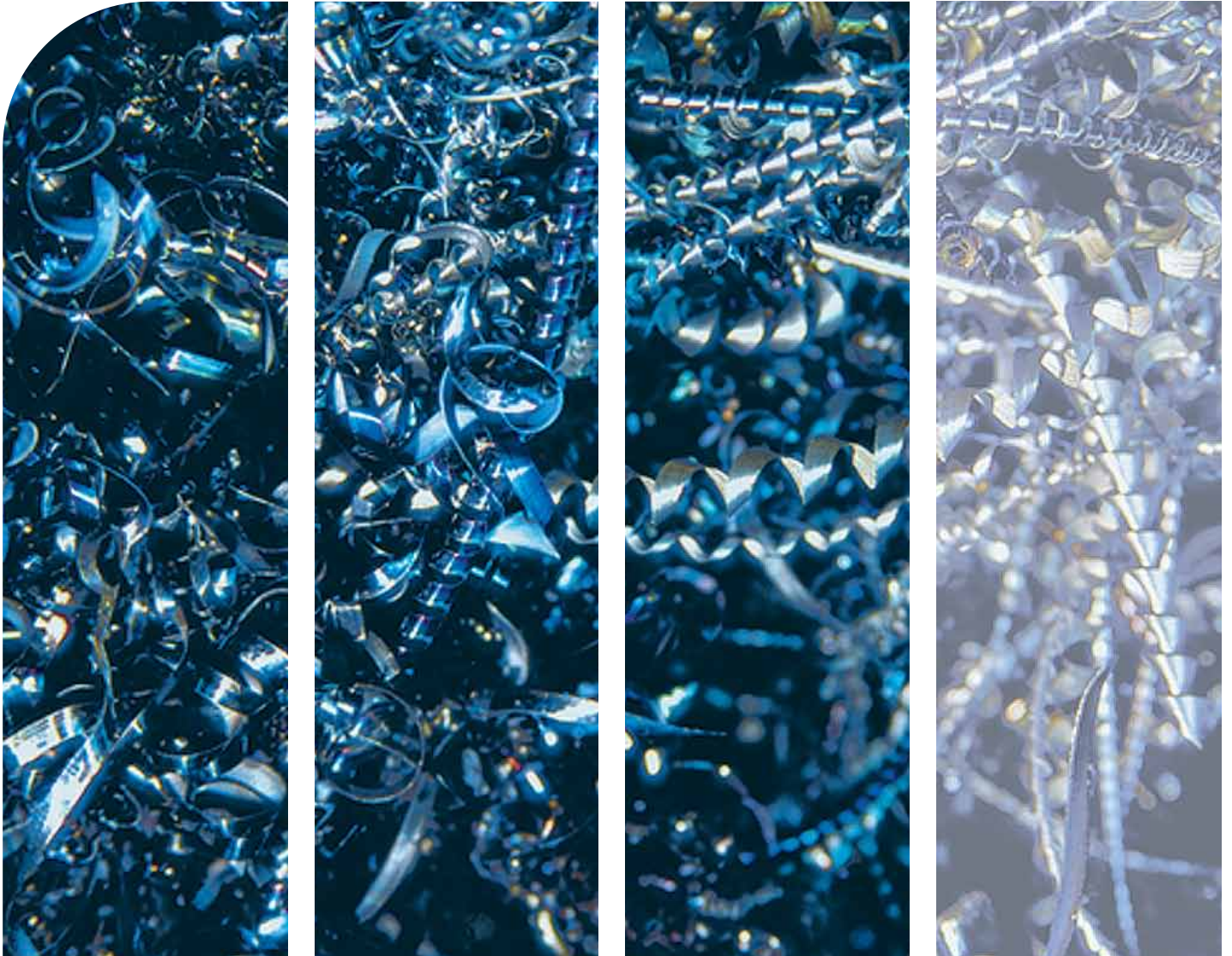


# CONVEYING, FILTRATION AND PROCESSING



swarf and coolant for the metal working industry

# 500,000 SWARF CONVEYORS

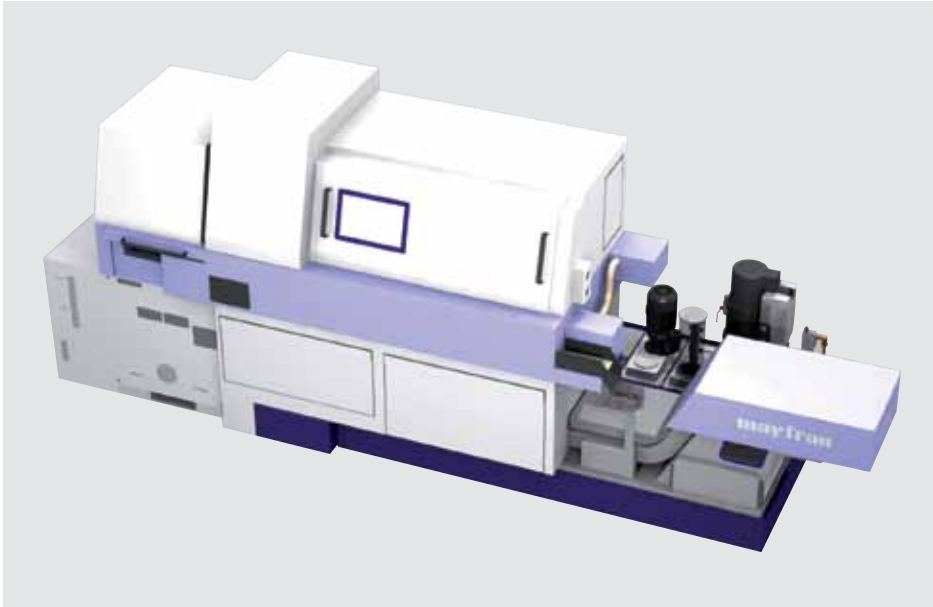
Since 1938 Mayfran has produced over 500,000 swarf conveyors for the metalworking and automotive industry.

MAYFRAN offers a unique product range of swarf conveyors. Locations for production and engineering in America, Europe, Japan, Korea, India and nowadays China make sure a 100% identical construction.





# CONTENT



## SINGLE SOLUTIONS FOR MACHINE TOOLS

### Conveying systems

#### Hinge belt conveyors

- MT 10
- CT 20
- CT 2

#### Scraper conveyor

#### Special solutions

#### Swarf conveyors with integrated filtration

- ConSep System
- Fluid System

### Stand-alone filter systems

- HPF Hydrostatic Paper Filter
- HEF Hydrostatic Endless Filter
