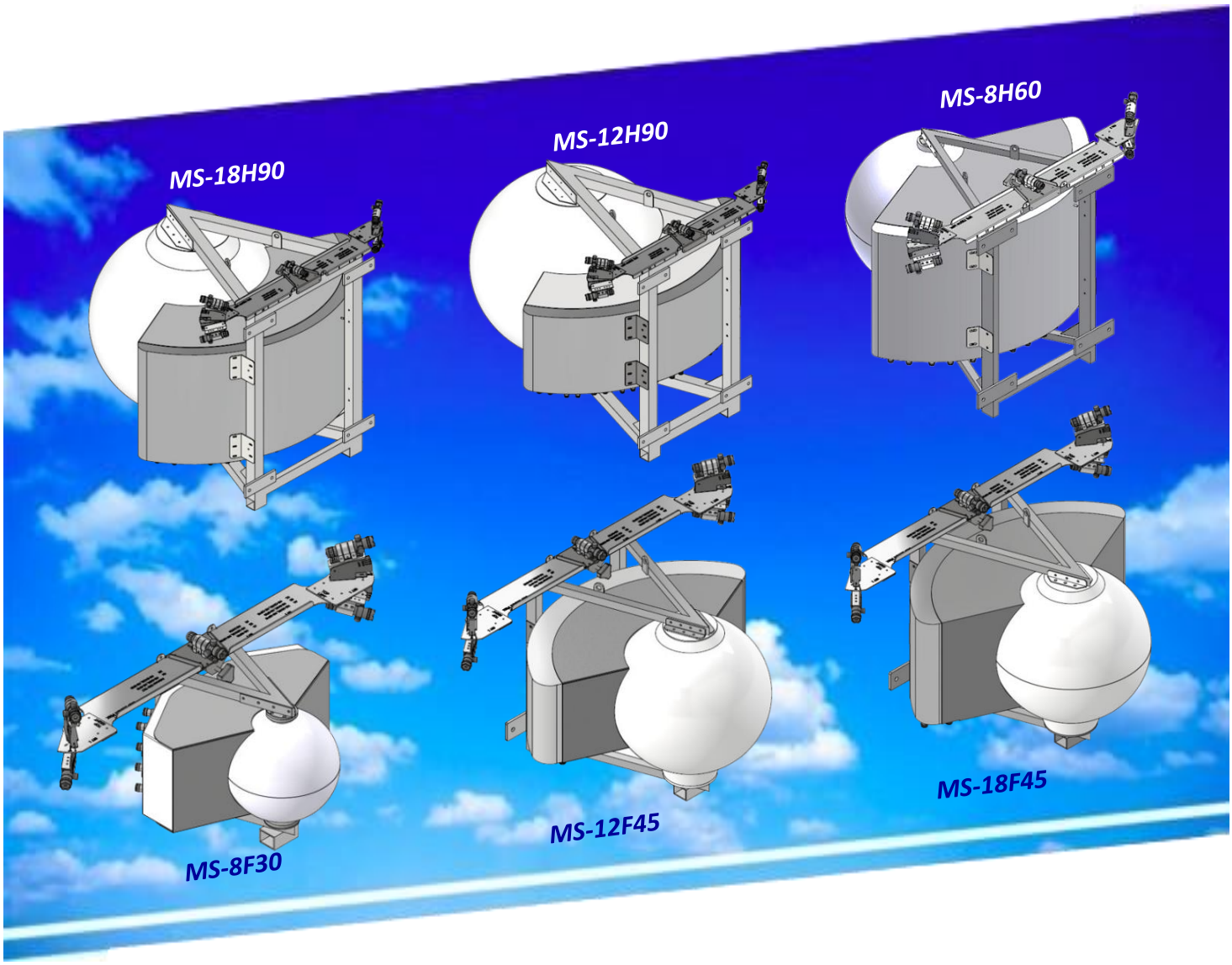
MATSING®

LENS TECHNOLOGY ENABLED

MS-LSA-SLP-1 User Guide

(Stadium Laser Pointer for 6 Antenna Models)



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LENS TECHNOLOGY ENABLED

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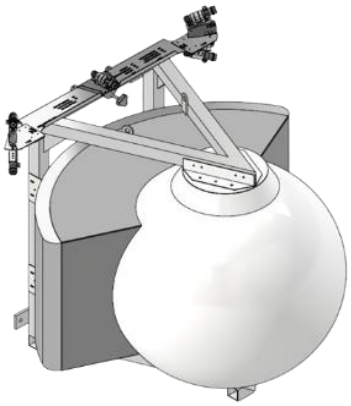
Revision History:

Date	*Description*	*Rev By*	*Check By*	*Rev no*
13-Jul-2023	*Initial Release*	*RL*	*Pavel*	*0*
21-Aug-2023	*Include laser position guide*	*RL*	*Pavel*	*1*
27-Jan-2024	*Rename for difference SLP*	*RL*	*Pavel*	*2*
25-Sep-2024	*Document and part renaming and general update*	*RL*	*Pavel*	*3*
26-Jun-2025	*Re-organize the guide by model configuration*	*RL*	*Pavel*	*4*

