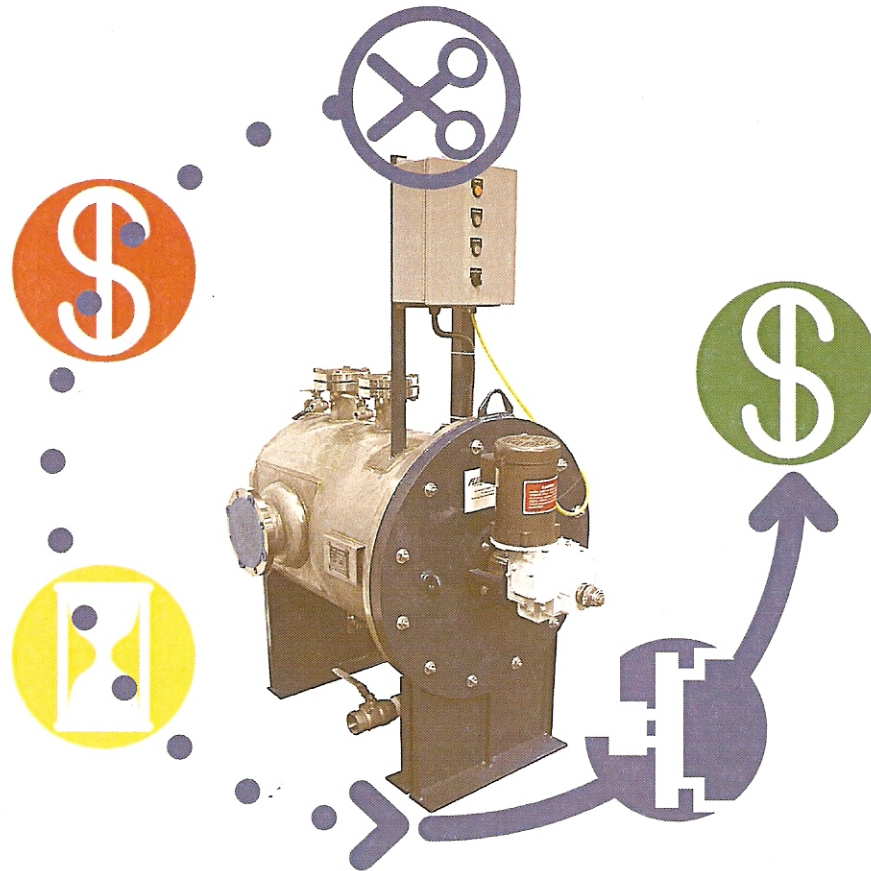


Cut maintenance **costs** and **downtime** and still increase **productivity**?

It's proven with **FLUID ENGINEERING's**
Model 763 Automatic Slurry Strainer/Mixer (Patent Pending).



Fluid Engineering's Patent Pending Advantages

Inline pipeline design - For lower setup costs and more efficient flow

Rotating perforated screen - One piece basket assembly with sealed bearings for tight seals and durability

Exclusive built-in agitator screen design - Creates a more homogeneous mash mixture for faster processing

Integrated impelling auger - Promotes continuous flow, which deters against internal residual build up

Adjustable scraper blade(s) - Allows fine adjustment for varying scraping tolerances

Large retention drain - Able to collect debris and particles away from the normal flow area

We manufacture bag filters, basket strainers, cone strainers, "Y" strainers, simplex strainers, duplex strainers, gravity strainers, and our patented automated strainers. Fluid Engineering has developed and manufactured new product lines for a wide variety of commercial and industrial applications and holds numerous patents pertaining to the filtration of liquid and gas technologies. Contact us for more information on how to efficiently utilize every biofuel drop.

