

GRUNDFOS HS HORIZONTAL SPLIT CASE

The Grundfos HS Horizontal Split Case is the giant in the Grundfos product range. It combines double suction ports with high flow and in-line pipe connection.

The HS Horizontal Split Case virtually eliminates radial loads by hydraulically balancing the liquid within its casing and it offers benefits like improved efficiency, minimised vibration, extended seal and bearing life and low noise levels.

Grundfos application areas:

- Industrial plants
- Public water supply
- District cooling / heating plants
- Air-con / heating systems
- Fire protection
- Cooling systems
- Irrigation

96903270/0914/PRODUCT LINE MANAGEMENT/71598-081

The name Grundfos, the Grundfos logo, and be think innovate are registered trademarks owned by Grundfos Holding A/S or Grundfos A/S, Denmark. All rights reserved worldwide.

GRUNDFOS HS HORIZONTAL SPLIT CASE THE GRUNDFOS GIANT

MAXIMUM FLOW FOR MULTIPLE APPLICATION AREAS

HS HORIZONTAL SPLIT CASE

INTRODUCTION

THE HS HORIZONTAL SPLIT CASE IS THE GIANT IN THE GRUNDFOS PRODUCT RANGE. IT COMBINES DOUBLE VOLUTE DESIGN WITH HIGH FLOW AND IN-LINE PIPE CONNECTION. THE PUMP COVERS A WIDE RANGE OF APPLICATION AREAS AND CONTINUOUSLY PROVIDES EFFICIENT AND RELIABLE PERFORMANCE DUE TO ITS ROBUST DESIGN

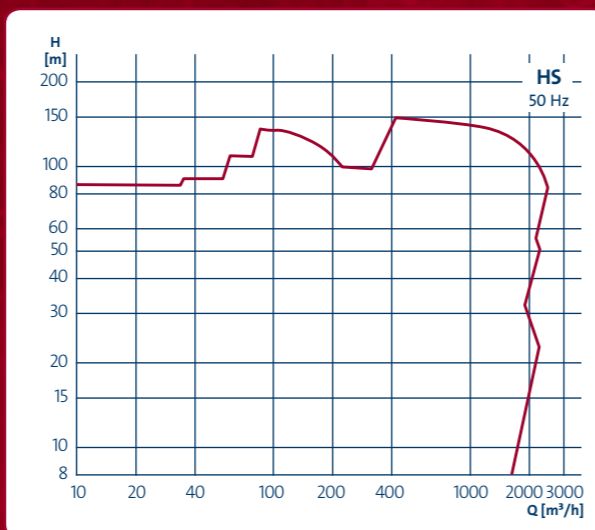
Areas of application

- Industrial plants
- Public water supply
- District cooling / heating plants
- Air-con / heating systems
- Fire protection
- Cooling systems
- Irrigation

Technical data:

- Flow up to 2500 m³/h
- Head up to 150 m
- Liquid temperatures from 0°C to +100°C
- Operating pressure up to 16 bar
- * Up to 100°C with BBVP seal
- * Up to 135°C with FPV seal

Performance area for the HS Horizontal Split Case



The curve shows the performance of Grundfos HS Horizontal Split Case pumps

PERFECT BALANCE

The split case is characterised by its ability to virtually eliminate radial loads by hydraulically balancing the liquid within the casing. This balancing ability is made possible by the unique double volute construction, which provides two individual volute passageways to guide the flow out of the impeller and into the discharge. Moreover, the split case provides the double suction impeller, which extends the life of the pump by neutralising the axial forces. The double volute and double suction construction has a number of great benefits:

- Improved efficiency
- Minimised vibration
- Extended seal and bearing life
- Quiet operation

One man maintenance

The split case pump features an exceptional bearing house/seal chamber construction, which makes it unnecessary to remove the top casing half in order to maintain the pump. That means that one person can easily access the bearing house and inspect seals, sleeves and bearings without the strain of heavy lifting. Consequently, the HS Horizontal Split Case guarantees a minimum of downtime because of the simplicity of its maintenance.

