

# ***DynaTite***

**SUSPENSION SYSTEM**

## **ENGINEER MANUAL**



[www.durodyne.com](http://www.durodyne.com)

**PRODUCTS**

*Dyna-Tite*™

**Engineer Manual**

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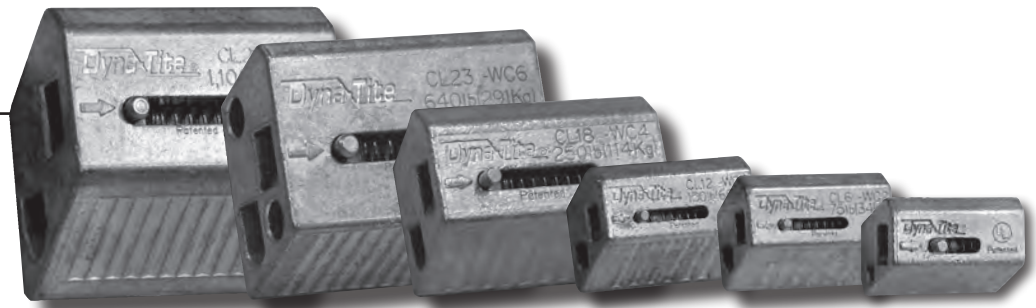


# CABLE LOCKS

The Dyna-Tite Cable Lock can be used as a fast and reliable way to suspend ductwork and equipment. Cable Locks are to be used on static load applications only.

## Features:

- Quick & easy to install
- No special tools required
- Flexibility of installation
- External release pin



CL25-WC8   CL23-WC6   CL18-WC4   CL12-WC3   CL6-WC2   CL3-WC1

## Cut-away section of the CL23-WC6 Cable Lock

### ZINC HOUSING

Zinc alloy combines major anti-corrosion properties with strength while providing consistent manufacturing quality.

### STAINLESS STEEL SPRINGS

The springs, one in each channel, are manufactured of stainless steel.

### SERRATED LOCKING TEETH

Each pawl makes contact with the rope using serrated teeth. These press onto the wire rope and spread the load across the length of the pawl, maximizing the grip strength.

### LOCKING PAWLS

One sintered steel locking pawl is seated in each channel. Every locking pawl incorporates a release pin for easy adjustment after installation.

### WIRE ROPE ENTRY

The wire rope is inserted into the Dyna-Tite channel.

### THROUGH HOLE (only on CL23-WC6)

Two "through holes" allow fast and secure hanging with only one Cable Lock.

Cable Lock Size	Wire Rope	Safe Working Load at 5:1 Safety Factor +
CL3-WC1	WC1-CL3	3-35 lbs. (3-10 kg)
CL6-WC2	WC2-CL6	10-75 lbs. (5-34 kg)
CL12-WC3	WC3-CL12	25-150 lbs. (12-68 kg)
CL18-WC4	WC4-CL18	25-250 lbs. (12-114 kg)
CL23-WC6	WC6-CL23	50-640 lbs. (25-291 kg)
CL25-WC8	WC8-CL25	50-1,100 lbs. (24-500 kg)

+ Hanging at angles will reduce the Safe Working Loads. Please see our 'Effects of Hanging at Angles' table.

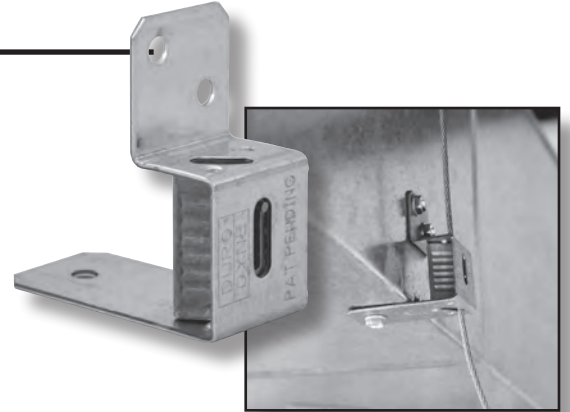
## DYNA-TITE FAST-LOCK™

Dyna-Tite Fast-Locks are similar to Cable Locks, but have a single way lock instead of a double lock like Cable Locks have. All cable locks are designed for use with one specific wire size and have working load ranges that incorporate a 4:1 safety factor ratio. For ease of installation, Fast-Locks feature an easy release pin for simple adjustments without the use of tools. See chart on previous page for safe working loads.



## KV BRACKET Patent #7,770,849

The KV bracket assembly enhances the Dyna-Tite suspension system by the addition of an integral bracket, which fastens the cable lock to rectangular ductwork with sheet metal screws. Once the KV assembly bracket is attached to the duct, the wire rope “drop” is passed into the entry hole at the top of the bracket, through the cable lock, and out the exit hole at the bottom. The locking teeth inside the cable lock engage the wire rope and secure the ductwork in place. An accessible release pin allows for adjustments without the use of any special tools.



## WIRE ROPE

Aviation grade galvanized wire rope supplied by Duro Dyne is manufactured to exacting standards and statistically tested to verify stated breaking strengths. Duro Dyne WC2-CL6, WC3-CL12 and WC4-CL18 wire ropes utilize standard 7x7 construction. Duro Dyne WC8-CL25 and WC6-CL23 wire ropes have a 7x19 construction. Only use wire rope supplied by Duro Dyne with Dyna-Tite cable locks to ensure maximum safety and integrity of the installation.



## DURO LOOP

The Duro Loop Cable Sling enhances the Dyna-Tite suspension system by the addition of a pre-looped cable end. Once the wire rope is pulled around the anchor point and through the looped end of the cable, it is already secured at one end, saving time at the jobsite. The remaining wire rope “drop” is passed through a channel in the Dyna-Tite Cable Lock. Then, the wire rope is either wrapped around the ductwork or inserted through a fastening point and back up into the second channel of the same cable lock. The locking teeth inside the cable lock engage the wire rope which secures the ductwork in place.

To ensure maximum safety, use only looped wire rope supplied by Duro Dyne with Dyna-Tite cable locks.





## DYNA-STUD

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The Dyna-Stud is a heavy duty grade 5 threaded stud with one end of a super strong aircraft rated cable attached. The bolt is threaded into the expansion anchor without putting stress on the cable. This makes for a much safer and tighter connection. The other end of the cable, in conjunction with the cable lock, is used to attach the object being supported.



## DRIVE PIN

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The 90° Bracket with Drive Pin comes in 4 different lengths. Complete system includes looped wire and bracket with pre-assembled drive pin. It quickly and easily attaches to concrete, steel or composite metal decking. For shot-firing into concrete, steel or composite metal decking for use in indoor, stationary applications. Cable strand configuration: 7x7. Not suitable for use in chlorinated environments.

## EYELETS

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Duro Dyne Dyna-Tite eyelets are manufactured of zinc plated cold rolled steel and swaged to the wire rope cable with a hydraulic press. Dyna-Tite Eyelet assemblies are available for installation with either a 1/4 in. or 3/8 in. fastener. They are available in 45°, 90° and straight variations and can also be purchased as a kit with the appropriate cable lock.



## CABLE CUTTER

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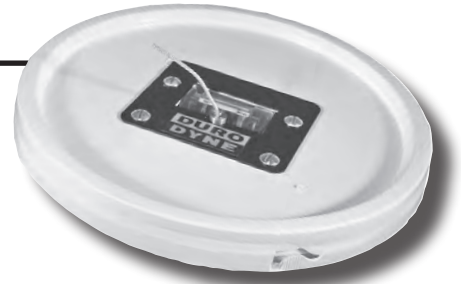
When cutting wire cable it is important to use a recognized wire cable cutter such as one of the Duro Dyne cutters. This will ensure that the form of the rope is maintained prior to insertion in the Dyna-Tite Cable Lock.



## CABLE COUNTER LID

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The CCC1 makes preparing for your duct hanging project a lot simpler. Take an empty five gallon bucket, put a spool of wire rope in the bottom, put in some boxes of Dyna-Tite cable locks and a cable cutter. Place the CCC1 on top of the bucket and you are ready for the job site. At the job site remove the cable lock boxes and the wire cutter, thread the wire rope through the CCC1 measuring device and you are ready to hang ductwork. Just pull the wire rope to the length needed, cut it and reset the counter.



## EYE BOLT & NUT

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A simple way to provide an anchor point is by using an eye bolt and nut. The eye bolt has a 3/4 in. inside diameter ring to make wire rope attachment easy.



## SPIRAL BUCKLE

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The zinc plated 14 gauge Spiral Buckle is designed to suspend round and oval ductwork from ceiling joists or beams with the use of threaded rod up to 3/8 in. diameter. Simply place 1 in. hanging strap in one side of the buckle then around the material and into the other side of the buckle. When the strap is correctly inserted through the slots, the strap is locked into the buckle by the weight of the duct.



## QUIK-TWISTS

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Quik-Twists from Duro Dyne are side or vertical mounted fasteners that provide attachment points for steel threaded rods and other assemblies. There are two variations of Quik-Twists; one for penetrating and threading into steel and one for wood. Each Quik-Twist has a 3/8 in. - 16 threaded hole in the fastener's hex shaped head. Side mounted QuikTwists have the threaded hole perpendicular to the fastener shaft and passing completely through the fastener head. Vertical mounted Quik-Twists have the threaded hole parallel to the fastener shaft and as deep as the fastener head.



**Steel**



**Wood**

# STARTER KIT

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The Starter Kit includes everything needed to tackle a small job:

- 1 Roll of WC3-CL12 Wire Rope
- 100 CL12-WC3 Cable Locks
- 1 Custom Cable Counter Lid & Bucket
- 1 Cable Cutter

Roll of Cable - Galvanized steel cable is manufactured to exact standards and is statistically tested to verify the breaking strength.

CL12-WC3 Cable Locks - The CL12-WC3 is ideal for hanging smaller diameter duct. It features a release pin for easy adjustments without the use of tools. The CL12-WC3 has a working load range of 25-150 lbs.

Custom Cable Counter Lid - The CCC-1 features a 5 digit counter (4 digits for feet, 1 digit for inches), push button reset and is lightweight. It is designed for use with Duro Dyne wire rope for accurate sizing.

Cable Cutter - When cutting cable it is important to use a recognized cable cutter such as the Dyna-Tite cutter. This will ensure that the form of the rope is maintained prior to insertion in the cable lock. The cable cutter features; WC6-23 wire rope cutting capacity, spring loaded 5" long vinyl coated handles, and hardened steel blades.





**SPECIFICATIONS**

*Dyna-Tite*™

**Engineer Manual**

# CL3-WC1 CABLE LOCK SPECIFICATIONS

## Suggested Specification:

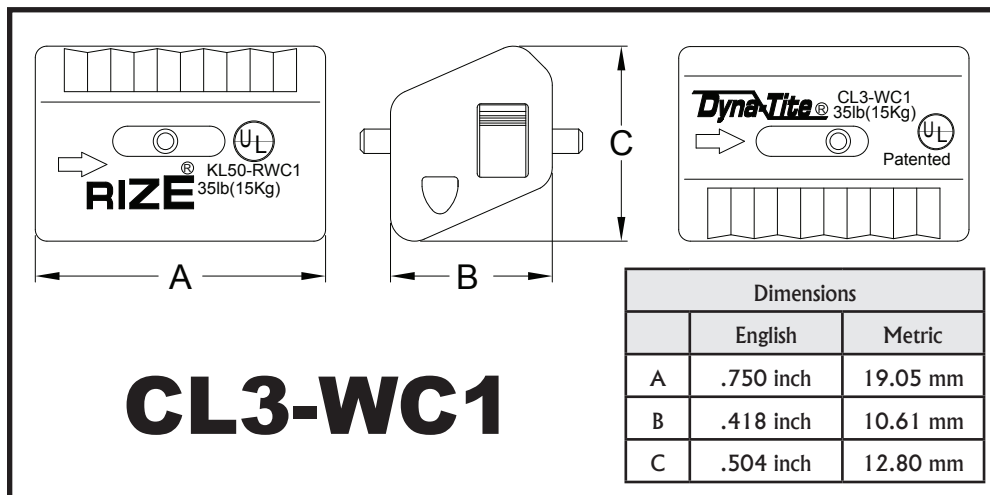
All ductwork and other equipment shall be supported using wire rope cable terminated by Cable Locks. All Cable Locks shall have an Ultimate Breaking Strength (U.B.S.) of at least 5 times the wire rope published Working Load Limit (W.L.L.). All wire rope shall have a U.B.S. of at least 5 times the published W.L.L. Wire ropes shall be of the size and spacing per the manufacturer's printed specifications. Wire Rope and Cable Locks shall be as supplied by Duro Dyne Corporation.



## Specification Data

- 1) All wire rope supplied by Duro Dyne is statistically tested to minimum breaking strength.
- 2) CL3-WC1 has been submitted and tested to be an acceptable alternative to the duct hanger systems described in SMACNA HVAC-DCS 2nd edition By SMACNA Testing & Research Institute.
- 3) All Working Load Ratings of Dura-Tite CL3-WC1 Cable Locks manufactured by Duro Dyne have been witnessed and verified by independent testing laboratories.
- 4) Dura-Tite CL3-WC1 Cable Locks may be used in applications with temperatures up to 300° F (148°C).
- 5) Dura-Tite CL3-WC1 Cable Lock pawls are constructed of corrosion resistant sintered steel.
- 6) Dura-Tite CL3-WC1 Cable Lock springs are constructed of tempered stainless steel.

