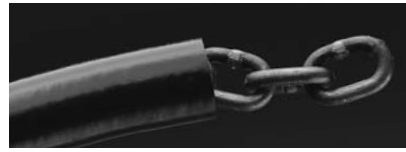


Whisper-Flex®

Compensating Cable - US Patent Number 4,716,989



Part Number	Product Code	Cable Weight	Chain Trade Size	Cable Nom. OD	Maximum Hang Length	Rec. Nom. Loop Width
18-075-97	WF075	1.1 kg/m	5 mm	22 mm	80/183 m*	540 mm
18-010-97	WF10	1.5 kg/m	5 mm	29 mm	80/183 m*	610 mm
18-015-97	WF15	2.2 kg/m	7 mm	35 mm	80/183 m*	610 mm
18-020-97	WF20	3.0 kg/m	7 mm	38 mm	80/158 m*	660 mm
18-025-97	WF25	3.7 kg/m	8 mm	41 mm	80/183 m*	660 mm
18-030-97	WF30	4.5 kg/m	8 mm	45 mm	80/154 m*	660 mm
18-035-97	WF35	5.2 kg/m	10 mm	49 mm	80/183 m*	690 mm
18-040-97	WF40	6.0 kg/m	10 mm	52 mm	80/162 m*	690 mm

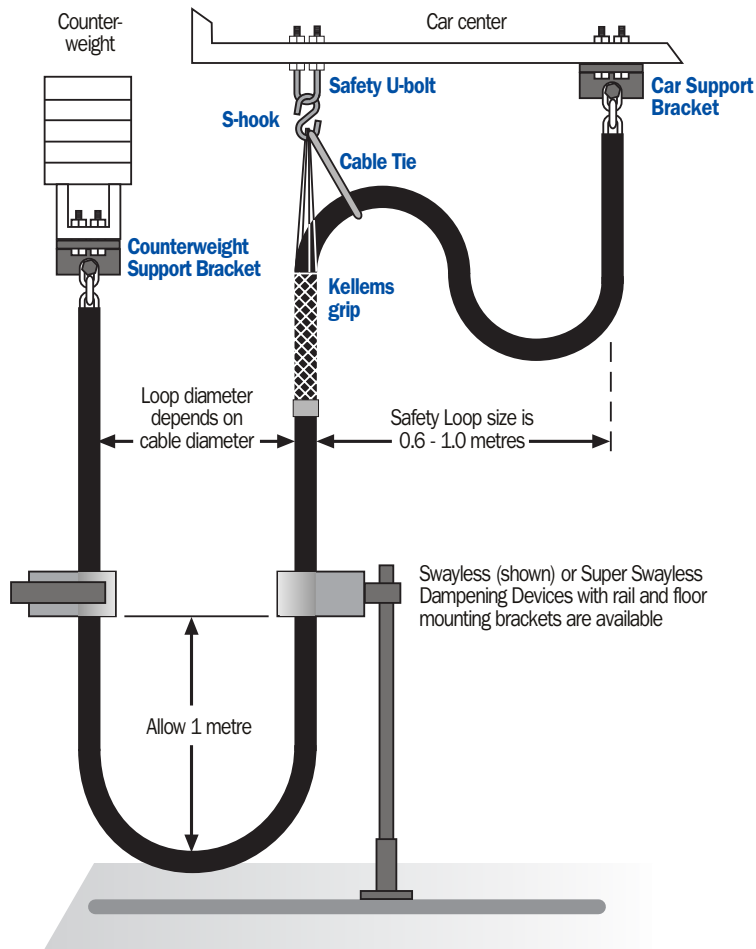
*NOTE: Use of JCCML installation kits limits maximum hang length to 80 metres. Longer maximum hang lengths are possible with JCC installation kits.

Whisper-Flex cable provides smooth operation at temperatures of -15° C to +60° C, and can be used for elevators with rated speeds of up to 3.6 m/sec.

Support brackets, U-bolts, S-hooks, heavy-duty stainless steel grips and/or other devices should be used to ensure safe installations. See page 22 for details on this hardware.

Draka EP dampening devices are recommended to minimize cable sway for car speeds above 1.8 m/sec. See pages 26 and 27 for information on these devices.

