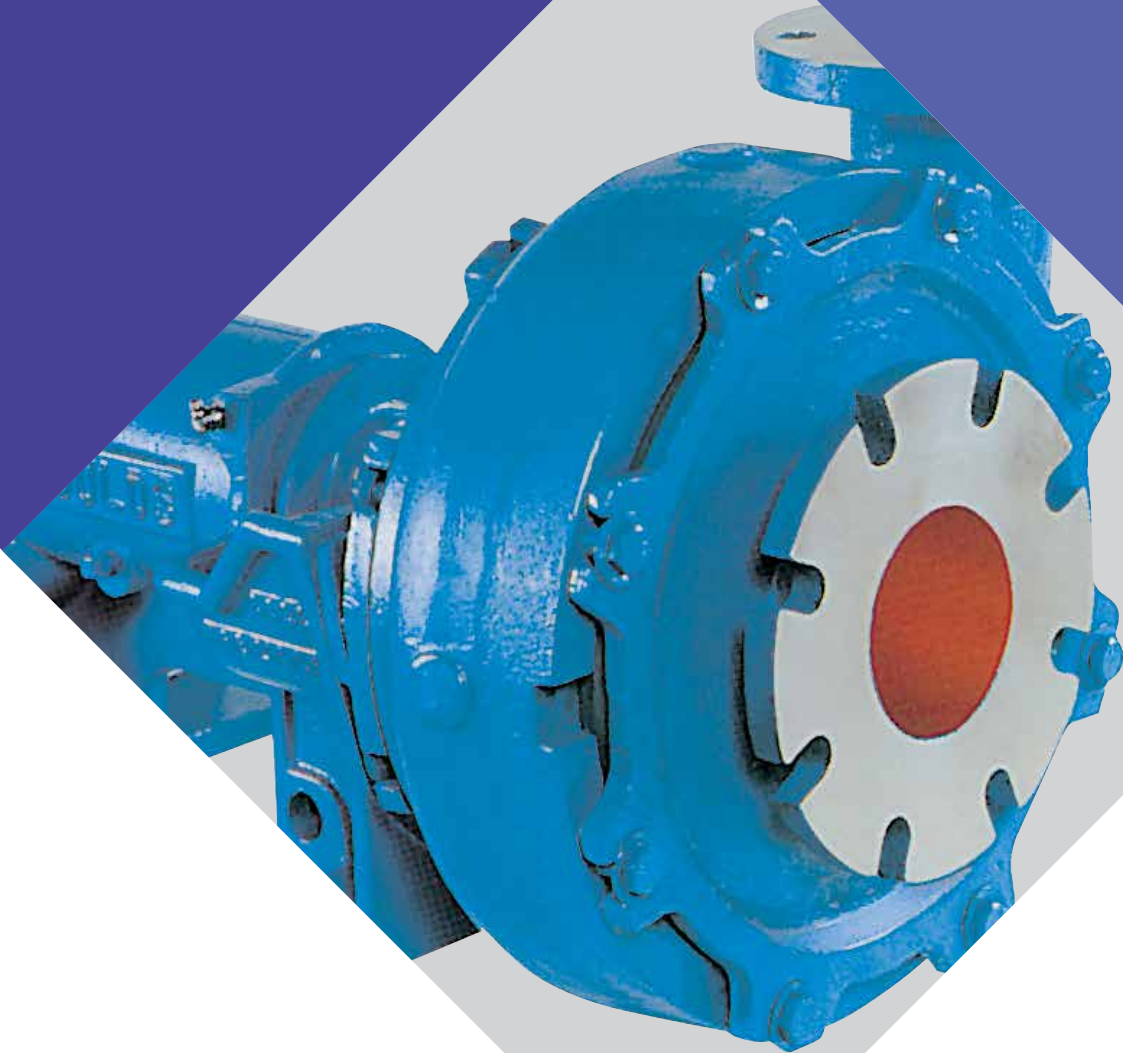




# Goulds Model JC

Slurry Pump



**ITT**

ENGINEERED FOR LIFE

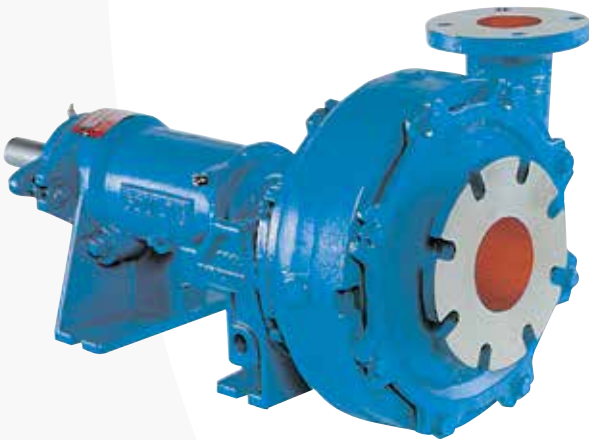
# JC

## Designed for Handling a Wide Range of Corrosive / Abrasive Slurries

- Capacities to 7,000 GPM (1,600 m<sup>3</sup>/h)
- Heads to 240 feet (73 m)
- Temperatures to 250° F (121° C)
- Pressures to 127 psig (876 kPa)
- Spherical solids to 2¼ inches (57 mm)

## Design Features

- Extra-Thick Wet End Components – For extended wear life.
- Replaceable Wear Liner – Low maintenance cost.
- Heavy-Duty Power End – Increased mean time between failures.
- External Impeller Adjustment – Maintains original efficiency; simple and fast.
- Maximum Parts Interchangeability – Entire line uses just five power ends.
- Sealing Flexibility – Choice of packing, mechanical seals or Dynamic Seal.