Code	Construction of Cable Lock	Wire Rope	Construction of Wire Rope	Safe Working Load at 5:1 Safety Factor
CL3-WC1	Stainless Steel Sintered Steel Zinc Alloy	WC1-CL3	7x7 Hot Galvanized	5-35 lbs. (3-10 kg)



# CL6-WC2 CABLE LOCK SPECIFICATIONS

## Suggested Specification:

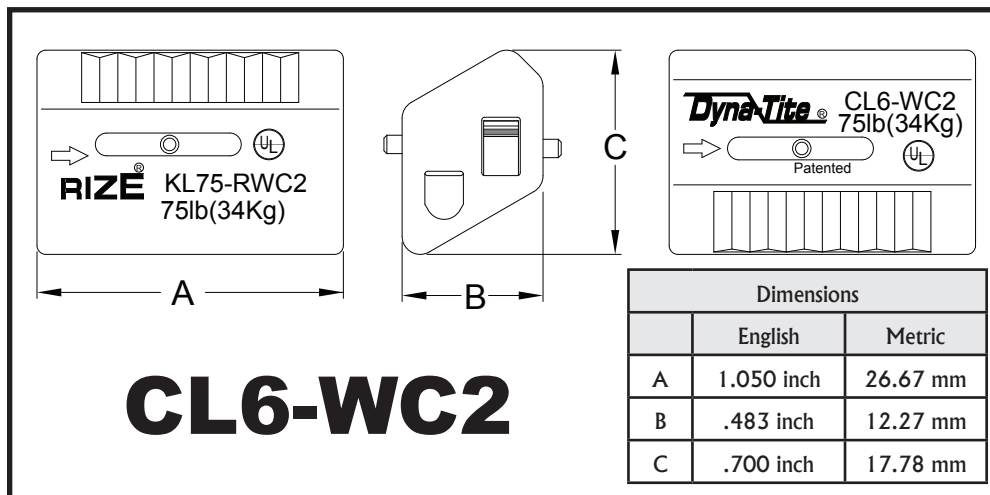
All ductwork and other equipment shall be supported using wire rope cable terminated by Cable Locks. All Cable Locks shall have an Ultimate Breaking Strength (U.B.S.) of at least 5 times the wire rope published Working Load Limit (W.L.L.). All wire rope shall have a U.B.S. of at least 5 times the published W.L.L. Wire ropes shall be of the size and spacing per the manufacturer's printed specifications. Wire Rope and Cable Locks shall be as supplied by Duro Dyne Corporation.



## Specification Data

- 1) All wire rope supplied by Duro Dyne is statistically tested to minimum breaking strength.
- 2) CL6-WC2 has been submitted and tested to be an acceptable alternative to the duct hanger systems described in SMACNA HVAC-DCS 2nd edition By SMACNA Testing & Research Institute.
- 3) All Working Load Ratings of Dyna-Tite CL6-WC2 Cable Locks manufactured by Duro Dyne have been witnessed and verified by independent testing laboratories.
- 4) Dyna-Tite CL6-WC2 Cable Locks may be used in applications with temperatures up to 300° F (148°C).
- 5) Dyna-Tite CL6-WC2 Cable Lock pawls are constructed of corrosion resistant sintered steel.
- 6) Dyna-Tite CL6-WC2 Cable Lock springs are constructed of tempered stainless steel.

Code	Construction of Cable Lock	Wire Rope	Construction of Wire Rope	Safe Working Load at 5:1 Safety Factor
CL6-WC2	Stainless Steel Sintered Steel Zinc Alloy	WC2-CL6	7x7 Hot Galvanized	10-75 lbs. (5-34 kg)



# CL12-WC3 CABLE LOCK SPECIFICATIONS

## Suggested Specification:

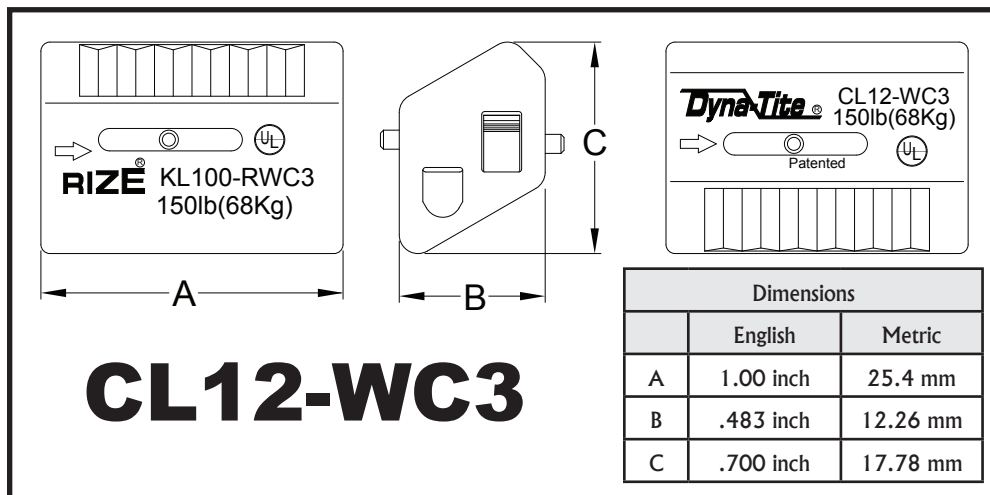
All ductwork and other equipment shall be supported using wire rope cable terminated by Cable Locks. All Cable Locks shall have an Ultimate Breaking Strength (U.B.S.) of at least 5 times the wire rope published Working Load Limit (W.L.L.). All wire rope shall have a U.B.S. of at least 5 times the published W.L.L. Wire ropes shall be of the size and spacing per the manufacturer's printed specifications. Wire Rope and Cable Locks shall be as supplied by Duro Dyne Corporation.



## Specification Data

- 1) All wire rope supplied by Duro Dyne is statistically tested to minimum breaking strength.
- 2) CL12-WC3 has been submitted and tested to be an acceptable alternative to the duct hanger systems described in SMACNA HVAC-DCS 2nd edition By SMACNA Testing & Research Institute.
- 3) All Working Load Ratings of Dyna-Tite CL12-WC3 Cable Locks manufactured by Duro Dyne have been witnessed and verified by independent testing laboratories.
- 4) Dyna-Tite CL12-WC3 Cable Locks may be used in applications with temperatures up to 300° F (148°C).
- 5) Dyna-Tite CL12-WC3 Cable Lock pawls are constructed of corrosion resistant sintered steel.
- 6) Dyna-Tite CL12-WC3 Cable Lock springs are constructed of tempered stainless steel.

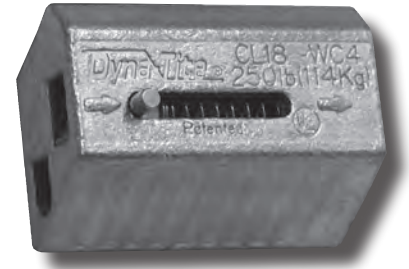
Code	Construction of Cable Lock	Wire Rope	Construction of Wire Rope	Safe Working Load at 5:1 Safety Factor
CL12-WC3	Stainless Steel Sintered Steel Zinc Alloy	WC3-CL12	7x7 Hot Galvanized	25-150 lbs. (12-68 kg)



# CL18-WC4 CABLE LOCK SPECIFICATIONS

## Suggested Specification:

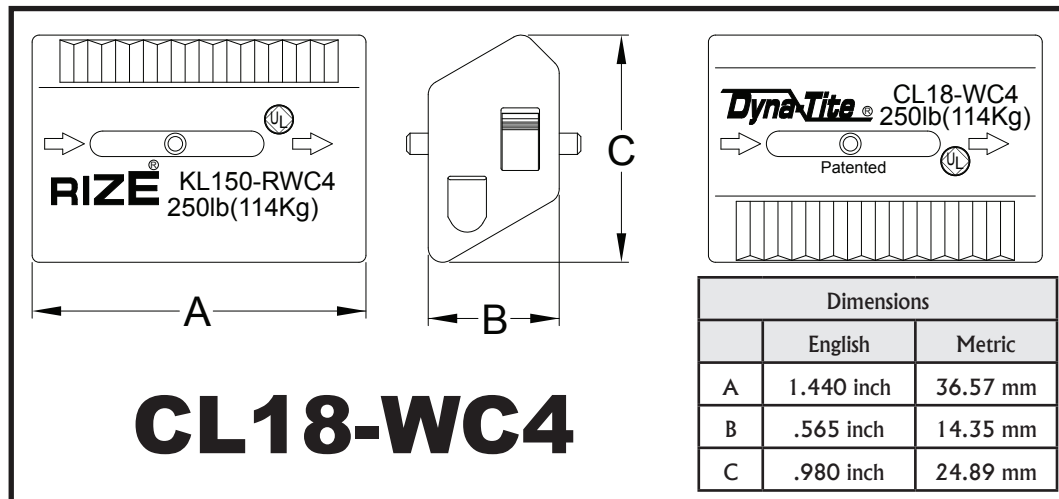
All ductwork and other equipment shall be supported using wire rope cable terminated by Cable Locks. All Cable Locks shall have an Ultimate Breaking Strength (U.B.S.) of at least 5 times the wire rope published Working Load Limit (W.L.L.). All wire rope shall have a U.B.S. of at least 5 times the published W.L.L. Wire ropes shall be of the size and spacing per the manufacturer's printed specifications. Wire Rope and Cable Locks shall be as supplied by Duro Dyne Corporation.



## Specification Data

- 1) All wire rope supplied by Duro Dyne is statistically tested to minimum breaking strength.
- 2) CL18-WC4 has been submitted and tested to be an acceptable alternative to the duct hanger systems described in SMACNA HVAC-DCS 2nd edition By SMACNA Testing & Research Institute.
- 3) All Working Load Ratings of Dyna-Tite CL18-WC4 Cable Locks manufactured by Duro Dyne have been witnessed and verified by independent testing laboratories.
- 4) CL18-WC4 Cable Locks may be used in applications with temperatures up to 300° F (148° C).
- 5) CL18-WC4 Cable Lock pawls are constructed of corrosion resistant sintered steel.
- 6) CL18-WC4 Cable Lock springs are constructed of tempered stainless steel.

Code	Construction of Cable Lock	Wire Rope	Construction of Wire Rope	Safe Working Load at 5:1 Safety Factor
CL18-WC4	Stainless Steel Sintered Steel Zinc Alloy	WC4-CL18	7x7 Hot Galvanized	25-250 lbs. (12-114 kg)





# CL23-WC6 CABLE LOCK SPECIFICATIONS

## Suggested Specification:

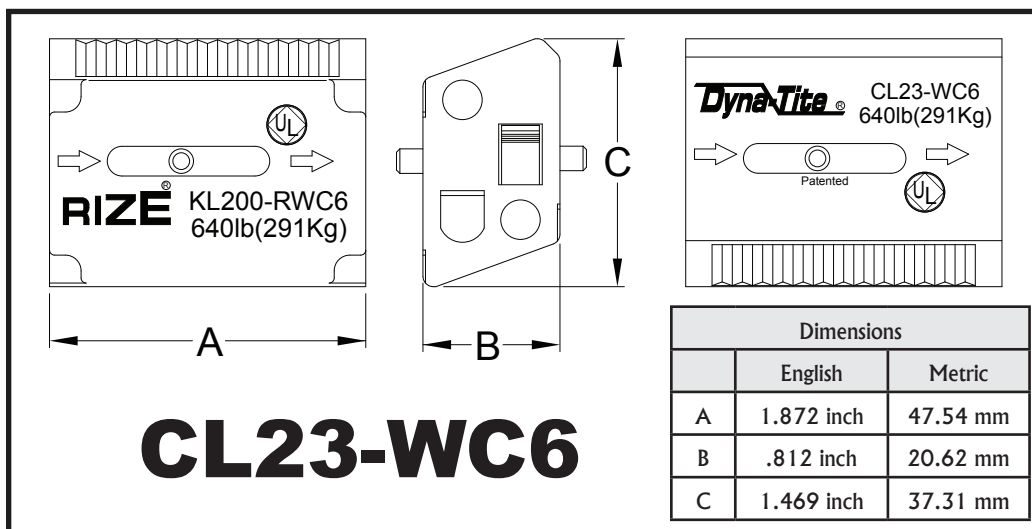
All ductwork and other equipment shall be supported using wire rope cable terminated by Cable Locks. All Cable Locks shall have an Ultimate Breaking Strength (U.B.S.) of at least 5 times the wire rope published Working Load Limit (W.L.L.). All wire rope shall have a U.B.S. of at least 5 times the published W.L.L. Wire ropes shall be of the size and spacing per the manufacturer's printed specifications. Wire Rope and Cable Locks shall be as supplied by Duro Dyne Corporation.



## Specification Data

- 1) All wire rope supplied by Duro Dyne is statistically tested to minimum breaking strength.
- 2) CL23-WC6 has been submitted and tested to be an acceptable alternative to the duct hanger systems prescribed in SMACNA HVAC-DCS 2nd edition By SMACNA Testing & Research Institute.
- 3) All Working Load Ratings of Dyna-Tite CL23-WC6 Cable Locks manufactured by Duro Dyne have been witnessed and verified by independent testing laboratories.
- 4) CL23-WC6 Cable Locks may be used in applications with temperatures up to 300° F (148° C).
- 5) CL23-WC6 Cable Lock pawls are constructed of corrosion resistant sintered steel.
- 6) CL23-WC6 Cable Lock springs are constructed of tempered stainless steel.

Code	Construction of Cable Lock	Wire Rope	Construction of Wire Rope	Safe Working Load at 5:1 Safety Factor
CL23-WC6	Stainless Steel Sintered Steel Zinc Alloy	WC6-CL23	7x19 Hot Galvanized	50-640 lbs. (25-291 kg)



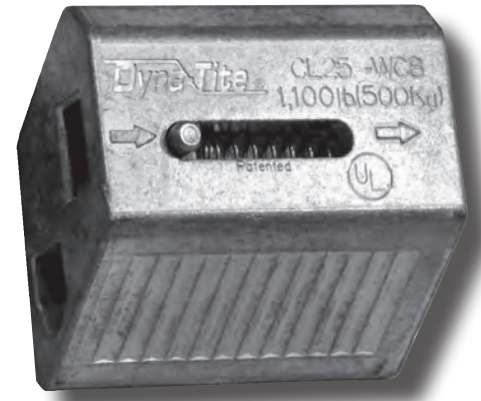
# CL25-WC8 CABLE LOCK SPECIFICATIONS

## Suggested Specification:

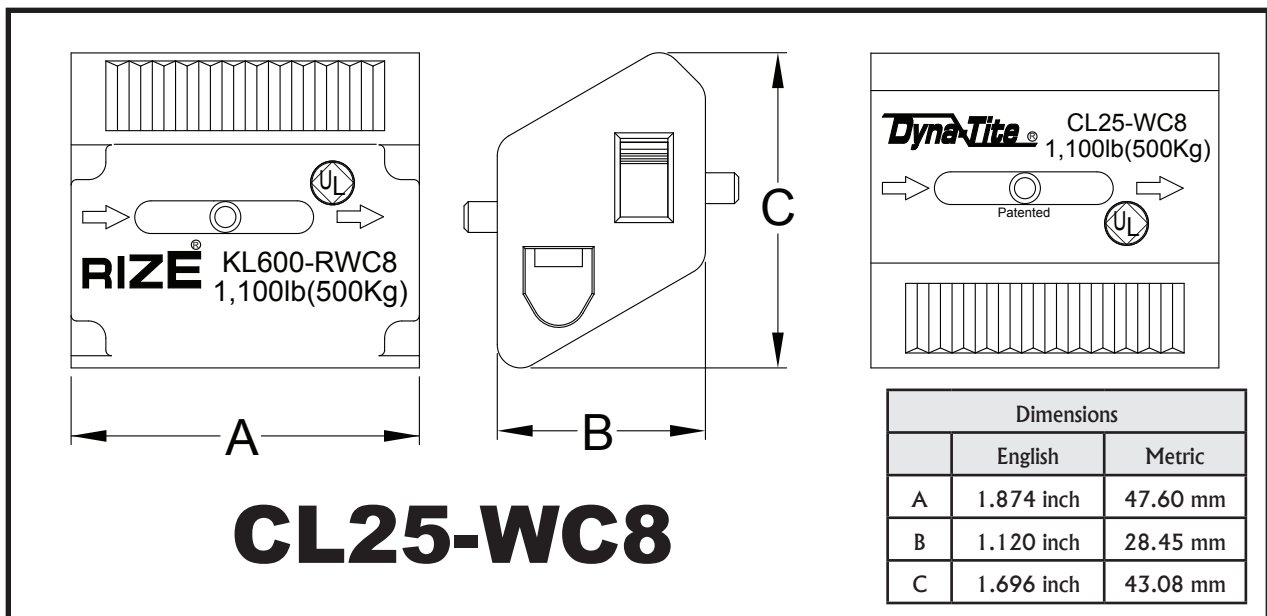
All ductwork and other equipment shall be supported using wire rope cable terminated by Cable Locks. All Cable Locks shall have an Ultimate Breaking Strength (U.B.S.) of at least 5 times the wire rope published Working Load Limit (W.L.L.). All wire rope shall have a U.B.S. of at least 5 times the published W.L.L. Wire ropes shall be of the size and spacing per the manufacturer's printed specifications. Wire Rope and Cable Locks shall be as supplied by Duro Dyne Corporation.

