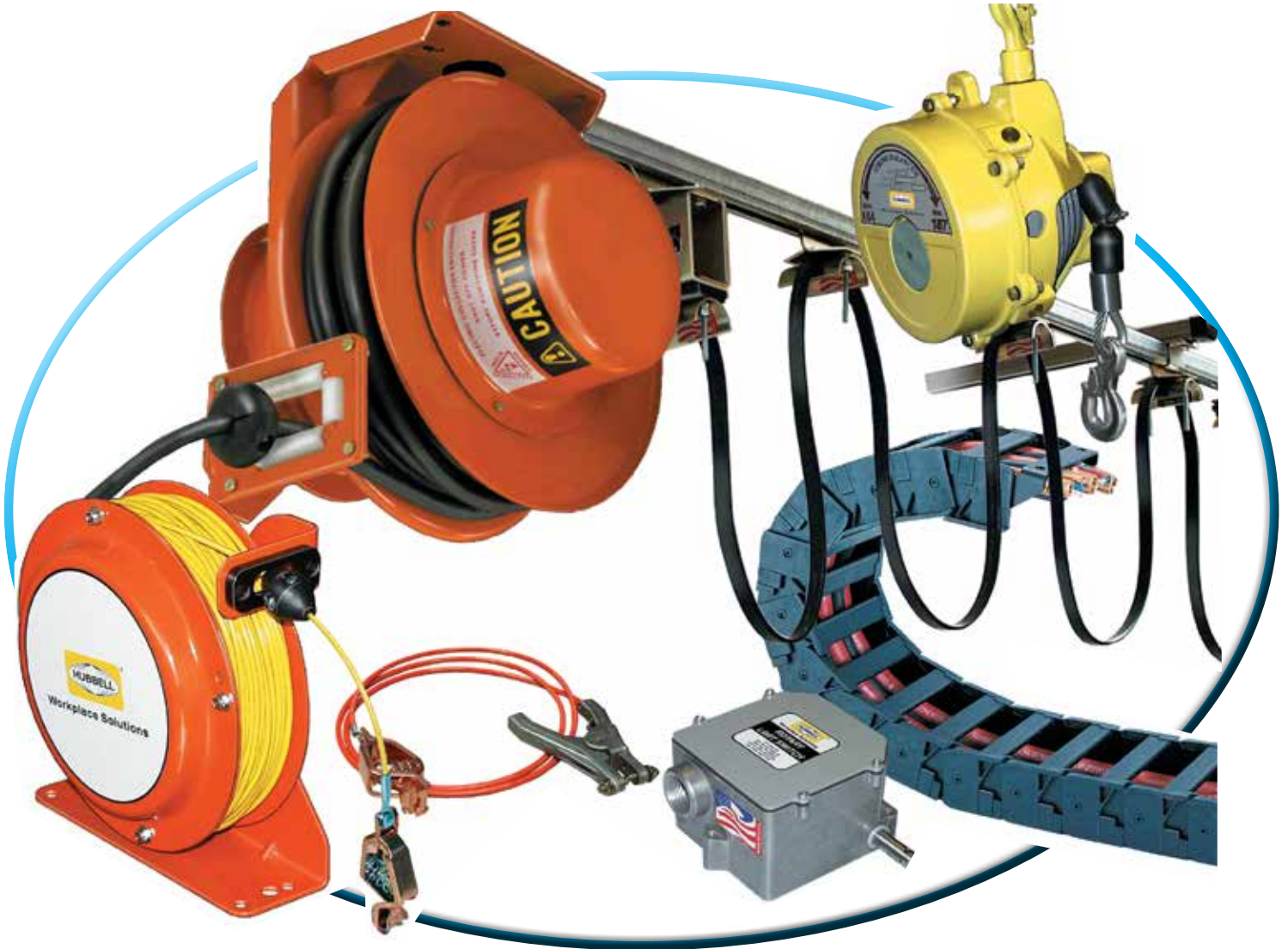


Pre-Engineered Products

***REELS, CABLE TRACK & FESTOONS
CONTROL & AUTOMATION COMPONENTS***



Workplace Solutions
A DIVISION OF GLEASON REEL CORP.



www.hubbell-gleason.com

ED 0717

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WARRANTY

Gleason warrants for a period of twelve (12) months after date of shipment, all goods manufactured by it to be free from defects in material and workmanship. If, within such warranty period, any such goods are proved, to Gleason's satisfaction, to be defective, such goods shall be repaired or, at Gleason's option, replaced f.o.b. Gleason's factory, without charge. Gleason's obligation hereunder shall be confined to such repair or replacement and shall be further conditioned upon Gleason receiving written notice of any alleged defect within 10 days after its discovery and, at Gleason's option, the return of the alleged defective goods to Gleason, f.o.b. its factory.

The foregoing warranty shall not apply to goods not manufactured by Gleason, or to goods which shall have been repaired or altered by others than Gleason so as to, in Gleason's judgement, adversely affect the same, or which shall have been subject to other than normal use of service, negligence, accident, or improper maintenance care, or storage. With respect to goods furnished but not manufactured by Gleason, the warranty obligations of Gleason shall in all respects conform and be limited to the warranty extended to Gleason by the supplier. The foregoing warranty is in lieu of all other express or implied warranties (except of title) and of all other obligations of Gleason.

HOSE REELS

HEAVY DUTY FOR MACHINES OR **E-Z PULL™** FOR GENTLE HAND PULL

Heavy duty hose reels are designed for supplying air or fluid to machines in applications where the machine supplies the power to pull out the hose and the reel supplies the rewinding power. They are also widely used overhead where the hose is pulled down by hand. In hand pull applications, a ratchet lock is usually employed to keep the hose extended while in use.

E-Z PULL™ REELS are designed to make hose handling safer and smoother and to minimize costly replacement caused by excessive rewind speeds. Rewind pull is kept to a minimum resulting in a reel that is gentle to pull out, yet very adequate to rewind the hose. In some situations, the rewind pull provided by **E-Z PULL™** reels may require a gentle assist from the operator. **E-Z PULL™** reels should be mounted a maximum 3 ft. (0.9m) above the floor so that the hose may be pulled **horizontally**. Typical mounting is under a workbench.

BOTH REELS FEATURE:

- 1/4", 3/8", or 1/2" (6, 9, 13mm) hose
- All welded solid steel construction
- Fully automatic; Machine mountable
- Heavy duty mounting bracket
- Safetychange® spring motor
- Weatherproof gasket on spring motor
- Positive ratchet lock with disengage
- Multi-position adjustable hose guide
- Orange polyester baked-on finish
- Adjustable hose stop included
- Optional 340° pivot base



SERIES "H" APPLICATION:

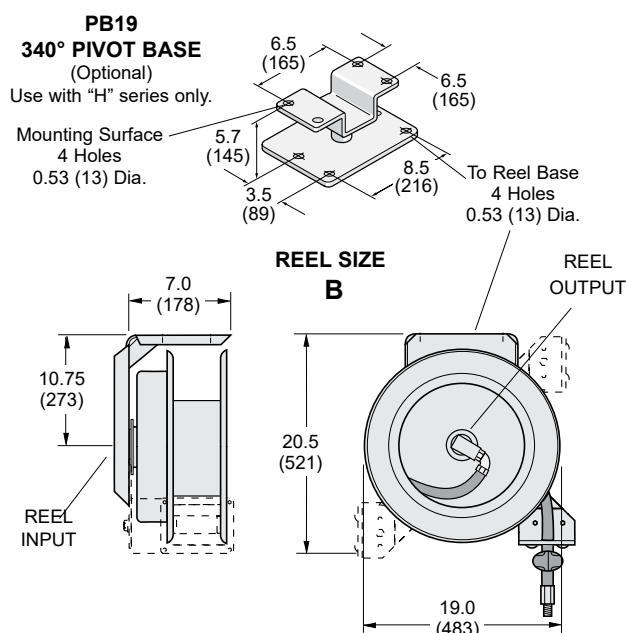
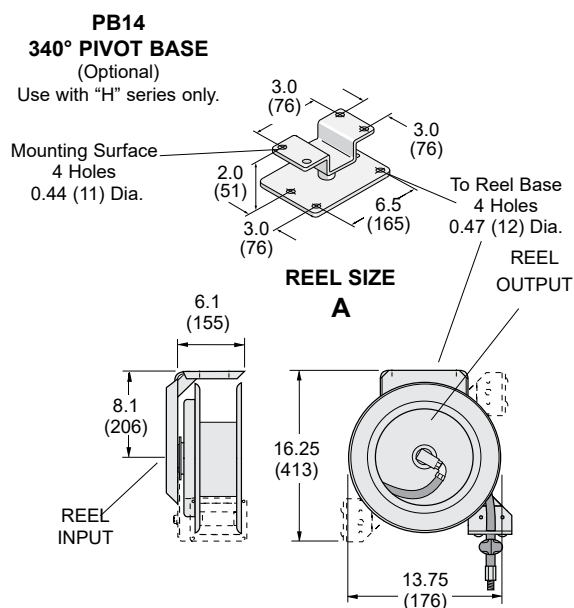
- Connect machines to air/water supply
- Hand pull, with or without ratchet stop, Ideal for fluids, compressed air
- Mount base up, down or to wall for vertical or horizontal hose travel
- Add optional 340° pivot; reel turns to follow hose pay-out

E-Z PULL APPLICATION:

- Mount under workbench or low on wall
- Supply air to tools, compressed air for inflating or cleaning
- Increase safety, hose does not "fly back" to reel

HOSE DATA				MACHINE USE OR OVERHEAD MOUNTED HAND PULL —MODEL NO.	REEL SIZE	E-Z PULL FOR HORIZONTAL HAND PULL APPLICATIONS —MODEL NO.—	REEL SIZE	NET WEIGHT lbs. (kg)	HOSE STOP	340° BASE (OPT)
INSIDE DIA. in. (mm)	INPUT & OUTPUT FITTINGS	MAX LENGTH ft. (m)	MAX PRES. psi (N/mm)							
1/4 (6)	0.25 NPTF	25 (7.5)	315 (2.17)	HC2525	A	EZ4-2525	A	30 (13)	CP-2	PB-14
		35 (10.5)		HC2535		EZ4-2535				
		50 (15.0)		HE2550		EZ9-2550	B	42 (19)		
3/8 (9)	0.38 NPTF	25 (7.5)		HC3825		EZ4-3825				
		35 (10.5)		HD3835		EZ4-3835				
		50 (15.0)		HF3850		EZ9-3850	B	60 (27)		
1/2 (13)	0.50 NPTF	25 (7.5)		HG5025	B	EZ9-5025			B	62 (28)
		35 (10.5)		HG5035		EZ9-5035				
		50 (15.0)		HG5050		EZ9-5050				

REEL AND BASE DIMENSIONS



INDUSTRIAL DUTY HOSE REELS

Mount from ceiling, wall or under bench. Choose 1/4", 3/8", 1/2" or 3/4" PVC hose. Reels feature spring rewind and ratchet lock, multi-position four roller hose guide and adjustable hose stop. Rugged steel construction. Steel components protected by durable baked polyester finish.


GHA
GHB
GHC
GHE
FRAME SIZE GHA Inches (mm)

A	B	C	D	E	F	G	H	J	K	L
12.88 (327)	11.25 (286)	8.00 (203)	9.88 (251)	12.12 (308)	5.50 (140)	2.50 (64)	2.50 (64)	4.00 (102)	5.09 (130)	8.38 (213)

FRAME SIZE GHB Inches (mm)

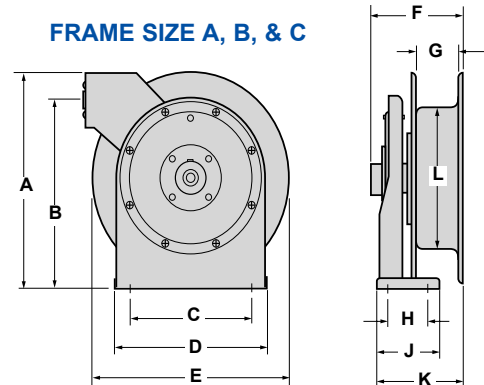
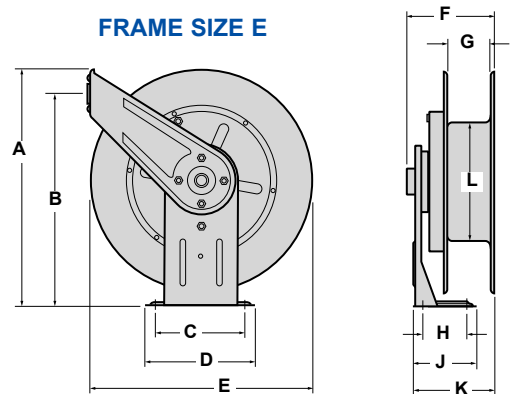
A	B	C	D	E	F	G	H	J	K	L
14.50 (368)	12.81 (325)	9.75 (248)	11.25 (286)	13.75 (349)	6.19 (157)	3.16 (80)	2.50 (64)	4.00 (102)	5.88 (149)	8.38 (213)

FRAME SIZE GHC Inches (mm)

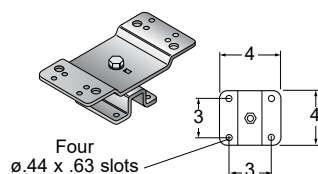
A	B	C	D	E	F	G	H	J	K	L
17.50 (444)	15.63 (397)	9.75 (248)	11.25 (286)	16.50 (419)	6.19 (157)	3.16 (80)	2.50 (64)	4.00 (102)	5.88 (130)	10.25 (260)

FRAME SIZE GHE Inches (mm)

A	B	C	D	E	F	G	H	J	K	L
20.38 (518)	18.12 (460)	7.88 (200)	9.45 (240)	19.00 (482)	6.63 (168)	3.35 (85)	3.86 (98)	5.44 (138)	6.10 (155)	11.00 (279)

FRAME SIZE A, B, & C

FRAME SIZE E

HOSE REEL DATA

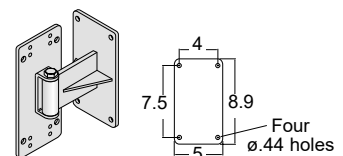
DESCRIPTION	MAX PRESSURE	I.D. inch	O.D. inch	LENGTH feet	APPLICATION	INPUT HOSE FITTING	MODEL NUMBER	WGT lbs
25' of low pressure 1/4" ID Hose	300 psi	1/4	0.51	25	Air/Water	1/4 NPTF	GHA2525-L	23
35' of low pressure 1/4" ID Hose	300 psi	1/4	0.51	35	Air/Water	1/4 NPTF	GHA2535-L	24
50' of low pressure 1/4" ID Hose	300 psi	1/4	0.51	50	Air/Water	1/4 NPTF	GHB2550-L	26
25' of low pressure 3/8" ID Hose	300 psi	3/8	0.65	25	Air/Water	3/8 NPTF	GHA3825-L	23
35' of low pressure 3/8" ID Hose	300 psi	3/8	0.65	35	Air/Water	3/8 NPTF	GHB3835-L	25
50' of low pressure 3/8" ID Hose	300 psi	3/8	0.65	50	Air/Water	3/8 NPTF	GHC3850-L	36
70' of low pressure 3/8" ID Hose	300 psi	3/8	0.65	70	Air/Water	3/8 NPTF	GHE3870-L	50
25' of low pressure 1/2" ID Hose	300 psi	1/2	0.77	25	Air/Water	1/2 NPTF	GHB5025-L	30
35' of low pressure 1/2" ID Hose	300 psi	1/2	0.77	35	Air/Water	1/2 NPTF	GHC5035-L	38
50' of low pressure 1/2" ID Hose	300 psi	1/2	0.77	50	Air/Water	1/2 NPTF	GHE5050-L	44
25' of low pressure 3/4" ID Hose	300 psi	3/4	1.19	25	Air/Water	3/4 NPTF	GHE7525-L	50


Optional 340° Pivot Base
Model RC-PB-B (left)

Reel follows activity for smoother operation and reduced cord wear.

Optional Wall Mounted Pivot Base
Model RC-WP (right)
Provides 180° pivot

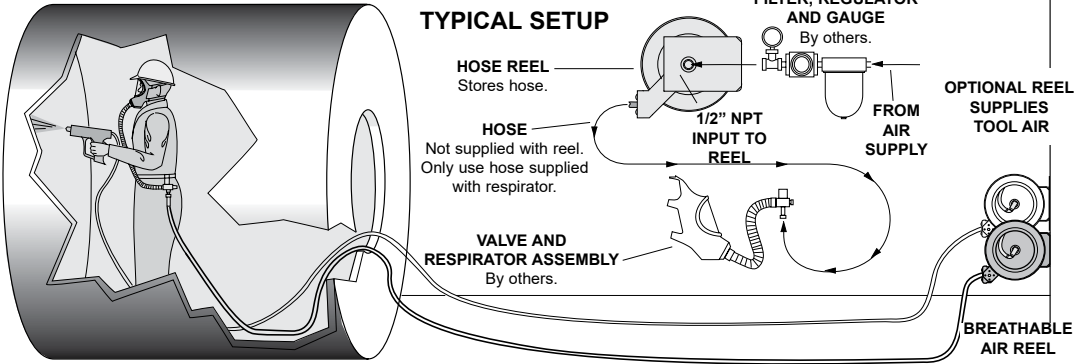
NOTE: Either base fits all reel sizes.



CLEAN AIR HOSE REELS

EZ PULL™ CLEAN AIR HOSE

REELS are engineered to safely and efficiently store the hose from an air line respirator. Gone are loose coils that cause tangled hoses which can lead to dangerous kinks in the air line. User is in complete control. Soft rewind pull means that even if ratchet stop should accidentally be released, hose will not snap back. Reel designed for 50 ft.(15m) x 7/8"(22mm) O.D. neoprene hose supplied by others (MSA part number 455022 or equivalent). All air path parts are stainless steel.

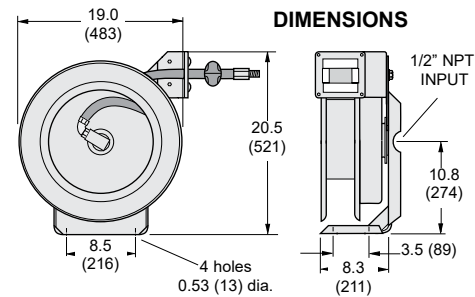


EZ PULL CLEAN AIR REELS include stainless steel air path. Also includes ball stop and ratchet lock. Finish is OSHA safety blue baked-on polyester. 3/4"-16 UNF fitting to fit MSA #455022 hose or equivalent. **Does not include hose.**

HOSE **NOT** INCLUDED

HOSE DATA*			MODEL NUMBER*	REEL SIZE
OUTSIDE DIAMETER in. (mm)	LENGTH MAX. ft. (m)	WEIGHT MAX. lbs. (kg)		
7/8" (22)	50 (15)	15.0 (6.8)	EZ9-5000-CA	EZ9

*Reel includes ball stop for hose and ratchet lock.



ELECTRIC CABLE REELS

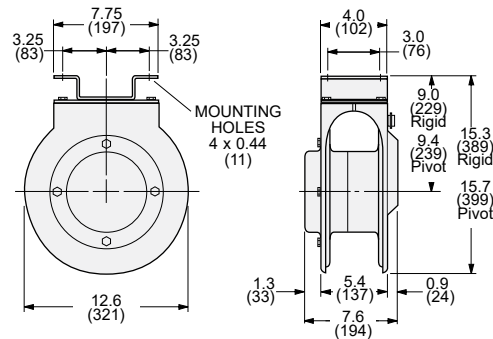
Locking Cable Reels

SERIES ER FOR GENERAL PURPOSE
Series "ER" Includes Cable, Lock & Rigid Base

WIRE SIZE (AWG)	NO. OF COND.	CABLE LENGTH ft. (m)	WEIGHT COMPLETE lbs. (kg.)	MODEL NUMBER
18	2	45 (13.5)	49 (22.1)	ER21845
18	3	45 (13.5)	49 (22.1)	ER23845
18	4	45 (13.5)	50 (22.5)	ER41845
16	2	45 (13.5)	49 (22.1)	ER21645
16	3	45 (13.5)	45 (20.3)	ER31645
16	4	40 (12.0)	46 (20.7)	ER41640
14	2	40 (12.0)	51 (22.9)	ER21440
14	3	35 (10.5)	47 (21.2)	ER31435
14	4	25 (7.5)	46 (20.7)	ER41425
12	2	25 (7.5)	50 (22.5)	ER21225
12	3	25 (7.5)	47 (21.2)	ER31225
12	4	25 (7.5)	48 (21.6)	ER41225

AMPERE RATING

Reels are derated to ampere rating of cable. Refer to the National Electric Code for ampere ratings and other details on each wire size, number of conductors and cable length.



OPTIONAL HORIZONTAL GUIDE GL15-09

INCLUDED:

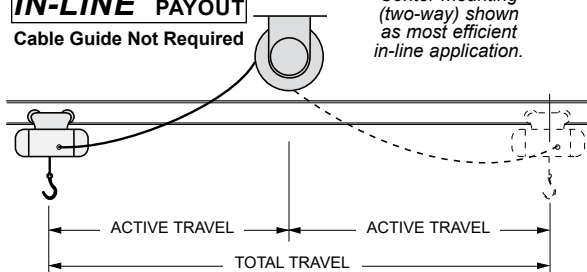
- Cable
- Rigid Mounting Base
- Ratchet Lock with "OFF"



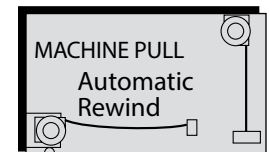
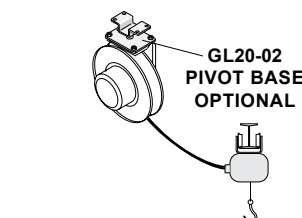
General Purpose Reels are CSA listed.

IN-LINE PAYOUT

Cable Guide Not Required



OFF-LINE PAYOUT



SERIES "A" CABLE REELS

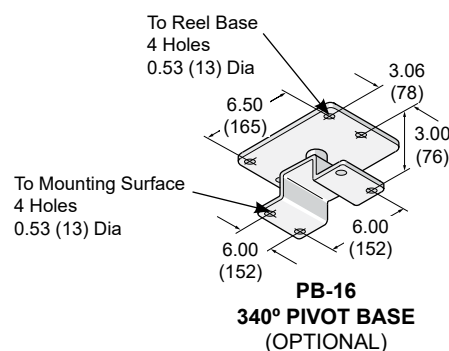
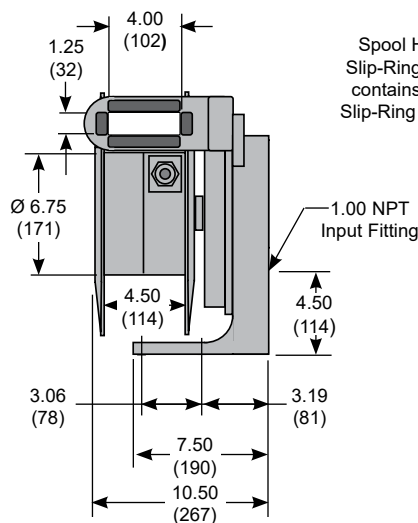
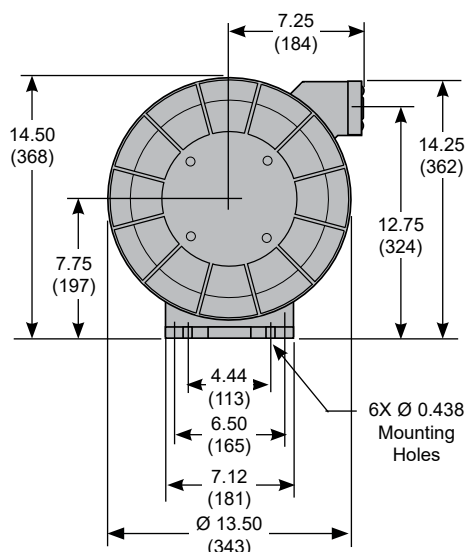
COMMERCIAL / INDUSTRIAL APPLICATIONS
MOUNT ON CEILING, WALL OR UNDER BENCH



Series "A" Cast Aluminum Cable Reel Features:

- Cast Aluminum Construction •Slip Ring in NEMA 4 Enclosure •Durable Baked Polyester Powder Painted Finish
- Unitized 20 Amp, 600 Volt Slip Ring •Easily Accessible Gasketed Junction Box •Spool Configuration Prevents "Lock-out"
- Field Adjustable Cord Guide with Four Rollers •Positive Locking Dog with Field Adjustable Disengage Feature
- Maintenance Free Enclosed Power Spring •Type SO Cable Included On All Reels •Field Adjustable Cord Stop

CABLE DATA							
AMP RATING @ 600 VAC	AWG	NO. COND	LENGTH		WEIGHT		MODEL NUMBER
			Feet	(Meters)	lbs	(kgs)	
10	16	3	20	(6.1)	32.7	(14.7)	A-232B
10	16	3	30	(9.1)	33.9	(15.2)	A-224B
10	16	3	40	(12.2)	35.0	(15.7)	A-231B
10	16	3	50	(15.2)	36.1	(16.2)	A-228B
8	16	4	20	(6.1)	33.5	(15.1)	A-242B
8	16	4	30	(9.1)	35.0	(15.7)	A-234B
8	16	4	40	(12.2)	36.5	(16.4)	A-244B
8	16	4	50	(15.2)	38.0	(17.1)	A-238B
15	14	3	20	(6.1)	30.7	(13.8)	A-332C
15	14	3	30	(9.1)	36.1	(16.2)	A-233C
15	14	3	40	(12.2)	37.9	(17.1)	A-334C
15	14	3	50	(15.2)	39.8	(17.9)	A-358C
12	14	4	20	(6.1)	34.9	(15.7)	A-342C
12	14	4	30	(9.1)	37.1	(16.7)	A-343C
12	14	4	40	(12.2)	39.3	(17.7)	A-344C
12	14	4	45	(13.7)	41.5	(18.7)	A-367C
20	12	3	20	(6.1)	35.6	(16.0)	A-332D
20	12	3	30	(9.1)	38.1	(17.1)	A-333D
20	12	3	40	(12.2)	40.6	(18.3)	A-434D
20	12	3	50	(15.2)	43.1	(19.4)	A-435D
16	12	4	20	(6.1)	36.4	(16.4)	A-342D
16	12	4	30	(9.1)	39.4	(17.7)	A-394D
16	12	4	40	(12.2)	42.4	(19.1)	A-444D



