



SINGLE STAGE SPLIT COUPLED VERTICAL IN-LINE PUMPS



MODEL 382

380 SERIES

WWW.AURORAPUMP.COM

AURORA® 380 SERIES

Single Stage Vertical Inline Pumps

Capacities to 12,000 gpm (2,725 m³/hr)

Heads to 370 feet (78 m)

Temperatures to 275° F (135° C)

Setting New Standards of Efficiency

Aurora Vertical Inline Split Coupled Pumps are specifically designed for mounting directly in a pipeline. The suction and discharge nozzles are located on the same centerline, 180° apart. Vertical pumps significantly reduce the space required; two pumps fit in the space of one. They are easy to maintain; the seals can be changed without disturbing the motor or removing the casing. The proprietary jacking mechanisms eases the changing of the mechanical seal making this repair chore faster and easier for the maintenance specialist, no lifting equipment required. A carbon throttle bushing controls the flow of mechanical seal flushing while providing additional support for the stainless steel pump shaft. The Aurora® 382A-SC and 382B-SC inline pumps come in 37 sizes, offering a size and model precisely fitted for a wide range of head and capacity requirements.

The inline casing has provisions for mounting an optional support base should the pump sit on the floor. Mechanical seals are provided as standard to prevent leakage around the shaft. A relief line is provided from the seal faces to the pump discharge for flushing and venting purposes.

Suction branch design on Model 382A-SC and 382B-SC pumps pre-rotates suction liquid in the direction of pump impeller rotation. This concept minimizes pumping noise that is otherwise associated with more common short radius suction inlet designs. Each pump has been engineered and assurance tested to arrive at the proper velocities and entrance angles to ensure quiet operation.



382A Split Coupled Inline Pump Features

A. Proprietary Jacking Mechanism

simplifies seal replacement – one person operation.

B. Standard P-Base Motor

provides low noise level pump operation.

C. Back Pull-Out Casing

includes inline suction and discharge.

D. Case Wearing Ring

prevents wear on casing and is inexpensively replaced. Impeller wear rings are optional.

E. Precision Cast, Dynamically Balanced, Enclosed Impeller

keyed to the shaft extension and secured by a capscrew and washer. Gaskets are used to prevent leakage to shaft end.

F. Stainless Steel Shaft

designed for minimum deflection.

G. Mechanical Seal

has carbon against ceramic face for optimum hot water performance. Long life is assured with 303 SST metal parts and Buna-N flexible elastomers.

H. Factory Hydro Test

guarantees casting and seal integrity.

I. Relief Line

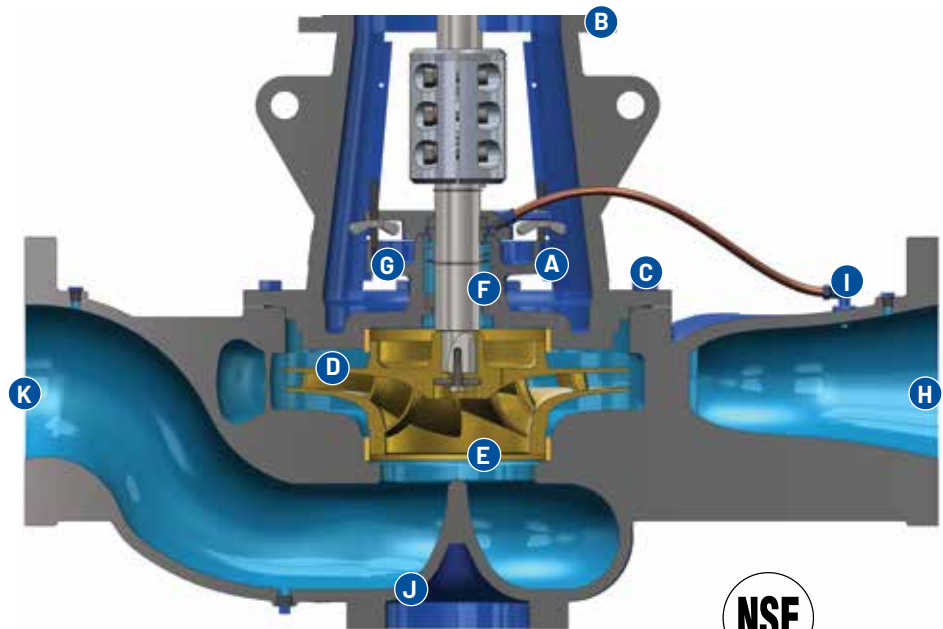
assures adequate venting of the seal chamber and lubrication of seal faces.

