The GEKA Group started manufacturing shearing and punching machines in 1922. From the beginning it was fundamental to meet the client’s needs through flexibility and adaptability. This is constantly achieved using our own technology resulting from our constant research and development.

As a result of this continuous effort over the last eight decades, the GEKA Group has gained an in-depth knowledge of its product, and obtained a reputable market position internationally: 80% of its production is sold by a wide and well-established sales network consisting of more than 50 worldwide dealers. At present, over 80,000 GEKA machines are installed across the five continents. The vast versatility of our machines has brought us a diverse client base, from small workshops to large multinationals.
The GEKA group is located in the north of Spain, an area known for its tradition of industry in the metal sector. Over 60% of Spanish machine tool companies can be found in this zone, which is 75% of the total production, with exports amounting up to more than 80%. This has led to an excellent industrial outsourcing infrastructure with many highly specialised ancillary companies. This fact provides the GEKA Group with an extraordinary flexibility in its production capacity, and makes it possible for GEKA to:

(i) Meet the needs of its customers.

(ii) Provide an efficient after-sales service.

(iii) Maintain its position as the leading manufacturer in shearing and punching.

In keeping with its innovative spirit, in 2001, GEKA created, due to increasing demand the company EI SEN which specialises in the production of automatic shearing and punching lines for flat bar and plate, sections, channel and angle iron. Their clients can be found in the manufacture of a host of products in the metal fabrication industry. These include fittings for the structural industry, metal fencing, telecommunication masts, electricity pylons and many others.

The know-how of the group, together with modern technology in design and manufacture applied by EI SEN, ensures that the unbeatable combination of quality and price of GEKA’s conventional machines can be extended to the automatic lines. This means that optimum and global solutions can be offered in the field of shearing and punching for small, medium and large sized companies.
Universal Shearing And Punching Machines with one cylinder.

Universal Shearing And Punching Machines with two cylinders.

Punching machines
Punching table with numerical control positioning devices.

Automatic systems for shearing and punching operations.

Optional equipment

Special equipment

Automatic lines
This range includes four electrically driven models with the following standard equipment: work table, limit switches and measuring scales. Optionally, electric limit switches may be fitted (except on BENDI CROP, which form part of the standard equipment) for cutting flat bar and section iron. The shearing system consists of one single cut, without wasting any material. The MINICROP and MULTI CROP have been fitted with a patented floating blade for cutting section iron without any deformation of the material.

1. Monoblock bed.
2. Monoblock blade holder with anti-friction bushings.
3. Electric board with protection elements and built-in control.
4. Electrically driven hydraulic unit with submerged pump.
5. Double acting cylinder.
### Configuration

<table>
<thead>
<tr>
<th></th>
<th>MICROCROP</th>
<th>MINICROP</th>
<th>MULTICROP</th>
<th>BENDICROP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>F 90°</strong></td>
<td>G</td>
<td>G</td>
<td>G</td>
<td>G</td>
</tr>
<tr>
<td><strong>F 45°</strong></td>
<td>2 legs</td>
<td>1 leg</td>
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<td>1 leg</td>
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<tr>
<td>Flat bar</td>
<td>G</td>
<td>G</td>
<td>G</td>
<td>G</td>
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<tr>
<td>Punching</td>
<td>G</td>
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<td>Notching</td>
<td>Optional on punching station</td>
<td>G</td>
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<td>Folding</td>
<td>Optional on punching station</td>
<td>Optional on punching station</td>
<td>Optional on punching station</td>
<td>G</td>
</tr>
<tr>
<td>Electric limit switch</td>
<td>Pre-installation</td>
<td>Pre-installation</td>
<td>Pre-installation</td>
<td>G</td>
</tr>
</tbody>
</table>

### Features

#### Shears for Flatbar

- **Flatbar (with slight deformation)**
  - Length of blade: 350 x 6 mm, 300 x 10 mm, 300 x 10 mm, 350 x 15 mm (5º)
  - Round bar B: 200 x 13 mm, 200 x 13 mm, 200 x 13 mm
  - Square bar A: 25 mm, 80 mm, 80 mm, 70 mm
  - Cut of an L -leg at 45º:
    - Working height: 980 mm, 1030 mm, 1030 mm, 810 mm

