

Self-supporting air-termination rods with tripod to protect roof-mounted structures, adjustable to the roof inclination up to max. 10°
 The air-termination rods are dimensioned for wind velocities up to 145 km/h and 162 km/h (wind load zone II + III).
 The concrete base (Part No. 102 075 or 102 010) and the support plate (Part No. 102 060 or 102 050) have to be ordered separately.

Air-termination rod	Concrete base	Support plate
Part No.	Part No.	Part No.
105 425	3x 102 075	3x 102 060
105 430	3x 102 010	3x 102 050
105 435	3x 102 010	3x 102 050

Components:

- Tubular air-termination rod, tapered Ø22/16/10 mm
- Terminal clamp (rod clamp) for Rd 8-10 mm
- Tripod for wedge mounting concrete base

Part No.	105 425	105 430	105 435
Height	2500 mm	3000 mm	3500 mm
Length (Ø22x4) (l1)	500 mm	1000 mm	1500 mm
Length (Ø16/10) (l2)	2000 mm	2000 mm	2000 mm
Radius	250 mm	250 mm	250 mm
Space required for tripod (l x w)	620x670 mm	750x810 mm	750x810 mm
Quantity of bases	3 blocks 8.5 kg each	3 blocks 17 kg each	3 blocks 17 kg each
Material of air-termination rod	Al	Al	Al
Material of tripod	St/tZn	St/tZn	St/tZn
Standard	EN 50164-(1+2)	EN 50164-(1+2)	EN 50164-(1+2)

More details in installation instructions No. 1712



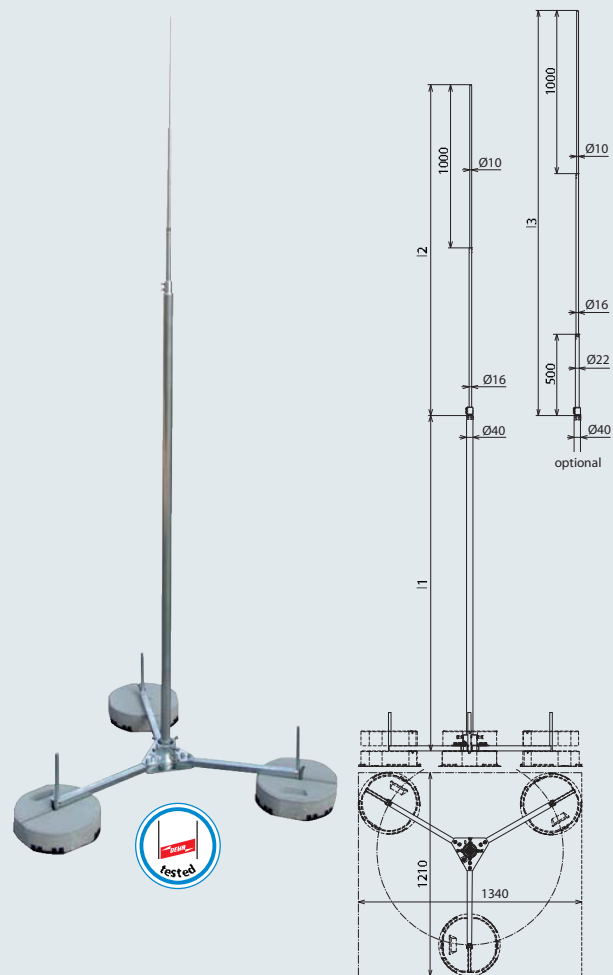
Self-supporting air-termination rods with hinged tripod to protect larger roof-mounted structures, adjustable to the roof inclination up to max. 10°. The air-termination rods are dimensioned for wind velocities up to 145 km/h (wind load zone II).

The stackable concrete base (Part No. 102 010) and the support plate (Part No. 102 050) have to be ordered separately.

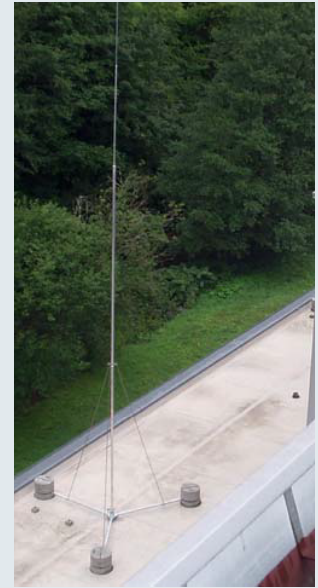
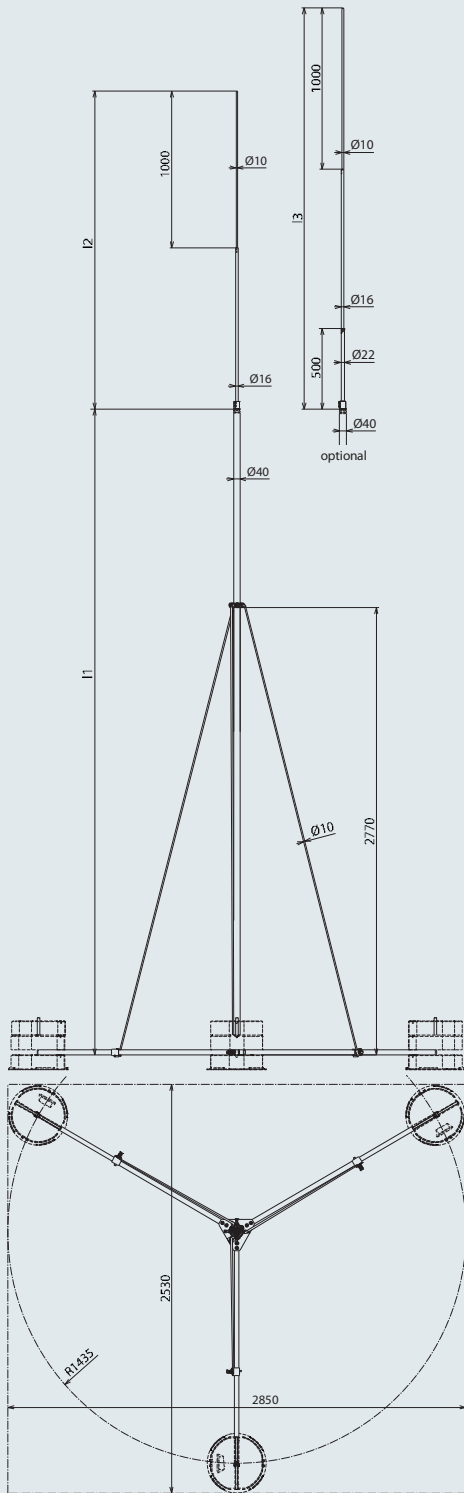
Components:

- Pipe Ø40 x 5 mm
- Tubular air-termination rod tapered Ø16/10 mm; optionally Ø22/16/10 mm
- Double cleat for 2x Rd 8-10 mm
- Tripod for wedge mounting concrete bases

Height up to 5500 mm



Part No.	105 400	105 450	105 500	105 550
Height	4000 mm	4500 mm	5000 mm	5500 mm
Length (Ø40x5) (l1)	2000 mm	2000 mm	3000 mm	3000 mm
Length (Ø16/10) (l2)	2000 mm	—	2000 mm	—
Length (Ø22/16/10) (l3)	—	2500 mm	—	2500 mm
Radius	560 mm	560 mm	560 mm	560 mm
Space required for tripod	1210x1340 mm	1210x1340 mm	1210x1340 mm	1210x1340 mm
Quantity of concrete bases	3 blocks 17 kg each	3 blocks 17 kg each	6 blocks 17 kg each	6 blocks 17 kg each
Material of tripod	St/tZn	St/tZn	St/tZn	St/tZn
Material of air-termination rod	Al	Al	Al	Al
Standard	EN 50164-(1+2)	EN 50164-(1+2)	EN 50164-(1+2)	EN 50164-(1+2)

Height up to 8500 mm with adjustable StSt braces $\varnothing 10$ mm

Part No.	105 600	105 650	105 700	105 750	105 800	105 850
Height	6000 mm	6500 mm	7000 mm	7500 mm	8000 mm	8500 mm
Length ($\varnothing 40 \times 5$) (I1)	4000 mm	4000 mm	5000 mm	5000 mm	6000 mm	6000 mm
Length ($\varnothing 16/10$) (I2)	2000 mm	—	2000 mm	—	2000 mm	—
Length ($\varnothing 22/16/10$) (I3)	—	2500 mm	—	2500 mm	—	2500 mm
Radius	1435 mm	1435 mm	1435 mm	1435 mm	1435 mm	1435 mm
Space required for tripod	2530x2850 mm	2530x2850 mm	2530x2850 mm	2530x2850 mm	2530x2850 mm	2530x2850 mm
Quantity of concrete bases	6 blocks 17 kg each	6 blocks 17 kg each	6 blocks 17 kg each	6 blocks 17 kg each	9 blocks 17 kg each	9 blocks 17 kg each
Material of tripod	St/tZn	St/tZn	St/tZn	St/tZn	St/tZn	St/tZn
Material of air-termination rod	Al	Al	Al	Al	Al	Al
Standard	EN 50164-(1+2)	EN 50164-(1+2)	EN 50164-(1+2)	EN 50164-(1+2)	EN 50164-(1+2)	EN 50164-(1+2)

More details in installation instructions No. 1436

Self-supporting air-termination rods with hinged tripod, to protect larger roof-mounted structures or to be erected on a compacted ground without foundation works, adjustable to the roof inclination up to max. 5°. The air-termination rods are dimensioned for wind velocities up to 145 km/h (wind load zone II). The stackable concrete base (Part No. 102 010) and the support plate (Part No. 102 050) have to be ordered separately.

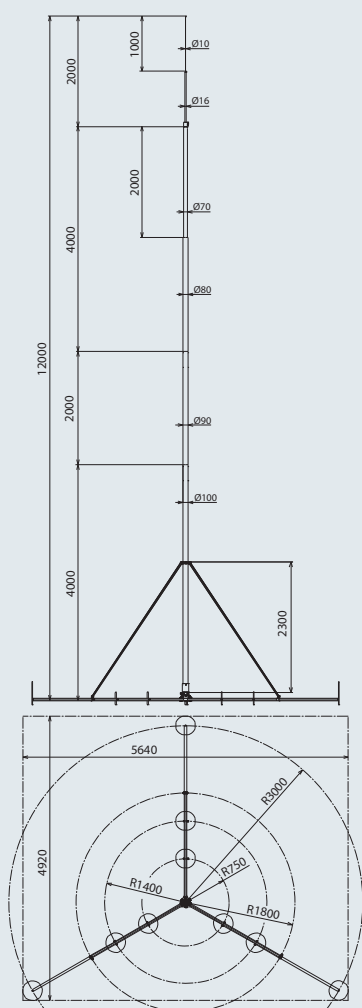
The tapered pipes will be telescoped and then screwed together. The transport length is approx. 4500 mm.

Components:

Aluminium pipe, tapered:

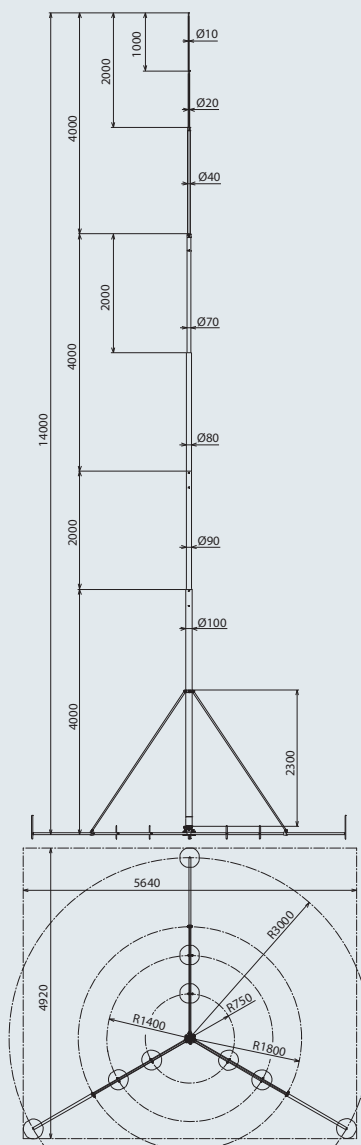
- Pipe Ø100x5 mm, length approx. 4000 mm
- Pipe Ø90x3 mm, length approx. 2000 mm
- Pipe Ø80x3 mm + Ø70x3 mm, length approx. 2000 mm each
- Optionally pipe Ø40x5 mm, length approx. 2000 mm
- Air-termination rod Al
- Double cleat for 2x Rd 8-10 mm
- Tripod for wedge mounting concrete bases including StSt braces 20x20x2 mm

Free height 12 m



Part No.	105 912
Height	12000 mm
Air-termination rod (Ø length)	16/10-2000 mm
Radius	3000 mm
Space required for tripod	4920x5640 mm
Quantity of concrete bases	21 of 17 kg each
Material of tripod	St/tZn
Material of air-termination rod	Al
Standard	EN 50164-(1+2)
Roof load	approx. 460 kg

Free height 14 m



Part No.	105 914
Height	14000 mm
Air-termination rod (Ø length)	20/10-2000 mm
Radius	3000 mm
Space required for tripod	4920x5640 mm
Quantity of concrete bases	24 of 17 kg each
Material of tripod	St/tZn
Material of air-termination rod	Al
Standard	EN 50164-(1+2)
Roof load	approx. 515 kg

Air-termination mast to protect special facilities e.g. biogas plants or ground-installed photovoltaic systems in case of direct lightning strike.

