

BOOST YOUR BUSINESS

**WITH
HIGHER
EFFICIENT
PUMPS**



RAJ PUMPS
Simply the Best



RAJ VOLUTE CASING IN-LINE CENTRIFUGAL PUMPS TYPE RIL

APPLICATIONS

Raj Volute casing Inline Centrifugal pumps Type **RIL** are space saving Pump units designed for easy installation and are used for circulating clean non-aggressive fluids.

Water Supply Systems.

Water Circulation / Transfer.

Hot Water Circulation.

Agriculture.

Industry.

Ship Building.

Cooling Towers.

and many other Applications.

DESIGN DETAILS

Direction of Rotation : Clock wise looking from the motor at the Pump.

Shaft Sealing : The Shaft is sealed by means of a Mechanical Seal.

Wearing Ring : Every Volute Casing is fitted with a Replaceable wearing ring.

Casing Gasket : The Volute casing is sealed by means of a flat gasket.

MOTOR

The Pump is coupled with a Electric Motor, which is a totally enclosed, fan cooled Squirrel-cage motor.

Nominal Speed	:	2900rpm
Enclosure Class	:	IP 55.
Standard Voltages	:	1 X 220 240V 3 X 380 415V

Single-phase Motors have a built in thermal overload protection.

Three phase Motors should be protected by a suitable motor starter as per local regulations.

PUMP DESIGN

The Pumps are primarily designed to handle water and are suitable for handling water in water supply systems for domestic and industrial use.

Single Stage Pumping units of compact design with back pullout feature with Suction & Discharge Flange arranged in-line opposite one another for direct installation in the pipeline.

Motor and Pump are close coupled by rigid coupling. The complete rotating portion can be removed without disconnecting the Pump casing from the connecting pipe line.

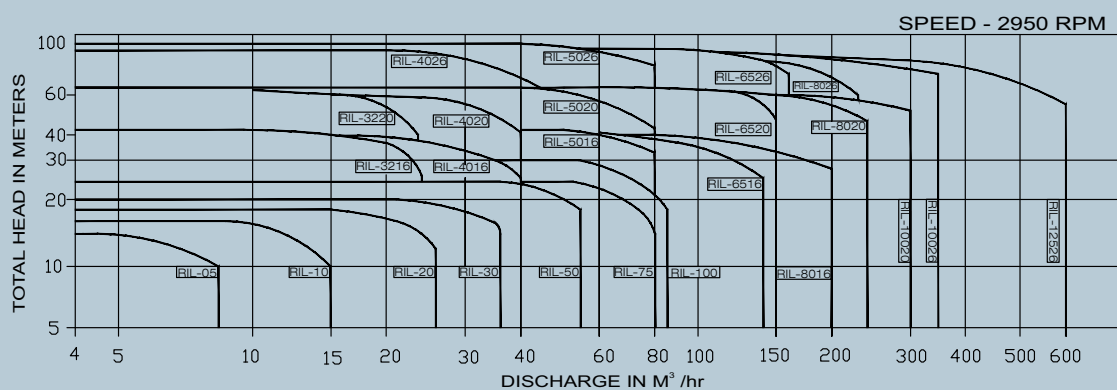




MOTOR OPTION

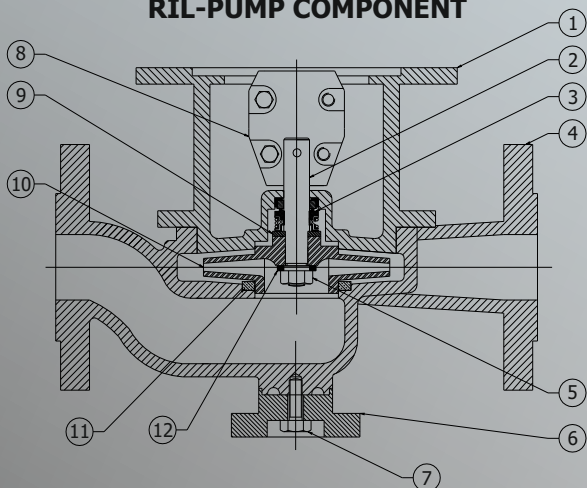
Standard Pumps are fitted with motor adaptor suitable for mounting Vertical Flange Mounting V-1 frame Motor, to suite particular specification where protection class & enclosure are required. Special suitable adaptor can be provided.

