# PIRANHA PRESS BRAKE & SHEARS



Y1



### **BENDING FORCE**

Bending tonnage for other materials as compared to mild steel on chart are as follows:

- ▲ Soft Brass 50% of tonnage shown
- Aluminum Alloys (Heat Treated) Same as steel
- ▲ Stainless Steel 50% more than shown
- ▲ **Soft Aluminum** 50% of tonnage shown
- ▲ Chrome Molybdenum 100% more than shown

Steels greater than 60,000 PSI requires additional tonnage and/or wider die openings.

All of the above bending tonnages are nominal and represent average conditions. These values are dependent upon the radii of the dies, the yield strength of the material, the temper of the material, direction of grain, etc. Therefore, a safety factor of at least 20% should be added when selecting a press for a given job.

Suggested die openings for material up to 1/4" is 8 times material thickness

Suggested die openings for material above 1/4" is 10 times material thickness

### PRESS BRAKE TONNAGE CHART

| METAL<br>THICKNES | s l   |     |       |      |       |      |      |
|-------------------|-------|-----|-------|------|-------|------|------|
| GA                | IN    | .25 | .3125 | .375 | .4375 | .5   | .625 |
| 20                | .036  | 3.1 | 2.3   | 1.7  | 1.4   | 1.1  |      |
| 18                | .048  | 5.3 | 4.0   | 3.0  | 2.5   | 2.2  | 1.7  |
| 16                | .060  | 9.6 | 7.1   | 5.6  | 4.5   | 3.8  | 2.8  |
| 14                | .075  |     | 11.9  | 9.2  | 7.6   | 6.3  | 4.7  |
| 12                | .105  |     |       |      | 16.7  | 13.1 | 9.7  |
| 11                | .120  |     |       |      |       | 19.2 | 14.2 |
| 10                | .135  |     |       |      |       |      | 18.6 |
| 3/16              | .188  |     |       |      |       |      |      |
| 1/4               | .250  |     |       |      |       |      |      |
| 5/16              | .313  |     |       |      |       |      |      |
| 3/8               | .375  |     |       |      |       |      |      |
| 7/16              | .438  |     |       |      |       |      |      |
| 1/2               | .500  |     |       |      |       |      |      |
| 5/8               | .625  |     |       |      |       |      |      |
| 3/4               | .750  |     |       |      |       |      |      |
| 7/8               | .875  |     |       |      |       |      |      |
| 1                 | 1.000 |     |       |      |       |      |      |

 .75
 .8

 1.3
 ...

 2.2
 .1

 3.5
 .3

 8.0
 ...

 11.1
 ...

 27.4
 ...

 27.4
 ...

### WIDTH OF V DIE OPENING

| .875 | 1    | 1.125 | 1.25 | 1.5  | 2    | 2.5   | 3    | 3.5   | 4     | 5     | 6     | 7    | 8    | 10   | 12   |
|------|------|-------|------|------|------|-------|------|-------|-------|-------|-------|------|------|------|------|
|      |      |       |      |      |      |       |      |       |       |       |       |      |      |      |      |
|      |      |       |      |      |      |       |      |       |       |       |       |      |      |      |      |
| 1.8  | 1.5  |       |      |      |      |       |      |       |       |       |       |      |      |      |      |
| 3.0  | 2.5  | 2.1   | 1.8  |      |      |       |      |       |       |       |       |      |      |      |      |
| 6.5  | 5.6  | 4.6   | 4.1  | 3.2  |      |       |      |       |       |       |       |      |      |      |      |
| 9.0  | 7.5  | 6.3   | 5.5  | 4.4  | 2.9  |       |      |       |       |       |       |      |      |      |      |
| 11.9 | 9.9  | 8.5   | 7.3  | 5.8  | 4.0  |       |      |       |       |       |       |      |      |      |      |
| 23.1 | 19.3 | 16.4  | 14.3 | 11.2 | 7.5  | 5.7   | 4.4  |       |       |       |       |      |      |      |      |
|      | 39.4 | 33.3  | 29.5 | 22.7 | 15.4 | 11.4  | 9.0  | 7.4   | 6.1   |       |       |      |      |      |      |
|      |      |       | 50.4 | 39.8 | 27.0 | 19.7  | 15.3 | 12.7  | 10.5  | 7.7   |       |      |      |      |      |
|      |      |       |      | 61.1 | 42.3 | 30.9  | 24.0 | 19.6  | 16.3  | 12.3  | 9.5   |      |      |      |      |
|      |      |       |      |      | 61.7 | 45.8  | 35.4 | 28.6  | 24.4  | 17.3  | 14.8  | 11.2 |      |      |      |
|      |      |       |      |      | 85.2 | 63.6  | 48.8 | 39.7  | 33.3  | 24.6  | 19.4  | 15.9 | 13.1 |      |      |
|      |      |       |      |      |      | 110.0 | 86.2 | 70.0  | 58.3  | 43.1  | 33.3  | 27.4 | 23.3 | 16.9 |      |
|      |      |       |      |      |      |       |      | 110.0 | 93.0  | 68.7  | 53.5  | 43.6 | 36.5 | 27.1 | 21.0 |
|      |      |       |      |      |      |       |      |       | 137.0 | 104.0 | 80.7  | 64.6 | 52.9 | 39.7 | 31.6 |
|      |      |       |      |      |      |       |      |       |       | 143.0 | 113.0 | 91.2 | 76.2 | 56.3 | 44.2 |

