

KUBOTA High Pressure Pump / Booster Pump for RO Desalination Plant



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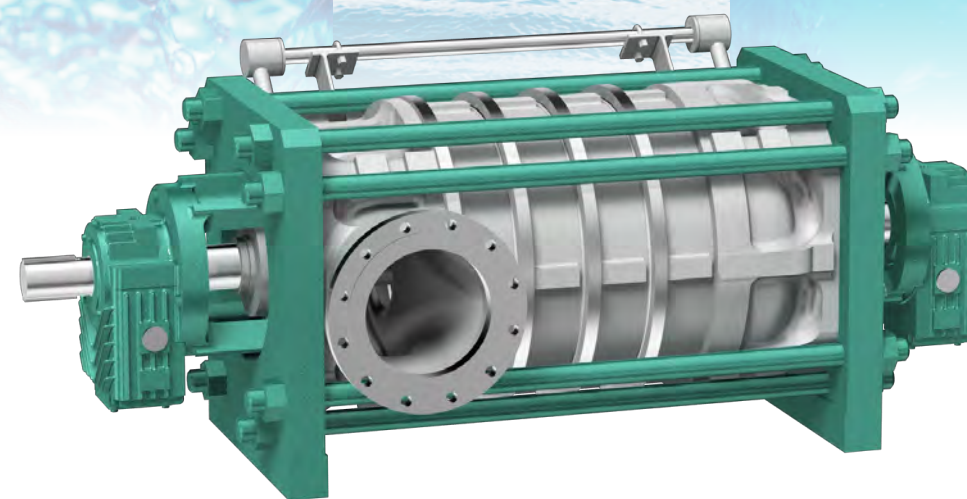
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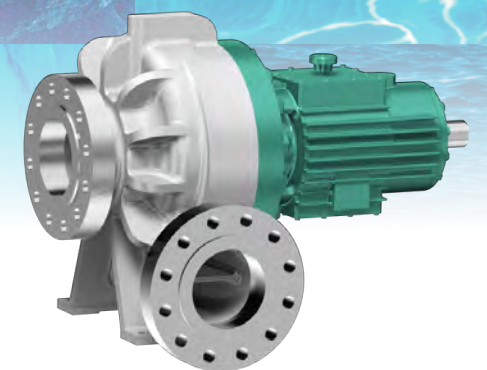
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Model : MR-S



Model : DS-VR

High Pressure Pump

The most advanced technology based on we developed newly

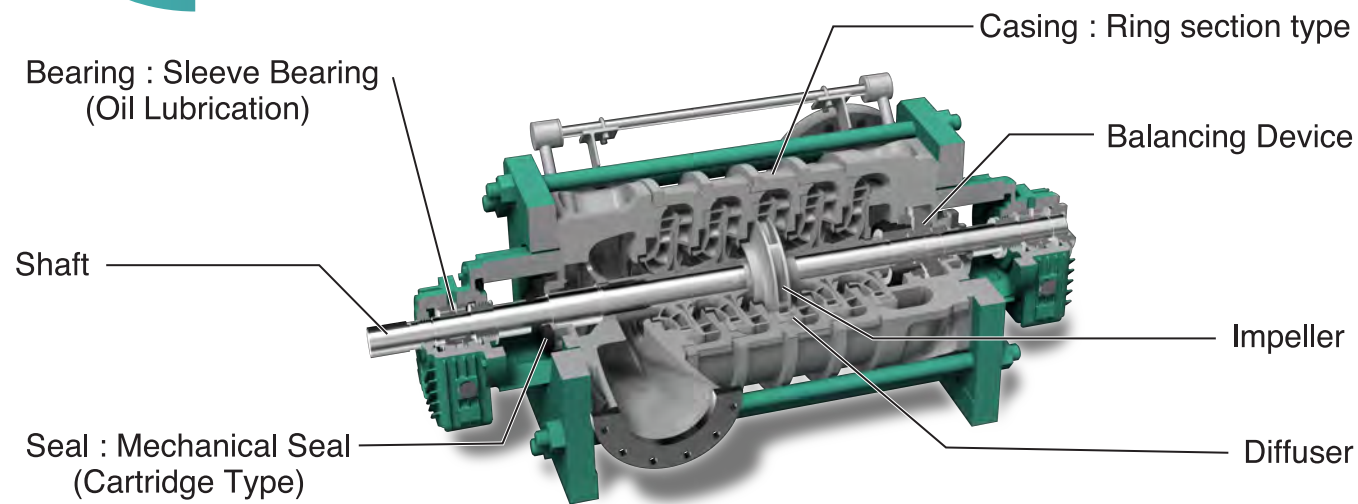
for RO Desalination Plant

our long experience is applied to RO High Pressure Pump, and improved model especially for RO desalination plant application.

