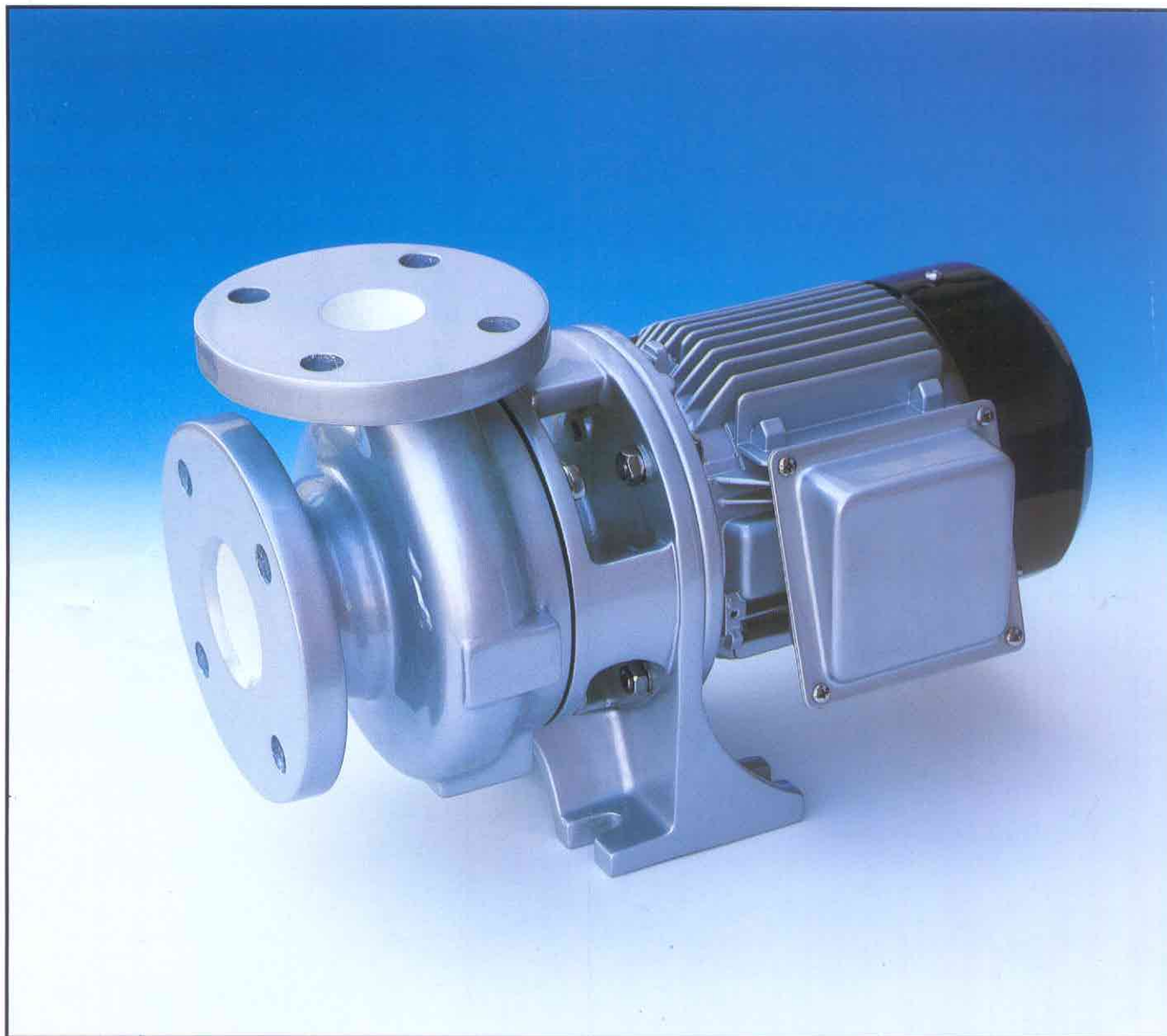

D-Line close-coupled end suction pumps



FLOWSERVE

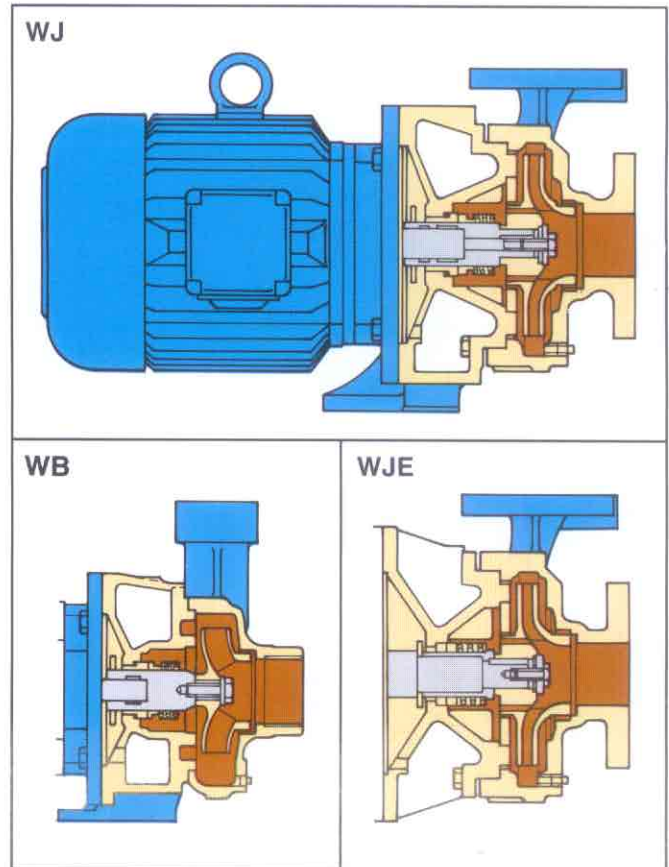
Introduction – Types WB, WJ & WJE

Worthington Simpson D-Line Close Coupled End Suction Pumps type WB, WJ and WJE form part of the D-Line 'family' of pumps. The range is based on modular components using casings and impellers from our frame mounted range which is designed to ISO standards. The modular concept gives maximum interchangeability of parts with subsequent low inventory costs.

In common with the other pumps in the D-Line range the close coupled version features back pull out design which allows the motor complete with rotating element to be removed for maintenance without disturbing the pipe connections to the casing.

Standard motors are totally enclosed fan ventilated IP55 enclosures having Class 'F' insulation. Motor powers range up to 2.2kW for pump type WB, up to 7.5kW for pump type WJ and from 11kW to 37kW for pump type WJE.

WB, WJ and WJE units feature a single DIN 24960 mechanical seal as standard. Should a packed gland, alternative materials or a special mechanical seal be required for a particular application while still retaining the space saving benefit of the compact close coupled design then selection should be made from one of the other close coupled ranges in the D-Line 'family'. These are the CB, CR and WR ranges.



Standard materials of construction

Component	WB	WJ	WJE
Casing	Cast Iron	Cast Iron	Cast Iron
Impeller	*Noryl	Cast Iron	Cast Iron
Mounting Bracket	Cast Iron	Cast Iron	Cast Iron
Shaft or Sleeve	Stainless Steel	Stainless Steel	Stainless Steel
Mechanical Seal	Carbon Stationary Seat Ceramic Rotating Face Nitrile Rubber Elastomer	Carbon Stationary Seat Ceramic Rotating Face Nitrile Rubber Elastomer	Carbon Stationary Seat Ceramic Rotating Face Nitrile Rubber Elastomer

