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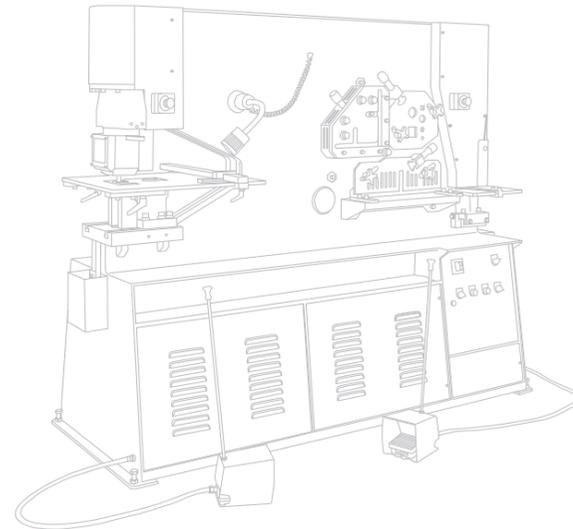
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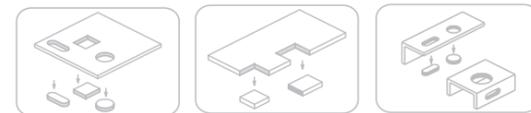


HYDRAULIC  
**IRONWORKERS**  
& PUNCHING MACHINES



**Multi-Function  
Excellent Quality  
Economical Investment**

**IW-60S**



CE ISO 9001

# Introduction

Sunrise Hydraulic Ironworkers are designed with multiple functions to save labor, time, energy and cost. This allows Sunrise Ironworkers to meet the diversified needs of the metal fabricating industry.

Maximum efficiency and long life is guaranteed by using the latest manufacturing methods, including powerful CAD design, modern production line with CNC equipment and continuous quality control.

Each work station is equipped with specially designed hold-downs to ensure safety while providing precision and ease of use. These ironworkers are the most economical and efficient machines in the industry for the manufacturing of metal products.

All Sunrise ironworkers and punching machines come standard with a low pressure tool alignment mode. The operator can use the JOG mode to run the machine in low pressure and low speed for tool alignment, blade changes and maintenance operations. This greatly improves operator safety and prevents tool damage in case of mis-alignment.

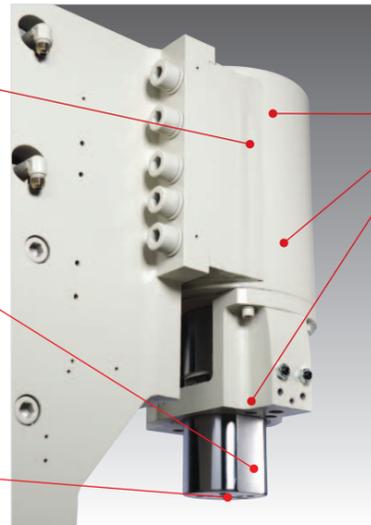
## Key features on the dual cylinder models:

The dual cylinder models feature a separate cylinder for independent operation from shearing stations.

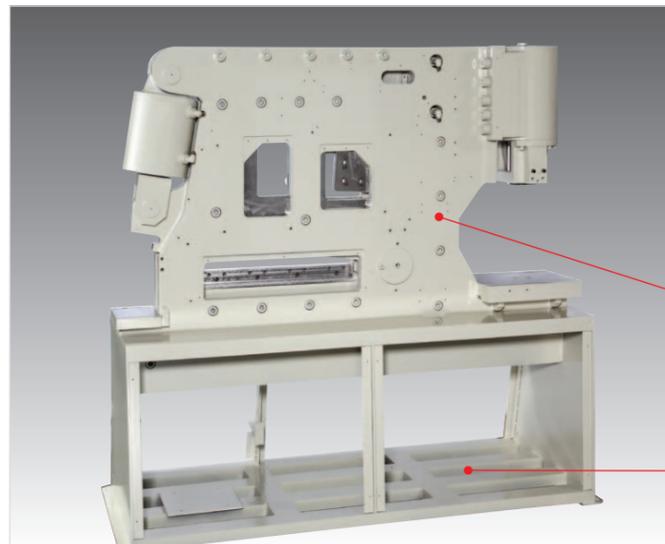
Cylinder ram with flat surface for rigid guiding and to ensure proper alignment of tool.

