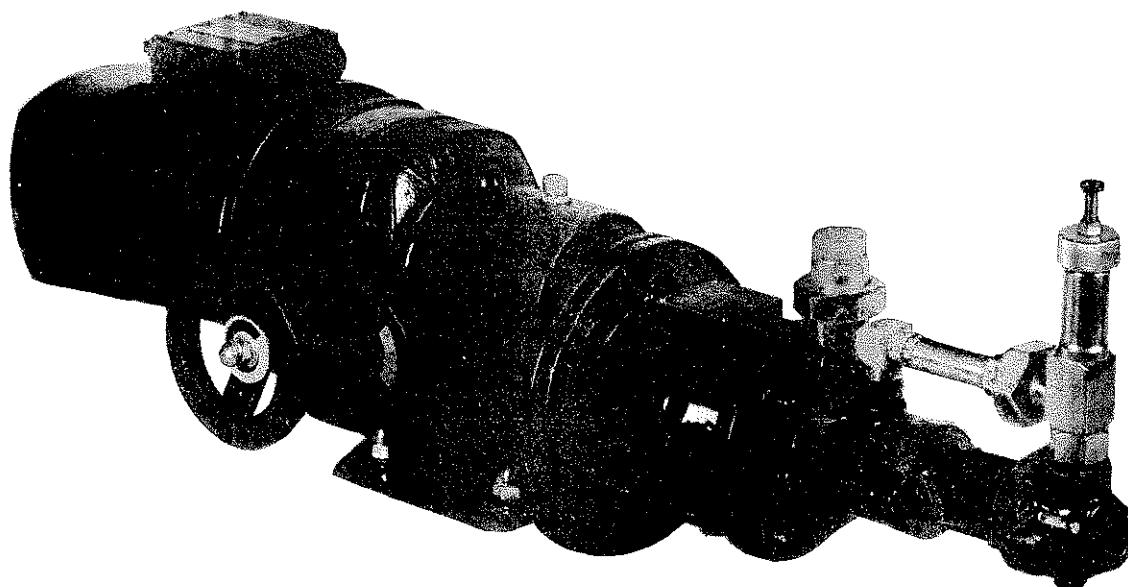
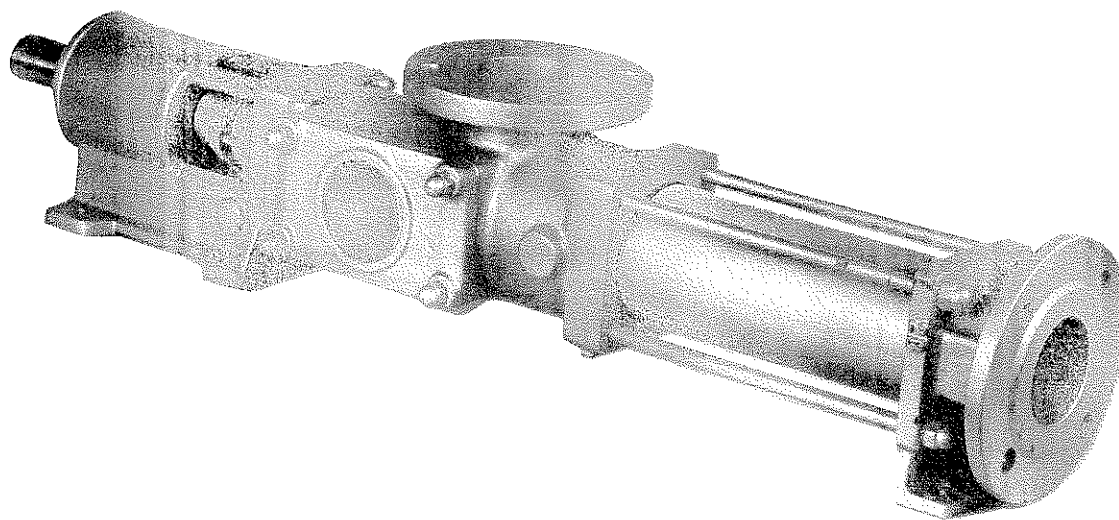


