Metric



How To Bearing Guiderail **High-Cycle Double** Single Flange **Double Flange High-Cycle High-Cycle Single** Order System Concept Bearings Bearings Bearing Concept Flange Bearings Flange Bearings \mathbf{S} Page 980 Page 981 Page 982 Pages 983-984 Page 985 Page 986 Pages 987-988 UniBearing™ Single UniBearing" Double UniBearing" UniBearing[™] Custom Linear Flanged Bearing UniBearing[™] **Bearing Concept** Bearings Bearings **Bearing Assemblies** Bearings Profiles Profiles -, Þðf # Page 992 Page 993 Page 994 Page 995 Page 996 Pages 989-991 Page 997 Custom Bearing Standard Top-Mount High-Cycle Linear Bearing UniBearing[™] Engineering Bearing Pads Bearing Pads Bearing Pads Shim Stock Bearing Pads Pad Profiles Specifications 0 . Pages 1002-1003 Page 1004 Page 998 Page 999 Page 1000 Page 1001 Page 1005 Load Bearing Chemical Linear Bearing Linear Bearing Roller Roller Wheel Roller Wheel Resistance Brake Kits Brake Holes Wheels Brackets Assemblies Properties 35,400 000 . . Page 1006 Page 1007 Page 1008 Page 1009 Pages 1010-1011 Page 1012 Page 1013

9

Legend for Icons



Design files for this part can be found on the 80/20[®] DVD (Design Software)



This part can use double economy T-nuts. See page 757.

Phone: 260-248-8030 • Fax: 260-248-8029 • www.8020.net

80/20[°] Inc. The Industrial Erector Set® THE STANDARD

How to Order 80/20[®] Linear Bearings

When ordering linear motion components, it is important to review the three types of bearings available and make the best choice for your application. Be sure to list all brake hole locations and machining part numbers. If you would like a custom bearing, select from the bearing housing

profiles listed on page 996. Simply provide a sketch with specific information such as overall length, and mounting hole diameter and location, along with any other additional machining. Select from the bearing pad profiles listed on page 1004 to complete your custom bearing.

L	Shipping Meth	iod:		Ship To:		
L	Ordered	By:		Customer:		
L	Oldeled	Бу.		Address:		
L				City / State:		
	Complete A	ddress &	Shipping	Method Attention:		
			O P.O. Bo			
				-		
	Part Number	Quantity	Length	Description / Machining	Price/UOM	Ext. Pri
_	25-2525	2	469.9mm	25-7042 in A both ends	\$0.01	\$7.
	40-4040-Lite-4m	5	4 m	Full length profile	\$80.00	\$400.
	40-8016	4	1016.0mm	40-7029 one end	\$0.14	\$554.
-	40-8080	4	914.4mm	40-7050 style MG in W, X both ends	\$0.06	\$230.
I	CM01-051006	2		Custom bracket per drawing #1	\$23.00	\$46.
1	65-2611	1	.63 sm	6mm bronze polycarb 1 @ 457.2mm x 1016mm w/ 25-7311 per drawing	\$111.95	\$70.
	65-7150			Cut plastic panels all sides < -1220mm	\$10.50	\$10.
	25-7042	4		25 Series anchor fastener counterbore	\$2.25	\$9.
	25-7005	2		Cut-to-length for 25-2525	\$1.95	\$3.
	40-7023	4		Cut-to-length for 40-8016	\$2.90	\$11.
	40-7030	4		Cut-to-length for 40-8080	\$2.60	\$10.
	40-7050	64		40 Series drill access hole	\$1.95	\$124.
	40-7029	4		5/16-18 tap service for 40-8016	\$15.20	\$60.
-	25-7311	2		Anchor fastener notch for 25 Series	\$0.53	\$1.
	40-3891	32		40 Series M8 bright zinc end fastener w/ screw	\$1.65	\$52.
	25-2114	16		Gray T-Slot covers for 25 Series	\$3.45	\$55.
	40-2050	8		End caps for 40-8080	\$1.85	\$14.
	25-3896	4		25 Series anchor fasteners	\$3.10	\$12.
	40-1982	5	-	40 Series M8 bright zinc double economy T-nut	\$0.84	\$4.
	25-4132	12		2 hole inside corner gusset bracket	\$3.95	\$47.
	75-3404	24		25 Series M6 BHSCS & economy T-nut	\$0.45	\$10.
T				TOTAL		\$1739.

1 - Profiles = Pages 640-694 • 2 - Custom Parts = Pages 695-710 • 3 - Panels = Pages 831-914 4 - Machining Services = Pages 1025-1078 • 5 - Accessories & Tools = Pages 915-938 & 1015-1024

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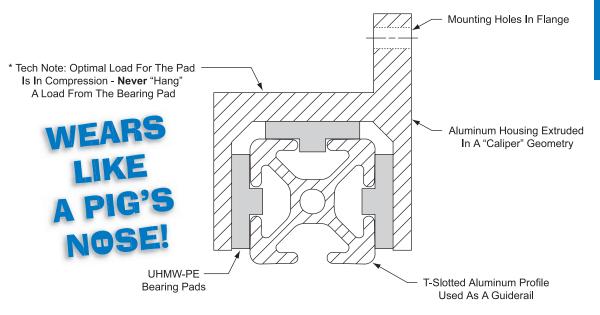
same day shipments!

The Concept Of The Bearing & Guiderail System

The drawing below shows the general concept for 80/20[®]'s linear bearing design. The bearing profile is used to mount UHMW-PE bearing pads; the pads are then inserted into the T-slot of an 80/20 aluminum T-slotted profile. The bearing uses the profile as a "guiderail", sliding along the profile's T-slots.

It is important to note that the UHMW-PE bearing pads are self lubricating, which makes this method of linear motion clean and smooth. All bearings are designed for compression loads only, and should **NEVER** be used to support hanging loads.

* UHMW-PE is an abbreviation for Ultra High Molecular Weight Polyethylene. UHMW-PE is an easily machined, selflubricating plastic with a low coefficient of friction. For more information on UHMW-PE, refer to pages 889-891.



Standard Linear Bearing Advantages

- Cost-effective alternative to traditional bearings.
- Designed to mate and glide on our family of T-slotted aluminum profiles.
- Great for unique applications such as drawer glides, door guides, table saw fences, digital length measuring systems, optical sensing mounts, drum set cymbal mounts, workstation height adjustments, etc.

80/20[®] Linear Motion Advantages

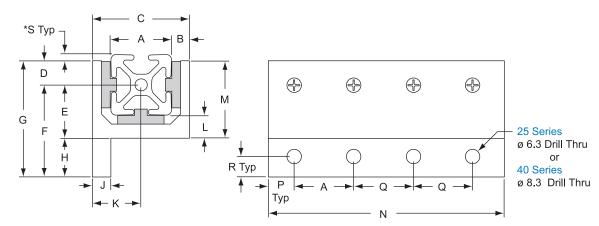
- Cost-effective alternative to traditional bearings.
- Designed to mate and glide on our family of T-slotted aluminum profiles.
- Great for unique applications such as: drawer glides, door guides, table saw fences, digital length measuring systems, optical sensing mounts, drum set cymbal mounts, work station height adjustments, etc.