## Applications

- Wet scrubber systems
- Waste sludge
- Fracking slurries
- Paper mill wastes and liquors
- Clay and sand slurries
- Dirty water
- Kaolin clay
- Carbon slurry
- Lime mud
- Precipitated CaCO<sub>3</sub>



Thousands of installations attest to the remarkable versatility of the Model JC Slurry pump. Sixteen sizes are available in a wide range of materials and configurations, making the JC ideal for most medium-duty abrasive and / or corrosive slurry services. Plus, it's designed for extreme ease of maintenance and long hours of reliable operation.

# Designed for Long Life, Reliable Operation

## Pump End

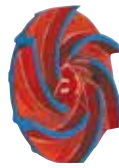
Wet-end components feature extra metal thickness for extended wear. Replaceable suction cover liner takes all wear on suction side of casing; simplifies maintenance. Efficient slurry design impeller for long life, optimum performance. Components are fully-machined for positive alignment.



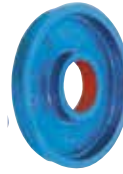
Stuffing Box Cover



Casing



Impeller



Suction Cover Liner

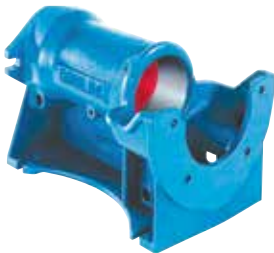


Suction Cover

## Power End

### HEAVY-DUTY BEARING FRAME

Rugged one-piece design with integral drip basin. Five frames accommodate sixteen pump sizes. Grease or oil lube.



### RUGGED SHAFT ASSEMBLY

Designed for continuous service under the most severe operating conditions. Shaft designed for minimum deflection at maximum loads.



### EXTERNAL IMPELLER ADJUSTMENT

Original performance easily maintained by adjustable jacking screws without disassembly of pump.



### REPLACEABLE SHAFT SLEEVE

Hook-type sleeve protects shaft from pumpage.



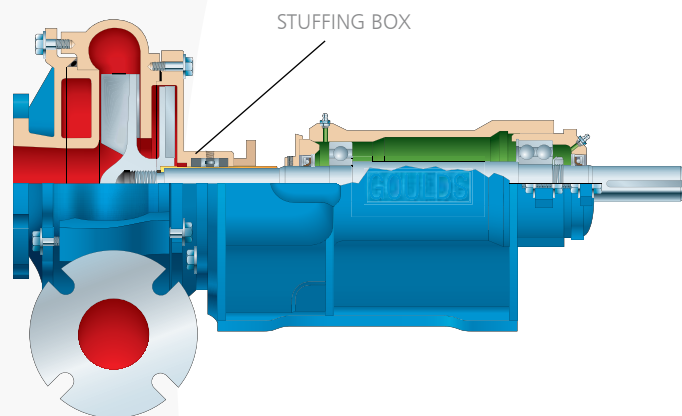
# Sealing Flexibility

## Dynamic Seal for Elimination of Mechanical Seal Problems; Reduced Maintenance

Goulds Dynamic Seal option is ideally suited to handle the tough applications where mechanical seals or packing require outside flush and constant/costly attention.

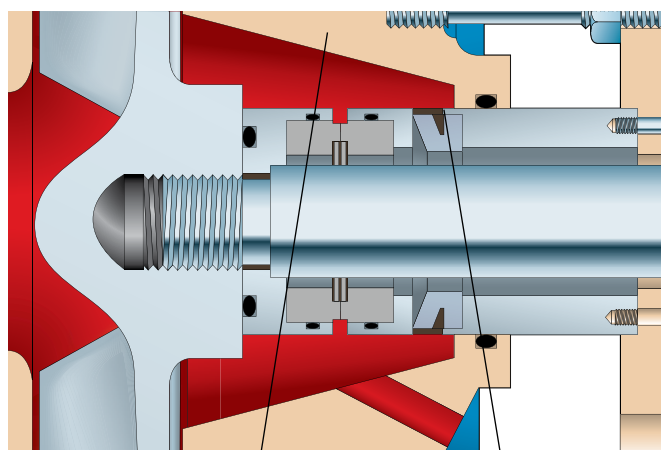
An expeller between the stuffing box cover and impeller pumps liquid from the stuffing box.

For most applications, external seal water is not required – eliminating leakage, pumpage contamination, product dilution and problems associated with piping from a remote source.



## Mechanical Seal

Goulds offers a variety of mechanical seals for applications flexibility including special slurry seals for tough services. In addition, a special enlarged seal chamber is offered for improved lubrication and cooling of the mechanical seal. The tapered throat keeps solids away from seal faces and from building up in the chamber. Seal life is remarkably extended.