- RBF Rotary Belt Filter



## CENTRAL SYSTEMS

### Central coolant filtration systems

- Pressure filter
- Precoat filter
- Pressure belt filter

### Pump back stations

#### Over the floor pumpback system (Viavent)

### Swarf processing systems

- Compact systems
- Mobile swarf processing

### Components

- Swarf centrifuge VBU
- Lift bottom centrifuge LBC
- Swarf crusher
- VC crusher

# CONVEYING SYSTEMS

Hinge belt conveyors

## MT 10 »THE COMPACT«

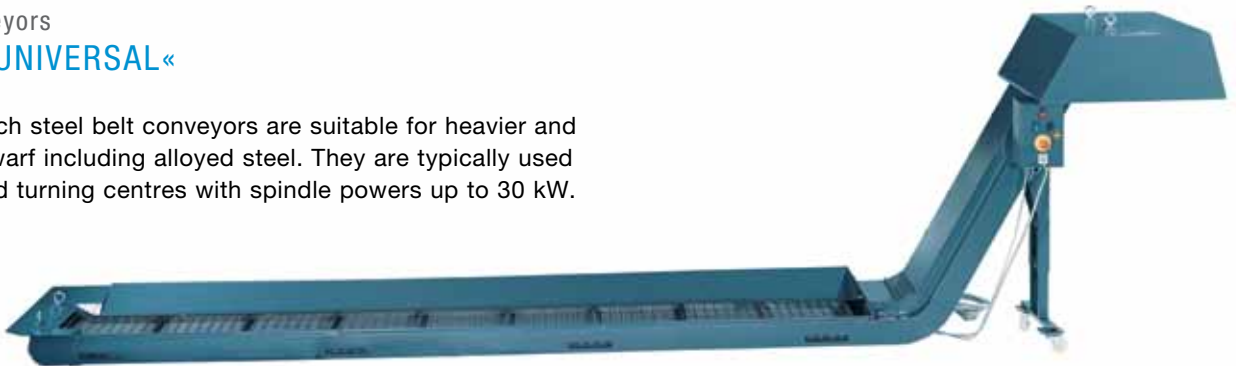
MAYFRAN 1.25" pitch steel belt conveyors are suitable for even the smallest machine tools due to their extremely compact design. They can convey typical machine tool swarfs, as well as machined parts, small bar ends and stampings. This steel belt conveyor is typically used on machining and turning centres with a spindle power of up to 15 kW.



