



"A Trusted Partner in Pump Solutions"

ANSI SELF PRIMING PUMPS

1796 SERIES



ANSI 1796 SELF-PRIMING PUMP



Model 1796 STR
(1x1 1/2 - 6, 1 1/2x1 1/2 - 8)



Model 1796 MTR
(2x2-10, 3x3-10, 4x4-10, 3x3-13, 4x4-13, 6x6-13)

Rotech 1796 Series ANSI Self priming pumps are designed to provide self priming applications in Chemical Process and water and waste water industries. Rotech ANSI Self priming pumps offers interchangeability of parts with 1196 series of Pumps.

Rotech 1796 series pumps and parts are replaceable with popular make Gould's 3796, Peerless 8796 and many others.

SELF-PRIMING ANSI PROCESS PUMPS

- ▶ Capacities up to 1250 GPM (284 m³/h)
- ▶ Heads up to 430 feet (131 m)
- ▶ Temperatures up to 500° F (260° C)
- ▶ Pressures up to 375 PSIG (2586 kPa)
- ▶ Effective static lift up to 20 feet (6 m)

PERFORMANCE FEATURES FOR SELF-PRIMING SERVICES

FEATURES

- ▶ One-piece casing with integral priming and air separation
- ▶ Rapid priming time
- ▶ No suction check valve required
- ▶ Positive retention of pumpage under siphon conditions
- ▶ Self-purge of vapors

