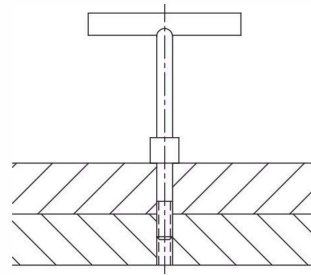
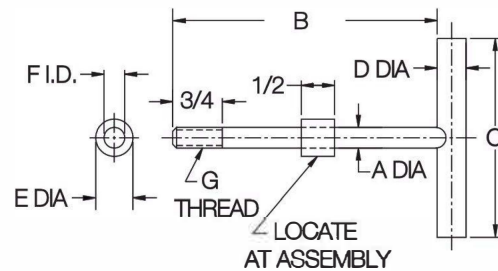


CLAMPING PINS

PIN: 1215 STEEL, CASE HARDENED, BLACK OXIDE FINISH
BUSHING: 1215 STEEL, BLACK OXIDE FINISH



These threaded alignment pins can be used for locating and clamping, or clamping only, depending on extended screw length. The clamping bushing is furnished separate from the pin, and must be welded in place at the proper length to suit the application. Available in thread sizes from #10-32 to 1/2-13 (M6 to M12 in metric).



INCH

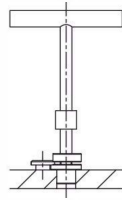
PART NO.	A DIA		B ±.062	C	D DIA	E DIA +.002/- .000	F DIA	G
	NOMINAL	ACTUAL +.0/- .004						
CL-0-CP	#10	.193	3	1-1/2	1/4	3/8	.195	#10-24
CL-0A-CP								#10-32
CL-1-CP	1/4	.250	4	2-1/2	3/8	1/2	.252	1/4-20
CL-2-CP	5/16	.312		3	7/16	9/16	.315	5/16-18
CL-3-CP	3/8	.375	4-1/2	3-1/2	1/2	5/8	.378	3/8-16
CL-4-CP	1/2	.500	5		5/8	3/4	.503	1/2-13

METRIC

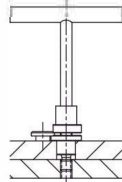
PART NO.	A DIA +0/- .10 (mm)	B ±1.6 (mm)	C (mm)	D DIA (mm)	E DIA +.050/- .000 (mm)	F DIA (mm)	G THREAD	THREAD PITCH (mm)
CLM-6-CP	6	102	63.5	9.5	12.5	6.05	M6	1
CLM-8-CP	8		76	11	14.5	8.05	M8	1.25
CLM-10-CP	10	114	89	12.5	16	10.05	M10	1.5
CLM-12-CP	12	127		16	19	12.05	M12	1.75

LOCKING CLAMPING PINS

PIN: 1215 STEEL, CASE HARDENED, BLACK OXIDE FINISH
HANDLE: 1215 STEEL, BLACK OXIDE FINISH
BUSHING: 1144 STEEL, CASE HARDENED, BLACK OXIDE FINISH
RETAINER CLIP: SPRING STEEL



Retracted-and-locked position

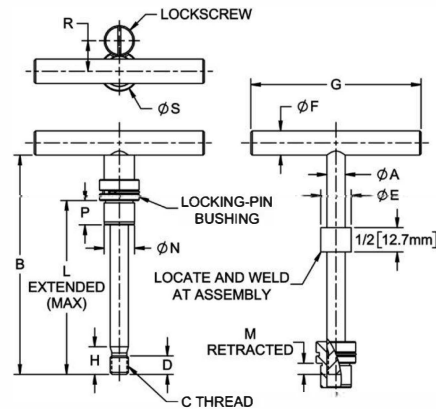


Clamped position

Locking Clamping Pins are similar to standard Clamping Pins, except that the pin body is positively retained in a locking bushing. In fully retracted position, the bushing's spring clip snaps into the pin's radial groove. This holds the pin fully retracted by spring force and positively prevents removal. Spring pressure also holds the pin in intermediate extended positions, an advantage especially if the fixture is turned upside down.

