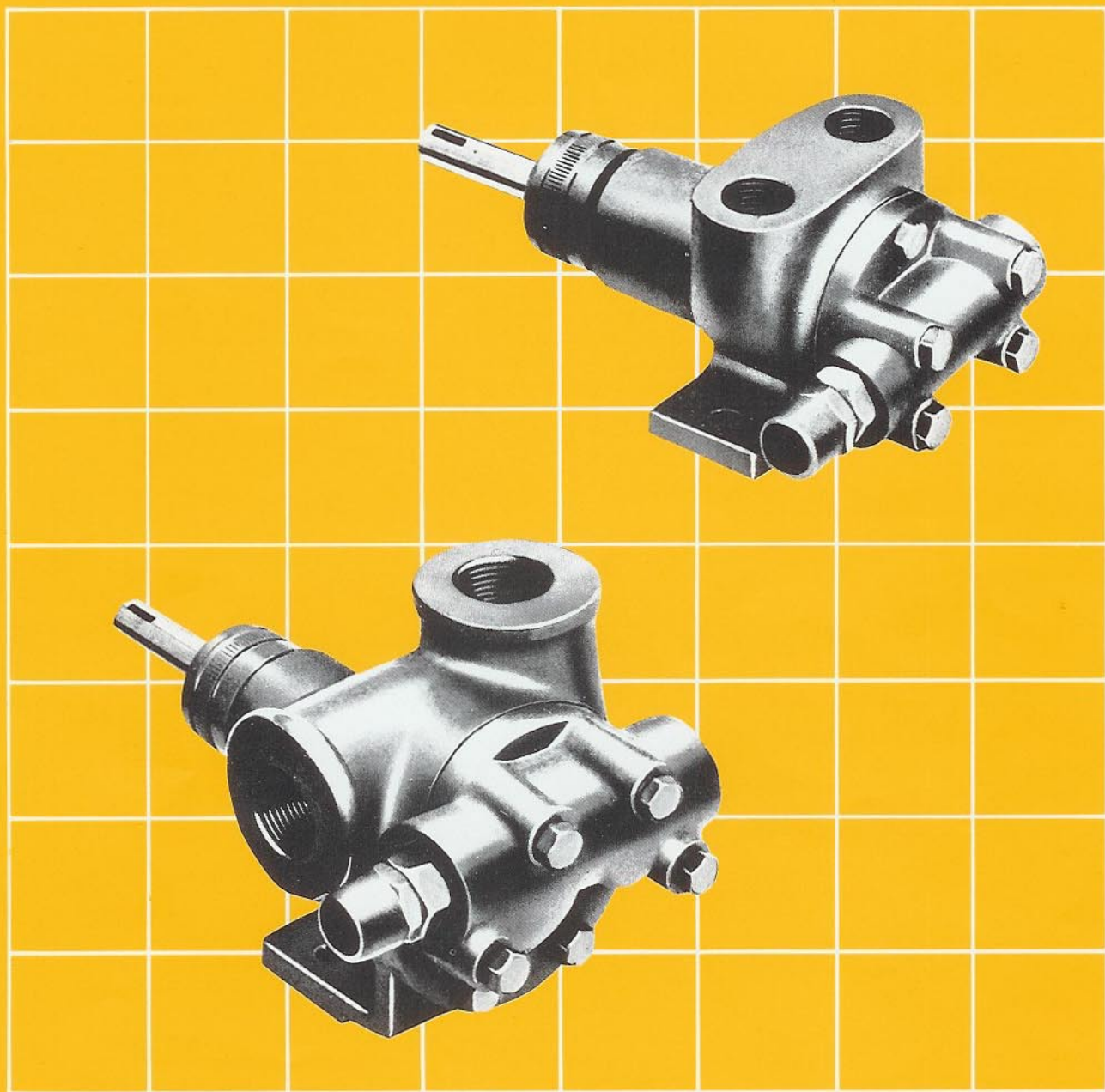


EBSRAY PUMPS

Rotary Internal Gear Pump Z Series

Models — ZB120 M
ZB120
Z580



**Positive Displacement — Self Priming
Rotary Internal Gear Pumps
for General Purpose Industrial Applications**

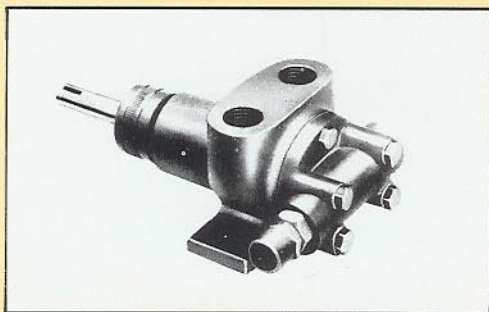


Quality
Endorsed
Company

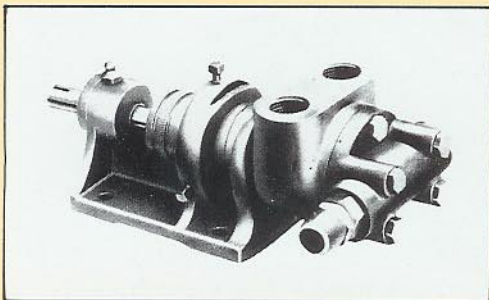
ISO 9001
Lic 3332
Standards Australia

EBSRAY PUMPS PTY. LIMITED
628 Pittwater Road, Brookvale,
N.S.W. 2100 Australia.

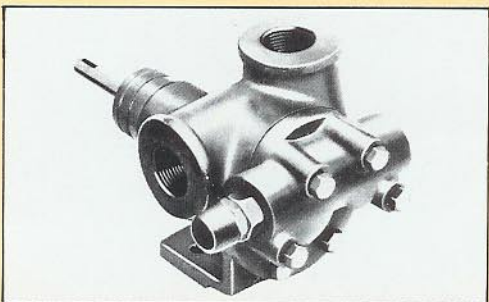
Telephone: (02) 9905 0234 Fax: (02) 9938 3825



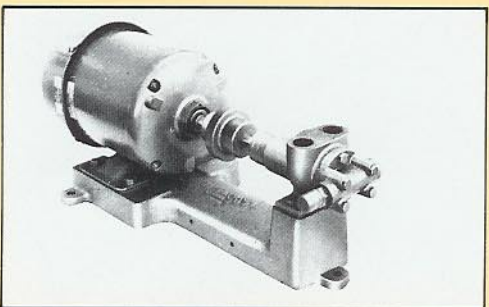
FOOT MOUNTED ZB120



TRUNNION MOUNTED ZX120



FOOT MOUNTED Z580



TYPICAL MOUNTED UNIT

Designed and precision built for efficient transfer of a variety of liquids having lubricating or non-lubricating characteristics.

PERFORMANCE DATA

Nominal Rating at 1440 R.P.M. — ZB120 Min	6.4 Lit/min
ZB120	11.4 Lit/min
Z580	23.6 Lit/min

Max Speed	1800 R.P.M.
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Max Differential Pressure	≤ 20 cSt	1400 kPa.
	≥ 20 cSt	2000 kPa.

Max Recommended Temp — Mech Seal.	100°C
— Hyd Packing	200°C

Viscosity Range	1-10,000 cSt.
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FEATURES

Quiet Operation
 High Overall Efficiency
 Low Maintenance — Long Life
 Easy Pull Out Construction
 Replaceable Internal Wearing Parts
 Direct Coupling to Synchronous Speed Motors
 Rotation to suit Fluid Flow C.W. or C.C.W.
 Variable Mounting Orientation
 Lightweight — Robust — Compact
 Integral Adjustable Bypass Valve — Optional
 Mech Seal or Hydraulic Packing

TYPICAL SERVICES

Petroleum and Fuel Oil Industries
 Liquified Gas Industry
 Chemical and Pharmaceutical Industries
 Power Stations Public Utilities
 Paint Industry Edible Oil Industry

COMMON LIQUID APPLICATIONS

Fuel Oils	Kerosene	Transformer Oils
Lube Oils	L.P. Gas	Vegetable Oils
Distillate	Solvents	Chemicals
Petrol	Paints	

ASSURED PERFORMANCE

All EBSRAY Z SERIES Pumps are run tested thus guaranteeing performance in accordance with the pump specifications.

