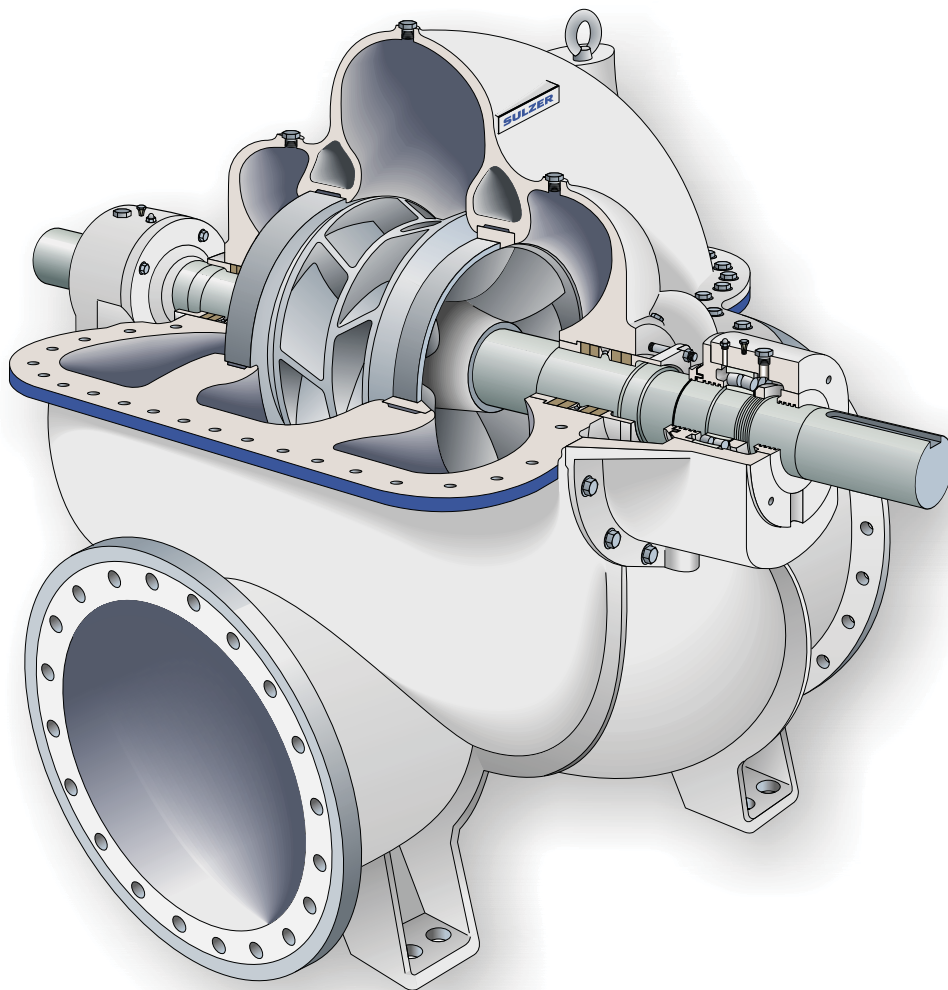


ZPP Double Suction Pumps



Sulzer Pumps – Striving to Serve You Better

Sulzer Pumps is a leading global supplier of reliable products and innovative pumping solutions for end users. Our active research and development, detailed process and application knowledge together with a comprehensive understanding of market demands keeps us consistently at the leading edge of technical development. Our global network of modern manufacturing and packaging facilities together with sales offices, service centers and representatives located close to major markets provide fast responses to customer needs.