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



Draka EP can help you determine the size of Whisper-Flex cable to use. Call your regional representative and have the following information ready:

- 1) number of hoist ropes per car
- 2) outer diameter of the hoist ropes
- 3) stranding of the hoist ropes (i.e. 8x19)
- 4) car roping (i.e. 1:1, 2:1, other...)
- 5) number of Whisper-Flex cables per car
- 6) length of Whisper-Flex cable needed



Whisper-Flex cables can be factory-stripped for faster installation; order WFSTRIP1.5L for 1 1/2 exposed links and WFSTRIP3L for three exposed links. Compensation installation guides are available. Call for details.

Component Specifications

Chain

Low carbon, electrically welded proof coil chain. Each link is proof tested at two times the working load limit.

Filler

Metallic bead/polyvinyl chloride mixture adds mass and forms a round cross-section.

Jacket

70° C flame-retardant polyvinyl chloride that resists oxidation, weathering, solvents, chemicals and flame.

JCCML
WHISPER-FLEX
INSTALLATION
KITS USE U-BOLTS
INSTEAD OF
SUPPORT
BRACKETS
(see p.22)

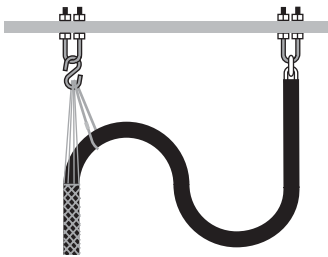
Whisper-Flex / Steadi-Flex Installation Kits

Metric and imperial sizes

JCCML installation kits for Whisper-Flex cables (metric components)

Part Number	For Use on Cable	U-bolt Part No.	S-hook Part No.	Grip Part No.	19 mm black electrical tape Part No.
JCCML-10	WF075 & 10	n/a	79-011	024-20-1504	16-005
JCCML-15	WF15	n/a	79-013	024-20-1470	16-005
JCCML-20	WF20	n/a	79-013	024-20-1510	16-005
JCCML-25	WF25	n/a	79-016	024-20-1510	16-005
JCCML-30	WF30 & 35	n/a	79-016	024-20-1499	16-005
JCCML-40	WF40	n/a	79-016	024-20-1542	16-005

JCCML kits use U-bolts to support the cable at the car and the counterweight.



JCCML INSTALLATION KITS PERMIT A MAXIMUM HANG LENGTH OF 80 METRES.

THESE COMPONENTS ARE SPECIFICALLY DESIGNED FOR THE INSTALLATION OF DRAKA EP COMPENSATING CABLES. ONLY THE S-HOOK AND MESH GRIP ARE AVAILABLE SEPARATELY.

Component Specifications

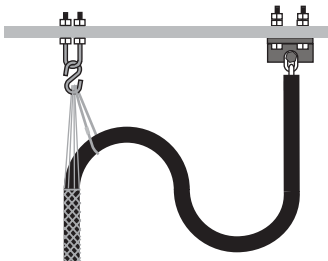
JCCML kits
use 1 stainless steel grip to form the safety/adjustment loop. See page 25 for technical specifications on grips.

They also contain 3 U-bolts (includes nuts and washers) and 1 S-hook.

JCC installation kits for Whisper-Flex cables (imperial components)

Part Number	For Use on Cable	Support Bracket Part No.	U-bolt Part No.	S-hook Part No.	Grip Part No.	3/4" black electrical tape Part No.
JCC-10	WF075 & 10	n/a	n/a	79-011	024-20-1504	16-005
JCC-15	WF15	n/a	n/a	79-013	024-20-1470	16-005
JCC-20	WF20	n/a	n/a	79-013	024-20-1510	16-005
JCC-25	WF25	n/a	n/a	79-016	024-20-1510	16-005
JCC-30	WF30	n/a	n/a	79-016	024-20-1499	16-005
JCC-35	WF35	n/a	n/a	79-016	024-20-1499	16-005
JCC-40	WF40	n/a	n/a	79-016	024-20-1542	16-005

JCC kits use Support Brackets to support the cable at the car and the counterweight.



JCC INSTALLATION KITS PERMIT A MAXIMUM HANG LENGTH OF 154 TO 183 METRES DEPENDING ON THE CABLE SIZE. SEE PAGE 20 FOR DETAILS.