Hinge belt conveyors

## CT 20 »THE UNIVERSAL«

MAYFRAN 2" pitch steel belt conveyors are suitable for heavier and more abrasive swarf including alloyed steel. They are typically used on machining and turning centres with spindle powers up to 30 kW.



Hinge belt conveyors

## CT 2 »THE CLASSIC«

MAYFRAN 2.5" pitch steel belt conveyors incorporate wear and shock resisting features to give long life in the most demanding environments. They are typically used on a variety of machine tools with spindle powers up to 50 kW.



# CONVEYING SYSTEMS

Hinge belt conveyors

## DIMENSIONS

Type	MT 10	CT 20	CT 2
Chain pitch	1 <sup>1/4</sup> " (31.75 mm)	2" (50,8 mm)	2 <sup>1/2</sup> " (63,5 mm)
Belt thickness	2 mm	2.5 mm	3 mm
Belt width (W) Min.	100 mm	150 mm	152 mm
Belt width (W) Max.	500 mm	1,000 mm	1,219 mm
Cleat height	20 mm	28 mm	38 mm
Speed M/Min.	1-1.5 – 3	1.6-3.2 – 4,5	2-4 – 5.6
Application Machines to max (Power of main spindle)	15 KW	30 KW	40 KW
Max. centerline length	6,000 mm	10,000 mm	20,000 mm

## SCRAPER CONVEYOR

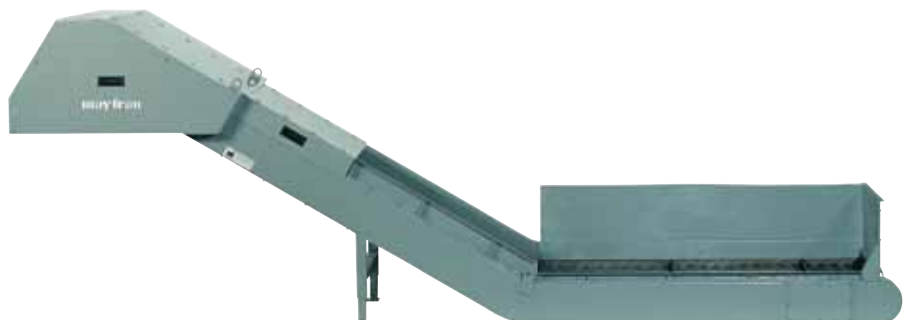
Mayfran 2" pitch scraper conveyors are used in applications where only short broken swarf of materials like for instance cast iron, brass and aluminium should be removed.

Type	MS 50	CT 3
Chain type	drag chain	roller chain
Chain pitch	50 mm	63.5 mm
Frame height	140 mm	220 mm
Max. frame width	600 mm	900 mm
Max. length	10 meter	20 meter



## SPECIAL SOLUTIONS

MAYFRAN offers a wide range of solutions for special applications (for example die cast scrap).



