

MOTORPUMPS

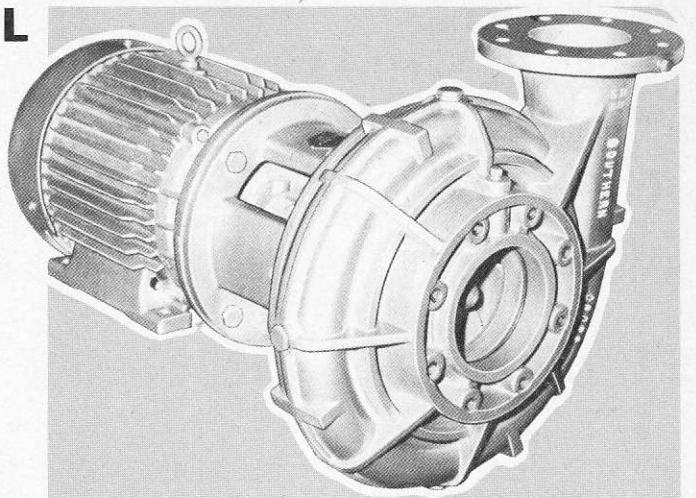
SOUTHERN CROSS



'R' SERIES CENTRIFUGAL MOTORPUMPS

1.1 to 75 kW (1.5 to 100 h.p.)

- MODERN DESIGN FEATURES FOR HIGH PERFORMANCE AND MINIMUM MAINTENANCE
- COMPACT AND SPACE SAVING
- CLOSE-COUPLED UNIT CONSTRUCTION GIVES EXCELLENT SHAFT ALIGNMENT—NO FLEXIBLE COUPLING OR SHAFT ALIGNMENT WORRIES.
- USE STANDARD FOOT AND FLANGED ELECTRIC MOTORS
- BACK-PULL-OUT FEATURE FOR EASY PUMP SERVICING.
- SUITABLE FOR AIR-CONDITIONING AND OTHER INDUSTRIAL APPLICATIONS.
- OPTIONAL CONSTRUCTION MATERIALS



PUMP SIZES: 32 to 150 mm (1¼ to 6 in.)

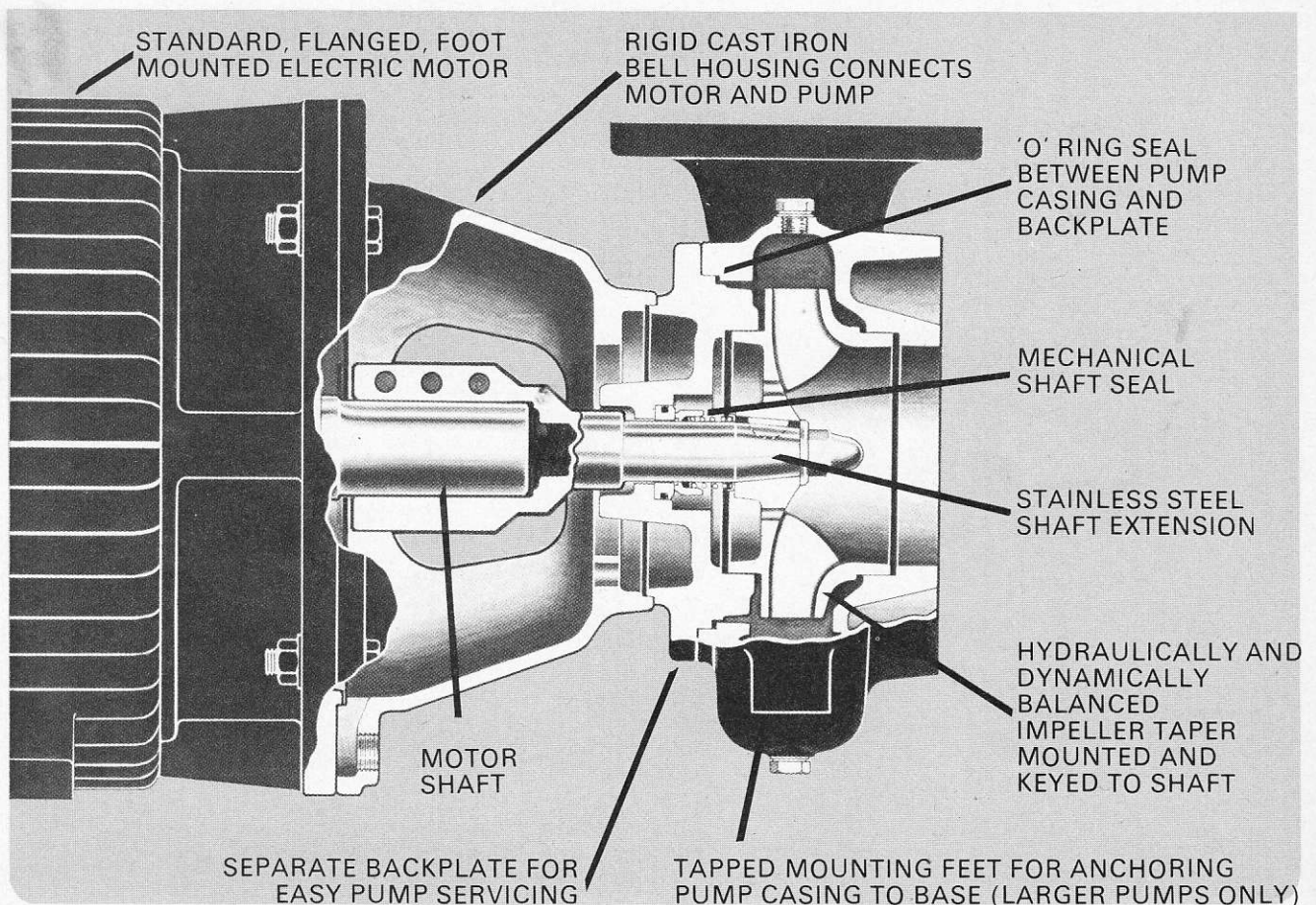
MOTOR SIZES: 1.1 to 75 kW (1.5 to 100 h.p.)

