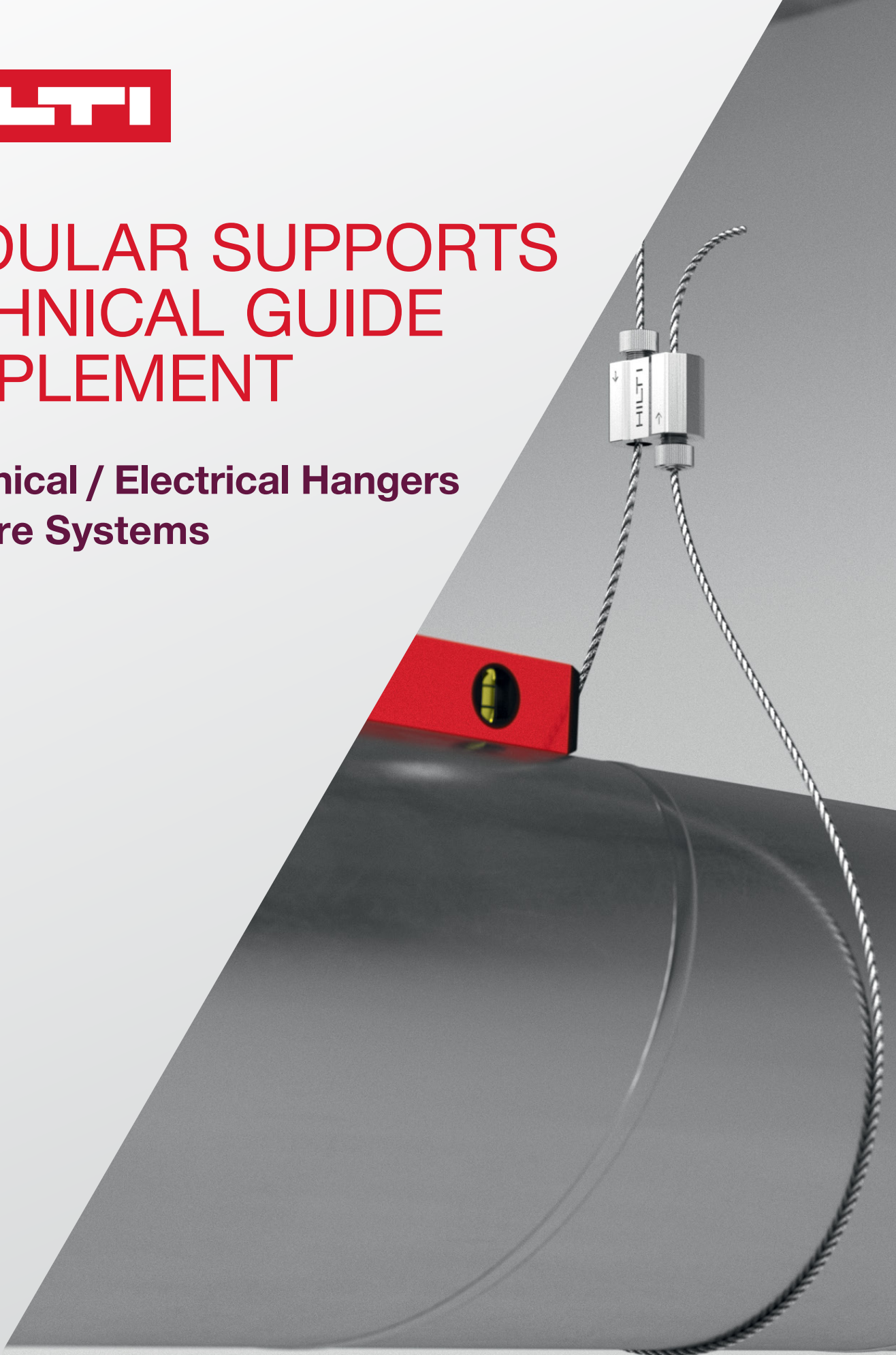




# MODULAR SUPPORTS TECHNICAL GUIDE SUPPLEMENT

**Mechanical / Electrical Hangers  
Hilti Wire Systems**



# MECHANICAL / ELECTRICAL HANGING SOLUTIONS

## Product Description

### MW Wire hanging system

Hilti Wire hanging system can be used for fastening heating, ventilation, and air condition (HVAC), conduit, and lighting to ceiling supports. The system is compatible with the Hilti Cast-In and Post-installed Anchoring portfolio. Wires are available in lengths from 6 ft to 20 ft. The system utilizes an eye bolt, loop, or clip to fasten to the required substrate, and a loop or channel lock to connect the wire to the media - pipe, duct, strut, or lighting equipment and fixtures.



### Listings / Approvals

#### UL (Underwriters Laboratories)

File E217969 under UL2239 for Loop lock  
File E522519 under UL 1598 for Channel lock



## Specifications

### Material Specifications

Description	Material	Coating	Minimum Coating Thickness
<b>MW-EB</b>	Carbon steel	Zinc	3 µm
<b>MW-LP</b>	Carbon steel	Zinc	3 µm
<b>MW-C</b>	Carbon steel	Zinc	3 µm
<b>Loop lock</b>	Aluminum + brass	Nickel	-
<b>Channel lock</b>	Steel + brass	Zinc + Nickel	-
<b>Wire</b>	Carbon steel	Zinc	3 µm

### Dimensions

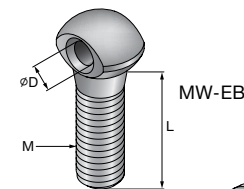
Description	Hole Diameter D in. (mm)	Thread Length L in. (mm)	Thread Size M in.
<b>MW-EB Eye Bolt</b>	3/16" (4.5)	1-1/2" (38.1)	1/4"
	1/4" (6.9)	2" (50.8)	3/8"

Description	Hole Diameter D in. (mm)	Piece Width W in. (mm)	Piece Height H in. (mm)	Piece Thickness t in. (mm)
<b>MW-C Clip</b>	7/16" (11)	1-3/16" (30)	1-11/16" (43)	1/8" (3)

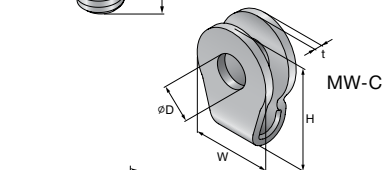
Description	Width of Cable Lock w in. (mm)	Length of Cable Lock L in. (mm)	Height of Cable Lock H in. (mm)
<b>MW-L Loop Lock 2.0</b>	1/2" (12.4)	15/16" (23.1)	1-11/16" (42.5)
<b>MW-L Loop Lock 3.0</b>	11/16" (17.5)	1-5/16" (33)	2-1/4" (58)

Description	Width of Cable Lock B in. (mm)	Length of Cable Lock L in. (mm)	Thread Diameter H in. (mm)	Thread Length H in. (mm)
<b>MW-CL Channel Lock</b>	1-1/4" (32.5)	2-1/4" (58)	3/8" (10)	1" (25)

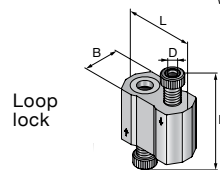
Cable Size	Diameter	Available Lengths
<b>No. 2.0</b>	5/64"	6ft, 10ft, 20ft
<b>No. 3.0</b>	7/64"	6ft, 10ft, 20ft



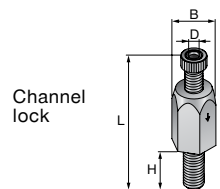
MW-EB



MW-C



Loop lock



Channel lock


 No. 2  
cable wire

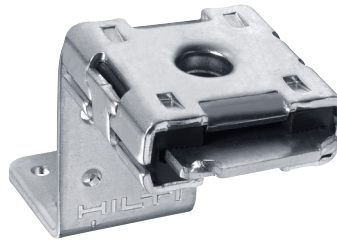
# MECHANICAL / ELECTRICAL HANGING SOLUTIONS

## MW Accessories

### Application



**MW-C Clip**



**Duct Attachment**

Wire No.	Item No.
2.0, 3.0	2287563

Angle Name	Item No.
MVA-Z	386532
MVA-ZP	411499

### Allowable loads for ventilation angle and clip

Angle Name	Thread Size (in)	Allowable Load lbs (kg)
<b>MVA-Z</b>	1/4", 3/8"	120 (54)
<b>MVA-ZP</b>	1/4", 3/8"	225 (102)
<b>MW-C</b>	1/4", 3/8"	1100 (499)

The shown load values of allowable loads are based on a safety factor to ultimate strength of at least 5.

# MECHANICAL / ELECTRICAL HANGING SOLUTIONS

**UL Rated Lighting Applications-** The Load tables below reference Allowable Loads based on a safety factor of 5 from the Ultimate Load of the tested Wire Kit. These values may differ from UL Rated Loads for Lighting Applications. Please reference File E217969 under UL2239 for Loop Lock kits and File E522519 under UL1598 for Channel Lock kits or the product packaging for Rated Loads according to the applicable UL Standard.

## Allowable loads for lock and wire kits

Description	Wire Length ft. (m)	Wire Rope Size	Allowable Tension Load +F <sub>a</sub> lbs. (kg)	Item No.
MW-EB 1/4 L 2.0	6 (2)	2.0	110 (50)	2331640
MW-EB 1/4 L 2.0	10 (3)	2.0	110 (50)	2331641
MW-EB 1/4 L 2.0	20 (6)	2.0	110 (50)	2331642
MW-EB 3/8 L 3.0	6 (2)	3.0	240 (109)	2331646
MW-EB 3/8 L 3.0	10 (3)	3.0	240 (109)	2331647
MW-EB 3/8 L 3.0	20 (6)	3.0	240 (109)	2331648

**Note:** The above values represent only the wire hanger kits. Load capacities of other connected parts, such as anchors, must be considered separately.

Description	Wire Length ft. (m)	Wire Rope Size	Allowable Tension Load +F <sub>a</sub> lbs. (kg)	Item No.
MW-LP L 2.0	6 (2)	2.0	110 (50)	2331652
MW-LP L 2.0	10 (3)	2.0	110 (50)	2331653
MW-LP L 2.0	20 (6)	2.0	110 (50)	2331654
MW-LP L 3.0	6 (2)	3.0	240 (109)	2331658
MW-LP L 3.0	10 (3)	3.0	240 (109)	2331659
MW-LP L 3.0	20 (6)	3.0	240 (109)	2331660

**Note:** The above values represent only the wire hanger kits. Load capacities of other connected parts, such as anchors, must be considered separately.

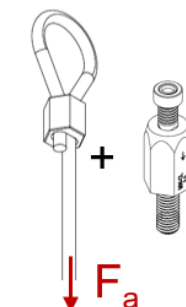
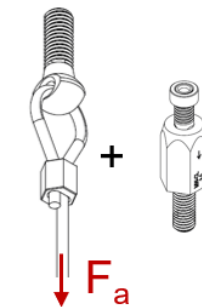
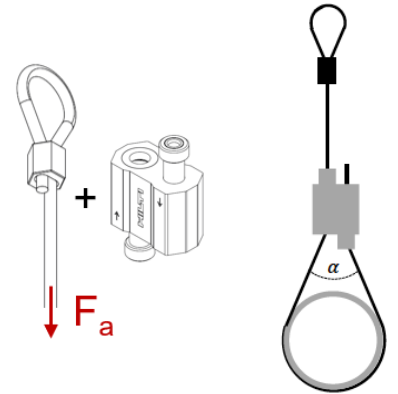
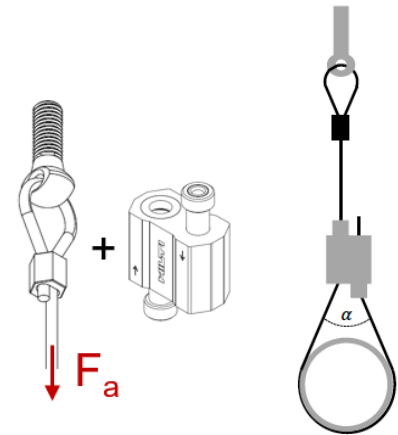
## Allowable loads for channel lock and wire kits

Description	Wire Length ft. (m)	Wire Rope Size	Allowable Tension Load +F <sub>a</sub> lbs. (kg)	Item No.
MW-EB 1/4 CL 2.0	6 (2)	2.0	100 (45)	2331643
MW-EB 1/4 CL 2.0	10 (3)	2.0	100 (45)	2331644
MW-EB 1/4 CL 2.0	20 (6)	2.0	100 (45)	2331645
MW-EB 3/8 CL 3.0	6 (2)	3.0	200 (90)	2331649
MW-EB 3/8 CL 3.0	10 (3)	3.0	200 (90)	2331650
MW-EB 3/8 CL 3.0	20 (6)	3.0	200 (90)	2331651

**Note:** The above values represent only the wire hanger kits. Load capacities of other connected parts, such as anchors, must be considered separately.