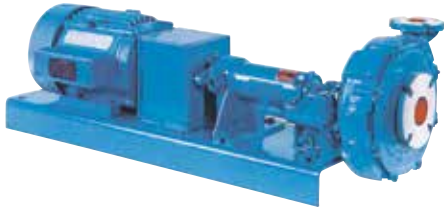
GOULDS TAPERBORE™  
SEAL CHAMBER

SLURRY  
MECHANICAL SEAL

## Application Flexibility

The Model JC is extremely versatile. A variety of drive arrangements can be supplied for application flexibility.

### DIRECT DRIVE UNIT



### OVERHEAD BELT DRIVE



Side-by-side also available

## For Sump Pumping Applications

When the Model JC's performance and features are required for sump services, you can choose either a Model JCU submersible or Model VJC cantilever for extended service in abrasive slurry applications.

### Model JCU Submersible Slurry Pump

- Capacities to 4,000 GPM (910 m<sup>3</sup>/h)
- Heads to 210 feet (65 m)
- Temperatures to 194° F (90° C)
- Solids to 2 inches (50 mm)

## Features

- Adjustable impeller clearance
- Permanently lubricated bearings
- Automatic reset thermostats
- Tandem mechanical seals
- Optional slide rail assembly

### Model VJC Vertical Cantilever Slurry Pump

- Capacities to 7,500 GPM (1,703 m<sup>3</sup>/h)
- Heads to 240 feet (73 m)
- Temperatures to 200° F (93° C)
- Pit depths to 11 feet (3.4 m)
- Solids to 2 1/4 inches (57 mm)

## Features

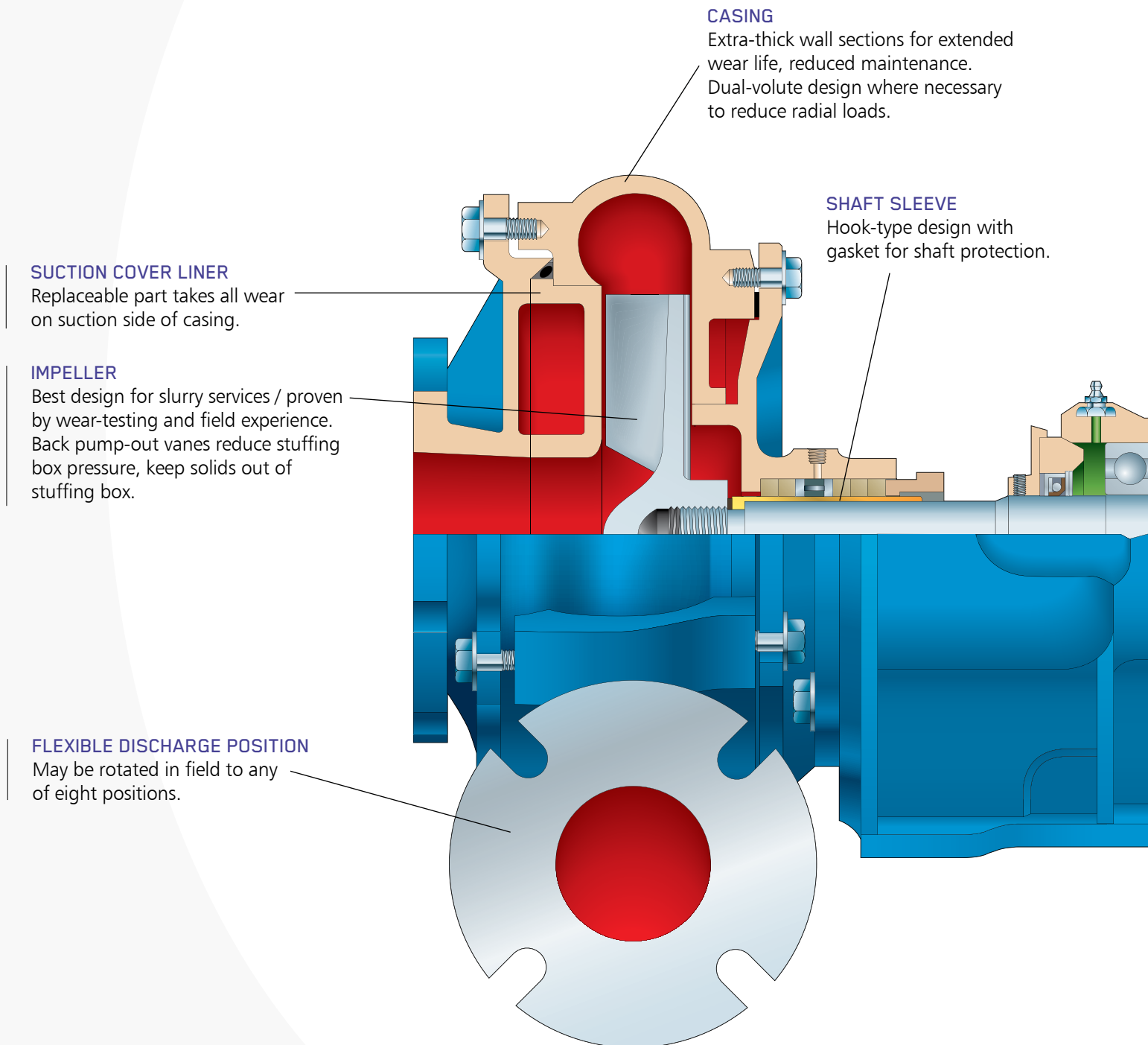
- Cantilever design
- External impeller adjustment
- Heavy-duty bearings
- Bottom suction
- Removable suction liner



