# Industrial SOLUTIONS

**REELS & ACCESSORIES HOSE & CABLE PROTECTION SYSTEMS** LIMIT SWITCHES

**WORKPLACE SOLUTIONS** 

**ENGLOSURES & AGGESSORIES** 

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#### **HUBBELL®**

#### **Electrical Devices**

Drawing on well over a century of commitment to innovation and quality, Hubbell Wiring Device-Kellems has enhanced its product offering to provide a breadth of solutions for the industrial marketplace. The innovations that power industrial locations throughout the world have always been and continue to be the focus of Hubbell engineers. Hubbell remains committed to continually developing products that improve the performance, safety and functionality of industry throughout the world.

# Gleason Rel

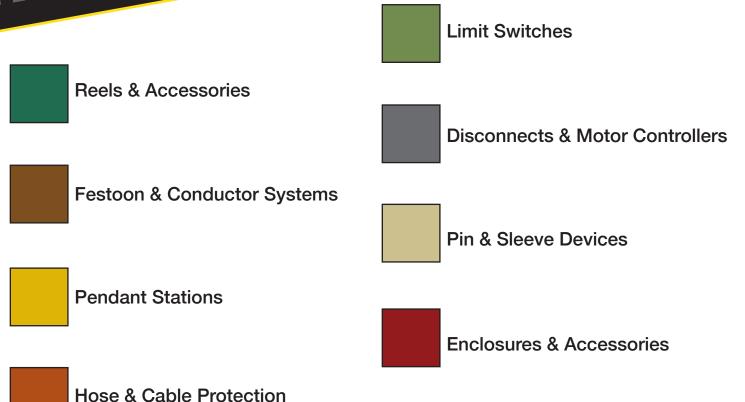
Gleason Reel has been a leading manufacturer of cable and hose management. Our products are designed to convey and protect valuable cables and hoses that power and control moving machines of all types. They improve productivity and safety on the job by moving cables and hoses away from hazardous locations on machinery or the shop floor in a controlled manner. Whether you choose Reels for efficient storage and payout from virtually any angle, Festoon Systems for overhead applications or PowerTrak for protection on machinery in motion, your cables and hoses will last longer and provide better service with a cable management system.

#### **WIEGMANN®**

The Wiegmann name has become synonymous with traditional NEMA enclosures, JIC enclosures, Non-Metallic enclosures, Stainless enclosures, Aluminum enclosures and Wireway systems. With over 7,000 different standard products in stock, Wiegmann has one of the most complete Commercial/Industrial enclosure packages in North America. Wiegmann's long history of OEM support stems from a cornerstone that founded our business, specials. Whether it's punching, tapping, studs, size, channel iron, sub floors, weather hoods, special materials, you name it....WIEGMANN does it!

For all other Hubbell Canada LP products, please visit www.HubbellOnline.com/wiring or call 1-800-465-7051.

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Workplace Solutions

Kellems® Wire Management



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MABBELL





#### **HOSE REELS**

#### HEAVY DUTY FOR MACHINES OR □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.

**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 **PULL™** reels may require a gentle assist from the operator. **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:**

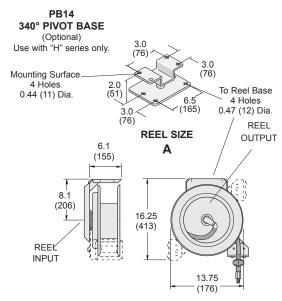
- · Connect machines to air/water supply
- Hand pull, with or without ratchet stop, Ideal for fluids, compressed air
- Mount base up, down or to wall for vertical or horizontal hose travel
- Add optional 340° pivot; reel turns to follow hose pay-out

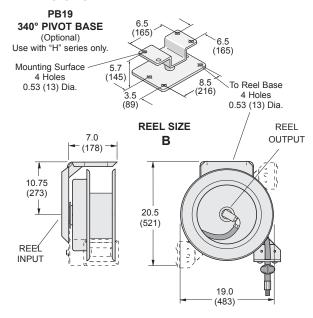
#### 国区 PULL APPLICATION:

- · 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

	HOSI	E DATA		MACHINE USE		E-Z PULL FOR				
INSIDE DIA. in. (mm)	INPUT & OUTPUT FITTINGS	MAX LENGTH ft. (m)	MAX PRES. psi (N/mm)	OR OVERHEAD MOUNTED HAND PULL -MODEL NO.	REEL SIZE	HORIZONTAL HAND PULL APPLICATIONS -MODEL NO	REEL SIZE	NET WEIGHT Ibs. (kg	HOSE STOP	340° BASE (OPT)
		25 (7.5)		HC2525		EZ4-2525	Α	30 (13)		
1/4 (6)	0.25 NPTF	35 (10.5)		HC2535		EZ4-2535	_ ^	30 (13)		
		50 (15.0)		HE2550	Α	EZ9-2550	В	42 (19)	CP-2	PB-14
		25 (7.5)	]	HC3825	1	EZ4-3825	A	30 (13)	01 -2	
3/8 (9)	0.38 NPTF	35 (10.5)	315 (2.17)	HD3835		EZ4-3835	_ A	30 (13)		
		50 (15.0)		HF3850		EZ9-3850	В	60 (27)		
		25 (7.5)		HG5025	_	EZ9-5025				
1/2 (13) 0.50 NPTF		35 (10.5)		HG5035	1 B	EZ9-5035	В	62 (28)	CP-3	PB-19
, ,		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. Full flow shaft and swivel assure maximum product delivery. 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.



#### FRAME SIZE GHA Inches (mm)

Α	В	С	D	E	F	G	H	J	K	L
12.88	11.25	8.00	9.88	12.12	5.50	2.50	2.50	4.00	5.09	8.38
(327)	(286)	(203)	(251)	(308)	(140)	(64)	(64)	(102)	(130)	(2.13)

#### FRAME SIZE GHB Inches (mm)

Į.	<b>В</b>	С	D	Е	F	G	Н	J	K	L
14.	50 12.81	9.75	11.25	13.75	6.19	3.16	2.50	4.00	5.88	8.38
(36	(325)	(248)	(286)	(349)	(157)	(80)	(64)	(102)	(149)	(2.13)

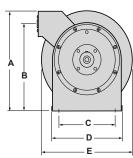
FR	ΔM	IF 9	SIZE	GHC	Inches	(mm)
r	AIV	16.	$\mathbf{DLE}$	чпс	inches	(mm)

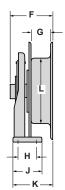
Α	В	С	D	E	F	G	н	J	K	L
17.50	15.63	9.75	11.25	16.50	6.19	3.16	2.50	4.00	5.88	10.25
(444)	(397)	(248)	(286)	(419	(157)	(80)	(64)	(102)	(130)	(260)

FRAME	- 0175		

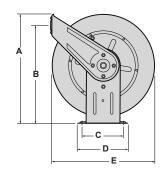
Α	В	С	D	Е	F	G	Н	J	K	L
20.38	18.12	7.88	9.45	19.00	6.63	3.35	3.86	5.44	6.10	11.00
(518)	(460)	(200)	(240)	(482)	(168)	(85)	(98)	(138)	(155)	(279)

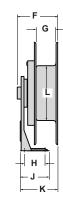






#### FRAME SIZE E





	HOSE 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.

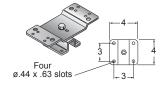
#### **Optional Wall Mounted Pivot Base**

Model RC-WP (right) Provides 180° pivot

NOTE: Either base fits all reel sizes.











# **REELS & ACCESSORIES**

Cable, Cord and Hose Reels

#### **Commercial, Industrial and Heavy Duty Hose Reels**



#### **Commercial Hose Reels**

Air / Water	Inside Dia.	Inlet	Length	Weight	
Output Thread	Inch (mm)	Thread	Feet (m)	Lbs. (kg)	Catalog Number
1/4" NPTF	0.25 (6.4)	5/8" NPTF	50 (15.2)	25 (11.3)	HBLHR2550C
1/4" NPTF	0.38 (9.7)	3/8" NPTF	35 (10.7)	23 (10.4)	HBLHR3835C
1/4" NPTF	0.38 (9.7)	½" NPTF	50 (15.2)	29 (13.2)	HBLHR3850C



#### **Industrial Hose Reels**

Air / Water Output Thread	Inside Dia. Inch (mm)	Inlet Thread	Length Feet (m)	Weight Lbs. (kg)	Catalog Number
Output Tilleau	mon (mm)	IIIIeau	reer (III)	LDS. (Ng)	Catalog Nullibel
1/4" NPTF	0.25 (6.4)	3/ <sub>8</sub> " NPTF	50 (15.2)	26 (11.8)	HBLHR2550I
14" NPTF	0.38 (9.7)	3/ <sub>8</sub> " NPTF	25 (7.6)	22 (10.0)	HBLHR3825I
1/4" NPTF	0.38 (9.7)	3/8" NPTF	50 (15.2)	36 (16.3)	HBLHR3850I



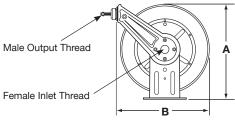
#### **Heavy Duty Hose Reels**

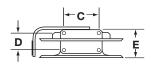
Air / Water	Inside Dia.	Inlet	Length	Weight	
Output Thread	Inch (mm)	Thread	Feet (m)	Lbs. (kg)	Catalog Number
1/4" NPTF	0.38 (9.7)	½" NPTF	50 (15.2)	47 (21.3)	HBLHR3850HD
1/4" NPTF	0.38 (9.7)	½" NPTF	70 (21.3)	50 (22.6)	HBLHR3870HD
3/8" NPTF	0.50 (12.7)	½" NPTF	50 (15.2)	51 (23.1)	HBLHR5050HD

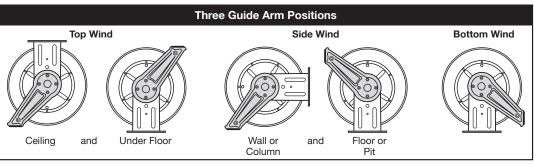


#### **Dimensions**

Inch (mm)	Α	В	С	D	E
Commercial					
2550C, 3835C	17.87" (454)	16.5" (419)	6" (152)	2.25" (57)	5.75" (146)
3850C	17.87" (454)	16.5" (419)	6" (152)	2.25" (57)	6.25" (159)
Industrial					
2550I	14.5" (368)	13.5 (343)	9.75" (248)	2.5" (64)	6" (152)
3825I	12.87" (327)	12.63" (321)	8" (203)	2.5" (64)	5.37" (136)
3850I	17.5" (445)	16.5" (419)	9.75" (248)	2.5" (64)	6" (152)
Heavy Duty	20.5" (521)	19" (483)	7.88" (200)	3.88" (99)	7" (178)



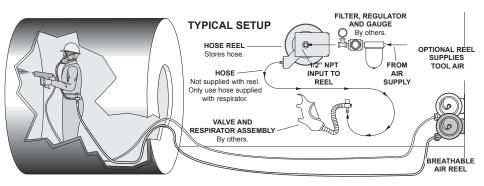






#### **CLEAN AIR HOSE REELS**

☐ 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.



HOSE NOT INCLUDED

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

<sup>\*</sup>Reel includes ball stop for hose and ratchet lock

#### 19.0 (483) **DIMENSIONS** 1/2" NPT (521) 3.5 (89) (216)4 holes 0.53 (13) dia.

#### **ELECTRIC CABLE REELS Locking Cable Reels**

#### SERIES ER FOR GENERAL PURPOSE

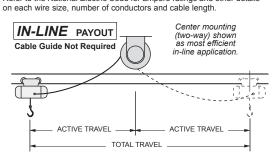
Series "ER"

Includes Cable, Lock & Rigid Base

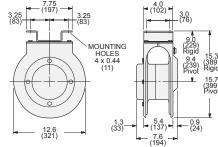
WIRE SIZE (AWG)	NO. OF COND.	LE	CABLE LENGTH ft. (m)		EIGHT MPLETE	MODEL NUMBER
18	2		(m)	lbs.	(kg.)	ER21845
18		45	(13.5)	49	(22.1)	ER21845
18	3	45	(13.5)	49	(22.1)	ER23845
18	4	45	(13.5)	50	(22.5)	ER41845
16	2	45	(13.5)	49	(22.1)	ER21645
16	3	45	(13.5)	45	(20.3)	ER31645
16	4	40	(12.0)	46	(20.7)	ER41640
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

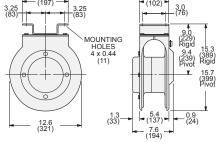
Reels are derated to ampere rating of cable. Refer to the National Electric Code for ampere ratings and other details

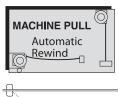


#### General Purpose Reels are ideal for hand pull or mounting on moving machinery.



OPTIONAL HORIZONTAL GUIDE GL15-09





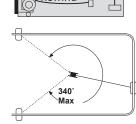
General Purpose Reels

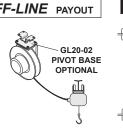
are CSA listed.

INCLUDED: Cable

> Rigid Mounting Base Ratchet Lock with "OFF"











IN LINE

#### HUBBELL INDUSTRIAL DUTY CORD REELS

Open Spool Cord reels with fluorescent or incandescent lamp, single or dual outlet. Also available with bare cord end. 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. These reels are available with your choice of single or dual outlet, incandescent hand lamp, fluorescent hand lamp or with bare cord. 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. 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 LAMP

Reel with SINGLE OUTLET

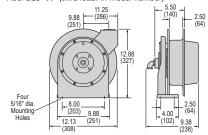
Reel with **DUPLEX OUTLET BOX** 

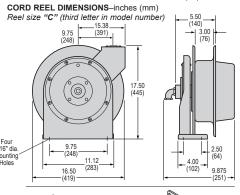
Reel with INCANDESCENT LAMP

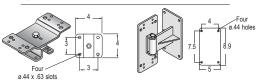
#### **MODEL LIST-CORD REELS**

la el				CC	ORD DAT	Ά	\\/-:- -4	
Incl. Cord	Accessory	Amps	AWG	Cond	Length ft (m)	Туре	Weight lbs. (kg)	Model
Yes	Incandescent	10	16	3	25 (8)	SJOW-A/SJO	23.3 (10.6)	GCA16325-HL
Yes	Incandescent	10	16	3	35 (11)	SJOW-A/SJO	24.2 (11.0)	GCA16335-HL
Yes	Incandescent	10	16	3	50 (15)	SJOW-A/SJO	25.6 (11.6)	GCA16350-HL
Yes	Incandescent	10	16	3	70 (21)	SJOW-A/SJO	40.0 (18.2)	GCC16370-HL
Yes	Fluorescent	0.3	16	3	25 (8)	SJOW-A/SJO	23.8 (10.8)	GCA16325-FL
Yes	Fluorescent	0.3	16	3	35 (11)	SJOW-A/SJO	24.7 (11.2)	GCA16335-FL
Yes	Fluorescent	0.3	16	3	50 (15)	SJOW-A/SJO	26.0 (11.8)	GCA16350-FL
Yes	Fluorescent	0.3	16	3	70 (21)	SJOW-A/SJO	40.5 (18.4)	GCC16370-FL
Yes	Single Recept	10	16	3	25 (8)	SJOW-A/SJO	22.8 (10.4)	GCA16325-SR
Yes	Single Recept	10	16	3	35 (11)	SJOW-A/SJO	23.7 (10.8)	GCA16335-SR
Yes	Single Recept	10	16	3	50 (15)	SJOW-A/SJO	25.0 (11.4)	GCA16350-SR
Yes	Single Recept	10	16	3	70 (21)	SJOW-A/SJO	35.3 (16.1)	GCC16370-SR
Yes	Single Recept	15	14	3	25 (8)	SJOW-A/SJO	24.5 (11.1)	GCA14325-SR
Yes	Single Recept	15	14	3	35 (11)	SJOW-A/SJO	26.1 (11.8)	GCA14335-SR
Yes	Single Recept	15	14	3	50 (15)	SJOW-A/SJO	28.5 (12.9)	GCA14350-SR
Yes	Single Recept	15	14	3	70 (21)	SJOW-A/SJO	36.6 (16.6)	GCC14370-SR
Yes	Single Recept	20	12	3	25 (8)	SJOW-A/SJO	23.7 (10.8)	GCA12325-SR
Yes	Single Recept	20	12	3	35 (11)	SJOW-A/SJO	25.0 (11.4)	GCA12335-SR
Yes	Single Recept	20	12	3	45 (14)	SJOW-A/SJO	26.9 (12.3)	GCA12345-SR
Yes	Single Recept	20	12	3	50 (15)	SJOW-A/SJO	42.7 (19.4)	GCC12350-SR
Yes	Single Recept	20	12	3	70 (21)	SJOW-A/SJO	47.6 (21.6)	GCC12370-SR
Yes	Dual Recept	20	12	3	25 (8)	SJOW-A/SJO	23.4 (10.6)	GCA12325-DR
Yes	Dual Recept	20	12	3	35 (11)	SJOW-A/SJO	24.7 (11.2)	GCA12335-DR
Yes	Dual Recept	20	12	3	45 (14)	SJOW-A/SJO	26.0 (11.8)	GCA12345-DR
Yes	Dual Recept	20	12	3	50 (15)	SJOW-A/SJO	44.2 (20.1)	GCC12350-DR
Yes	Dual Recept	20	12	3	70 (21)	SJOW-A/SJO	49.1 (22.3)	GCC12370-DR
Yes	None	10	16	3	25 (8)	SJOW-A/SJO	21.7 (9.9)	GCA16325-BC
Yes	None	10	16	3	35 (11)	SJOW-A/SJO	22.4 (10.2)	GCA16335-BC
Yes	None	10	16	3	50 (15)	SJOW-A/SJO	23.4 (10.6)	GCA16350-BC
Yes	None	10	16	3	70 (21)	SJOW-A/SJO	34.8 (18.8)	GCC16370-BC
Yes	None	15	14	3	25 (8)	SJOW-A/SJO	22.2 (10.1)	GCA14325-BC
Yes	None	15	14	3	35 (11)	SJOW-A/SJO	23.1 (10.5)	GCA14335-BC
Yes	None	15	14	3	50 (15)	SJOW-A/SJO	24.4 (11.1)	GCA14350-BC
Yes	None	15	14	3	70 (21)	SJOW-A/SJO	36.2 (16.4)	GCC14370-BC
Yes	None	20	12	3	25 (8)	SJOW-A/SJO	23.2 (10.6)	GCA12325-BC
Yes	None	20	12	3	35 (11)	SJOW-A/SJO	24.5 (11.1)	GCA12335-BC
Yes	None	20	12	3	45 (14)	SJOW-A/SJO	25.8 (11.7)	GCA12345-BC
Yes	None	20	12	3	50 (15)	SJOW-A/SJO	42.2 (19.2)	GCC12350-BC
Yes	None	20	12	3	70 (21)	SJOW-A/SJO	47.1 (21.4)	GCC12370-BC

CORD REEL DIMENSIONS-inches (mm) Reel size "A" (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.



Spring Housing/Guide Arm

#### SERIES "A" CABLE REELS

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

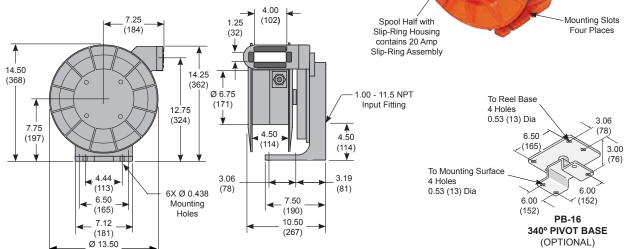
# c UL) us

#### Series "A" Cable Reel Features:

•Cast Aluminum Construction •Slip Ring in Gasketed Enclosure •UL and cUL Listed •NEMA 4 Enclosure Type
•Durable Baked Polyester Powder Painted Finish •Unitized 20 Amp 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

			CAB	LE DATA			
AMP		NO.	LEN	NGTH	WEI	GHT	MODEL
RATING @ 600 VAC	AWG	COND	FEET	(METER)	lbs	(kg)	NUMBER
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)	393	(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







(343)







# Heavy Duty **ELECTRIC CABLE REELS**

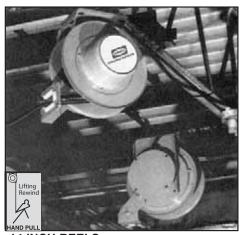
#### SERIES "G" FEATURES GENERAL PURPOSE MODELS

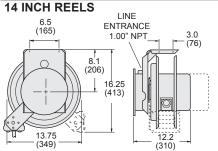
- · All-Welded Solid Steel Construction
- · Slip Rings in NEMA 4 Enclosure
- Generously Sized Junction Box
- Heavy Duty Mounting Base
- Safetychange® Spring Motor
- · Weatherproof Gasket on Spring Motor
- Positive Ratchet Lock with Disengage
- Multi-position Cable Guide (Field Adjustable)
- · Orange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

#### Series "G" Model Chart CABLE IS INCLUDED

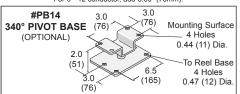
	CABL	E DATA			EI.	ANGE	WE	IGHT	340°	CABLE		
	TYPE S	O CORE	)	REEL		DIA.		PLETE	BASE	STOP		
RATING		NO.	LENGTH*	CATALOG NUMBER								
@600V	AWG	COND	ft. (m)	NOWBER	in.	(mm)	lbs.	(kg)	(OPTIONAL)	(INCLUDED		
			20 (6.0)	G-232			39	(17.6)				
40.4			30 (9.0)	G-224		(050)	42	(18.9)	PB14			
10 Amp		3	40 (12.0)	G-231	14	(356)	48	(21.6)	PB14			
			45 (13.5)	G-228			49	(22.0)				
			60 (18.0)	G-429	16	(406)	82	(36.9)	PB16	CP-2		
			20 (6.0)	G-233			40	(18.0)				
			30 (9.0)	G-234	14	(356)	44	(19.8)	PB14			
	16	4	40 (12.0)	G-244	'	(550)	48	(21.6)	1 014			
8 Amp	"		50 (15.0)	G-238			49	(22.0)				
			60 (18.0)	G-439	16	(406)	82	(36.9)	PB16			
		6	45 (13.5)	G-206			54	(24.3)				
			50 (15.0)	G-26B			56	(25.2)				
		8	40 (12.0)	G-28B			56	(25.2)		CP-3		
7 Amp			45 (13.5)	G-38B			56	(25.2)				
		10	35 (10.5)	G-30B	14	(356)	54	(24.3)	PB14			
		12	35 (10.5)	G-32B		, ,	55	(24.8)				
			20 (6.0)	G-331			40	(18.0)				
1 F A mm		2	30 (9.0)	G-253	-		46 50	(20.7)				
15 Amp	15 Amp	3	40 (12.0) 50 (15.0)	G-334	-		54	(22.5)				
			50 (15.0) 70 (21.0)	G-358 G-459	16	(406)	84	(24.3)	PB16			
	-		20 (6.0)	G-342	10	(400)	40	(18.0)	FBIO			
					25 (7.5)	G-343	ł		44	(19.8)		CP-2
				30 (9.0)	G-363	14	(356)	48	(21.6)	PB14		
	14	4	40 (12.0)	G-344		(550)	52	(23.4)	1 014			
12 Amp			50 (15.0)	G-367	ł		56	(25.2)				
			65 (17.5)	G-469	16	(406)	86	(38.7)	PB16			
			35 (10.5)	G-36C	14	(356)	52	(23.4)	PB14			
		6	50 (15.0)	G-46C	16	(406)	92	(41.4)	PB16			
		_	25 (7.5)	G-38C			52	(23.4)				
10 Amp		8	30 (9.0)	G-48C			49	(22.1)		CP-3		
		10	20 (6.0)	G-40C			53	(23.9)				
			20 (6.0)	G-332	14	(356)	40	(18.0)	PB14			
			25 (7.5)	G-383	'*	(330)	44	(19.8)	FB14			
			30 (9.0)	G-333			46	(20.7)				
20 Amp		3	35 (10.5)	G-385			47	(21.2)				
			45 (13.5)	G-435			55	(24.8)				
			50 (15.0)	G-436	16	(406)	69	(31.1)	PB16	CP-2		
	12		60 (18.0)	G-430		( /	85	(38.3)				
			20 (6.0)	G-346			40	(18.0)				
40.4			30 (9.0)	G-394	14	(356)	48	(21.6)	PB14			
16 Amp		4	40 (12.0)	G-444			52	(23.4)				
			50 (15.0) 60 (18.0)	G-445 G-446	16	(406)	86 89	(38.7)	PB16			
	-	6	60 (18.0) 25 (7.5)	G-446 G-463			51	(40.1)				
14 Amp		8	20 (6.0)	G-463 G-482	ł		52	(23.4)	-	CP-3		
		0	20 (6.0)	G-241	1		44	(19.8)				
			25 (7.5)	G-241	14	(356)	46	(20.7)	PB14			
			30 (9.0)	G-433	1		48	(21.6)				
25 Amp		3	40 (12.0)	G-434	1		50	(22.5)				
			50 (15.0)	G-535			86	(28.7)				
			60 (18.0)	G-536	16	(406)	89	(40.1)	PB16	CP-2		
	10		20 (6.0)	G-452	١	(===)	49	(22.1)				
			30 (9.0)	G-443	14	(356)	52	(23.4)	PB14			
		4	40 (12.0)	G-447		(400)	88	(39.6)	DD 40			
	1		- ( -,	G-545	16	(406)	92	(41.4)	PB16			
20 Amp			50 (15.0)	G-545								
20 Amp		6	20 (6.0)	G-343 G-462	14	(356)	52	(23.4)	PB14			

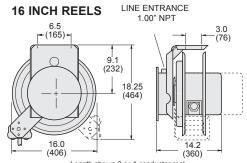
<sup>\*</sup> Length of cable listed is for ACTIVE travel.



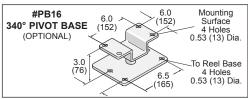


Length shown 3 or 4 conductor reel. For 5 - 8 conductor, add 1.50" (38mm). For 9 - 12 conductor, add 3.00" (76mm).





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





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#### Cable, Cord and Hose Reels **Industrial Cord Reels**





HBL45123TL20



HBL45123C



HBL45123R



HBL45123TL20

#### **Industrial Power Cord Reels**

Cord End	NEMA Style	Cable Feet (m)	Volts AC	Cable Type	Amps	Weight Lbs. (kg)	Catalog Number
HBL5269C Connector.	5-15R	45 (13.7)	125	12/3 SJEO	15	23 (10.4)	HBL45123C
HBL5369C Connector.	5-20R	45 (13.7)	125	12/3 SJEO	20	23 (10.4)	HBL45123C20
HBL2313 Connector.	L5-20R	45 (13.7)	125	12/3 SJEO	20	28 (12.7)	HBL45123TL20
HBL2313 Connector (white reel housing).	L5-20R	45 (13.7)	125	12/3 SJEO	20	28 (12.7)	HBL45123TL20W
Portable Outlet Box with (1) gray duplex	5-15R	45 (13.7)	125	12/3 SJEO	15	29 (13.2)	HBL45123R
receptacle.	5-20R	45 (13.7)	125	12/3 SJEO	20	29 (13.2)	HBL45123R20
Portable Outlet Box with (1) ground fault	5-15R	45 (13.7)	125	12/3 SJEO	15	29 (13.2)	HBL45123GF15
protected gray duplex receptacle.	5-20R	45 (13.7)	125	12/3 SJEO	20	29 (13.2)	HBL45123GF20
Pivot Base 330° Rotation fits all industrial models.	_	_	_	-	_	5 (2.3)	HBL340PB
Replacement stop.	_	_	_	_	_	.2 (.09)	HBL12BS

Notes: 15 Amp: Supplied with 5 ft. power supply cord with HBL5266C, 15A straight blade plug. 20 Amp: Supplied with 5 ft. power supply cord with HBL5366C, 20A straight blade plug. Ground fault protected reels supplied with (1) GFM20 and (1) HBLP26FS.

#### **Industrial Light Cord Reels**

Cord End	Watts (Max)	Cable Feet (m)	Volts AC	Cable Type	Amps	Weight Lbs. (kg)	Catalog Number
Incandescent Hand Lamp.	100	50 (15.2)	125	16/3	0.8	21 (9.5)	HBL50163IN
Fluorescent Hand Lamp.	13	50 (15.2)	120	16/2	0.3	21 (9.5)	HBL50162FL
Pivot Base 330° Rotation	_	_	_	_	_	5 (2.3)	HBL340PB
fits all industrial models.							
Replacement stop.	_	_	_	_	_	.2 (.09)	HBL16BS

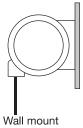
Note: Supplied with 5 ft. power supply cord with HBL5266C, 15A straight blade plug.

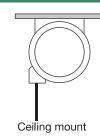
#### **Three Mounting Positions**

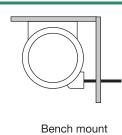








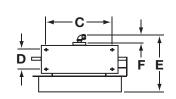




**Dimensions** 

Inch (mm) A	В	С	D	E	F	
13.00"	12.38"	8.00"	2.50"	9.75"	1.25"	
(330)	(314)	(203)	(64)	(248)	(32)	





#### **Listings/Certifications**

UL 355 CSA C22.2 No. 21.

#### **Environment**

Dry, indoor, non-hazardous locations.





#### **GROUNDING**

# **STATIC DISCHARGE REELS**Ideal for a wide variety of grounding applications. Available with your choice of cable length and connector, all reels include spring rewind, centrifugal brake

and ratchet lock. Cable is 7 x 7 stranded stainless steel with yellow polyester elastomer cover, 5/32" o.d. Reel has safety orange baked polyester finish.

#### **Heavy-duty Static Discharge Reels**

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

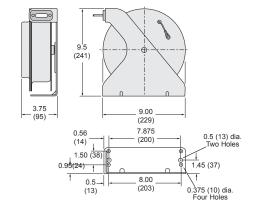






with 100 amp ALLIGATOR CLIP

with Grounding Plug (Round M83413/4-1)



#### 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	OSD070-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

#### **Enclosed Spool Series "SD"**

#### **SERIES "SD" FEATURES**

- Rugged Steel Construction
- Compact Enclosed Design
- Positive Ratchet Lock Lock On/Lock Off Switch
- Steel Cable Installed
- 100 Amp Universal Jaw-Type Grounding ClampSafety Orange Polyester Baked-On Finish

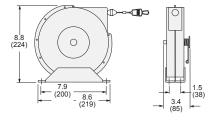
#### Series "SD"

Includes Cable Installed on Reel

-	ABLE NGTH (m)	CABLE NOTES	"Y" ft. (m)	ft. (m) COMPLETE lbs. (kg)		MODEL NUMBER
30	(9.0)	Single 7 x 7 Stranded Steel*	N/A	11	(5.0)	SD-2030
50	(15.0)	Single 7 x 7 Stranded Steel*	N/A	12	(5.4)	SD-2050
35	(10.5)	35' plus dual 15' for "Y" *	2 @ 15 (4.5)	13	(5.9)	SD-2050Y
50	(15.0)	Nylon Covered Cable**	N/A	12	(5.4)	SD-2050N
50	(15.0)	Orange, S.S. Cable***	N/A	12	(5.4)	SD-2050OS

<sup>\*</sup> Static discharge reels are supplied complete with 3/32" OD steel aircraft cable DC resistance is approximately one ohm per 50 ft of steel cable.







<sup>\*\*</sup> Nvlon covered cable (1/8" OD) is an optional extra.

<sup>\*\*\*</sup> Stainless Steel cable covered with Orange Nylon jacket to 1/8" OD .
Meets Military Grounding Spec. of 6.67 Ohms resistance per 75 ft. of cable.

#### Cable, Cord and Hose Reels

#### **Weatherproof and Static Discharge Reels**



#### **Weatherproof Cable and Static Discharge Reels**

Description	Cable Feet (m)	Volts AC	Cable Type	Amps	Weight Lbs. (kg)	Catalog Number
14" weatherproof reel.	50 (15.2)	600	14/3 SOW-A	15	55 (24.9)	HBL501431W*
16" weatherproof reel.	50 (15.2)	600	12/3 SOW-A	20	80 (36.3)	HBL501232W*
16" weatherproof reel.	50 (15.2)	600	12/4 SOW-A	16	86 (39.0)	HBL501242W*
16" weatherproof reel.	50 (15.2)	600	10/3 SOW-A	25	86 (39.0)	HBL501032W*
16" weatherproof reel.	50 (15.2)	600	10/4 SOW-A	20	92 (41.7)	HBL501042W*
Static discharge reel.	50 (15.2)	_	Single 3/32" Steel	_	12 (5.4)	HBL50SD
Static discharge reel.	50 (15.2)	-	Single 3/32" Steel Nylon Coated	-	13 (5.9)	HBL50SDN
Static discharge reel.	50 (15.2)**	_	Dual (Y) 3/32" Steel	-	13 (5.9)	HBL50YSD
14" pivot base.	_	-	-	-	5 (2.3)	HBL14PB
16" pivot base.	-	-	-	_	13 (5.9)	HBL16PB
Replacement stop.	-	-	-	-	.2 (.09)	HBLWPBS



HBL501431W

Notes: \* All weatherproof cable reels are supplied with wire leads and ¾" N.P.T. hub feed. \*\* 35 ft./10.6m + Dual 15 ft./4.5m for "Y".

Power supply cable not supplied.

#### **Weatherproof Cable Reels**

Listings/ Certifications	UL 355 and CSA, C22.2 No. 21.
Environment	Type 4X enclosure, CAN/CSA - C22.2 No. 21.  Dry indoor and wet and damp outdoor non-hazardous location.

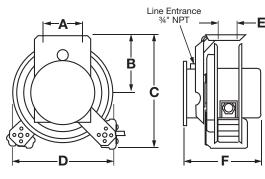


#### **Specifications**

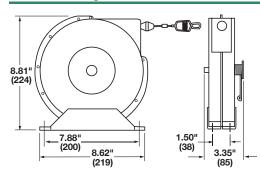
Weatherproof Reel										
Inch (mm	) A	В	С	D	Е	F	G	Н	- 1	J
14" reel	6.50"	8.12"	16.25"	13.75"	3.00"	12.19"	3.00"	3.00"	3.00"	6.50"
	(165)	(206)	(413)	(349)	(76)	(310)	(76)	(76)	(76)	(165)
16" reel	6.50"	9.12"	18.25"	15.75"	3.00"	14.19"	6.00"	6.00"	4.94"	6.50"
	(165)	(232)	(464)	(400)	(76)	(360)	(152)	(152)	(125)	(165)



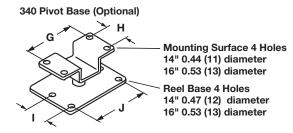
HBL14PB



#### Static Discharge Reel



#### **Pivot Base**



Pivot base for use only with Weatherproof Cable Reel.





# 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
GCSLHE 10	10' Inculated 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
İ	GCSP-EE03	3' Flexible Steel
İ	GCSP-EE-05	5' Flexible Steel
ĺ	GCSP-EE-10	10' Flexible Steel
ĺ	GCSI-EE-03	3' Insulated Steel
İ	GCSI-EE-05	5' Insulated Steel
İ	GCSI-FF-10	10' Insulated Steel



#### **Individual Connectors**



C-Clamp only Model. No. GC-CEE



100 Amp Alligator Clip only Model. No. GC-ALG



Hand Clamp only Model. No. GC-PLR



Aircraft Clamp only Model. No. AGC-MOD



Round Grounding Plug only Model. No. AGP-01



#### **OUTLETS and LIGHTS**



#### 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.



#### 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.



Model EHL-120

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

Hand Lamp 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.





#### **TOOL BALANCE REELS**

#### 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 available. 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
- Push-button tension release simplifies decrease of spring tension. Rugged steel upper swivel hook with secondary safety cable
- provision.

  Over-sized cable opening with direct in-line pull to reduce cable
- wear. 270 lb(121.5kg) test 0.047"(1.2mm) dia. 7 x 7 strand galvanized steel
- Adjustable cable stop and lower safety hook.

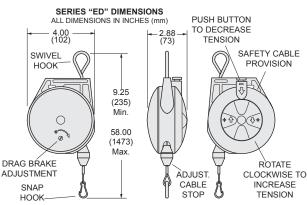
  Matte black finish to minimize reflected light and reduce eye strain.

#### **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 (6 - 18 in. [152.457mm]). 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.





#### **SELECTION CHART**

	MIN - MAX LOAD lbs. (kg.)			ABLE NGTH* (m.)		EEL IGHT (ka.)	MODEL NUMBER
1	0.5 - 1.5	(0.2 - 0.7	6	(1.8)	1.3	(0.6)	ED-01
ı	1.5 - 3.0	(0.5 - 1.4)	6	(1.8)	1.3	(0.6)	ED-03
1	3.0 - 5.0	(1.4 - 2.3)	6	(1.8)	1.5	(0.7)	ED-05

**BALANCER ACCESSORIES** 

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

#### **SERIES "EG" DIMENSIONS** 0.406 dia ALL DIMENSIONS IN INCHES (mm) (4 holes) 8.75 (222) 3.35 (85) 8.8 (218) 2.25 (57) (38)7.9 (200) 0 (352)Min RIGID MOUNTING OPTION FOR EQ REELS ONLY Add suffix "-R to model numbers

#### **SELECTION CHART**

MIN L lbs.	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 Belov

\*\*\*Clevis mount. For rigid mount add "-R" to model number

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.

**ESTC-01 SAFETY CLIP** 

#### **CLEVIS HANGERS**

Galvanized forged steel hangers for mounting balancers, torque reels, etc. Measure 0.50" clamm) 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





#### w cl 1 2 3

SAFETY CABLE/CHAIN Strongly recommended, secondary steel

cable or steel link chain. Prevents balancer

from accidental fall. Balancers have extra

\*Nylon covered

\*\*Steel link chair

CHAIN

holes for cable or chain. MODEL

1.0 (0.3) SC-ED1\* 1.0 (0.3) SC-EG1\*\*

2.0 (0.6) SC-EG2\*\*

3.0 (0.9) SC-EG3\*\*

LENGTH

OVERHANG CABLE	LENGTH ft. (m)	MODEL NO.
ylon covered steel cable ith safety clip. Brings tool	(/	EOC-03
oser to work area without		EOC-05
nwinding cable from reel r mounting reel at a lower	10 (3.0)	EOC-10
eight.	15 (4.6)	EOC-15





#### "SHOCK STOP" SHOCK ABSORBER



#### 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



	CABLE DIA	AMETER (mm)	MODE NO.
	0.3 - 0.59		ECS-F1
-	0.6 - 0.94		ECS-F2
	0.95 - 1.25	(24 - 31)	ECS-F3

OVERHANG CABLE



HUBBELL



#### **TOOL BALANCE REELS** 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 from outside







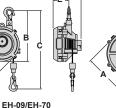


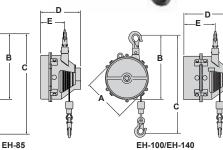


FH-02









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	

<sup>\*</sup> Tool weight includes hose or cord and other attachments which must be supported by balancer.

Dimensional Chart						
Model	Α	В	C**	D	Е	
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	

<sup>\*\*</sup> 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		



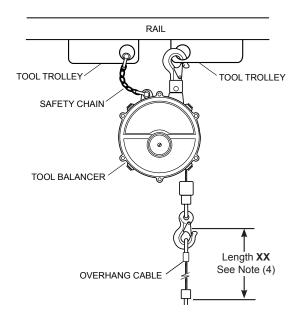


# ACCESSORIES for EH TOOL BALANCERS

Series EH Tool Balancer Accessories						
Balancer	ancer Capacity		Safety	Overhang	Tool	
Model No.	Lbs.	(Kg)	Chain	Cable (4)	Trolley	
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	

#### **NOTES**

- (1) Balancer hook will fit WS30-BTL or WS50-BTL Tool Trolley.
- (2) Balancer hook will fit either WS50-BTL or 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 ESCT-01 Safety Clip.
- (6) WS50-BTL may also be used with EH-02, EH-03 and EH-05.





# SLIP RINGS 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:

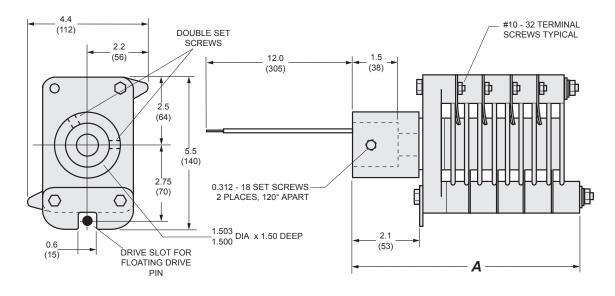
**STEP** Select a 30- or 55-amp slip ring model from the charts below. The model you choose should have the same number of poles as the number of circuits you are connecting, including ground. Standard slip rings are rated at 600 volts.

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











# FESTOON & CONDUCTOR SYSTEMS

Product	Page
Conductor Bars, Mounts and Accessories	2-10
T-Track Festoon Lock 'N Roll for Wire Rope	11-14
C-Rail	15-18
T-Track	19-23





#### **DESIGN & CONSTRUCTION**

#### **CONDUCTOR BARS:**

All INVERTED V-BAR and UNIVERSAL 8-BAR Conductor bar sections are roll formed from galvanized steel or electrolytic copper. These systems are amply sized and proportioned to carry the specified current without overheating. Internal joint connections assure full current carrying capacity without interfering with the free travel of the sliding collector contact shoes

The standard insulating cover has a maximum temperature rating of 163°F (73°C). A high temperature insulation is available for a maximum temperature rating of 280°F (137°C).

#### **CONDUCTOR JOINTS:**

The joints for these systems consist of two connector pins made of plated steel for the galvanize steel conductor bar or electrolytic copper for the copper conductor bar. The connector pins are knurled to provide sufficient current carrying capacity and mechanical strength. The joint is designed to automatically align the conductor bar sections during installation.

#### **CONDUCTOR SUPPORTS:**

The standard hangers are a snap-in design made from nylon or polycarbonate. The maximum temperature rating is 400°F (204°C). Anchor hangers are available to control the movement of the conductor bar. They must be used on systems less than 30 feet long., at all transfer sections and runs to control expansion and contraction flow.

#### **CONDUCTOR COLLECTORS:**

Collector assemblies are offered in either single or double shoes types providing a continuous current carrying capacity of 40 amperes to 200 amperes. The contact shoes are supported by an insulating support that is spring loaded by an arm and body mechanism. All collectors are supplied with copper/graphite contacts for speeds up to 900 feet per minute on the INVERTED V-BAR and UNIVERSAL 8-BAR systems. For faster travel speeds, consult the factory.

NOTE: Current ratings are based on ambient temperature of 86°F (30°C).

#### **ADVANTAGES**

The INVERTED V-BAR systems offer superior collector tracking capabilities especially at higher speeds since the "V" shaped metal guides the collector contact shoes rather than the insulating cover as with all 8-Bar systems.

The INVERTED V-BAR systems can be mounted for bottom entry or side entry of the collector contact shoes.

INVERTED V-BAR systems are recommended for side entry (lateral mounted) systems over 8-Bar systems or systems with flat contact surfaces. Counter-balanced collectors are not required with the INVERTED V-BAR systems. The inward spring pressure on the contact shoe against the metal "V" contact surface fights off the downward gravitational pull to provide more uniform contact show wear.

The UNIVERSAL 8-BAR systems may be used interchangeably with other 1" bottom entry 8-bar systems.

Polycarbonate snap-in hangers provide an extra level of insulation as well as a rigid support for the conductor sections.

#### **TYPICAL APPLICATIONS:**

- Overhead Cranes
- Monorails
- Traveling Robots
- Aircraft Hanger Doors
- AS/RS Systems

#### TYPICAL SPECIFICATIONS

The Conductor Electrification System shall consist of thermoplastic enclosed conductor bar with mechanically tensioned collectors as manufactured by Gleason Reel Corporation.