#### Shears for Section Iron

- **L at 90°**
  - L at 90 º: 80 x 80 x 8 mm, 80 x 100 x 10 mm, 80 x 80 x 8 mm
  - L at 45 º: 50 x 50 x 6 mm, 60 x 60 x 6 mm
  - Round bar B: 35 (optional) mm, 30 (optional) mm, 22 (optional) mm
  - Square bar A: 30 (optional) mm

#### Notching

- **Plate thickness**: 8 mm, 7 mm, 7 mm, 10 mm
- **Angle of**:
  - 60 mm, 60 mm, 60 mm, 100 mm
  - 53 mm, 50 mm, 50 mm, 90 mm
  - 36 mm, 40 mm, 40 mm, 42 mm

#### Punching

- **Punching power**: 360 KN, 450 KN, 450 KN, 500 KN
- **Maximum capacity**:
  - B 27 x 10 mm, B 27 x 13 mm, B 27 x 13 mm
  - B 31 x 12 mm (A), B 27 x 13 mm (B)
- **Gap**: 170 mm, 175 mm, 160 mm, 177 mm
- **Path**: 28 mm, 21 mm, 21 mm, 50 mm
- **Working height**: 980 mm, 1015 mm, 1015 mm, 973 mm

#### Bending Attachment

- **Bending power**: 360 KN, 450 KN, 450 KN, INCLUDED
- **Maximum width**: 80 mm, 80 mm, 80 mm, 100 mm
- **Maximum capacity**:
  - 80 x 12 mm, 80 x 14 mm, 80 x 14 mm, 100 x 10 mm

#### General Specifications

- **Motor**: 2.2 KW, 2.2 KW, 2.2 KW, 3 KW
- **Strokes minute (Based on 15 mm travel)**: 24, 16, 16, 34
- **Net weight**: 485 Kg, 800 Kg, 900 Kg, 1000 Kg
- **Gross weight**: 575 Kg, 1000 Kg, 1100 Kg, 1200 Kg
- **Packaging dimensions**:
  - 1.1 x 0.76 x 1.5 m, 1.36 x 1.1 x 1.5 m, 1.36 x 1.1 x 1.7 m, 1.3 x 1.1 x 1.85 m
  - Volume of maritime packing: 1.26 m³, 2.25 m³, 2.55 m³, 2.65 m³

### Optional Equipment

- **Shears for Section Iron**: D and I section iron, 50 mm, 100 mm, 100 mm, 100 mm
- **Pipe Notching**: Maximum diameter, 50 mm, 60 mm, 60 mm, 60 mm
- **Punching Larger Diameters**: Maximum diameter, B 36 x 8 mm, B 100 x 4 mm, B 100 x 4 mm, B 100 x 4 mm

- Capacities are based on a material resistance of 45 Kg/mm².
- The manufacturer reserves the right to make modifications without prior notice.
**Microcrop**

**Angle cutting station**

- Adjustable Gap on F blades.
- Safety protection.
- F cut up to 80x80x8 mm. without any waste of material or burrs.
- Material clamping guide.

**Flat plate cutting station**

- B 30 cut and A up to 25 mm. in position of flat plate (with slight deformation).
- Cutting of flat plate up to 200x13 mm. Shearing of an F-leg at 45°.
- Material clamping guide.
- Adjustable play between flatbar blades.
- End switches for travel setting.

- “Inching” selector switch.
- Easily removable door to access hydraulic unit.
OPTIONAL EQUIPMENT

1. Punching equipment up to B 36 x 8 mm. in thickness.
2. Blades for B cut minimum deformation.
3. Rectangular notching.

Punching station

- Monoblock body and sandwich structure.
- Blade-holder Adjustment.
- Punching B 27x10 mm. Quick change punch. Off-set punches available for small angles. Safety protection.
- Adjustable Stripper.
- Accurate positioning table with removable front for F punching, leg down.
Minicrop

In addition to the features the MICROCROP machine has, this model also includes:

1. Patented F-cut system at 90° without deformation.

Wide range of openings for B and A-cut without deformation.