Engineered Products for Demanding Applications, Performance, and Service

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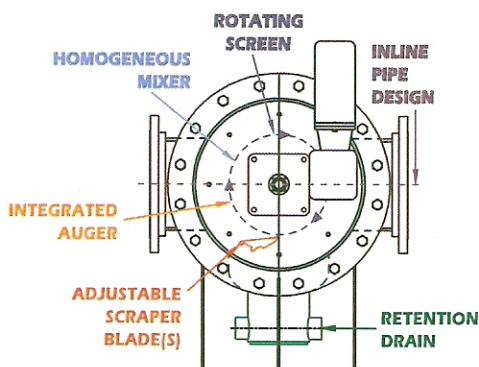
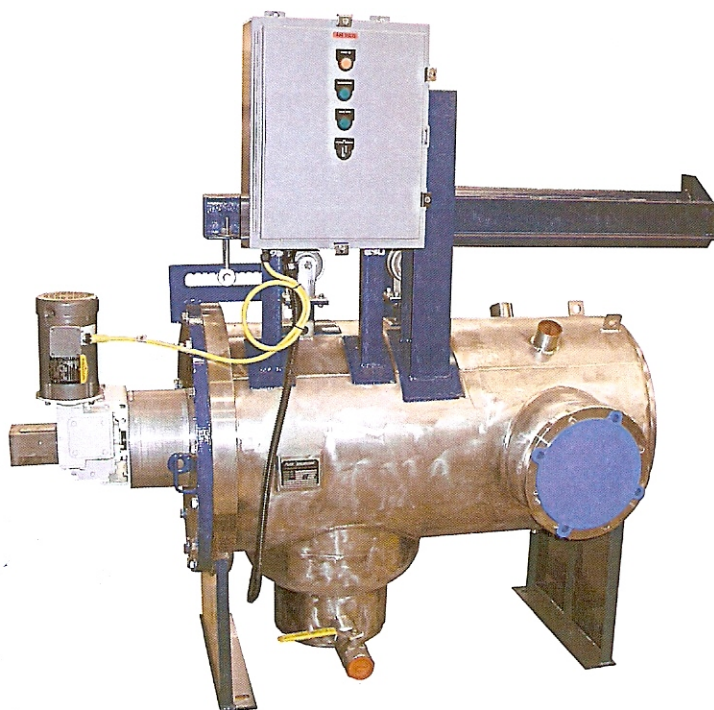
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Website: <http://www.fluideng.com> * E-mail: sales@fluideng.com

Model 763 Automatic Slurry Strainer/Mixer with Scraper (Patent Pending)

The Horizontal Automatic Scraper Strainer/Mixer provides removal of solids and debris without flow interruption. The strainer is designed for applications that have heavy solids loading with particles ranging from 75 micron to 12mm (0.003" to 1/2" diameter particle).

The inlet and outlet is inline to fit most piping arrangements. The inlet area is designed as a first stage separator, allowing particles that have a heavy density to settle out before reaching the screen. The retention drain has a large holding capacity. This drain is not located in the normal flow area so that it does not experience any agitation or fluid velocity. The unit is designed for continuous cleaning cycle or a timed cleaning cycle. The valve on the blow off connection can be timed, cycled for cleaning, or manually operated.

This unit has rails to aid in the removal of the screen and in the adjustment of the scraper blade. When adjusting the scraper blade, the screen can be manually turned for fine adjustment. The screen and scraper blade is a one piece sub-assembly. All screens are fabricated and machined for a tight tolerance and true running surface. The blade can be manufactured from various metals and plastics.



Applications

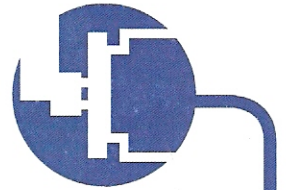
- Chemical and Ethanol - Slurry process/recycle
- Process Industries - Protect heat exchangers, pumps, valves, and water spray nozzles
- Power Industry - Protect heat exchangers, pump seals, and boiler wash water nozzles
- Pulp and Paper - White water and black liquor filtration
- Wastewater Treatment - Straining secondary effluent, spray nozzles, and service water