1.00 Applicable Antenna Models

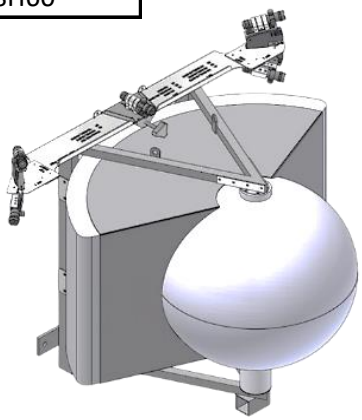
A) 90 cm Lens

1	MS-18H90	2	MS-12H90



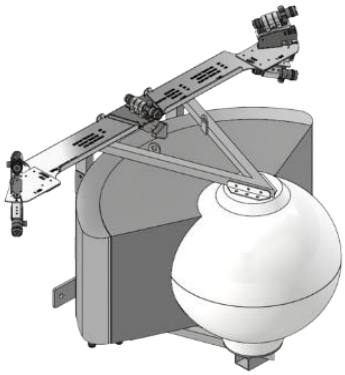
B) 60 cm Lens

3	MS-8H60



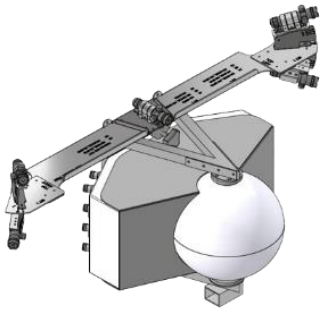
C) 45 cm Lens

4	MS-18F45	5	MS-12F45



D) 30 cm Lens

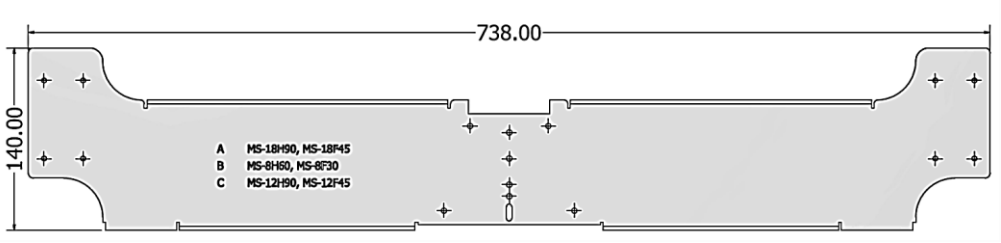
6	MS-8F30



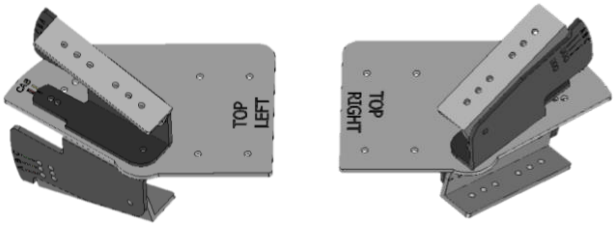
2.00 SLP: Parts and Description

2.10 Main Base Plate

2.11 ***120cm*** Main base plate (L=738mm, Engraved with COLOUR text)



2.12 ***Pre-Setting*** Plate (Similar to SLP-2 SET 1 Plate)



2.20 Laser Pointer and Beds.

2.21 "PINTY" ***Laser pointer*** . (Not included)

2.22 "BUGLEMAN" ***Laser bed*** . (Not Included)

3.00 SLP: Parts Assembly

3.10 Typical example of Laser Pointer Assembly (Sample Model: **MS-18H90**)

3.11 Select ***120cm*** Main base plate

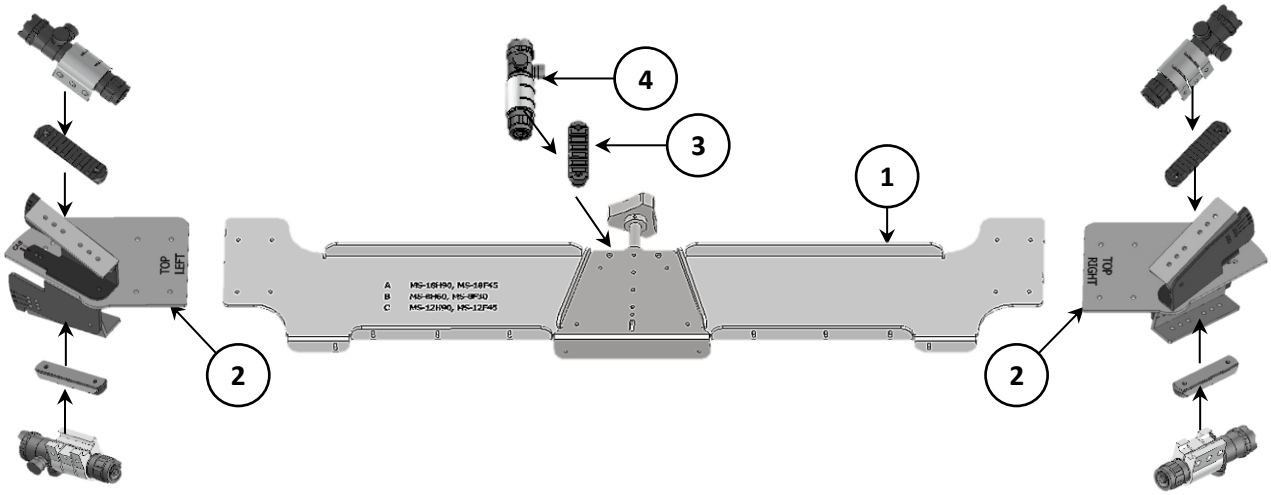
3.12 Select ***Pre-Setting*** Plate

① ***120cm*** Main base plate

② Secure the ***Pre-Setting*** plate onto the 120cm main base plate

③ Install all ***5 Laser beds*** securely.

④ Install all ***5 Lasers pointers*** in place.