Keyed punch ram to ensure alignment of shaped tooling.

The punching station features a large cylinder mounting plate to ensure maximum cylinder support under heavy load. The punching base is one solid plate with T-slot grooves for universal tool fixture.



The cylinder ram is guided at three positions to provide extra support and absorb side-load forces for added protection of cylinder seals.

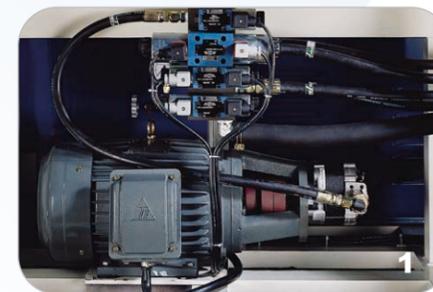


The frame of the machine is a monoblock construction that integrates both bolts and welding reinforcement to provide maximum frame structure rigidity.

The base of the machine is made from welded channel in a grid pattern for a rigid machine foundation.

**IW-100S**

- \*Pipe Notching
- \*Angle Bending
- Punching
- \*Rounding off Corners
- \*Press Brake
- Punching
- \*Radius Corners
- \*Pipe Punching
- \*Cutting and Rounding off
- \*Bilateral Rounding off
- Round Bar Shear
- Square Bar Shear
- \*Channel Shear
- \*I Beam Shear
- Angle Shear
- Flat Bar Shear
- Angle Miter Shear
- \*Vee Notching
- Notching
- Notching



1. The use of name-brand hydraulic components ensure excellent reliability of the hydraulic system.
2. Electric cabinet with low 24 volt DC control circuit provides full protection and safety.

\* : Optional tooling



# Sunrise Ironworker

## Punching Station

- A full range of punches and dies are available for various punching needs.
- Quick change retaining nut system for fast punch tooling change.
- Thoughtfully designed stripper for visibility, safety and ease of use.
- A large 2-piece table with scales and gauging stops is standard on all models.
- Stripper with interchangeable plates of various openings to minimize deformation is standard on all models.
- Optional hydraulic stripper is available on dual-cylinder ironworkers and all punching machines.



\*Punches and dies are sold separately.



Overhang die holder for punching channel flanges and angles. (optional on single cylinder models)



\*Single hole die holder for punching channel webs.



\*Goose-neck die holder for punching channel flanges and webs.



\*Urethane spring stripper for minimal deformation.



\*Pipe notcher.



\*Oversize punch attachment.



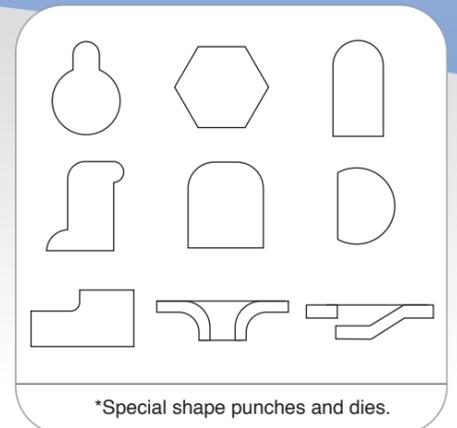
\*Multi-stop gauge table. (S/SD/KD and PM models only)



\*Single vee press brake.



\*Multi vee press brake.



\*Special shape punches and dies.



