3/8	3/16	1/8	
5/16	.310 to .308	7/16	7/32	5/32	Head Mark and Knurl
3/8	.373 to .371	9/16	1/4	3/16	
1/2	.498 to .496	3/4	5/16	1/4	
5/8	.623 to .621	7/8	3/8	5/16	
3/4	.748 to .746	1	1/2	3/8	Head Mark and Knurl
1	.998 to .996	1-5/16	5/8	1/2	

Head appearance may be knurled and/or head marked.



## Shortened Thread Knurled Head – Inch

### 18-8 and 316 Stainless Steel – Hex Drive

- Stainless Steel Shortened Thread Shoulder Screws meet our internal specification AMPG 2018 ST.04.
- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- Certified test reports are available for both the corrosion resistance and physical properties.



STR6014F04-SHORT



STR60151F04-SHORT

#### 1/4 Shoulder Diameter

#### 5/16 Shoulder Diameter

Shoulder Length	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	Shoulder Length	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
1/4 x 1/4		STR60114F04-SHORT	STR60214F04-SHORT	5/16 x 1/4		STR60151F04-SHORT	STR60251F04-SHORT
1/4 x 5/16	10-32 x 5/32	STR60114F05-SHORT	STR60214F05-SHORT	5/16 x 5/16	1/4-28 x 11/64	STR60151F05-SHORT	STR60251F05-SHORT
1/4 x 3/8		STR60114F06-SHORT	STR60214F06-SHORT	5/16 x 3/8		STR60151F06-SHORT	STR60251F06-SHORT
1/4 x 7/16		STR60114F07-SHORT	STR60214F07-SHORT	5/16 x 7/16		STR60151F07-SHORT	STR60251F07-SHORT
1/4 x 1/2		STR60114F08-SHORT	STR60214F08-SHORT	5/16 x 1/2		STR60151F08-SHORT	STR60251F08-SHORT
1/4 x 9/16	10-32 x 5/32	STR60114F09-SHORT	STR60214F09-SHORT	5/16 x 9/16	1/4-28 x 11/64	STR60151F09-SHORT	STR60251F09-SHORT
1/4 x 5/8		STR60114F10-SHORT	STR60214F10-SHORT	5/16 x 5/8		STR60151F10-SHORT	STR60251F10-SHORT
1/4 x 11/16		STR60114F11-SHORT	STR60214F11-SHORT	5/16 x 11/16		STR60151F11-SHORT	STR60251F11-SHORT
1/4 x 3/4		STR60114F12-SHORT	STR60214F12-SHORT	5/16 x 3/4		STR60151F12-SHORT	STR60251F12-SHORT
1/4 x 13/16	10-32 x 5/32	STR60114F13-SHORT	STR60214F13-SHORT	5/16 x 13/16	1/4-28 x 11/64	STR60151F13-SHORT	STR60251F13-SHORT
1/4 x 7/8		STR60114F14-SHORT	STR60214F14-SHORT	5/16 x 7/8		STR60151F14-SHORT	STR60251F14-SHORT
1/4 x 15/16		STR60114F15-SHORT	STR60214F15-SHORT	5/16 x 15/16		STR60151F15-SHORT	STR60251F15-SHORT
1/4 x 1		STR60114F16-SHORT	STR60214F16-SHORT	5/16 x 1		STR60151F16-SHORT	STR60251F16-SHORT
1/4 x 1-1/8	10-32 x 5/32	STR60114F18-SHORT	STR60214F18-SHORT	5/16 x 1-1/8	1/4-28 x 11/64	STR60151F18-SHORT	STR60251F18-SHORT
1/4 x 1-1/4		STR60114F20-SHORT	STR60214F20-SHORT	5/16 x 1-1/4		STR60151F20-SHORT	STR60251F20-SHORT
1/4 x 1-3/8		STR60114F22-SHORT	STR60214F22-SHORT	5/16 x 1-3/8		STR60151F22-SHORT	STR60251F22-SHORT
1/4 x 1-1/2		STR60114F24-SHORT	STR60214F24-SHORT	5/16 x 1-1/2		STR60151F24-SHORT	STR60251F24-SHORT
1/4 x 1-5/8	10-32 x 5/32	STR60114F26-SHORT	STR60214F26-SHORT	5/16 x 1-5/8	1/4-28 x 11/64	STR60151F26-SHORT	STR60251F26-SHORT
1/4 x 1-3/4		STR60114F28-SHORT	STR60214F28-SHORT	5/16 x 1-3/4		STR60151F28-SHORT	STR60251F28-SHORT
1/4 x 1-7/8		STR60114F30-SHORT	STR60214F30-SHORT	5/16 x 1-7/8		STR60151F30-SHORT	STR60251F30-SHORT
1/4 x 2	10-32 x 5/32	STR60114F32-SHORT	STR60214F32-SHORT	5/16 x 2	1/4-28 x 11/64	STR60151F32-SHORT	STR60251F32-SHORT



#### Black Oxide

18-8 SS and 316 SS is available with black oxide plating option.

Add "-BX" to the end of the part number.

Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-51

18-8 SS (A2)  
316 SS (A4)

## Shortened Thread Knurled Head – Inch



STR60138F04-SHORT



STR60112F04-SHORT

### 3/8 Shoulder Diameter

### 1/2 Shoulder Diameter

Shoulder Length	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
3/8 x 1/4	5/16-24 x 3/16	STR60138F04-SHORT	STR60238F04-SHORT
3/8 x 5/16		STR60138F05-SHORT	STR60238F05-SHORT
3/8 x 3/8		STR60138F06-SHORT	STR60238F06-SHORT
3/8 x 7/16		STR60138F07-SHORT	STR60238F07-SHORT
3/8 x 1/2	5/16-24 x 3/16	STR60138F08-SHORT	STR60238F08-SHORT
3/8 x 9/16		STR60138F09-SHORT	STR60238F09-SHORT
3/8 x 5/8		STR60138F10-SHORT	STR60238F10-SHORT
3/8 x 11/16		STR60138F11-SHORT	STR60238F11-SHORT
3/8 x 3/4	5/16-24 x 3/16	STR60138F12-SHORT	STR60238F12-SHORT
3/8 x 13/16		STR60138F13-SHORT	STR60238F13-SHORT
3/8 x 7/8		STR60138F14-SHORT	STR60238F14-SHORT
3/8 x 15/16		STR60138F15-SHORT	STR60238F15-SHORT
3/8 x 1	5/16-24 x 3/16	STR60138F16-SHORT	STR60238F16-SHORT
3/8 x 1-1/8		STR60138F18-SHORT	STR60238F18-SHORT
3/8 x 1-1/4		STR60138F20-SHORT	STR60238F20-SHORT
3/8 x 1-3/8		STR60138F22-SHORT	STR60238F22-SHORT
3/8 x 1-1/2	5/16-24 x 3/16	STR60138F24-SHORT	STR60238F24-SHORT
3/8 x 1-5/8		STR60138F26-SHORT	STR60238F26-SHORT
3/8 x 1-3/4		STR60138F28-SHORT	STR60238F28-SHORT
3/8 x 1-7/8		STR60138F30-SHORT	STR60238F30-SHORT
3/8 x 2	5/16-24 x 3/16	STR60138F32-SHORT	STR60238F32-SHORT

Shoulder Length	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
1/2 x 1/4	3/8-24 x 13/64	STR60112F04-SHORT	STR60212F04-SHORT
1/2 x 5/16		STR60112F05-SHORT	STR60212F05-SHORT
1/2 x 3/8		STR60112F06-SHORT	STR60212F06-SHORT
1/2 x 7/16		STR60112F07-SHORT	STR60212F07-SHORT
1/2 x 1/2	3/8-24 x 13/64	STR60112F08-SHORT	STR60212F08-SHORT
1/2 x 9/16		STR60112F09-SHORT	STR60212F09-SHORT
1/2 x 5/8		STR60112F10-SHORT	STR60212F10-SHORT
1/2 x 11/16		STR60112F11-SHORT	STR60212F11-SHORT
1/2 x 3/4	3/8-24 x 13/64	STR60112F12-SHORT	STR60212F12-SHORT
1/2 x 13/16		STR60112F13-SHORT	STR60212F13-SHORT
1/2 x 7/8		STR60112F14-SHORT	STR60212F14-SHORT
1/2 x 15/16		STR60112F15-SHORT	STR60212F15-SHORT
1/2 x 1	3/8-24 x 13/64	STR60112F16-SHORT	STR60212F16-SHORT
1/2 x 1-1/8		STR60112F18-SHORT	STR60212F18-SHORT
1/2 x 1-1/4		STR60112F20-SHORT	STR60212F20-SHORT
1/2 x 1-3/8		STR60112F22-SHORT	STR60212F22-SHORT
1/2 x 1-1/2	3/8-24 x 13/64	STR60112F24-SHORT	STR60212F24-SHORT
1/2 x 1-5/8		STR60112F26-SHORT	STR60212F26-SHORT
1/2 x 1-3/4		STR60112F28-SHORT	STR60212F28-SHORT
1/2 x 1-7/8		STR60112F30-SHORT	STR60212F30-SHORT
1/2 x 2	3/8-24 x 13/64	STR60112F32-SHORT	STR60212F32-SHORT



#### Black Oxide

18-8 SS and 316 SS is available with black oxide plating option.

Add "-BX" to the end of the part number.

Chart continued on next page

## Shortened Thread Knurled Head – Inch



STR60158F05-SHORT



STR60134F06-SHORT

### 5/8 Shoulder Diameter

Shoulder Length	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
5/8 x 5/16	1/2-20 x 3/8	STR60158F05-SHORT	STR60258F05-SHORT
5/8 x 3/8		STR60158F06-SHORT	STR60258F06-SHORT
5/8 x 7/16		STR60158F07-SHORT	STR60258F07-SHORT
5/8 x 1/2		STR60158F08-SHORT	STR60258F08-SHORT
5/8 x 5/8	1/2-20 x 3/8	STR60158F10-SHORT	STR60258F10-SHORT
5/8 x 3/4		STR60158F12-SHORT	STR60258F12-SHORT
5/8 x 7/8		STR60158F14-SHORT	STR60258F14-SHORT
5/8 x 1		STR60158F16-SHORT	STR60258F16-SHORT
5/8 x 1-1/8	1/2-20 x 3/8	STR60158F18-SHORT	STR60258F18-SHORT
5/8 x 1-1/4		STR60158F20-SHORT	STR60258F20-SHORT
5/8 x 1-3/8		STR60158F22-SHORT	STR60258F22-SHORT
5/8 x 1-1/2		STR60158F24-SHORT	STR60258F24-SHORT
5/8 x 1-5/8	1/2-20 x 3/8	STR60158F26-SHORT	STR60258F26-SHORT
5/8 x 1-3/4		STR60158F28-SHORT	STR60258F28-SHORT
5/8 x 1-7/8		STR60158F30-SHORT	STR60258F30-SHORT
5/8 x 2		STR60158F32-SHORT	STR60258F32-SHORT

### 3/4 Shoulder Diameter

Shoulder Length	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
3x4 x 3/8	5/8-18 x 7/16	STR60134F06-SHORT	STR60234F06-SHORT
3x4 x 7/16		STR60134F07-SHORT	STR60234F07-SHORT
3x4 x 1/2		STR60134F08-SHORT	STR60234F08-SHORT
3x4 x 5/8	5/8-18 x 7/16	STR60134F10-SHORT	STR60234F10-SHORT
3x4 x 3/4		STR60134F12-SHORT	STR60234F12-SHORT
3x4 x 7/8		STR60134F14-SHORT	STR60234F14-SHORT
3x4 x 1	5/8-18 x 7/16	STR60134F16-SHORT	STR60234F16-SHORT
3x4 x 1-1/8		STR60134F18-SHORT	STR60234F18-SHORT
3x4 x 1-1/4		STR60134F20-SHORT	STR60234F20-SHORT
3x4 x 1-3/8	5/8-18 x 7/16	STR60134F22-SHORT	STR60234F22-SHORT
3x4 x 1-1/2		STR60134F24-SHORT	STR60234F24-SHORT
3x4 x 1-5/8		STR60134F26-SHORT	STR60234F26-SHORT
3x4 x 1-3/4	5/8-18 x 7/16	STR60134F28-SHORT	STR60234F28-SHORT
3x4 x 1-7/8		STR60134F30-SHORT	STR60234F30-SHORT
3x4 x 2		STR60134F32-SHORT	STR60234F32-SHORT



STR60101F16-SHORT

### 1 Shoulder Diameter

Shoulder Length	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
1 x 1	3/4-16 x 1/2	STR60101F16-SHORT	STR60201F16-SHORT
1 x 1-1/2		STR60101F24-SHORT	STR60201F24-SHORT
1 x 1-3/4		STR60101F28-SHORT	STR60201F28-SHORT
1 x 2		STR60101F32-SHORT	STR60201F32-SHORT
1 x 2-1/2	3/4-16 x 1/2	STR60101F40-SHORT	STR60201F40-SHORT
1 x 3		STR60101F48-SHORT	STR60201F48-SHORT
1 x 3-1/2		STR60101F56-SHORT	STR60201F56-SHORT
1 x 4		STR60101F64-SHORT	STR60201F64-SHORT



#### Black Oxide

18-8 SS and 316 SS is available with black oxide plating option.

Add "-BX" to the end of the part number.

# Shoulder Screws

For technical drawings and charts, please see page B-51

Alloy

## Shortened Thread Knurled Head – Inch

### Alloy Steel – Hex Drive

- Steel Alloy Shoulder Screws meet our internal specification AMPG 2018 ST.04.
- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- Certified test reports are available for both the corrosion resistance and physical properties.
- Black oxide finish offers mild resistance from rust.



STR70014F04-SHORT



STR70051F04-SHORT



STR70038F04-SHORT

### 1/4 Shoulder Diameter

### 5/16 Shoulder Diameter

### 3/8 Shoulder Diameter

Shoulder Length	Thread Size x Lg.	Alloy Steel Part Number	Shoulder Length	Thread Size x Lg.	Alloy Steel Part Number	Shoulder Length	Thread Size x Lg.	Alloy Steel Part Number
1/4 x 1/4		STR70014F04-SHORT	5/16 x 1/4		STR70051F04-SHORT	3/8 x 1/4		STR70038F04-SHORT
1/4 x 5/16	10-32 x 5/32	STR70014F05-SHORT	5/16 x 5/16	1/4-28 x 11/64	STR70051F05-SHORT	3/8 x 5/16	5/16-24 x 3/16	STR70038F05-SHORT
1/4 x 3/8		STR70014F06-SHORT	5/16 x 3/8		STR70051F06-SHORT	3/8 x 3/8		STR70038F06-SHORT
1/4 x 7/16		STR70014F07-SHORT	5/16 x 7/16		STR70051F07-SHORT	3/8 x 7/16		STR70038F07-SHORT
1/4 x 1/2		STR70014F08-SHORT	5/16 x 1/2		STR70051F08-SHORT	3/8 x 1/2		STR70038F08-SHORT
1/4 x 9/16	10-32 x 5/32	STR70014F09-SHORT	5/16 x 9/16	1/4-28 x 11/64	STR70051F09-SHORT	3/8 x 9/16	5/16-24 x 3/16	STR70038F09-SHORT
1/4 x 5/8		STR70014F10-SHORT	5/16 x 5/8		STR70051F10-SHORT	3/8 x 5/8		STR70038F10-SHORT
1/4 x 11/16		STR70014F11-SHORT	5/16 x 11/16		STR70051F11-SHORT	3/8 x 11/16		STR70038F11-SHORT
1/4 x 3/4		STR70014F12-SHORT	5/16 x 3/4		STR70051F12-SHORT	3/8 x 3/4		STR70038F12-SHORT
1/4 x 13/16	10-32 x 5/32	STR70014F13-SHORT	5/16 x 13/16	1/4-28 x 11/64	STR70051F13-SHORT	3/8 x 13/16	5/16-24 x 3/16	STR70038F13-SHORT
1/4 x 7/8		STR70014F14-SHORT	5/16 x 7/8		STR70051F14-SHORT	3/8 x 7/8		STR70038F14-SHORT
1/4 x 15/16		STR70014F15-SHORT	5/16 x 15/16		STR70051F15-SHORT	3/8 x 15/16		STR70038F15-SHORT
1/4 x 1		STR70014F16-SHORT	5/16 x 1		STR70051F16-SHORT	3/8 x 1		STR70038F16-SHORT
1/4 x 1-1/8	10-32 x 5/32	STR70014F18-SHORT	5/16 x 1-1/8	1/4-28 x 11/64	STR70051F18-SHORT	3/8 x 1-1/8	5/16-24 x 3/16	STR70038F18-SHORT
1/4 x 1-1/4		STR70014F20-SHORT	5/16 x 1-1/4		STR70051F20-SHORT	3/8 x 1-1/4		STR70038F20-SHORT
1/4 x 1-3/8		STR70014F22-SHORT	5/16 x 1-3/8		STR70051F22-SHORT	3/8 x 1-3/8		STR70038F22-SHORT
1/4 x 1-1/2		STR70014F24-SHORT	5/16 x 1-1/2		STR70051F24-SHORT	3/8 x 1-1/2		STR70038F24-SHORT
1/4 x 1-5/8	10-32 x 5/32	STR70014F26-SHORT	5/16 x 1-5/8	1/4-28 x 11/64	STR70051F26-SHORT	3/8 x 1-5/8	5/16-24 x 3/16	STR70038F26-SHORT
1/4 x 1-3/4		STR70014F28-SHORT	5/16 x 1-3/4		STR70051F28-SHORT	3/8 x 1-3/4		STR70038F28-SHORT
1/4 x 1-7/8		STR70014F30-SHORT	5/16 x 1-7/8		STR70051F30-SHORT	3/8 x 1-7/8		STR70038F30-SHORT
1/4 x 2	10-32 x 5/32	STR70014F32-SHORT	5/16 x 2	1/4-28 x 11/64	STR70051F32-SHORT	3/8 x 2	5/16-24 x 3/16	STR70038F32-SHORT

Chart continued on next page

## Shortened Thread Knurled Head – Inch



STR70012F04-SHORT



STR70058F05-SHORT



STR70034F06-SHORT

### 1/2 Shoulder Diameter

### 5/8 Shoulder Diameter

### 3/4 Shoulder Diameter

Shoulder Length	Thread Size x Lg.	Alloy Steel Part Number
1/2 x 1/4		STR70012F04-SHORT
1/2 x 5/16	3/8-24 x 13/64	STR70012F05-SHORT
1/2 x 3/8		STR70012F06-SHORT
1/2 x 7/16		STR70012F07-SHORT
1/2 x 1/2		STR70012F08-SHORT
1/2 x 9/16	3/8-24 x 13/64	STR70012F09-SHORT
1/2 x 5/8		STR70012F10-SHORT
1/2 x 11/16		STR70012F11-SHORT
1/2 x 3/4		STR70012F12-SHORT
1/2 x 13/16	3/8-24 x 13/64	STR70012F13-SHORT
1/2 x 7/8		STR70012F14-SHORT
1/2 x 15/16		STR70012F15-SHORT
1/2 x 1		STR70012F16-SHORT
1/2 x 1-1/8	3/8-24 x 13/64	STR70012F18-SHORT
1/2 x 1-1/4		STR70012F20-SHORT
1/2 x 1-3/8		STR70012F22-SHORT
1/2 x 1-1/2		STR70012F24-SHORT
1/2 x 1-5/8	3/8-24 x 13/64	STR70012F26-SHORT
1/2 x 1-3/4		STR70012F28-SHORT
1/2 x 1-7/8		STR70012F30-SHORT
1/2 x 2	3/8-24 x 13/64	STR70012F32-SHORT

Shoulder Length	Thread Size x Lg.	Alloy Steel Part Number
5/8 x 5/16		STR70058F05-SHORT
5/8 x 3/8	1/2-20 x 3/8	STR70058F06-SHORT
5/8 x 7/16		STR70058F07-SHORT
5/8 x 1/2		STR70058F08-SHORT
5/8 x 5/8		STR70058F10-SHORT
5/8 x 3/4	1/2-20 x 3/8	STR70058F12-SHORT
5/8 x 7/8		STR70058F14-SHORT
5/8 x 1		STR70058F16-SHORT
5/8 x 1-1/8		STR70058F18-SHORT
5/8 x 1-1/4	1/2-20 x 3/8	STR70058F20-SHORT
5/8 x 1-3/8		STR70058F22-SHORT
5/8 x 1-1/2		STR70058F24-SHORT
5/8 x 1-5/8		STR70058F26-SHORT
5/8 x 1-3/4	1/2-20 x 3/8	STR70058F28-SHORT
5/8 x 1-7/8		STR70058F30-SHORT
5/8 x 2		STR70058F32-SHORT

Shoulder Length	Thread Size x Lg.	Alloy Steel Part Number
3/4 x 3/8		STR70034F06-SHORT
3/4 x 7/16	5/8-18 x 7/16	STR70034F07-SHORT
3/4 x 1/2		STR70034F08-SHORT
3/4 x 5/8		STR70034F10-SHORT
3/4 x 3/4		STR70034F12-SHORT
3/4 x 7/8	5/8-18 x 7/16	STR70034F14-SHORT
3/4 x 1		STR70034F16-SHORT
3/4 x 1-1/8		STR70034F18-SHORT
3/4 x 1-1/4		STR70034F20-SHORT
3/4 x 1-3/8	5/8-18 x 7/16	STR70034F22-SHORT
3/4 x 1-1/2		STR70034F24-SHORT
3/4 x 1-5/8		STR70034F26-SHORT
3/4 x 1-3/4		STR70034F28-SHORT
3/4 x 1-7/8	5/8-18 x 7/16	STR70034F30-SHORT
3/4 x 2		STR70034F32-SHORT

### 1 Shoulder Diameter



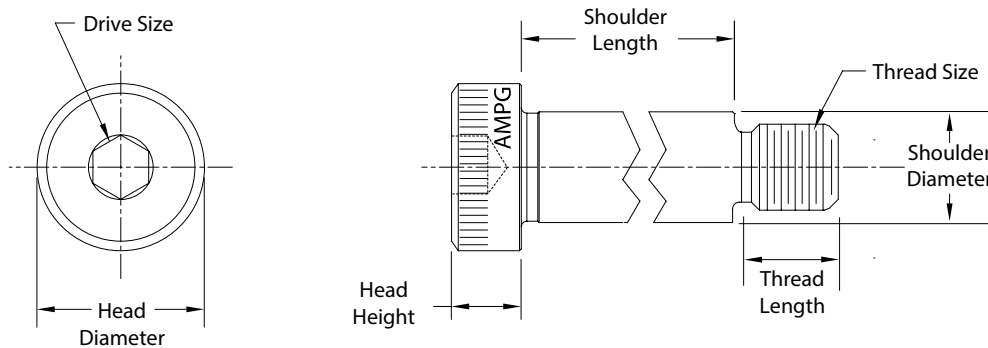
STR70001F16-SHORT

Shoulder Length	Thread Size x Lg.	Alloy Steel Part Number
1 x 1		STR70001F16-SHORT
1 x 1-1/2	3/4-16 x 1/2	STR70001F24-SHORT
1 x 1-3/4		STR70001F28-SHORT
1 x 2		STR70001F32-SHORT
1 x 2-1/2		STR70001F40-SHORT
1 x 3	3/4-16 x 1/2	STR70001F48-SHORT
1 x 3-1/2		STR70001F56-SHORT
1 x 4		STR70001F64-SHORT

## Shortened Thread Knurled Head – Metric

### 18-8 (A2), 316 (A4) Stainless Steels and Alloy Steel – Hex Drive

These speciality shoulder screws have thread lengths that are shorter than our standard knurled head shoulder screws. Nonstandard metric shoulder screws with thread lengths to fit shortened internal thread depth applications. Made in the USA with DFARS compliant material, each screw is manufactured in one complete operation, which produces a tightly controlled consistent and concentric product. Shoulder length tolerance is  $\pm .25\text{mm}/-.0\text{mm}$ . Screws have a Class 5g6g thread fit. Alloy Steel Screw material exceeds Grade 8 steel in strength and has a black-oxide finish. These totally black alloy steel parts are unique from AMPG – they are being made with pre-heated alloy rods that avoid the need to grind the screws shoulder. Heads are knurled, stamped, or both to provide finger grip. Heads are knurled, stamped, or both to provide finger grip.



Dimensions and Tolerance Table – Metric, mm

Shoulder Diameter	Shoulder Diameter Max. to Min.	Head Diameter	Head Height	Drive Size	*Head Appearance
3	2.99 to 2.92	5.00	2.00	2	Knurl Only (Screws produced prior to 2/1/2021 may have finger-grip AMPG Mark only)
4	3.99 to 3.92	6.00	3.00	2	
5	4.99 to 4.92	9.00	4.00	2.5	
6	5.99 to 5.92	10.00	4.50	3	Head Mark Only
8	7.99 to 7.92	13.00	5.50	4	Head Mark and Knurl
10	9.99 to 9.92	16.00	7.00	5	
12	11.99 to 11.92	18.00	9.00	6	
16	15.99 to 15.92	24.00	11.00	8	

Head appearance may be knurled and/or head marked. 18-8 Stainless Steel is manufactured from Type 303 Stainless Steel Bar.



STR601M3X4-SHORT



### 3mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
3 x 4		STR601M3X4-SHORT	STR602M3X4-SHORT
3 x 5	M2 x 0.4 x 2.5	STR601M3X5-SHORT	STR602M3X5-SHORT
3 x 6		STR601M3X6-SHORT	STR602M3X6-SHORT
3 x 8		STR601M3X8-SHORT	STR602M3X8-SHORT
3 x 10	M2 x 0.4 x 2.5	STR601M3X10-SHORT	STR602M3X10-SHORT

#### Black Oxide

18-8 SS and 316 SS is available with black oxide plating option.

Add "-BX" to the end of the part number.

Chart continued on next page



## Shortened Thread Knurled Head – Metric

### 18-8 and 316 Stainless Steels – Hex Drive

- Shoulder diameters of 3, 4 and 6 meet our internal specification AMPG 2013 ZS.02.
- Nonstandard metric shoulder screws with thread lengths to fit shortened internal thread depth applications.

- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- 18-8 (A2) and 316 (A4) stainless steel screws adhere to environmental regulations established by European Union RoHS directive.



STR601M4X4-SHORT



STR601M5X4-SHORT

### 4mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
4 x 4	M3 x 0.5 x 3.8	STR601M4X4-SHORT	STR602M4X4-SHORT
4 x 5		STR601M4X5-SHORT	STR602M4X5-SHORT
4 x 6		STR601M4X6-SHORT	STR602M4X6-SHORT
4 x 8		STR601M4X8-SHORT	STR602M4X8-SHORT
4 x 10	M3 x 0.5 x 3.8	STR601M4X10-SHORT	STR602M4X10-SHORT
4 x 12		STR601M4X12-SHORT	STR602M4X12-SHORT
4 x 14		STR601M4X14-SHORT	STR602M4X14-SHORT
4 x 16		STR601M4X16-SHORT	STR602M4X16-SHORT
4 x 18	M3 x 0.5 x 3.8	STR601M4X18-SHORT	STR602M4X18-SHORT
4 x 20		STR601M4X20-SHORT	STR602M4X20-SHORT
4 x 25		STR601M4X25-SHORT	STR602M4X25-SHORT
4 x 30		STR601M4X30-SHORT	STR602M4X30-SHORT
4 x 35	M3 x 0.5 x 3.8	STR601M4X35-SHORT	STR602M4X35-SHORT
4 x 40		STR601M4X40-SHORT	STR602M4X40-SHORT
4 x 45		STR601M4X45-SHORT	STR602M4X45-SHORT
4 x 50		STR601M4X50-SHORT	STR602M4X50-SHORT

### 5mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
5 x 4	M4 x 0.7 x 4.5	STR601M5X4-SHORT	STR602M5X4-SHORT
5 x 5		STR601M5X5-SHORT	STR602M5X5-SHORT
5 x 6		STR601M5X6-SHORT	STR602M5X6-SHORT
5 x 8		STR601M5X8-SHORT	STR602M5X8-SHORT
5 x 10	M4 x 0.7 x 4.5	STR601M5X10-SHORT	STR602M5X10-SHORT
5 x 12		STR601M5X12-SHORT	STR602M5X12-SHORT
5 x 16		STR601M5X16-SHORT	STR602M5X16-SHORT
5 x 20		STR601M5X20-SHORT	STR602M5X20-SHORT
5 x 25	M4 x 0.7 x 4.5	STR601M5X25-SHORT	STR602M5X25-SHORT
5 x 30		STR601M5X30-SHORT	STR602M5X30-SHORT



STR601M6X4-SHORT

### 6mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
6 x 4	M5 x 0.8 x 8	STR601M6X4-SHORT	STR602M6X4-SHORT
6 x 5		STR601M6X5-SHORT	STR602M6X5-SHORT
6 x 6		STR601M6X6-SHORT	STR602M6X6-SHORT
6 x 7		STR601M6X7-SHORT	STR602M6X7-SHORT
6 x 8	M5 x 0.8 x 8	STR601M6X8-SHORT	STR602M6X8-SHORT
6 x 10		STR601M6X10-SHORT	STR602M6X10-SHORT
6 x 12		STR601M6X12-SHORT	STR602M6X12-SHORT
6 x 16		STR601M6X16-SHORT	STR602M6X16-SHORT
6 x 20	M5 x 0.8 x 8	STR601M6X20-SHORT	STR602M6X20-SHORT
6 x 25		STR601M6X25-SHORT	STR602M6X25-SHORT
6 x 30		STR601M6X30-SHORT	STR602M6X30-SHORT
6 x 40		STR601M6X40-SHORT	STR602M6X40-SHORT
6 x 50	M5 x 0.8 x 8	STR601M6X50-SHORT	STR602M6X50-SHORT
6 x 70		STR601M6X70-SHORT	STR602M6X70-SHORT



#### Black Oxide

18-8 SS and 316 SS is available with black oxide plating option.

Add "-BX" to the end of the part number.

Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-57

Alloy

## Shortened Thread Knurled Head — Metric

Alloy Steel — Hex Drive



STR700M6X4-SHORT



STR700M8X06-SHORT



STR700M10X06-SHORT

### 6mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
6 x 4		STR700M6X4-SHORT
6 x 5	M5 x 0.8 x 5	STR700M6X5-SHORT
6 x 6		STR700M6X6-SHORT
6 x 7		STR700M6X8-SHORT
6 x 8		STR700M6X10-SHORT
6 x 10	M5 x 0.8 x 5	STR700M6X12-SHORT
6 x 12		STR700M6X16-SHORT
6 x 16		STR700M6X20-SHORT
6 x 20		STR700M6X25-SHORT
6 x 25	M5 x 0.8 x 5	STR700M6X30-SHORT
6 x 30		STR700M6X40-SHORT
6 x 40		STR700M6X50-SHORT

### 8mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
8 x 6		STR700M8X06-SHORT
8 x 8	M6 x 1 x 6.5	STR700M8X08-SHORT
8 x 10		STR700M8X10-SHORT
8 x 12		STR700M8X12-SHORT
8 x 16		STR700M8X16-SHORT
8 x 20	M6 x 1 x 6.5	STR700M8X20-SHORT
8 x 25		STR700M8X25-SHORT
8 x 30		STR700M8X30-SHORT
8 x 40		STR700M8X40-SHORT
8 x 50	M6 x 1 x 6.5	STR700M8X50-SHORT

### 10mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
10 x 6		STR700M10X06-SHORT
10 x 8	M8 x 1.25 x 8	STR700M10X08-SHORT
10 x 10		STR700M10X10-SHORT
10 x 12		STR700M10X12-SHORT
10 x 16		STR700M10X16-SHORT
10 x 20	M8 x 1.25 x 8	STR700M10X20-SHORT
10 x 25		STR700M10X25-SHORT
10 x 30		STR700M10X30-SHORT
10 x 40		STR700M10X40-SHORT
10 x 50	M8 x 1.25 x 8	STR700M10X50-SHORT



STR700M12X06-SHORT



STR700M16X08-SHORT

### 12mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
12 x 6		STR700M12X06-SHORT
12 x 8	M10 x 1.5 x 9	STR700M12X08-SHORT
12 x 10		STR700M12X10-SHORT
12 x 12		STR700M12X12-SHORT
12 x 16		STR700M12X16-SHORT
12 x 20	M10 x 1.5 x 9	STR700M12X20-SHORT
12 x 25		STR700M12X25-SHORT
12 x 30		STR700M12X30-SHORT
12 x 40		STR700M12X40-SHORT
12 x 50	M10 x 1.5 x 9	STR700M12X50-SHORT

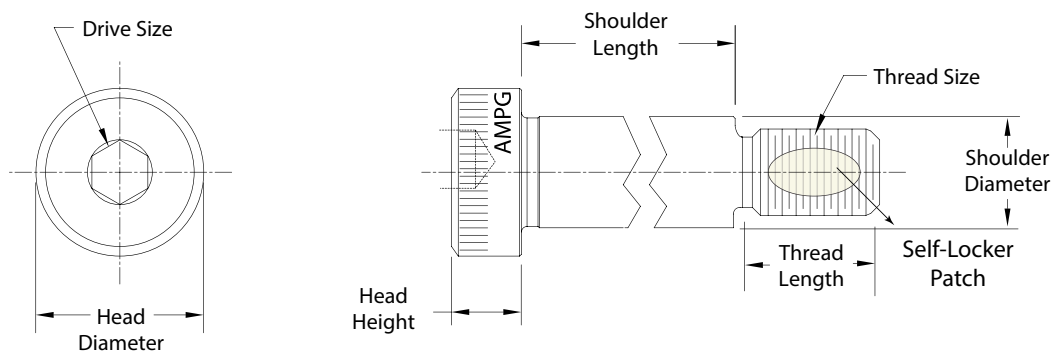
### 16mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Alloy Steel Part Number
16 x 8		STR700M16X08-SHORT
16 x 10	M12 x 1.75 x 12	STR700M16X10-SHORT
16 x 12		STR700M16X12-SHORT
16 x 16		STR700M16X16-SHORT
16 x 20		STR700M16X20-SHORT
16 x 25	M12 x 1.75 x 12	STR700M16X25-SHORT
16 x 30		STR700M16X30-SHORT
16 x 40		STR700M16X40-SHORT
16 x 50	M12 x 1.75 x 12	STR700M16X50-SHORT

## Self-Locker Knurled Head – Inch

Shoulder screws with AMPG Self-Locker adhesive securely lock against loosening from vibration. The pre-applied patch is a micro-encapsulated adhesive designed for threaded fasteners. Self-Locker stays dry-to-the-touch until the shearing action of engaging threads causes the capsules to break allowing the adhesive to cure. Sometimes referred to as a thread-locking and nylon-locking patch, self-locker adhesive on threads can be reused repeatedly without damage to threads. The patch resists heat and cold and withstands temperatures from -70°F to +250° F. Color is light yellow. AMPG Self-Locker is comparable to Loctite® Dry Lock 203 and Herson® Self-Locker 523.

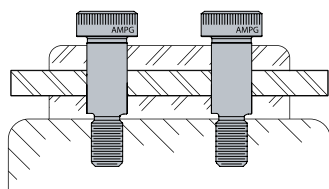
The diameter tolerance is -.002 to -.004 inches and the shoulder length tolerance is ±.005 inches. ASME tolerance shoulder screws have a Class 3A thread fit. \*Heads are knurled, stamped, or both to provide finger grip.



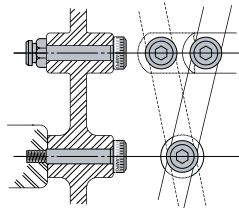
Dimensions and Tolerance Table – Inch

Shoulder Diameter	Shoulder Diameter Max. to Min.	Head Diameter	Head Height	Drive Size	*Head Appearance
1/8	.123 to .121	1/4	1/8	5/64	Knurl Only (Screws produced prior to 2/1/2021 may have finger-grip AMPG Mark only)
5/32	.154 to .152	9/32	1/8	3/32	
3/16	.185 to .183	5/16	5/32	3/32	
1/4	.248 to .246	3/8	3/16	1/8	
5/16	.310 to .308	7/16	7/32	5/32	Head Mark and Knurl
3/8	.373 to .371	9/16	1/4	3/16	
1/2	.498 to .496	3/4	5/16	1/4	
5/8	.623 to .621	7/8	3/8	5/16	Head Mark and Knurl
3/4	.748 to .746	1	1/2	3/8	

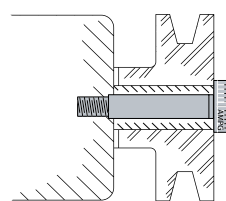
Head appearance may be knurled and/or head marked.  
18-8 Stainless Steel is manufactured from Type 303 Stainless Steel Bar.



Shoulder Screw as a Guide



Shoulder Screw as a Pivot Point



Shoulder Screw as a Shaft



To extend the shoulder length of a screw, spin a lengthening shim over the threads until it rests under the shoulder. To reduce the shoulder length of a screw, slide a shortening shim over the shoulder until it rests to underside of the head.

## Self-Locker Knurled Head – Inch

### 18-8 and 316 Stainless Steels with Self-Locker Patch – Hex Drive

- Shoulder diameters of 1/8, 5/32 and 3/16 meet our internal specification AMPG 2012 ZS.02.
- Shoulder diameters of 1/4 and larger meet or exceed ANSI/ASME B18.3.
- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- 18-8 and 316 stainless steel screws adhere to environmental regulations established by European Union RoHS directive.



STR60118C02-PATCH



STR60153C02-PATCH

#### 1/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
1/8 x 1/8	4-40 x 5/32	STR60118C02-PATCH	STR60218C02-PATCH
1/8 x 3/16		STR60118C03-PATCH	STR60218C03-PATCH
1/8 x 1/4		STR60118C04-PATCH	STR60218C04-PATCH
1/8 x 5/16		STR60118C05-PATCH	STR60218C05-PATCH
1/8 x 3/8	4-40 x 5/32	STR60118C06-PATCH	STR60218C06-PATCH
1/8 x 1/2		STR60118C08-PATCH	STR60218C08-PATCH
1/8 x 3/4		STR60118C12-PATCH	STR60218C12-PATCH
1/8 x 1		STR60118C16-PATCH	STR60218C16-PATCH

#### 5/32 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
5/32 x 1/8	6-32 x 3/16	STR60153C02-PATCH	STR60253C02-PATCH
5/32 x 3/16		STR60153C03-PATCH	STR60253C03-PATCH
5/32 x 1/4		STR60153C04-PATCH	STR60253C04-PATCH
5/32 x 5/16	6-32 x 3/16	STR60153C05-PATCH	STR60253C05-PATCH
5/32 x 3/8		STR60153C06-PATCH	STR60253C06-PATCH
5/32 x 1/2		STR60153C08-PATCH	STR60253C08-PATCH
5/32 x 3/4		STR60153C12-PATCH	STR60253C12-PATCH
5/32 x 1		STR60153C16-PATCH	STR60253C16-PATCH



STR60131C02-PATCH



STR60114C02-PATCH

#### 3/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
3/16 x 1/8	8-32 x 3/16	STR60131C02-PATCH	STR60231C02-PATCH
3/16 x 3/16		STR60131C03-PATCH	STR60231C03-PATCH
3/16 x 1/4		STR60131C04-PATCH	STR60231C04-PATCH
3/16 x 5/16		STR60131C05-PATCH	STR60231C05-PATCH
3/16 x 3/8	8-32 x 3/16	STR60131C06-PATCH	STR60231C06-PATCH
3/16 x 1/2		STR60131C08-PATCH	STR60231C08-PATCH
3/16 x 5/8		STR60131C10-PATCH	STR60231C10-PATCH
3/16 x 3/4		STR60131C12-PATCH	STR60231C12-PATCH
3/16 x 1		STR60131C16-PATCH	STR60231C16-PATCH

#### 1/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
1/4 x 1/8	10-24 x 3/8	STR60114C02-PATCH	STR60214C02-PATCH
1/4 x 1/4		STR60114C04-PATCH	STR60214C04-PATCH
1/4 x 3/8		STR60114C06-PATCH	STR60214C06-PATCH
1/4 x 1/2		STR60114C08-PATCH	STR60214C08-PATCH
1/4 x 5/8	10-24 x 3/8	STR60114C10-PATCH	STR60214C10-PATCH
1/4 x 3/4		STR60114C12-PATCH	STR60214C12-PATCH
1/4 x 1		STR60114C16-PATCH	STR60214C16-PATCH
1/4 x 1-1/4		STR60114C20-PATCH	STR60214C20-PATCH
1/4 x 1-1/2		STR60114C24-PATCH	STR60214C24-PATCH
1/4 x 1-3/4	10-24 x 3/8	STR60114C28-PATCH	STR60214C28-PATCH
1/4 x 2		STR60114C32-PATCH	STR60214C32-PATCH

Chart continued on next page

## Self-Locker Knurled Head – Inch



STR60151C02-PATCH



STR60138C04-PATCH

### 5/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
5/16 x 1/8		STR60151C02-PATCH	STR60251C02-PATCH
5/16 x 1/4	1/4-20 x 7/16	STR60151C04-PATCH	STR60251C04-PATCH
5/16 x 3/8		STR60151C06-PATCH	STR60251C06-PATCH
5/16 x 1/2		STR60151C08-PATCH	STR60251C08-PATCH
5/16 x 5/8		STR60151C10-PATCH	STR60251C10-PATCH
5/16 x 3/4	1/4-20 x 7/16	STR60151C12-PATCH	STR60251C12-PATCH
5/16 x 1		STR60151C16-PATCH	STR60251C16-PATCH
5/16 x 1-1/4		STR60151C20-PATCH	STR60251C20-PATCH
5/16 x 1-1/2		STR60151C24-PATCH	STR60251C24-PATCH
5/16 x 1-3/4	1/4-20 x 7/16	STR60151C28-PATCH	STR60251C28-PATCH
5/16 x 2		STR60151C32-PATCH	STR60251C32-PATCH

### 3/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
3/8 x 1/4		STR60138C04-PATCH	STR60238C04-PATCH
3/8 x 3/8	5/16-18 x 1/2	STR60138C06-PATCH	STR60238C06-PATCH
3/8 x 1/2		STR60138C08-PATCH	STR60238C08-PATCH
3/8 x 5/8		STR60138C10-PATCH	STR60238C10-PATCH
3/8 x 3/4		STR60138C12-PATCH	STR60238C12-PATCH
3/8 x 1	5/16-18 x 1/2	STR60138C16-PATCH	STR60238C16-PATCH
3/8 x 1-1/4		STR60138C20-PATCH	STR60238C20-PATCH
3/8 x 1-1/2		STR60138C24-PATCH	STR60238C24-PATCH
3/8 x 1-3/4	5/16-18 x 1/2	STR60138C28-PATCH	STR60238C28-PATCH
3/8 x 2		STR60138C32-PATCH	STR60238C32-PATCH



STR60158C08-PATCH



STR60112C04-PATCH

### 1/2 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
1/2 x 1/4		STR60112C04-PATCH	STR60212C04-PATCH
1/2 x 3/8	3/8-16 x 5/8	STR60112C06-PATCH	STR60212C06-PATCH
1/2 x 1/2		STR60112C08-PATCH	STR60212C08-PATCH
1/2 x 5/8		STR60112C10-PATCH	STR60212C10-PATCH
1/2 x 3/4		STR60112C12-PATCH	STR60212C12-PATCH
1/2 x 1	3/8-16 x 5/8	STR60112C16-PATCH	STR60212C16-PATCH
1/2 x 1-1/4		STR60112C20-PATCH	STR60212C20-PATCH
1/2 x 1-1/2		STR60112C24-PATCH	STR60212C24-PATCH
1/2 x 1-3/4		STR60112C28-PATCH	STR60212C28-PATCH
1/2 x 2	3/8-16 x 5/8	STR60112C32-PATCH	STR60212C32-PATCH
1/2 x 2-1/2		STR60112C40-PATCH	STR60212C40-PATCH

### 5/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
5/8 x 1/2		STR60158C08-PATCH	STR60258C08-PATCH
5/8 x 5/8	1/2-13 x 3/4	STR60158C10-PATCH	STR60258C10-PATCH
5/8 x 3/4		STR60158C12-PATCH	STR60258C12-PATCH
5/8 x 1		STR60158C16-PATCH	STR60258C16-PATCH
5/8 x 1-1/4		STR60158C20-PATCH	STR60258C20-PATCH
5/8 x 1-1/2	1/2-13 x 3/4	STR60158C24-PATCH	STR60258C24-PATCH
5/8 x 2		STR60158C32-PATCH	STR60258C32-PATCH



STR60134C16-PATCH

### 3/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
3/4 x 1		STR60134C16-PATCH	STR60234C16-PATCH
3/4 x 1-1/2	5/8-11 x 7/8	STR60134C24-PATCH	STR60234C24-PATCH
3/4 x 2		STR60134C32-PATCH	STR60234C32-PATCH

# Shoulder Screws

For technical drawings and charts, please see page B-2

18-8 SS  
Black Oxide

## Left Hand Threaded Knurled Head – Inch

### 18-8 Stainless Steel – Hex Drive

Tighten these shoulder screws by turning them to the left; once fastened, they resist loosening from counterclockwise motion and vibration. These fasteners are made in the USA with DFARS compliant material. Shoulder diameters of 1/8, 5/32 and 3/16 meet our internal specification AMPG 2013 LH.01. Shoulder diameters of 1/4 and larger meet or exceed ANSI/ASME B18.3. The diameter tolerance is -.002 to -.004 inches and the shoulder length tolerance is ±.005 inches. Screws have a Class 3A thread fit. Heads are knurled, stamped, or both to provide finger grip.



