

- | | | | |
|-----------|--|-----------|---|
| 1 | 1.5 SPHERE MOUNT
1.5 SM | 22 | 1.5 EDGE SPHERE MOUNT - 2 - OUTSIDE CORNER
1.5 ESM - 2 - OC |
| 2 | 1.5 SPHERE MOUNT NEGATIVE
1.5 SMN | 23 | 1.5 EDGE SPHERE MOUNT - 2 - 1/4
1.5 ESM - 2 - 1/4 |
| 3 | 1.5 SPHERE MOUNT NEGATIVE / MAGNETIC BASE
1.5 SMN / MB | 24 | 1.5 INVAR SPHERE MOUNT
1.5 ISM |
| 4 | 1.5 SPHERE MOUNT NEGATIVE - 1.250 BODY - SS
1.5 SMN - 1.250 BODY - SS | 25 | 1.5 TRIPOD SPHERE MOUNT
1.5 TSM |
| 5 | 1.5 SPHERE MOUNT - 1.00 BODY - SS
1.5 SM - 1.00 BODY - SS | 26 | 1.5 LASER TRACKER - REFERENCE SPHERE MOUNT
1.5 LT - RSM |
| 6 | 1.5 SPHERE MOUNT VARIABLE
1.5 SMV | 27 | 1.5 SPHERE MOUNT / DRIFT NEST - 3 POINT ALUMINUM
1.5 SM / DN - 3PA |
| 7 | 1.5 SPHERE MOUNT SPECIAL INDEX
1.5 SMSI | 28 | 1.5 SPHERE MOUNT NEGATIVE /DRIFT NEST
3 POINT ALUMINUM
1.5 SMN / DN - 3PA |
| 8 | 1.5 NON-MAGNETIC SPHERE MOUNT
1.5 NMSM | 29 | 1.5 SPHERE MOUNT / DRIFT NEST - 3 POINT STEEL
1.5 SM / DN - 3PS |
| 9 | 1.5 SPHERE MOUNT / DIAMOND SHANK
1.5 SM / DS | 30 | 1.5 SPHERE MOUNT NEGATIVE /DRIFT NEST
3 POINT STEEL
1.5 SMN / DN - 3PS |
| 10 | 1.5 SPHERE MOUNT / DIAMOND SHANK
REFERENCE and NOTES | 31 | 1.5 SPHERE MOUNT - HARD COAT
1.5 SM - HC |
| 11 | 1.5 SPHERE MOUNT VARIABLE / DIAMOND SHANK
1.5 SMV / DS | 32 | 1.5 SPHERE MOUNT - HARD COAT / MAGNETIC BASE
1.5 SM - HC / MB |
| 12 | 1.5 SPHERE MOUNT THREADED
1.5 SMT | 33 | 1.5 SPHERE MOUNT - HARD COAT / CENTER PUNCH
1.5 SM - HC / CP |
| 13 | 1.5 SHANKLESS SPHERE MOUNT
1.5 SSM | 34 | 1.5 SPHERE MOUNT - TEMPORARY MONUMENT
1.5 SM - HC / TM |
| 14 | 1.5 SHANKLESS SPHERE MOUNT / MAGNETIC BASE
1.5 SSM / MB | 35 | 1.5 TRACK AND PUNCH SMR NEST
1.5 TPSN |
| 15 | 1.5 SHANKLESS SPHERE MOUNT /M6
1.5 SSM / M6 | 36 | 1.5 CENTER PUNCH SPHERE NEST
1.5 CPSN |
| 16 | 1.5 SHANKLESS SPHERE MOUNT / MAGNETIC BASE
CENTER PUNCH
1.5 SSM / MB - CP | 37 | 1.5 FOUNDATION SPHERE MOUNT
1.5 FSM |
| 17 | 1.5 SHANKLESS SPHERE MOUNT / MAGNETIC BASE
CENTER PUNCH LOCATOR
1.5 SSM / MB - CPL | 38 | 1.5 SMR / MAGNETIC CLAMP
1.5 SMR / MC |
| 18 | 1.5 GRID LINE SPHERE MOUNT
1.5 GLSM | 39 | 1.5 SPHERE MOUNT - POLE ADAPTOR
1.5 SM - PA |
| 19 | 1.5 EDGE SPHERE MOUNT
1.5 ESM | 40 | LASER TRACKER LEVELING LUG ADAPTOR
LT - LLA |
| 20 | 1.5 EDGE SPHERE MOUNT - 2
1.5 ESM - 2 | 41 | LEVELING LUG SPHERE TARGET
LLST |
| 21 | 1.5 EDGE SPHERE MOUNT - OUTSIDE CORNER
1.5 ESM - OC | 42 | LASER TRACKER - LINE OF SIGHT ADAPTOR
LT - LOSA |

SECTION G INDEX LASER TRACKER 1.5 SPHERE



 OPTICAL TARGETING SPECIALTIES

43 1.5 - .5 SMR ADAPTOR
1.5 - .5 SMR AD

1.5 - .875 SMR ADAPTOR
1.5 - .875 SMR AD

44 1.5 RETRO-PROBE - RESET SPHERE (BALL)
1.5 RRS (BALL)

1.5 RETRO-PROBE - RESET SPHERE (POINT)
1.5 RRS (POINT)

45 1.5 HIDDEN POINT ADAPTOR
1.5 HPA

THEODOLITE 1.5 SPHERE
T1.5S

46 RETRO-REFLECTIVE 1.5 SPHERE
R1.5S

47 SMR LANYARD SET (FULL)

48 SMR LANYARD SET (PARTIAL)

49 LEICA LANYARD SET (FULL)

50 LEICA LANYARD SET (PARTIAL)



LASER TRACKER 1.5 SPHERE

G
INDEX

1.5 SM

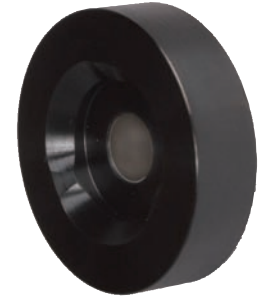
Designed to hold a Spherically Mounted Retro-Reflector or Theodolite Sphere on centerline of a hole and 1.000 above or 25mm above.

1.5 SM ORDERING INFORMATION

	FAMILY	"H" TO CENTERLINE OF SPHERE	"A" SHANK DIAMETER	MATERIAL (OPTIONS)			
1.5 SM STANDARD BUILD	1.5 SM	1.000 or 25mm		1144 steel or (SS)			
CUSTOMER PROVIDES INFO	1.5 SM	▪	▪	▪			
REFERENCE NOTES							

1.5 SPHERE MOUNT

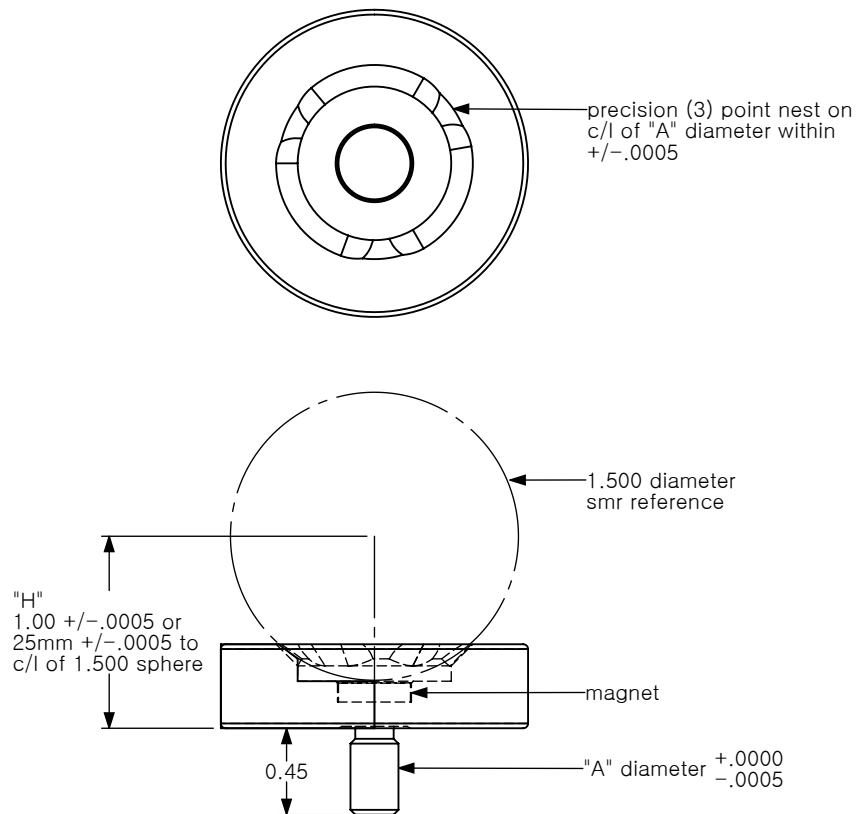
CAD on file



1.5 SM FEATURES

1144 STEEL, BLACK OXIDE FINISH (standard)

STAINLESS STEEL OPTION (for more corrosive environments)




G-1

1.5 SMN

Designed to hold a Spherically Mounted Retro-Reflector or Theodolite Sphere on centerline of a hole and 1.000 above and optional 25mm above and allows for the SMR to be rotated below horizontal.

1.5 SMN ORDERING INFORMATION

	FAMILY	"H" TO CENTERLINE OF SPHERE	"A" SHANK DIAMETER	MATERIAL (OPTIONS)			
1.5 SMN STANDARD BUILD	1.5 SMN	1.000 or 25mm		1144 steel or (SS)			
CUSTOMER PROVIDES INFO	1.5 SMN	▪	▪	▪			
REFERENCE NOTES	_____						

1.5 SPHERE MOUNT NEGATIVE

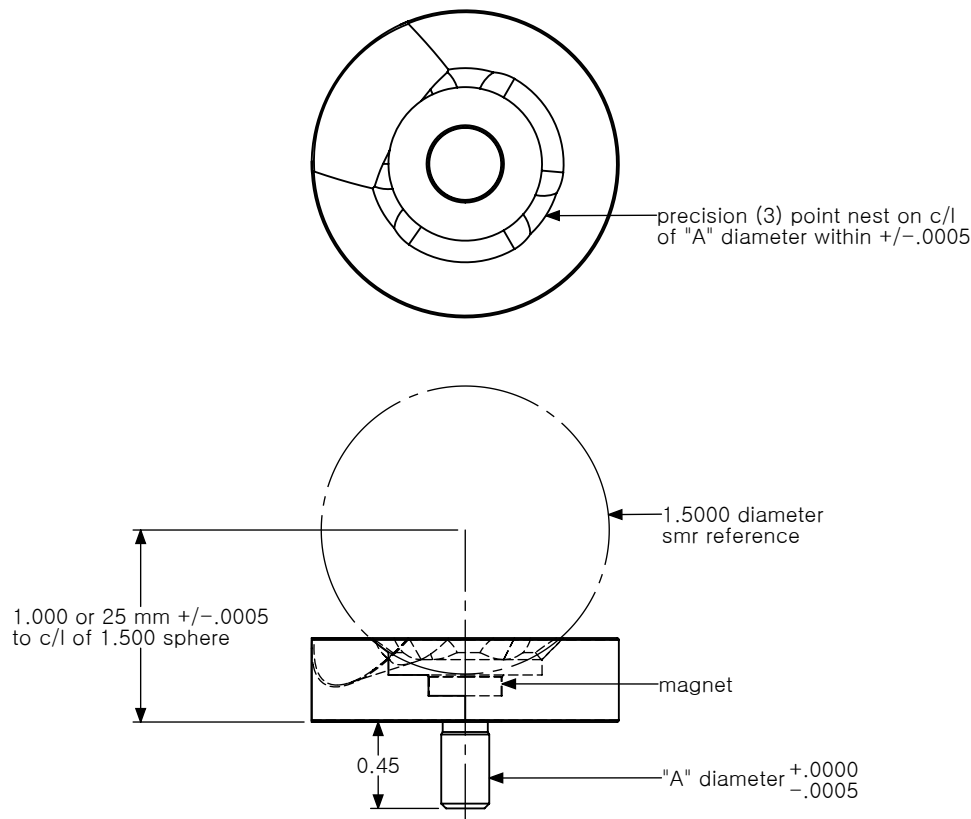
CAD on file



1.5 SMN FEATURES

1144 STEEL, BLACK OXIDE FINISH (standard)

STAINLESS STEEL OPTION (for more corrosive environments)



G
2

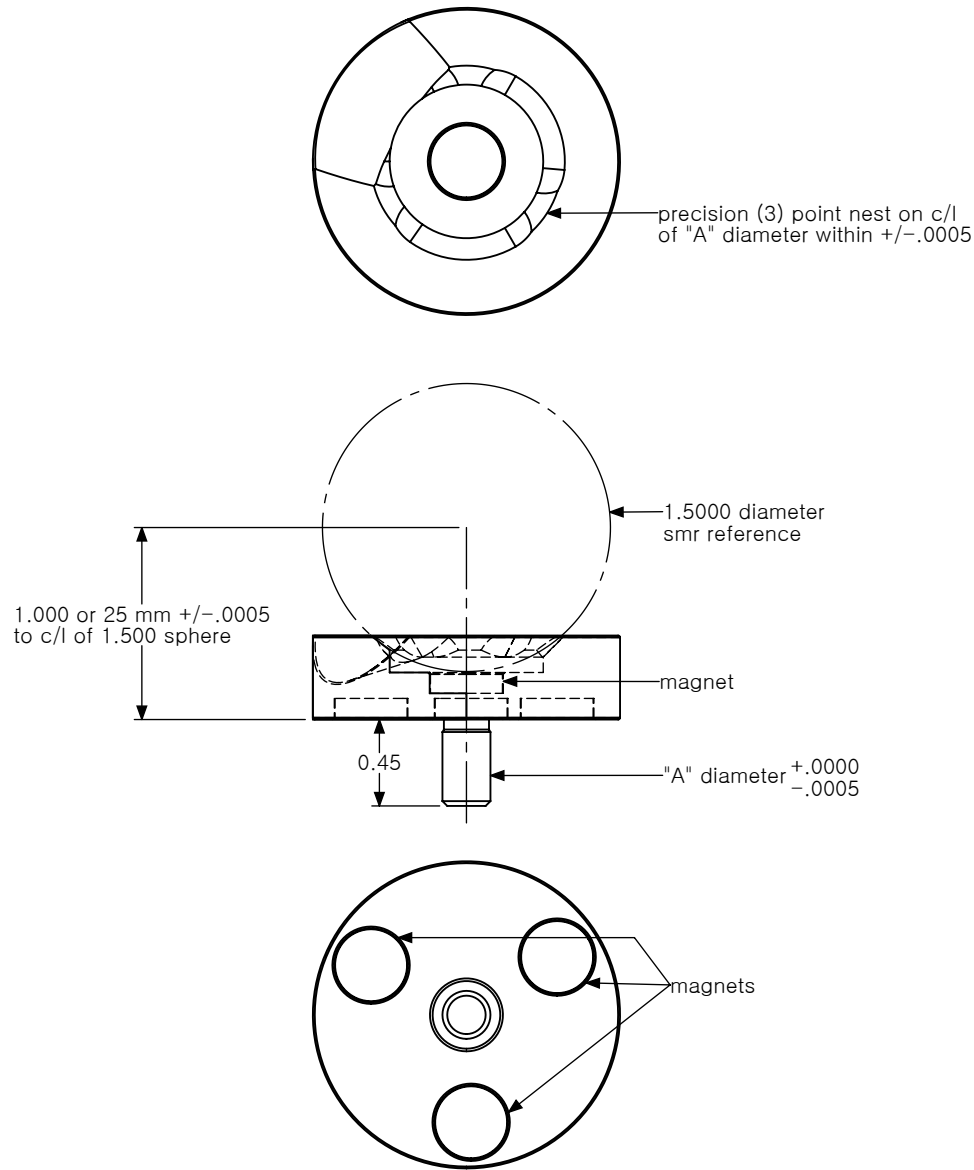
1.5 SMN/MB
 Designed to hold a Spherically Mounted Retro-Reflector or Theodolite Sphere on centerline of a hole and 1.000 above or 25mm above.

1.5 SMN / MB ORDERING INFORMATION

	FAMILY	"H" TO CENTERLINE OF SPHERE	"A" SHANK DIAMETER	MATERIAL			
1.5 SM/MB STANDARD BUILD	1.5 SM/MB	1.000 or 25mm		1144 steel, black oxide finish			
CUSTOMER PROVIDES INFO	1.5 SM/MB						
REFERENCE NOTES							

1.5 SPHERE MOUNT NEGATIVE / MAGNETIC BASE


CAD on file



1.5 SMN / MB FEATURES
 1144 STEEL, BLACK OXIDE FINISH (standard)

The 1.5 SMN - SS (1.250 BODY)
 Designed to hold a Spherically Mounted Retro-Reflector or Theodolite Sphere on centerline of a hole and 1.000 above or 25mm above.

1.5 SMN - SS (1.250 BODY) ORDERING INFORMATION

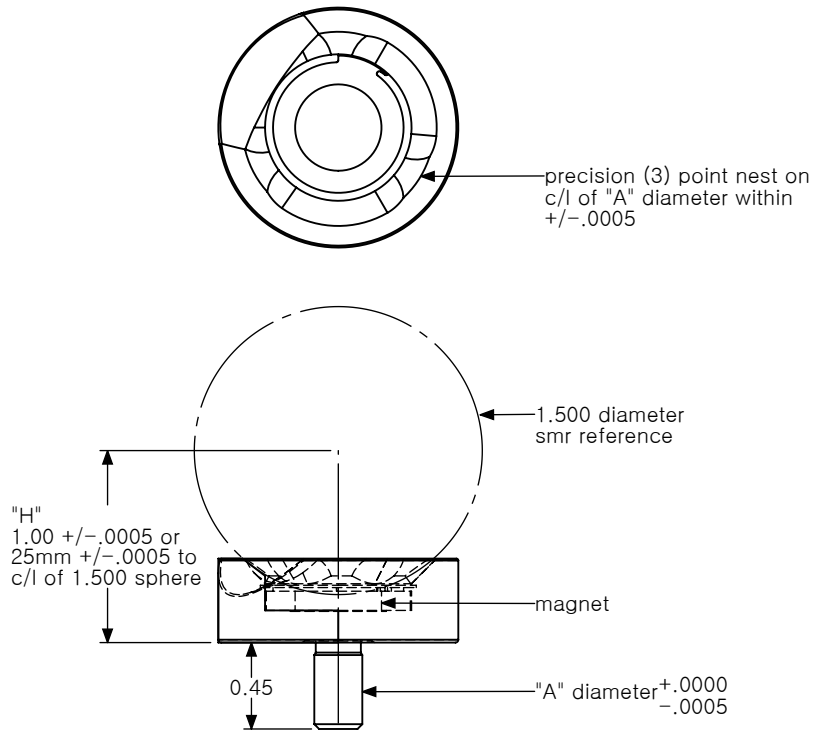
FAMILY	"H" TO CENTERLINE OF SPHERE	"A" SHANK DIAMETER	MATERIAL			
1.5 SMN - SS STANDARD BUILD	1.000 or 25mm		stainless steel (SS)			
CUSTOMER PROVIDES INFO	1.5 SMN - SS ■	■				
REFERENCE NOTES	_____					

1.5 SPHERE MOUNT NEGATIVE - SS (1.250 BODY)

CAD on file




1.5 SMN - SS (1.250 BODY)
 FEATURES
 STAINLESS STEEL (standard)



1.5 SM - SS (1.000 BODY)

Designed to hold a Spherically Mounted Retro-Reflector or Theodolite Sphere on centerline of a hole and 1.000 above or 25mm above.

1.5 SM - SS (1.000 BODY) ORDERING INFORMATION

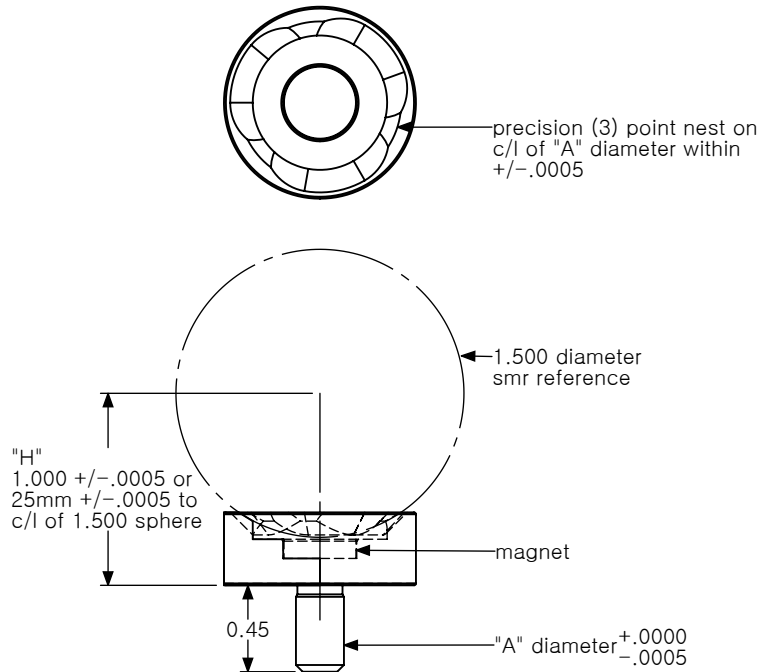
	FAMILY	"H" TO CENTERLINE OF SPHERE	"A" SHANK DIAMETER	MATERIAL			
1.5 SM-SS STANDARD BUILD	1.5 SM-SS	1.000 or 25mm		stainless steel (SS)			
CUSTOMER PROVIDES INFO	1.5 SM-SS	▪	▪				
REFERENCE NOTES	_____						

1.5 SPHERE MOUNT - SS (1.000 BODY)

CAD on file



1.5 SM - SS (1.000 BODY)
FEATURES
STAINLESS STEEL
(standard)



1.5 SMV

Designed to hold a Spherically Mounted Retro-Reflector, a Theodolite Sphere, or 1.5 Sphere on centerline of a hole. Use the variable design to customize the mount for your specific needs.

