

# Goulds 3355

Multistage Process Pump



# 3355

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

- Capacities to 1,500 GPM (340 m<sup>3</sup>/hr)
- Heads to 1,640 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

## Applications

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

## Multiple nozzle orientations to fit your piping configurations.



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



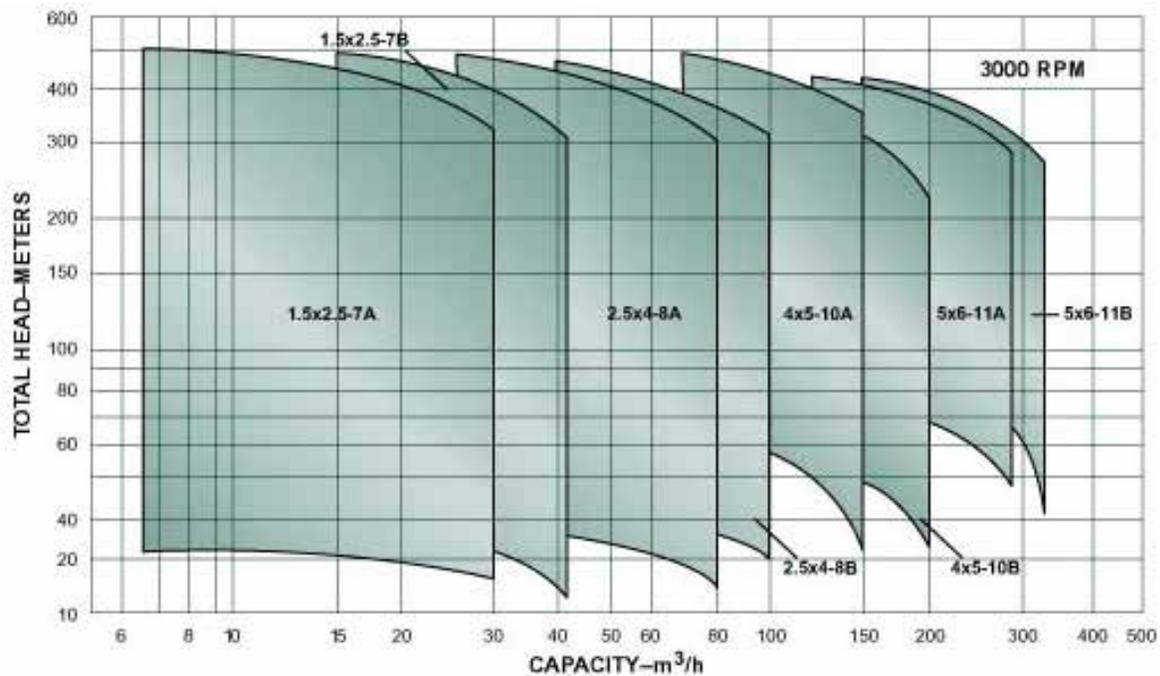
End Suction Configuration. Optional Inducer is available for low NPSH applications.