J. Volute Type Suction

inlet pre-rotates suction liquid.

K. Double Volute

inlet pre-rotates suction liquid, and minimizes side load on shaft extending mechanical seal life (8 x8 x15 and 10 x10 x15).



Certified to
NSF/ANSI 372

382A Split Coupled Inline Pump

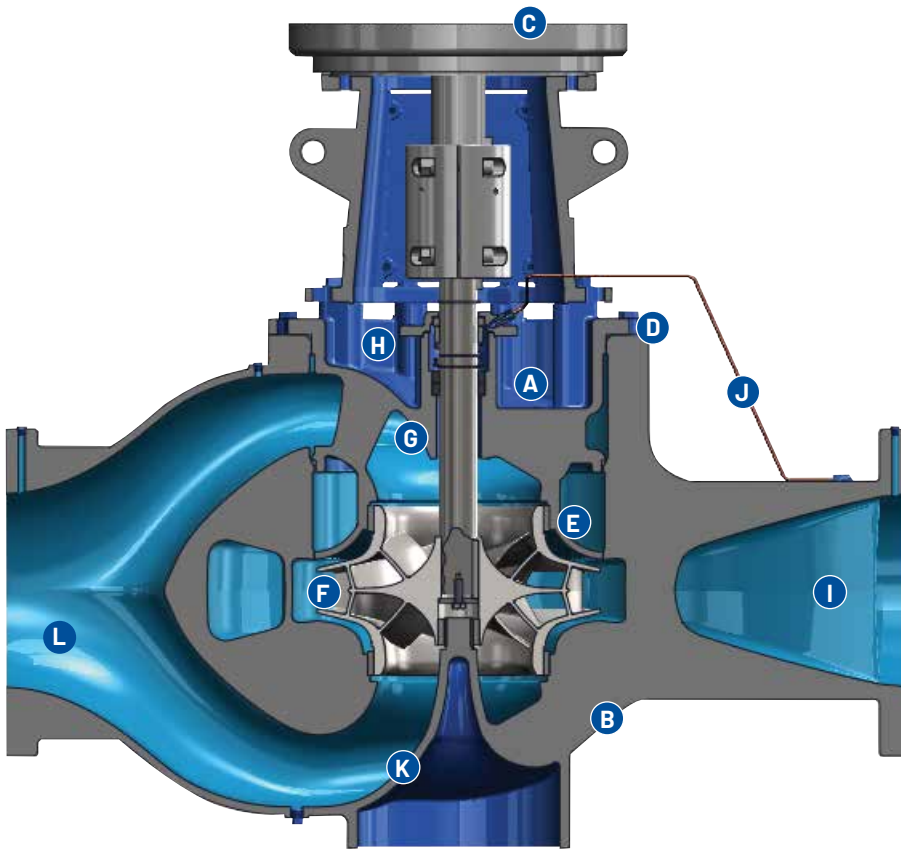
Standard Features

- Factory hydro test
- Casing wearing rings
- Bronze fitted construction
- High strength aluminum coupling
- Dynamically balanced cast impeller
- 303 SST mechanical seal with Buna-N, ceramic and carbon parts

