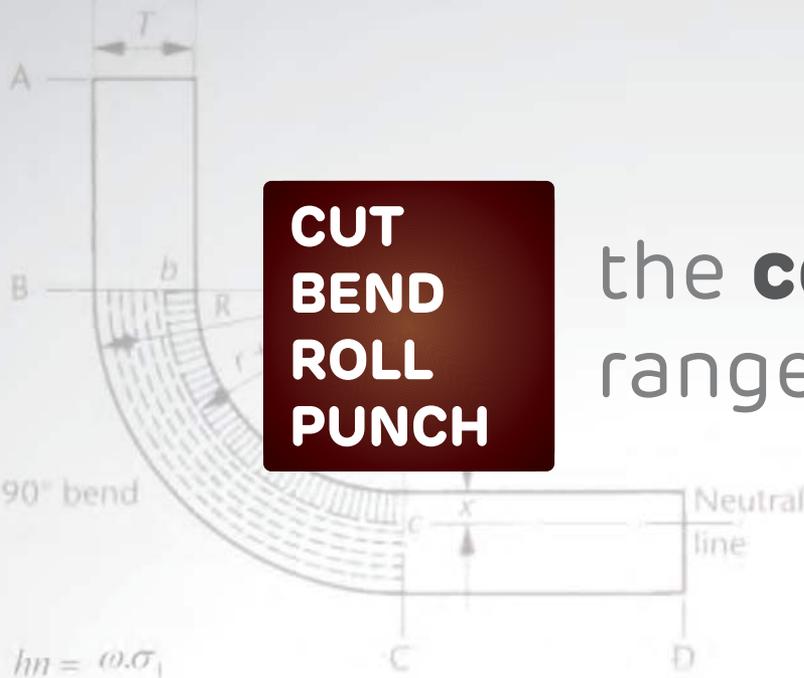


CUT BEND ROLL PUNCH

the **complete**
range of **solution**



$$hn = \omega \cdot \sigma_1$$

$$k'n = \omega \cdot KN$$

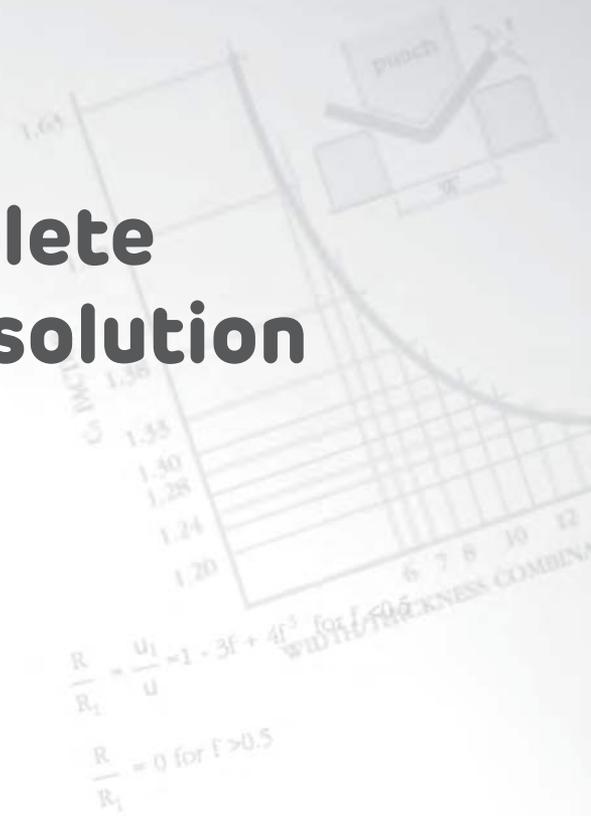
$$k'l' = \rho \cdot c$$

$$hn = \sigma_{\eta} \cdot mn$$

$$mn = P_{\eta\omega} \cdot k'l' - Q_{\eta\omega} \cdot k'n$$

$$mn = P_{\eta\omega} \cdot \rho \cdot c - Q_{\eta\omega} \cdot \omega \cdot KN$$

$$\omega = \frac{P_{\eta\omega} \cdot \rho \cdot c}{\frac{\sigma_1}{\sigma_{\eta}} + Q_{\eta\omega} \cdot KN}$$



$$\frac{R}{R_1} = \frac{u_1}{u} = 1 - 3f + 4f^2 \text{ for } f \leq 0.5$$

$$\frac{R}{R_1} = 0 \text{ for } f > 0.5$$

where $f = \frac{s_y R}{E t} \times 10^{-3}$
 R = pre-spring back inside bend radius, mm
 R_1 = post-spring back inside bend radius, mm
 pre-spring back angle of bend (former)



www.energymission.com

HYDRAULIC IRON WORKER

SCAN FOR LIVE CHAT



ENERGYMISSION
MACHINERIES (INDIA) PVT. LTD.



