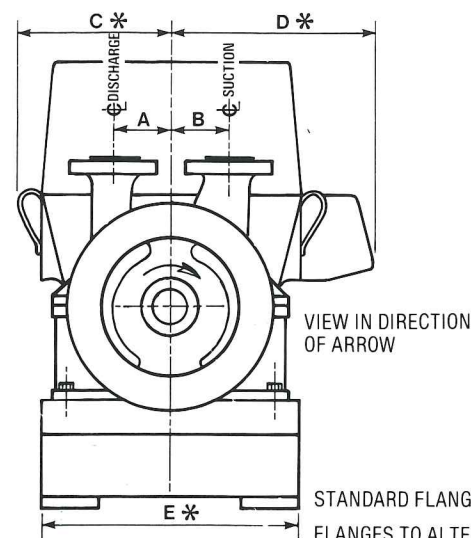
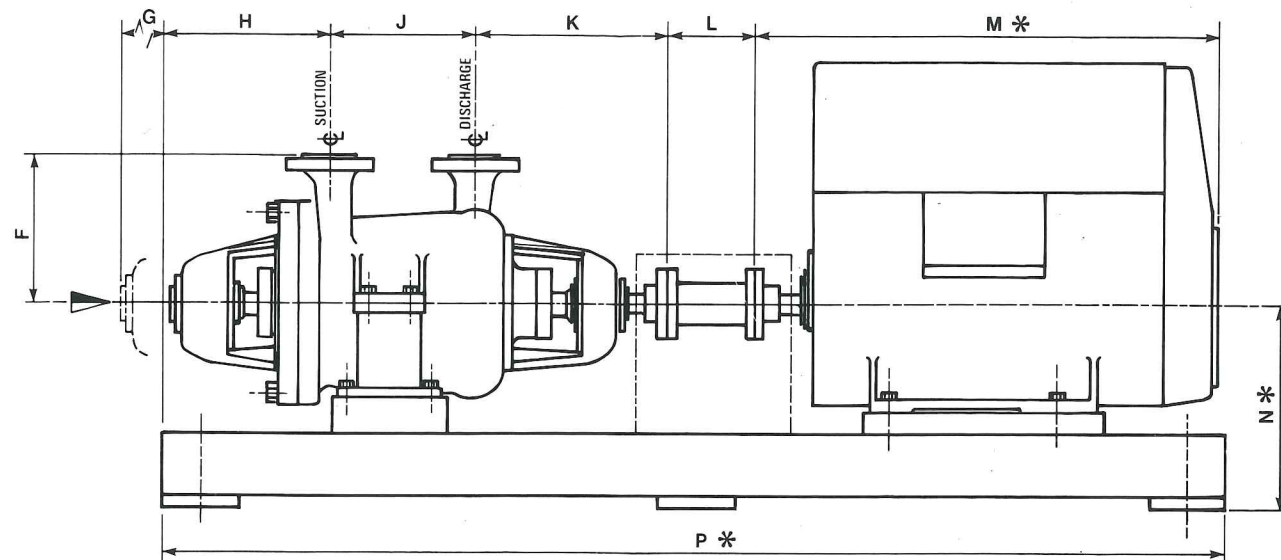


MINIMUM SPACE REQUIRED
FOR WITHDRAWAL OF
ROTATING ASSEMBLY



PUMP SIZE	AT 2900 R.P.M.		HEAD PER STAGE		N° OF STAGES	A	B	C	D	E	F	G	H	J	K	L	M	N	P
	I.G.P.M.	M ³ /HR.	FEET	METRES															
80 x 80 x 250	200	55	225	70	5	180	150	*	*	1016	433	1151	530	383	653	406	*	*	*
					6	180	150	*	*	1016	433	1229	530	461	653	406	*	*	*
					7	180	150	*	*	1016	433	1307	530	539	653	406	*	*	*
					8	180	150	*	*	1016	433	1385	530	617	653	406	*	*	*
100 x 100 x 320	400	110	400	122	3	191	191	*	*	1016	483	1039	548	305	640	406	*	*	*
					4	191	191	*	*	1016	483	1128	548	394	640	406	*	*	*
					5	191	191	*	*	1016	483	1217	548	483	640	406	*	*	*
					3	200	190	*	*	1016	489	1070	564	294	666	406	*	*	*
150 x 150 x 330	800	220	400	122	4	200	190	*	*	1016	489	1167	564	391	666	406	*	*	*
					5	200	190	*	*	1016	489	1264	564	488	666	406	*	*	*