STR78818C02



STR78853C02



STR78831C02

### 1/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number
1/8 x 1/8		STR78818C02
1/8 x 3/16	4-40 x 5/32	STR78818C03
1/8 x 1/4		STR78818C04
1/8 x 3/8		STR78818C06
1/8 x 1/2	4-40 x 5/32	STR78818C08

### 5/32 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number
5/32 x 1/8		STR78853C02
5/32 x 3/16	6-32 x 3/16	STR78853C03
5/32 x 1/4		STR78853C04
5/32 x 3/8		STR78853C06
5/32 x 1/2	6-32 x 3/16	STR78853C08

### 3/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number
3/16 x 1/8		STR78831C02
3/16 x 3/16	8-32 x 3/16	STR78831C03
3/16 x 1/4		STR78831C04
3/16 x 3/8		STR78831C06
3/16 x 1/2		STR78831C08
3/16 x 3/4	8-32 x 3/16	STR78831C12
3/16 x 1		STR78831C16



STR78814C04



STR78851C04



STR78838C08

### 1/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number
1/4 x 1/4		STR78814C04
1/4 x 3/8	10-24 x 3/8	STR78814C06
1/4 x 1/2		STR78814C08
1/4 x 5/8		STR78814C10
1/4 x 3/4	10-24 x 3/8	STR78814C12
1/4 x 1		STR78814C16

### 5/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number
5/16 x 1/4		STR78851C04
5/16 x 3/8	1/4-20 x 7/16	STR78851C06
5/16 x 1/2		STR78851C08
5/16 x 5/8		STR78851C10
5/16 x 3/4	1/4-20 x 7/16	STR78851C12
5/16 x 1		STR78851C16

### 3/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number
3/8 x 1/2		STR78838C08
3/8 x 3/4	5/16-18 x 1/2	STR78838C12
3/8 x 1		STR78838C16
3/8 x 1-1/2		STR78838C24
3/8 x 2	5/16-18 x 1/2	STR78838C32



STR78812C08



#### Black Oxide

18-8 SS is available with black oxide plating option.

Add "-BX" to the end of the part number.

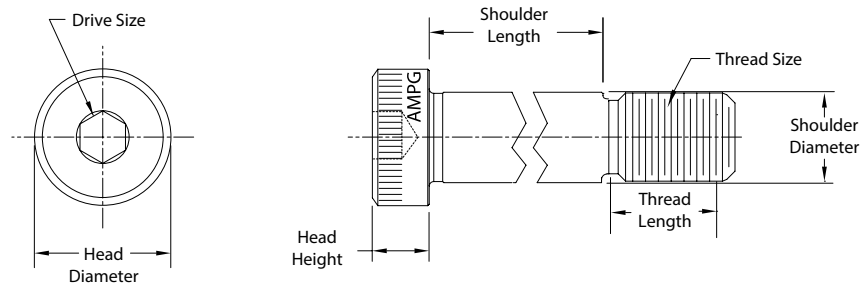


## Oversized Thread Knurled Head – Inch

### 18-8 Stainless Steel, 316 Stainless Steel, and Alloy Steel – Hex Drive

These screws are also known as Same-Sized Thread Shoulder Screws. With threads the same size as the shoulder, these screws offer higher strength properties than standard sized shoulder screws. Made in the USA with DFARS compliant material, each screw is manufactured in one complete operation, which produces a tightly controlled consistent and concentric product. Dimensions are based on shoulder diameter and meet or exceed ANSI/ASME B18.3. The diameter tolerance is -.002 to -.004 inches and the shoulder length tolerance is  $\pm .005$  inches. 18-8 and 316 stainless steel screws have a Class 2A thread fit. Alloy screws have a Class 3A thread fit and has a black-oxide finish.

\*Heads are knurled, stamped, or both to provide finger grip.



Dimensions and Tolerance Table – Inch

Shoulder Diameter	Shoulder Diameter Max. to Min.	Head Diameter	Head Height	Drive Size	*Head Appearance
1/8	.123 to .121	1/4	1/8	5/64	Knurl Only (Screws produced prior to 2/1/2021 may have finger-grip AMPG Mark only)
3/16	.185 to .183	5/16	5/32	3/32	
1/4	.248 to .246	3/8	3/16	1/8	
5/16	.310 to .308	7/16	7/32	5/32	Head Mark and Knurl
3/8	.373 to .371	9/16	1/4	3/16	
1/2	.498 to .496	3/4	5/16	1/4	
5/8	.623 to .621	7/8	3/8	5/16	
3/4	.748 to .746	1	1/2	3/8	Head Mark and Knurl
1	.998 to .996	1-5/16	5/8	1/2	

Head appearance may be knurled and/or head marked. 18-8 Stainless Steel is manufactured from Type 303 Stainless Steel Bar.



STR60118C02-OST

### 1/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	18-8 SS, Black Ox. Part Number	316 SS Part Number	Alloy Steel* Part Number
1/8 x 1/8		STR60118C02-OST	STR60118C02-OST-BX	–	–
1/8 x 3/16	5-40 x 5/32	STR60118C03-OST	STR60118C03-OST-BX	STR60218C03-OST	STR70018C03-OST
1/8 x 1/4		STR60118C04-OST	STR60118C04-OST-BX	STR60218C04-OST	STR70018C04-OST
1/8 x 5/16		STR60118C05-OST	STR60118C05-OST-BX	–	–
1/8 x 3/8		STR60118C06-OST	STR60118C06-OST-BX	STR60218C06-OST	STR70018C06-OST
1/8 x 1/2	5-40 x 5/32	STR60118C08-OST	STR60118C08-OST-BX	STR60218C08-OST	STR70018C08-OST
1/8 x 5/8		STR60118C10-OST	STR60118C10-OST-BX	STR60218C10-OST	STR70018C10-OST
1/8 x 3/4		STR60118C12-OST	STR60118C12-OST-BX	STR60218C12-OST	STR70018C12-OST
1/8 x 1	5-40 x 5/32	STR60118C16-OST	STR60118C16-OST-BX	STR60218C16-OST	STR70018C16-OST

# Shoulder Screws

For technical drawings and charts, please see page B-64

18-8 SS, 316 SS,  
Alloy

## Oversized Thread Knurled Head — Inch

### 18-8 Stainless Steel, 316 Stainless Steel, and Alloy — Hex Drive

- Shoulder diameters of 1/4, 5/16, 3/8 and 1/2 meet our internal specification AMPG 2013 OT.01.
- All dimensions are based on shoulder diameter and meet or exceed ANSI/ASME B18.3.
- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- 18-8 and 316 stainless steel screws adhere to environmental regulations established by European Union RoHS directive.



STR60131C02-OST

### 3/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	18-8 SS, Black Ox. Part Number	316 SS Part Number	Alloy Steel* Part Number
3/16 x 1/8		STR60131C02-OST	STR60131C02-OST-BX	—	—
3/16 x 3/16	10-24 x 3/16	STR60131C03-OST	STR60131C03-OST-BX	STR60231C03-OST	STR70031C03-OST
3/16 x 1/4		STR60131C04-OST	STR60131C04-OST-BX	STR60231C04-OST	STR70031C04-OST
3/16 x 5/16		STR60131C05-OST	STR60131C05-OST-BX	—	—
3/16 x 1/8		STR60131F02-OST	STR60131F02-OST-BX	—	—
3/16 x 3/16	10-32 x 3/16	STR60131F03-OST	STR60131F03-OST-BX	STR60231F03-OST	—
3/16 x 1/4		STR60131F04-OST	STR60131F04-OST-BX	STR60231F04-OST	—
3/16 x 5/16		STR60131F05-OST	STR60131F05-OST-BX	—	—
3/16 x 3/8		STR60131C06-OST	STR60131C06-OST-BX	STR60231C06-OST	STR70031C06-OST
3/16 x 1/2	10-24 x 3/16	STR60131C08-OST	STR60131C08-OST-BX	STR60231C08-OST	STR70031C08-OST
3/16 x 5/8		STR60131C10-OST	STR60131C10-OST-BX	STR60231C10-OST	STR70031C10-OST
3/16 x 3/4		STR60131C12-OST	STR60131C12-OST-BX	STR60231C12-OST	STR70031C12-OST
3/16 x 3/8		STR60131F06-OST	STR60131F06-OST-BX	STR60231F06-OST	—
3/16 x 1/2	10-32 x 3/16	STR60131F08-OST	STR60131F08-OST-BX	STR60231F08-OST	—
3/16 x 5/8		STR60131F10-OST	STR60131F10-OST-BX	STR60231F10-OST	—
3/16 x 3/4		STR60131F12-OST	STR60131F12-OST-BX	STR60231F12-OST	—
3/16 x 1		STR60131C16-OST	STR60131C16-OST-BX	STR60231C16-OST	STR70031C16-OST
3/16 x 1-1/4	10-24 x 3/16	STR60131C20-OST	STR60131C20-OST-BX	—	—
3/16 x 1-1/2		STR60131C24-OST	STR60131C24-OST-BX	STR60231C24-OST	STR70031C24-OST
3/16 x 1-3/4		STR60131C28-OST	STR60131C28-OST-BX	—	—
3/16 x 1		STR60131F16-OST	STR60131F16-OST-BX	STR60231F16-OST	—
3/16 x 1-1/4	10-32 x 3/16	STR60131F20-OST	STR60131F20-OST-BX	—	—
3/16 x 1-1/2		STR60131F24-OST	STR60131F24-OST-BX	—	—
3/16 x 1-3/4		STR60131F28-OST	STR60131F28-OST-BX	—	—
3/16 x 2		STR60131C32-OST	STR60131C32-OST-BX	STR60231C32-OST	STR70031C32-OST
3/16 x 2-1/2	10-24 x 3/16	STR60131C40-OST	STR60131C40-OST-BX	—	—
3/16 x 2		STR60131F32-OST	STR60131F32-OST-BX	—	—
3/16 x 2-1/2	10-32 x 3/16	STR60131F40-OST	STR60131F40-OST-BX	—	—

\*Alloy Steel screws have a Class 3A thread fit.

Chart continued on next page

## Oversized Thread Knurled Head – Inch



STR60114C02-OST

## 1/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	18-8 SS, Black Ox. Part Number	316 SS Part Number	Alloy Steel* Part Number
1/4 x 1/8		STR60114C02-OST	STR60114C02-OST-BX	STR60214C02-OST	STR70014C02-OST
1/4 x 1/4	1/4-20 x 3/8	STR60114C04-OST	STR60114C04-OST-BX	STR60214C04-OST	STR70014C04-OST
1/4 x 5/16		STR60114C05-OST	STR60114C05-OST-BX	–	STR70014C05-OST
1/4 x 3/8		STR60114C06-OST	STR60114C06-OST-BX	STR60214C06-OST	STR70014C06-OST
1/4 x 1/8	1/4-28 x 3/8	STR60114F02-OST	STR60114F02-OST-BX	–	–
1/4 x 1/4		STR60114F04-OST	STR60114F04-OST-BX	–	–
1/4 x 5/16		STR60114F05-OST	STR60114F05-OST-BX	–	–
1/4 x 3/8		STR60114F06-OST	STR60114F06-OST-BX	–	–
1/4 x 1/2	1/4-20 x 3/8	STR60114C08-OST	STR60114C08-OST-BX	STR60214C08-OST	STR70014C08-OST
1/4 x 5/8		STR60114C10-OST	STR60114C10-OST-BX	STR60214C10-OST	STR70014C10-OST
1/4 x 3/4		STR60114C12-OST	STR60114C12-OST-BX	STR60214C12-OST	STR70014C12-OST
1/4 x 1		STR60114C16-OST	STR60114C16-OST-BX	STR60214C16-OST	STR70014C16-OST
1/4 x 1/2	1/4-28 x 3/8	STR60114F08-OST	STR60114F08-OST-BX	–	–
1/4 x 5/8		STR60114F10-OST	STR60114F10-OST-BX	–	–
1/4 x 3/4		STR60114F12-OST	STR60114F12-OST-BX	–	–
1/4 x 1		STR60114F16-OST	STR60114F16-OST-BX	–	–
1/4 x 1-1/4	1/4-20 x 3/8	STR60114C20-OST	STR60114C20-OST-BX	STR60214C20-OST	STR70014C20-OST
1/4 x 1-1/2		STR60114C24-OST	STR60114C24-OST-BX	STR60214C24-OST	STR70014C24-OST
1/4 x 1-3/4		STR60114C28-OST	STR60114C28-OST-BX	STR60214C28-OST	STR70014C28-OST
1/4 x 2		STR60114C32-OST	STR60114C32-OST-BX	STR60214C32-OST	STR70014C32-OST
1/4 x 1-1/4	1/4-28 x 3/8	STR60114F20-OST	STR60114F20-OST-BX	–	–
1/4 x 1-1/2		STR60114F24-OST	STR60114F24-OST-BX	–	–
1/4 x 1-3/4		STR60114F28-OST	STR60114F28-OST-BX	–	–
1/4 x 2		STR60114F32-OST	STR60114F32-OST-BX	–	–
1/4 x 2-1/4	1/4-20 x 3/8	STR60114C36-OST	STR60114C36-OST-BX	–	–
1/4 x 2-1/2		STR60114C40-OST	STR60114C40-OST-BX	STR60214C40-OST	STR70014C40-OST
1/4 x 2-3/4		STR60114C44-OST	STR60114C44-OST-BX	–	–
1/4 x 3		STR60114C48-OST	STR60114C48-OST-BX	STR60214C48-OST	STR70014C48-OST
1/4 x 3-1/2	1/4-20 x 3/8	STR60114C56-OST	STR60114C56-OST-BX	STR60214C56-OST	STR70014C56-OST
1/4 x 4		STR60114C64-OST	STR60114C64-OST-BX	STR60214C64-OST	STR70014C64-OST

\*Alloy Steel screws have a Class 3A thread fit.

Chart continued on next page

## Oversized Thread Knurled Head — Inch



STR60151C04-OST

### 5/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	18-8 SS, Black Ox. Part Number	316 SS Part Number	Alloy Steel* Part Number
5/16 x 1/4	5/16-18 x 7/16	STR60151C04-OST	STR60151C04-OST-BX	STR60251C04-OST	STR70051C04-OST
5/16 x 3/8		STR60151C06-OST	STR60151C06-OST-BX	STR60251C06-OST	STR70051C06-OST
5/16 x 1/2		STR60151C08-OST	STR60151C08-OST-BX	STR60251C08-OST	STR70051C08-OST
5/16 x 5/8		STR60151C10-OST	STR60151C10-OST-BX	STR60251C10-OST	STR70051C10-OST
5/16 x 1/4	5/16-24 x 7/16	STR60151F04-OST	STR60151F04-OST-BX	—	—
5/16 x 3/8		STR60151F06-OST	STR60151F06-OST-BX	—	—
5/16 x 1/2		STR60151F08-OST	STR60151F08-OST-BX	—	—
5/16 x 5/8		STR60151F10-OST	STR60151F10-OST-BX	—	—
5/16 x 3/4	5/16-18 x 7/16	STR60151C12-OST	STR60151C12-OST-BX	STR60251C12-OST	STR70051C12-OST
5/16 x 1		STR60151C16-OST	STR60151C16-OST-BX	STR60251C16-OST	STR70051C16-OST
5/16 x 1-1/4		STR60151C20-OST	STR60151C20-OST-BX	STR60251C20-OST	STR70051C20-OST
5/16 x 1-1/2		STR60151C24-OST	STR60151C24-OST-BX	STR60251C24-OST	STR70051C24-OST
5/16 x 3/4	5/16-24 x 7/16	STR60151F12-OST	STR60151F12-OST-BX	—	—
5/16 x 1		STR60151F16-OST	STR60151F16-OST-BX	—	—
5/16 x 1-1/4		STR60151F20-OST	STR60151F20-OST-BX	—	—
5/16 x 1-1/2		STR60151F24-OST	STR60151F24-OST-BX	—	—
5/16 x 1-3/4	5/16-18 x 7/16	STR60151C28-OST	STR60151C28-OST-BX	STR60251C28-OST	STR70051C28-OST
5/16 x 2		STR60151C32-OST	STR60151C32-OST-BX	STR60251C32-OST	STR70051C32-OST
5/16 x 1-3/4	5/16-24 x 7/16	STR60151F28-OST	STR60151F28-OST-BX	—	—
5/16 x 2		STR60151F32-OST	STR60151F32-OST-BX	—	—
5/16 x 2-1/4	5/16-18 x 7/16	STR60151C36-OST	STR60151C36-OST-BX	—	—
5/16 x 2-1/2		STR60151C40-OST	STR60151C40-OST-BX	STR60251C40-OST	STR70051C40-OST
5/16 x 2-3/4		STR60151C44-OST	STR60151C44-OST-BX	—	—
5/16 x 3		STR60151C48-OST	STR60151C48-OST-BX	STR60251C48-OST	STR70051C48-OST
5/16 x 3-1/2	5/16-18 x 7/16	STR60151C56-OST	STR60151C56-OST-BX	STR60251C56-OST	STR70051C56-OST
5/16 x 4		STR60151C64-OST	STR60151C64-OST-BX	STR60251C64-OST	STR70051C64-OST
5/16 x 4-1/2		STR60151C72-OST	STR60151C72-OST-BX	STR60251C72-OST	STR70051C72-OST
5/16 x 5		STR60151C80-OST	STR60151C80-OST-BX	STR60251C80-OST	STR70051C80-OST
5/16 x 6	5/16-18 x 7/16	STR60151C96-OST	STR60151C96-OST-BX	STR60251C96-OST	STR70051C96-OST

\*Alloy Steel screws have a Class 3A thread fit.

Chart continued on next page

## Oversized Thread Knurled Head – Inch



STR60138C02-OST

### 3/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	18-8 SS, Black Ox. Part Number	316 SS Part Number	Alloy Steel* Part Number
3/8 x 1/8		STR60138C02-OST	STR60138C02-OST-BX	—	—
3/8 x 1/4	3/8-16 x 1/2	STR60138C04-OST	STR60138C04-OST-BX	STR60238C04-OST	STR70038C04-OST
3/8 x 5/16		STR60138C05-OST	STR60138C05-OST-BX	—	—
3/8 x 3/8		STR60138C06-OST	STR60138C06-OST-BX	STR60238C06-OST	STR70038C06-OST
3/8 x 1/8	3/8-24 x 1/2	STR60138F02-OST	STR60138F02-OST-BX	—	—
3/8 x 1/4		STR60138F04-OST	STR60138F04-OST-BX	—	—
3/8 x 5/16		STR60138F05-OST	STR60138F05-OST-BX	—	—
3/8 x 3/8		STR60138F06-OST	STR60138F06-OST-BX	—	—
3/8 x 1/2	3/8-16 x 1/2	STR60138C08-OST	STR60138C08-OST-BX	STR60238C08-OST	STR70038C08-OST
3/8 x 5/8		STR60138C10-OST	STR60138C10-OST-BX	STR60238C10-OST	STR70038C10-OST
3/8 x 3/4		STR60138C12-OST	STR60138C12-OST-BX	STR60238C12-OST	STR70038C12-OST
3/8 x 1		STR60138C16-OST	STR60138C16-OST-BX	STR60238C16-OST	STR70038C16-OST
3/8 x 1/2	3/8-24 x 1/2	STR60138F08-OST	STR60138F08-OST-BX	—	—
3/8 x 5/8		STR60138F10-OST	STR60138F10-OST-BX	—	—
3/8 x 3/4		STR60138F12-OST	STR60138F12-OST-BX	—	—
3/8 x 1		STR60138F16-OST	STR60138F16-OST-BX	—	—
3/8 x 1-1/4	3/8-16 x 1/2	STR60138C20-OST	STR60138C20-OST-BX	STR60238C20-OST	STR70038C20-OST
3/8 x 1-1/2		STR60138C24-OST	STR60138C24-OST-BX	STR60238C24-OST	STR70038C24-OST
3/8 x 1-3/4		STR60138C28-OST	STR60138C28-OST-BX	STR60238C28-OST	STR70038C28-OST
3/8 x 2		STR60138C32-OST	STR60138C32-OST-BX	STR60238C32-OST	STR70038C32-OST
3/8 x 1-1/4	3/8-24 x 1/2	STR60138F20-OST	STR60138F20-OST-BX	—	—
3/8 x 1-1/2		STR60138F24-OST	STR60138F24-OST-BX	—	—
3/8 x 1-3/4		STR60138F28-OST	STR60138F28-OST-BX	—	—
3/8 x 2		STR60138F32-OST	STR60138F32-OST-BX	—	—
3/8 x 2-1/4	3/8-16 x 1/2	STR60138C36-OST	STR60138C36-OST-BX	—	—
3/8 x 2-1/2		STR60138C40-OST	STR60138C40-OST-BX	STR60238C40-OST	STR70038C40-OST
3/8 x 2-3/4		STR60138C44-OST	STR60138C44-OST-BX	—	—
3/8 x 3		STR60138C48-OST	STR60138C48-OST-BX	STR60238C48-OST	STR70038C48-OST
3/8 x 3-1/2		STR60138C56-OST	STR60138C56-OST-BX	STR60238C56-OST	STR70038C56-OST
3/8 x 4	3/8-16 x 1/2	STR60138C64-OST	STR60138C64-OST-BX	STR60238C64-OST	STR70038C64-OST
3/8 x 4-1/2		STR60138C72-OST	STR60138C72-OST-BX	STR60238C72-OST	STR70038C72-OST
3/8 x 5		STR60138C80-OST	STR60138C80-OST-BX	STR60238C80-OST	STR70038C80-OST
3/8 x 6	3/8-16 x 1/2	STR60138C96-OST	STR60138C96-OST-BX	STR60238C96-OST	STR70038C96-OST

\*Alloy Steel screws have a Class 3A thread fit.

Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-64

18-8 SS, 316 SS,  
Alloy

## Oversized Thread Knurled Head — Inch



STR60112C04-OST

### 1/2 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	18-8 SS, Black Ox. Part Number	316 SS Part Number	Alloy Steel* Part Number
1/2 x 1/4		STR60112C04-OST	STR60112C04-OST-BX	STR60212C04-OST	STR70012C04-OST
1/2 x 5/16	1/2-13 x 5/8	STR60112C05-OST	STR60112C05-OST-BX	—	—
1/2 x 3/8		STR60112C06-OST	STR60112C06-OST-BX	STR60212C06-OST	STR70012C06-OST
1/2 x 1/2		STR60112C08-OST	STR60112C08-OST-BX	STR60212C08-OST	STR70012C08-OST
1/2 x 5/8		STR60112C10-OST	STR60112C10-OST-BX	STR60212C10-OST	STR70012C10-OST
1/2 x 3/4	1/2-13 x 5/8	STR60112C12-OST	STR60112C12-OST-BX	STR60212C12-OST	STR70012C12-OST
1/2 x 1		STR60112C16-OST	STR60112C16-OST-BX	STR60212C16-OST	STR70012C16-OST
1/2 x 1-1/4		STR60112C20-OST	STR60112C20-OST-BX	STR60212C20-OST	STR70012C20-OST
1/2 x 1-1/2		STR60112C24-OST	STR60112C24-OST-BX	STR60212C24-OST	STR70012C24-OST
1/2 x 1-3/4	1/2-13 x 5/8	STR60112C28-OST	STR60112C28-OST-BX	STR60212C28-OST	STR70012C28-OST
1/2 x 2		STR60112C32-OST	STR60112C32-OST-BX	STR60212C32-OST	STR70012C32-OST
1/2 x 2-1/4		STR60112C36-OST	STR60112C36-OST-BX	—	—
1/2 x 2-1/2		STR60112C40-OST	STR60112C40-OST-BX	STR60212C40-OST	STR70012C40-OST
1/2 x 2-3/4	1/2-13 x 5/8	STR60112C44-OST	STR60112C44-OST-BX	—	—
1/2 x 3		STR60112C48-OST	STR60112C48-OST-BX	STR60212C48-OST	STR70012C48-OST
1/2 x 3-1/2		STR60112C56-OST	STR60112C56-OST-BX	STR60212C56-OST	STR70012C56-OST
1/2 x 4		STR60112C64-OST	STR60112C64-OST-BX	STR60212C64-OST	STR70012C64-OST
1/2 x 4-1/2	1/2-13 x 5/8	STR60112C72-OST	STR60112C72-OST-BX	STR60212C72-OST	STR70012C72-OST
1/2 x 5		STR60112C80-OST	STR60112C80-OST-BX	STR60212C80-OST	STR70012C80-OST
1/2 x 5-1/2		STR60112C88-OST	STR60112C88-OST-BX	STR60212C88-OST	STR70012C88-OST
1/2 x 6	1/2-13 x 5/8	STR60112C96-OST	STR60112C96-OST-BX	STR60212C96-OST	STR70012C96-OST

\*Alloy Steel screws have a Class 3A thread fit.

Chart continued on next page



## Oversized Thread Knurled Head — Inch



STR60158C05-OST

### 5/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	18-8 SS, Black Ox. Part Number	316 SS Part Number	Alloy Steel* Part Number
5/8 x 5/16		STR60158C05-OST	STR60158C05-OST-BX	—	—
5/8 x 3/8	5/8-11 x 3/4	STR60158C06-OST	STR60158C06-OST-BX	STR60258C06-OST	STR70058C06-OST
5/8 x 1/2		STR60158C08-OST	STR60158C08-OST-BX	STR60258C08-OST	STR70058C08-OST
5/8 x 5/8		STR60158C10-OST	STR60158C10-OST-BX	—	—
5/8 x 3/4		STR60158C12-OST	STR60158C12-OST-BX	STR60258C12-OST	STR70058C12-OST
5/8 x 7/8	5/8-11 x 3/4	STR60158C14-OST	STR60158C14-OST-BX	—	—
5/8 x 1		STR60158C16-OST	STR60158C16-OST-BX	STR60258C16-OST	STR70058C16-OST
5/8 x 1-1/4		STR60158C20-OST	STR60158C20-OST-BX	STR60258C20-OST	STR70058C20-OST
5/8 x 1-3/8		STR60158C22-OST	STR60158C22-OST-BX	—	—
5/8 x 1-1/2	5/8-11 x 3/4	STR60158C24-OST	STR60158C24-OST-BX	STR60258C24-OST	STR70058C24-OST
5/8 x 1-3/4		STR60158C28-OST	STR60158C28-OST-BX	—	—
5/8 x 2		STR60158C32-OST	STR60158C32-OST-BX	STR60258C32-OST	—
5/8 x 2-1/4		STR60158C36-OST	STR60158C36-OST-BX	—	—
5/8 x 2-1/2	5/8-11 x 3/4	STR60158C40-OST	STR60158C40-OST-BX	STR60258C40-OST	—
5/8 x 2-3/4		STR60158C44-OST	STR60158C44-OST-BX	STR60258C44-OST	—
5/8 x 3		STR60158C48-OST	STR60158C48-OST-BX	STR60258C48-OST	—
5/8 x 3-1/2		STR60158C56-OST	STR60158C56-OST-BX	STR60258C56-OST	—
5/8 x 4	5/8-11 x 3/4	STR60158C64-OST	STR60158C64-OST-BX	STR60258C64-OST	—
5/8 x 4-1/2		STR60158C72-OST	STR60158C72-OST-BX	STR60258C72-OST	—
5/8 x 5		STR60158C80-OST	STR60158C80-OST-BX	STR60258C80-OST	—
5/8 x 5-1/2	5/8-11 x 3/4	STR60158C88-OST	STR60158C88-OST-BX	STR60258C88-OST	—
5/8 x 6		STR60158C96-OST	STR60158C96-OST-BX	STR60258C96-OST	—

Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-64

18-8 SS, 316 SS,  
Alloy

## Oversized Thread Knurled Head — Inch



STR60134C08-OST

### 3/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	18-8 SS, Black Ox. Part Number	316 SS Part Number	Alloy Steel* Part Number
3/4 x 1/2		STR60134C08-OST	STR60134C08-OST-BX	STR60234C08-OST	STR70034C08-OST
3/4 x 5/8	3/4-10 x 7/8	STR60134C10-OST	STR60134C10-OST-BX	STR60234C10-OST	STR70034C10-OST
3/4 x 3/4		STR60134C12-OST	STR60134C12-OST-BX	STR60234C12-OST	STR70034C12-OST
3/4 x 1		STR60134C16-OST	STR60134C16-OST-BX	STR60234C16-OST	STR70034C16-OST
3/4 x 1-1/4		STR60134C20-OST	STR60134C20-OST-BX	—	—
3/4 x 1-1/2	3/4-10 x 7/8	STR60134C24-OST	STR60134C24-OST-BX	STR60234C24-OST	STR70034C24-OST
3/4 x 1-3/4		STR60134C28-OST	STR60134C28-OST-BX	STR60234C28-OST	—
3/4 x 2		STR60134C32-OST	STR60134C32-OST-BX	STR60234C32-OST	STR70034C32-OST
3/4 x 2-1/4		STR60134C36-OST	STR60134C36-OST-BX	STR60234C36-OST	—
3/4 x 2-1/2	3/4-10 x 7/8	STR60134C40-OST	STR60134C40-OST-BX	STR60234C40-OST	STR70034C40-OST
3/4 x 2-3/4		STR60134C44-OST	STR60134C44-OST-BX	—	—
3/4 x 3		STR60134C48-OST	STR60134C48-OST-BX	STR60234C48-OST	STR70034C48-OST
3/4 x 3-1/2		STR60134C56-OST	STR60134C56-OST-BX	STR60234C56-OST	STR70034C56-OST
3/4 x 4	3/4-10 x 7/8	STR60134C64-OST	STR60134C64-OST-BX	STR60234C64-OST	STR70034C64-OST
3/4 x 4-1/2		STR60134C72-OST	STR60134C72-OST-BX	STR60234C72-OST	STR70034C72-OST
3/4 x 5		STR60134C80-OST	STR60134C80-OST-BX	STR60234C80-OST	STR70034C80-OST
3/4 x 5-1/2	3/4-10 x 7/8	STR60134C88-OST	STR60134C88-OST-BX	—	—
3/4 x 6		STR60134C96-OST	STR60134C96-OST-BX	STR60234C96-OST	STR70034C96-OST



STR60101C16-OST

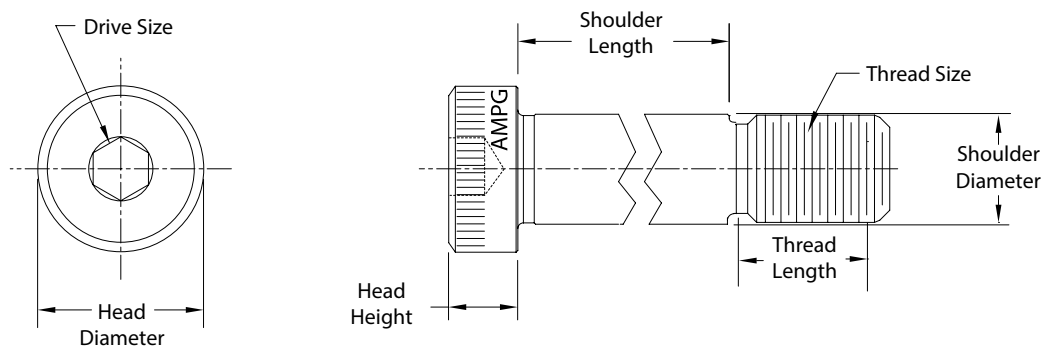
### 1 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	18-8 SS, Black Ox. Part Number	316 SS Part Number	Alloy Steel* Part Number
1 x 1		STR60101C16-OST	STR60101C16-OST-BX	STR60201C16-OST	STR70001C16-OST
1 x 1-1/2	1-8 x 1	STR60101C24-OST	STR60101C24-OST-BX	STR60201C24-OST	STR70001C24-OST
1 x 1-3/4		STR60101C28-OST	STR60101C28-OST-BX	—	—
1 x 2		STR60101C32-OST	STR60101C32-OST-BX	STR60201C32-OST	STR70001C32-OST
1 x 2-1/2		STR60101C40-OST	STR60101C40-OST-BX	STR60201C40-OST	STR70001C40-OST
1 x 3	1-8 x 1	STR60101C48-OST	STR60101C48-OST-BX	STR60201C48-OST	STR70001C48-OST
1 x 3-1/2		STR60101C56-OST	STR60101C56-OST-BX	—	—
1 x 4		STR60101C64-OST	STR60101C64-OST-BX	—	—
1 x 5	1-8 x 1	STR60101C80-OST	STR60101C80-OST-BX	—	—
1 x 6		STR60101C96-OST	STR60101C96-OST-BX	—	—

## Oversized Thread Knurled Head – Metric

18-8 Stainless Steel (A2), 316 Stainless Steel (A4), and Alloy Steel

These shoulder screws are also known as Same-Sized Thread Shoulder Screws. With threads the same size as the shoulder, these screws offer higher strength properties than standard sized shoulder screws. Made in the USA with DFARS compliant material, each screw is manufactured in one complete operation, which produces a tightly controlled consistent and concentric product. Dimensions are based on shoulder diameter and meet or exceed ANSI/ASME B18.3. The diameter tolerance is  $-0.01\text{mm}$  to  $-0.04\text{mm}$  and the shoulder length tolerance is  $+0.25\text{mm}$  to  $-0.0\text{mm}$ . Screws have a Class 5g6g thread fit. Alloy Steel screws have a Class 6g thread fit and has a black-oxide finish. \*Heads are knurled, stamped, or both to provide finger grip.



**Dimensions and Tolerance Table – Metric, mm**

Shoulder Diameter	Shoulder Diameter Max. to Min.	Head Diameter	Head Height	Drive Size	*Head Appearance
3	2.99 to 2.96	5.00	2.00	2	Knurl Only (Screws produced prior to 2/1/2021 may have finger-grip AMPG Mark only)
4	3.99 to 3.96	6.00	3.00	2	
5	4.99 to 4.96	9.00	4.00	2.5	
6	5.99 to 5.96	10.00	4.50	3	Head Mark Only
8	7.99 to 7.96	13.00	5.50	4	Head Mark and Knurl
10	9.99 to 9.96	16.00	7.00	5	
12	11.99 to 11.96	18.00	9.00	6	
16	15.99 to 15.96	24.00	11.00	8	
20	19.99 to 19.96	30.00	14.00	10	

Head appearance may be knurled and/or head marked. 18-8 Stainless Steel is manufactured from Type 303 Stainless Steel Bar.

# Shoulder Screws

For technical drawings and charts, please see page B-72

18-8 SS (A2), 316 SS (A4),  
Alloy

## Oversized Thread Knurled Head – Metric

### 18-8 Stainless Steel (A2), 316 Stainless Steel (A4), and Alloy Steel – Hex Drive

- Shoulder diameters of 6, 8, 10 and 12mm meet our internal specification AMPG 2013 OT.02.
- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- 18-8 (A2) and 316 (A4) stainless steel screws adhere to environmental regulations established by European Union RoHS directive.



STR601M3X4-OST

### 3mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	18-8 SS, Black Ox. Part Number	Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	18-8 SS, Black Ox. Part Number
3 x 4	M3 x 0.5 x 4	STR601M3X4-OST	STR601M3X4-OST-B	3 x 18	M3 x 0.5 x 4	STR601M3X18-OST	STR601M3X18-OST-B
3 x 5		STR601M3X5-OST	STR601M3X5-OST-B	3 x 19		STR601M3X19-OST	STR601M3X19-OST-B
3 x 6		STR601M3X6-OST	STR601M3X6-OST-B	3 x 20		STR601M3X20-OST	STR601M3X20-OST-B
3 x 7		STR601M3X7-OST	STR601M3X7-OST-B	3 x 21		STR601M3X21-OST	STR601M3X21-OST-B
3 x 8	M3 x 0.5 x 4	STR601M3X8-OST	STR601M3X8-OST-B	3 x 22	M3 x 0.5 x 4	STR601M3X22-OST	STR601M3X22-OST-B
3 x 9		STR601M3X9-OST	STR601M3X9-OST-B	3 x 23		STR601M3X23-OST	STR601M3X23-OST-B
3 x 10		STR601M3X10-OST	STR601M3X10-OST-B	3 x 24		STR601M3X24-OST	STR601M3X24-OST-B
3 x 11		STR601M3X11-OST	STR601M3X11-OST-B	3 x 25		STR601M3X25-OST	STR601M3X25-OST-B
3 x 12	M3 x 0.5 x 4	STR601M3X12-OST	STR601M3X12-OST-B	3 x 30	M3 x 0.5 x 4	STR601M3X30-OST	STR601M3X30-OST-B
3 x 13		STR601M3X13-OST	STR601M3X13-OST-B	3 x 35		STR601M3X35-OST	STR601M3X35-OST-B
3 x 14		STR601M3X14-OST	STR601M3X14-OST-B	3 x 40		STR601M3X40-OST	STR601M3X40-OST-B
3 x 15		STR601M3X15-OST	STR601M3X15-OST-B	3 x 45		STR601M3X45-OST	STR601M3X45-OST-B
3 x 16	M3 x 0.5 x 4	STR601M3X16-OST	STR601M3X16-OST-B	3 x 50	M3 x 0.5 x 4	STR601M3X50-OST	STR601M3X50-OST-B
3 x 17		STR601M3X17-OST	STR601M3X17-OST-B	3 x 55		STR601M3X55-OST	STR601M3X55-OST-B



STR601M4X4-OST

### 4mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	18-8 SS, Black Ox. Part Number	316 SS Part Number
4 x 4	M4 x 0.7 x 4.5	STR601M4X4-OST	STR601M4X4-OST-B	STR602M4X4-OST
4 x 5		STR601M4X5-OST	STR601M4X5-OST-B	STR602M4X5-OST
4 x 6		STR601M4X6-OST	STR601M4X6-OST-B	STR602M4X6-OST
4 x 7		STR601M4X7-OST	STR601M4X7-OST-B	—
4 x 8	M4 x 0.7 x 4.5	STR601M4X8-OST	STR601M4X8-OST-B	STR602M4X8-OST
4 x 9		STR601M4X9-OST	STR601M4X9-OST-B	—
4 x 10		STR601M4X10-OST	STR601M4X10-OST-B	STR602M4X10-OST
4 x 12		STR601M4X12-OST	STR601M4X12-OST-B	STR602M4X12-OST
4 x 14	M4 x 0.7 x 4.5	STR601M4X14-OST	STR601M4X14-OST-B	—

Chart continued on next page

## Oversized Thread Knurled Head – Metric



STR601M4X16-OST

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	18-8 SS, Black Ox. Part Number	316 SS Part Number
4 x 16		STR601M4X16-OST	STR601M4X16-OST-B	STR602M4X16-OST
4 x 18	M4 x 0.7 x 4.5	STR601M4X18-OST	STR601M4X18-OST-B	—
4 x 20		STR601M4X20-OST	STR601M4X20-OST-B	—
4 x 25		STR601M4X25-OST	STR601M4X25-OST-B	—
4 x 30	M4 x 0.7 x 4.5	STR601M4X30-OST	STR601M4X30-OST-B	—
4 x 35		STR601M4X35-OST	STR601M4X35-OST-B	—
4 x 40		STR601M4X40-OST	STR601M4X40-OST-B	—
4 x 45		STR601M4X45-OST	STR601M4X45-OST-B	—
4 x 50	M4 x 0.7 x 4.5	STR601M4X50-OST	STR601M4X50-OST-B	—
4 x 60		STR601M4X60-OST	STR601M4X60-OST-B	—
4 x 70		STR601M4X70-OST	STR601M4X70-OST-B	—



STR601M5X4-OST

### 5mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	18-8 SS, Black Ox. Part Number	316 SS Part Number
5 x 4		STR601M5X4-OST	STR601M5X4-OST-B	STR602M5X4-OST
5 x 5	M5 x 0.8 x 9.5	STR601M5X5-OST	STR601M5X5-OST-B	STR602M5X5-OST
5 x 6		STR601M5X6-OST	STR601M5X6-OST-B	STR602M5X6-OST
5 x 8		STR601M5X8-OST	STR601M5X8-OST-B	STR602M5X8-OST
5 x 10	M5 x 0.8 x 9.5	STR601M5X10-OST	STR601M5X10-OST-B	STR602M5X10-OST
5 x 12		STR601M5X12-OST	STR601M5X12-OST-B	STR602M5X12-OST
5 x 14		STR601M5X14-OST	STR601M5X14-OST-B	—
5 x 16		STR601M5X16-OST	STR601M5X16-OST-B	STR602M5X16-OST
5 x 18	M5 x 0.8 x 9.5	STR601M5X18-OST	STR601M5X18-OST-B	—
5 x 20		STR601M5X20-OST	STR601M5X20-OST-B	—
5 x 25		STR601M5X25-OST	STR601M5X25-OST-B	—
5 x 30	M5 x 0.8 x 9.5	STR601M5X30-OST	STR601M5X30-OST-B	—
5 x 35		STR601M5X35-OST	STR601M5X35-OST-B	—
5 x 40		STR601M5X40-OST	STR601M5X40-OST-B	—
5 x 45		STR601M5X45-OST	STR601M5X45-OST-B	—
5 x 50		STR601M5X50-OST	STR601M5X50-OST-B	—

\*Alloy Steel screws have a Class 6g thread fit.

Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-72

18-8 SS (A2), 316 SS (A4),  
Alloy

## Oversized Thread Knurled Head – Metric



STR601M6X4-OST

### 6mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	18-8 SS, Black Ox. Part Number	316 SS Part Number	Alloy Steel* Part Number
6 x 4	M6 x 1 x 11	STR601M6X4-OST	STR601M6X4-OST-B	–	–
6 x 5		STR601M6X5-OST	STR601M6X5-OST-B	–	–
6 x 6		STR601M6X6-OST	STR601M6X6-OST-B	STR602M6X6-OST	STR700M6X6-OST
6 x 8		STR601M6X8-OST	STR601M6X8-OST-B	STR602M6X8-OST	STR700M6X8-OST
6 x 10	M6 x 1 x 11	STR601M6X10-OST	STR601M6X10-OST-B	STR602M6X10-OST	STR700M6X10-OST
6 x 12		STR601M6X12-OST	STR601M6X12-OST-B	STR602M6X12-OST	STR700M6X12-OST
6 x 14		STR601M6X14-OST	STR601M6X14-OST-B	–	–
6 x 16		STR601M6X16-OST	STR601M6X16-OST-B	STR602M6X16-OST	STR700M6X16-OST
6 x 18	M6 x 1 x 11	STR601M6X18-OST	STR601M6X18-OST-B	–	–
6 x 20		STR601M6X20-OST	STR601M6X20-OST-B	STR602M6X20-OST	STR700M6X20-OST
6 x 25		STR601M6X25-OST	STR601M6X25-OST-B	STR602M6X25-OST	STR700M6X25-OST
6 x 30		STR601M6X30-OST	STR601M6X30-OST-B	STR602M6X30-OST	STR700M6X30-OST
6 x 35	M6 x 1 x 11	STR601M6X35-OST	STR601M6X35-OST-B	STR602M6X35-OST	–
6 x 40		STR601M6X40-OST	STR601M6X40-OST-B	STR602M6X40-OST	–
6 x 45		STR601M6X45-OST	STR601M6X45-OST-B	STR602M6X45-OST	–
6 x 50		STR601M6X50-OST	STR601M6X50-OST-B	STR602M6X50-OST	–
6 x 60	M6 x 1 x 11	STR601M6X60-OST	STR601M6X60-OST-B	–	–
6 x 70		STR601M6X70-OST	STR601M6X70-OST-B	–	–



STR601M8X4-OST

### 8mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	18-8 SS, Black Ox. Part Number	316 SS Part Number	Alloy Steel* Part Number
8 x 4	M8 x 1.25 x 13	STR601M8X4-OST	STR601M8X4-OST-B	–	–
8 x 5		STR601M8X5-OST	STR601M8X5-OST-B	–	–
8 x 6		STR601M8X6-OST	STR601M8X6-OST-B	STR602M8X6-OST	STR700M8X6-OST
8 x 8		STR601M8X8-OST	STR601M8X8-OST-B	STR602M8X8-OST	STR700M8X8-OST
8 x 10	M8 x 1.25 x 13	STR601M8X10-OST	STR601M8X10-OST-B	STR602M8X10-OST	STR700M8X10-OST
8 x 12		STR601M8X12-OST	STR601M8X12-OST-B	STR602M8X12-OST	STR700M8X12-OST
8 x 14		STR601M8X14-OST	STR601M8X14-OST-B	–	–
8 x 16		STR601M8X16-OST	STR601M8X16-OST-B	STR602M8X16-OST	STR700M8X16-OST
8 x 18	M8 x 1.25 x 13	STR601M8X18-OST	STR601M8X18-OST-B	–	–
8 x 20		STR601M8X20-OST	STR601M8X20-OST-B	STR602M8X20-OST	STR700M8X20-OST
8 x 25		STR601M8X25-OST	STR601M8X25-OST-B	STR602M8X25-OST	STR700M8X25-OST

Chart continued on next page



## Oversized Thread Knurled Head – Metric



STR601M8X30-OST

### 8mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	18-8 SS, Black Ox. Part Number	316 SS Part Number	Alloy Steel* Part Number
8 x 30	M8 x 1.25 x 13	STR601M8X30-OST	STR601M8X30-OST-B	STR602M8X30-OST	STR700M8X30-OST
8 x 35		STR601M8X35-OST	STR601M8X35-OST-B	STR602M8X35-OST	–
8 x 40		STR601M8X40-OST	STR601M8X40-OST-B	STR602M8X40-OST	–
8 x 45		STR601M8X45-OST	STR601M8X45-OST-B	STR602M8X45-OST	–
8 x 50	M8 x 1.25 x 13	STR601M8X50-OST	STR601M8X50-OST-B	STR602M8X50-OST	–
8 x 60		STR601M8X60-OST	STR601M8X60-OST-B	–	–
8 x 70		STR601M8X70-OST	STR601M8X70-OST-B	–	–



STR601M10X4-OST

### 10mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	18-8 SS, Black Ox. Part Number	316 SS Part Number	Alloy Steel* Part Number
10 x 4	M10 x 1.5 x 16	STR601M10X4-OST	STR601M10X4-OST-B	–	–
10 x 6		STR601M10X6-OST	STR601M10X6-OST-B	STR602M10X6-OST	STR700M10X6-OST
10 x 8		STR601M10X8-OST	STR601M10X8-OST-B	STR602M10X8-OST	STR700M10X8-OST
10 x 10		STR601M10X10-OST	STR601M10X10-OST-B	STR602M10X10-OST	STR700M10X10-OST
10 x 12	M10 x 1.5 x 16	STR601M10X12-OST	STR601M10X12-OST-B	STR602M10X12-OST	STR700M10X12-OST
10 x 14		STR601M10X14-OST	STR601M10X14-OST-B	–	–
10 x 16		STR601M10X16-OST	STR601M10X16-OST-B	STR602M10X16-OST	STR700M10X16-OST
10 x 18		STR601M10X18-OST	STR601M10X18-OST-B	–	–
10 x 20	M10 x 1.5 x 16	STR601M10X20-OST	STR601M10X20-OST-B	STR602M10X20-OST	STR700M10X20-OST
10 x 25		STR601M10X25-OST	STR601M10X25-OST-B	STR602M10X25-OST	STR700M10X25-OST
10 x 30		STR601M10X30-OST	STR601M10X30-OST-B	STR602M10X30-OST	STR700M10X30-OST
10 x 35		STR601M10X35-OST	STR601M10X35-OST-B	STR602M10X35-OST	–
10 x 40	M10 x 1.5 x 16	STR601M10X40-OST	STR601M10X40-OST-B	STR602M10X40-OST	–
10 x 45		STR601M10X45-OST	STR601M10X45-OST-B	STR602M10X45-OST	–
10 x 50		STR601M10X50-OST	STR601M10X50-OST-B	STR602M10X50-OST	–
10 x 60		STR601M10X60-OST	STR601M10X60-OST-B	–	–
10 x 70	M10 x 1.5 x 16	STR601M10X70-OST	STR601M10X70-OST-B	–	–
10 x 80		STR601M10X80-OST	STR601M10X80-OST-B	–	–
10 x 90		STR601M10X90-OST	STR601M10X90-OST-B	–	–
10 x 100		STR601M10X100-OST	STR601M10X100-OST-B	–	–

\*Alloy Steel screws have a Class 6g thread fit.

Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-72

18-8 SS (A2), 316 SS (A4),  
Alloy

## Oversized Thread Knurled Head – Metric



STR601M12X6-OST

### 12mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	18-8 SS, Black Ox. Part Number	316 SS Part Number	Alloy Steel* Part Number
12 x 6		STR601M12X6-OST	STR601M12X6-OST-B	STR602M12X6-OST	STR700M12X6-OST
12 x 8	M12 x 1.75 x 18	STR601M12X8-OST	STR601M12X8-OST-B	STR602M12X8-OST	STR700M12X8-OST
12 x 10		STR601M12X10-OST	STR601M12X10-OST-B	STR602M12X10-OST	STR700M12X10-OST
12 x 12		STR601M12X12-OST	STR601M12X12-OST-B	STR602M12X12-OST	STR700M12X12-OST
12 x 16		STR601M12X16-OST	STR601M12X16-OST-B	STR602M12X16-OST	STR700M12X16-OST
12 x 20	M12 x 1.75 x 18	STR601M12X20-OST	STR601M12X20-OST-B	STR602M12X20-OST	STR700M12X20-OST
12 x 25		STR601M12X25-OST	STR601M12X25-OST-B	STR602M12X25-OST	STR700M12X25-OST
12 x 30		STR601M12X30-OST	STR601M12X30-OST-B	STR602M12X30-OST	STR700M12X30-OST
12 x 35		STR601M12X35-OST	STR601M12X35-OST-B	STR602M12X35-OST	–
12 x 40	M12 x 1.75 x 18	STR601M12X40-OST	STR601M12X40-OST-B	STR602M12X40-OST	–
12 x 45		STR601M12X45-OST	STR601M12X45-OST-B	STR602M12X45-OST	–
12 x 50		STR601M12X50-OST	STR601M12X50-OST-B	STR602M12X50-OST	–
12 x 60		STR601M12X60-OST	STR601M12X60-OST-B	–	–
12 x 70	M12 x 1.75 x 18	STR601M12X70-OST	STR601M12X70-OST-B	–	–
12 x 80		STR601M12X80-OST	STR601M12X80-OST-B	–	–
12 x 90		STR601M12X90-OST	STR601M12X90-OST-B	–	–
12 x 100		STR601M12X100-OST	STR601M12X100-OST-B	–	–
12 x 110	M12 x 1.75 x 18	STR601M12X110-OST	STR601M12X110-OST-B	–	–
12 x 120		STR601M12X120-OST	STR601M12X120-OST-B	–	–
12 x 130		STR601M12X130-OST	STR601M12X130-OST-B	–	–
12 x 140	M12 x 1.75 x 18	STR601M12X140-OST	STR601M12X140-OST-B	–	–

\*Alloy Steel screws have a Class 6g thread fit.

Chart continued on next page

## Oversized Thread Knurled Head – Metric



STR601M16X7-OST



STR601M20X15-OST

## 16mm Shoulder Diameter

## 20mm Shoulder Diameter

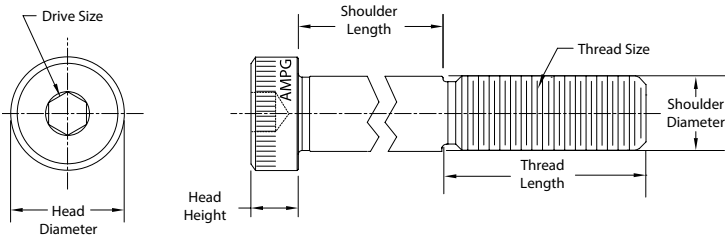
Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	18-8 SS, Black Ox. Part Number	Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	18-8 SS, Black Ox. Part Number
16 x 7		STR601M16X7-OST	STR601M16X7-OST-B	20 x 15		STR601M20X15-OST	STR601M20X15-OST-B
16 x 20	M16 x 2 x 22	STR601M16X20-OST	STR601M16X20-OST-B	20 x 20	M20 x 2.5 x 27	STR601M20X20-OST	STR601M20X20-OST-B
16 x 25		STR601M16X25-OST	STR601M16X25-OST-B	20 x 25		STR601M20X25-OST	STR601M20X25-OST-B
16 x 30		STR601M16X30-OST	STR601M16X30-OST-B	20 x 30		STR601M20X30-OST	STR601M20X30-OST-B
16 x 35		STR601M16X35-OST	STR601M16X35-OST-B	20 x 35		STR601M20X35-OST	STR601M20X35-OST-B
16 x 40	M16 x 2 x 22	STR601M16X40-OST	STR601M16X40-OST-B	20 x 40	M20 x 2.5 x 27	STR601M20X40-OST	STR601M20X40-OST-B
16 x 45		STR601M16X45-OST	STR601M16X45-OST-B	20 x 45		STR601M20X45-OST	STR601M20X45-OST-B
16 x 50		STR601M16X50-OST	STR601M16X50-OST-B	20 x 50		STR601M20X50-OST	STR601M20X50-OST-B
16 x 60		STR601M16X60-OST	STR601M16X60-OST-B	20 x 55		STR601M20X55-OST	STR601M20X55-OST-B
16 x 70	M16 x 2 x 22	STR601M16X70-OST	STR601M16X70-OST-B	20 x 60	M20 x 2.5 x 27	STR601M20X60-OST	STR601M20X60-OST-B
16 x 80		STR601M16X80-OST	STR601M16X80-OST-B	20 x 70		STR601M20X70-OST	STR601M20X70-OST-B
16 x 90		STR601M16X90-OST	STR601M16X90-OST-B	20 x 80		STR601M20X80-OST	STR601M20X80-OST-B
16 x 100		STR601M16X100-OST	STR601M16X100-OST-B	20 x 90		STR601M20X90-OST	STR601M20X90-OST-B
16 x 110	M16 x 2 x 22	STR601M16X110-OST	STR601M16X110-OST-B	20 x 100	M20 x 2.5 x 27	STR601M20X100-OST	STR601M20X100-OST-B
16 x 120		STR601M16X120-OST	STR601M16X120-OST-B	20 x 120		STR601M20X120-OST	STR601M20X120-OST-B
				20 x 130		STR601M20X130-OST	STR601M20X130-OST-B
				20 x 140	M20 x 2.5 x 27	STR601M20X140-OST	STR601M20X140-OST-B
				20 x 150		STR601M20X150-OST	STR601M20X150-OST-B

# Shoulder Screws

18-8 SS,  
Black Oxide

## Oversized Extended Thread Knurled Head – Inch

These specialty Oversized Shoulder Screws have thread lengths that are twice as long as standard Oversized Thread Shoulder Screws. Longer thread lengths are provided to facilitate fastening of materials using a hex nut and washer while still offering the higher strength properties with the oversized thread. Made in the USA with DFARS compliant material, each screw is manufactured in one complete operation, which produces a tightly controlled consistent and concentric product. Dimensions are based on shoulder diameter and meet or exceed ANSI/ASME B18.3. The diameter tolerance is -.002 to -.004 inches and the shoulder length tolerance is ±.005 inches. 18-8 stainless steel screws have a Class 2A thread fit. \*Heads are knurled, stamped, or both to provide finger grip.



### Dimensions and Tolerance Table – Inch

Shoulder Dia.	Shoulder Dia. Max. to Min.	Head Dia.	Head Height	Drive Size	*Head Appearance
1/8	.123 to .121	1/4	1/8	5/64	Knurl Only
3/16	.185 to .183	5/16	5/32	3/32	
1/4	.248 to .246	3/8	3/16	1/8	Head Mark and Knurl
5/16	.310 to .308	7/16	7/32	5/32	
3/8	.373 to .371	9/16	1/4	3/16	
1/2	.498 to .496	3/4	5/16	1/4	Head Mark and Knurl
5/8	.623 to .621	7/8	3/8	5/16	
3/4	.748 to .746	1	1/2	3/8	
1	.998 to .996	1-5/16	5/8	1/2	

Head appearance may be knurled and/or head marked. 18-8 Stainless Steel is manufactured from Type 303 Stainless Steel Bar.



STR60118C03-OSTX

### 1/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	18-8 SS, Black Oxide Part Number
1/8 x 3/16	5-40 x 5/16	STR60118C03-OSTX	STR60118C03-OSTX-BX
1/8 x 1/4		STR60118C04-OSTX	STR60118C04-OSTX-BX
1/8 x 5/16		STR60118C05-OSTX	STR60118C05-OSTX-BX
1/8 x 3/8		STR60118C06-OSTX	STR60118C06-OSTX-BX
1/8 x 1/2		STR60118C08-OSTX	STR60118C08-OSTX-BX
1/8 x 5/8	5-40 x 5/16	STR60118C10-OSTX	STR60118C10-OSTX-BX
1/8 x 3/4		STR60118C12-OSTX	STR60118C12-OSTX-BX
1/8 x 1		STR60118C16-OSTX	STR60118C16-OSTX-BX



STR60131C03-OSTX

### 3/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	18-8 SS, Black Oxide Part Number
3/16 x 3/16		STR60131C03-OSTX	STR60131C03-OSTX-BX
3/16 x 1/4	10-24 x 3/8	STR60131C04-OSTX	STR60131C04-OSTX-BX
3/16 x 5/16		STR60131C05-OSTX	STR60131C05-OSTX-BX
3/16 x 3/8		STR60131C06-OSTX	STR60131C06-OSTX-BX
3/16 x 1/2		STR60131C08-OSTX	STR60131C08-OSTX-BX
3/16 x 5/8	10-24 x 3/8	STR60131C10-OSTX	STR60131C10-OSTX-BX
3/16 x 3/4		STR60131C12-OSTX	STR60131C12-OSTX-BX
3/16 x 1		STR60131C16-OSTX	STR60131C16-OSTX-BX
3/16 x 1-1/4		STR60131C20-OSTX	STR60131C20-OSTX-BX
3/16 x 1-1/2	10-24 x 3/8	STR60131C24-OSTX	STR60131C24-OSTX-BX
3/16 x 1-3/4		STR60131C28-OSTX	STR60131C28-OSTX-BX
3/16 x 2		STR60131C32-OSTX	STR60131C32-OSTX-BX

Chart continued on next page

## Oversized Extended Thread Knurled Head – Inch

### 18-8 Stainless Steel – Hex Drive

- Shoulder diameters of 1/4, 5/16, 3/8 and 1/2 meet our internal specification AMPG 2013 OT.01.
- All dimensions are based on shoulder diameter and meet or exceed ANSI/ASME B18.3.
- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- 18-8 stainless steel screws adhere to environmental regulations established by European Union RoHS directive.



STR60114C04-OSTX

### 1/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	18-8 SS, Black Oxide Part Number
1/4 x 1/4		STR60114C04-OSTX	STR60114C04-OSTX-BX
1/4 x 5/16	1/4-20 x 3/4	STR60114C05-OSTX	STR60114C05-OSTX-BX
1/4 x 3/8		STR60114C06-OSTX	STR60114C06-OSTX-BX
1/4 x 1/2		STR60114C08-OSTX	STR60114C08-OSTX-BX
1/4 x 5/8		STR60114C10-OSTX	STR60114C10-OSTX-BX
1/4 x 3/4	1/4-20 x 3/4	STR60114C12-OSTX	STR60114C12-OSTX-BX
1/4 x 1		STR60114C16-OSTX	STR60114C16-OSTX-BX
1/4 x 1-1/4		STR60114C20-OSTX	STR60114C20-OSTX-BX
1/4 x 1-1/2		STR60114C24-OSTX	STR60114C24-OSTX-BX
1/4 x 1-3/4	1/4-20 x 3/4	STR60114C28-OSTX	STR60114C28-OSTX-BX
1/4 x 2		STR60114C32-OSTX	STR60114C32-OSTX-BX
1/4 x 2-1/4		STR60114C36-OSTX	STR60114C36-OSTX-BX
1/4 x 2-1/2		STR60114C40-OSTX	STR60114C40-OSTX-BX
1/4 x 2-3/4	1/4-20 x 3/4	STR60114C44-OSTX	STR60114C44-OSTX-BX
1/4 x 3		STR60114C48-OSTX	STR60114C48-OSTX-BX
1/4 x 3-1/2		STR60114C56-OSTX	STR60114C56-OSTX-BX
1/4 x 4	1/4-20 x 3/4	STR60114C64-OSTX	STR60114C64-OSTX-BX



STR60151C04-OSTX

### 5/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	18-8 SS, Black Oxide Part Number
5/16 x 1/4		STR60151C04-OSTX	STR60151C04-OSTX-BX
5/16 x 3/8	5/16-18 x 7/8	STR60151C06-OSTX	STR60151C06-OSTX-BX
5/16 x 1/2		STR60151C08-OSTX	STR60151C08-OSTX-BX
5/16 x 5/8		STR60151C10-OSTX	STR60151C10-OSTX-BX
5/16 x 3/4		STR60151C12-OSTX	STR60151C12-OSTX-BX
5/16 x 1	5/16-18 x 7/8	STR60151C16-OSTX	STR60151C16-OSTX-BX
5/16 x 1-1/4		STR60151C20-OSTX	STR60151C20-OSTX-BX
5/16 x 1-1/2		STR60151C24-OSTX	STR60151C24-OSTX-BX
5/16 x 1-3/4		STR60151C28-OSTX	STR60151C28-OSTX-BX
5/16 x 2	5/16-18 x 7/8	STR60151C32-OSTX	STR60151C32-OSTX-BX
5/16 x 2-1/4		STR60151C36-OSTX	STR60151C36-OSTX-BX
5/16 x 2-1/2		STR60151C40-OSTX	STR60151C40-OSTX-BX
5/16 x 2-3/4		STR60151C44-OSTX	STR60151C44-OSTX-BX
5/16 x 3	5/16-18 x 7/8	STR60151C48-OSTX	STR60151C48-OSTX-BX
5/16 x 3-1/2		STR60151C56-OSTX	STR60151C56-OSTX-BX
5/16 x 4		STR60151C64-OSTX	STR60151C64-OSTX-BX
5/16 x 4-1/2	5/16-18 x 7/8	STR60151C72-OSTX	STR60151C72-OSTX-BX
5/16 x 5		STR60151C80-OSTX	STR60151C80-OSTX-BX

Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-79

18-8 SS,  
Black Oxide

## Oversized Extended Thread Knurled Head – Inch



STR60138C04-OSTX



STR60112C04-OSTX

### 3/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	18-8 SS, Black Oxide Part Number
3/8 x 1/4		STR60138C04-OSTX	STR60138C04-OSTX-BX
3/8 x 5/16	3/8-16 x 1	STR60138C05-OSTX	STR60138C05-OSTX-BX
3/8 x 3/8		STR60138C06-OSTX	STR60138C06-OSTX-BX
3/8 x 1/2		STR60138C08-OSTX	STR60138C08-OSTX-BX
3/8 x 5/8		STR60138C10-OSTX	STR60138C10-OSTX-BX
3/8 x 3/4	3/8-16 x 1	STR60138C12-OSTX	STR60138C12-OSTX-BX
3/8 x 1		STR60138C16-OSTX	STR60138C16-OSTX-BX
3/8 x 1-1/4		STR60138C20-OSTX	STR60138C20-OSTX-BX
3/8 x 1-1/2		STR60138C24-OSTX	STR60138C24-OSTX-BX
3/8 x 1-3/4	3/8-16 x 1	STR60138C28-OSTX	STR60138C28-OSTX-BX
3/8 x 2		STR60138C32-OSTX	STR60138C32-OSTX-BX
3/8 x 2-1/4		STR60138C36-OSTX	STR60138C36-OSTX-BX
3/8 x 2-1/2	3/8-16 x 1	STR60138C40-OSTX	STR60138C40-OSTX-BX
3/8 x 2-3/4		STR60138C44-OSTX	STR60138C44-OSTX-BX
3/8 x 3		STR60138C48-OSTX	STR60138C48-OSTX-BX
3/8 x 3-1/2	3/8-16 x 1	STR60138C56-OSTX	STR60138C56-OSTX-BX
3/8 x 4		STR60138C64-OSTX	STR60138C64-OSTX-BX
3/8 x 4-1/2		STR60138C72-OSTX	STR60138C72-OSTX-BX
3/8 x 5	3/8-16 x 1	STR60138C80-OSTX	STR60138C80-OSTX-BX

### 1/2 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	18-8 SS, Black Oxide Part Number
1/2 x 1/4		STR60112C04-OSTX	STR60112C04-OSTX-BX
1/2 x 5/16	1/2-13 x 1-1/4	STR60112C05-OSTX	STR60112C05-OSTX-BX
1/2 x 3/8		STR60112C06-OSTX	STR60112C06-OSTX-BX
1/2 x 1/2		STR60112C08-OSTX	STR60112C08-OSTX-BX
1/2 x 5/8		STR60112C10-OSTX	STR60112C10-OSTX-BX
1/2 x 3/4	1/2-13 x 1-1/4	STR60112C12-OSTX	STR60112C12-OSTX-BX
1/2 x 1		STR60112C16-OSTX	STR60112C16-OSTX-BX
1/2 x 1-1/4		STR60112C20-OSTX	STR60112C20-OSTX-BX
1/2 x 1-1/2		STR60112C24-OSTX	STR60112C24-OSTX-BX
1/2 x 1-3/4	1/2-13 x 1-1/4	STR60112C28-OSTX	STR60112C28-OSTX-BX
1/2 x 2		STR60112C32-OSTX	STR60112C32-OSTX-BX
1/2 x 2-1/4		STR60112C36-OSTX	STR60112C36-OSTX-BX
1/2 x 2-1/2		STR60112C40-OSTX	STR60112C40-OSTX-BX
1/2 x 2-3/4	1/2-13 x 1-1/4	STR60112C44-OSTX	STR60112C44-OSTX-BX
1/2 x 3		STR60112C48-OSTX	STR60112C48-OSTX-BX
1/2 x 3-1/2		STR60112C56-OSTX	STR60112C56-OSTX-BX
1/2 x 4		STR60112C64-OSTX	STR60112C64-OSTX-BX
1/2 x 4-1/2	1/2-13 x 1-1/4	STR60112C72-OSTX	STR60112C72-OSTX-BX
1/2 x 5		STR60112C80-OSTX	STR60112C80-OSTX-BX
1/2 x 5-1/2		STR60112C88-OSTX	STR60112C88-OSTX-BX
1/2 x 6	1/2-13 x 1-1/4	STR60112C96-OSTX	STR60112C96-OSTX-BX

Chart continued on next page



## Oversized Extended Thread Knurled Head – Inch



STR60158C05-OSTX



STR60134C08-OSTX

### 5/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	18-8 SS, Black Oxide Part Number
5/8 x 5/16	5/8-11 x 1-1/2	STR60158C05-OSTX	STR60158C05-OSTX-BX
5/8 x 3/8		STR60158C06-OSTX	STR60158C06-OSTX-BX
5/8 x 1/2		STR60158C08-OSTX	STR60158C08-OSTX-BX
5/8 x 5/8		STR60158C10-OSTX	STR60158C10-OSTX-BX
5/8 x 3/4		STR60158C12-OSTX	STR60158C12-OSTX-BX
5/8 x 7/8		STR60158C14-OSTX	STR60158C14-OSTX-BX
5/8 x 1		STR60158C16-OSTX	STR60158C16-OSTX-BX
5/8 x 1-1/4		STR60158C20-OSTX	STR60158C20-OSTX-BX
5/8 x 1-3/8		STR60158C22-OSTX	STR60158C22-OSTX-BX
5/8 x 1-1/2		STR60158C24-OSTX	STR60158C24-OSTX-BX
5/8 x 1-3/4	5/8-11 x 1-1/2	STR60158C28-OSTX	STR60158C28-OSTX-BX
5/8 x 2		STR60158C32-OSTX	STR60158C32-OSTX-BX
5/8 x 2-1/4		STR60158C36-OSTX	STR60158C36-OSTX-BX
5/8 x 2-1/2		STR60158C40-OSTX	STR60158C40-OSTX-BX
5/8 x 2-3/4		STR60158C44-OSTX	STR60158C44-OSTX-BX
5/8 x 3		STR60158C48-OSTX	STR60158C48-OSTX-BX
5/8 x 3-1/2		STR60158C56-OSTX	STR60158C56-OSTX-BX
5/8 x 4		STR60158C64-OSTX	STR60158C64-OSTX-BX
5/8 x 4-1/2		STR60158C72-OSTX	STR60158C72-OSTX-BX
5/8 x 5		STR60158C80-OSTX	STR60158C80-OSTX-BX
5/8 x 5-1/2	5/8-11 x 1-1/2	STR60158C88-OSTX	STR60158C88-OSTX-BX
5/8 x 6		STR60158C96-OSTX	STR60158C96-OSTX-BX

### 3/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	18-8 SS, Black Oxide Part Number
3/4 x 1/2	3/4-10 x 1-3/4	STR60134C08-OSTX	STR60134C08-OSTX-BX
3/4 x 5/8		STR60134C10-OSTX	STR60134C10-OSTX-BX
3/4 x 3/4		STR60134C12-OSTX	STR60134C12-OSTX-BX
3/4 x 1	3/4-10 x 1-3/4	STR60134C16-OSTX	STR60134C16-OSTX-BX
3/4 x 1-1/4		STR60134C20-OSTX	STR60134C20-OSTX-BX
3/4 x 1-1/2		STR60134C24-OSTX	STR60134C24-OSTX-BX
3/4 x 1-3/4		STR60134C28-OSTX	STR60134C28-OSTX-BX
3/4 x 2		STR60134C32-OSTX	STR60134C32-OSTX-BX
3/4 x 2-1/4		STR60134C36-OSTX	STR60134C36-OSTX-BX
3/4 x 2-1/2		STR60134C40-OSTX	STR60134C40-OSTX-BX
3/4 x 2-3/4		STR60134C44-OSTX	STR60134C44-OSTX-BX
3/4 x 3		STR60134C48-OSTX	STR60134C48-OSTX-BX
3/4 x 3-1/2		STR60134C56-OSTX	STR60134C56-OSTX-BX
3/4 x 4	3/4-10 x 1-3/4	STR60134C64-OSTX	STR60134C64-OSTX-BX
3/4 x 4-1/2		STR60134C72-OSTX	STR60134C72-OSTX-BX
3/4 x 5		STR60134C80-OSTX	STR60134C80-OSTX-BX
3/4 x 5-1/2	3/4-10 x 1-3/4	STR60134C88-OSTX	STR60134C88-OSTX-BX
3/4 x 6		STR60134C96-OSTX	STR60134C96-OSTX-BX



STR60101C16-OSTX

### 1 Shoulder Diameter

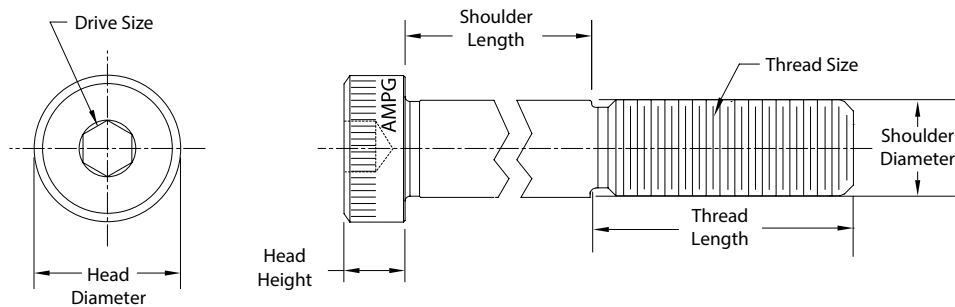
Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	18-8 SS, Black Oxide Part Number	
1 x 1	1-8 x 2	STR60101C16-OSTX	STR60101C16-OSTX-BX	
1 x 1-1/2		STR60101C24-OSTX	STR60101C24-OSTX-BX	
1 x 1-3/4		STR60101C28-OSTX	STR60101C28-OSTX-BX	
1 x 2	1-8 x 2	STR60101C32-OSTX	STR60101C32-OSTX-BX	
1 x 2-1/2		STR60101C40-OSTX	STR60101C40-OSTX-BX	
1 x 3		STR60101C48-OSTX	STR60101C48-OSTX-BX	
1 x 3-1/2		STR60101C56-OSTX	STR60101C56-OSTX-BX	
1 x 4		STR60101C64-OSTX	STR60101C64-OSTX-BX	
1 x 5		1-8 x 2	STR60101C80-OSTX	STR60101C80-OSTX-BX
1 x 6			STR60101C96-OSTX	STR60101C96-OSTX-BX

## Oversized Extended Thread Knurled Head – Metric

These specialty Oversized Shoulder Screws have thread lengths that are twice as long as standard Oversized Thread Shoulder Screws. Longer thread lengths are provided to facilitate fastening of materials using a hex nut and washer while still offering the higher strength properties with the oversized thread. Made in the USA with DFARS compliant material, each screw is manufactured in one complete operation, which produces a tightly controlled consistent and concentric product. The diameter tolerance is  $-.01\text{mm}$  to  $-.04\text{mm}$  and the shoulder length tolerance is  $+.25\text{mm}$  to  $-.0\text{mm}$ . Screws have a Class 5g6g thread fit. \*Heads are knurled, stamped, or both to provide finger grip.

Dimensions and Tolerance Table – Metric, mm					
Shoulder Diameter	Shoulder Diameter Max. to Min.	Head Diameter	Head Height	Drive Size	*Head Appearance
3	2.99 to 2.96	5.00	2.00	2	Knurl Only (Screws produced prior to 2/1/2021 may have finger-grip AMPG Mark only)
4	3.99 to 3.96	6.00	3.00	2	
5	4.99 to 4.96	9.00	4.00	2.5	
6	5.99 to 5.96	10.00	4.50	3	Head Mark Only
8	7.99 to 7.96	13.00	5.50	4	
10	9.99 to 9.96	16.00	7.00	5	Head Mark and Knurl
12	11.99 to 11.96	18.00	9.00	6	

Head appearance may be knurled and/or head marked. 18-8 Stainless Steel is manufactured from Type 303 Stainless Steel Bar.



STR601M3X4-OSTX



STR601M4X4-OSTX



STR601M5X4-OSTX

### 3mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number
3 x 4		STR601M3X4-OSTX
3 x 5	M3 x 0.5 x 8	STR601M3X5-OSTX
3 x 6		STR601M3X6-OSTX
3 x 8		STR601M3X8-OSTX
3 x 10		STR601M3X10-OSTX
3 x 12	M3 x 0.5 x 8	STR601M3X12-OSTX
3 x 16		STR601M3X16-OSTX

### 4mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number
4 x 4		STR601M4X4-OSTX
4 x 5	M4 x 0.7 x 9	STR601M4X5-OSTX
4 x 6		STR601M4X6-OSTX
4 x 8		STR601M4X8-OSTX
4 x 10		STR601M4X10-OSTX
4 x 12	M4 x 0.7 x 9	STR601M4X12-OSTX
4 x 16		STR601M4X16-OSTX
		STR601M4X20-OSTX
4 x 25	M4 x 0.7 x 9	STR601M4X25-OSTX
4 x 30		STR601M4X30-OSTX

### 5mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number
5 x 4		STR601M5X4-OSTX
5 x 5	M5 x 0.8 x 18	STR601M5X5-OSTX
5 x 6		STR601M5X6-OSTX
5 x 8		STR601M5X8-OSTX
5 x 10		STR601M5X10-OSTX
5 x 12	M5 x 0.8 x 18	STR601M5X12-OSTX
5 x 16		STR601M5X16-OSTX
		STR601M5X20-OSTX
5 x 25	M5 x 0.8 x 18	STR601M5X25-OSTX
5 x 30		STR601M5X30-OSTX

Chart continued on next page

## Oversized Extended Thread Knurled Head – Metric

18-8 Stainless Steel (A2), 316 Stainless Steel (A4), and Alloy Steel – Hex Drive

- Shoulder diameters of 6, 8, 10 and 12mm meet our internal specification AMPG 2013 OT.02.
- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- 18-8 (A2) and 316 (A4) stainless steel screws adhere to environmental regulations established by European Union RoHS directive.



STR601M6X4-OSTX

### 6mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number
6 x 4		STR601M6X4-OSTX
6 x 5	M6 x 1 x 22	STR601M6X5-OSTX
6 x 6		STR601M6X6-OSTX
6 x 8		STR601M6X8-OSTX
6 x 10		STR601M6X10-OSTX
6 x 12	M6 x 1 x 22	STR601M6X12-OSTX
6 x 16		STR601M6X16-OSTX
6 x 20		STR601M6X20-OSTX
6 x 25		STR601M6X25-OSTX
6 x 30	M6 x 1 x 22	STR601M6X30-OSTX
6 x 35		STR601M6X35-OSTX
6 x 40		STR601M6X40-OSTX
6 x 45	M6 x 1 x 22	STR601M6X45-OSTX
6 x 50		STR601M6X50-OSTX



STR601M8X6-OSTX

### 8mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number
8 x 6		STR601M8X6-OSTX
8 x 8	M8 x 1.25 x 25	STR601M8X8-OSTX
8 x 10		STR601M8X10-OSTX
8 x 12		STR601M8X12-OSTX
8 x 16		STR601M8X16-OSTX
8 x 20	M8 x 1.25 x 25	STR601M8X20-OSTX
8 x 25		STR601M8X25-OSTX
8 x 30		STR601M8X30-OSTX
8 x 35		STR601M8X35-OSTX
8 x 40	M8 x 1.25 x 25	STR601M8X40-OSTX
8 x 45		STR601M8X45-OSTX
8 x 50		STR601M8X50-OSTX



STR601M10X6-OSTX

### 10mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number
10 x 6		STR601M10X6-OSTX
10 x 8	M10 x 1.5 x 30	STR601M10X8-OSTX
10 x 10		STR601M10X10-OSTX
10 x 12		STR601M10X12-OSTX
10 x 16		STR601M10X16-OSTX
10 x 20	M10 x 1.5 x 30	STR601M10X20-OSTX
10 x 25		STR601M10X25-OSTX
10 x 30		STR601M10X30-OSTX
10 x 35		STR601M10X35-OSTX
10 x 40	M10 x 1.5 x 30	STR601M10X40-OSTX
10 x 45		STR601M10X45-OSTX
10 x 50		STR601M10X50-OSTX



STR601M12X6-OSTX

### 12mm Shoulder Diameter

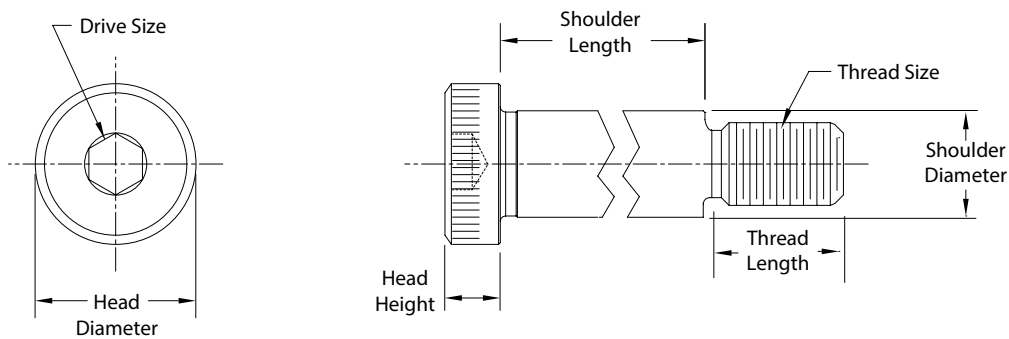
Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number
12 x 6		STR601M12X6-OSTX
12 x 8	M12 x 1.75 x 35	STR601M12X8-OSTX
12 x 10		STR601M12X10-OSTX
12 x 12		STR601M12X12-OSTX
12 x 16		STR601M12X16-OSTX
12 x 20	M12 x 1.75 x 35	STR601M12X20-OSTX
12 x 25		STR601M12X25-OSTX
12 x 30		STR601M12X30-OSTX
12 x 35		STR601M12X35-OSTX
12 x 40	M12 x 1.75 x 35	STR601M12X40-OSTX
12 x 45		STR601M12X45-OSTX
12 x 50		STR601M12X50-OST
12 x 60	M12 x 1.75 x 35	STR601M12X60-OSTX

# Shoulder Screws

## Low Profile Knurled Head Shoulder Screw — Inch

Alloy Steel — Black Oxide — Hex Drive

These speciality shoulder screws have 2/3 the head height of a standard shoulder screw. Made in the USA with DFARS compliant material, each screw is manufactured in one complete operation, which produces a tightly controlled consistent and concentric product. Shoulder length tolerance is  $\pm .005$  inches. Alloy Steel Screw material exceeds Grade 8 steel in strength and has a black-oxide finish. Screws have a Class 3A thread fit. \*Heads are knurled, stamped, or both to provide finger grip.



Dimensions and Tolerance Table — Inch

Shoulder Diameter	Shoulder Diameter Max. to Min.	Head Diameter	Head Height	Drive Size	*Head Appearance
1/4	.248 to .246	3/8	1/8	1/8	Knurl Only
5/16	.310 to .308	7/16	9/64	5/32	
3/8	.373 to .371	9/16	11/64	3/16	
1/2	.498 to .496	3/4	13/64	1/4	

## Low Profile Knurled Head Shoulder Screw – Inch

### Alloy Steel – Black Oxide – Hex Drive

- Steel Alloy Shoulder Screws meet our internal specification AMPG 2018 LOW.04.
- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- Certified test reports are available for both the corrosion resistance and physical properties.
- Black oxide finish offers mild resistance from rust.



STR70014C04-LOW

### 1/4 Shoulder Diameter

Shoulder Length	Thread Size x Lg.	Alloy Steel Part Number
1/4 x 1/4	10-24 x 3/8	STR70014C04-LOW
1/4 x 3/8		STR70014C06-LOW
1/4 x 1/2		STR70014C08-LOW
1/4 x 5/8		STR70014C10-LOW
1/4 x 3/4	10-24 x 3/8	STR70014C12-LOW
1/4 x 1		STR70014C16-LOW
1/4 x 1-1/4		STR70014C20-LOW
1/4 x 1-1/2		STR70014C24-LOW



STR70051C04-LOW

### 5/16 Shoulder Diameter

Shoulder Length	Thread Size x Lg.	Alloy Steel Part Number
5/16 x 1/4	1/4-20 x 7/16	STR70051C04-LOW
5/16 x 3/8		STR70051C06-LOW
5/16 x 1/2		STR70051C08-LOW
5/16 x 5/8		STR70051C10-LOW
5/16 x 3/4	1/4-20 x 7/16	STR70051C12-LOW
5/16 x 1		STR70051C16-LOW
5/16 x 1-1/4		STR70051C20-LOW
5/16 x 1-1/2		STR70051C24-LOW



STR70038C04-LOW

### 3/8 Shoulder Diameter

Shoulder Length	Thread Size x Lg.	Alloy Steel Part Number
3/8 x 1/4	5/16-18 x 1/2	STR70038C04-LOW
3/8 x 3/8		STR70038C06-LOW
3/8 x 1/2		STR70038C08-LOW
3/8 x 5/8		STR70038C10-LOW
3/8 x 3/4	5/16-18 x 1/2	STR70038C12-LOW
3/8 x 1		STR70038C16-LOW
3/8 x 1-1/4		STR70038C20-LOW
3/8 x 1-1/2		STR70038C24-LOW



STR70012C06-LOW

### 1/2 Shoulder Diameter

Shoulder Length	Thread Size x Lg.	Alloy Steel Part Number
1/2 x 3/8	3/8-16 x 5/8	STR70012C06-LOW
1/2 x 1/2		STR70012C08-LOW
1/2 x 5/8		STR70012C10-LOW
1/2 x 3/4		STR70012C12-LOW
1/2 x 1	3/8-16 x 5/8	STR70012C16-LOW
1/2 x 1-1/4		STR70012C20-LOW
1/2 x 1-1/2		STR70012C24-LOW
1/2 x 2		STR70012C32-LOW

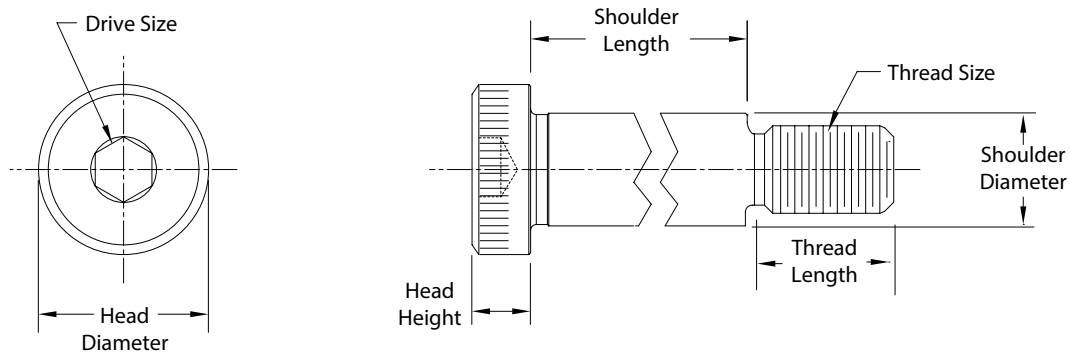
Chart continued on next page

# Shoulder Screws

## Low Profile Knurled Head Shoulder Screw — Metric

Alloy Steel — Black Oxide — Hex Drive

These speciality shoulder screws have 2/3 the head height of a standard shoulder screw. Made in the USA with DFARS compliant material, each screw is manufactured in one complete operation, which produces a tightly controlled consistent and concentric product. Shoulder length tolerance is  $+0.25\text{mm}/-0.0\text{mm}$ . Alloy Steel Screw material exceeds Grade 8 steel in strength and has a black-oxide finish. Screws have a Class 5g6g thread fit. \*Heads are knurled, stamped, or both to provide finger grip.



