Festoon Systems for I-Beams

Program 0350 | 0360 | 0364

CONDUCTIX wampfler

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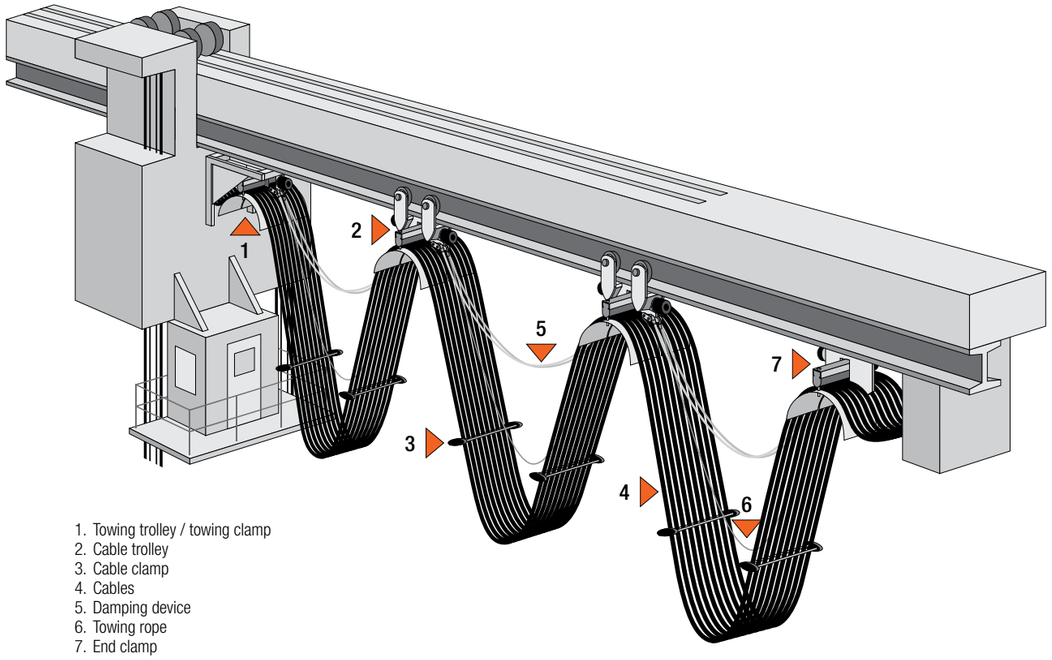
System Arrangement

Festoon System for Flat and Round Cables



1. Towing trolley / towing clamp
2. Cable trolley
3. Cable clamp
4. Cables
5. Damping device
6. Towing rope
7. End clamp

A festoon sytem consists of the following components:
- 1 x end clamp
- X x cable trolleys
- 1 x towing trolley or alternatively 1 x towing clamp
- cable trolley and towing trolley require a running gear, which must be selected in addition to the trolley under part
- cable trolleys and towing trolleys are set to fit the exact track beam, in all cases the track beam must be specified
- the system components can be equipped with one or two additional cable supports depending on the program.

To ensure optimum operation of the system, depending upon the application, various accessories must be added, e.g. flat or round cable clamps, towing ropes or damping devices.

The Order No. of the system components is determinend by the combination of the following single sub-assemblies:				
Cable Trolley Underpart	**Additional Support 1**	**Additional Support 2**	**Running Gear**	**Track Beam Designation**
Also:	optional	optional	only for cable trolleys and towing trolleys	
Towing trolley underpart				
Towing clamp				
End clamp				
For Order No. see the respective catalog pages of the programs. The system components are completely assembled prior to delivery, cable trolleys and towing trolleys are adjusted to the respective track beam.				

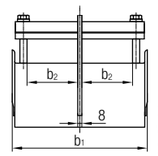
Program 0350
with Main Rollers ø 50 and 63 mm

Single Layer Cable Trolleys for Flat Cables with a Load Capacity up to 125 kg

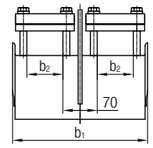
Technical details

Cable Supports	welded to the center plate, lateral-loading
Buffers	single-sided rectangular buffer
Max. Travel Speed [1)]	160 m/min
Max. Load Capacity [1)]	125 kg
Cable Trolley Underpart and Running Gear	hot-dip galvanized steel
Fasteners	stainless steel
Temperature Range [1)]	-30°C to + 80°C

1) depending on roller size/ roller material



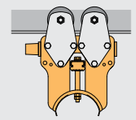
Clamping bar version 1 (continuous)



Clamping bar version 2 (divided)

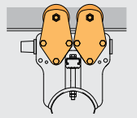
Ordering Example **Order No. 0350215-34 - 431 - 0114**

A cable trolley underpart with the following dimensions shall be used:
- **Support diameter:** d_a = 160 mm
- **Clamping width:** b_2 = 152 mm;
- **Clamping height:** s = 70 mm
- **Order No.: 0350215-34** (chosen from catalog page 6)

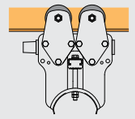


The following running gear has been chosen:
Type S, flanged main rollers ø 63 mm made of steel
- without anti-lift rollers

Order No. 431 (chosen from catalog page 8)



The following track beam has been chosen:
- **IPE 140**
- **I-beam code: 0114** (chosen from catalog page 8)

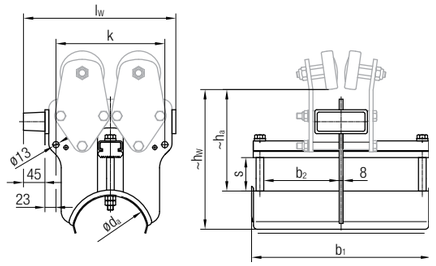


The Order No. of the appropriate towing trolley is the running gear must always be equipped with anti-lift rollers**:**	**0350315-34-432-0114**
The Order No. of the appropriate end clamp is:	**0350115-34**
As an alternative to the towing trolley a towing clamp can be used. **The Order No. of the appropriate towing clamp is:**	**0350415-34**

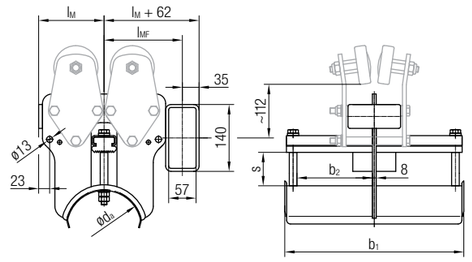
For calculation and selection please refer to our Engineering Guidelines for Festoon Systems KAT0300-0101

Program 0350
with Main Rollers ø 50 and 63 mm

Selection of Cable Trolleys and Towing Trolleys



Cable trolley



Towing trolley

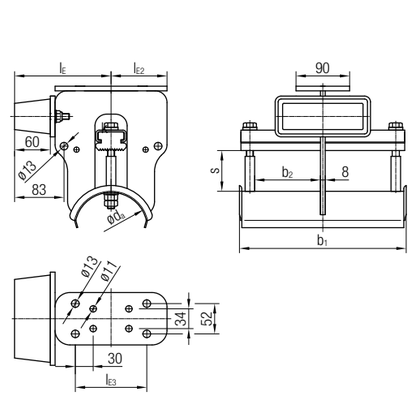
Cable Trolley Underpart[1)]		Towing Trolley Underpart[1)]		d_a	l_w	b_1	b_2	s	k	Clamping Bar Version	h_a	h_w	l_M	l_{MF}
Order No.	[kg]	Order No.	[kg]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		[mm]	[mm]	[mm]	[mm]
0350213-20	4.0	**0350313-20**	5.1	125	250	215	72	52	158	1	185	250	102	129
0350213-22	4.4	**0350313-22**	5.5			280	105							
0350213-24	5.2	**0350313-24**	6.0			375	152							
0350212-30	4.1	**0350312-30**	5.2	160		215	72	35		1	170			
0350212-32	4.5	**0350312-32**	5.6			280	105							
0350212-34	5.2	**0350312-34**	6.3			375	152							
0350215-30	5.2	**0350315-30**	6.4		320	215	72	70		1	200			
0350215-32	5.7	**0350315-32**	6.8			280	105							
0350215-34	6.4	**0350315-34**	7.5			375	152							
0350213-40	5.2	**0350313-40**	6.5	200		215	72	52	228	1	180	280	137	164
0350213-42	5.7	**0350313-42**	7.0			280	105			1				
0350223-43	6.7	**0350323-43**	7.6			375	125			2				
0350213-44	6.4	**0350313-44**	7.8			375	152			1				
0350216-42	7.3	**0350316-42**	8.4		400	280	105	90		1	215			
0350226-43	8.3	**0350326-43**	9.4			375	125			2				
0350216-44	8.0	**0350316-44**	9.1			375	152			1				
0350214-50	6.6	**0350314-50**	7.7	250		215	72	65	308	1	190	315	177	204
0350214-52	7.1	**0350314-52**	8.6			280	105			1				
0350224-53	8.1	**0350324-53**	9.6			375	125			2				
0350214-54	8.1	**0350314-54**	9.3			375	152			1				

1) without running gear

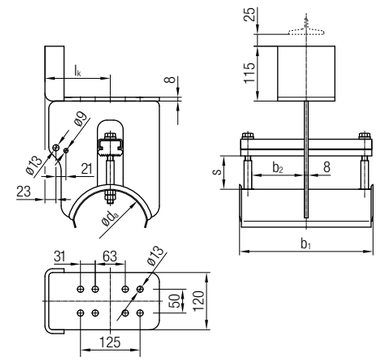
Notes
- The table only refers to the cable trolley or towing trolley underpart, the running gear must be selected and added. See page 8 of this catalog.
- Additional cable supports for this program are only available for systems with main roller sizes ø 80 and 100 mm. See page 9 of this catalog.

