

DIFFERENTIAL HEAD IN FEET

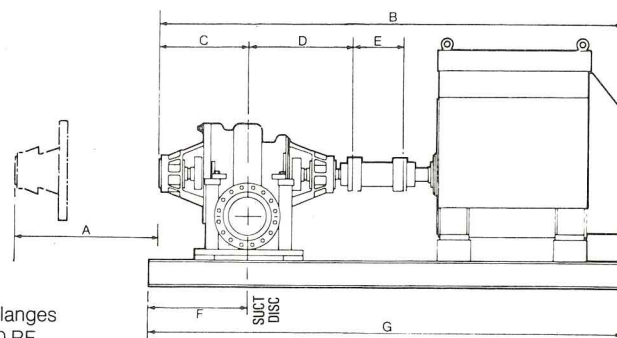
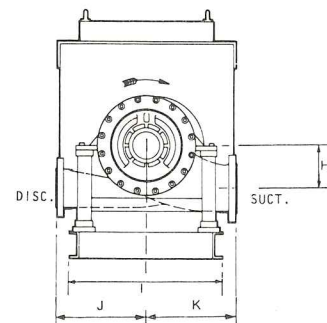
DIFFERENTIAL HEAD IN METRES

SINGLE-STAGE CRUDE CHARGE PUMP 300×250×600 General Arrangement

APPROXIMATE DIMENSIONS (MM)

A	B*	C	D	E	F	G*	H	I*	J	K	Approx. Weight/K.G.
1120	3599	688	828	380	770	3688	328	1200	700	700	1636

*These dimensions depend upon motor size.



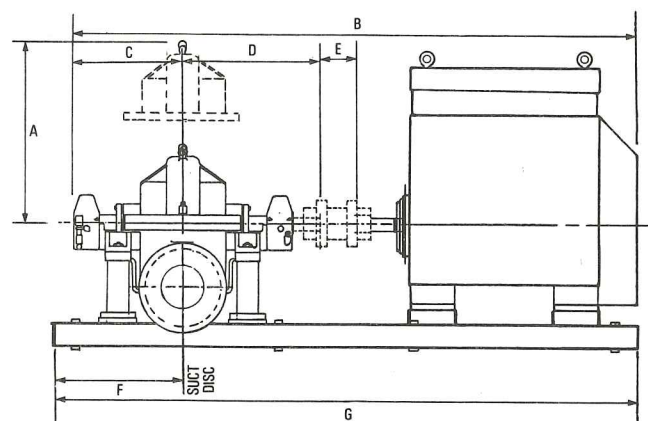
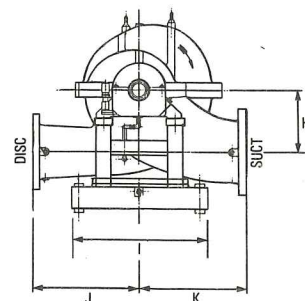
Standard Flanges
ASA 300 RF

SINGLE STAGE CRUDE CHARGE PUMP 350 × 300 × 635 General Arrangement

APPROXIMATE DIMENSIONS (MM)

A	B*	C	D	E	F	G*	H	I*	J	K	Approx. Weight/K.G.
900	4040	755	930	244	910	4195	434	1000	750	750	1970

*These dimensions depend upon motor size.

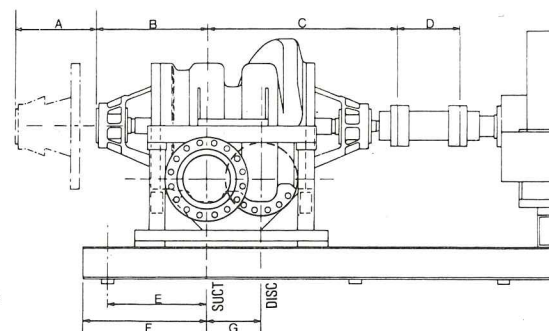
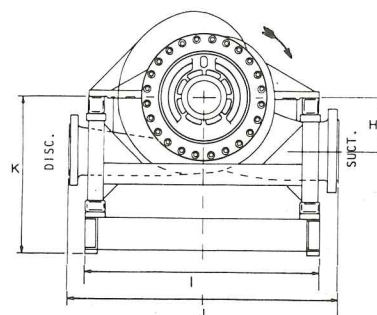


Standard Flanges
ASA 300 RF

TWO-STAGE CRUDE CHARGE PUMP 300×250×600 General Arrangement

APPROXIMATE DIMENSIONS (MM)

A	B	C	D	E	F	G	H	I	J	K	Approx. Weight/K.G.
1480	688	1194	380	620	770	336	328	1470	1680	975	2639



Standard Flanges
ASA 400 RF

Installation and service

One of the contributory factors to the world-wide success of Hayward Tyler is the exceptionally high standard of service that is part of every installation.

What does this service cover? Just about anything you can think of to do with our products. This means

installation, commissioning, trouble shooting on site, reconditioning and repairs, spares, technical advice, testing facilities and many others. It can vary from advice on the telephone by a field service engineer to organising shipment of pumps back to our Works for reconditioning and

testing under load conditions.

