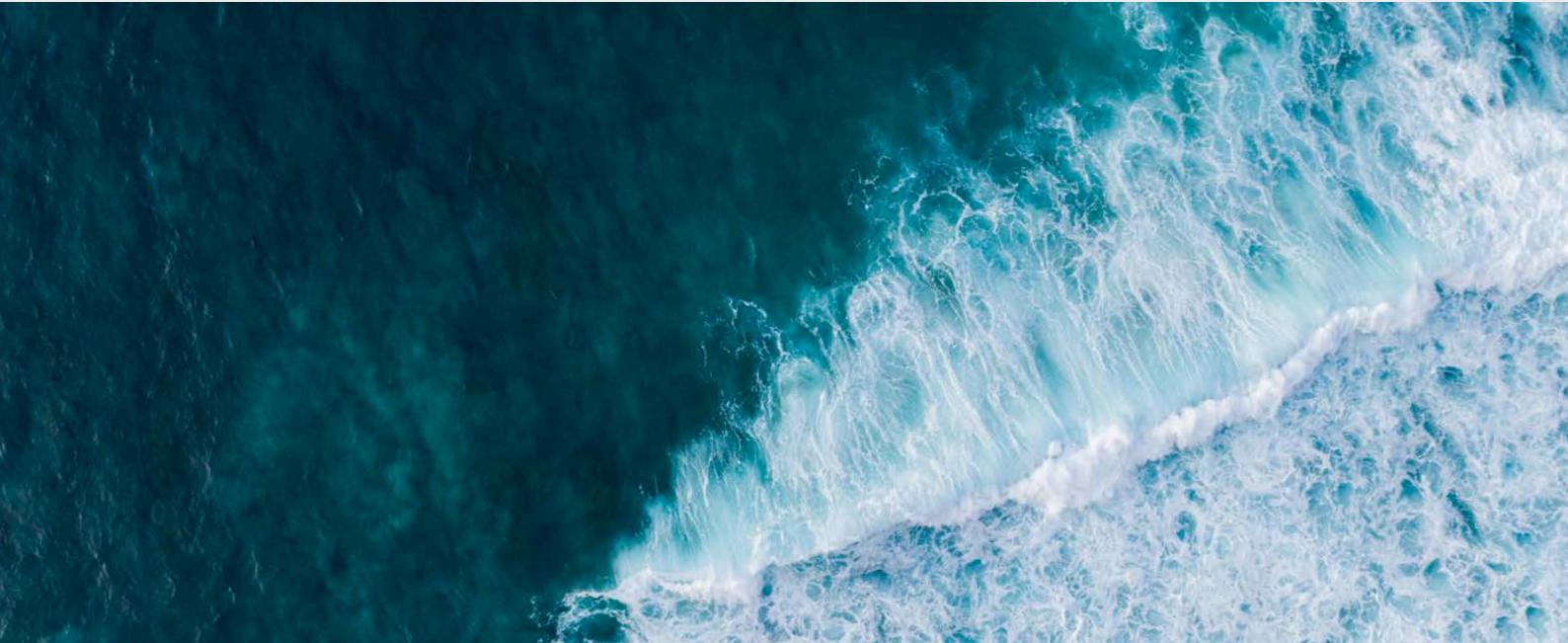
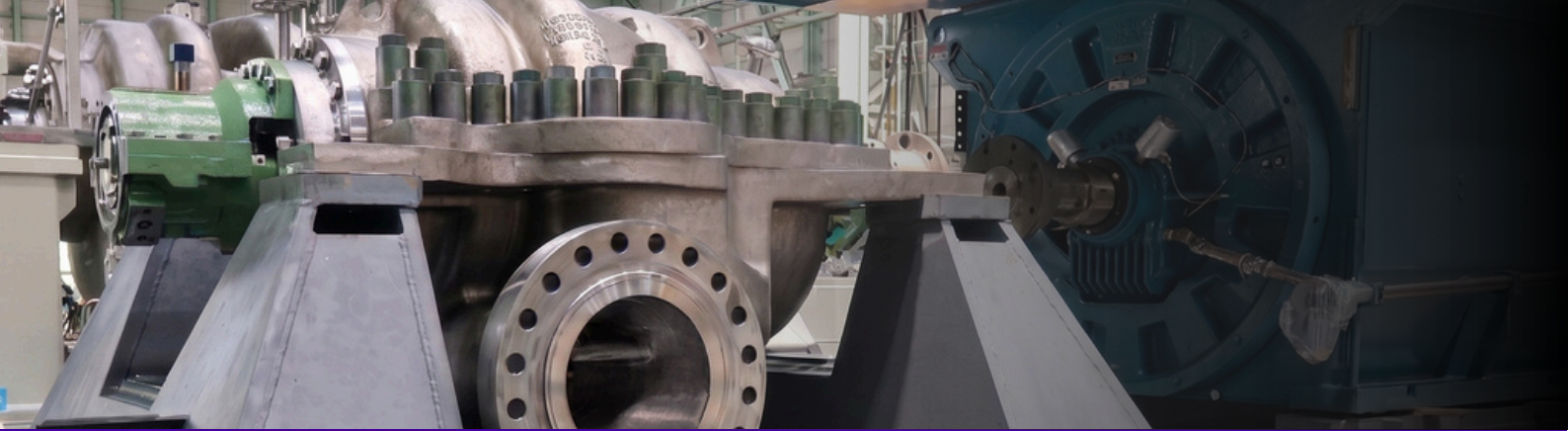


