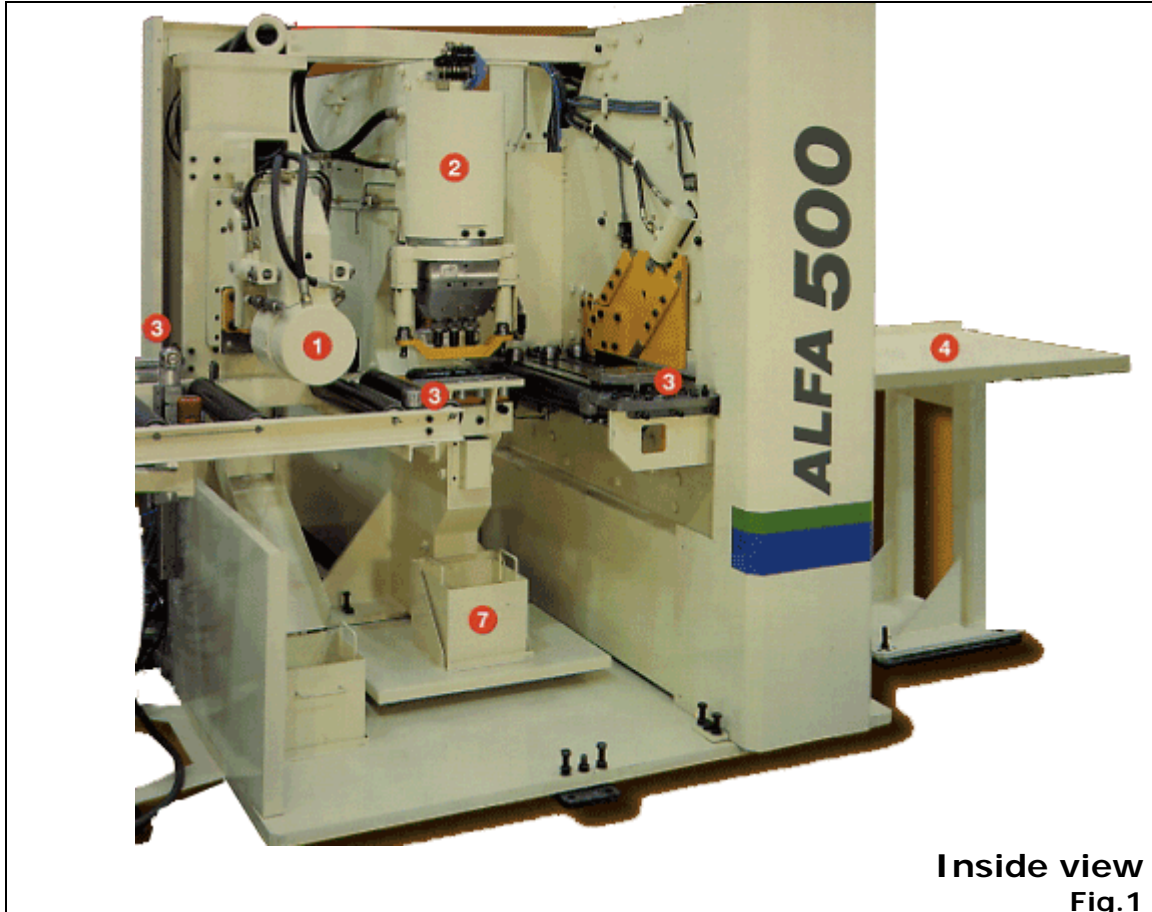


# ALFA 500 flat & profile processing

## New production concept



Inside view  
Fig.1

### Processing assembly

1. Vertical movement (Z axis) for punching unit.
2. Horizontal movement (Y axis) for punching unit.
3. Guiding rollers to push material towards reference line.
4. Output table for processed material exit.
5. Windows® based CNC. (Fig.2)
6. Compact hydraulic unit. (Fig.2)
7. Slug collectors.

