

FUSING HIGH EFFICIENCY AND COMPACT DESIGN FOR MAXIMUM PERFORMANCE AND EFFORTLESS OPERATION

Centrifuges are used to process unweighted and weighted, water-based and oil-based drilling fluids (muds). The HS-3400 series centrifuge uses high G-forces to separate fine solids from liquid. Four models are available:

- HS 3400 FS
- HS 3400 FVS
- HS 3400 VSD
- HS 3400 VS

The HS-3400 series centrifuge is fed from the solids end of the conveyor. Mud is introduced into the feed chamber through a feed tube and exits into the bowl via four (4) nozzles. The HS-3400 FS is able to exert up to 2,275 G's on the mud, while the HS-3400 VSD, HS-3400 FVS, and the HS-3400 VS are able to exert up to 2,100 G's.

The HS-3400 FS is a fixed speed drive unit, whereas the HS-3400 FVS and HS-3400 VS are equipped with variable frequency drive (VFD) control, which provides a controlled application of motor drive power to the centrifuge components (bowl, conveyor and feed pump). Customized hardware and software packages can be designed to meet specific installation and operational requirements.



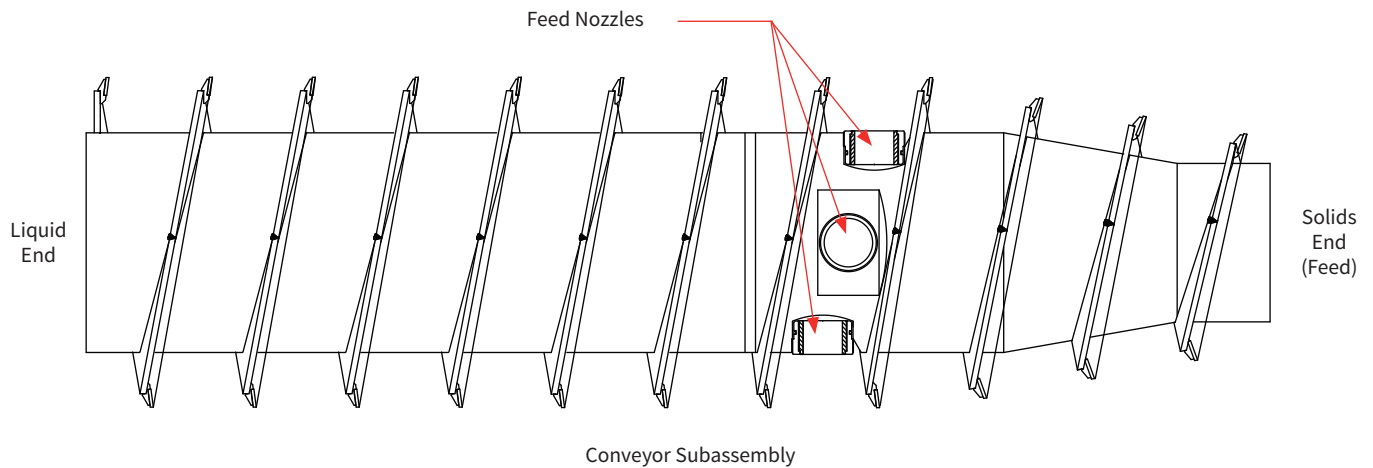
HS-3400 FS

The HS-3400 VSD is a hydraulically-driven unit with a variable speed bowl drive. The HS-3400 FVS is electrically-driven, with both the bowl drive and conveyor equipped as variable speed. The HS-3400 VSD and HS-3400 FVS centrifuges offer increased operational flexibility in situations where conditions vary.

With a processing capacity up to 250 gal/min (946 L/min), the HS-3400 series centrifuge offers outstanding performance over a wide range of drilling applications and conditions. Contact your NOV sales representative for more information.