Optional Features

- Pump base
- Impeller wearing rings
- High temperature mechanical seal
- Certified performance testing over the full operating range of the pump

382B Split Coupled Inline Pump Features



Meets Department of Energy (DOE)
2020 Standards for Pumps; Final Rule

382B Split Coupled Inline Pump

Standard Features

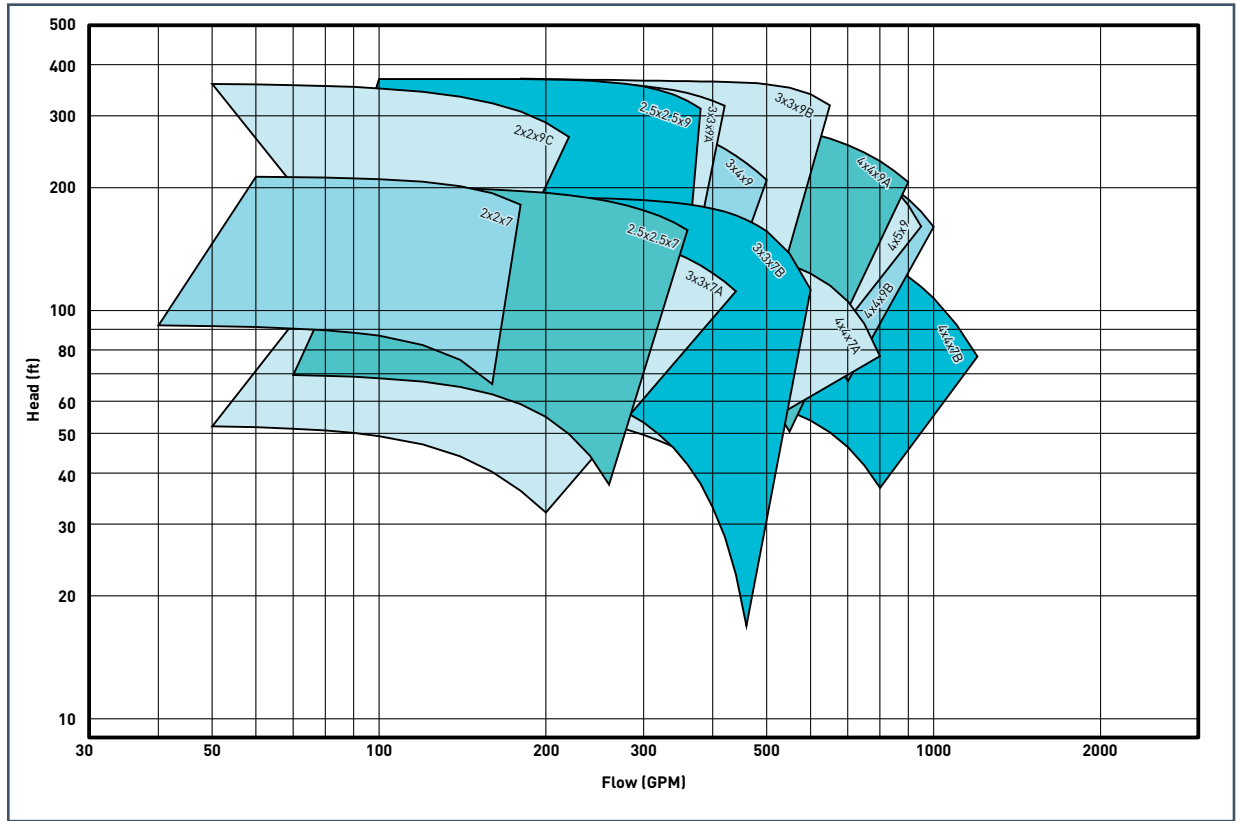
- Factory hydro test
- Casing wear rings
- Investment cast SST impeller
- Stainless steel shaft
- Dynamically balanced stainless steel impeller
- 303 SST mechanical seal with Buna-N, ceramic and carbon parts