Desalination



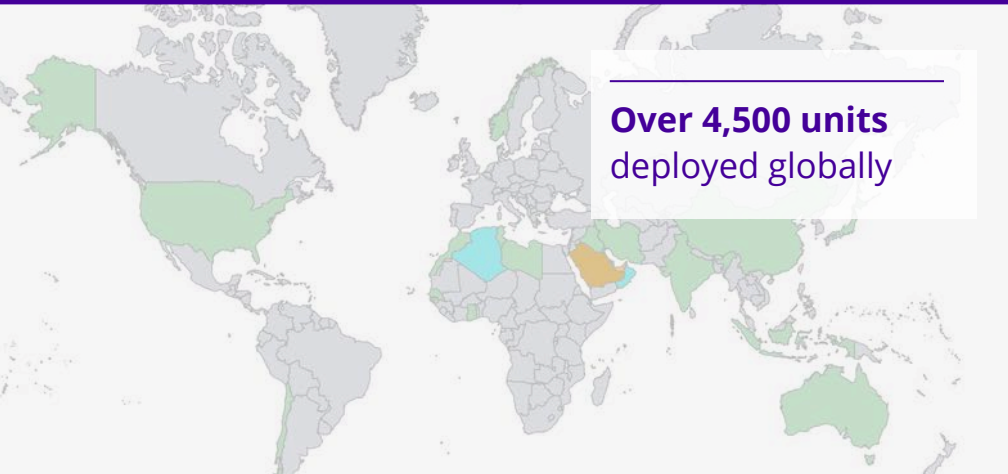


Over a Century of Pump Engineering Excellence.

Torishima, founded in Osaka, Japan in 1919, has over 100 years of engineering expertise in pump manufacturing and industrial services, delivering reliable, efficient and innovative pumping solutions for critical infrastructure across a wide range of industries.

Japanese Precision and Proven Efficiency for Demanding Desalination Projects.

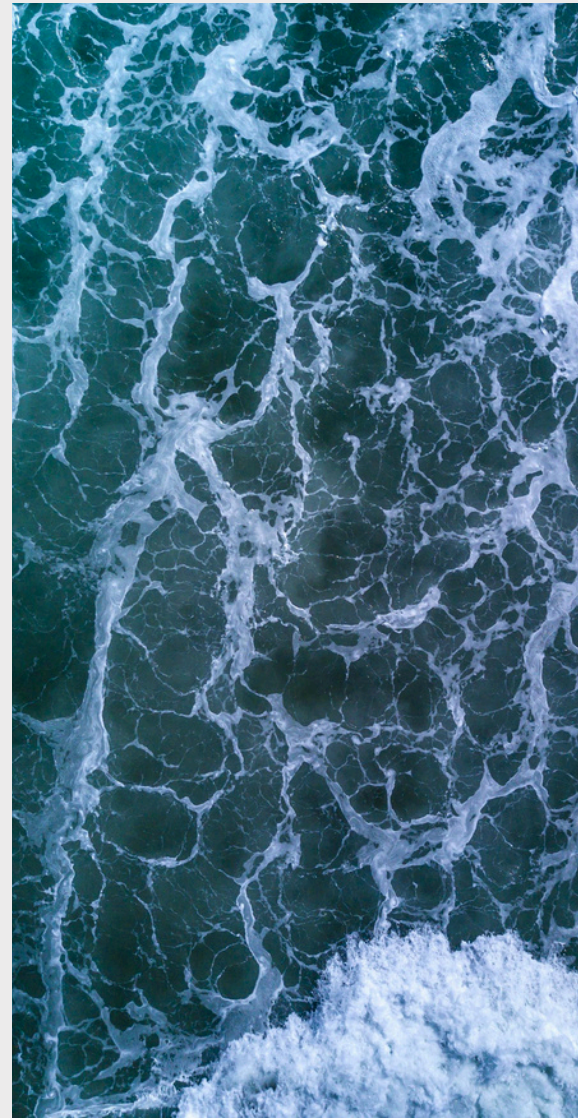
Torishima has been a trusted partner to the desalination industry for over forty years. Its pumps now help produce **more than 10 million cubic metres of potable water daily**, supporting communities and industries around the world.