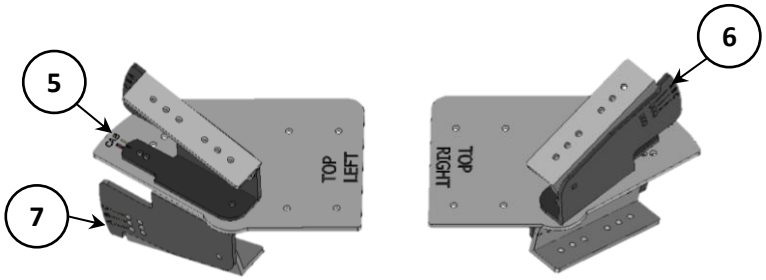


3.20 ***Pre-Setting*** Plate Setting

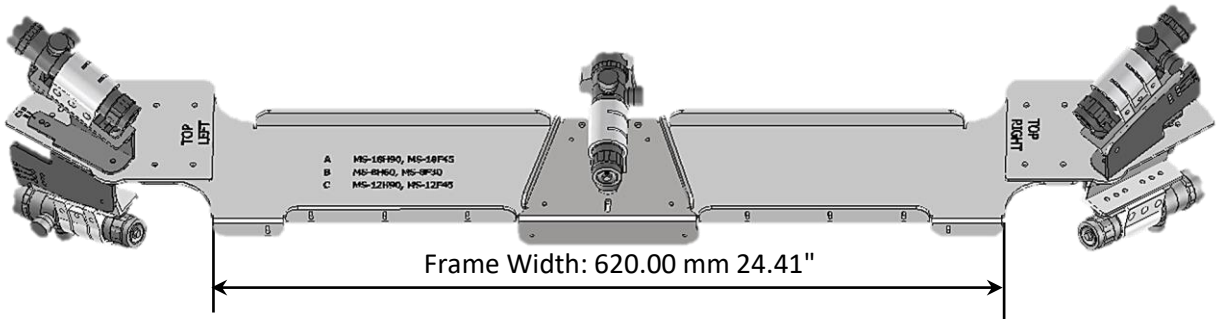
⑤ Adjust to position ***"A"*** and securely fasten it.

⑥ Adjust the top tilting bracket to position ***"A"*** and securely fasten it.

⑦ Adjust the bottom tilting bracket to position ***"A"*** and securely fasten it.



3.30 120cm main base plate: ***Frame Marking***



4.00 Laser Pointer: Safety Information and User Guide

⚠ ***Never*** point this device at reflective surfaces to avoid unintended light dispersion.

⚠ ***Use this device*** only in accordance with all applicable local and national laser laws and regulations.

⚠ ***Never*** aim the laser directly at an aircraft or at the eyes of any person or animal. Avoid viewing the laser through magnified or focused optics.

⚠ ***This product*** is resistant to standard precipitation. Avoid exposing it to pressurized water or allowing its internal electronics to become wet. If moisture exposure occurs, immediately remove the batteries and allow all components to dry completely before resuming use.

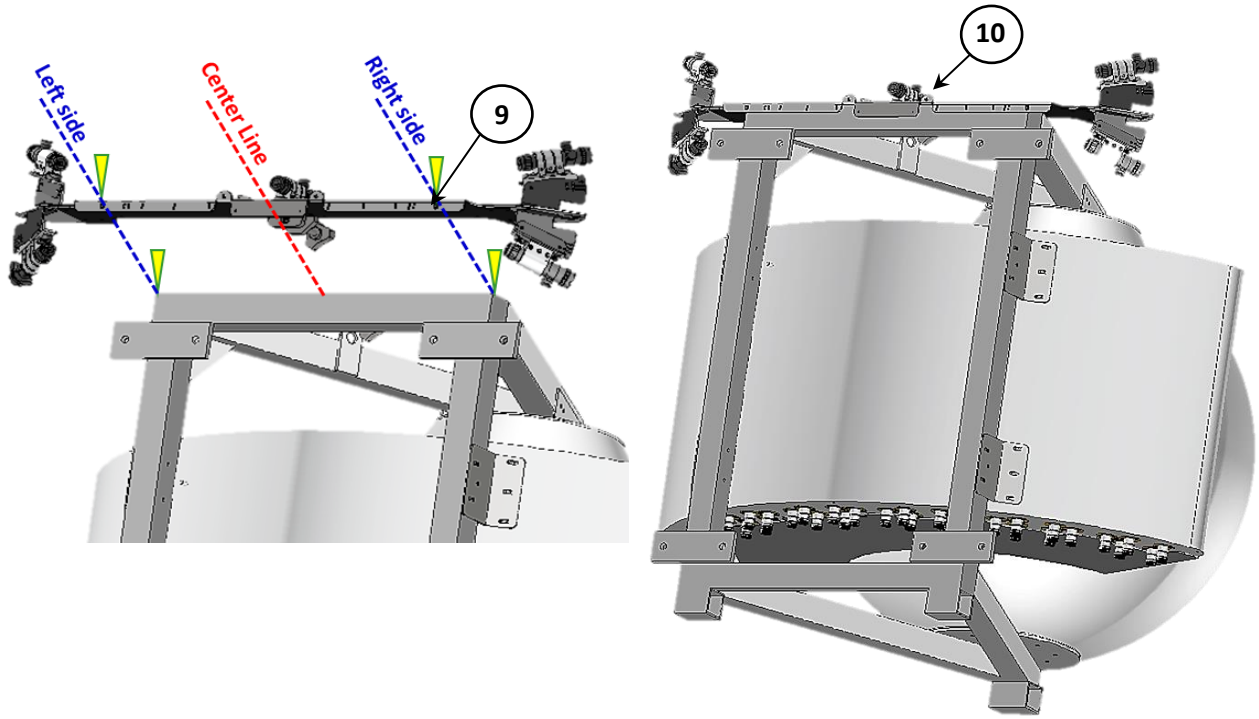
5.00 SLP: Lifting and Mounting

⚠ Workplace safety and health compliance measures must be followed when performing 'Work-At-Height' tasks.

⚠ Only certified personnel should use appropriate equipment, safety harnesses, and tools to perform the task safely.

⑨ Align the SLP frame width marker with the frame edge.

⑩ Mount it flat on top of the frame and secure it firmly.

