| 1.2 | MANUAL POLARISATION (MP)

The MP antenna stands have a manual adjustable measuring height, and are designed specifically for electromagnetic measurements in electromagnetic shielded chambers.

The MP antenna stands have no metal parts.

Polarisation is operated manually. Cams are located at the stops enabling the antenna bar height to be adjusted manually.

The antenna stands can be equipped with an optional available manual crank winch for moving the antenna support.

ANTENNA STANDS – MANUAL POLARISATION (MP)

Type	Description	Article No.
AS 1500-MP	Adjustable height 700…1550 mm MP = Manual Polarisation	81000009
AS 2000-MP	Adjustable height 700…2050 mm	80000080
AS 2500-MP	Adjustable height 700…2550 mm	80000391

ACCESSORIES

Type	Description	Article No.
-O	OATS version for AS series (only with –HK or –PP)	80004899
-PP	Optional pneumatic polarisation	80004900
-MT	Optional manual tilt (bore sight)	80000337
-HK	Hand crank for height adjustment	80004901
-10kg	Stronger version, max. antenna load up to 10 kg	80004902
-20kg	Stronger version, max. antenna load up to 20 kg	80004903
-PR 7/16	Polarisation rod for 7/16 antenna connector	80600029
-CW5	Counter weight 5 kg	80000135

SCOPE OF DELIVERY

Type	Quantity
Operating manual	1 x

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TECHNICAL DATA			
TYPE	AS 1500-MP	AS 2000-MP	AS 2500-MP
Antenna height adjustable between	700 mm…1550 mm	700 mm…2050 mm	700 mm…2550 mm
Total mast height	1669 mm	2169 mm	2669 mm
Material	PVC, Kömacel® & fiber glass, weatherproof		
Mast cross-section	60 mm x 60 mm		
Base L x W	900 mm x 600 mm (new version min. 893 mm x 893 mm)		
Antenna weight (at the end of antenna pipe)	max. 6 kg		
Polarisation manually	0° / 90° (vert. / hor.)		
Temperature range	+8 °C…+40 °C		

| 1.3 | PNEUMATIC POLARISATION (PP)

The PP antenna stands are specifically designed for measurements in electromagnetic absorption chambers at a fixed measuring height.

Polarisation occurs using compressed air. A solenoid valve located outside of the chamber regulates the compressed air flow. The antenna bar height is manually adjustable.

The GPIB (IEEE 488) & LAN (TCP/IP) bus, when operated with the CO 3000 Controller, provides an additional control option for all functions.

ANTENNA STANDS – PNEUMATIC POLARISATION (PP)

Type	Description	Article No.
AS 1500-PP	Adjustable height 700…1550 mm PP = Pneumatic Polarisation	80006758
AS 2000-PP	Adjustable height 700…2050 mm	80000082
AS 2500-PP	Adjustable height 700…2550 mm	80001082

ACCESSORIES

Type	Description	Article No.
-10 kg	Stronger version, max. antenna load up to 10 kg	80006757
-PR 7/16	Polarisation rod for 7/16 antenna connector	80600029
-CW5	Counter weight 5 kg	80000135

SCOPE OF DELIVERY

Type	Quantity
Interface to CO 3000	1 x
Power supply cable	1 x 3 m
Fiber optic cable	1 x 5 m
Pneumatic tube	2 x 12.5 m
Pneumatic wall-panel bulkhead fitting	2 x
Pneumatic service unit with control box	1 x
Operating manual	1 x

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TECHNICAL DATA			
TYPE	AS 1500-PP	AS 2000-PP	AS 2500-PP
Antenna height adjustable manually between	700…1550 mm	700…2050 mm	700…2550 mm
Total mast height	1669 mm	2169 mm	2669 mm
Material	Kömacel® & fiber glass, weatherproof		
Mast cross-section	60 mm x 60 mm		
Base L x W	900 mm x 600 mm (new version min. 893 mm x 893 mm)		
Antenna weight (at the end of antenna pipe)	max. 6 kg		
Polarisation	0° / 90° (vert. / hor.)		
Polarisation time 0° / 90°	approx. 3 sec		
Polarisation drive	pneumatic rotation cylinder via solenoid valve		
Control	microcontroller by fiber optic cable		
Air Pressure	min. 6 bar		
Operating voltage	110 / 230 V (50 / 60 Hz)		
Current consumption	0.6 A		
Temperature range	+8 °C…+40 °C		

| 1.4 | ELECTRIC POLARISATION (EP)

The EP antenna stands are specifically designed for measurements in electromagnetic absorption chambers at a fixed measuring height. An enclosed DC motor, controlled via a fiber optic cable, is used during polarisation. Adjustable limit switches at end position enable a security feature.

