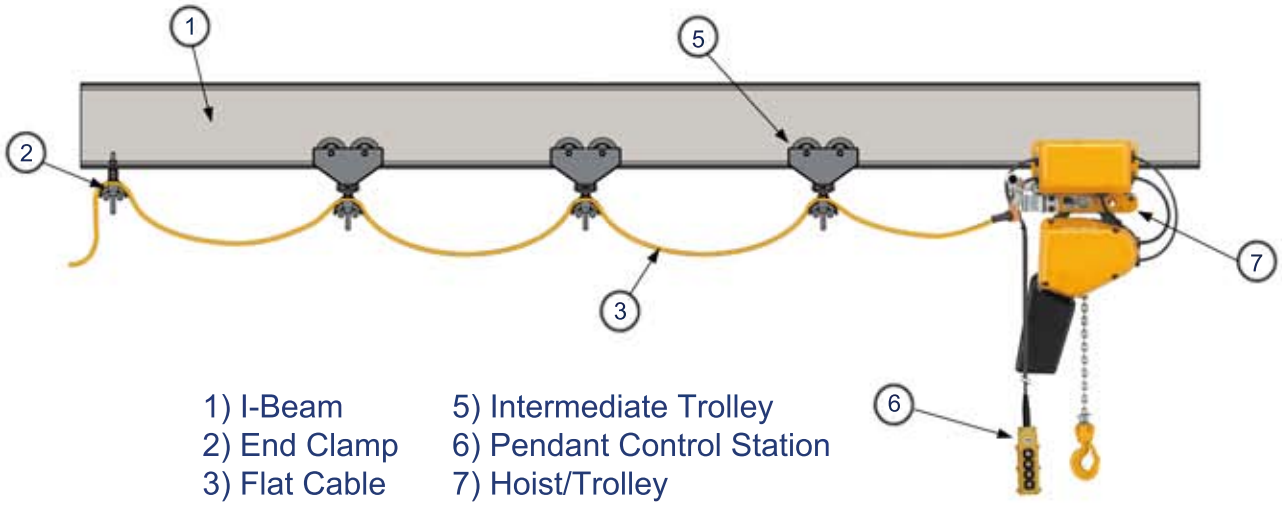
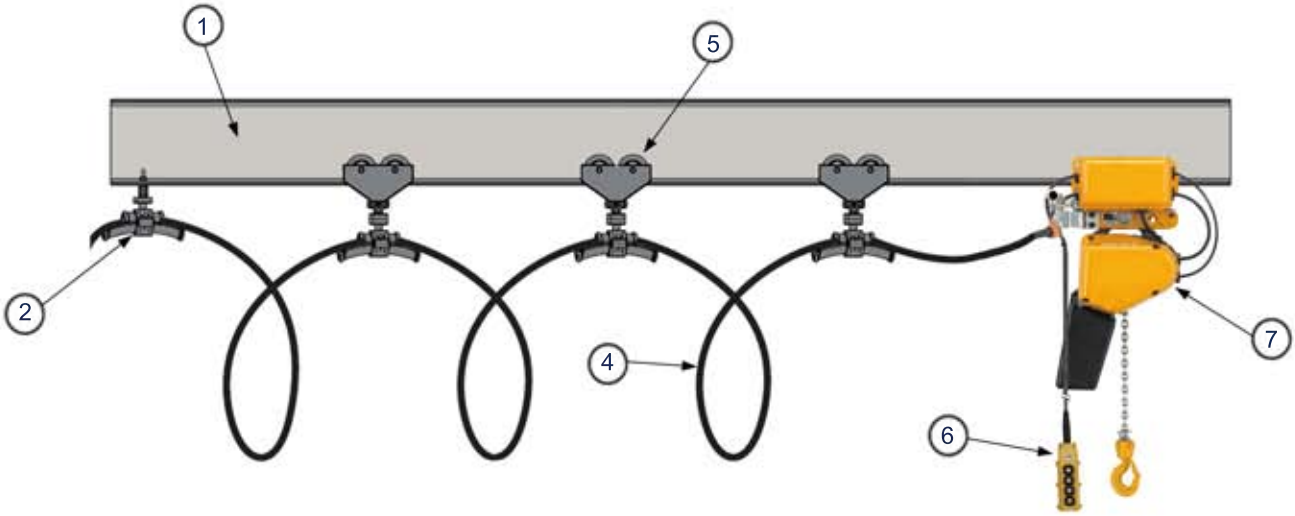
I-Beam Festoon