Program 0350
with Main Rollers ø 50 and 63 mm

Selection of End Clamps and Towing Clamps



End clamp



Towing clamp

End Clamp Complete		Towing Clamp Complete		d_a	l_E	l_{E2}	l_{E3}	b_1	b_2	s	Clamping Bar Version	l_k
Order No.	[kg]	Order No.	[kg]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		[mm]
0350113-20	5.6	**0350413-20**	6.0	125	162	94	120	215	72	52	1	102
0350113-22	5.9	**0350413-22**	6.3					280	105			
0350113-24	6.5	**0350413-24**	6.9					375	152			
0350112-30	5.7	**0350412-30**	6.2	160				215	72	35	1	
0350112-32	6.1	**0350412-32**	6.5					280	105			
0350112-34	6.8	**0350412-34**	7.2					375	152			
0350115-30	7.1	**0350415-30**	7.3		197	103	160	215	72	70	1	137
0350115-32	7.5	**0350415-32**	7.8					280	105			
0350115-34	8.4	**0350415-34**	8.5					375	152			
0350113-40	7.2	**0350413-40**	7.5	200				215	72	52	1	
0350113-42	7.6	**0350413-42**	8.0					280	105		1	
0350123-43	8.5	**0350423-43**	8.8					375	125		2	
0350113-44	8.3	**0350413-44**	8.6					375	152		1	
0350116-42	8.4	**0350416-42**	9.1		237	130	230	280	105	90	1	177
0350126-43	10.1	**0350426-43**	10.6					375	125		2	
0350116-44	9.8	**0350416-44**	10.3					375	152		1	
0350114-50	8.6	**0350414-50**	8.8	250				215	72	65	1	
0350114-52	8.8	**0350414-52**	9.7					280	105		1	
0350124-53	10.2	**0350424-53**	8.9					375	125		2	
0350114-54	10.0	**0350414-54**	8.7					375	152		1	

Program 0350
with Main Rollers ø50 and 63 mm

Selection of Running Gear

Running Gear		Order No.	Main Roller ød [mm]	Main Roller Material Bandage	Weight approx. [kg]	Preference Range I-beams Parallel Flange	I-beam Code	Tapered Flange	I-beam Code
	**Type H** with cylindrical main rollers	**311**	50	Steel	3.8	-	-	INP 120	0012
		351	50	Polyurethane	3.5				
		411	63	Steel	5.1	-	-	INP 120	0012
		451	63	Polyurethane	4.7			INP 140	0014
	**Type HG** with cylindrical main rollers and anti-lift rollers	**312**	50	Steel	4.3	-	-	INP 120	0012
		352	50	Polyurethane	4.1				
		412	63	Steel	5.6	-	-	INP 120	0012
		452	63	Polyurethane	4.9	-	-	INP 140	0014
	**Type HF** with cylindrical main rollers and horizontal guide rollers	**313**	50	Steel	4.0	IPE 100 IPE 120 IPE 140 IPE 160 IPE 180	0110 0112 0114 0116 0118	- INP 120 INP 140 INP 160 INP 180	- 0012 0014 0016 0018
		357	50	Polyurethane	3.8				
		413	63	Steel	5.1	IPE 120 IPE 140 IPE 160 IPE 180 IPE 200	0112 0114 0116 0118 0120	INP 120 INP 140 INP 160 INP 180 -	0012 0014 0016 0018 -
		457	63	Polyurethane	4.4				
	**Type HFG** with cylindrical main rollers, horizontal guide rollers and anti-lift rollers	**314**	50	Steel	4.5	IPE 100 IPE 120 IPE 140 IPE 160 IPE 180	0110 0112 0114 0116 0118	- INP 120 INP 140 INP 160 INP 180	- 0012 0014 0016 0018
		358	50	Polyurethane	4.0				
		414	63	Steel	5.6	IPE 120 IPE 140 IPE 160 IPE 180 IPE 200	0112 0114 0116 0118 0120	INP 120 INP 140 INP 160 INP 180 -	0012 0014 0016 0018 -
		458	63	Polyurethane	4.9				
	**Type S** with flanged main rollers	**331**	50	Steel	4.2	IPE 100 IPE 120 IPE 140 IPE 160 IPE 180	0110 0112 0114 0116 0118	- INP 120 INP 140 INP 160 INP 180	- 0012 0014 0016 0018
		431	63	Steel	5.5	IPE 120 IPE 140 IPE 160 IPE 180 IPE 200	0112 0114 0116 0118 0120	INP 120 INP 140 INP 160 INP 180 -	0012 0014 0016 0018 -
	**Type SG** with flanged main rollers and anti-lift rollers	**332**	50	Steel	4.4	IPE 100 IPE 120 IPE 140 IPE 160 IPE 180	0110 0112 0114 0116 0118	- INP 120 INP 140 INP 160 INP 180	- 0012 0014 0016 0018
		432	63	Steel	6.1	IPE 120 IPE 140 IPE 160 IPE 180 IPE 200	0112 0114 0116 0118 0120	INP 120 INP 140 INP 160 INP 180 -	0012 0014 0016 0018 -

Note/design
- The running gear of the towing trolley must always be equipped with anti-lift rollers.
- The anti-lift rollers ø40 mm are made of steel.
- The horizontal guide rollers ø40 mm are made of steel.
- Other materials of the horizontal guide rollers, e.g. Polyurethane on request.
- The rollers are equipped with precision ball bearings and additional sealing disks (2RS1). The ball bearings are lifetime lubricated.
- Running gear for other I-beam types or beam sizes on request.

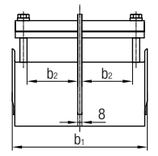
Program 0350
with Main Rollers ø80 and 100 mm

Single or Dual Layer Cable Trolleys for Flat Cables with a Load Capacity up to 350 kg

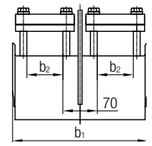
Technical details

Cable Supports	welded to the center plate, lateral-loading
Buffers	single-sided rectangular buffer
Max. Travel Speed [1)]	160 m/min
Max. Load Capacity [1)]	350 kg
Cable Trolley Underpart and Running Gear	hot-dip galvanized steel
Fasteners	stainless steel
Temperature Range [1)]	-30°C to + 80°C

1) depending on roller size/ roller material



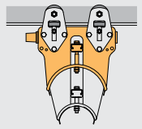
Clamping bar version 1 (continuous)



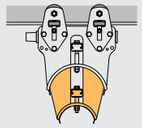
Clamping bar version 2 (divided)

Ordering Example — Order No. 0352214-52 32 - 613 - 0116

A cable trolley underpart with the following dimensions shall be used:
- **Support diameter:** d_a = 250 mm
- **Clamping width:** b_2 = 105 mm;
- **Clamping height:** s = 65 mm
- **Order No.: 0352214-52** (chosen from catalog page 10)

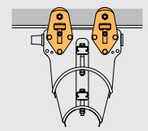


An additional support
with a **diameter** of d_{a2} 160 mm shall be used.
The width b_1 of the additional supports must always be chosen identical with the upper support
Order No. 32 (chosen from catalog page 11)

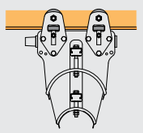


The following running gear has been chosen:
Type HF, cylindrical main rollers ø100 mm made of steel
- with horizontal guide rollers made of steel
- without anti-lift rollers

Order No. 613 (chosen from catalog page 12)



The following track beam has been chosen:
- **IPE 160**
- **I-beam code: 0116** (chosen from catalog page 12)

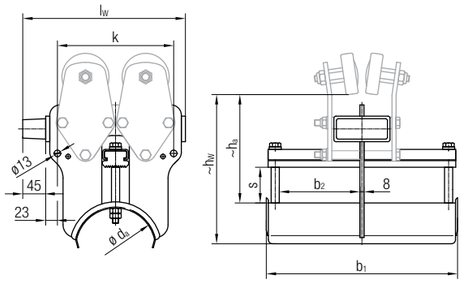


The Order No. of the appropriate towing trolley is the running gear must always be equipped with anti-lift rollers**:**	**0352314-5232-614-0116**
The Order No. of the appropriate end clamp is:	**0350114-5232**
As an alternative to the towing trolley a towing clamp can be used. **The Order No. of the appropriate towing clamp is:**	**0350414-5232**

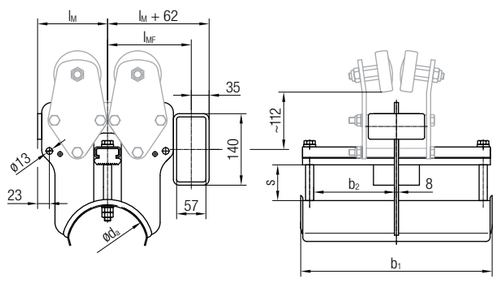
For calculation and selection please refer to our Engineering Guidelines for Festoon Systems KAT0300-0101

Program 0350
with Main Rollers ø 80 and 100 mm

Selection of Cable Trolleys and Towing Trolleys



Cable trolley



Towing trolley

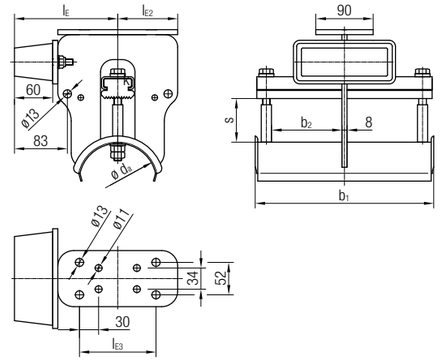
Cable Trolley Underpart[1] Order No.	[kg]	Towing Trolley Underpart[1] Order No.	[kg]	d_a [mm]	l_w [mm]	b_1 [mm]	b_2 [mm]	s [mm]	k [mm]	Clamping Bar Version	h_a [mm]	h_w [mm]	l_M [mm]	l_{MF} [mm]
0352215-30	5.2	**0352315-30**	6.6	160	320	215	72	70	228	1	215	295	137	164
0352215-32	5.7	**0352315-32**	7.0			280	105			1				
0352215-34	6.4	**0352315-34**	7.7			375	152			1				
0352213-40	5.2	**0352313-40**	6.8	200		215	72	52		1	195			
0352213-42	5.7	**0352313-42**	7.2			280	105			1				
0352223-43	6.7	**0352323-43**	8.0			375	125			2				
0352213-44	6.4	**0352313-44**	7.8			375	152			1				
0352216-42	7.3	**0352316-42**	7.9		400	280	105	90	308	1	215	315	177	204
0352226-43	8.3	**0352326-43**	9.4			375	125			2				
0352216-44	8.0	**0352316-44**	9.1			375	152			1				
0352214-50	6.6	**0352314-50**	8.1	250		215	72	65		1	190			
0352214-52	7.1	**0352314-52**	8.4			280	105			1				
0352224-53	8.1	**0352324-53**	9.4			375	125			2				
0352214-54	8.1	**0352314-54**	9.2			375	152			1				

1) without running gear

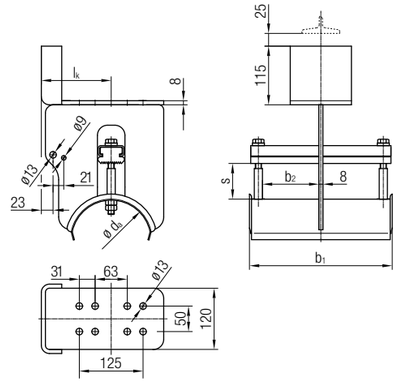
Notes
- The table only refers to the cable trolley or towing trolley underpart, the running gear must be selected and added. See page 12 of this catalog.
- The system components can be equipped with one or two additional supports. See page 11 of this catalog.