# Unbeatable value!



Front view  
Fig.2

# Description

GEKA has developed **ALFA 500** (Automatic Line for Flats and Angles) with a new productivity concept specially aimed at the steel building fabricators. The latest technology of the 21 century and our experience of more than 80 years in punching and shearing machines makes **ALFA 500** a flexible, reliable and high quality machine to meet the needs of the steel fabricators with an unbeatable value.



## Composition

Feeding assembly.  
Processing assembly.  
Material output.

## Characteristics

### Feeding assembly

Carriage controlled by the CNC and encoder.  
Feeding speed is variable from zero to 24m./min.  
Positioning accuracy: 0,25 mm. + 0,1 mm./m.

### Processing assembly

Vertical punching unit with single punch for punching the vertical leg of the angle 88 cycles / min. (20mm. stroke).

Horizontal punching unit with triple punch selected by CNC for punching horizontal leg of de angle and flat bars, 44 cycles / min. (20 mm. stroke).

Revolutionary design (patent pending) of single shearing station for cutting angles and flat bars.

Complete hydraulic system with a 15 Kw motor drive and with electrical control cabinet.

- Design and construction under CEE regulations.

## Capacities\*

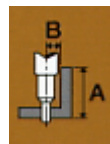
Maximum L 150 x 150 x 15 mm.  
6" x 6" x 1/2"  
Minimum L 40 x 40 x 4 mm.  
1 1/2" x 1 1/2" x 5/32"

Flat bar width from 50 up to 500 mm.  
2" up tp 20"  
Flat bar Thickness from 5 up to 20 mm.  
3/16" up to 3/4"  
Vertical punching power 50 t.  
55 US tons.  
Horizontal punching power 110 t.  
120 US tons.  
Maximum shearing power 187 t.  
200 US tons.  
Length of material: 6 meters with optional 6 meters addition.  
20"with optional 20" addition.

\* Based on 45 KG / mm<sup>2</sup> steel

### Gauge limit

A	B
<=50mm.	14mm.
51/70mm	21mm.
>70mm.	31mm
A	B
<= 2"	9/16"
2" / 2 3/4"	13/16"
> 2 3/4"	7 1/4"