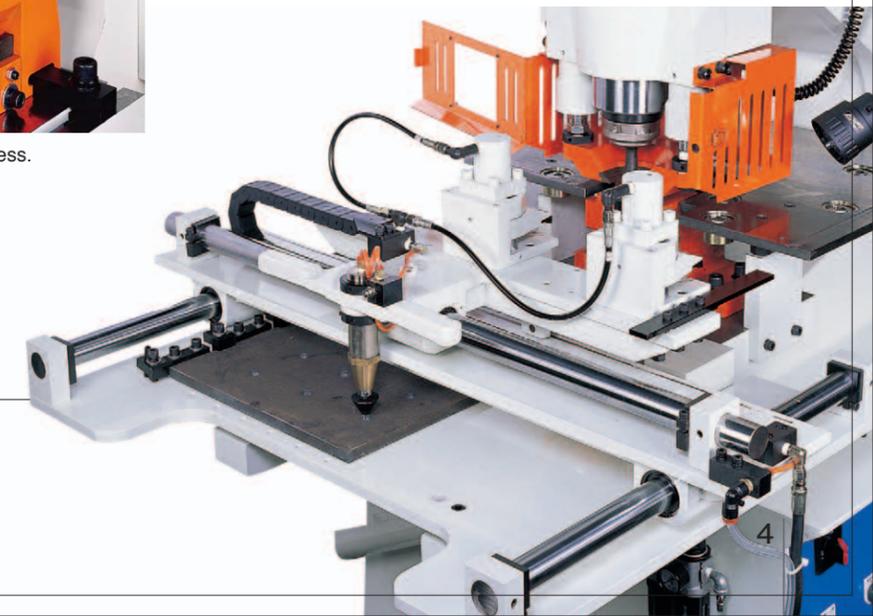
\*Large vee-notch. (punch side)



\*Angle bending press.

Optional duplicating table with hydraulic stripper and hydraulic clamping for fast and accurate repetition work. (S/SD and PM models only)

\* : Optional tooling





# Sunrise Ironworker

## Flat Bar Shearing Station

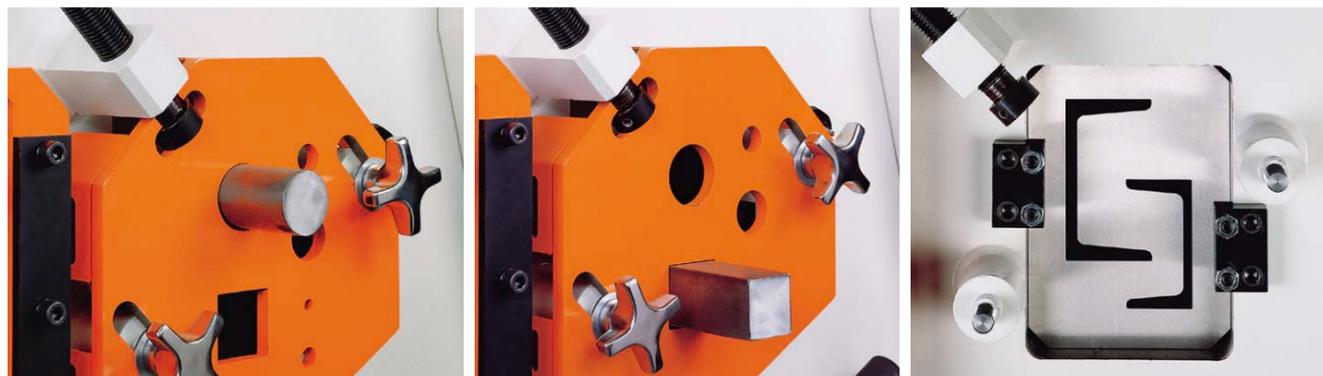
- Specially machined upper blade to give a clean shear with minimum distortion.
- Lower blade has four usable cutting edges.
- Variable degree miter-cutting on angle flange.
- Easily adjustable hold-down.
- Support table with guides for accurate positioning.



\*Optional hydraulic hold-down for double cylinder ironworkers. (Standard on IW-165SD)

## Bar Shearing Station

- One hold-down for various sizes of square bar shearing and round bar shearing.
- Optional channel and section bar shear tooling is available for most models. (See specification chart for details)



\*Channel blades. (optional)

# FEATURES

## Angle Shearing Station

- Single shear with no material loss and minimal deformation.
- 45° miter-cut is easy and clean.
- Stationary blades with four usable cutting edges.
- Selectable corner radii on moving blades for optimum results on small or large angles.