These threaded alignment pins can be used for locating and clamping, or for clamping only, depending on extended screw length. The upper bushing is furnished separate from the pin, and must be welded in place at the proper length to suit the application. Available in thread sizes from 1/4-20 to 1/2-13 (M6 to M12 in metric).

Locking-Pin Bushings are designed to press fit in a standard reamed hole. Secure with the included Lockscrew to positively hold the bushing in place. Shorter or longer bushings are available in most sizes, for thinner or thicker plates.



COMPLETE ASSEMBLY (INCH)

PART NO.	A DIA		B PIN LENGTH	P BUSHING LENGTH UNDER HEAD	C THREAD	D	E DIA	F DIA	G	H	L	M	N DIA		R +0.03/ -.01	S	CLAMPING PIN (INCLUDED)	BUSHING (INCLUDED)	LOCKSCREW (INCLUDED)	
	NOMINAL	ACTUAL +0/-0.004											NOMINAL	ACTUAL +0/-0.0003						
CL-1-LCP-B	1/4	.2490	4	Standard	.31	1/4-20	1/4	1/2	3/8	2-1/2	.44	3	.10	13/32	.4078	.62	13/16	CL-1-LCP	CL-4-LPB	LS-1
CL-1-LCP-B-2				Long	.50														CL-4A-LPB	
CL-2-LCP-B-1	5/16	.3115	4	Standard	.31	5/16-18	5/16	9/16	7/16	3	.50	3	.16	1/2	.5017	.62	13/16	CL-2-LCP	CL-5-LPB	LS-1
CL-2-LCP-B				Medium	.37														CL-5A-LPB	
CL-2-LCP-B-3	3/8	.3740	4-1/2	Long	.50	3/8-16	3/8	5/8	1/2	3-1/2	.57	3-1/2	.23	5/8	.6267	.62	13/16	CL-3-LCP	CL-5B-LPB	LS-1
CL-3-LCP-B-1				Standard	.31														CL-6-LPB	
CL-3-LCP-B	1/2	.4990	5	Long	.50	1/2-13	1/2	3/4	5/8	3-1/2	.69	4	.35	3/4	.7518	.75	1-1/16	CL-4-LCP	CL-6A-LPB	LS-1
CL-4-LCP-B-1				Standard	.50														CL-8-LPB	
CL-4-LCP-B				Long	.75													CL-8A-LPB		

COMPLETE ASSEMBLY (METRIC)

PART NO.	A DIA (mm)		B PIN LENGTH (mm)	P BUSHING LENGTH UNDER HEAD	C THREAD (mm)	THREAD PITCH (mm)	D (mm)	E DIA (mm)	F DIA (mm)	G (mm)	H (mm)	L (mm)	M (mm)	N DIA (mm)		R (mm)	S (mm)	CLAMPING PIN (INCLUDED)	BUSHING (INCLUDED)	LOCKSCREW (INCLUDED)	
	NOMINAL	ACTUAL +0/-102												NOMINAL	ACTUAL +0/-008						
CLM-6-LCP-B	6	5.975	102	Standard	8	M6	1	6	12.5	9.5	63.5	11	76	2.3	10	10.038	16	22	CLM-6-LCP	CLM-6-LPB	LSM-3
CLM-8-LCP-B	8	7.975	102	Standard	10	M8	1.25	8	14.5	11	76	14	76	4.1	13	13.043	16	22	CLM-8-LCP	CLM-8-LPB	LSM-3
CLM-10-LCP-B	10	9.975	114	Standard	12	M10	1.5	10	16	12.5	89	17	89	6.1	16	16.043	16	22	CLM-10-LCP	CLM-10-LPB	LSM-3
CLM-12-LCP-B	12	11.975	127	Standard	18	M12	1.75	12	19	16	89	20	102	8.1	20	20.046	18	26	CLM-12-LCP	CLM-12-LPB	LSM-3