The masts are erected on screw foundation.

Excavation or foundation works are not necessary.

Without any special preparation the screw foundation is simply screwed into the ground and additionally fixed by three earth rods $\varnothing 20$ mm, length 1500 mm (Part No. 620 151), which have to be ordered separately.

The masts are designed for wind velocities up to 145 km/h (wind load zone II).

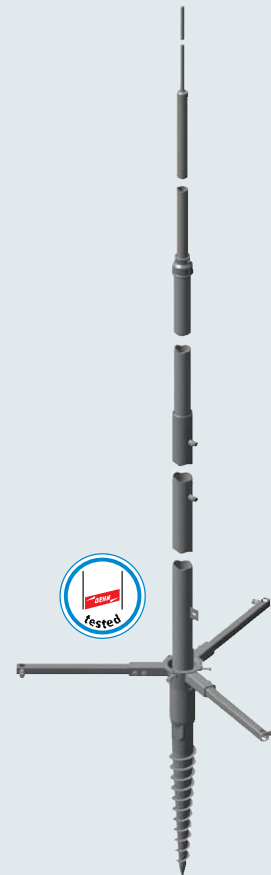
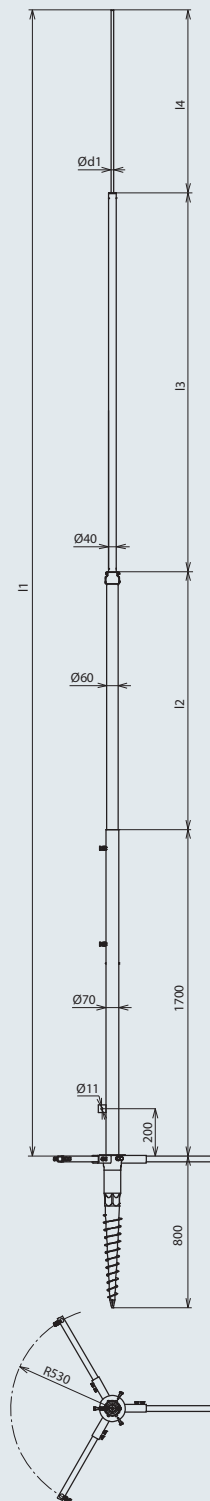
These calculations are based on a natural ground pressure of 0.02 kN/cm² (e.g. loamy, sandy, gravel soil of medium density).

Components:

- Air-termination mast St/tZn and Al, tapered $\varnothing 70/60/40$ mm
- Air-termination rod Al $\varnothing 16/10$ mm, length 1 or 2 m
- Screw foundation St/tZn, length 800 mm with braces length 530 mm and M10 locking screws with lock nut
- Earth connection lug with bore $\varnothing 11$ mm

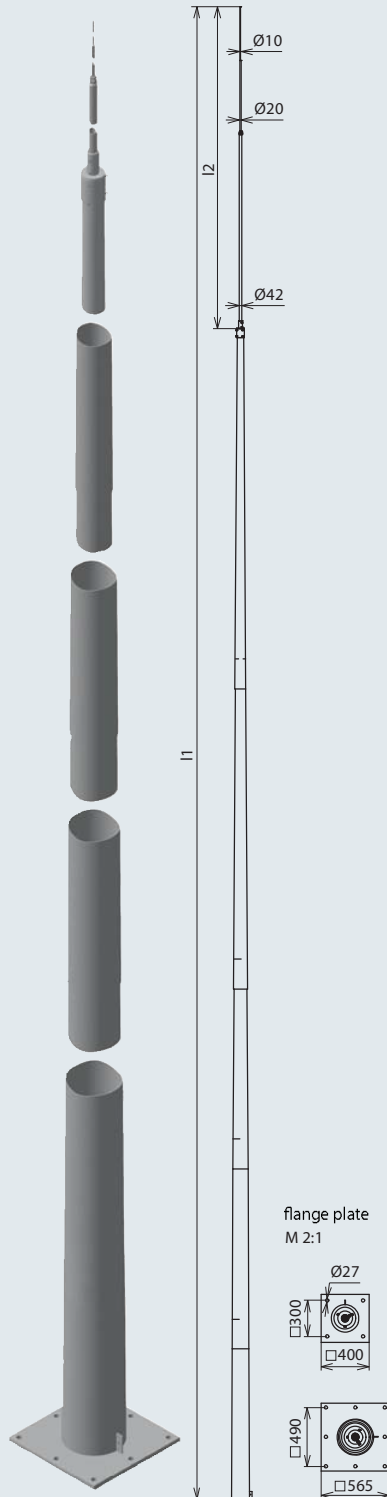
Advantages:

- Easy erection due to tapered design St/tZn and aluminium
- If necessary, the air-termination mast may be easily removed from the screw foundation and put down



Part No.	103 121	103 122	103 123	103 124	103 125	103 126
Material	St/tZn / Al	St/tZn / Al	St/tZn / Al	St/tZn / Al	St/tZn / Al	St/tZn / Al
Height above floor (l1)	6000 mm	7000 mm	8000 mm	9000 mm	10000 mm	11000 mm
Length of pipe $\varnothing 70$ mm	1700 mm	1700 mm	1700 mm	1700 mm	1700 mm	1700 mm
Length of pipe $\varnothing 60$ mm (l2)	2000 mm	2000 mm	4000 mm	4000 mm	6000 mm	6000 mm
Length of pipe $\varnothing 40$ mm (l3)	2000 mm	2000 mm	2000 mm	2000 mm	2000 mm	2000 mm
Air-termination rod (d1) (l4)	16 / 1000 mm	16/10 / 2000 mm	16 / 1000 mm	16/10 / 2000 mm	16 / 1000 mm	16/10 / 2000 mm
Standard	EN 50164-(1+2)	EN 50164-(1+2)	EN 50164-(1+2)	EN 50164-(1+2)	EN 50164-(1+2)	EN 50164-(1+2)

More details in installation instructions No. 1581



Air-termination mast to protect special facilities, e.g. biogas plants, ground-installed photovoltaic systems, Ex systems, ammunition dumps etc. in case of direct lightning strike

The masts will be erected on a bucket foundation (pre-fabricated element) or an on-site concrete foundation with foundation basket (to be ordered separately).

More details on the locking system, the foundation and installation in installation instructions No. 1729.

This air-termination mast system provides a protected area (lightning protection zone O_B) for the whole system/area, without installing horizontal air-termination systems (spanning of cables).

The separation distance s according to IEC/EN 62305-3 between air-termination mast and the object to be protected must be observed.

The masts are dimensioned for wind velocities up to 162 km/h (wind load zone III).

Advantages of the air-termination mast system:

- Earthwork can be completed in advance
- Installation on (prefabricated) bucket foundation with less on-site effort or
- Installation with concrete foundation and foundation basket on site (concrete curing time to be observed for scheduling and installation)
- Type with flange plate for quick mounting
- Easy adjustment by threaded bolts M24
- Detailed installation instructions
- Verifiable statics (upon request)

Components:

- Air-termination rod St/tZn Ø42/20/10 mm length 2400 or 5400 mm with thread M20 and lock nut
- Conic mast segments
- Flange plate with connection lug for earth connection bore Ø12 mm (of round conductor Ø10 mm e.g. with KS connector Part No. 301 019)

Max. transport length 6 m



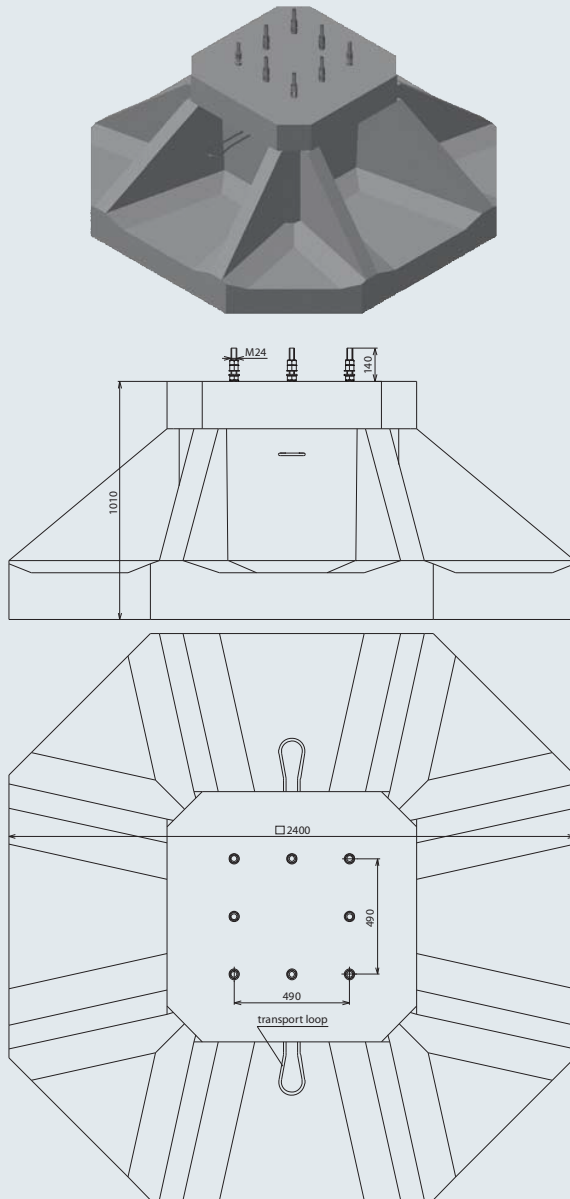
Part No.	103 013	103 016	103 019	103 022	103 025
Material	St/tZn	St/tZn	St/tZn	St/tZn	St/tZn
Height above ground level (I1)	13.35 m	16.35 m	19.35 m	22.35 m	24.85 m
Mast segments	2	2	3	4	5
Length of air-termination rod (I2)	2400 mm	5400 mm	5400 mm	5400 mm	5400 mm
Dimension of flange plate	400x400 mm	400x400 mm	400x400 mm	565x565 mm	565x565 mm
Type of flange plate	4x Ø28 mm for 4x M24 (300x300 mm)	4x Ø28 mm for 4x M24 (300x300 mm)	4x Ø28 mm for 4x M24 (300x300 mm)	8x Ø28 mm for 8x M24 (490x490 mm)	8x Ø28 mm for 8x M24 (490x490 mm)
Concrete foundation					
on-site (l x w x h)	1400x1400x900 mm	1400x1400x900 mm	1600x1600x900 mm	1800x1800x900 mm	2000x2000x900 mm
Standard	EN 50164-(1+2)	EN 50164-(1+2)	EN 50164-(1+2)	EN 50164-(1+2)	EN 50164-(1+2)
Weight	approx. 228 kg	approx. 230 kg	approx. 310 kg	approx. 450 kg	approx. 550 kg

Bucket foundations as prefabricated elements for easy erection of the telescopic lightning protection masts.

No concreting work on site.



