

Universal shearing and punching machines with two cylinders

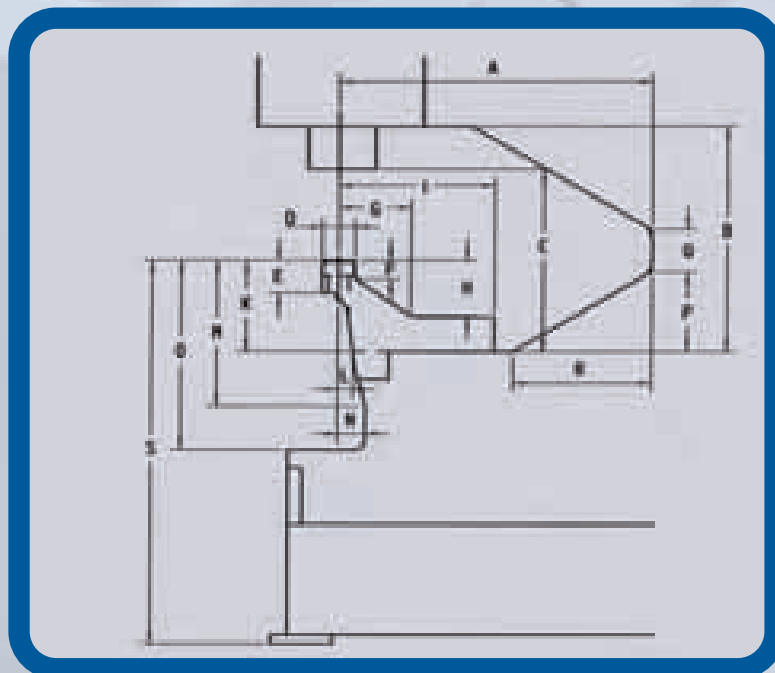
Where production requires twin operator machines, higher speeds or greater capacity, **GEKA** provides the solution with the **HYDRACROP** range with five work stations: (i) punching (ii) flat bar shearing (iii) section shearing (iv) coupe de \emptyset and ∇ shearing and (v) notching:

5 HYDRACROP MODELS **55/110** **110/180** **80/150** **165/300** **220/300**

The first figure indicates metric tons on the punching end.
The second figure, metric tons on F-shearing end.

4 VERSIONS ON EACH A, S, AD, SD MODEL

- VERSION A**
- ▶ Machines driven by two cylinders.
 - ▶ 5 work stations, fitted with tools for L, shearing, bars \emptyset , ∇ , \sqcup shearing, rectangular notching and punching.
 - ▶ Quick change punch.
 - ▶ Flat bar shearing table with adjustable guides.
 - ▶ 2 simultaneous work stations.
 - ▶ Ready for "Productivity Package" comprising:
 - (i) Precision punching table with x & y measuring stops.
 - (ii) Precision notching table with x & y measuring stops.
 - (iii) Automatic shearing gauge of 40" in length with fine adjusting.
 - (iv) Magnetic lamp for enhanced vision of shearing zones.
 - (v) 10 sets of round punches and dies.
- VERSION S** All features of version A, including the following standard fitted accessories:
- ▶ Greater speed backed by a powerful hydraulic unit.
 - ▶ Special equipment for approaching at reduced pressure and slow speed.
- VERSION AD**
- ▶ The same features as the A version, but with a deeper throat for larger plate and sheet metal applications.
- VERSION SD**
- ▶ The same features as the S version, but with a deeper throat for larger plate and sheet metal applications.