* DEPENDENT ON MOTOR SIZE

ALL DIMENSIONS GIVEN IN MILLIMETRES

STANDARD FLANGES ASA 900 RF

FLANGES TO ALTERNATIVE STANDARDS CAN BE SUPPLIED

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

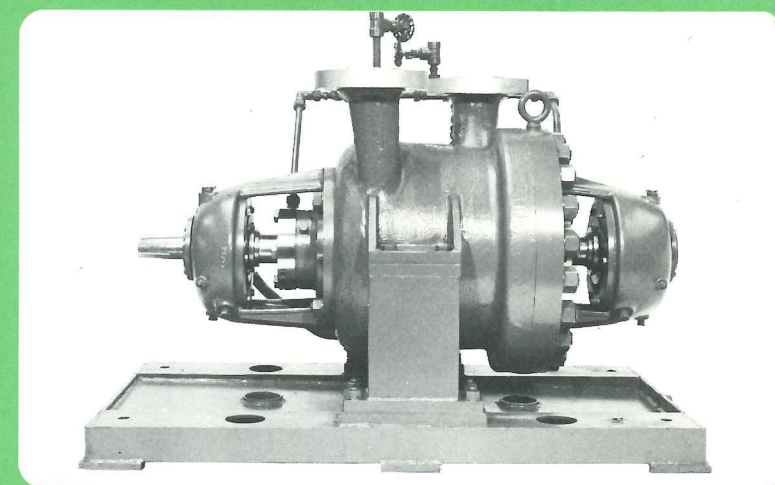
Hayward Tyler Limited
Process Industry Products
PO Box 2, Luton, LU1 3LW, England.
Telephone: Luton (0582) 31144 Telex: 82158 Tyler G