1.5 SMV ORDERING INFORMATION

	FAMILY	"H" TO CENTERLINE OF SPHERE	"A" SHANK DIAMETER	"B" SHANK LENGTH	MATERIAL (OPTIONS)		
1.5 SMV STANDARD BUILD	1.5 SMV	↓	↓	↓	1144 steel or (SS)		
CUSTOMER PROVIDES INFO	1.5 SMV	▪	▪	▪	▪		
REFERENCE NOTES							

1.5 SPHERE MOUNT VARIABLE

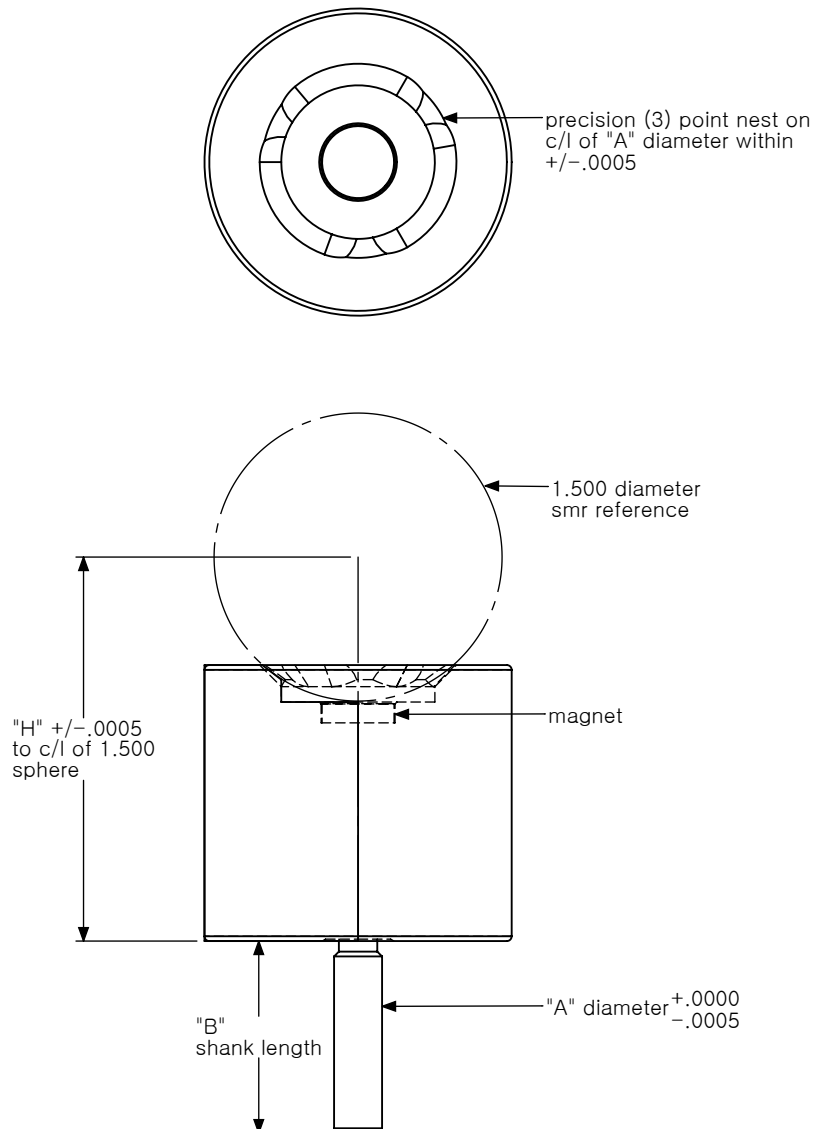
CAD on file



1.5 SMV FEATURES

1144 STEEL, BLACK OXIDE FINISH (standard)

STAINLESS STEEL OPTION (for more corrosive environments)




G
6

1.5 SMSI

Designed to hold a Spherically Mounted Retro-Reflector or Theodolite Sphere on centerline of a hole and 1.000 or 25 mm offset above where a smaller shoulder locating area is required.

1.5 SMSI ORDERING INFORMATION

	FAMILY	"H" TO CENTERLINE OF SPHERE	"A" SHANK DIAMETER	MATERIAL (OPTIONS)			
1.5 SMSI STANDARD BUILD	1.5 SMSI	1.000 or 25mm		1144 steel or (SS)			
CUSTOMER PROVIDES INFO	1.5 SMSI	■	■	■			
REFERENCE NOTES	_____						

1.5 SPHERE MOUNT SPECIAL INDEX

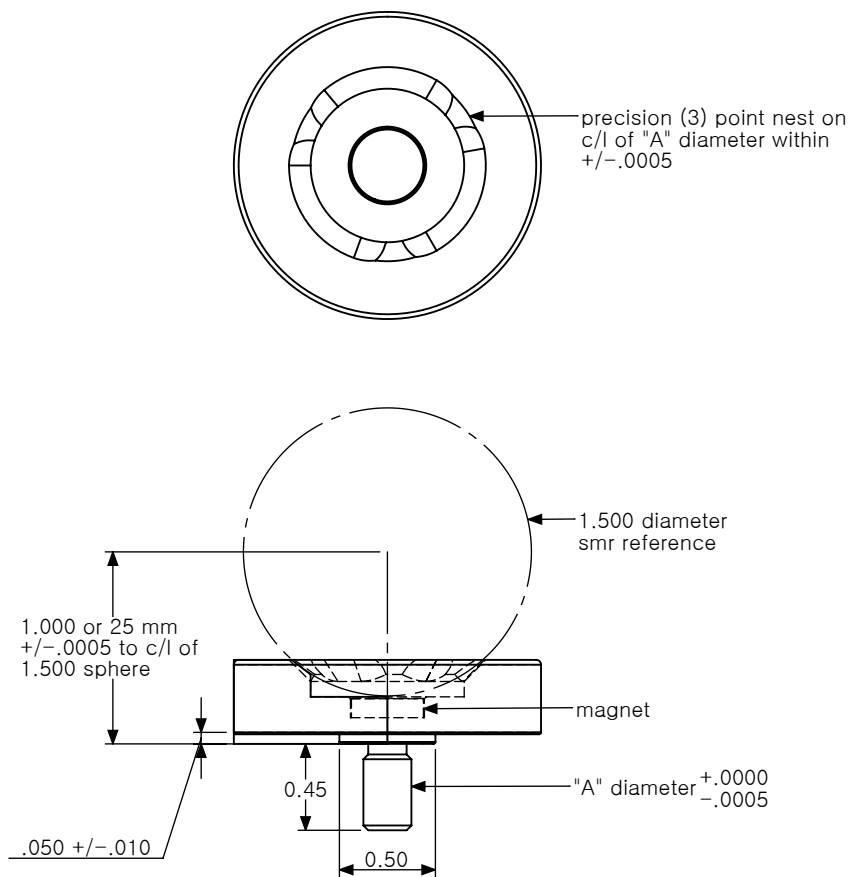
CAD on file



1.5 SMSI FEATURES

1144 STEEL, BLACK OXIDE FINISH (standard)


STAINLESS STEEL OPTION (for more corrosive environments)



1.5 NMSM

Designed to hold a Spherically Mounted Retro-Reflector or Theodolite Sphere on centerline of a hole when a magnet is not required.

1.5 NMSM ORDERING INFORMATION

	FAMILY	"H" TO CENTERLINE OF SPHERE	"A" SHANK DIAMETER	MATERIAL (OPTIONS)			
1.5 NMSM STANDARD BUILD	1.5 NMSM	1.000 or 25mm		1144 steel or (SS)			
CUSTOMER PROVIDES INFO	1.5 NMSM	▪	▪	▪			
REFERENCE NOTES							

1.5 NON-MAGNETIC SPHERE MOUNT

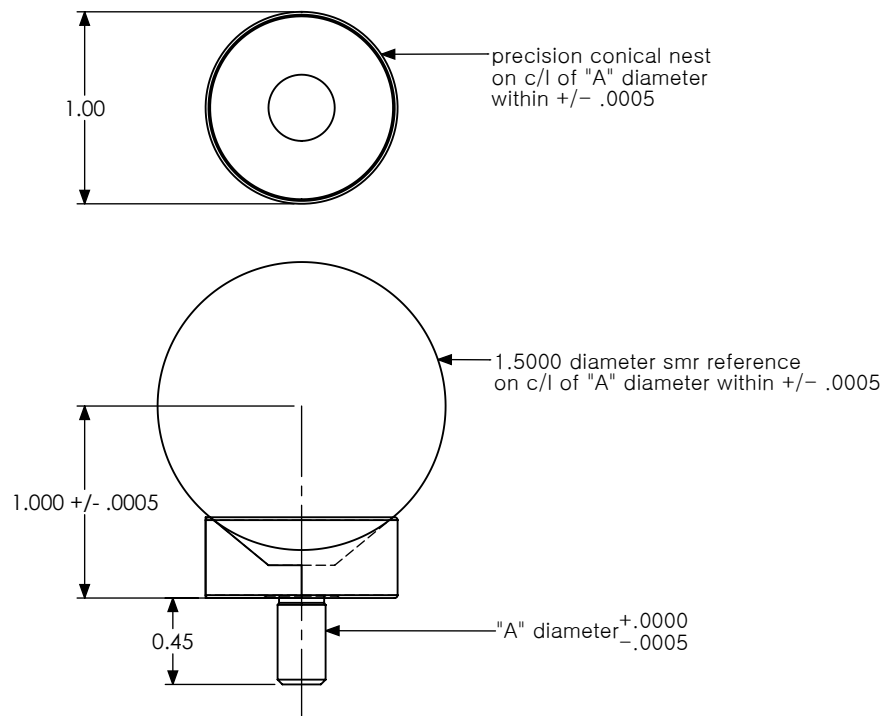
CAD on file



1.5 NMSM FEATURES

1144 STEEL, BLACK OXIDE FINISH (standard)

STAINLESS STEEL OPTION (for more corrosive environments)



G
8

1.5 SM / DS

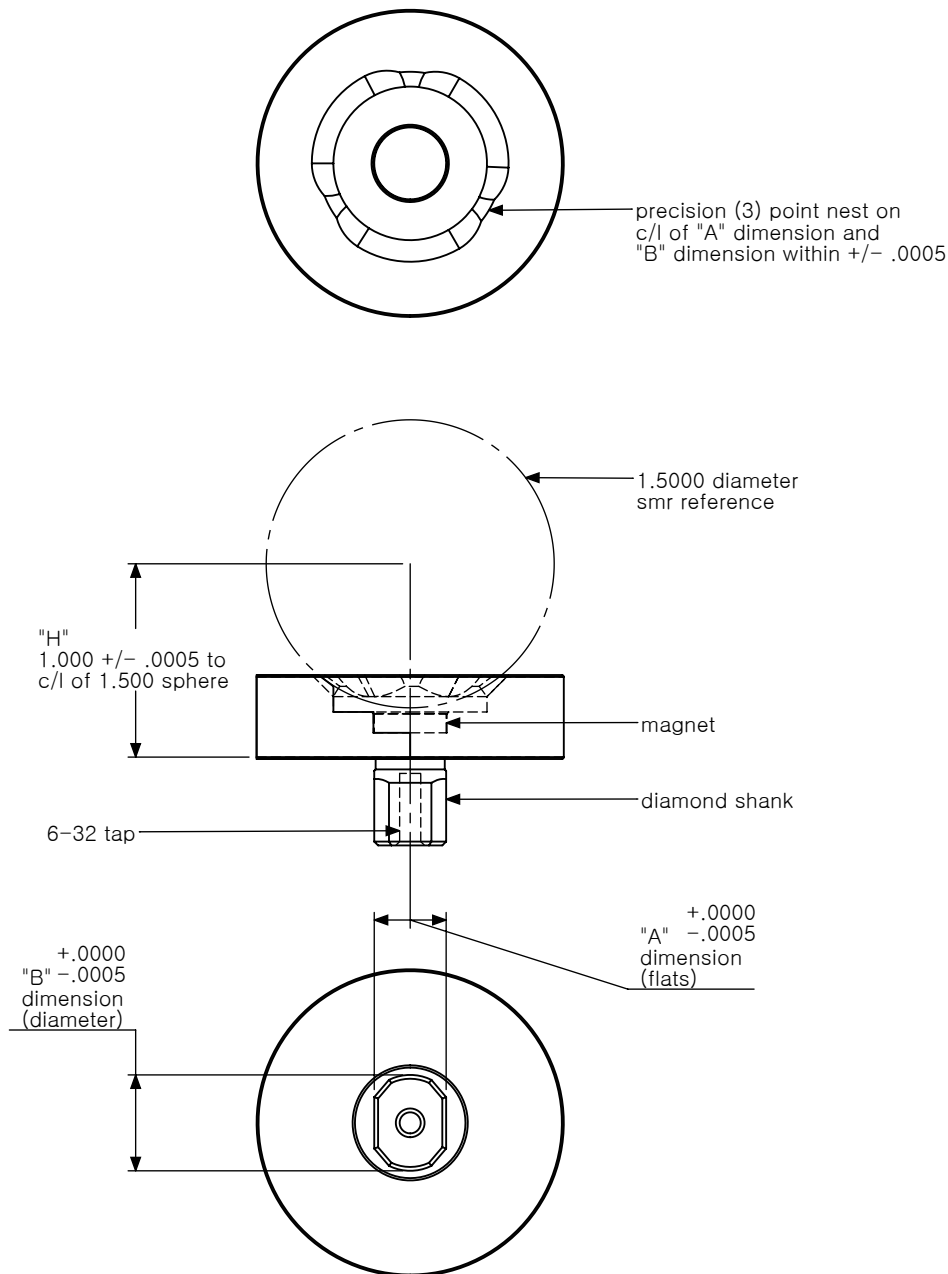
Designed to hold a Spherically Mounted Retro-Reflector Theodolite Sphere or Retro-Reflective 1.5 Sphere on centerline of standard slotted type bushings.

1.5 SM / DS ORDERING INFORMATION

	FAMILY	"H" TO CENTERLINE OF SPHERE	"A" SHANK DIAMETER	"B" DIMENSION DIAMETER	MATERIAL		
1.5 SM/DS STANDARD BUILD	1.5 SM/DS	1.000	↓	↓	1144 steel, black oxide finish		
CUSTOMER PROVIDES INFO	1.5 SM/DS		■	■			
REFERENCE NOTES							

1.5 SPHERE MOUNT / DIAMOND SHANK

CAD on file



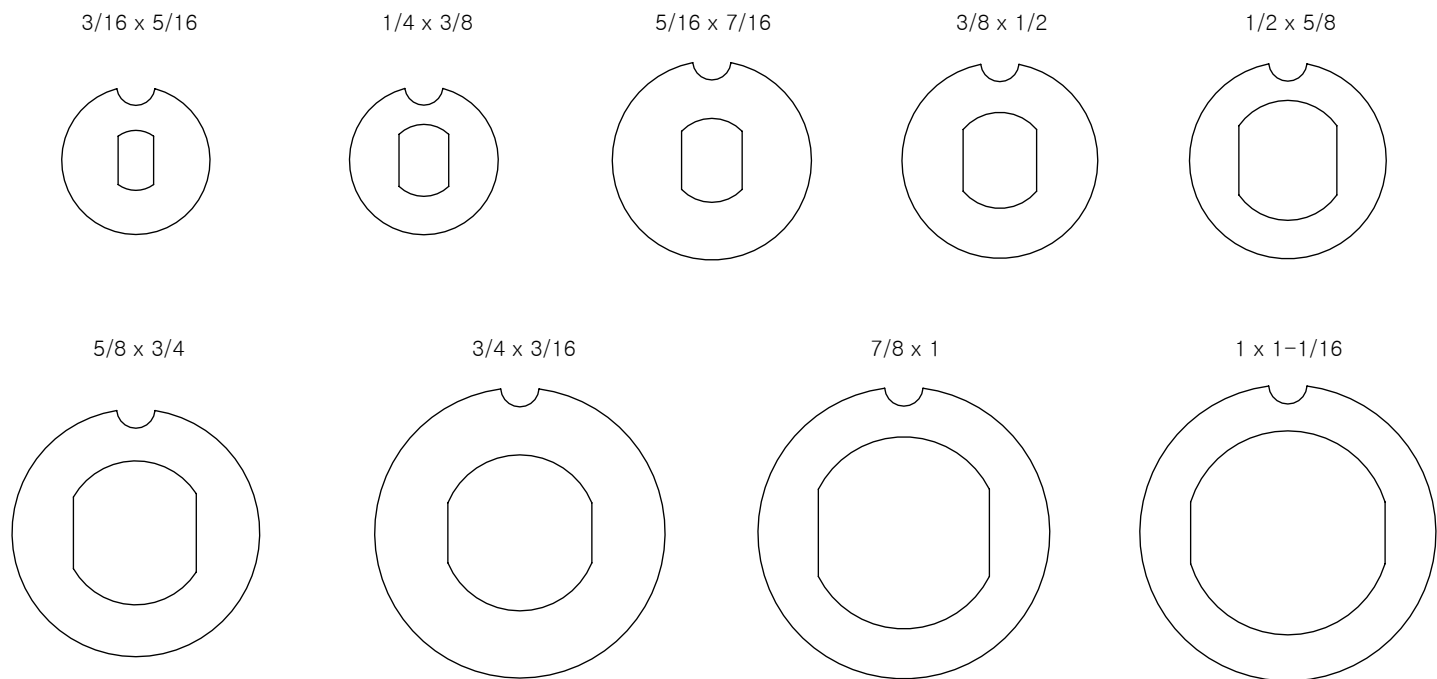
1.5 SM / DS FEATURES

1144 STEEL, BLACK OXIDE FINISH (standard)

1.5 SPHERE MOUNT / DIAMOND SHANK REFERENCE

NOMINAL SIZES FOR
EXAMPLE ONLY

Actual dimensions will
be .0005 smaller than
the fractional sizes
shown below.



1.5 SPHERE MOUNT / DIAMOND SHANK NOTES

FOR BEST RESULTS
WE RECOMMEND:

- Make sure that the slotted bushing slot and locating surface around slotted bushing is clean.
- Make sure locating surface around slotted bushing and the inside edges of the slotted bushing are free of burrs. Burrs inside the slot may not allow the 1.5SM/DS to fit freely and may cause damage to the 1.5SM/DS if not removed.
- Standard 1.5SM/DS's are .0005 to .0010 of an inch under the nominal length and width sizes for minimal clearance. A light coat of grease around the diamond locating areas will help the 1.5SM/DS to center themselves within the normal minimal clearance.

1.5 SMV / DS

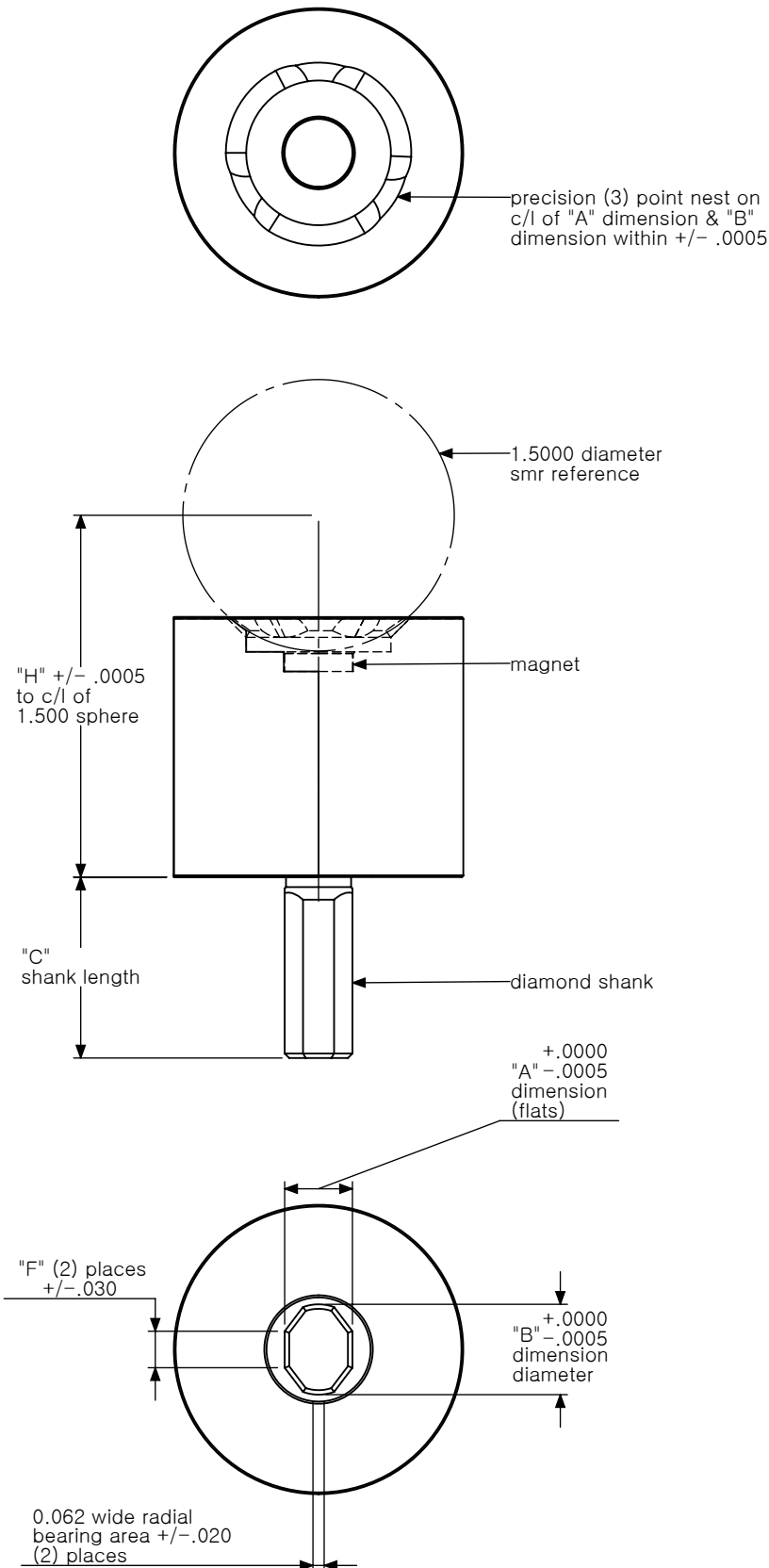
Designed to hold a Spherically Mounted Retro-Reflector Theodolite Sphere or Retro-Reflective 1.5 Sphere on centerline of a slotted bushing. Use the variable design to customize the Sphere Mount for your specific needs.

1.5 SMV / DS ORDERING INFORMATION

	FAMILY	"H" TO CENTERLINE OF SPHERE	"A" DIMENSION (FLATS)	"B" DIMENSION (DIAMETER)	"C" SHANK LENGTH	"D" FLAT LENGTH	MATERIAL
1.5 SMV / DS STANDARD BUILD	1.5 SMV / DS	↓	↓	↓	↓	↓	1144 steel, black oxide finish
CUSTOMER PROVIDES INFO	1.5 SMV / DS	▪	▪	▪	▪	▪	
REFERENCE NOTES	_____						

1.5 SPHERE MOUNT VARIABLE / DIAMOND SHANK

CAD on file



1.5 SMV / DS FEATURES


1144 STEEL, BLACK OXIDE FINISH (standard)

G
11

1.5 SMT

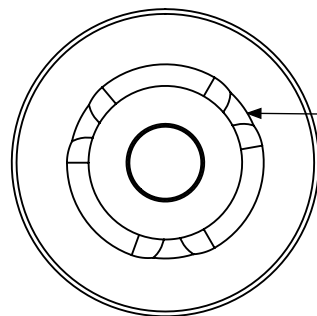
Designed to hold a Spherically Mounted Retro-Reflector or Theodolite Sphere on centerline of a threaded hole and 1.000 above or optional 25mm above.

