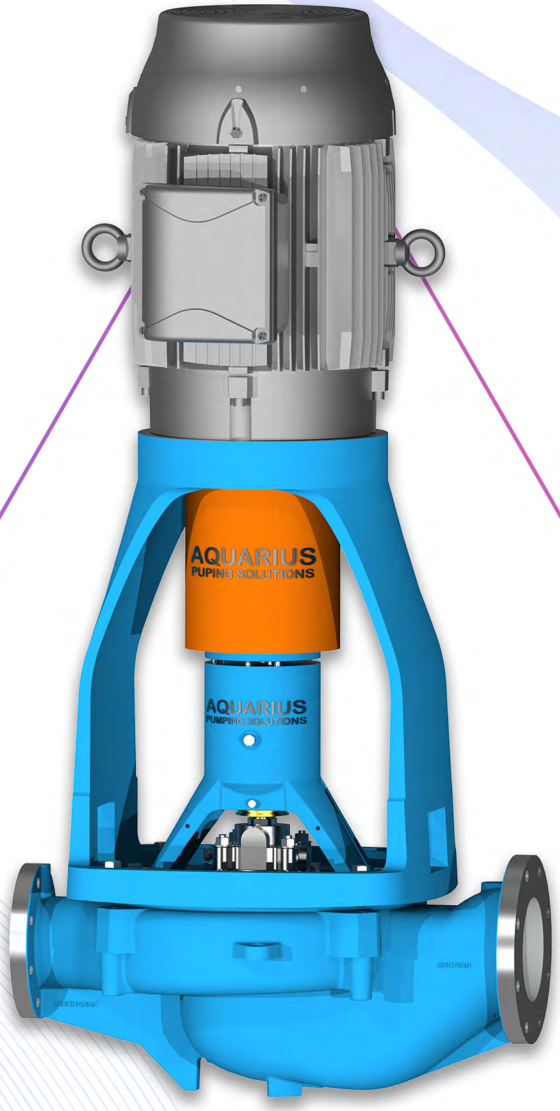
AQUARIUS
PUMPING SOLUTIONS



Mastering your Fluid Dynamics

A996 Series

Vertical In-Line Centrifugal Process Pumps

www. aquariuspumpingsolutions.com

Pump Design Feature

Application

Can be used in Chemical, Petrochemical, Pulp & Paper, Primary Metals, Food and Beverage and many general Industries

Material Options

[Ductile iron, Carbon steel, Stainless steel, Duplex, and other materials]

High strength, impact resistance Carbon Steel (Available as an optional) liquid ends for improved durability and pressure containment.

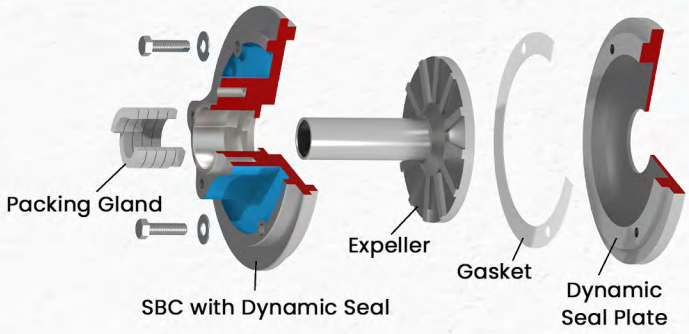
Shaft and Shaft kit Assembly

- Perfect Bearing mounting with Induction Heating Process.
- Higher Factor of Safety is considered during Shaft Design
- Available in MOCs like Steel, Super Duplex Steel, Alloy 20, Hastelloy, Nickel, Titanium and many other exotic Materials

Stuffing Box Covers

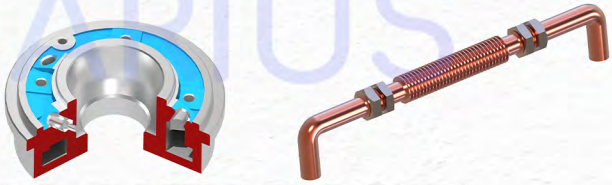
- Standard Bore : Ideally for Glan Packing
- Large Bore : Maximize the Seal cooling due to Large Bore
- Tappered/FML : Flow Modifer Large Bore design for Keeping seal Cool by self venting and draining. Vapour and debris circulated away from seal face