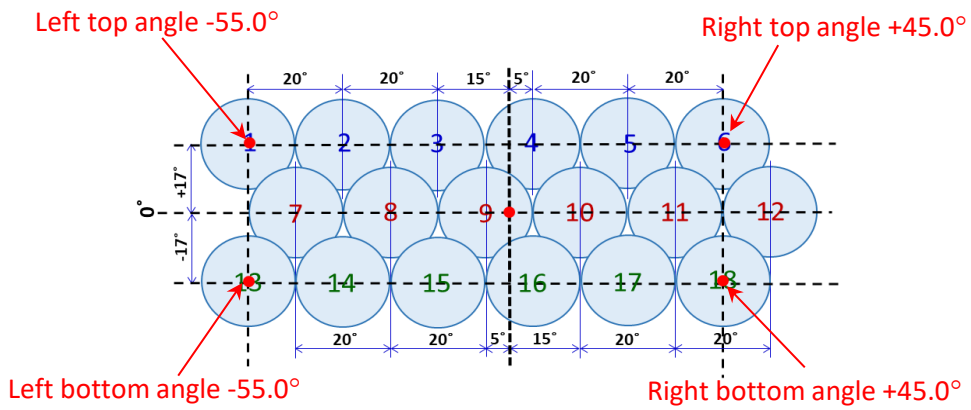


6.00 SLP: Antenna Models and Configuration

6.10 Antenna model and SLP parts configuration chart

no	Model	Main base plate	Pre-setting plate	Frame width (mm/inch)	Base plate setting	Tilt bracket setting	Left top (°)	Right top (°)	Left bottom (°)	Right bottom (°)	Tilt -up (°)	Tilt -down (°)
1	MS-18H90	120cm	(set1)	620.00/24.41"	"A"	"A"	-55.0°	+45.0°	-55.0°	+45.0°	+17.0°	-17.0°
2	MS-12H90	120cm	(set1)	535.00/21.06"	"C"	"C"	-55.0°	+45.0°	-45.0°	+55.0°	+8.7°	-8.7°
3	MS-8H60	120cm	(set1)	466.80/18.38"	"B"	"B"	-52.5°	+37.5°	-37.5°	+52.5°	+13.0°	-13.0°
4	MS-18F45	120cm	(set1)	350.80/13.81"	"A"	"A"	-55.0°	+45.0°	-55.0°	+45.0°	+17.0°	-17.0°
5	MS-12F45	120cm	(set1)	350.80/13.81"	"C"	"C"	-55.0°	+45.0°	-45.0°	+55.0°	+8.7°	-8.7°
6	MS-8F30	120cm	(set1)	220.00/8.66"	"B"	"B"	-52.5°	+37.5°	-37.5°	+52.5°	+13.0°	-13.0°

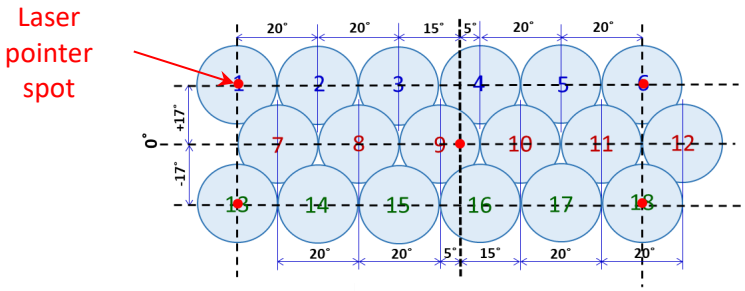
6.20 Antenna Beam Projection and Position Guide (Sample of **MS-18H90**)

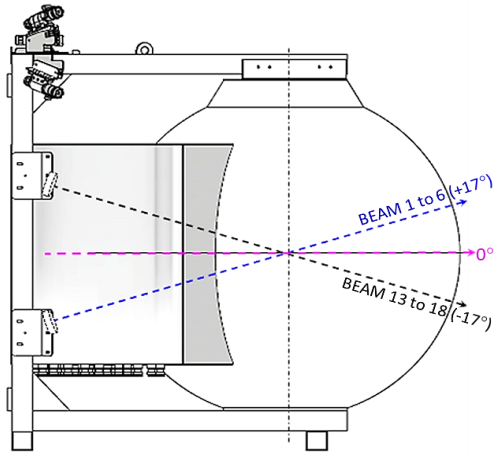


7.00 SLP: Antenna Models Positioning Guide

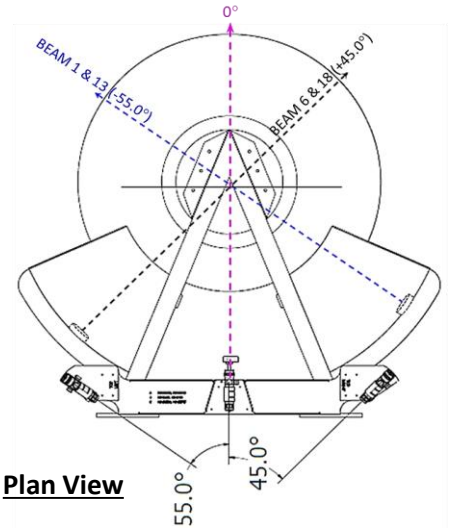
1 MS-18H90 SLP Configuration (Frame Width: 620.00mm, 24.41")

Base Plate Setting	Tilt Bkt Setting	Left Top Angle	Right Top Angle	Left Btm Angle	Right Btm Angle	Tilt-Up Angle	Tilt-Down Angle
"A"	"A"	-55.0°	+45.0°	-55.0°	+45.0°	+17°	-17°