2. Goose neck die-holder for punching of D and E sections in legs and web.

3. Blade for flat bar with unique radial geometry for shearing with minimum deformation.

4. Rectangular notching equipment with precision machined worktable and scaled stops.

5. Optional Blades for shearing D and E section up to 100 mm.

Possibility of mounting a wide range of optional equipment for notching and punching.
The MULTICROP model offers all features of the MINICROP model, as well as shearing angle section iron at 45° leg in and leg out (6).

7. Standard shear blades F, B and A.
Metal fabricators and construction companies often have to perform simple bending operations. GEKA has developed the BENDICROP model which, apart from the cutting, punching and notching stations F, B, A, I, holds a permanently fitted bending station with a capacity of up to 100 x 10 mm. Furthermore, it is fitted with a system to reduce deformation when shearing flatbar.

The BENDICROP model is fitted with a touch and cut length stop and is delivered with two V-shaped bending dies of 40 and 70 mm.

1. Permanent bending station is compliant with CE standards.
2. Goose neck die-holder for punching of D and E sections on legs and webs. Quick tool change.
3. Angle shearing without loss of material. Wide range of openings for B and A.
4. Flat bar and plate shearing system with minimum deformation. F mitre shearing up to 45º.
5. Rectangular notching with table. This station can also be used for tube notching, triangular notching, etc.
6. Anti-torque system for flat bar shearing without deformation.
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) B and A 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 F, shearing, bars B and A, shearing, rectangular notching and punching.
- Quick change punch.
- Flat bar shearing table with adjustable guides.
- 2 simultaneous work stations.
- Ready for “Production pack” comprising:
  (i) Precision punching table with x & y measuring stops.
  (ii) Precision notching table with x & y measuring stops.
  (iii) one metre “touch & cut” length stop with fine adjusting.
  (iv) Lamp for enhanced vision of cutting zones.
  (v) 10 sets of round punches and dies.

**VERSION S**
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

#### SHEARS FOR FLATBAR

<table>
<thead>
<tr>
<th>Feature</th>
<th>55/110</th>
<th>80/150</th>
<th>110/180</th>
<th>165/300</th>
<th>220/300</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flatbar (minimal deformation)</td>
<td>mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length of blade</td>
<td>mm</td>
<td>305</td>
<td>475</td>
<td>605</td>
<td>765</td>
</tr>
<tr>
<td>Square bar</td>
<td>mm</td>
<td>25</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Working height</td>
<td>mm</td>
<td>880</td>
<td>850</td>
<td>960</td>
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#### SHEARS FOR PROFILES

<table>
<thead>
<tr>
<th>Feature</th>
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<th>110/180</th>
<th>165/300</th>
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<tbody>
<tr>
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<td>KN</td>
<td>1100</td>
<td>1500</td>
<td>1800</td>
<td>3000</td>
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<tr>
<td>Lat 90 °, with slight deformation L at 45 °</td>
<td>mm</td>
<td>120x120</td>
<td>130x130</td>
<td>152x152</td>
<td>205x205</td>
</tr>
<tr>
<td>WITH OPTIONAL BLADE</td>
<td>mm</td>
<td>130x13</td>
<td>152x13</td>
<td>160x16</td>
<td>205x25</td>
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#### SHEARS FOR SOLID BARS

<table>
<thead>
<tr>
<th>Feature</th>
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<th>80/150</th>
<th>110/180</th>
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<th>220/300</th>
</tr>
</thead>
<tbody>
<tr>
<td>Round bar B</td>
<td>mm</td>
<td>40</td>
<td>45</td>
<td>50</td>
<td>60</td>
</tr>
<tr>
<td>Square bar A</td>
<td>mm</td>
<td>40</td>
<td>45</td>
<td>50</td>
<td>60</td>
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#### NOTCHING

<table>
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<tr>
<th>Feature</th>
<th>55/110</th>
<th>80/150</th>
<th>110/180</th>
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<th>220/300</th>
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</thead>
<tbody>
<tr>
<td>Material thickness, up to:</td>
<td>mm</td>
<td>10</td>
<td>12</td>
<td>13</td>
<td>16</td>
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<tr>
<td>L up to:</td>
<td>mm</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>120</td>
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<tr>
<td>Depth</td>
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<td>42</td>
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#### PUNCHING