GROUP PERFORMANCE OF PUMP TYPE - RIL



Values are valid for water at 1 kg/dm³ and Viscosity of 1 cSt.

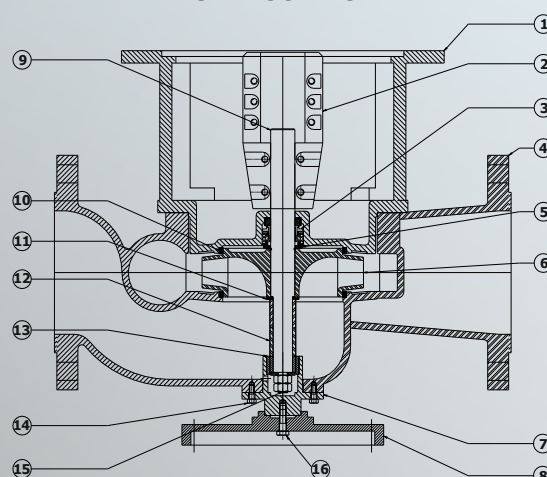
RIL-PUMP COMPONENT



RIL-05 TO RIL-100

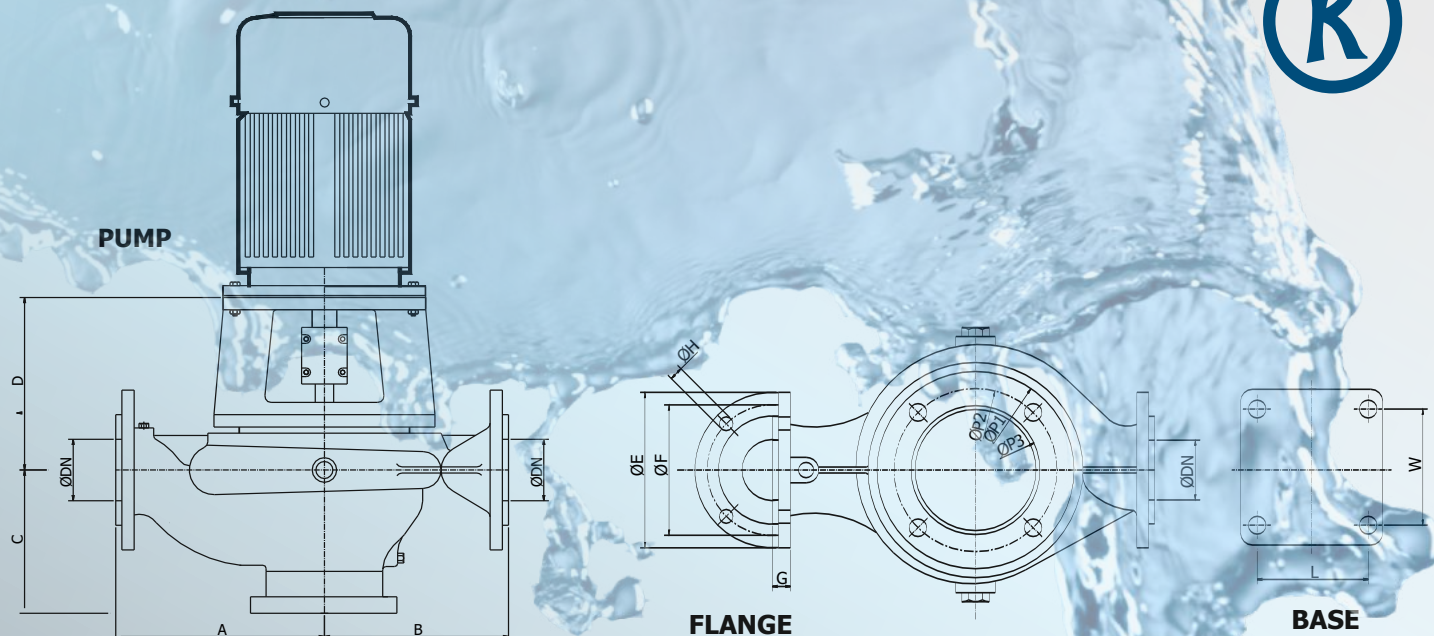
- | | |
|----------------------|--------------------|
| 01 - Adaptor | 07 - M.S. Bolt |
| 02 - S.S. Shaft | 08 - Coupling |
| 03 - Mechanical Seal | 09 - Spacer Washer |
| 04 - Volute | 10 - Impeller |
| 05 - Lock Nut SS | 11 - Wearing Ring |
| 06 - Base Plate | 12 - Spacer Washer |

