

## Product Brochure For S889D

# Hydraulic CNC Pressbrake - APHS-4106x160

160T x 4100mm, 5 Axis, Delem DA66T Touch Screen Control  
 Includes Programmable X, Y1, Y2, V & R-Axis. CNC Table Crowning  
 & Laser Guarding System



|                                      |                 |
|--------------------------------------|-----------------|
| ORDER CODE:                          | S889D           |
| MODEL:                               | APHS-4106       |
| Control Unit (Type):                 | DELEM DA66T CNC |
| Nominal Pressure - Tonnage (Ton):    | 160             |
| Nominal Pressure - Kilonewtons (kN): | 1600            |
| Length of Work Table (mm):           | 4100            |
| Distance Between Columns (mm):       | 3550            |
| Throat Depth (mm):                   | 410             |
| Maximum Open Height (mm):            | 530             |
| Ram Stroke (mm):                     | 260             |
| Machine Axis (No.):                  | 5               |
| Safety Guarding System (Type):       | Laser System    |
| X Axis Backgauge Travel (mm):        | 750             |
| R Axis Backgauge Travel (mm):        | ~               |
| Z1 & Z2 Axis Back gauge fingers:     | ~               |
| Table Bed Crowning System (Type):    | ~               |
| Motor Power (kW / hp):               | 15 / 20         |
| Motor Voltage (V):                   | 415             |
| Floor Space (mm):                    | ~               |
| Nett Weight (kg):                    | 12100           |



## Description

### Delem DA-66T CNC CONTROL UNIT

The new generation DA-Touch controls offers an even higher grade of efficiency in programming, operation and control of today's press brakes. Ease of use combined with state-of-the-art technology go hand in hand, improving productivity

The touch screen gives access to the proven Delem user-interface and enables direct navigation between programming and production. Functions are directly located where you need them, offering optimised ergonomics throughout the application.

The DA-66T offers 2D programming that includes automatic bend sequence calculation and collision detection. Full 3D machine set-up with multiple tool stations giving true feedback on the product feasibility and handling.

Highly effective control algorithms optimise the machine cycle and minimise set-up time. This makes using press brakes easier, more efficient and more versatile than ever.

- 2D graphical touch screen programming mode
- 3D visualisation in simulation and production
- “ high resolution colour TFT, 1280 x 1024 pixels, 16 bit
- Full touch screen control (IR-touch)
- Standard Windows networking
- Delem Modusys compatibility (module scalability and adaptivity)
- USB, peripheral interfacing
- User specific application support within the Controls multitasking environment
- Sensor bending & correction interface
- Colour LCD display
- Memory capacity 1 GB
- Product and tools memory 256MB
- 3D graphics acceleration
- 2nd HSB Modusys bus
- Emergency switch
- Integrated OEM-panel
- USB flash memory drive

## Features

- Baykal machine frames consist of a monolithic structure with hot rolled steel sheets of Fe 520 welded together. The two housings

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(shoulders) are obtained from the same sheet to ensure the same elasticity under stress. The ram and table are also obtained from Fe 520 steel sheets and are opportunely dimensioned to avoid deflection

- The hydraulic cylinders are manufactured from high resistance steel incorporating chromium plated & ground rods. Completed with lapped pistons to ensure longevity of the hydraulic seals
- The hydraulic unit is made by major companies in the field. It consists of electronically controlled proportional valves with independent closed loop control of the two cylinders.
- 5 CNC Controlled Axis (Y1, Y2, X, R, V) as standard. Multi Axis available
- Full electronic Synchronisation with proportional valve technology.
- German manufactured Laser-Safe Guard System mounted at each end of machine ensuring correct interfacing and operator safety whilst in operation. Laser-safe is designed so each guard will slide up or down to allow for many different types and sizes of tooling enabling safety at the appropriate points as required by the Australian standards. Manual height adjustment with scales and lock for easy positioning.
- Sliding steel fabricated front sheet supports enabling a wide range of material sizes to be aligned and supported at the correct required width and height. This function is achieved by the precision linear guides mounted on the front apron parallel to the tooling length. This design can also be adjusted vertically to support material with return bends.
- Ram positions (Left & Right) are obtained from independent linear encoders whilst monitoring and adjusting proportional valves. This produces a double closed loop system, with guaranteed beam positioning of +/- 0.01mm (Y1 and Y2 Axis)
- Electronic control of bending parallelism is via the Delem DA-66T CNC Control
- Accuracy is further ensured by mounting the linear encoders on a C-frame connected directly to the Bed, rather than the side frames. This ensures that deflection of the side frames and uneven loads have no effect on Beam position.
- CNC Controlled Back-gauge:- X-Axis stroke 750mm with DC motor mounted on hardened and machined guides, translation via spherical recirculating ball screws
- Delem DA-66T CNC Control fully programmable with 2D graphics offline software included
- Precision linear scale measurement : HEIDENHAIN or GIVI MISURE
- Y1-Y2 - X-R CNC - controlled stroke axes
- CNC controlled hardened ballscrew backgauge with X-axis
- X axis range = 750mm speed = 350 mm/s max.
- 2 micrometric backgauge finger stops with lateral adjustment
- Front support arms fully adjustable mounted on linear rails x 2 off easy positioning over the complete working length of the machine
- Quality Siemens Electric control switch Gear is used
- Pendant control panel centralising all Press-Brake Functions
- Foot Pedal Control, Emergency stop buttons
- 2 axis tower type backgauge with AC servo motors
- X-R CNC axis ,
- bar length 2400 mm ( size 200x150 mm )
- Z movement manual with double ball linear guides
- fixing on lateral housings
- "X" axes stroke 750 mm
- "R" axes stroke 160 mm
- 2 micro adjustable fingers with 2D stops sliding all long the bar
- Hardening on fingers
- All movements on ball screws and ball guides
- AC servo brushless motors
- "X" axis speed of 350 mm/sec
- "R" axis speed 240 mm/sec
- Mechanical accuracy 0.1 mm
- Hydraulics: Hoerbiger & Parker (German & USA)
- Electrics: Siemens or Telemecanique (German or French)
- Scales: Misure or Heidenhain (Italian or Dutch)
- Tooling: Technostamp or Roller (Italian)
- Control: Delem DA-66T
- PLC: AKAS
- Mild steel capacity is rated on hot rolled material with 250MPA