1.5 SMT ORDERING INFORMATION

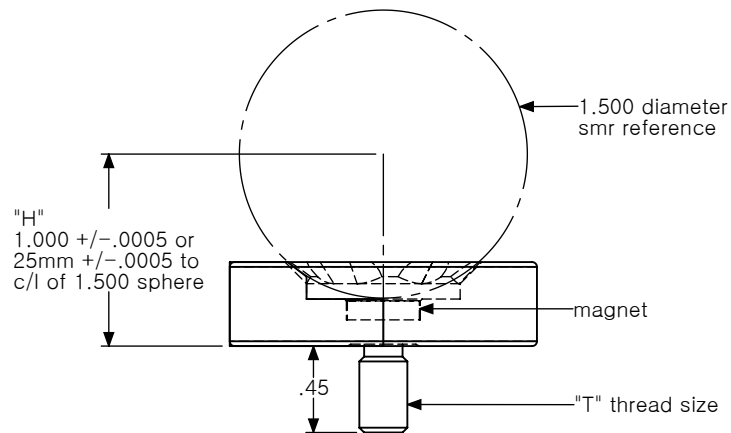
	FAMILY	"H" TO CENTERLINE OF SPHERE	"T" THREAD SIZE	MATERIAL (OPTIONS)			
1.5 SMT STANDARD BUILD	1.5 SMT	1.000 or 25mm		1144 steel or (SS)			
CUSTOMER PROVIDES INFO	1.5 SMT	▪	▪	▪			
REFERENCE NOTES	_____						

1.5 SPHERE MOUNT THREADED

CAD on file



precision (3) point nest on c/l of thread pitch diameter within +/- .0005



1.5 SMT FEATURES

1144 STEEL, BLACK OXIDE FINISH (standard)

STAINLESS STEEL OPTION (for more corrosive environments)

G
12

1.5 SSM

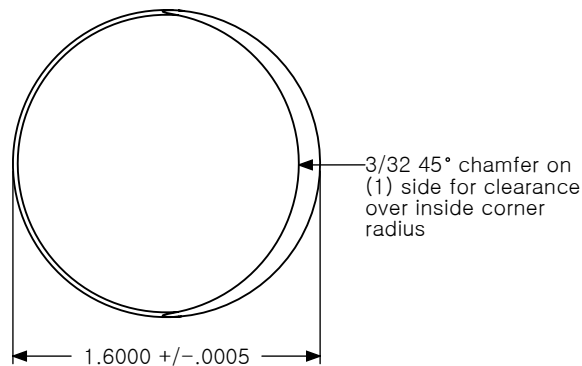
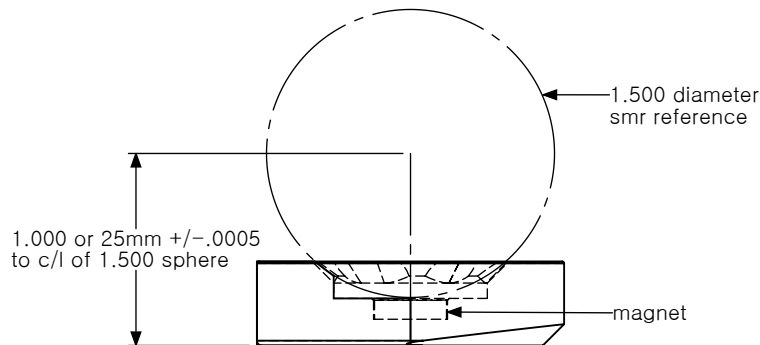
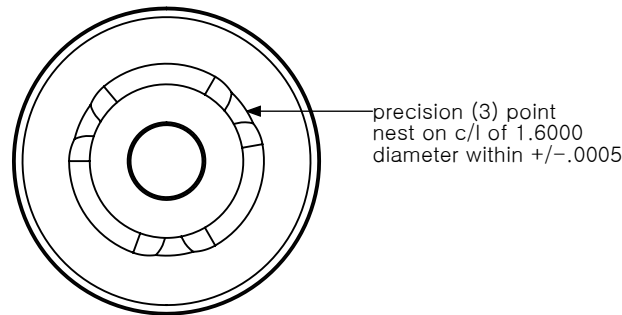
Supports a 1.5 Spherically Mounted Retro-Reflector or Theodolite Sphere for a critical height and centerline. The edge may be used to contact inside edges to give a value of .800 away.

1.5 SSM ORDERING INFORMATION

	FAMILY	"H" TO CENTERLINE OF SPHERE	MATERIAL (OPTIONS)				
1.5 SSM STANDARD BUILD	1.5 SSM	1.000 or 25mm	1144 steel or (SS)				
CUSTOMER PROVIDES INFO	1.5 SSM	■	■				
REFERENCE NOTES	_____						

1.5 SHANKLESS SPHERE MOUNT

CAD on file



1.5 SSM FEATURES

1144 STEEL, BLACK OXIDE FINISH – Heat-treated and hardened to R/C 53 – 55 (standard)

STAINLESS STEEL OPTION (for more corrosive environments)

1.5 SSM SUGGESTION

For non-critical applications, we suggest using a 1.5 Sphere Mount Hard Coat (1.5SM-HC) on page G31.

1.5 SSM / MB

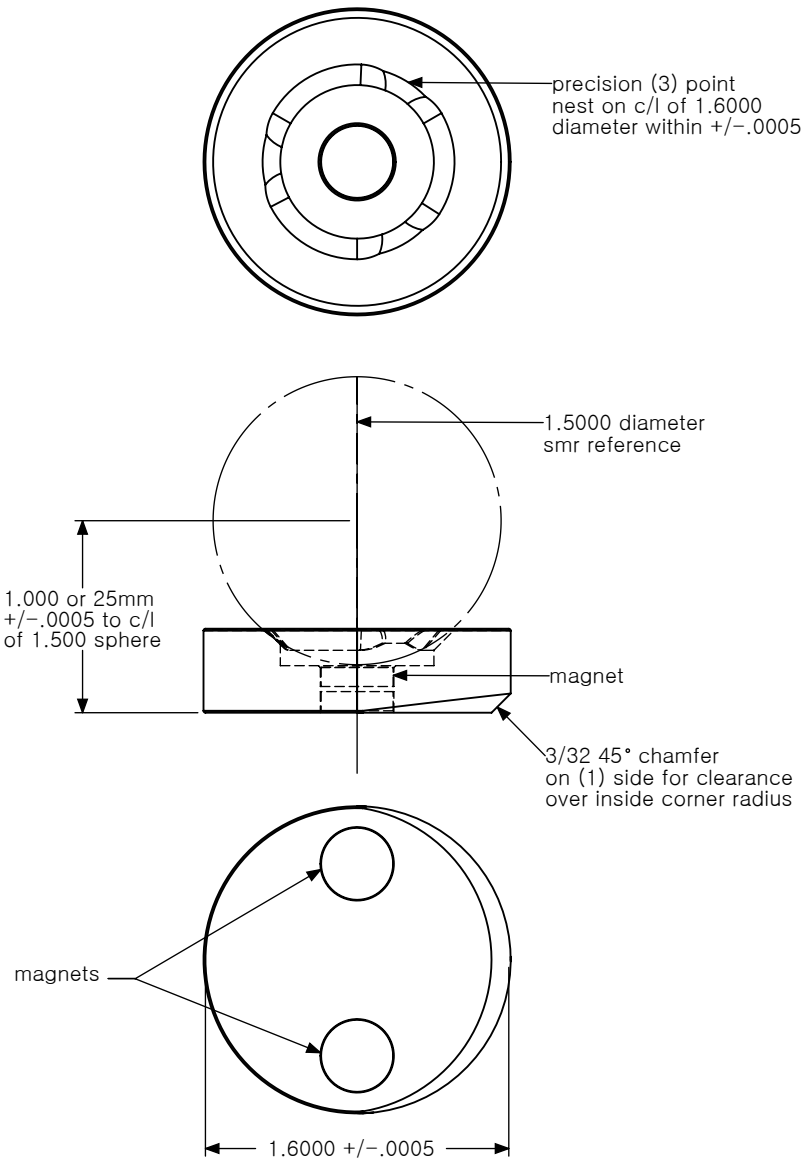
Supports a 1.5 Spherically Mounted Retro-Reflector or Theodolite Sphere for a critical height and centerline. The edge may be used to contact inside edges to give a value of .800 away.

1.5 SSM / MB ORDERING INFORMATION

	FAMILY	"H" TO CENTERLINE OF SPHERE	MATERIAL (OPTIONS)				
1.5 SSM / MB STANDARD BUILD	1.5 SSM / MB	1.000 or 25mm	1144 steel or (SS)				
CUSTOMER PROVIDES INFO	1.5 SSM / MB						
REFERENCE NOTES							

1.5 SHANKLESS SPHERE MOUNT / MAGNETIC BASE

CAD on file



1.5 SSM / MB FEATURES

1144 STEEL, BLACK OXIDE FINISH - Heat-treated and hardened to R/C 53 - 55 (standard)

STAINLESS STEEL OPTION (for more corrosive environments)

1.5 SSM / MB SUGGESTION

For non-critical applications, we suggest using a 1.5 Sphere Mount Hard Coat / Magnetic Base (1.5SM-HC/MB) on page G32.

G
14

1.5 SSM / M6

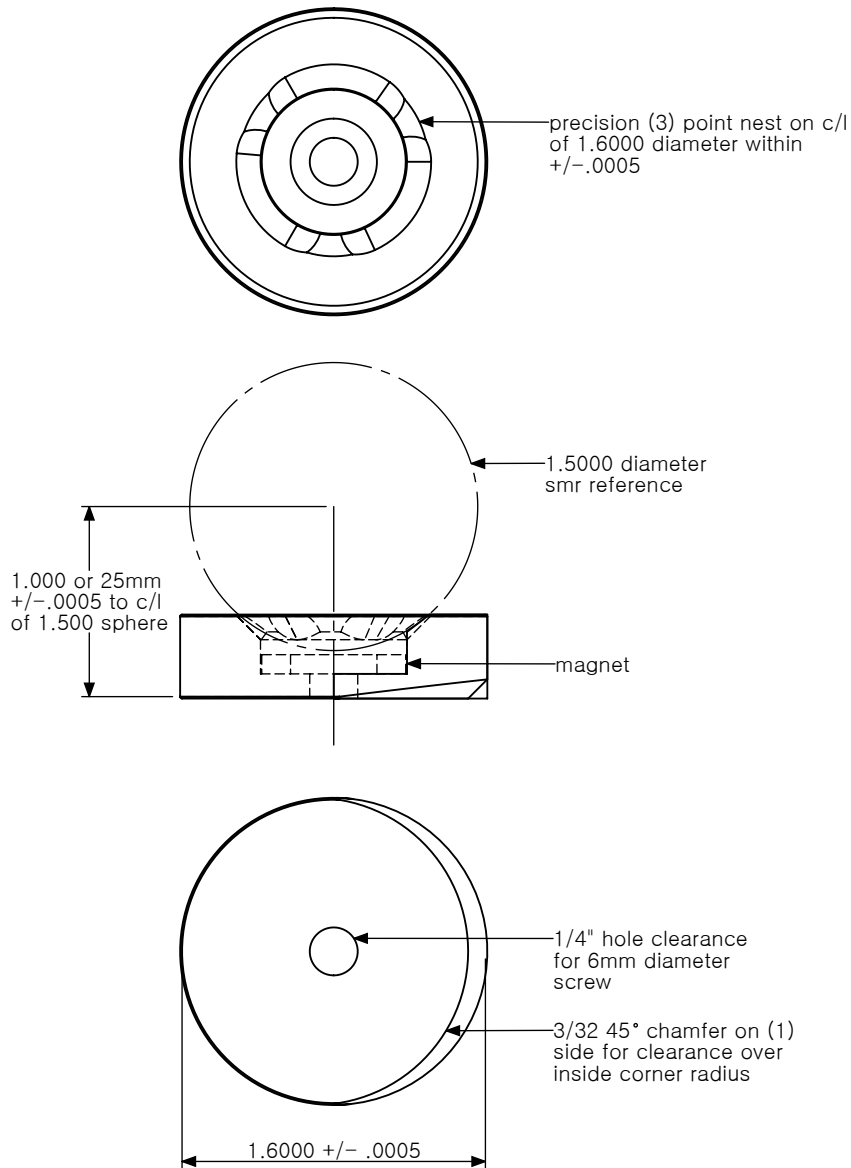
Supports a 1.5 Spherically Mounted Retro-Reflector or Theodolite Sphere for a critical height and centerline. The edge may be used to contact inside edges to give a value of .800 away.

1.5 SSM / M6 ORDERING INFORMATION

	FAMILY	"H" TO CENTERLINE OF SPHERE	MATERIAL				
1.5 SSM / M6 STANDARD BUILD	1.5 SSM / M6	1.000 or 25mm	1144 steel, black oxide finish				
CUSTOMER PROVIDES INFO	1.5 SSM / M6 ■						
REFERENCE NOTES	_____						

1.5 SHANKLESS SPHERE MOUNT / M6

CAD on file



1.5 SSM / M6 FEATURES

1144 STEEL, BLACK OXIDE FINISH – Heat-treated and hardened to R/C 53 – 55 (standard)

1.5 SSM / MB - CP

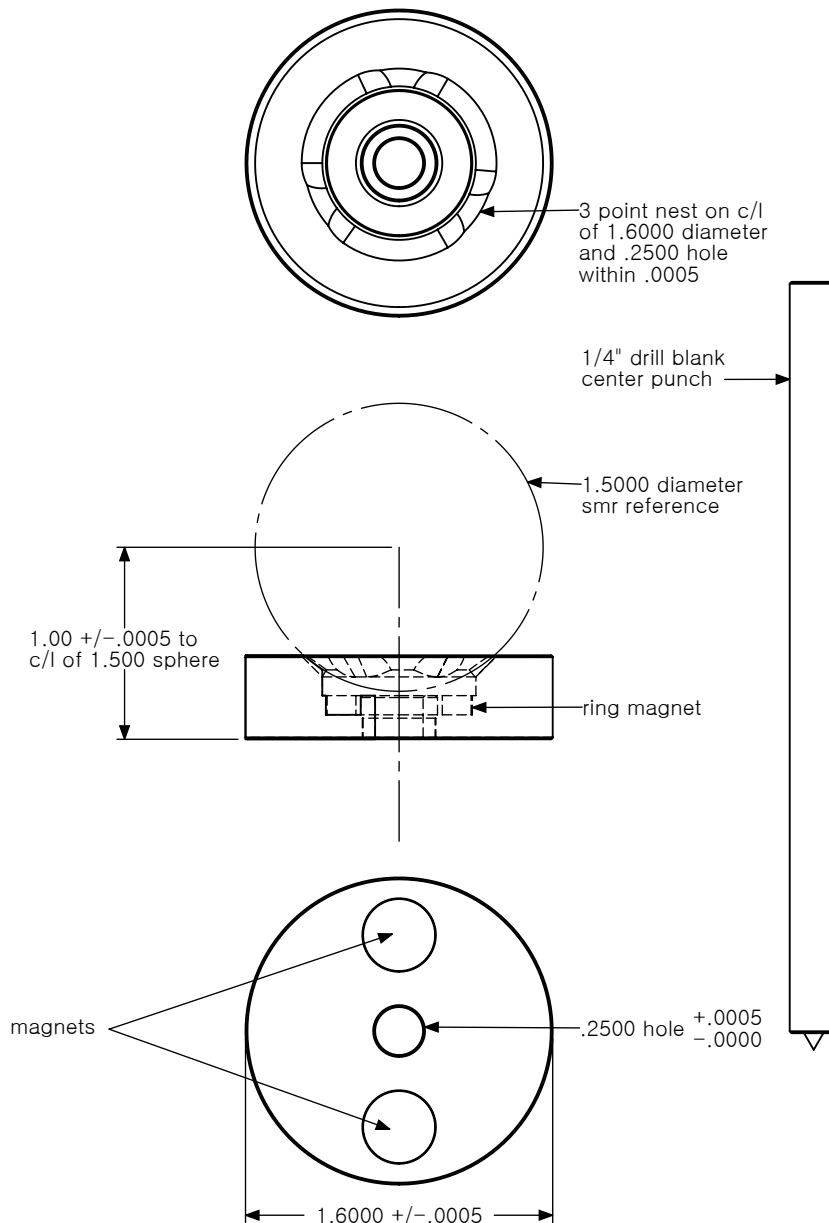
Supports a 1.5 Spherically Mounted Retro-Reflector or Theodolite Sphere for a critical height and centerline. The edge may be used to contact inside edges to give a value of .800 away.

1.5 SSM / MB - CP ORDERING INFORMATION

	FAMILY	"H" TO CENTERLINE OF SPHERE	MATERIAL				
1.5 SSM / MB - CP STANDARD BUILD	1.5 SSM / MB-CP	1.000	1144 steel, black oxide finish				
CUSTOMER PROVIDES INFO	1.5 SSM / MB-CP						
REFERENCE NOTES							

1.5 SHANKLESS SPHERE MOUNT / MAGNETIC BASE - CENTER PUNCH

CAD on file



1.5 SSM / MB - CP FEATURES

1144 STEEL, BLACK OXIDE FINISH - Heat-treated and hardened to R/C 53 - 55 (standard)

1.5 SSM / MB - CP APPLICATION

Position Sphere Mount and Target into position - remove target and insert center punch in the center hole to punch an identifying mark or use the center punch to pick up an existing mark.

G
16

1.5 SSM / MB - CPL

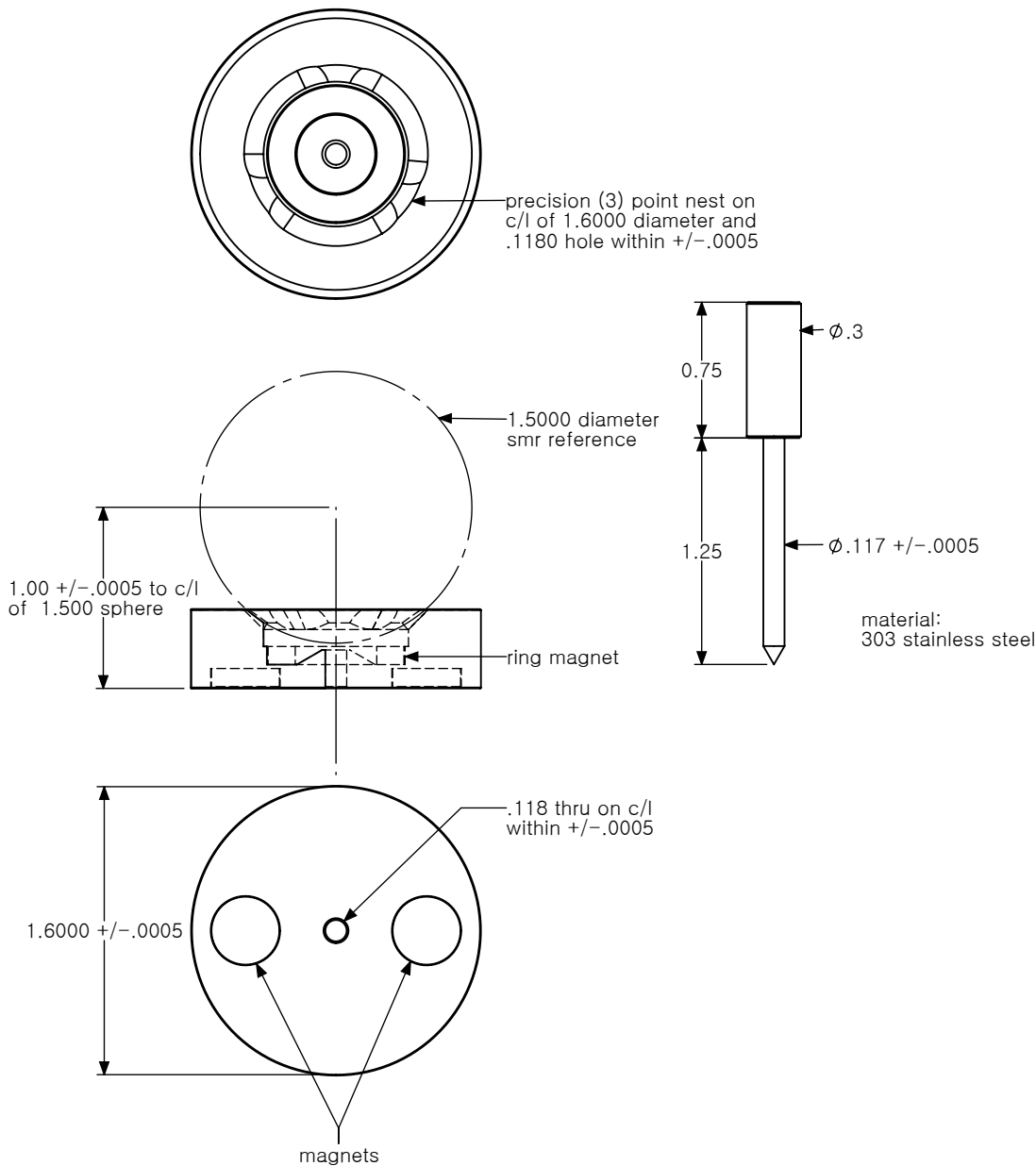
Supports a 1.5 Spherically Mounted Retro-Reflector or Theodolite Sphere for a critical height and centerline. The edge may be used to contact inside edges to give a value of .800 away.

1.5 SSM / MB - CPL ORDERING INFORMATION

	FAMILY	"H" TO CENTERLINE OF SPHERE	MATERIAL				
1.5 SSM / M6 STANDARD BUILD	1.5 SSM / MB-CPL	1.000	1144 steel, black oxide finish				
CUSTOMER PROVIDES INFO	1.5 SSM / MB-CPL						
REFERENCE NOTES							

1.5 SHANKLESS SPHERE MOUNT / MAGNETIC BASE - CENTER PUNCH LOCATOR

CAD on file



1.5 SSM / MB - CPL FEATURES

1144 STEEL, BLACK OXIDE FINISH - Heat-treated and hardened to R/C 38 - 42 (standard)

1.5 GLSM

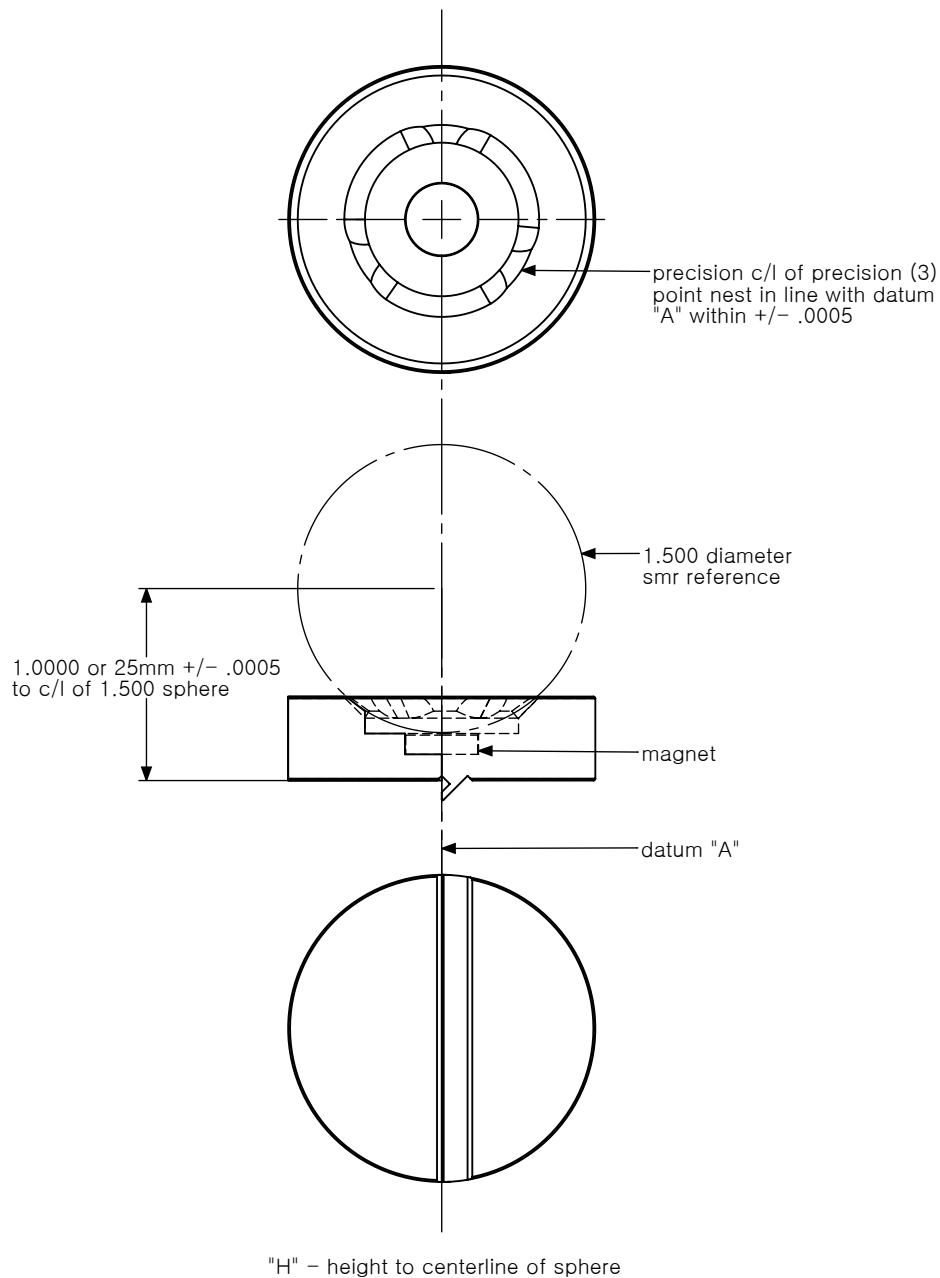
Used to represent the control side of a groove that is in an automotive grid plate at 1.000 or 25mm above and will clear 3mm by 3mm groove or slot.

