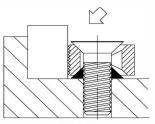
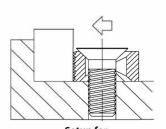


$oldsymbol{VISE}^{ ext{ iny E}}$ EDGE CLAMPS



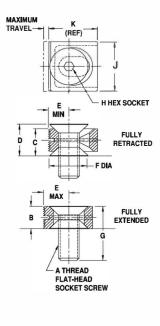
Setup for Downthrust Force (with Bottom Thrust Washer)

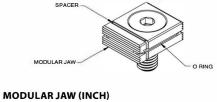
All clamps are supplied with an optional Bottom Thrust Washer (shown in black). Installing this washer under the clamp will raise the clamp slightly and provide downthrust force during clamping.



Setup for Horizontal Force (without Bottom Thrust Washer)

If no downthrust force is required, install the clamp without the Bottom Thrust Washer. Doing so will improve clamping speed because fewer screw turns are required.







							E									APPROX. HORIZONTAL
PART NO.	JAW TYPE	A	В	С	D	MIN	MID RANGE	MAX	F DIA	G	н	J	к	MAX TRAVEL	TORQUE (FT-LBS)*	CLAMPING FORCE AT RECOMMENDED TORQUE (LBS)*
CL-5-TVM	Serrated	5/16-18	.438	.550	.652	.338	.386	.434	.640	1	3/16	1	.870	.096	1.2	240
CL-5-TVMS	Smooth															
CL-5-TVMN	Smooth (Delrin®)															
CL-5-TVMC	Carbide Abrasive															
CL-8-TVM	Serrated	1/2-13		.702	.833	.474	.534	.594	.897	1-3/8	5/16	1-1/4	1.187	.120	6.6	800
CL-8-TVMS	Smooth		.562													
CL-8-TVMN	Smooth (Delrin®)															
CL-8-TVMC	Carbide Abrasive															

FLAT-HEAD SOCKET SCREW

MODULAR JAW (INCH) SETUP FOR HORIZONTAL FORCE

CL-5-TVM	Serrated							î î								
CL-5-TVMS	Smooth	5/16-18	420	.438	.540	.338	.386	.434	.640		3/16		.870	.096	2.4	240
CL-5-TVMN	Smooth (Delrin®)	3/10-16	.430	.430	.540	.336	.300	.434	.040	'	3/10	'	.670	.090	2.4	240
CL-5-TVMC	Carbide Abrasive															
CL-8-TVM	Serrated															
CL-8-TVMS	Smooth	1/2-13	.562	.652	.693	.474	.534	.594	.897	1-3/8	5/16	1-1/4	1.187	.120	13	800
CL-8-TVMN	Smooth (Delrin®)															
CL-8-TVMC	Carbide Abrasive															

^{*}Recommended torque and clamping force are at 1/3 of yield strength, leaving 2/3 of holding capacity to resist external cutting forces, etc.

SPARE PARTS

COMPLETE CLAMP		MODU	ILAR JAW				THRUST	FLAT-HEAD	
PART NO.	SERRATED	SMOOTH	SMOOTH (DELRIN®)	CARBIDE ABRASIVE	SPACER	O RING	WASHER	SOCKET SCREW	
CL-5-TVM	5-TVM-JAW-ASSY	5-TVMS-JAW-ASSY	5-TVMN-JAW-ASSY	5-TVMC-JAW-ASSY	5-TVM-SPAC	5-TVM-ORING	CL-5-TV-WASH	CL-5/16-18X1.00-FHSS	
CL-8-TVM	8-TVM-JAW-ASSY	8-TVMS-JAW-ASSY	8-TVMN-JAW-ASSY	8-TVMC-JAW-ASSY	8-TVM-SPAC	8-TVM-ORING	CL-8-TV-WASH	CL-1/2-13X1.38-FHSS	

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TINY VISE® DOUBLE EDGE CLAMPS

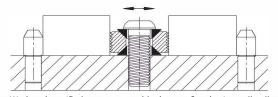
BODY: 1018 STEEL, CASE HARDENED, BLACK OXIDE FINISH. SPRINGS: 302 STAINLESS STEEL GUIDE PINS: 17 4-PH STAINLESS STEEL. THRUST WASHER: 1144 STEEL, HEAT TREATED, BLACK OXIDE FINISH SOCKET-HEAD CAP SCREW: STEEL, BLACK OXIDE FINISH



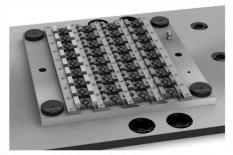


Two Serrated Flat Jaws

Two Smooth Flat Jaws



Thrust Washers have ID clearance to enable them to float horizontally, allowing both clamping jaws to contact their workpiece simultaneously even if parts are slightly different in size. This ensures that both parts are securely clamped with equal force.



Tiny Vise® Edge Clamps are ideal for high-density machining. This quick-change Carr Lock® fixture holds 72 parts using 36 Double Edge Clamps.

Double edge clamps allow clamping two workpieces at the same time with equal force. These mini edge clamps grip the side of a workpiece to keep the top clear for machining. Patented design provides strong, reliable clamping force with the easy turn of a hex wrench. These compact clamps are ideal for fixturing multiple parts, small or large. Available with serrated jaws (for maximum gripping) or smooth jaws (to avoid marring finished parts). These clamps look so simple, but work amazingly well, with major advantages over earlier designs. **Patent no. 5,961,108.** Made in USA.

Clamping force is applied by positive screw action with the easy turn of a hex wrench (not with an unreliable, unsafe eccentric cam as used in other designs). A high-strength cap screw and Thrust Washer engage a mating offset countersink to exert strong clamping force. Much more durable than other designs.

Only Tiny Vise* Mini Edge Clamps truly exert down thrust force on the workpiece, to prevent it from lifting. A Thrust Washer underneath the clamp engages a mating offset countersink to provide downward action.

Only Tiny Vise® Double Edge Clamps compensate for size variation when clamping two workpieces. Thrust Washers have ID clearance to enable them to float horizontally, allowing both clamping jaws to contact their part simultaneously. This ensures that both parts are securely clamped with equal force.

Available in four sizes, from 5/16-18 up to a powerful 1"-8 thread size with 4500 lbs clamping force (M8 to M24 in metric).

Please note: Tiny Vise* clamps are designed to provide strong clamping force when tightened by hand. Do not exceed the recommended tightening torque. Double edge clamps should always be used to hold two workpieces, not just one; otherwise recommended torque and clamping force will be significantly reduced.