Engineering Reliability in Desalination

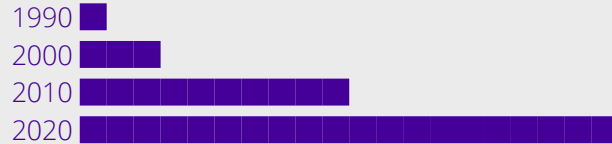
Torishima designs and manufactures pumps for desalination applications, including Reverse Osmosis (RO), Multi-Stage Flash Distillation (MSF), and Multi-Effect Distillation (MED) systems, where continuous operation, corrosion resistance, and reliability are essential.

Every pump is engineered to deliver dependable performance in harsh operating conditions, ensuring a long service life and reduced lifecycle costs.

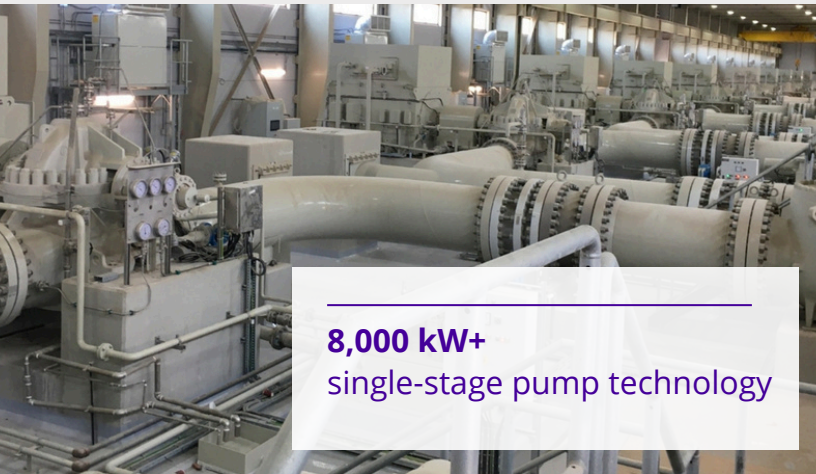


Evolving to meet the demands
of an ever-changing world.

RO Capacity Growth over the last 4 decades



Today, reverse osmosis desalination represents the dominant global desalination technology, with capacity continuing to grow strongly across all regions.

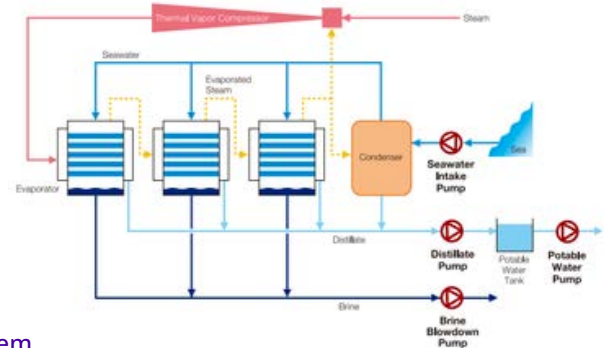


Home to the world's largest
integrated pump factory
for the desalination market

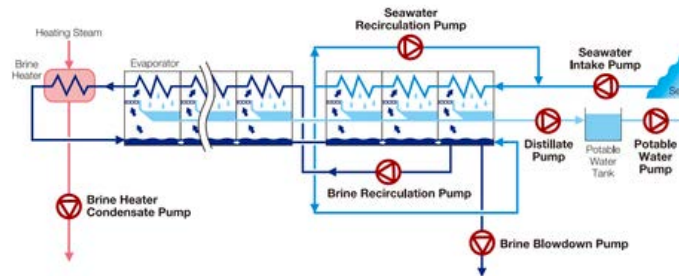


Pumps for **Thermo** **Desalination Systems**

Flowchart of Multi-effect Distillation System



Flowchart of Multi-stage Flash System

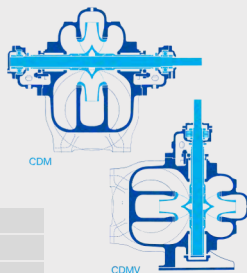
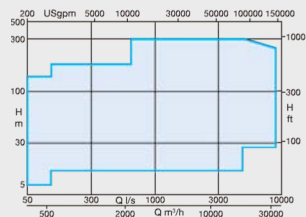


• MSF / MED Application Chart

	CDKS	CDKTV	CDM	CPC	MMTV	SPSY	SPTV	SPV
Seawater Intake Pumps			●					●
Brine Recirculation Pumps		●					●	
Brine Blowdown & Distillate Pumps		●		●			●	
Brine Heater Condensate Pumps	●				●			
Seawater Recirculation Pumps			●			●		
Potable Water Pumps			●					●