1.5 GLSM ORDERING INFORMATION

	FAMILY	"H" TO CENTERLINE OF SPHERE	MATERIAL				
1.5 GLSM STANDARD BUILD	1.5 GLSM	1.000 or 25mm	1144 steel, black oxide finish				
CUSTOMER PROVIDES INFO	1.5 GLSM						
REFERENCE NOTES							

1.5 GRID LINE SPHERE MOUNT

CAD on file



1.5 GLSM FEATURES
 1144 STEEL, BLACK OXIDE FINISH - Heat-treated and hardened to R/C 53 - 55 (standard)

G
18

1.5 ESM

Designed to hold a Spherically Mounted Retro-Reflector for the purpose of locating edges/surfaces.

1.5 ESM ORDERING INFORMATION

	FAMILY	"H" TO CENTERLINE OF SPHERE	MATERIAL				
1.5 ESM STANDARD BUILD	1.5 ESM	1.000 or 25mm	1144 steel, black oxide finish				
CUSTOMER PROVIDES INFO	1.5 ESM	■					
REFERENCE NOTES							

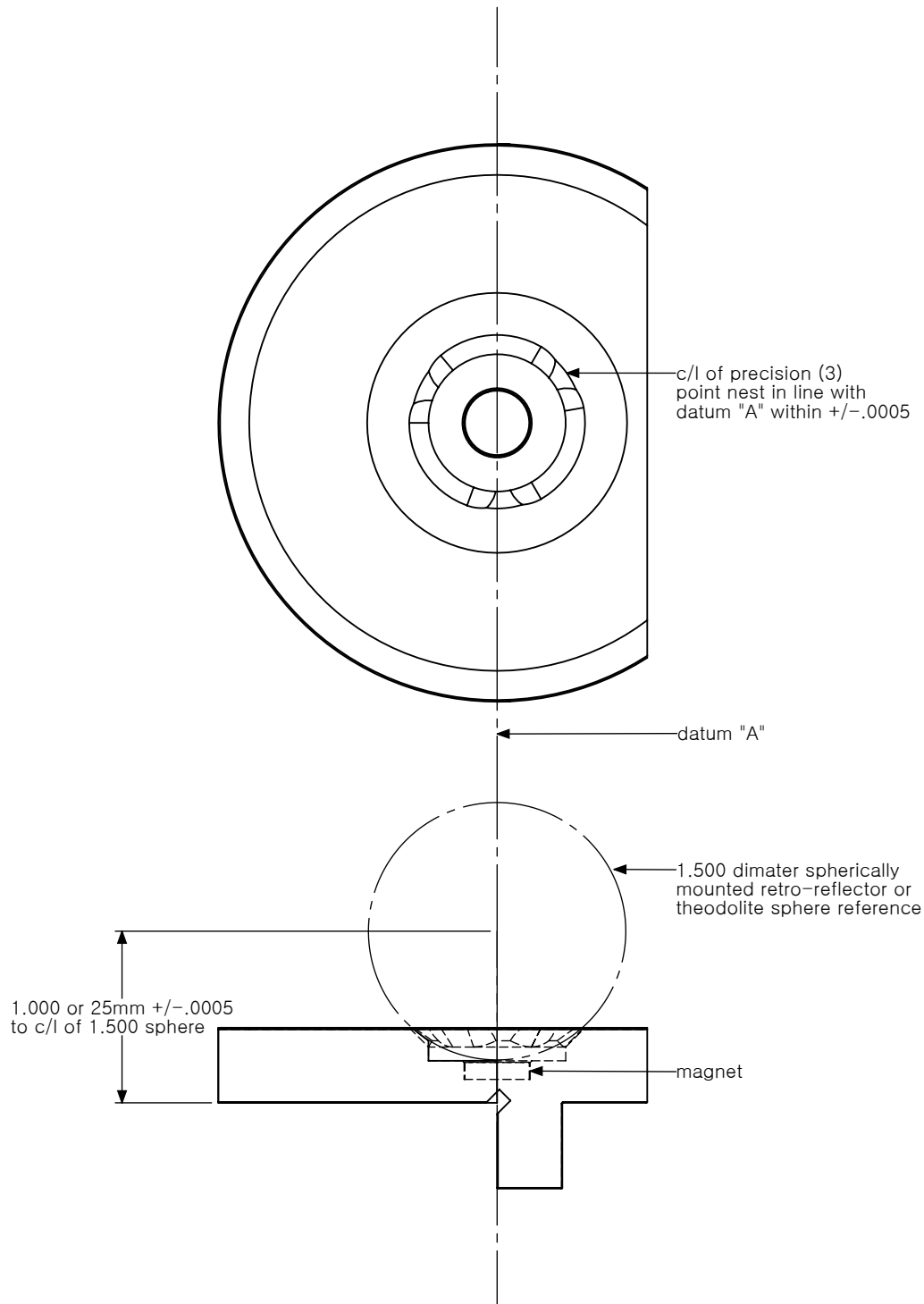
1.5 EDGE SPHERE MOUNT

CAD on file



1.5 ESM FEATURES

1144 STEEL, BLACK OXIDE FINISH – Heat-treated and hardened to R/C 53 – 55 (standard)



1.5 ESM - 2

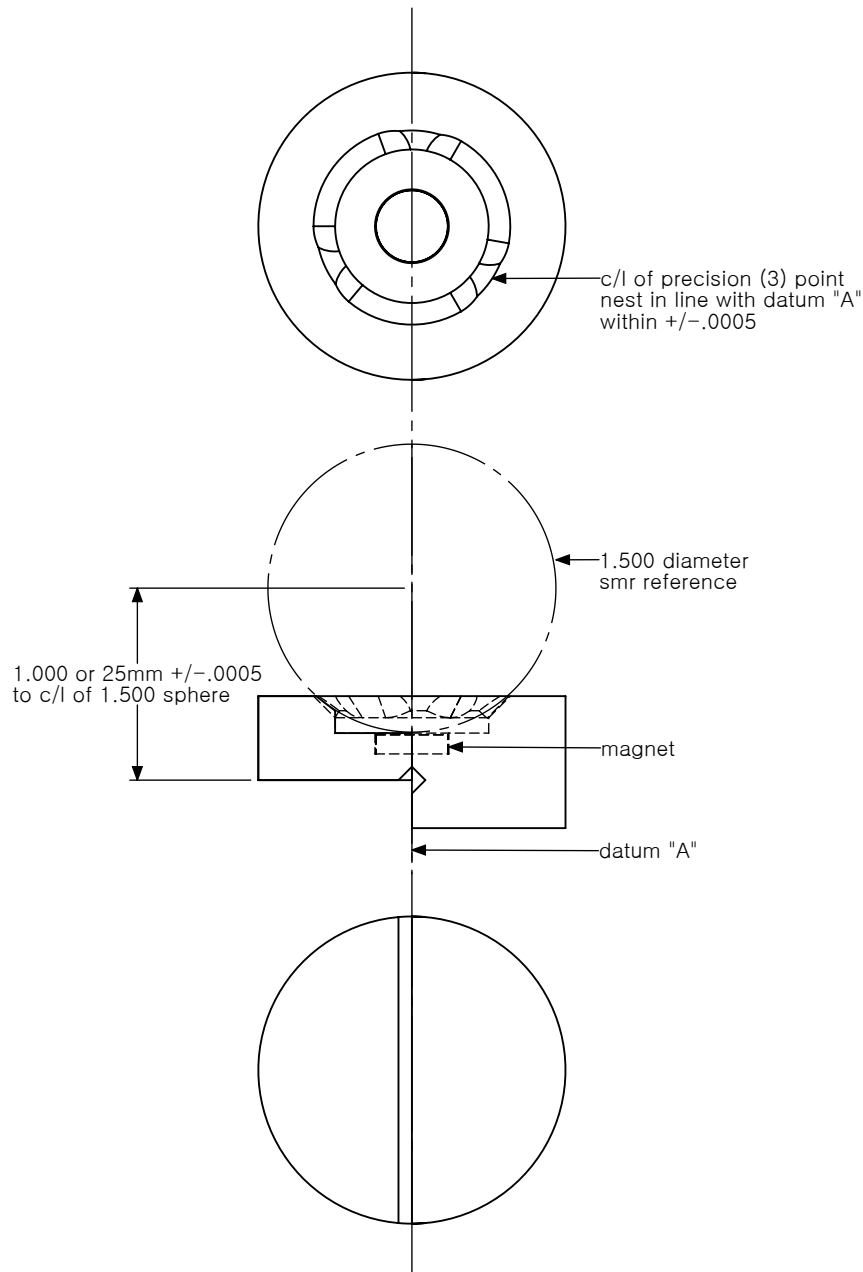
Designed to hold a Spherically Mounted Retro-Reflector for the purpose of locating edges/surfaces.

1.5 ESM - 2 ORDERING INFORMATION

	FAMILY	"H" TO CENTERLINE OF SPHERE	MATERIAL (OPTIONS)				
1.5 ESM-2 STANDARD BUILD	1.5 ESM-2	1.000 or 25mm	1144 steel or (SS)				
CUSTOMER PROVIDES INFO	1.5 ESM-2	▪	▪				
REFERENCE NOTES	_____						

1.5 EDGE SPHERE MOUNT - 2

CAD on file



1.5 ESM - 2 FEATURES

1144 STEEL, BLACK OXIDE FINISH – Heat-treated and hardened to R/C 53 – 55 (standard)

STAINLESS STEEL OPTION (for more corrosive environments)

1.5 ESM - 2

CAUTION

The 1.5ESM-2 will not balance over an edge by itself. The 1.5ESM-2 must be held in place or it will fall, possibly causing damage to the SMR.

G
20

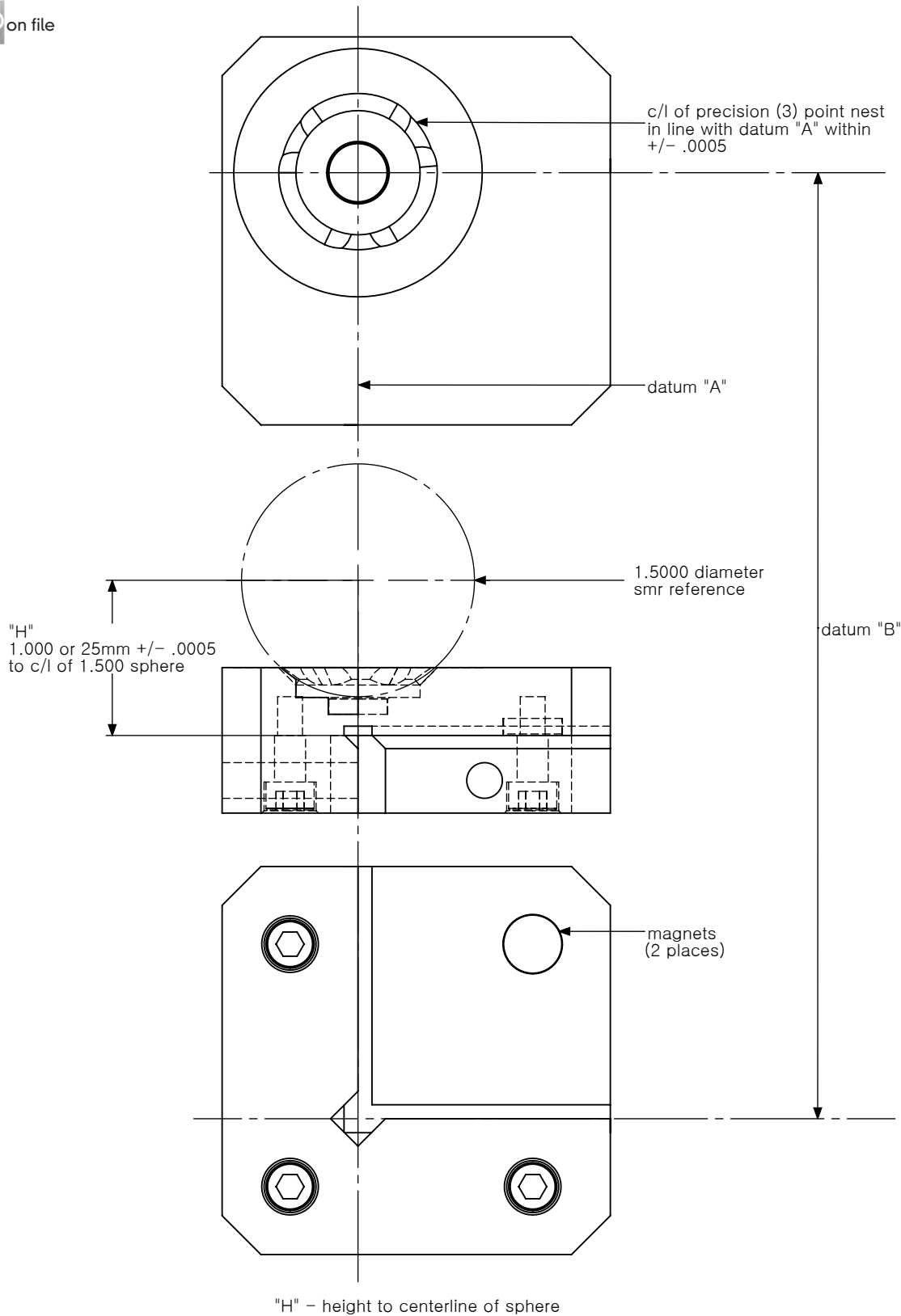
1.5 ESM - OC
 Designed to hold a Spherically Mounted Retro-Reflector for the purpose of locating outside corners.

1.5 ESM - OC ORDERING INFORMATION

FAMILY	"H" TO CENTERLINE OF SPHERE	MATERIAL				
1.5 ESM-OC STANDARD BUILD	1.000 or 25mm	1144 steel, black oxide finish				
CUSTOMER PROVIDES INFO	1.5 ESM-OC					
REFERENCE NOTES						

1.5 EDGE SPHERE MOUNT - OUTSIDE CORNER

CAD on file



1.5 ESM - OC FEATURES
 1144 STEEL, BLACK OXIDE FINISH – Heat-treated and hardened to R/C 53 – 55 (standard)

G
21

1.5 ESM - 2 - OC

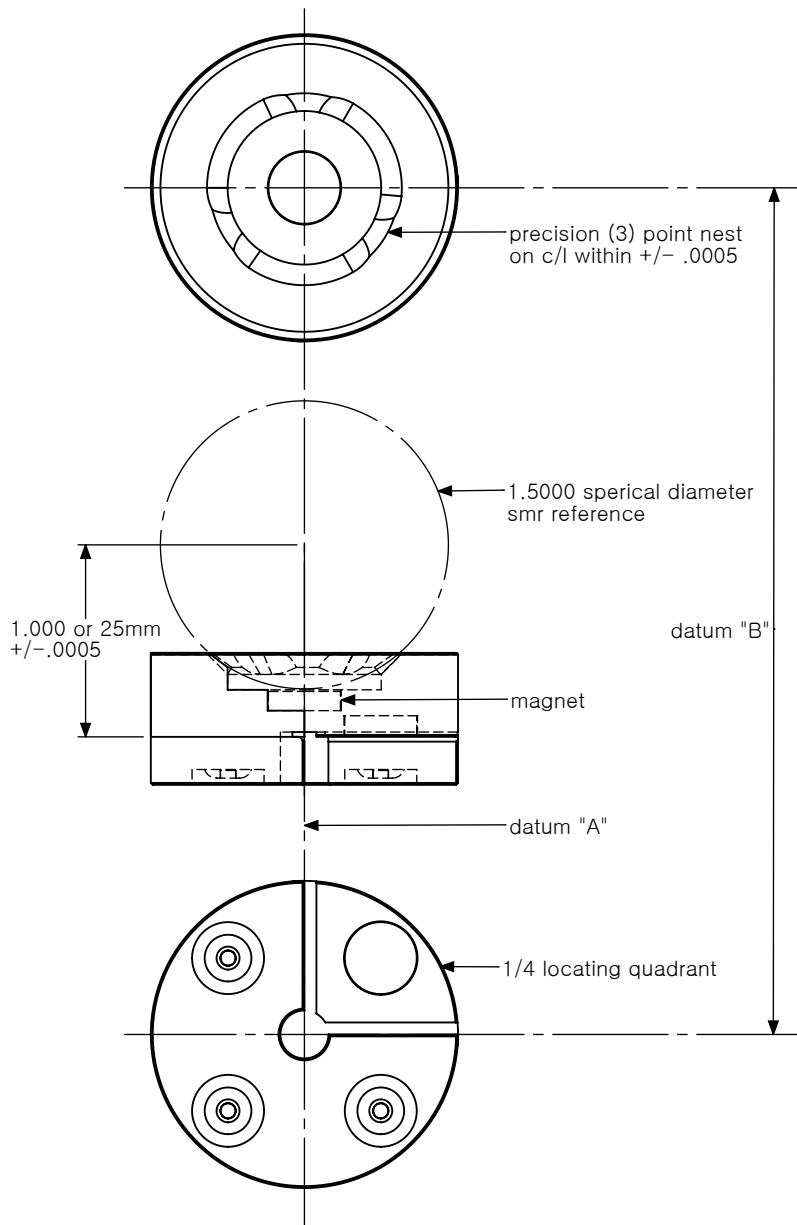
Designed to hold a Spherically Mounted Retro-Reflector for the purpose of locating outside corners.

1.5 ESM - 2 - OC ORDERING INFORMATION

	FAMILY	"H" TO CENTERLINE OF SPHERE	MATERIAL				
1.5 ESM-2-OC STANDARD BUILD	1.5 ESM -2-OC	↓	1144 steel, black oxide finish				
CUSTOMER PROVIDES INFO	1.5 ESM -2-OC	■					
REFERENCE NOTES							

1.5 EDGE SPHERE MOUNT - 2 - OUTSIDE CORNER

CAD on file



1.5 ESM - 2 - OC FEATURES

1144 STEEL, BLACK OXIDE FINISH - Heat-treated and hardened to R/C 53 - 55 (standard)

1.5 ESM - 2 - OC CAUTION

The 1.5ESM-2-OC will not balance over an edge by itself. The 1.5ESM-2-OC must be held in place or it will fall, possibly causing damage to the SMR.

G
22

1.5 ESM - 2 - 1/4

Designed to hold a Spherically Mounted Retro-Reflector for the purpose of locating outside corners or radius.

1.5 ESM - 2 - 1/4 ORDERING INFORMATION

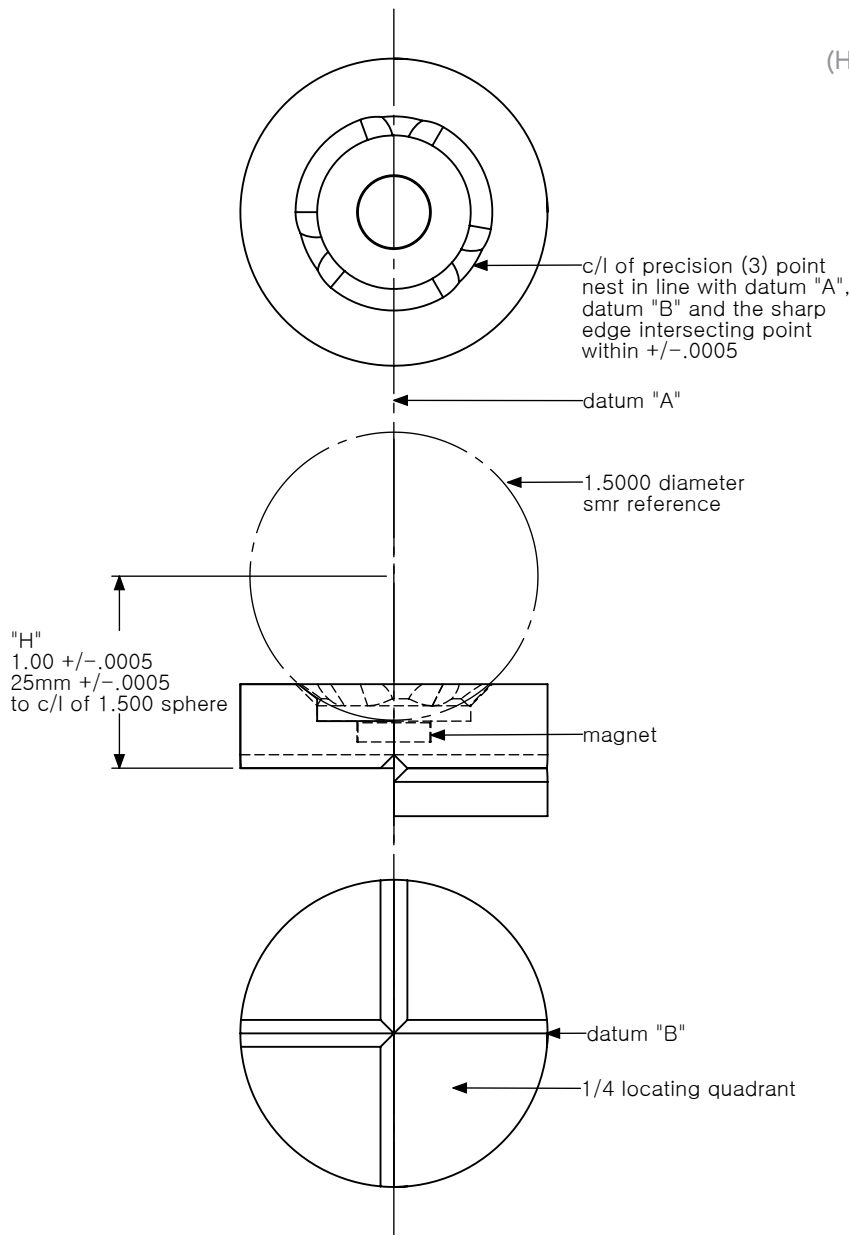
	FAMILY	"H" TO CENTERLINE OF SPHERE	MATERIAL				
1.5 ESM-2-1/4 STANDARD BUILD	1.5 ESM 2-1/4	1.000 or 25mm	1144 steel, black oxide finish				
CUSTOMER PROVIDES INFO	1.5 ESM 2-1/4						
REFERENCE NOTES							

1.5 EDGE SPHERE MOUNT - 2 - 1/4

CAD on file

NOTE

Intersection of datum "A" and datum "B" is a sharp edge critical locating surface. (HANDLE WITH CARE)



1.5 ESM - 2 - 1/4 FEATURES

1144 STEEL, BLACK OXIDE FINISH - Heat-treated and hardened to R/C 53 - 55 (standard)

1.5 ESM - 2 - 1/4 CAUTION

The 1.5ESM-2-1/4 will not balance over an edge by itself. The 1.5 ESM-2-1/4 must be held in place or it will fall, possibly causing damage to the SMR.