Every Hayward Tyler pump is designed to work with the minimum of maintenance. Occasionally however things do go wrong, but no matter how remote the locality, modern communications will bring a field service engineer within hours.

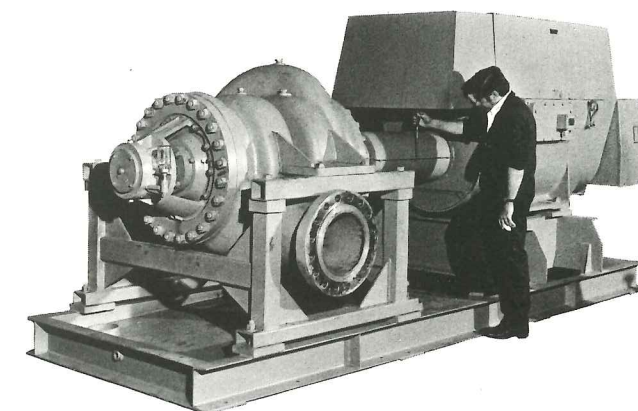
 **Hayward Tyler**
A Sterling Company

Hayward Tyler Limited
Process Industry Products

Hayward Tyler

CRUDE CHARGE RANGE

of process pumps



CRUDE CHARGE RANGE of process pumps

The Hayward Tyler range of single and two stage Crude Charge pumps complies with the API 610 specification. All units are of robust design and capable of trouble-free operation under the most arduous conditions. The Crude Charge pumps are suited for both on-site and off-site applications where large volumes of crude oil and intermediates have to be pumped and where the available NPSH is restricted.

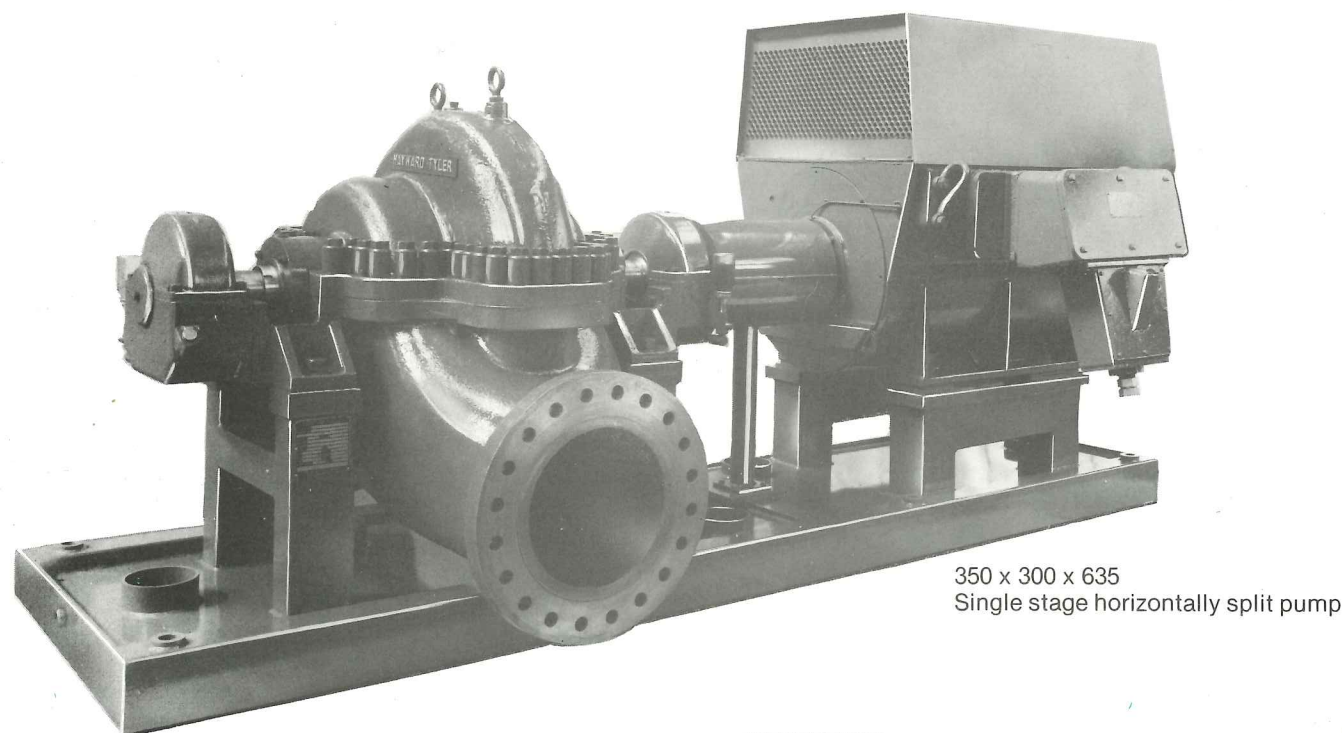
Each pump is centre-line mounted and capable of high temperature operation, and all units have provision for water cooling of bearings, stuffing boxes and pedestals.

