GRUNDFOS HORIZONTAL SPLITCASE PUMPS

THE RELIABLE & EFFICIENT WORKHORSE

BE › THINK › INNOVATE ›

GRUNDFOS

INTRODUCTION

The Grundfos HS horizontal splitcase pump is an unstoppable workhorse. The HS delivers high efficiency performance and low life-cycle costs. The highly reliable hydraulic design combined with the service-friendly layout of the splitcase housing assures maximum benefits for the user.

All HS pumps are tested to ensure the performance requirements are achieved prior to delivery. The HS is a well-built, reliable splitcase pump proudly offered by Grundfos – the splitcase pump market leaders!

Technical Data

Flow, Q:	10 to 2500m³/hr
Head, H:	5 to 148m
Motor, range:	1.5 – 600kW
Motor, cycles:	50 Hz
Operating Pressure:	16 bar, max.
Liquid temperature:	Up to 100°C
Discharge Sizes:	50 – 350mm
Impeller Sizes:	242 – 630mm

Applications

The Grundfos HS pumps are used in these main fields of application:

Commercial systems
- Air-conditioning and chilled water system
- Water condensing systems and cooling towers
- District heating plants and heating systems

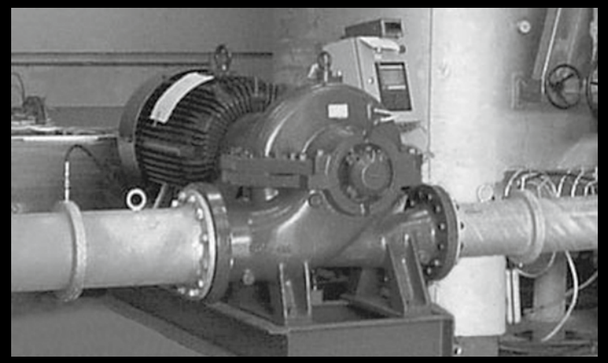
Industrial systems
- Process cooling and chilled water systems
- Industrial heating systems
- Washdown and cleaning systems

Water distribution
- Public waterworks
- Non-potable water systems

Irrigation and agriculture
- Field irrigation (flooding)
- Sprinkler irrigation

PUMP DESCRIPTION

- The pumps are non-self-priming, centrifugal volute pumps with radial suction and radial discharge ports and horizontal shaft.
- Suction and discharge flanges are PN 16 according to EN 1092-2 (DIN2501).
- The pump is long-coupled with a totally enclosed fan-cooled standard motor with main dimensions to IEC and DIN standards and mounting designation B3 (IM 1001).
- The mechanical shaft seal has dimensions according to EN 12756.
- The rotating assembly is dynamically balanced according to ISO 1940 class G6.3.
- Impellers are double suction providing long operating, corrosion free life. Impellers are constructed in ASTM B584 bronze and are hydraulically balanced.
- Grundfos HS pumps are available in three different variants:
1. Pump with motor and base frame.
2. Bare shaft pump with base frame.
3. Bare shaft pump; ie pump without motor and without base frame.
- The split-case construction enables removal and dismantling of the internal pump parts, e.g. bearings, wear rings, impeller and shaft seal, without disturbing the motor and pipework.
- Replaceable case wear rings protect the pump casing while reducing maintenance costs and maintaining high operating efficiencies.
- Pump and motor are mounted on a common base frame in the form of a welded, steel C-channel profile.
- Bronze shaft sleeves protect the shaft and help with fixation of the impeller.



SELLING FEATURES

Pump casing

- Compensated double volute design virtually eliminates radial forces caused by a hydraulic imbalance inherent in pump volutes
- Double volute design extends seal and bearing life, minimizing noise and vibration, and improving operating efficiency – meaning less wear and lower maintenance costs