Description	Wire Length ft. (m)	Wire Rope Size	Allowable Tension Load +F <sub>a</sub> lbs. (kg)	Item No.
MW-LP CL 2.0	6 (2)	2.0	100 (45)	2331655
MW-LP CL 2.0	10 (3)	2.0	100 (45)	2331656
MW-LP CL 2.0	20 (6)	2.0	100 (45)	2331657
MW-LP CL 3.0	6 (2)	3.0	200 (90)	2331661
MW-LP CL 3.0	10 (3)	3.0	200 (90)	2331662
MW-LP CL 3.0	20 (6)	3.0	200 (90)	2331663

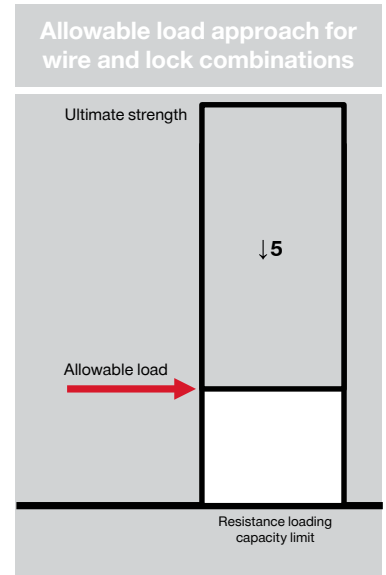
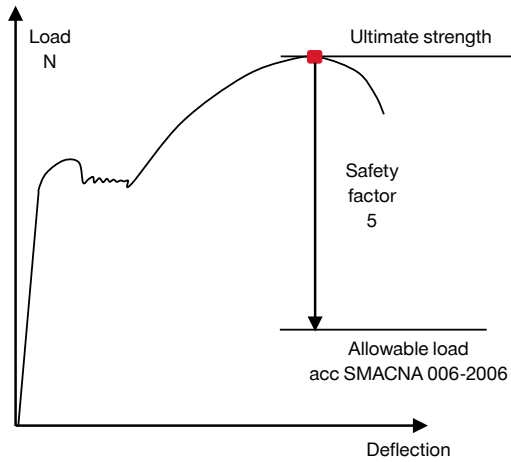
**Note:** The above values represent only the wire hanger kits. Load capacities of other connected parts, such as anchors, must be considered separately.



# MECHANICAL / ELECTRICAL HANGING SOLUTIONS

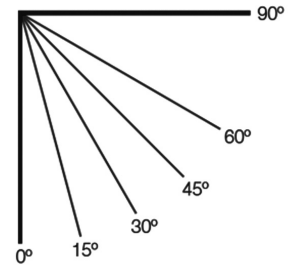
## Safety Factors Used to Calculate Load Capacities

For all **lock and wire combinations**, the **allowable loads** are calculated from the ultimate limit with a safety factor of 5 according to SMACNA 006-2006 (HVAC duct construction standards).



## Load reduction with wire hanger angle

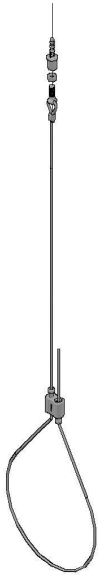
Lock Designation	Maximum load at an angle from vertical				
	0°	15°	30°	45°	60°
<b>Load %</b>	100	96	86	70	50



# MECHANICAL / ELECTRICAL HANGING SOLUTIONS

## VENTILATION - SINGLE FASTENING POINT FIXED ON A CONCRETE SLAB

### Eyebolt Combo



#### ① Screw anchor, 1/4" support 2.0 mm wire

Description	Item No.
Screw anchor KH-EZ 1/4" X 1-5/8", 1/4"	423471
Screw anchor KH-EZ 1/4" X 2-1/2", 1/4"	418039
Hexagon nut 1/4" zincd	411751
MW-EB 1/4 L 2.0 6ft/2m	2331640
MW-EB 1/4 L 2.0 10ft/3m	2331641
MW-EB 1/4 L 2.0 20ft/6m	2331642

#### ② Screw anchor, 3/8" support 3.0 mm wire

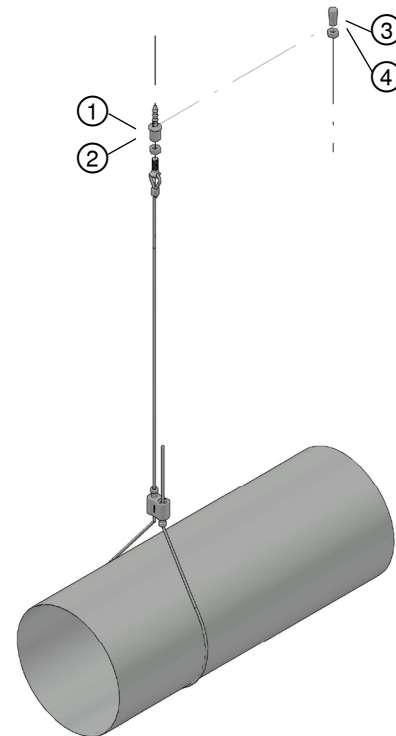
Description	Item No.
Screw anchor KH-EZ 1/4" X 1-5/8", 3/8"	423472
Screw anchor KH-EZ 1/4" X 2-1/2", 3/8"	418040
Hexagon nut 3/8" zincd	411752
MW-EB 3/8 L 3.0 6ft/2m	2331646
MW-EB 3/8 L 3.0 10ft/3m	2331647
MW-EB 3/8 L 3.0 20ft/6m	2331648

#### ③ Flush (drop-in) anchor, 1/4" support 2.0 mm wire

Description	Item No.
Flush anchor HDI+ 1/4"	409492
Flush anchor HDI-L+ 1/4"	409495
Flush anchor HDI-P+ 1/4"	409498
Hexagon nut 1/4" zincd	411751
MW-EB 1/4 L 2.0 6ft/2m	2331640
MW-EB 1/4 L 2.0 10ft/3m	2331641
MW-EB 1/4 L 2.0 20ft/6m	2331642

#### ④ Flush (drop-in) anchor, 3/8" support 3.0 mm wire

Description	Item No.
Flush anchor HDI+ 3/8"	409493
Flush anchor HDI-L+ 3/8"	409496
Flush anchor HDI-P+ 3/8"	409499
Hexagon nut 3/8" zincd	411752
MW-EB 3/8 L 3.0 6ft/2m	2331646
MW-EB 3/8 L 3.0 10ft/3m	2331647
MW-EB 3/8 L 3.0 20ft/6m	2331648



Application	Description	Base material	Product lines
	Wire system - Ventilation - Single fastening point on concrete	Concrete	Wire system Anchors
<b>Comments</b> <ul style="list-style-type: none"> <li>Loading must always be compared with the capacity of the anchor within the chosen base material</li> <li>Only for vertically suspended loads. Eye-bolt not suitable for bracing</li> </ul>			

The published data is a typical application the suitability for a specific project, design, or jobsite must be assessed by the Engineer of Record for the project. All product's must be used according to the manufacturer's instructions for use and within the application limits as published.

## MECHANICAL / ELECTRICAL HANGING SOLUTIONS

### VENTILATION - SINGLE FASTENING POINT FIXED ON A CONCRETE GIRDER

#### Loop Combo

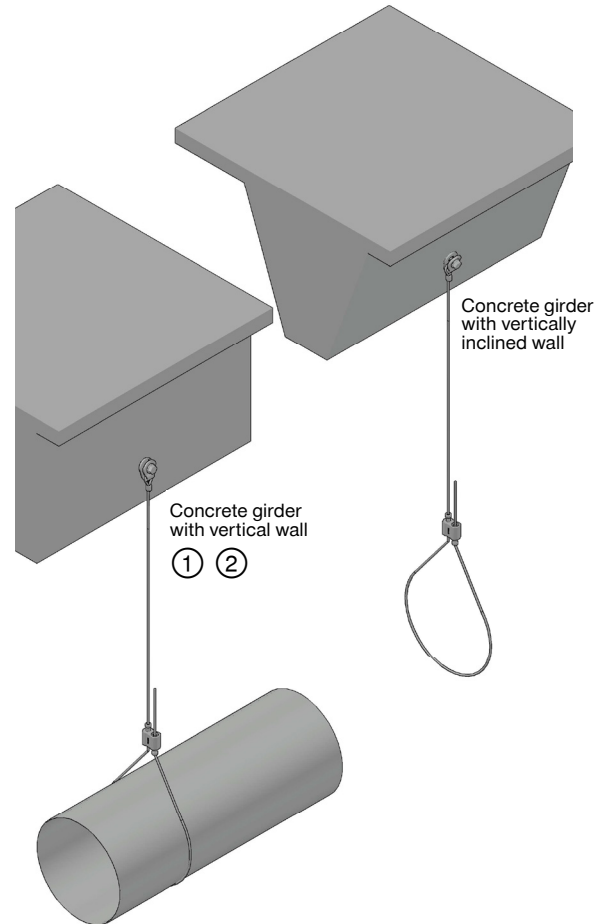


#### ① Clip attachment 2.0 mm wire

Description	Item No.
<b>MW-C clip</b>	2287563
<b>Screw anchor KH-EZ 1/4" X 3"</b>	418046
<b>Screw anchor KH-EZ 1/4" X 3-1/2"</b>	418047
<b>Screw anchor KH-EZ 1/4" X 4"</b>	418048
<b>MW-LP L 2.0 6ft/2m</b>	2331652
<b>MW-LP L 2.0 10ft/3m</b>	2331653
<b>MW-LP L 2.0 20ft/6m</b>	2331654

#### ② Clip attachment 3.0 mm wire

Description	Item No.
<b>MW-C clip</b>	2287563
<b>Screw anchor KH-EZ 3/8" X 3"</b>	418057
<b>Screw anchor KH-EZ 3/8" X 3-1/2"</b>	418058
<b>Screw anchor KH-EZ 3/8" X 5"</b>	418061
<b>MW-LP L 3.0 6ft/2m</b>	2331658
<b>MW-LP L 3.0 10ft/3m</b>	2331659
<b>MW-LP L 3.0 20ft/6m</b>	2331660



Application	Description	Base material	Product lines
	Wire system - Ventilation - Single fastening point on side of a concrete girder	Concrete	Wire system Anchors
<b>Comments</b>	<ul style="list-style-type: none"> <li>Loading must always be compared with the capacity of the anchor within the chosen base material. This capacity is affected by the angle of loading from the vertical and the prying factor</li> <li>Only one wire may be suspended on each clip</li> </ul>		