## Notching Station

- Ideal for notching of flat bars and angles.
- Electrically interlocked safety guard for maximum safety and visibility.
- Gauging table included with stops for precise positioning.



\*Optional.



## Other Included Features

1. Three limit switches enable setting of short notch stroke to improve efficiency. (on IW-50A, IW-60H and S/SD models)
2. Magnetic base LED work light for safer operation. (optional on IW-45M)
3. 1000mm electric backgauge for higher efficiency in repetitive work. Longer gauges are available on request.



\* Optional on IW-45M, IW50A, IW-60H.



The IW-45M has four standard stations, capable of a wide range of applications. The punching station can be converted into a notching station. IW-45M is heavier and stronger than other competitive machines. This durable and economical model is perfect for small shops with a limited budget.



**IW-45M**



**IW-50A**



**IW-60H**

The IW-50A features a vertical moving ram at the punching station which improves the punching result and enables use of optional tooling such as pipe notching and press braking tool. The square/round bar shear is a stand-alone station with the possibility of optional channel shear and section bar shear tooling. This model also features lower angle shearing and bar shearing stations.

The IW-60H features the "Z" shape aperture at the angle shear station, which makes this model capable of doing both the internal and external miter shear on angles. The round/square bar shearing on this model is a stand-alone station that has large shearing capability.

# SINGLE CYLINDER IRONWORKERS

## Capacities and Specifications

Unit: mm

MODEL	IW-45M	IW-50A	IW-60H
<b>PUNCHING</b>			
Punching Force	45 Ton	50 Ton	60 Ton
Punch Capacity	ø22 x 15	ø20 x 18	ø28 x 15
(Diameter x Thickness)	ø40 x 8	ø40 x 9	ø40 x 11
Throat Depth	175	180	220
Maximum Stroke Length	35	42	55
Cycles / Min. (15mm stroke)	31	24	29
Working Height Up to Die	970	840	1000
<b>ANGLE SHEARING</b>			
At 90° Shearing	80 x 80 x 8	100 x 100 x 10	100 x 100 x 13
At 45° Miter Shearing	50 x 50 x 6	65 x 65 x 8	80 x 80 x 8
Working Height	1120	850	1236
<b>FLAT SHEARING</b>			
Flat Bar Shear	350 x 8	300 x 12	350 x 15
(Width x Thickness)	180 x 12	200 x 18	210 x 20
Blade Length	360	310	360
Angle Flange Trim	75	100	100
Working Height	970	1150	1006
<b>BAR SHEARING</b>			
Round Bar Shear	ø25	ø32	ø40
Square Bar Shear	25 x 25	30 x 30	38 x 38
Channel Shear	--	76*	102*
I Beam Shear	--	76*	102*
Working Height	1190	880	1260
<b>NOTCHING</b>			
Rectangular Notcher (W x D x T)	50.8 x 90 x 7**	50.8 x 90 x 7	50.8 x 90 x 8
Vee-Notcher (Side x Side x T)	90 x 90 x 8**	90 x 90 x 8*	90 x 90 x 10*
Working Height	--	1150	1006
<b>SPECIAL TOOLING</b>			
Single Vee Press Brake (W x T)	160 x 6*	160 x 10*	160 x 8*
Multi Vee Press Brake (W x T)	--	250 x 6*	--
Angle Bending	65 x 8*	65 x 8*	65 x 10*
Pipe Notching	--	ø60*	--
<b>OTHER</b>			
Electric Power (HP)	5HP	5HP	7.5HP
Net Weight (Apr.)	830 kg	1130 kg	1500 kg
Gross Weight (Apr.)	930 kg	1250 kg	1650 kg
Machine Dimension (Apr.)(LxWxH)	1260 x 700 x 1350	1310 x 770 x 1450	1460 x 770 x 1560
Packing Dimension (Apr.)(LxWxH)	1530 x 860 x 1630	1580 x 930 x 1730	1730 x 930 x 1840

\* : Optional Tooling

\*\* : On IW-45M the notcher is optional tooling to be installed at the punching station.