Side View

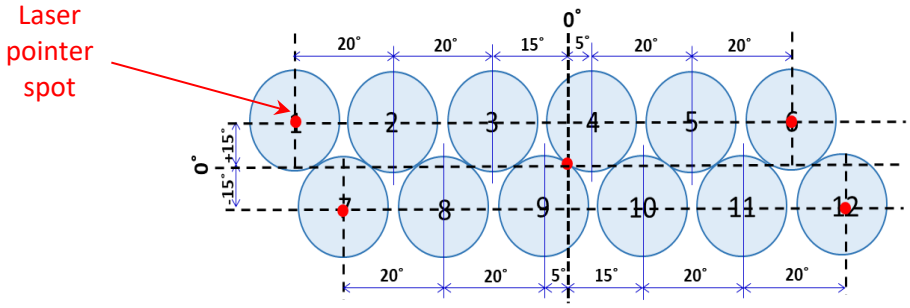


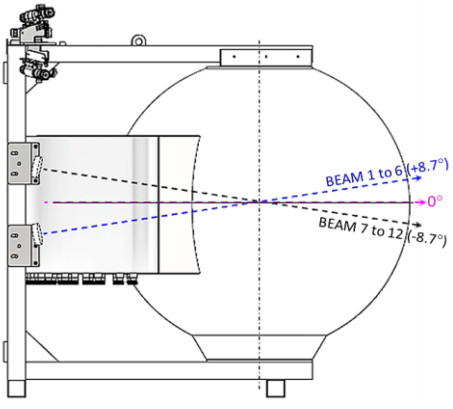
Plan View

2 MS-12H90 SLP Configuration (Frame Width: 535mm, 21.06")

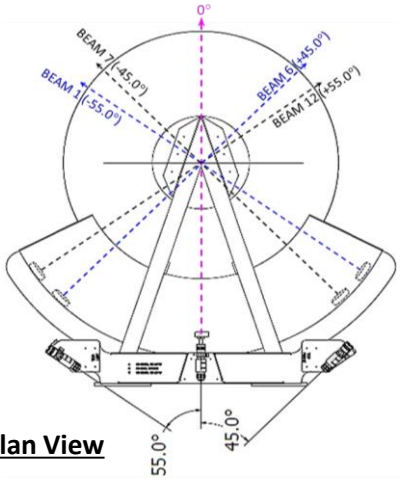
Base Plate Setting	Tilt Bkt Setting	Left Top Angle	Right Top Angle	Left Btm Angle	Right Btm Angle	Tilt-Up Angle	Tilt-Down Angle
"C"	"C"	-55.0°	+45.0°	-45.0°	+55.0°	+8.7°	-8.7°

*(** **Note** : MS-12H90 Tilt angle need to LOCK at +8.7 ° & -8.7 ° for laser spot positioning)*





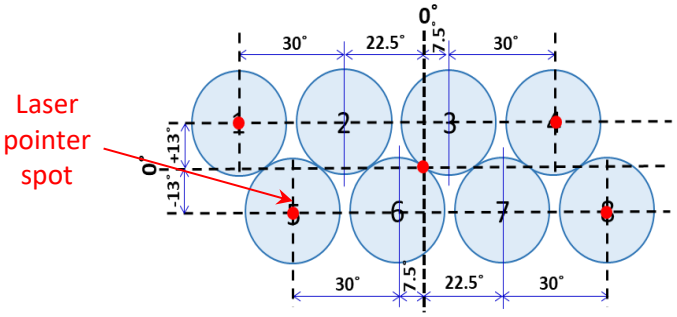
Side View

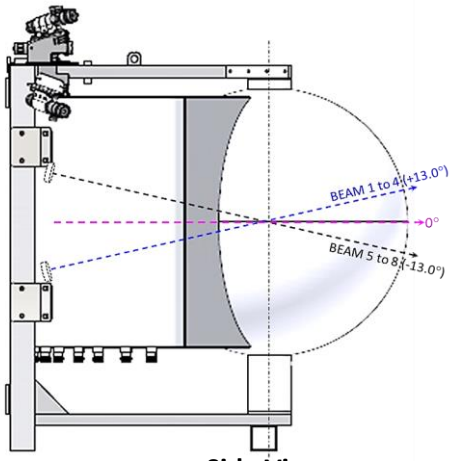


Plan View

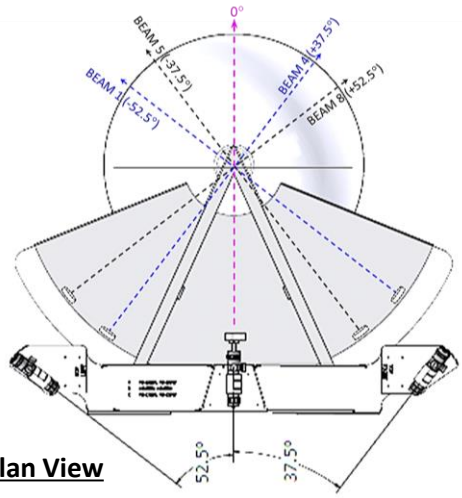
3 MS-8H60 SLP Configuration (Frame Width: 466.80mm, 18.38")

Base Plate Setting	Tilt Bkt Setting	Left Top Angle	Right Top Angle	Left Btm Angle	Right Btm Angle	Tilt-Up Angle	Tilt-Down Angle
"B"	"B"	-52.5°	+37.5°	-37.5°	+52.5°	+13°	-13°





