

Leading
Technology



CNC PRESS BRAKE

ADVANCED

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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 important asset on the basis of our foundation, and our high confidence that gives life to these dreams. We are progressing with the goal of becoming 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 first priority.

Thanks to our computer aided design programs, we are able to 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 with the best competitive price.

We are conscious that reaching our targets is our greatest assurance product and service quality. It is our duty to own our products and to be with our customers after sales.

We are shaping all of our products and services on the basis of 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 ...



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STANDARD FEATURES

- Esa S630 Coloured Touchscreen Control Unit
- X Axis Back Gauge with Servo Motor & Drives, Including 2 pcs Back Gauge Finger Blocks
- Manual Crowning
- Sliding Front Support Arms (2 pcs)
- European Type Top Tool Clamping System
- European Type Top Tool (h67 mm or h105 mm)
- European Type Bottom Tool 4V H:60x60mm
- Leuze or Fiessler Back Light Curtains
- Foot Pedal with Emergency Stop Button
- Lighting

OPTIONAL FEATURES

- CNC Control Unit Options
- Motorized Crowning
- R Axis Servo Motorized
- Z1, Z2 Axis Servo Motorized
- X1, X2 Axis Servo Motorized
- X5, X6 Axis Servo Motorized
- ATF Type X1, X2, R1, R2, Z1, Z2 Axis Servo Motorized
- Front Laser Safety System
- Top Tool Quick Clamping System
- Hilalsan Type Multi V Bottom Tool Options
- WILA Type Top Tool Hydraulic Clamping System
- WILA Type Bottom Tool Hydraulic Clamping System
- Top and Bottom Tool Options
- Special Full-sized housing (machines for 3 to 4 meters)
- Stand Type Foot Pedal
- Oil Heaters
- Oil Fan Cooler
- Manual Central Lubrication
- Motorized Central Lubrication

GENERAL FEATURES

- The machine frame is manufactured with advanced technology with very precise tolerances and stress relieved with large welded components. All tensile points are designed with large radii and strain accumulation and possible welding cracks are eliminated.
- The lower and upper tables' inertias are designed for optimum value for minimum deformation..
- The top plate is designed to be 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 a surface quality of 2 microns. Thus, minimum wear resistance is created for the felts. The cylinder bodies are 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 are fitted with wide 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 are made from materials that are suitable for very low friction resistance. These beds are 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 is manufactured in accordance with environmental conditions. Backgauge bearings are made for heavy conditions with double bearers. Scrapping type bearings are 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 different time and temperature ranges in state-of-the-art ovens.
- Standart Y1, Y2, X axis.



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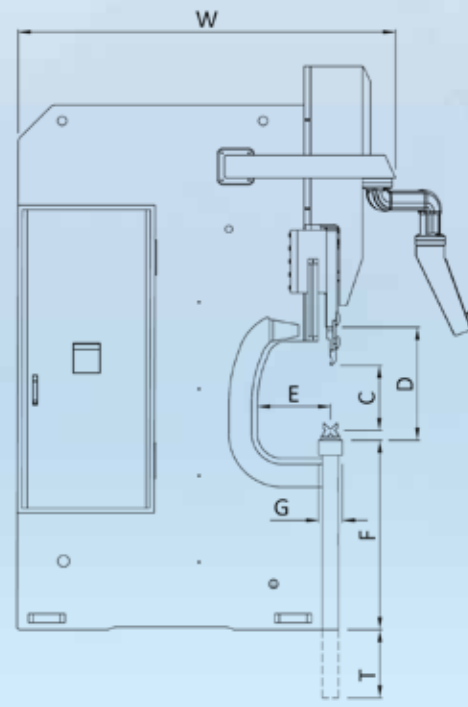
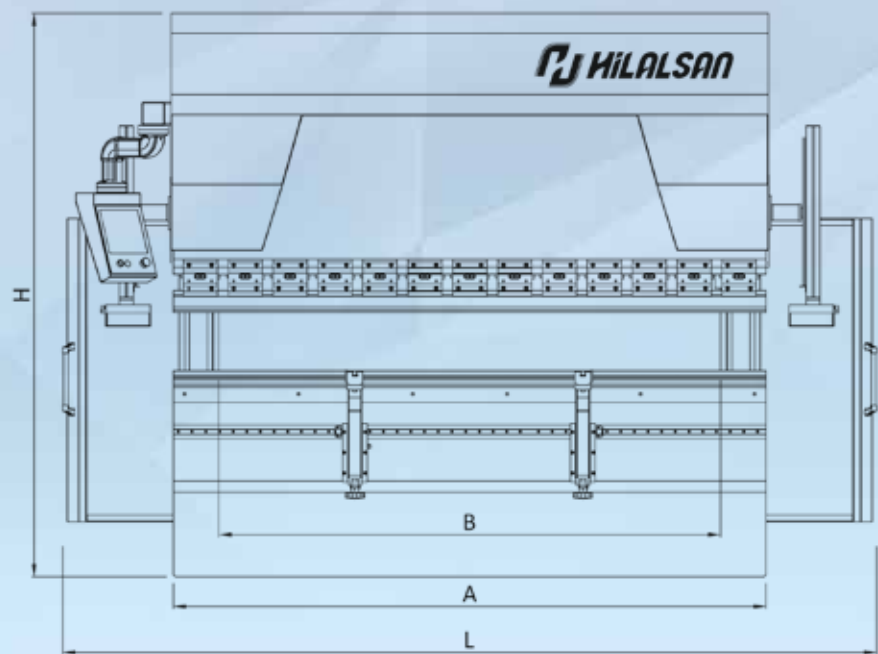