The smaller units are radially split whereas the larger pumps are horizontally split, to facilitate removal of their larger rotating assemblies.

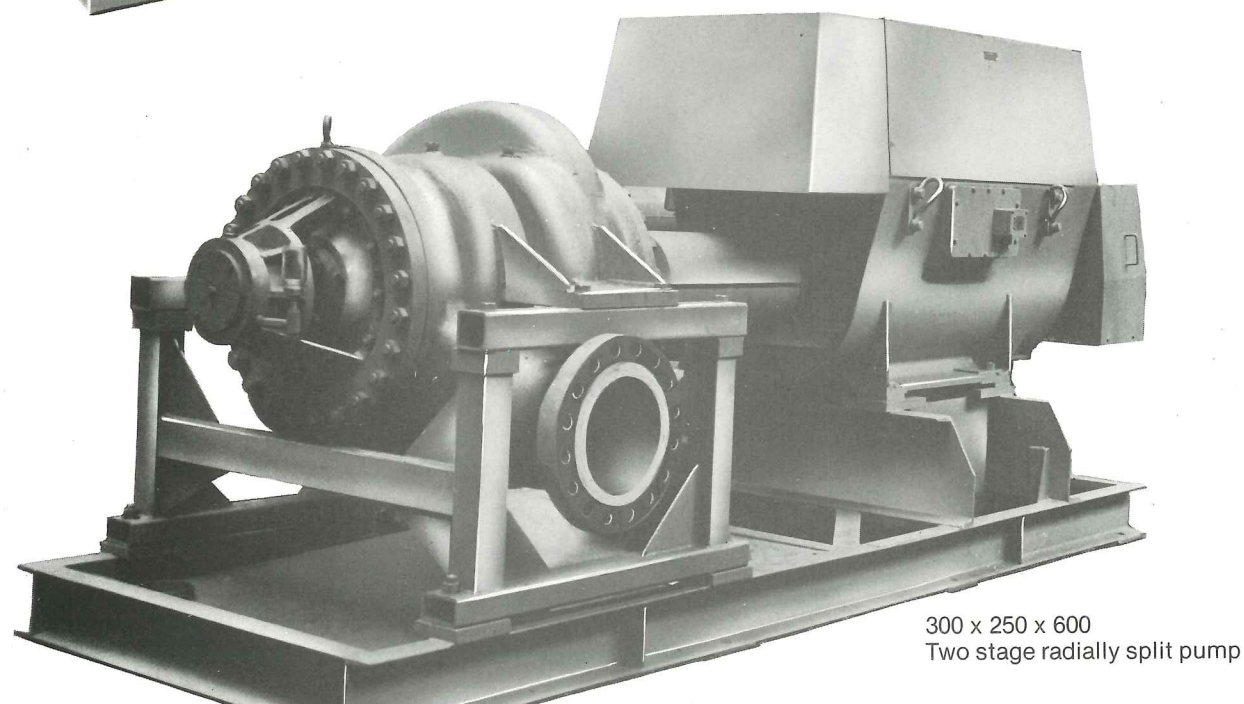
Computer aided design techniques have been used to determine shaft strength and critical speeds are well above maximum operating speeds, so reducing vibration to a minimum.

A wide selection of mechanical seals or soft packing can be fitted dependent on application. The mechanical seals used can be single, double or tandem, balanced or un-balanced, all installations conforming to API 610.

The casing pressure and thermal stresses have been evaluated by finite element methods, and the designs are tailored to the latest technology in foundry methods to ensure the highest quality of cast components.