HUBBELL INDUSTRIAL DUTY CORD REELS

Open Spool Cord reels with fluorescent, LED or incandescent lamp, single or dual outlet or bare cord. All reels include automatic spring rewind, a multi-position four roller cord guide & a 48" pigtail with three prong plug. Ideal for a wide variety of industrial applications mounted from wall, ceiling or under work bench. Cord lengths from 25' to 70'. All reels include adjustable cord stop, spring rewind and ratchet lock. Operator simply pulls cord off spool. Ratchet lock maintains desired cable length and, when task is completed, a slight pull releases the ratchet allowing the spring motor to rewind the cord. Reels feature heavy steel frame with baked-on polyester finish. Fully gasketed steel Slip-ring housing - 300 Volt. Both hand lamps include on-off switch. Fluorescent lamp features directed light, polycarbonate outer tube and integral ballast. Twenty amp duplex box includes ground fault circuit interrupter (GFCI). **Consult factory if installation height is greater than 16'.**



Reel with
FLUORESCENT or LED LAMP



Reel with
SINGLE OUTLET



Reel with
DUPLEX OUTLET BOX



Reel with
INCANDESCENT LAMP

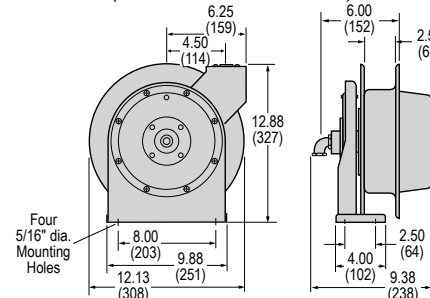


MODEL LIST-CORD REELS

Accessory	Amps	CORD TYPE SJOW-A/SJO			Weight lbs. (kg)	Model
		AWG	Cond	Length ft (m)		
Incandescent	15	16	3	25 (8)	23.3 (10.6)	GCA16325-HL
Incandescent	10	16	3	35 (11)	24.2 (11.0)	GCA16335-HL
Incandescent	10	16	3	50 (15)	25.6 (11.6)	GCA16350-HL
Incandescent	10	16	3	70 (21)	40.0 (18.2)	GCC16370-HL
Fluorescent	13 W	16	3	25 (8)	23.8 (10.8)	GCA16325-FL
Fluorescent	13 W	16	3	35 (11)	24.7 (11.2)	GCA16335-FL
Fluorescent	13 W	16	3	50 (15)	26.0 (11.8)	GCA16350-FL
Fluorescent	13 W	16	3	70 (21)	40.5 (18.4)	GCC16370-FL
LED	13 W	16	3	50 (15)	26.0 (11.8)	GCA16350-LED
LED	13 W	16	3	70 (21)	40.5 (18.4)	GCC16370-LED
Single Recept	10	16	3	25 (8)	22.8 (10.4)	GCA16325-SR
Single Recept	10	16	3	35 (11)	23.7 (10.8)	GCA16335-SR
Single Recept	10	16	3	50 (15)	25.0 (11.4)	GCA16350-SR
Single Recept	10	16	3	70 (21)	35.3 (16.1)	GCC16370-SR
Single Recept	15	14	3	25 (8)	24.5 (11.1)	GCA14325-SR
Single Recept	15	14	3	35 (11)	26.1 (11.8)	GCA14335-SR
Single Recept	15	14	3	50 (15)	28.5 (12.9)	GCA14350-SR
Single Recept	15	14	3	70 (21)	36.6 (16.6)	GCC14370-SR
Single Recept	20	12	3	25 (8)	23.7 (10.8)	GCA12325-SR
Single Recept	20	12	3	35 (11)	25.0 (11.4)	GCA12335-SR
Single Recept	20	12	3	45 (14)	26.9 (12.3)	GCA12345-SR
Single Recept	15	12	3	50 (15)	42.7 (19.4)	GCC12350-SR
Single Recept	15	12	3	70 (21)	47.6 (21.6)	GCC12370-SR
Dual Recept	20	12	3	25 (8)	23.4 (10.6)	GCA12325-DR
Dual Recept	20	12	3	35 (11)	24.7 (11.2)	GCA12335-DR
Dual Recept	20	12	3	45 (14)	26.0 (11.8)	GCA12345-DR
Dual Recept	15	12	3	50 (15)	44.2 (20.1)	GCC12350-DR
Dual Recept	15	12	3	70 (21)	49.1 (22.3)	GCC12370-DR
None	10	16	3	25 (8)	21.7 (9.9)	GCA16325-BC
None	10	16	3	35 (11)	22.4 (10.2)	GCA16335-BC
None	10	16	3	50 (15)	23.4 (10.6)	GCA16350-BC
None	10	16	3	70 (21)	34.8 (18.8)	GCC16370-BC
None	15	14	3	25 (8)	22.2 (10.1)	GCA14325-BC
None	15	14	3	35 (11)	23.1 (10.5)	GCA14335-BC
None	15	14	3	50 (15)	24.4 (11.1)	GCA14350-BC
None	15	14	3	70 (21)	36.2 (16.4)	GCC14370-BC
None	20	12	3	25 (8)	23.2 (10.6)	GCA12325-BC
None	20	12	3	35 (11)	24.5 (11.1)	GCA12335-BC
None	20	12	3	45 (14)	25.8 (11.7)	GCA12345-BC
None	15	12	3	50 (15)	42.2 (19.2)	GCC12350-BC
None	15	12	3	70 (21)	47.1 (21.4)	GCC12370-BC

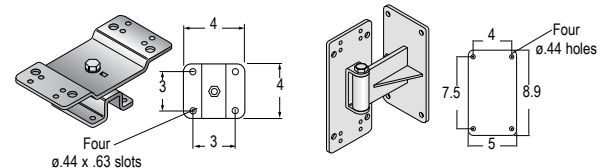
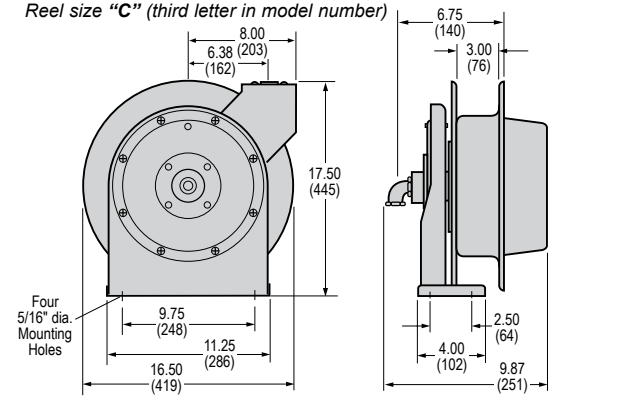
CORD REEL DIMENSIONS—inches (mm)

Reel size "A" (third letter in model number)



CORD REEL DIMENSIONS—inches (mm)

Reel size "C" (third letter in model number)



Optional 340° Pivot Base

Model RC-PB-B (left, above)

Reel follows activity for smoother operation, reduced cord wear.

Optional Wall Mounted Pivot Base

Model RC-WP (right, above)

Provides 180° pivot.

NOTE: Either base fits all reel sizes.

**NEW
PRODUCT**

Compact Cord Reel

Ethernet & High Definition Video Applications



FEATURES

- Equipped with special gold-on-gold Slip Ring - provides Ethernet communications with very low electrical noise for unparalleled performance
- 4 ft (1.22 m) Input Pigtail
- 1000BaseT (Gigabyte Ethernet)
- Plug and Play Ethernet Connection
- RJ45 Plugs on both Input and Output Ends
- Ratchet locking mechanism and Ball Stop

Hubbell Cat5e Compact Cord Reels are a great solution for schools, universities, and mobile computer terminals

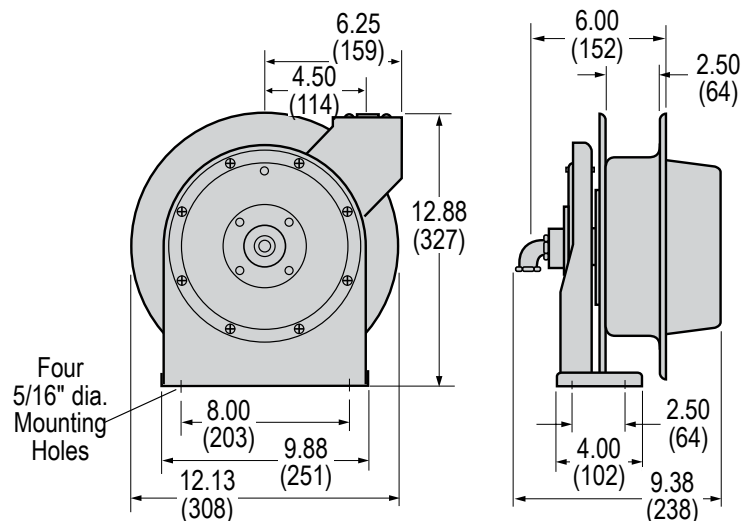
Cat5e



Model Number	Application	Roller Guide Position	Cord Length
GCA-CAT5e-L	Lift	Vertical Up	50 ft (15.24 m)
GCA-CAT5e-R	Retrieve	Horizontal	50 ft (15.24 m)

REEL DIMENSIONS—inches (mm)

Vertical Up Roller Guide Position Shown in Illustration



COMMERCIAL CORD REELS

40' Power Supply Cord Reel

- 40' 12/3 SJTW retracting cord with Triple Outlet
- 15-amp circuit breaker with reset button is located in the triple outlet
- 24" 12/3 power inlet cord with molded NEMA 5-15P grounded plug
- Adjustable ball stop allows user to set hang down height
- Wall/Ceiling Mounting Bracket is provided
- UL Listed



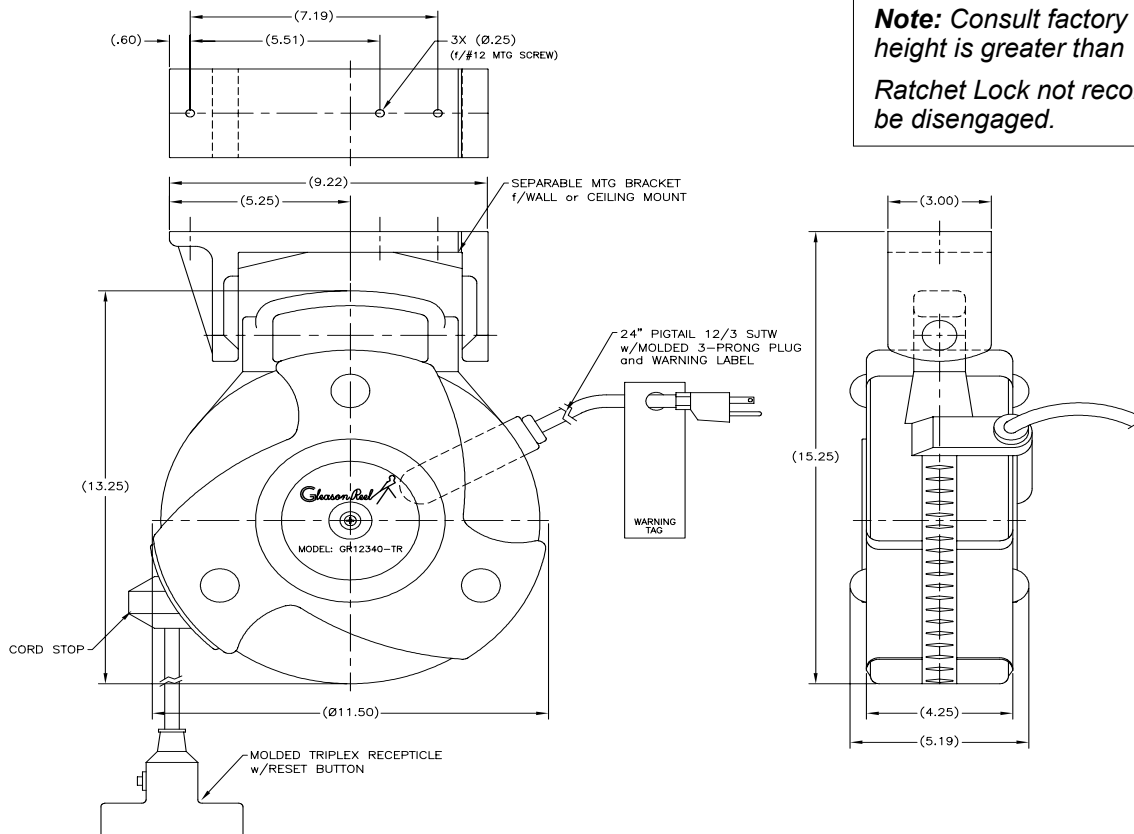
Removable bracket allows reel to be disengaged from mount for maximum flexibility

Durable light weight non-metallic housing

40 ft. of 12/3 cord for greater current carrying capacity

Triple tap outlet with supplemental over current protection

Description	Cable Feet (m)	Cable Type	Watts (Max)	Amps	Volts AC	Weight Lbs. (kg)	Catalog Number
Reel with triple tap outlet, black	40 (12)	12/3 SJTW	1,875	15	125	9 (4)	GR12340-TR



Note: Consult factory if mounting height is greater than '20.
Ratchet Lock not recommended to be disengaged.

COMPACT CORD REELS

INDOOR MODEL

SPECIFICATIONS

Heavy gauge steel housing with white polyester baked-on finish, hardware for wall or ceiling mounting, positive ratchet lock and cord stop, designed for indoor use. 24 inch (610mm) pigtail, included. Plugs into standard outlet. Also available with bare wire.



CORD INCLUDED

NEW!



Model GLED-1840

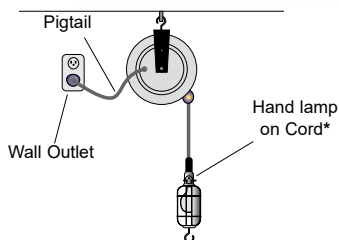
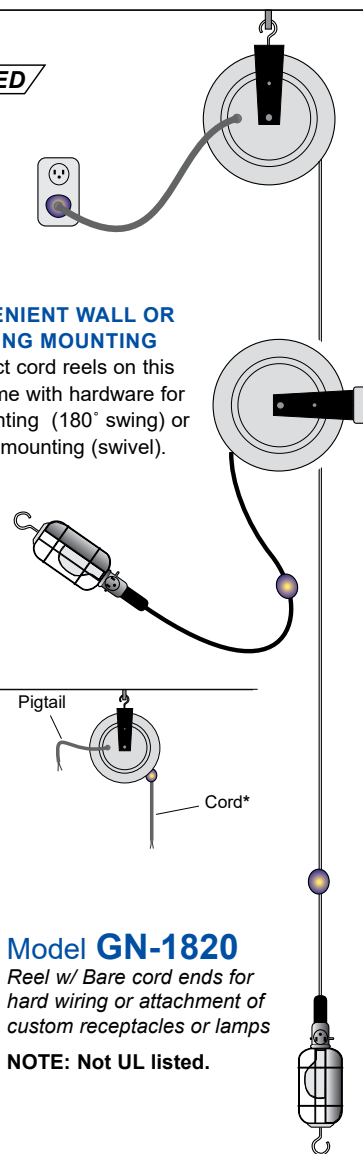
Reel w/ LED light

Two four-watt, high output LEDs. Provides 5,000K-color bright white light lasting up to 50,000 hrs. Comes with one-watt LED flashlight at the end of the fixture. Covered ON/OFF switch.

NOTE: ETL listed. Not UL listed.

CONVENIENT WALL OR CEILING MOUNTING

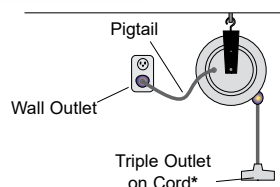
Compact cord reels on this page come with hardware for wall mounting (180° swing) or ceiling mounting (swivel).



Model GL-1630

*Reel w/ Incandescent Lamp**

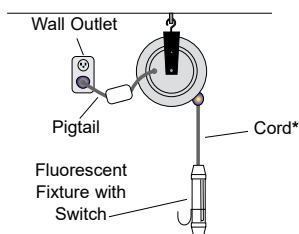
Metal Guard/Reflector, Convenience Receptacle in Handle (10 Amp, ground pin), Switch



Model GP-1630

Reel w/ Triple Receptacle on extendible cord, plug on pigtail.

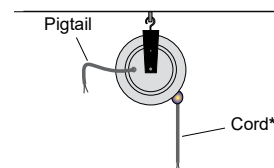
10 Amp Rating



Model GF-1820 or GF-1840

Reel w/ Fluorescent Tube

Twin Lamp (13 watt), Switch



Model GN-1820

Reel w/ Bare cord ends for hard wiring or attachment of custom receptacles or lamps

NOTE: Not UL listed.

*Lamp included in box for user attachment.

Selection Chart for Reels shown on this page

FITTING INCLUDED	CORD TYPE (2)	*CORD LENGTH ft. (m)	MAX AMPS	PIGTAIL LENGTH in. (mm)	PIGTAIL PLUG	REEL DESIGN	REEL SIZE l x h x w in. (mm)	WEIGHT lbs. (kg)	MODEL NUMBER
Incandescent (1)	16/3 SJT	30 (9.0)	10	24 (610)	Yes	Compact	10 x 10 x 3 (254 x 254 x 76)	8.75 (3.9)	GL-1630
Triple Outlet	16/3 SJT	30 (9.0)	10	24 (610)	Yes	Compact	10 x 10 x 3 (254 x 254 x 76)	8.50 (3.8)	GP-1630
Fluorescent	18/2 SVT	20 (6.0)	-	24 (610)	Yes	Compact	7 x 7 x 2 (178 x 178 x 51)	5.50 (2.5)	GF-1820
Fluorescent	18/2 SJTOW-A	40 (12.0)	-	24 (610)	Yes	Compact	10 x 10 x 3 (254 x 254 x 76)	9.50 (4.3)	GF-1840
LED	18/2 SJTOW	40 (12.0)	.065	24 (610)	Yes	Compact	10 x 10 x 3 (254 x 254 x 76)	10.0 (4.5)	GLED-1840
None (4)	18/3 SVT	20 (6.0)	7	24 (610)	No	Compact	7 x 7 x 2 (178 x 178 x 51)	3.00 (1.4)	GN-1820

NOTES: (1) Convenience receptacle in handle. Incandescent bulb (75 watt max.) NOT included.

(2) Cord stop included.

(3) Single female receptacle on pigtail. Molded male plug on free cord. Not UL listed.

(4) Because cord ends are not terminated, these reels are not UL listed.

SERIES "G" FEATURES GENERAL PURPOSE MODELS

- Spring Retractable
- Hand-Pull Applications
- All-Welded Solid Steel Construction
- 600 Volt Slip Rings in NEMA 4 Enclosure
- Generously Sized Junction Box
- Heavy Duty Mounting Base
- Safetychange® Spring Motor with Weatherproof Gasket
- Positive Ratchet Lock with Disengage
- Multi-position Cable Guide (Field Adjustable)
- Orange Polyester Baked-On Finish
- Field Adjustable Cable Stop Included
- Optional 340° Pivot Base
- Contact Factory if Mount Height is More than 20 ft.

Heavy Duty ELECTRIC CABLE REELS



Models listed below are
UL and CSA listed.



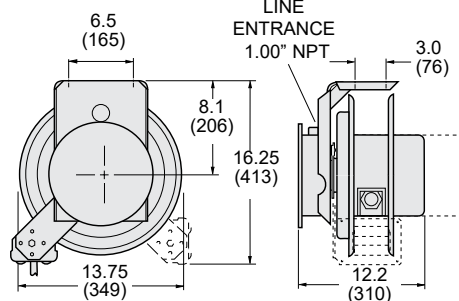
Outlet is optional,
not installed with
reel. See page 12.

Series "G" Model Chart *CABLE IS INCLUDED*

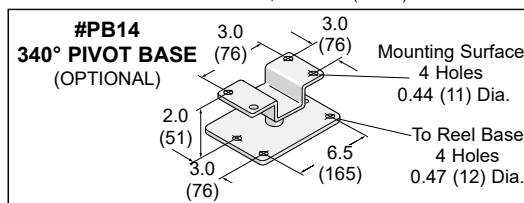
CABLE DATA				REEL CATALOG NUMBER	FLANGE DIA. in. (mm)	WEIGHT COMPLETE lbs. (kg)	340° BASE (OPTIONAL)	CABLE STOP (INCLUDED)
RATING @600V	AWG	NO. COND	LENGTH* ft. (m)					
10 Amp		3	20 (6.0)	G-232	14 (356)	39 (17.6)	PB14	CP-2
			30 (9.0)	G-224		42 (18.9)		
			40 (12.0)	G-231		48 (21.6)		
			45 (13.5)	G-228		49 (22.0)		
			60 (18.0)	G-429		82 (36.9)		
8 Amp	16	4	20 (6.0)	G-233	14 (356)	40 (18.0)	PB14	CP-2
			30 (9.0)	G-234		44 (19.8)		
			40 (12.0)	G-244		48 (21.6)		
			50 (15.0)	G-238		49 (22.0)		
			60 (18.0)	G-439		82 (36.9)		
7 Amp		8	45 (13.5)	G-206	14 (356)	54 (24.3)	PB14	CP-3
			50 (15.0)	G-26B		56 (25.2)		
			40 (12.0)	G-28B		56 (25.2)		
			45 (13.5)	G-38B		56 (25.2)		
			35 (10.5)	G-30B		54 (24.3)		
15 Amp		3	35 (10.5)	G-32B	14 (356)	55 (24.8)	PB14	CP-2
			20 (6.0)	G-331		40 (18.0)		
			30 (9.0)	G-253		46 (20.7)		
			40 (12.0)	G-334		50 (22.5)		
			50 (15.0)	G-358		54 (24.3)		
12 Amp	14	4	70 (21.0)	G-459	16 (406)	84 (37.8)	PB16	CP-2
			20 (6.0)	G-342		40 (18.0)		
			25 (7.5)	G-343		44 (19.8)		
			30 (9.0)	G-363		48 (21.6)		
			40 (12.0)	G-344		52 (23.4)		
10 Amp		8	50 (15.0)	G-367	16 (406)	56 (25.2)	PB16	CP-3
			65 (17.5)	G-469		86 (38.7)		
			35 (10.5)	G-36C		52 (23.4)		
			50 (15.0)	G-46C		92 (41.4)		
			25 (7.5)	G-38C		52 (23.4)		
20 Amp	12	3	30 (9.0)	G-48C	14 (356)	49 (22.1)	PB14	CP-2
			20 (6.0)	G-40C		53 (23.9)		
			20 (6.0)	G-332		40 (18.0)		
			25 (7.5)	G-383		44 (19.8)		
			30 (9.0)	G-333		46 (20.7)		
16 Amp		4	35 (10.5)	G-385	16 (406)	47 (21.2)	PB16	CP-3
			45 (13.5)	G-435		55 (24.8)		
			50 (15.0)	G-436		69 (31.1)		
			60 (18.0)	G-430		85 (38.3)		
			20 (6.0)	G-346		40 (18.0)		
14 Amp		6	30 (9.0)	G-394	14 (356)	48 (21.6)	PB14	CP-2
			40 (12.0)	G-444		52 (23.4)		
			50 (15.0)	G-445		86 (38.7)		
			60 (18.0)	G-446		89 (40.1)		
			25 (7.5)	G-463		51 (23.0)		
25 Amp	10	3	20 (6.0)	G-482	14 (356)	52 (23.4)	PB14	CP-2
			20 (6.0)	G-241		44 (19.8)		
			25 (7.5)	G-242		46 (20.7)		
			30 (9.0)	G-433		48 (21.6)		
			40 (12.0)	G-434		50 (22.5)		
20 Amp		4	50 (15.0)	G-535	16 (406)	86 (28.7)	PB16	CP-3
			60 (18.0)	G-536		89 (40.1)		
			20 (6.0)	G-452		49 (22.1)		
			30 (9.0)	G-443		52 (23.4)		
			40 (12.0)	G-447		88 (39.6)		
20 Amp		6	50 (15.0)	G-545	16 (406)	92 (41.4)	PB16	CP-2
			20 (6.0)	G-462		52 (23.4)		
			30 (9.0)	G-564		80 (36.0)		

* Length of cable listed is for ACTIVE travel.

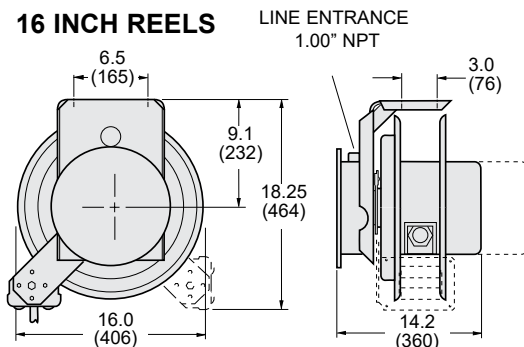
14 INCH REELS



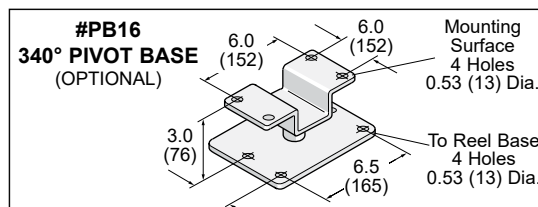
Length shown 3 or 4 conductor reel.
For 5 - 8 conductor, add 1.50" (38mm).
For 9 - 12 conductor, add 3.00" (76mm).



16 INCH REELS



Length shown 3 or 4 conductor reel.
For 5 - 8 conductor, add 1.50" (38mm).
For 9 - 12 conductor, add 3.00" (76mm).



OUTLETS and LIGHTS



HUBBELL® Brand

Model **FL-120**

Fluorescent Hand Lamp Includes: Protected switch, Cushioned End Cap, Polycarbonate Outer Tube and End Lens, Directed Light (from one side plus magnified from end), Integral Ballast, 13 watt, 900 lumen PLS-13 Lamp (included).

Fluorescent Hand Lamp only; does not include reel.



Model **EHL-120**

Hand Lamp Includes: Plastic Grip, Switch, Metal Guard/Reflector, Receptacle

Hand Lamp only; does not include reel.