THESE COMPONENTS ARE SPECIFICALLY DESIGNED FOR THE INSTALLATION OF DRAKA EP COMPENSATING CABLES. ONLY THE S-HOOK AND MESH GRIP ARE AVAILABLE SEPARATELY.

Component Specifications

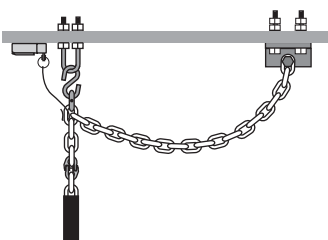
JCC KITS
use 1 stainless steel grip to form the safety/adjustment loop. See page 25 for technical specifications on grips.

They also contain 2 Support Brackets (includes grade 8 nuts, bolts, lockwashers and hardened washers), 1 U-bolt (includes nuts and washers), and 1 S-hook.

JCC-CHN installation kits for Steadi-Flex cables (imperial components)

Part Number	For Use on Cable	Support Bracket Part No.	U-bolt Part No.	S-hook Part No.	Coupling(s) Part No.	1.2 m Chain Part No.
JCC-20-CHN	SFC 15 & 20	n/a	n/a	79-013	79-116	79-119
JCC-30-CHN	SFC 25 & 30	n/a	n/a	79-016	79-116 (qty. 2)	79-120
JCC-40-CHN	SFC 35 & 40	n/a	n/a	79-016	79-116 & 79-117	79-120

JCC-CHN kits use 1 or 2 couplings and a 1.2 m length of chain.



JCC-CHN INSTALLATION KITS PERMIT A MAXIMUM HANG LENGTH OF 154 TO 183 METRES DEPENDING ON THE CABLE SIZE. SEE PAGE 21 FOR DETAILS.

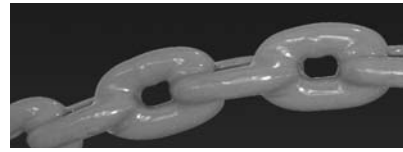
THESE COMPONENTS ARE SPECIFICALLY DESIGNED FOR THE INSTALLATION OF STEADI-FLEX CABLES. ONLY THE S-HOOK, AND COUPLINGS ARE AVAILABLE SEPARATELY.

Component Specifications

JCC-CHN KITS
contain 2 Support Brackets (includes grade 8 nuts, bolts, lockwashers and hardened washers), 1 U-bolt (includes nuts and washers), 1 S-hook, 1 or 2 couplings and 1.2 m of chain.

Easy-Balance™

Compensating Chain and Installation Kits



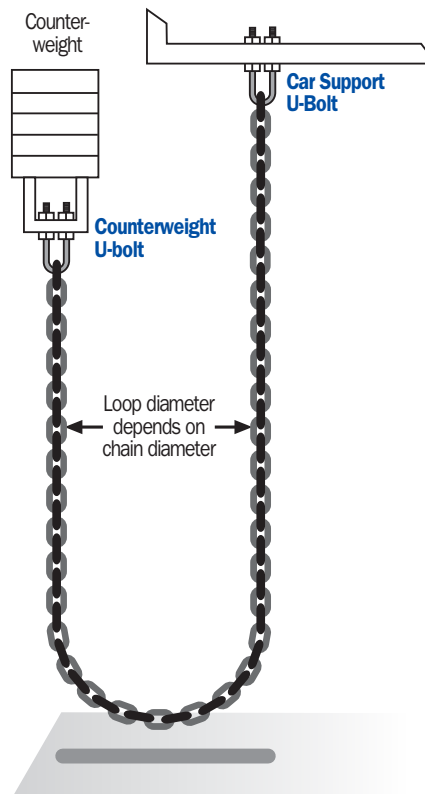
Part Number	Product Code	Cable Weight	Chain Trade Size	Cable Nom. OD	Maximum Hang Length	Rec. Nominal Loop Width
17-050-97	EB050	0.80 kg/m	6.0 mm	21 mm	180 m*	280 mm
17-075-97	EB075	1.12 kg/m	7.0 mm	26 mm	180 m*	280 mm
17-010-97	EB10	1.49 kg/m	8.0 mm	29 mm	180 m*	300 mm
17-125-97	EB125	1.88 kg/m	9.0 mm	32 mm	180 m*	300 mm
17-015-97	EB15	2.24 kg/m	10 mm	36 mm	180 m*	300 mm
17-020-97	EB20	2.98 kg/m	11 mm	39 mm	180 m*	300 mm
17-025-97	EB25	3.73 kg/m	13 mm	46 mm	180 m*	300 mm
17-030-97	EB30	4.47 kg/m	14 mm	50 mm	180 m*	320 mm
17-035-97	EB35	5.22 kg/m	15 mm	53 mm	180 m*	320 mm
17-040-97	EB40	5.96 kg/m	16 mm	56 mm	180 m*	320 mm