Sulzer Pumps is active serving business partners in the following industries: oil & gas, hydrocarbon processing, pulp & paper, power generation, food, metals & fertilizers and water & wastewater

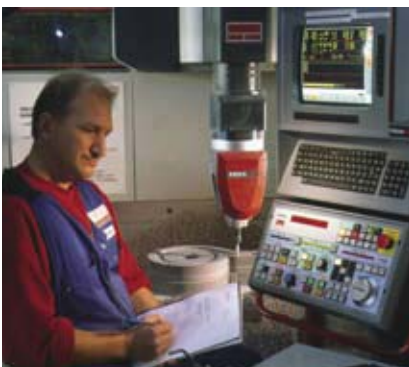


A Reputation for Excellence

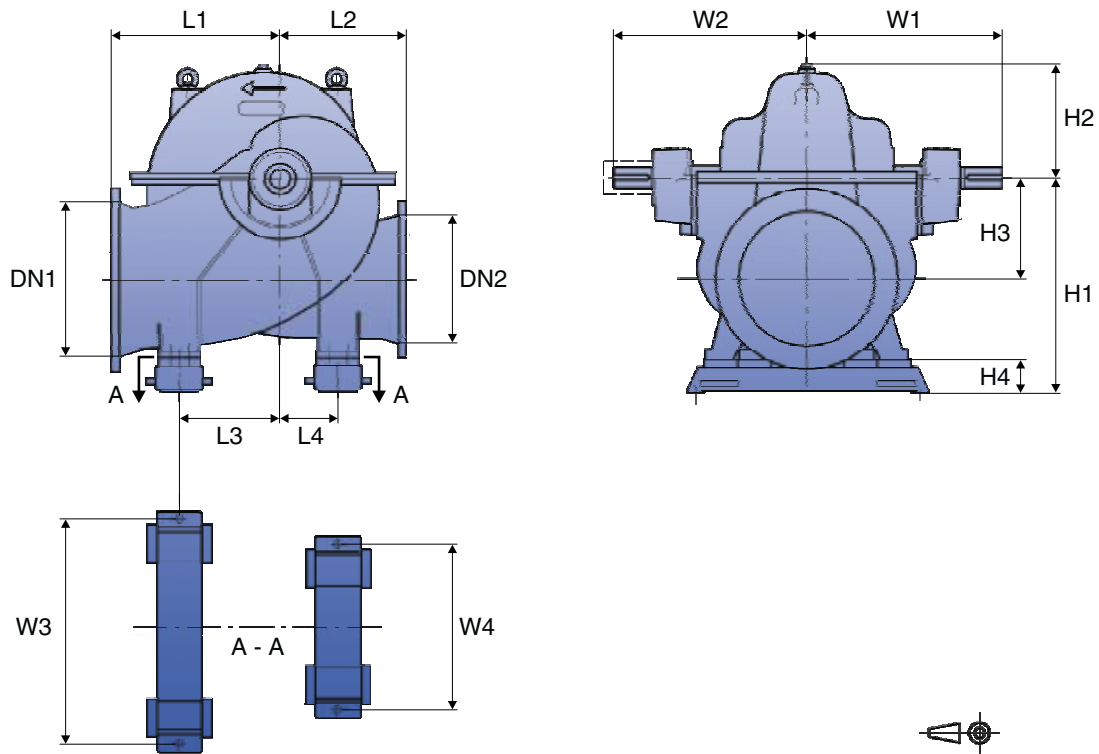
Sulzer Pumps has earned its reputation for providing advanced pumping solutions that meet the critical demands of our customers and business partners. Attention to detail and an insistence on quality are paramount to all phases of our operations.

Through having our own foundries, we are able to ensure optimum pump material selection for each particular application. Our 15 manufacturing plants are strategically located throughout the world, and our production processes are ISO 9001 and ISO 14001 certified.

Each and every pump is rigorously tested before shipment, and regardless of where in the world our pumps are made, the commitment to quality is unrelenting.