RIL-PUMP COMPONENT



RIL PUMP WITH T.C. SET

- | | |
|----------------------|--------------------|
| 01 - Adaptor | 09 - S.S. Shaft |
| 02 - Coupling | 10 - Wearing Ring |
| 03 - Mechanical Seal | 11 - Spacer Washer |
| 04 - Volute | 12 - Bush SS |
| 05 - Spacer Washer | 13 - T.C. Bush |
| 06 - Impeller | 14 - Housing Bolt |
| 07 - Bush Housing | 15 - Lock Nut |
| 08 - Base Plate | 16 - M.S. Bolt |









VERTICAL INLINE CENTRIFUGAL PUMPS SERIES RIL.



PUMP TYPE	DN	ADAPTOR			PUMP				FLANGE				BASE		
		P1	P2	P3	A	B	C	D	E	F	G	H	J	L	W
RIL - 05	32	160	130	110	140	140	90	112	140	100	18	18X4	160	83	120
RIL - 10	40	200	165	130	150	150	110	123	150	110	18	18X4	200	83	130
RIL - 20	50	200	165	130	150	150	110	145	165	125	20	18X4	200	83	130
RIL - 30	65	200	165	130	170	170	135	146	185	145	20	18X4	215	100	180
RIL - 50	80	250	215	180	200	200	145	150	200	160	20	18X4	252	100	157
RIL - 75	80	300	265	230	240	240	150	175	200	160	20	18X4	300	100	175
RIL - 100	100	300	265	230	240	240	160	175	220	180	20	18X4	305	150	170
RIL - 110	32	200	165	130	157	157	90	140	-	-	-	-	220	83	128
RIL - 3216 T	50	250	215	180	190	190	140	170	165	125	20	18X4	264	100	180
RIL - 3220 T	50	300	265	230	200	200	144	165	165	125	20	18X4	300	100	180
RIL - 4016 T	65	300	265	230	190	190	144	176	185	145	20	18X4	300	100	180
RIL - 4020 T	65	300	265	230	250	250	144	176	185	145	20	18X4	300	100	180
RIL - 4026 T	65	350	300	250	248	248	138	240	185	145	22	18X4	350	212	232
RIL - 5016 T	80	350	300	250	238	220	170	245	200	160	22	18X8	350	212	232
RIL - 5020 T	80	350	300	250	235	235	170	245	200	160	22	18X8	350	212	232
RIL - 5026 T	80	400	350	300	245	245	150	260	200	160	22	18X8	400	212	232
RIL - 6516 T	100	350	300	250	260	260	180	250	220	180	24	18X8	350	212	232
RIL - 6520 T	100	350	300	250	260	260	170	250	220	180	24	18X8	350	212	232
RIL - 6526 T	100	550	500	450	265	265	170	250	220	180	24	18X8	550	212	232
RIL - 8016 T	150	350	300	250	295	295	190	270	285	240	29	18X8	410	212	232
RIL - 8016 T	125	400	350	300	285	285	190	285	250	210	29	18X8	400	212	232
RIL - 8020 T	125	400	350	300	285	285	185	280	250	210	29	18X8	400	212	232
RIL - 8026 T	125	550	500	450	285	285	190	315	250	210	29	18X8	400	212	232
RIL - 10020 T	125	550	500	450	300	300	190	325	285	240	29	18X8	550	212	232
RIL - 10020 T	150	550	500	450	300	300	190	325	285	240	29	18X8	550	212	232
RIL - 10020 T	150	550	500	450	300	300	195	325	285	240	29	18X8	550	212	232
RIL - 10026 T	125	550	500	450	310	310	195	320	285	240	29	18X8	550	212	232
RIL - 10026 T	150	550	500	450	310	315	200	320	285	240	29	18X8	550	212	232
RIL - 10026 T	150	550	500	450	315	315	185	320	285	240	29	18X8	550	212	232
RIL - 12526 T	150	660	600	550	410	400	215	355	285	240	29	18X8	660	225	270

