

### HIGH-PRESSURE LARGE-CAPACITY MACHINE VISES

### STRONG ACCURATE DEPENDABLE



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# HAPRA HydraVise

#### **Controllable Power Dependable Clamping**

Dapra HydraVises are durably constructed to give industry a truly dependable vise suitable for milling, grinding, drilling, toolroom and production work and many other uses.

The four sizes are built to precision tolerances and accurate standards to ensure reliability and long life. HydraVises combine a heavy-duty, rugged design with precision manufacturing and the highest quality materials available to give the best value to our customers.

Swivel base allows for accurate and quick setting of the vise within full 360° range. Accurate degree markings in 1° increments through 360° are standard.



Massive Back Jaw is part of the vise base, not screwed or doweled on. Assures least jaw deflection possible.

Replaceable hardened and ground jaw plates. Large variety of special jaw plates available, including Vee-, Serrated and Pull-Down Jaws. Movable jaw assembly protects and encloses lead screw. Accurately ground setup surface behind removable jaw plate. Facilitates checking of workpiece.

Self-contained, high-pressure differential power mechanism. Available in hydraulic, mechanical and air-hydraulic.

> crank handle is standard equipment for all vises. No crank extension necessary.

Removable

Shoulder on highpressure mechanical and hydraulic spindles limits pressure to the designed maximum. No overloading of system possible.

Strong I-beam design and flame-hardened ways make for the sturdiest base possible.

**ProVise** has a narrow base style for close spacing of vises side-by-side. Ledge facilitates clamping to machine table.

Two hardened and ground steel cross pins allow instant adjustment of the movable jaw to the small or large clamping range. Jaw assembly may be pulled off the guideways to facilitate cleaning the vise; also makes larger vises easier to lift and move. Pressure indication rings on hydraspindle facilitate graduated pressure setting. Each ring indicates one additional ton of pressure.

### For ordering information, visit www.dapra.com



#### LOW PROFILE

The low silhouette and large clamping capacity are evident in this side view. The heavy steel construction and I-beam design guarantee dependable clamping.

### **Hydra**Vise<sup>™</sup> Specifications

Size		ſ	)	1		2	2		3
Maximum Clamping Force	Metric Tons Lbs. (x1000)	2.5 5.5		4 8.8		5 11		8 17.6	
		Metric	Inch	Metric	Inch	Metric	Inch	Metric	Inch
Jaw Height	А	40	1.57	40	1.57	50	1.97	63	2.48
Jaw Width	В	90	3.54	125	4.92	160	6.30	200	7.87
Jaw Opening (1st	Range)	0-80	0-3.2	0-105	0-4.1	0-155	0-6.1	0-210	0-8.3
w/Plain Jaw (2nd Range)		75-155	3-6.1	100-205	4-8	150-305	6-12	165-375	6.5-14.8
Swivel Base*	D	220	8.66	264	10.39	325	12.80	400	15.75
	E	230	9.06	270	10.63	325	12.80	400	15.75
	F	25	.98	28	1.1	32	1.26	45	1.77
Body	G	355	13.98	425	16.73	570	22.44	680	26.77
	Н	160	6.30	195	7.68	250	9.84	300	11.81
	I	92	3.62	107	4.21	130	5.12	160	6.30
	K	172	6.75	219	8.63	295	11.63	375	14.75
	L	-	-	112	4.41	139	5.47	164	6.46
Weight Kg/Lbs.	Vise	13	29	26	57	51	112	94	207
	Swivel Base	5	11	8	18	15	33	32	70

\* Not available with ProVise



The **ProVise**, a redesign of our standard, proven HydraVise, has a narrow base. This enables vises to be placed closely side-by-side on today's high-production machines and machining centers. Several vises side-by-side can also be used as one very wide vise to clamp long pieces. The ProVise model *is not* available with a swivel base.

## **Clamp**Matic



LOAD – Insert the workpiece, adjust the movable jaw until it touches the workpiece by rotating the hydra-spindle clockwise, then back off the jaw by turning the hydra-spindle counterclockwise three easily-felt detents.



**AUTO-CLAMP** – Adjust the desired clamping pressure according to the input pressure chart, then actuate the shop air pressure. ClampMatic's jaw position will consistently repeat to within 0.0001".

→ I ← .080" M	lax. Back Off

**UNCLAMP/UNLOAD** – Use manual or totally automatic NC, or any other type of control appropriate for each application, to release the clamping air pressure. For safety, the movable jaw backs off 0.080" to facilitate unloading the workpiece.

Input Pressure	Clamping Force Lbs. (x1000)				
PSI	Size 1	Size 2	Size 3		
45	4.4	4.4	7.5		
60	5.7	5.7	9.9		
73	7.5	7.5	13.2		
85	8.8	8.8	16.7		
100	-	9.9	18.0		

Two, three, or more ClampMatic vises may be operated in tandem from a single actuating device, such as: a built-in manual slide valve, a manual push-button, automatic relay, cam switch, electric solenoid or any other method appropriate for your specific application.

Air pressure precisely controls the vise clamping force from a minimum of 4,400 lbs. (ClampMatic sizes 1 and 2) to a maximum of 18,000 lbs. (ClampMatic size 3). This clamping flexibility is provided by 45-100 psi shop air.



HydraVise's complete hydraulic system is contained in the compact, easily operated spindle. Tons of pressure can be set with just a simple turn of the wrist. For smaller pieces and lighter work, the shell grip, without the crank, is all that is required. When maximum holding strength is needed, most operators insert the snap-in crank for minimum effort.

Because the hydraulic, ClampMatic and mechanical units are self-contained on the spindle, they can be used on fixtures and other equipment where great holding strength and quick, effortless operation are desired. (U.S. & Foreign Patents)

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