Main Dimensions



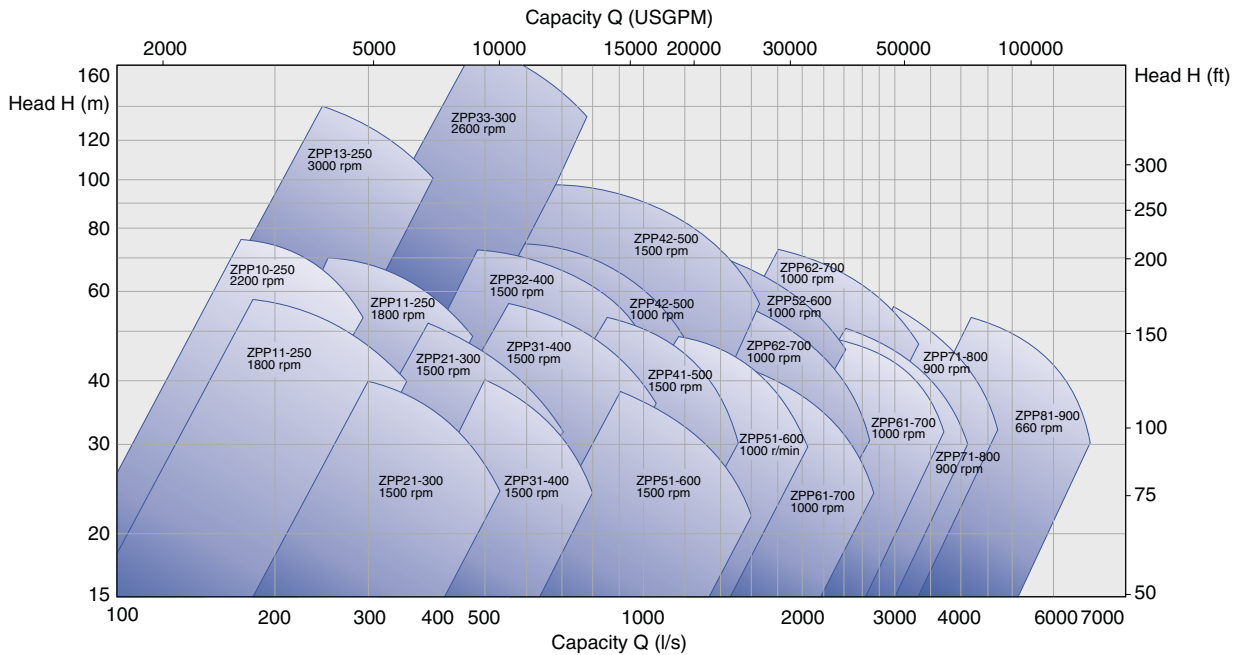
| Size | Main dimensions (mm) | | | | | | | | | | | | | | Weight (kg) |
|-----------|----------------------|-----|------|------|-----|-----|------|------|-----|-----|------|------|------|------|-------------|
| | DN1 | DN2 | H1 | H2 | H3 | H4 | L1 | L2 | L3 | L4 | W1 | W2 | W3 | W4 | |
| ZPP10-250 | 300 | 250 | 583 | 280 | 255 | 133 | 425 | 355 | 205 | 146 | 596 | 626 | 600 | 600 | 630 |
| ZPP11-250 | 350 | 250 | 663 | 355 | 325 | 133 | 500 | 400 | 240 | 140 | 644 | 675 | 672 | 527 | 1000 |
| ZPP13-250 | 300 | 250 | 583 | 280 | 255 | 133 | 425 | 355 | 205 | 146 | 596 | 626 | 600 | 600 | 650 |
| ZPP21-300 | 400 | 300 | 763 | 383 | 355 | 133 | 632 | 425 | 300 | 140 | 714 | 776 | 672 | 527 | 970 |
| ZPP33-300 | 400 | 300 | 733 | 360 | 325 | 133 | 600 | 560 | 330 | 290 | 814 | 848 | 672 | 527 | 1310 |
| ZPP31-400 | 500 | 400 | 843 | 455 | 425 | 133 | 670 | 450 | 370 | 150 | 788 | 820 | 672 | 527 | 1260 |
| ZPP32-400 | 500 | 400 | 883 | 460 | 400 | 133 | 800 | 600 | 490 | 296 | 834 | 865 | 672 | 527 | 1570 |
| ZPP41-500 | 600 | 500 | 933 | 490 | 450 | 133 | 750 | 560 | 448 | 258 | 930 | 1010 | 972 | 672 | 1910 |
| ZPP42-500 | 600 | 500 | 983 | 530 | 475 | 133 | 950 | 710 | 590 | 368 | 926 | 1006 | 972 | 672 | 2300 |
| ZPP51-600 | 700 | 600 | 1193 | 646 | 600 | 133 | 950 | 630 | 587 | 267 | 1084 | 1121 | 972 | 672 | 2330 |
| ZPP52-600 | 700 | 600 | 1193 | 680 | 630 | 133 | 1250 | 900 | 890 | 540 | 1117 | 154 | 972 | 672 | 3640 |
| ZPP61-700 | 800 | 700 | 1375 | 717 | 670 | 195 | 1120 | 900 | 710 | 490 | 1100 | 1140 | 1420 | 1190 | 4150 |
| ZPP62-700 | 800 | 700 | 1375 | 780 | 710 | 195 | 1250 | 800 | 825 | 375 | 1216 | 1262 | 1420 | 1190 | 4420 |
| ZPP71-800 | 900 | 800 | 1515 | 820 | 740 | 195 | 1250 | 1000 | 840 | 580 | 1220 | 1260 | 1420 | 1190 | 5480 |
| ZPP81-900 | 1200 | 900 | 1930 | 1250 | 991 | 250 | 1651 | 1143 | 762 | 762 | 1530 | 1570 | 2250 | 1690 | 14300 |

