

Kirloskar

Enriching Lives



KIRLOSKAR CANNED MOTOR PUMPS

TYPE - KCS / CAN

KIRLOSKAR BROTHERS LIMITED

RANGE

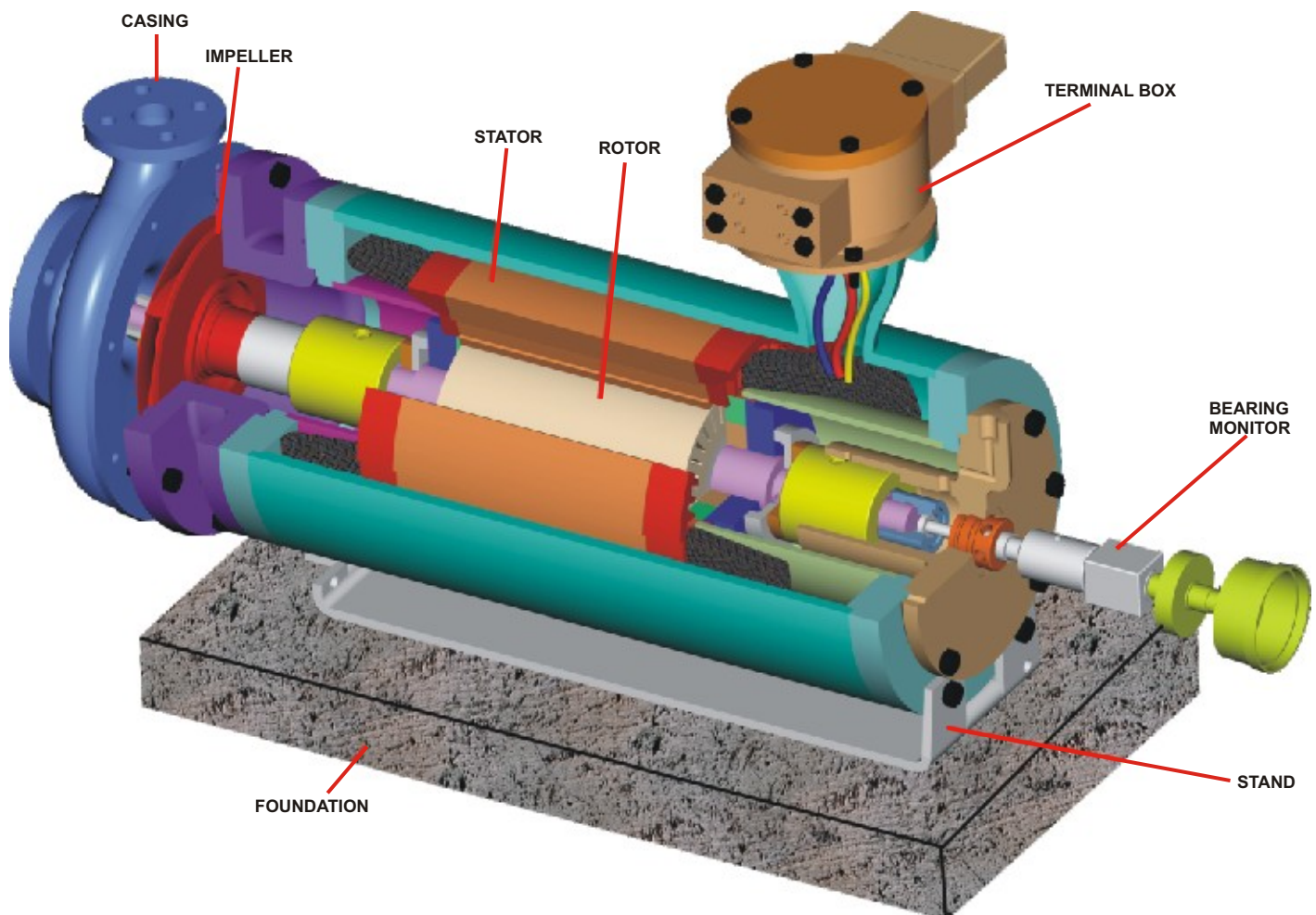
Delivery size \varnothing	: up to 250 mm
Capacity	: up to 1000m ³ /hr
Head	: up to 135 m
Temperature	: -40° C to +270° C
Working Pressure	: upto 120 Kg/cm ²
Speed	: 3000 RPM (Syn) 1500 RPM (Syn)
Voltage	: 415V, 50 Hz 3 Phase

SPECIAL FEATURES

- No seal-no leakage
 - No coupling-no alignment and no vibration problem
 - No separate lubrication of bearing and no contamination of lubricant
 - No antifriction bearings
 - Small and compact design resulting in saving in installation space
 - Easy maintenance and longer life
 - Extremely low noise level
 - Absolute safety from risks of fire, explosion and leakage
 - Automatic thrust balancing
- Vacuum tight construction prevents air contamination of process liquids

APPLICATION

The high reliability of these pumps makes them suitable for pumping of toxic, hazardous liquids, high temperature, high pressure services in nuclear power plant, Lithium Bromide circulation in refrigeration plant, Ammonia transfer in fertilizer plants, refineries, chemical and pharmaceutical industries and other process industries for handling toxic, hazardous or expensive fluids.



