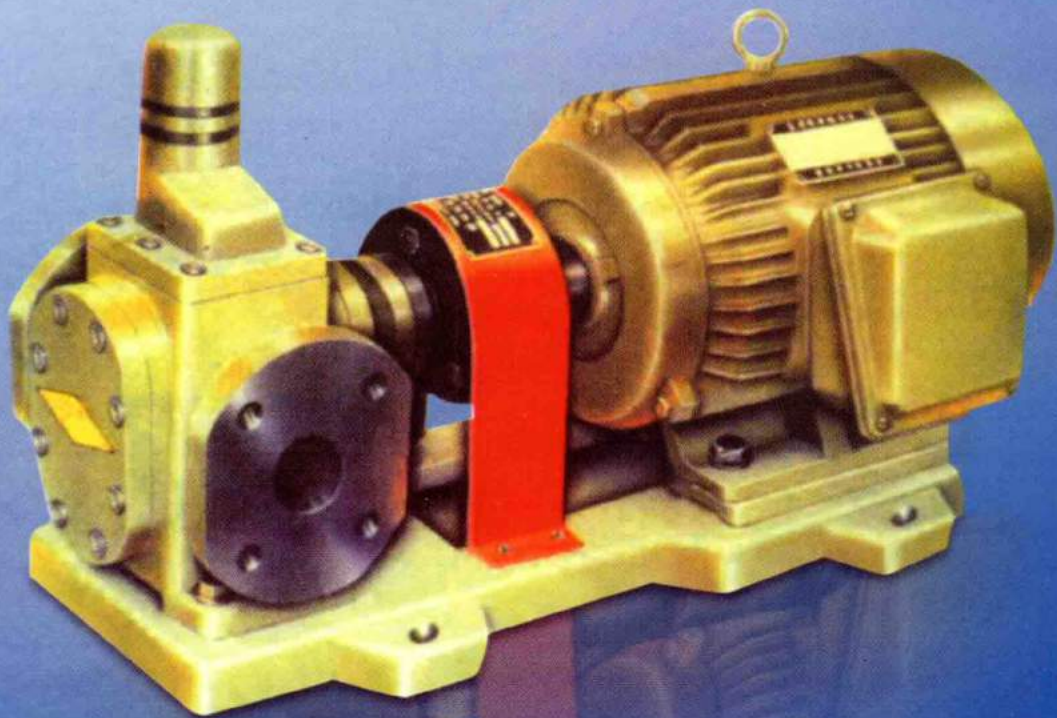
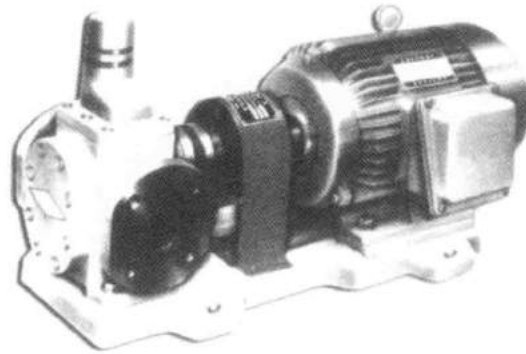


ROTOR RB

RB SERIES CIRCULAR GEAR PUMP





1. Application

It applies to delivering non-corrosive lubricating-oil or equivalent liquid without solid particles and fibres at temperature below 300°C and with the viscosity of $5 \times 10^{-6} \sim 1.5 \times 10^{-3} \text{m}^2/\text{s}$ (5–1500 cSt).

Reducing the speed, the pump can delivery the Liquid that the viscosity can be up to 5×10^4 cSt.

2. Application Scope

It can give performance as transfer pump or booster pump in oil delivery system, and fuel pump for delivery, pressurization and injection in fuel supply system. It can be also applied as hydraulic pump supplying hydraulic power in hydraulic system and in all industry fields as lubricating pump.