1.5 ISM

Designed to adapt a 1.5 Spherically Mounted Retro-Reflector to an Invar Scale Bar.

1.5 ISM ORDERING INFORMATION

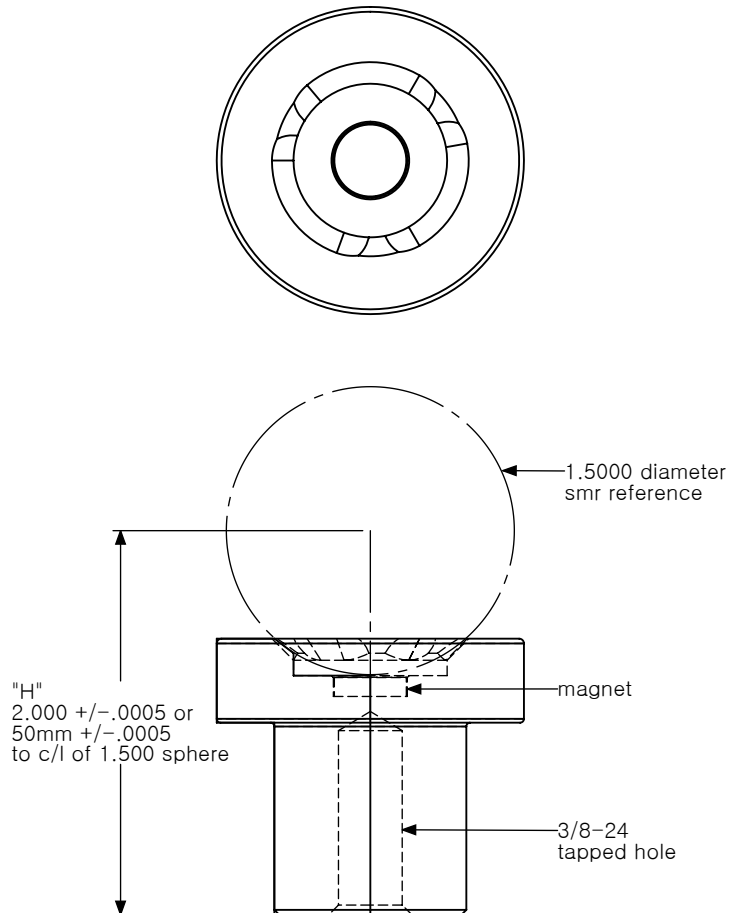
	FAMILY	"H" TO CENTERLINE OF SPHERE	MATERIAL				
1.5 ISM STANDARD BUILD	1.5 ISM	2.000 or 50mm	1144 steel, black oxide finish				
CUSTOMER PROVIDES INFO	1.5 ISM	▪					
REFERENCE NOTES							

1.5 INVAR SPHERE MOUNT

CAD on file



1.5 ISM FEATURES
1144 STEEL, BLACK OXIDE FINISH (standard)



1.5 TSM

Adapts to a Theodolite Adaptor to hold a 1.5 Spherically Mounted Retro-Reflector in place for a constant reference point.

1.5 TSM ORDERING INFORMATION

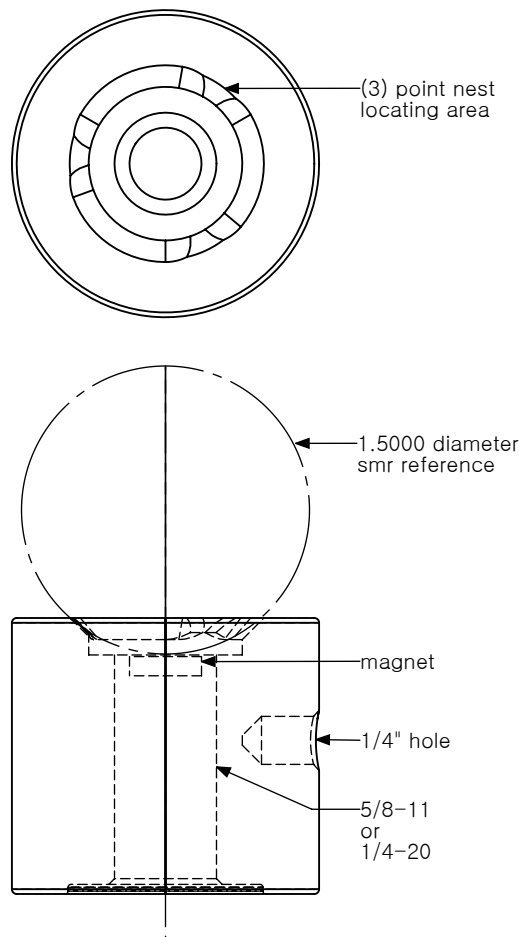
	FAMILY	DIAMETER OF TAPPED HOLE	MATERIAL				
1.5 TSM STANDARD BUILD	1.5 TSM	5/8-11 or 1/4-20	1144 steel, black oxide finish				
CUSTOMER PROVIDES INFO	1.5 TSM						
REFERENCE NOTES							

1.5 TRIPOD SPHERE MOUNT

CAD on file



1.5 TSM FEATURES
1144 STEEL, BLACK OXIDE FINISH (standard)



1.5 LT - RSM

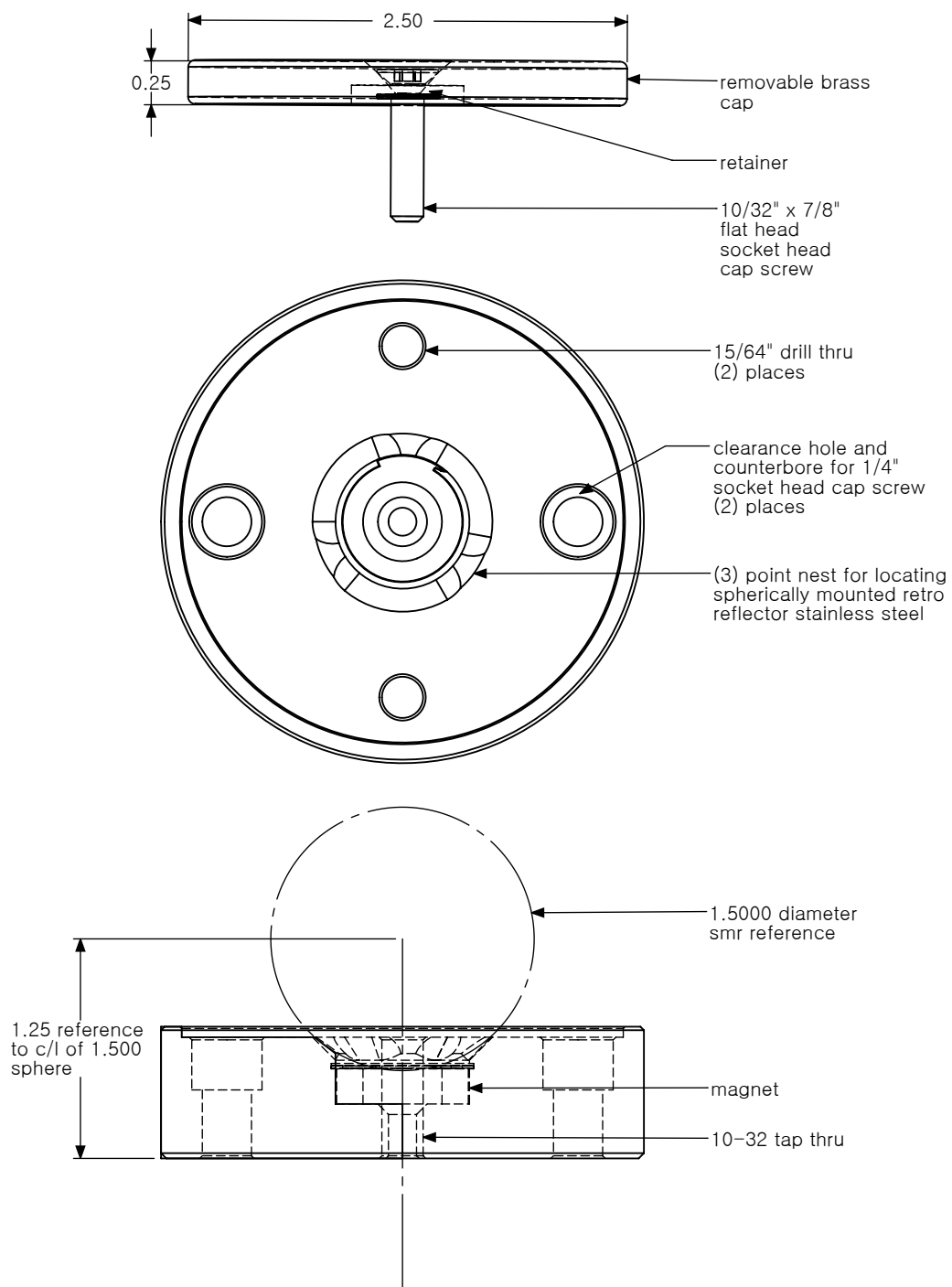
Designed to hold a 1.5 Spherically Mounted Retro-Reflector as a permanent reference point.

1.5 LT - RSM ORDERING INFORMATION

	FAMILY	MATERIAL				
1.5 LT-RSM STANDARD BUILD	1.5 LT-RSM	stainless steel (SS)				
CUSTOMER PROVIDES INFO	1.5 LT-RSM					
REFERENCE NOTES						

1.5 LASER TRACKER - REFERENCE SPHERE MOUNT

CAD on file



1.5 LT - RSM
FEATURES
STAINLESS STEEL
(standard)

G
26

1.5 SM - DN - 3PA

Used for establishing non-critical temporary or permanent monuments using hot-glue or permanent adhesives.

1.5 SM - DN - 3PA ORDERING INFORMATION

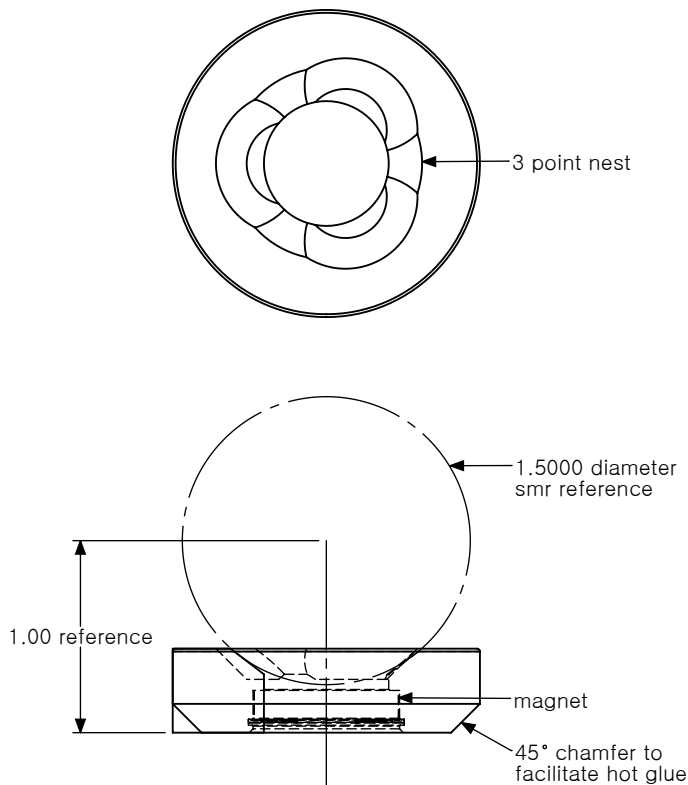
	FAMILY	MATERIAL					
1.5 SM-DN-3PA STANDARD BUILD	1.5 SM-DN-3PA	aluminum					
CUSTOMER PROVIDES INFO	1.5 SM-DN-3PA						
REFERENCE NOTES							

1.5 SPHERE MOUNT - DRIFT NEST - THREE POINT ALUMINUM

CAD on file



1.5 SM - DN - 3PA
FEATURES
 ALUMINUM BLACK, HARD ANODIZED COATING



1.5 SMN - DN - 3PA

Used for establishing non-critical temporary or permanent monuments using hot-glue or permanent adhesives.

1.5 SMN - DN - 3PA ORDERING INFORMATION

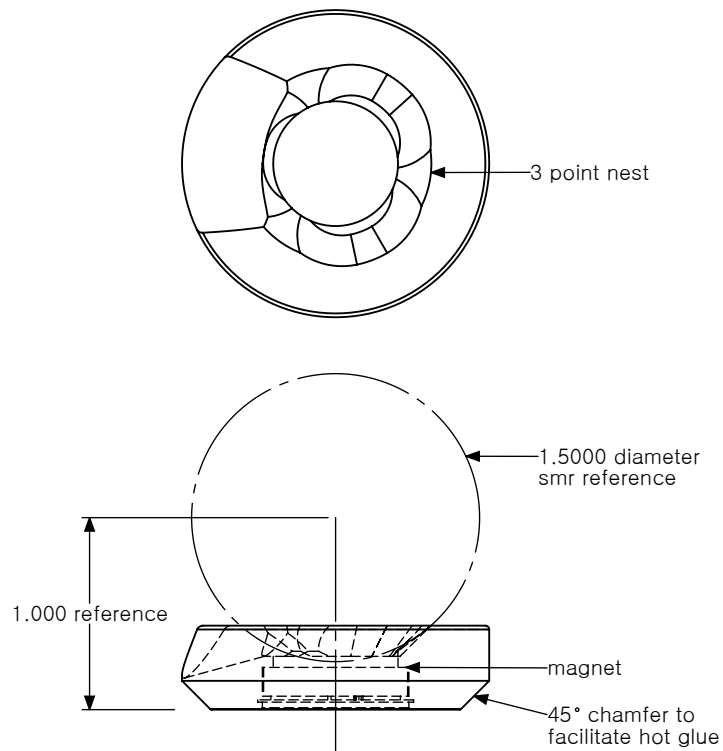
	FAMILY	MATERIAL					
1.5 SMN-DN-3PA STANDARD BUILD	1.5 SMN-DN-3PA	aluminum					
CUSTOMER PROVIDES INFO	1.5 SMN-DN-3PA						
REFERENCE NOTES							

1.5 SPHERE MOUNT NEGATIVE - DRIFT NEST - THREE POINT ALUMINUM

CAD on file



1.5 SMN - DN - 3PA FEATURES
ALUMINUM BLACK, HARD ANODIZED COATING



1.5 SM - DN - 3PS

Used for establishing non-critical temporary or permanent monuments using adhesives or by tack welding.

1.5 SM - DN - 3PS ORDERING INFORMATION

	FAMILY	MATERIAL (OPTIONS)					
1.5SM-DN-3PS STANDARD BUILD	1.5SM-DN-3PS	1144 steel or (SS)					
CUSTOMER PROVIDES INFO	1.5SM-DN-3PS						
REFERENCE NOTES							

1.5 SPHERE MOUNT - DRIFT NEST - THREE POINT STEEL

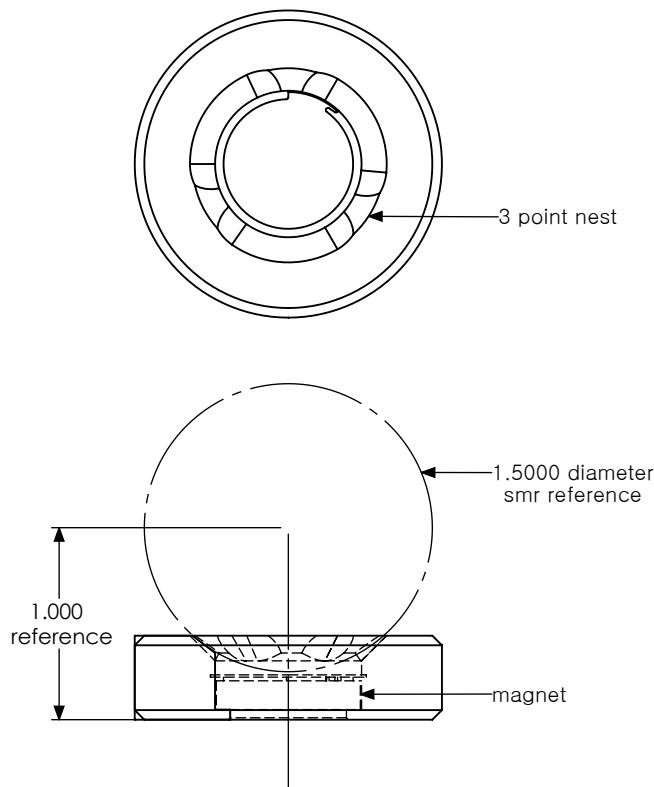
CAD on file



1.5 SM - DN - 3PS FEATURES

1144 STEEL, BLACK OXIDE FINISH (standard)

STAINLESS STEEL OPTION (for more corrosive environments)



1.5 SMN - DN - 3PS

Used for establishing non-critical temporary or permanent monuments using adhesives or by tack welding.

1.5 SMN- DN - 3PS ORDERING INFORMATION

	FAMILY	MATERIAL (OPTIONS)					
1.5 SMN-DN-3PS STANDARD BUILD	1.5 SMN-DN-3PS	1144 steel or (SS)					
CUSTOMER PROVIDES INFO	1.5 SMN-DN-3PS	■					
REFERENCE NOTES							

1.5 SPHERE MOUNT NEGATIVE - DRIFT NEST - THREE POINT STEEL

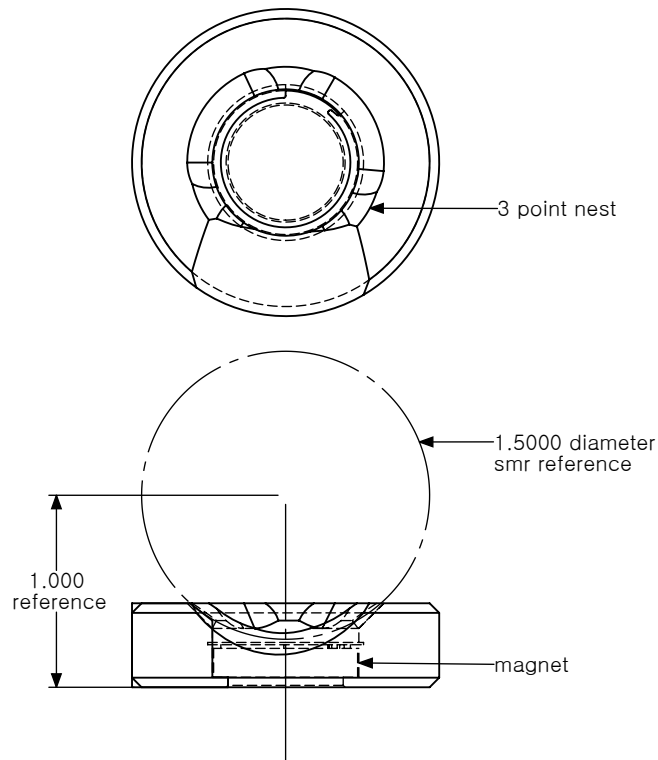
CAD on file



1.5 SMN - DN - 3PS FEATURES

1144 STEEL, BLACK OXIDE FINISH (standard)

STAINLESS STEEL OPTION (for more corrosive environments)



1.5 SM - HC

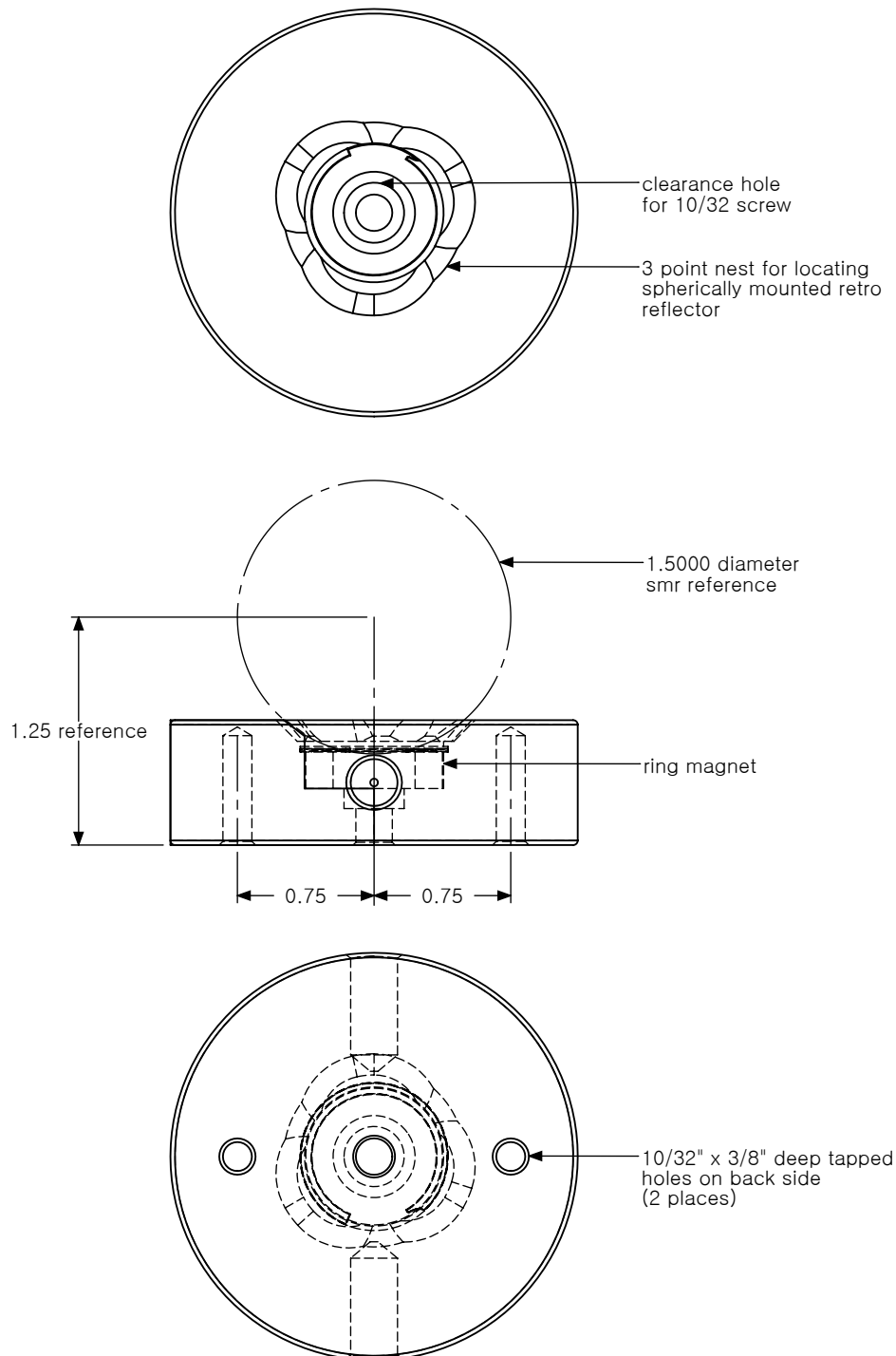
Designed for mounting to a surface to securely hold a 1.500 diameter Spherically Mounted Retro-Reflector or Theodolite Sphere. The 1.5SM-HC is used for temporary or permanent reference only, not intended for critical offsets or concentricities.