Program 0350
with Main Rollers ø 80 and 100 mm

Selection of End Clamps and Towing Clamps



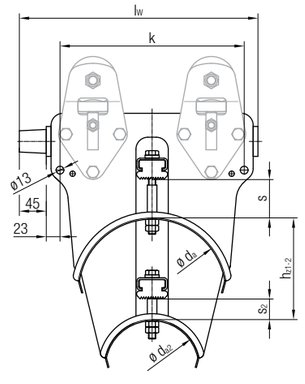
End clamp



Towing clamp

End Clamp Complete Order No.	[kg]	Towing Clamp Complete Order No.	[kg]	d_a [mm]	l_E [mm]	l_{E2} [mm]	l_{E3} [mm]	b_1 [mm]	b_2 [mm]	s [mm]	Clamping Bar Version	l_k [mm]
0350115-30	7.1	**0350415-30**	7.3	160	197	103	160	215	72	70	1	137
0350115-32	7.5	**0350415-32**	7.8					280	105		1	
0350115-34	8.4	**0350415-34**	8.5					375	152		1	
0350113-40	7.2	**0350413-40**	7.5	200				215	72	52	1	
0350113-42	7.6	**0350413-42**	8.0					280	105		1	
0350123-43	8.5	**0350423-43**	8.8					375	125		2	
0350113-44	8.3	**0350413-44**	8.6					375	152		1	
0350116-42	8.4	**0350416-42**	9.1		237	130	230	280	105	90	1	177
0350126-43	10.1	**0350426-43**	10.6					375	125		2	
0350116-44	9.8	**0350416-44**	10.3					375	152		1	
0350114-50	8.6	**0350414-50**	8.8	250				215	72	65	1	
0350114-52	8.8	**0350414-52**	9.7					280	105		1	
0350124-53	10.2	**0350424-53**	8.9					375	125		2	
0350114-54	10.0	**0350414-54**	8.7					375	152		1	

Additional Supports

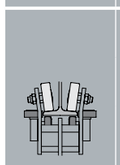
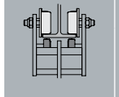


Additional Support Order No.	[kg]	d_a [mm]	d_{a2} [mm]	b_1 [mm]	b_2 [mm]	s_2 [mm]	Clamping Bar Version	h_{Z1-2} [mm]
20	2.8	200	125	215	72	35	1	170
22	3.2			280	105		1	
23	3.8			375	125		2	
24	3.7			375	152		1	
30	3.0	250	160	215	72	35	1	170
32	3.4			280	105		1	
33	4.2			375	125		2	
34	4.1			375	152		1	

The support width as well as the clamping bar design of the additional support must correspond to the upper support of the cable trolley.

Program 0350
with Main Rollers ø 80 and 100 mm

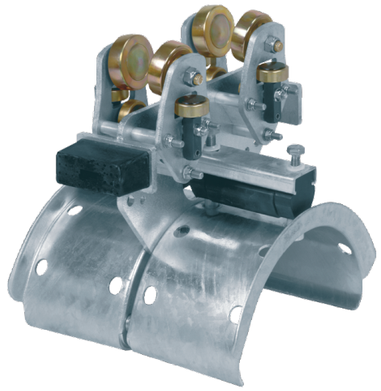
Selection of Running Gear

Running Gear		Order No.	Main Roller ød [mm]	Main Roller Material Bandage	Weight approx. [kg]	Preference Range I-beams Parallel Flange	I-beam Code	Tapered Flange	I-beam Code
	**Type H** with cylindrical main rollers	**511**	80	Steel	8.3	-	-	INP 140 INP 160	0014 0016
		551	80	Polyurethane	7.7				
		611	100	Steel	12.3	**-**	**-**	INP 140 INP 160 INP 180	0014 0016 0018
		651	100	Polyurethane	11.8				
	**Type HG** with cylindrical main rollers and anti-lift rollers	**512**	80	Steel	9.5	-	-	INP 140 INP 160	0014 0016
		552	80	Polyurethane	8.1				
		612	100	Steel	13.8	**-**	**-**	INP 140 INP 160 INP 180	0014 0016 0018
		652	100	Polyurethane	13.3				
	**Type HF** with cylindrical main rollers and horizontal guide rollers	**513**	80	Steel	9.7	IPE 140 IPE 160 IPE 180 IPE 200	0114 0116 0118 0120	INP 140 INP 160 INP 180 INP 200	0014 0016 0018 0020
		557	80	Polyurethane	8.3				
		613	100	Steel	13.3	IPE 160 IPE 180 IPE 200 IPE 220 IPE 240	0116 0118 0120 0122 0124	INP 160 INP 180 INP 200 INP 220 INP 240	0016 0018 0020 0022 0024
		657	100	Polyurethane	12.8				
	**Type HFG** with cylindrical main rollers, horizontal guide rollers and anti-lift rollers	**514**	80	Steel	9.8	IPE 140 IPE 160 IPE 180 IPE 200	0114 0116 0118 0120	INP 140 INP 160 INP 180 INP 200	0014 0016 0018 0020
		558	80	Polyurethane	9.3				
		614	100	Steel	14.3	IPE 160 IPE 180 IPE 200 IPE 220 IPE 240	0116 0118 0120 0122 0124	INP 160 INP 180 INP 200 INP 220 INP 240	0016 0018 0020 0022 0024
		658	100	Polyurethane	13.8				
	**Type S** with flanged main rollers	**531**	80	Steel	9.9	IPE 140 IPE 160 IPE 180 IPE 200	0114 0116 0118 0120	INP 140 INP 160 INP 180 INP 200	0014 0016 0018 0020
		631	100	Steel	16.0	IPE 160 IPE 180 IPE 200 IPE 220 IPE 240	0116 0118 0120 0122 0124	INP 160 INP 180 INP 200 INP 220 INP 240	0016 0018 0020 0022 0024
	**Type SG** with flanged main rollers and anti-lift rollers	**532**	80	Steel	11.3	IPE 140 IPE 160 IPE 180 IPE 200	0114 0116 0118 0120	INP 140 INP 160 INP 180 INP 200	0014 0016 0018 0020
		632	100	Steel	17.3	IPE 160 IPE 180 IPE 200 IPE 220 IPE 240	0116 0118 0120 0122 0124	INP 160 INP 180 INP 200 INP 220 INP 240	0016 0018 0020 0022 0024

Note/design
- The running gear of the towing trolley must always be equipped with anti-lift rollers.
- Main roller ø 80 mm: anti-lift rollers ø 50 mm and horizontal guide rollers ø 50 mm made of steel
- Main roller ø 100 mm: anti-lift rollers ø 50 mm and horizontal guide rollers ø 63 mm made of steel
- Other materials of the horizontal guide rollers, e.g. Polyurethane on request.
- The rollers are equipped with precision ball bearings and additional sealing disks (2RS1). The ball bearings are lifetime lubricated.
- Running gear for other I-beam types or beam sizes on request.

Program 0360
with Main Rollers ø 50 and 63 mm

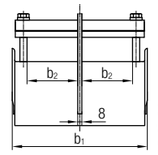
Single or Dual Layer Cable Trolleys for Round Cables with a Load Capacity up to 125 kg



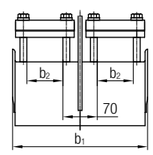
Technical details

Cable Supports	bolted to the center plate, lateral-loading
Buffers	single-sided rectangular buffer
Max. Travel Speed [1)]	160 m/min
Max. Load Capacity [1)]	125 kg
Cable Trolley Underpart and Running Gear	hot-dip galvanized steel
Fasteners	stainless steel
Temperature Range [1)]	-30°C to + 80°C

1) depending on roller size/ roller material



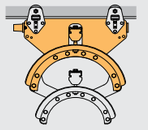
Clamping bar version 1 (continuous)



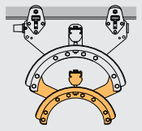
Clamping bar version 2 (divided)

Ordering Example **Order No.** **036022-86 66 - 414 - 0014**

A cable trolley underpart with the following dimensions shall be used:
- **Support diameter:** d_a = 360 mm
- **Clamping width:** b_2 = 200 mm;
- **Clamping height:** s = 36 mm
- **Order No.: 036022-86** (chosen from catalog page 14)

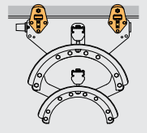


An additional support
with a **diameter** d_{a2} 260 mm shall be used.
The width b_1 of the additional supports must always be chosen identical with the upper support
Order No. 66 (chosen from catalog page 15)

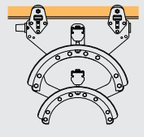


The following running gear has been chosen:
Type HFG, cylindrical main rollers ø 63 mm, made of steel
- with horizontal guide rollers made of steel
- with anti-lift rollers made of steel

Order No. 414 (chosen from catalog page 16



The following track beam has been chosen:
- **INP 140**
- **I-beam code: 0014** (chosen from catalog page 16)



The Order No. of the appropriate towing trolley is
the running gear must always be equipped with anti-lift rollers**:** **036032-8666-414-0014**

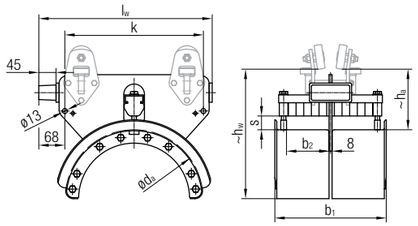
The Order No. of the appropriate end clamp is: **036012-8666**

As an alternative to the towing trolley a towing clamp can be used.
The Order No. of the appropriate towing clamp is: **036042-8666**

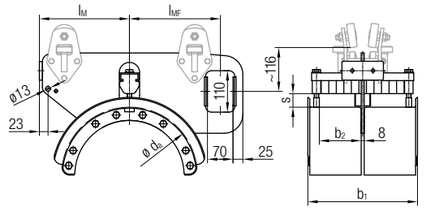
For calculation and selection please refer to our Engineering Guidelines for Festoon Systems KAT0300-0101

Program 0360
with Main Rollers ø 50 and 63 mm

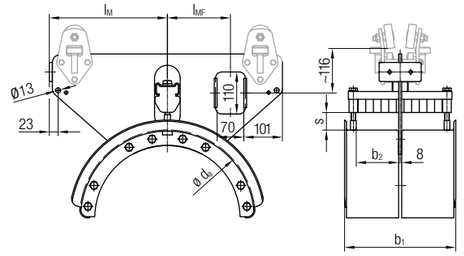
Selection of Cable Trolleys and Towing Trolleys



Cable trolley



Towing trolley d_a 260 mm and 360 mm



Towing trolley d_a 460 mm

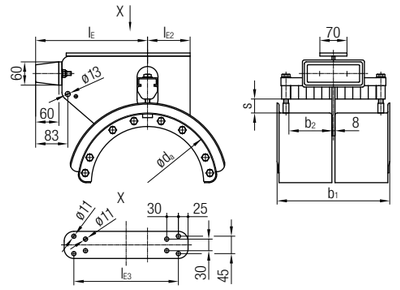
Cable Trolley Underpart[1)]		Towing Trolley Underpart[1)]		d_a	l_w	b_1	b_2	s	k	Clamping Bar Version	h_a	h_w	l_M	l_{MF}
Order No.	[kg]	Order No.	[kg]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		[mm]	[mm]	[mm]	[mm]
036021-62	8.2	**036031-62**	11.5	260	334	291	110	26	242	1	150	276	170	172
036021-64	9.4	**036031-64**	14.2			384	155			1				
036022-66	12.2	**036032-66**	15.8			532	200			2				
036022-68	13.4	**036032-68**	17.1			632	250			2				
036021-82	10.6	**036031-82**	17.0	360	454	291	110	36	362	1	160	336	239	241
036021-84	12.0	**036031-84**	18.6			384	155			1				
036022-86	15.7	**036032-86**	22.6			532	200			2				
036022-88	17.3	**036032-88**	24.3			632	250			2				
036021-92	13.7	**036031-92**	23.2	460	574	291	110	46	482	1	180	410	309	165
036021-94	15.7	**036031-94**	25.0			384	155			1				
036022-96	20.5	**036032-96**	30.4			532	200			2				
036022-98	21.1	**036032-98**	31.9			632	250			2				

1) without running gear

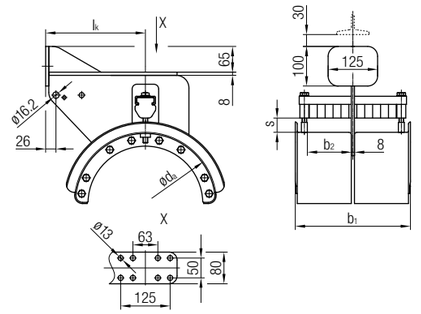
Notes
- The table only refers to the cable trolley or towing trolley underpart, the running gear must be selected and added.
  See page 16 of this catalog.
- The system components can be equipped with an additional support.
  See page 15 of this catalog.