Dimensions and Tolerance Table — Metric, mm

Shoulder Diameter	Shoulder Diameter Max. to Min.	Head Diameter	Head Height	Drive Size	*Head Appearance
6	5.99 to 5.96	10.00	3.00	3	Knurl Only
8	7.99 to 7.96	13.00	3.50	4	
10	9.99 to 9.96	16.00	4.50	5	
12	11.99 to 11.96	18.00	6.00	6	



## Low Profile Knurled Head Shoulder Screw – Metric

### Alloy Steel – Black Oxide – Hex Drive

- Steel Alloy Shoulder Screws meet our internal specification AMPG 2018 LOW.05.
- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- Certified test reports are available for both the corrosion resistance and physical properties.
- Black oxide finish offers mild resistance from rust.



STR700M6X8-LOW

### 6mm Shoulder Diameter

Shoulder Length	Thread Size x Lg.	Alloy Steel Part Number
6 x 8		STR700M6X8-LOW
6 x 10	M5 x 0.8 x 10	STR700M6X10-LOW
6 x 12		STR700M6X12-LOW
6 x 16		STR700M6X16-LOW
6 x 20		STR700M6X20-LOW
6 x 25	M5 x 0.8 x 10	STR700M6X25-LOW
6 x 30		STR700M6X30-LOW



STR700M8X6-LOW

### 8mm Shoulder Diameter

Shoulder Length	Thread Size x Lg.	Alloy Steel Part Number
8 x 6		STR700M8X6-LOW
8 x 8	M6 x 1 x 11	STR700M8X8-LOW
8 x 10		STR700M8X10-LOW
8 x 12		STR700M8X12-LOW
8 x 16		STR700M8X16-LOW
8 x 20	M6 x 1 x 11	STR700M8X20-LOW
8 x 25		STR700M8X25-LOW
8 x 30		STR700M8X30-LOW



STR700M10X10-LOW

### 10mm Shoulder Diameter

Shoulder Length	Thread Size x Lg.	Alloy Steel Part Number
10 x 10		STR700M10X10-LOW
10 x 12	M8 x 1.25 x 13	STR700M10X12-LOW
10 x 16		STR700M10X16-LOW
10 x 20		STR700M10X20-LOW
10 x 25		STR700M10X25-LOW
10 x 30	M8 x 1.25 x 13	STR700M10X30-LOW



STR700M12X12-LOW

### 12mm Shoulder Diameter

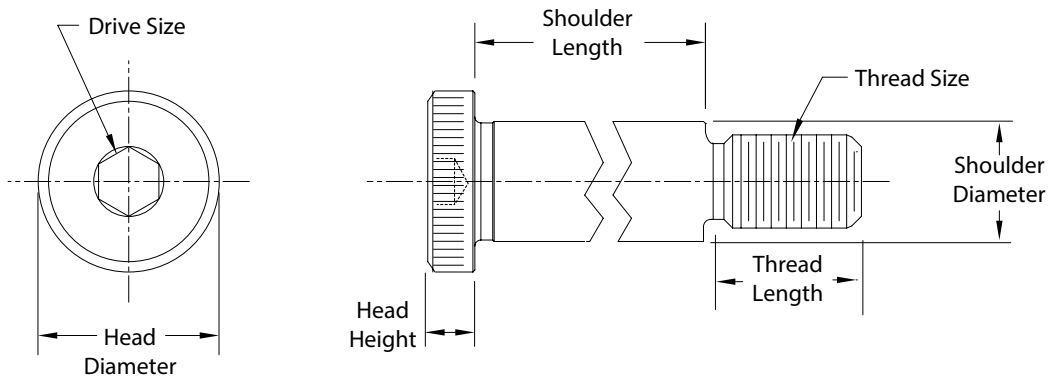
Shoulder Length	Thread Size x Lg.	Alloy Steel Part Number
12 x 12		STR700M12X12-LOW
12 x 16	M10 x 1.5 x 16	STR700M12X16-LOW
12 x 20		STR700M12X20-LOW
12 x 25		STR700M12X25-LOW
12 x 30	M10 x 1.5 x 16	STR700M12X30-LOW

# Shoulder Screws

## Ultra Low Profile Knurled Head Shoulder Screw – Inch

Alloy Steel – Black Oxide – Hex Drive

These speciality shoulder screws have 1/3 the head height of a standard shoulder screw. Made in the USA with DFARS compliant material, each screw is manufactured in one complete operation, which produces a tightly controlled consistent and concentric product. Shoulder length tolerance is  $\pm 0.005$  inches. Alloy Steel Screw material exceeds Grade 8 steel in strength and has a black-oxide finish. Screws have a Class 3A thread fit. Heads are knurled, stamped, or both to provide finger grip.



Dimensions and Tolerance Table – Inch

Shoulder Diameter	Shoulder Diameter Max. to Min.	Head Diameter	Head Height	Drive Size	*Head Appearance
1/4	.248 to .246	3/8	1/16	1/8	Knurl Only
5/16	.310 to .308	7/16	5/64	5/32	
3/8	.373 to .371	9/16	5/64	3/16	
1/2	.498 to .496	3/4	7/64	1/4	

## Ultra Low Profile Knurled Head Shoulder Screw – Inch

Alloy Steel – Black Oxide – Hex Drive

- Steel Alloy Shoulder Screws meet our internal specification AMPG 2018 ULT.04.
- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- Certified test reports are available for both the corrosion resistance and physical properties.
- Black oxide finish offers mild resistance from rust.



STR70014C04-ULTRA

### 1/4 Shoulder Diameter

Shoulder Length	Thread Size x Lg.	Alloy Steel Part Number
1/4 x 1/4	10-24 x 3/8	STR70014C04-ULTRA
1/4 x 3/8		STR70014C06-ULTRA
1/4 x 1/2		STR70014C08-ULTRA
1/4 x 5/8		STR70014C10-ULTRA
1/4 x 3/4	10-24 x 3/8	STR70014C12-ULTRA
1/4 x 1		STR70014C16-ULTRA
1/4 x 1-1/4		STR70014C20-ULTRA
1/4 x 1-1/2		STR70014C24-ULTRA



STR70051C04-ULTRA

### 5/16 Shoulder Diameter

Shoulder Length	Thread Size x Lg.	Alloy Steel Part Number
5/16 x 1/4	1/4-20 x 7/16	STR70051C04-ULTRA
5/16 x 3/8		STR70051C06-ULTRA
5/16 x 1/2		STR70051C08-ULTRA
5/16 x 5/8		STR70051C10-ULTRA
5/16 x 3/4	1/4-20 x 7/16	STR70051C12-ULTRA
5/16 x 1		STR70051C16-ULTRA
5/16 x 1-1/4		STR70051C20-ULTRA
5/16 x 1-1/2		STR70051C24-ULTRA



STR70038C04-ULTRA

### 3/8 Shoulder Diameter

Shoulder Length	Thread Size x Lg.	Alloy Steel Part Number
3/8 x 1/4	5/16-18 x 1/2	STR70038C04-ULTRA
3/8 x 3/8		STR70038C06-ULTRA
3/8 x 1/2		STR70038C08-ULTRA
3/8 x 5/8		STR70038C10-ULTRA
3/8 x 3/4	5/16-18 x 1/2	STR70038C12-ULTRA
3/8 x 1		STR70038C16-ULTRA
3/8 x 1-1/4		STR70038C20-ULTRA
3/8 x 1-1/2		STR70038C24-ULTRA



STR70012C06-ULTRA

### 1/2 Shoulder Diameter

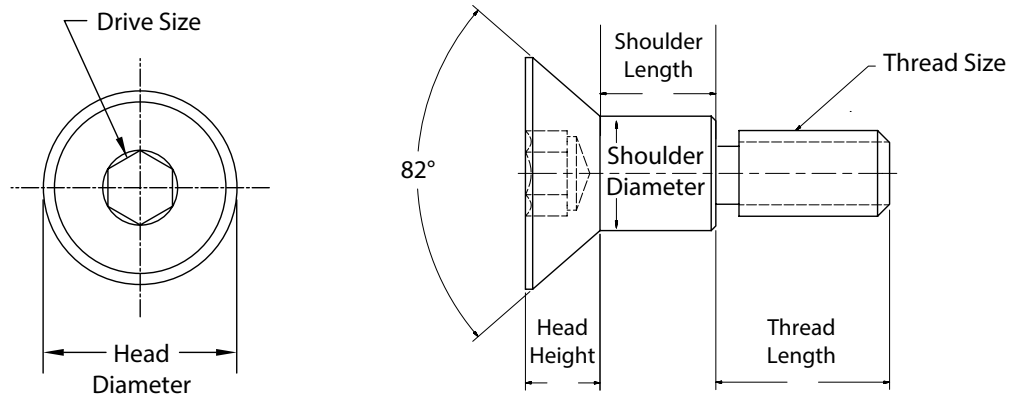
Shoulder Length	Thread Size x Lg.	Alloy Steel Part Number
1/2 x 3/8	3/8-16 x 5/8	STR70012C06-ULTRA
1/2 x 1/2		STR70012C08-ULTRA
1/2 x 5/8		STR70012C10-ULTRA
1/2 x 3/4		STR70012C12-ULTRA
1/2 x 1	3/8-16 x 5/8	STR70012C16-ULTRA
1/2 x 1-1/4		STR70012C20-ULTRA
1/2 x 1-1/2		STR70012C24-ULTRA
1/2 x 2		STR70012C32-ULTRA

# Shoulder Screws

## Flat 82° Head — Inch

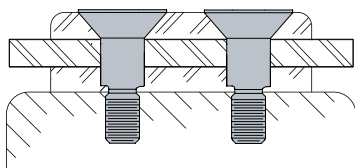
### 18-8 Stainless Steel — Hex Drive

Flat head screws are angled under the head to sit flush within countersunk holes. Head angle is 82°. Made in the USA with DFARS compliant material, each screw is manufactured in one complete operation, which produces a tightly controlled consistent and concentric product. Shoulder length tolerance is  $\pm .005$  inches. Screws have a Class 3A thread fit. Length is measured from top of head.

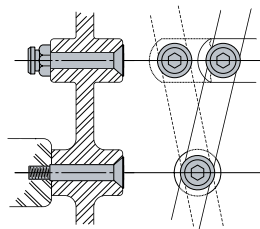


Dimensions and Tolerance Table — Inch					
Shoulder Diameter	Shoulder Diameter Max. to Min.	Head Diameter	Head Height	Undercut Dia. x Lg.	Drive Size
1/4	.248 to .246	1/2	11/64	.133 x .050	5/32
5/16	.310 to .308	5/8	13/64	.184 x .060	3/16
3/8	.373 to .371	3/4	15/64	.238 x .080	7/32
1/2	.498 to .496	15/16	17/64	.292 x .080	5/16

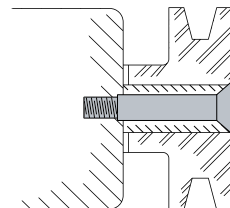
18-8 Stainless Steel is manufactured from Type 303 Stainless Steel Bar.



Shoulder Screw as a Guide



Shoulder Screw as a Pivot Point



Shoulder Screw as a Shaft



To extend the shoulder length of a screw, spin a lengthening shim over the threads until it rests under the shoulder.

## Flat 82° Head – Inch

### 18-8 Stainless Steel – Hex Drive

- Shoulder diameters of 1/4, 5/16, 3/8 and 1/2 meet our internal specification AMPG 2017 CS.01.
- All dimensions are based on shoulder diameter and meet or exceed ANSI/ASME B18.3.
- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- 18-8 stainless steel screws adhere to environmental regulations established by European Union RoHS directive.



STR63014C04

#### 1/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number
1/4 x 1/4		STR63014C04
1/4 x 3/8		STR63014C06
1/4 x 1/2	10-24 x 3/8	STR63014C08
1/4 x 5/8		STR63014C10
1/4 x 3/4		STR63014C12
1/4 x 1		STR63014C16
1/4 x 1-1/4	10-24 x 3/8	STR63014C20
1/4 x 1-1/2		STR63014C24
1/4 x 2	10-24 x 3/8	STR63014C32



STR63051C04

#### 5/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number
5/16 x 1/4		STR63051C04
5/16 x 3/8		STR63051C06
5/16 x 1/2	1/4-20 x 7/16	STR63051C08
5/16 x 5/8		STR63051C10
5/16 x 3/4		STR63051C12
5/16 x 1		STR63051C16
5/16 x 1-1/4	1/4-20 x 7/16	STR63051C20
5/16 x 1-1/2		STR63051C24
5/16 x 2	1/4-20 x 7/16	STR63051C32



STR63038C04

#### 3/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number
3/8 x 1/4		STR63038C04
3/8 x 3/8		STR63038C06
3/8 x 1/2	5/16-18 x 1/2	STR63038C08
3/8 x 5/8		STR63038C10
3/8 x 3/4		STR63038C12
3/8 x 1		STR63038C16
3/8 x 1-1/4	5/16-18 x 1/2	STR63038C20
3/8 x 1-1/2		STR63038C24
3/8 x 2	5/16-18 x 1/2	STR63038C32



STR63012C04

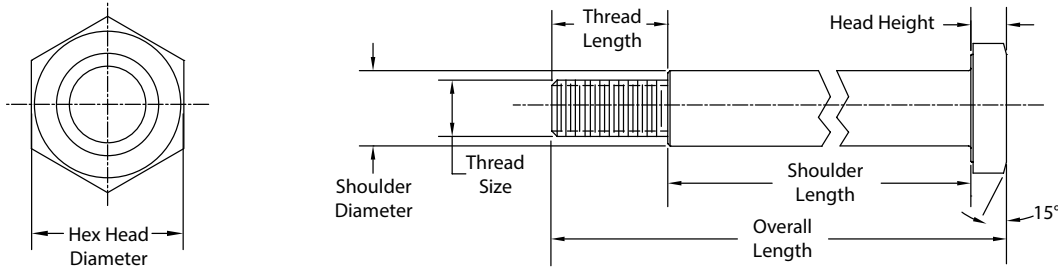
#### 1/2 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number
1/2 x 1/4		STR63012C04
1/2 x 3/8		STR63012C06
1/2 x 1/2	3/8-16 x 5/8	STR63012C08
1/2 x 5/8		STR63012C10
1/2 x 3/4		STR63012C12
1/2 x 1		STR63012C16
1/2 x 1-1/4	3/8-16 x 5/8	STR63012C20
1/2 x 1-1/2		STR63012C24
1/2 x 2	3/8-16 x 5/8	STR63012C32

## External Wrenching Hex Head – Inch

### 18-8 SS and Zinc-Plated Steel – Hex Head

Also known as lawn mower bolts for their use as the wheel axle for lawn mowers. These can be used for the same basic applications as our stripper bolts, but with a hex head for wrenching. Produced on our Swiss CNC lathes (not headed or forged) these screws are made in the USA from DFARS compliant materials and lot traceable. Available in corrosion resistant stainless steel and zinc-plated grade 2 steel. The shoulder diameter tolerance is +0 to -.004 inches and the shoulder length tolerance is ±.005 inches. These screws have a Class 2A thread fit.



Dimensions and Tolerance Table – Inch			
Shoulder Diameter	Shoulder Diameter Max. to Min.	Hex Head Across Flats	Head Height
3/8	.375 to .371	5/8	3/16
1/2	.500 to .496	3/4	1/4

18-8 Stainless Steel is manufactured from Type 303 Stainless Steel Bar.



Z0800SS



Z0710SS

### 3/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	Zinc-Plated Steel Part Number
3/8 x 1-5/16	1/4-20 x 3/4	Z0800SS	Z0800
3/8 x 1-3/8		Z0801SS	Z0801
3/8 x 1-7/16		Z0802SS	Z0802
3/8 x 1-1/2		Z0803SS	Z0803
3/8 x 1-9/16	1/4-20 x 3/4	Z0804SS	Z0804
3/8 x 1-5/8		Z0805SS	Z0805
3/8 x 1-3/4		Z0806SS	Z0806
3/8 x 1-7/8		Z0807SS	Z0807
3/8 x 2	1/4-20 x 3/4	Z0808SS	Z0808
3/8 x 2-1/8		Z0809SS	Z0809
3/8 x 2-1/4		Z0810SS	Z0810
3/8 x 2-1/2		Z0811SS	Z0811

### 1/2 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	Zinc-Plated Steel Part Number
1/2 x 1-5/16	3/8-16 x 3/4	Z0710SS	Z0710
1/2 x 1-3/8		Z0711SS	Z0711
1/2 x 1-7/16		Z0712SS	Z0712
1/2 x 1-1/2		Z0713SS	Z0713
1/2 x 1-9/16	3/8-16 x 3/4	Z0714SS	Z0714
1/2 x 1-5/8		Z0715SS	Z0715
1/2 x 1-3/4		Z0716SS	Z0716
1/2 x 1-7/8		Z0717SS	Z0717
1/2 x 2	3/8-16 x 3/4	Z0718SS	Z0718
1/2 x 2-1/8		Z0719SS	Z0719
1/2 x 2-1/4		Z0721SS	Z0721
1/2 x 2-1/2		Z0725SS	Z0725

## Double Drive Knurled Head – Inch

### 18-8 Stainless Steel – Hex Drive

- Shoulder diameters of 3/16, 1/4, 5/16 and 3/8 meet our internal specification AMPG 2013 DD.01. Dimensions based on ANSI/ASME B18.3.
- Screws have an additional internal hex socket drive at the threaded end of the screw with a Class 3A fit. Tighten and loosen from either end of the screw.



STR60131C02-DD

#### 3/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number
3/16 x 1/8		STR60131C02-DD
3/16 x 3/16	8-32 x 3/16	STR60131C03-DD
3/16 x 1/4		STR60131C04-DD
3/16 x 5/16		STR60131C05-DD
3/16 x 3/8		STR60131C06-DD
3/16 x 1/2	8-32 x 3/16	STR60131C08-DD
3/16 x 5/8		STR60131C10-DD
3/16 x 3/4		STR60131C12-DD
3/16 x 1	8-32 x 3/16	STR60131C16-DD



STR60151C04-DD

#### 5/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number
5/16 x 1/4		STR60151C04-DD
5/16 x 3/8	1/4-20 x 7/16	STR60151C06-DD
5/16 x 1/2		STR60151C08-DD
5/16 x 3/4		STR60151C12-DD
5/16 x 1	1/4-20 x 7/16	STR60151C16-DD

- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- 18-8 stainless steel screws adhere to environmental regulations established by European Union RoHS directive.

#### Dimensions and Tolerance Table – Inch

Shoulder Diameter	Shoulder Diameter Max. to Min.	Drive Size Both Ends
3/16	.185 to .183	.05
1/4	.248 to .246	3/32
5/16	.310 to .308	1/8
3/8	.373 to .371	1/8

18-8 Stainless Steel is manufactured from Type 303 Stainless Steel Bar. Parts are knurled, or stamped, or both for Head Appearance.



STR60114C04-DD

#### 1/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number
1/4 x 1/4		STR60114C04-DD
1/4 x 3/8	10-24 x 3/8	STR60114C06-DD
1/4 x 1/2		STR60114C08-DD
1/4 x 5/8		STR60114C10-DD
1/4 x 3/4	10-24 x 3/8	STR60114C12-DD
1/4 x 1		STR60114C16-DD



STR60138C08-DD

#### 3/8 Shoulder Diameter

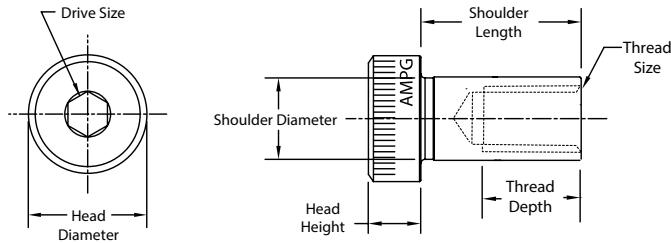
Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number
3/8 x 1/2		STR60138C08-DD
3/8 x 3/4	5/16-18 x 1/2	STR60138C12-DD
3/8 x 1		STR60138C16-DD



## Shoulder Nuts for Studs and Bolts – Inch

### 18-8 Stainless Steel – Hex Drive

Internal threads allow you to screw these shoulders onto a stud and bolt. They're commonly used as a bearing pin, axle, or pivot point where a tapped hole is not available. They have a knurled head. The unthreaded shoulder is held to a precise diameter and length. Made in the USA with DFARS compliant material, each screw is manufactured in one complete operation, which produces a tightly controlled consistent and concentric product. Shoulder diameters of 1/4, 5/16, 3/8 and 1/2 meet our internal specification AMPG 2013 TAP.01. The diameter tolerance is -.002 to -.004 inches. The shoulder length tolerance is ±.005 inches. Screws have a Class 2B thread fit and are partially threaded. Heads are knurled, stamped, or both to provide finger grip.



### Dimensions and Tolerance Table – Inch

Shoulder Diameter	Shoulder Diameter Max. to Min.	Head Diameter	Head Height	Drive Size	Head Appearance
1/4	.248 to .246	3/8	3/16	1/8	Head Mark and Knurl
5/16	.310 to .308	7/16	7/32	5/32	
3/8	.373 to .371	9/16	1/4	3/16	
1/2	.498 to .496	3/4	5/16	1/4	

Head appearance may be knurled and/or head marked.  
18-8 Stainless Steel is manufactured from Type 303 Stainless Steel Bar.



STR60114C08-TAP



STR60151C08-TAP

### 1/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Thread Depth	18-8 SS Part Number
1/4 x 1/2	4-40 x 1/4	STR60114C08-TAP
1/4 x 3/4		STR60114C12-TAP
1/4 x 1		STR60114C16-TAP
1/4 x 1-1/4		STR60114C20-TAP
1/4 x 1-1/2		STR60114C24-TAP
1/4 x 2	4-40 x 1/4	STR60114C32-TAP

### 5/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Thread Depth	18-8 SS Part Number
5/16 x 1/2	6-32 x 1/4	STR60151C08-TAP
5/16 x 3/4		STR60151C12-TAP
5/16 x 1		STR60151C16-TAP
5/16 x 1-1/4		STR60151C20-TAP
5/16 x 1-1/2		STR60151C24-TAP
5/16 x 2	6-32 x 1/4	STR60151C32-TAP



STR60138C08-TAP

### 3/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Thread Depth	18-8 SS Part Number
3/8 x 1/2	8-32 x 1/4	STR60138C08-TAP
3/8 x 3/4		STR60138C12-TAP
3/8 x 1		STR60138C16-TAP
3/8 x 1-1/4		STR60138C20-TAP
3/8 x 1-1/2		STR60138C24-TAP
3/8 x 2	8-32 x 1/4	STR60138C32-TAP



STR60112C08-TAP

### 1/2 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Thread Depth	18-8 SS Part Number
1/2 x 1/2	10-32 x 1/4	STR60112C08-TAP
1/2 x 3/4		STR60112C12-TAP
1/2 x 1		STR60112C16-TAP
1/2 x 1-1/4		STR60112C20-TAP
1/2 x 1-1/2		STR60112C24-TAP
1/2 x 2	10-32 x 1/4	STR60112C32-TAP

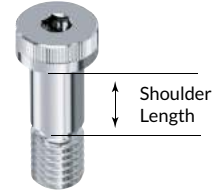
## How to Order Custom Shoulder Screws — Inch

- All parts are USA made in Indiana from DFARS compliant bar stock.
- Thread Class is 3A and Shoulder Length Tolerance is  $\pm.005$ .
- Certification is available, if chemical and physical certification is required on the material.

**1** Choose shoulder diameter from the table below.



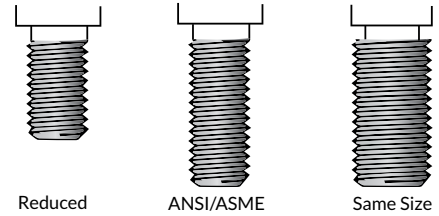
**2** Specify shoulder length, measured from under the head in to the end of the shoulder. **Order in .010" increments.**



**3** Select Hex or Slotted Drive.



**4** Select 1 of 3 thread sizes available per shoulder diameter.



**5** Select from the following materials:

Material	Part # Code	Material	Part # Code	Material	Part # Code
18-8 Stainless	188	A286 Stainless	286	Gr 5 Titanium	Ti5
316 Stainless	316	Aluminum 6061	061	High Five Stainless	616
17-4 Stainless	174	Brass 360	360	Monel 405	405
416 Stainless	416	Gr 2 Titanium	Ti2		

Made-To Order Dimensions — Inch						Thread Sizes		
Shoulder Diameter	Shoulder Length	Head Diameter	Head Height	Drive Size	Thread Length	Reduced Threads	ANSI/ASME	Same Size
3/32		5/32	3/32	5/64	1/8	1-64	2-56	3-48
1/8	1/8 - 6 Inch (order in .010 increments)	1/4	1/8	5/64	5/32	3-48	4-40	5-40
5/32		9/32	1/8	3/32	3/16	5-40	6-32	-
3/16		5/16	5/32	3/32	3/16	6-32	8-32	10-24
7/32		5/16	5/32	3/32	3/16	6-32	8-32	10-24
1/4	1/8 - 6 Inch (order in .010 increments)	3/8	3/16	1/8	3/8	8-32	10-24	1/4-20
5/16		7/16	7/32	5/32	7/16	10-24	1/4-20	5/16-18
3/8		9/16	1/4	3/16	1/2	1/4-20	5/16-18	3/8-16
1/2	1/4 - 6 Inch (order in .010 increments)	3/4	5/16	1/4	5/8	5/16-18	3/8-16	1/2-13
5/8		7/8	3/8	5/16	3/4	3/8-16	1/2-13	5/8-11
3/4		1	3/8	3/8	7/8	1/2-13	5/8-11	3/4-10
7/8	1/2 - 6 Inch (order in .010 increments)	1-5/16	5/8	1/2	1	5/8-11	3/4-10	7/8-9
1		1-5/16	5/8	1/2	1	5/8-11	3/4-10	1-8

Shoulder screws with different specifications are available. Please email us for more information at [sales@ampg.com](mailto:sales@ampg.com).

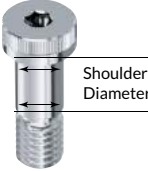
# Shoulder Screws

## How to Order Custom Shoulder Screws – Metric

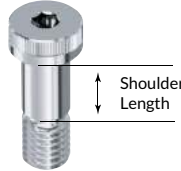
Custom order stainless steel shoulder screws. Metric shoulder tolerance: diameter is  $-.072\text{mm}$  to  $-.010\text{mm}$ ; length is  $\pm .050\text{mm}$ . Shoulder screws thread Class 5g6g.

Select Material, Shoulder Diameter, Shoulder Length and Thread Size. Certification is available upon request.


**1** Choose shoulder diameter from the table below.



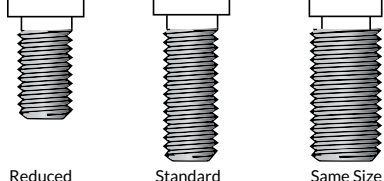
**2** Specify shoulder length, measured from under the head to the end of the shoulder. **Order in 0.25mm increments.**



**3** Select Hex, or Slotted Drive.



**4** Select 1 of 3 thread sizes available per shoulder diameter.



**5** Select from the following materials:

Material	Part # Code
18-8 Stainless	STR601
316 Stainless	STR602

Made-To Order Dimensions – Metric						Threads		
Shoulder Diameter	Shoulder Length	Head Diameter	Head Height	Drive Size	Thread Length	Reduced Threads	Standard	Same Size
3	4.00 - 150.00 <i>(order in .25mm increments)</i>	5.00	2.00	2mm	4.00	M1.6 x 0.35	M2 x 0.4	M3 x 0.5
4		6.00	3.00	2mm	5.00	M2 x 0.4	M3 x 0.5	M4 x 0.7
5		9.00	4.00	2.5mm	5.00	M3 x 0.5	M4 x 0.7	M5 x 0.8
6		10.00	4.50	3mm	10.00	M4 x 0.7	M5 x 0.8	M6 x 1
8	4.00 - 150.00 <i>(order in .25mm increments)</i>	13.00	5.50	4mm	11.00	M5 x 0.8	M6 x 1	M8 x 1.25
10		16.00	7.00	5mm	13.00	M6 x 1	M8 x 1.25	M10 x 1.5
12	6.00 - 150.00 <i>(order in .25mm increments)</i>	18.00	9.00	6mm	16.00	M8 x 1.25	M10 x 1.5	M12 x 1.75
16		24.00	11.00	8mm	18.00	M10 x 1.5	M12 x 1.75	M16 x 2
20	13.00 - 150.00 <i>(order in .25mm increments)</i>	30.00	14.00	10mm	22.00	M12 x 1.75	M16 x 2	M20 x 2.5
24		36.00	16.00	12mm	27.00	M16 x 2	M20 x 2.5	M24 x 3

For custom metric shoulder screws that differ from table specifications, please email us more information at [sales@ampg.com](mailto:sales@ampg.com)

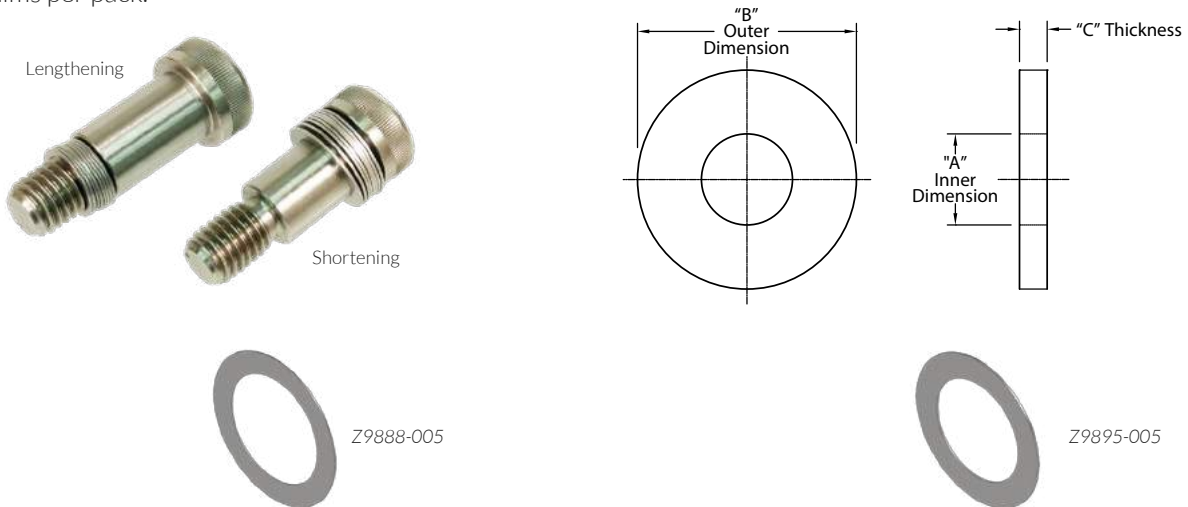
## Lengthening and Shortening Shim Washers — Inch

### Lengthening Shim Washers — 18-8 Stainless Steel

Add these washers over the threads of our stainless steel shoulder screws, and you extend the shoulder, making the shoulder longer for more bearing surface. OD matches shoulder diameter. 25 shims per pack.

### Shortening Shim Washers — 18-8 Stainless Steel

Slip these washers over the shoulder of our stainless steel shoulder screws, and you reduce the shoulder length, making the shoulder shorter for more clearance under the head. OD matches head diameter of the shoulder screw. 25 shims per pack.



**Lengthening Shim Washer**

Fits Shoulder Size	Fits Thread Size	"A" ID	"B" OD	"C" Thickness	Part Number
1/4	#10	.171 - .182	.239 - .243	.0045 - .0055	Z9888-005
				.014 - .018	Z9888-016
				.027 - .033	Z9888-032
5/16	1/4	.234 - .245	.301 - .305	.0045 - .0055	Z9889-005
				.014 - .018	Z9889-016
				.027 - .033	Z9889-030
3/8	5/16	.289 - .300	.363 - .367	.0045 - .0055	Z9890-005
				.014 - .018	Z9890-016
				.027 - .033	Z9890-030
1/2	3/8	.352 - .363	.489 - .493	.0045 - .0055	Z9891-005
				.014 - .018	Z9891-016
				.027 - .033	Z9891-030
5/8	1/2	.473 - .484	.614 - .618	.014 - .018	Z9892-016
				.027 - .033	Z9892-030

**Shortening Shim Washer**

Fits Shoulder Size	"A" ID	"B" OD	"C" Thickness	Part Number
1/4	.251 - .262	.373 - .377	.0045 - .0055	Z9895-005
			.014 - .018	Z9895-016
			.027 - .033	Z9895-030
5/16	.314 - .325	.436 - .440	.0045 - .0055	Z9896-005
			.014 - .018	Z9896-016
			.027 - .033	Z9896-030
3/8	.376 - .387	.561 - .565	.0045 - .0055	Z9897-005
			.014 - .018	Z9897-016
			.027 - .033	Z9897-030
1/2	.501 - .512	.748 - .752	.0045 - .0055	Z9898-005
			.014 - .018	Z9898-016
			.027 - .033	Z9898-030
5/8	.626 - .637	.873 - .877	.014 - .018	Z9899-016
			.027 - .033	Z9899-030
			3/4	.751 - .762
.027 - .033	Z9899-130			

# Shoulder Screws

## Tight Tolerance Smooth Head – Inch & Metric

Tight Tolerance Smooth Head shoulder screws are available with Standard Profile Head Heights, pages B-100 to B-130, Low Profile Head Heights, pages B-131 to B-142 and Ultra Low Profile Head Heights, pages B-143 to B-149.

The head height of a Low Profile screw is 2/3 the height of a standard profile screw, whereas an Ultra Low Profile screw is 1/3 the height of a standard profile screw.



Smooth Head

Low Profile Smooth Head

Ultra Low Smooth Head

### Dimensions and Tolerance Table – Inch

Shoulder Diameter	Head Diameter	Standard Profile Head Height	Low Profile Head Height	Ultra Low Profile Head Height
3/32	3/16	1/8	1/16	1/32
1/8	1/4	1/8	3/32	3/64
5/32	9/32	1/8	5/64	3/64
3/16	5/16	5/32	7/64	3/64
1/4	3/8	3/16	1/8	1/16
5/16	7/16	7/32	1/8	–
3/8	9/16	1/4	3/32	–
1/2	3/4	5/16	–	–
5/8	7/8	3/8	–	–
3/4	1	1/2	–	–
1	1-5/16	5/8	–	–

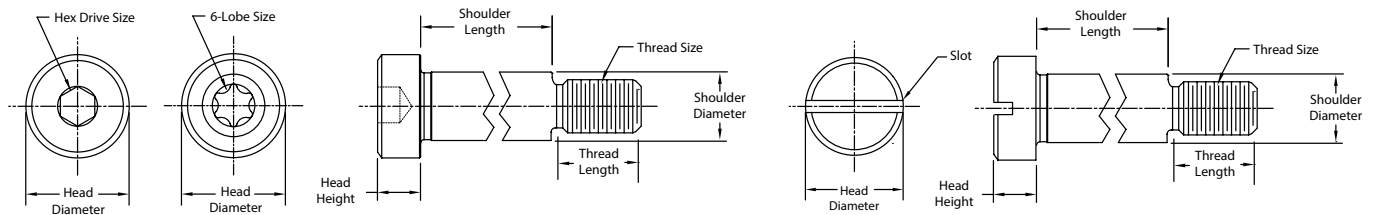
### Dimensions and Tolerance Table – Metric, mm

Shoulder Diameter	Head Diameter	Standard Profile Head Height	Low Profile Head Height	Ultra Low Profile Head Height
3	5.00	2.00	–	–
4	6.00	3.00	2.00	1.30
5	8.00	4.00	2.50	1.30
6	10.00	5.00	3.00	1.70
8	12.00	6.00	3.50	2.00
10	12.00 or 14.00	6.00 or 7.00	4.50	–
12	20.00	8.00	6.00	–

## Tight Tolerance Smooth Head – Inch

AMPG's Tight Tolerance Smooth Head Shoulder Screws are also known as Smooth Head Screws and Precision Grade Shoulder Screws. Smooth Head screws are used as fasteners joining two pieces of an assembly where maintaining alignment is critical. These screws have an unthreaded shoulder made with an undersized tolerance to fit bearings, linear motion bushings, and other precision components. Some product applications are: imaging equipment, surgical tools, measuring devices, laboratory instruments, enclosures, and optical fixtures. Screws are machined with hex socket, slotted and 6-lobe drives on precise unmarked smooth heads, with an undercut portion between the thread and shoulder to allow a close fit. The shoulder diameter tolerance is held to +0 to -.001 inches and the shoulder length tolerance is +.002 to -0 inches. Tight tolerance screws have a Class 2A thread fit for inch.

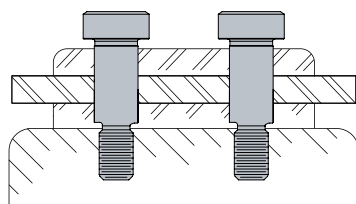
Note : Alloy Steel Screws have a black-oxide finish to offer mild resistance to rust.



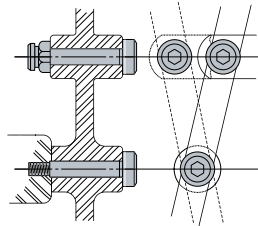
Hex Drive Smooth Head Shoulder Screws start on page B-101.  
 Slotted Drive Smooth Head Shoulder Screws start on page B-115.  
 6-lobe Drive Smooth Head Shoulder Screws start on page B-124.

Dimensions and Tolerance Table – Inch					
Shoulder Diameter	Shoulder Diameter Max. to Min.	Head Diameter	Head Height	Hex Drive Size	6-lobe Drive Size
3/32	.093 to .092	3/16	1/8	5/64	–
1/8	.125 to .124	1/4	1/8	5/64	T10
5/32	.156 to .155	9/32	1/8	3/32	–
3/16	.187 to .186	5/16	5/32	3/32	T25
1/4	.250 to .249	3/8	3/16	1/8	T30
5/16	.312 to .311	7/16	7/32	5/32	–
3/8	.375 to .374	9/16	1/4	3/16	–
1/2	.500 to .499	3/4	5/16	1/4	–
5/8	.625 to .624	7/8	3/8	5/16	–
3/4	.750 to .749	1	1/2	3/8	–
1	1.000 to .999	1-5/16	5/8	1/2	–

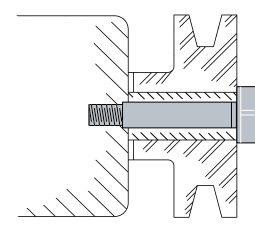
18-8 Stainless Steel is manufactured from Type 303 Stainless Steel Bar.



Shoulder Screws as a Guide



Shoulder Screws as a Pivot Point



Shoulder Screws as a Shaft

# Shoulder Screws

For technical drawings and charts, please see page B-100

18-8 SS, 316 SS,  
416 SS, A286, Alloy

## Tight Tolerance Smooth Head – Inch

### 18-8, 316, 416, A286 Stainless Steels and Alloy Steel – Hex Drive

- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- All stainless steel screws adhere to environmental regulations established by European Union RoHS directive.
- All shoulder diameters meet or exceed accepted industry standards and AMPG's internal specification AMPG 2006 ZR.01.



