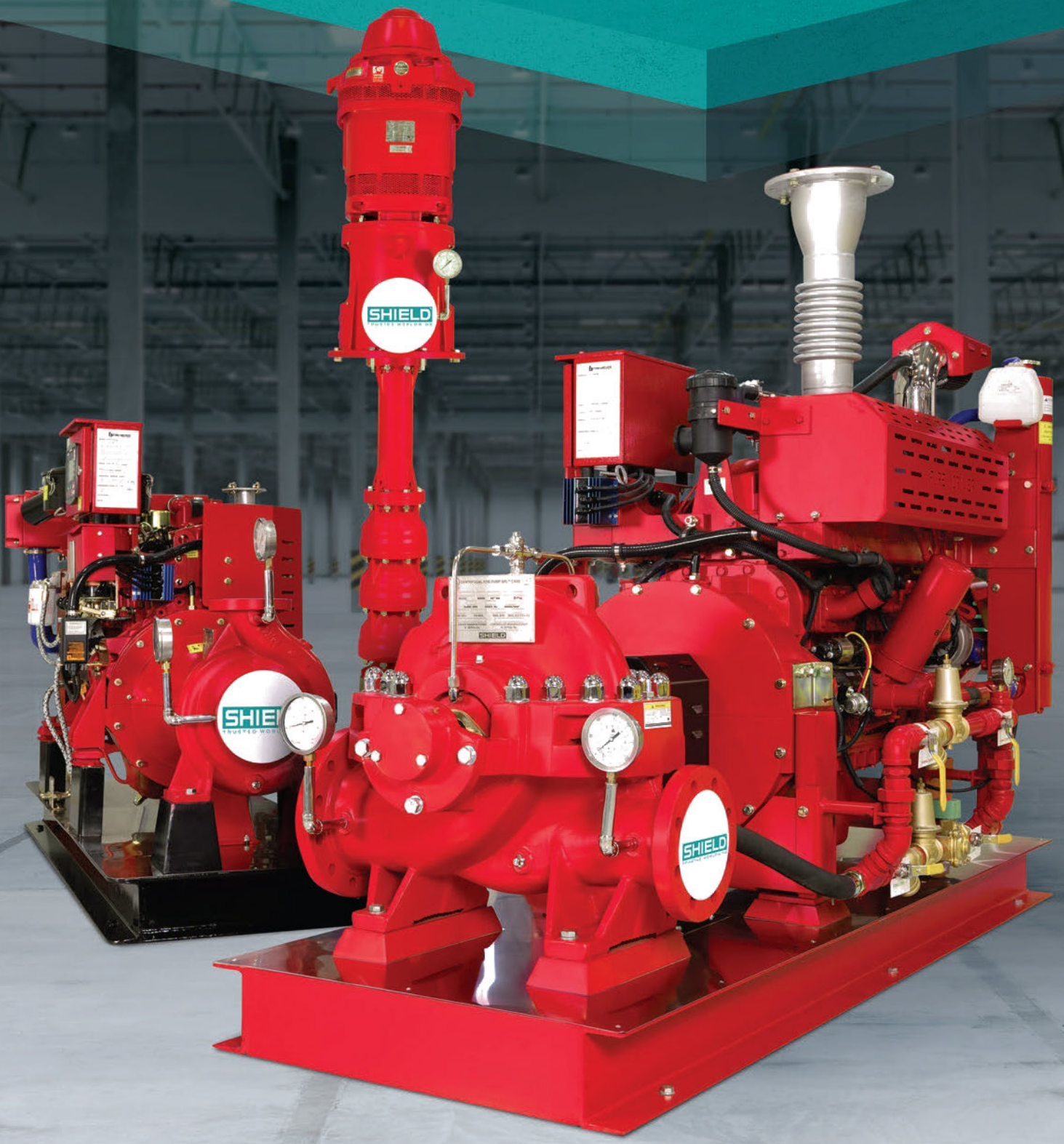


SHIELD
TRUSTED WORLDWIDE

FIRE PUMP





Competence and innovation driven by consistent market development and customer requirements have shaped the successful development of the SHIELD Brand. The extensive product range of the market leader in the field of fire protection technology contains single, individually integrable system performances. In this way, a customized overall fire protection concept can be planned and realized for every need with optimally synchronized products.

