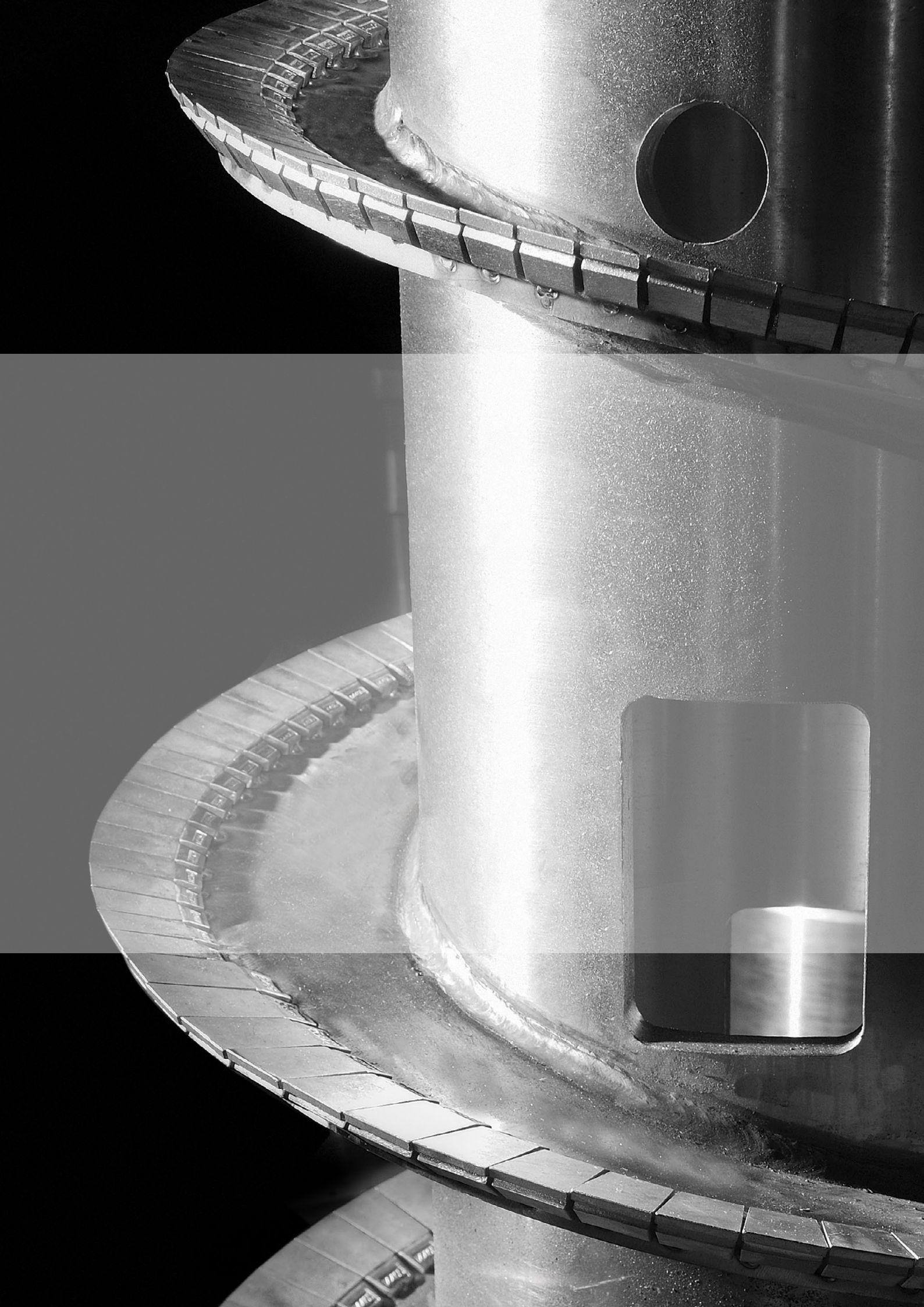


# | NEW DECANter CENTRIFUGES







# CENTRI-FORCE AND HAUS CENTRIFUGE: **A WINNING TEAM**

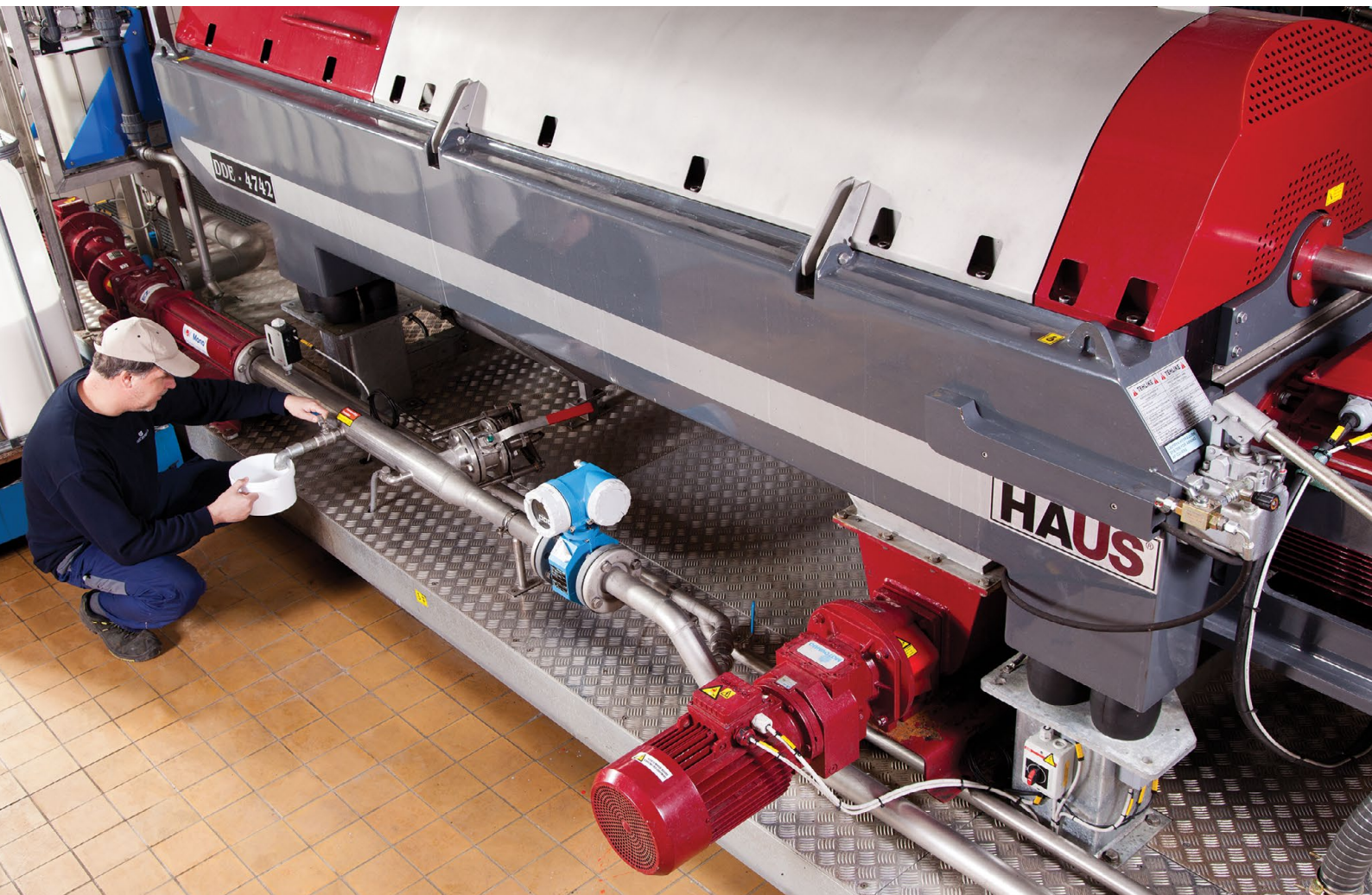
Project engineers seek out plant and equipment suppliers who can offer leading edge technology that represents excellent value for money. HAUS Centrifuge Technologies have been established for a while but the Company is now being recognised as a leading manufacturer of decanter centrifuges and related technologies in Europe.

