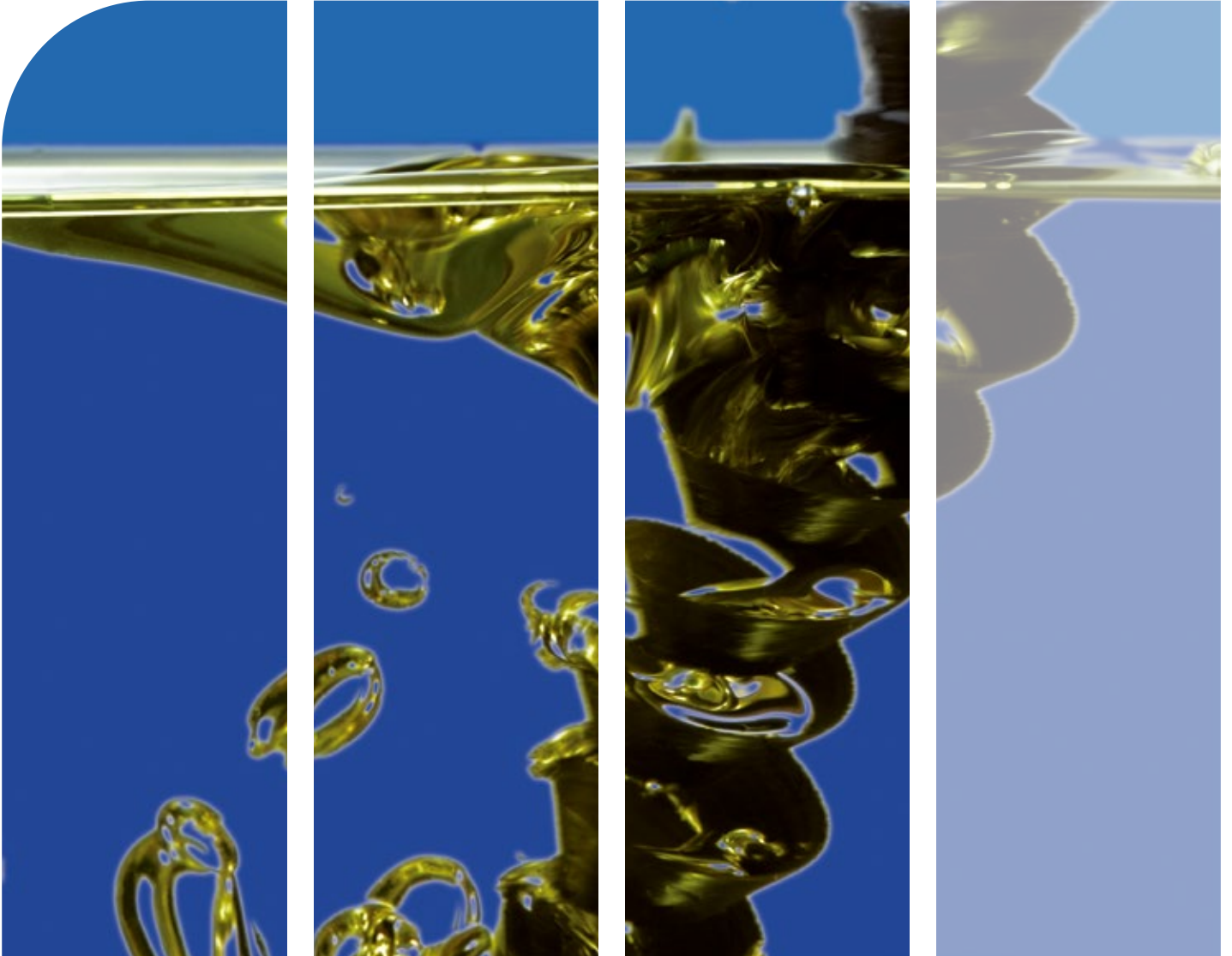


SWARF CENTIFUGES

Effective recovery of cooling lubricants and oils



PROFITABLE FOR YOU AND THE ENVIRONMENT

Today it is increasingly important to properly process swarf and ensure that it is as dry as possible when disposed of.

During this process, the cooling lubricant is recovered and returned to the production process. When using oil, for example, significant cost savings are possible and dry swarf can also be sold at a good price.