"T" Pumps fitted with T.C. Bush.

PERFORMANCE CHART OF RIL PUMPS AT 2900 RPM

RATING REF	PIPE SIZE IN MM	CURVE	POWER (HP)	TOTAL HEAD IN METER											
				10	12	14	16	18	20	22	24	26	28	30	32
				DISCHARGE IN LPM / M ³ /Hr.											
RIL-05	32 X 32		0.5	140 / 8.4	115 / 6.9	70 / 4.2									
RIL-10	40 X 40		1	250 / 15	225 / 13.5	195 / 11.7	145 / 8.7								
RIL-20	50 X 50		2	-	430 / 25.8	400 / 24	350 / 21	260 / 15.6							
RIL-30	65 X 65		3	-		600 / 36	550 / 33	465 / 27.9	350 / 21						
RIL-50	80 X 80		5	-				910 / 54.6	835 / 50.1	750 / 45	600 / 36				
RIL-75	80 X 80		7.5	-		1355 / 81.3	1285 / 77.1	1225 / 73.5	1125 / 67.5	1025 / 61.5	875 / 52.5				

PERFORMANCE CHART OF RIL PUMPS AT 2900 RPM

RATING REF	PIPE SIZE IN MM	CURVE	POWER (HP)	TOTAL HEAD IN METER											
				10	12	14	16	18	20	22	24	26	28	30	32
				DISCHARGE IN LPM / M ³ /Hr.											
RIL-100	100 X 100		10	-				1425 / 85.5	1355 / 81.3	1295 / 77.7	1215 / 72.9	1125 / 67.5	1025 / 61.5	900 / 54	-
RIL-110	32 X 32		1	172 / 10.3	160 / 9.6	145 / 8.7	127 / 7.6	107 / 6.4	83 / 5	-					
			1.5	207 / 12.4	200 / 12	188 / 11.3	178 / 10.7	165 / 9.9	148 / 8.9	132 / 7.9	113 / 6.8	90 / 5.4	33 / 2	-	
			2	225 / 13.5	220 / 13.2	210 / 12.6	201 / 12.1	190 / 11.4	180 / 10.8	170 / 10.2	155 / 9.3	137 / 8.2	123 / 7.4	108 / 6.5	67 / 4

NOTES :-

VALUES ARE VALID FOR WATER AT 1KG/DM3 AND VISCOSITY OF 1 CST.

CAPACITY ± 10% , DELIVERY HEAD ±10% , POWER ±10%

CURVES ARE APPROXIMATE, PUMP IS GUARANTEED FOR ONE SET OF CONDITIONS; CAPACITY, HEAD, AND EFFICIENCY

SELECTION OF THE MOTOR RESULTS FROM OPERATING DATA SPECIFICATION AND IS NOT NECESSARILY VALID FOR THE COMPLETE RANGE OF PERFORMANCE OF THE PRODUCT.



9 - HEAVY INDUSTRIAL AREA, JODHPUR - 342003.(INDIA)