80/20[®] Inc. The Industrial Erector Set[®] THE STANDARD





• Bearings include bearing pads, screws and shims

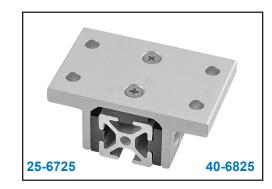


Part No.	Α	В	C	D	E	F	G	H	J	K	L	М	N	Р	Q	R	S	kg.
25-6715	25.00	8.10	41.20	10.69	22.50	39.04	49.75	16.50	8.00	20.60	9.80	33.24	47.00	11.00	—	8.23	1.80	.091
25-6415**	25.00	8.10	41.20	10.69	22.50	39.04	49.75	16.50	8.00	20.60	9.80	33.24	47.00	11.00		8.23	1.80	.091
25-6716	25.00	8.10	41.20	10.69	22.50	39.04	49.75	16.50	8.00	20.60	9.80	33.24	100.00	12.50	25.00	8.23	1.80	.193
25-6416**	25.00	8.10	41.20	10.69	22.50	39.04	49.75	16.50	8.00	20.60	9.80	33.24	100.00	12.50	25.00	8.23	1.80	.193
40-6815	40.00	12.09	65.10	17.42	35.38	54.38	71.80	19.00	12.00	32.60	15.24	52.83	75.00	17.50		9.50	2.58	.333
40-6515**	40.00	12.09	65.10	17.42	35.38	54.38	71.80	19.00	12.00	32.60	15.24	52.83	75.00	17.50		9.50	2.58	.333
40-6816	40.00	12.09	65.10	17.42	35.38	54.38	71.80	19.00	12.00	32.60	15.24	52.83	160.00	20.00	40.00	9.50	2.58	.712
40-6516**	40.00	12.09	65.10	17.42	35.38	54.38	71.80	19.00	12.00	32.60	15.24	52.83	160.00	20.00	40.00	9.50	2.58	.712

*25 Series: Add 25mm when using a 25-2550 profile. *40 Series: Add 40mm when using 40-4080 / 40-4080-Lite profiles or 80mm when using a 40-4012 profile.

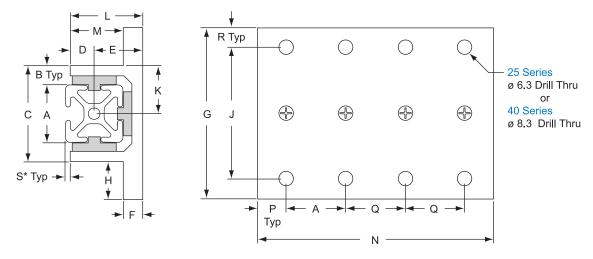
** Brake Kit Ready Bearings are pre-drilled with brake holes, refer to page 1009 for additional information.

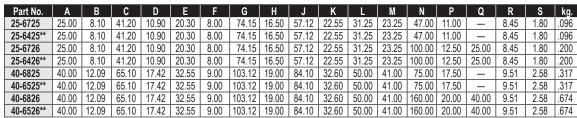
Double Flange Linear Bearings





• Bearings include bearing pads, screws and shims





*25 Series: Add 25mm when using a 25-2550 profile. *40 Series: Add 40mm when using 40-4080 / 40-4080-Lite profiles or 80mm when using a 40-4012 profile.

** Brake Kit Ready Bearings are pre-drilled with brake holes, refer to page 1009 for additional information.

Linear Motion



Double Flange Linear Bearings continued

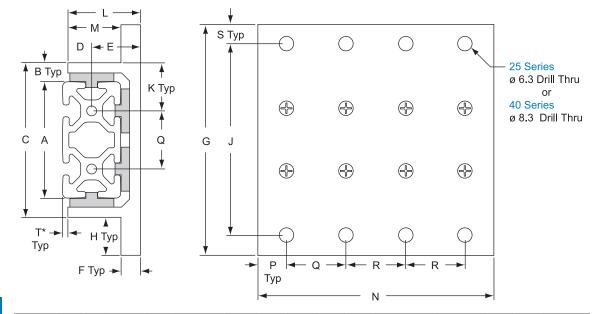
DV*b*

25-6723



Bearings include bearing pads, screws and shims

40-6823



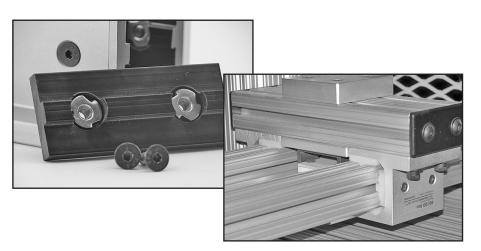
Part No.	A	В	C	D	E	F	G	H	J	K	L	M	Ν	Р	Q	R	S	T*	kg.
25-6723	50.00	8.10	66.20	10.69	20.30	8.00	99.26	16.50	82.30	22.53	31.25	23.25	47.00	11.00	25.00	-	8.48	1.80	.111
25-6423**	50.00	8.10	66.20	10.69	20.30	8.00	99.26	16.50	82.30	22.53	31.25	23.25	47.00	11.00	25.00	—	8.48	1.80	.111
25-6724	50.00	8.10	66.20	10.69	20.30	8.00	99.26	16.50	82.30	22.53	31.25	23.25	100.00	12.50	25.00	25.00	8.48	1.80	.234
25-6424**	50.00	8.10	66.20	10.69	20.30	8.00	99.26	16.50	82.30	22.53	31.25	23.25	100.00	12.50	25.00	25.00	8.48	1.80	.234
40-6823	80.00	12.90	105.30	17.42	32.55	9.00	143.30	19.00	124.30	32.65	50.00	41.00	75.00	17.50	40.00	—	9.50	2.58	.386
40-6523**	80.00	12.90	105.30	17.42	32.55	9.00	143.30	19.00	124.30	32.65	50.00	41.00	75.00	17.50	40.00	—	9.50	2.58	.386
40-6824	80.00	12.90	105.30	17.42	32.55	9.00	143.30	19.00	124.30	32.65	50.00	41.00	160.00	20.00	40.00	40.00	9.50	2.58	.812
40-6524**	80.00	12.90	105.30	17.42	32.55	9.00	143.30	19.00	124.30	32.65	50.00	41.00	160.00	20.00	40.00	40.00	9.50	2.58	.812

*25 Series: Add 25mm when using a 25-5050 profile.

*40 Series: Add 40mm when using 40-8080 profiles or 120mm when using a 40-8016 profile.

** Brake Kit Ready Bearings are pre-drilled with brake holes, refer to page 1009 for additional information.

High-Cycle Linear Bearings Introduction

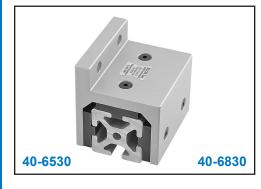


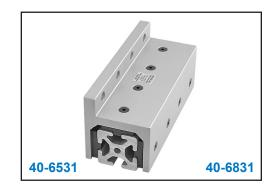
40 Series high-cycle Linear Bearings contain special threaded inserts in the bearing pads. These inserts allow for a more heavy-duty bearing, capable of withstanding high-cycles with sudden accelerations and decelerations. 80/20®'s standard bearings work well in almost all applications. However, if you have a rapid acceleration/deceleration, high-cycle application in mind, then 80/20's high-cycle bearings were made especially for you!

Use high-cycle bearings in applications such as actuators, parts transfers, or pick-and-place operations. The high-cycle bearing is just another fine feature offered by 80/20 to add more versatility to your application.

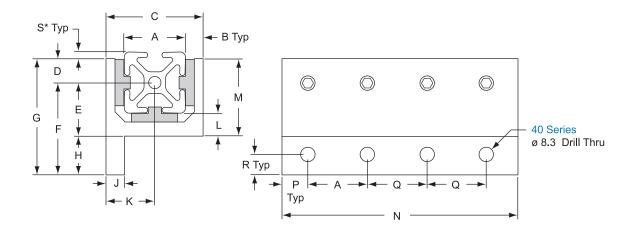
High-Cycle Bearing Advantages

- Special threaded inserts specifically designed for sudden accelerations/decelerations.
- Can be shimmed for a precise fit, like all 80/20 linear bearings.
- You can design your own custom high-cycle bearing.





• Bearings include bearing pads, screws and shims



Part No.	A	В	C	D	E	F	G	Н	J	K	L	M	N	Р	Q	R	S*	kg.
40-6830	40.00	12.09	65.10	17.42	35.38	54.38	71.80	19.00	12.00	32.60	15.24	52.83	75.00	17.50	-	9.50	2.58	.333
40-6530**	40.00	12.09	65.10	17.42	35.38	54.38	71.80	19.00	12.00	32.60	15.24	52.83	75.00	17.50		9.50	2.58	.333
40-6831	40.00	12.09	65.10	17.42	35.38	54.38	71.80	19.00	12.00	32.60	15.24	52.83	160.00	20.00	40.00	9.50	2.58	.712
40-6531**	40.00	12.09	65.10	17.42	35.38	54.38	71.80	19.00	12.00	32.60	15.24	52.83	160.00	20.00	40.00	9.50	2.58	.712

- * 40 Series: Add 40mm when using 40-4080 / 40-4080-Lite profiles or 80mm when using a 40-4012 profile.
- ** Brake Kit Ready Bearings are pre-drilled with brake holes, refer to page 1009 for additional information.