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## MECHANICAL / ELECTRICAL HANGING SOLUTIONS

### VENTILATION - SINGLE FASTENING POINT FIXED ON A STRUCTURAL STEEL - CENTRIC SOLUTION USING MT CHANNEL SYSTEM

#### Eyebolt Combo

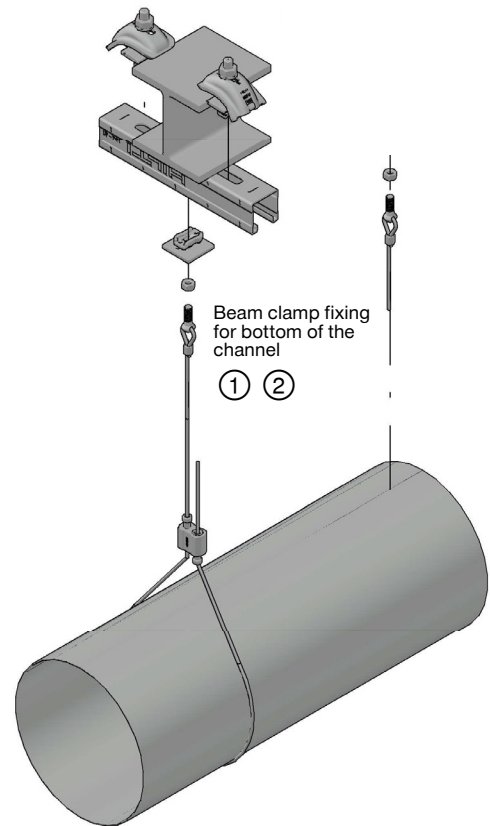


#### ① Centric fixation of MT system channel 2.0 mm wire

Description	Item No.
MQT-U beam clamp	2301108
MT-30 13/16" equivalent strut	2268498
Pipe ring saddle MQA-F 1/4"	377884
Hexagon nut 1/4" zincd	411751
MW-EB 1/4 L 2.0 6ft/2m	2331640
MW-EB 1/4 L 2.0 10ft/3m	2331641
MW-EB 1/4 L 2.0 20ft/6m	2331642

#### ② Centric fixation of MT system channel 3.0 mm wire

Description	Item No.
MQT-U beam clamp	2301108
MT-30 13/16" equivalent strut 6m	2293069
Pipe ring saddle MQA-S 3/8"	2293069
Hexagon nut 3/8" zincd	411752
MW-EB 3/8 L 3.0 6ft/2m	2331646
MW-EB 3/8 L 3.0 10ft/3m	2331647
MW-EB 3/8 L 3.0 20ft/6m	2331648



Application	Description	Base material	Product lines
	Wire system - Ventilation - Single fastening point on steel - MT system	Steel	Wire system MM system
<b>Comments</b> <ul style="list-style-type: none"> <li>Loading must always be compared with the capacity of all connected parts</li> <li>Only for vertically suspended loads. Not suitable for bracing</li> </ul>			

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## MECHANICAL / ELECTRICAL HANGING SOLUTIONS

### VENTILATION - SINGLE FASTENING POINT FIXED ON A STRUCTURAL STEEL - LOOPING THE PROFILE

#### Loop Combo

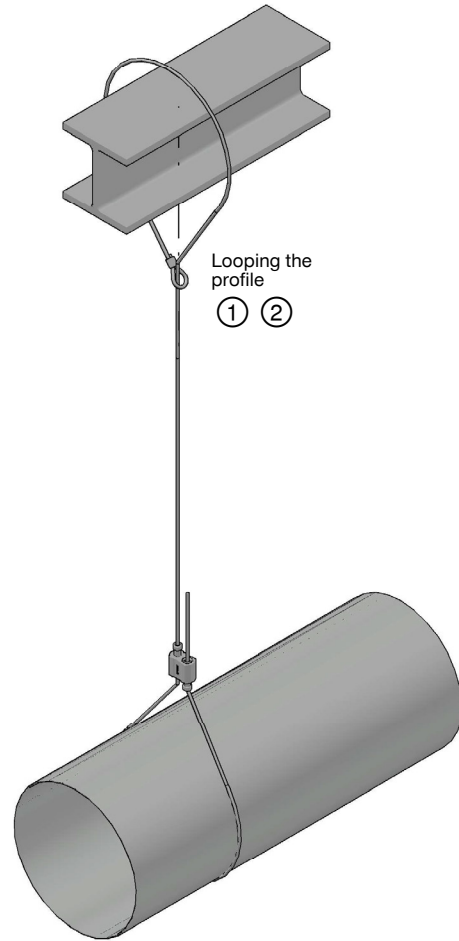


#### ① Looping the profile with 2.0 mm wire

Description	Item No.
MW-LP L 2.0 6ft/2m	2331652
MW-LP L 2.0 10ft/3m	2331653
MW-LP L 2.0 20ft/6m	2331654

#### ② Looping the profile with 3.0 mm wire

Description	Item No.
MW-LP L 3.0 6ft/2m	2331658
MW-LP L 3.0 10ft/3m	2331659
MW-LP L 3.0 20ft/6m	2331660



Application	Description	Base material	Product lines
	Wire system - Ventilation - Single fastening point on steel - Looping the profile	Steel	Wire system
<b>Comments</b> <ul style="list-style-type: none"> <li>Loading must always be compared with the capacity of the structural steel</li> <li>Sharp edges must be avoided to prevent damage to the wire</li> </ul>			

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# MECHANICAL / ELECTRICAL HANGING SOLUTIONS

## VENTILATION - Z-HANGERS FIXED ON CONCRETE SLAB

### Eyebolt Combo



#### ① Screw anchor, premium Z-hanger 2.0 mm wire

Description	Item No.
Screw anchor KH-EZ 1/4" X 5/8", 1/4"	423471
Screw anchor KH-EZ 1/4" X 2-1/2", 1/4"	418039
Hexagon nut 1/4" zinc	411751
MW-EB 1/4 CL 2.0 6ft/2m	2331643
MW-EB 1/4 CL 2.0 10ft/3m	2331644
MW-EB 1/4 CL 2.0 20ft/6m	2331645
<b>② Z-Hanger and Connection</b>	
MVA-Z Z-Hanger suitable for 2mm	386532
Hexagon nut 3/8" zinc	411752
Washer zinc 3/8"	411757
<b>Self-tapping Screws</b>	
Zip screw 10-12 X 3/4" HHWH HVAC 1k	423252

#### Screw anchor, premium Z-hanger 3.0 mm wire

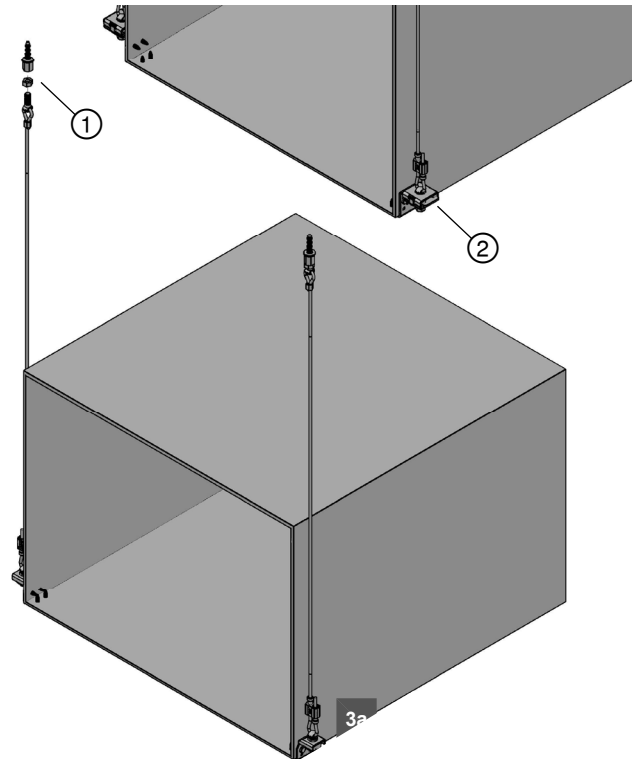
Description	Item No.
Screw anchor KH-EZ 1/4" X 1-5/8", 3/8"	423472
Screw anchor KH-EZ 1/4" X 2-1/2", 3/8"	418040
Hexagon nut 3/8" zinc	411752
MW-EB 3/8 CL 3.0 6ft/2m	2331649
MW-EB 3/8 CL 3.0 10ft/3m	2331650
MW-EB 3/8 CL 3.0 20ft/6m	2331651
<b>Z-Hanger and Connection</b>	
MVA-ZP Z-Hanger suitable for 2mm and 3mm wire	411499
Hexagon nut 3/8" zinc	411752
Washer zinc 3/8"	411757
<b>Self-tapping Screws</b>	
Zip screw 10-12 X 3/4" HHWH HVAC 1k	423252

#### Alternative HDI flush anchor



Description	Item No.
Flush anchor HDI+ 1/4"	409492
Flush anchor HDI-L+ 1/4"	409495
Flush anchor HDI-P 1/4"	409498

Application	Description	Base material
	Wire system - Ventilation - Z-hangers on concrete	Concrete
Comments	<ul style="list-style-type: none"> <li>Loading must always be compared with the capacity of the anchor within the chosen base material and Z-hanger</li> <li>Only for vertically suspended loads. Eye-bolt not suitable for bracing</li> </ul>	Product lines
		Wire system Z-hangers



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# MECHANICAL / ELECTRICAL HANGING SOLUTIONS

## VENTILATION - Z-HANGERS FIXED ON ASIDE OF A CONCRETE GIRDER

### Loop Combo

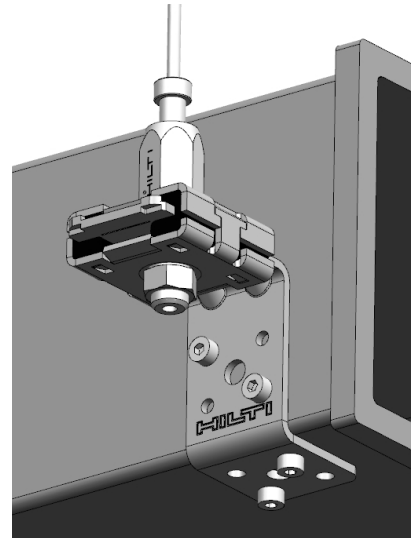
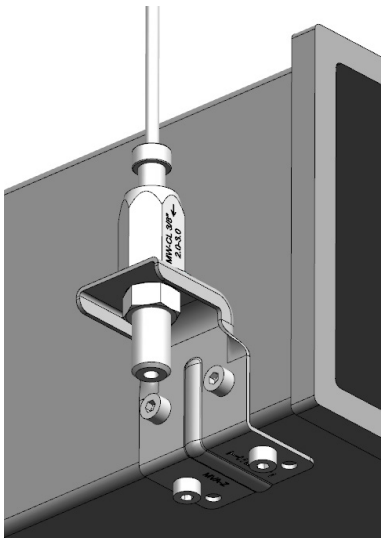


#### Clip attachment 2.0 mm wire

Description	Item No.
<b>MW-C clip</b>	2287563
<b>Screw anchor KH-EZ 1/4" X 3"</b>	418046
<b>Screw anchor KH-EZ 1/4" X 3-1/2"</b>	418047
<b>Screw anchor KH-EZ 1/4" X 4"</b>	418048
<b>MW-LP CL 2.0 6ft/2m</b>	2331655
<b>MW-LP CL 2.0 10ft/3m</b>	2331656
<b>MW-LP CL 2.0 20ft/6m</b>	2331657
<b>① Z-Hanger and Connection</b>	
<b>MVA-Z Z-Hanger suitable for 2mm</b>	386532
<b>Hexagon nut 3/8" zinc</b>	411752
<b>Washer zinc 3/8"</b>	411757
<b>Self-tapping Screws</b>	
<b>Zip screw 10-12" X 3/4" HHWH HVAC 1k</b>	423252