Model JCU

# Model JC Medium-Duty Slurry Pump

Design Features for Wide-Range  
of Corrosive /Abrasive Services



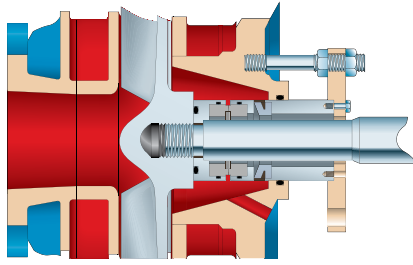
**CASING**  
Extra-thick wall sections for extended wear life, reduced maintenance. Dual-volute design where necessary to reduce radial loads.

**SHAFT SLEEVE**  
Hook-type design with gasket for shaft protection.

**SUCTION COVER LINER**  
Replaceable part takes all wear on suction side of casing.

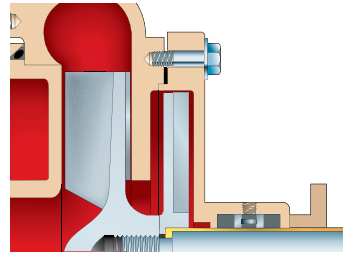
**IMPELLER**  
Best design for slurry services / proven by wear-testing and field experience. Back pump-out vanes reduce stuffing box pressure, keep solids out of stuffing box.

**FLEXIBLE DISCHARGE POSITION**  
May be rotated in field to any of eight positions.



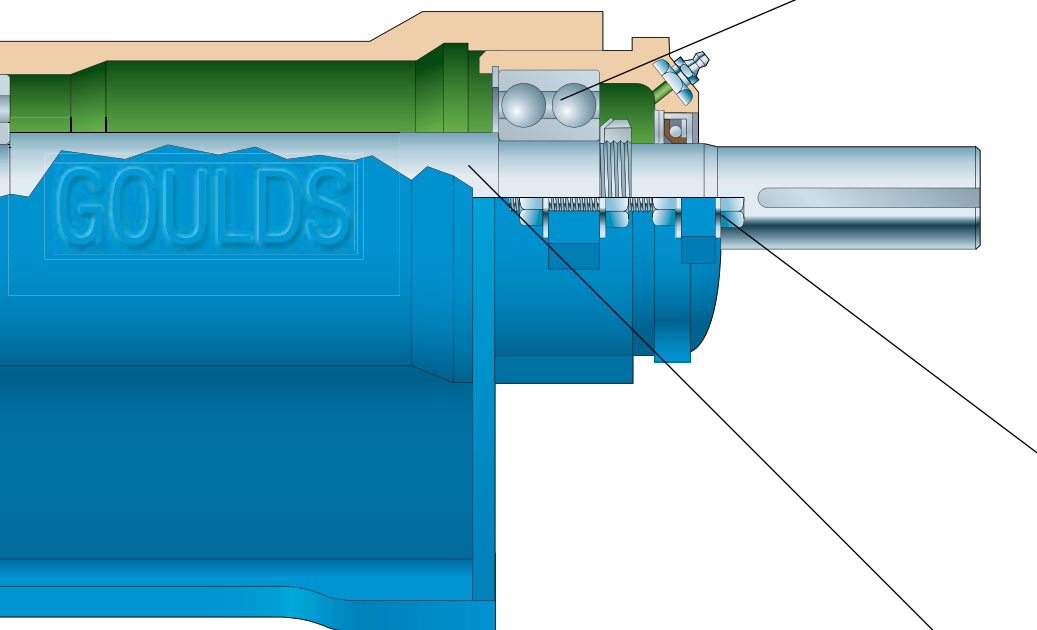
#### MECHANICAL SEAL

Expeller option for absolute dry box sealing. No outside flush required.



#### DYNAMIC SEAL

Expeller option for absolute dry box sealing. Often eliminates flush requirements.



#### BEARINGS

Radial and thrust bearings are sized for 3-year life (25,000 hours). Grease or oil lubrication.