CDM

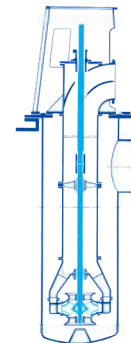
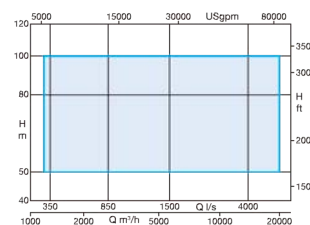
Axially split double-suction pump



Capacity	180 to 33,000 m³/h
Total Head	up to 600m
Temperature	up to 80°C
Size	200 to 1,400mm

CDKTV

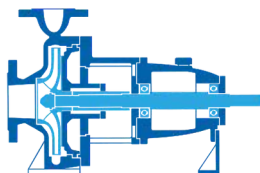
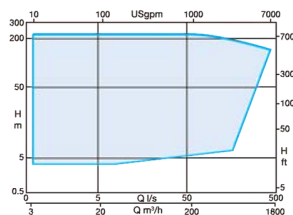
Vertical double-suction pump with canister



Capacity	up to 20,000m³/h
Total Head	up to 100m
Size	500 to 1,500mm

CPC

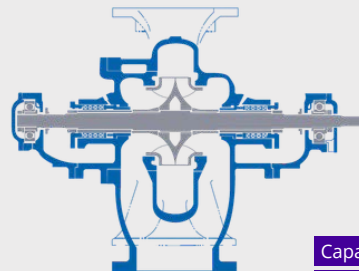
End-suction volute pump



Capacity	up to 1,500m³/h
Total Head	up to 220m
Size	32 to 250mm

CDKS

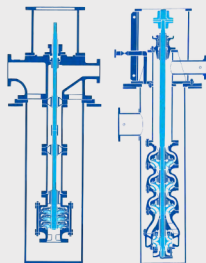
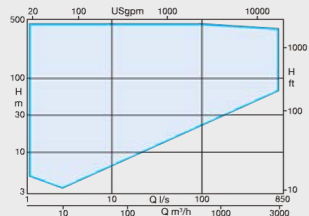
Horizontal radially split double-suction pump



Capacity	up to 3,000m³/h
Total Head	up to 300m
Size	200 to 500mm

MMTV

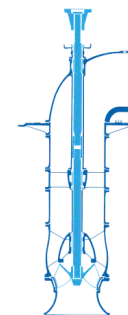
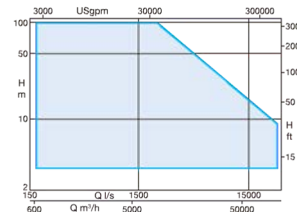
Vertical mixed-flow multistage pump with canister



Capacity	up to 2,900m³/h
Total Head	up to 390m
Size	40 to 400mm
Discharge pressure	up to 4MPa (39.2bar)

SPV - SPTV (Canister)

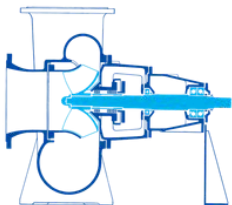
Vertically mixed-flow pump (canister option)



Capacity	600 to 80,000 m³/h
Total Head	up to 100m
Temperature	-10 to 80°C
Size	300 to 2,800 mm

SPSY

Horizontal mixed-flow volute pump

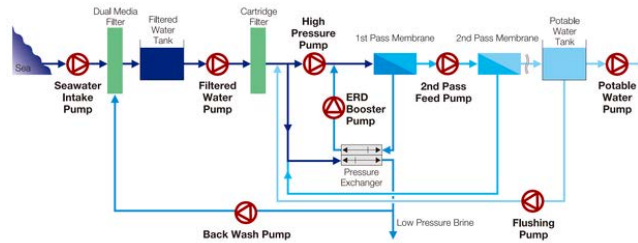


Capacity	up to 20,000m³/hr
Total Head	up to 200m
Size	350 to 1,200mm

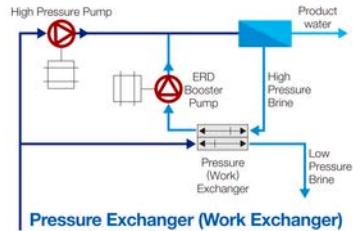
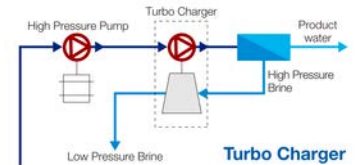
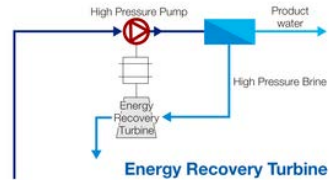


