



"A trusted Partner in Pump Solutions"

Rotech ANSI Chemical Process Pumps

1196 series



"A PERFECT ANSWER TO CORROSION"

Investment Cast* Wetted Parts

"INPRO" Bearing Isolator & SKF Bearing Options

Factory installed cartridge seal options

Parts Interchangeability with Popular Make ANSI PUMPS

* Available in small sizes of casings

Applications

- Petrochemical
- Oil and Gas
- Ethanol Plant
- Food Plant
- Pharmaceuticals
- Waste and water treatment Plant
- Refineries
- Hot Oil
- Paint
- Sugar Industries
- Effluent Treatment Plant

PARTS / COMPONENTS

○ CASING

- Investment cast casing for Aesthetic look and Higher Efficiency
- Centre line Top Discharge for easy air handling and self venting
- Back pull out Design for easy maintenance
- ANSI B16.5 flanges , 150# Standard, option available for 300#



○ IMPELLER

- Fully open Impeller suitable for corrosive and abrasive liquid
- Large flow passage for slurry and solid handling
- Greater wear area for longer life



Size: 1 X 1.5-8

○ STUFFING BOX COVER

- Also known as back plates
- Is used to install various types of Mechanical seals with Flush plans
- Packing can also be used with packing gland arrangement
- 3 types of SBC, Standard/small bore, large/Big bore and taper bore



○ BEARING FRAME

- Sturdy cast iron/Ductile Iron constructions
- Provides rigid bearing alignment and shaft support
- Epoxy coating interior/exterior
- Labyrinth seal is installed to prevent contamination of lubricants and extends bearing life
- Sight glass installed to monitor oil level in oil chamber.



◉ FRAME ADAPTOR

- Heavy duty cast iron/ ductile iron construction
- Keeps bearing frame and casing in perfect alignment
- Open access to stuffing box area for easy maintenance of mechanical seals or packings



◉ SHAFT

- 2 types , Sleeves or Solid
- Supplied with various material combination
- Standard , SS316 Shaft sleeve with AISI 4140 Shaft
- Optional SS316 shaft sleeve with SS316 shaft
- Solid shaft ,SS316 or any other material



◉ SHAFT SLEEVES

- Renewable shaft sleeve protects shaft to wear out
- Saves cost of complete replacement of shaft
- Teflon Ring seals leakage of fluid being pumped



◉ BEARINGS

- SKF or equivalent
- Inboard single row bearing takes radial load
- Outboard double row bearing takes thrust load
- Locked on shaft with lock nut



DESIGN FEATURES

OPEN IMPELLER

- ▶ Ideal for corrosive and abrasive liquid
- ▶ Handles solid and stringy fibres' with ease
- ▶ Back Pump out vanes reduces pressure on shaft seal
- ▶ Adjustment of clearance is easy when wear and tear takes place

CASING

- ▶ Top centre line discharge
- ▶ Back pull out design

POSITIVE LIQUID SEALING AT IMPELLER

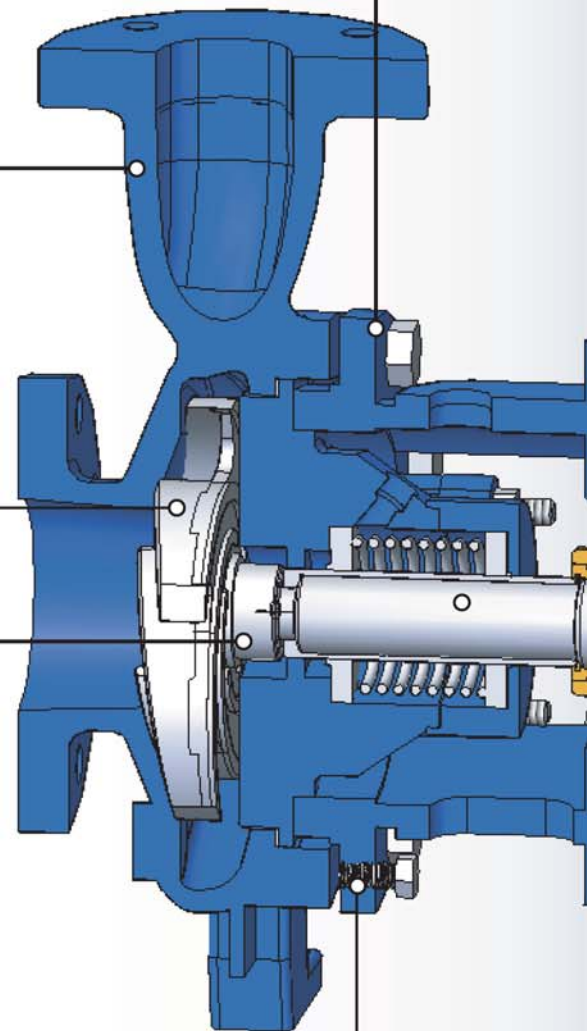
- ▶ PTFE 'O' - Ring in controlled compression protects shaft against corrosion.
- ▶ Metal contact between shaft and impeller transmit torque and assures perfect alignment.