ZR0796-303H

### 3/32 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
3/32 x 1/16		ZR0796-303H	ZR0796-316H	ZR0796-416H	ZR0796-286H	ZR0796-414H
3/32 x 3/32	2-56 x 1/8	ZR0798-303H	ZR0798-316H	ZR0798-416H	ZR0798-286H	ZR0798-414H
3/32 x 1/8		ZR0800-303H	ZR0800-316H	ZR0800-416H	ZR0800-286H	ZR0800-414H
3/32 x 5/32		ZR0802-303H	ZR0802-316H	ZR0802-416H	ZR0802-286H	ZR0802-414H
3/32 x 3/16		ZR0804-303H	ZR0804-316H	ZR0804-416H	ZR0804-286H	ZR0804-414H
3/32 x 7/32	2-56 x 1/8	ZR0806-303H	ZR0806-316H	ZR0806-416H	ZR0806-286H	ZR0806-414H
3/32 x 1/4		ZR0808-303H	ZR0808-316H	ZR0808-416H	ZR0808-286H	ZR0808-414H
3/32 x 5/16		ZR0812-303H	ZR0812-316H	ZR0812-416H	ZR0812-286H	ZR0812-414H
3/32 x 3/8		ZR0816-303H	ZR0816-316H	ZR0816-416H	ZR0816-286H	ZR0816-414H
3/32 x 7/16	2-56 x 1/8	ZR0820-303H	ZR0820-316H	ZR0820-416H	ZR0820-286H	ZR0820-414H
3/32 x 1/2		ZR0824-303H	ZR0824-316H	ZR0824-416H	ZR0824-286H	ZR0824-414H
3/32 x 5/8		ZR0828-303H	ZR0828-316H	ZR0828-416H	ZR0828-286H	ZR0828-414H
3/32 x 3/4	2-56 x 1/8	ZR0832-303H	ZR0832-316H	ZR0832-416H	ZR0832-286H	ZR0832-414H
3/32 x 1		ZR0836-303H	ZR0836-316H	ZR0836-416H	ZR0836-286H	ZR0836-414H



ZR0996-303H

### 1/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
1/8 x 1/16		ZR0996-303H	ZR0996-316H	ZR0996-416H	ZR0996-286H	ZR0996-414H
1/8 x 3/32	4-40 x 5/32	ZR0998-303H	ZR0998-316H	ZR0998-416H	ZR0998-286H	ZR0998-414H
1/8 x 1/8		ZR1000-303H	ZR1000-316H	ZR1000-416H	ZR1000-286H	ZR1000-414H
1/8 x 5/32		ZR1002-303H	ZR1002-316H	ZR1002-416H	ZR1002-286H	ZR1002-414H
1/8 x 3/16		ZR1004-303H	ZR1004-316H	ZR1004-416H	ZR1004-286H	ZR1004-414H
1/8 x 7/32	4-40 x 5/32	ZR1006-303H	ZR1006-316H	ZR1006-416H	ZR1006-286H	ZR1006-414H
1/8 x 1/4		ZR1008-303H	ZR1008-316H	ZR1008-416H	ZR1008-286H	ZR1008-414H
1/8 x 9/32		ZR1010-303H	ZR1010-316H	ZR1010-416H	ZR1010-286H	ZR1010-414H
1/8 x 5/16		ZR1012-303H	ZR1012-316H	ZR1012-416H	ZR1012-286H	ZR1012-414H
1/8 x 11/32	4-40 x 5/32	ZR1014-303H	ZR1014-316H	ZR1014-416H	ZR1014-286H	ZR1014-414H
1/8 x 3/8		ZR1016-303H	ZR1016-316H	ZR1016-416H	ZR1016-286H	ZR1016-414H
1/8 x 13/32		ZR1018-303H	ZR1018-316H	ZR1018-416H	ZR1018-286H	ZR1018-414H

Chart continued on next page



## Tight Tolerance Smooth Head – Inch



ZR1020-303H

### 1/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
1/8 x 7/16		ZR1020-303H	ZR1020-316H	ZR1020-416H	ZR1020-286H	ZR1020-414H
1/8 x 15/32		ZR1022-303H	ZR1022-316H	ZR1022-416H	ZR1022-286H	ZR1022-414H
1/8 x 1/2	4-40 x 5/32	ZR1024-303H	ZR1024-316H	ZR1024-416H	ZR1024-286H	ZR1024-414H
1/8 x 9/16		ZR1026-303H	ZR1026-316H	ZR1026-416H	ZR1026-286H	ZR1026-414H
1/8 x 5/8		ZR1028-303H	ZR1028-316H	ZR1028-416H	ZR1028-286H	ZR1028-414H
1/8 x 11/16		ZR1030-303H	ZR1030-316H	ZR1030-416H	ZR1030-286H	ZR1030-414H
1/8 x 3/4	4-40 x 5/32	ZR1032-303H	ZR1032-316H	ZR1032-416H	ZR1032-286H	ZR1032-414H
1/8 x 7/8		ZR1034-303H	ZR1034-316H	ZR1034-416H	ZR1034-286H	ZR1034-414H
1/8 x 1	4-40 x 5/32	ZR1036-303H	ZR1036-316H	ZR1036-416H	ZR1036-286H	ZR1036-414H



ZR1096-303H

### 5/32 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
5/32 x 1/16		ZR1096-303H	ZR1096-316H	ZR1096-416H	ZR1096-286H	ZR1096-414H
5/32 x 3/32		ZR1098-303H	ZR1098-316H	ZR1098-416H	ZR1098-286H	ZR1098-414H
5/32 x 1/8	6-32 x 3/16	ZR1100-303H	ZR1100-316H	ZR1100-416H	ZR1100-286H	ZR1100-414H
5/32 x 5/32		ZR1102-303H	ZR1102-316H	ZR1102-416H	ZR1102-286H	ZR1102-414H
5/32 x 3/16		ZR1104-303H	ZR1104-316H	ZR1104-416H	ZR1104-286H	ZR1104-414H
5/32 x 7/32		ZR1106-303H	ZR1106-316H	ZR1106-416H	ZR1106-286H	ZR1106-414H
5/32 x 1/4	6-32 x 3/16	ZR1108-303H	ZR1108-316H	ZR1108-416H	ZR1108-286H	ZR1108-414H
5/32 x 9/32		ZR1110-303H	ZR1110-316H	ZR1110-416H	ZR1110-286H	ZR1110-414H
5/32 x 5/16		ZR1112-303H	ZR1112-316H	ZR1112-416H	ZR1112-286H	ZR1112-414H
5/32 x 11/32		ZR1114-303H	ZR1114-316H	ZR1114-416H	ZR1114-286H	ZR1114-414H
5/32 x 3/8	6-32 x 3/16	ZR1116-303H	ZR1116-316H	ZR1116-416H	ZR1116-286H	ZR1116-414H
5/32 x 13/32		ZR1118-303H	ZR1118-316H	ZR1118-416H	ZR1118-286H	ZR1118-414H
5/32 x 7/16		ZR1120-303H	ZR1120-316H	ZR1120-416H	ZR1120-286H	ZR1120-414H
5/32 x 15/32		ZR1122-303H	ZR1122-316H	ZR1122-416H	ZR1122-286H	ZR1122-414H
5/32 x 1/2	6-32 x 3/16	ZR1124-303H	ZR1124-316H	ZR1124-416H	ZR1124-286H	ZR1124-414H
5/32 x 9/16		ZR1126-303H	ZR1126-316H	ZR1126-416H	ZR1126-286H	ZR1126-414H
5/32 x 5/8		ZR1128-303H	ZR1128-316H	ZR1128-416H	ZR1128-286H	ZR1128-414H
5/32 x 11/16		ZR1130-303H	ZR1130-316H	ZR1130-416H	ZR1130-286H	ZR1130-414H
5/32 x 3/4	6-32 x 3/16	ZR1132-303H	ZR1132-316H	ZR1132-416H	ZR1132-286H	ZR1132-414H
5/32 x 7/8		ZR1134-303H	ZR1134-316H	ZR1134-416H	ZR1134-286H	ZR1134-414H
5/32 x 1	6-32 x 3/16	ZR1136-303H	ZR1136-316H	ZR1136-416H	ZR1136-286H	ZR1136-414H

Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-100

18-8 SS, 316 SS,  
416 SS, A286, Alloy

## Tight Tolerance Smooth Head — Inch 3/16 Shoulder Diameter



ZR1196-303H

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
3/16 x 1/16	8-32 x 3/16	ZR1196-303H	ZR1196-316H	ZR1196-416H	ZR1196-286H	ZR1196-414H
3/16 x 3/32		ZR1198-303H	ZR1198-316H	ZR1198-416H	ZR1198-286H	ZR1198-414H
3/16 x 1/8		ZR1200-303H	ZR1200-316H	ZR1200-416H	ZR1200-286H	ZR1200-414H
3/16 x 5/32		ZR1202-303H	ZR1202-316H	ZR1202-416H	ZR1202-286H	ZR1202-414H
3/16 x 3/16	8-32 x 3/16	ZR1204-303H	ZR1204-316H	ZR1204-416H	ZR1204-286H	ZR1204-414H
3/16 x 7/32		ZR1206-303H	ZR1206-316H	ZR1206-416H	ZR1206-286H	ZR1206-414H
3/16 x 1/4		ZR1208-303H	ZR1208-316H	ZR1208-416H	ZR1208-286H	ZR1208-414H
3/16 x 9/32		ZR1210-303H	ZR1210-316H	ZR1210-416H	ZR1210-286H	ZR1210-414H
3/16 x 5/16	8-32 x 3/16	ZR1212-303H	ZR1212-316H	ZR1212-416H	ZR1212-286H	ZR1212-414H
3/16 x 11/32		ZR1214-303H	ZR1214-316H	ZR1214-416H	ZR1214-286H	ZR1214-414H
3/16 x 3/8		ZR1216-303H	ZR1216-316H	ZR1216-416H	ZR1216-286H	ZR1216-414H
3/16 x 7/16		ZR1218-303H	ZR1218-316H	ZR1218-416H	ZR1218-286H	ZR1218-414H
3/16 x 1/2	8-32 x 3/16	ZR1220-303H	ZR1220-316H	ZR1220-416H	ZR1220-286H	ZR1220-414H
3/16 x 9/16		ZR1222-303H	ZR1222-316H	ZR1222-416H	ZR1222-286H	ZR1222-414H
3/16 x 5/8		ZR1224-303H	ZR1224-316H	ZR1224-416H	ZR1224-286H	ZR1224-414H
3/16 x 11/16		ZR1226-303H	ZR1226-316H	ZR1226-416H	ZR1226-286H	ZR1226-414H
3/16 x 3/4	8-32 x 3/16	ZR1228-303H	ZR1228-316H	ZR1228-416H	ZR1228-286H	ZR1228-414H
3/16 x 7/8		ZR1230-303H	ZR1230-316H	ZR1230-416H	ZR1230-286H	ZR1230-414H
3/16 x 1		ZR1232-303H	ZR1232-316H	ZR1232-416H	ZR1232-286H	ZR1232-414H
3/16 x 1-1/8		ZR1234-303H	ZR1234-316H	ZR1234-416H	ZR1234-286H	ZR1234-414H
3/16 x 1-1/4	8-32 x 3/16	ZR1236-303H	ZR1236-316H	ZR1236-416H	ZR1236-286H	ZR1236-414H
3/16 x 1-3/8		ZR1238-303H	ZR1238-316H	ZR1238-416H	ZR1238-286H	ZR1238-414H
3/16 x 1-1/2		ZR1240-303H	ZR1240-316H	ZR1240-416H	ZR1240-286H	ZR1240-414H
3/16 x 1-5/8		ZR1242-303H	ZR1242-316H	ZR1242-416H	ZR1242-286H	ZR1242-414H
3/16 x 1-3/4	8-32 x 3/16	ZR1244-303H	ZR1244-316H	ZR1244-416H	ZR1244-286H	ZR1244-414H
3/16 x 2		ZR1246-303H	ZR1246-316H	ZR1246-416H	ZR1246-286H	ZR1246-414H
3/16 x 2-1/2		ZR1250-303H	ZR1250-316H	ZR1250-416H	ZR1250-286H	ZR1250-414H



ZR1346-303H

## 1/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
1/4 x 1/16	10-32 x 1/4	ZR1346-303H	ZR1346-316H	ZR1346-416H	ZR1346-286H	ZR1346-414H
1/4 x 3/32		ZR1348-303H	ZR1348-316H	ZR1348-416H	ZR1348-286H	ZR1348-414H
1/4 x 1/8	10-24 x 3/8	ZR1300-303H	ZR1300-316H	ZR1300-416H	ZR1300-286H	ZR1300-414H
1/4 x 1/8	10-32 x 1/4	ZR1350-303H	ZR1350-316H	ZR1350-416H	ZR1350-286H	ZR1350-414H
1/4 x 5/32		ZR1352-303H	ZR1352-316H	ZR1352-416H	ZR1352-286H	ZR1352-414H
1/4 x 3/16	10-24 x 3/8	ZR1304-303H	ZR1304-316H	ZR1304-416H	ZR1304-286H	ZR1304-414H
1/4 x 3/16	10-32 x 1/4	ZR1354-303H	ZR1354-316H	ZR1354-416H	ZR1354-286H	ZR1354-414H
1/4 x 7/32		ZR1356-303H	ZR1356-316H	ZR1356-416H	ZR1356-286H	ZR1356-414H
1/4 x 1/4	10-24 x 3/8	ZR1308-303H	ZR1308-316H	ZR1308-416H	ZR1308-286H	ZR1308-414H

Chart continued on next page

## Tight Tolerance Smooth Head – Inch



ZR1358-303H

### 1/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
1/4 x 1/4		ZR1358-303H	ZR1358-316H	ZR1358-416H	ZR1358-286H	ZR1358-414H
1/4 x 9/32	10-32 x 1/4	ZR1360-303H	ZR1360-316H	ZR1360-416H	ZR1360-286H	ZR1360-414H
1/4 x 5/16	10-24 x 3/8	ZR1312-303H	ZR1312-316H	ZR1312-416H	ZR1312-286H	ZR1312-414H
1/4 x 5/16	10-32 x 1/4	ZR1362-303H	ZR1362-316H	ZR1362-416H	ZR1362-286H	ZR1362-414H
1/4 x 11/32		ZR1364-303H	ZR1364-316H	ZR1364-416H	ZR1364-286H	ZR1364-414H
1/4 x 3/8	10-24 x 3/8	ZR1316-303H	ZR1316-316H	ZR1316-416H	ZR1316-286H	ZR1316-414H
1/4 x 3/8	10-32 x 1/4	ZR1366-303H	ZR1366-316H	ZR1366-416H	ZR1366-286H	ZR1366-414H
1/4 x 7/16		ZR1368-303H	ZR1368-316H	ZR1368-416H	ZR1368-286H	ZR1368-414H
1/4 x 7/16	10-24 x 3/8	ZR1318-303H	ZR1318-316H	ZR1318-416H	ZR1318-286H	ZR1318-414H
1/4 x 1/2		ZR1320-303H	ZR1320-316H	ZR1320-416H	ZR1320-286H	ZR1320-414H
1/4 x 1/2	10-32 x 1/4	ZR1370-303H	ZR1370-316H	ZR1370-416H	ZR1370-286H	ZR1370-414H
1/4 x 9/16		ZR1372-303H	ZR1372-316H	ZR1372-416H	ZR1372-286H	ZR1372-414H
1/4 x 5/8	10-24 x 3/8	ZR1324-303H	ZR1324-316H	ZR1324-416H	ZR1324-286H	ZR1324-414H
1/4 x 5/8	10-32 x 1/4	ZR1374-303H	ZR1374-316H	ZR1374-416H	ZR1374-286H	ZR1374-414H
1/4 x 11/16		ZR1376-303H	ZR1376-316H	ZR1376-416H	ZR1376-286H	ZR1376-414H
1/4 x 3/4	10-24 x 3/8	ZR1328-303H	ZR1328-316H	ZR1328-416H	ZR1328-286H	ZR1328-414H
1/4 x 3/4	10-32 x 1/4	ZR1378-303H	ZR1378-316H	ZR1378-416H	ZR1378-286H	ZR1378-414H
1/4 x 7/8	10-24 x 3/8	ZR1330-303H	ZR1330-316H	ZR1330-416H	ZR1330-286H	ZR1330-414H
1/4 x 7/8	10-32 x 1/4	ZR1380-303H	ZR1380-316H	ZR1380-416H	ZR1380-286H	ZR1380-414H
1/4 x 1	10-24 x 3/8	ZR1332-303H	ZR1332-316H	ZR1332-416H	ZR1332-286H	ZR1332-414H
1/4 x 1	10-32 x 1/4	ZR1382-303H	ZR1382-316H	ZR1382-416H	ZR1382-286H	ZR1382-414H
1/4 x 1-1/8		ZR1384-303H	ZR1384-316H	ZR1384-416H	ZR1384-286H	ZR1384-414H
1/4 x 1-1/4	10-24 x 3/8	ZR1336-303H	ZR1336-316H	ZR1336-416H	ZR1336-286H	ZR1336-414H
1/4 x 1-1/4	10-32 x 1/4	ZR1386-303H	ZR1386-316H	ZR1386-416H	ZR1386-286H	ZR1386-414H
1/4 x 1-3/8		ZR1388-303H	ZR1388-316H	ZR1388-416H	ZR1388-286H	ZR1388-414H
1/4 x 1-1/2	10-24 x 3/8	ZR1340-303H	ZR1340-316H	ZR1340-416H	ZR1340-286H	ZR1340-414H
1/4 x 1-1/2		ZR1390-303H	ZR1390-316H	ZR1390-416H	ZR1390-286H	ZR1390-414H
1/4 x 1-5/8	10-32 x 1/4	ZR1392-303H	ZR1392-316H	ZR1392-416H	ZR1392-286H	ZR1392-414H
1/4 x 1-3/4		ZR1394-303H	ZR1394-316H	ZR1394-416H	ZR1394-286H	ZR1394-414H
1/4 x 2		ZR1396-303H	ZR1396-316H	ZR1396-416H	ZR1396-286H	ZR1396-414H



ZR1398-303H

### 5/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
5/16 x 1/8		ZR1398-303H	ZR1398-316H	ZR1398-416H	ZR1398-286H	ZR1398-414H
5/16 x 1/4	1/4-20 x 7/16	ZR1400-303H	ZR1400-316H	ZR1400-416H	ZR1400-286H	ZR1400-414H
5/16 x 5/16		ZR1404-303H	ZR1404-316H	ZR1404-416H	ZR1404-286H	ZR1404-414H
5/16 x 3/8		ZR1408-303H	ZR1408-316H	ZR1408-416H	ZR1408-286H	ZR1408-414H
5/16 x 1/2	1/4-20 x 7/16	ZR1412-303H	ZR1412-316H	ZR1412-416H	ZR1412-286H	ZR1412-414H
5/16 x 5/8		ZR1416-303H	ZR1416-316H	ZR1416-416H	ZR1416-286H	ZR1416-414H

Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-100

18-8 SS, 316 SS,  
416 SS, A286, Alloy

## Tight Tolerance Smooth Head – Inch



ZR1420-303H

### 5/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
5/16 x 3/4		ZR1420-303H	ZR1420-316H	ZR1420-416H	ZR1420-286H	ZR1420-414H
5/16 x 7/8	1/4-20 x 7/16	ZR1422-303H	ZR1422-316H	ZR1422-416H	ZR1422-286H	ZR1422-414H
5/16 x 1		ZR1424-303H	ZR1424-316H	ZR1424-416H	ZR1424-286H	ZR1424-414H
5/16 x 1-1/4		ZR1428-303H	ZR1428-316H	ZR1428-416H	ZR1428-286H	ZR1428-414H
5/16 x 1-1/2	1/4-20 x 7/16	ZR1432-303H	ZR1432-316H	ZR1432-416H	ZR1432-286H	ZR1432-414H



ZR1513-303H

### 3/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
3/8 x 1/8		ZR1513-303H	ZR1513-316H	ZR1513-416H	ZR1513-286H	ZR1513-414H
3/8 x 3/16	5/16-18 x 1/2	ZR1514-303H	ZR1514-316H	ZR1514-416H	ZR1514-286H	ZR1514-414H
3/8 x 1/4		ZR1515-303H	ZR1515-316H	ZR1515-416H	ZR1515-286H	ZR1515-414H
3/8 x 5/16	1/4-20 x 7/16	ZR1500-303H	ZR1500-316H	ZR1500-416H	ZR1500-286H	ZR1500-414H
3/8 x 5/16	5/16-18 x 1/2	ZR1516-303H	ZR1516-316H	ZR1516-416H	ZR1516-286H	ZR1516-414H
3/8 x 3/8	1/4-20 x 7/16	ZR1504-303H	ZR1504-316H	ZR1504-416H	ZR1504-286H	ZR1504-414H
3/8 x 3/8	5/16-18 x 1/2	ZR1520-303H	ZR1520-316H	ZR1520-416H	ZR1520-286H	ZR1520-414H
3/8 x 1/2	1/4-20 x 7/16	ZR1508-303H	ZR1508-316H	ZR1508-416H	ZR1508-286H	ZR1508-414H
3/8 x 1/2	5/16-18 x 1/2	ZR1524-303H	ZR1524-316H	ZR1524-416H	ZR1524-286H	ZR1524-414H
3/8 x 5/8	1/4-20 x 7/16	ZR1512-303H	ZR1512-316H	ZR1512-416H	ZR1512-286H	ZR1512-414H
3/8 x 5/8		ZR1528-303H	ZR1528-316H	ZR1528-416H	ZR1528-286H	ZR1528-414H
3/8 x 3/4	5/16-18 x 1/2	ZR1532-303H	ZR1532-316H	ZR1532-416H	ZR1532-286H	ZR1532-414H
3/8 x 7/8		ZR1534-303H	ZR1534-316H	ZR1534-416H	ZR1534-286H	ZR1534-414H
3/8 x 1		ZR1536-303H	ZR1536-316H	ZR1536-416H	ZR1536-286H	ZR1536-414H
3/8 x 1-1/4		ZR1540-303H	ZR1540-316H	ZR1540-416H	ZR1540-286H	ZR1540-414H
3/8 x 1-1/2	5/16-18 x 1/2	ZR1544-303H	ZR1544-316H	ZR1544-416H	ZR1544-286H	ZR1544-414H
3/8 x 2		ZR1546-303H	ZR1546-316H	ZR1546-416H	ZR1546-286H	ZR1546-414H



ZR1600-303H

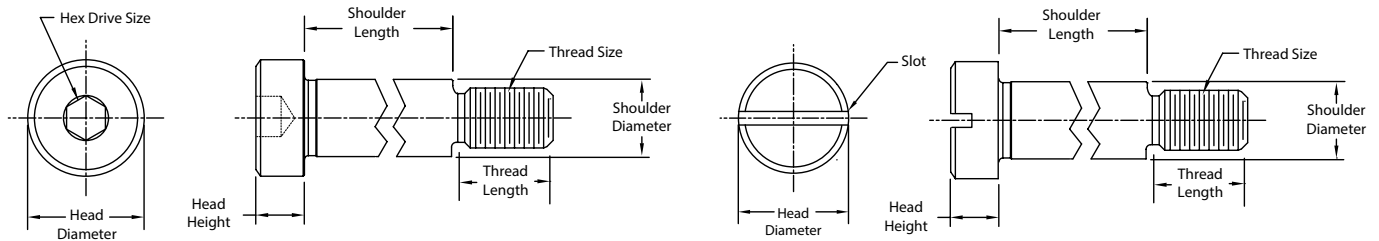
### 1/2 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
1/2 x 1/2		ZR1600-303H	ZR1600-316H	ZR1600-416H	ZR1600-286H	ZR1600-414H
1/2 x 5/8	3/8-16 x 5/8	ZR1604-303H	ZR1604-316H	ZR1604-416H	ZR1604-286H	ZR1604-414H
1/2 x 3/4		ZR1608-303H	ZR1608-316H	ZR1608-416H	ZR1608-286H	ZR1608-414H
1/2 x 1		ZR1612-303H	ZR1612-316H	ZR1612-416H	ZR1612-286H	ZR1612-414H
1/2 x 1-1/4		ZR1616-303H	ZR1616-316H	ZR1616-416H	ZR1616-286H	ZR1616-414H
1/2 x 1-1/2	3/8-16 x 5/8	ZR1620-303H	ZR1620-316H	ZR1620-416H	ZR1620-286H	ZR1620-414H
1/2 x 2		ZR1624-303H	ZR1624-316H	ZR1624-416H	ZR1624-286H	ZR1624-414H

## Tight Tolerance Smooth Head – Metric

These are manufactured in our Indiana facility for mechanical and electronic applications. Screws have shoulders that are held to precise diameter. All product is turned (not headed or forged) on our advanced Swiss Lathes, and we produce the finest looking parts available today. Each bolt is manufactured in one complete operation, which produces a tightly controlled, consistent, and concentric product. Extra care is taken in our cleaning and packaging processes to protect the product after it is manufactured, so they arrive at your door looking like jewelry. Shoulder length tolerance is  $\pm 0.05\text{mm}$  to  $-0\text{mm}$ . Screws have a Class 6g thread fit.

Note : Alloy Steel Screws have a black-oxide finish to offer mild resistance to rust.



Hex Drive Smooth Head Shoulder Screws start on page B-107.  
Slotted Drive Smooth Head Shoulder Screws start on page B-115.

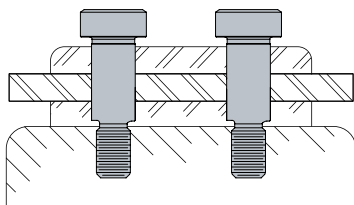
Dimensions and Tolerance Table – Metric					
Shoulder Diameter	Thread Size	Shoulder Diameter Max. to Min.	Head Diameter	Head Height	Hex Drive Size
3	M2 x 0.4	3.00 to 2.97	5.00	2.00	1.5
4	M3 x 0.5	4.00 to 3.97	6.00	3.00	2
5	M4 x 0.7	5.00 to 4.97	8.00	4.00	2.5
6	M5 x 0.8	6.00 to 5.97	10.00	5.00	3
8	M6 x 1	8.00 to 7.97	12.00*	6.00	4
10	M6 x 1	10.00 to 9.97	12.00**	6.00	4
10	M8 x 1.25	10.00 to 9.97	14.00**	7.00	5
12	M10 x 1.5	12.00 to 11.97	20.00	8.00***	6

18-8 Stainless Steel is manufactured from Type 303 Stainless Steel Bar.

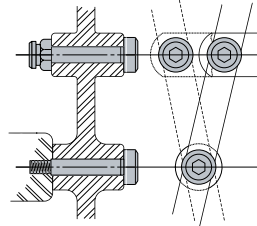
\*Head diameter is 13.00 for 316 stainless steel screws.

\*\*Head diameter is 16.00 for 316 stainless steel screws.

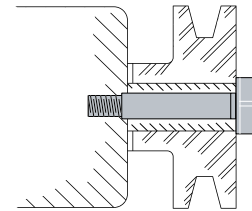
\*\*\*Head height is 9.00 for 316 stainless steel screws.



Shoulder Screws as a Guide



Shoulder Screws as a Pivot Point



Shoulder Screws as a Shaft

# Shoulder Screws

For technical drawings and charts, please see page B-106

18-8 SS, 316 SS,  
416 SS, A286, Alloy

## Tight Tolerance Smooth Head — Metric

### 18-8 (A2), 316 (A4), 416, A286 Stainless Steels and Alloy Steel — Hex Drive

- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- All stainless steel screws adhere to environmental regulations established by European Union RoHS directive.
- All shoulder diameters meet or exceed accepted industry standards and AMPG's internal specification AMPG 2006 ZR.02.



ZR1680-303H

#### 3mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
3 x 2	M2 x 0.4 x 4	ZR1680-303H	ZR1680-316H	ZR1680-416H	ZR1680-286H	ZR1680-414H
3 x 3		ZR1681-303H	ZR1681-316H	ZR1681-416H	ZR1681-286H	ZR1681-414H
3 x 4		ZR1682-303H	ZR1682-316H	ZR1682-416H	ZR1682-286H	ZR1682-414H
3 x 5		ZR1683-303H	ZR1683-316H	ZR1683-416H	ZR1683-286H	ZR1683-414H
3 x 6		M2 x 0.4 x 4	ZR1684-303H	ZR1684-316H	ZR1684-416H	ZR1684-286H
3 x 7	ZR1685-303H		ZR1685-316H	ZR1685-416H	ZR1685-286H	ZR1685-414H
3 x 8	ZR1688-303H		ZR1688-316H	ZR1688-416H	ZR1688-286H	ZR1688-414H
3 x 10	ZR1686-303H		ZR1686-316H	ZR1686-416H	ZR1686-286H	ZR1686-414H
3 x 12	M2 x 0.4 x 4		ZR1687-303H	ZR1687-316H	ZR1687-416H	ZR1687-286H
3 x 14		ZR1689-303H	ZR1689-316H	ZR1689-416H	ZR1689-286H	ZR1689-414H
3 x 16		ZR1691-303H	ZR1691-316H	ZR1691-416H	ZR1691-286H	ZR1691-414H
3 x 18		ZR1693-303H	ZR1693-316H	ZR1693-416H	ZR1693-286H	ZR1693-414H
3 x 20		M2 x 0.4 x 4	ZR1694-303H	ZR1694-316H	ZR1694-416H	ZR1694-286H
3 x 25	ZR1695-303H		ZR1695-316H	ZR1695-416H	ZR1695-286H	ZR1695-414H



ZR1697-303H

#### 4mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
4 x 2	M3 x 0.5 x 4	ZR1697-303H	ZR1697-316H	ZR1697-416H	ZR1697-286H	ZR1697-414H
4 x 3		ZR1698-303H	ZR1698-316H	ZR1698-416H	ZR1698-286H	ZR1698-414H
4 x 4		ZR1700-303H	ZR1700-316H	ZR1700-416H	ZR1700-286H	ZR1700-414H
4 x 5		ZR1704-303H	ZR1704-316H	ZR1704-416H	ZR1704-286H	ZR1704-414H
4 x 6		M3 x 0.5 x 4	ZR1708-303H	ZR1708-316H	ZR1708-416H	ZR1708-286H
4 x 7	ZR1699-303H		ZR1699-316H	ZR1699-416H	ZR1699-286H	ZR1699-414H
4 x 8	ZR1712-303H		ZR1712-316H	ZR1712-416H	ZR1712-286H	ZR1712-414H
4 x 10	ZR1716-303H		ZR1716-316H	ZR1716-416H	ZR1716-286H	ZR1716-414H
4 x 12	M3 x 0.5 x 4		ZR1718-303H	ZR1718-316H	ZR1718-416H	ZR1718-286H
4 x 14		ZR1721-303H	ZR1721-316H	ZR1721-416H	ZR1721-286H	ZR1721-414H
4 x 16		ZR1719-303H	ZR1719-316H	ZR1719-416H	ZR1719-286H	ZR1719-414H
4 x 18		ZR1722-303H	ZR1722-316H	ZR1722-416H	ZR1722-286H	ZR1722-414H
4 x 20		M3 x 0.5 x 4	ZR1723-303H	ZR1723-316H	ZR1723-416H	ZR1723-286H
4 x 25	ZR1720-303H		ZR1720-316H	ZR1720-416H	ZR1720-286H	ZR1720-414H
4 x 30	ZR1724-303H		ZR1724-316H	ZR1724-416H	ZR1724-286H	ZR1724-414H
4 x 35	ZR1725-303H		ZR1725-316H	ZR1725-416H	ZR1725-286H	ZR1725-414H

Chart continued on next page

## Tight Tolerance Smooth Head – Metric



ZR1730-303H

### 4mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
4 x 40		ZR1730-303H	ZR1730-316H	ZR1730-416H	ZR1730-286H	ZR1730-414H
4 x 45	M3 x 0.5 x 4	ZR1732-303H	ZR1732-316H	ZR1732-416H	ZR1732-286H	ZR1732-414H
4 x 50		ZR1734-303H	ZR1734-316H	ZR1734-416H	ZR1734-286H	ZR1734-414H



ZR1748-303H

### 5mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
5 x 2		ZR1748-303H	ZR1748-316H	ZR1748-416H	ZR1748-286H	ZR1748-414H
5 x 3	M4 x 0.7 x 5	ZR1749-303H	ZR1749-316H	ZR1749-416H	ZR1749-286H	ZR1749-414H
5 x 4		ZR1750-303H	ZR1750-316H	ZR1750-416H	ZR1750-286H	ZR1750-414H
5 x 5		ZR1754-303H	ZR1754-316H	ZR1754-416H	ZR1754-286H	ZR1754-414H
5 x 6		ZR1758-303H	ZR1758-316H	ZR1758-416H	ZR1758-286H	ZR1758-414H
5 x 7	M4 x 0.7 x 5	ZR1760-303H	ZR1760-316H	ZR1760-416H	ZR1760-286H	ZR1760-414H
5 x 8		ZR1762-303H	ZR1762-316H	ZR1762-416H	ZR1762-286H	ZR1762-414H
5 x 10		ZR1766-303H	ZR1766-316H	ZR1766-416H	ZR1766-286H	ZR1766-414H
5 x 12		ZR1770-303H	ZR1770-316H	ZR1770-416H	ZR1770-286H	ZR1770-414H
5 x 14	M4 x 0.7 x 5	ZR1774-303H	ZR1774-316H	ZR1774-416H	ZR1774-286H	ZR1774-414H
5 x 16		ZR1778-303H	ZR1778-316H	ZR1778-416H	ZR1778-286H	ZR1778-414H
5 x 18		ZR1779-303H	ZR1779-316H	ZR1779-416H	ZR1779-286H	ZR1779-414H
5 x 20		ZR1782-303H	ZR1782-316H	ZR1782-416H	ZR1782-286H	ZR1782-414H
5 x 25	M4 x 0.7 x 5	ZR1786-303H	ZR1786-316H	ZR1786-416H	ZR1786-286H	ZR1786-414H
5 x 30		ZR1790-303H	ZR1790-316H	ZR1790-416H	ZR1790-286H	ZR1790-414H
5 x 35		ZR1791-303H	ZR1791-316H	ZR1791-416H	ZR1791-286H	ZR1791-414H
5 x 40		ZR1793-303H	ZR1793-316H	ZR1793-416H	ZR1793-286H	ZR1793-414H
5 x 45	M4 x 0.7 x 5	ZR1795-303H	ZR1795-316H	ZR1795-416H	ZR1795-286H	ZR1795-414H
5 x 50		ZR1799-303H	ZR1799-316H	ZR1799-416H	ZR1799-286H	ZR1799-414H



ZR1702-303H

### 6mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
6 x 2		ZR1702-303H	ZR1702-316H	ZR1702-416H	ZR1702-286H	ZR1702-414H
6 x 3	M5 x 0.8 x 6	ZR1798-303H	ZR1798-316H	ZR1798-416H	ZR1798-286H	ZR1798-414H
6 x 4		ZR1800-303H	ZR1800-316H	ZR1800-416H	ZR1800-286H	ZR1800-414H
6 x 5		ZR1804-303H	ZR1804-316H	ZR1804-416H	ZR1804-286H	ZR1804-414H
6 x 6	M5 x 0.8 x 6	ZR1808-303H	ZR1808-316H	ZR1808-416H	ZR1808-286H	ZR1808-414H

Chart continued on next page



# Shoulder Screws

For technical drawings and charts, please see page B-106

18-8 SS, 316 SS,  
416 SS, A286, Alloy

## Tight Tolerance Smooth Head – Metric



ZR1809-303H

### 6mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
6 x 7	M5 x 0.8 x 6	ZR1809-303H	ZR1809-316H	ZR1809-416H	ZR1809-286H	ZR1809-414H
6 x 8		ZR1812-303H	ZR1812-316H	ZR1812-416H	ZR1812-286H	ZR1812-414H
6 x 10		ZR1816-303H	ZR1816-316H	ZR1816-416H	ZR1816-286H	ZR1816-414H
6 x 12		ZR1820-303H	ZR1820-316H	ZR1820-416H	ZR1820-286H	ZR1820-414H
6 x 14	M5 x 0.8 x 6	ZR1824-303H	ZR1824-316H	ZR1824-416H	ZR1824-286H	ZR1824-414H
6 x 16		ZR1828-303H	ZR1828-316H	ZR1828-416H	ZR1828-286H	ZR1828-414H
6 x 18		ZR1829-303H	ZR1829-316H	ZR1829-416H	ZR1829-286H	ZR1829-414H
6 x 20		ZR1832-303H	ZR1832-316H	ZR1832-416H	ZR1832-286H	ZR1832-414H
6 x 25	M5 x 0.8 x 6	ZR1836-303H	ZR1836-316H	ZR1836-416H	ZR1836-286H	ZR1836-414H
6 x 30		ZR1840-303H	ZR1840-316H	ZR1840-416H	ZR1840-286H	ZR1840-414H
6 x 35		ZR1842-303H	ZR1842-316H	ZR1842-416H	ZR1842-286H	ZR1842-414H
6 x 40		ZR1844-303H	ZR1844-316H	ZR1844-416H	ZR1844-286H	ZR1844-414H
6 x 45	M5 x 0.8 x 6	ZR1846-303H	ZR1846-316H	ZR1846-416H	ZR1846-286H	ZR1846-414H
6 x 50		ZR1848-303H	ZR1848-316H	ZR1848-416H	ZR1848-286H	ZR1848-414H
6 x 55		ZR1850-303H	ZR1850-316H	ZR1850-416H	ZR1850-286H	ZR1850-414H
6 x 60		ZR1852-303H	ZR1852-316H	ZR1852-416H	ZR1852-286H	ZR1852-414H
6 x 65	M5 x 0.8 x 6	ZR1854-303H	ZR1854-316H	ZR1854-416H	ZR1854-286H	ZR1854-414H



ZR1901-303H

### 8mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
8 x 4	M6 x 1 x 11	ZR1901-303H	ZR1901-316H	ZR1901-416H	ZR1901-286H	ZR1901-414H
8 x 5		ZR1902-303H	ZR1902-316H	ZR1902-416H	ZR1902-286H	ZR1902-414H
8 x 6		ZR1900-303H	ZR1900-316H	ZR1900-416H	ZR1900-286H	ZR1900-414H
8 x 7		ZR1903-303H	ZR1903-316H	ZR1903-416H	ZR1903-286H	ZR1903-414H
8 x 8	M6 x 1 x 11	ZR1904-303H	ZR1904-316H	ZR1904-416H	ZR1904-286H	ZR1904-414H
8 x 10		ZR1908-303H	ZR1908-316H	ZR1908-416H	ZR1908-286H	ZR1908-414H
8 x 12		ZR1912-303H	ZR1912-316H	ZR1912-416H	ZR1912-286H	ZR1912-414H
8 x 14		ZR1914-303H	ZR1914-316H	ZR1914-416H	ZR1914-286H	ZR1914-414H
8 x 16	M6 x 1 x 11	ZR1916-303H	ZR1916-316H	ZR1916-416H	ZR1916-286H	ZR1916-414H
8 x 18		ZR1918-303H	ZR1918-316H	ZR1918-416H	ZR1918-286H	ZR1918-414H
8 x 20		ZR1920-303H	ZR1920-316H	ZR1920-416H	ZR1920-286H	ZR1920-414H
8 x 25		ZR1921-303H	ZR1921-316H	ZR1921-416H	ZR1921-286H	ZR1921-414H
8 x 30	M6 x 1 x 11	ZR1922-303H	ZR1922-316H	ZR1922-416H	ZR1922-286H	ZR1922-414H
8 x 35		ZR1935-303H	ZR1935-316H	ZR1935-416H	ZR1935-286H	ZR1935-414H
8 x 40		ZR1924-303H	ZR1924-316H	ZR1924-416H	ZR1924-286H	ZR1924-414H
8 x 45		ZR1926-303H	ZR1926-316H	ZR1926-416H	ZR1926-286H	ZR1926-414H
8 x 50	M6 x 1 x 11	ZR1928-303H	ZR1928-316H	ZR1928-416H	ZR1928-286H	ZR1928-414H

Chart continued on next page

## Tight Tolerance Smooth Head – Metric



ZR1950-303H

### 10mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
10 x 8	M6 x 1 x 11	ZR1950-303H	ZR1950-316H	ZR1950-416H	ZR1950-286H	ZR1950-414H
10 x 8	M8 x 1.25 x 12	ZR1966-303H	ZR1966-316H	ZR1966-416H	ZR1966-286H	ZR1966-414H
10 x 10	M6 x 1 x 11	ZR1954-303H	ZR1954-316H	ZR1954-416H	ZR1954-286H	ZR1954-414H
10 x 10	M8 x 1.25 x 12	ZR1970-303H	ZR1970-316H	ZR1970-416H	ZR1970-286H	ZR1970-414H
10 x 12	M6 x 1 x 11	ZR1958-303H	ZR1958-316H	ZR1958-416H	ZR1958-286H	ZR1958-414H
10 x 12	M8 x 1.25 x 12	ZR1974-303H	ZR1974-316H	ZR1974-416H	ZR1974-286H	ZR1974-414H
10 x 14		ZR1968-303H	ZR1968-316H	ZR1968-416H	ZR1968-286H	ZR1968-414H
10 x 16	M6 x 1 x 11	ZR1962-303H	ZR1962-316H	ZR1962-416H	ZR1962-286H	ZR1962-414H
10 x 16	M8 x 1.25 x 12	ZR1978-303H	ZR1978-316H	ZR1978-416H	ZR1978-286H	ZR1978-414H
10 x 18		ZR1969-303H	ZR1969-316H	ZR1969-416H	ZR1969-286H	ZR1969-414H
10 x 20		ZR1971-303H	ZR1971-316H	ZR1971-416H	ZR1971-286H	ZR1971-414H
10 x 25		ZR1972-303H	ZR1972-316H	ZR1972-416H	ZR1972-286H	ZR1972-414H
10 x 30	M8 x 1.25 x 12	ZR1973-303H	ZR1973-316H	ZR1973-416H	ZR1973-286H	ZR1973-414H
10 x 35		ZR1975-303H	ZR1975-316H	ZR1975-416H	ZR1975-286H	ZR1975-414H
10 x 40		ZR1976-303H	ZR1976-316H	ZR1976-416H	ZR1976-286H	ZR1976-414H
10 x 45		ZR1977-303H	ZR1977-316H	ZR1977-416H	ZR1977-286H	ZR1977-414H
10 x 50	M8 x 1.25 x 12	ZR1979-303H	ZR1979-316H	ZR1979-416H	ZR1979-286H	ZR1979-414H



ZR1981-303H

### 12mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
12 x 8	M10 x 1.5 x 16	ZR1981-303H	ZR1981-316H	ZR1981-416H	ZR1981-286H	ZR1981-414H
12 x 10		ZR1983-303H	ZR1983-316H	ZR1983-416H	ZR1983-286H	ZR1983-414H
12 x 12		ZR1980-303H	ZR1980-316H	ZR1980-416H	ZR1980-286H	ZR1980-414H
12 x 14		ZR1982-303H	ZR1982-316H	ZR1982-416H	ZR1982-286H	ZR1982-414H
12 x 16	M10 x 1.5 x 16	ZR1984-303H	ZR1984-316H	ZR1984-416H	ZR1984-286H	ZR1984-414H
12 x 18		ZR1986-303H	ZR1986-316H	ZR1986-416H	ZR1986-286H	ZR1986-414H
12 x 20		ZR1988-303H	ZR1988-316H	ZR1988-416H	ZR1988-286H	ZR1988-414H
12 x 25		ZR1992-303H	ZR1992-316H	ZR1992-416H	ZR1992-286H	ZR1992-414H
12 x 30	M10 x 1.5 x 16	ZR1993-303H	ZR1993-316H	ZR1993-416H	ZR1993-286H	ZR1993-414H
12 x 35		ZR1994-303H	ZR1994-316H	ZR1994-416H	ZR1994-286H	ZR1994-414H
12 x 40		ZR1996-303H	ZR1996-316H	ZR1996-416H	ZR1996-286H	ZR1996-414H
12 x 45		ZR1998-303H	ZR1998-316H	ZR1998-416H	ZR1998-286H	ZR1998-414H
12 x 50	M10 x 1.5 x 16	ZR1999-303H	ZR1999-316H	ZR1999-416H	ZR1999-286H	ZR1999-414H

# Shoulder Screws

For technical drawings and charts, please see page B-100

Brass

## Friction Resistant Smooth Head – Inch

### Brass – Hex Drive

- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- All shoulder diameters meet or exceed accepted industry standards and AMPG's internal specification AMPG 2006 BR.01.
- Brass material adheres to environmental regulations established by European Union RoHS directive. Current RoHS exemption allows alloying element containing up to 4% lead by weight.



