


HIW models

advantages



Dear customer

Nowadays it is not easy to make your choice in buying a machine. The budget price is important but it always depends what you get for the price you pay. By buying a cheap machine, you often still pay too much in accordance with what you get.

later, you will be confronted with more costs in repair – maintenance – production stops – accuracy – practical features and production limitations.

MUBEA SYSTEME has an experience of more than 7 decades. Our listening and technical links with our customers have resulted in machine development according to the use 'on the field'.

German design, offering all advantages and by paying a higher price, you get a better machine with a long life time.

Not a ruinous poor, but a powerfull solid production machine with a lifetime of over 25 years will complete your factory.

Our technical features

- 3 models with each a small or a big throat at your choice.
- Always 5 working stations.
- 2 separate working cylinders to work simultaneously and independently.
- Punchhead with a patented quick-change device for holes $\varnothing 1 1/4"$ or $1 9/16"$ (no keys).
- Adjustable hydraulic stroke from 0 to maximum.
- Punchstripper parallel adjustment (with 1 handwheel) to the punching area.
- Adjustable guiding (without lubrication) for optimal fine adjustment of the angle, bar and flat shear.
- Cutting results free of burr, achieved by adjustable clearance and perfect guided knives.
- Angle shear cutting 90° or 45°
- Bar shear to cut round and square steel as standard, replacable by quick exchange knives to cut section steel.
- Flat bar shear has a big capacity (thickness x length).
- Interchangeable upper and lower knives with 4 cutting edges (no sable upper knives or complex clearance adjustments).
- Coper / notcher is equipped with a versatile rectangular coping tool. A triangle notching toolset is as an accessory possible.
- Angle and bar shear are 2 separate stations with each their own specific knives, i.s.o. a global knife for the 2 stations together forms one breakdown part.
- For cutting angle, bar and flat steel, we have for each an independent adjustable plate holder.
- High working speed: check our number of strokes/min. by $3/4"$ and compare.
- Electrical / hydraulic power group in KW, resulting in a high speed compared with the classical machines.
- More net weight, result of a solid construction, improving working and quality results.
- Special overdimensioned saddle construction (see page 14) to manufacture by size section steel.
- Gooseneck saddle, replacable by punch table/beds to install shaped multidies of various dimensions.
- Standard and bed saddle are adjustable. This to position the die against the punch resulting in normal punch tools (not excentric) by using excentric dies.
- HIW machines are equipped with selector switches for functions as set-up – spotting – and working operations.
- Electric contact plug to work with an electric length stop in the 3 stations: angle-, bar- and plate shear.
- Hydraulic overloading protections.
- Wide range of applications thanks to a large number of standard and special tooling and accessories (see leaflet).
- Accessories, tooling and knives as well as spare parts are in stock, delivery in 12 to 24 hours.
- HIW machines comply with the relevant CE regulations to prevent accidents.

NOW YOU HAVE THE CHANCE TO COMPARE.


13

10W models

accessories

To be able to carry out more machining processes in the fields of section steel and metal engineering, not only with utmost precision, but also economically, we provide a large variety of accessories:

1 length stop



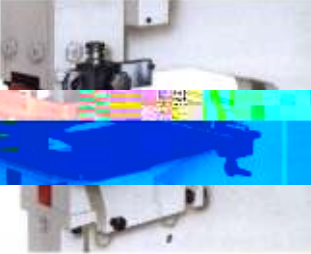
Adjustable length stop with or without electrical contact switch, for the flat, bar and angle.

available in 3 lengths	40 inches
	80 inches
	120 inches

other, tailor made lengths on request

For length stops from 80" length, we provide the necessary support foot.


2 support table for the punch, type SAT



For easier guidance of steel, with measuring scales and 2 stops

	NIW 550	NIW 750	NIW 1000
measuring width	550 mm	750 mm	1000 mm
measuring depth	10"	10"	10 1/2"

3 support and stop table, type KAT



bars and angles, channels in the web and channels and I-beams in the flange.

This table, which has 4 adjustable and liftable stops, is offered in:

size 1	13"/13"
size 2	26"/26"
size 3	36"/36"

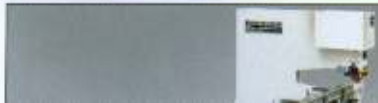
4 support table, type KAT/LS suitable for linear rail, type LS/KAT



where you can mount a linear rail on, is offered in 3 sizes:

	measuring range left/right	depth dimension = throat minus 4 1/2" (backgauge width)
size 1	13"/13"	
size 2	26"/26"	
size 3	36"/36"	

5 linear rail, type LS



With the linear rail, punching of linear patterns into flat material (1/2" - 8" wide) and into angle sections (1/2" - 6 1/2") can be effected fast and accurate to dimension. All

15



there are 2 measuring length ranges 80 and 160 inches

6 linear rail, type LS/KAT suitable for support table, type KAT/LS

This linear rail, which is also available in 2 measuring ranges of 80 and 160 inches, is suitable for mounting to a support table, type KAT/LS.