FEATURES			55/110	80/150	110/180	165/300	220/300
SHEARS FOR FLATBAR			A, S, AD, SD	A, S, AD, SD	A, S, AD, SD	S, SD	S, SD
Flatbar (minimal deformation)	In		12" x 5/8" 8" x 3/4"	18" x 5/8" 12" x 3/4"	24" x 5/8" 16" x 3/4" 12" x 1"	30" x 3/4" 20" x 1" 16" x 1 1/8"	30" x 3/4" 20" x 1" 16" x 1 1/8"
Length of blade	In		12"	18-11/16"	24"	30 1/8"	30 1/8"
Square bar	In		1"	-	-	-	-
Working height	In		34 5/8"	33 1/2"	37-13/16"	33 1/4"	33 1/4"
SHEARS FOR PROFILES							
Shearing power	Ton		110	150	180	300	300
Lat 90 °, shear without deformation	In		4"x4"x 1/2"	5"x 5" x 1/2"	6"x 6" x 1/2"	8"x 8" x 3/4"	8"x 8" x 3/4"
L at 45 °	In		3"x3"x5/16	3"x3"x5/16	3"x3"x5/16	3"x3"x5/16	3"x3"x5/16
WITH OPTIONAL BLADE							
L at 90 °, (shear small deformation)	In		5"x5"x1/2"	6"x6"x1/2"	6"x6"x 5/8"	8"x8"x1"	8"x8"x1"
SHEARS FOR SOLID BARS							
Round bar Ø	In		1-9/16"	1 3/4"	2"	2 3/8"	2 3/8"
Square bar √	In		1-9/16"	1 3/4"	2"	2 3/8"	2 3/8"
WITH OPTIONAL BLADES							
Channel Profile	In		5"	5"	6"	7"	7"
Beam Profile	In		4"	5"	6"	7"	7"
NOTCHING							
Material thickness, up to:	In		3/8"	15/32"	1/2"	5/8"	5/8"
L up to:	In		4"	4"	4"	5"	5"
Depth	In		3 1/2"	3 1/2"	3 1/2"	4-5/16"	4-5/16"
Width	In		1 5/8"	2"	2"	2 1/4"	2 1/4"
PUNCHING							
Punching power	Ton		60	88	120	185	240
CMaximum capacity with quick change and die with gooseneck die holder	In		Ø 1 1/2" x 3/8" Ø 3/4" x 3/4"	Ø 1 1/2" x 9/16" Ø 7/8" x 7/8"	Ø 1 1/2" x 3/4" Ø 1-3/32" x 1-3/32"	Ø 1 1/2" x 1 1/4" Ø 1-15/16" x 1-5/16"	Ø 1 1/2" x 1 1/2" 385
Depth of Throat A and S	In		10"	12"	12"	20"	15"
Depth of Throat AD and SD	In		20"	20"	24"	24"	18 1/2"
Cylinder Stroke	In		2 3/8"	2 3/4"	3-5/32"	3-15/16"	3-15/16"
Work height	In		42"	43"	45 3/8"	43 3/4"	43"
GENERAL SPECIFICATIONS							
Number of complete cycles of punch stroke at •" :							
A and AD			25	25	17	-	-
S and SD			37	40	28	31	26
Motor	H.P.		7.5	8.5	8.5	-	-
A and AD	H.P.		8.5	12.5	12.5	20	20
S and SD							
Approx. net weight with production pack:							
A	Lbs.		2,910	4,190	5,510	-	-
S	Lbs.		3,065	4,565	6,060	11,465	13,010
AD	Lbs.		3,705	4,920	6,725	-	-
SD	Lbs.		3,860	5,300	7,275	13,890	15,435
Gross weight:							
A	Lbs.		3,350	4,820	6,340	-	-
S	Lbs.		3,525	5,125	6,975	13,185	14,960
AD	Lbs.		4,260	5,780	7,735	-	-
SD	Lbs.		4,435	6,085	8,370	15,975	17,750
Packaging dimensions:							
A and S	In		673/4"x455/8"x821/4"	833/4"x471/4"x 803/4"	833/4"x471/4"x865/8"	1111/2"x63"x865/8"	1133/8"x63"x941/2"
AD and SD	In		825/8"x455/8"x821/4"	91"x471/4"x 803/4"	106"x55"x865/8"	116"x63"x865/8"	1195/8"x63"x941/2"
Volume of maritime packing:							
A and S	Ft³		142 1/2	166 5/8	198 1/2	353 1/8	390 5/8
AD and SD	Ft³		179 3/4	235 7/8	292 1/2	366 1/2	412 1/8

- Capacities based on a material resistance of 65,000 tensile.
- The manufacturer reserves the right to make modifications without prior notice.