Energy Mission Machineries (India) Pvt. Ltd. was established in 1999 with strong vision to deliver most reliable & economical solutions in sheet metal industry. Today Energy Mission is one of the fastest growing company with maximum satisfied customer base in India and Abroad.

WE ARE LEADING MANUFACTURER OF

- ◆ CNC Servo Hybrid & Synchro Press Brakes
- ◆ NC / Conventional Hydraulic Press Brakes
- ◆ CNC / NC / Conventional Hydraulic Shearing Machines
- ◆ Four / Three Roll Plate Rolling Machines
- ◆ Hydraulic Iron Workers
- ◆ Hydraulic / NC Busbar Cutting, Bending & Punching Machines
- ◆ Single / Double / Triple Action Deep Drawing Presses
- ◆ CNC Servo H & C Type Presses
- ◆ Punching & Blanking Hydraulic Presses
- ◆ CNC V Grooving Machines

OUR STRENGTH

- ◆ 22 years of Experience in Manufacturing
- ◆ World Class manufacturing facility spread in 2,50,000 sq.ft
- ◆ Production capacity of 1200 machines per annum
- ◆ More than 5000+ installation across India & Abroad
- ◆ Trained & qualified team of 350 employees
- ◆ Dedicated team for design & development
- ◆ Sales & service network all over India
- ◆ Keen quality control on each component & process
- ◆ Awarded as "Outstanding Entrepreneur of Year" in Year 2008-09 & Year 2014-15

OUR VISION

We at "Energy Mission" believe to deliver high quality products at competitive price supported by best service support. To achieve this mission, we have developed in-house manufacturing facilities, focused manufacturing processes with in-depth technology know-how, sales network associates across India & abroad. Enthusiastic team of customer care is always ready to rush within shortest time at the doorstep of customer or any requirements. Our skilled workforce has a proven performance record in satisfying diverse needs of customers around the globe.

MANUFACTURING FACILITY



FLOOR BORING MACHINE

- ♦ In house single reference machining Facility ensures required quality parameters.
- ♦ CNC Floor Boring machines with Traverse Travel of 9 mtr & 8 mtr.
- ♦ Heavy duty 360° Machining position Rotary table

CNC TURNING & VERTICAL MILLING CENTRE

- ♦ High-tech CNC lathe with 8 station turret for precise cylinder component machining
- ♦ CNC Vertical milling machine with 24 stations auto Turret
- ♦ CNC boring machine suitable for Concave & Convex shapes machining.



CNC PLANO MILLER

- ♦ CNC Plano Milling machines Up to 6 meter bed length
- ♦ Multiple head Single reference Machining
- ♦ Accurate, repetitive & fast operation reduces Production time & cost

INFRASTRUCTURE



CNC PLASMA CUTTING

- ◆ Precise & Fast CNC plasma cutting with X & Y controlled axis suitable for 4 mtr wide & 13 mtr long plates.
- ◆ Precise & accurate cutting accelerates manufacturing process.
- ◆ Inbuilt Nesting Facility to reduce wastage & production time



SHOT BLASTING UNIT

- ◆ Environment Friendly surface preparation Facility to remove rust and corrosive materials from the surface
- ◆ Capacity to handle up to 7 mtr. Long Plates & Assembly Structures

PAINT BOOTH UNIT

- ◆ Cross Draft type Paint booth facility to make painting & refinishing parts & Fabricated structures
- ◆ Suitable for 10 Mtr. Long Plates & Assembly Structures