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| CAP Machine Type | Bending Force | Bending Length | Distance between columns | Stroke | Daylight | Throat depth | Table Height | Pit Depth | Table Width | Support Arm | Y Rapid Speed | Y Working speed | Y Return speed |
|------------------------|------------------|-------------------|--------------------------------|--------|----------|-----------------|--------------|-----------|-------------|-------------|------------------|--------------------|-------------------|
| | Ton | mm | mm | mm | mm | mm | mm | mm | mm | pcs. | mm/sec. | mm/sec. | mm/sec. |
| | A | B | C | D | E | F | T | G | | | | | |
| 1560 | 60 | 1500 | 1300 | 205 | 410 | 310 | 850 | -- | 108 | 2 | 140 | 10 | 120 |
| 2080 | 80 | 2100 | 1700 | 205 | 410 | 310 | 850 | -- | 108 | 2 | 140 | 10 | 120 |
| 26100 | 100 | 2600 | 2200 | 265 | 485 | 410 | 900 | -- | 108 | 2 | 140 | 10 | 110 |
| 3100 | 100 | 3100 | 2600 | 265 | 485 | 410 | 900 | -- | 108 | 2 | 140 | 10 | 110 |
| 3135 | 135 | 3100 | 2600 | 265 | 485 | 410 | 900 | -- | 108 | 2 | 140 | 10 | 100 |
| 3175 | 175 | 3100 | 2600 | 265 | 485 | 410 | 900 | -- | 108 | 2 | 130 | 10 | 100 |
| 3220 | 220 | 3100 | 2600 | 265 | 485 | 410 | 900 | -- | 108 | 2 | 130 | 10 | 100 |
| 3270 | 270 | 3100 | 2600 | 265 | 485 | 410 | 950 | -- | 108 | 2 | 110 | 9 | 100 |
| 3320 | 320 | 3100 | 2600 | 365 | 585 | 510 | 950 | -- | 154 | 2 | 100 | 9 | 90 |
| 3400 | 400 | 3100 | 2400 | 365 | 585 | 510 | 950 | -- | 154 | 2 | 90 | 8 | 80 |
| 37175 | 175 | 3700 | 3200 | 265 | 485 | 410 | 950 | -- | 108 | 2 | 120 | 10 | 100 |
| 37220 | 220 | 3700 | 3200 | 265 | 485 | 410 | 1000 | -- | 108 | 2 | 110 | 10 | 100 |
| 37320 | 320 | 3700 | 3200 | 365 | 585 | 510 | 1000 | -- | 154 | 2 | 90 | 9 | 90 |
| 4175 | 175 | 4100 | 3600 | 265 | 485 | 410 | 950 | -- | 108 | 2 | 120 | 10 | 100 |
| 4220 | 220 | 4100 | 3600 | 265 | 485 | 410 | 1000 | -- | 108 | 2 | 100 | 9 | 100 |
| 4270 | 270 | 4100 | 3600 | 265 | 485 | 410 | 1000 | -- | 108 | 2 | 100 | 8 | 80 |
| 4320 | 320 | 4100 | 3600 | 365 | 585 | 510 | 1000 | -- | 154 | 2 | 90 | 8 | 80 |
| 4400 | 400 | 4100 | 3400 | 365 | 585 | 510 | 1000 | -- | 154 | 2 | 90 | 8 | 80 |
| 6220 | 220 | 6100 | 5100 | 265 | 485 | 410 | 1150 | -- | 154 | 3 | 80 | 8 | 80 |
| 6320 | 320 | 6100 | 5100 | 365 | 585 | 510 | 1150 | -- | 154 | 3 | 80 | 8 | 80 |
| 6400 | 400 | 6100 | 5100 | 365 | 585 | 510 | 1200 | -- | 240 | 3 | 70 | 8 | 60 |
| 6600 | 600 | 6100 | 5100 | 365 | 585 | 510 | 1000 | 700 | 240 | 3 | 70 | 7 | 70 |
| 6800 | 800 | 6100 | 5100 | 415 | 635 | 610 | 1000 | 900 | 400 | 3 | 70 | 6 | 60 |
| 61000 | 1000 | 6100 | 5100 | 515 | 735 | 610 | 1050 | 1050 | 400 | 3 | 70 | 5 | 60 |
| 61250 | 1250 | 6100 | 5100 | 515 | 735 | 610 | 1050 | 1200 | 400 | 3 | 70 | 5 | 60 |

| X Axis Speed | R Axis Speed | Travel in R-axis | Travel in X-axis | | | Motor Power | Oil Capacity | Length | Width | Height | Approximate Weight |
|-----------------|-----------------|---------------------|------------------|-----|------|-------------|--------------|---------|---------|---------|-----------------------|
| | | | 500 | 750 | 1000 | | | | | | |
| mm/sec. | mm/sec. | mm | mm | mm | mm | Kw | Lt | mm L | mm W | mm H | Kg |
| 250 | 100 | 200 | S | -- | Op. | 5,5 | 100 | 2150 | 1500 | 2300 | 4000 |
| 250 | 100 | 200 | S | -- | Op. | 7,5 | 100 | 3050 | 1650 | 2350 | 5000 |
| 250 | 100 | 200 | S | -- | Op. | 11 | 250 | 3400 | 1850 | 2650 | 6500 |
| 250 | 100 | 200 | -- | S | Op. | 11 | 250 | 3900 | 1950 | 2750 | 7800 |
| 250 | 100 | 200 | -- | S | Op. | 15 | 250 | 3900 | 1950 | 2800 | 9000 |
| 250 | 100 | 200 | -- | S | Op. | 18,5 | 250 | 3900 | 2000 | 2850 | 10500 |
| 250 | 100 | 200 | -- | S | Op. | 22 | 250 | 3950 | 2000 | 2900 | 12000 |
| 250 | 100 | 200 | -- | S | Op. | 22 | 350 | 3950 | 2000 | 2950 | 13000 |
| 250 | 100 | 200 | -- | S | Op. | 30 | 350 | 4000 | 2250 | 3200 | 15000 |
| 250 | 100 | 200 | -- | S | Op. | 37 | 350 | 4050 | 2250 | 3300 | 19000 |
| 250 | 100 | 200 | -- | S | Op. | 18,5 | 250 | 4550 | 2000 | 2900 | 11500 |
| 250 | 100 | 200 | -- | S | Op. | 22 | 250 | 4550 | 2000 | 3000 | 13500 |
| 250 | 100 | 200 | -- | S | Op. | 30 | 350 | 4600 | 2250 | 3250 | 18500 |
| 250 | 100 | 200 | -- | S | Op. | 18,5 | 250 | 4950 | 2000 | 2900 | 12000 |
| 250 | 100 | 200 | -- | S | Op. | 22 | 250 | 4950 | 2000 | 3000 | 15000 |
| 250 | 100 | 200 | -- | S | Op. | 22 | 350 | 4950 | 2000 | 3000 | 17500 |
| 250 | 100 | 200 | -- | S | Op. | 30 | 350 | 5000 | 2250 | 3250 | 21000 |
| 250 | 100 | 200 | -- | S | Op. | 37 | 350 | 5000 | 2250 | 3350 | 25500 |
| 250 | 100 | 200 | -- | S | Op. | 30 | 350 | 7000 | 2000 | 3350 | 24000 |
| 250 | 100 | 200 | -- | S | Op. | 30 | 350 | 7000 | 2250 | 3550 | 28500 |
| 250 | 100 | 200 | -- | S | Op. | 37 | 500 | 7050 | 2250 | 3750 | 36000 |
| 250 | 100 | 200 | -- | S | Op. | 45 | 500 | 7200 | 2650 | 3900 | 54000 |
| 250 | 100 | 200 | -- | S | Op. | 55 | 650 | 7200 | 3100 | 4200 | 70000 |
| 250 | 100 | 200 | -- | S | Op. | 55 | 650 | 7400 | 3250 | 4500 | 78000 |
| 250 | 100 | 200 | | S | Op. | 90 | 650 | 7400 | 3300 | 5300 | 97000 |

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



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CNC PRESS BRAKE



CONTROL UNITS

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CYBELEC TOUCH8 2D



- 8" 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
- 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)

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
- 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)

CYBELEC MODEVA PAC 2D



- 15" 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
- Windows XP Operating System
- RJ45 Ethernet for network
- Almost unlimited quantity of programs and sequences.
- 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)

CYBELEC MODEVA 19T 3D



- 19" Colored Touch Screen.
- 3D graphic profile creation with automatic sequencing and simulation
- Automatic bend sequence calculation and collision detection & Full 3D machine set-up with multiple tool stations • Works on Tandem applications.
- Easy single bends thanks to the "EasyBend" page. • Windows 7 Operating System
- Bending sequences and programs can be memorized.
- USB Flash Memory port for data transfer/backup
- User Language Options
- RJ45 Ethernet for network
- Almost unlimited quantity of programs and sequences.
- 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)

CYBELEC MODEVA RA 3D



- 15" Colored Touch Screen.
- 3D graphic profile creation with automatic sequencing and simulation
- USB Flash Memory port for data transfer/backup
- User Language Options
- Multiple view points while working..
- Machine components can be individually made invisible for better job examination.
- 3D collision detection.
- On-screen finger profile drawing.
- 3D models can be imported from PC-RA Premium or MetaBEND.
- Direct programming.
- Online maintenance
- Almost unlimited quantity of programs and sequences.
- Windows XP Pro for multitasking and file management..