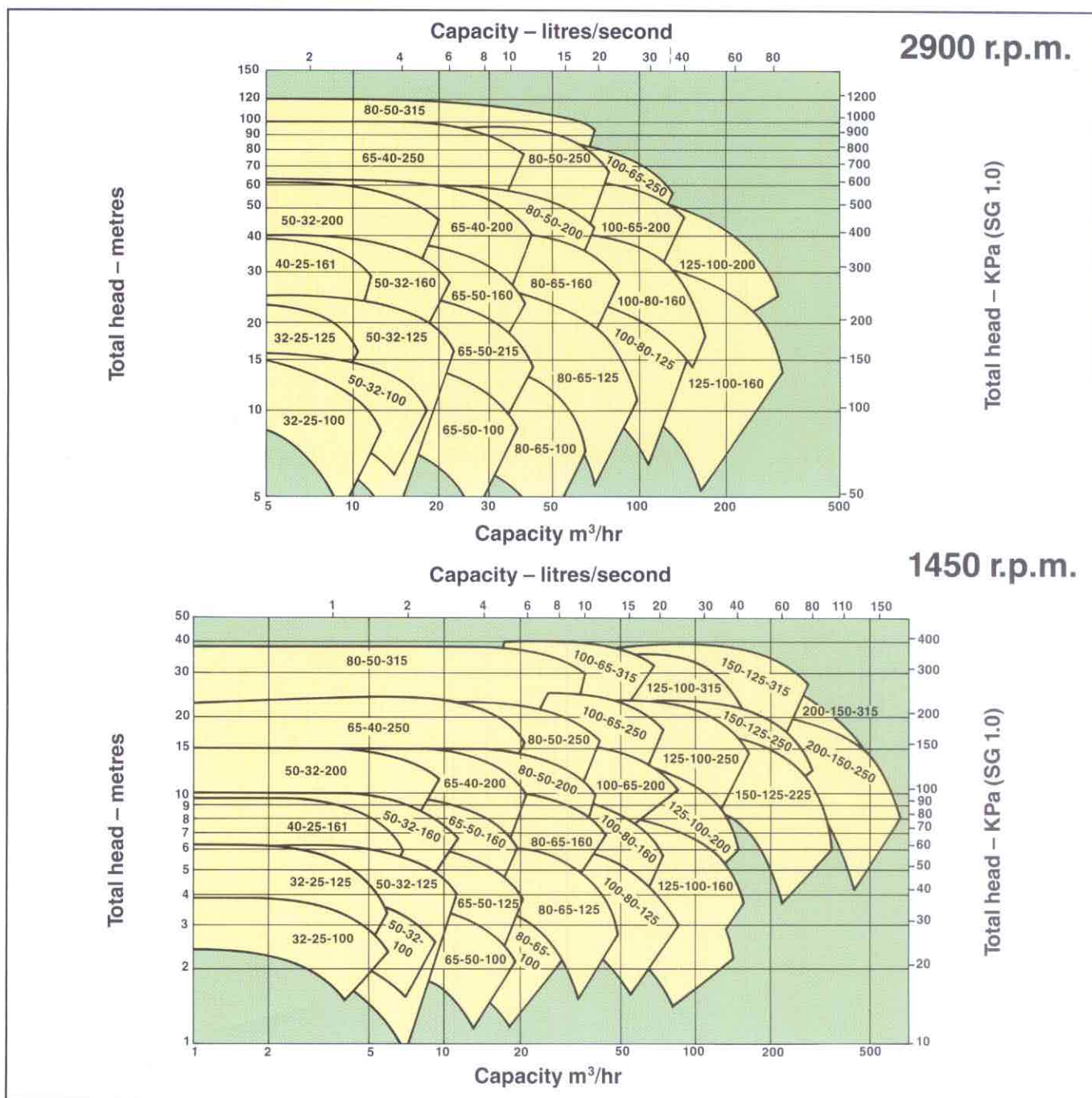
*NORYL IS A REGISTERED TRADEMARK OF GENERAL ELECTRIC PLASTICS B.V.

Options

All WJ and WJE units can be supplied fitted with gunmetal or stainless steel impellers. Most WB units can be fitted with stainless steel impellers. Increased

temperature limits are possible on WJ and WJE units. Higher suction pressure limits and reduced noise levels can be achieved using selected motors.