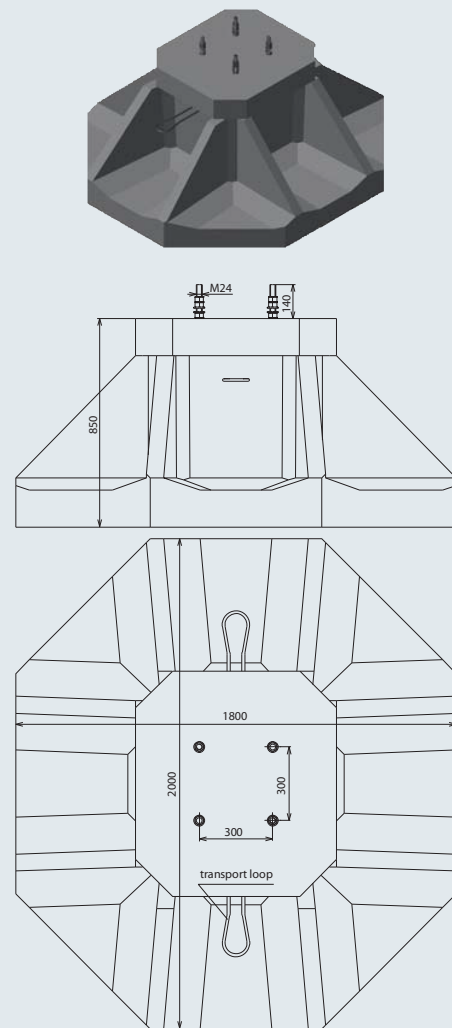
Type KöFU II



For masts of 22.35 or 24.85 m of height above ground level
(Part No. 103 022 or 103 025)
Flange plate 565x565 mm

Part No.	103 031
Material	concrete (C50/60)
Dimension	2400x2400x1010 mm
Weight	approx. 4.9 t
Type of threaded bolts	8x M24 (490x490 mm)

Type KöFU I



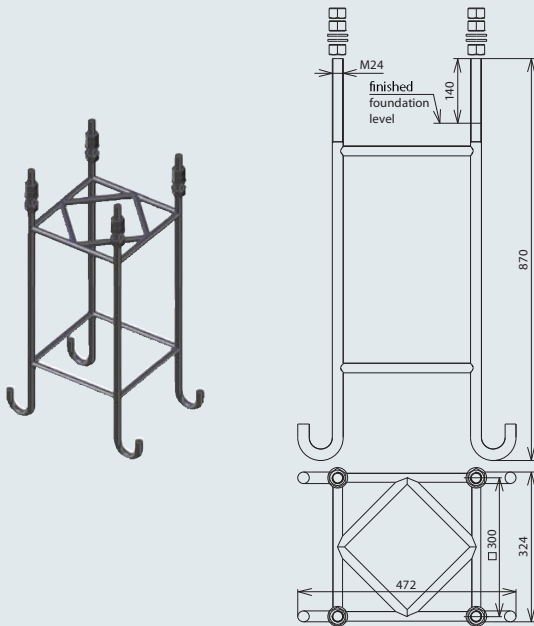
For masts of 13.35 to 19.35 m of height above ground level
(Part No. 103 013 / 103 016 / 103 019)
Flange plate 400x400 mm

Part No.	103 030
Material	concrete (C50/60)
Dimension	1800x2000x850 mm
Weight	approx. 2.5 t
Type of threaded bolts	4x M24 (300x300 mm)

More details in installation instructions No. 1729

Foundation baskets with threaded bolts for concreting, suitable for the flange plate of telescopic lightning protection masts

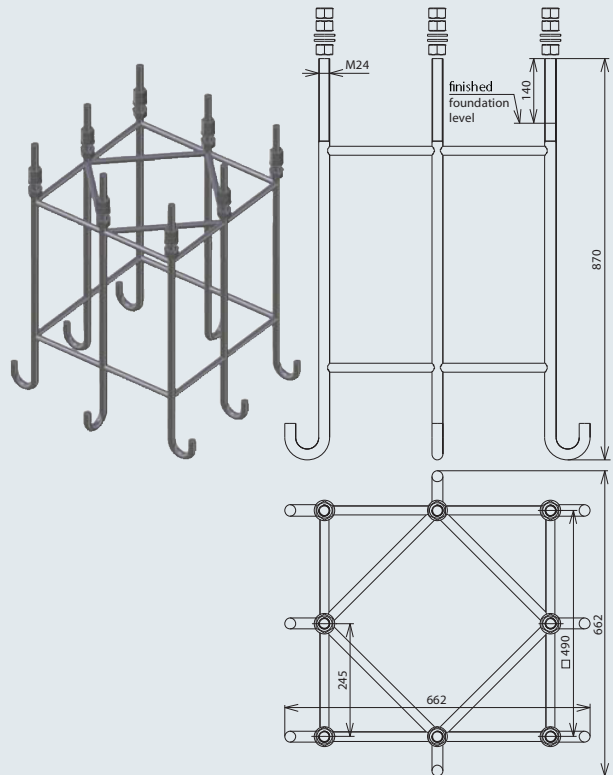
Small design



For masts of 13.35 m up to 19.35 m of height above ground level
(Part No. 103 013 / 103 016 / 103 019)
Flange plate 400x400 mm

Part No.	103 040
Material	steel
Dimension	472x324x870 mm
Type of threaded bolt	4x M24 (300x300 mm)

Large design



For masts of 22.35 m or 24.85 m of height above ground level
(Part No. 103 022 or 103 025)
Flange plate 565x565 mm

Part No.	103 041
Material	steel
Dimension	662x662x870 mm
Type of threaded bolt	8x M24 (490x490 mm)

More details in installation instructions No. 1729



Elevated air-termination system with spacers and concrete bases in the range of the electrical installation on the roof



Spacer with attachment, fixing bush and tensioning strap



Angled support with saddle clamp



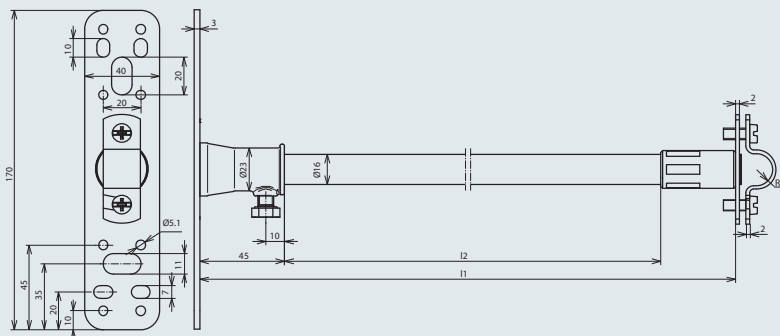
Variable range of supports for conductors and air-termination rods for keeping the separation distance according to IEC/EN 62305-3

Spacer bar made of glass-fibre reinforced plastic (GRP), Ø16 mm, UV stabilised, light grey colour, permanent temperature range -50 to +100 °C

Material factor $k_m = 0.7$ is used to determine the separation distance (length of spacer bar)

1 m of spacer bar is equivalent to a clearance of 700 mm

With rod holder and fixing plate



Fixed conductor leading

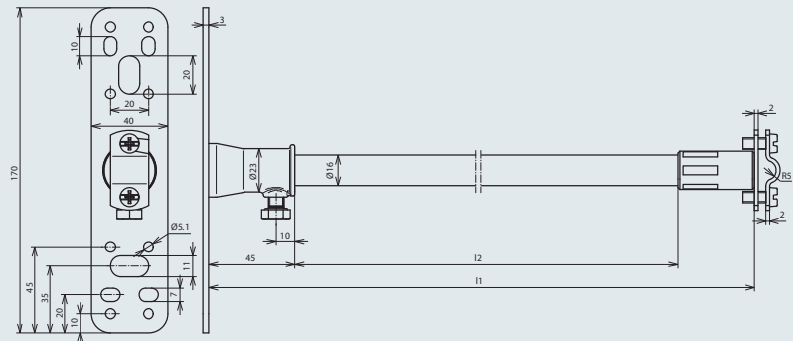
Part No.	106 115	106 120	106 123
Conductor holder support Rd	16 mm	16 mm	16 mm
Material of conductor holder	StSt	StSt	StSt
Length (l1)	530 mm	690 mm	1030 mm
Insulating distance (l2)	445 mm	605 mm	945 mm
Fixing	[8x] Ø5.1 / [4x] 7x10 / [2x] 11x20 mm	[8x] Ø5.1 / [4x] 7x10 / [2x] 11x20 mm	[8x] Ø5.1 / [4x] 7x10 / [2x] 11x20 mm
Material of plate	StSt	StSt	StSt
Permanent temperature range	-50 bis +100 °C	-50 to +100 °C	-50 to +100 °C
Material of fixing bush	ZDC	ZDC	ZDC

Design with other lengths of spacer bar upon request

With conductor holder and fixing plate

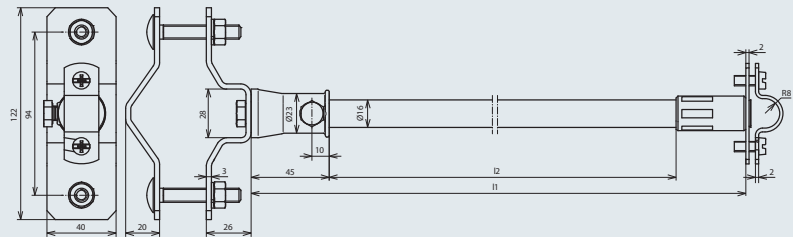


Fixed conductor leading



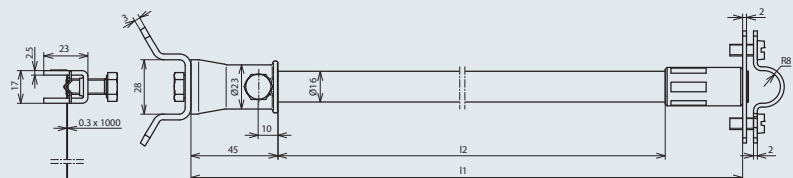
Part No.	106 090	106 100	106 105
Conductor holder support Rd	7-10 mm	7-10 mm	7-10 mm
Material of conductor holder	StSt	StSt	StSt
Length (l1)	530 mm	690 mm	1030 mm
Insulating distance (l2)	445 mm	605 mm	945 mm
Fixing	[8x] Ø5.1 / [4x] 7x10 / [2x] 11x20 mm	[8x] Ø5.1 / [4x] 7x10 / [2x] 11x20 mm	[8x] Ø5.1 / [4x] 7x10 / [2x] 11x20 mm
Material of plate	StSt	StSt	StSt
Permanent temperature range	-50 to +100 °C	-50 to +100 °C	-50 to +100 °C
Material of fixing bush	ZDC	ZDC	ZDC

With rod holder and pipe bracket



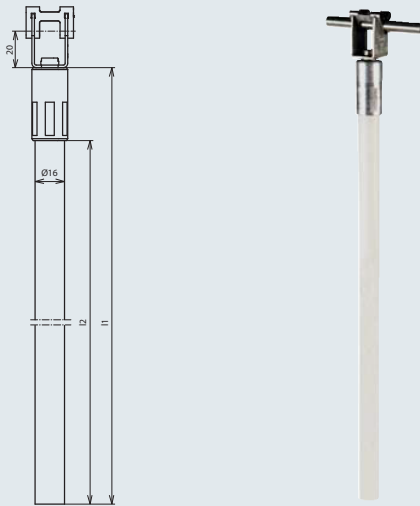
Part No.	106 225	106 226	106 228
Conductor holder support Rd	16 mm	16 mm	16 mm
Material of conductor holder	StSt	StSt	StSt
Length (l1)	530 mm	690 mm	1030 mm
Insulating distance (l2)	445 mm	605 mm	945 mm
Clamping range of pipe	40-60 mm (1 1/4-2")	40-60 mm (1 1/4-2")	40-60 mm (1 1/4-2")
Permanent temperature range	-50 to +100 °C	-50 to +100 °C	-50 to +100 °C
Material of fixing bush	ZDC	ZDC	ZDC
Material of fixing element	StSt	StSt	StSt

With rod holder and strap pipe clamp



Part No.	106 245	106 246	106 248
Conductor holder support Rd	16 mm	16 mm	16 mm
Material of conductor holder	StSt	StSt	StSt
Length (l1)	530 mm	690 mm	1030 mm
Insulating distance (l2)	445 mm	605 mm	945 mm
Clamping range of pipe	50-300 mm	50-300 mm	50-300 mm
Permanent temperature range	-50 to +100 °C	-50 to +100 °C	-50 to +100 °C
Material of fixing bush	ZDC	ZDC	ZDC
Material of fixing element	StSt	StSt	StSt
Dimension of strip (w x d)	25x0.3 mm	25x0.3 mm	25x0.3 mm