CONSTRUCTIONAL FEATURES

KBL Canned Motor Pumps are developed, based on the technical know-how from Nikkiso Co.Ltd., Japan. Canned Motor Pump is a centrifugal pump with pump and hermetically sealed electric motor mounted on single shaft thus eliminating the requirement of mechanical seal or other sealing device. Entire rotating assembly is immersed in the liquid, and motor stator and rotor are isolated from the pumped liquid with corrosion resistant, non-magnetic liner and sleeve. A part of the pumped liquid is by-passed through the motor, for cooling of motor and lubricating the bearing.

CASING

Axial suction and top centre line delivery. Smooth hydraulic passages for high efficiency. Volute type casing connected to liner disc and adapter plate.

IMPELLER

Enclosed/ semi-open type, statically and dynamically balanced. Hydraulic balancing of impeller achieved by means of automatic thrust balance arrangement.

Auxiliary impeller for bearing lubrication and motor cooling is also available.

SHAFT

Stainless steel shaft accurately machined and ground. It is supported by ceramic / carbon graphite sleeve bearings in motor which are lubricated by pumped liquid. A return passage for circulating liquid for cooling motor and bearing lubrication available through the shaft.

DIRECTION OF ROTATION

Clockwise viewed from driving end.

ELECTRIC MOTOR

2/4 pole, 3 phase, 415V, 50 Hz, Class of insulation F, H or C. Flame-proof and explosion proof construction with built-in safety devices available.

FLANGES

Standard : Drilled to ANSI-B 16.5 Class 300.

Optional : Drilled to DIN/IS/ASA/BS.

ADDITIONAL FEATURES

Dry run protection device, single phase protection, over current and under current protection devices
Winding temperature detector (Resistance Temperature Detector and Thermistor).

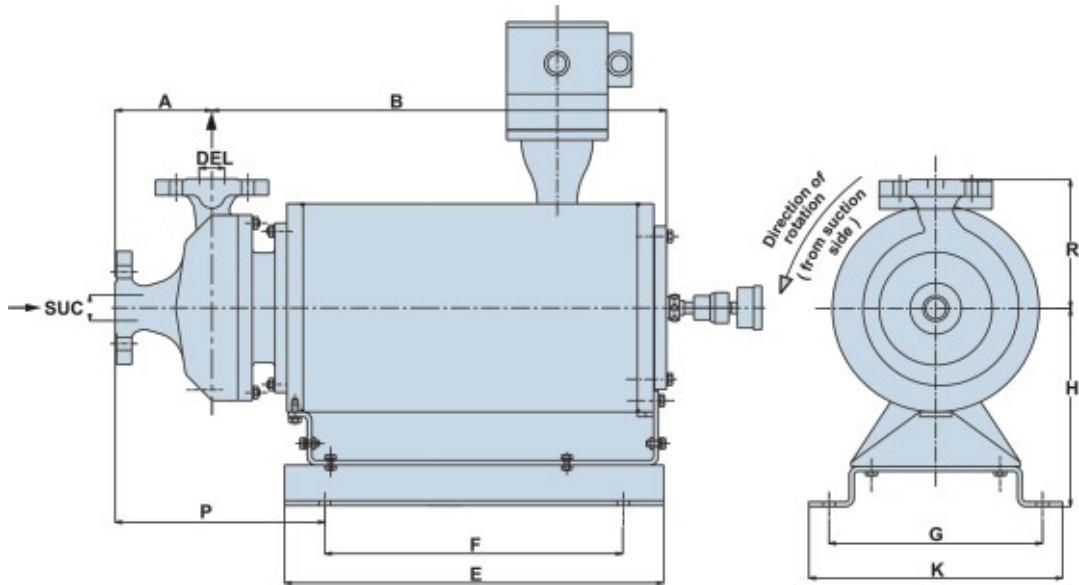
Bearing wear monitor Mechanical and Electrical.

Direction of rotation detector.

MATERIAL OF CONSTRUCTION

Casing	:	Stainless Steel, CF8M, CF3M
Impeller/ Auxillary Impeller	:	Stainless Steel, CF8M, CF3M
Stator Liner	:	Hastelloy, INCONEL, SS316L
Rotor Sleeve	:	Hastelloy, INCONEL, SS316L
Bearing	:	Ceramic, Carbon graphite
Thrust washer	:	Tungsten Carbide, SS316L with HCR / Ceramic coating
Shaft Sleeve	:	Tungsten Carbide, SS316L with HCR / Ceramic coating

