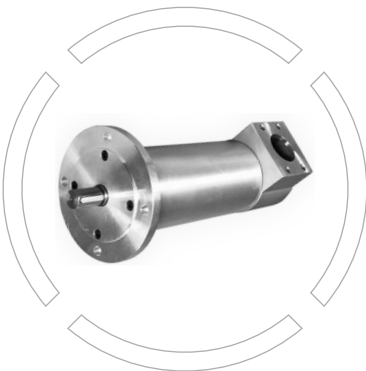


TSR Series

Screw Pump
Max. Speed up to 3600 r/min
Max. flow up to 8000 l/min



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Technical data

Models	TMT, TMT16B, TMAPI
Installation position	Free for vertical, for horizontal, for submerged
Connection	G or SAE 3000
Drive loading	No axial or radial loads
Shaft rotation	Clockwise (from shaft end) , (suitable also for counter clockwise rotation)
Shaft speed	0 ~3600rpm
Flows	0~ 8000L/min
Outlet pressure	0~80bar
Inlet pressure	-0.7~3bar
Fluids	Machine oil, Crude oil, diesel oil, Synthetic fluid or emulsion, water-oil emulsion 40% of volume, Lubrication high viscosity oils, Special synthetic fluid, Fuel oil and other fluids on request
Viscosity	1-10000 mm ² /s
Seal type	NBR, VITON, FPM and other seal on request
Noise	52 ~68db(A) at 2950rpm
Pump material	Aluminum for housing and steel and castiron for screw, other material on request
Screw	Steel for primary screw
Environment temperature	-50~ +60°C
Hydraulic temperature	-50~ +300°C
Filtration	Permissible degree of fluid contamination NAS 1638

Ordering Code

1	2	3	4	5	6	7	8	9			
Type		L/min 2750 rpm	Pump Body	Viscosity mm²/s	Follow shaft	Shaft Seal	Int. pressure relief valve	Rotation			
TSR20	TMT16B (Max. 40 bar) TMT (Max. 80 bar) TMAPI (Max. 80 bar)	8L, 12L, 15L, 20L	None: Aluiminium	None: 0~100	Ac19	None: NBR	None: No Security valve	None: Right Rotation			
TSR25		25L, 30L			Ac19						
TSR32		35L, 45L, 55L, 75L			AC19/24						
TSR40		100L, 125L, 150L			AC19/24/28						
TSR45		180L, 210L	G: Cast Iron	S1: from TMT16B 100~250	AC28/38	V: FKM	Rf1: 5 Bar	SX: Left Rotation			
TSR55		250L, 300L, 330L, 380L			AC28/38						
TSR60		440L, 500L			AC28/38						
TSR70		600L, 660L, 800L			AC28/38						
TSR80		1000L, 1200L	A: Carbon Steel	S3: from TMT 500~800	Not Available for hollow shaft pump	E: EDPM TM: Mechanical Seal	Rf3: 15 Bar				
TSR90		1500L, 1700L, 2000L, 2200L									
TSR110		2300L, 2500L									
TSR130		3300L, 3800L									
TSR150		4800L, 5300L, 6000L		S4: from TMT 800~10000			RP: Variable Regulation				
TSR180		7000L, 7800L, 8500L									

- (1) TMT16B Available from S1, TMT Available from S2, S3, S4.
 (2) RP available from TSR20 to TSR70 included.
 (3) For example GR40TMT16B100LGS1AC24RF2S



Technical Parameters (40bar n=1450rpm 50Hz)