## Specification Data

- 1) All wire rope supplied by Duro Dyne is statistically tested to minimum breaking strength.
- 2) CL25-WC8 has been submitted and tested to be an acceptable alternative to the duct hanger systems prescribed in SMACNA HVAC-DCS 2nd edition By SMACNA Testing & Research Institute.
- 3) All Working Load Ratings of Dyna-Tite CL25-WC8 Cable Locks manufactured by Duro Dyne have been witnessed and verified by independent testing laboratories.
- 4) CL25-WC8 Cable Locks may be used in applications with temperatures up to 300° F (148° C).
- 5) CL25-WC8 Cable Lock pawls are constructed of corrosion resistant sintered steel.
- 6) CL25-WC8 Cable Lock springs are constructed of tempered stainless steel.



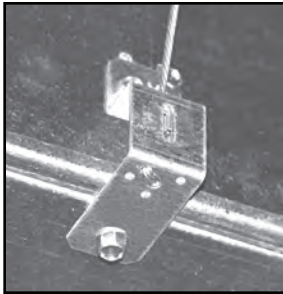
Code	Construction of Cable Lock	Wire Rope	Construction of Wire Rope	Safe Working Load at 5:1 Safety Factor
CL25-WC8	Stainless Steel Sintered Steel Zinc Alloy	WC8-CL25	7x19 Hot Galvanized	50-1,100 lbs. (25-500 kg)



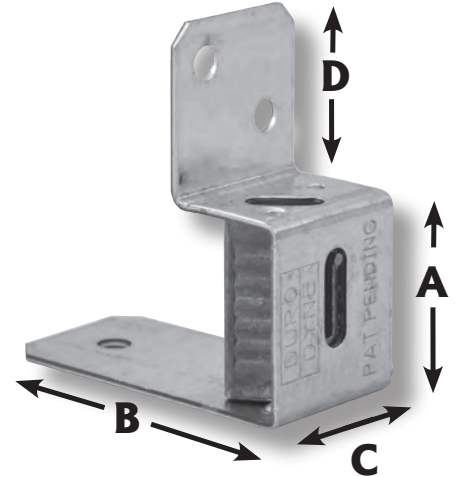
# KV BRACKET SPECIFICATIONS

## FEATURES

- For rectangular ductwork and equipment
- Easily attached with sheet metal screws
- Cable lock pre-assembled to bracket
- Accessible release pin for simple adjustment



Dimensions		
	English	Metric
A	1 1/8 inch	28.57 mm
B	2 1/8 inch	53.97 mm
C	1 inch	25.4 mm
D	1 inch	25.4 mm



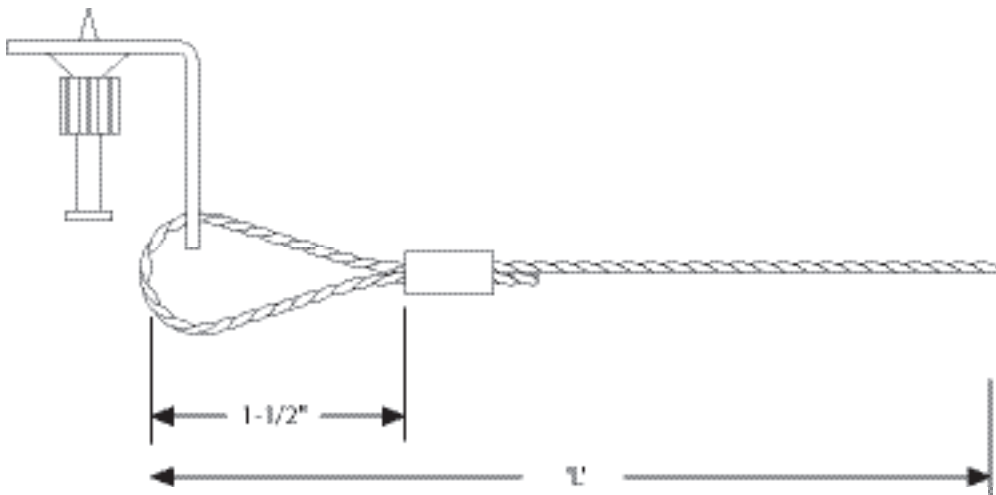
Code	Wire Rope	Construction	Packaged	Working Load Range
KVFD	WC2-CL6	Zinc Plated Steel	100 sets/ctn	10-75 lbs. (5-34 kg)
	WC3-CL12	Zinc Plated Steel	100 sets/ctn	25-150 lbs. (12-68 kg)

**The KV Bracket must be hung at a 90 degree angle to the suspension point.**

# DRIVE PIN SPECIFICATIONS

## FEATURES

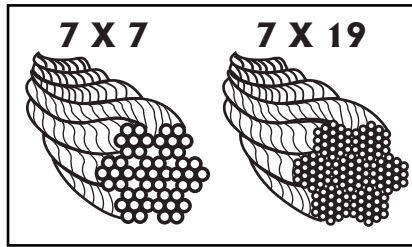
- For shot-firing into concrete, steel or composite metal decking
- Cable strand configuration: 7x7
- For use in indoor, stationary applications
- Available with 5 foot, 10 foot, 15 foot or 25 foot cable length



Code	Description	Packaged	Working Load Range
DP90-05WC2	90° Bracket w/ Drive Pin - 5ft WC2-CL6 Cable Assembly	10/bag	10-75 lbs. (5-34 kg)
DP90-10WC2	90° Bracket w/ Drive Pin - 10ft WC2-CL6 Cable Assembly	10/bag	10-75 lbs. (5-34 kg)
DP90-15WC2	90° Bracket w/ Drive Pin - 15ft WC2-CL6 Cable Assembly	10/bag	10-75 lbs. (5-34 kg)
DP90-25WC2	90° Bracket w/ Drive Pin - 25ft WC2-CL6 Cable Assembly	5/bag	10-75 lbs. (5-34 kg)

# WIRE ROPE SPECIFICATIONS

Aviation grade galvanized wire rope supplied by Duro Dyne Corporation is manufactured to exacting standards and statistically tested to verify stated breaking strengths. Use only wire rope supplied by Duro Dyne to ensure maximum safety and integrity of the installation.



Code	Description	Tolerance	Construction	Safe Working Load* +	Material
WC8-CL25	For use with CL25-WC8 Cable Lock	+ 5%/-0%	7x19	50-1,100 lbs. (25-500 kg)	Galvanized Steel
WC6-CL23	For use with CL23-WC6 Cable Lock	+ .018/- .009 inch	7x19	50-640 lbs. (25-291 kg)	Galvanized Steel
WC4-CL18	For use with CL18-WC4 Cable Lock	+ .014/- .007 inch	7x7	25-250 lbs. (12-114 kg)	Galvanized Steel
WC3-CL12	For use with CL12-WC3 Cable Lock	+ .012/- .006 inch	7x7	25-150 lbs. (12-68 kg)	Galvanized Steel
WC2-CL6	For use with CL6-WC2 Cable Lock	+ .010/- .005 in.	7x7	10-75 lbs. (5-34 kg)	Galvanized Steel

\*Safe Working Loads are based on a 5:1 Safety Factor.

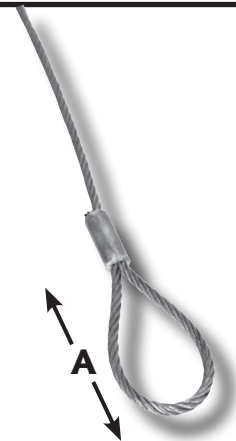
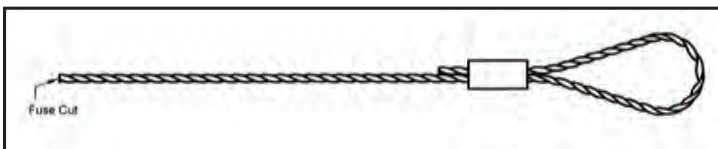
+ Hanging at angles will reduce the Safe Working Loads. Please see our 'Effects of Hanging at Angles' table.

# DURO LOOP SPECIFICATIONS

The Duro Loop Cable Sling is a pre-cut cable length with a pre-looped end that saves time at the jobsite.

## FEATURES

- Pre-Looped
- Aviation grade galvanized wire rope
- Tested to verify work load limits
- Utilizes 7x7 construction



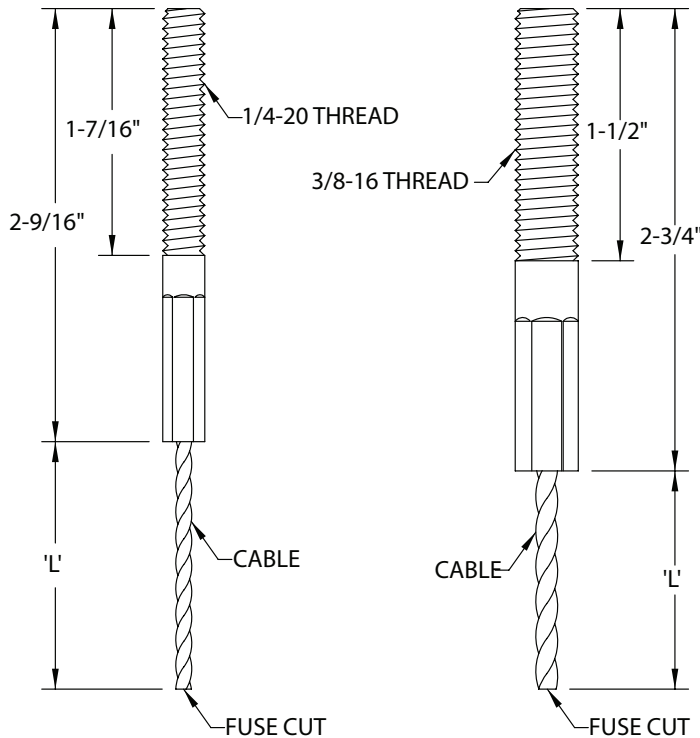
Code	Dimensions			Safe Working Load* +
	Description	Length of Cable	Loop Size (Dimension A)	
LC05WC3	For use with CL12-WC3 Cable Lock	5ft	1-1/2in	25-150 lbs. (12-68 kg)
LC10WC3	For use with CL12-WC3 Cable Lock	10ft	1-1/2in	25-150 lbs. (12-68 kg)
LC15WC3	For use with CL12-WC3 Cable Lock	15ft	1-1/2in	25-150 lbs. (12-68 kg)
LC25WC3	For use with CL12-WC3 Cable Lock	25ft	1-1/2in	25-150 lbs. (12-68 kg)
LC5WC4	For use with CL18-WC4 Cable Lock	5ft	1-1/2in	25-250 lbs. (12-114 kg)
LC10WC4	For use with CL18-WC4 Cable Lock	10ft	1-1/2in	25-250 lbs. (12-114 kg)
LC15WC4	For use with CL18-WC4 Cable Lock	15ft	1-1/2in	25-250 lbs. (12-114 kg)
LC25WC4	For use with CL18-WC4 Cable Lock	25ft	1-1/2in	25-250 lbs. (12-114 kg)

\*Safe Working Loads are based on a 5:1 Safety Factor.

+ Hanging at angles will reduce the Safe Working Loads. Please see our 'Effects of Hanging at Angles' table.

# DYNA-STUD SPECIFICATIONS

The Dyna-Stud is a heavy duty grade 5 threaded stud with one end of a super strong aircraft rated cable attached. The stud is threaded into the expansion anchor without putting stress on the cable. This makes for a much safer and tighter connection. The other end of the cable, in conjunction with the cable lock, is used to attach the object being supported. Dyna-Studs are also available as a kit with a cable lock.