# Hydraulic Coverage

60 Hz / 3600 rpm



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

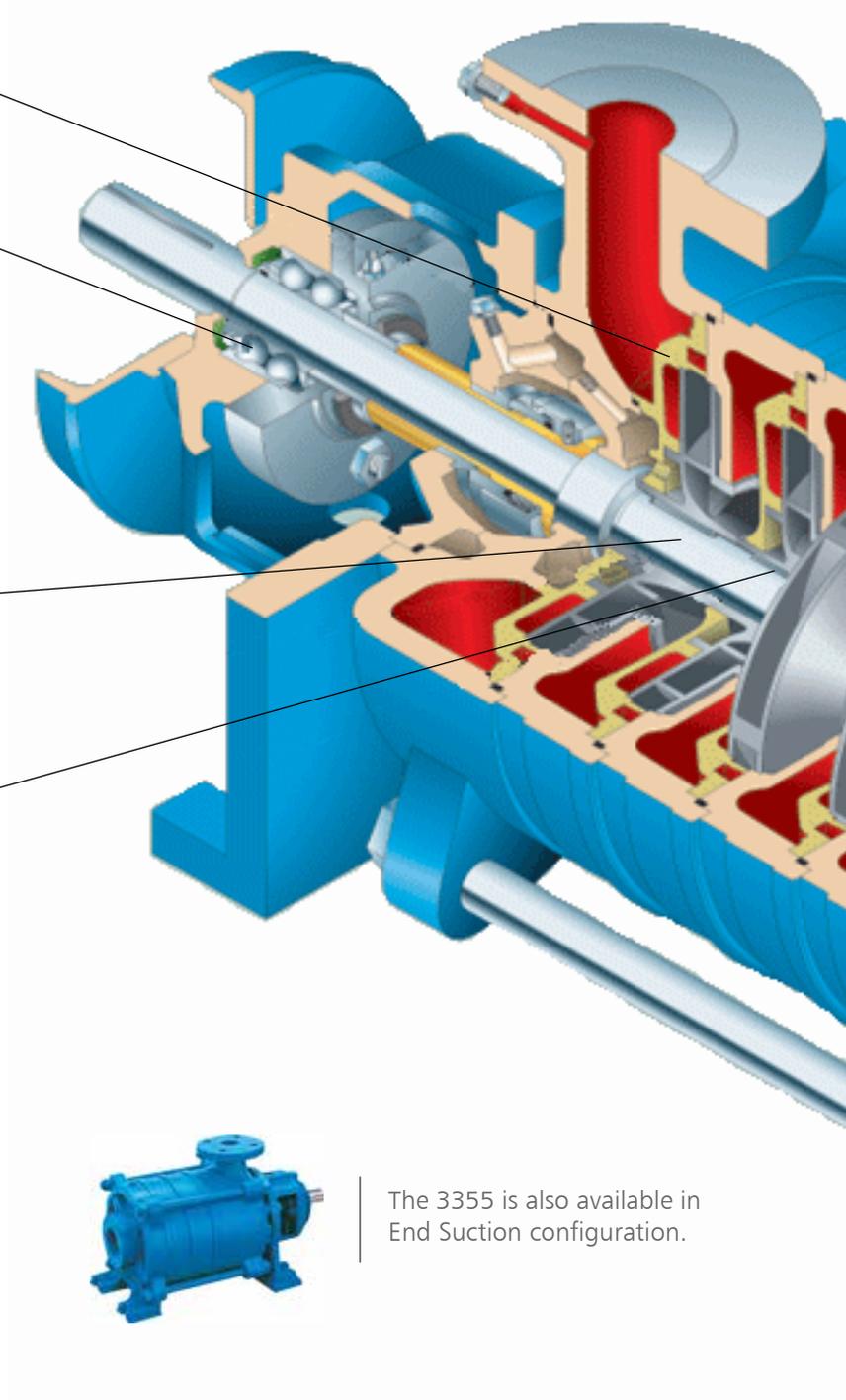
Optional case wear rings available

## SHAFT

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