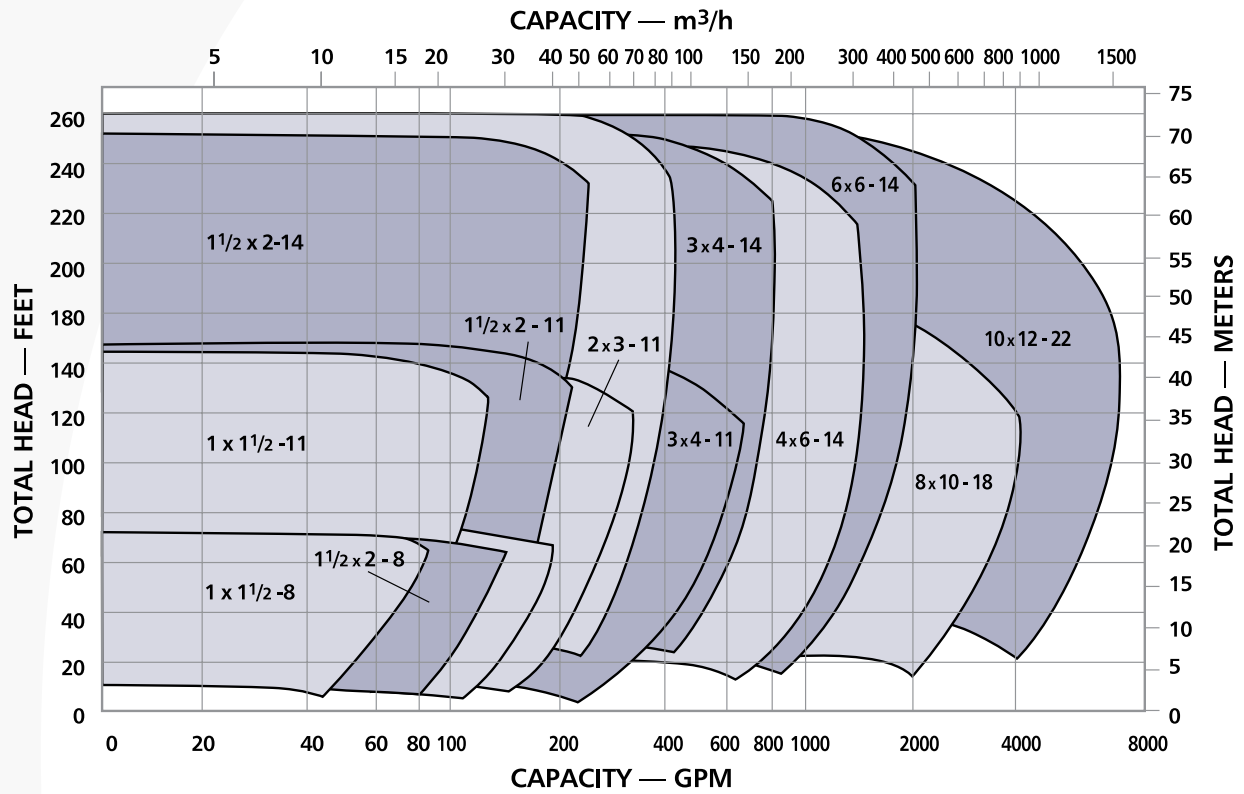
#### EXTERNAL IMPELLER ADJUSTMENT

Maintains maximum efficiency by simple adjustment.

#### HEAVY-DUTY SHAFT

Large diameters to handle high loads, reduce shaft deflection.

## Hydraulic Coverage



### Proven Performance

Goulds Model JC is used in many industries on the most demanding slurry pump applications. The versatility of the product combined with rugged design and ease of maintenance have satisfied thousands of users' requirements for a pump that has it all.