The GPIB (IEEE 488) & LAN (TCP/IP) bus, when operated with the CO 3000 Controller, provides an additional control option for all functions.

ANTENNA STANDS – ELECTRIC POLARISATION (EP)

Type	Description	Article No.
AS 1500-EP	Fix height 1550 mm EP = Electrical Polarisation	80000083
AS 2000-EP	Fix height 2050 mm	80000082
AS 2500-EP	Fix height 2550 mm	80005023

ACCESSORIES

Type	Description	Article No.
-10 kg	Stronger version, max. antenna load up to 10 kg	80004902
-H	Height adjustable AS-EP version	80005555
-PR 7/16	Polarisation rod for 7/16 antenna connector	80600029
-CW5	Counter weight 5 kg	80000135

SCOPE OF DELIVERY

Type	Quantity
Interface to CO 3000	1 x
Power supply cable	1 x 5 m
Fiber optic cable	1 x 5 m, 1 x 10 m
FSMA	2 x
Operating manual	1 x

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TECHNICAL DATA			
TYPE	AS 1500-EP	AS 2000-EP	AS 2500-EP
Antenna height fixed at	1550 mm	2050 mm	2550 mm
Total mast height	1720 mm	2220 mm	2720 mm
Material	PVC, Kömacel® & fiber glass, weatherproof		
Mast cross-section	60 mm x 60 mm		
Base L x W	900 mm x 600 mm (new version min. 893 mm x 893 mm)		
Antenna weight (at the end of antenna pipe)	max. 6 kg		
Polarisation	0° / 90° (vert. / hor.)		
Polarisation time 0° / 90°	approx. 4 sec		
Polarisation drive	DC motor via belt drive		
Control	microcontroller by fiber optic cable		
Control cable	fiber optic (polymer type)		
Operating voltage	230 V 50 / 60 Hz (optional 110 V)		
Current consumption	1.25 A		
Temperature range	+8 °C…+40 °C		

| 1.5 | ELECTRIC POLARISATION AND HEIGHT ADJUSTABLE (EP-H)

The EP-H antenna stands are specifically designed for measurements in electromagnetic absorption chambers. The antenna height could be adjusted manually. An enclosed DC motor, controlled via a fiber optic cable, is used during polarisation. Adjustable limit switches at end position enable a security feature.

The GPIB (IEEE 488) & LAN (TCP/IP) bus, when operated with the CO 3000 Controller, provides an additional control option for all functions.

ANTENNA STANDS – ELECTRIC POLARISATION AND HEIGHT ADJUSTIBLE (EP-H)		
Type	Description	Article No.
AS 2000-EP-H	Adjustable height 700…2000 mm EP-H = Electrical Polarisation and Height Adjustible	80005555
AS 2500-EP-H-15kg	Adjustable height 700…2500 mm	80007150

ACCESSORIES		
Type	Description	Article No.
-15 kg	Stronger version, max. antenna load up to 15 kg	On request
-20 kg	Stronger version, max. antenna load up to 20 kg	On request
-PR 7/16	Polarisation rod for 7/16 antenna connector	80600029
-CW5	Counter weight 5 kg	80000135

SCOPE OF DELIVERY	
Type	Quantity
Interface to CO 3000	1 x
Power supply cable	1 x 5 m
Fiber optic cable	1 x 5 m, 1 x 10 m
FSMA	2 x
Operating manual	1 x