- RJ45 Ethernet for network
- Video-like 3D bend simulation.
- Importing DXF flat patterns with folding information / Exporting computed flat patterns as DXF files
- Importing 3D models (MetaBEND IGES).
- Automatic tool shape selection.
- Automatic tool station segmentation.

Tools:
- Imported from PC MetaBEND.
- Created using parameters.
- Automatic tool station dimensioning and positioning
- Tool mounts can be edited interactively.

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



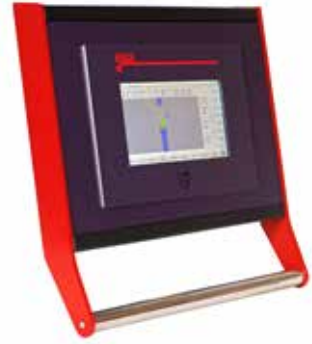
- 17" Colored Touch Screen.
- 2D & 3D graphic profile creation with automatic sequencing.
- On-screen finger profile drawing. • Touch Screen Scaling • Full 3D Simulation
- 1 GB Hard Disk Drive (HDD) - 256 MB part memory
- Windows Operating System • User Language Options
- Automatic bend sequence calculation 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)

CNC PRESS BRAKE



CONTROL UNITS &
CROWNING SYSTEM

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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



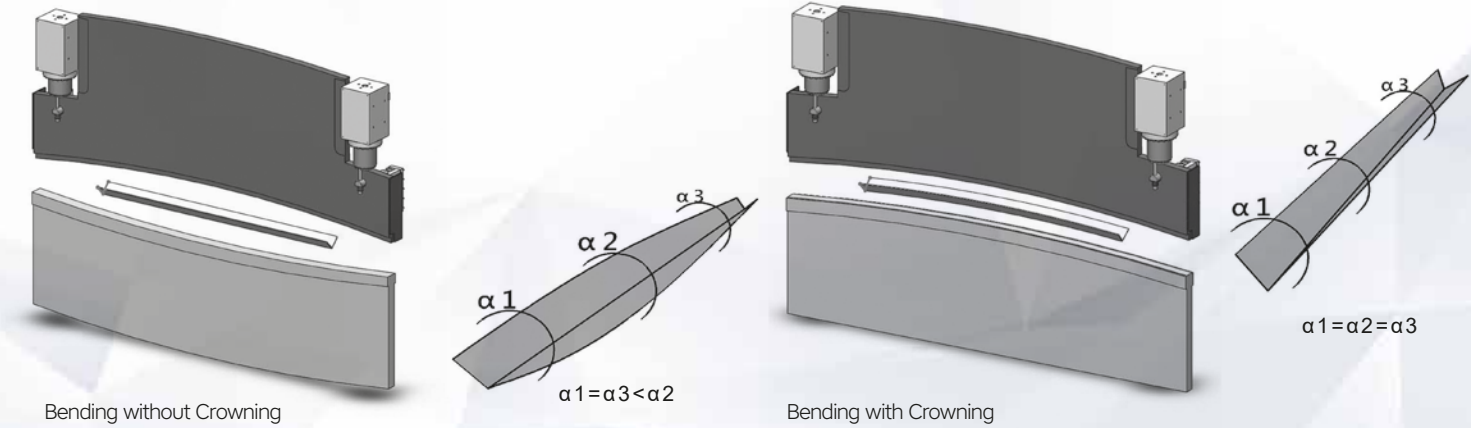
ESA S640 2D

- 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



Advantages of crowning to achieve a constant angle;

A press brake's bending precision is effected by the deviations of the upper and lower table as well as other factors. Press brakes deviate from the opposite direction. In fact, penetration of the force obtained into the tool is not constant and the angle is not the same over the length of the machine.

Independent right and left axes (Y1 and Y2) are controlled by proportional valves and linear position control system. The crowning system distributes the bending force equally to each point of the bending part to ensure correct bending results.

Manual Crowning



CNC Controlled Motorized Crowning



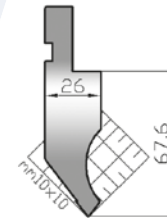
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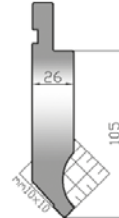


TOP & BOTTOM TOOLS

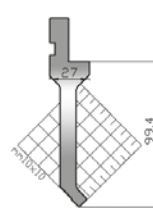
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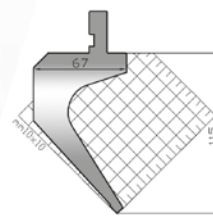
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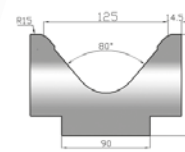
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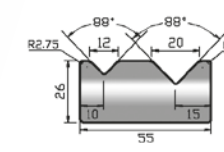
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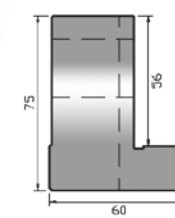
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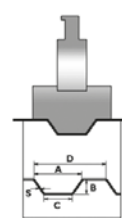
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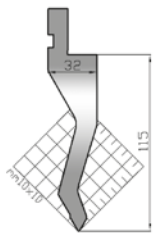
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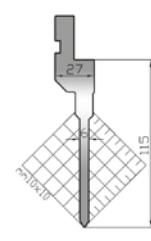
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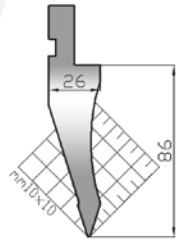
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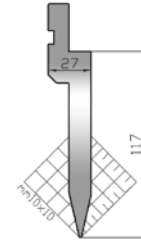
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151/60
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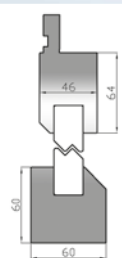
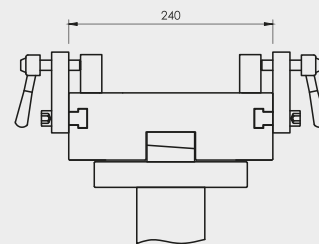
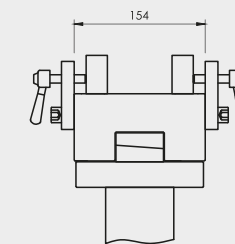
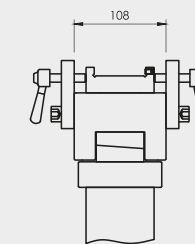


