

# Table of Contents

<b>Cable and Accessories</b>	<b>3</b>
Internal components	4
Standards and insulation color key	5
Super-Flex® round jute traveling cable	6
Super-Flex® round steel traveling cable	9
Round traveling cable accessories	14
Flat traveling cable	18
Flat traveling cable accessories	21
Super-Duct® hoistway cable	24
Stationary cable and hook up wire	26
Signal and data communications cable	29
Rail, ferrules and WAGO® connectors	30
Connectorization services	31
<b>Wireway and Electrical</b>	<b>32</b>
Metal wireway	33
Hinged metal wireway	38
Electrical Metallic Tubing (EMT) and fittings	40
EMT conduit bodies and EMT-to-Flex couplings	42
Flexible conduit and fittings	43
Liquid-tight flexible conduit and fittings	44
Threaded fittings for rigid pipe	45
Electrical boxes	46
Junction boxes and knockout punches/plugs	48
<b>Wire Rope, Compensation Cable and Accessories</b>	<b>49</b>
Wire rope ordering information	50
Wire rope selection guide	52
Imperial-sized wire rope	53
Metric-sized wire rope	55
Wire rope with electrical conductors	57
Rope brakes	58
Wedge sockets	59
Wedge socket accessories – isolation bushings, components, splices, bands and clips	60
Selector relating cable	62
Acculube™ automatic lubricators and DrakaLube® lubricant	63
Rope tensioning system	64
Load weighing device control unit and individual sensors	65
Load weighing devices	66
Whisper-Flex® compensation cable	68
Steady-Flex® compensation cable	69
Whisper-Flex and Steady-Flex installation kits	70
Damping devices	72
Pullout switch	74

**Components and Systems 75**

Seismic detection equipment 76

Rail mounting hardware 77

Deflecting sheaves 79

Hydraulic valves, fittings, reducers and gauges 80

Hydraulic accessories 81

Light curtains 83

**Tools and Hardware 84**

Jacket strippers 85

Wire strippers 86

Crimpers and cutters 87

Wire rope cutting and measuring 88

Compensation cable stripping kits 89

Swaging tools and punches 89

Conduit benders 89

WAGO tools 89

Wire and reel organization 90

Guide rail alignment gauges 90

Drill bits and saw blades 91

Electrical hardware 92

Fasteners 94

Strut 95

**Maintenance and Safety 96**

LED elevator lighting systems 97

LED escalator demarcation lights 100

Inspection stations and stop switches 101

Pendant stations 102

Top of Car (TOC) safety rails 103

Hoistway safety (HOSS™) 104

Door gibs 105

Spirators 106

Alarm bells 107

Barricades, grips and signage 108

Pit safety, car escape latch switches and exhaust fans 109

Cameras 110

Governors 111

**Electronics and Modernization 112**

Limit switches 113

Magnet switches 115

Electro-optical components and tools 116

Terms and Conditions / Warranty 118

Index 119

# Cable and Accessories



Internal components	4	Flat traveling cable accessories	21
Standards and insulation color key	5	Super-Duct® hoistway cable	24
Super-Flex® round jute traveling cable	6	Stationary cable and hook up wire	26
Super-Flex® round steel traveling cable	9	Signal and data communications cable	29
Round traveling cable accessories	14	Rail, ferrules and WAGO® connectors	30
Flat traveling cable	18	Connectorization services	31

# Internal Components

## FOR DRAKA ELEVATOR CABLES

### Special constructions are available!

Draka offers Type EO cables for wet/hazardous locations, halogen-free cables and custom configurations.

Contact your local Draka representative for details.

### Traveling and hoistway cables

**Jacket** – Black, 70° C polyvinyl chloride specifically compounded for flexibility and abrasion resistance. The finished cable complies with ANSI/ASTM, UL and CSA standards. It also meets EN or JIS requirements as needed and the UL VW-1 or UL-1581 and CSA FT1 flame requirements. Operating temperatures range from -15° C to +70° C. Optional rugged polyurethane (PUR) jackets are available upon request. Operating temperatures for PUR cables range from -20° C to +70° C. Please contact Draka engineering if you are planning to operate an elevator at temperatures below 0° C.

Any traveling cable can be custom-made with halogen-free materials.

**Binder** – Helically-wound synthetic fiber provides maximum strength.

**Braid** – A textile braid is applied over the core assembly with 95% coverage.

**Stranded Conductors** – Bunch-stranded bare soft drawn copper. AWG sizes comply with ANSI/ASTM B174, ANSI/ASTM B3 and with Type ETT requirements of UL 62 and CSA C22.2 No. 49. Metric sizes meet the intent of EN50214, JIS 3408 and AS.

**Insulation** – 70° C, colored, flame-retardant polyvinyl chloride to exceed ETT requirements of UL 62 and CSA C22.2 No. 49. Also complies with EN and JIS requirements for elevator control cables.

**Identification** – Each insulated conductor and shielded pair is positively identified by an insulation color or a combination of insulation color and numerical markings appearing four times/foot • thirteen times/meter.

**Steel Support for Round Traveling Cables** – Preformed, flexible, low torsion, zinc-coated, steel wire rope in accordance with applicable portions of Military Specification MIL-W-83420. The steel support is insulated with 70° C flame-retardant polyvinyl chloride (Super-Flex® cables have the steel covered with a rayon or cotton braid). Complies with ANSI/ASTM, UL and CSA requirements.

**Steel Support for Flat Traveling Cables** – Preformed, flexible, low torsion, zinc-coated, steel wire rope in accordance with applicable portions of Military Specification MIL-W-83420. Complies with ANSI/ASTM, UL and CSA requirements.

**Shielded Pairs** – 20 AWG insulated conductors, paired together with a short lay twist, shielded with 36 AWG bare copper braid (85% coverage). Laminated foil shielded pairs are also available. They are jacketed with colored, flame-retardant 70° C polyvinyl chloride and comply with international requirements.

**Jute Filler** – Individual core interstice fillers distribute interlayer pressure and reduce conductor friction. All fillers are electrical-grade dry jute.

### Regarding UTP communications cables

NEC code 620.12 A does not allow any conductor smaller than 20 AWG within traveling cable. Therefore, Cat5, Cat5e, and Cat6 UTP are not an option for traveling cable.

### Coaxial cable specifications

**RG6/U Coaxial Cable** – Primarily for CCTV applications. 75 ohm, UL listed, CSA certified. Center conductor is 20 AWG stranded copper insulated with cellular polyethylene, wrapped with aluminum tape, braided with tinned copper and jacketed with flame-retardant PVC.

Attenuation is 2.13 dB/100m @ 10 MHz and 5.08 dB/100m @ 50 MHz. Capacitance measures 56.7 pf/m.

**RG11/U Coaxial Cable** – Optional 75 ohm, UL listed. Center conductor is 14 AWG • 2.0 mm<sup>2</sup> soft drawn stranded copper insulated with cellular polyethylene, braided with bare copper for 97% coverage, and jacketed with flame-retardant PVC.

Attenuation is 2.16 dB/100m @ 10 MHz and 4.26 dB/100m @ 50 MHz. Capacitance measures 56.7 pf/m.

### Fiber optic specifications

62.5/125 micron (OM1) tight-buffered multimode optical fiber, covered with high-strength aramid yarn and jacketed with flame-retardant polyvinyl chloride.

Maximum attenuation is 3.75 dB/km @ 850 nm and 1.5 dB/km @ 1300 nm.

Minimum bandwidth is 160 MHz•km @ 850 nm and 500 MHz•km @ 1300 nm.

Other optical fibers are available including 50/125 micron (OM2) multimode, 50/125 micron (OM3) laser-optimized multimode, and single mode.

### Super-Flex round cable cross-section (typical)

PVC jacket – halogen-free compounds available

Braid and binder

Stranded conductors

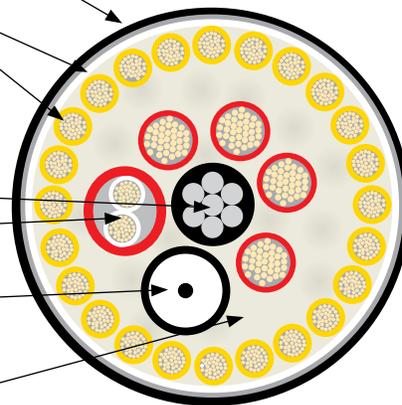
- 18 AWG
- 16 AWG
- 14 AWG
- 12 AWG

Steel support

Shielded pair  
20 AWG

RG6/U coaxial  
RG11/U coaxial and  
optical fiber are  
also available

Jute filler



### Flat cable cross-section (typical)

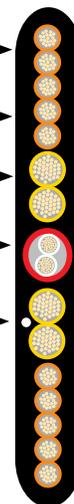
PVC jacket – halogen-free styles available

Stranded conductors

- 18 AWG
- 16 AWG
- 14 AWG

Shielded pair  
20 AWG

Ripcord



# Standards and Insulation Color Key

## FOR DRAKA ELEVATOR CABLES

### Standards and certifications



**ISO 9001**  
Draka Elevator's Rocky Mount manufacturing and distribution center were assessed and accredited for ISO 9001 Quality Management System by Lloyd's Register of Quality Assurance Limited.



**ISO 14001**  
Draka has been accredited for ISO 14001 Environmental management Systems by Lloyd's Register of Quality Assurance Limited.



**OHSAS 18001**  
Draka has been audited and certified for occupational health and safety management systems by Lloyd's Register of Quality Assurance Limited.



**UL Listed**  
Listed cables are approved for use in the US and meet all pertinent requirements of Underwriter's Laboratories.



**NEC Compliant**  
Compliant cables meet all pertinent requirements of the 2011 National Electric Code.



**CSA Certified**  
Certified cables meet all pertinent requirements of the Canadian Standards Association.



**US Dept. of Labor Mine Safety**  
Approved cables meet all pertinent requirements of the US DOL for mine safety.



**Bureau Veritas**  
ETT round traveling cables are certified and approved for marine and offshore applications.

**Pennsylvania Bureau of Deep Mine Safety**  
Approved cables meet all pertinent requirements of the PBDMS.

**IEC Compliant**  
Compliant cables are approved for use in Europe and meet IEC requirements.

**JIS (Japanese Standards)**  
Compliant cables are available upon request.  
Please consult all local regulations and codes prior to ordering cables. Some Draka Elevator cables are manufactured to meet the specific codes of a country or region and may not be applicable for your application.

### Color codes

#### 14 AWG conductors

Conductor Number(s)	Insulation Color
1*	Black
2*	White
3*	Green
4 to 10	Lavender
11 to 20	Orange
21 to 30	Tan

\*No printed numbers.

If the cable has only 4 conductors, the #4 lavender is not numbered.

#### 16 AWG and 18 AWG conductors

Conductor Number(s)	Insulation Color
1 to 10	Yellow
11 to 20	Orange
21 to 30	Tan
31 to 40	Blue
41 to 50	Red
51 to 60	Grey
61 to 70	Black
71 to 80	Pink
81 to 90	Brown

#### Shielded pair 20 AWG

Pair Number(s)	Jacket Color	Insulation Color
1	Red	Red/White
2	Black	Red/White
3	Yellow	Red/White
4	Orange	Red/White
5	Tan	Red/White
6	Blue	Red/White
7	Grey	Red/White
8	Pink	Red/White
9	Red	Black/White
10	Black	Black/White
11	Yellow	Black/White
12	Orange	Black/White
13	Tan	Black/White
14	Blue	Black/White
15	Grey	Black/White
16	Pink	Black/White

#### AWG to metric conversions

AWG	Metric equivalent
12 AWG	3.31 mm <sup>2</sup> - 65 strands
14 AWG	2.08 mm <sup>2</sup> - 41 strands
16 AWG	1.31 mm <sup>2</sup> - 26 strands
18 AWG	0.82 mm <sup>2</sup> - 16 strands
20 AWG	0.52 mm <sup>2</sup> - 10 strands

# Super-Flex® Traveling Cable Type ETT/300V

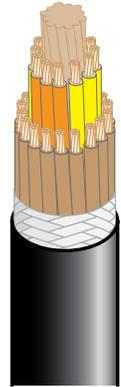
JUTE CENTER – UL LISTED, CSA CERTIFIED, NEC/CEC COMPLIANT – LIFETIME WARRANTY

## Power and signal conductors



Part Number	Product Code	Number/Size of Conductors	Max. Hang Length feet • meters	Cable Nom. OD inches • mm	Cable Net Weight lbs/kft • kg/km
18-406-03	J 6-18 SP <sup>†</sup>	6 / 18 AWG Insulation colors: green, yellow, blue, red, black, white	200 • 61	0.43 • 10.9	96 • 143
18-410-01	J 10-18	10 / 18 AWG	200 • 61	0.54 • 13.7	160 • 238
18-416-01	J 16-18	16 / 18 AWG	200 • 61	0.64 • 16.3	219 • 326
18-420-01	J 20-18	20 / 18 AWG	200 • 61	0.71 • 18.0	266 • 396
18-424-01	J 24-18	24 / 18 AWG	200 • 61	0.73 • 18.5	304 • 452
18-430-01	J 30-18	30 / 18 AWG	200 • 61	0.82 • 20.8	378 • 562
18-440-01	J 40-18	40 / 18 AWG	200 • 61	0.92 • 23.4	475 • 707

<sup>†</sup>“SP” denotes special color coding and/or conductor numbering.



## Shielded pairs



Part Number	Product Code	Number/Size* of Conductors	Max. Hang Length feet • meters	Cable Nom. OD inches • mm	Cable Net Weight lbs/kft • kg/km
18-102-28	JCC 4x20SH	4 shielded pairs / 20 AWG	200 • 61	0.79 • 20.1	270 • 402
18-008-14	JCC 8x20SH	8 shielded pairs / 20 AWG	200 • 61	1.00 • 25.4	420 • 625



Use these tools to prepare Super-Flex traveling cable. See pages 85 - 87 for details.

#36-060 FlexiPeeler™  
round cable stripper



#36-146 Super Peeler  
round cable stripper



#36-177 Sock Slicer™



#17-05-0001 QuickStrip  
wire stripper



#36-219 Automatic  
wire stripper



#37-177 Manual  
wire stripper



This catalog shows a sample of product offering. Please call if you require a custom design.

# Super-Flex® Traveling Cable Type ETT/300V

JUTE CENTER – UL LISTED, CSA CERTIFIED, NEC/CEC COMPLIANT – LIFETIME WARRANTY

## Power, signal and shielded pairs



Part Number	Product Code	Number/Size of Conductors	Max. Hang Length feet • meters	Cable Nom. OD inches • mm	Cable Net Weight lbs/kft • kg/km
18-017-02	JC 17	3 / 16 AWG 8 / 18 AWG 3 shielded pairs / 20 AWG	200 • 61	0.95 • 24.1	350 • 521
18-027-02	JC 27	3 / 14 AWG 20 / 18 AWG 2 shielded pair / 20 AWG	200 • 61	0.94 • 23.8	466 • 693
18-322-05	JC 33 SP <sup>†</sup>	3 / 14 AWG 22 / 18 AWG 4 shielded pair / 20 AWG	200 • 61	1.23 • 31.2	719 • 1070
18-431-02	JC 37	4 / 14 AWG 31 / 18 AWG 1 shielded pair / 20 AWG	200 • 61	1.00 • 2.54	672 • 1000
18-038-02	JC 38 W	12 / 14 AWG 18 / 18 AWG 4 shielded pair / 20 AWG	200 • 61	1.25 • 31.8	806 • 1199
18-838-02	JC 38 SP <sup>†</sup>	8 / 14 AWG 24 / 18 AWG 3 shielded pair / 20 AWG	200 • 61	1.25 • 31.8	777 • 1157
18-842-02	JC 42 SP-HI <sup>†</sup>	26 / 18 AWG 8 shielded pair / 20 AWG	200 • 61	1.16 • 29.5	700 • 1042
18-044-05	JC 44 SP <sup>†</sup>	8 / 14 AWG 30 / 18 AWG 3 shielded pair / 20 AWG	200 • 61	1.32 • 33.5	797 • 1186
18-032-99	JC 45	4 / 14 AWG 39 / 18 AWG 1 shielded pair / 20 AWG	200 • 61	0.99 • 25.1	617 • 918
18-045-02	JC 45 D	4 / 14 AWG 31 / 18 AWG 5 shielded pair / 20 AWG	200 • 61	1.31 • 33.3	805 • 1198
18-847-02	JC 46	8 / 14 AWG 30 / 18 AWG 4 shielded pair / 20 AWG	200 • 61	1.26 • 32.0	825 • 1228
18-445-02	JC 51	4 / 14 AWG 45 / 18 AWG 1 shielded pair / 20 AWG	200 • 61	1.20 • 30.5	757 • 1126
18-051-02	JC 51 D	4 / 14 AWG 41 / 18 AWG 3 shielded pair / 20 AWG	200 • 61	1.28 • 32.0	880 • 1309
18-752-02	JC 52-0/SP <sup>†</sup>	10 / 14 AWG 42 / 18 AWG	200 • 61	1.22 • 31.0	840 • 1250
18-055-02	JC 55 D	4 / 14 AWG 41 / 18 AWG 5 shielded pair / 20 AWG	200 • 61	1.39 • 35.3	917 • 1365



<sup>†</sup>“SP” denotes special color coding and/or conductor numbering.

RG11/U coax and multimode optical fiber are available as options. See page 4 for specifics on these cables.

Use these tools to prepare Super-Flex traveling cable. See pages 85 - 87 for details.

#36-060 FlexiPeeler™  
round cable stripper



#36-146 Super Peeler  
round cable stripper



#36-177 Sock Slicer™



#17-05-0001 QuickStrip  
wire stripper



#36-219 Automatic  
wire stripper



#37-177 Manual  
wire stripper



This catalog shows a sample of product offering. Please call if you require a custom design.

# Super-Flex® Traveling Cable Type ETT/300V

JUTE CENTER – UL LISTED, CSA CERTIFIED, NEC/CEC COMPLIANT – LIFETIME WARRANTY

## Power, signal and shielded pairs



Part Number	Product Code	Number/Size of Conductors	Max. Hang Length feet • meters	Cable Nom. OD inches • mm	Cable Net Weight lbs/kft • kg/km
18-057-02	JC 57	6 / 14 AWG 45 / 18 AWG 3 shielded pair / 20 AWG	200 • 61	1.39 • 35.3	943 • 1403
18-059-02	JC 59	4 / 14 AWG 49 / 18 AWG 3 shielded pair / 20 AWG	200 • 61	1.22 • 30.1	872 • 1298
18-454-02	JC 60	4 / 14 AWG 54 / 18 AWG 1 shielded pair / 20 AWG	200 • 61	1.26 • 32.0	855 • 1272
18-456-02	JC 66	4 / 14 AWG 56 / 18 AWG 3 shielded pair / 20 AWG	200 • 61	1.33 • 33.8	955 • 1421
18-X66-02	JCX 66-6	15 / 14 AWG • 2.0 32 / 18 AWG • 0.75 9 shielded pair / 20 AWG 1 coax / RG6/U	200 • 61	1.68 • 42.7	1345 • 2002
18-073-02	JC 73	6 / 14 AWG 61 / 18 AWG 3 shielded pair / 20 AWG	200 • 61	1.35 • 34.3	1042 • 1551
18-173-05	JC 73 0 <sup>†</sup>	12 / 14 AWG 53 / 18 AWG 4 shielded pair / 20 AWG	200 • 61	1.43 • 39.3	1118 • 1664
18-174-05	JC 74 0 <sup>†</sup>	12 / 14 AWG 53 / 18 AWG 4 shielded pair / 20 AWG 1 coax / RG6/U	200 • 61	1.47 • 37.3	1200 • 1786
18-076-02	JC 76	66 / 18 AWG 5 shielded pair / 20 AWG	200 • 61	1.42 • 36.1	1017 • 1513
18-764-05	JC 79 SP <sup>†</sup>	7 / 14 AWG 64 / 18 AWG 4 shielded pair / 20 AWG NOTE: 14 AWG conductor #7 is dark blue	200 • 61	1.45 • 36.8	1200 • 1786
18-476-02	JC 86	4 / 14 AWG 76 / 18 AWG 3 shielded pair / 20 AWG	200 • 61	1.39 • 35.3	1128 • 1679
18-490-02	JC 90	4 / 14 AWG 76 / 18 AWG 5 shielded pairs / 20 AWG	200 • 61	1.49 • 37.8	1247 • 1856
18-096-02	JC 96	86 / 18 AWG 5 shielded pair / 20 AWG	200 • 61	1.42 • 36.1	1180 • 1756
18-496-02	JC 96C	4 / 14 AWG 90 / 18 AWG 1 shielded pair / 20 AWG	200 • 61	1.42 • 35.8	1240 • 1846



<sup>†</sup>“SP” or “0” denotes special color coding and/or conductor numbering.

RG11/U coax and multimode optical fiber are available as options. See page 4 for specifics on these cables.

Use these tools to prepare Super-Flex traveling cable. See pages 85 - 87 for details.

#36-060 FlexiPeeler™  
round cable stripper



#36-146 Super Peeler  
round cable stripper



#36-177 Sock Slicer™



#17-05-0001 QuickStrip  
wire stripper



#36-219 Automatic  
wire stripper



#37-177 Manual  
wire stripper



This catalog shows a sample of product offering. Please call if you require a custom design.

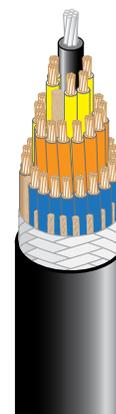
# Super-Flex® Traveling Cable Type ETT/300V

STEEL CENTER – UL LISTED, CSA CERTIFIED, NEC/CEC COMPLIANT – LIFETIME WARRANTY

## Power and signal conductors



Part Number	Product Code	Number/Size of Conductors	Steel Core Dia. inches • mm	Max. Hang Length <sup>1</sup> feet • meters	Cable Nom. OD inches • mm	Cable Net Weight lbs/kft • kg/km
18-004-11	WS 4-14	4 / 14 AWG	3/32 • 2.4	900 • 275	0.57 • 14.4	166 • 247
18-008-11	WS 8-14	8 / 14 AWG	1/8 • 3.2	900 • 275	0.70 • 17.8	293 • 436
18-015-11	WS 15-14	15 / 14 AWG	1/8 • 3.2	900 • 275	0.93 • 23.6	487 • 725
18-310-11	WS 10-18	10 / 18 AWG	3/32 • 2.4	900 • 275	0.56 • 14.2	175 • 260
18-412-11	WS 12-18	12 / 18 AWG	3/32 • 2.4	900 • 275	0.65 • 16.5	280 • 417
18-420-11	WS 20-18	20 / 18 AWG	3/32 • 2.4	804 • 245	0.71 • 18.0	286 • 426
18-430-11	WS 30-18	30 / 18 AWG	1/8 • 3.2	900 • 275	0.82 • 20.8	417 • 620
18-440-11	WS 40-18	40 / 18 AWG	1/8 • 3.2	900 • 275	0.92 • 23.4	509 • 757
18-450-11	WS 50-18	50 / 18 AWG	1/8 • 3.2	795 • 242	1.01 • 25.7	629 • 936



## 600V power conductors



Part Number	Product Code	Number/Size of Conductors	Steel Core Dia. inches • mm	Max. Hang Length <sup>1</sup> feet • meters	Cable Nom. OD inches • mm	Cable Net Weight lbs/kft • kg/km
18-104-11	WS 4-12	4 / 14 AWG	1/8 • 3.2	900 • 275	0.74 • 18.8	279 • 415



## Shielded pairs only



Part Number	Product Code	Number/Size of Conductors	Steel Core Dia. inches • mm	Max. Hang Length <sup>1</sup> feet • meters	Cable Nom. OD inches • mm	Cable Net Weight lbs/kft • kg/km
18-002-15	WSCC 4x20 SH	4 shielded pair / 20 AWG	1/8 • 3.2	900 • 275	0.79 • 20.0	330 • 491
18-003-15	WSCC 6x20 SH	6 shielded pair / 20 AWG	1/8 • 3.2	900 • 275	0.85 • 21.6	365 • 543
18-004-15	WSCC 8x20 SH	8 shielded pair / 20 AWG	5/32 • 4.0	900 • 275	1.00 • 25.4	490 • 729
18-403-15	WSCC 6x18 SH	6 shielded pair / 18 AWG	5/32 • 4.0	900 • 275	0.93 • 23.6	418 • 622
18-407-15	WSCC 14x18 SH	14 shielded pair / 18 AWG	5/32 • 4.0	714 • 218	1.44 • 36.6	981 • 1460

<sup>1</sup>For longer hang length applications, call with your requirements.

RG11/U coax and multimode optical fiber are available as options. See page 4 for specifics on these cables.



Use these tools to prepare Super-Flex traveling cable. See pages 85 - 87 for details.

#36-060 FlexiPeeler™  
round cable stripper



#36-146 Super Peeler  
round cable stripper



#36-177 Sock Slicer™



#17-05-0001 QuickStrip  
wire stripper



#36-219 Automatic  
wire stripper



#36-178 Steel  
core cutter



This catalog shows a sample of product offering. Please call if you require a custom design.

# Super-Flex® Traveling Cable Type ETT/300V

STEEL CENTER – UL LISTED, CSA CERTIFIED, NEC/CEC COMPLIANT – LIFETIME WARRANTY

## Power, signal and shielded pairs



Part Number	Product Code	Number/Size of Conductors	Steel Core Dia. inches • mm	Max. Hang Length <sup>1</sup> feet • meters	Cable Nom. OD inches • mm	Cable Net Weight lbs/kft • kg/km
18-011-12	CWS 11	6 / 12 AWG 5 / 14 AWG	1/8 • 3.2	900 • 275	0.97 • 24.6	512 • 762
18-022-12	CWS 22	10 / 10 AWG 12 / 12 AWG	1/4 • 6.4	900 • 275	1.50 • 38.2	1437 • 2138
18-020-12	CWS 20	14 / 18 AWG 3 shielded pairs / 20 AWG	3/32 • 2.4	612 • 187	0.95 • 24.1	376 • 560
18-421-12	CWS 27	4 / 14 AWG 21 / 18 AWG 1 shielded pair / 20 AWG	5/32 • 4.0	900 • 275	0.96 • 24.4	500 • 744
18-431-12	CWS 37	4 / 14 AWG 31 / 18 AWG 1 shielded pair / 20 AWG	5/32 • 4.0	900 • 275	1.18 • 30.0	700 • 1042
18-044-12	CWS 44	14 / 14 AWG 24 / 18 AWG 3 shielded pairs / 20 AWG	5/32 • 4.0	753 • 230	1.33 • 33.8	929 • 1382
18-045-12	CWS 45 D	4 / 14 AWG 31 / 18 AWG 5 shielded pairs / 20 AWG	5/32 • 4.0	776 • 237	1.31 • 33.3	902 • 1342
18-A46-12	CWS 46	8 / 14 AWG 30 / 18 AWG 4 shielded pairs / 20 AWG	5/32 • 4.0	769 • 234	1.32 • 33.5	910 • 1354
18-441-12	CWS 47	4 / 14 AWG 41 / 18 AWG 1 shielded pair / 20 AWG	5/32 • 4.0	900 • 275	1.20 • 30.5	771 • 1147
18-47L-12	CWS 47 LO	11 / 14 AWG (conductors are numbered 1 to 11) 22 / 18 AWG (conductors are numbered 1 to 22) 7 shielded pairs / 20 AWG (red/white pairs in red, black, yellow orange, tan, blue and gray jackets)	5/32 • 4.0	695 • 212	1.40 • 35.6	1012 • 1498
18-648-12	CWS 56	6 / 14 AWG 48 / 18 AWG 1 shielded pair / 20 AWG	5/32 • 4.0	826 • 252	1.20 • 30.5	847 • 1260
18-L58-12	CWS 58 LO	4 / 14 AWG (conductors are numbered 1 to 4) 40 / 18 AWG (conductors are numbered 1 to 40) 7 shielded pair / 20 AWG (red/white pairs in red, black, yellow, orange, tan, blue and gray jackets)	5/32 • 4.0	622 • 190	1.51 • 38.4	1125 • 1674



<sup>1</sup>For longer hang length applications, call with your requirements.

RG11/U coax and multimode optical fiber are available as options. See page 4 for specifics on these cables.

Use these tools to prepare Super-Flex traveling cable. See pages 85 - 87 for details.

#36-060 FlexiPeeler™  
round cable stripper



#36-146 Super Peeler  
round cable stripper



#36-177 Sock Slicer™



#17-05-0001 QuickStrip  
wire stripper



#36-219 Automatic  
wire stripper



#36-178 Steel  
core cutter



This catalog shows a sample of product offering. Please call if you require a custom design.

# Super-Flex® Traveling Cable Type ETT/300V

STEEL CENTER – UL LISTED, CSA CERTIFIED, NEC/CEC COMPLIANT – LIFETIME WARRANTY

## Power, signal and shielded pairs



Part Number	Product Code	Number/Size of Conductors	Steel Core Dia. inches • mm	Max. Hang Length <sup>1</sup> feet • meters	Cable Nom. OD inches • mm	Cable Net Weight lbs/kft • kg/km
18-H58-12	CWS 58 HI	4 / 14 AWG (conductors are numbered 5 to 8 [dark blue]) 40 / 18 AWG (conductors are numbered 41 to 80) 7 shielded pair / 20 AWG (black/white pairs in red, black, yellow, orange, tan, blue and gray jackets)	5/32 • 4.0	622 • 190	1.51 • 38.4	1125 • 1674
18-059-12	CWS 59	4 / 14 AWG 49 / 18 AWG 3 shielded pair / 20 AWG	5/32 • 4.0	791 • 241	1.22 • 31.0	885 • 1317
18-X60-12	CWS 60	7 / 14 AWG 27 / 18 AWG 13 shielded pair / 20 AWG	1/4 • 6.4	900 • 275	1.58 • 40.1	1289 • 1918
18-869-12	CWS 69 SP	15 / 14 AWG 38 / 18 AWG 8 shielded pair / 20 AWG	5/32 • 4.0	518 • 158	1.58 • 40.1	1350 • 2009
18-661-12	CWS 71	6 / 14 AWG 61 / 18 AWG 2 shielded pair / 20 AWG	5/32 • 4.0	614 • 187	1.39 • 35.3	1140 • 1696
18-073-12	CWS 73	6 / 14 AWG 61 / 18 AWG 3 shielded pair / 20 AWG	5/32 • 4.0	608 • 185	1.39 • 35.3	1151 • 1709
18-X74-12	CWS 74	20 / 14 AWG 38 / 18 AWG 8 shielded pair / 20 AWG	5/32 • 4.0	491 • 150	1.54 • 39.1	1426 • 2122
18-469-12	CWS 75	4 / 14 AWG 69 / 18 AWG 1 shielded pair / 20 AWG	5/32 • 4.0	663 • 202	1.38 • 35.0	1056 • 1571
18-881-12	CWS 81	8 / 14 AWG 59 / 18 AWG 7 shielded pair / 20 AWG	5/32 • 4.0	524 • 160	1.60 • 40.6	1336 • 1988
18-X90-12	CWS 90	6 / 14 AWG 80 / 18 AWG 2 shielded pair / 20 AWG	5/32 • 4.0	555 • 169	1.46 • 37.1	1262 • 1878
18-X94-12	CWS 94	12 / 14 AWG 70 / 18 AWG 6 shielded pair / 18 AWG	1/4 • 6.4	900 • 275	1.68 • 42.7	1663 • 2475
18-096-12	CWS 96	86 / 18 AWG 5 shielded pair / 20 AWG	5/32 • 4.0	576 • 176	1.42 • 36.1	1215 • 1808



<sup>1</sup>For longer hang length applications, call with your requirements.

RG11/U coax and multimode optical fiber are available as options. See page 4 for specifics on these cables.

Use these tools to prepare Super-Flex traveling cable. See pages 85 - 87 for details.

#36-060 FlexiPeeler™  
round cable stripper



#36-146 Super Peeler  
round cable stripper



#36-177 Sock Slicer™



#17-05-0001 QuickStrip  
wire stripper



#36-219 Automatic  
wire stripper



#36-178 Steel  
core cutter



This catalog shows a sample of product offering. Please call if you require a custom design.

# Super-Flex® Traveling Cable Type ETT/300V

STEEL CENTER – UL LISTED, CSA CERTIFIED, NEC/CEC COMPLIANT – LIFETIME WARRANTY

Power, signal, shielded pairs and coax



Part Number	Product Code	Number/Size of Conductors	Steel Core Dia. inches • mm	Max. Hang Length <sup>1</sup> feet • meters	Cable Nom. OD inches • mm	Cable Net Weight lbs/kft • kg/km
18-X05-13	CSX 5	3 / 14 AWG 2 coax / RG6/U	5/32 • 4.0	900 • 275	1.13 • 28.7	500 • 742
18-309-13	CSX 9	4 / 14 AWG 2 shielded pairs / 20 AWG 1 coax / RG6/U	5/32 • 4.0	900 • 275	0.87 • 22.1	370 • 550
18-214-13	CSX 14	6 shielded pairs / 20 AWG 2 coax / RG6/U	5/32 • 4.0	900 • 275	1.06 • 26.9	570 • 848
18-X18-13	CSX 18-6	8 shielded pair / 20 AWG 2 RG6/U coax	5/32 • 4.0	900 • 275	1.24 • 31.5	710 • 1056
18-X36-13	CSX 36	17 / 14 AWG 8 shielded pairs / 20 AWG 3 coax / RG6/U	1/4 • 6.4	900 • 275	1.61 • 40.9	1271 • 1891
18-X46-13	CSX 46	11 / 14 AWG 22 / 18 AWG 6 shielded pairs / 20 AWG 1 coax / RG6/U	5/32 • 4.0	683 • 208	1.44 • 36.6	1025 • 1525
18-X47-13	CSX 47	4 / 14 AWG 30 / 18 AWG 6 shielded pairs / 20 AWG 1 coax / RG6/U	5/32 • 4.0	740 • 226	1.35 • 34.3	946 • 1408
18-247-13	CSX 47 0	8 / 14 AWG 30 / 18 AWG 4 shielded pair / 20 AWG 1 coax / RG6/U	5/32 • 4.0	642 • 196	1.41 • 35.8	1090 • 1622
18-H49-13	CSX 49 SP-HI <sup>††</sup>	20 / 18 AWG 14 shielded pair / 20 AWG 1 coax / RG6/U	5/32 • 4.0	659 • 201	1.50 • 38.1	1063 • 1582
18-X53-13	CSX 53	4 / 14 AWG 45 / 18 AWG 1 shielded pair / 20 AWG 2 coax / RG6/U	5/32 • 4.0	711 • 217	1.34 • 34.0	985 • 1466
18-X55-13	CSX 55	4 / 14 AWG 46 / 18 AWG 2 shielded pair / 20 AWG 1 RG59/U coax	5/32 • 4.0	792 • 241	1.21 • 30.7	883 • 1314
18-055-13	CSX 55 SP <sup>††</sup>	4 / 14 AWG 46 / 18 AWG 2 shielded pair / 20 AWG 1 coax / RG6/U	5/32 • 4.0	791 • 241	1.22 • 31.0	885 • 1317
18-855-13	CSX 55 SP <sup>††</sup> HI NUMBERS	26 / 18 AWG 14 shielded pair / 20 AWG 1 coax / RG6/U	5/32 • 4.0	649 • 198	1.50 • 38.1	1079 • 1606
18-X57-13	CSX 57	4 / 14 AWG 40 / 18 AWG 6 shielded pair / 20 AWG 1 coax / RG6/U	5/32 • 4.0	612 • 187	1.53 • 38.9	1144 • 1702
18-X61-13	CSX 61	7 / 14 AWG 27 / 18 AWG 13 shielded pair / 20 AWG 1 coax / RG6/U	1/4 • 6.4	900 • 275	1.65 • 41.9	1373 • 2043



<sup>1</sup>For longer hang length applications, call with your requirements.

<sup>††</sup>"SP" denotes special color coding and/or conductor numbering.

RG6/U is the standard coaxial cable used in CSX-series Super-Flex cables and the preferred cable for CCTV purposes.

RG11/U coax and multimode optical fiber are available as options. See page 4 for specifics on these cables.

This catalog shows a sample of product offering. Please call if you require a custom design.

# Super-Flex® Traveling Cable Type ETT/300V

STEEL CENTER – UL LISTED, CSA CERTIFIED, NEC/CEC COMPLIANT – LIFETIME WARRANTY

## Power, signal, shielded pairs and coax



Part Number	Product Code	Number/Size of Conductors	Steel Core Dia. inches • mm	Max. Hang Length <sup>1</sup> feet • meters	Cable Nom. OD inches • mm	Cable Net Weight lbs/kft • kg/km
18-X62-13	CSX 62 SP <sup>1†</sup>	12 / 14 AWG 29 / 18 AWG 10 shielded pair / 20 AWG 1 coax / RG6/U	5/32 • 4.0	525 • 160	1.59 • 40.4	1334 • 1985
18-X69-13	CSX 69	5 / 14 AWG 40 / 18 AWG 11 shielded pair / 20 AWG 2 RG6/U coax	1/4 • 6.4	900 • 275	1.57 • 39.9	1340 • 1994
18-175-13	CSX 75 0	20 / 14 AWG 38 / 18 AWG 8 shielded pair / 20 AWG 1 coax / RG6/U	1/4 • 6.4	900 • 275	1.58 • 40.1	1472 • 2190
18-875-13	CSX 75 T	8 / 14 AWG 54 / 18 AWG 6 shielded pair / 20 AWG 1 RG6/U coax	5/32 • 4.0	542 • 165	1.58 • 40.1	1290 • 1920
18-377-13	CSX 77	4 / 14 AWG 69 / 18 AWG 1 shielded pair / 20 AWG 2 coax / RG6/U	5/32 • 4.0	532 • 162	1.64 • 41.6	1315 • 1957
18-X77-13	CSX 77 S	4 / 14 AWG 60 / 18 AWG 6 shielded pair / 20 AWG 1 coax / RG6/U	1/4 • 6.4	900 • 275	1.52 • 38.6	1269 • 1888
18-X80-13	CSX 80 SP <sup>1†</sup>	10 / 14 AWG 39 / 18 AWG 15 shielded pair / 20 AWG 1 RG6/U coax	1/4 • 6.4	900 • 275	1.64 • 41.7	1560 • 2321
18-083-13	CSX 83	20 / 14 AWG 35 / 18 AWG 13 shielded pair / 20 AWG 2 coax / RG6/U	1/4 • 6.4	900 • 275	1.92 • 48.8	1808 • 2690



## Power, signal, shielded pairs and fiber optics



Part Number	Product Code	Number/Size of Conductors	Steel Core Dia. inches • mm	Max. Hang Length <sup>1</sup> feet • meters	Cable Nom. OD inches • mm	Cable Net Weight lbs/kft • kg/km
18-005-16	CSF 5	3 / 14 AWG 2 optical fibers / 62.5µm	3/32 • 2.4	900 • 275	0.87 • 22.1	370 • 550
18-061-16	CWSF 61	4 / 14 AWG 49 / 18 AWG 3 shielded pair / 20 AWG 2 optical fibers / 62.5µm	1/4 • 6.4	900 • 275	1.36 • 34.5	1125 • 1674
18-062-16	CSF 62	7 / 14 AWG 27 / 18 AWG 13 shielded pair / 20 AWG 2 optical fibers / 62.5µm	1/4 • 6.4	900 • 275	1.58 • 40.0	1296 • 1928



<sup>1</sup>For longer hang length applications, call with your requirements.

<sup>††</sup>“SP” denotes special color coding and/or conductor numbering.

RG6/U is the standard coaxial cable used in CSX-series Super-Flex cables and the preferred cable for CCTV purposes.

RG11/U coax and multimode optical fiber are available as options. See page 4 for specifics on these cables.

Draka offers fiber optic connectors and connection kits (page 117) and tx/rx electronics (page 116).

Draka is often asked why we do not put Cat5, Cat5e, or Cat6 cables in our traveling cable. Current NEC standards do not permit the use of copper conductors smaller than 20 AWG in traveling cable. UTP cables have conductors of 22 AWG or smaller.

This catalog shows a sample of product offering. Please call if you require a custom design.

# Round Cable Hanging Accessories

## FOR JUTE AND STEEL CENTER TRAVELING CABLE INSTALLATION

### Universal Hanging System – US patent 5,080,199

Part Number	For Steel Core Dia. inches • mm	Number/ of Cables Held	Max. per cable Load lbs • kg
3/32-1 SBKT	3/32 • 2.4	1 cable	500 • 227
1/8-1 SBKT	1/8 • 3.2	1 cable	500 • 227
5/32-1 SBKT-R	5/32 • 4.0	1 cable	700 • 318
1/4-1 SBKT	1/4 • 6.4	1 cable	1750 • 794

The Universal Hanging System is based around our patented Steel-Core Hanging Device which is designed to solidly grip and support the steel wire support member. It also safely secures the cable to the welded steel bracket thus preventing rotation.

The Universal Hanging System is a safe and effective unit that saves time and labor. It also has the added benefit of not having to bend (and possibly compromise) the steel support as required in other termination methods.

The Universal Hanging System is available in one and two cable configurations and comes as a kit with all installation hardware. Order two kits per cable, one for the car and one for the hoistway.



### Universal hanging system for two cables

Part Number	For Steel Core Dia. inches • mm	Number/ of Cables Held	Max. per cable Load lbs • kg
5/32-2 SBKT-R	5/32 • 4.0	2 cables	700 • 318
1/4-2 SBKT	1/4 • 6.4	2 cables	1250 • 568

These are two-cable versions of the Universal Hanging System.



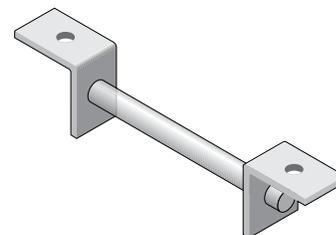
### Replacement strand vises

Part Number	Description
3/32 PINS-A	Replacement strand vise for 3/32 in. rope
1/8 PINS-A	Replacement strand vise for 1/8 in. rope
5/32 PINS-A	Replacement strand vise for 5/32 in. rope
1/4 PINS-A	Replacement strand vise for 1/4 in. rope

Replacement strand vises are for use ONLY in Universal Hanging Systems in both one and two cable configurations.

### Jute core traveling cable hanger for mesh grips

Part Number	Description
HGRJC-8	Bracket used to hold/support grips that hold jute core cables - 8 in. • 20 cm clear between brackets



### Beam pads

Part Number	Description
22-022	Scotch® 2200 beam pads, 6-1/2 x 4-1/2 x 1/8 in. • 165 x 114 x 6 mm

Draka recommends beam pads be applied to surfaces where there may be occasional contact by the traveling cable.