Program 0360
with Main Rollers ø 50 and 63 mm

Selection of End Clamps and Towing Clamps



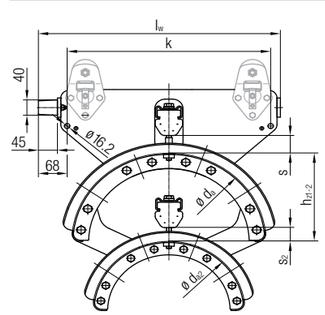
End clamp



Towing clamp

End Clamp Complete		Towing Clamp Complete		d_a	l_E	l_{E2}	l_{E3}	b_1	b_2	s	Clamping Bar Version	l_k
Order No.	[kg]	Order No.	[kg]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		[mm]
036011-62	10.6	**036041-62**	10.0	260	219	81	170	291	110	26	1	182
036011-64	12.9	**036041-64**	11.8					384	155		1	
036012-66	14.5	**036042-66**	14.2					532	200		2	
036012-68	15.8	**036042-68**	15.6					632	250		2	
036011-82	15.7	**036041-82**	15.3	360	289	110	270	291	110	36	1	252
036011-84	17.2	**036041-84**	17.4					384	155		1	
036012-86	21.2	**036042-86**	21.7					532	200		2	
036012-88	22.9	**036042-88**	23.9					632	250		2	
036011-92	24.0	**036041-92**	20.6	460	359	125	360	291	110	46	1	322
036011-94	25.3	**036041-94**	22.4					384	155		1	
036012-96	29.4	**036042-96**	27.2					532	200		2	
036012-98	31.0	**036042-98**	30.0					632	250		2	

Additional Supports

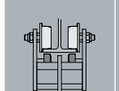


Additional Support Order No.	[kg]	d_a [mm]	d_{a2} [mm]	b_1 [mm]	b_2 [mm]	s_2 [mm]	Clamping Bar Version	h_{Z1-2} [mm]
32	4.8	260	160	291	110	16	1	180
34	5.6			384	155		1	
62	10.9	360	260	291	110	26	1	178
64	13.0			384	155		1	
66	17.2			532	200		2	
68	19.1			632	250		2	
82	11.9	460	360	291	110	36	1	205
84	14.0			384	155		1	
86	18.3			532	200		2	
88	20.2			632	250		2	

The support width as well as the clamping bar design of the additional support must correspond to the upper support of the cable trolley.

Program 0360
with Main Rollers ø 50 and 63 mm

Selection of Running Gear

Running Gear		Order No.	Main Roller ød [mm]	Main Roller Material Binding	Weight approx. [kg]	Preference Range I-beams Parallel Flange	I-beam Code	Tapered Flange	I-beam Code
	**Typ H** mit zylindrischen Haupttragrollen	**311**	50	Steel	3.8	-	-	INP 120	0012
		351	50	Polyurethane	3.5				
		411	63	Steel	5.1	-	-	INP 120	0012
		451	63	Polyurethane	4.7	-	-	INP 140	0014
	**Typ HG** mit zylindrischen Haupttragrollen und Gegendruckrollen	**312**	50	Steel	4.3	-	-	INP 120	0012
		352	50	Polyurethane	4.1				
		412	63	Steel	5.6	-	-	INP 120	0012
		452	63	Polyurethane	4.9	-	-	INP 140	0014
	**Typ HF** mit zylindrischen Haupttragrollen und horizontalen Führungsrollen	**313**	50	Steel	4.0	IPE 100 IPE 120 IPE 140 IPE 160 IPE 180	0110 0112 0114 0116 0118	- INP 120 INP 140 INP 160 INP 180	- 0012 0014 0016 0018
		357	50	Polyurethane	3.8				
		413	63	Steel	5.1	IPE 120 IPE 140 IPE 160 IPE 180 IPE 200	0112 0114 0116 0118 0120	INP 120 INP 140 INP 160 INP 180 -	0012 0014 0016 0018 -
		457	63	Polyurethane	4.4				
	**Typ HFG** mit zylindrischen Haupttragrollen horizontalen Führungsrollen und Gegendruckrollen	**314**	50	Steel	4.5	IPE 100 IPE 120 IPE 140 IPE 160 IPE 180	0110 0112 0114 0116 0118	- INP 120 INP 140 INP 160 INP 180	- 0012 0014 0016 0018
		358	50	Polyurethane	4.0				
		414	63	Steel	5.6	IPE 120 IPE 140 IPE 160 IPE 180 IPE 200	0112 0114 0116 0118 0120	INP 120 INP 140 INP 160 INP 180 -	0012 0014 0016 0018 -
		458	63	Polyurethane	4.9				
	**Typ S** mit Spurkranz-Haupttragrollen	**331**	50	Steel	4.2	IPE 100 IPE 120 IPE 140 IPE 160 IPE 180	0110 0112 0114 0116 0118	- INP 120 INP 140 INP 160 INP 180	- 0012 0014 0016 0018
		431	63	Steel	5.5	IPE 120 IPE 140 IPE 160 IPE 180 IPE 200	0112 0114 0116 0118 0120	INP 120 INP 140 INP 160 INP 180 -	0012 0014 0016 0018 -
	**Typ SG** mit Spurkranz-Haupttragrollen und Gegendruckrollen	**332**	50	Steel	4.4	IPE 100 IPE 120 IPE 140 IPE 160 IPE 180	0110 0112 0114 0116 0118	- INP 120 INP 140 INP 160 INP 180	- 0012 0014 0016 0018
		432	63	Steel	6.1	IPE 120 IPE 140 IPE 160 IPE 180 IPE 200	0112 0114 0116 0118 0120	INP 120 INP 140 INP 160 INP 180 -	0012 0014 0016 0018 -

Note/design
- The running gear of the towing trolley must always be equipped with anti-lift rollers.
- The anti-lift rollers ø 40 mm are made of steel.
- The horizontal guide rollers ø 40 mm are made of steel.
- Other materials of the horizontal guide rollers, e.g. Polyurethane on request.
- The rollers are equipped with precision ball bearings and additional sealing disks (2RS1). The ball bearings are lifetime lubricated.
- Running gear for other I-beam types or beam sizes on request.

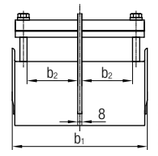
Program 0360
with Main Rollers ø 80, 100, 112 and 125 mm

Single, Dual or Tripple Layer Cable Trolleys for Round Cabes with a Load Capacity up to 500 kg

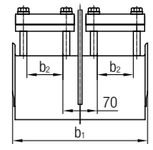
Technical details

Cable Supports	bolted to the center plate, lateral-loading
Buffers	single-sided round buffer
Max. Travel Speed [1)]	160 m/min
Max. Load Capacity [1)]	500 kg
Cable Trolley Underpart and Running Gear	hot-dip galvanized steel
Fasteners	stainless steel
Temperature Range [1)]	-30°C to + 80°C

1) depending on roller size/ roller material



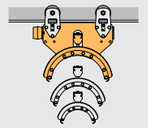
Clamping bar version 1 (continuous)



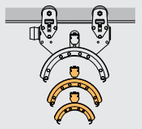
Clamping bar version 2 (divided)

Ordering Example **Order No.** **036222-96 8666 - 658 - 0018**

A cable trolley underpart with the following dimensions shall be used:
- **Support diameter:** d_a = 460 mm
- **Clamping width:** b_2 = 200 mm;
- **Clamping height:** s = 46 mm
- **Order No.: 036222-96** (chosen from catalog page 18)

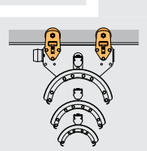


Two additional supports
with a **diameter** d_{a2} 360 mm and d_{a3} 260 mm shall be used.
The width b_1 of the additional supports must always be chosen identical with the upper support
Order No. 8666 (chosen from catalog page 19)

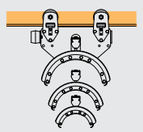


The following running gear has been chosen:
Type HFG, cylindrical main rollers ø100 mm with Polyurethane bandage
- with horizontal guide rollers made of steel
- with anti-lift rollers made of steel

Order No. 658 (chosen from catalog page 20)



The following track beam has been chosen:
- **INP 180**
- **I-beam code: 0018** (chosen from catalog page 20)



The Order No. of the appropriate towing trolley is
the running gear must always be equipped with anti-lift rollers**:** **036232-968666-658-0018**

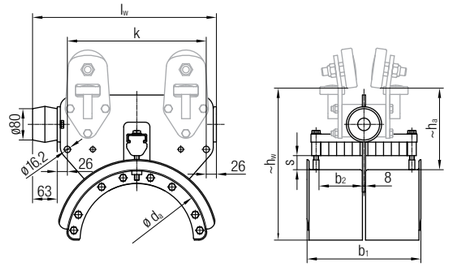
The Order No. of the appropriate end clamp is: **036212-968666**

As an alternative to the towing trolley a towing clamp can be used.
The Order No. of the appropriate towing clamp is: **036042-968666**

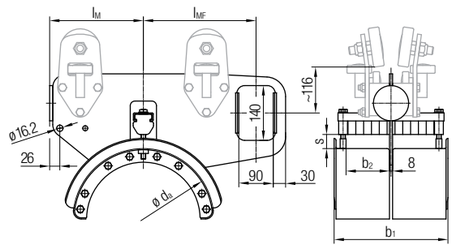
For calculation and selection please refer to our Engineering Guidelines for Festoon Systems KAT0300-0101

