MV System - innovative solutions for the air-conditioning and ventilation trade

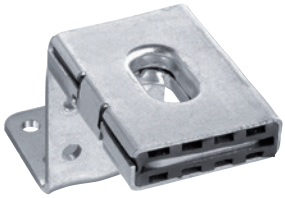
MV-30 Ventilation Channel

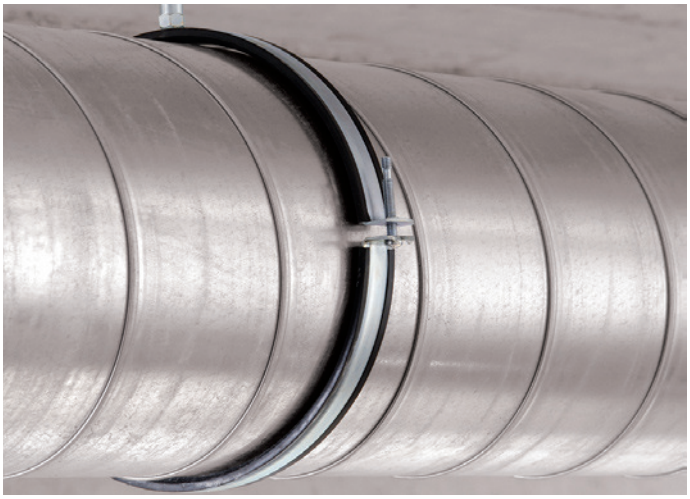
This unique channel system has been specifically designed for supporting rectangular ducts, the high rigidity of the system allows for the vast majority of ductwork to be cost effectively supported using MV. The MV system is also easy to handle due to its low weight and being easy to cut on site. The convenience of the system is further improved through the use of DIN standard parts, see opposite page for further details.

Air Duct Angles

These convenient parts may be used to quickly and easily suspend rectangular air ducting either directly or with the use of threaded rod. The range includes parts which have the ability to provide position adjustment and have adaptable hole patterns for attaching using self drilling screws. Testing has demonstrated that the use of self drilling screws with these parts produces virtually no leakage of pressure from the ductwork.

The range also includes built-in noise adsorption materials and parts which accommodate for the addition of insulation.





MV-PI Spiral Duct Clips

These clips are designed to coincide with the diameters of round spiral ducting. They are quick and easy to fit due to the vertical closure system and the securely fixed rubber inlays. All diameters provide noise insulation.

MV-30 ventilation channel

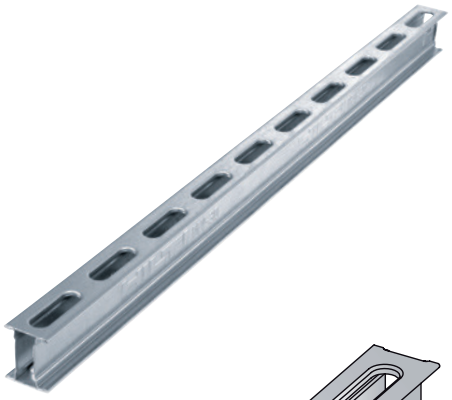
Advantages
- "I" box section for high loads
- One type of channel for most applications
- Easy installation using standard DIN parts *
- Optimized duct installation channel for duct widths of up to 1m
- Low profile and low weight

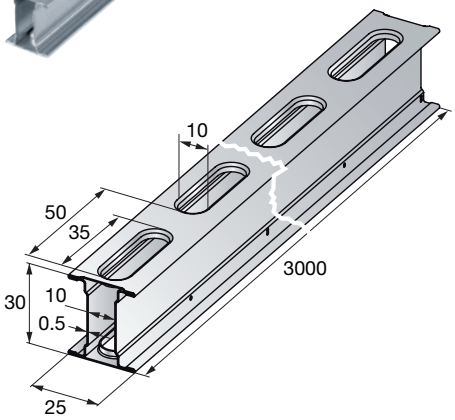
* For suspension with threaded rods use of the following U-washers is recommended:
M8: Item no. : 282860 A 8.4–28 or at least DI ∅ 8.4 × DA 22
M10: Item no. : 282862 A10.5–28 or at least DI ∅ 10.5 × DA 22

Technical data

Material:	DX51D as per DIN EN 10327
Galvanizing:	Sendzimir galvanized, approx. 10 µm

Channel height [mm]	length [m]	Weight / m [g]	Package contents [m]	Ordering designation	Item no.
30	3	490	18	**MV-30 3m**	**386478**





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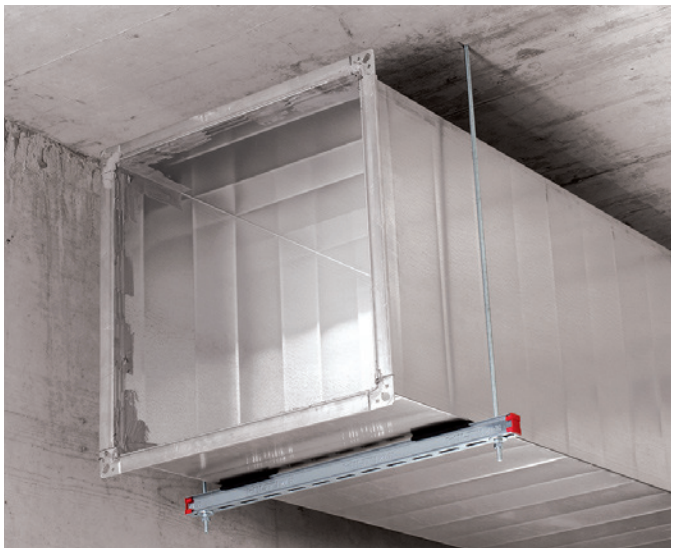
MV-RI rubber inlay for MV-30 channel

For the acoustic insulation of air duct supports.