Dynamic Sealing



- Ideally used for Corrosives and Slurry Application
- Eliminate need for Mechanical Seal
- No need for seal cooling water
- Utility cost is Reduced
- Less Expensive than a Slurry Mechanical Seal

For High Temperature Application



Jacketed SBC

Finned Cooler

- Finned Cooler: -Directly cools oil for lower bearing temperature. Requires minimum cooling water.
- Corrosion resistant construction. Recommended for temperature over 350°F (177°C)
- Jacketed Stuffing Box: - Keep proper temperature control of sealing environment. Perfect for polymerizing liquids.
- Jacketed Casing:- Ideal for heating or cooling pumpage.

AQUARIUS PUMPING SOLUTIONS

Space-Saving In-Line Design for Cost Efficiency

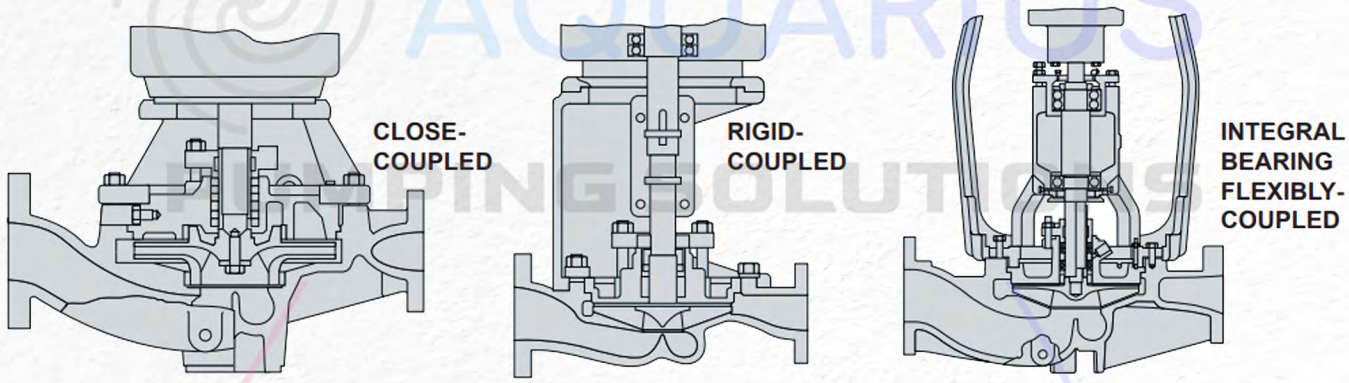
In-line pumps are gaining popularity among users due to their compact footprint and lower installation costs.

Installation is straightforward, as the unit mounts directly within the pipeline, similar to a valve. No field alignment is needed, and the pump remains unaffected by misalignment caused by pipe strain or temperature fluctuations.

A996- The Superior In-Line Design

Various in-line pump designs exist, including close-coupled, rigid-coupled, and flexibly-coupled/integral bearing models. However, only the flexibly-coupled design, like the A996, is engineered without compromise.

Close-coupled units pose servicing challenges, while rigid-coupled models feature long, unsupported shafts prone to runout, deflection, and imbalance—ultimately reducing bearing and seal longevity.



Establishing Standards for Reliability

The A996 is engineered for peak reliability. Its shaft size and overhang are optimized to ensure maximum seal and bearing life. Precision fittings ensure perfect alignment between the pump and motor, eliminating the need for field alignment. The pump, rather than special motors, handles hydraulic and mechanical loads (the A996 uses standard C-face motors).