The robust design of its products, ease of maintenance and outstanding value are just some of the reasons to take a look at the HAUS product range.

Centri-Force has been providing after care for all makes of centrifuge for over 30 years. Comprehensive workshop facilities coupled with experienced machinists, welders and fitters, field service engineers and technical support made Centri-Force a natural choice. So it comes as no surprise that HAUS has selected Centri-Force as its exclusive distributor in the UK and Ireland.

Together Centri-Force and HAUS offer Engineers a compelling option and a winning team.









# HAUS DECANTER CENTRIFUGES **RAISING THE BAR**

The introduction of the HAUS range of industrial decanter centrifuges, with their robust design, ease of maintenance and value for money has set new standards for centrifugation in a wide range of applications.

The DDE series featured here was designed for municipal and industrial effluent processing, minimizing polymer consumption and at the same time maximizing cake dryness at high feed rates. The results have been outstanding:

- Excellent value for money
- Low cost per tonne processed
- UK's leading after care support
- Rugged design and ease of maintenance
- Continuous 24/7 operation
- Compact design
- Two years defects warranty as standard
- Capacities from 1m<sup>3</sup>/h to 180 m<sup>3</sup>/h

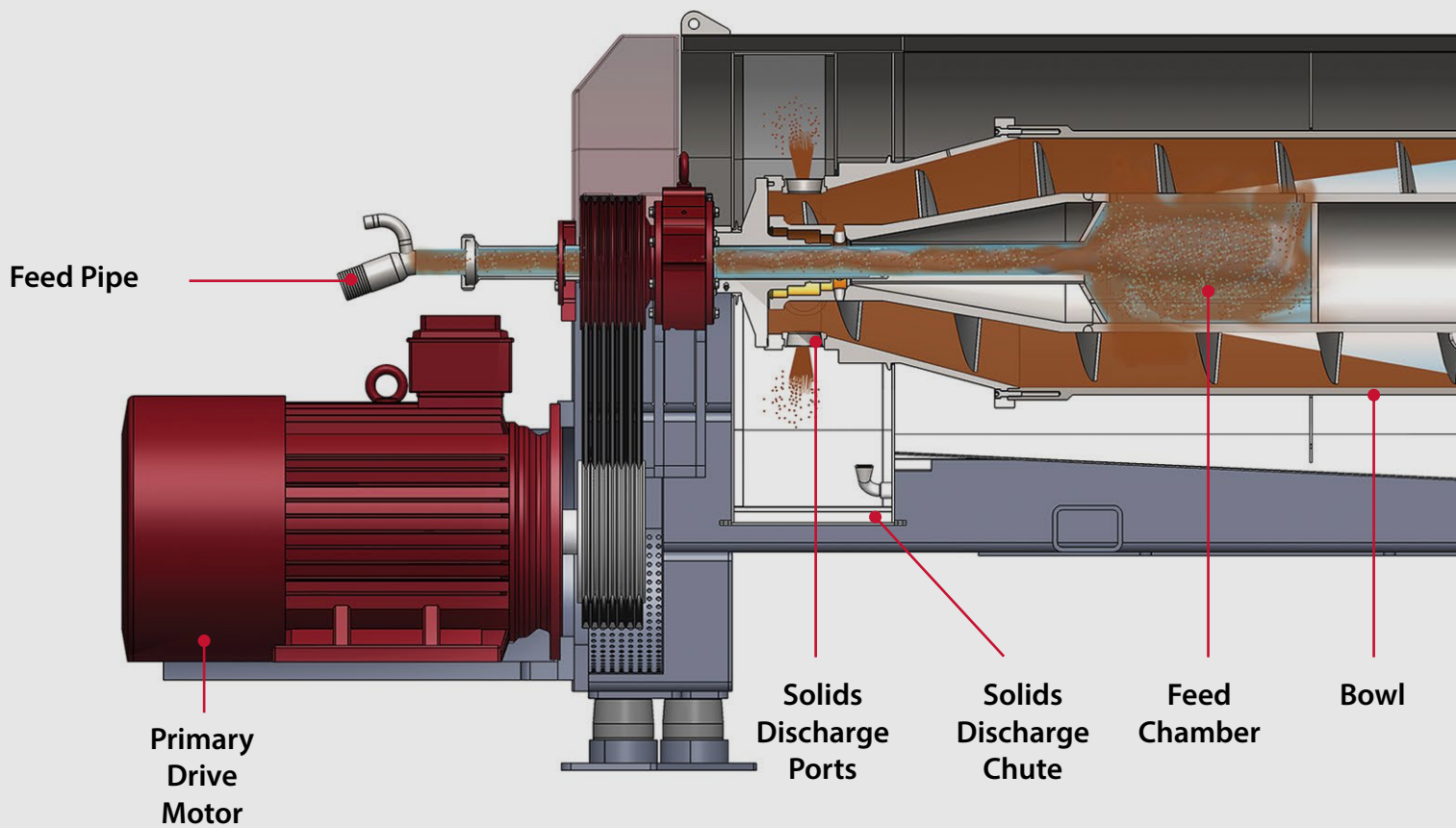




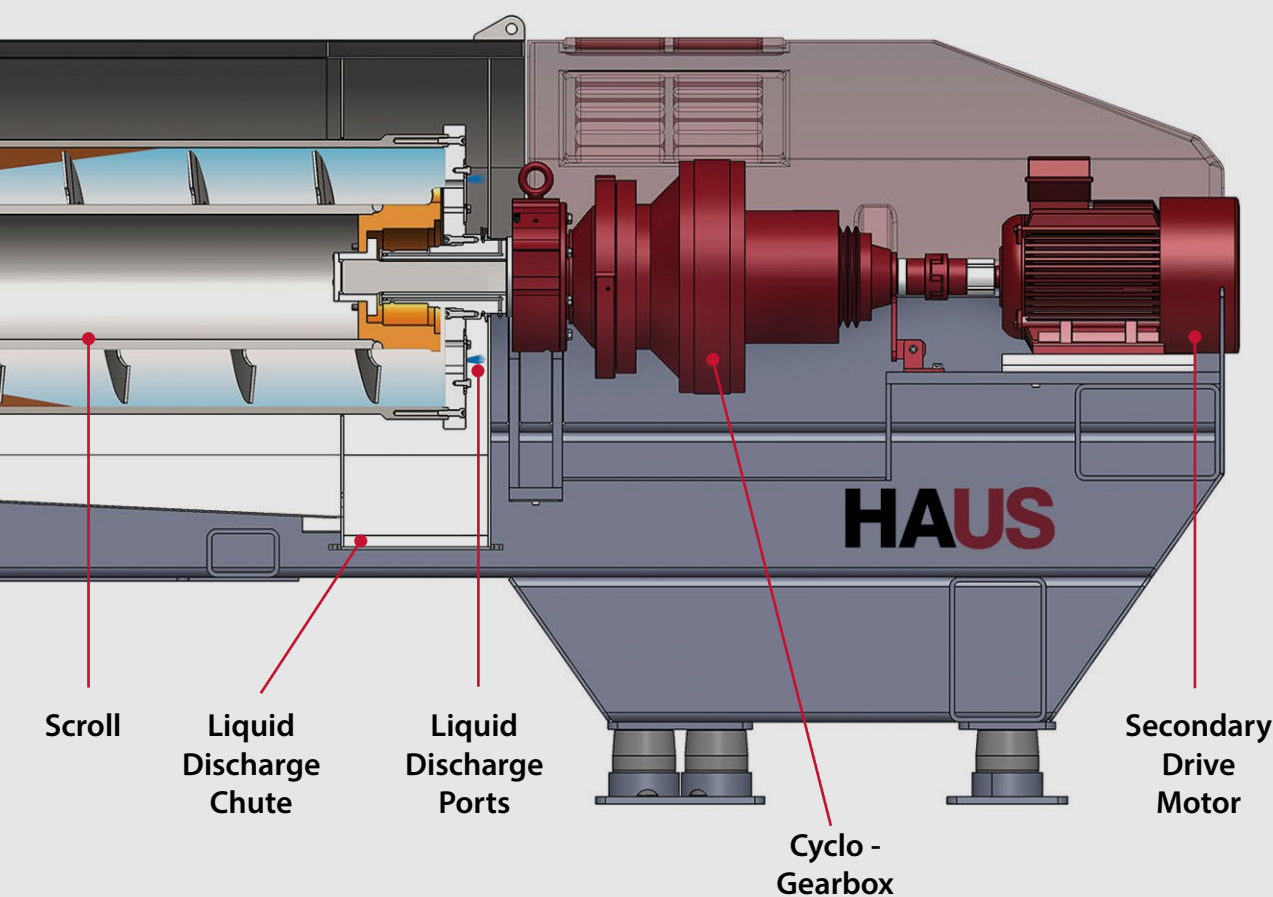


# HAUS DECANTER CENTRIFUGES

## **OPERATING PRINCIPLE**



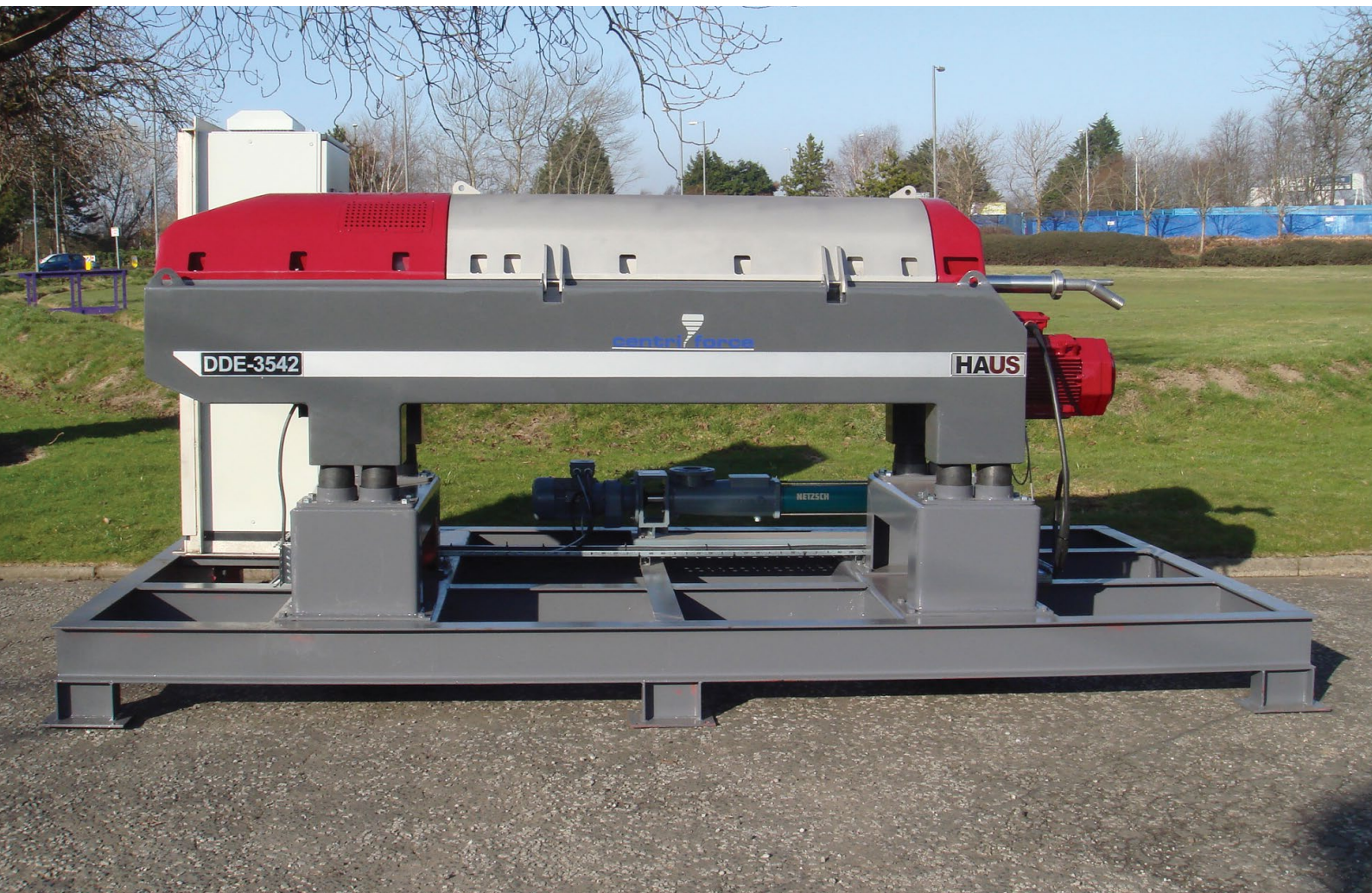




## HOW IT WORKS

The centrifuge comprises a rotating assembly driven by a large electric motor mounted in a secure foundation frame, bolted to the ground through vibration