GENERAL DIMENSIONS / MOUNTING DETAILS



2 POLE

Note : All dimensions are in mm

PUMP MODEL	MOTOR RATING (KW)	SUC	DEL	A	B	E	F	G	K	R	H	P
20/11R	0.8	32	32	120	485	400	300	255	280	160	220	255
32/13	0.8	50	32	80	485	400	300	255	280	140	190	220
32/13	1.5	50	32	80	550	460	360	255	280	140	220	220
40/13	1.5	65	40	80	550	460	360	255	280	140	210	220
20/13	2.2	35	20	80	560	460	360	255	280	140	220	220
32/13,16,20	2.2	50	32	80	560	470	370	255	280	140	220	225
32/14R	2.2	32	32	120	560	470	370	255	280	160	220	255
40/13,16	2.2	65	40	80	560	470	370	255	280	160	220	225
50/13	2.2	80	50	100	560	470	370	255	280	160	220	250
20/20	3.7	35	20	80	600	510	410	255	280	160	220	220
32/16,20	3.7	50	32	80	600	510	410	255	280	160	220	225
40/13,16	3.7	65	40	80	600	510	410	255	280	140	220	220
40/20	3.7	65	40	100	600	510	410	255	280	180	220	245
50/13,16	3.7	80	50	100	600	510	410	255	280	160	220	245
65/13,16	3.7	100	65	100	600	510	410	255	280	180	220	245
32/16,20,26	5.5	50	32	80	925	700	600	455	480	160	250	220
40/16	5.5	65	40	80	925	700	600	455	480	160	250	235
40/20,26	5.5	65	40	100	925	700	600	455	480	180	250	245
50/13,16,20	5.5	80	50	100	925	700	600	455	480	160	250	250
65/13,16	5.5	100	65	100	925	700	600	455	480	200	250	250
80/16	5.5	125	80	125	925	700	600	455	480	225	250	290
32/20,26	7.5	50	32	80	1020	780	680	455	480	180	280	225
40/20	7.5	65	40	100	1020	780	680	455	480	180	280	245
50/13,16,20	7.5	80	50	100	1020	780	680	455	480	160	280	250
65/13,16	7.5	100	65	100	1020	780	680	455	480	180	280	250