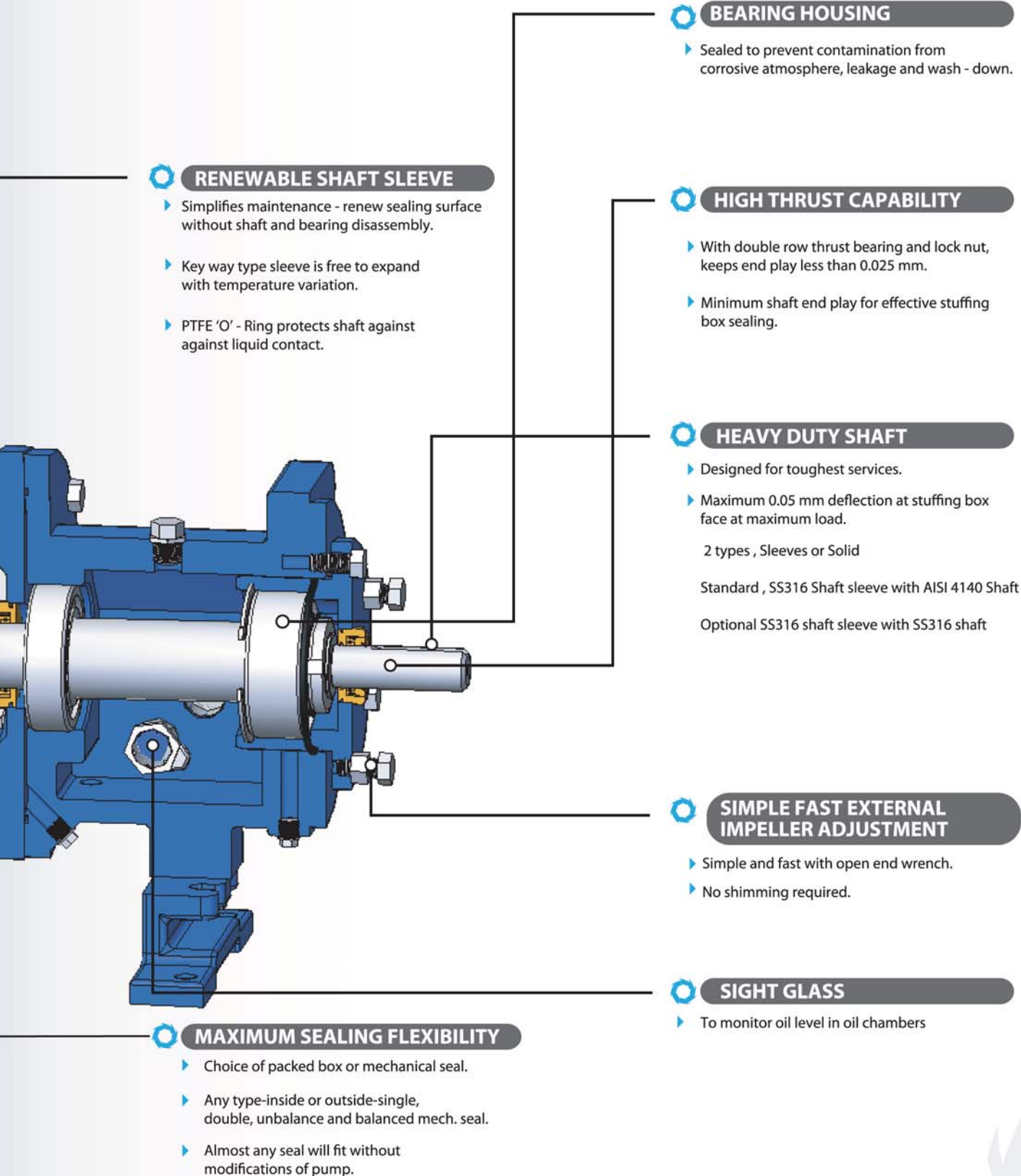
ACCURATE MACHINED FITS MAINTAINS POSITIVE ALIGNMENT

- ▶ Accurate alignment of impeller to casing provides maximum hydraulic efficiency.
- ▶ Concentricity of shaft to stuffing box bore assures low sealing maintenance.

JACKETED STUFFING BOX OPTIONAL

For cooling seal or packing at elevated temperatures.





RENEWABLE SHAFT SLEEVE

- ▶ Simplifies maintenance - renew sealing surface without shaft and bearing disassembly.
- ▶ Key way type sleeve is free to expand with temperature variation.
- ▶ PTFE 'O' - Ring protects shaft against liquid contact.

BEARING HOUSING

- ▶ Sealed to prevent contamination from corrosive atmosphere, leakage and wash - down.

HIGH THRUST CAPABILITY

- ▶ With double row thrust bearing and lock nut, keeps end play less than 0.025 mm.
- ▶ Minimum shaft end play for effective stuffing box sealing.

HEAVY DUTY SHAFT

- ▶ Designed for toughest services.
 - ▶ Maximum 0.05 mm deflection at stuffing box face at maximum load.
- 2 types , Sleeves or Solid
- Standard , SS316 Shaft sleeve with AISI 4140 Shaft
- Optional SS316 shaft sleeve with SS316 shaft

SIMPLE FAST EXTERNAL IMPELLER ADJUSTMENT

- ▶ Simple and fast with open end wrench.
- ▶ No shimming required.