Starmax

Progressive Cavity Pumps



Holden and Brooke Limited

Wenlock Way, Manchester M12 5JL, England
Tel: 061-223 2223 Fax: 061-220 9660

'N' Range Long Coupled Pump

The 'N' range is the basis of the Starmax range. Pumps are fitted with their own bearing housings making them suitable for use on arduous duties with maximum reliability. Due to their sturdy and well designed construction, these pumps, developed originally for agricultural applications, are now used widely in many industrial fields such as :- Water and Sewage treatment, Mining and Quarrying, Building and Construction, Paper manufacturing, Fruit and Vegetable processing, Pottery and Chemical manufacturing.

Starmax pumps are self-priming on suction lifts of up to 7m and are able to handle liquids of up to 30% dry solids content.

Design Characteristics

Flowrate is a function of rotational speed and rotor diameter. Pressure capability is determined by the number of pump stages. Number of pump stages is denoted by the letter suffixed to the model number i.e.

Suffix C = 1 stage, Suffix M = 1.5/2 stages, Suffix L = 2/4 stages.

Materials of Construction

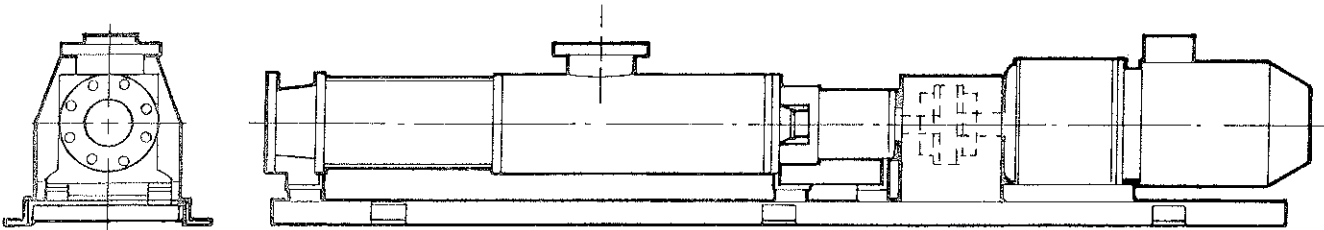
Material options for pump casing and rotating parts are cast iron, aluminium and stainless steel. Alternatives are available for special applications. Stators are available in Perbunan, EPDM, Viton, Vulcollan, Chloro-Butyl and Perbunan Alim. A range of shaft seals are available from soft packed gland to mechanical seals to suit all applications.

Pump Drive Arrangements

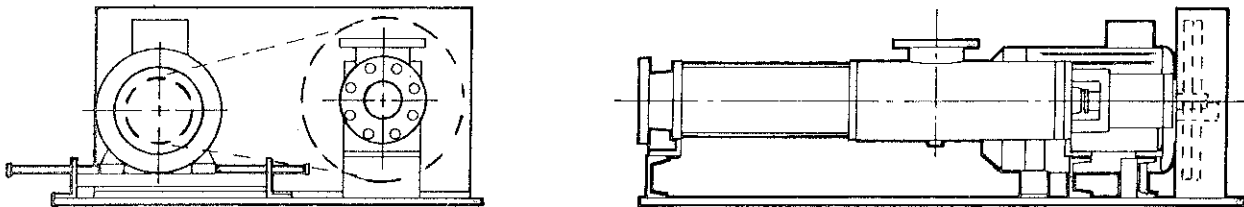
A variety of drives are available including electric motor, direct electric motor via belt and pulley, geared motor, variable speed geared motor, frequency inverter, DC electric motor, diesel or petrol engine. **Holden and Brooke have "in house" design capabilities using modern CAD equipment.** Custom designed pumpsets can be offered to best suit customer installations.