*Hanging lengths of 180 m require the use of an Easy Balance installation kit (see below)

Easy-Balance chain provides quiet operation at temperatures of -15° C to +60° C, and can be used for elevators with rated speeds of up to 1.75 m/sec. Low carbon chain is coated with a flexible layer of PVC for quiet operation.

No shallow pit kits or special hardware (other than the recommended U-bolts) are required with Easy-Balance compensating chain. Dampening devices are not needed.

This diagram shows the approximate placement of components for an Easy-Balance chain installation. Refer to the Whisper-Flex Compensating Cable Installation Guide (using the JCC-CHN attachment option) for exact instructions on installation procedures.



Draka EP can help you determine which size of Easy-Balance chain to use. Call your regional representative and have the following information ready:

- 1) number of hoist ropes per car
- 2) outer diameter of the hoist ropes
- 3) stranding of the hoist ropes (i.e. 8x19, 8x25...)
- 4) car roping (i.e. 1:1, 2:1, other...)
- 5) number of Easy-Balance chains per car
- 6) length of Easy-Balance chain needed

Installation Kits for Easy-Balance Chain

Part Number	For Use on Cable	U-Bolt Part No.	Max. Hang Length meters
IEB050	EB050	U-M6	80
IEB075	EB075	U-M8	80
IEB125	EB10, EB125	U-M10	80
IEB20	EB15, EB20	U-M12	80
IEB40	EB25, EB30, EB35, EB40	U-M14	80

THESE COMPONENTS ARE SPECIFICALLY DESIGNED FOR THE INSTALLATION OF DRAKA EP COMPENSATING CABLES.

Component Specifications

Chain

Low carbon, electrically welded steel proof tested chain.

Coating
Polyvinyl chloride (PVC) helps silence the chain during operation.

Component Specifications

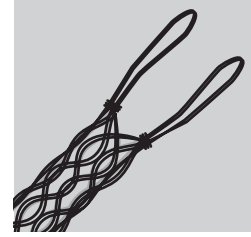
Easy-Balance kits contain 2 U-bolts (includes metric nuts and washers).

Compensating Cable Installation Hardware

Designed specifically for Draka EP cables

Stainless steel grips - Double Eye/Double Weave/Closed Mesh

Part Number	For use on Cables	Nom. Overall Length mm
024-20-1504	WF10	356
024-20-1470	WF15	381
024-20-1510	WF20 & 25	432
024-20-1499	WF30 & 35	483
024-20-1542	WF40	533
HST 075/100	QL075 & 10	710
HST 150/200	QL15 & 20	710
HST 250/300	QL25 & 30	710
HST 350/400	QL35 & 40	710



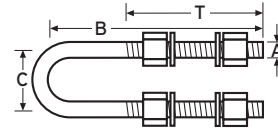
Important Note on Warranty

Compensating cable installation hardware was developed specifically for use in supporting Draka EP compensating cable. When used as recommended, this support system will ensure safe compensating cable operation.

compensating cable

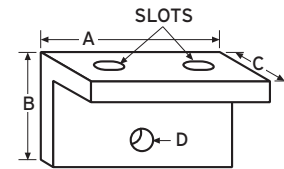
Steel U-bolt (not available separately)