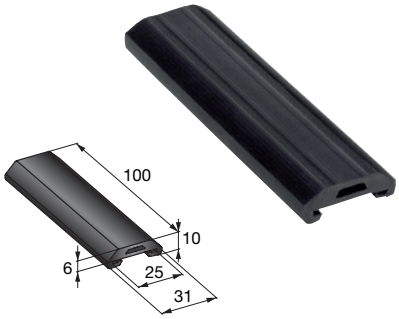


Advantages
- Easy to fit on the channel
- With wide edge-gripping insulating profile, thus no contact between the duct and the channel
- Large area of contact between channel insulation profile and duct for good dissipation or avoidance of vibration and structure-borne sound

Technical data

Material quality:	EPDM
Hardness:	55° ± 5 shore A
Temperature resistance:	−40 °C to +110 °C
Compressive strength:	6 N/mm²
Resistance to aging:	Tested as per DIN 53509 and 53508
Chemical resistance:	UV light, diluted acids and alkalis, alcohol solutions, water and water-based solutions
Limited resistance to:	Hot oil and grease, aliphatic and aromatic hydrocarbons, fuels
Noise reduction:	Up to 13 dB

Acoustic insulation DIN 4109 inspected

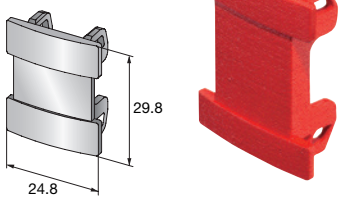


For channel [mm]	Weight each [g]	Package contents	Ordering designation	Item no.
MV-30	4300	1 *	**MV-RI 20 m**	**386548**
MV-30	22	100	**MV-RI 10 cm**	**386549**

* 1 roll of 20 m

MVZ-E30 channel end cap

Made from polypropylene (PP), suitable for MV-30 channel



For channel	Weight each [g]	Package contents	Ordering designation	Item no.
MV-30	2	50	**MVZ-E30**	**386479**

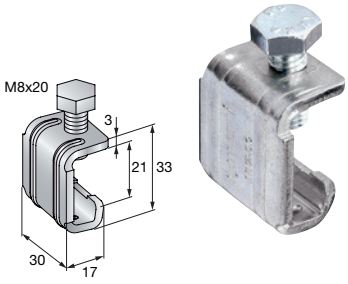
Accessories

MVZ-DC ventilation duct clamp

Advantages
- One clamp for 20 mm and 30 mm flanges
- Two strengthening beads running all round for high rigidity
- Easy to install with screws
  No preliminary installation and drilling required
- Can also be used as additional fastening with large ducts

Technical data

Material:	DD11 steel as per DIN EN 10111
Electrogalvanized:	13 µm
Max. clamping width:	21 mm
Tightening torque:	Md = 5 Nm



Clamping range [mm]	Recom. tightening torque Md [Nm]	Weight each [g]	Package contents	Ordering designation	Item no.
20/30	5	53	100	**MVZ-DC**	**386557**

MV-PI spiral duct clips

The solution for folded spiral-seam tubes as per DIN 24 145 / DIN EN 1506.

Acoustic insulation DIN 4109 inspected

Advantages

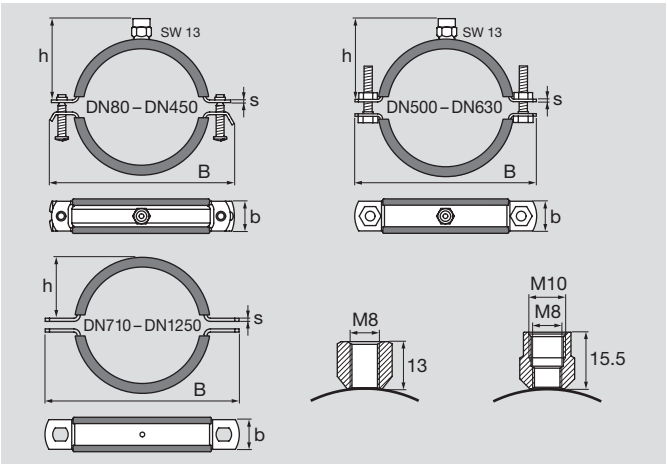
- Click closure: ducts in diameters up to 450 mm can be inserted and fastened quickly and conveniently by way of the vertical quick-lock closure
- Captive acoustic insulation insert; EPDM insert with wide edge-gripping profile (up to 450 mm dia.); adhesive bonded on 500 mm dia. and larger – prevents slippage of rubber insert during installation
- Clamping ranges suitable for all standard sized folded spiral-seam ducts
- Threaded bosses in sizes to suit the application (M8, M/M10)

Technical data

Max. recommended static load for suspension:

Up to size 200	max. F_{rec} = 0,7 kN
Up to size 224– 450	max. F_{rec} = 1,2 kN
Up to size 500– 800	max. F_{rec} = 1,5 kN
Up to size 900–1250	max. F_{rec} = 1,5 kN

Material:	DD11 steel as per DIN EN 10111
Electrogalvanized:	13 µm
Rubber profile material:	EPDM
Temperature resistance:	–40 °C to +110 °C
Hardness:	55° ± 5 shore A
Noise reduction:	DN80–DN200 Up to 17 dB DN224–DN1250 Up to 24 dB