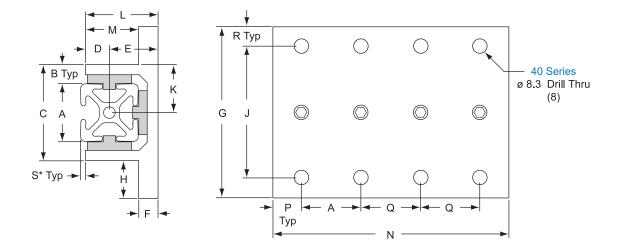
High-Cycle Double Flange Linear Bearings

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• Bearings include bearing pads, screws and shims



Part No.	Α	В	C	D	E	F	G	Н	J	K	L	М	N	Р	Q	R	S*	kg.
40-6835	40.00	12.09	65.10	17.42	32.55	9.00	103.12	19.00	84.10	32.60	50.00	41.00	75.00	17.50	_	9.51	2.58	.317
40-6535**	40.00	12.09	65.10	17.42	32.55	9.00	103.12	19.00	84.10	32.60	50.00	41.00	75.00	17.50		9.51	2.58	.317
40-6836	40.00	12.09	65.10	17.42	32.55	9.00	103.12	19.00	84.10	32.60	50.00	41.00	160.00	20.00	40.00	9.51	2.58	.674
40-6536**	40.00	12.09	65.10	17.42	32.55	9.00	103.12	19.00	84.10	32.60	50.00	41.00	160.00	20.00	40.00	9.51	2.58	.674

* 40 Series: Add 40mm when using 40-4080 / 40-4080-Lite profiles or 80mm when using a 40-4012 profile.

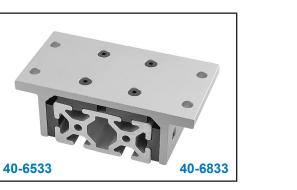
** Brake Kit Ready Bearings are pre-drilled with brake holes, refer to page 1009 for additional information.

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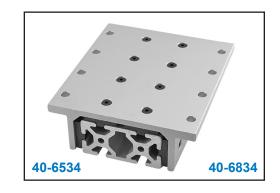
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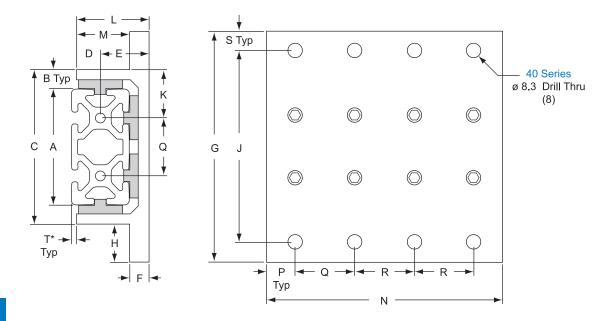
80/20[®] UniBearings[™] Modular Linear Motion



High-Cycle Double Flange Linear Bearings continued

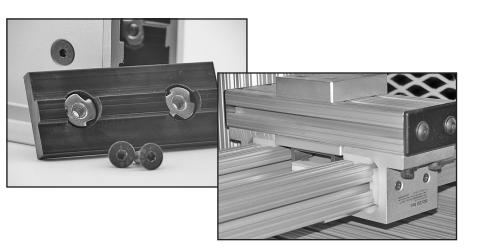


Bearings include bearing pads, screws and shims



Part No.	Α	В	C	D	E	F	G	H	J	K	L	М	N	P	Q	R	S	T*	kg.
40-6833	80.00	12.90	105.30	17.42	32.55	9.00	143.30	19.00	124.30	32.65	50.00	41.00	75.00	17.50	40.00	-	9.51	2.58	.386
40-6533**	80.00	12.90	105.30	17.42	32.55	9.00	143.30	19.00	124.30	32.65	50.00	41.00	75.00	17.50	40.00	-	9.51	2.58	.386
40-6834	80.00	12.90	105.30	17.42	32.55	9.00	143.30	19.00	124.30	32.65	50.00	41.00	160.00	20.00	40.00	40.00	9.51	2.58	.812
40-6534**	80.00	12.90	105.30	17.42	32.55	9.00	143.30	19.00	124.30	32.65	50.00	41.00	160.00	20.00	40.00	40.00	9.51	2.58	.812

- * 40 Series: Add 40mm when using 40-8080 profiles or 120mm when using a 40-8016 profile.
- ** Brake Kit Ready Bearings are pre-drilled with brake holes, refer to page 1009 for additional information.



80/20 Inc. is proud to include the Unibearing[™] family in our line of linear motion products. Because of their geometry, UniBearing bearings are universal, and can quickly set all 80/20 profiles into motion. This concept was created due to a need to remove or install bearings quickly on an existing T-slotted aluminum structure, without taking the frame apart. UniBearing bearings can greatly enhance productivity in downtime or retooling situations. UniBearing bearings also create extensive modularity in the design world, allowing total flexibility within an engineered structure.

The unique UniBearing design differs from our original bearings. UniBearing pads are mounted using stainless steel flat head socket cap screws. The screws are inserted through the pad and screwed securely into the housing. This eliminates the need for "high-cycle" bearing pads in the UniBearing family.

The UniBearing family has also led to the creation of a new bearing pad. The "Double-Keyed" pad is required with the use of most UniBearing bearings. These versatile pads and profiles (pages 1003-1004) can also be applied to many applications outside the UniBearing family.

UniBearing[™] Bearing Advantages

- The motion can be the actual bearing itself that moves or the bearing can be fixed, allowing the guiderail (T-slotted extrusion) and any associated assembly to move.
- All UniBearing bearings come with pre-drilled brake holes to accept our brake kits, page 1008.
- A set of tapped mounting holes are provided for mounting accessories to a flat surface.

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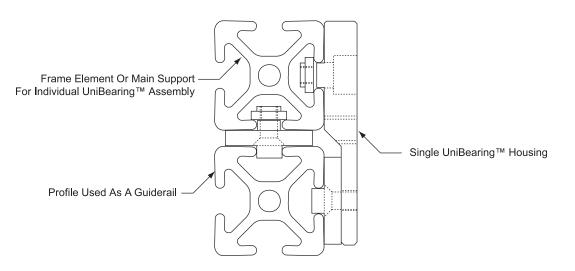
Linear Motion

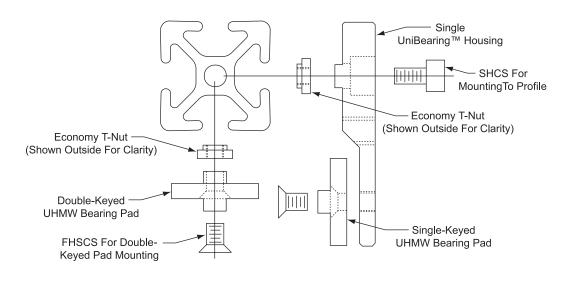
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Single UniBearing[™] Bearing Concept & Construction

The diagrams below illustrate how Single UniBearings™ are designed and assembled. These bearings are available in 25 and 40 Series, as sub-assemblies or complete, assembled units. All housings are extruded 6105-T5 aluminum with a clear anodize finish. All sub-assemblies include UHMW-PE pads secured with stainless steel FHSCS and mounting hardware (SHCS with economy T-Nut), along with shim kits (see page 1001). Please consult page 995 for custom applications.

