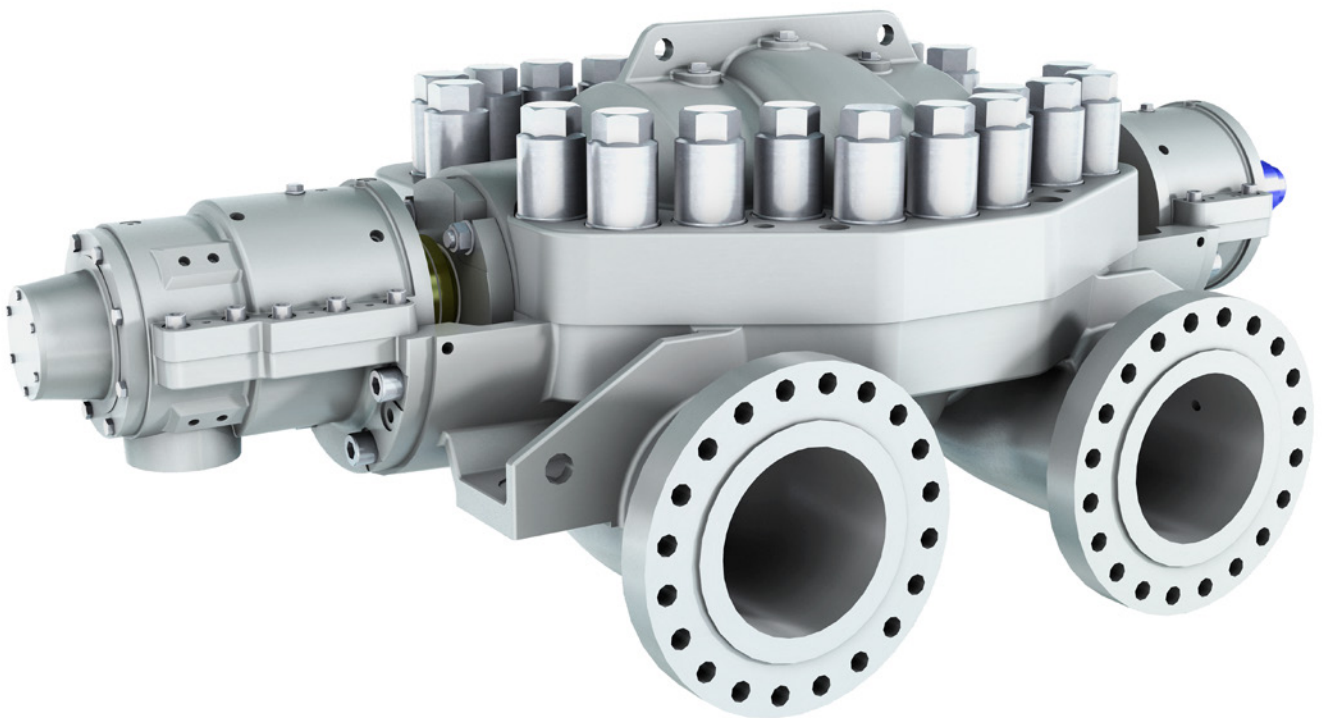


**HPDM axially split between bearing  
single or multistage pump**

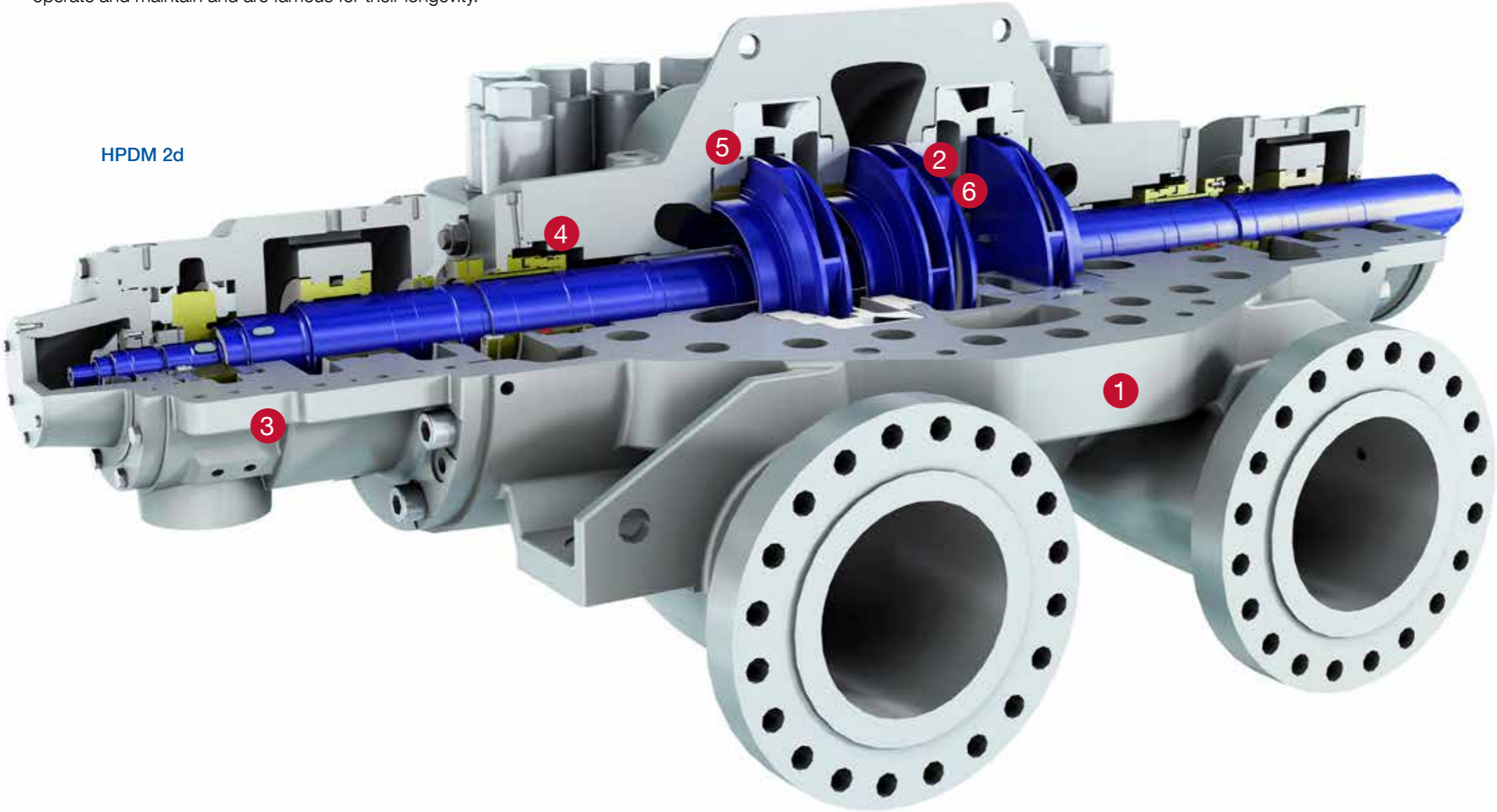


# Main applications

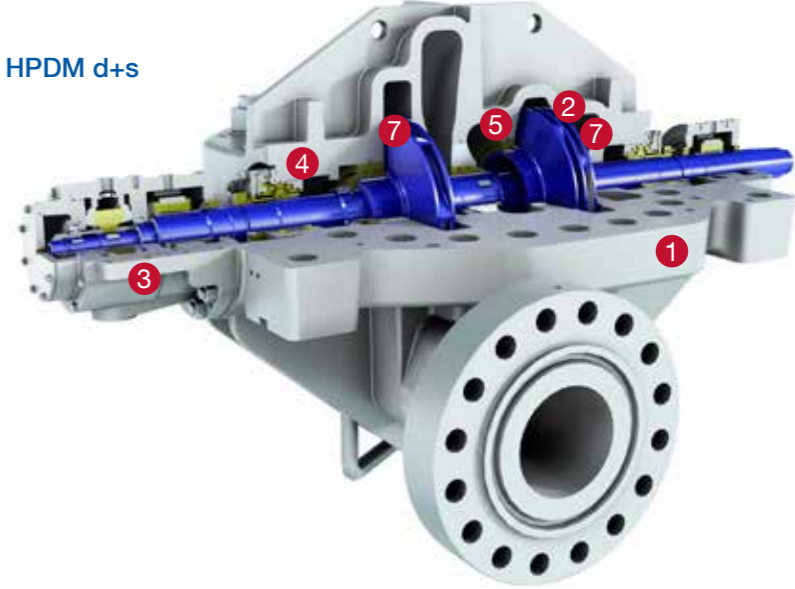
HPDMs are tailor-made axially split between bearing single or multistage pumps extensively used to transport large volumes of liquid over long distances and high geodetic heights. They are mainly used in:

- Water transport
- Transport of crude oil
- Any other high flow, high head application

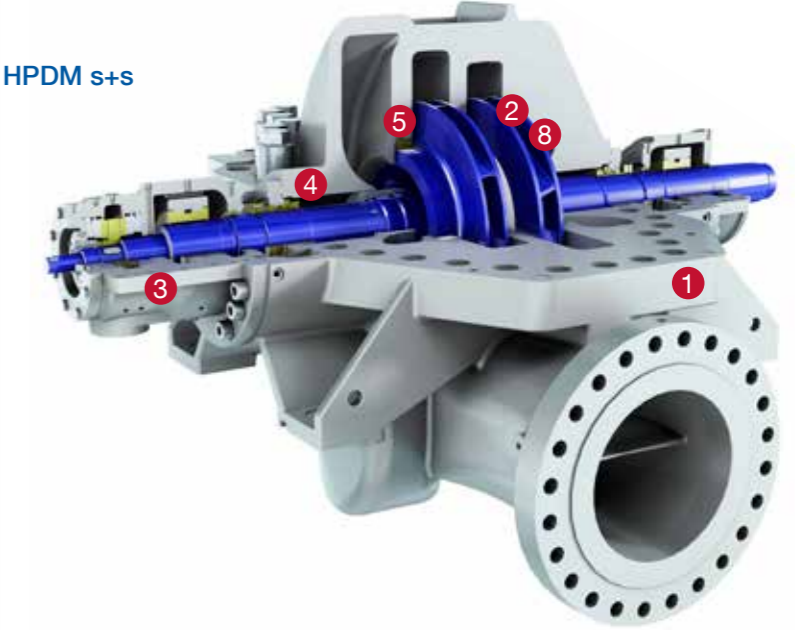
HPDM pumps combine high efficiency, high reliability and sturdiness, are easy to install, operate and maintain and are famous for their longevity.