1.5 SM - HC ORDERING INFORMATION

	FAMILY	MATERIAL					
1.5 SM-HC STANDARD BUILD	1.5 SM-HC	aluminum					
CUSTOMER PROVIDES INFO	1.5 SM-HC						
REFERENCE NOTES							

1.5 SPHERE MOUNT - HARD COAT

CAD on file



**1.5 SM - HC
FEATURES**
ALUMINUM BLACK, HARD
ANODIZED COATING

1.5 SM - HC / MB

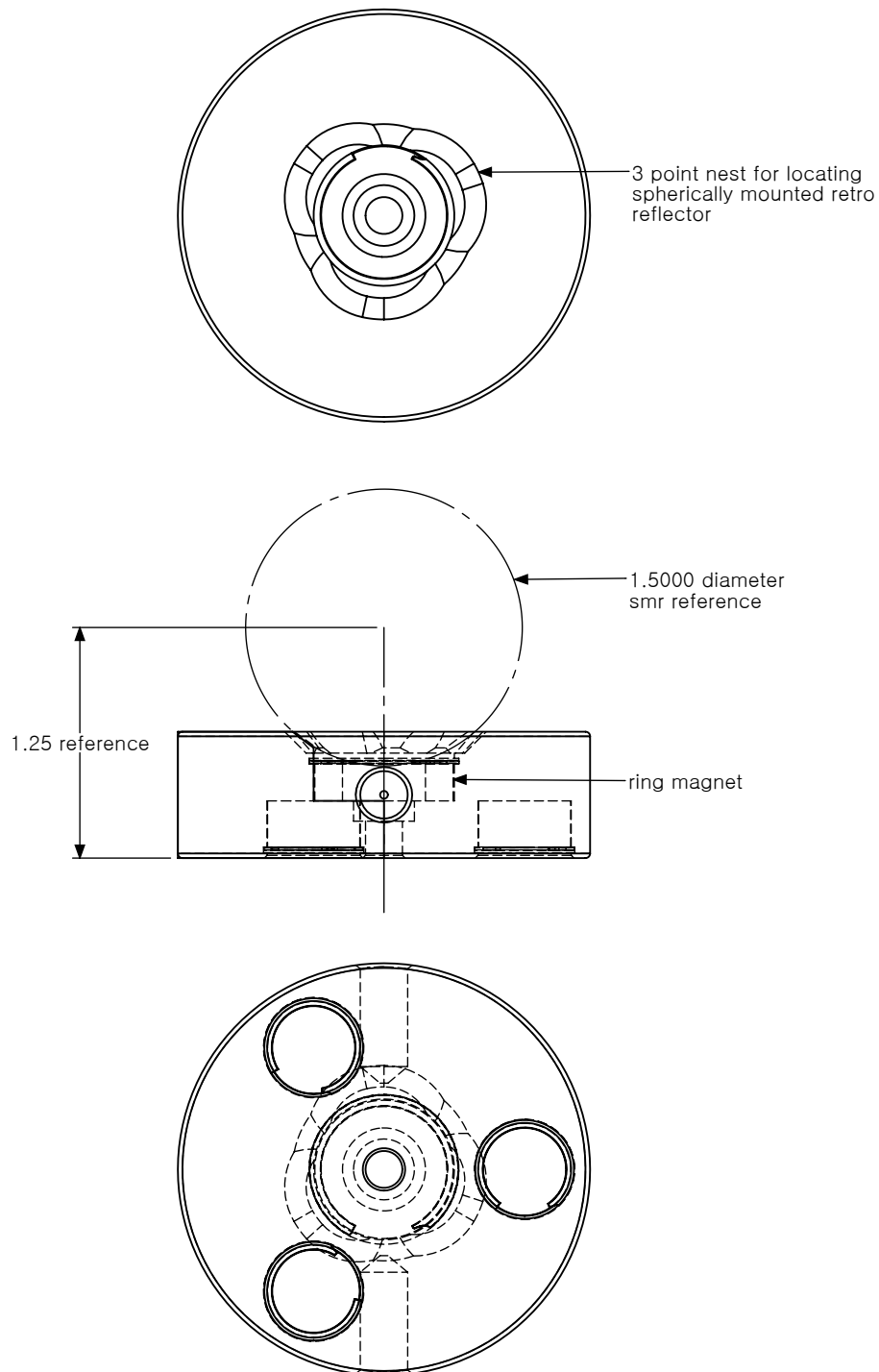
Designed for mounting to a surface to securely hold a 1.500 diameter Spherically Mounted Retro-Reflector or Theodolite Sphere. The 1.5SM-HC/MB is used for temporary or permanent reference only, not intended for critical offsets or concentricities.

1.5 SM - HC / MB ORDERING INFORMATION

	FAMILY	MATERIAL					
1.5 SM-HC / MB STANDARD BUILD	1.5 SM-HC / MB	aluminum					
CUSTOMER PROVIDES INFO	1.5 SM-HC / MB						
REFERENCE NOTES							

1.5 SPHERE MOUNT - HARD COAT / MAGNETIC BASE

CAD on file



1.5 SM - HC / MB
FEATURES
 ALUMINUM BLACK, HARD ANODIZED COATING

G
32

1.5 SM - HC / CP

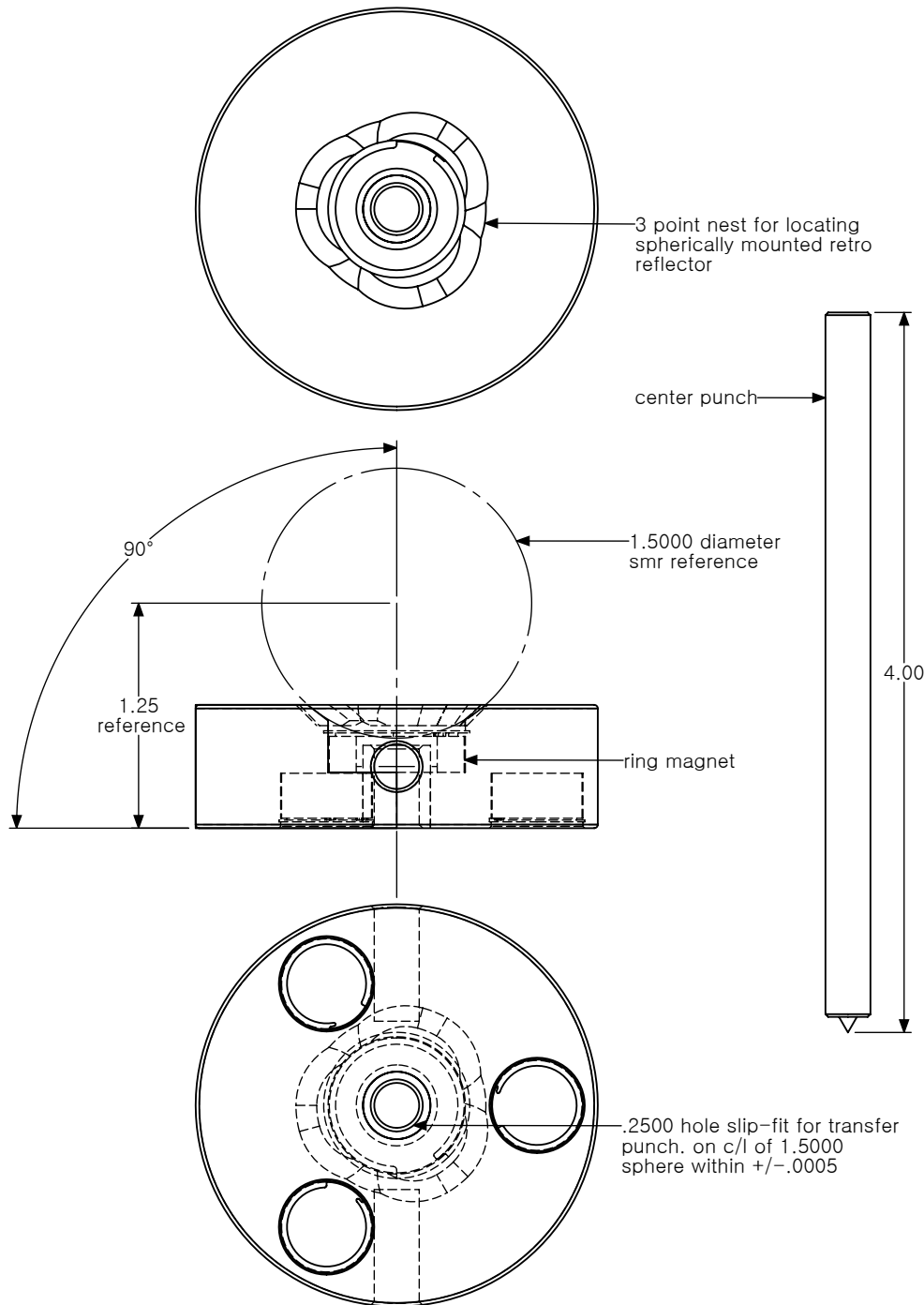
Designed for adhering to a steel surface to securely hold a 1.500 diameter Spherically Mounted Retro-Reflector or Theodolite Sphere.

1.5 SM - HC / CP ORDERING INFORMATION

	FAMILY	MATERIAL				
1.5 SM-HC / CP STANDARD BUILD	1.5 SM-HC / CP	aluminum				
CUSTOMER PROVIDES INFO	1.5 SM-HC / CP					
REFERENCE NOTES						

1.5 SPHERE MOUNT - HARD COAT / CENTER PUNCH

CAD on file



1.5 SM - HC / CP FEATURES
ALUMINUM BLACK, HARD ANODIZED COATING

1.5 SM - HC / CP APPLICATION
Move the nest into position, remove the Sphere Target and place transfer into center bore. Center punch to leave an identifying mark.

1.5 SM - TM

Sometimes called a "hockey puck," the 1.5 SM-TM provides a temporary magnetic SMR adaptor in almost any location on any surface by using hot glue to attach the adaptor temporarily.

1.5 SM - TM ORDERING INFORMATION

	FAMILY	MATERIAL					
1.5 SM-TM STANDARD BUILD	1.5 SM-TM	aluminum					
CUSTOMER PROVIDES INFO	1.5 SM-TM						
REFERENCE NOTES							

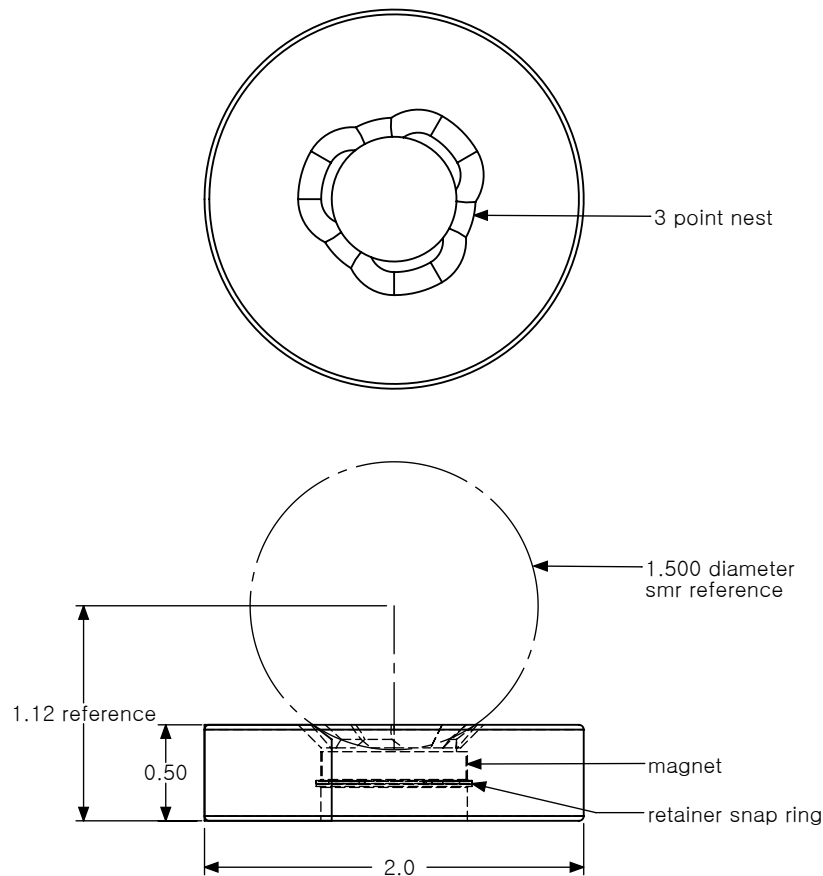
1.5 SPHERE MOUNT - TEMPORARY MONUMENT

CAD on file



1.5 SM - TM FEATURES
ALUMINUM BLACK, HARD ANODIZED COATING

- Low cost
- Lightweight
- Removable and replaceable magnet



1.5 TPSN

Allows the SMR to be tracked into a position.

A light tap with a hammer will produce a small accurately located center punch mark under the SMR

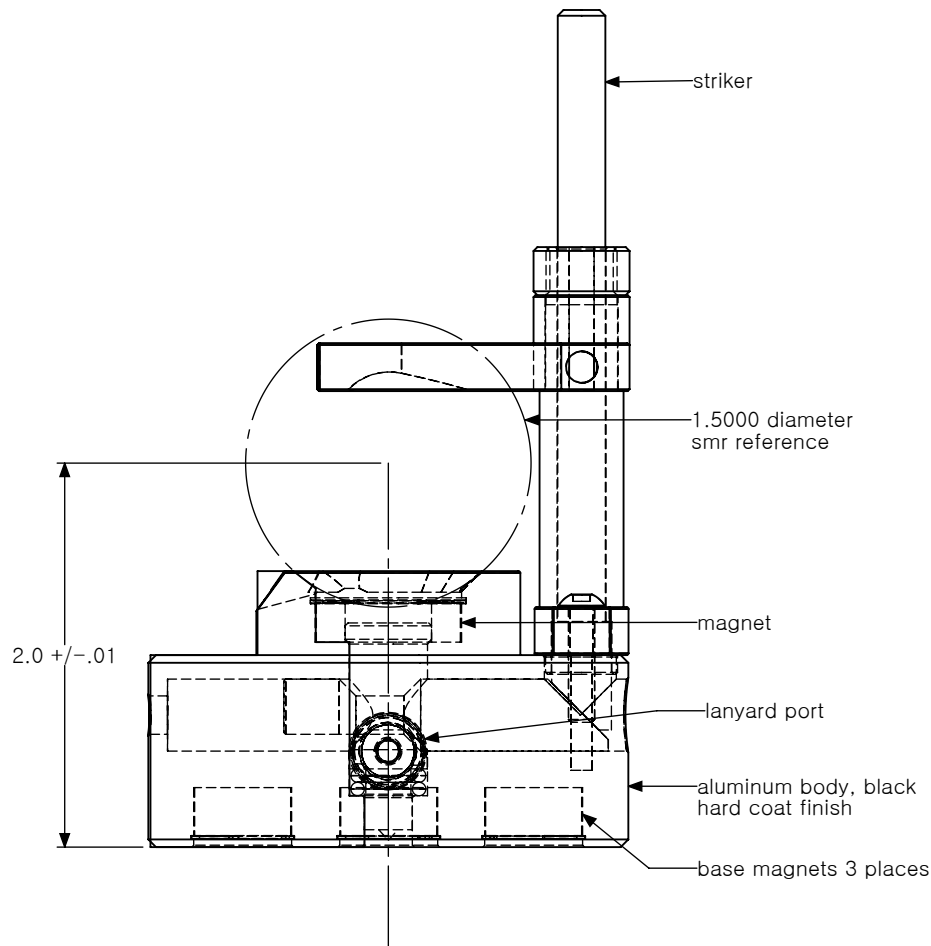
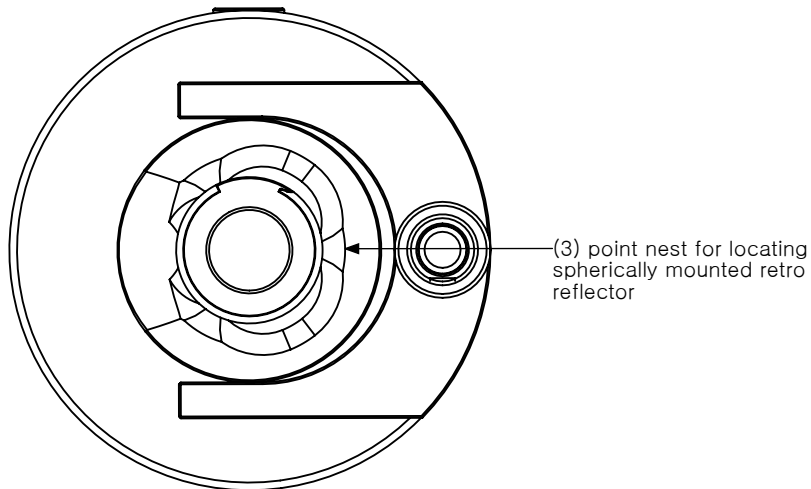
location without removing the SMR. Item intended for layout work on flat steel surfaces.

1.5 TPSN ORDERING INFORMATION

	FAMILY	MATERIAL				
1.5 TPSN STANDARD BUILD	1.5 TPSN	aluminum				
CUSTOMER PROVIDES INFO	1.5 TPSN					
REFERENCE NOTES						

1.5 TRACK AND PUNCH - SMR NEST

CAD on file



1.5 TPSN FEATURES

ALUMINUM BLACK, HARD ANODIZED COATING

- SMR is able to rotate up to 90°
- SMR is held in place by a magnet and retainer if desired.
- Lanyard port is located on side of body

1.5 CPSN

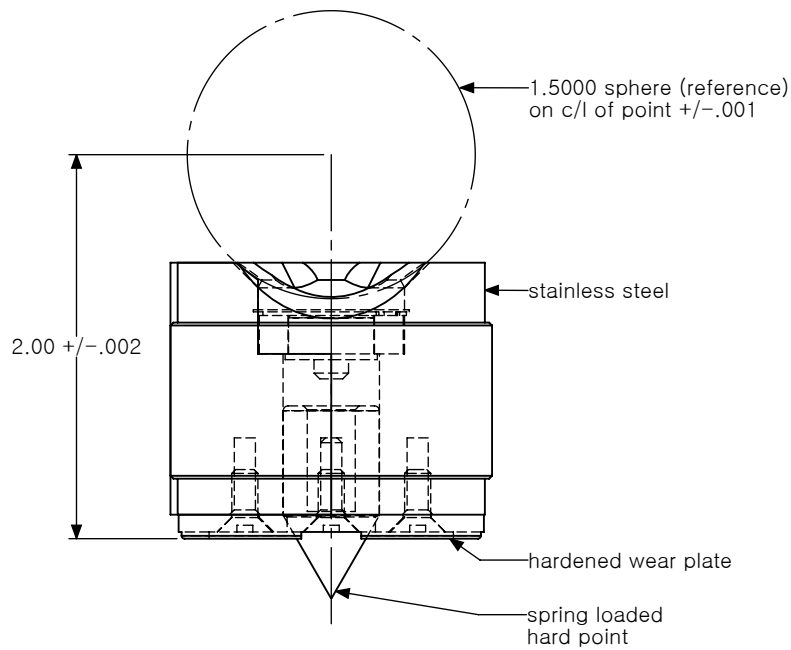
Designed to hold a 1.5 Spherically Mounted Retro-Reflector for the purpose of locating center punch marks without removing SMR.

1.5 CPSN ORDERING INFORMATION

	FAMILY	MATERIAL					
1.5 CPSN STANDARD BUILD	1.5 CPSN	stainless steel (SS)					
CUSTOMER PROVIDES INFO	1.5 CPSN						
REFERENCE NOTES							

1.5 CENTER PUNCH SPHERE NEST

CAD on file



1.5 CPSN FEATURES STAINLESS STEEL (standard)

- Spring-loaded Hard Point (HP) self-centers in any size center punch mark.

G
36

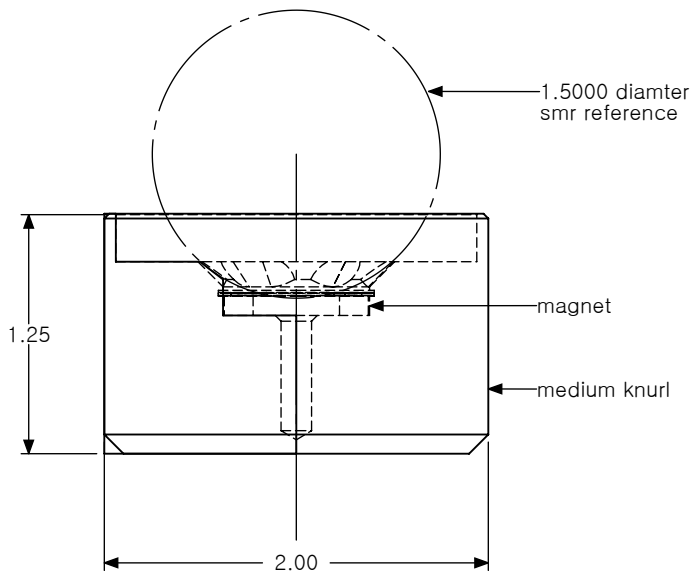
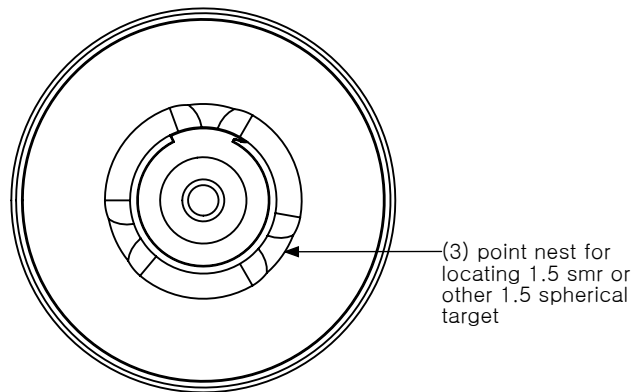
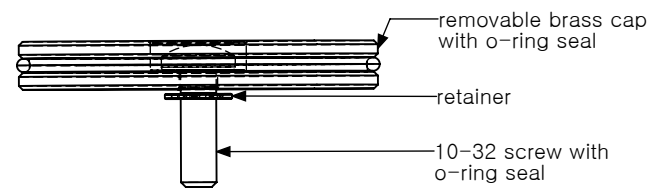
1.5 FSM
 Mounted in concrete flooring/foundations, etc., to allow for a permanent Laser Tracker target reference.