Performance is in international demand, SHIELD is among the highly accredited fire protection companies that meet rigorous British and American standards for all projects from small conventional system to multi-site networks. Certifications such as UL and FM approvals have earned SHIELD a world-renowned reputation with quality products and powerful solutions.

A strong brand is generally known to be a secure basis for close and lasting customer relationships. In accordance with this, SHIELD uses available potential in order to keep on growing in a dynamic competitive environment. And at the same time, SHIELD stands for innovative and high quality fire protection systems.

We invite you to explore and visit our website www.shieldglobal.com. You can also send us your feedback and inquiry through our user-friendly online forms.

In line with SHIELD policy for continuous product development, SHIELD has the right to change specifications without prior notice.





The fire pump(s) shall be designed to deliver 150 % of the rated flow capacity at not less than 65% of the rated head in conformance to NFPA 20. **Shutoff head shall not exceed 140% of rated head.**

The motor capacity in horsepower shall be such that the maximum motor current in any phase under any condition of pump load and voltage unbalance shall not exceed the motor-rated full-load current multiplied by the service factor.

The engines shall have a 4-hour minimum horsepower rating equal to or greater than the brake horsepower required to drive the pump at its rated speed under any conditions listed for environmental conditions under pump load.

The Jockey pump capacity shall be 1% of the fire pump rated capacity of this system or the next higher capacity as per the availability of the

suitable pump; and pressure rating shall be 10 psi (0.7 bar) higher than that of fire pumps.

The controllers used in fire pump unit shall be specifically designed for such applications as per the requirements specified in NFPA 20 and shall be completely assembled and tested by the manufacturer before shipment from the factory.

Fire pump unit should include standard accessories such as one common Flow Meter for complete fire pump system, Compound Suction Gauge for each fire pump, Discharge Pressure Gauge for each fire pump, Air Release Valve for each fire pump if the pump is horizontal split case type, Circulation Relief Valve for each electric motor driven fire pump, Main Relief Valve for each diesel engine driven fire pump if required based on evaluation criteria specified in NFPA 20.