Note: Based on low carbon / mild steel material strength of 45kg / mm<sup>2</sup> tensile.

Design and specifications subject to change without notice.

A 1-hole die holder and a 2-piece gauging table are provided as standard equipment on all single cylinder models.



The all new K-series is a special designed compact ironworker with vertical movements at all stations. The entire main slide moves in straight up and down motion to provide the optimum results for punching, shearing, notching, and bending. Hydraulic hold-down and urethane spring stripper are also available for the best performance. The fast cylinder stroke greatly improves the efficiency. This model incorporates versatility, efficiency, accuracy, and ease of use at an excellent price.



**IW-60B**



**IW-45K**



**IW-85KD**

# K - SERIES IRONWORKERS

## Capacities and Specifications

Unit: mm

MODEL	IW-45K	IW-60K	IW-60B	IW-85KD
<b>PUNCHING</b>				
Punching Force	45 Ton	60 Ton	60 Ton	85 Ton
Punch Capacity (Diameter x Thickness)	ø22 x 15 ø40 x 8	ø22 x 20 ø40 x 11	ø22 x 20 ø40 x 11	ø27 x 22 ø50 x 12
Throat Depth	165	200	200	410
Channel Flange Punch	--	--	--	75 ~ 180
Maximum Stroke Length	30	40	40	100
Cycles / Min. (15mm stroke)	37	34	34	38
Working Height Up to Die	1050	1050	1050	1050
<b>ANGLE SHEARING</b>				
Shearing Force	45 Ton	60 Ton	60 Ton	110 Ton
Shearing Cylinder Stroke Length	--	--	--	50
At 90° Shearing	75 x 75 x 6	100 x 100 x 8	100 x 100 x 8	130 x 130 x 12
Working Height	1000	1070	1070	1040
<b>FLAT SHEARING</b>				
Flat Bar Shear	300 x 10	350 x 15	350 x 15	406 x 17
Blade Length	310	360	360	410
Working Height	800	805	805	726
<b>BAR SHEARING</b>				
Round Bar Shear	ø30	ø40	ø40	ø45
Square Bar Shear	25 x 25	38 x 38	38 x 38	45 x 45
Channel Shear	76*	102*	102*	152*
I Beam Shear	76*	102*	102*	152*
<b>NOTCHING</b>				
Rectangular Notcher (W x D x T)	50.8 x 90 x 7	50.8 x 90 x 8	--	63.5 x 90 x 12
Vee-Notcher (Side x Side x T)	90 x 90 x 8*	90 x 90 x 8*	--	105 x 105 x 12*
Channel Notching	--	--	--	180 ~ 200
Working Height	1050	1050	--	1050
<b>SPECIAL TOOLING</b>				
Large Vee-Notcher (Side x Side x T)	--	--	--	145 x 145 x 10*
Single Vee Press Brake (W x T)	160 x 8*	160 x 8*	160 x 8*	250 x 15*
Multi Vee Press Brake (W x T)	250 x 4*	250 x 6*	300 x 6	500 x 5*
Angle Bending	65 x 8*	65 x 8*	65 x 8*	102 x 8*
Pipe Notching	ø60*	ø60*	ø60*	ø100*
<b>OTHER</b>				
Electric Power (HP)	5 HP	7.5 HP	7.5 HP	10 HP
Net Weight (Apr.)	840 kg	1180 kg	1285 kg	2750 kg
Gross Weight (Apr.)	940 kg	1320 kg	1435 kg	2900 kg
Machine Dimension (Apr.)	1050 x 760 x 1490	1180 x 760 x 1630	1380 x 760 x 1630	1795 x 1020 x 1865
Packing Dimension (Apr.)	1320 x 920 x 1770	1450 x 920 x 1910	1700 x 890 x 1940	2150 x 1180 x 2170



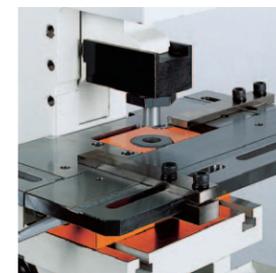
Hydraulic hold-down. (optional on IW-45K / IW-60B)



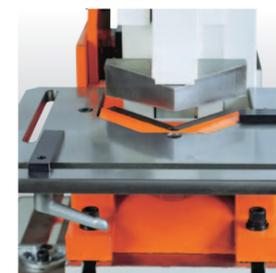
Channel notching on IW-85KD.