The design features of the pump enable reliable operation over a long working life, and trouble free service expectancy is achieved by utilizing low maintenance components within the pump.

EBSRAY spare parts are closely toleranced ensuring quick replacement and interchangeability. All standard spare parts are readily available thus ensuring continuity of pump maintenance services.

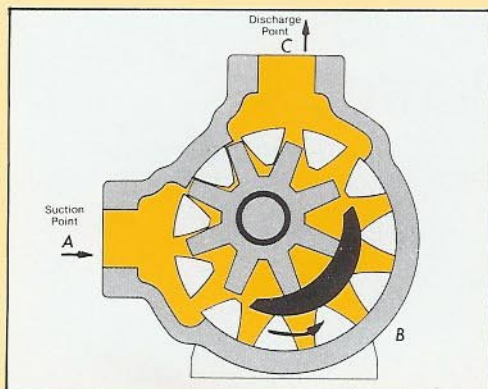
SPECIAL CONSTRUCTIONS

Contact EBSRAY or your local representative for advice on alternate arrangements to meet applications not outlined in this catalogue, e.g. O.E.M. special designs.

EBSRAY pumps are all designed and manufactured in AUSTRALIA.

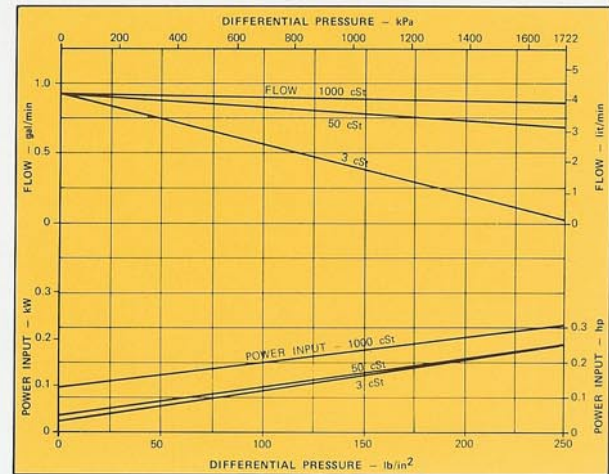
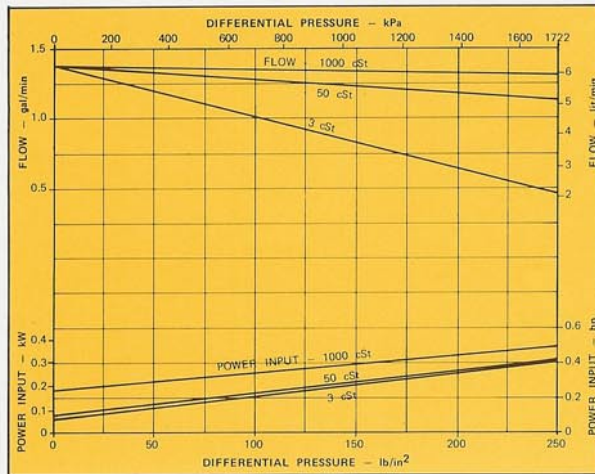
PUMPING PRINCIPLE

- Liquid is drawn into the pump through the suction port.
- Liquid is transferred from suction to discharge side of pump.
- As teeth mesh liquid is forced out through discharge port.