GENERAL DIMENSIONS / MOUNTING DETAILS

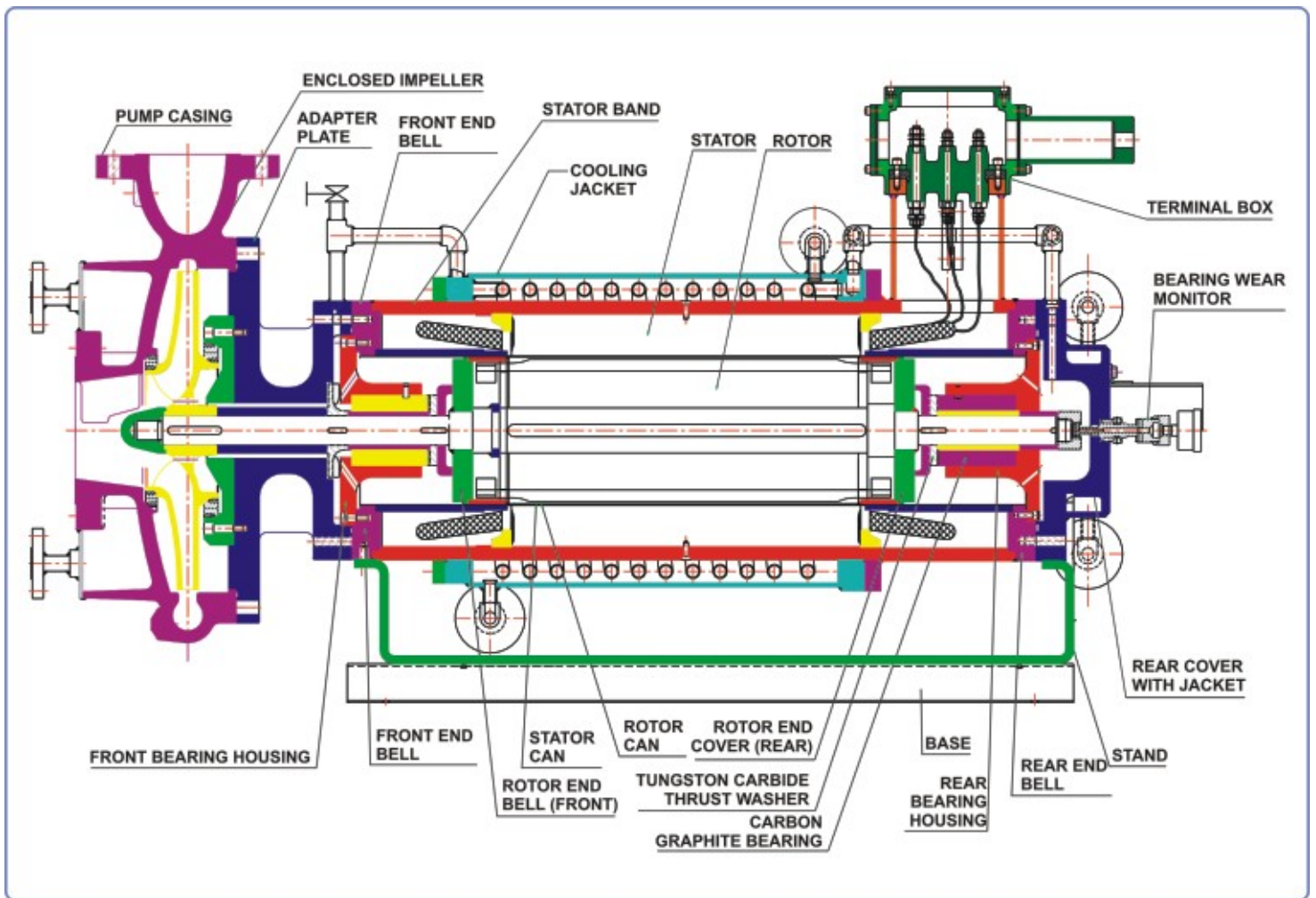
PUMP MODEL	MOTOR RATING (KW)	SUC	DEL	A	B	E	F	G	K	R	H	P
80/16	7.5	125	80	125	1020	780	680	455	480	225	280	290
32/26	11	50	32	80	1070	830	730	455	480	225	330	240
40/20,26	11	65	40	100	1070	830	730	455	480	180	330	250
50/16,20	11	80	50	100	1070	830	730	455	480	180	330	250
65/16,20	11	100	65	100	1070	830	730	455	480	200	330	260
80/16	11	125	80	125	1070	830	730	455	480	225	330	290
32/26	15	50	32	80	1120	880	780	455	480	225	330	235
40/26	15	65	40	100	1120	880	780	455	480	225	330	260
40/32	15	65	40	125	1120	880	780	455	480	250	330	270
50/16,20	15	80	50	100	1120	880	780	455	480	180	330	245
50/26	15	80	50	125	1120	880	780	455	480	225	330	280
65/16	15	100	65	100	1120	880	780	455	480	225	330	260
65/20,26	15	100	65	125	1120	880	780	455	480	225	330	260
80/16	15	125	80	125	1120	880	780	455	480	225	330	290
32/26	22	50	32	80	1170	930	830	455	480	225	350	235
40/26	22	65	40	100	1170	930	830	455	480	225	350	260
40/32	22	65	40	125	1170	930	830	455	480	250	350	270
50/20	22	80	50	100	1170	930	830	455	480	200	350	270
50/26,32	22	80	50	125	1170	930	830	455	480	200	350	280
65/20	22	100	65	100	1170	930	830	455	480	225	350	260
65/26,32	22	100	65	125	1170	930	830	455	480	250	350	280
80/16	22	125	80	125	1170	930	830	455	480	225	350	290
100/40	22	125	100	140	1170	930	830	455	480	355	350	300
40/32	30	65	40	125	1220	980	880	455	480	250	370	270
50/26,32	30	80	50	125	1220	980	880	455	480	225	370	280
65/20	30	100	65	100	1220	980	880	455	480	225	370	260
65/26	30	100	65	125	1220	980	880	455	480	250	370	280
40/32	37	65	40	125	1270	1030	930	455	480	250	390	270
50/26,32	37	80	50	125	1270	1030	930	455	480	225	390	280
65/20	37	100	65	100	1270	1030	930	455	480	225	390	260
65/26	37	100	65	125	1270	1030	930	455	480	250	390	280
80/26	37	125	80	125	1270	1030	930	455	480	280	390	255