SPEEDS: 1450 and 2900 r.p.m.

CAPACITIES: To 140 l/sec. (1850 g.p.m.)

HEADS: To 120 metres (400 feet).

SOUTHERN CROSS CENTRIFUGAL MOTORPUMP CONSTRUCTION FEATURES





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MOTORPUMPS

SOUTHERN CROSS 'R' SERIES CENTRIFUGAL MOTORPUMP SPECIFICATIONS

PUMP SIZES: 32 to 150 mm (1¼ to 6 inch) discharge.

TYPE: Single stage, end suction, centrifugal type close coupled to standard electric motors.

ELECTRIC MOTORS: 1.1 to 75 kW (1.5 to 100 h.p.) 415 V, 3 phase, 50 cycle, 1450 and 2900 r.p.m., flanged and foot mounted to metric standards (BS4999, Pt20). Drip-proof or totally enclosed fan cooled enclosures are used.

BELL HOUSING: Motor flange and pump back plate are coupled by a rigid cast iron bell housing.

SHAFT EXTENSION: Cast stainless steel—clamps onto standard electric motor shaft to provide stainless steel shaft through pump seal and wetted section of pump.

PUMP CASING: Volute type made from close grained cast iron with integral suction and discharge connections flanged to B.S.S. Table 'E'. All tapped holes in pump casing, except for priming and pressure gauge tapings, are blind to prevent leakage and corrosion of assembly setscrews. Drilled and tapped mounting feet are provided on larger pumps for anchoring pump casing to base. This extra mounting supports the pump casing during servicing when the motor with backplate and impeller are withdrawn.

PUMP BACKPLATE: Separate close grained cast iron backplate designed for easy removal from pump body to allow motor, shaft and impeller to be withdrawn without disturbing pump body, suction or discharge lines.

IMPELLER: Shrouded, single suction type of close grained cast iron, taper mounted and keyed to shaft using stainless steel key. Taper mounting allows easy removal and eliminates the possibility of fretting corrosion.

IMPELLER NUT: Acorn impeller nut and washer of stainless steel.

MECHANICAL SEAL: Southern Cross type with carbon compound rotating element running against lapped lead bronze mating face. Spring and backing washer are of stainless steel. Optionally "Crane" type 2 mechanical seals can be fitted without modification to pump back plate.

PACKED GLAND: These pumps are not available with packed glands.

PRIMING PLUGS: Four 3/8 inch B.S.P. zinc plated mild steel priming plugs are fitted to the pump casing. Where optional gunmetal or zinc free bronze casings are used, body plugs are of stainless steel.

SUCTION AND PRESSURE GAUGE TAPPINGS: The pump casing has 1/4" B.S.P. tapped and plugged holes for suction and pressure gauges if required.

COMPANION FLANGES FOR SUCTION AND DISCHARGE: Pumps are not supplied with companion flanges, gaskets or bolts for suction and discharge, but these are available as optional extras. Flanges are to B.S.S. Table 'E'.

