

HiCone Tender Specifications

Service Item: Eccentric Screw Pump

HiCone® conical eccentric screw pump with a wear-compensating adjustment system, continuous condition monitoring, and a maintenance-friendly service concept for energy-efficient and consistently reliable operation.

Vogelsang HiCone

Sizes 05, 10, 20, 30

Detailed Specifications

- Conical rotor-stator geometry for optimal adaptation of the pump to varying operating conditions
- Adjustable clearance between the rotor and stator to compensate for wear, optimize flow rate and energy efficiency, and adapt to changing operating parameters such as discharge pressure and fluid temperature
- Integrated wear indicator to monitor the condition of the pumping elements and enable early planning of necessary service work
- Maintenance-friendly design with a service concept
- Operation and monitoring of key pump functions directly on the machine or via the higher-level plant control system
- Machine pre-assembled, including factory testing and factory commissioning

Requirements for reducing energy consumption, wear, and maintenance effort

To achieve energy- and wear-optimized operation, the eccentric screw pump must be equipped with a system for adjusting the rotor-stator clearance, which allows the required clearance to be set as low as possible in order to achieve low power consumption while maintaining reliable flow rate.

The following must be included at a minimum:

- System for adjusting the rotor-stator clearance
- Condition and wear monitoring for early detection of the need for service intervention

Operating Conditions

The design of the eccentric screw pump must be based on the following operating data.

Fluid	_____
Flow rate:	_____ m ³ /h
Viscosity:	_____ mPas
Temperature:	_____ °C

Solids content:	_____ % DS (dry solids)
Max. particle size:	_____ mm
Density:	_____ kg/m ³
pH value:	_____
Operating pressure:	_____ bar
Suction-side pressure:	_____ bar
Discharge-side pressure:	_____ bar
Head:	_____ m
Operating hours	_____ h/d

Technical Specifications

The eccentric screw pump must be designed with the following technical specifications:

Materials

Casing parts in contact with the medium:	Steel, KTL-coated
Connections:	Steel, KTL-coated
Suction casing coating:	KTL-coated
Rotor:	1.2436, vacuum-hardened
Stator:	NBR
O-rings in contact with the medium:	NBR

Designs

Shaft seal:	SiC/SiC mechanical seal (single-acting)
Seal chamber:	Unpressurized seal chamber (quench)
Stator adjustment:	Manual
Joint design:	Universal joint
Joint seal:	Sleeve

Pump connections

Inlet standard:	PN 16, EN 1092-1/11 & 150 lbs, ASME
Inlet size:	DN _____
Outlet standard:	PN 16, EN 1092-1/11 & 150 lbs, ASME
Outlet size:	DN _____

Drive

Helical gear motor

Manufacturer: NORD Gear

Type: _____

Rated power: _____ kW

Rated speed: _____ min⁻¹ at 50 Hz

Protection class: IP55

Insulation class: F

Mounting position: M6 (flange)

Winding protection: 3 cold-wire temperature sensors

Winding type: 3-phase/230 V/400 V/50 Hz

Energy efficiency class: IE3

The drive motor is directly flanged.

The paint finish is to be applied as follows: RAL 3020 traffic red or project-specific custom paint finish: RAL _____

Complete machine

- Unit weight = _____ kg
- Dimensions L x W x H = _____ mm x _____ mm x _____ mm

Deliver eccentric screw pump as described above

Quantity: _____

Unit price: _____ €

Total price: _____ €