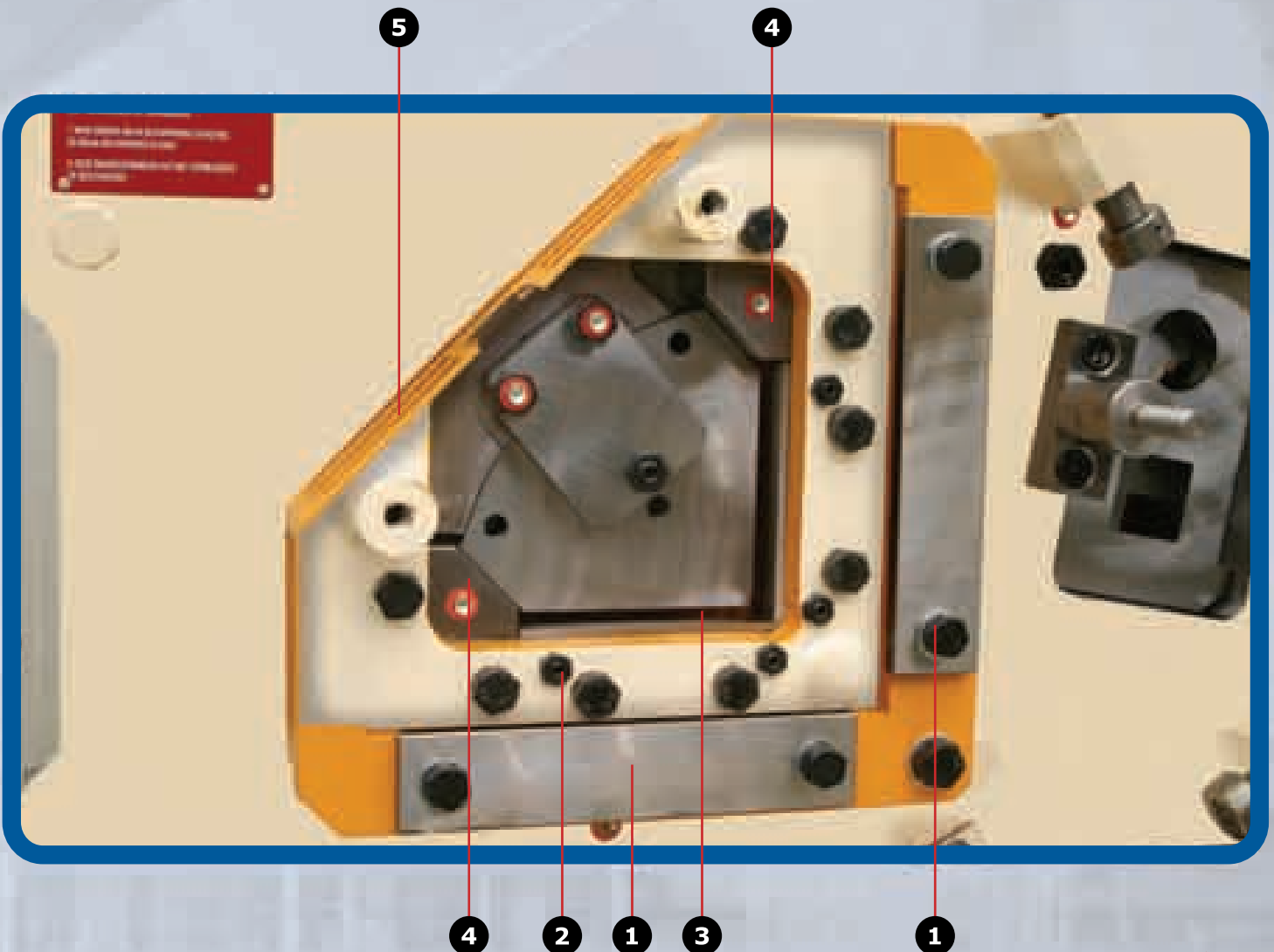
		A	B	C	D	E	F	G	H	I	K	L	M	N	O	P	Q	R	S
HYDRACROP 55	S	10.00	13.78	11.02	2.56	2.24	1.30	4.74	3.19	9.19	5.39	0.98	8.19	1.38	9.17	2.83	10.55	4.96	41.94
	SD	20.00	13.78	11.02	2.56	2.24	1.30	4.74	3.19	9.19	5.39	0.98	8.19	1.38	9.17	3.90	4.33	6.73	41.97
HYDRACROP 80	S	12.01	14.57	11.81	2.56	2.52	1.22	4.84	3.50	9.98	5.67	0.98	9.21	1.77	11.97	4.72	9.84	4.72	43.07
	SD	20.08	14.57	11.81	2.56	2.52	1.22	4.84	3.50	9.98	5.67	0.98	9.21	1.77	11.97	5.12	2.76	8.86	43.07
HYDRACROP 110	S	12.01	15.55	12.80	3.11	3.19	1.57	5.53	3.78	10.51	6.34	0.98	10.08	1.77	12.24	4.72	10.83	4.72	45.31
	SD	24.02	15.55	12.80	3.11	3.19	1.57	5.53	3.78	10.51	6.34	0.98	10.08	1.77	12.24	5.91	2.83	10.24	45.31
HYDRACROP 165	S	20.08	17.72	14.96	3.35	3.35	1.85	6.22	4.09	12.68	7.87	0.98	14.53	1.77	17.72	6.30	3.15	6.30	43.70
	SD	24.02	17.72	14.96	3.35	3.35	1.85	6.22	4.09	12.68	7.87	0.98	14.53	1.77	17.72	5.91	3.15	10.24	43.70
HYDRACROP 220	S	15.16	18.50	15.75	3.35	3.35	1.85	6.22	4.09	12.68	7.87	0.98	14.65	1.77	17.72	1.38	13.78	1.38	42.91
	SD	18.70	18.50	15.75	3.35	3.35	1.85	6.22	4.09	12.68	7.87	0.98	14.65	1.77	17.72	3.35	11.81	3.35	42.91