# SWARF CONVEYORS WITH INTEGRATED FILTRATION

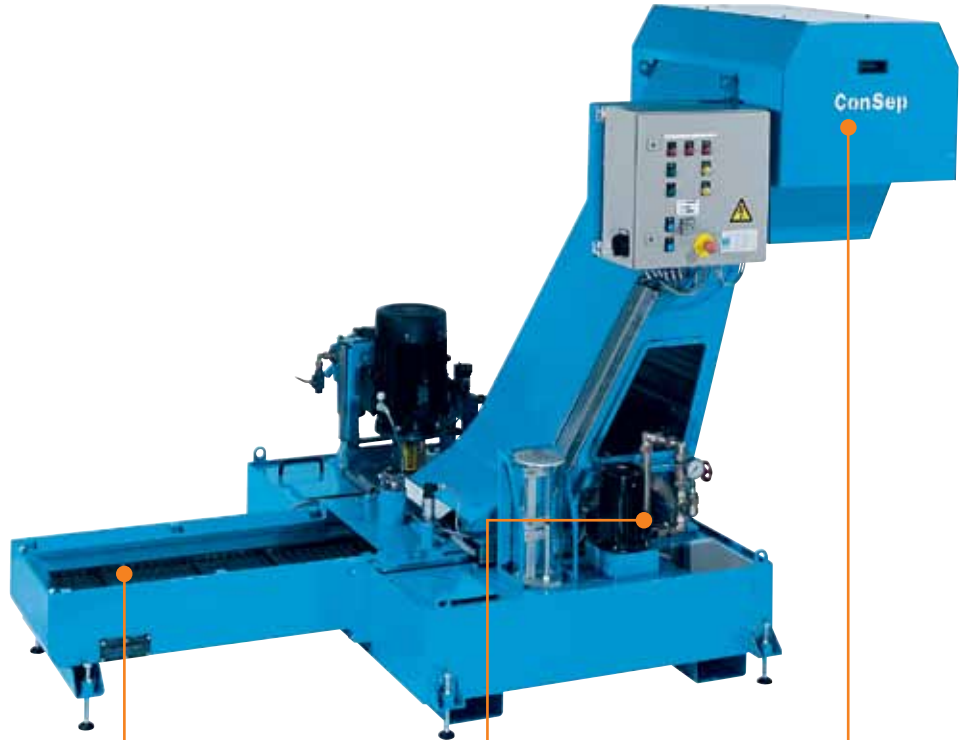
## CONSEP® SYSTEM

The ConSep® System is the ultimate solution for swarf handling and integrated coolant cleaning for high performance machine tools such as machining centres, turning centres and integrated lathes.

ConSep® reduces the required preventive maintenance interventions and therefore improves the up-time performance of the coolant system.

### ADVANTAGES:

- Outstanding coolant cleaning capability
- Handles a vast range of swarf types and materials
- Low floor space requirement
- No additional filtering necessary for most applications
- Bespoke design for individual machine tools
- Can be fitted with additional modules for special applications
- Up to 800 l/min coolant flow
- Low energy consumption



Hinged belt



Indexing drum filter



Screw conveyor

## FLUID SYSTEM

### ADVANTAGES:

- Full-automated coolant control system
- Optimized for 24/7 shift operations
- Maximized maintenance intervals
- Highest machine availability
- Extended coolant life



# MMF FILTER SYSTEMS

## MMF MODULAR FILTER SYSTEM

The maintenance-friendly range of filter are modular designed to satisfy customer requirements for space, capacity and filtration quality. Available are Paperbeltfilter (HPF), Endlessbeltfilter (HEF) und Drumbeltfilter (RBF) with 8 of several flow-rates.

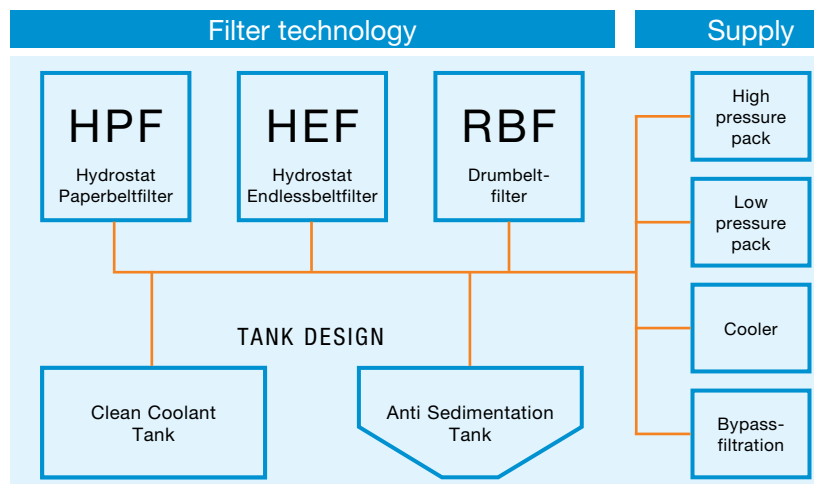
**FEATURES:**

- Dimensions from 100 l/min. up to 1,500 l/min.
- Modular design, wide range of supplies
- 2 shape of tank design



**ADVANTAGES:**

- Deep bed gravity technology for greater levels of filtration
- Fully automatic operation
- Unique side sealing technology prevents swarf and particulate bypass
- Uses various disposable media, dependent on type of machining and coolant cleanliness requirements
- Smaller footprint with improved filtration
- Designed as part of the Mayfran modular filter platform





# CENTRAL FILTER SYSTEMS

Mayfran filters are custom designed to satisfy customer requirements for space, capacity and filtration quality. Several elements can be specified or combined for the optimum solution.