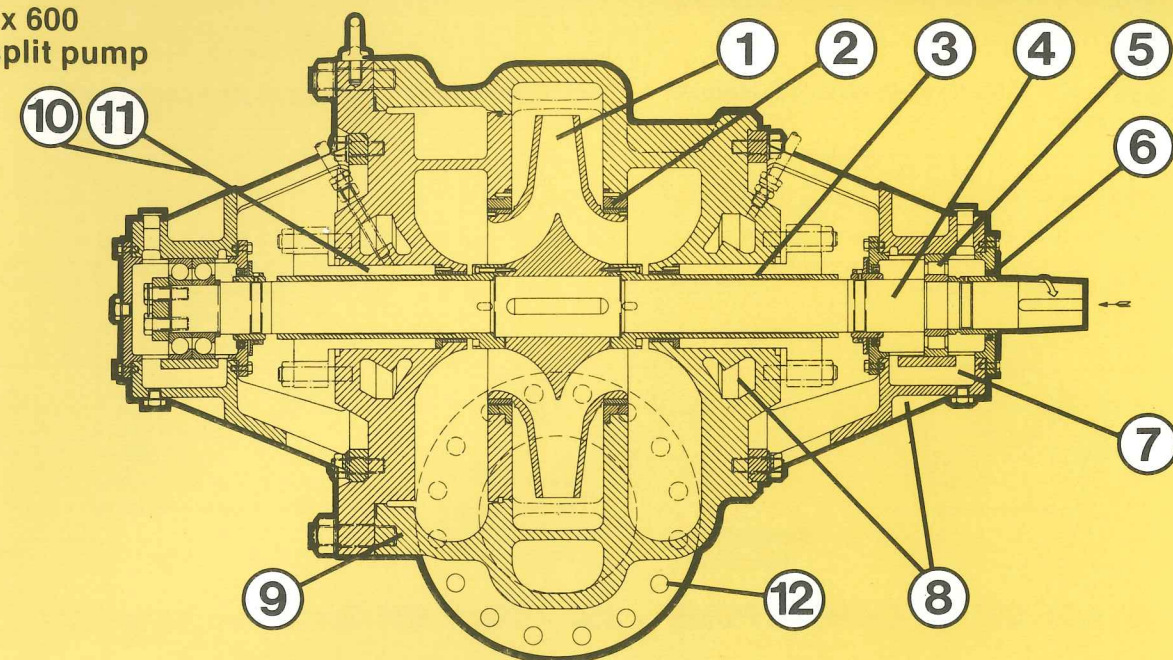


350 x 300 x 635
Single stage horizontally split pump