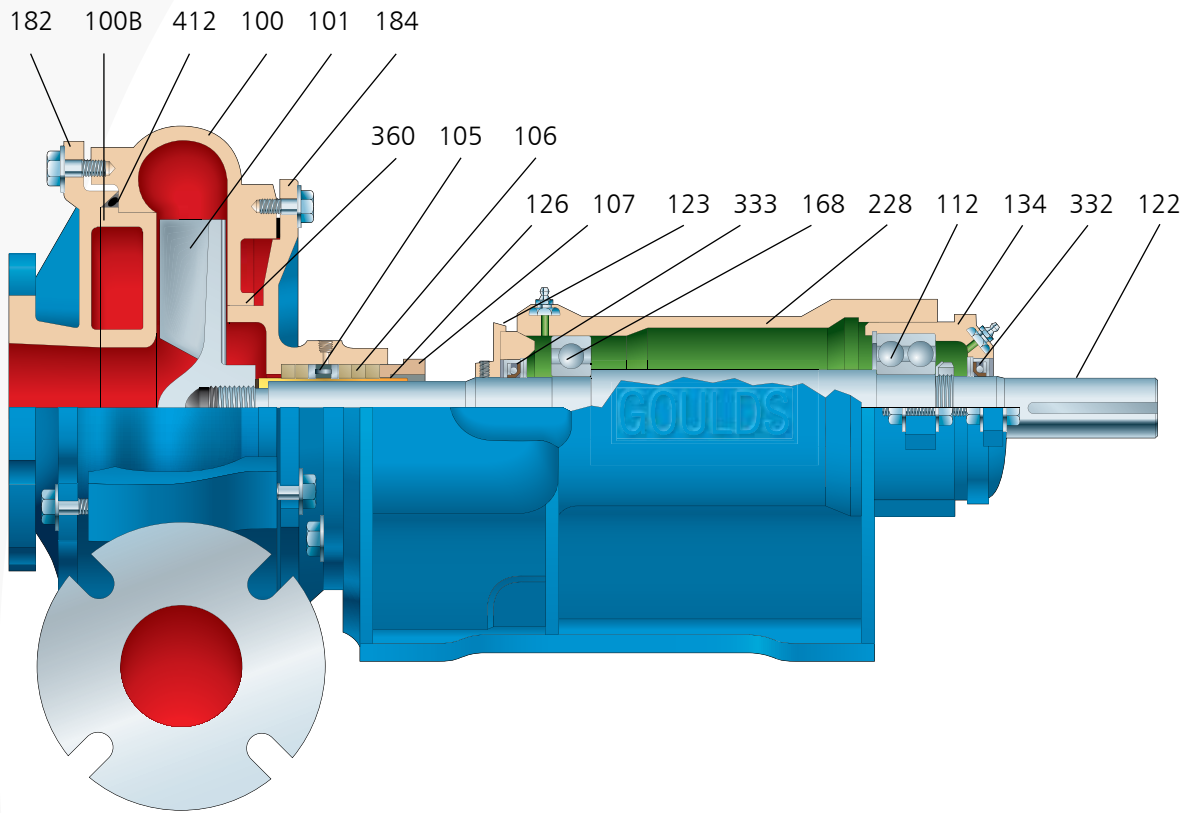
### Materials of Construction

Item Number	Description	Material			
		Cast Iron	HC600	316SS	CD4MCuN
100	Casing	Cast Iron	HC600	316SS	CD4MCuN
100B	Suction Cover Liner	Cast Iron	HC600	316SS	CD4MCuN
101	Impeller	Cast Iron	HC600	316SS	CD4MCuN
105	Lantern Ring	PTFE			
106	Packing	Graphitized Polymer Fiber			
107	Gland	316SS			
112	Thrust Bearing	Steel			
122	Shaft	Steel 1144			
123	Deflector	Cast Iron			
126	Shaft Sleeve	416SS		316SS	C-20
134	Bearing Housing	Cast Iron			
168	Radial Bearing	Steel			
182	Suction Cover	Cast Iron		316SS	CD4MCu
184	Stuffing Box Cover	Cast Iron		316SS	CD4MCu
184	Stuffing Box Cover (Expeller)	HC600		316SS	CD4MCu
184A	TaperBore Seal Chamber	Cast Iron		316SS	CD4MCu
332	Grease Seal (Outboard)	Buna-N			
333	Grease Seal (Inboard)	Buna-N			
228	Bearing Frame	Cast Iron			
262	Expeller	HC600		316SS	CD4MCu
353	Mechanical Seal	As Required			
412	O-ring, Suction Cover to Casing	Buna-N			

### Construction Details All dimensions in inches and (mm).

Pump Size	Frame	Pump						Stuffing Box							
		Max. Casing Thickness	Max. Solids Size	Working Pressure Cast Iron	Working Pressure HC600 & 316SS	Max. HP (kW)	Shaft Dia. at Coupling	Bore	Depth	Sleeve OD	Shaft Dia. under Seal	Packing Size	No. of Rings	Seal Water Req'd	
1 × 1½ - 8	1J	.375 (10)	.5 (12)	110 PSIG (758 kPa)	127 PSIG (876 kPa)	25 (19)	1.375 (35)	2.625 (67)	2.938 (75)	1.875 (48)	1.437 (37)	3/8 (9.5)	5	.5 GPH	
1 × 1½ - 11			.75 (19)												
1½ × 2 - 8			.56 (15)												.875 (22)
1½ × 2 - 11															
2 × 3 - 8															
2 × 3 - 11	2J	.375 (10)	.75 (19)			60 (45)	1.625 (41)	2.94 (75)	2.938 (75)	2.125 (54)	1.75 (45)	3/8 (9.5)	5	.5 GPH	
2 × 3 - 14		.56 (15)	.875 (22)												
3 × 4 - 11		.62 (16)	1.125 (28)												
3 × 4 - 14	3J		1.38 (35)												
4 × 6 - 14			1.5 (38)												
6 × 6 - 14 (LS)	4J	.75 (19)	.62 (16)	200 (150)	2.625 (67)	4.375 (111)	3.75 (95)	3.375 (86)	2.875 (75)	½ (13)	5	1 GPH			
6 × 6 - 14 (HS)			2.25 (57)												
3 × 6 - 18															
8 × 10 - 18	5J	.75 (19)	2.25 (57)	400 (300)	300 (76)	5.375 (137)	4.5 (245)	4.125 (105)	3.44 (88)	5/8 (16)	5	1.5 GPH			
10 × 12 - 22															

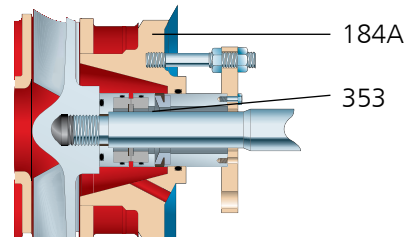
# Sectional View



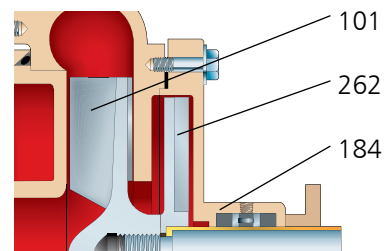
## Materials of Construction

Description	Specification
Cast Iron	ASTM A48
HC600	ASTM A532-Class A Hardened
316SS	AISI 316 or ASTM A743 CF8M
416SS	AISI 416

