Locating Pins for Fixtures

Precision Grade, Shouldered

Features: For Precision Grade, P Dim. Tolerance is $^{0}_{-0.01}$ or $^{0}_{-0.02}$ (for Standard Grade, $^{0}_{-0.05}$), concentricity is 0.01 or 0.02 (for Standard Grade, 0.03 or 0.05).

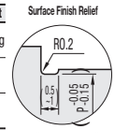
Threaded RoHS

Type		M Material	H Hardness
LANAN	Round	4137 Alloy Steel	Hardened 35~40HRC
LANDN	Diamond		
TLANAN	Round	SCM415 Alloy Steel (JIS)	Carburized 55HRC~ (depth 0.7 ~ 0.8) / Anti-carburizing on Threads
TLANDN	Diamond		

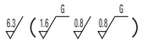
Reference: sin15°≈0.259 tan15°≈0.267

Type		M Material	H Hardness	S Surface Treatment
R-ANAN	Round	4137 Alloy Steel	35~40HRC (Surface 750HV ~)	Hard Chrome Plating
R-ANDN	Diamond			
D-ANAN	Round	D2 Tool Steel Equivalent	55HRC ~ (Surface 3000HV)	Dicoat® Treated
D-ANDN	Diamond			
H-ANAN	Round	D2 tool Steel Equivalent	55HRC ~ (Surface 3000HV)	TiCN Treatment
H-ANDN	Diamond			

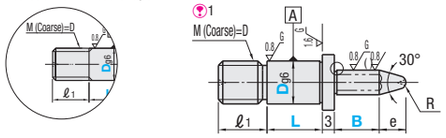
Surface Finish Relief



Ⓟ Dicoat® Treated / TiCN items will have the ( ) precision and Thread Shape will be Ⓟ1.



Ⓟ1 Dicoat® Treated / TiCN Thread Shape



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

Part Number Type	D	D g6	P 0.1mm Increment	B 1mm Increment	L Selection	ℓ1	H	R	W	Unit Price LANAN	LANDN	TLANAN	TLANDN	R-ANAN	R-ANDN	D-ANAN	D-ANDN	H-ANAN	H-ANDN
Hardened (Round) LANAN	6	-0.004 -0.012	3.0~7.0	Ⓟ2~30 (B≤P×4)	5 8 10	6	9	1	1~2										
Carburized (Round) TLANAN	8	-0.005 -0.014	3.0~9.0		5 8 10 12 15	10	11	1.5	1~2										
Hard Chrome (Round) R-ANAN	10		4.5~12.0		(5) (8) 10 12 15	12	13	2	1~3										
Dicoat (Round) D-ANAN	10T		4.5~12.0		(5) (8) 10 12 15	18	13	2	1~3										
TiCN (Round) H-ANAN	12	-0.006 -0.017	9.0~13.0		(8) 10 12 15 18	15	15	3	4										
(Diamond) LANDN	16		13.0~16.0		(10) 12 15 18 20	18	19	4	5										
(Diamond) TLANDN																			
(Diamond) R-ANDN																			
(Diamond) D-ANDN																			
(Diamond) H-ANDN																			

Ⓟ W Dimension D6, D8: W=2 when P>5.0 D10, 10T: W=1 when P<5.0, W=2 when 5.0≤P≤7.0, W=3 when P>7.0 ⊗L dimension in ( ) is not applicable to Diamond Shape, Dicoat® and TiCN treatment.
Ⓟ B Dimension 5 mm ~ will be selected for Dicoat® Treated / TiCN Treated items.

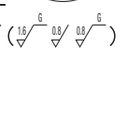
Set Screw RoHS

Type		M Material	H Hardness
LATAN	Round	4137 Alloy Steel	Hardened 35~40HRC
LATDN	Diamond		
TLATAN	Round	SCM415 Alloy Steel (JIS)	Carburized Treated Hardness: 55HRC~ (Depth: 0.7 ~ 0.8) Anti-carburizing on Threads
TLATDN	Diamond		

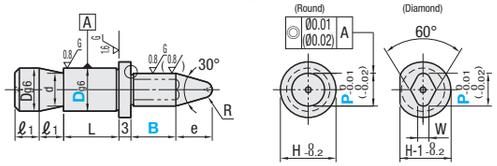
Reference: sin15°≈0.259 tan15°≈0.267

Type		M Material	H Hardness	S Surface Treatment
D-ATAN	Round	D2 Tool Steel Equivalent	55HRC ~ (Surface 3000HV)	Dicoat® Treated
D-ATDN	Diamond			
R-ATAN	Round	4137 Alloy Steel	35~40HRC (Surface 750HV ~)	Hard Chrome Plating
R-ATDN	Diamond			
H-ATAN	Round	D2 Tool Steel Equivalent	55HRC ~ (Surface 3000HV)	TiCN Treatment
H-ATDN	Diamond			

Surface Finish Relief



Ⓟ Dicoat® Treated/TiCN items will have the () precision and Thread Shape will be Ⓟ1.