# Mesh Grips

TINNED BRONZE FOR JUTE CENTER TRAVELING CABLES – MAXIMUM HANGING LENGTHS OF 200 FT • 61 M

## Single eye / single weave / closed mesh – tinned bronze

Part Number	Cable Dia. Range inches • cm	Maximum Load* lbs • kg	Eye Length inches • mm	Nom. Mesh Length inches • mm
022-01-013	.50 to .62 • 1.27 to 1.57	106 • 48	7.0 • 178	10.0 • 254
022-01-014	.63 to .74 • 1.60 to 1.88	158 • 72	8.0 • 203	10.0 • 254
022-01-015	.75 to .99 • 1.91 to 2.51	204 • 93	8.0 • 203	13.0 • 330
022-01-017	1.00 to 1.24 • 2.54 to 3.15	322 • 146	9.0 • 229	14.0 • 356
022-01-018	1.25 to 1.49 • 3.18 to 3.78	322 • 146	10.0 • 254	15.0 • 381
022-01-019	1.50 to 1.74 • 3.81 to 4.42	322 • 146	12.0 • 305	17.0 • 432
022-01-020	1.75 to 1.99 • 4.45 to 5.05	430 • 195	14.0 • 356	19.0 • 483



## Single eye / single weave / split laced – tinned bronze

Part Number	Cable Dia. Range inches • cm	Maximum Load* lbs • kg	Eye Length inches • mm	Nom. Mesh Length inches • mm
022-02-013	.50 to .62 • 1.27 to 1.57	158 • 72	7.0 • 178	10.0 • 254
022-02-014	.63 to .74 • 1.60 to 1.88	158 • 72	8.0 • 203	10.0 • 254
022-02-015	.75 to .99 • 1.91 to 2.51	204 • 93	8.0 • 203	13.0 • 330
022-02-017	1.00 to 1.24 • 2.54 to 3.15	322 • 146	9.0 • 229	14.0 • 355
022-02-018	1.25 to 1.49 • 3.18 to 3.78	322 • 146	10.0 • 254	15.0 • 381
022-02-019	1.50 to 1.74 • 3.81 to 4.42	322 • 146	12.0 • 305	17.0 • 431
022-02-020	1.75 to 1.99 • 4.45 to 5.05	430 • 195	14.0 • 356	16.5 • 419



## Single eye / single weave / split rod – tinned bronze

Part Number	Cable Dia. Range inches • cm	Maximum Load* lbs • kg	Eye Length inches • mm	Nom. Mesh Length inches • mm
022-03-061	.37 to .49 • .94 to 1.24	106 • 48	4.0 • 102	5.0 • 127
022-03-013	.50 to .62 • 1.27 to 1.57	106 • 48	7.0 • 178	10.0 • 254
022-03-014	.63 to .74 • 1.60 to 1.88	158 • 72	8.0 • 203	10.0 • 254
022-03-015	.75 to .99 • 1.91 to 2.51	204 • 93	8.0 • 203	13.0 • 330
022-03-017	1.00 to 1.24 • 2.54 to 3.15	322 • 146	9.0 • 229	14.0 • 356
022-03-018	1.25 to 1.49 • 3.18 to 3.78	322 • 146	10.0 • 254	15.0 • 381
022-03-019	1.50 to 1.74 • 3.81 to 4.42	322 • 146	12.0 • 305	17.0 • 432
022-03-020	1.75 to 1.99 • 4.45 to 5.05	430 • 195	14.0 • 356	19.0 • 483



## Universal bale / single weave / split rod – tinned bronze

Part Number	Cable Dia. Range inches • cm	Maximum Load* lbs • kg	Eye Length inches • mm	Nom. Mesh Length inches • mm
022-03-066	.75 to .99 • 1.91 to 2.51	204 • 93	up to 16 • 400	10.5 • 267
022-03-068	1.00 to 1.24 • 2.54 to 3.15	322 • 146	up to 16 • 400	12.5 • 317
022-03-069	1.25 to 1.49 • 3.18 to 3.78	322 • 146	up to 16 • 400	14.5 • 368
022-03-070	1.50 to 1.74 • 3.81 to 4.42	322 • 146	up to 16 • 400	15.5 • 394
022-03-071	1.75 to 1.99 • 4.45 to 5.05	430 • 195	up to 16 • 400	16.5 • 419



\*Maximum Load is based on minimum breaking strength with a 4:1 safety factor.

# Mesh Grips

TINNED BRONZE FOR JUTE CENTER TRAVELING CABLES – MAXIMUM HANGING LENGTHS OF 200 FT • 61 M

## Double eye / single weave / split laced – tinned bronze

Part Number	Cable Dia. Range inches • cm	Maximum Load* lbs • kg	Eye Length inches • mm	Nom. Mesh Length inches • mm
022-02-002	.63 to .74 • 1.60 to 1.88	170 • 77	4.0 • 102	10.0 • 254
022-02-003	.75 to .99 • 1.91 to 2.51	204 • 93	5.5 • 140	13.0 • 330
022-02-005	1.00 to 1.24 • 2.54 to 3.15	322 • 146	5.0 • 127	14.0 • 356
022-02-006	1.25 to 1.49 • 3.18 to 3.78	322 • 146	5.0 • 127	15.0 • 381
022-02-007	1.50 to 1.74 • 3.81 to 4.42	322 • 146	5.0 • 127	17.0 • 432



## Double eye / single weave / split rod – tinned bronze

Part Number	Cable Dia. Range inches • cm	Maximum Load* lbs • kg	Eye Length inches • mm	Nom. Mesh Length inches • mm
022-03-001	.50 to .62 • 1.27 to 1.57	158 • 72	4.0 • 102	6.5 • 165
022-03-002	.63 to .74 • 1.60 to 1.88	158 • 72	4.0 • 102	8.5 • 216
022-03-003	.75 to .99 • 1.91 to 2.51	204 • 93	5.5 • 140	10.5 • 267
022-03-005	1.00 to 1.24 • 2.54 to 3.15	322 • 146	5.0 • 127	12.5 • 317
022-03-006	1.25 to 1.49 • 3.18 to 3.78	322 • 146	5.0 • 127	14.5 • 368
022-03-007	1.50 to 1.74 • 3.81 to 4.42	322 • 146	5.0 • 127	15.5 • 394
022-03-008	1.75 to 1.99 • 4.45 to 5.05	430 • 195	6.0 • 152	16.5 • 419



## Double eye / single weave / closed mesh – tinned bronze

Part Number	Cable Dia. Range inches • cm	Maximum Load* lbs • kg	Eye Length inches • mm	Nom. Mesh Length inches • mm
022-01-001	.50 to .62 • 1.27 to 1.57	106 • 48	4.0 • 102	10.0 • 254
022-01-002	.63 to .74 • 1.60 to 1.88	158 • 72	4.0 • 102	10.0 • 254
022-01-003	.75 to .99 • 1.91 to 2.51	204 • 93	5.5 • 140	12.0 • 304
022-01-005	1.00 to 1.24 • 2.54 to 3.15	322 • 146	5.0 • 127	14.0 • 356
022-01-006	1.25 to 1.49 • 3.18 to 3.78	322 • 146	5.0 • 127	15.0 • 381
022-01-007	1.50 to 1.74 • 3.81 to 4.42	322 • 146	5.0 • 127	17.0 • 432
022-01-008	1.75 to 1.99 • 4.45 to 5.05	430 • 195	6.0 • 152	19.0 • 483



\*Maximum Load is based on minimum breaking strength with a 4:1 safety factor.

# Mesh Grips

STAINLESS STEEL FOR TRAVELING CABLES – MAXIMUM HANGING LENGTHS OF 200 FT • 61 M

## Double eye / double weave / split laced – stainless steel

Part Number	Cable Dia. Range inches • cm	Maximum Load* lbs • kg	Eye Length inches • mm	Nom. Mesh Length inches • mm
024-20-1284	.75 to .99 • 1.91 to 2.51	620 • 282	4.0 • 102	13.0 • 330
024-20-1285	1.00 to 1.24 • 2.54 to 3.15	800 • 364	4.0 • 102	14.0 • 356
024-20-1286	1.25 to 1.49 • 3.18 to 3.78	800 • 364	4.0 • 102	15.0 • 381
024-20-1287	1.50 to 1.74 • 3.81 to 4.42	800 • 364	4.0 • 102	17.0 • 432
024-20-1500	1.75 to 2.00 • 4.45 to 5.08	1800 • 818	12.0 • 305	19.0 • 483



## Double eye / single weave / split rod – stainless steel

Part Number	Cable Dia. Range inches • cm	Maximum Load* lbs • kg	Eye Length inches • mm	Nom. Mesh Length inches • mm
024-03-005	1.00 to 1.24 • 2.54 to 3.15	530 • 241	5.0 • 127	12.5 • 317
024-03-006	1.25 to 1.49 • 3.18 to 3.78	900 • 409	5.0 • 127	14.5 • 368
024-03-007	1.50 to 1.74 • 3.81 to 4.42	900 • 409	5.0 • 127	15.5 • 394
024-03-008	1.75 to 2.00 • 4.45 to 5.08	1200 • 545	6.0 • 152	16.5 • 419



## Double eye / double weave / closed mesh – stainless steel

Part Number	Cable Dia. Range inches • cm	Maximum Load* lbs • kg	Eye Length inches • mm	Nom. Mesh Length inches • mm
024-20-1504	1.00 to 1.24 • 2.54 to 3.15	1200 • 545	12.0 • 305	14.0 • 356
024-20-1470	1.25 to 1.49 • 3.18 to 3.78	1640 • 745	12.0 • 305	15.0 • 381
024-20-1510	1.50 to 1.74 • 3.81 to 4.42	1660 • 755	12.0 • 305	17.0 • 432
024-20-1499	1.75 to 1.99 • 4.45 to 5.05	1800 • 818	12.0 • 305	19.0 • 483
024-20-1542	2.00 to 2.50 • 5.08 to 6.35	1800 • 818	12.0 • 305	21.0 • 533



## Single eye / single weave / split rod – stainless steel

Part Number	Cable Dia. Range inches • cm	Maximum Load* lbs • kg	Eye Length inches • mm	Nom. Mesh Length inches • mm
024-03-014	.63 to .74 • 1.60 to 1.88	410 • 186	8.0 • 203	8.5 • 216
024-03-015	.75 to .99 • 1.91 to 2.51	410 • 186	8.0 • 203	10.5 • 267
024-03-017	1.00 to 1.24 • 2.54 to 3.15	530 • 240	9.0 • 229	12.5 • 317
024-03-018	1.25 to 1.49 • 3.18 to 3.78	900 • 408	10.0 • 254	14.5 • 368
024-03-019	1.50 to 1.74 • 3.81 to 4.42	900 • 408	12.0 • 305	15.5 • 394



## Universal bale / single weave / split rod – stainless steel

Part Number	Cable Dia. Range inches • cm	Maximum Load* lbs • kg	Eye Length inches • mm	Nom. Mesh Length inches • mm
024-03-066	.75 to .99 • 1.91 to 2.51	336 • 153	up to 16 • 400	10.5 • 267
024-03-068	1.00 to 1.24 • 2.54 to 3.15	530 • 241	up to 16 • 400	12.5 • 317
024-03-069	1.25 to 1.49 • 3.18 to 3.78	530 • 241	up to 16 • 400	14.5 • 368
024-03-070	1.50 to 1.74 • 3.81 to 4.42	530 • 241	up to 16 • 400	15.5 • 394



\*Maximum Load is based on minimum breaking strength with a 4:1 safety factor.

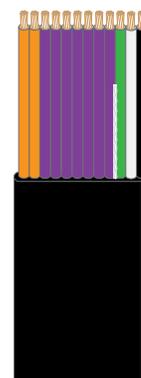
# Flat Traveling Cable Type ETP/300V

UNSUPPORTED - UL LISTED, CSA CERTIFIED, NEC/CEC COMPLIANT

## Power and signal conductors



Part Number	Product Code	Number/Size of Conductors	Max. Hang Length feet • meters	Cable Nom. Dim H x W inches • mm	Cable Net Weight lbs/kft • kg/km
18-008-07	P 8-18	8 / 18 AWG	200 • 61	.19 x 1.00 • 4.8 x 25.4	145 • 215
18-009-07	P 9-18	9 / 18 AWG	200 • 61	.19 x 1.01 • 4.8 x 25.6	137 • 203
18-010-07	P 10-18	10 / 18 AWG	200 • 61	.19 x 1.07 • 4.8 x 27.2	157 • 233
18-012-07	P 12-18	12 / 18 AWG	200 • 61	.19 x 1.30 • 4.8 x 33.0	210 • 312
18-016-07	P 16-18	16 / 18 AWG	200 • 61	.19 x 1.67 • 4.8 x 42.4	235 • 349
18-020-07	P 20-18	20 / 18 AWG	200 • 61	.19 x 2.30 • 4.8 x 58.4	296 • 440
18-208-07	P 8-16	8 / 16 AWG	200 • 61	.20 x 0.97 • 5.1 x 24.6	156 • 232
18-212-07	P 12-16	12 / 16 AWG	200 • 61	.20 x 1.50 • 5.1 x 38.1	231 • 343
18-224-07	P 24-16	16 / 16 AWG	200 • 61	.20 x 2.90 • 5.1 x 73.7	462 • 686
18-412-07	P 12-14	12 / 14 AWG	200 • 61	.26 x 2.00 • 6.6 x 50.8	366 • 543



## Shielded pairs



Part Number	Product Code	Number/Size of Conductors	Max. Hang Length feet • meters	Cable Nom. Dim H x W inches • mm	Cable Net Weight lbs/kft • kg/km
18-X04-07	P 4X20SH	4 shielded pair / 20 AWG	200 • 61	.30 x .940 • 7.62 x 23.9	184 • 273
18-X08-07	P 8X20SH	8 shielded pair / 20 AWG	200 • 61	.30 x 2.00 • 7.62 x 50.8	430 • 638



## Unitized conductors / power and signal conductors



Part Number	Product Code	Number/Size* of Conductors	Max. Hang Length feet • meters	Cable Nom. Dim H x W inches • mm	Cable Net Weight lbs/kft • kg/km
18-040-07	G 40-18 UNITIZED	40 / 18 AWG	200 • 61	.39 x 1.90 • 9.9 x 48.3	524 • 778
18-C28-07	GCX 31	28 / 18 AWG 3 RG6/U coax	200 • 61	.375 x 2.20 • 9.5 x 55.9	565 • 839



Note: European standards limit maximum hang lengths to 45 meters for unsupported cables.

Use these tools to prepare Super-Flex traveling cable. See pages 85 - 86 for details.

#36-135-M1  
FCJ flat cable stripper



#17-05-0001  
QuickStrip wire stripper



#36-219 Automatic  
wire stripper



#37-177 Manual  
wire stripper



This catalog shows a sample of product offering. Please call if you require a custom design.

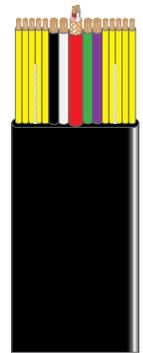
# Flat Traveling Cable Type ETP/300V

UNSUPPORTED – UL LISTED, CSA CERTIFIED, NEC/CEC COMPLIANT

## Power and signal conductors



Part Number	Product Code	Number/Size of Conductors	Max. Hang Length feet • meters	Cable Nom. Dim H x W inches • mm	Cable Net Weight lbs/kft • kg/km
18-X11-07	PC11	3 / 14 AWG 4 shielded pair / 20 AWG	200 • 61	.29 x 1.55 • 7.4 x 39.4	345 • 512
18-216-07	PC16	2 / 14 AWG 1 shielded pair / 14 AWG 6 shielded pair / 18 AWG	200 • 61	.43 x 2.40 • 10.9 x 61.0	690 • 1024
18-A16-07	PC16A	4 / 14 AWG 10 / 18 AWG 1 shielded pair / 20 AWG	200 • 61	.29 x 2.20 • 7.4 x 55.9	490 • 728
18-C16-07	PC16	4 / 14 AWG 12 / 18 AWG	200 • 61	.23 x 1.91 • 5.8 x 48.5	385 • 572
18-C18-07	PC 18	6 / 14 AWG 12 / 18 AWG	200 • 61	.23 x 2.19 • 5.8 x 55.6	401 • 597
18-218-07	PC 18	2 / 14 AWG 12 / 18 AWG 2 twisted pair / 20 AWG 2 shielded pair / 20 AWG	200 • 61	.23 x 1.20 • 5.8 x 30.5	330 • 490
18-021-07	PC21	3 / 14 AWG 14 / 18 AWG 2 shielded pair / 20 AWG	200 • 61	.29 x 2.35 • 7.4 x 59.7	499 • 741
18-C21-07	PCX21	4 / 14 AWG 10 / 18 AWG 3 shielded pair / 20 AWG 1 RG6/U coax	200 • 61	.375 x 2.80 • 9.5 x 71.1	715 • 1062
18-421-07	PC21 SP <sup>†</sup>	5 / 16 AWG 8 / 18 AWG 4 twisted pair / 20 AWG	200 • 61	.29 x 2.33 • 7.4 x 59.2	494 • 733
18-X22-07	PC22	4 / 14 AWG 10 / 18 AWG 4 shielded pair / 20 AWG	200 • 61	.29 x 2.65 • 7.4 x 67.3	639 • 935
18-026-07	PC26 SP <sup>†</sup>	4 / 14 AWG 10 / 18 AWG 6 foil shielded pair / 20 AWG	200 • 61	.25 x 2.74 • 6.4 x 69.6	525 • 780
18-X26-07	PC 26	4 / 14 AWG 10 / 18 AWG 6 shielded pair / 20 AWG	200 • 61	.29 x 3.05 • 7.4 x 77.5	626 • 932



<sup>†</sup>“SP” denotes special color coding and/or conductor numbering.

Note: European standards limit maximum hang lengths to 45 meters for unsupported cables.

Use these tools to prepare Super-Flex traveling cable. See pages 85 - 86 for details.

#36-135-M1  
FCJ flat cable stripper



#17-05-0001  
QuickStrip wire stripper



#36-219 Automatic  
wire stripper



#37-177 Manual  
wire stripper



This catalog shows a sample of product offering. Please call if you require a custom design.

# Flat Traveling Cable Type ETP/300V

SUPPORTED - UL LISTED, CSA CERTIFIED, NEC/CEC COMPLIANT

## Power and signal conductors



Part Number	Product Code	Number/Size of Conductors	Steel Support Dia. inches • mm	Max. Hang Length feet • meters	Cable Nom. Dim H x W inches • mm	Cable Net Weight lbs/kft • kg/km
18-012-17	PWS 12-14	12 / 14 AWG	3/32 • 2.4	900 • 274	.24 x 2.20 • 6.1 x 56.0	444 • 659
18-020-17	PWS 20-18	20 / 18 AWG	3/32 • 2.4	900 • 274	.19 x 2.30 • 4.8 x 58.4	348 • 517
18-024-17	PWS 24-18	24 / 18 AWG	3/32 • 2.4	900 • 274	.19 x 2.69 • 4.8 x 68.3	407 • 604
18-C13-17	PWS13	4 / 14 AWG 4 shielded pair / 20 AWG 1 RG6/U coax	3/32 • 2.4	700 • 213	.38 x 2.25 • 9.5 x 57.0	590 • 876
18-C17-17	PCSX17	8 shielded pair / 20 AWG 1 RG6 coax	3/32 • 2.4	672 • 205	.38 x 2.35 • 9.5 x 60.0	616 • 915
18-C26-17	PCWS26	18 / 18 AWG 4 shielded pair / 20 AWG	3/32 • 2.4	638 • 194	.29 x 3.00 • 7.4 x 76.0	648 • 962
18-F09-17	PCWSF9	4 shielded pair / 20 AWG 1 optical fiber (62.5/125µm)	3/32 • 2.4	900 • 274	.29 x 1.50 • 7.4 x 38.0	302 • 448
18-X20-17	PCSX20	2 / 16 AWG 8 shielded pair / 20 AWG 2 RG6/U coax	3/32 • 2.4	457 • 139	.38 x 3.00 • 9.5 x 76.0	905 • 1344
18-X26-17	PCWS26	4 / 14 AWG 10 / 18 AWG 6 shielded pair / 20 AWG	3/32 • 2.4	560 • 171	.29 x 3.25 • 7.4 x 82.6	739 • 1097



## Unitized construction / power and signal conductors



Part Number	Product Code	Number/Size of Conductors	Steel Support Dia. inches • mm	Max. Hang Length feet • meters	Cable Nom. Dim H x W inches • mm	Cable Net Weight lbs/kft • kg/km
18-039-17	GCWS39	6 / 14 AWG 33 / 18 AWG	3/32 • 2.4	573 • 175	.41 x 2.50 • 10.4 x 63.5	722 • 1072
18-040-17	GWS 40-18 UNITIZED	40 / 18 AWG	1/8 • 3.2	900 • 274	.39 x 2.20 • 10.0 x 56.0	646 • 959



Use these tools to prepare Super-Flex traveling cable. See pages 85 - 86 for details.

#36-135-M1  
FCJ flat cable stripper



#17-05-0001  
QuickStrip wire stripper



#36-219 Automatic  
wire stripper



#37-177 Manual  
wire stripper



This catalog shows a sample of product offering. Please call if you require a custom design.

# Flat Cable Suspension Devices

## FOR UNSUPPORTED FLAT CABLES - NYLON/PLASTIC CONSTRUCTION

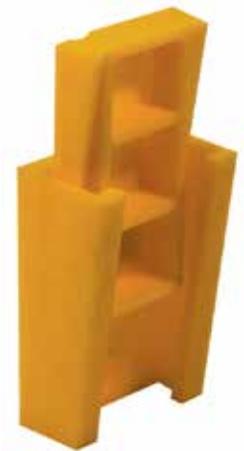
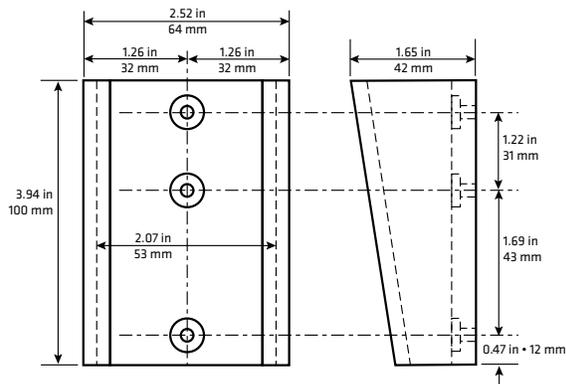
### Suspension device - nylon/plastic

Part Number	Description
FCSD-2	Flat cable suspension device for cables up to 2 in • 51 mm wide Mounting holes are .20 in. • 5 mm with .55 in. • 14 mm counterbore

The FCSD-2 is made of a durable nylon/plastic. It consists of a bracket that attaches to the hoistway wall or the car, and a clamping wedge that secures the cable in the bracket.

The FCSD-2 is designed to hold cables totaling a maximum thickness of 0.47 in. • 12 mm and maximum width of 2 inches • 52 mm. If multiple cables are being supported, the narrowest width cable must not be less than 70% of the width of the widest cable.

Order two devices per cable, one for the car and one for the hoistway.



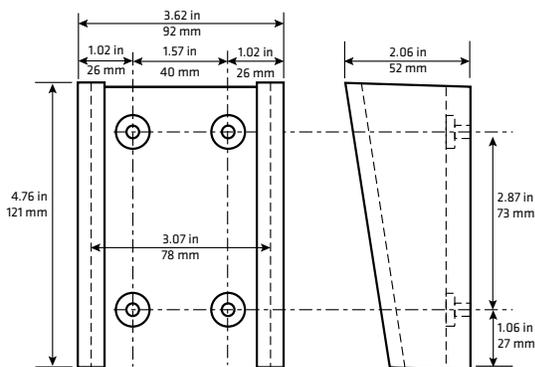
### Suspension device - nylon/plastic

Part Number	Description
FCSD-3	Flat cable suspension device for one or more cables up to 3 in • 76 mm wide Mounting holes are .25 in. • 6.35 mm with .55 in. • 14 mm counterbore

The FCSD-3 is made of a durable nylon/plastic. It consists of a bracket that attaches to the hoistway wall or the car, and a clamping wedge that secures the cable in the bracket.

The FCSD-3 is designed to hold one or more cables totaling a maximum thickness of 0.59 in. • 15 mm and maximum width of 3 in. • 76 mm. If multiple cables are being supported, the narrowest width cable must not be less than 70% of the width of the widest cable.

Order two devices per cable, one for the car and one for the hoistway.



# Flat Cable Suspension Devices

FOR UNSUPPORTED FLAT CABLES – NYLON/PLASTIC OR STEEL CONSTRUCTION

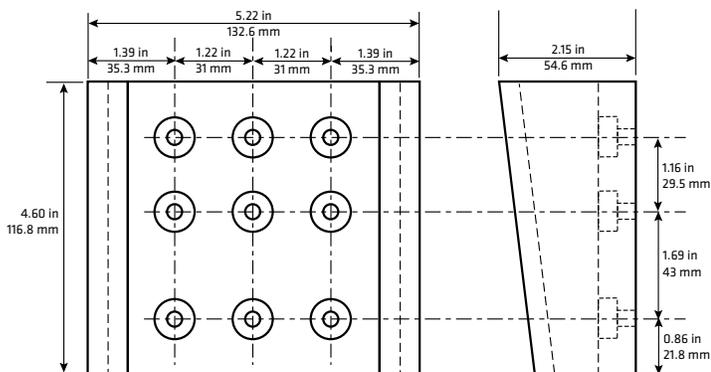
## Wide suspension device – nylon/plastic

Part Number	Description
FCSD-4P	Flat cable suspension device for one or more cables, max 4.5 in • 114 mm wide Mounting holes are .26 in. • 6.6 mm with 0.66 in • 17 mm counterbore

The FCSD-4P is made of a durable nylon/plastic. It consists of a bracket that attaches to the hoistway wall or the car, and a clamping wedge that secures the cable in the bracket.

The FCSD-4P is designed to hold one or more cables up to a maximum thickness of 0.59 in. • 15 mm and maximum width of 4.5 in. • 114 mm.

Order two devices per cable, one for the car and one for the hoistway.



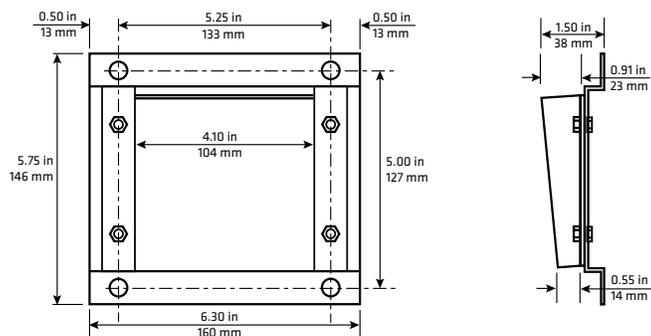
## Wide suspension device – steel

Part Number	Description
FCSD-4	Flat cable suspension device for up to 3 cables, max 4 in • 101 mm wide Mounting holes are .281 in. • 7.14 mm

The FCSD-4 is formed of sheet steel with an aluminum clamping wedge. The bracket attaches to the hoistway wall or the car, and the clamping wedge secures the cable in the bracket.

The FCSD-4 is designed to hold up to three cables totaling a maximum thickness of .55 inches • 14 mm and a maximum width of 4 in. • 101 mm. Maximum load is 500 lbs • 227 kg. If multiple cables are being supported, the narrowest width cable must not be less than 70% of the width of the widest cable.

Order two devices per cable, one for the car and one for the hoistway.



# Flat Cable Suspension Devices

## FOR STEEL-SUPPORTED FLAT CABLES – STEEL CONSTRUCTION

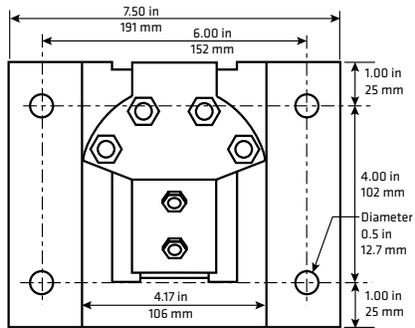
### Steel-supported suspension device – steel

Part Number	Description
FCSD-S	Flat cable suspension device for steel supported cables. Mounting holes are 1/2 in. • 12.7 mm

The FCSD-S is formed of sheet steel. It attaches to the hoistway wall or the car. The steel support cable is carried by the four 3/8 in. • 9.5 mm carbon-steel support studs, and held in place by the front bracket.

The FCSD-S is designed to hold multiple cables up to 4.1 in. • 105 mm in width totaling a maximum thickness of 5/8 in. • 16 mm. Maximum supported weight is 1500 lbs • 681 kg.

Order two devices per cable, one for the car and one for the hoistway.



Use a swaging tool to assist attaching cables to the FCSD-S. See page 89 for details.



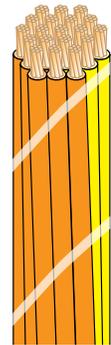
# Super-Duct® Hoistway Cable/600V

JACKETED AND UNJACKETED - UL LISTED, CSA CERTIFIED, NEC/CEC COMPLIANT

## Unjacketed – power and signal conductors



Part Number	Product Code	Number/Size of Conductors	Cable Nom. OD inches • mm	Cable Net Weight lbs/kft • kg/km
18-003-41	WOJ 3-14	3 / 14 AWG	0.31 • 7.9	59 • 88
18-604-47	WOJ 4-14	4 / 14 AWG (insulation colors are red, white, black and green)	0.35 • 9.0	79 • 118
18-005-47	WOJ 5-14	5 / 14 AWG (insulation colors are one black, four grey - special print numbers)	0.40 • 10.2	102 • 152
18-008-47	WOJ 8-14 SP <sup>†</sup>	8 / 14 AWG (Conductors colors are #1 / green, #2 to 4 / white, #5 to 8 / black)	0.50 • 12.7	158 • 235
18-218-47	WOJ 2X18TW 600V SP <sup>†</sup>	2 unshielded pair / 18 AWG	0.36 • 9.2	41 • 61
18-014-41	WOJ 14-14	14 / 14 AWG	0.63 • 16.0	276 • 411
18-404-41	WOJ 4-18	4 / 18 AWG	0.27 • 6.9	41 • 61
18-404-47	WOJ 4-18 SP <sup>†</sup>	4 / 18 AWG (conductors colors are #1 / yellow, #2 / orange, #3 / blue, #4 / red)	0.27 • 6.9	41 • 61
18-407-41	WOJ 7-18	7 / 18 AWG	0.34 • 8.6	72 • 107
18-408-48	WOJ 8-18	8 / 18 AWG (available with only 90°C-rated conductors)	0.35 • 8.9	80 • 119
18-410-41	WOJ 10-18	10 / 18 AWG	0.43 • 10.9	103 • 153
18-412-41	WOJ 12-18	12 / 18 AWG	0.46 • 11.7	119 • 177
18-414-41	WOJ 14-18	14 / 18 AWG	0.49 • 12.4	144 • 214
18-416-41	WOJ 16-18	16 / 18 AWG	0.53 • 13.5	165 • 246
18-419-41	WOJ 19-18	19 / 18 AWG	0.56 • 14.2	195 • 290
18-424-41	WOJ 24-18	24 / 18 AWG	0.66 • 16.8	234 • 349
18-430-41	WOJ 30-18	30 / 18 AWG	0.72 • 18.3	307 • 457
18-437-41	WOJ 37-18	37 / 18 AWG	0.78 • 19.8	380 • 566
18-437-47	WOJ 37-18 SP <sup>†</sup>	37 / 18 AWG (conductors are numbered 38 to 74)	0.78 • 19.8	380 • 566
18-442-41	WOJ 42-18	42 / 18 AWG	0.84 • 21.3	432 • 643
18-461-41	WOJ 61-18	61 / 18 AWG	0.98 • 24.9	625 • 930



## Jacketed – power and signal conductors



Part Number	Product Code	Number/Size of Conductors	Cable Nom. OD inches • mm	Cable Net Weight lbs/kft • kg/km
18-404-43	D4-18	4 / 18 AWG (conductor colors are #1/black - #2/white - #3/green - #4/red)	0.33 • 8.4	58 • 86
18-007-45	D 7-14	7 / 14 AWG (conductors are solid, not stranded, copper)	0.46 • 11.7	151 • 225
18-407-43	D7-18	7 / 18 AWG	0.40 • 10.2	91 • 135

90° C-rated conductors are available upon request.

<sup>†</sup>"SP" denotes special color coding and/or conductor numbering.



Use these tools to prepare Super-Duct hoistway cable. See page 86 for details.

#17-05-0001

QuickStrip wire stripper



#36-219 Automatic

wire stripper



#37-177 Manual

wire stripper



This catalog shows a sample of product offering. Please call if you require a custom design.

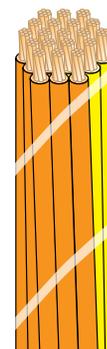
# Super-Duct® Hoistway Cable/300V and 600V

UNJACKETED – UL LISTED, CSA CERTIFIED, NEC/CEC COMPLIANT

## Unjacketed – power and signal conductors / 300V



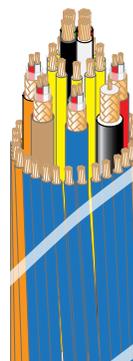
Part Number	Product Code	Number/Size of Conductors	Cable Nom. OD inches • mm	Cable Net Weight lbs/kft • kg/km
18-704-41	WOJ 4-18 300V	4 / 18 AWG	0.22 • 5.6	32 • 48
18-705-41	WOJ 5-18 300V	5 / 18 AWG	0.25 • 6.4	41 • 61
18-707-41	WOJ 7-18 300V	7 / 18 AWG	0.27 • 6.9	57 • 85
18-710-41	WOJ 10-18 300V	10 / 18 AWG	0.34 • 8.6	81 • 121
18-714-41	WOJ 14-18 300V	14 / 18 AWG	0.40 • 10.2	114 • 170
18-716-41	WOJ 16-18 300V	16 / 18 AWG	0.43 • 10.9	130 • 194
18-719-41	WOJ 19-18 300V	19 / 18 AWG	0.45 • 11.4	155 • 231
18-730-41	WOJ 30-18 300V	30 / 18 AWG	0.58 • 14.7	246 • 367
18-737-41	WOJ 37-18 300V	37 / 18 AWG	0.63 • 16.0	301 • 449
18-761-41	WOJ 61-18 300V	61 / 18 AWG	0.82 • 20.8	503 • 750
18-102-47	WOJ 1x18 O/GY 300V	1 unshielded pair / 18 AWG	0.18 • 4.6	16 • 24
18-202-47	WOJ 1x18 R/BK 300V	1 unshielded pair / 18 AWG	0.18 • 4.6	16 • 24
18-104-47	WOJ 2x18 DUCT SP 300V†	2 unshielded pairs / 18 AWG	0.30 • 7.6	33 • 49



## Unjacketed – power, signal, shielded pairs and coax / 300V and 600V



Part Number	Product Code	Number/Size of Conductors	Cable Nom. OD inches • mm	Cable Net Weight lbs/kft • kg/km	Rated Voltage
18-311-42	CWOJ 14 SP†	3 / 14 AWG 11 / 18 AWG (conductor colors are #12/black - #13/white - #14/green)	0.48 • 12.2	148 • 221	300V
18-305-56	3-14+1X18 600V	3 / 14 AWG 1 unshielded pair / 18 AWG	0.49 • 12.4	80 • 120	600V
18-130-42	CWOJ 30 SP†	13 / 14 AWG 17 / 18 AWG	0.85 • 21.6	436 • 647	600V
18-032-47	CWOJ 32 SP†	6 / 14 AWG 16 / 18 AWG 1 shielded pair / 20 AWG 1 unshielded pair / 20 AWG 3 unshielded pair / 18 AWG	0.85 • 21.6	401 • 597	600V
18-449-42	CWOJ 49	4 / 14 AWG 45 / 18 AWG	0.98 • 24.9	530 • 789	600V
18-57X-42	CWOJ 57	4 / 14 AWG 40 / 18 AWG 6 shielded pair / 20 AWG 1 coax / RG6/U	1.13 • 28.7	612 • 913	300V
18-661-42	CWOJ 71	6 / 14 AWG 61 / 18 AWG 2 shielded pair / 20 AWG	1.18 • 30.0	816 • 1214	600V
18-X77-42	CWOJ 77	4 / 14 AWG 60 / 18 AWG 6 shielded pair / 20 AWG 1 coax / RG6/U	1.22 • 31.0	831 • 1237	600V



†“SP” denotes special color coding and/or conductor numbering  
90° C-rated conductors are available upon request.

Use these tools to prepare Super-Duct hoistway cable. See page 86 for details.

- #17-05-0001 QuickStrip wire stripper
- #36-219 Automatic wire stripper
- #37-177 Manual wire stripper



This catalog shows a sample of product offering. Please call if you require a custom design.

# Stationary Cable and Door Lock Wire

UL LISTED, CSA CERTIFIED, NEC/CEC COMPLIANT – OTHER COMPLIANCE AS NOTED

## Stationary shielded pair cable for audio / data communications



Part Number	Number/Size* of Conductors	Shielded Pair Colors	Shield Type and Coverage	Drain Wire	Nominal OD inches • mm	Net Weight lbs/kft • kg/km
18-801-43	1 shielded pair / 20 AWG	red/white	Copper braid 85%	-	0.22 • 5.5	29 • 43
M13142	2 shielded pair / 20 AWG	black/red, green/white	Foil 100%	22 AWG	0.23 • 5.8	34 • 51
M13143	3 shielded pair / 20 AWG	see below	Foil 100%	22 AWG	0.30 • 7.6	52 • 77
M13144	4 shielded pair / 20 AWG	see below	Foil 100%	22 AWG	0.32 • 8.1	64 • 95
M13146	6 shielded pair / 20 AWG	see below	Foil 100%	22 AWG	0.38 • 9.7	87 • 130
M13149	9 shielded pair / 20 AWG	see below	Foil 100%	22 AWG	0.45 • 11.4	132 • 196
M13152	12 shielded pair / 20 AWG	see below	Foil 100%	22 AWG	0.50 • 12.7	169 • 251
M13155	15 shielded pair / 20 AWG	see below	Foil 100%	22 AWG	0.60 • 15.2	225 • 335

Single pair cable has a black jacket.  
Multiple pair cables have grey jackets.

- pair #1 - black/red
- pair #2 - black/white
- pair #3 - black/green
- pair #4 - black/blue
- pair #5 - black/yellow
- pair #6 - black/brown
- pair #7 - black/orange
- pair #8 - red/white
- pair #9 - red/green
- pair #10 - red/blue
- pair #11 - red/yellow
- pair #12 - red/brown
- pair #13 - red/orange
- pair #14 - green/white
- pair #15 - green/blue



## Door Lock Wire SF-2 single conductor / 600V 200° C rated

NYC code compliant / complies with ANSI/ASTM B174 and B3 as required



Part Number	Product Code	Description/Size of Single Conductor	Nominal OD inches • mm	Net Weight lbs/kft • kg/km	Put-ups	Jacket Color
16ASF2BLAT	16 AWG SF-2	7 / .019 tinned copper 16 AWG	0.14 • 3.6	15 • 22.3	cut to length	Black
16ASF2RDAT	16 AWG SF-2	as above	0.14 • 3.6	15 • 22.3	cut to length	Red
16ASF2WR500	16 AWG SF-2	as above	0.14 • 3.6	15 • 22.3	500 ft.	White/Red
16ASF2WRAT	16 AWG SF-2	as above	0.14 • 3.6	15 • 22.3	cut to length	White/Red
18ASF2RD1000	18 AWG SF-2	7 / .015 tinned copper 18 AWG	0.13 • 3.3	12 • 17.9	1000 ft.	Red
18ASF2RD500	18 AWG SF-2	as above	0.13 • 3.3	12 • 17.9	500 ft.	Red
18ASF2RDAT	18 AWG SF-2	as above	0.13 • 3.3	12 • 17.9	cut to length	Red
18ASF2WR1000	18 AWG SF-2	7 / .015 tinned copper 18 AWG	0.13 • 3.3	12 • 17.9	1000 ft.	White/Red
18ASF2WR500	18 AWG SF-2	as above	0.13 • 3.3	12 • 17.9	500 ft.	White/Red
18ASF2WRAT	18 AWG SF-2	as above	0.13 • 3.3	12 • 17.9	cut to length	White/Red
18SSF2RDAT	18 AWG SF-2	Solid tinned copper 18 AWG	0.12 • 3.0	12 • 17.9	cut to length	Red



Use these tools to prepare wire and cable. See page 86 for details.

#17-05-0001

QuickStrip wire stripper

#36-219 Automatic

wire stripper

#37-177 Manual

wire stripper



# Hook-up Wire (THHN) 600V 90°C Rated

UL LISTED, CSA CERTIFIED, NEC/CEC COMPLIANT

## THHN-type single conductor



Part Number	Product Code	Description/Size of Single Conductor	Nominal OD inches • mm	Net Weight lbs/kft • kg/km	Insulation Thickness inches • mm	Insulation Color
4/OATHHNBL	4/O THHN	19 strand copper 4/O AWG	0.64 • 16.2	711 • 1058	.05 • 1.3	Black
3/OATHHNBL	3/O THHN	19 strand copper 3/O AWG	0.58 • 14.7	570 • 848	.05 • 1.3	Black
2/OATHHNBL	2/O THHN	19 strand copper 2/O AWG	0.52 • 13.2	458 • 681	.05 • 1.3	Black
1/OATHHNBL	1/O THHN	19 strand copper 1/O AWG	0.48 • 12.2	369 • 549	.05 • 1.3	Black
1ATHHNBL	1 AWG THHN	19 strand copper 1 AWG	0.44 • 11.2	297 • 442	.05 • 1.3	Black
2ATHHNBL	2 AWG THHN	19 strand copper 2 AWG	0.38 • 9.7	232 • 345	.04 • 1.0	Black
4ATHHNBL	4 AWG THHN	19 strand copper 4 AWG	0.32 • 8.1	151 • 225	.04 • 1.0	Black
6ATHHNBL	6 AWG THHN	19 strand copper 6 AWG (also suitable for 105° C AWM)	0.25 • 6.4	94 • 140	.03 • 0.8	Black
6ATHHNGN	6 AWG THHN	19 strand copper 6 AWG (also suitable for 105° C AWM)	0.25 • 6.4	94 • 140	.03 • 0.8	Green
8ATHHNBL	8 AWG THHN	19 strand copper 8 AWG (also suitable for 105° C AWM)	0.22 • 5.5	62 • 92	.03 • 0.8	Black
8ATHHNGN	8 AWG THHN	19 strand copper 8 AWG (also suitable for 105° C AWM)	0.22 • 5.5	62 • 92	.03 • 0.8	Green
10ATHHNBL	10 AWG THHN	19 strand copper 10 AWG (also suitable for 105° C AWM)	0.16 • 4.0	38 • 57	.02 • 0.5	Black
10ATHHNGN	10 AWG THHN	19 strand copper 10 AWG (also suitable for 105° C AWM)	0.16 • 4.0	38 • 57	.02 • 0.5	Green
12ATHHNBL	12 AWG THHN	19 strand copper 12 AWG (also suitable for 105° C AWM)	0.13 • 3.3	24 • 36	.02 • 0.5	Black
12ATHHNGN	12 AWG THHN	19 strand copper 12 AWG (also suitable for 105° C AWM)	0.13 • 3.3	24 • 36	.02 • 0.5	Green



THHN (or MTW or THWN-2) conductors are suitable for operations at 600 volts as specified in the National Electrical Code, at conductor temperatures not to exceed 75° C when exposed to oil or coolant, 90° C in wet or dry locations.

All cables are cut to length. Please specify.

Use these tools to prepare wire and cable. See page 86 for details.