112/35
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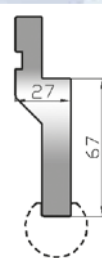


122/26
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Bottom Table
Types



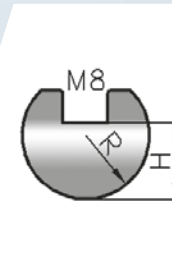
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119 h67
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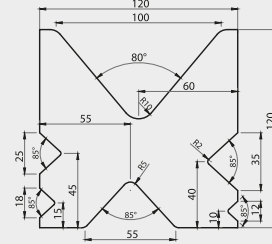
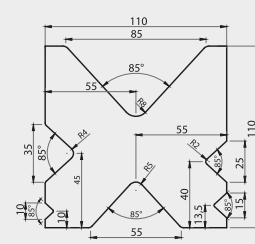
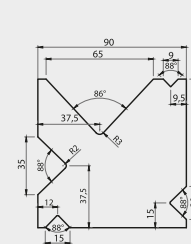


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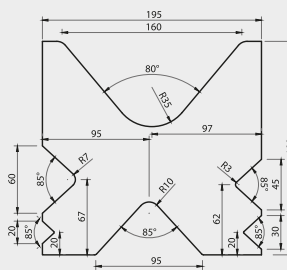
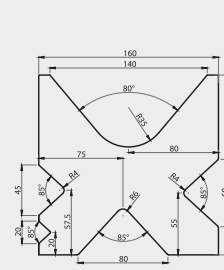
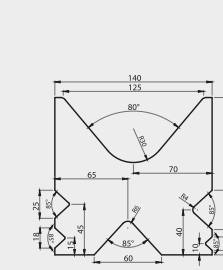


305

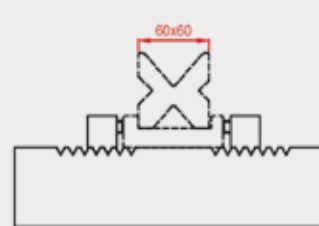
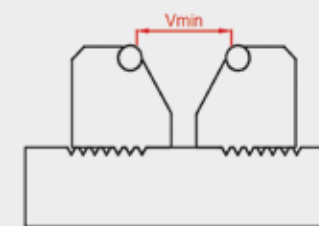
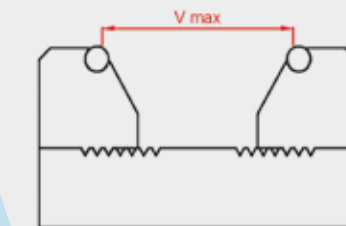
Multi V
Bottom Tables



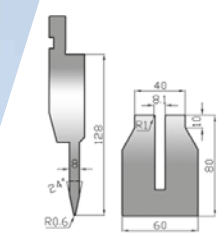
Multi V
Bottom Tables



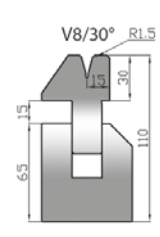
Adjustable
Bottom
Tables



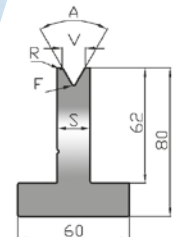
V 60-80-100-120-140-160 / V 60-80-100-120-140-160-180-200 / V 60-80-100-120-140-160-180-200-220-240



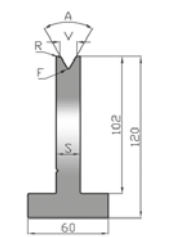
138 l8+m8
max 500 kN/mt



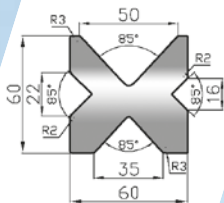
306/30 v8
max 800 kN/mt



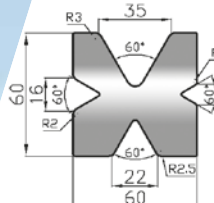
220 h80
max 250-1000 kN/mt



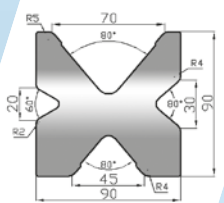
420 h120
max 250-1000 kN/mt



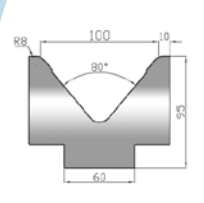
209/v4
max 800 kN/mt



210/v4
max 600 kN/mt



203/v4
max 600 kN/mt



211/100
max 1000 kN/mt

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CNC PRESS BRAKE

HILALSAN

MOTORS & DRIVERS

Leading
Technology



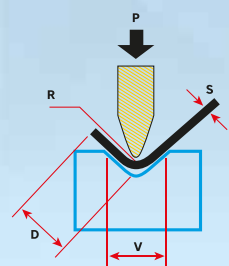
WILA Type
Bottom Tool
Hydraulic
Clamping System



WILA Type
Top Tool
Hydraulic
Clamping System

BENDING POWER TABLE

| 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)
V : Material Tensile Strength (V=42 kg/mm2)
P : Bending Force (Ton)

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

Mitsubishi Servo Motors



Mitsubishi Drivers



The movement of the backgauge is operated by the CNC control unit in hydraulic press brakes.

The high performance servo motors produced by Mitsubishi move the bearing axes.

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

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CNC PRESS BRAKE

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 guideways 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 double-rail and aluminum-plated top profile. These backgauge finger blocks are very sensitive and can be adjusted from any point.