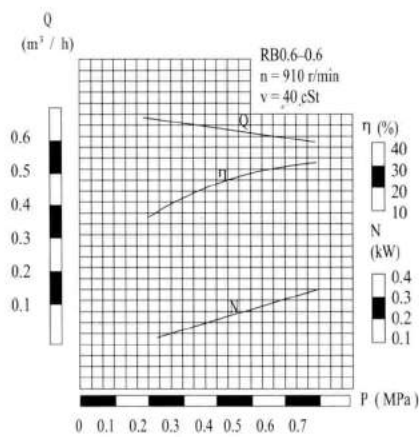
3. Structure Features

RB series gear pumps are mainly composed of gears, axles, pump body, pump cover, safety valve and axle-end seals etc. (Special requirement, magnetic force drive and zero-leakage structure can be selected). The gears are adoped double circular teeth shape, which makes the gears less wear on gear surface, stable revolution, low noise, long service life and high efficiency, due to no sliding on the teeth during gear falling-in. This kind of pump has got rid of traditional design and come into a new decade in designing and application.

The pump is designed with safety valve for protection against overload. The full return flow pressure is 1.5 times higher than the rated exhaust pressure of the pump. It can be adjusted wi thin the allowance of exhaust pressure range according to circumstance. But please note the safety valve can' t be applied as pressure-reducing valve for long time. You may ins tall pressure-reducing valve separately on pipe-line if needed.

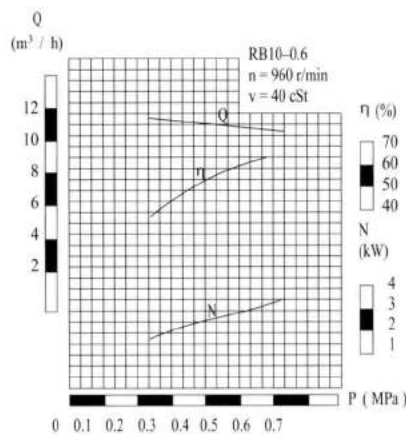
There are two kinds of axle-end seals, mechanical seal and packing seal, which can be chosen according to the clients requirement or application circumstance. The direction of rotation is clockwise viewed from coupling end.

Diagram of Performance Curve



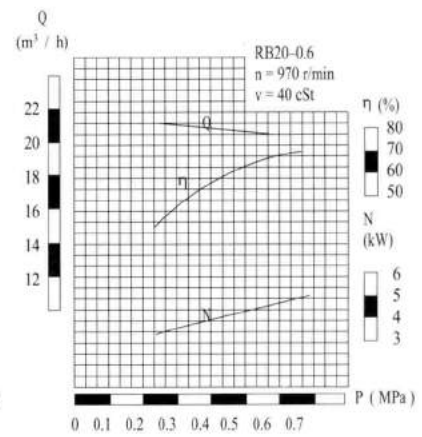
RB0.6 - 0.6

Diagram of Performance Curve of Model RB06-06 Gear Pump



RB10 - 0.6

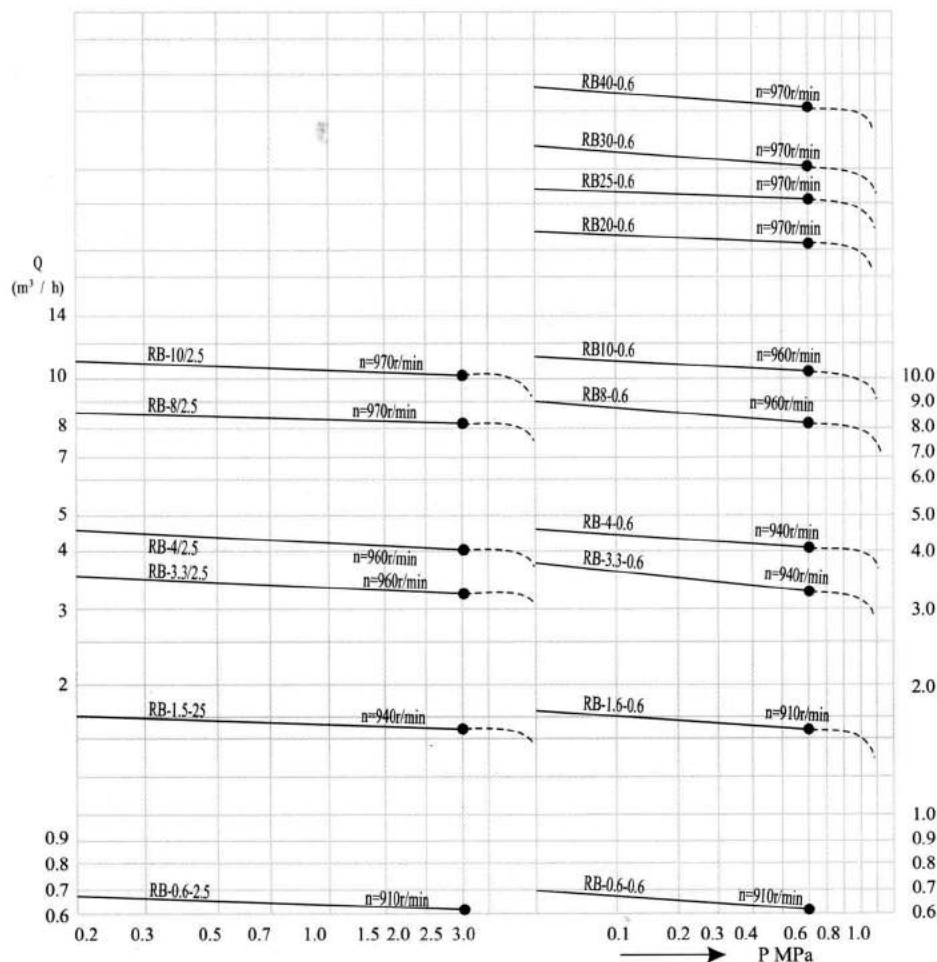
Diagram of Performance Curve of Model RB10-0.6 Gear Pump