COMPARISON CHART

Typical radial force vs. design capacity with single and double volute

SINGLE VOLUTE DOUBLE VOLUTE

Bearing Housing

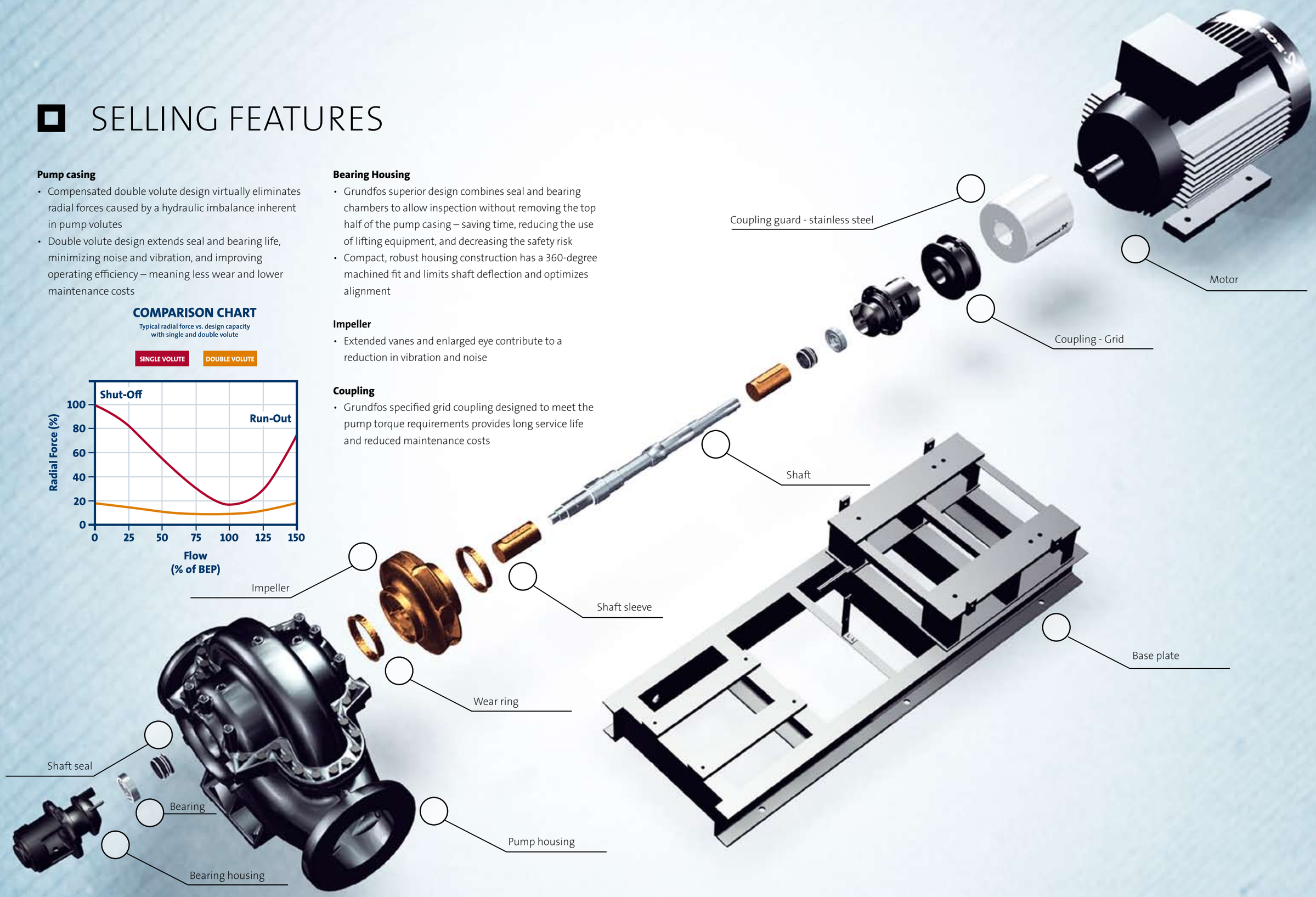
- Grundfos superior design combines seal and bearing chambers to allow inspection without removing the top half of the pump casing – saving time, reducing the use of lifting equipment, and decreasing the safety risk
- Compact, robust housing construction has a 360-degree machined fit and limits shaft deflection and optimizes alignment

Impeller

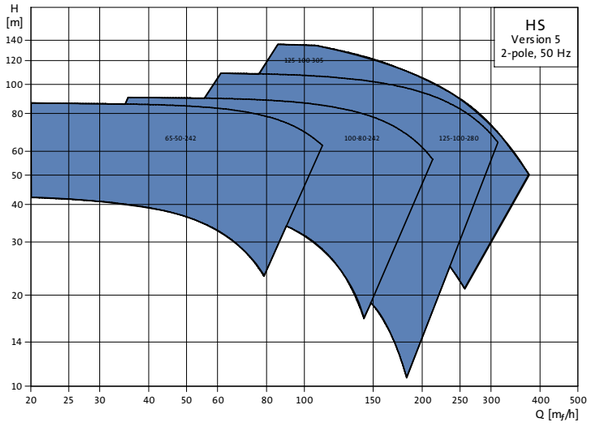
- Extended vanes and enlarged eye contribute to a reduction in vibration and noise

