



# H-BRAKE HYBRID 110-170T

Hydraulic press brake with innovative hybrid control

Unfold the future

# SafanDarley introduces: the H-Brake Hybrid



Manufacturing Efficiency, Energy efficiency, Ecology, Ergonomics: can all of these properties be united into 1 machine? At SafanDarley, we are convinced they can. We proudly introduce our latest innovation: the hybrid press brake. The H-Brake Hybrid 110-170T is an exemplary model of sustainable thinking in the Smart Industry. Low operational costs and high energy efficiency characterise the new, unique hybrid concept. A superior combination of hydraulics and electronics.

### Only uses energy when actually bending

The hybrid system is only enabled when operating the foot pedal. In the intermediate periods, the pump is at a standstill. Due to its high-dynamic Y-axis control, with approach and return speeds of 230 mm/sec, cycle times up to 30% shorter can be achieved compared with a traditional hydraulic press brakes.

### Reduced operational costs

The control principle also ensures reduced operational costs, because the hybrid system lasts longer, the oil only has to be changed after 7,000 working hours and it is less maintenance-dependent than conventional hydraulic systems. Another additional advantage is that the adverse effect of heating oil is eliminated, causing only limited heat generation in the machine.

## Hybrid Highlights



Up to 50%  
energy saving



Quiet operation



# Closed hydraulic system

This new electro-hydraulic control is a revolutionary development compared to traditional hydraulic press brakes. This involves an electro-hydraulic system that combines the benefits of both control techniques. A servo-motor with direct control ensures the efficiency and speed and the hydraulics ensure the power and durability. Because all components per cylinder in this compact and closed system have been integrated and, therefore, oil pipes and tank are removed, the risk of oil leakage is extremely limited. Another advantage of this closed system is the fact that the oil is not in contact with the outside air and, therefore, the system cannot be polluted, which guarantees a long life span of the oil. Hybrid technology: the ultimate combination of ecological and economical.

## Modular back gauge with a wide range

A wide range of options allows you to customise the back gauge configuration. It is paramount that the back gauge you choose meets all of your requirements. SafanDarley offers a multitude of back gauges, ranging from 2 to 6 CNC controlled axes, so you can choose a back gauge system that fits your manufacturing process best. The application of the most advanced techniques allows high levels of accuracy combined with high transfer speeds. Due to the sophisticated structure of the 6 axis back gauge, the most complex products can be bent by adjusting the gauges through the CNC control.

## E-Control. Control with touch screen

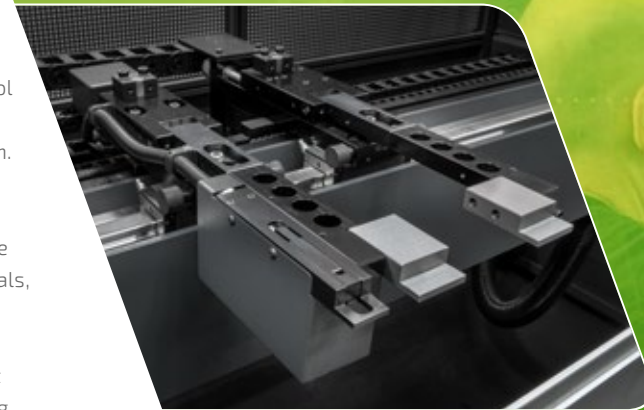
The H-Brake has been equipped with the E-Control touch screen system. Only those buttons which are needed at the time of operating will be visible on the 17" screen. The control is PC based, runs on Microsoft Windows® and a 100 MB Ethernet UTP network connection is standard on the system.

## 2D programming

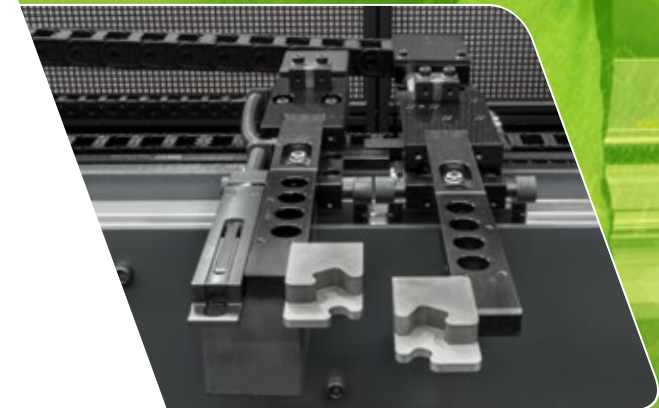
The system can be programmed swiftly and accurately due to a 'self-learning' database in which the data from materials, tools and previously corrected bending have been saved. The optional EC20-Control allows you to programme both numerically and 2D Graphically. With your finger, a product can be entirely drawn touch screen after which the bending programme is generated automatically.