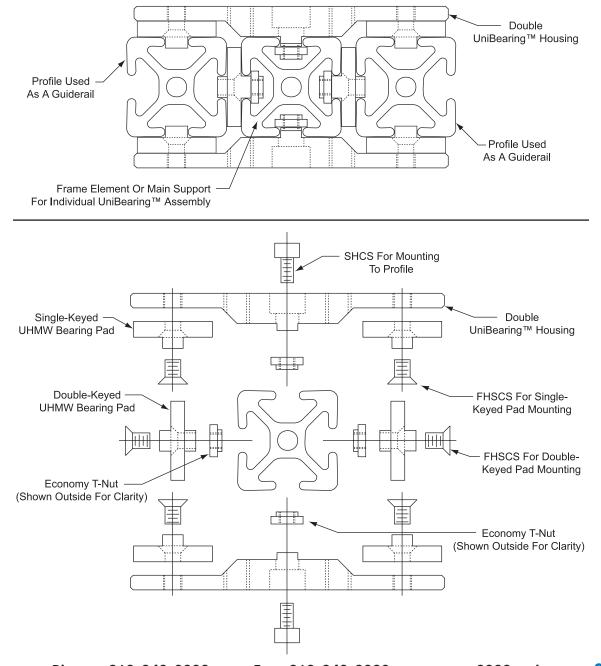
ORDERING NOTE: T-slotted profiles must be ordered separately when ordering UniBearing sub-assemblies (pages 992-993), but are included with UniBearing[™] assemblies (page 994).

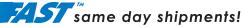




Double UniBearing[™] Bearing Concept & Construction

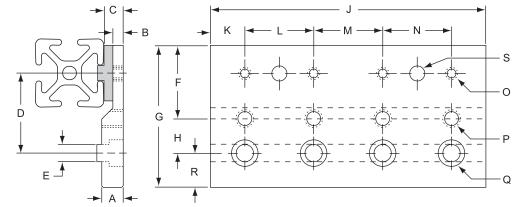
The diagrams below illustrate how Double UniBearings™ are designed and assembled. These bearings are available in 25 and 40 Series, as sub-assemblies or complete, assembled units. All housings are extruded 6105-T5 aluminum with a clear anodize finish. All assembly and ordering tips are standard between single and double UniBearings™.











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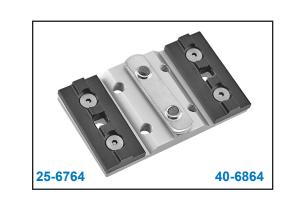
Part No.	Α	В	C	D	E	F	G	Н	J	K	L	M	N	R	kg.
25-6760	8.00	3.90	7.80	29.60	6.20	27.00	52.40	25.40	47.00	11.00	25.00	—	—	12.70	.058
25-6762	8.00	3.90	7.80	29.60	6.20	27.00	52.40	25.40	100.00	12.50	25.00	25.00	25.00	12.70	.120
40-6860	12.80	6.20	12.30	44.70	7.90	41.30	79.40	38.10	75.00	17.50	40.00	_	—	19.00	.202
40-6862	12.80	6.20	12.30	44.70	7.90	41.30	79.40	38.10	160.00	20.00	40.00	40.00	40.00	19.00	.422

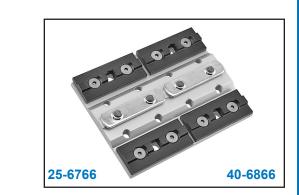
Typical Machining:

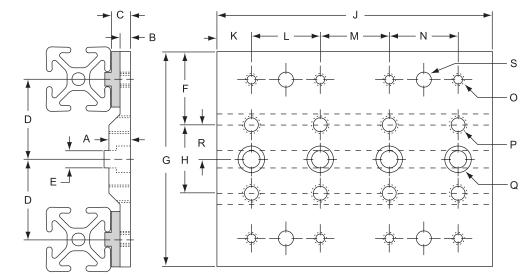
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- O = 25 Series Drill & Tap for #8 FHSCS 40 Series Drill & Tap for #10 FHSCS
- P = 25 Series Drill & Tap Thru M6 X 1.0 (Accessory Mount) 40 Series Drill & Tap Thru M8 X 1.25 (Accessory Mount)
- Q = 25 Series Drill & Counterbore for Included Hardware (PN: 13-6508 - M6 X 8mm SHCS and PN: 25-1962 - M6 X 1.0 Double Economy T-Nut) 40 Series Drill & Counterbore for Included Hardware (PN: 13-8516 - M8 X 16mm SHCS and PN: 40-1982 - M8 X 1.25 Double Economy T-Nut)
- S = 25 Series 6.3mm (.248") Brake Hole Typ. (Refer to Page 1008 for Brakes)
 40 Series 8.3 mm (.326") Brake Hole Typ. (Refer to Page 1008 for Brakes)









	Part No.	A	В	C	D	E	F	G	Н	J	K	L	M	N	R	kg.
[25-6764	7.90	3.90	7.80	29.60	6.19	27.00	79.40	25.40	47.00	11.00	25.00	—	—	12.70	.075
[25-6766	7.90	3.90	7.80	29.60	6.19	27.00	79.40	25.40	100.00	12.50	25.00	25.00	25.00	12.70	.159
[40-6864	12.80	6.20	12.30	44.70	7.90	41.30	120.70	38.10	75.00	17.50	40.00	—	—	19.00	.263
ĺ	40-6866	12.80	6.20	12.30	44.70	7.90	41.30	120.70	38.10	160.00	20.00	40.00	40.00	40.00	19.00	.556

Typical Machining:

- O = 25 Series Drill & Tap for #8 FHSCS 40 Series Drill & Tap for #10 FHSCS
- P = 25 Series Drill & Tap Thru M6 X 1.0 (Accessory Mount) 40 Series Drill & Tap Thru M8 X 1.25 (Accessory Mount)
- Q = 25 Series Drill & Counterbore for Included Hardware (PN: 13-6508 - M6 X 8mm SHCS and PN: 25-3962 - M6 X 1.0 Double Economy T-Nut) 40 Series Drill & Counterbore for Included Hardware (PN: 13-8516 - M8 X 16mm SHCS and PN: 40-1982 - M8 X 1.25 Double Economy T-Nut)
- **S** = 25 Series 6.3mm (.248") Brake Hole Typ. (Refer to Page 1008 for Brakes) 40 Series 8.3 mm (.326") Brake Hole Typ. (Refer to Page 1008 for Brakes)

Metric

80/20[®] Inc. The Industrial Erector Set[®] THE STANDARD

UniBearings[™] Bearing Assemblies

- UniBearing[™] subassemblies are pre-mounted onto a T-slotted aluminum profile
- Pre-tapped holes included in the profile ends as well as in housing for accessory mounting
- Shim kits are included; refer to page 995 for individual components





Part No.	Туре	Mounted Profile	Profile Length	kg.
25-6730		25-2525	Short 47mm	.184
25-6731	Single	25-2550	Short 47mm	.302
25-6732	Sirigie	25-2525	Long 100mm	.342
25-6733		25-2550	Long 100mm	.346
25-6734		25-2525	Short 47mm	.461
25-6735	Double	25-2550	Short 47mm	.538
25-6736	Double	25-2525	Long 100mm	1.060
25-6737		25-2550	Long 100mm	1.080
40-6870		40-4040	Short 75mm	.378
40-6871	Cinalo	40-4080	Short 75mm	.774
40-6873	Single	40-4040	Long 160mm	1.259
40-6874		40-4080	Long 160mm	1.555
40-6876		40-4040	Short 75mm	1.680
40-6877	Double	40-4080	Short 75mm	2.020
40-6879	Double	40-4040	Long 160mm	3.450
40-6883		40-4080	Long 160mm	4 100

DVO

Custom Linear Bearings

Reference information for standard and custom bearing pads on the following pages

How to Specify

US Patent No. 5,429,438

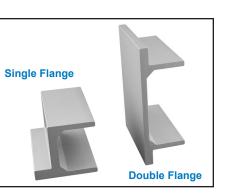
- 1. Select a bearing housing.
- 2. Produce a sketch or drawing showing overall length, mounting hole diameter and location, and any additional machining desired.
- 3. Note how many bearing pads and the location for each.
- 4. We will provide you with a prompt quotation and delivery in 24-72 hours.
- See Section 11 for cut-to-length machining and brake kit services



