


# Locating Pins

## ARFERL Large Head



Type	Retractable	Coating	Material	Hardness
ARFERL	Front Hole	P - Plain T - TIN	8620 Alloy Steel (JIS SNCM220)	Carburized 58-62 HRC min. (Depth 0.5-0.7 after Grinding)
ARFESL	Side Hole			

Tolerance				
Dim.	Tol.	Finish (Ra)	Geometric	
0.0	±0.3	6.0 μm	$\perp$	0.015 T.I.R to Datum A & B
0.00	±0.03	3.0 μm	$\parallel$	
0.000	±0.015	1.6 μm	$\odot$	0.03 T.I.R

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

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

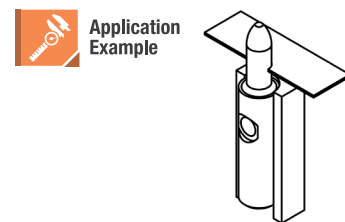
3D CAD is available online.

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
ARFERL (Front Hole)	P - Plain T - TIN	A	16.01-20.00	16.01-25.00	D = E/F + 0.45	10.0-100.0	2.0	Tip A C = D x 2.0 (Ø > 16)
ARFESL (Side Hole)		B	20.01-25.00	16.01-25.00	D = E/F + 0.35			Tip B C = D x 1.0 (Ø > 16)
		C						Tip C C = D x 0.5

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


**Part Number Example**

Part Number	Coating	Tip Shape	E	F	A
ARFESL	P	A	E21.05	F17.50	A42
ARFERL	T	A	E16.70	F20.01	A42



# L Blocks

## Standard & Configurable 3 x 3 Holes



Type	Material	Coating	Tolerance			
ALB / ALBFC	A-36 Steel	Black Oxide	Dim.	Tol.	Finish (Ra)	Geometric
ALB / SALBFC	304 Stainless Steel	-	0.0	±0.3	6.0 μm	$\perp$
			0.00	±0.03	3.0 μm	$\parallel$
			0.000	±0.015	1.6 μm	$\odot$

Tip Shape Selection	
1-Hole Selection (1)	M Tapped Hole
2-Dowel Hole Selection (1)	D Dowel Hole
2-Dowel Hole Selection (2)	DA Dowel Hole
1-Hole Selection (A)	NA Through Hole
MA Tapped Hole	

3D CAD is available online.

Standard NAAMS (25 mm Series L-T Blocks with Metric Holes)															
Type	Hole Selection (A) / Material				Hole Selection (2)		Hole Selection (1)			A	W	B	T	A1	B1
	MA10	NA11	DA Dowel Hole (2)	M Tapped Hole (1)	D Dowel Hole (1)										
ALB	050M	051M	060M	061M	DA8 H6	+0/+0.009	M10	D8 F7	+0.013 / +0.028	70	25	50	20	10	5

MA10/M10 (M10 x 1.5 Tapped Hole), NA11 (Ø11 Through Hole).

Standard NAAMS specifications are controlled by the NAAMS organization and the latest version of these products will be produced in compliance to: [www.naamsstandards.org](http://www.naamsstandards.org).

Standard NAAMS (25 mm Series L Blocks with Inch Holes)															
Type	Hole Selection (A) / Material				Hole Selection (2)		Hole Selection (1)			A	W	B	T	A1	B1
	MA3/8"	NA13/32"	DA Dowel Hole (2)	M Tapped Hole (1)	D Dowel Hole (1)										
ALB	050	051	060	061	5/16"	+0 / -0.0005	3/8"-16	5/16"	+0 / -0.0005	70	25	50	20	10	5

MA3/8" (3/8" x 16 Tapped Hole), NA13/32" (Ø13/32" Through Hole).

Standard NAAMS specifications are controlled by the NAAMS organization and the latest version of these products will be produced in compliance to: [www.naamsstandards.org](http://www.naamsstandards.org).

Standard NAAMS (20 mm Series L Blocks with Metric Holes)															
Type	Hole Selection (A) / Material				Hole Selection (2)		Hole Selection (1)			A	W	B	T	A1	B1
	MA8	NA9	DA Dowel Hole (2)	M Tapped Hole (1)	D Dowel Hole (1)										
ALB	560M	561M	562M	563M	DA8 H6	+0 / +0.009	M8	D8 F7	+0.013 / +0.028	70	20	50	20	10	5

MA8/M8 (M8 x 1.25 Tapped Hole), NA9 (Ø9 Through Hole).

Standard NAAMS specifications are controlled by the NAAMS organization and the latest version of these products will be produced in compliance to: [www.naamsstandards.org](http://www.naamsstandards.org).

Configurable NAAMS (L Blocks)											
Type	W Width	T Thickness (1 mm inc.)	A Length (1 mm inc.)	B Length (1 mm inc.)	Hole Selection (1)		Hole Selection (2)		A1	B1	
					M Hole Selection (1)	D Dowel Hole (1) Tolerance	NA/MA Hole Selection (A)	DA Dowel Hole (2) Tolerance			
ALBFC SALBFC	20 25	10-20	65-120	50-120	M8 M10	D6 F7 D8 F7	+0.010 / +0.022 +0.013 / +0.028	NA9 NA11 MA8 MA10	DA6 H6 DA8 H6	+0 / +0.008 +0 / +0.009	A-40-T B-25-T

Condition: NA- Through Hole, M/MA- Tapped Hole (Coarse Thread), D/DA- Dowel Hole, NA9 for M8 Screw, NA11 for M10 Screw, MA8/M8 (M8 x 1.25 Tapped Hole), MA10/M10 (M10 x 1.5 Tapped Hole)

**Part Number Example**

Part Number	Width	Thickness	A Length	B Length	Hole (M)	Dowel (D)	Hole (MA/NA)	Dowel (DA)		
ALB	060M	ALBFC	25	T10	A90	B65	M8	D8	NA9	DA6
ALB	061	SALBFC	20	T19	A110	B110	M10	D6	MA8	DA8
ALB	560M									