WATER SLINGER: The enlarged diameter of the shaft extension clamping piece acts as a water slinger. Any leakage is piped away via a 1/2 inch B.S.P. tapped hole at the bottom of the bell housing.

PRESSURE RATINGS: Ratings vary for different pump bodies and materials. See page 32 for pressure ratings of "SOUTHERN CROSS" 'R' Pedestal Pumps which use the same pump ends.

TEMPERATURE RANGE: Pumped liquid temperature range -18°C to 120°C.

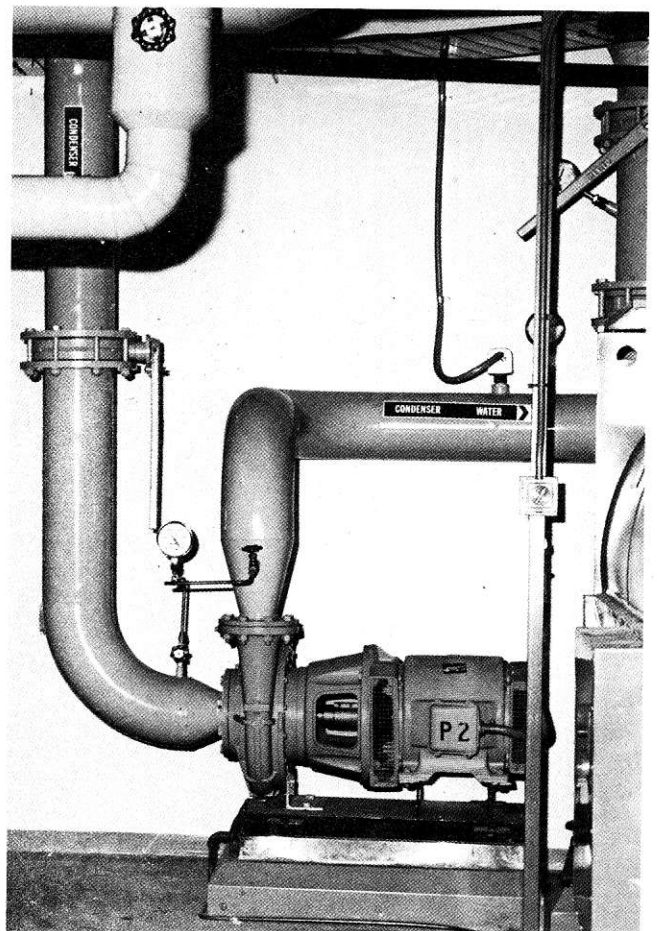
MATERIALS:

STANDARD MATERIALS: Close grained cast iron pump casing, impeller and backplate (some larger sizes have S.G. cast iron backplates and impellers); stainless steel shaft.

OPTIONAL MATERIALS: Gunmetal, zinc-free bronze or stainless steel pump casing, impeller and backplate. (S.G. cast iron components are available on larger sizes).

OPTIONAL EXTRAS: Zinc-free bronze wear rings in pump casing and backplate, mechanical seals other than 'SOUTHERN CROSS' type, works certified tests and witnessed tests with pump curves, impeller turndowns, optional materials as listed and companion flanges for suction and discharge.

PUMP PERFORMANCE: See page 41 for selection tables.



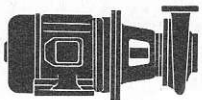
Typical installation of SOUTHERN CROSS 'R' Series Motor Pump in Air-Conditioning Plant. ▶