dampers. The rotating assembly itself has two main components: the outer bowl and a screw conveyor. When the centrifuge is run up to operating speed the main drive motor turns the outer bowl at typically 3,500 r.p.m. A secondary motor is connected to the screw conveyor, the scroll, via a cyclo-gearbox. This produces a differential speed between the outer bowl and the scroll, typically between 10 and 20 r.p.m. and has the effect of providing a conveying action inside the rotating assembly.

When the centrifuge is up to speed the sludge, a mixture of solids and liquids, is pumped into centrifuge by an external pump through a feed tube into the feed chamber. The effect of centrifugal forces cause the solids to move towards the outside of the bowl and a separation of solids and liquids occurs. The conveying action of the scroll moves the solids towards the steep angle of the bowl where they are dried and ejected through a number of discharge ports and fall through discharge ports into the discharge chute under gravity. The liquid phase, runs over the weir plates at the other end of the rotating assembly, through the liquid discharge ports into the discharge chute, again by gravity, collected in a tank and pumped away.





### **Materials used in construction**

Forgings are centrifugally spun duplex stainless steel for bowl components. The scroll bodies are 316 stainless as standard with stainless 304 flights.

### **Wear Protection**

Scroll flights are coated with tungsten carbide throughout as standard. Discharge ports have tungsten carbide wear protection. Tungsten or ceramic tiles are available as options.

### **Health and safety**

All centrifuges are CE marked and the design ensures no operator access to moving parts.