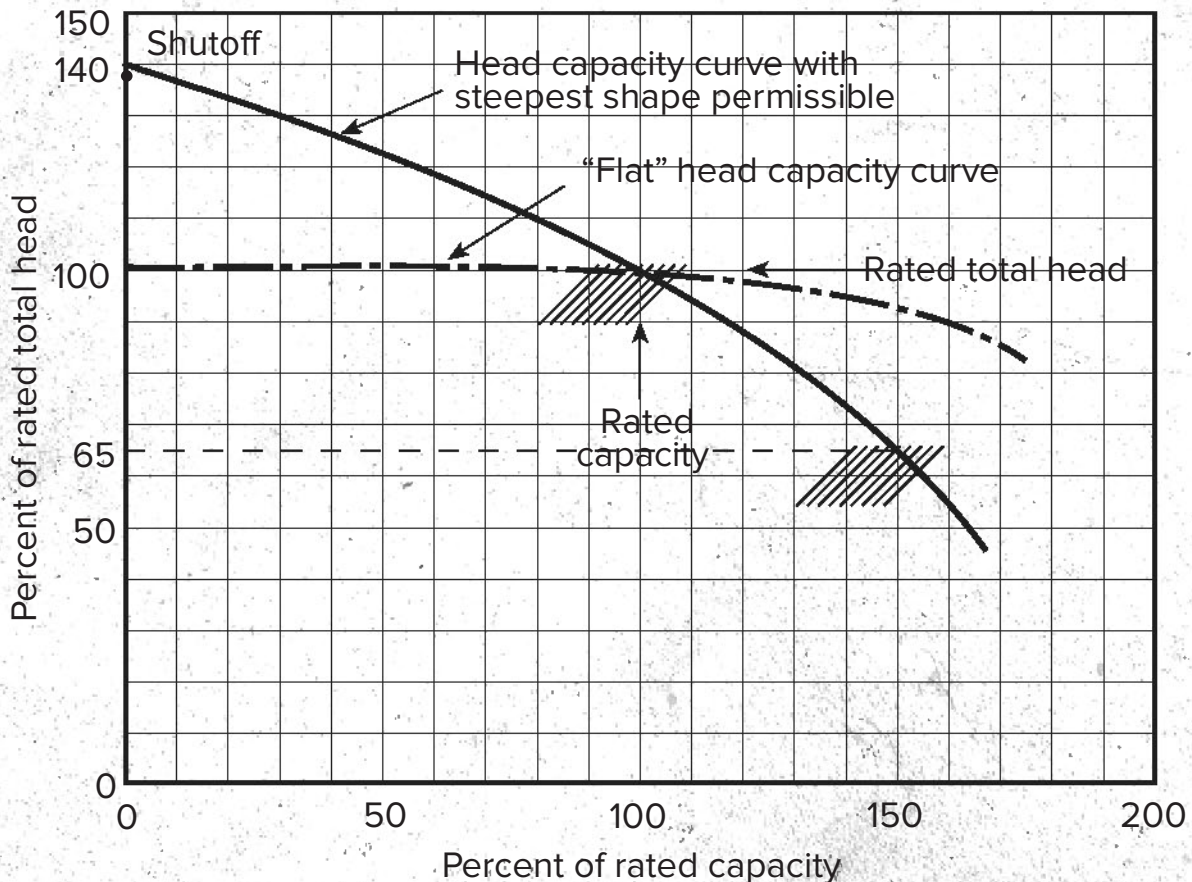


FIGURE A.6.2 Pump Characteristics Curves.