Model **LED-120-A**

LED Lamp Includes: Cushioned Hand Cap with Internal Ballast, Covered ON/OFF Switch in Handle, Clear Polycarbonate Lens with Reflector Label and Cushioned Outer Ring, Produces 920 Lumens, 1/2 Watt LED's rated @ 50,000 hours, One-watt LED flashlight at the end of the fixture, 120 Volt, 0.65 Amps, 50-60 Hz.

LED Lamp only; does not include reel.



HUBBELL® Brand

Model **DR-GFCI**

High Impact Plastic Box with Hinged Cover, NEMA 3R 20 Amp Receptacle, Cord Grip, 20 Amp Ground Fault Module, Gasketed Cover Plates

Duplex Receptacle only; does not include reel.



HUBBELL® Brand

Model **SR-15A**

Single Outlet, 15 Amp

Receptacle only; does not include reel.



HUBBELL® Brand

Model **SR-20A**

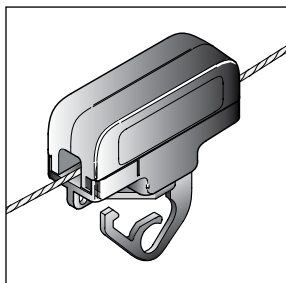
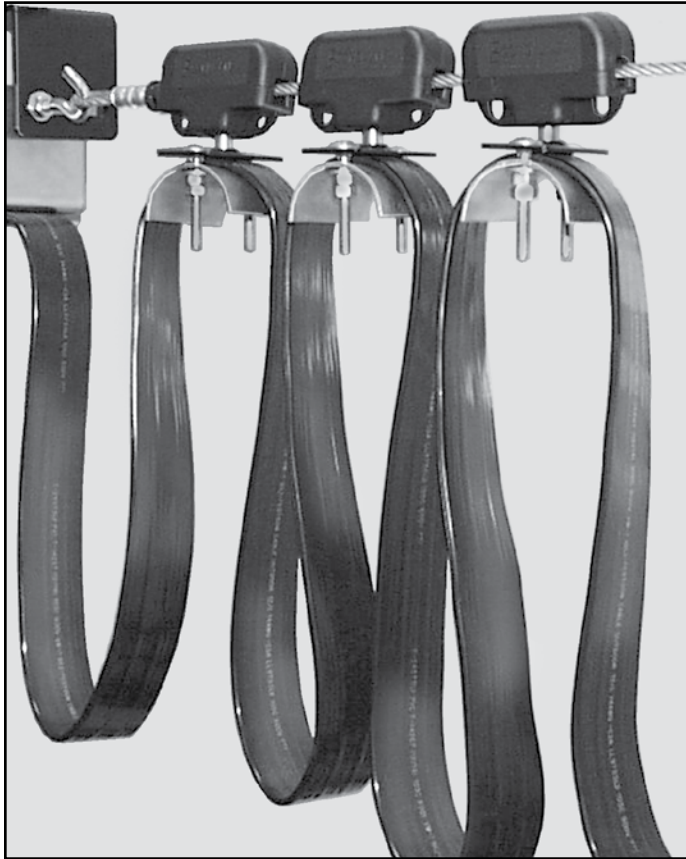
Single Outlet, 20 Amp

Receptacle only; does not include reel.



Lock'n Roll FESTOON TROLLEYS

Parts slide together, lock automatically and the trolley is ready to roll. No fasteners to drop or lose. Removal or replacement is just as easy. Pre-engineered kits take the mystery out of festooning. Each kit includes everything you need. Just add cable or hose. Also available with tool hanger.



**WRS-01
SINGLE HOOK
TROLLEY**

Includes steel Labyrinth tool hook.

Molded nylon trolley is 3.25" (83mm) long. Wheels are molded Delrin thermoplastic. Includes one steel labyrinth hook for tool mounting. Trolley may be installed on existing wire rope through 3/8" (9mm) O.D. without unhooking and restretching rope. Weight: 4 oz (0.1kg).



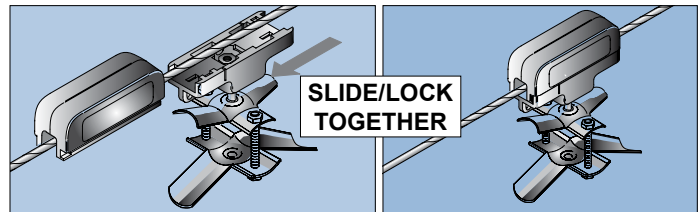
**WRS-02
SINGLE HOOK TROLLEY with
HOSE CONNECTOR**

Wire rope, tool balancer and air hose not included.

Same as #WRS-01 trolley plus longer tool hook and 1/4" air hose connector. Weight: 11 oz (0.15kg).

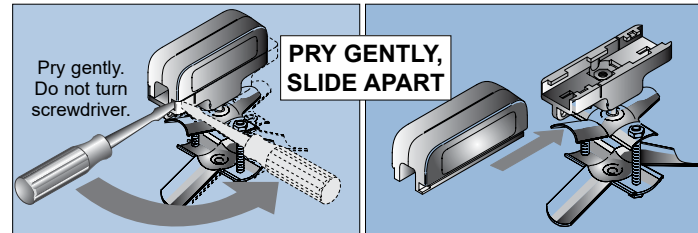
All Lock 'n Roll Trolleys have a 15 lb. weight capacity.

• INSTALL QUICKLY •



To install trolley – Place top section in position on wire rope. Slide sections together until they snap (lock) in place. **NOTE: Sections may be assembled in only one way. Slide "un-blocked" end into "un-blocked" end. Do not force.**

• REMOVE EASILY •



To remove – Insert straight bladed screwdriver into slot beside cable opening (not slit on side of trolley) and pry gently as shown above. Do not turn screwdriver. **Slide Apart.**

• NO FASTENERS REQUIRED •

Fits standard Wire Rope from
3/16"(5mm) ● thru 3/8"(9mm) ●



FRT-04

For round cable or hose, 0.31" thru 0.59" (7-15mm) O.D. Fits 0.25" (6mm) I.D. hose, 600v cable #16/2-6, #14/2-4 or #12/2



FRT-05

For round cable or hose, 0.60" thru 0.94" (15-24mm) O.D. 0.38"-0.50" (10-13mm) I.D. hose, 600v cable #16/7-12, #14/5-12, #12/3-8, #10/2-6



FRT-06

For round cable or hose, 0.95"-1.25" (24-32mm) O.D. Fits 0.75" (19mm) I.D. hose.

Special consideration should be given to large cable/hose applications.



FFT-08

For flat cable to 2.1" x 0.66" (54 x 17mm) PVC jacketed cable #16/4-12, #14/4-12, #12/4-8, #10/4, #8/4, #6/4, and #4/4

NYLON TROLLEY FESTOON KITS - WIRE ROPE

Kits feature **Lock 'n Roll** trolleys and include all necessary wire rope and hardware for complete festoon system. Cable or hose **not included** and must be ordered separately to suit application. Wire rope supplied for 48" loop depth plus extra for fastening at both ends.

Kit Selection Procedure: You must know:

- 1- CABLE or HOSE:** Use appropriate model chart for type (round or flat) cable/hose. If round, choose correct saddle size (FR04, FR05 or FR06)*.
- 2- LOOP DEPTH (LD):** 30" loop and 48" loop shown for planning purposes. Final loop depth should be between these two examples. With a given number of trolleys, **longer loop depth = longer travel**. However, loop depth is often dictated by available clearance beneath wire rope.
- 3- ACTIVE TRAVEL (AT):** Select kit which best fulfills requirements. If your **system length** must be **longer** than system length specified for **active travel length** you require, order by system length so wire rope supplied with kit will not be too short.

NOTE: Cable or hose are **NOT INCLUDED**. Order, separately, footage shown on model chart plus length needed at each end for hook-up.

FLAT CABLE KITS

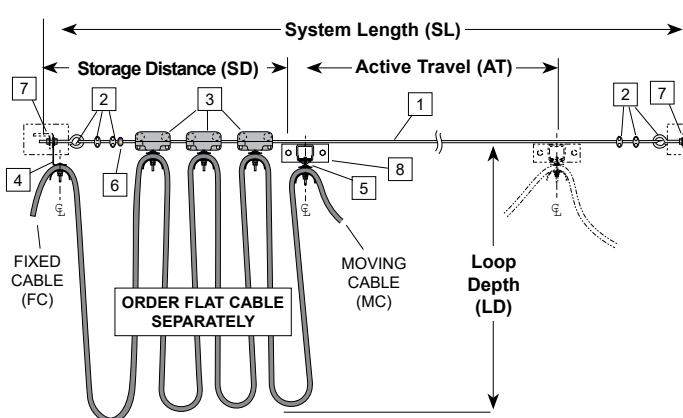
ACTIVE TRAVEL "AT"	KIT NO. (PRICE)	SYSTEM LENGTH "SL"	STORAGE DISTANCE "SD"	(1)MINIMUM CABLE REQUIRED
LOOP DEPTH For planning purposes.(2) 30" 48"	Maximum cable size: 0.65" x 2.0" (17 x 51mm)	LOOP DEPTH For planning purposes.(2) 30" 48"	MINIMUM. May be greater with stiff cable or short loop.	LOOP DEPTH For planning purposes.(2) 30" 48"
12' 20'	FF08-02	14' 23'	21"	15' 24'
16' 27'	FF08-03	19' 30'	25"	20' 32'
20' 33'	FF08-04	23' 37'	28"	24' 39'
24' 40'	FF08-05	27' 44'	32"	29' 47'
28' 47'	FF08-06	32' 51'	35"	34' 55'
32' 54'	FF08-07	36' 58'	39"	39' 63'
36' 60'	FF08-08	40' 65'	42"	42' 70'

ROUND CABLE & HOSE KITS

ACTIVE TRAVEL "AT"	KIT NO. (PRICE)	SYSTEM LENGTH "SL"	STORAGE DISTANCE "SD"	(1)MINIMUM CABLE REQUIRED			
LOOP DEPTH For planning purposes.(2) 30" 48"	Maximum cable size: 0.65" x 2.0" (17 x 51mm)	LOOP DEPTH For planning purposes.(2) 30" 48"	MINIMUM. May be greater with stiff cable or short loop.	LOOP DEPTH For planning purposes.(2) 30" 48"			
10'	18'	FR04*-02	13'	21'	21"	16'	25'
14'	24'	FR04*-03	17'	27'	25"	22'	34'
17'	30'	FR04*-04	21'	34'	28"	24'	42'
21'	37'	FR04*-05	25'	40'	32"	27'	50'
25'	43'	FR04*-06	28'	47'	35"	32'	58'
28'	49'	FR04*-07	32'	53'	39"	43'	67'
32'	55'	FR04*-08	36'	60'	42"	48'	75'

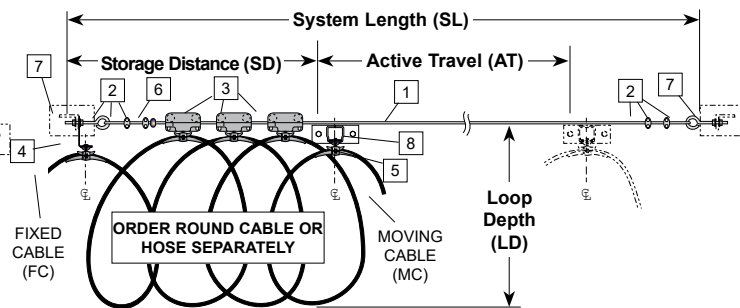
(1) **MINIMUM CABLE REQUIRED** length listed in chart is enough for **ACTIVE TRAVEL** only, measured centerline to centerline; see diagrams below. **ADD cable or hose to each end** as required for hook-up to your system.

(2) **ACTIVE TRAVEL, SYSTEM LENGTH** and **MINIMUM CABLE** values on charts are for **30" or 48" loop depths** and are provided as planning guide only. Kits include necessary components for festoon system with 48" loop depth at system length shown. Loop depth may be varied to suit application.



KIT NUMBER EXPLANATION

Example: **FF** **08** - **03**
Type Saddle size Number Trolleys
(Flat cable) (0.65"h x 2.0"w) (Three)

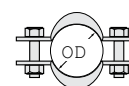


KIT NUMBER EXPLANATION

Example: **FR** **04*** - **03**
Type Saddle size Number Trolleys
(Round cable/hose) (0.30" - 0.59" dia.) (Three)

* **Saddle sizes:** Models shown on chart above are for 0.3"-0/59" dia. cable only. For larger diameters, use "05" or "06" at end of number, as shown here.

FR04 = 0.30" to 0.59" (7-15mm) OD cable/hose.
FR05 = 0.60" to 0.94" (15-24mm) OD cable/hose.
FR06 = 0.95" to 1.25" (24-32mm) OD cable/hose.



Definitions

- AT** = Active Travel: Distance moving end must travel to do job.
SL = System Length: Anchor-point to anchor-point of wire rope.
SD = Storage Distance: Wire rope hardware and trolleys butted together.
LD = Loop Depth: Maximum height of loop formed by cable or hose.

Kit Components

- | | |
|-------------------------------------|--------------------------------|
| [1] Wire Rope, length to suit SL | [5] Tow Clamp/Clip (1) |
| [2] Hardware as required | [6] Bumper Stop (2) |
| [3] Intermediate trolleys, by model | [7] Tension Bracket, optional. |
| [4] End Clamp (1) | [8] Tow arm bracket, optional. |

STEEL TROLLEY FESTOON KITS - WIRE ROPE

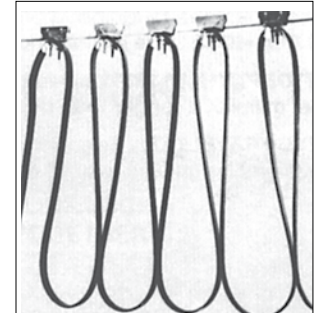
The quickest way to select a Tag Line festoon system is to use kits. For single cables or hoses, select the number of trolleys (middle two digits) for your travel - all the necessary parts come in the box. Add exact cable/hose for your job and it's finished.

SELECTING A KIT:

STEP 1 Determine Active Travel (AT) required and choose the appropriate kit from either the Flat Cable (WF) or Round Cable/hose (WR) table.

STEP 2 Loop depth is assumed at 36" for all kits. Adjust to suit. Longer loop depth provides greater Active Travel, shorter loop depth provides less Active Travel. NOTE: Wire rope in kits is sufficient for System Length (SL) shown plus amount needed for securing at each end. If longer loop depth is to be used, order longer kit.

STEP 3 Cable/hose NOT INCLUDED. Order separately length shown on table plus amount needed at each end for hook up to your system.

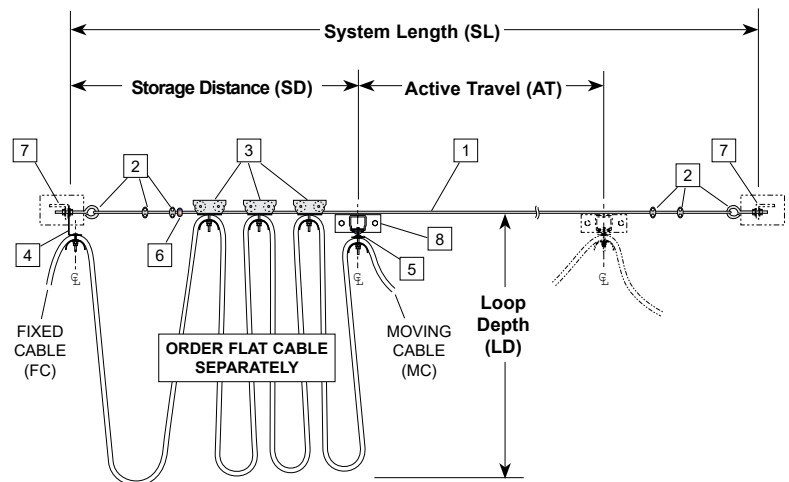


FLAT CABLE KITS

KIT NUMBER	ACTIVE TRAVEL "AT"	CABLE/ HOSE MIN.*	STORAGE LENGTH "SD"	SYSTEM LENGTH "SL"
WF-03-36	20'	24'	25"	23' 0"
WF-04-36	24'	29'	28"	27' 3"
WF-05-36	29'	35'	32"	32' 9"
WF-06-36	34'	41'	35"	38' 0"
WF-07-36	39'	47'	39"	43' 4"
WF-08-36	44'	52'	42"	48' 7"
WF-09-36	49'	58'	45"	53' 10"
WF-10-36	54'	60'	51"	59' 4"

KIT NUMBER EXPLANATION

Example: **WF** **03** **-** **36**
 Type Number Trolleys Loop Depth
 (Flat cable) (Three) - (36")



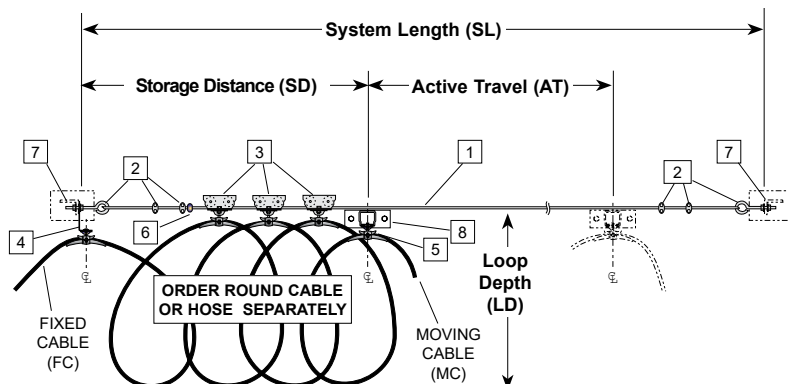
* Minimum length of cable/ hose listed in charts above is enough for travel only. Add length needed at each end for hook-up to your system.

ROUND** CABLE & HOSE KITS

KIT NUMBER	ACTIVE TRAVEL "AT"	CABLE/ HOSE MIN.*	STORAGE LENGTH "SD"	SYSTEM LENGTH "SL"
WR-03-36	17'	26'	25"	20' 0"
WR-04-36	22'	32'	28"	25' 5"
WR-05-36	26'	38'	32"	29' 9"
WR-06-36	31'	45'	35"	35' 0"
WR-07-36	35'	51'	39"	39' 4"
WR-08-36	39'	60'	42"	43' 7"

KIT NUMBER EXPLANATION

Example: **WR** **03** **-** **36**
 Type Number Trolleys Loop Depth
 (Round cable) (Three) - (36")



* Minimum length of cable/ hose listed in charts above is enough for travel only. Add length needed at each end for hook-up to your system.

** WR trolleys have saddles to handle cable or hose up to 0.94" O.D. (3/8" I.D. hose).

Definitions

AT = Active Travel: Distance moving end must travel to do job.
SL = System Length: Anchor-point to anchor-point of wire rope.
SD = Storage Distance: Wire rope hardware and trolleys butted together.
LD = Loop Depth: Maximum height of loop formed by cable or hose.

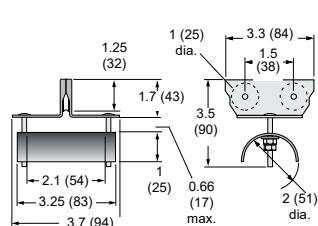
Kit Components

- | | |
|-----------------------------------|------------------------------|
| 1 Wire Rope, length to suit SL | 5 Tow Clamp/Clip (1) |
| 2 Hardware as required | 6 Bumper Stop (2) |
| 3 Intermediate trolleys, by model | 7 Tension Bracket, optional. |
| 4 End Clamp (1) | 8 Tow arm bracket, optional. |

ADD TO FESTOON KITS OR BUILD FROM SCRATCH STEEL OR *Lock 'n Roll* TROLLEYS

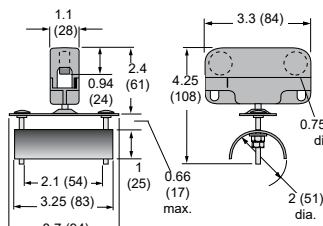
COMPONENTS - Wire Rope Festoon

FLAT CABLE FESTOON COMPONENTS



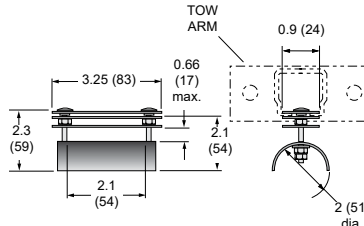
STEEL TROLLEY
W25-FC-32

Description: Zinc plated steel with dual nylon wheels.
Zinc plated steel cable clamp.



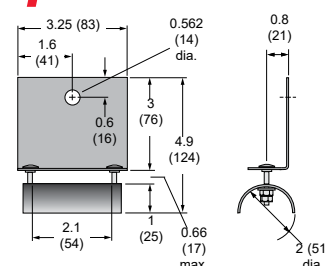
Lock 'n Roll TROLLEY
FFT-08

Description: Fiberglass reinforced molded nylon with zinc plated steel cable clamp.



TOW CLAMP
W25-FT-02

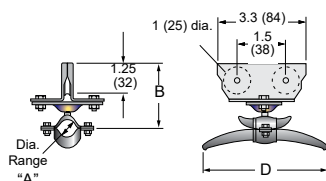
Description: Steel with zinc plating.



END CLAMP
W25-FE-02

Description: Steel with zinc plating.

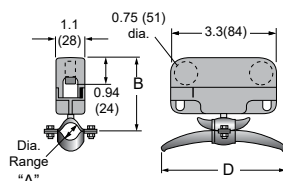
ROUND CABLE & HOSE FESTOON COMPONENTS



STEEL TROLLEY

MODEL NUMBER	*CABLE O.D. "A" in. (mm)	"B" in. (mm)	"D" in. (mm)
W25-RC-11	0.31-0.59 (7-15)	2.75 (70)	2.75 (70)
W25-RC-12	0.60-0.94 (15-24)	2.94 (75)	3.86 (98)
W25-RC-13	0.95-1.25 (24-32)	3.2 (81)	5.0 (127)

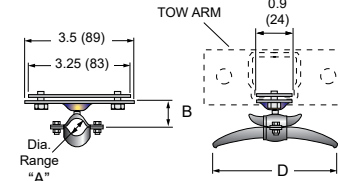
Description: Zinc plated steel with dual nylon wheels.
Zinc plated steel cable clamp.



Lock 'n Roll TROLLEY

MODEL NUMBER	*CABLE O.D. "A" in. (mm)	"B" in. (mm)	"D" in. (mm)
FRT-04	0.31-0.59 (7-15)	2.4 (61)	2.75 (70)
FRT-05	0.60-0.94 (15-24)	2.6 (66)	3.86 (98)
FRT-06	0.95-1.25 (24-32)	2.9 (74)	5.0 (127)

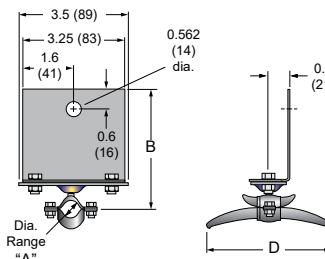
Description: Fiberglass reinforced molded nylon with zinc plated steel cable clamp.



TOW CLAMP

MODEL NUMBER	*CABLE O.D. "A" in. (mm)	"B" in. (mm)	"D" in. (mm)
W25-RT-11	0.31-0.59 (7-15)	1.25 (32)	2.75 (70)
W25-RT-12	0.60-0.94 (15-24)	1.44 (37)	3.86 (98)
W25-RT-13	0.95-1.25 (24-32)	1.7 (43)	5.0 (127)

Description: Steel with zinc plating.



END CLAMP

MODEL NUMBER	*CABLE O.D. "A" in. (mm)	"B" in. (mm)	"D" in. (mm)
W25-RE-11	0.31-0.59 (7-15)	4.06 (103)	2.75 (70)
W25-RE-12	0.60-0.94 (15-24)	4.25 (108)	3.86 (98)
W25-RE-13	0.95-1.25 (24-32)	4.5 (114)	5.0 (127)

Description: Steel with zinc plating.

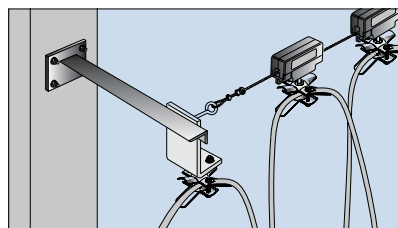
* For type of hose or cable included in each O.D. range, refer to previous pages or "CABLE & HOSE DATA".

OPTIONAL Components

Flat Cable, Round Cable, Hose, Connectors: see "CABLE & HOSE DATA".

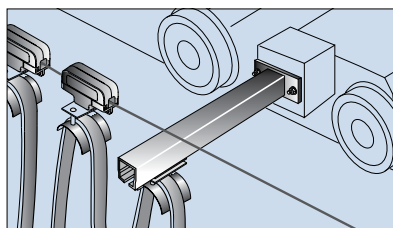
Tension Bracket W25-BR-01

Anchor ends of wire rope and fixed end of festoon.



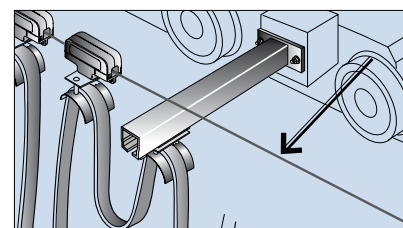
Tow Arm W25-TA-01

Use on moving end of festoon with Tow Clamp (above).



Wire Rope W25-WR-01

.25" OD Nylon-coated Wire Rope; wt. .086 lbs/ft.