4 POLE

Note : All dimensions are in mm

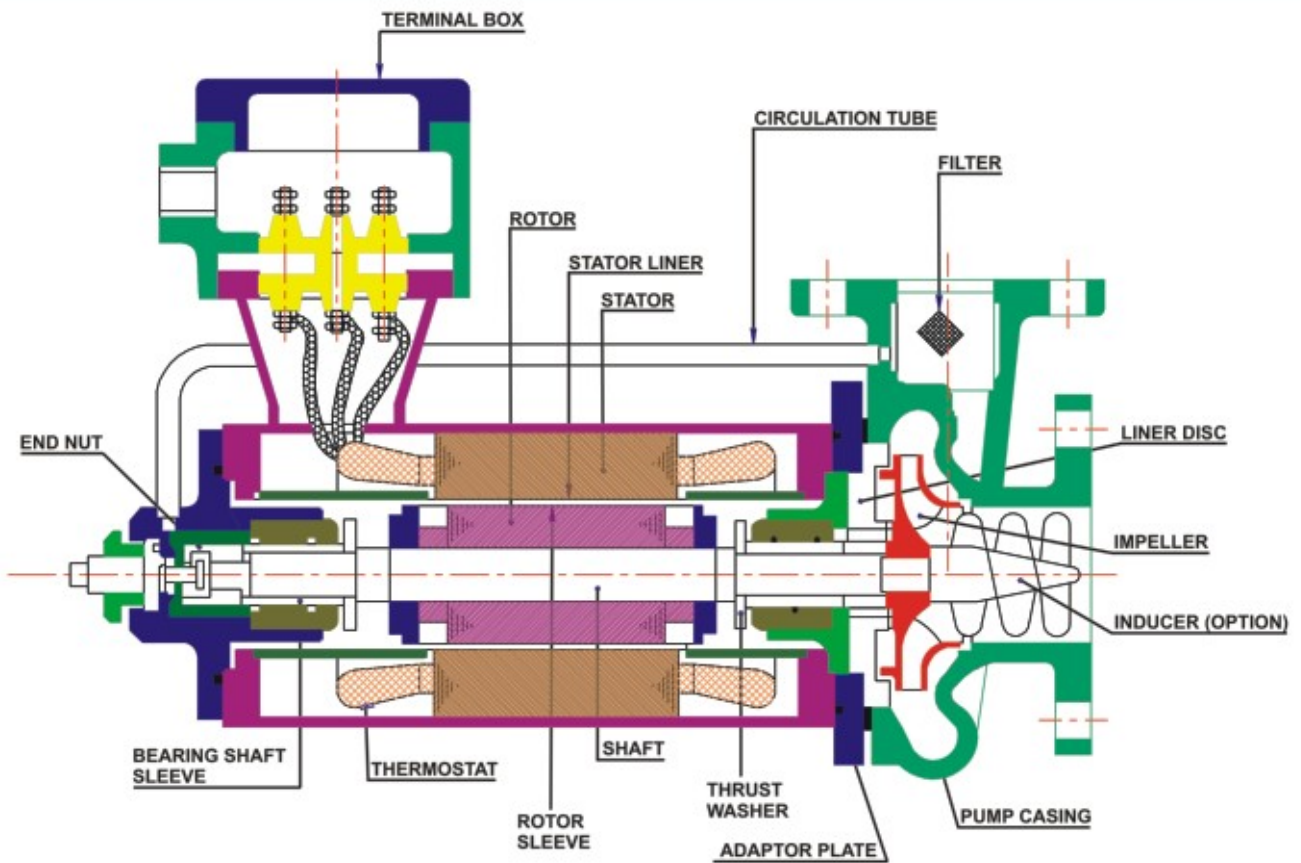
PUMP MODEL	MOTOR RATING (KW)	SUC	DEL	A	B	E	F	G	K	R	H	P
80/26	15	125	80	125	1085	850	750	455	480	280	350	350
80/40	15	125	80	125	1085	850	750	455	480	350	350	400
100/40	22	125	100	140	1185	935	835	455	480	365	350	400
125/32	22	150	125	140	1185	935	835	455	480	365	350	400