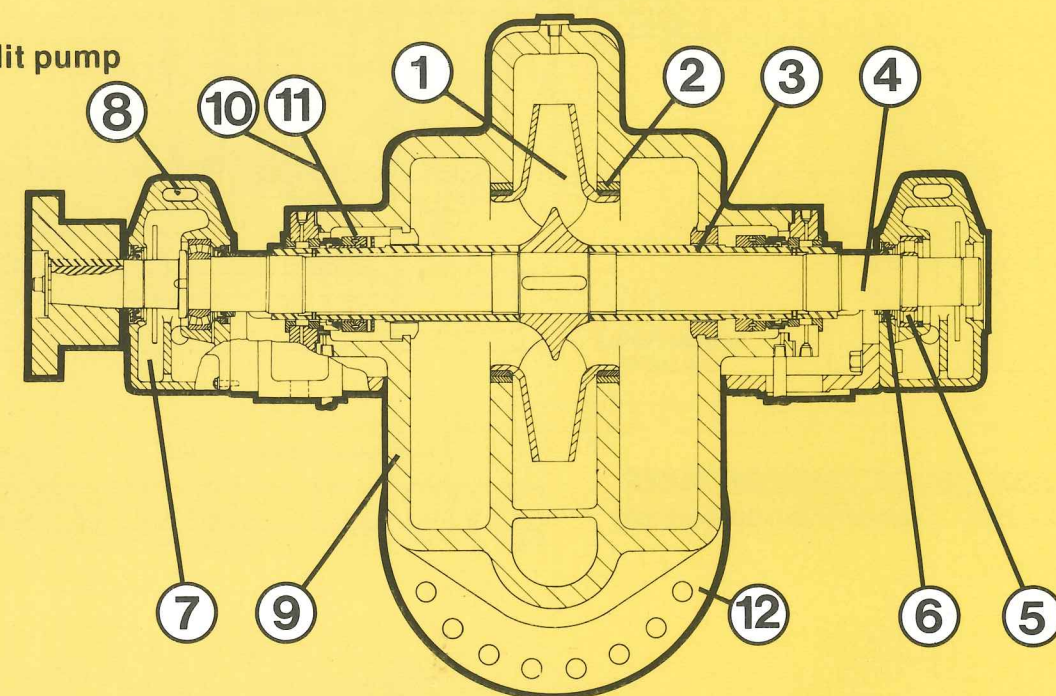


300 x 250 x 600
Two stage radially split pump

300 x 250 x 600