AREAS OF USE

Building Technologies



Industrial Facilities



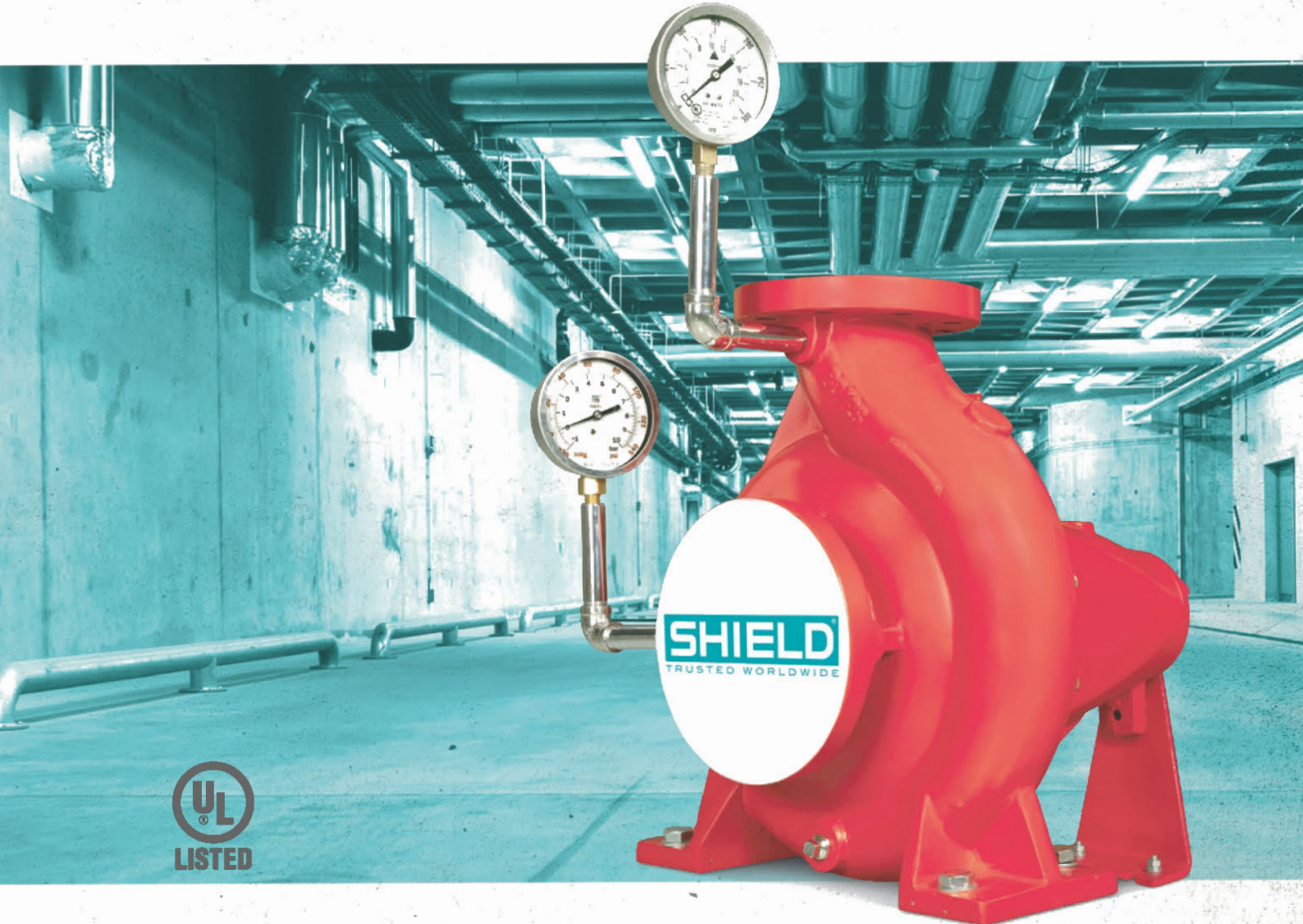
Power Plants



Fuel and Gas Industry



FIRE PUMP END SUCTION



SHIELD Fire Pumps are designed as per NFPA standards meeting all the performance requirements for the fire pump applications. This strict compliance to the quality standards when combined with the long and reputed experience of SHIELD provides you with a reliable solution for all your **firefighting pump needs**. We are well-equipped to offer you a wide range of related services from the project design stage to the periodic maintenance. All pump sets are tested at our facility as per NFPA standards to ensure that the performance of the pumps are meeting the design requirements.

**SERIES: SD-E, PERFORMANCE RATINGS:
COMPREHENSIVE RANGE**

Flow Rate (Min. - Max.)	50 - 750 US GPM**
Pressure Ratings (Min. - Max.)	50 - 224 PSI**
Speed Ratings (Min. - Max.)	2900 - 3550 RPM**

** These values only indicate overall range available in this series. For the availability of any specific ratings and details of its certification, please contact factory.

Features

- Performance as per NFPA 20.
- Maximum Working Pressure verified through Hydrostatic Test
- Reliable Hydraulic characteristics
- High-Quality Component Materials
- Electric Motor or Diesel Engine combinations
- Factory equipped to test associated equipment along with Pumps.
- Availability of related additional accessories based on project demand.

“Economical & Back Pull Out Design”

IMPELLER

Impeller is hydraulically balanced and positively driven by shaft key and axially locked between sleeve and impeller nut