<table>
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<tr>
<th>Feature</th>
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<th>80/150</th>
<th>110/180</th>
<th>165/300</th>
<th>220/300</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punching power</td>
<td>KN</td>
<td>550</td>
<td>800</td>
<td>1100</td>
<td>1650</td>
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<tr>
<td>Maximum capacity with quick change and</td>
<td>mm</td>
<td>80x20</td>
<td>130x130</td>
<td>152x152</td>
<td>205x205</td>
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<tr>
<td>die with gooseneck die holder</td>
<td>mm</td>
<td>250</td>
<td>300</td>
<td>300</td>
<td>510</td>
</tr>
<tr>
<td>Throat Depth A and S models</td>
<td>mm</td>
<td>500</td>
<td>500</td>
<td>610</td>
<td>610</td>
</tr>
<tr>
<td>Throat Depth AD and SD models</td>
<td>mm</td>
<td>60</td>
<td>70</td>
<td>80</td>
<td>100</td>
</tr>
<tr>
<td>Maximum punching tool travel</td>
<td>mm</td>
<td>1085</td>
<td>1095</td>
<td>1165</td>
<td>1110</td>
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#### GENERAL SPECIFICATIONS

<table>
<thead>
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<th>Feature</th>
<th>55/110</th>
<th>80/150</th>
<th>110/180</th>
<th>165/300</th>
<th>220/300</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punch stroke per minute (based on 20 mm</td>
<td>A and AD</td>
<td>25</td>
<td>25</td>
<td>17</td>
<td>-</td>
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<tr>
<td>travel):</td>
<td>S and SD</td>
<td>37</td>
<td>40</td>
<td>28</td>
<td>31</td>
</tr>
<tr>
<td>Motor</td>
<td>A and AD</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Approx. net weight with production pack:</td>
<td>S and SD</td>
<td>5</td>
<td>9</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>A kg</td>
<td>1320</td>
<td>1900</td>
<td>2500</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S kg</td>
<td>1390</td>
<td>2070</td>
<td>2750</td>
<td>5200</td>
<td>5900</td>
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<tr>
<td>AD Kg</td>
<td>1680</td>
<td>2220</td>
<td>3050</td>
<td>-</td>
<td>-</td>
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<tr>
<td>SD Kg</td>
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<td>2400</td>
<td>3300</td>
<td>6300</td>
<td>7000</td>
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<td>Gross weight:</td>
<td>A kg</td>
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<td>2185</td>
<td>2875</td>
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<tr>
<td>S kg</td>
<td>1598</td>
<td>2323</td>
<td>3162</td>
<td>5980</td>
<td>6785</td>
</tr>
<tr>
<td>AD Kg</td>
<td>1932</td>
<td>2622</td>
<td>3508</td>
<td>-</td>
<td>-</td>
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<tr>
<td>SD Kg</td>
<td>2012</td>
<td>2760</td>
<td>3795</td>
<td>7245</td>
<td>8050</td>
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<tr>
<td>Packaging dimensions: A and S</td>
<td>m</td>
<td>1,67x1,16x2,09</td>
<td>2,13x1,20x2,05</td>
<td>2,13x1,20x2,20</td>
<td>2,83x1,60x2,20</td>
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<tr>
<td>AD and SD</td>
<td>m³</td>
<td>4,04</td>
<td>5,09</td>
<td>4,72</td>
<td>8,28</td>
</tr>
<tr>
<td>Volume of maritime packing: A and S</td>
<td>m³</td>
<td>4,04</td>
<td>5,09</td>
<td>4,72</td>
<td>8,28</td>
</tr>
</tbody>
</table>

- Capacities based on a material resistance of 45 Kg/mm².
- The manufacturer reserves the right to make modifications without prior notice.

### Measurements in mm.
Rational design

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

2. Hydraulic unit assembly.


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

5. Optional T sloted table for special tooling and “die sets”. 
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 Hydracrop models ensure the distortion problem caused by the conventional radial system is now a problem of the past.