Extensions available:

- Prefilter
- Precoat filter
- Pressure filter
- Pressure belt filter
- Drum filter
- Up to 60,000 l/min

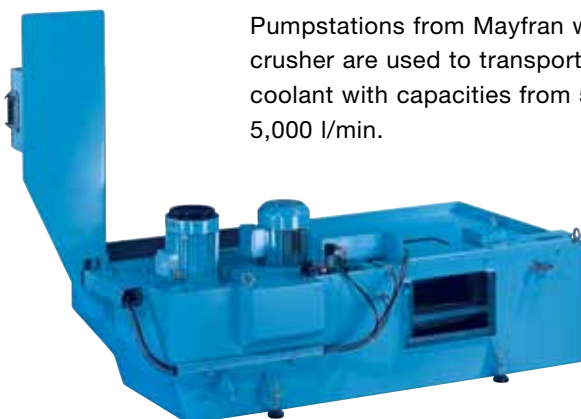


Accessories:

- Magnetic separator
- RefillMatic® coolant conditioning center



# PUMPSTATIONS



Pumpstations from Mayfran with integrated crusher are used to transport swarf and coolant with capacities from 50 l/min up to 5,000 l/min.

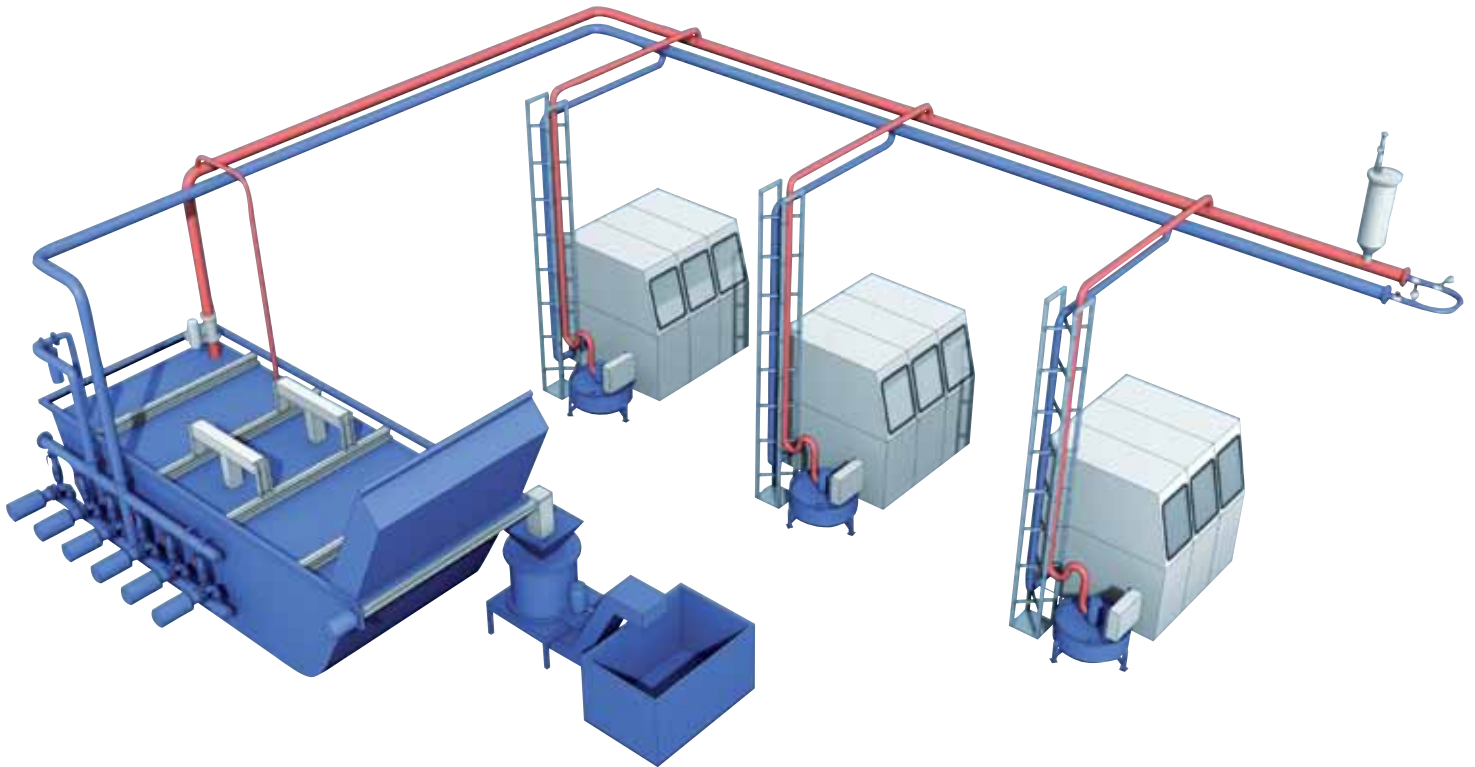
*Pumpstation with integrated crusher*



*Supply*



# OVER THE FLOOR PUMPBACK SYSTEM (VIAVENT)



*Pump back station for a transfer line*

Viavent® is a closed over-the-floor cycle system for the automatic pumping of swarf and coolants from the machine tools to a centralized filtration.

Due to the flexible feeding possibilities in Viavent®, the modular tube system provides maximum flexibility at set-up and conversion, because machine set-up is no longer dependent on floor channels.

The closed coolant cycle results in less coolant consumption and longer service life of the coolant. It also allows smaller filters, which again means gaining floor space and saving in investment costs.

#### ADVANTAGES:

- Flexibility – set-up is no longer dependent on floor channels
- Environment-friendliness – no coolant can get into the ground water unnoticed and the air inside the factory is also cleaner due to closed piping circuit
- Low operational costs – high degree of automation, low maintenance costs due to self-cleaning of the system. Lower coolant quantity and longer service life because of the closed circuits
- Lower investment costs due to flexible and easy installation of piping. Modular expansion is possible without extensive construction measures.