- Discharge flange (mm)
- Bearing unit size
- Pump series

Performance Range

Sulzer Pumps offers good coverage with many pump sizes for low and high head applications with high efficiencies. We are able to

provide you with the best possible choice of pump and motor for your requirements.



Material Selection

Our standard Duplex stainless steel ASTM A890 Grade 3A is stronger, harder and has higher pitting corrosion resistance than

stainless steel which is conventionally used for double suction pumps.

| Main parts | Duplex stainless steel design | Cast iron design |
|------------------|-------------------------------|----------------------|
| Volute casing | SS ASTM A890 Gr.3A* | CI ASTM A48 CL 35B |
| Impeller | SS ASTM A890 Gr.3A* | SS ASTM A 890 Gr.3A* |
| Shaft | SS2324** | SS2324** |
| Casing wear ring | SS ASTM A890 Gr.3A* | SS ASTM A890 Gr.3A* |
| Shaft sleeve | SS2324** | SS2324** |

C max Cr Ni Mo N
 * 0.06 24-27 4-6 1.75-2.50 0.15-0.25
 ** 0.10 23-27 4.5-7 1.30-1.80 -

Comparable to AISI 329 and W-No. 1.4460

Other materials can be delivered on request.

ZPP Pumps in Industrial Applications



In a paper mill

ZPP61-700 as a headbox feed pump.



In a nuclear power plant

ZPP31-400 as a cooling water pump.



In a steel plant

ZPP31-400 as a water pump removing iron scale.



Design Features and Benefits

Single volute (picture) for lower head and double volute for higher head applications. Low radial loads on bearings and low shaft deflection providing extended seal and bearing life.