Publication No. HTPR 2.88 1M Printed in England

Hayward Tyler

BARREL RANGE

of process pumps



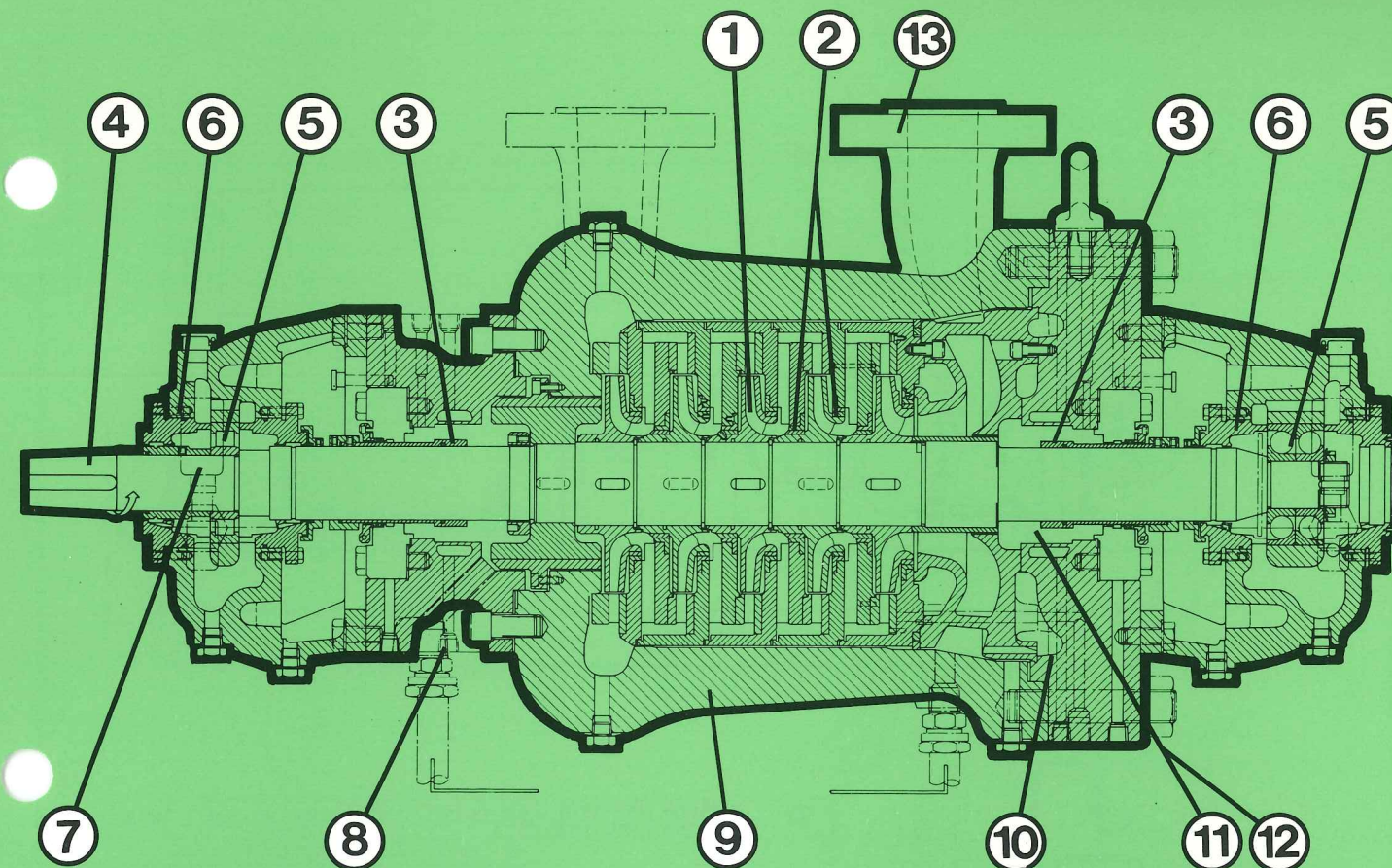
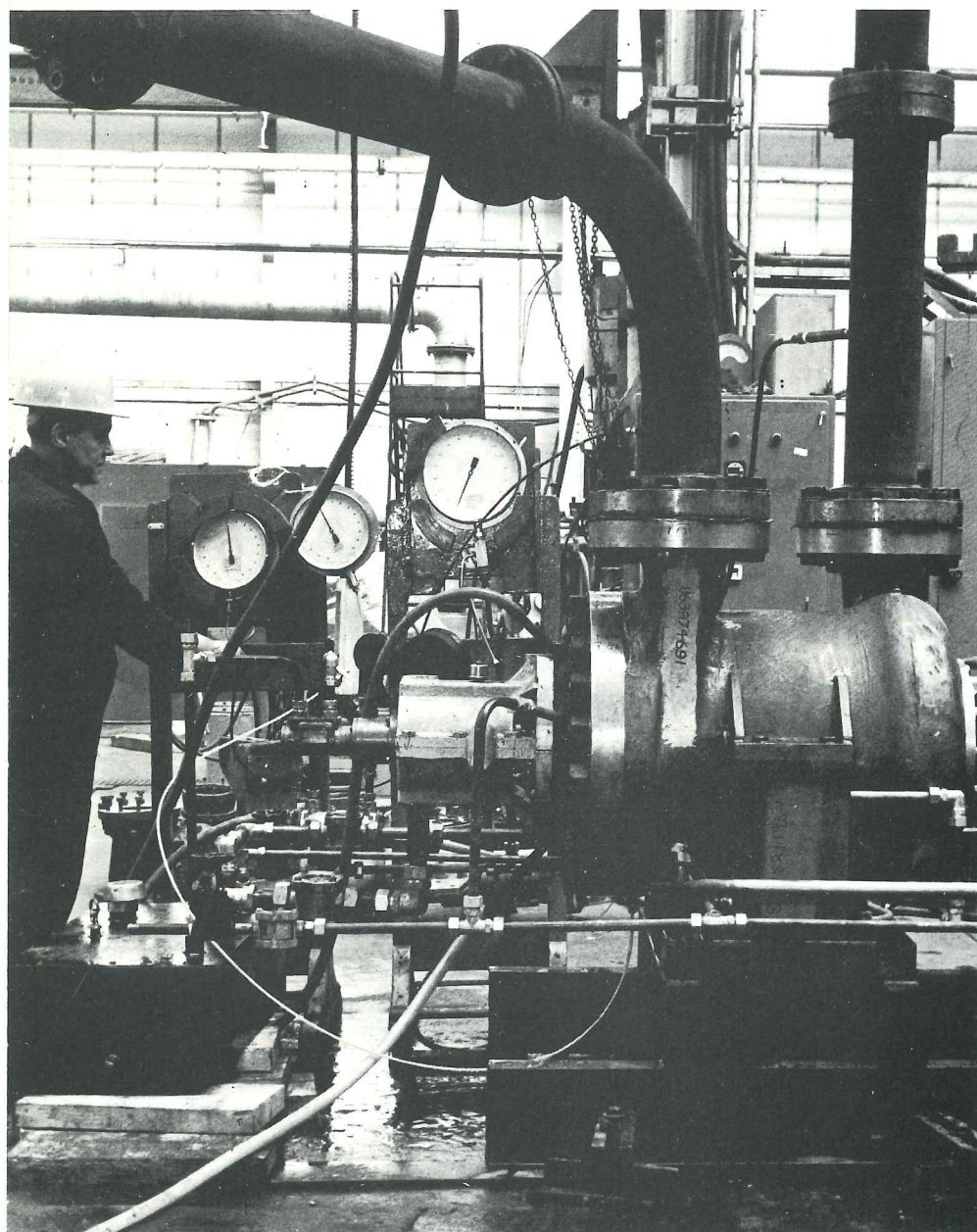
BARREL RANGE of process pumps