#17-05-0001  
QuickStrip wire stripper

#36-219 Automatic  
wire stripper

#37-177 Manual  
wire stripper



# Hook-up Wire (TEW) 600V 105°C Rated

UL LISTED, CSA CERTIFIED, NEC/CEC COMPLIANT

## TEW-type single conductor



Part Number	Product Code	Description/Size of Single Conductor	Nominal OD inches • mm	Net Weight lbs/kft • kg/km	Length on Reel	Insulation Color
14ATEWBU500	14 AWG TEW	19 / .0147 strand copper 14 AWG	0.13 • 3.3	19 • 28.1	500 ft.	Blue
14ATEWBL500	14 AWG TEW	as above	0.13 • 3.3	19 • 28.1	500 ft.	Black
14ATEWGN500	14 AWG TEW	as above	0.13 • 3.3	19 • 28.1	500 ft.	Green
14ATEWRD500	14 AWG TEW	as above	0.13 • 3.3	19 • 28.1	500 ft.	Red
14ATEWWH500	14 AWG TEW	as above	0.13 • 3.3	19 • 28.1	500 ft.	White
16ATEWBL500	16 AWG TEW	26 / .010 strand copper 16 AWG	0.12 • 3.0	15 • 22.2	500 ft.	Black
16ATEWBU500	16 AWG TEW	as above	0.12 • 3.0	15 • 22.2	500 ft.	Blue
16ATEWOR500	16 AWG TEW	as above	0.12 • 3.0	15 • 22.2	500 ft.	Orange
16ATEWYW500	16 AWG TEW	as above	0.12 • 3.0	15 • 22.2	500 ft.	Yellow
18ATEWBL500	18 AWG TEW	16 / .010 strand copper 18 AWG	0.11 • 2.8	11 • 16.3	500 ft.	Black
18ATEWBR500	18 AWG TEW	as above	0.11 • 2.8	11 • 16.3	500 ft.	Brown
18ATEWBU500	18 AWG TEW	as above	0.11 • 2.8	11 • 16.3	500 ft.	Blue
18ATEWGN500	18 AWG TEW	as above	0.11 • 2.8	11 • 16.3	500 ft.	Green
18ATEWGY500	18 AWG TEW	as above	0.11 • 2.8	11 • 16.3	500 ft.	Grey
18ATEWMR500	18 AWG TEW	as above	0.11 • 2.8	11 • 16.3	500 ft.	Maroon
18ATEWOR500	18 AWG TEW	as above	0.11 • 2.8	11 • 16.3	500 ft.	Orange
18ATEWPK500	18 AWG TEW	as above	0.11 • 2.8	11 • 16.3	500 ft.	Pink
18ATEWPU500	18 AWG TEW	as above	0.11 • 2.8	11 • 16.3	500 ft.	Purple
18ATEWRD500	18 AWG TEW	as above	0.11 • 2.8	11 • 16.3	500 ft.	Red
18ATEWTN500	18 AWG TEW	as above	0.11 • 2.8	11 • 16.3	500 ft.	Tan
18ATEWYW500	18 AWG TEW	as above	0.11 • 2.8	11 • 16.3	500 ft.	Yellow
20ATEWBL	20 AWG TEW	10 / .030 strand copper 20 AWG	0.10 • 2.5	8 • 3.6	1000 ft.	Black
20ATEWRD	20 AWG TEW	as above	0.10 • 2.5	8 • 3.6	1000 ft.	Red
20ATEWWH	20 AWG TEW	as above	0.10 • 2.5	8 • 3.6	1000 ft.	White



Use these tools to prepare wire and cable. See page 86 for details.

#17-05-0001

QuickStrip wire stripper



#36-219 Automatic

wire stripper



#37-177 Manual

wire stripper



# Power, Signal and Communication Cable

UL LISTED, CSA CERTIFIED, NEC/CEC COMPLIANT

## SOOW-type four conductor portable cord / 600V 90°C rated



Part Number	Product Code	Description/Size of Conductors	Nominal OD inches • mm	Net Weight lbs/kft • kg/km	Put-ups	Jacket Colors
6/4 SOOW	6 AWG SOOW	133 / .0142 strand copper	1.06 • 26.9	856 • 388	250 ft.	Black
8/4 SOOW	8 AWG SOOW	65 / .0159 strand copper	0.93 • 23.6	605 • 274	250 ft.	Black
10/4 SOOW	10 AWG SOOW	104 / .010 strand copper	0.70 • 17.8	357 • 162	250 ft.	Black

Other gauge sizes and conductor counts are available with short lead times.

## Control and signal or power cable for hoistway and machine room



Part Number	Description	Suggested Use
TR-64	7 / 18 AWG stranded copper, PVC insulation, unjacketed, 300V 90° C	Control and signal

## Data communications cable for hoistway and machine room



Part Number	Description	Suggested Use
5508	Cat 5e UTP / 24 AWG stranded tin copper, unshielded, grey PVC jacket, 75° C (sold on 1000 ft. reels)	Data communications
1PR#18SHDJK	1 shielded twisted pair / 18 AWG stranded copper, PVC jacket, foil shield, 600V 60° C	Control and signal
W#UL-2464	2 shielded twisted pairs / 18 AWG stranded copper, PVC jacket, individual foil shield, 300V 80° C	Control and signal
9369	3 shielded twisted pairs / 18 AWG stranded copper, PVC jacket, individual foil shield, 300V 105° C (sold on 1000 ft. reels)	Instrumentation
9830	3 pairs / 24 AWG stranded tin/copper, PVC insulation, foil and braid shields, PVC jacket, 300V 80° C (sold on 1000 ft. reels)	Data communications
3105A	1 pair / 22 AWG stranded tin copper, 120 ohm • overall foil shield, PVC jacket, 300V 60° C	Data communications

## Coax cable for hoistway and machine room



Part Number	Description	Suggested Use
9259	RG59/U coax with a stranded copper conductor, PVC jacket	Video, CCTV
9244	RG59/U coax with a solid copper conductor, PVC jacket	Video, CCTV
9475	RG6/U coax with a stranded copper conductor, PVC jacket	Video, CCTV

## Instrumentation cable for hoistway and machine room



Part Number	Description	Suggested Use
9512	2 pair / 22 AWG stranded tin/copper, PVC insulation, overall foil shield, PVC jacket, 300V 105° C	Instrumentation
9514	4 pair / 22 AWG stranded tin/copper, PVC insulation, overall foil shield, PVC jacket, 300V 105° C	Instrumentation

## Power cable for hoistway and machine room



Part Number	Description	Suggested Use
1PR#18ATEW-TW	1 twisted pair / 18 AWG stranded copper, unjacketed, orange/black, 600V 105° C	Power
1PR#12TW	1 twisted pair / 12 AWG stranded copper, unjacketed, red/black, 600V 105° C	Power

## Fiber optic cable for communications and video

Part Number	Description	Suggested Use
400-00-5F-006	Tight buffered OM3 50 µm multimode fiber, 850/1300 wavelength with 1500/500 MHz bandwidth, 1 GbE performance at 1000 meters, 10 GbE performance at 300 meters	Video and data communications

# Rails, Ferrules and Connectors

UL LISTED, CSA CERTIFIED

## Carrier rails



Part Number	Description
210-113	DIN 35 rail, steel/unslotted, 6.6 ft • 2 meters long
210-112	DIN 35 rail, steel/slotted, 6.6 ft • 2 meters long
210-111	DIN 15 rail, steel/slotted, 6.6 ft • 2 meters long
249-116	Screwless end stop for carrier rail



## Ferrules



Part Number	Description
Ask for specific sizes	Insulated ferrules, 0.25 mm <sup>2</sup> to 16 mm <sup>2</sup>
Ask for specific sizes	Uninsulated ferrules, 0.25 mm <sup>2</sup> to 16 mm <sup>2</sup>



## Connectors



Part Number	Description
730-103	Female socket, 3-pole, IDC connection, live conductor automatically cut, 18 to 16 AWG
730-106	Female socket, 6-pole, IDC connection, 18 to 16 AWG
730-113	Wire-tap branch male connector, 3-pole, 28 to 14 AWG
730-116	Wire-tap branch male connector, 6-pole, 28 to 14 AWG
730-123	Wire-tap branch female connector, 3-pole, 18 to 16 AWG
730-126	Wire-tap branch female connector, 6-pole, 18 to 16 AWG
222-412	Lever nuts, 2-pole Cage Clamp® connection, 28 to 14 AWG



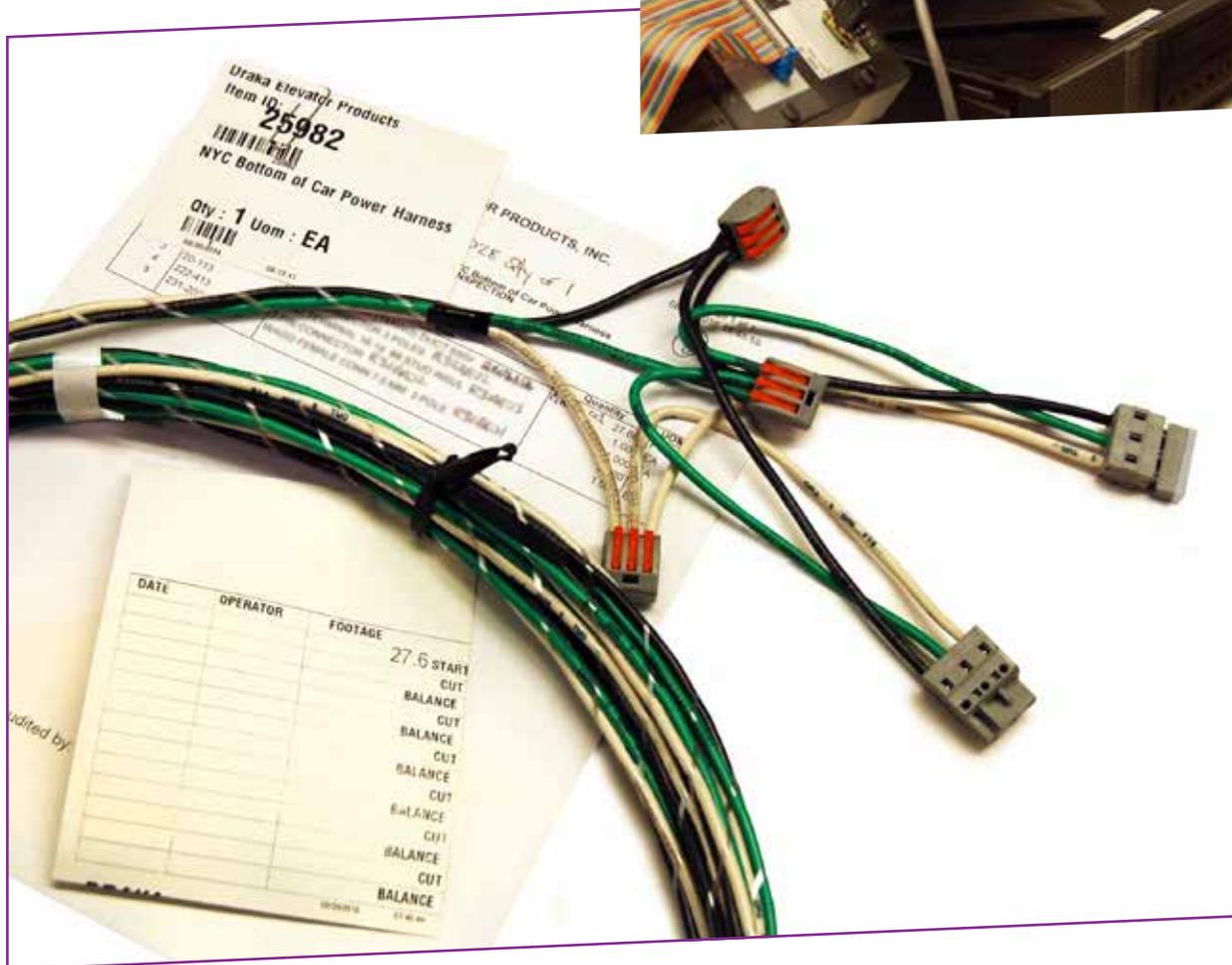
Custom harness connectorization service is available see page 31.

Other connectors are available. Call for details.

## Connectorization and stripping services

Draka Elevator helps you to work smarter with cable that comes ready to install. Provide us with your diagrams and Draka Elevator products will fit hoistway cables, travelling cables and stationary wiring with modular connectors that simply snap into place. We also offer cut-to-length cables and ropes, provide stripped cables and custom assembled inspection and pendant stations.

Draka Elevator engineered solutions ensure that cables and harnesses are quickly, easily and accurately installed. Color-coded connectors assure positive circuit identification. All connectorized cable products are 100% post-fabrication tested for quality control and total customer satisfaction.



# Wireway and Electrical



Metal wireway	33
Hinged metal wireway	38
Electrical Metallic Tubing (EMT) and fittings	40
EMT conduit bodies and EMT-to-Flex couplings	42
Flexible conduit and fittings	43
Liquid-tight flexible conduit and fittings	44
Threaded fittings for rigid pipe	45
Electrical boxes	46
Junction boxes and knockout punches/plugs	48

# Metal Wireway

UL 870 AND CSA C22.2 NO. 26, MEETS ELEVATOR INDUSTRY STANDARDS

## Galvanized steel wireway



Part Number	Dimension A inches	Dimension B inches	Dimension C inches
UGTR 2525120CSA	2-1/2	2-1/2	120
UGTR 254120CSA	2-1/2	4	120
UGTR 256120CSA	2-1/2	6	120
UGTR 258120CSA	2-1/2	8	120
UGTR 44120CSA	4	4	120
UGTR 46120CSA	4	6	120
UGTR 48120CSA	4	8	120
UGTR 66120CSA	6	6	120
UGTR 88120CSA	8	8	120

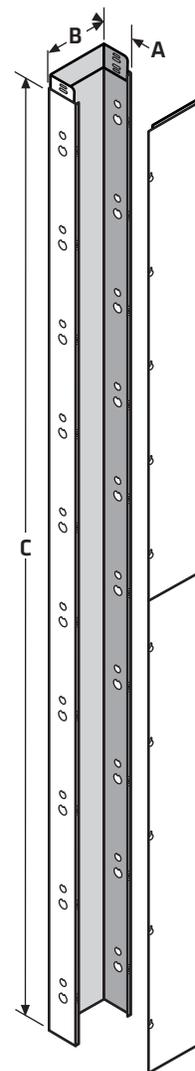
Wireway comes with two five-foot covers, #10-5/16 hexhead screws and screw protection and spot-welded coupling on one end.

Special size wireway and wireway without knockouts are available with short lead times. Call Draka Elevator at 1-877-372-5237 for further information.

Tolerances: Inside dimensions from 0 to + 1/16 in.; joints, corners and adjoining edges to + 1/32 in.; screw and hole placement to + 1/32 in.

Materials: Hot-dipped, mill-galvanized steel

General: Uniform knockouts 1/2 in. and 3/4 in. every 12 in. EXCEPT FOR UGTR 254120CSA which has knockouts 1/2 in., 3/4 in. and 1 in. every 12 in.



Wireway and Electrical

## Covers and screws

Part Number	Description	Dimension B inches	Dimension D inches
C U25	Cover	2-1/2	60
C U44	Cover	4	60
C U66	Cover	6	60
C U88	Cover	8	60
59-020	Cover screw, #10-32 x 1/2 in.		

## Wireway nuts & bolts – used to attach fittings to wireway

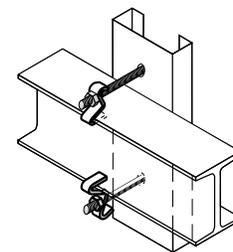
Part Number	Size inches	Standard Packaging
26-006A	1/4 x 1/2 nut and bolt	25
26-006B	1/4 x 1/2 nut and bolt	50
26-006C	1/4 x 1/2 nut and bolt	100

## Plastic U-channel

Part Number	Description
19-003	Plastic U-channel, available in 100 ft. rolls

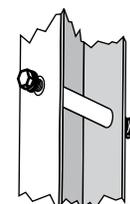
## Wireway mounting bracket kit – used to attach wireway to steel I-beams

Part Number	Description	Quantity
TR-MTG-KIT	Bracket, with 5 in. mounting bolt, nut and two washers	1



## Strain bars

Part Number	For wireway width inches
STB 25	2-1/2
STB 4	4
STB 6	6
STB 8	8



The NEC requires supports, like strain bars, to be used every 100 ft. in wireway.

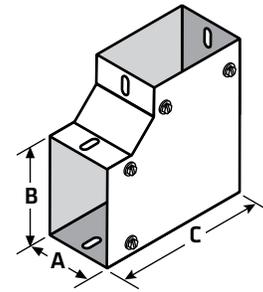
# Metal Wireway

UL 870 AND CSA C22.2 NO. 26

## 90° elbows/Type C



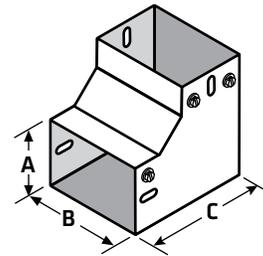
Part Number	Dimension A inches	Dimension B inches	Dimension C inches	For use with Wireway P/N
UL90 2525CSA	2-1/2	2-1/2	6-1/4	UGTR 2525120CSA
UL90 254CSA	2-1/2	4	7-3/4	UGTR 254120CSA
UL90 256CSA	2-1/2	6	9-3/4	UGTR 256120CSA
UL90 258CSA	2-1/2	8	11-3/4	UGTR 258120CSA
UL90 44CSA	4	4	7-3/4	UGTR 44120CSA
UL90 46CSA	4	6	9-3/4	UGTR 46120CSA
UL90 48CSA	4	8	11-3/4	UGTR 48120CSA
UL90 66CSA	6	6	9-3/4	UGTR 66120CSA
UL90 88CSA	8	8	11-3/4	UGTR 88120CSA



## 90° elbows/Type D



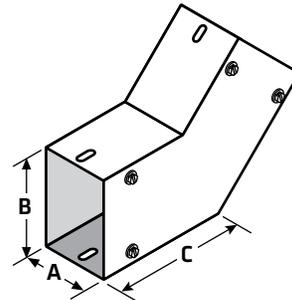
Part Number	Dimension A inches	Dimension B inches	Dimension C inches	For use with Wireway P/N
UL90 425CSA	2-1/2	4	6-1/4	UGTR 254120CSA
UL90 625CSA	2-1/2	6	6-1/4	UGTR 256120CSA
UL90 825CSA	2-1/2	8	6-1/4	UGTR 258120CSA
UL90 64CSA	4	6	7-3/4	UGTR 46120CSA
UL90 84CSA	4	8	7-3/4	UGTR 48120CSA



## 45° elbows/Type C



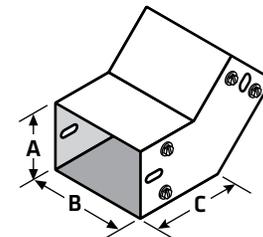
Part Number	Dimension A inches	Dimension B inches	Dimension C inches	For use with Wireway P/N
UL45 2525CSA	2-1/2	2-1/2	4-9/16	UGTR 2525120CSA
UL45 254CSA	2-1/2	4	5-1/4	UGTR 254120CSA
UL45 256CSA	2-1/2	6	6	UGTR 256120CSA
UL45 258CSA	2-1/2	8	6-1/2	UGTR 258120CSA
UL45 44CSA	4	4	5-1/4	UGTR 44120CSA
UL45 46CSA	4	6	6	UGTR 46120CSA
UL45 48CSA	4	8	6-1/2	UGTR 48120CSA
UL45 66CSA	6	6	6	UGTR 66120CSA
UL45 88CSA	8	8	6-1/2	UGTR 88120CSA



## 45° elbows/Type D



Part Number	Dimension A inches	Dimension B inches	Dimension C inches	For use with Wireway P/N
UL45 425CSA	2-1/2	4	4-9/16	UGTR 254120CSA
UL45 625CSA	2-1/2	6	4-9/16	UGTR 256120CSA
UL45 825CSA	2-1/2	8	4-9/16	UGTR 258120CSA
UL45 64CSA	4	6	5-1/4	UGTR 46120CSA
UL45 84CSA	4	8	5-1/4	UGTR 48120CSA



Elbows come with #10-5/16 hexhead screws & screw protection.

Special size wireway and wireway without knockouts are available with short lead times. Call Draka Elevator at 1-877-372-5237 for further information.

Tolerances: Inside dimensions from 0 to + 1/16 in.;  
joints, corners and adjoining edges to + 1/32 in.;  
screw and hole placement to + 1/32 in.;

Materials: Hot-dipped, mill-galvanized steel

General: Connector slots 3/4 x 1/4 in.

Wireway and Electrical

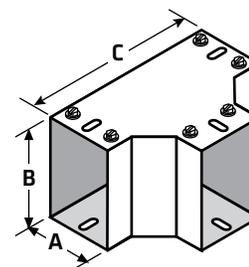
# Metal Wireway

UL 870 AND CSA C22.2 NO. 26

## Tees/Type C



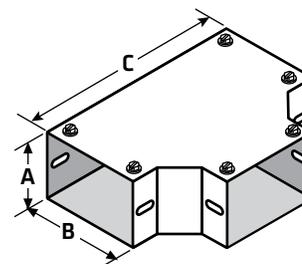
Part Number	Dimension A inches	Dimension B inches	Dimension C inches	For use with Wireway P/N
UTEE 2525CSA	2-1/2	2-1/2	9-7/8	UGTR 2525120CSA
UTEE 254CSA	2-1/2	4	9-7/8	UGTR 254120CSA
UTEE 256CSA	2-1/2	6	9-7/8	UGTR 256120CSA
UTEE 258CSA	2-1/2	8	9-7/8	UGTR 258120CSA
UTEE 44CSA	4	4	11-3/8	UGTR 44120CSA
UTEE 46CSA	4	6	11-3/8	UGTR 46120CSA
UTEE 48CSA	4	8	11-3/8	UGTR 48120CSA
UTEE 66CSA	6	6	13-3/8	UGTR 66120CSA
UTEE 88CSA	8	8	15-3/8	UGTR 88120CSA



## Tees/Type D



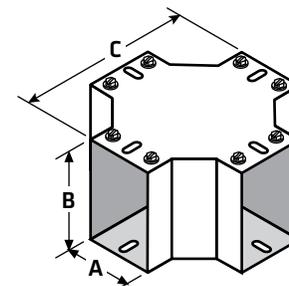
Part Number	Dimension A inches	Dimension B inches	Dimension C inches	For use with Wireway P/N
UTEE 425CSA	2-1/2	4	11-3/8	UGTR 254120CSA
UTEE 625CSA	2-1/2	6	13-3/8	UGTR 256120CSA
UTEE 825CSA	2-1/2	8	15-3/8	UGTR 258120CSA
UTEE 64CSA	4	6	13-3/8	UGTR 46120CSA
UTEE 84CSA	4	8	15-3/8	UGTR 48120CSA



## Crossovers/Type C



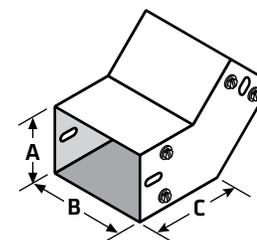
Part Number	Dimension A inches	Dimension B inches	Dimension C inches	For use with Wireway P/N
UCRS 2525CSA	2-1/2	2-1/2	9-7/8	UGTR 2525120CSA
UCRS 254CSA	2-1/2	4	9-7/8	UGTR 254120CSA
UCRS 256CSA	2-1/2	6	9-7/8	UGTR 256120CSA
UCRS 258CSA	2-1/2	8	9-7/8	UGTR 258120CSA
UCRS 44CSA	4	4	11-3/8	UGTR 44120CSA
UCRS 46CSA	4	6	11-3/8	UGTR 46120CSA
UCRS 48CSA	4	8	11-3/8	UGTR 48120CSA
UCRS 66CSA	6	6	13-3/8	UGTR 66120CSA
UCRS 88CSA	8	8	15-3/8	UGTR 88120CSA



## Crossovers/Type D



Part Number	Dimension A inches	Dimension B inches	Dimension C inches	For use with Wireway P/N
UCRS 425CSA	2-1/2	4	11-3/8	UGTR 254120CSA
UCRS 625CSA	2-1/2	6	13-3/8	UGTR 256120CSA
UCRS 825CSA	2-1/2	8	15-3/8	UGTR 258120CSA
UCRS 64CSA	4	6	13-3/8	UGTR 46120CSA
UCRS 84CSA	4	8	15-3/8	UGTR 48120CSA



Tees and crossovers come with #10-5/16 hexhead screws and screw protection.

Special size wireway and wireway without knockouts are available with short lead times. Call Draka Elevator at 1-877-372-5237 for further information.

Tolerances: Inside dimensions from 0 to + 1/16 in.;  
joints, corners and adjoining edges to + 1/32 in.;  
screw and hole placement to + 1/32 in.

Materials: Hot-dipped, mill-galvanized steel

General: Connector slots 3/4 x 1/4 in.

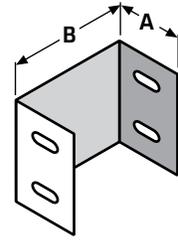
# Metal Wireway

UL 870 AND CSA C22.2 NO. 26

## Couplings



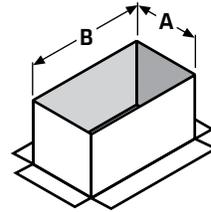
Part Number	Dimension A inches	Dimension B inches
UCON 2525CSA	2-1/8	2-7/16
UCON 254CSA	2-1/8	3-15/16
UCON 256CSA	2-1/8	5-15/16
UCON 258CSA	2-1/8	7-15/16
UCON 44CSA	3-5/8	3-15/16
UCON 46CSA	3-5/8	5-15/16
UCON 48CSA	3-5/8	7-15/16
UCON 66CSA	5-5/8	5-15/16
UCON 88CSA	7-5/8	7-15/16



## Panel connectors



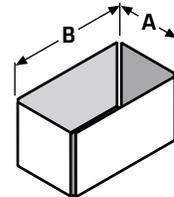
Part Number	Dimension A inches	Dimension B inches
UPCN 2525CSA	2-1/8	2-7/16
UPCN 254CSA	2-1/8	3-15/16
UPCN 256CSA	2-1/8	5-15/16
UPCN 258CSA	2-1/8	7-15/16
UPCN 44CSA	3-5/8	3-15/16
UPCN 46CSA	3-5/8	5-15/16
UPCN 48CSA	3-5/8	7-15/16
UPCN 66CSA	5-5/8	5-15/16
UPCN 88CSA	7-5/8	7-15/16



## End plates



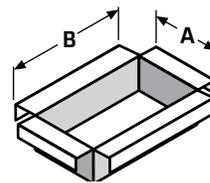
Part Number	Dimension A inches	Dimension B inches
UEPT 2525CSA	2-1/8	2-7/16
UEPT 254CSA	2-1/8	3-15/16
UEPT 256CSA	2-1/8	5-15/16
UEPT 258CSA	2-1/8	7-15/16
UEPT 44CSA	3-5/8	3-15/16
UEPT 46CSA	3-5/8	5-15/16
UEPT 48CSA	3-5/8	7-15/16
UEPT 66CSA	5-5/8	5-15/16
UEPT 88CSA	7-5/8	7-15/16



## Insulated bushings



Part Number	Dimension A inches	Dimension B inches
UISB 2525CSA	2-1/8	2-7/16
UISB 254CSA	2-1/8	3-15/16
UISB 256CSA	2-1/8	5-15/16
UISB 258CSA	2-1/8	7-15/16
UISB 44CSA	3-5/8	3-15/16
UISB 46CSA	3-5/8	5-15/16
UISB 48CSA	3-5/8	7-15/16
UISB 66CSA	5-5/8	5-15/16
UISB 88CSA	7-5/8	7-15/16



Special size wireway and wireway without knockouts are available with short lead times. Call Draka Elevator at 1-877-372-5237 for further information.

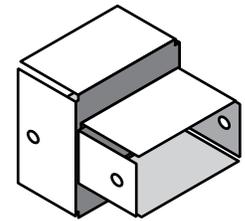
# Metal Wireway

UL 870 AND CSA C22.2 NO. 26

## Reducers



Part Number	Adapts from this size... inches	to this size inches
URED 2542525CSA	2-1/2 x 4	2-1/2 x 2-1/2
URED 254256CSA	2-1/2 x 4	2-1/2 x 6
URED 25666CSA	2-1/2 x 6	6 x 6
URED 25888CSA	2-1/2 x 8	8 x 8
URED 442525CSA	4 x 4	2-1/2 x 2-1/2
URED 44254CSA	4 x 4	2-1/2 x 4
URED 44256CSA	4 x 4	2-1/2 x 6
URED 4446CSA	4 x 4	4 x 6
URED 4448CSA	4 x 4	4 x 8
URED 46254CSA	4 x 6	2-1/2 x 4
URED 48254CSA	4 x 8	2-1/2 x 4
URED 6644CSA	6 x 6	4 x 4
URED 6664CSA	6 x 6	6 x 4
URED 8844CSA	8 x 8	4 x 4
URED 25844CSA	2-1/2 x 8	4 x 4
URED 48256CSA	4 x 8	2-1/2 x 6
URED 8848CSA	8 x 8	4 x 8
URED 8866CSA	8 x 8	6 x 6



Wireway and  
Electrical

Special size wireway and wireway without knockouts are available with short lead times. Call Draka Elevator at 1-877-372-5237 for further information.

Tolerances: Inside dimensions from 0 to + 1/16 in.;  
joints, corners and adjoining edges to + 1/32 in.;  
screw and hole placement to + 1/32 in.

Materials: Hot-dipped, mill-galvanized steel

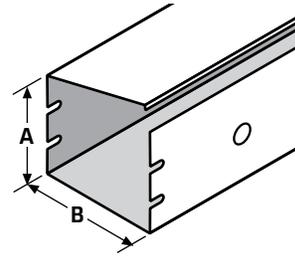
# Hinged Metal Wireway and Fittings

ETL CERTIFIED – STOCKED ONLY IN CANADA

## Galvanized hinged wireway



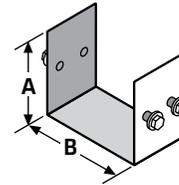
Part Number	Dimension A inches	Dimension B inches	Length inches
UGTR 252596CSACND	2-1/2	2-1/2	96
UGTR 4496CSACND	4	4	96
UGTR 6696CSACND	6	6	96



## Couplings for hinged wireway



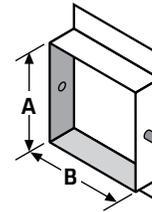
Part Number	Dimension A inches	Dimension B inches	For use with Wireway P/N
UCON 2525CSACND	2-1/2	2-1/2	UGTR 252596CSACND
UCON 44CSACND	4	4	UGTR 4496CSACND
UCON 66CSACND	6	6	UGTR 6696CSACND



## Flanges for hinged wireway



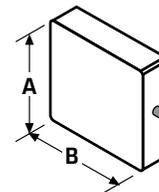
Part Number	Dimension A inches	Dimension B inches	For use with Wireway P/N
UPCN 2525CSACND	2-1/2	2-1/2	UGTR 252596CSACND
UPCN 44CSACND	4	4	UGTR 4496CSACND
UPCN 66CSACND	6	6	UGTR 6696CSACND



## End caps for hinged wireway



Part Number	Dimension A inches	Dimension B inches	For use with Wireway P/N
UEPT 2525CSACND	2-1/2	2-1/2	UGTR 252596CSACND
UEPT 44CSACND	4	4	UGTR 4496CSACND
UEPT 66CSACND	6	6	UGTR 6696CSACND



Special size wireway is available with short lead times.  
Call Draka Elevator at 1-877-372-5237 for further information.

Material: Hot-dipped, mill-galvanized steel

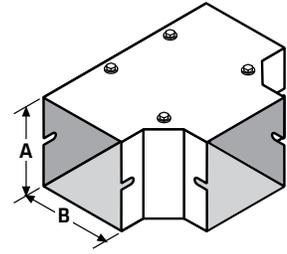
# Hinged Metal Wireway and Fittings

ETL CERTIFIED – STOCKED ONLY IN CANADA

## Tee fittings for hinged wireway



Part Number	Dimension A inches	Dimension B inches	For use with Wireway P/N
UTEE 2525CSACND	2-1/2	2-1/2	UGTR 252596CSACND
UTEE 44CSACND	4	4	UGTR 4496CSACND
UTEE 66CSACND	6	6	UGTR 6696CSACND

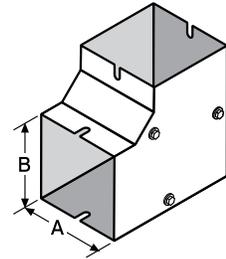


Wireway and  
Electrical

## 90° elbows for hinged wireway / Type C



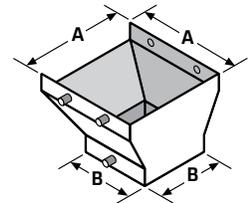
Part Number	Dimension A inches	Dimension B inches	For use with Wireway P/N
UL90 2525CSACND	2-1/2	2-1/2	UGTR 252596CSACND
UL90 44CSACND	4	4	UGTR 4496CSACND
UL90 66CSACND	6	6	UGTR 6696CSACND



## Reducers for hinged wireway



Part Number	Dimension A inches	Dimension B inches
URED 442525CSACND	4 x 4	2-1/2 x 2-1/2
URED 6644CSACND	6 x 6	4 x 4



Special size wireway is available with short lead times.  
Call Draka Elevator at 1-877-372-5237 for further information.

Material: Hot-dipped, mill-galvanized steel

# Electrical Metallic Tubing (EMT) and Fittings

UL LISTED, CSA CERTIFIED AS NOTED

## EMT – lightweight, thin wall

Part Number	Trade Sizes
01-001	1/2
01-002	3/4
01-003	1
01-004	1-1/4
01-005	1-1/2
01-006	2
01-007	2-1/2



## 90° elbows

Part Number	Trade Sizes
02-005	1/2
02-006	3/4
02-001	1
02-002	1-1/4
02-003	1-1/2
02-004	2
02-010	2-1/2



## Steel one-hole straps

Part Number	Trade Sizes
05-000 <sup>1</sup>	3/8
05-001	1/2
05-002	3/4
05-003	1
05-004	1-1/4
05-005	1-1/2
05-006	2
05-014	2-1/2



## Steel hangers with bolts

Part Number	Trade Sizes
78-053	1/2
78-078	3/4
78-054	1
78-080	1-1/4
78-055	1-1/2



## Die-cast chase nipples

Part Number	Trade Sizes
06-001	1/2
06-002	3/4
06-005	1
06-009	1-1/4
06-010	1-1/2
06-003	2
06-011	2-1/2



## Steel lock nuts

Part Number	Trade Sizes
07-001	1/2
07-002	3/4
07-005	1
07-006	1-1/4
07-004	1-1/2
07-003	2
07-007	2-1/2



## Threaded insulated bushings

Part Number	Trade Sizes
27-006	1/2
27-007	3/4
27-005	1
27-002	1-1/4
27-003	1-1/2
27-004	2
27-022	2-1/2



## Steel reducing washers

Part Number	Trade Sizes
45-001	3/4 - 1/2
45-002	1 - 1/2
45-009	1 - 3/4
45-014	1-1/4 - 1/2
45-024	1-1/4 - 3/4
45-008	1-1/4 - 1
45-010	1-1/2 - 1
45-003	1-1/2 - 1-1/4
45-004	2 - 1-1/4
45-005	2 - 1-1/2
45-038	2-1/2 - 1



EMT / conduit benders can be found on page 89.



# Electrical Metallic Tubing (EMT) Fittings

UL LISTED, CSA CERTIFIED

## Die-cast compression connectors

Part Number	Trade Size
08-001	1/2
08-002	3/4
08-003	1
08-004	1-1/4
08-005	1-1/2
08-006	2
08-007	2-1/2



## Steel compression connectors

Part Number	Trade Sizes
69-004	1/2
69-005	3/4
69-006	1
69-007	1-1/4
69-008	1-1/2
69-009	2



## Die-cast set screw connectors

Part Number	Trade Sizes
08-021	1/2
08-022	3/4
08-023	1
08-024	1-1/4
08-025	1-1/2
08-026	2
08-027	2-1/2



## Steel set screw connectors

Part Number	Trade Sizes
69-010	1/2
69-011	3/4
69-012	1
69-013	1-1/4
69-014	1-1/2
69-015	2



## Die-cast compression couplings

Part Number	Trade Sizes
09-001	1/2
09-002	3/4
09-003	1
09-004	1-1/4
09-005	1-1/2
09-006	2
09-013	2-1/2



## Steel compression couplings

Part Number	Trade Sizes
69-016	1/2
69-017	3/4
69-018	1
69-019	1-1/4
69-020	1-1/2
69-021	2



## Die-cast set screw couplings

Part Number	Trade Sizes
09-027	1/2
09-028	3/4
09-029	1
09-030	1-1/4
09-031	1-1/2
09-032	2
09-033	2-1/2



## Steel set screw couplings

Part Number	Trade Sizes
69-022	1/2
69-023	3/4
69-024	1
69-025	1-1/4
69-026	1-1/2
69-027	2



# EMT Conduit Bodies and EMT-to-Flex Couplings

UL LISTED, CSA CERTIFIED

## Type LB / set screw (cover separate)



Part Number	Trade Sizes
30-011	1/2
30-012	3/4
30-013	1
30-014	1-1/4
30-015	1-1/2
30-021	2
30-023 <sup>†</sup>	2-1/2

<sup>†</sup>30-023 comes with cover



## EMT-to-flex compression couplings – malleable iron



Part Number	Trade Sizes
69-049	1/2 EMT to 3/8 flex
69-048	1/2 EMT to 1/2 flex
69-050	3/4 EMT to 3/4 flex
12-004	1 EMT to 1 flex
12-006	1-1/4 EMT to 1-1/4 flex
12-007	1-1/2 EMT to 1-1/2 flex
12-005	2 EMT to 2 flex



## Type LR / set screw (cover separate)



Part Number	Trade Sizes
30-030	1/2
30-031	3/4
30-032	1
30-033	1-1/4
30-034	1-1/2
30-035	2



## EMT-to-flex squeeze couplings – set screw/die-cast



Part Number	Trade Sizes
12-001	1/2 EMT to 3/8 flex
12-002	1/2 EMT to 1/2 flex
12-003	3/4 EMT to 3/4 flex
12-016	1 EMT to 1 flex



## Type LL / set screw (cover separate)



Part Number	Trade Sizes
30-040	1/2
30-041	3/4
30-042	1
30-043	1-1/4
30-044	1-1/2
30-045	2



## EMT-to-flex couplings



Part Number	Trade Sizes
12-012	1/2 EMT to flex
12-013	3/4 EMT to flex



## Covers for conduit bodies



Part Number	Trade Sizes
30-017	1/2
30-018	3/4
30-019	1
30-020	1-1/4 to 1-1/2
30-022	2



Wireway and Electrical

# Flexible Conduit and Fittings

UL LISTED, CSA CERTIFIED AS NOTED

## Thin-wall steel conduit

Part Number	Trade Sizes
03-001	3/8
03-002	1/2
03-003	3/4
03-004	1
03-005	1-1/4
03-006	1-1/2
03-007	2



## Die-cast 90° squeeze-type flex box connectors

Part Number	Trade Sizes
11-001	3/8
11-002	1/2
11-003	3/4
11-004	1
11-005	1-1/4
11-006	1-1/2
11-008	2



## Die-cast straight squeeze-type flex box connectors

Part Number	Trade Sizes
10-001	3/8
10-002	1/2
10-003	3/4
10-004	1
10-005	1-1/4
10-006	1-1/2
10-010	2



## Die-cast 45° squeeze-type flex box connectors

Part Number	Trade Sizes
11-034	3/8
11-035	1/2
11-036	3/4



Roto-Flex cutter for flexible conduit - see page 90 for details.



## Malleable iron 90° squeeze-type flex box connectors

Part Number	Trade Sizes
69-028	3/8
69-029	1/2
69-030	3/4
69-031	1
69-032	1-1/4
69-033	1-1/2



## Malleable iron straight squeeze-type flex box connectors

Part Number	Trade Sizes
69-035	3/8
69-036	1/2
69-037	3/4
69-038	1
69-039	1-1/4
69-040	1-1/2
69-041	2



## Screw-in connectors for flex

Part Number	Trade Sizes
10-021	1/2
10-022	3/4
10-023	1
10-035	1-1/4
10-029	1-1/2
10-036	2
11-045	90° 'Jake L' for 1/2
11-046	90° 'Jake L' for 3/4
11-064	90° 'Jake L' for 1



## Screw-in couplings for flex

Part Number	Trade Sizes
12-101	1/2
12-102	3/4
12-100	1



# Liquid-tight Flexible Conduit and Fittings

UL LISTED, CSA CERTIFIED – ALL ITEMS ARE NOT IN STOCK / SPECIAL ORDER

## Liquid-tight flexible steel conduit

Part Number	Trade Sizes
03-032	3/8
03-012	1/2
03-013	3/4
03-014	1
03-015	1-1/4
03-016	1-1/2



## Liquid-tight die-cast straight zinc connectors

Part Number	Trade Sizes
10-017	3/8
10-011	1/2
10-015	3/4
10-013	1
10-012	1-1/4
10-099	1-1/2



## Liquid-tight die-cast 90° zinc connectors

Part Number	Trade Sizes
11-052	3/8
11-009	1/2
11-013	3/4
11-011	1
11-012	1-1/4
11-015	1-1/2



Wireway and Electrical

# Threaded Fittings for Rigid Pipe

UL LISTED, CSA CERTIFIED AS NOTED

## LB conduit bodies



Part Number	Trade Sizes
30-052	1/2, includes cover & gasket
30-058	3/4, includes cover & gasket
30-053	1, includes cover & gasket
30-065	1-1/4, includes cover & gasket
30-066	1-1/2, includes cover & gasket
30-046	2, includes cover & gasket
30-051	2-1/2, includes cover & gasket



## TEE conduit bodies



Part Number	Trade Sizes
30-106	1/2, includes cover & gasket
30-107	3/4, includes cover & gasket
30-115	1, includes cover & gasket
31-044	1-1/4, includes cover & gasket
30-105	1-1/2, includes cover & gasket
30-108	2, includes cover & gasket



Wireway and Electrical

## LR conduit bodies



Part Number	Trade Sizes
30-061	1/2, includes cover & gasket
30-049	3/4, includes cover & gasket
30-113	1, includes cover & gasket
30-084	1-1/4, includes cover & gasket
30-088	1-1/2, includes cover & gasket
30-080	2, includes cover & gasket
30-116	2-1/2, includes cover & gasket



## Threaded couplings



Part Number	Trade Sizes
09-041	1/2
09-042	3/4
09-052	1
09-045	1-1/4
09-046	1-1/2
09-043	2
09-044	2-1/2



## LL conduit bodies



Part Number	Trade Sizes
30-056	1/2, includes cover & gasket
30-086	3/4, includes cover & gasket
30-114	1, includes cover & gasket
30-083	1-1/4, includes cover & gasket
30-087	1-1/2, includes cover & gasket
30-079	2, includes cover & gasket
30-054	2-1/2, includes cover & gasket



# Electrical Boxes

UL LISTED

4" square '1900' boxes  
1-1/2" deep – type 52151 

Part Number	K/O Trade Sizes
04-020	1/2
04-021	3/4
04-022	1/2 & 3/4



4" x 2-1/8" utility  
'handy' boxes  
1-7/8" deep – type 58361 

Part Number	K/O Trade Sizes
04-026	1/2
04-027	3/4



4" square '1900' boxes  
2-1/8" deep – type 52171 

Part Number	K/O Trade Sizes
04-024	1/2 & 3/4
04-025	1



4" x 2-1/8" utility  
'handy' boxes  
2-1/8" deep – type 58371 

Part Number	K/O Trade Sizes
04-028	1/2
04-029	3/4



4-11/16" square boxes  
2-1/8" deep – type 72171 

Part Number	K/O Trade Sizes
04-041	1/2 & 3/4



4" octagonal boxes  
1-1/2" deep – type 54151 

Part Number	K/O Trade Sizes
42-012	1/2
42-011	3/4



4" octagonal boxes  
2-1/8" deep – type 54171 

Part Number	K/O Trade Sizes
42-008	1



Other threaded items available with short lead times.

# Box Covers, Plates and Fixtures

UL LISTED, CSA CERTIFIED

4" x 4" box cover



Part Number	Fits these Part Numbers
04-030	04-020 04-021 04-022 04-024 04-025



4-11/16" x 4-11/16" box cover



Part Number	Fits these Part Numbers
04-040	04-041



4" x 2-1/8" box cover



Part Number	Fits these Part Numbers
04-037	04-026 04-027 04-028 04-029



4" x 4" octagonal box cover



Part Number	Fits these Part Numbers
42-013	42-008 42-011 42-012



4" x 2-1/8" outlet cover



Part Number	Fits these Part Numbers
04-038	04-026 04-027 04-028 04-029



4" x 2-1/8" switch cover



Part Number	Fits these Part Numbers
04-038	04-026 04-027 04-028 04-029



GFCI outlet



Part Number	Description
37-178	GFCI with cover 125VAC, 15A



# Junction Boxes and Knockout Punches/Plugs

UL LISTED, CSA CERTIFIED AS NOTED

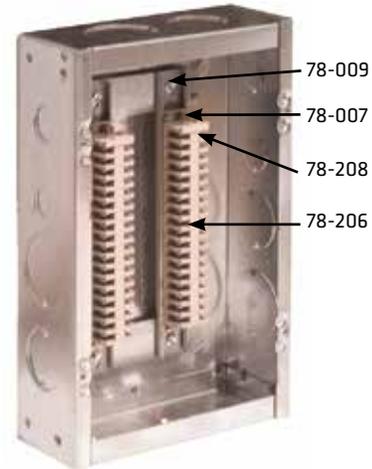
Junction boxes – fully assembled with cover and terminals

Part Number	H x W inches	Depth and Capacity inches • wire count
43-036	13-3/4 x 8-1/2	3-1/4 • 36 terminals, 72 wires
43-072	24 x 8-1/2	3-1/4 • 72 terminals, 144 wires
43-108	36 x 8-1/2	3-1/4 • 108 terminals, 216 wires

Junction boxes have knockouts on top, bottom and sides.