1) I-Beam
2) End Clamp
3) Flat Cable
4) Round Cable
5) Intermediate Trolley
6) Pendant Control Station
7) Hoist/Trolley



I-Beam Festoon systems are used to support, protect and manage mobile power/data cables or pneumatic/hydraulic hoses. They're suitable for use in warehouses, factories, sea ports, mills and many other facilities. Choose from a complete range of different trolleys, clips, cables and connectors. Push button pendants and radio remote systems are also available to operate your mobile electrification projects.

Whether indoor, outdoor, light-duty or heavy-duty, Power Engineering can provide the appropriate solution for your application. We specialize in custom, engineered systems. If you can't find what you're looking for, contact us with your requirements.

POWER ENGINEERING

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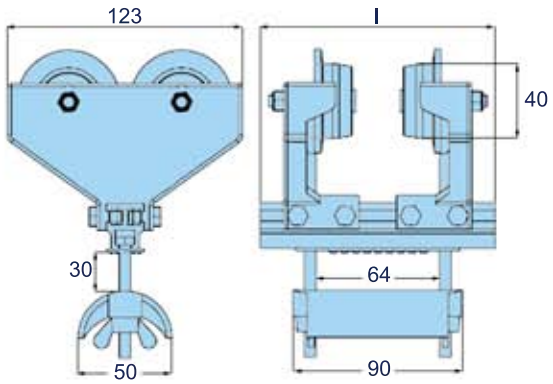
I-Beam Festoon

Cable Trolley - Flat



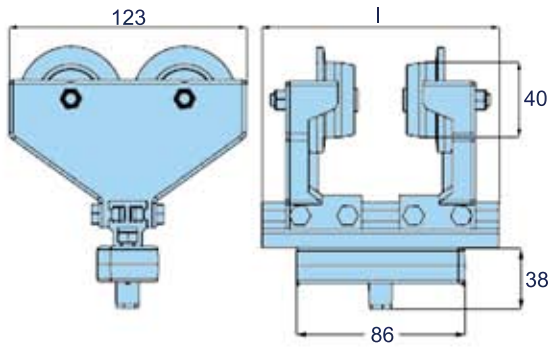
Part #	Length l (mm)	Max. flange Width
I05PF-81	125	81
I05PF-116	150	116
I05PF-156	200	156
I05PF-206	250	206

Max. Travel Speed: 165 FPM (50m/min)
Load Capacity: 45 lbs (20 kg)

Trolley Materials

Side Shield:	Plastic
Roller:	Nylon, Friction Bearing
Support Rail:	Aluminum
Saddle:	Plastic
Saddle Clamp:	Rubber
Fasteners:	Galvanized Steel
Wing Nuts:	Galvanized Steel

Cable Trolley - Round



Part #	Length l (mm)	Max. flange Width
I05PR-81	125	81
I05PR-116	150	116
I05PR-156	200	156
I05PR-206	250	206

Max. Travel Speed: 165 FPM (50m/min)
Load Capacity: 45 lbs (20 kg)

Trolley Materials

Side Shield:	Plastic
Roller:	Nylon, Friction Bearing
Support Rail:	Aluminum
Ball Joint Housing:	Plastic
Fasteners:	Galvanized Steel

*Choose the appropriate sized cable clip(s) shown on the next page.

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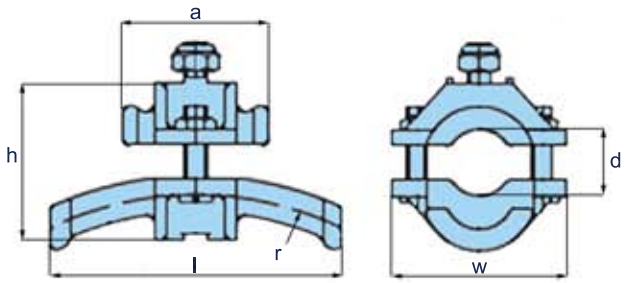
I-Beam Festoon