Linear Motion

Single & Double Flange Bearing Profiles

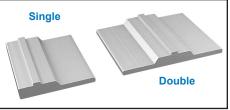
- Stock length 4m mill-finish (unanodized) material unless noted
- Maximum length for anodizing material is 3m
- See Section 11 for machining services

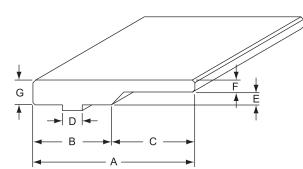




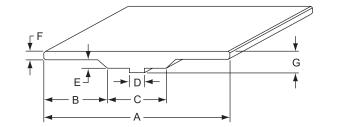
- Stock length 4m mill-finish (unanodized) material unless noted
- Maximum length for anodizing material is 3m
- See Section 11 for machining services

US Patent No. 5,429,438

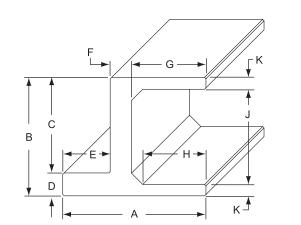




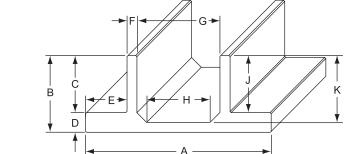
Single Par	rt No.								Cut-to-Length	
Clear Anodized	Mill-Finish	Α	В	C	D	E	F	G	Part No.	kg./m
25-8580	25-8581	52.40	25.40	27.00	6.35	3.96	3.96	9.53	65-7212	.872
40-8582	40-8583	79.38	38.10	41.28	7.92	6.60	6.22	15.88	65-7212	1.445



DoublePa	rt No.								Cut-to-Length	
Clear Anodized	Mill-Finish	Α	В	C	D	E	F	G	Part No.	kg./m
25-8584	25-8585	79.38	27.00	25.40	6.35	3.96	3.96	9.53	65-7212	1.155
40-8586	40-8587	120.65	41.28	38.10	7.92	6.60	6.22	15.88	65-7224	2.809



Single Flange	Part No.											Cut-to-Length	
Clear Anodized	Mill-Finish	A	В	С	D	E	F	G	Н	J	K	Part No.	kg./m
25-8520	25-8521	49.74	41.15	33.15	8.00	16.50	6.00	27.24	23.20	33.15	4.00	65-7212	1.690
40-8530	40-8531	71.80	65.13	53.12	11.99	19.00	9.00	43.84	35.84	52.83	6.15	65-7212	3.910



Double Flange	e Part No.											Cut-to-Length	
Clear Anodized	Mill-Finish	Α	В	С	D	E	F	G	н	J	K	Part No.	kg./m
25-8525	25-8526	74.15	31.20	23.20	8.00	16.50	4.00	33.15	25.15	23.25	27.25	65-7212	1.824
25-8527	25-8528	99.20	31.20	23.20	8.00	16.50	4.00	58.20	50.20	23.25	27.25	65-7224	2.101
40-8535	40-8536	103.12	50.00	41.00	9.00	19.00	6.15	52.82	36.82	35.84	43.84	65-7224	3.710
40-8540	40-8541	143.30	50.00	41.00	9.00	19.00	6.15	93.01	77.01	35.84	43.84	65-7224	4.400

996 We specialize in



ovo

Standard Bearing Pads

to install and replace

of friction

· High strength pads offer a low coefficient

• These UHMW-PE bearing pads are simple

to page 1004 for more information

• Available in custom lengths up to 3683mm, refer

ovo

US Patent No. 5,429,438

Top-Mount Bearing Pads

• 25 and 40 Series compatible

• An alternative to the standard bearing pad

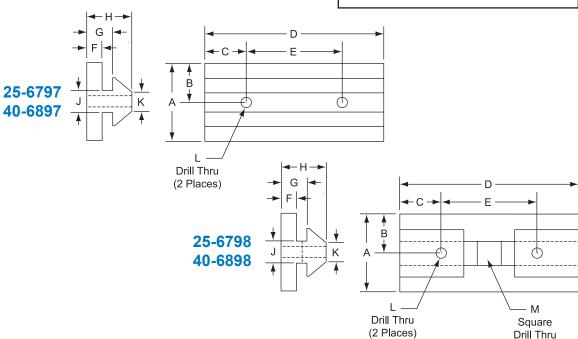
• Pad rides captive inside the T-slot

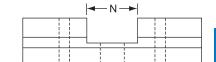
• Available with or without brake hole

• Made from UHMW-PE, white only

Linear Motion

9



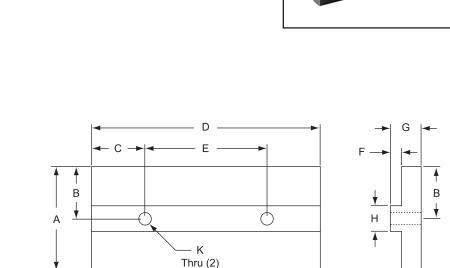


Recommended Mounting Hardware (Mount to Bearing Profile):

Part No.	Series	Qty	Description
25-3625	25	2	#8 x 3/8 Pad Screw
40-3628	40	2	#10 x 5/8 Pad Screw

Part No.	Α	В	C	D	E	F	G	H	J	K	LØ	М	N	kg.
25-6797	20.60	10.30	10.80	46.70	25.00	4.00	6.80	11.90	5.80	5.10	2.70	-	-	.006
25-6798 *	20.60	10.30	10.80	46.70	25.00	4.00	6.80	11.90	5.80	5.10	2.70	6.40	13.50	.006
40-6897	31.80	15.90	17.30	74.60	40.00	6.10	12.20	17.80	7.60	6.90	3.20	-	-	.016
40-6898 *	31.80	15.90	17.30	74.60	40.00	6.10	12.20	17.80	7.60	6.90	3.20	7.90	19.00	.016

* With Brake Hole



Recommended Mounting	Hardware (Mount to	Bearing Profile).

Part No.	Series	Qty	Description
25-3625	25	2	#8 x 3/8 Pad Screw
40-3628	40	2	#10 x 5/8 Pad Screw

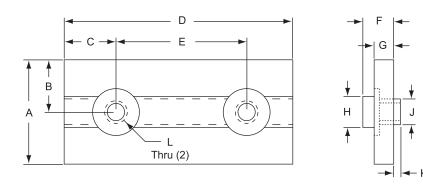
Part No.	Brake Ready	Pad Color	A	В	C	D	E	F	G	Н	J	K	kg.
25-6790	No	White	20.60	10.30	10.80	46.70	25.00	2.50	6.30	6.30	3.80	2.80	.005
25-6791	No	Black	20.60	10.30	10.80	46.70	25.00	2.50	6.30	6.30	3.80	2.80	.005
25-6490	Yes	White	20.60	10.30	10.80	46.70	25.00	2.50	6.30	6.30	3.80	2.80	.005
25-6491	Yes	Black	20.60	10.30	10.80	46.70	25.00	2.50	6.30	6.30	3.80	2.80	.005
40-6890	No	White	31.80	15.90	17.30	74.60	40.00	3.40	9.50	7.90	6.10	3.20	.014
40-6891	No	Black	31.80	15.90	17.30	74.60	40.00	3.40	9.50	7.90	6.10	3.20	.014
40-6590	Yes	White	31.80	15.90	17.30	74.60	40.00	3.40	9.50	7.90	6.10	3.20	.014
40-6591	Yes	Black	31.80	15.90	17.30	74.60	40.00	3.40	9.50	7.90	6.10	3.20	.014

998 We specialize in



- High strength pads are ideal for quick acceleration / deceleration applications
- These UHMW-PE bearing pads are simple to install and replace
- Nutserts included. Part No. 3022 (2) required for attaching to bearing profile