## KEYED IMPELLERS

Offset keys ensure rotational shaft balance.



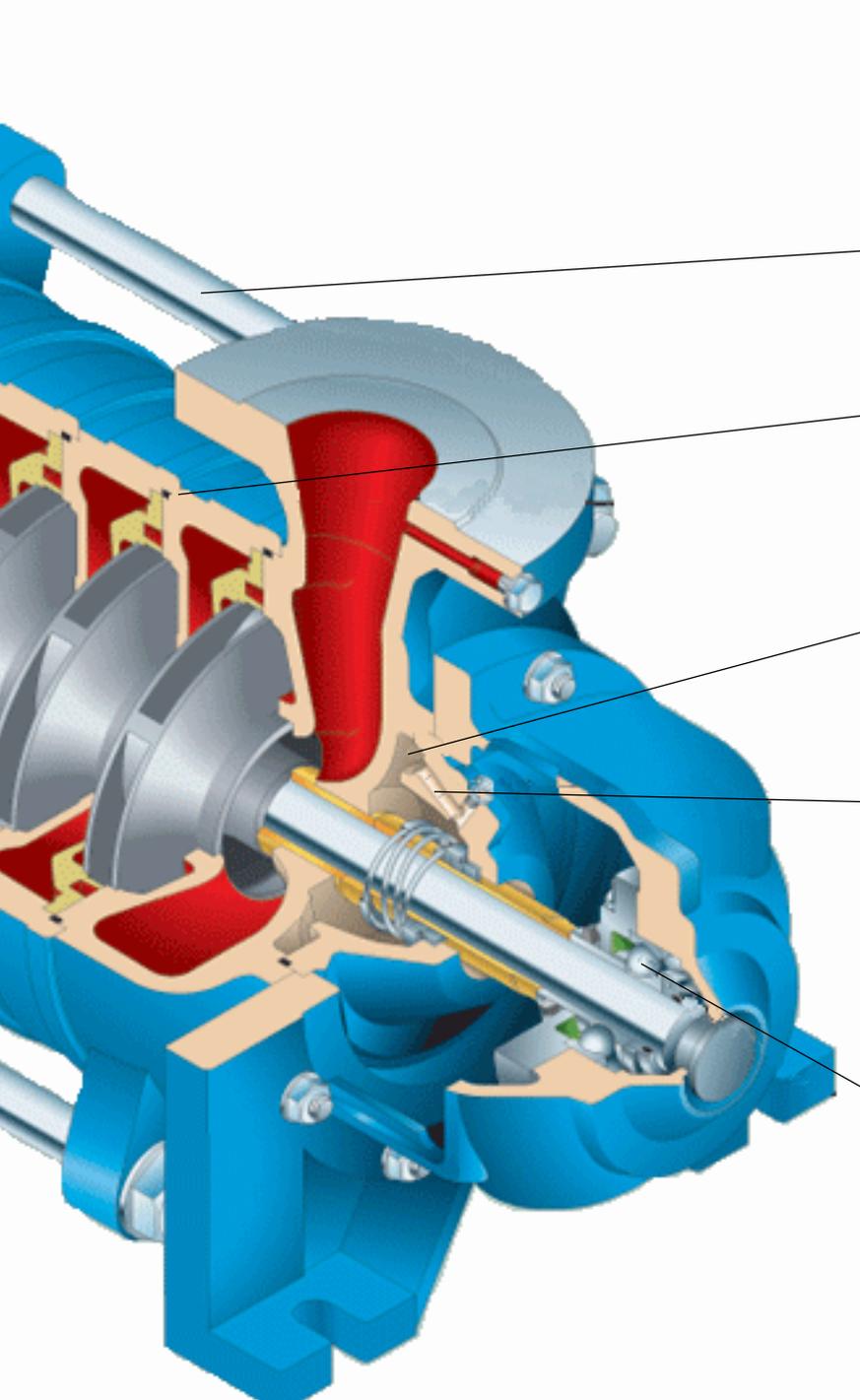
As optional inducer is available on the End Suction configuration for low NPSH applications.



