



Leading  
Technology

# SHEET METAL WORKING MACHINES

SINCE  
1984

[www.hilalsan.com.tr](http://www.hilalsan.com.tr)

 **HILALSAN®**



## Leading Technology

### Kilometer Stones

- |      |   |      |   |
|------|---|------|---|
| 1984 | The production of manual guillotine shears in a 60 m2 workshop at Konya Industrial Estate.  | 2020 | The number of countries that we export our products reached 40.   |
| 1984 | Exported its products to Saudi Arabia for the first time.   | 2014 | Produced its first CNC Tandem Press Brake.  |
| 1985 | Started to produce 12 types of manual guillotine shears.  | 2013 | Moved to its new factory that has 10.000 m2 closed and a total 15.000 m2 area in Konya Organized Industrial Zone. |
| 1989 | The number of countries that we export our products reached 8.  | 2012 | The number of countries that we export our products reached 30.   |
| 1990 | Moved to its new 200 m2 workshop in Konya Anadolu Industrial Estate.  | 2008 | Started to produce CNC Hydraulic Press Brake and CNC Hydraulic Guillotine Shears.                                 |
| 1992 | The number of countries that we export our products reached 10.   | 2006 | Started to produce Hydraulic C Type and hydraulic workshop hydraulic presses.                                     |
| 1993 | Moved to its new 600 m2 workshop in Konya Zafer Industrial Estate.  | 2005 | Started to produce deep drawing presses.  |
| 2000 | Moved to its new 2000 m2 workshop in Busan Organized Industrial Zone  | 2004 | Started to produce Hydraulic Ironworkers.   |
| 2000 | Started to produce 1 meter hand-lever guillotine shears, manual folding machines, guillotine shears with reducer and tube bending machines. | 2002 | The number of countries that we export our products reached 15, mainly in Europe.                                 |

# INDEX

## HYDRAULIC CNC PRESS BRAKE

ULTIMATE - ADVANCED

PAGE :  
5 - 40



## HYDRAULIC GUILLOTINE SHEAR

HYPER - FORCE SERIES

PAGE :  
41 - 62



## GUILLOTINE SHEAR WITH REDUCER

PRESTIGE SERIES

PAGE :  
63 - 66



## HYDRAULIC IRON WORKERS

DOUBLE - SINGLE SERIES

PAGE :  
67 - 76



## HYDRAULIC PRESSES

HCP - HCPA - HSP SERIES

PAGE :  
77 - 82



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Founded in 1984, HILALSAN has started with manual sheet metal shears and now continues with Hydraulic Ironworkers, CNC Hydraulic Presses, Mechanical Guillotine Shears with Reducer, CNC Hydraulic Guillotine Shears and CNC Hydraulic Press Brakes.

We work for Turkey with our imagination, our most valuable asset based on our foundation, and our high confidence that gives life to these dreams. We are progressing to become a global company by creating added value for our country and the world.

Creating value for our customers, responding to expectations with quality and stability is our priority.

Thanks to our computer-aided design programs, we can produce high-quality, high-precision production lines Equipped with advanced technology to provide our customers with high-performance machines.

Our main goal from our foundation to today; investors and industrialists to make sensitive quality machines, to provide reliable after-sales service and to offer quality at the best competitive price.

We are conscious that reaching our targets is our highest assurance product and service quality. We have to own our products and to be with our customers after-sales.

We are shaping all of our products and services based on building long-term relationships with our customers.

Our company has been serving with "HILALSAN" brand in the world markets and has reached to the five continents today, increasing the trust and potential given to its customers every day.

Hilalsan Machinery has aimed to achieve many successes in the future as it is in the past with its young and dynamic staff.

HILALSAN for quality, trust, stability ...



**HILALSAN®**



## HYDRAULIC CNC PRESS BRAKE

# ULTIMATE

### STANDARD EQUIPMENT AND FEATURES

- Y1,Y2,X 3 Axes
- Cybelec Touch8 Touch Screen Colour Control Unit
- Manual Crowning
- Hilalsan Heavy Duty X Axes Back Gauge with Servo Motor
- Bottom Narrow Table
- Support arm with scale & T-Slot & Tilting stop.
- Hilalsan European Type Quick Release Top Tool Clamping (60 ton - 270 ton between)
- European Type Top Tool H:66,6mm 85° R:08mm
- European Type Bottom Tool 4V H:60x60mm 85°
- Front Laser Safety Manual Fiessler Akas FPBS
- Back Safety Light Curtains
- Lighting Lamp
- Stand Type Foot Pedal with Emergency Stop Button

### OPTIONAL EQUIPMENT

- CNC Controller Motorized Crowning
- Hilalsan Heavy Duty X,R Axes Back Gauge
- Hilalsan Heavy Duty X,R,Z1,Z2 Axes Back Gauge
- Hilalsan Heavy Duty X,R,Z1,Z2,X5,X6 Axes Back Gauge
- Hilalsan ATF Type X1,X2,R1,R2,Z1,Z2 Axes Back Gauge
- Sliding Rear Door
- Custom Full-length casing
- Sheet Follower
- Oil Heater
- Oil Coolant with Fan
- Hydraulic Top Tool Clamping
- Hydraulic Bottom Tool Clamping
- Central Lubrication Manual
- Central lubrication Motorized
- CE with Manual Fiessler AKAS II M-FMSC



#### GENERAL FEATURES

• The machine frame manufactured with the advanced technology with exact tolerances and stress relieved with significant welded components.

All tensile points designed with large radii and strain accumulation and possible welding cracks eliminated.

• The lower and upper tables' inertias designed for optimum value for minimum deformation.

• The top plate intended to positioned vertically so that the roller bearings, piston bearings, and felts can compensate for vertical loads.

• The hydraulic cylinder is designed as double-sided and honed to surface quality of 2 microns. Thus, minimum wear resistance is created for the felts. The cylinder bodies manufactured as SAE 1040 material forged.

• The hydraulic cylinders are bolted to the front of the feet with bolts and cams to provide excellent leveling and load balancing.

• Piston head features: Omega-type felts fitted with full bronze bearings, semi-angled sleeves.

• The pistons are precision ground and hard chrome plated to provide low friction and abrasion resistance when the piston passes through the felts.

• The adjustable top tray slides made from materials that are suitable for little friction resistance. These beds arranged for guiding to move the top table from right to left and front to rear.

• The Hilalsan hydraulic system allows precise usage at all pressure values up to the maximum operating pressure. At the same time, with these pressure values, precise cylinder positioning, synchronization, and repeatability are achieved.

• Backgauge system manufactured following environmental conditions. Backgauge bearings made for heavy conditions with double bearers. Scrapping type bearings used against dust and other particles that will accumulate in the linear guideways against dusty environmental conditions.

• The outer surface of the machine is painted with two layers of paint at least 60 microns in thickness to protect against weather conditions. Paint drying is done gradually in a different time and temperature ranges in state-of-the-art ovens.

• Standard Y1, Y2, X-axes.

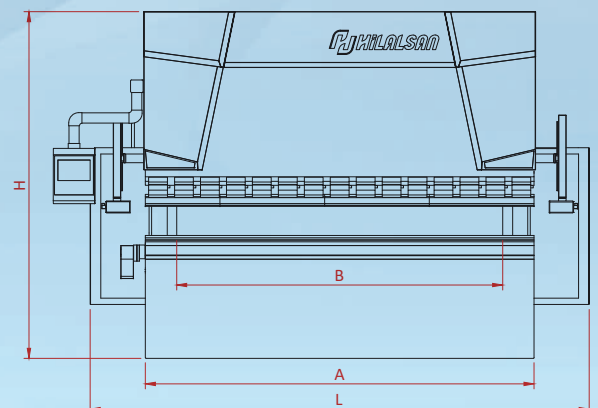


## HYDRAULIC CNC PRESS BRAKE

# ULTIMATE

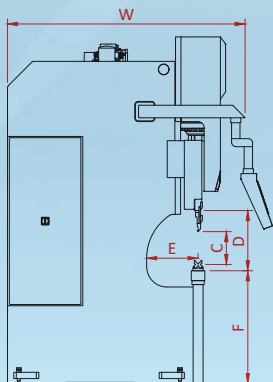
Machine Type	Bending force Ton	Bending length mm A	Distance between columns mm		Stroke mm C	Daylight mm D	Throat depth mm E	Table height mm F	Pit Depth mm T	Support Arm Pcs	Y Rapid Speed mm/sn.	Y Axis Bend Speed mm/sn.	Y Return Speed mm/sn.	X Axis Speed mm/sn.	R Axis Speed mm/sn.	Travel in R-axis mm
			A	B												
1560	60	1600	1300	265	480	410	880	--	2	110	8	110	350	40	200	
2080	80	2100	1700	265	480	410	900	--	2	110	7	95	350	40	200	
26100	100	2600	2200	265	480	410	900	--	2	110	9	110	350	40	200	
3100	100	3100	2600	265	480	410	900	--	2	110	9	110	350	40	200	
3135	135	3100	2600	265	480	410	900	--	2	110	7	120	350	40	200	
3175	175	3100	2600	265	480	410	900	--	2	120	8	110	350	40	200	
3220	220	3100	2600	265	480	410	900	--	2	110	9	110	350	40	200	
3270	270	3100	2600	265	480	410	900	--	2	105	8	100	350	40	200	
3320	320	3100	2600	315	550	410	940	--	2	90	7	95	350	40	200	
3400	400	3100	2400	315	550	510	950	--	2	80	8	85	350	40	200	
37175	175	3700	3200	265	480	410	900	--	2	120	8	110	350	40	200	
37220	220	3700	3200	265	480	410	950	--	2	110	9	110	350	40	200	
37320	320	3700	3200	315	550	410	950	--	2	90	7	90	350	40	200	
4135	135	4100	3600	265	480	410	900	--	2	110	7	110	350	40	200	
4175	175	4100	3600	265	480	410	950	--	2	120	8	110	350	40	200	
4220	220	4100	3600	265	480	410	950	--	2	110	9	110	350	40	200	
4270	270	4100	3600	265	480	410	965	--	2	100	8	95	250	40	200	
4320	320	4100	3600	315	550	410	1000	--	2	90	7	95	350	40	200	
4400	400	4100	3400	315	550	510	1050	--	2	80	7	85	350	40	200	
4500	500	4100	3200	315	550	510	1060	--	2	70	7	75	350	40	200	
4600	600	4100	3200	315	550	510	1120	--	2	90	7	85	350	40	200	
5220	220	5100	4200	265	480	410	1050	--	3	100	9	80	250	40	200	
5270	270	5100	4200	265	480	410	1070	--	3	100	8	80	250	40	200	
5320	320	5100	4200	315	550	410	1070	--	3	90	7	80	250	40	200	
5400	400	5100	4100	315	550	510	1150	--	3	80	7	65	250	40	200	
5500	500	5100	4100	315	550	510	950	1000	3	70	7	75	250	40	200	
5600	600	5100	4100	315	550	510	950	1250	3	70	7	70	250	40	200	
6220	220	6100	5100	265	480	410	1150	--	3	100	7	80	250	40	200	
6320	320	6100	5100	315	550	410	1150	--	3	90	7	80	250	40	200	
6400	400	6100	5100	315	550	510	1220	--	3	80	7	65	250	40	200	
6500	500	6100	5100	315	550	510	950	1250	3	70	7	65	250	40	200	
6600	600	6100	5100	315	550	510	950	1400	3	70	7	70	250	40	200	

HILALSAN has right to change catalogue values and machine technical details without notice. Misprints are not restrictive.





Travel in X-axis			Motor Power Kw	Oil Capacity Lt	Length mm L	Width mm W	Height mm H	Approximate Weight Kg
500 mm	750 mm	1000 mm						
S	--	Op.	5,5	120	2500	1680	2640	3700
S	--	Op.	7,5	150	3070	1800	2670	5100
--	S	Op.	7,5	150	3500	1855	2700	6450
--	S	Op.	7,5	250	4000	1855	2700	6800
--	S	Op.	11	250	4000	1875	2720	7750
--	S	Op.	15	250	4020	1890	2770	8850
--	S	Op.	18,5	250	4040	1860	2835	10400
--	S	Op.	22	250	4060	1870	2850	12300
--	S	Op.	22	350	4080	2140	3260	14700
--	S	Op.	30	350	4060	2250	3300	18700
--	S	Op.	15	250	4550	2000	2900	10500
--	S	Op.	18,5	250	4640	1880	2910	11950
--	S	Op.	22	350	4700	2170	3210	15500
--	S	Op.	11	250	5020	1850	2730	10000
--	S	Op.	15	250	5020	1860	2840	11050
--	S	Op.	18,5	250	5040	1880	2890	12750
--	S	Op.	22	250	5060	1900	2950	14300
--	S	Op.	22	350	5100	2170	3260	18400
--	S	Op.	30	350	5040	2250	3460	22500
--	S	Op.	37	400	5050	2290	3520	26300
--	S	Op.	45	500	5050	2290	3650	30400
--	S	Op.	18,5	350	6000	2000	3260	16500
--	S	Op.	22	350	6000	2000	3310	18200
--	S	Op.	22	350	6050	2100	3380	21500
--	S	Op.	30	400	6050	2280	3620	25500
--	S	Op.	37	500	6050	2320	3720	30000
--	S	Op.	45	500	6050	2580	3800	34300
--	S	Op.	18,5	350	7000	2000	3350	20400
--	S	Op.	22	350	7040	2100	3450	26000
--	S	Op.	30	500	7050	2270	3770	33000
--	S	Op.	37	500	7160	2360	3970	39500
--	S	Op.	45	500	7200	2650	3900	46800



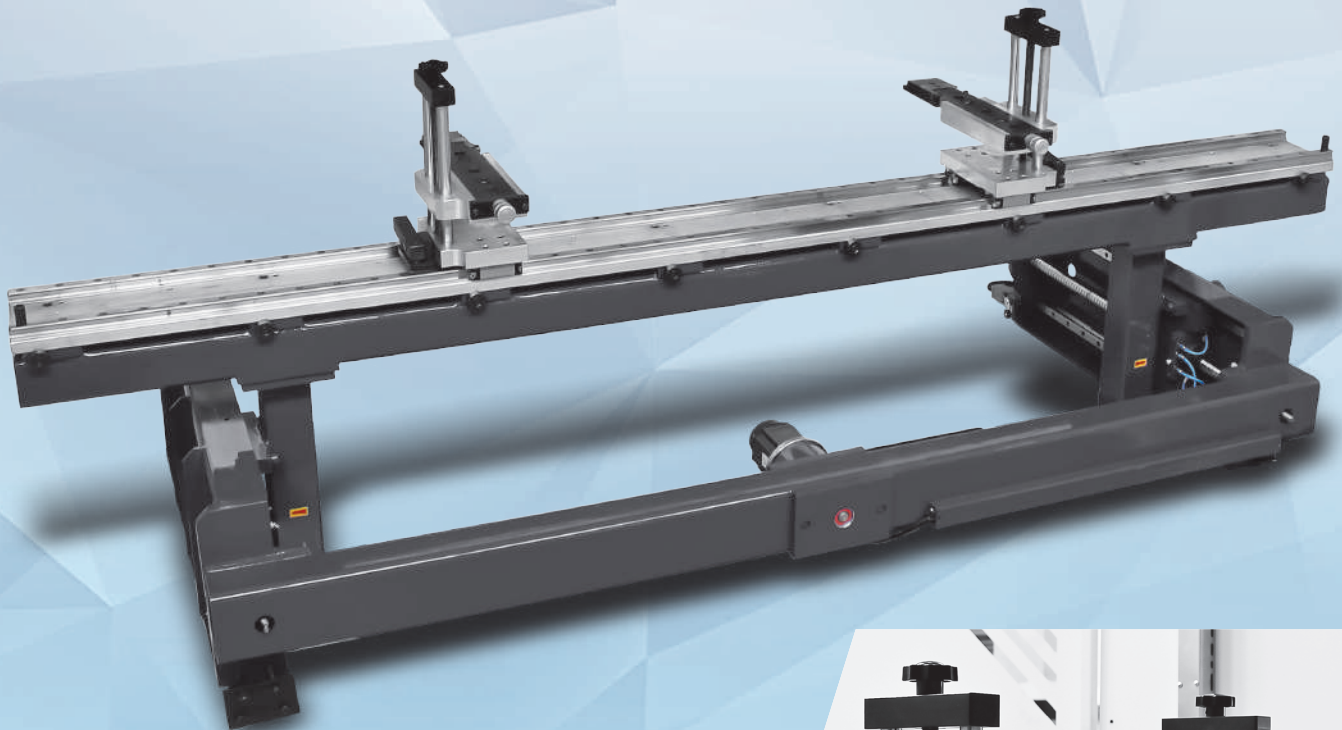
## HYDRAULIC CNC PRESS BRAKE

# ULTIMATE

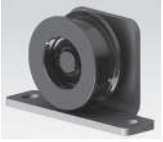
The most crucial factor for precision bending in press brakes is the Backgauge system.

Hilalsan design features a unique, powerful and precise back gauge system that works on linear guideways at side counters and large-sized ball screws. The special design has robust construction due to its strong mechanical structure and can withstand large loads.

The back gauge finger blocks move on top of the double-rail and aluminum-plated top profile. These back gauge finger blocks are very sensitive and can be adjusted from any point.

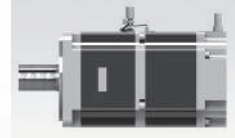


Backgauge Finger

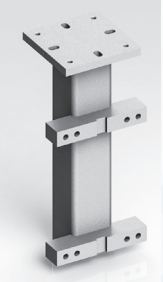
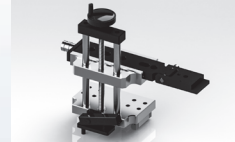


**H:** Belt tensioning mechanisms used to prevent the trigger belts, which engage the X axis motor, from making a gap.

**D:** High resolution servo motor in the precision positioning axis.



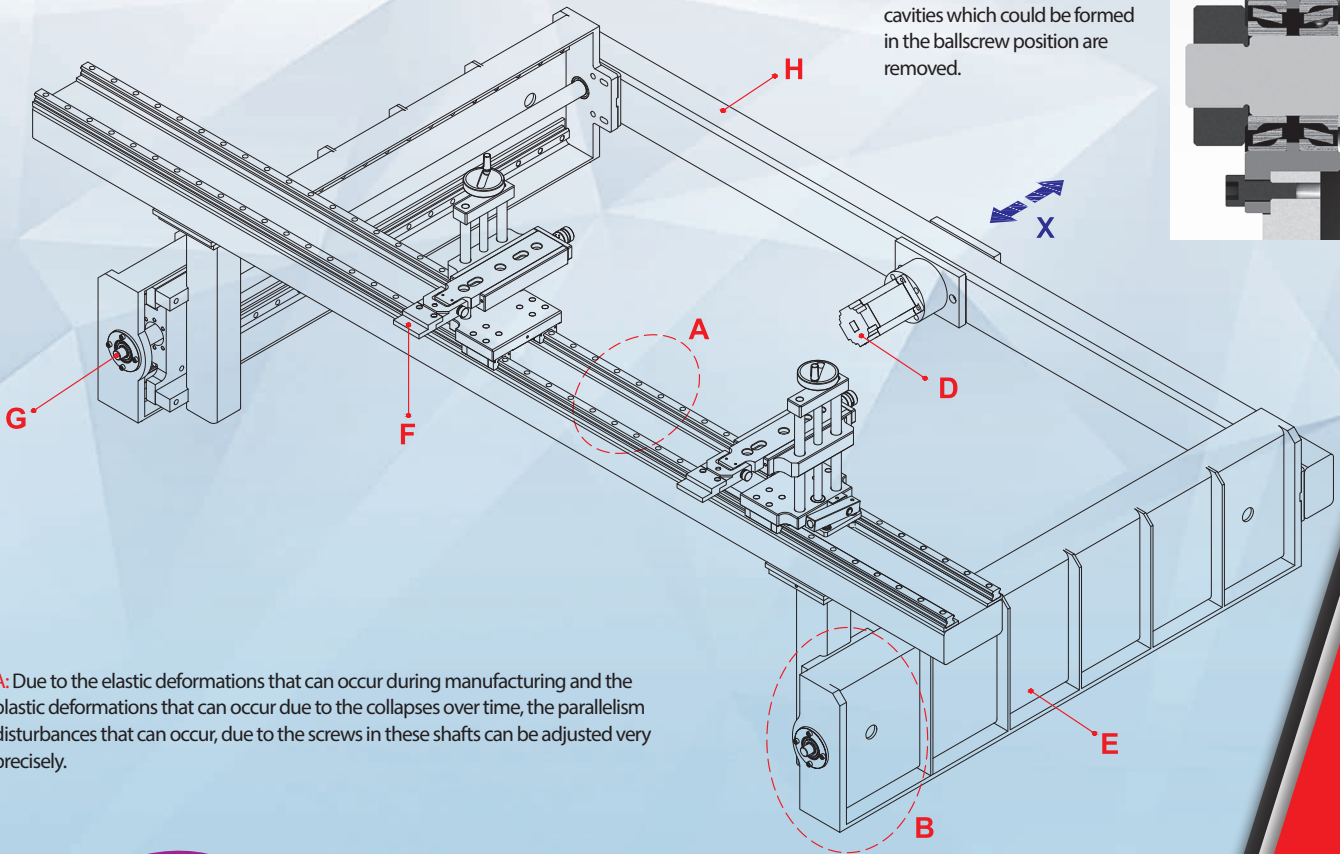
**F:** Resistant to wear and deformation, precisely adjustable, and heat treated backgauge finger blocks.



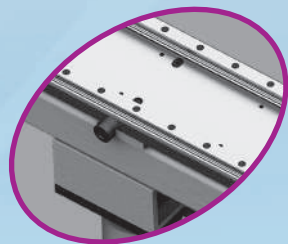
**C:** The X Axis console is manufactured with impact-resistant system.

**F:** Mechanical braking system to prevent movement of fingers due to shocks and vibrations during operation.

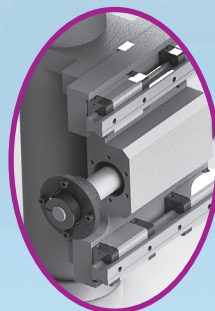
**G:** Thanks to the tapered bearing made of tapered roller at the ends of the ballscrews, the cavities which could be formed in the ballscrew position are removed.



**A:** Due to the elastic deformations that can occur during manufacturing and the plastic deformations that can occur due to the collapses over time, the parallelism disturbances that can occur, due to the screws in these shafts can be adjusted very precisely.



**A:** Movable top profile designed to absorb deformations that may occur in the trapezoid and precisely calibrate the distance to the bottom tool.



**B:** 4 pcs square type double row linear guideways and ballscrew are used so that our consoles do not cause any gap due to the collapses.