The systems shall have a voltage rating of ( ) Volts A.C. or D.C. ( ) Volts and have a continuous current capacity of ( ) Amperes per pole. When used as a Crane and Hoist Electrification System, the system shall be rated at ( ) Amperes for continuous service and ( ) Amperes for intermittent service. The full current carrying capacity of the system shall be maintained throughout.

The system shall permit longitude movement of the conductor bars in order to allow for unequal thermal expansion and contraction.

The system shall consist of standardized, interchangeable conductor bars (sections), power feeds, end caps, joint covers and collectors as called for in the plans.

The sections shall be made from roll formed galvanized steel or electrolytic copper and shall have a continuous "V" - groove, in the center, running the entire length. Conductors of this design shall be capable of carrying a current of 90 amperes and 110 amperes for steel sections and 250 amperes and 350 amperes for copper sections continuously without overheating. The sections shall be insulated with a thermoplastic cover rated for ambient temperatures to 163°F (73°C).

The type of the conductor will be either 8-Bar or V-Bar configurations as called for in the plans.

The collectors shall consist of a lubricant impregnated contact shoe, mechanically supported by an insulating support assembly that is spring loaded by an arm and body mechanism.

Collector assemblies shall be mounted on a 1" square mounting post and allow for 3" collector spacing without staggering. The collector contact shoes shall have the unique concave shape for 8-Bar systems or an inverted "V" shape for V-Bar systems.



#### **CONDUCTOR SECTIONS**

FOR 90, 110, 250 OR 350 AMP SYSTEMS

#### **INVERTED V-BAR**

CAT. NO.	CONTINUOUS CURRENT RATING	INTERMITTENT CURRENT RATING	CONDUCTOR MATERIAL	LENGTH ft	WEIGHT lbs
V-90A	90 Ampere	135 Ampere	Galv. Steel	10' (3048mm)	4.5 (2.07 kg)
V-110A	110 Ampere	165 Ampere	Galv. Steel	10' (3048mm)	5.5 (2.50 kg)
V-250AL	250 Ampere	375 Ampere	Copper / Steel	10' (3048mm)	6.5 (2.95 kg)
V-350A	350 Ampere	525 Ampere	Copper	10' (3048mm)	7.1 (3.22 kg)



#### **UNIVERSAL 8-BAR**

CAT. NO.	CONTINUOUS CURRENT RATING	INTERMITTENT CURRENT RATING	CONDUCTOR MATERIAL	LENGTH ft	WEIGHT lbs
8-90A	90 Ampere	135 Ampere	Galv. Steel	10' (3048mm)	4.5 (2.07 kg)
8-110A	110 Ampere	165 Ampere	Galv. Steel	10' (3048mm)	5.5 (2.50 kg)
8-250AL	250 Ampere	375 Ampere	Copper / Steel	10' (3048mm)	6.5 (2.95 kg)
8-350A	350 Ampere	525 Ampere	Copper	10' (3048mm)	7.1 (3.22 kg)



#### **CONDUCTOR SECTIONS**

Complete 10' (3028mm) long sections include two knurled connector pins and 163°F (73°C) rated thermoplastic insulating cover.

#### **TEMPERATURE CONSIDERATIONS**

A high temperature insulating cover rated for 280°F (137°C) is also available To order, add the suffix "HT" to the CAT. number.

#### **SPECIAL APPLICATIONS**

Consult the factory for information and pricing on the following:

- 1. Curved conductor sections
- 2. Corrosion resistant stainless steel conductors are available





#### **CONDUCTOR SECTIONS**

FOR 90, 110, 250 OR 350 AMP SYSTEMS

#### **CONDUCTION SUPPORTS**

Thermoplastic snap-in type hangers and anchor hangers provide for an additional level of insulation as well as rigid support. of the conductor sections.

An anchor hanger should be used on systems less than 30' (9m) in length, at all transfer points/interlocks and where the conductor movement must be controlled or restricted.

Steel type hangers are also available.

Determine if the System is to be Side Entry (Lateral Mount) or Bottom Entry (Vertical Mount) and consult the Mounting Table (Right).

SYSTEM	MOUNTING	V-BAR	8-BAR
90 Amp	Side Entry*	4' (1220)	
90 Amp	Bottom Entry	5' (1220)	5' (1525)
110 Amp	Side Entry*	5' (1525)	
110 Amp	Bottom Entry	5' (1525)	5' (1525)
250 Amp	Side Entry*	4' (1220)	
250 Amp	Bottom Entry	5' (1220)	5' (1525)
350 Amp	Side Entry*	4' (1220)	
350 Amp	Bottom Entry	5' (1220)	5' (1525)

<sup>\*</sup>V-BAR is recommended on all Side Entry Systems.

#### NOTE

Expansion sections must be staggered when conductor spacing is less than 3" (76mm).

#### **INVERTED V-BAR and UNIVERSAL 8-BAR EXPANSION SECTIONS**

CAT. NO.		CONTINUOUS	INTERMITTENT	CONDUCTOR	LENGTH	WEIGHT
V-BAR	8-BAR	CURRENT RATING	CURRENT RATING	MATERIAL	ft	lbs
V-90E	8-90E	90 Ampere	135 Ampere	Galv. Steel	10' (3048mm)	6.8 (3.1 kg)
V-110E	8-110E	110 Ampere	165 Ampere	Galv. Steel	10' (3048mm)	9.5 (4.3 kg)
V-250EL	8-250EL	250 Ampere	375 Ampere	Copper / Steel	10' (3048mm)	10.5 (4.8 kg)
V-350E	8-350E	350 Ampere	525 Ampere	Copper	10' (3048mm)	12.5 (5.7 kg)

#### **EXPANSION CONSIDERATIONS**

CONDUCTOR MATERIAL	COEF. OF LINEAR EXPANSION PER °F (inches)	LINEAR EXPANSION PER 100' RUN PER 100°F TEMPERATURE CHANGE
Galv. Steel and Stainless Steel	.000007	.84"
Copper	.000009	1.08"

#### NOTE

V-BAR and 8-BAR Expansion Sections have one 1.5" gap. Therefore, for every 100°F temperature change, install the expansion section as follows:

- 1. Galvanized Steel and Stainless Steel Conductors Every 180' (55m) ex: 1" center of 360' (110m) run.
- 2. Copper Conductors Every 140' (43m).
- 3. All Systems At building expansions.



#### V-BAR CONDUCTOR ACCESSORIES

FOR 90, 110, 250 OR 350 AMP SYSTEMS



#### Hanger Assemblies for Inverted V-Bar Systems

CAT. NO.	DESCRIPTION	WEIGHT lbs
V-H	Single Non-Metallic Snap-in (all sys)	.11 (.05 kg)
V-SH	Single Steel Bolt-on (all sys)	.20 (.09 kg)



#### Anchor Hanger Assemblies for Inverted V-Bar Systems

CAT. NO.	DESCRIPTION	WEIGHT Ibs
V-HA	Non-Metallic Snap-in	.12 (.05 kg)
V-1 1/A	w/ Nylon Drive Rivet (all sys)	. 12 (.05 kg)

Anchor Hangers should be used on all systems less than 30' (9m) in length, at all transfer points / interlocks and where the conductor movement must be controlled or restricted.



#### Power-Feed Assembly for Inverted V-Bar Systems

CAT. NO.	DESCRIPTION	WEIGHT lbs
V-90PF	110 ampere (for 90 & 110 amp sys)	.33 (.15 kg)
V-350PF	350 ampere (for 250 & 350 amp sys)	1.25 (.57 kg)



## CAT. NO. DESC

CAT. NO.	DESCRIPTION	WEIGHT lbs
V-EC	fits over exposed ends of conductor (all sys)	.04 (.02 kg)



#### Joint Cover for Inverted V-Bar Systems

CAT. NO.	DESCRIPTION	WEIGHT lbs
V-JC	160°F (71°c) Orange (Standard)*	.02 (.01 kg)
V-JCHT	280°F (137°C) Yellow for High Temp *	.02 (.01 kg)
V-JC-G	Green for Ground Bar	.02 (.01 kg)

<sup>\*</sup> Insulating joint covers are field installed over each joint to guard against accidental contact. One joint cover is required with each conductor section.



#### **Isolation Piece**

CAT. NO.	DESCRIPTION	WEIGHT lbs
V-90IJ	for 90 amp system	.04 (.02 kg)
V-110IJ	for 110 amp system	.04 (.02 kg)

Used to interrupt power and isolate an area of the system.



#### **Transfer Caps**

CAT. NO.	DESCRIPTION	WEIGHT lbs
V-TC	Molded plastic caps in lieu of end caps at transfer points (interlocks) along the conductor run (all systems)	.10 (.04 kg)

#### Pick-Up Guide Assembly

	CAT. NO.	SYSTEM	WEIGHT lbs
ľ	V-90EPG	for 90 amp system	1.50 (.68 kg)
	V-110EPG	for 110 amp system	2.00 (.91 kg)
	V-225EPG	for 250 amp system	2.00 (.91 kg)
	V-350EPG	for 350 amp system	2.70 (1.22 kg)

Non-metallic guide with 19" (.5m) conductor bar, polycarbonate hangers and a transfer cap for guiding collector assemblies onto the conductor system after traveling free air.



CAT. NO.	DESCRIPTION	WEIGHT lbs
V-T	Used to draw two conductor sections together (all systems)	2.8 (1.3 kg)







#### **8-BAR CONDUCTOR ACCESSORIES**

FOR 90, 110, 250 OR 350 AMP SYSTEMS



#### **Hanger Assemblies** for Universal 8-Bar Systems

CAT. NO.	DESCRIPTION	WEIGHT lbs
8-H	Single Non-Metallic Snap-in (all sys)	.11 (.05 kg)
8-SPH	Single Spring Steel (all sys)	.04 (.02 kg)



#### **Power-Feed Assembly** for Universal 8-Bar Systems

CAT. NO.	DESCRIPTION	WEIGHT lbs
8-90PF	110 ampere (for 90 & 110 amp sys)	.30 (.14 kg)
8-250PF	250 ampere (for 250 amp sys)	.53 (.24 kg)
8-350PF	350 ampere (for 350 amp sys)	1.40 (.64 kg)

#### **Anchor Hanger Assemblies** for Universal 8-Bar Systems

	CAT. NO.	DESCRIPTION	WEIGHT lbs
•	8-HA	Non-Metallic Snap-in w/ Nvlon Drive Rivet (all svs)	.12 (.06 kg)

Anchor Hangers should be used on all systems less than 30' (9m) in length, at all or restricted.



#### **End Caps** for Universal 8-Bar Systems

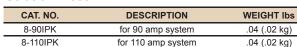
CAT. NO.	DESCRIPTION	WEIGHT lbs
8-EC	fits over exposed ends of	.04 (.02 kg)
0-EC	conductor (all sys)	.04 (.0.

#### Joint Cover for Universal 8-Bar Systems

CAT. NO.	DESCRIPTION	WEIGHT lbs
8-JC	160°F (71°c) Orange (Standard)*	.02 (.01 kg)
8-JCHT	280°F (137°C) Yellow for High Temp *	.02 (.01 kg)
8-JC-G	Green for Ground Bar	02 ( 01 kg)

\* Insulating joint covers are field installed over each joint to guard against accidental contact. One joint cover is required with each conductor section





Used to interrupt power and isolate an area of the system



#### **Transfer Caps**

CAT. NO.	DESCRIPTION	WEIGHT lbs
8-TC	Molded plastic caps in lieu of end	

**Pick-Up Guide Assembly** 

CAT. NO.	SYSTEM	WEIGHT lbs
8-90EPG	for 90 amp system	1.50 (.68 kg)
8-110EPG	for 110 amp system	2.00 (.91 kg)
8-250EPG	for 250 amp system	2.00 (.91 kg)
8-350EPG	for 350 amp system	2.70 (1.22 kg)

Non-metallic guide with 19" (.5m) conductor bar, polycarbonate hangers and a transfer cap for guiding collector assemblies onto the conductor system after

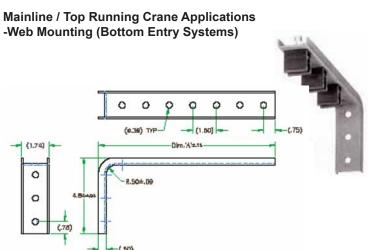


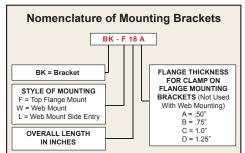
	oonnector to	OI .	
	CAT. NO.	DESCRIPTION	WEIGHT lbs
•	8-T	Used to draw two conductor sections together (all systems)	2.8 (1.3 kg)





#### MOUNTING BRACKETS



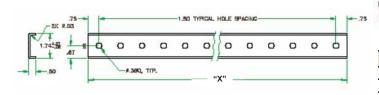


NOTE: Hangers are ordered separately.

CAT. NO.	X-DIMENSION	WEIGHT lbs
BK-W15	11¼" (286mm)	1.25 (.57 kg)
BK-W18	14¼" (362mm)	1.50 (.68 kg)
BK-W21	17¼" (438mm)	1.75 (.80 kg)
BK-W24	20¼" (514mm)	2.15 (.98 kg)

**Monorail / Underhung Crane Applications** 

- -Flange Mounting (Bottom Entry Systems)
- -Weld-on Type or Clamp-on Type



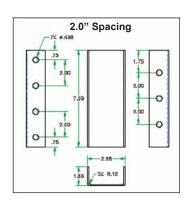


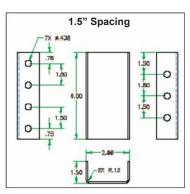
CAT. NO.	X-DIMENSION	WEIGHT lbs
BK-F18	18" (457mm)	1.50 (.68 kg)
BK-F21	21" (533mm)	1.75 (.80 kg)
BK-F24	24" (610mm)	2.00 (.91 kg)

NOTE: Hangers are ordered separately.

#### Side Entry Systems

-Web Mounting Bracket (Side Entry Systems)







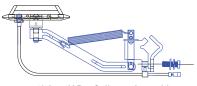
CAT. NO.	No. CONDUCTORS	WEIGHT lbs
BK-L4	4 (1.5" spacing)	2.00 (.91 kg)
BK-L3-2	3 (2.0" spacing)	2.00 (.91 kg)
BK-I 4-2	4 (2 0" spacing)	2 70 (1 22 kg)



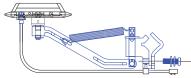


#### **COLLECTORS**

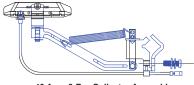
FOR 90, 110, 250 OR 350 AMP SYSTEMS



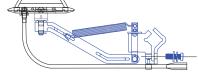
40 Amp V-Bar Collector Assembly V-40SC



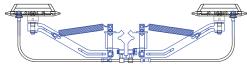
100 Amp V-Bar Collector Assembly V-100SC



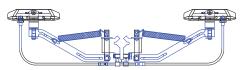
40 Amp 8-Bar Collector Assembly C-40SC



100 Amp 8-Bar Collector Assembly C-100SC



80 Amp Tandem V-Bar Collector Assembly V-80STC



80 Amp Tandem 8-Bar Collector Assembly C-80STC

DESCRIPTION	STAN	DARD
DESCRIPTION	V-BAR	8-BAR
COMPLETE SINGLE SHOE COLLECTORS		
Minimum Spacing Side-By-Side	2.0" (51mm)	2.0" (51mm)
Minimum Spacing Staggered	1.5" (38mm)	1.5" (38mm)
40 Amp Bottom Entry (Vertical Mount)	V-40SC	C-40SC
100 Amp Bottom Entry (Vertical Mount)	V-100SC	C-100SC
40 Amp Side Entry (Lateral Mount)	V-40SC	None
100 Amp Side Entry (Lateral Mount)	V-100SC	None
COMPLETE DOUBLE SHOE COLLECTORS		
Minimum Spacing Side-By-Side	2.0" (51mm)	2.0" (51mm)
80 Amp Bottom Entry (Vertical Mount)	V-80STC	C-80STC
200 Amp Bottom Entry (Vertical Mount)	V-200STC	C-200STC
80 Amp Side Entry (Lateral Mount)	V-80STC	None
200 Amp Side Entry (Lateral Mount)	V-200STC	None
COLLECTOR HEADS (Shoe, Holder, Clevis & Pigtail Assy)		
40 Amp	V-40SCH-1	C-40SCH-1
100 Amp	V-100SCH-1	C-100SCH-1
CONTACT SHOES		
40 Amp & 100 Amp (4-3/4" long)	V-100CS-1	C-100CS-1
CONTACT SHOE HOLDERS	C-VCSH-6	C-CSH-6
COLLECTOR EXTENSION SPRINGS	C-SCS	C-SCS
COLLECTOR ARM CASTINGS	C-SCA	C-SCA
COLLECTOR MOUNTING POSTS	All Col	lectors
1" Square Bar Welded to Mounting Plate	#C-0	CMP

#### **ENGINEERING DATA**

#### 1. VOLTAGE DROP CALCULATIONS

- Single Phase A.C.
   Voltage Drop = 2 x Amps x Zac x distance in feet from power feed.
- B. Three Phase A.C. Voltage Drop = 1.732 x Amps x Zac x distance in feet from power feed.
- C. Direct Current
   Voltage Drop = 2 x Amps x Rdc x distance in feet from power feed.

#### 2. HORSEPOWER CONVERSION TO AMPS Induction-Type Squirrel-Cage and Wound Rotor Motors

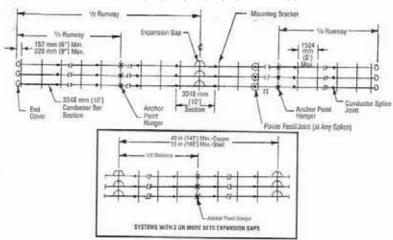
	SINGLE-PHASE AC 60 CYCLES AMPERES		
H.P.	115V	230V	
1	16	8	
1½	20	10	
2	24	12	
3	34	17	
5	56	28	
7½	80	40	
10	100	50	

The ampere rating of motors vary somewhat depending on the type of motor. The data tabulated can be considered average for 1800 R.P.M. normal torque motors. For slower speed motors, the ampere ratings may be approximately 10% to 50% higher. For the case of high-torque squirrel-cage motors, the ampere rating will be at least 10% higher than the values given above the corresponding 220-volt ratings shown. For more exact data, refer to motor nameplate ratings.

SYSTEM	D.C. RESISTANCE (Rdc.)	A.C. IMPEDANCE* (Z ac)
90 Amp	.00073 ohms / Ft.	.0011 ohms / Ft.
	.0025" / MTR	.0279" / MTR
110 Amp	.0005 ohms / Ft.	.0008 ohms / Ft.
	.0127" / MTR	.0203" / MTR
250 Amp	.00008 ohms / Ft.	.0001 ohms / Ft.
	.00203" / MTR	.0025" / MTR
350 Amp	.0005 ohms / Ft.	.0008 ohms / Ft.
	.0127" / MTR	.0203" / MTR

	THREE-PHASE AC 60 CYCLES AMPERES				CT CURF	
H.P.	220V	440V	550V	H.P.	115V	230V
1	3.5	1.8	1.4	1	9.6	4.8
11/2	5	2.5	2	1½	13.2	6.6
2	6.5	3.3	2.6	2	17	8.5
3	9	4.5	4	3	25	12.5
5	15	7.5	6	5	40	20
7½	22	11	9	7½	58	29
10	27	14	11	10	78	38
15	40	20	16	15	112	56
20	52	26	21	20	148	74
25	64	32	26	25	184	92
30	78	39	31	30	220	110
40	104	52	51	40	292	146
50	125	63	50	50	364	180
60	149	75	60	60	436	215
75	180	90	72	75	540	268
100	246	123	98	100	-	357
125	310	155	124	125	-	443
150	360	180	144	150	-	-
200	480	240	195	200	-	-

#### **TYPICAL 3-CONDUCTOR SYSTEM LAYOUT**

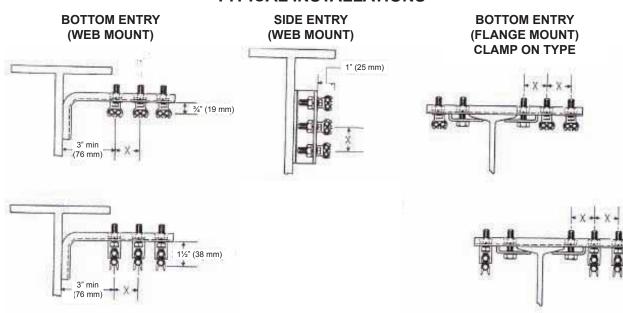




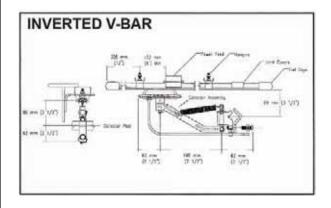


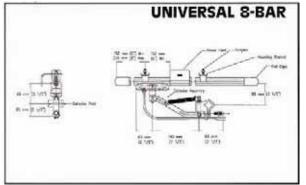
#### **MOUNTING METHODS / DIMENSIONS**

#### **TYPICAL INSTALLATIONS**



	X DIMENSION				
	V-	BAR	8-BAR		
APPLICATION	Minimum	Recommended	Minimum	Recommended	
Collectors:					
Adjacent	2.0" (51mm)	3.0" (76mm)	2.0" (51mm)	3.0" (76mm)	
Staggered	1.5" (38mm)	1.5" (38mm)	1.5" (38mm)	1.5" (38mm)	
Power Feeds:					
Adjacent	2.0" (51mm)	3.0" (76mm)	2.0" (51mm)	3.0" (76mm)	
Staggered	1.5" (38mm)	1.5" (38mm)	1.5" (38mm)	1.5" (38mm)	
Expansion Assemblies:					
Adjacent	2.0" (51mm)	3.0" (76mm)	2.0" (51mm)	3.0" (76mm)	
Staggered	2.0" (51mm)	2.0" (51mm)	2.0" (51mm)	2.0" (51mm)	
When Insulators Are Used:					
	2.0" (51mm)	3.0" (76mm)	2.0" (51mm)	3.0" (76mm)	

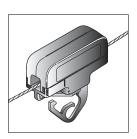




#### Lock 'n Roll FESTOON TROLLEYS

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 Labvrinth

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).

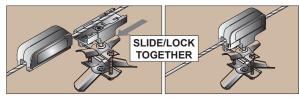


#### WRS-02 SINGLE HOOK TROLLEY with HOSE CONNECTOR

Wire rope, tool balancer and air hose not included.

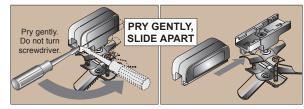
Same as #WRS-01 trolley plus longer tool hook and 1/4" air hose connector. Weight: 11 oz (0.15kg).

#### • 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 bladed screwdriver) and the slot opening of the slot of ton side of trolley) and pry gently as shown above. Do not turn screwdriver. Slide Apart.

#### NO FASTENERS REQUIRED •

Fits standard Wire Rope from





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** ESTOON KITS - WIRE ROPE

Kits feature Lock in 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

#### 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

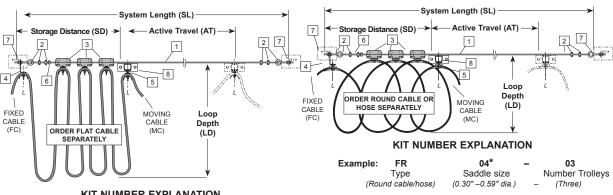
TRA	TIVE AVEL AT"	KIT NO. (PRICE)	LEN	TEM GTH SL"	STORAGE DISTANCE "SD"	<sup>(1)</sup> MIN CAE REQU	BLE
For pl	DEPTH anning ses.(2) 48"	Maximum cable size: 0.65" x 2.0" (17 x 51mm)	For pl	DEPTH anning ses.(2) 48"	MINIMUM. May be greater with stiff cable or short loop.	For pla purpos 30"	anning
12'	20'	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

TRA	TIVE NEL T"	KIT NO. (PRICE)	LEN	TEM GTH SL"	STORAGE DISTANCE "SD"	<sup>(1)</sup> MIN Cae Requ	BLE
For pl	DEPTH anning ses.(2) 48"	Maximum cable size: 0.65" x 2.0" (17 x 51mm)	For pl	DEPTH anning ses.(2) 48"	MINIMUM. May be greater with stiff cable or short loop.	For pla purpos 30"	anning
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 <u>each end</u> 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: 08 Туре Saddle size Number Trolleys (Flat cable) (0.65"h x 2.0"w) (Three)

#### at end of number, as shown here. FR**04** = 0.30" to 0.59" (7-15mm) OD cable/hose.

FR**05** = 0.60" to 0.94" (15–24mm) OD cable/hose. FR06 = 0.95" to 1.25" (24-32mm) OD cable/hose.

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

## OD

- 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
- 2 Hardware as required
- 3 Intermediate trolleys, by model
- 4 End Clamp (1)
- 5 Tow Clamp/Clip (1)
- 6 Bumper Stop (2)
  7 Tension Bracket, optional.
- Tow arm bracket, optional.



**HUBBELL CANADA LP** 

www.hubbellonline.com/wiring

#### 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.

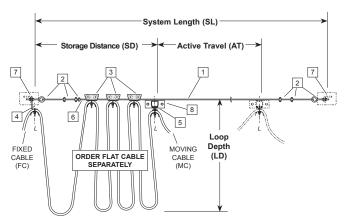


#### **FLAT** CABLE KITS

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: 03 Number Trolleys Loop Depth Туре (Flat cable)



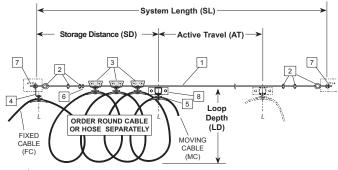
\* Minimum length of cable/ hose listed in charts above is enough for travel only Add length needed at each end for hook-up to your system.

#### 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 Troll	eys	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
- 2 Hardware as required
- Intermediate trolleys, by model
- 4 End Clamp (1)
- 5 Tow Clamp/Clip (1)
- 6 Bumper Stop (2)
- 7 Tension Bracket, optional.
- 8 Tow arm bracket, optional.

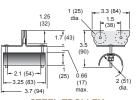




# ADD TO FESTOON KITS OR BUILD FROM SCRATCH STEEL OR Lock 'n Roll TROLLEYS

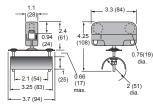
#### COMPONENTS - Wire Rope Festoon

#### **FLAT** CABLE FESTOON COMPONENTS



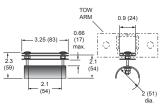
#### STEEL TROLLEY W25-FC-32

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



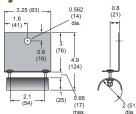
#### Lock 'n Roll TROLLEY FFT-08

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



#### TOW CLAMP W25-FT-02

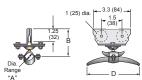
Description: Steel with zinc plating.



#### END CLAMP W25-FE-02

Description: Steel with zinc plating.

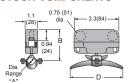
#### **ROUND** CABLE & HOSE FESTOON COMPONENTS





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

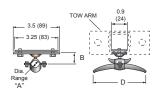
Description: Zinc plated steel with dual nylon wheels.
Zinc plated steel cable clamp.



Lock 'n Roll TROLLEY

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

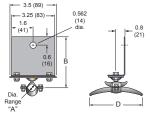
Description: Fiberglass reinforced molded nylon with zinc plated steel cable clamp.



**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	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 (4.3	5.0 (127)

 $\label{eq:Description:Steel with zinc plating.} Description: Steel with zinc plating.$ 



**END CLAMP** 

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

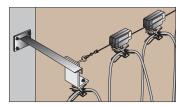
Description: Steel with zinc plating.

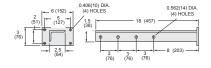
#### **OPTIONAL Components**

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

#### **Tension Bracket W25–BR–01**Anchor ends of wire rope and fixed end of

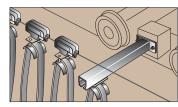
Anchor ends of wire rope and fixed end of festoon.

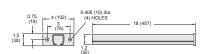




#### Tow Arm W25-TA-01

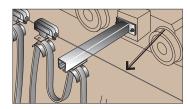
Use on moving end of festoon with Tow Clamp (above).





#### Wire Rope W25-WR-01

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



#### Hardware Kit W25-HW-01

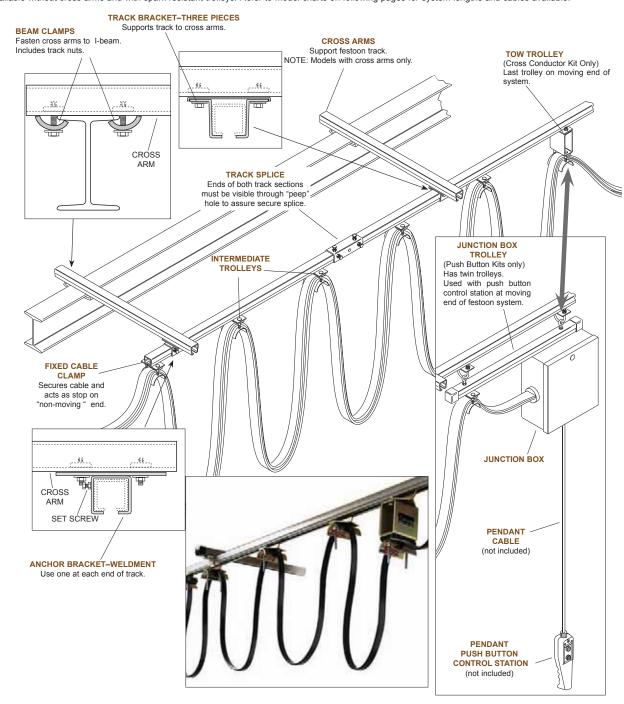
Includes: (2) 1" ID x 6" Ig x .500" body eye bolts w/ hex nuts, (2) galv. steel thimbles, (4) galv. steel clips, (1) bumper stop (neoprene rubber); wt. 2.5 lbs.



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

### SPECIALLY DESIGNED FOR OVERHEAD CRANES 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 and trolleys, mounting clamps, cross support arms, even electrical cable which has been pre-installed on the trolleys. To install, clamp cross arms to beam or other support, affix track to support beams, roll trolleys into track and make electrical connections on each end. It's that simple. It's that fool-proof. Kits also available without cross arms and with spark resistant trolleys. Refer to model charts on following pages for system lengths and cables available.







### 14 Gauge Track Festooned Push Button (less pendant) 16 Conductor Flat Cables (#16-8C & #16-8C)

CRANE SPAN	10'	20'	30'	40'	50'	60'	70'	80'	90'	100'
	'			1.0						
W/cross arms	HNA13141	HNA14241	HNA14341	HNA14441	HNA14541	HNA14641	HNA14741	HNA14841	HNA14941	HNA150
W/O cross arms*	HNA13142	HNA14242	HNA14342	HNA14442	HNA14542	HNA14642	HNA14742	HNA14842	HNA14942	HNA150
SYSTEM INCLUDES:				•		•	•		•	•
Roller Track (10 foot sections)	1	2	3	4	5	6	7	8	9	10
Track Splice	0	1	2	3	4	5	6	7	8	9
Track Bracket*	0	2	4	6	8	10	12	14	16	18
Anchor Bracket*	2	2	2	2	2	2	2	2	2	2
Cross Arms (30")*	2	4	6	8	10	12	14	16	18	20
Locking Beam Clamp	4	8	12	16	20	24	28	32	36	40
End Stop	1	1	1	1	1	1	1	1	1	1
Fixed Cable Clamp	1	1	1	1	1	1	1	1	1	1
Control Trolley	1	1	1	1	1	1	1	1	1	1
Intermediate Trolley	2	3	5	6	8	10	12	14	16	18
Control Cable #16-8c (length = system + hook-up)	2	2	2	2	2	2	2	2	2	2
Flat Cable Connector	2	2	2	2	2	2	2	2	2	2
Junction Box Assembly	1 1	1 1	1 1	1	1	1 1	1 1	1 1	1	1

### 14 Gauge Track Cross Conductors

### 12 Conductor Flat Cables (#14-4C & #16-8C)

CRANE SPAN	10'	20'	30'	40'	50'	60'	70'	80'	90'	100'	
W/cross arms	HNA15141	HNA15241	HNA15341	HNA15441	HNA15541	HNA15641	HNA15741	HNA15841	HNA15941	HNA13441	
W/O cross arms*	HNA15142	HNA15242	HNA15342	HNA15442	HNA15542	HNA15642	HNA15742	HNA15842	HNA15942	HNA13442	
SYSTEM INCLUDES:											
Roller Track (10 foot sections)	1	2	3	4	5	6	7	8	9	10	
Track Splice	0	1	2	3	4	5	6	7	8	9	
Track Bracket*	0	2	4	6	8	10	12	14	16	18	
Anchor Bracket*	2	2	2	2	2	2	2	2	2	2	
Cross Arms (30")*	2	4	6	8	10	12	14	16	18	20	
Locking Beam Clamp	4	8	12	16	20	24	28	32	36	40	
End Stop	1	1	1	1	1	1	1	1	1	1	
Fixed Cable Clamp	1	1	1	1	1	1	1	1	1	1	
Tow Trolley	1	1	1	1	1	1	1	1	1	1	
Intermediate Trolley	2	3	5	6	8	10	12	14	16	18	
Power Cable #14-4C (length = system + hook-up)	1	1	1	1	1	1	1	1	1	1	
Control Cable #16-8c (length = system + hook-up)	1	1	1	1	1	1	1	1	1	1 1	
Flat Cable Connector	2	2	2	2	2	2	2	2	2	2	

### 14 Gauge Track Cross Conductors

### 12 Conductor Flat Cables (#12-4C & #16-8C)

CRANE SPAN	10'	20'	30'	40'	50'	60'	70'	80'	90'	100'	
W/cross arms	HNA18141	HNA18241	HNA18341	HNA18441	HNA18541	HNA18641	HNA18741	HNA18841	HNA18941	HNA19041	
W/O cross arms*	HNA18142	HNA18242	HNA18342	HNA18442	HNA18542	HNA18642	HNA18742	HNA18842	HNA18942	HNA19042	
SYSTEM INCLUDES:	•	•		•	•			•	•		
Roller Track (10 foot sections)	1	2	3	4	5	6	7	8	9	10	
Track Splice	0	1	2	3	4	5	6	7	8	9	
Track Bracket*	0	2	4	6	8	10	12	14	16	18	
Anchor Bracket*	2	2	2	2	2	2	2	2	2	2	
Cross Arms (30")*	2	4	6	8	10	12	14	16	18	20	
Locking Beam Clamp	4	8	12	16	20	24	28	32	36	40	
End Stop	1	1	1	1	1	1	1	1	1	1	
Fixed Cable Clamp	1	1	1	1	1	1	1	1	1	1	
Tow Trolley	1	1	1	1	1	1	1	1	1	1	
Intermediate Trolley	2	3	5	6	8	10	12	14	16	18	
Power Cable #12-4C (length = system + hook-up)	1	1	1	1	1	1	1	1	1	1	
Control Cable #16-8c (length = system + hook-up)	1	1	1	1	1	1	1	1	1	1	
Flat Cable Connector	4	4	4	4	4	4	4	4	4	4	



### 14 Gauge Track Cross Conductors

12 Conductor Flat Cables (#10-4C & #16-8C)

CRANE SPAN	10'	20'	30'	40'	50'	60'	70'	80'	90'	100'
W/cross arms	HNA19141	HNA19241	HNA19341	HNA19441	HNA19541	HNA19641	HNA19741	HNA19841	HNA19941	HNA20041
W/O cross arms*	HNA19142	HNA19242	HNA19342	HNA19442	HNA19542	HNA19642	HNA19742	HNA19842	HNA19942	HNA20042
SYSTEM INCLUDES:										
Roller Track (10 foot sections)	1	2	3	4	5	6	7	8	9	10
Track Splice	0	1	2	3	4	5	6	7	8	9
Track Bracket*	0	2	4	6	8	10	12	14	16	18
Anchor Bracket*	2	2	2	2	2	2	2	2	2	2
Cross Arms (30")*	2	4	6	8	10	12	14	16	18	20
Locking Beam Clamp	4	8	12	16	20	24	28	32	36	40
End Stop	1	1	1	1	1	1	1	1	1	1
Fixed Cable Clamp	1	1	1	1	1	1	1	1	1	1
Tow Trolley	1	1	1	1	1	1	1	1	1	1
Intermediate Trolley	2	3	5	6	8	10	12	14	16	18
Power Cable #10-4C (length = system + hook-up)	1	1	1	1	1	1	1	1	1	1
Control Cable #16-8c (length = system + hook-up)	1	1	1	1	1	1	1	1	1	1
Flat Cable Connector	4	4	4	4	4	4	4	4	4	4

### 14 Gauge Track Cross Conductors

12 Conductor Flat Cables (#8-4C & #16-8C)

CRANE SPAN	10'	20'	30'	40'	50'	60'	70'	80'	90'	100'
W/cross arms	HNA20141	HNA20241	HNA20341	HNA20441	HNA20541	HNA20641	HNA20741	HNA20841	HNA20941	HNA21041
W/O cross arms*	HNA20142	HNA20242	HNA20342	HNA20442	HNA20542	HNA20642	HNA20742	HNA20842	HNA20942	HNA21042
SYSTEM INCLUDES:										
Roller Track (10 foot sections)	1	2	3	4	5	6	7	8	9	10
Track Splice	0	1	2	3	4	5	6	7	8	9
Track Bracket*	0	2	4	6	8	10	12	14	16	18
Anchor Bracket*	2	2	2	2	2	2	2	2	2	2
Cross Arms (30")*	2	4	6	8	10	12	14	16	18	20
Locking Beam Clamp	4	8	12	16	20	24	28	32	36	40
End Stop	1	1	1	1	1	1	1	1	1	1 1
Fixed Cable Clamp	1	1	1	1	1	1	1	1	1	1 1
Tow Trolley	1	1	1	1	1	1	1	1	1	1 1
Intermediate Trolley	2	3	5	6	8	10	12	14	16	18
Power Cable #8-4C (length = system + hook-up)	1	1	1	1	1	1	1	1	1	1 1
Control Cable #16-8c (length = system + hook-up)	1	1	1	1	1	1	1	1	1	1 1
Flat Cable Connector	4	4	4	4	4	4	4	4	4	4

### 14 Gauge Track Cross Conductors

4 Conductor Flat Cables (#14-4C)

CRANE SPAN	10'	20'	30'	40'	50'	60'	70'	80'	90'	100'
W/cross arms	HNA15143	HNA15243	HNA15343	HNA15443	HNA15543	HNA15643	HNA15743	HNA15843	HNA15943	HNA13443
W/O cross arms*	HNA15144	HNA15244	HNA15344	HNA15444	HNA15544	HNA15644	HNA15744	HNA15844	HNA15944	HNA13444
SYSTEM INCLUDES:	•			•	•	•	•		•	
Roller Track (10 foot sections)	1	2	3	4	5	6	7	8	9	10
Track Splice	0	1	2	3	4	5	6	7	8	9
Track Bracket*	0	2	4	6	8	10	12	14	16	18
Anchor Bracket*	2	2	2	2	2	2	2	2	2	2
Cross Arms (30")*	2	4	6	8	10	12	14	16	18	20
Locking Beam Clamp	4	8	12	16	20	24	28	32	36	40
End Stop	1	1	1	1	1	1	1	1	1	1
Fixed Cable Clamp	1	1	1	1	1	1	1	1	1	1
Tow Trolley	1	1	1	1	1	1	1	1	1	1
Intermediate Trolley	2	3	5	6	8	10	12	14	16	18
Power Cable #14-4C (length = system + hook-up)	1	1	1	1	1	1	1	1	1	1
Flat Cable Connector	2	2	2	2	2	2	2	2	2	2

<sup>\*</sup> Cross arms, track brackets and anchor brackets not included.





### 14 Gauge Track Cross Conductors

4 Conductor Flat Cables (#12-4C)

CRANE SPAN W/cross arms W/O cross arms*									<b>90'</b> HNA18943 HNA18944	
SYSTEM INCLUDES:										
Roller Track (10 foot sections)	1	2	3	4	5	6	7	8	9	10
Track Splice	0	1	2	3	4	5	6	7	8	9
Track Bracket*	0	2	4	6	8	10	12	14	16	18
Anchor Bracket*	2	2	2	2	2	2	2	2	2	2
Cross Arms (30")*	2	4	6	8	10	12	14	16	18	20
Locking Beam Clamp	4	8	12	16	20	24	28	32	36	40
End Stop	1	1	1	1	1	1	1	1	1	1
Fixed Cable Clamp	1	1	1	1	1	1	1	1	1	1
Tow Trolley	1	1	1	1	1	1	1	1	1	1
Intermediate Trolley	2	3	5	6	8	10	12	14	16	18
Power Cable #12-4C (length = system + hook-up)	1	1	1	1	1	1	1	1	1	1
Flat Cable Connector	2	2	2	2	2	2	2	2	2	2

### 14 Gauge Track Cross Conductors

4 Conductor Flat Cables (#10-4C)

CRANE SPAN	10'	20'	30'	40'	50'	60'	70'	80'	90'	100'
W/cross arms	HNA19143	HNA19243	HNA19343	HNA19443	HNA19543	HNA19643	HNA19743	HNA19843	HNA19943	HNA20043
W/O cross arms*	HNA19144	HNA19244	HNA19344	HNA19444	HNA19544	HNA19644	HNA19744	HNA19844	HNA19944	HNA20044
SYSTEM INCLUDES:										
Roller Track (10 foot sections)	1	2	3	4	5	6	7	8	9	10
Track Splice	0	1	2	3	4	5	6	7	8	9
Track Bracket*	0	2	4	6	8	10	12	14	16	18
Anchor Bracket*	2	2	2	2	2	2	2	2	2	2
Cross Arms (30")*	2	4	6	8	10	12	14	16	18	20
Locking Beam Clamp	4	8	12	16	20	24	28	32	36	40
End Stop	1	1	1	1	1	1	1	1	1	1 1
Fixed Cable Clamp	1	1	1	1	1	1	1	1	1	1 1
Tow Trolley	1	1	1	1	1	1	1	1	1	1 1
Intermediate Trolley	2	3	5	6	8	10	12	14	16	18
Power Cable #10-4C (length = system + hook-up)	1	1	1	1	1	1	1	1	1	1
Flat Cable Connector	2	2	2	2	2	2	2	2	2	2

### 14 Gauge Track Cross Conductors

4 Conductor Flat Cables (#8-4C)

W/Cross arms	CRANE SPAN	10'	20'	30'	40'	50'	60'	70'	80'	90'	100'
W/O cross arms*   HNA20144   HNA20244   HNA20344   HNA20544   HNA20644   HNA20744   HNA20744   HNA20844   HNA20944   HNA2104	W/cross arms	HNA20143	HNA20243	HNA20343	HNA20443	HNA20543	HNA20643	HNA20743	HNA20843	HNA20943	HNA21043
	W/O cross arms*	HNA20144	HNA20244	HNA20344	HNA20444	HNA20544	HNA20644	HNA20744	HNA20844	HNA20944	HNA21044

### SYSTEM INCLUDES:

· · · · · · · · · · · · · · · · · · ·										
Roller Track (10 foot sections)	1	2	3	4	5	6	7	8	9	10
Track Splice	0	1	2	3	4	5	6	7	8	9
Track Bracket*	0	2	4	6	8	10	12	14	16	18
Anchor Bracket*	2	2	2	2	2	2	2	2	2	2
Cross Arms (30")*	2	4	6	8	10	12	14	16	18	20
Locking Beam Clamp	4	8	12	16	20	24	28	32	36	40
End Stop	1	1	1	1	1	1	1	1	1	1
Fixed Cable Clamp	1	1	1	1	1	1	1	1	1	1
Tow Trolley	1	1	1	1	1	1	1	1	1	1
Intermediate Trolley	2	3	5	6	8	10	12	14	16	18
Power Cable #8-4C (length = system + hook-up)	1	1	1	1	1	1	1	1	1	1
Flat Cable Connector	2	2	2	2	2	2	2	2	2	2

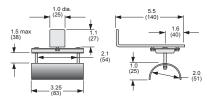
<sup>\*</sup> Cross arms, track brackets and anchor brackets not included.