SIGHT GLASS

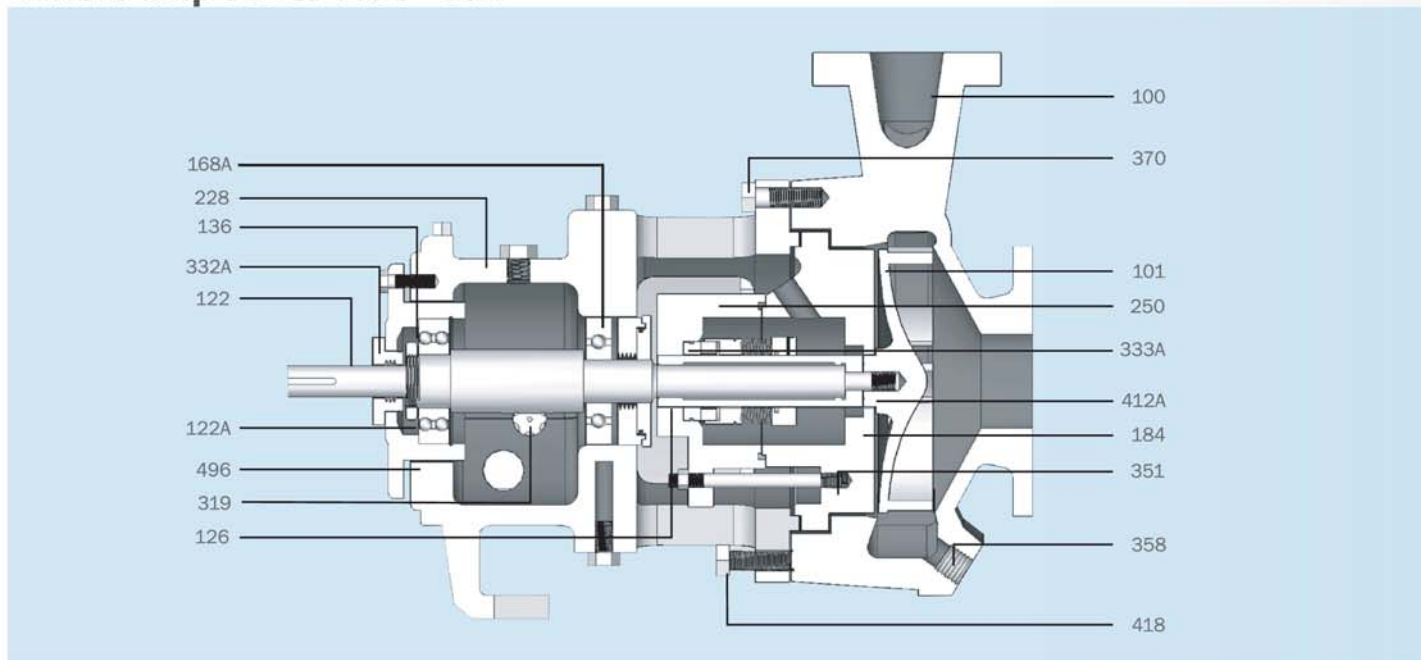
- ▶ To monitor oil level in oil chambers

MAXIMUM SEALING FLEXIBILITY

- ▶ Choice of packed box or mechanical seal.
- ▶ Any type-inside or outside-single, double, unbalance and balanced mech. seal.
- ▶ Almost any seal will fit without modifications of pump.