Construction

MR-S

Material (Super) Duplex Stainless Steel



Features

- High Efficiency** ▶ Saving operation cost
 - New hydro design by CFD
 - repeated performance test
 - Most optimized design and shape
- Simple / Compact** ▶ Saving capital cost
 - Ring Section Type; compact design by divided minimum flange size.
 - Reduced casing trunk diameter by an advanced fluid design technology while improving pump efficiency
- High-reliability** ▶ Achieving long time stable operation
 - (Super) Duplex stainless steel with high corrosion resistance is adopted
 - Analysis by FEM and endurance test
 - High performance carbon fiber reinforced PEEK bushing
- Easy maintenance** ▶ Saving maintenance cost
 - Axially-Splittable bearing components.
 - Balancing Device and Mechanical Seals without dismantling pipes

Achieve Low LCC (Life Cycle Cost)

Application

High pressure RO feed

Water transmission

Specification

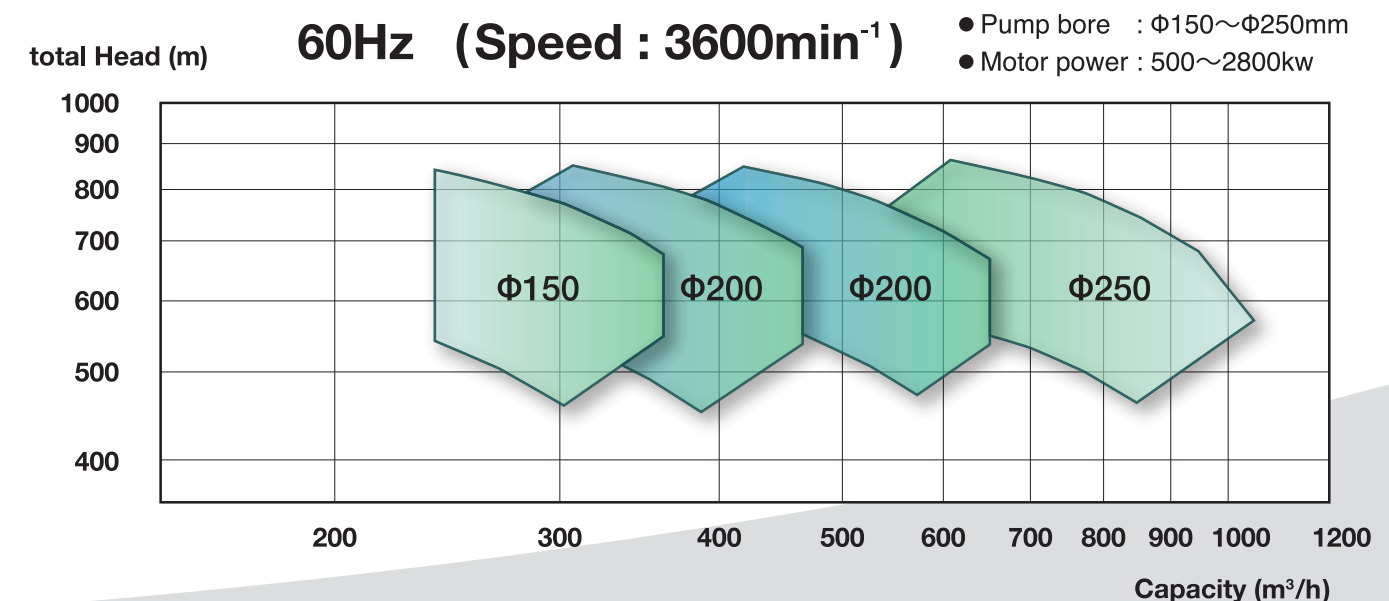
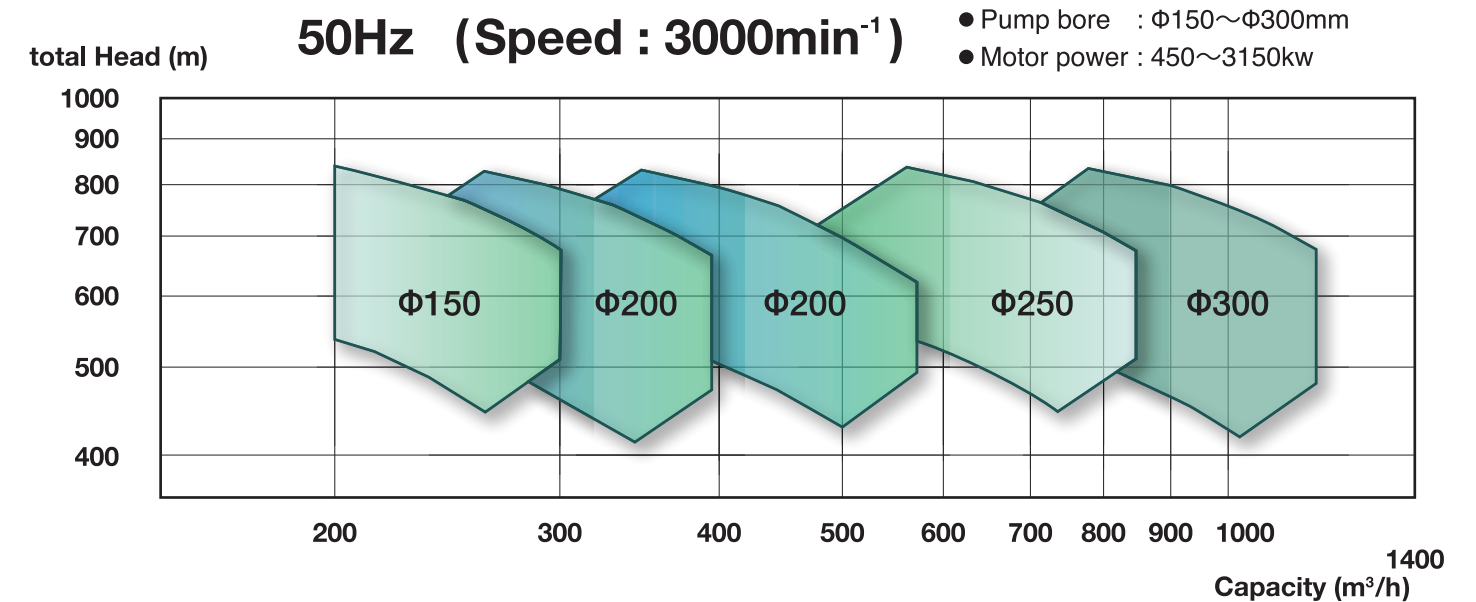
Materials

	Standard Material
Casing	Super Duplex / Duplex Stainless Steel
Impeller	Super Duplex / Duplex Stainless Steel
Diffuser	Super Duplex / Duplex Stainless Steel
Shaft	Super Duplex Stainless Steel

Specification

	Standard
Liquid	Seawater
Flange	ISO , ANSI
Seal	Mechanical Seal (Cartridge Type)
Bearing	Sleeve Bearing (Oil Lubrication)