**E:** Strengthened steel construction and vibration-proof and durable side console.

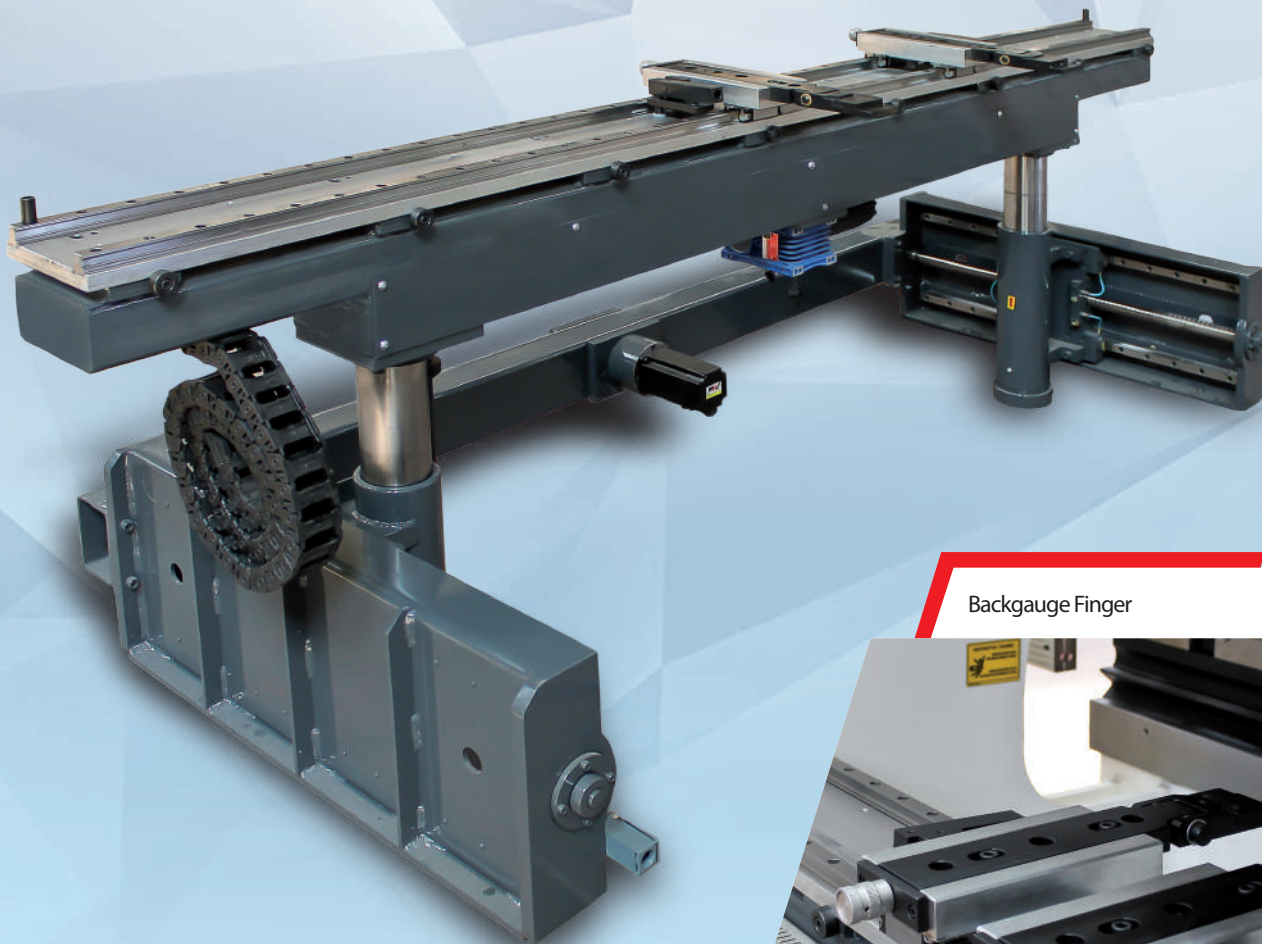
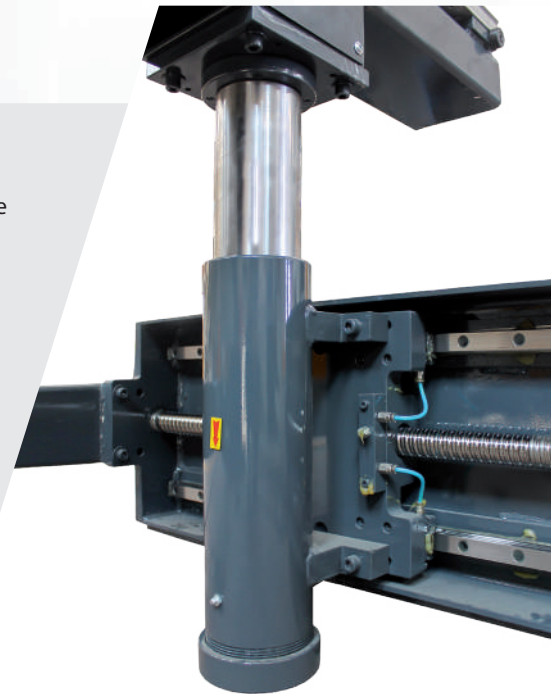
## HYDRAULIC CNC PRESS BRAKE

# ULTIMATE

The most crucial factor for precision bending in press brakes is the Backgauge system.

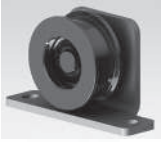
Hilalsan design features a unique, powerful and precise back gauge system that works on linear guideways at side counters and large-sized ball screws. The special design has robust construction due to its strong mechanical structure and can withstand large loads.

The back gauge finger blocks move on top of the double-rail and aluminum-plated top profile. These back gauge finger blocks are very sensitive and can be adjusted from any point.



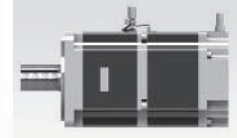
Backgauge Finger





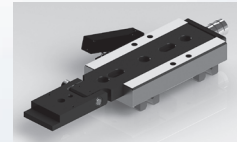
**H:** Belt tensioning mechanisms used to prevent the trigger belts, which engage the X axis motor, from making a gap.

**D:** High resolution servo motor in the precision positioning axis.



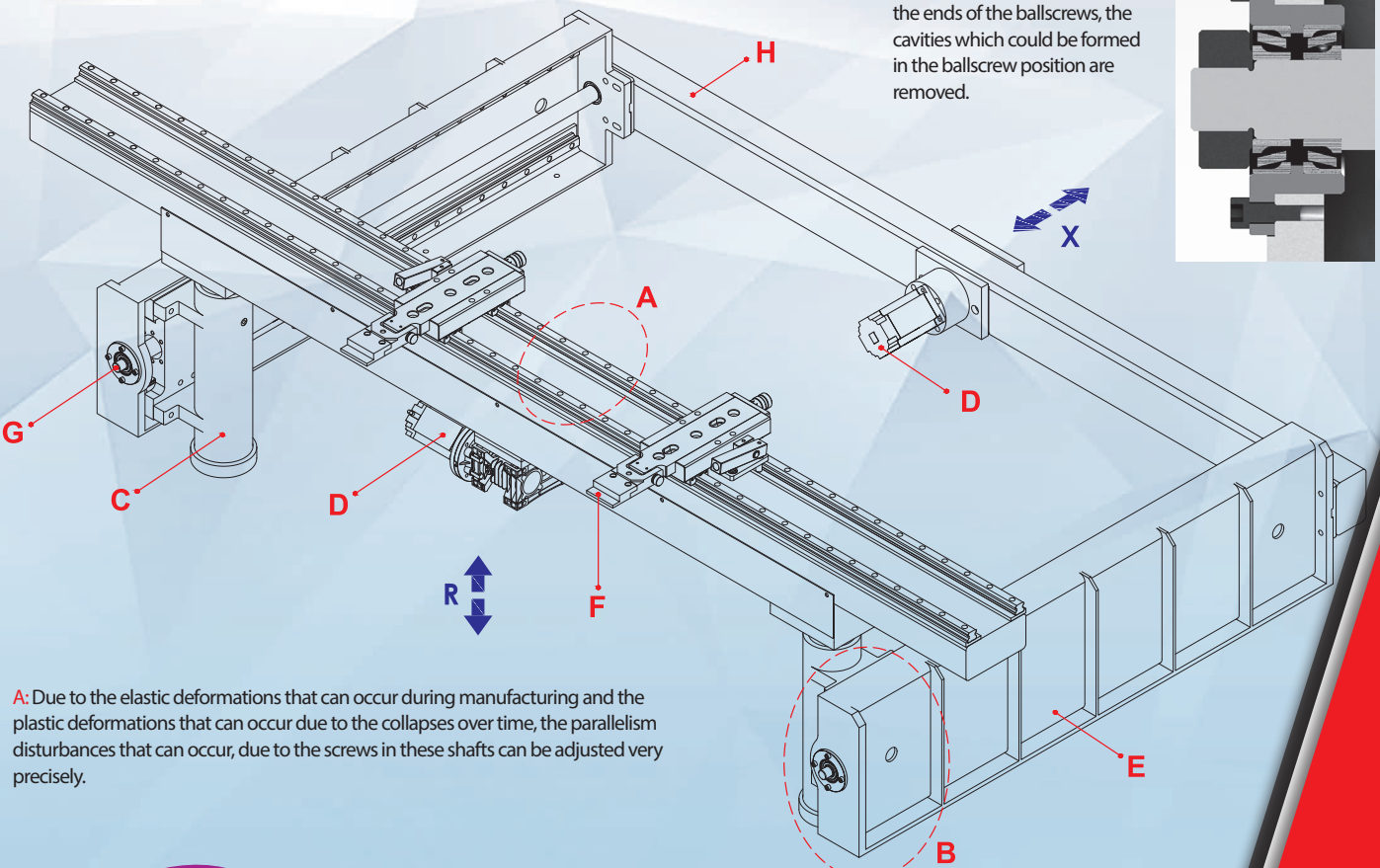
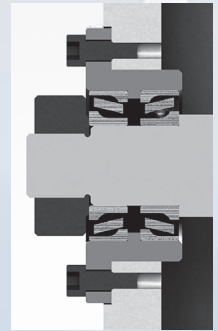
**C:** The R Axis console is manufactured with a ball screw which is movable with a 200 mm stroke, with impact-resistant and anti-backlash system.

**F:** Resistant to wear and deformation, precisely adjustable, and heat treated backgauge finger blocks.



**F:** Mechanical braking system to prevent movement of fingers due to shocks and vibrations during operation.

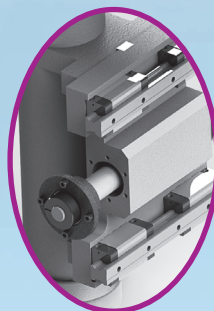
**G:** Thanks to the tapered bearing made of tapered roller at the ends of the ballscrews, the cavities which could be formed in the ballscrew position are removed.



**A:** Due to the elastic deformations that can occur during manufacturing and the plastic deformations that can occur due to the collapses over time, the parallelism disturbances that can occur, due to the screws in these shafts can be adjusted very precisely.



**A:** Movable top profile designed to absorb deformations that may occur in the trapezoid and precisely calibrate the distance to the bottom tool.



**B:** 4 pcs square type double row linear guideways and ballscrew are used so that our consoles do not cause any gap due to the collapses.

**E:** Strengthened steel construction and vibration-proof and durable side console.

## HYDRAULIC CNC PRESS BRAKE

# ADVANCED

### STANDARD EQUIPMENT AND FEATURES

- Y1,Y2,X 3 Axes
- Esa S625 Touch Screen Control Unit
- Hilalsan X Axis Back Gauge with AC Motor
- Bottom Narrow Table
- Support arm with scale & T-Slot & Tilting stop.
- Hilalsan European Type Top Tool Clamping
- European Type Top Tool H:66,6mm 85° R:08mm
- European Type Bottom Tool 4V H:60x60mm 85°
- Front Laser Safety Manual Fiessler Akas FPBS
- Back safety Light Curtains
- Lighting Lamp
- Foot Pedal with Emergency Stop Button

### OPTIONAL EQUIPMENT

- Manual Crowning
- CNC Controller Motorized Crowning
- Hilalsan X,R Axes Back Gauge with AC Motor
- Stand Type Foot Pedal with Emergency Stop Button
- Oil Heater
- Oil Coolant with Fan
- Hydraulic Top Tool Clamping
- Hydraulic Bottom Tool Clamping
- Central Lubrication Manual
- Central lubrication Motorized
- CE with Manual Fiessler AKAS II M-FMSC



#### GENERAL FEATURES

- The machine frame manufactured with the advanced technology with exact tolerances and stress relieved with significant welded components.  
All tensile points designed with large radii and strain accumulation and possible welding cracks eliminated.
- The lower and upper tables' inertias designed for optimum value for minimum deformation.
- The top plate intended to positioned vertically so that the roller bearings, piston bearings, and felts can compensate for vertical loads.
- The hydraulic cylinder is designed as double-sided and honed to surface quality of 2 microns. Thus, minimum wear resistance is created for the felts. The cylinder bodies manufactured as SAE 1040 material forged.
- The hydraulic cylinders are bolted to the front of the feet with bolts and cams to provide excellent leveling and load balancing.
- Piston head features: Omega-type felts fitted with full bronze bearings, semi-angled sleeves.
- The pistons are precision ground and hard chrome plated to provide low friction and abrasion resistance when the piston passes through the felts.
- The adjustable top tray slides made from materials that are suitable for little friction resistance. These beds arranged for guiding to move the top table from right to left and front to rear.
- The Hilalsan hydraulic system allows precise usage at all pressure values up to the maximum operating pressure. At the same time, with these pressure values, precise cylinder positioning, synchronization, and repeatability are achieved.
- Backgauge system manufactured following environmental conditions. Backgauge bearings made for heavy conditions with double bearers. Scrapping type bearings used against dust and other particles that will accumulate in the linear guideways against dusty environmental conditions.
- The outer surface of the machine is painted with two layers of paint at least 60 microns in thickness to protect against weather conditions. Paint drying is done gradually in a different time and temperature ranges in state-of-the-art ovens.
- Standard Y1, Y2, X-axes.

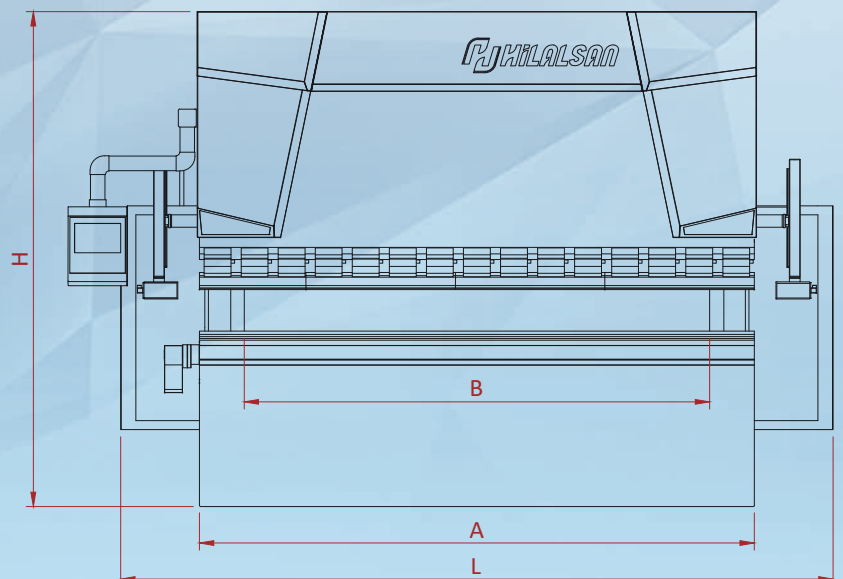


## HYDRAULIC CNC PRESS BRAKE

# ADVANCED

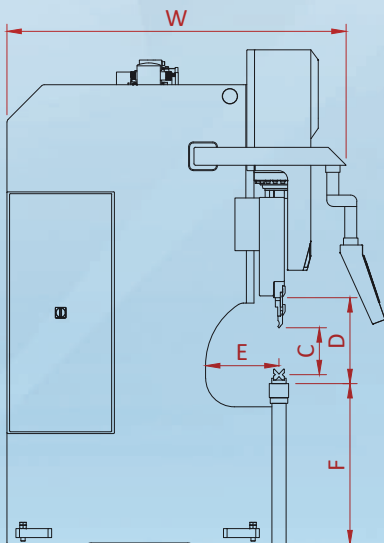
Machine Type	Bending Force	Bending Length	Distance Between Columns		Stroke	Daylight	Throat Depth	Table Height	Support Arm
			mm	mm					
			A	B					
1560	60	1600	1300		215	430	310	880	2
2080	80	2100	1700		215	430	310	900	2
26100	100	2600	2200		215	430	310	900	2
3100	100	3100	2600		215	430	310	900	2
3135	135	3100	2600		215	430	310	900	2
3175	175	3100	2600		215	430	310	900	2
3220	220	3100	2600		215	430	310	900	2
3270	270	3100	2600		215	430	310	900	2
37175	175	3700	3200		215	430	310	900	2
37220	220	3700	3200		215	430	310	950	2
4135	135	4100	3600		215	430	310	900	2
4175	175	4100	3600		215	430	310	950	2
4220	220	4100	3600		215	430	310	950	2
4270	270	4100	3600		215	430	310	965	2

HILALSAN has right to change catalogue values and machine technical details without notice. Misprints are not restrictive.





Y Rapid Speed	Y Axis Bend Speed	Y Return Speed	X Axis Speed	Travel in X-axis	Motor Power	Oil Capacity	Length	Width	Height	Approximate Weight
mm/sn.	mm/sn.	mm/sn.	mm/sn.	mm	Kw	Lt	mm L	mm W	mm H	Kg
110	8	110	250	500	5,5	120	2500	1680	2540	3500
110	7	95	250	500	7,5	150	3070	1800	2570	4750
110	9	110	250	500	7,5	150	3500	1855	2600	6000
110	9	110	250	500	7,5	250	4000	1855	2600	6350
110	7	120	250	500	11	250	4000	1875	2620	7200
120	8	110	250	500	15	250	4020	1890	2670	8300
110	9	110	250	500	18,5	250	4040	1860	2735	9750
105	8	100	250	500	22	250	4060	1870	2750	11600
120	8	110	250	500	15	250	4550	2000	2800	10000
110	9	110	250	500	18,5	250	4640	1880	2810	11250
110	7	110	250	500	11	250	5020	1850	2630	9500
120	8	110	250	500	15	250	5020	1860	2740	10500
110	9	110	250	500	18,5	250	5040	1880	2790	12150
100	8	95	250	500	22	250	5060	1900	2850	13600



## HYDRAULIC CNC PRESS BRAKE

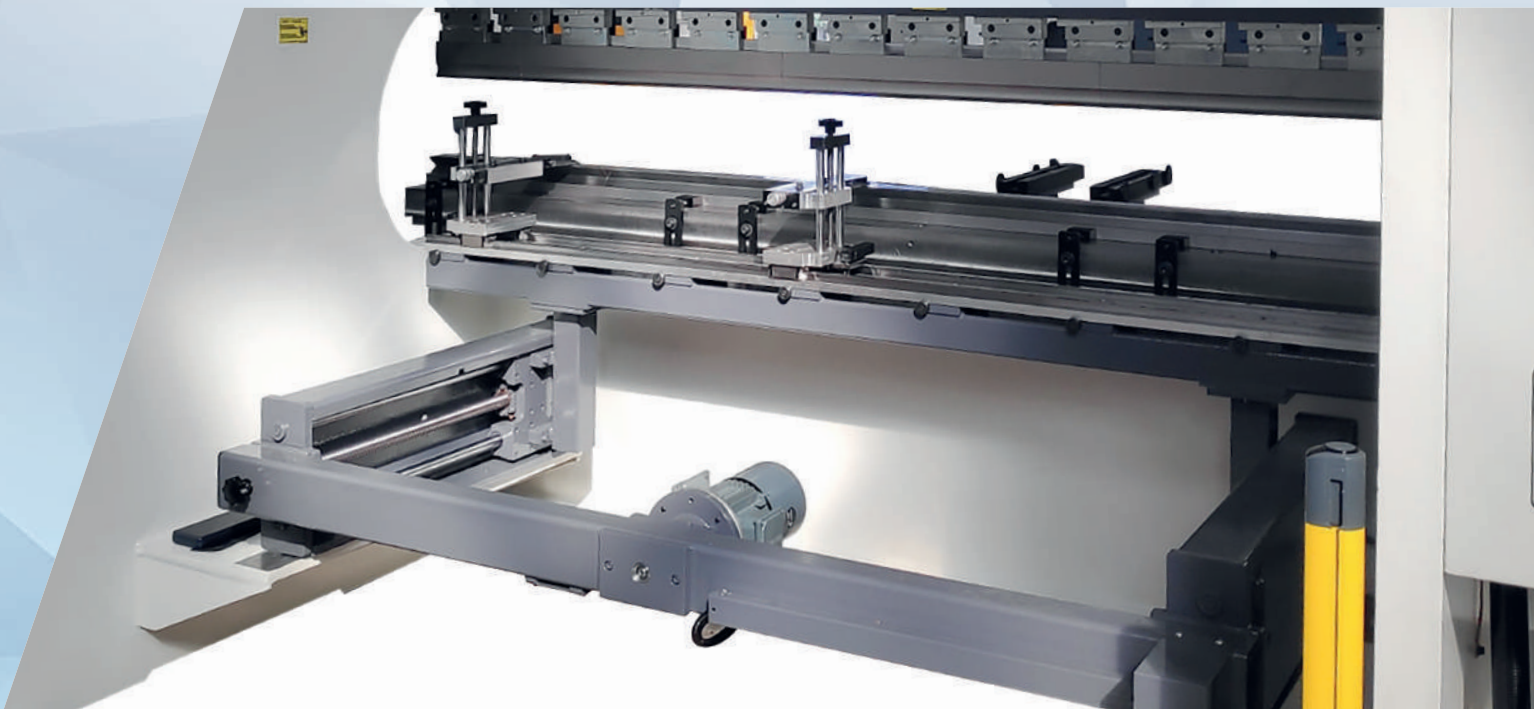
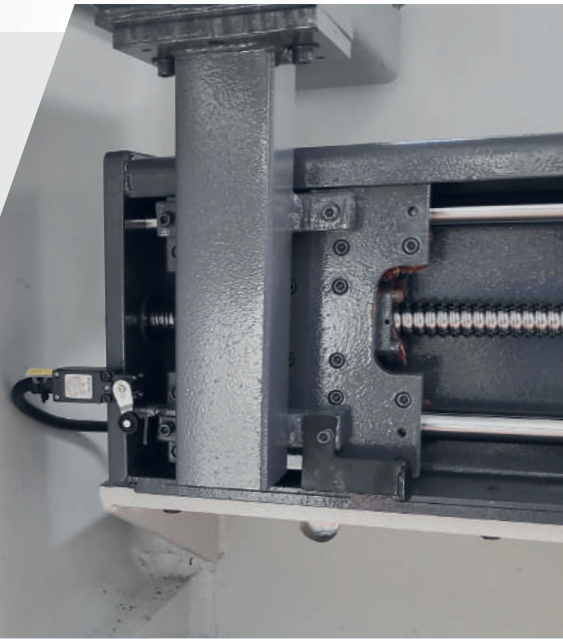
# ADVANCED

The most important factor for precision bending in press brakes is the Backgauge system.

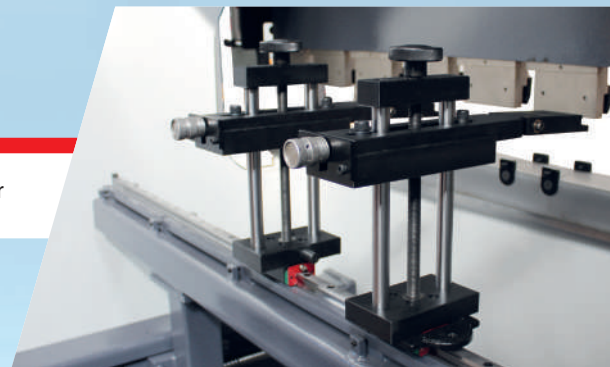
Hilalsan design features a special, powerful and precise backgauge system that works on linear bearing ways at side counters and large-sized ball screws.

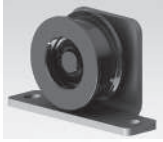
The special design has very strong construction due to its strong mechanical structure and can withstand large loads.

The backgauge finger blocks move on top of the single-rail and steel-plated top profile. These backgauge finger blocks are very sensitive and can be adjusted from any point.