A996 Pump Design Features:

NO FIELD ALIGNMENTS NEEDED:

Positive and In-built alignment between motor and pump with help of Precision rabbet locks

INTEGRAL PUMP BEARINGS:

The pump supports all hydraulic loads, not the motor. Bearings are rated for a minimum of 2 years and an average of 10 years under harsh conditions, with regreaseable, greased-for-life

ANSI B73.1M SHAFT SEALING:

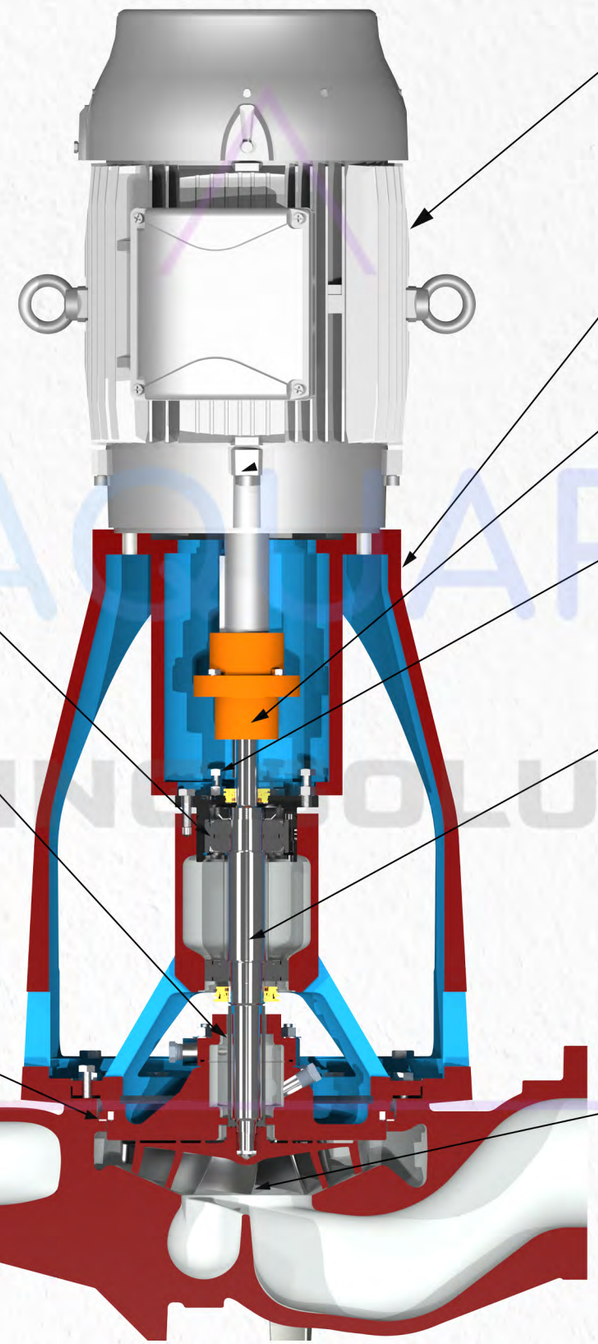
Options for large or standard bore seal chambers offer maximum sealing flexibility to accommodate various service conditions

POSITIVE SEALING:

PTFE Gaskets provide positive sealing to provide zero leakage

HEAVY WALLED CASING:

Ribbed suction and discharge nozzles support the pump and driver while resisting pipe strain without distortion. ANSI class 150 flanges are standard and class 300 is optional



STANDARD NEMA C-FACE NORMAL THRUST MOTOR:

HIGH STRENGTH DUCTILE IRON MOTOR SUPPORT:

Open on two sides for easy access to the back pull-out assembly.

FLEXIBLY COUPLED:

Standard flexible spacer coupling

CONTINUOUS HIGH PERFORMANCE:

External adjustment ensures long time energy savings with original high efficiency

HEAVY DUTY SHAFT:

Shaft is designed for minimum deflection less than .002 in.(.05 mm)—at seal faces

MAXIMUM INTERCHANGEABILITY:

Shaft kit, seals, stuffing boxes and Impellers are interchangeable with a196 series