STR55018C02

### 1/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Brass Part Number
1/8 x 1/8		STR55018C02
1/8 x 3/16	4-40 x 5/32	STR55018C03
1/8 x 1/4		STR55018C04
1/8 x 5/16		STR55018C05
1/8 x 3/8		STR55018C06
1/8 x 7/16	4-40 x 5/32	STR55018C07
1/8 x 1/2		STR55018C08
1/8 x 3/4		STR55018C12
1/8 x 1		STR55018C16
1/8 x 1-1/4	4-40 x 5/32	STR55018C20
1/8 x 1-1/2		STR55018C24
1/8 x 1-3/4		STR55018C28
1/8 x 2	4-40 x 5/32	STR55018C32



STR55053C02

### 5/32 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Brass Part Number
5/32 x 1/8		STR55053C02
5/32 x 3/16	6-32 x 3/16	STR55053C03
5/32 x 1/4		STR55053C04
5/32 x 5/16		STR55053C05
5/32 x 3/8		STR55053C06
5/32 x 7/16	6-32 x 3/16	STR55053C07
5/32 x 1/2		STR55053C08
5/32 x 3/4		STR55053C12
5/32 x 1		STR55053C16
5/32 x 1-1/4	6-32 x 3/16	STR55053C20
5/32 x 1-1/2		STR55053C24
5/32 x 1-3/4		STR55053C28
5/32 x 2	6-32 x 3/16	STR55053C32



STR55031C02

### 3/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Brass Part Number
3/16 x 1/8		STR55031C02
3/16 x 3/16	8-32 x 3/16	STR55031C03
3/16 x 1/4		STR55031C04
3/16 x 5/16		STR55031C05
3/16 x 3/8		STR55031C06
3/16 x 7/16	8-32 x 3/16	STR55031C07
3/16 x 1/2		STR55031C08
3/16 x 5/8		STR55031C10
3/16 x 3/4		STR55031C12
3/16 x 1	8-32 x 3/16	STR55031C16
3/16 x 1-1/4		STR55031C20
3/16 x 1-1/2		STR55031C24
3/16 x 1-3/4		STR55031C28
3/16 x 2	8-32 x 3/16	STR55031C32
3/16 x 2-1/2		STR55031C40



STR55014C02

### 1/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Brass Part Number
1/4 x 1/8		STR55014C02
1/4 x 3/16	10-24 x 1/4	STR55014C03
1/4 x 1/4		STR55014C04
1/4 x 5/16		STR55014C05
1/4 x 1/8		STR55014F02
1/4 x 3/16	10-32 x 1/4	STR55014F03
1/4 x 1/4		STR55014F04
1/4 x 5/16		STR55014F05
1/4 x 3/8		STR55014C06
1/4 x 7/16	10-24 x 1/4	STR55014C07
1/4 x 1/2		STR55014C08
1/4 x 5/8		STR55014C10
1/4 x 3/8	10-32 x 1/4	STR55014F06

Chart continued on next page

## Friction Resistant Smooth Head – Inch



STR55014F07



STR55051C04

## 1/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Brass Part Number
1/4 x 7/16		STR55014F07
1/4 x 1/2	10-32 x 1/4	STR55014F08
1/4 x 5/8		STR55014F10
1/4 x 3/4		STR55014C12
1/4 x 7/8	10-24 x 1/4	STR55014C14
1/4 x 1		STR55014C16
1/4 x 1-1/4		STR55014C20
1/4 x 3/4		STR55014F12
1/4 x 7/8	10-32 x 1/4	STR55014F14
1/4 x 1		STR55014F16
1/4 x 1-1/4		STR55014F20
1/4 x 1-1/2		STR55014C24
1/4 x 1-3/4	10-24 x 1/4	STR55014C28
1/4 x 2		STR55014C32
1/4 x 1-1/2		STR55014F24
1/4 x 1-3/4	10-32 x 1/4	STR55014F28
1/4 x 2		STR55014F32



STR55038C08

## 3/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Brass Part Number
3/8 x 1/2		STR55038C08
3/8 x 5/8	5/16-18 x 1/2	STR55038C10
3/8 x 3/4		STR55038C12
3/8 x 7/8		STR55038C14
3/8 x 1/2		STR55038C08-1420
3/8 x 5/8	1/4-20 x 1/2	STR55038C10-1420
3/8 x 3/4		STR55038C12-1420
3/8 x 7/8		STR55038C14-1420
3/8 x 1		STR55038C16
3/8 x 1-1/4	5/16-18 x 1/2	STR55038C20
3/8 x 1-1/2		STR55038C24

## 5/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Brass Part Number
5/16 x 1/4		STR55051C04
5/16 x 5/16	1/4-20 x 7/16	STR55051C05
5/16 x 3/8		STR55051C06
5/16 x 7/16		STR55051C07
5/16 x 1/2		STR55051C08
5/16 x 5/8	1/4-20 x 7/16	STR55051C10
5/16 x 3/4		STR55051C12
5/16 x 7/8		STR55051C14
5/16 x 1		STR55051C16
5/16 x 1-1/4	1/4-20 x 7/16	STR55051C20
5/16 x 1-1/2		STR55051C24
5/16 x 1-3/4		STR55051C28
5/16 x 2	1/4-20 x 7/16	STR55051C32



STR55038C28

## 3/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Brass Part Number
3/8 x 1-3/4	5/16-18 x 1/2	STR55038C28
3/8 x 1		STR55038C16-1420
3/8 x 1-1/4	1/4-20 x 1/2	STR55038C20-1420
3/8 x 1-1/2		STR55038C24-1420
3/8 x 1-3/4		STR55038C28-1420
3/8 x 2		STR55038C32
3/8 x 2-1/2	5/16-18 x 1/2	STR55038C40
3/8 x 3		STR55038C48
3/8 x 3-1/2		STR55038C56
3/8 x 2		STR55038C32-1420
3/8 x 2-1/2	1/4-20 x 1/2	STR55038C40-1420
3/8 x 3		STR55038C48-1420
3/8 x 3-1/2		STR55038C56-1420
3/8 x 4	5/16-18 x 1/2	STR55038C64
3/8 x 4	1/4-20 x 1/2	STR55038C64-1420

Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-100

Brass

## Friction Resistant Smooth Head – Inch



STR55012C08



STR55034C08

### 1/2 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Brass Part Number
1/2 x 1/2		STR55012C08
1/2 x 5/8		STR55012C10
1/2 x 3/4	3/8-16 x 5/8	STR55012C12
1/2 x 7/8		STR55012C14
1/2 x 1		STR55012C16
1/2 x 1-1/4		STR55012C20
1/2 x 1-1/2	3/8-16 x 5/8	STR55012C24
1/2 x 1-3/4		STR55012C28
1/2 x 2		STR55012C32
1/2 x 2-1/2		STR55012C40
1/2 x 3	3/8-16 x 5/8	STR55012C48
1/2 x 3-1/2		STR55012C56
1/2 x 4	3/8-16 x 5/8	STR55012C64

### 3/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Brass Part Number
3/4 x 1/2		STR55034C08
3/4 x 5/8		STR55034C10
3/4 x 3/4	5/8-11 x 7/8	STR55034C12
3/4 x 7/8		STR55034C14
3/4 x 1		STR55034C16
3/4 x 1-1/4		STR55034C20
3/4 x 1-1/2	5/8-11 x 7/8	STR55034C24
3/4 x 1-3/4		STR55034C28
3/4 x 2		STR55034C32
3/4 x 2-1/2		STR55034C40
3/4 x 3	5/8-11 x 7/8	STR55034C48
3/4 x 3-1/2		STR55034C56
3/4 x 4	5/8-11 x 7/8	STR55034C64



STR55058C08



STR55001C08

### 5/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Brass Part Number
5/8 x 1/2		STR55058C08
5/8 x 5/8		STR55058C10
5/8 x 3/4	1/2-13 x 3/4	STR55058C12
5/8 x 7/8		STR55058C14
5/8 x 1		STR55058C16
5/8 x 1-1/4		STR55058C20
5/8 x 1-1/2	1/2-13 x 3/4	STR55058C24
5/8 x 1-3/4		STR55058C28
5/8 x 2		STR55058C32
5/8 x 2-1/2		STR55058C40
5/8 x 3	1/2-13 x 3/4	STR55058C48
5/8 x 3-1/2		STR55058C56
5/8 x 4	1/2-13 x 3/4	STR55058C64

### 1 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Brass Part Number
1 x 1/2		STR55001C08
1 x 5/8		STR55001C10
1 x 3/4	3/4-10 x 1	STR55001C12
1 x 7/8		STR55001C14
1 x 1		STR55001C16
1 x 1-1/4		STR55001C20
1 x 1-1/2	3/4-10 x 1	STR55001C24
1 x 1-3/4		STR55001C28
1 x 2		STR55001C32
1 x 2-1/2		STR55001C40
1 x 3	3/4-10 x 1	STR55001C48
1 x 3-1/2		STR55001C56
1 x 4	3/4-10 x 1	STR55001C64

## Friction Resistant Smooth Head – Metric

### Brass – Hex Drive

- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- All shoulder diameters meet or exceed accepted industry standards and AMPG's internal specification AMPG 2012 BR.02.
- Brass material adheres to environmental regulations established by European Union RoHS directive. Current RoHS exemption allows alloying element containing up to 4% lead by weight.



STR550M4X4

### 4mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Brass Part Number
4 x 4		STR550M4X4
4 x 5	M3 x 0.5 x 4	STR550M4X5
4 x 6		STR550M4X6
4 x 8		STR550M4X8
4 x 10	M3 x 0.5 x 4	STR550M4X10
4 x 25		STR550M4X25



STR550M5X4

### 5mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Brass Part Number
5 x 4		STR550M5X4
5 x 5	M4 x 0.7 x 5	STR550M5X5
5 x 6		STR550M5X6
5 x 8		STR550M5X8
5 x 10		STR550M5X10
5 x 12	M4 x 0.7 x 5	STR550M5X12
5 x 14		STR550M5X14
5 x 16		STR550M5X16
5 x 20		STR550M5X20
5 x 25	M4 x 0.7 x 5	STR550M5X25
5 x 30		STR550M5X30



STR550M6X4

### 6mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Brass Part Number
6 x 4		STR550M6X4
6 x 5	M5 x 0.8 x 6	STR550M6X5
6 x 6		STR550M6X6
6 x 8		STR550M6X8
6 x 10		STR550M6X10
6 x 12	M5 x 0.8 x 6	STR550M6X12
6 x 14		STR550M6X14
6 x 16		STR550M6X16
6 x 20		STR550M6X20
6 x 25	M5 x 0.8 x 6	STR550M6X25
6 x 30		STR550M6X30



STR550M8X6

### 8mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Brass Part Number
8 x 6		STR550M8X6
8 x 8	M6 x 1 x 11	STR550M8X8
8 x 10		STR550M8X10
8 x 12		STR550M8X12
8 x 16	M6 x 1 x 11	STR550M8X16
8 x 20		STR550M8X20



STR550M10X8

### 10mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Brass Part Number
10 x 8		STR550M10X8
10 x 10	M8 x 1.25 x 12	STR550M10X10
10 x 12		STR550M10X12
10 x 16		STR550M10X16
10 x 20	M8 x 1.25 x 12	STR550M10X20



STR550M12X12

### 12mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Brass Part Number
12 x 12		STR550M12X12
12 x 16	M10 x 1.5 x 16	STR550M12X16
12 x 20		STR550M12X20
12 x 25		STR550M12X25

# Shoulder Screws

For technical drawings and charts, please see page B-100

18-8 SS, 316 SS,  
416 SS, A286, Alloy

## Tight Tolerance Smooth Head – Inch

### 18-8, 316, 416, A286 Stainless Steels and Alloy Steel – Slotted Drive

- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- All stainless steel screws adhere to environmental regulations established by European Union RoHS directive.
- All shoulder diameters meet or exceed accepted industry standards and AMPG's internal specification AMPG 2010 ZR.01.



ZR0796-303S

### 3/32 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
3/32 x 1/16	2-56 x 1/8	ZR0796-303S	ZR0796-316S	ZR0796-416S	ZR0796-286S	ZR0796-414S
3/32 x 3/32		ZR0798-303S	ZR0798-316S	ZR0798-416S	ZR0798-286S	ZR0798-414S
3/32 x 1/8		ZR0800-303S	ZR0800-316S	ZR0800-416S	ZR0800-286S	ZR0800-414S
3/32 x 5/32		ZR0802-303S	ZR0802-316S	ZR0802-416S	ZR0802-286S	ZR0802-414S
3/32 x 3/16	2-56 x 1/8	ZR0804-303S	ZR0804-316S	ZR0804-416S	ZR0804-286S	ZR0804-414S
3/32 x 7/32		ZR0806-303S	ZR0806-316S	ZR0806-416S	ZR0806-286S	ZR0806-414S
3/32 x 1/4		ZR0808-303S	ZR0808-316S	ZR0808-416S	ZR0808-286S	ZR0808-414S
3/32 x 5/16		ZR0812-303S	ZR0812-316S	ZR0812-416S	ZR0812-286S	ZR0812-414S
3/32 x 3/8	2-56 x 1/8	ZR0816-303S	ZR0816-316S	ZR0816-416S	ZR0816-286S	ZR0816-414S
3/32 x 7/16		ZR0820-303S	ZR0820-316S	ZR0820-416S	ZR0820-286S	ZR0820-414S
3/32 x 1/2		ZR0824-303S	ZR0824-316S	ZR0824-416S	ZR0824-286S	ZR0824-414S
3/32 x 5/8		ZR0828-303S	ZR0828-316S	ZR0828-416S	ZR0828-286S	ZR0828-414S
3/32 x 3/4	2-56 x 1/8	ZR0832-303S	ZR0832-316S	ZR0832-416S	ZR0832-286S	ZR0832-414S
3/32 x 1		ZR0836-303S	ZR0836-316S	ZR0836-414S	ZR0836-286S	ZR0836-414S



ZR0996-303S

### 1/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
1/8 x 1/16	4-40 x 5/32	ZR0996-303S	ZR0996-316S	ZR0996-416S	ZR0996-286S	ZR0996-414S
1/8 x 3/32		ZR0998-303S	ZR0998-316S	ZR0998-416S	ZR0998-286S	ZR0998-414S
1/8 x 1/8		ZR1000-303S	ZR1000-316S	ZR1000-416S	ZR1000-286S	ZR1000-414S
1/8 x 5/32		ZR1002-303S	ZR1002-316S	ZR1002-416S	ZR1002-286S	ZR1002-414S
1/8 x 3/16	4-40 x 5/32	ZR1004-303S	ZR1004-316S	ZR1004-416S	ZR1004-286S	ZR1004-414S
1/8 x 7/32		ZR1006-303S	ZR1006-316S	ZR1006-416S	ZR1006-286S	ZR1006-414S
1/8 x 1/4		ZR1008-303S	ZR1008-316S	ZR1008-416S	ZR1008-286S	ZR1008-414S
1/8 x 9/32		ZR1010-303S	ZR1010-316S	ZR1010-416S	ZR1010-286S	ZR1010-414S
1/8 x 5/16	4-40 x 5/32	ZR1012-303S	ZR1012-316S	ZR1012-416S	ZR1012-286S	ZR1012-414S
1/8 x 11/32		ZR1014-303S	ZR1014-316S	ZR1014-416S	ZR1014-286S	ZR1014-414S
1/8 x 3/8		ZR1016-303S	ZR1016-316S	ZR1016-416S	ZR1016-286S	ZR1016-414S
1/8 x 13/32		ZR1018-303S	ZR1018-316S	ZR1018-416S	ZR1018-286S	ZR1018-414S
1/8 x 7/16	4-40 x 5/32	ZR1020-303S	ZR1020-316S	ZR1020-416S	ZR1020-286S	ZR1020-414S

Chart continued on next page



## Tight Tolerance Smooth Head – Inch



ZR1022-303S

### 1/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
1/8 x 15/32	4-40 x 5/32	ZR1022-303S	ZR1022-316S	ZR1022-416S	ZR1022-286S	ZR1022-414S
1/8 x 1/2		ZR1024-303S	ZR1024-316S	ZR1024-416S	ZR1024-286S	ZR1024-414S
1/8 x 9/16		ZR1026-303S	ZR1026-316S	ZR1026-416S	ZR1026-286S	ZR1026-414S
1/8 x 5/8		ZR1028-303S	ZR1028-316S	ZR1028-416S	ZR1028-286S	ZR1028-414S
1/8 x 11/16	4-40 x 5/32	ZR1030-303S	ZR1030-316S	ZR1030-416S	ZR1030-286S	ZR1030-414S
1/8 x 3/4		ZR1032-303S	ZR1032-316S	ZR1032-416S	ZR1032-286S	ZR1032-414S
1/8 x 7/8		ZR1034-303S	ZR1034-316S	ZR1034-416S	ZR1034-286S	ZR1034-414S
1/8 x 1		ZR1036-303S	ZR1036-316S	ZR1036-416S	ZR1036-286S	ZR1036-414S



ZR1096-303S

### 5/32 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
5/32 x 1/16	6-32 x 3/16	ZR1096-303S	ZR1096-316S	ZR1096-416S	ZR1096-286S	ZR1096-414S
5/32 x 3/32		ZR1098-303S	ZR1098-316S	ZR1098-416S	ZR1098-286S	ZR1098-414S
5/32 x 1/8		ZR1100-303S	ZR1100-316S	ZR1100-416S	ZR1100-286S	ZR1100-414S
5/32 x 5/32		ZR1102-303S	ZR1102-316S	ZR1102-416S	ZR1102-286S	ZR1102-414S
5/32 x 3/16	6-32 x 3/16	ZR1104-303S	ZR1104-316S	ZR1104-416S	ZR1104-286S	ZR1104-414S
5/32 x 7/32		ZR1106-303S	ZR1106-316S	ZR1106-416S	ZR1106-286S	ZR1106-414S
5/32 x 1/4		ZR1108-303S	ZR1108-316S	ZR1108-416S	ZR1108-286S	ZR1108-414S
5/32 x 9/32		ZR1110-303S	ZR1110-316S	ZR1110-416S	ZR1110-286S	ZR1110-414S
5/32 x 5/16	6-32 x 3/16	ZR1112-303S	ZR1112-316S	ZR1112-416S	ZR1112-286S	ZR1112-414S
5/32 x 11/32		ZR1114-303S	ZR1114-316S	ZR1114-416S	ZR1114-286S	ZR1114-414S
5/32 x 3/8		ZR1116-303S	ZR1116-316S	ZR1116-416S	ZR1116-286S	ZR1116-414S
5/32 x 13/32		ZR1118-303S	ZR1118-316S	ZR1118-416S	ZR1118-286S	ZR1118-414S
5/32 x 7/16	6-32 x 3/16	ZR1120-303S	ZR1120-316S	ZR1120-416S	ZR1120-286S	ZR1120-414S
5/32 x 15/32		ZR1122-303S	ZR1122-316S	ZR1122-416S	ZR1122-286S	ZR1122-414S
5/32 x 1/2		ZR1124-303S	ZR1124-316S	ZR1124-416S	ZR1124-286S	ZR1124-414S
5/32 x 9/16		ZR1126-303S	ZR1126-316S	ZR1126-416S	ZR1126-286S	ZR1126-414S
5/32 x 5/8	6-32 x 3/16	ZR1128-303S	ZR1128-316S	ZR1128-416S	ZR1128-286S	ZR1128-414S
5/32 x 11/16		ZR1130-303S	ZR1130-316S	ZR1130-416S	ZR1130-286S	ZR1130-414S
5/32 x 3/4		ZR1132-303S	ZR1132-316S	ZR1132-416S	ZR1132-286S	ZR1132-414S
5/32 x 7/8		ZR1134-303S	ZR1134-316S	ZR1134-416S	ZR1134-286S	ZR1134-414S
5/32 x 1	6-32 x 3/16	ZR1136-303S	ZR1136-316S	ZR1136-416S	ZR1136-286S	ZR1136-414S

Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-100

18-8 SS, 316 SS,  
416 SS, A286, Alloy

## Tight Tolerance Smooth Head – Inch

### 3/16 Shoulder Diameter



ZR1196-303S

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
3/16 x 1/16	8-32 x 3/16	ZR1196-303S	ZR1196-316S	ZR1196-416S	ZR1196-286S	ZR1196-414S
3/16 x 3/32		ZR1198-303S	ZR1198-316S	ZR1198-416S	ZR1198-286S	ZR1198-414S
3/16 x 1/8		ZR1200-303S	ZR1200-316S	ZR1200-416S	ZR1200-286S	ZR1200-414S
3/16 x 5/32		ZR1202-303S	ZR1202-316S	ZR1202-416S	ZR1202-286S	ZR1202-414S
3/16 x 3/16	8-32 x 3/16	ZR1204-303S	ZR1204-316S	ZR1204-416S	ZR1204-286S	ZR1204-414S
3/16 x 7/32		ZR1206-303S	ZR1206-316S	ZR1206-416S	ZR1206-286S	ZR1206-414S
3/16 x 1/4		ZR1208-303S	ZR1208-316S	ZR1208-416S	ZR1208-286S	ZR1208-414S
3/16 x 9/32		ZR1210-303S	ZR1210-316S	ZR1210-416S	ZR1210-286S	ZR1210-414S
3/16 x 5/16	8-32 x 3/16	ZR1212-303S	ZR1212-316S	ZR1212-416S	ZR1212-286S	ZR1212-414S
3/16 x 11/32		ZR1214-303S	ZR1214-316S	ZR1214-416S	ZR1214-286S	ZR1214-414S
3/16 x 3/8		ZR1216-303S	ZR1216-316S	ZR1216-416S	ZR1216-286S	ZR1216-414S
3/16 x 7/16		ZR1218-303S	ZR1218-316S	ZR1218-416S	ZR1218-286S	ZR1218-414S
3/16 x 1/2	8-32 x 3/16	ZR1220-303S	ZR1220-316S	ZR1220-416S	ZR1220-286S	ZR1220-414S
3/16 x 9/16		ZR1222-303S	ZR1222-316S	ZR1222-416S	ZR1222-286S	ZR1222-414S
3/16 x 5/8		ZR1224-303S	ZR1224-316S	ZR1224-416S	ZR1224-286S	ZR1224-414S
3/16 x 11/16		ZR1226-303S	ZR1226-316S	ZR1226-416S	ZR1226-286S	ZR1226-414S
3/16 x 3/4	8-32 x 3/16	ZR1228-303S	ZR1228-316S	ZR1228-416S	ZR1228-286S	ZR1228-414S
3/16 x 7/8		ZR1230-303S	ZR1230-316S	ZR1230-416S	ZR1230-286S	ZR1230-414S
3/16 x 1		ZR1232-303S	ZR1232-316S	ZR1232-416S	ZR1232-286S	ZR1232-414S
3/16 x 1-1/8		ZR1234-303S	ZR1234-316S	ZR1234-416S	ZR1234-286S	ZR1234-414S
3/16 x 1-1/4	8-32 x 3/16	ZR1236-303S	ZR1236-316S	ZR1236-416S	ZR1236-286S	ZR1236-414S
3/16 x 1-3/8		ZR1238-303S	ZR1238-316S	ZR1238-416S	ZR1238-286S	ZR1238-414S
3/16 x 1-1/2		ZR1240-303S	ZR1240-316S	ZR1240-416S	ZR1240-286S	ZR1240-414S
3/16 x 1-5/8		ZR1242-303S	ZR1242-316S	ZR1242-416S	ZR1242-286S	ZR1242-414S
3/16 x 1-3/4	8-32 x 3/16	ZR1244-303S	ZR1244-316S	ZR1244-416S	ZR1244-286S	ZR1244-414S
3/16 x 2		ZR1246-303S	ZR1246-316S	ZR1246-416S	ZR1246-286S	ZR1246-414S
3/16 x 2-1/2		ZR1250-303S	ZR1250-316S	ZR1250-416S	ZR1250-286S	ZR1250-414S



ZR1346-303S

### 1/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
1/4 x 1/16	10-32 x 1/4	ZR1346-303S	ZR1346-316S	ZR1346-416S	ZR1346-286S	ZR1346-414S
1/4 x 3/32		ZR1348-303S	ZR1348-316S	ZR1348-416S	ZR1348-286S	ZR1348-414S
1/4 x 1/8	10-24 x 3/8	ZR1300-303S	ZR1300-316S	ZR1300-416S	ZR1300-286S	ZR1300-414S
1/4 x 1/8	10-32 x 1/4	ZR1350-303S	ZR1350-316S	ZR1350-416S	ZR1350-286S	ZR1350-414S
1/4 x 5/32		ZR1352-303S	ZR1352-316S	ZR1352-416S	ZR1352-286S	ZR1352-414S
1/4 x 3/16	10-24 x 3/8	ZR1304-303S	ZR1304-316S	ZR1304-416S	ZR1304-286S	ZR1304-414S
1/4 x 3/16	10-32 x 1/4	ZR1354-303S	ZR1354-316S	ZR1354-416S	ZR1354-286S	ZR1354-414S
1/4 x 7/32		ZR1356-303S	ZR1356-316S	ZR1356-416S	ZR1356-286S	ZR1356-414S
1/4 x 1/4	10-24 x 3/8	ZR1308-303S	ZR1308-316S	ZR1308-416S	ZR1308-286S	ZR1308-414S

Chart continued on next page

## Tight Tolerance Smooth Head – Inch



ZR1358-303S

### 1/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
1/4 x 1/4		ZR1358-303S	ZR1358-316S	ZR1358-416S	ZR1358-286S	ZR1358-414S
1/4 x 9/32	10-32 x 1/4	ZR1360-303S	ZR1360-316S	ZR1360-416S	ZR1360-286S	ZR1360-414S
1/4 x 5/16	10-24 x 3/8	ZR1312-303S	ZR1312-316S	ZR1312-416S	ZR1312-286S	ZR1312-414S
1/4 x 5/16	10-32 x 1/4	ZR1362-303S	ZR1362-316S	ZR1362-416S	ZR1362-286S	ZR1362-414S
1/4 x 11/32		ZR1364-303S	ZR1364-316S	ZR1364-416S	ZR1364-286S	ZR1364-414S
1/4 x 3/8	10-24 x 3/8	ZR1316-303S	ZR1316-316S	ZR1316-416S	ZR1316-286S	ZR1316-414S
1/4 x 3/8	10-32 x 1/4	ZR1366-303S	ZR1366-316S	ZR1366-416S	ZR1366-286S	ZR1366-414S
1/4 x 7/16		ZR1368-303S	ZR1368-316S	ZR1368-416S	ZR1368-286S	ZR1368-414S
1/4 x 1/2	10-24 x 3/8	ZR1320-303S	ZR1320-316S	ZR1320-416S	ZR1320-286S	ZR1320-414S
1/4 x 1/2	10-32 x 1/4	ZR1370-303S	ZR1370-316S	ZR1370-416S	ZR1370-286S	ZR1370-414S
1/4 x 9/16		ZR1372-303S	ZR1372-316S	ZR1372-416S	ZR1372-286S	ZR1372-414S
1/4 x 5/8	10-24 x 3/8	ZR1324-303S	ZR1324-316S	ZR1324-416S	ZR1324-286S	ZR1324-414S
1/4 x 5/8	10-32 x 1/4	ZR1374-303S	ZR1374-316S	ZR1374-416S	ZR1374-286S	ZR1374-414S
1/4 x 11/16		ZR1376-303S	ZR1376-316S	ZR1376-416S	ZR1376-286S	ZR1376-414S
1/4 x 3/4	10-24 x 3/8	ZR1328-303S	ZR1328-316S	ZR1328-416S	ZR1328-286S	ZR1328-414S
1/4 x 3/4	10-32 x 1/4	ZR1378-303S	ZR1378-316S	ZR1378-416S	ZR1378-286S	ZR1378-414S
1/4 x 7/8		ZR1380-303S	ZR1380-316S	ZR1380-416S	ZR1380-286S	ZR1380-414S
1/4 x 1	10-24 x 3/8	ZR1332-303S	ZR1332-316S	ZR1332-416S	ZR1332-286S	ZR1332-414S
1/4 x 1	10-32 x 1/4	ZR1382-303S	ZR1382-316S	ZR1382-416S	ZR1382-286S	ZR1382-414S
1/4 x 1-1/8		ZR1384-303S	ZR1384-316S	ZR1384-416S	ZR1384-286S	ZR1384-414S
1/4 x 1-1/4	10-24 x 3/8	ZR1336-303S	ZR1336-316S	ZR1336-416S	ZR1336-286S	ZR1336-414S
1/4 x 1-1/4	10-32 x 1/4	ZR1386-303S	ZR1386-316S	ZR1386-416S	ZR1386-286S	ZR1386-414S
1/4 x 1-3/8		ZR1388-303S	ZR1388-316S	ZR1388-416S	ZR1388-286S	ZR1388-414S
1/4 x 1-1/2	10-24 x 3/8	ZR1340-303S	ZR1340-316S	ZR1340-416S	ZR1340-286S	ZR1340-414S
1/4 x 1-1/2		ZR1390-303S	ZR1390-316S	ZR1390-416S	ZR1390-286S	ZR1390-414S
1/4 x 1-5/8	10-32 x 1/4	ZR1392-303S	ZR1392-316S	ZR1392-416S	ZR1392-286S	ZR1392-414S
1/4 x 1-3/4		ZR1394-303S	ZR1394-316S	ZR1394-416S	ZR1394-286S	ZR1394-414S
1/4 x 2		ZR1396-303S	ZR1396-316S	ZR1396-416S	ZR1396-286S	ZR1396-414S



ZR1398-303S

### 5/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
5/16 x 1/8		ZR1398-303S	ZR1398-316S	ZR1398-416S	ZR1398-286S	ZR1398-414S
5/16 x 1/4	1/4-20 x 7/16	ZR1400-303S	ZR1400-316S	ZR1400-416S	ZR1400-286S	ZR1400-414S
5/16 x 5/16		ZR1404-303S	ZR1404-316S	ZR1404-416S	ZR1404-286S	ZR1404-414S
5/16 x 3/8		ZR1408-303S	ZR1408-316S	ZR1408-416S	ZR1408-286S	ZR1408-414S
5/16 x 1/2		ZR1412-303S	ZR1412-316S	ZR1412-416S	ZR1412-286S	ZR1412-414S
5/16 x 5/8	1/4-20 x 7/16	ZR1416-303S	ZR1416-316S	ZR1416-416S	ZR1416-286S	ZR1416-414S
5/16 x 3/4		ZR1420-303S	ZR1420-316S	ZR1420-416S	ZR1420-286S	ZR1420-414S
5/16 x 7/8		ZR1422-303S	ZR1422-316S	ZR1422-416S	ZR1422-286S	ZR1422-414S

Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-100

18-8 SS, 316 SS,  
416 SS, A286, Alloy

## Tight Tolerance Smooth Head – Inch



ZR1424-303S

### 5/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
5/16 x 1		ZR1424-303S	ZR1424-316S	ZR1424-416S	ZR1424-286S	ZR1424-414S
5/16 x 1-1/4	1/4-20 x 7/16	ZR1428-303S	ZR1428-316S	ZR1428-416S	ZR1428-286S	ZR1428-414S
5/16 x 1-1/2		ZR1432-303S	ZR1432-316S	ZR1432-416S	ZR1432-286S	ZR1432-414S



ZR1513-303S

### 3/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
3/8 x 1/8		ZR1513-303S	ZR1513-316S	ZR1513-416S	ZR1513-286S	ZR1513-414S
3/8 x 3/16	5/16-18 x 1/2	ZR1514-303S	ZR1514-316S	ZR1514-416S	ZR1514-286S	ZR1514-414S
3/8 x 1/4		ZR1515-303S	ZR1515-316S	ZR1515-416S	ZR1515-286S	ZR1515-414S
3/8 x 5/16	1/4-20 x 7/16	ZR1500-303S	ZR1500-316S	ZR1500-416S	ZR1500-286S	ZR1500-414S
3/8 x 5/16	5/16-18 x 1/2	ZR1516-303S	ZR1516-316S	ZR1516-416S	ZR1516-286S	ZR1516-414S
3/8 x 3/8	1/4-20 x 7/16	ZR1504-303S	ZR1504-316S	ZR1504-416S	ZR1504-286S	ZR1504-414S
3/8 x 3/8	5/16-18 x 1/2	ZR1520-303S	ZR1520-316S	ZR1520-416S	ZR1520-286S	ZR1520-414S
3/8 x 1/2	1/4-20 x 7/16	ZR1508-303S	ZR1508-316S	ZR1508-416S	ZR1508-286S	ZR1508-414S
3/8 x 1/2	5/16-18 x 1/2	ZR1524-303S	ZR1524-316S	ZR1524-416S	ZR1524-286S	ZR1524-414S
3/8 x 5/8	1/4-20 x 7/16	ZR1512-303S	ZR1512-316S	ZR1512-416S	ZR1512-286S	ZR1512-414S
3/8 x 5/8		ZR1528-303S	ZR1528-316S	ZR1528-416S	ZR1528-286S	ZR1528-414S
3/8 x 3/4	5/16-18 x 1/2	ZR1532-303S	ZR1532-316S	ZR1532-416S	ZR1532-286S	ZR1532-414S
3/8 x 7/8		ZR1534-303S	ZR1534-316S	ZR1534-416S	ZR1534-286S	ZR1534-414S
3/8 x 1		ZR1536-303S	ZR1536-316S	ZR1536-416S	ZR1536-286S	ZR1536-414S
3/8 x 1-1/4		ZR1540-303S	ZR1540-316S	ZR1540-416S	ZR1540-286S	ZR1540-414S
3/8 x 1-1/2	5/16-18 x 1/2	ZR1544-303S	ZR1544-316S	ZR1544-416S	ZR1544-286S	ZR1544-414S
3/8 x 2		ZR1546-303S	ZR1546-316S	ZR1546-416S	ZR1546-286S	ZR1546-414S



ZR1600-303S

### 1/2 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
1/2 x 1/2		ZR1600-303S	ZR1600-316S	ZR1600-416S	ZR1600-286S	ZR1600-414S
1/2 x 5/8	3/8-16 x 5/8	ZR1604-303S	ZR1604-316S	ZR1604-416S	ZR1604-286S	ZR1604-414S
1/2 x 3/4		ZR1608-303S	ZR1608-316S	ZR1608-416S	ZR1608-286S	ZR1608-414S
1/2 x 1		ZR1612-303S	ZR1612-316S	ZR1612-416S	ZR1612-286S	ZR1612-414S
1/2 x 1-1/4		ZR1616-303S	ZR1616-316S	ZR1616-416S	ZR1616-286S	ZR1616-414S
1/2 x 1-1/2	3/8-16 x 5/8	ZR1620-303S	ZR1620-316S	ZR1620-416S	ZR1620-286S	ZR1620-414S
1/2 x 2		ZR1624-303S	ZR1624-316S	ZR1624-416S	ZR1624-286S	ZR1624-414S

Chart continued on next page

## Tight Tolerance Smooth Head – Metric

### 18-8 (A2), 316 (A4), 416, A286 Stainless Steels and Alloy Steel – Slotted Drive

- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- All stainless steel screws adhere to environmental regulations established by European Union RoHS directive.
- All shoulder diameters meet or exceed accepted industry standards and AMPG's internal specification AMPG 2006 ZR.02.



ZR1680-303S

### 3mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
3 x 2	M2 x 0.4 x 4	ZR1680-303S	ZR1680-316S	ZR1680-416S	ZR1680-286S	ZR1680-414S
3 x 3		ZR1681-303S	ZR1681-316S	ZR1681-416S	ZR1681-286S	ZR1681-414S
3 x 4		ZR1682-303S	ZR1682-316S	ZR1682-416S	ZR1682-286S	ZR1682-414S
3 x 5		ZR1683-303S	ZR1683-316S	ZR1683-416S	ZR1683-286S	ZR1683-414S
3 x 6	M2 x 0.4 x 4	ZR1684-303S	ZR1684-316S	ZR1684-416S	ZR1684-286S	ZR1684-414S
3 x 7		ZR1685-303S	ZR1685-316S	ZR1685-416S	ZR1685-286S	ZR1685-414S
3 x 8		ZR1688-303S	ZR1688-316S	ZR1688-416S	ZR1688-286S	ZR1688-414S
3 x 10		ZR1686-303S	ZR1686-316S	ZR1686-416S	ZR1686-286S	ZR1686-414S
3 x 12	M2 x 0.4 x 4	ZR1687-303S	ZR1687-316S	ZR1687-416S	ZR1687-286S	ZR1687-414S
3 x 14		ZR1689-303S	ZR1689-316S	ZR1689-416S	ZR1689-286S	ZR1689-414S
3 x 16		ZR1691-303S	ZR1691-316S	ZR1691-416S	ZR1691-286S	ZR1691-414S
3 x 18		ZR1693-303S	ZR1693-316S	ZR1693-416S	ZR1693-286S	ZR1693-414S
3 x 20	M2 x 0.4 x 4	ZR1694-303S	ZR1694-316S	ZR1694-416S	ZR1694-286S	ZR1694-414S
3 x 25		ZR1695-303S	ZR1695-316S	ZR1695-416S	ZR1695-286S	ZR1695-414S



ZR1697-303S

### 4mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
4 x 2	M3 x 0.5 x 4	ZR1697-303S	ZR1697-316S	ZR1697-416S	ZR1697-286S	ZR1697-414S
4 x 3		ZR1698-303S	ZR1698-316S	ZR1698-416S	ZR1698-286S	ZR1698-414S
4 x 4		ZR1700-303S	ZR1700-316S	ZR1700-416S	ZR1700-286S	ZR1700-414S
4 x 5		ZR1704-303S	ZR1704-316S	ZR1704-416S	ZR1704-286S	ZR1704-414S
4 x 6	M3 x 0.5 x 4	ZR1708-303S	ZR1708-316S	ZR1708-416S	ZR1708-286S	ZR1708-414S
4 x 7		ZR1699-303S	ZR1699-316S	ZR1699-416S	ZR1699-286S	ZR1699-414S
4 x 8		ZR1712-303S	ZR1712-316S	ZR1712-416S	ZR1712-286S	ZR1712-414S
4 x 10		ZR1716-303S	ZR1716-316S	ZR1716-416S	ZR1716-286S	ZR1716-414S
4 x 12	M3 x 0.5 x 4	ZR1718-303S	ZR1718-316S	ZR1718-416S	ZR1718-286S	ZR1718-414S
4 x 14		ZR1721-303S	ZR1721-316S	ZR1721-416S	ZR1721-286S	ZR1721-414S
4 x 16		ZR1719-303S	ZR1719-316S	ZR1719-416S	ZR1719-286S	ZR1719-414S
4 x 18		ZR1722-303S	ZR1722-316S	ZR1722-416S	ZR1722-286S	ZR1722-414S

Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-106

18-8 SS, 316 SS,  
416 SS, A286, Alloy

## Tight Tolerance Smooth Head – Metric



ZR1723-303S

### 4mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
4 x 20	M3 x 0.5 x 4	ZR1723-303S	ZR1723-316S	ZR1723-416S	ZR1723-286S	ZR1723-414S
4 x 25		ZR1720-303S	ZR1720-316S	ZR1720-416S	ZR1720-286S	ZR1720-414S
4 x 30		ZR1724-303S	ZR1724-316S	ZR1724-416S	ZR1724-286S	ZR1724-414S
4 x 35		ZR1725-303S	ZR1725-316S	ZR1725-416S	ZR1725-286S	ZR1725-414S
4 x 40	M3 x 0.5 x 4	ZR1730-303S	ZR1730-316S	ZR1730-416S	ZR1730-286S	ZR1730-414S
4 x 45		ZR1732-303S	ZR1732-316S	ZR1732-416S	ZR1732-286S	ZR1732-414S
4 x 50		ZR1734-303S	ZR1734-316S	ZR1734-416S	ZR1734-286S	ZR1734-414S



ZR1748-303S

### 5mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
5 x 2	M4 x 0.7 x 5	ZR1748-303S	ZR1748-316S	ZR1748-416S	ZR1748-286S	ZR1748-414S
5 x 3		ZR1749-303S	ZR1749-316S	ZR1749-416S	ZR1749-286S	ZR1749-414S
5 x 4		ZR1750-303S	ZR1750-316S	ZR1750-416S	ZR1750-286S	ZR1750-414S
5 x 5		ZR1754-303S	ZR1754-316S	ZR1754-416S	ZR1754-286S	ZR1754-414S
5 x 6	M4 x 0.7 x 5	ZR1758-303S	ZR1758-316S	ZR1758-416S	ZR1758-286S	ZR1758-414S
5 x 7		ZR1760-303S	ZR1760-316S	ZR1760-416S	ZR1760-286S	ZR1760-414S
5 x 8		ZR1762-303S	ZR1762-316S	ZR1762-416S	ZR1762-286S	ZR1762-414S
5 x 10		ZR1766-303S	ZR1766-316S	ZR1766-416S	ZR1766-286S	ZR1766-414S
5 x 12	M4 x 0.7 x 5	ZR1770-303S	ZR1770-316S	ZR1770-416S	ZR1770-286S	ZR1770-414S
5 x 14		ZR1774-303S	ZR1774-316S	ZR1774-416S	ZR1774-286S	ZR1774-414S
5 x 16		ZR1778-303S	ZR1778-316S	ZR1778-416S	ZR1778-286S	ZR1778-414S
5 x 18		ZR1779-303S	ZR1779-316S	ZR1779-416S	ZR1779-286S	ZR1779-414S
5 x 20	M4 x 0.7 x 5	ZR1782-303S	ZR1782-316S	ZR1782-416S	ZR1782-286S	ZR1782-414S
5 x 25		ZR1786-303S	ZR1786-316S	ZR1786-416S	ZR1786-286S	ZR1786-414S
5 x 30		ZR1790-303S	ZR1790-316S	ZR1790-416S	ZR1790-286S	ZR1790-414S
5 x 35		ZR1791-303S	ZR1791-316S	ZR1791-416S	ZR1791-286S	ZR1791-414S
5 x 40	M4 x 0.7 x 5	ZR1793-303S	ZR1793-316S	ZR1793-416S	ZR1793-286S	ZR1793-414S
5 x 45		ZR1795-303S	ZR1795-316S	ZR1795-416S	ZR1795-286S	ZR1795-414S
5 x 50		ZR1799-303S	ZR1799-316S	ZR1799-416S	ZR1799-286S	ZR1799-414S



ZR1702-303S

### 6mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
6 x 2	M5 x 0.8 x 6	ZR1702-303S	ZR1702-316S	ZR1702-416S	ZR1702-286S	ZR1702-414S
6 x 3		ZR1798-303S	ZR1798-316S	ZR1798-416S	ZR1798-286S	ZR1798-414S
6 x 4		ZR1800-303S	ZR1800-316S	ZR1800-416S	ZR1800-286S	ZR1800-414S
6 x 5		ZR1804-303S	ZR1804-316S	ZR1804-416S	ZR1804-286S	ZR1804-414S

Chart continued on next page

## Tight Tolerance Smooth Head – Metric



ZR1808-303S

### 6mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
6 x 6	M5 x 0.8 x 6	ZR1808-303S	ZR1808-316S	ZR1808-416S	ZR1808-286S	ZR1808-414S
6 x 7		ZR1809-303S	ZR1809-316S	ZR1809-416S	ZR1809-286S	ZR1809-414S
6 x 8		ZR1812-303S	ZR1812-316S	ZR1812-416S	ZR1812-286S	ZR1812-414S
6 x 10		ZR1816-303S	ZR1816-316S	ZR1816-416S	ZR1816-286S	ZR1816-414S
6 x 12	M5 x 0.8 x 6	ZR1820-303S	ZR1820-316S	ZR1820-416S	ZR1820-286S	ZR1820-414S
6 x 14		ZR1824-303S	ZR1824-316S	ZR1824-416S	ZR1824-286S	ZR1824-414S
6 x 16		ZR1828-303S	ZR1828-316S	ZR1828-416S	ZR1828-286S	ZR1828-414S
6 x 18		ZR1829-303S	ZR1829-316S	ZR1829-416S	ZR1829-286S	ZR1829-414S
6 x 20	M5 x 0.8 x 6	ZR1832-303S	ZR1832-316S	ZR1832-416S	ZR1832-286S	ZR1832-414S
6 x 25		ZR1836-303S	ZR1836-316S	ZR1836-416S	ZR1836-286S	ZR1836-414S
6 x 30		ZR1840-303S	ZR1840-316S	ZR1840-416S	ZR1840-286S	ZR1840-414S
6 x 35		ZR1842-303S	ZR1842-316S	ZR1842-416S	ZR1842-286S	ZR1842-414S
6 x 40	M5 x 0.8 x 6	ZR1844-303S	ZR1844-316S	ZR1844-416S	ZR1844-286S	ZR1844-414S
6 x 45		ZR1846-303S	ZR1846-316S	ZR1846-416S	ZR1846-286S	ZR1846-414S
6 x 50		ZR1848-303S	ZR1848-316S	ZR1848-416S	ZR1848-286S	ZR1848-414S
6 x 55		ZR1850-303S	ZR1850-316S	ZR1850-416S	ZR1850-286S	ZR1850-414S
6 x 60	M5 x 0.8 x 6	ZR1852-303S	ZR1852-316S	ZR1852-416S	ZR1852-286S	ZR1852-414S
6 x 65		ZR1854-303S	ZR1854-316S	ZR1854-416S	ZR1854-286S	ZR1854-414S