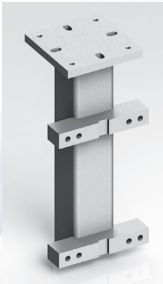
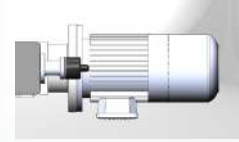
Backgauge Finger





**H:** Belt tensioning mechanisms used to prevent the trigger belts, which engage the X axis motor, from making a gap.

**D:** AC motor used in the back gauge



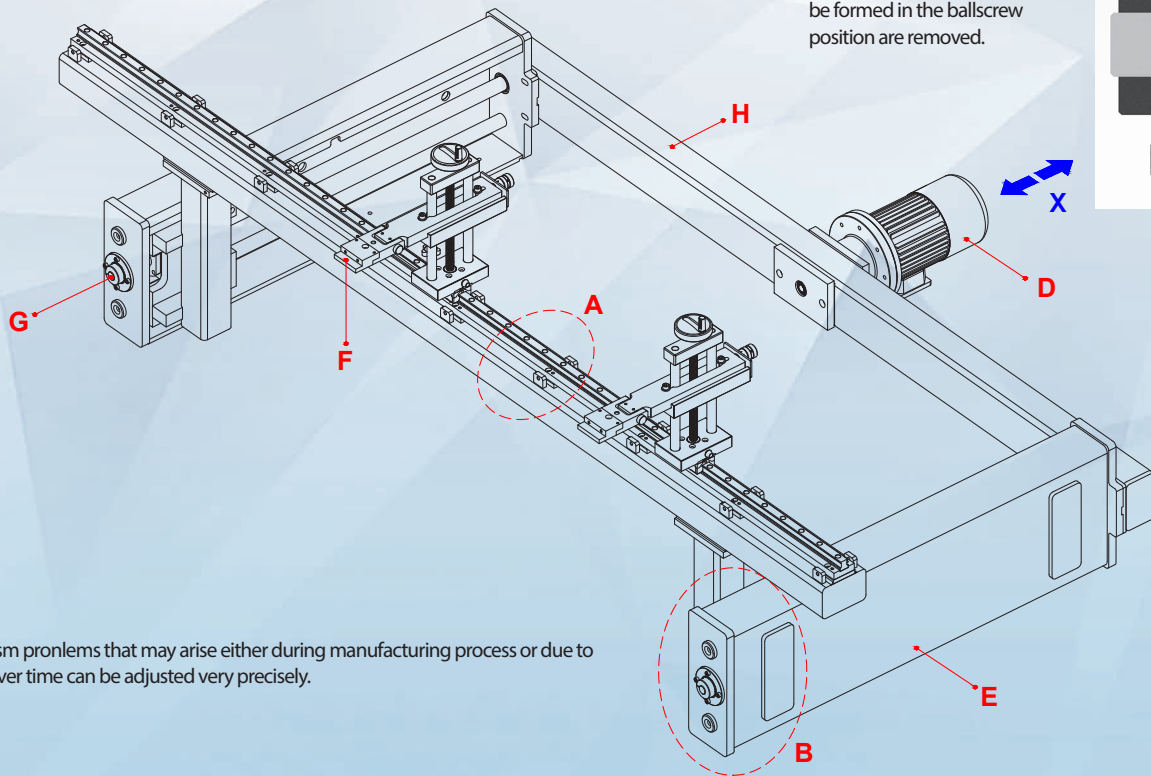
**C:** The X Axis console is manufactured with impact-resistant system.

**F:** Resistant to wear and deformation, precisely adjustable, and heat treated backgauge finger blocks.

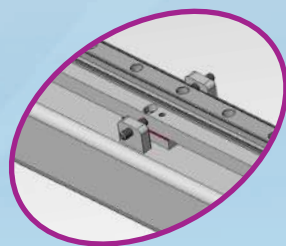


**F:** Mechanical braking system to prevent movement of fingers due to shocks and vibrations during operation.

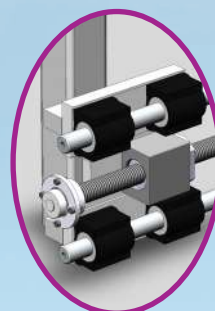
**G:** Thanks to the tapered bearing made of tapered roller at the ends of the ballscrews, the cavities which could be formed in the ballscrew position are removed.



**A:** Parallelism problems that may arise either during manufacturing process or due to impacts over time can be adjusted very precisely.



**A:** Movable top profile designed to absorb deformations that may occur in the trapezoid and precisely calibrate the distance to the bottom tool.



**B:** 4 pcs double row linear bearing ways and ballscrew are used so that our consoles do not cause any gap due to the collapses.

**E:** Strengthened steel construction and vibration-proof and durable side console.

## HYDRAULIC CNC PRESS BRAKE

# ADVANCED

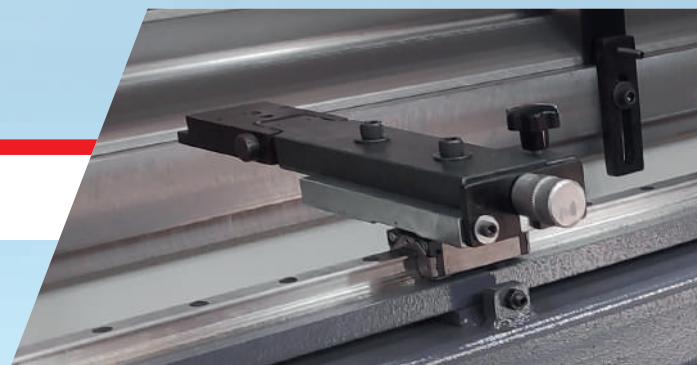
The most crucial factor for precision bending in press brakes is the Backgauge system.

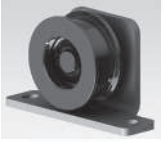
Hilalsan design features a unique, powerful and precise back gauge system that works on linear guideways at side counters and large-sized ball screws. The special design has robust construction due to its strong mechanical structure and can withstand large loads.

The back gauge finger blocks move on top of the single-rail and aluminum-plated top profile. These back gauge finger blocks are very sensitive and can be adjusted from any point.

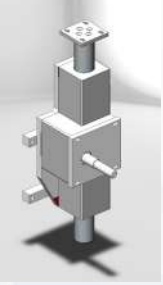


Backgauge Finger



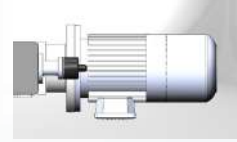


**H:** Belt tensioning mechanisms used to prevent the trigger belts, which engage the X axis motor, from making a gap.



**C:** The R Axis console is manufactured with a ball screw which is movable with a 200 mm stroke, with impact-resistant and anti-backlash system.

**D:** AC motor used in the back gauge

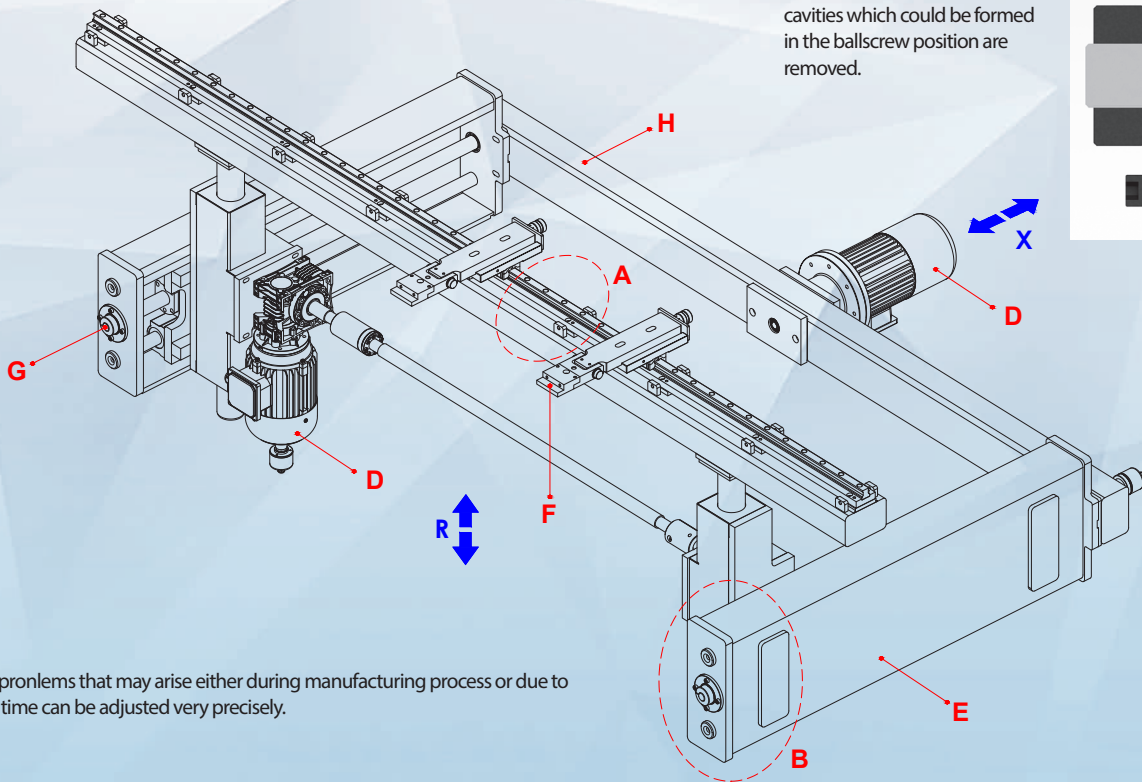
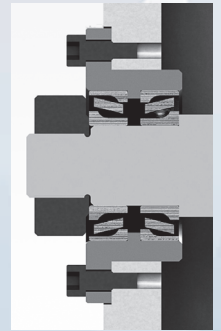


**F:** Resistant to wear and deformation, precisely adjustable, and heat treated backgauge finger blocks.

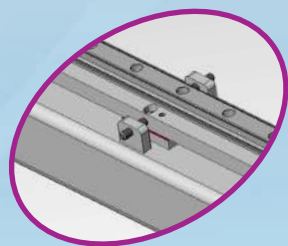


**F:** Mechanical braking system to prevent movement of fingers due to shocks and vibrations during operation.

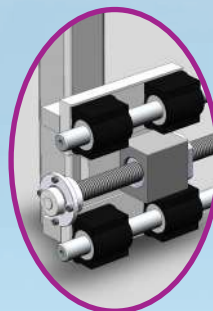
**G:** Thanks to the tapered bearing made of tapered roller at the ends of the ballscrews, the cavities which could be formed in the ballscrew position are removed.



**A:** Parallelism problems that may arise either during manufacturing process or due to impacts over time can be adjusted very precisely.



**A:** Movable top profile designed to absorb deformations that may occur in the trapezoid and precisely calibrate the distance to the bottom tool.

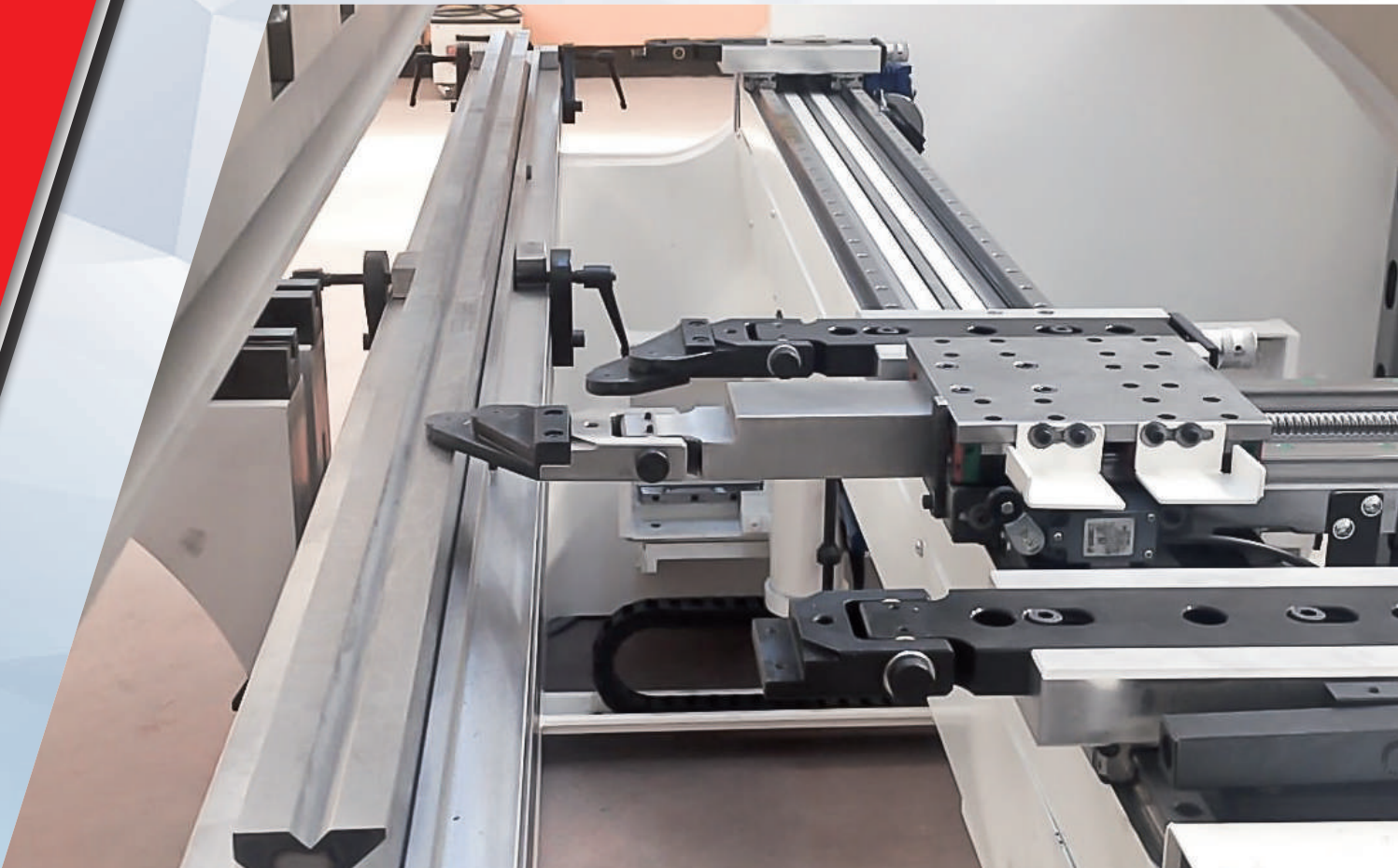


**B:** 4 pcs double row linear bearing ways and ballscrew are used so that our consoles do not cause any gap due to the collapses.

**E:** Strengthened steel construction and vibration-proof and durable side console.

HYDRAULIC CNC PRESS BRAKE

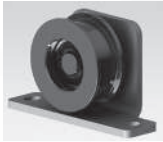
# ULTIMATE SERIES



The most crucial factor for precision bending in press brakes is the Backgauge system.

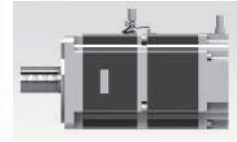
Hilalsan design features a unique, powerful and precise back gauge system that works on linear guideways at side counters and large-sized ball screws. The special design has robust construction due to its strong mechanical structure and can withstand large loads.

The back gauge finger blocks move on top of the double-rail and aluminum-plated top profile. These back gauge finger blocks are very sensitive and can be adjusted from any point.



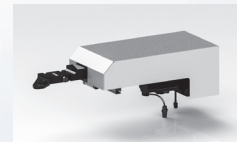
**H:** Belt tensioning mechanisms used to prevent the trigger belts, which engage the X axis motor, from making a gap.

**D:** High resolution servo motor in the precision positioning axis.



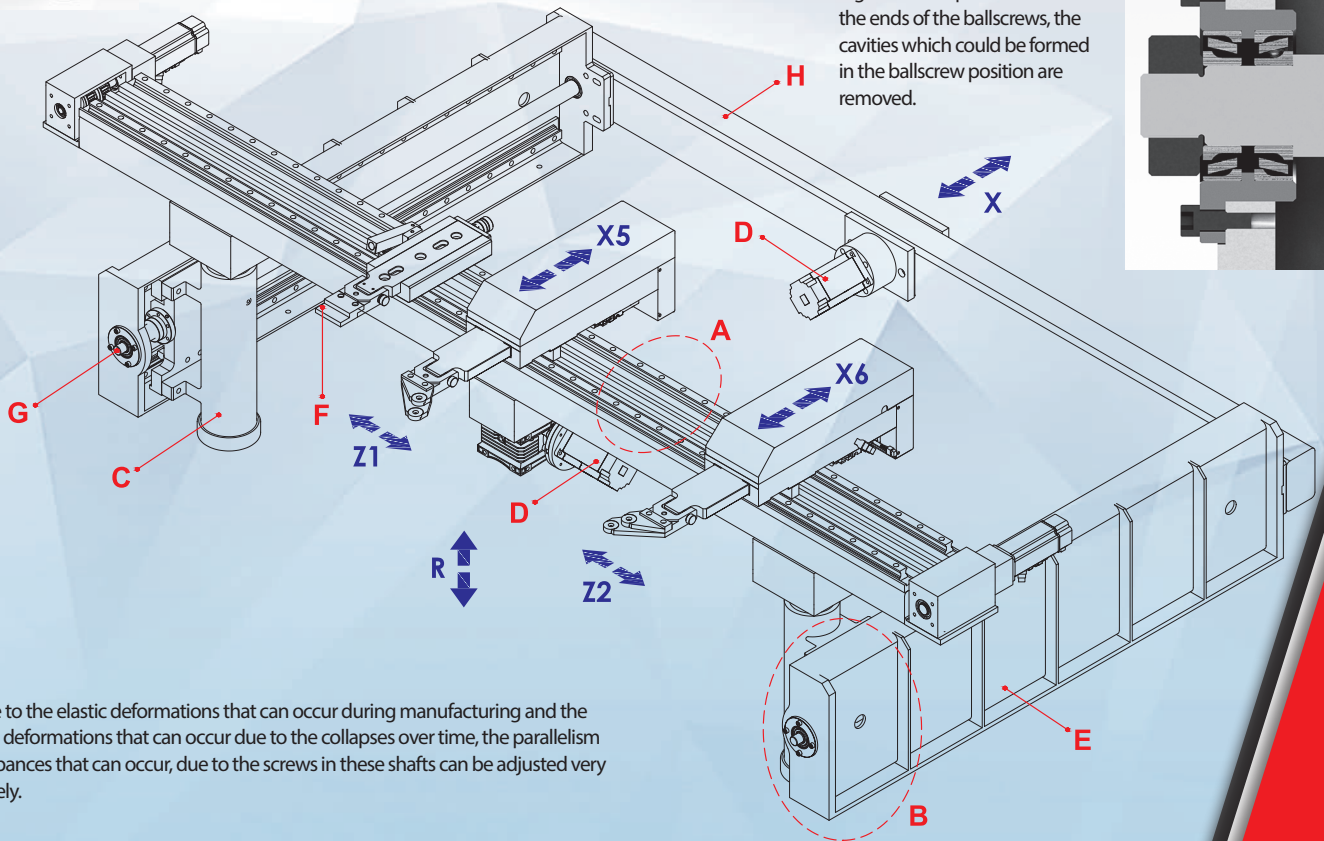
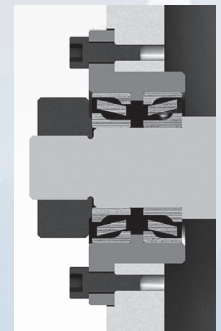
**C:** The R Axis console is manufactured with a ball screw which is movable with a 200 mm stroke, with impact-resistant and anti-backlash system.

**F:** Resistant to wear and deformation, precisely adjustable, and heat treated backgauge finger blocks.

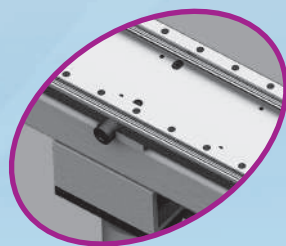


**F:** Mechanical braking system to prevent movement of fingers due to shocks and vibrations during operation.

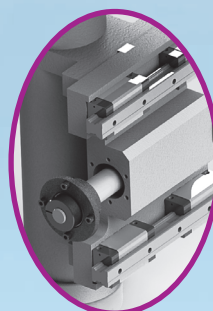
**G:** Thanks to the tapered bearing made of tapered roller at the ends of the ballscrews, the cavities which could be formed in the ballscrew position are removed.



**A:** Due to the elastic deformations that can occur during manufacturing and the plastic deformations that can occur due to the collapses over time, the parallelism disturbances that can occur, due to the screws in these shafts can be adjusted very precisely.



**A:** Movable top profile designed to absorb deformations that may occur in the trapezoid and precisely calibrate the distance to the bottom tool.



**B:** 4 pcs square type double row linear guideways and ballscrew are used so that our consoles do not cause any gap due to the collapses.