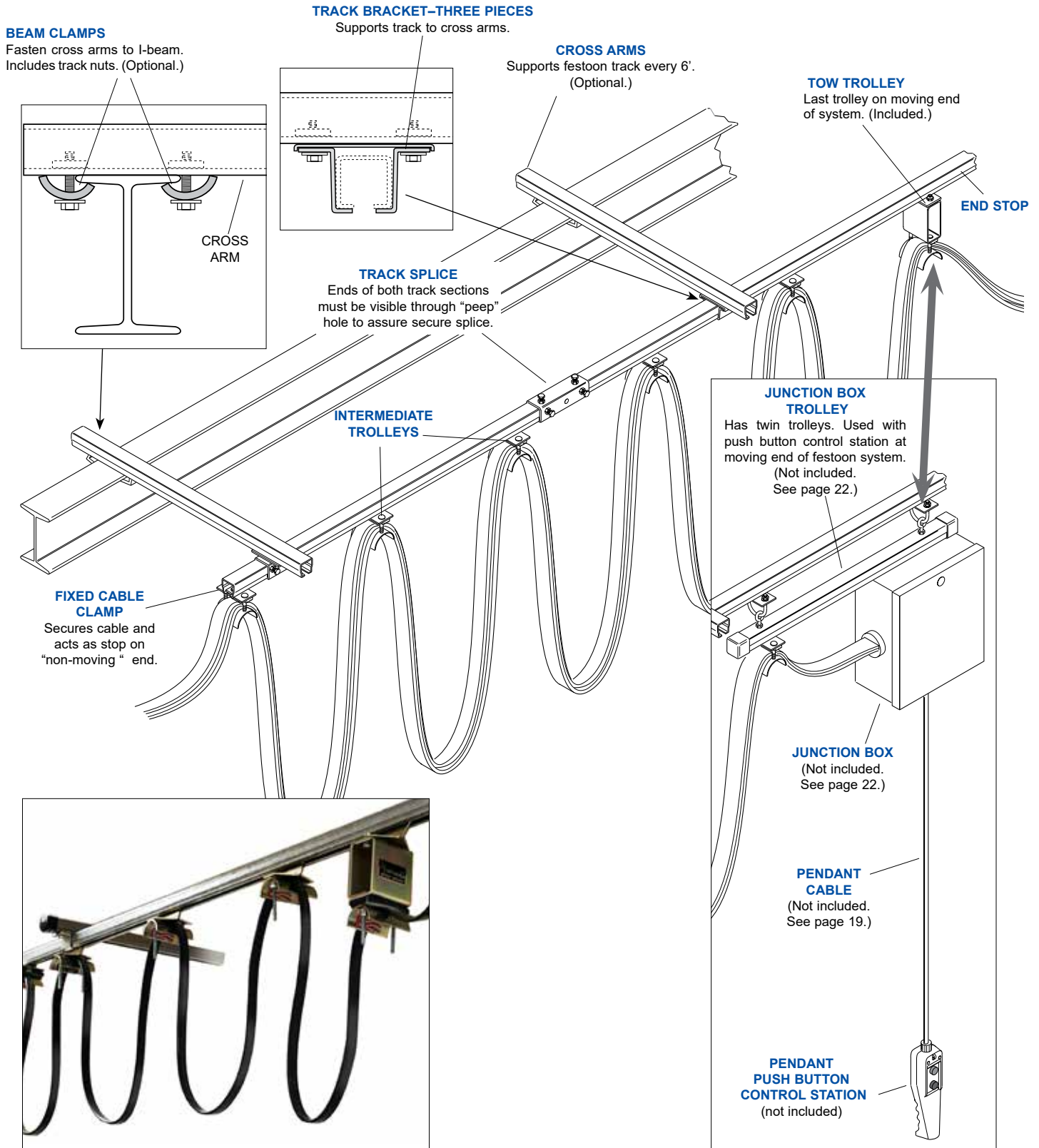


Hardware Kit W25-HW-01

Includes: (2) 1" ID x 6" lg x .500" body eye bolts w/ hex nuts, (2) galv. steel thimbles, (4) galv. steel clips, (1) bumper stop (neoprene rubber); wt. 2.5 lbs.

STEEL TRACK FESTOON SYSTEM KITS

Install a high speed, smooth operating festoon system on an overhead crane or similar application. Kits include all required parts - track, trolleys, and mounting clamps. Refer to model charts on following pages for system lengths and cables available.



C-Rail Festoon Kits

SELECTING

STEP 1 - Choose a kit number below considering the active travel distance you require (AT) and allowable loop depth (30, etc.).

STEP 2 - To complete kit number, add loop depth (LD) (and cable O.D. code for Type "CR" round kits).

STEP 3 - Order optional components, including flat or round cable.



Series "CF" kits for FLAT CABLE

KIT NUMBER	30 LOOP DEPTH IN INCHES				36 LOOP DEPTH IN INCHES				42 LOOP DEPTH IN INCHES				48 LOOP DEPTH IN INCHES			
	AT ft.-in.	SD ft.-in.	SL* ft.-in.	Active Cable ft.**	AT ft.-in.	SD ft.-in.	SL* ft.-in.	Active Cable ft.**	AT ft.-in.	SD ft.-in.	SL* ft.-in.	Active Cable ft.**	AT ft.-in.	SD ft.-in.	SL* ft.-in.	Active Cable ft.**
CF-02-	12-1	1-4	13-10	15	14-10	1-4	16-7	18	17-6	1-4	19-4	21	20-3	1-4	22-1	24
CF-03-	16-1	1-7	18-2	19	19-9	1-7	21-10	23	23-4	1-7	25-5	27	27-0	1-7	29-1	31
CF-04-	20-2	1-11	22-6	24	24-8	1-11	27-0	29	29-3	1-11	31-7	34	33-9	1-11	36-1	39
CF-05-	24-2	2-2	26-9	29	29-8	2-2	32-3	35	35-1	2-2	37-8	41	40-6	2-2	43-2	47
CF-06-	28-3	2-5	31-1	34	34-7	2-5	37-5	41	40-11	2-5	43-10	48	47-4	2-5	50-2	55
CF-07-	32-3	2-8	35-5	38	39-6	2-8	42-8	46	46-9	2-8	49-11	54	54-1	2-8	57-3	62
CF-08-	36-3	3-0	39-8	43	44-6	3-0	47-11	52	52-8	3-0	56-1	61	60-10	3-0	64-3	70
CF-09-	40-4	3-3	44-0	48	49-5	3-3	53-1	58	58-6	3-3	62-2	68	67-7	3-3	71-3	78
CF-10-	44-4	3-6	48-4	53	54-4	3-6	58-4	64	64-4	3-6	68-4	75	74-4	3-6	78-4	86
CF-11-	48-5	3-9	52-7	57	59-4	3-9	63-6	69	70-2	3-9	74-5	81				
CF-12-	52-5	4-1	56-11	62	64-3	4-1	68-9	75								
CF-13-	56-6	4-4	61-3	67	69-2	4-4	74-0	81								
CF-14-	60-6	4-7	65-6	72	74-2	4-7	79-2	87								
CF-15-	64-6	4-10	69-10	76												
CF-16-	68-7	5-2	74-2	81												
CF-17-	72-7	5-5	78-6	86												

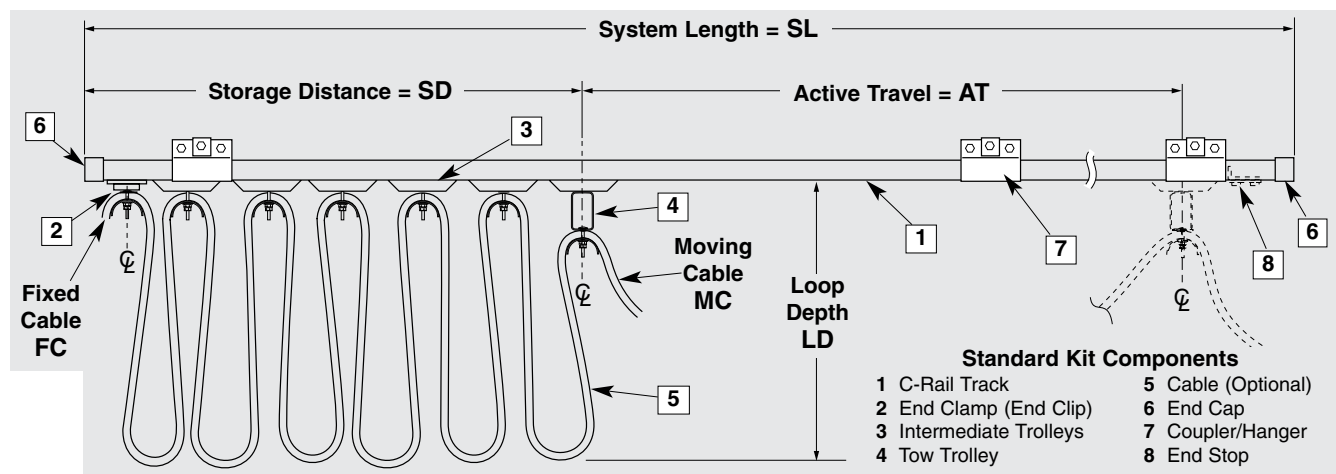
Need more?

Longer travel or larger cables? Systems designed for pendant controls or workstations? Additional systems are available. Consult your local distributor for details.

Add LOOP DEPTH (LD)
Flat kit number example:
CF - 04 - 30

*System Length (SL) = Storage Distance (SD) + Active Travel (AT) + 4"-6" for End Stop, End Caps, Etc. System Length shown above is achieved using indicated loop depth and active cable length. System length may be increased by lengthening Active Cable and (1) decreasing loop depth or (2) increasing number of trolleys. C-rail track included in kit is in 6' lengths only and must be field cut to desired System Length.

**Lengths listed are for ACTIVE cable only. If you need hookup cable at fixed end (FC) or moving end (MC) you MUST ADD it when ordering or cutting cable.



Features & Specifications

Trolley Body, Saddles & Clips

Wheels	zinc-plated steel, smooth running ball bearing
Axles	zinc-plated steel
C-Rail Track	roll-formed galvanized steel
Hardware	zinc-plated steel
Active Travel	up to 72 ft (21.6m)*
Trolley Loads	up to 45 lbs/trolley (20.25kg)**
Speed	up to 250 fpm (75mpm)

*Additional kits are available for longer travel. Consult factory for details.

**Designed for cable loads only.

Kits are boxed for parcel delivery shipment and are complete with C-Rail Track, all components and hardware.

Includes: C-Rail, Coupler Hangers, Trolleys, Tow Trolley, End Stop, End Clamp and End Caps.

Cable NOT included.



Series "CR" kits for ROUND CABLE

KIT NUMBER	30 LOOP DEPTH IN INCHES				36 LOOP DEPTH IN INCHES				42 LOOP DEPTH IN INCHES				48 LOOP DEPTH IN INCHES			
	AT	SD	SL*	Active Cable ft.**	AT	SD	SL*	Active Cable ft.**	AT	SD	SL*	Active Cable ft.**	AT	SD	SL*	Active Cable ft.**
CR-02-__-2	10-10	1-4	12-8	17	13-6	1-4	15-3	20	16-1	1-4	17-10	23	18-8	1-4	20-6	26
CR-03-__-2	14-6	1-7	16-7	22	18-0	1-7	20-0	26	21-5	1-7	23-6	30	24-11	1-7	27-0	34
CR-04-__-2	18-2	1-11	20-6	27	22-6	1-11	24-10	32	26-10	1-11	29-2	37	31-2	1-11	33-6	42
CR-05-__-2	21-9	2-2	24-4	33	27-0	2-2	29-7	39	32-2	2-2	34-9	45	37-5	2-2	40-0	51
CR-06-__-2	25-5	2-5	28-3	38	31-6	2-5	34-4	45	37-7	2-5	40-5	52	43-8	2-5	46-6	59
CR-07-__-2	29-0	2-8	32-2	43	36-0	2-8	39-1	51	42-11	2-8	46-1	59	49-10	2-8	53-0	67
CR-08-__-2	32-8	3-0	36-1	49	40-6	3-0	43-11	58	48-3	3-0	51-8	67	56-1	3-0	59-6	76
CR-09-__-2	36-4	3-3	40-0	54	45-0	3-3	48-8	64	53-8	3-3	57-4	74	62-4	3-3	66-0	84
CR-10-__-2	39-11	3-6	43-11	59	49-6	3-6	53-5	70	59-0	3-6	63-0	81	68-7	3-6	72-7	92
CR-11-__-2	43-7	3-9	47-10	65	54-0	3-9	58-2	77	64-5	3-9	68-8	89	74-10	3-9	79-1	101
CR-12-__-2	47-2	4-1	51-8	70	58-6	4-1	63-0	83	69-9	4-1	74-3	96				
CR-13-__-2	50-10	4-4	55-7	75	63-0	4-4	67-9	89	75-2	4-4	79-11	103				
CR-14-__-2	54-6	4-7	69-6	81	67-6	4-7	72-6	96								
CR-15-__-2	58-1	4-10	63-5	86	72-0	4-10	77-4	102								
CR-16-__-2	61-9	5-2	67-4	91												
CR-17-__-2	65-4	5-5	71-3	97												
CR-18-__-2	69-0	5-8	75-1	102												
CR-19-__-2	72-8	5-11	79-0	108												

Need more?

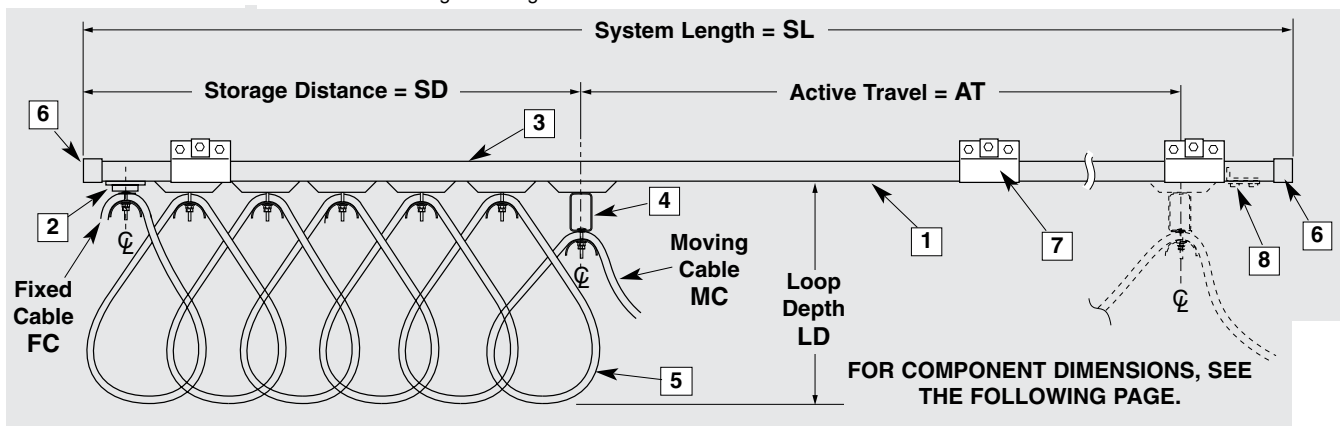
Longer travel or larger cables? Systems designed for pendant controls or workstations? Additional systems are available. Consult your local distributor for details.

Standard Series CR Kits have saddle for O.D. range 0.60" - 0.94" (typical 3/8" I.D. hose). If optional saddle with O.D. range of 0.31" - 0.59" is desired, substitute "1" for "2" as last digit of model number. **Example:** CR-2-30-1

Add LOOP DEPTH (LD)
Round kit
number example:
CR - 04 - 30 - 2

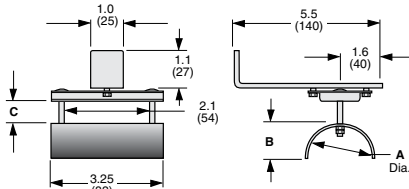
*System Length (SL) = Storage Distance (SD) + Active Travel (AT) + 4"-6" for End Stop, End Caps, Etc. See note previous page. C-rail track included in kit is in 6' lengths only and must be field cut to desired System Length.

**Lengths listed are for ACTIVE cable only. If you need hookup cable at fixed end (FC) or moving end (MC) you MUST ADD it when ordering or cutting cable.

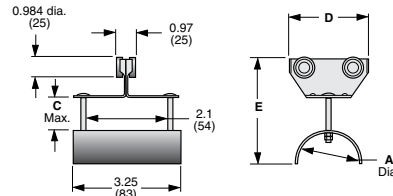


ADD TO C-RAIL FESTOON KITS SHOWN ON PRECEDING PAGES **COMPONENTS - C-Rail Festoon**

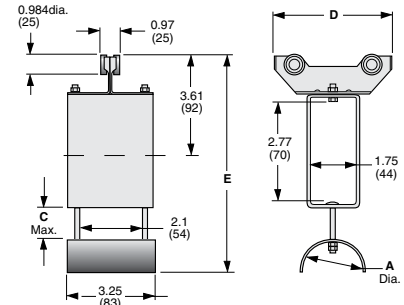
For FLAT Cable


FLAT CABLE END CLAMP

Model No.	A in. (mm)	B in. (mm)	C in. (mm)	Wt. lbs. (Kg)
C35-FE-02	2.00 (51)	1.00 (25)	1.50 (38)	1.46 (.66)
C35-FE-03	3.12 (80)	1.56 (40)	0.94 (24)	1.63 (.73)

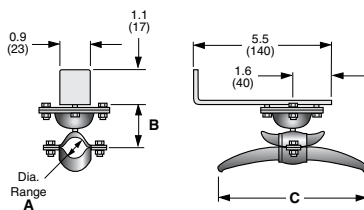

FLAT CABLE INTERMEDIATE TROLLEYS

Model No.	A in. (mm)	B in. (mm)	C in. (mm)	D in. (mm)	E in. (mm)	Wt. lbs. (Kg)
C35-FC-32	2.00 (51)	0.56 (14)	3.12 (79)	3.72 (94)	0.84 (.38)	
C35-FC-52	2.00 (51)	1.50 (38)	5.00 (127)	4.76 (121)	0.94 (.42)	
C35-FC-53	3.12 (80)	0.94 (24)	5.00 (127)	4.31 (109)	1.11 (.50)	

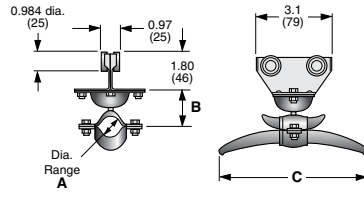

FLAT CABLE TOW TROLLEY

Model No.	A in. (mm)	B in. (mm)	C in. (mm)	D in. (mm)	E in. (mm)	Wt. lbs. (Kg)
C35-FT-52	2.00 (51)	1.50 (38)	5.00 (127)	8.18 (208)	2.38 (1.07)	
C35-FT-53	3.12 (80)	0.94 (24)	5.00 (127)	8.18 (208)	2.45 (1.10)	

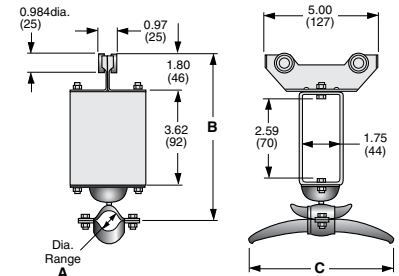
For ROUND Cable or Hose


ROUND CABLE/HOSE END CLAMP

Model No.	A in. (mm)	B in. (mm)	C in. (mm)	Wt. lbs. (Kg)
C35-RE-11	0.31-0.59 (8-15)	1.10 (28)	2.75 (70)	1.41 (.63)
C35-RE-12	0.60-0.94 (15-24)	1.25 (32)	3.86 (98)	1.53 (.69)
C35-RE-13	0.95-1.25 (24-32)	1.47 (37)	5.59 (142)	1.85 (.83)

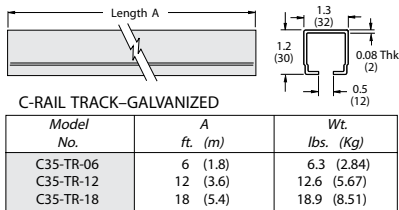

ROUND CABLE/HOSE INTERMEDIATE TROLLEY

Model No.	A in. (mm)	B in. (mm)	C in. (mm)	Wt. lbs. (Kg)
C35-RC-11	0.31-0.59 (8-15)	1.10 (28)	2.75 (70)	1.41 (.63)
C35-RC-12	0.60-0.94 (15-24)	1.25 (32)	3.86 (98)	1.53 (.69)
C35-RC-13	0.95-1.25 (24-32)	1.47 (37)	5.59 (142)	1.85 (.83)

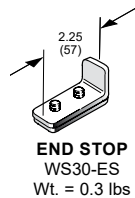
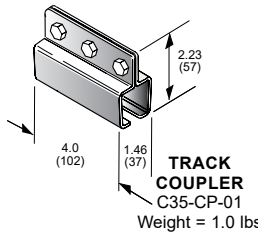
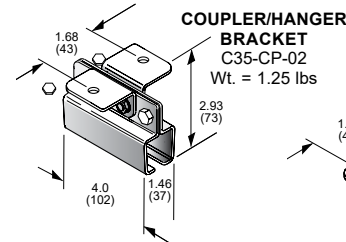
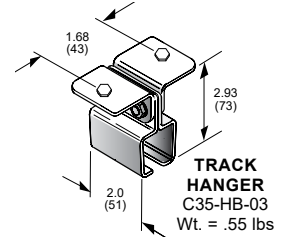
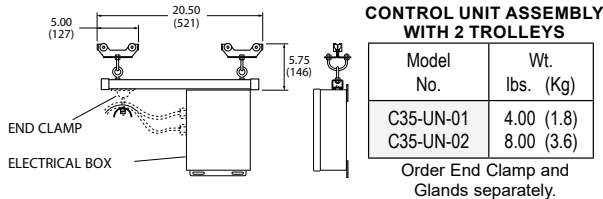

ROUND CABLE/HOSE TOW TROLLEY

Model No.	A in. (mm)	B in. (mm)	C in. (mm)	Wt. lbs. (Kg)
C35-RT-11	0.31-0.59 (8-15)	6.50 (165)	2.75 (70)	2.33 (1.05)
C35-RT-12	0.60-0.94 (15-24)	6.70 (170)	3.86 (98)	2.45 (1.10)
C35-RT-13	0.95-1.25 (24-32)	6.92 (176)	5.59 (142)	2.77 (1.25)

ACCESSORIES

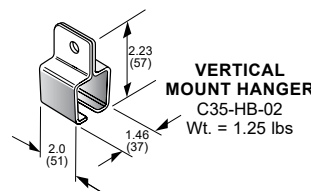
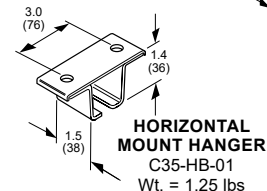

C-RAIL TRACK-GALVANIZED

Model No.	A ft. (m)	Wt. lbs. (Kg)
C35-TR-06	6 (1.8)	6.3 (2.84)
C35-TR-12	12 (3.6)	12.6 (5.67)
C35-TR-18	18 (5.4)	18.9 (8.51)


END STOP
 WS30-ES
 Wt. = 0.3 lbs

TRACK COUPLER
 C35-CP-01
 Weight = 1.0 lbs

COUPLER/HANGER BRACKET
 C35-CP-02
 Wt. = 1.25 lbs

TRACK HANGER
 C35-HB-03
 Wt. = .55 lbs

CONTROL UNIT ASSEMBLY WITH 2 TROLLEYS

Model No.	Wt. lbs. (Kg)
C35-UN-01	4.00 (1.8)
C35-UN-02	8.00 (3.6)

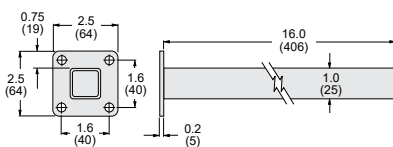
Order End Clamp and Glands separately.


VERTICAL MOUNT HANGER
 C35-HB-02
 Wt. = 1.25 lbs

HORIZONTAL MOUNT HANGER
 C35-HB-01
 Wt. = 1.25 lbs

BEAM CLAMP
 C35-BCA
 Wt. = 0.34 lbs

TOW ARM

Attaches to your machine and inserts into Tow Trolley to tow the system.



DESCRIPTION	WGT lb. (kg)	MODEL NUMBER
TOW ARM	1.3 (59)	CTA-01

FLAT-TO-ROUND CABLE CONNECTOR SET



DESCRIPTION	MODEL NUMBER
Set of 2 Locking Plugs	LC-01

Go quickly and safely from flat to round cable. Consists of one each male and female plugs designed to accept flat or round cable and lock together securely. Plugs are 3-pole, 4-wire plus ground and will accommodate round cable sizes #14 AWG through #10 AWG; flat cable up to 1.00" wide. Ratings: 20 amp, 480 volt, 3 phase. NEMA configuration #L16-20. Plugs are double-insulated plastic and resist impact, corrosion and most chemicals.

Kellems® Deluxe Cord Grips for Strain Relief



Aluminum Fittings, Stainless Steel Mesh, Liquidtight, for Insulated Cables



Grip Diameter Range In. (cm)		Threat Size NPT In.	Form Size	Model No.
0.250–0.312	(.63–.79)	3/8"	F1	CGD-1001
0.312–0.375	(.79–.95)			CGD-1002
0.375–0.437	(.95–1.11)			CGD-1003
0.187–0.250	(.47–.63)	1/2"	F2	CGD-1004
0.250–0.375	(.63–.95)			CGD-1006
0.375–0.500	(.95–1.27)			CGD-1008
0.500–0.625	(1.27–1.59)			CGD-1010
0.625–0.750	(1.59–1.90)	1/2"	F3	CGD-11247
0.750–0.875	(1.90–2.22)			CGD-11248
0.187–0.250	(.47–.63)	3/4"	F2	CGD-1011
0.250–0.375	(.63–.95)			CGD-1013
0.375–0.500	(.95–1.27)			CGD-1015
0.500–0.625	(1.27–1.59)			CGD-1017
0.625–0.750	(1.59–1.90)	3/4"	F3	CGD-1018
0.750–0.875	(1.90–2.22)			CGD-11249
0.375–0.500	(.95–1.27)	1"	F4	CGD-11195
0.500–0.625	(1.27–1.59)			CGD-1019
0.625–0.750	(1.59–1.90)			CGD-1021
0.750–0.875	(1.90–2.22)			CGD-1023
0.875–1.000	(2.22–2.54)			CGD-1025
1.000–1.125	(2.54–2.86)			CGD-11250
1.125–1.250	(2.86–3.17)	1"	F5	CGD-11028
1.250–1.375	(3.17–3.49)			CGD-11029
0.750–0.875	(1.90–2.22)	1 1/4"	F5	CGD-11251
0.875–1.000	(2.22–2.54)			CGD-1026
1.000–1.125	(2.54–2.86)			CGD-1027
1.125–1.250	(2.86–3.17)			CGD-1028
1.250–1.375	(3.17–3.49)			CGD-11178
0.750–0.875	(1.90–2.22)	1 1/2"	F5	CGD-11252
0.875–1.000	(2.22–2.54)			CGD-1029
1.000–1.125	(2.54–2.86)			CGD-1030
1.125–1.250	(2.86–3.17)			CGD-1031
1.250–1.375	(3.17–3.49)			CGD-1032
1.312–1.437	(3.33–3.65)	1 1/2"	F6	CGD-11253
1.437–1.562	(3.65–3.97)			CGD-11254
1.562–1.687	(3.97–4.28)			CGD-11255
1.687–1.812	(4.28–4.60)			CGD-11256
1.750–1.875	(4.44–4.76)			CGD-11257

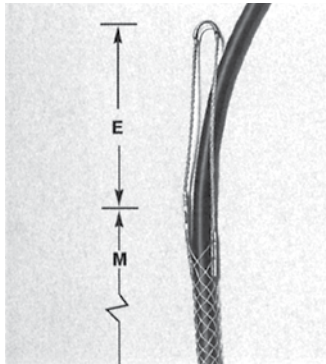
Note: Kellems® Deluxe Cord Grips are suitable for use in hazardous locations per Class I Div. 2, Class II Div. 1 & 2, Class III Div. 1 & 2 of the National Electric Code Sections 501.10(b)(2), 502.10(a)(2), 502.10(b)(2), 503.10(a)(2) and 503.10(b).