#### Screw anchor, premium Z-hanger 3.0 mm wire

Description	Item No.
<b>MW-C clip</b>	2287563
<b>Screw anchor KH-EZ 3/8" X 3"</b>	418057
<b>Screw anchor KH-EZ 3/8" X 3-1/2"</b>	418058
<b>Screw anchor KH-EZ 3/8" X 5"</b>	418061
<b>MW-LP L 3.0 6ft/2m</b>	2331658
<b>MW-LP L 3.0 10ft/3m</b>	2331659
<b>MW-LP L 3.0 20ft/6m</b>	2331660
<b>Z-Hanger and Connection</b>	
<b>MVA-ZP Z-Hanger suitable for 2mm and 3mm wire</b>	411499
<b>Hexagon nut 3/8" zinc</b>	411752
<b>Washer zinc 3/8"</b>	411757
<b>Self-tapping Screws</b>	
<b>Zip screw 10-12" X 3/4" HHWH HVAC 1k</b>	423252



Application	Description	Base material
	Wire system - Ventilation - Z-hangers on a side of a concrete girder	Concrete
Comments	<ul style="list-style-type: none"> <li>Loading must always be compared with the capacity of the anchor within the chosen base material and Z-hangers. This capacity is affected by the angle of loading from the vertical and the prying factor</li> <li>Only one wire may be suspended on each clip</li> </ul>	Product lines
		Wire system Z-hangers

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# MECHANICAL / ELECTRICAL HANGING SOLUTIONS

## VENTILATION - Z-HANGERS FIXED ON STRUCTURAL STEEL USING BEAM CLAMPS

### Eyebolt Combo



#### ① Threaded beam clamp 2.0 mm wire

Description	Item No.
Beam clamp BC-EG 1/4"	258002
Threaded rod 1/4" X 6' zincd	257963
Threaded rod connector 1/4" zincd	411746
Hexagon nut 1/4" zincd	411751
MW-EB 1/4 CL 2.0 6ft/2m	2331643
MW-EB 1/4 CL 2.0 10ft/3m	2331644
MW-EB 1/4 CL 2.0 20ft/6m	2331645

#### ② Z-Hanger and Connection

MVA-Z Z-hanger suitable for 2mm	386532
Hexagon nut 3/8" zincd	411752
Washer zinc 3/8"	411757

#### Self-tapping Screws

Zip Screw 10-12 x 3/4" HHWH HVAC 1k	423252
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#### Threaded beam clamp 3.0 mm wire

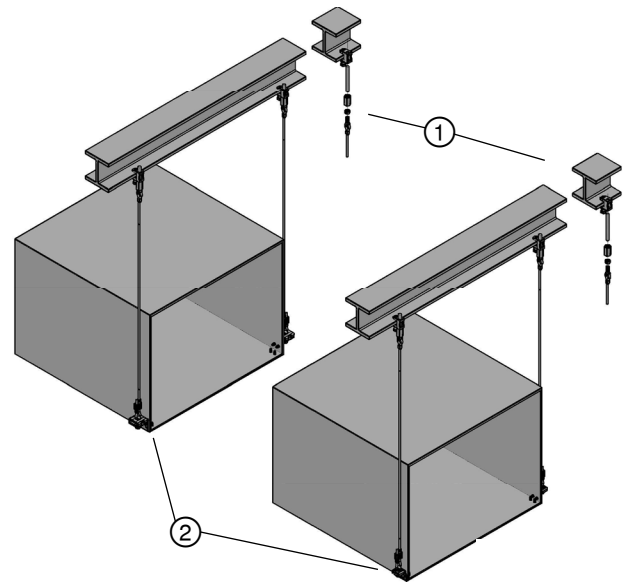
Description	Item No.
Beam clamp BC 3/8"	257366
Threaded rod 3/8" x 6'	257969
Threaded rod connector 3/8" zincd	411747
Hexagon nut 3/8" zincd	411752
MW-EB 3/8 CL 3.0 6ft/2m	2331649
MW-EB 3/8 CL 3.0 10ft/3m	2331650
MW-EB 3/8 CL 3.0 20ft/6m	2331651

#### Z-Hanger and Connection

MVA-ZP Z-Hanger suitable for 2mm and 3mm wire	411499
Hexagon nut 3/8" zincd	411752
Washer zinc 3/8"	411757

#### Self-tapping Screws

Zip Screw 10-12 x 3/4" HHWH HVAC 1k	423252
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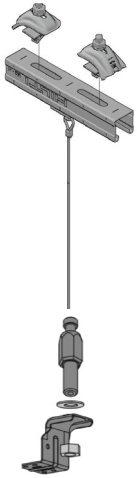
Application	Description	Base material
	Wire system - Ventilation - Z-hangers on structural steel	Steel
Comments	<ul style="list-style-type: none"> <li>Loading must always be compared with the capacity of the beam clamp and structural steel and all connecting parts</li> <li>Only for vertically suspended loads. Not suitable for bracing</li> </ul>	Product lines
		Wire system Beam clamps Z-hangers

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# MECHANICAL / ELECTRICAL HANGING SOLUTIONS

## VENTILATION - Z-HANGERS FIXED ON STRUCTURAL STEEL - CENTRIC SOLUTION USING MT CHANNEL SYSTEM

### Eyebolt Combo

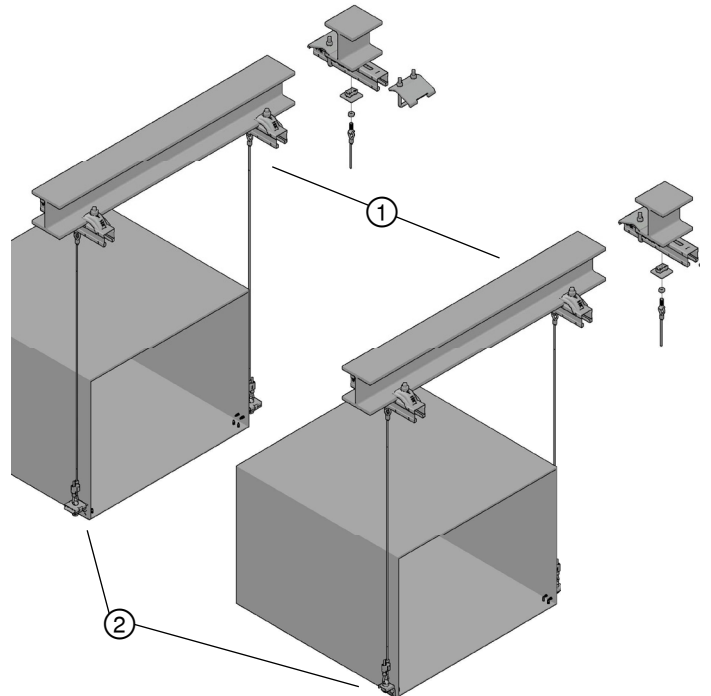


#### ① Centric fixation of MT system channel, 2.0 mm wire

Description	Item No.
Beam clamp MQT-U	301108
MT-30 13/16" equivalent strut	2268498
Pipe ring saddle MQA-F 1/4"	377884
Hexagon nut 1/4" zincd	411751
MW-EB 1/4 CL 2.0 6ft/2m	2331643
MW-EB 1/4 CL 2.0 10ft/3m	2331644
MW-EB 1/4 CL 2.0 20ft/6m	2331645
<b>② Z-Hanger and Connection</b>	
MVA-Z Z-hanger suitable for 2mm	386532
Hexagon nut 3/8" zincd	411752
Washer zinc 3/8"	411757
<b>Self-tapping Screws</b>	
Zip Screw 10-12 x 3/4" HHWH HVAC 1k	423252

#### Screw anchor, premium Z-hanger 3.0 mm wire

Description	Item No.
Beam clamp MQT-U	301108
MT-30 13/16" equivalent strut	2268498
Pipe ring saddle MQA-S 3/8"	2293069
Hexagon nut 3/8" zincd	411752
MW-EB 3/8 CL 3.0 6ft/2m	2331649
MW-EB 3/8 CL 3.0 10ft/3m	2331650
MW-EB 3/8 CL 3.0 20ft/6m	2331651
<b>Z-Hanger and Connection</b>	
MVA-ZP Z-Hanger suitable for 2mm and 3mm wire	411499
Hexagon nut 3/8" zincd	411752
Washer zinc 3/8"	411757
<b>Self-tapping Screws</b>	
Zip Screw 10-12 x 3/4" HHWH HVAC 1k	423252



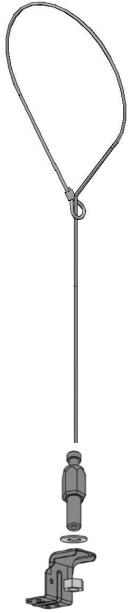
Application	Description	Base material
	Wire system - Ventilation - Z-hangers on structural steel - MT system	Steel
Comments	<ul style="list-style-type: none"> <li>Loading must always be compared with the capacity of all connected parts</li> <li>Only for vertically suspended loads. Not suitable for bracing</li> </ul>	Product lines
		Wire system MT system Z-hangers

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# MECHANICAL / ELECTRICAL HANGING SOLUTIONS

## VENTILATION - Z-HANGERS FIXED ON STRUCTURAL STEEL - LOOPING THE PROFILE

### Loop Combo

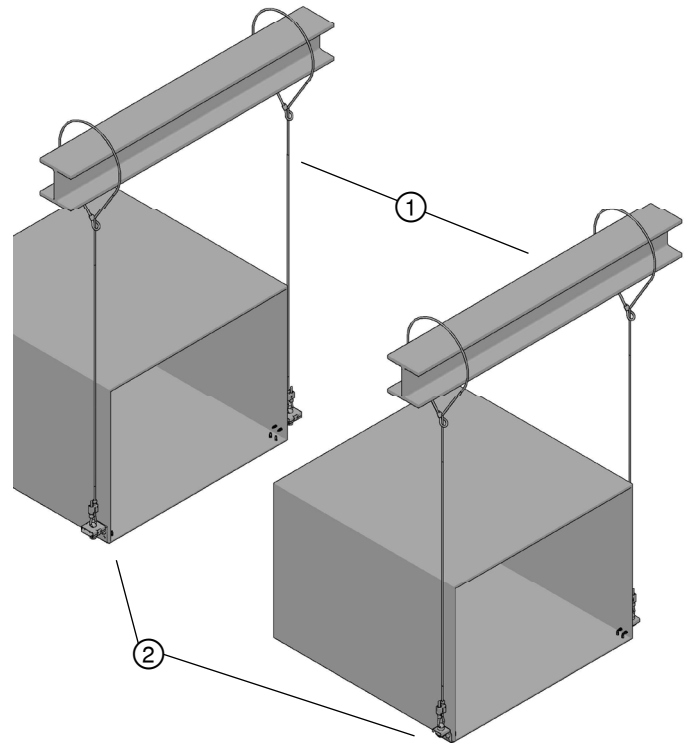


#### ① Looping the profile with 2.0 mm wire

Description	Item No.
MW-LP CL 2.0 6ft/2m	2331655
MW-LP CL 2.0 10ft/3m	2331656
MW-LP CL 2.0 20ft/6m	2331657
<b>② Z-Hanger and Connection</b>	
MVA-Z Z-Hanger suitable for 2mm	411499
Hexagon nut 3/8" zincd	411752
Washer zinc 3/8"	411757
<b>Self-tapping Screws</b>	
Zip Screw 10-12 x 3/4" HHWH HVAC 1k	423252

#### Screw anchor, premium Z-hanger 3.0 mm wire

Description	Item No.
MW-LP CL 3.0 6ft/2m	2331661
MW-LP CL 3.0 10ft/3m	2331662
MW-LP CL 3.0 20ft/6m	2331663
<b>Z-Hanger and Connection</b>	
MVA-ZP Z-Hanger suitable for 2mm and 3mm wire	411499
Hexagon nut 3/8" zincd	411752
Washer zinc 3/8"	411757
<b>Self-tapping Screws</b>	
Zip Screw 10-12 x 3/4" HHWH HVAC 1k	423252