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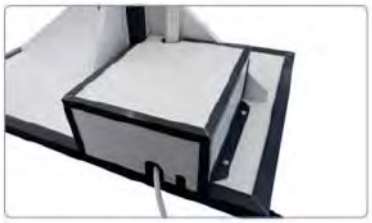
TECHNICAL DATA		
TYPE	AS 2000-EP-H	AS 2500-EP-H-15KG
Antenna height manually adjustalble between	700…2000 mm	700…2500 mm
Total mast height	2169 mm	2674 mm
Material	PVC, Kömacel® & fiber glass, weatherproof	
Mast cross-section	60 mm x 60 mm	100 mm x 100 mm
Base L x W	908 mm x 608 mm	1058 mm x 658 mm
	(new version min. 893 mm x 893 mm)	
Antenna weight (at the end of antenna pipe)	max. 10 kg	max. 15 kg
Polarisation	0° / 90° (vert. / hor.)	
Polarisation time 0° / 90°	approx. 4 sec	
Polarisation drive	DC motor via cardan drive	
Control	microcontroller board	
Control cable	fiber optic (polymer type)	
Operating voltage	230 V 50 / 60 Hz (optional 110 V)	
Current consumption	1.25 A	
Temperature range	+8 °C…+40 °C	



| 1.6 | WITH HAND CRANK – PART 1

The AS2850-MP-HK-MT-15kg-ST antenna stand is constructed for heavy antennas and specifically designed for measurements in electromagnetic absorption chambers and Open Area Test Sites. The antenna height is adjustable by hand crank to provide an easy height adjustment for the heavy antennas. The used casters enable an easy movement of the whole antenna stand and are lockable.

The polarisation occurs manually by the antenna rod, specific antenna adapters are optional available. The tilt angle is manually adjustable up to 40°.

Used materials are POM, fiberglass & PVC. There are no metal parts, excepting the casters. The antenna stand design is optimized for Schwarzbeck antenna STLP 9128 E.

ANTENNA STANDS – WITH HAND CRANK (MP-HK-MT-ST)

Type	Description	Article No.
AS2850-MP-HK-MT-15kg-ST	Adjustable height by hand crank 1126…2850 mm MP = Manual Polarisation HK = Hand Crank MT = Manual Tilt ST =Sideways mounted Tube	80005790

ACCESSORIES

Type	Description	Article No.
-PR 7/16	Polarisation rod for 7 / 16 antenna connector	80600029
-CW5	Counter weight 5 kg	80000135

SCOPE OF DELIVERY

Type	Quantity
Operating manual	1 x

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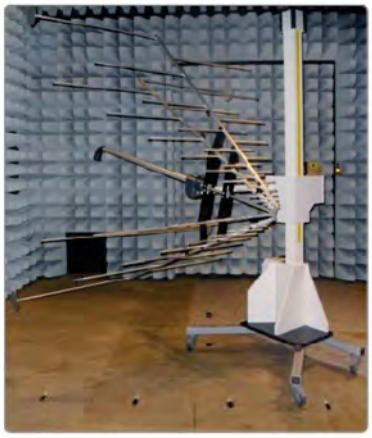
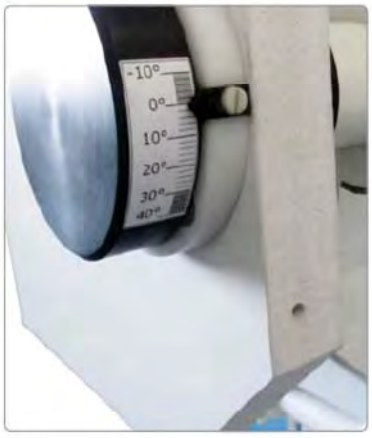
TECHNICAL DATA	
TYPE	AS2850-MP-HK-MT-15KG-ST
Antenna height adjustable by hand crank from	1126 mm…2850 mm (at centreline of antenna)
Total mast height	2896 mm
Material	POM, fiber glass & PVC, weatherproof
Mast cross-section	min. 100 mm x 100 mm
Base L x W	766 mm x 1125 mm
Antenna weight	max. 15 kg
Polarisation manual adjustable between	0° / 90° (vert. / hor.)
Tilt angle manual adjustable between	-10°…+40°
Antenna stand weight	50 kg
Temperature range	+8 °C…+40 °C





| 1.6 | WITH HAND CRANK – PART 2

The AS3000-PP-HK-MT-ST antenna stands have a manual adjustable measuring height by hand crank, and are designed specifically for electromagnetic measurements in electromagnetic shielded chambers or temporary in Open Area Test Sites.

The AS3000-PP-HK-MT-ST antenna stands have no metal parts (excepting the rollers).