*Cable jacket may have to be stripped to pass through connector body.

Kellems®

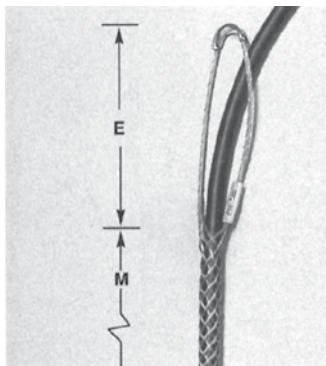
Support Grips

Permanent support when cable end is available for grip installation



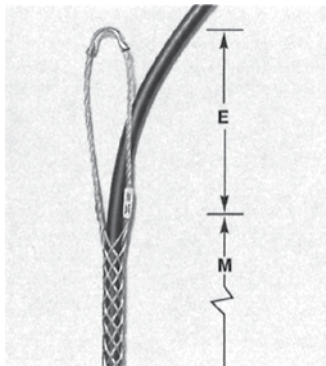
Service Drop-Light Duty, Single Eye, Closed Mesh

Cable Diameter Range Range-Inches (mm)	Approx. Breaking Strength Lbs. (N)	E In. (cm)	M In. (mm)	Model No.
0.23-0.31 (6-8)	290 (1,290)	3 (76)	3.75 (95)	CG-16001
0.29-0.37 (7-9)	290 (1,290)	4 (102)	4.25 (108)	CG-16002
0.35-0.44 (9-11)	500 (2,224)	4 (102)	4.75 (121)	CG-16003
0.41-0.50 (10-13)	500 (2,224)	5 (127)	5.00 (127)	CG-16004
0.46-0.56 (12-14)	660 (2,936)	6 (152)	5.25 (133)	CG-16005
0.52-0.62 (13-16)	790 (3,514)	7 (178)	6.25 (159)	CG-16006
0.58-0.68 (15-17)	790 (3,514)	7 (178)	6.50 (165)	CG-16007
0.64-0.75 (16-19)	790 (3,514)	7 (178)	6.75 (171)	CG-16008
0.70-0.81 (18-21)	790 (3,514)	7 (178)	7.25 (184)	CG-16009
0.75-0.87 19-22)	1,020 (4,537)	8 (203)	8.00 (203)	CG-16010
0.81-0.94 (21-24)	1,020 (4,537)	8 (203)	8.25 (210)	CG-16011
0.87-1.00 (22-25)	1,020 (4,537)	8 (203)	8.75 (222)	CG-16012
0.94-1.06 (24-27)	1,020 (4,537)	9 (229)	9.00 (229)	CG-16013
1.00-1.18 (25-30)	1,020 (4,537)	9 (229)	9.50 (241)	CG-16014
1.06-1.25 (27-32)	1,020 (4,537)	9 (229)	9.50 (241)	CG-16015



Service Drop-Heavy Duty, Single Eye, Closed Mesh

Cable Diameter Range Range-Inches (mm)	Approx. Breaking Strength Lbs. (N)	E In. (cm)	M In. (mm)	Model No.
0.23-0.31 (6-8)	500 (2,224)	5 (127)	4.50 (114)	CG-17001
0.29-0.37 (7-9)	500 (2,224)	5 (127)	5.50 (140)	CG-17002
0.35-0.44 (9-11)	870 (3,870)	6 (152)	6.50 (165)	CG-17003
0.41-0.50 (10-13)	870 (3,870)	6 (152)	7.50 (191)	CG-17004
0.46-0.56 (12-14)	1,050 (4,670)	6 (152)	8.00 (203)	CG-17005
0.52-0.62 (13-16)	1,050 (4,670)	7 (178)	8.50 (216)	CG-17006
0.58-0.68 (15-17)	1,050 (4,670)	7 (178)	9.50 (241)	CG-17007
0.64-0.75 (16-19)	1,390 (6,183)	7 (178)	9.50 (241)	CG-17008
0.70-0.81 (18-21)	1,390 (6,183)	8 (203)	10.50 (267)	CG-17009
0.75-0.87 19-22)	1,390 (6,183)	8 (203)	10.50 (267)	CG-17010
0.81-0.94 (21-24)	1,390 (6,183)	8 (203)	10.50 (267)	CG-17011
0.87-1.00 (22-25)	1,790 (7,962)	8 (203)	11.50 (292)	CG-17012
0.94-1.06 (24-27)	1,790 (7,962)	9 (229)	12.50 (318)	CG-17013
1.00-1.18 (25-30)	1,790 (7,962)	9 (229)	13.50 (343)	CG-17014
1.06-1.25 (27-32)	1,790 (7,962)	9 (229)	14.50 (368)	CG-17015

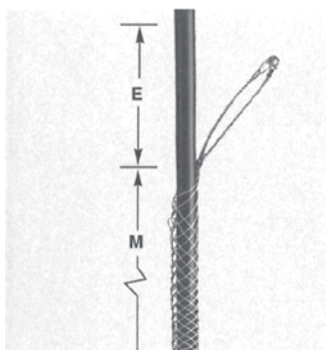


Support-Standard Duty, Single Eye, Closed Mesh

Cable Diameter Range Range-Inches (mm)	Approx. Breaking Strength Lbs. (N)	E In. (cm)	M In. (mm)	Model No.
0.50-0.62 (13-16)	530 (2,357)	7 (178)	10 (254)	CG-01013
0.63-0.74 (16-19)	790 (3,514)	8 (203)	10 (254)	CG-01014
0.75-0.99 (19-25)	1,020 (4,537)	8 (203)	13 (330)	CG-01015
1.00-1.24 (25-32)	1,610 (7,161)	9 (229)	14 (356)	CG-01017
1.25-1.49 (32-38)	1,610 (7,161)	10 (254)	15 (381)	CG-01018
1.50-1.74 (38-44)	1,610 (7,161)	12 (305)	17 (432)	CG-01019
1.75-1.99 (44-51)	2,150 (9,563)	14 (356)	19 (483)	CG-01020

Support-Heavy Duty, Single Eye, Closed Mesh

Cable Diameter Range Range-Inches (mm)	Approx. Breaking Strength Lbs. (N)	E In. (cm)	M In. (mm)	Model No.
0.75-0.99 (19-25)	2,820 (12,543)	10 (254)	25 (635)	CG-06010
1.00-1.24 (25-32)	4,280 (19,037)	10 (254)	28 (711)	CG-06011
1.25-1.49 (32-38)	4,280 (19,037)	10 (254)	30 (762)	CG-06012
1.50-1.99 (38-51)	4,280 (19,037)	10 (254)	34 (864)	CG-06013



Support-Standard Duty, Offset Eye, Closed Mesh

Cable Diameter Range Range-Inches (mm)	Approx. Breaking Strength Lbs. (N)	E In. (cm)	M In. (mm)	Model No.
0.50-0.62 (13-16)	500 (2,224)	4 (102)	10 (254)	CG-01037
0.63-0.74 (16-19)	750 (3,336)	4 (102)	10 (254)	CG-01038
0.75-0.99 (19-25)	950 (4,226)	4 (102)	13 (330)	CG-01039
1.00-1.24 (25-32)	1,500 (6,672)	5 (127)	14 (356)	CG-01041
1.25-1.49 (32-38)	1,500 (6,672)	5 (127)	15 (381)	CG-01042
1.50-1.74 (38-44)	1,500 (6,672)	5 (127)	17 (432)	CG-01043
1.75-1.99 (44-51)	2,000 (8,896)	6 (152)	19 (483)	CG-01044

NEMA 12 Electrical Boxes

Continuous hinge. Provides protection from dirt, dust, oil and water.



Construction

- Heavy 14 gauge steel
- Continuously welded seams
- Closed-cell neoprene gasket
- External mounting feet
- Panel included
- Weldnuts provided for mounting panel
- External screw clamps are quick and easy to operate
- Grounding kit provided
- Furnished without knockouts

Finish

ANSI-61 gray polyester powder inside and out over phosphatised surfaces. Panels are painted white polyester powder.

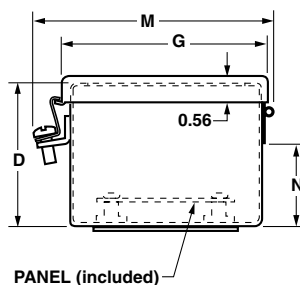
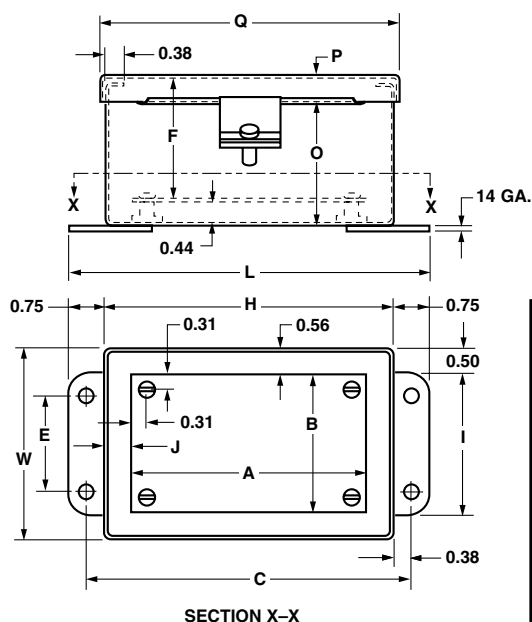
Listings

- UL 50 Listed, Types 12 & 13
- CSA Certified, Types 12 & 13
- Meets NEMA/EEMAC Type 12 & 13 requirements
- JIC EL - 1 - 71

Application: Designed for use as instrument housings, electrical control enclosures, terminal wiring boxes or electrical junction boxes.

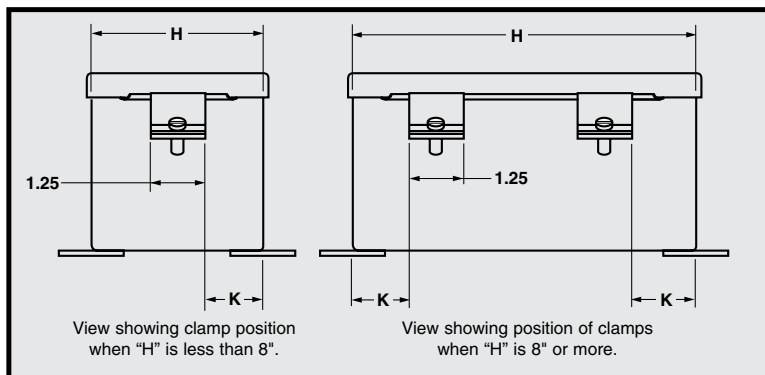
Consult factory for other sizes and configurations.

Box Model No.	Enclosure Size HxWxD	Panel Size A x B	Mounting C x E	Overall L x M	F	G	I	J	K	N	O	P	Q
ENC-060604	6.00x6.00x4.00 (152x152x102)	4.88x4.88 (124x124)	6.75x4.00 (171x102)	7.50x7.00 (191x178)	3.53 (101)	6.31 (160)	5.00 (127)	0.56 (14)	2.38 (60)	2.78 (71)	3.53 (90)	0.63 (16)	6.31 (160)
ENC-080804	8.00x8.00x4.00 (203x203x102)	6.88x6.88 (175x175)	8.75x6.00 (222x152)	9.50x9.00 (241x229)	3.53 (101)	8.31 (211)	7.00 (178)	0.56 (14)	1.00 (25)	2.78 (71)	3.53 (90)	0.63 (16)	8.31 (211)
ENC-100804	10.00x8.00x4.00 (254x203x102)	8.88x6.88 (225x175)	10.75x6.00 (273x152)	11.50x9.00 (292x229)	3.53 (101)	8.31 (211)	7.00 (178)	0.56 (14)	1.00 (25)	2.78 (71)	3.53 (90)	0.63 (16)	10.31 (262)
ENC-101006	10.00x10.00x6.00 (254x254x152)	8.88x8.88 (225x225)	10.75x8.00 (273x203)	11.50x11.00 (292x279)	5.53 (152)	10.31 (262)	9.00 (229)	0.56 (14)	1.00 (25)	4.78 (121)	5.53 (141)	0.63 (16)	10.31 (262)
ENC-121206	12.00x12.00x6.00 (305x305x152)	10.88x10.88 (276x276)	12.75x10.00 (324x254)	13.50x13.00 (343x330)	5.53 (152)	12.31 (313)	11.00 (279)	0.56 (14)	1.00 (25)	4.78 (121)	5.53 (141)	0.63 (16)	12.31 (313)
ENC-141206	14.00x12.00x6.00 (356x305x152)	12.88x10.88 (327x276)	14.75x10.00 (375x254)	15.50x13.00 (394x330)	5.53 (152)	12.31 (313)	11.00 (279)	0.56 (14)	1.00 (25)	4.78 (121)	5.53 (141)	0.63 (16)	14.31 (364)
ENC-161006	16.00x10.00x6.00 (406x254x152)	14.88x8.88 (378x226)	16.75x8.00 (425x203)	17.50x11.00 (445x279)	5.53 (152)	10.31 (262)	9.00 (229)	0.56 (14)	1.00 (25)	4.78 (121)	5.53 (141)	0.63 (16)	16.31 (414)



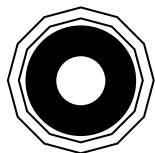
NOTES:

1. Panels (included) are 14 Ga. Steel.
2. Panel Screws are #10-32 Pan Hd.
3. Two Cover Clamps are used if H = 8.00" or more. See below.



CONNECTORS

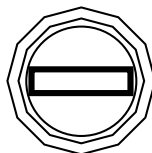
for
ROUND CABLE



BRASS MODELS	CABLE O.D. RANGE in.	HOLE REQ'D in. (mm)
CBR-01	0.275 - 0.492	0.750 (19)
CBR-02	0.275 - 0.590	0.812 (21)
CBR-03	0.315 - 0.630	0.906 (23)
CBR-04	0.433 - 0.866	1.125 (29)
CBR-05	0.748 - 1.220	1.469 (37)

PLASTIC MODELS	CABLE O.D. RANGE in.	HOLE REQ'D in. (mm)
CPR-11	0.231 - 0.394	0.750 (19)
CPR-12	0.270 - 0.480	0.812 (21)
CPR-13	0.428 - 0.546	0.906 (23)
CPR-14	0.545 - 0.709	1.125 (29)
CPR-15	0.709 - 1.000	1.469 (37)

for
FLAT CABLE



BRASS MODELS	CABLE THICK RANGE in.	CABLE WIDTH RANGE in.	CLEARANCE HOLE REQ'D in. (mm)
CBF-21	0.16 - 0.45	0.55 - 1.18	1.469 (37)
CBF-22	0.16 - 0.45	0.94 - 1.57	1.875 (48)
CBF-23	0.20 - 0.47	1.14 - 1.77	2.125 (54)
CBF-24	0.20 - 0.47	1.34 - 1.97	2.375 (60)

PLASTIC MODELS	CABLE THICK RANGE in.	CABLE WIDTH RANGE in.	CLEARANCE HOLE REQ'D in. (mm)
CPF-31	0.45 - 1.18	0.55 - 1.02	1.469 (37)
CPF-32	0.45 - 1.57	0.94 - 1.34	1.875 (48)
CPF-33	0.47 - 1.77	1.14 - 1.57	2.125 (54)
CPF-34	0.47 - 1.97	1.14 - 1.77	2.375 (60)

Round Cable Type SO 600 VOLT

Use the information below as a guide to cable or hose sizes and weights. Refer to the National Electrical Code for ampere ratings and other details.

16 AWG.			14 AWG.			12 AWG.			10 AWG.		
NO. COND.	DIA. in. (mm)	WEIGHT/ft. lbs. (kg)	NO. COND.	DIA. in. (mm)	WEIGHT/ft. lbs. (kg)	NO. COND.	DIA. in. (mm)	WEIGHT/ft. lbs. (kg)	NO. COND.	DIA. in. (mm)	WEIGHT/ft. lbs. (kg)
2	0.374 (9)	0.094 (0.04)	2	0.512 (13)	0.158 (0.07)	2	0.586 (15)	0.204 (0.09)	2	0.638 (16)	0.250 (0.11)
3	0.393 (10)	0.110 (0.05)	3	0.538 (14)	0.184 (0.08)	3	0.616 (16)	0.244 (0.11)	3	0.671 (17)	0.310 (0.14)
4	0.427 (11)	0.144 (0.06)	4	0.584 (15)	0.224 (0.10)	4	0.668 (17)	0.282 (0.13)	4	0.730 (19)	0.371 (0.17)
5	0.510 (13)	0.156 (0.07)	5	0.665 (17)	0.160 (0.12)	5	0.725 (18)	0.322 (0.14)	5	0.796 (20)	0.425 (0.19)
6	0.565 (14)	0.178 (0.08)	6	0.710 (18)	0.302 (0.14)	6	0.805 (20)	0.380 (0.17)	6	0.883 (22)	0.485 (0.22)
7	0.605 (15)	0.202 (0.09)	7	0.710 (18)	0.329 (0.15)	7	0.865 (22)	0.435 (0.20)			
8	0.645 (16)	0.222 (0.10)	8	0.770 (20)	0.373 (0.17)	8	0.920 (23)	0.475 (0.21)			
9	0.720 (18)	0.268 (0.12)	9	0.820 (21)	0.414 (0.19)						
10	0.720 (18)	0.278 (0.13)	10	0.885 (22)	0.434 (0.20)						
12	0.740 (19)	0.305 (0.14)									

Round Cable Type W 600 VOLT

8 AWG.			6 AWG.			4 AWG.		
NO. COND.	DIA. in. (mm)	WEIGHT/ft. lbs. (kg)	NO. COND.	DIA. in. (mm)	WEIGHT/ft. lbs. (kg)	NO. COND.	DIA. in. (mm)	WEIGHT/ft. lbs. (kg)
2	0.788 (20)	0.328 (0.15)	2	0.872 (22)	0.425 (0.19)	2	0.980 (25)	0.575 (0.26)
3	0.894 (23)	0.470 (0.21)	3	0.983 (25)	0.614 (0.28)	3	1.068 (27)	0.797 (0.36)
4	0.966 (25)	0.583 (0.26)	4	1.068 (27)	0.769 (0.35)	4	1.166 (30)	1.019 (0.46)

Flat Cable

NEOPRENE JACKETED

AWG SIZE	NO. COND.	THICK x WIDE in. (mm)	WEIGHT/ft. lbs. (kg)
14	4	0.275 (7) x 0.785 (20)	0.181 (.08)
	12	0.295 (7) x 2.165 (55)	0.557 (.25)
12	4	0.335 (9) x 0.945 (24)	0.268 (.12)
10	4	0.335 (9) x 1.045 (27)	0.335 (.15)
6	4	0.490 (12) x 1.495 (38)	0.739 (.33)
4	4	0.550 (14) x 1.810 (46)	1.061 (.48)

PVC JACKETED

AWG SIZE	NO. COND.	THICK x WIDE in. (mm)	WEIGHT/ft. lbs. (kg)
16	8	0.22 (6) x 1.16 (29)	0.18 (.08)
	12	0.22 (6) x 1.66 (42)	0.27 (.12)
14	4	0.23 (6) x 0.66 (17)	0.12 (.05)
	8	0.23 (6) x 1.23 (31)	0.22 (.10)
	12	0.23 (6) x 1.75 (44)	0.34 (.15)
12	4	0.25 (6) x 0.74 (19)	0.16 (.07)
	8	0.25 (6) x 1.39 (35)	0.32 (.14)
10	4	0.29 (7) x 0.91 (23)	0.24 (.11)
8	4	0.39 (9) x 1.24 (31)	0.42 (.19)
6	4	0.45 (11) x 1.50 (38)	0.60 (.27)
4	4	0.52 (13) x 1.74 (44)	0.75 (.34)

Hose

GENERAL PURPOSE

I.D. in. (mm)	BRAID	O.D. in. (mm)	MAX PRES psi	WEIGHT/ft. lbs. (kg)
0.25 (6)	2	0.57 (14)	315	0.12 (.05)
0.38 (10)	2	0.73 (19)	315	0.18 (.08)
0.50 (13)	2	0.88 (22)	315	0.24 (.11)
0.75 (19)	2	1.16 (29)	250	0.37 (.17)
1.00 (25)	2	1.50 (38)	150	0.64 (.29)
1.25 (32)	2	1.75 (44)	150	1.01 (.45)
1.50 (38)	2	2.00 (51)	150	1.06 (.48)

SINGLE HYDRAULIC

I.D. in. (mm)	BRAID	O.D. in. (mm)	MAX PRES psi	WEIGHT/ft. lbs. (kg)
0.25 (6)	2	0.59 (15)	250	0.13 (.06)
0.38 (10)	2	0.72 (18)	250	0.18 (.08)
0.50 (13)	2	0.84 (21)	250	0.24 (.11)
0.75 (19)	2	1.16 (29)	250	0.37 (.17)
1.00 (25)	2	1.50 (38)	150	0.64 (.29)
1.25 (32)	2	1.75 (44)	150	1.01 (.45)

Compact, 600-Volt Slip Rings

SERIES "DR" FEATURES

- Fits most standard applications
- Mounts in minimum space
- Mounts vertical or horizontal
- Nylatron/Durez bearings
- Lead wires connect to slip ring lead wires at junction box, NOT at the slip ring or inside the mounting shaft
- Available in 2 through 10 pole models
- Special models available
- Rotation speeds to 40 rpm
- 600 Volt rating



HOW TO SELECT A SLIP RING:

Electrical considerations:

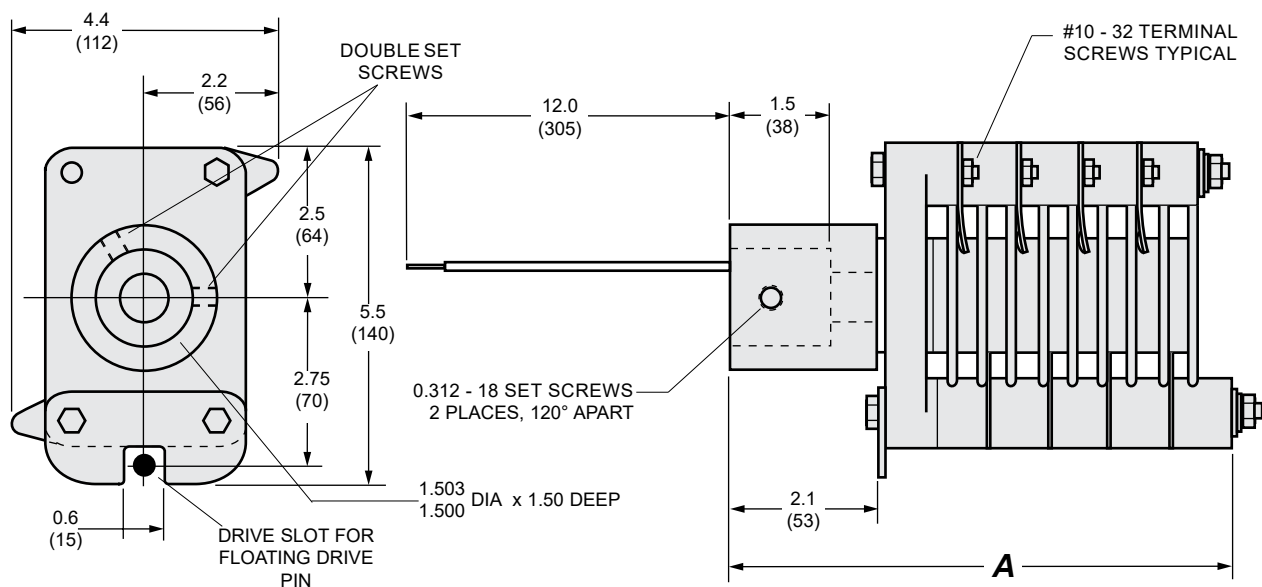
STEP Select a 30- or 55-amp slip ring model from the charts below. The model you choose should have the same number of poles as the number of circuits you are connecting, including ground. Standard slip rings are rated at 600 volts.

Physical requirements:

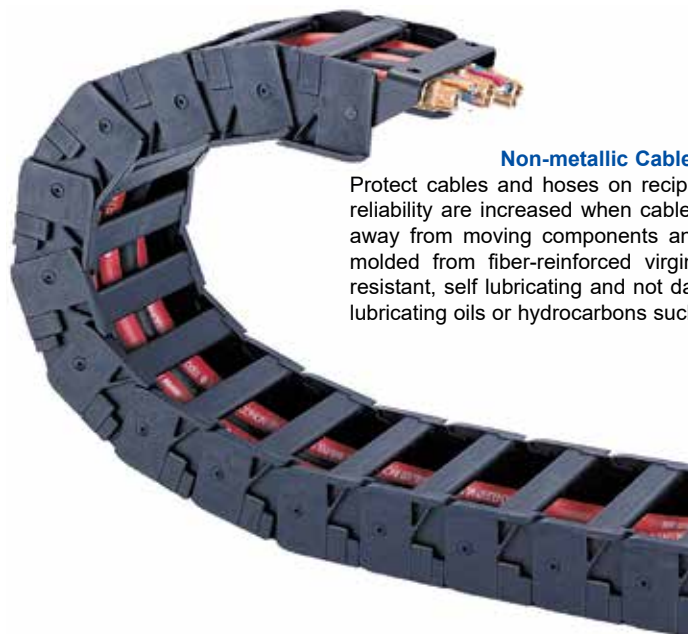
STEP Check your clearance requirements against dimensional data below. Note that your mounting shaft must be no larger than 1.50" O.D. in order to connect with the slip ring drive collar. See dimensional data and diagram below.

