

Locating Pins for Fixtures - Square Head

Tip Shape Selectable

■ **Features:** Square Head Locating Pins that secure workpiece at four points. Suitable for use with workpiece insertion and extraction.

■ **Shouldered**

Type		Material	Hardness
Threaded	Set Screw	SCM435	Treated Hardness 35~40HRC
LANQN	LATQN		
TLANQN	TLATQN	SCM415	Carburized Treated Hardness: 55HRC~(Depth: 0.7 ~ 0.8) / Anti-carburizing on Threads

Reference: $\sin 15^\circ = 0.259$, $\tan 15^\circ = 0.267$, $\sin 30^\circ = 0.5$, $\tan 30^\circ = 0.577$, $\sin 45^\circ = 0.707$, $\tan 45^\circ = 1$, $\sin 60^\circ = 0.866$, $\tan 60^\circ = 1.732$

Tip Shape Selectable

• Threaded M (Coarse)=D
• Set Screw
Center misalignment between D and P, W: 0.1 or less

Part Number		P	W	B	L	A	E	Unit Price										
Type	Tip Shape	0.1mm Increment	0.1mm Increment	1mm Increment	Selection	Selection	(Shape A) 1mm Increment	L1	L	L1	H	d	R	Applicable Set Screw	LANQN	LATQN	TLANQN	TLATQN
Hardened (Threaded) LANQN (Set Screw) Carburized (Threaded) TLANQN (Set Screw)	A (Tapered)	6	7.0	5.0~17.0 (W≤P)	5 8 10	30	1~10	8	6	8	9	4	1	M5				
	B (Taper R)	8	7.0~9.0		5 8 10 12 15	60		8	10	8	11	5	1.5	M5				
		10	7.0~11.0		8 10 12 15	90		10	12	8	13	7	2	M6				
		12	9.0~13.0		10 12 15 18	120		12	15	10	15	9	3	M8				
		16	13.0~17.0		12 15 18 20			12	18	10	19	13	4	M8				

■ **No Shoulder**

Type		Material	Hardness
Threaded	Set Screw	SCM435	Treated Hardness 35~40HRC
LNNQN	LNTQN		
TLNNQN	TLTQN	SCM415	Carburized Treated Hardness: 55HRC~(Depth: 0.7 ~ 0.8) / Anti-carburizing on Threads

Reference: $\sin 15^\circ = 0.259$, $\tan 15^\circ = 0.267$, $\sin 30^\circ = 0.5$, $\tan 30^\circ = 0.577$, $\sin 45^\circ = 0.707$, $\tan 45^\circ = 1$, $\sin 60^\circ = 0.866$, $\tan 60^\circ = 1.732$

Tip Shape Selectable

• Threaded M (Coarse)=D
• Set Screw
Center misalignment between D and P, W: 0.1 or less

Part Number		P	W	B	L	A	E	Unit Price									
Type	Tip Shape	0.1mm Increment	0.1mm Increment	1mm Increment	Selection	Selection	(Shape A) 1mm Increment	L1	L	L1	d	R	Applicable Set Screw	LNNQN	LNTQN	TLNNQN	TLTQN
Hardened (Threaded) LNNQN (Set Screw) Carburized (Threaded) TLNNQN (Set Screw)	A (Tapered)	6	9.0~12.0	5.0~30.0 (W≤P)	5 8 10	30	1~10	8	6	8	4	3	M5				
	B (Taper R)	8	11.0~16.0		5 8 10 12 15	60		8	10	8	7	4	M6				
		10	13.0~20.0		8 10 12 15	90		10	12	8	7	4	M6				
		12	15.0~25.0		10 12 15 18	120		12	15	10	9	6	M8				
		16	19.0~32.0		12 15 18 20			12	18	10	13	8	M8				

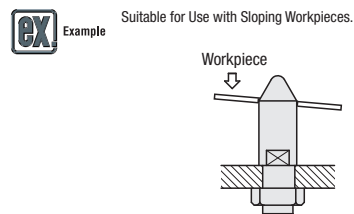
Ordering Example: Part Number - P - W - B - L - A - E

LANQN 6 - P7.0 - W5.0 - B15 - L8 - A30 - E8
LNTQN 8 - P12.0 - W10.0 - B18 - L8 - A60

Alterations: Part Number - P - W - B - L - A - E - (KC, MC, RTC)

LNNQN 8 - P12.0 - W5.0 - B10 - L8 - A30 - E5 - KC

Alterations	Flat Position	Thread Dia.	Upper Relief Radius Change
	Shouldered / No Shoulder 0°	MC	RTC
Code	KC	MC	RTC
Spec.	Ordering Code KC Changes the flat position to 90° from the standard position 0°.	Ordering Code MC8 Changes the thread diameter. D/3<M<D M min 3 Applicable to Threaded only.	Ordering Code RTC0.2 Changes R1 to R of the Selection below. Selection 0.2 R2 R3 RTC≤(H-P)/2 Applicable to Shouldered only.



Locating Pins for Fixtures - Oval, Precision/Standard Grade

■ **Features:** P and W dimensions are configurable in 0.1mm increment for better fit to the size of oval holes machined on workpieces. Tolerances of P and W dimensions are 0.05 for Precision Type and 0.2 for Standard Type.