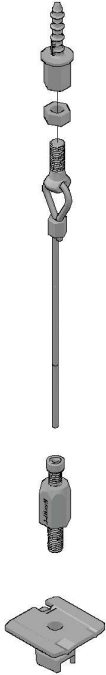
Application	Description	Base material
	Wire system - Ventilation - Z-hangers on structural steel - Looped	Steel
Comments	<ul style="list-style-type: none"> <li>Loading must always be compared with the capacity of the structural steel and all connected parts</li> <li>Sharp edges must be avoided to prevent damage to the wire</li> </ul>	Product lines
		Wire system MT system Z-hangers

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# MECHANICAL / ELECTRICAL HANGING SOLUTIONS

## VENTILATION / CABLE TRAY<sup>1</sup> - TRAPEZE FIXED ON CONCRETE SLAB - MT SYSTEM

### Eyebolt Combo



#### ① Screw anchor, 1/4" support 2.0 mm wire

Description	Item No.
Screw anchor KH-EZ 1/4" X 1-5/8", 1/4"	423471
Screw anchor KH-EZ 1/4" X 2-1/2", 1/4"	418039
Hexagon nut 1/4" zinc	411751
MW-EB 1/4 CL 2.0 6ft/2m	2331643
MW-EB 1/4 CL 2.0 10ft/3m	2331644
MW-EB 1/4 CL 2.0 20ft/6m	2331645
Pipe ring saddle MQA-S 3/8"	2293069

#### ② Screw anchor, 3/8" support 3.0 mm wire

Description	Item No.
Screw anchor KH-EZ 1/4" X 1-5/8", 3/8"	423472
Screw anchor KH-EZ 1/4" X 2-1/2", 3/8"	418040
Hexagon nut 3/8" zinc	411752
MW-EB 3/8 CL 3.0 6ft/2m	2331649
MW-EB 3/8 CL 3.0 10ft/3m	2331650
MW-EB 3/8 CL 3.0 20ft/6m	2331651
Pipe ring saddle MQA-S 3/8"	2293069

#### ③ Flush (drop-in) anchor, 1/4" support 2.0 mm wire

Description	Item No.
Flush anchor HDI+ 1/4"	409492
Flush anchor HDI-L+ 1/4"	409495
Flush anchor HDI-P+ 1/4"	409498
Hexagon nut 1/4" zinc	411751
MW-EB 1/4 CL 2.0 6ft/2m	2331643
MW-EB 1/4 CL 2.0 10ft/3m	2331644
MW-EB 1/4 CL 2.0 20ft/6m	2331645
Pipe ring saddle MQA-S 3/8"	2293069

#### ④ Flush (drop-in) anchor, 3/8" support 3.0 mm wire

Description	Item No.
Flush anchor HDI+ 3/8"	409493
Flush anchor HDI-L+ 3/8"	409496
Flush anchor HDI-P+ 3/8"	409499
Hexagon nut 3/8" zinc	411752
MW-EB 3/8 CL 3.0 6ft/2m	2331649
MW-EB 3/8 CL 3.0 10ft/3m	2331650
MW-EB 3/8 CL 3.0 20ft/6m	2331651
Pipe ring saddle MQA-S 3/8"	2293069

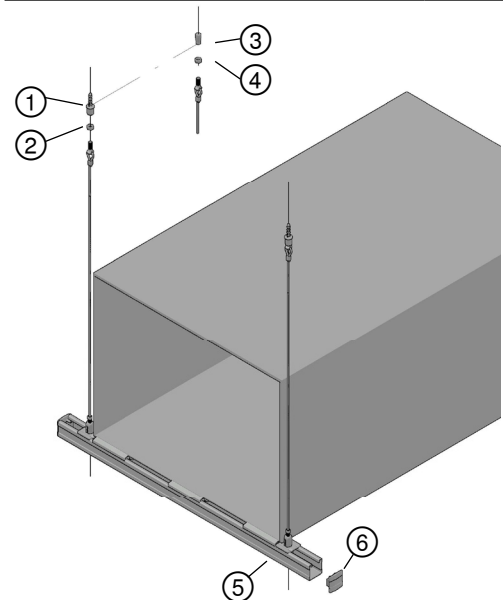
#### ⑤ Channels

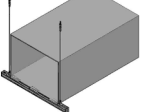
Description	Item No.
MT-10 '2 meter - 'L' channel*	2268492
MT-15 '2 meter - 'L' channel*	2268493
MT-20 '1 3 meter - 'C' channel with open face*	2268495
MT-30 '1 6 meter - 13/16" equivalent strut channel	2268498
MT-50 '1 6 meter - 12 ga. 1-5/8" equivalent strut channel	2268510

\* MQA-S not compatible with 'L' and 'C' Channel, substitute a standard nut and washer

#### ⑥ Channel plastic end caps

Description	Item No.
MT-EC-20 50 Plastic end cap - MT 20	2282197
MT-EC-30 50 Plastic end cap - MT 30	2273642
MT-EC-40/50 50 Plastic end cap - MT 40/50	2273643



Application	Description	Base material
	Wire system - Ventilation - Trapeze on concrete - Also suitable for cable tray	Concrete
Comments	<ul style="list-style-type: none"> <li>Loading must always be compared with the capacity of the anchor within the chosen base material</li> <li>Only for vertically suspended loads. Not suitable for bracing</li> </ul>	Product lines
		Wire system MT system

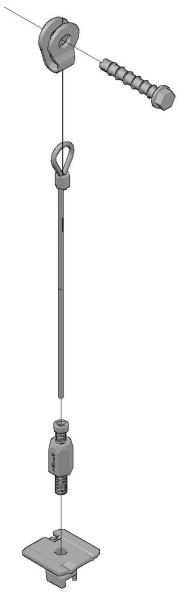
<sup>1</sup> For UL 1598 Lighting Applications - see UL File E522519 or product packaging for Rated Load Values

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# MECHANICAL / ELECTRICAL HANGING SOLUTIONS

## VENTILATION / CABLE TRAY<sup>1</sup> - TRAPEZE FIXED ON A SIDE OF A CONCRETE GIRDER

### Loop Combo



#### ① Clip attachment 2.0 mm wire

Description	Item No.
<b>MW-C clip</b>	2287563
<b>Screw anchor KH-EZ 1/4" X 3"</b>	418046
<b>Screw anchor KH-EZ 1/4" X 3-1/2"</b>	418047
<b>Screw anchor KH-EZ 1/4" X 4"</b>	418048
<b>MW-LP CL 2.0 6ft/2m</b>	2331655
<b>MW-LP CL 2.0 10ft/3m</b>	2331656
<b>MW-LP CL 2.0 20ft/6m</b>	2331657
<b>Pipe ring saddle MQA-S 3/8"</b>	2293069

#### ② Clip attachment 3.0 mm wire

Description	Item No.
<b>MW-C clip</b>	2287563
<b>Screw anchor KH-EZ 3/8" X 3"</b>	418057
<b>Screw anchor KH-EZ 3/8" X 3-1/2"</b>	418058
<b>Screw anchor KH-EZ 3/8" X 5"</b>	418061
<b>MW-LP CL 3.0 6ft/2m</b>	2331661
<b>MW-LP CL 3.0 10ft/3m</b>	2331662
<b>MW-LP CL 3.0 20ft/6m</b>	2331663
<b>Pipe ring saddle MQA-S 3/8"</b>	2293069

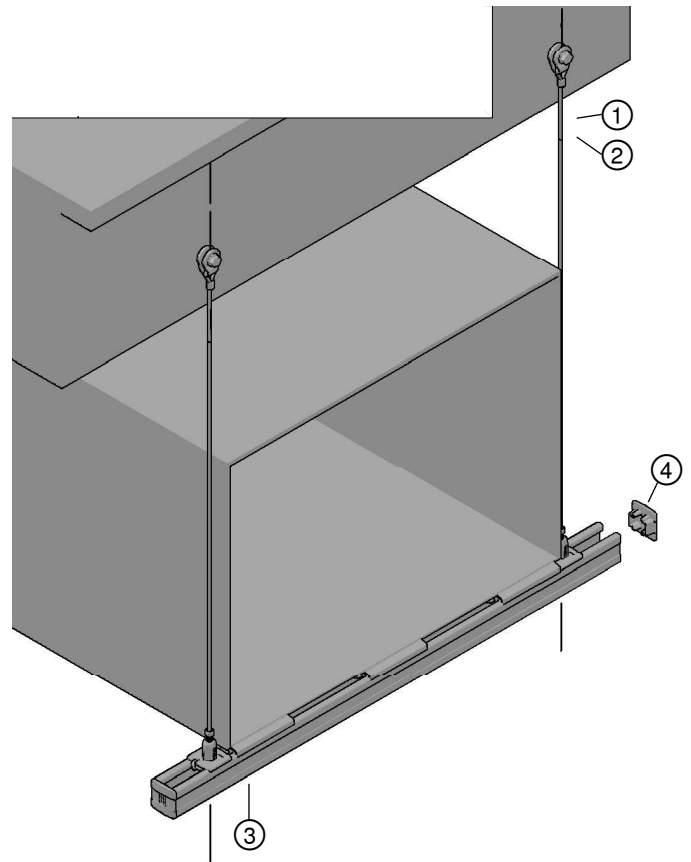
#### ③ Channels

Description	Item No.
<b>MT-10 1/2 meter - threaded rod light 'L' channel</b>	2268492
<b>MT-15 1 2 meter - threaded rod light 'L' channel</b>	2268493
<b>MT-20 1 3 meter - threaded rod light 'C' channel with open face</b>	2268495
<b>MT-30 1 6 meter - 13/16" equivalent strut channel</b>	2268498
<b>MT-50 1 6 meter - 12 ga. 1-5/8" equivalent strut channel</b>	2268510

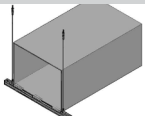
\* MQA-S not compatible with 'L' and 'C' Channel, substitute a standard nut and washer

#### ④ Channel plastic end caps

Description	Item No.
<b>MT-EC-20 50 Plastic end cap - MT 20</b>	2282197
<b>MT-EC-30 50 Plastic end cap - MT 30</b>	2273642
<b>MT-EC-40/50 50 Plastic end cap - MT 40/50</b>	2273643



#### Application



#### Description

Wire system - Ventilation - Trapeze on a side of a concrete girder

#### Comments

- Loading must always be compared with the capacity of the anchor within the chosen base material. This capacity is affected by the angle of loading from the vertical and the prying factor
- Only one wire may be suspended vertically on each clip

#### Base material

Concrete

#### Product lines

Wire system  
MT system

<sup>1</sup> For UL 1598 Lighting Applications - see UL File E522519 or product packaging for Rated Load Values

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# MECHANICAL / ELECTRICAL HANGING SOLUTIONS

## VENTILATION / CABLE TRAY<sup>1</sup> - TRAPEZE FIXED ON A SIDE OF A STRUCTURAL STEEL PROFILES USING BEAM CLAMPS

### Eyebolt Combo



#### ① Threaded beam clamp 2.0 mm wire

Description	Item No.
Beam clamp BC-EG 1/4"	258002
Threaded rod 1/4" X 6' zincd	257963
Threaded rod connector 1/4" zincd	411746
Hexagon nut 1/4" zincd	411751
MW-EB 1/4 CL 2.0 6ft/2m	2331643
MW-EB 1/4 CL 2.0 10ft/3m	2331644
MW-EB 1/4 CL 2.0 20ft/6m	2331645
Pipe ring saddle MQA-S 3/8"	2293069