Program 0360
with Main Rollers ø 80, 100, 112 and 125 mm

Selection of Cable Trolleys and Towing Trolleys



Cable trolley



Towing trolley

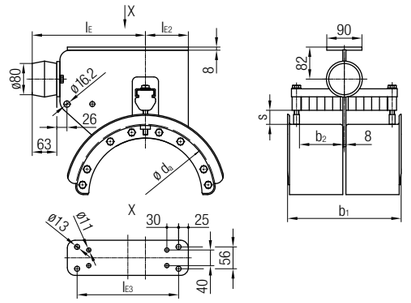
Cable Trolley Underpart[1)] Order No.	[kg]	Towing Trolley Underpart[1)] Order No.	[kg]	d_a [mm]	l_w [mm]	b_1 [mm]	b_2 [mm]	s [mm]	k [mm]	Clamping Bar Version	h_a [mm]	h_w [mm]	l_M [mm]	l_{MF} [mm]
036221-62	10.8	**036231-62**	11.4	260	350	291	110	26	235	1	200	326	170	218
036221-64	12.6	**036231-64**	13.2			384	155			1				
036222-66	15.2	**036232-66**	15.6			532	200			2				
036222-68	16.3	**036232-68**	16.9			632	250			2				
036222-69	18.7	**036232-69**	17.8			772	320			2				
036221-82	14.9	**036231-82**	19.0	360	470	291	110	36	355	1	210	388	239	288
036221-84	17.2	**036231-84**	19.6			384	155			1				
036222-86	22.0	**036232-86**	23.9			532	200			2				
036222-88	23.9	**036232-88**	25.8			632	250			2				
036222-89	26.8	**036232-89**	28.7			772	320			2				
036221-92	21.6	**036231-92**	23.9	460	590	291	110	46	475	1	220	448	310	358
036221-94	23.3	**036231-94**	25.7			384	155			1				
036222-96	28.8	**036232-96**	31.1			532	200			2				
036222-98	30.9	**036232-98**	33.2			632	250			2				
036222-99	34.2	**036232-99**	36.5			772	320			2				

1) without running gear

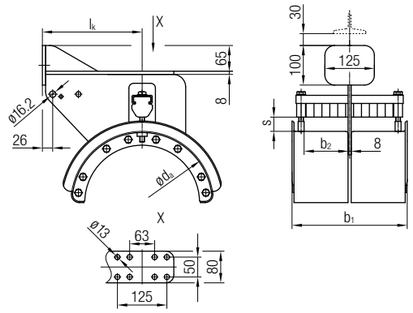
Notes
- The table only refers to the cable trolley or towing trolley underpart, the running gear must be selected and added. See page 20 of this catalog.
- The system components can be equipped with one or two additional supports. See page 19 of this catalog.

Program 0360
with Main Rollers ø 80, 100, 112 and 125 mm

Selection of End Clamps and Towing Clamps



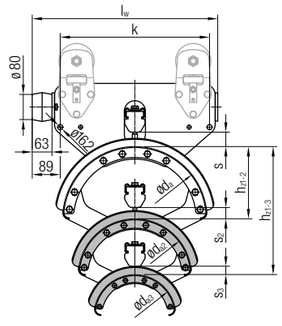
End clamp



Towing clamp

End Clamp Complete Order No.	[kg]	Towing Clamp Complete Order No.	[kg]	d_a [mm]	l_E [mm]	l_{E2} [mm]	l_{E3} [mm]	b_1 [mm]	b_2 [mm]	s [mm]	Clamping Bar Version	l_k [mm]
036211-62	11.2	**036041-62**	10.0	260	220	81	160	291	110	26	1	182
036211-64	13.0	**036041-64**	11.8					384	155		1	
036212-66	15.4	**036042-66**	14.2					532	200		2	
036212-68	16.4	**036042-68**	15.6					632	250		2	
036212-69	18.9	**036042-69**	17.8					772	320		2	
036211-82	17.3	**036041-82**	15.3	360	290	110	260	291	110	36	1	252
036211-84	19.3	**036041-84**	17.4					384	155		1	
036212-86	23.6	**036042-86**	21.7					532	200		2	
036212-88	25.5	**036042-88**	23.9					632	250		2	
036212-89	28.0	**036042-89**	26.4					772	320		2	
036211-92	23.0	**036041-92**	20.6	460	361	125	350	291	110	46	1	322
036211-94	24.7	**036041-94**	22.4					384	155		1	
036212-96	30.2	**036042-96**	27.2					532	200		2	
036212-98	32.3	**036042-98**	30.0					632	250		2	
036212-99	35.6	**036042-99**	33.2					772	320		2	

Additional Supports

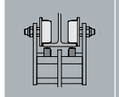


The support width as well as the clamping bar version of the additional support must correspond to the upper support of the cable trolley.

Additional Supports Order No.	[kg]	d_a [mm]	d_{a2} [mm]	d_{a3} [mm]	b_1 [mm]	b_2 [mm]	s_2 [mm]	s_3 [mm]	Clamping Bar Version	h_{Z1-2} [mm]	h_{Z1-3} [mm]
One Additional Support											
32	4.8	260	160	-	291	110	16	-	1	180	-
34	5.6				384	156			1		
62	10.9	360	260	-	291	110	26	-	1	178	-
64	13.0				384	155			1		
66	17.2				532	200			2		
68	19.1				632	250			2		
69	22.0				772	320			2		
82	11.9	460	360	-	291	110	36	-	1	205	-
84	14.0				384	155			1		
86	18.3				532	200			2		
88	20.2				632	250			2		
89	26.4				772	320			2		
Two Additonal Supports											
8262	22.8	460	360	260	291	110	36	26	1	205	408
8464	27.0				384	155			1		
8666	35.5				532	200			2		
8868	39.3				632	250			2		
8969	45.1				772	320			2		

Program 0360
with Main Rollers ø80 and 100 mm

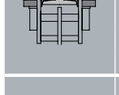
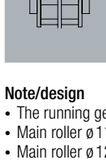
Selection of Running Gear

Running Gear		Order No.	Main Roller ød [mm]	Main Roller Material Bandage	Weight approx. [kg]	Preference Range I-beams Parallel Flange	Preference Range I-beams I-beam Code	Preference Range I-beams Tapered Flange	Preference Range I-beams I-beam Code
	**Typ H** mit zylindrischen Haupttragrollen	**511**	80	Steel	8.3	-	-	INP 140	0014
		551	80	Polyurethane	7.7	-	-	INP 160	0016
		611	100	Steel	12.3	-	-	INP 140	0014
						-	-	INP 160	0016
		651	100	Polyurethane	11.8	-	-	INP 180	0018
	**Typ HG** mit zylindrischen Haupttragrollen und Gegendruckrollen	**512**	80	Steel	9.5	-	-	INP 140	0014
		552	80	Polyurethane	8.1	-	-	INP 160	0016
		612	100	Steel	13.8	-	-	INP 140	0014
						-	-	INP 160	0016
		652	100	Polyurethane	13.3	-	-	INP 180	0018
	**Typ HF** mit zylindrischen Haupttragrollen und horizontalen Führungsrollen	**513**	80	Steel	9.7	IPE 140 IPE 160	0114 0116	INP 140 INP 160	0014 0016
		557	80	Polyurethane	8.3	IPE 180 IPE 200	0118 0120	INP 180 INP 200	0018 0020
		613	100	Steel	13.3	IPE 160 IPE 180 IPE 200	0116 0118 0120	INP 160 INP 180 INP 200	0016 0018 0020
		657	100	Polyurethane	12.8	IPE 220 IPE 240	0122 0124	INP 220 INP 240	0022 0024
	**Typ HFG** mit zylindrischen Haupttragrollen horizontalen Führungsrollen und Gegendruckrollen	**514**	80	Steel	9.8	IPE 140 IPE 160	0114 0116	INP 140 INP 160	0014 0016
		558	80	Polyurethane	9.3	IPE 180 IPE 200	0118 0120	INP 180 INP 200	0018 0020
		614	100	Steel	14.3	IPE 160 IPE 180 IPE 200	0116 0118 0120	INP 160 INP 180 INP 200	0016 0018 0020
		658	100	Polyurethane	13,8	IPE 220 IPE 240	0122 0124	INP 220 INP 240	0022 0024
	**Typ S** mit Spurkranz-Haupttragrollen	**531**	80	Steel	9.9	IPE 140 IPE 160 IPE 180 IPE 200	0114 0116 0118 0120	INP 140 INP 160 INP 180 INP 200	0014 0016 0018 0020
		631	100	Steel	16.0	IPE 160 IPE 180 IPE 200 IPE 220 IPE 240	0116 0118 0120 0122 0124	INP 160 INP 180 INP 200 INP 220 INP 240	0016 0018 0020 0022 0024
	**Typ SG** mit Spurkranz-Haupttragrollen und Gegendruckrollen	**532**	80	Steel	11.3	IPE 140 IPE 160 IPE 180 IPE 200	0114 0116 0118 0120	INP 140 INP 160 INP 180 INP 200	0014 0016 0018 0020
		632	100	Steel	17.3	IPE 160 IPE 180 IPE 200 IPE 220 IPE 240	0116 0118 0120 0122 0124	INP 160 INP 180 INP 200 INP 220 INP 240	0016 0018 0020 0022 0024

Note/design
- Main roller ø80 mm: anti-lift rollers ø50 mm and horizontal guide rollers ø50 mm made of steel.
- Main roller ø100 mm: anti-lift rollers ø50 mm and horizontal guide rollers ø63 mm made of steel.
- Other materials of the horizontal guide rollers, e.g. Polyurethane on request.
- The rollers are equipped with precision ball bearings and additional sealing disks (2RS1). The ball bearings are lifetime lubricated.
- Running gear for other I-beam types or beam sizes on request.

Program 0360
with Main Rollers ø112 and 125 mm

Selection of Running Gear

Running Gear		Order No.	Main Roller d [mm]	Main Roller Material Bandage	Weight approx. [kg]	Preference Range I-beams Parallel Flange	Preference Range I-beams I-beam Code	Preference Range I-beams Tapered Flange	Preference Range I-beams I-beam Code
	**Typ H** mit zylindrischen Haupttragrollen	**751**	112	Polyurethane	14.4	-	-	INP 180	0018
						-	-	INP 200	0020
						-	-	INP 220	0022
		811	125	Steel	21.0	-	-	INP 200	0020
		851	125	Polyurethane	18.2	-	-	INP 220	0022
	**Typ HG** mit zylindrischen Haupttragrollen und Gegendruckrollen	**752**	112	Polyurethane	15.4	-	-	INP 180	0018
						-	-	INP 200	0020
								INP 220	0022
		812	125	Steel	22.0	-	-	INP 200	0020
		852	125	Polyurethane	19.2	-	-	INP 220	0022
	**Typ HF** mit zylindrischen Haupttragrollen und horizontalen Führungsrollen	**757**	112	Polyurethane	14.4	IPE 160 IPE 180 IPE 200	0116 0118 0120	INP 180 INP 200 INP 220	0018 0020 0022
		813	125	Steel	23.0	IPE 180 IPE 200	0118 0120	INP 200 INP 220	0020 0022
		857	125	Polyurethane	18.7				
	**Typ HFG** mit zylindrischen Haupttragrollen horizontalen Führungsrollen und Gegendruckrollen	**758**	112	Polyurethane	15.4	IPE 160 IPE 180 IPE 200	0116 0118 0120	INP 180 INP 200 INP 220	0018 0020 0022
		814	125	Steel	25.2	IPE 180 IPE 200	0118 0120	INP 200 INP 220	0020 0022
		858	125	Polyurethane	18.7				

Note/design
- The running gear of the towing trolley must always be equipped with anti-lift rollers.
- Main roller ø112 mm: anti-lift rollers ø50 mm and horizontal guide rollers ø63 mm made of steel
- Main roller ø125 mm: anti-lift rollers ø63 mm and horizontal guide rollers ø80 mm made of steel
- Other materials of the horizontal guide rollers, e.g. Polyurethane on request.
- The rollers are equipped with precision ball bearings and additional sealing disks (2RS1). The ball bearings are lifetime lubricated.
- Running gear for other I-beam types or beam sizes on request.