Cable Clip



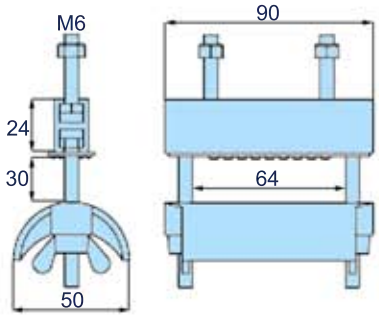
Part #	d (mm)	r (mm)	l (mm)	h (mm)	a (mm)	w (mm)
I05PR-16	10-16	80	70	38	35	42
I05PR-25	17-25	125	100	47	50	50
I05PR-36	26-36	180	140	58	70	64

Cable Clip Materials

Cable Clip:	Plastic
Fasteners:	Galvanized Steel

End Clamps

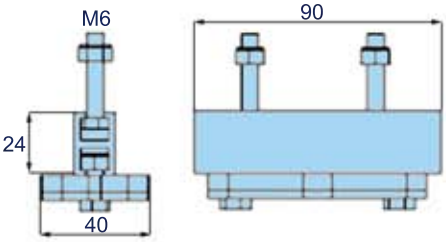
I03PF: End Clamp for Flat Cable



End Clamp Materials

Support Rail:	Aluminum
Saddle:	Plastic
Clamp:	Rubber
Fasteners:	Galvanized Steel

I03PR: End Clamp for Round Cable



End Clamp Materials

Support Rail:	Aluminum
Clip Connector:	Galvanized Steel
Fasteners:	Galvanized Steel

*Choose the appropriate sized cable clip(s) above

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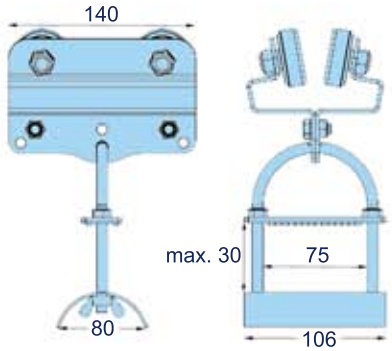
I-Beam Festoon

I05S: Steel Cable Trolley for Flat Cable (S3-S6 I-Beam)

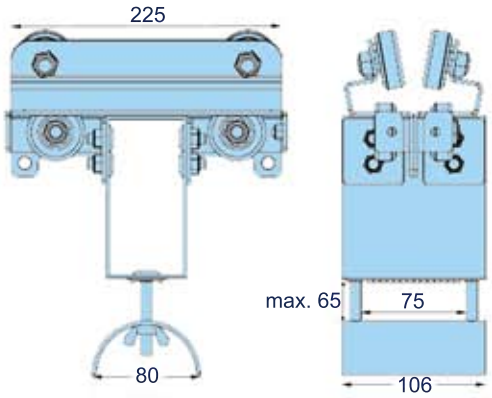


Trolley Materials

Carrier:	Galvanized Steel
Roller:	Galvanized Steel
Saddle:	Galvanized Steel
Clamp:	Rubber
Fasteners:	Galvanized Steel

Max. Travel Speed:	330 FPM	(100m/min)
Load Capacity:	175 lbs	(80 kg)
Oper. Temp:	-30° C to +70° C	

I06S: Steel Tow Trolley for Flat Cable (S3-S6 I-Beam)

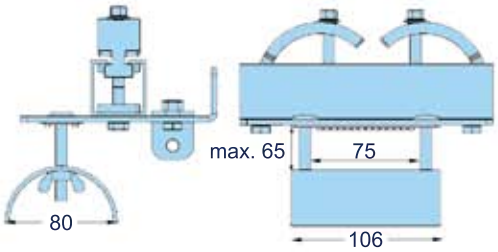


Trolley Materials

Carrier:	Galvanized Steel
Roller:	Galvanized Steel
Saddle:	Galvanized Steel
Clamp:	Rubber
Fasteners:	Galvanized Steel

Max. Travel Speed:	330 FPM	(100m/min)
Load Capacity:	175 lbs	(80 kg)
Oper. Temp:	-30° C to +70° C	

I03S: Steel End Clamp for Flat Cable (S3-S6 I-Beam)



End Clamp Materials

Body:	Galvanized Steel
Girder Clips:	Galvanized Steel
Saddle:	Galvanized Steel
Clamp:	Rubber
Fasteners:	Galvanized Steel

