

Locating Pins for Fixtures - Precision Grade, Configurable

Shouldered

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

Threaded

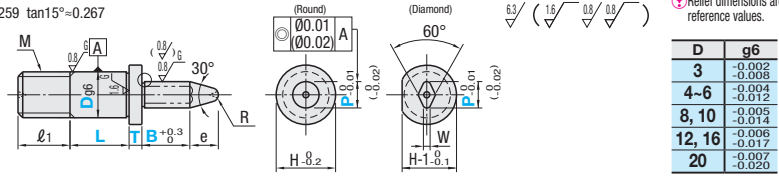


● $e=P/2 \tan 15^\circ + R - (R/\sin 15^\circ)$
● Dicoat® Treated / TiCN Treated items do not come with a center hole.

Type	Material	Hardness
Round	Diamond	
FLANA	FLAND	SCM435
FTLANA	FTLAND	SCM415
FSLANA	FSLAND	SUS304
FCLANA	FCLAND	SUS440C Equivalent
		Treated Hardness
		35~40HRC
		Carburized Hardness
		55HRC~
		50~55HRC

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

Reference: $\sin 15^\circ = 0.259$ $\tan 15^\circ = 0.267$



Type	Material	Hardness	Surface Treatment
Round	Diamond		
R-FANA	R-FAND	SCM435	35~40HRC (Surface 750HV ~)
R-FLANA	R-FLAND	SCM415	55HRC ~ (Surface 3000HV)
R-FSLANA	R-FSLAND	SKD11	Dicoat® Treated
R-FCLANA	R-FCLAND	SKD11	Dicoat® Treated

● Dicoat® Treated items will have the () precision.

● Relief dimensions are reference values.

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	B	L	T	Δ1	H	R	M	W	Unit Price
		0.1mm Increment	0.1mm Increment	0.1mm Increment	1mm Increment	0.1mm Increment				(Case)		
		3	3.0-4.0	2.0-16.0	5-10		5	6	1	M3	1-2	
		4	3.0-5.0	2.0-20.0	5-10		6	7	1	M4	1-2	
		5	3.0-6.0	2.0-24.0	5-10		6	8	1	M5	1-2	
		6	3.0-7.0	2.0-28.0	5-10		6	9	1	M6	1-2	
		8	3.0-9.0	2.0-35.0	5-10		10	11	1.5	M8	1-2	
		10	5.0-12.0	3.0-35.0	8-15		12	13	2	M10	2-3	
		12	7.0-13.0	3.0-35.0	10-18		15	15	3	M12	4	
		16	13.0-16.0	5.0-35.0	12-20		18	19	4	M16	5	
		20	16.0-20.0	5.0-35.0	15-20		22	23	4	M20	5	

● B: Px4 ● (W) Dimension D: Δ8: W=2 when P>5.0 D10: W=3 when P>7.0

Set Screw

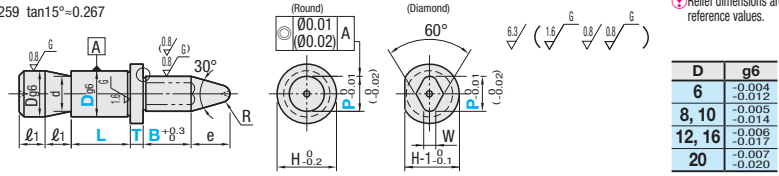


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● Dicoat® Treated / TiCN Treated items do not come with a center hole.

Type	Material	Hardness
Round	Diamond	
FLATA	FLATD	SCM435
FTLATA	FTLATD	SCM415
FSLATA	FSLATD	SUS304
FCLATA	FCLATD	SUS440C Equivalent
		Treated Hardness
		35~40HRC
		Carburized Hardness
		55HRC~
		50~55HRC

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

Reference: $\sin 15^\circ = 0.259$ $\tan 15^\circ = 0.267$



Type	Material	Hardness	Surface Treatment
Round	Diamond		
R-FATA	R-FATD	SCM435	35~40HRC (Surface 750HV ~)
R-FLATA	R-FLATD	SCM415	55HRC ~ (Surface 3000HV)
R-FSLATA	R-FSLATD	SKD11	Dicoat® Treated
R-FCLATA	R-FCLATD	SKD11	Dicoat® Treated

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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	B	L	T	Δ1	H	d	R	Applicable Set Screw	W	Unit Price
		0.1mm Increment	0.1mm Increment	0.1mm Increment	1mm Increment	0.1mm Increment							
		6	3.0-7.0	2.0-28.0	5-10		8	9	4	1	M5	1-2	
		8	3.0-9.0	2.0-35.0	5-10		8	11	5	1.5	M5	1-2	
		10	5.0-12.0	3.0-35.0	8-15		8	13	7	2	M6	2-3	
		12	7.0-13.0	3.0-35.0	10-18		10	15	9	3	M6	4	
		16	13.0-16.0	5.0-35.0	10-20		10	19	13	4	M8	5	
		20	16.0-20.0	5.0-35.0	10-20		10	23	17	4	M8	5	

● B: Px4 ● (W) Dimension D6, Δ8: W=2 when P>5.0 D10: W=3 when P>7.0

Part Number	P	B	L	T
FLANA6	P6.8	B10.5	L5	T3.1
FSLATA12	P9.6	B21.5	L10	T5.3

Part Number	P	B	L	T	(KC, KD, SC~etc.)
FLANA6	P6.8	B10.5	L5	T3.1	SC8
FSLATA12	P9.6	B21.5	L10	T5.3	SC14