FEATURES	BENEFITS
Up to 250 gal/min (946 L/min) maximum processing capacity	Ample capacity for utilization in a variety of drilling applications and conditions (water)
52:1 ratio planetary gearbox	Provides for a reduced motor size
Feed from solids end	Provides a short feed tube with less vibration
Variable frequency drive (VFD) control (HS-3400 FVS)	Permits easy adjustment of bowl, conveyor and feed pump speeds for varying process conditions and also provide torque overload protection
Bowl and heads manufactured of stainless steel	Provides corrosion resistance for long life, smooth operation and low maintenance
Stainless steel case	Offers high strength and corrosion resistance
Entire scroll fitted with sintered tungsten carbide tiles	Offers abrasion resistance for maximum operational life and low maintenance
Flush connections	Aids in cleaning excess material from inside the case
Case gaskets	Retains process materials within the case to prevent spills or leaks.
Vibration switch shut-off mechanism (HS-3400 FS, HS-3400 FVS, HS-3400 VS)	Automatically disables operation in situations of high vibration
Case baffle gasket	Keeps separated streams apart
Torque overload mechanism (HS-3400 FS, HS-3400 VSD)	Shuts down both the centrifuge and feed pump in overload situations due to blockage
Roller and ball bearings	Offers long life and low maintenance
Sturdy WF-beam skid	Supplies a solid foundation for smooth operation
Four (4) tungsten carbide solids discharge nozzles	Offers an abrasion-resistant exit of solids from the bowl to discharge. These nozzles are also cost effective during refurbishment as they can simply be replaced rather needing costly repairs.
Four (4) epicentric orifices	Allows for high discharge flow rate and easy adjustment of the pond depth
Chute style discharge for solid and liquid ends	Allows for high-capacity processing

BRANDT™ HS-3400 Centrifuge



Nominal Specifications and Dimensions

GENERAL	HS-3400 FS	HS-3400 FVS	HS-3400 VSD	HS-3400 VS
Length	98.4 in (2500 mm)	124.2 in (3154 mm)	98.4 in (2500 mm)	98.4 in (2500 mm)
Width	69 in (1753 mm)	69 in (1753 mm)	69 in (1753 mm)	69 in (1753 mm)
Height	60 in (1524mm)	60 in (1524mm)	60 in (1524mm)	60 in (1524mm)
Weight "Dry"	6,623 lbs (3004 kg)	5,537 lbs (2512 kg)	7,814 lbs (3,545 kg)	6,623 lbs (3004 kg)
Bowl Diameter	14 in (356 mm)	14 in (356 mm)	14 in (356 mm)	14 in (356 mm)
Bowl Length	49.5 in (1257 mm)	49.5 in (1257 mm)	49.5 in (1257 mm)	49.5 in (1257 mm)
Bowl Speed	886 to 3383 RPM	450 to 3250 RPM	1500 to 3250 RPM	450 to 3250 RPM
Maximum Processing Capacity (water)	250 gal/min (946 L/min)	250 gal/min (946 L/min)	250 gal/min (946 L/min)	250 gal/min (946 L/min)
Drive Type	Electric	Electric	Hydraulic	Electric
Maximum G-force	156 to 2275 G	40 to 2100 G	447 to 2100 G	40 to 2100 G
ROTATING ASSEMBLY				
Conveyor Pitch	4.25 in (108 mm)	4.25 in (108 mm)	4.25 in (108 mm)	4.25 in (108 mm)
Conveyor Type	Single	Single	Single	Single
Feed Chamber Discharge Type	4 Nozzles	4 Nozzles	4 Nozzles	4 Nozzles
Gearbox Type	Two-stage, Planetary	Two-stage, Planetary	Two-stage, Planetary	Two-stage, Planetary
Gearbox Ratio	52:1	52:1	52:1	52:1
POWER REQUIREMENTS				
Bowl Drive Motor	40 hp (30 kW)	40 hp (30 kW)	40 hp (30 kW)	40 hp (30 kW)
Conveyor Drive Motor	N/A	25 hp (18.6 kw)	N/A	N/A