Selection Charts



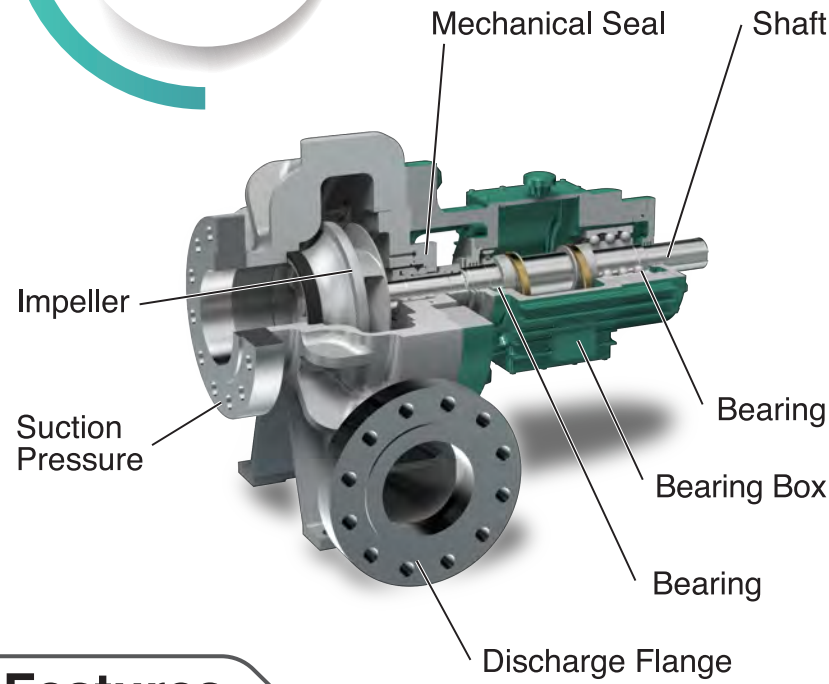
Booster Pump for RO Desalination Plant

We developed newly improved Booster Pump
The efficiency of Kubota High

with high efficiency specially designed for RO desalination plant.
the total RO Desalination Plant can be maximized by installing Pressure Pump and other pumps related to RO desalination.

Construction

DS-VR



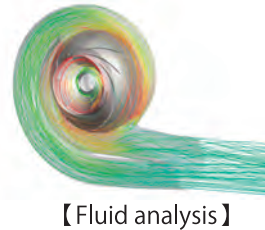
Bore size	Φ200 / Φ250 / Φ300 / Φ350
Capacity	350 ~ 1700m ³ / h
Total Head	20 ~ 65m
Suction Pressure	400m ~ 700m
Efficiency	84 ~ 85%
Speed	1050 ~ 1500min ⁻¹ *

* VFD driven

Features

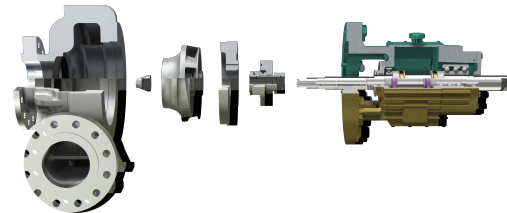
1 High Efficiency ▶ Saving Operation Cost

- Class Leading Efficiency more than 84% is achieved by combination of new diagonal flow impeller and volume casing, designed by using CFD modelling method.
- The leakage from the impeller is minimized by decreasing the clearance between the impeller and the casing.



2 Easy maintenance ▶ Saving maintenance cost

- “Back Pull Out” structure - no need to dismantle pipes for maintenance.
- Mechanical seal is assembled like a cartridge - no delicate adjustment is required, which is also suitable for seawater and high pressure.
- Simple design without small piping.



3 High-reliability ▶ Long time stable operation

- Super Duplex stainless steel with high corrosion resistance is adopted.
- Combination of angular contact ball bearing and oil ring enables stable running.
- Analysis by FEM and repeated endurance test.

