

Series-9 Clamps



This adjustable low profile, cam action clamp provides clamping of different size workpieces merely by rotating the clamp to one of its other edges. The clamps are .394 (10mm) high and use a 1/2-13 (M12) cam screw. Each of the six clamping surfaces is a different distance from the centerline by .0394 (1mm) as shown in the chart. Therefore, one Series-9 Clamp can hold parts that vary up to .240 (9.4mm) simply by rotating the clamp to a different clamping surface.

- Serrated or smooth edges
- Heat treated and plated
- 4,000 lbs. (17800 N.m.) holding force

TORQUE VALUES AND HOLDING FORCE

	Part Numbers	Use Screw Size	Max.Torque/ Holding Force	Replacement Cam Screw
INCH	90110 - 90145	1/2 - 13	65 Ft Lbs / 4000 Lbs	10374
METRIC	95110 - 95145	M12	88 N.m. / 17,800 N.	50371

—Part Number—		Description	Face Number	Distance from ϕ (metric)
Inch	Metric			
90110	95110	1-6 Smooth	1	.4724 (12mm)
90115	95115	1-6 Serrated	2	.5118 (13mm)
			3	.5512 (14mm)
			4	.5906 (15mm)
			5	.6299 (16mm)
			6	.6693 (17mm)
90120	95120	7-12 Smooth	7	.7086 (18mm)
90125	95125	7-12 Serrated	8	.7480 (19mm)
			9	.7874 (20mm)
			10	.8268 (21mm)
			11	.8661 (22mm)
			12	.9055 (23mm)

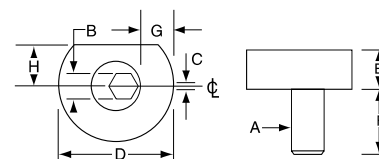
—Part Number—		Description	Face Number	Distance from ϕ (metric)
Inch	Metric			
90130	95130	13-18 Smooth	13	.9449 (24mm)
90135	95135	13-18 Serrated	14	.9842 (25mm)
			15	1.0236 (26mm)
			16	1.0630 (27mm)
			17	1.1024 (28mm)
			18	1.1417 (29mm)
90140	95140	19-24 Smooth	19	1.1811 (30mm)
90145	95145	19-24 Serrated	20	1.2205 (31mm)
			21	1.2598 (32mm)
			22	1.2992 (33mm)
			23	1.3386 (34mm)
			24	1.3780 (35mm)

Machinable Fixture Clamps



These clamps, with the machinable steel washers, provide more flexibility for holding round or unusual shaped parts. Parts can be held directly to the fixture plate surface or elevated for through drilling. A special screw is provided with each package to hold the washer in the proper place during machining.

The flat edge is the same location as our original fixture clamps. It can be used where a stronger clamping surface is required.



- Low profile
- Made of mild steel for machinability



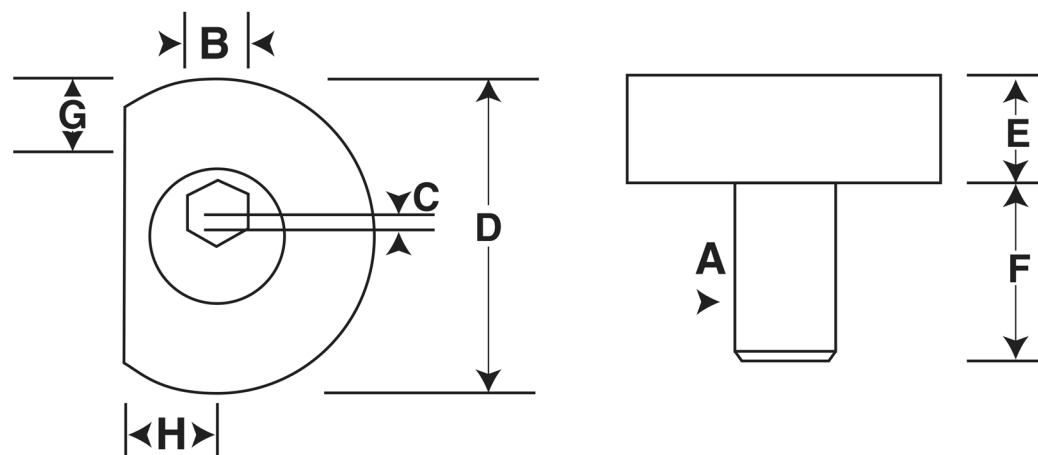
Part Number	A	B	C	D	E	F	G*	H†	Max. Torque (Ft/Lbs)	Holding Force (Lbs)	Number of Clamps Per Pack	—Replacement— Cam Screw Washer	
INCH													
10504	1/4 - 20	1/8	.040	.980	.250	.470	.250	.312	6.2	800	4	10365	10604
10506	3/8 - 16	3/16	.050	1.230	.350	.710	.275	.406	20.8	2,000	4	10371	10606
10508	1/2 - 13	5/16	.100	1.480	.450	.900	.300	.500	65.0	4,000	4	10373	10608
10510	5/8 - 11	3/8	.100	1.730	.550	1.125	.350	.593	100.0	6,000	4	10375	10610
									(N.m.)	(N.)			
METRIC													
50506	M6	4M	1.01	24.9	6.4	11.9	6.4	7.8	8.5	3358	4	50365	10604
50510	M10	7M	1.52	31.2	8.9	18.0	7.0	10.2	28.0	8900	4	50369	10606
50512	M12	8M	2.03	37.6	11.4	22.9	7.6	12.7	88.0	17800	4	50371	10612
50516	M16	12M	2.54	43.9	14.0	28.6	8.9	15.0	135.0	26700	4	50373	10610