Optional Features

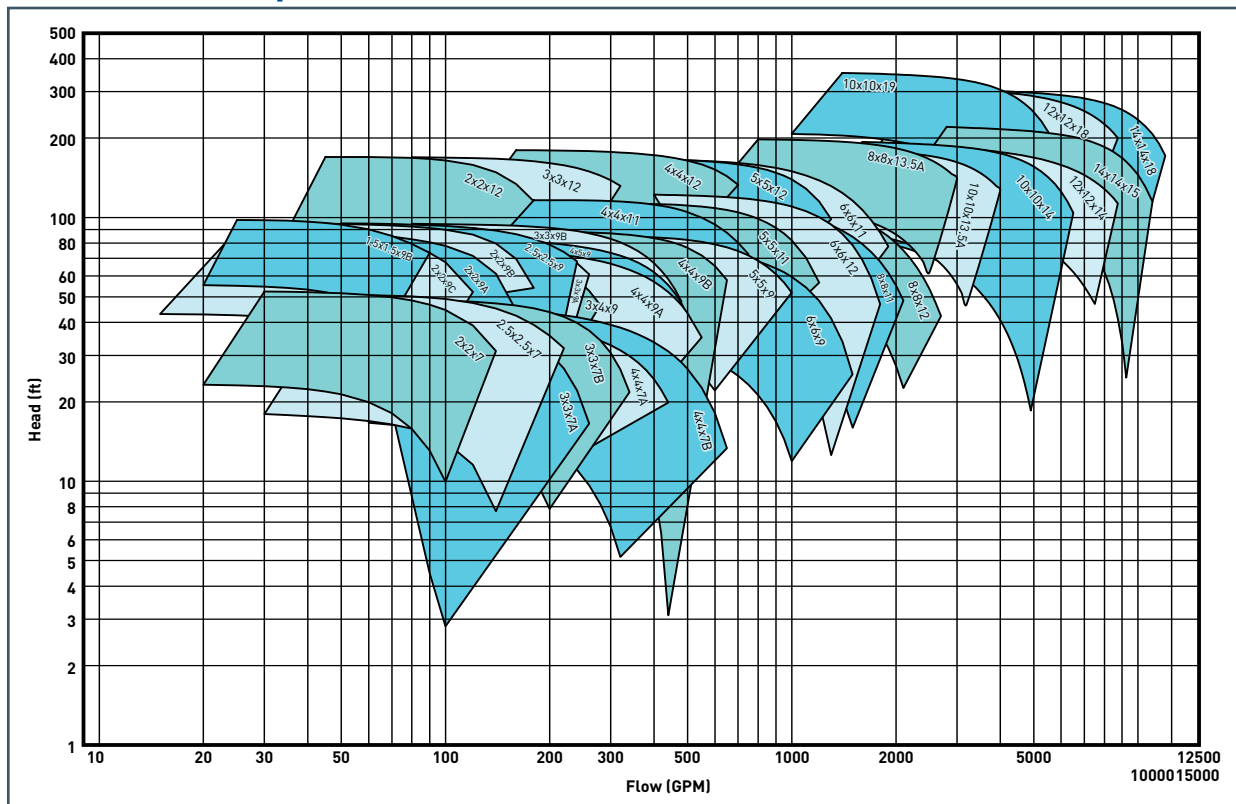
- Pump base
- Impeller wearing rings
- Outside balanced seal
- High temperature mechanical seal
- Certified performance testing over the full operating range of the pump