Pumps for **Reverse Osmosis Systems**

Flowchart of Reverse Osmosis System



Energy Recovery System

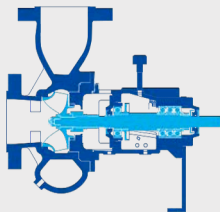
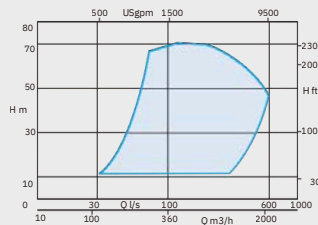


• RO Application Chart

	CDKS	CDM	CPC	CBR	MHA	MHH	MML	MSH	MSH-T	SPV
Seawater Intake & Filtered Water Pumps		●								●
High Pressure Pumps		●			●	●	●	●	●	
ERD Booster Pumps	●			●						
2nd Pass Feed & Back Wash & Flushing Pumps		●	●							
Potable Water Pumps		●								●

CBR

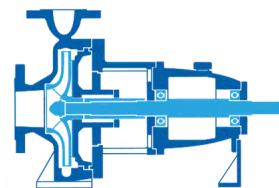
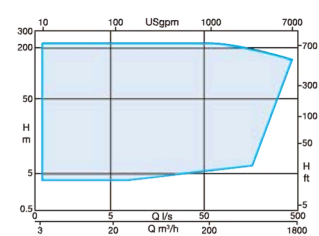
End-suction volute pump for ERD booster



Capacity	up to 2,000m³/h
Total Head	up to 70m
Size	40 to 400mm

CPC

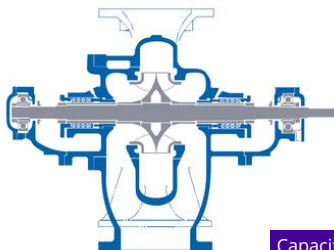
End-suction volute pump



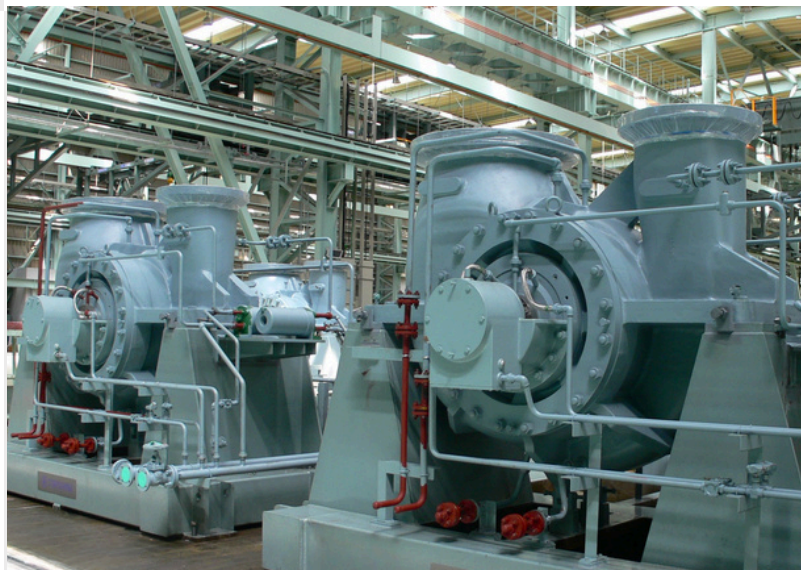
Capacity	up to 1,500m³/hr
Total Head	up to 220m
Size	32 to 250mm