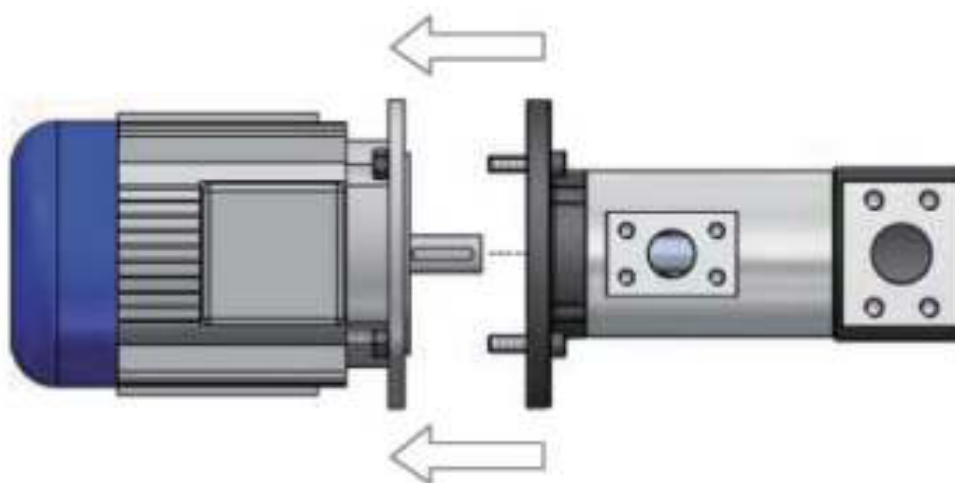
Type	bar	46mm ² /s		320mm ² /s	
		Flow Q	Power	Flow Q	Power
		L/min	KW	L/min	KW
TSR20-8L	5	5.3	0.1	5.3	0.1
	10	5.2	0.1	5.2	0.1
TSR20-12L	5	7.3	0.1	7.5	0.2
	10	7.2	0.2	7.3	0.2
TSR20-20L	5	12.6	0.2	13	0.3
	10	12.3	0.3	12	0.4
TSR25-25L	5	16.5	0.3	17	0.3
	10	16	0.4	16	0.5
TSR25-30L	5	20.6	0.3	21	0.4
	10	20.1	0.5	20	0.6
TSR32-35L	5	24.3	0.3	25	0.4
	10	23.7	0.6	24	0.6
TSR32-55L	5	32.4	0.5	33	0.6
	10	31.5	0.7	32	0.9
TSR32-75L	5	43.3	0.6	44	0.8
	10	42	1	43	1.2
TSR40-100L	5	59.2	0.8	60	1
	10	57.5	1.3	58	1.5
TSR40-125L	5	71.8	1	73	1.2
	10	69.8	1.6	71	1.8
TSR40-150L	5	84.6	1.1	85	1.4
	10	82.1	1.9	83	2.2
TSR45-180L	5	101.6	1.3	103	1.7
	10	98.7	2.2	100	2.5
TSR45-210L	5	120.3	1.6	122	2
	10	116.9	2.6	119	3
TSR55-250L	5	151.8	1.9	153	2.4
	10	147.4	3.2	150	3.7
TSR55-300L	5	171.7	2.2	173	2.7
	10	166.9	3.6	169	4.2
TSR55-330L	5	189.8	2.4	192	3
	10	184.2	4	187	4.6
TSR55-380L	5	215.7	2.8	218	3.4
	10	209.5	4.6	213	5.2

Type	bar	46mm ² /s		320mm ² /s	
		Flow Q	Power	Flow Q	Power
		L/min	KW	L/min	KW
TSR60-440L	5	256.7	3.2	259	4
	10	249.4	5.4	253	6.2
TSR60-500L	5	285.2	3.6	288	4.4
	10	277	6	281	6.8
TSR70-560L	5	307.4	3.8	310	4.6
	10	298.5	6.4	303	7.2
TSR70-600L	5	349.4	4.3	353	5.2
	10	339.3	7.3	344	8.2
TSR70-660L	5	388.3	4.8	392	5.8
	10	377	8.1	383	9.1
TSR70-800L	5	453	5.6	457	6.8
	10	439.9	9.4	447	10.7
TSR80-1000L	5	591.6	6.8	597	7.9
	10	574.6	11.7	583	12.8
TSR80-1200L	5	718.4	8.3	725	9.6
	10	697.7	14.2	708	15.5
TSR90-1500L	5	817.1	9.3	825	10.8
	10	793.7	15.9	805	17.4
TSR90-1700L	5	953.3	10.8	963	12.5
	10	925.9	18.5	940	20.3
TSR90-2000L	5	1089.4	12.4	1100	14.3
	10	1058.1	21.2	1074	23.1
TSR90-2200L	5	1252.9	14.2	1265	16.5
	10	1216.8	24.3	1235	26.6
TSR110-2300L	5	1220.6	13.8	1233	16.1
	10	1185.5	23.7	1203	25.9
TSR110-2500L	5	1389	16.5	1397	18.2
	10	1343.5	26.9	1364	29.4
TSR110-2800L	5	1546.1	17.5	1561	20.3
	10	1501.6	30	1524	32.8
TSR110-3200L	5	1790.1	20.3	1808	23.6
	10	1738.8	34.8	1765	38



Technical Parameters (40bar n=1450rpm 50Hz)