CROSS SECTION VIEW

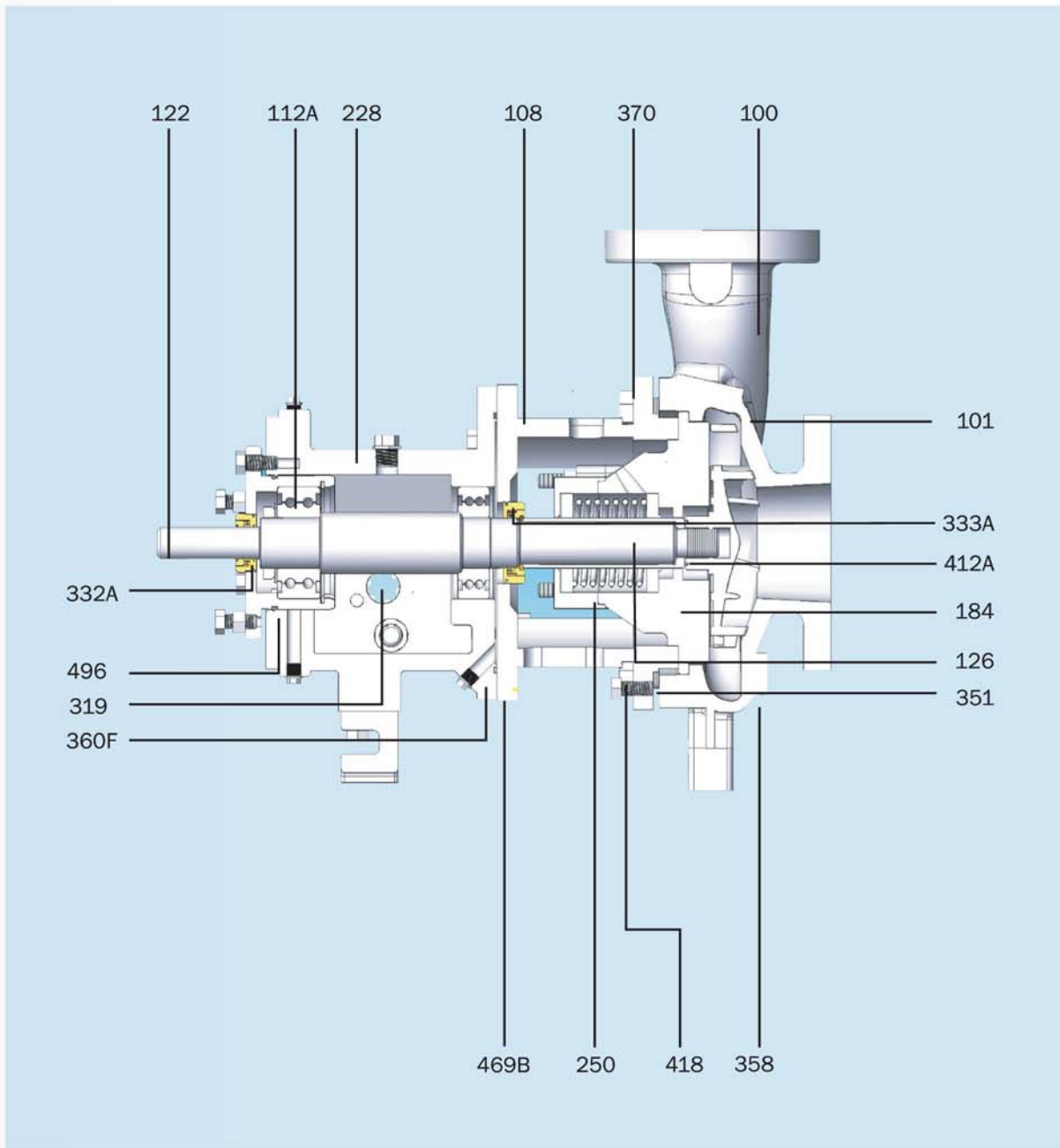
ANSI Pump Series 1196- STR



Components list and Materials of construction

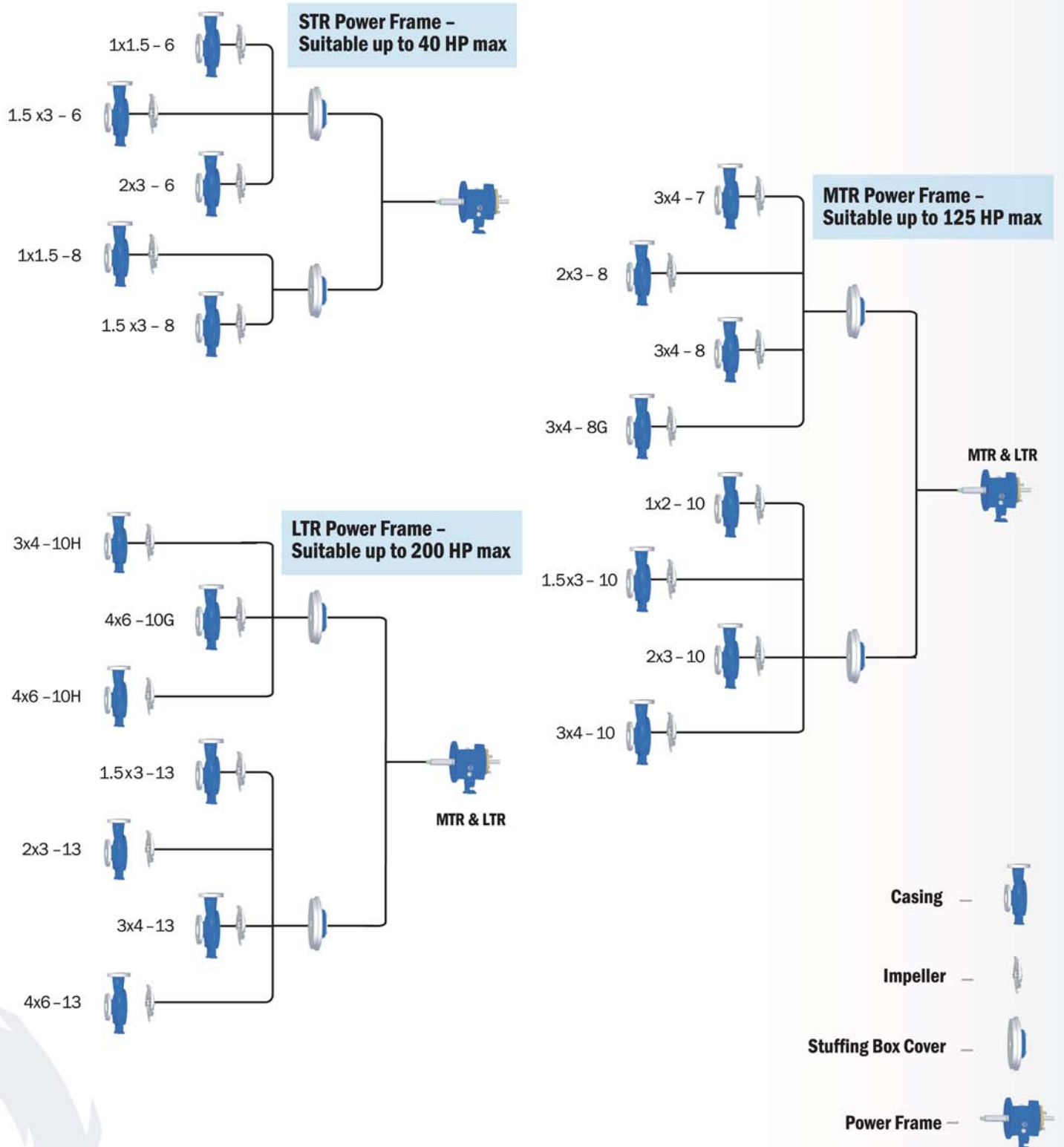
Part Number	Part Description	Material					
		WCB / Carbon Steel	SS304	316SS	CD4MCu	Alloy 20	Hastelloy B & C
100	Casing	WCB / Carbon Steel	SS304	316SS	CD4MCu	Alloy 20	Hastelloy
101	Impeller	WCB / Carbon Steel	SS304	316SS	CD4MCu	Alloy 20	Hastelloy
105	Lantern Ring	Glass-Filled TEFLON*					
106	Stuffing Box Packing	TEFLON* Impregnated Fibers					
108	Frame Adapter	Cast Iron/Ductile Iron					
112A	Thrust Bearing	Double Row					
122	Shaft—Less Sleeve (Optional)	SS 316	SS316	316SS		Alloy 20	Hastelloy
122	Shaft—With Sleeve	SS 316	SS316	Shaft less sleeve , solid shaft, (optional),			SS316
126	Shaft Sleeve	SS 316		316SS	Alloy 20		Hastelloy
136	Bearing Locknut and Lockwasher	Steel					
168A	Radial Bearing	Single Row					