EASE OF MAINTENANCE

- ▶ Back pull-out design
- ▶ Parts interchangeable with Rotech Model 1196

- ▶ External impeller adjustment
- ▶ Easy retrofit

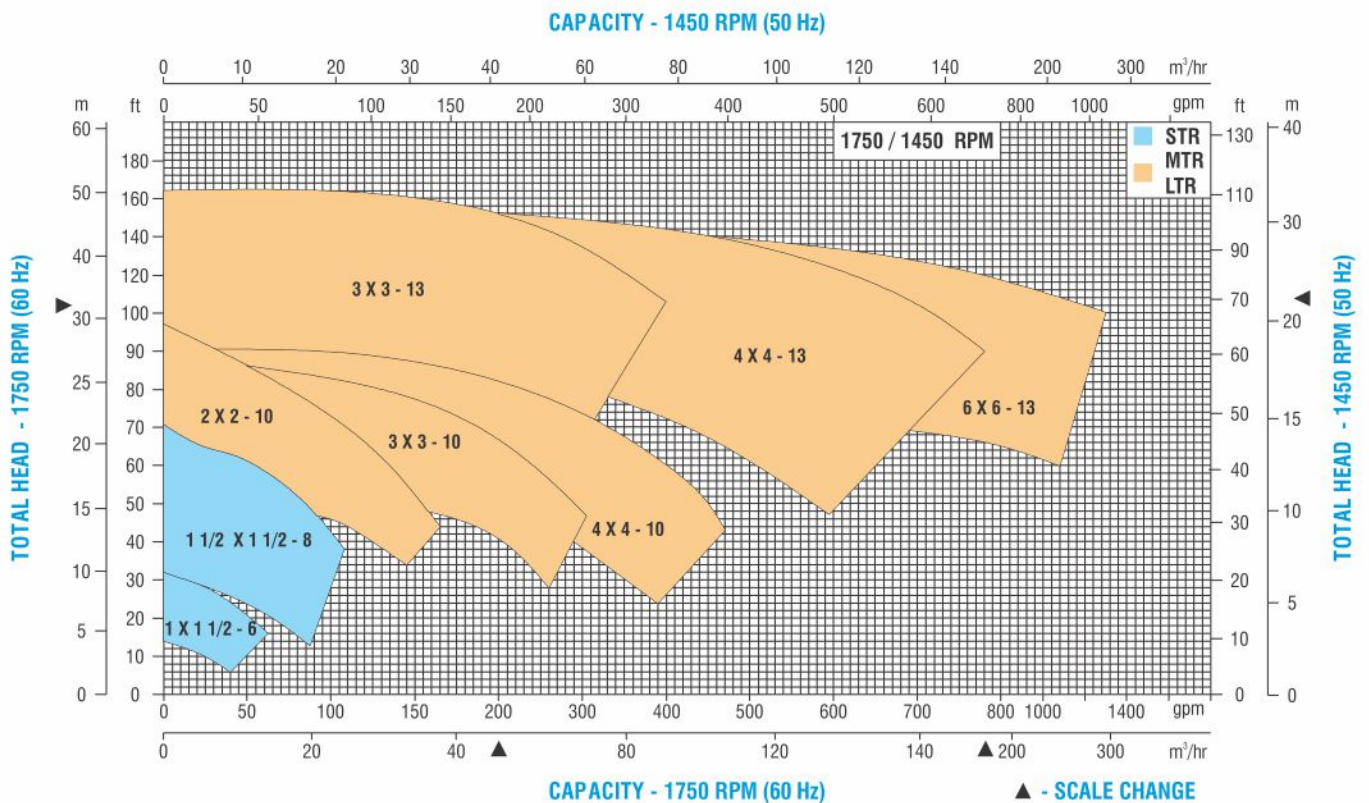
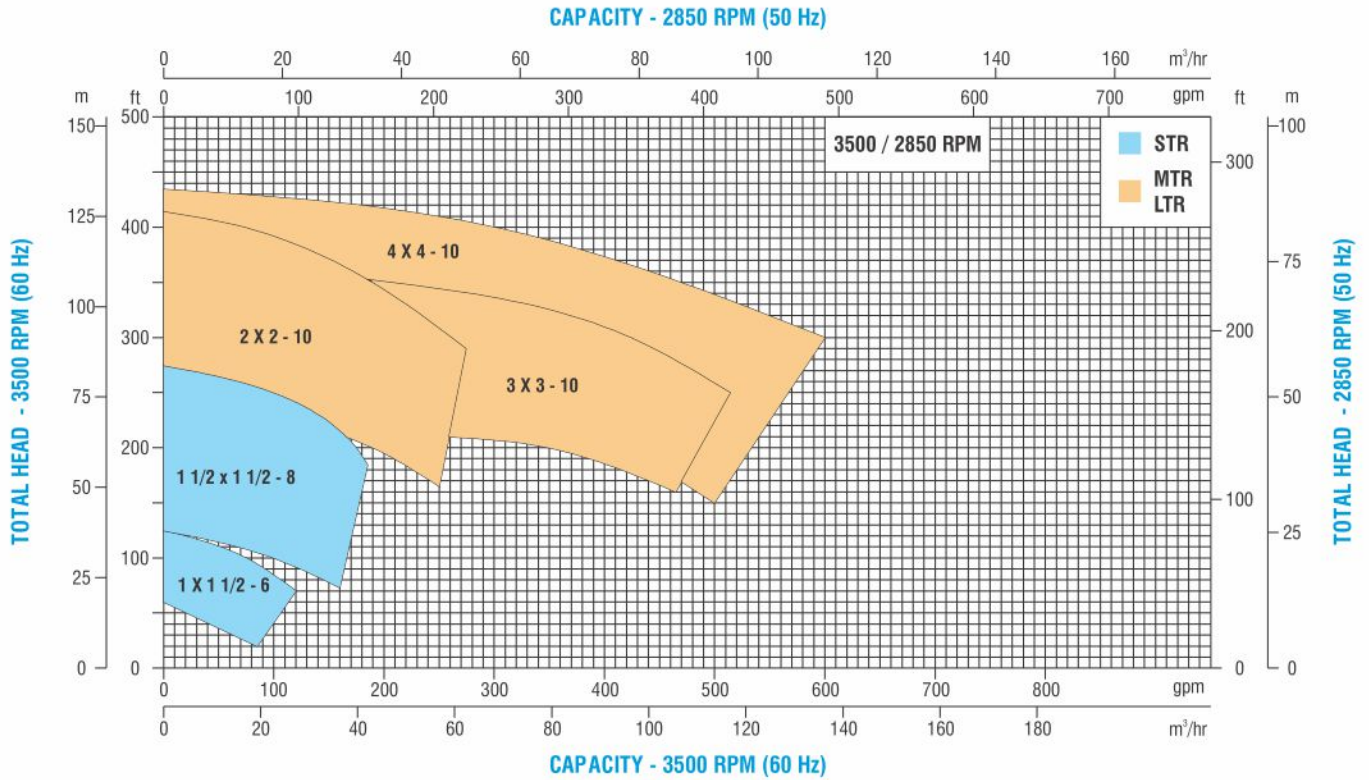
SAFETY