Accessory Options

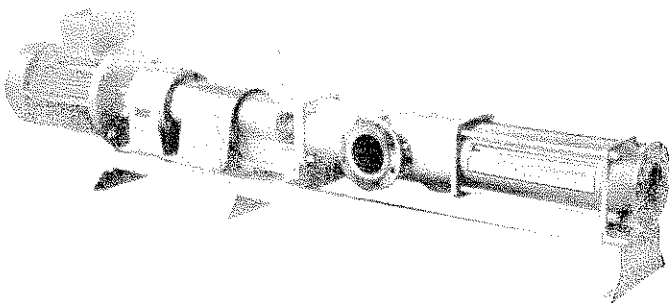
Pressure relief valve system. Bypass circulating system. Dry run protection systems. Close coupled macerator. Seal flushing arrangement.



'N' Range Fixed Speed Geared Motor Bedplate Mounted

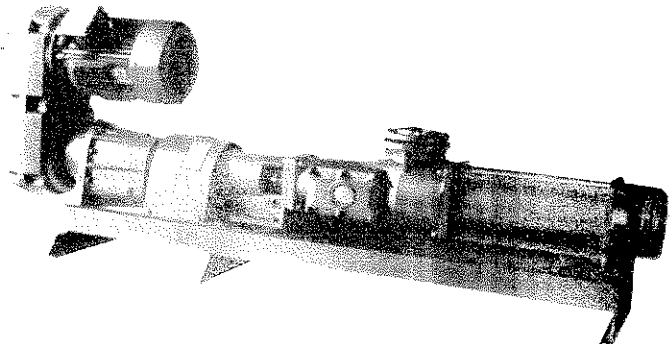


'N' Range Belt Driven Set Bedplate Mounted



'N' Range Fixed Speed Geared Motor Bedplate Mounted

'N' Range Variable Speed Drive Bedplate Mounted



'E' Range Close Coupled Pump

'E' range Starmax pumps are driven by a flange mounted electric motor, geared motor or speed variator.

Power is transferred from the drive unit to the rotor via a coupling rod secured by a pin cap.

E150 and E200 models are fitted with mechanical seals and model E300 with 'O' ring as standard. All other 'E' range machines are soft packed with mechanical seal as an extra cost option. Starmax 'E' range is a compact, competitively priced and easily installed option for lower pressure duties.

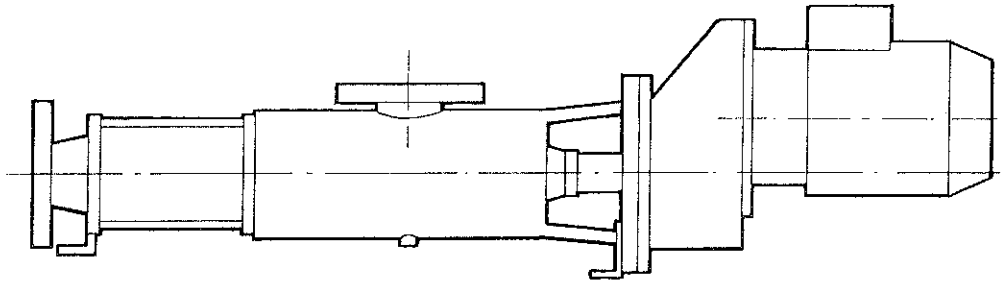
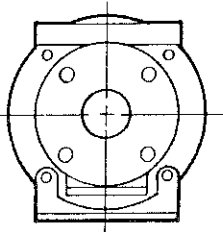
Materials of Construction