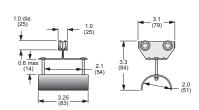
### ADD TO C-RAIL FESTOON KITS SHOWN ON PRECEDING PAGES

### COMPONENTS - C-Rail Festoon

### Series "CF" for FLAT Cable



FLAT CABLE END CLAMP C35-FE-02 Trolley Weight = 1.46 lbs

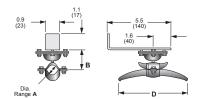


FLAT CABLE TROLLEY C35-FC-32 Trolley Weight = 0.84 lbs

FLAT CABLE TOW TROLLEY C35-FT-52

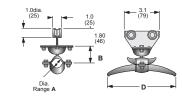
Trolley Weight = 2.28 lbs

### Series "CR" for ROUND Cable or Hose



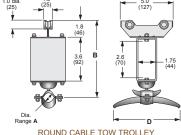
ROUND CABLE END CLIP

1 = 0	35-RE-11	& 2 = 0	C35-RE	-12
O.D. CODE*	*CABLE O.D. "A" in. (mm)	"B" in. (mm)	"D" in. (mm)	WGT lb. (kg)
1	0.31-0.59	1.25	2.75	1.4
	(8-15)	(32)	(70)	(.63)
2	0.95-1.25	1.4	3.9	1.5
	(24-32)	(37)	(98)	(.69)



ROUND CABLE TROLLEY 1 = C35-RC-11 & 2 = C35-RC-12

O.D. CODE*	*CABLE O.D. "A" in. (mm)	"B" in. (mm)	"D" in. (mm)	WGT lb. (kg)
1	0.31-0.59	1.10	2.75	0.9
	(8-15)	(32)	(70)	(.40)
2	0.95-1.25	1.25	3.9	1.0
	(24-32)	(27)	(98)	(.46)

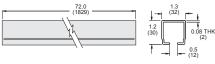


1 = C35-RT-11 & 2 = C35-RT-12

O.D. CODE*	*CABLE O.D. "A" in. (mm)	"B" in. (mm)	"D" in. (mm)	WGT lb. (kg)
1	0.31-0.59	6.5	2.75	2.3
	(8-15)	(165)	(70)	(1.05
2	0.95-1.25	6.7	3.9	2.5
	(24-32)	(170)	(98)	(1.10)

\* Standard Round Kits include Trolleys & Clips with O.D. Code "2" (fits std. 3/8 in. I.D. hose).

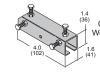
### **Accessories for Flat and Round Kits**



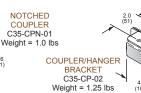
C-RAIL TRACK SECTIONS — GALVANIZED C35-TR-06 Weight = 6.3 lbs



Weight = 0.3 lbs



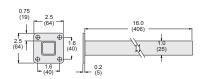
Flat and Round Kits



### **OPTIONAL Components**

### **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



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

DESCRIPTION	MODEL NUMBER
Set of 2 Locking Plugs	LC-01

### **MULTIPLE CABLE CONNECTOR**

Aluminum cast connector provides a weathertight connection between multiple cables (flat and/or round) and junction box. Order un-cut (blank) model and machine fiber-board stiffener and rubber insert to suit, OR order a pre-cut connector by providing cutting pattern.



DESCRIPTION	ON MODEL NUMBER
Blank Connec	ctor MCC-1U
Pre-cut Conne	ector MCC-1C

\*Please provide cutting pattern for #MCC-1C.



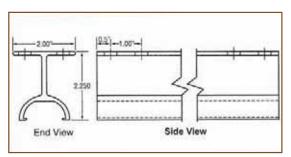


### T-Track Festoon Systems

**T-TRACK** Heavy Duty Festoon Cable Systems are specially designed for applications where a more robust system is required to support heavier loads at wider support spacings. Made of a high strength aluminum extrusion, these systems are rugged enough to handle the most demanding applications.

The track is supplied in convenient lengths which simply bolt together with a heavy duty joint assembly, and it can be curved to a minimum of 48" (1.2M) at various angles if required. The trolleys roll along the outside of the track, which allows for easy inspection and changing of the rollers. These trolleys utilize the same rugged, field proven rollers that are used on the C-TRACK trolleys, and they are supplied with anti-lift rollers as a standard feature. All standard trolleys feature durable steel wheels.



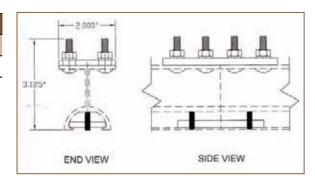


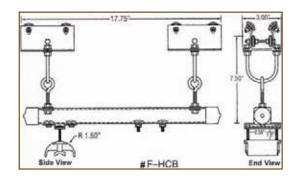
T-Track Profile				
SECTION LENGTH	NET WGT.	CAT. NO.		
10 ft.	.87 lbs./ft.	F-HT10		
20 ft.	.87 lbs./ft.	F-HT20		

T-Track sections are made of a heavy duty aluminum extrusion, of 1/8" cross section. T-Track may be cut to customer specified lengths. T-Track may also be curved. Consult Factory for details.

T-Track Bolted Joint Assembly			
NET WGT.	CAT. NO.		
1.5 lbs.	F-HTJ1		

Coupling set consists of two parts. The top portion is used to bolt sections of T-Track together. Bolts are inserted through the prepunched holes in the track sections and through the coupling plate, then securely fastened on the top. The lower portion is installed through the curved section, and then tightened with set screws.



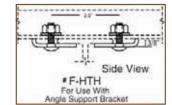


T-Track Control Box Assembly			
TYPE	NET WGT.	CAT. NO.	
Flat 3" dia.	5.20 lbs.	F-HCB	
Round Med. 0.60"-0.94"	5.50 lbs.	R-HCB	
Round Lrg. 0.95"-1.25"	5.55 lbs.	R-HCBL	

Used to support the control box / pushbutton pendant station. Equipped with steel wheels, hardware, and cable saddle.



T-Track Hanger Assemblies		
SUPPORT TYPE	NET WGT.	CAT. NO.
Angle Iron Support Brackets	0.8 lbs.	F-HTH
C-Track Crossarm	0.8 lbs.	F-HTEH/CT
Strut Track Support Bracket	0.8 lbs.	F-HTH/ST



Flat or round cable saddles with hardware used to secure cable at storage end of track. One required for each run of T-Track.

Round Cable Saddle shown

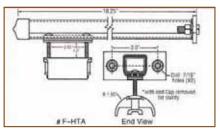


T-Track End Clamp Assembly			
TYPE	NET WGT.	CAT. NO.	
Flat 3" dia.	0.9 lbs.	F-HTE	
Round Med. 0.60"-0.94"	3.5 lbs.	R-HTE	
Round Lrg. 0.95"-1.25"	3.75 lbs.	R-HTEL	

Flat or round cable saddles with hardware used to secure cable at storage end of track. One required for each run of T-Track.

T-Track Standard Trolley Assembly			
TYPE	NET WGT.	CAT. NO.	
Flat 3" dia.	3.25 lbs.	F-HC5A	
Round Med. 0.60"-0.94"	3.50 lbs.	R-HC5A	
Round Lrg. 0.95"-1.25"	3.75 lbs.	R-HC5AL	

Flat or round cable saddle. Cable may be stacked in saddle. Features anti-lift rollers and steel wheels as standard equipment.



T-Track Tow Arm		
TYPE	NET WGT.	CAT. NO.
Flat 3" dia.	3.25 lbs.	F-HTA
Round Med. 0.60"-0.94"	3.50 lbs.	R-HTA
Round Lra. 0.95"-1.25"	3.75 lbs.	R-HTAL

Cable saddle attaches to heavy gauge steel track to mount on moving equipment which is to be electrified.

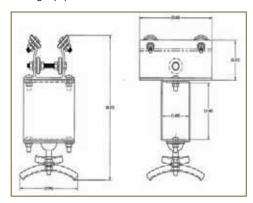
T-Track Tow Trolleys		
TYPE	NET WGT.	CAT. NO.
Flat 3" dia.	4.50 lbs.	F-HCT
Round Med. 0.60"-0.94"	4.75 lbs.	R-HCTA
Round Lrg. 0.95"-1.25"	5.00 lbs.	R-HCTAL

Lead trolley with flat or round cable saddle. Insert system's tow arm to maneuver festoon cable system.



T-Track End	Stop Assembly
NET WGT.	CAT. NO.
0.6 lbs.	F-HTS

Used to stop the trolleys at the active travel end of the track. One required for each run of T-Track.







Our **S-BEAM** Trolleys are designed with your applications in mind. Economical, durable and expandable, our festoon cable trolley runs on various size S-beams (S3 x 5.7, S4 x 7.7, S6 x 12.5 - consult factory for other beam sizes). These trolleys roll on 4 steel ball bearing wheels that have a static load capacity of 1000 lbs. each. This provides a rolling capacity of 154 lbs at 262 ft per minute. Multiple cable saddle configurations provide a variety of cable carrying options for single or dual flat cable or round cable.



F-IT-S3/5.7R2 - 0.60"-0.94" dia F-IT-S3/5.7R3 - 0.94"-1.25" dia Intermediate or Tow Trolley with steel saddle for round cable/hose



**F-IT-S3/5.7D** Intermediate or Tow Trolley with dual flat cable saddles



**F-IT-S3/5.7** Intermediate or Tow Trolley with flat cable saddle



F-IES End Stop



F-ICE/R2 - 0.60"-0.94" dia Round F-ICE/R3 - 0.94"-1.25" dia Round F-ICE - single saddle 3" dia Flat F-ICE-D - dual saddle 3" dia Flat End Clamps with choice of trolley



**F-ITB-S3/5.7** Control Box Trolley for the push button pendant connection

### **BENEFITS OF CONSTRUCTION**

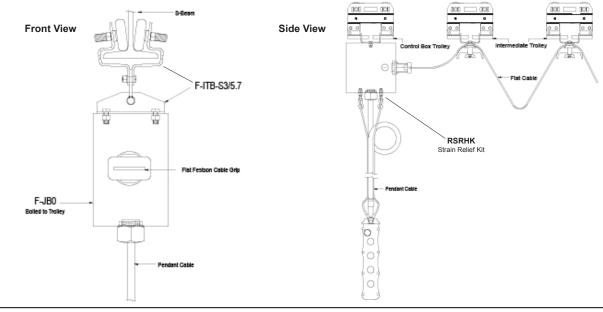
Steel construction with zinc finish for moisture protection

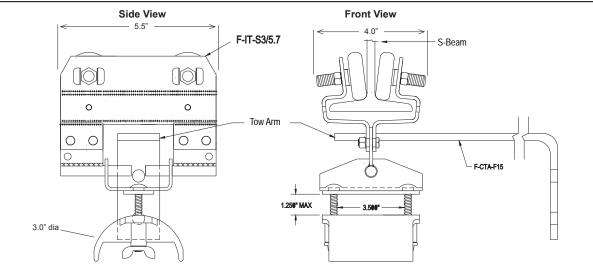
Steel chassis expands for a range of S-beam sizes (S3  $\times$  5.7, S4  $\times$  7.7, S6  $\times$  12.5 - consult factory for other beam sizes)

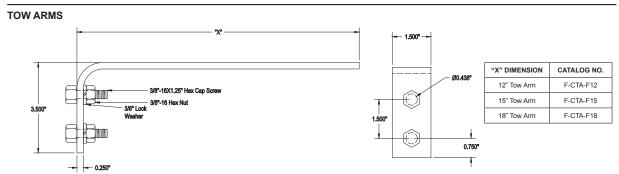
Wheels are manufactured with threaded axels, bolted (not riveted) onto the chassis for easy replacement if required



### S-BEAM DRAWINGS / DIMENSIONS



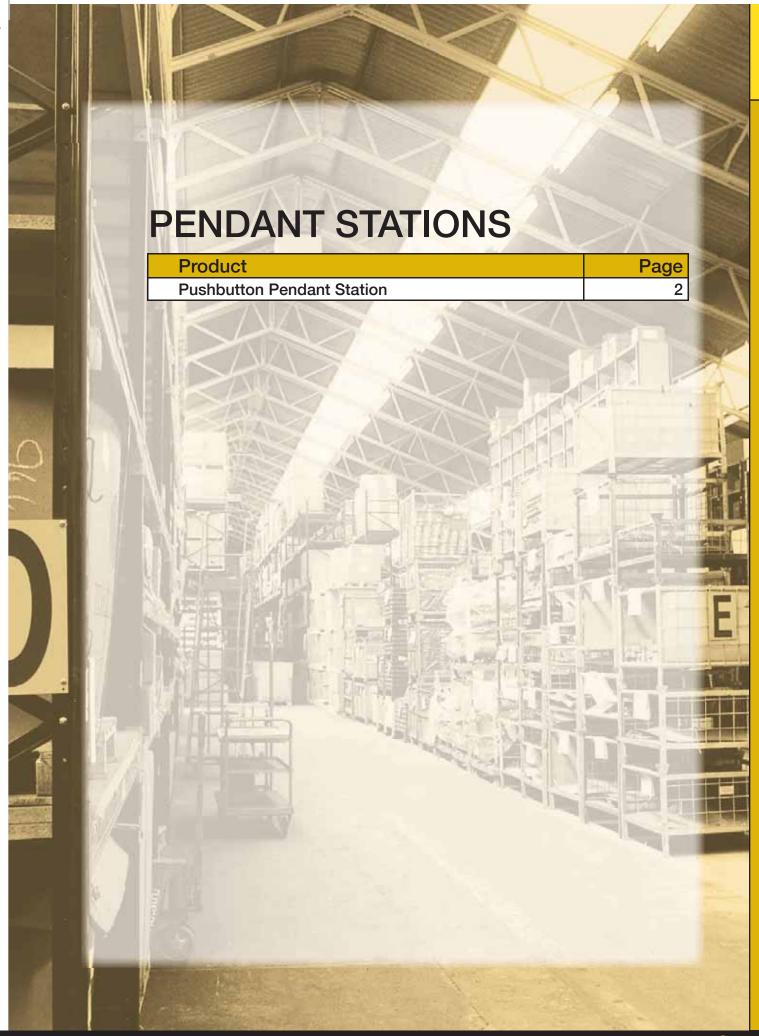
















### **PUSHBUTTON PENDANT STATIONS**

### **PUSHBUTTON PENDANT STATIONS**

MODEL NUMBER	DESCRIPTION				
PT-S02A	Single Row 2 Button - All 1-Speed				
PT-S02B	Single Row 2 Button - All 2-Speed				
PT-S03AE	Single Row 3 Button - All 1-Speed w/Emergency Stop				
PT-S03BE	Single Row 3 Button - All 2-Speed w/Emergency Stop				
PT-S04A	Single Row 4 Button - All 1-Speed				
PT-S04B	Single Row 4 Button - All 2-Speed				
PT-S04AE	Single Row 4 Button - All 1-Speed w/Emergency Stop				
PT-S04BE	Single Row 4 Button - All 2-Speed w/Emergency Stop				
PG-S5A	Single Row 5 Button - All 1-Speed w/Emergency Stop				
PG-S5B	Single Row 5 Button - All 2-Speed w/Emergency Stop				
PT-S06A	Single Row 6 Button - All 1-Speed				
PT-S06B	Single Row 6 Button - All 2-Speed				
PT-S06AE	Single Row 6 Button - All 1-Speed w/Emergency Stop				
PG-S7A	Single Row 7 Button - All 1-Speed w/Emergency Stop				
PG-S7B	Single Row 7 Button - All 2-Speed w/Emergency Stop				
PG-S8A	Single Row 8 Button - All 1-Speed				
PG-S8B	Single Row 8 Button - All 2-Speed				
PG-S8AE	Single Row 8 Button - All 1-Speed w/Emergency Stop				
PT-S08BE	Single Row 8 Button - All 2-Speed w/Emergency Stop				
PG-S10A	Single Row 10 Button - All 1-Speed				
PG-S10AE	Single Row 10 Button - All 1-Speed w/Emergency Stop				
PG-S10BE	Single Row 10 Button - All 2-Speed w/Emergency Stop				



### PENDANT ACCESSORIES

PART NUMBER	DESCRIPTION		
HC80325100	Interlock		
HC80830500	E-Stop Nameplate		
HC80323101	Red E-Stop		
HC80323100	Black E-Stop		
07401015	Cord Connector3750 W/ MESH		
07401017	Cord Connector5062 W/ MESH		
07401018	Cord Connector6275 W/ MESH		
07401019	Cord Connector5062 W/ MESH		
07401021	Cord Connector6275 W/ MESH		
07401023	Cord Connector7587 W/ MESH		
07401025	Cord Connector87 - 1.0 W/ MESH		

Please consult factory for additional Pendants, Options and Accessories not listed.



### **HOSE & CABLE PROTECTION**

Product	Page
AccessTrak®, TrukTrak® and TredTrak®	2-5
FloorTrak <sup>®</sup>	6
CableTrak® Modular Carrier Track	7-9





### **Features and Benefits**

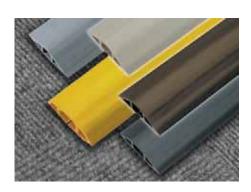


The AccessTrak® ramping system is a modular cable protection product that enables users to be ADAAG (American Disabilities Act Accessibility Guidelines) compliant and limits the exposure of cables and hoses to people and light vehicles passing over those cables and hoses. AccessTrak is an expandable five channel system that will protect cable and hose diameters up to 1.31 inches (33.0mm). For applications requiring more than five channels, AccessTrak can be expanded by width. In addition, AccessTrak is expandable by length to protect cables and hoses of any length. The AccessTrak ramping system provides a safe, flexible means of protecting cables and hoses in areas requiring ADA compliance.



Hubbell TrukTrak® and TredTrak® non-metallic cable protectors are designed to safeguard electrical cables and cords from vehicle and pedestrian traffic. The TrukTrak system comes in two, three and five channel sizes and will protect cables up to 3.25 inches (82.6mm) in diameter. It is ideal for the industrial environment where it is necessary to support heavy trucks and fork lifts. The TredTrak system is a five channel modular cable protection system that will protect cable diameters up to 1.28 inches (32.5mm). It is designed to support pedestrian and light

vehicle traffic in public, institutional and commercial applications. It can also be interconnected to protect cables and cords of any length. The Hubbell modular cable protection line also permits compliance with NEC® requirements (Article 525) for insulating electrical cables and cord at carnivals, amusement parks, convention centers and similar public areas.



FloorTrak® is a flexible, non-metallic cover for cables that run over the floor when portable cords and cables cannot be concealed or routed away from traffic patterns. FloorTrak protects, organizes and reduces trip hazards. Four different sizes mean it will handle cables of up to 1.25 inches (31.8mm) in diameter. FT2, FT3 and FT4 are available in five PVC colors to blend with the various decors. FT10 is available in black and yellow colors only. The F10 Heavy Duty FloorTrak is ideal for applications such as industrial work areas, food processing plants and abusive areas where cable management is necessary.

NEC® is a registered trademark of the The National Electrical Code.



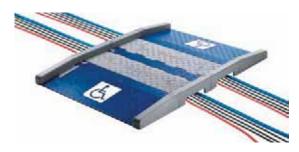
### Hose and Cable Protection Systems

### AccessTrak® System

Ordering Information and Specifications



AccessTrak Expanded by Length



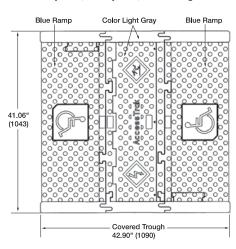
AccessTrak Expanded by Width

						Chan	
Description	Catalog Number	Length in. (mm)	Height in. (mm)	Width in. (mm)	Weight lbs. (kg)	Width in. (mm)	Height in. (mm)
AccessTrak® System			` ,	` ,		` ,	, ,
5 Channel AccessTrak kit*, blue and gray.	HBLAT5KITA	41.06" (1043.0)	4.00" (102.0)	42.90" (1090.0)	59.85 lbs. (27.15 kg)	1.34" (34.0)	1.31" (33.0)
5 Channel AccessTrak trough, blue and gray.	HBLAT5A	36.00" (914.0)	1.94" (49.0)	13.34" (339.0)	17.26 lbs. (7.83 kg)	1.34" (34.0)	1.31" (33.0)
AccessTrak trough end rails (set), gray.	HBLAT5ERA	2.50" (63.0)	4.00" (102.0)	13.28" (337.0)	5.21 lbs. (2.36 kg)		
AccessTrak ramps (set), blue.	HBLAT5RAMPA	36.00" (914.0)	1.94" (49.0)	14.50" (368.0)	24.78 lbs. (11.24 kg)		
AccessTrak ramp end rails (set), gray.	HBLAT5RAMPERA	2.50" (63.5)	4.00" (102.0)	14.75" (375.0)	6.30 lbs. (2.86 kg)		

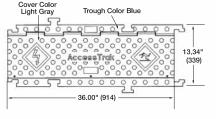
Note: \* Consists of (1) HBLAT5A; (1 set) HBLAT5ERA; (1 set) HBLAT5RAMPA; (2 sets) HBLAT5RAMPERA.

### Assembled Kit

Accessibility label, blue symbol, white background



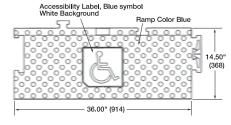
### Trough



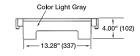
### Trough (side view)



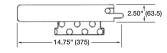
### Ramp (top view)



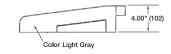
### Trough End Rails (side view)



### Ramp End Rails (top view)



### Ramp End Rails (side view)



### Ramp (side view)



### **Specifications**

Material	Polyurethane.
Operating Temperature	-40°F to +120°F (-40°C to +49°C).
Hinge Material	Reinforced fiberglass.
Safety Symbols	Per ANSI Z535.3-1991.
ADA Symbols	Per ADAAG "Symbols of Accessibility".

### **Load Capacity**

Test Fixture Footprint	Measured Load	Load lbs. (N) +/- 20%		
in. (mm)	70°F (21°C)	120°F (49°C)		
7" x 7" (178 x 178)	10,000 (44,480)	8,000 (35,584)		

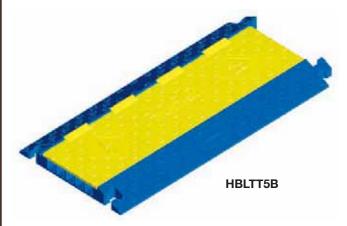




### Hose and Cable Protection Systems

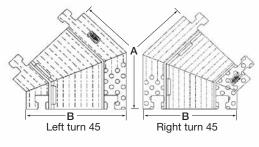
### TrukTrak® System

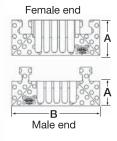
Ordering Information and Specifications

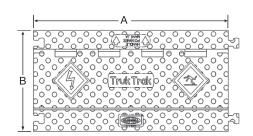




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Description	Catalog Number	Length in. (mm)	Width in. (mm)	Height in. (mm)	Weight lbs. (kg)	Channel Width in. (mm)	Height in. (mm)
TrukTrak® System							
5 Channel TrukTrak®, blue and yellow.	HBLTT5B	36.0" (914)	20" (508)	2.31" (58.7)	29 lbs. (13.2 kg)	1.25" (31.8)	1.25" (31.8)
5 Channel TrukTrak® end caps (pair only), yellow.	HBLTT5ECB (Female) (Male)	7.50" (190) 5.25" (133)	20" (508) 20" (508)	2.31" (58.7) 2.31" (58.7)	4.7 lbs. (2.1 kg) 4.7 lbs. (2.1 kg)	1.25" (31.8) 1.25" (31.8)	1.25" (31.8) 1.25" (31.8)
5 Channel 45° right turn TrukTrak®, blue and yellow.	HBLTT545RB	25.0" (635)	20" (508)	2.31" (58.7)	13 lbs. (5.9 kg)	1.25" (31.8)	1.25" (31.8)
5 Channel 45° left turn TrukTrak®, blue and yellow.	HBLTT545LB	25.0" (635)	20" (508)	2.31" (58.7)	13 lbs. (5.9 kg)	1.25" (31.8)	1.25" (31.8)
3 Channel TrukTrak®, blue and yellow.	HBLTT3B	36.0" (914)	20" (508)	3.05" (77.5)	36 lbs. (16.3 kg)	2.25" (57.2)	2.25" (57.2)
3 Channel TrukTrak® end caps (pair only), yellow.	HBLTT3ECB (Female) (Male)	8.25" (209) 6.38" (162)	20" (508) 20" (508)	3.05" (77.5) 3.05" (77.5)	6.5 lbs. (2.9 kg) 6.5 lbs. (2.9 kg)	2.25" (57.2) 2.25" (57.2)	2.25" (57.2) 2.25" (57.2)
2 Channel TrukTrak®, blue and yellow.	HBLTT2B	36.0" (914)	22" (559)	4.13" (104.9)	44 lbs. (19.9 kg)	3.25" (82.6)	3.25" (82.6)







Features	Benefits
High density polyurethane construction.	Supports heavy loads and is weather resistant.
Modular interlocking design.	Easy installation, breakdown and storage.
Safety surface pattern.	Reduces slipping and skidding.
Safety blue and yellow colors.	High visibility.

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### **Specifications**

Material	Polyurethane.
Operating Temperature	-40°F to +120°F (-40°C to +49°C).
Hinge Material	Reinforced fiberglass.
Safety Symbols	Per ANSI Z535.3.

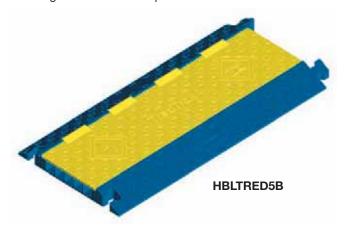
### **Load Capacity**

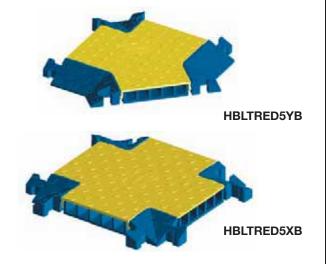
No. of	Test Fixture Footprint	Measured Load lbs. (N) +/- 20%		
Channels	in. (mm)	70°F (21°C)	120°F (49°C)	
5 Channel	6.9" x 17.3" (175 X 439)	20,150 (89,627)	9,200 (40,921)	
3 Channel	6.9" x 17.3" (175 X 439)	14,210 (63,206)	4,653 (20,696)	
2 Channel	6.9" x 17.3" (175 X 439)	10,880 (48,394)	2,095 (9,318)	



### Hose and Cable Protection Systems

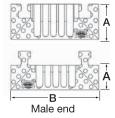
### **TredTrak® System**Ordering Information and Specifications

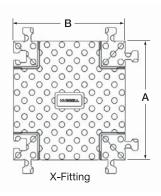


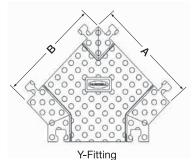


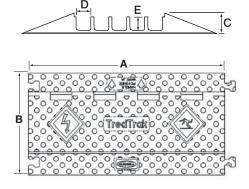
		Α	В	C		D	E
						Channe	
Description	Catalog Number	Length in. (mm)	Width in. (mm)	Height in. (mm)	Weight lbs. (kg)	Width in. (mm)	Height in. (mm)
TredTrak® System							
5 Channel TredTrak®, blue and yellow.	HBLTRED5B	36.0" (914)	17.5" (445)	1.95" (50)	18 lbs. (8.2 kg)	1.30" (33)	1.30" (33)
5 Channel TredTrak® end caps	HBLTRED5ECB						
(pair only), yellow.	(Female)	5.5" (139)	17.5" (445)	1.95" (50)	2.5 lbs. (1.13kg)	1.30" (33)	1.30" (33)
	(Male)	5.5" (139)	17.5" (445)	1.95" (50)	2.5 lbs. (1.13kg)	1.30" (33)	1.30" (33)
5 Channel TredTrak female end caps (2 females), yellow.	HBLTRED5ECFB	5.5" (139)	17.5" (445)	1.95" (50)	2.5 lbs. (1.13kg)	1.30" (33)	1.30" (33)
5 Channel "X" fitting, blue and yellow.	HBLTRED5XB	17.5" (445)	17.5" (445)	1.95" (50)	12 lbs. (5.43kg)	1.30" (33)	1.30" (33)
5 Channel "Y" fitting, blue and yellow.	HBLTRED5YB	17.5" (445)	17.5" (445)	1.95" (50)	12 lbs. (5.43kg)	1.30" (33)	1.30" (33)

Female end









### **Specifications**

Material	Polyurethane.
Operating Temperature	-40°F to +120°F (-40°C to +49°C).
Hinge Material	Reinforced fiberglass.
Safety Symbols	Per ANSI Z535.3.

### **Load Capacity**

	Test Fixture Footprint	Measured Load	d lbs. (N) +/- 20%
Product	in. (mm)	70°F (21°C)	120°F (49°C)
TredTrak	6.9" x 17.3" (175 x 439)	10,500 (46,700)	6,500 (28,900)
"X" Fitting	6.9" x 17.3" (175 x 439)	2,900 (12,900)	2,300 (10,230)
"Y" Fitting	6.9" x 17.3" (175 x 439)	2,900 (12,900)	2,300 (10,230)







### FloorTrak 2

Catalog	Length						
Number	Color	Feet	(meters)				
FT2BK10	Black	10.0'	(3.05)				
FT2BR10	Brown	10.0'	(3.05)				
FT2BG10	Beige	10.0'	(3.05)				
FT2GY10	Gray	10.0'	(3.05)				
FT2Y10	Yellow	10.0'	(3.05)				

### FloorTrak 3

Catalog		Le	ength
Number	Color	Feet	(meters)
FT3BK5	Black	5.0'	(1.52)
FT3BK25	Black	25.0'	(7.62)
FT3BR5	Brown	5.0'	(1.52)
FT3BR25	Brown	25.0'	(7.62)
FT3BG5	Beige	5.0'	(1.52)
FT3BG25	Beige	25.01	(7.62)
FT3GY5	Gray	5.0'	(1.52)
FT3GY25	Gray	25.01	(7.62)
FT3Y5	Yellow	5.0'	(1.52)
FT3Y25	Yellow	25.0'	(7.62)

### FloorTrak 4

Catalog	Le	ength	
Number	Color	Feet	(meters)
FT4BK5	Black	5.0'	(1.52)
FT4BK25	Black	25.0'	(7.62)
FT4GY25	Gray	25.0'	(7.62)
FT4Y5	Yellow	5.0'	(1.52)
FT4Y25	Yellow	25.0'	(7.62)

### FloorTrak 10 (Heavy Duty)

Catalog	Length					
Number	Color	Feet	(meters)			
FT10BK3	Black	3.0'	(.914)			
FT10BK5	Black	5.0'	(1.52)			
FT10Y3	Yellow	3.01	(.914)			
FT10Y5	Yellow	5.0'	(1.52)			

### **Accessories**

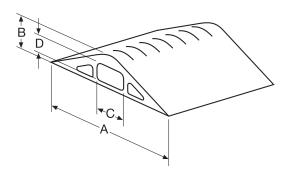
Description	Catalog Number
1" Wide, 75' Roll Double-Sided Adhesive Tape.	FTT1
2" Wide, 75' Roll Double-Sided Adhesive Tape.	FTT2

### **Specifications**

Material	Rigid PVC.
Operating Temperature	0°F to +120°F (-18°C to +49°C).

### **Dimensions**

FloorTrak	FT2	FT3	FT4	FT10 (Heavy Duty)
Width (A)	2.75" (69.9)	3.00" (76.2)	3.25" (82.6)	5.6" (142.24)
Height (B)	.53" (13.5)	.75" (19.1)	1.10" (27.9)	1.7" (43.18)
Center Hole (CxD)	.60" x .31" (15.2) x (7.9)	.75" x .50" (19.1) x (12.7)	1.21" x .75" (30.7) x (19.1)	1.81" x 1.25" (45.98 x 31.75)





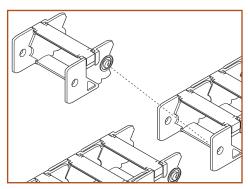
### CARRIER TRACK

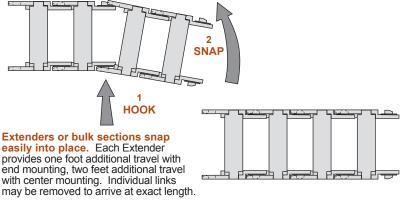
### **MODULAR CARRIER TRAK**



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





### Flip-Top



### 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**

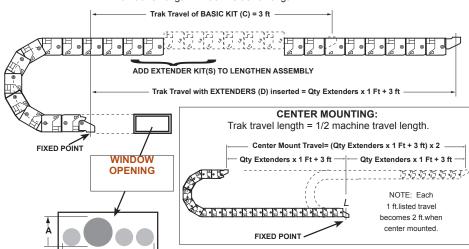
**BASIC KITS (C)** include enough track to form the curve and provide for three ft. of machine travel (standard mounting) or six ft. of machine travel (center mounting). Mounting hardware included.

**EXTENDERS (D)** include one foot of track 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 track does NOT include brackets. Order brackets (sets of 6 only) separately.

### **END MOUNTING:**

Trak travel length = Machine travel length.



### **SELECTION**

- 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
- 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: Track 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 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.	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)	T0815-23-3.0	ET0815-23-1.0	-	-	-
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

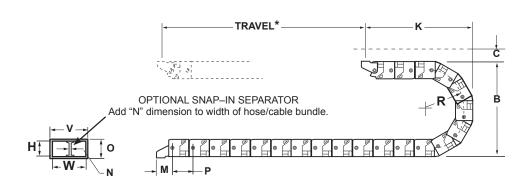


Flip-Top





### **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	н	R	WGT** (lbs/ft.)	В	CLEARANCE C	OVERALL O	K	M	SEPARATOR N	PITCH <b>P</b>	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
P13-2-2.7	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 <b>①</b>	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 <b>①</b>	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	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	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	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	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	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 ①	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 ①	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 ①	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 ①	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 ①	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 ①	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 ①	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

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

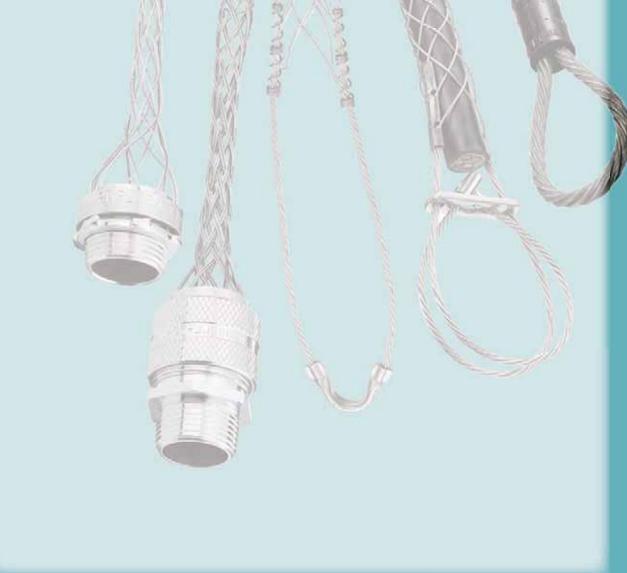




# **HOSE AND CABLE PROTECTION**

### KELLEMS® WIRE MANAGEMENT

Product	Page
Single Eye Support Grips	2
Double Eye Support Grips	3
Offset Eye Support Grips	4
Universal Eye Support Grips	5
Deluxe Cord Grips	6-7



For the full product offering and details, please visit www.HubbellOnline.com/wiring or call 1-800-465-7051.





Single Eye, Single Weave, Tin-Coated Bronze



### **WARNING!**

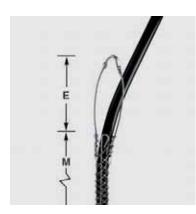
It is important that you read all breaking strength, safety and technical data relating to this product on pages T-42 through T-46.



Single Eye, Closed Mesh



Single Eye, Split Mesh, Lace Closing



Single Eye, Split Mesh, Rod Closing

### Single Eye, Closed Mesh\*

For permanent support when cable end is available to be installed through grip.

Cable Diameter Range Inches (cm)	Approx. Breaking Strength Lbs. (N)	E Inches (cm)	M Inches (cm)	Catalog Number
.50"62" (1.27-1.57)	530 (2,357)	7" (17.78)	10" (25.40)	02201013
.63"74" (1.60-1.88)	790 (3,514)	8" (20.32)	10" (25.40)	02201014
.75"99" (1.90-2.51)	1,020 (4,537)	8" (20.32)	13" (33.02)	02201015
1.00"-1.24" (2.54-3.15)	1,610 (7,161)	9" (22.86)	14" (35.56)	02201017
1.25"-1.49" (3.17-3.78)	1,610 (7,161)	10" (25.40)	15" (38.10)	02201018
1.50"-1.74" (3.81-4.42)	1,610 (7,161)	12" (30.48)	17" (43.18)	02201019
1.75"-1.99" (4.44-5.05)	2,150 (9,563)	14" (35.56)	19" (48.26)	02201020
2.00"-2.49" (5.08-6.32)	3,260 (14,500)	16" (40.64)	21" (53.34)	02201021
2.50"-2.99" (6.35-7.59)	3,260 (14,500)	18" (45.72)	23" (58.42)	02201022
3.00"-3.49" (7.62-8.86)	4,900 (21,795)	21" (53.34)	25" (63.50)	02201023
3.50"-3.99" (8.89-10.13)	4,900 (21,795)	24" (60.96)	27" (68.58)	02201024

### Single Eye, Split Mesh, Lace Closing\*

For permanent support when cable end is not available.

Cable Diameter Range Inches (cm)	Approx. Breaking Strength Lbs. (N)	E Inches (cm)	M Inches (cm)	Catalog Number
.50"62" (1.27-1.57)	530 (2,357)	7" (17.78)	10" (25.40)	02202013
.63"74" (1.60-1.88)	790 (3,514)	8" (20.32)	10" (25.40)	02202014
.75"99" (1.90-2.51)	1,020 (4,537)	8" (20.32)	13" (33.02)	02202015
1.00"-1.24" (2.54-3.15)	1,610 (7,161)	9" (22.86)	14" (35.56)	02202017
1.25"-1.49" (3.17-3.78)	1,610 (7,161)	10" (25.40)	15" (38.10)	02202018
1.50"-1.74" (3.81-4.42)	1,610 (7,161)	12" (30.48)	17" (43.18)	02202019
1.75"-1.99" (4.44-5.05)	2,150 (9,563)	14" (35.56)	19" (48.26)	02202020
2.00"-2.49" (5.08-6.32)	3,260 (14,500)	16" (40.64)	21" (53.34)	02202021
2.50"-2.99" (6.35-7.59)	3,260 (14,500)	18" (45.72)	23" (58.42)	02202022
3.00"-3.49" (7.62-8.86)	4,900 (21,795)	21" (53.34)	25" (63.50)	02202023
3.50"-3.99" (8.89-10.13)	4,900 (21,795)	24" (60.96)	27" (68.58)	02202024

### Single Eye, Split Mesh, Rod Closing\*

For support when cable end is not available.

Tor support which ouble co	ia io riot availabio.			
Cable Diameter Range Inches (cm)	Approx. Breaking Strength Lbs. (N)	E Inches (cm)	M Inches (cm)	Catalog Number
.50"62" (1.27-1.57)	790 (3,514)	7" (17.78)	8.5" (21.59)	02203013
.63"74" (1.60-1.88)	790 (3,514)	8" (20.32)	8.5" (21.59)	02203014
.75"99" (1.90-2.51)	1,020 (4,537)	8" (20.32)	10.5" (26.67)	02203015
1.00"-1.24" (2.54-3.15)	1,610 (7,161)	9" (22.86)	12.5" (31.75)	02203017
1.25"-1.49" (3.17-3.78)	1,610 (7,161)	10" (25.40)	14.5" (36.83)	02203018
1.50"-1.74" (3.81-4.42)	1,610 (7,161)	12" (30.48)	15.5" (39.37)	02203019
1.75"-1.99" (4.44-5.05)	2,150 (9,563)	14" (35.56)	16.5" (41.91)	02203020
2.00"-2.49" (5.08-6.32)	3,260 (14,500)	16" (40.64)	19.5" (49.53)	02203021
2.50"-2.99" (6.35-7.59)	3,260 (14,500)	18" (45.72)	21.5" (54.61)	02203022
3.00"-3.49" (7.62-8.86)	5,750 (25,576)	21" (53.34)	23.5" (59.69)	02203023
3.50"-3.99" (8.89-10.13)	5,750 (25,576)	24" (60.96)	25.5" (64.77)	02203024

Note: E-Eye length.

M-Mesh length at nominal diameter.

<sup>\*</sup> Change catalog number from 022 to 024 for stainless steel. Consult factory for availability.



Double Eye, Single Weave, Tin-Coated Bronze



### **Double Eye, Closed Mesh\***

For permanent support when cable end is available to be installed through grip.

Cable Diameter Range Inches (cm)	Approx. Breaking Strength Lbs. (N)	E Inches (cm)	M Inches (cm)	Catalog Number
.50"62" (1.27-1.57)	530 (2,357)	4" (10.16)	10" (25.40)	02201001
.63"74" (1.60-1.88)	790 (3,514)	4" (10.16)	10" (25.40)	02201002
.75"99" (1.90-2.51)	1,020 (4,537)	4" (10.16)	13" (33.02)	02201003
1.00"-1.24" (2.54-3.15)	1,610 (7,161)	5" (12.70)	14" (35.56)	02201005
1.25"-1.49" (3.17-3.78)	1,610 (7,161)	5" (12.70)	15" (38.10)	02201006
1.50"-1.74" (3.81-4.42)	1,610 (7,161)	5" (12.70)	17" (43.18)	02201007
1.75"-1.99" (4.44-5.05)	2,150 (9,563)	6" (15.24)	19" (48.26)	02201008
2.00"-2.49" (5.08-6.32)	3,260 (14,500)	6" (15.24)	21" (53.34)	02201009
2.50"-2.99" (6.35-7.59)	3,260 (14,500)	6" (15.24)	23" (58.42)	02201010
3.00"-3.49" (7.62-8.86)	4,900 (21,795)	8" (20.32)	25" (63.50)	02201011
3.50"-3.99" (8.89-10.13)	4,900 (21,795)	8" (20.32)	27" (68.58)	02201012

### Double Eye, Split Mesh, Lace Closing\*

For permanent support when cable end is not available.

Cable Diameter Range Inches (cm)	Approx. Breaking Strength Lbs. (N)	E Inches (cm)	M Inches (cm)	Catalog Number
.50"62" (1.27-1.57)	530 (2,357)	4" (10.16)	10" (25.40)	02202001
.63"74" (1.60-1.88)	790 (3,514)	4" (10.16)	10" (25.40)	02202002
.75"99" (1.90-2.51)	1,020 (4,537)	4" (10.16)	13" (33.02)	02202003
1.00"-1.24" (2.54-3.15)	1,610 (7,161)	5" (12.70)	14" (35.56)	02202005
1.25"-1.49" (3.17-3.78)	1,610 (7,161)	5" (12.70)	15" (38.10)	02202006
1.50"-1.74" (3.81-4.42)	1,610 (7,161)	5" (12.70)	17" (43.18)	02202007
1.75"-1.99" (4.44-5.05)	2,150 (9,563)	6" (15.24)	19" (48.26)	02202008
2.00"-2.49" (5.08-6.32)	3,260 (14,500)	6" (15.24)	21" (53.34)	02202009
2.50"-2.99" (6.35-7.59)	3,260 (14,500)	6" (15.24)	23" (58.42)	02202010
3.00"-3.49" (7.62-8.86)	4,900 (21,795)	8" (20.32)	25" (63.50)	02202011
3.50"-3.99" (8.89-10.13)	4,900 (21,795)	8" (20.32)	27" (68.58)	02202012

### Double Eye, Split Mesh, Rod Closing\*

For support when cable end is not available.