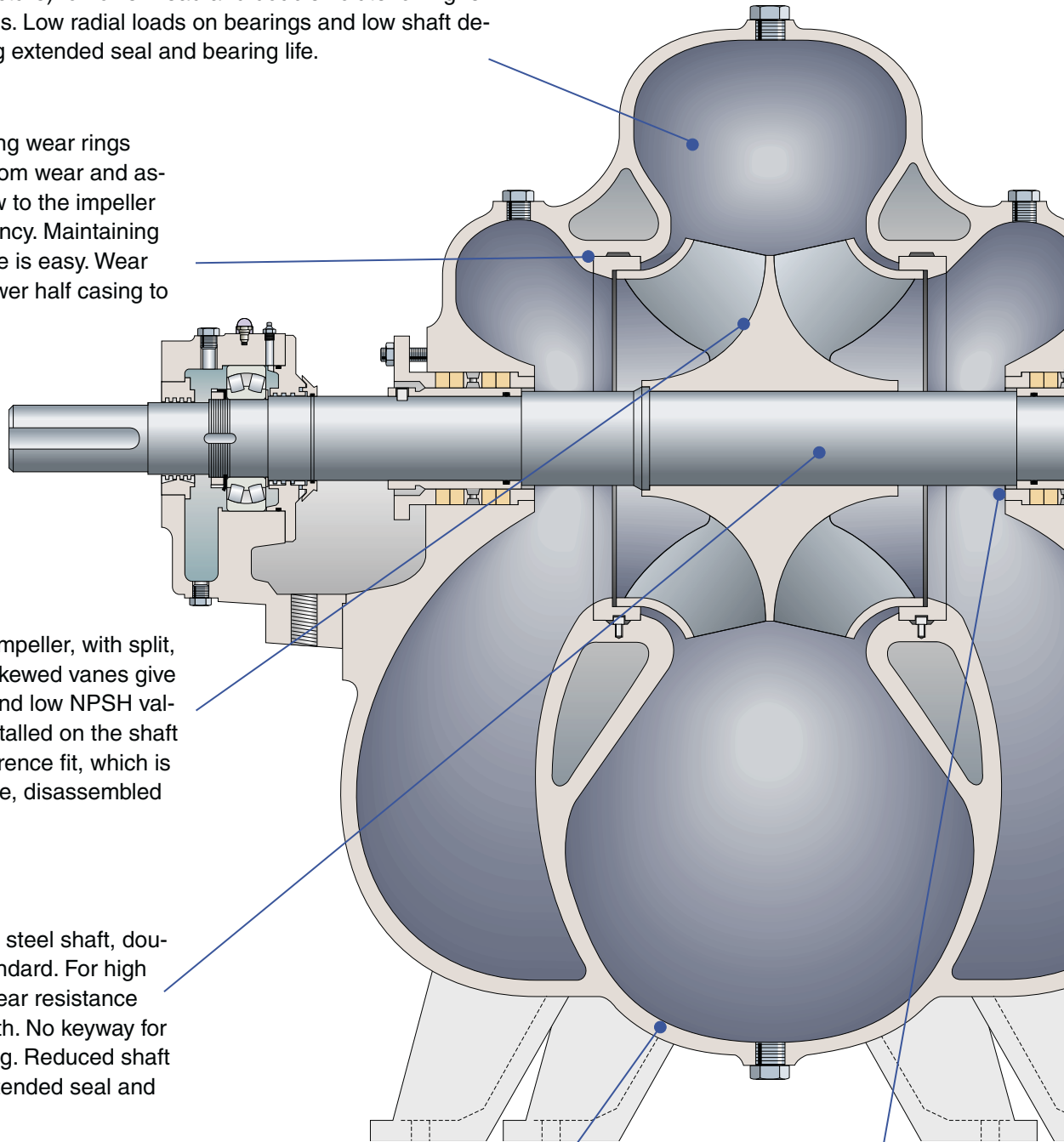
Renewable casing wear rings protect casing from wear and assure smooth flow to the impeller improving efficiency. Maintaining correct clearance is easy. Wear ring locked in lower half casing to prevent rotation.

Double suction impeller, with split, staggered and skewed vanes give high efficiency and low NPSH values. Impeller installed on the shaft by strong interference fit, which is easy to assemble, disassembled hydraulically.

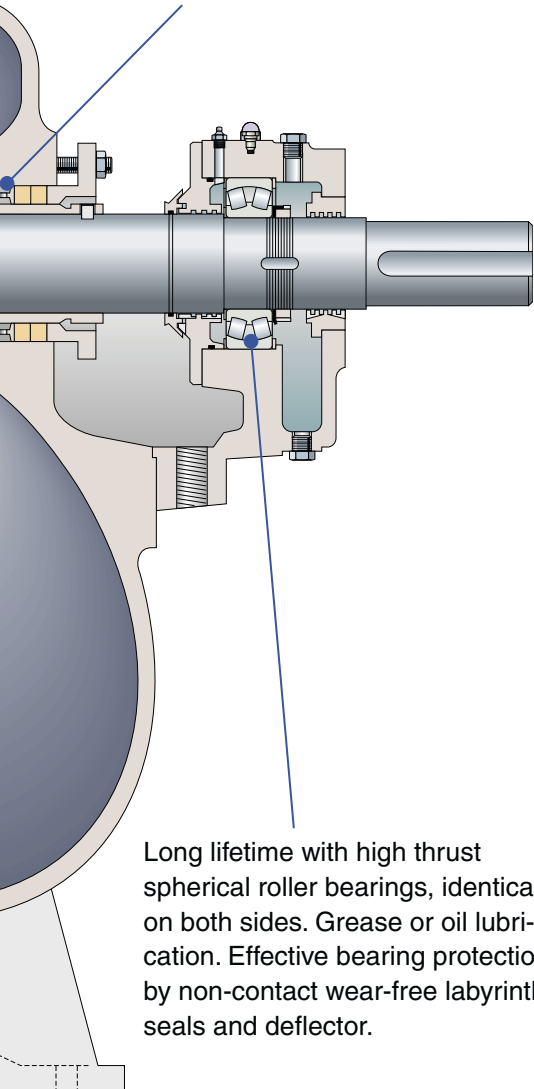
Duplex stainless steel shaft, double-ended is standard. For high corrosion and wear resistance plus high strength. No keyway for impeller fastening. Reduced shaft deflection for extended seal and bearing life.