### Includes

- Delem DA-66T 2D Graphical CNC Control
- Profile T lite offline graphical 2D software
- Y1-Y2 cylinder axis
- X - R Backgauge
- V - table NC auto crowning
- Quick release top tool clamping system
- AKAS Safety laser front guarding system
- Mechanical crowning on top intermediate clamps

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Specific Features



Rear Safety Guarding with Sliding Door



Laser Guarding System



CNC Table Crowning W Axis



Delem DA 66T CNC Control



Program Storage



Program Dieblock Tool Library



Program Top Punch Tool Library



Program Profile Drawing



Program Bend Sequence Simulation



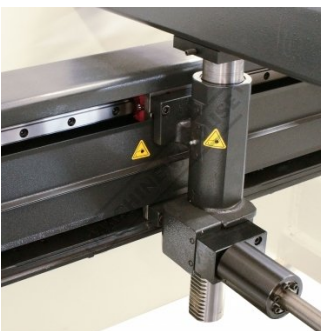
Program Product Description



Program Auto Machine Parameters



Program Manual Machine Parameters



Ball Screw Backgauge with Linear Guideways



CNC Ball Screw Backgauge with R Axis

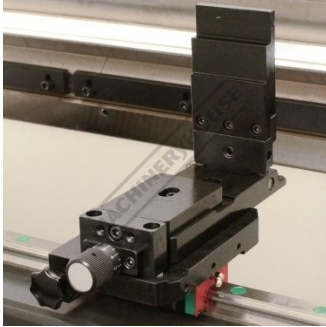


Backgauge Manual Fine Adjustment

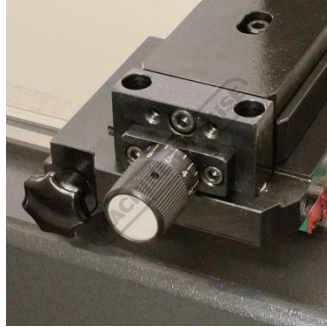


Micro Adjustment Backstop

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Flip up Backstop



Backstop Micro Adjustment Dial



Quick Action Intermediate Clamps



Sliding Front Sheet Supports on Linear Guideways



Front Sheet Support Height Adjustment



Mobile Foot Control



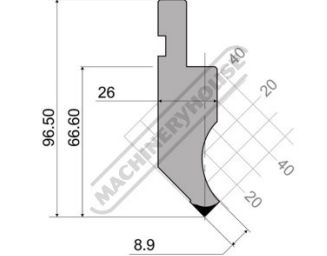
Machine Control Panel



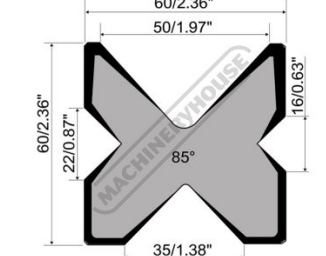
Electrical Cabinet



Shown with Optional Ball Transfer Tables - Order Code (L840)



Top Tooling



Multi V Die Block

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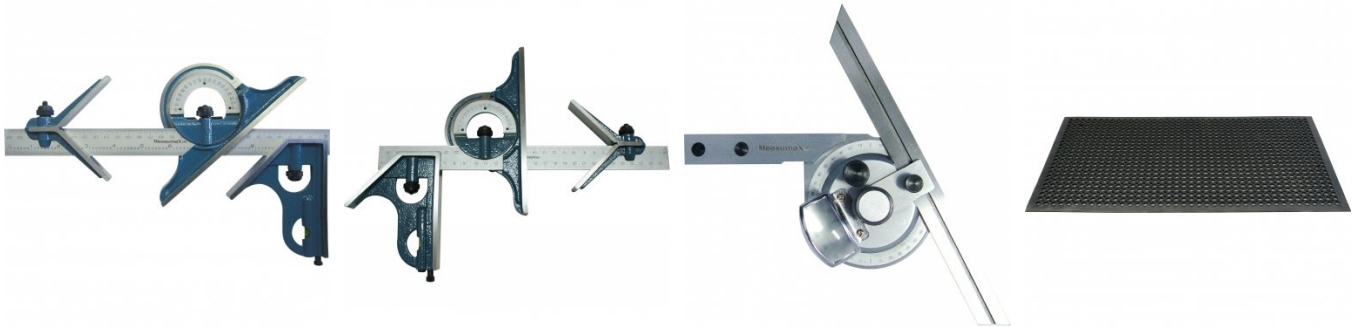
**Recommended Accessories**

**Q200**  
Combination Set

**Q200A**  
Combination Set

**Q201**  
Universal Bevel Protractor

**M800**  
Rubber Mat - Anti-Fatigue



**M805**  
Rubber Mat - Anti-Fatigue

**O043**  
Rust & Corrosion Preventive

**O042**  
General Purpose Lubricant & Corrosion Inhibitor

**O040**  
Rust & Corrosion Preventive



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O044

Rust & Corrosion Preventive



O004

Superdraulic ISO 46 Hi Temp Hydraulic Oil

