

# B-Shear

The top-quality hybrid shear



The E-volution in sheet metal working

The E-evolution in sheet metal working increases your competitive strength as a manufacturer

# The E-evolution in sheet metal working

SafanDarley is the new global brand of sheet metal working machines, created by the merger of Safan and Darley. SafanDarley represents a unique combination of expertise and innovative power.

B-Shear



SafanDarley offers innovative solutions for all types of sheet-metal working, applying revolutionary electronic or hydraulic technology. These innovations are the continuation of our previous milestones, such as the first CNCK servo-hydraulic brake press in 1980, the first servo-electronic brake press SMK in 1995, the first hybrid guillotine shearing machine in 1999 and the first fully-fledged electronic brake press, the original E-Brake, in 2004. This revolutionary machine concept started a global 'E-evolution in sheet-metal working'.

SafanDarley now offers a unique programme of electronic brake presses, from the E-Brake 20T Ergonomic to the E-Brake 300T Dual Drive. In the heavier segment too SafanDarley is the leader in innovation, as evidenced by the new generation SafanDarley H-Brake with its unique durable hydraulics.

All SafanDarley machines are operated by means of SafanDarley e-Control or TS Touch Screen control, the most user-friendly Man/Machine interface available. The combined expertise of SafanDarley is particularly strong in the field of

automated bending cells and client-specific production solutions, with custom-made machines if so desired.

SafanDarley continues to work on new, more efficient solutions under the motto of 'the E-evolution in sheet-metal working'. Electronics play an increasingly larger role in that respect. This also applies to the latest generation of guillotine shearing machines called SafanDarley B-Shear.



# SafanDarley B-Shear



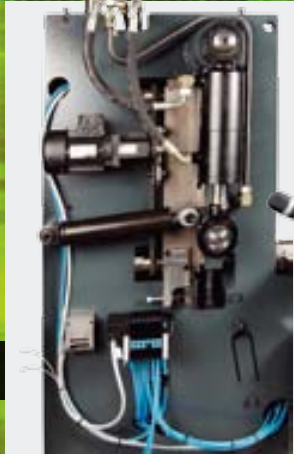
In addition to the multifunctional SafanDarley M-Shear with its very complete equipment and multifaceted options, SafanDarley offers the SafanDarley B-Shear, available in one standard model. The SafanDarley B-Shear still provides the same high-grade quality and functionality as the SafanDarley M-Shear. At its core is the advanced hybrid drive for the cutting beam. In addition, the SafanDarley B-Shear offers a series of innovative extras, such as a programmable starting position for the cutting beam, automatic x axis compensation when setting the clearance and Touch Screen control with data management of the cutting programmes. Since SafanDarley only produces the SafanDarley B-Shear in one standard model (310-6) with standard options, this superior shear is surprisingly low priced.



The E-volution in sheet metal working

# B-Shear: Superior integration of hydraulics and electronics

B-Shear



Cutting beam drive system



The E-standard for Efficiency

The robust hydraulic systems in the SafanDarley B-Shear are controlled by modern electronics. This means that the regulatory mechanism has evolved from hydraulic to electronic technology. A successful E-evolution that increases both your productivity and the quality of your products.

## Low-noise and low-energy

The hybrid drive consists of a servo-electronic motor and a hydraulic pump, a combination that operates in a remarkably quiet and energy-saving manner. The motor only runs when the cutting beam is in motion. This provides two advantages in a single stroke. You save a lot of energy, and the cutting cycle does not produce much noise.

## Touch Screen control

Of course, SafanDarley's own Touch Screen control is not missing from the SafanDarley B-Shear. This TS100 control with monochrome monitor makes it simple to work quickly and faultlessly. The settings are indicated by clear on-screen symbols. The control operates on Microsoft Windows®.

The TS100 control offers three setting levels for simple manual, extended manual and CNC programmed operation. The latter level can be used to program cutting programmes containing both general data and data specific to each cutting step.

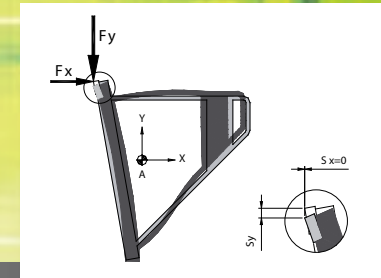


## Blades with 4 cutting edges

The standard equipment for the SafanDarley B-Shear includes blades with four cutting edges, on both the top and bottom. They enable you to shear in a very economical manner for several reasons, including the fact that blade wear is spread over the blade's entire length.



Backgauge drive system



Self compensating clearance

Thanks to the programmable starting position of the cutting beam, short shearing work can also be done on the right side of the shear.

### Precision and automatic compensation

Standard equipment for the SafanDarley B-Shear includes independent left and right clearance adjustment with built-in measuring sensor. Accuracy is  $\pm 0,01$  mm. Due to the frame construction, clearance is self compensating so that, even with a load in the middle of the shear, the clearance remains all but constant throughout the entire cut. When the clearance is changed, the position of the backgauge is automatically corrected.