STANDARD

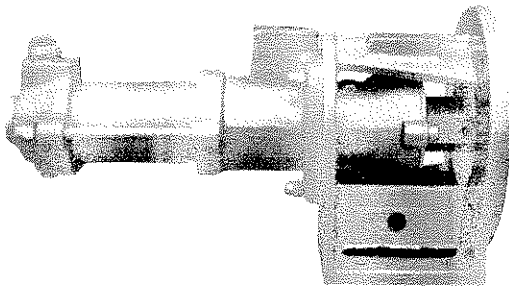
Body:	Cast Iron(G25)
Rotor:	Chromium Plated Steel
Rotating Parts:	Carbon Steel(C40)
Stator:	Perbunan Rubber(NBR)
Seal:	Soft Packed Gland

ALTERNATIVES

Body:	Stainless Steel 304 or 316. Aluminium
Rotor:	Stainless Steel 304 or 316
Rotating Parts:	Stainless Steel 304 or 316 Hardened Steel, Hastelloy, Titanium
Stator:	EPDM, Hypalon, Viton.



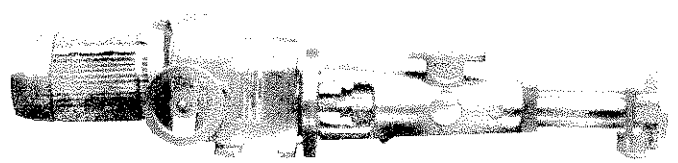
'E' Range With Close Coupled Geared Motor