TYPICAL CROSS SECTIONAL ASSEMBLY



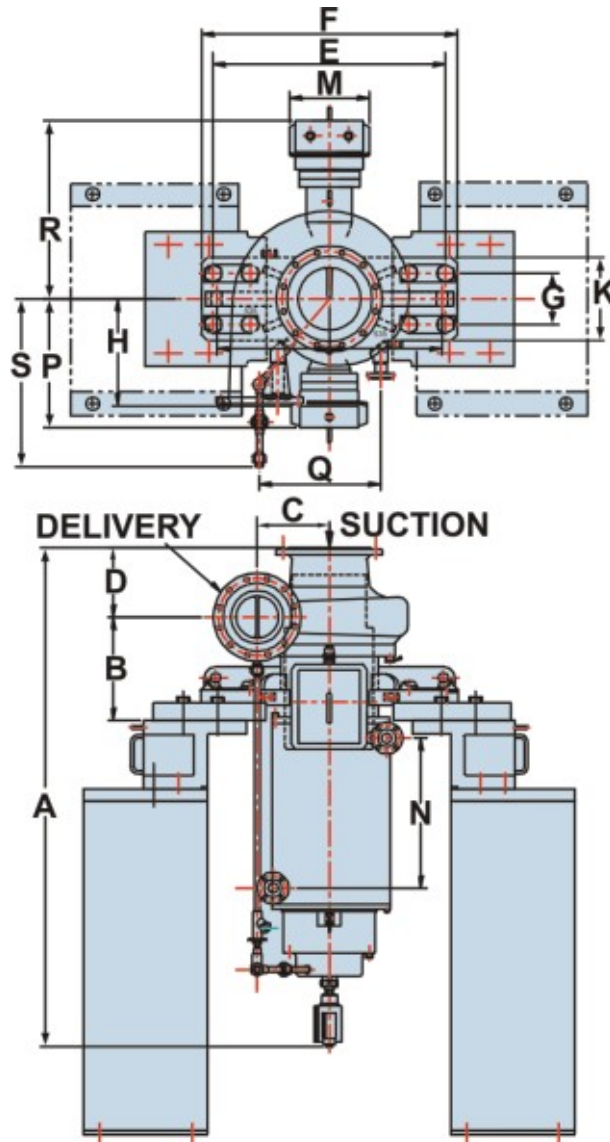
For High Temperature Applications

TYPICAL CROSS SECTIONAL ASSEMBLY



For Normal Temperature Applications

CAN 220 Pump

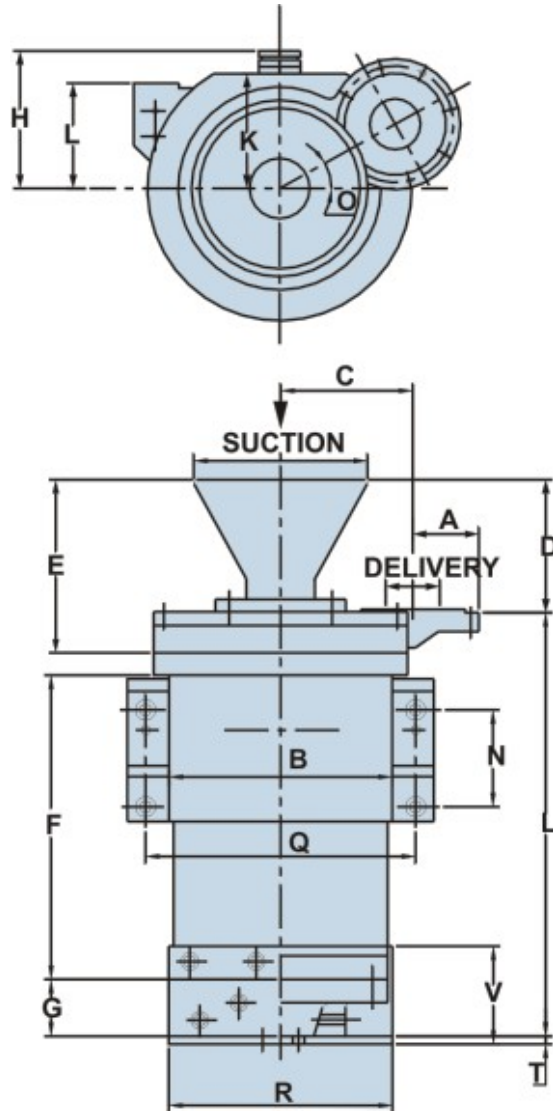


Note : All dimensions are in mm

SUC.	DEL.	A	B	C	D	E	F	G	H	K	M	N	P	Q	R	S