Top/bottom knockouts are 2 and 1-1/2 in. - sides are 2, 1-1/2, 3/4 and 1/2 in.

Photo shows box with components that may also be ordered separately.



## Junction box components



Part Number	Description
78-206	Tubular terminal clamps (Buchanan 0925) for wire sizes 22 to 10 AWG
78-007	Channel clamps (Buchanan 61)
78-208	End section (Buchanan 0930)
78-009*	Zinc-plated track (Buchanan 60)

\*78-009 is not UL listed/CSA certified.



## Screw-cover pull boxes – with cover and knockouts



Part Number	H x W inches	Depth inches	K/O Pattern
42-007	4 x 4	4	A
42-006	6 x 6	4	B
42-054	8 x 8	4	B
42-025	10 x 10	4	B
42-051	12 x 12	4	C
42-022	18 x 18	4	D
42-021	24 x 24	4	D
42-055	8 x 8	6	B



Pattern A  
1/2 - 3/4"

Pattern B  
1/2 - 3/4" and 3/4 - 1"

Pattern C  
1/2 - 3/4" and 3/4 - 1"

Pattern D  
1/2 - 3/4" and 3/4 - 1"

## Metal knockout plug

Part Number	Size inches
19-021	1/2
19-026	3/4
19-027	1
19-028	1-1/4
19-029	1-1/2
19-030	2



# Wire Rope, Compensation Cable and Accessories



Wire Rope, Compensation  
and Accessories

Wire rope ordering information	50	Acculube™ automatic lubricators and lubricant	63
Wire rope selection guide	52	Rope tensioning systems	64
Imperial-sized wire rope	53	Load weighing device control units	65
Metric-sized wire rope	55	Load weighing devices	66
Metric-sized wire rope with electrical conductors	57	Whisper-Flex® compensation cable	68
Rope brakes	58	Steady-Flex® compensation cable	69
Wedge sockets and isolation bushings	59	Whisper-Flex and Steady-Flex installation kits	70
Wedge socket accessories – splices, bands and clips	61	Damping devices	72
Selector / hoistway door relating cable	62	Pullout switch	74

# Wire Rope Ordering Information

## WIRE ROPE MANUFACTURED BY GUSTAV WOLF

### IMPORTANT NOTE:

#### New Wire Ropes and Existing Sheaves

IT IS STRONGLY RECOMMENDED that the sheaves of existing elevators be carefully checked and re-grooved or replaced as necessary prior to rope replacement.

The diameter of the new ropes is greater than that of the old ropes and failure to bring the sheave grooves into the machine manufacturer's specified tolerances can lead to vibration, metal shavings and other problems.

#### General information

Gustav Wolf offers a full line of elevator wire ropes, including:

“Low-stretch” natural fiber core wire rope in Iron, Traction and Extra High Strength Traction grades that provide the benefits of pre-stretching without paying the premium price,

PAWO F3 and PAWO F10 wire rope for high-rise/high-speed elevators to reduce or eliminate the labor cost of repeated rope shortenings.

They can be used wherever EHST grade is specified, and

CompactTrac™ compacted-strand natural fiber core wire rope for use with reverse bends and basement machines to extend rope life.

#### Ordering hoist ropes

The information needed to order hoist ropes is the number (quantity), length and diameter of the ropes; the stranding, construction and lay; the grade or tensile strength; and the breaking force (load or strength). While this information may be provided on the wire rope tag, it should be noted that the tag information may not always be accurate; it is not uncommon to find that the wrong tag has been applied. Use the following procedure for ordering hoist ropes for a traction elevator:

- 1) Count the number of ropes on the elevator.**
- 2) Determine the length of each rope.** The length can often be found on the installation layout.
- 3) Measure the diameter of the rope.** If you don't have a measuring tool, the crosshead data plate on top of the car should show the diameter or the diameter may be stamped on the existing shackles.
- 4) Determine the stranding and construction of the rope.** Stranding is the number of strands per rope and the number of wires per strand (e.g. an 8-strand rope with 19 wires per strand has 8 x 19 stranding). Determine whether the rope has 6, 8 or 9 strands by looking at the shackles where the stranding is more easily seen. The rope construction (Seale, Warrington, Filler Wire, etc.) can be found by matching up the rope cross-section with the cross-sections shown in this catalog.  
If there is not a crosshead data plate and the building is over 50 years old, the ropes used are usually 6 x 25 Filler Wire with Right Regular lay (most 6-strand hoist ropes are of this construction). An 8-strand hoist rope is usually 8 x 19 Seale. Lay can vary (see Step 5 below).

- 5) Determine the lay of the rope.** Compare a Right Regular lay rope to a Right Lang lay rope:

Right Regular



Right Lang



Note that the orientation of the individual wires is parallel to the centerline in a Right Regular lay rope. Right Regular lay is assumed if the lay is not indicated on your order.

- 6) Determine the grade or tensile strength of the rope.** In North America, grades are commonly expressed as Iron, Traction or Extra High Strength Traction (EHST).

Iron rope is normally used for governor and compensation ropes.

Traction rope can be used for hoist, governor and compensation applications.

Extra High Strength Traction (EHST) rope is frequently specified for high-rise/high-speed hoisting conditions.

Grade is sometimes expressed as tensile strength in Newtons/square millimeter (N/mm<sup>2</sup>) or pounds/square inch (psi).

For help in selecting the correct grade, see the table on page 52 for information on rope type, wire tensile strength and sheave hardness.

- 7) Determine the breaking force,** which can aid in confirming the grade and is usually indicated on the crosshead data plate. For example, if a breaking load of 14,500 lbf • 64,500 N is indicated for 1/2 in • 12.7 mm 8 x 19 ropes, refer to the information in this catalog or call your Gustav Wolf representative for the correct grade (in this case, traction grade).

#### Other considerations

**Core:** The purpose of the core is to provide support for the strands. Natural fiber is the most common core used in elevator ropes in North America. However, in some high-rise/high-speed, most MRL and certain hydraulic applications, the use of steel-reinforced or full steel core (IWRC) ropes is becoming more common.

**Preforming:** In the preforming process, the strands are formed into a helix (spiral) prior to closing. Preformed rope is the industry standard and provides longer service life while being easier to handle. All the ropes in this catalog are preformed.

**Coating:** Bright (uncoated) is the industry standard and comes without any coating on the rope other than lubrication. For protection from weather and corrosion (e.g. outdoor and mine elevators), the use of a galvanized coating is often recommended. Gustav Wolf 3/8 in • 9.5 mm, 1/2 in • 12.7 mm and 5/8 in • 15.9 mm 8 x 19 Seale galvanized hoist/governor ropes in traction grade are in stock for immediate delivery. See page 54 for details.

**Compacted strands:** A rope design with flattened wires/strands to increase contact area, reduce surface pressure and help to extend rope service life associated with rope fatigue due to reverse bends (e.g. basement machines). See page 54 for details.

**Stretch/Elongation:** Elevator wire rope stretch results from two main factors. Elastic stretch is an increase in rope length due to increase in load (as load increases, the rope becomes longer and narrower and vice versa). Constructional stretch is an increase in rope length due to the settling/compression of the core and strands when a load is applied (most occurs shortly after the rope is put into service). Ropes made by different manufacturers and ropes of different strandings, constructions, grades, etc. exhibit different stretch characteristics. For more information on wire rope stretch refer to page 53 of this catalog or contact your Draka representative.

**Prestretching:** Some wire rope manufacturers promote pre-stretched rope at a premium price. Laboratory testing has shown that standard Gustav Wolf natural fiber core rope exhibits comparable elongation to commonly used brands of pre-stretched fiber core rope without the associated increase in price. Contact your Draka representative for more information on Gustav Wolf low-stretch natural fiber core wire rope.

# Wire Rope Ordering Information

## WIRE ROPE MANUFACTURED BY GUSTAV WOLF

### Ordering governor and/or compensation ropes

The ordering procedure is similar to hoist ropes but you may have to rely on the rope tag to a greater degree because there is no crosshead data plate for governor or compensation ropes. However:

- 1) Measure the diameter of the rope.** Use a caliper, micrometer or Go/No Go gauge.
- 2) Go to the shackles and confirm the stranding (6 or 8) of the ropes.** Almost all compensation and governor ropes have 8 strands (refer to the rope cross-sections shown in this catalog).

Look at the rope tag to determine breaking strength and then refer to the information in this catalog or contact your Draka representative for the correct grade (Iron or Traction).

- 3) Consider the rope grade or tensile strength.** Governor and compensation ropes are either Iron or Traction – never Extra High Strength Traction (EHST).

- 4) Confirm the lay of the rope.** Governor and compensation ropes are always Right Regular lay and never Right Lang lay.

### Other considerations

Preformed rope is always preferred for its longer life and ease of installation.

Replace all governor and compensation ropes with preformed ropes.

### Handling of wire ropes prior to and during installation

Reels are best transported on the job site by rolling on a clean flat surface or by lifting from a pipe in the reel center hole.

Wire rope should be stored indoors, off the ground and covered to protect it from moisture, dirt, dust, sunlight, etc.

Care must be taken to unroll and not laterally pull wire rope when paying it off the reel. Kinking and dragging ropes over sharp edges must be avoided.

Ropes must be prevented from rotating during installation since free-hanging ropes will untwist under their own weight. The use of reeving splices is recommended and these are available on page 62 of this catalog.

Loose rope ends should always be seized or secured with cable bands to prevent untwisting. Cable bands are available on page 62 of this catalog.

The installers should continually inspect wire rope during installation to identify any areas which may have been damaged in shipment or while in storage on the job site. Per ASME A17.1b-2009/CSA B44b-09 8.6.3.2 and ASME A17.6-2010 1.10.5, where one suspension rope has been damaged during installation or acceptance testing prior to being subjected to elevator service, it shall be permissible to replace a single damaged rope with a new rope, provided that the requirements of 8.6.3.2.1 through 8.6.3.2.6 and 1.10.4.4 and 1.10.5.1 through 1.10.5.6 respectively are met.

Use these tools to cut and measure wire rope. See page 88 for details.

#WR-IMPACT  
Impact cutter



#WR-HYDRAULIC  
Hydraulic cutter



#WR-RATCHET  
Ratchet cutter



#WR-MT  
Rope gauge



#WR-QBTM-2  
Tension meter



#WR-CALIPER-C  
Digital caliper



### Tensioning

It is important to equally tension all the hoist ropes immediately after installation and during subsequent inspections in order to avoid differential wear of sheave grooves and ropes and to extend rope service life.

Ropes are considered to be equally tensioned when the smallest tension measured is within 10% of the highest tension measured. Ropes with greater tension/load will press harder into the sheave grooves resulting in increased overall rope wear while ropes with lesser tension/load will slide through the sheave grooves causing increased crown and sheave wear.

Highly accurate rope tension measuring devices are available which allow the quick and accurate checking of tension. Tension measuring devices are available on pages 64, 65 and 88 of this catalog.

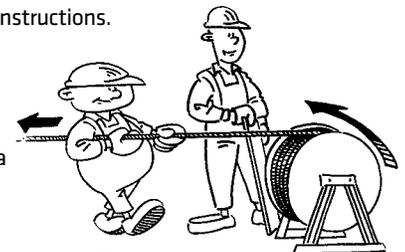
### Field lubrication policy

Draka strongly recommends an annual lubrication application every spring, if the ropes become dry or at 250,000 cycles, whichever occurs first.

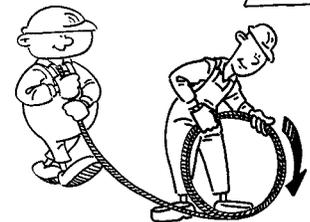
Ropes should be lubricated prior to summer and the increased temperature and humidity it brings. Condensation caused by the combination of an air conditioned machine room and a humid hoistway must be kept from entering the rope core.

The practice of re-lubrication based on time interval alone is no longer valid. As already mentioned, ropes on modern elevators are subject to greater stress which requires that cycle counts also be considered when deciding the right time to re-lubricate. Studies show that following the 250,000 cycle guideline will contribute to extended rope service life. **Never field lubricate governor ropes.** See Draka Tech Tip #6 for detailed lubrication instructions.

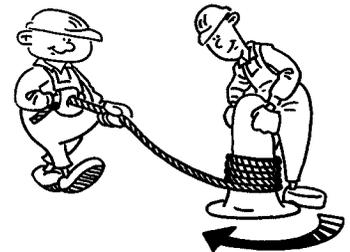
Wire rope may be paid off a reel supported by jack stands with a helper using a board as a brake...



...or by paying it off a coil as the helper rotates it...



...or by paying it off a bollard as the helper rotates it.



# Wire Rope Selection Guide

## IMPERIAL DIAMETERS WITH PART NUMBERS, E-MODULE AND ELONGATION VALUES

Application	Recommended Rope and Rope Part Number	Rope Description	E-Module <sup>†</sup> n/mm <sup>2</sup>	Stretch <sup>††</sup> per 100' • 30 m of Hoist Rope (Elastic) + (Constructional) = Total inches • mm
<b>Hoist for Low/Mid-rise (up to 200' • 60 m)</b>	<b>F 819 S-FE DT</b>	8x19 Seale traction grade	65000 - 70000	(2 - 3) + (2 - 4) = 4 - 7 inches • (51 - 76) + (51 - 102) = 102 - 178 mm
	3/8" = 80-001-A	natural fiber core		
	1/2" = 80-002-A			
	5/8" = 80-003-A			
<b>Hoist for Mid/High-rise (&gt; 200' • 60 m)</b>	<b>F 819 S-FE DT EHS</b>	8x19 Seale EHS traction grade	65000 - 70000	(2 1/2 - 3) + (2 - 4 1/2) = 4 1/2 - 7 1/2 inches • (63 - 76) + (51 - 114) = 114 - 190 mm
	3/8" = 80-001EHS-A	natural fiber core		
	1/2" = 80-002EHS-A			
	5/8" = 80-003EHS-A			
	<b>PAWO F3</b>	8x19 Seale EHS traction grade*	75000 - 80000	(1 1/2 - 2) + (1 1/2 - 2) = 3 - 4 inches • (38 - 51) + (38 - 51) = 76 - 102 mm
	3/8" = 80-016-A	steel reinforced natural fiber core (lower-stretch alternative to F 819 S-FE DT EHS above)		
	1/2" = 80-020-A			
	5/8" = 80-024-A			
<b>Hoist for High-rise (&gt; 300' • 90 m)</b>	<b>PAWO F10</b>	9x17 or 9x21 Filler Wire EHS traction grade*	80000 - 85000	(1 1/2 - 2) + (1/2 - 1) = 2 - 3 inches • (38 - 51) + (13 - 25) = 51 - 76 mm
	3/8" = 80-104	full steel core		
	1/2" = 80-108			
	5/8" = 80-113			
<b>Hoist for Installations with Reverse Bends (e.g. Basement Machines)</b>	<b>CompactTrac™</b>	8x19 Seale/compacted strands traction grade	65000 - 70000	(2 - 3) + (2 - 4) = 4 - 7 inches • (51 - 76) + (51 - 102) = 102 - 178 mm (these are estimated dimensions)
	3/8" = 80-001CSLL-A	natural fiber core		
	1/2" = 80-002CSLL-A			
<b>Governor (select Seale in Traction or Warrington in Traction or Iron)</b>	<b>F 819 S-FE DT</b>	8x19 Seale traction grade	n/a	n/a
	1/4" = 80-000-A	natural fiber core		
	3/8" = 80-001-A			
	1/2" = 80-002-A			
	<b>F 819 W-FE DT</b>	8x19 Warrington traction grade	n/a	n/a
	3/8" = 80-001W	natural fiber core		
	<b>F 819 W-FE DT Iron</b>	8x19 Warrington iron grade	n/a	n/a
	3/8" = 80-010IRONW	natural fiber core		
	7/16" = 80-007IRON-K (Seale)			
<b>Compensation/Governor (select Traction or Iron)</b>	<b>F 819 F-FE DT</b>	8x25 Filler Wire traction grade	n/a	n/a
	1/2" = 80-002FW	natural fiber core		
	5/8" = 80-003FW			
	3/4" = 80-013FW			
	<b>F 819 F-FE DT Iron</b>	8x25 Filler Wire iron grade	n/a	n/a
	1/2" = 80-011IRONFW	natural fiber core		
	5/8" = 80-012IRONFW			
3/4" = 80-013IRONFW-K				

Other imperial diameters are available. Refer to pages 53-54 of this catalog or contact Draka for additional information.

The goal of the suggested hoist rope guidelines is to achieve maximum rope service life and minimum rope elongation. The guidelines for hoist rope are based on Rise/Travel and apply to standard 1:1 overhead machine installations only unless otherwise indicated. Other machine arrangements should be discussed with your Gustav Wolf representative prior to ordering.

It is strongly recommended that the sheaves of existing elevators be carefully checked and re-grooved or replaced as necessary prior to rope replacement. The diameter of the new ropes is greater than that of the old ropes and failure to bring the sheave grooves into the machine manufacturer's specified tolerances can lead to vibration, metal shavings and other problems.

To insure maximum rope and sheave life a program of regular re-lubrication should be adopted. Refer to page 51 of this catalog for information on field re-lubrication. DrakaLube™ is available (see page 63).

Rope and sheave life will be maximized if hoist rope tension is equalized (within a 10% range) at the time of rope installation and at regular intervals thereafter (see page 51 for more information). The use of the portable RTS Rope Tensioning System (available on page 64 of this catalog) is recommended.

† Modulus of elasticity is calculated per VDI 2358-1984.

†† Elongation is calculated at 10% of Minimum Breaking Force (MBF).

\*Actual minimum tensile strength of outer wires is 1570 N/mm<sup>2</sup> (227,800 psi).

### Range of acceptable traction sheave hardness based on rope grade/tensile strength:

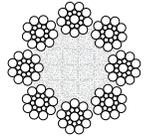
Wire Rope Type (see table above and other ropes in this catalog)	Minimum Tensile Strength of Outer Wires (N/mm <sup>2</sup> • psi)	Hardness of Traction Sheave (Brinell)
F 819 W-FC DT Iron & F 819 F-FC DT Iron	680 • 100,000 (iron grade)	For governor/comp. only
F 819 S-FC DT, CompactTrac™, F 819 W-FC DT & F 819 F-FC DT	1180 • 170,000 (traction grade)	180 - 200
Metric F 819 S-FC DT (see page 55)	1370 • 198,800	200 - 230
PAWO F3, F7, F7S & F10	1570 • 227,800	220 - 240
F 819 S-FC DT EHS	1670 • 245,000 (EHS traction grade)	230 - 250

# Wire Rope by Gustav Wolf

IMPERIAL DIAMETERS TO MEET ASME A17.1 / CSA B44 AND A17.6 FOR STANDARD APPLICATIONS

## Hoist, hoist / governor and governor – 8 x 19 Seale with natural fiber core

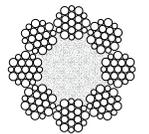
Part Number	Application	Diameter inches	Grade	Right Lay	Min. Breaking Force lbf • N	Net Weight lbs/ft • kg/m
80-000-A	Hoist / Gov.	1/4	Traction	Regular	3600 • 16025	0.09 • 0.14
80-001-A	Hoist / Gov.	3/8	Traction	Regular	8200 • 36475	0.21 • 0.31
80-001EHS-A	Hoist	3/8	EHST	Regular	9900 • 44050	0.21 • 0.31
80-001EHSLL-A	Hoist	3/8	EHST	Lang	9900 • 44050	0.21 • 0.31
80-007IRON-K	Governor	7/16	Iron	Regular	5600 • 24900	0.28 • 0.42
80-002-A	Hoist / Gov.	1/2	Traction	Regular	14500 • 64500	0.36 • 0.54
80-002LL-A	Hoist	1/2	Traction	Lang	14500 • 64500	0.36 • 0.54
80-002EHS-A	Hoist	1/2	EHST	Regular	17500 • 77850	0.36 • 0.54
80-002EHSLL-A	Hoist	1/2	EHST	Lang	17500 • 77850	0.36 • 0.54
80-038-A	Hoist	9/16	Traction	Regular	18500 • 82300	0.46 • 0.68
80-038EHS-A	Hoist	9/16	EHST	Regular	22100 • 98300	0.46 • 0.68
80-003-A	Hoist / Gov.	5/8	Traction	Regular	23000 • 102300	0.58 • 0.86
80-003LL-A	Hoist	5/8	Traction	Lang	23000 • 102300	0.58 • 0.86
80-003EHS-A	Hoist	5/8	EHST	Regular	27200 • 121000	0.58 • 0.86
80-003EHSLL-A	Hoist	5/8	EHST	Lang	27200 • 121000	0.58 • 0.86
80-039-A	Hoist	11/16	Traction	Regular	27000 • 120100	0.69 • 1.03
80-039LL-A	Hoist	11/16	Traction	Lang	27000 • 120100	0.69 • 1.03
80-039EHS-A	Hoist	11/16	EHST	Regular	32800 • 145900	0.69 • 1.03
80-039EHSLL-A	Hoist	11/16	EHST	Lang	32800 • 145900	0.69 • 1.03
80-013-A	Hoist	3/4	Traction	Regular	32000 • 142350	0.82 • 1.22
80-013EHS-A	Hoist	3/4	EHST	Regular	38900 • 173025	0.82 • 1.22
80-013EHSLL-A	Hoist	3/4	EHST	Lang	38900 • 173025	0.82 • 1.22
80-040-A	Hoist	13/16	Traction	Regular	37000 • 164575	0.96 • 1.43
80-014-A	Hoist	7/8	Traction	Regular	42000 • 186825	1.11 • 1.65
80-042-A	Hoist	1	Traction	Regular	54000 • 240200	1.45 • 2.16



The most popular rope design in North America. Eight-strand/Seale construction with its larger outer wires better resists abrasion and wear. Dual-tensile design provides high-breaking strength without damage to sheaves with lower Brinell hardness. Available in Traction or Extra High Strength Traction (EHST) grade and Right Regular or Right Lang lay.

## Governor – 8 x 19 Warrington with natural fiber core

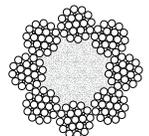
Part Number	Application	Diameter inches	Grade	Right Lay	Min. Breaking Force lbf • N	Net Weight lbs/ft • kg/m
80-001W	Governor	3/8	Traction	Regular	8200 • 36475	0.20 • 0.30
80-010IRONW	Governor	3/8	Iron	Regular	4200 • 18675	0.20 • 0.30



Eight-strand/Warrington construction is more flexible and makes this rope well-suited for governor applications. Available in Traction or Iron grade.

## Compensation / governor and compensation – 8 x 25 Filler Wire with natural fiber core

Part Number	Application	Diameter inches	Grade	Right Lay	Min. Breaking Force lbf • N	Net Weight lbs/ft • kg/m
80-002FW	Comp./Gov.	1/2	Traction	Regular	14500 • 64500	0.36 • 0.54
80-011IRONFW	Comp./Gov.	1/2	Iron	Regular	7200 • 32025	0.36 • 0.54
80-003FW	Comp./Gov.	5/8	Traction	Regular	23000 • 102300	0.62 • 0.92
80-012IRONFW	Comp./Gov.	5/8	Iron	Regular	11200 • 49825	0.62 • 0.92
80-013FW	Compensation	3/4	Traction	Regular	32000 • 142350	0.82 • 1.22
80-013IRONFW-K	Compensation	3/4	Iron	Regular	16000 • 71175	0.82 • 1.22



Eight-strand/Filler Wire construction with its higher wire count provides greater flexibility and makes this rope a good match for compensating applications. Available in Traction or Iron grade.

All listed Gustav Wolf wire rope is preformed, right lay with a bright (uncoated) finish. All popular items are in stock for immediate delivery. Less popular items and other diameters, strandings, constructions, grades, coatings, etc. are available by special order.

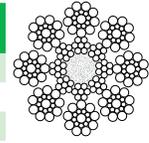
Wire Rope, Compensation and Accessories

# Wire Rope by Gustav Wolf

IMPERIAL DIAMETERS TO MEET ASME A17.1 / CSA B44 AND A17.6 FOR SPECIAL HOIST APPLICATIONS

## Hoist PAWO F3 – 8 x 19 Seale with steel-reinforced natural fiber core

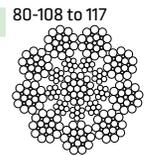
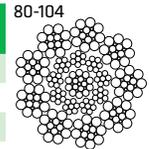
Part Number	Application	Diameter inches	Tensile Strength N/mm <sup>2</sup>	Right Lay	Min. Breaking Force lbf • N	Net Weight lbs/ft • kg/m
80-016-A	Hoist	3/8	1570	Regular	12225 • 54400	0.24 • 0.35
80-020-A	Hoist	1/2	1570	Regular	22100 • 98300	0.42 • 0.62
80-024-A	Hoist	5/8	1570	Regular	34800 • 154800	0.66 • 0.98
80-047-A	Hoist	11/16	1570	Regular	42050 • 187000	0.81 • 1.20
80-048-A	Hoist	3/4	1570	Regular	48925 • 217600	0.93 • 1.38



Steel-reinforced natural fiber core provides reduced stretch and cross-section deformation with higher breaking strength. Eight-strand/Seale construction with its larger outer wires increases wear resistance. Recommended for use on mid/high-rise elevators wherever Extra High Strength Traction (EHST) grade wire rope is specified to extend rope service life and reduce or eliminate the labor cost of repeated rope shortenings. PAWO F3 comes with a green surface line.

## Hoist PAWO F10 – 9 x 17 or 9 x 21 Filler Wire with Independent Wire Rope Core

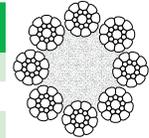
Part Number	Construction	Application	Diameter inches	Tensile Strength N/mm <sup>2</sup>	Right Lay	Min. Breaking Force lbf • N	Net Weight lbs/ft • kg/m
80-104	9 x 17 Filler Wire	Hoist	3/8	1570	Regular	13600 • 60500	0.26 • 0.38
80-108	9 x 21 Filler Wire	Hoist	1/2	1570	Regular	24625 • 109500	0.46 • 0.68
80-113	9 x 21 Filler Wire	Hoist	5/8	1570	Regular	39125 • 174000	0.73 • 1.08
80-115	9 x 21 Filler Wire	Hoist	11/16	1570	Regular	46750 • 208000	0.88 • 1.30
80-117	9 x 21 Filler Wire	Hoist	3/4	1570	Regular	55050 • 244900	1.02 • 1.51



Designed specifically for demanding high-rise/high-speed applications. Full steel core (IWRC) and nine-strand/Filler Wire construction work together to achieve minimal stretch, a round cross-section, excellent flexibility, increased resistance to rope fatigue due to bending and maximized breaking strength. Recommended for use on high-rise/high-speed elevators wherever Extra High Strength Traction (EHST) grade wire rope is specified to achieve the ultimate in wire rope performance. PAWO F10 comes with a white surface line.

## Hoist CompactTrac™ compacted strand – 8 x 19 Seale with natural fiber core

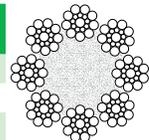
Part Number	Application	Diameter inches	Grade	Right Lay	Min. Breaking Force lbf • N	Net Weight lbs/ft • kg/m
80-001CSLL-A	Hoist	3/8	Traction	Lang	9400 • 41800	0.22 • 0.32
80-002CSLL-A	Hoist	1/2	Traction	Lang	17050 • 75800	0.39 • 0.58
80-003CSLL-A	Hoist	5/8	Traction	Lang	26925 • 119800	0.62 • 0.92



Compacted strand design of this eight-strand/Seale rope increases bending resistance. The larger contact area between ropes and sheaves reduces surface pressure and helps extend short rope service life associated with rope fatigue due to reverse bends e.g. basement machines. This is a Right Lang lay rope in Traction grade.

## Hoist/governor galvanized – 8 x 19 Seale with fiber core

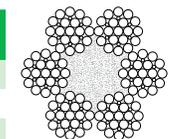
Part Number	Application	Diameter inches	Grade	Right Lay	Min. Breaking Force lbf • N	Net Weight lbs/ft • kg/m
80-001G-K	Hoist / Gov.	3/8	Traction	Regular	8200 • 36475	0.21 • 0.31
80-002G-A	Hoist / Gov.	1/2	Traction	Regular	14500 • 64500	0.36 • 0.54
80-003G-A	Hoist / Gov.	5/8	Traction	Regular	23000 • 102300	0.58 • 0.86



Galvanized coating on wires helps protect ropes from weather and corrosion associated with outdoor and mine elevators. This is an eight-strand/Seale construction rope in Traction grade.

## Hoist and compensation / governor – 6 x 25 Filler Wire with natural fiber core

Part Number	Application	Diameter inches	Grade	Right Lay	Min. Breaking Force lbf • N	Net Weight lbs/ft • kg/m
80-075FW	Hoist	1/2	Traction	Regular	14500 • 64500	0.40 • 0.60
80-075EH5FW	Hoist	1/2	EHST	Regular	20400 • 90750	0.40 • 0.60
80-076FW-K	Hoist	5/8	Traction	Regular	23000 • 102300	0.63 • 0.94
80-076IRONFW	Comp./Gov.	5/8	Iron	Regular	12800 • 56925	0.63 • 0.94



Six-strand/Filler Wire rope is less flexible than eight-strand/Filler Wire rope but it is used in a limited number of older hoist, compensating and governor applications. Available in Traction, Extra High Strength Traction (EHST) or Iron grade.

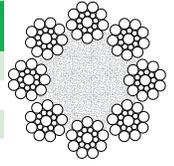
All listed Gustav Wolf wire rope is preformed, right lay with a bright (uncoated) finish (EXCEPT FOR 80-001G-K, 80-002G-A, and 80-003G-A above which are galvanized). Other diameters, strandings, constructions, grades, coatings, etc. are available by special order.

# Wire Rope by Gustav Wolf

METRIC DIAMETERS TO MEET DIN EN 12385, ISO 4344, ASME A17.1 / CSA B44 AND A17.6

## Metric hoist and compensation F 819 S-FC DT – 8 x 19 Seale with natural fiber core

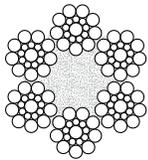
Part Number	Application	Diameter mm	Tensile Strength N/mm <sup>2</sup>	Right Lay	Min. Breaking Force lbf • N	Net Weight lbs/ft • kg/m
80-005-A	Hoist	8.0	1370/1770	Regular	6850 • 30500	0.15 • 0.22
80-090-A	Hoist	9.0	1370/1770	Regular	8625 • 38400	0.19 • 0.28
80-006-A	Hoist	10.0	1370/1770	Regular	10825 • 48200	0.24 • 0.35
80-007-S	Hoist	11.0	1370/1770	Regular	13125 • 58400	0.29 • 0.43
80-008-A	Hoist	12.0	1370/1770	Regular	15550 • 69200	0.34 • 0.50
80-009-A	Hoist	13.0	1370/1770	Regular	18150 • 80700	0.40 • 0.59
80-096-A	Hoist	14.0	1370/1770	Regular	20900 • 93000	0.46 • 0.68
80-097-A	Hoist/Comp.	15.0	1370/1770	Regular	24275 • 108000	0.52 • 0.78
80-098-A	Hoist/Comp.	16.0	1370/1770	Regular	27200 • 121000	0.60 • 0.89
80-099-A	Hoist/Comp.	18.0	1370/1770	Regular	34625 • 154000	0.75 • 1.11
80-091-A	Hoist/Comp.	19.0	1370/1770	Regular	38450 • 171000	0.85 • 1.26



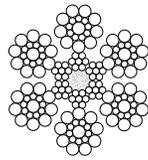
A popular metric rope design used in many standard hoist and compensating applications. Eight-strand/Seale construction with its larger outer wires better resists abrasion and wear. Dual-tensile design provides high-breaking strength without damage to sheaves with lower Brinell hardness.

## Metric governor – refer to specifications below

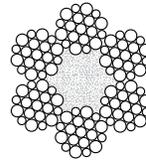
Part Number	Construction	Application	Diameter mm	Tensile Strength N/mm <sup>2</sup>	Right Lay	Min. Breaking Force lbf • N	Net Weight lbs/ft • kg/m
80-074	6 x 19 Seale	Governor	6.0	1770	Regular	4725 • 21000	0.09 • 0.13
80-080-S	6 x 19 Seale	Governor	6.0	1770	Regular	4725 • 21000	0.09 • 0.13
80-086	6 x 19 Seale - PAWO F3	Governor	6.0	1960	Regular	6175 • 27500	0.10 • 0.15
80-084	6 x 19 Warrington	Governor	6.5	1770	Regular	5800 • 25800	0.11 • 0.16
80-043-A	6 x 19 Seale - PAWO F3	Governor	6.5	1570	Regular	5825 • 25900	0.11 • 0.16
80-094	8 x 19 Warrington - PAWO 819W	Governor	6.5	1770	Regular	6675 • 29700	0.12 • 0.17
80-045-A	8 x 19 Seale - PAWO F3	Governor	8.0	1570	Regular	8550 • 38000	0.16 • 0.24
80-102	9 x 17 Filler Wire - PAWO F10	Governor	8.0	1570	Regular	9700 • 43200	0.18 • 0.27
80-077	8 x 19 Seale	Governor	9.5	1770	Regular	10525 • 46800	0.21 • 0.31
80-016-A	8 x 19 Seale - PAWO F3	Governor	9.5	1570	Regular	12225 • 54400	0.24 • 0.35
80-104	9 x 17 Filler Wire - PAWO F10	Governor	9.5	1570	Regular	13600 • 60500	0.26 • 0.38
80-105	9 x 17 Filler Wire - PAWO F10	Governor	10.0	1570	Regular	15100 • 67200	0.28 • 0.42



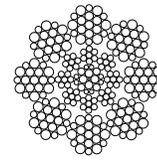
80-074 and 80-080-S are 6 x 19 Seale with synthetic fiber core. 80-080-S is galvanized.



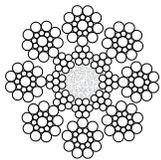
80-086 and 80-043-A are 6 x 19 PAWO F3 Seale with steel-reinforced natural fiber core.



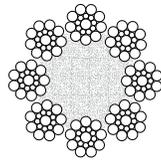
80-084 is 6 x 19 Warrington with natural fiber core.



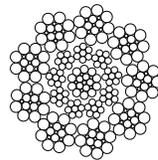
80-094 is 8 x 19 PAWO 819W Warrington with full steel core (IWRC).



80-045-A and 80-016-A are 8 x 19 PAWO F3 Seale with steel-reinforced natural fiber core.



80-077 is 8 x 19 Seale with synthetic fiber core, galvanized.



80-104, 80-104 and 80-105 are 9 x 17 PAWO F10 Filler Wire with full steel core (IWRC).

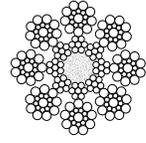
All listed Gustav Wolf wire rope is preformed, right lay with a bright (uncoated) finish (EXCEPT FOR 80-080-S and 80-077 above which are galvanized). All popular items are in stock for immediate delivery. Less popular items and other diameters, strandings, constructions, grades, coatings, etc. are available by special order.

# Wire Rope by Gustav Wolf

METRIC DIAMETERS TO MEET DIN EN 12385, ISO 4344, ASME A17.1 / CSA B44 AND A17.6

## Metric hoist and compensation PAWO F3 – 8 x 19 Seale with steel-reinforced natural fiber core

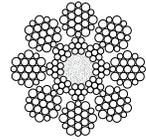
Part Number	Application	Diameter mm	Tensile Strength N/mm <sup>2</sup>	Right Lay	Min. Breaking Force lbf • N	Net Weight lbs/ft • kg/m
80-045-A	Hoist	8.0	1570	Regular	8550 • 38000	0.16 • 0.24
80-015-A	Hoist	9.0	1570	Regular	10850 • 48300	0.21 • 0.31
80-017-A	Hoist	10.0	1570	Regular	13600 • 60500	0.26 • 0.39
80-018-A	Hoist	11.0	1570	Regular	16500 • 73400	0.32 • 0.47
80-019-A	Hoist	12.0	1570	Regular	19525 • 86800	0.37 • 0.55
80-021-A	Hoist	13.0	1570	Regular	23175 • 103100	0.44 • 0.65
80-022-A	Hoist	14.0	1570	Regular	26825 • 119300	0.51 • 0.75
80-023-A	Hoist/Comp.	15.0	1570	Regular	30925 • 137600	0.59 • 0.87
80-024-A	Hoist/Comp.	16.0	1570	Regular	34800 • 154800	0.66 • 0.98
80-026-A	Hoist/Comp.	18.0	1570	Regular	43525 • 193600	0.83 • 1.23
80-048-A	Hoist/Comp.	19.0	1570	Regular	48925 • 217600	0.93 • 1.38



Steel-reinforced natural fiber core provides reduced stretch and cross-section deformation with higher breaking strength. Eight-strand/Seale construction with its larger outer wires increases wear resistance. PAWO F3 comes with a green surface line.

## Metric hoist PAWO F7 – 8 x 19 Warrington with steel-reinforced natural fiber core

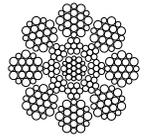
Part Number	Application	Diameter mm	Tensile Strength N/mm <sup>2</sup>	Right Lay	Min. Breaking Force lbf • N	Net Weight lbs/ft • kg/m
80-056-A	Hoist	8.0	1570	Regular	9125 • 40600	0.18 • 0.26
80-027-A	Hoist	9.0	1570	Regular	11650 • 51800	0.22 • 0.33
80-029-A	Hoist	10.0	1570	Regular	14250 • 63400	0.27 • 0.40
80-030-A	Hoist	11.0	1570	Regular	17275 • 76800	0.33 • 0.49
80-031-A	Hoist	12.0	1570	Regular	20400 • 90700	0.38 • 0.57
80-033-A	Hoist	13.0	1570	Regular	23600 • 105000	0.45 • 0.67
80-034-A	Hoist	14.0	1570	Regular	27950 • 124300	0.53 • 0.78
80-035-A	Hoist	15.0	1570	Regular	31450 • 139900	0.60 • 0.89
80-036-A	Hoist	16.0	1570	Regular	36050 • 160400	0.69 • 1.02
80-059-A	Hoist	19.0	1570	Regular	50725 • 225600	0.96 • 1.42



Steel-reinforced natural fiber core provides reduced stretch and cross-section deformation with higher breaking strength. More flexible eight-strand/Warrington construction resists rope fatigue due to bending in installations with numerous rope bends. PAWO F7 comes with a green surface line.

## Metric hoist PAWO F7S – 8 x 19 Warrington with Independent Wire Rope Core

Part Number	Application	Diameter mm	Tensile Strength N/mm <sup>2</sup>	Right Lay	Min. Breaking Force lbf • N	Net Weight lbs/ft • kg/m
80-056SC	Hoist	8.0	1570	Regular	10025 • 44600	0.19 • 0.28
80-027SC	Hoist	9.0	1570	Regular	12600 • 56000	0.24 • 0.36
80-029SC-S	Hoist	10.0	1570	Regular	15625 • 69500	0.30 • 0.44
80-030SC	Hoist	11.0	1570	Regular	18675 • 83100	0.35 • 0.52
80-031SC	Hoist	12.0	1570	Regular	22225 • 98900	0.42 • 0.62
80-033SC	Hoist	13.0	1570	Regular	26075 • 116000	0.49 • 0.73
80-034SC	Hoist	14.0	1570	Regular	30300 • 134800	0.58 • 0.86
80-035SC	Hoist	15.0	1570	Regular	34350 • 152800	0.65 • 0.96
80-036SC	Hoist	16.0	1570	Regular	39600 • 176100	0.74 • 1.10
80-004SC	Hoist	18.0	1570	Regular	49150 • 218600	0.93 • 1.38
80-059SC	Hoist	19.0	1570	Regular	55125 • 245200	1.04 • 1.54



Full steel core (IWRC) reduces stretch and cross-section deformation to a minimum while maximizing breaking strength. More flexible eight-strand/Warrington construction resists rope fatigue due to bending in installations with numerous rope bends and smaller sheaves. PAWO F7S comes with a green surface line.

All listed Gustav Wolf wire rope is preformed, right lay with a bright (uncoated) finish. All popular items are in stock for immediate delivery. Less popular items and other diameters, strandings, constructions, grades, coatings, etc. are available by special order.

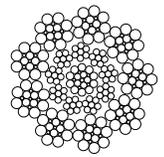
Wire Rope, Compensation and Accessories

# Wire Rope by Gustav Wolf

METRIC DIAMETERS TO MEET DIN EN 12385, ISO 4344, ASME A17.1 / CSA B44 AND A17.6

## Metric hoist PAWO F10 – 9 x 17 Filler Wire with Independent Wire Rope Core

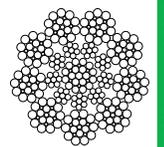
Part Number	Application	Diameter mm	Tensile Strength N/mm <sup>2</sup>	Right Lay	Min. Breaking Force lbf • N	Net Weight lbs/ft • kg/m
80-102	Hoist	8.0	1570	Regular	9700 • 43200	0.18 • 0.27
80-103	Hoist	9.0	1570	Regular	12300 • 54800	0.23 • 0.34
80-105	Hoist	10.0	1570	Regular	15100 • 67200	0.28 • 0.42
80-106	Hoist	11.0	1570	Regular	18000 • 80200	0.34 • 0.51
80-107	Hoist	12.0	1570	Regular	21500 • 95600	0.40 • 0.60



Designed specifically for demanding high-rise/high-speed applications using rope diameters of 8.0 to 12.0 mm. Full steel core (IWRC) and nine-strand/Filler Wire construction work together to achieve minimal stretch, a round cross-section, excellent flexibility, increased resistance to rope fatigue due to bending and maximized breaking strength. PAWO F10 comes with a white surface line.

## Metric hoist and compensation PAWO F10 – 9 x 21 Filler Wire with Independent Wire Rope Core

Part Number	Application	Diameter mm	Tensile Strength N/mm <sup>2</sup>	Right Lay	Min. Breaking Force lbf • N	Net Weight lbs/ft • kg/m
80-109	Hoist	13.0	1570	Regular	25500 • 113400	0.48 • 0.71
80-110	Hoist	14.0	1570	Regular	30500 • 135700	0.57 • 0.85
80-112	Hoist/Comp.	15.0	1570	Regular	34350 • 152800	0.64 • 0.95
80-113	Hoist/Comp.	16.0	1570	Regular	39125 • 174000	0.73 • 1.08
80-116	Hoist/Comp.	18.0	1570	Regular	49400 • 219700	0.92 • 1.37
80-117	Hoist/Comp.	19.0	1570	Regular	55050 • 244900	1.02 • 1.51

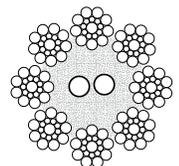


Wire Rope, Compensation and Accessories

Designed specifically for demanding high-rise/high-speed applications using rope diameters of 13.0 mm and larger. Full steel core (IWRC) and nine-strand/Filler Wire construction work together to achieve minimal stretch, a round cross-section, excellent flexibility, increased resistance to rope fatigue due to bending and maximized breaking strength. PAWO F10 comes with a white surface line.