#### ② Threaded beam clamp 3.0 mm wire

Description	Item No.
Beam clamp BC 3/8"	257366
Threaded rod 3/8" X 6'	257969
Threaded rod connector 3/8" zincd	411747
Hexagon nut 3/8" zincd	411752
MW-EB 3/8 CL 3.0 6ft/2m	2331649
MW-EB 3/8 CL 3.0 10ft/3m	2331650
MW-EB 3/8 CL 3.0 20ft/6m	2331651
Pipe ring saddle MQA-S 3/8"	2293069

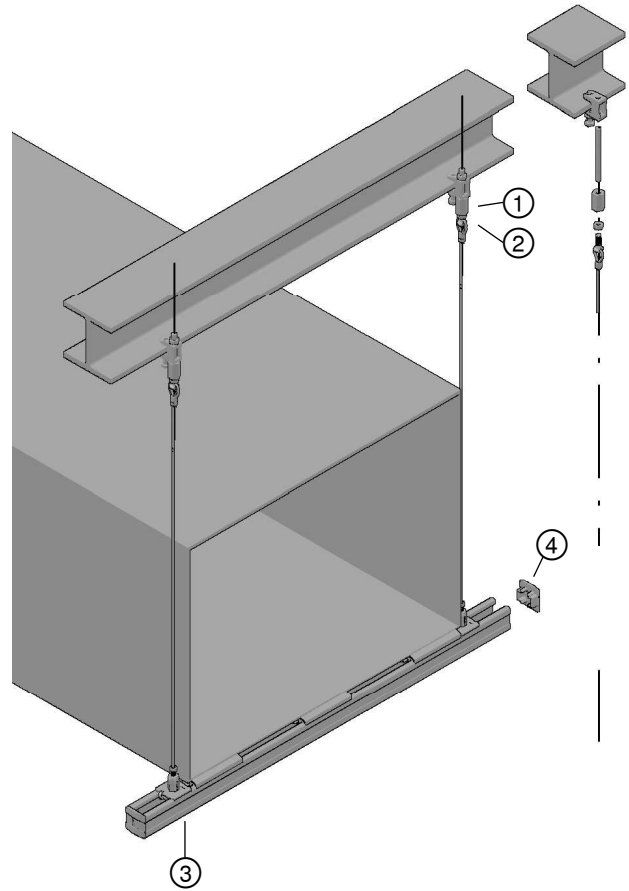
#### ③ Channels

Description	Item No.
MT-10 2 meter - 'L' channel	2268492
MT-15 1 2 meter - 'L' channel	2268493
MT-20 1 3 meter - 'C' channel with open face	2268495
MT-30 1 6 meter - 13/16" equivalent strut channel	2268498
MT-50 1 6 meter - 12 ga. 1-5/8" equivalent strut channel	2268510

\* MQA-S not compatible with 'L' and 'C' Channel, substitute a standard nut and washer

#### ④ Channel plastic end caps

Description	Item No.
MT-EC-20 50 Plastic end cap - MT 20	2282197
MT-EC-30 50 Plastic end cap - MT 30	2273642
MT-EC-40/50 50 Plastic end cap - MT 40/50	2273643



Application	Description	Base material	Product lines
	Wire system - Ventilation - Trapeze on structural steel profiles - Beam clamps	Steel	Wire system MT system
<b>Comments</b> <ul style="list-style-type: none"> <li>Loading must always be compared with the capacity of the beam clamp and structural steel</li> <li>Only for vertically suspended loads. Not suitable for bracing</li> </ul>			

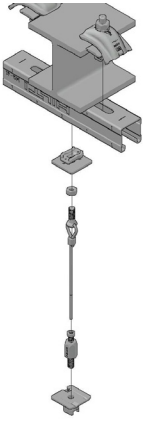
<sup>1</sup>For UL 1598 Lighting Applications - see UL File E522519 or product packaging for Rated Load Values

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# MECHANICAL / ELECTRICAL HANGING SOLUTIONS

## VENTILATION / CABLE TRAY<sup>1</sup> - TRAPEZE FIXED ON A STRUCTURAL STEEL PROFILES CENTRIC SOLUTION USING MT CHANNEL SYSTEM

### Eyebolt Combo



#### ① Centric fixation of MT system channel, 2.0 mm wire

Description	Item No.
MQT-U Beam clamp	2301108
MT-30 13/16" equivalent strut	2268498
Pipe ring saddle MQA-F 1/4"	377884
Hexagon nut 1/4" zincd	411751
MW-EB 1/4 CL 2.0 6ft/2m	2331643
MW-EB 1/4 CL 2.0 10ft/3m	2331644
MW-EB 1/4 CL 2.0 20ft/6m	2331645
Pipe ring saddle MQA-S 3/8"	2293069

#### ② Centric fixation of MT system channel, 3.0 mm wire

Description	Item No.
MQT-U Beam clamp	2301108
MT-30 13/16" equivalent strut	2268498
Pipe ring saddle MQA-S 3/8"	2293069
Hexagon nut 3/8" zincd	411752
MW-EB 3/8 CL 3.0 6ft/2m	2331649
MW-EB 3/8 CL 3.0 10ft/3m	2331650
MW-EB 3/8 CL 3.0 20ft/6m	2331651
Pipe ring saddle MQA-S 3/8"	2293069

#### ③ Channels

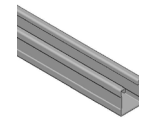
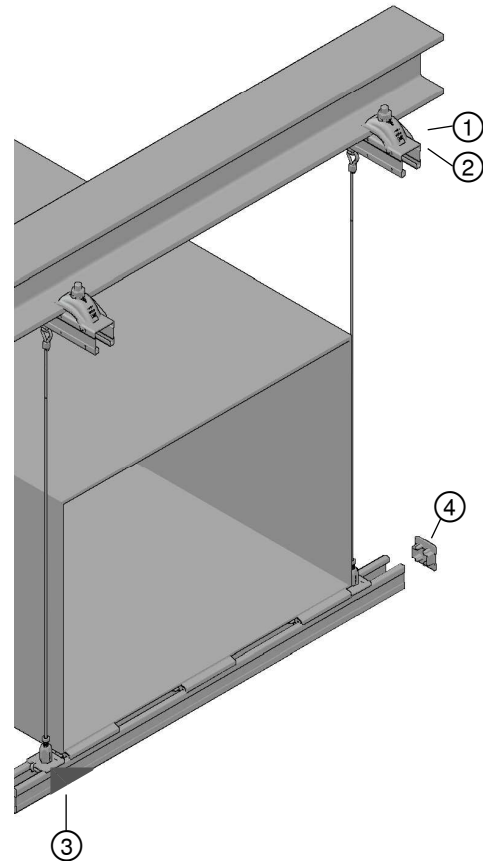
Description	Item No.
MT-10 2 meter - 'L' channel	2268492
MT-15 1 2 meter - 'L' channel	2268493
MT-20 1 3 meter - 'C' channel with open face	2268495
MT-30 1 6 meter - 13/16" equivalent strut channel	2268498
MT-50 1 6 meter - 12 ga. 1-5/8" equivalent strut channel	2268510

\* MQA-S not compatible with 'L' and 'C' Channel, substitute a standard nut and washer

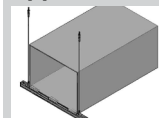


#### ④ Channel plastic end caps

Description	Item No.
MT-EC-20 50 Plastic end cap - MT 20	2282197
MT-EC-30 50 Plastic end cap - MT 30	2273642
MT-EC-40/50 50 Plastic end cap - MT 40/50	2273643



#### Application



#### Description

Wire system - Ventilation - Trapeze on structural steel - MT system channels

#### Comments

- Loading must always be compared with the capacity of all connected parts
- Only for vertically suspended loads. Not suitable for bracing

#### Base material

Steel

#### Product lines

Wire system  
MT system

<sup>1</sup>For UL 1598 Lighting Applications - see UL File E522519 or product packaging for Rated Load Values

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# MECHANICAL / ELECTRICAL HANGING SOLUTIONS

## VENTILATION / CABLE TRAY<sup>1</sup> - TRAPEZE FIXED LOOPED AROUND STRUCTURAL STEEL PROFILES

### Loop Combo



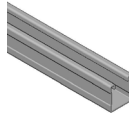
#### ① Looping the profile 2.0 mm wire

Description	Item No.
MW-LP CL 2.0 6ft/2m	2331655
MW-LP CL 2.0 10ft/3m	2331656
MW-LP CL 2.0 20ft/6m	2331657
Pipe ring saddle MQA-S 3/8"	2293069

#### ② Looping the profile 3.0 mm wire

Description	Item No.
MW-LP CL 3.0 6ft/2m	2331661
MW-LP CL 3.0 10ft/3m	2331662
MW-LP CL 3.0 20ft/6m	2331663
Pipe ring saddle MQA-S 3/8"	2293069

#### ③ Channels



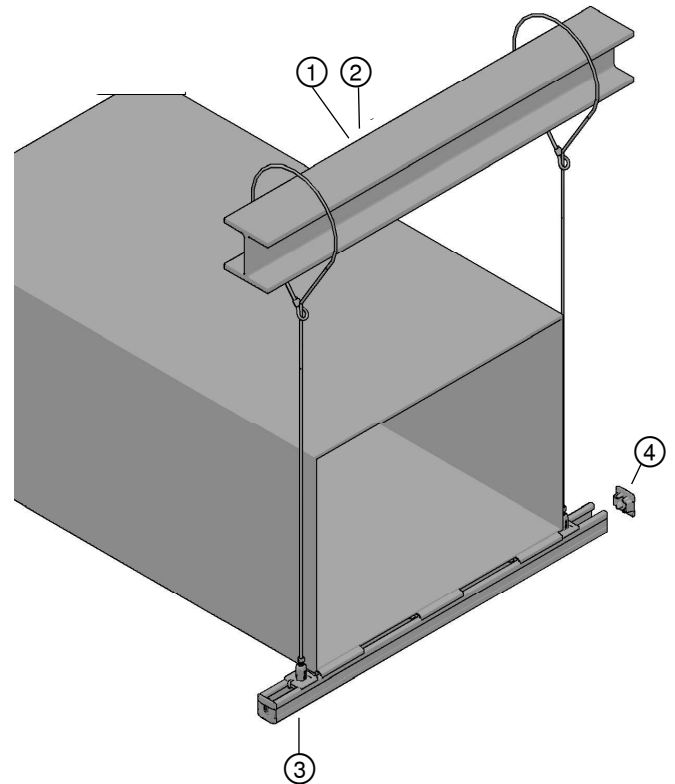
Description	Item No.
MT-10 2 meter - 'L' channel	2268492
MT-15 1 2 meter - 'L' channel	2268493
MT-20 1 3 meter - 'C' channel with open face	2268495
MT-30 1 6 meter - 13/16" equivalent strut channel	2268498
MT-50 1 6 meter - 12 ga. 1-5/8" equivalent strut channel	2268510

\* MQA-S not compatible with 'L' and 'C' Channel, substitute a standard nut and washer

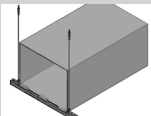


#### ④ Channel plastic end caps

Description	Item No.
MT-EC-20 50 Plastic end cap - MT 20	2282197
MT-EC-30 50 Plastic end cap - MT 30	2273642
MT-EC-40/50 50 Plastic end cap - MT 40/50	2273643



#### Application



#### Description

Wire system - Ventilation trapeze looped around structural steel profiles

#### Comments

- Loading must always be compared with the capacity of the structural steel
- Sharp edges must be avoided to prevent damage to the wire
- Only for vertical suspended loads. Not suitable for bracing

#### Base material

Steel

#### Product lines

Wire system  
MT system

<sup>1</sup> For UL 1598 Lighting Applications - see UL File E522519 or product packaging for Rated Load Values