184	Stuffing Box Cover (Packed Box)	WCB / Carbon Steel	SS304	316SS	CD4MCu	Alloy 20	Hastelloy
184	Seal Chamber (Mechanical Seal)		SS304	316SS	CD4MCu	Alloy 20	Hastelloy
228	Bearing Frame	Cast Iron/Ductile Iron					
250	Gland	SS 316		316SS	Alloy 20		Hastelloy
370H	Stud/Nut, Cover-to-Adapter	304SS					
319	Oil Sight Glass	Glass/Steel					
332A	Labyrinth Oil Seal(Outboard)	Bronze					
333A	Labyrinth Oil Seal(Inboard)	Bronze					
351	Casing Gasket	Aramid Fiber with EPDM Rubber or PTFE					
358	Casing Drain Plug (Optional)	SS 316	SS316	316SS	Alloy 20		Hastelloy
360F	Gasket, Frame-to-Adapter	Cellulose Fiber with Binder					
360C	Gasket, Bearing End Cover	Cellulose Fiber with Binder					
370	Cap Screw, Adapter-to-Casing	Steel					
412A	O-ring, Impeller	Glass-Filled TEFLON*					
418	Jacking Bolt	304SS					
469B	Dowel Pin, Frame-to-Adapter	Steel					
496	O-ring, Bearing Housing	Buna Rubber					