Type	bar	46mm ² /s		320mm ² /s	
		Flow Q	Power	Flow Q	Power
		L/min	KW	L/min	KW
TSR130-3300L	5	1949.9	24.5	1978.4	31.5
	10	1860	41.9	1901.3	49
TSR130-3800L	5	2257.8	28.3	2290.7	36.5
	10	2153.6	48.6	2201.5	56.7
TSR150-4800L	5	2459.3	30.9	2495.3	39.7
	10	2345.9	52.9	2398	61.8
TSR150-5300L	5	2732.6	34.3	2772.6	44.1
	10	2606.6	58.8	2664.5	68.6
TSR150-6000L	5	3142.5	39.5	3188.5	50.8
	10	2997.6	67.6	3064.3	78.9
TSR180-7000L	5	3541.4	44.5	3593.3	57.2
	10	3378.2	76.2	3453.3	88.9
TSR180-7800L	5	3935	49.4	3992.5	63.6
	10	3753.5	84.6	3837	98.8
TSR180-8500L	5	4328.5	53.4	4391.8	69.9
	10	4128.9	93.1	4220.6	108.7
TSR180-9500L	5	4820.3	60.5	4890.9	77.9
	10	4598.1	103.7	4700.3	121





Technical Parameters (40bar n=1750rpm 60Hz)

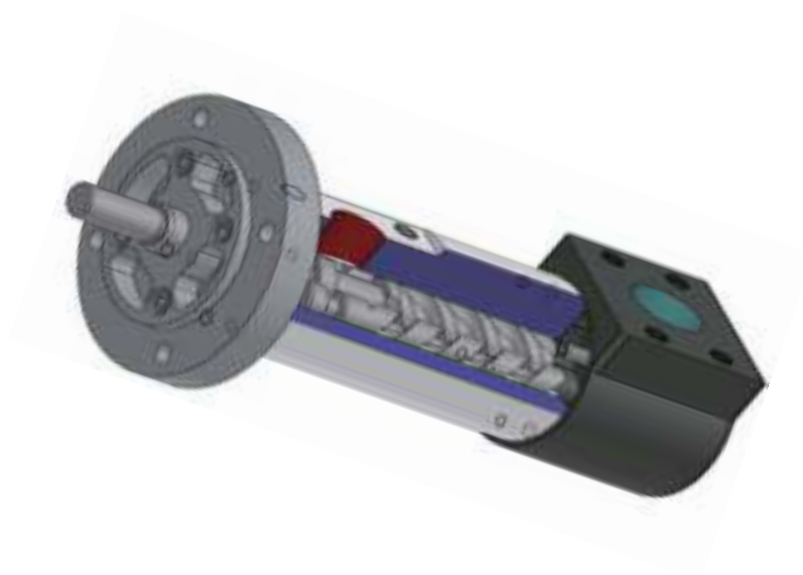
Type	bar	46mm ² /s		320mm ² /s	
		Flow Q	Power	Flow Q	Power
		L/min	KW	L/min	KW
TSR20-8	5	6.4	0.1	6.5	0.1
	10	6.2	0.1	6.3	0.2
TSR20-12	5	8.9	0.1	9.1	0.2
	10	8.7	0.2	8.9	0.3
TSR20-20	5	15.3	0.2	15.5	0.4
	10	14.9	0.4	15.2	0.5
TSR25-25	5	20	0.3	20.2	0.4
	10	19.4	0.4	19.8	0.6
TSR25-30	5	24.9	0.4	25.3	0.5
	10	24.6	0.6	24.8	0.7
TSR32-35	5	29.4	0.4	29.8	0.6
	10	28.6	0.6	29.2	0.8
TSR32-55	5	39.2	0.5	39.8	0.7
	10	38.1	0.8	39	1.1
TSR32-75L	5	52.3	0.7	53.1	1
	10	50.9	1.1	52	1.4
TSR40-100L	5	71.5	0.9	72.5	1.3
	10	69.5	1.5	71	1.9
TSR40-125L	5	86.9	1.1	88.1	1.5
	10	84.4	1.8	86.3	2.3
TSR40-150L	5	102.3	1.3	103.6	1.8
	10	99.3	2.1	101.5	2.7
TSR45-180L	5	122.9	1.5	124.6	2.1
	10	119.4	2.5	122	3.2
TSR45-210L	5	145.5	1.8	147.6	2.5
	10	141.4	3	144.5	3.8
TSR55-250L	5	183.5	2.2	186.1	3
	10	178.4	3.7	182.3	4.6
TSR55-300L	5	207.7	2.5	210.6	3.4
	10	201.9	4.2	206.2	5.2
TSR55-330L	5	229.4	2.8	232.7	3.8
	10	223	4.7	227.8	5.7
TSR55-380L	5	261	3.1	264.5	4.3
	10	254	5.3	259	6.5