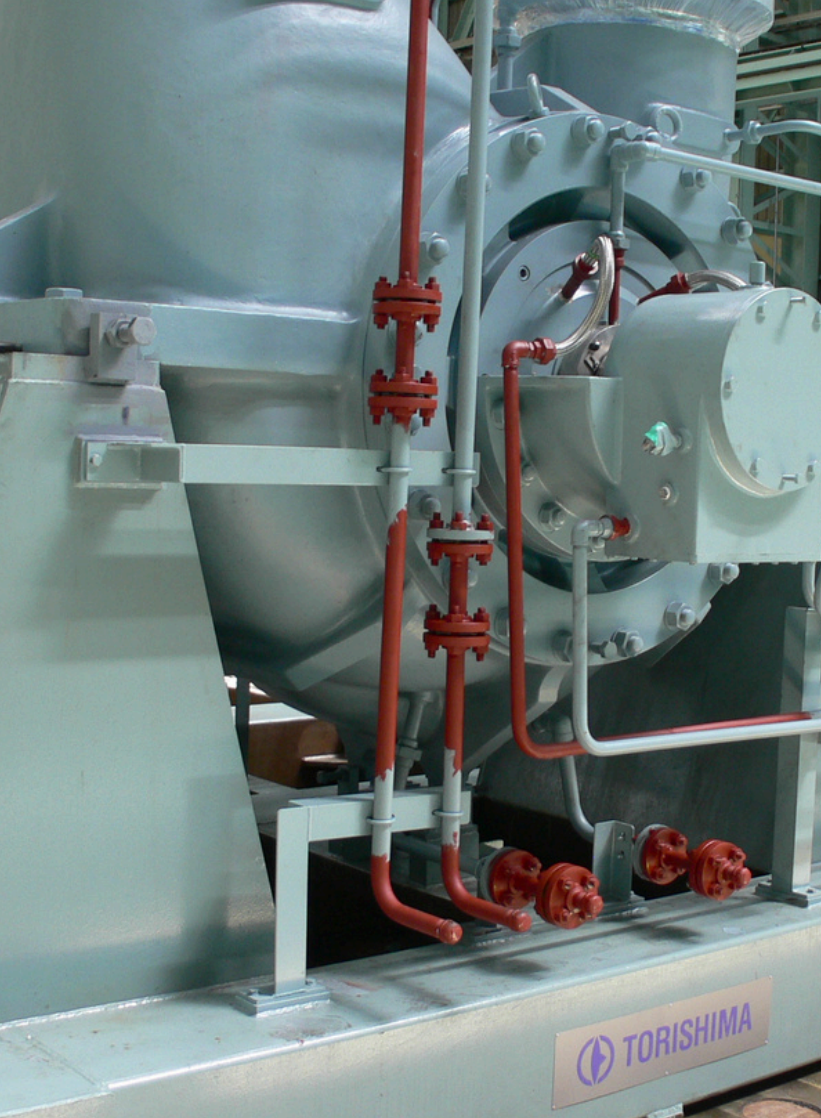
CDKS

Horizontal radially split double-suction pump



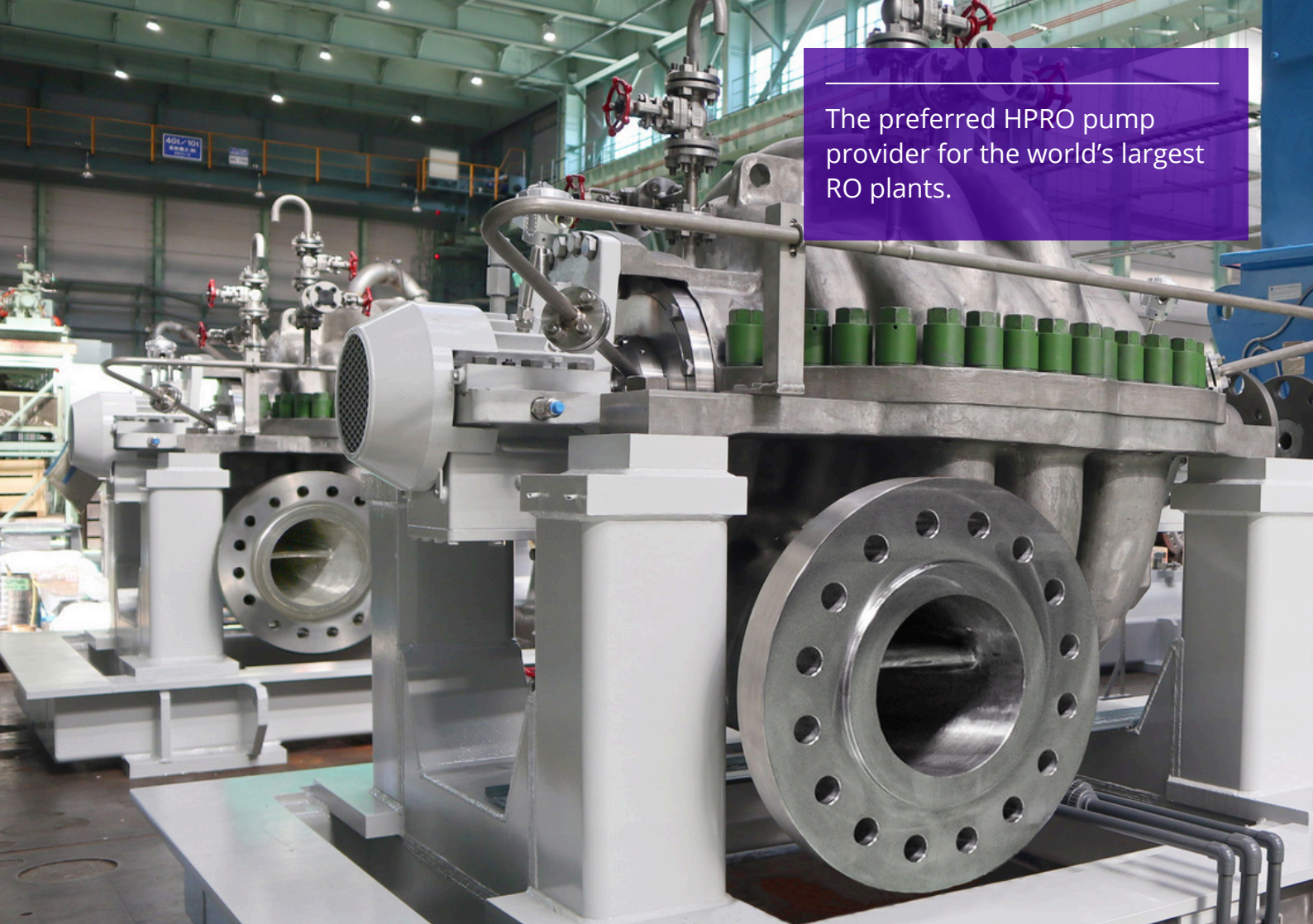
Capacity	up to 3,000m³/h
Total Head	up to 300m
Size	200 to 500mm