Code	Description	Use with Cable Lock	*Safe Working Load
SDSA1405WC3	1/4in. Threaded Stud x 5ft WC3-CL12 Dyna-Stud Cable Assembly	CL12-WC3	25-150 lbs. (12-68 kg)
SDSA1410WC3	1/4in. Threaded Stud x 10ft WC3-CL12 Dyna-Stud Cable Assembly	CL12-WC3	25-150 lbs. (12-68 kg)
SDSA1415WC3	1/4in. Threaded Stud x 15ft WC3-CL12 Dyna-Stud Cable Assembly	CL12-WC3	25-150 lbs. (12-68 kg)
SDSA1425WC3	1/4in. Threaded Stud x 25ft WC3-CL12 Dyna-Stud Cable Assembly	CL12-WC3	25-150 lbs. (12-68 kg)
SDSA3805WC3	3/8in. Threaded Stud x 5ft WC3-CL12 Dyna-Stud Cable Assembly	CL12-WC3	25-150 lbs. (12-68 kg)
SDSA3810WC3	3/8in. Threaded Stud x 10ft WC3-CL12 Dyna-Stud Cable Assembly	CL12-WC3	25-150 lbs. (12-68 kg)
SDSA3815WC3	3/8in. Threaded Stud x 15ft WC3-CL12 Dyna-Stud Cable Assembly	CL12-WC3	25-150 lbs. (12-68 kg)
SDSA3825WC3	3/8in. Threaded Stud x 25ft WC3-CL12 Dyna-Stud Cable Assembly	CL12-WC3	25-150 lbs. (12-68 kg)
SDSA3805WC4	3/8in. Threaded Stud x 5ft WC4-CL18 Dyna-Stud Cable Assembly	CL18-WC4	25-225 lbs. (12-102 kg)
SDSA3810WC4	3/8in. Threaded Stud x 10ft WC4-CL18 Dyna-Stud Cable Assembly	CL18-WC4	25-225 lbs. (12-102 kg)
SDSA3815WC4	3/8in. Threaded Stud x 15ft WC4-CL18 Dyna-Stud Cable Assembly	CL18-WC4	25-225 lbs. (12-102 kg)
SDSA3825WC4	3/8in. Threaded Stud x 25ft WC4-CL18 Dyna-Stud Cable Assembly	CL18-WC4	25-225 lbs. (12-102 kg)



# EYELETS SPECIFICATIONS - 90° EYELETS

Duro Dyne Dyna-Tite eyelets are manufactured of zinc plated cold rolled steel and swaged to the wire rope cable with a hydraulic press. Dyna-Tite Eyelet assemblies are available for installation with either a 1/4 in. or 3/8 in. fastener. They are available in 45°, 90° and straight variations and can also be purchased as a package with the appropriate cable lock.

## FEATURES

- Available with either a 1/4 in. or 3/8 in. fastener.
- Available in 45°, 90° and straight variations.
- Lengths of 5, 10, 15 and 25 ft
- Also sold as a kit with appropriate Cable Lock



Item#	Code	Description	For Use With Cable Lock	Safe Working Load* +	Quantity
<b>1/4 in. Eyelets</b>					
30140	9014-05WC2	90° 1/4 in. Eyelet - 5 ft. x WC2-CL6 Wire Rope	CL6-WC2	10-75 lbs. (5-34 kg)	10/bag-10bg/ctn
30141	9014-10WC2	90° 1/4 in. Eyelet - 10 ft. x WC2-CL6 Wire Rope	CL6-WC2	10-75 lbs. (5-34 kg)	10/bag-10bg/ctn
30142	9014-15WC2	90° 1/4 in. Eyelet - 15 ft. x WC2-CL6 Wire Rope	CL6-WC2	10-75 lbs. (5-34 kg)	10/bag-10bg/ctn
30143	9014-25WC2	90° 1/4 in. Eyelet - 25 ft. x WC2-CL6 Wire Rope	CL6-WC2	10-75 lbs. (5-34 kg)	5/bag-10bg/ctn
30144	9014-05WC3	90° 1/4 in. Eyelet - 5 ft. x WC3-CL12 Wire Rope	CL12-WC3	25-150 lbs. (12-68 kg)	10/bag-10bg/ctn
30145	9014-10WC3	90° 1/4 in. Eyelet - 10 ft. x WC3-CL12 Wire Rope	CL12-WC3	25-150 lbs. (12-68 kg)	10/bag-10bg/ctn
30146	9014-15WC3	90° 1/4 in. Eyelet - 15 ft. x WC3-CL12 Wire Rope	CL12-WC3	25-150 lbs. (12-68 kg)	10/bag-10bg/ctn
30147	9014-25WC3	90° 1/4 in. Eyelet - 25 ft. x WC3-CL12 Wire Rope	CL12-WC3	25-150 lbs. (12-68 kg)	5/bag-10bg/ctn
30148	9014-05WC4	90° 1/4 in. Eyelet - 5 ft. x WC4-CL18 Wire Rope	CL18-WC4	25-250 lbs. (12-114 kg)	10/bag-10bg/ctn
30149	9014-10WC4	90° 1/4 in. Eyelet - 10 ft. x WC4-CL18 Wire Rope	CL18-WC4	25-250 lbs. (12-114 kg)	10/bag-10bg/ctn
30150	9014-15WC4	90° 1/4 in. Eyelet - 15 ft. x WC4-CL18 Wire Rope	CL18-WC4	25-250 lbs. (12-114 kg)	10/bag-10bg/ctn
30151	9014-25WC4	90° 1/4 in. Eyelet - 25 ft. x WC4-CL18 Wire Rope	CL18-WC4	25-250 lbs. (12-114 kg)	5/bag-10bg/ctn
<b>3/8 in. Eyelets</b>					
30152	9038-05WC3	90° 3/8 in. Eyelet - 5 ft. x WC3-CL12 Wire Rope	CL12-WC3	25-150 lbs. (12-68 kg)	10/bag-10bg/ctn
30153	9038-10WC3	90° 3/8 in. Eyelet - 10 ft. x WC3-CL12 Wire Rope	CL12-WC3	25-150 lbs. (12-68 kg)	10/bag-10bg/ctn
30154	9038-15WC3	90° 3/8 in. Eyelet - 15 ft. x WC3-CL12 Wire Rope	CL12-WC3	25-150 lbs. (12-68 kg)	10/bag-10bg/ctn
30155	9038-25WC3	90° 3/8 in. Eyelet - 25 ft. x WC3-CL12 Wire Rope	CL12-WC3	25-150 lbs. (12-68 kg)	5/bag-10bg/ctn
30157	9038-05WC4	90° 3/8 in. Eyelet - 5 ft. x WC4-CL18 Wire Rope	CL18-WC4	25-250 lbs. (12-114 kg)	10/bag-10bg/ctn
30158	9038-10WC4	90° 3/8 in. Eyelet - 10 ft. x WC4-CL18 Wire Rope	CL18-WC4	25-250 lbs. (12-114 kg)	10/bag-10bg/ctn
30159	9038-15WC4	90° 3/8 in. Eyelet - 15 ft. x WC4-CL18 Wire Rope	CL18-WC4	25-250 lbs. (12-114 kg)	10/bag-10bg/ctn
30160	9038-25WC4	90° 3/8 in. Eyelet - 25 ft. x WC4-CL18 Wire Rope	CL18-WC4	25-250 lbs. (12-114 kg)	5/bag-10bg/ctn
<b>*Safe Working Loads are based on a 5:1 Safety Factor.</b>					
<b>+ Hanging at angles will reduce the Safe Working Loads. Please see our 'Effects of Hanging at Angles' table.</b>					

# EYELETS SPECIFICATIONS - 45° EYELETS



Item#	Code	Description	For Use With Cable Lock	Safe Working Load* +	Quantity
<b>1/4 in. Eyelets</b>					
30161	4514-05WC2	45° 1/4 in. Eyelet - 5 ft. x WC2-CL6 Wire Rope	CL6-WC2	10-75 lbs. (5-34 kg)	10/bag-10bg/ctn
30162	4514-10WC2	45° 1/4 in. Eyelet - 10 ft. x WC2-CL6 Wire Rope	CL6-WC2	10-75 lbs. (5-34 kg)	10/bag-10bg/ctn
30163	4514-15WC2	45° 1/4 in. Eyelet - 15 ft. x WC2-CL6 Wire Rope	CL6-WC2	10-75 lbs. (5-34 kg)	10/bag-10bg/ctn
30164	4514-25WC2	45° 1/4 in. Eyelet - 25 ft. x WC2-CL6 Wire Rope	CL6-WC2	10-75 lbs. (5-34 kg)	5/bag-10bg/ctn
30165	4514-05WC3	45° 1/4 in. Eyelet - 5 ft. x WC3-CL12 Wire Rope	CL12-WC3	25-150 lbs. (12-68 kg)	10/bag-10bg/ctn
30166	4514-10WC3	45° 1/4 in. Eyelet - 10 ft. x WC3-CL12 Wire Rope	CL12-WC3	25-150 lbs. (12-68 kg)	10/bag-10bg/ctn
30167	4514-15WC3	45° 1/4 in. Eyelet - 15 ft. x WC3-CL12 Wire Rope	CL12-WC3	25-150 lbs. (12-68 kg)	10/bag-10bg/ctn
30168	4514-25WC3	45° 1/4 in. Eyelet - 25 ft. x WC3-CL12 Wire Rope	CL12-WC3	25-150 lbs. (12-68 kg)	5/bag-10bg/ctn
30169	4514-05WC4	45° 1/4 in. Eyelet - 5 ft. x WC4-CL18 Wire Rope	CL18-WC4	25-250 lbs. (12-114 kg)	10/bag-10bg/ctn
30170	4514-10WC4	45° 1/4 in. Eyelet - 10 ft. x WC4-CL18 Wire Rope	CL18-WC4	25-250 lbs. (12-114 kg)	10/bag-10bg/ctn
30171	4514-15WC4	45° 1/4 in. Eyelet - 15 ft. x WC4-CL18 Wire Rope	CL18-WC4	25-250 lbs. (12-114 kg)	10/bag-10bg/ctn
30172	4514-25WC4	45° 1/4 in. Eyelet - 25 ft. x WC4-CL18 Wire Rope	CL18-WC4	25-250 lbs. (12-114 kg)	5/bag-10bg/ctn
<b>3/8 in. Eyelets</b>					
30173	4538-05WC3	45° 3/8 in. Eyelet - 5 ft. x WC3-CL12 Wire Rope	CL12-WC3	25-150 lbs. (12-68 kg)	10/bag-10bg/ctn
30174	4538-10WC3	45° 3/8 in. Eyelet - 10 ft. x WC3-CL12 Wire Rope	CL12-WC3	25-150 lbs. (12-68 kg)	10/bag-10bg/ctn
30175	4538-15WC3	45° 3/8 in. Eyelet - 15 ft. x WC3-CL12 Wire Rope	CL12-WC3	25-150 lbs. (12-68 kg)	10/bag-10bg/ctn
30176	4538-25WC3	45° 3/8 in. Eyelet - 25 ft. x WC3-CL12 Wire Rope	CL12-WC3	25-150 lbs. (12-68 kg)	5/bag-10bg/ctn
30177	4538-05WC4	45° 3/8 in. Eyelet - 5 ft. x WC4-CL18 Wire Rope	CL18-WC4	25-250 lbs. (12-114 kg)	10/bag-10bg/ctn
30178	4538-10WC4	45° 3/8 in. Eyelet - 10 ft. x WC4-CL18 Wire Rope	CL18-WC4	25-250 lbs. (12-114 kg)	10/bag-10bg/ctn
30179	4538-15WC4	45° 3/8 in. Eyelet - 15 ft. x WC4-CL18 Wire Rope	CL18-WC4	25-250 lbs. (12-114 kg)	10/bag-10bg/ctn
30180	4538-25WC4	45° 3/8 in. Eyelet - 25 ft. x WC4-CL18 Wire Rope	CL18-WC4	25-250 lbs. (12-114 kg)	5/bag-10bg/ctn
<b>*Safe Working Loads are based on a 5:1 Safety Factor.</b>					
<b>+Hanging at angles will reduce the Safe Working Loads. Please see our 'Effects of Hanging at Angles' table.</b>					

# EYELETS SPECIFICATIONS - STRAIGHT EYELETS



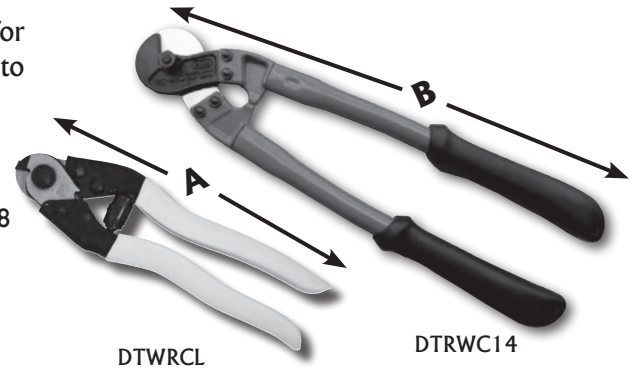
Item#	Code	Description	For Use With Cable Lock	Safe Working Load* +	Quantity
<b>1/4 in. Eyelets</b>					
30110	S14-05WC2	Straight 1/4 in. Eyelet - 5 ft. x WC2-CL6 Wire Rope	CL6-WC2	10-75 lbs. (5-34 kg)	10/bag-10bg/ctn
30111	S14-10WC2	Straight 1/4 in. Eyelet - 10 ft. x WC2-CL6 Wire Rope	CL6-WC2	10-75 lbs. (5-34 kg)	10/bag-10bg/ctn
30116	S14-15WC2	Straight 1/4 in. Eyelet - 15 ft. x WC2-CL6 Wire Rope	CL6-WC2	10-75 lbs. (5-34 kg)	10/bag-10bg/ctn
30117	S14-25WC2	Straight 1/4 in. Eyelet - 25 ft. x WC2-CL6 Wire Rope	CL6-WC2	10-75 lbs. (5-34 kg)	5/bag-10bg/ctn
30122	S14-05WC3	Straight 1/4 in. Eyelet - 5 ft. x WC3-CL12 Wire Rope	CL12-WC3	25-150 lbs. (12-68 kg)	10/bag-10bg/ctn
30123	S14-10WC3	Straight 1/4 in. Eyelet - 10 ft. x WC3-CL12 Wire Rope	CL12-WC3	25-150 lbs. (12-68 kg)	10/bag-10bg/ctn
30128	S14-15WC3	Straight 1/4 in. Eyelet - 15 ft. x WC3-CL12 Wire Rope	CL12-WC3	25-150 lbs. (12-68 kg)	10/bag-10bg/ctn
30129	S14-25WC3	Straight 1/4 in. Eyelet - 25 ft. x WC3-CL12 Wire Rope	CL12-WC3	25-150 lbs. (12-68 kg)	5/bag-10bg/ctn
<b>*Safe Working Loads are based on a 5:1 Safety Factor.</b>					
<b>+Hanging at angles will reduce the Safe Working Loads. Please see our 'Effects of Hanging at Angles' table.</b>					

# CABLE CUTTER SPECIFICATIONS

When cutting cable, it is important to use a tool designed specifically for this purpose to ensure that the form of the rope is maintained prior to insertion in the Cable Lock.