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I-Beam Festoon

Flat Cable

Part #	AWG Wire Size	# of Conds.	Ampacity @ 30°C Ambient	# of Strands	Insulation Thickness	Dimensions	Lbs/ft
FC1616	16	16	15	65	.030	.200” x 2.250”	.36
FC1612	16	12	15	65	.030	.200” x 1.605”	.27
FC1608	16	8	15	65	.030	.200” x 1.110”	.18
FC1412	14	12	17	41	.030	.210” x 1.700”	.34
FC1408	14	8	17	41	.030	.210” x 1.175”	.22
FC1404	14	4	25	41	.030	.210” x .625”	.12
FC1208	12	8	21	65	.030	.230” x 1.340”	.32
FC1204	12	4	30	65	.030	.230” x .710”	.16
FC1004	10	4	40	105	.030	.270” x .880”	.24
FC0804	8	4	50	168	.045	.365” x 1.190”	.42
FC0604	6	4	70	266	.060	.430” x 1.450”	.60
FC0404	4	4	90	420	.060	.490” x 1.690”	.75
FC0204	2	4	120	665	.060	.560” x 1.955”	1.27

*Other sizes available upon request

DESCRIPTION:
- -Conductor of soft drawn bare copper
- -Insulation of 105°C colour coded PVC
- -Jacket compound PVC, -40°C to +105°C
- -UV resistant
- -CSA, UL & CE Listed
- -FT1 and VW-1 Rated

APPLICATION:
For use with festoon systems for the conveyance of electrical power and control to cranes, hoists or any equipment which travels with a lateral traversing motion. Not recommended for severe flexing or impact at temperatures below -40°C.

Pendant Cable

Part #	AWG Wire Size	# of Conds.	# of Strands	Diameter	Lbs/ft
RPC1624	16	24	65/34	.745”	.37
RPC1620	16	20	65/34	.745”	.31
RPC1616	16	16	65/34	.605”	.25
RPC1612	16	12	65/34	.550”	.20
RPC1608	16	8	65/34	.465”	.14
RPC1604	16	4	65/34	.435”	.09
RPC1608PPS-4	16	8	65/34	.495”	.18
RPC1612PPS-4	16	12	65/34	.570”	.26
RPC1616PPS-4	16	16	65/34	.630”	.32
RPC1624PPS-4	16	24	65/34	.765”	.44

DESCRIPTION:
- -Soft annealed bare copper per ASTM B3
- -Insulation of 105°C colour coded PVC
- -Resistance to UV, weather, oil and water
- -CSA, UL & CE Listed

APPLICATION:
For use in festoon systems as vertical drop cable from a crane or hoist down to a pendant push button station.

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I-Beam Festoon

Cable Glands

Cable Connectors for Flat Cable

Part #	AWG Wire Size	# of Conds.	NPS
FC-1216C	16	12	2”
FC-816C	16	8	1.25”
FC-414C	14/12	4	1”
FC-410C	10	4	1”
FC-48C	8	4	1.25”
FC-46C	6	4	1.50”
FC-44C	4	4	2”
FC-42C	2	4	2”

Used to terminate the cable at the power source or junction box. Connector has an aluminum body and rubber bushing.

Part #	Knockout	*Cable Range* Height	Width
WGL100	1”	.500”	.750”
WGL125	1.25”	.625”	1.062”
WGL150	1.50”	.750”	1.250”
WGL200	2”	1.062”	1.625”

Used for connecting flat cable to power source or junction box.

Heat Shrinkable Cable Connectors

Part #	Length	Cable Opening	Drill Size
WGLS100	1.25”	.75”	1”
WGLS110	3.75”	1.10”	1.38”
WGLS160	4.25”	1.60”	2”
WGLS206	6.25”	2.06”	2.36”
WGLS290	7”	2.90”	3.50”

Used for single cable and multiple cable groupings. Water Tight • Corrosion Resistant • Flame Retardant • Exceed Navy requirements for tightness and integrity when used with one flat cable or multiple flat cables of the same size.