Description	Specification
CD4MCuN	ASTM A743 CD4MCuN
C-20	ASTM A296 CN7N
Polymer	Graphitized Polyer Fiber
PTFE	Glass-filled PTFE

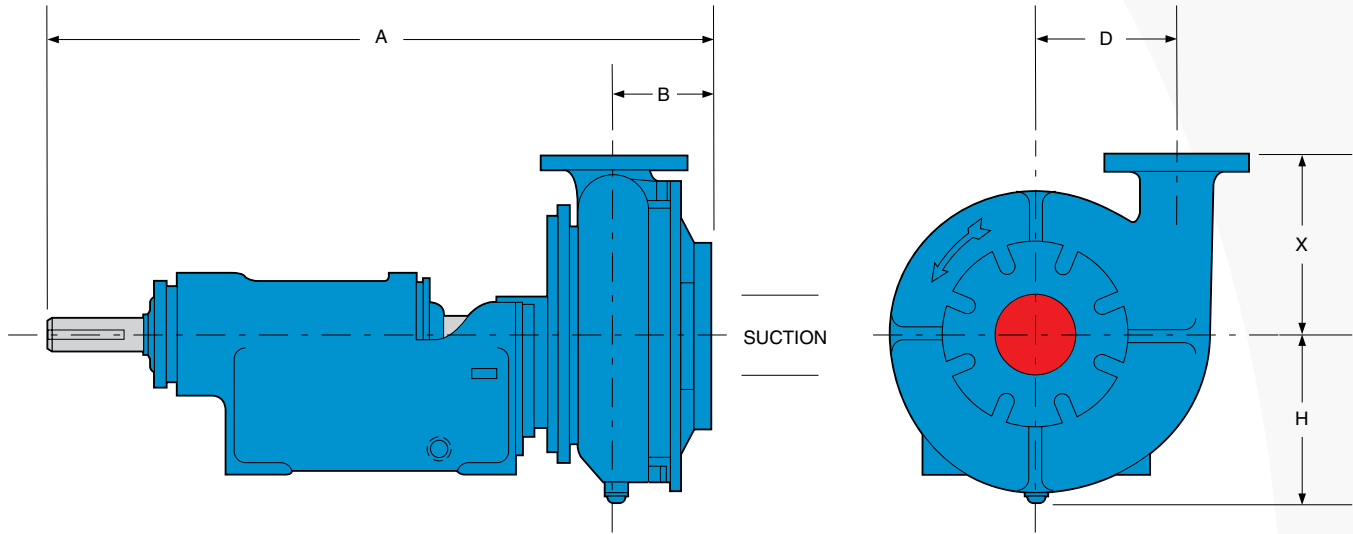


Mechanical Seal with TaperBore™ PLUS Seal Chamber



Dynamic Seal

# Dimensions

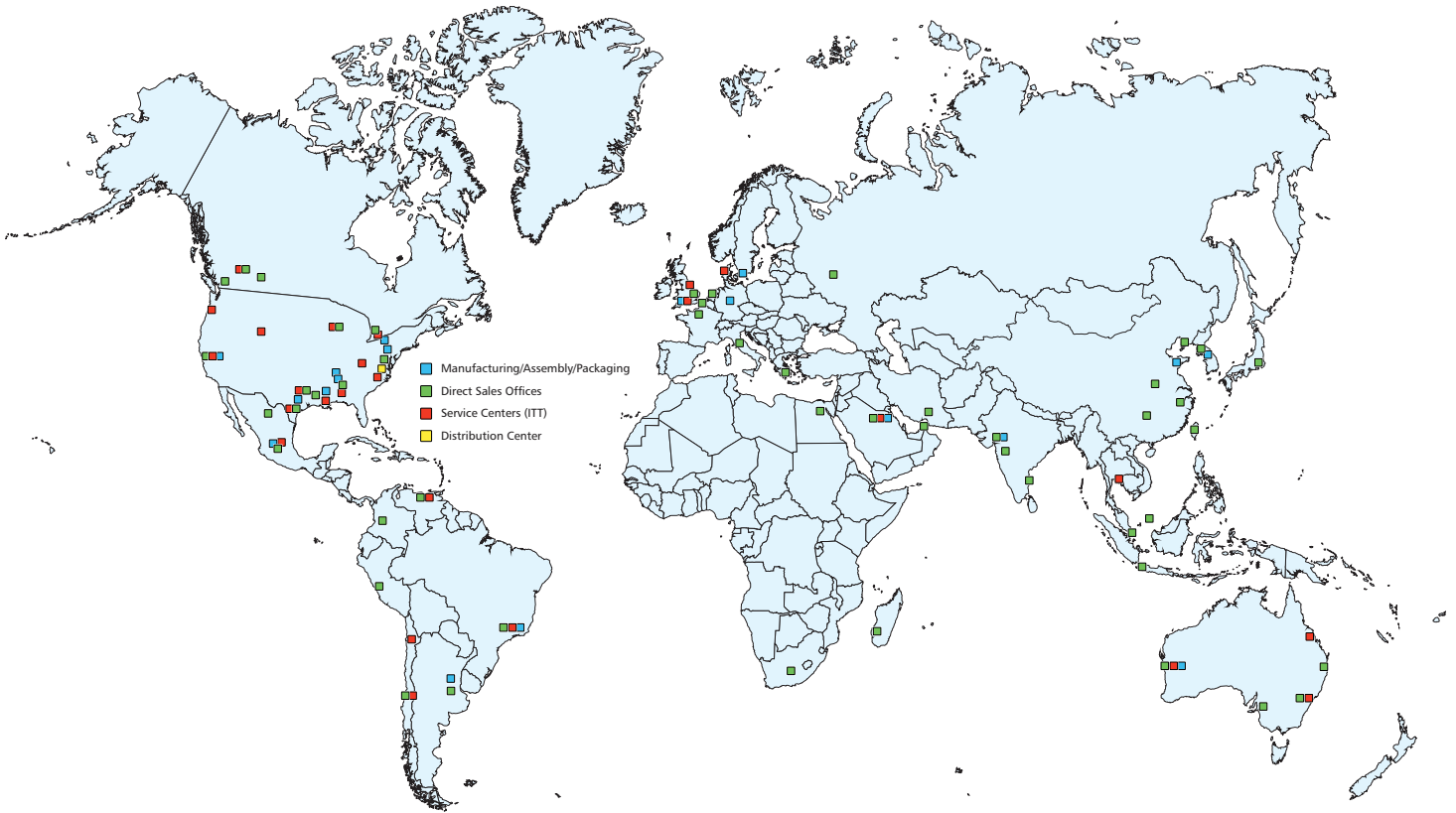


DIMENSIONS							
Pump Size	Frame	A	B	D	H	X	Lbs./ (kg)
1 x 1½ - 8		31.00 (787)	3.00 (76)	4.44 (113)	5.75 (146)	6.25 (159)	190 (87)
1 x 1½ - 11		31.00 (787)	3.00 (76)	5.88 (149)	6.25 (159)	7.00 (178)	220 (100)
1½ x 2 - 8	1J	31.50 (800)	3.50 (89)	5.00 (127)	6.38 (162)	6.50 (165)	195 (89)
1½ x 2 - 11		31.50 (800)	3.50 (89)	6.44 (164)	7.88 (200)	7.50 (191)	230 (105)
2 x 3 - 8		32.00 (813)	4.00 (102)	5.13 (130)	6.75 (171)	6.88 (175)	205 (94)
2 x 3 - 11		32.00 (813)	4.00 (102)	6.56 (167)	8.75 (222)	8.00 (203)	245 (112)
1½ x 2 - 14		31.50 (800)	3.50 (89)	7.88 (200)	9.38 (238)	8.25 (210)	315 (144)