7 support table for the copier/notcher



The support table for the copier/notcher with its 2 adjustable stops, ensures the exact position of the steel.



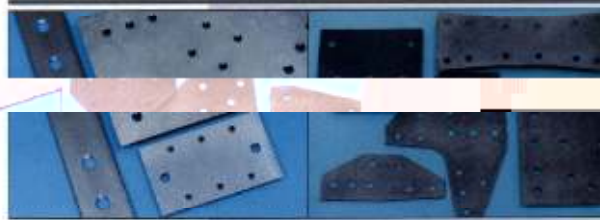
HIW models

accessories

8 punching holes

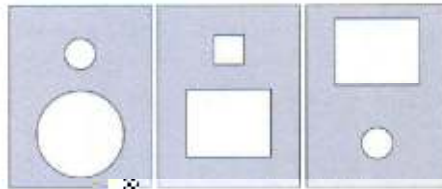
machine is standard equipped with a basic, patented quick-change, punching range. To extend the standard punching range, we provide complete punching attachments for the following holes.

	HIW 550/510	HIW 750/510	HIW 1000/610
standard punching range	1/8" - 1 1/2"	1/8" - 1 1/2"	1/8" - 1 1/2"
optional punching range	1/8" - 2"	1/8" - 2"	1/8" - 2"
	1/8" - 4"	1/8" - 4"	1/8" - 4"
	2" - 4"	1/8" - 6"	1/8" - 6"
		2" - 4"	2" - 4"
		2" - 6"	2" - 6"



9 standard knives

These knives are standard on all HIW machines and consist of a fixed bar steel knife and a moveable bar steel knife. On request, we can provide steel knives for different opening for round and square bars.



HIW models


accessories

10 optional knives

These knives are optional and replace easily the standard knife.
Following knives are available:


shear knives for cutting to length of channel at 90° for U-steel DIN 1026

measures	HIW 550/305 HIW 550/510	HIW 750/320 HIW 750/510	HIW 1000/340 HIW 1000/610
U 1% x 1%	•	•	•
U 1%	•	•	•
U 1% x 1/2	•	•	•
U 1%	•	•	•
U 2 x 1	•	•	•
U 2	•	•	•
U 2 1/2	•	•	•
U 2%	•	•	•
U 3	•	•	•
U 4	•	•	•
U 4 1/2	—	•	•
U 5%	—	—	•



shear knives for cutting to length of I- or IPE- beams DIN 1025 at 90°

measures	HIW 550/305 HIW 550/510	HIW 750/320 HIW 750/510	HIW 1000/340 HIW 1000/610
I and IPE	•	•	•
I 3	•	•	•
I 4	•	•	•
I 4 1/2	—	•	•
I 5%	—	—	•



17



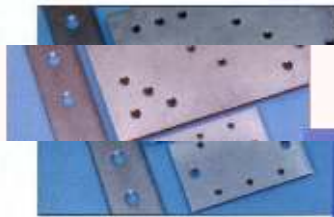
TIV models

plate processing with CNC-control

Because of their future oriented technology and their flexibility, our Plate Processing Systems are used in the most different kinds of industrial purposes.

1 computer-controlled support table for plate processing, type AT/GA

Often in practice, more than 1 hole in the same workpiece, has to be punched over again. Thanks to this type of support table, every new workpiece you put on the table will have the same pattern of holes. This counts not only for plates and flat steel, but also channels in the web, channels and I-beams in the flange are no problem.



This computer controlled support table has a lateral stop (which is the X-axis) and a bit stop rail (which is the Z-axis). Thanks to ISO codes, the programming of the CNC program is easy and can be checked by a graphic simulation on a 9 inch LCD - screen.



Moving area: max. 40 or 60 inch (2 models) in the X-axis and for the Y-axis in accordance with the throat size (max. 24" minus 6").

2 linear positioning units with computer control, type LPE



For the quickly execution of series punching into flat and section material, this linear positioning unit offers an optimal proportion of economic efficiency. This positioning unit is equipped with an easy to operate 1-axis computer control and works completely automatically. The basic length of the positioning unit is designed for processing of 80 inch long material bars. Extensions up to 480 inch are possible.



HW models

plate processing with CNC-control



1 CNC controlled XY-duplicator, type KTE



This CNC controlled XY-duplicator, allows an easy machine programming by means of ISO codes. It is possible to carry out linear, rectangular, square, circular... of any size of opening requested in the punching process and this with short instruction lines. A 9 inch LCD-screen shows a graphic simulation of the workpiece.