Type	bar	46mm ² /s		320mm ² /s	
		Flow Q	Power	Flow Q	Power
		L/min	KW	L/min	KW
TSR60-440L	5	310	3.7	314.8	5
	10	302	6.3	308.2	7.7
TSR60-500L	5	345	4.1	349.8	5.6
	10	335	7	342.5	8.5
TSR70-560L	5	372	4.3	376.9	5.8
	10	361	7.4	369	9
TSR70-600L	5	422	4.9	428.5	6.6
	10	411	8.5	419.5	10.2
TSR70-660L	5	469	5.5	476.1	7.3
	10	456	9.4	466.2	11.4
TSR70-800L	5	548	6.4	555.4	8.6
	10	532	11	543.9	13.3
TSR80-1000L	5	715	7.9	725.4	10
	10	695	13.8	710.3	15.9
TSR80-1200L	5	869	9.6	880.9	12.1
	10	844	16.8	862.6	19.3
TSR90-1500L	5	988	10.8	1001.9	13.5
	10	960	18.7	981.1	21.5
TSR90-1700L	5	1152.6	12.6	1168.9	15.8
	10	1120.5	21.9	1144.1	25.1
TSR90-2000L	5	1317.2	14.3	1335.9	18.1
	10	1280.6	25	1308.1	28.7
TSR90-2200L	5	1514.8	16.5	1536.3	20.8
	10	1472.7	28.7	1504.3	33
TSR110-2300L	5	1475.8	16.1	1496.7	20.2
	10	1434.7	28	1465.6	32.1
TSR110-2500L	5	1672.5	18.2	1696.2	22.9
	10	1626	31.7	1661	36.4
TSR110-2800L	5	1869.3	20.4	1895.8	25.6
	10	1817.3	35.4	1856.4	40.7
TSR110-3200L	5	2164.5	23.6	2195.1	29.7
	10	2104.3	41.0	2149.5	47.1



Technical Parameters (40bar n=1750rpm 60Hz)

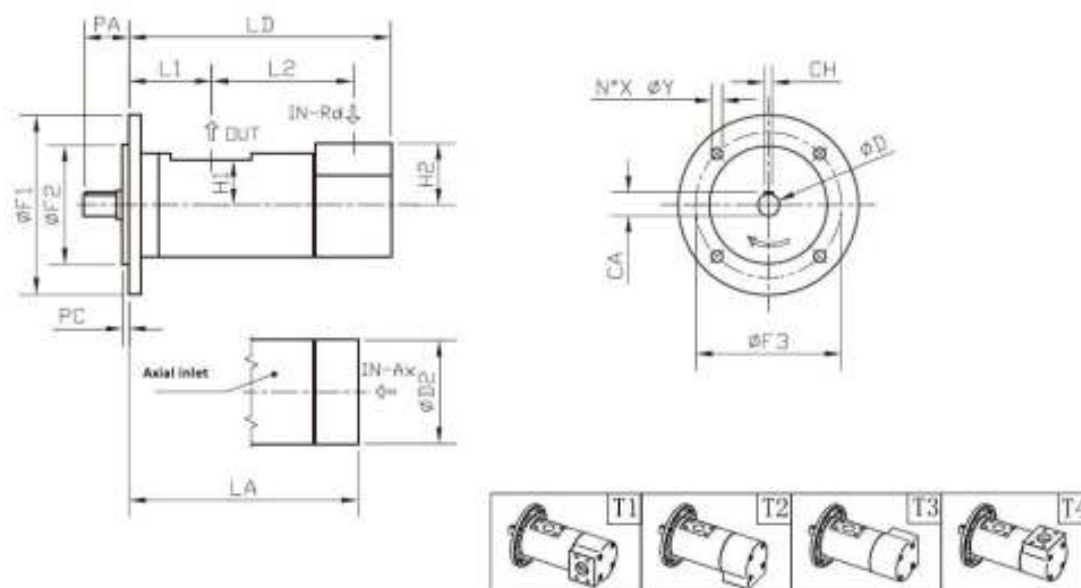
Type	bar	46mm ² /s		320mm ² /s	
		Flow Q	Power	Flow Q	Power
		L/min	KW	L/min	KW
TSR130-3300L	5	2370.5	30.5	2400.8	39.9
	10	2269.8	51.6	2313.7	61.0
TSR130-3800L	5	2744.8	35.3	2779.9	46.2
	10	2628.3	59.7	2678.9	70.6
TSR150-4800L	5	2990.0	38.5	3028.1	50.4
	10	2862.9	65.1	2918.2	77.0
TSR150-5300L	5	3322.2	42.8	3364.6	56.0
	10	3181.1	72.3	3242.4	85.5
TSR150-6000L	5	3820.6	49.2	3869.3	64.4
	10	3658.1	83.1	3728.8	98.3
TSR180-7000L	5	4305.6	55.4	4360.5	72.5
	10	4122.6	93.7	4202.2	110.8
TSR180-7800L	5	4783.9	61.6	4845.0	80.6
	10	4580.6	104.1	4669.1	123.1
TSR180-8500L	5	5262.4	67.7	5329.5	88.7
	10	5038.8	114.5	5136.0	135.4
TSR180-9500L	5	5860.4	75.4	5935.1	98.7
	10	5611.3	127.5	5719.6	150.8