To achieve this goal, Mayfran provides a number of products, including centrifuges, swarf crushers and presses, to dry the swarf efficiently, to reduce its volume and to compress the swarf into manageable sizes, ready for recycling.

Swarf centrifuges dry the swarf from the slag of machining or grinding operations to recover valuable cooling lubricant and increase the sale value of the swarf.

The recovered cooling lubricant is recycled back into the production process.

This makes significant cost savings possible, for example due to saved oil.



Swarf processing: individually designed to the requirements of the manufacturing process

POSSIBLE RESIDUAL MOISTURE AFTER THE CENTRIFUGE PROCESS DEPENDING ON SWARF AND LUBRICANT

● Steel/Oil	1.5 %	● Cast metal/oil	3.0 %	● Aluminium/oil	3.5 %
● Steel/Emulsion	1.0 %	● Cast metal/emulsion	2.0 %	● Aluminium/emulsion	2,5 %

All specified values represent approximations. Reliable residual moisture values can only be determined by a test.



Swarf processing system with VBU centrifuge and swarf crusher

At the same time, dry swarf can be sold at a higher price.

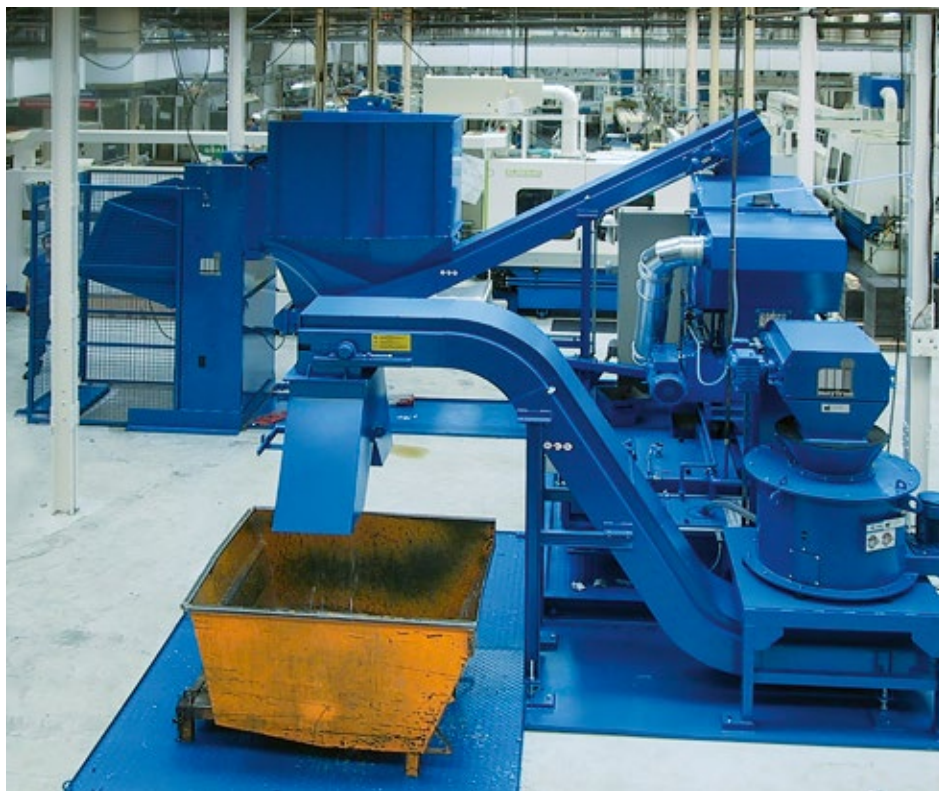
These solutions for swarf treatment not only pay off quickly, they also make it possible for you to fulfil increasingly stringent regulations regarding swarf disposal.

Depending on the material and cutting fluid, drying to 2% residual cooling lubricant can be achieved.

Mayfran centrifuges are designed for continuous operation and include hardened components to reduce wear and extend the service life.

For different processing volumes and material types, Mayfran offers:

- TD - pneumatic discharge centrifuges
- LBC - pusher centrifuges
- VBU – vertical centrifuges



Swarf pressing system comprised of the following components: centrifuge, swarf crusher, conveyor and container loading

LBC – PUSHER CENTRIFUGE

LBC - PUSHER CENTRIFUGES FOR APPLICATIONS WITH LARGE PROCESSING VOLUMES

The LBC pusher centrifuges are particularly suitable for the disposal and processing of:

- Grinding sludge
- Fine and coarse swarf
- Light shredder scrap

Pusher and centrifuge are driven together via a hydraulic unit and a hydraulic motor.