MUBEA SYSTEME-duplicators are offered in 2 sizes:
size I: max. plate size 32 x 20 inch;
size II: max. plate size 48 x 30 inch.

The standard duplicators are already equipped with a clamping device making it possible that also angle steel can be punched.

2 program-controlled length stop, type PLA



For the fast and accurate cutting to length of flat, angle and section steel in all different measures. All functions of the length stop are controlled via the panel. After inputting the enquired cutting lengths, the process can be started over and over again, keeping the same measures. This length stop is available in 3 lengths:
60" - 160" - 240"

19



11W models







MUBEA SYSTEME special tools - tailor made



Tools – in most cases developed and designed for solving specific problems of our customers – play the determining part in transferring performance from the machine to the product. We consider this topic as very important, as we regard our machines rather as basic elements. For this reason, within our machine production, the development and fabrication of tools is an imported task. Please feel free to ask us about your specific tool requirements.






 HIW models machine equipment for model HIW		<small>The pictures in the catalogue showing the different operating stations and tools in detail do not include the required guards in order to demonstrate the functioning more clearly. The machines must at no account be operated without the guards, though. The colour of the machines delivered does not have to correspond to the tone of the printed illustrations.</small>		
■ basic equipment ▲ extra price		550/305	750/320	1000/340
		550/510	750/510	1000/610
	1 punch			
	Quick-change device for standard punches and dies H1, W ² – 1 1/2"	■	■	■
	Quick-change device for standard punches and dies H2 and H3, W ² – 1"	■	■	■
	1 punch W ² and 1 die T1W ²	■	■	■
	Punching attachment for punches and dies from W ² – 2" (see pages 68/9)	▲	▲	▲
	Punching attachment for punches and dies from W ² – 4" (see pages 68/9)	▲	▲	▲
	Punching attachment for punches and dies from W ² – 6" (see pages 68/9)	▲	▲	▲
	Punching attachment for punches and dies from 2" – 4" (see pages 68/9)	▲	▲	▲
	Punching attachment for punches and dies from 2" – 6" (see pages 68/9)	▲	▲	▲
	Saddle top for punching flat material, angles and tees as well as for web punchings from U 3" DN 1025 and I 3" DN 1025, sheet 1 and 5, suitable to be fitted with MUBRA SYSTEME standard dies H1, W ² – 1 1/2" (see pages 6 & 7)	▲	▲	▲
	Saddle top for punching flat material, angles and tees as well as for web punchings from U 4" DN 1026 and I 4" DN 1025, sheet 1 and 5, suitable to be fitted with MUBRA SYSTEME standard dies H1, W ² – 1 1/2" (see pages 6 & 7)	▲	▲	▲
	Saddle top for web punching in channels U 2"–3", DN 1026, I-beams 3", DN 1025, sheet 1 and IPE 4", DN 1025, sheet 5, suitable to fit MUBRA SYSTEME standard dies up to 1/2" diameter (see pages 6 & 7)	▲	▲	▲
	Saddle top for flange punching in channels U 2"–3", DN 1026, I-beams 3", DN 1025, sheet 1 and IPE 3", DN 1025, sheet 5 (see pages 6 & 7)	▲	▲	▲
	Support table (see pages 14 & 15)	▲	▲	▲
	Support table for plate processing (see page 16) - Duplicator (see page 16)	▲	▲	▲
	Linear positioning units (see page 18)	▲	▲	▲
	2 angle shear			
	Knives for angles 90° and 45°	■	■	■
	3 bar shear			
	Knives for round and square bars	■	■	■
	Knives for cutting to length channels, I-beams or tees 90°	▲	▲	▲
	4 flat bar shear			
	Flat bar knives	■	■	■
	Support and guiding table with adjustable stops	■	■	■
	5 coper/notcher			
	Rectangular coping tool	■	■	■
	Triangular notching tool	▲	▲	▲
	Support table	▲	▲	▲
	Support and guiding table with adjustable stops	▲	▲	▲
	Tool for rounding off flat case	▲	▲	▲
	Pipe notching tool	▲	▲	▲
	Automatic stroke adjustment of the coper / notcher	■	■	■
	Hydraulic station complete	■	■	■
	Electric engagement for flat bar, angle and bar shear and for coper/notcher – including foot switch	■	■	■
	Electric engagement for punch – including foot switch	■	■	■
	Hydraulic stopping device for punch – controlled via foot switch	■	■	■
	Infinitely variable stroke adjustment and inching for flat bar, angle and bar shear and for the coper/notcher	■	■	■
	Infinitely variable stroke adjustment and inching for punch	■	■	■
	Stop for electric contact length stop	■	■	■
	Adjustable length stop for flat bar, angle and bar shear with electric contact switch	▲	▲	▲
	Adjustable length stop for flat bar, angle and bar shear without electric contact switch	▲	▲	▲
	1 set of operating tools	■	■	■
	Colour: two-tone paint white RAL 1013 and blue RAL 5007	■	■	■
	Other tools and accessories available on request. Subject to alterations.			