Measurements are in inches.

L cutting angle

Fully aware of the importance of distortion free shearing, **GEKA** has designed a patented system of a floating upper blade that travels along a rectilinear line and is able to shear angles without any deformation or loss of material (single cut); All GEKA Hy dracrop models ensure the distortion problem caused by the conventional radial system is now a problem of the past.

1. Adjustable angle guides.
2. Blade-gap adjustment bolts.
3. Upper shear blade for distortion-free cutting.
4. Upper shear blade guides.
5. Safety protection.



Rational design

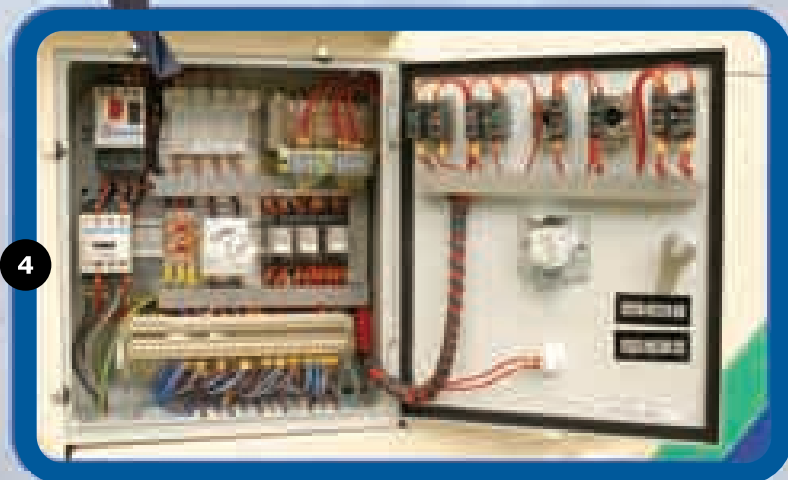
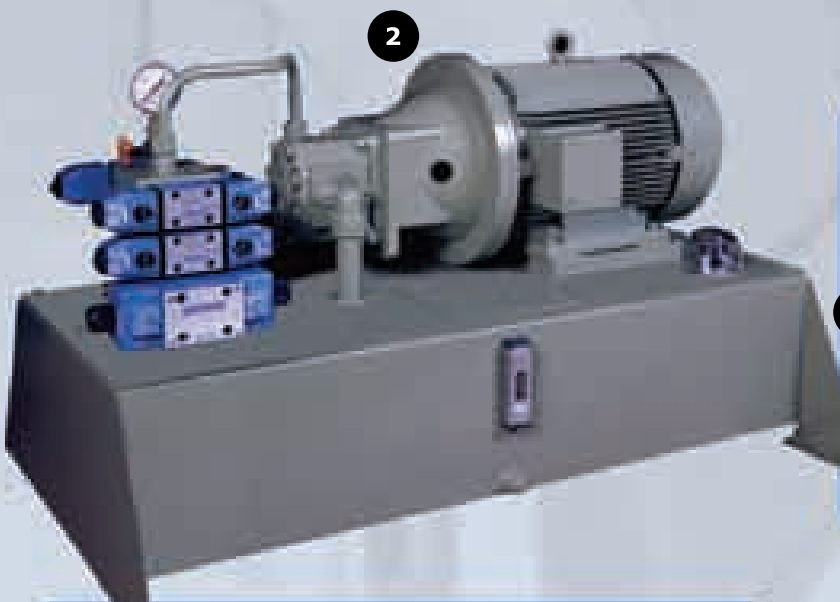
1. Blade holder designed to obtain maximum efficiency in cutting.