## FEATURES

- DTWRCL is Spring Loaded for ease of use and features a Safety Catch
- DTWRCL - Hand held cutting tool for WC2-CL6, WC3-CL12, WC4-CL18 and WC6-CL23 Wire Rope
- DTRWC14 - Hand held cutting tool for WC8-CL25 Wire Rope
- Hardened Steel Blades For Durability on all cutters
- Vinyl coated handles for comfortable, non-slip grip on all cutters



NEVER USE CUTTERS ON ENERGIZED CIRCUITS, WIRE, OR CABLE!

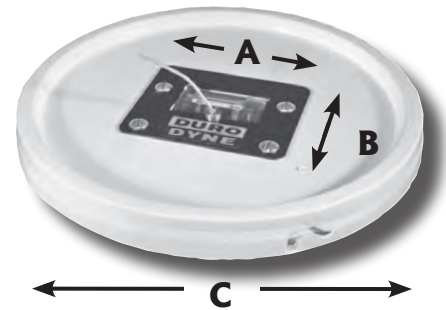
Dimensions		
	English	Metric
A	7 1/2 inch	19.05 cm
B	18 inch	45.72 cm

# CABLE COUNTER LID SPECIFICATIONS

## FEATURES

- Counter displays from 0 feet and 0 inches to 9999 feet and 11 inches
- Metric counter also available
- Push button reset
- Designed for use with Duro Dyne wire rope
- Fits most 5 gallon buckets
- Lightweight

Dimensions		
	English	Metric
A	5 inch	127 mm
B	4 1/4 inch	107.95 mm
C	12 inch	304.8 mm



# SPIRAL BUCKLE SPECIFICATIONS

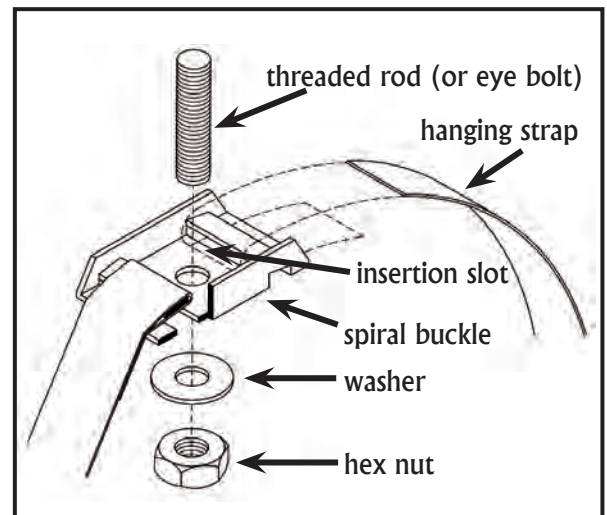
The zinc plated 14 gauge Spiral Buckle is designed to suspend round and oval ductwork from ceiling joists or beams with the use of threaded rod up to 3/8 in. diameter. Simply place 1 in. hanging strap in one side of the buckle then around the material and into the other side of the buckle. When the strap is correctly inserted through the slots, the strap is locked into the buckle by the weight of the duct.



Spiral Buckle with threaded rod



Spiral Buckle with eye bolt and the Dyna-Tite Wire Rope Suspension System

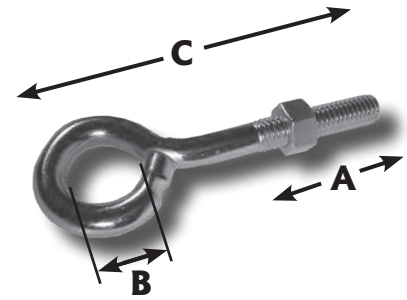


# EYE BOLT & NUT SPECIFICATIONS

## FEATURES

- Zinc plated low carbon steel
- 3/8 x 16 thread
- 1 1/2" thread length
- Working Load Limit: 144 lbs.

Dimensions		
	English	Metric
A	1 1/2 inch	38.1 mm
B	3/4 inch	19.05 mm
C	4 inch	101.6 mm



## QUIK-TWISTS

- For use in wood or steel
- No pilot hole required
- Sidewinder hangers can be used for side mounting
- Made of zinc plated steel
- Threaded hole with 3/8 x 16 thread
- Hex head for 5/8" wrench



For Use In	Screw Size	Pilot Hole	Static Load Cap.	
			English	Metric
Wood	1/4" x 2"	None	200 lbs.	90 kg
Steel	1/4" x 2"	None	200 lbs.	90 kg



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*Dyna-Tite*™

**Engineer Manual**



# STANDARD INSTALLATION\*

**STEP 1** Pull the release pin back and thread the wire rope into one locking channel in the cable lock. Failure to pull adjustment pin first may cause damage to serrated teeth and reduce holding capacity.

**STEP 2** Pass the wire rope “tail” through (or around) the anchor point (Eye-hook, Beam, or Purlin).

**STEP 3** Pull the second release pin back and push the wire rope tail into the second locking channel in the cable lock. Push through at least 6” of wire rope.

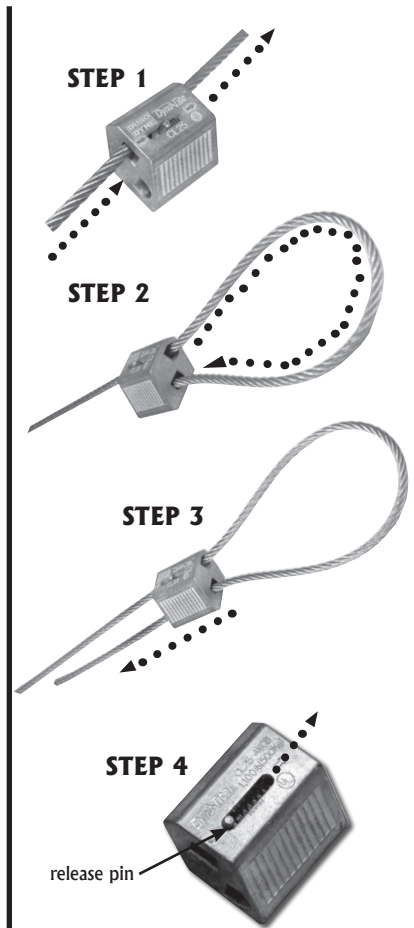
**STEP 4** Prior to the load being applied, the wire rope can be adjusted in either direction by sliding the release pin and moving the wire.

**ALWAYS CONFIRM ENGAGEMENT OF CABLE LOCK ON WIRE BEFORE APPLYING THE LOAD BY PUSHING THE ADJUSTMENT PIN IN THE OPPOSITE DIRECTION OF THE ARROWS ON THE CABLE LOCK AND THEN PULLING THE CABLE, ALSO IN THE OPPOSITE DIRECTION OF THE ARROWS ON THE CABLE LOCK.**

## Adjusting The Cable Lock

With the load off the wire rope and the Cable Lock, push the release pin in the direction of the arrow on the Cable Lock. This will release the locking pawl and allow the wire rope to be moved freely in either direction. (After a load has been applied it may be necessary to pull the cable slightly to disengage the teeth on the pawl). Be sure the load is fully supported before attempting an adjustment.

\*Please note, the CL23-WC6 has 2 pass through holes. Use only the locking channels for standard installation.



**PLEASE REVIEW ALL MANUFACTURER'S RECOMMENDATIONS ON PAGE 29 PRIOR TO INSTALLATION.**

*Dyna-Tite*

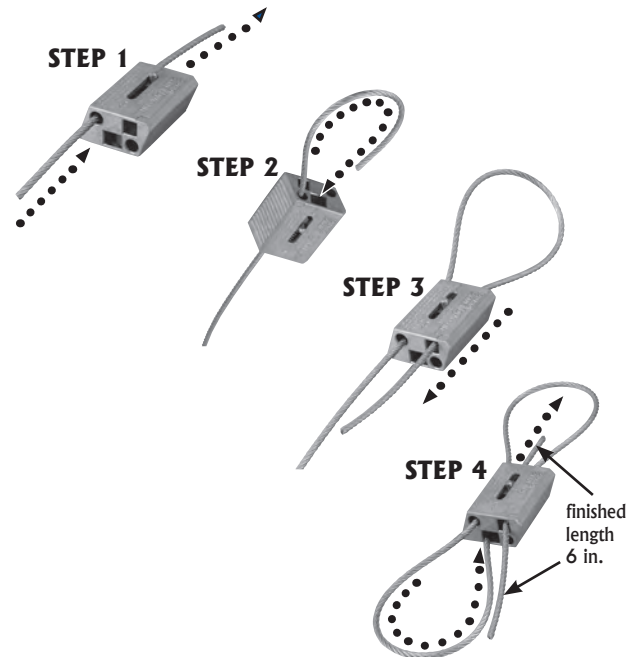
# OPTIONAL FIGURE 8 INSTALLATION (CL23-WC6 ONLY)

**STEP 1** Thread the wire rope into the “through hole” in the CL23.

**STEP 2** Pass the wire rope “tail” through (or around) the anchor point (Eyehook, Beam, or Purlin).

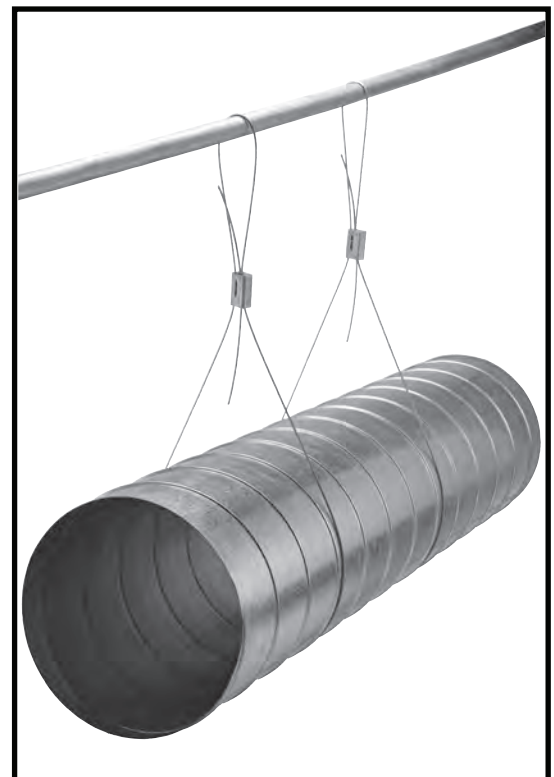
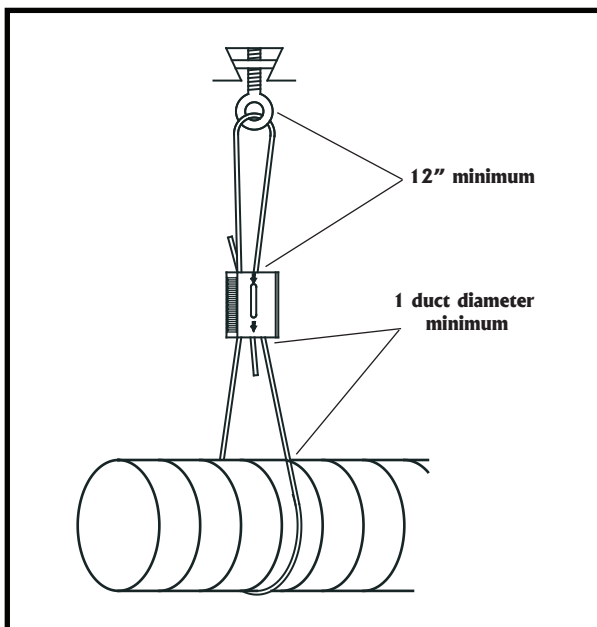
**STEP 3** Pull the release pin back and push the wire rope tail into one locking channel in the CL23-WC6 and pull at least 6 in. of the wire rope through. Failure to pull adjustment pin first may cause damage to serrated teeth and reduce holding capacity.

**STEP 4** Pass the other wire rope end through (or around) the bracket or fixture on the object to be suspended. Return the wire rope to the CL23-WC6. Pull the second release pin back and push at least 6 in. of wire rope through the remaining locking channel.



**ALWAYS CONFIRM ENGAGEMENT OF CABLE LOCK ON WIRE BEFORE APPLYING THE LOAD BY PUSHING THE ADJUSTMENT PIN IN THE OPPOSITE DIRECTION OF THE ARROWS ON THE CABLE LOCK AND THEN PULLING THE CABLE, ALSO IN THE OPPOSITE DIRECTION OF THE ARROWS ON THE CABLE LOCK.**

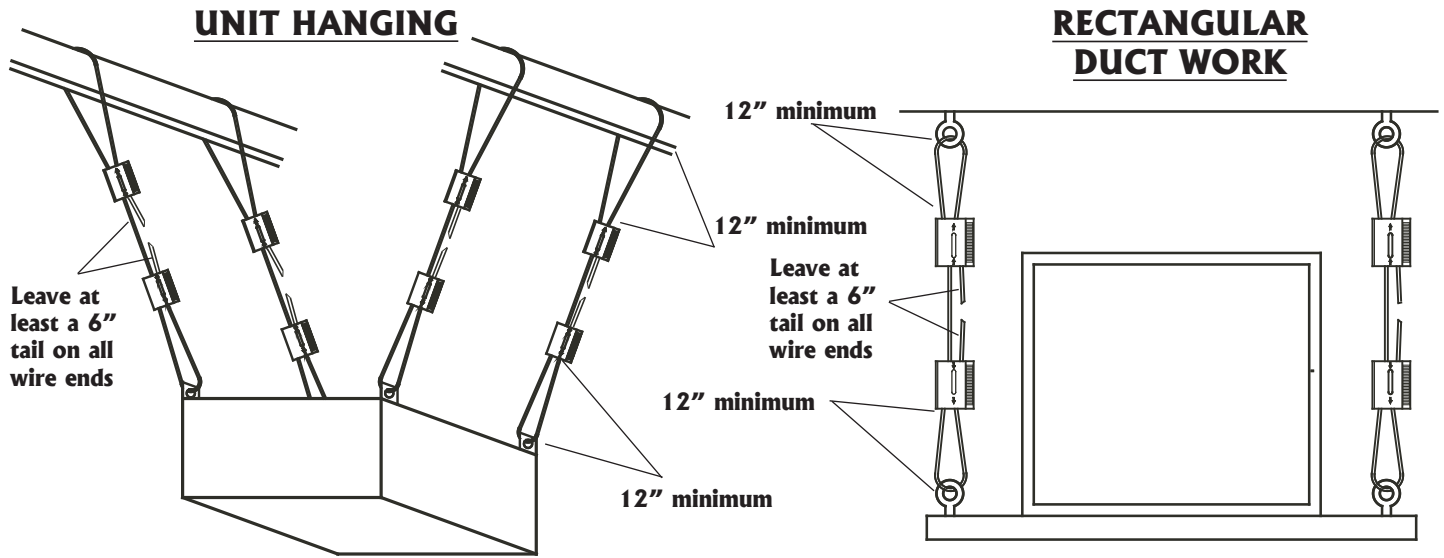
For adjustment see Step 4 in Standard Installation.



