Locating Pins for Fixtures
Standard Grade, Shouldered

Spec.Change Printed in Purple

Features: For Standard Grade, P Dim. Tolerance is $^{0}_{-0.05}$ (for Precision Grade, $^{0}_{-0.01}$ or $^{0}_{-0.02}$), concentricity is 0.03 or 0.05 (for Precision Grade, 0.01 or 0.02). Polishing Relief Groove is smaller than the conventional products to avoid a workpiece getting stuck.

Threaded RoHS

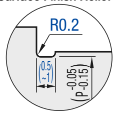
Type		M Material	H Hardness
ELANA	Round	EN 1.7220 Equiv.	Hardening 35~40HRC
ELAND	Diamond		
TELANA	Round	EN 1.7242 Equiv.	Carburized Treated Hardness: 55HRC~ (Depth: 0.7 ~ 0.8) Anti-carburizing on Threads
TELAND	Diamond		

Reference:sin15°≈0.259 tan15°≈0.267

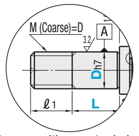
Type		M Material	H Hardness	S Surface Treatment
R-LANA	Round	EN 1.7220 Equiv.	35~40HRC (Surface 750HV ~)	Hard Chrome Plating
R-LAND	Diamond			
D-LANA	Round	EN 1.2379 Equiv.	55HRC ~ (Surface 3000HV)	Dicoat® Treated
D-LAND	Diamond			
H-LANA	Round	EN 1.2379 Equiv.	55HRC ~ (Surface 3000HV)	TiCN Treatment
H-LAND	Diamond			

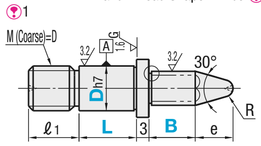
Dicoat® Treated / TiCN items will have the ( ) precision and Thread Shape will be 1.

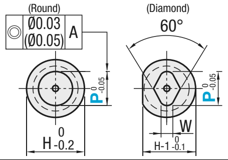
Surface Finish Relief



1 Dicoat® Treated · TiCN Thread Shape







6.3 (3.2 1.6 1.6 G)

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

Part Number Type					Dh7		P Configurable 0.1mm Increment	B Configurable 1mm Increment	L Selection	ℓ1	H	R	W	ELANA	ELAND	TELANA	TELAND	R-LANA	R-LAND	D-LANA	D-LAND	H-LANA	H-LAND
Hardened (Round) ELANA	Carburized (Round) TELANA	Hard Chrome (Round) R-LANA	Dicoat (Round) D-LANA	TiCN (Round) H-LANA	6	0 -0.012	3.0~7.0	2~30 (B≤P×4)	5 8 10	6	9	1	1~2										
					8	0 -0.015	3.0~9.0		5 8 10 12 15	10	11	1.5	1~2										
					10		4.5~12.0		(5) (8) 10 12 15	12	13	2	1~3										
(Diamond) ELAND	(Diamond) TELAND	(Diamond) R-LAND	(Diamond) D-LAND	(Diamond) H-LAND	10T		4.5~12.0		(5) (8) 10 12 15	18	13	2	1~3										
					12	0 -0.018	9.0~13.0		(8) 10 12 15 18	15	15	3	4										
					16		13.0~16.0		(10) 12 15 18 20	18	19	4	5										

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

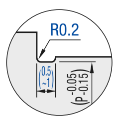
Type		M Material	H Hardness
ELATA	Round	EN 1.7220 Equiv.	Hardening 35~40HRC
ELATD	Diamond		
TELATA	Round	EN 1.7242 Equiv.	Carburized 55HRC~ (depth 0.7 ~ 0.8) / Anti-carburizing on Threads
TELATD	Diamond		

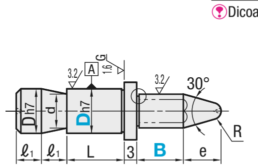
Reference:sin15°≈0.259 tan15°≈0.267

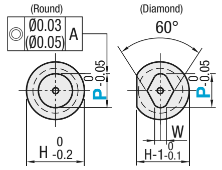
Type		M Material	H Hardness	S Surface Treatment
R-LATA	Round	EN 1.7220 Equiv.	35~40HRC (Surface 750HV ~)	Hard Chrome Plating
R-LATD	Diamond			
D-LATA	Round	EN 1.2379 Equiv.	55HRC ~ (Surface 3000HV)	Dicoat® Treated
D-LATD	Diamond			
H-LATA	Round	EN 1.2379 Equiv.	55HRC~ (Surface 3000HV)	TiCN Treatment
H-LATD	Diamond			

Dicoat® Treated / TiCN Treated items will have the ( ) precision.