1. Adjustable Support
2. Blade gap adjustment screws.
3. Upper shear blade without deformation.
4. Upper shear blade guides.
5. Safety protection.
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. Split double acting cylinder.
3. Limit switches for punch travel setting.
4. Generous travel for bending, deep-drawing, forming jobs etc.
5. Adjustable generous non-turning guiding.
6. Additional guiding for damping of offset forces and protection of hydraulic seals.
7. Spindle for fitting of special tools.
8. Quick punch change.
9. Adjustable material stripper.
10. Table with millimetre scales, included in production kit.
11. Adjustable measuring stop up to 500 mm.
12. Gooseneck die-holder for punching channel and section.
13. Adjustable bolster locking device X axis.
15. Fixing bolt at base of gooseneck.
### Notching

1. Rectangular punch.
2. Material stripper.
3. Cross centring bolts.
4. Fixing holes special tooling.
5. Rectangular notching.
6. Table with scaled measuring stops, included in production kit.

This station of the machine has been designed to mount several optional accessories, all of which are normally held in stock.

(i) Triangular notching at 90º.
(ii) Punching equipment.
(iii) Pipe notching equipment.
(iv) Radiusing of flat bar ends.
(v) Radiusing corners.
(vi) Notching of footings, etc.

### Cutting of B and A bars

The GEKA HYDRACROP machines are fitted as standard with blades for cutting B and A bars. Furthermore, this station has been designed bearing in mind the shearing of other sections such as D, E, Z for which a large stock of blades is available.

1. Adjusting bolt and height setting of the guide.
2. Blade holding flanges.
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. Clearance control between shear blades.
4. Supplement shearing angle control of upper blade, for shearing without deformation.
5. Adjustable guides 45° right and left.
6. Flat plate/bar shearing table.
7. Slotted guide positioning with coverage of the entire blade length.
Hydracrop 55 / 110

Features:

- Shearing of flat bars: 300 x 15 mm. 200 x 20 mm.

- F cut with standard blade (no distortion): 120 x 120 x 10 mm.

- F cut with optional blade (minor distortion): 130 x 130 x 13 mm.

- Shearing of B and A bars 40 mm.

- Punching capacity B 40 x 10 mm.
Hydracrop 80 / 150

Features:

- Shearing of flat bar: 450 x 15 mm.
  300 x 20 mm.

- F cut with standard blade
  (no distortion): 130 x 130 x 13 mm.

- F cut with optional blade
  (minor distortion): 152 x 152 x 13 mm.

- Shearing of B and A bar 45 mm.

- Punching capacity B 40 x 14 mm.
Hydracrop 110 / 180

Features:

- Shearing of flat plate: 600 x 15 mm. 400 x 20 mm.

- F cut with standard blade (no distortion): 152 x 152 x 13 mm.

- F cut with optional blade (minor distortion): 160 x 160 x 16 mm.

- Shearing of B and A bar 50 mm.

- Punching capacity B 40 x 20 mm.
Hydracrop 165 / 300

Features:

- Shearing of flat plate: 750 x 20 mm.
  400 x 30 mm.

- F cut with standard blade
  (no distortion): 205 x 205 x 18 mm.

- F cut with optional blade
  (minor distortion): 205 x 205 x 25 mm.

- Shearing of B and A bar 60 mm.

- Punching capacity B 40 x 30 mm.
Hydracrop 220 / 300

Features:

- Shearing of flat plate: 750 x 20 mm.  
  400 x 30 mm.

- F cut with standard blade  
  (no distortion): 205 x 205 x 18 mm.

- F cut with optional blade  
  (minor distortion): 205 x 205 x 25 mm.

- Shearing of B and A bar 60 mm.

- Punching capacity B 40 x 40 mm.
Safety

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

To obtain maximum output, GEKA provides its customers with the Production kit at a symbolic price, which comprises:

1. Notching table with scaled end stops.
2. Punching table with scaled end stops.
3. Work light with magnetic Base.
4. "Touch & cut" electrical end stop - 1 metre long.
5. Set of ten round punches and dies.
Portable punching machines

The PP-50 portable punching machines have a punching power of 500 KN and a throat of 130 mm.

There are two types of this model:

- **G model**: For general punching of sheet metal and steel section.
- **P model**: With table with T grooves, recommended for use with “die sets” and special tooling.