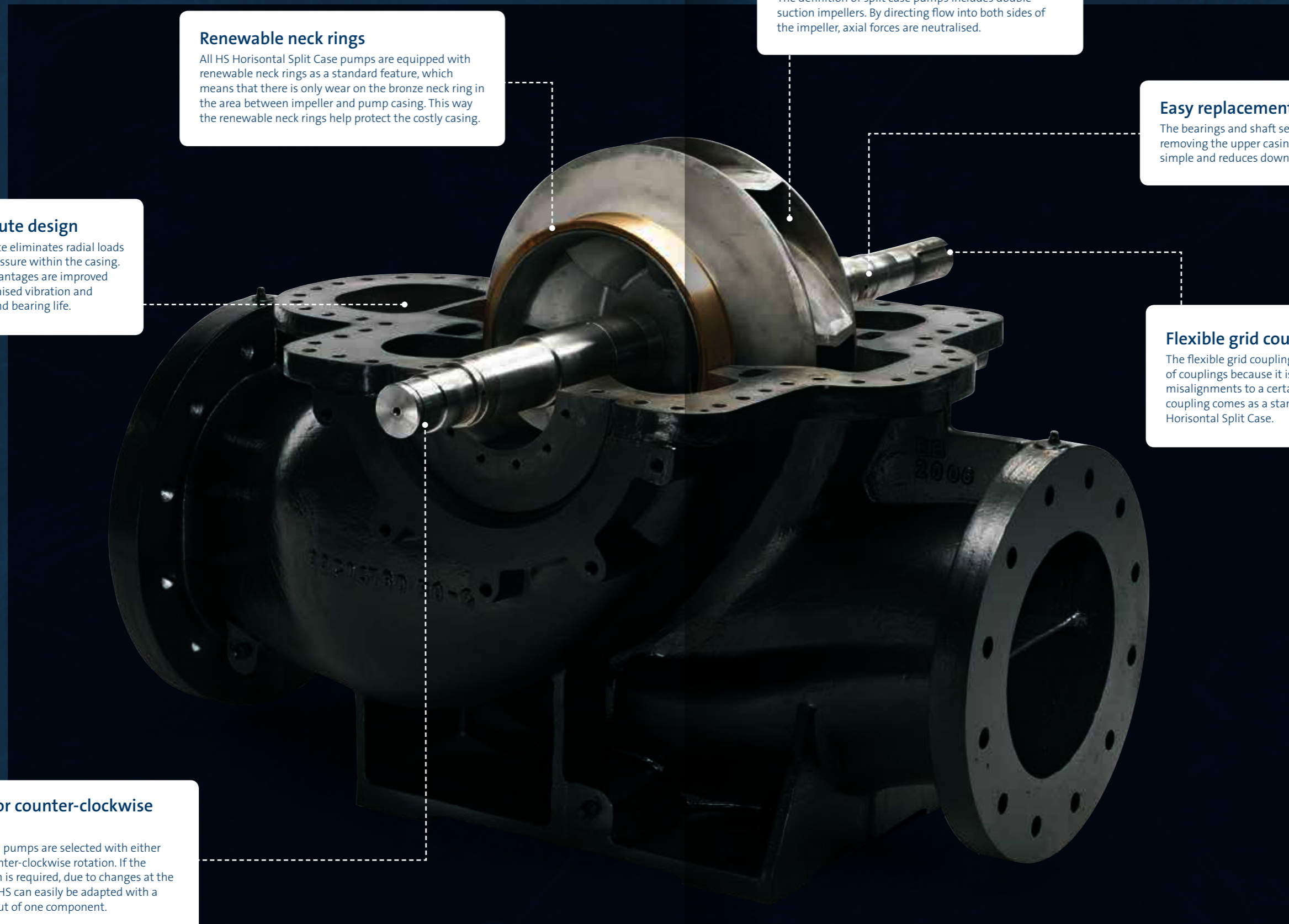
Broad band high efficiency

The impeller design of the split case has been specifically matched to the casing of the pump in order to provide broad band high efficiency. As a result, the operating costs of the horizontal split case are reduced dramatically giving it a valuable low life cycle cost.