Closed hydraulic system



Back gauge with X-, R- and Z1 + Z2 axes



Back gauge with X and Z1 + Z2-, R and Delta X-axes



More than 30%  
higher productivity



Deep throat as  
standard for maximum  
bending capacity



High dynamic  
Y-axis control



Considerably reduced oil  
tank volume (up to 95%)



# H-Brake Hybrid 110-170T

## Technical data

### Hybrid Model

	Pressing force in kN	Operational length in mm	Distance between the side frames	Stroke in mm	Q in mm	Approach speed in mm/sec	Maximum bending speed* in mm/sec	Return speed in mm/sec	Connected load	Table height	Gap	Weight in kg	Length mm	Width mm	Height mm
110.21/15	1100	2040	1550	280	555-655	230	17	230	15	850	510	7700	3000	2075	2650
110.31/25	1100	3060	2550	280	555-655	230	17	230	15	850	510	8700	4000	2075	2650
110.37/31	1100	3655	3100	280	555-655	230	17	230	15	850	510	9300	4670	2075	2650
110.42/37	1100	4250	3760	280	555-655	230	17	230	15	850	510	12000	5250	2075	2650
170.21/15	1700	2040	1550	280	555-655	230	17	230	22	850	510	9500	3000	2075	2650
170.31/25	1700	3060	2550	280	555-655	230	17	230	22	850	510	10500	4000	2075	2650
170.37/31	1700	3655	3100	280	555-655	230	17	230	22	850	510	12300	4670	2075	2650
170.42/37	1700	4250	3760	280	555-655	230	17	230	22	850	510	14000	5250	2075	2650

\*In CE version max. bending speed 10 mm / sec. Except the CE version the bending speed of 17mm / sec is only possible in combination with a reduced pressing force.

### Standard specifications

- E-Control EC10 control
- Control mounted on rotating arm on right side of machine
- Y1/Y2 axis CNC controlled
- X-axis CNC controlled
- R-axis CNC controlled
- Z1 and Z2-axis manual
- Wila NSCL-I MC PRO top tool adapter
- Wila NSCR-I MC PRO CNC controlled crowning
- Set of 2 support arms (300 mm)
- Programmable and integrated safety light screen
- Foot Pedal with "Hold To Run" function
- Electrical installation for power connection 3/N/PE 50Hz 230/400 VAC

- Machine equipped in accordance with the applicable CE standard

### Accessories and options

- EC20 2D graphics CNC control
- CNC controlled Z axis
- Back gauge finger with dX-axis adjustment
- Various tool adapters with hydraulic clamping
- Mobile support arms
- CNC controlled bending aids
- E-Bend L Blue angle measuring system
- E-Bend S sheet thickness measuring system
- LED workspace lighting at the front and rear of the machine



Standard gap of 510 mm



SafanDarley, the inventor of the electronic press brake, has set a worldwide evolution in sheet metal processing in motion. Each day we develop innovations that will lift your efficiency to an even higher level and that will get you started on industry 4.0. With SafanDarley, you will always get on board at the top level and you will gain from the highest standard in integrated sheet metal processing.

**SafanDarley's E-standards**

SafanDarley offers innovative solutions for all sheet metal processing, with groundbreaking electronic or hydraulic techniques. Thus, we are unfolding a challenging future in which you can manufacture more Efficiently, Economically, Ergonomically and Ecologically. Complex products, large and small series: process optimisation is a fact, lean manufacturing with zero defects is a given and just-in-time production is guaranteed.

## Smart manufacturing in the Smart Industry

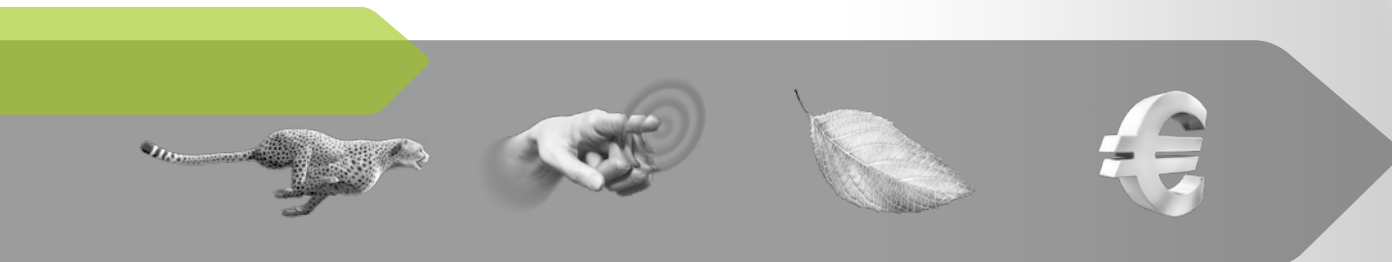
With new technology, SafanDarley paves the way to smarter, more efficient and more flexible manufacturing at a higher quality in the Smart Industry. A contemporary method of working, that gives industrial Companies more clout by maximising the use of the latest technological developments.

**Overall better performances**

Smart manufacturing is an integrated method of manufacturing, aided by far-reaching digitisation and linking of devices, production resources and organisations. Specifically, we can ensure your Overall Equipment Effectiveness (OEE) to show an increase of no less than 30%. We can do this by incorporating our machines into your production in the best possible way.



the future unfolded



**Efficiency**

The comprehensive solution for faster production

**Ergonomics**

Full control of the process operations with one finger

**Ecology**

Maximum CO2 and oil reduction

**Economy**

Maximum return on your investment





Watch our corporate movie here:



E-Brake Ergonomic



E-Brake 35T-200T  
E-Brake B 20T-100T



E-Brake Ultra 50T-130T



E-Brake 300T Dual Drive



E-Brake ATC



H-Brake 175T-400T



H-Brake Hybrid 110T-170T



H-Brake HD 500T-1250T



R-Brake



B-Shear & M-Shear



Special cutting lines

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