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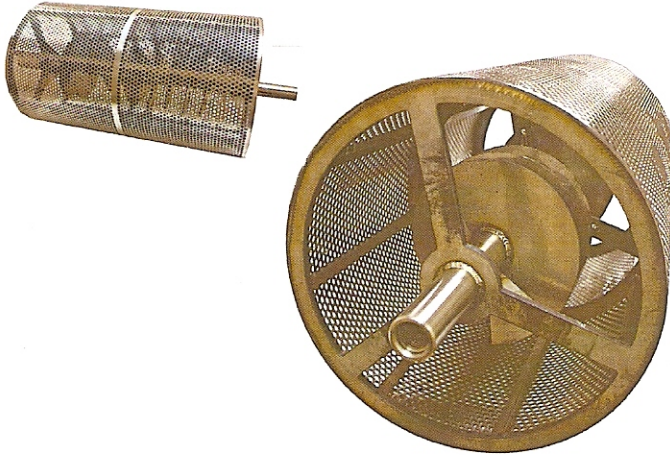
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Model 763 Automatic Slurry Strainer/Mixer with Scraper (Patent Pending)



Integrated Auger /Screen Assembly

- Allows for continuous movement of strained mixture
- Auger/screen assembly rotates 2 RPM
- Custom auger specifications may be considered



Standard Design

Options:

Material Options:

- Carbon steel
- 316 stainless steel

Basket/Screen Options:

-Wedge Wire Screen

-Basket Perforations

- 3/16"
- 7/32"
- 15/64"
- 1/4"

Scraper Blade Options:

- 17-4PH
- Carbon steel
- 316 Stainless steel
- Telfon
- Brass
- Polyurethane

Optional Accessories:

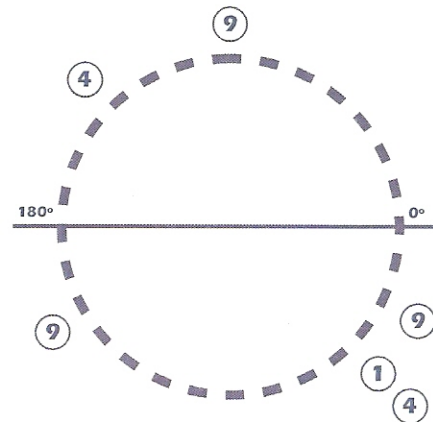
- Brush attachment
- Spray nozzle

Operating Pressure:

- 150psig @200°F CS
- 65psig @210 °F 304SS

Scraper Quantities and Placement

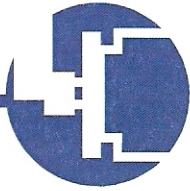
Size	Qty	Position
4"	1	315°
102 mm	1	315°
6"	1	315°
152 mm	1	315°
8"	4	135, 315°
203 mm	(2 sets of 2)	135, 315°
10"	4	135°, 315°
254 mm	(2 sets of 2)	135°, 315°
12"	4	135°, 315°
305 mm	(2 sets of 2)	135°, 315°
14"	9	90°, 210°, 330°
356 mm	(3 sets of 3)	90°, 210°, 330°
16"	9	90°, 210°, 330°
406 mm	(3 sets of 3)	90°, 210°, 330°