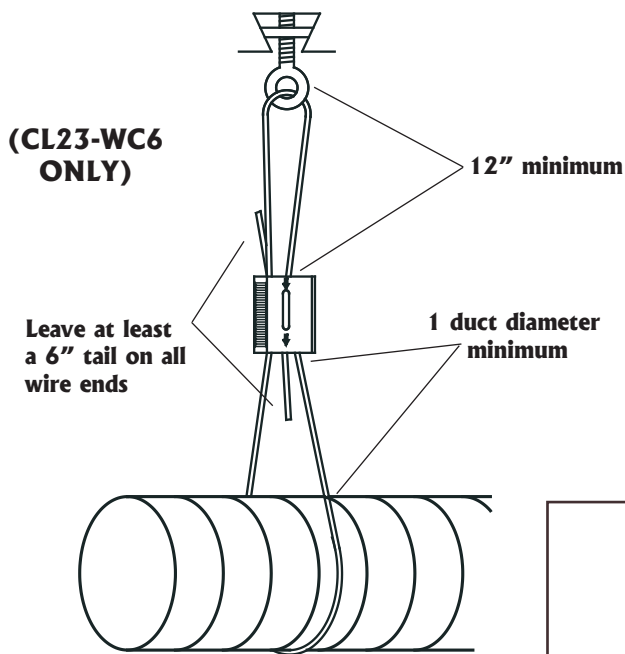
**PLEASE REVIEW ALL MANUFACTURER'S RECOMMENDATIONS ON PAGE 29 PRIOR TO INSTALLATION.**

# TYPICAL INSTALLATIONS

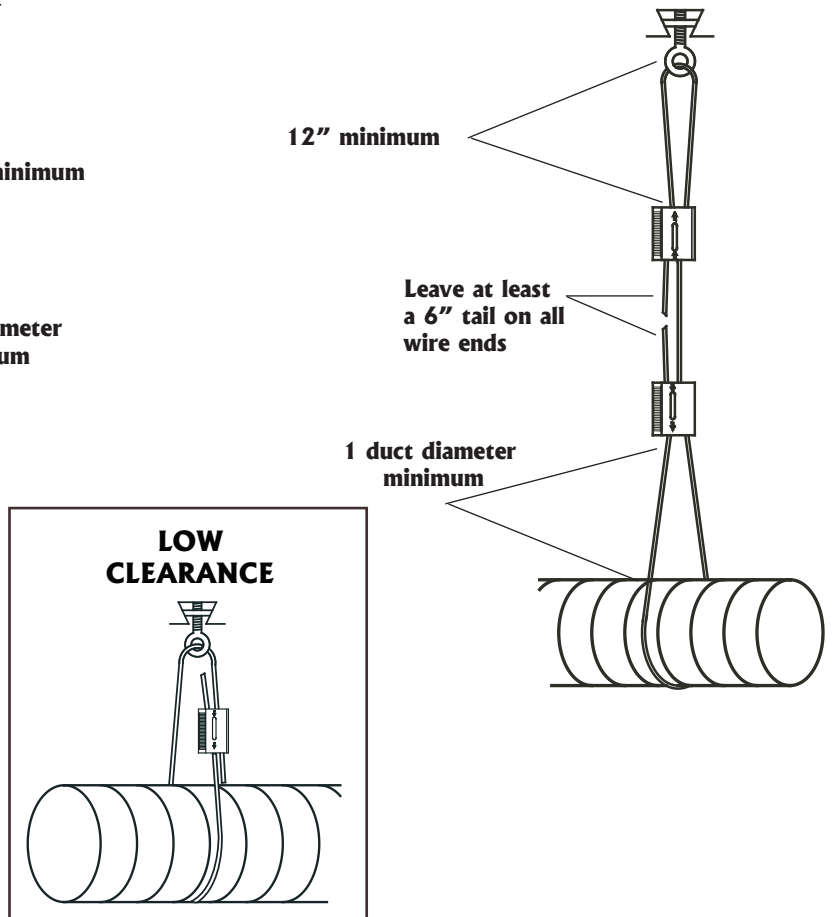
Dyna-Tite cable locks and wire rope can be used for suspension in a variety of ways to accommodate most mechanical & HVAC construction applications.



**FIGURE 8 (CL23-WC6 ONLY)**

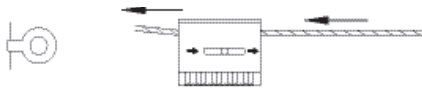


**SPIRAL DUCT WORK**

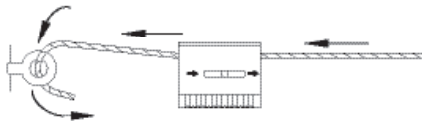


**PLEASE REVIEW ALL MANUFACTURER'S RECOMMENDATIONS ON PAGE 29 PRIOR TO INSTALLATION.**

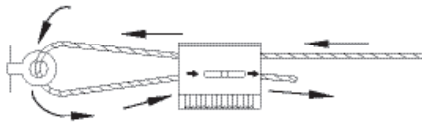
# DYNA-TITE FAST-LOCK™ INSTALLATION INSTRUCTIONS



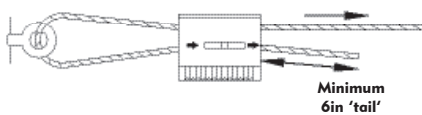
Thread the wire rope through the “through hole” in the Fast-Lock.  
 Note: The locking channel direction is opposite to the “through hole” direction (path for the wire rope).



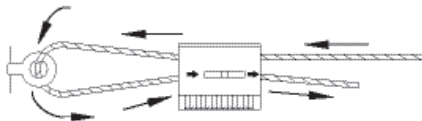
Pass the wire rope tail through (or around) the anchor point (eye hook, beam or purlin).



Pull adjustment pin back and thread the wire rope into the locking channel in the Fast-Lock. Push through at least 6” of wire rope. Failure to pull adjustment pin first may cause damage to serrated teeth and reduce holding capacity.



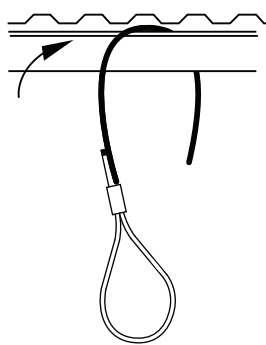
Apply load to the wire rope at the entrance to the “through hole” side. ALWAYS confirm engagement of cable lock on wire before applying the load by pushing the adjustment pin in the opposite direction of the arrows on the cable lock and then pulling the cable, also in the opposite direction of the arrows on the cable lock.



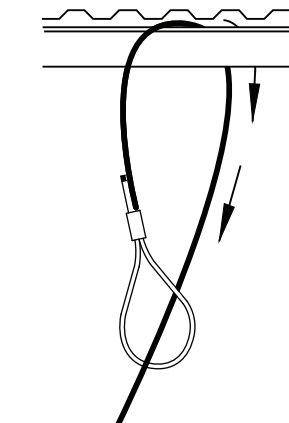
To adjust, take the load off and pull the tail slightly to disengage teeth, then release using adjustment pin.

**PLEASE REVIEW ALL MANUFACTURER’S RECOMMENDATIONS ON PAGE 29 PRIOR TO INSTALLATION.**

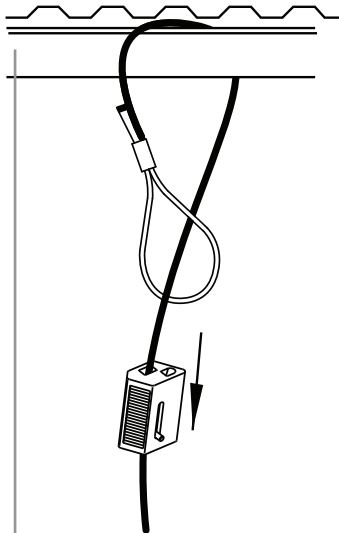
## DURO LOOP CABLE SLING INSTALLATION INSTRUCTIONS



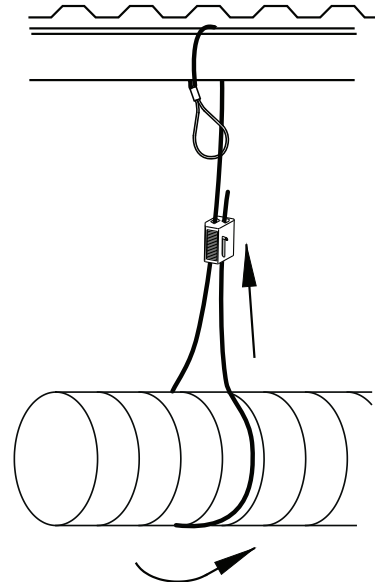
**Step #1**  
 Pass the end of the wire rope around the anchor point.



**Step #2**  
 Pass the end of the wire rope through the cable loop.



**Step #3**  
 Pull adjustment pin back and pass the end of the wire rope through the Dyna-Tite Cable Lock.



**Step #4**  
 Loop the wire rope around the ductwork and back up through the Cable Lock.

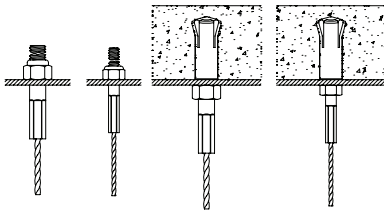
Working Load		
Wire	Cable Lock	Safe Working Load 5:1 SF
WC3-CL12	CL12-WC3	25-150 lbs. (12-68 kg)
WC4-CL18	CL18-WC4	25-250 lbs. (12-114 kg)

**ALWAYS CONFIRM ENGAGEMENT OF CABLE LOCK ON WIRE BEFORE APPLYING LOAD.**

**DO NOT EXCEED THE SAFE WORKING LOAD OF THE PRODUCT**

# DYNA-STUD INSTALLATION INSTRUCTIONS

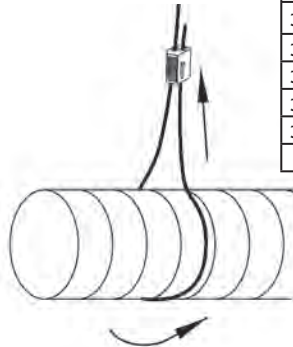
**Step 1:** Insert and tighten the Dyna-Stud into a threaded receptacle of the corresponding size (see chart at right). A locking jam nut is recommended to prevent the Dyna-Stud from turning.



**Step 2:** Using the appropriate cable lock (see the chart at right), pull adjustment pin back and pass the end of the wire rope through the Dyna-Tite Cable Lock.



**Step 3:** Loop the wire rope around the ductwork and back up through the Cable Lock.



Item #	Code	Thread Size	Cable Lock	*Safe Working Load
30062	DSA1405WC3	1/4 - 20	CL12-WC3	25-150 lbs.
30063	DSA1410WC3	1/4 - 20	CL12-WC3	25-150 lbs.
30064	DSA1415WC3	1/4 - 20	CL12-WC3	25-150 lbs.
30065	DSA1425WC3	1/4 - 20	CL12-WC3	25-150 lbs.
30066	DSA3805WC4	3/8 - 16	CL18-WC4	25-250 lbs.
30067	DSA3810WC4	3/8 - 16	CL18-WC4	25-250 lbs.
30068	DSA3815WC4	3/8 - 16	CL18-WC4	25-250 lbs.
30069	DSA3825WC4	3/8 - 16	CL18-WC4	25-250 lbs.

\*Safe Working Loads are based on a 5:1 Safety Factor.

**DO NOT EXCEED THE SAFE WORKING LOAD OF THE PRODUCT**

**IMPORTANT:** TO ENSURE THE INTEGRITY OF THE DURO DYNE CABLE LOCK SYSTEM, USE THE CABLE LOCK ONLY WITH WIRE ROPE SUPPLIED BY DURO DYNE CORPORATION.

**PLEASE REVIEW ALL MANUFACTURER'S RECOMMENDATIONS ON PAGE 28 PRIOR TO INSTALLATION.**

# DROP-IN INSTALLATION INSTRUCTIONS

The drop in anchor is a female anchor designed for use in solid concrete only and can't be used in brick or block material. The anchor size is designated by the inside diameter of the anchor. The diameter of the hole to be drilled is the same size as the outside diameter of the anchor. When fastening to solid concrete with a drop in anchor, a hole must be drilled into the base material.

## CAUTION

Before starting to drill the hole, it is important that eye and ear protection are used.

**Step 1:** Insert a carbide tip masonry bit into the hammer-drill chuck and tighten it in place. The depth of the hole to be drilled can easily be set by using the depth gauge on the drill or by wrapping the bit with tape at the required depth. Make sure that the hole depth will allow the anchor to be flush with the surface of the concrete.



**Step 2:** Make sure the hammer drill is in the hammer mode and start drilling your hole. Continue drilling until the tape on the bit or the drill gauge meets the base material-this means that the required depth has been reached.



**Step 3:** Before proceeding with installation, the hole must be cleaned of all concrete dust to ensure proper fastening. Use a wire brush, a vacuum or compressed air to clean out the hole completely.



**Step 4:** Next, insert the drop-in anchor with the open side up. Drop the anchor into the hole. Tap lightly to get the anchor flush with the base material.



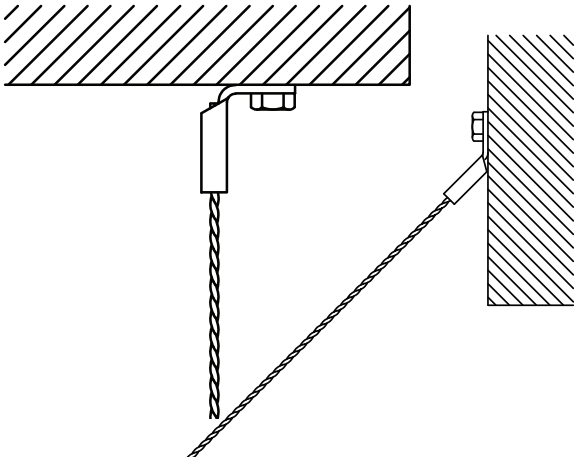
**Step 5:** Now, take the setting tool and insert it into the anchor. Strike the setting tool with a hammer until the lip of the anchor touches the lip of the setting tool. This will ensure the anchor is properly set.