HS HORIZONTAL SPLIT CASE

THE DETAILS



Renewable neck rings
All HS Horizontal Split Case pumps are equipped with renewable neck rings as a standard feature, which means that there is only wear on the bronze neck ring in the area between impeller and pump casing. This way the renewable neck rings help protect the costly casing.

Double suction impeller
The definition of split case pumps includes double suction impellers. By directing flow into both sides of the impeller, axial forces are neutralised.

Easy replacement
The bearings and shaft seals can be replaced without removing the upper casing, which makes maintenance simple and reduces downtime.

Double volute design
The double volute eliminates radial loads by balancing pressure within the casing. Three major advantages are improved efficiency, minimised vibration and extended seal and bearing life.

Flexible grid coupling
The flexible grid coupling is called the Rolls-Royce of couplings because it is able to compensate for misalignments to a certain degree. The flexible grid coupling comes as a standard feature in the HS Horizontal Split Case.

Clockwise or counter-clockwise operation
All HS Horizontal pumps are selected with either clockwise or counter-clockwise rotation. If the opposite rotation is required, due to changes at the installation, the HS can easily be adapted with a simple change out of one component.

HS HORIZONTAL SPLIT CASE SUSTAINABILITY

SAVE MONEY WHILE SAVING THE PLANET

Energy costs account for up to 90% of the overall cost of a pump during its lifetime. In other words, thinking about energy efficiency can save you a lot of money.

Life Cycle Cost (LCC) analysis is an objective standard that allows you to benchmark different pump solutions and suppliers, based on initial investment and the costs of installation, maintenance and energy.

By considering LCC when choosing your pumps, you can help reduce CO₂ dramatically and thereby make an important contribution to the well-being of our planet.

How to calculate Life Cycle Cost (LCC)

$LCC = C_{ic} + C_{in} + C_e + C_o + C_m + C_s + C_{env} + C_d$
C_{ic} = initial costs, purchase price
C_{in} = installation and commissioning
C_e = energy costs
C_o = operation cost (labour cost)
C_m = maintenance and repair costs
C_s = downtime costs (loss of production)
C_{env} = environmental costs
C_d = decommissioning / disposal costs

An LCC process will show the most cost effective solution within the limits of available data.



THINKING BUILDINGS

At Grundfos CBS, we are always thinking buildings, and our products contribute to making buildings that can almost think for themselves. We do not just consider our products as stand-alone devices – we consider them an integral part of a living building whose purpose is to function in the best way possible for its inhabitants.

Our expertise is founded in decades of global experience and we are proud to share our knowledge with our clients. We are also determined to take the lead on new technologies and innovation opportunities.

Grundfos CBS offers products across the full range of applications, including heating, air conditioning, waste water, booster systems, fire protection systems and district energy.

To learn more about Grundfos CBS and to find out how we can be of assistance, contact Grundfos or visit us at www.grundfos.com/business-areas/commercial-buildings.html

EXPLORE OUR ONLINE UNIVERSE

Make the most of Grundfos CBS – visit the Thinking Buildings Universe at www.grundfos.com/business-areas/commercial-buildings.html

Our website contains a range of services that function as your online Grundfos CBS expert:

- Quick Pump Selection with an extensive product database and dimensioning tool that helps you choose the right pump for your needs
- E-learning programme that lets you improve your specialist knowledge
- Access to Thinking Buildings E-News, which keeps you up to date on the latest technology, product information and background material
- Lexicon where you can look up definitions of relevant professional terms

Welcome to the Grundfos CBS Thinking Buildings Universe!