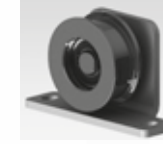


Backgauge Finger



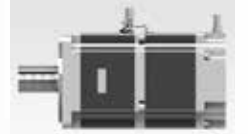
X BACKGAUGE

Leading Technology



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

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



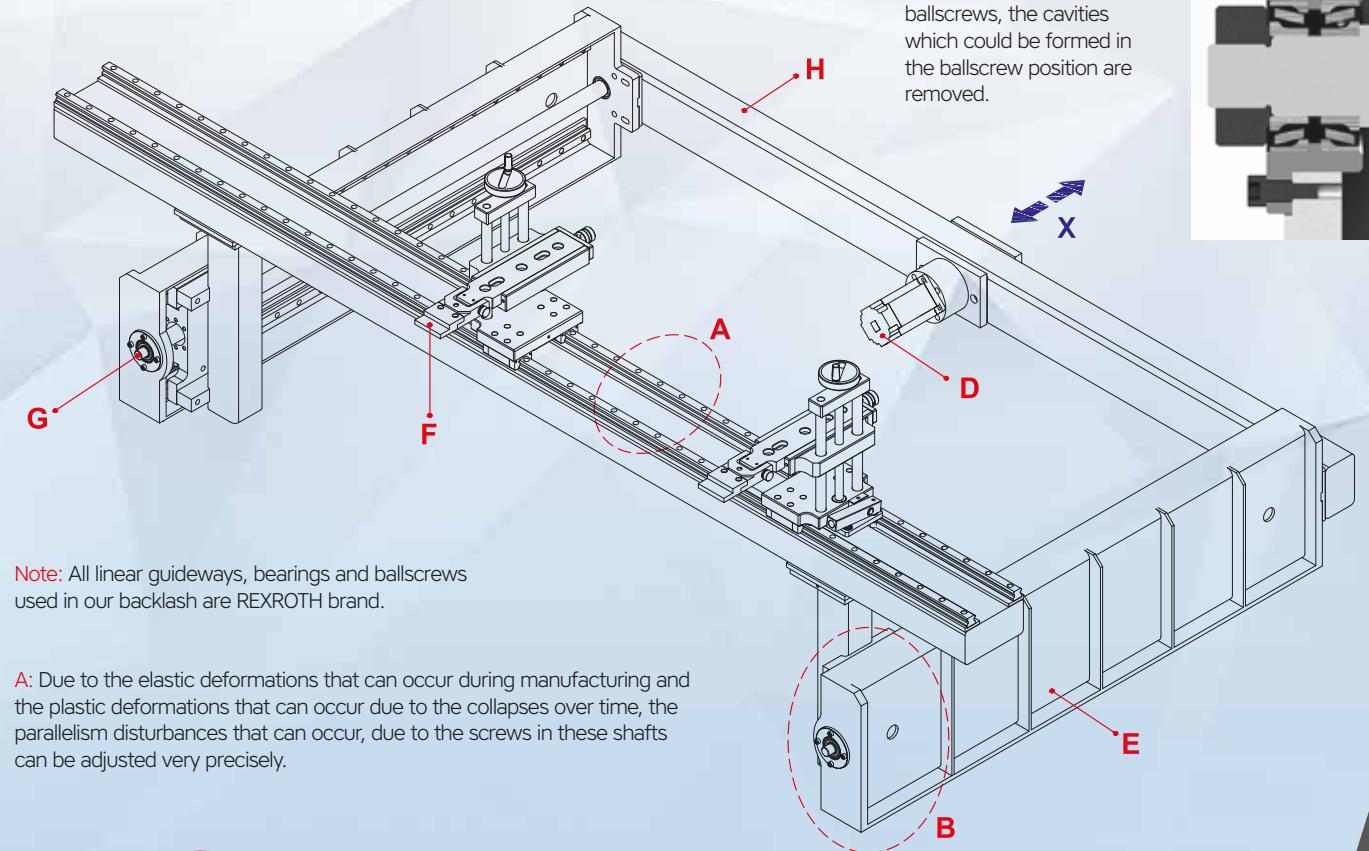
F: Resistant to wear and deformation, precisely adjustable, and heat treated back-gauge finger blocks.



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

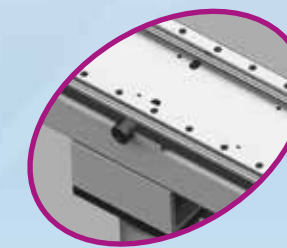
F: Mechanical braking system to prevent movement of fingers due to shocks and vibrations during operation.

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.

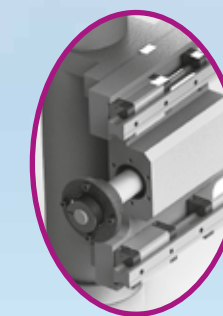


Note: All linear guideways, bearings and ballscrews used in our backlash are REXROTH brand.

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.

www.hilalsan.com.tr

CNC PRESS BRAKE

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 guideways 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 double-rail and aluminum-plated top profile. These backgauge finger blocks are very sensitive and can be adjusted from any point.



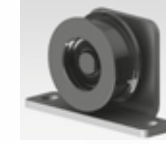
Backgauge Finger



HILALSAN

X-R BACKGAUGE

Leading
Technology

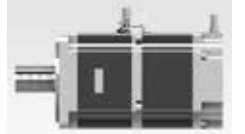


H: Belt tensioning mechanisms used to prevent the trigger belts, which engage the X axis motor, from making a gap.

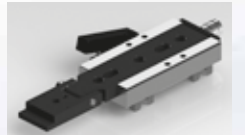


C: The R Axis console is manufactured with a ball screw which is movable with a 200 mm stroke, with impact-resistant and anti-backlash system.

