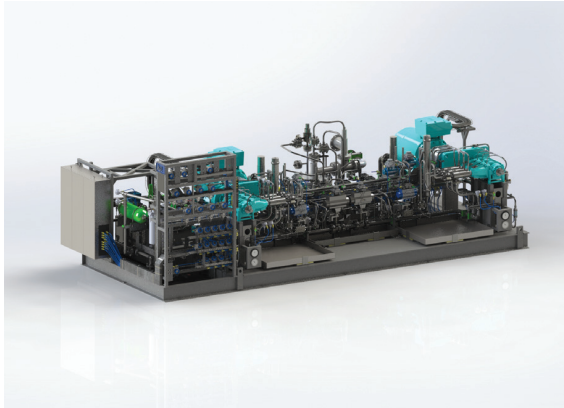


Model MSP-SL

High Flow/High Pressure Pumps

For Marine Applications



Specifications

Flow Rate	1 – 31 m ³ /h
Pressure	200 – 414 bar
Suction Pressure Req'd	4 bar (above saturation pressure)
Power Required	50 – 300 kW

Model	Dimensions (LxWxH)	Weight
DNS-100	5500mm x 2700mm x 2000mm	10000 kg
DNS-150	5500mm x 2700mm x 1900mm	10000 kg
DNS-200	5500mm x 2700mm x 1900mm	11000 kg
DNX-100	6700mm x 2700mm x 1900mm	14000 kg
DNX-150	6700mm x 2700mm x 1900mm	14000 kg
DNX-200	5500mm x 2700mm x 2300mm	13000 kg
DVX-100	6700mm x 2700mm x 2300mm	15000 kg
DVX-150	6700mm x 2700mm x 2300mm	15000 kg
SNS-100	3400mm x 2700mm x 1900mm	7500 kg
SNS-150	3400mm x 2700mm x 1900mm	7500 kg
SNX-100	4800mm x 2700mm x 1900mm	9500 kg
SNX-150	4800mm x 2700mm x 1900mm	9500 kg
SVX-100	4800mm x 2700mm x 2300mm	10000 kg
SVX-150	4800mm x 2700mm x 2300mm	10000 kg

Consult Nikkiso ACD engineering to confirm available sizes and ratings.

Features & Benefits

- Electric drive system for simple and reliable flow control (no HPU required)
- Total system redundancy
 - 100% pump redundancy
 - 100% valve and instrumentation redundancy
 - 100% drive system redundancy (motors and VFDs)
- Up to 10-to-one turndown ratio
- Compact foot print for ease of installation and reduced space claims

High Pressure Fuel Pump System

- Over 50 LNG fueled ships operate with ACD pumps, more than any other brand
- Class approvals ABS, BV, DNV, LR
 - Designed for all shipboards applications
 - Meets all ME-GI requirements
 - MSP-GU and MSP-SL marine pumps are derived from over 40 years in Enhanced Oil Recovery applications, the most strenuous and demanding of any HP pump application.
 - MSP-GU and MSP-SL pumps are built in the USA and the systems are assembled in either Korea or China, depending on the customer's location and needs

Typical Scope of Supply

- High pressure pumps, gearbox or beltbox, and electric motors on a common steel skid.
- Forced lubrication system for longer lifetime for pump drive operation
- All necessary valves and instrumentation for proper functionality and classification society compliance.
- Variable Frequency Drives for high pressure pump motors
- Several standard options are available upon request including Control Panels, High Pressure Control Valves, and spare components.