**FEATURES:**

- Punching power: 500 KN.
- Maximum punching capacity: 27 x 13 mm.
- Maximum stroke: 30 mm.
- Throat: 130 mm.
- Motor power: 3 KW.
- Cycles per minute (20 mm. stroke): 23.
- Net weight (G): 355 Kg.
  (P): 415 Kg.
- Gross weight (G): 480 Kg.
  (P): 540 Kg.
- Dimensions with maritime packaging: 1,1 x 0,9 x 1,55m.
- Volume: 1,53 m³.

**OPTIONAL EQUIPMENT**

- Oversize unit for punching diameters (P) 8 40 x 8 mm.
Punching machines

The GEKA hydraulic punching machines have been designed by experienced technicians, assisted by powerful CAD CAM equipment and adapted to the ongoing suggestions of over 60,000 users of GEKA shears and punching machines, worldwide. This continuous quality improvement ensures that GEKA punching machines, the well-known PUMA models, have:

- Technically dimensioned bed.
- Cylinder with additional guide.
- Strong and accurate shaft system to avoid distortions.
- Gradual centring of punch.
- Quick punch change.
- Safety protection.
- Ample space for mounting special equipment.
- Optimum operation speed.
- Large number of optional, standard and special accessories to perform a wide range of jobs.
- Range of punching machines from 55 Tn to 220 Tn with punching throats of between 130 mm and 800 mm.

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<td>Throat</td>
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<td><strong>PUNCHING OF SECTIONS WITH GOOSENECK DIE HOLDER</strong></td>
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<td>Ton on the leg</td>
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<td>Oversize Punching diameters</td>
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</table>

- Capacities based on a material resistance of 45 Kg/mm².
- The manufacturer reserves the right to make modifications without prior notice.
Puma 55-500

- Punching power 550 KN.
- Max. capacity: B 40 x 10 mm.
  B 20 x 20 mm.
  A 28 x 11 mm.
- Throat 500 mm.

Measurements in mm.

|     | A  | B  | C  | D  | F | G  | H  | I   | J   | K   | L   | M   | N   | O   | P   | Q   | R   | S   |
|-----|----|----|----|----|---|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| PUMA 55 | S | 500 | 340 | 270 | 65 | 55 | 33 | 120,5 | 81 | 137 | 25 | 231 | 45 | 327 | 102 | 78 | 185 | 1060 |
| PUMA 55 | SD | 750 | 340 | 270 | 65 | 55 | 33 | 120,5 | 81 | 137 | 25 | 231 | 45 | 327 | 102 | 78 | 185 | 810  |
| PUMA 80  | S | 510 | 370 | 300 | 65 | 62 | 31 | 123 | 89 | 144 | 25 | 234 | 45 | 304 | 130 | 70 | 234 | 1094 |
| PUMA 80  | SD | 750 | 370 | 300 | 65 | 62 | 31 | 123 | 89 | 144 | 25 | 234 | 45 | 304 | 130 | 70 | 278 | 1194 |
| PUMA 110 | S | 500 | 420 | 350 | 79 | 79 | 40 | 140,5 | 96 | 161 | 25 | 326 | 47 | 461 | 95  | 125 | 100 | 991  |
| PUMA 110 | SD | 750 | 420 | 350 | 79 | 79 | 40 | 140,5 | 96 | 161 | 25 | 326 | 47 | 461 | 95  | 125 | 100 | 1066 |
| PUMA 165 | S | 510 | 450 | 350 | 85 | 79 | 35 | 158 | 104 | 200 | 25 | 372 | 45 | 450 | 0   | 240 | 0   | 1060 |
| PUMA 165 | SD | 760 | 450 | 380 | 85 | 79 | 35 | 158 | 104 | 200 | 25 | 372 | 45 | 450 | 141 | 98  | 245 | 1060 |
| PUMA 220 | S | 510 | 450 | 375 | 85 | 79 | 33 | 162 | 100 | 435 | 151 | 198 | 30 | -   | 30  | 483 | 0   | 1013 |
| PUMA 220 | SD | 800 | 450 | 375 | 85 | 79 | 33 | 162 | 100 | 435 | 151 | 198 | 30 | -   | 30  | 483 | 125 | 200 | 216 | 1013 |
Puma 110-500

- Punching power 1100 KN.
- Max. capacity: B 40 x 20 mm.
  B 28 x 28 mm.
  A 28 x 20 mm.
- Throat 500 mm.