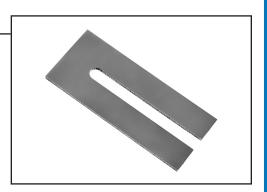


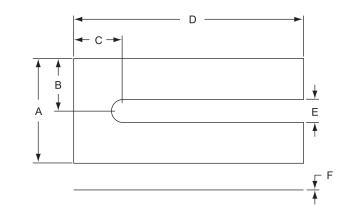
Part No.	Brake Ready	Pad Color	A	В	С	D	E	F	G	H	J	K	L	kg.
40-6895	No	White	31.80	15.90	17.30	74.60	40.00	9.50	6.10	7.90	6.30	1.50	3.20	.005
40-6896	No	Black	31.80	15.90	17.30	74.60	40.00	9.50	6.10	7.90	6.30	1.50	3.20	.005
40-6595	Yes	White	31.80	15.90	17.30	74.60	40.00	9.50	6.10	7.90	6.30	1.50	3.20	.014
40-6596	Yes	Black	31.80	15.90	17.30	74.60	40.00	9.50	6.10	7.90	6.30	1.50	3.20	.014

- Shim typically loose-fitting bearings for a more precise fit
- Stock is .13mm (.005") thick
- Slotted to ease installation
- Simply loosen bearing pad and slide shims between pad and housing
- Sold in packages of 10

US Patent No. 5,429,438

• Shims work with all 80/20 bearings





Part No.	Series	A	В	C	D	E	F	kg.
25-6780	25	20.60	10.30	9.50	47.60	4.40	.13	.001
40-6881	40	31.80	15.90	16.70	71.40	5.10	.13	.002

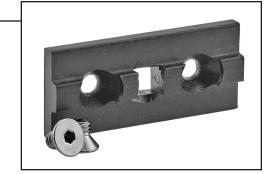
* The 40 series standard shim is also compatible with high-cycle linear bearings and UniBearings™ Bearings.

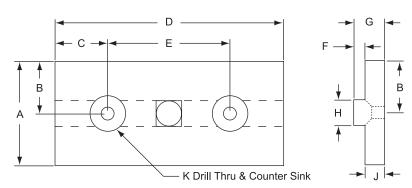
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Metric

80/20[®] Inc. The Industrial Erector Set[®] **THE STANDARD**

- **NVD** UniBearing[™] Bearing Pads · High-strength pads offer a low coefficient
- of friction • These UHMW-PE bearing pads are simple to install and replace
- Available in custom lengths up to 3683mm refer to page 1004 for more information

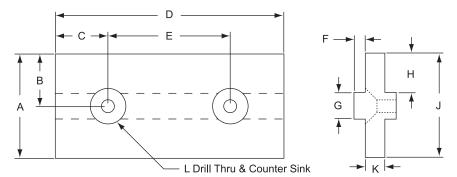




Part No.	Series	Color	Α	В	С	D	E	F	G	H	J	K	Lbs.
25-6705	25	White	20.60	10.30	10.80	46.70	25.00	2.50	6.30	6.30	3.80	2.80	.005
25-6706	25	Black	20.60	10.30	10.80	46.70	25.00	2.50	6.30	6.30	3.80	2.80	.005
40-6814	40	White	31.80	15.90	17.30	74.60	40.00	3.40	9.50	7.90	6.10	3.20	.014
40-6817	40	Black	31.80	15.90	17.30	74.60	40.00	3.40	9.50	7.90	6.10	3.20	.014

Double-Keyed UniBearing[™] Bearing Pads

- · High-strength pads offer a low coefficient of friction
- These UHMW-PE bearing pads are simple to install and replace
- · All mounting hardware included -
- 25 Series (1) 8-32 Double Econ T-Nut (2) 8-32 x 3/8" SS FHSCS 40 Series - (1) 1/4-20 Double Econ T-Nut (2) 1/4-20 x 5/8" SS FHSCS
- Available in custom lengths up to 3683mm refer to page 1004 for more information

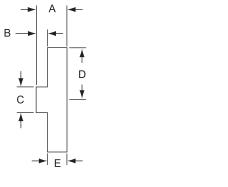


Part No	Series	Color	Α	В	C	D	E	F	G	н	J	K	L	kg.
25-6792	25	White	20.60	10.30	10.80	46.70	25.00	1.90	6.20	7.10	20.60	3.80	#8-32	.005
25-6793	25	Black	20.60	10.30	10.80	46.70	25.00	1.90	6.20	7.10	20.60	3.80	#8-32	.005
40-6892	40	White	31.80	15.90	17.30	74.60	40.00	3.90	7.90	11.90	31.80	4.40	1/4-20	.014
40-6893	40	Black	31.80	15.90	17.30	74.60	40.00	3.90	7.90	11.90	31.80	4.40	1/4-20	.014

80/20[°] Inc. The Industrial Erector Set® **THE STANDARD**

- High-strength pads offer a low coefficient of friction
- These UHMW-PE bearing pads are simple to machine and customize
- Black and white profiles are available in lengths up to 3683mm
- Refer to page 1029 for cut-to-length services





Single-Keyed

Double-Keyed

→ | _K | ←

G

Part No.	Series	Туре	Color	A	В	C	D	E	F	G	Н	J	K	kg. / m.
25-6700	25	Single-Keyed	White	6.30	2.50	6.30	10.30	3.80	-	-	-	-	-	.018
25-6701	25	Single-Keyed	Black	6.30	2.50	6.30	10.30	3.80	-	-	-	-	-	.018
40-6810	40	Single-Keyed	White	9.50	3.40	7.90	15.90	6.10	-	-	-	-	-	.054
40-6811	40	Single-Keyed	Black	9.50	3.40	7.90	15.90	6.10	-	-	-	-	-	.054
25-6702	25	Double-Keyed	White	-	-	-	-	-	1.90	6.20	7.10	20.60	3.80	.018
25-6703	25	Double-Keyed	Black	-	-	-	-	-	1.90	6.20	7.10	20.60	3.80	.018
40-6812	40	Double-Keyed	White	-	-	-	-	-	3.90	7.90	11.90	31.80	4.40	.054
40-6813	40	Double-Keyed	Black	-	_	_	-	-	3.90	7.90	11.90	31.80	4.40	.054

9

WEARS

Engineering Specifications on UHMW-PE Bearing Pads

Property	Test Method	Unit	Typical Value
Specific Gravity	ASTM D-792	g/cm3	0.94
Yield Strength @ 73°F	ASTM D-638	p.s.i.	3400
Ultimate Tensile Strength @ 73°F	ASTM D-638	p.s.i.	6800
Break Elongation @ 73°F	ASTM D-638	%	450
Yield Strength @ 250°F	Stress Strain Diagram	p.s.i.	700
Ultimate Tensile Strength @ 250°F	Stress Strain Diagram	p.s.i.	3300
Break Elongation @ 250°F	Stress Strain Diagram	%	900
Hardness - Rockwell "R" Scale	ASTM D-785	-	64
- Shore "D" Scale	ASTM D-2240	-	67
Flexural Modulus of Elasticity	Bend Creep/1 min. value	p.s.i.	110,000
Shear Strength	ASTM D-732	p.s.i.	3500
Izod Impact @ + 23°C	ASTM D-256A	ft-lbs/in. notch	No break
@ - 140° C	ASTM D-256A	ft-lbs/in. notch	No break
Environmental Stress Cracking @ F50	ASTM D-1693 Mod	hrs.	6000
Water Absorption	ASTM D-570	-	NIL

Abrasive Resistance - Sand Slurry Test

- Each material listed below was rotated 24 hours @ 1750 r.p.m.
- Carbon Steel = abrasive rating of 100.
- The weight loss for each material is relative to 100.
- The lower the figure, the better the abrasive resistance.
- 50-50 sand/water slurry.