\*Urethane spring stripper.



\*Punching tool on notching station.



Optional triangular notcher.

\* : Optional Tooling

Note: Based on low carbon / mild steel material strength of 45kg / mm<sup>2</sup> tensile. Design and specifications subject to change without notice.



# "S/SD" SERIES

## Double Cylinder Models

The double cylinder "S/SD" series are in the Sunrise tradition of well engineered ironworkers built for high power, quality, and reliability. These ironworkers have two control foot pedals, and separate operations can be safely performed simultaneously. The low pressure setting for tool change provides maximum operation safety. The long punching cylinder stroke and deep throat enable mounting a wide range of special equipment. The large punching base with the "T-slot" mounting provides a solid base for securing the punching tooling, as well as a wide range of optional and custom designed tooling.



**IW-165SD**

# DUAL CYLINDER IRONWORKERS

## Capacities and Specifications

Unit: mm

MODEL	IW-60S IW-60SD	IW-80S IW-80SD	IW-100S IW-100SD	IW-125S IW-125SD	IW-165SD
<b>PUNCHING</b>					
Punching Force	60 Ton	80 Ton	100 Ton	125 Ton	165 Ton
Punch Capacity (Diameter x Thickness)	ø22 x 20 ø50 x 9	ø26 x 22 ø50 x 12	ø28 x 26 ø50 x 15	ø33 x 27 ø50 x 18	ø37 x 32 ø50 x 24
Throat Depth	S: 310 SD: 510	310 510	310 510	310 510	-- 510
Channel Flange Punch (Height)	180	180	180	180	180
Maximum Stroke Length	100	100	100	100	100
Cycles / Min. (20mm stroke)	30	29	28	28	29
Working Height Up to Die	1010	1050	1044	1069	1050
<b>ANGLE SHEARING</b>					
At 90° Shearing	130 x 130 x 13	152 x 152 x 13	152 x 152 x 15	152 x 152 x 18	205 x 205 x 20
At 45° Miter Shearing	65 x 65 x 8	80 x 80 x 10	80 x 80 x 10	80 x 80 x 10	80 x 80 x 10
Working Height	1115	1165	1216	1185	1185
<b>FLAT SHEARING</b>					
Flat Bar Shear (Width x Thickness)	350 x 15 240 x 20	460 x 15 300 x 20	610 x 16 400 x 20	610 x 18 400 x 25	760 x 20 400 x 30
Blade Length	360	465	620	620	770
Angle Flange Trim	100	100	100	100	120
Working Height	910	926	954	920	920
<b>BAR SHEARING</b>					
Round Bar Shear	ø40	ø45	ø45	ø50	ø60
Square Bar Shear	38 x 38	45 x 45	45 x 45	50 x 50	60 x 60
Channel Shear	130*	152*	152*	180*	203*
I Beam Shear	130*	152*	152*	180*	203*
Working Height	1220	1270	1332	1310	1370
<b>NOTCHING</b>					
Rectangular Notcher (W x D x T)	50.8 x 90 x 9	50.8 x 90 x 12	63.5 x 90 x 12	63.5 x 90 x 13	63.5 x 90 x 16
Vee-Notcher (Side x Side x T)	90 x 90 x 10*	90 x 90 x 12*	105 x 105 x 12*	105 x 105 x 13*	105 x 105 x 16*
Working Height	910	926	954	920	920
<b>SPECIAL TOOLING</b>					
Large Vee-Notcher (Side x Side x T)	145 x 145 x 8*	145 x 145 x 10*	145 x 145 x 12*	145 x 145 x 13*	145 x 145 x 13*
Single Vee Press Brake (W x T)	250 x 15*	250 x 15*	250 x 20*	250 x 20*	250 x 20*
Multi Vee Press Brake (W x T)	500 x 5*	500 x 5*	700 x 5*	700 x 5*	700 x 5*
Angle Bending	102 x 6*	102 x 8*	102 x 13*	102 x 13*	102 x 13*
Pipe Notching	ø100*	ø100*	ø100*	ø100*	ø100*
<b>OTHER</b>					
Electric Power (HP)	7.5 HP	10 HP	10 HP	15 HP	20HP
Net Weight (Apr.)	S: 1800 kg SD: 2200 kg	2180 kg 2650 kg	2950 kg 3450 kg	3340 kg 3950 kg	-- 4950 kg
Gross Weight (Apr.)	S: 1950 kg SD: 2380 kg	2360 kg 2880 kg	3180 kg 3700 kg	3590 kg 4220 kg	-- 5250 kg
Machine Dimension (Apr.) (LxWxH)	S: 1700 x 800 x 1710 SD: 2070 x 800 x 1710	1830x820x1760 2210x820x1760	2100x860x1810 2460x860x1810	2170x1030x1850 2490x1030x1850	-- 2710x1070x2010
Packing Dimension (Apr.) (LxWxH)	S: 1970 x 960 x 1990 SD: 2340 x 960 x 1990	2100x980x2040 2480x980x2040	2370x1020x2090 2730x1020x2090	2440x1190x2130 2760x1190x2130	-- 2980x1230x2290