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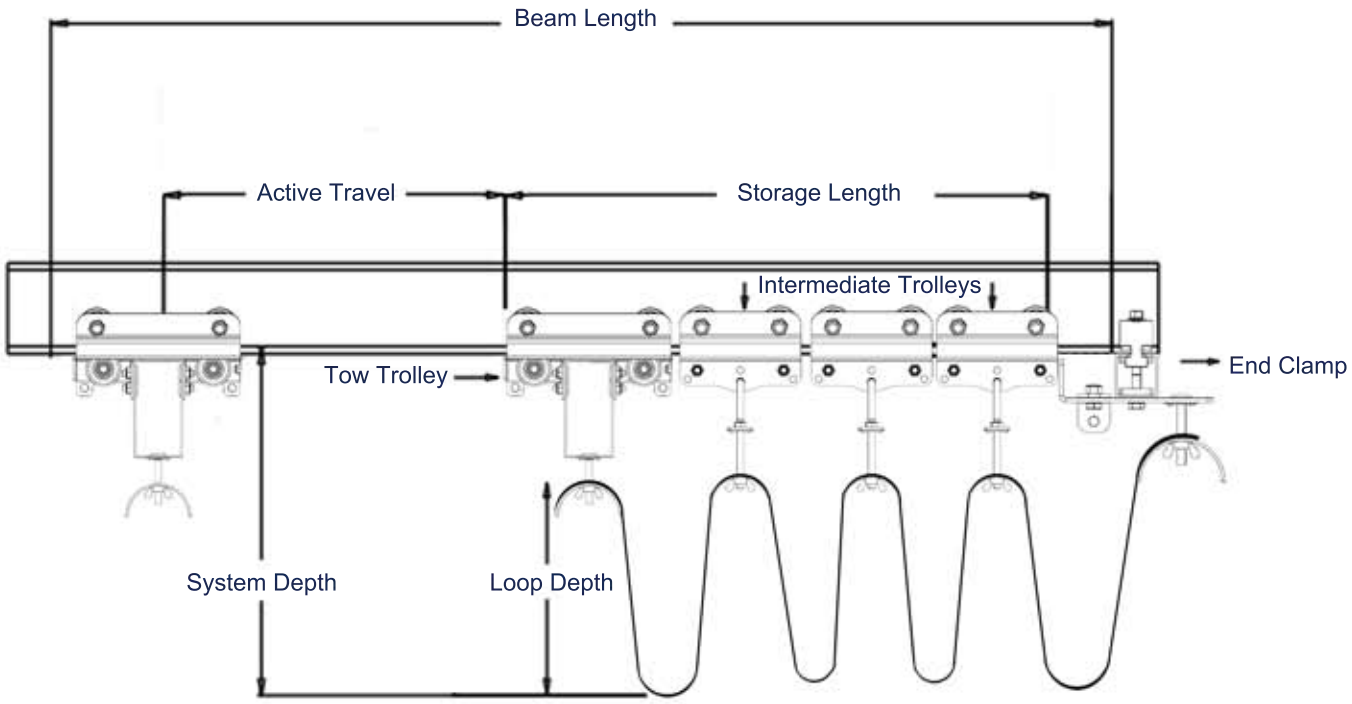
INSTALLATION INSTRUCTIONS

TYPICAL SYSTEM LAYOUT



Use tow chains or tow ropes to prevent strain on cable(s)
Consult Power Engineering when:

- Atmosphere is corrosive or dusty
- Speeds exceed 330 FPM
- Hazardous materials are present
- Components not shown or listed are required (including special flat cable sizes)

STEP 1
Select the appropriate type of cable (flat or round), the required size and number of conductors.

STEP 2
Determine the number of trolleys needed - this is based on the beam length and loop depth. Recommended loop depth is 2½' which equals 5' of cable between each trolley.

STEP 3
Insert all trolleys on the I-beam, making sure the tow trolley is at the moving end (with the hoist trolley) and the end clamp is at the storage end.

STEP 4
Cut cable(s) to proper length as follows:
Length = total beam length + 10% (cable slack) + lengths for electrical feed connection at each end. Feed cable(s) through the trolleys between the plastic clamp and the saddle.

STEP 5
Install cable glands to the junction boxes and insert cable(s) through gland opening. Tighten the clamp down firmly on the cable.

STEP 6
Install tow bar on equipment to be electrified. The tow bar should be centered in the tow trolley.

STEP 7
Run the entire system back & forth several times to ensure proper operation. Flat cables should extend in a straight line if cables are fastened properly on trolleys.

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