Performance charts

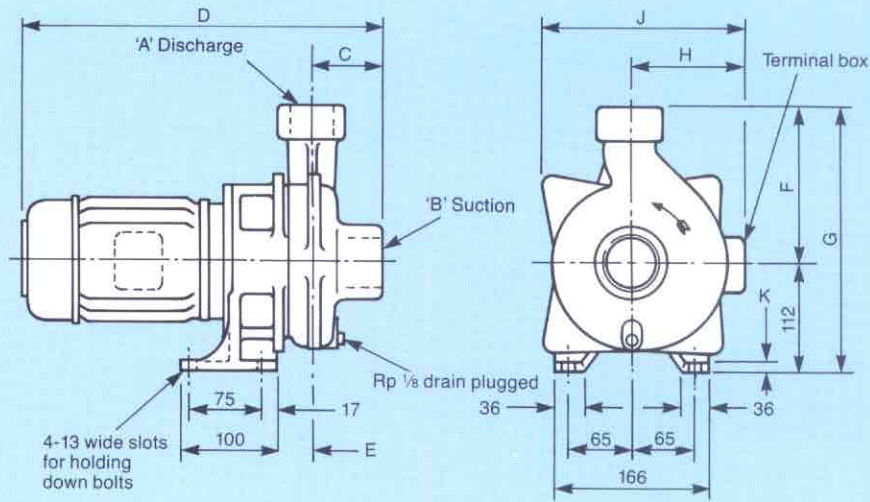


Operating limits

Pump Type	Maximum Working Pressure bar	Test Pressure bar	Maximum Suction Pressure – bar		Maximum Liquid Temperature °C
			1450 & 1750 R.P.M.	2900 & 3500 R.P.M.	
WB	5	10	3.4	2.75	110
WJ	12	18	5.2	2.75	110
WJE	16	24	5.2	2.75	110

Dimensions – Types WB & WJ

TYPE WB – SCREWED CONNECTIONS

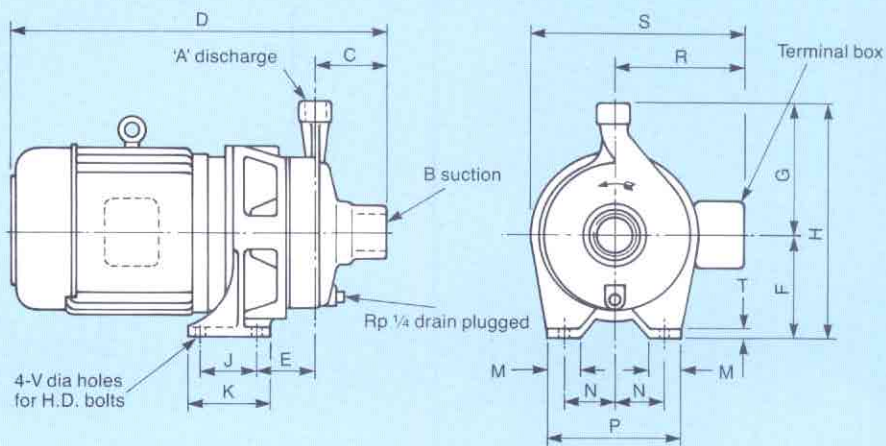


SUCTION & DISCHARGE SCREWED BSP (PARALLEL THREAD)

PUMP SIZE	kW max	A	B	C	D max	E	F	G	H max	J max	K max
25WB 100	1.1	1"	1.25"	67	410	29	150	262	118	218	13
32WB 100	1.5	1"	1.5"	68	414	31	150	262	157	257	13
50WB 100	2.2	1.5"	2"	74	492	35	162.5	274.5	175	275	13
25WB 125	2.2	1"	1.25"	67	479	29	175	287	175	275	13
32WB 125	2.2	1"	1.5"	68	482	31	175	287	175	275	13

All dimensions in millimetres except where stated & valid for T.E.F.C. motors only.

TYPE WJ – SCREWED CONNECTIONS



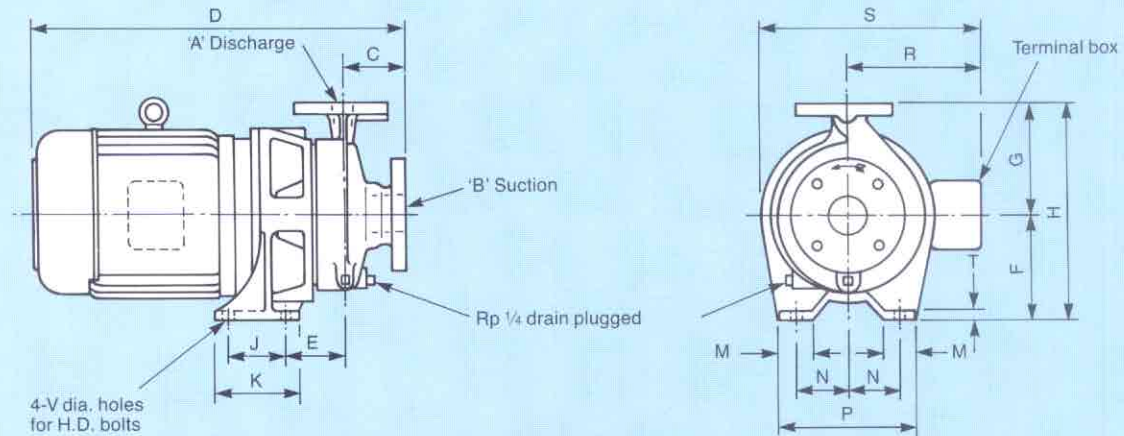
SUCTION & DISCHARGE SCREWED BSP (PARALLEL THREAD)