# EYELETS INSTALLATION INSTRUCTIONS

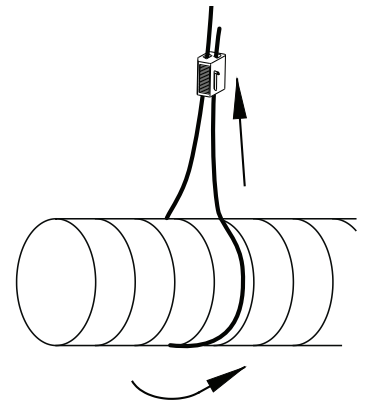
Duro Dyne Eyelets are limited to the working load limit of the appropriate Dyna-Tite Cable Lock used with it. See charts on pages 16-17.



**Step 1:** Attach the wire rope to a convenient anchor point with appropriate fastener.



**Step 2:** Using the appropriate cable lock (see the chart on next page), pull adjustment pin back and pass the end of the wire rope through the Dyna-Tite Cable Lock.



**Step 3:** Loop the wire rope around the ductwork or through attachment bracket and back up through the Cable Lock.

**PLEASE REVIEW ALL MANUFACTURER'S RECOMMENDATIONS ON PAGE 29 PRIOR TO INSTALLATION.**

# POWER VERTIGO METAL AND WOOD FASTENERS INSTALLATION INSTRUCTIONS AND WARNINGS

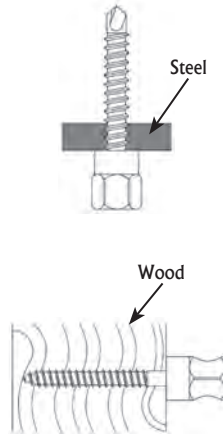
**1.** If pre-drilling is required (certain types of wood truss/wood joist), select the recommended diameter drill bit.



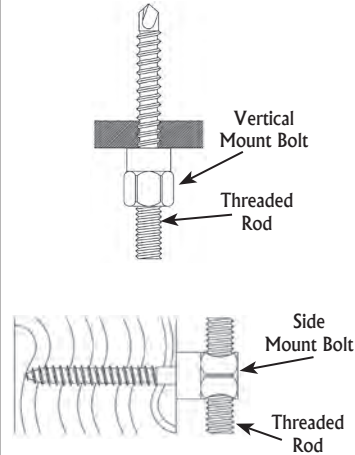
**2.** Select the appropriate socket driver for the anchor size and type to be installed and mount the driver into the chuck of the installation tool. Insert the Vertigo fastener into the socket driver, and install it perpendicular to the base material surface.



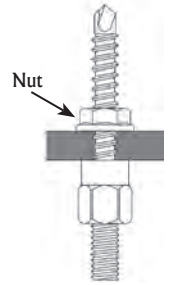
**3.** Drive the fastener with a smooth steady motion until the coupling is firmly seated against the surface of the base material.



**4.** Thread the appropriate diameter steel threaded rod or threaded bolt into the coupling. The threaded rod or bolt should fully engage the thread length of the coupling. The threaded rod or threaded portion of the bolt can pass through coupling of a side mount fastener.



**5.** For UL and FM listings, the Steel Vertigo should be installed with a retaining nut.



**When installing Vertigo fasteners, eye protection should be worn as a safety precaution.**

## INSTALLATION SPECIFICATIONS



Steel Vertigo	
Point Style	#3
Self Drilling Range	0.036" (20 gage) – 0.188" (3/16")
Screw Size (UNC)	1/4 -20 thread
Root Diameter (in.)	13/64
Thread Length (in.)	1-3/16" (1 1/2" screw)
Flange Thickness (in.)	1/16
Drill Speed (RPM)	500-1,500
<i>Install with universal steel and wood socket.</i>	



Wood Vertigo	
Screw Size	1/4" Thread Forming
Pre-drill Diameter (in.) - (if required)	1/8
Point Style	Type 17
Root Diameter (in.)	3/16
Thread Length (in.)	Screw length less 5/16
Flange Thickness (in.)	1/16
<i>Install with universal steel and wood socket.</i>	

Vertigo Couplings (Steel & Wood)	1/4" Vertical		1/4" Side	
	Coupling Size and Type	1/4-20	1/4-20	1/4-20
Thread Size (UNC)	1/4-20	1/4-20	1/4-20	1/4-20
Thread Depth (in.)	3/8	5/8 (through)	5/8	5/8
Width (flat to flat) (in.)	5/8	5/8	5/8	5/8
Height (in.)	13/16	13/16	13/16	13/16

## MATERIAL SPECIFICATIONS

Steel & Wood Vertigo	
Component	Component Material
Screw Body	AISI 1022 (Case Hardened)
Coupling	AISI 1018-1022 (Case Hardened)
Zinc Plating	ASTM B633, SC1, Type III

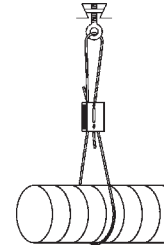
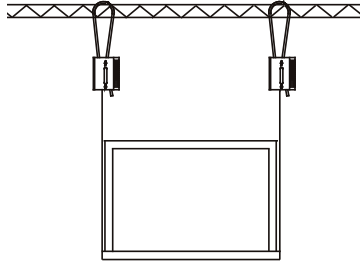
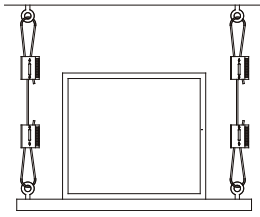
THE PRODUCTS ARE PROVIDED ON AN "AS IS" BASIS; THERE SHALL BE NO EXPRESS OR IMPLIED WARRANTY, INCLUDING WITHOUT LIMITATION, WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SUPPLIER SHALL NOT UNDER ANY CIRCUMSTANCES, BE LIABLE FOR INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES OR LOST PROFITS.

*Dyna-Tite*™

**DESIGN CONSIDERATIONS**

**Engineer Manual**

# HANGING DUCTWORK



## CL6-WC2 & FDM6WC2

Rectangular Duct Hanging Table					Round Duct Hanging Table				
Maximum Half of Duct Perimeter	10 ft Spacing 1 Pair	8 ft Spacing 1 Pair	5 ft Spacing 1 Pair	4 ft Spacing 1 Pair	Maximum Round Pipe Diameter	10 ft Spacing Single Wire	8 ft Spacing Single Wire	5 ft Spacing Single Wire	4 ft Spacing Single Wire
p/2 = 30"	WC2-CL6	WC2-CL6	WC2-CL6	WC2-CL6	10"	WC2-CL6	WC2-CL6	WC2-CL6	WC2-CL6
p/2 = 72"	N/A	N/A	N/A	WC2-CL6	18"	N/A	N/A	WC2-CL6	WC2-CL6
p/2 = 96"	N/A	N/A	N/A	N/A	24"	N/A	N/A	N/A	WC2-CL6
p/2 = 120"	N/A	N/A	N/A	N/A	36"	N/A	N/A	N/A	N/A
					50"	N/A	N/A	N/A	N/A

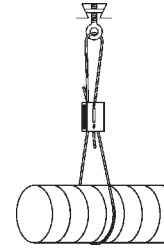
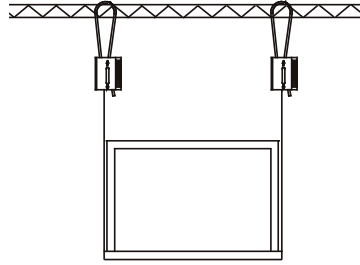
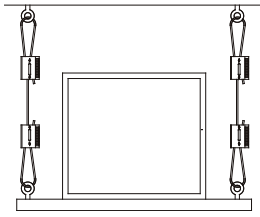
## CL12-WC3 & FDM12WC3

Rectangular Duct Hanging Table					Round Duct Hanging Table				
Maximum Half of Duct Perimeter	10 ft Spacing 1 Pair	8 ft Spacing 1 Pair	5 ft Spacing 1 Pair	4 ft Spacing 1 Pair	Maximum Round Pipe Diameter	10 ft Spacing Single Wire	8 ft Spacing Single Wire	5 ft Spacing Single Wire	4 ft Spacing Single Wire
p/2 = 30"	WC3-CL12	WC3-CL12	WC3-CL12	WC3-CL12	10"	WC3-CL12	WC3-CL12	WC3-CL12	WC3-CL12
p/2 = 72"	N/A	WC3-CL12	WC3-CL12	WC3-CL12	18"	WC3-CL12	WC3-CL12	WC3-CL12	WC3-CL12
p/2 = 96"	N/A	N/A	WC3-CL12	WC3-CL12	24"	N/A	WC3-CL12	WC3-CL12	WC3-CL12
p/2 = 120"	N/A	N/A	WC3-CL12	WC3-CL12	36"	N/A	N/A	WC3-CL12	WC3-CL12
					50"	N/A	N/A	N/A	WC3-CL12

## CL18-WC4 & FDM18WC4

Rectangular Duct Hanging Table					Round Duct Hanging Table				
Maximum Half of Duct Perimeter	10 ft Spacing 1 Pair	8 ft Spacing 1 Pair	5 ft Spacing 1 Pair	4 ft Spacing 1 Pair	Maximum Round Pipe Diameter	10 ft Spacing Single Wire	8 ft Spacing Single Wire	5 ft Spacing Single Wire	4 ft Spacing Single Wire
p/2 = 30"	WC4-CL18	WC4-CL18	WC4-CL18	WC4-CL18	10"	WC4-CL18	WC4-CL18	WC4-CL18	WC4-CL18
p/2 = 72"	WC4-CL18	WC4-CL18	WC4-CL18	WC4-CL18	18"	WC4-CL18	WC4-CL18	WC4-CL18	WC4-CL18
p/2 = 96"		WC4-CL18	WC4-CL18	WC4-CL18	24"	WC4-CL18	WC4-CL18	WC4-CL18	WC4-CL18
p/2 = 120"			WC4-CL18	WC4-CL18	36"	WC4-CL18	WC4-CL18	WC4-CL18	WC4-CL18
					50"			WC4-CL18	WC4-CL18
					60"				WC4-CL18

# HANGING DUCTWORK



## CL23-WC6

Rectangular Duct Hanging Table					Round Duct Hanging Table				
Maximum Half of Duct Perimeter	10 ft Spacing 1 Pair	8 ft Spacing 1 Pair	5 ft Spacing 1 Pair	4 ft Spacing 1 Pair	Maximum Round Pipe Diameter	10 ft Spacing Single Wire	8 ft Spacing Single Wire	5 ft Spacing Single Wire	4 ft Spacing Single Wire
p/2 = 30"	WC6-CL23	WC6-CL23	WC6-CL23	WC6-CL23	10"	WC6-CL23	WC6-CL23	WC6-CL23	WC6-CL23
p/2 = 72"	WC6-CL23	WC6-CL23	WC6-CL23	WC6-CL23	18"	WC6-CL23	WC6-CL23	WC6-CL23	WC6-CL23
p/2 = 96"	WC6-CL23	WC6-CL23	WC6-CL23	WC6-CL23	24"	WC6-CL23	WC6-CL23	WC6-CL23	WC6-CL23
p/2 = 120"	WC6-CL23	WC6-CL23	WC6-CL23	WC6-CL23	36"	WC6-CL23	WC6-CL23	WC6-CL23	WC6-CL23
p/2 = 168"	WC6-CL23	WC6-CL23	WC6-CL23	WC6-CL23	50"	WC6-CL23	WC6-CL23	WC6-CL23	WC6-CL23
p/2 = 192"	WC6-CL23	WC6-CL23	WC6-CL23	WC6-CL23	60"	WC6-CL23	WC6-CL23	WC6-CL23	WC6-CL23
					84"	WC6-CL23	WC6-CL23	WC6-CL23	WC6-CL23

## CL25-WC8

Rectangular Duct Hanging Table					Round Duct Hanging Table				
Maximum Half of Duct Perimeter	10 ft Spacing 1 Pair	8 ft Spacing 1 Pair	5 ft Spacing 1 Pair	4 ft Spacing 1 Pair	Maximum Round Pipe Diameter	10 ft Spacing Single Wire	8 ft Spacing Single Wire	5 ft Spacing Single Wire	4 ft Spacing Single Wire
p/2 = 30"	WC8-CL25	WC8-CL25	WC8-CL25	WC8-CL25	10"	WC8-CL25	WC8-CL25	WC8-CL25	WC8-CL25
p/2 = 72"	WC8-CL25	WC8-CL25	WC8-CL25	WC8-CL25	18"	WC8-CL25	WC8-CL25	WC8-CL25	WC8-CL25
p/2 = 96"	WC8-CL25	WC8-CL25	WC8-CL25	WC8-CL25	24"	WC8-CL25	WC8-CL25	WC8-CL25	WC8-CL25
p/2 = 120"	WC8-CL25	WC8-CL25	WC8-CL25	WC8-CL25	36"	WC8-CL25	WC8-CL25	WC8-CL25	WC8-CL25
p/2 = 168"	WC8-CL25	WC8-CL25	WC8-CL25	WC8-CL25	50"	WC8-CL25	WC8-CL25	WC8-CL25	WC8-CL25
p/2 = 192"	WC8-CL25	WC8-CL25	WC8-CL25	WC8-CL25	60"	WC8-CL25	WC8-CL25	WC8-CL25	WC8-CL25
					84"	WC8-CL25	WC8-CL25	WC8-CL25	WC8-CL25



# WARNINGS & MANUFACTURER'S RECOMMENDATIONS

As a matter of sound engineering practice, the Dyna-Tite assembly must be located no closer than 12 in. to the suspension point. In the case of round duct, where the wire rope encircles the duct, the Dyna-Tite must be located the distance of one diameter from the duct wall. Adherence to these minimum clearances will distribute the load the most efficiently among all duct hanging components.

ALWAYS FOLLOW THE INSTALLATION INSTRUCTIONS BELOW.

There are many variables to be considered when installing Dyna-Tite cables and affixing them to upper attachments. The contractor is solely responsible for selecting the appropriate Dyna-Tite product for the specific circumstances of each installation. The contractor must select the appropriate Dyna-Tite product that meets the approval of the mechanical engineer and complies with all applicable codes and job specifications.