TEL : 91-291-2740937 , MOB. : 9829021461 / 9024507877 E-MAIL: info@rajpumps.com

PERFORMANCE CHART OF PUMP TYPE " RIL " AT 2900 RPM

PUMP MODEL	PIPE SIZE (MM)	CURVE	MAX. IMPELLER	REQD. IMPELLER	POWER kW / HP	MOTOR FRAME	TOTAL HEAD IN METERS																	
							15	16	18	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
							DISCHARGE IN M3/Hr																	
RIL-3216	50 X 50		178	178	3.7 / 5	100L					31	29.5	26	20										
				148	2.2 / 3	90L			25.5	24	22	14												
RIL-3220	50 X 50		216	216	7.5 / 10	132S							26	25	23.5	22	20	16.5	10					
				200	5.5 / 7.5	132S			24.5	23	22	20	17	11										
RIL-4016	65 X 65		187	187	7.5 / 10	132S							46	41	34	20								
				177	5.5 / 7.5	132S			45	41	34													
				155	3.7 / 5	100L			38	31	19													
RIL-4020	65 X 65		216	216	11 / 15	160M									50	48	43	32						
				195	7.5 / 10	132S					44	40	30											
				175	5.5 / 7.5	132S			41	38	31.5													
RIL-4026	65 X 65		264	264	18.5 / 25	160L									52	49.5	47	45	43	40.5	38	35	29	
				245	15 / 20	160M						47	45	43	40.5	38	35	32	20					
				225	11 / 15	160M					45	43	40.5	38	35	32	28							
RIL-5016 B	80 X 80		180	180	11 / 15	160M					98	95	88	78	65	48								
				156	7.5 / 10	132S	83	81	78	74	61	42												
				144	5.5 / 7.5	132S	72	70	66	60	43													



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							15	16	18	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90					
							DISCHARGE IN M3/Hr																						
RIL-5020 B	80 X 80		215	215	18.5 / 25	160L											98	93	85	75									
				200	15 / 20	160M											92	85	76	45									
				182	11 / 15	160M											83	74	60										
				160	7.5 / 10	132S											69	57											
RIL-5026 B	80 X 80		266	266	30 / 40	200L																85	80	73	64	53			
				240	22 / 30	180M																78	73	67	57	40			
				230	18.5 / 25	160L																71	64	53					
				210	15 / 20	160M											66	58	47										
RIL-6516 B	100 X 100		181	181	15 / 20	160M											164	150	130	100									
				160	11 / 15	160M	146	144	139	132	105	57																	
				140	7.5 / 10	132S	116	112	100	85																			
RIL-6520 B	100 X 100		220	220	30 / 40	200L											157	154	146	135	117	80							
				200	22 / 30	180M											142	137	127	109	73								
				188	18.5 / 25	160L											135	131	120	100									
				176	15 / 20	160M											124	114	95										



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							15	16	18	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
							DISCHARGE IN M3/Hr																	
RIL-6526 B	100 X 100		264	264	45 / 60	225M																		
				250	37 / 50	200L																		
				236	30 / 40	200L																		
				210	22 / 30	180M																		
				200	18.5 / 25	160L																		
RIL-8016B	125 X 125		176	176	18.5 / 25	160L																		
				162	15 / 20	160M																		
				153	11 / 15	160M																		
RIL-8016	150 X 150		210	210	30 / 40	200L																		
				195	22 / 30	180M																		
				184	18.5 / 25	160L																		
				172	15 / 20	160M																		
RIL-8020	125 X 125		240	235	45 / 60	225M																		
				225	37 / 50	200L																		
				210	30 / 40	200L																		
				190	22 / 30	180M																		



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							15	16	18	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	
							DISCHARGE IN M3/Hr																		
RIL-8026	125 X 125		264	261	55 / 75	250M													93	180	164	130			
				245	45 / 60	225M													180	172	157	125			
				230	37 / 50	200L													168	153	125				
				215	30 / 40	200L													152	130	70				
RIL-10020	125 X 125		218	218	55 / 75	250M													230	208	130				
				210	45 / 60	225M													224	205	140				
				197	37 / 50	200L													208	190	90				
RIL-10020 I	150 X 150		240	240	55 / 75	250M				348	230	314	295	277	260	237	210								
				228	45 / 60	225M				324	304	285	265	248	225	190									
				213	37 / 50	200L				308	290	268	248	225	200										
				200	30 / 40	200L				280	258	235	204	188											
RIL-10026B	125 x 125		264	264	90 / 120	280M													290	270	245	195			
				248	75 / 100	280S													280	255	230	180			
				225	55 / 75	250M													245	220	170				
				210	45 / 60	225M													215	180	100				