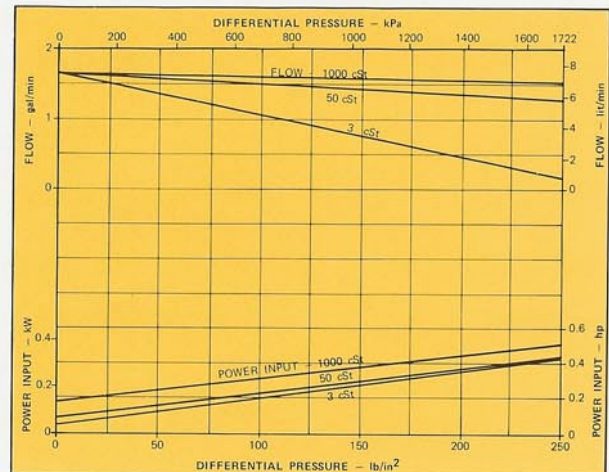
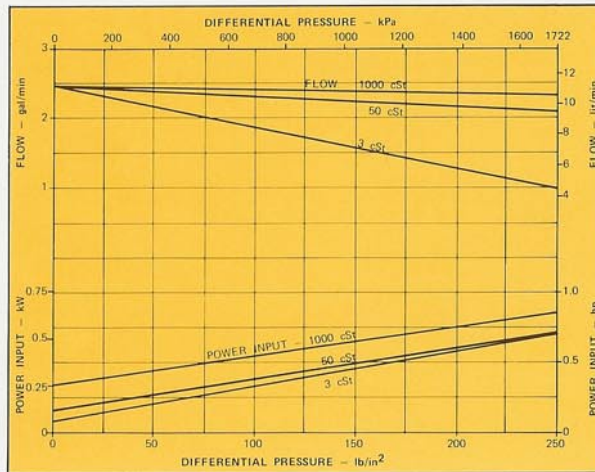


PUMPING PRINCIPLE

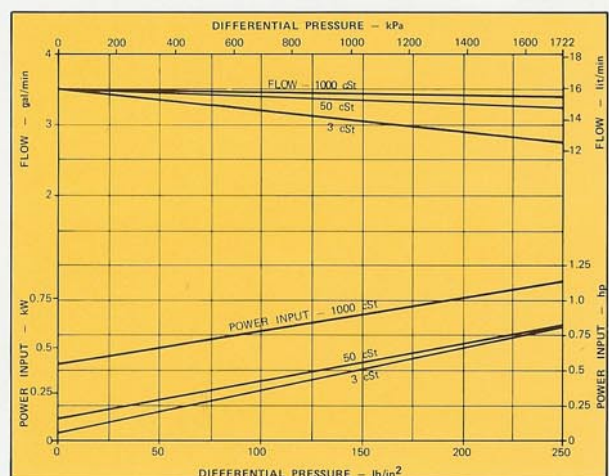
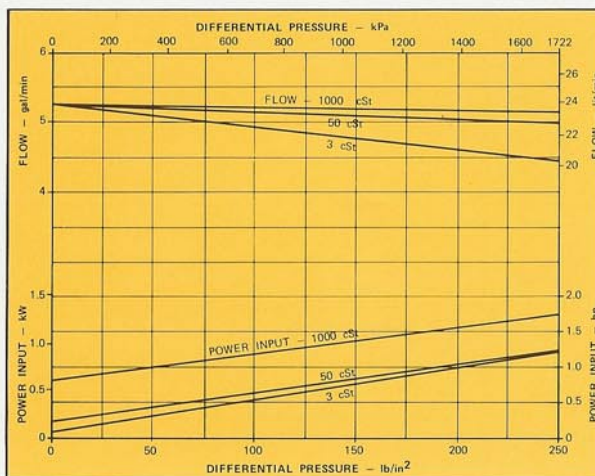
BASIC PUMP MODEL 120 MINOR



BASIC PUMP MODEL 120



BASIC PUMP MODEL 580



- Notes:**
1. The above performances are based upon precisely controlled testing conditions of speed, viscosity and differential pressure. Variation from any of these parameters will alter pump performance.
 2. Graphs indicate non-bypass valve fitted pumps. When standard bypass valve is fitted, allowances should be made for some flow reduction at low viscosity/high pressure conditions.
 3. For parameters outside those printed above contact Ebsray or representative for details.