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Nominal diameter	Threaded boss	B [mm]	b [mm]	s [mm]	h [mm]	Closure screw	Weight each [g]	Package contents	Ordering designation	Item no.
80	**M8**	131	20	1.5	55	M6 × 32	132	25	**MV-PI 80 M8**	**386480**
100	**M8**	152	20	1.5	65	M6 × 32	154	25	**MV-PI 100 M8**	**386481**
125	**M8**	177	20	1.5	78	M6 × 32	181	25	**MV-PI 125 M8**	**386482**
140	**M8**	192	20	1.5	85	M6 × 32	197	25	**MV-PI 140 M8**	**386483**
150	**M8**	202	20	1.5	90	M6 × 32	208	20	**MV-PI 150 M8**	**386484**
160	**M8**	212	20	1.5	95	M6 × 32	218	20	**MV-PI 160 M8**	**386485**
180	**M8**	232	20	1.5	105	M6 × 32	240	15	**MV-PI 180 M8**	**386486**
200	**M8**	252	20	1.5	122	M6 × 32	261	15	**MV-PI 200 M8**	**386487**
224	**M8/M10**	281	25	2.0	133	M6 × 42	431	10	**MV-PI 224 M8/M10**	**386488**
250	**M8/M10**	307	25	2.0	146	M6 × 42	473	10	**MV-PI 250 M8/M10**	**386489**
280	**M8/M10**	337	25	2.0	161	M6 × 42	522	10	**MV-PI 280 M8/M10**	**386490**
300	**M8/M10**	359	25	2.0	171	M6 × 42	554	10	**MV-PI 300 M8/M10**	**386491**
315	**M8/M10**	374	25	2.0	176	M6 × 42	579	10	**MV-PI 315 M8/M10**	**386492**
355	**M8/M10**	414	25	2.0	198	M6 × 42	645	10	**MV-PI 355 M8/M10**	**386493**
400	**M8/M10**	459	25	2.0	221	M6 × 42	718	10	**MV-PI 400 M8/M10**	**386494**
450	**M8/M10**	509	25	2.0	247	M6 × 42	800	10	**MV-PI 450 M8/M10**	**386495**
500	**M8/M10**	566	25	2.5	267	M10 × 50	1109	10	**MV-PI 500 M8/M10**	**386496**
560	**M8/M10**	626	25	2.5	298	M10 × 50	1224	10	**MV-PI 560 M8/M10**	**386497**
600	**M8/M10**	666	25	2.5	318	M10 × 50	1300	10	**MV-PI 600 M8/M10**	**386498**
630	**M8/M10**	698	25	2.5	333	M10 × 50	1359	10	**MV-PI 630 M8/M10**	**386499**
710	**–**	778	25	2.5	357	Hole 11 × 13	1313	10	**MV-PI 710**	**386500**
800	**–**	868	25	2.5	402	Hole 11 × 13	1584	10	**MV-PI 800**	**386501**
900	**–**	971	30	3.0	451	Hole 11 × 13	2458	10	**MV-PI 900**	**386502**
1000	**–**	1071	30	3.0	502	Hole 11 × 13	2723	10	**MV-PI 1000**	**386503**
1120	**–**	1192	30	3.0	562	Hole 11 × 13	3040	8	**MV-PI 1120**	**386504**
1250	**–**	1322	30	3.0	627	Hole 11 × 13	3383	6	**MV-PI 1250**	**386505**

MV-SI perforated band hanger

The flexible perforated band suspension system.

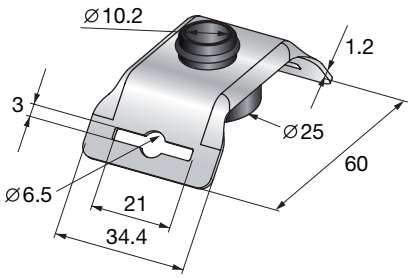
Advantages
- Easy to use
- Fits all folded spiral-seam tube sizes
- Built-in acoustic insulation piece with through-hole and preassembled U-washer for M8/M10 threaded rods
- Height adjustment possible even after installation
- Insulation piece does not drop out during installation

Technical data

Max. recommended static load for suspension: kN *	max. F_{rec} = 0,6
Perforated band fastened by M6 metric screw and M6 hex. nut	
Material:	DD11 steel as per DIN EN 10111
Galvanizing:	Sendzimir galvanized, approx. 10 µm
Insulation piece:	EPDM
Temperature resistance:	–40 °C to +110 °C
Hardness:	60° ±5 shore A
Noise reduction:	Up to 18 dB

* Load values for MV-SI only. The load values for the selected perforated band must be taken into account.

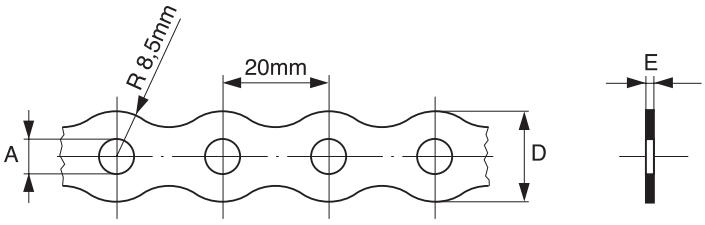
Acoustic insulation DIN 4109 inspected



For max. bandwidth [mm]	For max. bandthickness [mm]	Max. load F_{max} [kN]	Weight each [g]	Package contents	Ordering designation	Item no.
20	2.5	0.6	29	50	**MV-SI**	**386530**

Perforated band

In 10-meter rolls



Advantages
- Matched accessory for use with MV-SI perforated band hanger
- Suitable for universal use
- Good appearance
- Good corrosion resistance
- Punched edges are plastic coated (LBK18)

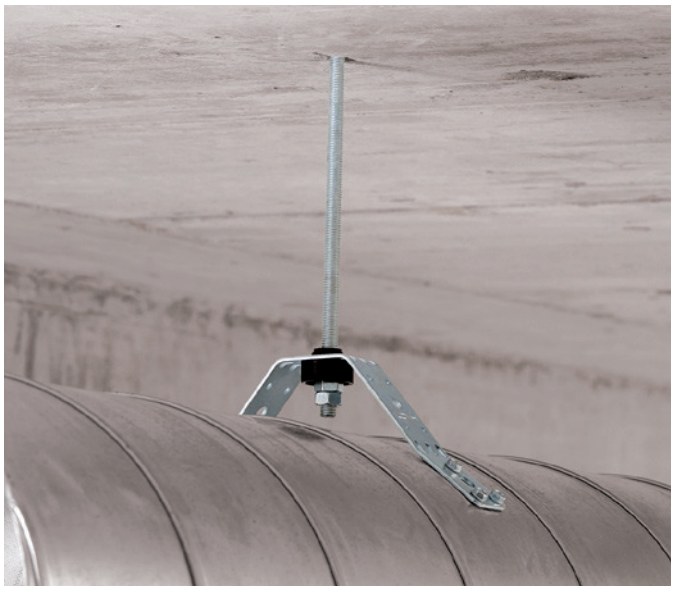
Technical data

Material:	Galvanized steel (LB17) with additional plastic coating (only LBK 18)

Hole spacing [mm]	Band width D [mm]	Hole dia. A [mm]	Band thickness E [mm]	Max. load F_{max} [kN]	Weight each [g]	Package contents	Ordering designation	Item no.
21	17	6.6	1.5	1.2	950	1	**LB 17**	**57712**
20	17	7	1.5	1.2	992	1	**LBK18**	**57724**

MVA-S ventilation duct hanger

For fastening folded spiral-seam tubes in visual range.