SHAFT SEAL

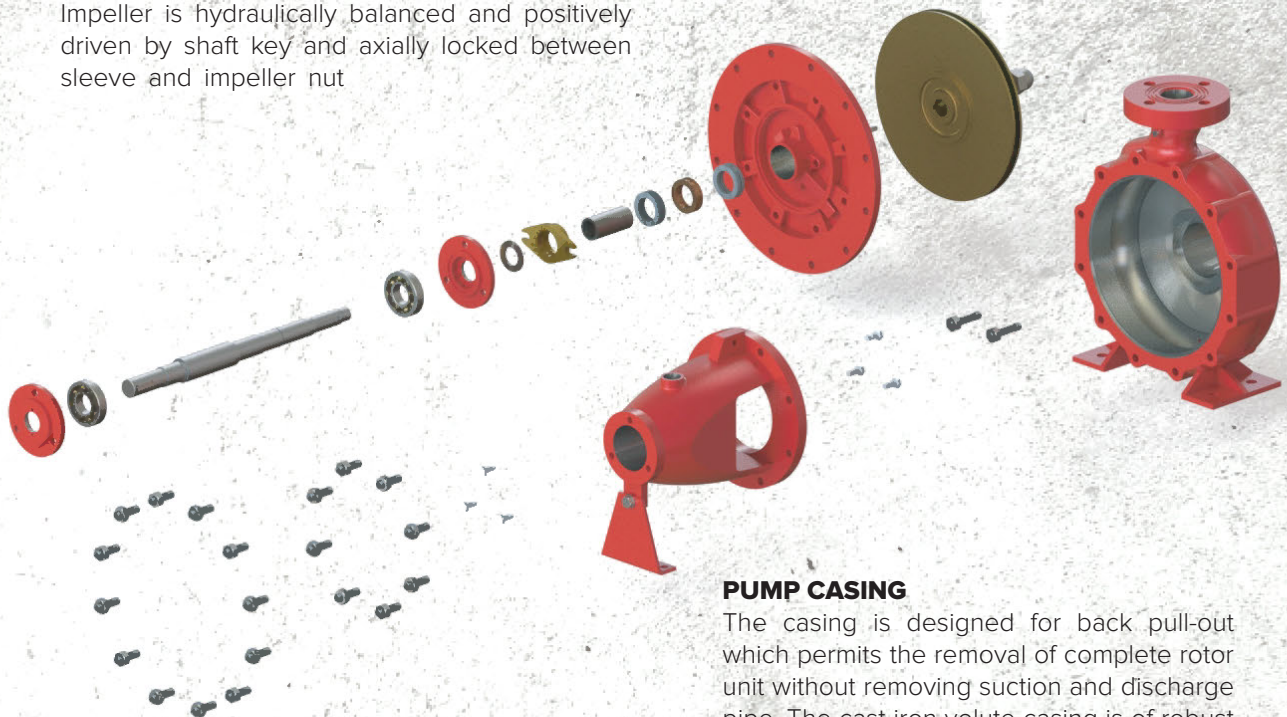
Soft Packed stuffing box. Graphite impregnated type gland packing.