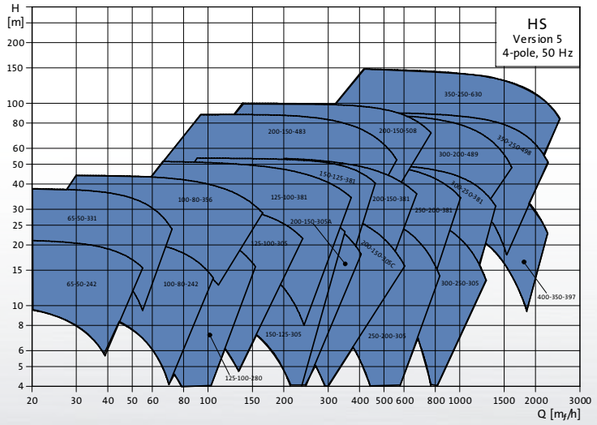
Coupling

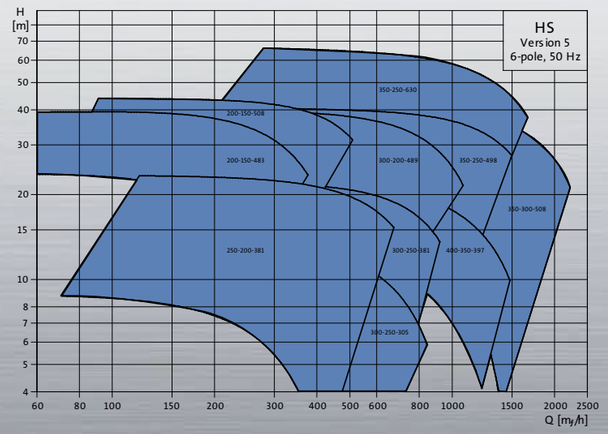
- Grundfos specified grid coupling designed to meet the pump torque requirements provides long service life and reduced maintenance costs



HS RANGE OVER VIEW 2/4/6 POLE MOTORS







DOCUMENTATION

Data Booklet
- Technical product descriptions
- Product applications
- Performance curves
- Accessories
- Available in WebCAPS

I&O
- Installation and operation
- Warnings and safety requirements
- Targeted for installers, servicers, and end-users
- Shipped with the pump

Service Instructions
- Description of service procedures
- Intended for service technicians
- Available in WebCAPS

WebCAPS/WinCAPS
- Pump selection program
- PDF literature files available
- Service videos
- Replacement pump information
- Pump CAD drawings

IMPORTANT SERVICE & INSTALLATION INFORMATION

10 Ways to Kill Your HS Pump

1. Overwork it
Work the pump continuously at higher capacities, flows, heads, or speeds than originally specified.

2. Starve it
Never grease or oil the pump.

3. Choke it
- Lower the water level in the sump.
- Let the suction strainer clog and never clean it.
- Let the temperature of fluid rise without raising the suction pressure.

4. Fry it
Operate at shutoff for a long time with the bypass line closed tight will convert your power to heat.

5. Poison it
Change the pumped fluid without checking with the manufacturer (for example adding chemicals).

6. Stab it
Remove the suction strainers which will introduce grit, sand, and scale into the fluid.

7. Break its limbs
Impose heavy piping loads on the suction and discharge nozzle, either through initial misalignment or through thermal expansion.

8. Shake it
Don't align at installation or install on a flimsy foundation.

9. Drown it
For a packed pump with a drain for the gland leakage:
- Plug the drain with a cigarette butt, gum or paper.
- Remove the water shield.
- Line up the splits on the packing rings.

10. Neglect check-ups
- Ignore the manufacturer's recommendations for "check-ups"
- Don't check packing, gaskets, o-rings, or other small parts.
- Don't ever repaint it, or lubricate the coupling, if required.
- Don't check vibration.

BE › THINK › INNOVATE ›

Being responsible is our foundation
Thinking ahead makes it possible
Innovation is the essence

FOR PRODUCT REQUESTS, PLEASE CONTACT:
GMH2-CSU@GRUNDFOS.COM

GRUNDFOS A/S
Poul Due Jensens Vej 7
DK-8850 Bjerringbro
Tel: +45 87 50 14 00

www.grundfos.com/industry

GRUNDFOS®

PN 97718637