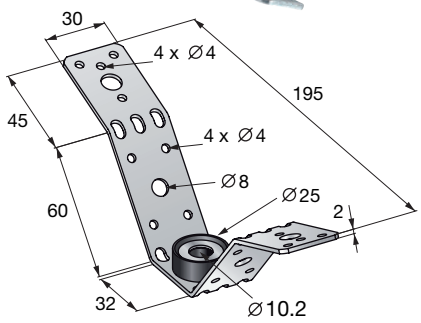
Advantages
- With predetermined bending points: adapts easily to any duct diameter
- Large distance between fastening points: less deformation of the duct
- Ideal in visual range
- Built-in acoustic insulation piece with through-hole and preassembled U-washer for M8/M10 threaded rods

Fastening
- Self-drilling screws, 4.2 mm dia.
- Blind rivets: other rivets, 4.0 mm dia.

Technical data

Material:	DD11 steel as per DIN EN 10111
Electrogalvanized:	13 µm
Insulation piece:	EPDM
Temperature resistance:	–40 °C to +110 °C
Hardness:	60° ± 5 shore A
Noise reduction:	Up to 18 dB

Acoustic insulation DIN 4109 inspected



For threaded rod	Max. load F_{max} [kN]	Weight each [g]	Package contents	Ordering designation	Item no.
M8/M10	0.6	115	20	**MVA-S**	**386544**

Hilti S-MS01Z 4.0x13 screws - the high speed screw for mechanical ventilation installation.

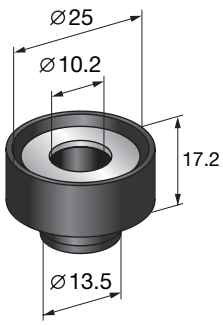
Item no. **406473**

Item no. **406471**

MVI-B acoustic insulation buffer

Advantages
- Built-in acoustic insulation piece with through-hole and preassembled U-washer for M8/M10 threaded rods
- The universal acoustic insulation element

Acoustic insulation DIN 4109 inspected



Technical data

Insulating element:	EPDM
Temperature resistance:	–40 °C to +110 °C
Hardness:	60° ± 5 shore A
Noise reduction:	Up to 18 dB

For threaded rod	Max. load F_{max} [kN]	Weight each [g]	Package contents	Ordering designation	Item no.
M8/M10	0.6	11	100	**MVI-B**	**386556**

MVA-LC ventilation comfort angle

The exceptional fastening system for rectangular air ducts, suspended and in vertical shafts.

Advantages

- Convenient solution for fastening ventilation ducts directly to ceilings, suspended on threaded rods or in conjunction with MQ system for rising ducts
- Scale for precise alignment and stand-off installation
- Elongated hole allows compensation of dimensional tolerances in the structure and avoidance of rebars during installation
- Rapid installation possible with in-place parts (holes can be drilled through the elongated hole)
- Can be fitted on MQ installation channel or fastened directly to the base material
- Easy subsequent installation of insulation thanks to 30 mm space between the threaded rod and the duct
- Hole size/shape suitable for fastening to ducts using self-drilling screws (4.2, 4.8, 6.3), blind rivets and metric screws / threaded rods (M8))

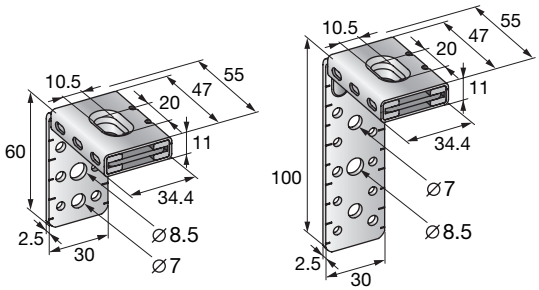
Technical data

Material:	DD11 steel as per DIN EN 10111
Electrogalvanized:	13 µm
Insulation piece:	EPDM
Temperature resistance:	−40 °C to +110 °C
Hardness:	40° ± 5 shore A
Noise reduction:	Up to 12 dB

Length (L) [mm]	For threaded rod	Max. load F_{max} [kN]	Weight each [g]	Package contents	Ordering designation	Item no.
60	M8*/M10	0.6	143	25	**MVA-LC 60**	**386533**
100	M8*/M10	0.6	154	25	**MVA-LC 100**	**386534**

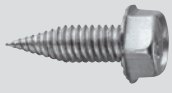
* U-washer recommended, diameter DI 8.4 x DA at least 18

Acoustic insulation DIN 4109 inspected



Hilti S-MS01Z 4.0x13 screws - the high speed screw for mechanical ventilation installation.

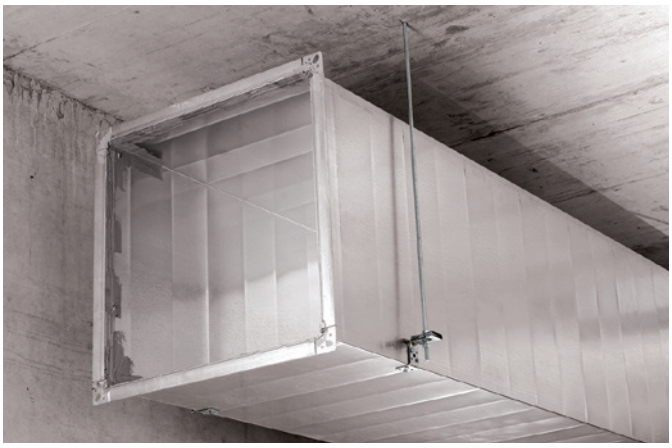
Item no. **406473**



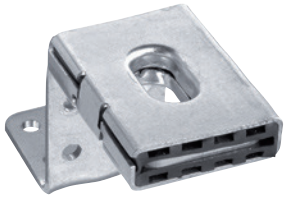
Item no. **406471**

MVA-ZC ventilation comfort angle

The easy-to-install suspension system with acoustic insulation for rectangular air ducts.



