

## Goulds 3355 Multistage Process Pumps





avrora-arm.ru +7 (495) 956-62-18

Engineered for life

# Multiple nozzle orientations to fit your piping configurations.



Radial Suction Configuration. Radial nozzles are rotatable at 90° increments.



End Suction Configuration. Optional Inducer is available for low NPSH applications.

### **Goulds Model 3355** Multiotoge Pumpe

### Multistage Pumps Designed for a Wide Range of High Pressure Services

- Capacities to 1500 GPM (340 m<sup>3</sup>/hr)
  Heads to 1640 feet (500 m)
  Temperatures to 280° F (140° C)
  Pressures to 800 psig (55 bar)
- Performance Features for High Pressure Services Improved Reliability
- Heavy duty bearing design
- No external balance lines
- Internal seal flushing
- Metal to metal casing fits

### **Ease of Maintenance**

- Modular design
- Off-the-shelf components
- Fully interchangeable stages
- No balancing drum/disc
- Fewer parts than traditional designs
- Metal fits guarantee alignment
- No flush/bypass lines
- Easily retrofitted

### Safety

- ANSI B15.1 Coupling Guard
- Fully confined stage o-rings
- Internal flushing & balance
- Raised face flanges

## **Services**

Boiler Feed Condensate Return Deaeration Reverse Osmosis Shower/Spray Service Mine De-watering Cleaning Systems Seal Water Booster Product Transfer Reactor Feed Pressure Boosting

## Hydraulic Coverage 60 Hz/3600 rpm



# Hydraulic Coverage 50 Hz/3000 rpm



# **Rugged Design Features for Wide Range of Services**

#### DIFFUSERS

Eliminates radial loads to assure long bearing life.

ANGULAR CONTACT, DOUBLE-ROW **THRUST BEARINGS** Can carry a thrust load in either direction.

#### **INTERNAL BALANCING** Eliminates the need for balance lines

outside the pump.

WEAR RINGS Optional case wear rings available.

SHAFT Standard material is 12-13% Chrome for improved shaft strengths and corrosion resistance.

An optional inducer is available

for low NPSH applications.

on the End Suction configuration

**KEYED IMPELLERS** Offset keys ensure rotational shaft balance.



#### **FEWER PARTS**

The 3355 uses fewer parts than traditional multistage pumps with balancing devices which means less inventory and increased maintenance ease.





End Suction configuration.

#### PRODUCT LUBRICATED BEARINGS (ES Configuration)

Frontal sleeve bearing is located behind first stage the impeller for improved performance and reliability.

#### **HIGH STRENGTH TIE RODS**

Bolting machined to SAE standards for easy maintenance using high tensile strength steel.

#### **INTERSTAGE CASING FITS**

Metal fits ensure proper alignment of the stages at any temperature. No deflection due to o-ring-fits.

#### SEAL CHAMBER

Taper Bore design eliminates the worry associated with venting. Improved flow to the seal helps extend seal life.

#### **INTERNAL SEAL FLUSHING**

Special internal channels ensure the seal always has sufficient flushing fluid.

#### MULTIPLE HYDRAULICS

Two impeller/diffuser combinations per size maximizes efficiency at all conditions of service.

#### **DEEP-GROOVE BALL BEARINGS**

Are unconstrained to accommodate thermal expansion.