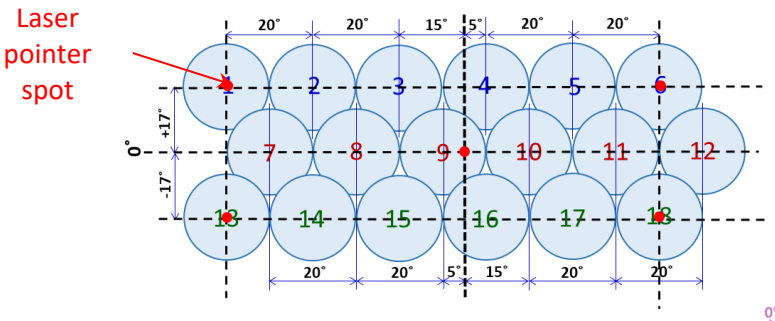
Side View

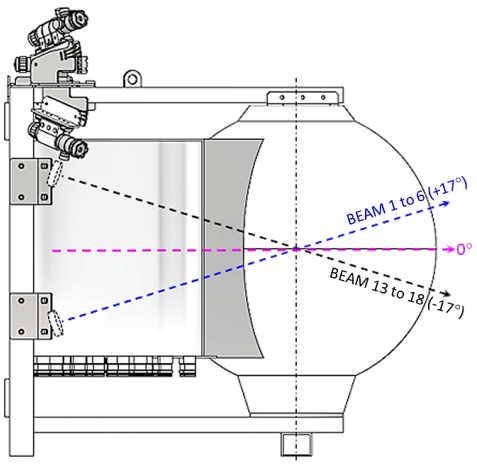


Plan View

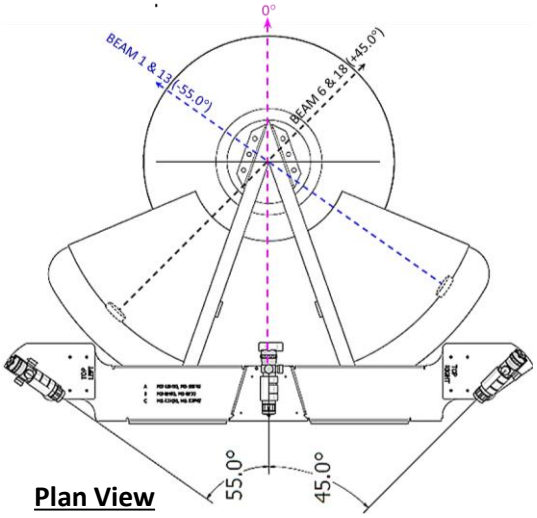
4 MS-18F45 SLP Configuration (Frame Width: 350.80mm, 13.81")

Base Plate Setting	Tilt Bkt Setting	Left Top Angle	Right Top Angle	Left Btm Angle	Right Btm Angle	Tilt-Up Angle	Tilt-Down Angle
"A"	"A"	-55.0°	+45.0°	-55.0°	+45.0°	+17°	-17°





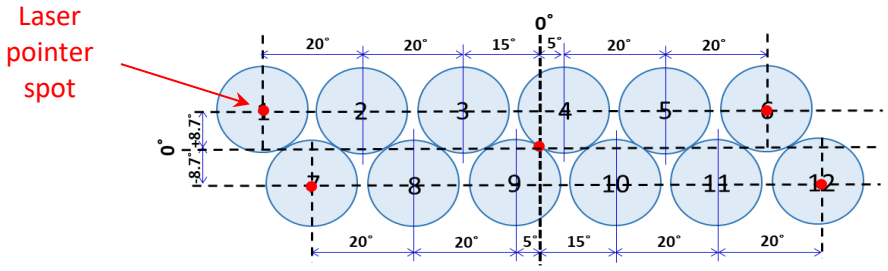
Side View

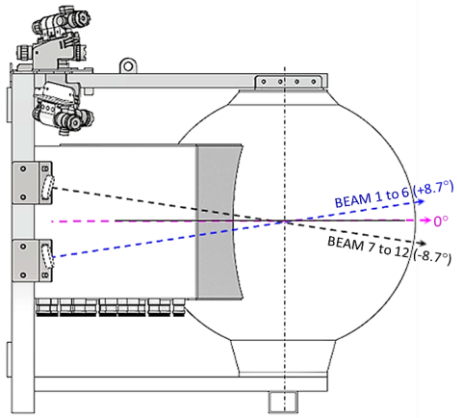


Plan View

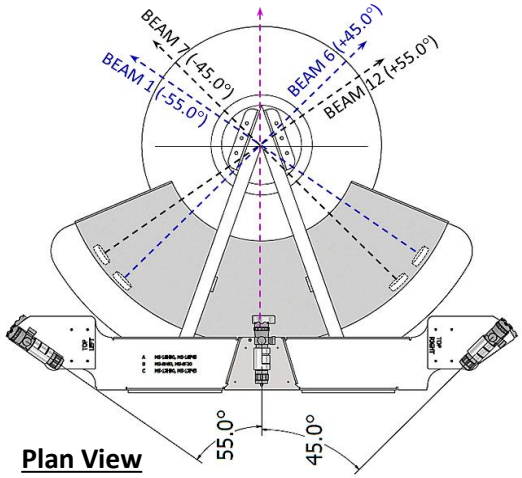
5 MS-12F45 SLP Configuration (Frame Width: 350.80mm, 13.81")

Base Plate Setting	Tilt Bkt Setting	Left Top Angle	Right Top Angle	Left Btm Angle	Right Btm Angle	Tilt-Up Angle	Tilt-Down Angle
"C"	"C"	-55.0°	+45.0°	-45.0°	+55.0°	+8.7°	-8.7°