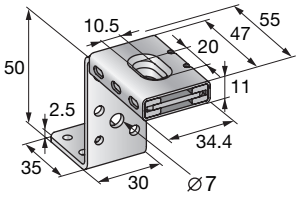
Advantages
- Elongated hole allows compensation of dimensional tolerances in the structure and avoidance of rebars during installation
- Rapid through-fastening for M8/M10 threaded rods
- Captive acoustic insulation piece
- Height adjustment possible even after installation
- Hole size/shape suitable for self-drilling screws (4.2, 4.8, 6.3) and rivets
- Easy subsequent installation of insulation thanks to 30 mm space between the threaded rod and the duct



Acoustic insulation DIN 4109 inspected

Technical data

Material:	DD11 steel as per DIN EN 10111
Electrogalvanized:	13 µm
Insulation piece:	EPDM
Temperature resistance:	–40 °C to +110 °C
Hardness:	40° ± 5 shore A
Noise reduction:	Up to 12 dB

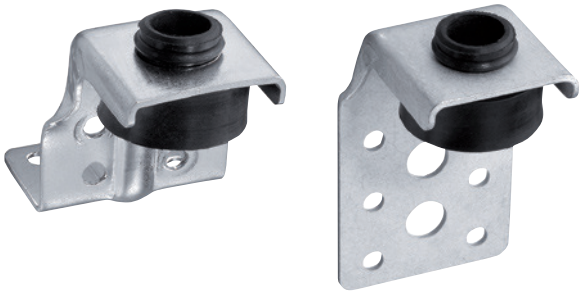


Max. load F_{max} [kN]	For threaded rod	Weight each [g]	Package contents	Ordering designation	Item no.
0.6	M8*/ M10	136	25	**MVA-ZC**	**386531**

* U-washer recommended, diameter DI 8.4 x DA at least 18

MVA-Z/-L ventilation angle

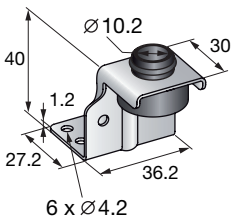
The compact solution for suspended air ducts.

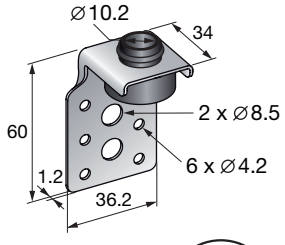


Advantages
- Easy-to-install threaded rod suspension system for ventilation ducts
- Built-in acoustic insulation piece with through-hole and preassembled U-washer for M8/M10 threaded rods
- Height adjustment possible even after installation
- Angle can be covered with insulation (small gap between angle and duct)
- Hole size/shape suitable for self-drilling screws (4.2) and blind rivets

Technical data

Material:	DD11 steel as per DIN EN 10111
Galvanized:	Sendzimir galvanized, 10 µm
Insulation piece:	EPDM
Temperature resistance:	–40 °C to +110 °C
Hardness:	60° ± 5 shore A
Noise reduction:	Up to 18 dB



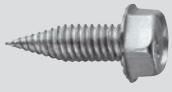


Length [mm]	Max. load F_{max} [kN]	For threaded rod	Weight each [g]	Package contents	Ordering designation	Item no.
40	0.5	M8/M10	38	50	**MVA-Z**	**386532**
60	0.5	M8/M10	37	50	**MVA-L**	**386535**

Acoustic insulation DIN 4109 inspected

Hilti S-MS01Z 4.0x13 screws - the high speed screw for mechanical ventilation installation.

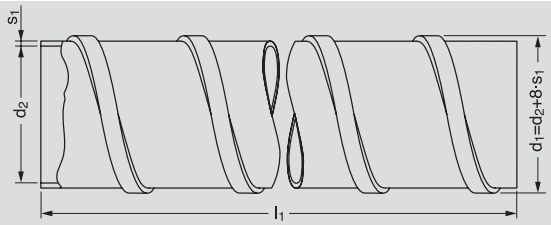
Item no. **406473**



Item no. **406471**

Table of duct sizes

Folded spiral-seam tube, sizes and dimensions as per DIN 24 145 / DIN EN 1506.



MV-PI / -PIF					Weight empty ~ kg/m for S_1*					
rings	DN	d_1 [mm]	d_2 [mm]	S_1 [mm]	0,4 [mm]	0,5 [mm]	0,6 [mm]	0,8 [mm]	1,0 [mm]	1,2 [mm]
MV-PI / -PIF 80	**80**	83.2	80	0.4	0.85	1.13	1.35			
MV-PI / -PIF 100	**100**	104.8	100	0.6	1.08	1.41	1.61	2.25		
MV-PI / -PIF 125	**125**	129.8	125	0.6	1.36	1.76	2.05	2.81		
MV-PI / -PIF 140			*	*	1.52	1.97	2.36	3.15		
MV-PI / -PIF 150	**150**	154.8	150	0.6		2.11	2.47	3.38		
MV-PI / -PIF 160	**160**	164.8	160	0.6		2.25	2.65	3.60		
MV-PI / -PIF 180			*	*		2.53	3.07	4.05		
MV-PI / -PIF 200	**200**	204.8	200	0.6		2.81	3.36	4.50	5.63	
MV-PI / -PIF 224			*	*		3.15	3.78	5.04	6.30	
MV-PI / -PIF 250	**250**	254.8	250	0.6		3.52	4.20	5.63	7.03	
MV-PI / -PIF 280			*	*		3.94	4.73	6.30	7.88	
MV-PI / -PIF 300	**300**	306.4	300	0.8		4.22	5.06	6.73	8.44	
MV-PI / -PIF 315	**315**	321.4	315	0.8		4.43	5.32	7.07	8.86	
MV-PI / -PIF 355	**355**	361.4	355	0.8		4.99	5.99	7.35	10.00	
MV-PI / -PIF 400	**400**	406.4	400	0.8		5.63	6.75	8.25	11.25	13.77
MV-PI / -PIF 450	**450**	456.4	450	0.8			7.60	9.35	12.66	15.49
MV-PI / -PIF 500	**500**	506.4	500	0.8			8.44	10.40	14.06	17.21
MV-PI / -PIF 560	**560**	566.4	560	0.8			9.46	11.70	15.75	19.28
MV-PI / -PIF 600			*	*			10.13	13.50	16.82	20.65
MV-PI / -PIF 630	**630**	638.0	630	1.0			10.64	14.18	16.50	21.69
MV-PI / -PIF 710	**710**	718.0	710	1.0				15.98	18.60	24.44
MV-PI / -PIF 800	**800**	808.0	800	1.0				18.01	21.00	27.54
MV-PI / -PIF 900	**900**	908.0	900	1.0				20.26	24.60	30.98
MV-PI / -PIF 1000	**1000**	1009.6	1000	1.2				22.51	28.13	31.50
MV-PI 1120	**1120**	1129.6	1120	1.2					31.51	35.20
MV-PI 1250	**1250**	1259.6	1250	1.2					35.17	39.40

* Intermediate sizes and sheet metal thicknesses not covered by the standard are possible (e.g. transportation of solids or aggressive vapors)

Weights and selection of channel without insulation
Rectangular-section ventilation duct as per DIN 24190 (galvanized, folded seam)
The weights given are guide values. Information provided by suppliers must be observed.