## FOR STATIC LOAD APPLICATIONS ONLY

- **FOR STATIC LOAD APPLICATIONS ONLY**
- **ALWAYS CONFIRM ENGAGEMENT OF CABLE LOCK ON WIRE BEFORE APPLYING THE LOAD:** By pushing the adjustment pin in the opposite direction of the arrows on the cable lock and then pulling the cable also in the opposite direction of the arrows on the cable lock.
- **PULL ADJUSTMENT PIN BACK AND PASS WIRE ROPE THROUGH DYNA-TITE CABLE LOCK:** Failure to pull adjustment pin first may cause damage to serrated teeth and reduce holding capacity.
- **TO ENSURE HANGING SYSTEM INTEGRITY AND SAFETY:** Use only Duro Dyne wire rope.
- **WORKING LOAD LIMIT (WLL) MUST FALL WITHIN THE STATED WORKING LOAD RANGE OF THE CABLE LOCK:** Each product is load rated and incorporates a minimum safety factor of 5:1. This WLL takes into account the specification criteria of the Dyna-Tite Cable Lock and the wire rope.
- **DO NOT USE ON COATED WIRE ROPE:** It is important to maintain the metal to metal contact between the locking pawls in the Dyna-Tite and the wire rope.
- **SPRAY PAINTING:** of the Dyna-Tite Cable Hanging System after installation is acceptable, at the installing contractor's discretion, if the installing contractor physically confirms engagement of each cable lock on the cable prior to and after painting, and in strict accordance with the Dyna-Tite Installation Instructions. Brush painting is not acceptable. Do not paint Cable or Cable Lock prior to installation. Do not reposition Cable Lock after painting.
- **DO NOT APPLY LUBRICANT:** to any part of the assembly as this will alter the surface nature of the wire rope and attract dirt and debris.
- **DO NOT USE FOR LIFTING:** (UNDER HOOK SLINGS) This product is designed for static load applications only.
- **KEEP THE PRODUCT CLEAN AND FREE FROM DIRT:** Any dirt should be removed from the product prior to assembly.
- **INSPECT PERIODICALLY:** Upon inspection, discard and replace if worn, distorted, or damaged.
- **REMOVE DAMAGED WIRE ENDS:** Using a designated pair of wire rope cutters prior to inserting into the Dyna-Tite Cable Lock.
- **WHEN INSTALLING DURO DYNE DYNA-TITE CABLE ATTACHMENTS:** to buildings or equipment careful consideration must be made to the attachment method and the material being attached to. It is the responsibility of the installer for the proper selection, installation and appropriateness of the attachment to the job specifications and any codes. Duro Dyne can give general guidance, but any questions regarding this should ultimately be directed to the project engineer of the job.
- **FOR DRY LOCATIONS ONLY**
- **DO NOT USE IN CHLORINATED ATMOSPHERES**
- **GYMNASIUM INSTALLS MUST BE USING LOCKING CABLE LOCKS ONLY**

## EFFECT OF HANGING AT ANGLES ON SAFE WORKING LOADS

Cable Locks can be used to suspend objects safely at angles of up to 60° from the vertical. However, suspension at angles does reduce the safe working load per the table below.

Size	Vertical	15°	30°	45°	60°
WC8-CL25 Wire Rope	1,100 lbs	1,060 lbs	950 lbs	775 lbs	550 lbs
WC6-CL23 Wire Rope	640 lbs	625 lbs	559 lbs	455 lbs	325 lbs
WC4-CL18 Wire Rope	250 lbs	240 lbs	215 lbs	175 lbs	125 lbs
WC3-CL12 Wire Rope	150 lbs	144 lbs	129 lbs	105 lbs	75 lbs
WC2-CL6 Wire Rope	75 lbs	72 lbs	64.5 lbs	52.5 lbs	37.5 lbs
Load	100%	96%	86%	70%	50%

**CASE STUDIES**

*Dyna-Tite*™

**Engineer Manual**

# SHEET METAL WERKS

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Sheet Metal Werks and Duro Dyne Corp. share an industry relationship that has endured for nearly 20 years and extends beyond the fabrication of ductwork. In the process of hanging duct systems, SMW has utilized the Dyna-Tite suspension system. Using cable locks and wire rope in place of threaded rod and band iron has cut installation time, improved safety on the job and has virtually revolutionized the process of hanging ductwork.

President, Kevin Ryan recalled a local restaurant chain requiring their ductwork to be raised 6" from the original installed position. The 6" uplift was completed throughout the entire restaurant within 45 minutes. Sheet Metal Werks has installed the Dyna-Tite system in school building projects, various retail stores as well as major commercial buildings.



Installed CL23-WC6 Cable Locks



Kevin Ryan, President of Sheet Metal Werks

# CATES SHEET METAL & BRYANT A/C CONTRACTORS

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Cates Sheet Metal and Bryant A/C have found Duro Dyne's Dyna-Tite Cable Locks and Wire Rope to be essential instruments in their contracting business. The strong, lightweight Dyna-Tite cable locks when used with wire rope, dramatically cut the installation time of rectangular and spiral duct compared to the traditional method of trapeze and threaded rod. Paul Russell (pictured below), president of Cates Sheet Metal & Jr. Executive President of SMACNA-KC, indicated labor savings of 20% using Dyna-Tite over the traditional method. Cates Sheet Metal has used Dyna-Tite on several jobs most notably the Kansas City Star Newspaper Building and the Overland Park Convention Center.

Rick Spinelli of Bryant A/C Contractors, INC. in Long Island, NY who manufacturers spiral pipe was impressed with Dyna-Tite when he saw it demonstrated at a trade show. He purchased it to hang spiral duct and found it was quick, easy to install and looked great. Spinelli found Dyna-Tite easier to work with than band iron and much quicker and less expensive than threaded rod and saddles. Foreman Dan Hagan (Bryant A/C Contractors INC.) suggests keeping a roll of wire rope and a box of Dyna-Tites on the truck at all times. Hagan now uses Dyna-Tite for guy wires on roof stacks of all of his commercial jobs. It has eliminated the need to carry cable, clamps and turnbuckles. Dyna-Tite has even been used to hang air handlers on residential jobs.



Paul Russel, President of Cates Sheet Metal & Jr. Executive President of SMACNA-KC.



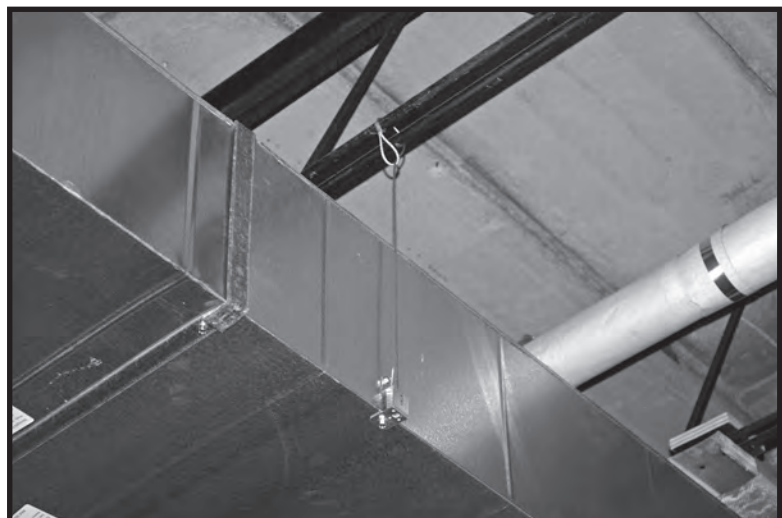
# ELMONT LIBRARY

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KV Brackets were recently installed in the Elmont Library in Nassau County, NY, as it was being renovated into office space. The installation was handled by the contractor Mirage Mechanical Systems Inc., a division of Blue Diamond Sheet Metal that handles light commercial projects. Robert Lawless owner of several accomplished HVAC companies including Blue Diamond Sheet Metal, Diamond Blue Mechanical and Mirage Mechanical, has been utilizing Duro Dyne Products since Blue Diamond's inception in 1983. They work closely with SW Anderson Sales, a New York distributor of HVAC products, to purchase Duro Dyne materials. After hearing about the KV Bracket, SW Anderson salesman Brandon Boos suggested the use of the new bracket to Al LaBella and Brian Sadenwater, Vice President and Supervisor respectively, for Mirage Mechanical. The install was planned as a three day project but was easily completed in two days. Mirage Service Technicians, Mike Anzalone and David Domena, had utilized the Dyna-Tite system before and were amazed at the labor savings. They were further impressed by the ease of the KV Bracket because it allows them to attach the cable lock to the ductwork prior to hanging the duct. Domena especially liked pairing the KV Bracket with Dyna-Tite's DuroLoop cable. The pre-sized lengths eliminated the need to measure and cut the wire on site. Overall 180 KV Brackets were used at the installation. Mirage Mechanical said they definitely plan to utilize the KV Bracket on future installations. The increase in labor savings, productivity, safety, and efficiency were readily apparent to all.



Installation of the KV Bracket at the Elmont Library in Nassau County, NY



An installed Dyna-Tite KV Bracket and Duro Loop Cable



# KAY HEATING

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“IT’S ABOUT TIME”... DYNA-TITE DUCT HANGERS FROM DURO DYNE.

On one of my many trips to Hoffman-Hoffman in Greensboro N.C., our salesman told me about, “Dyna-Tite”, a new system that will “revolutionize the HVAC market”. (As if I have never heard that one before!) Benette Funderburke, Hoffman-Hoffman’s local sales representative, escorted me into his office while talking about this new system to hang duct. In his office he handed me a cable lock with a wire in each end. He asked, “What do you think?” “Not impressed”, was my response. However, as he explained how the system worked it was as if a LIGHT WAS SUDDENLY TURNED ON.

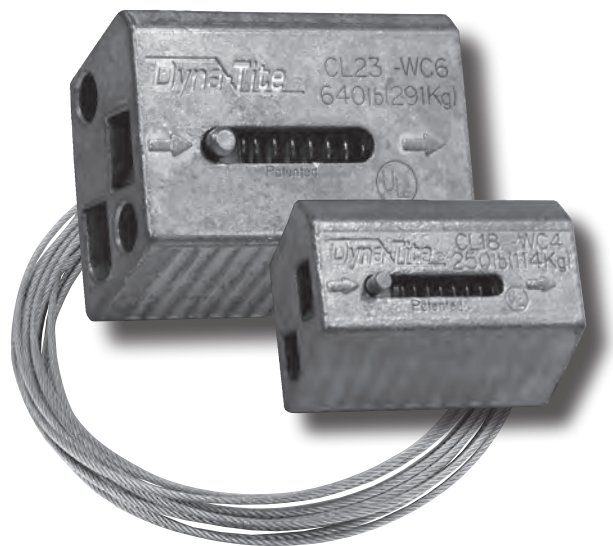
Like most HVAC Contractors, we have been using threaded rod or wide band to hang duct. Both methods work. However, the band method is time intensive and will make you say things your mother should not hear! I asked to borrow the Dyna-Tite (one cable lock and a piece of wire) and headed back to the office. I met with the owner of our company to show him my find. He too was amazed at how simple Dyna-Tite was to install and how much cleaner the finished product looked. (He could not understand why it took so long for someone to come up with a better way.)

That day, we purchased a quantity of hangers and wire for a test run. With one job the ease of installation and time savings was apparent. The crew that used it that day came back raving about the Dyna-Tite system. The training time for this crew was only 5 minutes. We knew everyone would eventually be as excited about this new system, although we were met with the “OLD WAY” attitude from a few local inspectors and engineers. However, the more we showed this system the more everyone was convinced.

We did a building in Winston Salem in which we asked permission to use the Dyna-Tite system. The engineer gave the all clear with the condition that if they did not like it we would have to take it down. From the first day he was sold and the owner of the building could not say often enough how great things looked.

Don’t be turned off by the price, (IT REALLY IS NOT COSTLY) look at the savings in payroll and a lot less aggravation. We now stock the Dyna-Tite system and use it on every one of our commercial jobs where possible. The new smaller cable locks, “CL12”, are value priced and make the system even more attractive. If you haven’t tried it you are missing out on a great system. Just try it once and you will be sold. Remember the training time is only 5 minutes. After 18 years in the HVAC industry, we needed this.

George Hendrix  
KAY HTG  
GREENSBORO, N.C.



# HARLEY DAVIDSON

The ductwork pictured below was installed at the Thunder Mountain Harley Davidson Shop with Dyna-Tite CL23-WC6 cable locks and Dyna-Tite WC6-CL23 wire rope. HVAC contractor, Poudre Valley Air performed the install and the Dyna-Tite products were supplied by Hercules Industries in Fort Collins, CO. Approximately 110 CL23-WC6 Cable Locks were used to hang ductwork throughout the store.



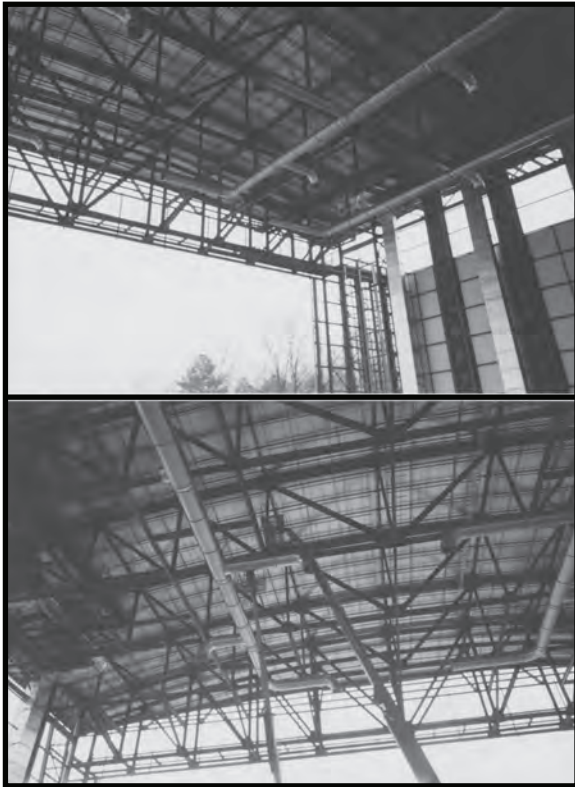
Installation of CL23-WC6 Cable Locks and WC6-CL23 wire rope.



# MISSISSIPPI AIR NATIONAL GUARD

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These pictures were taken of a Dyna-Tite install in a C-17 hanger at the Mississippi Air National Guard in Jackson MS. The ceiling height is 102 ft and some of the drops are over 30' in length. Spiral pipe is over 30" in diameter. Ivey's Mechanical performed the install and the Dyna-Tites were supplied by Ward Mechanical.



Spiral Ductwork hung by Dyna-Tites (above and at right)