The Barrel pump range (BL type) of process pumps are of compact robust design and suitable for both petrochemical and boiler feed applications. The centre-line mounted casings have only one main joint in the vertical plane and the pumps are designed to API 610 specification. Various combinations of materials and branch configurations are available. The modular construction and hydraulic design feature of the units facilitates component accessibility for maintenance and overhaul. The inner cartridge can be removed as a unit, a feature which reduces overhaul times. All components mounted on the shaft are located in a manner which allows free expansion at all temperatures.

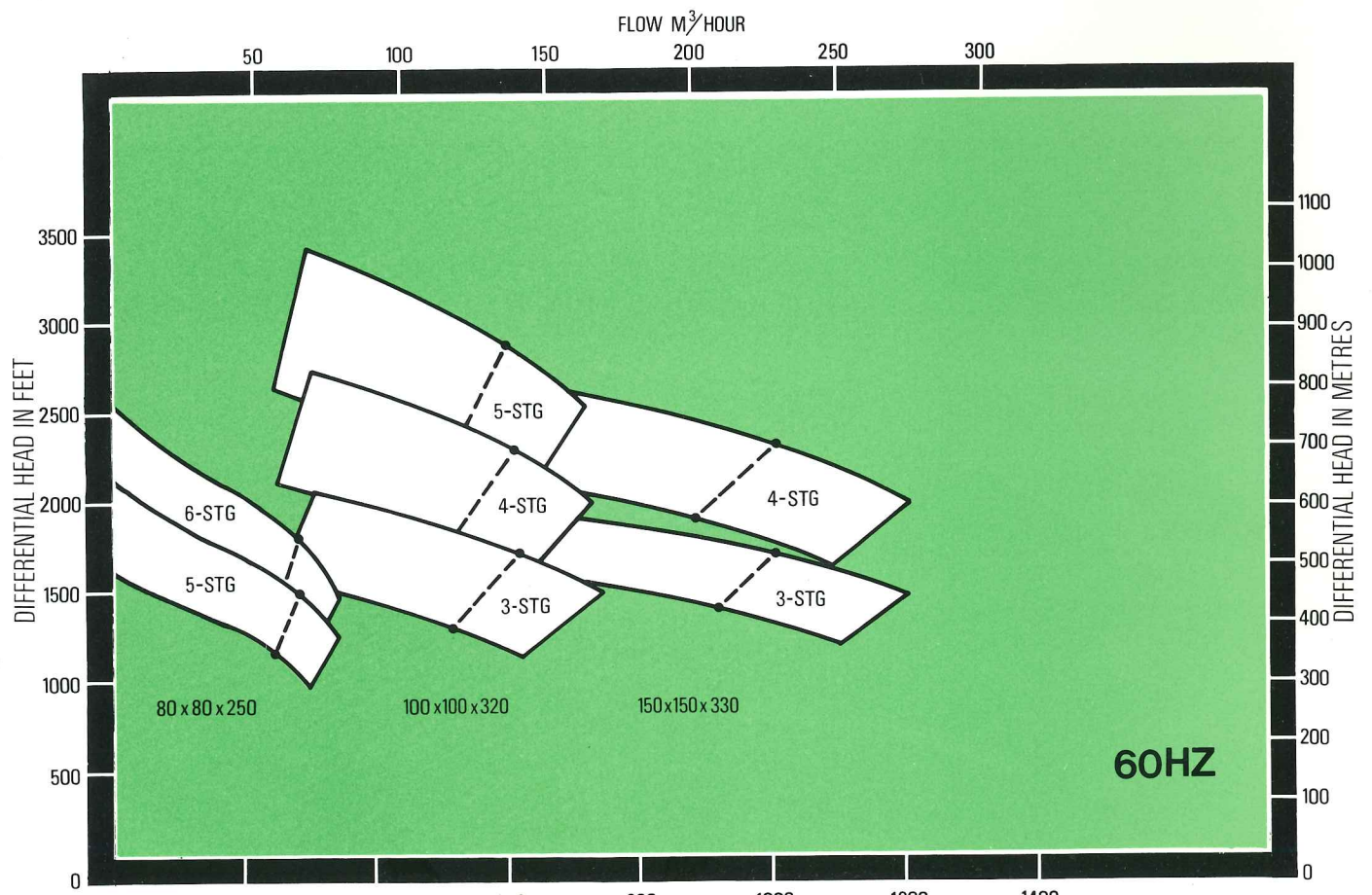
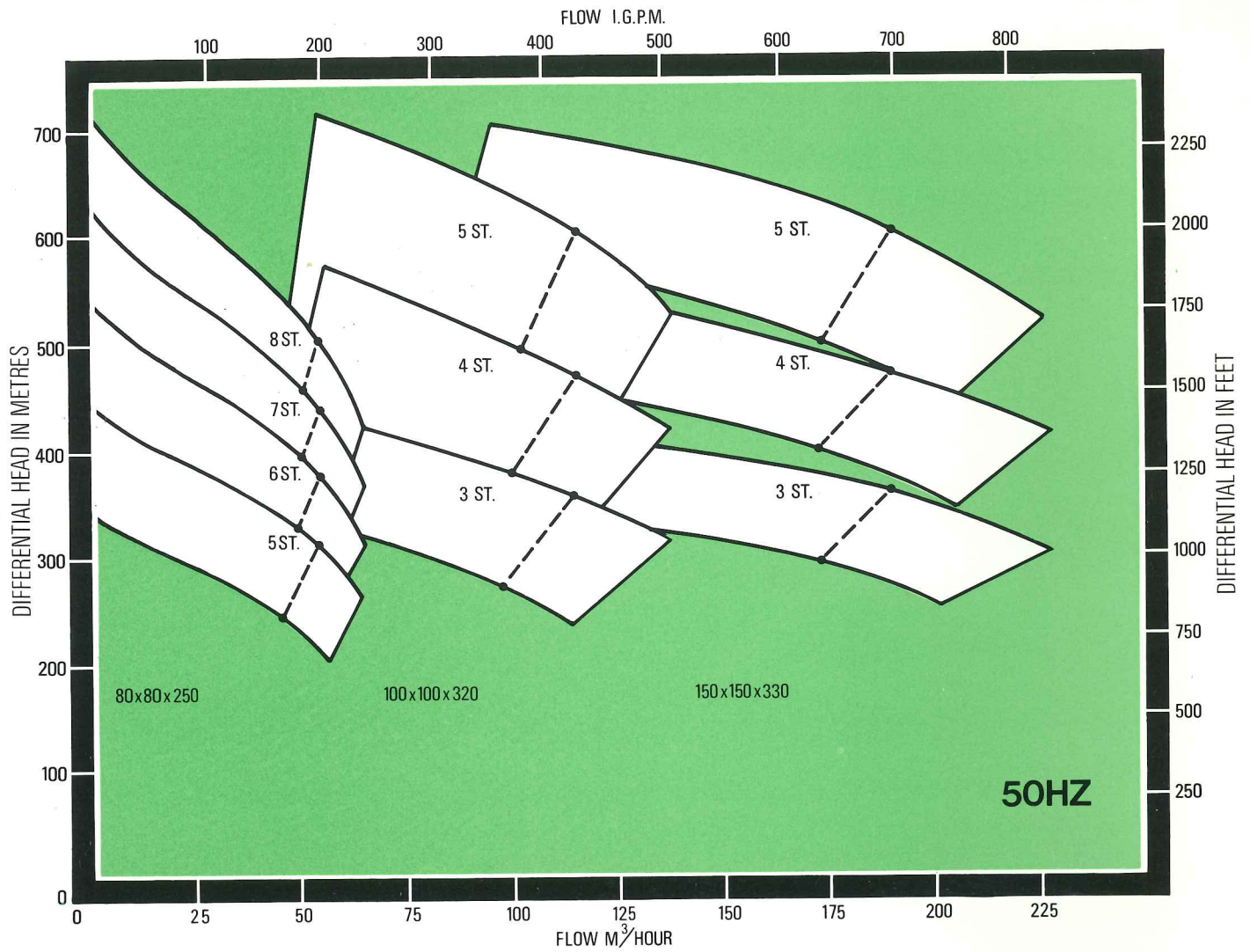
The pumps have been designed as short stiff units for compactness.