BEARINGS

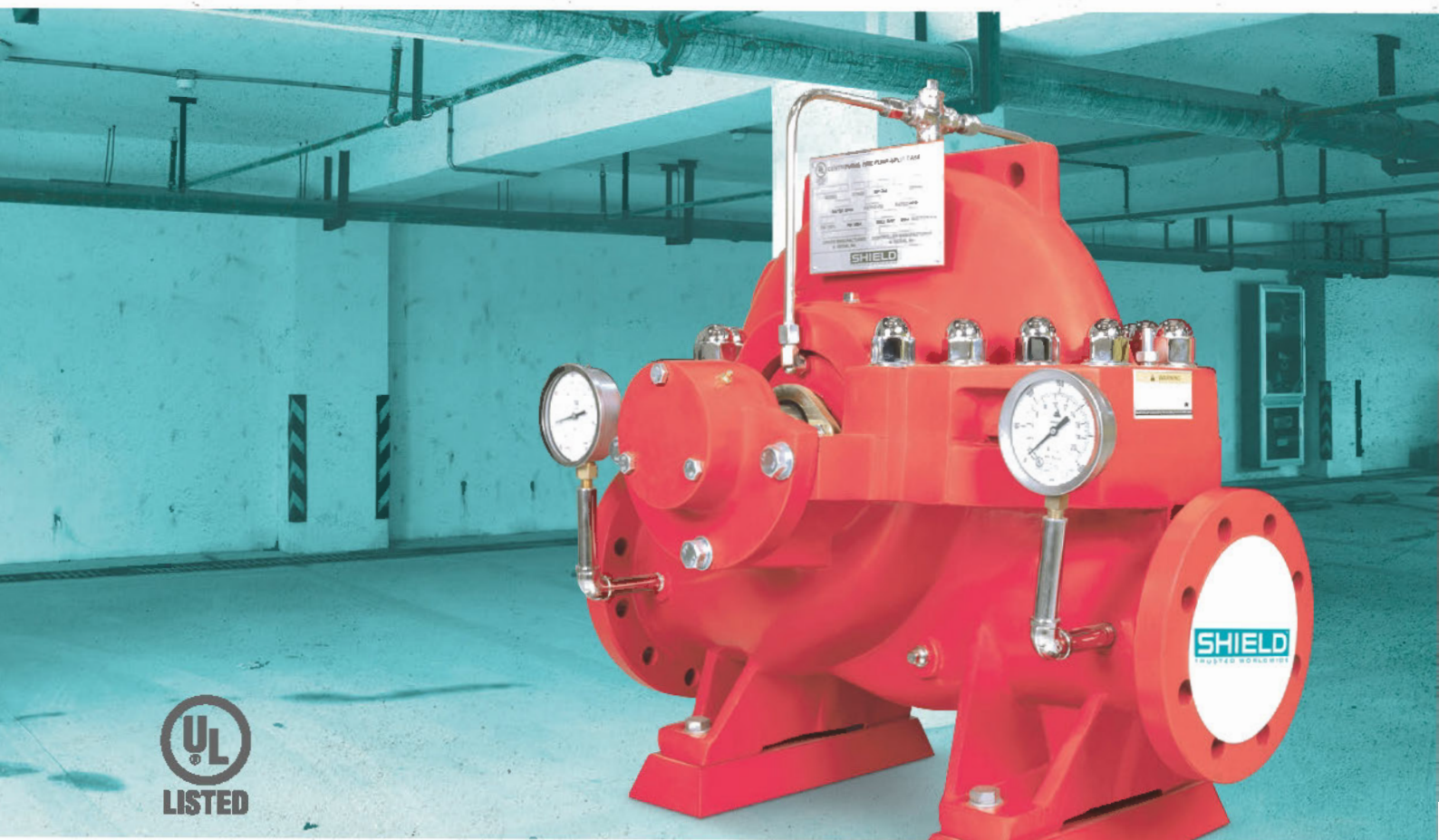
High-quality grease-lubricated bearings are provided on both sides

PUMP CASING

The casing is designed for back pull-out which permits the removal of complete rotor unit without removing suction and discharge pipe. The cast iron volute casing is of robust design with integrally cast feet, vertical top centerline discharge with axial suction incorporating cast inlet vane to give best flow to impeller eye.



FIRE PUMP HORIZONTAL SPLIT CASE



SHIELD Fire Pumps are designed as per NFPA standards meeting all the performance requirements for fire pump applications. This strict compliance to the quality standards, when combined with the long and reputed experience of SHIELD, provides you with a reliable solution for all your **firefighting pump needs**. We are well-equipped to offer you a wide range of related services from the project design stage to the periodic maintenance. All pump sets are tested at our facility as per NFPA standards to ensure that the performance of the pump is meeting the design requirements.

**SERIES: SD-S, PERFORMANCE RATINGS:
COMPREHENSIVE RANGE**

Flow Rate (Min. - Max.)	300 - 3500 US GPM**
Pressure Ratings (Min. - Max.)	81 – 332 PSI*
Speed Ratings (Min. - Max.)	1470 - 3550 RPM**

** These values only indicate overall range available in this series. For the availability of any specific ratings and details of its certification, please contact factory.