300	250	2060	420	340	330	1100	1200	250	475	400	420	715	630	600	980	785

GENERAL DIMENSIONS

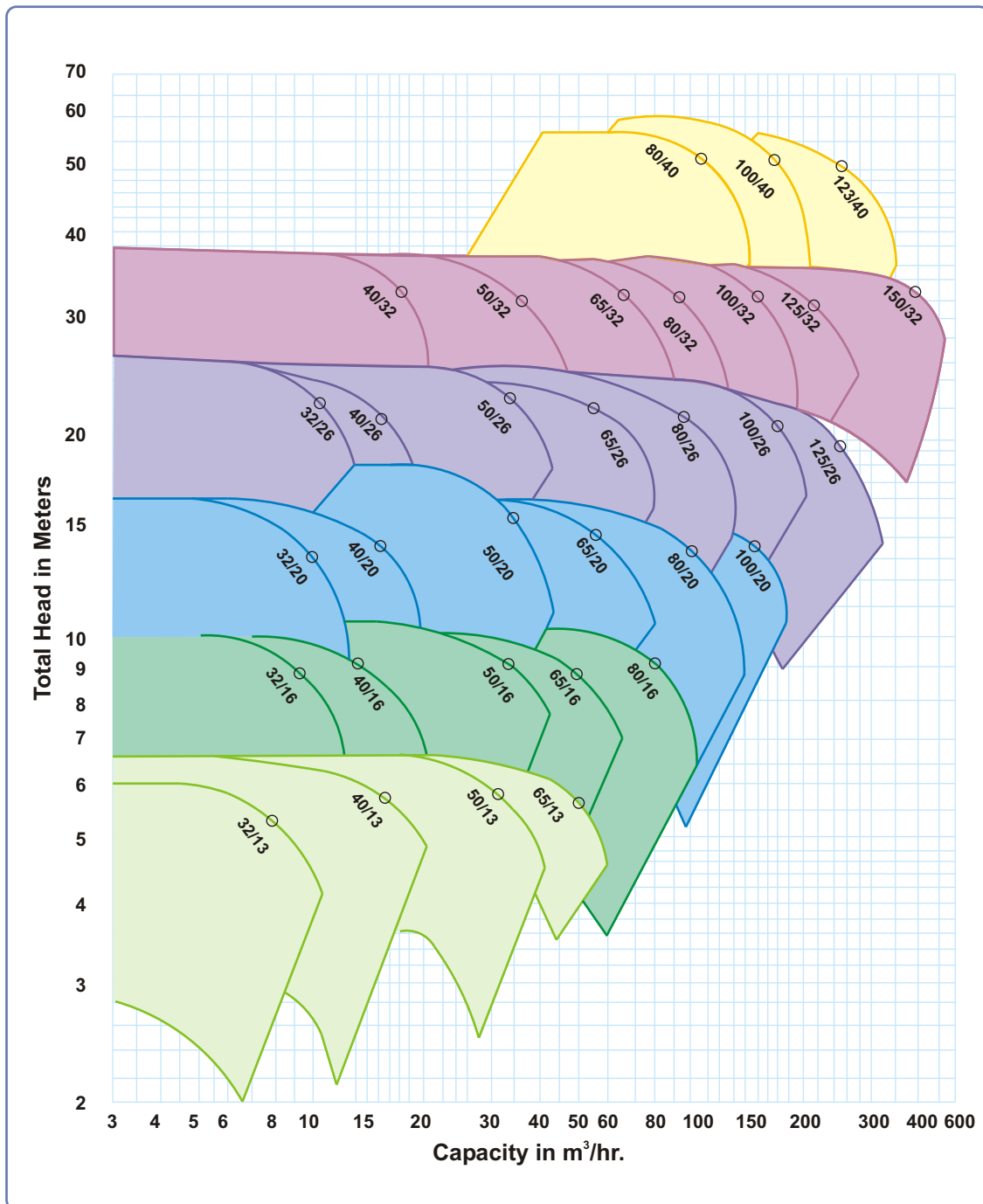
CAN 2.4 Pump



Note : All dimensions are in mm

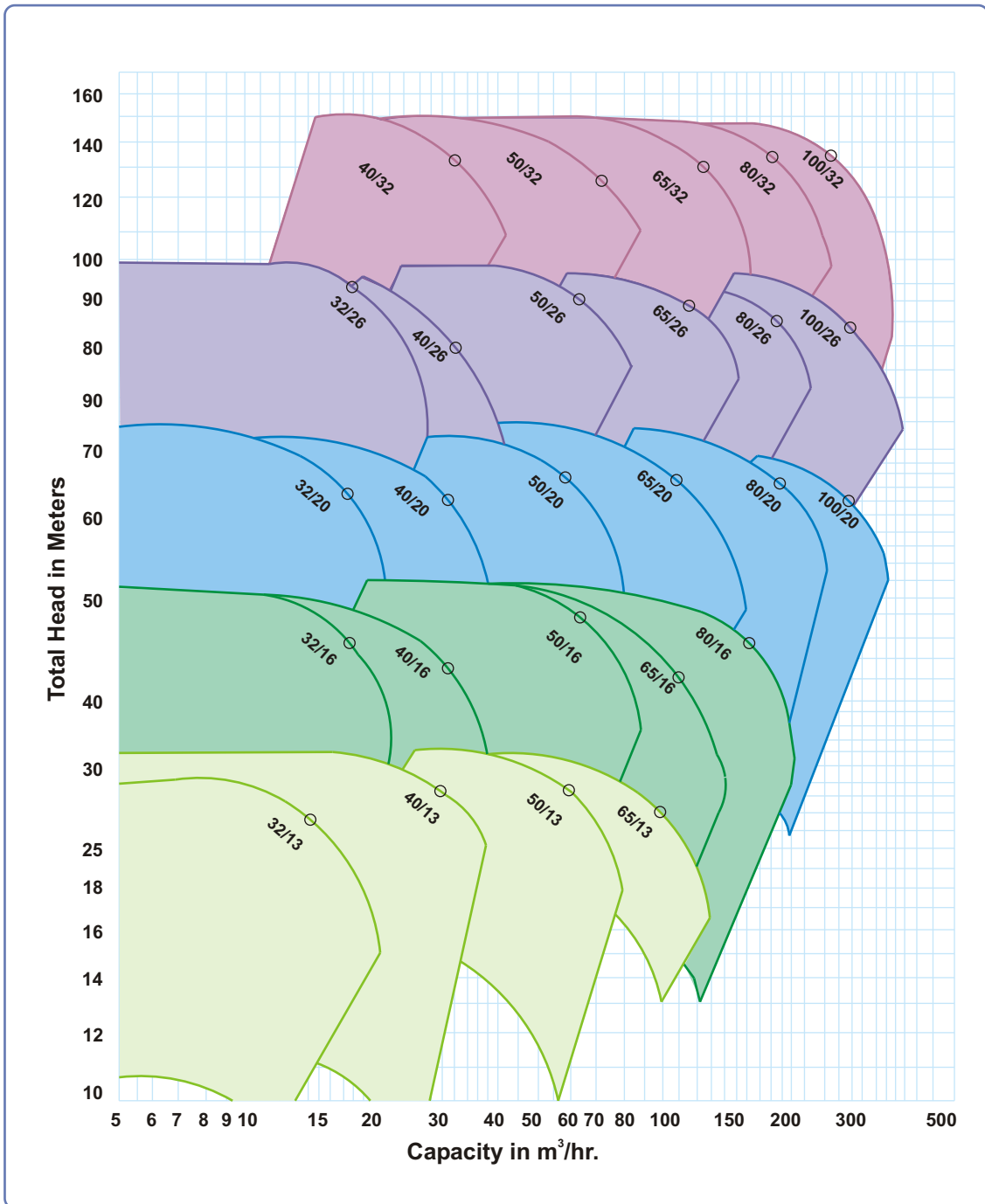
SUC.	DEL.	A	B	C	D	E	F	G	H	J	K	L	N	Q	R	T	V	O
213	65	80	287	165	160	220	380	70	170	125	142	535	120	336	267.5	5	112	30