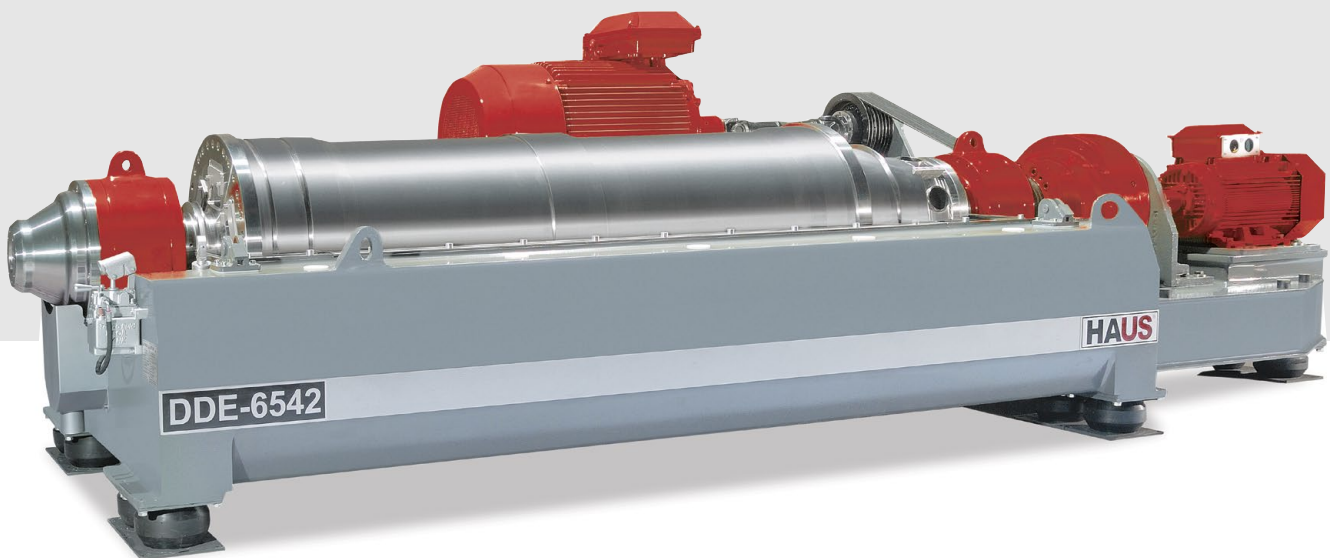
### **Installation and commissioning**

Comprehensive support for installation and commissioning on site from our engineers in the UK. Technical support and service back-up from field service engineers throughout the UK and Ireland.



# HAUS SCROLL DRIVES **RAISING THE BAR**

The main elements of the Rotating Assembly are the outer bowl and scroll (screw conveyor). The outer bowl is accelerated to operating speed by a powerful electric drive motor. The differential speed of the scroll compare to the bowl speed determines the dryness of the cake and the clarity of the liquid centrate by virtue of the residence time in the centrifuge before the cake is conveyed out of the centrifuge. There are a number of scroll options available depending on the application shown on the page opposite:

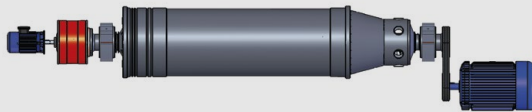






### **Fixed Differential**

This is a relatively simple design and consequently the low cost option. This design is very good where the feed to the centrifuge is relatively constant and homogenous in nature. This means that the differential speed of the scroll requires no adjustment once set.



### **Dual Electric Drive**

This is the HAUS standard design. A second electric motor drives the scroll through the gearbox and controls the differential speed of the scroll. This is managed by proprietary software developed by HAUS. Once the optimal differential speed has been set this is maintained by the software that is constantly monitoring the scroll torque under load. As the torque increases the differential speed will tend to drop but the software recognises this and compensates by increasing the speed of the secondary motor.



### **Hydraulic Back Drive**

With this system the gearbox is replaced with a rotodiff which controls the differential speed through a hydraulic power pack fitted with its own electric motor. This provides a great deal of control over the differential speed of the scroll and is used in applications where it is particularly hard to convey the solids or where the differential speed is critical. This is most costly of the three options.