\* : Optional Tooling

Note: Based on low carbon / mild steel material strength of 45kg / mm<sup>2</sup> tensile.

Design and specifications subject to change without notice.

A 2-hole overhung die holder and a 2-piece gauging table are provided as standard equipment on all dual cylinder ironworkers.



# PM SERIES

## Hydraulic Punching Machine

- The double-acting hydraulic cylinder enables the machine to retract faster, and also makes our cylinder slimmer, which brings a better appearance to the machine.
- Punching machines ranging from 35 to 200 tons of punching capacities, combined with different throat depths to choose from, provides a complete range of models to meet our customer's wide range of requirements.
- All optional tooling used on the punching station of S/SD ironworkers can also be used on the PM models, turning the punching machine into a universal machine.



\*Bar shearing.



\*Channel shearing.



**PM-55LT**



\*Angle shearing.



\*Flat bar shearing.



\*Rectangular notcher.

# HYDRAULIC PUNCHING MACHINE

## Capacities and Specifications

Unit: mm

MODEL	PM-35T PM-35LT PM-35XT	PM-55T PM-55LT PM-55XT	PM-80T PM-80LT PM-80XT	PM-120LT PM-120XT	PM-160LT PM-160XT	PM-200LT PM-200XT
<b>PUNCHING</b>						
Punching Force	35 Ton	55 Ton	80 Ton	120 Ton	160 Ton	200 Ton
Punch Capacity (Diameter x Thickness)	ø18 x 14 ø50 x 5	ø22 x 18 ø50 x 8	ø25 x 23 ø50 x 12	ø32 x 27 ø50 x 17	ø36 x 32 ø50 x 23	ø41 x 35 ø50 x 29
Channel Flange Punch (Height)	180	180	180	180	180	180
Throat Depth	T: 310 LT: 510 XT: 760	T: 310 LT: 510 XT: 760	T: 310 LT: 510 XT: 760	T: -- LT: 510 XT: 760	T: -- LT: 510 XT: 760	T: -- LT: 510 XT: 760
Maximum Stroke Length	100	100	100	100	100	100
Cycles/Min. (20mm stroke)	41	28	28	26	27	28
Table Size (W x D)	T: 700 x 500 LT: 700 x 700 XT: 700 x 950	T: 700 x 500 LT: 700 x 700 XT: 700 x 950	T: 700 x 500 LT: 700 x 700 XT: 700 x 950	T: -- LT: 700 x 700 XT: 700 x 950	T: -- LT: 700 x 700 XT: 700 x 950	T: -- LT: 700 x 700 XT: 700 x 950
Working Height Up to Die	1050	1050	1050	1050	1050	1050
<b>OPTIONAL TOOLING</b>						
Largest Hole*	ø160 x 2	ø160 x 3	ø160 x 4	ø200 x 6	ø200 x 8	ø200 x 10
Single Vee Press Brake (W x T)*	250 x 12	250 x 15	250 x 15	250 x 20	250 x 20	250 x 20
