SpinTek ST-II-25

Rotary Membrane System for Ultra- and Microfiltration



SpinTek's Membrane Products Group specializes in solutions for waste and process streams formerly considered untreatable.

General

The SpinTek[™] ST-II-25 is a compact cross flow membrane system that utilizes the unique SpinTek process of centrifugal action and shear force to prevent membrane fouling common to conventional systems. The ST-II-25 has wide open channels, uninhibited by mesh type turbulence promoters, allowing the system to process a wide variety of viscous solutions containing moderate to high solids.

The membranes can be easily removed from the system for inspection after testing or operation. The ST-II-25 membrane surface can be fully inspected unlike most other membrane systems.

Membranes

The ST-II-25 can use a wide variety of stainless steel membranes. Stainless steel membranes are available in pore sizes from 0.1 to 10 microns. SpinTek can install custom or prototype membranes on SpinTek ST-II-25 disks.

Controls and Instrumentation

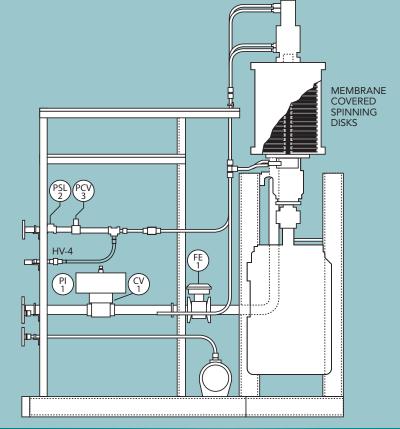
The SpinTek ST-II-25 is fully instrumented and automated for production use or pilot testing. The ST-II-25 controller is simple to operate with a NEMA 4 rated panel, lights and switches. Explosion proof ratings are also available.

The standard control system includes full PLC

<u>Membrane</u>

KEY BENEFITS

- Rotary and high shear action
- Concentrate up to 60% solids
- Suitable for hazardous waste streams
- Handles high level radioactive waste (HLRW) and low level radioactive waste (LLRW)
- Variety of pore sizes available
- Durable stainless steel membranes for long life
- Explosion proof (optional)
- 316 stainless steel construction
- Stainless steel membranes are available in pore sizes from 0.1 to 10 microns.





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Stainless steel membranes are available in pore sizes from 0.1 to 10 microns for microfiltration and ultrafiltration.

control with an operator interface terminal for setpoint entry. Instruments include a variable frequency drive with power output, a feed pressure transmitter with PID pressure control, temperature transmitter and heat exchanger for full temperature control. Alarms are provided for customer specifications. The ST-II-25 rotor motor has a variable speed from 0 to 1200 rpm. Special instrumentation can be provided upon request.

Construction

The ST-II-25 is built to process an extensive range of feed solutions. To meet the stringent requirements of

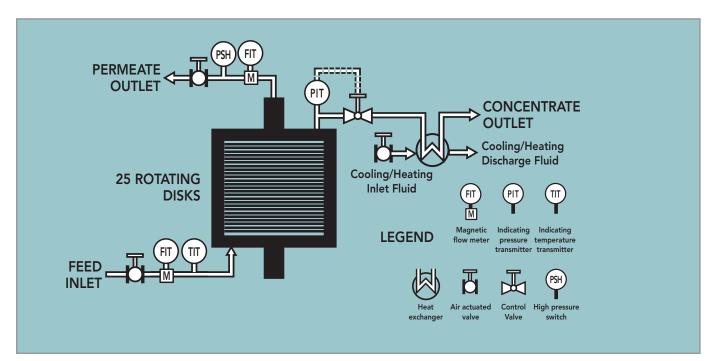
industrial filtration, all wetted parts of the ST-II-25 are manufactured of 304 SS standard. 316 SS, PTFE and Viton are optional. Special systems can be manufactured with alternate alloys and elastomers.

All components of the system are rated for operation at 100 psig that allows for the use of microporous and ultrafiltration membranes.

S P E C I F I C A T I O N S

Membrane			Connections		Rotor Motor Skid		tid
Qty	Total Area ft² (m²)	Feed Pipe Size	Concentrate Pipe Size	Permeate Pipe Size	hp (kW)	Size LxWxH in (cm)	Weight Ibs (kg)
25	25 (2.3)	1½"	1½"	1"	25 (18.75)	48x64x84 (122x163x213)	1500 (680)

PROCESS AND INSTRUMENT DIAGRAM



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