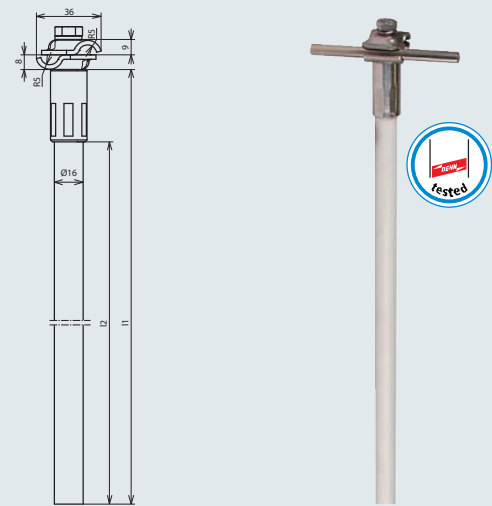
With DEHNgrip conductor holder



For installation e.g. in concrete base (Part No. 102 075)
loose conductor leading

Part No.	106 160
Conductor holder support Rd	8 mm
Material of conductor holder	StSt
Length (l1)	675 mm
Insulating distance (l2)	590 mm
Permanent temperature range	-50 to +100 °C
Material of fixing bush	Al

With MMV clamp



For crossings, on installation in concrete base (Part No. 102 075),
fixed conductor leading

Part No.	106 150
Conductor holder support Rd	6-10 mm
Material of conductor holder	StSt
Length (l1)	675 mm
Insulating distance (l2)	590 mm
Permanent temperature range	-50 to +100 °C
Material of fixing bush	Al

Single Parts for DEHNiso Spacers

Spacer Bar

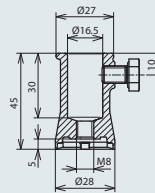
For cutting to length

Part No.	106 125
Material	GRP
Permanent temperature range	-50 to +100 °C
Colour of spacer bar	light grey (RAL 7035)
Diameter	16 mm
Total length	3000 mm

Fixing Bush


For variable fixing of conductor and rod holders at a spacer bar (Ø16 mm) with female thread M8

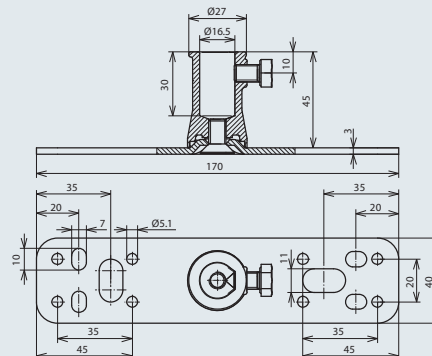
Part No.	106 126
Material	ZDC
Female thread	M8
Diameter	23 mm
Screw	 M8x12 mm
Material of screw	StSt



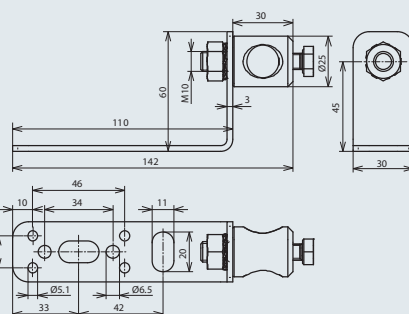
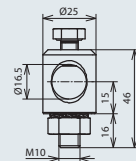
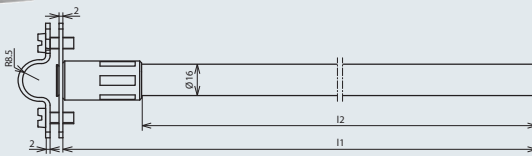
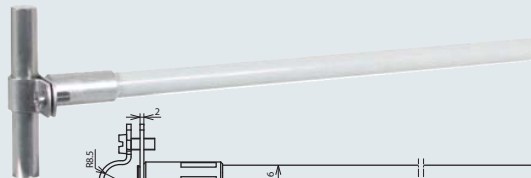
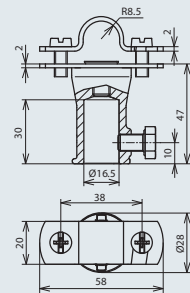
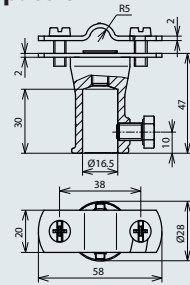
Fixing Plate

Base plate for fixing the spacer or the spacer bar (Ø16 mm) e.g. at construction components

Part No.	106 127
Material of fixing plate	StSt
Material of fixing bush	ZDC
Fixing	[8x] Ø5.1 / [4x] 7x10 / [2x] 11x20 mm
Dimension	170x40x3 mm
Screw	 M8x12 mm
Material of screw	StSt



Single Parts for DEHNiso Spacers



Conductor Holder with Fixing Bush

For fixing the conductor at the GRP bar

Part No.	106 128
Material of conductor holder	StSt
Conductor holder support Rd	7-10 mm
Material of fixing bush	ZDC
Conductor leading	fixed
Screw	⊕ M6x14 / ⊕ M8x12 mm
Material of screw	StSt

Rod Holder with Fixing Bush

For fixing the air-termination rod at the GRP bar

Part No.	106 129
Material of conductor holder	StSt
Conductor holder support Rd	16 mm
Material of fixing bush	ZDC
Conductor leading	fixed
Screw	⊕ M6x14 / ⊕ M8x12 mm
Material of screw	StSt

Spacer with Conductor Holder

For fixing conductors at different supports, fixed conductor leading

Part No.	106 165	106 170	106 175
Conductor holder support Rd	7-10 mm	7-10 mm	7-10 mm
Material of conductor holder	StSt	StSt	StSt
Length (l1)	515 mm	675 mm	1015 mm
Insulating clearance (l2)	435 mm	595 mm	935 mm
Material of bush	Al	Al	Al
Permanent temperature range	-50 to +100 °C	-50 to +100 °C	-50 to +100 °C

Spacer with Rod Holder

For fixing air-termination rods at different supports, fixed conductor leading

Part No.	106 178	106 180	106 185
Conductor holder support Rd	16 mm	16 mm	16 mm
Material of conductor holder	StSt	StSt	StSt
Length (l1)	515 mm	675 mm	1015 mm
Insulating clearance (l2)	435 mm	595 mm	935 mm
Material of bush	Al	Al	Al

Fixing Bolt

For the spacer bar, with thread M10, nut, toothed lock washer and screw

Part No.	106 301	106 309
Material of bolt	Al	StSt
Clamping range Rd	16 mm	16 mm
Screw	⊕ M8x12 mm	⊕ M8x12 mm
Material of screw/nut	StSt	StSt

Fixing Bracket

With fixing bolt for spacer bar (Ø16 mm)

Part No.	106 311
Material	StSt
Angle	90°
Fixing	[4x] Ø5.1 / [2x] Ø6.5 / [2x] 11x20 mm
Dimension (l x w x h)	110x60x30 mm

Fixing Bracket

For DEHNiso spacer, with bore Ø11 mm

Part No.	106 310
Material	StSt
Angle	90°
Fixing	[4x] Ø5.1 / [2x] Ø6.5 / [2x] 11x20 mm
Dimension (l x w x h)	110x60x30 mm

Fixing Bracket

For DEHNiso spacer, with bore Ø11 mm

Part No.	106 315
Material	StSt
Angle	45°
Fixing	[4x] Ø5.1 / [2x] Ø6.5 / [2x] 11x20 mm
Dimension (l x w x h)	104x54x30 mm

Corner Bracket

With fixing bolt for spacer bar (Ø16 mm)

Part No.	106 316
Material	StSt
Angle	90°
Fixing	[8x] Ø5.1 / [4x] Ø6.5 / [4x] 11x20 mm
Dimension	132x155x30 mm

Pipe Bracket

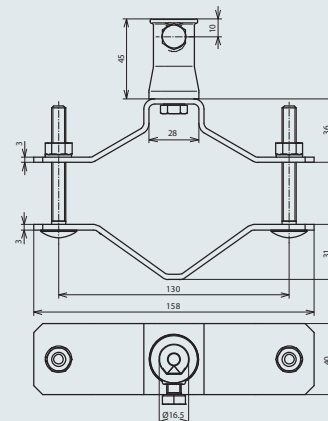
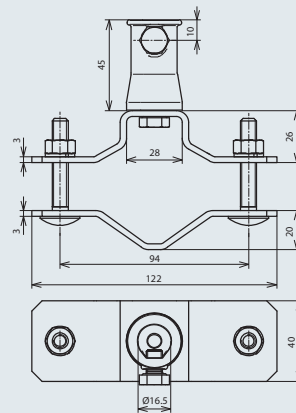
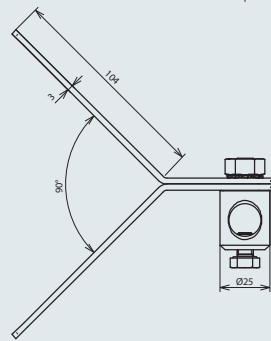
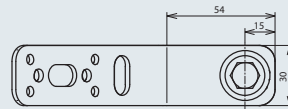
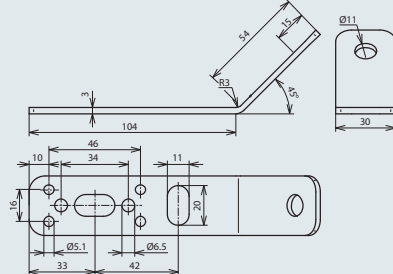
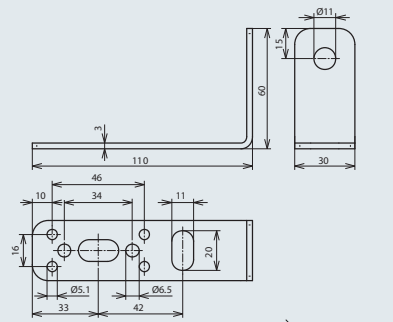
With fixing bush for spacer (Ø16 mm) for pipes up to Ø60 mm

Part No.	106 352
Material of bracket	StSt
Clamping range Ø pipe	40-60 mm (1 1/4-2")
Material of bush	ZDC
Screw	⬆ M8x50 / ⬆ M8x12 mm
Material of screw/nut	StSt

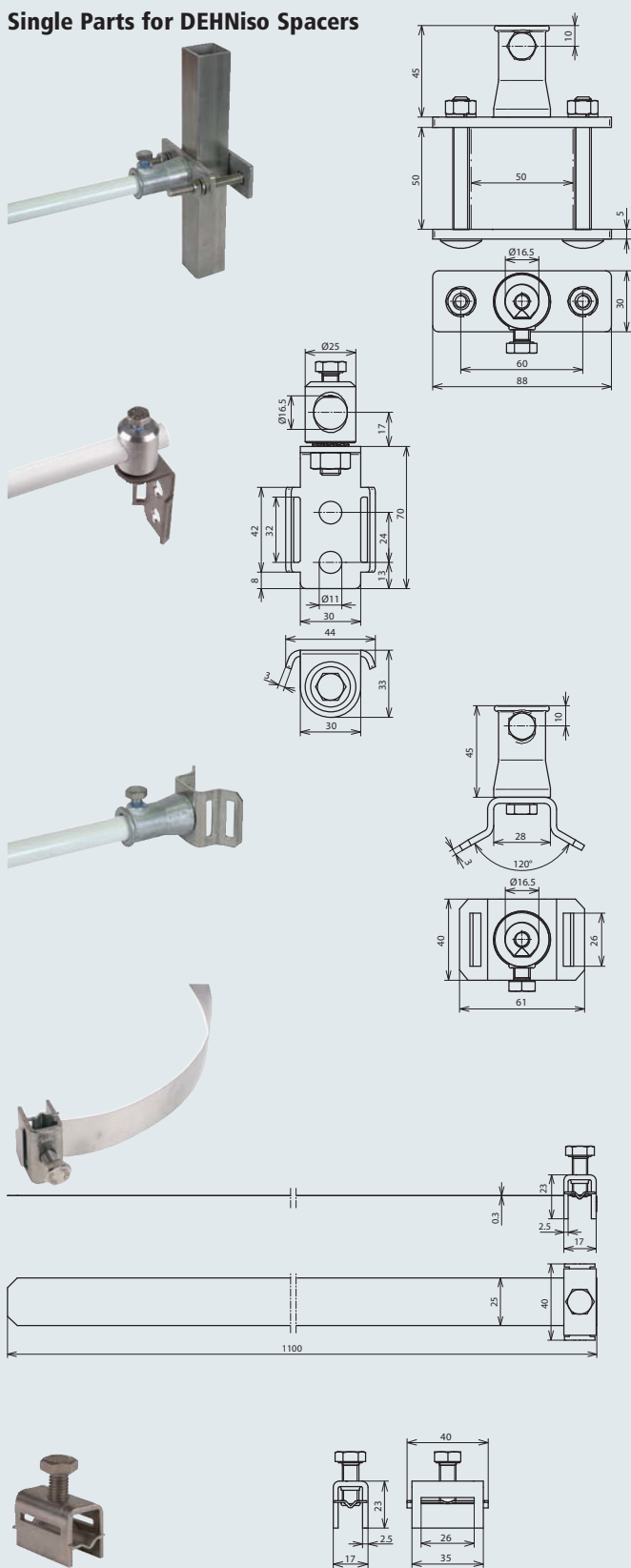
Pipe Bracket

With fixing bush for spacer (Ø16 mm) for pipes up to Ø90 mm

Part No.	106 353
Material of bracket	StSt
Clamping range Ø pipe	70-90 mm (2 1/4-3")
Material of bush	ZDC
Screw	⬆ M8x70 / ⬆ M8x12 mm
Material of screw/nut	StSt