Puma 165-500

- Punching power 1650 KN.
- Max. capacity: Ø 40 x 30 mm.
  Ø 34 x 34 mm.
  Ø 28 x 28 mm.
- Throat 510 mm.
Options to increase productivity of the shears station

“Touch & cut” electrical end stop: Covers all shearing stations.

The operation is, as follows: The material is pushed by hand and when it touches the head of the electrical end switch, the machine performs a full cutting cycle. The adjustment of the length is done on the millimetre scale with the fine adjustment head (see photo).

This equipment is included in the Production kit and all machines are fitted with the full pre-installation.
Automatic feed of ALRS flat plate/bar

The ALRS assembly has been designed for the automatic supply of flat plate/bar through the shearing station on our HYDRACROP models.

The unit consists of one (1) roll drive which is activated by a (2) dc motor which is controlled by the (3) OMROM numerical control unit. The flat plate/bar is held in place by a hydraulic clamp (4), guided by fixed rollers (5), and guide rollers (6), adjusted by a screw driven manually from a flywheel. The material moves along a 6 m. long bed (7) on free rollers.

The shearing quality of the flat plate/bar is guaranteed by the HYDRACROP, a machine of renowned prestige.

The traditionally cumbersome operation of manually pushing the material forward until in position is now obsolete, leading to time saving, enhanced productivity and accuracy.

The displacement speed is programmable and reaches 18/m/min.

Measuring is done by means of a contact encoder with a positioning accuracy of 0.2 mm/m.

The feeding system can be used for flat bar as small as 40 mm and wide plate up to 600 mm in width with a maximum length of 7 m. Furthermore, by means of the use of additional free roller tables, bars of any length may be fed (maximum weight 600 kg).

Programming is simple and the control unit has several fields to enter a variety of lengths to cut and quantities.
System for punching holes in a line (single axis)

Flip Stop: This is a unit manually adjustable with end stops for punching holes in a line.

The unit consists of a table, which has to be mounted on the machine, with two end switches for depth control and a 2-meter scale on each module, which is mounted on the side of the dieholder with 8 additional retractable end stops for each module.

Feeder slide PAX unit.
Linear feed PAX control unit

GEKA, has developed an automatic positioning unit on the X-axis, PAX, for punching holes in a line (single axis).

The unit consists of:

- A carriage unit travelling on tempered guides for feeding and positioning the material.
- OMROM control unit.
- Servomotor drive with encoder reader.
- Table with linear rollers.
- Set of manually adjustable transverse rollers to guide the material.

FEATURES

<table>
<thead>
<tr>
<th>Available strokes</th>
<th>Meter by meter</th>
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<tr>
<td>Maximum displacement speed</td>
<td>24 m/min</td>
</tr>
<tr>
<td>Positional tolerances</td>
<td>± 0.25 mm/m</td>
</tr>
<tr>
<td>Maximum weight to feed</td>
<td>250 kg</td>
</tr>
<tr>
<td>Repeatability</td>
<td>± 0.15 mm</td>
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</table>
System for punching larger plates and sheet metal

Multi-stop table: This is a manual unit which is to be mounted on PUMA or HYDRACROP SD machines with a minimum throat of 500 mm.

It has 5 retractable key stops mounted on a cross bar which slides on a guided arm.

The front part of the table can be removed for punching angles and channels. The stops can be moved approx. 500 mm from the middle of the die to the left and approx. 500 mm to the right. The depth capacity is approx. 355 mm. Adjustments are made manually on the millimetre scale, on the two axes.

SEMI PAXY: The restrictions of manual positioning of the stops of the multi-stop table could be considered obsolete with the SEMI PAXY table which has controlled programmable stops. This unit can be factory mounted on new machines, but also installed on existing machines on the customer’s premises. If so, the HYDRACROP or PUMA machine must have a throat of at least 500 mm.

Versions

- X1000, for parts with a maximum length of 1000 mm.
- XPlus, modules in lengths 2000, 3000, 4000 and 5000 mm.