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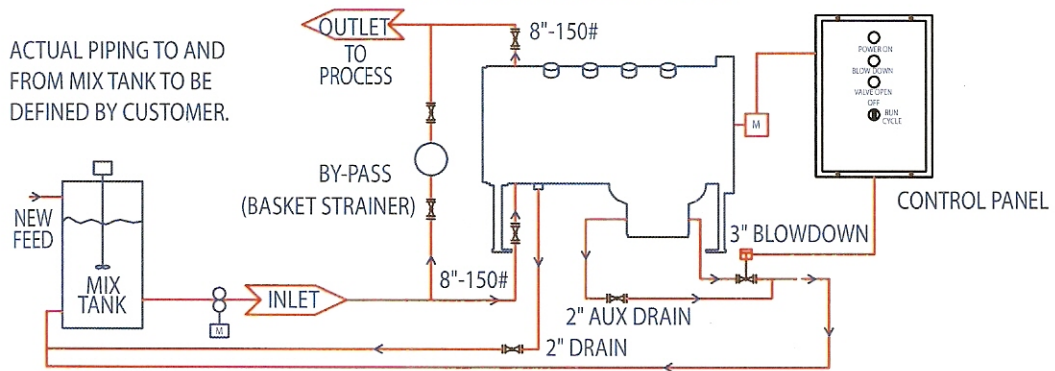
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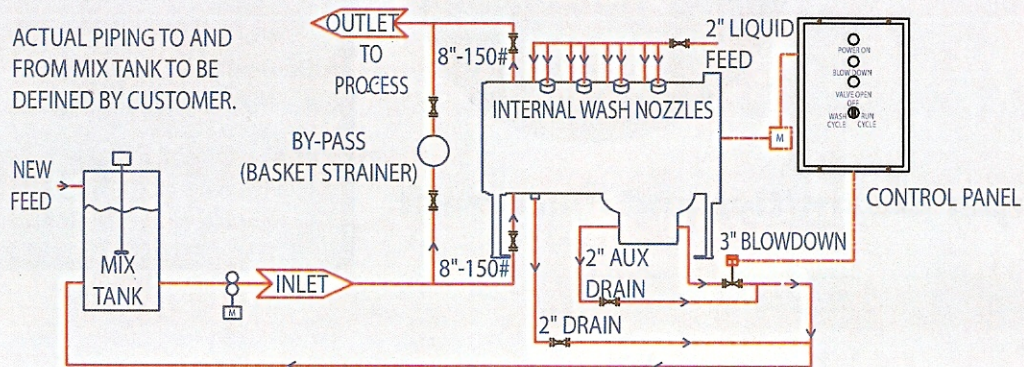
Model 763 Automatic Slurry Strainer/Mixer with Scraper (Patent Pending)