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

Part Number Type	D	D g6	P 0.1mm Increment	B 1mm Increment	L	ℓ1	H	d	R	Applicable Set Screw	W	Unit Price LATAN	LATDN	TLATAN	TLATDN	R-ATAN	R-ATDN	D-ATAN	D-ATDN	H-ATAN	H-ATDN
Hardened (Round) LATAN	6	-0.004 -0.012	3.0~7.0	Ⓟ2~30 (B≤P×4)	8	8	9	4	1	M5	1~2										
Carburized (Round) TLATAN	8	-0.005 -0.014	3.0~9.0		8	8	11	5	1.5	M5	1~2										
Hard Chrome (Round) R-ATAN	10		4.5~12.0		10	8	13	7	2	M6	1~3										
Dicoat (Round) D-ATAN	10T		4.5~12.0		5	8	13	7	2	M6	1~3										
TiCN (Round) H-ATAN	12	-0.006 -0.017	9.0~13.0		12	10	15	9	3	M8	4										
(Diamond) LATDN	16		13.0~16.0		12	10	19	13	4	M8	5										
(Diamond) TLATDN																					
(Diamond) R-ATDN																					
(Diamond) D-ATDN																					
(Diamond) H-ATDN																					

Ⓟ W Dimension D6, D8: W=2 when P>5.0 D10, 10T: W=1 when P<5.0, W=2 when 5.0≤P≤7.0, W=3 when P>7.0
Ⓟ B Dimension 5 mm ~ will be selected for Dicoat® Treated / TiCN Treated items.

Ordering Example

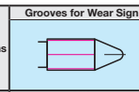
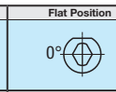
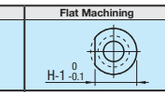
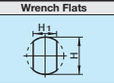
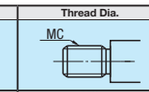
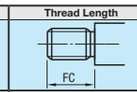
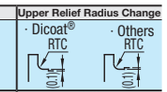
Part Number	Type	D		P		B		L
	LANAN	8	-	P5.0	-	B15	-	L10
	LATAN	6	-	P6.8	-	B14		

Price Configure Online

Days to Ship Configure Online

Alterations

Part Number Type	D		P		B		L		(KC, KD, SC, MC)
LANAN	10	-	P4.5	-	B10	-	L5	-	KD

Alterations	Grooves for Wear Sign	Flat Position	Flat Machining	Wrench Flats	Thread Dia.	Thread Length	Upper Relief Radius Change
							
Code	MK	KC	KD	SC	MC	FC	RTC
	Machine 4 grooves on B Dimension. The wear and tear of the grooves indicate the degree of wears. Ⓟ Applicable to Hardened, Carburized and Round Shape Products only. Ⓟ 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. Ⓟ H-P≥2 Ⓟ Applicable to Round Shape Type only.	Ordering Code SC Adds wrench flats. H 9 11 13 15 19 H1 7 8 11 13 17 Ⓟ Applicable to Round Shape Type only.	Ordering Code MC8 Changes the thread diameter. Ⓟ D/3≤M<D Mmin3 Ⓟ Applicable to Threaded only.	Ordering Code FC15 Changes the thread length. FC=1mm Increment D6~10 :M≤FC≤Mx3 D12, 16:M≤FC≤Mx2.5 D20 :M≤FC≤Mx2 Ⓟ Applicable to Threaded only. ⊗ Not applicable to Dicoat® and TiCN treatment.	Ordering Code RTC1 Changes the relief to the following radius R. Selection R1 R2 R3 Ⓟ RTC≤(H-P)/2 Ⓟ Applicable when B≥5

Locating Pins for Fixtures

Tip Shape Selectable, Precision Grade, Shouldered

Features: For Precision Grade, P Dim. Tolerance is $^{0}_{-0.01}$ or $^{0}_{-0.02}$ (for Standard Grade, $^{0}_{-0.05}$), concentricity is 0.01 or 0.02 (for Standard Grade, 0.03 or 0.05). Tip shape is selectable.