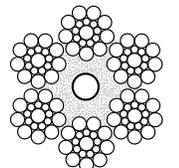
## Metric hoist PAWO F4e – 8 x 19 Seale with synthetic fiber core and two 0.96 mm<sup>2</sup> (>18 AWG) conductors

Part Number	Construction	Application	Diameter mm	Tensile Strength N/mm <sup>2</sup>	Right Lay	Min. Breaking Force lbf • N	Net Weight lbs/ft • kg/m
80-081	8 x 19 Seale (PAWO F4e)	Hoist	8.0	1770	Regular	7450 • 33200	0.17 • 0.25



## Metric hoist PAWO F5e – 6 x 19 Seale with synthetic fiber core and one 0.96 mm<sup>2</sup> (>18 AWG) conductors

Part Number	Construction	Application	Diameter mm	Tensile Strength N/mm <sup>2</sup>	Right Lay	Min. Breaking Force lbf • N	Net Weight lbs/ft • kg/m
80-067	6 x 19 Seale (PAWO F5e)	Hoist	8.0	1770	Regular	8600 • 38200	0.16 • 0.23



Galvanized coating on wires and 0.96 mm<sup>2</sup> (>18 AWG) electrical conductors make these six- or eight-strand/Seale ropes suitable for use on outdoor maintenance platforms and similar applications. Diameters in addition to 8.0 mm are available.

All listed Gustav Wolf wire rope is preformed, right lay with a bright (uncoated) finish (EXCEPT FOR 80-081 and 80-067 above which are galvanized). All popular items are in stock for immediate delivery. Less popular items and other diameters, strandings, constructions, grades, coatings, etc. are available by special order.

# Rope Brakes

SURE STOP™ ROPE BRAKES – US PATENT 8,256,579 B2 – CERTIFIED TO CSA B44.1 / ASME A17.5

## RB500 Sure Stop rope brake for 3/8 in to 1/2 in • 9.5 mm to 12.7 mm ropes

Part Number	Description
SURE STOP RB500	Sure-Stop rope brake kit for 3/8 to 1/2 inch ropes, including cable and manual
RB-JSQ8	Sure-Stop rope brake for 3/8 to 1/2 inch ropes
RB-JSQ-CABLE	Power/signal cable
RB-JSQ-MANUAL	Installation manual
AZ85618	Optional 220/120 transformer (if using 120VAC power)

## RB625 Sure Stop rope brake for 1/2 in to 5/8 in • 12.7 mm to 15.8 mm ropes

Part Number	Description
SURE STOP RB625	Sure-Stop rope brake kit for 1/2 and 5/8 inch ropes, including cable and manual
RB-JSQ9	Sure-Stop rope brake for 1/2 to 5/8 inch ropes
RB-JSQ-CABLE	Power/signal cable
RB-JSQ-MANUAL	Installation manual
AZ85618	Optional 220/120 transformer (if using 120VAC power)



## Sure Stop Rope Brake Replacement Parts

Part Number	Description
RB-BRAKE-PAD	Replacement brake pad (one) for RB500
RB-JSQ9-PAD	Replacement brake pad (one) for RB625

The Sure Stop rope brakes are a patented single-piece design. Their unique electro-mechanical operation removes the need for a separate hydraulic reset unit. Their compact footprints (16.25" x 8.625" for the RB500, 18" x 9.125" for the RB625) install easily in tight spaces. Power hook-up is quick and uncomplicated.

Use the RB500 for ropes 3/8 to 1/2 in. in diameter with a spread of up to 6 inches. Use the RB625 for ropes 1/2 to 5/8 in. in diameter with a spread of up to 7.75 inches.

The Sure Stop Rope Brakes are certified to CSA B44.1 / ASME A17.5 and have been verified to meet all relevant ASME A17.1 code requirements. They have also been tested and certified by NETEC (National Elevator Inspection and Testing Center) report number T3-F35-09-009.

Note: The RB500 and RB625 are normally wired for 208/220VAC but can use 120VAC with the optional transformer (p/n AZ85618). And while the units connect easily to almost every controller, in rare circumstances the wiring may need to be adapted. Draka also offers a code compliant solution for older controllers. Contact Draka for details and assistance.

### Features

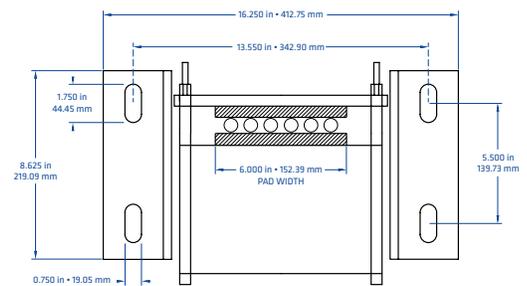
- Completely electronic – no need for any hydraulic piping or fittings
- Compact footprints install easily in tight spaces
- Certified to CSA B44.1-04 and ASME-A17.5-2004 (cCSAus)
- Complies with all ASME A17.1-2013 code requirements

## Technical Specifications

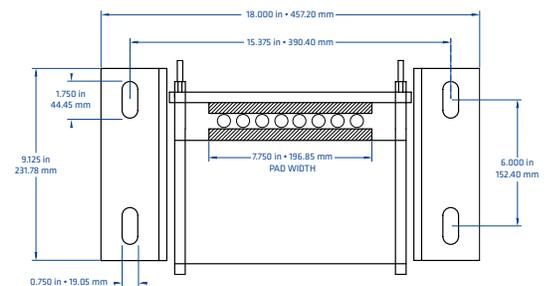
Specification	RB500	RB625
Rope Diameter	3/8" to 1/2"	1/2" to 5/8"
Brake Pad Width	6"	7-3/4"
1:1 Roping Rated Speed	500 ft/min	1,200 ft/min
1:1 Rated Load*	440 to 5,500 lbs	1,900 to 7,500 lbs
1:1 Total System Mass	16,000 lbs	30,000 lbs
2:1 Roping Rated Speed	350 ft/min	600 ft/min
2:1 Rated Load*	880 to 11,000 lbs	4,000 to 15,000 lbs
2:1 Total System Mass	28,400 lbs	61,000 lbs

\*Rated loads with 40 - 50% counterweight

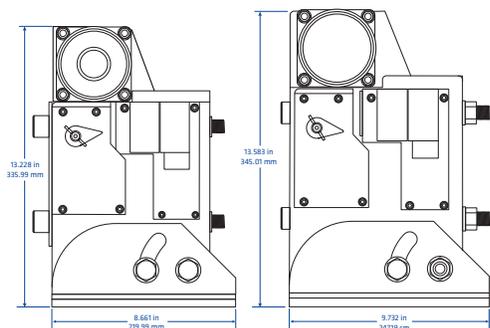
### Installation footprint RB500



### Installation footprint RB625



### H/W Dimensions for RB500 and RB625



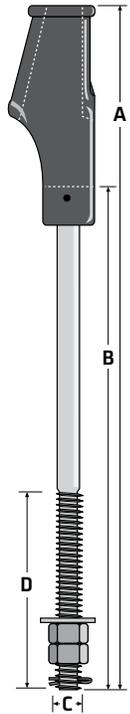
Wire Rope, Compensation and Accessories

# Wire Rope Wedge Sockets

TO MEET ASME A17.1 / CSA B44 • NEW YORK MEA APPROVAL #410-03-M

## Wire rope wedge sockets

Part Number	Rope size inches • mm	Dim (A) nom inches • mm (+/- 3/16 • 5)	Dim (B) nom inches • mm (+/- 3/16 • 5)	Dim (C) Thread and Diameter	Usable Thread min inches • mm	Dim (D) nom inches • mm (+/- 3/8 • 10)
WSY-516-12	5/16 • 8	17-1/2 • 445	12-19/32 • 320	M12	7-7/8 • 200	8-27/32 • 225
WSY-516-18	5/16 • 8	23-3/4 • 603	18-7/8 • 480	M12	9-13/16 • 250	10-13/16 • 275
WSY-516-24	5/16 • 8	30-1/8 • 765	24-3/16 • 640	M12	15-3/4 • 400	16-23/32 • 425
WSY-38-12	3/8 • 9 to 10	17-1/2 • 445	12-19/32 • 320	M12	7-7/8 • 200	8-27/32 • 225
WSY-38-18	3/8 • 9 to 10	23-3/4 • 603	18-7/8 • 480	M12	9-13/16 • 250	10-13/16 • 275
WSY-38-24	3/8 • 9 to 10	30-1/8 • 765	24-3/16 • 640	M12	15-3/4 • 400	16-23/32 • 425
WSY-12-12-A	7/16 to 1/2 • 11 to 13	18 • 457	12-19/32 • 320	M20	7-7/8 • 200	8-27/32 • 225
WSY-12-18-B	7/16 to 1/2 • 11 to 13	24-3/8 • 619	18-7/8 • 480	M20	9-13/16 • 250	10-13/16 • 275
WSY-12-24-B	7/16 to 1/2 • 11 to 13	30-5/8 • 778	24-3/16 • 640	M20	15-3/4 • 400	16-23/32 • 425
WSY-12-30-B	7/16 to 1/2 • 11 to 13	36-7/8 • 937	30-1/2 • 800	M20	15-3/4 • 400	16-23/32 • 425
WSY-12-36-B	7/16 to 1/2 • 11 to 13	43-1/4 • 1099	36-13/16 • 960	M20	15-3/4 • 400	16-23/32 • 425
WSY-58-12	9/16 to 5/8 • 14 to 16	19-3/4 • 502	12-19/32 • 320	M20	7-7/8 • 200	8-27/32 • 225
WSY-58-18	9/16 to 5/8 • 14 to 16	26-1/8 • 664	18-7/8 • 480	M20	9-13/16 • 250	10-13/16 • 275
WSY-58-24	9/16 to 5/8 • 14 to 16	32-3/8 • 822	24-3/16 • 640	M20	15-3/4 • 400	16-23/32 • 425
WSY-58-30	9/16 to 5/8 • 14 to 16	38-3/4 • 984	30-1/2 • 800	M20	15-3/4 • 400	16-23/32 • 425
WSY-58-36	9/16 to 5/8 • 14 to 16	45 • 1143	36-13/16 • 960	M20	15-3/4 • 400	16-23/32 • 425
WSY-34-12	11/16 to 3/4 • 17.5 to 19	21-1/4 • 540	12-19/32 • 320	M24	7-7/8 • 200	8-27/32 • 225
WSY-34-18	11/16 to 3/4 • 17.5 to 19	27-1/2 • 699	18-7/8 • 480	M24	9-13/16 • 250	10-13/16 • 275
WSY-34-24	11/16 to 3/4 • 17.5 to 19	33-3/4 • 857	24-3/16 • 640	M24	15-3/4 • 400	16-23/32 • 425
WSY-34-30	11/16 to 3/4 • 17.5 to 19	39-3/4 • 1010	30-1/2 • 800	M24	15-3/4 • 400	16-23/32 • 425
WSY-34-36	11/16 to 3/4 • 17.5 to 19	46-1/4 • 1175	36-13/16 • 960	M24	15-3/4 • 400	16-23/32 • 425



Wire Rope, Compensation and Accessories

Each wedge socket consists of the socket, rod, wedge, 2 nuts, 1 washer, 1 cotter pin and 2 retaining clips.

Draka wedge sockets are tested with steel core (IWRC) wire rope and exceed ASME A17.1 Rule 2.20.9 and all other applicable safety codes.

### Component Specifications:

- Socket: Cast steel ASTM-A27, Grade 60-30 stress relieved
- Rod: Rolled or forged steel ASTM 668
- Wedge: Cast steel ASTM-A27, Grade 60-30

## Governor rope wedge sockets

Part Number	Description
WSY-38-GOV	3/8 • 10 mm governor rope wedge socket, includes socket, wedge and 2 retaining clips, 0.55 in • 14 mm mounting hole
WSY-12-GOV	1/2 • 13 mm governor rope wedge socket, includes socket, wedge and 2 retaining clips, 0.69 in • 17.5 mm mounting hole



Use these items to maintain wire rope. See item for location in this catalog.

#WR-RTS Rope Tensioning Systems - page 64 - 65



Load weighing devices - pages 66 - 67



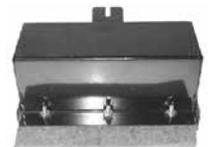
#ACCULUBE 200 or 300 Acculube rope lubricator and cleaner - page 63



#WR-DRAKALUBE DrakaLube rope treatment - page 63



#MIS-100 or 101 Automatic rope oiler - page 63



# Wire Rope Wedge Sockets

ISOLATION BUSHINGS FOR WEDGE SOCKETS ON PAGE 59

## Rope isolation bushing springs – assemblies and components

Part Number	Size and Description inches • mm	Spring length inches • mm	Spring O.D. inches • mm	Spring I.D. inches • mm
WS-SA-38	5/16 to 3/8 • 8 to 10 complete assembly	n/a	n/a	n/a
WS-SA-12-A	7/16 to 1/2 • 11 to 13 complete assembly	n/a	n/a	n/a
WS-SA-58	9/16 to 5/8 • 14 to 16 complete assembly	n/a	n/a	n/a
WS-SA-34	11/16 to 3/4 • 17.5 to 19 complete assembly	n/a	n/a	n/a
WS-IBUSH-38	5/16 to 3/8 • 8 to 10 bushing	n/a	n/a	n/a
WS-IBUSH-12-A	7/16 to 1/2 • 11 to 13 bushing	n/a	n/a	n/a
WS-IBUSH-58	9/16 to 5/8 • 14 to 16 bushing	n/a	n/a	n/a
WS-IBUSH-34	11/16 to 3/4 • 17.5 to 19 bushing	n/a	n/a	n/a
WS-SPR-38	5/16 to 3/8 • 8 to 10 bushing spring	4-13/16 • 122 (+/- 1/8 • 3)	1-5/16 • 33 (+/- 1/32 • 0.6)	11/16 • 17 (+/- 1/32 • 0.6)
WS-SPR-12	7/16 to 1/2 • 11 to 13 bushing spring	6-1/8 • 156 (+/- 9/64 • 3.5)	1-15/16 • 49.2 (+/- 1/32 • 0.7)	1 • 25.5 (+/- 1/32 • 0.7)
WS-SPR-58	9/16 to 5/8 • 14 to 16 bushing spring	6-7/8 • 176 (+/- 1/8 • 3)	2-1/2 • 64 (+/- 1/16 • 1.5)	1-1/4 • 32 (+/- 1/16 • 1.5)
WS-SPR-34	11/16 to 3/4 • 17.5 to 19 bushing spring	7-1/16 • 178 (+/- 5/32 • 4)	3-11/32 • 85 (+/- 3/32 • 2.5)	2-9/16 • 65 (+/- 3/32 • 2.5)
WS-BUSH-38	5/16 to 3/8 • 8 to 10 bushing washer	n/a	n/a	n/a
WS-BUSH-12-A	7/16 to 1/2 • 11 to 13 bushing washer	n/a	n/a	n/a
WS-BUSH-58	9/16 to 5/8 • 14 to 16 bushing washer	n/a	n/a	n/a
WS-BUSH-34	11/16 to 3/4 • 17.5 to 19 bushing washer	n/a	n/a	n/a

Isolation bushing spring assemblies include 1 spring, 3 bushings and 2 washers. They DO NOT include the wedge socket.

Springs measured when relaxed.

Component Specifications:

Socket: Cast steel ASTM-A27, Grade 60-30 stress relieved

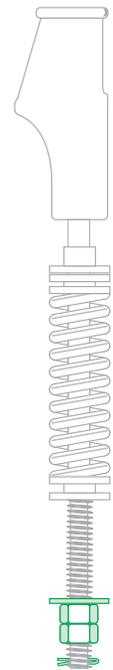
Rod: Rolled or forged steel ASTM 668

Wedge: Cast steel ASTM-A27, Grade 60-30



## Wedge socket individual components

Part Number	Size and Description inches • mm
WS-NUT-38	5/16 to 3/8 • 8 to 10 nut
WS-NUT-12	7/16 to 1/2 • 11 to 13 nut
WS-NUT-58	9/16 to 5/8 • 14 to 16 nut
WS-NUT-34	11/16 to 3/4 • 17.5 to 19 nut
WS-CPIN-38	5/16 to 3/8 • 8 to 10 cotter pin
WS-CPIN-12	7/16 to 1/2 • 11 to 13 cotter pin
WS-CPIN-58	9/16 to 5/8 • 14 to 16 cotter pin
WS-CPIN-34	11/16 to 3/4 • 17.5 to 19 cotter pin
WS-WSHR-38	5/16 to 3/8 • 8 to 10 washer
WS-WSHR-12-A	7/16 to 1/2 • 11 to 13 washer
WS-WSHR-58	9/16 to 5/8 • 14 to 16 washer
WS-WSHR-34	11/16 to 3/4 • 17.5 to 19 washer



Wire Rope, Compensation and Accessories

# Wedge Socket Components and Accessories

FOR WEDGE SOCKETS ON PAGE 59

## Wedge socket wedges

Part Number	Size and Description inches • mm (color)
WS-WEDGE-516	5/16 • 8 wedge insert (green)
WS-WEDGE-38	3/8 to 1/2 • 9 to 10 wedge insert (blue)
WS-WEDGE-12-A	7/16 to 1/2 • 11 to 13 (black)
WS-WEDGE-58	9/16 to 5/8 • 14 to 16 wedge insert (red)
WS-WEDGE-34	11/16 to 3/4 • 17.5 to 19 wedge insert (yellow)

Wedge: Cast steel ASTM-A27, Grade 60-30

These wedges are for use only in Draka wedge sockets.



## Wedge socket retaining clips

Part Number	Size and Description inches • mm
WS-CLIP-38	5/16 to 3/8 • 8 to 10 rope retaining clip
WS-CLIP-1258	7/16 to 5/8 • 11 to 16 rope retaining clip
WS-CLIP-34	11/16 to 3/4 • 17.5 to 19 rope retaining clip



## Pulling grips – galvanized steel with rotating eye

Part Number	For Wire Rope Diameters	Weave length	MBL kN
033-02-016	6.3 - 12.4 mm	660 mm	20.5 kN
033-02-018	2.7 - 18.8 mm	810 mm	44.4 kN
033-02-044	6.3 - 12.4 mm	660 mm	20.5 kN
033-02-046	2.7 - 18.8 mm	810 mm	44.4 kN



Use these items to maintain wire rope. See item for location in this catalog.

#WR-RTS Rope Tensioning Systems - page 64 - 65



Load weighing devices - pages 66 - 67



#ACCULUBE 200 or 300 Acculube rope lubricator and cleaner - page 63



#WR-DRAKALUBE DrakaLube rope treatment - page 63



#MIS-100 or 101 Automatic rope oiler - page 63



# Wire Rope Accessories

## Reeving splices

Part Number	Color Code	For Rope Size inches	Length inches	Rod Diameter inches	Max. Load lbs
RS-2103	Yellow	3/8	22	.051	300
RS-2105	Orange	1/2	29	.070	2000
RS-2107	Black	5/8	36	.086	2000



Reeving splices are provided three to a package. Use only once, then discard. Use ONLY for right lay ropes. Other sizes are available.

## Cable bands

Part Number	Description	Standard Packaging
WR-CB-38	Cable bands for 3/8 in. rope	50
WR-CB-12	Cable bands for 1/2 in. rope	50
WR-CB-58	Cable bands for 5/8 in. rope	50



## Wire rope clips – malleable iron

Part Number	Description
79-107	1/8 in. wire rope clip
79-114	3/16 in. wire rope clip
79-122	1/4 in. wire rope clip
79-123	3/8 in. wire rope clip
79-126	1/2 in. wire rope clip
79-127	5/8 in. wire rope clip



DO NOT use for hoisting applications.

## Selector / hoistway door relating cable – preformed, flexible, zinc-coated

Part Number	Size inches	Stranding	MBL lbs	Cable Weight lbs/kft
040219	1/16	7 x 7	480	7.5
040218	3/32	7 x 7	920	16
040215	1/8	7 x 19	2,000	29
040216	5/32	7 x 19	2,800	45
040220	3/16	7 x 19	4,200	65
040225	1/4	7 x 19	7,000	110



DO NOT use selector / hoistway door relating cable for hoisting applications.

Use these items to maintain wire rope. See item for location in this catalog.

#WR-RTS Rope Tensioning Systems - page 64 - 65

Load weighing devices - pages 66 - 67

#ACCULUBE 200 or 300 Acculube rope lubricator and cleaner - page 63

#WR-DRAKALUBE DrakaLube rope treatment - page 63

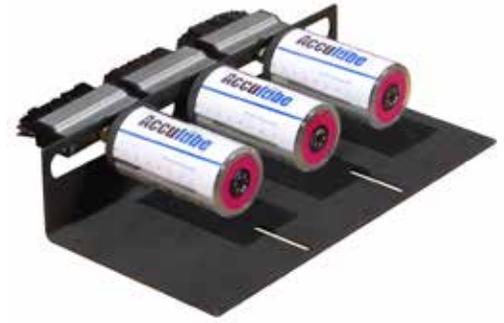
#MIS-100 or 101 Automatic rope oiler - page 63



# Wire Rope Lubrication

## Acculube™ automatic rope lubricator and cleaner kit

Part Number	Description
ACCULUBE 200	Automatic rope lubricator/cleaner kit, with three brushes (210 mm • 8.25 inch span), bracket and reservoirs filled with DrakaLube wire rope treatment
ACCULUBE 300	Automatic rope lubricator/cleaner kit, with three brushes (300 mm • 11.8 inch span), bracket and reservoirs filled with DrakaLube wire rope treatment
SLX125 DRAKALUBE	Replacement lubricator reservoir, filled with DrakaLube
2036	One replacement 70 mm • 2.75 inch brush for Acculube 200
2037	One replacement 100 mm • 3.94 inch brush for Acculube 300
98-02-87	One steel mounting bracket
1015	One reservoir attachment nipple



The Acculube automatic rope lubricator/cleaner is a set-and-forget way of efficiently lubricating traction ropes for up to a year.

The unit is quickly and easily assembled in the machine room. Simply install it so that the brushes are in contact with the ropes, set the lubricators to the proper time setting for your application (one year for standard indoor elevators, six months for exterior or high-contaminant environments) and walk away knowing that your hoist ropes are being consistently treated and cleaned as the elevator operates.

The lubricator reservoirs come pre-filled with our specially-formulated DrakaLube™ rope treatment. Please note that if your ropes are dirty, there will be greasy residue at the unit for a short while as the Acculube unit does its job. DO NOT attempt to refill the canisters. Contact Draka for new canisters once depleted.

### Features

- Labor and time-saving way to keep ropes lubricated
- No oil spills or splashes in the machine room or the car
- Easy installation
- Constant, reliable lubricant application
- Ropes are continually cleaned by the brushes

## DrakaLube™ wire rope treatment / lubricant

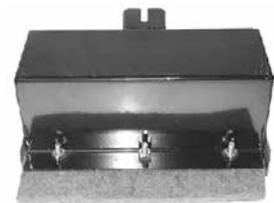
Part Number	Description
WR-DRAKALUBE	DrakaLube wire rope treatment / lubricant, one gallon jug

DrakaLube wire rope treatment / lubricant has been specifically formulated to fight bending stresses, high groove pressures and moisture. DrakaLube has additives that protect against corrosion, wear and most importantly, it can also displace moisture in the rope core.



## Rope oilers for elevator hoist ropes, escalator chains and selector tapes

Part Number	Description
MIS-100	Automatic oiler, with 9" wick
MIS-102	Automatic oiler, with 12" wick
MIS-103	Extension bracket, for rope oiler
MIS-103A	Replacement wick, for all size rope oilers
MIS-103B	Replacement wick, 1/2" x 6 1/2" x 12"



The rope oiler lubricates by electrostatic attraction and requiring only minimal wick adjustment after installation.

### Features

- Automatically lubricates rope for increased rope and sheave life
- Has an adjustable oiling rate-wick lock and wick length
- Features a top-fill external oil level indicator

# Rope Tensioning System

## MICELECT RTS ROPE TENSIONING SYSTEMS

### RTS rope tensioning system

Part Number	Description
WR-RTS	RTS system, including control unit, power supply, USB cable for PC connection, T-handle allen wrench (for attaching sensors to rope), six (6) sensors and hard-shell case.
WR-WRS	Additional wire rope sensor and couplings for 1/6 - 5/8 in (4 - 16 mm) wire rope. Order one per rope.

The Micelect RTS (Rope Tensioning System) is a portable tool for quickly and accurately measuring the tension of elevator wire ropes. Rope tensions are quickly displayed on a backlit LCD screen.

Operating the RTS is simple: Small sensors (six are included) are attached to each wire rope using the supplied T-handle allen wrench. USB cables connect the sensors to the RTS control unit which displays rope tension in real time, allowing the tensions to be adjusted. Additional sensors are available.

Pre- and post-adjustment values are stored in the RTS memory and can be downloaded to a PC for accurate record keeping.

#### Features

- Portable
- Readout in both pounds and kilograms
- Accurate to within 3%
- Can measure up to 12 ropes at once with a maximum weight of 2200 lbs • 1000 kg per rope
- Both graphic and numeric displays
- Fits 5/32 to 5/8 in • 4 to 16 mm ropes
- Display languages include English, Spanish, German, Italian, French and Portuguese
- Comes with all cables, T-handled allen wrench and a hard-shell case
- Six sensors are included, can handle as many as twelve
- Stores and downloads to PC pre- and post-tensioning values
- Low battery indicator
- Factory reset switch



### Heavy duty RTS rope tensioning system

Part Number	Description
WR-RTS-A	Heavy duty RTS system, including control unit, power supply, USB cable for PC connection, T-handle allen wrench (for attaching sensors to rope), six (6) sensors and hard-shell case.
WR-WRS-A	Additional wire rope sensor and couplings for 1/2 - 3/4 in (13 - 20 mm) wire rope. Order one per rope.

The heavy duty version of the RTS is for higher-capacity elevators with larger hoist ropes. It has all of the features of the standard RTS but with a sensor that fits 1/2 to 3/4 in • 13 to 20 mm ropes. Maximum weight per rope is 6600 lbs • 3000 kg. Spacers to fit the various rope diameters are included.

#### Features

- Portable
- Readout in both pounds and kilograms
- Accurate to within 3%
- Can measure up to 12 ropes at once with a maximum weight of 6600 lbs • 3000 kg per rope
- Both graphic and numeric displays
- Fits 1/2 to 3/4 in • 13 to 20 mm ropes
- Display languages include English, Spanish, German, Italian, French and Portuguese
- Comes with all cables, T-handled allen wrench and a hard-shell case
- Six sensors are included, can handle as many as twelve
- Stores and downloads to PC pre- and post-tensioning values
- Low battery indicator
- Factory reset switch



The manual Quick-Balance tension meter is also available. See page 88 for details.

# Rope Tensioning Systems and Load Weighing Device Control Unit

## MICELECT RTS RF AND LM3D CONTROL UNIT

### RTS RF wireless rope tensioning system

Part Number	Description
WR-RTS-RF	Wireless RTS system, including control unit, recharging cable, T-handle allen wrench (for attaching sensors to rope), six (6) WR-WRF small sensors and hard-shell case.
WR-WRF	Additional wire rope sensor

The Micelect wireless RTS RF does not require a physical connection between the sensors and the control unit. Rope tensions are displayed in real time on a backlit LCD screen. Operating range is 10 meters • 33 ft. Depending on the configuration, sensors fit rope sizes from 3/16 to 7/16 in • 4 to 11 mm and 1/2 to 3/4 in • 13 to 20 mm. Parts are included for both sizes.

Like the wired RTS, small rechargeable sensors (six are included in the basic kit) are attached to individual ropes using the supplied T-handle allen wrench. The sensors communicate with the control unit via radio and are accurate to within 5% of actual load. Additional sensors are available. The control unit can receive signals from up to twelve sensors.

Pre- and post-adjustment values are stored in the RTS memory and can be downloaded to a PC for accurate record keeping.

#### Features

- Fits 3/16 to 3/4 in • 4 to 20 mm
- No wiring required
- Readout in both pounds and kilograms
- Accurate to within 5%
- Sensor maximum capacity is 6600 lbs • 3000 kg



Wire Rope, Compensation and Accessories

### LM3D control unit for load weighing devices pages 66 - 67

Part Number	Description
LM3D-EMC-CSA	Control unit for LMC with three relay outputs and one 0-20, 4-20 or 0-24 mA analog output, 115VAC
LM3D-EMC-CSA-5V	Control unit for LMC with three relay outputs and one voltage (not current) analog output, 115VAC
LM3D-EMC-CSA-220	Control unit for LMC with three relay outputs and one 0-20, 4-20 or 0-24 mA analog output, 220VAC
LM3D-EMC-CSA-POD	Control unit for LMC - same features as LM3D-EMC-CSA-220 but configured to operate with systems having a pre-opening doors option



The LM3D control unit is the brain of the Micelect LMC family and others (pages 66 and 67). The LM3D relays indicate “presence,” “full” and “overload” conditions to trigger appropriate controller response. The presence relay can be used to eliminate nuisance calls. A cab display that shows overload condition is available as an option (see below). Integrated software automatically corrects for increases in load caused by compensating cable or chain.

For the LM3D unit, choose either digital or analog (0-20 mA, 0-24 mA, 4-20 mA) output.

#### Features

- Three programmable alarm values (Presence, Full Load and Overload)
- Weight is visually displayed - built-in memory saves data
- Simple programming - just four keys program all parameters

### LW-WR load weighing sensors



Part Number	Description
LW-WR-SENSOR-38	WR load weighing sensor, for individual 10 mm • 3/8 in. ropes - LM3D-EMC-CSA control unit required - see above. Automatic calibration. The WR attaches to individual ropes, operating capacity of 1200 kg • 2645 lbs per rope. Up to eight WR sensors can be wired into a LM3D-EMC-CSA unit.
LW-WR-SENSOR-12	WR load weighing sensor, for individual 13 mm • 1/2 in. ropes - LM3D-EMC-CSA control unit required
LW-WR-SENSOR-58	WR load weighing sensor, for individual 16 mm • 5/8 in. ropes - LM3D-EMC-CSA control unit required

LW-WR sensors attach directly to individual ropes. Up to eight of them may be connected to the control unit at one time. LW-WR sensors require an LM3D control unit - see above.

Each sensor has a cable 6.56 ft • 2 meters in length.



# Load Weighing Devices

## LMC LOAD WEIGHING DEVICE – INSTALLS ACROSS ALL ROPES

### LMC load weighing device



Part Number	Description
LW-LMC	Load weighing device (sensor only), for 1:1 (8,800 lbs • 4000 kg), 2:1 (17,600 lbs • 8,000 kg) or 4:1 roping (35,200 lbs • 16,000 kg) capacity (please call if higher capacity is needed), automatic calibration, accurate to within 5%. Select spacers and clamps (below) and optional cab display (see page 67)



The LMC intelligent wire rope sensor is a precise device for monitoring the load in traction elevators. It mounts across all hoist ropes in as little as five minutes - calibration is automatic and no test weights are required. It's perfect for both modernizations and for new installations.

The LMC requires an LM3D control unit (see page 65). Clamps and spacers (sold separately) are determined by the spread of the ropes. A cab display that shows overload condition is available (see page 67).

#### Features

- Operating capacity up to 35,200 lbs. for 4:1 roping (17,600 kg for 2:1 roping, 8,800 for 1:1 roping)
- Accurate to within 0.5%
- Fast, easy installation
- Suitable for wire ropes from 3/8 to 3/4 in. • 6 to 20 mm diameter.
- Choose either digital or analog (0-20 mA, 0-24 mA, 4-20 mA) output

### Heavy duty LMC-REF load weighing device



Part Number	Description
LW-LMC-REF	LMC-style load weighing device for heavier applications for 1:1 (16,500 lbs • 7,500 kg), 2:1 (33,000 lbs • 15,000 kg) and 4:1 (66,000 • 30,000 kg) cab weight (cab weight + cargo + compensation) - Select spacers and clamps (below) Can accommodate rope spreads of up to 8-1/2 in. • 226 mm and rope diameters up to 3/4 in. • 19 mm



The Micelect LMC-REF load weighing device is designed for heavier applications, such as freight elevators or larger passenger cars. It can determine weights up to 16,500 lbs • 7,500 kg in 1:1 roping and more in 2:1 and 4:1 roping schemes. The LMC-REF is an enhancement over the standard LMC device in that it features a special humidity-resistant housing for extended life and reliability while carrying an IP65 rating.

The LMC-REF requires an LM3D control unit (see page 65). Clamps and spacers (sold separately) are determined by the spread of the ropes. NOTE: Test weights are not required for calibration.

#### Features

- Operating capacity up to 30000 kg for 4:1 roping (15000 kg for 2:1 roping)
- Fast, easy installation
- Choose either digital or analog (0-20 mA, 0-24 mA, 4-20 mA) output

### Clamps for LMC and LMC-REF load weighing devices

Part Number	Description
LW-LMC-CLAMP-4	LW-LMC size 4 clamp, up to 6-1/4 in. • 160 mm of rope spread, two LW-SPACER required
LW-LMC-CLAMP-5	LW-LMC size 5 clamp, 6-3/8 to 7-3/8 in. • 161 to 188 mm of rope spread, four LW-SPACER required
LW-LMC-CLAMP-6	LW-LMC size 6 clamp, 7-1/2 to 8-1/2 in. • 189 to 226 mm of rope spread, four LW-SPACER required
LW-LMC-CLAMP-4-REF	LW-LMC-REF size 4 clamp, up to 6-1/4 in. • 160 mm of rope spread, two LW-SPACER required
LW-LMC-CLAMP-5-REF	LW-LMC-REF size 5 clamp, 6-3/8 to 7-3/8 in. • 161 to 188 mm of rope spread, four LW-SPACER required
LW-LMC-CLAMP-6-REF	LW-LMC-REF size 6 clamp, 7-1/2 to 8-1/2 in. • 189 to 226 mm of rope spread, four LW-SPACER required

### Spacers for LMC and LMC-REF load weighing devices

Part Number	Description
LW-SPACER-38	Spacer for LMC, 3/8 in. • 10 mm, two required for CLAMP- and CLAMP-REF-4, four for 5 and 6
LW-SPACER-12	Spacer for LMC, 1/2 in. • 13 mm, two required for CLAMP- and CLAMP-REF-4, four for 5 and 6
LW-SPACER-58	Spacer for LMC, 5/8 in. • 16 mm, two required for CLAMP- and CLAMP-REF-4, four for 5 and 6
LW-SPACER-1116	Spacer for LMC, 11/16 in. • 17.5 mm, two required for CLAMP- and CLAMP-REF-4, four for 5 and 6
LW-SPACER-34	Spacer for LMC, 3/4 in. • 19 mm, two required for CLAMP- and CLAMP-REF-4, four for 5 and 6

# Load Weighing Devices

NON-WIRE ROPE WEIGHING DEVICES AND CAB DISPLAYS – SEE PAGE 82 FOR HYDRAULIC UNITS

## Under cab sensor



Part Number	Description
LW-CAB-SENSOR	Under cab sensor, sold in multiples of 2 (4 to 16 may be used), features automatic calibration

Under cab sensors are ideal for new installations. They easily mount under the cab and are extremely accurate. They are self-calibrating and do not require test weights.

An LM3D-EMC-CSA control unit is required (see page 65).

Under cab sensors are not recommended for modernizations.



## Belt sensor



Part Number	Description
023-4-0003	Belt sensor, for individual 1/8 in. • 3 mm belts (sensor only), attaches to individual belts, operating capacity 2645 lbs • 1200 kg per belt.
023-4-0004	Belt sensor, for individual 3/16 in. • 4.6 mm belts (sensor only), attaches to individual belts, operating capacity 2645 lbs • 1200 kg per belt.

Up to eight belt sensors can be attached to a required LM3D-EMC-CSA control unit (see page 65).

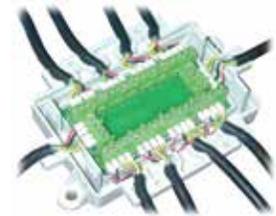
Test weights are presently required for calibration – automatic calibration is pending.



Wire Rope, Compensation and Accessories

## WR connection box

Part Number	Description
LW-CONN-BOX	WR connection box, used with the LM3D-EMC-CSA control unit, provides a clean and protected connection for cabling
LW-CABLE-CSA	CSA cable for WR connection box, connects LW-CONN-BOX to LM3D-EMC-CSA



## Beam sensor



Part Number	Description
023-4-0001	Cross beam-mounted load weighing device, with 6.5 ft • 2 meter cord and all necessary mounting hardware, 0-20, 4-20 or 0-24 mA analog output

This load weighing sensor mounts on the cross beams. An LM3D-EMC-CSA control unit is required (see page 65). Test weights are also required for calibration.

USE ONE SENSOR when the cab capacity is 2200 lbs • 1000 kg or less,  
AND when the cross beams are fixed to the same vertical beam,  
AND when the cab is situated symmetrically within the car sling.

USE TWO SENSORS when the cab capacity exceeds 2200 lbs • 1000 kg,  
OR when the depth of the cab is 1.4x the cab's width,  
OR when the cab is NOT situated symmetrically within the car sling.



## Cab displays



Part Number	Description
LW-CABDISPLA-ML	Cab display, overload shown by flashing and intermittent buzzing
LW-CABDISPLA-LPM	Cab display, load shown by progressively lit LEDs, overload by flashing and intermittent buzzing This display cannot be used with LW-ILC3-M-ANLOG



# Whisper-Flex® Compensation Cable

LIFETIME WARRANTY – PATENT NUMBER 4716989

US patent 4,716,989

LIFETIME WARRANTY

Part Number	Product Code	Cable Weight lbs/ft • kg/m	Chain Trade Size inches • mm	Cable Nom. OD inches • mm	Max. Hang Length feet • meters	Nom. Loop Width inches • mm
18-075-97	WF 075	0.75 • 1.1	3/16 • 5.5	1.05 • 27	600 • 183	22 • 540
18-010-97	WF 10	1.0 • 1.5	3/16 • 5.5	1.15 • 29	600 • 183	24 • 610
18-015-97	WF 15	1.5 • 2.2	1/4 • 7	1.36 • 35	600 • 183	24 • 610
18-020-97	WF 20	2.0 • 3.0	1/4 • 7	1.50 • 38	520 • 158	26 • 660
18-025-97	WF 25	2.5 • 3.7	5/16 • 8	1.63 • 41	600 • 183	26 • 660
18-030-97	WF 30	3.0 • 4.5	5/16 • 8	1.77 • 45	505 • 154	26 • 660
18-035-97	WF 35	3.5 • 5.2	3/8 • 10	1.91 • 49	600 • 183	27 • 690
18-040-97	WF 40	4.0 • 6.0	3/8 • 10	2.03 • 52	530 • 162	27 • 690



Whisper-Flex compensation cable provides smooth operation at temperatures of 5° F to 140° F • -15° C to +60° C and, in the US, can be used for elevators with rated speeds of no greater than 700 ft/min • 3.56 m/sec (per ASME A17.1 - 2013, Rule 2.21.4.2 Compensating Rope Tie-Down).

Support brackets, U-bolts, S-hooks, and heavy duty stainless steel grips specifically designed for Whisper-Flex cable must be used to ensure safe installations. See pages 70 - 71 for details on this hardware.

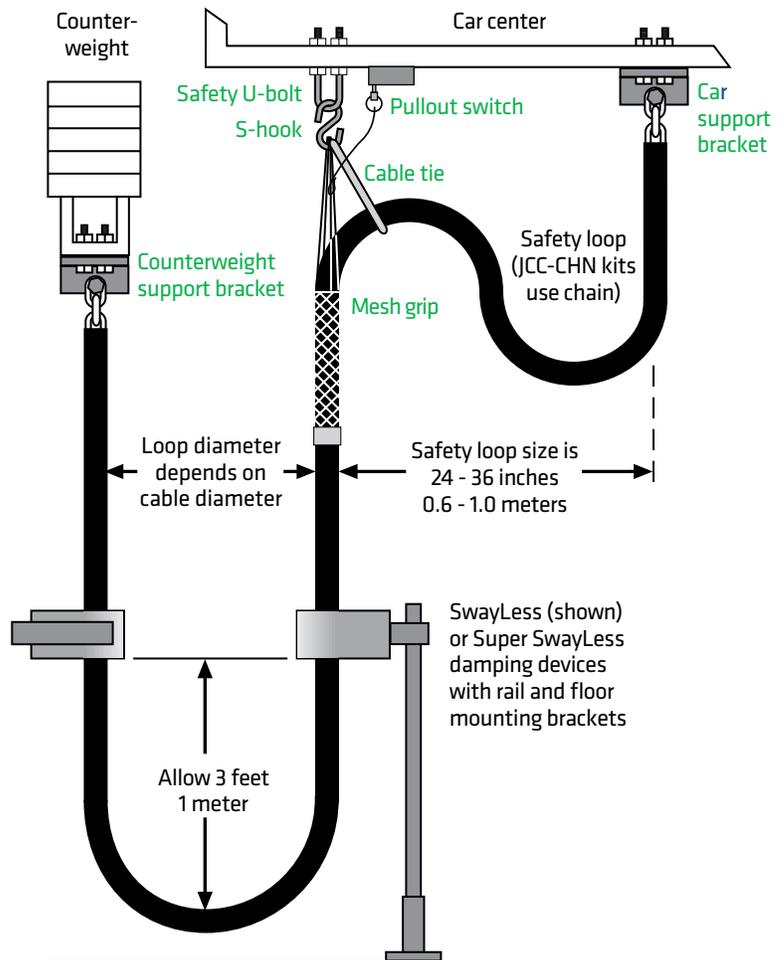
Draka Elevator damping devices are recommended to minimize cable sway for car speeds above 350 ft/min • 1.8 m/sec. See pages 72 - 74 for information on these devices.

This diagram shows the approximate placement of components for a Whisper-Flex cable installation. Refer to the Compensation Cable Installation Guide for exact instructions on installation procedures.

### Draka Elevator can help you determine which size of Whisper-Flex or Steadi-Flex cable to use.

Call 1-877-372-5237 or +1-252-984-5100 and have the following information ready:

- Number of hoist ropes per car
- Outer diameter of the hoist ropes
- Stranding of the hoist ropes (i.e. 8x19, 8x25...)
- Car roping (i.e. 1:1, 2:1, other...)
- Number of Whisper-Flex or Steadi-Flex cables per car,
- Length of Whisper-Flex or Steadi-Flex cable needed.



### Stripping service 1-1/2 or 3-1/2 links exposed

Part Number	Description
WFSTRIP1.5L	Cable with 1-1/2 links stripped at one end
WFSTRIP3L	Cable with 3-1/2 links stripped at one end



The Whisper-Flex/Steady-Flex strip kit makes preparing compensation cables easy. See page 89 for details.

Wire Rope, Compensation and Accessories

# Steady-Flex® Compensation Cable

LIFETIME WARRANTY – USE WITH SIDE COUNTERWEIGHTS AND LONG (> 400 FT • 122 M) HANG LENGTHS

US patent 7610944 • European patent 1721859

LIFETIME WARRANTY

Part Number	Product Code	Cable Weight lbs/ft • kg/m	Chain Trade Size inches • mm	Cable Nom. OD inches • mm	Max. Hang Length feet • meters	Dynamic Loop Width* inches • mm
18-L15-97	SFC 15	1.5 • 2.2	1/4 • 7	1.39 • 35	600 • 183	46 • 1170
18-L20-97	SFC 20	2.0 • 3.0	1/4 • 7	1.56 • 40	520 • 158	47 • 1200
18-L25-97	SFC 25	2.5 • 3.7	5/16 • 8	1.67 • 42	600 • 183	48 • 1220
18-L30-97	SFC 30	3.0 • 4.5	5/16 • 8	1.82 • 46	505 • 154	49 • 1250
18-L35-97	SFC 35	3.5 • 5.2	3/8 • 10	1.91 • 49	600 • 183	50 • 1270
18-L40-97	SFC 40	4.0 • 6.0	3/8 • 10	2.04 • 52	530 • 162	50 • 1270



Steady-Flex compensation cable is a **wide-loop version** of our standard Whisper-Flex compensation cable. Because of its wider natural loop, Steady-Flex cable can be positioned closer to the car's centerline. This improves car balance and ride quality for installations with side counterweights and long hang lengths (over 400 ft • 122 m).