PUMP SPECIFICATIONS

Z SERIES

INTERNAL GEAR — INDUSTRIAL PUMPS
IMPORTANT — READ ALL FOOTNOTES

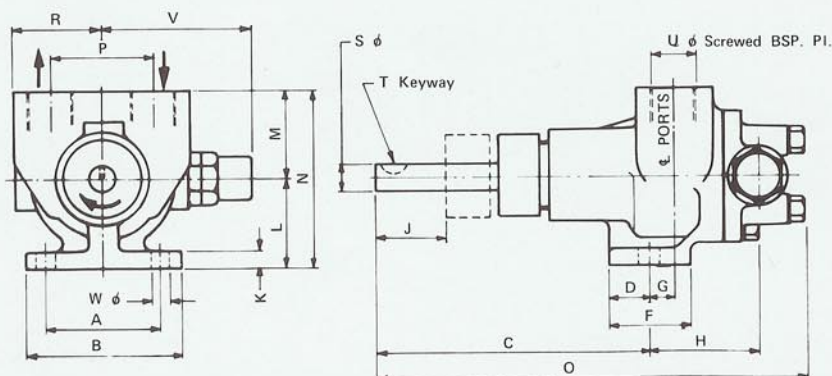
EBS RAY
AUSTRALIA

INSTALLATION DIMENSIONS

THIRD ANGLE PROJECTION

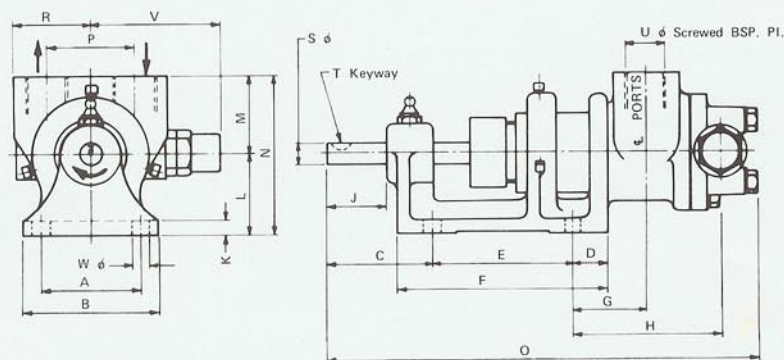
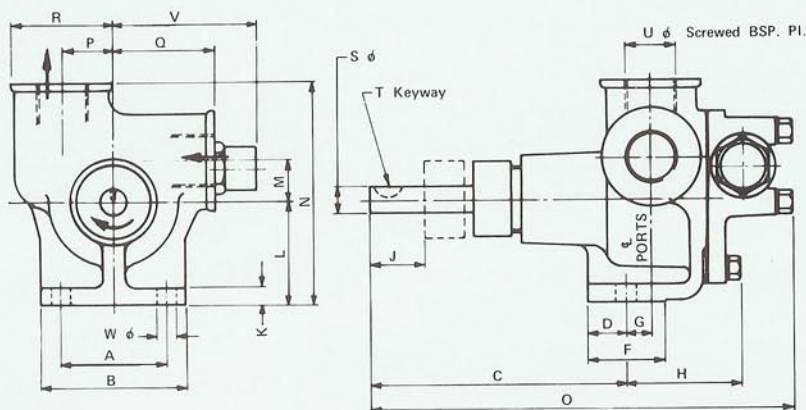
BASIC MODELS

ZB120 MINOR, ZB120



BASIC MODELS

ZX120 MINOR, ZX120

BASIC MODEL
Z580

BASIC PUMP MODEL	MAJOR PUMP DIMENSIONS — Inches/Millimetres																				PUMP WEIGHT lb/kg		
	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U		V	W
ZB120	2.12	2.87	5.06	0.75	-	1.5	0.45	1.94	1.12	0.31	1.62	1.62	3.25	7.88	1.87	-	1.62	0.4997	0.5x0.09	0.5	2.76	0.34	5.8
	53.8	72.9	128	19.1	-	38.1	11.4	49.3	28.4	7.9	41.2	41.2	82.6	200	47.5	-	41.2	12.692	12.7x 2.3	12.7	70.1	8.6	2.6
ZX120	2.12	2.87	2.25	0.75	3.0	4.5	1.56	3.06	1.25	0.31	1.75	1.62	3.37	9.12	1.87	-	1.62	0.4997	0.5x0.09	0.5	2.76	0.34	7.9
	53.8	72.9	57.2	19.1	76.2	114	39.6	77.7	31.8	7.9	44.4	41.2	85.6	232	47.5	-	41.2	12.692	12.7x 2.3	12.7	70.1	8.6	3.6
Z580	2.12	2.87	5.06	0.75	-	1.5	0.45	2.19	1.12	0.34	2.0	0.81	4.37	8.28	1.0	2.0	2.0	0.4997	0.5x0.09	0.75	2.89	0.34	8.5
	53.8	72.9	128	19.1	-	38.1	11.4	55.6	28.4	8.6	50.8	20.6	111	210	25.4	50.8	50.8	12.692	12.7x 2.3	19.1	73.4	8.6	3.9