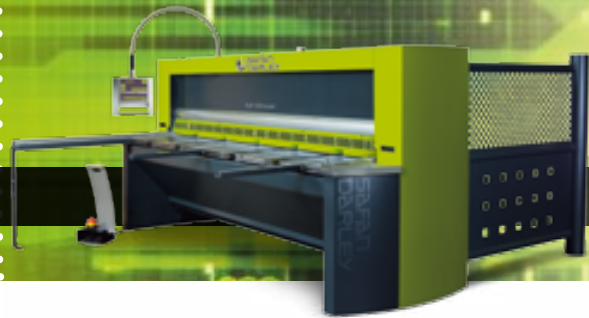
The size of the cut can be directly entered, after which the position of the backgauge is adjusted. The backgauge adjustment occurs by means of precise guides and ball screws. Setting precision is 0.01 mm, and repetitions are accurate to within  $\pm 0.03$  mm.

The cutting beam guides are constructed in a maintenance-free manner by using self lubricating graphite bronze.

# Pneumatic sheet support

The standard pneumatic sheet support system makes cutting a little easier, especially when dealing with larger sheet sizes. The sheets to be cut are supported on the back of the shear, ensuring that they can be easily positioned against the backgauge.

B-Shear



The E-standard for Ecology

## Safety in compliance with the EN norm

The safety features of the SafanDarley B-Shear fully satisfy the European Machine Directive. The cutting beam drive is equipped with block hydraulics. All visible high-pressure lines are protected. The shear has extensive guards protecting the back and sides. These consist of mechanical side covers on the right and left sides plus a photo-electrical guard on the back.

An emergency stop is located on the front of the machine. To prevent unauthorised persons from using the machine, a key switch can be used to block operation.

## The highest performances are standard

The SafanDarley B-Shear is the most economical choice for cutting sheets up to 6 mm thick and 3 metres wide, as long as you do not require any extra possibilities or options. Standard equipment comprises everything needed to deliver top performances for the lowest possible costs. In addition to the above-mentioned equipment, the SafanDarley B-Shear also offers such features as:

- Cutting line lighting
- 2 support arms, adjustable over the entire width of the table (L=1200 mm from the cutting line)
- 2 squaring guides, left and right on the table (table width)

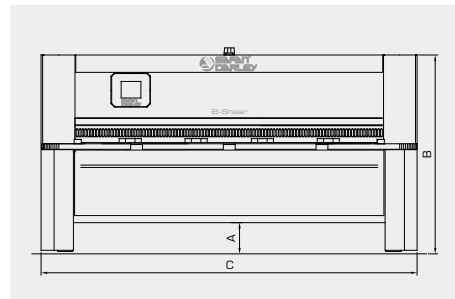
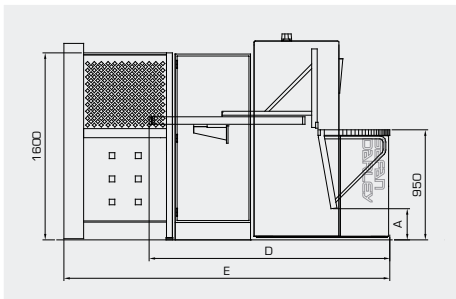
- 2 rulers in the table
- T slots and hand slots spread across the width of the table
- 1 T slot on the front of the table
- 2 spring-action stops
- Adjustable hold down cylinders
- Automatic retraction of the backgauge for narrow strip widths
- Pneumatic sheet support
- Sheet support fingers in backgauge beam



# Technical specifications SafarDarley B-Shear

B-Shear	Cutting capacity (mm) St. 450 N/mm <sup>2</sup>	Cutting length (mm)	Main motor power (kW)	No. of strokes/min (stroke length max. cutting angle)	No. of strokes/min (short stroke/min. cutting angle)	Cutting angle 0.5°-max (°)	Backgauge reach (mm)	Backgauge speed (mm/sec)	No. of hold-downs pads	Weight (kg)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
<b>310-6</b>	6	3100	11	24	80	2	1000	200	20	6200	250	1750	3850	2100	2850

(Subject to modifications)





E-Brake Ergonomic    E-Brake 35 - 200T  
E-Brake B 20 - 100T    E-Brake 300T Dual Drive    H-Brake    R-Brake    B-Shear & M-Shear    GS-Shear    Custom made solutions



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Safan B.V., Kwinkweerd 11, NL-7241 CW Lochem  
P.O. Box 96, NL-7240 AB Lochem, The Netherlands  
Tel.: +31 (0)573 222 222, Fax: +31 (0)573 252 057

Darley B.V., Emmastraat 90, NL-6245 HZ Eijsden,  
P.O. Box 4, NL-6245 ZG Eijsden, The Netherlands  
Tel.: +31 (0)43-409 74 09, Fax: +31 (0)43-409 39 90

E-mail: [info@safandarley.com](mailto:info@safandarley.com), Website: [www.safandarley.com](http://www.safandarley.com)