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# MECHANICAL / ELECTRICAL HANGING SOLUTIONS

## VENTILATION UNIT, LIGHT FIXTURE<sup>1</sup>, OR CEILING PANEL ON A CONCRETE SLAB

### Eyebolt Combo



#### ① Screw anchor, 1/4" support 2.0 mm wire

Description	Item No.
Screw anchor KH-EZ 1/4" X 1-5/8", 1/4"	423471
Screw anchor KH-EZ 1/4" X 2-1/2", 1/4"	418039
Hexagon nut 1/4" zincd	411751
MW-EB 1/4 L 2.0 6ft/2m	2331640
MW-EB 1/4 L 2.0 10ft/3m	2331641
MW-EB 1/4 L 2.0 20ft/6m	2331642

#### ② Screw anchor, 3/8" support 3.0 mm wire

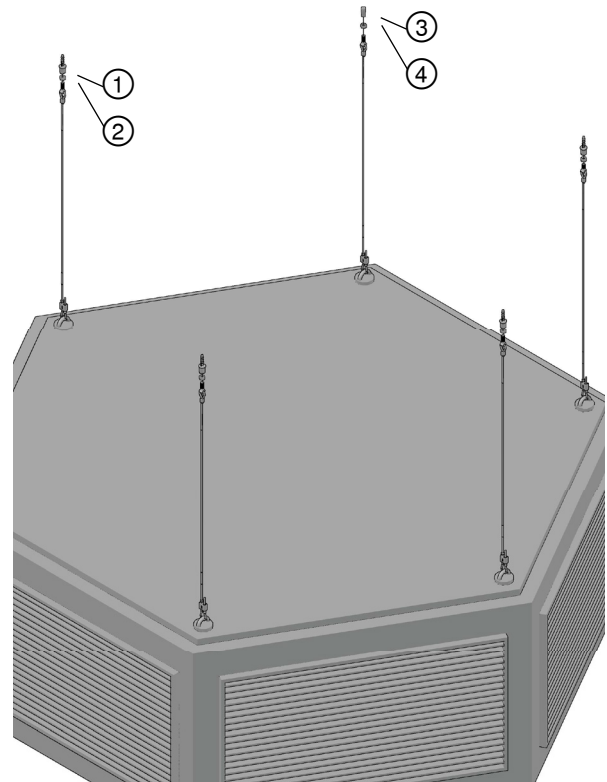
Description	Item No.
Screw anchor KH-EZ 1/4" X 1-5/8", 3/8"	423472
Screw anchor KH-EZ 1/4" X 2-1/2", 3/8"	418040
Hexagon nut 3/8" zincd	411752
MW-EB 3/8 L 3.0 6ft/2m	2331646
MW-EB 3/8 L 3.0 10ft/3m	2331647
MW-EB 3/8 L 3.0 20ft/6m	2331648

#### ③ Flush (drop-in) anchor, 1/4" support 2.0 mm wire

Description	Item No.
Flush anchor HDI+ 1/4"	409492
Flush anchor HDI-L+ 1/4"	409495
Flush anchor HDI-P 1/4"	409498
Hexagon nut 1/4" zincd	2184504
MW-EB 1/4 L 2.0 6ft/2m	2331640
MW-EB 1/4 L 2.0 10ft/3m	2331641
MW-EB 1/4 L 2.0 20ft/6m	2331642

#### ④ Flush (drop-in) anchor, 3/8" support 3.0 mm wire

Description	Item No.
Flush anchor HDI+ 3/8"	409493
Flush anchor HDI-L+ 3/8"	409496
Flush anchor HDI-P+ 3/8"	409499
Hexagon nut 3/8" zincd	411752
MW-EB 3/8 L 3.0 6ft/2m	2331646
MW-EB 3/8 L 3.0 10ft/3m	2331647
MW-EB 3/8 L 3.0 20ft/6m	2331648



Application	Description	Base material	Product lines
	Wire system - Ventilation unit on concrete slab	Concrete	Wire system Anchors
<b>Comments</b> <ul style="list-style-type: none"> <li>Loading must always be compared with the capacity of the anchor within the chosen base material and all connected parts</li> <li>Only for vertically suspended loads. Eye-bolt not suitable for bracing</li> </ul>			

<sup>1</sup> For UL 2239 Lighting Applications - see UL File E217969 or product packaging for Rated Load Values

The published data is a typical application the suitability for a specific project, design, or jobsite must be assessed by the Engineer of Record for the project. All product's must be used according to the manufacturer's instructions for use and within the application limits as published.

# MECHANICAL / ELECTRICAL HANGING SOLUTIONS

## VENTILATION UNIT LIGHT FIXTURE<sup>1</sup>, OR CEILING PANEL ON A CONCRETE GIRDER

### Loop Combo

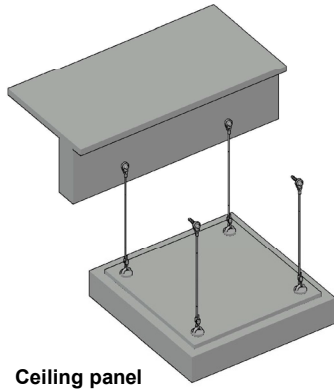


#### ① Clip attachment 2.0 mm wire

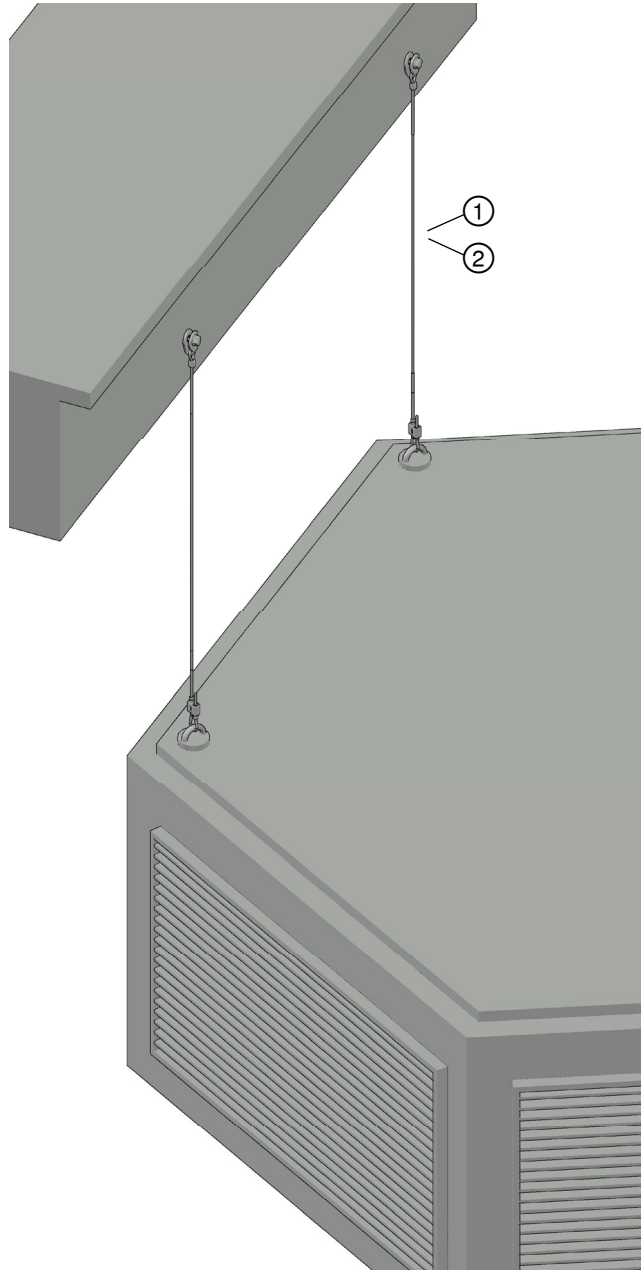
Description	Item No.
MW-C clip	2287563
Screw anchor KH-EZ 1/4" X 3"	418046
Screw anchor KH-EZ 1/4" X 3-1/2"	418047
Screw anchor KH-EZ 1/4" X 4"	418048
MW-LP L 2.0 6ft/2m	2331652
MW-LP L 2.0 10ft/3m	2331653
MW-LP L 2.0 20ft/6m	2331654

#### ② Clip attachment 3.0 mm wire

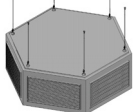
Description	Item No.
MW-C clip	2287563
Screw anchor KH-EZ 3/8" X 3"	418057
Screw anchor KH-EZ 3/8" X 3-1/2"	418058
Screw anchor KH-EZ 3/8" X 5"	418061
MW-LP L 3.0 6ft/2m	2331658
MW-LP L 3.0 10ft/3m	2331659
MW-LP L 3.0 20ft/6m	2331660



Ceiling panel



#### Application



#### Description

Wire system - Ventilation unit on concrete girder

#### Comments

- Loading must always be compared with the capacity with the capacity of all connected parts and the anchor within the chosen base material. This capacity is affected by the angle of loading from the vertical and the prying factor
- Only one wire may be suspended on each clip

#### Base material

Concrete

#### Product lines

Wire system  
Anchors

<sup>1</sup>For UL 2239 Lighting Applications - see UL File E217969 or product packaging for Rated Load Values

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## MECHANICAL / ELECTRICAL HANGING SOLUTIONS

### VENTILATION UNIT LIGHT FIXTURE<sup>1</sup>, OR CEILING PANEL FIXED ON STRUCTURAL STEEL PROFILES - BEAM CLAMPS

#### Eyebolt Combo

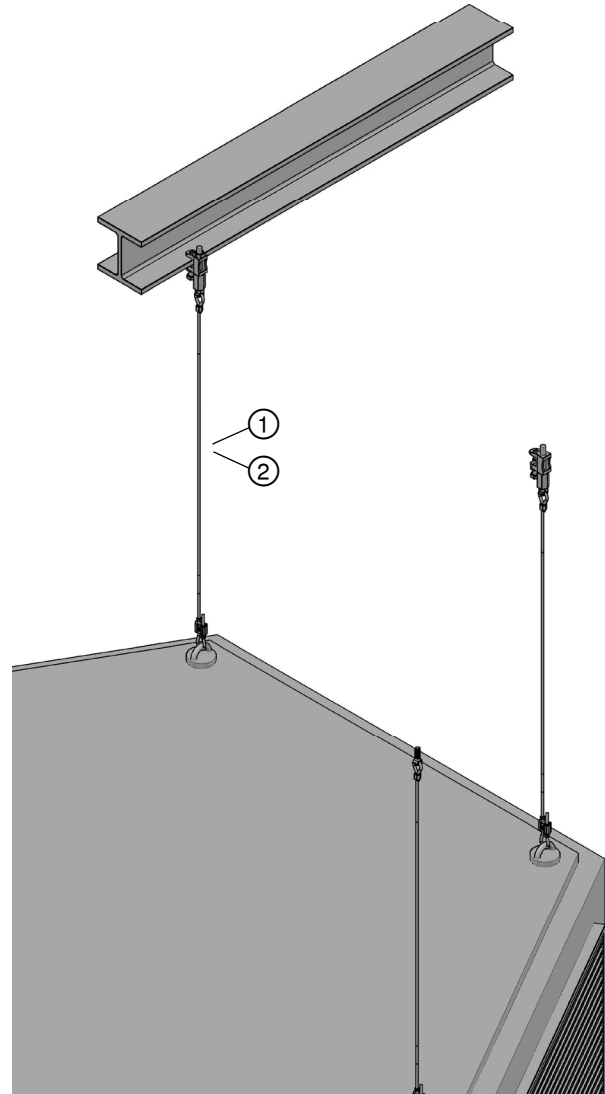


##### ① Threaded beam clamp 2.0 mm wire

Description	Item No.
Beam clamp BC-EG 1/4"	258002
Threaded rod 1/4" X 6' zincd	257963
Threaded rod connector 1/4" zincd	411746
Hexagon nut 1/4" zincd	411751
MW-EB 1/4 L 2.0 6ft/2m	2331640
MW-EB 1/4 L 2.0 10ft/3m	2331641
MW-EB 1/4 L 2.0 20ft/6m	2331642