- ▶ ANSI B15.1 coupling guard
- ▶ Ductile iron frame adapter
- ▶ Fully serrated flanges

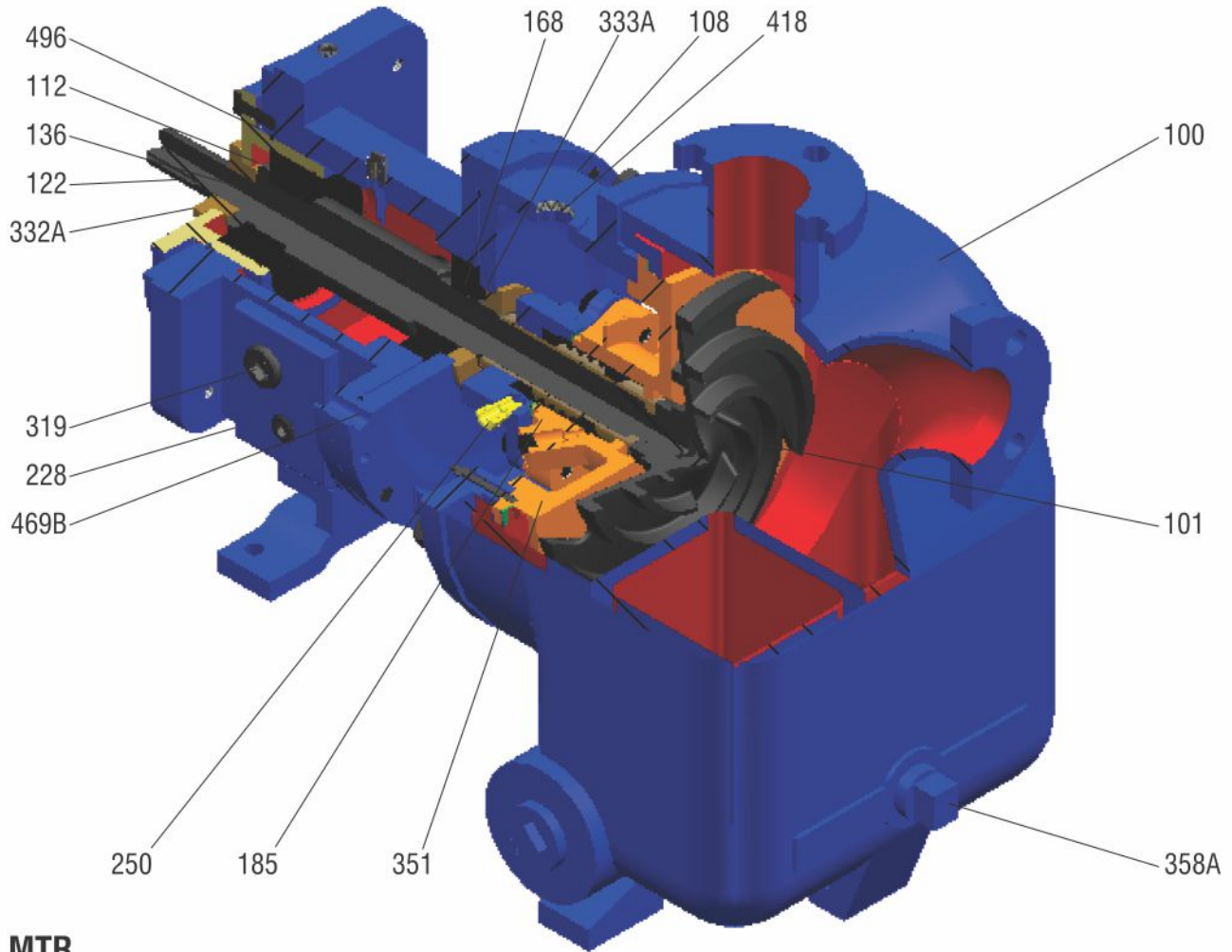
SERVICES

- ▶ Coal pile drainage
- ▶ Industrial sump
- ▶ Mine dewatering
- ▶ Chemical transfer
- ▶ Bilge water removal
- ▶ Filter systems
- ▶ Tank car unloading
- ▶ Petroleum transfer
- ▶ Column bottoms & reflux

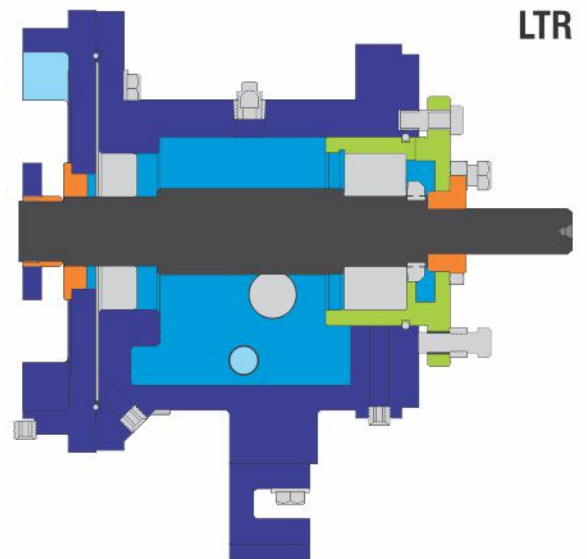
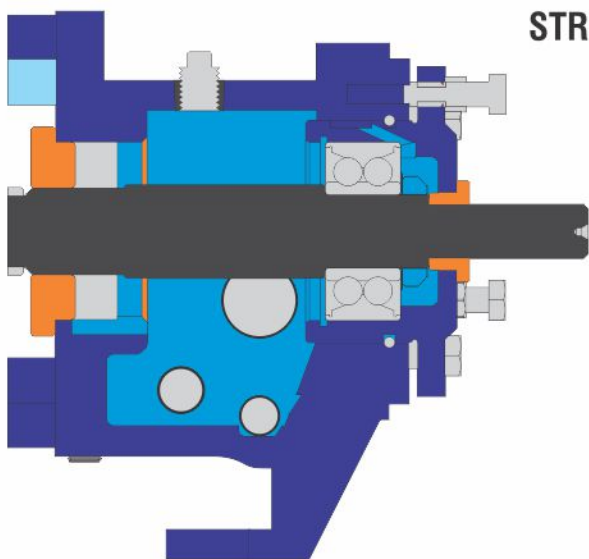
HYDRAULIC COVERAGE