RB20 - 0.6

Diagram of Performance Curve of Model RB20-0.6 Gear Pump

WORKING SCOPE (DIAGRAM NO. 1)



Working Scope

Non-Working Scope

The Full Return Flow of Safety Valve

Designed Value

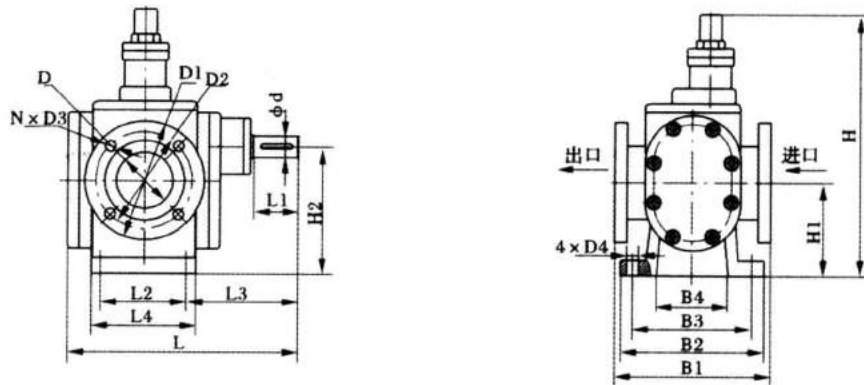
FUNCTIONAL DATA OF RB SERIES CIRCULAR TEETH GEAR PUMPS