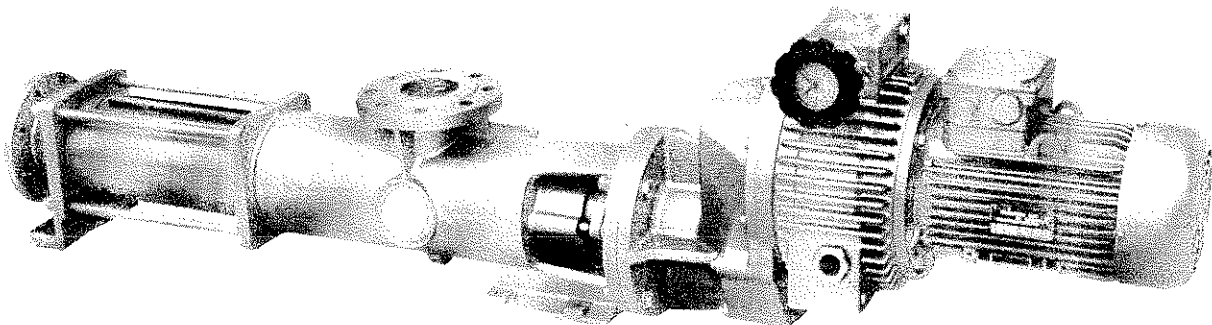
'E' Range Pump Size
200C Bareshaft



'E' Range Pump Size 300C Close
Coupled To Geared Motor Drive

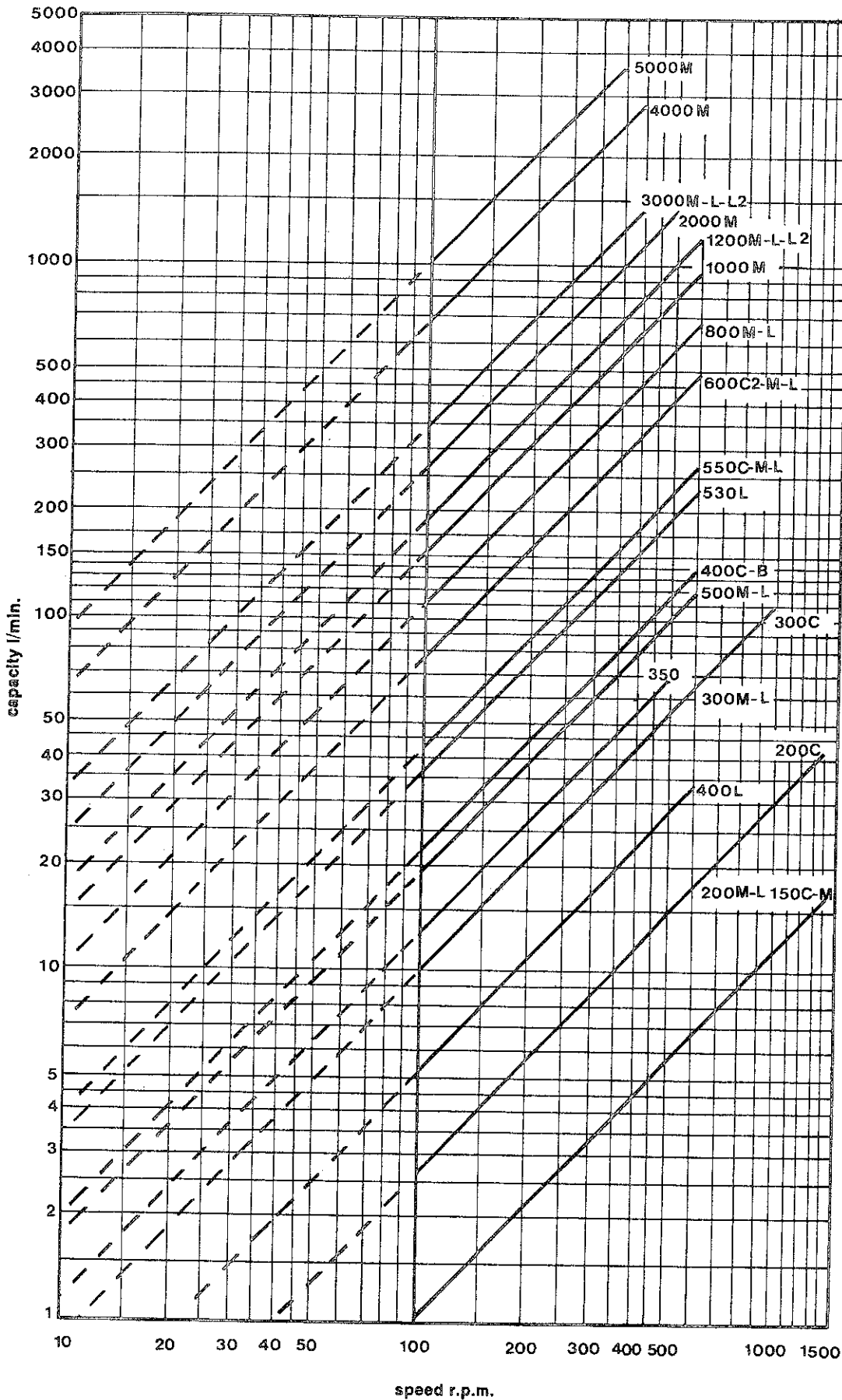


'E' Range Pump Size 400C Close
Coupled To Variable Speed Drive



'E' Range Pump Size 1000M Close Coupled To Variable Speed Drive

PERFORMANCE RANGES



PUMP SIZE	PRESS. BAR	MOTOR KW
150C	7	0.55
150M	14	0.55
200C	7	0.55
200M	14	1.5
200L	28	2.2
300C	7	2.2
300M	14	2.2
300L	28	3.0
350	40	7.5
400C	3	2.2
400B	7	3.0
400L	20	2.2
500M	10	4.0
500L	20	5.5
530L	24	11.0
550C	7	4.0
550M	14	5.5
550L	30	11.0
600C2	5	4.0
600M	8	5.5
600L	30	15.0
800M	8	7.5
800L	15	15.0
1000M	8	7.5
1200M	8	11.0
1200L	15	18.0
1200L2	30	30.0
2000M	7	15.0
3000M	7	22.0
3000L	12	30.0
3000L2	25	45.0
4000M	7	37.0
5000M	6	45.0

The STARMAX RANGE is fully supported by Holden and Brooke Service and Spares Department.

NOTE: Improvements in general design and modifications in detail will be embodied for the benefit of clients as and when introduced; consequently this specification is subject to alteration, as may be necessary, without notice.

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