Polarisation is manually adjustable. The antenna stand is equipped with a manual crank winch for moving the antenna basket between 1.4 and 3 m.

ANTENNA STANDS – WITH HAND CRANK (PP-HK-MT-ST)

Type	Description	Article No.
AS3000-PP-HK-MT-ST	Adjustable height by hand crank 1400…3000 mm PP = Pneumatic Polarisation HK = Hand Crank MT = Manual Tilt ST =Sideways mounted Tube	80006606

ACCESSORIES

Type	Description	Article No.
-PR 7/16	Polarisation rod for 7/16 antenna connector	80600029
-CW5	Counter weight 5 kg	80000135

SCOPE OF DELIVERY

Type	Quantity
Operating manual	1 x

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TECHNICAL DATA	
TYPE	AS 3000-PP-HK-MT-ST
Antenna height adjustable by hand crank from	1400 mm…3000 mm
Total mast height	3460 mm
Material	fiber glass & PVC, weatherproof
Mast cross-section	100 mm x 100 mm
Base L x W	1235 mm x 1235 mm
Antenna weight	max. 15 kg (at the end of the antenna pipe)
Polarisation pneumatic	0° / 90° (vert. / hor.)
Polarisation drive	pneumatic actuator via solenoid valve
Control	microcontroller board by fiber optic
Air Pressure	min. 6 bar
Tilt angle manual adjustable between	0°…+30°
Antenna stand weight	50 kg
Temperature range	+8 °C…+40 °C

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| 1.6 | WITH HAND CRANK – PART 3

The AS 4000-MP-HK antenna stands have a manual adjustable measuring height by hand crank, and are designed specifically for electromagnetic measurements in electromagnetic shielded chambers or temporary in Open Area Test Sites.

The AS 4000-MP-HK antenna stands have no metal parts (excepting the rollers).

Polarisation is manually adjustable. The antenna stand is equipped with a manual crank winch for moving the antenna basket between 1 and 4 meters).

ANTENNA STANDS – WITH HAND CRANK (MP-HK)

Type	Description	Article No.
AS 4000-MP-HK	Adjustable height by hand crank 1000…4000 mm MP = Manual Polarisation HK = Hand Crank	80006605

ACCESSORIES

Type	Description	Article No.
-O	OATS version for AS series (only with –HK or –PP)	80004899
-PP	Optional pneumatic polarisation	80004900
-MT	Optional manual tilt (bore sight)	80000337
-10kg	Stronger version, max. antenna load up to 10 kg	80004902
-20kg	Stronger version, max. antenna load up to 20 kg	80004903
-PR 7/16	Polarisation rod for 7/16 antenna connector	80600029
-CW5	Counter weight 5 kg	80000135

SCOPE OF DELIVERY

Type	Quantity
Operating manual	1 x

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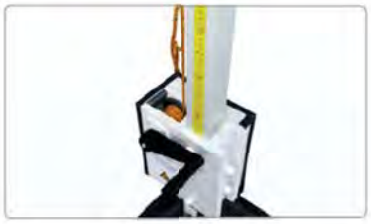
TECHNICAL DATA	
TYPE	AS 4000-MP-HK
Antenna height adjustable by hand crank from	1000 mm…4000 mm
Total mast height	4300 mm
Material	fiber glass & PVC, weatherproof
Mast cross-section	60 mm x 60 mm
Base L x W	900 mm x 900 mm (new version min. 893 mm x 893 mm)
Antenna weight	max. 6 kg (at the end of the antenna pipe)
Polarisation manual adjustable between	0° / 90° (vert. / hor.)
Antenna stand weight	50 kg
Temperature range	+8 °C…+40 °C



| 1.7 | FOR HEAVY HORN ANTENNAS

The AS2000-MP-18kg-SR is an antenna stand enabling the easy polarisation of heavy antennas in a fix but adjustable height. The complete design is made for using in electromagnetic absorption chambers, free from metal parts to minimise the influence on the measurement results.

The rotating axis is in the center of the antenna so the height and direction do not change during polarisation.

The adaption of the antenna is done by an adaption ring which differs from the antenna to be fixed. In –HK execution (optionally) the antenna stand has a hand crank for the easier height changing.