Radially split pump

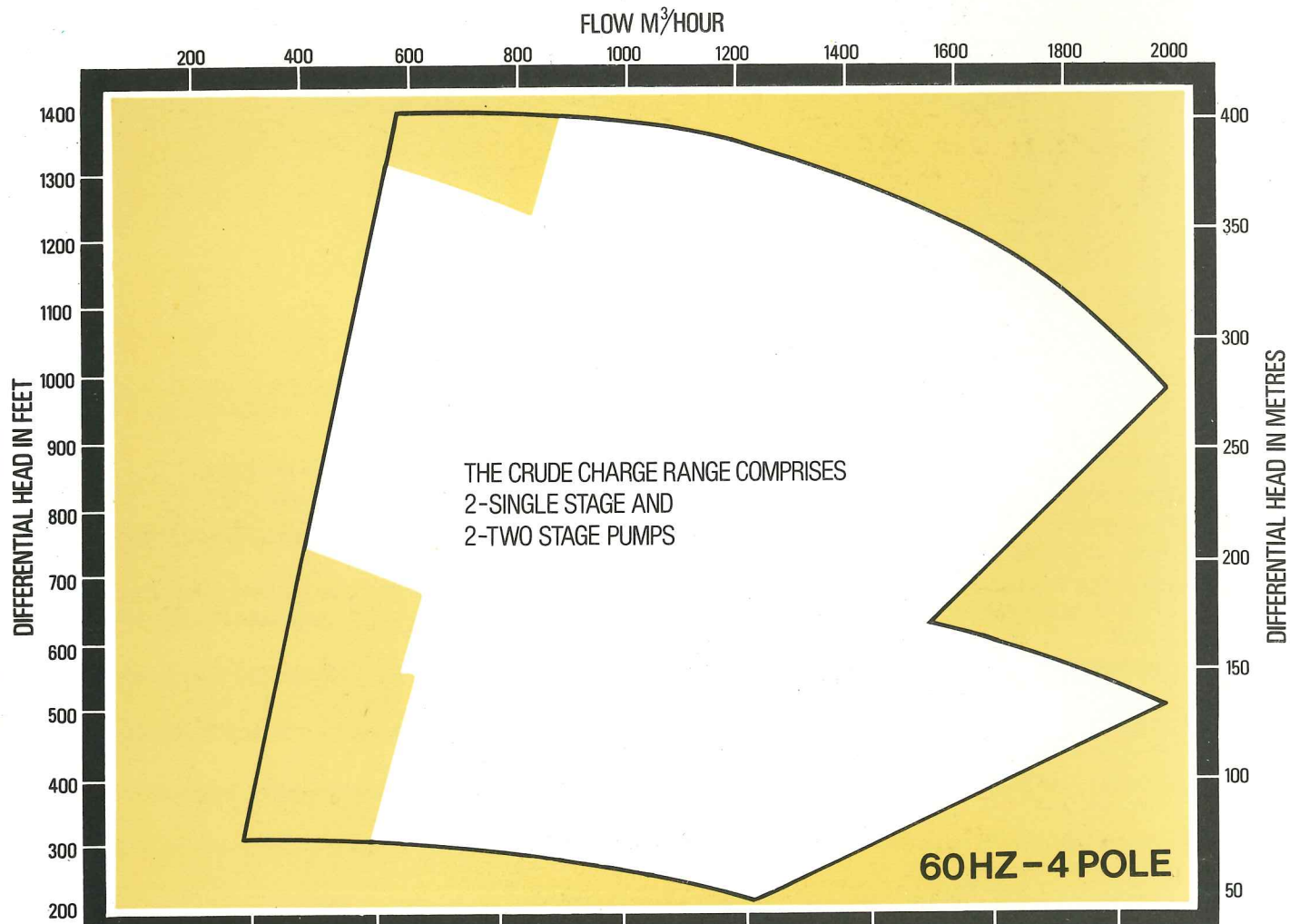
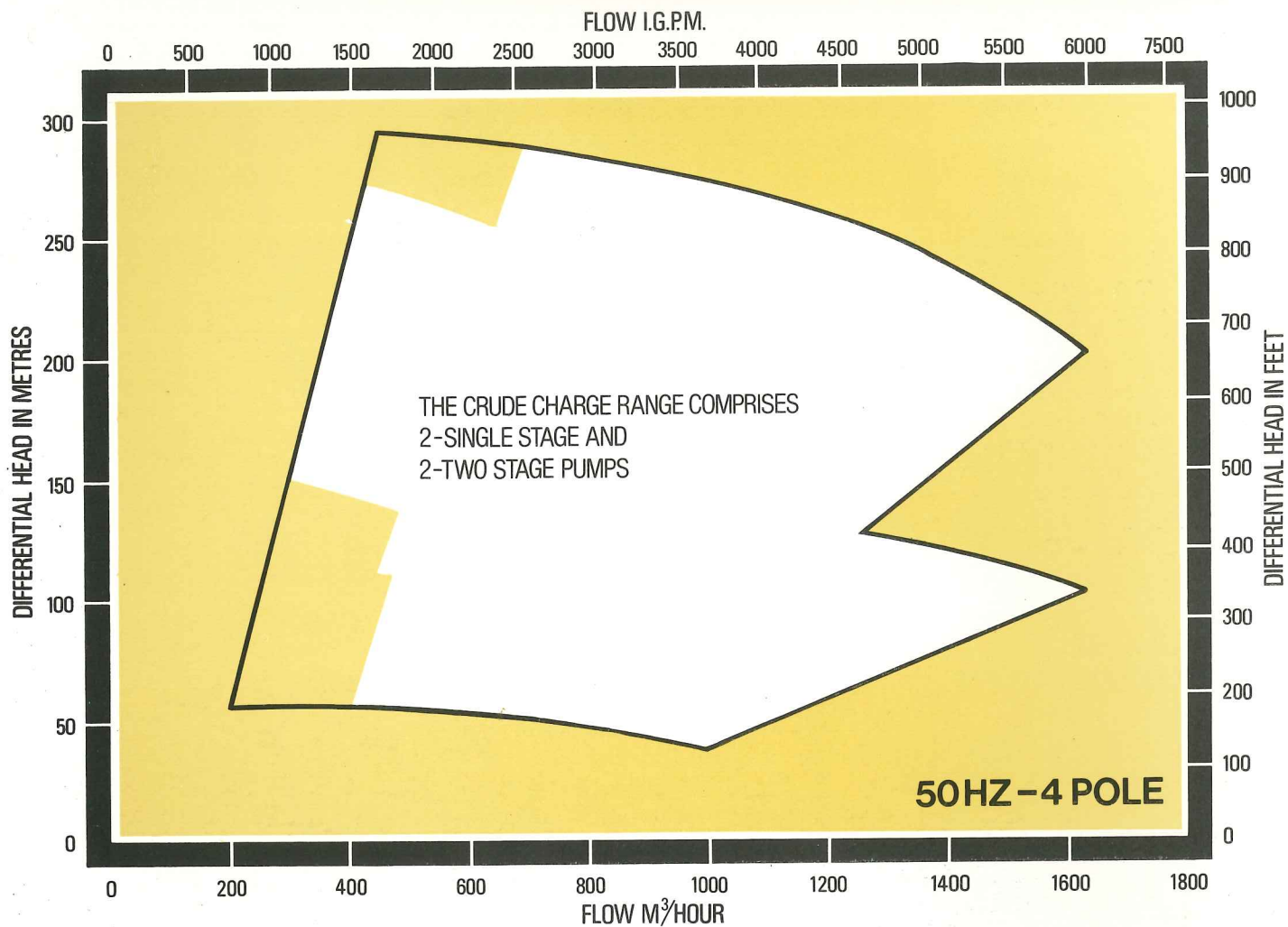