2. Hydraulic unit assembly.

3. Monoblock bed.

4. Electric panel with overload protection elements and integrated controls.

5. Optional table "T" slotted table for special tooling and "die sets" .

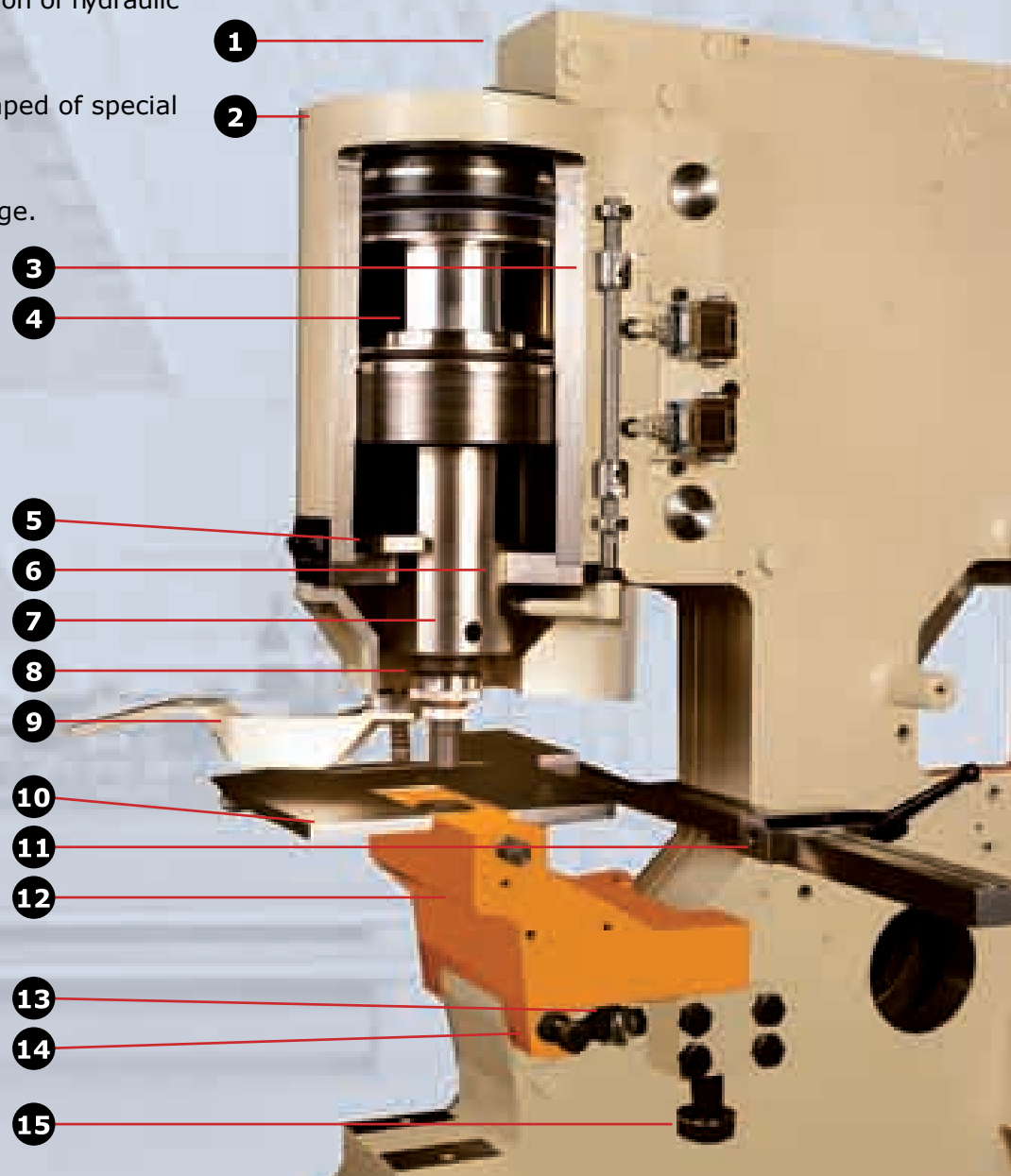


Punching

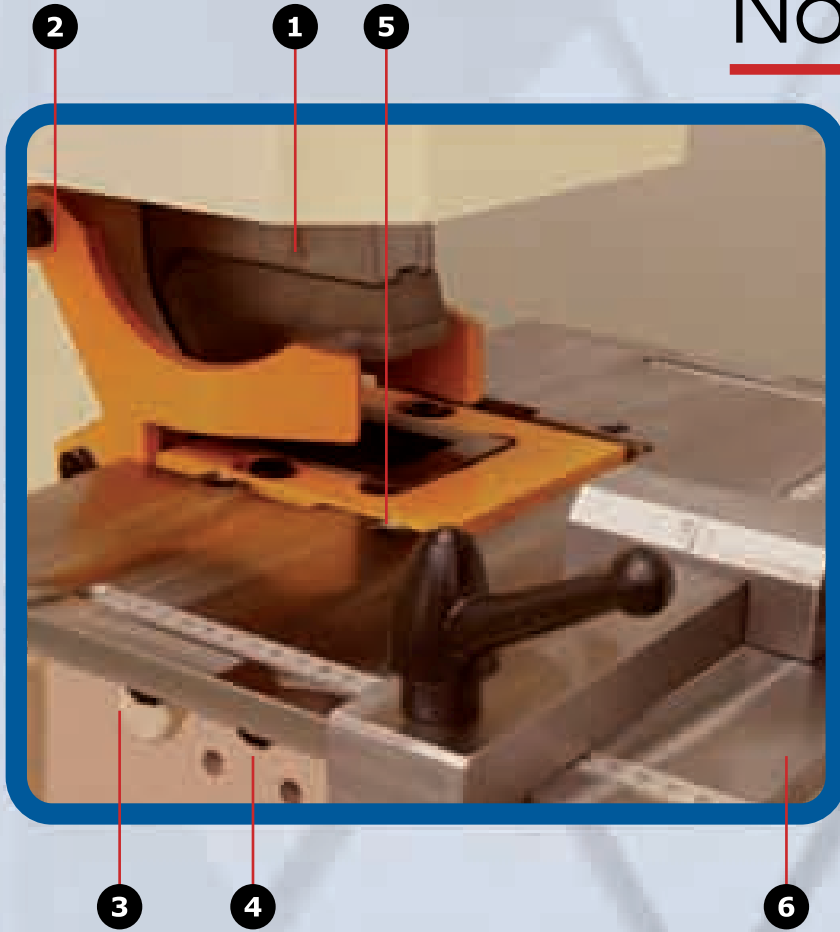
Fitted with an independent cylinder creating a large, flexible, universal workstation easily adaptable for mounting special tools and "die sets".

1. Cylinder support.
2. Sectionalized cylinder of Hydracrop 110.
3. Stroke adjusting stops.
4. Ample stroke for bending, deep-drawing, forming jobs etc.
5. Face of punch cylinder machined and guided to prevent mis-alignment of piston under loading.
6. Extra guide to better absorb off center loads and thus better protection of hydraulic seals.