SOUTHERN CROSS 'R' SERIES CENTRIFUGAL MOTORPUMPS

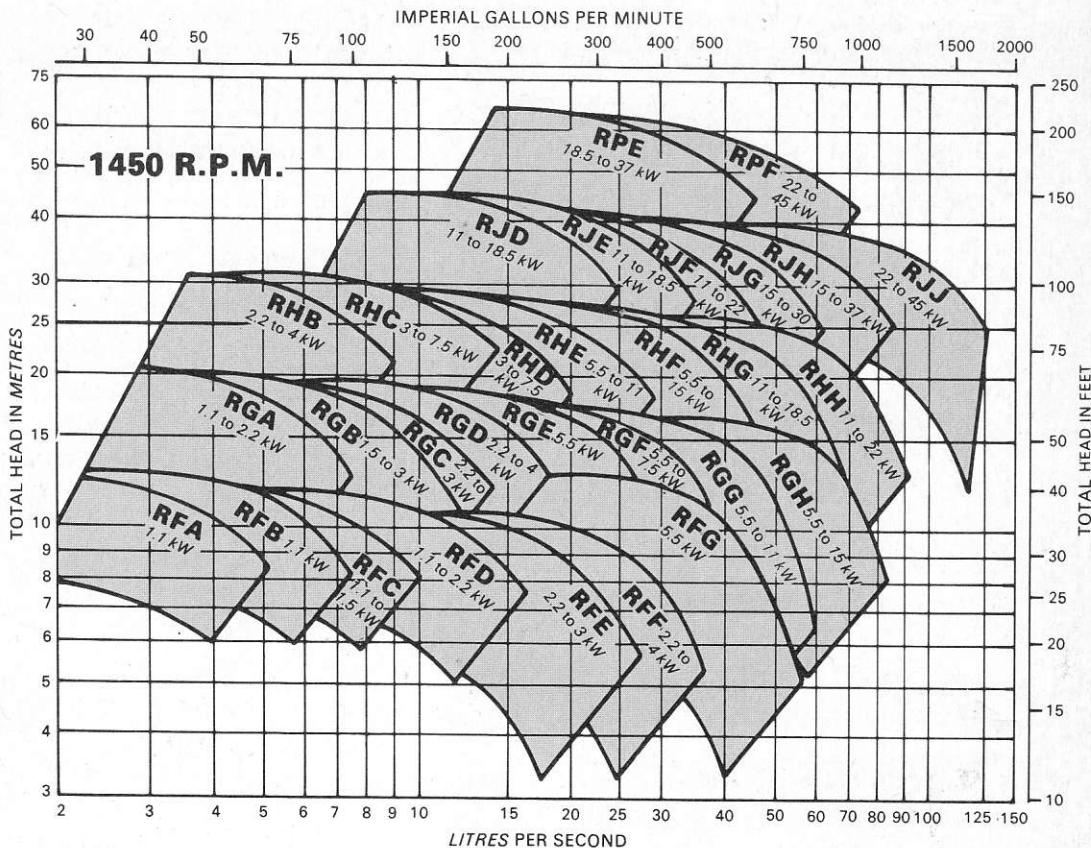
Pump	Motor		Suction Flanged		Discharge Flanged		Approx. Unit Mass kg	Price
	kW	h.p.	mm	in.	mm	in.		
1450 R.P.M.								
RFA	1.1	1.5	40	1½	32	1¼	45	\$ 743
RFB	1.1	1.5	50	2	40	1½	48	758
RFC	1.1	1.5	65	2½	50	2	55	769
RFC	1.5	2	65	2½	50	2	59	784
RFD	1.1	1.5	80	3	65	2½	58	788
RFD	2.2	3	80	3	65	2½	69	856
RFE	2.2	3	100	4	80	3	72	875
RFE	3	4	100	4	80	3	76	893
RFF	2.2	3	125	5	100	4	74	895
RFF	4	5.5	125	5	100	4	92	958
RFG	5.5	7.5	150	6	125	5	152	1,084
RGA	1.1	1.5	40	1½	32	1¼	54	782
RGA	2.2	3	40	1½	32	1¼	64	851
RGB	1.5	2	50	2	40	1½	58	810
RGB	3	4	50	2	40	1½	71	881
RGC	2.2	3	65	2½	50	2	74	877
RGC	3	4	65	2½	50	2	78	895
RGD	2.2	3	80	3	65	2½	78	893
RGD	4	5.5	80	3	65	2½	96	956
RGE	5.5	7.5	100	4	80	3	127	1,072
RGF	5.5	7.5	125	5	100	4	131	1,089
RGF	7.5	10	125	5	100	4	141	1,182
RGG	5.5	7.5	125	5	125	5	152	1,166
RGG	11	15	125	5	125	5	197	1,604
RGH	5.5	7.5	150	6	150	6	177	1,204
RGH	15	20	150	6	150	6	241	1,657
RHB	2.2	3	50	2	40	1½	74	922
RHB	4	5.5	50	2	40	1½	92	985
2900 R.P.M.								
REA	1.5	2	40	1½	32	1¼	43	\$ 709
REA	4	5.5	40	1½	32	1¼	72	817
REB	2.2	3	50	2	40	1½	46	730
REB	5.5	7.5	50	2	40	1½	88	875
REC	2.2	3	65	2½	50	2	58	737
REC	5.5	7.5	65	2½	50	2	100	898
RED	3	4	80	3	65	2½	71	798
RED	7.5	10	80	3	65	2½	108	968
REE	4	5.5	100	4	80	3	89	843
REE	11	15	100	4	80	3	162	1,239
RFA	3	4	40	1½	32	1¼	60	800
RFA	7.5	10	40	1½	32	1¼	97	970
RFB	4	5.5	50	2	40	1½	77	851
RFB	11	15	50	2	40	1½	150	1,248
RFC	5.5	7.5	65	2½	50	2	86	931
RFC	11	15	65	2½	50	2	158	1,259
RFD	7.5	10	80	3	65	2½	110	1,016
RFD	18.5	25	80	3	65	2½	176	1,626
RFE	11	15	100	4	80	3	163	1,297
RFE	22	30	100	4	80	3	214	1,919
RFF	11	15	125	5	100	4	165	1,331
RFF	30	40	125	5	100	4	304	2,376