The 3355 is also available in End Suction configuration.

### FEWER PARTS

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



### PRODUCT LUBRICATED BEARINGS (ES Configuration)

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

### HIGH STRENGTH TIE RODS

Bolting machined to SAE standards using high tensile strength steel, resulting in easy maintenance.

### 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.

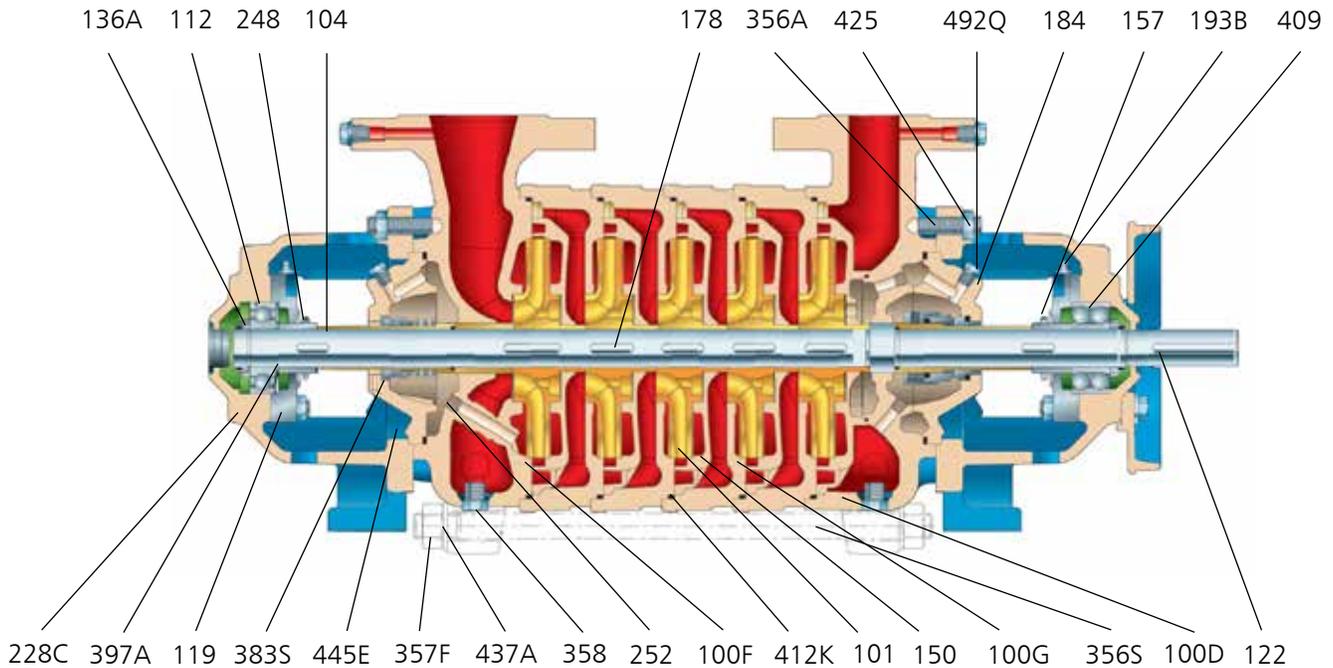
### MULTIPLE HYDRAULICS

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

### DEEP-GROOVE BALL BEARINGS

Are unconstrained to accommodate thermal expansion.

# Other Features for Application Flexibility



## Parts List and Materials of Construction

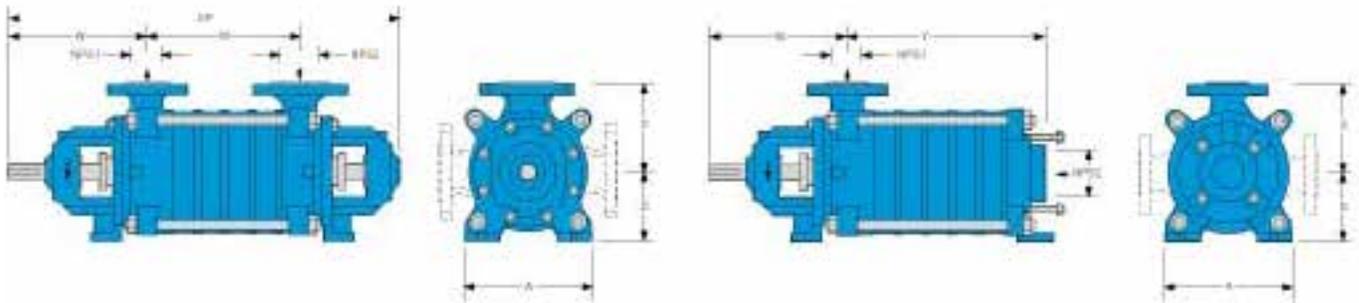
| Item Number | Part Name                 | Material         |                               |                        |
|-------------|---------------------------|------------------|-------------------------------|------------------------|
|             |                           | Cast Iron        | 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 Steel |
| 356A        | Stud                      |                  | Carbon Steel                  |                        |
| 445E        | Pin                       |                  | 316 SS                        |                        |
| 397A        | Disc Spacer               |                  | Carbon Steel                  |                        |
| 492Q        | Plug                      |                  | Carbon Steel                  |                        |
| 437A        | Washer - all              |                  | Carbon Steel                  |                        |

(1) Standard flange rating is 150#RF for radial suction and 150#RF for end suction. End suction casing is cast iron material.  
 (2) Standard flange rating is 300#RF. Casing material is stainless steel with optional 600#RF flange.  
 (3) 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

## Radial Suction

## End Suction



## Dimensions

| Pump Size | NPS1 | NPS2 | A     | 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    | 13.36 | 14.58 | 8.27 | 9.84  |
| 5x6-11    | 5    | 6    | 16.75 | 17.72 | 9.84 | 11.81 |

## Number of Stages

| Pump Size |    | 2         | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    |
|-----------|----|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|           |    | 1.5x2.5-7 | M     | 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 |
|           | CP | 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 |
| 2.5x4-8   | M  | 7.09      | 9.94  | 12.60 | 15.35 | 18.11 | 20.87 | 23.62 | 26.38 | 29.13 | 31.88 | 34.65 | 37.40 |       |       |       |
|           | CP | 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 |       |       |       |
| 4x5-10    | M  | 10.03     | 13.39 | 16.75 | 20.08 | 23.43 | 26.77 | 30.12 | 33.47 |       |       |       |       |       |       |       |
|           | CP | 35.26     | 38.62 | 41.98 | 45.34 | 48.69 | 52.05 | 55.40 | 58.75 |       |       |       |       |       |       |       |
|           | Y  | 15.75     | 19.09 | 22.44 | 25.79 | 29.13 | 32.48 | 35.83 | 39.18 |       |       |       |       |       |       |       |
| 5x6-11    | M  | 12.40     | 16.54 | 20.67 | 24.80 | 28.94 | 33.07 |       |       |       |       |       |       |       |       |       |
|           | CP | 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.

# Locations



For more information Please Visit:  
[www.gouldspumps.com](http://www.gouldspumps.com) | [www.ittproservices.com](http://www.ittproservices.com)



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