HYDRAULIC IRON WORKER - SIGMA

EM IW - 50



► SALIENT FEATURES

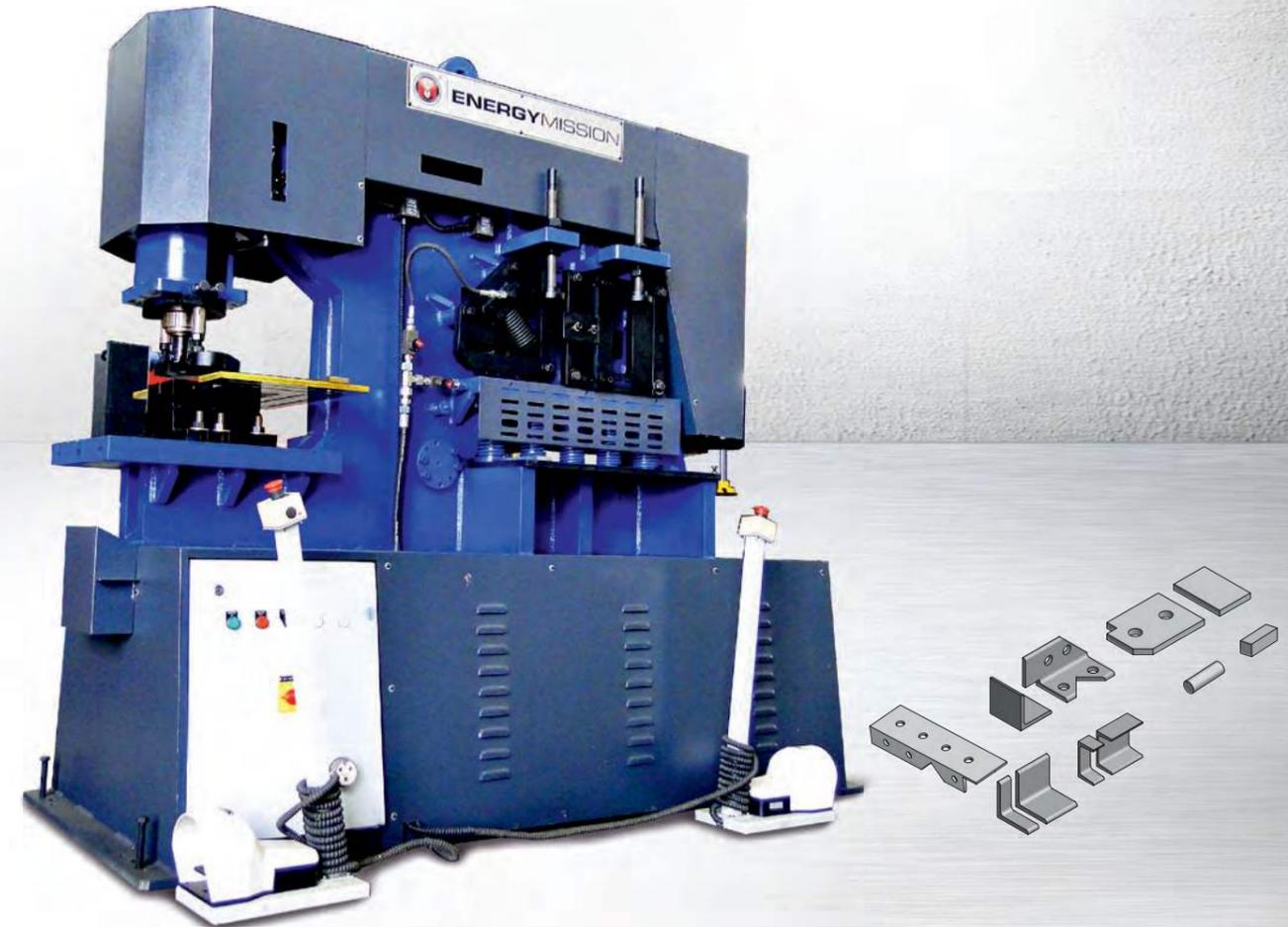
- ♦ Energy Mission Hydraulic Iron Worker (SIGMA) is designed to give an effective solution to all the cutting & punching problems of flat and Section with satisfactory work quality from robust and compact machine
- ♦ Unique compact design by using ultra-sonically tested steel plates
- ♦ International brands hydraulic & electrical components ensure trouble free operation
- ♦ Five work station catering '7' different operation
- ♦ Sequential operation of punching station with other work station
- ♦ Direct shearing avoids any waste of materials

ENGINEERING EXCELLENCE WITH COST EFFECTIVE SOLUTION

- | | |
|----------------------|---------------------|
| ♦ Angle Cutting | ♦ Channel Cutting |
| ♦ Flat Cutting | ♦ Round Bar Cutting |
| ♦ Square Bar Cutting | ♦ T-section Cutting |
| ♦ Punching | ♦ Notching |

