

Pumping Metal Swarf in Automotive Industry

Application market	Industry
Market segment	Swarf & cutting fluid
Pumped medium	Cutting fluid containing metals swarf and abrasive dust
Pump product	Compact
Country	Germany and worldwide



Challenge

Swarf and abrasive dust has to be brought away from metal-cutting machine to a central treatment station. Cooling liquid from machining processes shall be reused. Pumps normally used for such duty often have problems concerning wear, clogging, jamming and, in particular with liquids from grinding processes, air.

Solution

Hidrostat Screw Centrifugal Pumps, specially adapted to the process and the processed material with regard to the hydraulic design and the wear parts used. Standard construction material for pump body and wear parts is, as below mentioned cast iron. If required, wear parts are used in higher-grade materials, such as Hidrohard.

Benefits

A good and efficient method in materials handling is to pump the here described medium through overhead pipe systems. Due to the high hydraulic efficiency of the Hidrostat Pump, energy consumption and thus operating costs are significantly lower than with conventional systems or pumps. Main advantages to alternative systems, such like underground conveyor belts are:

- Shorter construction time
- Space saving
- No conflicts if groundwater is present
- High flexibility in case of later changes and re-arrangement of the machinery

Quantity of units sold	more than 1'500 units overall
Pump type	A2IS2 and others
Motor data	1.5 kW / 2 pole / 50 Hz / 400 V
Material combination	Cast Iron pump body and wear parts
Duty point	Flow : from 3.5 to 10 litres per second / Head : from 5 to 12 meters
In operation since	Early 1996