US Patent No. 5,429,438

UHMW-PE	15	Nylon	31	High MW polyethylene	44
TFE	72	Stainless steel		Polypropylene	87
Polycarbonate	96	Polyacetal	110	TFE/glass fiber	113
Normal MW polyethylene	125	Phosphor bronze	193	Yellow brass	409
Phenolic laminate	571	Hickory wood	967	Hi carbon steel	

Coefficient Of Friction

UHMW-PE Polymer has a lower coefficient of friction than glass. Together with its self-lubricating characteristics it is an ideal material for bearings, bushings, valves, wear strips, or any application where sliding contact is encountered.

Materials	Static	Kinetic	Test Method
Aluminum* vs. UHMW-PE	0.12	0.016	
Mild Steel vs. Mild Steel	0.30 - 0.40	0.25 - 0.35	ASTM D-1894
Mild Steel vs. UHMW-PE	0.15 - 0.20	0.12 - 0.20	ASTIVI D-1694
UHMW-PE vs. UHMW-PE	0.20 - 0.30	0.20 - 0.30	

*Anodized 204 R1 Spec on extruded aluminum

Comparison of Dynamic Coefficient of Friction on Polished Steel

Property Dry	UHMW-PE 	FDA and USDA
		Approved
011	0.05 - 0.08	



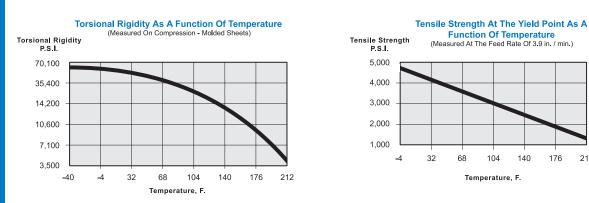


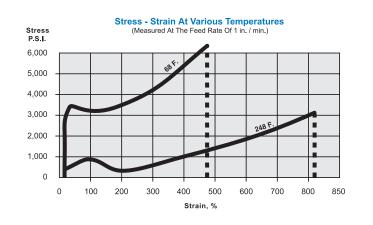
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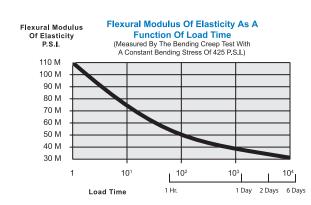
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80/20[°] Inc. The Industrial Erector Set® **THE STANDARD**

212







TEST SPECIMENS	Dumb-bell type
DURATION OF TEST	30 Days
+ = RESISTANT	Mechanical properties not appreciably affected
/ = LIMITED RESISTANT	Decreases in yield stress and ultimate tensile strength less than 20%
- = NOT RESISTANT	Decreases in yield stress and ultimate tensile strength greater than 20%
+ = RESISTANT / = LIMITED RESISTANT	Mechanical properties not appreciably affected Decreases in yield stress and ultimate tensile strength less than 20%

Reagent	Temperatures				
	20°C	50°C	80°C		
I. Inorganic acids					
Chromic acid (80%)	+	+	/		
Hydrychloric acid (conc.)	+	+	+		
Hydrocyanic acid	+	+			
Hydrofluoric acid	-	-	-		
Nitric acid (conc.)	/	-			
Nitric acid (50%)	+	+	/		
Nitric acid (20%)	+	+	+		
Phosphoric acid (85%)	+	-	-		
Sulphuric acid (conc.)	+	-	-		
Sulphuric acid (50%)	+	+	+		
II. Alkalis	_				
Aqueous ammonia	+	+			
Potassium Hydroxide solution	+	+	+		
Sodium Hydroxide solution	+	+ +	+		
Sodium Hydroxide solution	+	+	+		
III. Aqueous solutions of inorganic salts					
Aluminum chloride	+	+	+		
Ammonium nitrate	+	+	+		
Bleaching powder	+	+	+		
Calcium chloride	+	+	+		
Sodium carbonate	+	+	+		
Sodium chloride	+	+	+		
Sodium hypochlorite	+	+	+		
Zinc chloride	+	+	+		
IV. Organic acids					
Acetic acid (99%)	+	+	/		
Acetic acid (10%)	+	+	+		
Butyric acid	+	+			
Citric acid	+	+	+		
Formic acid	+	+			
Oleic acid	+	+	/		

Reagent		emperatur	es
Keayent	20°C	50°C	80°C
V. Hydrocarbons and halogenated hydrocarbons			
Benzene	1	/	
Carbon tetrachloride	1		
Cyclohexane	+	+	
Dichloroethylene	-	-	
Diesel oil	+	+	1
n-Heptane	+	+	
Petroleum ether	+		
Trichloroethylene	1	-	
Toluene	1	-	
White spirit	+	/	
Xylene	1	/	-
VI. Alcohols, Ketones, Ester, and Amines			
Acetone	+	+	
Aniline	+	+	1
Benzyl alcohol	+	+	+
Butyl alcohol	+	+	+
Cyclohexanol	+	+	+
Ethanol	+	+	+
Ethyl acetate	+	+	
Ethylene glycol	+	+	+
Glycerine	+	+	+
Lauryl alcohol	+	+	+
Propyl alcohol	+	+ +	+
	+	+	+
VII. Miscellaneous			
Beer	+	+	+
Detergents in aqueous solution	+	+	+
Distilled water	+	+	+
Hydrogen peroxide 30% (perhydrol)	+	+	
Linseed oil	+	+	+
Milk	+	+	+
Olive oil	+	+	+
Sea water	+	+	+
Wine	+	+	+

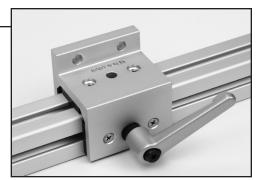
Because we cannot anticipate or control the many different conditions under which our products may be used, the product information contained in this catalog should be viewed as general guidelines only and not as a recommendation to use our products in any particular situation. Although we believe that all information contained herein is reliable, certain information in this catalog may have been obtained from test results published by other parties, and consequently, we cannot guarantee the accuracy of all information contained in this catalog. In addition, particular conditions of use and reasonable lot-to-lot variations can affect performance. Users of our products should perform their own tests to determine the suitability of any product for their particular purposes.



80/20[®] Inc. The Industrial Erector Set[®] **THE STANDARD**

Linear Bearing Brake Holes

- Secure lockdown capability for safety
- Refer to page 1009 for required machining



Part No.	Series	Туре	Color	kg.
25-6850	25	L - Handle	Black	.025
25-6851	25	Hex Nut	Black	.030
25-6852	25	Wing Nut	Bright	.034
40-6800	40	L - Handle	Gray	.153
40-6805	40	L - Handle	Blue	.153
40-6806	40	L - Handle	Red	.153
40-6807	40	L - Handle	Yellow	.153
40-6801	40	T - Handle	Black	.046
40-6802	40	Star Handle	Black	.050
40-6803	40	Hex Nut	Black	.034
40-6804	40	Wing Nut	Bright	.039

40-6800







40-6802

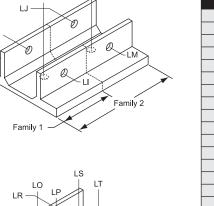
• Refer to page 1008 for all available brake kits

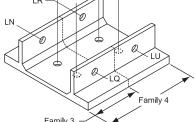
• Enables you to add a stop and lock linear

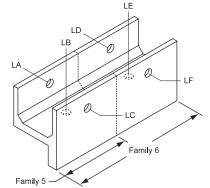
• Refer to pages 1046-1047 for specifying brake hole machining services