**E:** Strengthened steel construction and vibration-proof and durable side console.

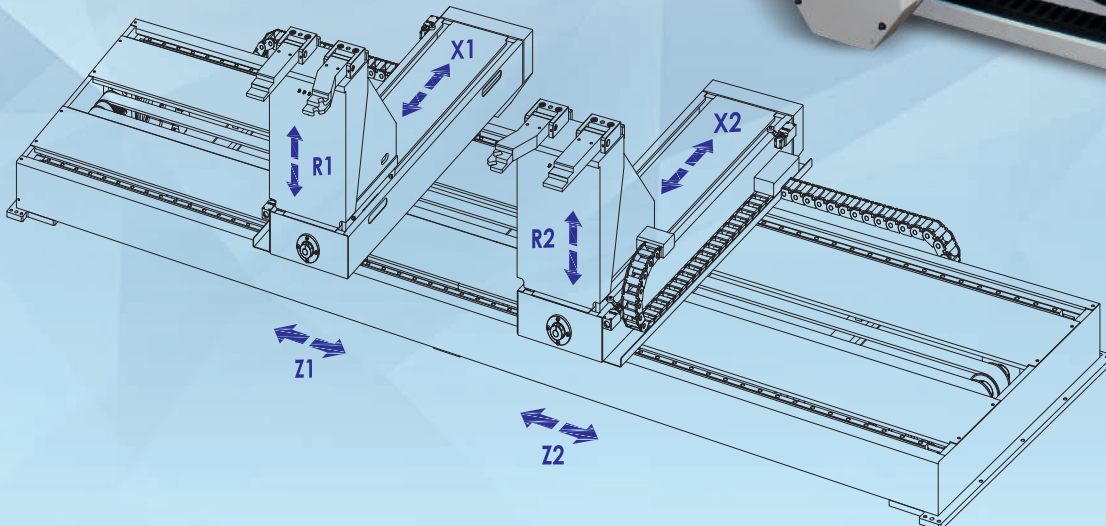
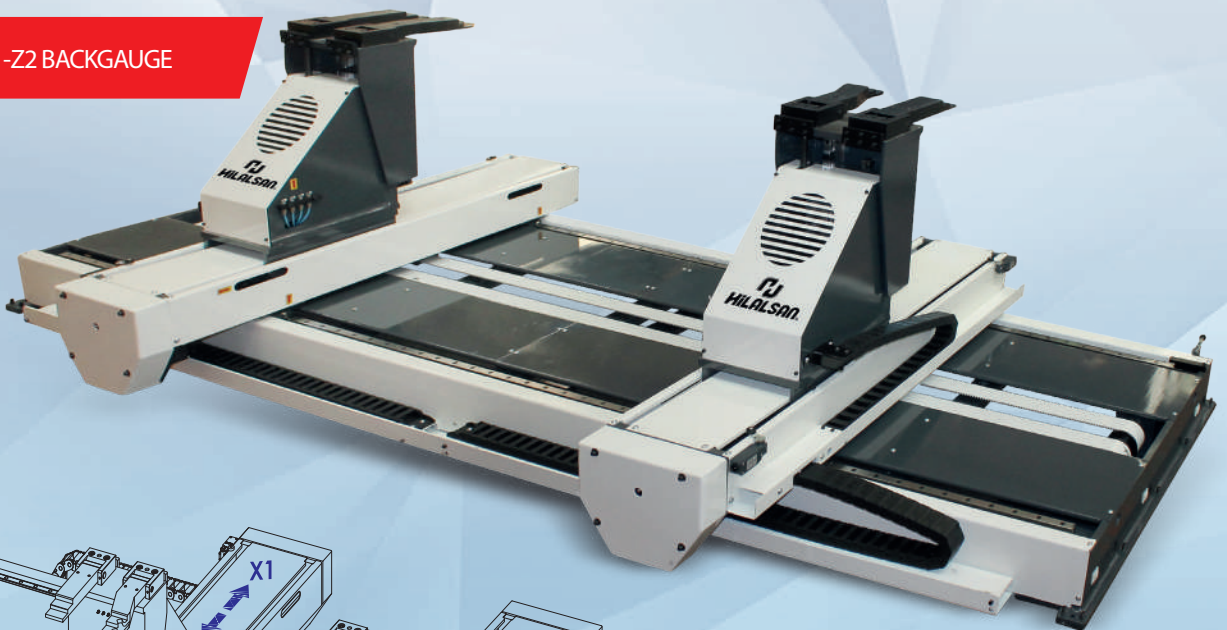
HYDRAULIC CNC PRESS BRAKE

# ULTIMATE SERIES

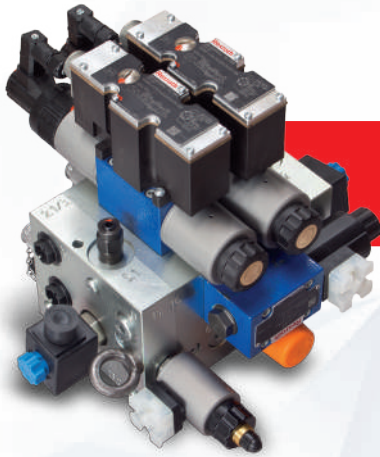
X - R - Z1 - Z2 BACKGAUGE



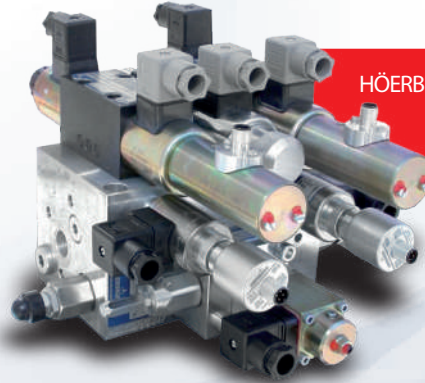
ATF X1-X2-R1-R2-Z1-Z2 BACKGAUGE







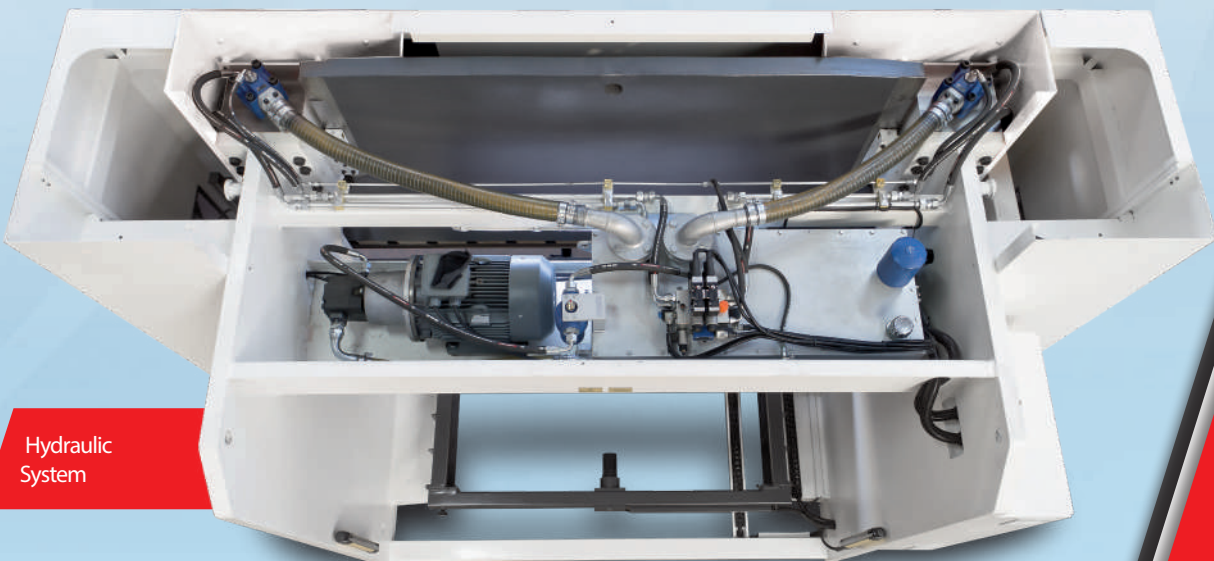
REXROTH  
Hydraulic  
Block



HÖERBIGER-HAWE  
Hydraulic  
Block



Modular  
Hydraulic  
Tank



Hydraulic  
System

Hydraulic Block type may vary depending on the machine construction.

# ULTIMATE - ADVANCED SERIES



CYBELEC TOUCH8

- 7" Colored Touch Screen.
- 2D graphic profile creation with manual sequencing (option).
- Bending sequences and programs can be memorized.
- Easy single bends with the EasyBend page.
- USB Flash Memory port for data transfer/backup
- User Language Options
- Easy Tool Drawing



CYBELEC TOUCH12 2D

- 12" Colored Touch Screen.
- 2D graphic profile creation with manual sequencing (option).
- Bending sequences and programs can be memorized.
- Easy single bends thanks to the "EasyBend" page.
- USB Flash Memory port for data transfer/backup
- User Language Options
- Easy Tool Drawing



CYBELEC TOUCH15 2D

- 15" modern streamlined glass surface touch screen that can be used with gloves.
- User friendly HMI thanks to intuitive programming and easy to set up with dedicated wizards (autotuning).
- 2D graphical profile drawing (Touch Profile) and precise 2D program creation.
- Automatic bending sequence calculation.
- Easy single bends thanks to the EasyBend page.
- Wide storage capacity.
- Internal backup and restore functions.
- Wireless communication for extended diagnostics and updates (with laptop).



CYBELEC VISIPAC 192D

- 19" modern streamlined glass surface touch screen that can be used with gloves
- User friendly HMI thanks to intuitive programming
- 2D graphic profile and 3D viewer
- Automatic bending sequence calculation
- Tools import
- Preliminary / Final bend
- Hemming management

CYBELEC VISITOUCH 19 MXIMP 3D

- 19" modern streamlined glass surface touch screen that can be used with gloves.
- User friendly HMI, similar to the CybTouch's one, thanks to an intuitive programming and dedicated set-up wizards (autotuning).
- Full 3D visualisation and simulation.
- Parts management with DXF flat pattern and 3D format files import.
- Automatic solutions of complex parts: automatic bend sequencing, gauging, tooling and auto segmentation.
- Running under Windows 7 for multitasking and networking.
- Internal backup and restore functions.
- Outstanding diagnostic tools.



DELEM DA58T 2D

- 15" Colored Touch Screen.
- 2D graphic profile creation with automatic sequencing.
- Automatic bend sequence calculation and collision detection  
Full 3D machine set-up with multiple tool stations
- USB Flash Memory port for data transfer/backup
- User Language Options



DELEM DA66T 2D

- 17" Colored Touch Screen.
- 2D graphic profile creation with automatic sequencing.
- On-screen finger profile drawing. • Touch Screen Scaling • Full 3D Simulation
- 1 GB Hard Disk Drive (HDD) - 256 MB part memory
- Windows Operating System • User Language Options
- Automatic bend sequence calculation and collision detection & Full 3D machine set-up with multiple tool stations • USB Flash Memory port for data transfer/backup
- RJ45 Ethernet for network
- Delivered with offline software (This software allows you to create, calculate, and control the feasibility of parts on a desktop/laptop computer at the office)



DELEM DA69T 3D

- 17" Colored Touch Screen.
- 2D & 3D graphic profile creation with automatic sequencing.
- On-screen finger profile drawing. • Touch Screen Scaling • Full 3D Simulation
- 1 GB Hard Disk Drive (HDD) - 256 MB part memory
- Windows Operating System • User Language Options
- Automatic bend sequence calculation and collision detection & Full 3D machine set-up with multiple tool stations • USB Flash Memory port for data transfer/backup
- RJ45 Ethernet for network
- Delivered with offline software (This software allows you to create, calculate, and control the feasibility of parts on a desktop/laptop computer at the office)



# ULTIMATE - ADVANCED SERIES



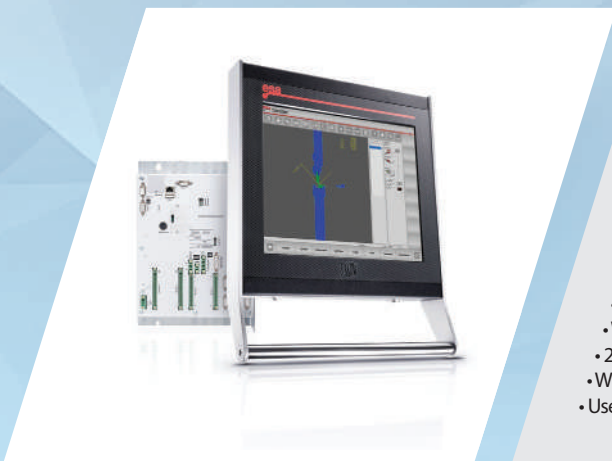
ESA S630 2D

- 10" Touchscreen Color Display.
- Creating 2D Graphics profile with automatic convolution sequence.
- 3D Simulation.
- Part Scratching with touchscreen.
- Bending sequences and programs can be stored in memory.
- Easy single bending page.
- USB memory port for data transfer / backup.
- Windows operating system
- Windows networking with Ethernet connectivity
- User Language option



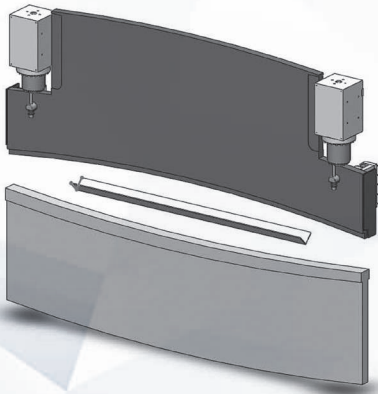
ESA S640 2D

- 15" Touchscreen Color Display.
- Creating 2D Graphics profile with automatic convolution sequence.
- 3D Simulation.
- Part Scratching with touchscreen.
- Bending sequences and programs can be stored in memory.
- Easy single bending page.
- USB memory port for data transfer / backup.
- Windows operating system
- Windows networking with Ethernet connectivity
- User Language option

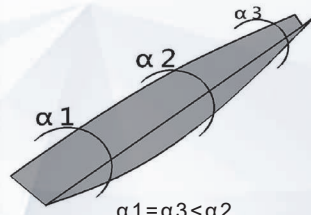


ESA S660W 3D

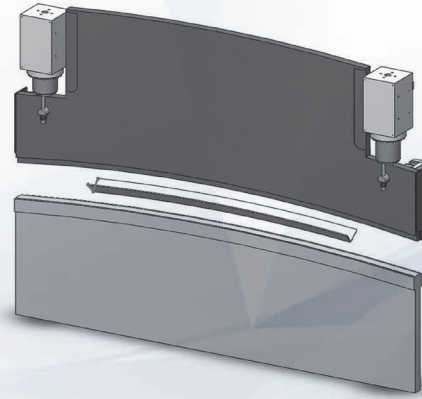
- 19" Touchscreen Color Display.
- Creating 3D Graphics profile with automatic convolution sequence.
- 3D Simulation.
- Part Scratching with touchscreen.
- Bending sequences and programs can be stored in memory.
- Easy single bending page.
- USB memory port for data transfer / backup.
- Windows 7 operating system
- 20 GB HDD
- Windows networking with Ethernet connectivity
- User Language option



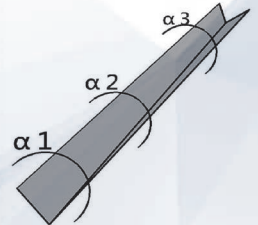
Bending without Crowning



$$\alpha 1 = \alpha 3 < \alpha 2$$



Bending with Crowning



$$\alpha 1 = \alpha 2 = \alpha 3$$

Advantages of crowning to achieve a constant angle;

A press brake's bending precision is affected by the deviations of the upper and lower table as well as other factors.

Press brakes deviate from the opposite direction.

Penetration of the force obtained into the tool is not constant, and the angle is not the same over the length of the machine.

The independent right and left axes (Y1 and Y2) controlled both by proportional valves and linear position control systems.

The crowning system distributes the bending force equally to each point of the bending part to ensure correct bending results.

#### Manual Crowning

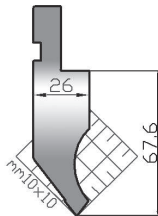


#### CNC Controller Motorized Crowning



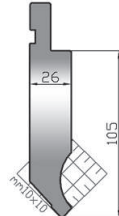
# HYDRAULIC CNC PRESS BRAKE

## ULTIMATE SERIES



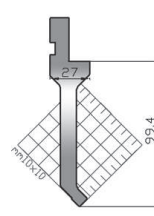
**110/75**

max 1000 kN/mt



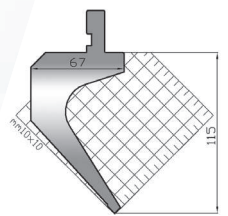
**110/75/h105**

max 1000 kN/mt



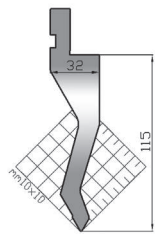
**143/88**

max 500 kN/mt



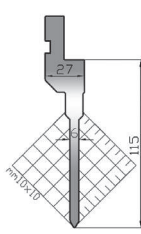
**141/85**

max 700 kN/mt



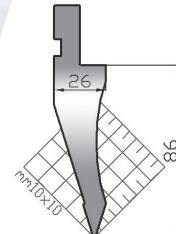
**134/60**

max 700 kN/mt



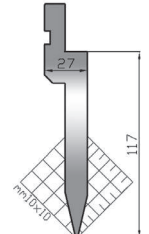
**151/60**

max 500 kN/mt



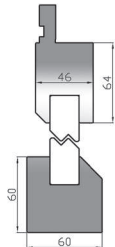
**112/35**

max 700 kN/mt



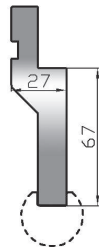
**122/26**

max 1000 kN/mt



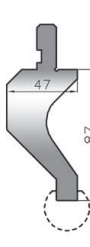
**130**

max 1000 kN/mt



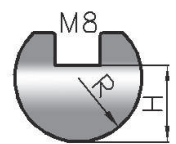
**119h67**

max 800 kN/mt

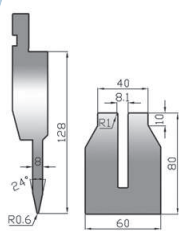


**119c h87**

max 500 kN/mt

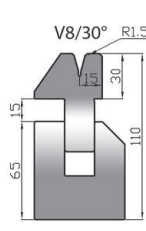


**305**



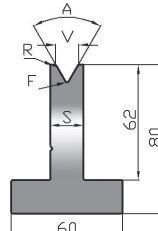
**138 l8+m8**

max 500 kN/mt



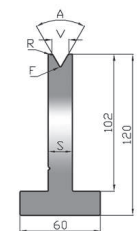
**306/30 v8**

max 800 kN/mt



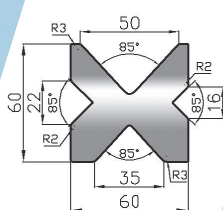
**220 h80**

max 250-1000 kN/mt



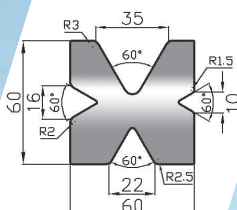
**420 h120**

max 250-1000 kN/mt



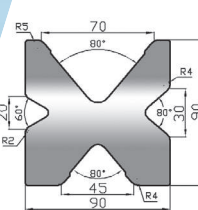
**209/v4**

max 800 kN/mt



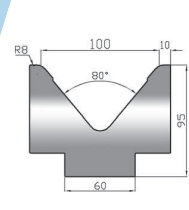
**210/v4**

max 600 kN/mt



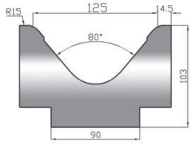
**203/v4**

max 600 kN/mt

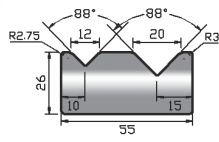


**211/100**

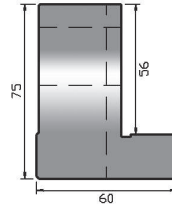
max 1000 kN/mt



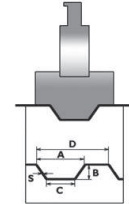
**211/125**  
max 1000 kN/mt



**214/88**  
max 1000 kN/mt

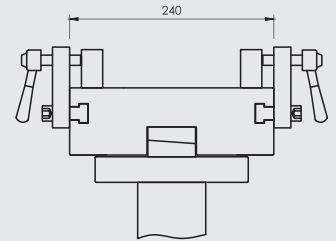
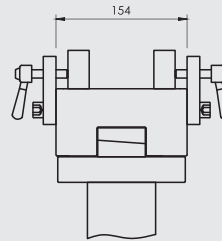
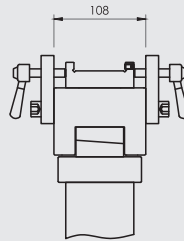


**408/75**

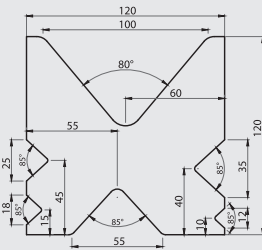
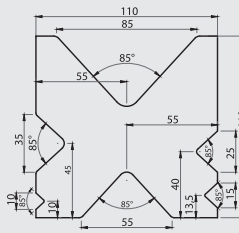
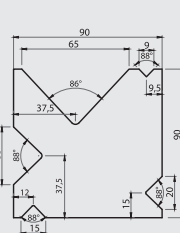


**SP14**

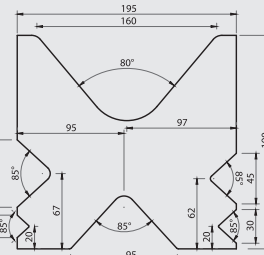
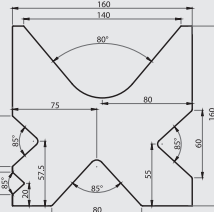
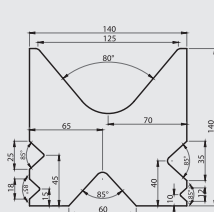
Bottom Table Types



Multi V Bottom Tables

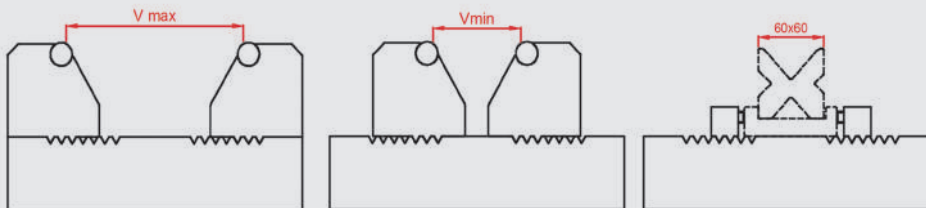


Multi V Bottom Tables



V 60-80-100-120-140-160 / V 60-80-100-120-140-160-180-200 / V 60-80-100-120-140-160-180-200-220-240

Adjustable Bottom Tables

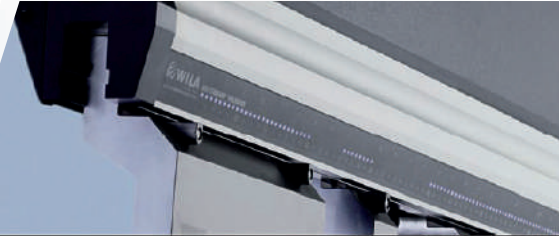


# HYDRAULIC CNC PRESS BRAKE

## ULTIMATE - ADVANCED SERIES



WILA Type  
Bottom Tool  
Hydraulic  
Clamping System



WILA Type  
Top Tool  
Hydraulic  
Clamping System



Rolleri European Type  
Hydraulic Top Tool  
Clamping

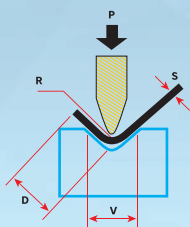


Rolleri European Type  
Hydraulic Bottom Tool  
Clamping



### BENDING FORCE CHART

V	D (Min)	R	S (min)																						
			0,5	0,8	1	1,2	1,5	1,8	2	2,5	3	3,5	4	4,5	5	6	7	8	9	10	12	15	18	20	
6	5	1	2,5	6,5	10																				
8	6	1,3	2	5	8	11																			
10	7	1,7	1,5	4	6	9	13																		
12	9	2		3	5	7	11	16																	
15	12	2,7			4	6	9	13	16																
20	15	3,3				4	7	10	12	19															
26	18	4,2					5	7,5	9	14	21														
30	22	5						6,5	8	12	19	24													
32	23	5,4							7,5	11,6	17	23	30												
37	25	5,8								10	14,5	20	26	33											
42	29	6,7									13	17	23	29	35,5										
45	32	7,5										16	21	27	33	48									
50	36	8,3											19	24	30	43	58								
60	43	10												20	25	36	49	64							
70	50	11,5													21	31	42	55	69						
80	57	13,5														27	37	48	60	75					
90	64	15															32	42	54	66	95				
100	71	17																38	48	60	86	134			
130	90	22																	37	46	66	103	149		
180	130	30																		33	48	75	107	133	
200	145	33																			43	67	97	119	
250	180	42																				54	77	95	



- : Nominal Working Capacity (Ton)
- L : Maximum bending length  
Table L = 1000mm
- V : Tool Width (mm)
- D : Minimum sheet bending distance (mm)
- R : Bending Radius
- S : Material Thickness (mm)
- V̄ : Material Tensile Strength (V̄=42 kg/mm<sup>2</sup>)
- P : Bending Force (Ton)

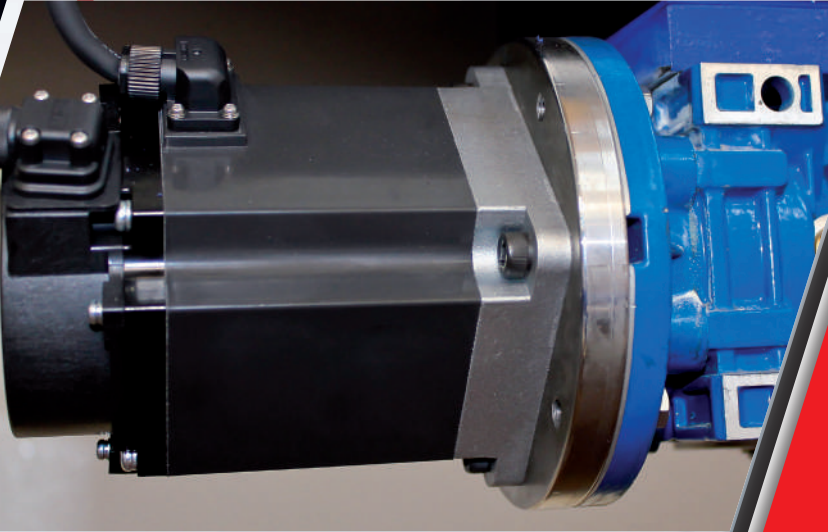
$$P = \frac{1.42 \times \bar{V} \times S^2 \times L}{1000 \times V} \quad (\text{Ton})$$





Sheet Follower

Servo Motors



Drivers




The movement of the back-gauge is operated by the CNC control unit in hydraulic press brakes.

The high performance servo motors move the bearing axes.


Precision parts are produced by these motors. The electrical circuit components used are Siemens, Telemecanique and Schneider brand products.