NOTES:

- Basic Model Numbers indicate Mechanical Seal pumps without Bypass Valve fitted.
Add suffix "P" for Hydraulic Packing fitted pumps e.g. Z580P.
Add suffix "V" for Bypass Valve fitted pumps e.g. Z580V.
- Pump rotation as viewed from drive end only. Standard rotation clockwise (as drawn). Anti-clockwise also available excepting Z580V. Hand of Bypass Valve (if fitted) determines the rotation of the pump.
- Dimension H covers the extreme end of pumps when a plain cover is fitted (i.e. without an integral bypass valve).
- The use of brass type pipe fittings is recommended.

SHAFT LIMITS	INCHES/MILLIMETRES
DIAMETER	LIMITS
UP TO 1.1811	+ .0000 - .0005
UP TO 30.000	+ .000 - .013

CERTIFIED PERFORMANCES AND DIMENSIONS SUPPLIED UPON REQUEST.

SPARE PARTS LIST (1)

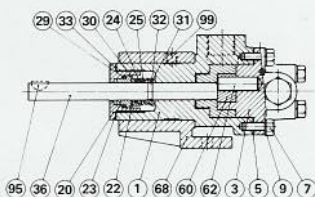
No.	DESCRIPTION	No. Off
1	BODY	1
3	INSPECTION COVER (Plain or Bypass)	1
5	" " Gasket	1 set
7	" " Set Screw	1 set
9	" " Spring Washer	6
17	GLAND	1
20	GLAND NUT	1
21	GLAND PACKING	1 set
22	MECHANICAL SEAL Rotating Face	1
23	" " Stationary Face	1
24	" " Drive Washer	1
25	" " Spring	1
28	" " Locating Pin	1
29	" " O-ring Stationary	1
30	" " O-ring Rotating	1
31	" " Circlip	1
32	" " Circlip Retainer	1
33	" " Gasket	1
34	" " Sleeve	1
36	OUTER ROTOR ON SHAFT ASSEMBLY	1
48	BYPASS VALVE	1
53	" " Spring	1
54	" " Lock Nut	1
55	" " Adjusting Screw	1
56	" " Adjusting Screw Cap	1
57	" " Adjusting Screw Gasket	2
60	INNER ROTOR	1
62	" " Pin	1
68	BRACKET	1
95	WOODRUFF KEY	1
96	GREASE NIPPLE	1
97	TRUNNION	1
98	" " Bearing	2
99	" " Lock Screw	3

NOTES:

- When ordering spare parts, PUMP SERIAL NUMBER MUST be quoted at all times thus ensuring correct material replacement to original specification.
- Pump Serial Number is located on the pump body, adjacent to the ports.
- Basic Model Numbers indicate Mechanical Seal pumps without Bypass Valve fitted. Add suffix "P" for Hydraulic Packing fitted pumps, e.g. Z580P. Add suffix "V" for Bypass Valve fitted pumps, e.g. Z580V. For Hydraulic Packing plus Bypass Valve fitted pumps, e.g. Z580PV.