30 Amp Slip Rings

Slip Ring Model No.	No. Poles	Length (A) Slip Ring in. (mm)	AWG Lead*
DR030-02	2	4.9 (124)	#12
DR030-04	4	5.9 (150)	#12
DR030-06	6	6.6 (168)	#12
DR030-08	8	7.4 (188)	#12
DR030-10	10	8.1 (206)	#12
DR030-12	12	8.8 (224)	#12

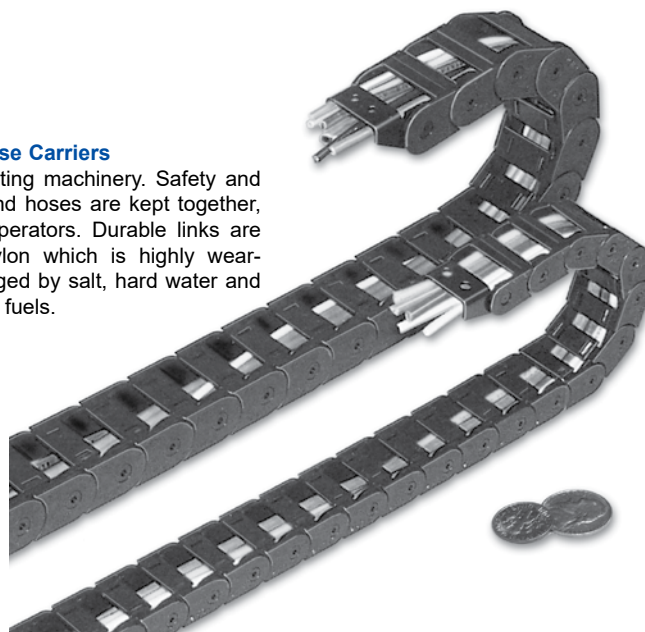


MODULAR CARRIER TRAK



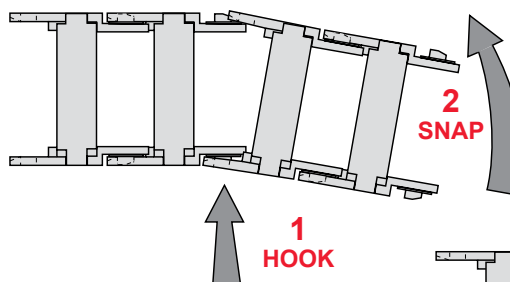
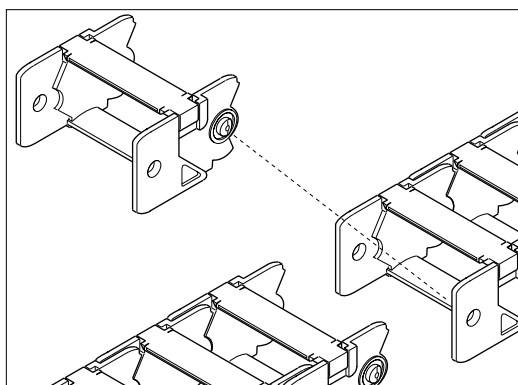
Non-metallic Cable/Hose Carriers

Protect cables and hoses on reciprocating machinery. Safety and reliability are increased when cables and hoses are kept together, away from moving components and operators. Durable links are molded from fiber-reinforced virgin nylon which is highly wear-resistant, self lubricating and not damaged by salt, hard water and lubricating oils or hydrocarbons such as fuels.

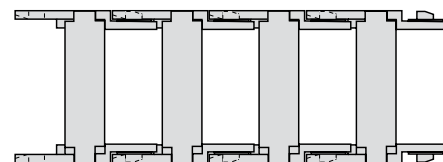


Modular Trak is available in a wide variety of configurations and sizes to handle cable or hose up to 1.676" dia. Larger sizes are available with standard closed tops, flip-tops to facilitate cable/hose installation, or completely enclosed models designed to protect cables and hoses from dirt, chips, etc. Kits of all styles facilitate application and purchasing. Standard and flip-top configurations are also available in bulk which is especially attractive to OEM and other high volume users. Refer to following pages for details.

Easy Assembly of Kits or Bulk Trak

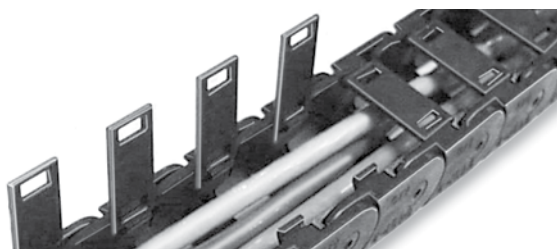


Extenders or bulk sections snap easily into place. Each Extender provides one foot additional travel with end mounting, two feet additional travel with center mounting. Individual links may be removed to arrive at exact length.



Flip-Top

Quickly Install Cables and Hoses



Snap-In Separators

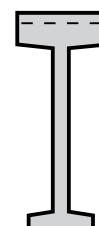
(Optional for P16 and P25)

Group Cables and Hoses

OPTIONAL Snap-in Separators (see dimension "N") may be ordered for Types P16 and P25. Simple field installation.

Pkg of 12 P16 separators:
Model No. **P16SP**

Pkg of 12 P25 separators:
Model No. **P25SP**



MODULAR TRAK - KITS & BULK

SELECTION

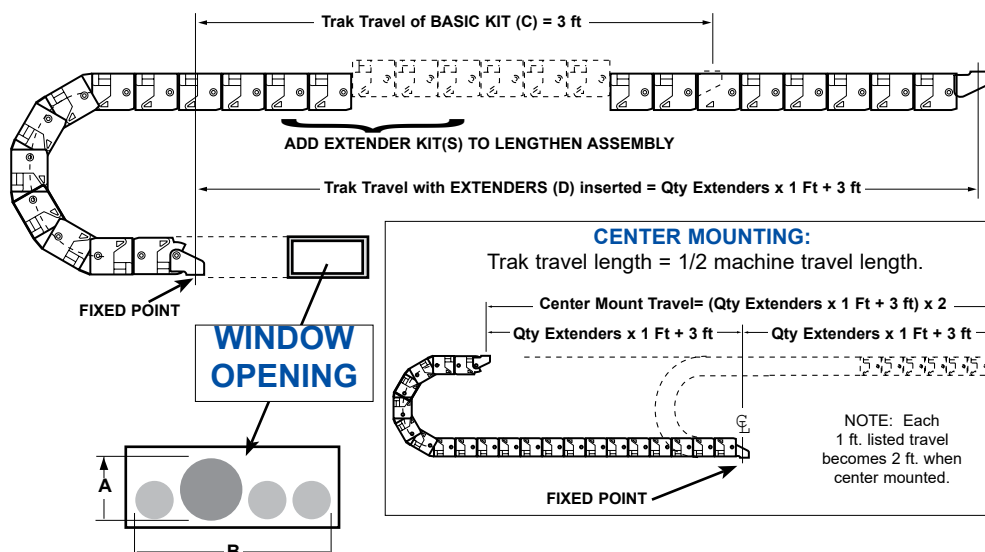
BASIC KITS (C) include enough trak to form the curve and provide for three ft. of machine travel (standard mounting) or six ft. of machine travel (center mounting). Mounting hardware included.

EXTENDERS (D) include one foot of trak only - no hardware. Extenders are inserted into the BASIC KIT to provide additional travel and required overall length. Links snap together. Individual links can be easily removed with a screwdriver to provide custom length.

BULK TRAK is ideal for high volume users. Shipped in 10' lengths packed in 12" x 12" x 12" cartons or 3" lengths packed in 12.5" x 12.5" x 40" cartons. Bulk trak does NOT include brackets. Order brackets (sets of 6 only) separately.

END MOUNTING:

Trak travel length = Machine travel length.



1. WINDOW. See columns A & B below. Select trak that accommodates height and width of hose/cable bundle.

2. TRAVEL. Measure machine travel. Determine if fixed point of trak is to be at end (standard mount) or in center of machine travel. See drawings, left.

3. ORDER TRAK.

A. BASIC KIT (C) provides 3' travel (standard mount), up to 6' for center mount.

B. EXTENDER KITS (D)

Provide 1' travel. Order as many as needed for travel.

Formula: *Trak travel (ft) minus 3 (rounded to next highest number) equals extender kits required.*

NOTE:

Individual links may be removed to obtain exact length. See DIMENSIONS page for length (pitch) of each size link.

A Max. Height Largest O.D. Hose/Cable Bundle in. (mm)	B Max. Width Hose/Cable Bundle in. (mm)	C Basic Kit 3 Ft. Travel (With brackets) Model No	D Extender 1 Ft. Travel (No brackets) Model No.	Bulk Trak 3 Ft. Lengths Brackets NOT included Model No.	Bulk Trak Total Length in Carton ft.	Brackets Male & Female 6 sets Model No.
0.286 (7)	0.531 (13)	P10-1-1.4-3.0	EP10-1-1.4-1.0	BP10-1-1.4	318	BB10-1
0.286 (7)	0.900 (23)	P10-2-1.4-3.0	EP10-2-1.4-1.0	BP10-2-1.4	264	BB10-2
0.382 (9)	0.900 (23)	P10-2-1.9-3.0	EP10-2-1.9-1.0	BP10-2-1.9	264	BB10-2
0.410 (10)	1.350 (34)	P13-1-2.0-3.0	EP13-1-2.0-1.0	BP13-1-2.0	120	BB13-1
0.740 (19)	1.350 (34)	P13-1-3.7-3.0	EP13-1-3.7-1.0	BP13-1-3.7	120	BB13-1
0.410 (10)	2.052 (52)	P13-2-2.0-3.0	EP13-2-2.0-1.0	BP13-2-2.0	96	BB13-2
0.740 (19)	2.052 (52)	P13-2-3.7-3.0	EP13-2-3.7-1.0	BP13-2-3.7	96	BB13-2
0.410 (10)	2.772 (70)	P13-3-2.0-3.0	EP13-3-2.0-1.0	BP13-3-2.0	72	BB13-3
0.740 (19)	2.772 (70)	P13-3-3.7-3.0	EP13-3-3.7-1.0	BP13-3-3.7	72	BB13-3
0.382 (9)	1.350 (34)	P16-1-1.9-3.0	EP16-1-1.9-1.0	BP16-1-1.9	90	BB16-1
0.688 (17)	1.350 (34)	P16-1-3.4-3.0	EP16-1-3.4-1.0	BP16-1-3.4	90	BB16-1
0.382 (9)	2.052 (52)	P16-2-1.9-3.0	EP16-2-1.9-1.0	BP16-2-1.9	84	BB16-2
0.688 (17)	2.052 (52)	P16-2-3.4-3.0	EP16-2-3.4-1.0	BP16-2-3.4	84	BB16-2
0.382 (9)	2.772 (70)	P16-3-1.9-3.0	EP16-3-1.9-1.0	BP16-3-1.9	63	BB16-3
0.688 (17)	2.772 (70)	P16-3-3.4-3.0	EP16-3-3.4-1.0	BP16-3-3.4	63	BB16-3
0.382 (9)	3.654 (93)	P16-4-1.9-3.0	EP16-4-1.9-1.0	BP16-4-1.9	42	BB16-4
0.688 (17)	3.654 (93)	P16-4-3.4-3.0	EP16-4-3.4-1.0	BP16-4-3.4	42	BB16-4
0.680 (17)	2.340 (59)	P25-1-3.4-3.0	EP25-1-3.4-1.0	BP25-1-3.4	36	BB25-1
0.680 (17)	3.825 (97)	P25-2-3.4-3.0	EP25-2-3.4-1.0	BP25-2-3.4	24	BB25-2
0.956 (24)	3.825 (97)	P25-2-4.7-3.0	EP25-2-4.7-1.0	BP25-2-4.7	24	BB25-2
1.546 (39)	3.825 (97)	P25-2-7.7-3.0	EP25-2-7.7-1.0	BP25-2-7.7	24	BB25-2
1.575 (40)	3.825 (97)	P25-2-11.6-3.0	EP25-2-11.6-1.0	BP25-2-11.6	24	BB25-2
0.956 (24)	5.940 (151)	P25-3-4.7-3.0	EP25-3-4.7-1.0	BP25-3-4.7	18	BB25-3
1.546 (39)	5.940 (151)	P25-3-7.7-3.0	EP25-3-7.7-1.0	BP25-3-7.7	18	BB25-3
0.468 (12)	1.350 (34)	T0815-2.3-3.0	ET0815-2.3-1.0	-	-	-
0.650 (16)	1.800 (82)	T1020-3.2-3.0	ET1020-3.2-1.0	-	-	-
0.900 (23)	1.800 (82)	T1020-5.8-3.0	ET1020-5.8-1.0	-	-	-
0.824 (21)	2.700 (69)	T1530-4.1-3.0	ET1530-4.1-1.0	-	-	-
1.350 (34)	2.700 (69)	T1530-7.7-3.0	ET1530-7.7-1.0	-	-	-
1.176 (30)	4.050 (103)	T2045-5.8-3.0	ET2045-5.8-1.0	-	-	-
1.676 (43)	4.050 (103)	T2045-8.3-3.0	ET2045-8.3-1.0	-	-	-



Standard

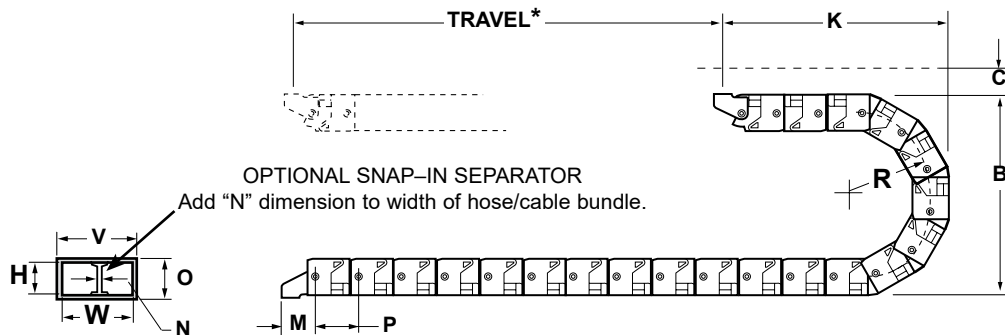


Flip-Top



Enclosed

MODULAR TRAK DIMENSIONS



NOTES

*MOUNTING:

End Mounted *trak* travel equals *machine* travel.

Center Mounted *trak* travel equals 1/2 *machine* travel.

****WEIGHT** per foot of trak only. Add weight per foot of hose/cable bundle.

SERIES	W	H	R	WGT** (lbs/ft.)	B	CLEARANCE C	OVERALL O	K	M	SEPARATOR N	PITCH P	OVERALL V
P10-1-1.4-...	0.59	0.75	1.43	0.20	3.86	2.00	1.00	5.68	1.33	—	1.250	1.03
P10-2-1.4-...	1.00	0.75	1.43	0.25	3.86	2.00	1.00	5.68	1.33	—	1.250	1.44
P10-2-1.9-...	1.00	0.75	1.91	0.25	4.82	2.00	1.00	5.41	1.33	—	1.250	1.44
P13-1-2.0-...	1.50	0.98	2.05	0.44	5.44	3.00	1.34	5.50	1.19	—	1.812	2.12
P13-1-3.7-...	1.50	0.98	3.70	0.44	8.74	3.00	1.34	7.56	1.19	—	1.812	2.12
P13-2-2.0-...	2.28	0.98	2.05	0.48	5.44	3.00	1.34	5.50	1.19	—	1.812	2.91
P13-2-3.7-...	2.28	0.98	3.70	0.48	8.74	3.00	1.34	7.56	1.19	—	1.812	2.91
P13-3-2.0-...	3.08	0.98	2.05	0.54	5.44	3.00	1.34	5.50	1.19	—	1.812	3.70
P13-3-3.7-...	3.08	0.98	3.70	0.54	8.74	3.00	1.34	7.56	1.19	—	1.812	3.70
P16-1-1.9-...	1.50	1.00	1.91	0.55	5.44	3.00	1.62	5.72	1.19	0.14 ⌀	1.812	2.12
P16-1-3.4-...	1.50	1.00	3.44	0.55	8.50	3.00	1.62	7.85	1.19	0.14 ⌀	1.812	2.12
P16-2-1.9-...	2.28	1.00	1.91	0.64	5.44	3.00	1.62	5.72	1.19	0.14 ⌀	1.812	2.91
P16-2-3.4-...	2.28	1.00	3.44	0.64	8.50	3.00	1.62	7.85	1.19	0.14 ⌀	1.812	2.91
P16-3-1.9-...	3.08	1.00	1.91	0.74	5.44	3.00	1.62	5.72	1.19	0.14 ⌀	1.812	3.70
P16-3-3.4-...	3.08	1.00	3.44	0.74	8.50	3.00	1.62	7.85	1.19	0.14 ⌀	1.812	3.70
P16-4-1.9-...	4.06	1.00	1.91	0.84	5.44	3.00	1.62	5.72	1.19	0.14 ⌀	1.812	4.69
P16-4-3.4-...	4.06	1.00	3.44	0.84	8.50	3.00	1.62	7.85	1.19	0.14 ⌀	1.812	4.69
P25-1-3.4-...	2.60	1.75	3.40	1.00	9.30	3.00	2.50	8.31	1.19	0.15 ⌀	2.500	3.70
P25-2-3.4-...	4.25	1.75	3.40	1.20	9.30	3.00	2.50	8.31	1.19	0.15 ⌀	2.500	5.36
P25-2-4.7-...	4.25	1.75	4.78	1.20	12.06	3.00	2.50	10.52	1.19	0.15 ⌀	2.500	5.36
P25-2-7.7-...	4.25	1.75	7.73	1.20	17.96	3.00	2.50	11.84	1.19	0.15 ⌀	2.500	5.36
P25-2-11.6-...	4.25	1.75	11.67	1.20	25.84	3.00	2.50	15.59	1.19	0.15 ⌀	2.500	5.36
P25-3-4.7-...	6.60	1.75	4.78	1.50	12.06	3.00	2.50	10.52	1.19	0.15 ⌀	2.500	7.70
P25-3-7.7-...	6.60	1.75	7.73	1.50	17.96	3.00	2.50	11.84	1.19	0.15 ⌀	2.500	7.70
T0815-2.3-...	1.50	0.81	2.34	0.62	6.34	2.75	1.31	5.32	2.56	—	1.125	2.20
T1020-3.2-...	2.00	1.00	3.25	0.83	8.34	2.75	1.50	7.89	2.81	—	1.375	2.76
T1020-5.8-...	2.00	1.00	5.88	0.83	13.61	2.75	1.50	9.39	2.81	—	1.375	2.76
T1530-4.1-...	3.00	1.50	4.12	1.48	10.92	2.75	2.25	10.77	4.00	—	2.000	3.93
T1530-7.7-...	3.00	1.50	7.75	1.48	18.18	2.75	2.25	14.70	4.00	—	2.000	3.93
T2045-5.8-...	4.50	2.00	5.88	2.20	14.94	2.75	2.75	13.02	4.75	—	2.562	5.55
T2045-8.3-...	4.50	2.00	8.38	2.20	19.94	2.75	2.75	17.59	4.75	—	2.562	5.55

⌀ Brackets for BP16 and BP25 (bulk) shipped six male and six female per box. Brackets included with 3 ft. basic (non-bulk) kits.

Series 54 Rotary Limit Switches

Limit the travel of electrically operated doors, conveyors, hoists, machine tool work tables and similar devices. Equipment having rotating mechanisms, or linear motion which can be translated into rotational motion, can be controlled by these versatile switches. Series 54 switches can be mounted in any position and are easy to wire and adjust.

Switches Feature

- Four Gear Ratios
- Standard, Long Dwell or Fine Adjustment Cams
- Right or Left Hand Shaft
- Easy to Wire and Adjust
- Mount in Any Position
- Rugged Die-cast Aluminum Housing
- Available for NEMA 1, NEMA 4, and NEMA 12 Applications
- Multi-use Shaft - Attach Drive Sprocket using Woodruff Key, Pin or Setscrew
- Industrial duty S.P.D.T. or D.P.D.T. snap switches are UL recognized  and CSA listed 



Application

Series 54 switches are designed to serve as pilot controls for magnetic reversing starters and contactors which in turn make and break full voltage between line and load. Contacts in the switch are operated when the external shaft is rotated. For the switch to perform a pilot control function, the contact must be wired in series with the coil circuit of a magnetic reversing starter or contactor.

The shaft may rotate in either direction. When tripped, if rotation direction is reversed, the contacts will reset in 1/4 to 1 1/2 turns, depending on shaft-to-cam ratio. Switches with Long Dwell Cams are available. These cams provides for the contacts to be actuated for a longer period of time as might be required in hoist or similar applications.

Fine adjustment cams are also available. This feature increases accuracy in setting the number of turns to cause the contact to operate.

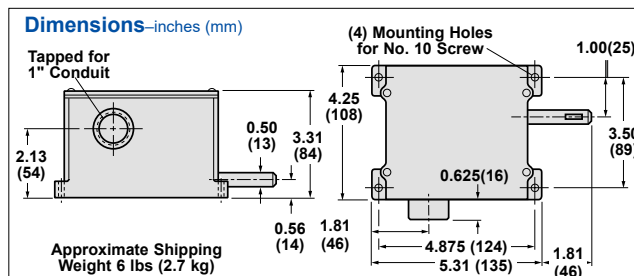
MODELS – Series 54 Model numbers are for RIGHT HAND SHAFT. For left hand shaft add **L** to model number.

Gear Ratio	Turns of Drive Shaft to Trip Contacts				Contact Blocks	Circuits		NEMA 1 & 12 Industrial Use Model No.	NEMA 4 Watertight Model No.
	Max.	Min.	Overtravel	Reset		NO	NC		
Standard Cams									
18 to 1	16	1	1.75	0.25	2	2	2	54BB23FE	54BB23EE
					3	3	3	54BB33FE	54BB33EE
					4	4	4	54BB43FE	54BB43EE
36 to 1	32	1	3.5	0.5	2	2	2	54BB23FB	54BB23EB
					3	3	3	54BB33FB	54BB33EB
					4	4	4	54BB43FB	54BB43EB
72 to 1	64	1.5	7.5	1	2	2	2	54BB23FC	54BB23EC
					3	3	3	54BB33FC	54BB33EC
					4	4	4	54BB43FC	54BB43EC
108 to 1	96	2	11	1.5	2	2	2	54BB23FD	54BB23ED
					3	3	3	54BB33FD	54BB33ED
					4	4	4	54BB43FD	54BB43ED
Long Dwell Cams									
18 to 1	15	1	2.5	0.5	2	2	2	54EB23FE	54EB23EE
					3	3	3	54EB33FE	54EB33EE
					4	4	4	54EB43FE	54EB43EE
36 to 1	30	1.5	5	1	2	2	2	54EB23FB	54EB23EB
					3	3	3	54EB33FB	54EB33EB
					4	4	4	54EB43FB	54EB43EB
72 to 1	60	2	10	1.5	2	2	2	54EB23FC	54EB23EC
					3	3	3	54EB33FC	54EB33EC
					4	4	4	54EB43FC	54EB43EC
108 to 1	90	2	15	3	2	2	2	54EB23FD	54EB23ED
					3	3	3	54EB33FD	54EB33ED
					4	4	4	54EB43FD	54EB43ED
Fine Adjustment									
18 to 1	16	1	1.75	0.25	2	2	2	54BB73FE	54BB73EE
36 to 1	32	1	3.5	0.5	2	2	2	54BB73FB	54BB73EB
72 to 1	64	1.5	7.5	1	2	2	2	54BB73FC	54BB73EC
108 to 1	96	2	11	1.5	2	2	2	54BB73FD	54BB73ED

Field Modifications	
Contact Block Kit (1 NO 1 NC)	Cat. No.
Standard Cam	54BBGB
Long Dwell Cam	54EBGB
Contact Block Kit (2 NO 2 NC)	Cat. No.
Standard Cam	54BBGD
Long Dwell Cam	54EBGD
Accessories	Cat. No.
Adjustment Tool	D27760001

Kits include switch block, cam and mounting hardware

Contact Block Specifications
15 Amp 120, 240, 480 or 600 VAC.
1/2 H.P. 120 VAC, 1.0 H.P. 240 VAC
0.8 Amp 115 VDC, 0.4 Amp 230 VDC
Pilot Duty 600 VAC Max.



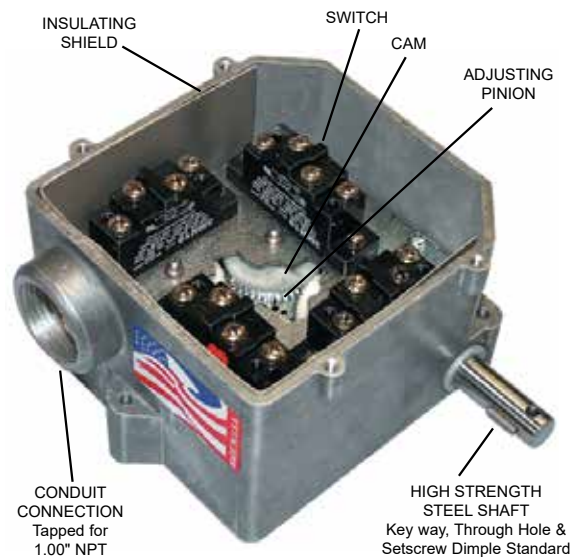
Series 55 Rotary Limit Switches

Direct replacement for GE Series CR115E Switches

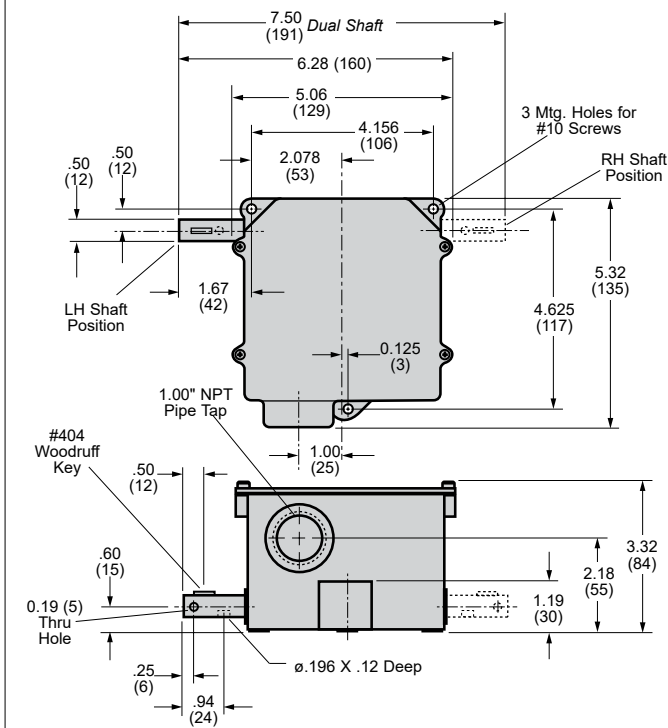
Limit the travel of electrically operated doors, conveyors, hoists, machine tool work tables and similar devices. Equipment having rotating mechanisms, or linear motion which can be translated into rotational motion, can be controlled by these versatile switches. Available with up to four S.P.D.T. or D.P.D.T. switch blocks for control of multiple functions.