2 x 3 - 14	2J	32.00 (813)	4.00 (102)	8.06 (205)	8.25 (210)	9.00 (229)	330 (150)
3 x 4 - 11		32.75 (832)	4.75 (121)	6.88 (175)	9.12 (232)	8.63 (219)	300 (137)
3 x 4 - 14		36.75 (933)	4.75 (121)	8.38 (213)	10.62 (270)	9.25 (235)	440 (200)
4 x 6 - 14	3J	37.25 (946)	5.25 (133)	9.13 (232)	11.62 (295)	10.50 (267)	475 (216)
6 x 6 - 14 (LS)		38.38 (975)	5.63 (143)	9.50 (241)	13.62 (346)	12.50 (318)	590 (269)
3 x 6 - 18		42.26 (1073)	6.00 (152)	11.50 (292)	12.19 (310)	12.00 (305)	805 (366)
6 x 6 - 14 (HS)	4J	42.12 (1070)	5.63 (143)	9.50 (241)	13.62 (346)	12.50 (318)	710 (323)
8 x 10 - 18		46.38 (1178)	9.63 (245)	13.00 (330)	18.00 (457)	16.50 (419)	1020 (464)
10 x 12 - 22	5J	50.62 (1286)	9.63 (245)	17.00 (432)	21.88 (556)	20.00 (508)	1800 (819)

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

Visit our website at  
www.gouldspumps.com

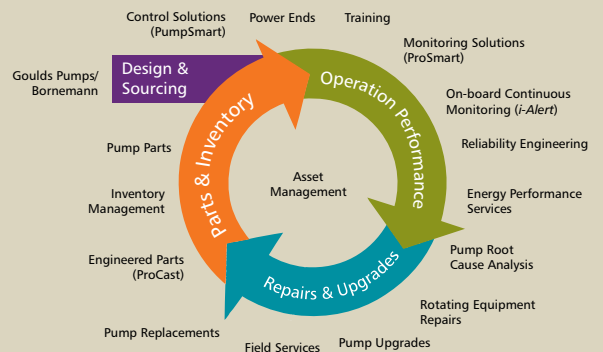
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