It provides smooth operation at temperatures of 23° F to 140° F • -5° C to +60° C and can be used for elevators with rated speeds up to 700 ft/min • 3.56 m/sec (per ASME A17.1 - 2013, Rule 2.21.4.2 Compensating Rope Tie-Down).

Support brackets, U-bolts, S-hooks and heavy duty couplings specifically designed for Steady-Flex cable must be used to ensure safe installations. Installation hardware (JCC-XX-CHN) is recommended for use with Steady-Flex. See pages 70 - 71 for details on this hardware.

Draka Elevator's Super SwayLess (p/n WF-RDD4) damping device is recommended for use with Steady-Flex to minimize cable sway for car speeds above 350 ft/min (1.8 m/sec). See page 73.

### Steady-Flex installation and the dynamic loop width

When choosing Steady-Flex, give special consideration to the dynamic loop width. The dynamic loop width is the width of the loop when the cable is in motion and will vary with car speed, distance between support points and other factors. The static loop width will be up to 10" smaller. Position the attachment points and damping devices per the dynamic loop width in the above table. At rest, the cable should touch the damping device inside rollers - in motion, the loop will expand.

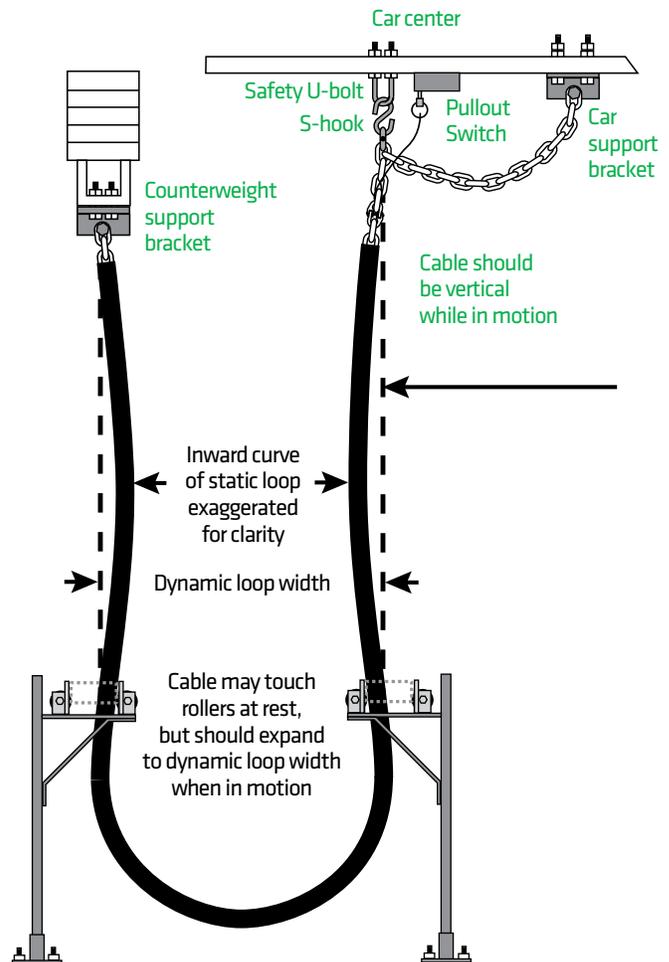
### Steady-Flex is NOT a one-for-one replacement for Whisper-Flex.

Pit dimension and possible obstructions should be considered when specifying Steady-Flex. Counterweight and car attachment points should be spaced to match the dynamic loop width.

Refer to the Draka Compensation Cable Installation Guide for exact instructions on installation procedures.

Stripping service 1-1/2 or 3-1/2 links exposed

Part Number	Description
WFSTRIP1.5L	Cable with 1-1/2 links stripped at one end
WFSTRIP3L	Cable with 3-1/2 links stripped at one end



Wire Rope, Compensation and Accessories

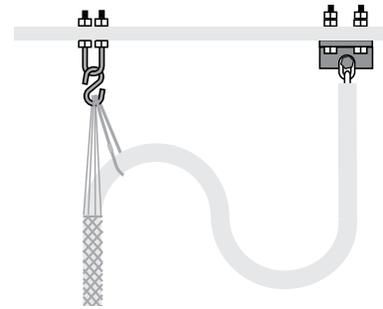
# Compensation Cable Installation Kits

## INSTALLATION KITS FOR WHISPER-FLEX AND STEADI-FLEX

### JCC kits for Whisper-Flex in standard pits (imperial components)

Part Number	For Use on Cables	U-bolt Size	S-hook Part No.	Mesh grip Part No.	Electrical Tape Part No.
JCC-10	WF 075 and WF 10	3/8 in.	79-011	024-20-1504	16-005
JCC-15	WF 15	3/8 in.	79-013	024-20-1470	16-005
JCC-20	WF 20	3/8 in.	79-013	024-20-1510	16-005
JCC-25	WF 25	3/8 in.	79-016	024-20-1510	16-005
JCC-30	WF 30	3/8 in.	79-016	024-20-1499	16-005
JCC-35	WF 35	3/8 in.	79-016	024-20-1499	16-005
JCC-40	WF 40	3/8 in.	79-016	024-20-1542	16-005

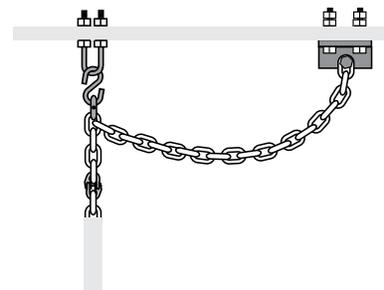
JCC installation kits contain two Support Brackets (includes grade 8 nuts, bolts, lockwashers and hardened washers), one U-bolt (includes nuts and washers), one S-hook, one mesh grip, electrical tape and one cable tie.



### JCC-CHN kits for Steadi-Flex (and Whisper-Flex in shallow pits)

Part Number	For Use on Cables	U-bolt Size	S-hook Part No.	Coupling Quantity/Size	Chain Size
JCC-10-CHN	WF 075 WF 10	3/8 in.	79-011	(1) 9/32 in.	5/16 in.
JCC-20-CHN	WF 15 & 20 SFC 15 & 20	3/8 in.	79-013	(1) 9/32 in.	5/16 in.
JCC-30-CHN	WF 25 & 30 SFC 25 & 30	3/8 in.	79-016	(2) 9/32 in.	3/8 in.
JCC-40-CHN	WF 35 & 40 SFC 35 & 40	3/8 in.	79-016	(1) 9/32 in., (1) 3/8 in.	3/8 in.

JCC-CHN installation kits contain two Support Brackets (includes grade 8 nuts, bolts, lockwashers and hardened washers), one U-bolt (includes nuts and washers) and one S-hook. JCC-CHN kits also include one or two couplings and a 4 ft. length of chain to form the safety/adjustment loop.



### Coupling kits for shallow pits

Part Number	For Use on Compensation Cable	Chain Size Quantity and Size	Coupling
WF-20-CPLG	WF 075/SFC 15 & 20	5/16 in.	(1) 9/32 in.
WF-30-CPLG	WF/SFC 25 & 30	3/8 in.	(2) 9/32 in.
WF-40-CPLG	WF/SFC 35 & 40	3/8 in.	(1) 9/32 in., (1) 3/8 in.

Coupling kits consist of the chain and coupling(s) from the JCC-CHN installation kits. They DO NOT include mounting brackets, U-bolts or S-hooks.



**IMPORTANT NOTE ON SAFETY AND WARRANTY FOR WHISPER-FLEX AND STEADI-FLEX:**  
 These components are specifically designed for the installation of Whisper-Flex/Steadi-Flex cables. ONLY THE S-HOOK, MESH GRIP AND COUPLINGS ARE AVAILABLE SEPARATELY. USE OF OTHER HARDWARE (non-Draka Elevator components) COULD SERIOUSLY JEOPARDIZE THE SAFETY OF THE WHISPER-FLEX OR STEADI-FLEX CABLE INSTALLATION AND WILL VOID ANY WARRANTY.

Wire Rope, Compensation and Accessories

# Compensation Cable Installation Hardware

## USED IN WHISPER-FLEX AND STEADI-FLEX INSTALLATION KITS

### Stainless steel mesh grip – double eye/double weave/closed mesh

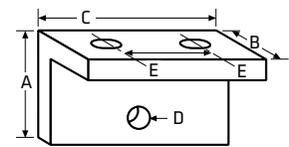
Part Number	For use on Cables	Eye Length inches • mm	Nom. Mesh Length inches • mm	Maximum Load lbs • kg
024-20-1504	WF 075, WF 10	12.0 • 305	14.0 • 356	1200 • 545
024-20-1470	WF 15	12.0 • 305	15.0 • 381	1640 • 745
024-20-1510	WF 20, WF 25	12.0 • 305	17.0 • 432	1660 • 755
024-20-1499	WF 30, WF 35	12.0 • 305	19.0 • 483	1800 • 818
024-20-1542	WF 40	12.0 • 305	21.0 • 533	1800 • 818



Maximum Load is based on minimum breaking strength with a 5:1 safety factor.

### Support bracket – two required

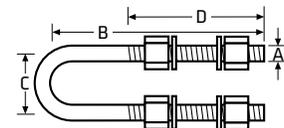
Part Number	For use on Cables	Overall Size (AxBxC) in • mm	Hole D Dia. in • mm	Slot Size in • mm	Slot E to E in • mm
n/a	WF 075 WF 10	3 x 3 x 5 • 76 x 76 x 127	3/8 • 9.5	1/2 x 7/8 • 13 x 22	2-5/8 • 66.7
n/a	WF/SFC 15 to WF/SFC 30	3 x 3 x 5 • 76 x 76 x 127	7/16 • 11	1/2 x 7/8 • 13 x 22	2-5/8 • 66.7
n/a	WF/SFC 35 to WF/SFC 40	3 x 3 x 5 • 76 x 76 x 127	1/2 • 13	1/2 x 7/8 • 13 x 22	2-5/8 • 66.7



Support brackets are sold as part of the JCC kits and cannot be ordered separately.

### Steel U-bolt – one required

Part Number	For use on Cables	Dim. A in • mm	Dim. B in • mm	Dim. C in • mm	Dim. T in • mm	Maximum Load* lbs • kg
n/a	WF 075, WF 10 WF/SFC 15 to WF/SFC 40	3/8 • 9.5	4-3/4 • 121	2-7/8 • 73	3 • 76	2320 • 1052

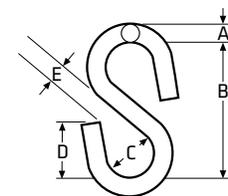


U-bolts are sold as part of the JCC kits and cannot be ordered separately.

\*Maximum Load is based on minimum breaking strength with a 5:1 safety factor.

### Steel S-hook – one required – available for individual replacement

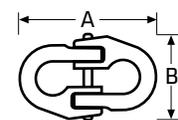
Part Number	For use on Cables	Dim. A in • mm	Dim. B in • mm	Dim. C in • mm	Dim. D in • mm	Dim. E in • mm	Yield Strength lbs • kg
79-011	WF 075, WF 10	3/8 • 9.5	2-3/8 • 60	3/4 • 19	31/32 • 25	17/32 • 14	1200 • 544
79-013	WF/SFC 15 to WF/SFC 20	3/8 • 9.5	2-3/4 • 70	3/4 • 19	1-1/8 • 29	1/2 • 13	2400 • 1088
79-016	WF/SFC 25 to WF/SFC 40	17/32 • 13.5	3 • 76	1 • 25	1-1/8 • 29	19/32 • 15	4800 • 2177



Since the S-Hook is designed to yield in order to alleviate possible damage in the event of obstruction, this item is available for replacement purposes as shown in the Draka Compensation Cable Installation Guide.

### Coupling – one or two required for JCC-CHN installation - see page 71

Part Number	For use on Cables	For Chain Size in • mm	Dim. A in • mm	Dim. B in • mm	Working Load Limit lbs • kg
79-116	WF 075 to 30	9/32 • 7	2-17/32 • 64	15/16 • 23	4300 • 1950
79-117	WF/SFC 35 to 40	3/8 • 10	3-7/16 • 87	2-3/8 • 60	8800 • 4000



**IMPORTANT NOTE ON SAFETY AND WARRANTY FOR WHISPER-FLEX AND STEADI-FLEX:** These components are specifically designed for the installation of Whisper-Flex/Steady-Flex cables. ONLY THE S-HOOK, MESH GRIP AND COUPLINGS ARE AVAILABLE SEPARATELY. USE OF OTHER HARDWARE (non-Draka Elevator components) COULD SERIOUSLY JEOPARDIZE THE SAFETY OF THE WHISPER-FLEX OR STEADI-FLEX CABLE INSTALLATION AND WILL VOID ANY WARRANTY.

# Compensation Cable Accessories

SWAYLESS® DAMPING DEVICE FOR WHISPER-FLEX WITH SPEEDS UP TO 500 FT/MIN • 2.54 M/SEC

US patent 6234277, Euro patent 1177150

Part Number	Overall Dimensions	Center opening	Quantity
WF-SRD	6-1/4 x 3-15/16 x 2-3/4 in.	2-3/4 in.	2
WF-SRD-1	6-1/4 x 3-15/16 x 2-3/4 in.	2-3/4 in.	1
WF-SRD-M	158 x 100 x 70 mm	70 mm	2
WF-SRD-BR	brass ring replacement	2-3/4 in. • 70 mm	1

Two SwayLess devices are required per installation. The WF-SRD-M metric version uses metric nuts and bolts for closure and attachment. Mounting brackets are sold separately (below). Use only with Whisper-Flex cables. DO NOT use with Steadi-Flex cables.



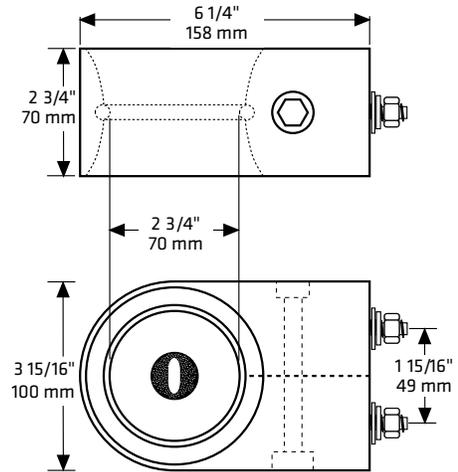
WF-SRD SwayLess damping devices are recommended for maintaining smooth operation of Whisper-Flex compensation cables for speeds of up to 500 feet/min • 2.54 m/sec.

The purpose of the WF-SRD is to dampen any oscillation or cable sway that may be generated by cable motion at higher speeds. The damping device is not usually required but can be used for speeds less than 350 feet/min • 1.78 m/sec. Proper installation requires that compensation cable should not contact the ring of the damping device when the cable is stationary. Cable must be centered within the holes.

As the car and counterweight move, the damping device keeps the compensation cable in position for optimum operation.

The WF-SRD can be used for Whisper-Flex sizes WF075 to WF30. Draka Elevator offers mounting brackets for easy installation in the elevator pit. Consult the Draka Compensation Cable Installation Guide for the installation of damping devices.

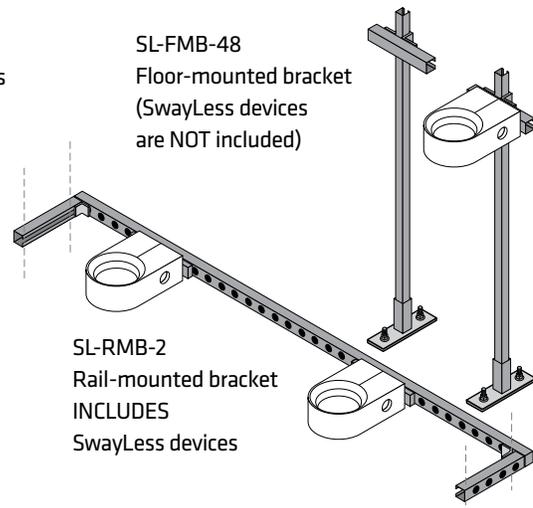
For shallow pits not allowing three feet height above cable loop, please call Draka Elevator for engineering assistance.



## SwayLess mounting brackets

Part Number	Description
SL-FMB-48	(2) floor-mounted brackets, adjustable to 48 in. • 1.2 m height
SL-FMB-2	(2) floor-mounted brackets, adjustable to 48 in. • 1.2 m height, includes (2) SwayLess devices
SL-RMB-60	Counterweight rail-mounted bracket, adjustable to 60 in. • 1.5 m width
SL-RMB-2	Counterweight rail-mounted bracket, adjustable to 60 in. • 1.5 m width, includes (2) SwayLess devices

These brackets are specially designed to help you to quickly and easily install SwayLess devices off the counterweight guide rails and off the pit floor. They come with all the necessary hardware, including nuts, bolts and anchors.



# Compensation Cable Accessories

**SUPER SWAYLESS® DAMPING DEVICE FOR SPEEDS UP TO 700 FT/MIN • 3.56 M/SEC**

## Super SwayLess with larger rollers

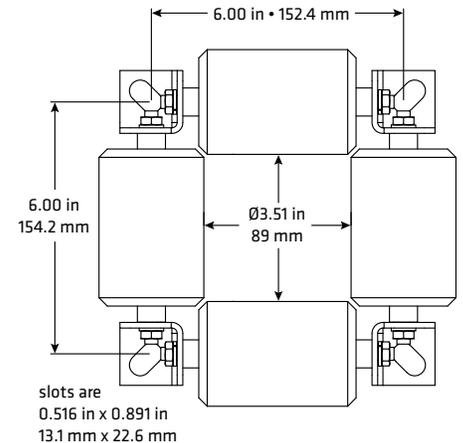
Part Number	Application	Overall Dimensions in • mm	Mounting Hole Dia. in • mm	Quantity
WF-RDD4	Whisper-Flex, Steadi-Flex	8 x 8 x 3.1 • 203 x 203 x 79	1/2 • 13	1
ISOLATION PADS	Replacement pads	1.5 X 1.5 • 38.1 X 38.1	1/2 • 13	4

The new Super SwayLess WF-RDD4 is designed for use on any size Whisper-Flex® or Steadi-Flex® compensating cable. It is recommended for smooth compensating cable operation for speeds up to 700 feet/min (3.56 m/sec).

Larger free-turning nylon rollers have been engineered with a bigger shaft for increased durability. The increased size of the rollers also permits quieter operation. Grease-filled high-strength bearings are built to handle the higher pressures and impact of Steadi-Flex cables.

This enhanced design uses the formed steel mounting brackets from the earlier version of the Super SwayLess for simpler installation and cushioned isolation pads to reduce vibration noise.

Two Super SwayLess devices are required per cable. Mounting brackets are sold separately (below).



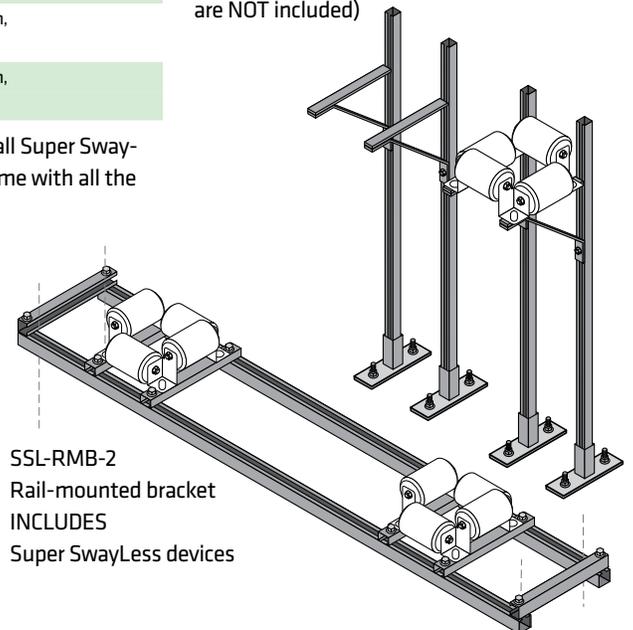
## Super SwayLess mounting brackets

Part Number	Description
SSL-FMB-48	(2) floor-mounted brackets, adjustable to 48 in. • 1.2 m height, order WF-RDD4 separately
SSL-RMB-72	Counterweight rail-mounted bracket, adjustable to 72 in. • 1.8 m width, order WF-RDD4 separately
SSL-RMB-2	Counterweight rail-mounted bracket, adjustable to 72 in. • 1.8 m width, includes (2) WF-RDD4 devices

These brackets are specially designed to help you to quickly and easily install Super SwayLess devices off the counterweight guide rails and off the pit floor. They come with all the necessary hardware, including nuts, bolts and anchors.

Two Super SwayLess damping devices are required per installation. These devices are sold separately (above).

**SSL-FMB-48**  
Floor-mounted bracket  
(Super SwayLess devices are NOT included)



**SSL-RMB-2**  
Rail-mounted bracket  
INCLUDES  
Super SwayLess devices

Wire Rope, Compensation and Accessories

# Compensation Cable Accessories

SHALLOWSWAYLESS® FOR SPEEDS UP TO 700 FT/MIN • 3.56 M/SEC AND PULLOUT SWITCH KIT

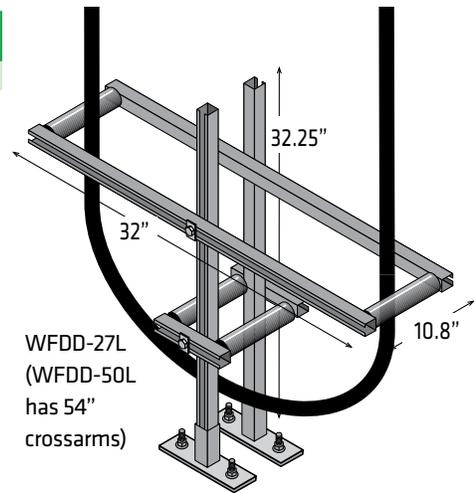
## ShallowSwayless Damping Device

Part Number	Description
WFDD-27L	ShallowSwayless kit, for Whisper-Flex cable with maximum loop of 27 inches
WFDD-50L	ShallowSwayless kit, for Steadi-Flex cable with maximum loop of 50 inches

The ShallowSwayless is a sway reduction device for shallow pit applications where there is insufficient pit depth for SwayLess or Super SwayLess devices. It reduces compensation cable sway and oscillation in installations up to 700 ft/min • 3.56 m/sec. Two sizes are available; the 27L version is for Whisper-Flex and the 50L version is for Steadi-Flex.

NOTE: The ShallowSwayless is ONLY for shallow pit applications. To determine if a ShallowSwayless is required, note that compensating cable must remain vertical as it passes through the SwayLess or Super SwayLess damping devices. If this is not possible, even when the damping device is mounted at the compressed buffer height and the cable loop is within 6 inches of the pit floor, there is insufficient pit depth and the ShallowSwayless should be used.

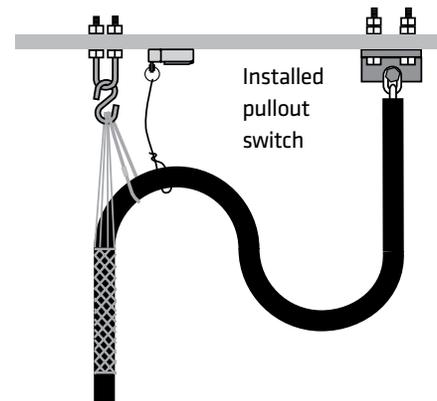
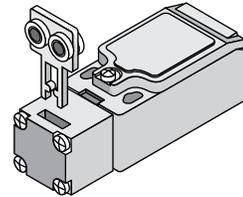
The kit includes all components shown, including mounting bolts, washers and anchors.



## Pullout Switch and Installation Kit

Part Number	Description
36-207	Pullout switch, with flat key actuator and rotating head
WF-POSK	Pullout switch installation kit, which includes one pullout switch (#36-207), two split O-rings, two cable ties, two 4 x 40 mm pan-head screws, two 4 mm hex nuts, four 4 mm flat washers and two 4 mm lock washers.

The pullout switch is UL and C-UL listed and conforms to EN60947-5-1 and EN50047. The switch enclosure meets IP65.



# Components and Systems



Photo ©2011 Depositphotos / alexkalashnikov

Components  
and Systems

Seismic detection equipment	76
Rail mounting hardware	77
Deflecting sheaves	79
Hydraulic valves, fittings, reducers and gauges	80
Hydraulic accessories	81
Light curtains	83

# Seismic Detection Equipment

NOW RoHS COMPLIANT

## Event Monitoring Device (EMD) Seismic Detector



Part Number	Description
DRK-S701-ROHS	EMD seismic detector with relays for external sensors - AC or DC power
30016	Replacement battery for DRK-S701
78-108	Fuse for DRK-S701

The DRK-S701-ROHS EMD detects and measures seismic events and signals elevator controls to take appropriate action based on their magnitude. Properly installed, the EMD will detect a potentially dangerous seismic event and alert the controller to stop the car at the nearest floor to discharge the passengers. It can also be connected to the Draka Ring-on-a-String counterweight displacement sensor.

While the EMD is highly flexible and can be configured for various applications, its three main functions are to 1) detect a seismic event and trip a latching and non-latching relay (referenced as an Alarm Event Trigger), 2) detect an internal failure and trip a latching relay (referenced as a Trouble Event Trigger), and 3) detect an event from an auxiliary sensor and trip a latching relay (referenced as an Auxiliary Event Trigger).

### Features

- Economical and easy to install – Mount it, level it and turn it on
- Can also be custom programmed
- Auxiliary interface for counterweight displacement device
- Uses either 110/220VAC or 12/24VDC power
- Battery backup time approx. 18 hrs on 1 rechargeable battery and up to 36 hrs on two
- Troubleshoots itself and displays trouble codes
- Advanced dual-sensor technology prevents false alarms
- MRL safe – Remote reset and test eliminates hoistway visits

### Approvals

Evaluated in accordance with ANSI/ASME A17.1 2013-10-21 and A17.5 2011-03-01. Also evaluated in accordance with CAN/CSA B44, and B44.1. The EMD is CE and RoHS compliant.



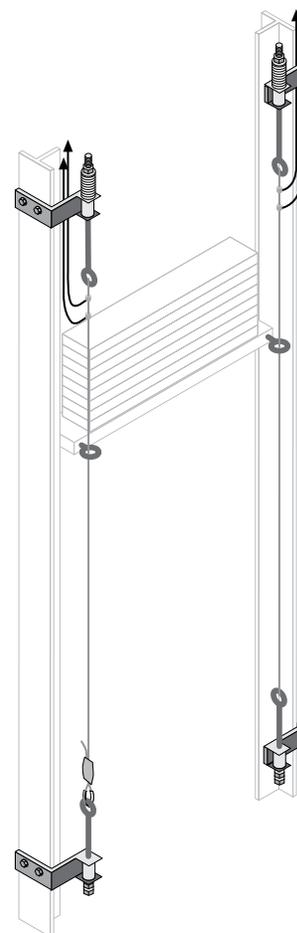
## Counterweight displacement kit (“ring-on-a-string”)

Part Number	Description
CDH-R8	Counterweight displacement kit, mounts to T89 guide rails (order cable [CDH-L500, CDH-L1000 or CDH-L1500] separately)
CDH-R12	Counterweight displacement kit, mounts to T127 guide rails (order cable [CDH-L500, CDH-L1000 or CDH-L1500] separately)
CDH-L500	Cable, 500 ft • 152 m length, 1/16 in. • 1.6 mm diameter, with thimbles and clips (use for up to 250 ft. • 71 m of rise)
CDH-L1000	Cable, 1000 ft • 304 m length, 1/16 in. • 1.6 mm diameter, with thimbles and clips (use for up to 500 ft. • 152 m of rise)
CDH-L1500	Cable, 1500 ft • 456 m length, 1/16 in. • 1.6 mm diameter, with thimbles and clips (use for up to 750 ft • 223 m of rise)
040219	Cable, cut to length, does not include attachment hardware, please specify length
79-103	Thimble, for 1/16 in. • 1.6 mm cable attachment (replacement part)
79-104	Wire rope clip, for 1/16 in. • 1.6 mm cable attachment (replacement part)
36-178	Wire cutters, for cutting steel cable

The Counterweight Displacement Kit is an easily installed “ring-on-a-string” hardware kit that, when used in conjunction with a relay circuit (not included), can signal the controller if a counterweight has been displaced due to a seismic event.

Two steel cables run parallel to the counterweight guide rails and pass through a pair of eyebolts located on the counterweight. If an eyebolt contacts a cable (which indicates a counterweight displacement), the circuit is completed and the controller stops and redirects the car immediately.

Order one kit and one cable per elevator - the kit attaches to BOTH counterweight rails (as shown). Note that the kit is specified for the rail size and the cable ordered should be at least twice the rise of the elevator - the cable will be cut and installed on both rails.



# Rail Mounting Hardware

## Rail brackets

Part Number	Description	Adjustable Range Distance from Wall
9743A-1	Small (1/4 in.) rail bracket assembly, with rail clips	2-1/4 to 3-1/4 in.
9743A-2	Small (1/4 in.) rail bracket assembly, with rail clips	3 to 4-3/4 in.
9750A-1	Small (1/4 in.) rail bracket assembly, without rail clips	2-1/4 to 3-1/4 in.
9750A-2	Small (1/4 in.) rail bracket assembly, without rail clips	3 to 4-3/4 in.
9745A-1	Large (5/16 in.) rail bracket assembly, with rail clips	4 to 6-3/4 in.
9745A-2	Large (5/16 in.) rail bracket assembly, with rail clips	5-3/4 to 8-1/8 in.
9745A-3	Large (5/16 in.) rail bracket assembly, with rail clips	7-1/2 to 10-1/4 in.
9749A-1	Large (5/16 in.) rail bracket assembly, without rail clips	4 to 6-3/4 in.
9749A-2	Large (5/16 in.) rail bracket assembly, without rail clips	5-3/4 to 8-1/8 in.
9749A-3	Large (5/16 in.) rail bracket assembly, without rail clips	7-1/2 to 10-1/4 in.



Rail brackets with rail clips also include locking plates for seismic areas.

Rail brackets without rail clips do not include rail clip fasteners.

Neither bracket includes wall fasteners.

12 and 15 lb. brackets use 5/8 in. fasteners.

Assemblies with rail clips for 8 lb. rail are a special order and include a correctly-sized locking plate and 1/2 in. fasteners.

## Rail clips

Part Number	Description
55-012	Forged rail clip, for 8 lb. rail
55-013	Forged rail clip, for 12 lb. rail
55-014	Forged rail clip, for 15 lb. rail



## Rail bracket shims

Part Number	Size	Thickness	Cutout(s)
55-020	8 x 2 in.	.030 in.	11/16 in.
55-021	8 x 2 in.	.060 in.	11/16 in.
55-022	8 x 2 in.	.105 in.	11/16 in.
55-023	9-3/8 x 2 in.	.030 in.	13/16 in.
55-024	9-3/8 x 2 in.	.060 in.	13/16 in.
55-025	9-3/8 x 2 in.	.105 in.	13/16 in.
55-026	3 x 2 in.	.015 in.	13/16 in.



# Rail Mounting Hardware

CONCRETE/MASONRY INSERTS ARE DESIGNED TO ASTM A17.1

## Concrete / masonry Inserts

Part Number	Description	Seismic Zone	Allowable 2-bolt Connections	Allowable Point Loads	Allowable Shear and Slip Loads*
INSERT-12	Insert, 12 in. long	0 and 1	2,000 lbs (1) load pair max.	1,370 lbs (1) point load max.	1,040* lbs per bolt (1) connection max.
INSERT-18	Insert, 18 in. long	0 and 1	2,000 lbs (1) load pair max.	1,370 lbs (2) point load max.	1,040* lbs per bolt (2) connection max.
INSERT-24	Insert, 24 in. long	0 and 1	2,000 lbs (2) load pair max.	1,370 lbs (3) point load max.	1,040* lbs per bolt (2) connection max.
INSERT-30	Insert, 30 in. long	0 and 1	2,000 lbs (2) load pair max.	1,370 lbs (3) point load max.	1,040* lbs per bolt (3) connection max.
INSERT-36	Insert, 36 in. long	0 and 1	2,000 lbs (3) load pair max.	1,370 lbs (3) point load max.	1,040* lbs per bolt (3) connection max.
INSERT-48	Insert, 48 in. long	0 and 1	2,000 lbs (4) load pair max.	1,370 lbs (4) point load max.	1,040* lbs per bolt (4) connection max.

INSERT-30



Max. load pair for standard inserts is limited to 2,000 lb. regardless of the number of load pairs used per insert.

\*Shear and slip loads can be increased to 1,500 lbs/bolt if a 16 in. tall by (insert length + 10 in.) block opening is used,

## Heavy duty concrete / masonry Inserts

Part Number	Description	Seismic Zone	Allowable 2-bolt Connections	Allowable Point Loads	Allowable Shear and Slip Loads*
INSERT-HD-12	Insert, 12 in. long	2 to 4	2,760 lbs (1) load pair max.	1,900 lbs (1) point load max.	1,040* lbs per bolt (1) connection max.
INSERT-HD-18	Insert, 18 in. long	2 to 4	2,760 lbs (1) load pair max.	1,900 lbs (2) point load max.	1,040* lbs per bolt (2) connection max.
INSERT-HD-24	Insert, 24 in. long	2 to 4	2,760 lbs (2) load pair max.	1,900 lbs (3) point load max.	1,040* lbs per bolt (2) connection max.
INSERT-HD-30	Insert, 30 in. long	2 to 4	2,760 lbs (2) load pair max.	1,900 lbs (3) point load max.	1,040* lbs per bolt (3) connection max.
INSERT-HD-36	Insert, 36 in. long	2 to 4	2,760 lbs (3) load pair max.	1,900 lbs (3) point load max.	1,040* lbs per bolt (3) connection max.
INSERT-HD-48	Insert, 48 in. long	2 to 4	2,760 lbs (4) load pair max.	1,900 lbs (4) point load max.	1,040* lbs per bolt (4) connection max.

INSERT-HD-30



Max. load pair for HD inserts is limited to 2,760 lb. regardless of the number of load pairs used per insert.

\*Shear and slip loads can be increased to 1,500 lbs/bolt if a 16 in. tall by (insert length + 10 in.) block opening is used,

### Notes for INSERTs and INSERT-HDs:

- Allowable loads at S.F. = 3.0
- Minimum required grout strength = 3,000 psi with a min. air dry density = 110 pcf.
- Min. required bolt spacing for load pairs = 6 in.
- Min. spacing between multiple load pairs = 12 in. as used on 24 in. through 48 in. inserts.
- Min. required spacing between point loads = 12 in.
- All connections require use of 1/2 in. through 3/4 in. strut nuts placed a min. of 2 in. from the end of the insert.
- Recommended bolt torques: 1/2 in. = 50 ft/lbs, 5/8 and 3/4 in. = 100 ft/lbs (3/8 in. thick anchor recommended).
- Required min. end distance from end of insert to edge of grout = 3 in. (required block opening = insert length + 6 in.).
- Required min. edge distance from centerline of insert to top and bottom edge of grout = 4 in. (8 in. tall min. block opening required).
- 5 in. min. end distance, 8 in. min. edge distance.
- Strut cross-sectional measurements are 1-5/8 x 1-5/8 in.

## Insert spring nuts

Part Number	Description
INSERT-NUT-12	Spring nut, 1/2 in.
INSERT-NUT-58	Spring nut, 5/8 in.
INSERT-NUT-34	Spring nut, 3/4 in.



# Deflecting sheaves/pulleys

ASSEMBLED / INCLUDES AXLE FOR KEEPER PLATES

## T235 deflecting sheaves – with fixed or dismantable axles

Part Number	Sheave diameter mm	Wire rope mm	Number of grooves/ groove face width mm	Sheave width mm	Max. static load kg
G320308x	320	8.0	3 / 60	120	1580
G320408x	320	8.0	4 / 77	120	2100
G320508x	320	8.0	5 / 94	144	2600
G320608x	320	8.0	6 / 111	144	3200
G360308x	360	8.0 - 9.0	3 / 60	120	1580
G360408x	360	8.0 - 9.0	4 / 77	120	2100
G360508x	360	8.0 - 9.0	5 / 94	144	2600
G360608x	360	8.0 - 9.0	6 / 111	144	3200
G400309x	400	9.0 - 10.0	3 / 60	120	1900
G400409x	400	9.0 - 10.0	4 / 77	120	2500
G400509x	400	9.0 - 10.0	5 / 94	144	3100
G400609x	400	9.0 - 10.0	6 / 111	144	3700
G450309x	450	9.0 - 11.0	3 / 60	120	2350
G450409x	450	9.0 - 11.0	4 / 77	120	3100
G450509x	450	9.0 - 11.0	5 / 94	144	3900
G450609x	450	9.0 - 11.0	6 / 111	144	4700
G500309x	500	9.0 - 12.0	3 / 60	120	2350
G500409x	500	9.0 - 12.0	4 / 77	120	3100
G500509x	500	9.0 - 12.0	5 / 94	144	3900
G500609x	500	9.0 - 12.0	6 / 111	144	4700
G550309x	550	9.0 - 11.0	3 / 60	120	2350
G550409x	550	9.0 - 11.0	4 / 77	120	3100
G550509x	550	9.0 - 11.0	5 / 94	144	3900
G550609x	550	9.0 - 11.0	6 / 111	144	4700
G550312x	550	12.0 - 13.0	3 / 94	144	3100
G550412x	550	12.0 - 13.0	4 / 94	144	4200
G550512x	550	12.0 - 13.0	5 / 111	144	5200
G550612x	550	12.0 - 13.0	6 / 130	164	6300



For FIXED AXLES, replace the 'x' in the part number with F (i.e. G550612F)

For DISMOUNTABLE AXLES, replace the 'x' in the part number with S (i.e. G550612S)

Sizes up to 750 mm diameter are available – please call for details.

# Hydraulic Ball Valves and Pipe Fittings

BY GRINNELL

## Grooved ball valves

Part Number	Description/Size Compare to Victaulic® 726
GRN-GBLV020	Ball valve, 2 in.
GRN-GBLV025	Ball valve, 2-1/2 in.
GRN-GBLV030	Ball valve, 3 in.
GRN-GBLV040	Ball valve, 4 in.



## Elbows and fittings

Part Number	Description/Size Compare to Victaulic® 10
GRN-21015S	90° elbow, 1-1/2 in.
GRN-21020S	90° elbow, 2 in.
GRN-21025S	90° elbow, 2-1/2 in.
GRN-21030S	90° elbow, 3 in.
GRN-21040S	90° elbow, 4 in.



## Threaded ball valves\*

Part Number	Description/Size
TBLV-020	Threaded ball valve, 2 in.
TBLV-025	Threaded ball valve, 2-1/2 in.
TBLV-030	Threaded ball valve, 3 in.
TBLV-040	Threaded ball valve, 4 in.



Part Number	Description/Size Compare to Victaulic® 11
GRN-20120S	45° elbow, 2 in.
GRN-20125S	45° elbow, 2-1/2 in.
GRN-20130S	45° elbow, 3 in.
GRN-20140S	45° elbow, 4 in.



\*Threaded ball valves are made by Anvil.

## Flexible couplings

Part Number	Description/Size Compare to Victaulic® 77
GRN-70715TS	Flexible coupling, 1-1/2 in.
GRN-70720TS	Flexible coupling, 2 in.
GRN-70725TS	Flexible coupling, 2-1/2 in.
GRN-70730TS	Flexible coupling, 3 in.
GRN-70740TS	Flexible coupling, 4 in.



Part Number	Description/Size Compare to Victaulic® 12
GRN-31220S	22.5° elbow, 2 in.
GRN-31225S	22.5° elbow, 2-1/2 in.
GRN-31230S	22.5° elbow, 3 in.
GRN-31240S	22.5° elbow, 4 in.



## Rigid couplings

Part Number	Description/Size Compare to Victaulic® HP-70
GRN-77020TS	Rigid coupling, 2 in.
GRN-77025TS	Rigid coupling, 2-1/2 in.
GRN-77030TS	Rigid coupling, 3 in.
GRN-77040TS	Rigid coupling, 4 in.



Part Number	Description/Size Compare to Victaulic® 13
GRN-31320S	11.25° elbow, 2 in.
GRN-31325S	11.25° elbow, 2-1/2 in.
GRN-31330S	11.25° elbow, 3 in.
GRN-31340S	11.25° elbow, 4 in.



## Concentric reducer

Part Number	Description/Size
GRN-72858C	Concentric reducer, goes from 2.5 in. to 2 in.

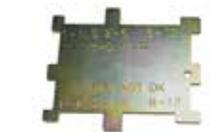


Part Number	Description/Size Compare to Victaulic® 20
GRN-21920S	Tee, 2 in.
GRN-21925S	Tee, 2-1/2 in.
GRN-21930S	Tee, 3 in.
GRN-21940S	Tee, 4 in.



## Universal go/no-go gauge

Part Number	Description/Size
GRN-4044	Go/no-go gauge



Part Number	Description/Size Compare to Victaulic® 60
GRN-26020S	End cap, 2 in.
GRN-26025S	End cap, 2-1/2 in.
GRN-26030S	End cap, 3 in.
GRN-26040S	End cap, 4 in.



Part Number	Description/Size
GRN-15NITRILS	Nitrile gasket, 1-1/2 in.
GRN-20NITRILS	Nitrile gasket, 2 in.
GRN-25NITRILS	Nitrile gasket, 2-1/2 in.
GRN-30NITRILS	Nitrile gasket, 3 in.
GRN-40NITRILS	Nitrile gasket, 4 in.



Victaulic® is a registered trademark of the Victaulic Corporation. There is no relationship between the Victaulic Corporation and Draka Elevator. Victaulic manufactures and distributes its own products under the Victaulic® trademark.

# Hydraulic Accessories

## ISOLATION COUPLINGS, MUFFLERS, RUPTURE VALVES AND CUSHION CLAMPS

### Isolation couplings by EECO

Part Number	Description	Size
2060A-1	Grooved to grooved coupling	2 in.
2060A-2	Grooved to National Pipe Thread (NPT) coupling	2 in.
2060A-3	NPT to NPT coupling	2 in.
2070A-1	Grooved to grooved coupling	2-1/2 in.
2070A-2	Grooved to NPT coupling	2-1/2 in.
2070A-3	NPT to NPT coupling	2-1/2 in.
2080A-1	Grooved to grooved coupling	3 in.
2080A-2	Grooved to NPT coupling	3 in.
2080A-3	NPT to NPT coupling	3 in.



### Mufflers by EECO

Part Number	Description	Size/Throughput
MU-2000-1	Muffler, 2 in. GRV to 2 in. GRV	6-5/8 in. OD, 11-3/4 in. long / 185 GPM max.
MU-2000-2	Muffler, 2 in. GRV to 2 in. NPT	6-5/8 in. OD, 11-3/4 in. long / 185 GPM max.
MU-2000-4	Muffler, 2 in. NPT to 2 in. NPT	6-5/8 in. OD, 11-3/4 in. long / 185 GPM max.
MU-2500-1	Muffler, 2-1/2 in. GRV to 2-1/2 in. GRV	8-5/8 in. OD, 11-3/4 in. long / 260 GPM max.
MU-2500-2	Muffler, 2-1/2 in. GRV to 2-1/2 in. NPT	8-5/8 in. OD, 11-3/4 in. long / 260 GPM max.
MU-2500-4	Muffler, 2-1/2 in. NPT to 2-1/2 in. NPT	8-5/8 in. OD, 11-3/4 in. long / 260 GPM max.
MU-2500-5	Muffler, 2-1/2 in. NPT to 3 in. GRV	8-5/8 in. OD, 11-3/4 in. long / 260 GPM max.
MU-2500-6	Muffler, 2-1/2 in. GRV to 3 in. GRV	8-5/8 in. OD, 11-3/4 in. long / 260 GPM max.
MU-3000-1	Muffler, 3 in. GRV to 3 in. GRV	8-5/8 in. OD, 11-3/4 in. long / 350 GPM max.
MU-3000-2	Muffler, 3 in. GRV to 3 in. NPT	8-5/8 in. OD, 11-3/4 in. long / 350 GPM max.
MU-3000-3	Muffler, 3 in. NPT to 3 in. NPT	8-5/8 in. OD, 11-3/4 in. long / 350 GPM max.