**Single Parts for
DEHNiso Spacers**

Single Parts for DEHNiso Spacers



Railing Clamp

For square hollow profiles with bush for spacer bar (Ø16 mm)

Part No.	106 312
Material	ZDC / StSt
Clamping range of square profile	20x20 to 50x50 mm
Screw	⬆ M8x70 / ⬆ M8x12 mm
Material of screw	StSt

Clip for Fixing Spacers at Pipes

Fixing by tensioning straps up to 30 mm

(e.g. tensioning strap 25x0.3 mm with grip head Part No. 106323) with fixing bolt for spacer bar (Ø16 mm)

Part No.	106 321
Material of clip	StSt
Material of bolt	Al
Width of slot (l x w)	32x6 mm
Fixing	[2x] Ø11 mm

Attachment with Fixing Bush

For fixing of spacers (Ø16 mm) at pipes e.g. with tensioning strap Part No. 106 323

Part No.	106 322
Material	StSt
Width of slot (l x w)	26x6 mm
Clamping range Rd	16 mm
Material of bush	ZDC

Strap Pipe Clamp

For fixing (tensioning) the clip (106 321) or the attachment with fixing bush (Part No. 106 322) at different pipes

Part No.	106 323
Material of head/strap	StSt
Clamping range Ø	50-300 mm
Dimension of strap	1100x25x0.3 mm
Screw	⬆ M8x20 mm
Material of screw	StSt

Separate Grip Head

For combination with endless tensioning strap (Part No. 540 901) in case of larger pipe diameters e.g. for attachment with fixing bush (Part No. 106 322)

Part No.	106 324
Material of head	StSt
For strap (w x d)	25x0.3 mm
Screw	⬆ M8x20 mm
Material of screw	StSt

Tensioning Strap

Part No.	540 901
Material	StSt
Dimension of strap (l x w x d)	25x0.3 mm
Length	100 m

Adapter for Angled Support

For air-termination rods (Ø16 mm) with 2 fixing bolts for spacer bar (Ø16 mm)

Part No.	106 325
Material	StSt
Clamping range Rd	16/16 mm
Screw	⚙ M6x12 / ⚙ M8x12 mm
Material of screw/nut	StSt

Adapter for Angled Support

For supporting tubes DEHNiso Combi (Ø50 mm) with 2 fixing bolts for spacer bar (Ø16 mm)

Part No.	106 326
Material	StSt
Clamping range Rd	50/16 mm
Screw	⚙ M8x16 mm
Material of screw/nut	StSt

Fixing Adapter

For saddle and terminal clamps, angled

Part No.	106 341
Material of bar	StSt
Bar Ø	8 mm
Angle	90°
Material of bush	ZDC

Fixing Adapter

For saddle and terminal clamps, angled

Part No.	106 342
Material of bar	StSt
Bar Ø	8 mm
Angle	130°
Material of bush	ZDC

Fixing Adapter

For saddle and terminal clamps, straight

Part No.	106 340
Material of bar	StSt
Bar Ø	8 mm
Angle	0°
Material of bush	ZDC

MV Clamp

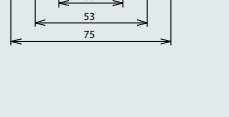
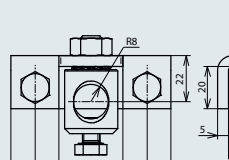
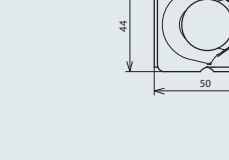
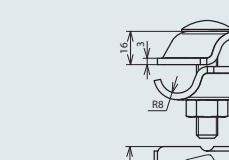
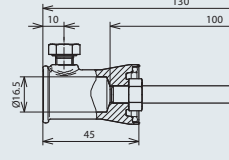
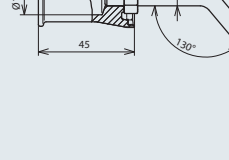
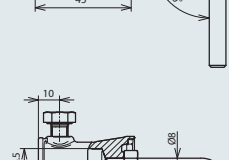
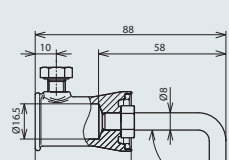
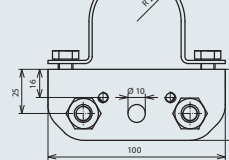
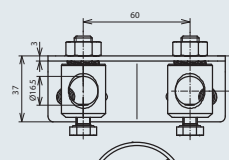
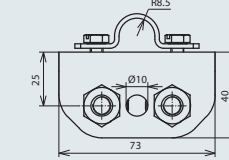
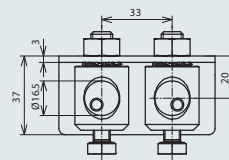
Especially for the fixing of air-termination rods at the spacer bar without fixing bush

Part No.	393 069
Material	StSt
Conductor holder support Rd	16/16 mm
Conductor leading	fixed
Screw	⚙ M10x50 mm
Material of screw	StSt

Terminal Clamp with Fixing Bolt

For fixing of spacers (Ø16 mm) e.g. at steel girders

Part No.	106 319
Material of clamp	StSt
Clamping range	5-18 mm
Clamping range Rd	16 mm
Material of fixing bolt	Al
Connection with	fixing bolt
Screw	⚙ M8x25 mm

Single Parts for DEHNiso Spacers



Air-termination rods for implementing isolated air-termination systems e.g. on flat roofs, installed on wedge mounting concrete base

Material factor $k_m = 0.7$ is used to determine the separation distance (length of spacer bar)

Diameter 16 mm, UV stabilised, light grey colour, permanent temperature range -50 to +100 °C.

The air-termination rods to be installed with two concrete blocks (weight 17 kg each) for wind velocities up to 145 km/h (wind load zone II).

The stackable concrete block (Part No. 102 010) and the support plate (Part No. 102 050) have to be ordered separately.

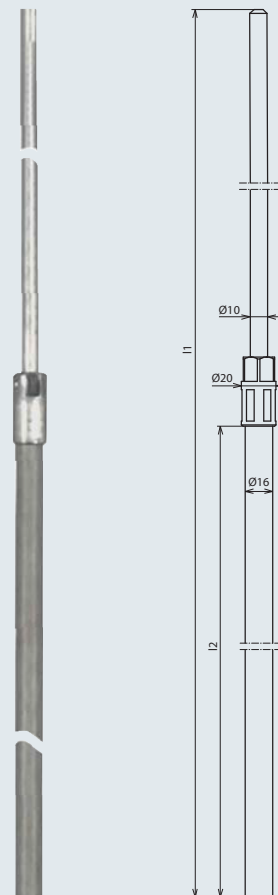
Variable design with thread M10



e.g. for air-termination rod Part No. 101 001, air-termination rod with MV clamp Part No. 105 071 (for crossings) or MV clamp for spanning Part No. 105 079

Part No.	106 217	106 220
Total length (l1)	675 mm	1015 mm
Insulating distance (l2)	635 mm	975 mm
Material of air-termination rod/bushing	Al	Al
Material of spacer	GRP	GRP

Crimped design

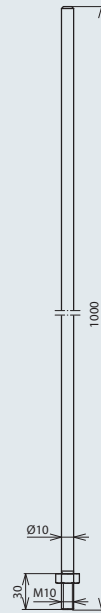


Part No.	106 207	106 210
Total length (l1)	1660 mm	2000 mm
Insulating distance (l2)	635 mm	975 mm
Material of air-termination rod/bushing	Al	Al
Material of spacer	GRP	GRP

Accessories for Air-termination Rods GRP/Al**Air-termination Rod with Lock Nut**

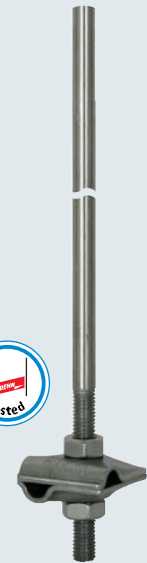
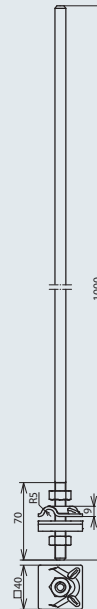
For screwing in

Part No.	101 001
Material	StSt
Diameter	10 mm
Length	1000 mm
Thread	M10
Material of nut	StSt
Standard	EN 50164-2

**Air-termination Rod with MV Clamp**

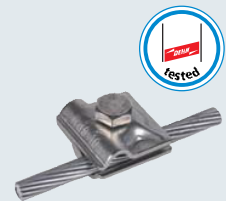
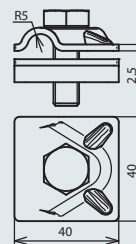
For screwing in

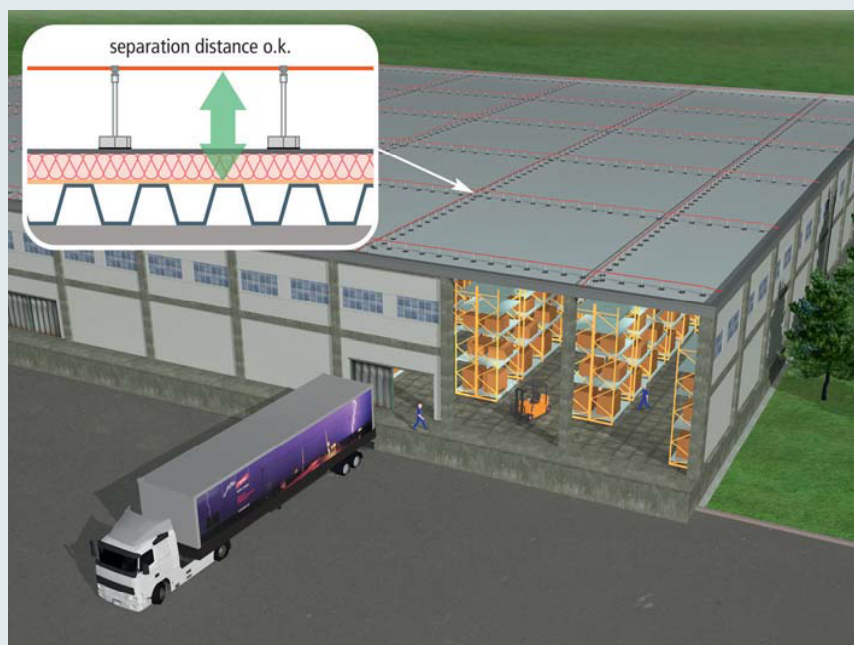
Part No.	105 071
Material of air-termination spike	StSt
Material of MV clamp	StSt
Air-termination rod (l x Ø)	1000x10 mm
Clamping range Rd	8-10 mm
Thread	M10
Standard	EN 50164-(1+2)

**MV Clamp for Spanning**

For screwing in

Part No.	105 079
Material	StSt
Clamping range Rd	8-10 mm
Type of screw	T M10x30 mm
Material of screw	StSt
Standard	EN 50164-1





Non-compliance with the separation distance increases the risk of flashovers from the external lightning protection system conductors to electrical and metal installations inside of the building or structure.

Nevertheless, electrical separation often is considered as less important in case of the external lightning protection system. Consequently, the meshes of external lightning protection air-termination system installed e.g. on extended facilities such as logistics centres, high-bay warehouses or production buildings, do not have the necessary separation distance to metal components and electrical systems underneath.

The roof conductor holders DEHNiso RCH have been developed for an easy and practical realisation of electrical separation in external lightning protection. They consist of a glass-fibre reinforced plastic bar (GRP) with plastic conductor holder and a concrete block with support plate.



Distance between the roof conductor holders (mid to mid of GRP bar) is max. 1.2 m each.

The roof conductor holders are dimensioned for wind velocities up to 145 km/h and 162 km/h (wind load zone II + III), provided that the specified distance of ≤ 1.2 m is complied with.

This system is compatible with GRP/Al air-termination rods, if protected zones are needed e.g. for roof-mounted structures.