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

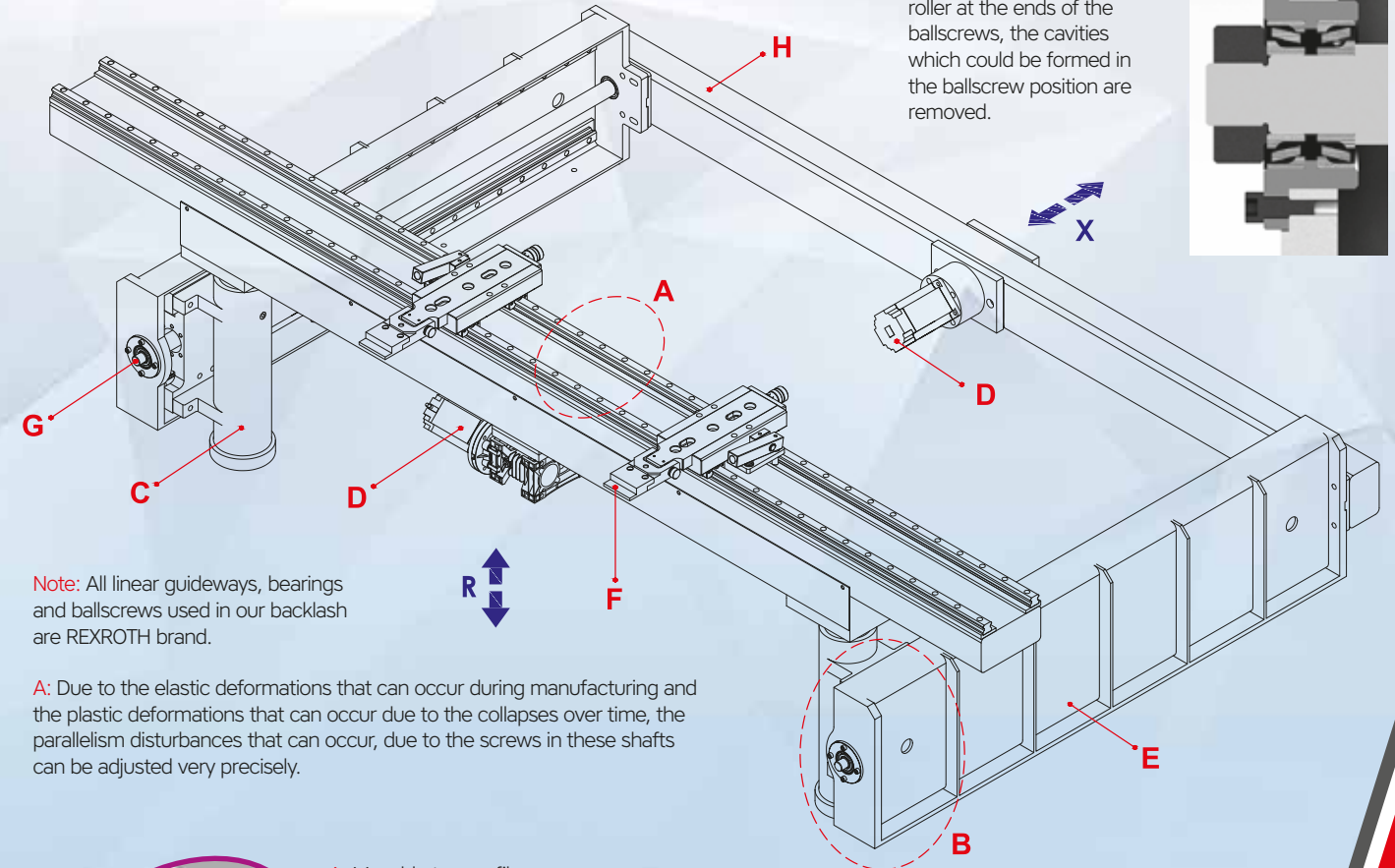


F: Resistant to wear and deformation, precisely adjustable, and heat treated back-gauge finger blocks.



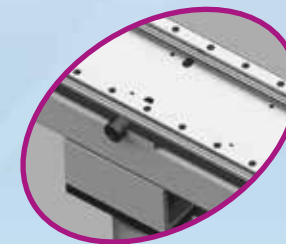
E: Mechanical braking system to prevent movement of fingers due to shocks and vibrations during operation.

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.



Note: All linear guideways, bearings and ballscrews used in our backlash are REXROTH brand.

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.

www.hilalsan.com.tr

CNC PRESS BRAKE



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

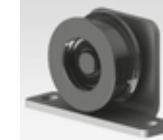
Hilalsan design features a special, powerful and precise backgauge system that works on linear guideways at side counters and large-sized ball screws. The special design has very strong construction due to its strong mechanical structure and can withstand large loads.

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

HILALSAN

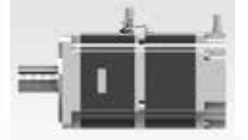
X-R-Z1-Z2-X5-X6 BACKGAUGE

Leading
Technology



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

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

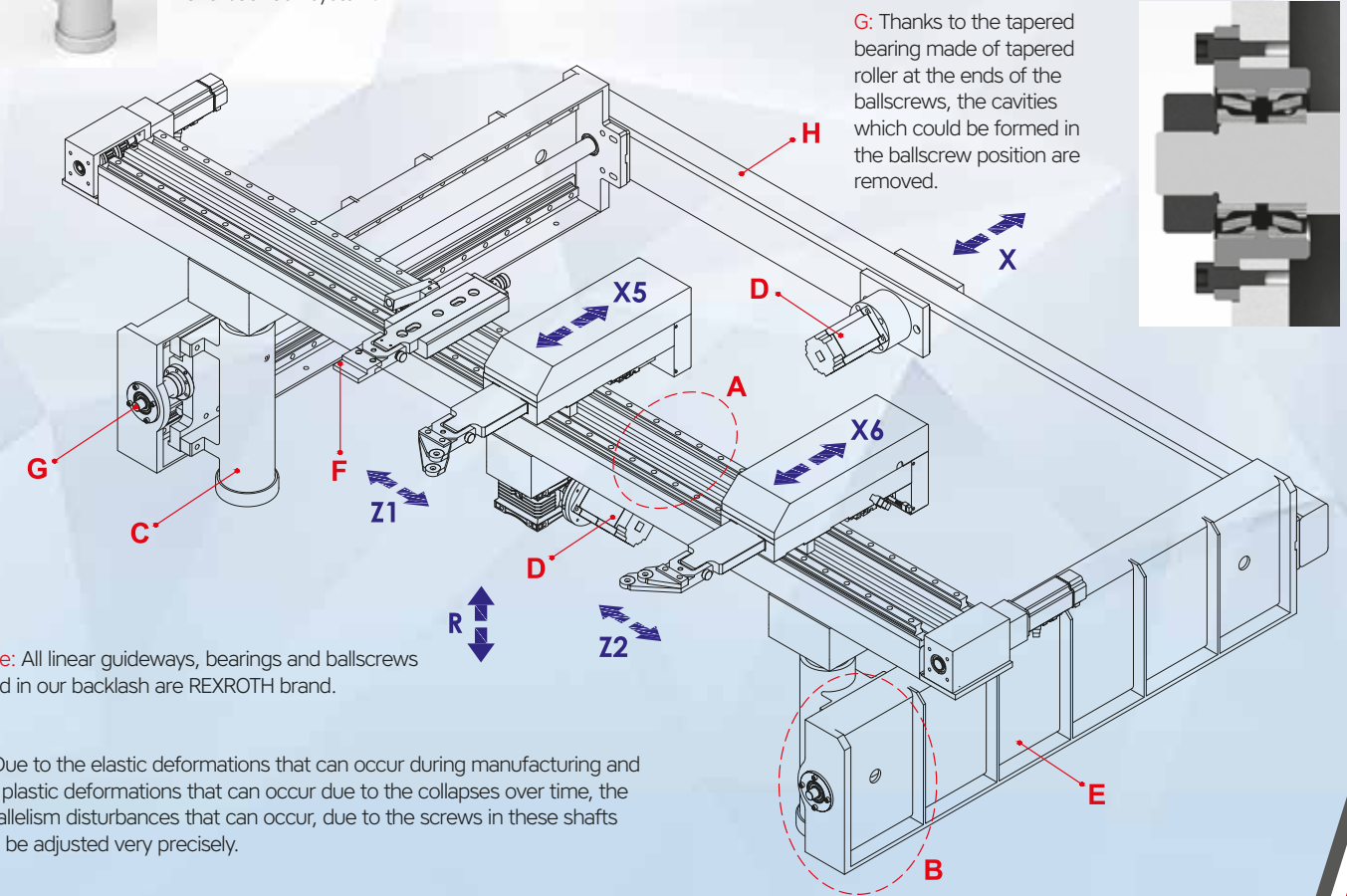


F: Resistant to wear and deformation, precisely adjustable, and heat treated back-gauge finger blocks.



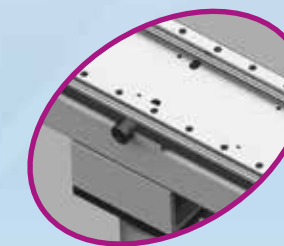
C: The R Axis console is manufactured with a ball screw which is movable with a 200 mm stroke, with impact-resistant and anti-backlash system.

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

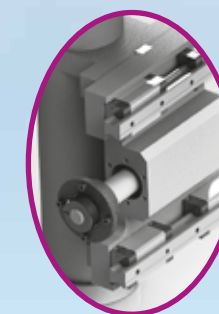


Note: All linear guideways, bearings and ballscrews used in our backlash are REXROTH brand.