ZR1901-303S

### 8mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
8 x 4	M6 x 1 x 11	ZR1901-303S	ZR1901-316S	ZR1901-416S	ZR1901-286S	ZR1901-414S
8 x 5		ZR1902-303S	ZR1902-316S	ZR1902-416S	ZR1902-286S	ZR1902-414S
8 x 6		ZR1900-303S	ZR1900-316S	ZR1900-416S	ZR1900-286S	ZR1900-414S
8 x 7		ZR1903-303S	ZR1903-316S	ZR1903-416S	ZR1903-286S	ZR1903-414S
8 x 8	M6 x 1 x 11	ZR1904-303S	ZR1904-316S	ZR1904-416S	ZR1904-286S	ZR1904-414S
8 x 10		ZR1908-303S	ZR1908-316S	ZR1908-416S	ZR1908-286S	ZR1908-414S
8 x 12		ZR1912-303S	ZR1912-316S	ZR1912-416S	ZR1912-286S	ZR1912-414S
8 x 14		ZR1914-303S	ZR1914-316S	ZR1914-416S	ZR1914-286S	ZR1914-414S
8 x 16	M6 x 1 x 11	ZR1916-303S	ZR1916-316S	ZR1916-416S	ZR1916-286S	ZR1916-414S
8 x 18		ZR1918-303S	ZR1918-316S	ZR1918-416S	ZR1918-286S	ZR1918-414S
8 x 20		ZR1920-303S	ZR1920-316S	ZR1920-416S	ZR1920-286S	ZR1920-414S
8 x 25		ZR1921-303S	ZR1921-316S	ZR1921-416S	ZR1921-286S	ZR1921-414S
8 x 30	M6 x 1 x 11	ZR1922-303S	ZR1922-316S	ZR1922-416S	ZR1922-286S	ZR1922-414S
8 x 35		ZR1935-303S	ZR1935-316S	ZR1935-416S	ZR1935-286S	ZR1935-414S
8 x 40		ZR1924-303S	ZR1924-316S	ZR1924-416S	ZR1924-286S	ZR1924-414S
8 x 45		ZR1926-303S	ZR1926-316S	ZR1926-416S	ZR1926-286S	ZR1926-414S
8 x 50	M6 x 1 x 11	ZR1928-303S	ZR1928-316S	ZR1928-416S	ZR1928-286S	ZR1928-414S

Chart continued on next page



# Shoulder Screws

For technical drawings and charts, please see page B-106

18-8 SS, 316 SS,  
416 SS, A286, Alloy

## Tight Tolerance Smooth Head – Metric



ZR1950-303S

### 10mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
10 x 8	M6 x 1 x 11	ZR1950-303S	ZR1950-316S	ZR1950-416S	ZR1950-286S	ZR1950-414S
10 x 8	M8 x 1.25 x 12	ZR1966-303S	ZR1966-316S	ZR1966-416S	ZR1966-286S	ZR1966-414S
10 x 10	M6 x 1 x 11	ZR1954-303S	ZR1954-316S	ZR1954-416S	ZR1954-286S	ZR1954-414S
10 x 10	M8 x 1.25 x 12	ZR1970-303S	ZR1970-316S	ZR1970-416S	ZR1970-286S	ZR1970-414S
10 x 12	M6 x 1 x 11	ZR1958-303S	ZR1958-316S	ZR1958-416S	ZR1958-286S	ZR1958-414S
10 x 12	M8 x 1.25 x 12	ZR1974-303S	ZR1974-316S	ZR1974-416S	ZR1974-286S	ZR1974-414S
10 x 14		ZR1968-303S	ZR1968-316S	ZR1968-416S	ZR1968-286S	ZR1968-414S
10 x 16	M6 x 1 x 11	ZR1962-303S	ZR1962-316S	ZR1962-416S	ZR1962-286S	ZR1962-414S
10 x 16		ZR1978-303S	ZR1978-316S	ZR1978-416S	ZR1978-286S	ZR1978-414S
10 x 18	M8 x 1.25 x 12	ZR1969-303S	ZR1969-316S	ZR1969-416S	ZR1969-286S	ZR1969-414S
10 x 20		ZR1971-303S	ZR1971-316S	ZR1971-416S	ZR1971-286S	ZR1971-414S
10 x 25		ZR1972-303S	ZR1972-316S	ZR1972-416S	ZR1972-286S	ZR1972-414S
10 x 30		ZR1973-303S	ZR1973-316S	ZR1973-416S	ZR1973-286S	ZR1973-414S
10 x 35	M8 x 1.25 x 12	ZR1975-303S	ZR1975-316S	ZR1975-416S	ZR1975-286S	ZR1975-414S
10 x 40		ZR1976-303S	ZR1976-316S	ZR1976-416S	ZR1976-286S	ZR1976-414S
10 x 45		ZR1977-303S	ZR1977-316S	ZR1977-416S	ZR1977-286S	ZR1977-414S
10 x 50	M8 x 1.25 x 12	ZR1979-303S	ZR1979-316S	ZR1979-416S	ZR1979-286S	ZR1979-414S



ZR1981-303S

### 12mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	416 SS Part Number	A286 SS Part Number	Alloy Steel Part Number
12 x 8		ZR1981-303S	ZR1981-316S	ZR1981-416S	ZR1981-286S	ZR1981-414S
12 x 10	M10 x 1.5 x 16	ZR1983-303S	ZR1983-316S	ZR1983-416S	ZR1983-286S	ZR1983-414S
12 x 12		ZR1980-303S	ZR1980-316S	ZR1980-416S	ZR1980-286S	ZR1980-414S
12 x 14		ZR1982-303S	ZR1982-316S	ZR1982-416S	ZR1982-286S	ZR1982-414S
12 x 16		ZR1984-303S	ZR1984-316S	ZR1984-416S	ZR1984-286S	ZR1984-414S
12 x 18	M10 x 1.5 x 16	ZR1986-303S	ZR1986-316S	ZR1986-416S	ZR1986-286S	ZR1986-414S
12 x 20		ZR1988-303S	ZR1988-316S	ZR1988-416S	ZR1988-286S	ZR1988-414S
12 x 25		ZR1992-303S	ZR1992-316S	ZR1992-416S	ZR1992-286S	ZR1992-414S
12 x 30		ZR1993-303S	ZR1993-316S	ZR1993-416S	ZR1993-286S	ZR1993-414S
12 x 35	M10 x 1.5 x 16	ZR1994-303S	ZR1994-316S	ZR1994-416S	ZR1994-286S	ZR1994-414S
12 x 40		ZR1996-303S	ZR1996-316S	ZR1996-416S	ZR1996-286S	ZR1996-414S
12 x 45		ZR1998-303S	ZR1998-316S	ZR1998-416S	ZR1998-286S	ZR1998-414S
12 x 50	M10 x 1.5 x 16	ZR1999-303S	ZR1999-316S	ZR1999-416S	ZR1999-286S	ZR1999-414S

18-8 SS  
316 SS

## Tight Tolerance Smooth Head – Inch

### 18-8 and 316 Stainless Steels – 6-lobe Drive

- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- All stainless steel screws adhere to environmental regulations established by European Union RoHS directive.
- All shoulder diameters meet or exceed accepted industry standards and AMPG's internal specification AMPG 2006 ZR.01.

### Dimensions and Tolerance Table – Inch

Shoulder Diameter	Shoulder Diameter Max. to Min.	Shoulder Length Tolerance	Head Diameter	Head Height	Drive Size
1/8	.125 to .124	+.002 to -0	1/4	1/8	T10
3/16	.187 to .186	+.002 to -0	5/16	5/32	T25
1/4	.250 to .249	+.002 to -0	3/8	3/16	T30



STR55218C02

### 1/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
1/8 x 1/8	4-40 x 5/32	STR55218C02	STR55318C02
1/8 x 3/16		STR55218C03	STR55318C03
1/8 x 1/4		STR55218C04	STR55318C04
1/8 x 5/16		STR55218C05	STR55318C05
1/8 x 3/8	4-40 x 5/32	STR55218C06	STR55318C06
1/8 x 1/2		STR55218C08	STR55318C08



STR55231C02

### 3/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
3/16 x 1/8	8-32 x 3/16	STR55231C02	STR55331C02
3/16 x 3/16		STR55231C03	STR55331C03
3/16 x 1/4		STR55231C04	STR55331C04
3/16 x 5/16		STR55231C05	STR55331C05
3/16 x 3/8	8-32 x 3/16	STR55231C06	STR55331C06
3/16 x 1/2		STR55231C08	STR55331C08
3/16 x 5/8		STR55231C10	STR55331C10
3/16 x 3/4		STR55231C12	STR55331C12
3/16 x 1	8-32 x 3/16	STR55231C16	STR55331C16



STR55214F02

### 1/4 Shoulder Diameter

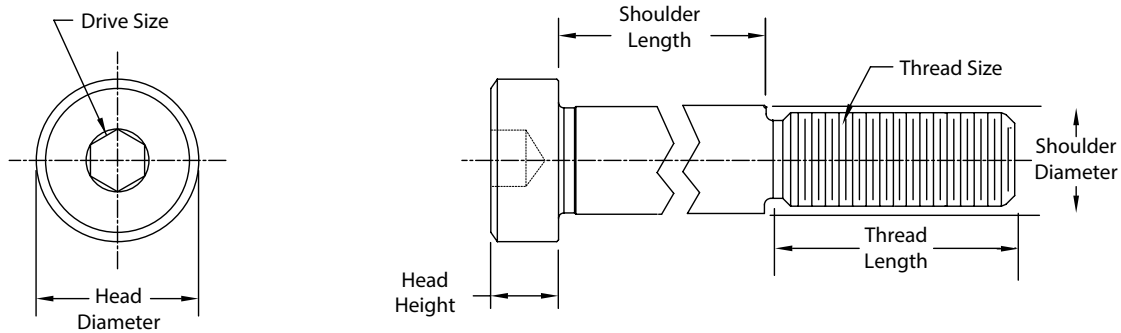
Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
1/4 x 1/8	10-32 x 1/4	STR55214F02	STR55314F02
1/4 x 3/16		STR55214F03	STR55314F03
1/4 x 1/4		STR55214F04	STR55314F04
1/4 x 5/16		STR55214F05	STR55314F05
1/4 x 3/8		STR55214F06	STR55314F06
1/4 x 1/2	10-32 x 1/4	STR55214F08	STR55314F08
1/4 x 5/8		STR55214F10	STR55314F10
1/4 x 3/4		STR55214F12	STR55314F12
1/4 x 1		STR55214F16	STR55314F16

# Shoulder Screws

## Extended Thread Smooth Head – Inch

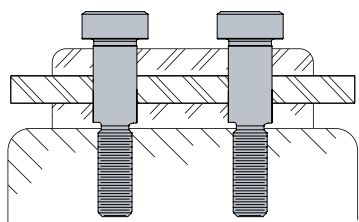
These specialty shoulder screws have thread lengths that are twice as long as standard smooth head shoulder screws. Longer thread lengths are provided to facilitate fastening of materials using a hex nut and washer. Screws have the same thread fit as standard nuts and other than additional thread length, these screws are dimensionally the same as other smooth head shoulder screws.

Screws are machined with hex socket drive, unmarked smooth heads, and an undercut portion between the thread and shoulder, allowing a close fit. The shoulder tolerance is held to +0 to -.001 inches and the shoulder diameter is held to +.002 to -0 inches. Screws have a Class 2A thread fit.

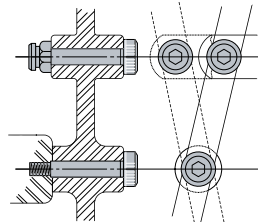


Dimensions and Tolerance Table – Inch				
Shoulder Diameter	Shoulder Diameter Max. to Min.	Head Diameter	Head Height	Drive Size
1/8	.125 to .124	1/4	1/8	5/64
5/32	.156 to .155	9/32	1/8	3/32
3/16	.187 to .186	5/16	5/32	3/32
1/4	.250 to .249	3/8	3/16	1/8
5/16	.312 to .311	7/16	7/32	5/32
3/8	.375 to .374	9/16	1/4	3/16
1/2	.500 to .499	3/4	5/16	1/4

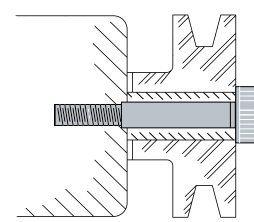
18-8 Stainless Steel is manufactured from Type 303 Stainless Steel Bar.



Shoulder Screws as a Guide



Shoulder Screws as a Pivot Point



Shoulder Screws as a Shaft

## Extended Thread Smooth Head – Inch

### 18-8 and 316 Stainless Steels – Hex Drive

- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- All shoulder diameters meet or exceed accepted industry standards and AMPG's internal specification AMPG 2013 EXT.01.
- All stainless steel screws adhere to environmental regulations established by European Union RoHS directive.



STR60118C02-EXT

#### 1/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
1/8 x 1/8	4-40 x 5/16	STR60118C02-EXT	STR60218C02-EXT
1/8 x 3/16		STR60118C03-EXT	STR60218C03-EXT
1/8 x 1/4		STR60118C04-EXT	STR60218C04-EXT
1/8 x 5/16		STR60118C05-EXT	STR60218C05-EXT
1/8 x 3/8	4-40 x 5/16	STR60118C06-EXT	STR60218C06-EXT
1/8 x 1/2		STR60118C08-EXT	STR60218C08-EXT
1/8 x 5/8		STR60118C10-EXT	STR60218C10-EXT
1/8 x 3/4		STR60118C12-EXT	STR60218C12-EXT
1/8 x 1	4-40 x 5/16	STR60118C16-EXT	STR60218C16-EXT



STR60153C02-EXT

#### 5/32 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
5/32 x 1/8	6-32 x 3/8	STR60153C02-EXT	STR60253C02-EXT
5/32 x 3/16		STR60153C03-EXT	STR60253C03-EXT
5/32 x 1/4		STR60153C04-EXT	STR60253C04-EXT
5/32 x 5/16		STR60153C05-EXT	STR60253C05-EXT
5/32 x 3/8	6-32 x 3/8	STR60153C06-EXT	STR60253C06-EXT
5/32 x 1/2		STR60153C08-EXT	STR60253C08-EXT
5/32 x 5/8		STR60153C10-EXT	STR60253C10-EXT
5/32 x 3/4		STR60153C12-EXT	STR60253C12-EXT
5/32 x 1	6-32 x 3/8	STR60153C16-EXT	STR60253C16-EXT



STR60131C02-EXT

#### 3/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
3/16 x 1/8	8-32 x 3/8	STR60131C02-EXT	STR60231C02-EXT
3/16 x 3/16		STR60131C03-EXT	STR60231C03-EXT
3/16 x 1/4		STR60131C04-EXT	STR60231C04-EXT
3/16 x 5/16		STR60131C05-EXT	STR60231C05-EXT
3/16 x 3/8	8-32 x 3/8	STR60131C06-EXT	STR60231C06-EXT
3/16 x 1/2		STR60131C08-EXT	STR60231C08-EXT
3/16 x 5/8		STR60131C10-EXT	STR60231C10-EXT
3/16 x 3/4		STR60131C12-EXT	STR60231C12-EXT
3/16 x 1	8-32 x 3/8	STR60131C16-EXT	STR60231C16-EXT
3/16 x 1-1/4		STR60131C20-EXT	STR60231C20-EXT
3/16 x 1-1/2		STR60131C24-EXT	STR60231C24-EXT



STR60114C02-EXT

#### 1/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
1/4 x 1/8	10-24 x 3/4	STR60114C02-EXT	STR60214C02-EXT
1/4 x 3/16		STR60114C03-EXT	STR60214C03-EXT
1/4 x 1/4		STR60114C04-EXT	STR60214C04-EXT
1/4 x 5/16		STR60114C05-EXT	STR60214C05-EXT
1/4 x 3/8	10-24 x 3/4	STR60114C06-EXT	STR60214C06-EXT
1/4 x 1/2		STR60114C08-EXT	STR60214C08-EXT
1/4 x 5/8		STR60114C10-EXT	STR60214C10-EXT
1/4 x 3/4		STR60114C12-EXT	STR60214C12-EXT
1/4 x 1	10-24 x 3/4	STR60114C16-EXT	STR60214C16-EXT
1/4 x 1-1/4		STR60114C20-EXT	STR60214C20-EXT
1/4 x 1-1/2		STR60114C24-EXT	STR60214C24-EXT
1/4 x 1-3/4		STR60114C28-EXT	STR60214C28-EXT
1/4 x 2	10-24 x 3/4	STR60114C32-EXT	STR60214C32-EXT

Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-125

18-8 SS  
316 SS

## Extended Thread Smooth Head – Inch



STR60151C04-EXT



STR60138C04-EXT

### 5/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
5/16 x 1/4		STR60151C04-EXT	STR60251C04-EXT
5/16 x 5/16	1/4-20 x 7/8	STR60151C05-EXT	STR60251C05-EXT
5/16 x 3/8		STR60151C06-EXT	STR60251C06-EXT
5/16 x 1/2		STR60151C08-EXT	STR60251C08-EXT
5/16 x 5/8		STR60151C10-EXT	STR60251C10-EXT
5/16 x 3/4	1/4-20 x 7/8	STR60151C12-EXT	STR60251C12-EXT
5/16 x 1		STR60151C16-EXT	STR60251C16-EXT
5/16 x 1-1/4		STR60151C20-EXT	STR60251C20-EXT
5/16 x 1-1/2		STR60151C24-EXT	STR60251C24-EXT
5/16 x 1-3/4	1/4-20 x 7/8	STR60151C28-EXT	STR60251C28-EXT
5/16 x 2		STR60151C32-EXT	STR60251C32-EXT

### 3/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
3/8 x 1/4		STR60138C04-EXT	STR60238C04-EXT
3/8 x 3/8	5/16-18 x 1	STR60138C06-EXT	STR60238C06-EXT
3/8 x 1/2		STR60138C08-EXT	STR60238C08-EXT
3/8 x 5/8		STR60138C10-EXT	STR60238C10-EXT
3/8 x 3/4		STR60138C12-EXT	STR60238C12-EXT
3/8 x 1	5/16-18 x 1	STR60138C16-EXT	STR60238C16-EXT
3/8 x 1-1/4		STR60138C20-EXT	STR60238C20-EXT
3/8 x 1-1/2		STR60138C24-EXT	STR60238C24-EXT
3/8 x 1-3/4		STR60138C28-EXT	STR60238C28-EXT
3/8 x 2	5/16-18 x 1	STR60138C32-EXT	STR60238C32-EXT
3/8 x 2-1/4		STR60138C36-EXT	STR60238C36-EXT
3/8 x 2-1/2		STR60138C40-EXT	STR60238C40-EXT

### 1/2 Shoulder Diameter

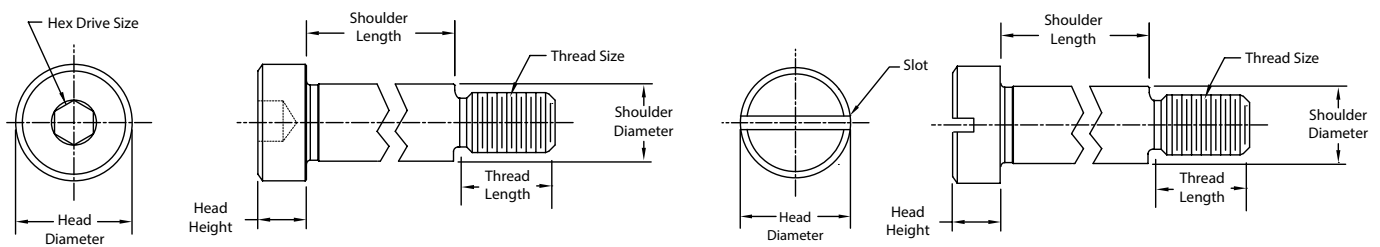
Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
1/2 x 3/8		STR60112C06-EXT	STR60212C06-EXT
1/2 x 1/2	3/8-16 x 1-1/4	STR60112C08-EXT	STR60212C08-EXT
1/2 x 5/8		STR60112C10-EXT	STR60212C10-EXT
1/2 x 3/4		STR60112C12-EXT	STR60212C12-EXT
1/2 x 1		STR60112C16-EXT	STR60212C16-EXT
1/2 x 1-1/4	3/8-16 x 1-1/4	STR60112C20-EXT	STR60212C20-EXT
1/2 x 1-1/2		STR60112C24-EXT	STR60212C24-EXT
1/2 x 1-3/4		STR60112C28-EXT	STR60212C28-EXT
1/2 x 2		STR60112C32-EXT	STR60212C32-EXT
1/2 x 2-1/4	3/8-16 x 1-1/4	STR60112C36-EXT	STR60212C36-EXT
1/2 x 2-1/2		STR60112C40-EXT	STR60212C40-EXT



STR60112C06-EXT

## Mil Spec Smooth Head – Inch

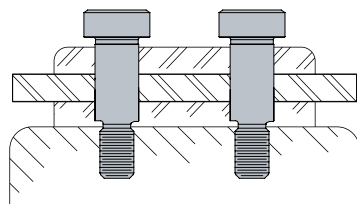
Precision shoulder screws were originally developed for use as the mechanical component in linear motion assemblies, and used to anchor bearings, gears, pulleys, etc. Precision shoulder screws manufactured in the USA to MS51575 for slotted shoulder screws, and MS51576 for socket drive shoulder screws. The military specification allows a wide range of head dimensions, according to the manufacturer's design. We have chosen to produce heads that are in the middle of the allowable range. You can find smaller heads in our "Low Profile" section. Passivated per QQ-P-35. Screws have a shoulder diameter tolerance of +0 to -.001 inch and a shoulder length tolerance of +.003 to -0 inches. Screws have a Class 2A thread fit.



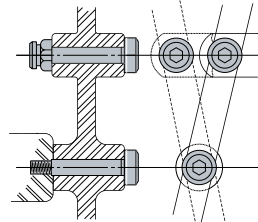
Hex Smooth Head Shoulder Screws located on page B-129.  
Slotted Smooth Head Shoulder Screws located on page B-130.

**Dimensions and Tolerance Table – Inch**

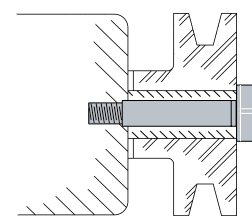
Shoulder Diameter	Shoulder Diameter Max. to Min.	Head Diameter	Head Height	Drive Size (Hex)
1/8	.125 to .124	1/4	1/8	5/64
3/16	.187 to .186	5/16	5/32	3/32
1/4	.250 to .249	3/8	3/16	1/8
5/16	.312 to .311	1/2	7/32	5/32
3/8	.375 to .374	9/16	1/4	3/16
1/2	.500 to .499	3/4	5/16	1/4



Shoulder Screws as a Guide



Shoulder Screws as a Pivot Point



Shoulder Screws as a Shaft

# Shoulder Screws

For technical drawings and charts, please see page B-128

18-8 SS

## Mil Spec Smooth Head – Inch

### 18-8 SS – Hex Drive

- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- All shoulder diameters meet or exceed accepted industry standards and MS5176.
- All stainless steel screws adhere to environmental regulations established by European Union RoHS directive.
- Passivated per QQ-P-35.



ZR1000-MILH

#### 1/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	Mil Spec Number
1/8 x 1/8	4-40 x 5/32	ZR1000-MILH	MS51576-1
1/8 x 3/16		ZR1004-MILH	MS51576-2
1/8 x 1/4		ZR1008-MILH	MS51576-3
1/8 x 5/16		ZR1012-MILH	MS51576-4
1/8 x 3/8		ZR1016-MILH	MS51576-5



ZR1354-MILH

#### 1/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	Mil Spec Number
1/4 x 3/16	10-32 x 1/4	ZR1354-MILH	MS51576-16
1/4 x 1/4		ZR1358-MILH	MS51576-17
1/4 x 5/16		ZR1362-MILH	MS51576-18
1/4 x 3/8		ZR1366-MILH	MS51576-19
1/4 x 1/2		ZR1370-MILH	MS51576-20
1/4 x 5/8	10-32 x 1/4	ZR1374-MILH	MS51576-21
1/4 x 3/4		ZR1378-MILH	MS51576-22
1/4 x 1		ZR1382-MILH	MS51576-23
1/4 x 1-1/4	10-32 x 1/4	ZR1386-MILH	MS51576-24
1/4 x 1-1/2		ZR1390-MILH	MS51576-25



ZR1528-MILH

#### 3/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	Mil Spec Number
3/8 x 5/8	5/16-18 x 1/2	ZR1528-MILH	MS51576-32



ZR1200-MILH

#### 3/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	Mil Spec Number
3/16 x 1/8	8-32 x 3/16	ZR1200-MILH	MS51576-6
3/16 x 3/16		ZR1204-MILH	MS51576-7
3/16 x 1/4		ZR1208-MILH	MS51576-8
3/16 x 5/16		ZR1212-MILH	MS51576-9
3/16 x 3/8		ZR1216-MILH	MS51576-10
3/16 x 1/2	8-32 x 3/16	ZR1220-MILH	MS51576-11
3/16 x 5/8		ZR1224-MILH	MS51576-12
3/16 x 3/4		ZR1228-MILH	MS51576-13
3/16 x 1		ZR1232-MILH	MS51576-14
3/16 x 1-1/4		ZR1236-MILH	MS51576-15



ZR1412-MILH

#### 5/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	Mil Spec Number
5/16 x 1/2	14-20 x 7/16	ZR1412-MILH	MS51576-26
5/16 x 5/8		ZR1416-MILH	MS51576-27
5/16 x 3/4		ZR1420-MILH	MS51576-28
5/16 x 1		ZR1424-MILH	MS51576-29
5/16 x 1-1/4		14-20 x 7/16	ZR1428-MILH
5/16 x 1-1/2	ZR1432-MILH		MS51576-31



ZR1604-MILH

#### 1/2 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	Mil Spec Number
1/2 x 5/8	3/8-16 x 5/8	ZR1604-MILH	MS51576-37
1/2 x 3/4		ZR1608-MILH	MS51576-38
1/2 x 1		ZR1612-MILH	MS51576-39
1/2 x 1-1/4		ZR1616-MILH	MS51576-40
1/2 x 1-1/2		ZR1620-MILH	MS51576-41

Chart continued on next page



## Mil Spec Smooth Head – Inch

### 18-8 SS – Slotted Drive



ZR1000-MILS

#### 1/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	Mil Spec Number
1/8 x 1/8		ZR1000-MILS	MS51575-1
1/8 x 3/16	4-40 x 5/32	ZR1004-MILS	MS51575-2
1/8 x 1/4		ZR1008-MILS	MS51575-3
1/8 x 5/16		ZR1012-MILS	MS51575-4
1/8 x 3/8	4-40 x 5/32	ZR1016-MILS	MS51575-5



ZR1350-MILS

#### 1/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	Mil Spec Number
1/4 x 1/8		ZR1350-MILS	MS51575-16
1/4 x 3/16	10-32 x 1/4	ZR1354-MILS	MS51575-17
1/4 x 1/4		ZR1358-MILS	MS51575-18
1/4 x 5/16		ZR1362-MILS	MS51575-19
1/4 x 3/8		ZR1366-MILS	MS51575-20
1/4 x 1/2	10-32 x 1/4	ZR1370-MILS	MS51575-21
1/4 x 5/8		ZR1374-MILS	MS51575-22
1/4 x 3/4		ZR1378-MILS	MS51575-23
1/4 x 1		ZR1382-MILS	MS51575-24
1/4 x 1-1/4	10-32 x 1/4	ZR1386-MILS	MS51575-25
1/4 x 1-1/2		ZR1390-MILS	MS51575-26



ZR1200-MILS

#### 3/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	Mil Spec Number
3/16 x 1/8		ZR1200-MILS	MS51575-6
3/16 x 3/16	8-32 x 3/16	ZR1204-MILS	MS51575-7
3/16 x 1/4		ZR1208-MILS	MS51575-8
3/16 x 5/16		ZR1212-MILS	MS51575-9
3/16 x 3/8		ZR1216-MILS	MS51575-10
3/16 x 1/2	8-32 x 3/16	ZR1220-MILS	MS51575-11
3/16 x 5/8		ZR1224-MILS	MS51575-12
3/16 x 3/4		ZR1228-MILS	MS51575-13
3/16 x 1	8-32 x 3/16	ZR1232-MILS	MS51575-14
3/16 x 1-1/4		ZR1236-MILS	MS51575-15



ZR1400-MILS

#### 5/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	Mil Spec Number
5/16 x 1/4		ZR1400-MILS	MS51575-27
5/16 x 5/16	14-20 x 7/16	ZR1404-MILS	MS51575-28



ZR1600-MILS

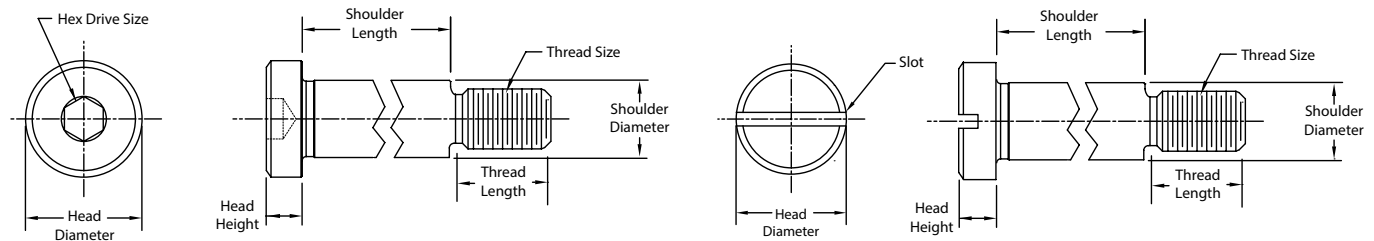
#### 1/2 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	Mil Spec Number
1/2 x 1/2	3/8-16 x 5/8	ZR1600-MILS	MS51575-29

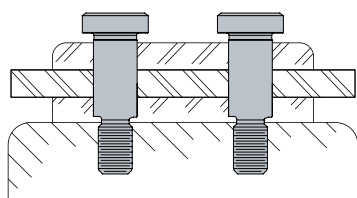
# Shoulder Screws

## Low Profile Smooth Head — Inch

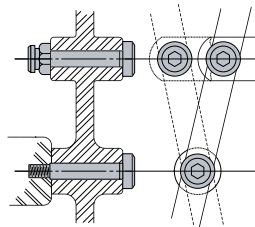
The shallow head makes these screws the right size to hold components in tight spaces. Low Profile screws are 2/3 the head height of standard head height shoulder screws. The shoulder diameters are held to the same precise tolerance as other smooth head screws, at +0 to -.001 inches and the shoulder length tolerance is +.002 to -0 inches. All screws have a Class 2A thread fit.



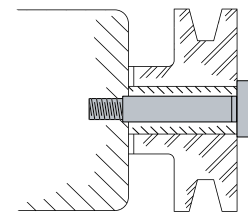
Dimensions and Tolerance Table — Inch				
Shoulder Diameter	Shoulder Diameter Max. to Min.	Head Diameter	Head Height	Drive Size (Hex)
3/32	.094 to .093	3/16	1/16	5/64
1/8	.125 to .124	1/4	3/32	5/64
5/32	.156 to .155	9/32	5/64	3/32
3/16	.187 to .186	5/16	7/64	3/32
1/4	.250 to .249	3/8	1/8	1/8
5/16	.312 to .311	7/16	1/8	5/32
3/8	.375 to .374	9/16	3/32	3/16



Shoulder Screws as a Guide



Shoulder Screws as a Pivot Point



Shoulder Screws as a Shaft

## Low Profile Smooth Head – Inch

### 18-8 SS, 316 SS, and Alloy Steel – Hex Drive

- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- All stainless steel screws adhere to environmental regulations established by European Union RoHS directive.
- All shoulder diameters meet or exceed accepted industry standards and AMPG's internal specification AMPG 2013 LP01.

#### 3/32 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	Alloy Steel Part Number
3/32 x 1/16		STR40132C01H	STR40232C01H	STR41432C01H
3/32 x 3/32	2-56 x 1/8	STR40132C01.5H	STR40232C01.5H	STR41432C01.5H
3/32 x 1/8		STR40132C02H	STR40232C02H	STR41432C02H
3/32 x 5/32		STR40132C02.5H	STR40232C02.5H	STR41432C02.5H
3/32 x 3/16		STR40132C03H	STR40232C03H	STR41432C03H
3/32 x 1/4	2-56 x 1/8	STR40132C04H	STR40232C04H	STR41432C04H
3/32 x 5/16		STR40132C05H	STR40232C05H	STR41432C05H
3/32 x 3/8		STR40132C06H	STR40232C06H	STR41432C06H



#### 1/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	Alloy Steel Part Number
1/8 x 1/16		STR40118C01H	STR40218C01H	STR41418C01H
1/8 x 3/32	4-40 x 5/32	STR40118C1.5H	STR40218C1.5H	STR41418C1.5H
1/8 x 1/8		STR40118C02H	STR40218C02H	STR41418C02H
1/8 x 5/32		STR40118C02.5H	STR40218C02.5H	STR41418C02.5H
1/8 x 3/16		STR40118C03H	STR40218C03H	STR41418C03H
1/8 x 1/4	4-40 x 5/32	STR40118C04H	STR40218C04H	STR41418C04H
1/8 x 5/16		STR40118C05H	STR40218C05H	STR41418C05H
1/8 x 3/8		STR40118C06H	STR40218C06H	STR41418C06H
1/8 x 1/2		STR40118C08H	STR40218C08H	STR41418C08H



#### 5/32 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	Alloy Steel Part Number
5/32 x 1/8		STR40153C02H	STR40253C02H	STR41453C02H
5/32 x 3/16	6-32 x 3/16	STR40153C03H	STR40253C03H	STR41453C03H
5/32 x 1/4		STR40153C04H	STR40253C04H	STR41453C04H
5/32 x 5/16		STR40153C05H	STR40253C05H	STR41453C05H
5/32 x 3/8		STR40153C06H	STR40253C06H	STR41453C06H



#### 3/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	Alloy Steel Part Number
3/16 x 1/8		STR40131C02H	STR40231C02H	STR41431C02H
3/16 x 3/16	8-32 x 3/16	STR40131C03H	STR40231C03H	STR41431C03H
3/16 x 1/4		STR40131C04H	STR40231C04H	STR41431C04H
3/16 x 5/16		STR40131C05H	STR40231C05H	STR41431C05H



Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-131

18-8 SS, 316 SS,  
Alloy

## Low Profile Smooth Head – Inch

### 3/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	Alloy Steel Part Number
3/16 x 3/8	8-32 x 3/16	STR40131C06H	STR40231C06H	STR41431C06H
3/16 x 1/2		STR40131C08H	STR40231C08H	STR41431C08H
3/16 x 5/8		STR40131C10H	STR40231C10H	STR41431C10H
3/16 x 3/4		STR40131C12H	STR40231C12H	STR41431C12H
3/16 x 1	8-32 x 3/16	STR40131C16H	STR40231C16H	STR41431C16H



### 1/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	Alloy Steel Part Number
1/4 x 1/8	10-32 x 1/4	STR40114C02H	STR40214C02H	STR41414C02H
1/4 x 3/16		STR40114C03H	STR40214C03H	STR41414C03H
1/4 x 1/4		STR40114C04H	STR40214C04H	STR41414C04H
1/4 x 5/16		STR40114C05H	STR40214C05H	STR41414C05H
1/4 x 3/8	10-24 x 3/8	STR40114C06-1024H	STR40214C06-1024H	STR41414C06-1024H
1/4 x 3/8	10-32 x 1/4	STR40114C06H	STR40214C06H	STR41414C06H
1/4 x 1/2		STR40114C08H	STR40214C08H	STR41414C08H
1/4 x 1/2	10-24 x 3/8	STR40114C08-1024H	STR40214C08-1024H	STR41414C08-1024H
1/4 x 5/8	10-32 x 1/4	STR40114C10H	STR40214C10H	STR41414C10H
1/4 x 3/4		STR40114C12H	STR40214C12H	STR41414C12H
1/4 x 1		STR40114C16H	STR40214C16H	STR41414C16H



### 5/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	Alloy Steel Part Number
5/16 x 1/8	1/4-20 x 3/8	STR40151C02H	STR40251C02H	STR41451C02H
5/16 x 1/4		STR40151C04H	STR40251C04H	STR41451C04H
5/16 x 3/8		STR40151C06H	STR40251C06H	STR41451C06H
5/16 x 1/2		STR40151C08H	STR40251C08H	STR41451C08H
5/16 x 5/8	1/4-20 x 3/8	STR40151C10H	STR40251C10H	STR41451C10H
5/16 x 3/4		STR40151C12H	STR40251C12H	STR41451C12H
5/16 x 1		STR40151C16H	STR40251C16H	STR41451C16H



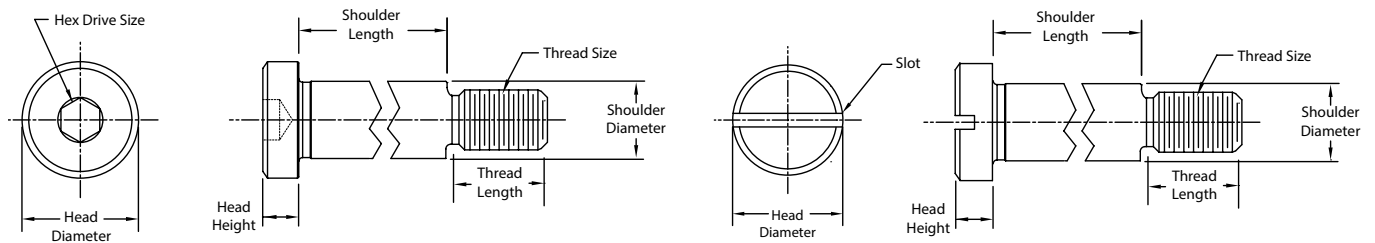
### 3/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	Alloy Steel Part Number
3/8 x 1/4	5/16-18 x 3/8	STR40138C04H	STR40238C04H	STR41438C04H
3/8 x 3/8		STR40138C06H	STR40238C06H	STR41438C06H
3/8 x 1/2		STR40138C08H	STR40238C08H	STR41438C08H
3/8 x 5/8		STR40138C10H	STR40238C10H	STR41438C10H
3/8 x 3/4	5/16-18 x 3/8	STR40138C12H	STR40238C12H	STR41438C12H
3/8 x 1		STR40138C16H	STR40238C16H	STR41438C16H

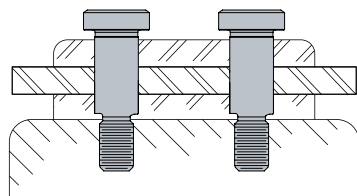


## Low Profile Smooth Head – Metric

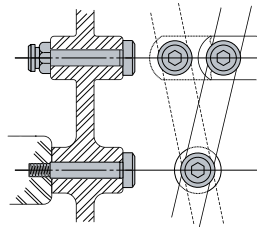
The shallow head makes these screws the right size to hold components in tight spaces. Low Profile screws are 2/3 the head height of standard head height shoulder screws. Shoulder diameters are held to the same precise tolerance as other smooth head screws, at +0mm to -.025mm. Shoulder length tolerance is +.05mm to -0mm. All screws have a Class 6g thread fit.



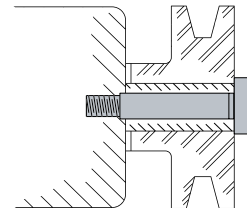
Dimensions and Tolerance Table – Metric				
Shoulder Diameter	Shoulder Diameter Max. to Min.	Head Diameter	Head Height	Drive Size (Hex)
4	4.00 to 3.97	6.00	2.00	2
5	5.00 to 4.97	8.00	2.50	2.5
6	6.00 to 5.97	10.00	3.00	3
8	8.00 to 7.97	12.00	3.50	3.5
10	10.00 to 9.97	14.00	4.50	5
12	12.00 to 11.97	20.00	6.00	6



Shoulder Screws as a Guide



Shoulder Screws as a Pivot Point



Shoulder Screws as a Shaft

# Shoulder Screws

For technical drawings and charts, please see page B-134

18-8 SS (A2)  
316 SS (A4)

## Low Profile Smooth Head — Metric

### 18-8 (A2) and 316 (A4) Stainless Steels — Hex Drive

- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- All shoulder diameters meet or exceed accepted industry standards and AMPG's internal specification AMPG 2013 LP.02.
- All stainless steel screws adhere to environmental regulations established by European Union RoHS directive.



