

## S4-1-H CO-CURRENT CENTRIFUGE

The S4-1-H co-current centrifuge is a large high-speed decanting centrifuge made with high strength carbon steel parts for the processing of flocculated waste muds. The S4-1-H has a 900mm diameter x 2700mm long bowl with variable speed drive running on two main bearings with pumped oil lubrication. The centrifuge is carried on a base frame fitted with anti-vibration rubber pads.

The machine is equipped with an inverter controlled electric variable speed drive powered by a 75kW motor for the bowl and an independent variable speed hydraulic 112D ROTODIFF drive powered by a 30kW electro-hydraulic power pack. The unit is supplied with Seepex variable speed feed pump, flowmeter, control panel, air blast cooler for the single start scroll, air blast cooler for the bearing lubrication oil, solids discharge screw conveyor and twin 15 metre long armoured power cables.

The S4-1-H co-current centrifuge consists of three units, the centrifuge unit measuring 5600x2500x2600mm high, the centrate collection tank (if required) and the feed pump. In operation the centrifuge module with sub-frame and solids discharge conveyor can be mounted directly on the ground or on a separately supplied centrate collection tank, so that the complete machine requires a working footprint of 7.1m x 4.0m and stands 2.6m high (without centrate collection tank). The S4-1-H co-current centrifuge is normally fed by a Seepex variable speed positive displacement eccentric screw feed pump. The rate of mud or fluid feed to the centrifuge is controlled by altering the speed of the feed pump. The bowl is fitted with adjustable discharge ports.

The centrifuge unit is fitted with a solids discharge screw conveyor which discharges above ground level. Normally the separated solids from the conveyor would discharge on to the ground for removal by back-hoe or front-end loader or would discharge into a skip, positioned adjacent to the centrate collection tank module or alternatively the solids could feed onto a separate conveyor system.



The mud feed pump and the centrate discharge pipe are both fitted with 150mm PN16 flanges.

### TECHNICAL DATA:

|                           |                   |   |
|---------------------------|-------------------|---|
| <b>Centrifuge module:</b> | Dimensions:       | 6050x2500x2600mm high.  |
|                           | Weight:           | 18 tonnes.  |
|                           | Power:            | 122 kW.   |
|                           | Starting current: | Approximately 300 Amps.   |
|                           | Running current:  | Approximately 200 Amps.   |
| <b>In Operation:</b>      | Working weight:   | 15 tonnes   |
|                           | Working size:     | 6 x 3.5 x 5.6 m high plus feed pump.  |
| <b>Flowrate capacity:</b> |                   | Up to 45m <sup>3</sup> /hr for flocculated slurry.  |
| <b>Solids removal:</b>    |                   | Up to 8 tonnes/hr of flocculated solids.  |
| <b>G force:</b>           |                   | Up to 1000 'G'.   |
| <b>Power:</b>             |                   | The unit requires a 415V, 3-phase and earth, 50Hz electrical supply, no neutral is required. Starting current for the unit is 300A, full load current is 300A per phase. A 180KVA generator would normally be required to run the S4-1-H co-current centrifuge. |
| <b>Solids discharge:</b>  |                   | By screw conveyor discharging from beneath the centrifuge.  |
| <b>Fluids discharge:</b>  |                   | Centrate discharge pipe is fitted with a 150mm PN16 flange.   |