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.



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CNC PRESS BRAKE

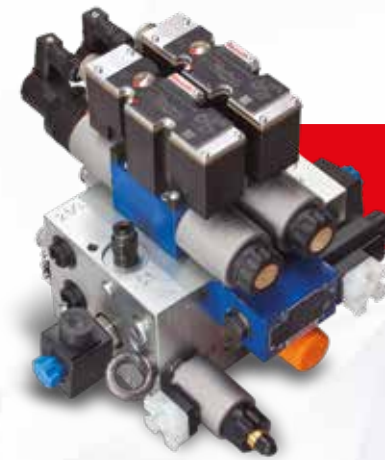
ATF X1-X2-R1-R2-Z1-Z2 BACKGAUGE



HILALSAN

HYDRAULIC SYSTEM

Leading
Technology



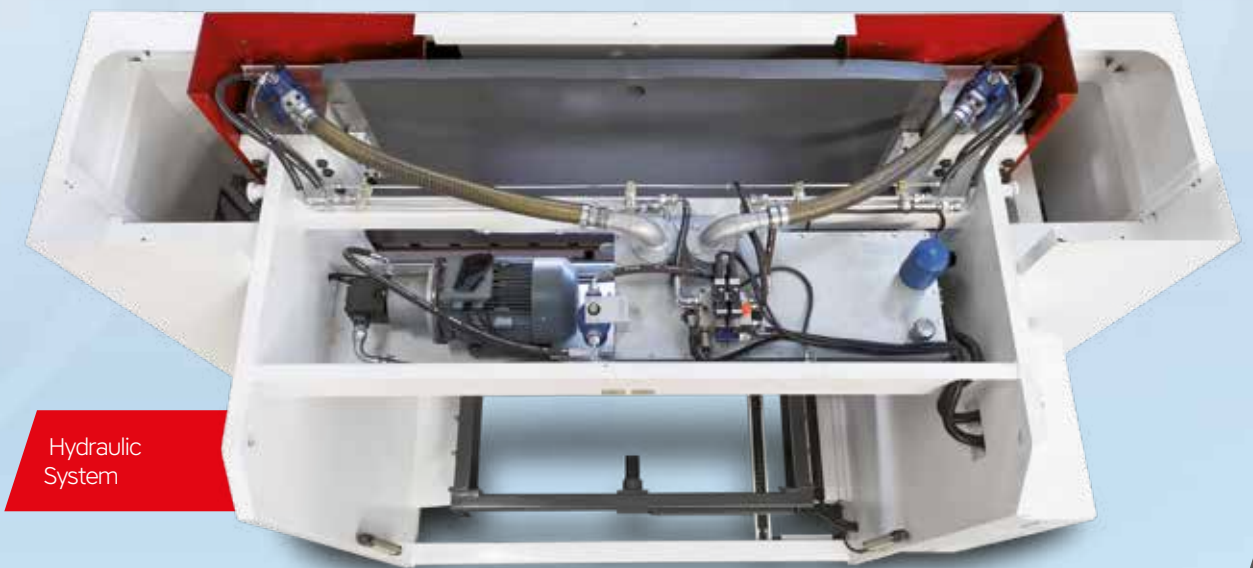
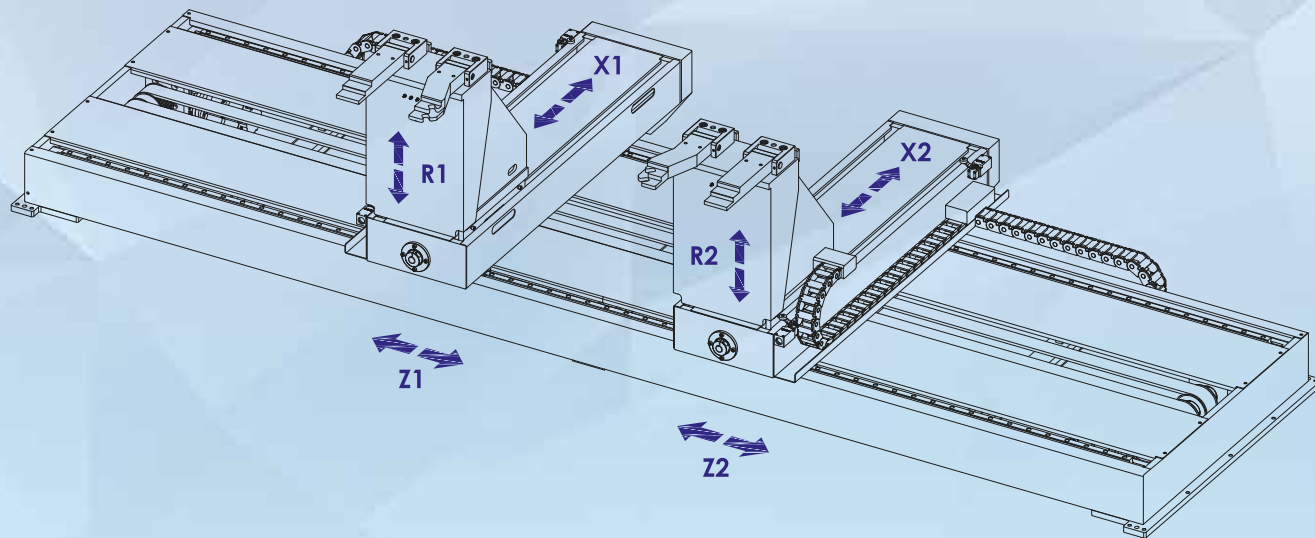
REXROTH
Hydraulic
Block



HÖRBIGER
Hydraulic
Block



Modular
Hydraulic
Tank



Hydraulic
System

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Hydraulic Block type may vary depending on the machine construction.

CNC PRESS BRAKE



Leading
Technology



Easily adjustable
front Laser
finger protection
with linear guideways

Stand Type
Foot Pedal



Magnescales



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.