HYDRAULIC CNC PRESS BRAKE

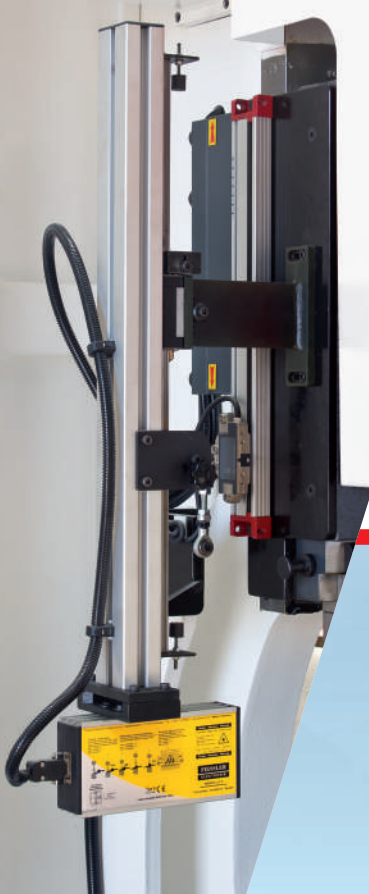
# ULTIMATE - ADVANCED SERIES



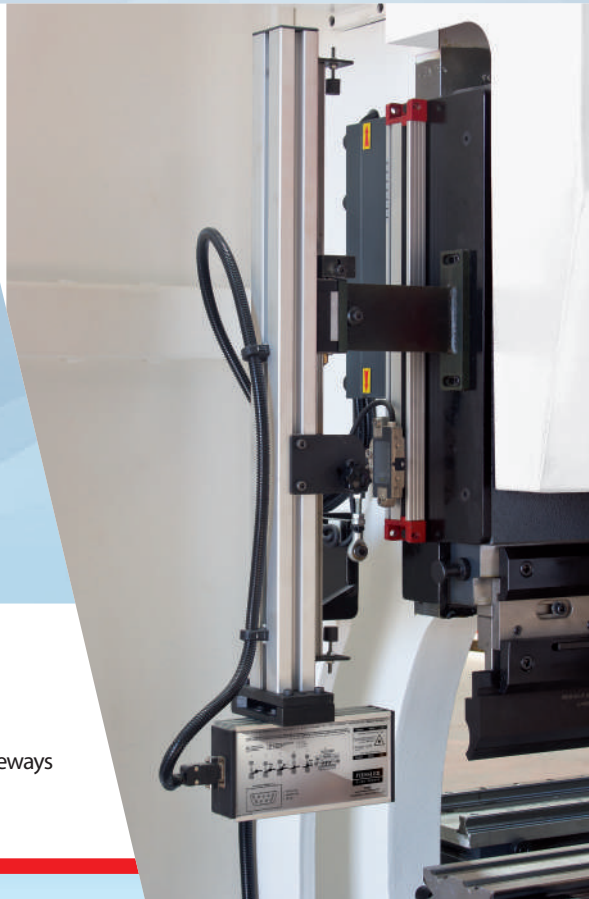
Stand Type  
Foot Pedal



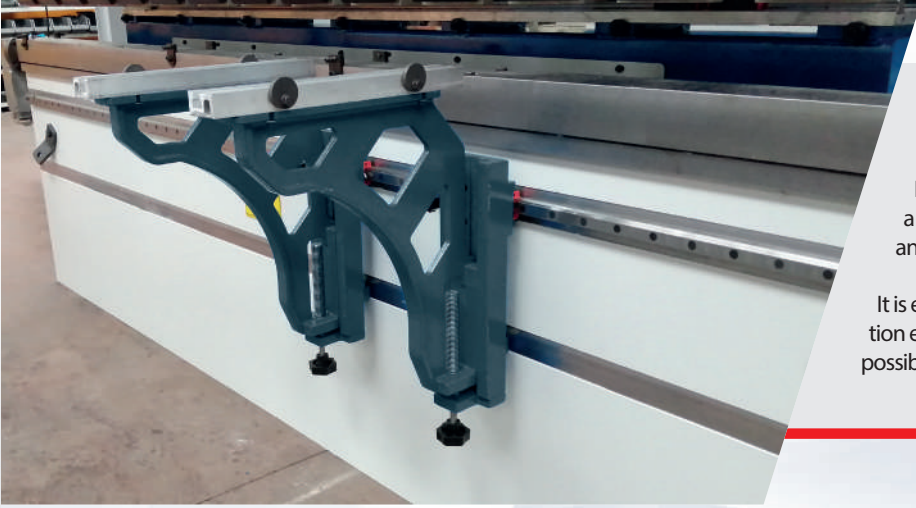
Magnescales



Easily adjustable  
front Laser  
finger protection  
with linear guideways  
AKAS II M-FMSC



Easily adjustable  
front Laser  
finger protection  
with linear guideways  
AKAS FPBS



Quick & Easy Adjustable Support Arms.

It is mounted in front of the machine in such a way as to move on a linear slide system and on a ball bearing.

It is easy to use by taking the desired position even when lightly pushed, and it is also possible to adjust it vertically.

Hilalsan European  
Type Quick Release  
Top Tool Clamping



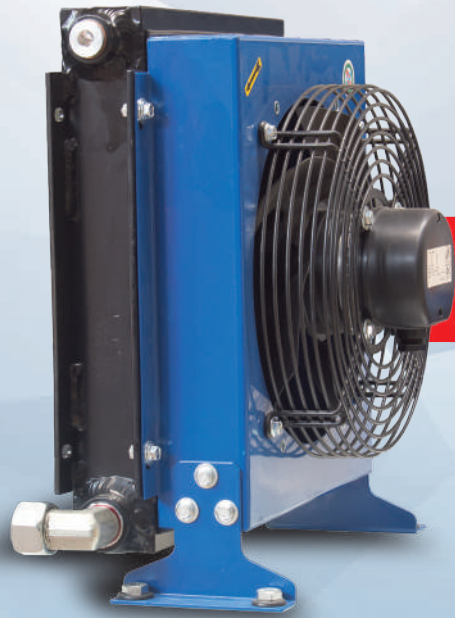
Bottom Narrow Table



HYDRAULIC CNC PRESS BRAKE

# ULTIMATE - ADVANCED SERIES

Manual  
Central  
Lubrication



Oil Cooler  
with fan



Motorized Central Lubrication

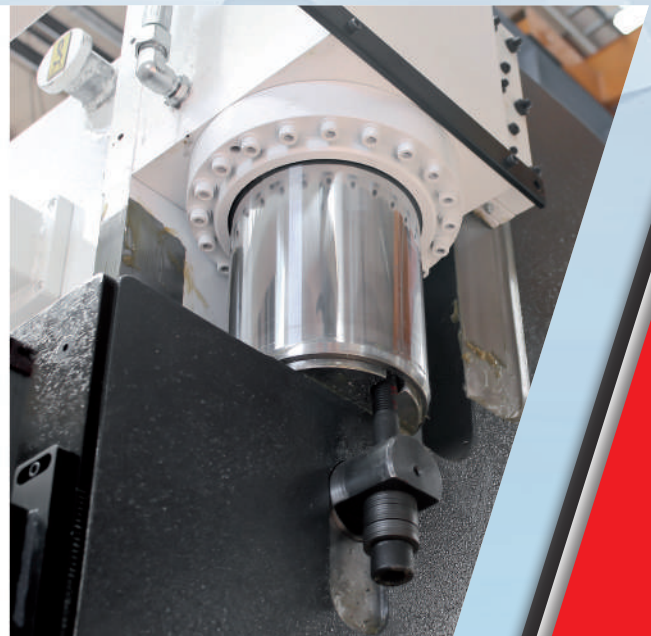
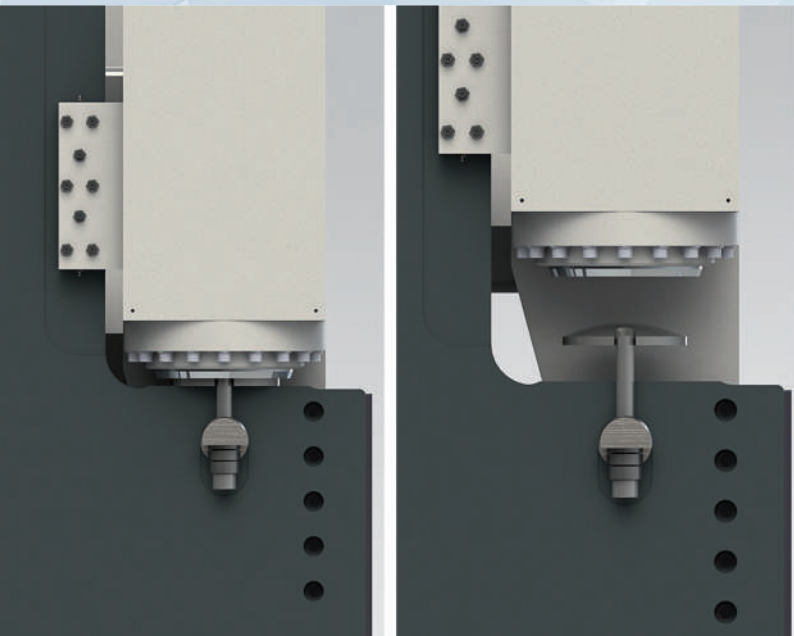
Oil Heaters





The bedding of the top table kept longer to avoid stretch during bending and easy to slip.

To keep the bedding outside of the columns provides an advantage in box bends.



The top plate connections are mounted with double springs as well as spherical connection to the cylinders with double safety.

The parallelism with the top plate can be adjusted more precisely and the proportional valves can work synchronously with each other.

HYDRAULIC CNC PRESS BRAKE

# ULTIMATE - ADVANCED SERIES

The outer surface of the machine painted with two layers of paint at least 60 microns in thickness to protect against weather conditions.

Paint drying is done gradually in different time and temperature ranges in state-of-the-art ovens.

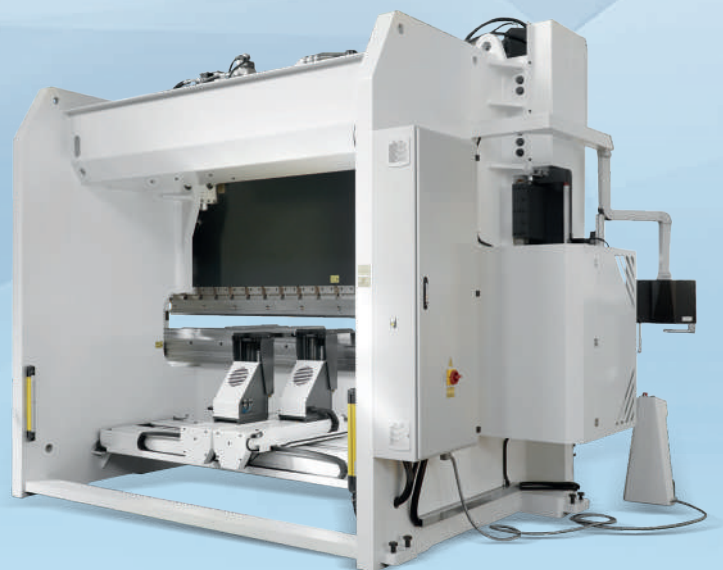




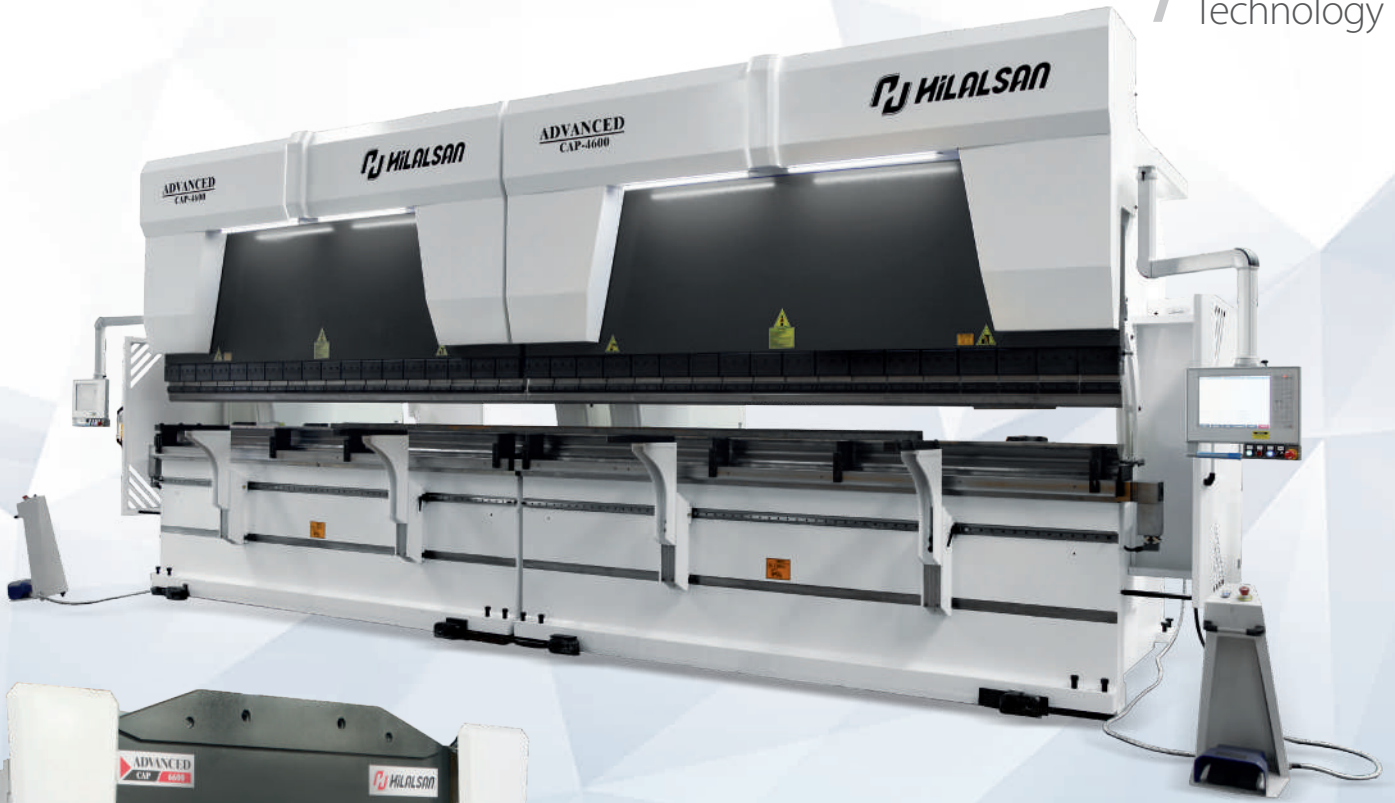
The press brake bodies machined in 5 Axis CNC machines can make more precise bendings and to reduce the friction coefficients to the minimum level.

HYDRAULIC CNC PRESS BRAKE

# ULTIMATE - ADVANCED SERIES







## CNC VARIABLE RAKE HYDRAULIC GUILLOTINE SHEAR

# HYPER SERIES

### STANDART FEATURES

- Elgo P40T Touch Screen Colour Control Unit
- Automatically adjusted blade gap by CNC
- Automatically adjusted cutting length by CNC
- Automatically adjusted rake angle by CNC
- Proportional pressure setting
- Full Length flip-up finger guard cage
- Shadow line & Lighting
- Ball integrated front tables
- Back safety Light Curtains
- Hilalsan Ballscrew back gauge, 1000 mm & Automatic swing-up
- Squaring arm with scale & T-Slot & Tilting stop (L= 1000mm)
- 1000mm Support arm
- Foot Pedal with Emergency Stop Button
- Top and Bottom Blades

### OPTIONAL FEATURES

- Cybelec Touch8 Touch Screen Colour Control Unit
- Pneumatic sheet support system ( Fixed Type )
- Pneumatic sheet support system ( Modular Type )
- 0-180° Front angle gauge
- Laser Cutting Line
- Light Curtain for Finger Protection
- Back Gauge Servo Motor Difference
- Oil Heater
- Oil Coolant with Fan
- Central Lubrication Manual
- Central Lubrication Motorized



## GENERAL FEATURES

HYPER Series CNC Variable Rake Hydraulic Guillotine Shears that provide the appropriate solutions for your needs proved to be user-friendly with its advanced technological features produced with high efficiency, precision and performance criteria. The HYPER Series CNC Variable Rake Hydraulic Guillotine Shears has proved to be the best and most durable in the industry with its ease of use.

When you enter the length, thickness and material information of the sheet which will be cut into the easily programmable control unit; gap distance, cutting angle stroke and cutting length are automatically adjusted instantaneously.

While providing flexibility for different production requirements, the time loss eliminated by targeting high productivity.

- The machine frame manufactured with advanced technology with exact tolerances and stress relieved with welded components. All tensile points are designed with large radii and strain accumulation and possible welding cracks are eliminated.
- The lower table and upper table inertia created for optimum value for the minimum deformation affecting the cutting quality.
- The top plate designed to positioned vertically so that the roller bearings, piston bearings, and felts can compensate for vertical loads.

• The hydraulic cylinder is intended to be double-sided and honed to surface quality of 2 microns. Thus, minimum wear resistance is created for the felts. The cylinder bodies manufactured as SAE 1040 material forged.

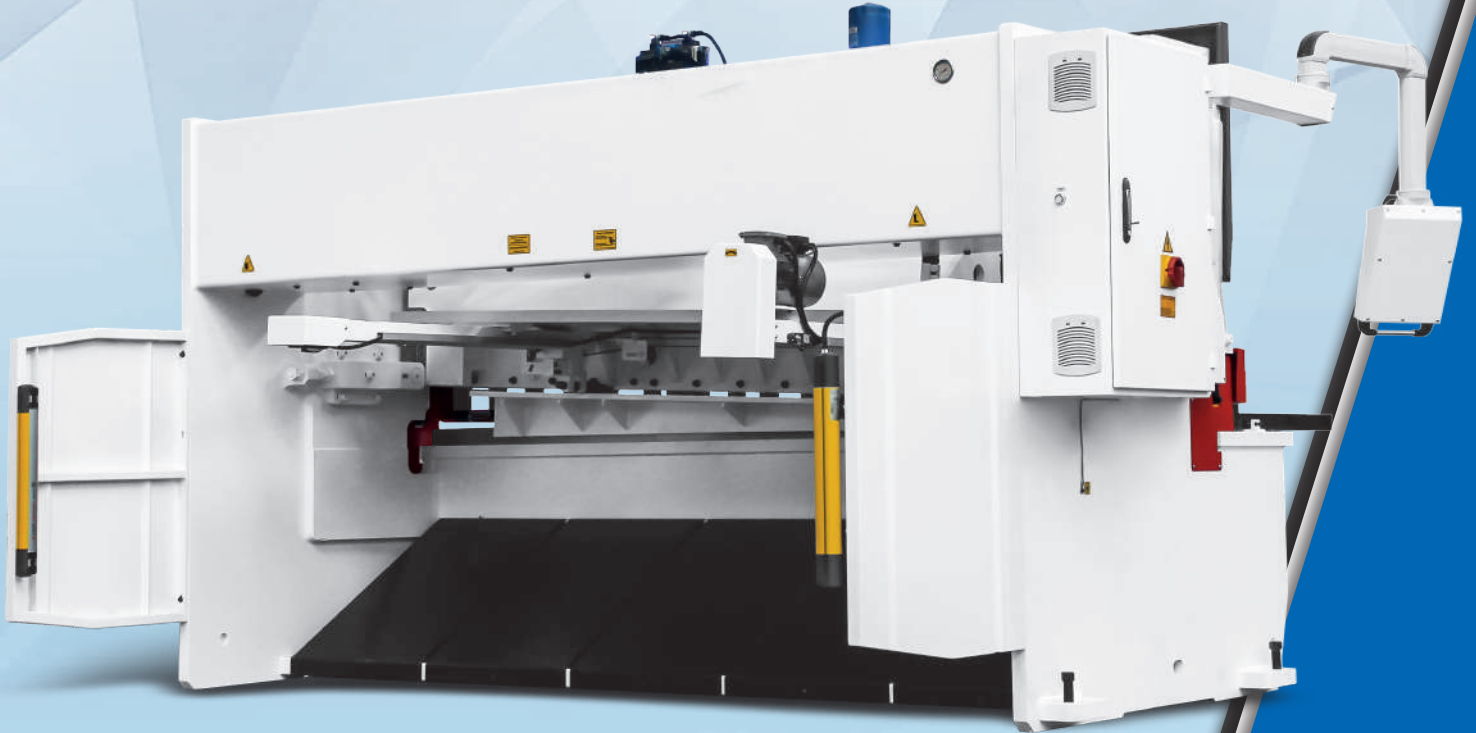
• The hydraulic cylinders specially designed and the upper table mounted with cylinder springs and doubly secure to cylinders as a spherical connection. At this point, the power generated during cutting distributed to the machine body.

• Piston head features: Omega-type felts fitted with full bronze bearings, semi-angled sleeves.

• The Hilalsan hydraulic system allows precise usage at all pressure values up to the maximum operating pressure. At the same time, with these pressure values, precise cylinder positioning, synchronization, and repeatability are achieved.

• Backgauge system manufactured in accordance with environmental conditions. Backgauge bearings made for heavy conditions with double bearers. Scrapping type bearings used against dust and other particles that will accumulate in the linear guideways against dusty environmental conditions.

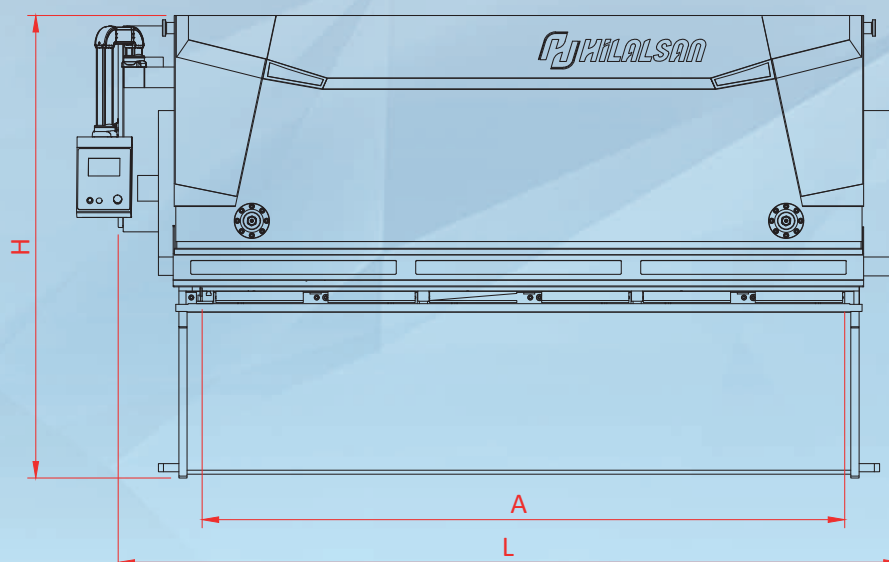
• The outer surface of the machine is painted with two layers of paint at least 60 microns in thickness to protect against weather conditions. Paint drying is done gradually in a different time and temperature ranges in state-of-the-art ovens.