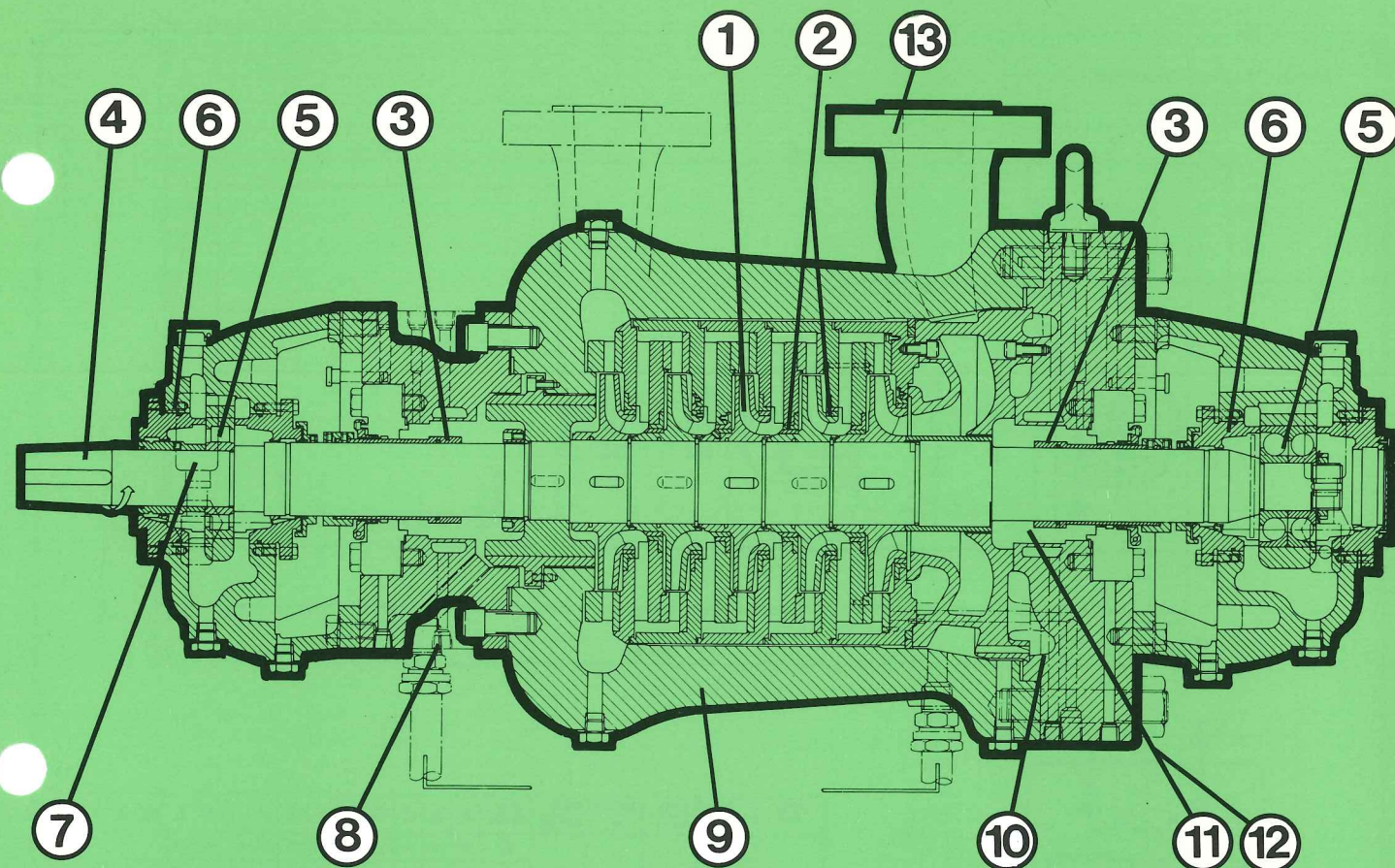
The suction and discharge branches are cast integrally with the pump casing and hence no disturbance of pipe-work is necessary when removing the cartridge assembly.