Optional Cleaning Cycle Configurations

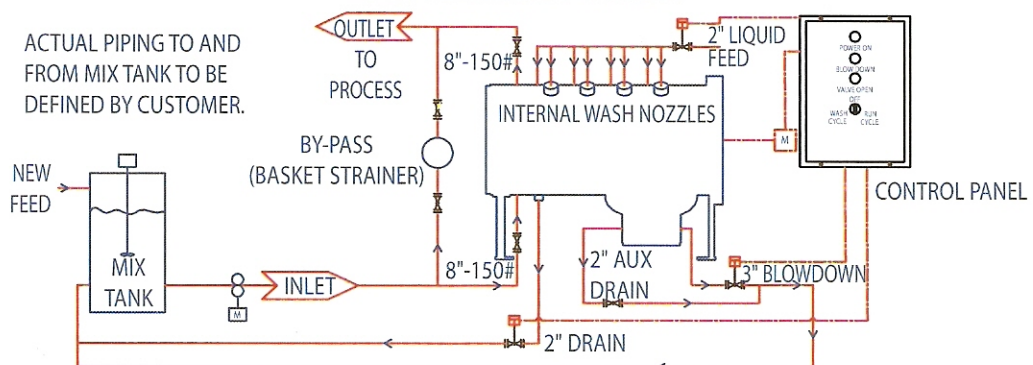
Standard Manual Drain



Manual Wash



Automated Wash

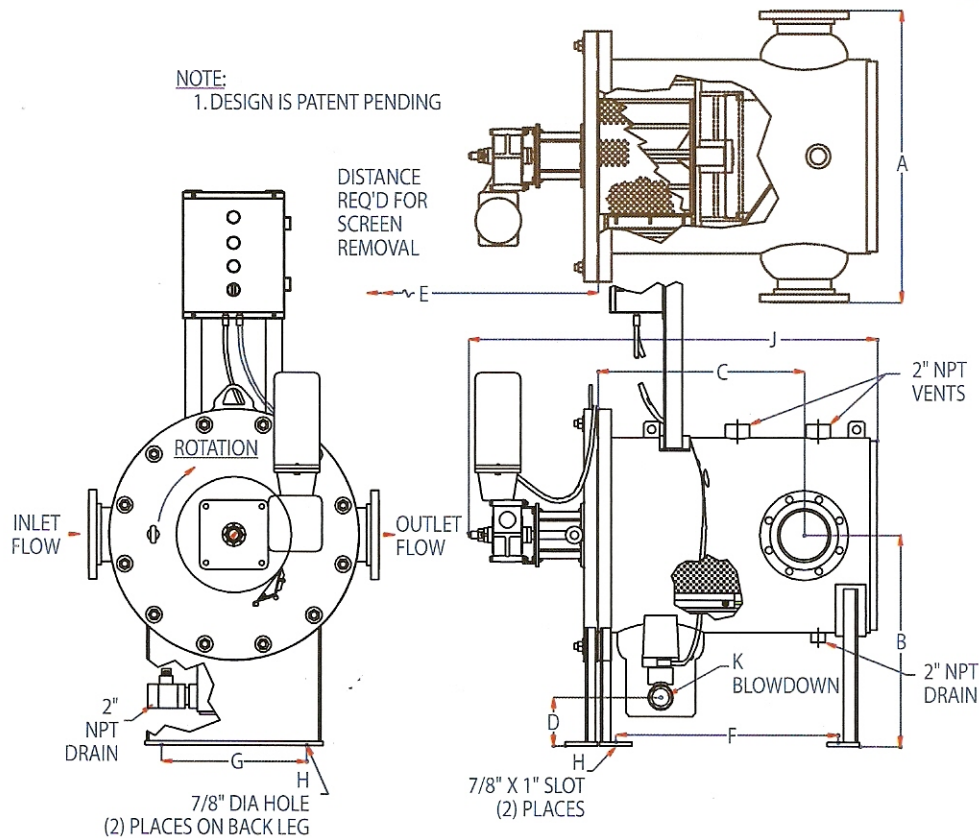
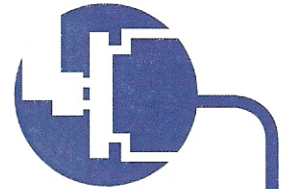


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Model 763 Automatic Slurry Strainer/Mixer with Scraper (Patent Pending)



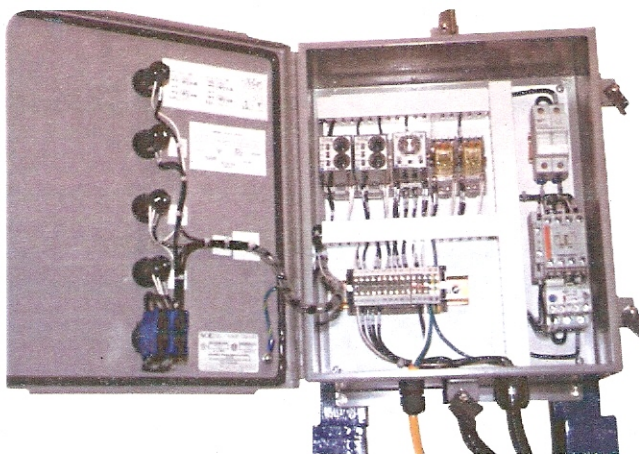
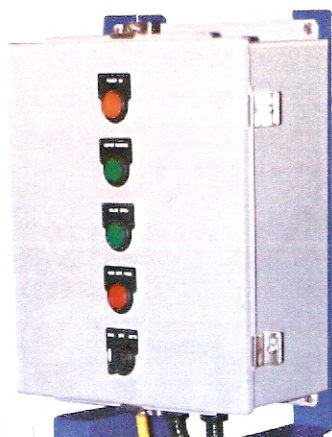
MODEL NO.	INLET	OUTLET	A	B	C	D	E	F	G	H	J	K
763-040	4"-150# 102 mm	4"-150# 102 mm	36" 914 mm	26" 660 mm	25 1/2" 648 mm	6" 152 mm	18" 457 mm	27 1/2" 699 mm	18" 457 mm	7/8" DIA 22 mm	50 1/2" 1283 mm	2" 51 mm
763-060	6"-150# 152 mm	6"-150# 152 mm	36" 914 mm	26" 660 mm	25 1/2" 648 mm	6" 152 mm	18" 457 mm	27 1/2" 699 mm	18" 457 mm	7/8" DIA 22 mm	50 1/2" 1283 mm	2" 51 mm
763-080	8"-150# 203 mm	8"-150# 203 mm	36" 914 mm	26" 660 mm	25 1/2" 648 mm	6" 152 mm	18" 457 mm	27 1/2" 699 mm	18" 457 mm	7/8" DIA 22 mm	50 1/2" 1283 mm	3"-150# 76 mm
763-100	10"-150# 254 mm	10"-150# 254 mm	36" 914 mm	26" 660 mm	36" 914 mm	6" 152 mm	30" 762 mm	37 1/2" 953 mm	18" 457 mm	7/8" DIA 22 mm	61 1/2" 1562 mm	3"-150# 76 mm
763-120	12"-150# 305 mm	12"-150# 305 mm	36" 914 mm	26" 660 mm	36" 914 mm	6" 152 mm	30" 762 mm	37 1/2" 953 mm	18" 457 mm	7/8" DIA 22 mm	61 1/2" 1562 mm	3"-150# 76 mm
763-140	14"-150# 356 mm	14"-150# 356 mm	48" 1219 mm	30" 762 mm	54" 1372 mm	6" 152 mm	41 1/2" 1054 mm	59" 1499 mm	22" 559 mm	7/8" DIA 22 mm	83" 2108 mm	4"-150# 102 mm
763-160	16"-150# 406 mm	16"-150# 406 mm	48" 1219 mm	30" 762 mm	54" 1372 mm	6" 152 mm	41 1/2" 1054 mm	59" 1499 mm	22" 559 mm	7/8" DIA 22 mm	83" 2108 mm	4"-150# 102 mm

