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Perfect solutions  
to your benefit.

Everything for the processing of cast parts

Mössner casting finishing systems

Analysieren. Entwickeln. Machen.



# Casting finishing systems

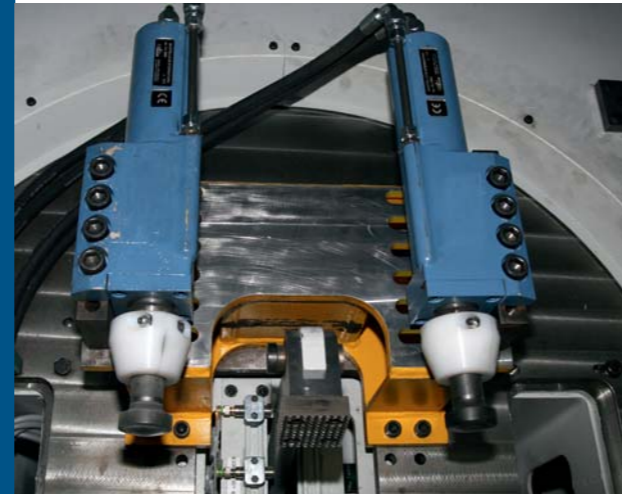
## Mössner proven solutions uniquely applied to your specific castings

Fully automated Mössner casting finishing solutions include all sub-processes into a single system. All elements for a total solution can be integrated including part recognition, part handling, transport, removal of gates and risers, clamping, surface finishing, fettling and deburring. The separation of returns and chips management may also be part of a total cell solution. Systems are designed as compaction noise protected cells or transfer lines.

## Sawing

Removing gates and risers using high efficiency automatic or semi-automatic band saws.

The semi-automatic VB 802 band saw machine with an NC axis allows many different processing operations to be carried out on the workpiece. In the automatic version, a robot in a noise-proof cabin removes the cast part for clamping on a circular table with two clamping positions. The cast part is then supplied to the high-performance band saw machine, for example the HB 801 with two NC axes, for separating the feeders. The programmed sawing operations run fully automatically and can be called up for different workpieces. Both the robot grippers and the clamping positions have capacity for up to four different cylinder heads which can be processed with no loss of cycle time.



## Decoring

The Mössner decoring cell offers solutions for thoroughly decoring cast parts. It combines the crucial functions of hammering, vibrating and turning in one machine.

The Mössner decoring box adapts to the individual cast part, and even in mixed operation enables its thorough decoring in connection with automatic part recognition. The high-performance decoring box is automatically loaded and unloaded robotically. Sand cores and sand which is stuck on is released by electrical and hydraulic knocking, vibration and swivelling apparatus, and is then shattered and shaken out. The individual decoring operations which are adapted to the cast part can be varied and programmed.

The decoring time depends on the cast part. For two cylinder heads, for example, it is approximately 46 seconds for double loading. The decoring box is noise-protected (noise emissions: < 80dB(A)) and has loading doors which open and shut automatically. The sand is removed under the floor on a transport belt. An air removal rate of approximately 2000 m<sup>3</sup>/h is required to remove dust from the air. The sand cores are then shattered by way of pneumatic knocking operations, are ground through electrical vibration apparatus and are then transported out of the cast part. The emptying process is aided by the rotation of the cast part. The decoring system has two hammers and can optionally also be equipped with four hammers.

## Deburring

Mössner casting technology automates the flexible cleaning, deburring and initial processing of cast parts.

The automatic deburring is controlled by freely programmable robots. The six-axis handling of the cast parts at different processing stations allows fine deburring, for example, of the separation burrs with high-frequency milling spindles or the deburring, cleaning and processing of holes and openings in multiple spindle drilling stations, which can be rapidly adapted, as well as the removal of burrs using a deburring press. Cast parts can be checked automatically at measuring or camera stations, and inside the part at endoscopic or x-ray stations with cameras.

Castings can be deburred and finished using the deburring center, and secondary burrs can also be removed. The system is highly flexible and comparable to manual processing. New processing processes can be created and started within a short space of time. Handling is easy. The compact and space-efficient construction allows it to be erected even in compact and limited spaces. The deburring centre is supplied as a complete unit with simple installation.

## Processing and engineering

Comprehensive engineering services

Depending on customer requirements, we can plan the development of the raw cast part up to the finished fettled workpiece. Mössner Engineering offers concepts on pre-processing, including removal from the casting mould, decoring, separation from gates and risers, the deburring, transportation and general handling. We often develop special solutions together with each customer.