##### ② Threaded beam clamp 3.0 mm wire

Description	Item No.
Beam clamp BC 3/8"	257366
Threaded rod 3/8" X 6'	257969
Threaded rod connector 3/8" zincd	411747
Hexagon nut 3/8" zincd	411752
MW-EB 3/8 L 3.0 6ft/2m	2331646
MW-EB 3/8 L 3.0 10ft/3m	2331647
MW-EB 3/8 L 3.0 20ft/6m	2331648



Application	Description	Base material	Product lines
	Wire system - Ventilation unit fixed on structural steel - Beam clamps	Steel	Wire system Beam clamps
<b>Comments</b> <ul style="list-style-type: none"> <li>Loading must always be compared with the capacity of the structural steel and all connected parts</li> <li>Only for vertically suspended loads. Not suitable for bracing</li> </ul>			

<sup>1</sup>For UL 2239 Lighting Applications - see UL File E217969 or product packaging for Rated Load Values

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# MECHANICAL / ELECTRICAL HANGING SOLUTIONS

## VENTILATION UNIT LIGHT FIXTURE<sup>1</sup>, OR CEILING PANEL FIXED ON STRUCTURAL STEEL PROFILES - MT CHANNEL

### Eyebolt Combo

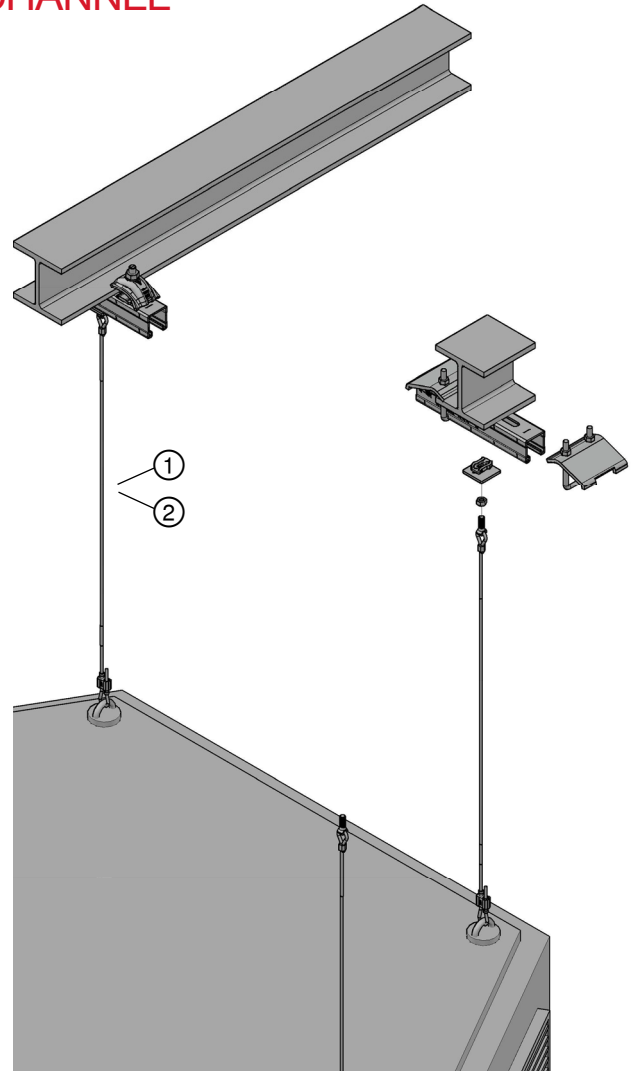


#### ① Centric fixation of MT Channel 2.0 mm wire

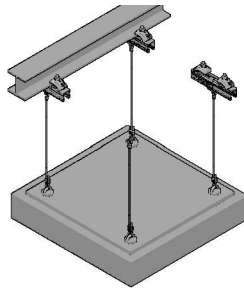
Description	Item No.
Beam clamp MQT-U	2301108
MT-30 13/16" equivalent strut	2268498
Pipe ring saddle MQA-F 1/4"	377884
Hexagon nut 1/4" zinc	411751
MW-EB 1/4 L 2.0 6ft/2m	2331640
MW-EB 1/4 L 2.0 10ft/3m	2331641
MW-EB 1/4 L 2.0 20ft/6m	2331642

#### ② Centric fixation of MT Channel 3.0 mm wire

Description	Item No.
Beam clamp MQT-U	2301108
MT-30 13/16" equivalent strut	2268498
Pipe ring saddle MQA-S 3/8"	2293069
Hexagon nut 3/8" zinc	411752
MW-EB 3/8 L 3.0 6ft/2m	2331646
MW-EB 3/8 L 3.0 10ft/3m	2331647
MW-EB 3/8 L 3.0 20ft/6m	2331648



Ceiling panel



Application	Description	Base material	Product lines
	Wire system - Ventilation unit fixed on structural steel - MT Channel	Steel	Wire system Beam clamps MT Channel
<b>Comments</b> <ul style="list-style-type: none"> <li>Loading must always be compared with the capacity of the steel beam and all connected parts</li> <li>Only for vertically suspended loads. Not suitable for bracing</li> </ul>			

<sup>1</sup> For UL 2239 Lighting Applications - see UL File E217969 or product packaging for Rated Load Values

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# MECHANICAL / ELECTRICAL HANGING SOLUTIONS

## VENTILATION UNIT LIGHT FIXTURE<sup>1</sup>, OR CEILING PANEL FIXED ON STRUCTURAL STEEL PROFILES - LOOPED

### Loop Combo



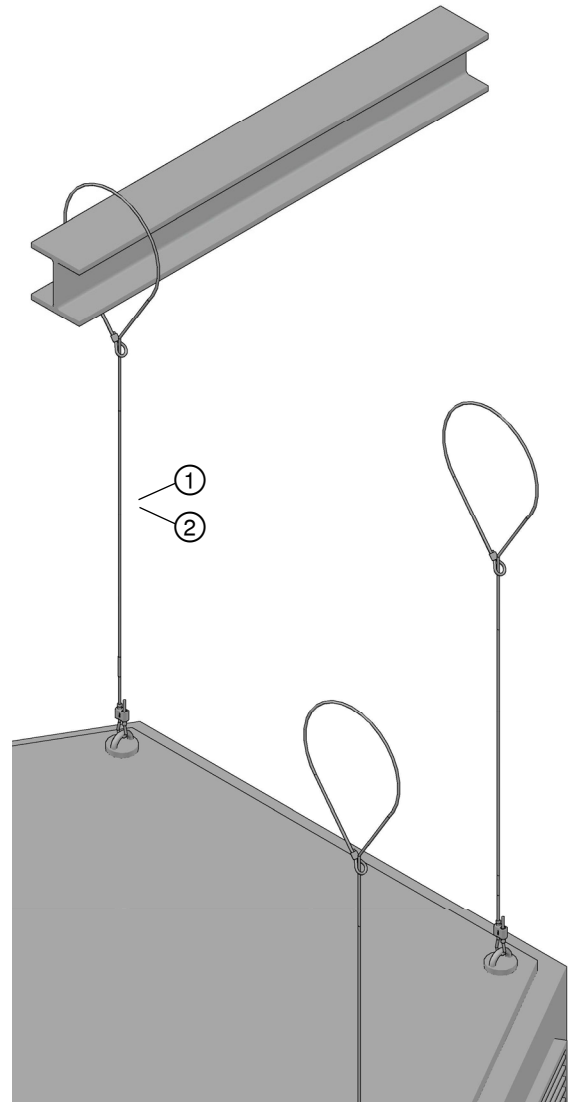
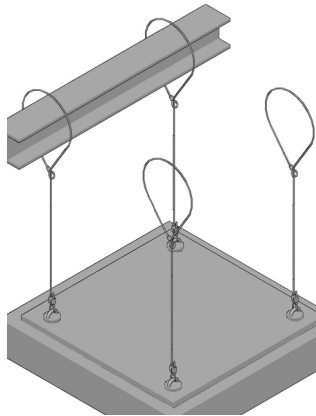
#### ① Looping the profile 2.0 mm wire

Description	Item No.
MW-LP L 2.0 6ft/2m	2331652
MW-LP L 2.0 10ft/3m	2331653
MW-LP L 2.0 20ft/6m	2331654

#### ② Looping the profile 3.0 mm wire

Description	Item No.
MW-LP L 3.0 6ft/2m	2331658
MW-LP L 3.0 10ft/3m	2331659
MW-LP L 3.0 20ft/6m	2331660

Ceiling panel



Application	Description	Base material	Product lines
	Wire system - Ventilation unit fixed on structural steel - Looped	Steel	Wire system
<b>Comments</b> <ul style="list-style-type: none"> <li>Loading must always be compared with the capacity of the structural steel and all connected parts</li> <li>Sharp edges must be avoided to prevent damage to the wire</li> </ul>			

<sup>1</sup>For UL 2239 Lighting Applications - see UL File E217969 or product packaging for Rated Load Values

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## MECHANICAL / ELECTRICAL HANGING SOLUTIONS

### MW-SPECIFIC GENERAL NOTES

- This application is for static loading only not including lifting or nor accessed by persons.
- Hilti wire ropes are manufactured according ASTM-A1023 and are not pre-stretched. When installing, it must be considered that the wire ropes undergo a constructional stretch (extension). The constructional stretch according ASTM-A1023 (extension) is the amount of extension that is attributed to the initial bedding down of wires within the strands and the strands within the rope due to loading. Initial extension cannot be determined by calculation. Stretching over time also uncertain. The height of the suspended parts can be adjusted with the lock.
- Please always refer to the latest instruction manual of the supported media, for example: pipes or cable trays, structures and attachments. The media needs to withstand the local wire rope force, taking into account the angle of loading.
- The wire rope shall not be connected with a hardened steel (max. 170 HB) interface.
- The wire rope interface shall be free of sharp corners (min. 0.5mm x 45° or radius 0.5mm with a minimum thickness of 5mm) to avoid local damage of the wire rope.
- Check that all parts are not damaged before installing. For example, a bent wire will not fit properly in the lock or could disable the locking mechanism.
- Only one wire may be suspended from each connector and/or anchor.
- Before installing, the instructions for use must be consulted.
- Oil, grease, paint and dirt can reduce the load capacity of the wire system and must be avoided.
- The load capacity values are only valid when this system is used exclusively with Hilti locks, wires, and connectors in the recommended combinations shown in the ITM. Capacity of the anchor within the chosen base material must always be checked independently.
- Ensure the correct Wire Rope cutting tool is used to cut the wire, as shown in the instructions for use. The cut wire end must be protected from fraying. If the wrong cutting tool is used the wire may not fit into the lock or could unravel over time.
- The wire system locks, MW-L and MW-CL together with wire can be reused maximum 3 times during installation (loaded to maximum load), for the purpose of adjusting the position. Without loading the locks can be repositioned as many times as necessary. The MW-C clip is single-use only.
- For all MW-EB eye-bolt loop applications the load must be applied such that the eye-bolt and wire are aligned ( $\pm 5^\circ$ ). Counter nuts must be used as shown in the ITM to ensure the eye-bolt does not loosen over time.
- For any applications requiring angles  $> 5^\circ$  the MW-C clip in combination with MW-LP wire loop must be used.



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\*14001 US only

The data contained in this literature was current as of the date of publication. Updates and changes may be made based on later testing. If verification is needed that the data is still current, please contact the Hilti Technical Support Specialists at 1-800-879-8000. All published load values contained in this literature represent the results of testing by Hilti or test organizations. Local base materials were used. Because of variations in materials, on-site testing is necessary to determine performance at any specific site. Laser beams represented by red lines in this publication. Printed in the United States.