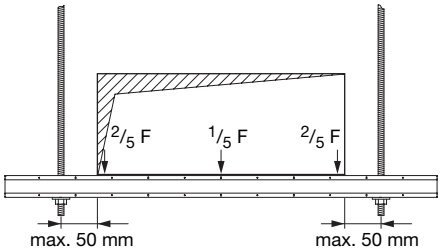
Weight in [kg per meter length] depending on width / height and sheet metal thickness [mm].
Duct connecting parts (frames) are to be taken into account by an average correction factor.

Sheet 0.75			Sheet 0.88						Sheet 1.0						Sheet 1.13						Sheet 1.25				
200	224	250	280	315	355	400	450	500	560	630	710	800	900	1000	1120	1250	1400	1600	1800	2000	2240	2500	2800	3150	B / H
6.1	6.4	6.8	8.3	8.9	9.6	10.4	11.2	12.1	14.9	16.3	17.9	19.6	21.6	23.6	29.3	32.2	35.5	39.9	44.4	48.8	69.4	76.8	85.4	95.3	200
	6.8	7.1	8.7	9.3	10.0	10.8	11.6	12.5	15.4	16.8	18.3	20.1	22.1	24.0	29.8	32.7	36.0	40.4	44.9	49.3	70.1	77.5	86.1	96.0	224
		7.4	9.2	9.8	10.4	11.2	12.1	13.0	15.9	17.3	18.8	20.6	22.6	24.5	30.4	33.3	36.6	41.0	45.5	49.9	70.9	78.3	86.8	96.8	250
			9.7	10.3	11.0	11.7	12.6	13.5	16.5	17.9	19.4	21.2	23.2	25.1	31.0	33.9	37.3	41.7	46.1	50.6	71.7	79.1	87.6	97.6	280
				10.9	11.6	12.3	13.2	14.1	17.2	18.5	20.1	21.9	23.8	25.8	31.8	34.7	38.0	42.5	46.9	51.3	72.7	80.1	88.6	98.6	315
					12.3	13.0	13.9	14.8	18.0	19.3	20.9	22.7	24.6	26.6	32.7	35.6	38.9	43.4	47.8	52.2	73.8	81.2	89.8	99.7	355
						13.8	14.7	15.5	18.8	20.2	21.8	23.6	25.5	27.5	33.7	36.6	39.9	44.4	48.8	53.2	75.1	82.5	91.1	101.0	400
							15.5	16.4	19.8	21.2	22.8	24.5	26.5	28.5	34.8	37.7	41.0	45.5	49.9	54.3	76.5	83.9	92.5	102.4	450
								17.3	20.8	22.2	23.7	25.5	27.5	29.4	35.9	38.8	42.1	46.6	51.0	55.4	78.0	85.4	93.9	103.9	500
									22.0	23.4	24.9	26.7	28.7	30.6	37.3	40.1	43.5	47.9	52.3	56.8	79.7	87.1	95.6	105.6	560
										24.7	26.3	28.1	30.0	32.0	38.8	41.7	45.0	49.5	53.9	58.3	81.7	89.1	97.6	107.6	630
											27.9	29.6	31.6	33.6	40.6	43.5	46.8	51.2	55.7	60.1	83.9	91.3	99.9	109.8	710
												31.4	33.4	35.3	42.6	45.5	48.8	53.2	57.7	62.1	86.5	93.9	102.4	112.4	800
													35.3	37.3	44.8	47.7	51.0	55.4	59.9	64.3	89.4	96.8	105.3	115.2	900
														39.3	47.0	49.9	53.2	57.7	62.1	66.5	92.2	99.6	108.1	118.1	1000
															49.7	52.6	55.9	60.3	64.8	69.2	95.6	103.0	111.5	121.5	1120
															52.6	55.4	58.8	63.2	67.6	72.1	99.3	106.7	115.2	125.2	1250
															55.9	58.8	62.1	66.5	71.0	75.4	103.6	111.0	119.5	129.5	1400
															60.3	63.2	66.5	71.0	75.4	79.8	109.3	116.7	125.2	135.2	1600
															64.8	67.6	71.0	75.4	79.8	84.3	115.0	122.4	130.9	140.9	1800
															69.2	72.1	75.4	79.8	84.3	88.7	120.7	128.1	136.6	146.5	2000
															74.5	77.4	80.7	85.2	89.6	94.0	127.5	134.9	143.4	153.4	2240
															80.3	83.2	86.5	90.9	95.4	99.8	134.9	142.3	150.8	160.8	2500
															86.9	89.8	93.1	97.6	102.0	106.4	143.4	150.8	159.4	169.3	2800
															94.7	97.6	100.9	105.3	109.8	114.2	153.4	160.8	169.3	179.3	3150

Channel selection table: Weights given apply to a span of 3.0 meters between fastening points.
Weight in [kg per meter length] depending on width / height and sheet metal thickness [mm].
Duct connecting parts (frames) are to be taken into account by an average correction factor.