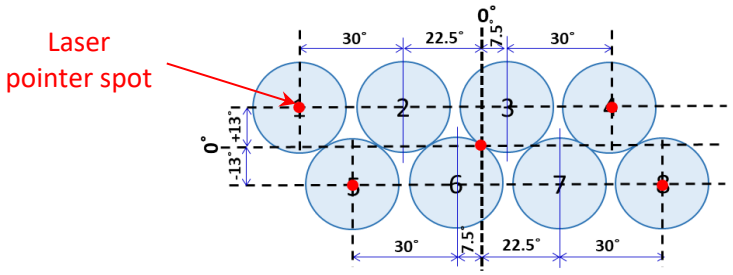
Side View

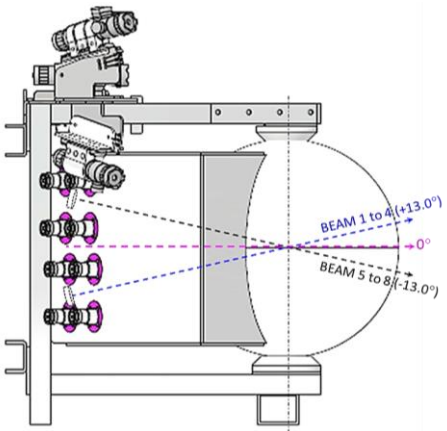


Plan View

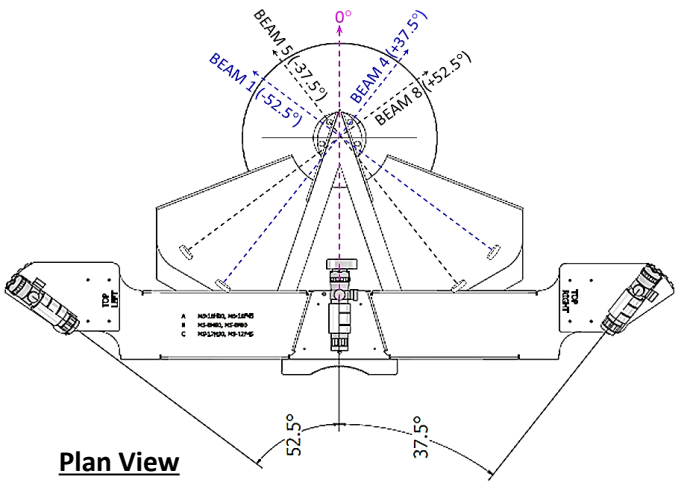
6 MS-8F30 SLP Configuration (Frame Width: 220.00mm, 8.66")

Base Plate Setting	Tilt Bkt Setting	Left Top Angle	Right Top Angle	Left Btm Angle	Right Btm Angle	Tilt-Up Angle	Tilt-Down Angle
"B"	"B"	-52.5°	+37.5°	-37.5°	+52.5°	+13°	-13°