Switches Feature

- 9 gear ratios
- Right hand, Left hand or Dual shaft models (RH shown in photos)
- Two, Three or Four switches
- Mount in any position
- Easy to wire
- Rugged die cast enclosures
- NEMA 4 and 7/9 construction (Exceeds requirements of NEMA 1 and NEMA 12)
- High strength steel multi-use input shaft; #404 Woodruff key slot, 0.19 dia. hole and setscrew dimple
- Switch terminal screws for quick wiring
- Extended Dwell cams available in NEMA 4
- Easy, precision timing adjustment using standard screwdriver and provided tool
- Industrial grade oil-impregnated bronze bearings
- Industrial duty S.P.D.T. or D.P.D.T. snap switches are UL recognized and CSA listed .



NEMA 4 Dimensions—Inches (mm). LH model shown in gray.



Geared Rotary Limit Switches for overtravel protection and other uses on material handling equipment, hoists, cranes, valves, compacting equipment, machine tool lead screws, packaging machinery, stage curtains, powered doors, gates and windows, etc.

Mounting and shaft location allows direct replacement of GE Series CR115 switches.

Contact Block Specifications

15 Amp 120, 240, 480 or 600 VAC.
 1/2 H.P. 120 VAC, 1.0 H.P. 240 VAC
 0.8 Amp 115 VDC, 0.4 Amp 230 VDC
 Pilot Duty 600 VAC Max.

Series 55 Rotary Limit Switches

MODELS – Series 55 NEMA 4

Gear Ratio	Turns of Drive Shaft to Trip Contacts				Contact Blocks	Circuits		RIGHT HAND SHAFT NEMA 4	LEFT HAND SHAFT NEMA 4	DUAL SHAFT NEMA 4
	Max.	Min.	Overtravel	Reset		NO	NC	Model No.*	Model No.*	Model No.*
Standard Cams										
20.5 to 1	18	1	2.5	0.5	2 3 4	2 3 4	2 3 4	55-4E-2SP-WR-20 55-4E-3SP-WR-20 55-4E-4SP-WR-20	55-4E-2SP-WL-20 55-4E-3SP-WL-20 55-4E-4SP-WL-20	55-4E-2SP-WB-20 55-4E-3SP-WB-20 55-4E-4SP-WB-20
42.5 to 1	36.5	1	6	0.5	2 3 4	2 3 4	2 3 4	55-4E-2SP-WR-40 55-4E-3SP-WR-40 55-4E-4SP-WR-40	55-4E-2SP-WL-40 55-4E-3SP-WL-40 55-4E-4SP-WL-40	55-4E-2SP-WB-40 55-4E-3SP-WB-40 55-4E-4SP-WB-40
80 to 1	68	1.5	12	0.75	2 3 4	2 3 4	2 3 4	55-4E-2SP-WR-80 55-4E-3SP-WR-80 55-4E-4SP-WR-80	55-4E-2SP-WL-80 55-4E-3SP-WL-80 55-4E-4SP-WL-80	55-4E-2SP-WB-80 55-4E-3SP-WB-80 55-4E-4SP-WB-80
111 to 1	97	2	14	1.25	2 3 4	2 3 4	2 3 4	55-4E-2SP-WR-111 55-4E-3SP-WR-111 55-4E-4SP-WR-111	55-4E-2SP-WL-111 55-4E-3SP-WL-111 55-4E-4SP-WL-111	55-4E-2SP-WB-111 55-4E-3SP-WB-111 55-4E-4SP-WB-111
222 to 1	192	3	30	2.5	2 3 4	2 3 4	2 3 4	55-4E-2SP-WR-222 55-4E-3SP-WR-222 55-4E-4SP-WR-222	55-4E-2SP-WL-222 55-4E-3SP-WL-222 55-4E-4SP-WL-222	55-4E-2SP-WB-222 55-4E-3SP-WB-222 55-4E-4SP-WB-222
333 to 1	265	4	48	3.5	2 3 4	2 3 4	2 3 4	55-4E-2SP-WR-333 55-4E-3SP-WR-333 55-4E-4SP-WR-333	55-4E-2SP-WL-333 55-4E-3SP-WL-333 55-4E-4SP-WL-333	55-4E-2SP-WB-333 55-4E-3SP-WB-333 55-4E-4SP-WB-333
444 to 1	381	5	63	4.5	2 3 4	2 3 4	2 3 4	55-4E-2SP-WR-444 55-4E-3SP-WR-444 55-4E-4SP-WR-444	55-4E-2SP-WL-444 55-4E-3SP-WL-444 55-4E-4SP-WL-444	55-4E-2SP-WB-444 55-4E-3SP-WB-444 55-4E-4SP-WB-444
640 to 1	550	8	90	7	2 3 4	2 3 4	2 3 4	55-4E-2SP-WR-640 55-4E-3SP-WR-640 55-4E-4SP-WR-640	55-4E-2SP-WL-640 55-4E-3SP-WL-640 55-4E-4SP-WL-640	55-4E-2SP-WB-640 55-4E-3SP-WB-640 55-4E-4SP-WB-640
1280 to 1	1095	24	185	23.5	2 3 4	2 3 4	2 3 4	55-4E-2SP-WR-1280 55-4E-3SP-WR-1280 55-4E-4SP-WR-1280	55-4E-2SP-WL-1280 55-4E-3SP-WL-1280 55-4E-4SP-WL-1280	55-4E-2SP-WB-1280 55-4E-3SP-WB-1280 55-4E-4SP-WB-1280
Extended Dwell Cams										
20.5 to 1	17	1	3.25	0.25	2 3 4	2 3 4	2 3 4	55-4E-2SP-WR-20-LD 55-4E-3SP-WR-20-LD 55-4E-4SP-WR-20-LD	55-4E-2SP-WL-20-LD 55-4E-3SP-WL-20-LD 55-4E-4SP-WL-20-LD	55-4E-2SP-WB-20-LD 55-4E-3SP-WB-20-LD 55-4E-4SP-WB-20-LD
42.5 to 1	35	1.5	7.5	0.75	2 3 4	2 3 4	2 3 4	55-4E-2SP-WR-40-LD 55-4E-3SP-WR-40-LD 55-4E-4SP-WR-40-LD	55-4E-2SP-WL-40-LD 55-4E-3SP-WL-40-LD 55-4E-4SP-WL-40-LD	55-4E-2SP-WB-40-LD 55-4E-3SP-WB-40-LD 55-4E-4SP-WB-40-LD
80 to 1	66	2	14	1.25	2 3 4	2 3 4	2 3 4	55-4E-2SP-WR-80-LD 55-4E-3SP-WR-80-LD 55-4E-4SP-WR-80-LD	55-4E-2SP-WL-80-LD 55-4E-3SP-WL-80-LD 55-4E-4SP-WL-80-LD	55-4E-2SP-WB-80-LD 55-4E-3SP-WB-80-LD 55-4E-4SP-WB-80-LD
111 to 1	90	3	21	2.5	2 3 4	2 3 4	2 3 4	55-4E-2SP-WR-111-LD 55-4E-3SP-WR-111-LD 55-4E-4SP-WR-111-LD	55-4E-2SP-WL-111-LD 55-4E-3SP-WL-111-LD 55-4E-4SP-WL-111-LD	55-4E-2SP-WB-111-LD 55-4E-3SP-WB-111-LD 55-4E-4SP-WB-111-LD
222 to 1	182	4	40	4	2 3 4	2 3 4	2 3 4	55-4E-2SP-WR-222-LD 55-4E-3SP-WR-222-LD 55-4E-4SP-WR-222-LD	55-4E-2SP-WL-222-LD 55-4E-3SP-WL-222-LD 55-4E-4SP-WL-222-LD	55-4E-2SP-WB-222-LD 55-4E-3SP-WB-222-LD 55-4E-4SP-WB-222-LD
333 to 1	275.0	5.0	58.0	6.0	2 3 4	2 3 4	2 3 4	55-4E-2SP-WR-333-LD 55-4E-3SP-WR-333-LD 55-4E-4SP-WR-333-LD	55-4E-2SP-WL-333-LD 55-4E-3SP-WL-333-LD 55-4E-4SP-WL-333-LD	55-4E-2SP-WB-333-LD 55-4E-3SP-WB-333-LD 55-4E-4SP-WB-333-LD

* S.P.D.T. switches shown. To order D.P.D.T. switches, substitute DP for SP in model number.

Example: Model Number 55-4E-3SP-WR-111-LD=S.P.D.T. switch. Model number 55-4E-3DP-WR-111-LD=D.P.D.T. switch.

Series 55 Rotary Limit Switches

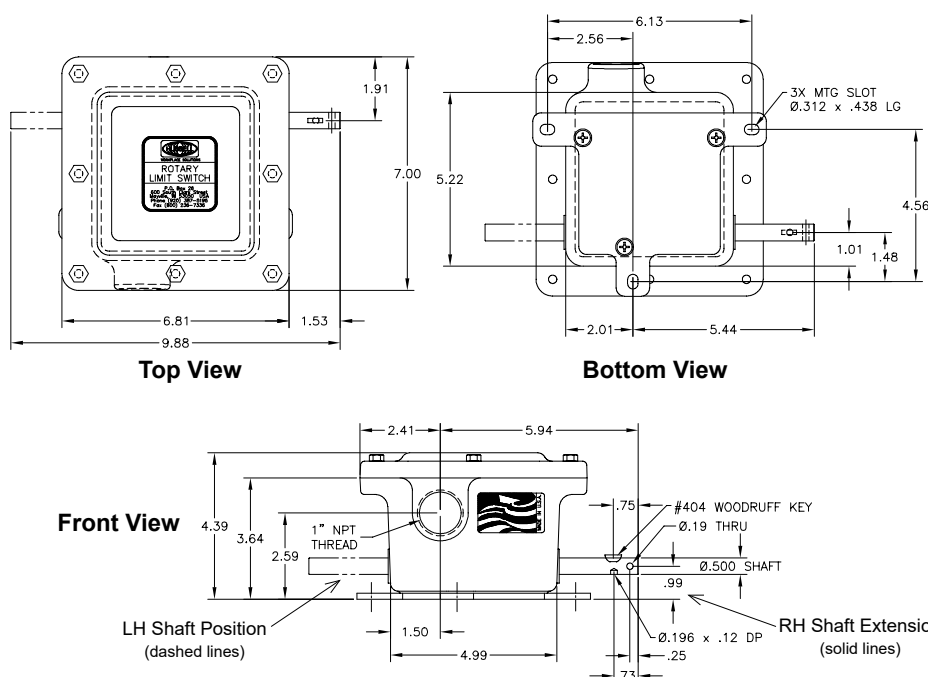
**NEW
PRODUCT**

MODELS – Series 55 NEMA 7/9 Explosion Proof

Gear Ratio	Turns of Drive Shaft to Trip Contacts				Contact Blocks	Circuits		RIGHT HAND SHAFT NEMA 7/9	LEFT HAND SHAFT NEMA 7/9	DUAL SHAFT NEMA 7/9
	Max.	Min.	Overtravel	Reset		NO	NC	Model No.*	Model No.*	Model No.*
Standard Cams										
20.5 to 1	18	1	2.5	0.5	2 3 4	2 3 4	2 3 4	55-7E-2SP-WR-20 55-7E-3SP-WR-20 55-7E-4SP-WR-20	55-7E-2SP-WL-20 55-7E-3SP-WL-20 55-7E-4SP-WL-20	55-7E-2SP-WB-20 55-7E-3SP-WB-20 55-7E-4SP-WB-20
42.5 to 1	36.5	1	6	0.5	2 3 4	2 3 4	2 3 4	55-7E-2SP-WR-40 55-7E-3SP-WR-40 55-7E-4SP-WR-40	55-7E-2SP-WL-40 55-7E-3SP-WL-40 55-7E-4SP-WL-40	55-7E-2SP-WB-40 55-7E-3SP-WB-40 55-7E-4SP-WB-40
80 to 1	68	1.5	12	0.75	2 3 4	2 3 4	2 3 4	55-7E-2SP-WR-80 55-7E-3SP-WR-80 55-7E-4SP-WR-80	55-7E-2SP-WL-80 55-7E-3SP-WL-80 55-7E-4SP-WL-80	55-7E-2SP-WB-80 55-7E-3SP-WB-80 55-7E-4SP-WB-80
111 to 1	97	2	14	1.25	2 3 4	2 3 4	2 3 4	55-7E-2SP-WR-111 55-7E-3SP-WR-111 55-7E-4SP-WR-111	55-7E-2SP-WL-111 55-7E-3SP-WL-111 55-7E-4SP-WL-111	55-7E-2SP-WB-111 55-7E-3SP-WB-111 55-7E-4SP-WB-111
222 to 1	192	3	30	2.5	2 3 4	2 3 4	2 3 4	55-7E-2SP-WR-222 55-7E-3SP-WR-222 55-7E-4SP-WR-222	55-7E-2SP-WL-222 55-7E-3SP-WL-222 55-7E-4SP-WL-222	55-7E-2SP-WB-222 55-7E-3SP-WB-222 55-7E-4SP-WB-222
333 to 1	265	4	48	3.5	2 3 4	2 3 4	2 3 4	55-7E-2SP-WR-333 55-7E-3SP-WR-333 55-7E-4SP-WR-333	55-7E-2SP-WL-333 55-7E-3SP-WL-333 55-7E-4SP-WL-333	55-7E-2SP-WB-333 55-7E-3SP-WB-333 55-7E-4SP-WB-333
444 to 1	381	5	63	4.5	2 3 4	2 3 4	2 3 4	55-7E-2SP-WR-444 55-7E-3SP-WR-444 55-7E-4SP-WR-444	55-7E-2SP-WL-444 55-7E-3SP-WL-444 55-7E-4SP-WL-444	55-7E-2SP-WB-444 55-7E-3SP-WB-444 55-7E-4SP-WB-444
640 to 1	550	8	90	7	2 3 4	2 3 4	2 3 4	55-7E-2SP-WR-640 55-7E-3SP-WR-640 55-7E-4SP-WR-640	55-7E-2SP-WL-640 55-7E-3SP-WL-640 55-7E-4SP-WL-640	55-7E-2SP-WB-640 55-7E-3SP-WB-640 55-7E-4SP-WB-640
1280 to 1	1095	24	185	23.5	2 3 4	2 3 4	2 3 4	55-7E-2SP-WR-1280 55-7E-3SP-WR-1280 55-7E-4SP-WR-1280	55-7E-2SP-WL-1280 55-7E-3SP-WL-1280 55-7E-4SP-WL-1280	55-7E-2SP-WB-1280 55-7E-3SP-WB-1280 55-7E-4SP-WB-1280

* S.P.D.T. switches shown. To order D.P.D.T. switches, substitute DP for SP in model number.

Example: Model Number 55-7E-3SP-WR-111-LD=S.P.D.T. switch. Model number 55-7E-3DP-WR-111-LD=D.P.D.T. switch.



Standard mounting plate allows our Limit Switch to be easily adapted to any hole pattern.

Series 55 Rotary Limit Switches

Crossover Replacements for GE Series CR115E

Gear Ratio	Contact Blocks	GE Series CR115E NEMA 1 Model No.	HWS Series 55 NEMA 4 Model No.	GE Series CR115E NEMA 7/9 Model No.	HWS Series 55 NEMA 7/9 Model No.
Right Hand Shaft—Standard Dwell Cams					
20.5 to 1	2	CR115E121102	55-4E-2SP-WR-20	CR115E721102	55-7E-2SP-WB-20
42.5 to 1	2	CR115E122102	55-4E-2SP-WR-40	CR115E722102	55-7E-2SP-WB-40
80 to 1	2	CR115E123102	55-4E-2SP-WR-80	CR115E723102	55-7E-2SP-WB-80
111 to 1	2	CR115E124102	55-4E-2SP-WR-111	CR115E724102	55-7E-2SP-WB-111
222 to 1	2	CR115E125102	55-4E-2SP-WR-222	CR115E725102	55-7E-2SP-WB-222
333 to 1	2	CR115E126102	55-4E-2SP-WR-333	CR115E726102	55-7E-2SP-WB-333
444 to 1	2	CR115E127102	55-4E-2SP-WR-444	CR115E727102	55-7E-2SP-WB-444
640 to 1	2	CR115E128102	55-4E-2SP-WR-640	CR115E728102	55-7E-2SP-WB-640
1280 to 1	2	CR115E129102	55-4E-2SP-WR-1280	CR115E729102	55-7E-2SP-WB-1280
20.5 to 1	4	CR115E141102	55-4E-4SP-WR-20	CR115E741102	55-7E-4SP-WB-20
42.5 to 1	4	CR115E142102	55-4E-4SP-WR-40	CR115E742102	55-7E-4SP-WB-40
80 to 1	4	CR115E143102	55-4E-4SP-WR-80	CR115E743102	55-7E-4SP-WB-80
111 to 1	4	CR115E144102	55-4E-4SP-WR-111	CR115E744102	55-7E-4SP-WB-111
222 to 1	4	CR115E145102	55-4E-4SP-WR-222	CR115E745102	55-7E-4SP-WB-222
333 to 1	4	CR115E146102	55-4E-4SP-WR-333	CR115E746102	55-7E-4SP-WB-333
444 to 1	4	CR115E147102	55-4E-4SP-WR-444	CR115E747102	55-7E-4SP-WB-444
640 to 1	4	CR115E148102	55-4E-4SP-WR-640	CR115E748102	55-7E-4SP-WB-640
1280 to 1	4	CR115E149102	55-4E-4SP-WR-1280	CR115E749102	55-7E-4SP-WB-1280
Left Hand Shaft—Standard Dwell Cams					
20.5 to 1	2	CR115E121112	55-4E-2SP-WL-20	CR115E721112	55-7E-2SP-WL-20
42.5 to 1	2	CR115E122112	55-4E-2SP-WL-40	CR115E722112	55-7E-2SP-WL-40
80 to 1	2	CR115E123112	55-4E-2SP-WL-80	CR115E723112	55-7E-2SP-WL-80
111 to 1	2	CR115E124112	55-4E-2SP-WL-111	CR115E724112	55-7E-2SP-WL-111
222 to 1	2	CR115E125112	55-4E-2SP-WL-222	CR115E725112	55-7E-2SP-WL-222
333 to 1	2	CR115E126112	55-4E-2SP-WL-333	CR115E726112	55-7E-2SP-WL-333
444 to 1	2	CR115E127112	55-4E-2SP-WL-444	CR115E727112	55-7E-2SP-WL-444
640 to 1	2	CR115E128112	55-4E-2SP-WL-640	CR115E728112	55-7E-2SP-WL-640
1280 to 1	2	CR115E129112	55-4E-2SP-WL-1280	CR115E729112	55-7E-2SP-WL-1280
20.5 to 1	4	CR115E141112	55-4E-4SP-WL-20	CR115E741112	55-7E-4SP-WL-20
42.5 to 1	4	CR115E142112	55-4E-4SP-WL-40	CR115E742112	55-7E-4SP-WL-40
80 to 1	4	CR115E143112	55-4E-4SP-WL-80	CR115E743112	55-7E-4SP-WL-80
111 to 1	4	CR115E144112	55-4E-4SP-WL-111	CR115E744112	55-7E-4SP-WL-111
222 to 1	4	CR115E145112	55-4E-4SP-WL-222	CR115E745112	55-7E-4SP-WL-222
333 to 1	4	CR115E146112	55-4E-4SP-WL-333	CR115E746112	55-7E-4SP-WL-333
444 to 1	4	CR115E147112	55-4E-4SP-WL-444	CR115E747112	55-7E-4SP-WL-444
640 to 1	4	CR115E148112	55-4E-4SP-WL-640	CR115E748112	55-7E-4SP-WL-640
1280 to 1	4	CR115E149112	55-4E-4SP-WL-1280	CR115E749112	55-7E-4SP-WL-1280
Dual Shaft—Standard Dwell Cams					
20.5 to 1	2	CR115E121122	55-4E-2SP-WB-20	CR115E721122	55-7E-2SP-WB-20
42.5 to 1	2	CR115E122122	55-4E-2SP-WB-40	CR115E722122	55-7E-2SP-WB-40
80 to 1	2	CR115E123122	55-4E-2SP-WB-80	CR115E723122	55-7E-2SP-WB-80
111 to 1	2	CR115E124122	55-4E-2SP-WB-111	CR115E724122	55-7E-2SP-WB-111
222 to 1	2	CR115E125122	55-4E-2SP-WB-222	CR115E725122	55-7E-2SP-WB-222
333 to 1	2	CR115E126122	55-4E-2SP-WB-333	CR115E726122	55-7E-2SP-WB-333
444 to 1	2	CR115E127122	55-4E-2SP-WB-444	CR115E727122	55-7E-2SP-WB-444
640 to 1	2	CR115E128122	55-4E-2SP-WB-640	CR115E728122	55-7E-2SP-WB-640
1280 to 1	2	CR115E129122	55-4E-2SP-WB-1280	CR115E729122	55-7E-2SP-WB-1280
20.5 to 1	4	CR115E141122	55-4E-4SP-WB-20	CR115E741122	55-7E-4SP-WB-20
42.5 to 1	4	CR115E142122	55-4E-4SP-WB-40	CR115E742122	55-7E-4SP-WB-40
80 to 1	4	CR115E143122	55-4E-4SP-WB-80	CR115E743122	55-7E-4SP-WB-80
111 to 1	4	CR115E144122	55-4E-4SP-WB-111	CR115E744122	55-7E-4SP-WB-111
222 to 1	4	CR115E145122	55-4E-4SP-WB-222	CR115E745122	55-7E-4SP-WB-222
333 to 1	4	CR115E146122	55-4E-4SP-WB-333	CR115E746122	55-7E-4SP-WB-333
444 to 1	4	CR115E147122	55-4E-4SP-WB-444	CR115E747122	55-7E-4SP-WB-444
640 to 1	4	CR115E148122	55-4E-4SP-WB-640	CR115E748122	55-7E-4SP-WB-640
1280 to 1	4	CR115E149122	55-4E-4SP-WB-1280	CR115E749122	55-7E-4SP-WB-1280

GROUNDING and BONDING CABLES

Antistatic Cables prevent sparks from static electricity generated by movement and flow of flammable liquids. **Bonding between containers during liquid transfer and connecting drums to an earth ground are required by Federal and local codes.** Various clamps and terminals allow a wide variety of uses. All cables are 7 x 19 stranded steel. Insulated cables have Safety Orange jacket.

- Available in several lengths, insulated or non-insulated
- Five types of end connectors available on all cables lengths and types
- For longer reach or "Y", connect several cables with 1/4" terminal ends
- Stranded cable for maximum flexibility and conductivity

Alligator Clip & C-Clamp

Model No.	Cable Description
GCSP-AC-03	3' Flexible Steel
GCSP-AC-05	5' Flexible Steel
GCSP-AC-10	10' Flexible Steel
GCSI-AC-03	3' Insulated Steel
GCSI-AC-05	5' Insulated Steel
GCSI-AC-10	10' Insulated Steel



Two Hand Clamps

Model No.	Cable Description
GCSP-HH-03	3' Flexible Steel
GCSP-HH-05	5' Flexible Steel
GCSP-HH-10	10' Flexible Steel
GCSI-HH-03	3' Insulated Steel
GCSI-HH-05	5' Insulated Steel
GCSI-HH-10	10' Insulated Steel



Hand Clamp & 1/4" Terminal

Model No.	Cable Description
GCSP-HE-03	3' Flexible Steel
GCSP-HE-05	5' Flexible Steel
GCSP-HE-10	10' Flexible Steel
GCSI-HE-03	3' Insulated Steel
GCSI-HE-05	5' Insulated Steel
GCSI-HE-10	10' Insulated Steel



Hand Clamp & Alligator Clip

Model No.	Cable Description
GCSP-AH-03	3' Flexible Steel
GCSP-AH-05	5' Flexible Steel
GCSP-AH-10	10' Flexible Steel
GCSI-AH-03	3' Insulated Steel
GCSI-AH-05	5' Insulated Steel
GCSI-AH-10	10' Insulated Steel



Hand Clamp & C-Clamp

Model No.	Cable Description
GCSP-HC-03	3' Flexible Steel
GCSP-HC-05	5' Flexible Steel
GCSP-HC-10	10' Flexible Steel
GCSI-HC-03	3' Insulated Steel
GCSI-HC-05	5' Insulated Steel
GCSI-HC-10	10' Insulated Steel



Two Alligator Clips

Model No.	Cable Description
GCSP-AA-03	3' Flexible Steel
GCSP-AA-05	5' Flexible Steel
GCSP-AA-10	10' Flexible Steel
GCSI-AA-03	3' Insulated Steel
GCSI-AA-05	5' Insulated Steel
GCSI-AA-10	10' Insulated Steel



Two 1/4" Terminals

Model No.	Cable Description
GCSP-EE-03	3' Flexible Steel
GCSP-EE-05	5' Flexible Steel
GCSP-EE-10	10' Flexible Steel
GCSI-EE-03	3' Insulated Steel
GCSI-EE-05	5' Insulated Steel
GCSI-EE-10	10' Insulated Steel



Individual Connectors & Accessories



Ground Clamp -- .5"-1.0"
Model No. GC-CL

UL & CSA Listed, RoHS Compliant

Bulk Wire Rope - Galvanized

Model No.	Cable Description
GCB-NY-050	50' 1/8" OD Clear
GCB-NY-075	75' 1/8" OD Clear
GCB-NY-100	100' 1/8" OD Clear
GCB-PL-050	50' 3/32" OD Plain
GCB-PL-075	75' 3/32" OD Plain
GCB-PL-100	100' 3/32" OD Plain

Bulk Wire Rope - Stainless Steel

Model No.	Cable Description
GCB-OR-050	50' 1/8" OD Orange
GCB-OR-075	75' 1/8" OD Orange
GCB-OR-100	100' 1/8" OD Orange
GCB-YL-050	50' 5/32" OD Yellow
GCB-YL-075	75' 5/32" OD Yellow
GCB-YL-100	100' 5/32" OD Yellow



C-Clamp
Model No. GC-CEE



100 Amp Alligator Clip
Model No. GC-ALG

FEDERAL SPEC: CID AA59466-010



Hand Clamp
Model No. GC-PLR



Aircraft Clamp
Model No. AGC-MOD

MIL-SPEC: M83413/7-1



Round Grounding Plug
Model No. AGP-01

MIL-SPEC: M83413/4-1



STUDBUG™ Grounding Stud
Model No. SDS-STD

STATIC DISCHARGE REELS

Ideal for a wide variety of grounding applications. Available with your choice of cable length and connector, Open Spool Reels include spring rewind, centrifugal brake and ratchet lock (permanent ratchet lock, no on/off switch). **Cable is 7 x 7 stranded stainless steel with yellow polyester elastomer cover, 5/32" OD. Reel has safety orange baked polyester finish.