## **Sectional View Model 3355**



### **Parts List and Materials of Construction**

ltem		Material									
Number	Part Name	Cast Iron	CI/SS Fitted	All Stainless Steel							
100F	Casing (Suction)	Ductile Iron (1)	Ductile Iron (1)	Stainless Steel (3)							
100D	Casing (Discharge)	Ductile Iron (2)	Ductile Iron (2)	Stainless Steel							
101	Impeller	Cast Iron	Stainless Steel	Stainless Steel (4)							
150/150L	Diffuser	Cast Iron	Cast Iron	Stainless Steel							
103	Case Wear Ring (Optional)	Stainless Steel	Stainless Steel	Stainless Steel							
228C	Bearing Bracket	Cast Iron	Cast Iron	Cast Iron							
119	Bearing Cover	Cast Iron	Cast Iron	Cast Iron							
184	Seal Cover	Cast Iron	Cast Iron	Stainless Steel							
197A	Bearing - Bushing (5)	Bronze	Bronze	Bronze							
122	Shaft	12% Chrome	12% Chrome	Duplex St. St.							
104/126	Sleeve	12% Chrome	12% Chrome	Duplex St. St.							
356S	Tie Rod	Carbon Steel	Carbon Steel	Carbon Steel							
136A	Bearing Nut	Carbon Steel	Carbon Steel	Carbon Steel							
100G	Stage Casing	Cast Iron	Cast Iron	Stainless Steel							
157	Spacer Sleeve	Stainless Steel	Stainless Steel	Stainless Steel							
248	Thrower	Rubber	Rubber	Rubber							
358	Drain Plug	Carbon Steel	Carbon Steel	Stainless Steel							
252	Throttling Element	316 Ti									
193B	Grease Nipple		Carbon Steel								
383/383S	Mech Seal	depends on seal configuration									
409	Radial Ball Bearing	Steel	Steel	Steel							
112	Radial Ball Bearing	Steel	Steel	Steel							
357F	Nut	Carbon Steel									
425	Nut	Carbon Steel									
412K	O-Ring - all	EPDM	EPDM	EPDM							
178	Key - all	12% Chrome Duplex Stainless Ster									
356A	Stud	Carbon Steel									
445E	Pin	316 SS									
397A	Disc Spacer	Carbon Steel									
492Q	Plug	Carbon Steel									
437A	Washer - all	Carbon Steel									

Standard flange rating is 150#RF for radial suction and 150#RF for end suction. End suction casing is cast iron material.
 Standard flange rating is 300#RF. Casing material is stainless steel with optional 600#RF flange.
 Standard flange rating is 300#RF for radial suction and 150#RF for end suction.

(4) Standard flange rating is 600#RF.

(5) Only on end suction configuration.

## **Dimensions** Model 3355

**Radial Suction** 

#### **End Suction**



DIMENSIONS												
Pump Size	NPSI	NPS2	А	W	D	x						
1.5x2.5-7	1.5	2.5	9.06	11.02	5.51	7.09						
2.5x4-8	2.5	4	9.84	12.40	6.30	8.27						
4x5-10	4	5	13.38	14.58	8.27	9.84						
5x6-11	5	6	15.75	17.72	9.84	11.81						

Pump Size		NUMBER OF STAGES														
		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1.5x2.5-7	М	5.71	7.87	10.04	12.20	14.37	16.54	18.70	20.87	23.03	25.20	27.36	29.53	31.69	33.86	36.02
	СР	24.72	26.88	29.05	31.21	33.38	35.55	37.71	39.88	42.04	44.21	46.37	48.54	50.70	52.87	55.03
	Y	9.44	11.61	13.78	15.94	18.11	20.28	22.44	24.60	26.77	28.94	31.10	33.27	35.43	37.60	39.77
	М	7.09	9,84	12.60	15.35	18.11	20.87	23.62	26.38	29.13	31.88	34.65	37.40			
2.5x4-8	СР	28.54	31.29	34.05	36.80	39.56	42.32	45.07	47.83	50.58	53.33	56.10	58.85			
	Y	11.02	13.78	16.54	19.29	22.05	24.80	27.56	30.31	33.07	35.83	38.58	41.33			
	М	10.03	13.39	16.73	20.08	23.43	26.77	30.12	33.47							
4x5-10	СР	35.26	38.62	41.96	45.31	48.66	52.00	55.35	58.70							
	Y	15.75	19.09	22.44	25.79	29.13	32.48	35.83	39.18							
	М	12.40	16.54	20.67	24.80	28.94	33.07									
5x6-11	СР	43.31	47.45	51.58	55.71	59.85	63.98									
	Y	18.90	23.03	27.17	31.30	35.43	39.57									

\*Note: Add 0.79" to "Y" dim for size 2.5x4-8 with inducer design.

### **Other Goulds Multistage Pumps** Goulds offers multistage pumps for various services covering a wide range of capacities and heads

#### 3600

- Capacities to 2,600 GPM (590 m<sup>3</sup>/h)
- Heads to 5,500 feet TDH (1675 m)
- Temperatures to 400° F (205° C)
- Working Press to 2,500 PSI (172 bar)





#### 3311

- Capacities to 1,100 GPM (250 m<sup>3</sup>/h)
- Heads to 5,250 feet TDH (1600 m)
- Temperatures to 350° F (180° C)
- Working Press to 2,320 PSI (160 bar)

#### 3316

- Capacities to 3,000 GPM (681 m<sup>3</sup>/h)
- Heads to 1,000 feet TDH (630 m)
- Temperatures to 350° F (180° C)
- Working Press to 550 PSI (38 bar)