STR401M4X2

#### 4mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
4 x 2		STR401M4X2	—
4 x 4	M3 x 0.5 x 4	STR401M4X4	STR402M4X4
4 x 5		STR401M4X5	STR402M4X5
4 x 6		STR401M4X6	STR402M4X6
4 x 8		STR401M4X8	STR402M4X8
4 x 10	M3 x 0.5 x 4	STR401M4X10	STR402M4X10
4 x 12		STR401M4X12	STR402M4X12
4 x 16		STR401M4X16	STR402M4X16
4 x 20	M3 x 0.5 x 4	STR401M4X20	STR402M4X20



STR401M5X4-ST

#### 5mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
5 x 4		STR401M5X4-ST	STR402M5X4-ST
5 x 5	M4 x 0.7 x 5	STR401M5X5-ST	STR402M5X5-ST
5 x 6		STR401M5X6-ST	STR402M5X6-ST
5 x 8		STR401M5X8-ST	STR402M5X8-ST
5 x 4		STR401M5X4-LT	STR402M5X4-LT
5 x 5	M4 x 0.7 x 8.3	STR401M5X5-LT	STR402M5X5-LT
5 x 6		STR401M5X6-LT	STR402M5X6-LT
5 x 8		STR401M5X8-LT	STR402M5X8-LT
5 x 10		STR401M5X10-ST	STR402M5X10-ST
5 x 12	M4 x 0.7 x 5	STR401M5X12-ST	STR402M5X12-ST
5 x 16		STR401M5X16-ST	STR402M5X16-ST
5 x 20		STR401M5X20-ST	STR402M5X20-ST
5 x 10		STR401M5X10-LT	STR402M5X10-LT
5 x 12	M4 x 0.7 x 8.3	STR401M5X12-LT	STR402M5X12-LT
5 x 16		STR401M5X16-LT	STR402M5X16-LT
5 x 20		STR401M5X20-LT	STR402M5X20-LT
5 x 25	M4 x 0.7 x 5	STR401M5X25-ST	STR402M5X25-ST
5 x 30		STR401M5X30-ST	STR402M5X30-ST
5 x 25	M4 x 0.7 x 8.3	STR401M5X25-LT	STR402M5X25-LT
5 x 30		STR401M5X30-LT	STR402M5X30-LT



STR401M6X3-ST

#### 6mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
6 x 3		STR401M6X3-ST	STR402M6X3-ST
6 x 4		STR401M6X4-ST	STR402M6X4-ST
6 x 5	M5 x 0.8 x 6	STR401M6X5-ST	STR402M6X5-ST
6 x 6		STR401M6X6-ST	STR402M6X6-ST
6 x 8		STR401M6X8-ST	STR402M6X8-ST
6 x 4		STR401M6X4-LT	STR402M6X4-LT
6 x 5	M5 x 0.8 x 9.5	STR401M6X5-LT	STR402M6X5-LT
6 x 6		STR401M6X6-LT	STR402M6X6-LT
6 x 8		STR401M6X8-LT	STR402M6X8-LT
6 x 10		STR401M6X10-ST	STR402M6X10-ST
6 x 12	M5 x 0.8 x 6	STR401M6X12-ST	STR402M6X12-ST
6 x 16		STR401M6X16-ST	STR402M6X16-ST
6 x 20		STR401M6X20-ST	STR402M6X20-ST
6 x 10		STR401M6X10-LT	STR402M6X10-LT
6 x 12	M5 x 0.8 x 9.5	STR401M6X12-LT	STR402M6X12-LT
6 x 16		STR401M6X16-LT	STR402M6X16-LT
6 x 20		STR401M6X20-LT	STR402M6X20-LT

Chart continued on next page

## Low Profile Smooth Head – Metric



STR401M6X25-LT



STR401M8X6

### 6mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
6 x 25	M5 x 0.8 x 6	STR401M6X25-LT	STR402M6X25-LT
6 x 30		STR401M6X30-LT	STR402M6X30-LT
6 x 35		STR401M6X35-LT	STR402M6X35-LT
6 x 40		STR401M6X40-LT	STR402M6X40-LT
6 x 25	M5 x 0.8 x 9.5	STR401M6X25-ST	STR402M6X25-ST
6 x 30		STR401M6X30-ST	STR402M6X30-ST
6 x 35		STR401M6X35-ST	STR402M6X35-ST
6 x 40		STR401M6X40-ST	STR402M6X40-ST

### 8mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
8 x 6	M6 x 1 x 11	STR401M8X6	STR402M8X6
8 x 8		STR401M8X8	STR402M8X8
8 x 10		STR401M8X10	STR402M8X10
8 x 12		STR401M8X12	STR402M8X12
8 x 16	M6 x 1 x 11	STR401M8X16	STR402M8X16
8 x 20		STR401M8X20	STR402M8X20
8 x 25		STR401M8X25	STR402M8X25
8 x 30		STR401M8X30	STR402M8X30
8 x 35	M6 x 1 x 11	STR401M8X35	STR402M8X35
8 x 40		STR401M8X40	STR402M8X40



STR401M10X8



STR401M12X8

### 10mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
10 x 8	M8 x 1.25 x 13	STR401M10X8	STR402M10X8
10 x 10		STR401M10X10	STR402M10X10
10 x 12		STR401M10X12	STR402M10X12
10 x 16		STR401M10X16	STR402M10X16
10 x 20	M8 x 1.25 x 13	STR401M10X20	STR402M10X20
10 x 25		STR401M10X25	STR402M10X25
10 x 30		STR401M10X30	STR402M10X30
10 x 35		STR401M10X35	STR402M10X35
10 x 40	M8 x 1.25 x 13	STR401M10X40	STR402M10X40

### 12mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
12 x 8	M10 x 1.5 x 16	STR401M12X8	STR402M12X8
12 x 10		STR401M12X10	STR402M12X10
12 x 12		STR401M12X12	STR402M12X12
12 x 16		STR401M12X16	STR402M12X16
12 x 20	M10 x 1.5 x 16	STR401M12X20	STR402M12X20
12 x 25		STR401M12X25	STR402M12X25
12 x 30		STR401M12X30	STR402M12X30
12 x 35		STR401M12X35	STR402M12X35
12 x 40	M10 x 1.5 x 16	STR401M12X40	STR402M12X40



# Shoulder Screws

For technical drawings and charts, please see page B-131

Brass

## Friction Resistant Low Profile Smooth Head – Inch

### Brass – Hex Drive

- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- All shoulder diameters meet or exceed accepted industry standards and AMPG's internal specification AMPG 2006 BR.01.
- Brass material adheres to environmental regulations established by European Union RoHS directive. Current RoHS exemption allows alloying element containing up to 4% lead by weight.



STR40632C01H

### 3/32 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Brass Part Number
3/32 x 1/16		STR40632C01H
3/32 x 3/32		STR40632C01.5H
3/32 x 1/8	2-56 x 1/8	STR40632C02H
3/32 x 5/32		STR40632C02.5H
3/32 x 3/16		STR40632C03H
3/32 x 1/4	2-56 x 1/8	STR40632C04H
3/32 x 5/16		STR40632C05H
3/32 x 3/8		STR40632C06H



STR40618C01H

### 1/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Brass Part Number
1/8 x 1/16		STR40618C01H
1/8 x 3/32		STR40618C01.5H
1/8 x 1/8	4-40 x 5/32	STR40618C02H
1/8 x 5/32		STR40618C02.5H
1/8 x 3/16		STR40618C03H
1/8 x 1/4	4-40 x 5/32	STR40618C04H
1/8 x 5/16		STR40618C05H
1/8 x 3/8		STR40618C06H
1/8 x 1/2	4-40 x 5/32	STR40618C08H



STR40653C02H

### 5/32 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Brass Part Number
5/32 x 1/8		STR40653C02H
5/32 x 3/16		STR40653C03H
5/32 x 1/4	6-32 x 3/16	STR40653C04H
5/32 x 5/16		STR40653C05H
5/32 x 3/8	6-32 x 3/16	STR40653C06H



STR40651C02H

### 5/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Brass Part Number
5/16 x 1/8		STR40651C02H
5/16 x 1/4		STR40651C04H
5/16 x 3/8	1/4-20 x 3/8	STR40651C06H
5/16 x 1/2		STR40651C08H
5/16 x 5/8		STR40651C10H
5/16 x 3/4	1/4-20 x 3/8	STR40651C12H
5/16 x 1		STR40651C16H



STR40631C02H

### 3/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Brass Part Number
3/16 x 1/8		STR40631C02H
3/16 x 3/16		STR40631C03H
3/16 x 1/4	8-32 x 3/16	STR40631C04H
3/16 x 5/16		STR40631C05H
3/16 x 3/8		STR40631C06H
3/16 x 1/2		STR40631C08H
3/16 x 5/8	8-32 x 3/16	STR40631C10H
3/16 x 3/4		STR40631C12H
3/16 x 1	8-32 x 3/16	STR40631C16H



STR40614C02H

### 1/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Brass Part Number
1/4 x 1/8		STR40614C02H
1/4 x 3/16		STR40614C03H
1/4 x 1/4	10-32 x 1/4	STR40614C04H
1/4 x 5/16		STR40614C05H
1/4 x 3/8		STR40614C06H
1/4 x 1/2		STR40614C08H
1/4 x 5/8	10-32 x 1/4	STR40614C10H
1/4 x 3/4		STR40614C12H
1/4 x 1	10-32 x 1/4	STR40614C16H



STR40638C04H

### 3/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Brass Part Number
3/8 x 1/4		STR40638C04H
3/8 x 3/8		STR40638C06H
3/8 x 1/2	5/16-18 x 3/8	STR40638C08H
3/8 x 5/8		STR40638C10H
3/8 x 3/4		STR40638C12H
3/8 x 1	5/16-18 x 3/8	STR40638C16H

## Low Profile Smooth Head – Inch

### 18-8 & 316 Stainless Steels, and Alloy Steel – Slotted Drive

- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- All stainless steel screws adhere to environmental regulations established by European Union RoHS directive.
- All shoulder diameters meet or exceed accepted industry standards and AMPG's internal specification AMPG 2013 LP.01.

#### 3/32 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	Alloy Steel Part Number
3/32 x 1/16	2-56 x 1/8	STR40132C01	STR40232C01	STR41432C01
3/32 x 3/32		STR40132C01.5	STR40232C01.5	STR41432C01.5
3/32 x 1/8		STR40132C02	STR40232C02	STR41432C02
3/32 x 5/32		STR40132C02.5	STR40232C02.5	STR41432C02.5
3/32 x 3/16	2-56 x 1/8	STR40132C03	STR40232C03	STR41432C03
3/32 x 1/4		STR40132C04	STR40232C04	STR41432C04
3/32 x 5/16		STR40132C05	STR40232C05	STR41432C05
3/32 x 3/8		STR40132C06	STR40232C06	STR41432C06



#### 1/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	Alloy Steel Part Number
1/8 x 1/16	4-40 x 5/32	STR40118C01	STR40218C01	STR41418C01
1/8 x 3/32		STR40118C1.5	STR40218C1.5	STR41418C1.5
1/8 x 1/8		STR40118C02	STR40218C02	STR41418C02
1/8 x 5/32		STR40118C02.5	STR40218C02.5	STR41418C02.5
1/8 x 3/16	4-40 x 5/32	STR40118C03	STR40218C03	STR41418C03
1/8 x 1/4		STR40118C04	STR40218C04	STR41418C04
1/8 x 5/16		STR40118C05	STR40218C05	STR41418C05
1/8 x 3/8		STR40118C06	STR40218C06	STR41418C06
1/8 x 1/2	4-40 x 5/32	STR40118C08	STR40218C08	STR41418C08



#### 5/32 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	Alloy Steel Part Number
5/32 x 1/8	6-32 x 3/16	STR40153C02	STR40253C02	STR41453C02
5/32 x 3/16		STR40153C03	STR40253C03	STR41453C03
5/32 x 1/4		STR40153C04	STR40253C04	STR41453C04
5/32 x 5/16		STR40153C05	STR40253C05	STR41453C05
5/32 x 3/8	6-32 x 3/16	STR40153C06	STR40253C06	STR41453C06



#### 3/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	Alloy Steel Part Number
3/16 x 1/8	8-32 x 3/16	STR40131C02	STR40231C02	STR41431C02
3/16 x 3/16		STR40131C03	STR40231C03	STR41431C03
3/16 x 1/4		STR40131C04	STR40231C04	STR41431C04



Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-131

18-8 SS, 316 SS,  
Alloy

## Low Profile Smooth Head — Inch

### 3/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	Alloy Steel Part Number
3/16 x 5/16	8-32 x 3/16	STR40131C05	STR40231C05	STR41431C05
3/16 x 3/8		STR40131C06	STR40231C06	STR41431C06
3/16 x 1/2		STR40131C08	STR40231C08	STR41431C08
3/16 x 5/8		STR40131C10	STR40231C10	STR41431C10
3/16 x 3/4	8-32 x 3/16	STR40131C12	STR40231C12	STR41431C12
3/16 x 1		STR40131C16	STR40231C16	STR41431C16



STR40131C05

### 1/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	Alloy Steel Part Number
1/4 x 1/8	10-32 x 1/4	STR40114C02	STR40214C02	STR41414C02
1/4 x 3/16		STR40114C03	STR40214C03	STR41414C03
1/4 x 1/4		STR40114C04	STR40214C04	STR41414C04
1/4 x 5/16		STR40114C05	STR40214C05	STR41414C05
1/4 x 3/8		10-24 x 3/8	STR40114C06-1024	STR40214C06-1024
1/4 x 3/8	10-32 x 1/4	STR40114C06	STR40214C06	STR41414C06
1/4 x 1/2	10-24 x 3/8	STR40114C08-1024	STR40214C08-1024	STR41414C08-1024
1/4 x 1/2	10-32 x 1/4	STR40114C08	STR40214C08	STR41414C08
1/4 x 5/8		STR40114C10	STR40214C10	STR41414C10
1/4 x 3/4		STR40114C12	STR40214C12	STR41414C12
1/4 x 1		STR40114C16	STR40214C16	STR41414C16



STR40114C02

### 5/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	Alloy Steel Part Number
5/16 x 1/8	1/4-20 x 3/8	STR40151C02	STR40251C02	STR41451C02
5/16 x 1/4		STR40151C04	STR40251C04	STR41451C04
5/16 x 3/8		STR40151C06	STR40251C06	STR41451C06
5/16 x 1/2		STR40151C08	STR40251C08	STR41451C08
5/16 x 5/8	1/4-20 x 3/8	STR40151C10	STR40251C10	STR41451C10
5/16 x 3/4		STR40151C12	STR40251C12	STR41451C12
5/16 x 1		STR40151C16	STR40251C16	STR41451C16



STR40151C02

### 3/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number	Alloy Steel Part Number
3/8 x 1/4	5/16-18 x 3/8	STR40138C04	STR40238C04	STR41438C04
3/8 x 3/8		STR40138C06	STR40238C06	STR41438C06
3/8 x 1/2		STR40138C08	STR40238C08	STR41438C08
3/8 x 5/8		STR40138C10	STR40238C10	STR41438C10
3/8 x 3/4	5/16-18 x 3/8	STR40138C12	STR40238C12	STR41438C12
3/8 x 1		STR40138C16	STR40238C16	STR41438C16



STR40138C04

## Low Profile Smooth Head – Metric

### 18-8 (A2) and 316 (A4) Stainless Steel – Slotted Drive

- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- All shoulder diameters meet or exceed accepted industry standards and AMPG's internal specification AMPG 2013 LP.02.
- All stainless steel screws adhere to environmental regulations established by European Union RoHS directive.



STR401M4X4S

#### 4mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
4 x 4	M3 x 0.5 x 4	STR401M4X4S	STR402M4X4S
4 x 5		STR401M4X5S	STR402M4X5S
4 x 6		STR401M4X6S	STR402M4X6S
4 x 8		STR401M4X8S	STR402M4X8S
4 x 10	M3 x 0.5 x 4	STR401M4X10S	STR402M4X10S
4 x 12		STR401M4X12S	STR402M4X12S
4 x 16		STR401M4X16S	STR402M4X16S
4 x 20		STR401M4X20S	STR402M4X20S



STR401M6X4S-ST

#### 6mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
6 x 4	M5 x 0.8 x 6	STR401M6X4S-ST	STR402M6X4S-ST
6 x 5		STR401M6X5S-ST	STR402M6X5S-ST
6 x 6		STR401M6X6S-ST	STR402M6X6S-ST
6 x 8		STR401M6X8S-ST	STR402M6X8S-ST
6 x 4	M5 x 0.8 x 9.5	STR401M6X4S-LT	STR402M6X4S-LT
6 x 5		STR401M6X5S-LT	STR402M6X5S-LT
6 x 6		STR401M6X6S-LT	STR402M6X6S-LT
6 x 8		STR401M6X8S-LT	STR402M6X8S-LT
6 x 10	M5 x 0.8 x 6	STR401M6X10S-ST	STR402M6X10S-ST
6 x 12		STR401M6X12S-ST	STR402M6X12S-ST
6 x 16		STR401M6X16S-ST	STR402M6X16S-ST
6 x 20		STR401M6X20S-ST	STR402M6X20S-ST
6 x 10	M5 x 0.8 x 9.5	STR401M6X10S-LT	STR402M6X10S-LT
6 x 12		STR401M6X12S-LT	STR402M6X12S-LT
6 x 16		STR401M6X16S-LT	STR402M6X16S-LT
6 x 20		STR401M6X20S-LT	STR402M6X20S-LT



STR401M5X4S-ST

#### 5mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
5 x 4	M4 x 0.7 x 5	STR401M5X4S-ST	STR402M5X4S-ST
5 x 5		STR401M5X5S-ST	STR402M5X5S-ST
5 x 6		STR401M5X6S-ST	STR402M5X6S-ST
5 x 8		STR401M5X8S-ST	STR402M5X8S-ST
5 x 4	M4 x 0.7 x 8.3	STR401M5X4S-LT	STR402M5X4S-LT
5 x 5		STR401M5X5S-LT	STR402M5X5S-LT
5 x 6		STR401M5X6S-LT	STR402M5X6S-LT
5 x 8		STR401M5X8S-LT	STR402M5X8S-LT
5 x 10	M4 x 0.7 x 5	STR401M5X10S-ST	STR402M5X10S-ST
5 x 12		STR401M5X12S-ST	STR402M5X12S-ST
5 x 16		STR401M5X16S-ST	STR402M5X16S-ST
5 x 20		STR401M5X20S-ST	STR402M5X20S-ST
5 x 10	M4 x 0.7 x 8.3	STR401M5X10S-LT	STR402M5X10S-LT
5 x 12		STR401M5X12S-LT	STR402M5X12S-LT
5 x 16		STR401M5X16S-LT	STR402M5X16S-LT
5 x 20		STR401M5X20S-LT	STR402M5X20S-LT
5 x 25	M4 x 0.7 x 5	STR401M5X25S-ST	STR402M5X25S-ST
5 x 30		STR401M5X30S-ST	STR402M5X30S-ST
5 x 25	M4 x 0.7 x 8.3	STR401M5X25S-LT	STR402M5X25S-LT
5 x 30		STR401M5X30S-LT	STR402M5X30S-LT

Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-134

18-8 SS (A2)  
316 SS (A4)

## Low Profile Smooth Head – Metric



STR401M6X25S-LT



STR401M8X6S

### 6mm Shoulder Diameter

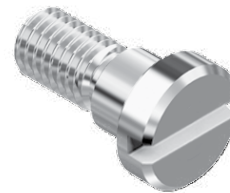
Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
6 x 25	M5 x 0.8 x 6	STR401M6X25S-ST	STR402M6X25S-ST
6 x 30		STR401M6X30S-ST	STR402M6X30S-ST
6 x 35		STR401M6X35S-ST	STR402M6X35S-ST
6 x 40		STR401M6X40S-ST	STR402M6X40S-ST
6 x 25	M5 x 0.8 x 9.5	STR401M6X25S-LT	STR402M6X25S-LT
6 x 30		STR401M6X30S-LT	STR402M6X30S-LT
6 x 35		STR401M6X35S-LT	STR402M6X35S-LT
6 x 40		STR401M6X40S-LT	STR402M6X40S-LT

### 8mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
8 x 6	M6 x 1 x 11	STR401M8X6S	STR402M8X6S
8 x 8		STR401M8X8S	STR402M8X8S
8 x 10		STR401M8X10S	STR402M8X10S
8 x 12		STR401M8X12S	STR402M8X12S
8 x 16	M6 x 1 x 11	STR401M8X16S	STR402M8X16S
8 x 20		STR401M8X20S	STR402M8X20S
8 x 25		STR401M8X25S	STR402M8X25S
8 x 30		STR401M8X30S	STR402M8X30S
8 x 35	M6 x 1 x 11	STR401M8X35S	STR402M8X35S
8 x 40		STR401M8X40S	STR402M8X40S



STR401M10X8S



STR401M12X8S

### 10mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
10 x 8	M8 x 1.25 x 13	STR401M10X8S	STR402M10X8S
10 x 10		STR401M10X10S	STR402M10X10S
10 x 12		STR401M10X12S	STR402M10X12S
10 x 16		STR401M10X16S	STR402M10X16S
10 x 20	M8 x 1.25 x 13	STR401M10X20S	STR402M10X20S
10 x 25		STR401M10X25S	STR402M10X25S
10 x 30		STR401M10X30S	STR402M10X30S
10 x 35		STR401M10X35S	STR402M10X35S
10 x 40	M8 x 1.25 x 13	STR401M10X40S	STR402M10X40S

### 12mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	18-8 SS Part Number	316 SS Part Number
12 x 8	M10 x 1.5 x 16	STR401M12X8S	STR402M12X8S
12 x 10		STR401M12X10S	STR402M12X10S
12 x 12		STR401M12X12S	STR402M12X12S
12 x 16		STR401M12X16S	STR402M12X16S
12 x 20	M10 x 1.5 x 16	STR401M12X20S	STR402M12X20S
12 x 25		STR401M12X25S	STR402M12X25S
12 x 30		STR401M12X30S	STR402M12X30S
12 x 35		STR401M12X35S	STR402M12X35S
12 x 40	M10 x 1.5 x 16	STR401M12X40S	STR402M12X40S

## Friction Resistant Low Profile Smooth Head – Inch

### Brass – Slotted Drive

- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- All shoulder diameters meet or exceed accepted industry standards and AMPG's internal specification AMPG 2006 BR.01.
- Brass material adheres to environmental regulations established by European Union RoHS directive. Current RoHS exemption allows alloying element containing up to 4% lead by weight.



STR40632C01

### 3/32 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Brass Part Number
3/32 x 1/16		STR40632C01
3/32 x 3/32	2-56 x 1/8	STR40632C01.5
3/32 x 1/8		STR40632C02
3/32 x 5/32		STR40632C02.5
3/32 x 3/16		STR40632C03
3/32 x 1/4	2-56 x 1/8	STR40632C04
3/32 x 5/16		STR40632C05
3/32 x 3/8		STR40632C06



STR40618C01

### 1/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Brass Part Number
1/8 x 1/16		STR40618C01
1/8 x 3/32	4-40 x 5/32	STR40618C01.5
1/8 x 1/8		STR40618C02
1/8 x 5/32		STR40618C02.5
1/8 x 3/16		STR40618C03
1/8 x 1/4	4-40 x 5/32	STR40618C04
1/8 x 5/16		STR40618C05
1/8 x 3/8		STR40618C06
1/8 x 1/2	4-40 x 5/32	STR40618C08



STR40653C02

### 5/32 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Brass Part Number
5/32 x 1/8		STR40653C02
5/32 x 3/16	6-32 x 3/16	STR40653C03
5/32 x 1/4		STR40653C04
5/32 x 5/16		STR40653C05
5/32 x 3/8	6-32 x 3/16	STR40653C06



STR40651C02

### 5/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Brass Part Number
5/16 x 1/8		STR40651C02
5/16 x 1/4	1/4-20 x 3/8	STR40651C04
5/16 x 3/8		STR40651C06
5/16 x 1/2		STR40651C08
5/16 x 5/8		STR40651C10
5/16 x 3/4	1/4-20 x 3/8	STR40651C12
5/16 x 1		STR40651C16



STR40631C02

### 3/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Brass Part Number
3/16 x 1/8		STR40631C02
3/16 x 3/16	8-32 x 3/16	STR40631C03
3/16 x 1/4		STR40631C04
3/16 x 5/16		STR40631C05
3/16 x 3/8		STR40631C06
3/16 x 1/2	8-32 x 3/16	STR40631C08
3/16 x 5/8		STR40631C10
3/16 x 3/4		STR40631C12
3/16 x 1	8-32 x 3/16	STR40631C16



STR40614C02

### 1/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Brass Part Number
1/4 x 1/8		STR40614C02
1/4 x 3/16	10-32 x 1/4	STR40614C03
1/4 x 1/4		STR40614C04
1/4 x 5/16		STR40614C05
1/4 x 3/8		STR40614C06
1/4 x 1/2	10-32 x 1/4	STR40614C08
1/4 x 5/8		STR40614C10
1/4 x 3/4		STR40614C12
1/4 x 1	10-32 x 1/4	STR40614C16



STR40638C04

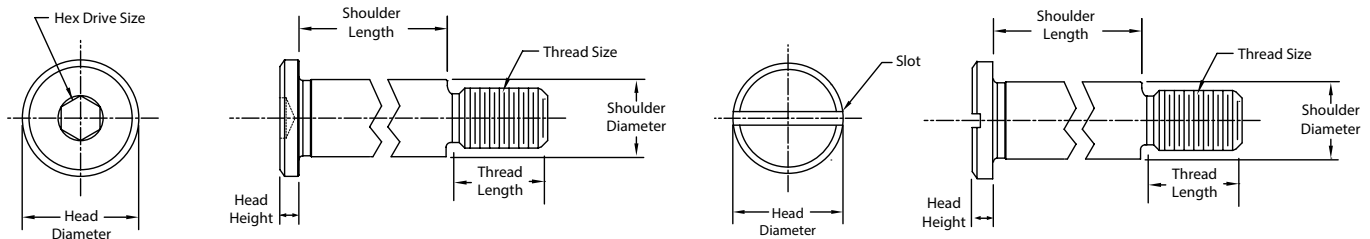
### 3/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	Brass Part Number
3/8 x 1/4		STR40638C04
3/8 x 3/8	5/16-18 x 3/8	STR40638C06
3/8 x 1/2		STR40638C08
3/8 x 5/8		STR40638C10
3/8 x 3/4	5/16-18 x 3/8	STR40638C12
3/8 x 1		STR40638C16

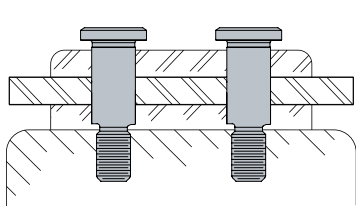
# Shoulder Screws

## Ultra Low Profile Smooth Head — Inch

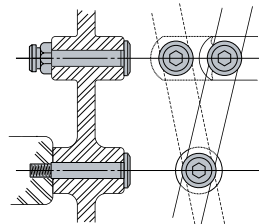
The shallow head makes these screws the right size to hold components in tight spaces. Ultra Low Profile screws are 1/3 the head height of standard head height shoulder screws. Shoulder diameters are held to the same precise tolerance as other smooth head screws, at +0 to -.001 inches. Shoulder length tolerance is +.002 to -0 inches. All screws have a Class 2A thread fit.



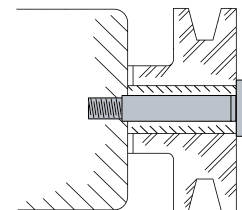
Dimensions and Tolerance Table — Inch				
Shoulder Diameter	Shoulder Diameter Max. to Min.	Head Diameter	Head Height	Drive Size (Hex)
3/32	.094 to .093	3/16	1/32	5/64
1/8	.125 to .124	1/4	3/64	5/64
5/32	.156 to .155	9/32	3/64	3/32
3/16	.187 to .186	5/16	3/64	3/32
1/4	.250 to .249	3/8	1/16	1/8



Shoulder Screws as a Guide



Shoulder Screws as a Pivot Point



Shoulder Screws as a Shaft



## Ultra Low Smooth Head – Inch

### 316 Stainless Steel – Hex Drive

- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- All shoulder diameters meet or exceed accepted industry standards and AMPG's internal specification AMPG 2013 UL.01.
- All stainless steel screws adhere to environmental regulations established by European Union RoHS directive.



STR40232C02HUL

#### 3/32 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	316 SS Part Number
3/32 x 1/8		STR40232C02HUL
3/32 x 3/16		STR40232C03HUL
3/32 x 1/4	2-56 x 1/8	STR40232C04HUL
3/32 x 5/16		STR40232C05HUL
3/32 x 3/8	2-56 x 1/8	STR40232C06HUL



STR40253C02HUL

#### 5/32 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	316 SS Part Number
5/32 x 1/8		STR40253C02HUL
5/32 x 3/16		STR40253C03HUL
5/32 x 1/4	6-32 x 3/16	STR40253C04HUL
5/32 x 5/16		STR40253C05HUL
5/32 x 3/8		STR40253C06HUL
5/32 x 1/2	6-32 x 3/16	STR40253C08HUL



STR40214F04HUL

#### 1/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	316 SS Part Number
1/4 x 1/4		STR40214F04HUL
1/4 x 5/16		STR40214F05HUL
1/4 x 3/8	10-32 x 1/4	STR40214F06HUL
1/4 x 1/2		STR40214F08HUL
1/4 x 5/8		STR40214F10HUL
1/4 x 3/4	10-32 x 1/4	STR40214F12HUL
1/4 x 1		STR40214F16HUL



STR40218C02HUL

#### 1/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	316 SS Part Number
1/8 x 1/8		STR40218C02HUL
1/8 x 3/16		STR40218C03HUL
1/8 x 1/4	4-40 x 5/32	STR40218C04HUL
1/8 x 5/16		STR40218C05HUL
1/8 x 3/8		STR40218C06HUL
1/8 x 1/2	4-40 x 5/32	STR40218C08HUL



STR40231C02HUL

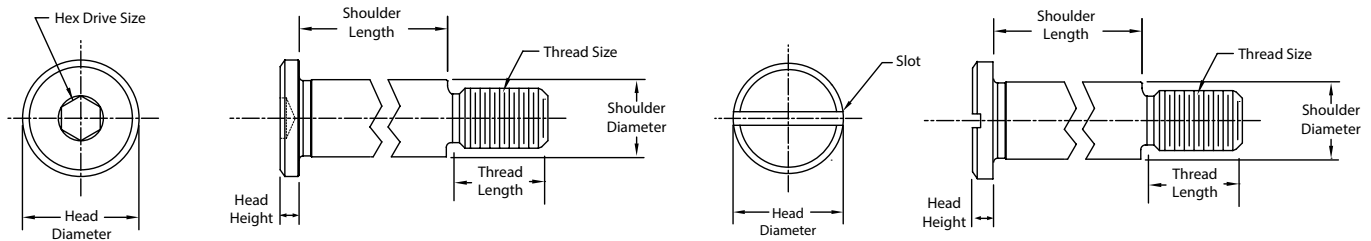
#### 3/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	316 SS Part Number
3/16 x 1/8		STR40231C02HUL
3/16 x 3/16		STR40231C03HUL
3/16 x 1/4	8-32 x 3/16	STR40231C04HUL
3/16 x 5/16		STR40231C05HUL
3/16 x 3/8		STR40231C06HUL
3/16 x 1/2		STR40231C08HUL
3/16 x 5/8	8-32 x 3/16	STR40231C10HUL
3/16 x 3/4		STR40231C12HUL
3/16 x 1	8-32 x 3/16	STR40231C16HUL

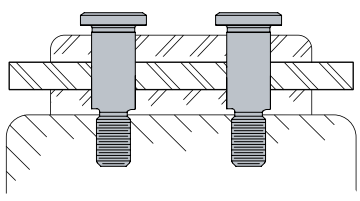
# Shoulder Screws

## Ultra Low Profile Smooth Head Shoulder Screw — Metric

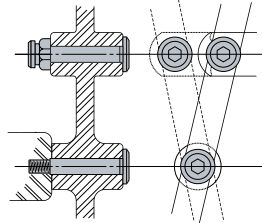
The shallow head makes these screws the right size to hold components in tight spaces. Ultra Low Profile screws are 1/3 the head height of standard head height shoulder screws. Shoulder diameters are held to the same precise tolerance as other smooth head screws, at +0 to -0.025mm. Shoulder length tolerance is +.05 to -0mm. All screws have a Class 6g thread fit.



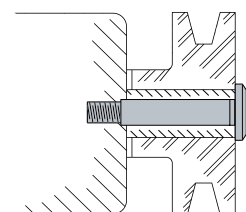
Dimensions and Tolerance Table — Metric				
Shoulder Diameter	Shoulder Diameter Max. to Min.	Head Diameter	Head Height	Drive Size (Hex)
4	4.00 to 3.97	6.00	1.30	2
5	5.00 to 4.97	8.00	1.30	2.5
6	6.00 to 5.97	10.00	1.70	3
8	8.00 to 7.97	12.00	2.00	4
10	10.00 to 9.97	16.00	2.50	5
12	12.00 to 11.97	18.00	3.30	6



Shoulder Screws as a Guide



Shoulder Screws as a Pivot Point



Shoulder Screws as a Shaft

## Ultra Low Smooth Head – Metric

### 316 (A4) Stainless Steel – Hex Drive

- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- All shoulder diameters meet or exceed accepted industry standards and AMPG's internal specification AMPG 2013 UL.02.
- All stainless steel screws adhere to environmental regulations established by European Union RoHS directive.



STR402M4X4HUL

#### 4mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	316 SS Part Number
4 x 4	M3 x 0.5 x 4	STR402M4X4HUL
4 x 5		STR402M4X5HUL
4 x 6		STR402M4X6HUL
4 x 8		STR402M4X8HUL
4 x 10	M3 x 0.5 x 4	STR402M4X10HUL
4 x 12		STR402M4X12HUL
4 x 14		STR402M4X14HUL
4 x 16		STR402M4X16HUL
4 x 18	M3 x 0.5 x 4	STR402M4X18HUL
4 x 20		STR402M4X20HUL
4 x 25		STR402M4X25HUL
4 x 30		STR402M4X30HUL
4 x 35	M3 x 0.5 x 4	STR402M4X35HUL
4 x 40		STR402M4X40HUL
4 x 45		STR402M4X45HUL



STR402M5X4HUL

#### 5mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	316 SS Part Number
5 x 4	M4 x 0.7 x 5	STR402M5X4HUL
5 x 5		STR402M5X5HUL
5 x 6		STR402M5X6HUL
5 x 8		STR402M5X8HUL
5 x 10	M4 x 0.7 x 5	STR402M5X10HUL
5 x 12		STR402M5X12HUL
5 x 14		STR402M5X14HUL
5 x 16		STR402M5X16HUL
5 x 18	M4 x 0.7 x 5	STR402M5X18HUL
5 x 20		STR402M5X20HUL
5 x 25		STR402M5X25HUL
5 x 30		STR402M5X30HUL
5 x 35	M4 x 0.7 x 5	STR402M5X35HUL
5 x 40		STR402M5X40HUL
5 x 45		STR402M5X45HUL
5 x 50		STR402M5X50HUL

Chart continued on next page

# Shoulder Screws

For technical drawings and charts, please see page B-145

## Ultra Low Smooth Head – Metric

316 (A4) Stainless Steel – Hex Drive



STR402M6X4HUL

### 6mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	316 SS Part Number
6 x 4		STR402M6X4HUL
6 x 5	M5 x 0.8 x 6	STR402M6X5HUL
6 x 6		STR402M6X6HUL
6 x 8		STR402M6X8HUL
6 x 10		STR402M6X10HUL
6 x 12	M5 x 0.8 x 6	STR402M6X12HUL
6 x 14		STR402M6X14HUL
6 x 16		STR402M6X16HUL
6 x 18		STR402M6X18HUL
6 x 20	M5 x 0.8 x 6	STR402M6X20HUL
6 x 25		STR402M6X25HUL
6 x 30		STR402M6X30HUL
6 x 35		STR402M6X35HUL
6 x 40	M5 x 0.8 x 6	STR402M6X40HUL
6 x 45		STR402M6X45HUL
6 x 50		STR402M6X50HUL
6 x 55		STR402M6X55HUL
6 x 60	M5 x 0.8 x 6	STR402M6X60HUL



STR402M8X6HUL

### 8mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	316 SS Part Number
8 x 6		STR402M8X6HUL
8 x 8	M6 x 1 x 11	STR402M8X8HUL
8 x 10		STR402M8X10HUL
8 x 12		STR402M8X12HUL
8 x 16		STR402M8X16HUL
8 x 20	M6 x 1 x 11	STR402M8X20HUL
8 x 25		STR402M8X25HUL
8 x 30		STR402M8X30HUL
8 x 35		STR402M8X35HUL
8 x 40	M6 x 1 x 11	STR402M8X40HUL
8 x 45		STR402M8X45HUL
8 x 50		STR402M8X50HUL
8 x 55		STR402M8X55HUL
8 x 60	M6 x 1 x 11	STR402M8X60HUL



STR402M10X8HUL

### 10mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	316 SS Part Number
10 x 8		STR402M10X8HUL
10 x 10	M8 x 1.25 x 13	STR402M10X10HUL
10 x 12		STR402M10X12HUL
10 x 16		STR402M10X16HUL
10 x 20		STR402M10X20HUL
10 x 25	M8 x 1.25 x 13	STR402M10X25HUL
10 x 30		STR402M10X30HUL
10 x 35		STR402M10X35HUL
10 x 40		STR402M10X40HUL
10 x 45	M8 x 1.25 x 13	STR402M10X45HUL
10 x 50		STR402M10X50HUL
10 x 55		STR402M10X55HUL
10 x 60	M8 x 1.25 x 13	STR402M10X60HUL



STR402M12X8HUL

### 12mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	316 SS Part Number
12 x 8		STR402M12X8HUL
12 x 10	M10 x 1.5 x 16	STR402M12X10HUL
12 x 12		STR402M12X12HUL
12 x 16		STR402M12X16HUL
12 x 20		STR402M12X20HUL
12 x 25	M10 x 1.5 x 16	STR402M12X25HUL
12 x 30		STR402M12X30HUL
12 x 35		STR402M12X35HUL
12 x 40		STR402M12X40HUL
12 x 45	M10 x 1.5 x 16	STR402M12X45HUL
12 x 50		STR402M12X50HUL
12 x 55		STR402M12X55HUL
12 x 60	M10 x 1.5 x 16	STR402M12X60HUL

## Ultra Low Smooth Head – Inch

### 316 Stainless Steel – Slotted Drive

- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- All shoulder diameters meet or exceed accepted industry standards and AMPG's internal specification AMPG 2013 UL.01.
- All stainless steel screws adhere to environmental regulations established by European Union RoHS directive.



STR40232C02UL

#### 3/32 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	316 SS Part Number
3/32 x 1/8		STR40232C02UL
3/32 x 3/16	2-56 x 1/8	STR40232C03UL
3/32 x 1/4		STR40232C04UL
3/32 x 5/16		STR40232C05UL
3/32 x 3/8	2-56 x 1/8	STR40232C06UL



STR40253C02UL

#### 5/32 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	316 SS Part Number
5/32 x 1/8		STR40253C02UL
5/32 x 3/16	6-32 x 3/16	STR40253C03UL
5/32 x 1/4		STR40253C04UL
5/32 x 5/16		STR40253C05UL
5/32 x 3/8	6-32 x 3/16	STR40253C06UL
5/32 x 1/2		STR40253C08UL



STR40214F04UL

#### 1/4 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	316 SS Part Number
1/4 x 1/4		STR40214F04UL
1/4 x 5/16	10-32 x 1/4	STR40214F05UL
1/4 x 3/8		STR40214F06UL
1/4 x 1/2		STR40214F08UL
1/4 x 5/8		STR40214F10UL
1/4 x 3/4	10-32 x 1/4	STR40214F12UL
1/4 x 1		STR40214F16UL



STR40218C02UL

#### 1/8 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	316 SS Part Number
1/8 x 1/8		STR40218C02UL
1/8 x 3/16	4-40 x 5/32	STR40218C03UL
1/8 x 1/4		STR40218C04UL
1/8 x 5/16		STR40218C05UL
1/8 x 3/8	4-40 x 5/32	STR40218C06UL
1/8 x 1/2		STR40218C08UL



STR40231C02UL

#### 3/16 Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	316 SS Part Number
3/16 x 1/8		STR40231C02UL
3/16 x 3/16	8-32 x 3/16	STR40231C03UL
3/16 x 1/4		STR40231C04UL
3/16 x 5/16		STR40231C05UL
3/16 x 3/8		STR40231C06UL
3/16 x 1/2	8-32 x 3/16	STR40231C08UL
3/16 x 5/8		STR40231C10UL
3/16 x 3/4		STR40231C12UL
3/16 x 1	8-32 x 3/16	STR40231C16UL

# Shoulder Screws

For technical drawings and charts, please see page B-145

316 SS (A4)

## Ultra Low Smooth Head – Metric

### 316 Stainless Steel – Slotted Drive

- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- All stainless steel screws adhere to environmental regulations established by European Union RoHS directive.
- All shoulder diameters meet or exceed accepted industry standards and AMPG's internal specification AMPG 2013 UL.02.



STR402M4X4UL

#### 4mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	316 SS Part Number
4 x 4	M3 x 0.5 x 4	STR402M4X4UL
4 x 5		STR402M4X5HL
4 x 6		STR402M4X6UL
4 x 8		STR402M4X8UL
4 x 10	M3 x 0.5 x 4	STR402M4X10UL



STR402M5X4UL

#### 5mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	316 SS Part Number
5 x 4	M4 x 0.7 x 5	STR402M5X4UL
5 x 5		STR402M5X5UL
5 x 6		STR402M5X6UL
5 x 8		STR402M5X8UL
5 x 10	M4 x 0.7 x 5	STR402M5X10UL
5 x 12		STR402M5X12UL
5 x 16		STR402M5X16UL
5 x 20		STR402M5X20UL



STR402M6X4UL

#### 6mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	316 SS Part Number
6 x 4	M5 x 0.8 x 6	STR402M6X4UL
6 x 5		STR402M6X5UL
6 x 6		STR402M6X6UL
6 x 8		STR402M6X8UL
6 x 10	M5 x 0.8 x 6	STR402M6X10UL
6 x 12		STR402M6X12UL
6 x 16		STR402M6X16UL
6 x 20		STR402M6X20UL



STR402M8X6UL

#### 8mm Shoulder Diameter

Shoulder Dia. x Lg.	Thread Size x Lg.	316 SS Part Number
8 x 6	M6 x 1 x 11	STR402M8X6UL
8 x 8		STR402M8X8UL
8 x 10		STR402M8X10UL
8 x 12		STR402M8X12UL
8 x 16	M6 x 1 x 11	STR402M8X16UL
8 x 20		STR402M8X20UL









### Longevity

Since 1995, Accurate Manufactured Products Group (AMPG) has been a stocking manufacturer of precision components, hard-to-find fasteners and industrial products.



### Strategic Location

AMPG's 121,600 square foot facility is located in the Heart of the Midwest which gives us access to high-quality machinists/employees as well as being strategically located for fast delivery.



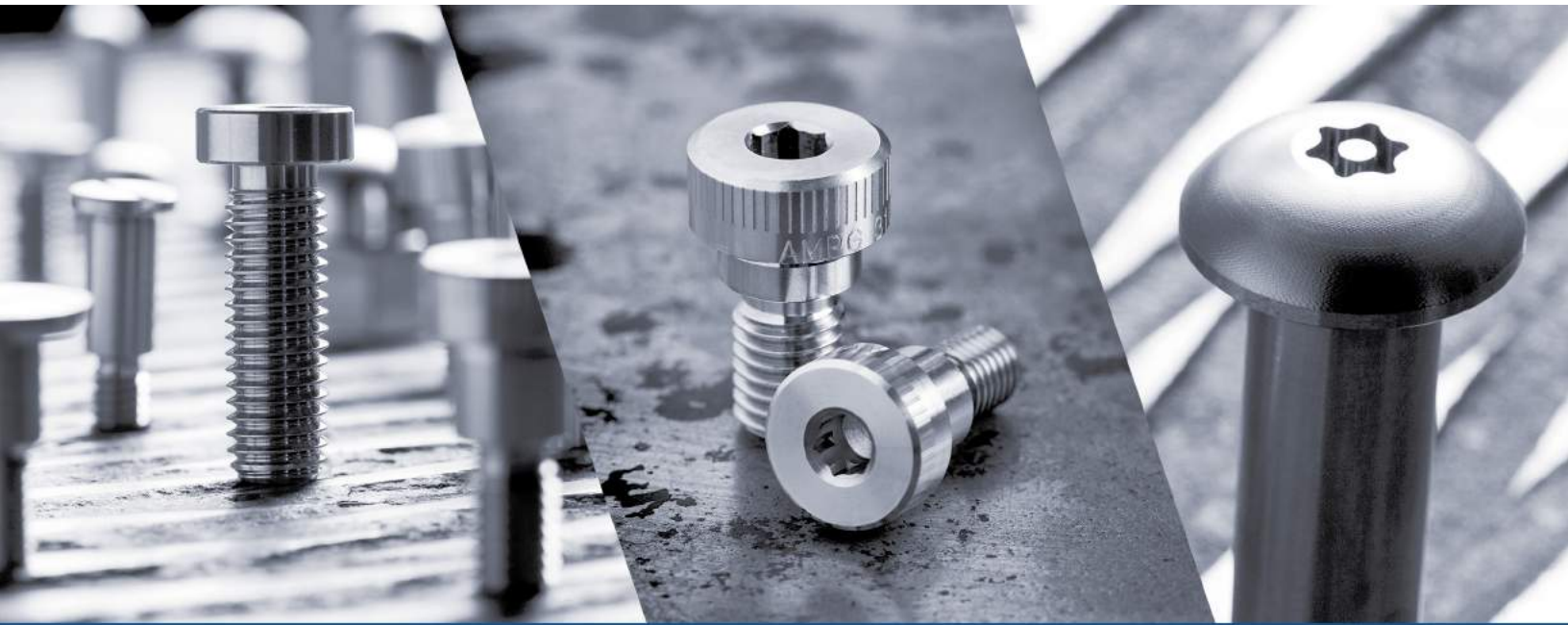
### Advanced Equipment

Our manufacturing facility operates 24/7, producing precision parts on state-of-the-art CNC Swiss Lathes. Parts are made from high quality materials with a superior machined finish.



### Superior Quality

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