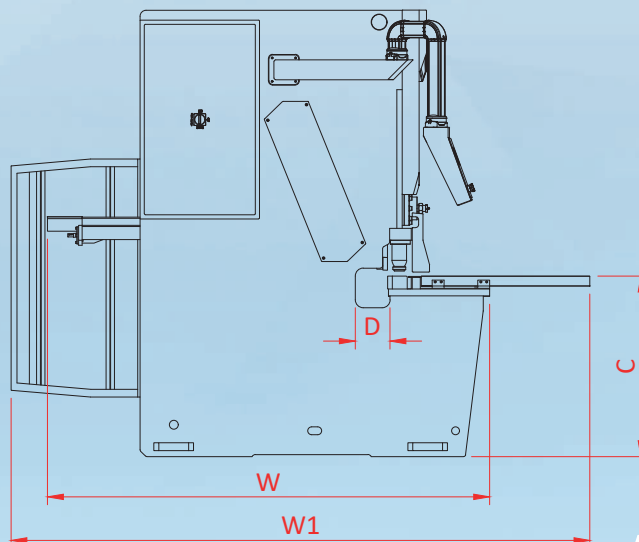
# HYPER SERIES

Machine Type	Cutting Length	Cutting Capacity		Number of stroke (No-load)	Cutting Angle		Number of Holddowns	Backgauge course	Backgauge Speed	Motor Power	Oil Capacity	Throat depth
		MS (450N/mm <sup>2</sup> )	SS (700 N/mm <sup>2</sup> )		Min	Max.						
	mm	mm	mm	1/dak	Degree		Units	mm	mm/sn	Kw	Lt	mm
	A											D
AGM-2006	2080	6	4	13_24	0,3	2	9	1000	100	11	160	150
AGM-2010	2080	10	6	11_19	0,3	2	10	1000	100	22	350	150
AGM-2506	2580	6	4	12_22	0,3	2	11	1000	100	11	160	150
AGM-3006	3080	6	4	11_21	0,3	2	13	1000	100	11	160	150
AGM-3008	3080	8	5	10_18	0,3	2	14	1000	100	18,5	350	150
AGM-3010	3080	10	6	9_17	0,3	2	17	1000	100	22	350	150
AGM-3013	3080	13	8	8_15	0,5	2,3	15	1000	100	30	350	150
AGM-3016	3080	16	10	7_11	0,5	2,5	17	1000	100	30	350	150
AGM-3020	3080	20	13	5_10	0,5	3	18	1000	100	37	550	150
AGM-4006	4080	6	4	9_20	0,3	2	18	1000	100	11	350	150
AGM-4010	4080	10	6	8_16	0,3	2	20	1000	100	22	350	150
AGM-4013	4080	13	8	7_13	0,5	2,3	18	1000	100	30	350	150
AGM-4016	4080	16	10	5_10	0,5	2,5	21	1000	100	30	350	150
AGM-4020	4080	20	13	5_9	0,5	3	21	1000	100	37	550	150
AGM-6006	6080	6	4	8_13	0,5	2	26	1000	100	18,5	350	150
AGM-6010	6080	10	6	7_11	0,5	2	26	1000	100	22	350	150
AGM-6013	6080	13	8	6_11	0,5	2,5	24	1000	100	30	550	150
AGM-6016	6080	16	10	5_9	0,5	2,5	24	1000	100	37	550	150
AGM-6020	6080	20	13	4_7	0,5	3	24	1000	100	37	550	150

HILALSAN has right to change catalogue values and machine technical details without notice. Misprints are not restrictive.



Front Arms	Table height	Length	Width	Total Width	Height	Approximate Weight
Units	mm	mm	mm	mm	mm	mm
	C	L	W	W1	H	Kg
2	800	2800	2120	2770	1900	4650
2	850	2850	2200	2940	2190	7900
3	850	3300	2130	2780	1900	5950
3	850	3850	2130	2780	2200	7250
3	900	3850	2230	2910	2110	8700
3	900	3850	2240	2920	2300	10500
3	900	3900	2260	2960	2350	12850
3	900	3900	2290	3000	2450	16500
3	1000	3950	2320	3050	2650	21500
4	900	4900	2160	2820	2300	10750
4	900	4900	2280	3000	2400	15500
4	900	4900	2310	3020	2550	18400
4	1000	4900	2340	3050	2700	22000
4	1100	5000	2370	3100	2800	27500
6	1000	6900	2200	2860	2550	22500
6	1000	6950	2330	3050	2650	28000
6	1200	6950	2370	3080	2950	35500
6	1200	7000	2410	3120	3150	40500
6	1200	7050	2440	3170	3300	50500



## HYDRAULIC GUILLOTINE SHEAR

# FORCE SERIES

### STANDART FEATURES

- BRL 401.2 NC Control Unit
- Motorized adjustable blade gap by Button
- Manual pressure setting
- Full Length flip-up finger guard cage
- Shadow line & Lighting
- Ball integrated front tables
- Back safety Light Curtains
- Hilalsan Ballscrew back gauge, 1000 mm & Automatic swing-up
- Squaring arm with scale & T-Slot & Tilting stop (L= 1000mm)
- 1000mm Support arm
- Foot Pedal with Emergency Stop Button
- Top and Bottom Blades

### OPTIONAL FEATURES

- Pneumatic sheet support system ( Fixed Type )
- Pneumatic sheet support system ( Modular Type)
- 0-180° Front angle gauge
- Laser Cutting Line
- Light Curtain for Finger Protection
- Oil Heater
- Oil Coolant with Fan
- Central Lubrication Manual
- Central lubrication Motorized



Machine body produced with advanced technology.

Excellent cutting precision.

New generation design with high performance.

## GENERAL FEATURES

FORCE Series Hydraulic Guillotine Shears that provide the appropriate solutions for your needs proved to be user-friendly with its advanced technological features produced with high efficiency, precision and performance criteria. The FORCE Series Hydraulic Guillotine Shears has proved to be the best and most durable in the industry with its ease of use.

When you enter the length, thickness and material information of the sheet which will be cut into the easily programmable control unit; gap distance, cutting angle stroke and cutting length are automatically adjusted instantaneously.

While providing flexibility for different production requirements, the time loss eliminated by targeting high productivity.

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- The lower table and upper table inertia created for optimum value for the minimum deformation affecting the cutting quality.

- The top plate designed to positioned vertically so that the roller bearings, piston bearings, and felts can compensate for vertical loads.

- The hydraulic cylinder is intended to be double-sided and honed to surface quality of 2 microns. Thus, minimum wear resistance is created for the felts. The cylinder bodies manufactured as SAE 1040 material forged.

- The hydraulic cylinders specially designed and the upper table mounted with cylinder springs and doubly secure to cylinders as a spherical connection. At this point, the power generated during cutting distributed to the machine body.

- Piston head features: Omega-type felts fitted with full bronze bearings, semi-angled sleeves.

- The Hilalsan hydraulic system allows precise usage at all pressure values up to the maximum operating pressure. At the same time, with these pressure values, precise cylinder positioning, synchronization, and repeatability are achieved.

- Backgauge system manufactured in accordance with environmental conditions. Backgauge bearings made for heavy conditions with double bearers. Scrapping type bearings used against dust and other particles that will accumulate in the linear guideways against dusty environmental conditions.

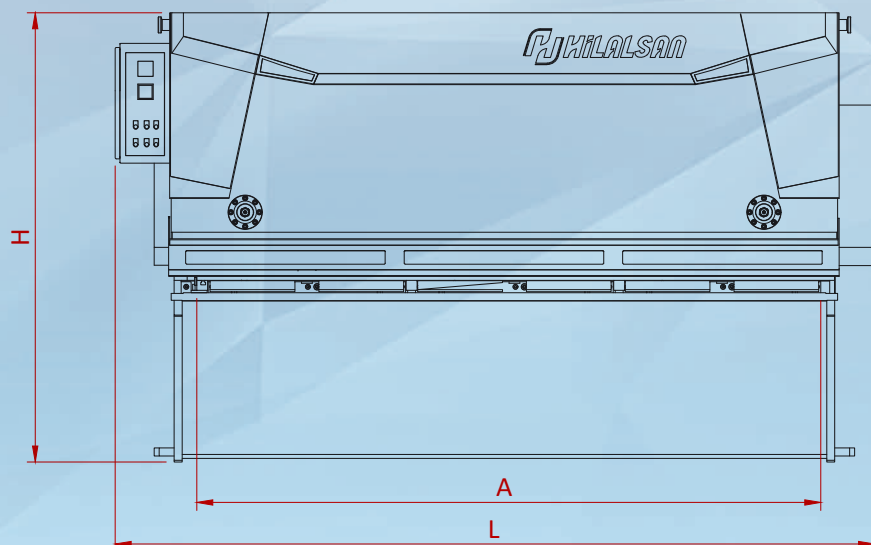
- The outer surface of the machine is painted with two layers of paint at least 60 microns in thickness to protect against weather conditions. Paint drying is done gradually in a different time and temperature ranges in state-of-the-art ovens.



# FORCE SERIES

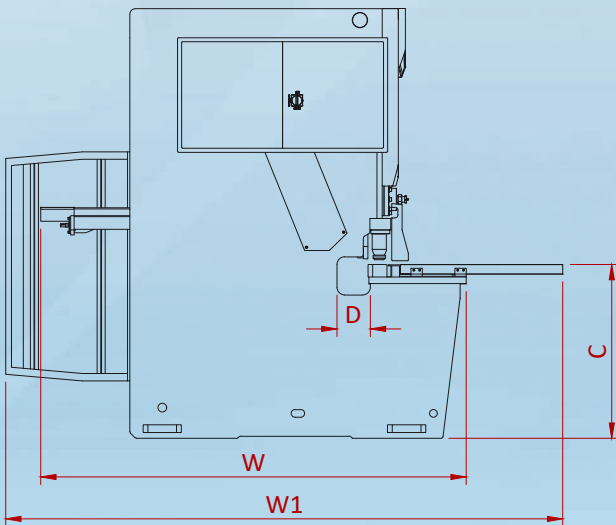
Machine Type	Cutting Length	Cutting Capacity		Number of stroke (No-load)	Cutting Angle	Number of Hold-downs	Backgauge course	Backgauge Speed	Motor Power
		MS (450N/mm <sup>2</sup> )	SS (700 N/mm <sup>2</sup> )						
	mm	mm	mm	1/dak	Degree	Adet	mm	mm/sn	Kw
EGM-2006	2080	6	4	24	2	9	1000	100	11
EGM-2010	2080	10	6	19	2	10	1000	100	22
EGM-2506	2580	6	4	22	2	11	1000	100	11
EGM-3006	3080	6	4	21	2	13	1000	100	11
EGM-3008	3080	8	5	18	2	14	1000	100	18,5
EGM-3010	3080	10	6	17	2	17	1000	100	22
EGM-3013	3080	13	8	15	2,3	15	1000	100	30
EGM-4006	4080	6	4	20	2	18	1000	100	11
EGM-4010	4080	10	6	16	2	20	1000	100	22
EGM-4013	4080	13	8	13	2,3	18	1000	100	30

HILALSAN has right to change catalogue values and machine technical details without notice. Misprints are not restrictive.





Oil Capacity	Throat depth	Front Arms	Table height	Length	Width	Total Width	Height	Approximate Weight
Lt	mm	Units	mm	mm	mm	mm	mm	mm
	D		C	L	W	W1	H	Kg
160	150	2	800	2850	2120	2770	1900	4650
350	150	2	850	2900	2200	2940	2190	7900
160	150	3	850	3350	2130	2780	1900	5950
160	150	3	850	3900	2130	2780	2200	7250
350	150	3	900	3900	2230	2910	2110	8700
350	150	3	900	3900	2240	2920	2300	10500
350	150	3	900	3950	2260	2960	2350	12850
350	150	4	900	4950	2160	2820	2300	10750
350	150	4	900	4950	2280	3000	2400	15500
350	150	4	900	4950	2310	3020	2550	18400

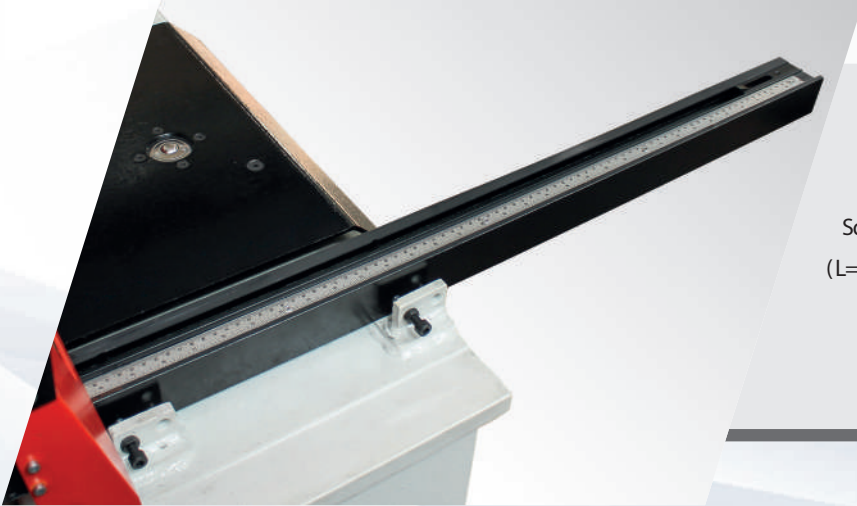


HYDRAULIC GUILLOTINE SHEARS

# HYPER-FORCE SERIES



The guillotine shear bodies machined in 5 Axis CNC machines are able to make more precise cuts.



Squaring arm with scale & T-Slot & Tilting stop  
(L= 1000 mm)

AC Motorized  
back gauge,  
1000 mm with  
Automatic  
swing-up



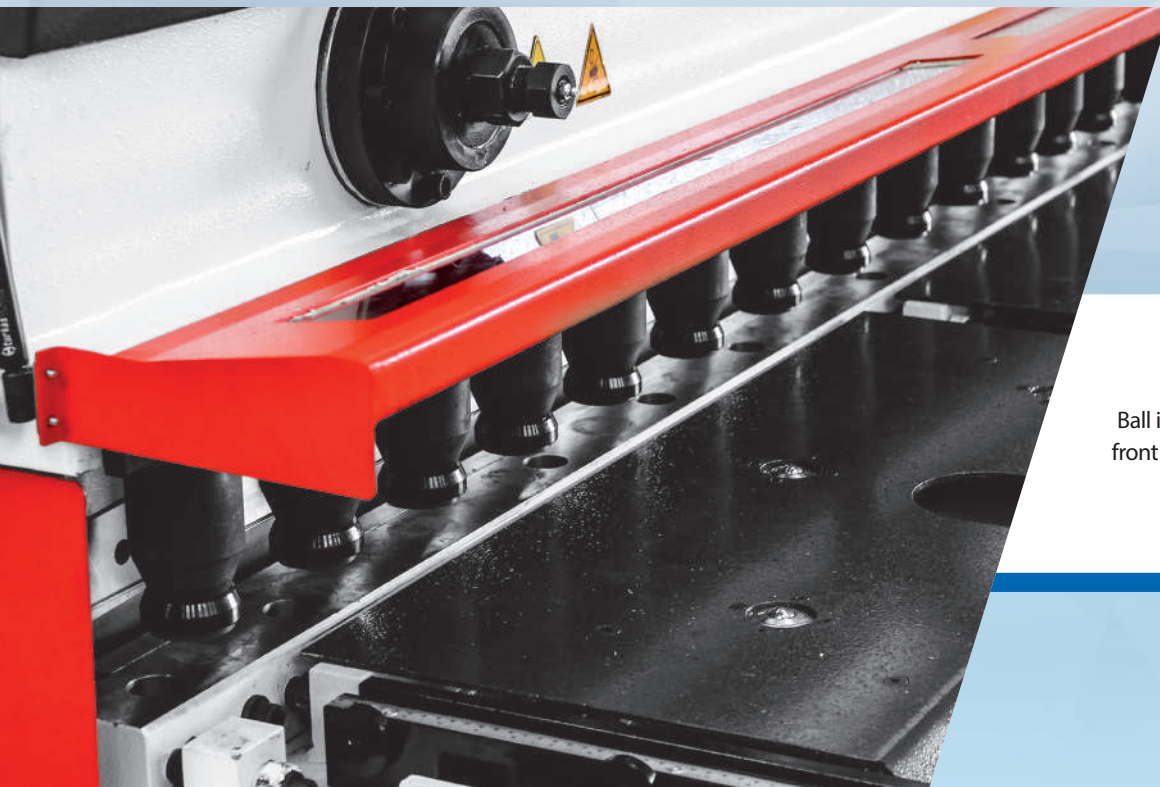
HYDRAULIC GUILLOTINE SHEARS

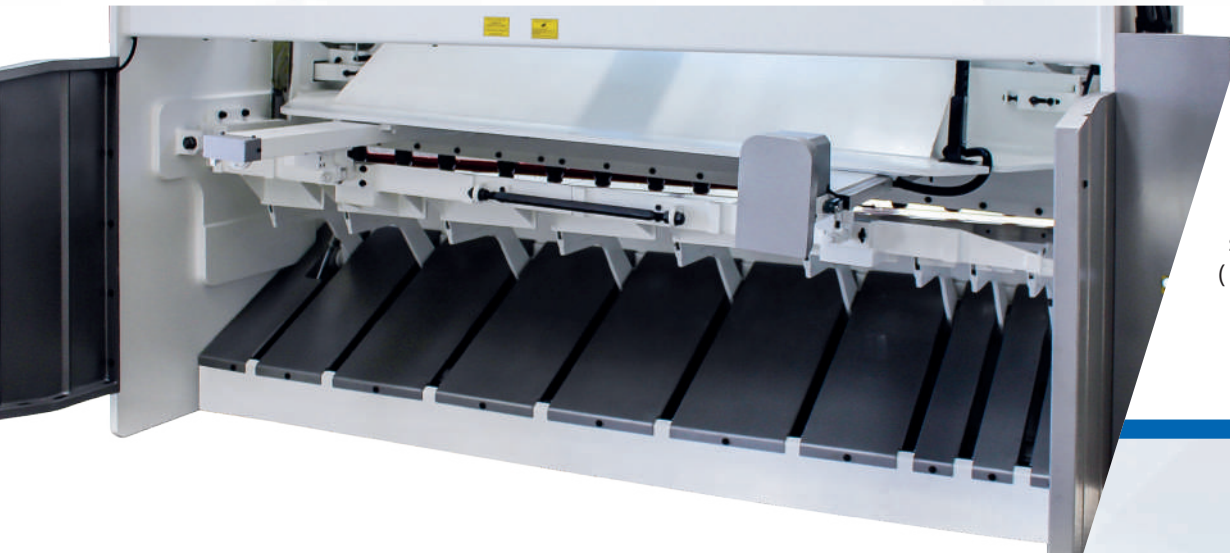
# HYPER-FORCE SERIES

Full Length  
flip-up finger  
guard cage



Ball integrated  
front tables

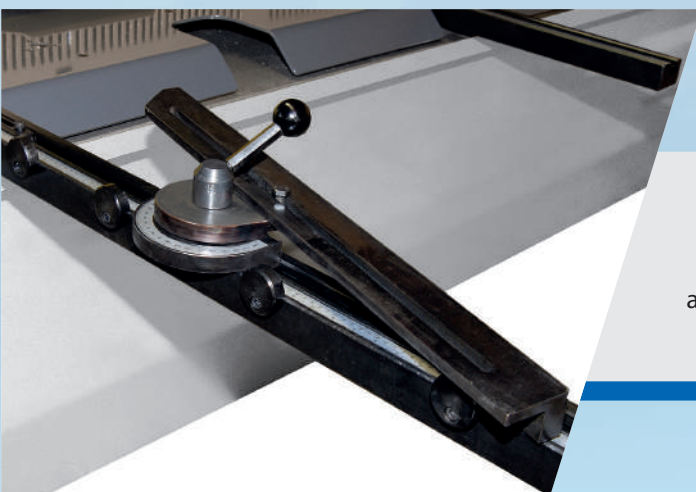




Pneumatic sheet  
support system  
(Fixed)



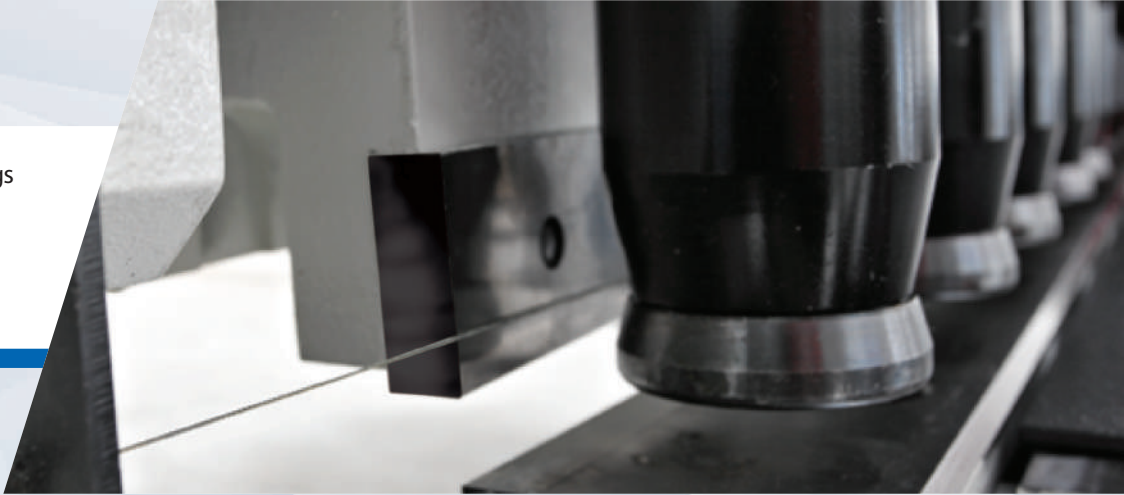
Pneumatic sheet  
support system  
(Modular)