1.5 FSM ORDERING INFORMATION

	FAMILY	MATERIAL				
1.5 FSM STANDARD BUILD	1.5 FSM	stainless steel (SS)				
CUSTOMER PROVIDES INFO	1.5 FSM					
REFERENCE NOTES						

1.5 FOUNDATION SPHERE MOUNT

CAD on file



1.5 FSM
FEATURES
 STAINLESS STEEL
 (standard)

1.5 SMR / MC

Holds a 1.5 inch SMR magnetically to a flat, ferrous surface. It can also hold a Theodolite or Photogrammetry Sphere in some orientations.

1.5 SMR / MC ORDERING INFORMATION

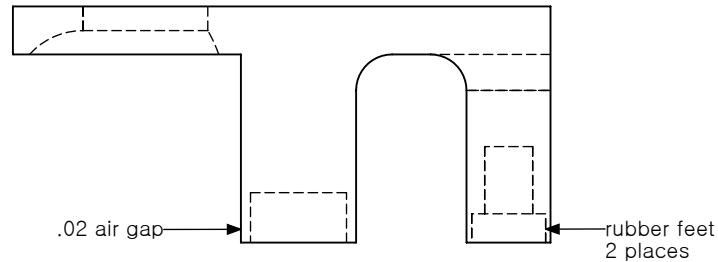
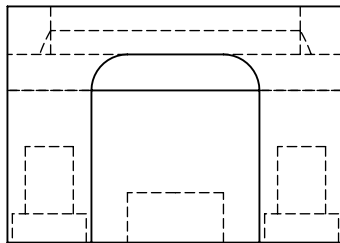
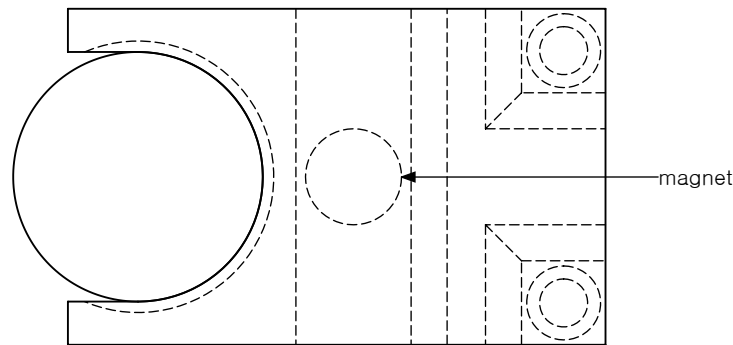
	FAMILY	MATERIAL					
1.5 SMR / MC STANDARD BUILD	1.5 SMR / MC	aluminum					
CUSTOMER PROVIDES INFO	1.5 SMR / MC						
REFERENCE NOTES							

1.5 SMR / MAGNETIC CLAMP

CAD on file



1.5 SMR / MC
FEATURES
ALUMINUM BLACK,
ANODIZED COATING



1.5 SM - PA

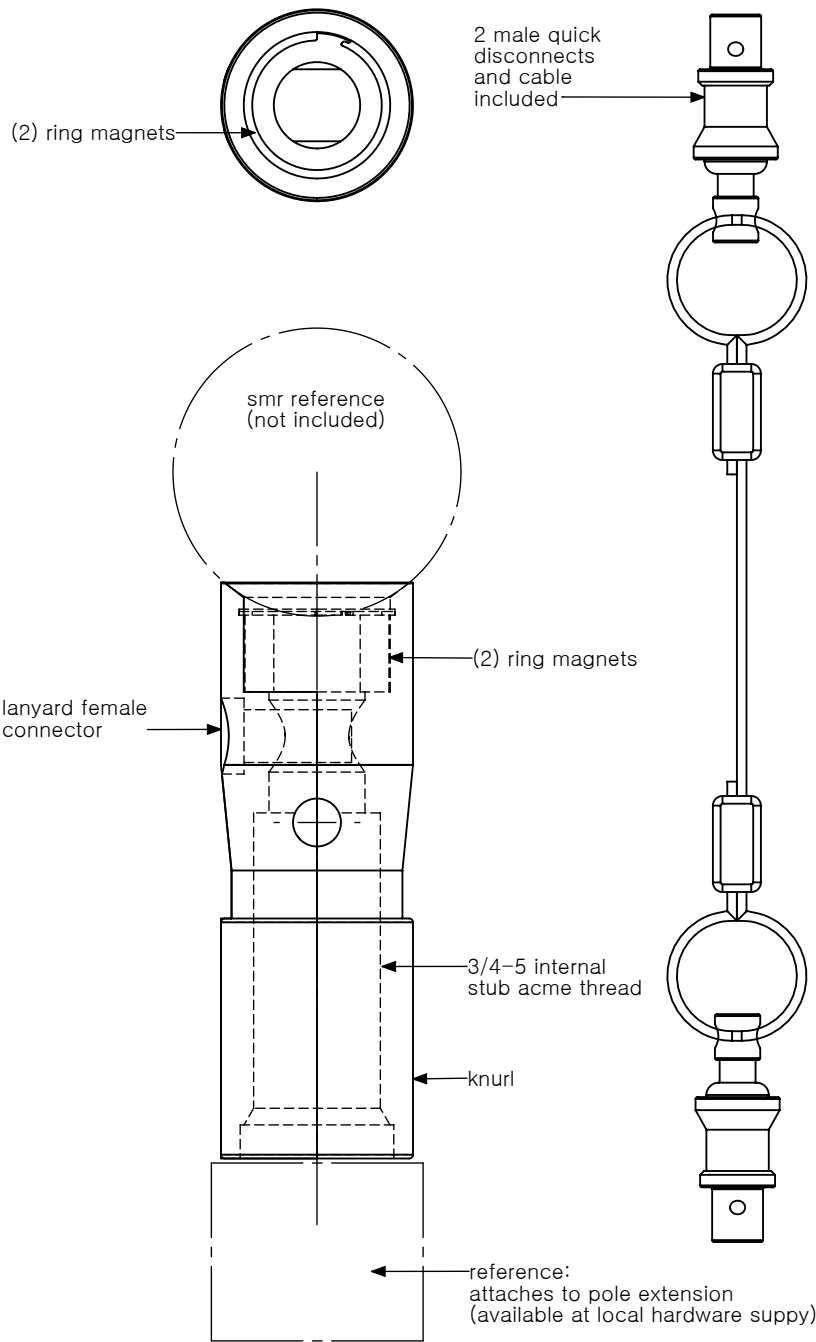
Designed to adapt a 1.5 Spherically Mounted Retro-Reflector to a customer-supplied pole extension (painting pole, broom handle, etc.) for the purpose of reaching inaccessible places with SMR.

1.5 SM - PA ORDERING INFORMATION

	FAMILY	MATERIAL				
1.5 SM-PA STANDARD BUILD	1.5 SM-PA	aluminum				
CUSTOMER PROVIDES INFO	1.5 SM-PA					
REFERENCE NOTES						

1.5 SPHERE MOUNT - POLE ADAPTOR

CAD on file



1.5 SM - PA
FEATURES
 ALUMINUM BLACK,
 ANODIZED COATING

LT - LLA
Designed to locate
Leveling Lug.

LT - LLA ORDERING INFORMATION

	FAMILY	MATERIAL				
LT-LLA STANDARD BUILD	LT-LLA	1144 steel, black oxide finish				
CUSTOMER PROVIDES INFO	LT-LLA					
REFERENCE NOTES						

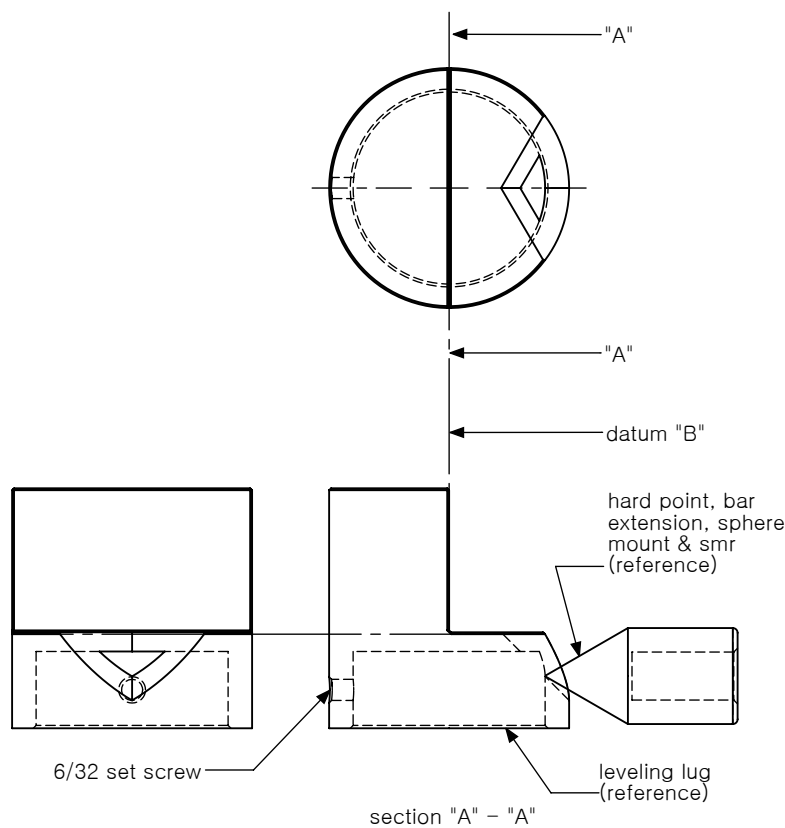
LASER TRACKER LEVELING LUG ADAPTOR

CAD on file



**LT - LLA
FEATURES**
1144 STEEL, BLACK OXIDE
FINISH (standard)

**LT - LLA
APPLICATION**
Use a bubble level
(combination square
level) to datum "B" then
insert Hard Point Bar, Bar
Extension, Sphere Mount,
and Spherically Mounted
Retro-Reflector (SMR) into
"V" notch and generate
a spherical radius. The
center of the radius will
be the same as the top of
the Leveling Lug.



LLST
Designed to achieve
the centerline of the
Leveling Lug.

LLST ORDERING INFORMATION

	FAMILY	MATERIAL					
LLST STANDARD BUILD	LLST	stainless steel (SS) and 1144 steel					
CUSTOMER PROVIDES INFO	LLST						
REFERENCE NOTES							

LEVELING LUG SPHERE TARGET

CAD on file

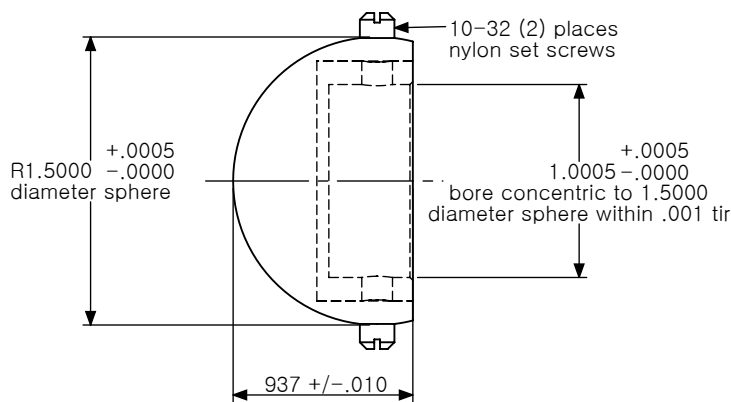


**LLST
FEATURES**

STAINLESS STEEL WITH
1144 STEEL, BLACK OXIDE
INSERT – Heat-treated and
hardened to R/C 53 – 55
(standard)

**LLST
APPLICATION**

Slide LLST over Leveling
Lug and tighten set screws.
Profile a 1.500 spherical
area with SMR to achieve
the centerline of
Leveling Lug.



LT - LOSA

Adapts a 1.5 Spherically Mounted Retro-Reflector to replace the standard optic 3 1/2" diameter line of sight spherical target.

LT - LOSA ORDERING INFORMATION

	FAMILY	MATERIAL					
LT-LOSA STANDARD BUILD	LT-LOSA	1144 steel					
CUSTOMER PROVIDES INFO	LT-LOSA						
REFERENCE NOTES							

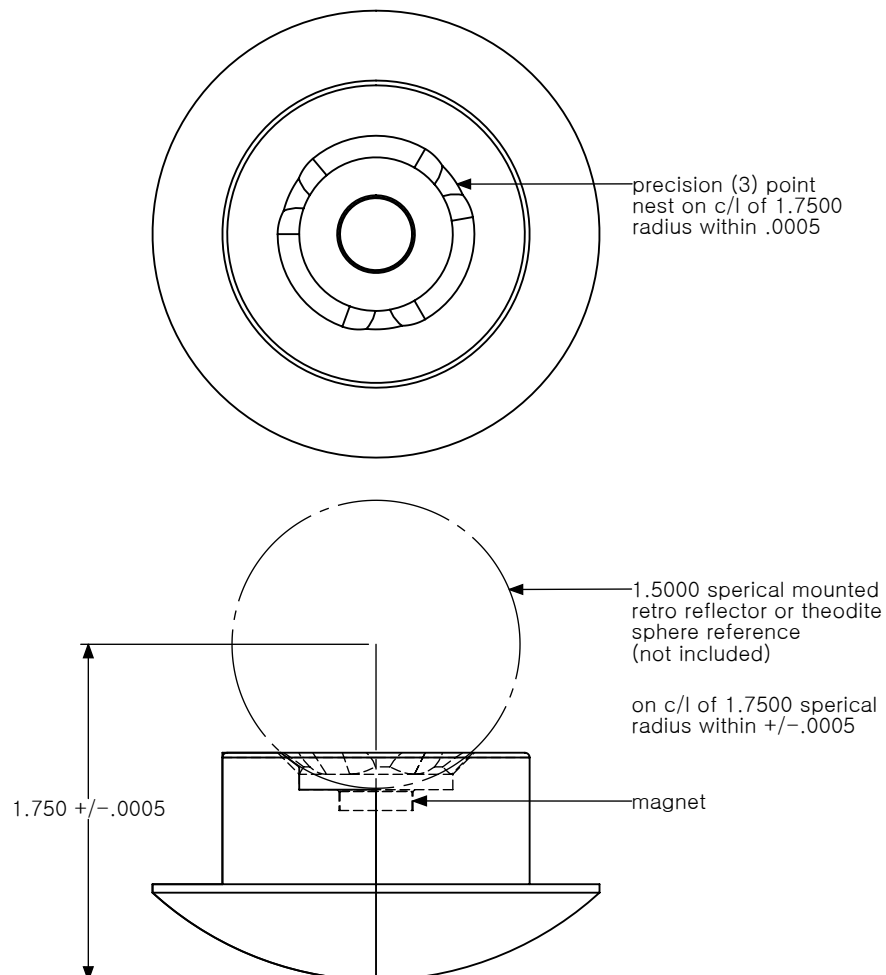
LASER TRACKER - LINE OF SIGHT ADAPTOR

CAD on file



LT - LOSA FEATURES

1144 STEEL, BLACK OXIDE FINISH - Heat-treated and hardened to R/C 53 - 55 (standard)



G
42

1.5 - .5 SMR AD

Designed to adapt a
1.5 Sphere Mount
Nest to .5000
Spherically Mounted
Retro-Reflector.

1.5 - .5 SMR AD ORDERING INFORMATION

	FAMILY	MATERIAL					
1.5-.5 SMR AD STANDARD BUILD	1.5-.5 SMR AD	stainless steel (SS)					
CUSTOMER PROVIDES INFO	1.5-.5 SMR AD						

1.5 - .875 SMR AD

Designed to adapt
a 1.5 Sphere Mount
Nest to .8750
Spherically Mounted
Retro-Reflector.

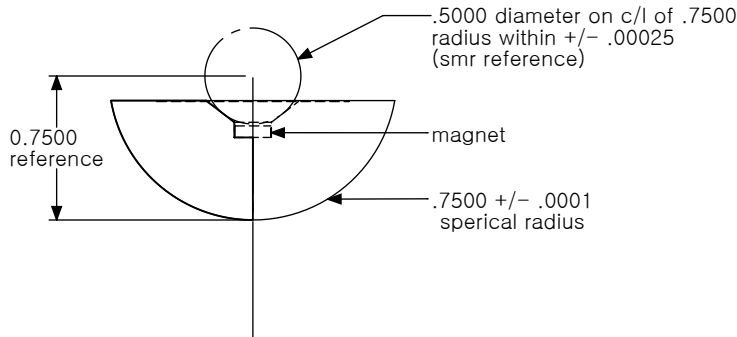
1.5 - .875 SMR AD ORDERING INFORMATION

	FAMILY	MATERIAL					
1.5-.875 SMR AD STANDARD BUILD	1.5-.875 SMR AD	stainless steel (SS)					
CUSTOMER PROVIDES INFO	1.5-.875 SMR AD						

REFERENCE
NOTES

1.5 - .5 SMR AD

CAD on file

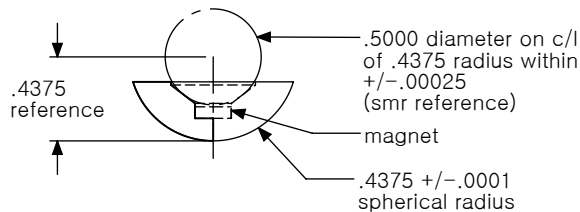


1.5 - .5 SMR AD

FEATURES
STAINLESS STEEL
Heat-treated and
hardened to R/C 53 – 55
(standard)

1.5 - .875 SMR AD

CAD on file



1.5 - .875 SMR AD

FEATURES
STAINLESS STEEL
Heat-treated and
hardened to R/C 53 – 55
(standard)

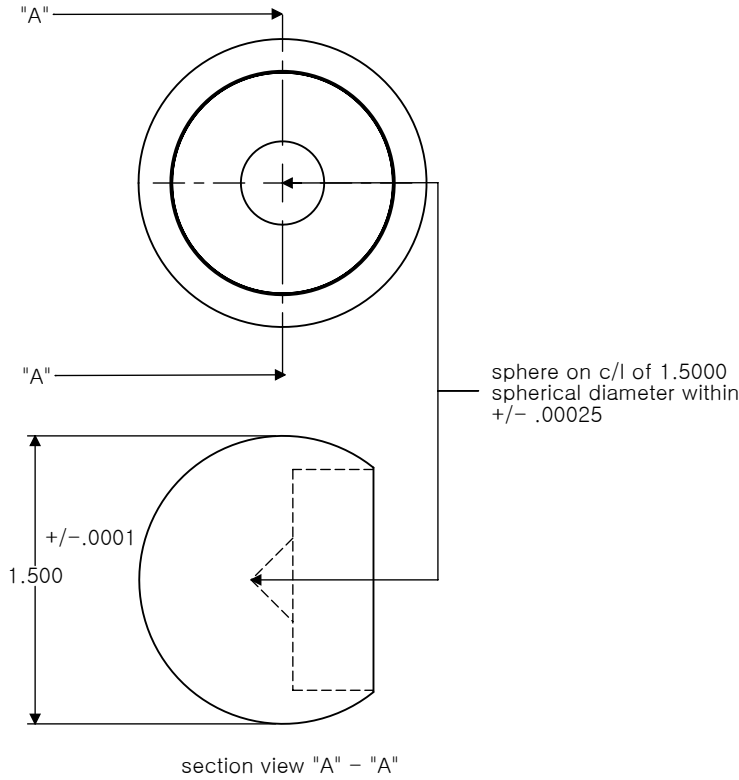
1.5 RRS
Adapts a Retro-Probe tip to centerline of 1.5000
Sphere to within .00025.

1.5 RRS (BALL) AND (POINT) ORDERING INFORMATION

	FAMILY	MODEL	MATERIAL				
1.5 RRS STANDARD BUILD	1.5 RRS	BALL DIA. or POINT	stainless steel (SS) and 1144 steel				
CUSTOMER PROVIDES INFO	1.5 RRS	▪					
REFERENCE NOTES							

1.5 RETRO - PROBE RESET SPHERE (BALL)

CAD on file



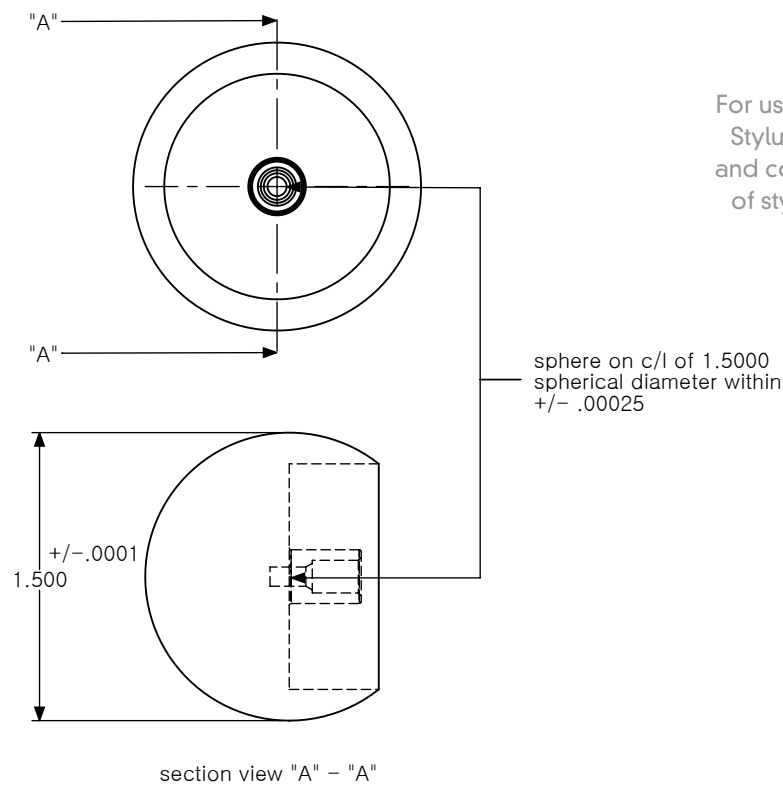
NOTE
Nest for probe tip diameter from 1mm to .2500



1.5 RRS (BALL) FEATURES
STAINLESS STEEL WITH 1144 STEEL, BLACK OXIDE INSERT – Heat-treated and hardened to R/C 53 – 55 (standard)

1.5 RETRO - PROBE RESET SPHERE (POINT)

CAD on file



NOTE
For use on FARO "POINT" Stylus only. Internal bore and conical nest put point of stylus on centerline of 1.5000 diameter within .00025



1.5 RRS (POINT) FEATURES
STAINLESS STEEL WITH 1144 STEEL, BLACK OXIDE INSERT – Heat-treated and hardened to R/C 53 – 55 (standard)

1.5 HPA

Designed to adapt a 1.5 Sphere Mount Nest in an inaccessible location using .2500 shank applicable accessories.

T1.5S

Provides same centerline value as a Spherically Mounted Retro-Reflector. This allows interchangeability from Laser Tracker systems to computer-aided Theodolite systems.