Pre-Drilled







Part No.	Brake Ready Bearing Part No.	Bearing Size	Brake Hole Locations
25-6725	-	Family 1	
40-6825	-	Family 1	Specify*
40-6835	-	Family 1	
-	25-6425	Family 1	LG/LH/LI
_	40-6525	Family 1	LG/LH/LI
_	40-6535	Family 1	LG/LH/LI
25-6726	-	Family 2	
40-6826	-	Family 2	Specify*
40-6836	-	Family 2	
-	25-6426	Family 2	LG/LH/LI/LJ/LK/LM
-	40-6526	Family 2	LG/LH/LI/LJ/LK/LM
-	40-6536	Family 2	LG/LH/LI/LJ/LK/LM
25-6723	-	Family 3	
40-6823	-	Family 3	Specify*
40-6833	-	Family 3	
-	25-6423	Family 3	LN / LO / LP / LQ
-	40-6523	Family 3	LN / LO / LP / LQ
-	40-6533	Family 3	LN / LO / LP / LQ
25-6724	-	Family 4	
40-6824	-	Family 4	Specify*
40-6834	-	Family 4	
-	25-6424	Family 4	LN/LO/LP/LQ/LR/LS/LT/LU
-	40-6524	Family 4	LN/LO/LP/LQ/LR/LS/LT/LU
-	40-6534	Family 4	LN/LO/LP/LQ/LR/LS/LT/LU
25-6715	-	Family 5	
40-6815	-	Family 5	Specify*
40-6830	-	Family 5	
-	25-6415	Family 5	LA/LB/LC
-	40-6515	Family 5	LA/LB/LC
-	40-6530	Family 5	LA/LB/LC
25-6716	-	Family 6	
40-6816	-	Family 6	Specify*
40-6831	-	Family 6	
-	25-6416	Family 6	
-	40-6516	Family 6	LA/LB/LC/LD/LE/LF
-	40-6531	Family 6	LA/LB/LC/LD/LE/LF
* Refer to pages 9	28-929 for machini	ing services	

Brake Kit Mounting Hole Machining Services

40-7400

dard Bearing Brake Ready

Service Number Series Description 25-7401 25 6.30 diameter drill thru one wall

8.30 diameter drill thru one wall

www.8020.net

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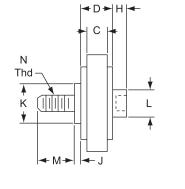
Linear Motion

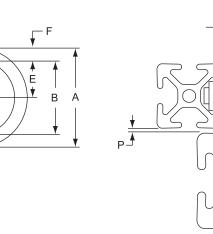
- All mounting hardware included
- Made of self-lubricating black nylon

- · Part No. 40-2290 has permanently-lubricated bronze bushing - Part No. 40-2280 has ball bearing hub
- Mounts to profile end of T-slot ideal for guided linear motion

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Part No.	Α	В	С	D	E	F	G	Н	J	K	L	М	N	Ρ	Q	kg.
25-2281	37.50	28.00	6.10	11.60	14.00	4.75	8.00	5.50	3.20	15.90	13.20	6.80	M6 x 1.0	1.60	9.20	.032
65-2282	37.50	28.00	7.90	11.60	14.00	4.75	8.00	5.50	3.20	15.90	13.20	6.80	M6 x 1.0	1.60	9.20	.034
40-2280	54.00	43.00	7.90	19.50	21.50	5.50	10.00	7.00	3.20	19.00	16.20	10.60	M8 x 1.25	1.60	13.00	.084
40-2290	54.00	43.00	7.90	19.50	21.50	5.50	10.00	7.00	3.20	19.00	16.20	10.60	M8 x 1.25	1.60	13.00	.075

Mounts To

25 Series

	ated Bronze Bushing	25 Series
Dual Ro	Iler Bearing	40 Series
Permanent Lubric	ated Bronze Bushing	40 Series





Rolls In 25 Series

40 Series

40 Series

40 Series

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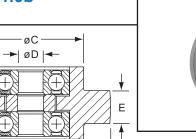
25-2281



Metric

Roller Wheels with Ball Bearing Hub Fiberglass Reinforced Nylon, Black

• Move frames, panels and other components by rolling in the profile T-slot

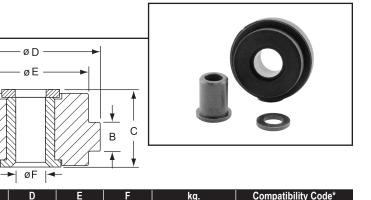


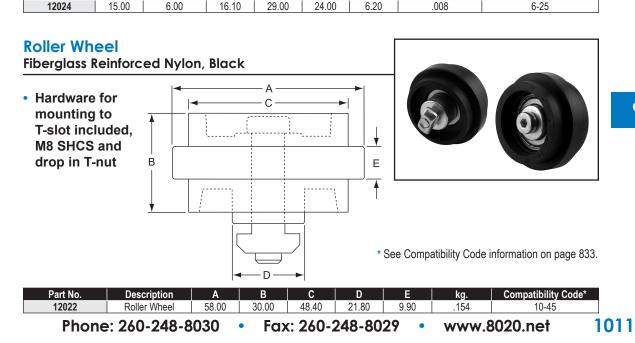
Part No.	A	В	C	D	E (Slot Tab)	kg.	Compatibility Code*
12017	39.00	17.60	25.80	6.00	8.00	.030	
12018	39.00	17.00	25.00	0.00	10.00	.032	8-40
12020	47.00	19.60	33.60	8.00	8.00	.048	0-40
12021	47.00	19.00	55.00	0.00	10.00	.050	

Roller Wheel with Steel Hub

Fiberglass Reinforced Nylon, Black

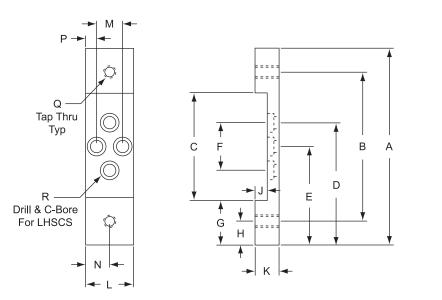
 Move frames, panels and other components by rolling in the profile T-slot





Roller Wheel Brackets

- 25 and 40 Series compatible
- Hardware for mounting bracket to T-slot profile included
- Made of clear anodized aluminum
- Mounts to T-slot profile ideal for moving framed doors and other components
- See page 1010-1011 for nylon roller wheels
- See page 1013 for roller wheel bracket assemblies



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Part No.	Α	В	C	D	E	F	G	H	J	K	L	М	N	Р	Q	R	kg.
25-2750	78.00	53.00	31.10	47.50	39.00	17.00	23.45	12.50	6.40	12.70	25.40	13.81	12.70	5.79	M6 x 1.00	M6	.054
25-2752	103.00	78.00	56.10	64.20	51.50	25.40	23.45	12.50	6.40	12.70	25.40	13.81	12.70	5.79	M6 x 1.00	M6	.064
40-2754	123.30	83.30	46.70	73.65	61.65	24.00	38.30	20.00	10.20	19.00	40.00	20.00	20.00	10.00	M8 x 1.25	M8	.191
40-2929	163.30	123.30	86.70	81.65	81.65	40.00	38.30	20.00	10.20	19.00	40.00	20.00	20.00	10.00	M8 x 1.25	M8	.227

Note: Be sure to use the included washer with the roller wheels for proper spacing.

Metric

Roller Wheel & Bracket Assemblies

• 25 and 40 Series compatible

Part

sembly

- All mounting hardware included for both roller wheel and mounting bracket –
- 25 Series (2) M6 x 10mm LHSCS (2) Part No. 25-1964, M6 Standard T-Nut
- 40 Series (2) M8 x 16mm LHSCS (2) Part No. 40-1984, M8 Standard T-Nut
- Mounts to T-slot profile ideal for both roller wheel and mounting bracket



		Individual Part No.s								
		25-2750	25-2752	40-2754	40-2929	25-2281	65-2282	40-2280	40-2290	
25-2751	25mm	1				2				
25-2753	50mm		1			2				
40-2755				1				2		
40-2758					1			2		
40-2892				1					2	
40-2759					1				2	

Ergonomic Workstations by 80/20®

- Easily add ergonomic adjustability by incorporating 80/20's own Linear Bearings into your design.
- Mobile, adjustable and well-lit workstations that will fit almost any industrial need!
- Need hydraulic or pneumatic power? It's easy with 80/20 – using our profiles as an easy-to-attach manifold... even if it's an afterthought, it will appear to be part of your original design!
- Log on to <u>www.8020.net</u> and click <u>Downloads & Links</u> to get your FREE copy of AutoQuoterX[™], 80/20's design software.