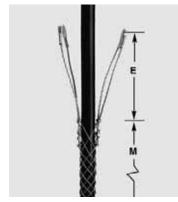
or capport times casts of				
Cable Diameter Range Inches (cm)	Approx. Breaking Strength Lbs. (N)	E Inches (cm)	M Inches (cm)	Catalog Number
.50"62" (1.27-1.57)	790 (3,514)	4" (10.16)	8.5" (21.59)	02203001
.63"74" (1.60-1.88)	790 (3,514)	4" (10.16)	8.5" (21.59)	02203002
.75"99" (1.90-2.51)	1,020 (4,537)	4" (10.16)	10.5" (26.67)	02203003
1.00"-1.24" (2.54-3.15)	1,610 (7,161)	5" (12.70)	12.5" (31.75)	02203005
1.25"-1.49" (3.17-3.78)	1,610 (7,161)	5" (12.70)	14.5" (36.83)	02203006
1.50"-1.74" (3.81-4.42)	1,610 (7,161)	5" (12.70)	15.5" (39.37)	02203007
1.75"-1.99" (4.44-5.05)	2,150 (9,563)	6" (15.24)	16.5" (41.91)	02203008
2.00"-2.49" (5.08-6.32)	3,260 (14,500)	6" (15.24)	19.5" (49.53)	02203009
2.50"-2.99" (6.35-7.59)	3,260 (14,500)	6" (15.24)	21.5" (54.61)	02203010
3.00"-3.49" (7.62-8.86)	5,750 (25,576)	8" (20.32)	23.5" (59.69)	02203011
3.50"-3.99" (8.89-10.13)	5,750 (25,576)	8" (20.32)	25.5" (64.77)	02203012

Note: E-Eye length.

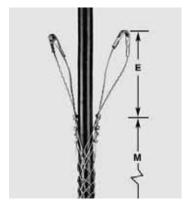
M-Mesh length at nominal diameter.

### **WARNING!**

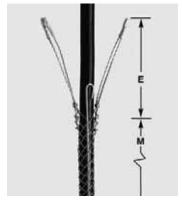
It is important that you read all breaking strength, safety and technical data relating to this product on pages T-42 through T-46.



Double Eye, Closed Mesh



Double Eye, Split Mesh, Lace Closing



Double Eye, Split Mesh, Rod Closing





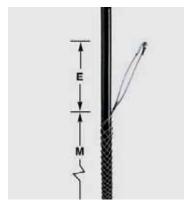
 $<sup>^{\</sup>star}$  Change catalog number from 022 to 024 for stainless steel. Consult factory for availability.

Offset Eye, Single Weave, Tin-Coated Bronze

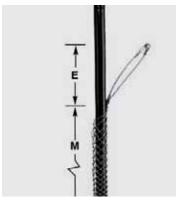


### **WARNING!**

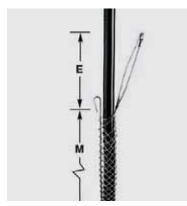
It is important that you read all breaking strength, safety and technical data relating to this product on pages T-42 through T-46.



Offset Eye, Closed Mesh



Offset Eye, Split Mesh, Lace Closing



Offset Eye, Split Mesh, Rod Closing

### Offset Eye, Closed Mesh\*

For permanent support when cable end is available to be installed through grip.

Cable Diameter Range Inches (cm)	Approx. Breaking Strength Lbs. (N)	E Inches (cm)	M Inches (cm)	Catalog Number
.50"62" (1.27-1.57)	500 (2,224)	4" (10.16)	10" (25.40)	02201037
.63"74" (1.60-1.88)	750 (3,336)	4" (10.16)	10" (25.40)	02201038
.75"99" (1.90-2.51)	950 (4,226)	4" (10.16)	13" (33.02)	02201039
1.00"-1.24" (2.54-3.15)	1,500 (6,672)	5" (12.70)	14" (35.56)	02201041
1.25"-1.49" (3.17-3.78)	1,500 (6,672)	5" (12.70)	15" (38.10)	02201042
1.50"-1.74" (3.81-4.42)	1,500 (6,672)	5" (12.70)	17" (43.18)	02201043
1.75"-1.99" (4.44-5.05)	2,000 (8,896)	6" (15.24)	19" (48.26)	02201044
2.00"-2.49" (5.08-6.32)	3,100 (13,789)	9" (22.86)	21" (53.34)	02201045
2.50"-2.99" (6.35-7.59)	3,100 (13,789)	9" (22.86)	23" (58.42)	02201046
3.00"-3.49" (7.62-8.86)	3,800 (16,902)	11" (27.94)	25" (63.50)	02201047
3.50"-3.99" (8.89-10.13)	3,250 (14,480)	11" (27.94)	27" (68.58)	02201048

### Offset Eye, Split Mesh, Lace Closing\*

For permanent support when cable end is not available.

Cable Diameter Range Inches (cm)	Approx. Breaking Strength Lbs. (N)	E Inches (cm)	M Inches (cm)	Catalog Number
.50"62" (1.27-1.57)	500 (2,224)	4" (10.16)	10" (25.40)	02202037
.63"74" (1.60-1.88)	750 (3,336)	4" (10.16)	10" (25.40)	02202038
.75"99" (1.90-2.51)	950 (4,226)	4" (10.16)	13" (33.02)	02202039
1.00"-1.24" (2.54-3.15)	1,500 (6,672)	5" (12.70)	14" (35.56)	02202041
1.25"-1.49" (3.17-3.78)	1,500 (6,672)	5" (12.70)	15" (38.10)	02202042
1.50"-1.74" (3.81-4.42)	1,500 (6,672)	5" (12.70)	17" (43.18)	02202043
1.75"-1.99" (4.44-5.05)	1,800 (8,006)	6" (15.24)	19" (48.26)	02202044
2.00"-2.49" (5.08-6.32)	2,150 (9,563)	9" (22.86)	21" (53.34)	02202045
2.50"-2.99" (6.35-7.59)	2,150 (9,563)	9" (22.86)	23" (58.42)	02202046
3.00"-3.49" (7.62-8.86)	3,250 (14,480)	11" (27.94)	25" (63.50)	02202047
3.50"-3.99" (8.89-10.13)	3,250 (14,480)	11" (27.94)	27" (68.58)	02202048

### Offset Eye, Split Mesh, Rod Closing\*

For support when cable end is not available.

500 (2,224) 750 (3,336)	4" (10.16) 4" (10.16)	7" (17.78)	02203037
750 (3,336)	4" (10.16)	0 !! (0 0 0 0)	
	. (.33)	9" (22.86)	02203038
950 (4,226)	4" (10.16)	10" (25.40)	02203039
1,500 (6,672)	5" (12.70)	12" (30.48)	02203041
1,500 (6,672)	5" (12.70)	14" (35.56)	02203042
1,500 (6,672)	5" (12.70)	15" (38.10)	02203043
2,000 (8,896)	6" (15.24)	16" (40.64)	02203044
3,100 (13,789)	9" (22.86)	19" (48.26)	02203045
3,100 (13,789)	9" (22.86)	20" (50.80)	02203046
4,300 (19,126)	11" (27.94)	21" (53.34)	02203047
4,900 (21,795)	11" (27.94)	21" (53.34)	02203048
	1,500 (6,672) 1,500 (6,672) 1,500 (6,672) 2,000 (8,896) 3,100 (13,789) 3,100 (13,789) 4,300 (19,126)	1,500 (6,672)     5" (12.70)       1,500 (6,672)     5" (12.70)       1,500 (6,672)     5" (12.70)       2,000 (8,896)     6" (15.24)       3,100 (13,789)     9" (22.86)       3,100 (13,789)     9" (22.86)       4,300 (19,126)     11" (27.94)	1,500 (6,672)     5" (12.70)     12" (30.48)       1,500 (6,672)     5" (12.70)     14" (35.56)       1,500 (6,672)     5" (12.70)     15" (38.10)       2,000 (8,896)     6" (15.24)     16" (40.64)       3,100 (13,789)     9" (22.86)     19" (48.26)       3,100 (13,789)     9" (22.86)     20" (50.80)       4,300 (19,126)     11" (27.94)     21" (53.34)

Note: E-Eye length.

M-Mesh length at nominal diameter.

<sup>\*</sup> Change catalog number from 022 to 024 for stainless steel. Consult factory for availability.



Universal Eye, Single Weave, Tin-Coated Bronze



### Universal Eye, Closed Mesh\*

For permanent support when cable end is available to be installed through grip.

Cable Diameter Range Inches (cm)	Approx. Breaking Strength Lbs. (N)	E Inches (cm)	M Inches (cm)	Catalog Number
.50"62" (1.27-1.57)	530 (2,357)	18" (45.72)	10" (25.40)	02201051
.63"74" (1.60-1.88)	790 (3,514)	18" (45.72)	10" (25.40)	02201052
.75"99" (1.90-2.51)	1,020 (4,537)	18" (45.72)	13" (33.02)	02201053
1.00"-1.24" (2.54-3.15)	1,610 (7,161)	18" (45.72)	14" (35.56)	02201050
1.25"-1.49" (3.17-3.78)	1,610 (7,161)	18" (45.72)	15" (38.10)	02201054
1.50"-1.74" (3.81-4.42)	1,610 (7,161)	18" (45.72)	17" (43.18)	02201055
1.75"-1.99" (4.44-5.05)	2,150 (9,563)	18" (45.72)	19" (48.26)	02201056
2.00"-2.49" (5.08-6.32)	3,260 (14,500)	18" (45.72)	21" (53.34)	02201057
2.50"-2.99" (6.35-7.59)	3,260 (14,500)	18" (45.72)	23" (58.42)	02201058

### Universal Eye, Split Mesh, Lace Closing

For permanent support when cable end is not available.

	E Inches (cm)	М	Catalog
	inches (citi)	Inches (cm)	Number
30 (2,357)	18" (45.72)	10" (25.40)	02202050
00 (3,514)	18" (45.72)	10" (25.40)	02202051
020 (4,537)	18" (45.72)	13" (33.02)	02202052
610 (7,161)	18" (45.72)	14" (35.56)	02202054
610 (7,161)	18" (45.72)	15" (38.10)	02202055
610 (7,161)	18" (45.72)	17" (43.18)	02202056
150 (9,563)	18" (45.72)	19" (48.26)	02202057
260 (14,500)	18" (45.72)	21" (53.34)	02202058
260 (14,500)	18" (45.72)	23" (58.42)	02202059
900 (21,795)	18" (45.72)	27" (68.58)	02202061
	0 (2,357) 0 (3,514) 020 (4,537) 610 (7,161) 610 (7,161) 610 (7,161) 150 (9,563) 260 (14,500)	0 (2,357) 18" (45.72) 0 (3,514) 18" (45.72) 020 (4,537) 18" (45.72) 010 (7,161) 18" (45.72) 010 (7,161) 18" (45.72) 010 (7,161) 18" (45.72) 010 (7,161) 18" (45.72) 010 (7,161) 18" (45.72) 010 (7,161) 18" (45.72) 010 (14.500) 18" (45.72) 011 (14.500) 18" (45.72)	0 (2,357)

### Universal Eye, Split Mesh, Rod Closing\*

For support when cable end is not available.

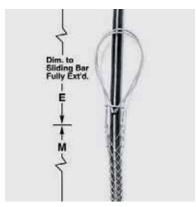
Cable Diameter Range Inches (cm)	Approx. Breaking Strength Lbs. (N)	E Inches (cm)	M Inches (cm)	Catalog Number
.50"62" (1.27-1.57)	790 (3,514)	18" (45.72)	8.5" (21.59)	02203064
.63"74" (1.60-1.88)	790 (3,514)	18" (45.72)	8.5" (21.59)	02203065
.75"99" (1.90-2.51)	1,020 (4,537)	18" (45.72)	10.5" (26.67)	02203066
1.00"-1.24" (2.54-3.15)	1,610 (7,161)	18" (45.72)	12.5" (31.75)	02203068
1.25"-1.49" (3.17-3.78)	1,610 (7,161)	18" (45.72)	14.5" (36.83)	02203069
1.50"-1.74" (3.81-4.42)	1,610 (7,161)	18" (45.72)	15.5" (39.37)	02203070
1.75"-1.99" (4.44-5.05)	2,150 (9,563)	18" (45.72)	16.5" (41.91)	02203071
2.00"-2.49" (5.08-6.32)	3,260 (14,500)	18" (45.72)	19.5" (49.53)	02203072
2.50"-2.99" (6.35-7.59)	3,260 (14,500)	18" (45.72)	21.5" (54.61)	02203073
3.00"-3.49" (7.62-8.86)	5,750 (25,576)	18" (45.72)	23.5" (59.69)	02203074

Note: E-Eye length.

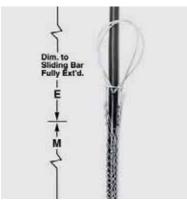
M-Mesh length at nominal diameter.

### **WARNING!**

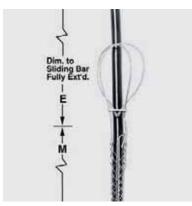
It is important that you read all breaking strength, safety and technical data relating to this product on pages T-42 through T-46.



Universal Eye, Closed Mesh



Universal Eye, Split Mesh, Lace Closing



Universal Eye, Split Mesh, Rod Closing





<sup>\*</sup> Change catalog number from 022 to 024 for stainless steel. Consult factory for availability.

### **Deluxe Cord Grips**

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





### **WARNING!**

It is important that you read all breaking strength, safety and technical data relating to this product on pages T-71 through T-76.



Straight Male



	Aluminum Body
Aluminum Compression Nut	Tapered Thread
	luminum Neopren ollar Bushing

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).

<sup>\*</sup> Cable jacket may have to be stripped to pass through connector body.

N.P.T. Thread Size Inches	Grip Diameter Ra Inches		Form Size	Ontale - Normale
Size iliches	.250"312"	(cm) (.6379)	Size	Catalog Number 07401001
3/8	.312"375"	(.7995)	F1	07401001
, 0	.375"437"	(.95-1.11)		07401003
	.187"250"	(.4763)		07401004
I.Z.	.250"375"	(.6395)	го	07401006
/2	.375"500"	(.95-1.27)	F2	07401008
	.500"625"	(1.27-1.59)		07401010
1/2	.625"750"	(1.59-1.90)	F3	074011247*
/2	.750"875"	(1.90-2.22)	13	074011248*
	.187"250"	(.4763)		07401011
3/4	.250"375"	(.6395)	F2	07401013
	.375"500"	(.95-1.27)		07401015 07401017
	.500"625"	(1.27-1.59)		
3/4	.625"750" .750"875"	(1.59-1.90) (1.90-2.22)	F3	07401018 074011249*
	.375"500"	,		074011249
	.500"625"	(.95-1.27) (1.27-1.59)		074011195 07401019
	.625"750"	(1.59-1.90)		07401019
I	.750"875"	(1.90-2.22)	F4	07401023
	.875"-1.000"	(2.22-2.54)		07401025
	1.000"-1.125"	(2.54-2.86)		074011250*
1	1.125"-1.250"	(2.86-3.17)	F5	074011028*
'	1.250"-1.375"	(3.17-3.49)	10	074011029*
	.750"875"	(1.90-2.22)		074011251
	.875"-1.000"	(2.22-2.54)		07401026
11⁄4	1.000"-1.125" 1.125"-1.250"	(2.54-2.86)	F5	07401027
	1.250"-1.375"	(2.86-3.17) (3.17-3.49)		07401028 074011178*
	.750"875"	(1.90-2.22)		07401176
	.875"-1.000"	(2.22-2.54)		074011232
11/2	1.000"-1.125"	(2.54-2.86)	F5	07401020
	1.125"-1.250"	(2.86-3.17)		07401031
	1.250"-1.375"	(3.17-3.49)		07401032
	1.312"-1.437"	(3.33-3.65)		074011253
	1.437"-1.562"	(3.65-3.97)		074011254*
11/2	1.562"-1.687"	(3.97-4.28)	F6	074011255*
	1.687"- 1.812" 1.750"-1.875"	(4.28-4.60) (4.44-4.76)		074011256* 074011257*
	1.250"-1.375"	, ,		074011257
	1.230 -1.375	(3.17-3.49) (3.33-3.65)		074011258
2	1.437"-1.562"	(3.65-3.97)	F.C.	07401033
2	1.562"-1.687"	(3.97-4.28)	F6	07401034
	1.687"-1.812"	(4.28-4.60)		07401035
	1.750"- 1.875"	(4.44-4.76)		074011260
	1.812"-1.937"	(4.60-4.92)		074011261
2	1.937"-2.062"	(4.92-5.24)	<b>-</b>	074011262*
2	2.062"-2.187" 2.187"-2.312"	(5.24-5.55) (5.55-5.87)	F7	074011263* 074011264*
	2.312"-2.437"	(5.87-6.19)		074011264
	1.688"-1.812"	(4.29-4.60)		074011030
	1.812"-1.937"	(4.60-4.92)		074011030
01/	1.937"-2.062"	(4.92-5.24)	F-7	074011032
21/2	2.062"-2.187"	(5.24-5.55)	F7	074011033
	2.187"-2.312"	(5.55-5.87)		074011034
	2.312"-2.437"	(5.87-6.19)		074011266*
	1.937"-2.062"	(4.92-5.24)		074011036
3	2.062"-2.187"	(5.24-5.55)	F7	074011037
	2.187"-2.312" 2.312"-2.437"	(5.55-5.87) (5.87-6.19)		074011038 074011039
	2.437"-2.625"			
	2.437"-2.625" 2.625"-2.812"	(6.19-6.67) (6.67-7.14)		074011186 074011187
				U/TUILIO/
3	2.812"-3.000"	(7.14-7.62)	F8	074011188



### **Deluxe Cord Grips**

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





**Straight Female Thread** 

N.P.T. Thread	Grip Diameter Range		Form	
Size Inches	Inches	(cm)	Size	Catalog Number
1/2	.375"500"	(.95-1.27)	F2	07401043
	.500"625"	(1.27-1.59)		07401045
3/4	.500"625"	(1.27-1.59)	F2	07401052
3/4	.625"750"	(1.59-1.90)	F4	07401053

### WARNING!

It is important that you read all breaking strength, safety and technical data relating to this product on pages T-71 through T-76.



Straight Female



90° Male



45° Male

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).

### 90° Male Thread

N.P.T. Thread	Grip Diameter F	lange	Form	
Size Inches	Inches	(cm)	Size	Catalog Number
3/8	.250"312" .312"375" .375"437"	(.6379) (.7995) (.95-1.11)	F1	07401071 07401072 07401073
1/2	.187"250" .250"375" .375"500" .500"625"	(.4763) (.6395) (.95-1.27) (1.27-1.59)	F2	07401074 07401076 07401078 07401080*
3/4	.375"500" .500"625" .625"750" .750"875"	(.95-1.27) (1.27-1.59) (1.59-1.90) (1.90-2.22)	F3	07401081 07401083 07401084* 074011275*
1	.500"625" .625"750" .750"875" .875"-1.000" 1.000"-1.125"	(1.27-1.59) (1.59-1.90) (1.90-2.22) (2.22-2.54) (2.54-2.86)	F4	07401085 07401087 07401089 07401091* 074011229*
11/4	.750"875" .875"-1.000" 1.000"-1.125" 1.125"-1.250"	(1.90-2.22) (2.22-2.54) (2.54-2.86) (2.86-3.17)	F5	074011230 07401137 07401108 074011042*
1½	1.000"-1.125" 1.125"-1.250" 1.250"-1.375"	(2.54-2.86) (2.86-3.17) (3.17-3.49)	F5	074011045 074011046 074011047
2	1.312"-1.437" 1.437"-1.562" 1.687"-1.812" 1.750"-1.875"	(3.33-3.65) (3.65-3.97) (4.28-4.60) (4.44-4.76)	F6	074011233 074011244 074011246 074011234*

### 45° Male Thread

N.P.T. Thread Size Inches	Grip Diameter F	lange (cm)	Form Size	Catalog Number
1/2	.250"375" .375"500" .500"625"	(.6395) (.95-1.27) (1.27-1.59)	F2	074011236 074011021 074011237*
3/4	.500"625" .625"750" .750"875"	(1.27-1.59) (1.59-1.90) (1.90-2.22)	F3	074011049 074011051* 074011239*
1	.625"750" .750"875" .875"-1.000"	(1.59-1.90) (1.90-2.22) (2.22-2.54)	F4	074011055 074011057 074011199*
11/4	1.000"-1.125" 1.125"-1.250"	(2.54-2.86) (2.86-3.17)	F5	074011059 074011060





<sup>\*</sup> Cable jacket may have to be stripped to pass through connector body.

### LIMIT SWITCHES

	Product	Page
	Series 54 Limit Switches	2
l	Series 55 Limit Switches	3-4





### **Furnas Brand 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. Furnas 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



### Application

Furnas 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.

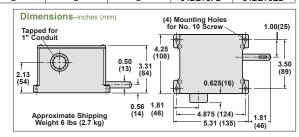
### MODELS-Series 54 Model numbers are for RIGHT HAND SHAFT. For left hand shaft add L to model number.

Gear	Ti	urns of Drive Sh	aft to Trip Conta	cts	Contact	Cir	cuits	NEMA 1 & 12	NEMA 4
Ratio	Max.	Min.	Overtravel	Reset	Blocks	NO	NC	Industrial Use Model No.	Watertightse Model No.
tandard Cams		•					'		
					2	2	2	54BB23FE	54BB23EE
18 to 1	16	1	1.75	0.25	3	3	3	54BB33FE	54BB33EE
					4	4	4	54BB43FE	54BB43EE
					2	2	2	54BB23FB	54BB23EB
36 to 1	32	1	3.5	0.5	3	3	3	54BB33FB	54BB33EB
					4	4	4	54BB43FB	54BB43EB
					2	2	2	54BB23FC	54BB23EC
72 to 1	64	1.5	7.5	1	3	3	3	54BB33FC	54BB33EC
					4	4	4	54BB43FC	54BB43EC
					2	2	2	54BB23FD	54BB23ED
108 to 1	96	2	11	1.5	3	3	3	54BB33FD	54BB33ED
					4	4	4	54BB43FD	54BB43ED
ong Dwell Cam	ns	•	•		•	•			
					2	2	2	54EB23FE	54EB23EE
18 to 1	15	1	2.5	0.5	3	3	3	54EB33FE	54EB33EE
					4	4	4	54EB43FE	54EB43EE
					2	2	2	54EB23FB	54EB23EB
36 to 1	30	1.5	5	1	3	3	3	54EB33FB	54EB33EB
					4	4	4	54EB43FB	54EB43EB
					2	2	2	54EB23FC	54EB23EC
72 to 1	60	2	10	1.5	3	3	3	54EB33FC	54EB33EC
					4	4	4	54EB43FC	54EB43EC
					2	2	2	54EB23FD	54EB23ED
108 to 1	90	2	15	3	3	3	3	54EB33FD	54EB33ED
					4	4	4	54EB43FD	54EB43ED
ine Adjustment	t						•		
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 Long Dwell Cam	54BBGB 54EBGB
Contact Block Kit (2 NO 2 NC)	Cat. No.
Standard Cam Long Dwell Cam	54BBGD 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.





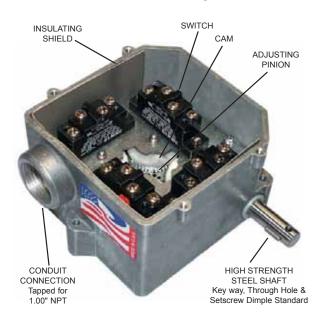
### **Series 55 Rotary Limit Switches**

### Direct replacement for HWS Series 15 and G.E. Series CR115 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

- · Six 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 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
- · Standard or Extended Dwell cams
- 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 .



Right Hand Shaft-Four Switch Model shown



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, powered doors, gates and windows, etc.

Mounting and shaft location allows direct replacement of HWS Series 15 and G.E. 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.





## LIMIT SWITCHES

### **Series 55 Rotary Limit Switches**

**MODELS-Series 55** 

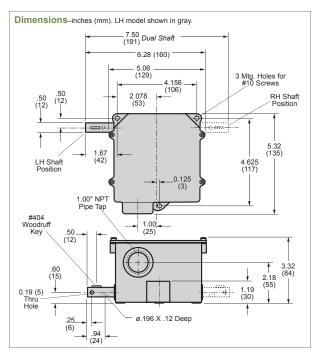
Gear Ratio	Turns of Drive Shaft to Trip Contacts		ive Shaft to Trip Contacts		Contact				Circuits		Circu	Contact Circ		RIGHT HAND SHAFT NEMA 4	LEFT HAND SHAFT NEMA 4	DUAL SHAFT NEMA 4
	Max.			Model No.*	Model No.*	Model No.*										
tandard C	Cams				•											
20.5 to 1	18.0	1.0	2.5	0.5	2 3 4	2 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	1.0	6.0	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	68.0	1.5	12.0	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	97.0	2.0	14.0	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	192.0	3.0	30.0	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	265.0	4.0	48.0	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						
xtended I	Dwell Can	าร														
20.5 to 1	17.0	1.0	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	35.0	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	66.0	2	14.0	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	90.0	3.0	21.0	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	182.0	4.0	40.0	4.0	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-LC 55-4E-3SP-WB-222-LC 55-4E-4SP-WB-222-LC						
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-LE 55-4E-3SP-WB-333-LE 55-4E-4SP-WB-333-LE						

<sup>\*</sup> 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.

	Example. Model Number 55-4E-3 <b>3</b> P-WR-111-LD=5.P.D.1. Switch. Model numb									
Gear	Contact	HWS	GE	HWS						
Ratio	Blocks	Series 15	Series CR115	Series 55						
		Model No.	Model No.	Model No.						
Right Hand	Shaft-Stand	ard Dwell Cams								
20.5 to 1	2	ES15-4211	CR115E121102	55-4E-2SP-WR-20						
42.5 to 1	2	ES15-4221	CR115E122102	55-4E-2SP-WR-40						
80 to 1	2	ES15-4231	CR115E123102	55-4E-2SP-WR-80						
111 to 1	2	ES15-4241	CR115E124102	55-4E-2SP-WR-111						
222 to 1	2	ES15-4251	CR115E125102	55-4E-2SP-WR-222						
333 to 1	2	ES15-4261	CR115E126102	55-4E-2SP-WR-333						
20.5 to 1	4	ES15-4411	CR115E141102	55-4E-4SP-WR-20						
42.5 to 1	4	ES15-4421	CR115E142102	55-4E-4SP-WR-40						
80 to 1	4	ES15-4431	CR115E143102	55-4E-4SP-WR-80						
111 to 1	4	ES15-4441	CR115E144102	55-4E-4SP-WR-111						
222 to 1	4	ES15-4451	CR115E145102	55-4E-4SP-WR-222						
333 to 1	4	ES15-4461	CR115E146102	55-4E-4SP-WR-333						
		ard Dwell Cams								
20.5 to 1	2	No Equivalent	CR115E121112	55-4E-2SP-WL-20						
42.5 to 1	2	No Equivalent	CR115E122112	55-4E-2SP-WL-40						
80 to 1	2	No Equivalent	CR115E123112	55-4E-2SP-WL-80						
111 to 1	2	No Equivalent	CR115E124112	55-4E-2SP-WL-111						
222 to 1	2	No Equivalent	CR115E125112	55-4E-2SP-WL-222						
333 to 1	2	No Equivalent	CR115E126112	55-4E-2SP-WL-333						
20.5 to 1	4	No Equivalent	CR115E141112	55-4E-4SP-WL-20						
42.5 to 1	4	No Equivalent	CR115E142112	55-4E-4SP-WL-40						
80 to 1	4	No Equivalent	CR115E143112	55-4E-4SP-WL-80						
111 to 1	4	No Equivalent	CR115E144112	55-4E-4SP-WL-111						
222 to 1	4	No Equivalent	CR115E145112	55-4E-4SP-WL-222						
333 to 1	4	No Equivalent	CR115E146112	55-4E-4SP-WL-333						
	ft-Standard I									
20.5 to 1	2	No Equivalent	CR115E121122	55-4E-2SP-WB-20						
42.5 to 1	2	No Equivalent	CR115E122122	55-4E-2SP-WB-40						
80 to 1	2	No Equivalent	CR115E123122	55-4E-2SP-WB-80						
111 to 1	2	No Equivalent	CR115E124122	55-4E-2SP-WB-111						
222 to 1	2	No Equivalent	CR115E125122	55-4E-2SP-WB-222						
333 to 1	2	No Equivalent	CR115E126122	55-4E-2SP-WB-333						
20.5 to 1	4	No Equivalent	CR115E141122	55-4E-4SP-WB-20						
42.5 to 1	4	No Equivalent	CR115E142122	55-4E-4SP-WB-40						
80 to 1	4	No Equivalent	CR115E143122	55-4E-4SP-WB-80						
111 to 1	4	No Equivalent	CR115E144122	55-4E-4SP-WB-111						
222 to 1	4	No Equivalent	CR115E145122	55-4E-4SP-WB-222						
333 to 1	4	No Equivalent	CR115E146122	55-4E-4SP-WB-333						

For replacement of HWS series 15 and G.E. series CR115 switches, please refer to Cross Reference chart at left.



### DISCONNECTS & MOTOR CONTROLLERS

Product	Page
NEMA 4X Disconnects - 30, 60 & 100 AMP	2-7
Motor Controllers - 30, 40, 50, 60 & 85 AMP	8-11

For the full product offering and details, please visit <u>www.HubbellOnline.com/wiring</u> or call 1-800-465-7051.





### **DISCONNECTS & MOTOR CONTROLLERS**

**Switched Enclosures** 

### Circuit-Lock® Unfused Disconnect Switches

"Suitable as Motor Disconnect" Features and Benefits

### Circuit-Lock® 30, 60, and 100 Ampere Unfused Disconnect Switches

NEC section 430.102(B) requires each motor controller to have a disconnect within line of sight from the motor and driven equipment. NEC section 430.109(A)(6) recognizes that a manual motor controller and disconnect can be the same unit, provided it has been tested for this purpose. Hubbell's Circuit-Lock® Unfused Disconnect Switches are UL listed as a manual motor controller and also "suitable as a motor disconnect" and meet these code requirements. In addition, the enclosure offers the ability to lock directly wired motor loads in the OFF position to comply with OSHA Lockout/Tagout regulations. This safety enclosure is Type 4X (Wash down, Corrosion resistant) and is also suitable for use with metallic conduit. The switch is mounted on an internal frame that is integral with the enclosure and bonds all grounds, and it accepts auxiliary contacts that can be used to signal PLC controllers.



PRIP LOOP
REQUIRED WHEN
USING TOP FEED
SEE WIRING
INSTRUCTIONS

DESIGNATION

DESIGNATION

DESIGNATION

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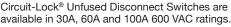
Internal frame automatically bonds all grounds.

Reversible interior accommodates top or bottom conduit opening.

Captured neoprene gasket provides a watertight seal between cover and base.

HBLDS3









Valox® is a trademark of SABIC Innovative Plastics, acquired from General Electric Company.

Please contact your local sales representative for full catalog information.



### Circuit-Lock® 30, 60, 100 Ampere Unfused Disconnect Switches

"Suitable as Motor Disconnect" Ordering Information





UL Listed, CSA Certified TYPE 4, 4X and 12 Enclosure Rating



**HBLDS3AC** 



HBLAC1



HBLAC2





HBL30RNB



HBLDS3RC



HBLDS3RS



Ordering Information 30A, 60A and 100A

Description	Catalog Numbers
30A Circuit-Lock disconnect switch.	HBLDS3
30A Circuit-Lock disconnect switch with aux. contact.	HBLDS3AC*
30A Circuit-Lock disconnect switch w/o conduit knockout or conduit fitting.	HBLDS3NK
30A Circuit-Lock disconnect switch with aux. contact w/o conduit knockout or conduit fitting.	HBLDS3ACNK*
30A Circuit-Lock disconnect switch with 3 aux. contacts, w/o conduit knockouts. Break before main break – 1 set "normally open", 1 set "normally closed". Break after main break – 2 sets "normally open", 1 set "normally closed".	HBLDS33ACNK
60A Circuit-Lock disconnect switch.	HBLDS6
60A Circuit-Lock disconnect switch with aux. contact.	HBLDS6AC*
100A Circuit-Lock disconnect switch.	HBLDS10
100A Circuit-Lock disconnect switch with aux. contact.	HBLDS10AC*

Auxiliary Contacts for 30, 60 and 100A switch, A600 pilot duty

Description	Catalog Numbers
"Break After Main Break", 1 set of n/o contacts, 1 set of n/c contacts.	HBLAC1*
"Break Before Main Break", 1 set of n/o contacts.	HBLAC2*

### **Ground Block**

Description	Catalog Numbers
For 30A switches.	HBL30RGB
For 60A and 100A switches.	HBL60100RGB

### **Neutral Block**

House at Blook	
Description	Catalog Numbers
For 30A switches.	HBL30RNB
For 60A switches.	HBL60RNB
For 100A switches.	HBL100RNB

**Replacement Covers** 

neplacement dovers		
Description	Catalog Numbers	
For 30A switches.	HBLDS3RC	
For 60A switches.	HBLDS6RC	
For 100A switches.	HBLDS10RC	

**Replacement Switches** 

Description	Catalog Numbers
For 30A switches.	HBLDS3RS
For 60 and 100A switches.	HBLDS60100RS
For HBLDS33ACNK.	HBLDS33ACRS

**Replacement Mounting Feet** 

Description	Catalog Numbers
For 30A switches.	HBLRFT1∆
For 60 and 100A switches.	HBLRFT2∆

Notes: \*Supplied with one HBLAC1.

\*\*Not for use with HBLDS33ACNK.

30A Units are supplied with one ¾ in. NPT Raintight conduit fitting.

60A & 100A Units are supplied with two 11/4 in. NPT Raintight conduit fittings.

ΔPackage of 10 feet and 10 screws.

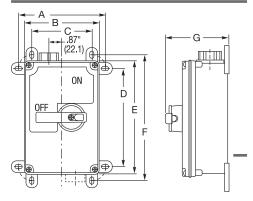




### Circuit-Lock® 30, 60 and 100 Ampere Unfused Disconnect Switches

Dimensions and Specifications

### **Dimensions**



30A			60A/100A		
Key	inch	mm	inch	mm	
A	6.00	152	7.75	197	
В	5.12	130	6.87	175	
С	4.12	105	4.75	121	
D	6.62	168	8.00	203	
E	7.62	194	9.95	253	
F	8.50	216	11.00	279	
G	4.12	105	5.94	151	

### **Horsepower Ratings**

Voltage	30A	60A	100A
120V AC 1Ø	1	7.5	7.5
200–240V AC 1Ø	3	15	15
480V AC 1Ø	5	30	30
200–240V AC 3Ø	7.5	30	30
480V AC 3Ø	15	50	50
600V AC 3Ø	15	50	50

### Circuit-Lock® Unfused Disconnect Switch

### **Specifications**

Dielectric Voltage

Moisture Resistance Outdoor - Type 4X (Wash down, Corrosion resistant), IP 66 suitability;

Indoor – 30A Type 12K (Dust-tight, Falling Dirt, Noncorrosive Liquids with Knockout).

60 and 100A Type 12 (Dust-tight, Falling Dirt, Noncorrosive Liquids).

Flammability UL94-5VA and V0 Classification. Operating Temperature

Maximum Continuous +75°C;

Minimum Continuous -40°C without impact. **UV** Resistance

All materials are UV stabilized. Withstands 3000V AC minimum.

Max. Working Voltage 600V AC RMS.

**Current Interrupting** Certified for current interrupting at full rated current and voltage.

Short Circuit Withstand Rating Suitable for use on a circuit capable of delivering not more than 10,000

(Motor Disconnect) RMS symmetrical amperes, 600V AC max.

Terminal Identification In accordance with UL, CSA and international conventions.

Identification and ratings are part of external label. Product Identification

Mounting External fully adjustable feet. Impact Resistance In accordance with UL 746C.

### Circuit-Lock® Unfused Disconnect Switch

Materials	
Part	Material
Base	Valox®
Тор	Valox®
Handle	Valox®
Conduit Hub	Zinc 30A Unfused - ¾ in.; 60/100A Unfused - 1¼ in.
Enclosure Gasket	Neoprene
Shaft (Unfused)	Valox®
Shaft Seal	Molded Neoprene
Frame	Galvanized Śteel
Enclosure Screws	Stainless Steel 300 Series

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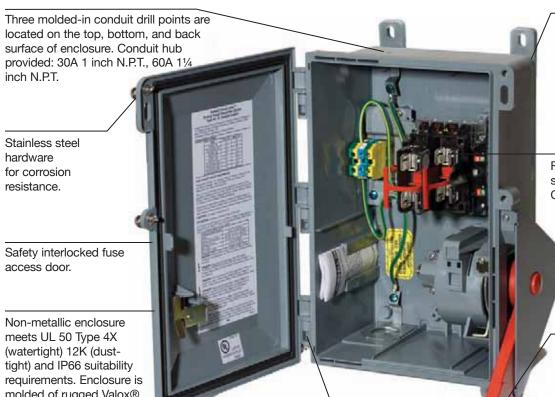


### Circuit-Lock® Fused Disconnect Switches

"Suitable as Motor Disconnect" Features and Benefits

### Circuit-Lock® 30 and 60 Ampere Fused Disconnect Switches

The Circuit-Lock Fused Disconnect Switch provides fused switched control of a directly wired load. The switch cannot be turned ON unless the enclosure cover is closed. The fuses cannot be accessed until the switch is turned OFF. The fuse holder accepts Class "J" fuses. This enclosure is non-metallic and is listed for Outdoor/Indoor (Type 4X Wash down, Corrosion resistant). The handle can be locked in the OFF position to comply with OSHA Lockout/Tagout regulations.



Adjustable mounting feet (4) can be mounted in any of three positions for ease of installation.

Fused disconnect switches accept Class "J" fuses.

> Lockable high visibility red handle to meet OSHA Lockout/Tagout.

molded of rugged Valox® to resist abuse, corrosion and enhance safety. All

external hard-ware is stainless steel



Conduit hub and adjustable mounting feet are supplied with each Circuit-Lock® Fused Disconnect Switch.



installation.

Removable door for

ease of wiring and

Stainless steel 1/4 inch turn door fasteners for quick, easy access to fuses.



FDS30

Enclosure door can be locked to prevent unauthorized access. Additionally, if the switch is ON, the door cannot be opened.



Compact Fused Disconnect Switch accepts Class "J" fuses. Fuse holders are top mounted for easy access. The switch accepts auxiliary contacts for control circuit applications including the ON/OFF control of remote pilot lights or signal for programmable controllers.

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### Circuit-Lock® 30 and 60 Ampere **Fused Disconnect Switches**

"Suitable as Motor Disconnect" Ordering Information and Dimensions UL Listed, CSA Certified TYPE 4, 4X and 12 Enclosure Rating





### **IP66**

### Ordering Information 30A and 60A

Description	Catalog Numbers
30A Circuit-Lock fused disconnect switch.	FDS30*
60A Circuit-Lock fused disconnect switch.	FDS60*
Note: *Class "J" fuses not included.	



### **Auxiliary Contacts**

Description	Catalog Numbers
Auxiliary contact, normally open, A600 pilot duty.	ACFSNO
Auxiliary contact, normally closed, A600 pilot duty.	ACFSNC

### **Watertight Closure Plug Kits**

Description	Catalog Numbers
For 30A Circuit-Lock fused disconnect switch.	MICPK30
For 60A Circuit-Lock fused disconnect switch.	MICPK60

### **Replacement Mounting Feet**

Description	Catalog Numbers
Replacement mounting feet and screws for	HBLRFT2∆
30A and 60A fused disconnect switches	

Notes: 30A Units supplied with two 1 in. N.P.T. Raintight conduit fittings. 60A Units supplied with two 11/4 in. N.P.T. Raintight conduit fittings. △ Package of 10 feet and 10 screws.



FDS30



**ACFSNO** 



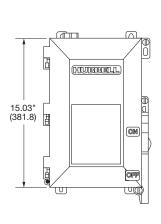
MICPK30

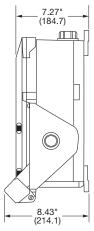


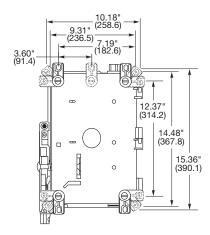
HBLRFT2

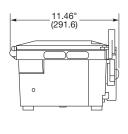
### **Dimensions**

**DISCONNECTS & MOTOR CONTROLLER** 









Please contact your local sales representative for full catalog information.



### Circuit-Lock® 30 and 60 Ampere Fused Disconnect Switches

Horsepower Ratings and Specifications

### **Horsepower Ratings**

Catalog Numbers	Ratings	Volts	Std. HP	Max. HP*	
FDS30	30A	120V AC	0.5	2.0	
	600V AC	208-240V AC	1.5	3.0	
	Max.	240V AC 3Ø	3.0	7.5	
		480V AC 3Ø	5.0	15.0	
		600V AC 3Ø	7.5	20.0	
		120/208V AC 3Ø Y	3.0	5.0	
		277/480V AC 3Ø Y	5.0	15.0	
		347/600V AC 3Ø Y	7.5	20.0	
FDS60	60A	120V AC	1.5	3.0	
	600V AC	208-240V AC	3.0	7.5	
	Max.	240V AC 3Ø	7.5	15.0	
		480V AC 3Ø	15.0	30.0	
		600V AC 3Ø	15.0	40.0	
		120/208V AC 3Ø Y	7.5	15.0	
		277/480V AC 3Ø Y	15.0	30.0	
		347/600V AC 3Ø Y	15.0	40.0	

Notes: \*Requires time delay fuses.

30A Units supplied with two 1 in. NPT Raintight conduit fittings.

60A Units supplied with two 11/4 in. NPT Raintight conduit fittings.

### **Fuse and Short Circuit Information**

Horsepower Ratings	The starting current of motors of more than the standard horsepower rating may require the use of fuses with appropriate time-delay characteristics.
Short Circuit Withstand Rating	Suitable for use on a circuit capable of delivering not more than 100,000 RMS symmetrical amperes at the voltage rating of receptacle when protected by Class "J" fuses.

Note: Replacement fused switch must be the same type Hubbell switch as original and have equal or greater short circuit current withstand rating.

### Circuit-Lock® Fused Disconnect Switch

Specifications	
Moisture Resistance	Outdoor - Type 4X (Wash down, Corrosion resistant), IP 66 suitability;
	Indoor – Type 12 (Dust-tight, Falling Dirt, Noncorrosive Liquids).
Flammability	UL94-5VA and V0 Classification.
Operating Temperature	Maximum Continuous +75°C;
	Minimum Continuous -40°C without impact.
UV Resistance	All materials are UV stabilized.
Dielectric Voltage	Withstands 3000V AC minimum.
Max. Working Voltage	600V AC RMS.
Impact Resistance	In accordance with UL 746C.
Terminal Identification	In accordance with UL, CSA and international conventions.
Product Identification	Identification and ratings are part of external label.
Mounting	External fully adjustable feet.
Fuse Types	UL Listed, Class "J"; CSA Certified, HRCI-J.