Model	Capacity Q m ³ /h	Speed n r/min	Exhaust Pressure P MPa	NPSHR m	Efficiency η %	Motor		
						Hz	kW Power	Model
RB0.6-0.6	0.6	910	0.6	5.5	32	50	0.75	Y90S-6
	1.0	1390	0.6			50	0.75	Y80L2-4
	0.7	1130	0.6			60	0.75	Y90S-6
	1.2	1710	0.6			60	0.75	Y80L2-4
RB0.6-2.5	0.6	910	2.5	7.0	70	50	1.1	Y90L-6
	1.0	1400	2.5			50	1.5	Y90L-4
	0.7	1130	2.5			60	1.1	Y90L-6
	1.2	1710	2.5			60	1.1	Y90S-4
RB1.6-0.6	1.6	910	0.6	5.5	42	50	0.75	Y90S-6
	2.5	1400	0.6			50	1.1	Y90S-4
	1.9	1130	0.6			60	1.1	Y90L-6
	3.0	1710	0.6			60	1.5	Y90L-4
RB1.6-2.5	1.6	940	2.5	7.0	71	50	2.2	Y112M-6
	2.5	1440	0.6			50	4	Y112M-4
	1.9	1150	0.6			60	2.2	Y112M-6
	3.0	1750	2.5			60	4	Y112M-4
RB3.3-0.6	3.3	940	0.6	5.0	60	50	1.5	Y100L-6
	5.0	1420	0.6			50	2.2	Y100L1-4
	4.0	1150	0.6			60	1.5	Y100L-6
	6.0	1730	0.6			60	2.2	Y100L1-4
RB3.3-2.5	3.3	960	2.5	7.0	72	50	5.5	Y132M2-6
	5.0	1440	2.5			50	7.5	Y132M-4
	4.0	1170	2.5			60	4	Y132M1-6
	6.0	1750	2.5			60	7.5	Y132M-4
RB4-0.6	4.0	940	0.6	5.0	60	50	1.5	Y100L-6
	6.0	1420	0.6			50	2.2	Y100L1-4
	4.8	1150	0.6			60	2.2	Y112M-6
	7.2	1730	0.6			60	3	Y100L2-4
RB4-2.5	4.0	960	2.5	7.0	72	50	5.5	Y132M2-6
	6.0	1440	2.5			50	7.5	Y132M-4
	4.8	1170	2.5			60	5.5	Y132M-6
	7.2	1750	2.5			60	7.5	Y132M-4
RB8-0.6	8.0	960	0.6	5.0	61	50	3	Y132S-6
	12.0	1440	0.6			50	5.5	Y132S-4
	9.6	1170	0.6			60	4	Y132M1-6
	14.4	1750	0.6			60	5.5	Y132S-4
RB8-2.5	8.0	970	2.5	7.0	75	50	11	Y160L-6
	12.0	1460	2.5			50	15	Y160L-4
	9.6	1170	2.5			60	11	Y160L-6
	14.4	1760	2.5			60	15	Y160L-4
RB10-0.6	10.0	960	0.6	5.0	62	50	4	Y132M1-6
	15.0	1440	0.6			50	5.5	Y132S-4
	12.0	1170	0.6			60	5.5	Y132M2-6
	18.0	1750	0.6			60	7.5	Y132M-4
RB10-2.5	10.0	970	2.5	7.0	76	50	11	Y160L-6
	15.0	1470	2.5			50	15	Y160L-4
	12.0	1170	2.5			60	11	Y160L-6
	18.0	1770	2.5			60	18.5	Y180M-4
RB20-0.6	20.0	970	0.6	5.0	68	50	7.5	Y160M-6
	24.0	1170	0.6			60	11	Y160M-4
RB25-2.5	25.5	980	2.5	7.5	77	50	22	Y200L2-6
	30.0	1180	2.5			60	30	Y225M-6
RB25-0.6	25.5	970	0.6	5.5	69	50	11	Y160L-6
	30.0	1170	0.6			60	11	Y160M-6
RB25-2.5	25.5	980	2.5	7.5	77	50	30	Y225M-6
	30.0	1180	2.5			60	37	Y250M-6
RB30-0.6	30.0	970	0.6	5.5	70	50	11	Y160L-6
	36.0	1180	0.6			60	15	Y160L-6
RB30-2.5	30.0	980	2.5	7.5	78	50	37	Y250M-6
	36.0	1180	2.5			60	37	Y250M-6
RB40-0.6	40.0	970	0.6	5.5	72	50	15	Y180L-6
	48.0	1183	0.6			60	18.5	Y180M-6
RB40-2.5	40.0	980	2.5	7.5	78	50	45	Y280S-6
	48.0	1190	2.5			60	55	Y280M-6