Side View

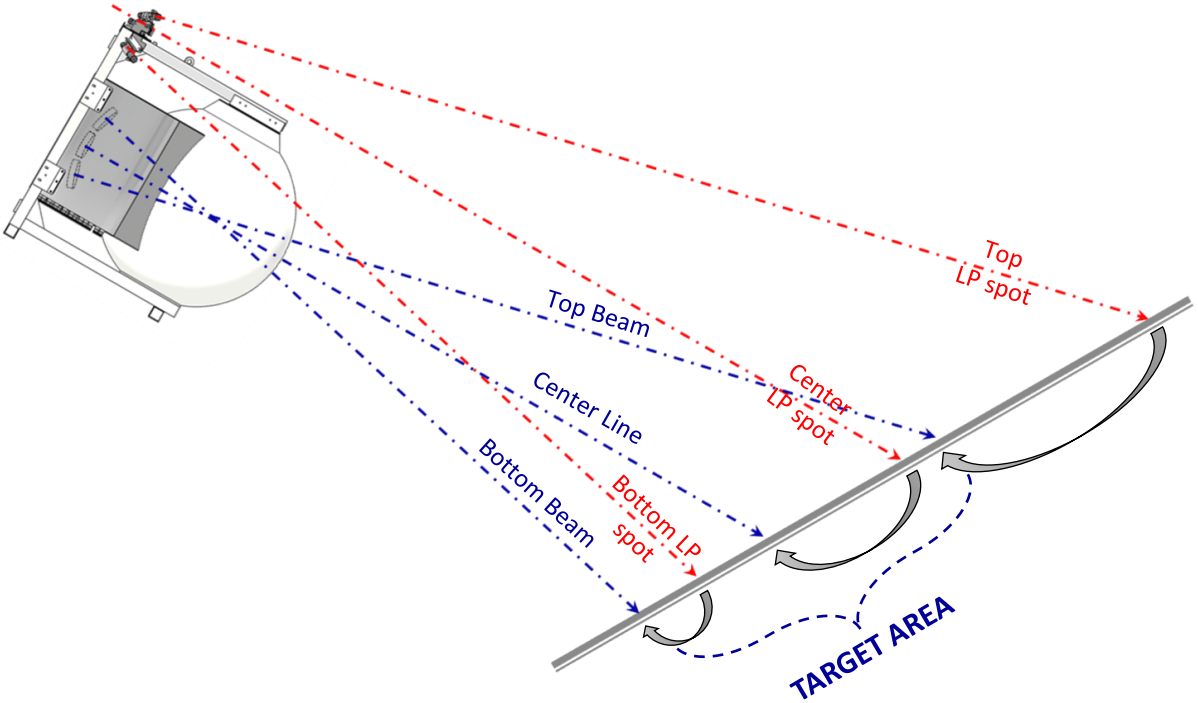


Plan View

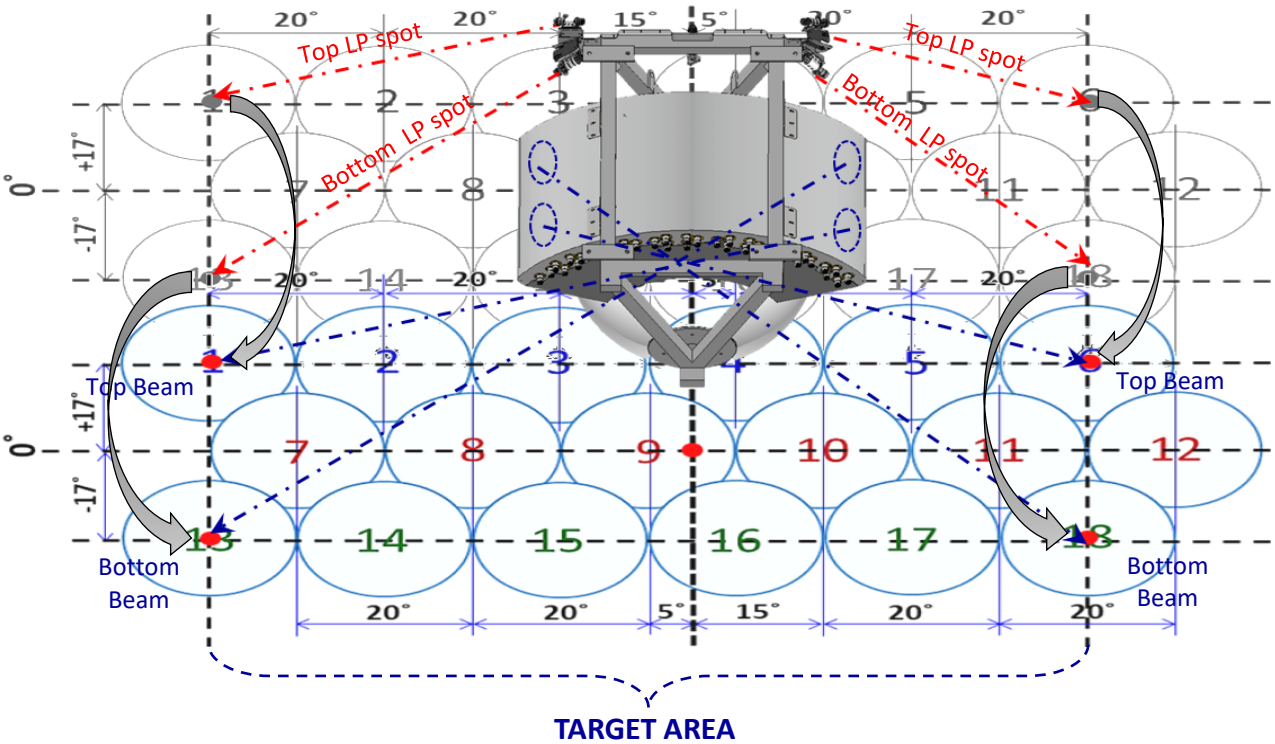
8.00 SLP: Antenna Positioning

8.10 Example of **MS-18H90**

8.11 Side view



8.12 Rear view

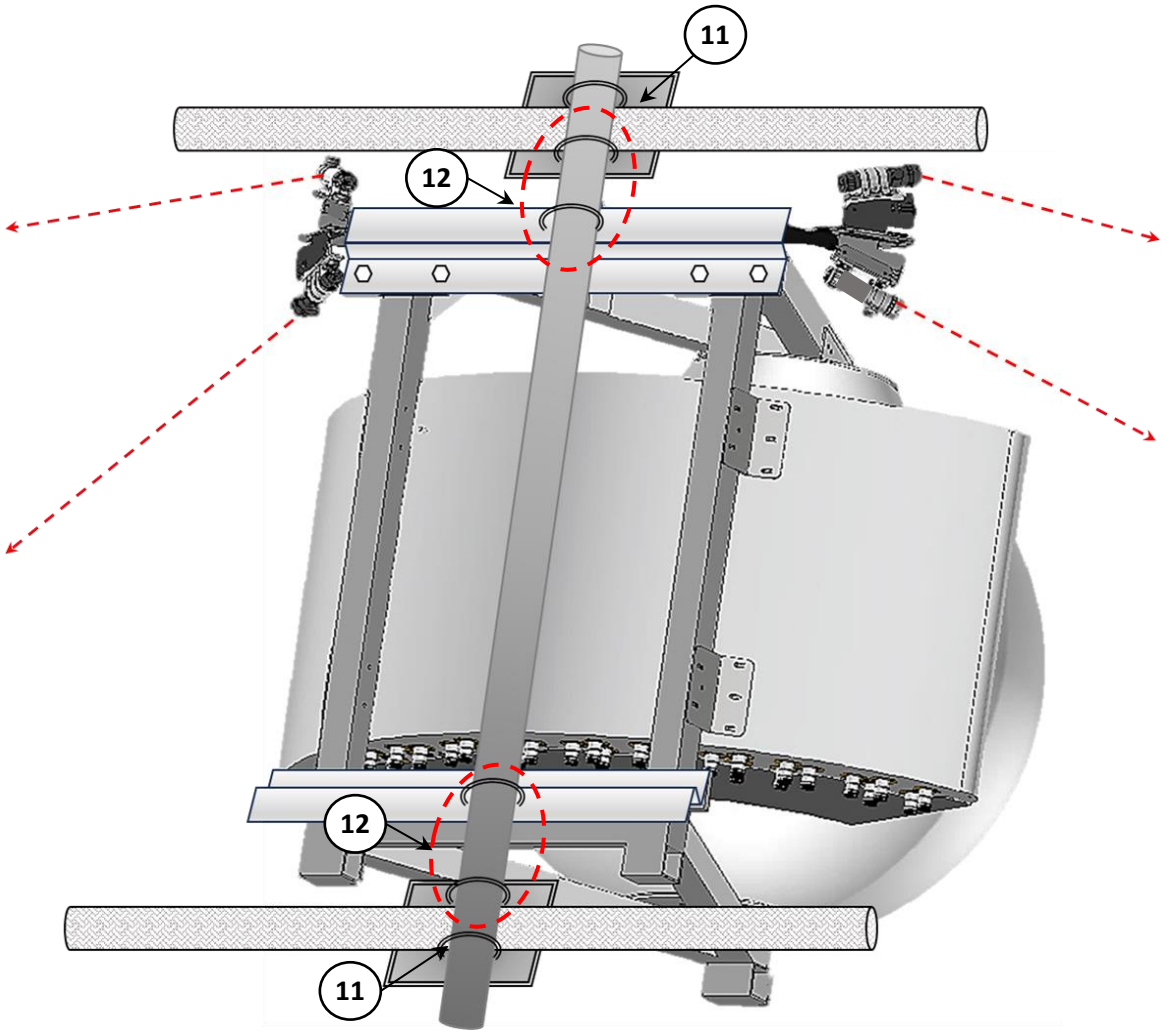


** Picture for illustration purpose

8.20 Position confirmed and secure with marking

⑪ Once position confirmed, secure the antenna bracket.

⑫ Mark the position and record as a reference.



Note:

✓ This laser positioning involves a mechanical tilting process, which differs from antenna RET (Remote Electrical Tilting) or manual element tilting.

✓ Repeat the same process for positioning the other antenna.