There are 3 versions for the depth setting: (i) 400 mm. for mounting on machines HYDRACROP or PUMA with throat of 500 mm., (ii) 500 mm. for mounting on models HYDRACROP 110 SD and 165 SD and (iii) 650 mm. for mounting on PUMA with throat of 750 mm.
The base unit consists of:

- Mounting plate.
- Set of 2 positioning carriages for the stops, driven by brushless motors.
- OMROM control unit.
- Set of independent servomotor drives on each axis, with ball screw and encoder readers.

The operational procedure is as follows:

- The position of the holes to be punched is programmed at absolute or incremental elevations.
- When the control is started, the stops for the first hole move into position.
- The material to be punched is placed against these, and the punching pedal activated.
- The machine punches a hole and the stops move on to the position for the next one.
- Repeat the sequence until all the holes have been punched.

<table>
<thead>
<tr>
<th>FEATURES</th>
<th></th>
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<tbody>
<tr>
<td>X displacement speed</td>
<td>0 - 12 m/min</td>
</tr>
<tr>
<td>Y displacement speed</td>
<td>0 - 12 m/min</td>
</tr>
<tr>
<td>Precision of positioning</td>
<td>± 0,20 mm/m</td>
</tr>
<tr>
<td>Repeatability</td>
<td>± 0,1 mm</td>
</tr>
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</table>
Motor drive/spindle/encoder from the base version of the SEMI PAXY.

Options on Semi Paxy

Table with ball bearing supports (see photo). Tables can be fitted with these, preloaded with springs on the base module and rigid on the extensions of the 2, 3, 4 and 5 metre versions.

When the work piece has more than one diameter to punch, triple punching with 3 different punches is recommended. One hole is punched in each stroke which is governed by the control unit.

PC-type control unit with Touchscreen and the facility to import DXF and DSTV files, draw on the screen and automatic programme creation.
COST OPTIMISATION CHART

Country with HIGH labour cost

Country with MEDIUM labour cost

Country with LOW labour cost

P: Point at which the cost of a conventional machine and of the SEMI PAXY

SEMIPAXY XPlus version, for punching longer components.
Optional equipment and accessories

Safety devices have been removed on some of the photos

1. Punching on wing and core section D 40 to 80 mm.
2. Oversize punching diameter mounted on machine
3. Round pipe end punching
4. Square pipe end punching
5. Double punching on gooseneck-type die holder
6. Punching diameter 160 mm.
Double punching oversize unit

Triple punching 3 holes per stroke with neoprene stripper

Punching tube with mandrel die holder

Plate/sheet bending (not for sale in the EU)

Double punching for E

Notching 200 x 400 mm.
Hydraulic clamps for angle and plate

Notching tool mounted at punch end of microcrop

Triangular notching tool with table

Triangular notching unit

Punch notching of louvres

Louvre notching tool mounted on machine

Die notching of louvres

Notching tool mounted at punch end of microcrop

Hydraulic clamps for angle and plate

Tee slotted table for mounting die sets
Notcher for footings
Pipe notching
Multi-stop table
Flip Stop
Neoprene punch stripper
D-shearing equipment
Triple punching with hydraulic stripper

Itemised picture of oversize punching unit

Special punches and dies

Offset punches and dies

Blade with two D shearing apertures

Blade D + 3 rounds
Multi-hole blade for solid bars.

Blade K, L, B and A

Blade two J apertures

Blade E

Cold rolled D-cutting blade

Hot rolled D-cutting blade
EISEN automatic lines

Alfa 500

Shearing, punching and marking of

- up to 150 x 150 x 15 mm.
- up to 500 x 20 mm.
ALPS

Shearing, punching and marking of F up to 160 x 160 x 16 mm.
Alfa 120

Shearing and punching of up to 120 x 10 mm.

C2PL

Shearing and punching of F up to 80 x 80 x 8 mm.
Paxy

Punching, marking and drilling for sheet (several dimensions).
Ten reasons to buy GEKA

1. Excellent product quality
2. Worldwide distribution network
3. Company specialises in punching and shearing
4. Excellent price-quality ratio
5. In-depth knowledge of the product
6. Machines adapted to your production needs
7. Worldwide leader in the sector
8. Large number of optional accessories and special equipment
9. Quick and efficient after-sales service
10. Personal attention to customer needs

Location
Coordinates GPS

Altitude: 30M
N 43° 18' 7"
O 1° 53' 16"