Unit Dimensions

Normal shaft pump GR20 G~ R110



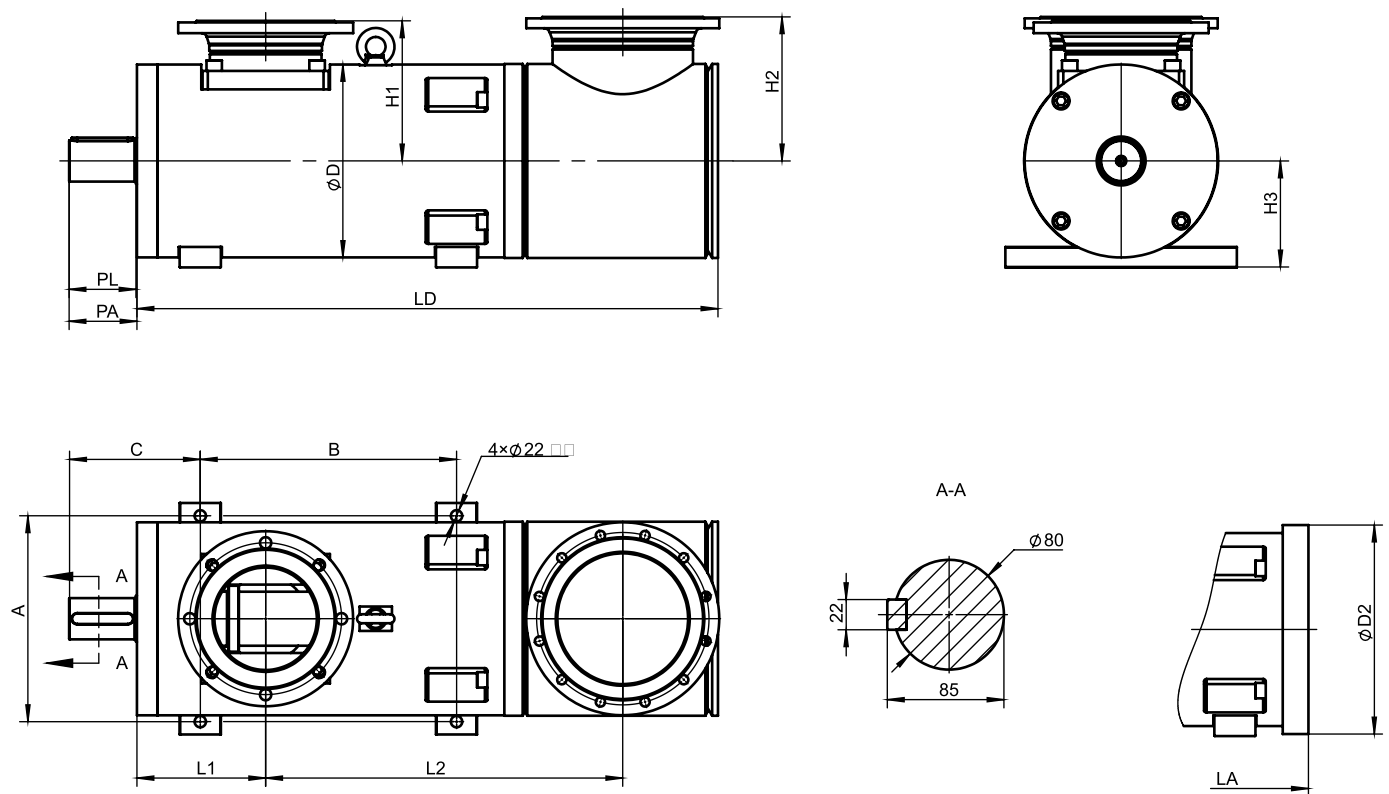
Size	Pump Dimension												
	TMT16B				TMT				PA	PC	D2	H1	H2
	LD	LA	L1	L2	LD	LA	L1	L2					
TSR20	153	134	53	78.5	193	174	53	118.5	37	4.5	59	25	26
TSR25	178	178	72.5	87	262	262	72.5	171	42	4.5	65	27.5	27
TSR32	218	171	61	123	295	248	69	192	41	4	94	41	55
TSR40	257.5	211.5	69	149.5	348	302	84.5	224.5	42.5	4	108	46.5	65
TSR45	310.5	258.5	75.4	190.1	382	330	89	248	64.5	4	122.5	51.5	85
TSR55	338	274	83.5	202.5	449.5	385.5	100.5	297	64.5	4	142.5	55	95
TSR60	374.5	292.5	83.5	228.5	505	423	101	342	65.5	4	155	63	105
TSR70	441.5	365.5	94.5	279	605.5	529.5	115.5	422	65.5	4	180	73	110
TSR80	519	468	150	294.5	695	644	150	470.5	75	4	210	83	125
TSR90	881	816	256	525	881	816	256	525	118	5	250	100	140
TSR90S	731	608	144.5	488	731	608	144.5	488	75	4	200	85	110
TSR110	876	811	287	489	876	811	287	489	118	5	250	100	140