SECTIONAL VIEW



MTR



PART LIST & MATERIALS OF CONSTRUCTION

PART NOS	PART DESCRIPTION	MATERIAL OF CONSTRUCTION					
		DUCTILE IRON	316 SS	CD4MCu	ALLOY 20	HASTELLOY B & C	TITANIUM
100	Casing	Ductile Iron	316 SS	CD4MCu	Alloy 20	Hastelloy	Titanium
101	Impeller	Ductile Iron	316 SS	CD4MCu	Alloy 20	Hastelloy	Titanium
105	Lantern Ring	Glass Filled Teflon*					
106	Stuffing Box Packing	Teflon* Impregnated Fibers					
108	Frame Adapter ***	Ductile Iron					
112	Thrust Bearing	Double Row Angular Contact***					
122	Shaft - Less Sleeve (Optional)	SAE4140	316 SS		Alloy 20	Hastelloy	Titanium
122	Shaft - With Sleeve	SAE4140			316 SS		
126	Shaft Sleeve	316 SS		Alloy 20		Hastelloy	Titanium
136	Bearing Locknut & Lockwasher	Steel					
168	Radial Bearing	Single Row Deep Groove					
184	Stuffing Box Cover (Packed Box)	Ductile Iron	316 SS	CD4MCu	Alloy 20	Hastelloy	Titanium
185	Seal Chamber (Mechanical Seal)	Ductile Iron	316 SS	CD4MCu	Alloy 20	Hastelloy	Titanium
228	Bearing Frame	Cast Iron (Ductile Iron for STR Group)					
250	Gland	316 SS		CD4MCu	Alloy 20	Hastelloy	Titanium
265A	Stud/nut, Cover to Adapter	304 SS					
319	Oil Sight Glass	Glass / Steel					
332A	Inpro® Vbxx-d Labyrinth Oil Seal (Outboard)	Stainless Steel / Bronze					
333A	Inpro® Vbxx-d Labyrinth Oil Seal (Inboard)	Stainless Steel / Bronze					
351	Casing Gasket	Aramid Fiber with EPDM Rubber					
358A	Casing Drain Plug (Optional)	Steel	316 SS	CD4MCu	Alloy 20	Hastelloy	Titanium
360	Gasket, Frame -to- Adapter	Buna					
360A	Gasket, Bearing End Cover	Vellumoid					
370	Cap Screw, Adapter -to- Casing	Steel	304 SS				
418	Jacking Bolt	304 SS					
469B	Dowel Pin	Steel					
496	O-Ring, Bearing House	Buna Rubber					
496A	O-Ring, Impeller	Glass-Filled Teflon*					

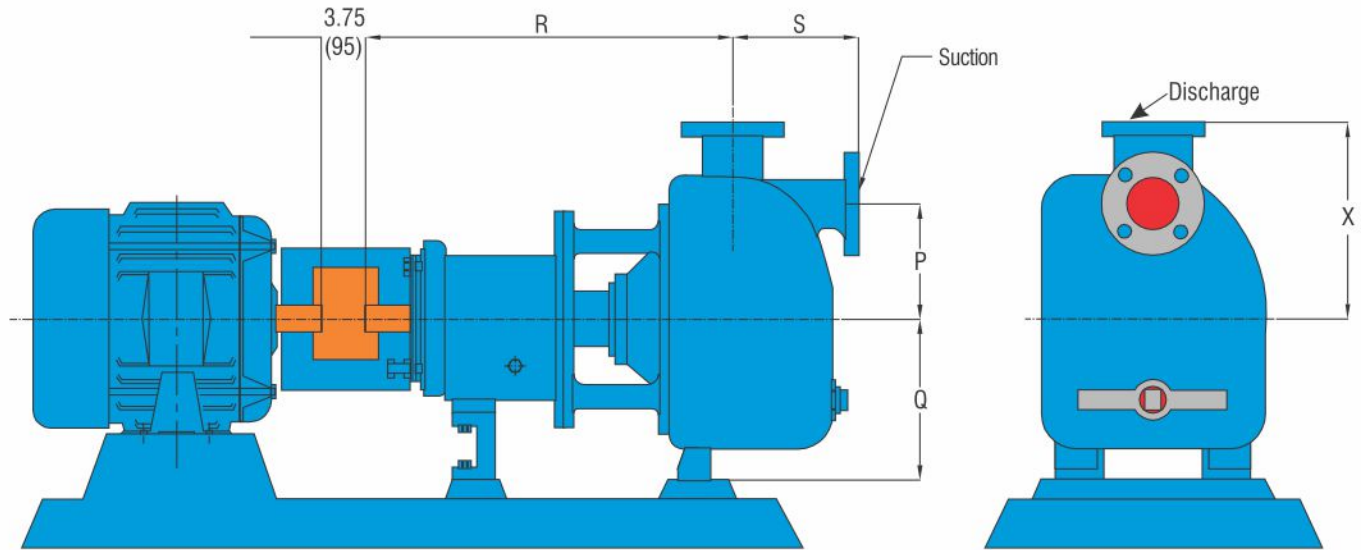
*E.I. DuPont Reg. Trademark ** LTR Power End Features Duplex Angular contact *** Integral with STR Frame