Part Number	For use on Cables	Dim. A mm	Dim. B mm	Dim. C mm	Dim. D mm	mm
n/a	WF10 to 40	9.5	121	73	76	
n/a	QL075 & 10, EB050	6.0	114	50	75	
n/a	QL15, EB075	8.0	112	50	75	
n/a	QL20, EB10 & 125	10	110	50	75	
n/a	QL25 & 30, EB15 & 20	12	108	50	75	
n/a	QL35 & 40, EB25 to 40	14	106	50	75	



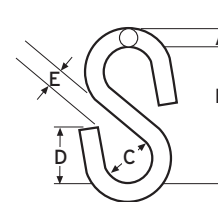
Support bracket for Whisper-Flex (not available separately)

Part Number	For use on Cables	Dim. A mm	Dim. B mm	Dim. C mm	Dim. D mm	Dim. E mm	Slot F mm
n/a	WF 10	127	76	76	13	9.5	13 x 22
n/a	WF15 to 30	127	76	76	13	11	13 x 22
n/a	WF35 to 40	127	76	76	13	13	13 x 22



Steel S-hook for Whisper-Flex[†]

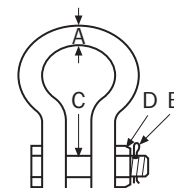
Part Number	For use on Cables	Dim. A mm	Dim. B mm	Dim. C mm	Dim. D mm	Dim. E mm	Yield Strength kg
79-011	WF10	9.5	60.3	19	29	14	544
79-013	WF15 to 20	9.5	70	19	29	13	1088
79-016	WF25 to 40	13.5	76	25	29	15	2177



[†]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.

Steel shackle for QuietLink II (not available separately)

Part Number	For use on Cables	Dim. A mm	Dim. B mm	Dim. C mm	Dim. D mm
n/a	QL075	8	1.6 x 20	M6 x 35 mm	M6
n/a	QL10	12	2.0 x 20	M8 x 45 mm	M8
n/a	QL15 to 20	12	2.5 x 30	M10 x 50 mm	M10
n/a	QL25 & 30	12	3.2 x 30	M12 x 50 mm	M12
n/a	QL35 & 40	16	3.2 x 30	M14 x 60 mm	M14



Swayless® Dampening Devices

for installations travelling up to 2.5 m/sec

Swayless dampening device - two required per installation - US Patent Number 6,234,277

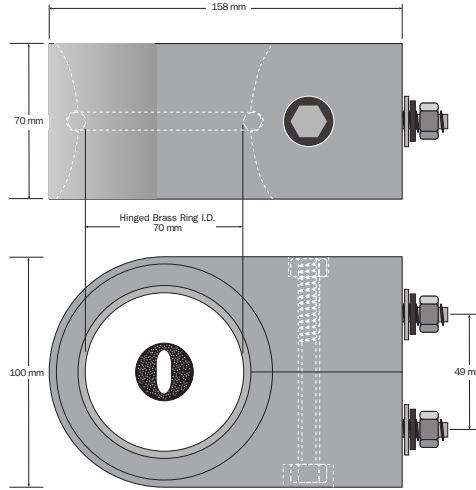
Part Number	Description
WF-SRD-M	Two Swayless dampening devices, 158 x 100 x 70 mm
WF-SRD-BR	One brass ring replacement, 70 mm inner diameter

Draka EP Swayless dampening devices are recommended for maintaining smooth operation of compensating cables for speeds of up to 2.5 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 dampening device is not usually required but can be used for speeds less than 1.8 m/sec. Proper installation requires that compensating cable should not contact the ring of the dampening device when the cable is stationary. Cable must be centered within the holes.

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

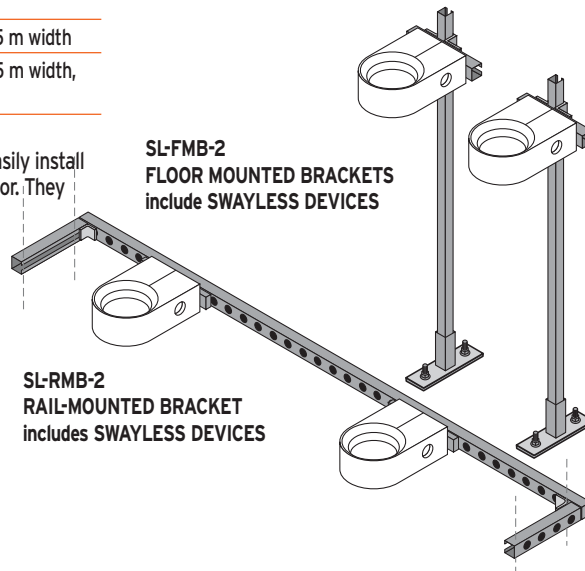
The WF-SRD can be used for Whisper-Flex cable sizes from WF10 to WF30 and for all QuietLink II cables. Draka EP offers mounting brackets for easy installation in the elevator pit. Consult the Compensating Cable Installation Guide for the installation of dampening devices. For shallow pits not allowing three feet height above cable loop, please call Draka EP for engineering assistance.