Sheet 0.75			Sheet 0.88						Sheet 1.0						Sheet 1.13						Sheet 1.25				
200	224	250	280	315	355	400	450	500	560	630	710	800	900	1000	1120	1250	1400	1600	1800	2000	2240	2500	2800	3150	B / H
18,4	19,3	20,4	24.9	26.7	28.8	31.1	33.7	36.3	44.8	48.9	53.6	58.9	64.8	70.7	87.8	96.5	106.4	119.8	133.1	146.4	208.3	230.5	256.1	286.0	200
	20.3	21.3	26.1	27.9	30.0	32.3	34.9	37.5	46.2	50.3	55.0	60.3	66.2	72.1	89.4	98.1	108.0	121.3	134.7	148.0	210.3	232.5	258.2	288.0	224
		22.3	27.5	29.3	31.4	33.7	36.3	38.9	47.7	51.8	56.5	61.8	67.7	73.6	91.1	99.8	109.8	123.1	136.4	149.7	212.6	234.8	260.4	290.3	250
			29.0	30.8	32.9	35.2	37.8	40.4	49.5	53.6	58.3	63.6	69.5	75.4	93.1	101.8	111.8	125.1	138.4	151.7	215.1	237.3	262.9	292.8	280
				32.6	34.7	37.0	39.6	42.2	51.5	55.6	60.4	65.7	71.5	77.4	95.5	104.1	114.1	127.4	140.7	154.0	218.1	240.3	265.9	295.8	315
					36.8	39.1	41.7	44.3	53.9	58.0	62.7	68.0	73.9	79.8	98.1	106.8	116.8	130.1	143.4	156.7	221.5	243.7	269.3	299.2	355
						41.5	44.0	46.6	56.5	60.6	65.4	70.7	76.5	82.4	101.1	109.8	119.8	133.1	146.4	159.7	225.4	247.6	273.2	303.1	400
							46.6	49.2	59.5	63.6	68.3	73.6	79.5	85.4	104.5	113.1	123.1	136.4	149.7	163.0	229.6	251.8	277.4	307.3	450
								51.8	62.4	66.5	71.2	76.5	82.4	88.3	107.8	116.4	126.4	139.7	153.0	166.3	233.9	256.1	281.7	311.6	500
									65.9	70.1	74.8	80.1	86.0	91.9	111.7	120.4	130.4	143.7	157.0	170.3	239.0	261.2	286.8	316.7	560
										74.2	78.9	84.2	90.1	96.0	116.4	125.1	135.1	148.4	161.7	175.0	245.0	267.2	292.8	322.7	630
											83.6	88.9	94.8	100.7	121.8	130.4	140.4	153.7	167.0	180.3	251.8	274.0	299.6	329.5	710
												94.2	100.1	106.0	127.7	136.4	146.4	159.7	173.0	186.3	259.5	281.7	307.3	337.2	800
													106.0	111.9	134.4	143.0	153.0	166.3	179.6	192.9	268.1	290.3	315.9	345.7	900
														117.8	141.1	149.7	159.7	173.0	186.3	199.6	276.6	298.8	324.4	354.3	1000
															149.0	157.7	167.7	181.0	194.3	207.6	286.8	309.0	334.6	364.5	1120
															157.7	166.3	176.3	189.6	202.9	216.2	297.9	320.1	345.7	375.6	1250
															167.7	176.3	186.3	199.6	212.9	226.2	310.7	332.9	358.5	388.4	1400
															181.0	189.6	199.6	212.9	226.2	239.5	327.8	350.0	375.6	405.5	1600
															194.3	202.9	212.9	226.2	239.5	252.8	344.9	367.1	392.7	422.6	1800
															207.6	216.2	226.2	239.5	252.8	266.1	362.0	384.2	409.8	439.6	2000
															223.5	232.2	242.2	255.5	268.8	282.1	382.5	404.6	430.3	460.1	2240
															240.8	249.5	259.5	272.8	286.1	299.4	404.6	426.8	452.5	482.3	2500
															260.8	269.4	279.4	292.7	306.0	319.3	430.3	452.5	478.1	507.9	2800
															284.1	292.7	302.7	316.0	329.3	342.6	460.1	482.3	507.9	537.8	3150

MV 30
MQ-31
MQ-41
MQ-41/3
MQ-52
MQ-72



8

Weights and selection of channel with insulation

Rectangular-section ventilation duct as per DIN 24190 (galvanized, folded seam) with insulation (30 mm alu foil-backed mineral wool) The weights given are guide values. Information provided by suppliers must be observed.

Weight in [kg per meter length] depending on width / height and sheet metal thickness [mm].
Duct connecting parts (frames) are to be taken into account by an average correction factor.

Sheet 0.75			Sheet 0.88						Sheet 1.0						Sheet 1.13						Sheet 1.25				
200	224	250	280	315	355	400	450	500	560	630	710	800	900	1000	1120	1250	1400	1600	1800	2000	2240	2500	2800	3150	B / H
7.6	8.0	8.4	10.0	10.7	11.6	12.5	13.6	14.6	17.7	19.3	21.1	23.2	25.5	27.9	34.0	37.4	41.2	46.4	51.6	56.7	78.2	86.6	96.2	107.4	200
	8.4	8.8	10.5	11.2	12.1	13.0	14.1	15.1	18.2	19.8	21.7	23.8	26.1	28.4	34.6	38.0	41.9	47.0	52.2	57.3	79.0	87.3	96.9	108.2	224
		9.2	11.1	11.8	12.6	13.6	14.6	15.7	18.8	20.4	22.3	24.4	26.7	29.0	35.3	38.7	42.5	47.7	52.8	58.0	79.8	88.2	97.8	109.0	250
			11.7	12.4	13.3	14.2	15.2	16.3	19.5	21.1	23.0	25.1	27.4	29.7	36.1	39.4	43.3	48.5	53.6	58.8	80.8	89.1	98.7	110.0	280
				13.1	14.0	14.9	16.0	17.0	20.3	21.9	23.8	25.9	28.2	30.5	37.0	40.3	44.2	49.4	54.5	59.7	81.9	90.2	99.9	111.1	315
					14.8	15.8	16.8	17.8	21.3	22.9	24.7	26.8	29.1	31.5	38.0	41.4	45.2	50.4	55.5	60.7	83.2	91.5	101.1	112.4	355
						16.7	17.7	18.8	22.3	23.9	25.8	27.9	30.2	32.5	39.2	42.5	46.4	51.6	56.7	61.9	84.6	93.0	102.6	113.8	400
							18.8	19.8	23.5	25.1	26.9	29.0	31.4	33.7	40.5	43.8	47.7	52.8	58.0	63.2	86.2	94.6	104.2	115.4	450
								20.9	24.6	26.2	28.1	30.2	32.5	34.8	41.8	45.1	49.0	54.1	59.3	64.4	87.8	96.2	105.8	117.0	500
									26.0	27.6	29.5	31.6	33.9	36.2	43.3	46.7	50.5	55.7	60.8	66.0	89.8	98.1	107.7	118.9	560
										29.3	31.1	33.2	35.5	37.9	45.1	48.5	52.3	57.5	62.6	67.8	92.0	100.3	110.0	121.2	630
											33.0	35.1	37.4	39.7	47.2	50.5	54.4	59.5	64.7	69.9	94.6	102.9	112.5	123.7	710
												37.2	39.5	41.8	49.5	52.8	56.7	61.9	67.0	72.2	97.5	105.8	115.4	126.6	800
													41.8	44.1	52.1	55.4	59.3	64.4	69.6	74.8	100.7	109.0	118.6	129.8	900
														46.5	54.6	58.0	61.9	67.0	72.2	77.3	103.9	112.2	121.8	133.0	1000
															57.7	61.1	65.0	70.1	75.3	80.4	107.7	116.0	125.7	136.9	1120
															61.1	64.4	68.3	73.5	78.6	83.8	111.9	120.2	129.8	141.0	1250
															65.0	68.3	72.2	77.3	82.5	87.6	116.7	125.0	134.6	145.9	1400
															70.1	73.5	77.3	82.5	87.6	92.8	123.1	131.4	141.0	152.3	1600
															75.3	78.6	82.5	87.6	92.8	97.9	129.5	137.8	147.5	158.7	1800
															80.4	83.8	87.6	92.8	97.9	103.1	135.9	144.3	153.9	165.1	2000
															86.6	90.0	93.8	99.0	104.1	109.3	143.6	151.9	161.6	172.8	2240
															93.3	96.7	100.5	105.7	110.8	116.0	151.9	160.3	169.9	181.1	2500
															101.0	104.4	108.3	113.4	118.6	123.7	161.6	169.9	179.5	190.7	2800
															110.1	113.4	117.3	122.4	127.6	132.7	172.8	181.1	190.7	202.0	31500