7. Piston is prepared for shaped of special tooling.
8. Quick punch tooling change.

9. Adjustable punching stripper .
10. Gauging table with inch scales, included in productivity package.
11. Positioning stop up to 20".
12. Gooseneck die-holder for punching plates and section.
13. Bolts for front-to-back alignment of die holder.
14. Bolts for left-to-right alignment of die holder.
15. Large bolts for securing gooseneck die holder to frame.



Notching

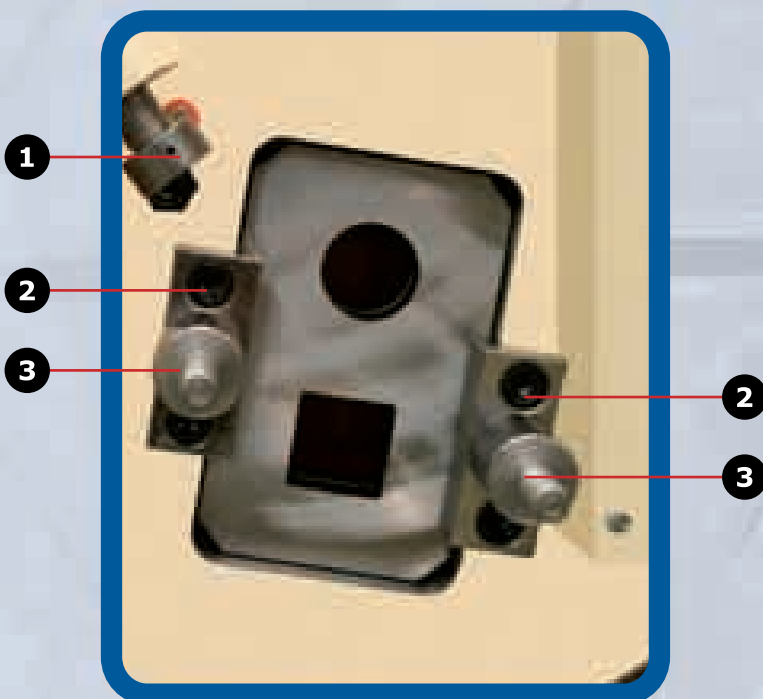


1. Rectangular punch.
2. Stripping arms.
3. Transverse adjustment of die base.
4. Drilled and tapped holes for mounting special equipment.
5. Rectangular notching base.
6. Gauging table with inch scales, included in production kit.