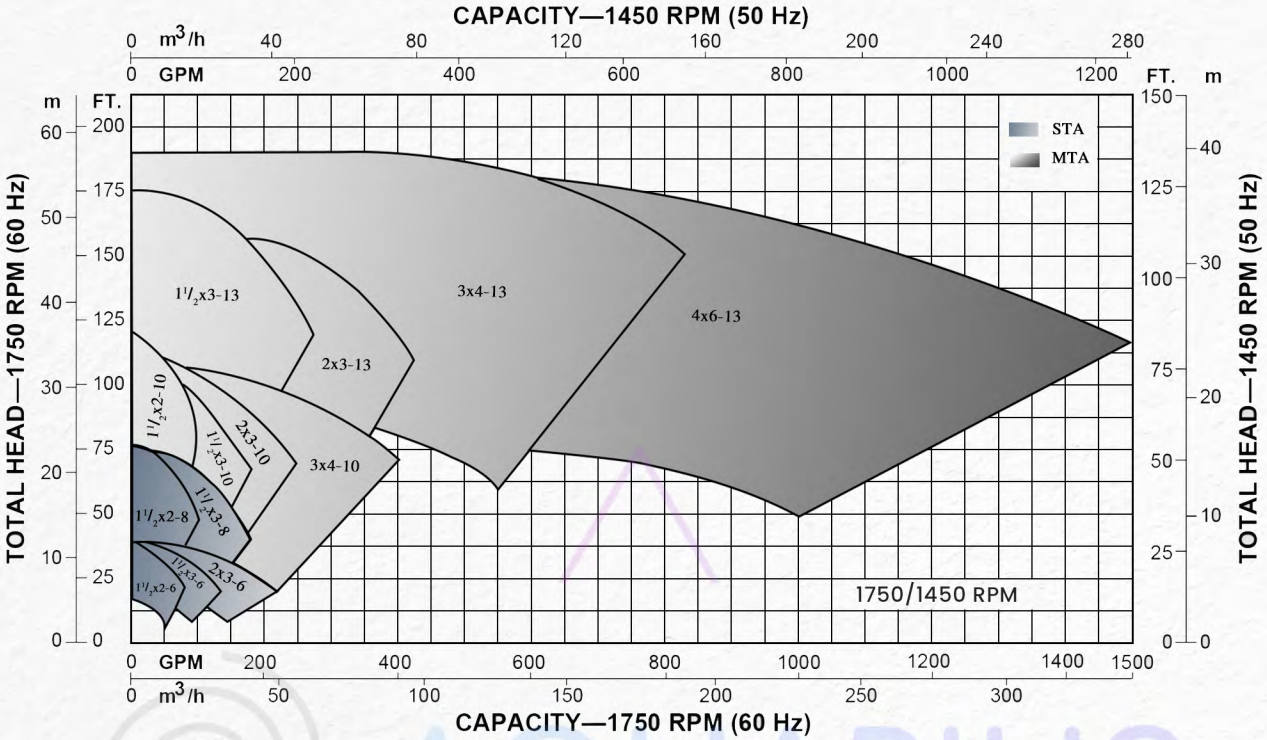
FULLY OPEN IMPELLER :

Recognized as the optimal design for C.P.I. services—handling solids, stringy materials, corrosives, and abrasives. Back pump-out vanes reduce stuffing box/seal chamber pressure and minimize thrust, extending bearing and seal lifespan