Note: Dimensions subject to change without notice, apply for certified drawings.

* Custom designs are available, please consult the FE Sales Department or your local sales representative.

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The Sequence Controller



DESIGN AND CONSTRUCTION

The Fluid Engineering's Sequence Controller is designed with the Customers' specific requirements in mind. The Sequence Controller provides an automatic, effective backwashing cycle with a minimum loss of water.

The Fluid Engineering Sequence Controllers are constructed with state-of-the-art industrial type components, which permits replacing individual components without having to replace an entire circuit board. The industrial type components are more durable and reliable and adjustments can be made with ease (Fig. 10).

MODES OF OPERATION

There are basically two modes of operation – intermittent and continuous. By turning the selector switch, the mode of operation can be selected.

AUTOMATIC INTERMITTENT POSITION

With the selector switch in the "Auto" position, the drive motor will start and the backwash valve opens as determined by the adjustable cycle timer or by the differential pressure switch.

The differential pressure switch is normally factory set at 1 – 1½ psig over the anticipated clean pressure drop. Should a high differential pressure occur during the timed off period, the differential pressure switch will override the cycle timer and start or continue to backwash until the differential pressure is satisfied.

After the differential pressure has been satisfied, the strainer will continue to backwash for an additional 60 seconds (time delay relay).

The Fluid Engineering Automatic Self-Cleaning Strainer would start a backwash cycle based on the timed sequence selected on the adjustable cycle timer. The timed sequence should be determined by each installation and the conditions experienced. The adjustable cycle timer can be programmed from 15 minutes to a 10-hour cycle (off) and for 1 to 10 minutes duration (on). Adjustments can be made as conditions warrant them. The default factory settings for timers are 2 hours OFF and 2 minutes ON.

CONTINUOUS OPERATION

The selector switch is adjusted to "Manual" thus permitting the continuous mode. In the continuous mode, the Fluid Engineering Automatic Self-Cleaning Strainer will be backwashing continuously with the backwash valve open and the drive motor running. This mode of operation may be necessary if the installation experiences high solid loadings.

In either mode of operation, the backwash assembly is specifically designed to rotate at 2 RPM to allow for effective backwashing in less time, thus decreasing the amount of backwash water lost.