Spacer bar made of glass-fibre reinforced plastic (GRP) $\varnothing 10$ mm, UV stabilised, light grey colour

Material factor $k_m = 0.7$ is applied to determine the separation distance (length of spacer bar).

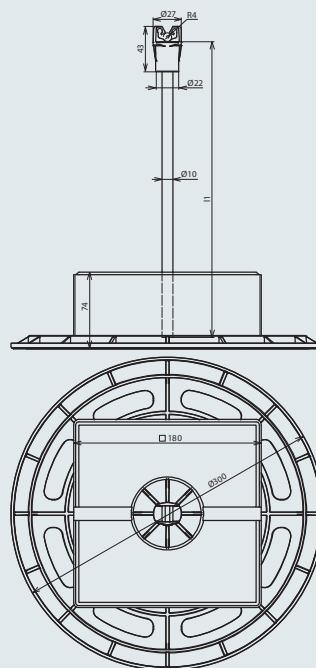
The insulating clearance of 220 / 360 mm thus is equal to a separation distance of 150 / 250 mm (in air) or 300 / 500 mm (solid building material).



Spacer with concrete block and support plate, loose conductor leading

Part No.	253 115	253 125
Conductor holder support Rd	8 mm	8 mm
Material of roof conductor holder	plastic/GRP	plastic/GRP
Length (l1)	295 mm	435 mm
Insulating clearance	220 mm	360 mm
Total weight	approx. 4.8 kg	approx. 4.8 kg
Permanent temperature range	-30 to +80 °C	-30 to +80 °C

More details in installation instructions No. 1802.



Spacer Bars with Conductor Holder

For insertion into the support plate (socket) stabilised with concrete block. For elevated conductor leading, loose conductor leading.

Part No.	253 315	253 325
Conductor holder support Rd	8 mm	8 mm
Material of conductor holder	plastic	plastic
Length (l1)	280 mm	420 mm
Insulating clearance	220 mm	360 mm
Permanent temperature range	-30 up to +80 °C	-30 up to +80 °C

Conductor Holder with Socket

For fixing conductors at the GRP bar

Part No.	253 302
Ø Socket	10 mm
Material	plastic
Colour	grey
Conductor holder support Rd	8 mm
Permanent temperature range	-30 to +80 °C

Spacer Bar for DEHNiso Roof Conductor Holders

For cutting to length

Part No.	253 310
Material	GRP
Colour	light grey (RAL 7035)
Diameter	10 mm
Length	3000 mm
Permanent temperature range	-30 up to +80 °C

Concrete Block

For stabilising the support plate

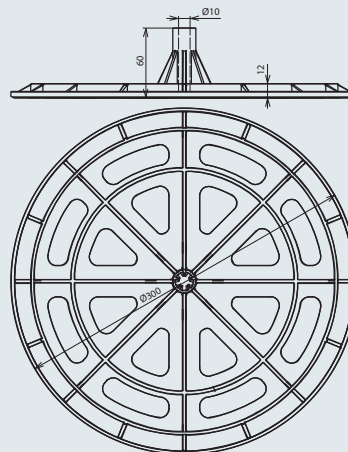
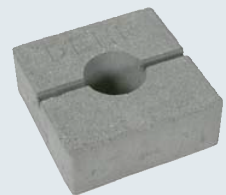
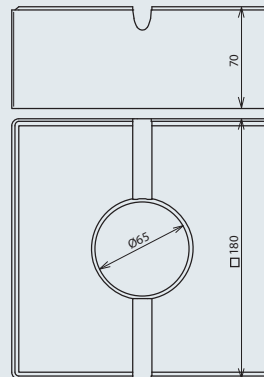
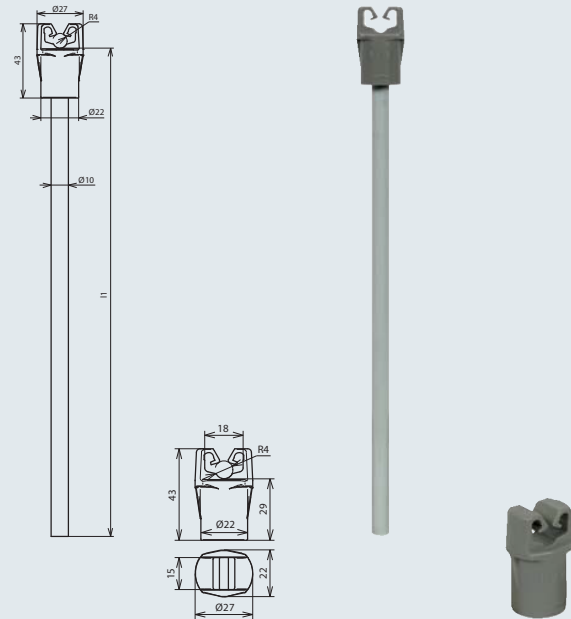
Part No.	253 301
Type	square open form
Material	concrete (C35/45)
Weight	4.6 kg
Dimension	180x180x70 mm

Support Plate

Support plate with socket for the spacer bar (Part No. 253 315, 253 325) and as protection of the roofing sheets under the concrete block (Part No. 253 301)

Part No.	253 300
Diameter	300 mm
Diameter of socket	10 mm
Height	60 mm
Material	plastic
Colour	grey
Permanent temperature range	-30 to +80 °C

Single Parts for DEHNiso Roof Conductor Holders





Spacers at the supporting tube

Components for isolated air-termination systems (insulated)

To protect roof-mounted structures, e.g. air-conditioning systems, recooling systems etc.

For keeping the separation distance to electrically conductive parts according to IEC/EN 62305-3

Tubes and spacers made of glass-fibre reinforced plastic (GRP), UV-stabilised, light grey colour, permanent temperature range -50 up to 100 °C

- Complete unit ready for installation
- Low own weight
- Stable overall design
- One-screw fixing clamps
- Various bores for different mounting requirements

Material factor $k_m = 0.7$ is applied to determine the separation distance (length of spacer bar).

1 m of spacer bar is equivalent to a clearance in air of 0.7 m.

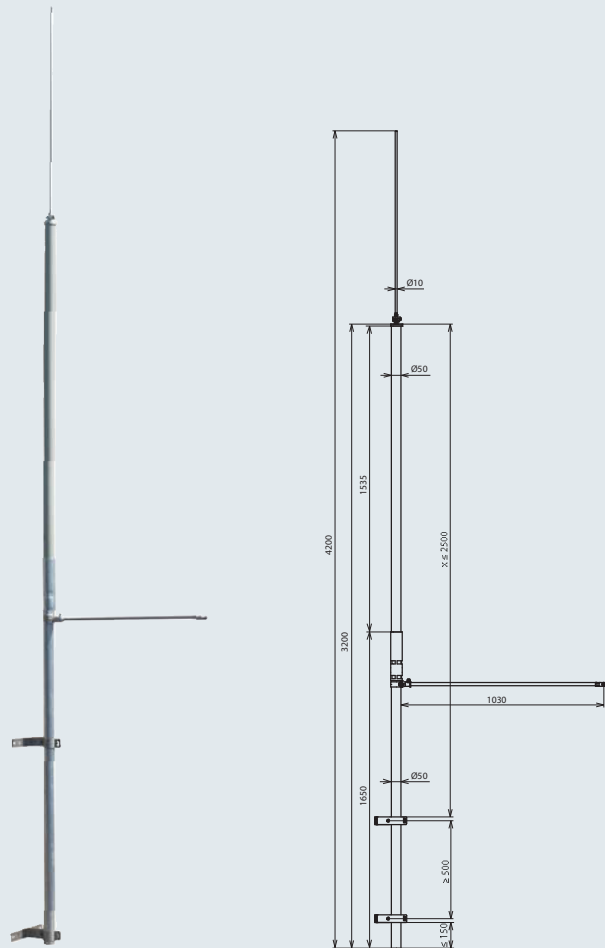
The distance between supporting tube head and upper holder (fixing point) is considered as maximum free length.

Distances for the spanning of aluminium cable (Part No. 840 050) of max. 10 m (mind the sagging) are allowed.



Isolated air-termination system DEHNiso Combi

One-piece, total height 4200 mm



Consisting of:

1x air-termination rod StSt, L = 1000 mm (Part No. 105 071)

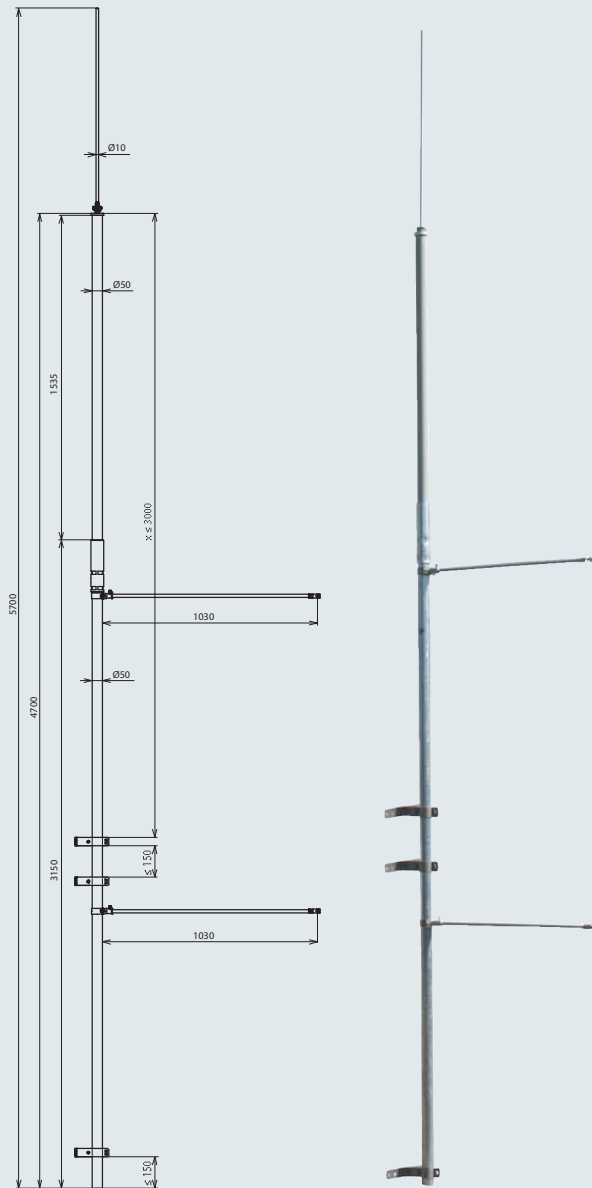
1x supporting tube GRP/Al, L = 3200 mm (Part No. 105 300)

2x wall fixing bracket StSt (Part No. 105 340)

1x spacer GRP/Al, L = 1030 mm (Part No. 106 331)

Part No.	105 440
Total length	4200 mm
Quantity of spacers	1
Quantity of fixing brackets	2
Length of supporting tube	3200 mm
Max. free length	2500 mm
Material of supporting tube	GRP / Al

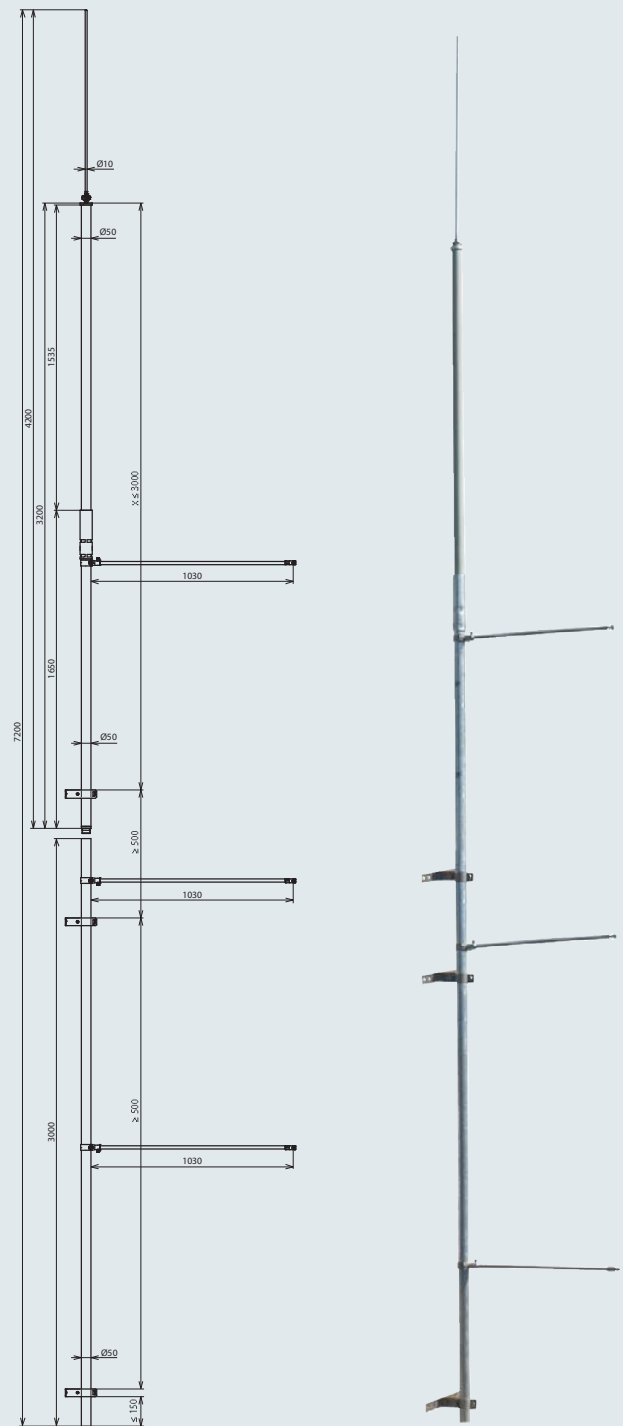
One-piece, total height 5700 mm



Consisting of:

- 1x air-termination spike StSt, L = 1000 mm (Part No. 105 071)
- 1x supporting tube GRP/Al, L = 4700 mm (Part No. 105 301)
- 3x wall fixing bracket StSt (Part No. 105 340)
- 2x spacer GRP/Al, L = 1030 mm (Part No. 106 331)

Part No.	105 455
Total length	5700 mm
Quantity of spacers	2
Quantity of fixing brackets	3
Length of supporting tube	4700 mm
Max. free length	3000 mm
Material of supporting tube	GRP / Al



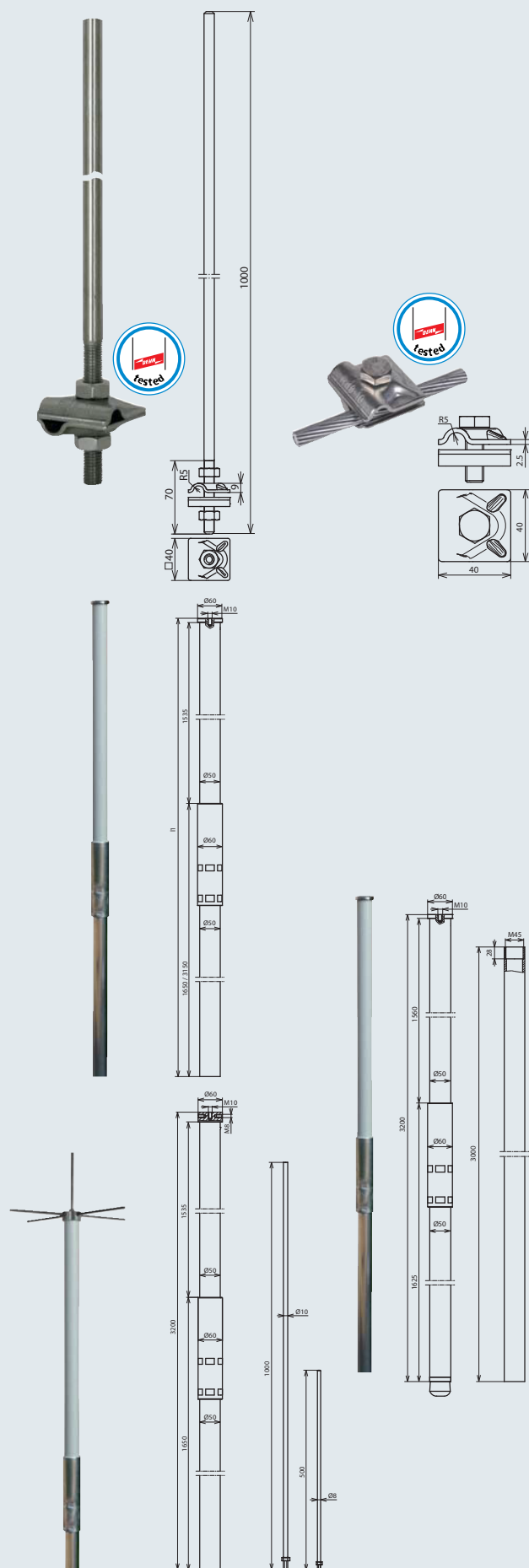
(transport length 3200 mm)

Consisting of:

- 1x air-termination spike StSt, L = 1000 mm (Part No. 105 071)
- 1x supporting tube GRP/Al, L = 6200 mm (Part No. 105 302)
- 3x wall fixing bracket StSt (Part No. 105 340)
- 3x spacer GRP/Al, L = 1030 mm (Part No. 106 331)

Part No.	105 470
Total length	7200 mm
Quantity of spacers	3
Quantity of fixing brackets	3
Length of supporting tube	6200 mm
Max. free length	3000 mm
Material of supporting tube	GRP / Al

Single Parts for DEHNiso Combi Sets



Air-termination Rod with MV Clamp

For screwing on top of the supporting tube and for fixing the air-termination conductor (wire or cable)

With thread M10

Part No.	105 071
Material of air-termination rod	StSt
Material of MV clamp	StSt
Air-termination rod (l x Ø)	1000x10 mm
Clamping range Rd	8-10 mm
Thread	M10
Standard	EN 50164-(1+2)

MV Clamp for Spanning

For screwing on top of the supporting tube with screw M10 in order to support cable spanning

Part No.	105 079
Material	StSt
Clamping range Rd	8-10 mm
Type of screw	M10x30 mm
Material of screw	StSt
Standard	EN 50164-1

Supporting Tubes GRP/Al

For a separated (insulated) installation of air-termination systems with female thread for air-termination rod or MV clamp for spanning

Also for use to fix the HVI Conductor

One-piece

Part No.	105 300	105 301
Material of supporting tube	GRP / Al	GRP / Al
Length of supporting tube (l)	3200 mm	4700 mm
Outer diameter	50 mm	50 mm
Transport length	3200 mm	4700 mm
Length of insulating clearance	1535 mm	1535 mm
Permanent temperature range	-50 to +100 °C	-50 to +100 °C

Supporting Tube GRP/Al

For a separated (insulated) installation of air-termination systems with female thread for air-termination rod or MV clamp for spanning

Also for use to fix the HVI Conductor

Two-piece

Part No.	105 302
Material of supporting tube	GRP / Al
Length of supporting tube	6200 mm
Outer diameter	50 mm
Transport length	3200/3000 mm
Length of insulating clearance	1535 mm
Permanent temperature range	-50 to +100 °C

Supporting Tube GRP/Al

One-piece, with Al air-termination rod Ø10 mm, length 1000 mm and lateral/horizontal StSt air-termination rods Ø8 mm, length 500 mm

Part No.	105 310
Material of supporting tube	GRP / Al
Length of supporting tube	3200 mm
Outer diameter	50 mm
Transport length	3200 mm
Length of insulating clearance	1535 mm
Permanent temperature range	-50 to +100 °C

Single Parts for DEHNiso Combi Sets

One-piece, combined with Al air-termination rod Ø16/10 mm, length 2500 mm

Part No.	105 306
Material of supporting tube	GRP / AI
Length of supporting tube	3200 mm
Outer diameter	50 mm
Transport length	3200 mm
Length of insulating clearance	1535 mm
Permanent temperature range	-50 to +100 °C

Fixing Bracket

For fixing the supporting tubes at the structure to be protected or at the wall

Part No.	105 340
Material	StSt
Clamping range of supporting tube	50 mm
Wall/corner distance	80 mm
Dimension of fixing	320 mm
Fixing	[8x] Ø5.1 / [4x] 11x20 mm
Material of screw	StSt

Fixing Bracket

For fixing the supporting tubes at the structure to be protected or at the wall

Part No.	105 341
Material	StSt
Clamping range of supporting tube	50 mm
Wall/corner distance	80 mm
Dimension of fixing	152 mm
Fixing	[8x] Ø5.1 / [4x] 11x20 mm
Material of screw	StSt

Fixing Bracket

Wall fixing bracket for vertical mounting

For fixing of the supporting tubes or air-termination rods D40/D50

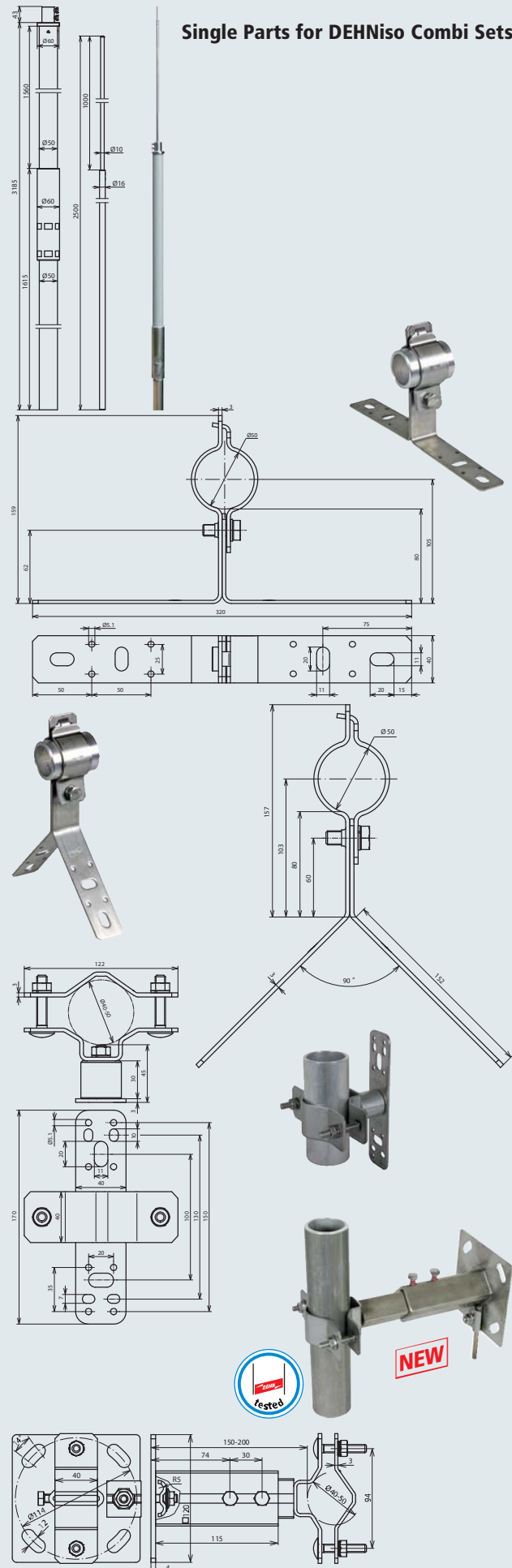
Part No.	105 342
Material of bracket	StSt
Fixing	[8x] Ø5.1 / [4x] 7x10 / [2x] 11x20 mm
Clamping range of supporting tube	40-50 mm
Wall/corner distance	46 mm
Dimension of fixing	170 mm
Material of screw	StSt

Fixing Bracket

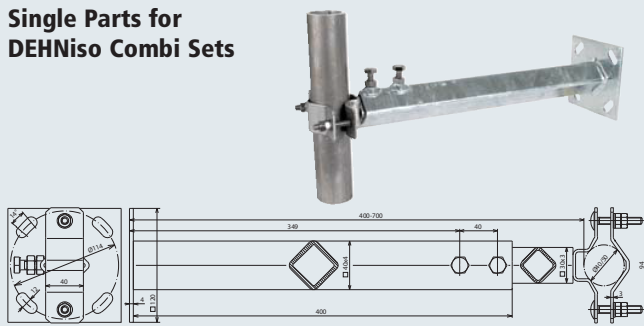
Wall fixing bracket with adjustment range of 150-200 mm

For fixing of supporting tubes or air-termination rods D40/D50 with double cleat for connecting 2x Rd 8-10 mm [lightning current carrying capability 100 kA (10/350 μ s)]

Part No.	105 344
Material of bracket	StSt
Clamping range of supporting tube	40-50 mm
Wall/corner distance	150-200 mm
Dimension of plate	120x120x4 mm
Fixing	[4x] 12x26 mm
Standard	EN 50164-1