ANSI Pump series 1196- MTR

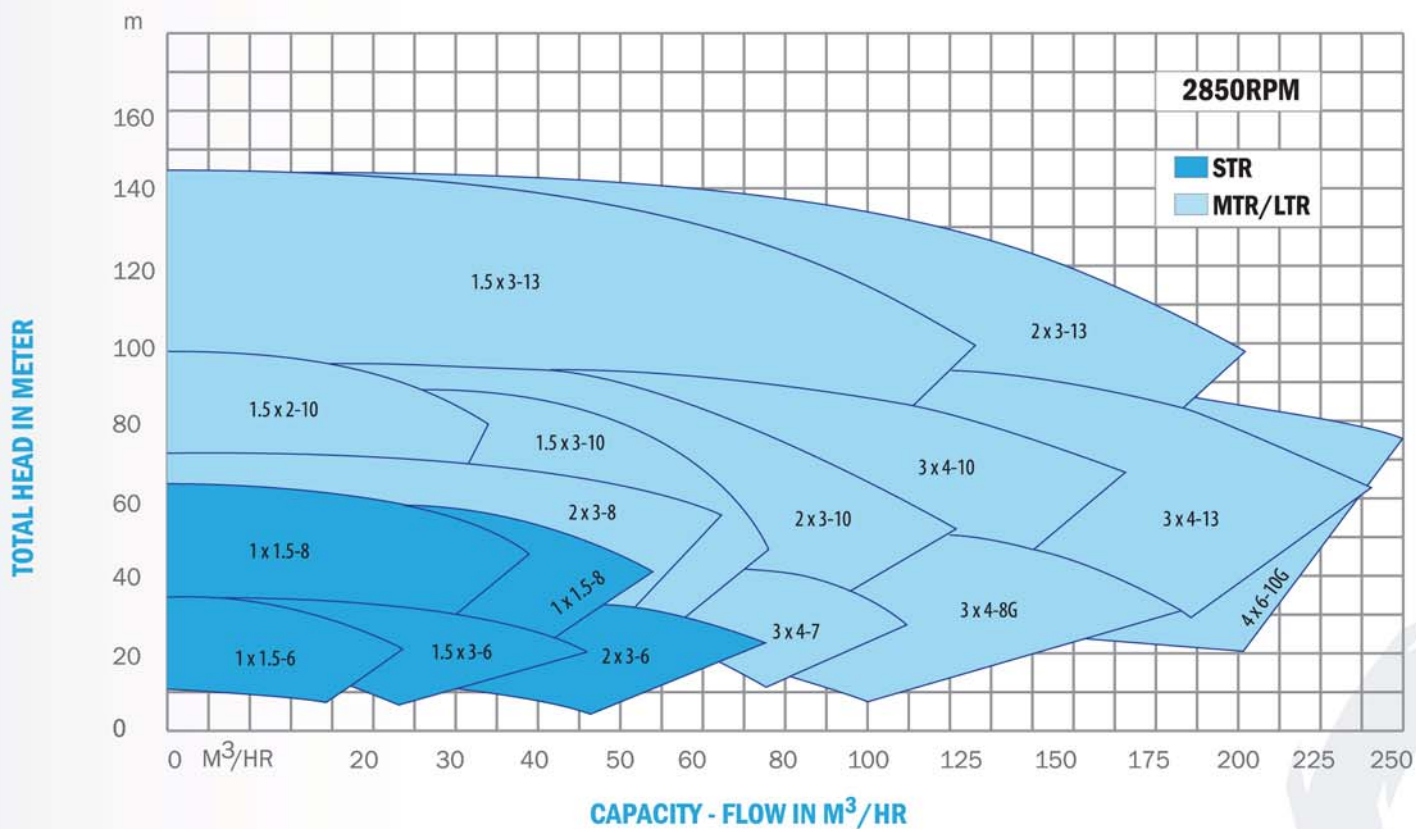
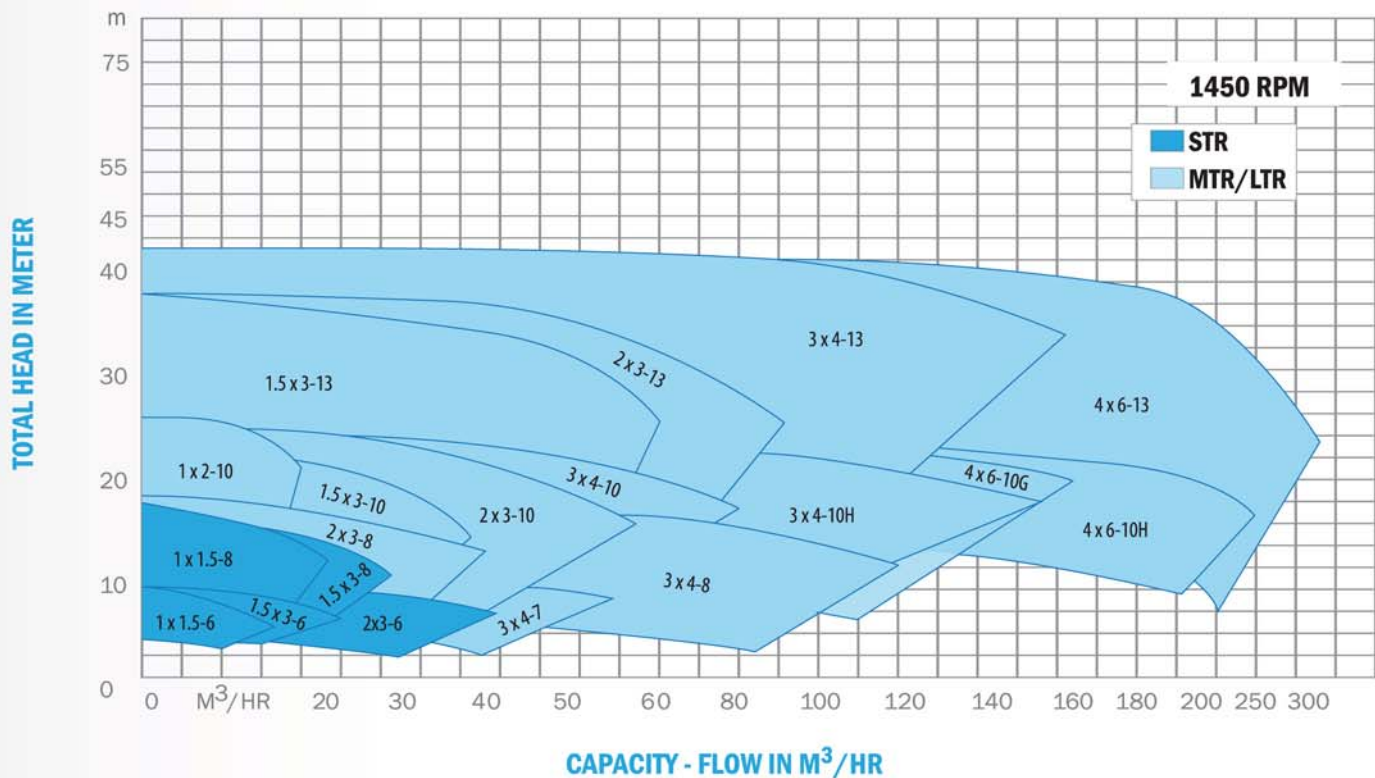