Alterations	Wear Groove Alterations	Flat Position	Flat Machining	Wrench Flats	Tip Angle Change	Relief	Upper Relief Radius Change
Code	MK	KC	KD	SC	RC	NNC	RTC
Spec.	Drill 4 grooves on the B dimension area. The wear and tear of the grooves indicate the degree of wear. ● Applicable to Hardening, Carburized and Round Shape Products only ● Applicable when B ≥ 4 ● When used together with RTC, the groove starts from the area of R value + 1 mm. 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. ● H-P: 2	Ordering Code SC10 Adds wrench flats. SC=1mm Increment SC>D SC>P SC≤H-P ● Applicable to Round Shape Type only.	Ordering Code RC60 Changes the tip angle. Selection 60°, 90°, 120° ● RTC: (H-P)/2 ● Applicable when B≥5	Ordering Code NNC Adds a relief at the thread end. ● Not applicable to Set Screw Type. ● For damage prevention, Dicoat® treatment is not applicable.	Ordering Code RTC Changes the relief to the following radius R. Selection R1 R2 R3 ● RTC: (H-P)/2 ● Applicable when B≥5

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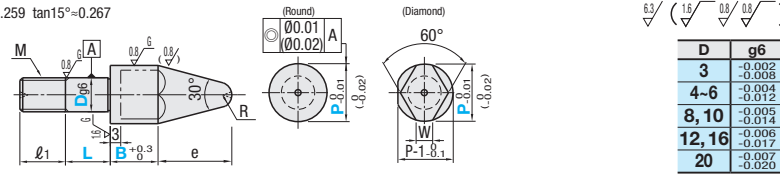


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Type	Material	Hardness
Round	Diamond	
FLNNA	FLNND	SCM435
FTLNNA	FTLNND	SCM415
FSLNNA	FSLNND	SUS304
FCLNNA	FCLNND	SUS440C Equivalent
		Treated Hardness
		35~40HRC
		Carburized Hardness
		55HRC~
		50~55HRC

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Type	Material	Hardness	Surface Treatment
Round	Diamond		
R-FNNA	R-FNND	SCM435	35~40HRC (Surface 750HV ~)
R-FTNNA	R-FTNND	SCM415	55HRC ~ (Surface 3000HV)
R-FSLNNA	R-FSLNND	SKD11	Dicoat® Treated
R-FCLNNA	R-FCLNND	SKD11	Dicoat® Treated

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		4	5.0-8.0	2.0-20.0	5-10		6	2	2	M4	2	
		5	6.0-10.0	2.0-24.0	5-10		6	3	3	M5	2	
		6	8.0-12.0	2.0-24.0	5-10		6	3	3	M6	3	
		8	10.0-16.0	2.0-26.0	5-10		10	4	4	M8	3.5	
		10	12.0-20.0	3.0-35.0	8-15		12	4	4	M10	4	
		12	14.0-25.0	3.0-35.0	10-18		15	6	6	M12	6	
		16	18.0-32.0	5.0-35.0	12-20		18	8	8	M16	8	
		20	22.0-35.0	5.0-35.0	15-20		22	8	8	M20	9	

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

Set Screw

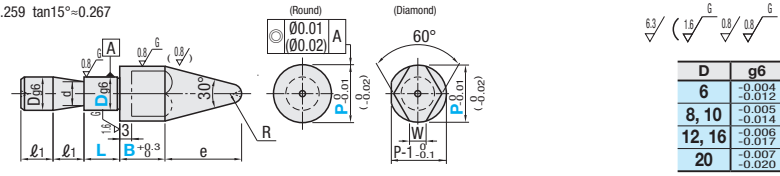


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FTLNTA	FTLNTD	SCM415
FSLNTA	FSLNTD	SUS304
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Round	Diamond		
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R-FTNTA	R-FTNTD	SCM415	55HRC ~ (Surface 3000HV)
R-FSLNTA	R-FSLNTD	SKD11	Dicoat® Treated
R-FCLNTA	R-FCLNTD	SKD11	Dicoat® Treated

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Part Number	Type	D	P	B	L	T	Δ1	H	d	R	Applicable Set Screw	W	Unit Price
		0.1mm Increment	0.1mm Increment	0.1mm Increment	1mm Increment	0.1mm Increment							
		6	8.0-12.0	2.0-30.0	5-10		8	4	3	3	M5	3	
		8	10.0-16.0	2.0-35.0	5-10		8	5	4	3.5	M5	3.5	
		10	12.0-20.0	3.0-35.0	8-15		8	7	4	4	M6	4	
		12	14.0-25.0	3.0-35.0	10-18		10	9	6	6	M6	6	
		16	18.0-32.0	5.0-35.0	10-20		10	13	8	8	M8	8	
		20	22.0-35.0	5.0-35.0	10-20		10	17	8	8	M8	9	

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

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

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

Alterations	Wear Groove Alterations	Flat Position	Flat Machining	Tip Angle Change	Relief
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 wear. ● 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° ● Not applicable to Set Screw Type. ● For damage prevention, Dicoat® treatment is not applicable.	Ordering Code NNC Adds a relief at the thread end. ● Not applicable to Set Screw Type. ● For damage prevention, Dicoat® treatment is not applicable.