- A. Proprietary Jacking Mechanism**
simplifies seal replacement – one person operation.
- B. Ductile Iron Casing**
long life with higher working pressures.
- C. Standard C-Face Motor**
provides low noise level pump operation.
- D. Back Pull-Out Casing**
includes inline suction and discharge.
- E. Case Wearing Ring**
prevents wear on casing and is inexpensively replaced. Impeller wear rings are optional.
- F. Investment Stainless Steel, Dynamically Balanced, Enclosed Impeller**
keyed to the shaft extension and secured by a capscrew and washer. Gaskets are used to prevent leakage to shaft end.
- G. Stainless Steel Shaft**
designed for minimum deflection.
- H. Mechanical Seal**
has carbon against ceramic face for optimum hot water performance. Long life is assured with 303 SST metal parts and Buna-N flexible elastomers (outside balanced seal optional).
- I. Factory Hydro Test**
guarantees casting and seal integrity.
- J. Relief Line**
assures adequate venting of the seal chamber and lubrication of seal faces.
- K. Volute Type Suction**
inlet pre-rotates suction liquid.
- L. Double Volute**
minimizes side load on shaft extending mechanical seal life.

3600 RPM Composite Chart Pump Performance

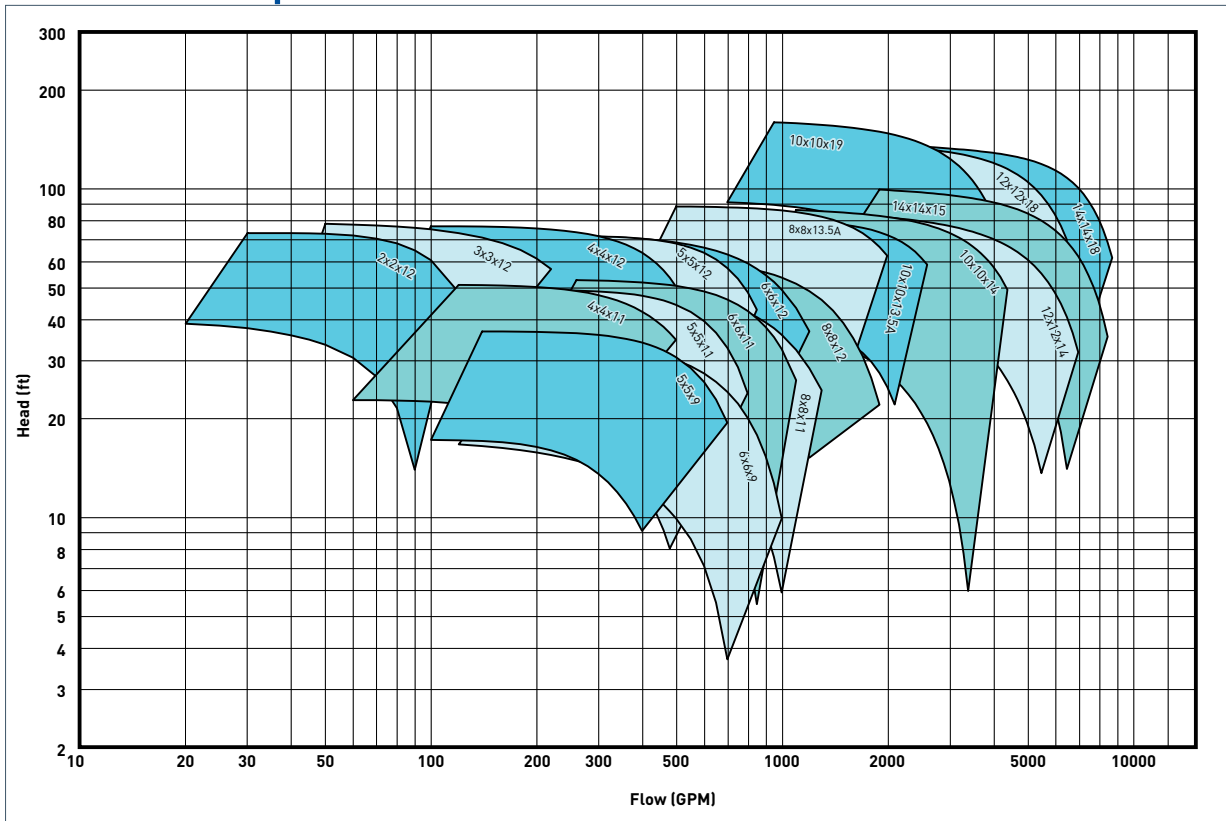


1800 RPM Composite Chart

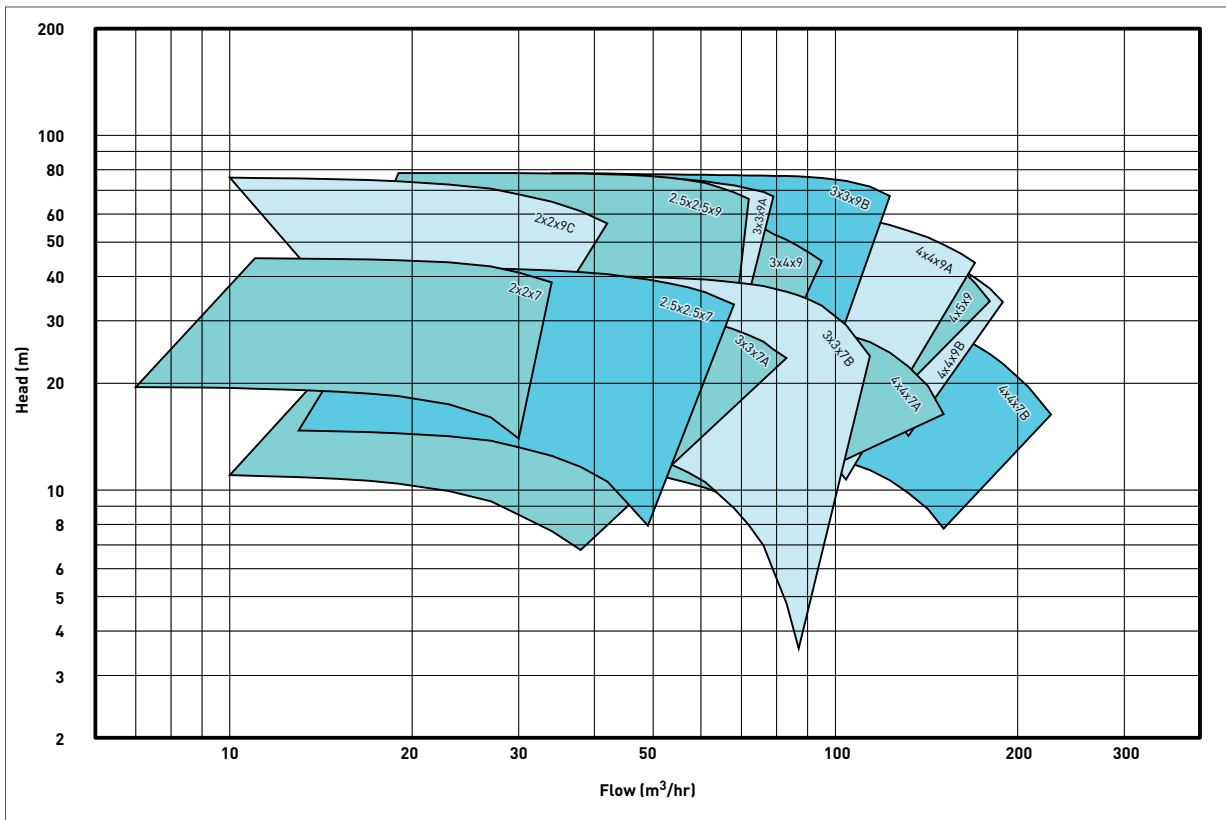