ANTENNA STAND – FOR HEAVY HORN ANTENNAS (MP-SR)		
Type	Description	Article No.
AS2000-MP-18kg-SR	Adjustable height 700…2000 mm MP =Manual Polarisation SR = Sideways mounted Ring	80006789

ACCESSORIES		
Type	Description	Article No.
-HK	Hand crank for up / down movement	On request
-EP	Electric polarisation	On request
-PP	Pneumatic polarisation	On request
-MT	Manual tilt	On request
-XXkg	Other loads	On request

SCOPE OF DELIVERY	
Type	Quantity
Operating manual	1 x

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TECHNICAL DATA	
TYPE	AS 2000-MP-18KG-SR
Antenna height adjustable between	700 … 2000 mm
Total mast height	2550 mm
Permissible load	18 kg
Material of the structure	PVC, POM, fiber glass, PC, PTFE, … all non conductive
Mast cross section	100 × 100 mm
Base L x W	approx. 1450 × 1230 mm
Polarisation of the antenna	manually (optionally: pneumatic or electric)
Antenna adaption	ø 800 mm ring
Antenna tilt	none (optionally: manual tilt 0…45°, others on request)
Temperature range	+8 °C…+40 °C

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| 1.8 | FOR MULTIPLE ANTENNAS

The AS1600-MP-3 antenna stand has a manual adjustable measuring height, and is designed specifically for electromagnetic measurements in electromagnetic shielded chambers.

The AS1600-MP-3 antenna stand has no metal parts.

Polarisation is operated manually of each antenna. The holder-plate for the two smaller antennas can be adjusted in a height range of 350 mm and in a distance of 100 and 170 mm to enable a similar measurement height and distance of each horn antenna.

The antenna stand can be equipped with an optional available manual crank winch for moving the antenna support.

ANTENNA STAND – FOR MULTIPLE ANTENNAS (MP-3)

Type	Description	Article No.
AS1600-MP-3	Adjustable height 710…1650 mm MP-3 = Manual Polarisation for three horn antennas	80000390

ACCESSORIES

Type	Description	Article No.
-O	OATS version for AS series (only with –HK or –PP)	80004899
-PP	Optional pneumatic polarisation	80004900
-MT	Optional manual tilt (bore sight)	80000337
-HK	Hand crank for height adjustment	80004901
-10kg	Stronger version, max. antenna load up to 10 kg	80004902
-20kg	Stronger version, max. antenna load up to 20 kg	80004903
CW5	Counter weight 5 kg	80000135

SCOPE OF DELIVERY

Type	Quantity
Operating manual	1 x

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TECHNICAL DATA	
TYPE	AS 1600-MP-3
Antenna height adjustable between	710 mm…1650 mm
Total mast height	1700 mm
Material	PVC, Kömacel® & fiber glass, weatherproof
Mast cross-section	60 mm x 60 mm
Base L x W	960 mm x 600 mm
Antenna weight	max. 6 kg (at the end of antenna pipe)
Polarisation manually	0° / 90° (vert. / hor.)
Temperature range	+8 °C…+40 °C