Pump	Motor		Suction Flanged		Discharge Flanged		Approx. Unit Mass kg	Price
	kW	h.p.	mm	in.	mm	in.		
1450 R.P.M.								
RHC	3	4	65	2½	50	2	89	\$ 961
RHC	7.5	10	65	2½	50	2	136	1,198
RHD	3	4	80	3	65	2½	95	989
RHD	7.5	10	80	3	65	2½	142	1,225
RHE	5.5	7.5	100	4	80	3	140	1,157
RHE	11	15	100	4	80	3	187	1,533
RHF	5.5	7.5	125	5	100	4	148	1,185
RHF	15	20	125	5	100	4	211	1,632
RHG	11	15	150	6	125	5	209	1,665
RHG	18.5	25	150	6	125	5	269	2,022
RHH	11	15	150	6	150	6	233	1,708
RHH	22	30	150	6	150	6	308	2,245
RJD	11	15	100	4	65	2½	204	1,893
RJD	18.5	25	100	4	65	2½	263	2,252
RJE	11	15	100	4	80	3	208	1,983
RJE	18.5	25	100	4	80	3	268	2,341
RJF	11	15	125	5	100	4	213	1,978
RJF	22	30	125	5	100	4	288	2,517
RJG	15	20	150	6	125	5	251	2,106
RJG	30	40	150	6	125	5	382	2,911
RJH	15	20	150	6	150	6	262	2,118
RJH	37	50	150	6	150	6	448	3,390
RJJ	22	30	200	8	150	6	376	2,627
RJJ	45	60	200	8	150	6	552	3,852
RPE	18.5	25	100	4	80	3	308	2,520
RPE	37	50	100	4	80	3	450	3,506
RPF	22	30	125	5	100	4	332	2,822
RPF	45	60	125	5	100	4	509	4,030
2900 R.P.M.								
RGA	5.5	7.5	40	1½	32	1¼	98	\$ 944
RGA	15	20	40	1½	32	1¼	155	1,396
RGB	7.5	10	50	2	40	1½	105	1,023
RGB	18.5	25	50	2	40	1½	171	1,632
RGC	15	20	65	2½	50	2	166	1,425
RGC	30	40	65	2½	50	2	303	2,358
RGD	15	20	80	3	65	2½	170	1,437
RGD	37	50	80	3	65	2½	316	2,728
RGE	22	30	100	4	80	3	227	1,969
RGE	45	60	100	4	80	3	423	3,098
RGF	22	30	125	5	100	4	232	2,008
RGF	55	75	125	5	100	4	534	3,860
RHB	15	20	50	2	40	1½	167	1,468
RHB	37	50	50	2	40	1½	314	2,759
RHC	22	30	65	2½	50	2	225	1,987
RHC	45	60	65	2½	50	2	423	3,129
RHD	22	30	80	3	65	2½	233	2,014
RHD	45	60	80	3	65	2½	430	3,157
RHE	30	40	100	4	80	3	327	2,482
RHE	75	100	100	4	80	3	624	5,156
RHF	45	60	125	5	100	4	446	3,212
RHF	75	100	125	5	100	4	633	5,204

Prices shown are for standard construction pump units with totally enclosed fan cooled three phase motors. Other motor and pump combinations are available. Refer to your nearest SOUTHERN CROSS office for further details.



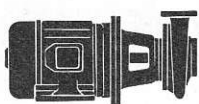
Centrifugal Sump Pumps (details page 46) available up to 30 kW (40 h.p.)



Selection Tables

SOUTHERN CROSS 'R' SERIES

CENTRIFUGAL MOTORPUMPS



Centrifugal Sump Pumps (details page 46) available up to 30 kW (40 h.p.)