PUMP SIZE	kW max	A	B	C	D max	E max	F max	G	H max	J max	K max	M max	N max	P max	R max	S max	T max	V max
25WJ 161	4	1"	1.5"	87	566	87	150	175	325	85	125	50	75	200	202	336	16	15
32WJ 160	7.5	1"	2"	105	610	87	180	190	370	135	175	65	95	250	230	341	16	15
32WJ 200	5.5	1"	2"	110	617	88	180	215	395	135	175	65	95	250	230	380	18	15

All dimensions in millimetres except where stated & valid for T.E.F.C. motors only.

Dimensions – Type WJ

TYPE WJ – FLANGED CONNECTIONS



Note: Pump casing protrudes 12mm below mounting bracket on pump sizes 100 WJ 200 with D100 & D112M motor and 125 WJ 225 with D132M motor

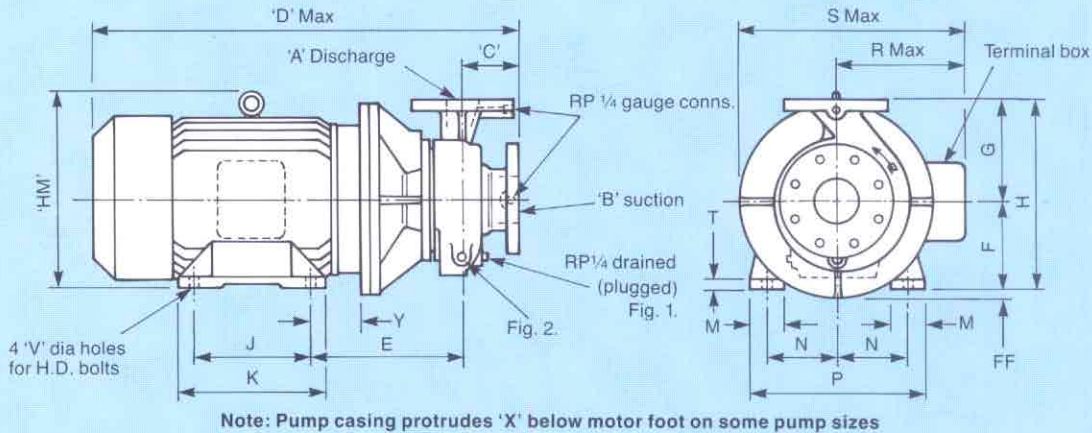
PUMP SIZE	kW max	A	B	C	D max	E max	F max	G	H max	J max	K max	M max	N max	P max	R max	S max	T max	V
65 WJ 100	4	65	80	100	593	98	150	160	310	85	125	50	75	200	202	327	16	15
32 WJ 125	4	32	50	80	563	98	150	140	290	85	125	50	75	200	202	327	16	15
50 WJ 125	5.5	50	65	80	597	98	180	140	320	135	175	65	95	250	230	380	16	15
65 WJ 125	7.5	65	80	100	617	98	180	160	340	135	175	65	95	250	230	380	16	15
80 WJ 125	7.5	80	100	100	617	98	180	180	360	135	175	65	95	250	230	380	16	15
50 WJ 160	7.5	50	65	80	597	98	180	160	340	135	175	65	95	250	230	380	16	15
65 WJ 160	7.5	65	80	100	617	98	180	180	360	135	175	65	95	250	230	380	16	15
80 WJ 160	7.5	80	100	100	617	94	180	200	380	135	175	65	95	250	230	380	16	15
100 WJ 160	5.5	100	125	150	663	95	180	280	460	135	175	65	95	250	230	380	16	15
40 WJ 200	7.5	40	65	100	617	98	180	180	360	135	175	65	95	250	230	380	18	15
50 WJ 200	7.5	50	80	100	617	98	180	200	380	135	175	65	95	250	230	380	18	15
65 WJ 200	7.5	65	100	100	653	94	180	225	405	135	175	65	95	250	230	380	18	15
100 WJ 200	7.5	100	125	125	676	94	180	280	460	135	168	65	95	250	194	358	18	15
125 WJ 225	7.5	125	150	140	705	101	225	355	580	135	168	65	95	250	230	412	18	15
40 WJ 250	3	40	65	100	543	94	180	225	405	85	118	65	95	250	184	344	18	15
50 WJ 250	4	50	80	125	588	94	180	225	405	85	118	65	95	250	202	362	18	15
65 WJ 250	7.5	65	100	125	677	89	225	250	475	135	168	65	95	250	230	390	18	15
100 WJ 250	7.5	100	125	140	692	89	225	280	505	135	168	65	95	250	230	414	18	15
125 WJ 250	7.5	125	150	140	692	89	225	355	580	135	168	65	95	250	230	422	18	15
50 WJ 315	7.5	50	80	125	692	105	225	280	505	135	168	65	95	250	230	438	18	15
65 WJ 315	7.5	65	100	125	692	105	225	280	505	135	168	65	95	250	230	441	18	15