350 x 300 x 635
Horizontally split pump

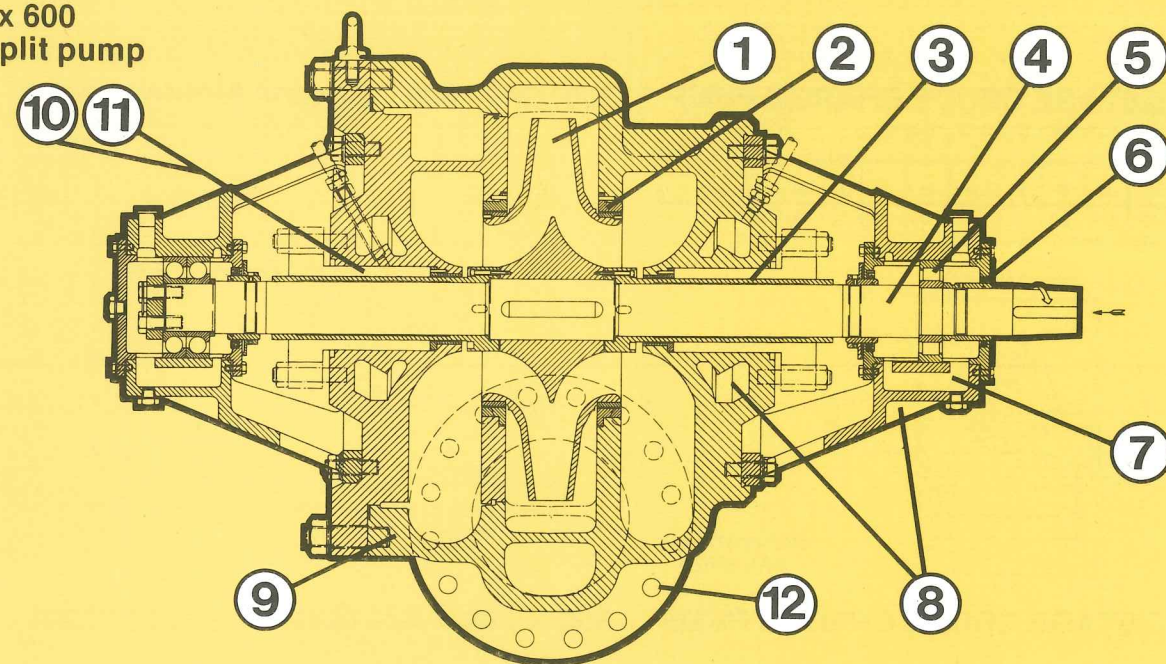


Single Stage Pumps

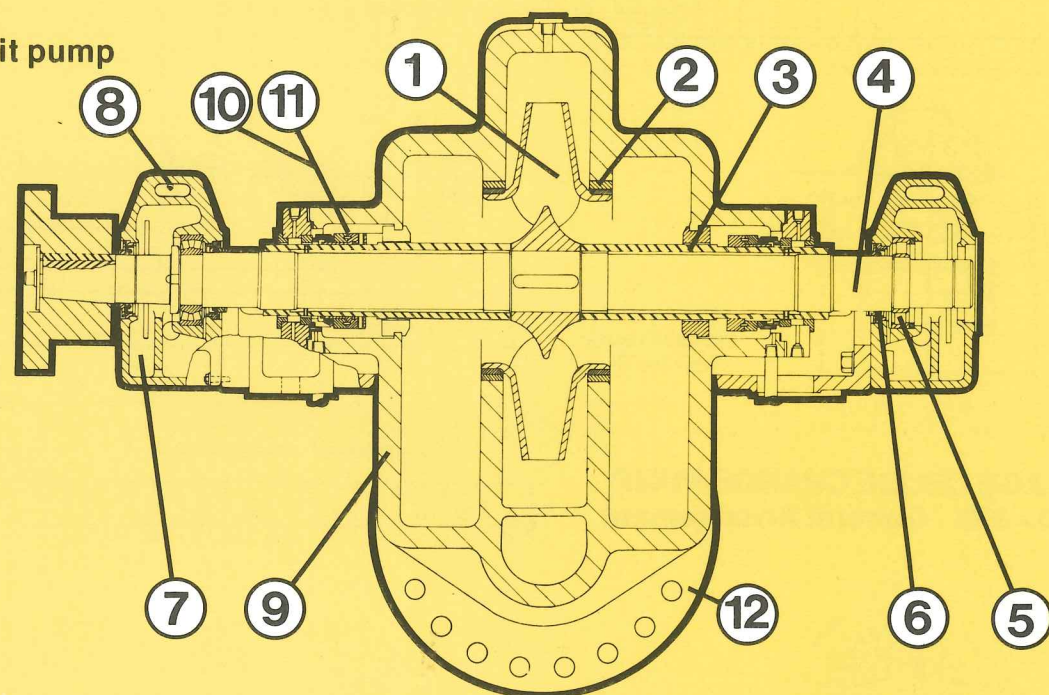
- 1. Impellers** Double entry for low NPSH requirement. Shrouded for high efficiency and designed to give the best hydraulic performance. Balanced as required by API 610.
- 2. Wear Rings** Secured by screws, and faces are 'stellited' when necessary. Easily renewable.
- 3. Shaft Sleeves** Sealed against leakage and hard surfaced or 'stellited' when necessary.
- 4. Shafts** Stiff to limit deflection. First critical speed well above maximum operating speed. Alloy or stainless steel, whichever is required for the application.
- 5. Bearings** The roller radial and angular contact thrust bearings are selected to give bearing lives above API 610 requirements. Back to back fitted angular contact bearings do not require to be paired. The larger unit has a spherical roller thrust bearing.
- 6. Bearing Seals** These prevent bearing contamination by liquid or solid matter and leakage of oil from the bearing housing.
- 7. Lubrication** Flooded method used as standard. The correct level is maintained by constant level oilers. Force feed lubrication systems are available if required, for all units.
- 8. Cooling** Can be provided to bearing housings, stuffing boxes and pedestals, when pumping temperature demands.
- 9. Casing Design** Allows complete rotating unit to be removed, without disturbance of pipe-work or pump and driver alignment.
- 10. Seals** Mechanical seals of various types can be fitted to suit the pumping application.
- 11. Soft packing** with lantern rings can be fitted.