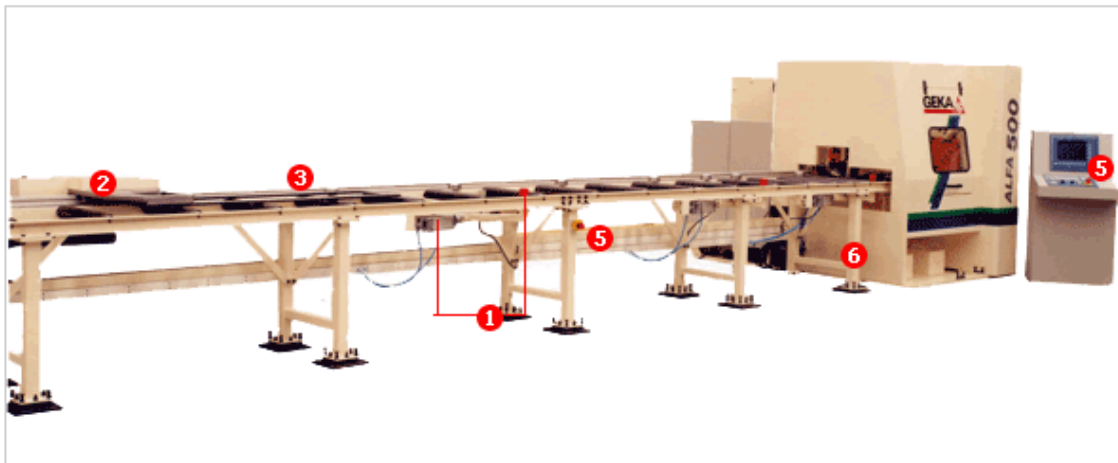


# Flat & profile processing

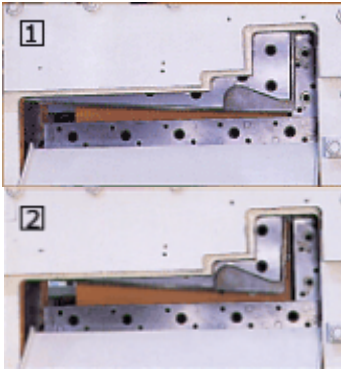
## ALFA 500

### Feeding assembly

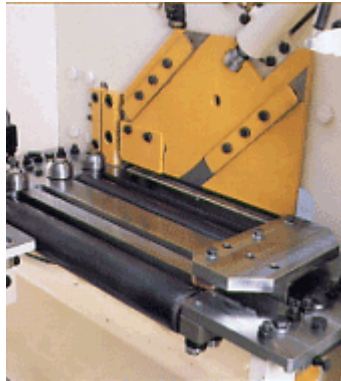
1. Pneumatic side rollers for accurate guiding of material.
2. Carriage driven by rack and pinion activated DC servomotor.
3. Hardened guides.
4. Easy levelling and alignment.
5. Emergency stop for security.



- Unbeatable value
- New concept
- High productivity
- Compact machine
- Flexible production
- Easy use and programming
- Low maintenance requirements



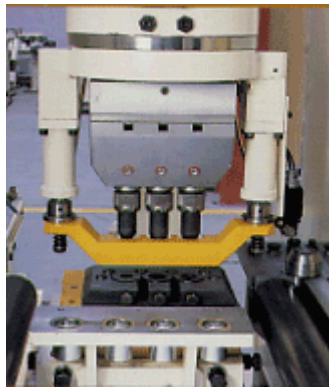
1. Blade positioned for flat cutting.
2. Blade positioned for angle cutting. Automatic Change.



Automatic guide and clamping for shearing.



Punching unit of 50 t. for vertical leg of the angle with simple punch up to Ø 31 mm.

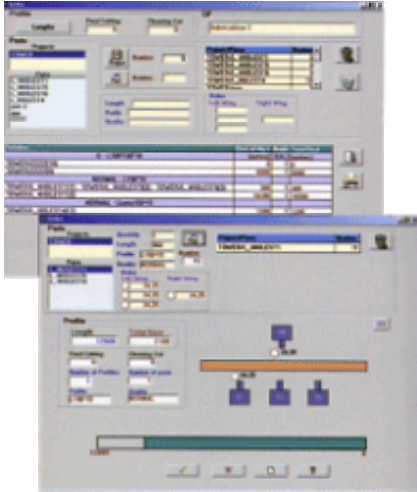


Triple punching equipment (31/31/31) or 31/40/31) of 110 tn for flats and horizontal leg of the angle.

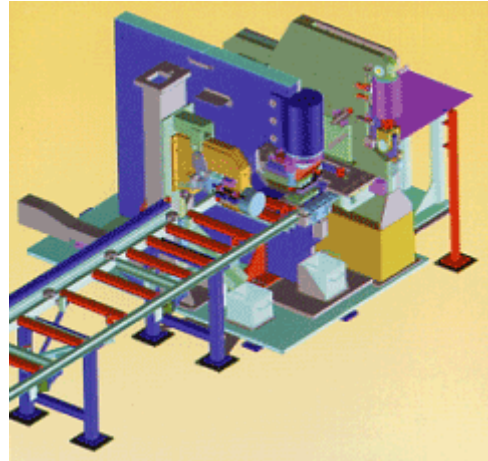


PC based CNC of latest generation with telediagnosis (modem) and big storage capacity.





LinePro software for generation of programs for CNC. nesting, importing DXF and DSTV files and creating production and stock reports.



Modern design technology applied to **GEKA** machines.

# Operating process