Program 0364
with Main Rollers ø100 and 112 mm

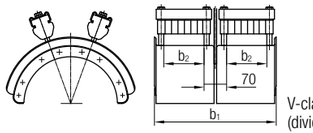
Single Layer Cable Trolley with Round Cables with a Load Capacity up to 125 kg

For STS container cranes with rope-driven main trolley and catenary trolley.
A connection between catenary trolley and festoon system by an additional towing trolley is required.

Technical details

Cable Supports	bolted to the center plate, lateral-loading and reinforced
Buffers	double-sided round buffer
Max. Travel Speed [1)]	180 m/min
Max. Load Capacity [1)]	125 kg
Cable Trolley Underpart and Running Gear	hot-dip galvanized steel
Fasteners	stainless steel
Temperature Range	-30°C to + 50°C

1) depending on roller size/ roller material



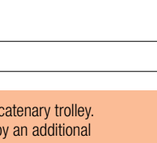
V-clamping (divided)

Ordering Example **Order No.** **036423-83 - 758 - 0018**

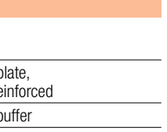
A cable trolley underpart with the following dimensions shall be used:
- **Support diameter:** d_a = 360 mm
- **Clamping width:** b_2 = 125 mm;
- **Clamping height:** s = 36 mm
- **Order No.: 036423-83** (chosen from catalog page 24)

The following running gear has been chosen:
Type HFG, cylindrical main rollers ø112 mm with Polyurethane bandage
- with horizontal guide rollers made of steel
- with anti-lift rollers made of steel

Order No. 758 (chosen from catalog page 25)



The following track beam has been chosen:
- **INP 180**
- **I-beam code: 0018** (chosen from catalog page 25)

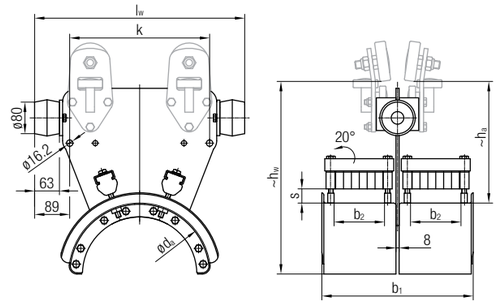


The Order No. of the appropriate towing trolley is the running gear must always be equipped with anti-lift rollers**:**	**036433-83-758-0018**
The Order No. of the appropriate towing trolley for the connection to the catenary trolley is::	**036453-83-758-0018**
The Order No. of the appropriate end clamp is:	**036413-83**
As an alternative to the towing trolley a towing clamp can be used. **The Order No. of the appropriate towing clamp is:**	**036443-83**

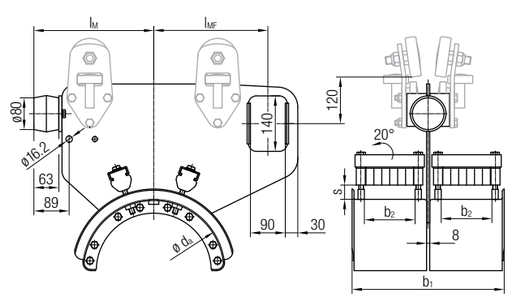
For calculation and selection please refer to our Engineering Guidelines for Festoon Systems KAT0300-0101

Program 0364
with Main Rollers ø100 and 112 mm

Selection of Cable Trolleys, Towing Trolleys and Towing Trolleys for Catenary Trolley



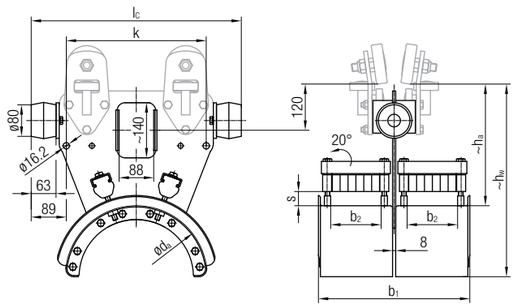
Cable trolley



Towing trolley

Cable Trolley Underpart[1] Order No.	[kg]	Towing Trolley Underpart[1] Order No.	[kg]	d_a [mm]	l_w [mm]	b_1 [mm]	b_2 [mm]	s [mm]	k [mm]	h_a [mm]	h_w [mm]	l_M [mm]	l_{MF} [mm]
036423-83	21	**036433-83**	25	360	533	384	125	36	355	302	500	302	288
036423-86	25	**036433-86**	29			532	200						
036423-88	29	**036433-88**	31			632	250						
036423-93	24	**036433-93**	26	460	653	384	125	46	475	310	450	372	358
036423-96	30	**036433-96**	31			532	200						
036423-98	45	**036433-98**	46			632	250						

1) without running gear



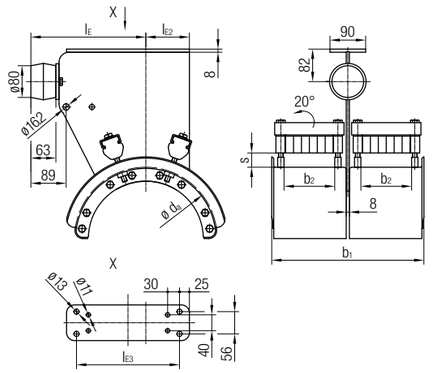
Towing trolley for catenary trolley

Towing Trolley Underpart for Catenary Trolley without Running Gear Order No.	[kg]	d_a [mm]	lc [mm]	b_1 [mm]	b_2 [mm]	s [mm]	k [mm]	h_a [mm]	h_w [mm]
036453-83	21	360	533	384	125	36	355	320	500
036453-86	25			532	200				
036453-88	29			632	250				
036453-93	34	460	653	384	125	46	475	220	450
036453-96	38			532	200				
036453-98	46			632	250				

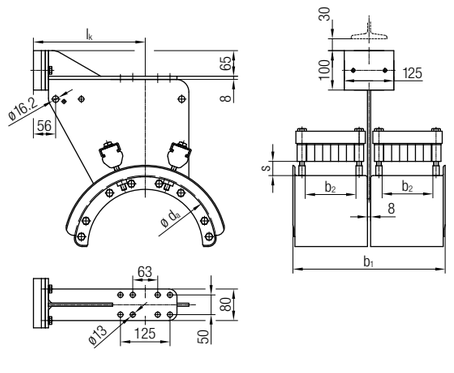
Note/design
- The table only refers to the cable trolley or towing trolley underpart, the running gear must be selected and added. See page 25 of this catalog.
- Additional supports are not available in this program.

Program 0364
with Main Rollers ø100 and 112 mm

Selection of End Clamps and Towing Clamps



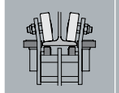
End clamp



Towing clamp

End Clamp Complete Order No.	[kg]	Towing Clamp Complete Order No.	[kg]	d_a [mm]	l_E [mm]	l_{E2} [mm]	l_{E3} [mm]	b_1 [mm]	b_2 [mm]	s [mm]	l_k [mm]
036413-83	21.0	**036443-83**	21.0	360	290	146	260	384	125	36	282
036413-86	25.0	**036443-86**	25.0					532	200		
036413-88	36.0	**036443-88**	36.0					632	250		
036413-93	20.0	**036443-93**	22.0	460	361	208	350	384	125	46	352
036413-96	24.0	**036443-96**	25.0					532	200		
036413-98	44.5	**036443-98**	44.0					632	250		

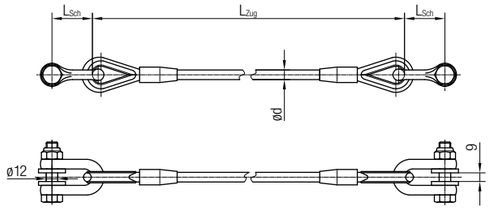
Selection of Running Gear

Running Gear		Order No.	Main Roller ød [mm]	Main Roller Material Bandage	Weight approx. [kg]	Preference Range I-beams Parallel Flange	Preference Range I-beams I-beam Code	Preference Range I-beams Tapered Flange	Preference Range I-beams I-beam Code
	**Type HFG** with cylindrical main rollers, horizontal guide rollers and anti-lift rollers	**658**	100	Polyurethane	13.8	IPE 160 IPE 180 IPE 200 IPE 220	0116 0118 0120 0122	INP 160 INP 180 INP 200 INP 220	0016 0018 0020 0022
		758	112	Polyurethane	15.4	IPE 160 IPE 180 IPE 200 IPE 220	0116 0118 0120 0122	INP 180 INP 200 INP 220 -	0018 0020 0022 -

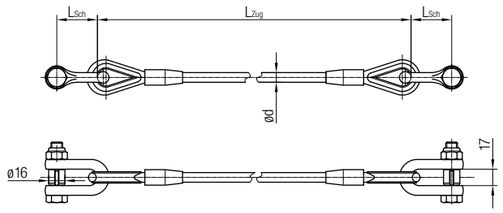
Note/design
- Main roller ø100 mm: anti-lift rollers ø50 mm and horizontal guide rollers ø63 mm made of steel
- Main roller ø112 mm: anti-lift rollers ø50 mm and horizontal guide rollers ø63 mm made of steel
- Other materials of the horizontal guide rollers, e.g. Polyurethane on request.
- The rollers are equipped with precision ball bearings and additional sealing disks (2RS1). The ball bearings are lifetime lubricated.
- Running gear for other I-beam types or beam sizes on request.

Accessories
for Program 0350, 0360 and 0364

Towing Ropes



Version 1

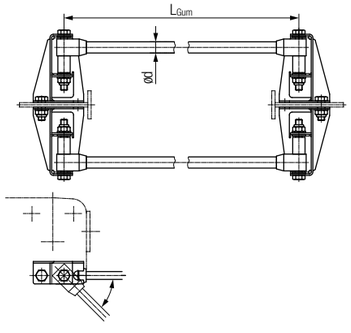


Version 2

Order No.	ød [mm]	L_{Sch}	Material: Rope	Material: Shackle	Material: Fasteners	Version	Program	for Main Rollers ød [mm]
031962	10	42	Galvanized steel PVC-coated	Galvanized steel	Galvanized steel/ aluminum	1	0350	50, 63, 80, 100
							0360	50, 63
031963						2	0360	80, 100, 112, 125
							0364	100, 112
031965/1	8/10	48	Stainless Steel PVC-coated	Stainless Steel	Stainless Steel Aluminum - Seawater resistant	1	0350	50, 63, 80, 100
							0360	50,63
031965/2						2	0360	80, 100, 112, 125
							0364	100, 112

Notes
- We recommend the installation of towing ropes for a speed from 50 m/min or a travel distance > 30 m
- The towing ropes are PVC-coated for a better protection against corrosion and to prevent the cables from damage
- For the calculation of the lengths please refer to our Engineering Guidelines for Festoon Systems KAT0300-0101
- In case of order please state the lengths L_{Zug} of the respective towing ropes

Damping Devices



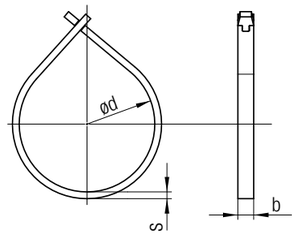
Technical details
- Shock cord: rubber with plastic plait
- Console: hot-dip galvanized steel
- Fasteners: stainless steel