For more than 40 years, Torishima has been a trusted provider of high-pressure pumps for RO desalination and water transfer applications.

Today, more than 2,400 Torishima high-pressure pumps are operating in desalination facilities worldwide, delivering reliable performance in some of the industry's most demanding environments.

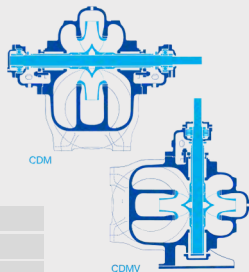
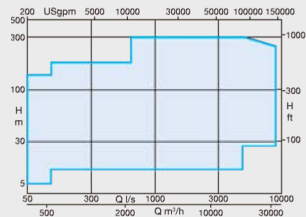


The preferred HPRO pump
provider for the world's largest
RO plants.

The image shows a large, complex industrial pump assembly, likely a High Pressure Reverse Osmosis (HPRO) pump, in a factory setting. The pump is mounted on a white-painted metal frame. It features a large, circular, flanged inlet/outlet on the right side, surrounded by numerous small holes. A large, cylindrical, green component is visible on the left side of the pump. The background shows a large industrial facility with high ceilings and structural beams. A purple text box in the upper right corner contains the text: 'The preferred HPRO pump provider for the world's largest RO plants.'

CDM

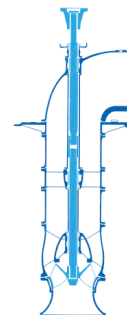
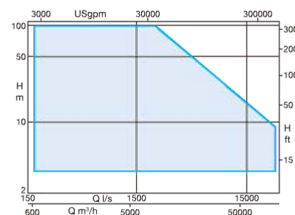
Axially split double-suction pump



Capacity	180 to 33,000 m³/h
Total Head	up to 600m
Temperature	up to 80°C
Size	200 to 1,400mm

SPV - SPTV (Canister)

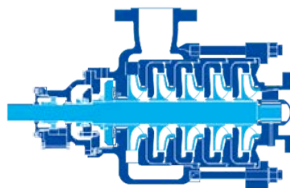
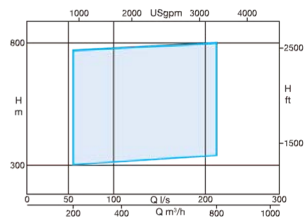
Vertically mixed-flow pump (canister option)



Capacity	600 to 80,000 m³/h
Total Head	up to 100m
Temperature	-10 to 80°C
Size	300 to 2,800 mm

MHA

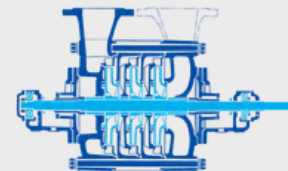
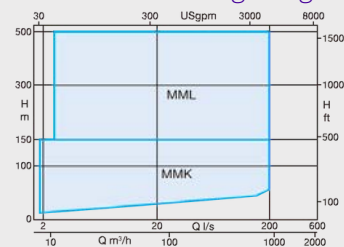
Horizontal end-suction multistage ring section pump



Capacity	200 to 800m³/hr
Total Head	up to 800m
Size	125 to 250mm

MML

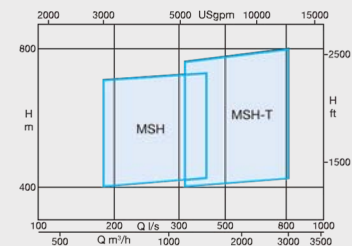
Horizontal multistage ring section pump



Capacity	up to 1,000m³/hr
Total Head	up to 500m
Size	40 to 350mm

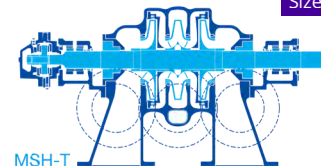
MSH, MSH-T

Horizontal axially split multistage pump
(T-twin-suction)



