



CYCLO-HYDRAULIC DRIVE FOR CENTRIFUGES

CENTRIFUGE DRIVE ZS-H

Robust Cyclo technology combined with a reliable hydraulic axial piston motor

- Suitable for centrifuges of all types — with a leading AND trailing scroll
- Operation at extremely low differential speeds close to 0 rpm up to 60 rpm
- Low energy consumption and cost-effective operation of the centrifuge via a purely motor-driven scroll
- Drum and rotor adjustable and driven independently from each other

Centrifuges are often used in wastewater treatment, in the petro-chemical industry and in waste treatment and disposal technology, for example, to separate liquid and solid substances, recover raw materials and compress waste and sludge. The drives in such centrifuges must have a high load capacity, while being low-maintenance and operable with minimal energy consumption.

The ZS-H centrifuge drive combines the Cyclo principle with a reliable hydraulic axial piston motor, which ensures the high operational safety of the centrifuge. Cyclo technology represents a long lifetime and impact load tolerance, and by extension, low downtime and maintenance costs. The housing is balanced and optimised for quiet and low-vibration operation in centrifuges.

Different types of processing material, even with constantly changing solid content, can be processed without a problem: The centrifuge can be operated from extremely low differential speeds close to 0 rpm up to 60rpm; the drum and rotor are adjustable and are driven independently from each other.

The scroll is purely motor-driven, i.e. there is no reactive power between the drum and scroll drive. This means the motor can be downsized, as no energy recovery is required. This enables the energy-efficient and cost-effective operation of the centrifuge.

Features and advantages

- 9 sizes from 4 000 Nm to 30 000 Nm maximum torque, suitable for small laboratory quantities ranging to large industrial quantities
- If the centrifuge becomes "blocked" during the separation process, the rotor can be unclogged quickly and cleanly in both directions by changing the flow direction on the hydraulic unit.
- Primed with AC protective coating (black)
- Low-resistance rotating union in three different designs to supply the drive with hydraulic oil — low wear and low power loss
- For centrifuge models with external drives. For centrifuges with internal drives, please contact us. Design according to individual customer specifications possible.
- ATEX certification in accordance with Group II on request

Type ZS-H	Scroll torque T _N [Nm]	Scroll torque T _{Max.} [Nm]	Differential rotation speed [rpm]	Max. differential speed [rpm]*	Theoretical specific torque [Nm/bar]	Hydraulic pressure [bar]	Max. hydraulic pressure [bar]*	Geom. displacement volume [ccm/rev]
ZS618H-21/71.03	4000	5000	3 – 20	40	20	200	250	70
ZS619H-21/100.06	6800	8000	5 – 30	60	27	250	290	99
ZS619H-29/100.06	6000	8000	4 – 22	44	38	180	210	99
ZS619H-43/71.03	5500	8000	1.5 – 10	20	40	160	200	70
ZS621H-29/125.12	9700	12650	5 – 30	60	48	200	260	127
ZS621H-43/100.06	9000	12650	2.5 – 15	30	56	160	225	99
ZS623H-43/100.12	12200	20500	4 – 22	35	72	170	285	127
ZS624H-59/100.12	16900	23000	2 – 16	25	77	220	300	99
ZS625H-59/125.12	19700	30000	2 – 16	25	99	200	300	127

*max. 6 min/h

Type ZS-H	Motor power P _N [kW]	Max. motor power P _N [kW]	Nominal motor speed [rpm]	Max. motor speed [rpm]*	Reduction ratio	Drum speed [rpm]	Weight [kg]
ZS618H-21/71.03	9	11	425	850	21	4000	190
ZS619H-21/100.06	22	26	635	1270	21	3500	250
ZS619H-29/100.06	18	19	636	1270	29	3500	250
ZS619H-43/71.03	7	9	425	850	43	3500	240
ZS621H-29/125.12	32	42	950	1900	29	3000	320
ZS621H-43/100.06	15	21	635	1270	43	3000	300
ZS623H-43/100.12	30	50	950	1500	43	2600	500
ZS624H-59/100.12	30	41	950	1500	59	2400	600
ZS625H-59/125.12	38	53	950	1500	59	2200	760

*max. 6 min/h