Materials	
Part	Material
Base	Valox®
Door	Valox®
Handle	Valox®
Conduit Hub	Zinc, 30A Fused – 1 in., 60A Fused – 1¼ in.
Enclosure Gasket	Neoprene
Shaft	Brass
Shaft Seal	Neoprene
Frame	Galvanized Steel
Ground Plate	Galvanized Steel
Enclosure Screws	Stainless Steel 300 Series

Valox® is a trademark of SABIC Innovative Plastics, acquired from General Electric Company.





### 30 Ampere, 600 Volts AC Manual Motor Controllers



Industrial – Extra Heavy Duty AC Manual Motor Controllers, Double and Three Pole (Without Overload Protection)

"Suitable as Motor Disconnect"





HBL1389D





4.55" (115.6) HBL13R23D

### 30A 600V AC Manual Motor Controllers,

### **Double Pole**

Description	Catalog Number
30A, double pole, single throw, AC manual motor controller, black nylon handle, side and back wired.	HBL7832D
30A, double pole, single throw, AC manual motor controller, black nylon handle, short toggle.	HBL7832DS
30A, double pole, single throw, AC manual motor controller. 50 piece bulk pack.	HBL7832DX
HBL7832D in HBL1390 Type 1 enclosure with non-metallic cover, ½ in. and ¾ in. knockouts on top, bottom and back of steel frame.	HBL1392D
HBL7832D in HBL1370 metal Type 1 enclosure.	HBL1372D
HBL7832D in NEMA 3R non-metallic enclosure.	HBL13R22D
HBL7832D in HBL13R90 metal Type 3R enclosure.	HBL13R92D
HBL7832D in NEMA 3R flip-lid enclosure.	HBL13R12D

### **Three Pole**

THI CC T OIC	
Description	Catalog Number
30A, three pole, single throw, AC manual motor controller,	HBL7810D
black nylon handle, side and back wired.	
30A, three pole, single throw, AC manual motor controller,	HBL7810DS
black nylon handle, short toggle.	
HBL7810D in HBL1390 Type 1 enclosure with non-metallic cover,	HBL1389D
$\frac{1}{2}$ in. and $\frac{3}{4}$ in. knockouts on top, bottom and back of steel frame.	
HBL7810D in HBL1370 metal Type 1 enclosure.	HBL1379D
HBL7810D in NEMA 3R non-metallic enclosure.	HBL13R23D
HBL7810D in HBL13R90 metal Type 3R enclosure.	HBL13R89D
HBL7810D in NEMA 3R flip-lid enclosure.	HBL13R13D
30A, three pole, rotary controller in NEMA 4X	HBL13S33D
stainless steel enclosure.	
30A, three pole, rotary controller in NEMA 4X	HBL13X33D
non-metallic enclosure.	

**Motor Rating** 

Product	120V AC	240V AC	480V AC	600V AC	Phase
30A Double Pole	2HP	5HP	10HP	15HP	1
30A Three Pole	3HP	71/2HP	15HP	20HP	3
40A Double Pole	2HP	5HP	10HP	15HP	1
40A Three Pole	3HP	71/2HP	15HP	20HP	3
50A Double Pole	2HP	5HP	10HP	15HP	1
50A Three Pole	3HP	71/2HP	15HP	25HP	3
60A Double Pole	-	10HP	15HP	20HP	1
60A Three Pole	-	10HP	25HP	30HP	3
85A Double Pole	-	10HP	15HP	20HP	1
85A Three Pole	-	10HP	25HP	40HP	3







### 40, 50, 60 and 85 Ampere, 600 Volts AC Manual Motor Controllers Industrial - Heavy Duty AC Manual Motor Controllers,





Double and Three Pole (Without Overload Protection)

"Suitable as Motor Disconnect"

40A 600V AC Manual Motor Controllers

Description	Catalog Number
40A, double pole, single throw, AC manual motor controller, black nylon handle, side wired.	HBL7842D
40A, three pole, single throw, AC manual motor controller, black nylon handle, side wired.	HBL7843D

Note: Catalog numbers HBL7842D and HBL7843D dimensions are the same as HBL7810D shown on page C-26.

### (38.1) **HBL7862D**

### **50A 600V AC Manual Motor Controllers**

Description	Catalog Number
50A, double pole, single throw, AC manual motor controller, black nylon handle, side wired.	HBL7852D
50A, three pole, single throw, AC manual motor controller, black nylon handle, side wired.	HBL7853D

Note: Catalog numbers HBL7852D and HBL7853D dimensions are the same as HBL7810D shown on page C-26.

### HBL7862FWD

### **60A 600V AC Manual Motor Controllers**

Description	Catalog Number
60A, double pole, single throw, AC manual motor controller, black nylon handle, back wired.	HBL7862D
Same as HBL7862D except front wired.	HBL7862FWD
HBL7862FWD in Type 3R enclosure.	HBL16R92D
60A, three pole, single throw, AC manual motor controller, black nylon handle, back wired.	HBL7863D
Same as HBL7863D except front wired.	HBL7863FWD
HBL7863FWD in a Type 3R enclosure.	HBL16R93D
60A, three pole, rotary controller in NEMA 4X stainless steel enclosure.	HBL16S63D
60A, three pole, rotary controller in NEMA 4X non-metallic enclosure.	HBL16X63D
Note: Con and Conference of the Conference of th	

Note: See page C-29 for technical data.

### 85A 600V AC Manual Motor Controllers

Description	Catalog Number
85A, double pole, single throw, AC manual motor controller, black nylon handle, back wired.	HBL7882D
85A, three pole, single throw, AC manual motor controller, black nylon handle, back wired.	HBL7883D

### **Motor Controller Accessories**

Description	Catalog Number
Finger Guards, fit 30, 40 and 50 amp controllers.	HBLFG30
Auxiliary Contacts, for use in rotary switches only.	HBLAUX

Please contact your local sales representative for full catalog information.



HBL16R93D



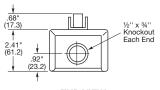


### 30 and 60 Ampere Enclosures

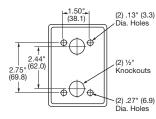








**END VIEW** HBL1370/HBL1372D/HBL1379D



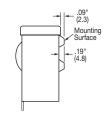
**BACK VIEW** HBL1370/HBL1372D/HBL1379D

### 30 Amp Enclosures

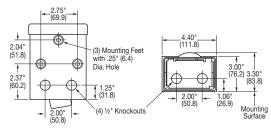
Description	Catalog Number
Type 1 enclosure for 30A switch with non-metallic cover (without switch) with ½ in. and ¾ in. knockouts on top, bottom and back of steel frame.	HBL1390
Type 1 enclosure for 30A switch with metallic cover (without switch) with ½ in. and ¾ in. knockouts on top, bottom and back of steel frame.	HBL1370
Type 3R metal enclosure without switch.	HBL13R90

Note: 30 amp manual motor controllers are suitable for use with enclosure HBL13R90. \* Enclosure rating.

See page C-29 for technical data.



SIDE VIEW HBL13R89D / HBL13R90 HBL13R92D



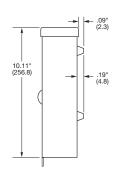
BACK VIEW HBL13R89D / HBL13R90 HBL13R92D

END VIEW HBL13R89D / HBL13R90 HBL13R92D

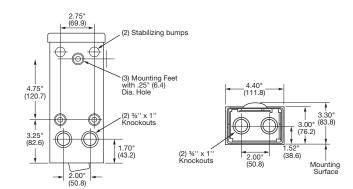
### **60 Amp Enclosures**

Description	Catalog Number
Type 3R metal enclosure without switch.	HBL16R90

Note: 60 amp manual motor controllers are suitable for use with enclosure HBL16R90. \* Enclosure rating.



SIDE VIEW HBL16R90 / HBL16R92D HBL16R93D



**BACK VIEW** HBL16R90 / HBL16R92D HBL16R93D

**END VIEW** HBL16R90 / HBL16R92D HBL16R93D



### **Technical Information**

Heavy Duty Manual Motor Controllers

### 30, 40, 50, 60 and 85A, Double Pole and Three Pole

### **Specifications**

Listings	Component	Material	
UL Listed 508 Industrial Control Equipment	Base	Thermoset	
CSA-C22.2 No. 14 Industrial Control Equipment	Cover	Thermoset	
UL File E70402	Yoke	Zinc Plated Steel	
CSA File LR-46186	Toggle	Nylon	
	Terminal Screws	Copper Alloy	
	Contact Blades	Copper Alloy	
	Contacts	Silver Alloy	
	Brush Lifter	Thermoplastic	

### Performance Data

Performance Data	
Electrical	
Dielectric Voltage	2,200V AC max for 1 minute.
Electrical Life (Minimum)	6,000 cycles at rated switch parameters.
Working Voltage	600V AC RMS.
Short Circuit Withstand Rating (Motor Disconnect)	5,000 and 10,000 RMS with RK5 fuses at rated switch value and Class "J" fuses as marked.
Operating Temperature	Min. continuous: -40°C without impact.
Mechanical Life (minimum)	10,000 Cycles.
Terminal Torque (30A, 40A, 50A)	20 inch pounds.
Terminal Torque (60A, 85A)	25 inch pounds.
Terrimal Torque (oor t, oor t)	20 mon pounds.
Mechanical	
Terminal Accommodations	30A #14 AWG min #10 AWG max. solid and stranded copper wire only.
	40A #14 AWG min #8 AWG max. solid and stranded copper wire only.*
	50A #14 AWG min #8 AWG max. solid and stranded copper wire only.*
	60A #14 AWG min #4 AWG max. solid and stranded copper wire only.
	85A #14 AWG min #4 AWG max. solid and stranded copper wire only.

Field Wiring Terminal Ratings		
Wire range, copper wire only	30A controller - #10 AWG 3 phase; #8 AWG 1 phase.	
	40A controller - #8 AWG*.	
	50A controller - #8 AWG 75°C*.	
	60A controller - #6 AWG 75°C; #4 AWG 60°C.	
	85A controller - #4 AWG 75°C.	

Note: \* Use listed/certified ring terminal.

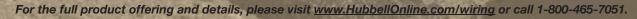






### PIN & SLEEVE DEVICES

Product	Page
IEC Pin and Sleeve	2-3
NEMA Pin and Sleeve	4-5







# **PIN AND SLEEVE DEVICES**

**Watertight Devices** 20 and 30 Ampere – North American Ratings 16 and 32 Ampere – International Ratings







### **IP67**

	Rating				Watertigl	nt Devices		Accessories			Replacement Interiors		
Amps	Poles and Wires	Configu Recep./ Conn.	ration Plug/ Inlet	AC Voltage	Receptacle	Plug	Connector	Inlet	Back Non-Metallic	Boxes : Metallic	Closure Caps	Recep./ Conn.	Plug/ Inlet
16	2P 3W		<b>(i)</b>	100-130V	HBL316R4W	HBL316P4W	HBL316C4W	HBL316B4W <sup>†</sup>	BB2030N	BB201W BB301W	PC320	IN320BF	IN320BM
	2P 3W		$\check{\odot}$	220-240V	HBL316R6W	HBL316P6W	HBL316C6W	HBL316B6W	BB2030N	BB201W BB301W	PC320	IN320BF	IN320BM
	3P 4W		<u> </u>	380-415V	HBL416R6W	HBL416P6W	HBL416C6W	HBL416B6W <sup>†</sup>	BB2030N	BB201W BB301W	PC420	IN420DF	IN420DM
	4P 5W		<b>©</b>	220/380V 240/415V	HBL516R6W	HBL516P6W	HBL516C6W	HBL516B6W	BB2030N	BB201W BB301W	PC520	IN520EF†	IN520EM
20	2P 3W		<b>©</b>	125V	HBL320R4W	HBL320P4W	HBL320C4W	HBL320B4W	BB2030N	BB201W BB301W	PC320	IN320AF	IN320AM
	2P 3W		<b>③</b>	250V	HBL320R6W	HBL320P6W	HBL320C6W	HBL320B6W	BB2030N	BB201W BB301W	PC320	IN320BF	IN320BM
	2P 3W		<b>③</b>	480V	HBL320R7W	HBL320P7W	HBL320C7W	HBL320B7W	BB2030N	BB201W BB301W	PC320	IN320BF	IN320BM
	3P 4W		<u></u>	125/250V	HBL420R12W	HBL420P12W	HBL420C12W	HBL420B12W	BB2030N	BB201W BB301W	PC420	IN420CF	IN420CM
	3P 4W		<b>③</b>	3Ø 250V	HBL420R9W	HBL420P9W	HBL420C9W	HBL420B9W	BB2030N	BB201W BB301W	PC420	IN420DF	IN420DM
	3P 4W		<u></u>	3Ø 480V	HBL420R7W	HBL420P7W	HBL420C7W	HBL420B7W	BB2030N	BB201W BB301W	PC420	IN420DF	IN420DM
	3P 4W		<u> </u>	3Ø 600 <b>V</b>	HBL420R5W	HBL420P5W	HBL420C5W	HBL420B5W	BB2030N	BB201W BB301W	PC420	IN420DF	IN420DM
	4P 5W		<u> </u>	3ØY 120/208V	HBL520R9W	HBL520P9W	HBL520C9W	HBL520B9W	BB2030N	BB201W BB301W	PC520	IN520EF†	IN520EM
	4P 5W		<u>©</u>	3ØY 277/480V	HBL520R7W	HBL520P7W	HBL520C7W	HBL520B7W	BB2030N	BB201W BB301W	PC520	IN520EF†	IN520EM
	4P 5W		<u> </u>	3ØY 347/600V	HBL520R5W	HBL520P5W	HBL520C5W	HBL520B5W	BB2030N	BB201W BB301W	PC520	IN520EF†	IN520EM
30	2P 3W		<u> </u>	125V	HBL330R4W	HBL330P4W	HBL330C4W	HBL330B4W	BB2030N	BB201W BB301W	PC3430	IN330AF	IN330AM
	2P 3W		<u> </u>	250V	HBL330R6W	HBL330P6W	HBL330C6W	HBL330B6W	BB2030N	BB201W BB301W	PC3430	IN330BF	IN330BM
	2P 3W		<u> </u>	480V	HBL330R7W	HBL330P7W	HBL330C7W	HBL330B7W	BB2030N	BB201W BB301W	PC3430	IN330BF	IN330BM
	3P 4W		<u> </u>	125/250V	HBL430R12W	HBL430P12W	HBL430C12W	HBL430B12W	BB2030N	BB201W BB301W	PC3430	IN430CF	IN430CM
	3P 4W		<u> </u>	3Ø 250V	HBL430R9W	HBL430P9W	HBL430C9W	HBL430B9W	BB2030N	BB201W BB301W	PC3430	IN430DF	IN430DM
	3P 4W		<u>©</u>	3Ø 480V	HBL430R7W	HBL430P7W	HBL430C7W	HBL430B7W	BB2030N	BB201W BB301W	PC3430	IN430DF	IN430DM
	3P 4W		<u>(ii)</u>	3Ø 600V	HBL430R5W	HBL430P5W	HBL430C5W	HBL430B5W	BB2030N	BB201W BB301W	PC3430	IN430DF	IN430DM
	4P 5W		<u> </u>	3ØY 120/208V	HBL530R9W	HBL530P9W	HBL530C9W	HBL530B9W	BB2030N	BB201W BB301W	PC530	IN530EF	IN530EM
	4P 5W		<u> </u>	3ØY 277/480V	HBL530R7W	HBL530P7W	HBL530C7W	HBL530B7W	BB2030N	BB201W BB301W	PC530	IN530EF	IN530EM
	4P 5W		<u> </u>	3ØY 347/600V	HBL530R5W	HBL530P5W	HBL530C5W	HBL530B5W	BB2030N	BB201W BB301W	PC530	IN530EF	IN530EM
32	2P 3W		<u>©</u>	100-130V	HBL332R4W <sup>†</sup>	HBL332P4W <sup>†</sup>	HBL332C4W <sup>†</sup>	HBL332B4W <sup>†</sup>	BB2030N	BB201W BB301W	PC3430	IN330BF	IN330BM
	2P 3W		<u>©</u>	220-240V	HBL332R6W	HBL332P6W	HBL332C6W	HBL332B6W	BB2030N	BB201W BB301W	PC3430	IN330BF	IN330BM
	3P 4W		<u> </u>	380-415V	HBL432R6W	HBL432P6W	HBL432C6W	HBL432B6W	BB2030N	BB201W BB301W	PC3430	IN430DF	IN430DM
	3P 4W		<u>©</u>	380V 50Hz 440V 60Hz	HBL432R3W	HBL432P3W	HBL432C3W	HBL432B3W <sup>†</sup>	BB2030N	BB201W BB301W		IN430DF	IN430DM
	4P 5W		<u> </u>	220/380V 240/415V	HBL532R6W	HBL532P6W	HBL532C6W	HBL532B6W	BB2030N	BB201W BB301W	PC530	IN530EF	IN530EM

Note: Closure caps purchased separately. PC320, PC420, PC520, PC3430, PC530 are not UL or CSA.



### **Watertight Devices**

60 and 100 Ampere - North American Ratings 63 and 125 Ampere - International Ratings







### **IP67**

	Rating				Watertight Devices				Accessories			Replacement Interiors	
	Poles and	Configu	ration Plug/						Back	Boxes	Closure	Recep./	Plug/
Amps		Conn.	Inlet	AC Voltage	Receptacle	Plug	Connector	Inlet	Non-Metalli		Caps	Conn.	Inlet
60	2P 3W		<b>(3)</b>	125V	HBL360R4W	HBL360P4W	HBL360C4W	HBL360B4W	BB60N	BB601W BB602W	PC60	IN360AF	IN360AM
	2P 3W		<b>(3)</b>	250 <b>V</b>	HBL360R6W	HBL360P6W	HBL360C6W	HBL360B6W	BB60N	BB601W BB602W	PC60	IN360BF	IN360BM†
	2P 3W		<b>(3)</b>	480 <b>V</b>	HBL360R7W	HBL360P7W	HBL360C7W	HBL360B7W	BB60N	BB601W BB602W	PC60	IN360BF	IN360BM†
	3P 4W		<b>③</b>	125/250V	HBL460R12W	HBL460P12W	HBL460C12W	HBL460B12W	BB60N	BB601W BB602W	PC60	IN460CF	IN460CM
	3P 4W		<b>(3)</b>	3Ø 250V	HBL460R9W	HBL460P9W	HBL460C9W	HBL460B9W	BB60N	BB601W BB602W	PC60	IN460DF	IN460DM
	3P 4W		<b>(3)</b>	3Ø 480V	HBL460R7W	HBL460P7W	HBL460C7W	HBL460B7W	BB60N	BB601W BB602W	PC60	IN460DF	IN460DM
	3P 4W		<u></u>	3Ø 600V	HBL460R5W	HBL460P5W	HBL460C5W	HBL460B5W	BB60N	BB601W BB602W	PC60	IN460DF	IN460DM
	4P 5W		<b>③</b>	3ØY 120/208V	HBL560R9W	HBL560P9W	HBL560C9W	HBL560B9W	BB60N	BB601W BB602W	PC60	IN560EF	IN560EM†
	4P 5W		<u></u>	3ØY 277/480V	HBL560R7W	HBL560P7W	HBL560C7W	HBL560B7W	BB60N	BB601W BB602W	PC60	IN560EF	IN560EM†
	4P 5W		<b>(3)</b>	3ØY 347/600V	HBL560R5W	HBL560P5W	HBL560C5W	HBL560B5W	BB60N	BB601W BB602W	PC60	IN560EF	IN560EM†
63	2P 3W		<b>③</b>	220-240V	HBL363R6W	HBL363P6W	HBL363C6W	HBL363B6W	BB60N	BB601W BB602W	PC60	IN360BFS	IN360BMS <sup>†</sup>
	3P 4W		<b>③</b>	380-415V	HBL463R6W	HBL463P6W	HBL463C6W	HBL463B6W	BB60N	BB601W BB602W	PC60	IN460DFS	IN460DMS
	4P 5W		<b>③</b>	220/380V 240/415V	HBL563R6W	HBL563P6W	HBL563C6W	HBL563B6W	BB60N	BB601W BB602W	PC60	IN560EFS†	IN560EMS
100	2P 3W		<u></u>	125V	HBL3100R4W	HBL3100P4W	HBL3100C4W	HBL3100B4W	BB100N	BB1001W BB1002W	PC100	IN3100AF	IN3100AM
	2P 3W		<u>©</u>	250V	HBL3100R6W	HBL3100P6W	HBL3100C6W	HBL3100B6W	BB100N	BB1001W BB1002W	PC100	IN3100BF	IN3100BM†
	2P 3W		<u> </u>	480V	HBL3100R7W	HBL3100P7W	HBL3100C7W	HBL3100B7W	BB100N	BB1001W BB1002W	PC100	IN3100BF	IN3100BM†
	3P 4W		<b>③</b>	125/250V	HBL4100R12W	HBL4100P12W	HBL4100C12W	HBL4100B12W	BB100N	BB1001W BB1002W	PC100	IN4100CF <sup>†</sup>	IN4100CM
	3P 4W		<b>③</b>	3Ø 250V	HBL4100R9W	HBL4100P9W	HBL4100C9W	HBL4100B9W	BB100N	BB1001W BB1002W	PC100	IN4100DF	IN4100DM
	3P 4W		<u> </u>	3Ø 480V	HBL4100R7W	HBL4100P7W	HBL4100C7W	HBL4100B7W	BB100N	BB1001W BB1002W	PC100	IN4100DF	IN4100DM
	3P 4W		<u> </u>	3Ø 600V	HBL4100R5W	HBL4100P5W	HBL4100C5W	HBL4100B5W	BB100N	BB1001W BB1002W	PC100	IN4100DF	IN4100DM
	4P 5W		<b>③</b>	3ØY 120/208 <b>V</b>	HBL5100R9W	HBL5100P9W*	HBL5100C9W	HBL5100B9W	DD IUUN	BB1001W BB1002W	PC100	IN5100EF	IN5100EM
	4P 5W		<b>③</b>	3ØY 277/480V	HBL5100R7W	HBL5100P7W	HBL5100C7W	HBL5100B7W	BB100N	BB1001W BB1002W	PC100	IN5100EF	IN5100EM
	4P 5W		<b>©</b>	3ØY 347/600V	HBL5100R5W	HBL5100P5W	HBL5100C5W	HBL5100B5W	BB100N	BB1001W BB1002W	PC100	IN5100EF	IN5100EM
125	2P 3W		<b>③</b>	220-240V	HBL3125R6W	HBL3125P6W	HBL3125C6W	HBL3125B6W	BB100N	BB1001W BB1002W	PC100	IN3100BFS†	IN3100BMS†
	3P 4W		<b>③</b>	380-415V	HBL4125R6W	HBL4125P6W	HBL4125C6W	HBL4125B6W	BB100N	BB1001W BB1002W	PC100	IN4100DFS	IN4100DMS
	4P 5W		<b>③</b>	220/380V 240/415V	HBL5125R6W	HBL5125P6W	HBL5125C6W	HBL5125B6W	BB100N	BB1001W BB1002W	PC100	IN5100EFS	IN5100EMS

Note: All 63A and all 125A devices have pilot pins or contacts.

Closure caps purchased separately. PC60 and PC100 are not UL or CSA.





<sup>\*</sup> Short housing plug HBL5100P9WSH. IP22 suitability - length 8.30" (210.8).

UL 1686 C1 Pin and Sleeve

### Insulgrip® Pin and Sleeve Devices - Style I and II 30, 60, 100 and 200 Ampere, 600/250 Voltage AC/DC, 50-400 Hertz



Rating					Replacement Interiors			
Amps	Poles and Wires	Receptacle/ Connector Configuration*	Maximum Voltage AC/DC	Receptacle	Plug	Connector	Connector & Receptacle	Plug
30	2P 3W		600/250	HBL330RS1W	HBL330PS1W	HBL330CS1W	IN330FS1	IN330MS1
	3P 4W		600/250	HBL430RS1W	HBL430PS1W	HBL430CS1W	IN430FS1	IN430MS1
	4P 5W		600/250	HBL530RS1W	HBL530PS1W	HBL530CS1W	IN530FS1	IN530MS1
60	2P 3W		600/250	HBL360RS1W	HBL360PS1W	HBL360CS1W	IN360FS1	IN360MS1
	3P 4W		600/250	HBL460RS1W	HBL460PS1W	HBL460CS1W	IN460FS1	IN460MS1
	4P 5W		600/250	HBL560RS1W	HBL560PS1W	HBL560CS1W	IN560FS1	IN560MS1
100	2P 3W		600/250	HBL3100RS1W	HBL3100PS1W	HBL3100CS1W	IN3100FS1	IN3100MS1
	3P 4W		600/250	HBL4100RS1W	HBL4100PS1W	HBL4100CS1W	IN4100FS1	IN4100MS1
	4P 5W		600/250	HBL5100RS1W	HBL5100PS1W	HBL5100CS1W	IN5100FS1	IN5100MS1
200	3P 4W		600/250	HBL4200RS1W	HBL4200PS1W	HBL4200CS1W	IN4200FS1 <sup>†</sup>	IN4200MS1 <sup>†</sup>
	4P 5W		600/250	HBL5200RS1W	HBL5200PS1W	HBL5200CS1W	IN5200FS1 <sup>†</sup>	IN5200MS1 <sup>†</sup>
		Rating			Style II Devices		Replacem	ent Interiors
Amps	Poles and Wires	Receptacle/ Connector Configuration*	Maximum Voltage AC/DC	Receptacle	Plug	Connector	Connector & Receptacle	Plug
30	2P 3W		600/250	HBL330RS2W	HBL330PS2W	HBL330CS2W	IN330FS2	IN330MS2
	3P 4W		600/250	HBL430RS2W	HBL430PS2W	HBL430CS2W	IN430FS2	IN430MS2
60	2P 3W		600/250	HBL360RS2W	HBL360PS2W	HBL360CS2W	IN360FS2	IN360MS2
	3P 4W		600/250	HBL460RS2W	HBL460PS2W	HBL460CS2W	IN460FS2	IN460MS2
100	2P 3W		600/250	HBL3100RS2W	HBL3100PS2W	HBL3100CS2W	IN3100FS2	IN3100MS2
	3P 4W		600/250	HBL4100RS2W	HBL4100PS2W	HBL4100CS2W	IN4100FS2	IN4100MS2
200	2P 3W		600/250	HBL3200RS2W	HBL3200PS2W	HBL3200CS2W	IN3200FS2†	IN3200MS2†
	3P 4W		600/250	HBL4200RS2W	HBL4200PS2W	HBL4200CS2W	IN4200FS2 <sup>†</sup>	IN4200MS2 <sup>†</sup>

		Rating		С	orrosion Resistant	Accessories		
Amps	Poles and Wires	Receptacle/ Connector Configuration*	Maximum Voltage AC/DC	Receptacle	Plug	Connector	Back Boxes	Angle Adapter
200	4P 5W		600/250	M5200RS1	M5200PS1	M5200CS1	MB2003W MB2004W	AA20045

Note: \* CAUTION: To avoid electrical shock, review premises carefully and DO NOT use if Pin and Sleeve configuration (design) is already in a circuit having

a rating differing from the rating of this device.

\*\* While in use or with cover closed. † Consult factory. Please contact your local sales representative for full catalog information.



# PIN AND SLEEVE DEVICES

UL 1686 C1 Pin and Sleeve

### "Reversed Service" Insulgrip® Pin and Sleeve Devices - Style I and II 30, 60, 100 and 200 Ampere, 600/250 Voltage AC/DC, 50-400 Hertz



		Rating			Style I Devices		Replaceme	ent Interiors
Amps	Poles and Wires	Receptacle/ Connector Configuration*	Maximum Voltage AC/DC	Receptacle	Plug	Connector	Connector & Receptacle	Plug
30	2P 3W		600/250	HBL330RS1WR	HBL330PS1WR	HBL330CS1WR	IN330MS1	IN330FS1
	3P 4W		600/250	HBL430RS1WR	HBL430PS1WR	HBL430CS1WR	IN430MS1	IN430FS1
	4P 5W		600/250	HBL530RS1WR	HBL530PS1WR	HBL530CS1WR	IN530MS1	IN530FS1
60	2P 3W		600/250	HBL360RS1WR	HBL360PS1WR	HBL360CS1WR	IN360MS1	IN360FS1
	3P 4W		600/250	HBL460RS1WR	HBL460PS1WR	HBL460CS1WR	IN460MS1	IN460FS1
	4P 5W		600/250	HBL560RS1WR	HBL560PS1WR	HBL560CS1WR	IN560MS1	IN560FS1
100	2P 3W		600/250	HBL3100RS1WR	HBL3100PS1WR	HBL3100CS1WR	IN3100MS1	IN3100FS1
	3P 4W		600/250	HBL4100RS1WR	HBL4100PS1WR	HBL4100CS1WR	IN4100MS1	IN4100FS1
	4P 5W		600/250	HBL5100RS1WR	HBL5100PS1WR	HBL5100CS1WR	IN5100MS1	IN5100FS1
200	3P 4W		600/250	HBL4200RS1WR	HBL4200PS1WR	HBL4200CS1WR	IN4200MS1 <sup>†</sup>	IN4200FS1 <sup>†</sup>
	4P 5W		600/250	HBL5200RS1WR	HBL5200PS1WR	HBL5200CS1WR	IN5200MS1 <sup>†</sup>	IN5200FS1 <sup>†</sup>
		Rating			Style II Devices		Replaceme	ent Interiors
Amps	Poles and Wires	Receptacle/ Connector Configuration*	Maximum Voltage AC/DC	Receptacle	Plug	Connector	Connector & Receptacle	Plug
30	2P 3W		600/250	HBL330RS2WR	HBL330PS2WR	HBL330CS2WR	IN330MS2	IN330FS2
	3P 4W		600/250	HBL430RS2WR	HBL430PS2WR	HBL430CS2WR	IN430MS2	IN430FS2
60	2P 3W		600/250	HBL360RS2WR	HBL360PS2WR	HBL360CS2WR	IN360MS2	IN360FS2
	3P 4W			HBL460RS2WR	LIDI 400DOOMD			111400500
			600/250	HBL400K52WK	HBL460PS2WR	HBL460CS2WR	IN460MS2	IN460FS2
100	2P 3W		600/250	HBL3100RS2WR	HBL3100PS2WR	HBL3100CS2WR	IN3100MS2	IN3100FS2
100	2P 3W 3P 4W	$\stackrel{\sim}{\sim}$						
200			600/250	HBL3100RS2WR	HBL3100PS2WR	HBL3100CS2WR	IN3100MS2	IN3100FS2
-	3P 4W	<b>③</b>	600/250	HBL3100RS2WR HBL4100RS2WR	HBL3100PS2WR HBL4100PS2WR	HBL3100CS2WR HBL4100CS2WR	IN3100MS2 IN4100MS2	IN3100FS2 IN4100FS2
-	3P 4W 2P 3W	© ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	600/250 600/250 600/250	HBL3100RS2WR HBL4100RS2WR HBL3200RS2WR HBL4200RS2WR	HBL3100PS2WR HBL4100PS2WR HBL3200PS2WR	HBL3100CS2WR HBL4100CS2WR HBL3200CS2WR HBL4200CS2WR	IN3100MS2 IN4100MS2 IN3200MS2 <sup>†</sup> IN4200MS2 <sup>†</sup>	IN3100FS2 IN4100FS2 IN3200FS2 <sup>†</sup>
-	3P 4W 2P 3W		600/250 600/250 600/250	HBL3100RS2WR HBL4100RS2WR HBL3200RS2WR HBL4200RS2WR	HBL3100PS2WR HBL4100PS2WR HBL3200PS2WR HBL4200PS2WR	HBL3100CS2WR HBL4100CS2WR HBL3200CS2WR HBL4200CS2WR	IN3100MS2 IN4100MS2 IN3200MS2 <sup>†</sup> IN4200MS2 <sup>†</sup>	IN3100FS2 IN4100FS2 IN3200FS2 <sup>†</sup> IN4200FS2 <sup>†</sup>

Note: \* CAUTION: To avoid electrical shock, review premises carefully and DO NOT use if Pin and Sleeve configuration (design) is already in a circuit having a rating differing from the rating of this device.

M4100C12R

Please contact your local sales representative for full catalog information.

600/250



4P

5W



AA20045

MB2003W

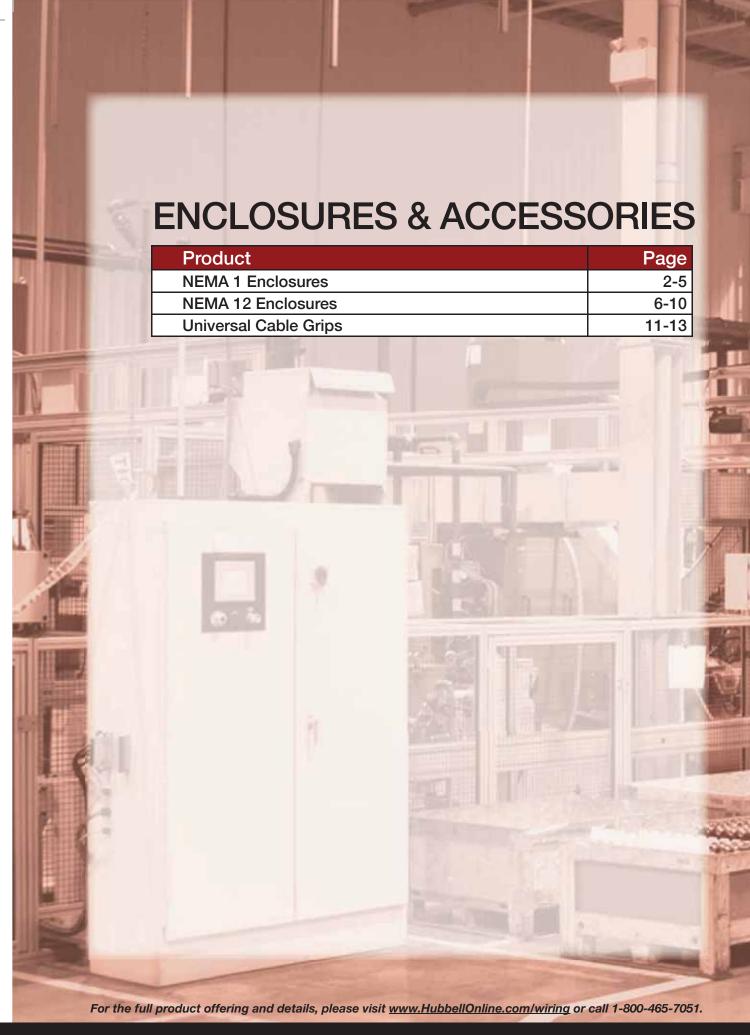
MB2004W

M4100B12R

a rating differing from the rating of this device.

\*\* While in use or with cover closed. † Consult factory.







**WIEGMANN** 

### SC SERIES ENCLOSURES **NEMA 1 SCREW COVER WALL-MOUNT**







**Industry Standards** UL 50, Type 1 CSA Certified, Type 1 (See Note) NEMA/EEMAC Type 1

UL Files E23553

CSA File LL66078

### FEATURES-SPECIFICATIONS

### **Applications**

Designed for use as a junction box and pull box in commercial and general industrial applications. Flush covers must be ordered separately for flush mount applications.

### Construction

- Fabricated from 16, 14 and 12 gauge steel or G-90 pre-galvanized steel (reference table)
- Flat, removable covers fastened with plated steel screws

- Cover design permits easy removal without extracting cover screws
- Mounting holes on back of box
- Available with or without knockouts. Removable concentric knockouts on all four sides of standard enclosures with knockouts

### **Finish**

- ANSI-61 gray polyester powder inside and out
- Unpainted pre-galvanized steel

### **Optional Flush Covers**

Designed to mount on enclosure for flush installations. 16 or 14 gauge steel (reference table).

- ANSI 61 gray polyester powder
- Unpainted pre-galvanized steel

	CATALOG			BODY/DOOR	COVERS	ENCLOSURE SIZE	KNOC <u>kou</u>	T PATTERN
	NTED	GALVA		STEEL	ONLY	H+18", W+18", D+316"	WIDTH SIDE	HEIGHT SIDE
V/KNOCKOUTS	W/O KNOCKOUTS	W/KNOCKOUTS	W/O KNOCKOUTS	GAUGE	SeePage A5	,,	WIDTH SIDE	HEIGHT SIDE
SC040404*	SC040404NK*	SC040404G*	SC040404GNK*	16/16	YES	4.00X4.00X4.00 (102X102X102)	A	A
SC040604*	SC040604NK*	SC040604G*	SC040604GNK*	16/16	YES	6.00X4.00X4.00 (152X102X102)	A	A–B–A
SC060604	SC060604NK	SC060604G	SC060604GNK	16/16	YES	6.00X6.00X4.00 (152X152X102)	A-B-A	A-B-A
SC060804	SC060804NK	SC060804G	SC060804GNK	16/16	YES	8.00X6.00X4.00 (203X152X102)	A-B-A	A-B-A
SC061204	SC061204NK	SC061204G	SC061204GNK	16/16	YES	12.00X6.00X4.00 (305X152X102)	A-B-A	B-A-F-F-A-B
SC080804	SC080804NK	SC080804G	SC080804GNK	16/16	YES	8.00X8.00X4.00 (203X203X102)	A-B-A	A-B-A
SC081004	SC081004NK	SC081004G	SC081004GNK	16/16	YES	10.00X8.00X4.00 (254X203X102)	A-B-A	B-A-F-F-A
SC081204	SC081204NK	SC081204G	SC081204GNK	16/16	YES	12.00X8.00X4.00 (305X203X102)	A-B-A	B-A-F-F-A-B
SC101004	SC101004NK	SC101004G	SC101004GNK	16/16	YES	10.00X10.00X4.00 (254X254X102)	B-A-F-F-A	B-A-F-F-A
SC101204	SC101204NK	SC101204G	SC101204GNK	16/16	YES	12.00X10.00X4.00 (305X254X102)	B-A-F-F-A	B-A-F-F-A-B
SC121204	SC121204NK	SC121204G	SC121204GNK	16/16	YES	12.00X12.00X4.00 (305X305X102)	B-A-F-F-A-B	B-A-F-F-A-B
SC121504	SC121504NK	SC121504G	SC121504GNK	16/16	YES	15.00X12.00X4.00 (381X305X102)	B-A-F-F-A-B	A-B-A-F-F-A-B-A

\*Not UL Listed. Continued on page 3

Please contact your local sales representative for full catalog information.

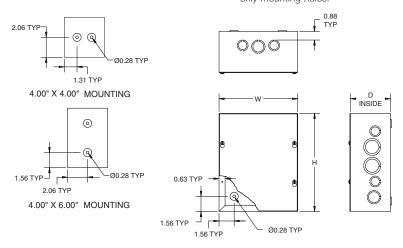
HUBBELL

Continued on page 4

### SC SERIES ENCLOSURES NEMA 1 SCREW COVER WALL-MOUNT

SC SERIES S	CREW COVER P	ULL BOX ENCL	OSURES (CONT.)					
201	CATALOG		ANIZED	BODY/DOOR	COVERS	ENCLOSURE SIZE	KNOCKOU	T PATTERN
	NTED W/O KNOCKOUTS		ANIZED W/O KNOCKOUTS	STEEL Gauge	ONLY	H+18", W+18", D+316"	WIDTH SIDE	HEIGHT SIDE
SC040404*	SC040404NK*	SC040404G*	SC040404GNK*	16/16	YES	4.00X4.00X4.00 (102X102X102)	А	А
SC040604*	SC040604NK*	SC040604G*	SC040604GNK*	16/16	YES	6.00X4.00X4.00 (152X102X102)	A	A-B-A
SC060604	SC060604NK	SC060604G	SC060604GNK	16/16	YES	6.00X6.00X4.00 (152X152X102)	A-B-A	A-B-A
SC060804	SC060804NK	SC060804G	SC060804GNK	16/16	YES	8.00X6.00X4.00 (203X152X102)	A-B-A	A-B-A
SC061204	SC061204NK	SC061204G	SC061204GNK	16/16	YES	12.00X6.00X4.00 (305X152X102)	A-B-A	B-A-F-F-A-B
SC080804	SC080804NK	SC080804G	SC080804GNK	16/16	YES	8.00X8.00X4.00 (203X203X102)	A-B-A	A-B-A
SC081004	SC081004NK	SC081004G	SC081004GNK	16/16	YES	10.00X8.00X4.00 (254X203X102)	A-B-A	B-A-F-F-A
SC081204	SC081204NK	SC081204G	SC081204GNK	16/16	YES	12.00X8.00X4.00 (305X203X102)	A-B-A	B-A-F-F-A-B
SC101004	SC101004NK	SC101004G	SC101004GNK	16/16	YES	10.00X10.00X4.00 (254X254X102)	B-A-F-F-A	B-A-F-F-A
SC101204	SC101204NK	SC101204G	SC101204GNK	16/16	YES	12.00X10.00X4.00 (305X254X102)	B-A-F-F-A	B-A-F-F-A-B
SC121204	SC121204NK	SC121204G	SC121204GNK	16/16	YES	12.00X12.00X4.00 (305X305X102)	B-A-F-F-A-B	B-A-F-F-A-B
SC121504	SC121504NK	SC121504G	SC121504GNK	16/16	YES	15.00X12.00X4.00 (381X305X102)	B-A-F-F-A-B	A-B-A-F-F-A-B-A
SC121804	SC121804NK	SC121804G	SC121804GNK	16/16	YES	18.00X12.00X4.00 (457X305X102)	B-A-F-F-A-B	A-B-A-F-F-A-B-A
SC122404	SC122404NK	SC122404G	SC122404GNK	16/16	YES	24.00X12.00X4.00 (610X305X102)	B-A-F-F-A-B	A-B-A-F-F-A-B-A
SC151504	SC151504NK	SC151504G	SC151504GNK	16/16	YES	15.00X15.00X4.00 (381X381X102)	A-B-A-F-F-A-B-A	A-B-A-F-F-A-B-A
SC151804	SC151804NK	SC151804G	SC151804GNK	16/16	YES	18.00X15.00X4.00 (457X381X102)	A-B-A-F-F-A-B-A	A-B-A-F-F-A-B-A
SC181804	SC181804NK	SC181804G	SC181804GNK	16/16	YES	18.00X18.00X4.00 (457X457X102)	A-B-A-F-F-A-B-A	A-B-A-F-F-A-B-A
SC182404	SC182404NK	SC182404G	SC182404GNK	16/16	YES	24.00X18.00X4.00 (610X457X102)	A-B-A-F-F-A-B-A	A-B-A-F-F-A-B-A
SC183004	SC183004NK	SC183004G	SC183004GNK	16/16	YES	30.00X18.00X4.00 (762X457X102)	A-B-A-F-F-A-B-A	A-B-A-F-F-A-B-A
SC242404	SC242404NK	SC242404G	SC242404GNK	14/14	YES	24.00X24.00X4.00 (610X610X102)	A-B-A-F-F-A-B-A	A-B-A-F-F-A-B-A
SC060606	SC060606NK	SC060606G	SC060606GNK	16/16	YES	6.00X6.00X6.00 (152X152X152)	A–B–A	A–B–A
SC060806	SC060806NK	SC060806G	SC060806GNK	16/16	YES	8.00X6.00X6.00 (203X152X152)	A–B–A	A–B–A
SC061206	SC061206NK	SC061206G	SC061206GNK	16/16	YES	12.00X6.00X6.00 (305X152X152)	A–B–A	B-A-F-F-A-B
SC080806	SC080806NK	SC080806G	SC080806GNK	16/16	YES	8.00X8.00X6.00 (203X203X152)	A–B–A	A–B–A
SC081006	SC081006NK	SC081006G	SC081006GNK	16/16	YES	10.00X8.00X6.00	A-B-A	B-A-F-F-A
SC081206	SC081206NK	SC081206G	SC081206GNK	16/16	YES	(254X203X152) 12.00X8.00X6.00	A–B–A	B-A-F-F-A-B
SC101006	SC101006NK	SC101006G	SC101006GNK	16/16	YES	(305X203X152) 10.00X10.00X6.00 (254X254X152)	B-A-F-F-A	B-A-F-F-A
SC101206	SC101206NK	SC101206G	SC101206GNK	16/16	YES	(254X254X152) 12.00X10.00X6.00 (305X254X152)	B-A-F-F-A	B-A-F-F-A-B
SC121206	SC121206NK	SC121206G	SC121206GNK	16/16	YES	12.00X12.00X6.00 (305X305X152)	B-A-F-F-A-B	B-A-F-F-A-B
SC121506	SC121506NK	SC121506G	SC121506GNK	16/16	YES	15.00X12.00X6.00	B-A-F-F-A-B	A-B-A-F-F-A-B-A
SC121806	SC121806NK	SC121806G	SC121806GNK	16/16	YES	(381X305X152) 18.00X12.00X6.00	B-A-F-F-A-B	A-B-A-F-F-A-B-A
SC122406	SC122406NK	SC122406G	SC122406GNK	16/16	YES	(457X305X152) 24.00X12.00X6.00 (610X305X152)	B-A-F-F-A-B	A-B-A-F-F-A-B-A

Note: Must specify CSA Label when ordering. Consult factory for dimensions and drawings on 8", 10" and 12" deep enclosures. Note: 8", 10" and 12" deep enclosures do not have mounting embosses in back of enclosure, only mounting holes.