Oil Lubrication

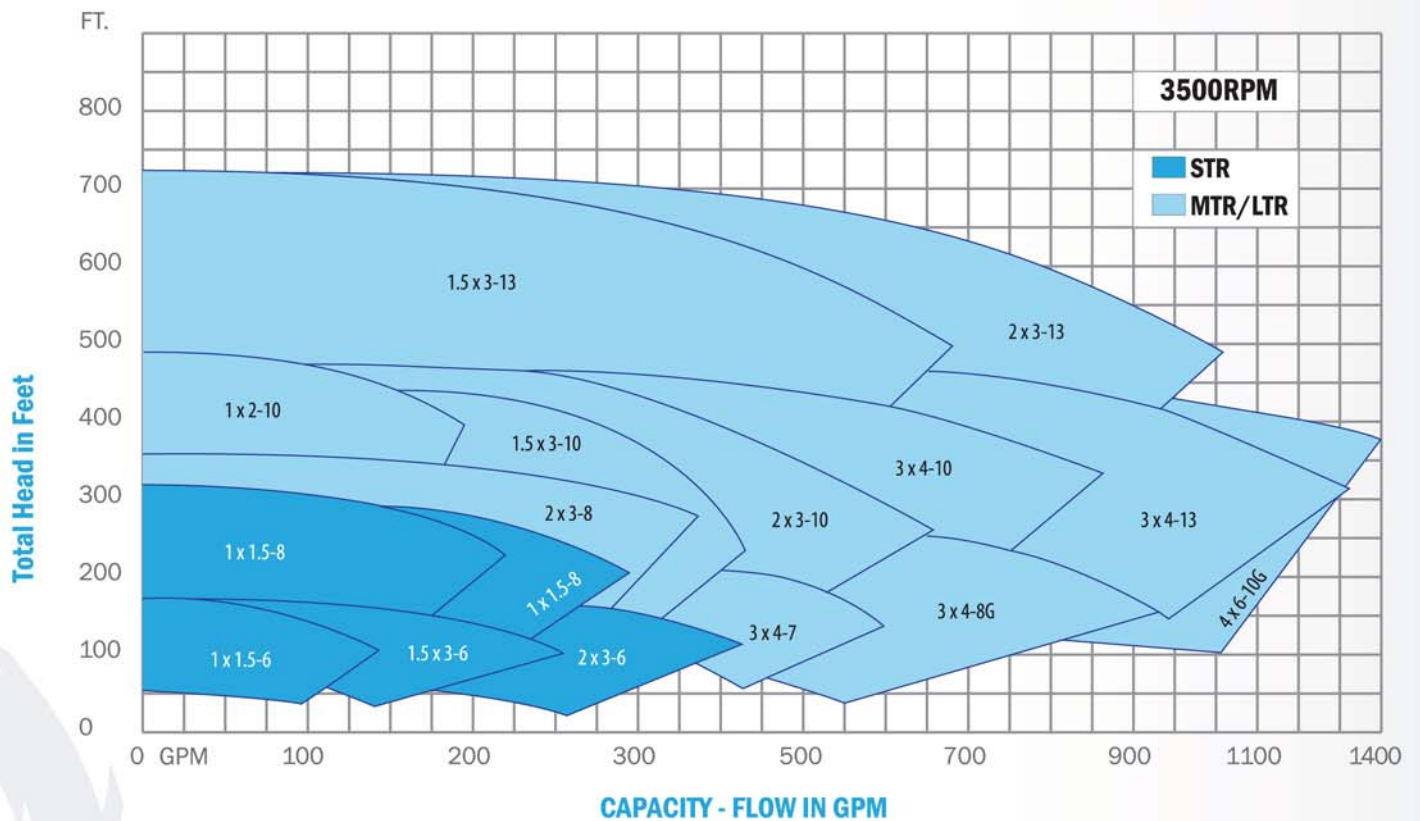
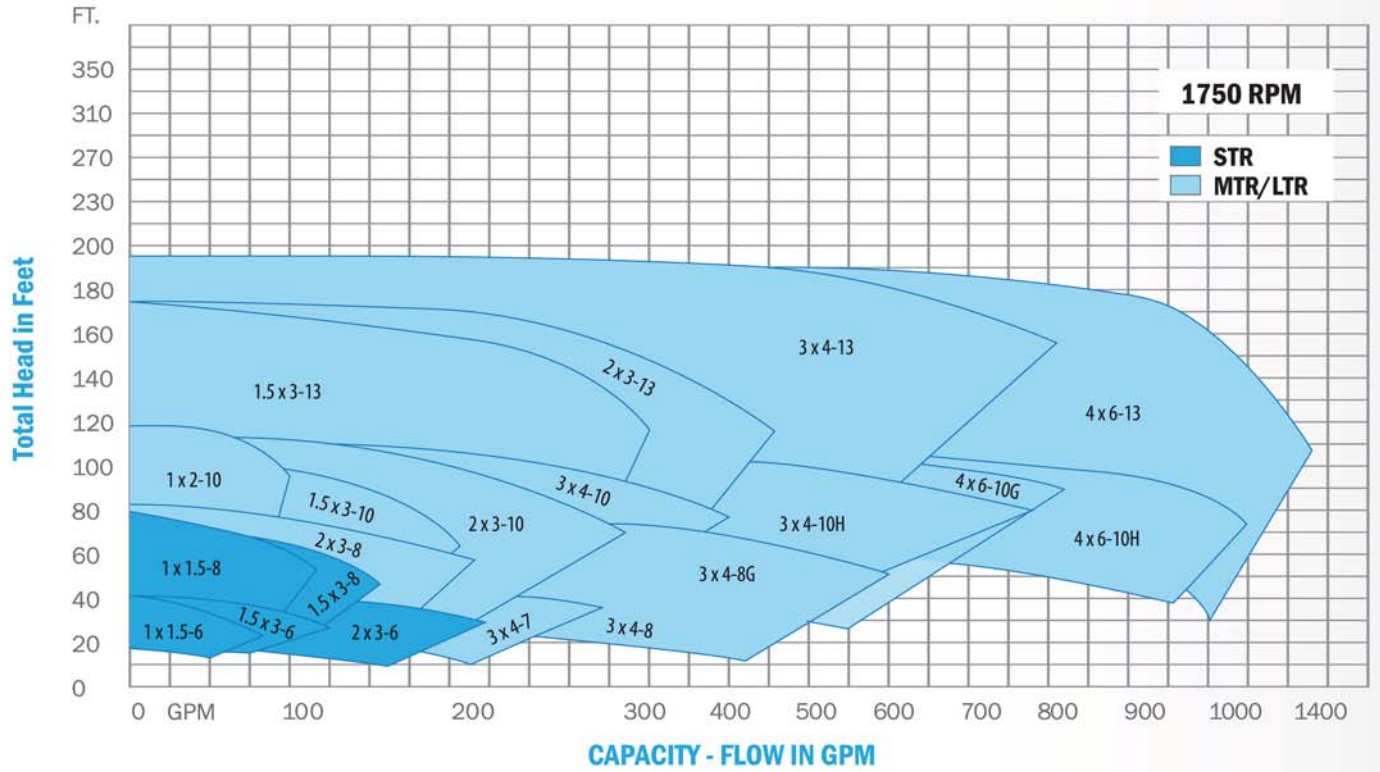
COMPONENTS / PARTS INTERCHANGEABILITY