Notes
- We recommend the installation of damping devices for high speed and/or short cable loops
- For the calculation of the length please refer to our Engineering Guidelines
- In case of order please state the length of the respective shock cords
- Number and diameter are defined by weight load, cable loop and speed

Order No.	Number of Shock Cords	ød [mm]	Program	for Main Rollers ød [mm]
031966	2	14	0350	50, 63, 80, 100
031970-2	2	20	0350	50, 63, 80, 100
031966	2	14	0360	50, 63
031970-2	2	20	0360	50, 63
031976-2	2	20	0360, 0364	80, 100, 112, 125
031977-2	4	20	0360, 0364	80, 100, 112, 125
031978-2	6	20	0360, 0364	80, 100, 112, 125

Accessories
for Program 0350, 0360 and 0364

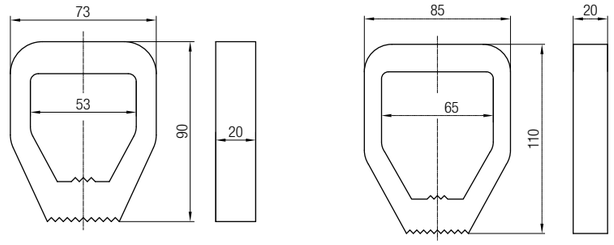
Cable Organizers for Cable Loops



Order No.	ød [mm]	b [mm]	S [mm]	Material	Fasteners	Weight [kg]
031942-0300x15	300	30	20	Rubber	-	0.59

Note
For cable loops > 4 m, the cable organizer in addition to the flat and round cable clamps prevents an expansion of the cables at the lower section of the cable loop.

Additional Clamping Pieces for Round Cable Clamps



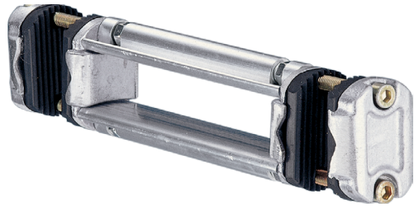
Version 1 Version 2

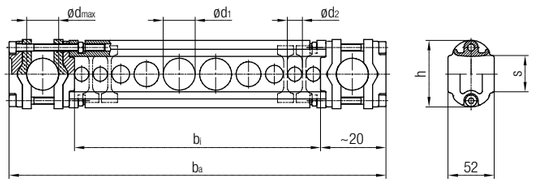
Note
Differences in diameter between adjacent cables of more than 15 mm require additional clamping pieces for a tight clamping.

Order No.	For Systems with Main Roller Diameter ød [mm]	Support diameter $ød_a$ [mm]	Version	Material	Weight [kg]
031899-053x020/514	50 and 63	260 and 360	1	Rubber	0.06
031899-065x020/514	80, 100, 112 and 125	360 and 460	2		0.08

Accessories
for Program 0360 and 0364

Round Cable Clamps





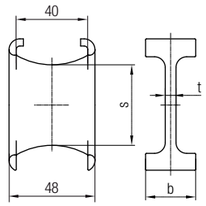
Technical details
- Clamping: aluminum/rubber
- Guiding profile: aluminum
- Fasteners: stainless steel

Order No.	ød$_{max}$ [mm]	b$_i$ [mm]	b$_a$ [mm]	h [mm]	s [mm]	∑d [1] [mm]	Weight [kg]
031941-026x100/400		100	236				0.95
031941-026x150/400		150	286				1.07
031941-026x200/400		200	336				1.09
031941-026x250/400		250	386				1.31
031941-026x300/400		300	436				1.45
031941-026x350/400		350	486				1.57
031941-026x400/400	26	400	536	64	30	34	1.71
031941-026x450/400		450	586				1.83
031941-026x500/400		500	636				1.95
031941-026x550/400		550	686				2.07
031941-026x600/400		600	736				2.19
031941-026x650/400		650	786				2.33
031941-026x700/400		700	836				2.45
031941-036x100/400		100	256				1.04
031941-036x150/400		150	306				1.16
031941-036x200/400		200	356				1.28
031941-036x250/400		250	406				1.40
031941-036x300/400		300	456				1.54
031941-036x350/400		350	506				1.66
031941-036x400/400	36	400	556	74	40	46	1.80
031941-036x450/400		450	606				1.92
031941-036x500/400		500	656				2.04
031941-036x550/400		550	706				2.16
031941-036x600/400		600	756				2.28
031941-036x650/400		650	806				2.42
031941-036x700/400		700	856				2.54
031941-046x100/400		100	276				2.37
031941-046x150/400		150	326				2.49
031941-046x200/400		200	376				2.61
031941-046x250/400		250	426				2.73
031941-046x300/400		300	476				2.87
031941-046x350/400		350	526				2.99
031941-046x400/400	46	400	576	84	50	56	3.13
031941-046x450/400		450	626				3.25
031941-046x500/400		500	676				3.37
031941-046x550/400		550	726				3.50
031941-046x600/400		600	776				3.63
031941-046x650/400		650	826				3.75
031941-046x700/400		700	876				3.87

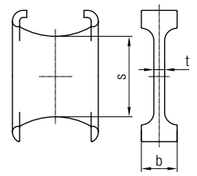
1) If the total of two adjacent cables ($d_1 + d_2$) is smaller than the value ød of the table, spacers are required to separate the cables.
See page 29.

Accessories
for Program 0350, 0360 and 0364

Spacers



Broad version

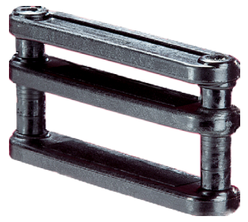


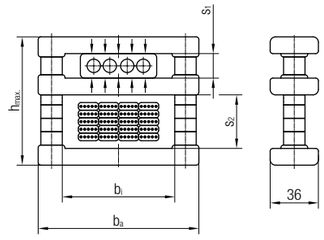
Small version

Order No.	s [mm]	t [mm]	b [mm]	Appropriate Cable Clamp	Material	Version	Weight [kg]
031946-26	25	4	18	031941-026x…	Plastic	Small	0.010
031946-36	35	5	19	031941-036x…			0.015
031946-46	45	6	20	031941-046x…			0.025
031947-26	25	4	26	031941-026x…	Plastic	Broad	0.015
031947-36	35	5	27	031941-036x…			0.020
031947-46	45	6	28	031941-046x…			0.025

Notes
The above drawings are examples for illustration only.
Small version for cables with outer diameter smaller 14 mm and larger 22 mm.
Broad version for cables with outer diameter larger 14 mm and smaller 22 mm.

Flat Cable Clamps



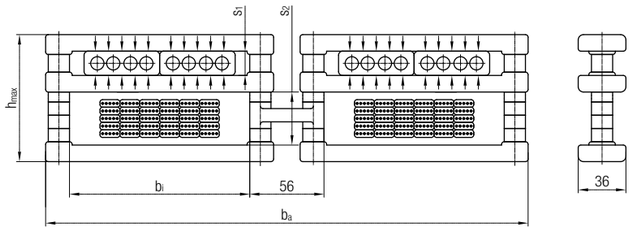


Notes
- By changing the distance tubes from window s_2 to window s_1,the flat cable clamp can be adjusted to fit the cable package.
- The window with the dimension s_2 must be adjusted to an appropriate dimension, so that the cables can move with sufficient clearance (>15 mm).

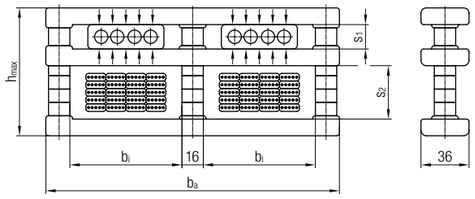
Order No.	b$_i$ [mm]	b$_a$ [mm]	s$_1$ + s$_2$ [mm]		s$_{1min.}$ [mm]	h$_{max.}$ [mm]	Weight [kg]
031953-084x045/400			45			80	0.18
031953-084x055/400			55			90	0.19
031953-084x065/400	84	120	65	+2.5	5	100	0.21
031953-084x075/400			75			110	0.22
031953-084x085/400			85			120	0.23
031953-136x045/400			45			80	0.24
031953-136x055/400			55			90	0.25
031953-136x065/400	136	172	65	+2.5	5	100	0.27
031953-136x075/400			75			110	0.28
031953-136x085/400			85			120	0.29

Accessories
for Program 0350

Flat Cable Clamps



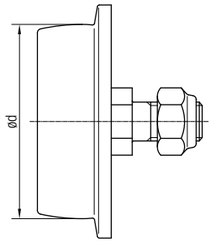
Order No.	b_i [mm]	b_a [mm]	$s_1 + s_2$ [mm]		s_1 min. [mm]	h_{max} [mm]	Weight [kg]
031954-084x045/400	84	257	45	+2.5	5	80	0.42
031954-084x055/400			55			90	0.44
031954-084x065/400			65			100	0.46
031954-084x075/400			75			110	0.48
031954-084x085/400			85			120	0.52
031954-136x045/400	136	364	45	+2.5	5	80	0.53
031954-136x055/400			55			90	0.57
031954-136x065/400			65			100	0.60
031954-136x075/400			75			110	0.63
031954-103x085/400			85			120	0.66
031954-184x045/400	184	460	45	+2.5	5	80	0.85
031954-184x055/400			55			90	0.88
031954-184x065/400			65			100	0.91
031954-184x075/400			75			110	0.94
031954-184x085/400			85			120	0.97



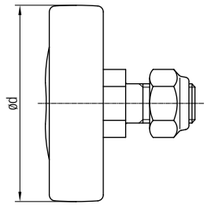
Order No.	b_i [mm]	b_a [mm]	$s_1 + s_2$ [mm]		s_1 min. [mm]	h_{max} [mm]	Weight [kg]
031955-084x045/400	84	220	45	+2.5	5	80	0.43
031955-084x055/400			55			90	0.44
031955-084x065/400			65			100	0.46
031955-084x075/400			75			110	0.48
031955-084x085/400			85			120	0.49
031955-103x045/400	103	258	45	+2.5	5	80	0.46
031955-103x055/400			55			90	0.47
031955-103x065/400			65			100	0.49
031955-103x075/400			75			110	0.51
031955-103x085/400			85			120	0.52