Surface Finish Relief







6.3 (3.2 1.6 1.6 G)

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

Part Number Type					Dh7		P Configurable 0.1mm Increment	B Configurable 1mm Increment	L	ℓ1	H	d	R	Applicable Set Screw	W	ELATA	ELATD	TELATA	TELATD	R-LATA	R-LATD	D-LATA	D-LATD	H-LATA	H-LATD
Hardened (Round) ELATA	Carburized (Round) TELATA	Hard Chrome (Round) R-LATA	Dicoat (Round) D-LATA	TiCN (Round) H-LATA	6	0 -0.012	3.0~7.0	2~30 (B≤P x 4)	8	8	9	4	1	M5	1~2										
					8	0 -0.015	3.0~9.0		8	8	11	5	1.5	M5	1~2										
					10		4.5~12.0		10	8	13	7	2	M6	1~3										
(Diamond) ELATD	(Diamond) TELATD	(Diamond) R-LATD	(Diamond) D-LATD	(Diamond) H-LATD	10T		4.5~12.0		5	8	13	7	2	M6	1~3										
					12	0 -0.018	9.0~13.0		12	10	15	9	3	M8	4										
					16		13.0~16.0		12	10	19	13	4	M8	5										

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
ELANA	8	-	P6.0	-	B15	-	L10
ELATA	10	-	P8.8	-	B10		

Alterations

Part Number Type	D	-	P	-	B	-	L	-	(KC, KD, SC, MC)
ELANA	6	-	P6.8	-	B14	-	L5	-	SC

Alterations	Wear Groove Alterations	Flat Position	Flat Machining	Wrench Flats	Thread Dia.	Thread Length	Upper Relief Radius Change
		0°	H-1 0 -0.1	H1, H	MC	FC	· Dicoat® RTC · Others RTC (0.1)
Code	MK	KC	KD	SC	MC	FC	RTC
	Drill 4 grooves at B Dimension. The wear and tear of the grooves indicate the degree of wears. Applicable to Hardening, 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, Standard Grade, Shouldered

Spec.Change Printed in Purple

Features: For Standard Grade, P Dim. Tolerance is $^{0}_{-0.05}$ (for Precision Grade, $^{0}_{-0.01}$ or $^{0}_{-0.02}$), concentricity is 0.03 or 0.05 (for Precision Grade, 0.01 or 0.02). Tip shape is selectable. Polishing Relief Groove is smaller than the conventional products to avoid a workpiece getting stuck.

Threaded

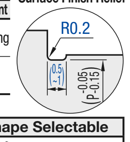
Type		M Material	H Hardness
SELANA□	Round	EN 1.7220 Equiv.	Hardening 35~40HRC
SELAND□	Diamond		
TSELANA□	Round	EN 1.7242 Equiv.	Carburized 55HRC~ (depth 0.7 ~ 0.8) / Anti-carburizing on Threads
TSELAND□	Diamond		

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

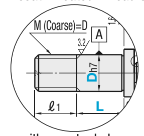
Type		M Material	H Hardness	S Surface Treatment
R-SLANA□	Round	EN 1.7220 Equiv.	35~40HRC (Surface 750HV ~)	Hard Chrome Plating
R-SLAND□	Diamond			
D-SLANA□	Round	EN 1.2379 Equiv.	55HRC~ (Surface 3000HV)	Dicoat® Treated
D-SLAND□	Diamond			

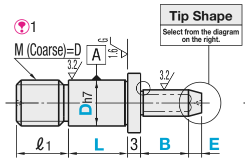
Dicoat® Treated items will have the ( ) precision and Thread Shape will be 1.

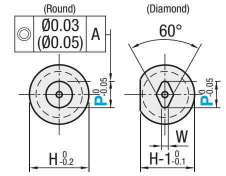
Surface Finish Relief



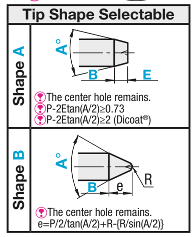
1 Dicoat® Treated Thread Shape







6.3 (3.2 1.6 1.6 G)



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

Part Number Type				Tip Shape	Dh7		P Configurable 0.1mm Increment	B Configurable 1mm Increment	L Selection	A Selection	E (Shape A) 1mm Increment	ℓ1	H	R	W	SELANA□	SELAND□	TSELANA□	TSELAND□	R-SLANA□	R-SLAND□	D-SLANA□	D-SLAND□
Hardened (Round) SELANA	Carburized (Round) TSELANA	Hard Chrome (Round) R-SLANA	Dicoat (Round) D-SLANA	A (Tapered)	6	0 -0.012	3.0~7.0	2~30 (B≤P x 4)	5 8 10	*30	1~10	6	9	1	1~2								
					8	0 -0.015	3.0~9.0		5 8 10 12 15	60		10	11	1.5	1~2								
					10		4.5~12.0		(5) (8) 10 12 15			12	13	2	1~3								
(Diamond) SELAND	(Diamond) TSELAND	(Diamond) R-SLAND	(Diamond) D-SLAND	B (Taper R)	10T		4.5~12.0		(5) (8) 10 12 15	90		18	13	2	1~3								
					12	0 -0.018	9.0~13.0		(8) 10 12 15 18			15	15	3	4								
					16		13.0~16.0		(10) 12 15 18 20	120		18	19	4	5								

