



CIRCULATOR

In-Line Circulators / Series S & H

Standard Three-Piece Design



APPLICATIONS:

- Hydronic Heating and Cooling
- Domestic Water Systems
- Multi-Stage Zoning
- General Industrial Service

Body

Radially-split body can be left in the line while servicing the pump, eliminating needless disconnecting of pipes.

Oversized Shaft

ARMSTRONG circulating pumps have over-sized shafts of special alloy steel, machined to exacting tolerances. Shafts have integral thrust collars, heat treated to provide long life under severe duty conditions.

Centrifugal Impeller

Balanced impeller of centrifugal design ensures maximum water delivery.

Positive Mechanical Seal

A tried and proven method of preventing water leakage, the well-known "ARMSEAL" construction is an often imitated feature of the ARMSTRONG circulator. Made of long-lasting, hard-wearing materials, it ensures many years of noise-free, trouble-free service.

Modular Construction

Models S-25 through S-57 and H-32 through H-54 feature the unique ARMSTRONG shaft and bearing module which fits all of these models for ease of serviceability and reduced inventory costs.

Materials of Construction

Part Name	Iron Body Pump	Bronze Body Pump
	Bronze-Fitted Construction	
Volute	Cast Iron	Bronze
Impeller	S-25 to S-57	Non-Ferrous
	H-32 to H-54	Non-Ferrous
	S-69	Brass-Stamped
	H-63 to H-68	Cast Bronze
Shaft	Alloy Steel-Copper Sleeve	Alloy Steel-Copper Sleeve
Mechanical Seal Assembly	Carbon Brass Trim-Ceramic Seat	

Wet Rotor Circulator / Astro Series



TECHNICAL DATA

Flow Range: 0 to 20 USgpm (0 to 1.26 lps)
 Head Range: 0 to 24 Feet (0 to 7.3m)
 Motor: 115V, 1 PH, 60Hz
 Maximum Fluid Temperature-Open Systems: 140°F (60°C)
 Maximum Fluid Temperature-Closed Systems: 230°F (110°C)
 Maximum Working Pressure-150 psi (1000 kPa)

MATERIALS OF CONSTRUCTION

Pump Body: Cast iron (closed systems), Bronze (open systems)
 Impeller: Polypropylene (Glass Filled)
 Shaft: Stainless Steel
 Bearings: Graphite
 Gasket Material: EPDM

DIMENSIONS AND WEIGHTS

Cast Iron	Connection Type & Size
Astro30	Flange-(2) 1/2" Dia. Bolt Holes
Astro50	Flange-(2) 1/2" Dia. Bolt Holes

DIMENSIONS AND WEIGHTS

Bronze	Connection Type & Size
Astro20B1/2S	Sweat-1/2"
Astro25B1/2S	Sweat-1/2"
Astro20B3/4S	Sweat-3/4"
Astro25B3/4S	Sweat-3/4"
Astro20BU	Union-1-1/4" NPSM
Astro25BU	Union-1-1/4" NPSM
Astro30B	Flange-(2) 1/2" Dia. Bolt Holes
Astro50B	Flange-(2) 1/2" Dia. Bolt Holes



EXCHANGES, TANKS AND ASSEMBLIES

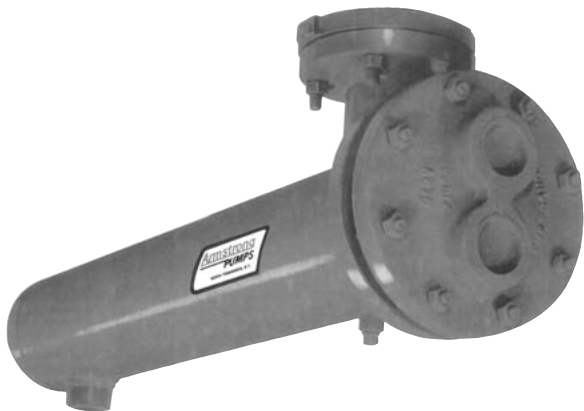
U-Tube Heat Exchangers

Series WS (Water to Steam)

Series W (Water to Water)

FEATURES:

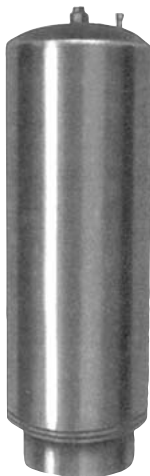
- Steel shells
- Heavy-duty "U"-bend copper tubes
- 2- and 4-Pass construction
- Constructed in accordance with ASME Code Section VIII, Div. 1
- 4" to 36" diameter in varying lengths
- "WS"—water in tubes, steam in shell
- "W"—fluid in tubes and shell



Expansion Tanks

Series AX and L

Pre-Charged ASME Diaphragm and Bladder type tanks separate air and water for space savings and improved system operation.



Seal Bearing Assemblies

The **Armstrong** Universal seal bearing assembly design incorporates an interchangeable pump shaft bearing module. With as few as five types of seal bearing assemblies on hand, more than 100 different Armstrong and B&G pump models can be converted to this new module program during routine maintenance. Once the conversion is made, future maintenance will normally require replacement of the pump shaft bearing module only. Since all seal bearing assemblies accept the same module, extensive and costly parts inventories are not required.

The **Armstrong** Universal Seal/Bearing Conversion Assembly is available in a single material of construction replacing standard, bronze-fitted or all bronze construction. It features a positive mechanical seal in the well-known "ARMSEAL" construction... a tried and proven method of preventing water leakage. Made of long-lasting, hard-wearing materials, it ensures many years of noise-free, trouble-free, service. A dependable, quiet-operating, oil-lubricated sleeve bearing that features a superior oiling design offering long-life operation. The shaft module has an alloy steel shaft with copper sleeve and positive oil O-ring seals.