CONTROL PACKAGE

The Fluid Engineering Sequence Controller Control Package consists of:

- Control Panel with Nema 4 Enclosure
- Backwash Valve with Electric Operator
- Single Element Differential Pressure Switch

STANDARD FEATURES

- Enclosure – Nema 4
- Adjustable Cycle Timer
- Off-Delay Timer
- Motor Starters with Auxiliary contact and overload relay
- Selector Switch
- Indicating Lights
- Fuses
- Terminal Block

OPTIONS

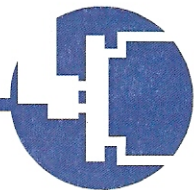
- 230 V, 380 V, 460 V, 575 V
- 50 or 60 hertz
- Dual element differential pressure switch
- Nema 4X (fiberglass or stainless steel), Nema 7 or 9 (explosion proof), Nema 12, Nema 3 enclosures
- Circuit breakers, disconnect switch, transformer
- Reset buttons
- Alarms
- PLC interface and/or pump interlock
- Extra contact and relays

FLUID ENGINEERING

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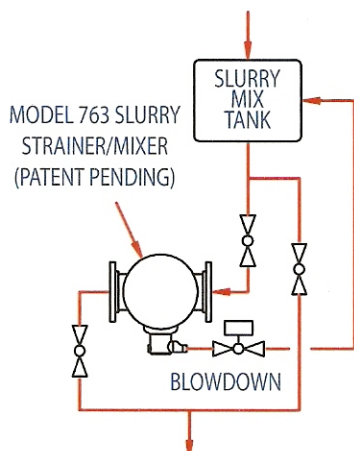
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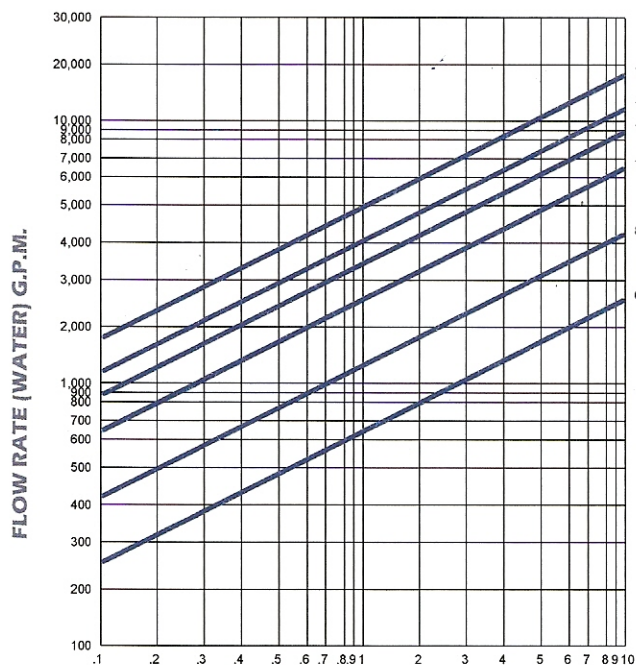
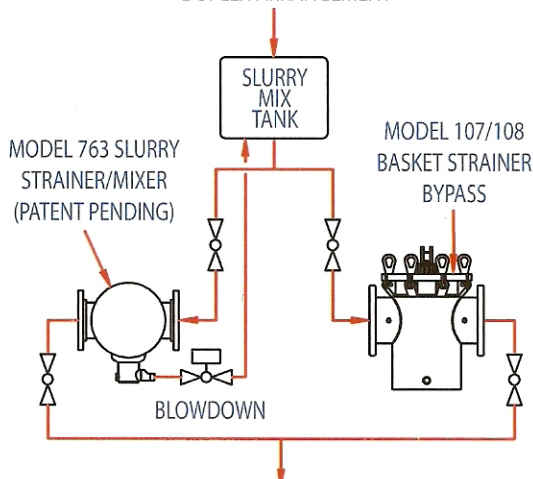
Model 763 Automatic Slurry Strainer/Mixer with Scraper (Patent Pending)

TYPICAL ARRANGEMENTS

SIMPLEX ARRANGEMENT



DUPLEX ARRANGEMENT



PRESSURE DROP P.S.I.

Based on H₂O

Centipose CP = 1

Based on 3/16", 15/64", 1/4" Perf Screen

Duplex Arrangement Shown:



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