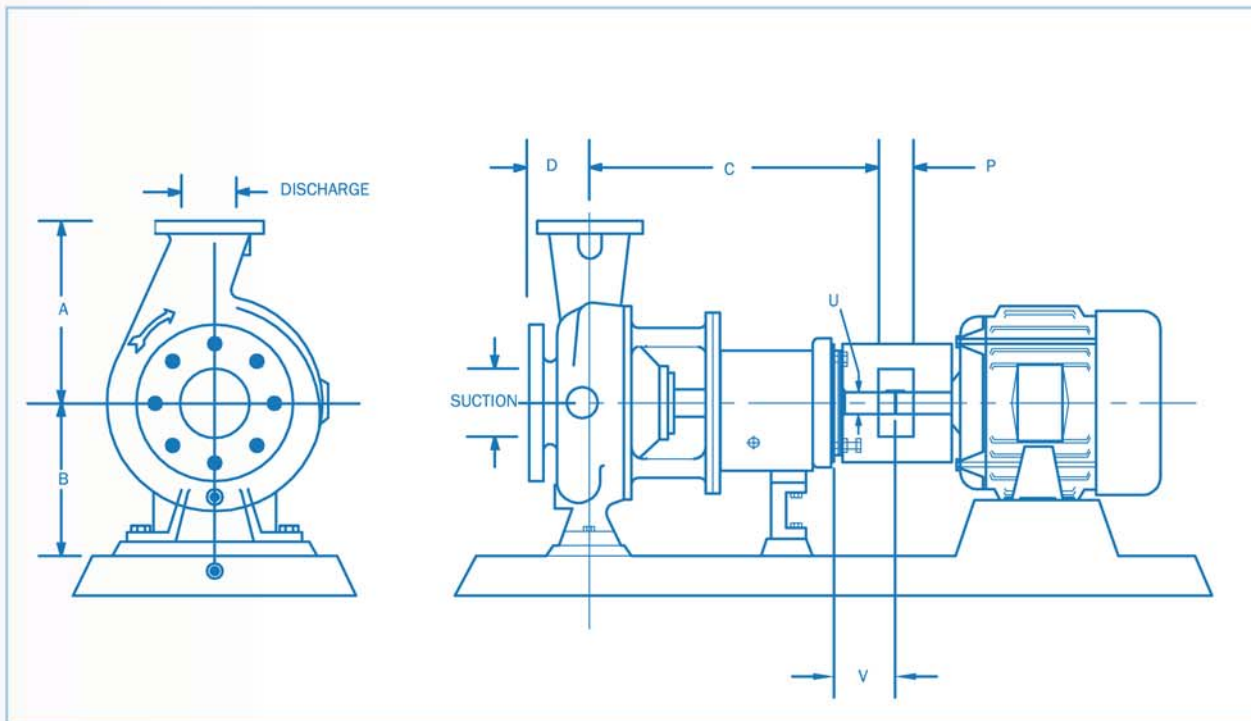
HYDRAULIC COVERAGE



ANSI PUMPS – 1196 Series



DIMENSIONS



DIMENSIONS												
Pump Frame	Pump Size	ANSI Designation	Discharge Size	Suction Size	A	C	D	B	P	U	V	Bare Pump Weight Lbs.
STR	1x1.5-6	AA	1	1.5	6.5 (165)	13.5 (343)	4 (102)	5.25 (133)	3.75 (95)	0.875	2	85
	1.5x3-6	AB	1.5	3								94
	2x3-6		2	3								96
	1x1.5-8	AA	1	1.5								102
	1.5x3-8	AB	1.5	3								110
MTR	3x4-7	A70	3	4	11 (280)	19.5 (495)	4 (102)	8.25 (210)	3.75 (95)	1.125	2.625	222
	2x3-8	A60	2	3	9.5 (242)							222
	3x4-8	A70	3	4	11 (280)							222
	3x4-8G	A70	3	4	11 (280)							222
	1x2-10	A05	1	2	8.5 (216)							204
	1.5x3-10	A50	1.5	3	8.5 (216)							222
	2x3-10	A60	2	3	9.5 (242)							232
	3x4-10	A70	3	4	11 (280)							266
LTR	3x4-10H	A40	3	4	12.5 (318)	19.5 (495)	4 (102)	10 (254)	3.75 (95)	1.875	2.625	276
	4x6-10G	A80	4	6	13.5 (343)							308
	4x6-10H	A80	4	6	13.5 (343)							308
	1.5x3-13	A20	1.5	3	10.5 (267)							248
	2x3-13	A30	2	3	11.5 (292)							278
	3x4-13	A40	3	4	12.5 (318)							334
	4x6-13	A80	4	6	13.5 (343)							410

Rotech reserves rights to change or alter Dimensions & Specifications without any prior notice.

Dimensions shown above are approximate value for reference only and are not accurate for construction.

Rotech's Other Products

- End Suction Close-coupled centrifugal Pumps
- End Suction Frame mounted centrifugal Pumps
- Self priming Trash Pumps – SPT AND SPU Pumps
- Vertical Inline Centrifugal Pumps
- Vertical Multi-stage Pumps
- Stainless Steel Stamped End section Pumps
- Horizontal split case Pumps
- Vertical Turbine Pumps
- Ball Check valves
- Mechanical Seals

Apart from the listed above, we offer an array of other products also.

Contact us to get further details.



"A Trusted Partner in Pump Solutions"

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