Capacity	150 to 1,500m³/h
Total Head	100 to 750m
Size	100 to 300mm

MSH

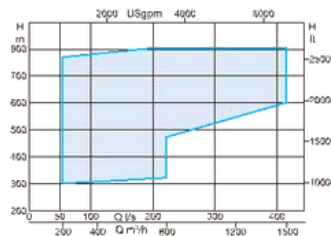


Capacity	up to 3,000m³/h
Total Head	up to 800m
Size	200 to 350mm

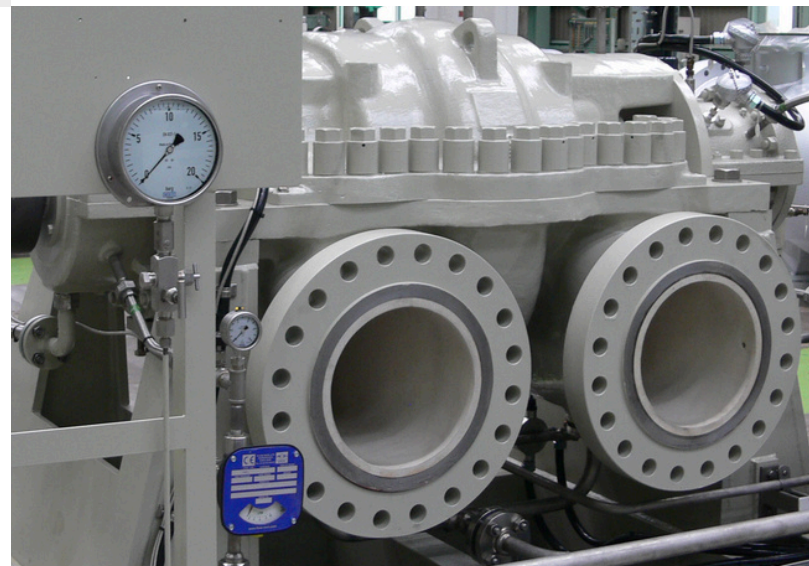
MSH-T

MHH

Axially split multistage pump



Capacity	200 to 800m³/hr
Total Head	up to 800m
Size	100 to 300mm



Dedicated to Meeting Our Customers' Needs

MATERIALS & DESIGN SERVICES

Torishima can meet the customers' needs and suggest the most appropriate materials for each power plant. Torishima also offers bespoke Design Services:

- Intake sump modelling
- Finite Element analysis
- 3D Flow Modelling
- Noise and Vibration Analysis
- Surge Analysis

SERVICE SOLUTIONS

As a leading supplier of engineering equipment, Torishima is committed to providing the highest quality after-sales services in order to maximise efficiency, reduce maintenance costs and save energy for pumps, equipment and industrial installations.



RESEARCH & DEVELOPMENT

Energy demand continues to increase globally, however taking into account the need to also conserve power, Torishima's objective is to produce high efficiency pumping equipment. Torishima continues to invest in R&D to meet such objectives, developing high technology equipment with high reliability whilst keeping our environmental commitments

TESTING

Torishima has the full test facilities for pumps for desalination plants and always conducts a performance test before delivery. Our quality procedures and continual testing ensures the high quality standards.



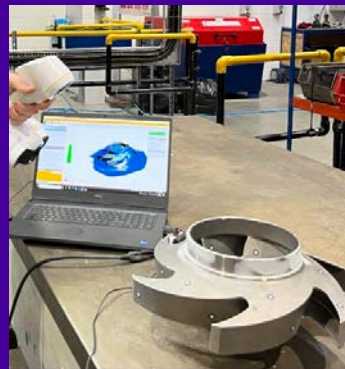
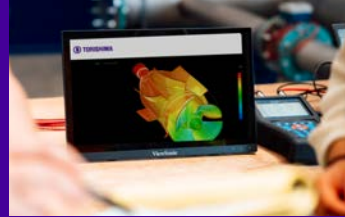
REDU[®]

Re Engineering & Design Up

As a leading supplier of engineering equipment, Torishima is committed to providing the highest quality after-sales services in order to maximise efficiency, reduce maintenance costs and save energy for pumps, equipment and industrial installations.

The REDU program brings factory-level engineering (CFD & FEA) to your existing infrastructure. We eliminate root-cause failures and adapt your machinery to new regulations and demand, maximising reliability while slashing your carbon footprint.

Achieve a sustainable, future-proof operation with total document control and zero need for new capital investment.



Scan here to see more of
our REDU capabilities



Committed to pumps since 1919, we continue to evolve and make the world a better place.



Evolving to meet the demands of an ever-changing world.

Contact Us

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30 Colliery Road, Clyde Gateway East, Glasgow, G32 8SL
Tel: 01236 442390

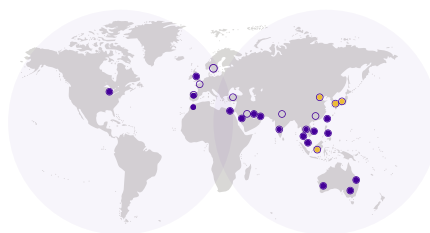
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