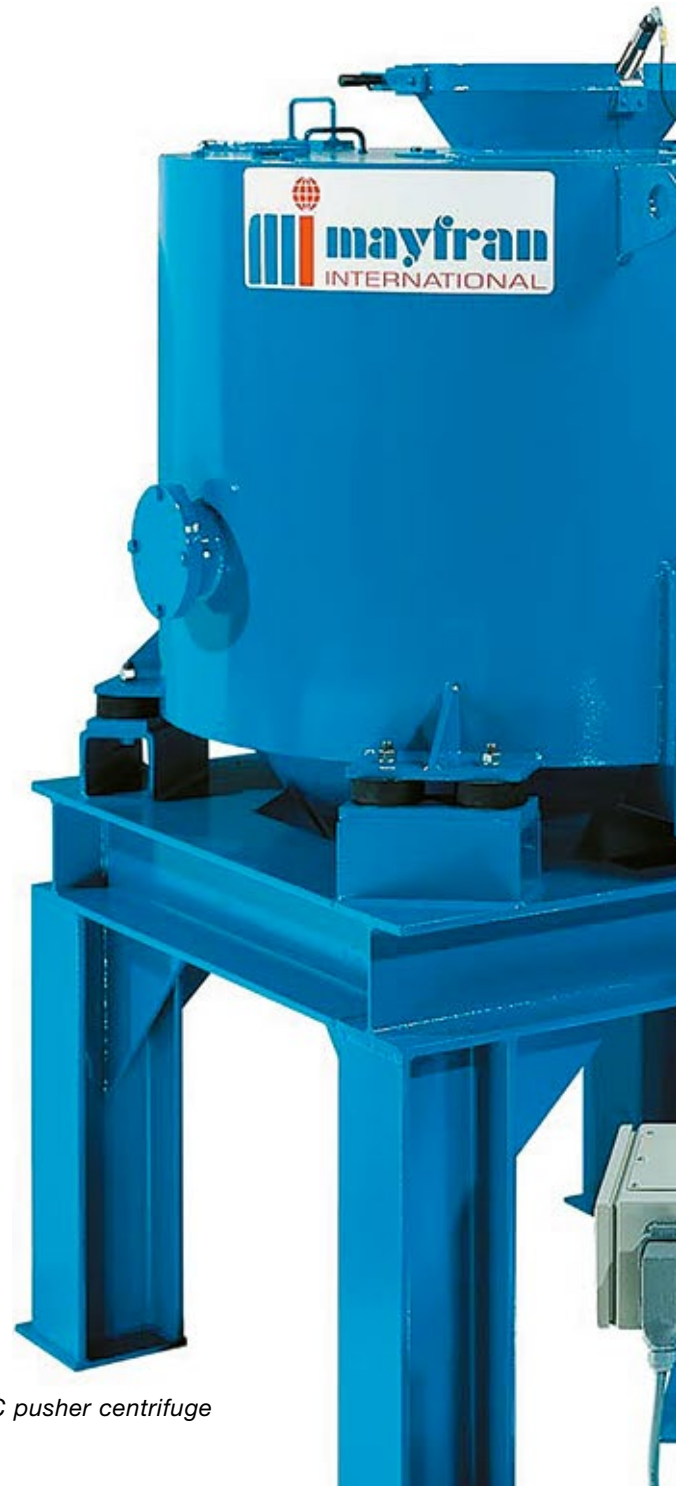
This means that there are no wear parts such as belts and pulleys.

OPERATION:

The sliding floor (pusher) moves up and down, pushing the wet swarf over the wedge wire screen gradually. The swarf is dried at high centrifugal forces up to 500 times the gravitational acceleration.

A high degree of de-oiling is achieved, resulting in an extremely low residual oil content.

The dried swarf is pushed over the edge of the drum and falls down into the swarf container.