### Rupture valves

Part Number	Description	Flow Rate/Max. Pressure
PRV-2-NPT	Pipe rupture valve, 2 in. - NPT	111 to 208 GPM / 1200 PSI
PRV-2-GRV	Pipe rupture valve, 2 in. - Grooved	111 to 208 GPM / 1200 PSI
PRV-25-NPT	Pipe rupture valve, 2-1/2 in. - NPT	209 to 318 GPM / 1000 PSI
PRV-25-GRV	Pipe rupture valve, 2-1/2 in. - Grooved	209 to 318 GPM / 1000 PSI
PRV-3-NPT	Pipe rupture valve, 3 in. - NPT	319 to 546 GPM / 800 PSI
PRV-3-GRV	Pipe rupture valve, 3 in. - Grooved	319 to 546 GPM / 800 PSI



### Cushion clamps for hydraulic pipe

Part Number	Description	Pipe Trade Size
FS-1400P-200	Cushion clamp	2
FS-1400P-250	Cushion clamp	2-1/2
FS-1400P-300	Cushion clamp	3
FS-1400P-400	Cushion clamp	4



### Silencer by Minnesota Elevator

Part Number	Description
MEI-19317	Silencer, 220 max. GPM, fits 2 x 2 in. grooved coupling 13-1/4 L x 4-5/8 in. O.D., 28 lbs, rated to 1000 PSI
MEI-19319	Silencer, 360 max. GPM, fits 2-1/2 x 3 in. grooved coupling, 13-1/4 L x 4-5/8 in. O.D., 28 lbs, rated to 1000 PSI



The MEI Silencer uses a bladder system with air pressure to reduce excessive noise that may be generated by a hydraulic system.

# Hydraulic Accessories

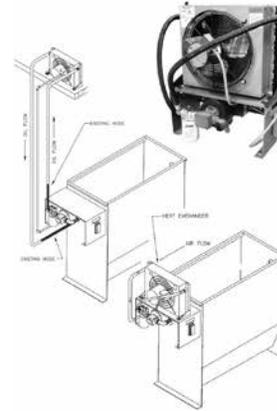
## OIL COOLER, SILENCERS, PRESSURE SENSORS AND PIPE STANDS

### Oil cooler by Minnesota Elevator – components CSA certified

Part Number	Description
MEI-10248	Oil cooler, with filter

The MEI Oil Cooler reduces the oil temperature by nearly 40° F • 22° C, (depending on site conditions). The cooler also filters the oil which results in smoother stops and starts, improved levelling and extended component life. The oil cooler can be mounted directly or remotely.

Remote installations should not exceed 110 ft • 33.5 m horizontal or 55 ft • 17.5 m vertical from tank.



### Hydraulic pressure sensor by Micelect – cCSAus certified



Part Number	Description
LW-SPB-M-NPT-STD	Hydraulic pressure sensor, with 2 relay outputs, includes 1/4 in. NPT female fitting, automatic calibration - no test weights required, 24 - 48VAC, 2 relays, 250V@3A
LW-SPB-M-NPT-020	Hydraulic pressure sensor, like above but with 0-20 mA analog output

The Micelect LW-SPB hydraulic pressure sensors mount to the hydraulic power unit. Pressure measurements are converted into outputs. Actual pressure can be displayed as well. The sensor automatically calibrates - no test weights are required.

Roller guides are required at least on top or on bottom of cab.

The LW-SPB sensors can use the cab displays shown on the bottom of page 67.



### Pipe stand – adjustable to 22” height

Part Number	Description	Pipe Trade Size
PIPE22-15	Pipe stand	1-1/2
PIPE22-2	Pipe stand	2
PIPE22-25	Pipe stand	2-1/2
PIPE22-3	Pipe stand	3

### Pipe stand – adjustable for 1 to 4 inch pipes

Part Number	Description
GRN-4031	Pipe stand, accommodating 1” - 4” (25mm - 100mm) pipe; 600 lbs (272.2 kg) max, 22” (559mm) diameter base with 2” (50mm) column, saddle has two roller bar bearings for free rotation of the pipe, and absorbs vibration to ensure a smooth, uniform groove. Saddle height is adjustable over a 10” (250mm) range.



### Roll groover

Part Number	Description
GRN-1039	Manual roll groover with hand crank, Schedule 40 capacity 1-1/4 to 6 inches, copper tube capacity 2 - 8 inches, can be used with Rigid® Model 300 without gearbox removal



# Light Curtains

BY WECO AND FORMULA SYSTEMS

## WECO 957P light curtains



Part Number	Description
WECO-957P	WECO 957P light curtain pair, cables, mounting hardware and power supply

The WECO 957P light curtain is an economical light curtain that can be installed universally for both center opening and side opening doors, with or without nudging. Unlike competing units, the power unit and all mounting hardware is included.

Installation is fast and simple – it is designed to attach to either the door or the wall with equal ease. The 957P's elements are quickly plugged into the 120VAC power supply (also included). The TX and RX cables are identical, making mis-plugging them impossible.

The units are 78.75 inches • 2 meters tall and create a curtain using 94 crossbeams that work even in sunlight.

The WECO 957P complies with appropriate CE and cCSAus specifications.

### Features

- Works for both center opening and side slide doors
- Meets CE and cCSAus standards
- Power supply with and without nudging is included (unlike some competitors who sell them separately)
- Easy to install - all hardware included
- Cables are true traveling cables and are TX/RX interchangeable
- Economical
- In stock and quickly delivered



## Formula System's SafeScreen



Part Number	Description
FDS-0547US05	SafeScreen light curtain/interface, 1.18 x 0.78 in. • 30 x 20 mm profile with 47 beam paths, interface is selectable 115/230VAC, signal output is volt-free changeover relay contacts, FPS-0271US01 universal interface and installation kit included.
FEXT-0016	Replacement lens, for SafeScreen light curtain

The SafeScreen light curtain is designed specifically for the North American market with 47 non-parallel infrared beam paths in a 1.18 x 0.78 in. • 30 x 20 mm profile to insure safe elevator operation. The mechanism is 7 feet • 2.14 m long. The light curtain includes a rugged and easily-installed interface equipped with multi-function buzzer/nudging. SafeScreen is cULus listed and ANSI/ASME A17.1/A17.5 / CSA B44/B44.1 compliant.



Components and Systems

# Tools and Hardware



Tools and Hardware

Jacket and sock strippers	85	WAGO tools	89
Wire strippers	86	Wire and reel organization	90
Crimpers and cutters	87	Guide rail alignment gauges	90
Wire rope cutting and measuring	88	Drill bits and saw blades	91
Compensation cable stripping kits	89	Electrical hardware	92
Swaging tools and punches	89	Fasteners	94
Conduit benders	89	Strut	95

# Tools

## JACKET STRIPPERS

### FlexiPeeler™ round cable stripper

Part Number	Description
36-060	FlexiPeeler, for cable dia. 0.2 to 1.5 in. • 4.5 to 40 mm, one replacement blade included
36-061	Replacement blade

The FlexiPeeler precisely cuts a jacket with rotary, straight lengthwise and spiral cuts. Two quickly switched hooks permit its use on cables from 0.2 in. to 1.5 in. • 4.5 to 40 mm in diameter. Cut depth is adjustable. A replacement blade is included in the handle.



### Super Peeler round cable stripper

Part Number	Description
36-146	Super Peeler, for cable dia. 3/4 to 1-1/4 in. • 19 to 32 mm
36-147	Super Peeler, for cable dia. 1-1/4 to 2 in. • 32 to 51 mm
36-148	Replacement blade, for both versions

Easy to calibrate and use, these unique cable 'peelers' allow you to precisely score round traveling cable jackets for fast removal without nicking the conductors underneath. By turning the dial, the spring-loaded blade on either stripper can be adjusted to a scoring depth of .05 to .14 in • 1.27 to 3.56 mm.



### FCJ flat cable stripper

Part Number	Description
36-135-M1	FCJ Stripper
36-138	Replacement blades, package of six
36-139-M1	Replacement blade guide

Faster and safer than the utility knife it replaces, the FCJ stripper makes easy work of stripping jackets from flat cables. A rigid, ergonomic handle fits the worker's hand and protects it from cuts and skinned knuckles. The blade is housed in an L-shaped hardened steel guide that eases the stripping operation while keeping the blade and fingers from touching. Two extra blades are included in the handle.



### Sock Slicer™

Part Number	Description
36-177	Sock Slicer braid cutter

The Sock Slicer braid cutter is specially designed for fast, easy braid removal. The protected blade cannot nick conductors and can be repositioned / rotated for optimum sharpness should it ever get dull.



# Tools

## INSULATION STRIPPERS

### QuickStrip

Part Number	Description
017-05-0001	Draka QuickStrip wire stripper, self-adjusting, 017-05-0002 'black' cartridge included
017-05-0002	'Black' blade cartridge, straight blade, for PVC insulation, 34 - 8 AWG
017-05-0004	'Red' blade cartridge, straight blade, for PVC insulation, 10 - 5 AWG
017-05-0003	'Blue' blade cartridge, V-blade, for PTFE (Teflon) insulation, 28 - 12 AWG

The Draka QuickStrip is a self-adjusting stripping tool that is lightweight but strong and is equally suitable for both high volume production and field usage. It permits fine insulation to be stripped without damaging the conductors. The ergonomic design ensures comfort in the shop or field.



### Automatic wire stripper

Part Number	Description
36-219	Automatic wire stripper, for 22 to 10 AWG
36-220	Replacement blades, one pair



### Manual wire stripper

Part Number	Description
37-177	Wire stripper, for 26 to 16 AWG



# Tools

## CRIMPERS AND CUTTERS

### Draka QuickCrimp

Part Number	Description
017-5-0005	QuickCrimp, ratchet-style, tool only (no dies)
017-5-0006	Die set, for 26 - 22 AWG and 12 - 10 AWG green and yellow insulated terminals and splices
017-5-0007	Die set, for 22 - 14 AWG red and blue insulated terminals and splices
017-5-0008	Die set, for 22 - 10 AWG non-insulated terminals, lugs and splices
017-5-0009	Die set, for 24 - 8 AWG insulated and non-insulated wire ferrules
017-5-0010	Die set, for 26 - 12 AWG power contacts

The Draka QuickCrimp handles a wide range of crimping applications. Interchangeable dies enable the user to tackle wire sizes from 26 to 8 AWG with one tool. Ergonomic design provides comfort while rugged construction delivers durability.



### Crimping tool

Part Number	Description
36-097	Crimping tool, for bare or insulated terminals and splices for wire sizes 22 - 10 AWG



### Roto-Flex conduit cutter

Part Number	Description
36-217	Flex conduit cutter, for 3/8 to 3/4 in. flex conduit and 14-2 to 2-4 MC cable
36-218	Replacement blade, one



### Steel core cutter

Part Number	Description
36-178	Steel core cutter

High-leverage cutters with Swiss-made carbide steel blades that make quick work of the steel support cable found in traveling cables. Plastic-coated handles for comfort and gripability. Blades lock in a closed position for better fit in a tool belt.



# Tools

## WIRE ROPE CUTTING AND MEASURING TOOLS

### Impact cutter

Part Number	Description
WR-IMPACT	Impact-style wire rope cutter, Morse-Starrett 101, for wire rope sizes up to 3/4 in. • 19 mm



### Hydraulic cutter

Part Number	Description
WR-HYDRAULIC	Hydraulic-style wire rope cutter, Morse-Starrett W-075, for wire rope sizes up to 3/4 in. • 19 mm



### Ratchet cutter

Part Number	Description
WR-RATCHET	Ratchet-style wire rope cutter, Cooper Tools 8690 TN, for wire rope sizes up to 3/4 in. • 19 mm



### Rope gauge

Part Number	Description
WR-MT	Wire rope measuring gauge, for imperial sizes, go/no go style, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16 and 3/4 in.
WR-MT-METRIC	Wire rope measuring gauge, for metric sizes, go/no go style, 6, 8, 10, 11, 12, 13, 16 and 19 mm



If the rope fits in the groove, or if a rope with rouge fits the stepped groove, retire the rope. Measurements based on ASME 17.6. Machined aluminum.

### Quick-Balance tension meter

Part Number	Description
WR-QBTM-2	Wire rope tension measurement meter, 10000 lb/45 kN/4500 kg range

The Quick-Balance tension meter can be attached to a rope, used to measure tension and removed in just seconds. The digital load cell assures accuracy of up to +/- 3%. The meter is shipped from the factory with 1/2 in. • 12.7 mm, 9/16 in. • 14 mm and 5/8 in. • 16 mm diameter calibrations (other diameters are available by special order). The included sheave set accommodates wire diameters of 1/4 in. to 3/4 in.



### Digital caliper with case

Part Number	Description
WR-CALIPER-C	Digital wire rope caliper, dual range (imperial and metric scales), includes special jaws for ease of use and rigid case



# Tools

## COMPENSATION CABLE STRIPPING KITS, SWAGING TOOLS AND PUNCHES, CONDUIT BENDERS, WAGO TOOLS

### Whisper-Flex and Steadi-Flex strip kit

Part Number	Description
WF-STRP	Strip kit, with instructions

This kit includes angle mounting bracket (already assembled), clamps, nippers, utility knife, cable jacket cutter, hacksaw and gloves for use in preparing the end of all Draka compensation cables. Carrying case included. Other tools required but not included are 3/4 in. wrench and flathead screwdriver.



### Swaging tool, ferrules and stops

Part Number	Description
36-143	Swaging tool
36-145	3/32 in. • 2 mm ferrules, 2 ferrules/2 stops
36-144	1/8 in. • 3 mm ferrules, 2 ferrules/2 stops

This bolt cutter-style swaging tool offers improved leverage and greater speed combined with economical durability. The strong forged jaws crimps ferrules on wire rope up to 1/8 in. • 3 mm diameter.



### Greenlee knockout punches

Part Number	Description
36-008	1/2 to 1-1/4, one per package
36-009	1-1/2 to 2, one per package

For use with junction boxes found on page 46



### Conduit bender

Part Number	Description
36-002	Conduit bender with handle, for 1/2 in. EMT, 4 in. inside bending radius
36-001	Conduit bender with handle, for 3/4 in. EMT, 5 in. inside bending radius
36-000	Conduit bender with handle, for 1 in. EMT, 6 in. inside bending radius
36-214	Conduit bender with handle, for 1-1/4 in. EMT, 9 in. inside bending radius

Conduit benders have aluminum construction for easy handling. They have a precision-located degree scale, star, arrow and rim notch for perfect bends every time. Markings are raised and cast into bender body on both sides for easy visibility. Grooved internal hook surface helps prevent conduit from slipping. Flat hook surface provides stable starting point.



### WAGO tools

Part Number	Description
210-720	Screwdriver, with partially insulated shaft
285-172	Universal T-tool, for use with high-current terminal blocks
210-658	Operating tool, with partially isolated shaft, blade 3.5 x 0.5 mm, particularly suitable for actuator and sensor terminal blocks



# Tools

## WIRE / REEL ORGANIZATION AND GUIDE RAIL ALIGNMENT

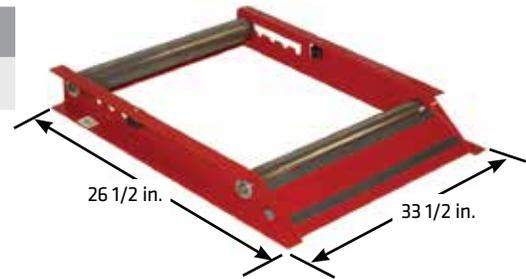
### Wire caddy

Part Number	Description
36-221	Hand wire caddy



### Reel roller

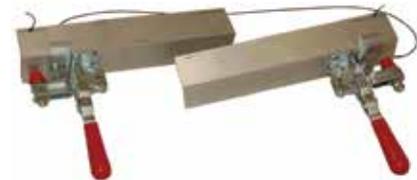
Part Number	Description
36-222	Reel roller, for up to 30 in. reels, 2,000 lbs. capacity, 26-1/2 L X 33-1/2 W X 4-1/2 T in., 50 lbs weight



### Guide rail alignment gauges

Part Number	Description
DRAKA-RAG-001	Rail alignment gauges, pair of clamp-style gauges, hard-shell case included

Draka's easy-to-use rail alignment gauges are the perfect tool for ensuring that your elevator guide rails are properly installed. Clamp the gauges to the rails directly across from each other (the clamps are adjustable depending on rail thickness). This straightens the alignment string like a plumb line. If you can see the line through the precisely-machined viewing holes, the rails are aligned. If you can't, then adjust the rails while the gauges are attached to confirm proper alignment.



# Tools

## DRILL BITS, SAW BLADES AND DOOR WEDGE

### Drill bits

Part Number	Description
36-003	3/8 x 6 in. masonry bit
36-042	1/2 x 6 in. masonry bit
36-004	1/4 in. masonry carbide bit
36-037	1/8 in. high-speed bit
36-041	1/4 in. high-speed bit
36-014	5/16 in. high-speed bit
36-007	3/8 in. high-speed bit
36-040	#7 high-speed bit
36-039	#21 high-speed bit
36-038	#29 high-speed bit



### Hole saws

Part Number	Description
36-080	7/8 in. hole saw
36-084	1 in. hole saw
36-081	1-1/8 in. hole saw
36-086	1-1/4 in. hole saw
36-099	2 in. hole saw
36-047	2-1/8 in. hole saw
36-049	2-7/8 in. hole saw



### Hole saw arbors

Part Number	Description
36-083	9/16 to 1-3/16 in. hole saw arbor
36-048	1-1/4 to 6 in. hole saw arbor



### Hacksaw blades

Part Number	Description
36-006	32 teeth/in. hacksaw blade



### Door wedge

Part Number	Description
MIS-DW-T2	Door wedge safety tool, for use on single-slide, center-opening, or two-speed hoistway door systems with sill grooves at least 7/16 in. wide



# Hardware for Electrical Work

UL LISTED, CSA CERTIFIED AS NOTED

## Nylon-insulated butt splices



Part Number	Size AWG	Color
21-001	22 - 18	Red
21-002	16 - 14	Blue
21-009	12 - 10	Yellow



## ScotchLok® components



Part Number	Size AWG	Type
22-000	18 - 14	Style 560 - blue
22-001	22 - 16	Style 557 pigtail - red
22-020	22 - 16	Style 558 tap - red
22-021	12 - 10	Style 562 tap - yellow



## Wire nuts



Part Number	Size AWG	Type
22-004	18 - 10	76B - red
22-005	18 - 12	74B - yellow
22-003	22 - 14	73B - orange
22-010	22 - 14	72B - blue
22-009	22 - 16	71B - gray



## Lever nuts



Part Number	Size AWG	Type
222-413	28 - 14	3-pole Cage Clamp connection
222-415	28 - 14	5-pole Cage Clamp connection



## Wire joints



Part Number	Description
22-031	Wire joint, min. 2 #24, max. 2 #16
22-032	Wire joint, min. 4 #18, max. 2 #12



## Cable ties and mounting base



Part Number	Length Inches	Max. Width Inches
23-001	4.0	.095
23-004	6.1	.141
23-002	8.0	.185
23-012	11.1	.141
23-003	14.9	.275
23-013	30.7	.275
23-032*	Mounting Base	.19

\*Mounting base is UR rated and not UL listed.



## Wire marker cards and dispensers

Part Number	Description
25-001	Wire marker cards, nos. 1 - 33
25-003	Wire marker cards, nos. 34 - 66
25-005	Wire marker cards, nos. 67 - 99
25-006	Wire marker dispenser



# Hardware for Electrical Work

UL LISTED, CSA CERTIFIED AS NOTED

## Mechanical lugs



Part Number	Wire Size / Hole Size AWC
17-002	14-6 / #10
17-005	1/0-4/0 / 3/8 in.
17-001	8-2 / 1/4 in.
17-031	14-6 / 3/8 in.
17-032	4-2/0 / 3/8 in.



## Ring terminals

Part Number	Wire Size / Type AWC
20-015	22-18 insulated - red #6 ring
20-026	22-18 non-insulated #8 ring
20-002	22-18 insulated - red #10 ring
20-001	18-14 non-insulated #10 ring
20-003	16-14 insulated - blue #10 ring
20-113	16-14 insulated - blue #8 ring



## Compression lugs



Part Number	Wire Size / Hole Size AWC
17-019	1/0 / 3/8 in.
17-034	2/0 / 3/8 in.
17-035	3/0 / 3/8 in.
17-036	4/0 / 3/8 in.
17-015	1 / 3/8 in.
17-020	2 / 3/8 in.
17-021	4 / 3/8 in.
17-037	6 / 3/8 in.
17-022	8 / 3/8 in.
17-008	1 / 1/2 in.



## Fork terminals

Part Number	Wire Size / Type AWC
20-012	22-18 non-insulated #6 fork
20-048	22-18 insulated - red #6 fork
20-019	22-18 insulated - red #8 fork
20-020	22-18 insulated - red #10 fork
20-016	16-14 insulated - blue #6 fork
20-017	16-14 insulated - blue #8 fork
20-018	16-14 insulated - blue #10 fork



## Female disconnects



Part Number	Type and Size
20-004	#22-18 non-insulated .110 x .032 in.
20-047	#22-18 insulated .110 x .032 in.



## Split bolt connectors

Part Number	Wire Size / Type AWC
17-041	1-3/0
17-046	2-6
17-073	4-8
17-086	10-12



## Tape



Part Number	Description All Tape 3/4" Wide
16-006	#33 black electrical, 66 ft.
16-008	#35 white electrical, 66 ft.
16-009	#35 red electrical, 66 ft.
16-010	#35 blue electrical, 66 ft.
16-011	#35 green electrical, 66 ft.
16-012	#35 yellow electrical, 66 ft.
16-013	#35 orange electrical, 66 ft.
16-014	#35 brown electrical, 66 ft.
16-002	Friction, 60 ft.
16-003	Rubber, 22 ft.
16-005	#1700 electrical, 60 ft.



## Lights and electrical

Part Number	Description
36-070	Rough service bulbs, 100 watt, package of 60
37-001	Porcelain fixture, with collar and pull chain
37-021	Plastic cage
36-033	Drop light with cage and hook, 25 ft. cord
36-034	Drop light with cage and hook, 50 ft. cord
37-178	GFCI with cover, 125VAC, 15A

Use these tools for crimping. See page 87 for details.

#017-5-0005 Draka QuickCrimp



#36-097 Crimping tool



# Fasteners

## Round-head nuts and screws

Part Number	Description
26-005	Round-head nuts and screws, 1/4 x 3/4 in.
26-001	Round-head nuts and screws, 1/4 x 1 in.
26-002	Round-head nuts and screws, 1/4 x 1-1/4 in.
26-003	Round-head nuts and screws, 1/4 x 1-1/2 in.
26-004	Round-head nuts and screws, 1/4 x 2 in.



## Washers

Part Number	Description
54-001	Flat washers, 3/8 in.
54-003	Flat washers, 1/4 in.
59-004	Lock washers, 3/8 in.
54-002	Lock washers, 1/4 in.



## Hex nuts

Part Number	Description
55-001	Hex nuts, 1/4 in.
55-002	Hex nuts, 3/8 in.



## Nail-ins

Part Number	Description
24-001	Nail-ins, 1/4 x 1 in.
24-025	Nail-ins, 1/4 x 1-1/2 in.



## Lead anchors

Part Number	Description
24-004	Lead anchors, 3/8 in.
24-002	Lead anchors, 1/4 in.



## Toggle bolts

Part Number	Description
36-035	Toggle bolts, 1/4 x 3 in.



## Hex-head bolts

Part Number	Description
36-036	Hex-head bolt, 1/4 x 1 in.



## Threaded rod

Part Number	Description
44-017	Threaded rods, 3/8 in. x 6 ft.
09-051	Threaded couplings, 3/8 in.



Standard fasteners are grade 2, zinc-coated.

## Strut

Part Number	Description
44-338	14-gauge strut, holes one side, 13/16 in. x 1-5/8 in. x 120 ft.
44-339	12-gauge strut, holes one side, 1-5/8 in. x 1-5/8 in. x 120 ft.
44-340	12-gauge strut, holes three sides, 1-5/8 in. x 1-5/8 in. x 120 ft.



## Nuts

Part Number	Description
44-021	1/4 in. spring nut, for 1-5/8 in. strut
44-064	5/16 in. spring nut, for 1-5/8 in. strut
44-014	3/8 in. spring nut, for 1-5/8 in. strut
44-023	1/2 in. spring nut, for 1-5/8 in. strut
44-024	1/4 in. spring nut, for 13/16 in. strut
44-018	3/8 in. spring nut, for 13/16 in. strut
44-072	1/2 in. spring nut, for 13/16 in. strut
44-058	1/4 in. nut, for all strut
44-059	3/8 in. nut, for all strut
44-057	1/2 in. nut, for all strut



## Connectors

Part Number	Description
44-341	Two-hole corner connector
44-342	Three-hole corner connector
44-343	Four-hole corner connector
44-347	Five-hole corner connector
44-344	Eight-hole two-way wing connector



## Straps

Part Number	Description
44-002	1/2 in. EMT strap, for all strut
44-009	3/4 in. EMT strap, for all strut
44-003	1 in. EMT strap, for all strut
44-019	1-1/4 in. EMT strap, for all strut
44-012	1-1/2 in. EMT strap, for all strut
44-004	2 in. EMT strap, for all strut
44-030	2-1/2 in. EMT strap, for all strut



# Maintenance and Safety



LED elevator lighting systems	97
LED escalator demarcation lighting	100
Inspection stations and stop switches	101
Pendant stations	102
Top of Car (TOC) safety rails	103
Hoistway safety (HOSS™)	104
Door gibs	105
Spirators	106
Alarm bells	107
Barricades, grips and signage	108
Pit safety and fans	109
Cameras	110
Governors	111

# LED Lighting Systems

## FOUR REASONS WHY i2SYSTEMS' LEDS ARE THE WAY TO LIGHT YOUR CAB

### Efficiency – more light with less power

Since their inception, LEDs have always been remarkably efficient at around 8% of power converted to lumens. While other types of lamps use 13 to 40 watts per lamp to produce ANSI-mandated levels of illumination, an i2Systems LED uses as little as 4 watts to produce as many as 200 lumens. A standard installation of an Apeiron LTE+ fifth generation LED six-lamp package for a 2000 - 3500 lbs. capacity cab exceeds ANSI A17.1-2007 standards for illumination by a substantial amount.

### Longevity – 4x to 20x more life than CFLs and halogen

Longevity is another i2Systems advantage. LEDs from i2Systems last four times longer than a fluorescent lamp and twenty times longer than a halogen lamp. Not only is that a substantial saving in material, it's a big savings in labor when replacing bulbs and ballasts. And as 'green' mandates become more and more prevalent, that also means fewer special disposal problems for 'dirty' burnt-out lamps.

### Installed cost – they pay for themselves

i2Systems fifth generation LED cab lighting is not only within reach of any modernization budget, it is also the undisputed leader in installed and maintained cost. Based on energy savings alone, LEDs from i2Systems typically pay back the cost of installation in under one year (not including government rebates for energy efficient products).

### Light color and quality –

### warm and bright beats green and flickering

It has been shown that people are most comfortable with warm to neutral white light. Lamps from i2Systems are available in warm (3000°K) and bright white (4000°K) colors. And, unlike fluorescents, there is no annoying flicker.

Most important, LEDs from i2Systems are designed to look as good as they work. The Apeiron LTE+ puck-style lights come in gold, chrome, brushed nickel and black finishes, and in round and square styles. The Gen5 elevator linear LEDs easily replace up to 20 feet of fluorescent tubes with 12, 18, 24, 36 and 48 inch lengths that offer perfectly focused light that fit the ambiance of an elevator cab perfectly.

For cab modernization, the goal is improvement. Puck and linear LEDs from i2Systems are a major improvement over traditional and outdated technologies. Not only do they improve performance, they do it at a best installed and operational cost.



Maintenance  
and Safety

# LED Lighting Systems

## i2SYSTEMS APEIRON LTE+ RECESSED LIGHTING

### Apeiron LTE+ round and square dimmable LED lamps



Part Number	Description	Finish	Size and Shape
A4390Z-14CBBR	Apeiron LTE+ warm white lamp	Chrome	3 in. x 3 in. square
A4390Z-11CBBR	Apeiron LTE+ warm white lamp	Chrome	3 in. diameter round
A4390Z-11BBD	Apeiron LTE+ neutral white lamp	Chrome	3 in. diameter round
A4390Z-21CBBR	Apeiron LTE+ warm white lamp	Gold	3 in. diameter round
A4390Z-41CBBR	Apeiron LTE+ warm white lamp	Brushed nickel	3 in. diameter round
A4390Z-41BBD	Apeiron LTE+ neutral white lamp	Brushed nickel	3 in. diameter round
A4390Z-61CBBR	Apeiron LTE+ warm white lamp	Black	3 in. diameter round
A4390Z-61BBD	Apeiron LTE+ neutral while lamp	Black	3 in. diameter round
PS24V45W-E12D	Power supply with dimming		
PS24V45W-E12E	Power supply with dimming and battery backup (two lamps for 4+ hours)		



NOTE: Each power box will power up to 9 lamps.

Parts listed here are in-stock and ready to ship. Additional models and options are available.

The Apeiron LTE+ is a premium **dimnable** and cost-effective LED lighting system that outlasts similar halogen lights by a factor of 20.

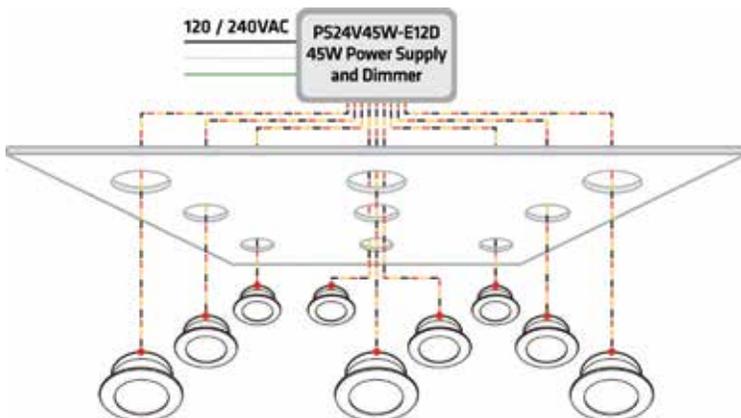
The LTE+ system is literally a snap to install. The handsome lightweight lights click into position with spring clips – no screws are needed. They simply plug into the compact power box (available with an optional 4+ hour battery backup) – no wire nuts or terminals.

And unlike LED replacement bulbs, the LTE+ is designed specifically for elevators. The beam is focused for best illumination of the cab and the Color Rendering Index (CRI) is rated at 90+ for a 'true to life' light.

The Apeiron LTE+ is available in either a 3" round or 3" square size. The metal bezel is available in either chrome, gold, brushed nickel or black finishes. Dimmable power units are available with or without battery backup.

#### Features

- 3" round and square designs
- Available in multiple light system kits
- Emergency light operation
- Industry's best color rendering (CRI 90+)
- Light beam engineered specifically for elevators
- Simple installation – light clips in, wiring is plug and play
- Lightweight power box with dimming and optional battery backup
- cULus, RoHS, IGCC, uses LM-80 tested LEDs, LM-79 tested
- Made in the USA



#### Number of Fixtures Required

Typical Capacity	Soft Light	Standard light	Bright light
2100 lbs	4	6	9
2500 lbs	4	6	9
3000 lbs	6	9	12
3500 lbs	6	9	12

Maintenance and Safety

# LED Lighting Systems

## i2SYSTEMS LINEAR LIGHTING SYSTEMS

### S1205 linear dimmable LED lamps and power supplies



Part Number	Description	Length
S1205B-16CBB	S1205 warm white lamp	12 inches • 316 mm
S1205B-16BBD	S1205 neutral white lamp	12 inches • 316 mm
S1205B-86CBB	S1205 warm white lamp	18 inches • 468 mm
S1205B-86BBD	S1205 neutral white lamp	18 inches • 468 mm
S1205B-26CBB	S1205 warm white lamp	24 inches • 621 mm
S1205B-26BBD	S1205 neutral white lamp	24 inches • 621 mm
S1205B-36CBB	S1205 warm white lamp	36 inches • 621 mm
S1205B-36BBD	S1205 neutral white lamp	36 inches • 621 mm
S1205B-46CBB	S1205 warm white lamp	48 inches • 1230 mm
S1205B-46BBD	S1205 neutral white lamp	48 inches • 1230 mm
PS24V75W-E01D	Power box	
LL-101-01	LightLink dimmer	

NOTE: Each power box will power up to 20 feet of lamps - plan accordingly.



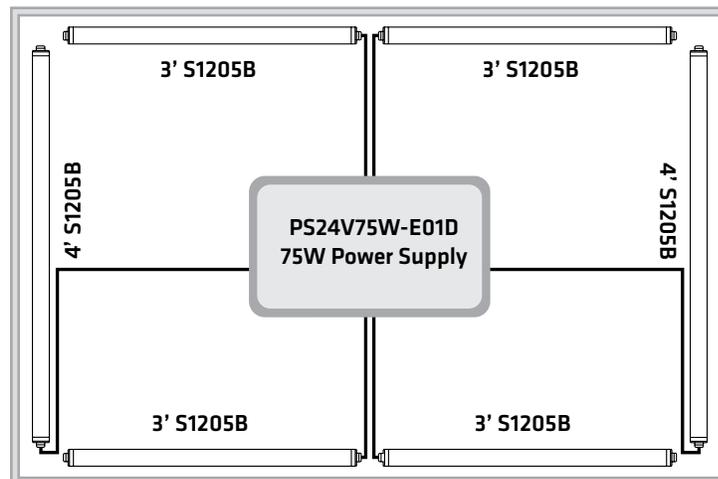
S1205B lamps are long strips of evenly lit LED covering 12 to 48 inch lengths with a very wide (65°) throw. This eliminates dark spots (socket shadow) between lamps. The Gen5 designation means that these lamps use power more efficiently.

The S1205B system has been engineered specifically for elevators in that a standard cab uses 20 feet of linear lamps – a single power supply comfortably delivers the necessary wattage. Where dimming is required, simply plug a LightLink dimmer into the power box.

Installation is simple – each lamp has a 6 foot cable that easily plugs into the power box. Adjustable brackets allow the linear lamps to be mounted either flat or pivoted on a drop ceiling.

#### Features

- Available in 12, 18, 24, 36 and 48 inch lengths
- Industry's best color rendering (CRI 90+)
- Light beam engineered specifically for elevators
- Simple installation – custom mounting brackets, wiring is plug and play
- Lightweight power box with dimming and optional battery backup
- cULus, RoHS, IGCC, uses LM-80 tested LEDs, LM-79 tested
- Made in the USA



#### Mounting Brackets for Linear LEDs Order two for each lamp

Part Number	Description
SLA-1	Adjustable mounting bracket
SLA-2	Fixed mounting bracket
SLA-3	End mount pivot



Maintenance  
and Safety

# LED Lighting Systems

## i2SYSTEMS ESCALATOR DEMARCATION LAMPS



### S1203 Escalator Demarcation LEDs

Part Number	Description
S1203A-86D	Escalator demarcation lamp for damp conditions, 18", 9W, vibrant green light
PS24V60W-01	Power supply for up to two S1203 lamps
SLA-1	Adjustable mounting bracket for S1203, stainless steel, for damp areas
SLA-2	Fixed mounting bracket for S1203, stainless steel, for damp areas
SLA-3	End-mount pivot mounting bracket for S1203, stainless steel, for damp areas

Escalator demarcation LEDs are designed for damp and wet conditions. They offer the same operating advantages (longevity, low operating cost, light quality) as the other i2Systems LED lamps.

S1203 escalator demarcation lamps are part of our super-efficient Gen5 family of lamps. These 9 watt lamps offer rugged military-spec aluminum and polycarbonate construction. The lamps connect to the power supply with the attached 6 foot cables. Use one power supply and two lamps for each landing. Note that escalator demarcation lamps are not dimmable.

Use the SLA-1 or SLA-2 mounting brackets for fast installations. Order two brackets per lamp.



### SL1 and VL3 Escalator Demarcation LEDs

Part Number	Description
SL1-865-3	Escalator demarcation lamp for dry/damp conditions, 18", 7.5W, white light
VL3-865-3-HB	Escalator demarcation lamp for wet conditions, 18", 12W, white light
PS24V35W-01	120/240V AC power supply for escalator LEDs
SLA-1	Adjustable mounting bracket for SL1-865-3, stainless steel, for damp areas
SLA-2	Fixed mounting bracket for SL1-865-3, stainless steel, for damp areas
SLA-3	End-mount pivot mounting bracket for SL1-865-3, stainless steel, for damp areas
VLA-5	Adjustable mounting bracket for VL3-865-3-HB, stainless steel, for wet areas
VLA-3	Fixed mounting bracket for VL3-865-3-HB, stainless steel, for wet areas
VLA-6	End-mount mounting bracket for VL3-865-3-HB, stainless steel, for wet areas

SL1 escalator demarcation LEDs are for damp conditions. VL1 escalator demarcation LEDs are for wet conditions.

Note that the mounting brackets are specified for either damp or wet environments. Order two brackets per lamp.

NOTE: Due to constant power design, input current will vary depending on input voltage. Be sure to use the correct AWG wire size for worst case input voltage.



Maintenance and Safety

# Inspection Stations and Stop Switches

## Top Of Car Inspection (TOCI) stations

Part Number	Description
TOCI-L	Top of car inspection box, with GFCI receptacle and light fixture/cage
TOCI-LF	Top of car inspection box, with GFCI receptacle, light fixture/cage and fire service light/buzzer indicators
TOCI-LA	Top of car inspection box, with GFCI receptacle, light fixture/cage and audible 6 - 28VDC alarm
TOCI-LFA	Top of car inspection box, with GFCI receptacle, light fixture/cage, fire service light/buzzer indicators and audible 6 - 28VDC alarm
CNTBLK-NO	Additional NO contact block
CNTBLK-NC	Additional NC contact block

TOCI stations house large, easy-to-read UP, DOWN, COMMON and STOP controls as well as a normal/inspection switch, 125VAC/25A GFCI receptacle and light fixture/cage in a bright yellow metal enclosure. They are available in four versions – with lamp fixture, lamp/fire service, lamp/alarm and lamp/fire service/alarm. NOTE: All stations come unwired; some field assembly required. Light bulb not included.



## Stop switches

Part Number	Description
EN418-A	Locking stop switch

EN418-A stop switches use a push-pull action for sure, safe operation. A four-prong guard helps prevent accidental engagement of the switch. Large diagrams printed on the switch show clearly which are the RUN and STOP positions, while indicator windows show 'green for go' when the switch is in the ON position and 'red for stop' when in the STOP position. The EN418-A has one NO and one NC contact.



Part Number	Description
SLA11NPNC002	Locking stop switch

SLA11NPNC002 stop switches are the same as the EN418-A except they have a single NC contact and zero NO contact.

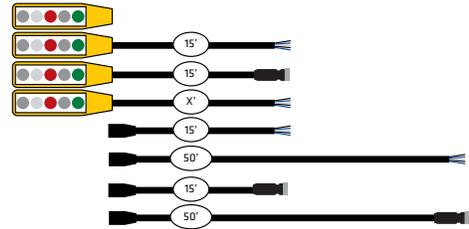


# Pendant Stations

## FIVE-BUTTON PENDANT STATIONS (UP, DOWN, COMMON, LOCKING STOP AND TUBULAR KEY SWITCH)

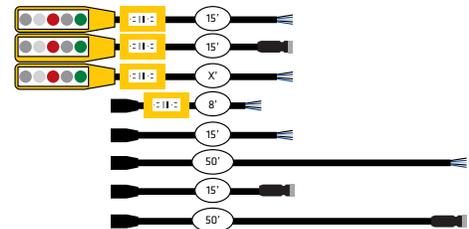
### Standard pendant stations

Part Number	Description	Cable Length ft • m	Termination(s)
PEND-5B-T	Pendant station	unwired	none
PEND-5W-T	Pendant station, with pigtail	15 • 4.6	loose wires
PEND-5W-TC	Pendant station, with pigtail	15 • 4.6	male
PEND-5W-TV	Pendant station, with pigtail	made to order	loose wires
PEND-15-1	Cable extension	15 • 4.6	female/loose wires
PEND-50-1	Cable extension	50 • 15.2	female/loose wires
PEND-15-2	Cable extension	15 • 4.6	female/male
PEND-50-2	Cable extension	50 • 15.2	female/male
18/6 SEOW	Cut-to-length cable	specify	none



### Pendant stations with 125V/20A GFCI

Part Number	Description	Cable Length ft • m	Termination(s)
PEND-5W-TG	Pendant station, with pigtail and GFCI	15 • 4.6	loose wires
PEND-5W-TGC	Pendant station, with pigtail and GFCI	15 • 4.6	male
PEND-5W-TGV	Pendant station, with pigtail and GFCI	made to order	loose wires
PEND-8GC-1	Cable extension for PEND-5WG-TC with GFCI	8 • 2.45	female/loose wires
PEND-15G-1	Cable extension, for GFCI versions	15 • 4.6	female/loose wires
PEND-50G-1	Cable extension, for GFCI versions	50 • 15.2	female/loose wires
PEND-15G-2	Cable extension, for GFCI versions	15 • 4.6	female/male
PEND-50G-2	Cable extension, for GFCI versions	50 • 15.2	female/male
14/3-18/5 SEOW	Cut-to-length cable, for GFCI versions	specify	none



PEND-5 series pendant stations are made of high-impact plastic for durability and electrical safety. Keyed lockout and two-handed operation further increase their safe usage. Options include a 15 ft. • 4.6 meter pigtail; GFCI (Ground Fault Circuit Interrupter 120VAC) on the pigtail; connectorized pigtails; and cable extensions of either 15 ft. or 50 ft. • 4.6 m or 15.2 m.