Wear Parts
for Program 0350, 0360 and 0364

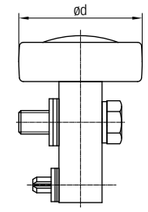
Replacement Rollers for Running Gear



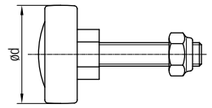
Flanged main roller



Main roller cylindrical



Horizontal guide roller



Anti-lift roller

Replacement Rollers for Running Gear ø 50 mm and ø 63 mm

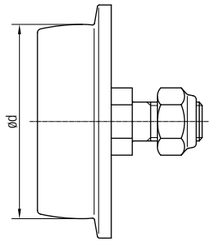
Running Gear Type		Order No.	Rollers Description	ød [mm]	Material Bandage	Weight approx. [kg]	For I-beams Parallel Flange	For I-beams Tapered Flange
H	HG	030102-050.1	Main roller cylindrical	50	Steel	0.28	-	120
		030113-050.1		50	Polyurethane	0.19		
		030102-063.1		63	Steel	0.30	-	140
		030113-063.1		63	Polyurethane	0.22		
		030108-040.1	Anti-lift roller	40	Steel	0.13		
HF	HFG	030102-050.3	Main roller cylindrical	50	Steel	0.27	100 - 180	120 - 180
		030113-050.2		50	Polyurethane	0.16		
		030102-063.3		63	Steel	0.48	120 - 200	120 - 180
		030113-063.2		63	Polyurethane	0.21		
		030105-040	Horizontal guide roller	40	Steel	0.21	120 - 200	120 - 180
		030108-040.2	Anti-lift roller	40	Steel	0.13		
S	SG	030101-050	Flanged main roller	50	Steel	0.42	100 - 180	120 - 180
		030101-063		63	Steel	0.74	120 - 200	
		030108-040.1	Anti-lift roller	40	Steel	0.13	100 - 200	120 - 180

Replacement Rollers for Running Gear ø 80 mm and ø 100 mm

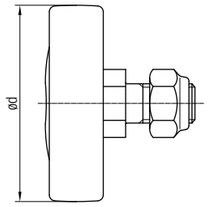
Running Gear Type		Order No.	Rollers Description	ød [mm]	Material Bandage	Weight approx. [kg]	For I-beams Parallel Flange	For I-beams Tapered Flange
H	HG	030102-080.1	Main roller cylindrical	80	Steel	0.65	-	140 - 160
		030113-080.1		80	Polyurethane	0.41		
		030102-100.1		100	Steel	1.13	-	180
		030113-100.3		100	Polyurethane	0.68		
		030108-050.1	Anti-lift roller	50	Steel	0.31	-	140 - 180
HF	HFG	030102-080.2	Main roller cylindrical	80	Steel	0.64	140 - 200	140 - 200
		030113-080.2		80	Polyurethane	0.40		
		030105-050.1	Horizontal guide roller	50	Steel	0.36		
		030102-100.2	Main roller cylindrical	100	Steel	1.10	160 - 240	160 - 240
		030113-100.2		100	Polyurethane	0.62		
		030105-063.1	Horizontal guide roller	63	Steel	0.63		
		030108-050.1	Anti-lift roller	50	Steel	0.31	140 - 240	140 - 240
S	SG	030101-080	Flanged main roller	80	Steel	1.27	140 - 200	140 - 200
		030101-100		100	Steel	2.25	160 - 240	160 - 240
		030108-050.1	Anti-lift roller	50	Steel	0.31	140 - 240	140 - 240

Wear Parts
for Program 0350, 0360 and 0364

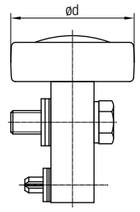
Replacement Rollers for Running Gear



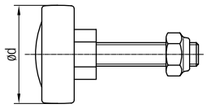
Flanged main roller



Main roller cylindrical



Horizontal guide roller

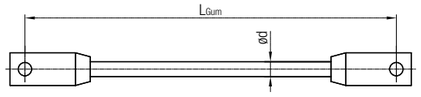


Anti-lift roller

Replacement Rollers for Running Gear ø 112 mm and ø 125 mm

Running Gear Type		Order No.	Rollers Description	ød [mm]	Material Bandage	Approx. Weight [kg]	For I-beams Parallel Flange	For I-beams Tapered Flange
H	HG	030113-112.1	Main roller cylindrical	112	Polyurethane	1.00	-	180
		030113-112.2					-	200 - 220
		030108-050.1	Anti-lift roller	50	Steel	0.27	-	180 - 220
		030102-125.1	Main roller cylindrical	125	Steel	3.00	-	200 - 220
		030113-125.1			Polyurethane	1.11		
		030108-063.1	Anti-lift roller	63	Steel	0.50		
HF	HFG	030113-112.2	Main roller cylindrical	112	Polyurethane	1.00	160 - 200	180 - 220
		030105-063.1	Horizontal guide roller	63	Steel	0.63		
		030108-050.1	Anti-lift roller	50	Steel	0.50		
		030102-125.2	Main roller cylindrical	125	Steel	3.00	180 - 200	200 - 220
		030113-125.2			Polyurethane	1.20		
		030105-080.1	Horizontal guide roller	80	Steel	0.82		
		030108-063.1	Anti-lift roller	63	Steel	0.50		

Shock Cords



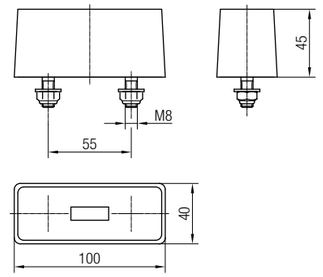
Technical details
- Shock cord: rubber with plastic plait
- Fasteners: stainless steel/hot-dip galvanized steel

Note
In case of order please state the lengths L_{Gum} of the respective shock cords.

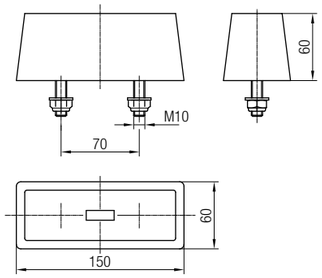
Order No.	ød [mm]	Weight [kg/m]
031987	14	0.2
031989-2	20	0.4

Wear Parts
for Program 0350, 0360 and 0364

Rectangular Buffer



Rectangular buffer for cable trolleys



Rectangular buffer for end clamps

Program 0350, Main Rollers ø 50 mm up to ø 100 mm

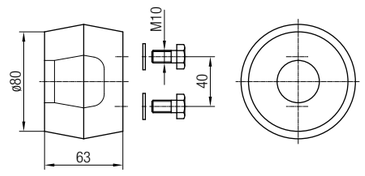
Order No.	Shore Hardness A	Material	Weight [kg]	Component
031980-045x100/517	70	Rubber	0.5	Cable trolley
031980-060x150/617	70		0.7	End clamp

Program 0360, Main Rollers ø 50 mm up to ø 63 mm

Order No.	Shore Hardness A	Material	Weight [kg]	Component
031980-045x100/517	70	Rubber	0.5	Cable trolley
031980-060x150/617	70		0.7	End clamp

Notes
- Rollers, shock cords and buffers are maintenance items and must be inspected and/or replaced regularly.
- Please follow our maintenance instructions.

Round Buffer

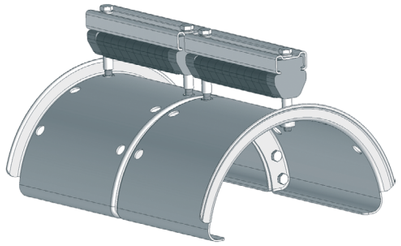


Order No.	Shore Hardness A	Material	Weight [kg]	Program	For Main Roller Diameter d [mm]
031980-080x063/514	40	Rubber	0.5	0360	80 - 125
031980-080x063/517	70		0.5	0364	100 - 112

Notes
- Rollers, shock cords and buffers are maintenance items and must be inspected and/or replaced regularly.
- Please follow our maintenance instructions.

Spare Parts
for Program 0350, 0360 and 0364

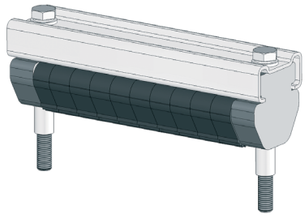
Cable Supports including Clamping Bar



Order No.	for Main Rollers ød [mm]	Program
039002-	50/63	0360
039003-	80/100/112/125	0360
039004-	100/112	0364

Consisting of:
- 2 x cable support
- 2 x clamping bar
- Fasteners

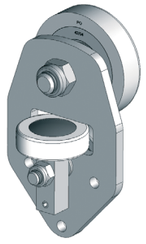
Clamping Bars (Complete)



Order No.	Program	Cable type
039010-	0360	round
039012-	0350	flat

Consisting of:
- C-Rail
- Clamping rubber
- Fasteners

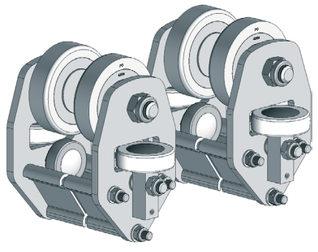
Side Shields (Complete)



Order No.	Program	Running Gears Type	Main Roller Material Binding
039051-	0350/0360	S/SG	Steel
039052-	0350/0360	H/HG/HF/HFG	Steel
039055-	0350/0360	H/HG/HF/HFG	Polyurethane

Consisting of:
- Side shield
- Rollers assembled

Running Gears (Complete)



Consisting of:
- 4 x side shields (complete)
- Distance pieces
- Fasteners

Notes
- Spare parts are parts that are not subject to natural wear and are usually damaged by outside influence.
- In the case that a spare item is required, please provide the system component (e.g. cable trolley) for which the replacement part is required together with the item's designation.

Your Applications – our Solutions

Festoon Systems from Conductix-Wampfler represent only one of the many solutions made possible by the broad spectrum of Conductix-Wampfler components for the transport of energy, data and fluid media. The solutions we deliver for your applications are based on your specific requirements. In many cases, a combination of several different Conductix-Wampfler systems can prove advantageous. You can count on all of Conductix-Wampfler's Business Units for hands-on engineering support - coupled with the perfect solution to meet your energy management and control needs.

Cable reels

Motorized reels and spring reels by Conductix-Wampfler hold their own wherever energy, data and media have to cover the most diverse distances within a short amount of time - in all directions, fast and safe.

Festoon systems

It's hard to imagine Conductix-Wampfler cable trolleys not being used in virtually every industrial application. They're reliable and robust and available in an enormous variety of dimensions and designs.

Conductor rails

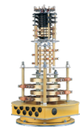
Whether they're enclosed conductor rails or expandable single-pole systems, the proven conductor rails by Conductix-Wampfler reliably move people and material.

Non-insulated conductor rails

Extremely robust, non-insulated conductor rails with copper heads or stainless steel surfaces provide the ideal basis for rough applications, for example in steel mills or shipyards.

Energy guiding chains

The "Jack of all trades" when it comes to transferring energy, data, air and fluid hoses. With their wide range, these energy guiding chains are the ideal solution for many industrial applications.



Slip ring assemblies

Whenever things are really "moving in circles", the proven slip ring assemblies by Conductix-Wampfler ensure the flawless transfer of energy and data. Here, everything revolves around flexibility and reliability!

Inductive Power Transfer IPT®

The no-contact system for transferring energy and data. For all tasks that depend on high speeds and absolute resistance to wear.

Reels, retractors and balancers

Whether for hoses or cables, as classical reels or high-precision positioning aids for tools, our range of reels and spring balancers take the load off your shoulders.

Jib boom

Complete with tool transporters, reels, or an entire media supply system – here, safety and flexibility are key to the completion of difficult tasks.

Conveyor systems

Whether manual, semiautomatic or with Power & Free – flexibility is achieved with full customization concerning layout and location.

www.conductix.com

Conductix-Wampfler
has just one critical mission:
To provide you with energy and data transmission systems that will keep your operations up and running 24/7/365.

To contact your nearest sales office, please refer to:
www.conductix.com/contact-search

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