Heavy-duty horizontally split casing. Suction and discharge connections in the lower casing half. Inspection, maintenance and removal of the rotating unit is possible without disturbing the piping or motor.

Renewable stuffing box bushing, protects casing from wear.

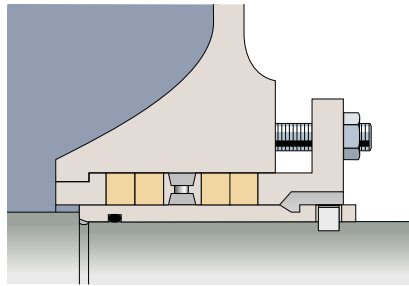


Shaft sealing, stuffing boxes, external or internal sealing liquid. Split stuffing box gland and lantern ring. Lantern ring and shaft sleeve provided with withdrawal grooves for quick and easy service. Single mechanical seals with quench available for all sizes.

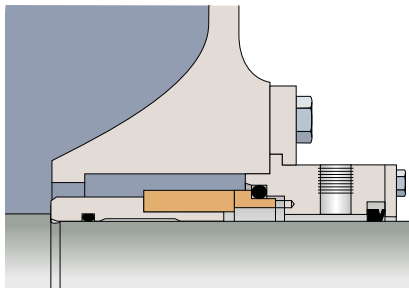


Long lifetime with high thrust spherical roller bearings, identical on both sides. Grease or oil lubrication. Effective bearing protection by non-contact wear-free labyrinth seals and deflector.

Shaft Sealing

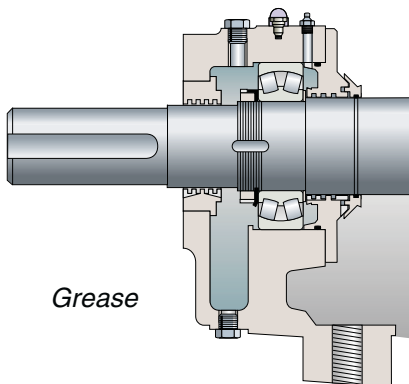


Split stuffing box gland and lantern ring assure quick and easy change of packings. Packings with or without external or internal sealing liquid provide flexibility according to application.

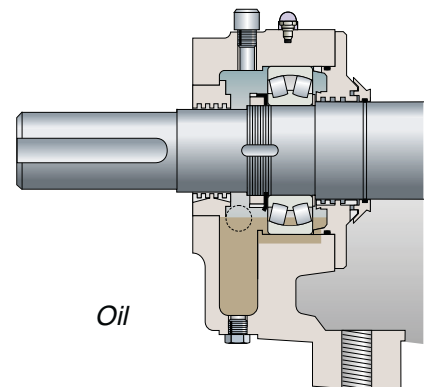


Different mechanical seals available. Seals fit into the same chamber as packings providing easier change-over to another type of sealing.

Bearing Unit Lubrication



Grease or oil lubricated bearing units provide flexibility. No adjustments needed making assembly quicker and easier. Generously sized identical spherical roller bearings on both sides give a bearing lifetime of over 100 000 hours.





Check our worldwide offices at
www.sulzerpumps.com