GS-Shear

Durable oscillating cutting technique with high process reliability
The E-volution in sheet metal working

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

SafanDarley offers innovative solutions for all types of sheet-metal working, applying revolutionary electronic and 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 full electronic Press-Brake, the original E-Brake, in 2004. This revolutionary machine concept started a global ‘E-volution in sheet-metal working’.

SafanDarley now offers a unique programme of electronic press-brakes, from the E-Brake 20T Ergonomic until the heavy duty cathode cutting shear VS 2525.

The combined expertise of SafanDarley is particularly strong in the field of automated bending cells and customer specific production solutions, with custom-made machines if so desired.

SafanDarley continues to work on new, more efficient and durable solutions under the motto of ‘the E-volution in sheet-metal working’. The SafanDarley GS-Shear represents the new generation of multi-functional heavy duty shears. Thanks to its innovative oscillating cutting technique, this shear is able to cut fully controlled and effortlessly through even the strongest and toughest materials.
SafanDarley GS-Shear

The SafanDarley GS-Shear is the result of many years of development and optimization. During which we put all our expertise and experience in the field of sheet metal cutting to use. The combination of machine design, materials and cutting technology guarantees an extremely reliable cutting result and a long, maintenance-free, service life.

The GS-Shear is unique thanks to its oscillating cutting beam and the resulting clearance. This extends the life-time of the blades and ensures particularly high and long process reliability. The GS-Shear distinguishes itself as a durable ‘multi-purpose’ shear which, based on its proven oscillating cutting technique, guarantees a high process reliability and an excellent price/performance ratio. The well thought-out functional design is combined with extensive standardization. In addition, the GS-Shear offers many more advantages such as the self-developed intuitive Touch Screen control panel, the optional programmable small-parts chute, the movable support arms and sheetsupport system with a “Return-to-Sender” function. An ingenious system of options makes it possible to respond to customers specific needs at any time.
Working ergonomically using sustainable techniques

The support arms of the SafanDarley GS-Shear can be moved by means of linear guides. Combined with a Touch Screen control panel that can be moved sideways, this makes an optimum and ergonomic layout of the work area possible. With the optional integrated small-parts chute, cut pieces of sheet (max. 500 x 150 mm) are automatically returned to the front of the shear. The operator, therefore, does not have to walk around the shear all the time. In addition, the standard two-part retractable finger guard increases the accessibility of the shear.

Options for customized solutions
With its GS-Shear range, SafanDarley offers not only a broad and well-balanced base of standard machines, but also complete customized solutions for your production process. Its long years of experience and expertise in combination with a strong engineering and quality control department make SafanDarley a unique supplier of guillotine shears with in- and out-feed systems, which optimizes the handling.
Minimum blade wear due to oscillating knife beam

Due to the oscillating cutting beam and the resulting clearance, your blades will wear less rapidly and thus have a longer life-time. In addition, the innovative technology of the SafanDarley GS-Shear ensures reliable precision.

Automatic blade clearance adjustment

The automatic calculation and setting of the blade clearance, cutting length and blade clearance correction ensure maximum ease of operation and optimum cutting results. The quality of cutting depends on the correct setting of the clearance between the upper and lower blades. As soon as the operator starts the program, the CNC-controlled machine automatically sets the clearance based on the sheet thickness and the quality of the material.

Heavy-duty axle journals, maximum accuracy

The basis of the GS-Shear is formed by heavy-duty axle journals mounted in eccentric bushings. The axle journals are equipped with self-aligning swivel-joint roller bearings. This makes it possible to set the clearance with an accuracy of 0.01 mm. Another advantage of the oscillating cutting principle is that there are no other moving parts that can be subject to wear. This guarantees the long life-time of the GS-Shear.
Ease of operation with an intuitive touch

The new 15" Touch Screen control unit developed by SafanDarley itself makes operating the GS-Shear as simple as possible. Using this user-friendly intuitive control unit, the operator can operate the entire cutting process in a few steps.

1. Manual operation

Here all the available functions of the shear can be entered, after which the cutting operations can be executed one after the other. The shear automatically chooses the correct settings based on the information entered for material type, material thickness and the cut size.