300 x 250 x 600
Radially split pump



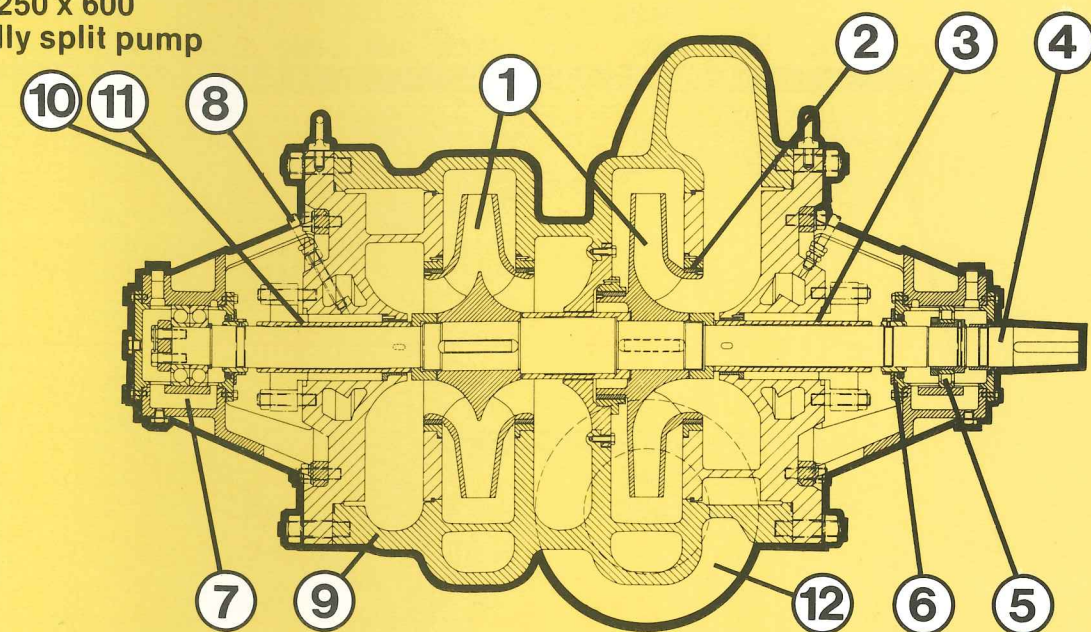
350 x 300 x 635
Horizontally split pump



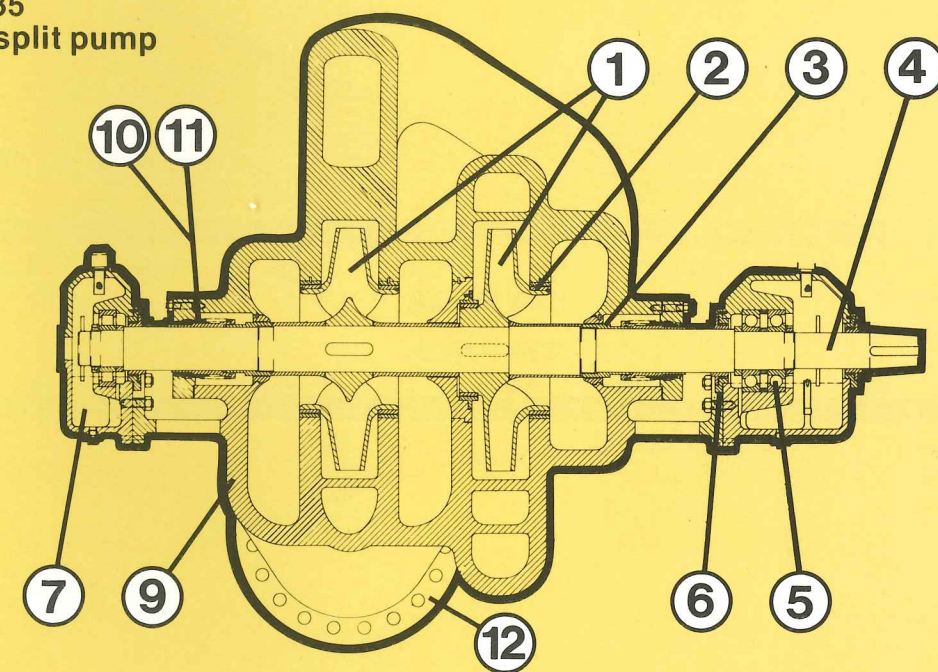
Single Stage Pumps

1. **Impellers** Double entry for low NPSH requirement. Shrouded for high efficiency and designed to give the best hydraulic performance. Balanced as required by API 610.
2. **Wear Rings** Secured by screws, and faces are 'stellited' when necessary. Easily renewable.
3. **Shaft Sleeves** Sealed against leakage and hard surfaced or 'stellited' when necessary.
4. **Shafts** Stiff to limit deflection. First critical speed well above maximum operating speed. Alloy or stainless steel, whichever is required for the application.
5. **Bearings** The roller radial and angular contact thrust bearings are selected to give bearing lives above API 610 requirements. Back to back fitted angular contact bearings do not require to be paired. The larger unit has a spherical roller thrust bearing.
6. **Bearing Seals** These prevent bearing contamination by liquid or solid matter and leakage of oil from the bearing housing.
7. **Lubrication** Flooded method used as standard. The correct level is maintained by constant level oilers. Force feed lubrication systems are available if required, for all units.
8. **Cooling** Can be provided to bearing housings, stuffing boxes and pedestals, when pumping temperature demands.
9. **Casing Design** Allows complete rotating unit to be removed, without disturbance of pipe-work or pump and driver alignment.
10. **Seals** Mechanical seals of various types can be fitted to suit the pumping application.
11. **Seals** Mechanical seals of various types can be fitted to suit the pumping application.
12. **Seals** Mechanical seals of various types can be fitted to suit the pumping application.

300 x 250 x 600
Radially split pump



350 x 300 x 635
Horizontally split pump



Two Stage Pumps

1. **Impellers** Double entry first stage for low NPSH requirement. Shrouded for high efficiency and designed to give the best hydraulic performance. Separated by a centre sleeve which can be 'stellited' when necessary. Balanced as required by API 610.
2. **Wear Rings** Secured by screws, and faces are 'stellited' when necessary. Easily renewable.
3. **Shaft Sleeves** Sealed against leakage and hard surfaced or 'stellited' when necessary.
4. **Shafts** Stiff to limit deflection. First critical speed well above maximum operating speed. Alloy or stainless steel, whichever is required for the application.
5. **Bearings** The roller radial and angular contact thrust bearings are selected to give bearing lives above API 610 requirements. Back to back fitted angular contact bearings and the type used do not require to be paired.
6. **Bearing Seals** These prevent bearing contamination by liquid or solid matter and leakage of oil from the bearing housing.
7. **Lubrication** Flooded method used as standard. The correct level is maintained by constant level oilers. Force feed lubrication systems are available if required, for all units.
8. **Cooling** Can be provided to bearing housings, stuffing boxes and pedestals, when pumping temperature demands.
9. **Casing Design** Allows complete rotating unit to be removed, without disturbance of pipe-work or pump and driver alignment.
10. **Seals** Mechanical seals of various types can be fitted to suit the pumping application.