The barrel pump range is designed for use with mechanical seals and a wide selection can be accommodated. The seals can be single, double or tandem, balanced or unbalanced, with all installations conforming to API 610.

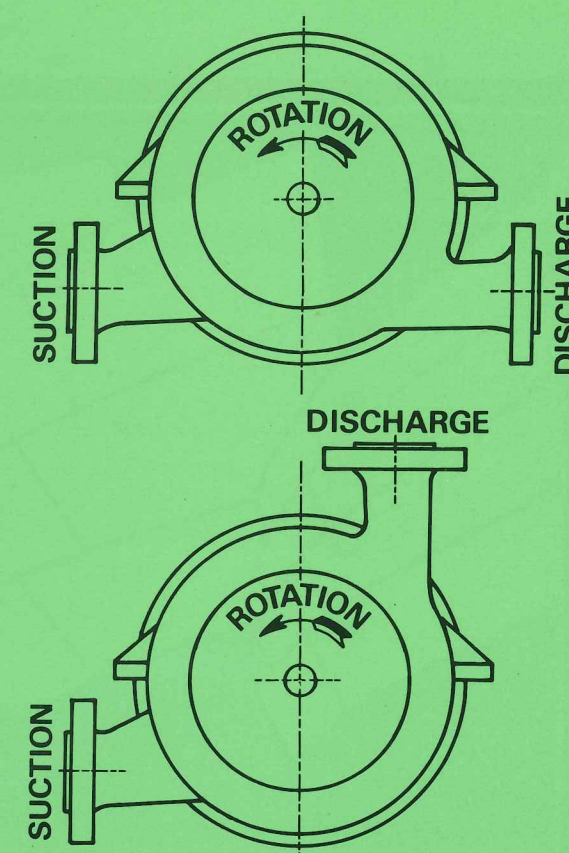
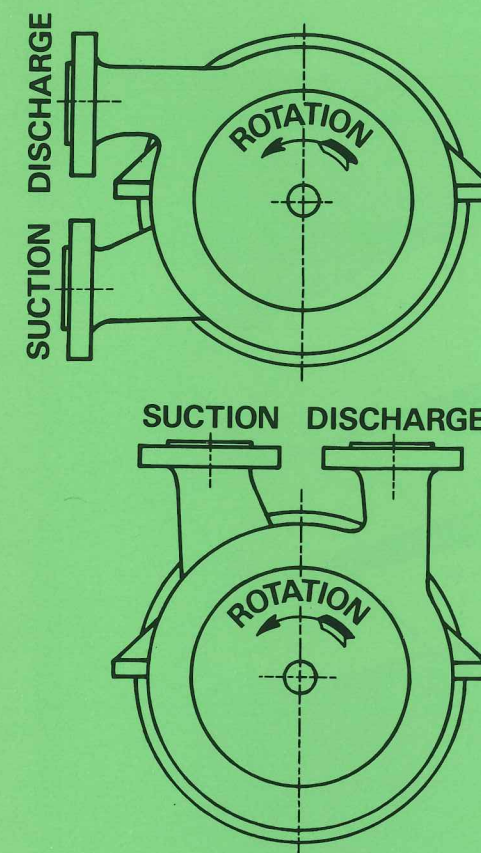


1. **Impellers** Shrouded for high efficiency, and designed to give the best hydraulic performance. Balanced as required by API 610.
2. **Wear Rings** Faces 'stellited' when necessary. Secured by screws, and easily renewable.
3. **Shaft Sleeves** Sealed against leakage and hard surfaced or 'stellited' 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. The back to back fitted angular contact bearings do not require to be paired; any two can be used together. Michelle-type journal and thrust bearings can also be supplied if required for the application.
6. **Bearing Seals** These prevent bearing contamination by liquid or solid matter and leakage of oil from the bearing housings.
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** Vertically split allowing complete rotating unit to be removed with no disturbance of pipe-work or pump and driver alignment.
10. **Case Gasket** Captive between pump case and stuffing box cover. Conforming to API 610.
11. **Seals** Mechanical seals of various types can be fitted to suit the pumping application.
12. **Seals** Soft packing with lantern rings can be fitted.
13. **Flanges** ASA 900 are standard but others can be supplied to suit customer's requirements.





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BEARING/SPEED LIMITATIONS

PUMP SIZE	NO. OF STAGES	MAX. SPEED WITH BALL BEARINGS RPM	MAX SPEED WITH 'MICHELL' TYPE BRGs RPM
80 × 80 × 250	5	3,600	3,600
	6	3,600	3,600
	7	3,200	3,200
	8	3,000	3,000
100 × 100 × 320	3	3,600	5,000
	4	3,600	4,500
	5	3,600	3,820
150 × 150 × 330	3	3,600	4,350
	4	3,600	3,650
	5	3,000	3,000

Notes

1. Above figures based on SG 1.
2. Mechanical seal arrangement on speeds above 3,800 rpm will require special features.
3. The above figures based on the maximum running speed, 10% below the estimated 1st Critical speed.
4. NPSH requirements will increase as the speed increases.
5. At speeds above 3,600 rpm, chrome steel impellers must be used.

Pressure Rating

Pump Case and Cover	1650 PSIG (114 bars) design	2500 PSIG (173 bars) hydrotest
Stuffing Boxes and Bearing Housing Water Jackets (when required)	75 PSIG (5.2 bars) design	110 PSIG (7.6 bars) hydrotest

Temperature Ratings

For operating temperatures up to 149°C (300°F)
For operating temperatures above 300°F

Maximum operating temperature 399°C (750°F)

- No water cooling.
- Water cooled bearing housings and stuffing boxes (dependant on product)