Locating Pins for Fixtures - Precision Grade, Configurable

No Shoulder

Features: Precision Grade Pins with wider selection of D/P/B/L Dimensions.

Threaded

Type: Round	Type: Diamond	Material	Hardness
FLNNA	FLNND	SCM435	Treated Hardness 35~40HRC
FTLNNA	FTLNND	SCM415	Carburized Hardness 55HRC~
FSLNNA	FSLNND	SUS304	-
FCLNNA	FCLNND	SUS440C or 13Cr stainless	Treated Hardness 50~55HRC

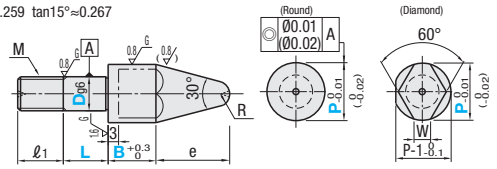
* Carburized: depth 0.7 ~ 0.8 / Anti-carburizing on Threads

Type		Material	Hardness	Surface Treatment
R-FNNA	Round	SCM435	35~40HRC (Surface 750HV ~)	Hard Chrome Plating
R-FNND	Diamond			
D-FNNA	Round	SKD11 Equivalent	55HRC ~ (Surface 3000HV)	Dicoat® Treated
D-FNND	Diamond			

Dicoat® Treated items will have the ( ) precision.

e=P/2/tan15°+R-(R/sin15°)
Dicoat® Treated / TiCN Treated items do not come with a center hole.

Reference: sin15≈0.259 tan15°≈0.267



D	g6
3	-0.002 -0.008
4~6	-0.004 -0.012
8, 10	-0.005 -0.014
12, 16	-0.006 -0.017
20	-0.007 -0.020

Part Number / Type	D	P 0.1mm Increment	B 0.1mm Increment	L 1mm Increment	ℓ1	R	M (Coarse)	W	Unit Price FLNNA	FLNND	FTLNNA	FTLNND	FSLNNA	FSLNND	FCLNNA	FCLNND	R-FNNA	R-FNND	D-FNNA	D-FNND
Hardened (Round) FLNNA / (Diamond) FLNND	3	4.0~6.0	2.0~16.0	5~10	5	2	M 3	1.5											-	-
Carburized (Round) FTLNNA / (Diamond) FTLNND	4	5.0~8.0	2.0~20.0	5~10	6	2	M 4	2											-	-
SUS304 (Round) FSLNNA / (Diamond) FSLNND	5	6.0~10.0	2.0~24.0	5~10	6	3	M 5	2											-	-
SUS440C or 13Cr stainless (Round) FCLNNA / (Diamond) FCLNND	6	8.0~12.0	2.0~24.0	5~10	6	3	M 6	3												
Hard Chrome (Round) R-FNNA / (Diamond) R-FNND	8	10.0~16.0	2.0~26.0	5~10	10	4	M 8	3.5												
Dicoat (Round) D-FNNA / (Diamond) D-FNND	10	12.0~20.0	3.0~35.0	8~15	12	4	M10	4												
	12	14.0~25.0	3.0~35.0	10~18	15	6	M12	6												
	16	18.0~32.0	5.0~35.0	12~20	18	8	M16	8									-	-	-	-
	20	22.0~35.0	5.0~35.0	15~20	22	8	M20	9									-	-	-	-

B≤Px4 For Diamond Shape, B dimension 5.0 or more are applicable.