G* - Amount of machinable stock H† - The distance to drill & tap hole from edge of workpiece to use flat face.
Every package includes one machining screw

Using Machinable Fixture Clamps is easy - Simply...

1. Drill and tap hole in proper location.
2. Clear drill .060-.200 deep.
3. Insert machining screw, tighten down on steel washer.
4. Machine steel washer to conform to workpiece.
5. Exchange machining screw for cam screw.
6. CAUTION! Never assume clamp is tight, ALWAYS tighten clamp prior to machining.

NOTE: When using this style of clamp please ensure hard stop is recessed in slot or pinned and equal to or greater than height of clamp. This will prevent part from lifting.



Part#	A	B	C	D	E	F	G*	H**	Max. Holding Force
10504	1/4-20	1/8	.040	.980	.250	.470	.250	.312	800 lbs
10506	3/8-16	3/16	.050	1.23	.350	.710	.275	.406	2,000 lbs
10508	1/2-13	5/16	.100	1.48	.450	.900	.300	.500	4,000 lbs
10510	5/8-11	3/8	.100	1.73	.550	1.125	.350	.593	6,000 lbs

Every package includes one machining screw.

* "G" is the amount of machinable stock.

** "H" is the distance to drill and tap hole when using the flat face.

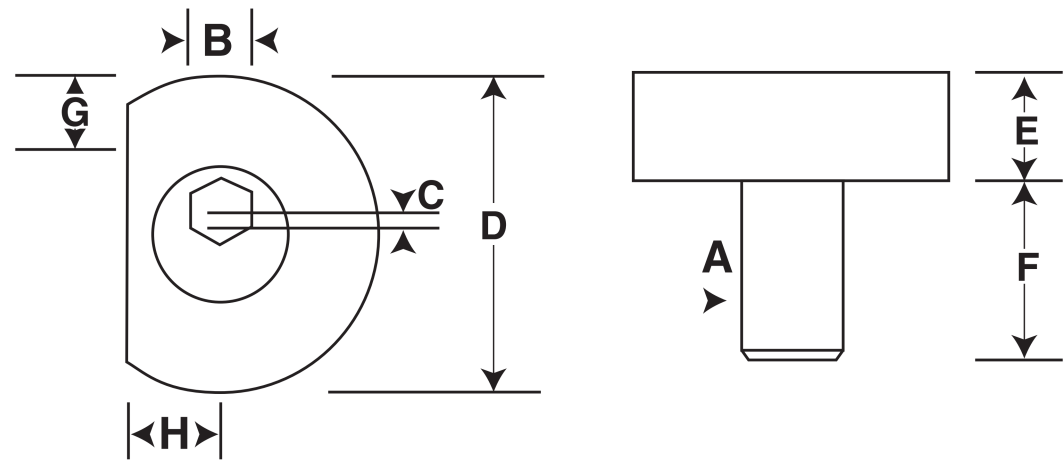


WARNING: This product may contain a chemical known to the State of California to cause cancer or birth defects or other reproductive harm. www.P65Warnings.ca.gov.

Using Machinable Fixture Clamps is easy - Simply...

1. Drill and tap hole in proper location.
2. Clear drill 1.5mm deep.
3. Insert machining screw, tighten down on steel washer.
4. Machine steel washer to conform to workpiece.
5. Exchange machining screw for cam screw.
6. CAUTION! Never assume clamp is tight, ALWAYS tighten clamp prior to machining.

NOTE: When using this style of clamp please ensure hard stop is recessed in slot or pinned and equal to or greater than height of clamp. This will prevent part from lifting.



Part#	A	B	C	D	E	F	G*	H**	Max. Holding Force (N.)
50506	M6	4M	1.01	24.9	6.4	11.9	6.4	7.8mm	3,358
50510	M10	7M	1.27	31.2	8.9	18.0	7.0	10.2mm	8,900
50512	M12	8M	2.03	37.6	11.4	22.9	7.6	12.7mm	17,800
50516	M16	12M	2.54	43.9	14.0	28.6	8.9	15.0mm	26,700

Every package includes one machining screw.

* "G" is the amount of machinable stock.

** "H" is the distance to drill and tap hole when using the flat face.



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