This machine zone has been designed to mount several optional accessories, all of which we have in stock and is available to our clients:

- (i) Triangular notching at 90°.
- (ii) Punching equipment.
- (iii) Pipe notching equipment.
- (iv) Rounding ends of flat bars.
- (v) Rounding of corners.
- (vi) Notching of footings, Bending, etc.

Cutting of \emptyset and ∇ bars



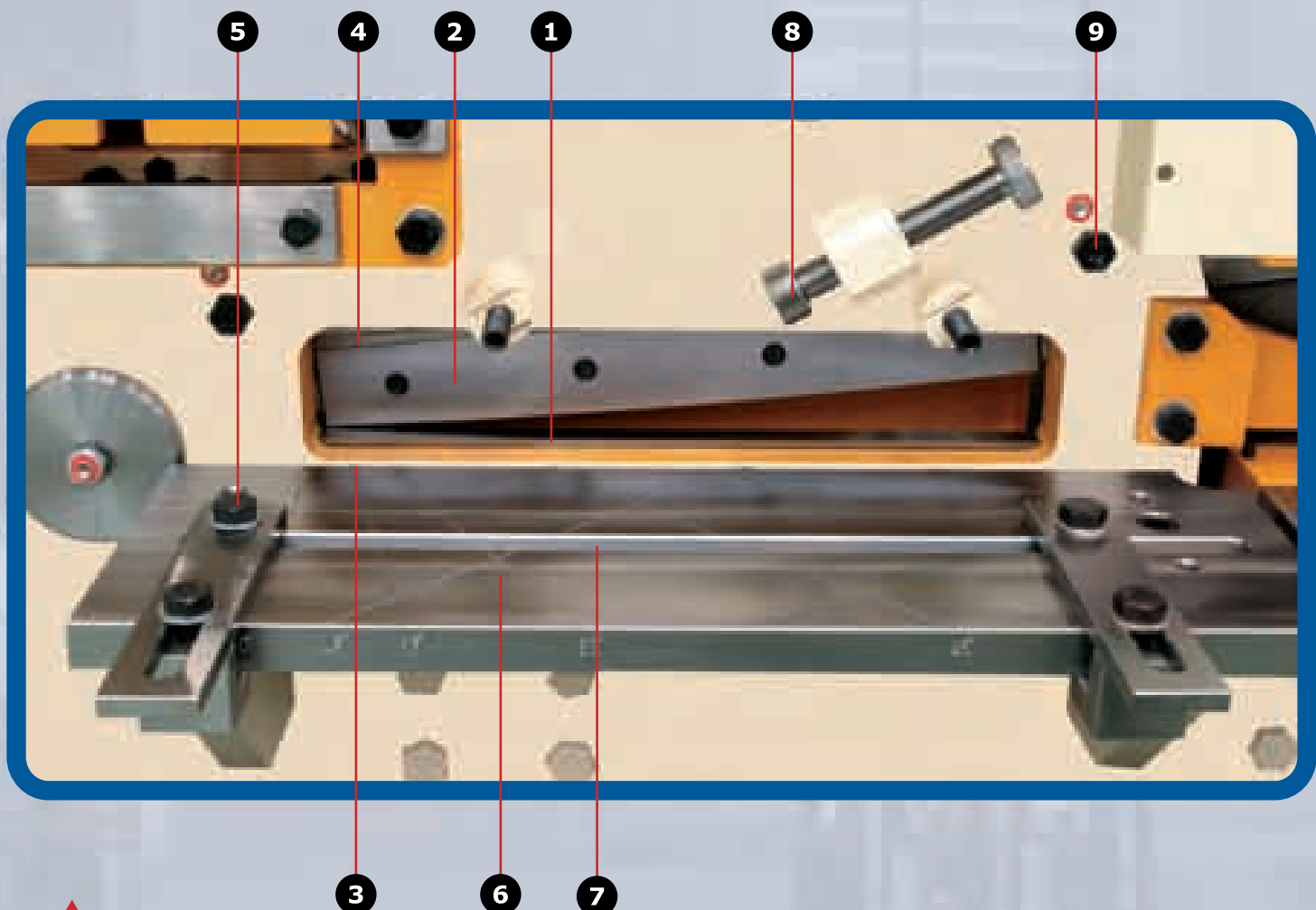
The GEKA HYDRACROP machines are fitted as standard with blades for cutting \emptyset and ∇ bars. Furthermore, this station has been designed bearing in mind the shearing of other sections such as \sqcup , \sqcap , Z efor which a large stock of blades is a available.