0-180°  
Front  
angle gauge

HYDRAULIC GUILLOTINE SHEARS

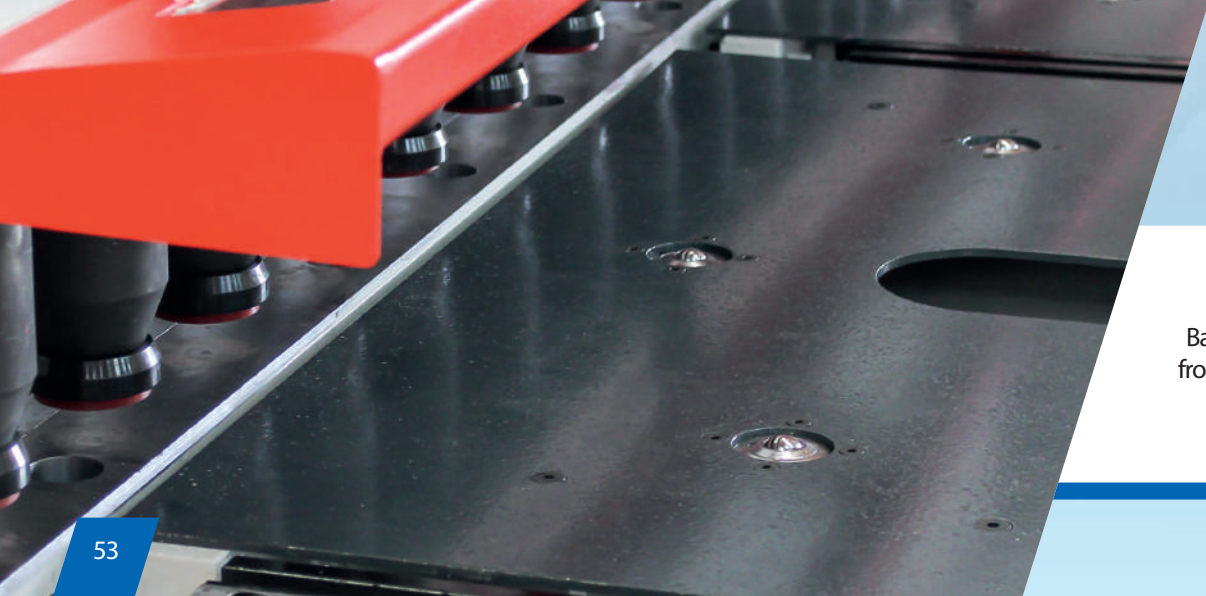
# HYPER-FORCE SERIES



Hold-down lugs  
that prevent  
from moving  
of the sheet  
during cutting

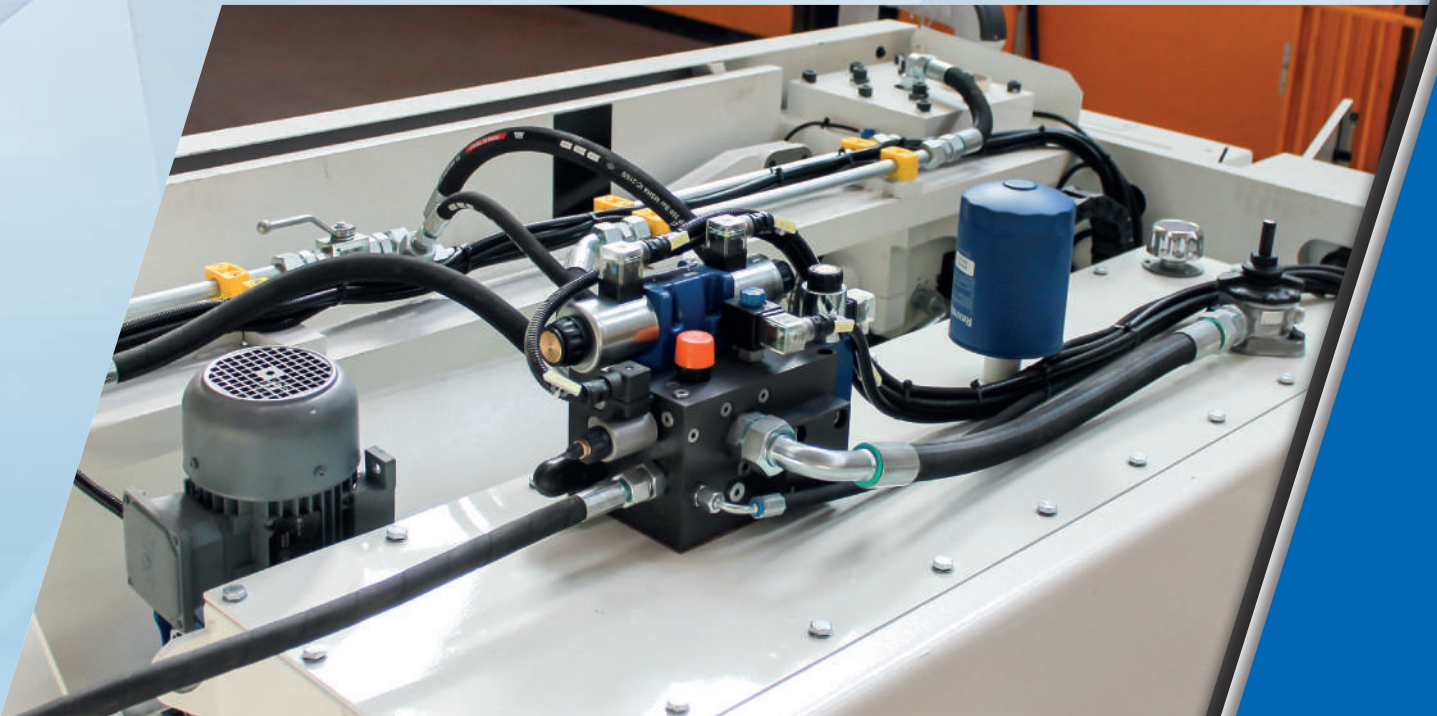
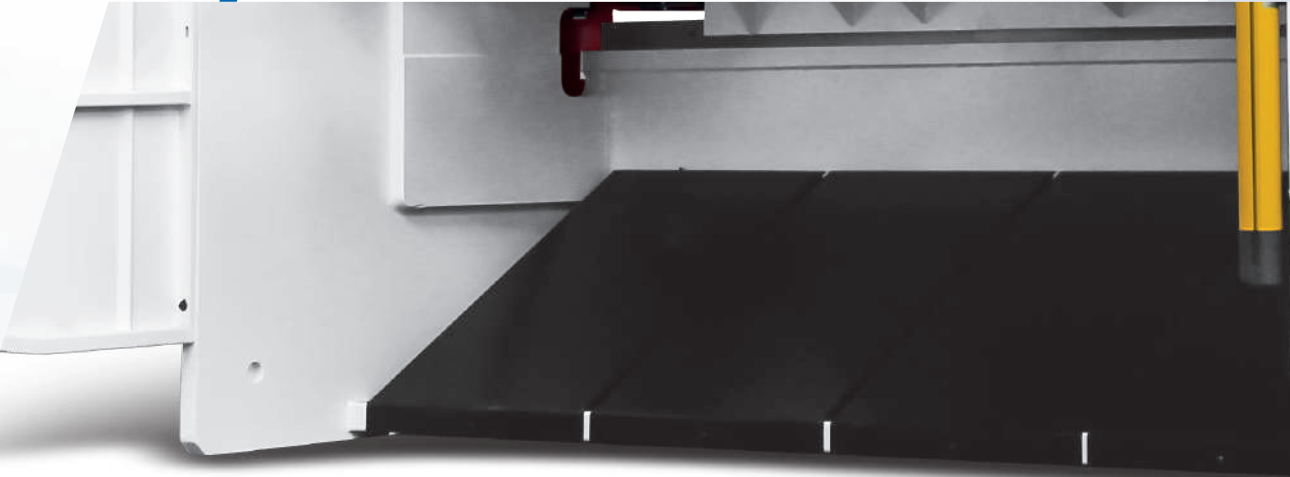


Lighting for cutting line  
& Shadow line



Ball integrated  
front tables

Back Safety Light Curtains



Hydraulic System

HYDRAULIC GUILLOTINE SHEARS

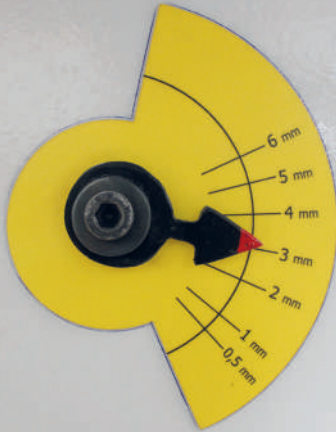
# HYPER-FORCE SERIES

Elgo P40T  
Colored  
Touchscreen  
CNC Control Unit



- Live Color & High Contrast TFT Touch Screen
- Material depending gap, angle and pressure calculation.
- Automatic Gap Adjustment
- Automatic Cutting Angle Adjustment
- Automatic Cutting Length Adjustment
- Automatic Backgauge Correction
- Automatic Backgauge Parking
- Sheet Support
- Hold-down pressure management
- System Pressure Management
- Program memory
- Language Selection





Motorized adjustable  
blade gap by Button

BRL 401.2  
Control Unit

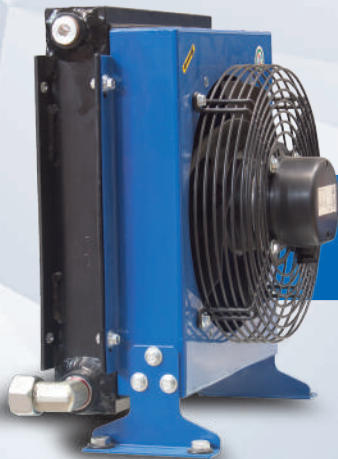


- Use encoder which supply between 5 VDC to 30 VDC
- Inch / Metric measuring unit,
- Measure 0 – 10 meter,
- 0,1 mm / 0,001 inch sensivity (Adjustable),
- Automatic / Semi Automatic and manual operating mode,
- 10 Different Set Position and Set Count value,
- Optional working with 100 programme, 10 set value
- Working without set values (Single mode),
- Upper and lower limit definition ,
- Double speed position control operation,
- Warning with error messages,
- Programmable manual movement keys ,
- Retraction capability ,
- Saves set position and count values when power off,
- Programmable direction models for each axis,

# HYDRAULIC GUILLOTINE SHEARS

## HYPER-FORCE SERIES

### OPTIONAL FEATURES

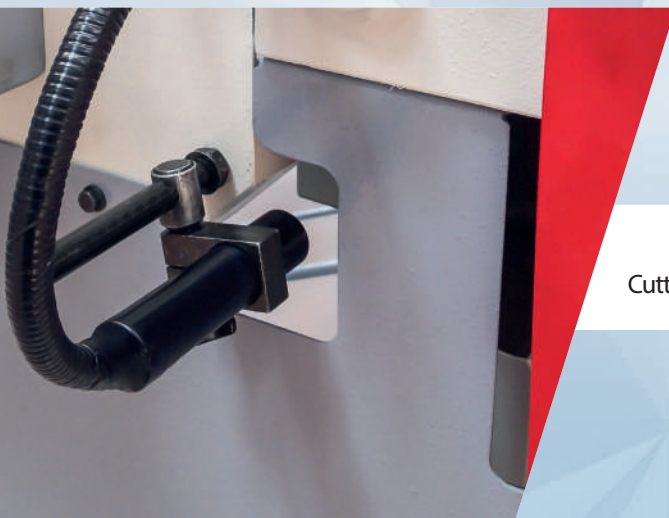


Oil Cooler with Fan

Manual Central Lubrication



Laser Cutting Line



Motorized Central Lubrication



Oil Heaters





GUILLOTINE SHEAR with REDUCER

# PRESTIGE SERIES 4 mm

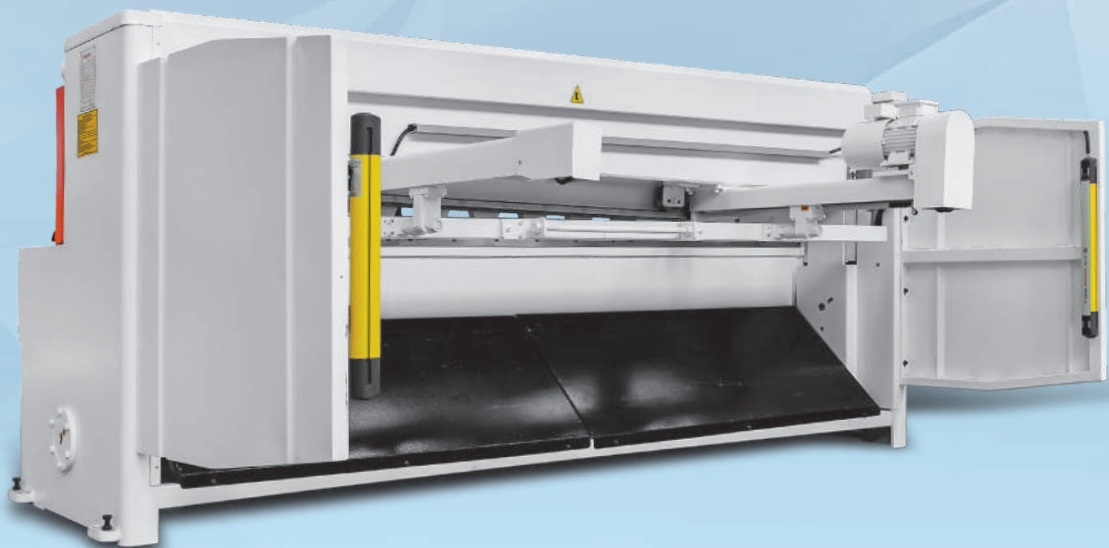
## STANDART FEATURES

- BRL 401.2 Control Unit
- Manual Blade Gap Adjustment
- Full Length Finger Guards Cage
- Ball integrated front tables
- AC Motorized back gauge (700 mm)
- Squaring arm with scale & T-Slot & Tilting stop (L= 1000 mm)

- Support arms (2 Pcs)
- Back Safety Light Curtains
- Foot Pedal with Emergency Stop Button
- Top and Bottom Blades

## OPTIONAL FEATURES

- Elgo P40T Control Unit
- Pneumatic sheet support system ( Back)
- 0-180° Front angle gauge



GUILLOTINE SHEAR with REDUCER

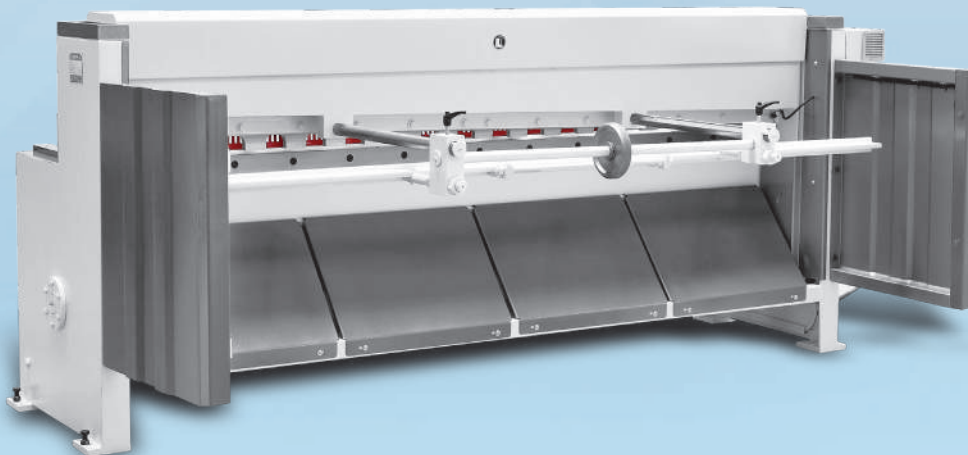
# PRESTIGE SERIES 3 mm

## STANDART FEATURES

- Full Length Finger Guards Cage
- Manual back gauge (560 mm)
- Squaring arm with scale ( L= 750 mm )
- Support arms (2 Pcs)
- Back Safety Light Curtains
- Foot Pedal with Emergency Stop Button
- Top and Bottom Blades

## OPTIONAL FEATURES

- BRL 401.2 Control Unit & Motorized Back Gauge (700mm)
- ELGO P40T Control Unit & Motorized Back Gauge (700mm)
- Pneumatic sheet support system ( Modular)
- 0-180° Front angle gauge



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## GUILLOTINE SHEAR with REDUCER

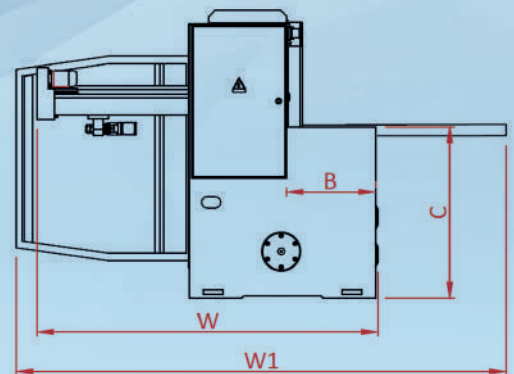
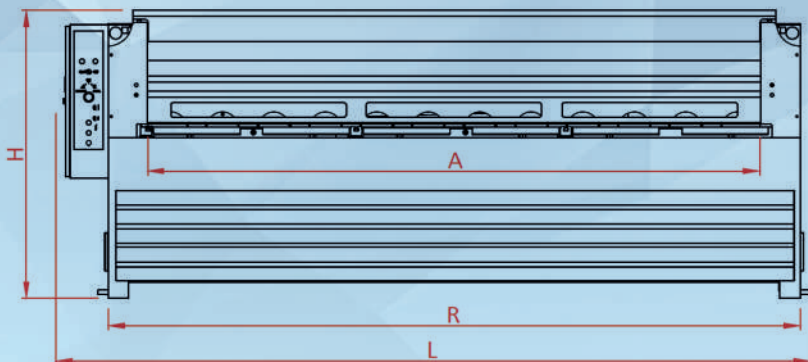
# PRESTIGE SERIES

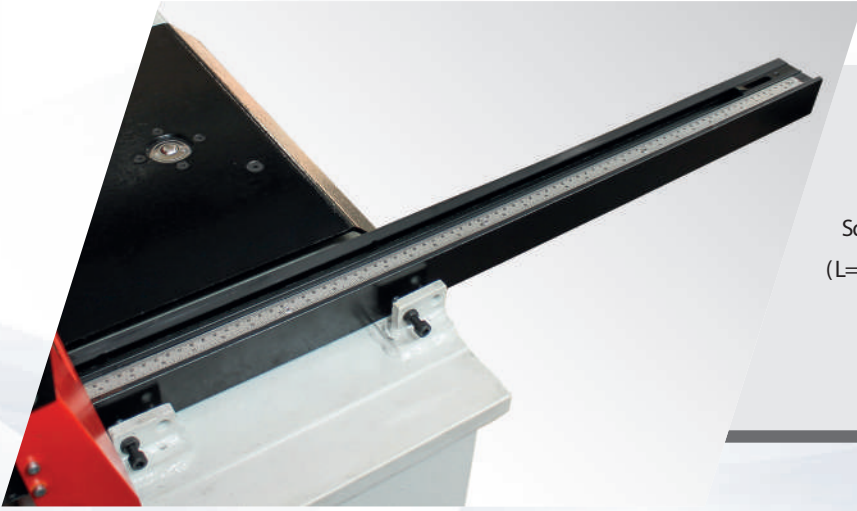
### GENERAL FEATURES

- The high-tech RGM range gives excellent results in a variety of business types.
- The RGM Series allows you to achieve precise and perfect cuts by entering all cut values.
- The machine frame manufactured with advanced technology with exact tolerances and stress relieved with welded components. All tensile points designed with large radii and strain accumulation and possible welding cracks eliminated.
- The top and bottom table inertia created for optimum value for the minimum deflection affecting the cutting quality.
- Productivity, maximum safety and cutting accuracy are features that distinguish the RGM Series.
- It satisfies your needs for delicate and precise cutting.
- It provides practical solutions at economical prices.

PRESTIGE Series	Cutting Length	Cutting Capacity		Min. Max. Stroke per minute	Cutting Angle	Back Gauge Course	Back Gauge	Motor Power	Front Arms	Table Width	Table Height	Table Length	Length	Width	Total Width	Height	Approximate Weight
		MS (450 N/mm <sup>2</sup> )															
	mm	mm	1/min.	Degree	mm		Kw	pcs.	mm	mm	mm	mm	mm	mm	mm	mm	Kg
A								B	C	R	L	W	W1	H			
1503	1550	3	34	2,1	560	Man.	4	2	430	800	1800	2150	1700	2000	1250	1550	
2003	2050	3	34	1,9	560	Man.	4	2	430	800	2300	2650	1700	2000	1250	1800	
3003	3050	3	29	1,5	560	Man.	7,5	3	475	830	3450	3700	1700	2400	1420	3500	
2504	2550	4	29	1,5	700	Mot.	7,5	3	475	850	3000	3300	1700	2400	1420	3400	
3004	3050	4	29	1,5	700	Mot.	7,5	3	475	850	3500	3800	1700	2400	1420	3950	

HILALSAN teknik verileri haber vermeden deęiřtirme hakkına sahiptir. Tashi h hataları baęlayıcı deęildir.

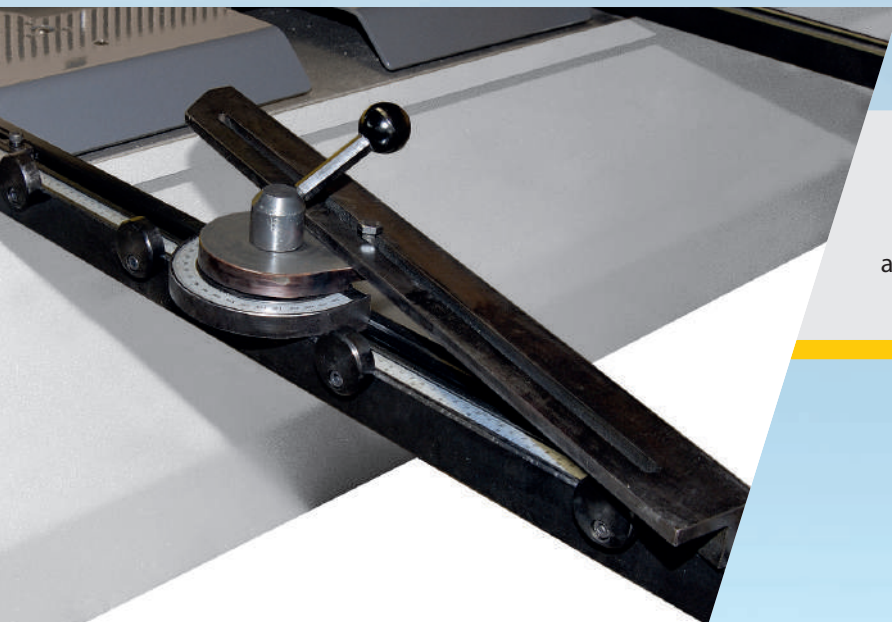




Squaring arm with scale & T-Slot & Tilting stop  
(L= 1000 mm)



Pneumatic  
sheet support  
system

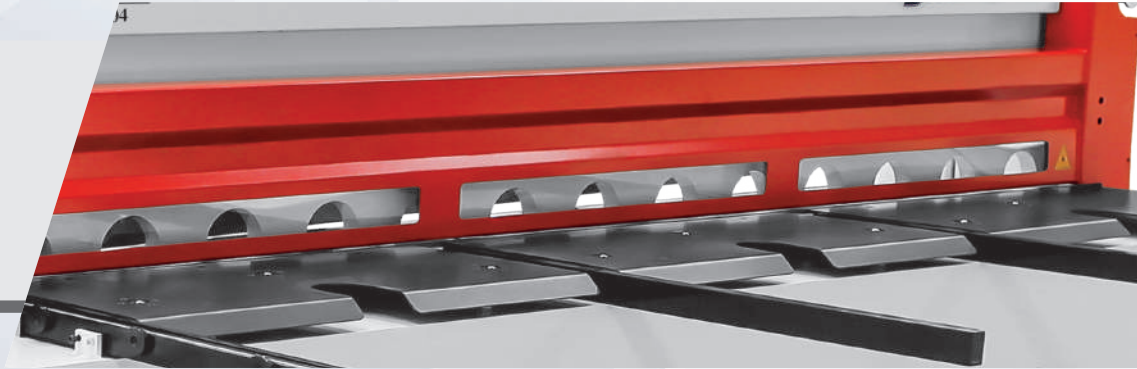


0-180°  
Front  
angle gauge

GUILLOTINE SHEAR with REDUCER

# PRESTIGE SERIES 3-4 mm

Full Length  
Finger  
Guards Cage



Ball integrated  
front tables



AC Motorized  
Back Gauge





Back Safety Light Curtain



BRL 401.2  
Control Unit

- Use encoder which supply between 5 VDC to 30 VDC
- Inch / Metric measuring unit,
- Measure 0 – 10 meter,
- 0,1 mm / 0,001 inch sensivity (Adjustable),
- Automatic / Semi Automatic and manual operating mode,
- 10 Different Set Position and Set Count value,
- Optional working with 100 programme, 10 set value
- Working without set values (Single mode),
- Upper and lower limit definition,
- Double speed position control operation,
- Warning with error messages,
- Programmable manual movement keys,
- Retraction capability,
- Saves set position and count values when power off,
- Programmable direction models for each axis,

# DOUBLE CYLINDER SERIES

## STANDART FEATURES

- Easy Replaceable Punch Holder
- Punch & Tool
- Angle Cutting Blade
- Flat Bar Cutting Blade
- Notching Blade
- Solid Bar Cutting Blade
- 1000mm Electrical Back Gauge
- Foot Pedal with Emergency Stop Button
- Hook Wrenche

## GENERAL FEATURES

- Cut in five different stations to reduce cost, energy, and job loss.
- It is manufactured from welded and welded steel stem with static and dynamic rigidity to ensure long service life and maximum productivity.

## OPTIONAL FEATURES

- Bending Tool (SET)
  - IPN (NPI), UPN (NPU), T Profile Section Blade
  - 90° Special V Notching Blade
  - Bottom Blade Connection Fixture for 90° Special V Notching Blade Bottom
  - T - NPU - NPI Section Punching Die Fixture
  - Special Punch & Tool Options
- 
- These models operated by double cylinder and double foot pedal. The punch side and the combined side can operate at the same time or independently of each other.
  - High and precious safety ensured against accidents that may occur during use with safety cage systems in the existing five cutting stations.





Machine body produced with advanced technology.  
Excellent cutting precision.  
New generation design with high performance.