Specification

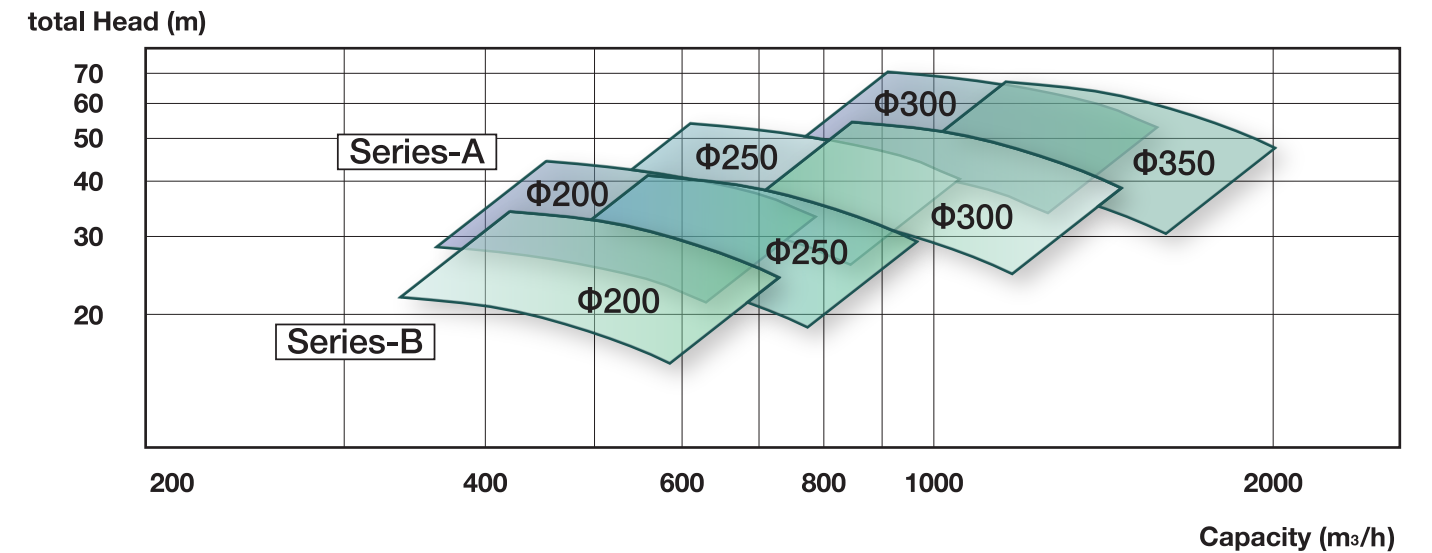
Materials

	Standard Material
Casing	Super Duplex / Duplex Stainless Steel
Impeller	Super Duplex / Duplex Stainless Steel
Shaft	Super Duplex Stainless Steel

Specification

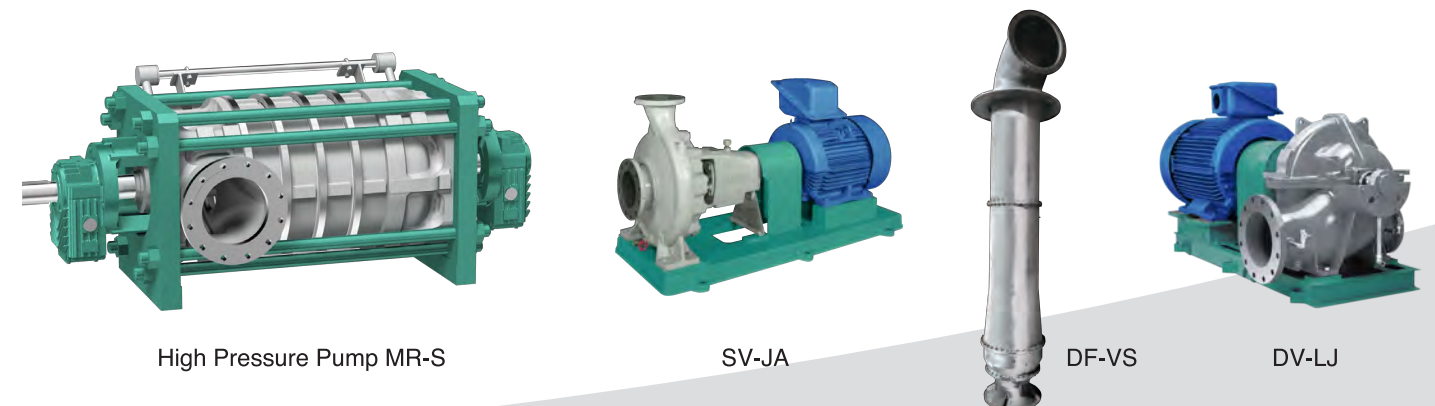
	Standard
Liquid	Seawater
Flange	ISO , ANSI
Seal	Mechanical Seal
Bearing	Roller / Ball

Selection Chart



Best efficiency when installed with

Kubota High pressure pump MR-S and other pumps related to RO desalination



Achieve Low LCC (Life Cycle Cost)