CONSTRUCTION DETAILS

All dimensions in inches & mm

		STR	MTR	LTR
SHAFT	Diameter at Impeller	.75 (19)	1 (25)	1.25 (32)
	Diameter in Stuffing Box/Seal Chamber (Less Sleeve) (With Sleeve)	1.375 (35)	1.75 (45)	2.125 (54)
		1.125 (29)	1.5 (38)	1.875 (48)
	Diameter Between Bearings	1.5 (38)	2.125 (54)	2.5 (64)
	Diameter at Coupling	0.875 (22)	1.125 (29)	1.875 (48)
	Overhang	6.125 (156)	8.375 (213)	8.375 (213)
	Maximum Shaft Deflection	0.002 (0.05)		
SLEEVE	O.D. thru Stuffing Box/Seal Chamber	1.375 (35)	1.75 (45)	2.125 (54)
BEARINGS	Radial	SKF 6207	SKF 6309	SKF 6311
	Thrust	SKF 5306 A/C3	SKF 5309 A/C3	SKF 7310 BECBM
	Bearing Span	4.125 (105)	6.75 (171)	SKF 7310 BECBM
	Average L ₁₀ Bearing Life	87,600 hours		
BIGBORE™ SEAL CHAMBER	Bore	2.875 (73)	3.5 (89)	3.875 (98)
STUFFING BOX	Bore	2 (51)	2.5 (64)	2.875 (73)
POWER LIMITS	HP (kW) per 100 RPM	1.1 (.82)	3.4 (2.6)	5.6 (4.2)
MAXIMUM LIQUID TEMPERATURE	Oil/Grease Lubrication without Cooling	350° F (177° C)		
	Oil Lubrication with Finned Cooler	500° F (260° C)		
CASING	Corrosion Allowance	.125 (3)		

DIMENSIONAL DRAWING



DIMENSIONS:

GROUP	PUMP SIZE	DISCHARGE	SUCTION	R	S	Q	P	X	BARE PUMP WEIGHT LBS. (KG)
STR	1x1 1/2-6	1	1 1/2	15 1/2 (127)	5 (127)	7 1/2 (191)	4 (102)	7 1/4 (184)	170 (77)
	1 1/2x1 1/2-8	1 1/2	1 1/2					7 7/8 (200)	
MTR/LTR	2x2-10	2	2	21 3/4 (165)	6 1/2 (165)	10 (254)	6 (152)	10 (254)	270 (123)
	3x3-10	3	3	22 5/8 (575)	6 3/4 (171)				315 (143)
	4x4-10	4	4	23 3/8 (594)	9 3/16 (233)				370 (168)
	3x3-13	3	3	22 5/8 (575)	6 3/4 (171)			11 1/2 (292)	400 (182)
	4x4-13	4	4	23 3/8 (594)	9 3/16 (233)				470 (214)
	6x6-13	6	6	15 1/4 (387)	10 (254)				14 (356)

All dimensions in inches & (mm). Not to be used for construction.

ROTECH'S OTHER PRODUCTS

- ▶ DNJ Series End Suction Close Coupled Pumps
- ▶ DN Series End Suction Frame Mounted Pumps
- ▶ 1196 Series ANSI Chemical Process Pumps
- ▶ 1196LF series Low Flow ANSI Pumps
- ▶ 1296 Series ANSI Close Coupled Pumps
- ▶ RCP Series End Suction Pumps
- ▶ RST Series Stainless Stamped End Suction Pumps
- ▶ RVMS Series Vertical Multistage Centrifugal Pumps
- ▶ RVI80 Series Vertical Inline Pumps
- ▶ SPT/SPU Series Self Priming Trash Pumps
- ▶ SCP/SFP Series Self Priming Pumps
- ▶ S100 Series Sanitary Centrifugal Pumps
- ▶ L100 Series Lobe Pumps
- ▶ RDSL Series Horizontal Multistage Centrifugal Pumps
- ▶ 3100 Series NPT & 5100 Series Flanged Ball Check Valves
- ▶ Various Mechanical Seals

Apart from the listed above,
we offer an array of other products too.
Contact us for further details.



"A Trusted Partner in Pump Solutions"

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