Size	Flange								Suction		Discharge	Weight(Kg)	
	F1	F2	F3	X	Y	D	CA	CH	IN-Ax	IN-Rd	Out	TMT16B	TMT
TSR20	125	80	103	2	11	14	16	5	1/2" GAS	1/2" GAS	1/2" GAS	1.5	1.58
TSR25	125	80	103	2	11	19	21.5	6	3/4" GAS	3/4" GAS	1/2" GAS	2.7	4
TSR32	150	100	125	4	11	19	21.5	6	1 1/4" SAE	1 1/4" SAE	1" SAE	4.4	6.5
TSR40	188	125	160	4	14	19	21.5	6	1 1/2" SAE	1 1/2" SAE	1 1/4" SAE	7	10.8
TSR45	188	125	160	4	14	32	35	10	2" SAE	2" SAE	1 1/2" SAE	11	15
TSR55	235	160	200	4	18	32	35	10	2 1/2" SAE	2 1/2" GAS	2" SAE	15.5	23.5
TSR60	300	160	200	4	18	32	35	10	3" SAE	3" SAE	2 1/2" SAE	25	30
TSR70	235	200	250	4	22	32	35	10	3 1/2" SAE	3 1/2" GAS	3" SAE	30	44
TSR80	300	200	250	4	22	38	41	10	4" SAE	4" SAE	3" SAE	47.5	59
TSR90	350	250	300	4	26	55	59	16	DN150	5" SAE	4" SAE	95	95
TSR90S	300	200	250	4	22	28	41	10	DN150	5" SAE	3" SAE	62.3	62.3
TSR110	350	250	300	4	26	55	59	16	DN200	5" SAE	4" SAE	120	120



Unit Dimensions

Normal shaft pump GR130~GR180



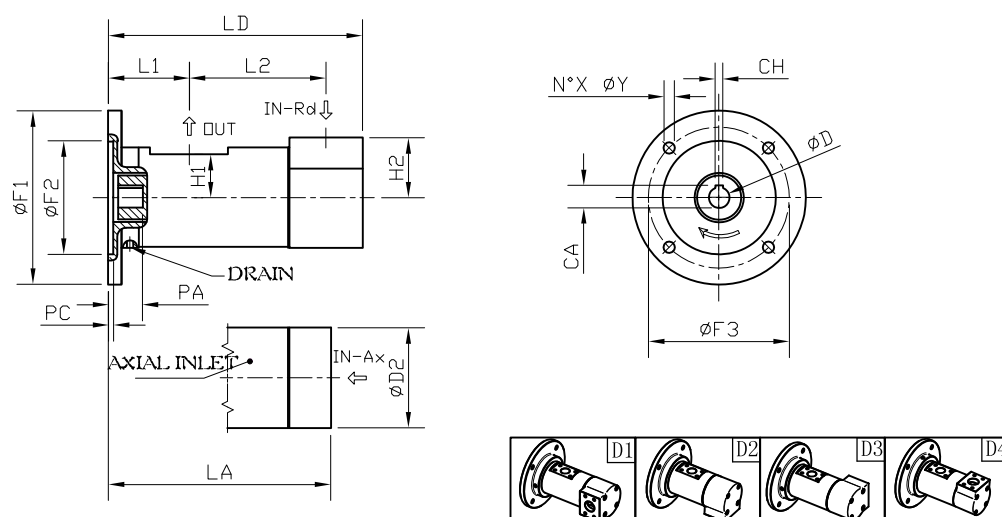
Size	Pump Dimension																
	PA	PL	H1	H2	H3	A	B	C	LD	LA	L1	L2	D	D1	D2	CA	CH
TSR130	124	120	290	290	195	350	346	247	875	675	200	535	75	397	340	79.5	20
TSR150	127	120	290	290	207	400	400	262	920	668	225	573	80	324	343	85	22
TSR180	132	130	320	320	207	400	498	255	1094	754	250	669	80	375	406	85	22