Please contact your local sales representative for full catalog information.

Knockout Patterns

A - 1/2" TO 3/4"

B - 3/4" TO 1"

F - 1" TO 1-1/4"

6" & 8" SIDE

A B A F F A B

10" SIDE

12" SIDE

15", 18", 24", 30" & 36" SIDE.

HUBBELL

**WIEGMANN** 

# **ENCLOSURES & ACCESSORIES**

### SC SERIES ENCLOSURES NEMA 1 SCREW COVER WALL-MOUNT

SC SERIES SC	CREW COVER PUL	L BOX ENCLOS	URES (CONT.)					
DAI	CATALOG NTED	NUMBER	ANIZED	BODY/DOOR Steel	COVERS	ENCLOSURE SIZE	KNOCKOUT	PATTERN
	W/O KNOCKOUTS		ANIZED W/O KNOCKOUTS	GAUGE	ONLY See Page A5	H+18", W+18", D+316"	WIDTH SIDE	HEIGHT SIDE
SC121206	SC121206NK	SC121206G	SC121206GNK	16/16	YES	12.00X12.00X6.00 (305X305X152)	B-A-F-F-A-B	B-A-F-F-A-B
SC121506	SC121506NK	SC121506G	SC121506GNK	16/16	YES	15.00X12.00X6.00 (381X305X152)	B-A-F-F-A-B	A-B-A-F-F-A-B-A
SC121806	SC121806NK	SC121806G	SC121806GNK	16/16	YES	18.00X12.00X6.00 (457X305X152)	B-A-F-F-A-B	A-B-A-F-F-A-B-A
SC122406	SC122406NK	SC122406G	SC122406GNK	16/16	YES	24.00X12.00X6.00 (610X305X152)	B-A-F-F-A-B	A-B-A-F-F-A-B-A
SC151506	SC151506NK	SC151506G	SC151506GNK	16/16	YES	15.00X15.00X6.00 (381X381X152)	A–B–A–F–F–A–B–A	A-B-A-F-F-A-B-A
SC151806	SC151806NK	SC151806G	SC151806GNK	16/16	YES	18.00X15.00X6.00 (457X381X152)	A-B-A-F-F-A-B-A	A-B-A-F-F-A-B-A
SC181806	SC181806NK	SC181806G	SC181806GNK	16/16	YES	18.00X18.00X6.00 (457X457X152)	A-B-A-F-F-A-B-A	A-B-A-F-F-A-B-A
SC182406	SC182406NK	SC182406G	SC182406GNK	16/16	YES	24.00X18.00X6.00 (610X457X152)	A–B–A–F–F–A–B–A	A–B–A–F–F–A–B–A
SC242406	SC242406NK	SC242406G	SC242406GNK	14/14	YES	24.00X24.00X6.00 (610X610X152)	A–B–A–F–F–A–B–A	A-B-A-F-F-A-B-A
SC243006	SC243006NK	SC243006G	SC243006GNK	14/14	NO	30.00X24.00X6.00 (762X610X152)	A–B–A–F–F–A–B–A	A–B–A–F–F–A–B–A
+ SC080808	+ SC080808NK	+ SC080808G	+ SC080808GNK	16/16	YES	8.00X8.00X8.00 (203X203X203)	A–B–A	A–B–A
+ SC121208	+ SC121208NK	+ SC121208G	+ SC121208GNK	16/16	YES	12.00X12.00X8.00 (305X305X203)	B-A-F-F-A-B	B-A-F-F-A-B
+ SC121608	+ SC121608NK	+ SC121608G	+ SC121608GNK	16/16	NO	16.00X12.00X8.00 (406X305X203)	B-A-F-F-A-B	A-B-A-F-F-A-B-A
+ SC121808	+ SC121808NK	+ SC121808G	+ SC121808GNK	16/16	YES	18.00X12.00X8.00 (457X305X203)	B-A-F-F-A-B	A-B-A-F-F-A-B-A
+ SC122408	+ SC122408NK	+ SC122408G	+ SC122408GNK	16/16	YES	24.00X12.00X8.00 (610X305X203)	B-A-F-F-A-B	A-B-A-F-F-A-B-A
+ SC181808	+ SC181808NK	+ SC181808G	+ SC181808GNK	16/16	YES	18.00X18.00X8.00 (457X457X203)	A-B-A-F-F-A-B-A	A-B-A-F-F-A-B-A
+ SC182408	+ SC182408NK	+ SC182408G	+ SC182408GNK	16/16	YES	24.00X18.00X8.00 (610X457X203)	A-B-A-F-F-A-B-A	A–B–A–F–F–A–B–A
+ SC242408	+ SC242408NK	+ SC242408G	+ SC242408GNK	14/14	YES	24.00X24.00X8.00 (610X610X203)	A-B-A-F-F-A-B-A	A-B-A-F-F-A-B-A
+ SC243008	+ SC243008NK	+ SC243008G	+ SC243008GNK	14/14	NO NO	30.00X24.00X8.00 (762X610X203)	A-B-A-F-F-A-B-A	A-B-A-F-F-A-B-A
+ SC243608	+ SC243608NK	+ SC243608G	+ SC243608GNK	14/14	NO NO	36.00X24.00X8.00 (914X610X203)	A-B-A-F-F-A-B-A	A-B-A-F-F-A-B-A
_	+ SC303008NK	_	+ SC303008GNK	12/12	NO NO	30.00X30.00X8.00 (762X762X203)	A-B-A-F-F-A-B-A	A-B-A-F-F-A-B-A
_	+ SC303608NK	_	+ SC303608GNK	12/12	NO NO	36.00X30.00X8.00 (914X762X203)	A-B-A-F-F-A-B-A	A-B-A-F-F-A-B-A
_	+ SC363608NK	_	+ SC363608GNK	12/12	NO NO	36.00X36.00X8.00 (914X914X203)	A–B–A–F–F–A–B–A	A-B-A-F-F-A-B-A
+ SC121210	+ SC121210NK	+ SC121210G	+ SC121210GNK	16/16	YES	12.00X12.00X10.00 (305X305X254)	B-A-F-F-A-B	B-A-F-F-A-B
+ SC121810	+ SC121810NK	+ SC121810G	+ SC121810GNK	16/16	YES	18.00X12.00X10.00 (457X305X254)	B-A-F-F-A-B	A-B-A-F-F-A-B-A
+ SC122410	+ SC122410NK	+ SC122410G	+ SC122410GNK	16/16	YES	24.00X12.00X10.00 (610X305X254)	B-A-F-F-A-B	A-B-A-F-F-A-B-A
+ SC181810	+ SC181810NK	+ SC181810G	+ SC181810GNK	16/16	YES	18.00X18.00X10.00 (457X457X254)	A-B-A-F-F-A-B-A	A-B-A-F-F-A-B-A
+ SC182410	+ SC182410NK	+ SC182410G	+ SC182410GNK	16/16	YES	24.00X18.00X10.00 (610X457X254)	A-B-A-F-F-A-B-A	A-B-A-F-F-A-B-A
+ SC242410	+ SC242410NK	+ SC242410G	+ SC242410GNK	14/14	YES	24.00X24.00X10.00 (610X610X254)	A-B-A-F-F-A-B-A	A-B-A-F-F-A-B-A
+ SC243010	+ SC243010NK	+ SC243010G	+ SC243010GNK	14/14	NO	30.00X24.00X10.00 (762X610X254)	A-B-A-F-F-A-B-A	A–B–A–F–F–A–B–A
_	+ SC303010NK		+ SC303010GNK	12/12	NO	30.00X30.00X10.00 (762X762X254)	A-B-A-F-F-A-B-A	A–B–A–F–F–A–B–A
_	+ SC303610NK	_	+ SC303610GNK	12/12	NO	36.00X30.00X10.00 (914X762X254)	A–B–A–F–F–A–B–A	A–B–A–F–F–A–B–A
+ SC243610	+ SC243610NK	+ SC243610G	+ SC243610GNK	14/14	NO	36.00X24.00X10.00 (914X610X254)	A–B–A–F–F–A–B–A	A–B–A–F–F–A–B–A
_	+ SC363610NK	_	+ SC363610GNK	12/12	NO	36.00X36.00X10.00 (914X914X254)	A-B-A-F-F-A-B-A	A–B–A–F–F–A–B–A
+ SC121212	+ SC121212NK	+ SC121212G	+ SC121212GNK	16/16	YES	12.00X12.00X12.00 (305X305X305)	B-A-F-F-A-B	B-A-F-F-A-B

(+) All products, unless otherwise denoted by a (+), are: H+1/8", W+1/8", D+3/16"



### SC SERIES ENCLOSURES NEMA 1 SCREW COVER WALL-MOUNT

		CATALOG	NU			BODY/DOOR	COVERS	ENCLOSURE SIZE	KNOCKOUT PATTERN		
PAI W/KNOCKOUTS	NTED W/O	KNOCKOUTS	W/I	GALVA Knockouts	NIZED W/O KNOCKOUTS	STEEL Gauge	ONLY See Page A5	H+18", W+18", D+316"	WIDTH SIDE	HEIGHT SIDE	
+ SC122412	+	SC122412NK	+	SC122412G	+ SC122412GNK	16/16	YES	24.00X12.00X12.00 (610X305X305)	B-A-F-F-A-B	A-B-A-F-F-A-B-A	
+ SC181812	+	SC181812NK	+	SC181812G	+ SC181812GNK	16/16	YES	18.00X18.00X12.00 (457X457X305)	A-B-A-F-F-A-B-A	A-B-A-F-F-A-B-A	
+ SC182412	+	SC182412NK	+	SC182412G	+ SC182412GNK	16/16	YES	24.00X18.00X12.00 (610X457X305)	A-B-A-F-F-A-B-A	A-B-A-F-F-A-B-A	
+ SC242412	+	SC242412NK	+	SC242412G	+ SC242412GNK	14/14	YES	24.00X24.00X12.00 (610X610X305)	A-B-A-F-F-A-B-A	A-B-A-F-F-A-B-A	
+ SC243012	+	SC243012NK	+	SC243012G	+ SC243012GNK	14/14	NO	30.00X24.00X12.00 (762X610X305)	A-B-A-F-F-A-B-A	A-B-A-F-F-A-B-A	
+ SC243612	+	SC243612NK	+	SC243612G	+ SC243612GNK	14/14	NO	36.00X24.00X12.00 (914X610X305)	A-B-A-F-F-A-B-A	A-B-A-F-F-A-B-A	
_	+	SC303012NK		_	+ SC303012GNK	12/12	NO	30.00X30.00X12.00 (762X762X305)	A-B-A-F-F-A-B-A	A-B-A-F-F-A-B-A	
_	+	SC303612NK		_	+ SC303612GNK	12/12	NO	36.00X30.00X12.00 (914X762X305)	A-B-A-F-F-A-B-A	A-B-A-F-F-A-B-A	
_	+	SC363612NK		_	+ SC363612GNK	12/12	NO	36.00X36.00X12.00 (914X914X305)	A-B-A-F-F-A-B-A	A-B-A-F-F-A-B-A	

(+) All products, unless otherwise denoted by a (+), are: H+1/8", W+1/8", D+3/16"

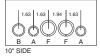
SURFACE & FLUSH COVERS ONLY

Note: Must specify CSA Label when ordering. Consult factory for dimensions and drawings on 8", 10" and 12" deep enclosures.

Note: 8", 10" and 12" deep enclosures do not have mounting embosses in back of enclosure, only mounting holes.



1.63 1.63 0 0 0



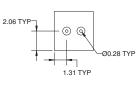


CATALOG NUMBER FOR BOX SIZE H X W\*\* FLUSH COVER SIZE SURFACE PNTD. SURFACE GALV FLUSH GALV FLUSH PAINTED SC0404G SCF0404G 4.00x4.00 (102x102) SC0404 SCF0404 6.00x6.00 (152x152) SC0406 SC0406G SCF0406 SCF0406G 8.00x6.00 (203x152) 6.00x4.00 (102x102) SC0606 SC0606G SCF0606 SCG0606G 8.00x8.00 (203x203) 6.00x6.00 (152x152) SC0608 SC0608G SCF0608 SCF0608G 10.00x8.00 (254x203) 8.00x6.00 (203x152) SC0612 SC0612G SCF0612 SCF0612G 14.00x8.00 (356x203) 12.00x6.00 (305x152) 8.00x8.00 (203x203) SC0808 SC0808G SCF0808 SCF0808G 10.00x10.00 (254x254) SC0810 SC0810G SCF0810 SCF0810G 12.00x10.00 (305x254) 10.00x8.00 (254x203) SC0812 SC0812G SCF0812 SCF0812G 14.00x10.00 (356x254) 12.00x8.00 (305x203) SC1010 SC1010G SCF1010G SCF1010 12.00x12.00 (305x305) 10.00x10.00 (254x254) 14.00x12.00 (356x305) 12.00x10.00 (305x254) SCF1012G SC1012 SC1012G SCF1012 SC1212 SC1212G SCF1212 SCF1212G 14.00x14.00 (356x356) 12.00x12.00 (305x305) 17.00x14.00 (432x356) SC1215 SC1215G SCF1215 SCF1215G 15.00x12.00 (381x305) SC1216 SC1216G SCF1216 SCF1216G 18.00x14.00 (457x356) 16.00x12.00 (406x305) SC1218 SC1218G SCF1218 SCF1218G 20.00x14.00 (508x356) 18.00x12.00 (457x305) SCF1224G 24.00x12.00 (610x305) SC1224 SC1224G SCF1224 26.00x14.00 (660x356) SC1515 SC1515G SCF1515 SCF1515G 17.00x17.00 (432x432) 15.00x15.00 (381x381) SC1518 SC1518G SCF1518 SCF1518G 20.00x17.00 (508x432) 18.00x15.00 (457x381) SC1616G SCF1616G 18.00x18.00 (457x457) 16.00x16.00 (406x406) SC1616 SCF1616 SC1818 SC1818G SCF1818 SCF1818G 20.00x20.00 (508x508) 18.00x18.00 (457x457) SC1824 SC1824G SCF1824 SCF1824G 26.00x20.00 (660x508) 24.00x18.00 (610x457) SCF1830G SC1830 SC1830G SCF1830 32.00x20.00 (813x508) 30.00x18.00 (762x457)

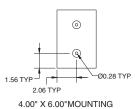
12° SIDE \*\*\*Surface covers are same size as H x W of box.

| 1.63 | 1.63 | 1.63 | 1.94 | 1.63 | 1.63 | 1.1
| A B A F F A B |
| 15°, 18°, 24°30° & 36° SIDE.

SC2424

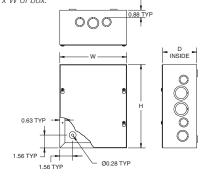


4.00" X 4.00"MOUNTING

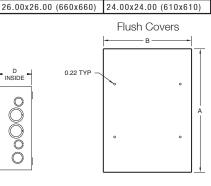


SC2424G

SCF2424



SCF2424G





### B-CH SERIES ENCLOSURES NEMA 12 JIC CONTINUOUS HINGE WALL-MOUNT



Industry Standards UL 50, Types 12 & 13 CSA Certified, Type 12 NEMA/EEMAC Type 12 & 13 JIC EL-1-71



UL Files E6924



CSA File LL66078

### FEATURES-SPECIFICATIONS

### **Applications**

Intended for use as electrical junction boxes, terminal wiring boxes, and instrument housings. Hinged door provides convenient access. Designed to provide protection from dust, dirt, oil, and water.

### Construction

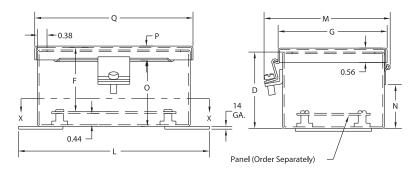
- Bodies 14 gauge and doors fabricated from 16 gauge and steel
- Continuously welded seams ground smooth, less knockouts or holes
- Lids are sealed with closed cell oil resistant neoprene gasket
- External mounting plates, top and bottom of enclosure
- Weldnuts are provided for mounting optional panels securely on models 6.00" x 4.00" and larger
- External screw clamps are quick and easy to operate
- Standard continuous hinge
- Grounding provisions provided

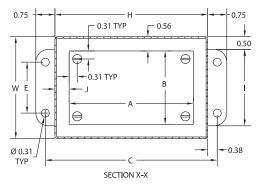
### **Finish**

- ANSI-61 gray polyester powder inside and out
- Optional back panels are white polyester powder
- Optional "G" panels have a conductive finish (See page I2)

### **Accessories**

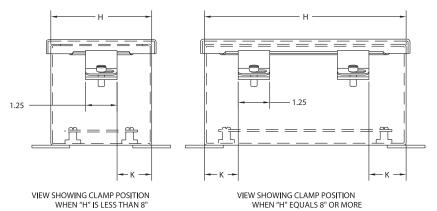
- Back panels (reference tables)
- See pages J1-J22





### Notes:

- 1. Panels are 14 Ga. steel.
- 2. Panel Screws are
- #10-32 Pan Head.
  3. Two clamps are used if "H" = 8.00"





### B-CH SERIES ENCLOSURES NEMA 12 JIC CONTINUOUS HINGE WALL-MOUNT

	ENCLOSURE	BACK PA													
CATALOG	SIZE		ANEL G NUMBER*	BACK PANEL	MOUNTING	OVERALL	F	G	1	J	К	N	0	Р	Q
NUMBER	HXWXD	WHITE	"G"	SIZE A X B	CXE	LXM									
B040403CH	4.00x4.00x3.00 (102x102x76)	_	_	_	4.75x2.00 (121x51)	5.50x5.00 (140x127)	2.53 (76)	4.31 (109)	3.00 (76)	_	1.38 (35)	1.78 (45)	2.53 (64)	0.63 (16)	4.31 (110)
B040404CH	4.00x4.00x4.00 (102x102x102)	-	_	_	4.75x2.00 (121x51)	5.50x5.00 (140x127)	3.53 (101)	4.31 (109)	3.00 (76)	_	1.38 (35)	2.78 (71)	3.53 (90)	0.63 (16)	4.31 (110
B060403CH	6.00x4.00x3.00 (152x102x76)	P0604	P0604G	4.88x2.88 (124x73)	6.75x2.00 (171x51)	7.50x5.00 (191x127)	2.53 (76)	4.31 (109)	3.00 (76)	0.56 (14)	2.38 (60)	1.78 (45)	2.53 (64)	0.63 (16)	6.31 (160
B060404CH	6.00x4.00x4.00 (152x102x102)	P0604	P0604G	4.88x2.88 (124x73)	6.75x2.00 (171x51)	7.50x5.00 (191x127)	3.53 (101)	4.31 (109)	3.00 (76)	0.56 (14)	2.38 (60)	2.78 (71)	3.53 (90)	0.63 (16)	6.31 (160
B060604CH	6.00x6.00x4.00 (152x152x102)	P0606	P0606G	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
B080603CH	8.00x6.00x3.50 (203x152x89)	P0806	P0806G	6.88x4.88 (175x124)	8.75x4.00 (222x102)	9.50x7.00 (241x178)	3.03 (88)	6.31 (160)	5.00 (127)	0.56 (14)	1.00 (25)	2.28 (58)	3.03 (77)	0.63 (16)	8.31 (211
В080606СН	8.00x6.00x6.00 (203x152x152)	P0806	P0806G	6.88x4.88 (175x124)	8.75x4.00 (222x102)	9.50x7.00 (241x178)	5.53 (152)	6.31 (160)	5.00 (127)	0.56 (14)	1.00 (25)	4.78 (121)	5.53 (141)	0.63 (16)	8.31 (211
B080804CH	8.00x8.00x4.00 (203x203x102)	P0808	P0808G	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
B100804CH	10.00x8.00x4.00 (254x203x102)	P1008	P1008G	8.88x6.88 (226x175)	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)	10.3 (262
B100804CHS	8.00x10.00x4.00 (203x254x102)	P1008	P1008G	8.88x6.88 (226x175)	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)	10.3 (262
B100806CH	10.00x8.00x6.00 (254x203x152)	P1008	P1008G	8.88x6.88 (226x175)	10.75x6.00 (273x152)	11.50x9.00 (292x229)	5.53 (152)	8.31 (211)	7.00 (178)	0.56 (14)	1.00 (25)	4.78 (121)	5.53 (141)	0.63 (16)	10.3 (262
B101006CH	10.00x10.00x6.00 (254x254x152)	P1010	P1010G	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)	10.3 (26)
B120604CH	12.00x6.00x4.00 (305x152x102)	P1206	P1206G	10.88x4.88 (276x124)	12.75x4.00 (324x102)	13.50x7.00 (343x178)	3.53 (101)	6.31 (160)	5.00 (127)	0.56 (14)	1.00 (25)	2.78 (71)	3.53 (90)	0.63 (16)	12.3 (31:
B121005CH	10.00x12.00x5.00 (254x305x127)	P1210	P1210G	10.88x8.88 (276x226)	12.75x8.00 (324x203)	13.50x11.00 (343x279)	4.53 (127)	10.31 (262)	9.00 (229)	0.56 (14)	1.00 (25)	3.78 (96)	4.53 (115)	0.63 (16)	12.3 (313
B121005CHS	10.00x12.00x5.00 (254x305x127)	P1210	P1210G	10.88x8.88 (276x226)	12.75x8.00 (324x203)	13.50x11.00 (343x279)	4.53 (127)	10.31 (262)	9.00 (229)	0.56 (14)	1.00 (25)	3.78 (96)	4.53 (115)	0.63 (16)	12.3 (31:
B121008CH	12.00x10.00x8.00 (305x254x203)	P1210	P1210G	10.88x8.88 (276x226)	12.75x8.00 (324x203)	13.50x11.00 (343x279)	7.53 (203)	10.31 (262)	9.00 (229)	0.56 (14)	1.00 (25)	6.78 (172)	7.53 (191)	0.63 (16)	12. (31
B121206CH	12.00x12.00x6.00 (305x305x152)	P1212	P1212G	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
B140806CH	14.00x8.00x6.00 (356x203x152)	P1408	P1408G	12.88x6.88 (327x175)	14.75x6.00 (375x152)	15.50x9.00 (394x229)	5.53 (152)	8.31 (211)	7.00 (178)	0.56 (14)	1.00 (25)	4.78 (121)	5.53 (141)	0.63 (16)	14. (36
B141206CH	14.00x12.00x6.00 (356x305x152)	P1412	P1412G	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. (36
B141206CHS	12.00x14.00x6.00 (305x356x152)	P1412	P1412G	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. (36
B141208CH	14.00x12.00x8.00 (356x305x203)	P1412	P1412G	12.88x10.88 (327x276)	14.75x10.00 (375x254)	15.50x13.00 (394x330)	7.53 (203)	12.31 (313)	11.00 (279)	0.56 (14)	1.00 (25)	6.78 (172)	7.53 (191)	0.63 (16)	14. (36
B161006CH	16.00x10.00x6.00 (406x254x152)	P1610	P1610G	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. (41
B161406CH	16.00x14.00x6.00 (406x356x152)	P1614	P1614G	14.88x12.88 (378x327)	16.75x12.00 (425x305)	17.50x15.00 (445x381)	5.53 (152)	14.31 (363)	13.00 (330)	0.56 (14)	1.00 (25)	4.78 (121)	5.53 (141)	0.63 (16)	16. (41
B161406CHS	14.00x16.00x6.00 (356x406x152)	P1614	P1614G	14.88x12.88 (378x327)	16.75x12.00 (425x305)	17.50x15.00 (445x381)	5.53 (152)	14.31 (363)	13.00 (330)	0.56 (14)	1.00 (25)	4.78 (121)	5.53 (141)	0.63 (16)	16. (41
B161408CH	16.00x14.00x8.00 (406x356x203)	P1614	P1614G	14.88x12.88 (378x327)	16.75x12.00 (425x305)	17.50x15.00 (445x381)	7.53 (203)	14.31 (363)	13.00 (330)	0.56 (14)	1.00 (25)	6.78 (172)	7.53 (191)	0.63 (16)	16. (41
B161410CH	16.00x14.00x10.00 (406x356x254)	P1614	P1614G	14.88x12.88 (378x327)	16.75x12.00 (425x305)	17.50x15.00 (445x381)	9.53 (254)	14.31 (363)	13.00 (330)	0.56 (14)	1.00 (25)	8.78 (223)	9.53 (242)	0.63 (16)	16 (41

 $<sup>{}^{\</sup>star}\text{Back}$  panels must be ordered separately.

Please contact your local sales representative for full catalog information.



**WIEGMANN**°

### N12 SERIES ENCLOSURES NEMA 12 SINGLE DOOR WALL-MOUNT



Industry Standards UL 508, Types 12 & 13 CSA Certified, Type 12 NEMA/EEMAC Type 12 & 13



UL Files E64791



CSA File LL66078

### FEATURES-SPECIFICATIONS

### **Applications**

Intended for use in housing electrical and electronic controls, instruments, components, and associated wiring, these enclosures incorporate hinged doors which provide convenient access. Designed for indoor use in protecting components from dust, dirt, oil, and water.

### Construction

- Bodies and doors fabricated from 14 gauge steel
- Continuously plasma welded seams
- Door and body stiffeners are provided in larger enclosures for extra rigidity

- Rolled lip on three sides of door and all sides of enclosure opening is provided to exclude liquids and contaminants
- Quick and easy to operate door clamps are provided
- Doors removable by pulling heavy gauge continuous hinge pin
- Hasp and staple for padlocking
- Print pocket is provided
- Doors are sealed with poured in place polyurethane gasket
- Collar studs provided for mounting optional sub panels

- External mounting feet for mounting enclosure
- Grounding provisions provided
- Optional panels must be ordered separately

### Finish

- ANSI-61 gray polyester powder inside and outside
- Optional back panels are painted white polyester powder
- Optional "G" panels have a conductive finish

### Accessories

• Panels (reference tables)

N12 SERIES S	INGLE DOOR ENCLOSURES							
CATALOG	ENCLOSURE SIZE	BACK PANEL CAT	ALOG NUMBER*	BACK PANEL		NO. OF	STIFF	ENER
NUMBER	HXWXD	WHITE	"G"	SIZE A X B	E	DOOR CLAMPS	DOOR	BODY
N12122406	12.00x24.00x6.00 (305x610x152)	NP1224	NP1224G	9.00x21.00 (229x533)	0	2	No	No
N12161206	16.00x12.00x6.00 (406x305x152)	NP1612	NP1612G	13.00x9.00 (330x229)	0	2	No	No
N12161606	16.00x16.00x6.00 (406x406x152)	NP1616	NP1616G	13.00x13.00 (330x330)	0	2	No	No
N12162006	16.00x20.00x6.00 (406x508x152)	NP2016	NP2016G	13.00x17.00 (330x432)	0	2	No	No
N12201206	20.00x12.00x6.00 (508x305x152)	NP2012	NP2012G	17.00x9.00 (432x229)	0	2	No	No
N12201606	20.00x16.00x6.00 (508x406x152)	NP2016	NP2016G	17.00x13.00 (432x330)	0	2	No	No
N12202006	20.00x20.00x6.00 (508x508x152)	NP2020	NP2020G	17.00x17.00 (432x432)	0	2	No	No
N12202406	20.00x24.00x6.00 (508x610x152)	NP2420	NP2420G	17.00x21.00 (432x533)	0	2	No	No
N12241206	24.00x12.00x6.00 (610x305x152)	NP1224	NP1224G	21.00x9.00 (533x229)	0	2	No	No
N12241606	24.00x16.00x6.00 (610x406x152)	NP2416	NP2416G	21.00x13.00 (533x330)	0	2	No	No
N12242006	24.00x20.00x6.00 (610x508x152)	NP2420	NP2420G	21.00x17.00 (533x432)	0	2	No	No
N12242406	24.00x24.00x6.00 (610x610x152)	NP2424	NP2424G	21.00x21.00 (533x533)	0	2	No	No
N12301606	30.00x16.00x6.00 (762x406x152)	NP3016	NP3016G	27.00x13.00 (686x330)	0	2	No	No
N12302006	30.00x20.00x6.00 (762x508x152)	NP3020	NP3020G	27.00x17.00 (686x432)	0	2	No	No
N12302406	30.00x24.00x6.00 (762x610x152)	NP3024	NP3024G	27.00x21.00 (686x533)	0	2	No	No

\*Back panels must be ordered separately.

Continued on page 9



### N12 SERIES ENCLOSURES NEMA 12 SINGLE DOOR WALL-MOUNT

N12 SERIES SI	NGLE DOOR ENCLOSURES (CONT.)							
CATALOG	ENCLOSURE SIZE	BACK PANEL CAT		BACK PANEL	Ε	NO. OF Door	STIFFE	NER
NUMBER	HXWXD	WHITE	"G"	SIZE A X B		CLAMPS	DOOR	BODY
N12362406	36.00x24.00x6.00 (914x610x152)	NP3624	NP3624G	33.00x21.00 (838x533)		2	No	No
N12363006	36.00x30.00x6.00 (914x762x152)	NP3630	NP3630G	33.00x27.00 (838x686)		2	No	Yes
N12122408	12.00x24.00x8.00 (305x610x203)	NP1224	NP1224G	9.00x21.00 (229x533)		2	No	No
N12161208	16.00x12.00x8.00 (406x305x203)	NP1612	NP1612G	13.00x9.00 (330x229)	_	2	No	No
N12161608	16.00x16.00x8.00 (406x406x203)	NP1616	NP1616G	13.00x13.00 (330x330)		2	No	No
N12162008	16.00x20.00x8.00 (406x508x203)	NP2016	NP2016G	13.00x17.00 (330x432)		2	No	No
N12201208	20.00x12.00x8.00 (508x305x203)	NP2012	NP2012G	17.00x9.00 (432x229)		2	No	No
N12201608	20.00x16.00x8.00 (508x406x203)	NP2016	NP2016G	17.00x13.00 (432x330)	_	2	No	No
N12202008	20.00x20.00x8.00 (508x508x203)	NP2020	NP2020G	17.00x17.00 (432x432)	_	2	No	No
N12202408	20.00x24.00x8.00 (508x610x203)	NP2420	NP2420G	17.00x21.00 (432x533)	_	2	No	No
N12241208	24.00x12.00x8.00 (610x305x203)	NP1224	NP1224G	21.00x9.00 (533x229)		2	No	No
N12241608	24.00x16.00x8.00 (610x406x203)	NP2416	NP2416G	21.00x13.00 (533x330)		2	No	No
N12242008	24.00x20.00x8.00 (610x508x203)	NP2420	NP2420G	21.00x17.00 (533x432)	_	2	No	No
N12242408	24.00x24.00x8.00 (610x610x203)	NP2424	NP2424G	21.00x21.00 (533x533)	_	2	No	No
N12243008	24.00x30.00x8.00 (610x762x203)	NP3024	NP3024G	21.00x27.00 (533x686)	_	2	No	No
N12302008	30.00x20.00x8.00 (762x508x203)	NP3020	NP3020G	27.00x17.00 (686x432)	_	2	No	No
N12302408	30.00x24.00x8.00 (762x610x203)	NP3024	NP3024G	27.00x21.00 (686x533)	_	2	No	No
N12303008	30.00x30.00x8.00 (762x762x203)	NP3030	NP3030G	27.00x27.00 (686x686)	_	2	No	Yes
N12303608	30.00x36.00x8.00 (762x914x203)	NP3630	NP3630G	27.00x33.00 (686x838)	_	2	No	Yes
N12362408	36.00x24.00x8.00 (914x610x203)	NP3624	NP3624G	33.00x21.00 (838x533)	_	2	No	No
N12363008	36.00x30.00x8.00 (914x762x203)	NP3630	NP3630G	33.00x27.00 (838x686)	_	2	No	Yes
N12363608	36.00x36.00x8.00 (914x914x203)	NP3636	NP3636G	33.00x33.00 (838x838)	_	2	Yes	Yes
N12422408	42.00x24.00x8.00 (1067x610x203)	NP4224	NP4224G	39.00x21.00 (991x533)	8.813 (224)	3	No	No
N12423008	42.00x30.00x8.00 (1067x762x203)	NP4230	NP4230G	39.00x27.00 (991x686)	8.813 (224)	3	Yes	Yes
N12423608	42.00x36.00x8.00 (1067x914x203)	NP4236	NP4236G	39.00x33.00 (991x838)	8.813 (224)	3	Yes	Yes
N12482408**	48.00x24.00x8.00 (1219x610x203)	NP4824	NP4824G	45.00x21.00 (1143x533)	10.313 (262)	3	No	No
N12483008**	48.00x30.00x8.00 (1219x762x203)	NP4830	NP4830G	45.00x27.00 (1143x686)	10.313 (262)	3	Yes	Yes
N12483608**	48.00x36.00x8.00 (1219x914x203)	NP4836	NP4836G	45.00x33.00 (1143x838)	10.313 (262)	3	Yes	Yes
N12603608**	60.00x36.00x8.00 (1524x914x203)	NP6036	NP6036G	57.00x33.00 (1448x838)	13.313 (338)	3	Yes	Yes
N12161210	16.00x12.00x10.00 (406x305x254)	NP1612	NP1612G	13.00x9.00 (330x229)	_	2	No	No
N12201610	20.00x16.00x10.00 (508x406x254)	NP2016	NP2016G	17.00x13.00 (432x330)	_	2	No	No
N12202010	20.00x20.00x10.00 (508x508x254)	NP2020	NP2020G	17.00x17.00 (432x432)	_	2	No	No
N12241210	24.00x12.00x10.00 (610x305x254)	NP2412	NP2412G	21.00x9.00 (533x229)	_	2	No	No
N12242010	24.00x20.00x10.00 (610x508x254)	NP2420	NP2420G	21.00x17.00 (533x432)		2	No	No
N12242410	24.00x24.00x10.00 (610x610x254)	NP2424	NP2424G	21.00x21.00 (533x533)	_	2	No	No
N12302010	30.00x20.00x10.00 (762x508x254)	NP3020	NP3020G	27.00x17.00 (686x432)	_	2	No	No
N12302410	30.00x24.00x10.00 (762x610x254)	NP3024	NP3024G	27.00x21.00 (686x533)	_	2	No	No
N12362410	36.00x24.00x10.00 (914x610x254)	NP3624	NP3624G	33.00x21.00 (838x533)	_	2	No	No
N12363010	36.00x30.00x10.00 (914x762x254)	NP3630	NP3630G	33.00x27.00 (838x686)	_	2	No	Yes
	42.00x30.00x10.00 (1067x762x254)	NP4230	NP4230G	39.00x27.00 (991x686)	8.813 (224)	3	Yes	Yes
1112 120010	1.2.5 5.00.00 (1001 XI 02.X204)	111 1200	I 181 12000	00100NE1100 (001N000)	3.0.0 (224)		. 50	

<sup>\*</sup>Back panels must be ordered separately.

Continued on page10

Please contact your local sales representative for full catalog information.



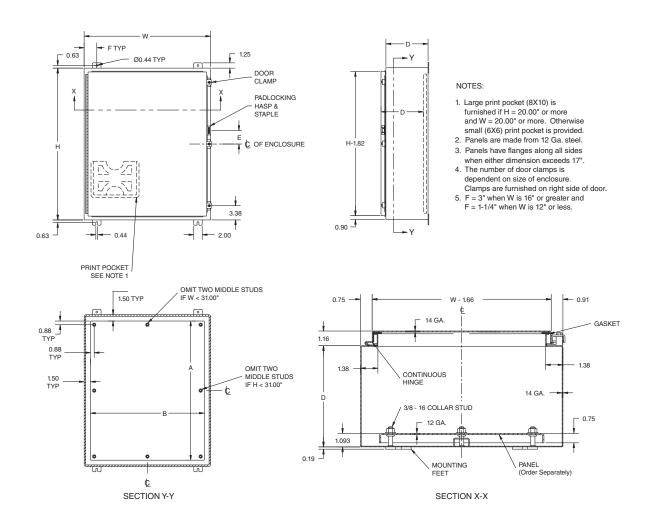
**WIEGMANN®** 

### N12 SERIES ENCLOSURES NEMA 12 SINGLE DOOR WALL-MOUNT

CATALOG	ENCLOSURE SIZE	BACK PANEL CA	TALOG NUMBER*	BACK PANEL	E	NO. OF DOOR	STIFF	ENER
NUMBER	H X W X D	WHITE	"G"	SIZE A X B	-	CLAMPS	DOOR	BODY
N12423610	42.00x36.00x10.00 (1067x914x254)	NP4236	NP4236G	39.00x33.00 (991x838)	8.813 (224)	3	Yes	Yes
N12483010**	48.00x30.00x10.00 (1219x762x254)	NP4830	NP4830G	45.00x27.00 (1143x686)	10.313 (262)	3	Yes	Yes
N12483610**	48.00x36.00x10.00 (1219x914x254)	NP4836	NP4836G	45.00x33.00 (1143x838)	10.313 (262)	3	Yes	Yes
N12603610**	60.00x36.00x10.00 (1524x914x254)	NP6036	NP6036G	57.00x33.00 (1448x838)	13.313 (338)	3	Yes	Yes
N12201612	20.00x16.00x12.00 (508x406x305)	NP2016	NP2016G	17.00x13.00 (432x330)	_	2	No	No
N12242012	24.00x20.00x12.00 (610x508x305)	NP2420	NP2420G	21.00x17.00 (533x432)	_	2	No	No
N12242412	24.00x24.00x12.00 (610x610x305)	NP2424	NP2424G	21.00x21.00 (533x533)	_	2	No	No
N12302412	30.00x24.00x12.00 (762x610x305)	NP3024	NP3024G	27.00x21.00 (686x533)	_	2	No	No
N12303012	30.00x30.00x12.00 (762x762x305)	NP3030	NP3030G	27.00x27.00 (686x686)	_	2	No	Yes
N12362412	36.00x24.00x12.00 (914x610x305)	NP3624	NP3624G	33.00x21.00 (838x533)	_	2	No	No
N12363012	36.00x30.00x12.00 (914x762x305)	NP3630	NP3630G	33.00x27.00 (838x686)	_	2	No	Yes

<sup>\*</sup>Back panels must be ordered separately.

<sup>\*\*</sup>Enclosures are supplied with closed cell neoprene gasket (not foam-in-place)





### UNIVERSAL CABLE GRIP

### For running industrial flat cables into electrical control panels.

Universal cable grip, with one size body fits flat cables ranging from 4 conductor #16 AWG, to 4 conductor #6 AWG up to 12 conductor #14 AWG.

Unique 5 part construction, 2 body halves, rubber gasket, nut and interchangeable cap allows for ultimate flexibility. Caps with various sized openings allow for a range of flat cables. The 1" NPT thread size in the neck of the cable grip body requires a standard 1.250" diameter hole cut into the electrical enclosure.







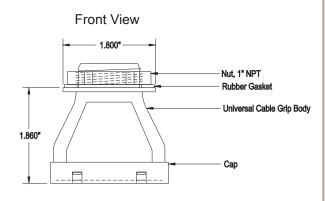


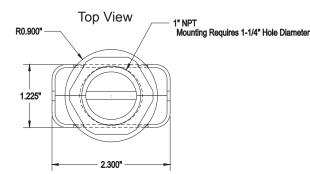
CAT. NUMBER	CABLE GRIP BODY
F-NMUCG-B1	4 Part Body (includes 2 pc. body halves, gasket and nut)
F-NMUCG-B1-10	Package of 10 pcs.
CAT. NUMBER	CABLE GRIP - CAP
See next page.	Package of 10 pcs. (one size only)

Please contact your local sales representative for full catalog information.



**WIEGMANN** 





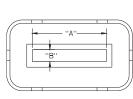
### **SPECIFICATIONS**

- Made from non-metallic, fire retardant, highimpact nylon compound
- Oil resistant, durable with temperature rating of -25°C to 81°C (-13°F to 177°F)
- Complete with rubber gasket to help prevent moisture penetration
- 2 part body incorporates interlocking frame for increased stability of construction
- Interchangeable caps for all the flat cable sizes listed in the chart below
- Requires a standard 1.250" diameter hole for mounting into the electrical enclosures

Each cap is clearly marked with a part number for easy identification of the correct cable size. See the chart below for the range of flat cable sizes and cap part numbers.

**Flat Cable** 

For Flat Cable



Part Number	"A"	"B"	Cat.#	Description
F-NMUCG-C1-10	0.625"	0.195"	F-14/4	4 conductor # 14 AWG
F-NMUCG-C11-10	0.675"	0.215"	F-12/4	4 conductor # 12 AWG
F-NMUCG-C2-10	0.850"	0.250"	F-10/4	4 conductor # 10 AWG
F-NMUCG-C3-10	1.160"	0.345"	F-8/4	4 conductor # 8 AWG
F-NMUCG-C4-10	1.430"	0.420"	F-6/4	4 conductor # 6 AWG
F-NMUCG-C5-10	1.100"	0.185"	F-16/8	8 conductor # 16 AWG
F-NMUCG-C51-10	1.120"	0.195"	F-14/8	8 conductor # 14 AWG
F-NMUCG-C6-10	1.113"	0.225"	F-12/8	8 conductor # 12 AWG
F-NMUCG-C7-10	1.575"	0.185"	F-16/12	12 conductor # 16 AWG
F-NMUCG-C71-10	1.630"	0.195"	F-14/12	12 conductor # 14 AWG



### **ACCESSORIES** CONNECTORS

for ROUND CABLE





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

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)
		-

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	0.16 - 0.45	0.55 - 1.02	1.469 (37)
CPF-32	0.16 - 0.45	0.94 - 1.34	1.875 (48)
CPF-33	0.20 - 0.47	1.14 - 157	2.125 (54)
CPF-34	0.20 - 0.47	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 AW	<del>3</del> .		14 AW	<del>)</del> .		12 AWG	ì.		10 AWG	i.
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)	1	, ,							

### Round Cable Type W 600 VOLT

8 AWG. 6 AWG.			4 AWG.										
NO. COND.	DIA. in. (mm)	WEIG Ibs.	HT/ft. (ka)	NO. COND.	DIA in. (r	l. nm)	WEIG lbs.	HT/ft. (kg)	NO. COND.	DI. in. (	A. mm)	WEIG Ibs.	HT/ft. (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 12	0.275 (7) x 0.785 (20) 0.295 (7) x 2.165 (55)	0.181 (.08 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	NO.	THICK x WIDE	WEIGHT/ft.
SIZE	COND.	in (mm)	lbs. (kg)
16	8	0.22 (6) x 1.16 (29)	0.18 (.08)
10	12	0.22 (6) x 1.66 (42)	0.27 (.12)
	4	0.23 (6) x 0.66 (17)	0.12 (.05)
14	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)
12	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. Ibs (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. Ibs (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)





### WORKPLACE SOLUTIONS

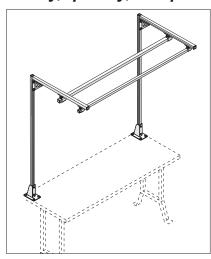
Product	Page
Work Benches	2-5
Tool Balancers	6
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Mobile Kits	21-24
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### UPDATE YOUR EXISTING BENCH

Easily, quickly, inexpensively retrofit old "beaters" as well as new benches.