KCS Pumps at 1450 RPM



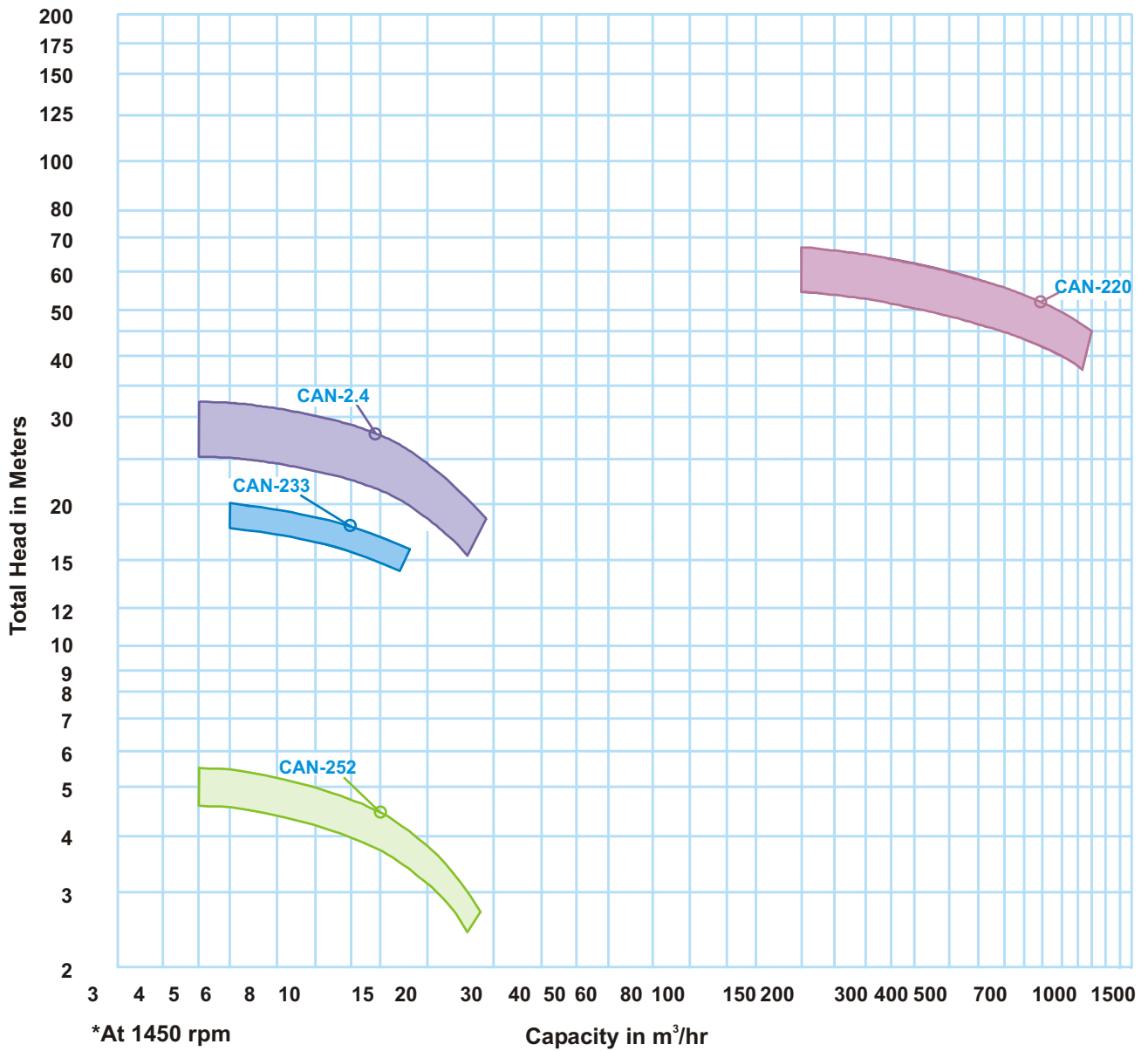
FAMILY CURVES

KCS Pumps at 2900 RPM



FAMILY CURVES

Family Curve of Non-Seal CAN Pump at 2900 rpm





Kirloskar Canned Motor Pump (CAN 220) at Nuclear Power Corporation of India Ltd., Tarapore

As we are constantly endeavouring to improve the performance of our products/equipment, we reserve the right to make alterations from time to time, and as such our products/equipment may differ from that detailed in this publication. For latest information you may get in touch with our Regional Sales Offices.



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