Size	Pump Dimension																
	PA	PL	H1	H2	H3	A	B	C	LD	LA	L1	L2	D	D1	D2	CA	CH
TSR130	134	130	290	290	207	400	393	257	920	610	210	570	85	324	343	85	22
TSR150	134	130	290	290	207	400	393	257	920	610	210	570	80	324	343	85	22
TSR180	132	130	320	320	207	400	498	255	1094	754	250	669	80	375	406	85	22



Unit Dimensions

Hollow shaft pump GR20 ~GR7 0/AC



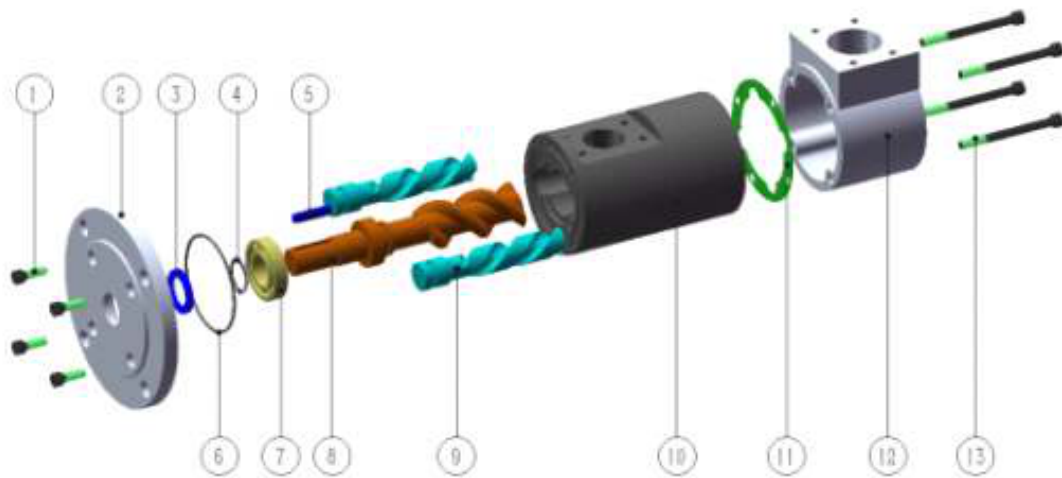
Size	Pump dimension												
	TMT16B				TMT				PA	PC	D2	H1	H2
	LD	LA	L1	L2	LD	LA	L1	L2					
TSR20-AC19	173	156	75	78	215	196	75	118.5	42	5	59	26	26
TSR25-AC19	182	182	76.5	87	266	266	76.5	171	42.5	4.5	65	27.5	27
TSR32-AC24	241.7	194.7	84.7	123	318.7	271.7	92.7	192	43.7	5	94	41	55
TSR32-AC19	241.7	194.7	84.7	123	318.7	271.7	92.7	192	52.7	5	94	41	55
TSR40-AC19	282.5	236.5	94	149.5	373	327	109.5	224.5	42.5	5	108	46.5	65
TSR40-AC24	282.5	236.5	94	149.5	373	327	109.5	224.5	52.5	5	108	46.5	65
TSR40-AC28	293	247	104.5	149.5	383.5	337.5	120	224.5	64	6	108	46.5	65
TSR45-AC28	341.5	289.5	106.4	190.1	413	361	120	248	63.5	5	122.5	51.5	85
TSR45-AC38	355	303	119.9	190.1	426.5	374.5	133.5	248	81	6	122.5	51.5	85
TSR55-AC28	363	299	108	202.5	474.5	410.5	125.5	297	62.5	6	142.5	55	95
TSR55-AC38	383	319	128.5	202.5	494.5	430.5	145.5	297	82.5	6	142.5	55	95
TSR60-AC28	399	317.5	108.5	228.5	530.5	448.5	126	342	65	6	155	63	105
TSR60-AC38	419.5	337.5	128.5	228.5	550.5	468.5	146	342	83	6	155	63	105
TSR70-AC28	465.3	389.3	118.3	279	629.3	553.3	139.3	422	63.1	5	180	73	110
TSR70-AC38	486.5	410.5	139.5	279	650.5	574.5	160.5	422	87.3	6	180	73	110