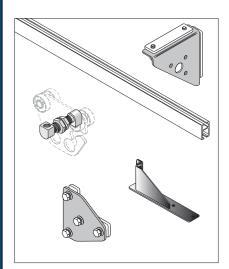


### **KITS**

Hubbell Workplace Solutions kits contain everything needed to assemble ergonomically sound fixed workstations or mobile productivity boosters. All fasteners are included, with most already in place. The only tools required are two wrenches and a tape measure (drilling may be required to secure workstation to some benches). To complete assembly, attach base's to the bench (three styles of bases are available), slide components into position and tighten hardware. Fully customize with readily available components and accessories to make each workstation fit the task and fit the people performing the task. That's practical, affordable ergonomics.

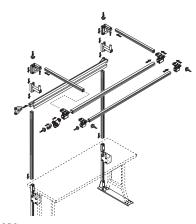


Older bench equipped with new workstation kit and optional accessories.



### **COMPONENTS**

Most components which make up Hubbell Workplace Solutions kits are available separately. Components are often added to basic kits, further customizing them to fit the task. Components may also be used to construct workstations or other equipment using the practical "slide & clamp" assembly method. Where applicable, components include track nuts or clamp bars, plus other hardware, required for assembly.



 $Kits\,,\quad components\quad and accessories assemble easily. Just slide into place and tighten.$ 



### **ACCESSORIES**

Hubbell Workplace Solutions workstation accessories increase utilitarian value and make the workplace more user friendly by adding functions. Typical accessories include; adjustable swing arms with a variety of attachments, torque neutralizing arms and tool positioners, air manifolds, bars for holding plastic tote bins, shelves, and lights. Accessories can be installed easily on HWS fixed or portable workstation kits.



Mobile productivity booster kits are complete, including all hardware. Assembly is required.



### SINGLE COLUMN WORKSTATION KITS

### **SWING OR FIXED BOOMS**

SINGLE COLUMN KITS are the efficient and economical way to meet ergonomic requirements. Each kit is complete with 180° swing or fixed boom, safety hook or balancer trolley and Universal Bracket for mounting everything from an air line fitting to peg board. Some models also include tool balancer, coiled air line, brass air line fitting and cord grip for use with electric tools. It's ready to mount on your work bench then customize...add swing arms with attachments, as shown below right, or other items as required. Horizontal boom has rated maximum capacity of 30 lbs.(13.5 kg). Bolts to any bench top. Hardware for mounting jib to bench not included. Balancer is easily adjusted to support tool weight allowing maximum productivity with minimum effort. Tool not included.



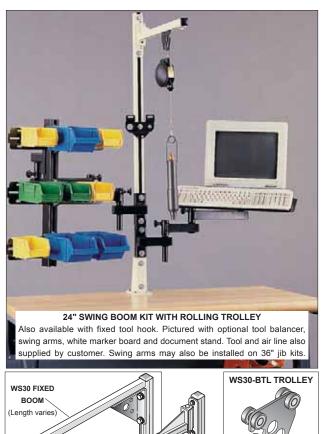
**36"** (914mm) LONG BOOM WORK STATION KIT (above, left) includes (1) fixed or swing 3 ft. WS30 swing boom, (1) 5 ft. WS50 vertical column, (1) 1.5, 2.5, or 5.0 lb.tool balancer, (1) balancer trolley, (1) end stop (with trolley only), (2) end caps, (1) WS-UH universal bracket, (1) brass air fitting, (1) cord grommet, (1) coiled 1/4" air line, (1) mounting base, all hardware required for assembly. Mounting fasteners not included. Does not include tool.

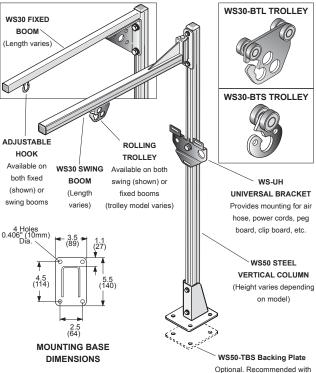
**24"** (610mm) LONG BOOM WORK STATION KIT (above, right) includes (1) fixed or swing 2 ft. WS30 boom, (1) 4 ft. WS50 vertical column, (1) balancer trolley or end stop hook, (1) end stop (with trolley only), (2) end caps, (1) angle bracket (fixed boom only), (1) WS-UH universal bracket, (1) mounting base, and all assembly hardware. Does not include fasteners for mounting base to bench. Does not include swing arms, balance reel, tool, air line or fittings shown in illustration.

WS30 boom for total loads to 30 lbs. (13.5 kg)

Min - Max BALANCER CAPACITY	TROLLEY MODEL NUMBER	BOOM LENGTH & TYPE	VERTICAL COLUMN HEIGHT	WITH HOOK MODEL NO.	WITH TROLLEY MODEL NO.
0.5-1.5 lbs	WS30-BTS	36" Swing	5' (1.5m)	na	WTS-050301
1.5-3.0 lbs.	WS30-BTS	36" Swing	5' (1.5m)	na	WTS-050302
3.0-5.0 lbs.	WS30-BTS	36" Swing	5' (1.5m)	na	WTS-050305
0.5-1.5 lbs	WS30-BTS	36" Fixed	5' (1.5m)	na	WTF-050301
1.5-3.0 lbs.	WS30-BTS	36" Fixed	5' (1.5m)	na	WTF-050302
3.0-5.0 lbs.	WS30-BTS	36" Fixed	5' (1.5m)	na	WTF-050305
na	WS30-BTL*	24" Swing	4' (1.2m)	WHS-020400	WTS-020400
na	WS30-BTL*	24" Fixed	4' (1.2m)	WHF-020400	WTF-020400

<sup>\*</sup> Only on models supplied with trolley.







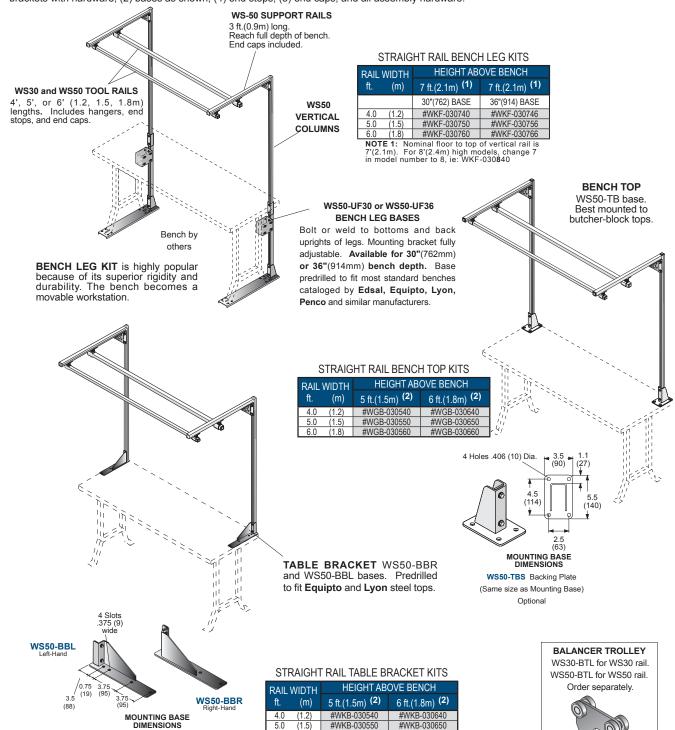


wood or composite tops.

### TOOL RAIL KITS DUAL RAIL, DUAL COLUMN, BENCH SUPPORTED

**DUAL COLUMN WORKSTATION KITS** include two straight rails, your choice of three mounting base styles and in a range of heights to fit virtually any bench and any task you have. Height of horizontal support rails is adjustable, as is position of rails and width (distance between vertical columns). Kits include one WS30 and one WS50 rail. Either or both may be used as tool rail by adding **optional** balancer trolleys. Trolley mounted TORQ-ARM™ may be used, as can most accessories. Additional components may be added to make these workstations even more functional. Consult your Hubbell Workplace Solutions distributor or contact the factory for more details.

TOOL RAIL KITS include (1) WS30 rail with hangers, (1) WS50 rail with hangers, (2) WS50 vertical columns, (2) WS50 horizontal 36" rails, (2) angle brackets with hardware, (2) bases as shown, (4) end stops, (8) end caps, and all assembly hardware.





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WS50-BBS Backing Plate

(Same size as Mounting Base)

Optional

#WKB-030560 #WKB-030660

NOTE 2: Height of bench will determine Tool Rail height

## **WORKPLACE SOLUTIONS**

### **COMPONENTS**

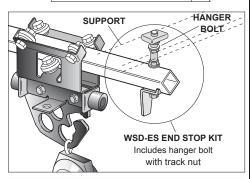
### **CURVED RAIL FOLLOWS THE WORK**GUIDES TOOLS AND CONTROLS AROUND CORNERS

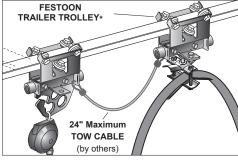
UNIQUE DIAMOND RAIL track and matching trolleys allow tools or control boxes to follow assembly line or conveyor path. Curved sections with 3 ft. (0.9m) radius form 90° corner and connect to other curved or straight track sections for smooth, non-stop trolley movement. Design and build your own system from components shown below. Threaded hangers may be hung from overhead beams or from WS50 rail using standard track nut. Trolleys include safety flanges to prevent fall if rollers fail. Capacity 30 lbs. (13.5 Kg).

### Kg). WSD-SA SPLICE ANGLE KIT Includes splice angles and hardware. One bolt also serves as hanger and STRAIGHT or CURVED includes track nut which fits WS50 or TRACK SECTION. SUPPORT WA50 rail. Can also be hung from other depending on layout suitable supports. NOTE: To hang rail lower, substitute longer bolt or threaded rod (by others). WSD-BTL TROLLEY WITH LABYRINTH WSD-T06R or WSD-U36R TOOL HOOK CURVED TRACK SECTION 3 ft.(0.9m) radius BALANCE REEL (optional) WORK TABLES **TROLLEY** CURVED TRACK SECTIONS join smoothly allowing trolley to follow 6' STRAIGHT TRACK HANGER/SPLICE work. SECTION ANGLES TROLLEY 42" (1067) TYPICAL INSTALLATION TOP VIEW 42" (1067) **WORK TABLE WORK TABLE**

COMPONENT CHART							
DESCRIPTION	FINISH	MODEL NO.					
	BEIGE POLYESTER	WSD-T06					
6' (1.8m) STRAIGHT TRACK SECTION	UNFINISHED	WSD-U06					
90" x 36" (914 mm) RADIUS	BEIGE POLYESTER	WSD-T36R					
90" x 36" (914 mm) RADIUS CURVED TRACK SECTION	UNFINISHED	WSD-U36R					
SPLICE ANGLE KIT (includes (2) angles,hanger bolt, splice bolt, nuts & washers	ZINC PLATED	WSD-SA					
END STOP KIT (right, top) (includes end stop, hanger bolt, nuts & washers	ZINC PLATED	WSD-ES					
TROLLEY-LABYRINTH TOOL HOOK	BLACK POLYESTER	WSD-BTL					
FESTOON TRAILER TROLLEY*	BLACK POLYESTER	WSD-RC12					

<sup>\*</sup> FESTOON TRAILER TROLLEY (right, bottom) provides easy management of cord or hose supplying power to tool. Fits cable or hose 0.60–0.94" (15–24mm) diameter. Tow cable connecting tool trolley to trailer trolley should not exceed 24" in length.









### TOOL BALANCERS

### MAKE TOOLS WEIGHTLESS

### **RELIABLE & ECONOMICAL SERIES "BD"**



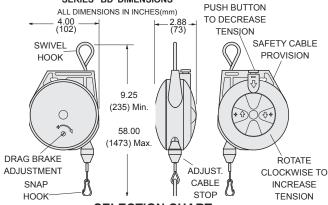
"SERIES "BD" TOOL BALANCERS are the economical choice for balancing tools weighing up to 5 lbs(2.3kg). Molded ABS housing has a smooth exterior with rounded edges designed for maximum ergonomic appeal. Series "BD" balancers are the most modern, easiest to adjust, and reliable available. Each balancer 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.
  Push-button tension release simplifies decrease of
- spring tension.
  3- Rugged steel upper swivel hook with secondary safety cable provision.

  Over-sized cable opening with direct in-line pull to
- reduce cable wear. 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.
- Adjustable cable stop and lower safety hook
- 6- Adjustable cable stop and lower sarety HOUN.
  7- Matte black finish to minimize reflected light and reduce eye strain.

### **SERIES "BD" DIMENSIONS**



### **SELECTION CHART**

	MIN - MAX LOAD lbs. (kg.)	CABLE LENGTH* ft. (m.)	REEL WEIGHT lbs. (kg.)	MODEL NUMBER
ı	0.5 - 1.5 (0.2 - 0.7	6 (1.8)	1.3 (0.6)	BD-01
-1	1.5 - 3.0 (0.5 - 1.4)	6 (1.8)	1.3 (0.6)	BD-03
L	3.0 - 5.0 (1.4 - 2.3)	6 (1.8)	1.5 (0.7)	BD-05

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

### BALANCER ACCESSORIES **#STC-01 SAFETY CLIP**

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

### **CLEVIS HANGERS**

Galvanized forged steel hangers for mounting balancers, torque reels, etc. Measure 0.50" (13mm) between jaws. One #CVF-01 straight clevis included with each "BG" & "TQ" reel. #CVF-11 swivel clevis is optional extra. Pins included. Rated capacity-500 lbs.



### 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 MODEL \_\_in.\_\_\_\_ (mm)\_\_\_\_ NO. (mm) 0.6 - 0.94 (15 - 23) CS-F2 0.95 - 1.25 (24 - 31)

### **SAFETY CABLE/CHAIN**

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

NO.	steel cable.
SC-BD1*	**Steel link chain
SC-BG1**	
SC-BG2**	
SC-BG3**	
	SAFETY
	NO. SC-BD1* SC-BG1** SC-BG2** SC-BG3**

### **OVERHANG CABLE**

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

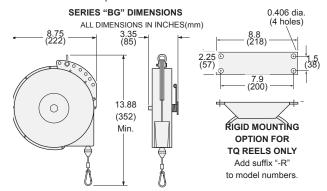
### **HEAVY DUTY SERIES "BG"**

SERIES "BG" reels feature rugged steel construction with black polyester baked finish, reinforced hanging bracket with forged clevis for 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 (6 - 18 in. [152-457mm]). Cable is 920 lb.(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 eafely tool clip and adjustable cable. Includes safety tool clip and adjustable cable

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.



**ACCESSORIES** 



SEL	ECTIO	N CH	<b>IART</b>
-----	-------	------	-------------

OLLLO HON OHAKI									
	- MAX DAD (kg.)		BLE IGTH* (m.)	RATCHET LOCK		EEL IGHT (kg.)	MODEL NUMBER		
BALANCERS (CONSTANT PULL REELS) May be adjusted to balance through 6-18 in. (152-457mm) range.									
	1.4 - 3.2)	8	(2.4)	No	6	(2.7)	BG-03		
	2.3 - 4.5)	8	(2.4)	No	6	(2.7)	BG-07		
	3.6 - 5.4)	8	(2.4)	No	7	(3.2)	BG-10		
10 - 15 (		- 8	(2.4)	No	8	(3.6)	BG-15		
	'.2 - 10.4)	8	(2.4)	No	8	(3.6)	BG-20		
16 - 23 (7		8	(2.4)	No	8	(3.6)	BG-20SH**		
22 - 27 (9	).9 - 12.2)	8	(2.4)	No	8	(3.6)	BG-25		
	RETRACTORS (RATCHET LOCK) Retract tool upward when manually released								
	1.4 - 3.2)	8	(2.4)	Yes	6	(2.7)	BG-03-L		
5 - 10 (2	2.3 - 4.5)	8	(2.4)	Yes	6	(2.7)	BG-07-L		
	3.6 - 5.4)	8	(2.4)	Yes	7	(3.2)	BG-10-L		
10 - 15 (	4.5 - 6.8)	8	(2.4)	Yes	8	(3.6)	BG-15-L		
16 - 23 (7	'.2 - 10.4)	8	(2.4)	Yes	8	(3.6)	BG-20-L		
16 - 23 (7	'.2 - 10.4)	8	(2.4)	Yes	8	(3.6)	BG-20-LSH**		
22 - 27 (9	0.9 - 12.2)	8	(2.4)	Yes	8	(3.6)	BG-25-L		
TORQUE REELS (RATCHET LOCK AND LONGER CABLE)									
3 - 7 (1	1.4 - 3.2)	15.0	(4.5)	Yes	8	(3.6)	TQ1507***		
5 - 10 (2	2.3 - 4.5)	15.0	(4.5)	Yes	10	(4.5)	TQ1510***		
10 - 15 (4	4.5 - 6.8)	15.0	(4.5)	Yes	12	(5.4)	TQ1515***		

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

\*\*Includes BG-SH "Shock Stop". See Below.

0

\*\*\*Clevis mount. For rigid mount add "-R" to model number.

Length

### "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 BG balancer. Kit includes spring, cable stops, all

hardware

MODEL NO.

OC-10 (4.6)OC-15 OVERHANG CABLE

MODEL NO.

OC-03

OC-05

3 (0.9))

5 (1.5)

10 (3.0)





www.hubbellonline.com/wiring



# **ACCESSORIES**

# WORK LIGHTS and POWER BARS POWER-UP AND PUT SOME LIGHT ON THE SUBJECT

Here are fitting touches to your workplace: a fluorescent, overhead work light and a power bar. Both are custom designed for use on Workplace Solutions workstations. Two Work Lights are available. One has adjustable mounting brackets and two 48" fluorescent T8 lamps (included). The other has fixed brackets and four 48" fluorescent T8 lamps (included). Power Bar is available in two lengths; 36" with six grounded outlets and 60" with ten outlets. Power Bar features on/off switch, circuit breaker with reset button and mounting bar. Order mounting bar to fit width of your workstation. Mounting hardware is included. Lights include 10' cord and power bar includes 6' cord with standard 110v AC grounded plugs.

DESCRIPTION	MODEL NUMBER	FC* @ 3'	FC* @ 4'
48" Two Tube Adjustable Workstation Light	WBL-204A	93	70
48" Four Tube Fixed Workstation Light	WBL-404	185	130
"Z" Bracket to raise light flush with supports	WBL-40X-AM	N/A	N/A
36" Power Bar with 36" Mounting Bar	WPB-303A	N/A	N/A
36" Power Bar with 48" Mounting Bar	WPB-304A	N/A	N/A
36" Power Bar with 60" Mounting Bar	WPB-305A	N/A	N/A
36" Power Bar with 72" Mounting Bar	WPB-306A	N/A	N/A
60" Power Bar with 60" Mounting Bar	WPB-505A	N/A	N/A
60" Power Bar with 72" Mounting Bar	WPB-506A	N/A	N/A

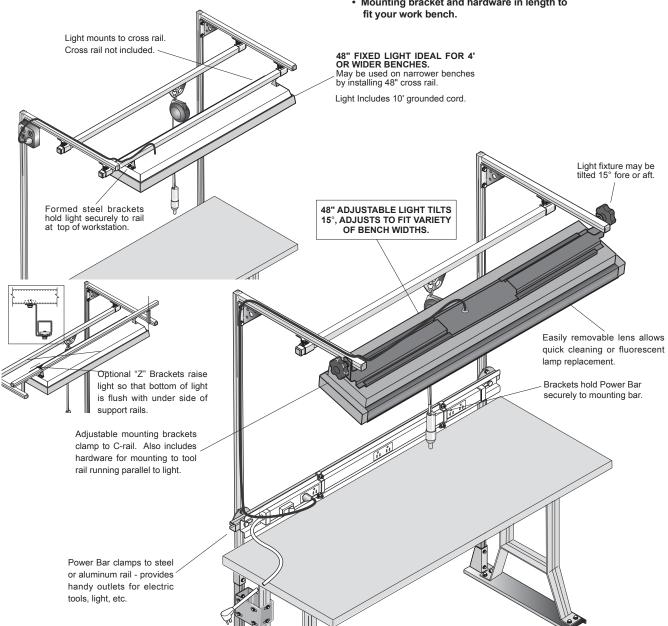
\* One foot-candle is equal to one lumen per square foot.

#### **WORK LIGHTS FEATURE:**

- Standard Clear Prismatic Lens.
- · Accepts T8 fluorescent lamps.
- · Polycarbonate safety tubes. Protect lamps, increase safety and meet OSHA, FDA, NEC and USDA requirements preventing contamination in case of lamp breakage.
- Model WBL-204A tilts 15° fore or aft and adjusts to bench width.
- · Blacked-out side lens minimizes stray light.

#### **POWER BARS FEATURE:**

- Grounded outlets and plugs.
- On/off switch and circuit breaker with reset.
- Mounting bracket and hardware in length to







# **WORKPLACE SOLUTIONS**

# ADD ACCESSORIES TO YOUR KIT

# MAKE YOUR WORKSTATIONS DO ALL THEY CAN DO

#### **MANIFOLD WITH BRACKETS**

#### NEW DESIGN

3.0 (0.9)

4.0 (1.2)

5.0 (1.5)

6.0 (1.8)

7.0 (2.1) 8.0 (2.4)

Square tubing provides 66% more volume than former round tube. Ideal where multiple tools are used. Drilled and tapped for 3/8" NPT air inlets and outlets (see chart below for quantity). Mounts to vertical columns or top rails on workstations. Beige Polyester Finish. Mounting hardware included.

WEIGHT

18 lbs

22 lbs

28 lbs

33 lbs

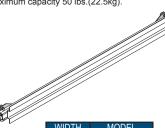
37 lbs

42 lbs

## **BIN BAR WITH BRACKETS**

Holds hanging plastic bins. Mounts to WS50 or WA50 vertical columns. Beige Polyester Finish. Includes mounting brackets and hardware. Accepts Akro, Lewis, Nestier, Duralene and other brands of his bayes. brands of bin boxes.

Maximum capacity 50 lbs.(22.5kg).



WIDTH ft. (m)	MODEL NUMBER
3.0 (0.9)	WS50-BB03A
4.0 (1.2)	WS50-BB04A
5.0 (1.5)	WS50-BB05A
6.0 (1.8)	WS50-BB06A
7.0 (2.1)	WS50-BB07A
8.0 (2.4)	WS50-BB08A
9.0 (2.7)	WS50-BB09A

#### **SHELVES WITH BRACKETS**

Hold up to 50 lbs.(22.5 kg). of parts, tools, etc. Adjustable tilt. Style "A", in 12" or 18" depth, mounts between vertical columns (column spacing fixed). Style "B" (12" deep only) mounts on front of columns (brackets may be adjusted to match column spacing). Polyester Finish. Shelves beige, brackets black. Mounting hardware included.



WIDTH* in (mm)	MODEL NUMBER	
Style "A"-12	2"(305) Deep	
Bracket Kit	WS50-SS00	П
30.0 (762)	WS50-SS03	П
42.0 (1067)	WS50-SS04	
54.0 (1372)	WS50-SS05	П
66.0 (1676)	WS50-SS06	
Style "A"-18	3"(457) Deep	'
Bracket Kit	WS50-SS00	
30.0 (762)	WS50-SS183	
42.0 (1067)	WS50-SS184	
54.0 (1372)	WS50-SS185	
66.0 (1676)	WS50-SS186	

WIDTH* in (mm)	MODEL NUMBER	
Style "B"-12	2"(305) Deep	
Bracket Kit	WS50-SS00A	
32.0 (812)	WS50-SS03A	
44.0 (1117)	WS50-SS04A	
56.0 (1422)	WS50-SS05A	
68.0 (1727)	WS50-SS06A	

\*Center-to-center spacing of vertical columns must be WIDTH + 2" (51mm) for Style "A" shelves.

# ADJUSTABLE FOOT REST **EASY ON THE LEGS**

NUMBER

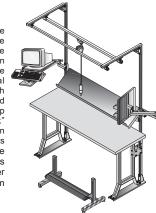
WMAN-03C

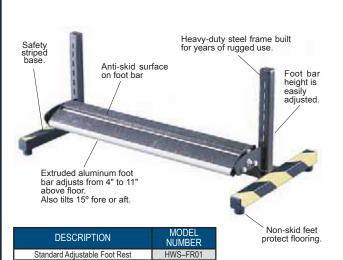
WMAN-04C WMAN-05C

WMAN-060

WMAN-07C

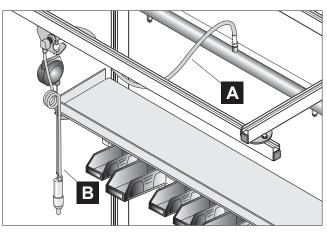
Seated or standing, your workers can be more productive and more comfortable when a foot rest is used. In addition, use of a foot rest offers a degree of protection from back or leg strain. Fully adjustable and strong enough for heavy industrial applications, it's constructed of steel with extruded aluminum foot bar. Standard model measures 29" wide, 12.75" deep and 12.25" high. Smaller "under desk" version measures is 23" wide. Both rest on four non-skid rubber feet. The foot bar is easily adjustable from 4" to 11" above the floor and tilts 15° fore and aft. Frame is finished with matte black baked polvester coating. Foot bar is natural aluminum with two anti-skid strips.





HWS-FR0

# **AIR LINES**



The most flexible air line we have found. Ideal for connecting tool trolley to manifold or other supply because its flexibility does not interfere with trolley movement. Clear, reinforced plastic, 3/8" I.D. with 3/8" NPT male swivel fittings on both ends.

LENGTH	MODEL
ft. (m)	NUMBER
2.0 (0.6)	HWS-AL02
3.0 (0.9)	HWS-AL03
4.0 (1.2)	HWS-AL04
5.0 (1.5)	HWS-AL05
6.0 (1.8)	HWS-AL06

Coiled hose from trolley to tool. Transparent blue polyurethane hose is flexible and light weight, doesn't interfere with tool positioning. Excellent memory retention. High chemical resistance. 3/8" O.D. x 1/4" I.D. x 4' extended length. 1/4" NPT male swivel fitting both ends.

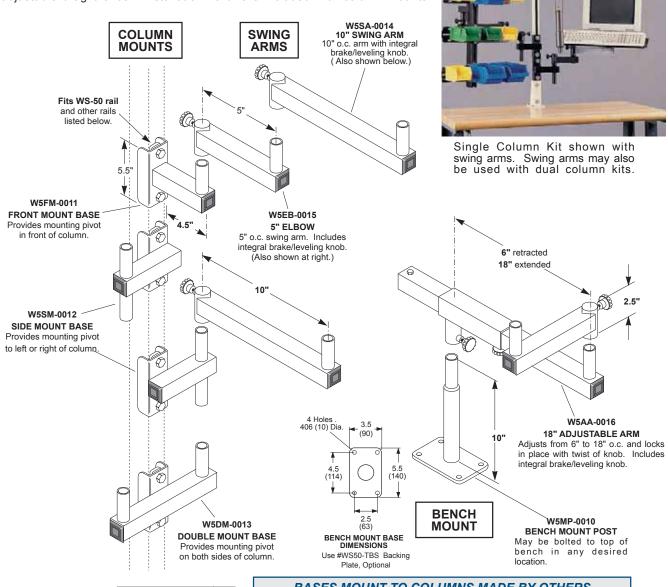




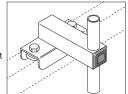
Office "Under Desk" Foot Rest

# **SWING ARMS** MAKE YOUR WORKPLACE USER FRIENDLY

Swing arms. with a variety of attachments, can be added to existing workstations or benches. Column mounts clamp on any WS50 or similar column or rail. Bench mount can be bolted to any level surface. Arms, elbows and attachments slide together and can be adjusted to provide maximum worker efficiency...least worker strain. Black baked polyester finish (boards natural, beige or white as shown).Max capacity 30 lbs.(13.5 kg), arm alone or arm and elbow together. Use of three or more arms or elbows on one mount reduces capacity and is not recommended. Swing arms, elbows and attachments include adjustable drag brakes. Installation hardware included with column mounts.



W5SM-0030 **RAIL MOUNT BASE** Provides mounting pivot on horizontal rail



# BASES MOUNT TO COLUMNS MADE BY OTHERS

The wrap-around design of the column mounts allows affixing to a variety of commonly used vertical support rails with dimensions similar to our WS50 rail. The rails listed below will accept these mounting bases.

BRAND	RAIL TYPE	BRAND	RAIL TYPE
Aeromotive	See bewa	Econoline	WS50, WA50
Bee-Line B-22	& B-24	Kindorf <sup>®</sup>	B-905
bewa②	5400	Unistrut®	P-1000, P-3000
DuctoWire	FC-CH2A	Wampfler <sup>®</sup>	24-100

① This is a "construction" rail and does not provide a suitable surface for wheels

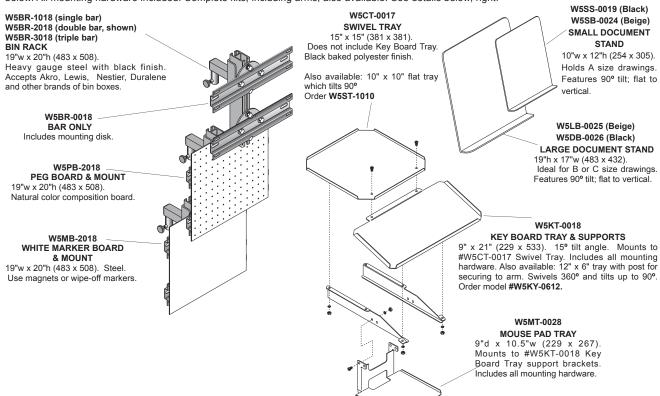
② German product design

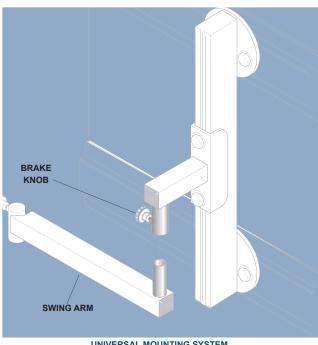




# ADD ACCESSORIES TO YOUR KIT MAKE YOUR WORKSTATIONS DO ALL THEY CAN DO

Customize your workstations to fit the task and the worker. Attachments slide easily onto mounts or swing arms (previous page). Adjustable brake may be tightened to limit free movement. Frame available separately for holding your custom board. Components finished as shown below. All mounting hardware included. Complete kits, including arms, also available. See details below, right.





## **UNIVERSAL MOUNTING SYSTEM**

Attachments slide easily onto swing arm or base posts. No tools required. Knob locks attachment in place following adjustment.

#### Kits-Include Base, Arms & Attachment

Easily fasten to vertical columns of Workstation. Each kit includes one 5" & one 10" arm plus mounting base and attachment shown. Rugged steel construction. All mounting hardware included.



from flat to vertical.



Combo Computer, Keyboard & Mouse Tray. CPU tray 15" x 15"; Keyboard tray 9" x 21" tilts 20°. Mouse tray 9" D x 10.5" W.



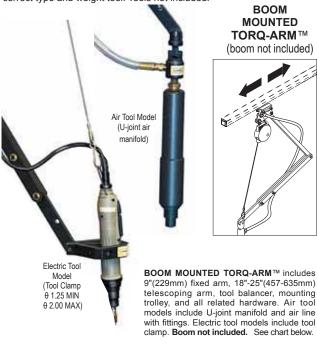
Adjustable, See-thru Rack for Hanging Shelf Bins. 24" H x 18" W. (Accommodates Akro-Mils Akrobins™ as well as Gould Duralux™ bin boxes)

DESCRIPTION	MODEL NUMBER
Document Stand	W5DS-SAK
Adjustable Bin Rack	W5BB-SAK
Combo Computer & Keyboard Tray	W5CK-SAK



# **TORQ-ARM** <sup>™</sup> **for ASSEMBLY TOOLS**COMPLETE WORKSTATION KIT OR TORQ-ARM ONLY

Take a step towards OSHA Ergonomics standard compliance by fitting workstations with *Torq-Arm™* Torque Neutralizing arms. Available for either air or electric tools. Light weight anodized aluminum arms support weight of tool and allow easy positioning while preventing transmission of rotational forces to worker's hands or wrists. Units include tool balancer, telescoping positioning arms and rolling trolley for mounting in lateral tool rail on workstation or on bench mounted jib with swing boom (jib included). Electric tool models feature secure tool clamp which may also be used for electric or air powered pistol grip tool. Air tool models feature a U-joint manifold which supplies air to tool and allows vertical and horizontal tool positioning. JIB MOUNTED TORQ-ARM™ KIT includes all parts necessary for assembling a complete, ergonomically correct TORQ-ARM™ on an existing bench. Maximum torque rating is 15 foot pounds (20N.m). All steel parts protected with durable baked polyester finish. Order model for correct type and weight tool. Tools not included.





BENCH MOUNTED TORQ-ARM™ JIB includes (1) WS30 swing boom, (1) WS50 vertical column with base, (2) end caps, (1) end stop, hardware for mounting boom to column and column to base, and (1) TORQ-ARM™ kit including 9"(229mm) fixed arm, 18"-25"(457-635mm) telescoping arm, tool balancer, mounting trolley, and all related hardware. Air tool models include U-joint manifold and air line with fittings. Electric tool models include tool clamp.

# TORQ-ARM™ ONLY-BOOM MOUNTED

	Min, - M TOOL WE		TOOL UNIT TYPE WEIGHT		MOI NUM	
	TOOL WE	IGHT	III	WEIGHT	WS30 BOOM	WS50 BOOM
0.5-	-1.5 lbs. (0	).2-0.7 kg)	Air	5 lbs. (2.25 kg)	WS30-FA-1	WS50-FA-1
1.5-	-3.0 lbs. (0	).7–1.4 kg)	Air	5 lbs. (2.25 kg)	WS30-FA-2	WS50-FA-2
3.0-	-5.0 lbs. (1	l.4-2.3 kg)	Air	5 lbs. (2.25 kg)	WS30-FA-5	WS50-FA-5
0.5-	-1.5 lbs. (0	).2-0.7 kg)	Electric	5 lbs. (2.25 kg)	WS30-FE-1	WS50-FE-1
1.5-	-3.0 lbs. (0	).7–1.4 kg)	Electric	5 lbs. (2.25 kg)	WS30-FE-2	WS50-FE-2
3.0-	-5.0 lbs. (1	l.4-2.3 kg)	Electric	5 lbs. (2.25 kg)	WS30-FE-5	WS50-FE-5

# TORQ-ARM™ mounted on Jib with Swing Boom. Mounts to bench top. Jib included.

		-	
Min, - Max. TOOL WEIGHT	TOOL TYPE	UNIT WEIGHT	
0.5-1.5 lbs. (0.2-0.7 kg)	Air	20 lbs. (9 kg)	WS30-RA-1
1.0-2.50 lbs. (0.5-1.1 kg)	Air	20 lbs. (9 kg)	WS30-RA-2
2.0-5.0 lbs. (0.9-2.3 kg)	Air	20 lbs. (9 kg)	WS30-RA-5
0.5-1.5 lbs. (0.2-0.7 kg)	Electric	20 lbs. (9 kg)	WS30-RE-1
1.0-2.50 lbs. (0.5-1.1 kg)	Electric	20 lbs. (9 kg)	WS30-RE-2
2.0-5.0 lbs. (0.9-2.3 kg)	Electric	20 lbs. (9 kg)	WS30-RE-5

# RAIL MOUNTED TORQ-ARM TM Rail Not Included

Designed to be mounted on straight overhead tool rails. **Specify WS30 or WS50 rail.** See chart below. For optional swing lock, order #625288.

OVERHEAD RAIL MOUNTED TORQ-ARM™ includes 9" (229mm) fixed arm, 18"-25" (457-635mm) telescoping arm, tool balancer, mounting trolley for WS30 or WS50 straight rail (check rail size before ordering), and all related hardware. Air tool models include U-joint manifold and air line with fittings. Electric tool models include tool clamp. Mounting rail and tool not included.

#### TORQ-ARM™ ONLY-RAIL MOUNTED

Min, - Max. TOOL WEIGHT	TOOL UNIT		MOI NUM	
TOOL WEIGHT	11172	WLIGITI	WS30 RAIL	WS50 RAIL
0.5-1.5 lbs. (0.2-0.7 kg)	Air	5 lbs. (2.25 kg)	WS30-TA-1	WS50-TA-1
1.5-3.0 lbs. (0.7-1.4 kg)	Air	5 lbs. (2.25 kg)	WS30-TA-2	WS50-TA-2
3.0-5.0 lbs. (1.4-2.3 kg)	Air	5 lbs. (2.25 kg)	WS30-TA-5	WS50-TA-5
0.5–1.5 lbs. (0.2–0.7 kg)	Electric	5 lbs. (2.25 kg)	WS30-TE-1	WS50-TE-1
1.5-3.0 lbs. (0.7-1.4 kg)	Electric	5 lbs. (2.25 kg)	WS30-TE-2	WS50-TE-2
3.0-5.0 lbs. (1.4-2.3 kg)	Electric	5 lbs. (2.25 kg)	WS30-TE-5	WS50-TE-5









# **ACCESSORIES**

# **TOOL POSITIONERS**

# NEUTRALIZE TORQUE, ELIMINATE TOOL LIFTING

Tool Positioners stop shock and torque transmission to wrists and arms, one of the major causes of musculoskeletal disorders (MSDs). Dual parallel arms also keep tool in a vertical position as it is moved across work area, eliminating need to lift or twist tool. Spring tension is adjustable for tools from 1.0–7.0 pounds. Air tools (AM models) attach directly to bottom of air manifold. Electric tools (EC models) clamp to adapter plate. Choice of positioner mounting. Post models mount to top of work surface...positioner is adjustable on 26" post (included). Column mounted positioners include adjustable bracket for attaching to workstation upright. Maximum torque rating is 97 inch pounds (11N.m).

- Post Mounted Positioner for Air Tools

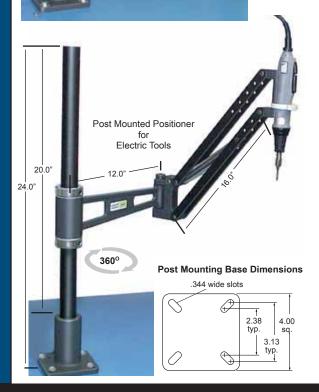
  360°

  Adjusts Vertically
- Reduces transmission of shock and torque to worker's hand, wrist or arm
- · Automatically positions tool perpendicular to work piece
- Adjustable tension supports air or electric powered tools from 1.0–7.0 lbs.
- Arm reach: 15" minimum 31.5" maximum from base pivot point





Min, - Max. TOOL WEIGHT	TOOL TYPE	MOUNTING TYPE	UNIT WEIGHT	MODEL NUMBER
1.0 – 7.0 lbs. (0.45–3.15 kg)	Air	Post (post included)	5 lbs. (2.25 kg)	WSP-AM
1.0 – 7.0 lbs. (0.45–3.15 kg)	Air	Bracket (bracket included)	5 lbs. (2.25 kg)	WS50-AM
1.0 – 7.0 lbs. (0.45–3.15 kg)	Electric	Post (post included)	5 lbs. (2.25 kg)	WSP-EC
1.0 – 7.0 lbs. (0.45–3.15 kg)	Electric	Bracket (bracket included)	5 lbs. (2.25 kg)	WS50-EC



# **ACCESSORIES**

# 250 lb. CAPACITY RAIL FOR THOSE HEAVY DUTY APPLICATIONS

COMPONENTS

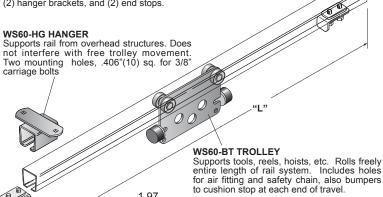
# **RAIL & HANGER KITS**

Designed for large air tool balancers, these tool rail kits are similar to our W3F and W5F tool support kits but much heavier. Must be supported every 6 ft.(1.8m) minimum to maintain full rated capacity.

- The basic tool rail is the key component on which all accessories hang.
- · Maximum 250 lb.(113kg) safe load rating.
- Galvanized for maximum corrosion protection. Available in 6, 12 and 18 ft. (1.8, 3.6, 5.4m) lengths.
- · May be joined for any length.
- · Can be mounted on walls, benches, floors, booms, or ceiling.

250 lb. CAPACITY TOOL RAIL KIT includes (1) galvanized steel rail (length per model), (1) heavy duty tool trolley, (2) hanger brackets, and (2) end stops.





# (50)11 ga WS60-ES **END STOP** 0.63

.97 50)		RAIL NGTH 'L " (m)	KIT MODEL NUMBER
<u> </u>	6.0	(1.8)	W6F-000006
	12.0	(3.6)	W6F-000012
	18.0	(5.4)	W6F-000018

4.0

(102)

WS60 Rail For loads up to 250 lbs (113kg).

**Heavy-Duty Hanger**Use components at right to hang Tool Rail from overhead supports

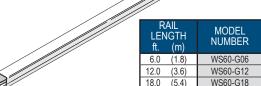
Hanging a tool rail from an overhead structure may be the best way to put a workstation where it's needed. 250 lb. capacity hangers, for use with WS60 steel track, are available as individual components only...not as kits. Thru bolts both top and bottom (see photo) act as a safety net. Thru bolts included with the mounting bases. Tool track must be supported every six feet to preserve 250 lb. capacity rating. Vertical C-60 supports must be field-cut to length to support rail at desired height.

DESCRIPTION	MODEL NUMBER
Mounting Base for C-60 Track	WS60-MB
C-60 Hanger Coupler	WS60-HC
Hardware Kit*	WS60-HW

\*Hardware Kit includes (4) 1/2 x 1 1/2 bolts, nuts, lock washers and flat washers required to attach hanger coupler to mounting base

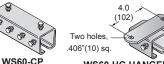


may also be used



#### WS60 TRACK

Galvanized USE: Horizontal supports, rail for lateral movement of tools, controls, hoists, etc; up to 250 lbs. (113 kg) maximum total load.



WS60-HG HANĞER

Zinc plated steel.

Zinc plated steel.

USE: Installs ir
USE: Hangs/supports WS60 rail to stop trolley track from overhead beams, joists, or other structures.



WS60-ES **END STOP** 

Zinc plated steel. USE: Installs in

Holes for

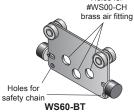


RAIL COUPLER Zinc plated steel. USE: Joins track

sections.

HANGER/COUPLER Zinc plated steel

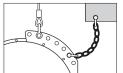
USE: Joins track sections.