Swayless mounting brackets

Part Number	Description
SL-FMB-48	Two floor-mounted brackets, adjustable to 1.2 m height
SL-FMB-2	Two floor-mounted brackets, adjustable to 1.2 m height, includes two Swayless devices
SL-RMB-60	Counterweight rail-mounted bracket, adjustable to 1.5 m width
SL-RMB-2	Counterweight rail-mounted bracket, adjustable to 1.5 m width, includes two Swayless devices

These brackets are especially 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 and bolts.



compensation cable

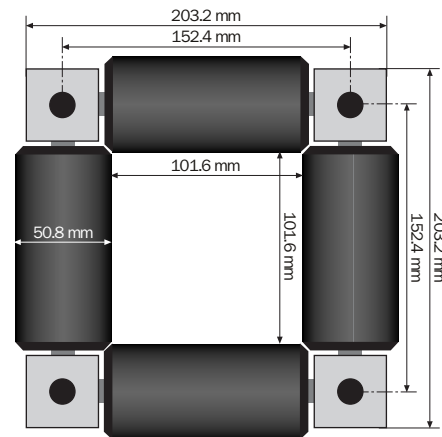
Super Swayless® Dampening Devices for installations travelling up to 3.6 m/sec

Super Swayless dampening device - two required per installation

Part Number	Description
WF-RDD2	One Super Swayless dampening device, 203 x 203 x 79 mm, 13 mm mounting holes

WF-RDD2 dampening devices are recommended for maintaining smooth operation of compensating cables for speeds of up to 3.6 m/sec.

The WF-RDD2 uses free-turning nylon rollers to contain and dampen any oscillation or cable sway that may be generated by cable motion at higher speeds.

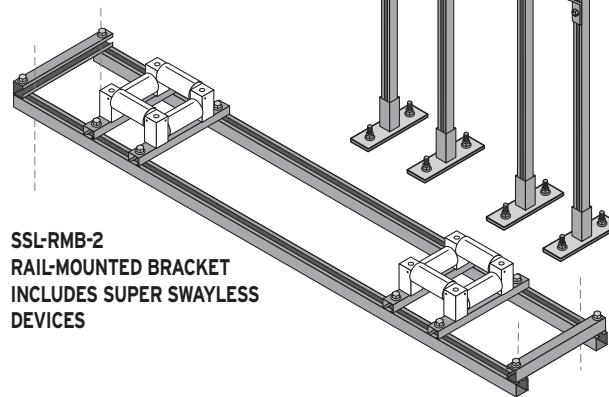


Super Swayless mounting brackets

Part Number	Description
SSL-FMB-48	Two floor-mounted brackets, adjustable to 1.2 m height
SSL-RMB-72	Counterweight rail-mounted bracket, adjustable to 1.8 m width
SSL-RMB-2	Counterweight rail-mounted bracket, adjustable to 1.8 m width, with (2) Super Swayless devices

These brackets are especially 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 and bolts.

**SSL-FMB-48
FLOOR-MOUNTED
BRACKETS**
(shown with
Super Swayless
devices)



**SSL-RMB-2
RAIL-MOUNTED BRACKET
INCLUDES SUPER SWAYLESS
DEVICES**

Shallow Swayless® dampening device

Part Number	Description
WFDD-27L	Shallow Swayless kit, for Whisper-Flex cable with .58 m to .69 m loop
WFDD-50L	Shallow Swayless kit, for Steadi-Flex cable with .97 m to 1.27 m loop

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

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