Size	Flange								Suction		Discharge	Weight(Kg)	
	F1	F2	F3	X	Y	D	CA	CH	IN-Ax	IN-Rd	Out	TMT16B	TMT
TSR20-AC19	200	130	165	4	11	19	21.7	6.5	1/2" G	1/2" G	1/2" G	2.2	2.3
TSR25-AC19	200	130	165	4	10.5	19	21.9	6.5	3/4" G	3/4" G	1/2" G	2.5	4.2
TSR32-AC24	200	130	165	4	12	19	21.9	6.5	1 1/4" SAE	1 1/4" SAE	1" SAE	5.1	6.7
TSR32-AC19	200	130	165	4	12	24	27.3	8.5	1 1/4" SAE	1 1/4" SAE	1" SAE	5.5	6.3
TSR40-AC19	200	130	165	4	12	19	22	6.5	1 1/2" SAE	1 1/2" SAE	1 1/4" SAE	6.2	8.2
TSR40-AC24	200	130	165	4	12	24	27.5	8.5	1 1/2" SAE	1 1/2" SAE	1 1/4" SAE	6.9	11.2
TSR40-AC28	250	180	215	4	14	28	31.5	8.5	2" SAE	1 1/2" SAE	1 1/4" SAE	8.5	12.4
TSR45-AC28	250	180	215	4	14	28	31.5	8.5	2" SAE	2" SAE	1 1/2" SAE	10.9	15.9
TSR45-AC38	300	230	265	4	15	38	42	10.5	2 1/2" SAE	2" SAE	1 1/2" SAE	12.5	17.6
TSR55-AC28	250	180	215	4	14	28	31.5	8.5	2 1/2" SAE	2 1/2" SAE	2" SAE	15.9	24.2
TSR55-AC38	300	230	265	4	15	38	42	10.5	2 1/2" SAE	2 1/2" SAE	2" SAE	17.7	23.1
TSR60-AC28	250	180	215	4	14	28	31.5	8.5	3" SAE	3" SAE	2 1/2" SAE	19.3	31.5
TSR60-AC38	300	230	265	4	14.5	38	41.8	10.5	3" SAE	3" SAE	2 1/2" SAE	22.1	27.6
TSR70-AC28	250	180	215	4	14	28	31.5	8.5	3 1/2" SAE	3 1/2" SAE	3" SAE	32.3	45.5
TSR70-AC38	300	230	265	4	14.5	38	41.8	10.5	3 1/2" SAE	3 1/2" SAE	3" SAE	33.6	48.4



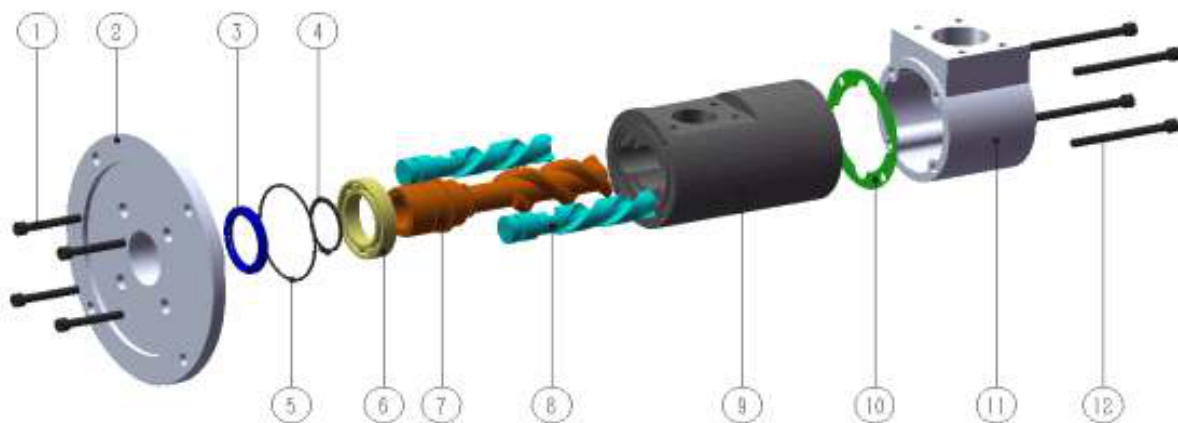
Component Description

Normal Shaft Pump



1.Screws	2.Flange	3. seal	4. Seeger	5. Key
6.O-ring seal	7.Ball bearing	8.Mainscrew	9.Idlerscrew	10.Pump body
11.Plane gasket		12.Radial suctioncover		13.Screws

Hollow Shaft Pump



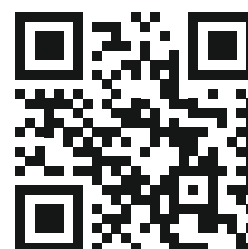
1. Screws	2.Flange	3. seal	4. Seeger	5. O-ring seal
6.Ballbearing	7.Main screw	8.Idlerscrew	9.Pump body	10.Plane gasket
11.Radial suctioncover		12.Screw		

The specified data is for product description purposes only and may not be deemed to be guaranteed unless expressly confirmed in the contract.



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