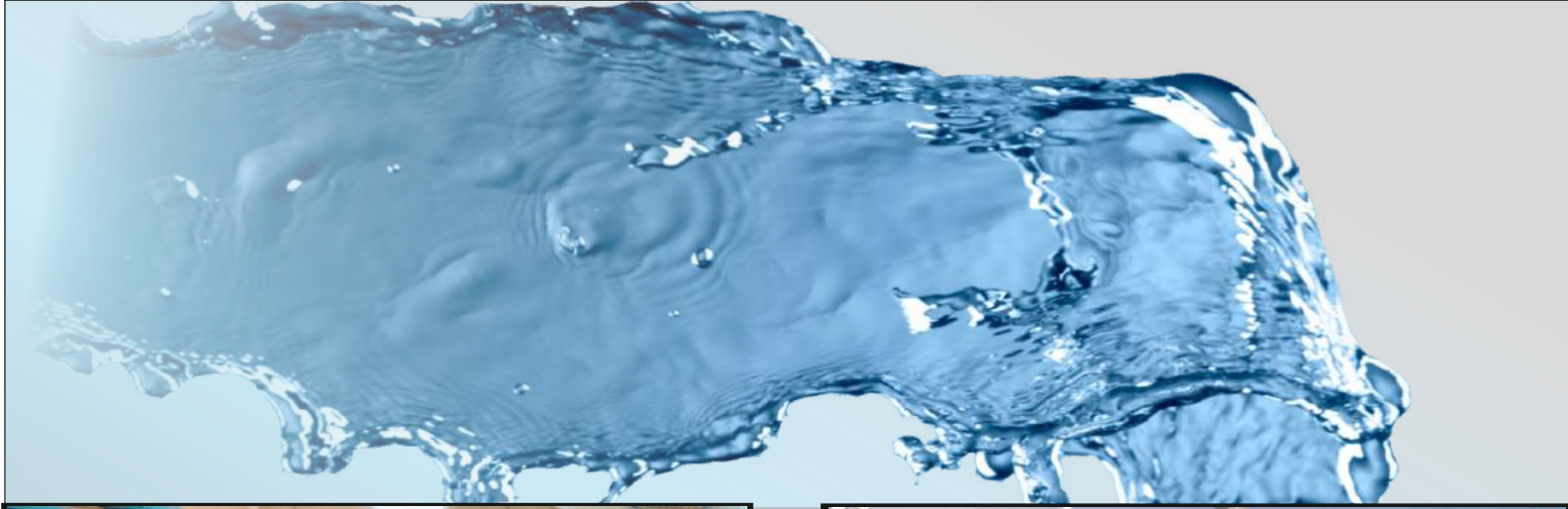
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							15	16	18	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90			
							DISCHARGE IN M3/Hr																				
RIL-10026 1 ST	150 x 150		290	290	90 / 120	280M									354	340	330	320	305	295	280	265	245	215			
				268	75 / 100	280S											324	310	298	285	270	260	240	210	170		
				243	55 / 75	250M											288	274	260	245	228	204	160				
RIL-12526	150 X 150		264	264	160 / 215	315LX												675	640	600	545	470	360	220			
				253	132 / 180	315M														650	610	570	520	430	300		
				238	110 / 150	315S												605	565	520	440	310					
				224	90 / 120	280M												570	526	470	380	220					

NOTES :-	VALUES ARE VALID FOR WATER AT 1KG/DM3 AND VISCOSITY OF 1 CST.
	CAPACITY ± 10% , DELIVERY HEAD ±10% , POWER ±10%
	CURVES ARE APPROXIMATE, PUMP IS GUARANTEED FOR ONE SET OF CONDITIONS; CAPACITY, HEAD, AND EFFICIENCY
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PUMPS INSTALLED IN STEEL PLANT



PUMPS INSTALLED IN FILTRATION PLANT



IN-LINE PUMPS WORKING AT A.C PLANTS



**HIGH PRESSURE VERTICAL IN-LINE
COMBO PUMPS.
PRESSURE: 18 BAR
FLOW: 500M³/Hr**



RAJ PUMPS

Simply the Best

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