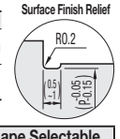
Threaded RoHS

Type		M Material	H Hardness
SLANA□	Round	4137 Alloy Steel	Hardened 35~40HRC
SLAND□	Diamond		
TSLANA□	Round	SCM415 Alloy Steel (JIS)	Carburized 55HRC~ (depth 0.7 ~ 0.8) / Anti-carburizing on Threads
TSLAND□	Diamond		

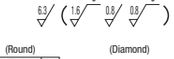
Reference: sin15°≈0.259 sin30°=0.5 sin45°≈0.707 sin60°≈0.866
tan15°≈0.267 tan30°=0.577 tan45°=1 tan60°≈1.732

Type		M Material	H Hardness	S Surface Treatment
R-SANA□	Round	4137 Alloy Steel	35~40HRC (Surface 750HV ~)	Hard Chrome Plating
R-SAND□	Diamond			
D-SANA□	Round	D2 Tool Steel Equivalent	55HRC ~ (Surface 3000HV)	Dicoat® Treated
D-SAND□	Diamond			

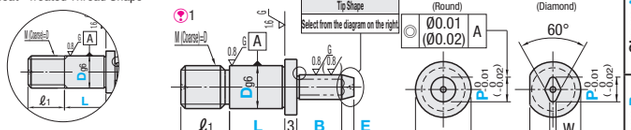
Surface Finish Relief



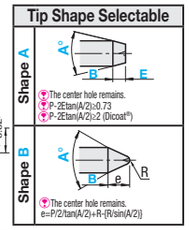
Ⓟ Dicoat® Treated items will have the ( ) precision and Thread Shape will be Ⓟ1.



Ⓟ1 Dicoat® Treated Thread Shape



Tip Shape Selectable



Ⓟ Only the Shape B Dicoat® Treated items do not come with a center hole.

Part Number Type	Tip Shape	D	D h7	P Configurable 0.1mm Increment	B Configurable 1mm Increment	A Selection	E (Shape A) 1mm Increment	L	ℓ1	H	R	W	Unit Price SLANA□	SLAND□	TSLANA□	TSLAND□	R-SANA□	R-SAND□	D-SANA□	D-SAND□
Hardened (Round) SLANA	A (Tapered)	6	-0.004 -0.012	3.0~7.0	Ⓟ2~30 (B≤Px4)	*30	1~10	5 8 10	6	9	1	1~2								
Carburized (Round) TSLANA		8	-0.005 -0.014	3.0~9.0		60		5 8 10 12 15	10	11	1.5	1~2								
Hard Chrome (Round) R-SANA		10		4.5~12.0		90		(5) (8) 10 12 15	12	13	2	1~3								
Dicoat (Round) D-SANA		10T		4.5~12.0				(5) (8) 10 12 15	18	13	2	1~3								
(Diamond) SLAND	B (Taper R)	12	-0.006 -0.017	9.0~13.0		120		(8) 10 12 15 18	15	15	3	4								
(Diamond) TSLAND		16		13.0~16.0				(10) 12 15 18 20	18	19	4	5								
(Diamond) R-SAND																				
(Diamond) D-SAND																				

Ⓟ W Dimension D6, D8: W=2 when P>5.0 D10, 10T: W=1 when P<5.0, W=2 when 5.0≤P≤7.0, W=3 when P>7.0 ⊗L dimension in ( ) is not applicable to Diamond Shape and Dicoat® treatment.
⊗ Angle A*30 is not applicable to Tip Shape B. Select from Precision Grade, Shouldered (**P.1693**).

Set Screw RoHS

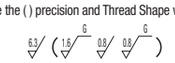
Type		M Material	H Hardness
SLATA□	Round	4137 Alloy Steel	Hardened 35~40HRC
SLATD□	Diamond		
TSLATA□	Round	SCM415 Alloy Steel (JIS)	Carburized 55HRC~ (depth 0.7 ~ 0.8) / Anti-carburizing on Threads
TSLATD□	Diamond		

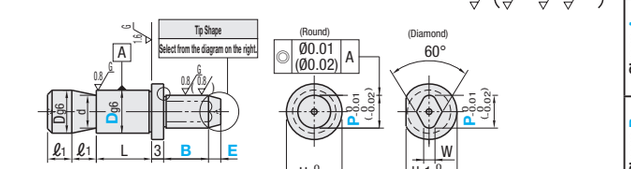
Reference: sin15°≈0.259 sin30°=0.5 sin45°≈0.707 sin60°≈0.866
tan15°≈0.267 tan30°=0.577 tan45°=1 tan60°≈1.732

