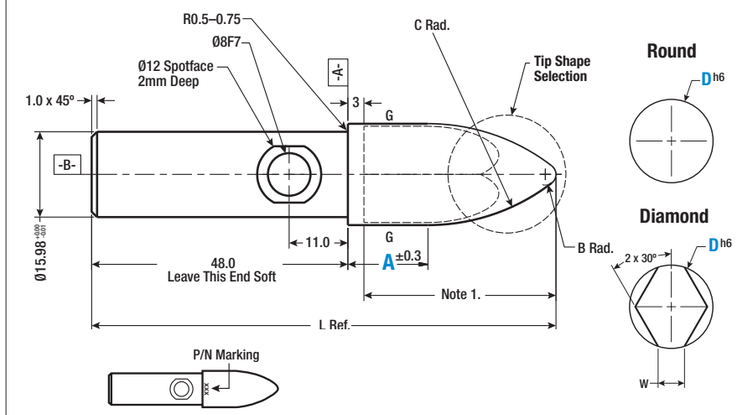
Locating Pins

ARFL Large Head

Type	Retractable	Coating	Material	Hardness
ARFL	Round	P – Plain T – TiN	8620 Alloy Steel (JIS SNCM220)	Carburized 58~2 HRC min. (Depth 0.5–0.7 after Grinding)
ARFLD	Diamond			

Tolerance				
Dim.	Tol.	Finish (Ra)	Geometric	
0.0	±0.3	6.0 µm	⊥	0.015 T.I.R to Datum A & B
0.00	±0.03	3.0 µm	//	
0.000	±0.015	1.6 µm	◎	0.03 T.I.R

3D CAD is available online.



Tip Shape Selection		
A Shape	Bullet	C Rad.
B Shape	Half Bullet	C Rad.
C Shape	Sphere	C Rad.

$$L\ ref.= 48+A+\sqrt{D\left(C-\frac{D}{4}\right)}$$

Configurable NAAMS (A & D Configurable)

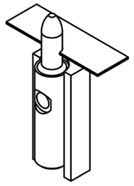
Type	Coating	Tip Shape	D (0.01 mm Inc.)	D Tol.	A Lead Length (0.1 mm Inc.)	W	B Rad	C Rad
ARFL (Round) ARFLD (Diamond)	P – Plain T – TiN	A B C	16.01–25.00	h6	5.0–100.0	6.0	2.0	Tip A C = D x 2.0 (Ø>16) Tip B C = D x 1.0 (Ø>16) Tip C C = D x 0.5
			25.01–40.00			7.0–9.0		

Note 1: Chatter may be present on flat surface.

Part Number Example

Configurable Part Number	Coating		Tip Shape		D		A
ARFL	P	-	A	-	D17.78	-	A42.0
ARFLD	T	-	C	-	D31.78	-	A42.0

Application Example



Locating Pins

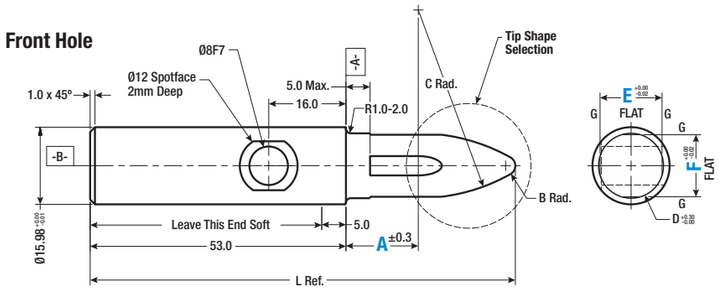
ARFERS Small Head

Type	Retractable	Coating	Material	Hardness
ARFERS	Front Hole	P – Plain T – TiN	8620 Alloy Steel (JIS SNCM220)	Carburized 58~62 HRC min. (Depth 0.5–0.7 after Grinding)
ARFESS	Side Hole			

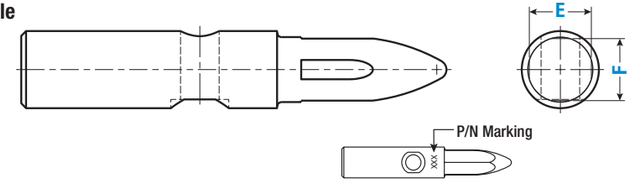
Tolerance				
Dim.	Tol.	Finish (Ra)	Geometric	
0.0	±0.3	6.0 µm	⊥	0.015 T.I.R to Datum A & B
0.00	±0.03	3.0 µm	//	
0.000	±0.015	1.6 µm	◎	0.03 T.I.R

3D CAD is available online.

Front Hole



Side Hole



Tip Shape Selection		
A Shape	Bullet	C Rad.
B Shape	Half Bullet	C Rad.
C Shape	Sphere	C Rad.

$$L\ ref.= 53+A+\sqrt{D\left(C-\frac{D}{4}\right)}$$

Configurable NAAMS (A, E & F Configurable)

Type	Coating	Tip Shape	E Flat (0.01 mm Inc.)	F Flat (0.01 mm Inc.)	D Diameter	A Lead Length (1 mm Inc.)	B Rad	C Rad
ARFERS (Front Hole) ARFESS (Side Hole)	P – Plain T – TiN	A B C	6.00–10.00	6.00–16.00	D = E/F + 1.0	10–100	2.0	Tip A C = D x 3.0 (Ø≤16) C = D x 2.0 (Ø>16) Tip B C = D x 1.5 (Ø≤16) C = D x 1.0 (Ø>16) Tip C C = D x 0.5
			10.01–16.00	10.01–16.00	D = E/F + 0.75			

Note: D Diameter is calculated on E or F Flat size (whichever is larger).

Part Number Example

Configurable Part Number	Coating		Tip Shape		E		F		A
ARFESS	P	-	C	-	E12.01	-	F11.01	-	A42
ARFERS	T	-	A	-	E8.06	-	F11.01	-	A42

Application Example