2. CNC program operation

For programming multi-step cutting programs that are stored and can later be recalled if required. For each program step different functionalities can be programmed as required.

The bright 15" color display gives neatly arranged information with clear symbols indication the various settings. The display can be moved along the full working width of the shear. The controller has two setting levels: manual operation and CNC program operation.
The SafanDarley shears meet the highest safety guidelines. To ensure this, we cooperate closely with leading testing authorities. In spite of the strict regulations in force today, SafanDarley time and again succeeds in enhancing the flexibility and ease of operation of its machines. Within the EU, the standard machines are delivered according to the current CE standards.

The standard safety provisions of the SafanDarley OShear are fully compliant with the European Machinery Directive. The machines for instance come standard with a safety light guard that prevents people from walking into the back the machine. It consists of mechanical side fences on the left- and right-hand side plus a photoelectric safety light curtain at the back. The control panel is equipped with an emergency stop.

To prevent unauthorized persons from using the machine, the control system is provided with various digital login levels. The finger guard is very robust and comes standard in 2 parts that are retractable, with an electrical interlock. Optionally a safety light curtain is available.
Optimum results with the pneumatic sheet support system

The SafanDarley GS-Shear is optionally available with a pneumatic sheet support system. For the larger backgauge settings in particular, this makes working much easier. There are three options to choose from:

Single acting sheet support system HH-1
The pneumatic sheet support system supports the sheet to be cut at the back of the shear. This makes it easy to position the sheet against the backgauge. As soon as the cutter beam starts to move, the sheet support system folds down.

Double acting sheet support system HH-2
The double acting system also supports the sheet during the entire cutting process. This avoids the so-called “dog-ears” at the right-hand side.

Double acting sheet support system HH-5
The double acting HH-5 version is also fitted with a scrap chute. Tilting the support system backwards causes the scrap to fall into the scrap container. The scrap container can be removed sideways to be emptied.
Superior efficiency with the Return-to-Sender sheet support system

The Return-to-Sender function not only increases the profitability of your shear, but it also enables you to cut in an ergonomically sound manner. The Return-to-Sender function has the following advantages:

1. **Returning the sheet**
   After the cutting cycle, the cut pieces of sheet are automatically returned to the front of the table. The operator does not have to walk to the rear of the shear all the time to pick up the cut pieces; a major ergonomic advantage.

2. **Less damage**
   Returning the cut pieces of sheet automatically to the front of the table prevents damage.
GS-Shear: complete in standard version

- Touch Screen control, with 15” TFT color display, can be moved to the center of the machine
- Electrical drive, three-phase current 3/N/PE 50Hz 400-230 V
- Machine according to the CE standards
- Table fitted with support plates and handling rollers
- 1 Left console met squaring guide, T-slot and measuring scale, length 1500 mm
- 2.3 or 4 consoles with T-slot and measuring scale, length 1500 mm [depending on machine version]
- Tumbler stops
- The cutter beam has an optimum permanent cutting angle
- Finger guard, retractable on both sides and electrically interlocked.
- Shadow line projection
- CNC backgauge, reach 1000 mm, powered by AC servomotor
- Swing-away backgauge beam
- CNC-controlled blade clearance adjustment
- 1 set of blades mounted on the machine for cutting normal steel and stainless steel with a tensile strength of 450-700 N/mm2
- Number of cutting edges: upper blade 2, lower blade 4
- Oil tank filled with oil
- Foot pedal

Accessories for the ultimate ease of work
- Extended squaring arm with or without hardened steel strip
- Extended support arms
- Small parts chute [only for GS 3106/B]
- Consoles movable along linear guides
- Adjustable angle indicator
- Brushes next to consoles
- Vibration absorbers
- Plastic downholder cups
- Backgauge beam with hardened stop list
- Extended reach for CNC backgauge
- Various sheet support systems
- Return-to-Sender function

- Scrap container
- Safety light curtain instead of mechanical finger guard
- Outfeed systems
- CNC infeed systems
- Sheet handling
### GS-Shear Technical data

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<th>Model</th>
<th>Capacity (mm) 450 N/mm²</th>
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<th>Motor power (Kw)</th>
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SafarDarley has won various innovation awards
The E-volution in sheet metal working

Watch our corporate movie here:

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