Channel selection table: Weights given apply to a span of 3.0 meters between fastening points.
Weight in [kg per meter length] depending on width / height and sheet metal thickness [mm].
Duct connecting parts (frames) are to be taken into account by an average correction factor.

Sheet 0.75			Sheet 0.88						Sheet 1.0						Sheet 1.13						Sheet 1.25				
200	224	250	280	315	355	400	450	500	560	630	710	800	900	1000	1120	1250	1400	1600	1800	2000	2240	2500	2800	3150	B / H
22.7	23.9	25.2	30.1	32.2	34.7	37.6	40.7	43.8	53.0	57.8	63.4	69.7	76.6	83.6	102.1	112.1	123.7	139.2	154.7	170.1	234.7	259.7	288.5	322.2	200
	25.1	26.4	31.6	33.7	36.3	39.1	42.2	45.3	54.6	59.5	65.1	71.3	78.3	85.3	103.9	114.0	125.6	141.0	156.5	172.0	237.0	262.0	290.8	324.5	224
		27.7	33.2	35.4	37.9	40.7	43.8	47.0	56.4	61.3	66.9	73.2	80.1	87.1	105.9	116.0	127.6	143.1	158.5	174.0	239.5	264.5	293.3	327.0	250
			35.1	37.3	39.8	42.6	45.7	48.8	58.5	63.4	69.0	75.2	82.2	89.2	108.3	118.3	129.9	145.4	160.8	176.3	242.3	267.3	296.2	329.9	280
				39.4	41.9	44.8	47.9	51.0	61.0	65.8	71.4	77.7	84.7	91.6	111.0	121.0	132.6	148.1	163.6	179.0	245.7	270.7	299.6	333.2	315
					44.5	47.3	50.4	53.5	63.8	68.6	74.2	80.5	87.4	94.4	114.1	124.1	135.7	151.2	166.6	182.1	249.6	274.6	303.4	337.1	355
						50.1	53.2	56.3	66.9	71.8	77.3	83.6	90.6	97.5	117.5	127.6	139.2	154.7	170.1	185.6	253.9	278.9	307.7	341.4	400
							56.3	59.5	70.4	75.2	80.8	87.1	94.1	101.0	121.4	131.5	143.1	158.5	174.0	189.5	258.7	283.7	312.5	346.2	450
								62.6	73.9	78.7	84.3	90.6	97.5	104.5	125.3	135.3	146.9	162.4	177.9	193.3	263.5	288.5	317.4	351.0	500
									78.0	82.9	88.5	94.8	101.7	108.7	129.9	140.0	151.6	167.0	182.5	198.0	269.3	294.3	323.1	356.8	560
										87.8	93.4	99.6	106.6	113.6	135.3	145.4	157.0	172.4	187.9	203.4	276.0	301.0	329.9	363.5	630
											98.9	105.2	112.2	119.1	141.5	151.6	163.2	178.6	194.1	209.6	283.7	308.7	337.6	371.2	710
												111.5	118.4	125.4	148.5	158.5	170.1	185.6	201.1	216.5	292.4	317.4	346.2	379.9	800
													125.4	132.4	156.2	166.3	177.9	193.3	208.8	224.3	302.0	327.0	355.8	389.5	900
														139.4	163.9	174.0	185.6	201.1	216.5	232.0	311.6	336.6	365.4	399.1	1000
															173.2	183.3	194.9	210.3	225.8	241.3	323.1	348.1	377.0	410.6	1120
															183.3	193.3	204.9	220.4	235.9	251.3	335.6	360.6	389.5	423.1	1250
															194.9	204.9	216.5	232.0	247.5	262.9	350.1	375.1	403.9	437.6	1400
															210.3	220.4	232.0	247.5	262.9	278.4	369.3	394.3	423.1	456.8	1600
															225.8	235.9	247.5	262.9	278.4	293.8	388.5	413.5	442.4	476.0	1800
															241.3	251.3	262.9	278.4	293.8	309.3	407.8	432.8	461.6	495.3	2000
															259.8	269.9	281.5	296.9	312.4	327.9	430.8	455.8	484.7	518.3	2240
															279.9	290.0	301.6	317.0	332.5	348.0	455.8	480.8	509.7	543.4	2500
															303.1	313.2	324.8	340.2	355.7	371.2	484.7	509.7	538.5	572.2	2800
															330.2	340.2	351.8	367.3	382.8	398.2	518.3	543.4	572.2	605.9	3150

MV 30
MQ-31
MQ-41
MQ-41/3
MQ-52
MQ-72