# SWARF PROCESSING SYSTEMS

## COMPACT SYSTEMS

MAYFRAN offers ready-to-go compact systems for the processing (shredding and drying) of swarf and economical recovery of coolant. In combination with the right conveyor solution and coolant cleaning Mayfran provides the best possible solution for profit-motivated swarf disposal.

### ADVANTAGES:

- The various modular possibilities of the MAYFRAN components allow different combinations to individual central systems according to size, type and available space.
- This way the modular product range are adapted to your individual requirements.



*Installation consisting out of following components: swarf-wringer, swarf crusher, swarf-conveyor and container loading system.*



## PNEUMATIC SWARF CONVEYANCE

Swarf transfer system to deliver swarf from air separator to various collection devices. Low volume, high pressure extraction systems would have high pressure extraction fan set. The swarf and air are separated in a filter cyclone with the initial coarse particle.

# COMPONENTS



### SWARF CENTRIFUGE VBU

Centrifuges for drying of swarfs which are fed continuously. Different sizes are available depending on quantity and swarf form.



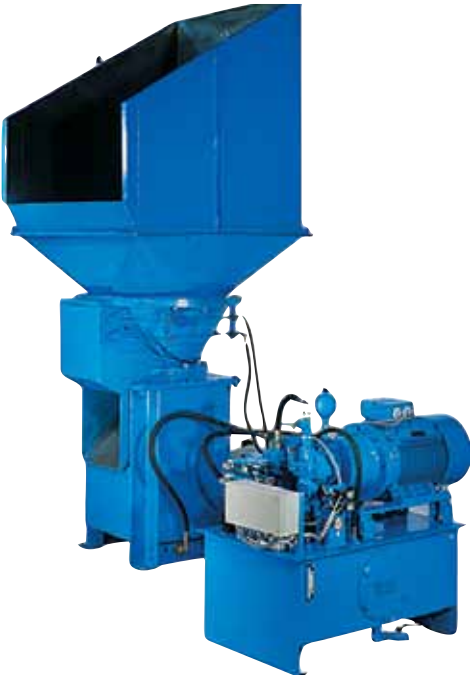
### LIFT BOTTOM CENTRIFUGE LBC

Swarf drying centrifuge particularly suitable for batch drying of grinding swarfs.



### SWARF CRUSHER

Crushers are the first step in swarf processing. Depending on the requirements there are various models of MAYFRAN crushers. They provide the highest level of reliability and user safety.



### VC CRUSHER

For the intermittent (batch) supply of swarf. Optionally available with smooth hydraulically-controlled actuator.



# WORLDWIDE AT YOUR SIDE



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