Pump Performance

1200 RPM Composite Chart

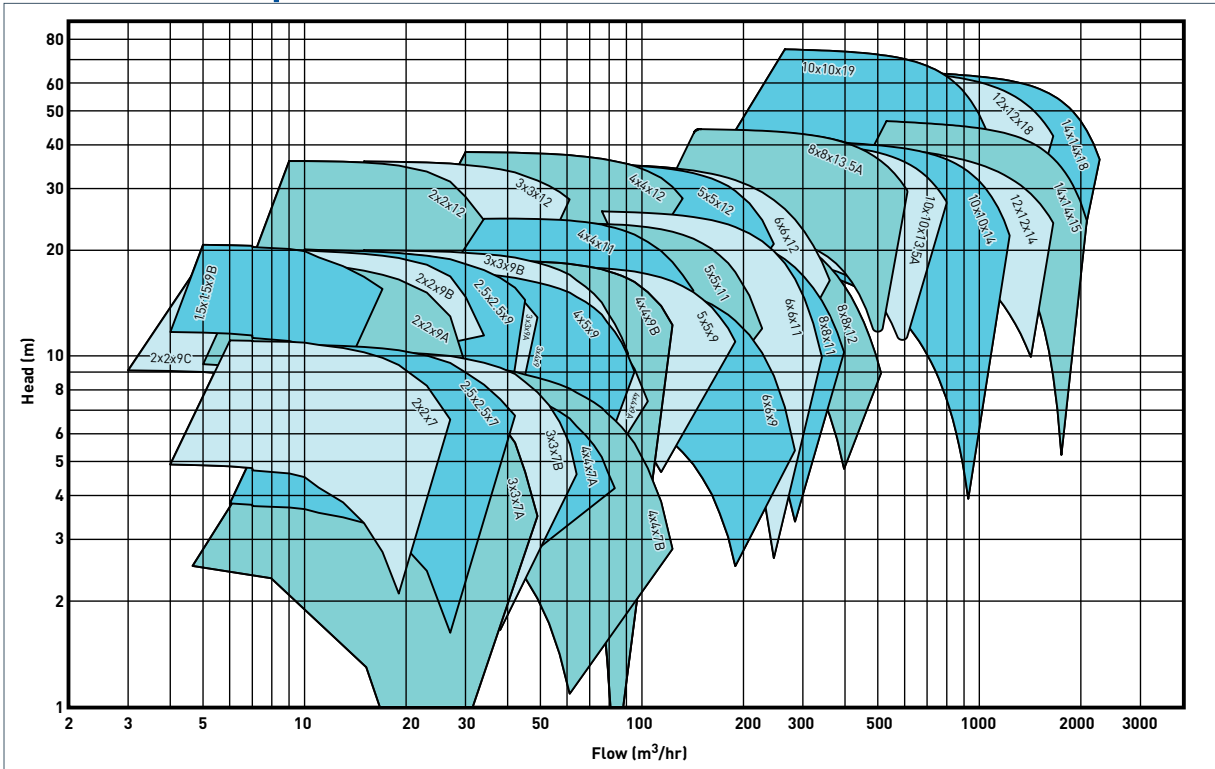


3000 RPM Composite Chart

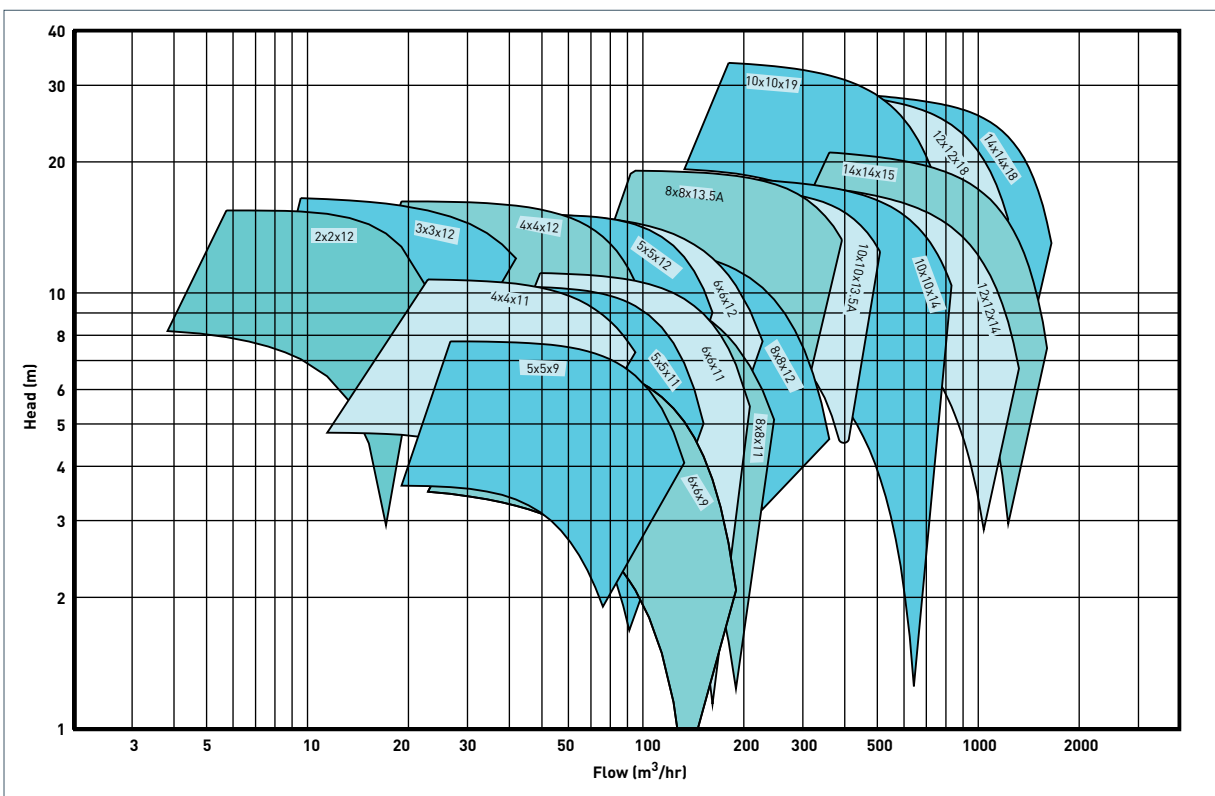


Pump Performance

1500 RPM Composite Chart



1000 RPM Composite Chart



Pump Features

Limitations

Maximum Limitation Based on Standard Materials and Pumping Clear Water			
Series		382A-SC	382B-SC
Speed		3600	1800
Horsepower	1200 RPM	75	250
	1800 RPM	200	800
	3600 RPM	75	N/A
Temperature ° F		Standard 225 / Optional 275	Standard 225 / Optional 275
Case Working Pressure PSI		175	250*

* With optional 250# flanges and seal rated for 250 psi

Materials of Construction

Description	Material of Construction	
	382A-SC	382B-SC
Series	382A-SC	382B-SC
Pump Part	Bronze Fitted	Stainless Impeller Fitted
Casing	Cast Iron ASTM A48	Ductile Iron ASTM A536
Impeller	ASTM A743 B584 Bronze	Stainless Steel ASTM A743 Type 316
Shaft	Stainless Steel ASTM A582 Type 416	Stainless Steel ASTM A582 Type 416
Bushing	Carbon Graphite Matrix	Carbon Graphite Matrix
Case Wearing Rings	ASTM A743 B584 Bronze	Stainless Steel ASTM A582 Type 416
Bracket	Cast Iron ASTM A48	Cast Iron ASTM A48
Mechanical Seal (STD)		
Washer	Carbon	Carbon
Seat	Ceramic	Ceramic
Elastomer	Buna-N	Buna-N
Metal Parts	303 SST	303 SST
Spring	303 SST	303 SST



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