EBS-RAY

MECHANICAL SEAL
ARRANGEMENT ONLY

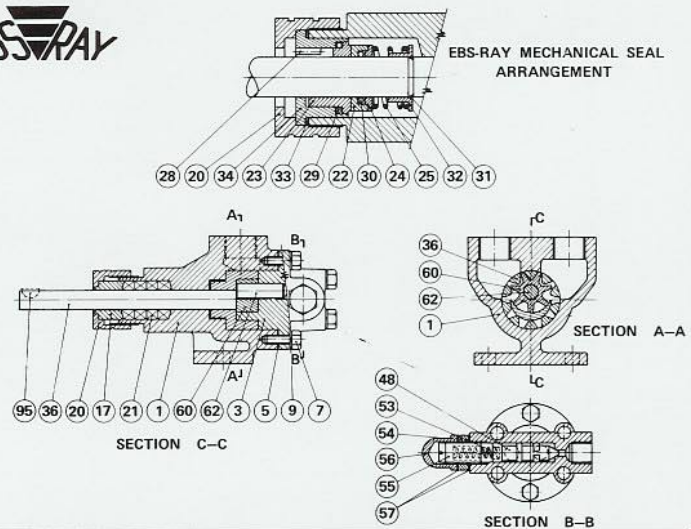


BASIC MODELS Z120 MINOR, Z120

This model is directly interchangeable dimensionally with Model ZB120 Minor, ZB120.

EBS-RAY

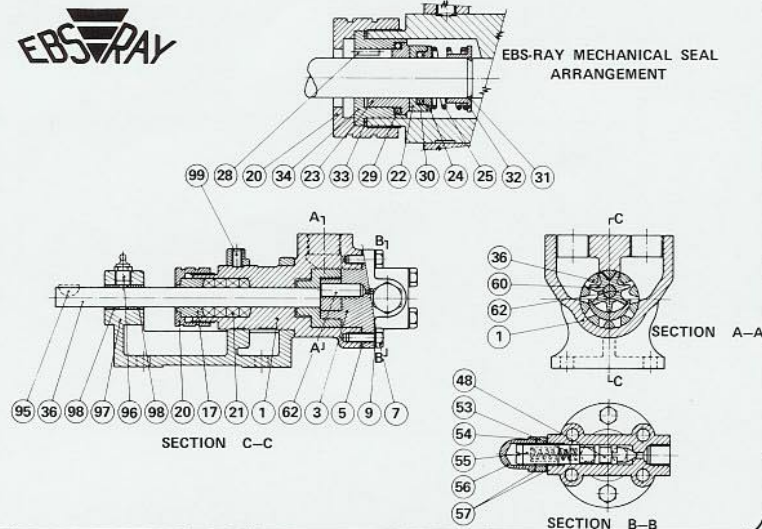
EBS-RAY MECHANICAL SEAL
ARRANGEMENT



BASIC MODELS ZB120 MINOR, ZB120

EBS-RAY

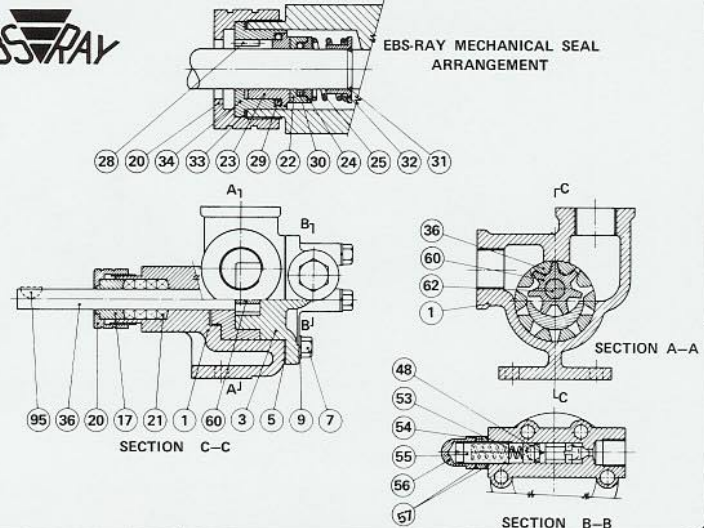
EBS-RAY MECHANICAL SEAL
ARRANGEMENT



BASIC MODELS ZX120 MINOR, ZX120

EBS-RAY

EBS-RAY MECHANICAL SEAL
ARRANGEMENT



BASIC MODEL Z580

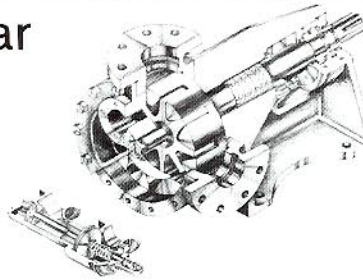
EBSRAY's Range of Liquids Transfer Pumps