AQUARIUS PUMPING SOLUTIONS

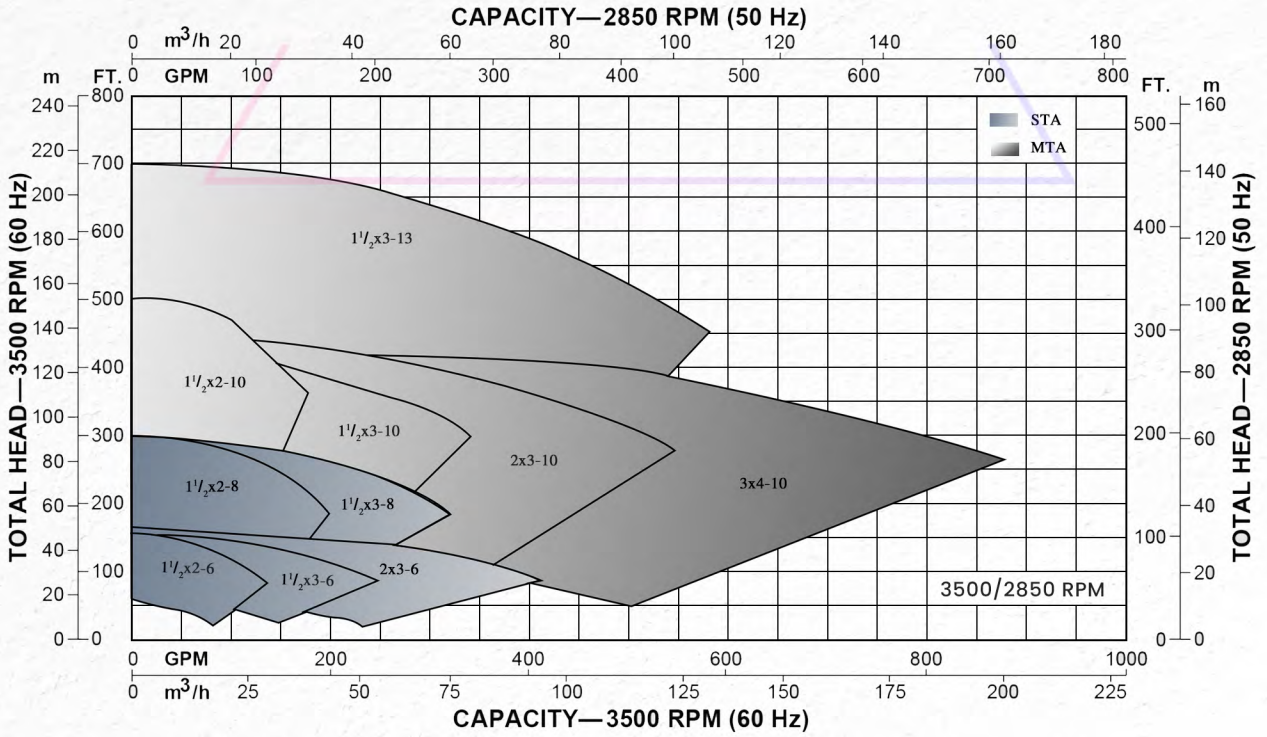
With 2 Pole Motor

Capacity up to 1500 GPM (350 m3/hr) Head up to 187 Feet (57 m)
Temperatures to 500°F (260°C) Pressures to 285 PSIG (1965 kPa)

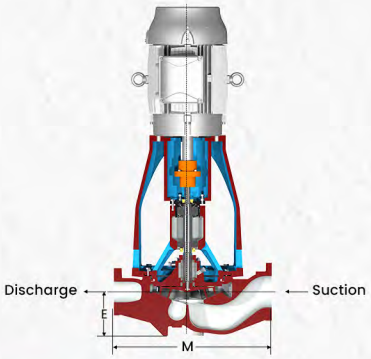


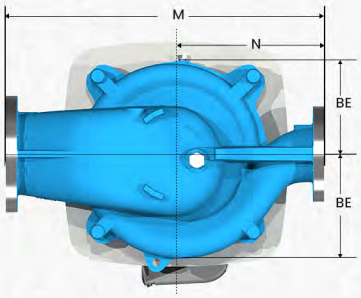
With 4 Pole Motor

Capacity up to 875 GPM (200 m3/hr) | Head up to 700 feet (215 m)
Temperature to 500° F (260° C) | Pressure to 285 PSIG (1965 kPa)



AQUARIUS
PUMPING SOLUTIONS





PUMP OUTER DIMENSIONS :