Set Screw

Type: Round	Type: Diamond	Material	Hardness
FLNTA	FLNTD	SCM435	Treated Hardness 35~40HRC
FTLNTA	FTLNTD	SCM415	Carburized Hardness 55HRC~
FSLNTA	FSLNTD	SUS304	-
FCLNTA	FCLNTD	SUS440C or 13Cr stainless	Treated Hardness 50~55HRC

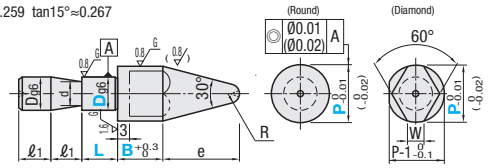
* Carburized: depth 0.7 ~ 0.8 / Anti-carburizing on Threads

Type		Material	Hardness	Surface Treatment
R-FNTA	Round	SCM435	35~40HRC (Surface 750HV ~)	Hard Chrome Plating
R-FNTD	Diamond			
D-FNTA	Round	SKD11 Equivalent	55HRC ~ (Surface 3000HV)	Dicoat® Treated
D-FNTD	Diamond			

Dicoat® Treated items will have the ( ) precision.

e=P/2/tan15°+R-(R/sin15°)
Dicoat® Treated / TiCN Treated items do not come with a center hole.

Reference: sin15≈0.259 tan15°≈0.267



D	g6
6	-0.004 -0.012
8, 10	-0.005 -0.014
12, 16	-0.006 -0.017
20	-0.007 -0.020

Part Number / Type	D	P 0.1mm Increment	B 0.1mm Increment	L 1mm Increment	ℓ1	d	R	Applicable Set Screw	W	Unit Price FLNTA	FLNTD	FTLNTA	FTLNTD	FSLNTA	FSLNTD	FCLNTA	FCLNTD	R-FNTA	R-FNTD	D-FNTA	D-FNTD
Hardened (Round) FLNTA / (Diamond) FLNTD	6	8.0~12.0	2.0~30.0	5~10	8	4	3	M5	3												
Carburized (Round) FTLNTA / (Diamond) FTLNTD	8	10.0~16.0	2.0~35.0	5~10	8	5	4	M5	3.5												
SUS304 (Round) FSLNTA / (Diamond) FSLNTD	10	12.0~20.0	3.0~35.0	8~15	8	7	4	M6	4												
SUS440C or 13Cr stainless (Round) FCLNTA / (Diamond) FCLNTD	12	14.0~25.0	3.0~35.0	10~18	10	9	6	M6	6												
Hard Chrome (Round) R-FNTA / (Diamond) R-FNTD	16	18.0~32.0	5.0~35.0	10~20	10	13	8	M8	8									-	-	-	-
Dicoat (Round) D-FNTA / (Diamond) D-FNTD	20	22.0~35.0	5.0~35.0	10~20	10	17	8	M8	9									-	-	-	-

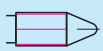
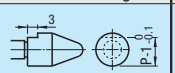
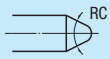
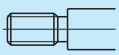
B≤Px4 For Diamond Shape, B dimension 5.0 or more are applicable.

Ordering Example

Part Number	-	P	-	B	-	L
FTLNNA12	-	P14.2	-	B15.1	-	L10
FLNTA10	-	P12.1	-	B10.5	-	L8

Alterations

Part Number	-	P	-	B	-	L	-	(KC, KD, RC, NNC)
FTLNNA12	-	P14.2	-	B15.1	-	L10	-	RC60
FLNTA10	-	P12.1	-	B10.5	-	L8	-	RC120

	Wear Groove Alterations	Flat Position	Flat Machining	Tip Angle Change	Relief
Alterations					
Code	MK	KC	KD	RC	NNC
Spec.	Drill 4 grooves on the B dimension area. The wear and tear of the grooves indicate the degree of wears. Applicable to Hardening, Carburized and Round Shape Products only Applicable when B ≥ 4 Groove Depth: 0.2mm (±0.05mm) Groove Shape: V Groove (90°)	Ordering Code KC Changes the flat position to 90° from the standard position 0°. Applicable to Diamond Shape Type only.	Ordering Code KD Machining on one side. Applicable to Round Shape Type only.	Ordering Code RC60 Changes the tip angle. Selection 60°・90°・120°	Ordering Code NNC Adds a relief at the thread end. Not applicable to Set Screw Type. For damage prevention, Dicoat® treatment is not applicable.