Features

- Performance as per NFPA 20.
- Maximum working pressure verified through hydrostatic test.
- Reliable hydraulic characteristics.
- High-Quality component materials.
- Electric Motor or Diesel Engine combinations
- Factory equipped to test the complete fire pump unit.
- Availability of related additional accessories based on project demand.

“Higher Capacity & Easy Maintenance”

IMPELLER

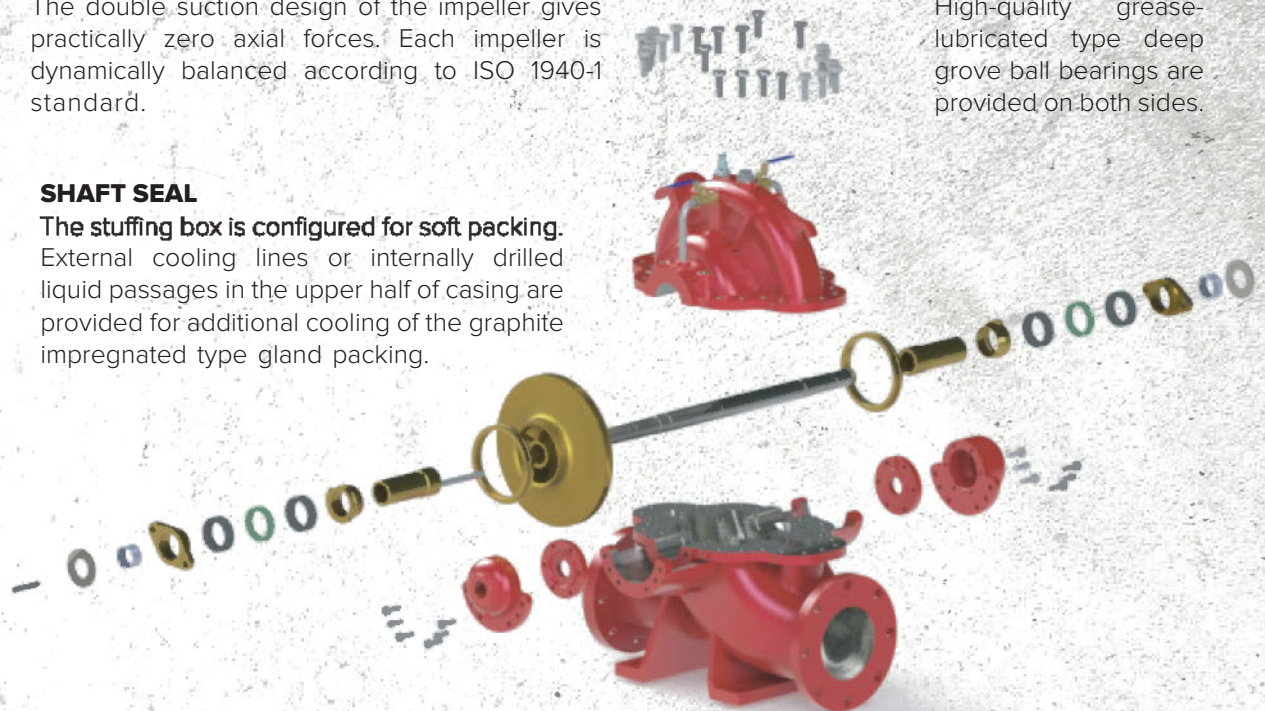
The double suction design of the impeller gives practically zero axial forces. Each impeller is dynamically balanced according to ISO 1940-1 standard.

SHAFT SEAL

The stuffing box is configured for soft packing. External cooling lines or internally drilled liquid passages in the upper half of casing are provided for additional cooling of the graphite impregnated type gland packing.

BEARINGS

High-quality grease-lubricated type deep groove ball bearings are provided on both sides.



PUMP CASING

Axially split casing permits the removal of the complete rotor without moving either piping or driver. Pumps generating high heads have double volutes to reduce axial forces, ensuring minimal shaft deflection and low bearing loads. Replaceable wearing rings protect the casing at the impeller running clearances.



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