Multi Vee Press Brake (W x T)*	500 x 3	500 x 5	500 x 5	700 x 5	700 x 5	700 x 5
Angle Bending*	102 x 6	102 x 9	102 x 13	102 x 13	102 x 13	102 x 13
Rectangular Notcher (WxDxT)*	63.5 x 90 x 6	63.5 x 90 x 8	63.5 x 90 x 10	63.5 x 90 x 13	63.5 x 90 x 13	63.5 x 90 x 13
Vee Notcher (Side x Side x T)*	145 x 145 x 5	145 x 145 x 6	145 x 145 x 10	145 x 145 x 12	145 x 145 x 13	145 x 145 x 13
Pipe Notcher (Max diameter)*	ø100	ø100	ø100	ø100	ø100	ø100
Flat Bar Shearing*	175 x 5	175 x 7	175 x 10	175 x 14	175 x 16	175 x 16
Angle Shearing*	75 x 75 x 6	100 x 100 x 7	100 x 100 x 10	100 x 100 x 13	100 x 100 x 13	100 x 100 x 13
Round Bar Shearing*	ø32	ø32	ø32	ø32	ø32	ø32
Square Bar Shearing*	28 x 28	32 x 32	32 x 32	32 x 32	32 x 32	32 x 32
Channel Shearing*	102 x 51	102 x 51	102 x 51	102 x 51	102 x 51	102 x 51
<b>OTHER</b>						
Electric Power	5 HP	5 HP	7.5 HP	10 HP	15 HP	20 HP
Net Weight (Apr.)	T: 1200 kg LT: 1500 kg XT: 1840 kg	T: 1450 kg LT: 1850 kg XT: 2200 kg	T: 1780 kg LT: 2100 kg XT: 2845 kg	T: -- LT: 2840 kg XT: 3600 kg	T: -- LT: 3550 kg XT: 4600 kg	T: -- LT: 4440 kg XT: 5600 kg
Gross Weight (Apr.)	T: 1300 kg LT: 1640 kg XT: 2000 kg	T: 1620 kg LT: 2050 kg XT: 2420 kg	T: 1960 kg LT: 2300 kg XT: 3060 kg	T: -- LT: 3080 kg XT: 3860 kg	T: -- LT: 3860 kg XT: 5000 kg	T: -- LT: 4800 kg XT: 5960 kg
Machine Dimension (Apr.) (L x W x H)	T: 1090x820x1770 LT: 1420x820x1795 XT: 1820x820x1815	T: 1160x820x1960 LT: 1520x820x1960 XT: 1920x820x1960	T: 1280x865x1980 LT: 1620x865x1980 XT: 2045x865x1980	T: -- LT: 1720x970x2035 XT: 2170x970x2035	T: -- LT: 1870x1040x2070 XT: 2370x1040x2135	T: -- LT: 1975x1265x2095 XT: 2475x1265x2175
Packing Dimension (Apr.) (L x W x H)	T: 1410x970x2010 LT: 1740x970x2035 XT: 2140x970x2055	T: 1480x970x2200 LT: 1840x970x2200 XT: 2240x970x2200	T: 1600x1015x2220 LT: 1940x1015x2220 XT: 2365x1015x2220	T: -- LT: 2040x1120x2275 XT: 2490x1120x2275	T: -- LT: 2190x1190x2310 XT: 2690x1190x2375	T: -- LT: 2295x1415x2335 XT: 2795x1415x2415

\* : Optional Tooling

Note: Based on low carbon / mild steel material strength of 45kg / mm<sup>2</sup> tensile.

Design and specifications subject to change without notice.

A 2-hole overhung die holder and a 2-piece gauging table are provided as standard equipment on all punching machines.