1.5 HPA ORDERING INFORMATION

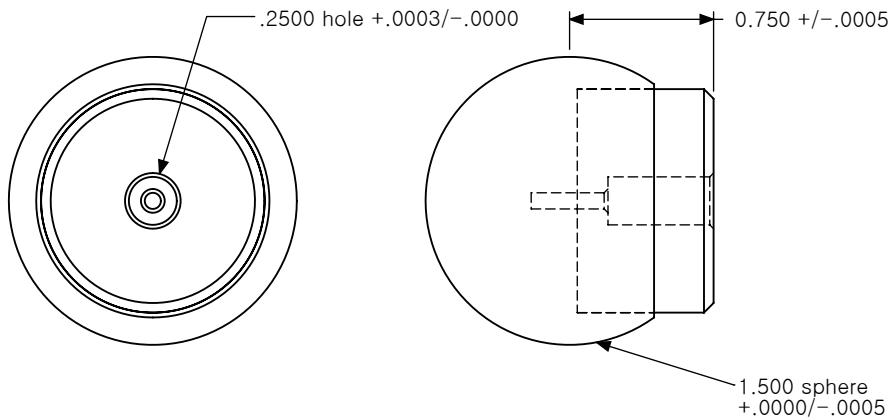
	FAMILY	MATERIAL				
1.5 HPA STANDARD BUILD	1.5 HPA	stainless steel (SS) and 1144 steel				
CUSTOMER PROVIDES INFO	1.5 HPA					

T1.5S ORDERING INFORMATION

	FAMILY	MATERIAL				
T1.5S STANDARD BUILD	T1.5S	stainless steel (SS) and 1144 steel				
CUSTOMER PROVIDES INFO	T1.5S					
REFERENCE NOTES						

1.5 HIDDEN POINT ADAPTOR

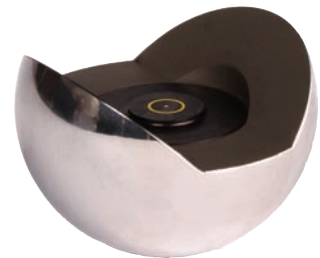
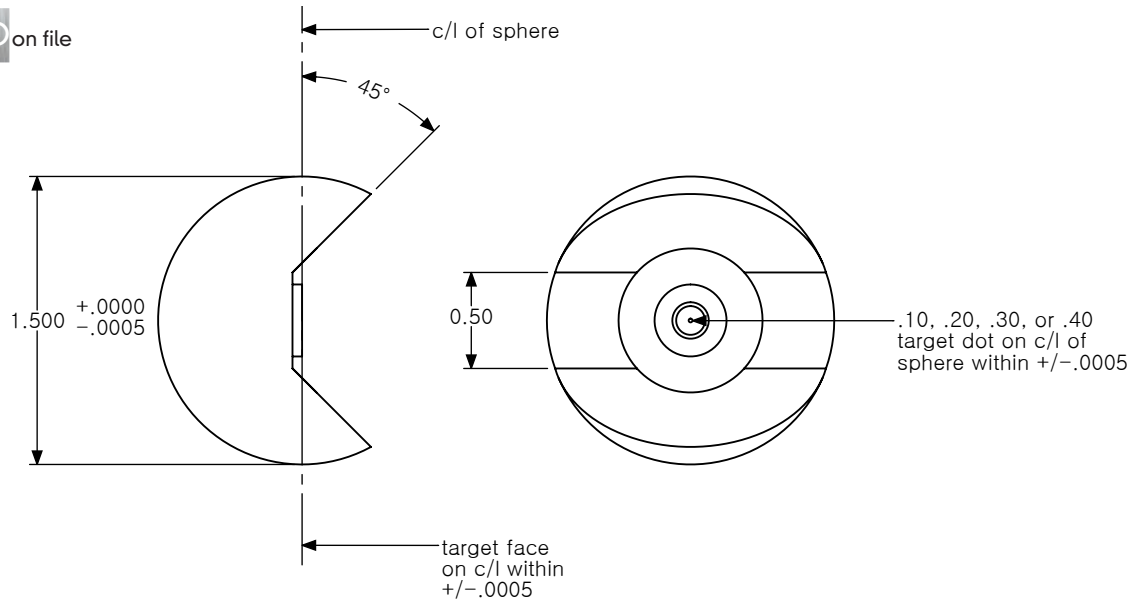
CAD on file



1.5 HPA FEATURES
STAINLESS STEEL WITH 1144 STEEL, BLACK OXIDE INSERT – Heat-treated and hardened to R/C 53 – 55 (standard)

T1.5 SPHERE

CAD on file



T1.5S FEATURES
STAINLESS STEEL WITH 1144 STEEL, BLACK OXIDE INSERT – Heat-treated and hardened to R/C 53 – 55 (standard)

R1.5S

Provides the same centerline value as a Spherically Mounted Retro-Reflector. This allows interchangeability from Laser Tracker systems to photogrammetry or videogrammetry systems.

R1.5S ORDERING INFORMATION

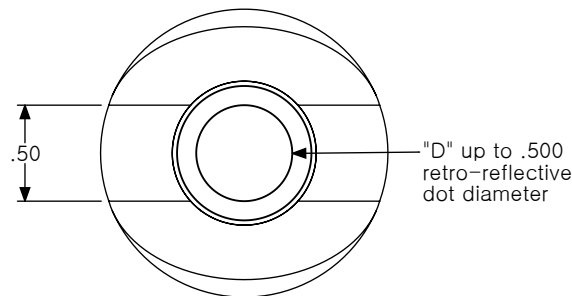
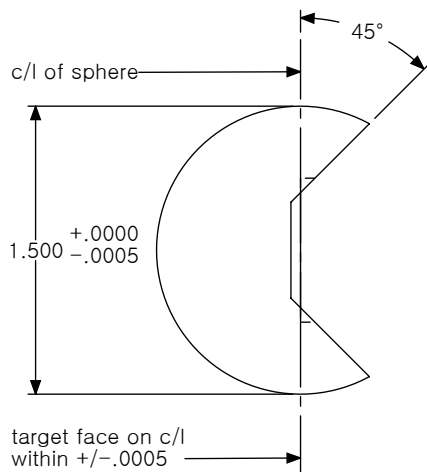
	FAMILY	"D" DOT DIAMETER	MATERIAL				
R1.5S STANDARD BUILD	R1.5S	↓	stainless steel(SS) and 1144 steel				
CUSTOMER PROVIDES INFO	R1.5S						
REFERENCE NOTES							

RETRO - REFLECTIVE 1.5 SPHERE

CAD on file



R1.5S FEATURES
 STAINLESS STEEL WITH 1144 STEEL, BLACK OXIDE INSERT – Heat-treated and hardened to R/C 53 – 55 (standard)



SMR LANYARD SET

Designed to tether a 1.5 Spherically Mounted Retro-Reflector to the user or Sphere Mount, preventing loss or damage.

SMR LANYARD SET ORDERING INFORMATION

	SMR LANYARD SET	SMR CLAMP	1.5 SM and 1.5 SM-HC CLAMP	8" CABLE	14" CABLE	ADJUSTABLE WRIST BAND	CLAMP MATERIAL (OPTIONS)
SMR LANYARD SET FULL BUILD	FULL	1	2	1	1	1	faro SMR or plx SMR
SMR LANYARD SET STANDARD BUILD	PARTIAL	1		1		1	faro SMR or plx SMR

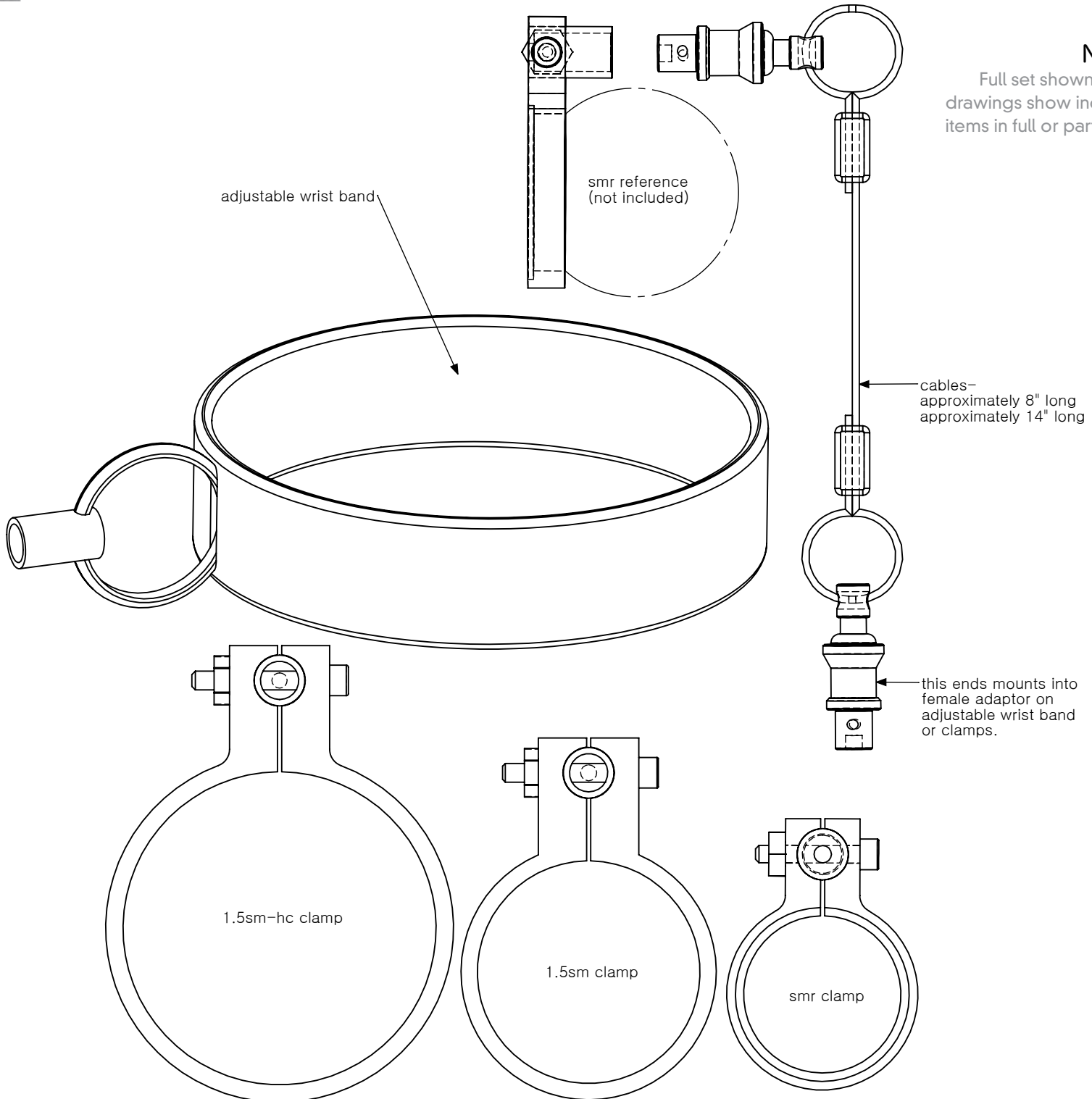
CUSTOMER PROVIDES INFO

*SPECIFY FULL OR PARTIAL SET AND IF USING FARO OR PLX

REFERENCE NOTES

SMR LANYARD SET (FULL)

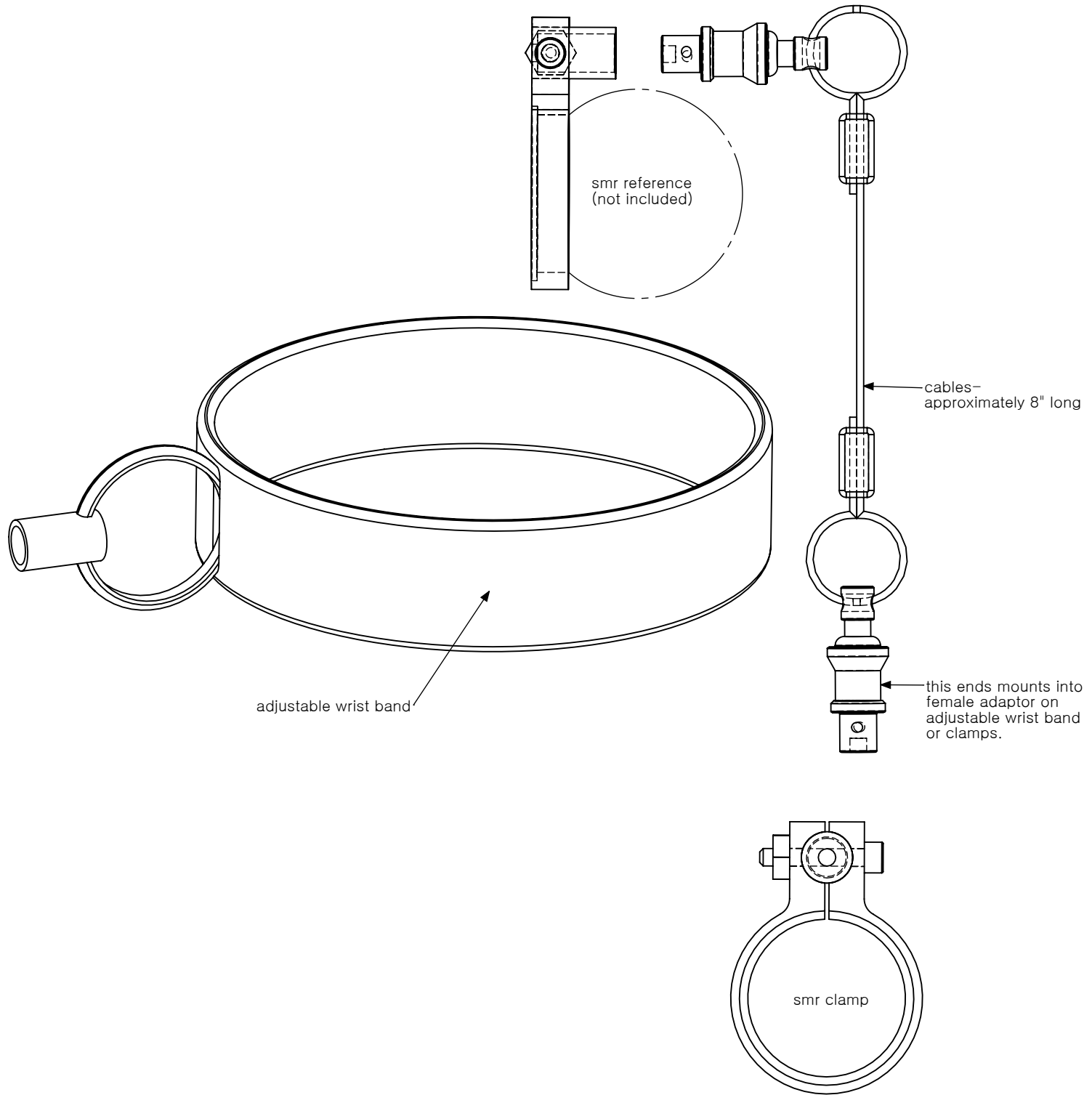
CAD on file



NOTE

Full set shown at left, drawings show included items in full or partial set.

SMR LANYARD SET (PARTIAL)



SMR LANYARD SET FEATURES

Available in Black Delrin (FARO SMR) or White Delrin (PLX SMR)

SUGGESTED

IF USING LEICA SMR, Please see Leica Lanyard Set on G49-G50.

SMR LANYARD SET ORDERING

*To order, please specify as FULL SMR LANYARD SET or PARTIAL SMR LANYARD SET and if using FARO or PLX.

LEICA LANYARD SET
 Designed to tether a 1.5 Spherically Mounted Retro-Reflector to the user or Sphere Mount, preventing loss or damage.

LEICA LANYARD SET ORDERING INFORMATION

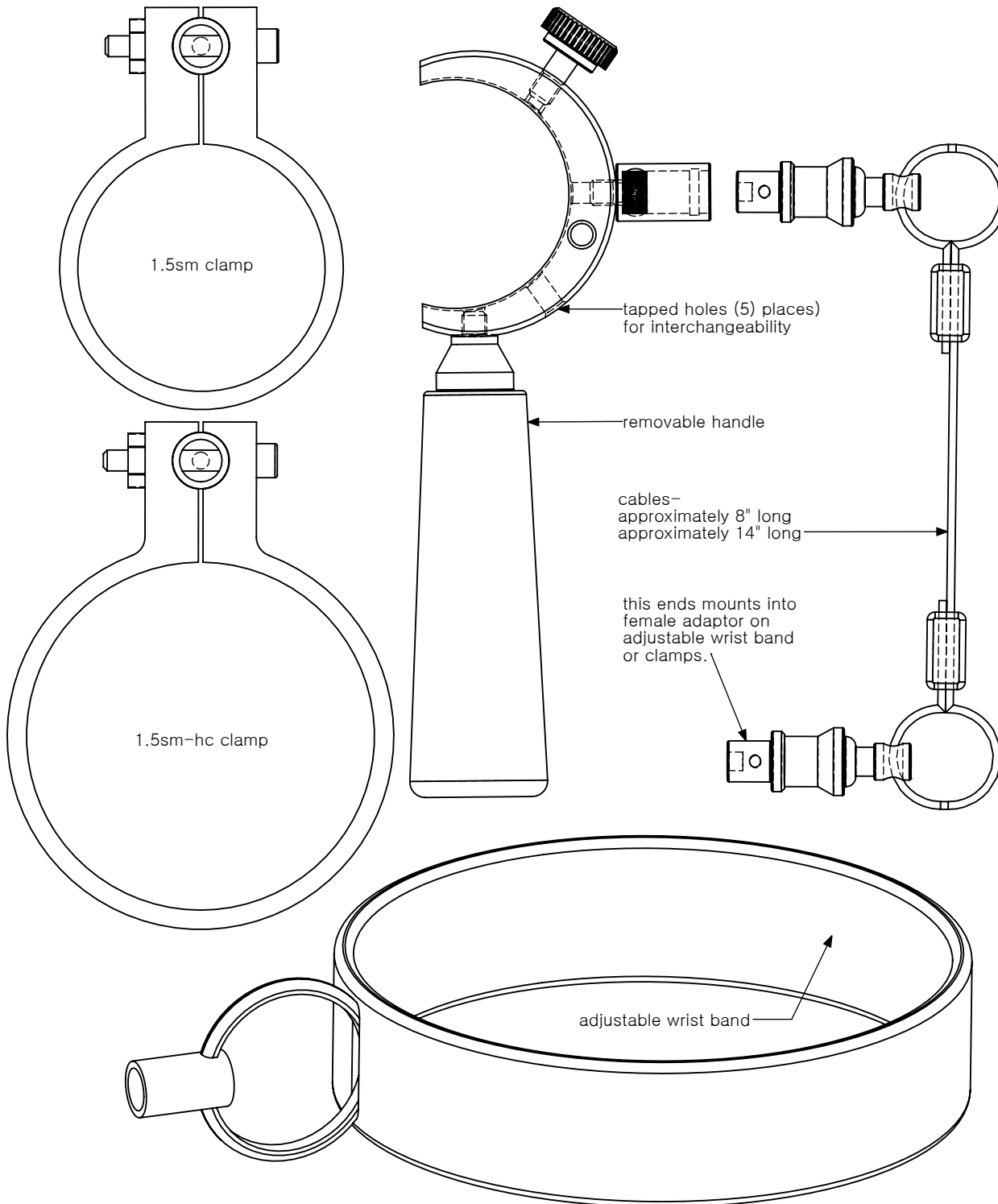
SMR LANYARD SET	"C" CLAMP	1.5 SM and 1.5 SM-HC CLAMP	8" CABLE	14" CABLE	ADJUSTABLE WRIST BAND	CLAMP MATERIAL
FULL	1	1	1	1	1	
SMR LANYARD SET STANDARD BUILD PARTIAL	1		1		1	

CUSTOMER PROVIDES INFO *SPECIFY FULL OR PARTIAL SET

REFERENCE NOTES

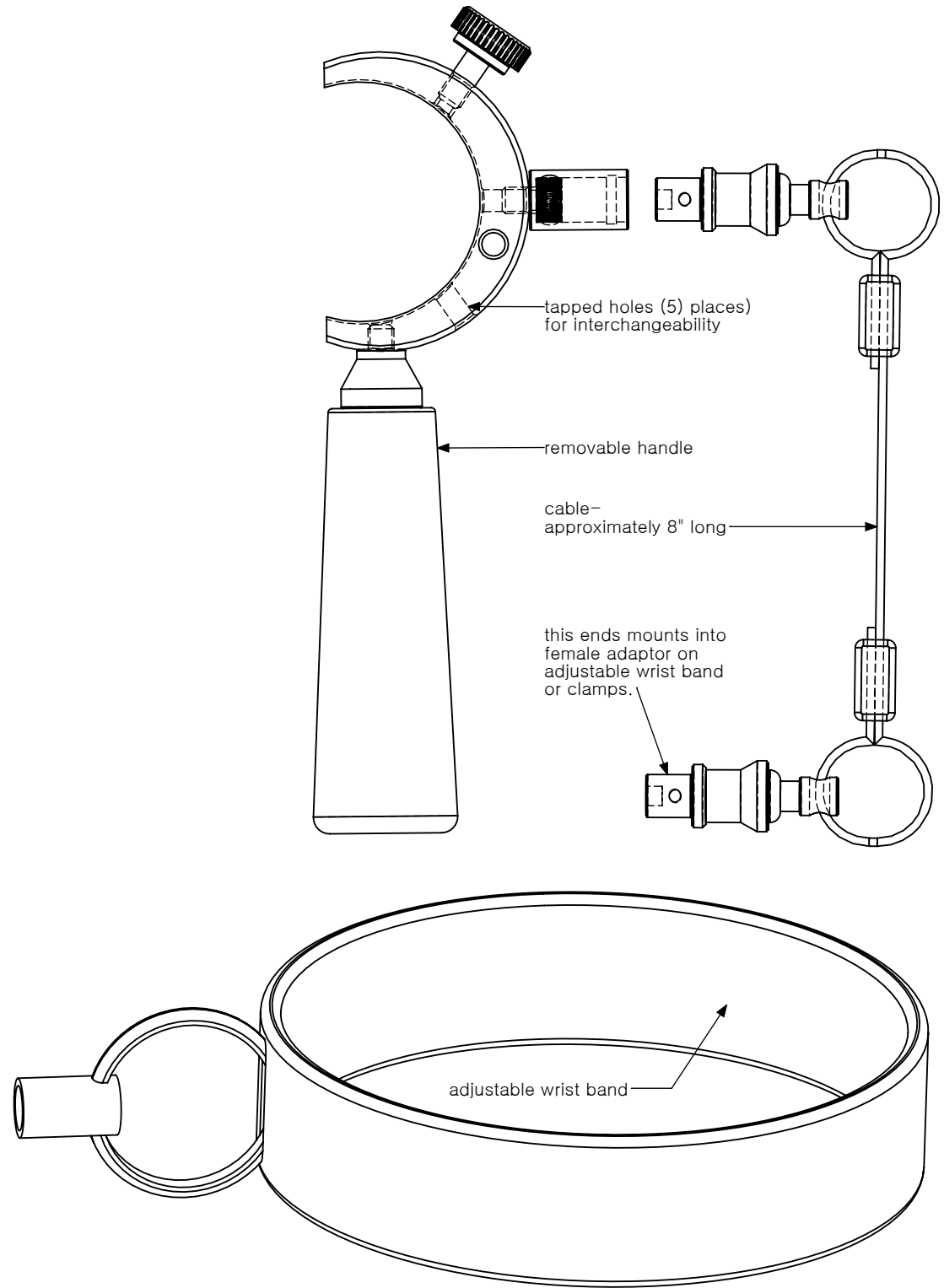
LEICA LANYARD SET (FULL)

CAD on file



NOTE
 Full set shown at left, drawings show included items in full or partial set.

LEICA LANYARD SET (PARTIAL)



LEICA LANYARD SET ORDERING

*To order, please specify as FULL LEICA LANYARD SET or PARTIAL LEICA LANYARD SET.