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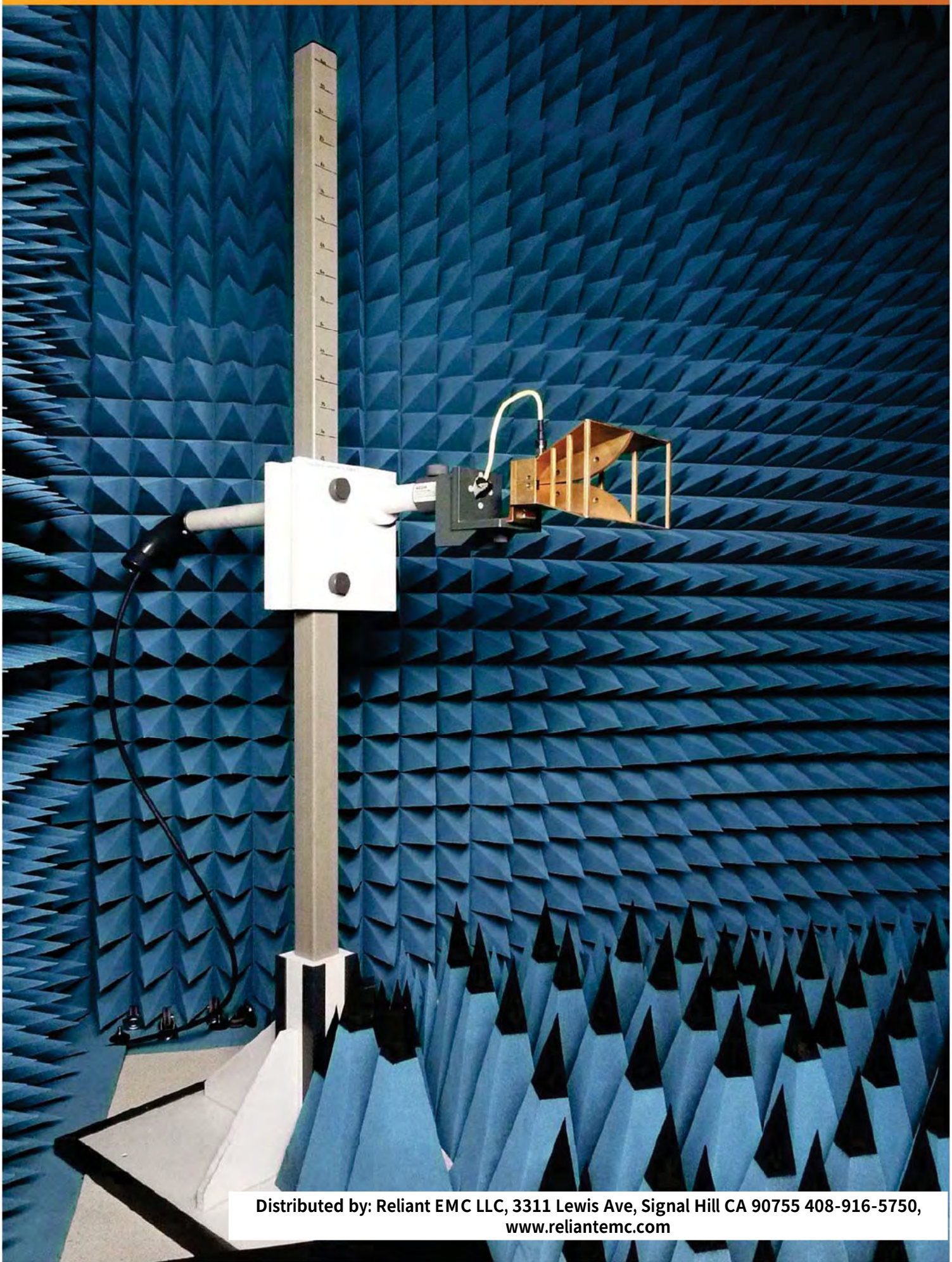

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| 1 | ANTENNA STANDS

Our manual height antenna stands are specifically designed to be used in EMC and antenna facilities, for measurements at a fixed height.

The metal free designs (except for castors and drive unit) have no influence to the measurement performance. The polarisation is available in three designs, manual, electric and pneumatic.

The latest introduction to the antenna stand range allows adjustable height in combination with electric polarisation. The stand can also be equipped with a manual hand crank. This allows easy movement and fast set up time, compared to a tripod.

MANUAL POLARISATION (AS-MP)

- 700…2550 mm manual height adjustment
- Manual polarisation
- 6 kg load

PNEUMATIC POLARISATION (AS-PP)

- 700…2550 mm manual height adjustment
- Pneumatic polarisation
- 6 kg load

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| 1.1 | PRODUCT OVERVIEW

ELECTRIC POLARISATION (AS-EP)

- Fixed height
- Electric polarisation
- 6 kg load

ELECTRIC POLARISATION AND HEIGHT ADJUSTABLE (AS-EP-H)

- 700…2500 mm manual height adjustment
- Electric polarisation
- 10 / 15 kg load

WITH HAND CRANK

- 1000…4000 mm manual height adjustment
- Manual polarisation
- Up to 50 kg load
- Optional tilt

FOR HEAVY HORN ANTENNAS

- 700…2000 mm manual height adjustment
- Manual polarisation
- 18 kg load
- Optional tilt

FOR MULTIPLE ANTENNAS

- 700…1650 mm manual height adjustment
- Manual polarisation
- 6 kg load
- Mounting adapter for up to three horn antennas

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