APPROXIMATE PRESSURE IN TONS/LINEAR FOOT REQUIRED TO MAKE 90° AIR BEND ON MILD STEEL (60,000 PSI TENSILE STRENGTH) WITH VARIOUS WIDTH DIE OPENINGS

# **ROBUST** & ECONOMICAL

Robust torque tube design with a link system that connects both sides of the ram and rotates to keep the ram parallel during the bending process. This machine fits well in applications not requiring sophisticated control or back gauge options for a solid press brake offering.

# **PRESS BRAKE** T-SERIES

40-280 Tons



# **PIRANHA ADVANTAGE**

- ▲ X-axis Back gauge



### **STANDARD FEATURES**

- Estun E21 CNC Control
- Light Curtain
- ▲ Side & Rear Interlock Safety Gates
- ▲ Starter set of press brake tooling (Upper punch with multi v-die)
- Please see specific quote for individual machine specifications.

Torque tube/X-axis back gauge



# **Y1-Y2** PRECISION

High end precision press brake with a long list of standard features such as integrated bed crowning, Delem Controls, as well as having the option to add many upgrades. Fits shops requiring high end control features and multi axis back gauges for bending complex parts.

# **PRESS BRAKE**





# **PIRANHA ADVANTAGE**

### STANDARD FEATURES

### STANDARD SAFETY EQUIPMENT

- ▲ Side Safety Gates

- Controls: DA66T or DA69T
- Back Gauges:
- ▲ Offline Software: Profile-T 2D

▲ DA58 CNC control

A Ram repeatability .0004"

Easy Crown Automated Hydraulic Bed ▲ Crowning with 3 piece bed design

▲ Fiessler AKAS-LC II Laser Safety Curtain

▲ Hoebiger Hydraulics from Germany,

Heidenheim Scales from Switzerland and Telemecanique, Siemens Electrics with Delta or Panasonic Drives & Motors

▲ Side & Rear Safety Gates

X & R Back Gauge

Fiessler Laser Curtain

Rear Safety Gates

### **OPTIONAL UPGRADES**

Z1 Z2 (up to 6-axis)

Profile-T 3D



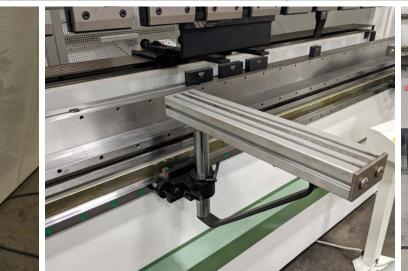
6 axis back gauge



Please see specific quote for individual machine specifications.











# TOUGH. ACCURATE. RELIABLE.

This economically priced hydraulic guillotine shear comes standard with many features not normally found at this price point such as CNC controlled blade gap and rake angle. This all works together to get the best quality sheared parts every time on a wide range of materials. **PIRANHA SHEAR** HYDRAULIC GUILLOTINE

1/4" - 1" Capacity



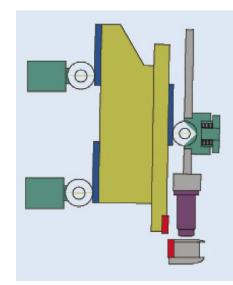




## PIRANHA ADVANTAGE STANDARD FEATURES

- ✓ Delem DAC360s Control
- ▲ Guillotine design with a 3-point Roller Gib System
- ▲ Standard 39" Travel Back Gauge with retract function
- ▲ CNC Rake Angle Adjustment
- CNC Blade Gap Adjustment
- CNC Stroke Adjustment
- ▲ Bosch Rexroth Hydraulics with accumulator return
- ▲ High Quality Alloy Segmented Blade

Please see specific quote for individual machine specifications.





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### PRESS BRAKE

SHEAR

BENDING ROLL

PORTABLE PRESS

LASER

PLASMA

COMBINATION