1. Adjusting bolt and height setting of the guide.
2. Blade holding flanges.
3. Guide fixing bolts.

Shearing of flat bar

The excellent stability of the monoblock blade-holder, which is controlled at the each end, makes it possible to mount a long upper blade with a proven geometry to obtain optimum shearing quality. The radial system allows a generous cutting capacity as a result of the force multiplier effect.

1. Lower blade.
2. Upper blade with special geometry.
3. Blade gap adjusting bolts.
4. Upper blade control supplement for deformation free cutting.
5. Right and left hand adjustable guide bars for various degrees of cutting of plates.
6. Flat plate/bar shearing table.
7. Guides positioning slot with coverage of the entire blade length.
8. Hold-down fixing screw.
9. Gib adjustment of blade-holder.



Hydracrop 55 / 110

Features:

- ▶ Shearing of flat bar: 12" x $\frac{5}{8}$ "
8" x $\frac{3}{4}$ "
- ▶ L cut with standard blade
(no distortion): 4" x 4" x $\frac{3}{8}$ "
- ▶ L cut with optional blade
(minor distortion): 5" x 5" x $\frac{1}{2}$ ".
- ▶ Shearing of \varnothing and \square bars up to 1-9/16".
- ▶ Punching capacity \varnothing 1 $\frac{1}{2}$ " x $\frac{3}{8}$ ".



Hydracrop 80 / 150

Features:

- ▶ Shearing of flat bar: 18" x $\frac{5}{8}$ ".
12" x $\frac{3}{4}$ ".
- ▶ L cut with standard blade
(no distortion): 5" x 5" x $\frac{1}{2}$ ".
- ▶ L cut with optional blade
(minor distortion): 6" x 6" x $\frac{1}{2}$ ".
- ▶ Shearing of \emptyset and \square bars up to $1\frac{3}{4}$ ".
- ▶ Punching capacity \emptyset $1\frac{1}{2}$ " in $\frac{9}{16}$ ".



Hydracrop 110 / 180



Features:

- ▶ Shearing of flat bar: 24" x $\frac{5}{8}$ ".
16" x $\frac{3}{4}$ ".
- ▶ L cut with standard blade
(no distortion): 6" x 6" x $\frac{1}{2}$ ".
- ▶ L cut with optional blade
(minor distortion): 6" x 6" x $\frac{5}{8}$ ".
- ▶ Shearing of \emptyset and \emptyset bars up to 2".
- ▶ Punching capacity \emptyset 1 $\frac{1}{2}$ " in $\frac{3}{4}$ ".



Hydracrop 220 / 300

Features:

- ▶ Shearing of flat bar: 30" x $\frac{3}{4}$ ".
20" x 1".
16" x $\frac{1}{8}$ ".
- ▶ L cut with standard blade
(no distortion): 8" x 8" x $\frac{3}{4}$ ".
- ▶ L cut with optional blade
(minor distortion: 8" x 8" x 1".
- ▶ Shearing of \emptyset and \square bars up to $2\frac{3}{8}$ ".
- ▶ Punching capacity \emptyset 1 $\frac{1}{2}$ " x 1 $\frac{1}{2}$ ".



Hydracrop 165 / 300

Features:

- ▶ Shearing of flat bar: 30" x $\frac{3}{4}$ ".
20" x 1".
16" x $1\frac{1}{8}$ ".
- ▶ L cut with standard blade
(no distortion): 8" x 8" x $\frac{3}{4}$ ".
- ▶ L cut with optional blade
(pminor distortion: 8" x 8" x 1".
- ▶ Shearing of \emptyset and ∇ bars up to $2\frac{3}{8}$ ".
- ▶ Punching capacity \emptyset $1\frac{1}{2}$ " x $1\frac{1}{4}$ ".



Safety

All **GEKA HYDRACROP** machines are fitted with guards and safety devices. This serve to restrict access to the danger zones of the machine.



Greater productivity

To obtain the largest output, **GEKA** provides its customers with the Productivity Package as an option, which comprises:

1. Notching table with scaled stops.
2. Punching table with scaled stops.
3. Magnetic work light.
4. Electric length gauge of 40".
5. Set of ten round punches and dies.
6. Off-set punching attachment.