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# SINGLE CYLINDER SERIES

## STANDART FEATURES

- Easy Replaceable Punch Holder
- Punch & Tool
- Angle Cutting Blade
- Flat Bar Cutting Blade
- Notching Blade
- Solid Bar Cutting Blade
- 1000mm Manual Back Gauge
- Foot Pedal with Emergency Stop Button
- Hook Wrenche

## OPTIONAL FEATURES

- Bending Tool (SET)
- IPN (NPI), UPN (NPU), T Profile Section Blade
- 90° Special V Notching Blade
- Bottom Blade Connection Fixture for 90° Special V Notching Blade Bottom
- T - NPU - NPI Section Punching Die Fixture
- Special Punch & Tool Options





Machine body produced with advanced technology.  
Excellent cutting precision.  
New generation design with high performance.

#### GENERAL FEATURES

- Cut in five different stations to reduce cost, energy, and job loss.
- It is manufactured from welded and welded steel stem with static and dynamic rigidity to ensure long service life and maximum productivity.
- High and precious safety ensured against accidents that may occur during use with safety cage systems in the existing five cutting stations.



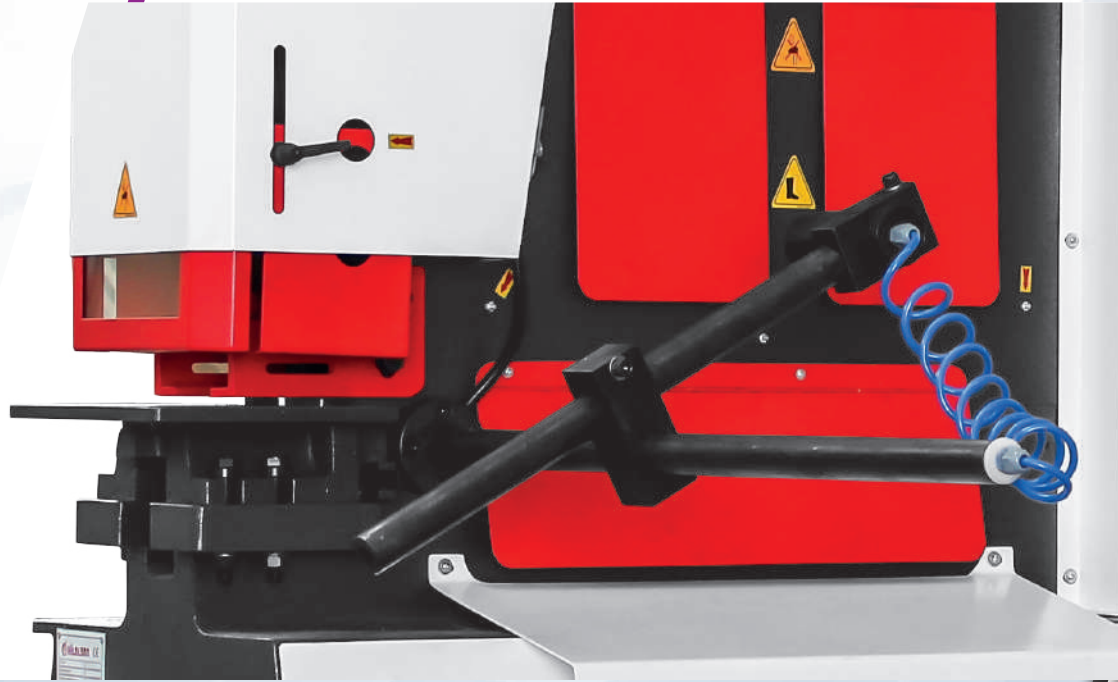
## HYDRAULIC IRON WORKERS

# DOUBLE - SINGLE CYLINDER SERIES

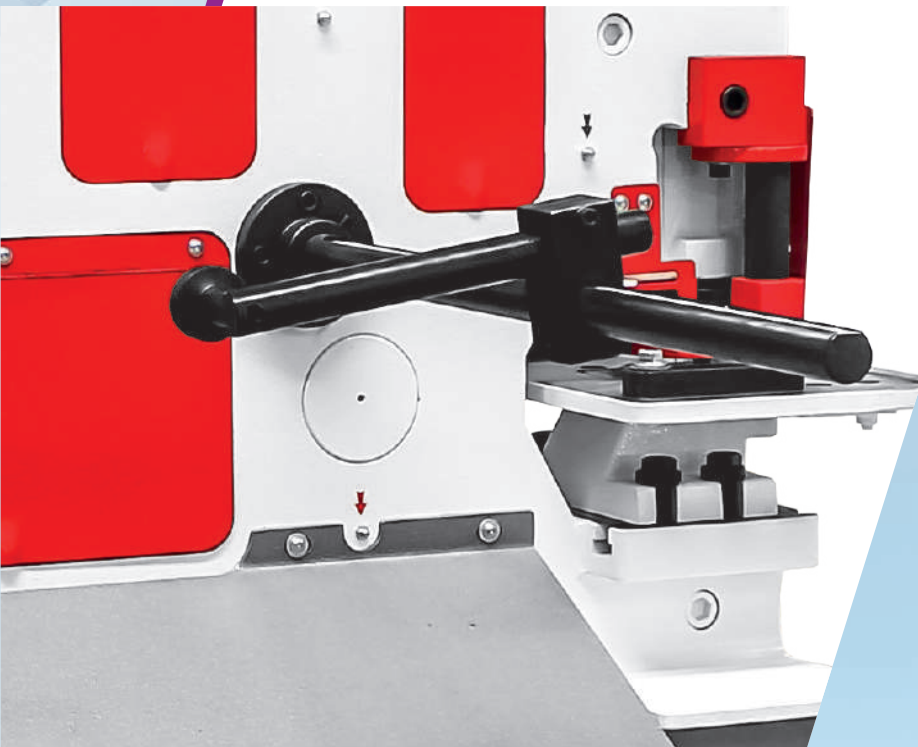
		PUNCHING	HKM 45	HKM 60	HKM 55	HKM 65	HKM 85	HKM 115	HKM 175 DB	
	mm	Diameter x max . Tickness	Ø 22 x 15	Ø 28 x 15	Ø 20 x 20	Ø 26 x 20	Ø 33 x 20	Ø 34 x 26	Ø 40 x 32	
	mm	Diameter x tickness	Ø 38 x 8	Ø 38 x 11	Ø 40 x 10	Ø 57 x 10	Ø 57 x 12	Ø 55 x 16	Ø 57 x 22	
	mm	Diameter x min . tickness Optional (*)	Ø 100 x 3	Ø 110 x 3	Ø 100 x 3	Ø 110 x 3	Ø 110 x 4	Ø 110 x 5	Ø 125 x 5	
	mm	Stroke	35	50	55	55	80	80	80	
	mm	Stroke count in (20mm stroke)	x 20	x25	x25	x25	x25	x25	x22	
	mm	Throat depth	190	225	255	305	355	405	625	
	mm	Working height	935	935	1005	1005	1070	1070	1130	
			<b>STEEL BAR SHEARING</b>							
	mm	Round / Square	Ø 30 25	Ø 40 35	Ø 40 40	Ø 45 45	Ø 50 50	Ø 55 50	Ø 65 55	
	mm	Working height	1115-1180	1195-1135	1100-1175	1115-1195	1295-1200	1250-1160	1330-1235	
		<b>ANGLE SHEAR</b>								
	mm	Angle section ( 90°)	100x100x10	120x120x12	120x120x12	130x130x13	150x150x15	160x160x16	200x200x20	
	mm	Angle section ( 45°)	60x6	70 x 7	70 x 7	70 x 7	80 x 8	80 x 8	80 x 8	
	mm	Working height	1135	1130	1130	1130	1190	1190	1160	
		<b>SHEET METAL SHEAR</b>								
	mm	Sheet metal	200 x 15	200 x 20	200 x 20	300 x 20	380 x 20	380 x 25	380 x 30	
	mm	Sheet metal	300 x 12	300 x 15	300 x 15	375 x 15	480 x 15	600 x 15	600 x 20	
	mm	Blade lenght	320	320	320	380	485	610	610	
	mm	Shearing with angle	80 x 8	80 x 8	80 x 8	100 x 10	120 x 12	120 x 12	120 x 12	
	mm	Working height	940	930	895	895	930	905	905	
		<b>NOTCHING</b>								
	mm	Thickness	8	10	10	10	13	13	16	
	mm	Width	35	42	45	45	52	60	65	
	mm	Depth	100	100	100	100	100	100	100	
	mm	Working height	940	940	895	895	915	940	940	
		<b>OPTIONAL TOOLS</b>								
	mm	NPU -NPI Section blades	80 x 45	80 x 45	120 x 58	120 x 58	160 x 74	200 x 90	300 x 125	
	mm	T - Section blades	40 x 5	80 x 9	90 x 11	90 x 11	100 x 11	120 x 13	150 x 15	
	mm	Special V-Notching tooling	100x100x8	100x100x10	100x100x10	100x100x10	100x100x13	100x100x13	100x100x13	
	mm	V Bending Press brake	Bar bend. max. capacity	100 x 12	100 x 12	250 x 12	250 x 15	250 x 20	250 x 22	250 x 25
	mm		Sheet Bending Max.			250 x 3	500 x 3	500 x 3	700 x 3	700 x 4
	mm	Punching on notcher	Bar bend. max. capacity	110	110	110	110	110	110	110
	mm		Max. Capacity	18 x 12	20 x 12	38 x 8	38 x 8	38 x 10	38 x 12	38 x 12
		<b>GENERAL INFORMATION</b>								
	Kw	Motor power	4	4	5,5	5,5	7,5	11	11	
	Ton	Capacity	45	60	55	65	85	115	175	
	mm	Lengthh	1330	1460	1550	1685	1865	2045	2810	
	mm	Height	1460	1575	1650	1765	1890	2030	2210	
	mm	Width	770	770	770	770	770	770	1020	
	Kg	Approximate Weight	1200	1400	1500	1700	2250	3150	5750	

Based on material strenght 450 N/mm<sup>2</sup>. HİLALSAN has right to change catalogue values and machine technical details without notice. Misprints are not restrictive.

HKM Double Cylinder Series - Motorized Back Gauge with 1000 mm course



HKM Single Cylinder Series – Manual Back Gauge with 1000 mm course



HYDRAULIC IRON WORKERS

# DOUBLE - SINGLE CYLINDER SERIES

## PUNCHING STATION

Easy-to-open stripper punch



Flat Bar Punching



Angle Section Punching



Thanks to the large work surface, the user can drill multipurpose holes.

Fast and precise punching achieved with the easily removable punch and matrix connection system as Standard and the easy-to-open scraper.

It allows punching of different types of materials as well as flat materials.

It has the ability to make horizontal and vertical support docking for punched material.





Vertical Angle Cutting



Vertical Angle Cutting



Horizontal Angle Cutting

Thanks to the four-handed blades and easy-to-handle holders, smooth and precise cutting is possible.

# DOUBLE - SINGLE CYLINDER SERIES

## NOTCHING STATION

Thanks to the standard blades it is possible to make rectangular corner notching and triangle notching with a special blade. The V-Notching station can easily installed. Thanks to the wide use table, unlimited and vertical corner notching can be done.

Uncut Section



Cut Section





Flat Bar Cutting



Angle Cutting

Easy adjustable holders ensure fastening of the material to be cut and precise cutting is achieved. Thanks to the blades designed using advanced technology, material cutting in different thicknesses can be done without any other apparatus.

# DOUBLE - SINGLE CYLINDER SERIES

## SOLID BAR CUTTING

Easy adjustable holders ensure fastening of the material to be cut and precise cutting is achieved. Thanks to the blades designed using advanced technology, material cutting in different thicknesses can be done without any other apparatus.

Rectangular Bar Cutting



Round Bar Cutting





NPU & NPI Section Punching



NPU & NPI Section Punching



Punch & Tool Option in  
different sizes



NPU-NPI Blades



Double Cylinder Bending  
Tool



Single Cylinder Bending Tool

## HYDRAULIC C FRAME PRESSES

# HCP SERIES

### STANDART FEATURES

- PLC application and Touch Screen Control Unit
- Top and Bottom Table with T Channel
- Adjustable Stroke
- Double hand control for working safety
- Electrical Counter
- Front safety Light Curtains
- Side Safety Cages

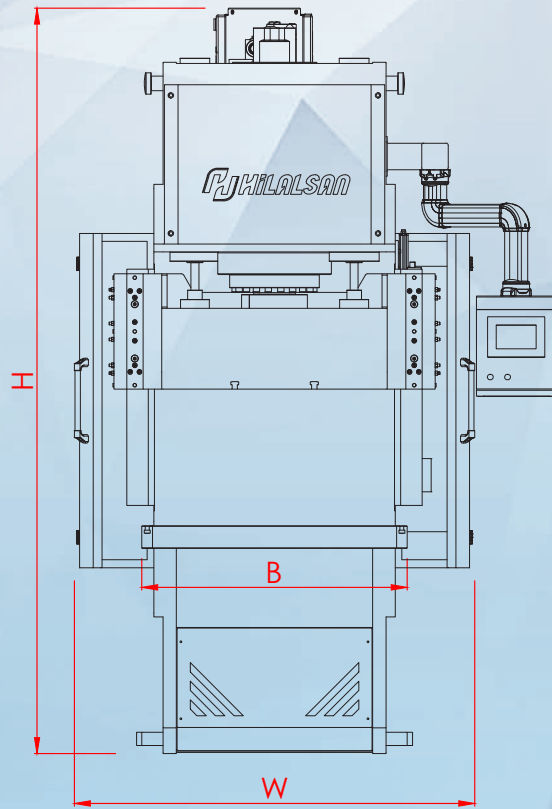
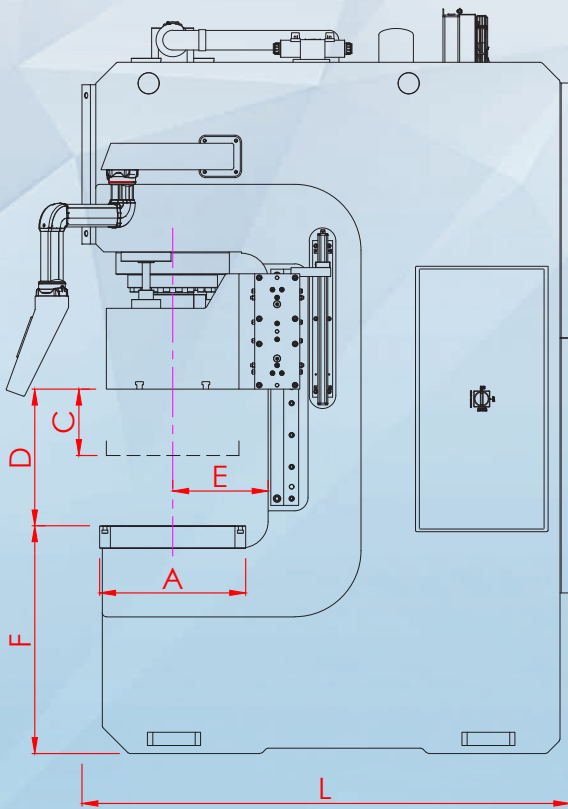
### OPTIONAL EQUIPMENT

- Comformity to the European Directives (CE)



Machine body produced with advanced technology  
 Excellent pressure precision  
 New generation design with high performance

HCP Machine Type	Press Force	Stroke	Daylight	Throat depth	Top Table width	Bottom Table width	Table height	Rapid speed	Pressure Speed	Return speed	Motor power	Length	Width	Height	Approximate Weight
	Ton	mm	mm	mm	mm	mm	mm	mm/sn.	mm/sn.	mm/sn.	Kw	mm	mm	mm	Kg
		C	D	E	AxB	AxB	F					L	W	H	
HCP-40	40	400	500	270	350x650	400x750	850	150	10	150	5,5	1400	1250	2300	2550
HCP-60	60	400	500	290	400x700	450x800	850	150	10	150	7,5	1600	1350	2500	3600
HCP-80	80	400	500	320	450x750	500x850	850	150	10	150	11	1700	1400	2650	4550
HCP-100	100	400	500	330	500x800	550x900	870	150	10	150	15	1850	1500	2750	5700
HCP-150	150	400	500	350	550x850	600x950	870	145	10	150	18,5	1950	1600	2850	7400
HCP-200	200	400	500	375	600x950	650x1050	900	140	10	145	22	2050	1700	2950	9550



# HCPA SERIES

## STANDART FEATURES

- Top and Bottom Table with T Channel
- Semi-Automatic two hands control by Lever and Pushbutton , for up/downstroke stop.
- Automatic two hands control by Double Pushbutton , for up/downstroke stop, automatic table return.
- Manual Adjustable Stroke
- Pressure switch
- Side Safety Cages

## OPTIONAL EQUIPMENT

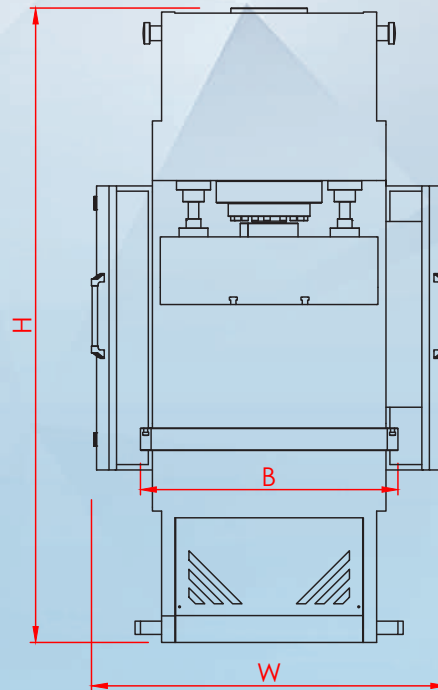
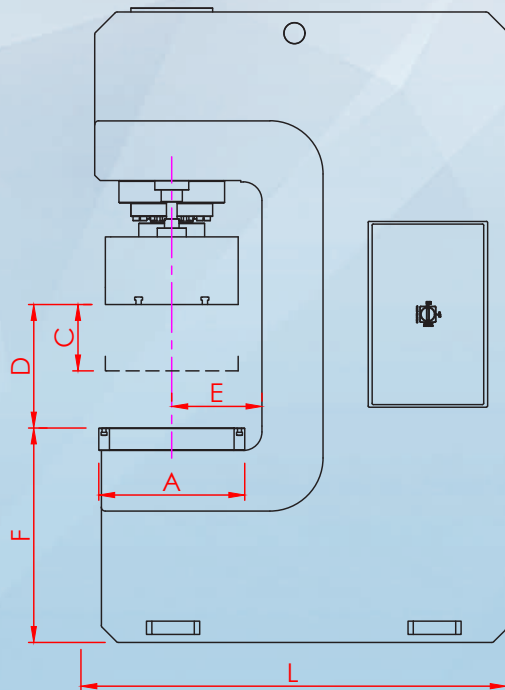
- Oil Heater
- Oil Coolant with Fan
- Light Curtain for Finger Protection





Machine body produced with advanced technology  
 Excellent pressure precision  
 New generation design with high performance

HCPA Machine Type	Press Force	Stroke	Daylight	Throat depth	Top Table width	Bottom Table width	Table height	Rapid speed	Pressure Speed	Motor power	Length	Width	Height	Approximate Weight
	Ton	mm C	mm D	mm E	mm AxB	mm AxB	mm F	mm/sn.	mm/sn.	Kw	mm L	mm W	mm H	Kg
HCPA 40	40	400	500	250	350x700	500x700	800	26	9	4	1500	1000	2250	1500
HCPA 70	70	400	500	250	350x700	500x700	800	24	5	4	1500	1000	2450	2100
HCPA 100	100	400	500	300	350x700	600x800	800	25	4	4	1900	1200	2700	3400
HCPA 150	150	400	500	300	400x800	600x900	850	20	3	4	2200	1500	2800	5500
HCPA 200	200	400	500	300	500x900	600x1000	850	21	3	7,5	2300	1500	2900	8200



# HSP SERIES

## STANDARD SPECIFICATIONS

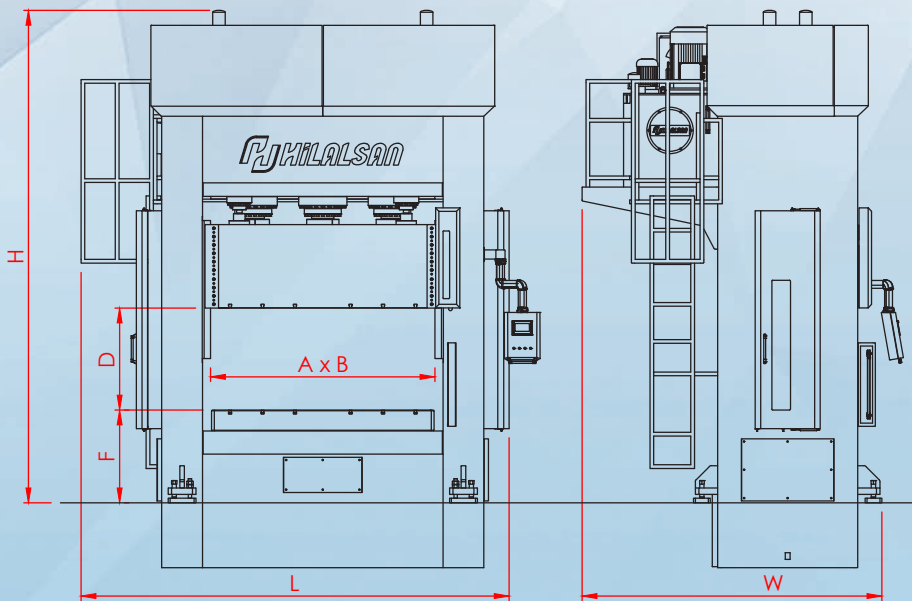
- Steel Frame Construction Body
- PLC application and Touch Screen Control Unit
- Ram and Bottom Table with T Channel
- Adjustable Stroke
- Central lubrication Motorized
- Double hand control for working safety
- Electrical Counter
- Front safety Light Curtains
- Side Safety Cages
- Ram with sledges from 8 surface.

## OPTIONAL EQUIPMENTS

- Proportional Pressure & Speed Control
- Conformity to the European Directives (CE)



HSP Machine Type	Ram Capacity	Cushion Capacity	Ram Stroke	Cushion Stroke	Daylight	Table width	Table height	Rapid speed	Pressure Speed	Return speed	Motor power	Length	Width	Height	Approximate Weight
	Ton	Ton	mm	mm	mm	mm	mm	mm/sn.	mm/sn.	mm/sn.	Kw	mm	mm	mm	Kg
		C	D	AxB	F	L	W	H							
HSP-100	100	40	600	200	700	1000x1200	1000	150	10	150	15	3100	2400	3600	8000
HSP-150	150	50	600	200	700	1000x1200	1000	145	10	150	18,5	3100	2450	3900	10000
HSP-200	200	70	800	300	900	1000x1200	1000	140	10	145	22	3150	2500	4050	12500
HSP-250	250	80	800	300	900	1200x1500	1100	140	10	145	30	3400	2750	4500	17000
HSP-300	300	100	800	300	900	1200x1500	1150	140	10	145	37	3400	2800	4700	19000
HSP-350	350	120	800	300	900	1200x1500	1150	140	10	145	45	3400	2800	4850	21000
HSP-400	400	150	1000	350	1100	1200x1500	1200	130	10	145	45	3500	2900	5900	24000
HSP-500	500	175	1000	350	1100	1200x1500	1200	130	9	140	55	3500	2950	6100	26000
HSP-600	600	200	1000	350	1100	1200x1500	1250	130	9	140	55	3600	3000	6150	32000
HSP-800	800	270	1000	350	1100	1500x2000	1300	120	9	130	75	4200	3500	6400	52000
HSP-1000	1000	350	1000	350	1100	1500x2000	1350	120	8	130	75	4200	3500	6500	62000
HSP-1200	1200	400	1000	350	1100	1500x2000	1350	110	8	120	75	4200	3600	6650	72500





# SHEET METAL WORKING MACHINES

Leading  
Technology

**HILALSAN**<sup>®</sup>

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     Hilalsan Machinery



SINCE  
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