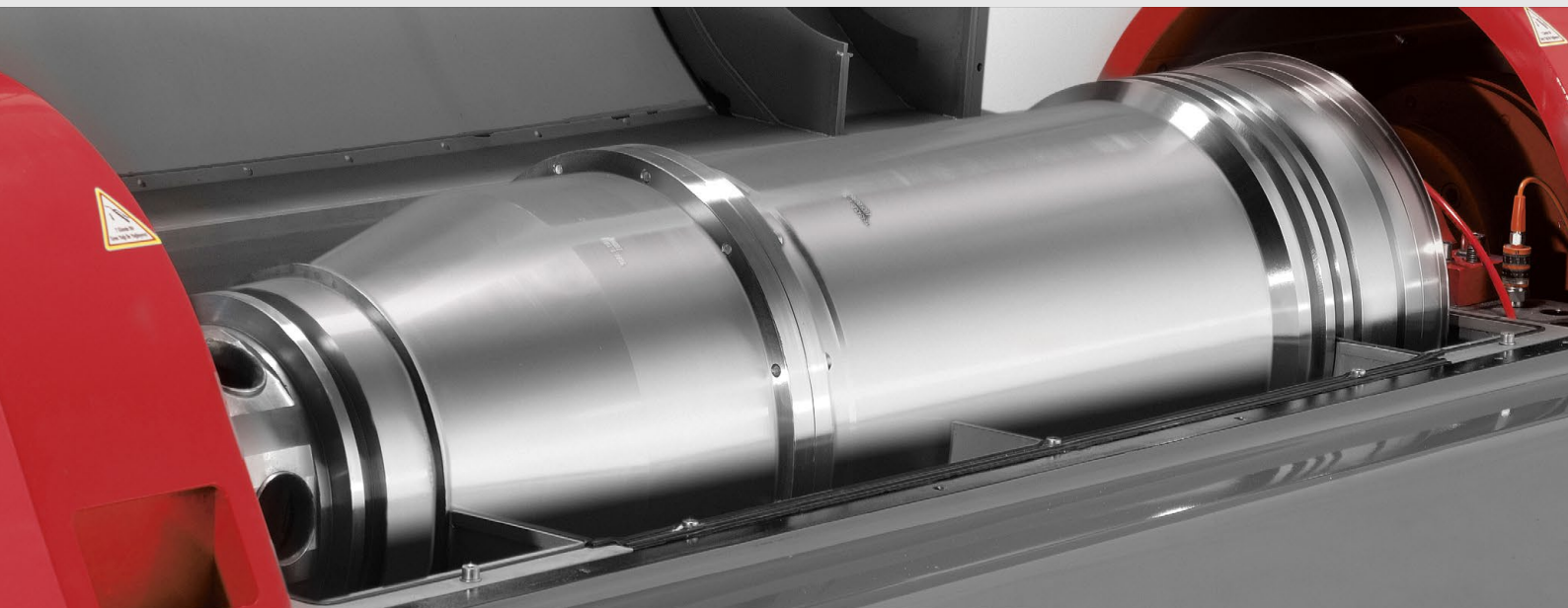






# REASONS TO CHOOSE A HAUS DECANTER CENTRIFUGE FROM **CENTRI-FORCE**:

- Excellent value for money = low cost per tonne processed
- UK leading after care / support at sensible prices
- Rugged design offers ease of maintenance
- Two year defects warranty as standard
- Centrifugally spun duplex bowl components from German foundries. No compromises on quality components
- Range of scroll drive / back drive options:
  - Dual electric drive as standard
  - Single gearbox fixed differential
  - Hydraulic back drive
- State of the art Motor Control Cabinets, Siemens PLC and ABB inverters as standard. Options include Alan Bradley.
- Bearing temperature and vibration sensors as standard.
- On-site service contracts with guaranteed 24 hour response
- All repairs done in-house in the UK. Scroll repairs and balancing in-house by our own engineers i.e. not sent away overseas
- Spare parts available ex-stock at sensible prices
- Technical and process support from HAUS and Centri-Force
- Installation and commissioning services available
- Choice of fixed installation, skid mounted, on mobile trailers, in shipping containers or on fabricated raised platforms.





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