HIW models

capacity data for model HIW

All performance data given in this brochure refer to standard material of 50000 PSI tensile strength. For material of higher tensile strength a corresponding reduction in cross-section performance must be expected. Improvements in the interest of technical progress will always be incorporated in standard production immediately.

The Designer reserves the right to make technical and other alterations at any time without notice.



1 punch

Punching pressure	tons	62	62	82	82	110	110
with standard equipment							
Hole diameter	up to inch	1 1/4	1 1/4	1 1/2	1 1/2	1 7/8	1 7/8
In material thickness	up to inch	5/8	5/8	5/8	5/8	1	1
Channels in flange	inch	4 - 12	4 - 12	4 - 15	4 - 15	4 - 15	4 - 15
I-beams in flange	inch	4 - 12	4 - 12	4 - 15	4 - 15	4 - 15	4 - 15
Channels in web	inch	3 - 12	3 - 12	3 - 15	3 - 15	4 - 15	4 - 15
I-beams in web	inch	3 - 12	3 - 12	3 - 15	3 - 15	4 - 15	4 - 15
with special equipment							
Hole diameter	up to inch	4	4	5	5	6	6
In material thickness	up to inch	7/8	7/8	7/8	7/8	1 1/8	1 1/8
with saddle top for web punching (up to 1/2" D)							
Channels in web	inch	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3
I-beams in web	inch	3	3	3	3	3	3
with saddle top for flange punching (up to 1 1/4" D)							
Channels in flange	inch	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3
I-beams in flange	inch	3	3	3	3	3	3
Throat	inch	12	20	12 1/2	20	13 1/2	24

3 bar shear

Working height	inch	41 1/2	41 1/2	40 1/2	40 1/2	44 1/2	44 1/2
Round bars							
Round bars	inch	1 1/4	1 1/4	2	2	2	2
Square bars							
Square bars	inch	1 1/4	1 1/4	1 1/2	1 1/2	2	2
with special knives							
Channels and I-beams 90°	inch	4	4	4 1/2	4 1/2	5 1/2	5 1/2
Less 90°	inch	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2

4 flat bar shear

Flat bars	inch	14 x 1/2	14 x 1/2	18 x 1/2	18 x 1/2	24 x 1/2	24 x 1/2
or inch		9 x 1/2	9 x 1/2	12 x 1/2	12 x 1/2	16 x 1/2	16 x 1/2
Knife length	inch	16 1/2	14 1/2	18 1/2	18 1/2	24 1/2	26 1/2
Angles 45° (one leg)	inch	3 x 3 x 1/2	3 x 3 x 1/2	3 1/2 x 3 1/2 x 1/2	3 1/2 x 3 1/2 x 1/2	4 x 4 x 1/2	4 x 4 x 1/2
Working height	inch	34	34	31 1/2	31 1/2	36	36

5 copier/notcher

with rectangular coping tool							
Plates	inch	1/2	1/2	3/4	3/4	1	1
Angles	inch	4 x 1/2	4 x 1/2	4 x 3/4	4 x 3/4	4 x 1/2	4 x 1/2
Coping width	inch	1 1/4	1 1/4	2 1/4	2 1/4	2 1/4	2 1/4
Coping depth	inch	3 1/4	3 1/4	3 1/4	3 1/4	3 1/4	3 1/4
with triangular notching tool							
Plates	inch	1/2	1/2	3/4	3/4	1	1
Angles	inch	3 x 1/2	3 x 1/2	3 x 3/4	3 x 3/4	3 x 1/2	3 x 1/2
Notching depth	inch	2 1/4	2 1/4	2 1/4	2 1/4	2 1/4	2 1/4
Working height	inch	34	34	31 1/2	31 1/2	36	36

6 machine data

Punch stroke, incl. variable	from inch	0 - 2 1/2	0 - 2 1/2	0 - 2 1/2	0 - 2 1/2	0 - 2 1/2	0 - 2 1/2
Stroke rate of punch, full travel	per min.	14	14	12	12	11	11
Stroke rate of punch with 1/2" inch travel	per min.	42	42	42	42	40	40
Power required	HP	7.5	7.5	10	10	11	11
Oil filling	gal.	16	15	24	24	24	24
Length of machine	inch	54	64	61	72	74	90
Width of machine	inch	30	30	30	30	30	30
Height of machine	inch	62	62	66	66	72	72
Net weight of machine, incl. oil	lbs.	2100	3700	4200	5300	5000	7100
Gross weight, incl. seaworthy packing	lbs.	3500	4300	4800	6900	6950	8250
Space required, incl. seaworthy packing	cu. ft.	90	105	110	126	162	194