LBC pusher centrifuge

Type	LBC 600	LBC 800	LBC 1000
Rated power / kW	7.5	11	15
Capacity / kg/h*			
Steel (bulk weight 1 kg/l)	3,000	6,000	10,000
Cast metal (bulk weight 1 kg/l)	3,000	6,000	10,000
Aluminium (bulk weight 0.33 kg/l)	1,000	2,000	3,500
Total weight (kg)	2,400	3,100	5,400

* Steel chips with a density of 1 kg/l



THE ADVANTAGES:

- Extremely low residual moisture after centrifuge process
- High degree of de-oiling even after years of continuous use
- No follow-up cleaning of the drum, even when used for grinding sludge
- High operational reliability
- Smooth operation of the centrifuge, below 75 dB(A)
- Service and repair friendly thanks to the highly wear-resistant lining and quickly interchangeable wear parts
- Fully automatic and continuous operation

RESIDUAL MOISTURE:

- Steel/oil: 1.5 – 3.5 %
- Steel/emulsion: 1.0 – 3.0 %
- Cast metal/oil: 3.0 – 5.0 %
- Cast metal/emulsion: 2.0 – 4.0 %
- Aluminium/oil: 3.5 – 5.0 %
- Aluminium/emulsion: 2.5 – 4.0 %

VBU – VERTICAL CENTRIFUGES

VBU – VERTICAL CENTRIFUGES FOR COMPACT APPLICATIONS IN MACHINE TOOLS

The VBU swarf centrifuges operate continuously in all everyday applications.

Different sizes are available for throughputs from 150 kg/h to 4500 kg/h (steel swarf).

OPERATION:

Small broken metal swarf are continuously fed to the swarf centrifuge via a feed conveyor and hopper and then accelerated to the speed of the drum in the centrifuge.

The G-forces (up to 700 times the gravitational acceleration) cause the swarf to travel along the drum, past the cooling lubricant discharge openings, and to the edge of the drum.

During this process, the residual liquid is removed from the swarf and the recovered oil is drained through the cooling lubricant outlet.

The accelerated swarf passes over the upper edge of the drum and is conducted through the centrifuge housing and the discharge hopper to a swarf container or discharge conveyor.



VBU swarf centrifuge are available in six different sizes



Large hopper, ideal for fully automatic operation



VBU swarf centrifuge for continuous use

THE ADVANTAGES:

- The speed can be set to the operating requirements
- Fully automatic and continuous operation
- Small number of components
- Smooth operation
- Minimal maintenance costs
- Coated drum with long service life
- Optimum oil removal
- Compact machine design

RESIDUAL MOISTURE:

- Steel/oil: 1.5 – 3.5%
- Steel/emulsion: 1.0 – 3.0%
- Cast metal/oil: 3.0 – 5.0%
- Cast metal/emulsion: 2.0 – 4.0%
- Aluminium/oil: 3.5 – 5.0%
- Aluminium/emulsion: 2.5 – 4.0%



VBU swarf centrifuge

Type	VBU 300	VBU 1000	VBU 2000	VBU 3000	VBU 4000	VBU 6000
Rated power / kW	0.55	1.5	3.0	5.5	7.5	15
Capacity / kg/h*						
Steel (bulk weight 1 kg/l)	125	350	800	1,365	2,140	4,520
Cast metal (bulk weight 1 kg/l)	125	350	800	1,365	2,140	4,520
Aluminium (bulk weight 0.33 kg/l)	40	120	270	450	710	1,510
Brass (bulk weight 1.2 kg/l)	150	400	920	1,570	2,460	5,200
Total weight (kg)	154	357	643	1,042	1,493	3,249

MAYFRAN PRODUCT RANGE

PRODUCTS FOR MACHINE TOOLS

- Chip conveyor
 - Slat-band chain conveyor
 - 4-inch and 6-inch conveyor
 - Roller chain conveyor
 - Magnetic conveyor
 - CleanSweep Series
- Individual filtration systems
 - Consep – Conveyor with KSS filtration
 - MFF – modular filter system
- Components
 - Refillmatic
 - High-pressure devices
 - Magnet separator
 - Oil skimmer etc.

KSS FILTRATION DEVICES

- Conveyor systems
 - Overhead and underfloor systems
 - Extraction systems
 - Loading systems
- KSS filter systems
 - Precoat filters
 - Pressure belt filters
 - Vacuum filters
 - Gravity filters
- Accessories

CHIP PROCESSING SYSTEMS

- Centrifuges Chip
- Conveyors

SCRAP TRANSPORT/ RECYCLING

- Conveyors for parts and transporting scrap
- Metal Scrap-feed conveyors

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