Single Parts for DEHNiso Combi Sets

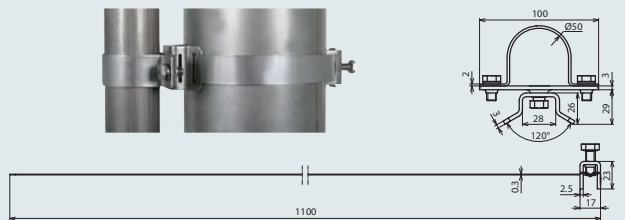


Fixing Bracket

Wall fixing bracket with adjustment range of 400-700 mm

For fixing of the supporting tubes or air-termination rods D40/D50

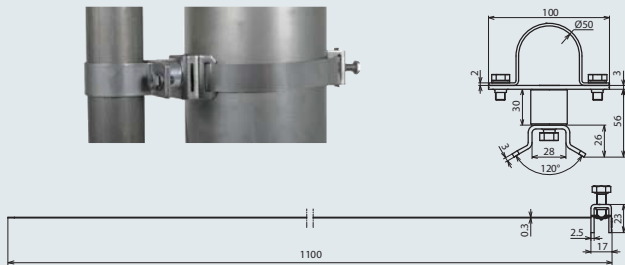
Part No.	105 343
Material of bracket	St/tZn / StSt
Clamping range of supporting tube	40-50 mm
Wall/corner distance	400-700 mm
Dimension of plate	120x120x4 mm
Fixing	[4x] 12x25 mm
Profile	40x40x4 / 30x30x3



Fixing Clamp with Tensioning Strap

For fixing the supporting tubes at construction elements e.g. antenna masts

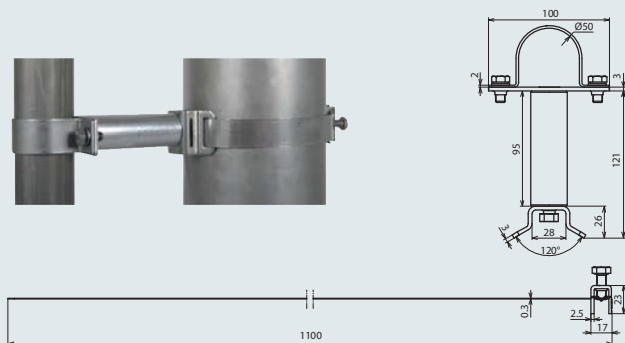
Part No.	105 360
Material of clip	StSt
Clamping range of supporting tube	50 mm
Clamping range Ø pipe	50-300 mm
Material of tensioning strap	StSt
Material of screw	StSt
Dimension of strap (w x d)	25x0.3 mm



Fixing Clamp with Tensioning Strap

With additional spacer (30 mm) for adjusting holders of sector antennas at the mast

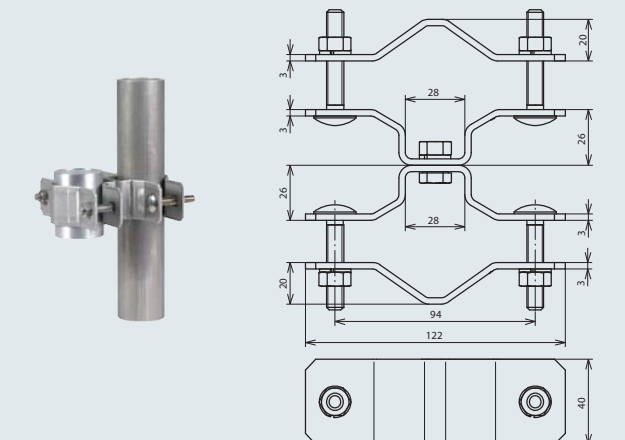
Part No.	105 361
Material of clip	StSt
Clamping range of supporting tube	50 mm
Clamping range Ø pipe	50-300 mm
Material of tensioning strap	StSt
Material of screw	StSt
Length of spacer	30 mm
Material of spacer	Al
Dimension of strap (w x d)	25x0.3 mm



Fixing Clamp with Tensioning Strap

With additional long spacer (100 mm) for adjusting holders of sector antennas at the mast

Part No.	105 362
Material of clip	StSt
Clamping range of supporting tube	50 mm
Clamping range Ø pipe	50-300 mm
Material of tensioning strap	StSt
Material of screw	StSt
Length of spacer	95 mm
Material of spacer	Al
Dimension of strap (w x d)	25x0.3 mm



Fixing Equipment for Use at Railings

For pipes

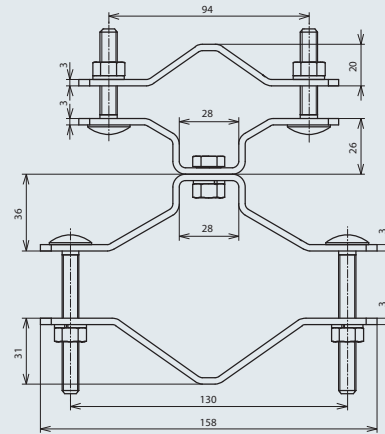
Part No.	105 354
Material	StSt
Clamping range Ø pipe	48-60 mm (1 1/2-2")
Screw	⬆ M8x40 / ⬆ M8x50 mm
Material of screw	StSt
Clamping range of supporting tube	40-50 mm

Single Parts for DEHNiso Combi Sets

Fixing Equipment for Use at Railings

For pipes

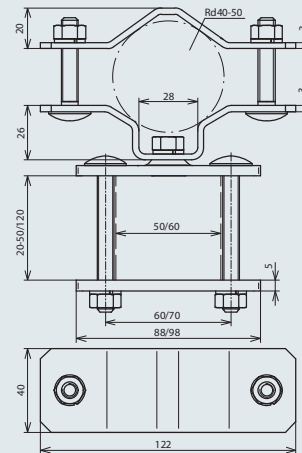
Part No.	105 355
Material	StSt
Clamping range Ø pipe	70-90 mm (2 1/4-3")
Screw	⬆ M8x40 / ⬆ M8x70 mm
Material of screw	StSt
Clamping range of supporting tube	40-50 mm



Fixing Equipment for Use at Railings

For square hollow profiles

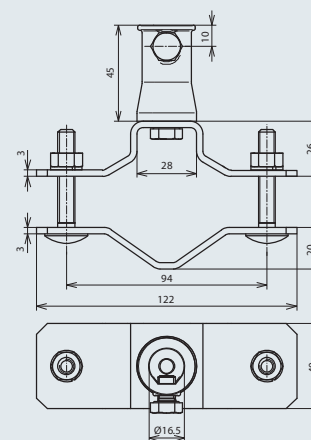
Part No.	105 356	105 376
Material	StSt	StSt
Clamping range of square profile	20x20 to 50x50 mm	60x120 mm
Screw	⬆ M8x40 / ⬆ M8x70 mm	⬆ M8x40 / ⬆ M8x150 mm
Material of screw	StSt	StSt
Clamping range of supporting tube	40-50 mm	40-50 mm



Pipe Bracket

With fixing bush for spacer (Ø16 mm) for pipes up to Ø60 mm

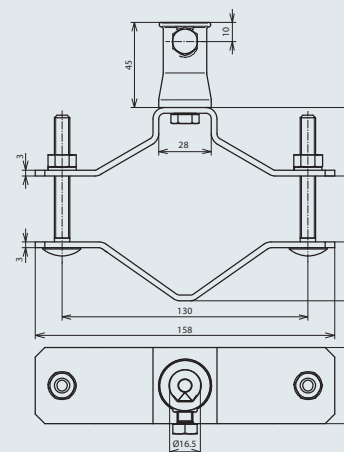
Part No.	106 352
Material of bracket	StSt
Clamping range Ø pipe	40-60 mm (1 1/4-2")
Material of bush	ZDC
Screw	⬆ M8x50 / ⬆ M8x12 mm
Material of screw/nut	StSt



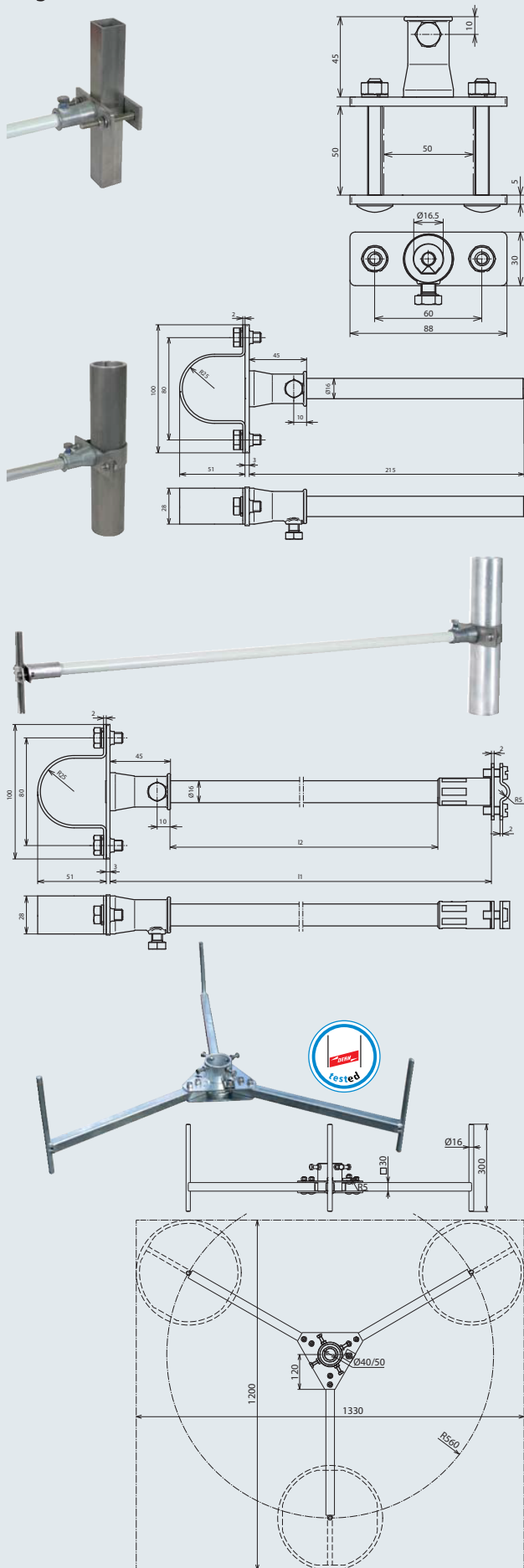
Pipe Bracket

With fixing bush for spacer (Ø16 mm) for pipes up to Ø90 mm

Part No.	106 353
Material of bracket	StSt
Clamping range Ø pipe	70-90 mm (2 1/4-3")
Material of bush	ZDC
Screw	⬆ M8x70 / ⬆ M8x12 mm
Material of screw/nut	StSt



Single Parts for DEHNiso Combi Sets



Fixing Equipment for Use at Railings

For square hollow profiles with bush for spacer bar (Ø16 mm)

Part No.	106 312
Material	ZDC / StSt
Clamping range of square profile	20x20 to 50x50 mm
Screw	M8x70 / M8x12 mm
Material of screw	StSt

Fixing Equipment for Use at Railings

Clamp for supporting tube with spacer bar (Ø16 mm, length 200 mm), for fixing the supporting tubes e.g. at protrusions

Part No.	106 121
Material	StSt
Screw	M8x16 mm
Material of screw	StSt
Clamping range of supporting tube	50 mm
Material of fixing bush	ZDC

Spacer for Supporting Tubes

For fixing the conductors at the supporting tube and for keeping the separation distance according to IEC/EN 62305

Part No.	106 328	106 331
Material of spacer	GRP	GRP
Material of fixing element	StSt	StSt
Material of conductor holder	StSt	StSt
Conductor holder support Rd	7-10 mm	7-10 mm
Height of conductor holder	20 mm	20 mm
Total length (l1)	690 mm	1030 mm
Insulating clearance (l2)	605 mm	945 mm
Clamping range of supporting tube	50 mm	50 mm
Permanent temperature range	-50 up to +100 °C	-50 to +100 °C

Tripod for DEHNiso Combi

For self-supporting erection of supporting tubes or air-termination rods D40 with a length of 3200 mm (e.g. Part No. 105 300 or 105 440), without additional fixing at construction elements

Adjustable to the roof inclination up to max. 10°

Connection with double cleat for 2x Rd 8-10 mm [lightning current carrying capability 100 kA (10/350 µs)]

The stackable concrete block (Part No. 102 010) and the support plate (Part No. 102 050) have to be ordered separately.

Hinged for transport

Part No.	105 200
Material of tripod	St/tZn
Support	40/50 mm
Quantity of concrete blocks	6/9 blocks 17 kg each
Radius	560 mm
Space required for tripod	1180x1320 mm
Standard	EN 50164-1