HYDRAULIC IRON WORKER - SIGMA

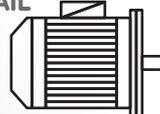
EM IW - 80 / 110 / 165



► SALIENT FEATURES

- ♦ Energy Mission Hydraulic Iron Worker (SIGMA) is designed to give an effective solution to all the cutting & punching problems of flat and Section with satisfactory work quality from robust and compact machine
- ♦ Unique compact design by using ultra-sonically tested steel plates
- ♦ Five work station catering '7' different operation
- ♦ International brands hydraulic & electrical components ensure trouble free operation
- ♦ Sequential operation of punching station with other work station
- ♦ Direct shearing avoids any waste of materials
- ♦ Hydraulic Holding Cylinder for Material Holding. (Shearing / Angle & Punching Station)



TECHNICAL SPECIFICATION		IW 50	IW 80	IW 110	IW 165
TONNAGE		50 T	80T	110T	165T
PUNCHING 	Diameter x max. thickness	Ø 20 x 15 mm	Ø 30 x 20 mm	Ø 36 x 25 mm	Ø 36 x 32 mm
	Diameter x thickness	Ø 40 x 8 mm	Ø 38 x 12 mm	Ø 40 x 20 mm	Ø 50 x 24 mm
	Maximum Diameter	Ø 50 mm x 8 mm	Ø 50 mm x 12 mm	Ø 65 mm x 14 mm	Ø 65 mm x 20 mm
	Cylinder Stroke	80 mm	90 mm	90 mm	100mm
	Stroke count in (20 mm)	15 Strokes/min.	12 Strokes/min.	15 Strokes/min.	29 Strokes/min.
	Throat depth	250 mm	350 mm	400 mm	510 mm
	Working height	1000 mm	1000 mm	1100 mm	1100 mm
	Clamping Arrangement	Manual	Hydraulic	Hydraulic	Hydraulic
ANGLE SHEAR 	Angle section (90°)	100 x 100 x 10 mm	150 x 150 x 12 mm	200 x 200 x 12 mm	200 x 200 x 16 mm
	Angle section (45°)	70 x 6 mm	80 x 8 mm	80 x 10 mm	80 x 10 mm
	Working height	1000 mm	1100 mm	1250 mm	1185 mm
SHEET METAL SHEAR 	Sheet metal	150 x 16 mm	330 x 20 mm	400 x 20 mm	760 x 20 mm
	Sheet metal	250 x 12 mm	480 x 10 mm	620 x 10 mm	400 x 30 mm
	Blade Length	325 mm	485 mm	620 mm	770 mm
	Shearing with angle	100 x 100 x 10 mm	150 x 150 x 12 mm	200 x 200 x 12 mm	200 x 200 x 16 mm
	Working height	870 mm	870 mm	950 mm	920 mm
NOTCHING 	Thickness	6 mm	10 mm	14 mm	16 mm
	Width	48 mm	80 mm	80 mm	63.5 mm
	Depth	80 mm	100 mm	100 mm	90 mm
	Working height	900 mm	900 mm	900 mm	920 mm
CHANNEL SHEAR 	Channel section (90°)	100 x 50mm (C-Channel)	150 x 75 mm (C-Channel)	200 x 75 mm (C-Channel)	200 x 90 mm (C-Channel)
OPTIONAL TOOLS 	Round / Square Shear	Ø 32-32 mm	Ø 40-40 mm	Ø 50-50mm	Ø 60-60mm
OPTIONAL TOOLS 	I-Beam section (90°)	100 x 50 mm (I-Beam)	150 x 75 mm (I-Beam)	200 x 75 mm (I-Beam)	200 x 100 mm (I-Beam)
OPTIONAL TOOLS 	Special V-Notching tooling	85 x 85 x 6 mm	85 x 85 x 8 mm	85 x 85 x 8 mm	105 x 105 x 16 mm
OPTIONAL TOOLS 	V-bending	300 x 8 mm	300 x 10 mm	300 x 12 mm	300 x 14 mm
TECHNICAL DETAIL 	Motor Power	5 Hp.	7.5 Hp.	15 Hp.	20 Hp.
	Weight (Approx.)	1700 Kg.	2700 Kg.	4300 Kg.	5180 kg.
	Machine Dimensions (LxWxH)	1570 x 1000 x 2050 mm	1950 x 1000 x 2100 mm	2400 x 1000 x 2300 mm	2710 x 1070 x 2010 mm

The Company reserves right to change Technical Specifications without prior notice.

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ENERGYMISSION
MACHINERIES (INDIA) PVT. LTD.

SCAN FOR LIVE CHAT ▶
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