Type		M Material	H Hardness	S Surface Treatment
R-SATA□	Round	4137 Alloy Steel	35~40HRC (Surface 750HV ~)	Hard Chrome Plating
R-SATD□	Diamond			
D-SATA□	Round	D2 Tool Steel Equivalent	55HRC ~ (Surface 3000HV)	DicoatR Treated
D-SATD□	Diamond			

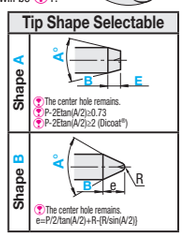
Surface Finish Relief

Ⓟ Dicoat® Treated items will have the ( ) precision and Thread Shape will be Ⓟ1.





Tip Shape Selectable



Ⓟ Only the Shape B DicoatR Treated items do not come with a center hole.

Part Number Type	Tip Shape	D	D h7	P Configurable 0.1mm Increment	B Configurable 1mm Increment	A Selection	E (Shape A) 1mm Increment	L	ℓ1	H	d	R	Applicable Set Screw	W	Unit Price SLATA□	SLATD□	TSLATA□	TSLATD□	R-SATA□	R-SATD□	D-SATA□	D-SATD□
Hardened (Round) SLATA	A (Tapered)	6	-0.004 -0.012	3.0~7.0	Ⓟ2~30 (B≤Px4)	*30	1~10	8	8	9	4	1	M5	1~2								
Carburized (Round) TSLATA		8	-0.005 -0.014	3.0~9.0		60		8	8	11	5	1.5	M5	1~2								
Hard Chrome (Round) R-SATA		10		4.5~12.0		90		10	8	13	7	2	M6	1~3								
Dicoat (Round) D-SATA		10T		4.5~12.0				5	8	13	7	2	M6	1~3								
(Diamond) SLATD	B (Taper R)	12	-0.006 -0.017	9.0~13.0		120		12	10	15	9	3	M8	4								
(Diamond) TSLATD		16		13.0~16.0				12	10	19	13	4	M8	5								
(Diamond) R-SATD																						
(Diamond) D-SATD																						

Ⓟ W Dimension D6, D8: W=2 when P>5.0 D10, 10T: W=1 when P<5.0, W=2 when 5.0≤P≤7.0, W=3 when P>7.0 ⊗Angle A*30 is not applicable to Tip Shape B. Select from Standard Grade, Shouldered (**P.1693**).
Ⓟ B Dimension 5 mm ~ will be selected for Dicoat® Treated / TiCN Treated items.

Ordering Example

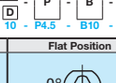
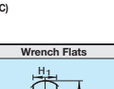
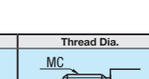
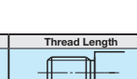
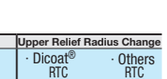
Part Number	Type	Tip Shape	D		P		B		L		A		E
	SLANA	A	6	-	P6.8	-	B14	-	L8	-	A30	-	E2
	SLATA	B	8	-	P7.5	-	B15	-			A60		

Price Configure Online

Configure Online

Alterations

Part Number Type	Tip Shape	D		P		B		L		A		E	(KC, KD, SC, MC)
R-SANA	B	10	-	P4.5	-	B10	-	L5	-	A60	-	-	KD

Alterations	Grooves for Wear Sign	Flat Position	Flat Machining	Wrench Flats	Thread Dia.	Thread Length	Upper Relief Radius Change
							
Code	MK	KC	KD	SC	MC	FC	RTC
	Machine 4 grooves on B Dimension. The wear and tear of the grooves indicate the degree of wears. Ⓟ Applicable to Hardened, Carburized and Round Shape Products only. Ⓟ 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. Ⓟ H-P≥2 Ⓟ Applicable to Round Shape Type only.	Ordering Code SC Adds wrench flats. H 9 11 13 15 19 H1 7 8 11 13 17 Ⓟ Applicable to Round Shape Type only.	Ordering Code MC8 Changes the thread diameter. Ⓟ D/3≤M<D Mmin3 Ⓟ Applicable to Threaded only.	Ordering Code FC15 Changes the thread length. FC=1mm Increment D6~10 :M≤FC≤Mx3 D12, 16:M≤FC≤Mx2.5 D20 :M≤FC≤Mx2 Ⓟ Applicable to Threaded only. ⊗ Not applicable to Dicoat® and TiCN treatment.	Ordering Code RTC1 Changes the relief to the following radius R. Selection R1 R2 R3 Ⓟ RTC≤(H-P)/2 Ⓟ Applicable when B≥5