### Replacement parts

Part Number	Description
PEND-8REC	8-conductor replacement receptacle kit, with female connector
PEND-8PLUG	8-conductor replacement receptacle kit, with male connector
PEND-6REC	6-conductor replacement receptacle kit, with female connector
PEND-6PLUG	6-conductor replacement receptacle kit, with male connector
PEND-TUBEKEY	Key switch tubular replacement, with mounting hardware
PEND-UP	Up button replacement, with 1 NO + 1 NC contact blocks and mounting hardware
PEND-DOWN	Down button replacement, with 1 NO + 1 NC contact blocks and mounting hardware
PEND-ENABLE	Common button replacement, with 1 NO contact block and mounting hardware
PEND-STOP	Emergency stop button replacement, with 1 NC contact block and mounting hardware

# Top of Car Safety Rails

TOC KITS / CONFORMS TO ASME 17.1 SPECIFICATIONS

## BIG-TOC and LIL-TOC Top Of Car safety rails

Part Number	Toe-board Part Number	Description	Opening	Size Range (min > max) Width (in • m)	Depth (in • m)	Weight lbs • kg
100-01	100-01TB	LIL-TOC	front	57 > 82 • 1.45 > 2.08	57 > 82 • 1.45 > 2.08	148 • 67.2
100-01 / 100-20		LIL-TOC w/ two-sided extension kit	front	57 > 82 • 1.45 > 2.08	99 > 123 • 2.51 > 3.12	183 • 83.2
100-01 / 100-19		LIL-TOC w/ three-sided extension kit	front	99 > 123 • 2.51 > 3.12	99 > 123 • 2.51 > 3.12	200 • 90.9
100-03	100-03TB	BIG-TOC 60	front	69 > 118 • 1.75 > 3.00	69 > 118 • 1.75 > 3.00	184 • 83.6
100-03 / 100-20		BIG-TOC 60 w/ two-sided extension kit	front	69 > 118 • 1.75 > 3.00	123 > 159 • 3.12 > 4.0	219 • 99.5
100-03 / 100-19		BIG-TOC 60 w/ three-sided extension kit	front	123 > 159 • 3.12 > 4.04	123 > 159 • 3.12 > 4.04	236 • 107.3
100-05	100-05TB	BIG-TOC 72	front	69 > 118 • 1.75 > 3.00	81 > 130 • 2.06 > 3.30	192 • 87.3
100-05 / 100-20		BIG-TOC 72 w/ two-sided extension kit	front	69 > 118 • 1.75 > 3.00	135 > 171 • 3.43 > 4.34	227 • 103.2
100-05 / 100-19		BIG-TOC 72 w/ three-sided extension kit	front	123 > 159 • 3.12 > 4.04	135 > 171 • 3.43 > 4.34	244 • 110.9
100-13	100-13TB	LIL-TOC	front	45 > 70 • 1.14 > 1.78	69 > 106 • 1.75 > 2.69	158 • 71.8
100-15	100-15TB	LIL-TOC	front	57 > 82 • 1.45 > 2.08	69 > 106 • 1.75 > 2.69	162 • 73.6
100-17	100-17TB	LIL-TOC	front	57 > 82 • 1.45 > 2.08	45 > 70 • 1.14 > 1.78	141 • 64.1
100-13 / 100-20		LIL-TOC w/ two-sided extension kit	front	45 > 70 • 1.14 > 1.78	123 > 147 • 3.12 > 3.73	193 • 87.7
100-15 / 100-20		LIL-TOC w/ two-sided extension kit	front	57 > 82 • 1.45 > 2.08	123 > 147 • 3.12 > 3.73	197 • 89.5
100-17 / 100-20		LIL-TOC w/ two-sided extension kit	front	57 > 82 • 1.45 > 2.08	99 > 111 • 2.51 > 2.89	176 • 80.0
100-13 / 100-19		LIL-TOC w/ three-sided extension kit	front	99 > 111 • 2.51 > 2.89	123 > 147 • 3.12 > 3.73	210 • 95.5
100-15 / 100-19		LIL-TOC w/ three-sided extension kit	front	99 > 123 • 2.51 > 3.12	123 > 147 • 3.12 > 3.73	214 • 97.3
100-17 / 100-19		LIL-TOC w/ three-sided extension kit	front	99 > 123 • 2.51 > 3.12	99 > 111 • 2.51 > 2.89	193 • 87.7
100-07	100-07TB	LIL-TOC F&R	front and rear	n/a	57 > 82 • 1.45 > 2.08	116 • 52.7
100-09	100-09TB	BIG-TOC 60 F&R	front and rear	n/a	69 > 118 • 1.75 > 3.00	142 • 64.5
100-11	100-11TB	BIG-TOC 72 F&R	front and rear	n/a	81 > 130 • 2.06 > 3.30	149 • 67.7
100-07 / 100-20		LIL-TOC F&R w/ two-sided extension kit	front and rear	n/a	99 > 123 • 2.51 > 3.12	151 • 68.6
100-09 / 100-20		BIG-TOC 60 F&R w/ two-sided extension kit	front and rear	n/a	123 > 159 • 3.12 > 4.04	177 • 80.5
100-11 / 100-20		BIG-TOC 72 F&R w/ two-sided extension kit	front and rear	n/a	135 > 171 • 3.43 > 4.34	184 • 83.6

BIG-TOC and LIL-TOC (Top Of Car) safety rail kits install on top of freight and passenger traction elevators to create a safer and more secure car-top environment for both people and their tools. These permanent guardrail kits are easy to install and quickly adjust to the required size. They are adaptable to both front-opening and front-and-rear opening car types. All rails, bolts, nuts and hardware are included. The major siderail components come pre-assembled. Installation generally takes under an hour. The toe board is ordered separately and serves as an added measure to prevent the loss of tools and other important items.

### Determining width and depth requirements for your TOC safety rail kit:

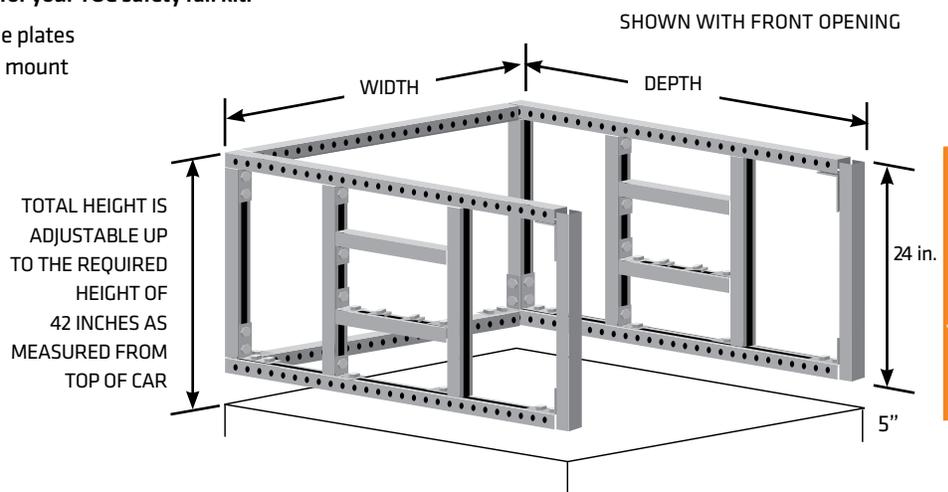
**Width** – The distance between the roller guide plates determines width, because the TOC side rails mount inside the roller guide plates.

**Depth** – Measure the inside car depth.

**Height** – Height is adjustable and is measured from the top of the car to the top handrail of the installed TOC safety rail kit.

**NOTE:** If clearance between the top of the car and the bottom of the crosshead is less than 18", please call for assistance.

All listed toe boards are 4" height; 5" height available upon request.



Maintenance and Safety

# Hoistway Safety

## HOSS™ SYSTEMS

### BIG-HOSS™ Hoistway Obstruction Shield System

Part Number	Description
BIG-HOSS	Hardware Cloth Base Mounting Kit, 100 feet • 30.48 m length
BIG-HOSS-75	Hardware Cloth Base Mounting Kit, 75 feet • 22.86 m length
BIG-HOSS-150	Hardware Cloth Base Mounting Kit, 150 feet • 45.72 m length

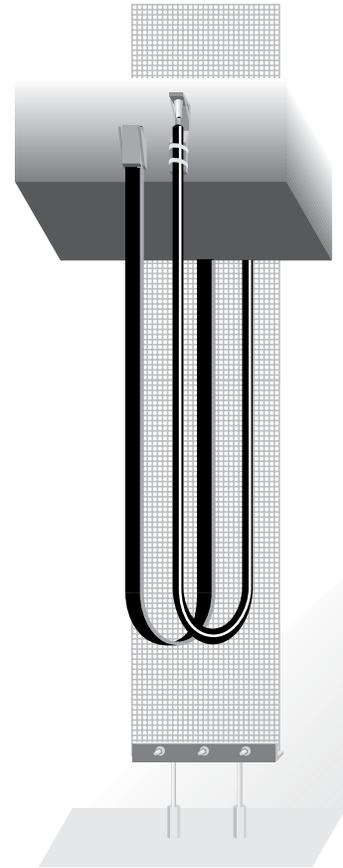
The Hoistway Obstruction Shield Systems are used to prevent round and flat elevator traveling cable from repetitively striking obstructions in the hoistway and from crossing over into adjoining hoistways. Their use may help avoid possible interference and extend the life span of the installed elevator cables.

The BIG HOSS kit includes 100 ft • 30.48 m of the 1.5 ft • 0.46 m wide shielding material (1/2 in. • 13 mm mesh hardware cloth) and all the mounting hardware needed to attach the shield within the hoistway. All components are shipped in a single bag.

### LIL-HOSS™ shield system extensions

Part Number	Description
LIL-HOSS	Hardware Cloth Extension Mounting Kit, 100 feet • 30.48 m length
LIL-HOSS-75	Hardware Cloth Extension Mounting Kit, 75 feet • 22.86 m length
LIL-HOSS-150	Hardware Cloth Extension Mounting Kit, 150 feet • 45.72 m length

The LIL-HOSS kit includes an additional 100 ft • 30.48 m of the shielding material and all the mounting hardware needed to attach the shield to the top of the BIG HOSS system and walls of the hoistway. Like the BIG HOSS, all LIL HOSS components are shipped in a single bag.



# Door Gibs

## Door gibs

Part Number	Size and Description
ZGIB-G1532-1	Door gib, adjustable, 15/32" white nylon gib, 1" chassis
ZGIB-G1532-118	Door gib, adjustable, 15/32" white nylon gib, 11/8" chassis
ZGIB-G1532-114	Door gib, adjustable, 15/32" white nylon gib, 11/4" chassis



ZGIB-G1532-118

Part Number	Size and Description
ZGIB-G2364-1	Door gib, adjustable, 23/64" yellow nylon gib, 1" chassis
ZGIB-G2364-118	Door gib, adjustable, 23/64" yellow nylon gib, 11/8" chassis
ZGIB-G2364-114	Door gib, adjustable, 23/64" yellow nylon gib, 11/4" chassis



ZGIB-G2364-114

Part Number	Size and Description
ZGIB-G716-1	Door gib, adjustable, 7/16" black nylon gib, 1" chassis
ZGIB-G716-118	Door gib, adjustable, 7/16" black nylon gib, 11/8" chassis
ZGIB-G716-114	Door gib, adjustable, 7/16" black nylon gib, 11/4" chassis



ZGIB-G716-114

Part Number	Size and Description
ZGIB-G12-1	Door gib, adjustable, 1/2" blue nylon gib, 1" chassis
ZGIB-G12-118	Door gib, adjustable, 1/2" blue nylon gib, 11/8" chassis
ZGIB-G12-114	Door gib, adjustable, 1/2" blue nylon gib, 11/4" chassis



ZGIB-G12-114

# Door Gibs and Spirators

FROM SEES®

## Door gibs

Part Number	Size and Description
MIS-146	Door gib kit, 15/32", green gib (2.75" x 15/32"), includes metal bracket (4.5" long) and hardware, has 2 fire tabs



Part Number	Size and Description
MIS-146C	Door gib kit, 1/2", white gib (2.75" x 1/2"), includes metal bracket (4.5" long) and hardware, has 3 fire tabs



Part Number	Size and Description
MIS-146F	Door gib kit, 7/16", red gib (2.75" x 7/16"), includes metal bracket (4.5" long) and hardware, has 3 fire tabs



## Spirators

Part Number	Size and Description
MIS-124	Spirator, reel type door closer, 5" dia. w/ universal mounting, square or two hole



Part Number	Size and Description
MIS-160	Spirator bracket, with square shank for MIS-124 spirator

Part Number	Size and Description
MIS-124-ST	Spirator, SmarTork™ door closer, 6" dia., overcomes wind velocities on elevator hoistway doors by an increase of up to 20% tension at the last 2" of closing



Part Number	Size and Description
MIS-124-BK	Spirator bracket, for MIS-124-ST SmarTork™ door closer

Maintenance and Safety

# Alarm Bells

FROM SEES®

## Alarm bells

Part Number	Size and Description
MIS-125E	Alarm bell, 6 inches diameter, 120 VAC



Part Number	Size and Description
MIS-125M	Alarm bell, 6 inches diameter, 12 VDC



Part Number	Size and Description
MIS-125N	Alarm bell, 6 inches diameter, 6VDC



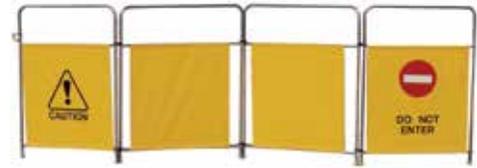
# Safety Barricades, Grips and Signage

## Safety service barricades – metal frame construction

Part Number	Description
SK-SSB3	Safety barricades, three panels wide, interior panel is 34 in. • 86.4 cm wide, outer panels are 30 in. • 76.2 cm wide, 42 in. • 106.7 cm tall
SK-SSB4	Safety barricades, four panels wide, interior panels are 34 in. • 86.4 cm wide, outer panels are 30 in. • 76.2 cm wide, 42 in. • 106.7 cm tall
SK-SSB6	Safety barricades, six panels wide, interior panels are 34 in. • 86.4 cm wide, outer panels are 30 in. • 76.2 cm wide, 42 in. • 106.7 cm tall

Safety service barricades can be ordered with customized graphics – ask for details.

SK-SSB6



## Safety service barricades – solid plastic construction from SEES

Part Number	Description
BARR-001A	Safety barricades, single panel, 3/8 in. • 10 mm thick plastic construction will interlock with other BARR products, 36 in. • 91 cm wide, 42 in. • 112.3 cm tall
BARR-003	Safety barricades, like above but with three panels, with anchors and two locks, will interlock with other BARR products, panels 36 in. • 91 cm wide, 42 in. • 112.3 cm tall
BARR-004	Safety barricades, like above but with four panels, with anchors and three locks, will interlock with other BARR products, panels 36 in. • 91 cm wide, 42 in. • 112.3 cm tall

BARR-001A



BARR-003



BARR-004



## EZ Grip – US Patent 8,403,283 B2

Part Number	Description
EZ GRIP	One EZ Grip barricade clamp
EZ GRIP KIT	One pair (two) of EZ Grip barricade clamps

The EZ Grip quickly and easily attaches barricades directly to escalator balustrades (as mandated by recent safety policies).



## 'Do Not Use' signs

Part Number	Description
022-6-0001	Do Not Use signs, 4 x 6 in., self-adhesive, 50 per pack



## Certificate Frame

Part Number	Description
MIS-CF-100	Certificate frame, stainless steel, 7" x 10"



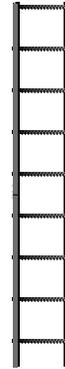
Maintenance and Safety

# Pit Safety Kits, Car Escape Hatch Switches and Exhaust Fans

## Pit ladder

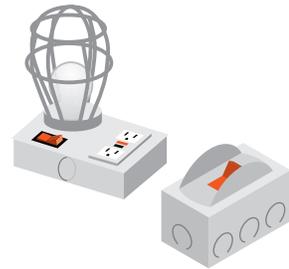
Part Number	Description
PIT-LDR-16RR	Pit ladder, 9 ft. tall with 16 in. anti-skid round rungs (measured inside uprights)
PIT-LDR-16RR2X	Pit ladder extension, 2 ft. tall with 16 in. anti-skid round rungs
PIT-LDR-12RR	Pit ladder, 9 ft. tall with 12 in. anti-skid round rungs (measured inside uprights)
PIT-LDR-12RR2X	Pit ladder extension, 2 ft. tall with 12 in. anti-skid round rungs

All pit ladders include reversible ladder mounting brackets that permit the ladder to be mounted either 4-1/2 in. or 7 in. from the wall.



## Pit light

Part Number	Description
PIT-LIGHT-MC	Pit light, with metal cage, safety guard, GFCI outlet and switch, 120VAC, 15A



## Pit stop switch

Part Number	Description
PIT-SWITCH	Pit toggle stop switch, lockable, 120/277VAC, 20A

## Emergency escape hatch switch

Part Number	Description
MIS-197	Ceiling emergency latch switch, DPDT, allows for building security circuit to be notified as well as code-required separate circuit for car shut down



## Two-speed exhaust fan

Part Number	Description
MIS-901	Exhaust fan, two speed, motors are sealed, self-lubricating and rubber-mounted to housing for quiet dependable service, 10" outer diameter



# Car Security

## RT WAVE CAMERA

### VideoComm RT Wave surveillance camera

Part Number	Description
EV-L1R2409	VideoComm RT Wave camera system, wireless, with transmitter, receiver, power supplies, mounting brackets, remote control and cabling

The RT Wave Wireless Elevator Video System is the first wireless video security system designed specifically for use with elevators. This unique product delivers real-time DVD-quality encrypted digital video at distances of up to 200 floors (far exceeding current requirements).

The RT Wave system features a preconfigured 802.11a plug-and-play design and requires absolutely no software setup or programming, greatly minimizing installation time.

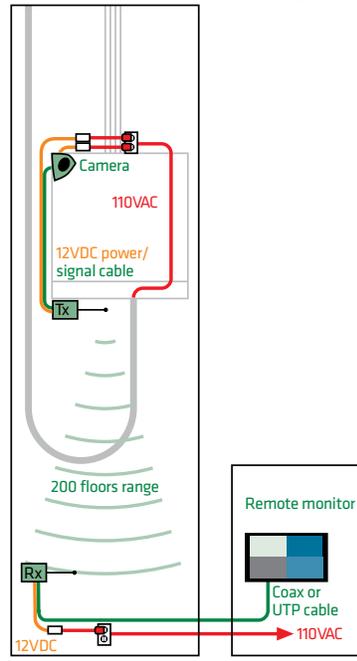
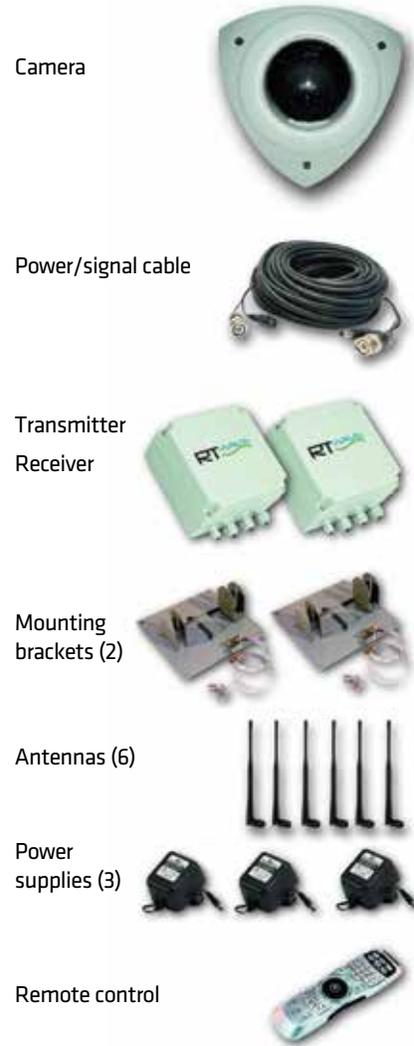
The camera is mounted in any corner of the elevator cab and connected to a power source. The transmitter is usually mounted to the bottom of the cab (although it may be mounted on top of the cab with the receiver in the overhead depending on circumstances) with the power/signal cable routed to the camera and a second power source. Finally, the receiver is mounted in the pit and connected to a power source. Coax or UTP cable—also available from Draka—can then be routed to a security monitoring area. (A hand-held monitor is recommended during installation for proper camera set-up.)

The operating frequency of the system is dual radio 5.725GHz – 5.875GHz @ 20 MHz bandwidth with automatic channel selection. This means that surrounding signals will never interfere with the system. The private SSID 64-bit encrypted data stream means your signals are safe from hackers.

#### Features

- Tamper-proof corner mount Sony camera
- All-weather transmitter
- All-weather receiver
- Three power supplies
- Six antennas
- Two universal mounting brackets
- 25-foot video/power siamese cable
- Remote control
- Installation and operating instructions
- One-year warranty

Coaxial or UTP cable for the security monitor connection is available separately – see page 29.



Maintenance and Safety

# Governors

CERTIFIED BY TÜV TO EN81 AND 95/16/EC



## LK315 – bidirectional with 315 mm diameter sheave

Part Number	Rope Diameter mm	Nominal Speed m/sec	Trip Speed m/sec	Weight kg
LK315 RL 0,42	8.0 - 10.0	2.81	0.42	14
LK315 RL 0,56	8.0 - 10.0	2.81	0.56	14
LK315 RL 0,70	8.0 - 10.0	2.81	0.70	14
LK315 RL 0,84	8.0 - 10.0	2.81	0.84	14
LK315 RL 0,92	8.0 - 10.0	2.81	0.92	14
LK315 RL 1,00	8.0 - 10.0	2.81	1.00	14
LK315 RL 1,13	8.0 - 10.0	2.81	1.13	14
LK315 RL 1,26	8.0 - 10.0	2.81	1.26	14
LK315 RL 1,40	8.0 - 10.0	2.81	1.40	14
LK315 RL 1,60	8.0 - 10.0	2.81	1.60	14
LK315 RL 2,00	8.0 - 10.0	2.81	2.00	14
LK315 RL 2,25	8.0 - 10.0	2.81	2.25	14
LK315 RL 2,40	8.0 - 10.0	2.81	2.40	14
LK315 RL 2,73	8.0 - 10.0	2.81	2.73	14
LK315 RL 3,24	8.0 - 10.0	2.81	3.24	14



Please specify the following options:

Remote control with automatic reset -

12VAC or DC, 24VAC or DC, 48VAC or DC, 110VAC or DC, 230VAC or DC voltages

Mounting base size/distance between holes -

154 mm, 172 mm, 180 mm

Test groove

Encoder

Other bi-directional and uni-directional governors are available – please call for details.

# Electronics and Modernization



Limit switches	113
Magnet switches	115
Electro-optical components and tools	116

# Hoistway/Hatch Switches

LISTINGS AND CERTIFICATIONS AS NOTED

## ZS231-11YR(A)

limit switch



Part Number	Description
020-4-0039	ZS231-11YR(A) limit switch, $\leq 15$ N activation, 1 NO / 1 NC, manual reset, rated for IP65, movement $\geq 6.5$ mm, electric clearance $\geq 6.0$ mm, rated for use at 230VAC@4A, 400VAC@2.5A, 500VAC@1A



## NZ-T1R236-02Z

limit switch



Part Number	Description
020-4-0043	NZ-T1R236-02Z limit switch, $\leq 15$ N activation, 2 NC, automatic reset, rated for IP65, movement $\geq 6.5$ mm, electric clearance $\geq 6.0$ mm, rated for use at 230VAC@4A, 400VAC@2.5A, 500VAC@1A



## NZ-ZS231-11YR(B)

limit switch

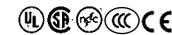


Part Number	Description
020-4-0040	NZ-ZS231-11YR(B) limit switch, $\leq 15$ N activation, 1 NO / 1 NC, manual reset, rated for IP65, movement $\geq 6.5$ mm, electric clearance $\geq 6.0$ mm, rated for use at 230VAC@4A, 400VAC@2.5A, 500VAC@1A



## NZ-Z1R236-11Z

limit switch



Part Number	Description
020-4-0044	NZ-Z1R236-11Z limit switch, $\leq 15$ N activation, 1 NO / 1 NC, manual reset, rated for IP65, movement $\geq 6.5$ mm, electric clearance $\geq 6.0$ mm, rated for use at 230VAC@4A, 400VAC@2.5A, 500VAC@1A



## NZ-TV231-11YU

limit switch



Part Number	Description
020-4-0041	NZ-TV231-11YU limit switch, $\leq 15$ N activation, 1 NO / 1 NC, automatic reset, rated for IP65, movement $\geq 6.5$ mm, electric clearance $\geq 6.0$ mm, torque $\leq 0.15$ N, rated for use at 230VAC@4A, 400VAC@2.5A, 500VAC@1A



## Cable Gland

Part Number	Description
020-4-0052	Cable gland, to fit bottom of switches, M20 thread, cable OD range 0.19 - 0.39 in.



## Adapter

Part Number	Description
020-4-0053	Adapter, plastic, to fit bottom of switches, converts M20 female to 1/2 in. NPT female



## NZ-T1R236-11Z

limit switch



Part Number	Description
020-4-0042	NZ-T1R236-11Z limit switch, $\leq 15$ N activation, 1 NO / 1 NC, automatic reset, rated for IP65, movement $\geq 6.5$ mm, electric clearance $\geq 6.0$ mm, rated for use at 230VAC@4A, 400VAC@2.5A, 500VAC@1A



## Lock Nut

Part Number	Description
020-4-0161	Lock nut, plastic, for use with cable gland 020-4-0052 when mounting to box



Cable glands and adapters sold separately. These switches have M20-threaded entries.

# Hoistway/Hatch Switches

LISTINGS AND CERTIFICATIONS AS NOTED

## NZ-Z1R236-02Z

limit switch



Part Number	Description
020-4-0045	NZ-Z1R236-02Z limit switch, $\leq 15$ N activation, 2 NC, manual reset, rated for IP65, movement $\geq 6.5$ mm, electric clearance $\geq 6.0$ mm, rated for use at 230VAC@4A, 400VAC@2.5A, 500VAC@1A



## NZ-TV7H236-11Z

limit switch



Part Number	Description
020-4-0048	NZ-TV7H236-11Z limit switch, $\leq 15$ N activation, 1 NO / 1 NC, automatic reset, rated for IP65, movement $\geq 6.5$ mm, electric clearance $\geq 6.0$ mm, torque $\leq 0.15$ N, rated for use at 230VAC@4A, 400VAC@2.5A, 500VAC@1A



## NZ-TS236-11Z

limit switch



Part Number	Description
020-4-0046	NZ-TS236-11Z limit switch, $\leq 15$ N activation, 1 NO / 1 NC, automatic reset, rated for IP65, movement $\geq 6.5$ mm, electric clearance $\geq 6.0$ mm, torque $\leq 0.15$ N, rated for use at 230VAC@4A, 400VAC@2.5A, 500VAC@1A



## NZ-TV7H236-11Z

limit switch



Part Number	Description
020-4-0160	NZ-TV7H236-11Z limit switch, $\leq 15$ N activation, 1 NO / 1 NC, automatic reset, rated for IP65, movement $\geq 6.5$ mm, electric clearance $\geq 6.0$ mm, torque $\leq 0.15$ N, rated for use at 230VAC@4A, 400VAC@2.5A, 500VAC@1A



## NZ-TS236-11Z

limit switch

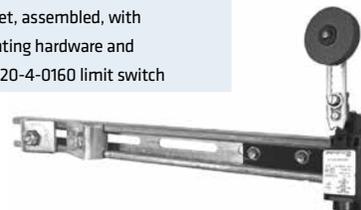


Part Number	Description
020-4-0047	NZ-TV10H236-11Z limit switch, $\leq 15$ N activation, 1 NO / 1 NC, automatic reset, rated for IP65, movement $\geq 6.5$ mm, electric clearance $\geq 6.0$ mm, torque $\leq 0.15$ N, rated for use at 230VAC@4A, 400VAC@2.5A, 500VAC@1A



## Mounting brackets for limit switches

Part Number	Description
LS-BRKT-G	Mounting bracket, for 020-4-0160 limit switches
LS-BRKT-KIT-G	Mounting bracket kit, includes mounting bracket, hardware and one 020-4-0160 limit switch
LS-STRUTBRKT-17	17 in. adjustable strut-style bracket, assembled, with mounting hardware and one 020-4-0160 limit switch



## FT140X11

limit switch



Part Number	Description
FT140X11	FT140X11 limit switch, $\leq 10$ N activation, 1 NO / 1 NC, automatic reset, rated for IP65, rated for use at 400VAC@1.9A, 24VDC@2.8A



Cable glands and adapters sold separately. These switches have M20-threaded entries.

# Hoistway/Hatch Switches

UL LISTED, CSA CERTIFIED

## EECO LS-1B limit switch

Part Number	Description
LS-1B	Limit switch, for setting zoning, normal and final limits, 1 NO and 1 NC contacts, rated for 300VAC@8A or 230VDC@1A



## EECO MV-4C magnet switch

Part Number	Description
MV-4C	Permanent magnet switch, for zone switches and leveling control units, dead zone, < 1/8 in. @ 1/4 in. gap, 1 NO and 1 NC contacts, rated for 300VAC@8A or 230VDC@1A



## EECO LS-1W limit switch

Part Number	Description
LS-1W	Limit switch, like LS-1B above but with weatherproof design

## EECO MV-4W magnet switch

Part Number	Description
MV-4W	Permanent magnet switch, like MV-4C above but with weatherproof design

## EECO LS-1D limit switch

Part Number	Description
LS-1D	Limit switch, for setting zoning, normal and final limits, 2 NO and 2 NC contacts, rated for 300VAC@8A or 230VDC@1A



## EECO MV-4D magnet switch

Part Number	Description
MV-4D	Permanent magnet switch, for zone switches and leveling control units, dead zone < 1/8 in. @ 1/4 in. gap, 2 NO and 2 NC contacts, rated for 300VAC@8A or 230VDC@1A



## EECO LS-1DW limit switch

Part Number	Description
LS-1DW	Limit switch, like LS-1D above but with weatherproof design

## EECO MV-4DW magnet switch

Part Number	Description
MV-4DW	Permanent magnet switch, like MV-4D above but with weatherproof design

## Mounting bracket for EECO switches

Part Number	Description
LS-1B-BRKT	Mounting bracket, for all EECO limit/magnetic switches

## Magnet inductor switch

Part Number	Description
LDS3004A	Permanent magnet inductor switch, for slowdown and landing positions, recommended for retrofit of EECO vane-operated landing systems, 1 NO and 1 NC contacts, rated for 250VDC@0.5A



# Fiber Optic Transmission Kits for UTP connections

UL LISTED, CSA CERTIFIED

The amount and content of elevator communications (high-resolution video surveillance, telephony, control signals, audio, etc.) is ever increasing. Fiber optic cable is an ideal answer for these needs.

Fiber optic transmission kits convert electronic signals from cameras and the like into optical signals and back to electronic signals at the other end. Draka offers two solutions for electro-optical signal tx/rx:

## Signamax full duplex (two way) Ethernet 10/100BaseT to fiber transmission

Part Number	Description
F10651100KIT62ST	Two box-style units with RJ-45 electronic and ST optical input/output for Ethernet to 62.5µm 100BaseFX conversion - includes two Cat6 five foot jumpers and two three meter ST patchcords
F10651110KIT62SC	As above but with 62.5µm SC input/output and two three meter SC patchcords
F10651100KIT50ST	Two box-style units with RJ-45 electronic and ST optical input/output for Ethernet to 50µm 100BaseFX conversion - includes two Cat6 five foot jumpers and two three meter ST patchcords
F10651110KIT50SC	As above but with 50µm SC input/output and two three meter SC patchcords



Signamax tx/rx units accept 10/100BaseT electronic signals through RJ-45 jacks and convert them for duplex (two-way) optical transmission over either 62.5µm or 50µm multimode fiber and ST and SC connectors. The system consists of two units, power supplies and patchcords. Call for other configuration options.

## American Fibertek M100C simplex (one way) video

Part Number	Description
F1-MTRM100KIT62	Tx/Rx pair of modules for coax to 62.5µm fiber conversion - includes power supplies and two 62.5µm ST patchcords
F1-MTRM100KIT50	As above but with 50µm input/output and two 50µm ST patchcords



American Fibertek M100C units are compact video converters that transmit one-way from cab to security center. They can operate over either 62.5µm or 50µm multimode fiber with any camera with a coaxial output. ST and SC versions are available. The system consists of a tx/rx pair with power units and patchcords.



# Terms and Conditions

## WARRANTY AND ORDERING INFORMATION

### Sales terms and conditions

#### Terms

Full payment due within thirty (30) days of invoice date.

#### Conditions

As stipulated on our acknowledgments and invoices.

#### Freight and Insurance

F.O.B. origin.

### Warranty conditions

All goods offered for sale by Draka Elevator are offered for sale only on those terms and conditions appearing on the reverse side of Draka Elevator's Quotation Order Acknowledgment and/or Invoice forms. A SUMMARY OF THE MORE IMPORTANT PROVISIONS OF THESE TERMS AND CONDITIONS OF SALE IS REPRODUCED BELOW.

#### General

All sales and charges for goods or services sold by Draka Elevator shall be subject to the terms and conditions set forth on Draka Elevator Quotation, Order Acknowledgment and/or Invoice forms. Such terms and conditions shall be the sole and exclusive terms and conditions applicable to any sale. Draka Elevator will not be bound by any terms and conditions proposed by any buyer, which are additional to or different from the terms and conditions referred to above.

#### Prices

Unless otherwise agreed to in writing, a buyer shall pay to Draka Elevator its prices for the goods in effect on the date of shipment by Draka Elevator. All prices are F.O.B. origin apart from those exceptions set forth in Draka Elevator's Quotation, Order Acknowledgment or Invoice forms. The prices specified do not include sales, use, excise, or similar taxes.

#### Transportation and Routing

Draka Elevator shall have the sole control and discretion with respect to mode of transportation and routing.

#### Risk of Loss

The risk of loss of or damage to the goods shall pass to a buyer at the time Draka Elevator puts the goods in possession of a common carrier.

#### Force Majeure

Draka Elevator shall not be responsible or liable for any delay or failure to deliver any goods if such delay is deemed by statute or otherwise as force majeure.

#### Shipping Dates

All shipping dates are approximate only. No guarantee of any shipping date is made unless such guarantee and its terms are specifically stated in writing.

#### Warranties

(a) Draka Elevator's Type ETT Round Traveling Cable (SUPER-FLEX®), Hoistway Cable (SUPER-DUCT®), Compensation Cable (WHISPER-FLEX® and STEADI-FLEX®) and metal wireway are warranted to be free from defects in material and workmanship for the installed life of the product. Our lifetime warranty does not apply to non-standard and rope lay cable constructions.

(b) All other goods manufactured by Draka Elevator are warranted to be free from defects in material and workmanship for a period of one (1) year commencing on the date of shipment to buyer. DRAKA ELEVATOR'S SOLE AND EXCLUSIVE OBLIGATIONS AND LIABILITIES UNDER THESE WARRANTIES ARE AND SHALL BE LIMITED TO ISSUANCE OF CREDIT FOR OR REPAIR OR REPLACEMENT OF ANY GOODS OR PARTS THEREOF WHICH ARE PROVED TO BE OTHER THAN AS WARRANTED, AND DRAKA ELEVATOR SHALL HAVE SOLE DISCRETION AS TO WHICH OF THESE REMEDIES IT SHALL PROVIDE. DRAKA ELEVATOR SHALL NOT REIMBURSE OR MAKE ANY ALLOWANCE TO BUYER FOR ANY LABOR CHARGES INCURRED BY BUYER FOR REPLACEMENT, ADJUSTMENT, OR REPAIR OF ANY GOODS OR PARTS THEREOF OR FOR ANY OTHER WORK UNLESS SUCH CHARGES ARE AUTHORIZED IN ADVANCE BY DRAKA ELEVATOR. (c) If any of the goods on which Draka Elevator's warranties have not expired are claimed to be defective in material or workmanship, Draka Elevator shall either examine the goods where they are located or, in its sole discretion, issue shipping instructions for return of the goods or any defective parts thereof, if any goods or

parts thereof are returned to Draka Elevator, the Buyer shall prepay all transportation charges for such return. (d) Any claim for breach of Draka Elevator's warranties shall conclusively be deemed to be waived unless written notice of such claim is given to Draka Elevator within ten (10) days after the date on which the claimed defect is discovered. (e) Draka Elevator's warranties shall be null and void if the original buyer for use transfers ownership of the warranted goods, unless Draka Elevator is notified in writing of the transfer and of the name and address of the new owner within fifteen (15) days after the date on which the transfer is made. (f) Draka Elevator's warranties shall not apply to any goods or parts thereof which have been subjected to any misuses, neglect or accidental damage or which contain defects which are in any way attributable to improper installation or to alterations or repairs made or performed by any person or entity not under the control of Draka Elevator. Further, Draka Elevator's warranties shall not apply to any goods or parts thereof which are obtained from manufacturers other than Draka Elevator and resold by Draka Elevator. (g) THE WARRANTIES SET FORTH HEREIN ARE DRAKA ELEVATOR'S SOLE AND EXCLUSIVE WARRANTIES FOR OR RELATING TO THE GOODS. DRAKA ELEVATOR NEITHER MAKES NOR ASSUMES ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, ANY WARRANTY THAT THE GOODS SHALL BE DELIVERED FREE OF THE RIGHTFUL CLAIM OF ANY THIRD PERSON BY WAY OF INFRINGEMENT OR THE LIKE, OR ANY OTHER WARRANTY OF ANY KIND, EXPRESS, IMPLIED, OR STATUTORY. DRAKA ELEVATOR NEITHER ASSUMES NOR AUTHORIZES ANY PERSON OR ENTITY TO ASSUME FOR IT ANY OTHER LIABILITY OR OBLIGATION IN CONNECTION WITH THE SALE OR USE OF THE GOODS, AND THERE ARE NO ORAL AGREEMENTS OR WARRANTIES COLLATERAL TO OR AFFECTING THE SALE OF THE GOODS. (h) DRAKA ELEVATOR'S WARRANTIES, OBLIGATIONS AND LIABILITIES AND BUYER'S REMEDIES SET FORTH HEREIN ARE LIMITED TO THEIR PRECISE TERMS. DRAKA ELEVATOR SHALL NOT BE LIABLE FOR ANY DAMAGES OF ANY KIND, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, FOR, RESULTING FROM OR IN CONNECTION WITH ANY BREACH OF WARRANTY. THE OBLIGATIONS AND LIABILITIES OF SELLER AND THE REMEDIES OF BUYER SET FORTH HEREIN SHALL BE THE BUYER'S SOLE AND EXCLUSIVE REMEDIES FOR, RESULTING FROM OR IN CONNECTION WITH DRAKA ELEVATOR'S WARRANTIES OR ANY BREACH THEREOF.

#### Cancellation

Orders may be cancelled only with Draka Elevator's written consent.

### Ordering information

All catalogued items are generally in stock and available for immediate delivery. Call Draka Elevator for the name of the distributor nearest you.

Draka Elevator reserves the right to improve, enhance, or modify the features and specifications of Draka Elevator products without prior notification.

### Trademark Information

Sure Stop, FlexiPeeler, Sock Slicer, DrakaLube and Acculube are trademarks and Whisper-Flex, Steadi-Flex, Super-Flex, Super-Duct, Draka Elevator Products and the Draka Globe design are registered trademarks of Draka Elevator. All other trademarks are the properties of their respective owners.

©2016 Draka Elevator - All Rights Reserved  
09/2016 Printed in USA

# Index

## PRODUCT DESCRIPTION / PAGE NUMBER

<b>Cable</b>			
Coax cable	29		
Data cable	29		
Fiber optic cable / OM3	29		
Flat traveling cable			
Unsupported power/signal	18 - 19		
Unsupported power/shielded pairs/	19		
Supported power/shielded pairs/coax/fiber	20		
Instrumentation cable	29		
Super-Duct hoistway cable			
Jacketed power/signal	24		
Power/signal 300V	25		
Power/signal 600V	24		
Power/shielded pair 600V	25		
Power/shielded pair/coax 300 and 600V	25		
Super-Flex traveling cable			
Jute power/signal	6		
Jute power/shielded pairs	7 - 8		
Steel power/signal	9		
Steel power/shielded pairs	10 - 11		
Steel power/shielded pairs/coax/optical fiber	12 - 13		
Power cable/twisted pair	29		
Power cord/S00W	29		
Stationary cable	26 - 29		
<b>Cable Mounting</b>			
Beam pads	14		
Cable ties and mounting base	92		
Flat cable suspension devices	21 - 23		
Grips	15 - 17		
Jute core traveling cable hanger	14		
Steel core traveling cable Universal Hanging System	14		
<b>Cameras</b>			
RT Wave wireless camera	110		
<b>Conduit</b>			
EMT	40		
EMT 90° elbows	40		
EMT fittings	40 - 42		
Flexible metal conduit	43		
Flexible metal conduit fittings	43		
Flexible liquid-tight metal conduit	44		
Flexible liquid-tight conduit fittings	44		
Rigid threaded fittings	45		
<b>Control buttons and stations</b>			
Emergency switch EN418	101		
Pendant stations	102		
Top of car inspection (TOCI) box	101		
<b>Compensation cable</b>			
ShallowSwayless kits	74		
Steady-Flex	69		
Steady-Flex installation hardware	70 - 71		
SwayLess dampener/ brackets	72		
Super SwayLess dampener/ brackets	73		
Whisper-Flex	68		
Whisper-Flex installation hardware	70- 71		
<b>Connectorization services</b>	<b>31</b>		
<b>Door gibs</b>		<b>105 - 106</b>	
<b>Electrical boxes and accessories</b>			
Electrical boxes		46	
Electrical box covers		47	
GFCI - with cover		47	
Junction boxes		48	
Junction box components		48	
Screw cover pull boxes		48	
<b>Electrical wire hardware</b>			
Butt splices		92	
Compression lugs		93	
Female disconnects		93	
Ferrules		30	
Fork terminals		93	
Mechanical lugs		93	
Ring terminals		93	
ScotchLok®		92	
Split bolt connectors		93	
Tape		93	
WAGO connectors		30	
Wire joints		92	
Wire marker cards		92	
Wire marker dispenser		92	
Wire nuts		92	
<b>Fasteners</b>			
Hex nuts and bolts		94	
Lead anchors		94	
Nail-ins		94	
Round-head nuts and bolts		94	
Threaded rods and couplings		94	
Toggle bolts		94	
Washers		94	
<b>Fiber optics</b>			
Connectors and tools		117	
Electro-optic electronics (rx/tx devices)		116	
<b>Guide rail accessories</b>			
Inserts		78	
Rail brackets		77	
Rail bracket shims		77	
Rail clips		77	
<b>Hydraulic accessories</b>			
Ball valves (threaded and unthreaded)		80	
Cushion clamp		81	
Fittings		80	
Go / no-go gauge		80	
Isolation couplings		81	
Muffler		81	
Oil cooler		82	
Pipe stand		82	
Pressure sensor		82	
Reducer		80	
Roll groover		82	
Rupture valve		81	
Silencer		81	

# Index

## PRODUCT DESCRIPTION / PAGE NUMBER

### Junction boxes

Channel clamps	48
End section	48
Knock-out plugs	48
Tubular terminal clamps	48
Zinc-plated track	48

### LED lighting

Elevator	98 - 99
Escalator demarcation	100

### Light curtains

	83
--	----

### Load weighing devices and accessories

	66 - 67
--	---------

### Mesh grips

Cable mesh grips - bronze	15 - 16
Cable mesh grips - stainless steel	17 - 18
Wire rope pulling grips	61

### Pit components

Pit ladders and extensions	109
Pit light	109
Pit toggle stop switch	109

### Safety

Alarm bells	107
Certificate frames	108
Do Not Use signs	108
Emergency hatch switch	109
Exhaust fan	109
EZ grip	108
Hoistway Obstruction Systems (HOSS)	104
Safety barricades	108
Top of car handrail kits	103

### Seismic products

Seismic sensor	76
Counterweight displacement kit	76

### Spirators

	106
--	-----

### Strut

	95
--	----

### Switches

Limit switches & accessories	113 - 115
Magnet switches	115
Pullout switch	74

### Tools

Compensation cable strip kit	89
Conduit bender	89
Crimping tool for wire termination	87
Door wedge safety tool	91
Drill bits	91
Flat cable stripper	85
Flex conduit cutter	87
FlexiPeeler round cable stripper	85
Guide rail alignment gauges	90
Hacksaw blades	91
Hole saws and arbors	91
Knock-out punches	89
QuickCrimp for wire termination	87

QuickStrip wire strippers	86
Reel roller	90
Sock Slicer braid stripper	85
Super Peeler round cable stripper	85
Swaging tool and ferrules	89
WAGO tools	89
Wire caddy	90
Wire cutter	87
Wire rope caliper	88
Wire rope cutters	88
Wire rope measuring gauges	88
Wire rope tension manual measurement meter	88
Wire strippers	86

### Wedge sockets

Governor wedge sockets	59
Imperial size wedge sockets	59
Isolation bushings	60
Retaining clips	61
Wedges	61

### Wire

Door lock wire	26
Hook up wire	27 - 28

### Wire rope

Wire rope / imperial	
Compacted strand	54
Compensation	53
Galvanized	54
Governor	53
Hoist	53 - 54
Wire rope / metric	
Compensation	55
Electrical conductors	57
Governor	55
Hoist	55 - 57

### Wire rope accessories

Acculube lubricator/cleaning kit	63
Cable bands	62
Deflecting sheaves	79
DrakaLube wire rope treatment	63
Governors	111
Reeving splices	62
Rope tensioning systems	64 - 65
Selector relating cable	62
Wire rope clips	62

### Wire rope brakes

	58
--	----

### Wireway

Hinged wireway	38
Hinged wireway fittings	38 - 39
Metal wireway	33
Metal wireway fittings	34 - 37
Metal wireway fasteners	36
Metal wireway mounting brackets	33
Strain bars	33

### Tools (continued)