ROTOR RB

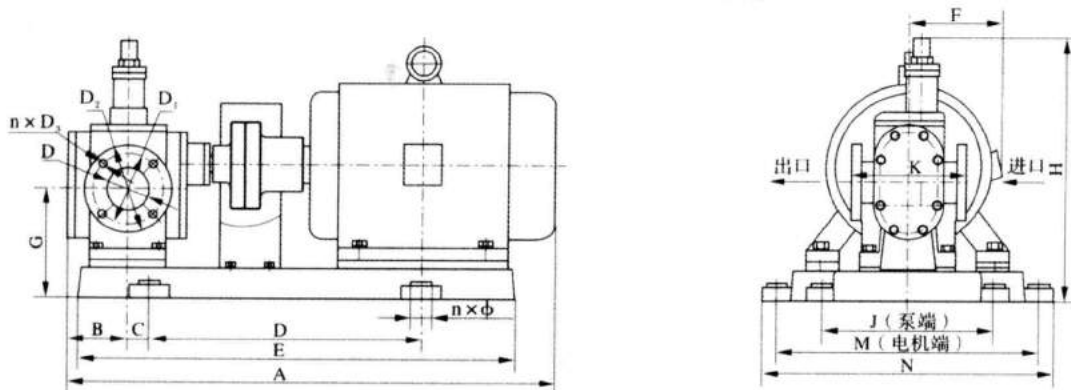
RB SERIES CIRCULAR GEAR PUMP

RB TYPE GEAR PUMP OUTLINE & INSTALLATION DIMENSION



Model	L	L ₁	L ₂	L ₃	L ₄	B	B ₁	B ₂	B ₃	H	H ₁	H ₂	D	D ₁	D ₂	nxD ₃	4xD ₄	d
RB0.6	180	30	45	107.5	66	125	91	70	35	187	80	92	φ25	φ100	φ75	4 x M10	4 x φ9	φ12
RB1.6	208	32	55	118.5	80	150	115	90	50	208	79.7	95	φ32	φ120	φ90	4 x φ14	4 x φ11	φ14
RB3.3	247.6	35	70	132.85	98	180	148	120	75	258	87.6	110	φ40	φ130	φ100	4 x φ14	4 x φ13	φ18
RB4	260.6	35	80	134.8	108	180	148	120	75	263	92.6	115	φ50	φ140	φ110	4 x φ14	4 x φ13	φ18
RB8	313	45	100	158.5	138	220	178	140	90	361	105	135	φ65	φ160	φ130	4 x φ14	4 x φ13	φ24
RB10	330	45	100	168.5	138	220	178	140	90	360	105	135	φ65	φ160	φ130	4 x φ14	4 x φ13	φ24
RB20	400	55	135	201	182	260	226	180	118	436.5	130.8	170	φ80	φ190	φ150	4 x φ18	4 x φ18	φ32
RB25	430	55	135	216	182	260	226	180	118	436.5	130.8	170	φ100	φ210	φ170	4 x φ18	4 x φ18	φ32
RB30	459	60	150	236	200	275	231	190	126	461	141	185	φ100	φ210	φ170	4 x φ18	4 x φ18	φ35
RB40	500	70	175	251.5	225	300	260	210	140	509	157	205	φ125	φ240	φ200	8 x φ18	4 x φ18	φ40
RB50	493	70	175	246.5	225	300	260	210	140	509	157	205	φ125	φ240	φ200	8 x φ18	4 x φ18	φ40
RB60	517	80	175	246.5	225	360	260	210	140	562	180	240	φ125	φ250	φ210	8 x φ18	4 x φ18	φ50

RB TYPE GEAR PUMP OUTLINE & INSTALLATION DIMENSION AND WEIGHT



Model	Capacity (m ³ /h)	A	B	C	D	E	F	G	H	J	K	M	N	D	D ₁	D ₂	n x D ₃	n x ϕ	Weight(kg)
RB0.6-0.6	0.6	506		22.5	280	421	155		232		125	222	252	φ25	φ75	φ100	4xM10		38.5
RB1.0-0.6	1.0	486.5	50		264	405	150		217	136	125	207	237					4x φ14	
RB1.6-0.6	1.6		63	27.5	303	455	155		243	156	150	222	252	φ32	φ90	φ120			43
RB2.5-0.6	2.5	547																	
RB3.3-0.6	3.3		76	35	344.5	544.5						266	298	φ40	φ100	φ130			65
RB5.0-0.6	5.0	644						180	298	198	180								
RB4.0-0.6	4.0		82	40	346	557						256	288	φ50	φ110	φ140	4x φ14		66
RB6.0-0.6	6.0	667.5						127.6											
RB8.0-0.6	8.0		101		382	644													
RB12-0.6	12	795																	
RB10-0.6	10	849		50	430	690		140	396	218	220	332	364	φ65	φ130	φ160			117
RB15-0.6	15	808	111		392	652													
RB15-0.6	15	808																	
RB20-0.6	20	1009	131.5		566	845						380	416	φ80	φ150	φ190			216
RB25-0.6	25	1100	146.5	29.5	603	904		165.8	741.5	270	260	385	421				4x φ18	4x φ18	223
RB30-0.6	30	1125	147	35	646	954						400	436	φ100	φ170	φ210			288
RB30-0.6	30	1125	147	35	646	954		196	517	295	275	400	436						
RB40-0.6	40	1214	161	42.5	673	1023	285	212	562	315	300	425	461	φ125	φ200	φ240	8x φ18	4x φ18	364
RB50-0.6	50	1300	159	52.5	680	1080	310	237	590	340	300	476	536	φ125	φ200	φ240	8x φ18	4x φ22	