(69)

**ROLLING TROLLEY** Black polyester finish.

USE: Supports tools, balance reels, torque reels, push button control stations



RAIL LENGTH ft. (m)	MODEL NUMBER
1.0 (0.3)	SC-BG1
2.0 (0.6)	SC-BG2
3.0 (0.9)	SC-BG3

## **SAFETY CHAIN**

Strongly recommended, steel link chain prevents balancer or tool rail from accidental fall. Includes clevis both ends. WS-UB6



# **U-BOLT ASSEMBLY**

Zinc plated steel
USE: Secures WS60-MB mounting base or other flat plates to 3" dia. vertical column





WS60-EHT01 (02, 03) **FESTOON TROLLEY** 

Black polyester finish. Black polyester finish. USE: Secures cable or USE: Supports cable or hose and acts as end hose in festoon system. stop in festoon system



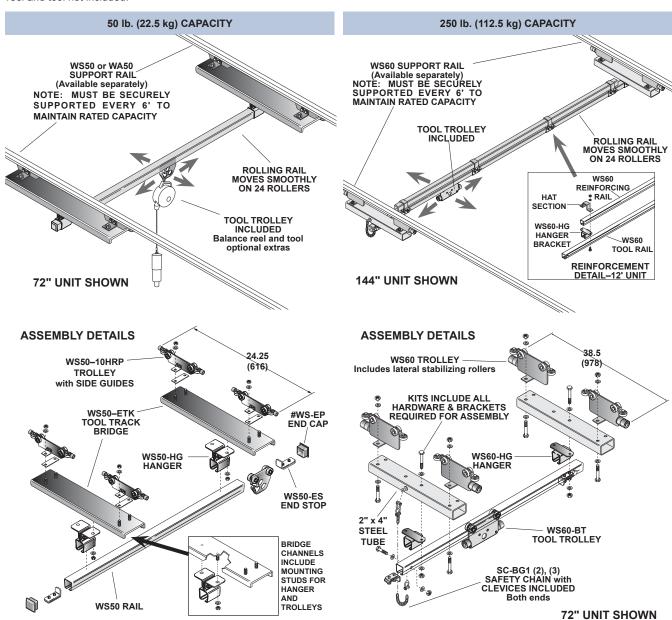


# **HEAVY DUTY TOOL CRANES**

# **ACCESSORIES**

# 50 lb. or 250 lb. CAPACITY

Rugged bridge crane design concept allows overhead tool handling with maximum safety and minimum cost. Uses proven components rolling in standard WS-50 or WS-60 (steel) or WA-50 (aluminum) rails. 250 lb. capacity unit features doubled tool rail for maximum strength on spans over 6'. To speed installation, trolleys, hangers and tool track bridge are pre-assembled into single units, as is tool rail. Balance reel and tool not included.



Heavy Duty Rolling Rail mounts in two parallel rails, which must be supported every 6' (1.8m) to maintain rated capacity. Recommended distance between support rails is length of tool rail less 12" (305mm). MAXIMUM RATED CAPACITY OF ROLLING RAIL includes tool, balancer, and attachments.

50 lb. Capacity Rolling Tool Rail includes (4) WS50-10HRP plain trolleys, (2) WS50-ETK tool track bridges, (2) WS50-HG hanger brackets, (1) WS50-BTL tool trolley, (2) WS-EP end caps, (2) WS50-ES end stops, (1) WS50 tool rail (length per model) and all assembly hardware.

250 lb. Capacity Rolling Tool Rail includes (4) WS60-FT trolleys,

(2) 2" x 4" steel tool track bridges, (2) WS60–HG hanger brackets, (1) WS60-BT tool trolley, (2) WS60–ES end stops, (1) WS60 tool rail (length per model), (1) WS60 reinforcing rail (144" unit only), (2) safety chains, assembly brackets and hardware.

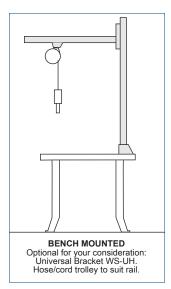
#### MODEL CHART

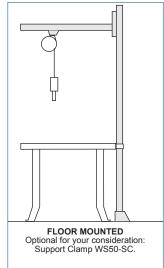
DESCRIPTION	TOOL RAIL in. (mm)	CAPACITY lbs. (kg)	MODEL NUMBER
4 Ft. Overhead Tool Crane	48" (1219)	50 lbs. (22.7 kg)	WS50-ET04
5 Ft. Overhead Tool Crane	60" (1524)	50 lbs. (22.7 kg)	WS50-ET05
6 Ft. Overhead Tool Crane	72" (1829)	50 lbs. (22.7 kg)	WS50-ET06
9 Ft. Overhead Tool Crane	108" (2743)	50 lbs. (22.7 kg)	WS50-ET09
12 Ft. Overhead Tool Crane	144" (3658)	50 lbs. (22.7 kg)	WS50-ET12
6 Ft. Overhead Tool Crane	72" (1829)	250 lbs. (113.6 kg)	WS60-ET06
12 Ft. Overhead Tool Crane	144" (3658)	250 lbs. (113.6 kg)	WS60-ET12



# JIB KITS BENCH OR FLOOR MOUNTED, 30 lb. CAPACITY

**Jib** kits feature either fixed or swing booms mounted on vertical columns. The boom may be adjusted vertically higher or lower on the column to suit your specific application. Vertical columns are typically 4 ft. (1.2m) for bench mounting and 7 ft. (2.1m) for mounting on the floor. If floor mounted, the optional support clamp **(WS50-SC)** fastened to wall or back of bench is recommended.





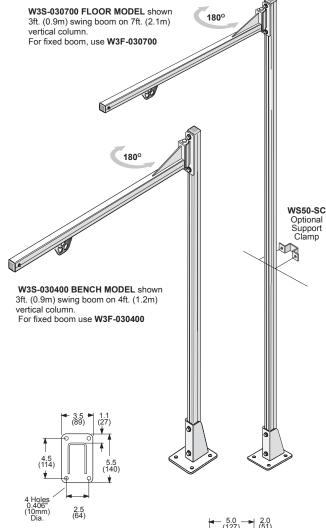
JIB KITS with W3F or W3S prefix include (1) 3' WS30 boom, (1) WS50 vertical column, (1) mounting base, (2) end caps, (1) end stop, (1) balancer trolley (1" hole diameters), and all hardware. Fixed booms are mounted to the vertical columns with angle brackets, also included.

**ALL KITS** include hardware needed for assembly. Fasteners for mounting base to bench top or floor not included.

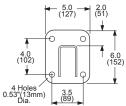
Sizes and configurations other than those shown may be made-up by ordering individual components. Refer to other pages in this catalog.

These Jibs use WS30 Rail rated for loads up to 30 lbs.(13.5 kg)

BOOM LENGTH ft. (m)	BOOM TYPE	VERTICAL COLUMN ft. (m)	MODEL NUMBER
3.0 (0.9)	Swing	4.0 (1.2)	W3S-030400
3.0 (0.9)	Fixed	4.0 (1.2)	W3F-030400
3.0 (0.9)	Swing	7.0 (2.1)	W3S-030700
3.0 (0.9)	Fixed	7.0 (2.1)	W3F-030700



WS50-TB
MOUNTING BASE INCLUDED
Use Optional WS50-TBS Backing Plate



WS50-MB
MOUNTING BASE INCLUDED
Use Optional WS50-MBS Backing Plate

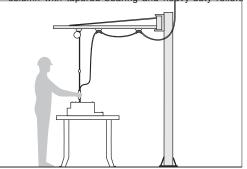




# JIB KITS

# FLOOR MOUNTED, 50 lb. CAPACITY, 6'-18' BOOMS

Jib Kits feature heavy duty I-beam booms or C-rail booms. Vertical columns include pre-drilled, gusseted mounting bases. 50 lb. capacity kits are available with either fixed or swing booms up to 18' (5.4m) long. Columns available to 10' (3m) high. Booms may be mounted higher or lower on the column to suit your specific application. 150 lb. capacity kits have swing booms up to 10' (3m) long. Columns are 10' (3m) high. Booms on 150 lb. and 300 lb. capacity jibs are mounted to top of column with tapered bearing and heavy-duty rollers allowing full 360° swing. Vertical columns for 50 lb. capacity jibs also available separately.



JIB KITS include (1) boom, (1) vertical column with integral mounting base, and assembly hardware. Does not include END CLIP WS-EC. Order End Clip separately.

**KIT NUMBERS** assume festoon trolleys for typical 3/8" (9mm) I.D. hose with saddle to handle O.D. range of 0.60"-0.94" (15-24mm). If optional saddle with range of 0.31"-0.59" (08-15mm) is desired, substitute "1" for "2" as last digit of model number. Example: W5S-06030**1** 

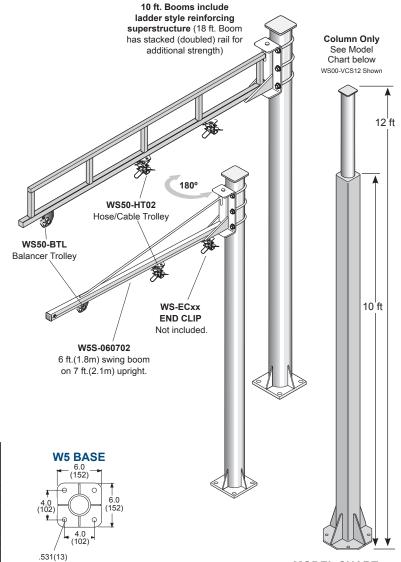
## \* STOPS TO LIMIT BOOM SWING

Manual Boom Stop–50 lb. Jibs - Model W5S-SK.
Spring Loaded Boom Lock–50 lb. Jibs - W5S-BMLK.
W5S-SK & W6S-SK consist of two machined steel stops (one for each direction) and all required hardware.
W5S-BMLK includes spring loaded lock, brackets and all hardware. All field installed only.

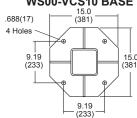
#### **MODEL CHART-HEAVY DUTY JIBS**

Booms are WS50 rail for loads up to **50** lbs. (22.5kg). Vertical columns are 3" O.D. x 2.5" l.D. (76mm x 64mm) welded steel tubing. Vertical column for 18' boom is 6" square steel tube with 3" dia. x 2' mounting shaft at top.

BOOM LENGTH ft. (m)	BOOM TYPE		TICAL LUMN (m)	MODEL NUMBER
6.0 (1.8)	Fixed	3.0	(0.9)	W5F-060302
6.0 (1.8)	Swing	3.0	(0.9)	W5S-060302
10.0 (3.0)	Fixed	3.0	(0.9)	W5F-100302
10.0 (3.0)	Swing	3.0	(0.9)	W5S-100302
6.0 (1.8)	Fixed	7.0	(2.1)	W5F-060702
6.0 (1.8)	Swing	7.0	(2.1)	W5S-060702
10.0 (3.0)	Fixed	7.0	(2.1)	W5F-100702
10.0 (3.0)	Swing	7.0	(2.1)	W5S-100702
6.0 (1.8)	Fixed	9.0	(2.7)	W5F-060902
6.0 (1.8)	Swing	9.0	(2.7)	W5S-060902
10.0 (3.0)	Fixed	9.0	(2.7)	W5F-100902
10.0 (3.0)	Swing	9.0	(2.7)	W5S-100902
18.0 (5.4)	Swing	12.0	(3.6)	W5S-181202
*Swing Stop k	(it (50 lb. jibs o	nly)		W5S-SK
*Boom Lock Kit (50 lb. jibs only)			W5S-BMLK	



# W5S-181202 & WS00-VCS10 BASE



# MODEL CHART VERTICAL COLUMNS

	COL LEN ft.		MODEL NUMBER
3	3.0	(0.9)	WS00-VC03
Ę	5.0	(1.5)	WS00-VC05
(	3.0	(1.8)	WS00-VC06
7	7.0	(2.1)	WS00-VC07
3	3.0	(2.4)	WS00-VC08
Ć	9.0	(2.7)	WS00-VC09
10	0.0	(3.0)	WS00-VC10
11	1.0	(3.3)	WS00-VC11
12	2.0	(3.6)	WS00-VC12

Column for W5S-181202 May be used with any 50 lb.

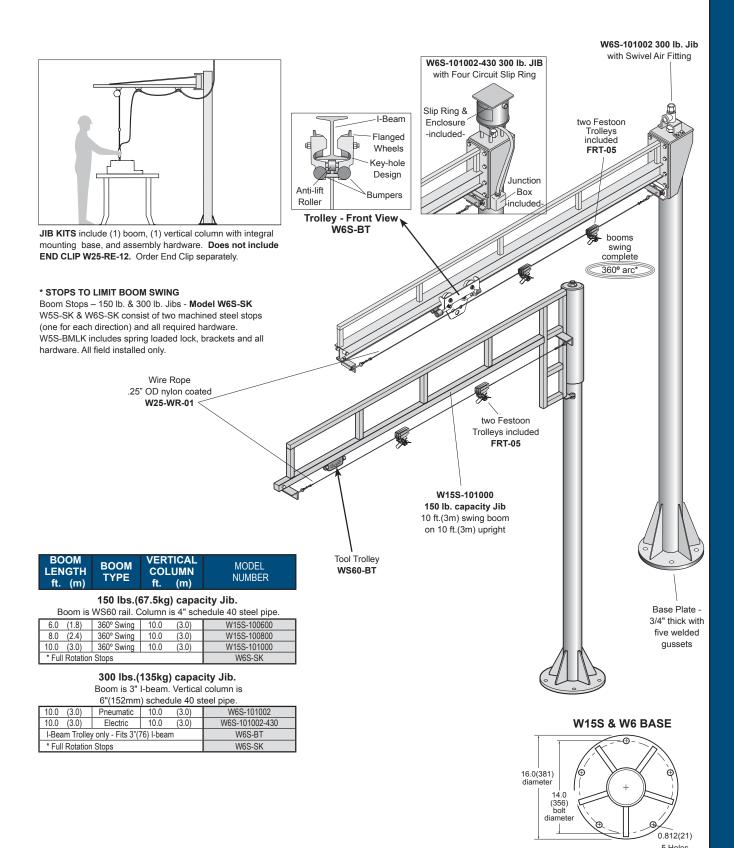
capacity boom.



4 Holes

# JIB KITS

# FLOOR MOUNTED, 150 lb.-300 lb. CAPACITY, 6'-10' BOOMS



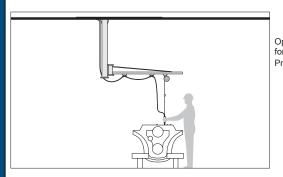




# **CEILING MOUNTED JIB KITS**

# **SWING BOOM STOPS**

Hanging a jib from an overhead structure may be the best way to put a workstation where it's needed. These kits free floor space and allow for greater plant layout flexibility. Jibs have steel WS50 booms in length shown. Vertical columns include a heavy duty **3ft.**(0.9m) **safety chain** at the top and **safety plate** at the bottom to prevent boom from sliding off.



#### **CEILING MOUNTED JIB KIT**

Includes 6 ft.(1.8m) swing boom, vertical column with integral safety chain and safety plate, 3 U-bolts, 1 balancer trolley, 1 hose/cable trolley for festoon, 1 end stop and 1 end cap.

#### **CEILING MOUNTED COLUMNS**

Do not include booms but do include safety plate and integral safety chain.

#### **BOOM AND TROLLEY DETAILS**

See back page. Sizes and configurations other than those shown may be made-up by ordering individual components

Kit numbers listed assume typical 3/8" (9mm) I.D. hose with saddle to handle O.D. range of 0.60"-0.94" (15-24mm). If optional saddle with O.D. range of 0.31"-0.59" (08-15mm) is desired, substitute "1" for "2" as last digit of model number. Example: WCS-060301.

# WS50 Rail Booms for loads up to 50 lbs.(22.5kg)

Vertical columns are 3"O.D. x 2.5" I.D. (76 x 64mm) welded steel tubing.

BOOM LENGTH ft. (m)	IYPE	VERTICAL COLUMN ft. (m)	MODEL NUMBER w/ BOOM	MODEL NUMBER w/o BOOM
6.0 (1.8)	Swing	3.0 (0.9)	WCS-060302	WS00-CC03
6.0 (1.8)	Swing	5.0 (1.5)	WCS-060502	WS00-CC05
6.0 (1.8)	Swing	6.0 (1.8)	WCS-060602	WS00-CC06
6.0 (1.8)	Swing	7.0 (2.1)	WCS-060702	WS00-CC07
6.0 (1.8)	Swing	8.0 (2.4)	WCS-060802	WS00-CC08
6.0 (1.8)	Swing	9.0 (2.7)	WCS-060902	WS00-CC09
MOUNTING PLATE 12" x 96" (304 x 2438)		WSCB-096		
MOUNTING	PLATE 12" x 120"	PLATE 12" x 120" (304 x 3048)		Inverted jihs a

WSCB-096 & WSCB-120 **Mounting Plate** Optional. Attaches to ceiling cross members for mounting jib to ceiling structures. Pre-drilled in three places to match jib base 6.00 (152) 96" (2438) 120"(3048) 4x 0.531 (3) WCS-060902 6 ft.(1.8m) swing boom on 9 ft.(2.7m) column. Other models available with 3 ft.to 8 ft. (0.9-2.4m))columns. Ceiling Mounted See chart below left. Columns Rugged 3.0" O.D. x 2.5" I.D. (76 x 64mm) welded steel tube. Beige polyester finish. Includes integral mounting base and 3' (0.9m) safety chain. Plate at bottom prevents 180 equipment mounted on column from sliding off. Mounting hardware not included. USE: Supports tool rail booms or horizontal support members. Gets booms and tools up and out of the way, freeing floor space. @ @ @ @ WS-UB SAFETY U-BOLT ASSEMBLY PLATE Zinc plated steel USE: Secures boom bracket or other flat plates to vertical column. NOTE: Three required to mount boom.

#### CAUTION

WSCB-120

Inverted jibs and related equipment must be installed with adequate safety features, such as a secondary Safety Chain and a Plate which prevents boom from sliding off bottom of column (included with each kit). Jib is designed to support tool and items associated with tool operation only. Jib must not be used to support anything over the stated 50 lbs(22.5kg) weight limit. It is the installer's responsibility to provide required safety items to meet local codes and to install each unit with maximum attention to safe work practices.

# Swing Stops for 50 lb. Capacity Booms Many people want the flexibility a swing boom provides but

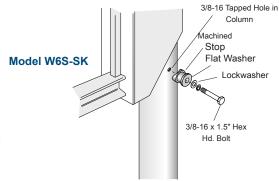
Many people want the itexibility a swing boom provides but need to limit swing in one or both directions. Two boom stops are available. One (below) has manually positioned (screw-in) stops that limit swing to 15°, 30°, 45°, or 60° in either direction. The other (left) has a spring loaded stop that, when pulled, allows the boom to swing freely throughout its normal 180° arc and, when released, lock it at the straight position or every 15°

in either direction. Stops are easily installed on 50 lb. capacity swing booms without drilling or welding.

Manual Swing Boom Stop: W5S-SK Spring Loaded Boom Lock: W5S-BMLK

# Swing Stop for 300 lb. Capacity Jib

When less than a full 360° swivel is desired on the 300 lb. capacity jib, add the Model W6S-SK stops. Kit consists of two machined steel stops (one for each direction) and all required hardware. Stops are RED for visibility





# **MOBILE KITS**

# MINIMIZE REACHING FOR PARTS SOLVE PARTS LOGISTICS PROBLEMS

Here are three ways to supply small parts to the workstation in an ergonomically friendly manner. Properly positioned parts bins at assembly points minimize stretching and reaching which can lead to MSDs. These carts are also great at temporary job task locations.

# Place in Plak SHELF CART

Complete kits with three 12"(305mm) deep adjustable shelves are available in 30"(762mm), 42"(1067mm), 54"(1372mm), or 66"(1676mm) widths. Or, if you want to build a custom cart, frame kits allow you to install 12"(305mm) or 18"(457mm) deep shelves and other accessories like Bin Bars on which to hang bins, electric power strips or air manifolds, even swing arms (see workstation accessory page in this catalog). Maximum capacity 50 lbs.(22.5 kg) per shelf.



## SHELF CART KIT & COMPONENT LISTING

DESCRIPTION	MODEL NO.
Complete Cart Kit-(3) 12"D x 30"W Shelves included	HWP-SC30
Complete Cart Kit-(3) 12"D x 42"W Shelves included	HWP-SC42
Complete Cart Kit-(3) 12"D x 54"W Shelves included	HWP-SC54
Complete Cart Kit-(3) 12"D x 66"W Shelves included	HWP-SC66
INDIVIDUAL COMPONENTS	
Frame Kit*–For 30" Wide Shelves	HWP-SC03
Frame Kit*–For 42" Wide Shelves	HWP-SC04
Frame Kit*–For 54" Wide Shelves	HWP-SC05
Frame Kit*–For 66" Wide Shelves	HWP-SC06
Shelf-12"D x 30"W	WS50-SS03
Shelf-12"D x 42"W	WS50-SS04
Shelf-12"D x 54"W	WS50-SS05
Shelf-12"D x 66"W	WS50-SS06
Shelf–18"D x 30"W	WS50-SS183
Shelf-18"D x 42"W	WS50-SS184
Shelf-18"D x 54"W	WS50-SS185
Shelf-18"D x 66"W	WS50-SS186

\*Frame kits include aluminum and steel members, four locking casters, end caps and all assembly hardware. Width shown is inside-to-inside dimension. Shelves fit inside frame uprights. Shelves that hang in front of uprights are available. See catalog for details on shelves and other accessories that can be easily installed on frame.

## **Rolling Bin Rack**



Hang bin boxes on both sides, position cart in the best place for greatest workplace efficiency and ergonomics. Move easily if task or worker changes. Six bin supports may be positioned at desired heights. Bin boxes not included.

- Sturdy extruded aluminum frame with heavyduty steel brackets. Includes six bars for holding bin boxes
- Four locking, swivel casters.
- 300 lb. max capacity.

Dimensions: 77"H x 36"D x 33.6" wide

DESCRIPTION	MODEL NO.
Bin Box Cart with four casters	HWP-BC01

#### **Gravity Feed Rack**



Semi-permanent (adjustable glides, not casters) designed for supplying parts bins to work areas. Two conveyor levels, each featuring four roller strips, fully adjustable slope and height. sturdy steel stops prevent bin run-off. Roller strips supported along entire length by WS30 rail.

- Sturdy extruded aluminum frame with heavy-
- duty steel brackets. Adjustable glides, not casters.
- 300 lb. max capacity.

#### Dimensions: 62"H x 36"D x 30" wide

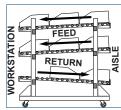
DESCRIPTION	MODEL NO.
Gravity Feed Rack with Glides	HWP-GFR

# Supply 'n Return<sup>™</sup> **Gravity Feed Cart**



Three adjustable conveyors supply full bins to assembly area and return empty bins to aisle. Each level may be easily adjusted for optimum slope and spacing. May also be assembled with all three levels sloped toward work area.. Adjustable safety yellow bin stops also protect ends of conveyors. Tough baked polyester finish. Optional adjustable side guides (not shown) may be added to keep bins aligned. Bins not included

- Sturdy extruded aluminum frame with heavyduty steel brackets.
- 18 adjustable roller strips.
- 300 lb. max capacity.
- Locking, swivel casters



**Dimensions:** 48"H x 48"D x 47" wide

DESCRIPTION	MODEL NO.
Supply 'n Return Cart	HWP-GF444
Side Guides (set of two)	HWP-SG4





# HEAVY-DUTY SPECIAL PURPOSE CARTS KEEP YOUR PLANT FLEXIBLE YET SAFE

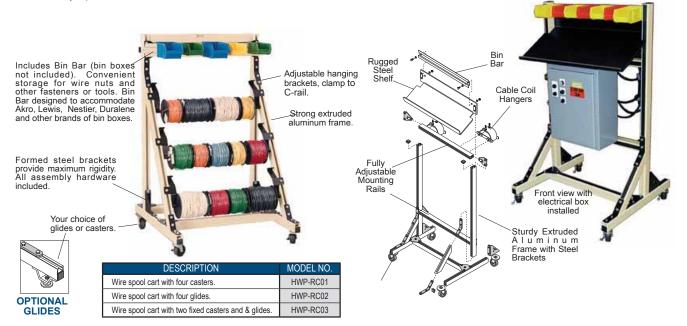


## WIRE SPOOL CART

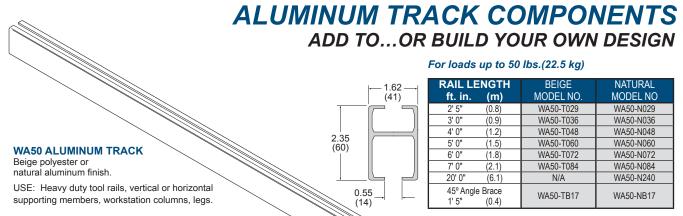
Here's the answer to production or maintenance wiring jobs. Roll the wire to the job, unspool what you need, and return the cart to a convenient storage place. WA50 aluminum rail with formed steel brackets, cart measures 54" high, 36" deep and 33.6" wide with a 27" clear space between spool shaft brackets, which are fully adjustable. Available with four heavy-duty casters (two fixed and two swivel with locks), two fixed casters and two glides or, for semi-permanent installation, with four glides. Swivel casters may be installed at either front or back. All components, except hardware, finished with chip-resistant baked polyester coating. Rails are beige and brackets are black. Assembly required. MAXIMUM CAPACITY: 300 lbs.

#### **MOBILE TEST STATION**

The Model HWP-TC01 Test Bed Cart represents the ultimate in versatility. Dual support rails adjust to any size electrical box. Box mounts easily with exclusive **EX NUT** Tak Nuts, furnished. Two coil hangers keep cable off floor while cart is being rolled to the job. Heavy duty shelf easily supports even the heaviest technical manuals. Bin Bar holds box bins for miscellaneous storage. Frame is strong extruded aluminum with beige baked polyester finish. All joining brackets are heavy steel with matte black polyester. Includes four locking, swivel casters and all assembly hardware. Bin boxes, electrical box and cables not included. Some assembly required.



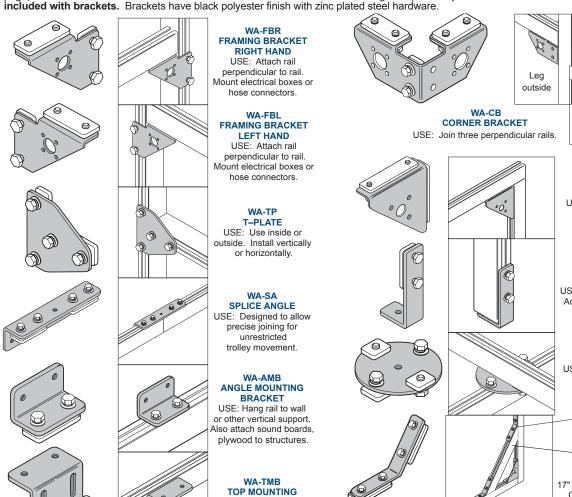




Consult factory for lengths not shown above.

Extruded aluminum rail features double tracks (top and bottom), one for trolleys and the other for mounting components or concealing hose or cable. Inside dimensions of the **larger track is same as WS50 steel rail** and fits standard WS50 trolleys, brackets, stops, etc. (following page). In addition, there is a full assortment of construction brackets, below, designed specifically for aluminum rail. **All mounting hardware included with brackets.** Brackets have black polyester finish with zinc plated steel hardware.

**NOTE:** Horizontal track must have a support hanger every 6.0 ft.(1.8m) to maintain maximum rated capacity.



**BRACKET** 

USE: Attach top to bench.

## WS-AB ANGLE BRACKET

Leg

inside

USE: Join rails at right angles.

## WA-LF LEVELER FOOT

USE: Forms smooth foot. Adjust to level structure.

#### WA-HD HANGER DISK

USE: Join crossing rails at right angles. Hang rails from other supports.

#### WA-AB ANGLE BRACE BRACKET (45°)

WA50-TB17

## WA50-NB17

17" ALluminum Angle Brace Cut 45° On Both Ends (see chart above).

#### WA50-MP UNIVERSAL BASE Zinc plated steel

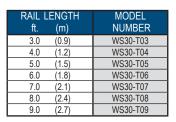
USE: Weld or bolt to new or existing benches or conveyors. Provides pocket for mounting WA50 column. Cannot be used with WS50 rail.





# STEEL TRACK, 30 lb.

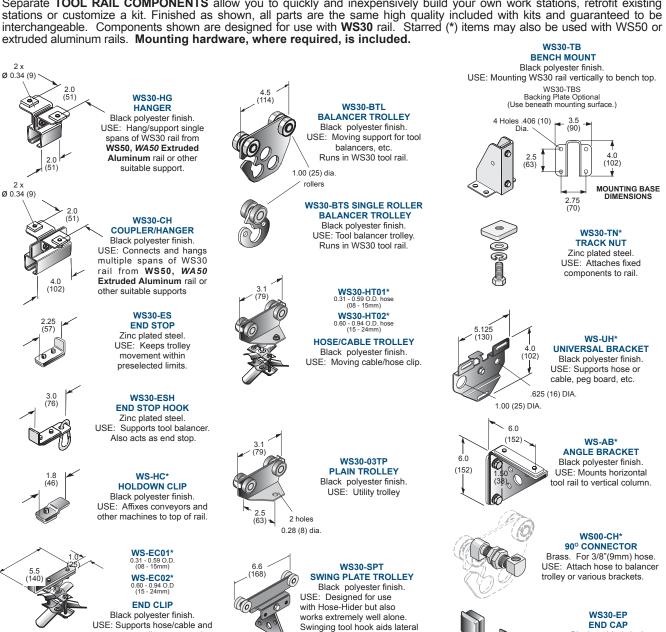
# **COMPONENTS**



Consult factory for lengths not shown above.



Separate TOOL RAIL COMPONENTS allow you to quickly and inexpensively build your own work stations, retrofit existing stations or customize a kit. Finished as shown, all parts are the same high quality included with kits and guaranteed to be interchangeable. Components shown are designed for use with WS30 rail. Starred (\*) items may also be used with WS50 or





Black molded vinyl.

USE: Caps off ends of rail for a finished look.

prevents trolley overtravel.

movement.

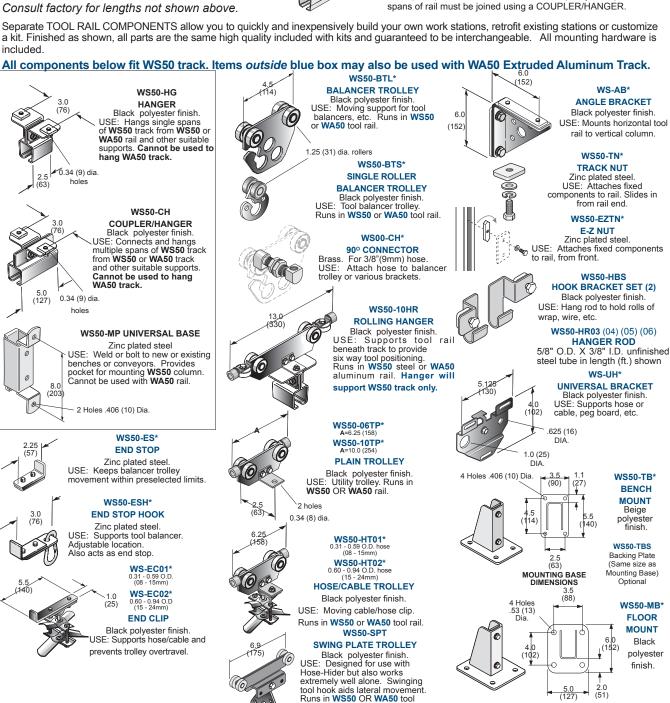
# COMPONENTS

STEEL TRACK, 50 lb.

RAIL LENGTH	MODEL
ft. (m)	NUMBER
3.0 (0.9)	WS50-T03
4.0 (1.2)	WS50-T04
5.0 (1.5)	WS50-T05
6.0 (1.8)	WS50-T06
7.0 (2.1)	WS50-T07
8.0 (2.4)	WS50-T08
9.0 (2.7)	WS50-T09
10.0 (3.0	WS50-T10
12.0 (3.6)	WS50-T12

For loads up to 50 lbs.(22.5 kg) 1.575 (40) **WS50 TRACK** Beige polyester finish. USE: Heavy duty tool rail for 12 1.575 horizontal supports and vertical ga. (40) columns; up to 50 lbs.(22.5 kg) maximum load. NOTE: Horizontal track must have a support hanger every 6.0 ft.(1.8m) to maintain maximum rated capacity. Multiple

Consult factory for lengths not shown above

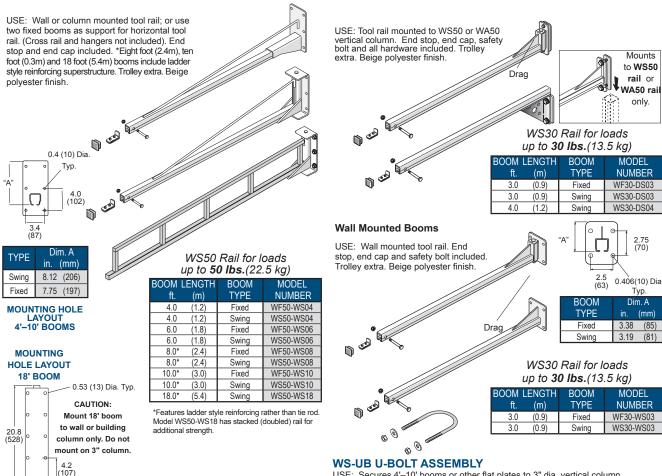






# **BOOMS and MOUNTING BASES**

# COMPONENTS



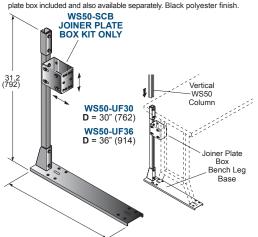
USE: Secures 4'-10' booms or other flat plates to 3" dia. vertical column. Three are required to mount boom onto vertical column. Do not use for mounting 18' boom (#WS50-WS18). Zinc plated steel.

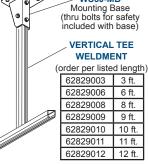
#### **Bases and Supports**

These bases are larger than those listed with the track components and are used primarily when a more rigid structure is desired. All bases include all hardware for mounting rail to base.



USE: Mounts workstation to bench by providing a "pocket" into which WS50 track may be fitted. Models for 30"(762) or 36"(914) deep benches. Universal hole pattern in foot plus adjustable "Joiner Plate Box" provide solid grip to the bench leg. Includes hardware required for mounting rail to base. Does not include hardware required to mount base to bench. Joiner plate box included and also available separately. Black polyester finish.

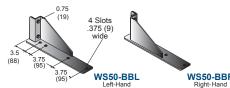




WS50-MB

#### WS50 VERTICAL HANGER SUPPORT **ASSEMBLY KIT**

Hanging a tool rail safely from an overhead structure may be the best way to put a workstation where it's needed. These kits consist of a 12" long cross rail section welded to a 3 ft., 6 ft. or 9 ft. vertical rail section and a WS50-MB Mounting Base. These 50 lb. capacity hangers are for use with WS50 steel track and are sold only as kits. Tool track must be supported every six feet to preserve 50 lb. capacity rating.



#### **TABLE BRACKETS**

USE: Mounts WS50 or WA50 vertical support columns to typical work bench. Provides greater rigidity when mounted to sheet metal tops then standard bases. For even greater strength, use model #WS50-BBS backing plate (optional) beneath bench top. Includes hardware for mounting rail to bracket. Does not include hardware for mounting base to bench. Black ployester finish



# SUPPORT CLAMP

WS50-SC-For WS50 (steel) Rail WA50-SC-For WA50 (Aluminum) Rail USE: Fasten rail to back of bench for added stability. Typically used with WS50-MB base. Black polyester finish.

WS60-SC-For WS60 (steel) Rail also available. Mounting dimensions differ from WS50-SC.



3.4(87)

# COMPONENTS

# ORGANIZE YOUR WORK SITE

Description

"A" size-18" Flexible Arm Mount w/10 pages (yellow pockets)

'A" size-18" Flexible Arm Mount w/20 pages (yellow pockets)

"A" size-18" Flexible Arm Mount w/30 pages (yellow pockets)

"B" size-18" Flexible Arm Mount w/10 pages (multi-color pockets)

'A" size-Wall Mount w/10 pages (yellow pockets)

"A" size-Wall Mount w/20 pages (yellow pockets)

'A" size-Wall Mount w/30 pages (yellow pockets)

"B" size-Wall Mount w/10 pages (yellow)

# INFORMATION, DOCUMENTATION & INSPECTION STANDS



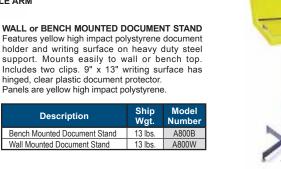
DOCUMENT PROTECTORS Available with either "A" size 8.5" x 11 (portrait orientation) or "B" size 17" X 11" landscape orientation) sheet protectors. Steel protector frames are mounted on 18' flexible arms with clamp that can be easily affixed to desk top or table. Wall mount units include mounting screws and anchors.

DOCUMENT PROTECTOR **FLEXIBLE ARM** 

> Features yellow high impact polystyrene document holder and writing surface on heavy duty steel support. Mounts easily to wall or bench top. Includes two clips. 9" x 13" writing surface has

Panels are yellow high impact polystyrene.

Description	Ship Wgt.	Model Number
Bench Mounted Document Stand	13 lbs.	A800B
Wall Mounted Document Stand	13 lbs.	A800W





STAND

#### **DOCUMENT STAND**

Features two 20"W x 13"H panels; a document display board with two clips above an inclined writing surface. Writing surface includes two clips and hinged, clear document protector. Heavy-duty steel stand has three glides. Writing surface is 38" high. Overall height 61'

5 lbs

6 lbs

7 lbs

5 lbs

6 lbs

7 lbs

7 lbs

7 lbs

A700

A720

A730

A700W

A720W

A730W

A700B

A700BW

Panels are yellow high impact polystyrene.

Also available as wall mounted unit similar to A800W, left.

Description	Ship Wgt.	Model Number
Floor Mounted Document Stand	27 lbs.	A900S
Wall Mounted Document Stand	25 lbs.	A900SW



WALL MOUNTED

#### **DOCUMENT STAND**

Larger than the A900S (above, right) features two 26"W x 13"H panels. It is also available in a Deluxe version. All models have a writing surface with two clips and hinged, clear document protector. Standard model has three glides. Deluxe model includes three locking casters, lockable tray beneath writing panel, side tray, solar powered calculator, and clear hinged acrylic panels on display panel. Writing surface is 38" high. Overall height 61".

Panels are yellow high impact polystyrene. Wall mounted unit also available.

Description	Ship Wgt.	Model Number
Standard Document Stand	28 lbs.	A1000S
Deluxe Document Stand	34 lbs	A1000D
Wall Mounted Document Stand	26 lbs	A1000SW



DOCUMENT STAND

# Even larger **DOCUMENT STAND**

Features 26"W x 20"H back display panels designed for "C" sized drawings. Writing panel is 26" x 13" Includes writing surface with two clips and hinged, clear document protector. Stand has three glides.

Writing surface is 38" high. Overall height 61". Panels are yellow high impact polystyrene.

Description		Model Number
Standard "C" Size Document Stand	30 lbs.	A1500S



**STAND** 

#### INFORMATION STAND

Features a 4" deep drop pocket with 3-ring binder mechanism that will hold up to 250 sheets. Binder pocket has hinged, clear plastic cover. 26"W x 13"H inclined writing surface includes two clips and hinged, clear document protector. Standard model includes steel pedestal with glides. Deluxe unit includes casters, lockable tray, and side tray. Writing surface is 38" high. Also available with "landscape" drop pocket panel, shown at right (panel is vertical so pages are displayed horizontally). Panels are yellow high impact polystyrene.

Description	Ship Wgt.	Model Number
Standard Information Stand	31 lbs.	A1200S
Deluxe Information Stand	45 lbs	A1200D
Landscape Information Stand	35 lbs.	A1210S

"The configuration of these workstands is a registered trademark of Hubbell, Inc



#### MESSAGE BOARD

Features 24"W x 18"H dry erase board above an inclined writing surface. Writing surface includes two clips and hinged, clear document protector.

Heavy-duty steel stand has three glides Writing surface is 38" high.

Overall height 61"

Panels are yellow high impact polystyrene.

Description	Ship Wgt.	Model Number
Message Board with Floor Stand	31 lbs.	A1600S





# ORGANIZE YOUR WORK SITE

# Qualtech

# INFORMATION, DOCUMENTATION & INSPECTION STANDS



#### **CATALOG DISPLAY STAND**

Makes and ideal reference center for product catalogs, specification sheets or repair manuals. Angled lower panel has twelve 1" three ring binder sections. Back 13" x 26" display panel includes two clips. Sturdy steel stand has dual columns and four feet with glides. Panels are yellow high-impact polystyrene.

	Description	Ship Wgt.	Model Number
	Catalog Display Stand	48 lbs.	A1700S
_			



# DOCUMENT STAND with FLAT WRITING PANEL

Available in two sizes.

Model A2000S has two 26"W x 13"H panels. Model A2500S features a 26"W x 20"H back panel for "C" size documents and 26" x 13" writing panel. Both models have a writing surface with two clips and hinged, clear document protector. There are two clips on the back panel. Stand has three glides. Writing surface is 38" high.

Panels are yellow high impact polystyrene.

Description		Model Number
Standard 13" x 26" Document Stand	28 lbs	A2000S
Standard 20" x 26" Document Stand	30 lbs.	A2500S



#### **INSPECTION STAND**

Inspection Stand

Features recessed 9" x 12" cushioned parts tray and 12" x 12" writing surface plus a 13" x 26" back display panel with two clips.

Non-adjustable stand has three glides.

Writing surface is 38" high.

Panels are yellow high impact polystyrene

			-
Descrip	tion	Ship	Model



#### INSPECTION STAND

Includes a 20" x 26" cushioned work surface and 13" x 26" back display panel with two clips. Deluxe version includes four locking casters, lockable utility drawer, and clear hinged acrylic panels on display panel. Standard model has four glides. Both models have dual column stand.

Panels are yellow high impact polystyrene.

Ship Wgt.	Model Number
32 lbs.	A2700S
36 lbs.	A2700D
	Wgt. 32 lbs.



# BLUEPRINT DISPLAY STAND plus WRITING SURFACE

Features a 36"W x 26"H display panel with three clips for "D" size prints. Inclined writing surface includes two clips and hinged and clear document protector. Standard model has four glides on steel stand. Deluxe model includes four casters, lockable tray, side tray, solar powered calculator and clear acrylic cover hinged to back panel.

Panels are yellow high impact polystyrene.

Description	Ship Wgt.	Model Number
Standard Blueprint Display Stand	76 lbs	A4500S
Deluxe Blueprint Display Stand	85 lbs.	A4500D



#### DELUXE LARGE DISPLAY INSPECTION STAND

Features 36"W x 26"H display panel with nine clips and 20" x 26" cushioned flat work surface. Deluxe model (standard model is not available) includes four casters on dual column stand and lockable utility drawer.

Panels are yellow high impact polystyrene.

Description	Ship Wgt.	Model Number
Large Display Inspection Stand	101 lbs.	A2750D



#### **BLUEPRINT DISPLAY STAND**

Features 36"W x 26"H panel with three clips for "D" size prints. Base has five legged steel stand with glides.

Panel is yellow high impact polystyrene

Description	Ship Wgt.	Model Number
Blueprint Display Stand	40 lbs.	A4000S



#### DARTO CARRY

Features 36"L x 26"W x 1 3/4"D tray with cushioned liner. Heavy-duty stand with four locking casters. Tray is yellow high impact polystyrene.

Ship Wgt.	Model Number
0 lbs.	A4600S
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