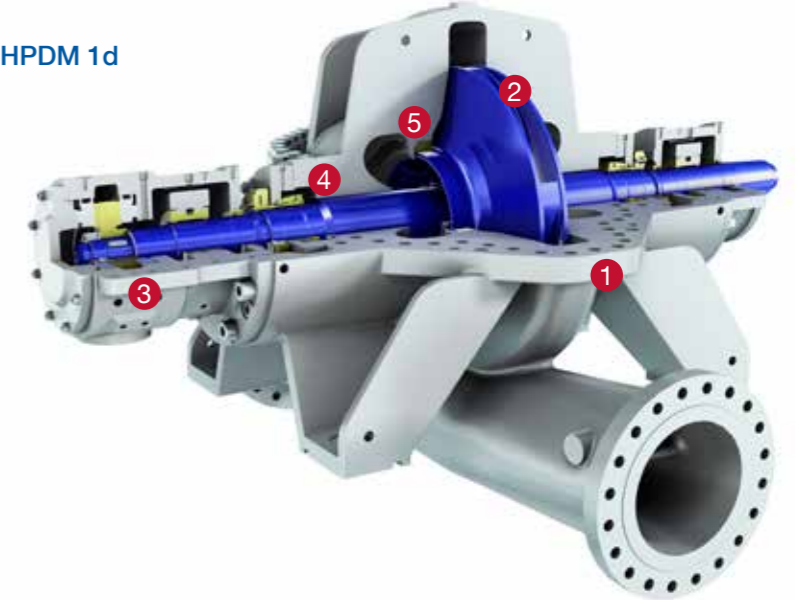
HPDM 2d



HPDM d+s



HPDM s+s



HPDM 1d

# Features and benefits

Pump part	2d	d+s	s+s	1d
<b>1 Casing</b> <ul style="list-style-type: none"> <li>Weight optimized casing by FEA</li> <li>Casing integrity and tightness ensured by different split flange sealings like gasket or o-ring</li> </ul>	✓	✓	✓	✓
<b>2 Hydraulics</b> <ul style="list-style-type: none"> <li>Wide choice of proven hydraulics</li> <li>High efficiency and optimum suction performance</li> </ul>	✓	✓	✓	✓
<b>3 Bearings</b> <p>Various bearing options depending on different operation conditions and load:</p> <ul style="list-style-type: none"> <li>Anti-friction bearings (self-lubricated)</li> <li>Sleeve-ball bearings (self-lubricated)</li> <li>Sleeve / tilting-pad bearing (pressure lubricated or self-lubricated)</li> </ul>	✓	✓	✓	✓
<b>4 Shaft seals</b> <ul style="list-style-type: none"> <li>Mechanical seal is standard, gland packing is optional</li> </ul>	✓	✓	✓	✓
<b>5 Wear protection</b> <ul style="list-style-type: none"> <li>Renewable casing wear rings and integral impeller wear rings</li> <li>Renewable impeller wear rings as option</li> </ul>	✓	✓	✓	✓
<b>6 Twin suction impellers on first stage and double suction, staggered vane second stage impeller</b> <ul style="list-style-type: none"> <li>Assures low Net Positive Suction Head Required (NPSHR) and balance of axial thrust, low pressure pulsation</li> <li>Diffusers on first stage and double volute on second stage to balance radial thrust</li> </ul>	✓			
<b>7 Double suction, staggered vane first stage impeller, single suction second stage impeller</b> <ul style="list-style-type: none"> <li>Assures low NPSHR and low pressure pulsation</li> <li>Double volute on both stages to balance radial thrust and enable high efficiency</li> <li>Balance drum at Non-Driving End (NDE) to balance axial thrust and reduce pressure at the shaft seal</li> <li>Compact cross-overs</li> </ul>		✓		
<b>8 Two stage construction with back-to-back single suction impellers</b> <ul style="list-style-type: none"> <li>Cost effective and highly efficient for installations equipped with a booster pump</li> <li>Back-to-back arrangement to balance axial thrust</li> <li>Double volute to balance radial thrust and enable high efficiency</li> <li>Compact cross-overs</li> </ul>			✓	

# HPDM axially split between bearing single or multistage pump



Oil and gas



Hydrocarbon processing



Power generation



Pulp, paper and board



General industry



Chemical process industry

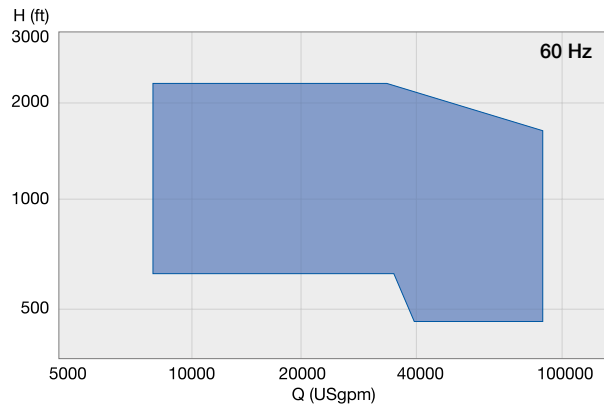
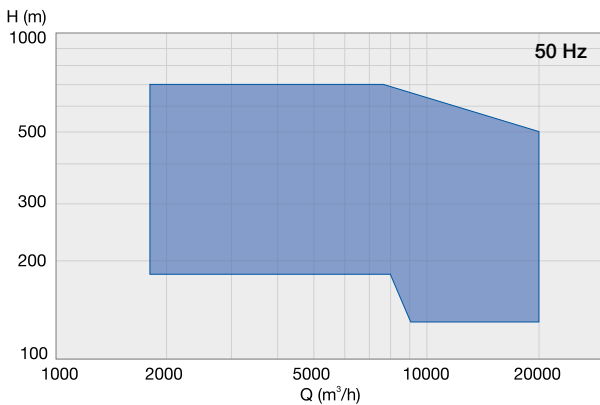


Water and wastewater

## Operating data

50 Hz		60 Hz
250 to 1'600 mm	<b>Pump sizes</b>	10 to 64 inches
1'000 to 20'000 m <sup>3</sup> /h	<b>Capacities</b>	4'400 to 88'000 USgpm
up to 700 m	<b>Heads</b>	up to 2'300 feet
up to 175 bar	<b>Pressures</b>	up to 2'500 psi
up to 150°C	<b>Temperatures</b>	up to 302°F

## Performance ranges



## Materials

Pump part	Material
Casing	Ductile iron, cast carbon steel, duplex, super duplex
Impeller	Chrome steel, stainless steel, duplex, super duplex
Shaft	Chrome steel, duplex, super duplex
Stationary wear ring	Chrome steel, stainless steel, duplex, super duplex



[www.sulzer.com](http://www.sulzer.com)

E00589 en 11.2018, Copyright © Sulzer Ltd 2018

This brochure is a general presentation. It does not provide any warranty or guarantee of any kind. Please, contact us for a description of the warranties and guarantees offered with our products. Directions for use and safety will be given separately. All information herein is subject to change without notice.