Group	Pump Size	ANSI Designation	Discharge	Suction	E	M	N	BE	Pump Weight (less motor) Lb (kgs)
STA	1.5x2-6	2015/15	1.5	2	4.25(108)	15 (381)	6.75 (171)	6.375 (162)	190 (86)
	1.5x3-6	3015/15	1.5	3	4.875 (124)	15 (381)	6.75 (171)		200 (91)
	2x3-6	3020/17	2	3	4.625 (1118)	17 (432)	7.5(191)		205 (93
	1.5x2-8	2015/17	1.5	2	4.812 (122)	17 (432)	8 (203)		200 (91)
	1.5x3-8	3015/19	1.5	3	5.25(133)	19 (483)	8.375(213)		210 (95)
MTA	1.5x-10	2015/19	1.5	2	5.125(130)	19 (483)	9.25 (235)	10 (254)	370 (168)
	1.5x3-10	3015/19	1.5	3	5 (127)	19 (483)	9.25 (235)		380 (173)
	2x3-10	3020/20	2	3	5.25 (133)	20 (508)	9.5 (241)		390 (177)
	3x4-10	4030/25	3	4	6 (152)	25 (635)	11.5 (292)		430 (195)
	1.5x3-13	3015/24	1.5	3	5.625 (143)	24 (610)	11.5 (292)		460 (209)
	2x3-13	3020/24	2	3	5.75 (146)	24 (610)	11.5 (292)		490 (223)
	3x4-13	4030/28	3	4	6.875(175)	28 (711)	13 (330)		520 (238)
	4x6-13	6040/30	4	6	8.5 (216)	30 (763)	14 (356)		610 (277)

PARTS LIST & MATERIALS OF CONSTRUCTION

		MATERIAL							
Item Number	Part Name	Ductile Iron / 316SS Impeller	316SS	CD4MCuN	Alloy 20	Monel	Nickel	Hastelloy B&C	Titanium
100	Casing	Ductile Iron	316SS	CD4	Alloy20	Monel	Nickel	Hastelloy	Titanium
101	Impeller	316SS		CD4	Alloy20	Monel	Nickel	Hastelloy	Titanium
105	Lantern Ring	Glass Filled PTFE							
106	S.B. Packing	PTFE Impregnated Fibers							
112	Thrust Bearing	Double Row Angular Contact							
122	Shaft-Less Sleeve (Optional)	SAE 4140	316SS		Alloy20	Monel	Nickel	Hastelloy	Titanium
122	Shaft - With Sleeve	4140 Steel				316SS			
126	Shaft Sleeve	316SS		Alloy 20		Monel	Nickel	Hastelloy	Titanium
136	Bearing Locknut and Lockwasher	Steel							
168	Radial Bearing	Single Row Deep Groove							
184	Seal Chamber/S.B. Cover (Mechanical Seal or Packed Box)	Ductile Iron	316SS	CD4	Alloy20	Monel	Nickel	Hastelloy	Titanium
228	Bearing Frame	Ductile Iron							
239	Casing Support	ST = Steel / MT = Ductile Iron							
240	Motor Support	Ductile Iron							
250	Gland	316SS		CD4	Alloy20	Monel	Nickel	Hastelloy	Titanium
262	Repeller/Sleeve (Dynamic Seal Option)	CD4MCuN			Alloy20	Monel	Nickel	Hastelloy	Titanium
264	Gasket, Cover to Backplate	PTFE							
265A	Stud/Nut - Cover to Frame	304SS							
332A	Grease Seal - Outboard	Buna Rubber							
332A	Grease Seal - Inboard	Buna Rubber							
351	Casing Gasket	Aramid Fiber with EPDM Rubber							
358A	Plug - Casing Drain	Carb Steel	316SS	CD4	Alloy 20	Monel	Nickel	Hastelloy	Titanium
370H	Cap Screw - Frame to Casing	Steel	304 SS						
412	Stud, Cover to Adapter	Glass Filled PTFE							
418	Jacking Bolt	304 SS							
444	Backplate (Dynamic Seal Option)	Ductile Iron	316SS	CD4	Alloy20	Monel	Nickel	Hastelloy	Titanium
469B	Dowel Pin	Steel							
496	O-ring Bearing Housing	Buna N							

Note: All Dimensions in inches and (mm). Not to be used for construction.

AQUARIUS
PUMPING SOLUTIONS

Our company is a provider of products and services to the petrochemical, oil, power and municipal industries. We serve customers in the USA and throughout the world. We have a skilled staff, offer quick delivery time, and hold a large inventory to meet your company's needs.

(+91) 966-229-4490
aquariuspumpingsolutions.com
info@aquariuspumpingsolutions.com