European Type
Quick Release System

European Type
Top Tool



Narrow Table



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CNC PRESS BRAKE



Leading
Technology

Manual
Central
Lubrication



Oil Cooler
with fan



Motorized Central Lubrication

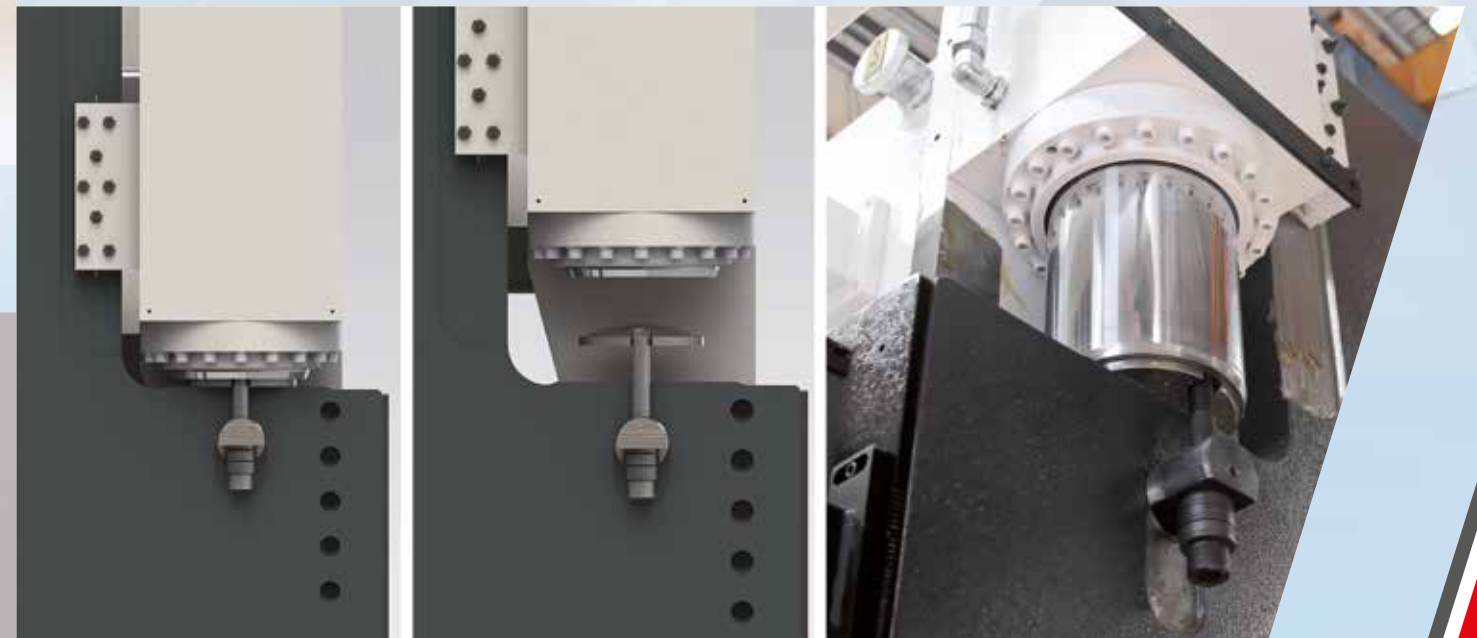


Oil Heaters



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.

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CNC PRESS BRAKE



Leading
Technology

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 different time and temperature ranges in state-of-the-art ovens.



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

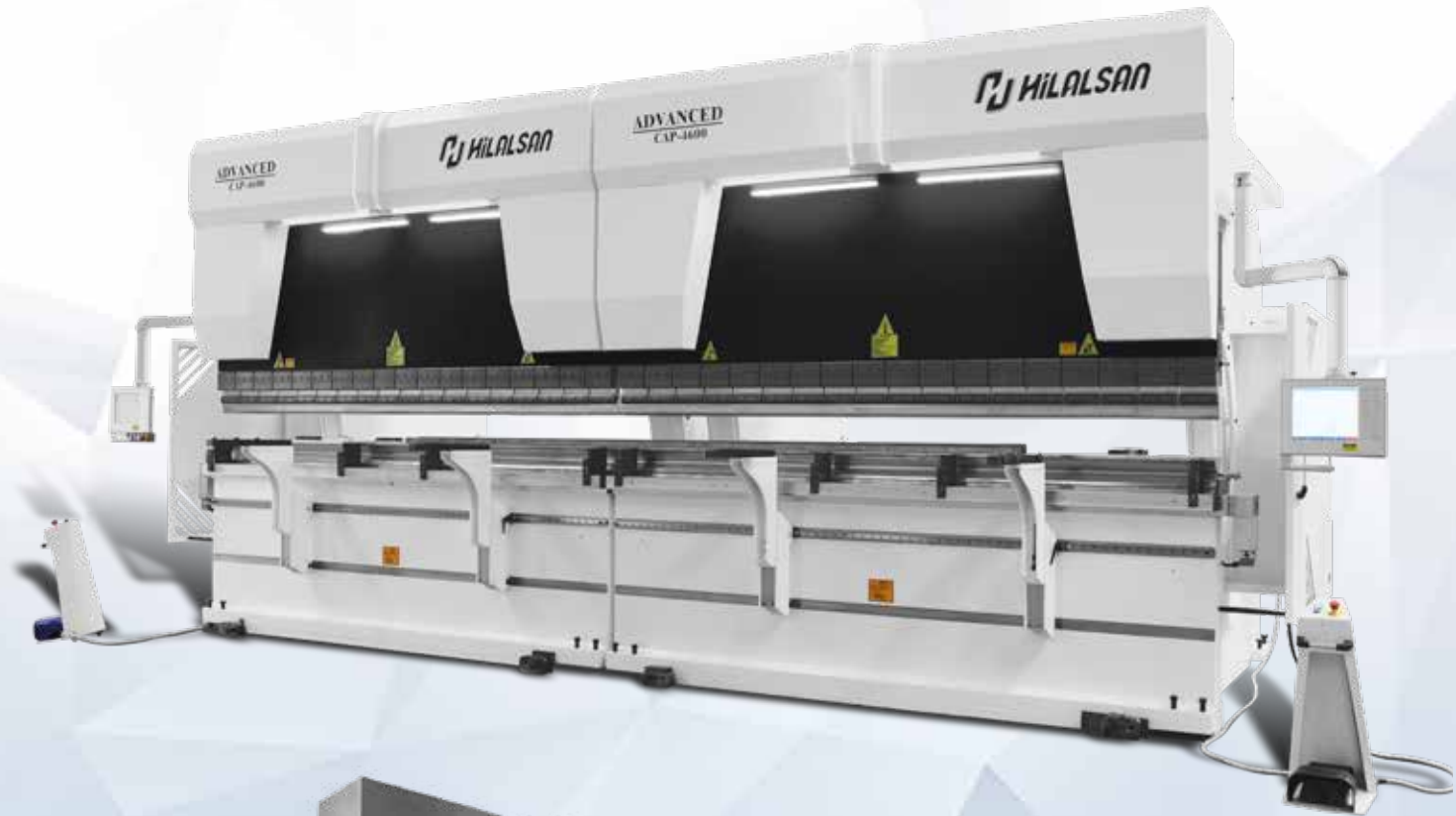
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CNC PRESS BRAKE

HILALSAN

Leading
Technology

SPECIAL FULL-SIZED HOUSING



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CNC Press Brake



CNC Press Brake



Cnc Variable Rake Hydraulic Guillotine Shear



Nc Guillotine Shear



Guillotine Shear with Reducer



Guillotine Shear with Reducer



Double Cylinder
Hydraulic Iron Worker



Single Cylinder
Hydraulic Iron Worker



Hydraulic Drawing Press

HILALSAN
Makina Endüstriyel ve Ticaret Limited Şirketi

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Konya Organize Sanayi Bölgesi
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Tel.: +90 332 **345 16 16** (pbx)
Fax: +90 332 **345 16 21**

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