EBSRAY
AUSTRALIA

Internal Gear Pumps

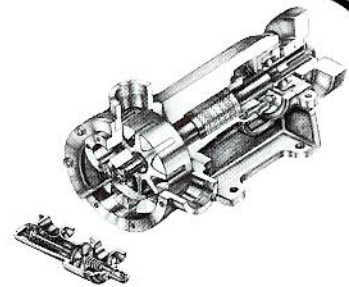
HD Series

Q to 39 Lit/sec
P to 2,000 kPa
 ν to 100,000 cSt



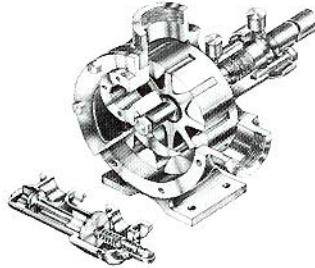
MD Series

Q to 19 Lit/sec
P to 1,300 kPa
 ν to 100,000 cSt



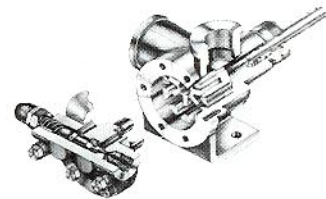
LD Series

Q to 22 Lit/sec
P to 700 kPa
 ν to 100,000 cSt



Z Series

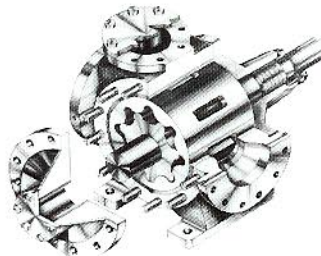
Q to 0.4 Lit/sec
P to 2,000 kPa
 ν to 10,000 cSt



Lobe Pumps

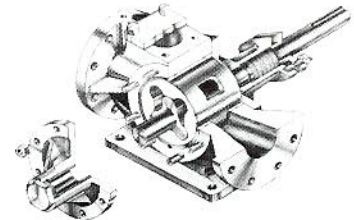
L Series

Q to 83 Lit/sec
P to 2,000 kPa
 ν to 1,000,000 cSt



T Series

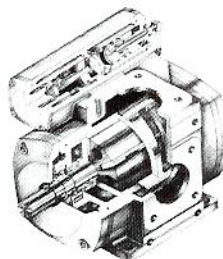
Q to 30 Lit/sec
P to 2,000 kPa
 ν to 1,000,000 cSt



Vane Pumps

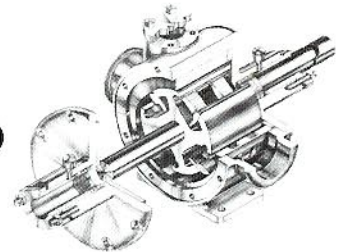
V Series (Sliding)

Q to 100 Lit/sec
P to 850 kPa
 ν to 10,000 cSt



B Series (Swinging)

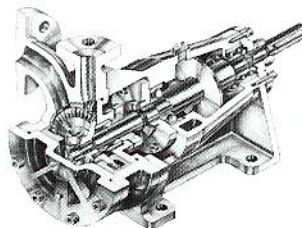
Q to 13 Lit/sec
P to 700 kPa
 ν to 2,000 cSt



Regenerative Pumps

TT5 Series

Q to 2 Lit/sec
H to 180m
 ν to 50 cSt

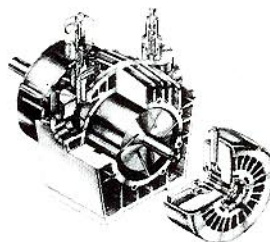


Distributed by

Compressor Vacuum Pumps

CV Series

Capacity to 47 Lit/sec
Pressure to 105 kPa
Vacuum to 7 kPa (Abs)



EBSRAY PUMPS PTY. LTD.
628 Pittwater Road,
Brookvale, N.S.W. 2100, Australia.
Telephone: (02) 9905 0234.
Fax: (02) 9938 3825

Illustrations are typical only.
All specifications and illustrations are
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EXPORT STANDARD

JULY 1996