Heavy-duty Open Spool Series 'OSD'

- Open Spool Design
- Cable Lengths to 100 Ft.
- Spring Rewind with Centrifugal Brake
- Rugged Steel Construction
- Choice of Grounding Clamps and Plugs



Static Discharge Reel
with HAND CLAMP

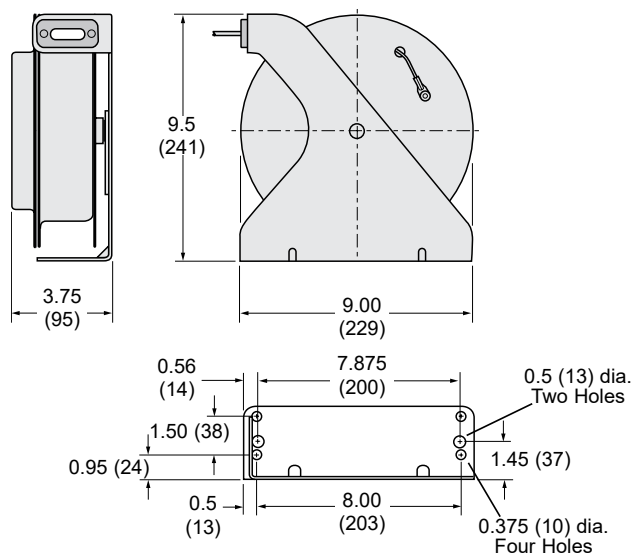


Static Discharge Reel
with 100 amp ALLIGATOR CLIP



Static Discharge Reel
with *ROUND GROUNDING PLUG
*MIL-SPEC: M83413/4-1

Unpainted surfaces on mounting plate used for grounding.



Series "OSD"

**Includes Cable Installed on Reel

Cable Length	Connector	Model Number
50'	Hand Clamp	OSD050-SS-YL-SG-C1
50'	Aircraft Clamp	OSD050-SS-YL-SG-C2
50'	Alligator Clip	OSD050-SS-YL-SG-AL
50'	Round Grounding Plug	OSD050-SS-YL-SG-P1
75'	Hand Clamp	OSD075-SS-YL-SG-C1
75'	Aircraft Clamp	OSD075-SS-YL-SG-C2
75'	Alligator Clip	OSD075-SS-YL-SG-AL
75'	Round Grounding Plug	OSD075-SS-YL-SG-P1
100'	Hand Clamp	OSD100-SS-YL-SG-C1
100'	Aircraft Clamp	OSD100-SS-YL-SG-C2
100'	Alligator Clip	OSD100-SS-YL-SG-AL
100'	Round Grounding Plug	OSD100-SS-YL-SG-P1

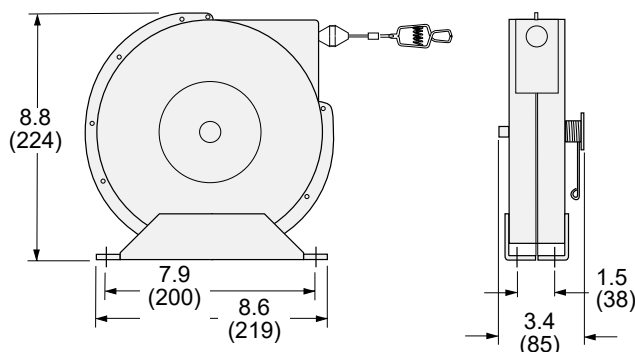
**Meets Federal Grounding Spec: RR-W-410.

STATIC DISCHARGE REELS

Ideal for a wide variety of grounding applications. Reel has enclosed spool and safety orange baked polyester finish. See table for various cable and connector options.

Enclosed Spool Series 'SD'

- Automatic **E-Z PULL™** Rewinding
- Rugged Steel Construction
- Compact Enclosed Design
- Positive Ratchet Lock with On/Off Switch
- Steel Cable Installed
- Safety Orange Polyester Baked-On Finish



Series 'SD'

Includes Cable Installed on Reel

Model No.	Cable Length ft.	Cable Material	Cable Cover	End Options
SD-2030 ¹	30	Galvanized	none	Alligator Clip
SD-2030-C1	30	Galvanized	none	Hand Clamp
SD-2030-C2	30	Galvanized	none	Aircraft Clamp
SD-2030-P1	30	Galvanized	none	Aircraft Plug, Rnd
SD-2050 ¹	50	Galvanized	none	Alligator Clip
SD-2050-C1	50	Galvanized	none	Hand Clamp
SD-2050-C2	50	Galvanized	none	Aircraft Clamp
SD-2050-P1	50	Galvanized	none	Aircraft Plug, Rnd
SD-2050-OS ³	50	Stainless	Orange	Alligator Clip
SD-2050-OS-C1 ³	50	Stainless	Orange	Hand Clamp
SD-2050-OS-C2 ³	50	Stainless	Orange	Aircraft Clamp
SD-2050-OS-P1 ³	50	Stainless	Orange	Aircraft Plug, Rnd
SD-2050N ²	50	Galvanized	Clear	Alligator Clip
SD-2050N-C1	50	Galvanized	Clear	Hand Clamp
SD-2050N-C2	50	Galvanized	Clear	Aircraft Clamp
SD-2050N-P1	50	Galvanized	Clear	Aircraft Plug, Rnd
SD-2050Y ¹	50+	Galvanized	none	Alligator Clip
SD-2050-YL-AL	50	Stainless	Yellow	Alligator Clip
SD-2050-YL-C1	50	Stainless	Yellow	Hand Clamp
SD-2050-YL-C2	50	Stainless	Yellow	Aircraft Clamp
SD-2050-YL-P1	50	Stainless	Yellow	Aircraft Plug, Rnd

End Options:

Aircraft Plug, Round



Aircraft Clamp



Hand Clamp



Alligator Clip



¹ Static discharge reels are supplied complete with 3/32" OD steel aircraft cable. The electrical resistance between the end effector and the mounting surface shall not exceed 10-Ohms.

² Nylon covered cable (1/8" OD) is an optional extra. The electrical resistance between the end effector and the mounting surface shall not exceed 10-Ohms.

³ Stainless Steel cable covered with Orange or Yellow Nylon jacket to 1/8" OD. The electrical resistance between the end effector and the mounting surface shall not exceed 10-Ohms.

Unpainted surfaces on mounting plate used for grounding.

For tools from 0.5 to 23 pounds

RELIABLE & ECONOMICAL SERIES "ED"



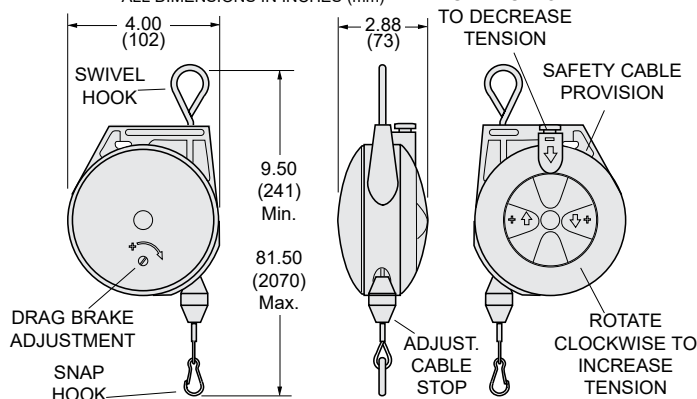
SERIES "ED" TOOL BALANCERS are the economical choice for balancing tools weighing up to 5 lbs (2.3kg). Molded ABS housing has a smooth exterior with rounded edges designed for maximum ergonomic appeal. Series "ED" balancers are the most modern, easiest to adjust, and reliable. Each balancer incorporates all of the important functions expected of a world class product.

SEVEN WAYS BETTER:

- 1- Hand-windable spring tension adjustment knob is flush with the housing.
- 2- Push-button tension release simplifies decrease of spring tension.
- 3- Rugged steel upper swivel hook with secondary safety cable provision.
- 4- Over-sized cable opening with direct in-line pull to reduce cable wear.
- 5- 270 lb (121.5kg) test 0.047" (1.2mm) dia. 7 x 7 strand galvanized steel aircraft cable nylon covered to 0.063" (1.6mm) O.D.
- 6- Adjustable cable stop and lower safety hook.
- 7- Matte black finish to minimize reflected light and reduce eye strain.

SERIES "ED" DIMENSIONS

ALL DIMENSIONS IN INCHES (mm)



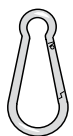
SELECTION CHART

MIN - MAX LOAD lbs. (kg.)	CABLE LENGTH* ft. (m.)	REEL WEIGHT lbs. (kg.)	MODEL NUMBER
0.5 - 1.5 (0.2 - 0.7)	6 (1.8)	1.3 (0.6)	ED-01
1.5 - 3.0 (0.5 - 1.4)	6 (1.8)	1.3 (0.6)	ED-03
3.0 - 5.0 (1.4 - 2.3)	6 (1.8)	1.5 (0.7)	ED-05

*Cable lengths listed are for "active" or "working" cable. Includes cable stop and safety hook.

BALANCER ACCESSORIES

ESTC-01 SAFETY CLIP

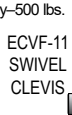


Bright zinc plated steel safety latch for tool attachment and other uses. Measures 2.375" (60mm) long. One included with each EG reel. Rated capacity—70 lbs.

CLEVIS HANGERS

Galvanized steel hangers for mounting balancers, torque reels, etc. Measure 0.50" (13mm) between jaws. One ECVF-01 straight devis included with each "EG" & "EQ" reel. ECVF-11 swivel devis is optional extra. Pins included. Rated capacity—500 lbs.

ECVF-01
CLEVIS

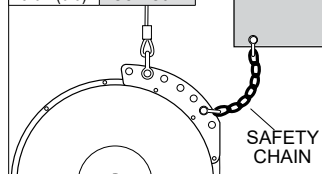


SAFETY CABLE/CHAIN

Strongly recommended, secondary steel cable or steel link chain. Prevents balancer from accidental fall. Balancers have extra holes for cable or chain.

LENGTH ft. (m.)	MODEL NO.
1.0 (0.3)	SC-ED1*
1.0 (0.3)	SC-EG1**
2.0 (0.6)	SC-EG2**
3.0 (0.9)	SC-EG3**

*Nylon covered steel cable.
**Steel link chain.



SAFETY CHAIN

ADJUSTABLE CABLE SADDLE

Hangs from balancer cable above tool to provide strain relief for electrical cable or air hose. Available in three sizes. Includes safety clip.



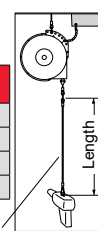
CABLE DIAMETER in. (mm)	MODEL NO.
0.3 - 0.59 (7 - 14)	ECS-F1
0.6 - 0.94 (15 - 23)	ECS-F2
0.95 - 1.25 (24 - 31)	ECS-F3

OVERHANG CABLE

Nylon covered steel cable with safety clip. Brings tool closer to work area without unwinding cable from reel or mounting reel at a lower height.

LENGTH ft. (m.)	MODEL NO.
3 (0.9)	EOC-03
5 (1.5)	EOC-05
10 (3.0)	EOC-10
15 (4.6)	EOC-15

OVERHANG CABLE



"SHOCK STOP" SHOCK ABSORBER

Minimize cable damage often caused by overtensioning tool balancers. "Shock Stop" kit is easily installed. Can be used on any Series ED and EG balancer. Kit includes spring, cable stops, all hardware.

MODEL NO.
ED-SH
EG-SH

NEW!
Now available
for ED Series



HEAVY DUTY SERIES "EG"

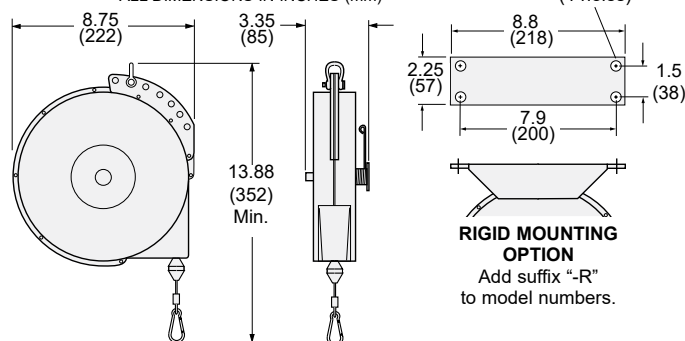
SERIES "EG" reels feature rugged steel construction with black polyester baked finish, reinforced hanging bracket with forged clevis for ceiling mounting and extra holes for safety chain attachment. Spring is permanently lubricated and provides constant tension, adjustable for balancing tool in normal working zone. Cable is 920 lbs (414kg) test 0.09" (2.3mm) dia. 7 x 7 strand galvanized steel aircraft cable nylon covered to 0.12" (3.0mm) O.D. Includes safety tool clip and adjustable cable stop.

LOCKING MODELS include all features listed above plus a positive ratchet lock mechanism to allow locking of the cable at a specific height. A slight pull on the cable releases the lock which functions like a window shade. Lock feature may be disengaged externally when constant tension is required.



SERIES "EG" DIMENSIONS

ALL DIMENSIONS IN INCHES (mm)



SELECTION CHART

MIN - MAX LOAD lbs. (kg.)	CABLE LENGTH* ft. (m.)	RATCHET LOCK	REEL WEIGHT lbs. (kg.)	MODEL NUMBER
BALANCERS (CONSTANT PULL REELS)				
May be adjusted to balance through 6-18 in. (152-457mm) range.				
3 - 7 (1.4 - 3.2)	8 (2.4)	No	6 (2.7)	EG-03
5 - 10 (2.3 - 4.5)	8 (2.4)	No	6 (2.7)	EG-07
8 - 12 (3.6 - 5.4)	8 (2.4)	No	7 (3.2)	EG-10
10 - 15 (4.5 - 6.8)	8 (2.4)	No	8 (3.6)	EG-15
16 - 23 (7.2 - 10.4)	8 (2.4)	No	8 (3.6)	EG-20
16 - 23 (7.2 - 10.4)	8 (2.4)	No	8 (3.6)	EG-20SH**
22 - 27 (9.9 - 12.2)	8 (2.4)	No	8 (3.6)	EG-25

RETRACTORS (RATCHET LOCK)

Retract tool upward when manually released

3 - 7 (1.4 - 3.2)	8 (2.4)	Yes	6 (2.7)	EG-03-L
5 - 10 (2.3 - 4.5)	8 (2.4)	Yes	6 (2.7)	EG-07-L
8 - 12 (3.6 - 5.4)	8 (2.4)	Yes	7 (3.2)	EG-10-L
10 - 15 (4.5 - 6.8)	8 (2.4)	Yes	8 (3.6)	EG-15-L
16 - 23 (7.2 - 10.4)	8 (2.4)	Yes	8 (3.6)	EG-20-L
16 - 23 (7.2 - 10.4)	8 (2.4)	Yes	8 (3.6)	EG-20-LSH**
22 - 27 (9.9 - 12.2)	8 (2.4)	Yes	8 (3.6)	EG-25-L

TORQUE REELS (RATCHET LOCK AND LONGER CABLE)

3 - 7 (1.4 - 3.2)	15.0 (4.5)	Yes	8 (3.6)	EQ1507
5 - 10 (2.3 - 4.5)	15.0 (4.5)	Yes	10 (4.5)	EQ1510
10 - 15 (4.5 - 6.8)	15.0 (4.5)	Yes	12 (5.4)	EQ1515

*Cable lengths listed are "active" or "working" cable.

**Includes EG-SH "Shock Stop". See Below.

All models are clevis mount. For rigid mount add "-R" to model number.

For tools from 1.1 to 308 pounds

**Heavy-duty construction. Tapered drum compensates for changing spring rate.
Direct spring powered, no motors or expensive gear trains to break or wear out.**

Series "EH" Tapered Drum Tool Balancers keep tools within reach and reduce damage to tools by suspending them out of the way above the work surface. Risk of repetitive motion injury is reduced because only a light, downward force is required to place the tool in proper operating position. As the tool is lowered, and the spring is wound more tightly, the effective drum diameter increases to compensate for the increased force. Thus, when properly adjusted, the tapered drum keeps the tool at the positioned height.

Features include:

- Rugged die cast aluminum housing
- Both top and bottom hooks have spring-loaded safety latches
- Heavy duty steel wire rope
- Automatic safety catch prevents free-spooling if springs fail (not available on EH-02/EH-05)
- Easy adjustment with everyday tools



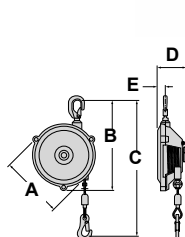
Models "EH-02"
through "EH-05"



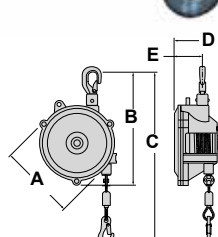
Models "EH-09"
through "EH-70"



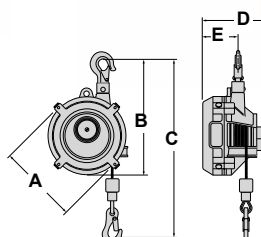
Models "EH-85"
through "EH-140"



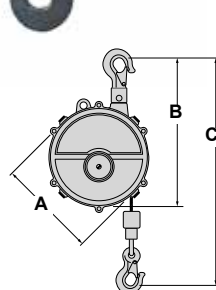
EH-02



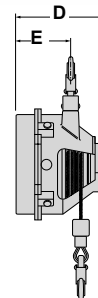
EH-03/EH-05



EH-09/EH-70



EH-85



EH-100/EH-140

Selection Chart			
For Tool Weighing*	Cable Travel	Shipping Weight	Model Number
1.1 - 4.4 lbs.	3.3 ft.	2.2 lbs.	EH-02
2.2 - 6.6 lbs.	4.3 ft.	2.8 lbs.	EH-03
5.5 - 11 lbs.	4.3 ft.	3.3 lbs.	EH-05
9 - 20 lbs.	3.9 ft.	13.4 lbs.	EH-09
20 - 33 lbs.	3.9 ft.	13.4 lbs.	EH-15
33 - 48 lbs.	4.5 ft.	22.6 lbs.	EH-22
48 - 66 lbs.	4.5 ft.	22.6 lbs.	EH-30
66 - 88 lbs.	4.5 ft.	27.0 lbs.	EH-40
88 - 110 lbs.	4.5 ft.	27.0 lbs.	EH-50
110 - 132 lbs.	4.5 ft.	31.4 lbs.	EH-60
132 - 154 lbs.	4.5 ft.	31.4 lbs.	EH-70
154 - 187 lbs.	4.5 ft.	58.4 lbs.	EH-85
187 - 220 lbs.	4.5 ft.	56.0 lbs.	EH-100
220 - 264 lbs.	4.5 ft.	60.0 lbs.	EH-120
264 - 308 lbs.	4.5 ft.	61.0 lbs.	EH-140

* Tool weight includes hose or cord and other attachments which must be supported by balancer.

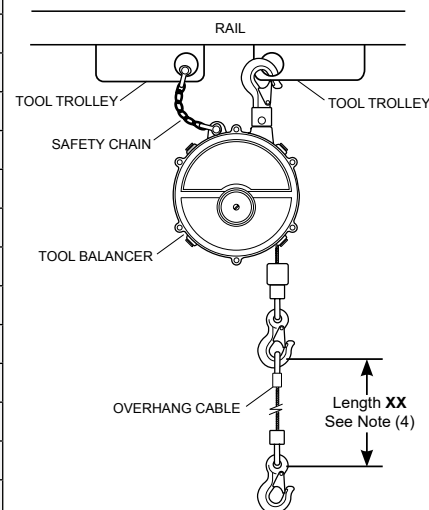
Dimensional Chart					
Model	A	B	C**	D	E
EH-02	5.00 in.	7.25 in.	11.25 in. min.	1.81 in	0.81 in
EH-03/EH-05	5.83 in.	8.25 in	12.50 in. min.	2.72 in.	1.44 in
EH-09/EH-15	7.00 in.	10.00 in.	13.00 in. min.	5.50 in.	2.88 in
EH-22/EH-70	8.60 in.	12.60 in.	17.00 in. min.	6.40 in.	3.19 in.
EH-85	9.50 in.	14.00 in.	20.00 in. min	9.75 in.	5.38 in
EH-100/EH-140	9.50 in.	14.00 in.	21.00 in. min	9.75 in.	5.38 in

** Minimum height fully retracted, inside of hook to inside of hook.

Safety Chain (recommended)		
Description	Shipping Weight	Model Number
2.0 ft. Steel Link Chain w/ Clevises	1.5 lbs.	SC-EH2
3.0 ft. Steel Link Chain w/ Clevises	2.0 lbs.	SC-EH3

ACCESSORIES for EH TOOL BALANCERS

Series EH Tool Balancer Accessories					
Balancer Model No.	Capacity		Safety Chain	Overhang Cable (4)	Tool Trolley
	Lbs.	(Kg)			
EH-02 (1)	1.1 - 4.4	(0.5 - 2.0)	NONE	OC-XX	WS30-BTL (6)
EH-03 (1)	2.2 - 6.6	(1.0 - 3.0)	SC-EG3	OC-XX	WS30-BTL (6)
EH-05 (1)	5.5 - 11	(2.5 - 5.0)	SC-EG3	OC-XX	WS30-BTL (6)
EH-09 (1)	9 - 20	(4.1 - 9.1)	SC-EG3	OC-XX (5)	WS50-BTL
EH-15 (2)	20 - 33	(9.1 - 15)	SC-EG3	OC-XX (5)	WS50-BTL
EH-22 (2)	33 - 48	(15 - 21.8)	SC-EG3	OC5ME-XX	WS50-BTL
EH-30 (2)	48 - 66	(21.8 - 30.0)	SC-EG3	OC5ME-XX	WS60-BT
EH-40 (2)	66 - 88	(30.0 - 40.0)	SC-EH3	OC5ME-XX	WS60-BT
EH-50 (2)	88 - 110	(40.0 - 50.0)	SC-EH3	OC5ME-XX	WS60-BT
EH-60 (2)	110 - 132	(50.0 - 60.0)	SC-EH3	OC5ME-XX	WS60-BT
EH-70 (2)	132 - 154	(60.0 - 70.0)	SC-EH3	OC5ME-XX	WS60-BT
EH-85 (2)	154 - 187	(70.0 - 85.0)	SC-EH3	OC8ME-XX	WS60-BT
EH-100 (3)	187 - 220	(85.0 - 100.0)	SC-EH3	OC8ME-XX	W6S-BT
EH-120 (3)	220 - 264	(100.0 - 120.0)	SC-EH3	OC8ME-XX	W6S-BT
EH-140 (3)	264 - 308	(120.0 - 140.0)	SC-EH3	OC8ME-XX	W6S-BT



- (1) Balancer hook will fit WS30-BTL or WS50-BTL Tool Trolley.
- (2) Balancer hook will fit either WS50-BTL, WS60-BT or W6S-BT Tool Trolley.
- (3) Balancer hook will fit only W6S-BT Tool Trolley.
- (4) "XX" = Length req'd. When ordering indicate, -03 = 3 ft., -05 = 5 ft. or -10 = 10 ft.
- (5) Use with EH-09 or EH-15 requires one additional ESTC-01 Safety Clip.
- (6) WS50-BTL may also be used with EH-02, EH-03 and EH-05.

REPAIR PARTS for EH TOOL BALANCERS

EH-09 - 70 BALANCERS	
MODEL #	DESCRIPTION
EH09-SPG	SPRING FOR EH-09
EH15-SPG	SPRING FOR EH-15
EH22-SPG	SPRING FOR EH-22
EH30-SPG	SPRING FOR EH-30
EH40-SPG	SPRING FOR EH-40
EH50-SPG	SPRING FOR EH-50
EH60-SPG	SPRING FOR EH-60
EH70-SPG	SPRING FOR EH-70
EH915-CBL	CABLE FOR EH-09 & EH-15
EH2270-CBL	CABLE FOR EH-22 THRU EH-70
EH915-DRM	DRUM FOR EH-09 & EH-15
EH2270-DRM	DRUM FOR EH-22THRU EH-70

EH-02 - 05 BALANCERS	
MODEL #	DESCRIPTION
EH02-SPG	SPRING W/DRUM FOR EH-02
EH03-SPG	SPRING W/DRUM FOR EH-03
EH05-SPG	SPRING W/DRUM FOR EH-05
EH02-CBL	CABLE FOR EH-02
EH03-CBL	CABLE FOR EH-03
EH05-CBL	CABLE FOR EH-05

EH-85 - 140 BALANCERS	
MODEL #	DESCRIPTION
EH85-SPG	SPRING FOR EH-85
EH100-SPG	SPRING FOR EH-100
EH120-SPG	SPRING FOR EH-120
EH140-SPG	SPRING FOR EH-140
EH85140-DRM	DRUM W/CABLE FOR EH-85 THRU EH-140