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 Standard Grade, Shouldered (**P.1689**). B Dimension 5 mm ~ will be selected for Dicoat® Treated / TiCN Treated items.

Set Screw

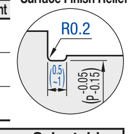
Type		M Material	H Hardness
SELATA□	Round	EN 1.7220 Equiv.	Hardening 35~40HRC
SELATD□	Diamond		
TSELATA□	Round	EN 1.7242 Equiv.	Carburized 55HRC~ (depth 0.7 ~ 0.8) / Anti-carburizing on Threads
TSELATD□	Diamond		

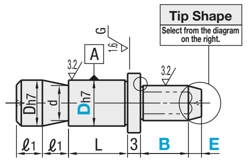
Reference:sin15°≈0.259 sin30°=0.5 sin45°≈0.707 sin60°≈0.866
tan15°≈0.267 tan30°=0.577 tan45°=1 tan60°≈1.732

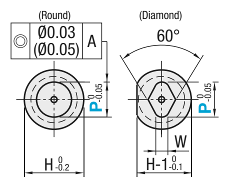
Type		M Material	H Hardness	S Surface Treatment
R-SLATA□	Round	EN 1.7220 Equiv.	35~40HRC (Surface 750HV ~)	Hard Chrome Plating
R-SLATD□	Diamond			
D-SLATA□	Round	EN 1.2379 Equiv.	55HRC~ (Surface 3000HV)	Dicoat® Treated
D-SLATD□	Diamond			
H-SLATA□	Round	EN 1.2379 Equiv.	55HRC~ (Surface 3000HV)	TiCN Treatment
H-SLATD□	Diamond			

Dicoat® Treated / TiCN Treated items will have the ( ) precision.

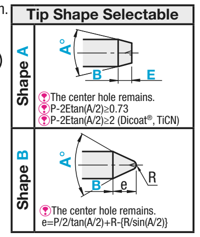
Surface Finish Relief







6.3 (3.2 1.6 1.6 G)



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

Part Number Type					Tip Shape	Dh7		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	SELATA□	SELATD□	TSELATA□	TSELATD□	R-SLATA□	R-SLATD□	D-SLATA□	D-SLATD□	H-SLATA□	H-SLATD□
Hardened (Round) SELATA	Carburized (Round) TSELATA	Hard Chrome (Round) R-SLATA	Dicoat (Round) D-SLATA	TiCN (Round) H-SLATA	A (Tapered)	6	0 -0.012	3.0~7.0	2~30 (B≤P x 4)	*30	1~10	8	8	9	4	1	M5	1~2										
						8	0 -0.015	3.0~9.0		60		8	8	11	5	1.5	M5	1~2										
						10		4.5~12.0				10	8	13	7	2	M6	1~3										
(Diamond) SELATD	(Diamond) TSELATD	(Diamond) R-SLATD	(Diamond) D-SLATD	(Diamond) H-SLATD	B (Taper R)	10T		4.5~12.0		90		5	8	13	7	2	M6	1~3										
						12	0 -0.018	9.0~13.0				12	10	15	9	3	M8	4										
						16		13.0~16.0		120		12	10	19	13	4	M8	5										

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.1689**).
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
SELANA	A	16	-	P14.2	-	B21	-	L15	-	A60	-	E2
SELATA	B	8	-	P6.0	-	B15			-	A90		

Alterations

Part Number Type	Tip Shape	D	-	P	-	B	-	L	-	A	-	E	-	(KC, KD, SC, MC)
SELATA	A	6	-	P6.8	-	B14			-	A30	-	E2	-	SC

Alterations	Wear Groove Alterations	Flat Position	Flat Machining	Wrench Flats	Thread Dia.	Thread Length	Upper Relief Radius Change
		0°	H-1 0 -0.1	H1, H	MC	FC	· Dicoat® RTC · Others RTC (0.1)
Code	MK	KC	KD	SC	MC	FC	RTC
	Drill 4 grooves at B Dimension. The wear and tear of the grooves indicate the degree of wears. Applicable to Hardening, Carburized and Round Shape Products only. 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