■ **Shouldered**

Type		Material	Hardness
Oval, Precision Grade	Oval, Standard Grade	SCM435	Treated Hardness 35~40HRC
Threaded	Set Screw		
LNLNF	LNLTF		
TLNLNF	TLNLTF	SCM415	Carburized Treated Hardness: 55HRC~(Depth: 0.7 ~ 0.8) / Anti-carburizing on Threads

Reference: $\sin 15^\circ = 0.259$, $\tan 15^\circ = 0.267$, $\sin 30^\circ = 0.5$, $\tan 30^\circ = 0.577$, $\sin 45^\circ = 0.707$, $\tan 45^\circ = 1$, $\sin 60^\circ = 0.866$, $\tan 60^\circ = 1.732$

Tip Shape Selectable

• Threaded M (Coarse)=D
• Set Screw
Center misalignment between D and P, W: 0.1 or less

Part Number		P	W	B	L	A	E	Unit Price									
Type	Dg6	0.1mm Increment	0.1mm Increment	1mm Increment	Selection	L1	L	L1	H	d	R	Applicable Set Screw	LNLNF	TLNLNF	LNLTF	TLNLTF	
Precision Grade (Threaded Hardening) LNLNF (Set Screw Hardening) Standard Grade (Threaded Hardening) LNLTF (Set Screw Hardening) Precision Grade (Threaded Carburizing) TLNLNF (Set Screw Carburizing) Standard Grade (Threaded Carburizing) TLNLTF (Set Screw Carburizing)	6	5.0~9.0	3.0~17.0 (P≤W+2.0)	5~30 Standard Grade (B≤Wx3) Precision Grade (B≤Wx3)	5 8	8	6	8	9	4	1	M5					
	8	5.0~11.0			5 12 15	8	10	8	11	5	1.5	M5					
	10	7.0~13.0			8 10 12 15	10	12	8	13	7	2	M6					
	12	9.0~15.0			10 12 15 18	12	15	10	15	9	3	M6					
	16	13.0~19.0			15 18 20	12	18	10	19	13	4	M8					

■ **No Shoulder**

Type		Material	Hardness
Oval, Precision Grade	Oval, Standard Grade	SCM435	Treated Hardness 35~40HRC
Threaded	Set Screw		
LNLNF	LNLTF		
TLNLNF	TLNLTF	SCM415	Carburized Treated Hardness: 55HRC~(Depth: 0.7 ~ 0.8) / Anti-carburizing on Threads

Reference: $\sin 15^\circ = 0.259$, $\tan 15^\circ = 0.267$, $\sin 30^\circ = 0.5$, $\tan 30^\circ = 0.577$, $\sin 45^\circ = 0.707$, $\tan 45^\circ = 1$, $\sin 60^\circ = 0.866$, $\tan 60^\circ = 1.732$

Tip Shape Selectable

• Threaded M (Coarse)=D
• Set Screw
Center misalignment between D and P, W: 0.1 or less

Part Number		P	W	B	L	A	E	Unit Price									
Type	Dg6	0.1mm Increment	0.1mm Increment	1mm Increment	Selection	L1	L	L1	d	R	Applicable Set Screw	LNLNF	TLNLNF	LNLTF	TLNLTF		
Precision Grade (Threaded Hardening) LNLNF (Set Screw Hardening) Standard Grade (Threaded Hardening) LNLTF (Set Screw Hardening) Precision Grade (Threaded Carburizing) TLNLNF (Set Screw Carburizing) Standard Grade (Threaded Carburizing) TLNLTF (Set Screw Carburizing)	6	10.0~12.0	D+2≤W≤P-2	5~30 Standard Grade (B≤Wx4) Precision Grade (B≤Wx3)	5 8	8	6	8	4	3	M5						
	8	12.0~16.0			5 12 15	8	10	8	5	3	M5						
	10	14.0~20.0			8 10 12 15	10	12	8	7	3	M6						
	12	16.0~24.0			10 12 15 18	12	15	10	9	5	M8						
	16	20.0~32.0			15 18 20	12	18	10	13	6	M8						

Ordering Example: Part Number - P - W - B - L

LNLNF 10 - P11.8 - W8.8 - B10 - L10
LNLTF 8 - P12.0 - W10.0 - B15 - L12

Alterations: Part Number - P - W - B - L - (KC, MC, RTC)

LNLNF 10 - P7.8 - W5.8 - B5 - L10 - KC

Alterations	Flat Position	Thread Dia.	Upper Relief Radius Change	Tip Angle Change
	Shouldered	MC	RTC	RC
Code	KC	MC	RTC	RC
Spec.	Ordering Code KC Changes the flat position to 90° from the standard position 0°. Applicable to Shouldered Type only.	Ordering Code MC8 Changes the thread diameter. D/3<M<D M min 3 Applicable to Threaded only.	Ordering Code RTC0.2 Changes R1 to R of the Selection below. Selection 0.2 R2 R3 RTC≤(H-P)/2 Applicable to Shouldered Type only.	Ordering Code RC60 Changes the tip angle. Selection 60°, 90°, 120°