All dimensions in millimetres except where stated & valid for T.E.F.C. motors only.

FLANGE DETAILS: Standard drilling is to DIN2533 ND16 (BS4504-16/11). Drilling to ANSI 125 (BS1560 Part 2) can be provided if required.

Dimensions – Type WJE

TYPE WJE – FLANGED CONNECTIONS



PUMP SIZE	kW max	A	B	C	D max	E max	F max	G	H max	J max	K max	M max	N max	P max	R max	S max	T max	V max	HM max	FF max	Y max	X max
50 WJE 160	11	50	65	80	740	272	160	160	320	210	267	64	127	318	261	436	22	15	387	15	92	0
65 WJE 160	15	65	80	100	760	272	160	180	340	210	267	64	127	318	261	436	22	15	387	15	92	0
80 WJE 160	30	80	100	100	910	293	200	200	400	305	368	89	159	387	357	557	25	19	477	15	115	0
100 WJE 160	37	100	125	150	960	294	200	280	480	305	368	89	159	387	357	557	25	19	477	15	115	2
32 WJE 200	11	32	50	80	740	273	160	180	340	210	267	64	127	318	261	436	22	15	387	15	92	0
40 WJE 200	18.5	40	65	100	805	273	160	180	340	254	311	64	127	318	261	436	22	15	387	15	92	0
50 WJE 200	30	50	80	100	915	290	200	200	400	305	368	89	159	387	357	557	25	19	477	15	115	0
65 WJE 200	37	65	100	100	910	294	200	225	425	305	368	89	159	387	357	557	25	19	477	15	115	2
100 WJE 200	37	100	125	125	940	294	200	280	480	305	368	89	159	387	357	557	25	19	477	15	115	18
125 WJE 225	22	125	150	140	910	294	180	355	535	279	337	76	139.5	356	289	464	22	15	435	15	103	62
40 WJE 250	37	40	65	100	910	293	200	225	425	305	368	89	159	387	357	557	25	19	477	15	115	2
50 WJE 250	37	50	80	125	935	293	200	225	425	305	368	89	159	387	357	557	25	19	477	15	115	0
65 WJE 250	37	65	100	125	935	293	200	250	450	305	368	89	159	387	357	557	25	19	477	15	115	18
100 WJE 250	18.5	100	125	140	860	281	180	280	460	241	298	76	139.5	356	289	464	22	15	435	15	103	37
125 WJE 250	30	125	150	140	950	293	200	355	555	305	368	89	159	387	357	557	25	19	477	15	115	62
150 WJE 250	30	150	200	160	970	294	200	375	575	305	368	89	159	387	357	557	25	19	477	15	115	94
50 WJE 315	37	50	80	125	935	293	200	280	480	305	368	89	159	387	357	557	25	19	477	15	115	45
65 WJE 315	18.5	65	100	125	845	281	180	280	460	254	311	76	140	356	289	464	22	15	435	15	103	45
100 WJE 315	30	100	125	140	950	293	200	315	515	305	368	89	159	387	357	557	25	19	477	15	115	66
125 WJE 315	30	125	150	140	950	294	200	355	555	305	368	89	159	387	357	557	25	19	477	15	115	82
150 WJE 315	30	150	200	160	1015	339	200	400	600	305	368	89	159	387	357	557	25	19	477	0	115	96

All dimensions in millimetres except where stated & valid for T.E.F.C. motors only.

FLANGE DETAILS: Standard drilling is to DIN2533 ND16 (BS4504-16/11). Drilling to ANSI 125 (BS1560 Part 2) can be provided if required.



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