GAS MASTRRR SERIES 32 SUBMERSIBLE MIXING SYSTEMS



SERIES 32 VACUUM INDUCTION MIXER

The **GAS MASTRRR** series 32 submersible design allows chemicals to be flash mixed directly into a water stream, channel, chamber, or rapid mix box with superior velocity gradient mixing intensity. The series 32 is available in vacuum style for gas or liquid chemical induction, or 32NV non-vacuum style for liquid chemical flash mixing.

The series 32 is available in ranges from 1/2 - 25 HP for feed rates up to 10,000 PPD gas or 60 GPM liquid chemical per unit. The units can be configured for vacuum, non-vacuum, or a combination for dual chemical feed applications.

The series 32 unit has a full 360 degree unobstructed high rate chemical discharge pattern that is radial outward from the unit. This unique discharge pattern allows for high velocity gradient mixing intensity and eliminates short circuit potential in wide channel applications.

They easily install with new or retrofit with existing chemical feed equipment. Guide rails and lifting crane/hoists are available for easy retrieval for maintenance inspection.

The GAS MASTRRR series 32 CIU's utilize a rugged and reliable U.S.A. manufactured submersible motor of 316 S.S. construction for long-term duty in harsh submerged environments. The motors are oil filled and water cooled.

1-25 HP CIU motors are available with 3 ph. 200, 230 or 460 VAC.

1/2 HP motor is available with 1 ph. 115 VAC.

1-15 HP motors are available with 1 ph. 230 VAC.

Performance Specifications				
Model No.	HP	Maximum Gas Induction Cl2 (ppd)	Maximum Liquid Induction GPM	Maximum Vacuum (in. Hg)
Series 32-1/2	1/2	100	5	20
Series 32-1	1	250	8	20
Series 32-2	2	500	10	21
Series 32-3	3	1,500	15	22
Series 32-5	5	2,000*	20*	22
Series 32-7.5	7.5	3,500*	25*	23
Series 32-10	10	6,000*	30*	25
Series 32-15	15	8,000*	40*	25
Series 32-20	20	10,000*	50*	26
Series 32-25	25	10,000*	50*	26

25 HP used for extreme applications where additional mixing intensity is required, deep submergence requirements or long supply pipe distance between CIU and chemical feed equipment. *Max gas feed rate & vacuum will vary dependent on chemical feed equipment manufacturers inlet vacuum requirements, supply piping size and length, and the unit submergence depth. A larger HP CIU may be required to pull desired full maximum gas feed range because of these factors. Liquid chemical feed varies with viscosity and other factors, consult factory.

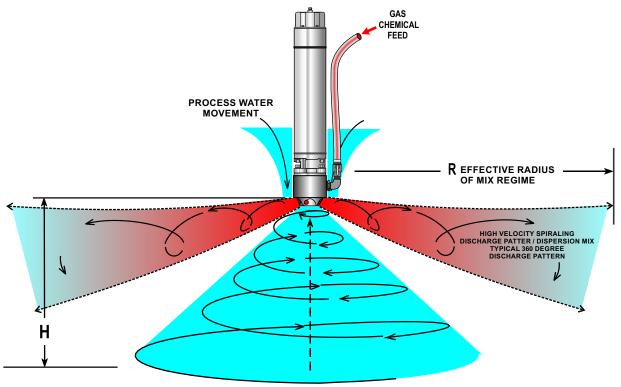
The GAS MASTRRR series 32 is proudly made in the U.S.A. and backed by a 1 year limited warranty. THE MASTRRR COMPANY offers an exclusive exchange program for competitive mixers. Contact us for our exchange details.





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SERIES 32 - CHEMICAL DISCHARGE MIX PATTERN



INDUCED VORTEX FLUID MOVEMENT PROCESS WATER PULLED INTO VACUUM DISTRIBUTOR FACE



The series 32 is supplied standard with a vacuum cavity rotating distributor for vacuum gas induction applications. The housing, feed port and rotating distributor are machined from UHMW Polyethylene.



The series 32 can be supplied with a non-vacuum rotating distributor for liquid chemical applications. The housing, feed port and rotating distributor are machined from UHMW Polyethylene.

HORIZONTAL VERTICAL PIVOTING REVERSED





GAS MASTRRR SERIES 32 SUBMERSIBLE MIXING SYSTEMS

SERIES 32 OPTIONS - OR-1 EXTERNAL CIU MOTOR OIL RESERVOIR

The Series 32 CIU's require periodic inspection of the oil level for maintenance. In many applications the CIU is not easily accessible or requires a chemical feed shutdown. The optional OR-1 external reservoir allows for oil addition and inspection without the need of CIU access or shut down.

The OR-1 mounts external on a hand rail or wall near the CIU installation or SAVVY control panel. The CIU motor is ported to the external oil reservoir via a 1/4" 316 stainless steel braided hydraulic hose. Standard hose length is 25' with longer lengths optional.

The OR-1 has a 10 VA float switch that closes on descending level. The float switch may be wired in series with the SAVVY control panel for visual Low Oil alarm, remote indication or CIU shut down if required.





The OR-1 easily mounts on a hand rail or wall near the CIU for ease of access in new or retrofit for existing series 32 installations.

SERIES 32 OPTIONS - PT-100/SOLO CIU MOTOR TEMPERATURE SENSOR

The Series 32 can be supplied with an optional PT-100 temperature sensor & SOLO controller for maximum submersible motor high temperature protection.

The PT-100 is a precision platinum RTD that is mounted on the lower end bell of the submersible motor and provides direct readout of motor temperature.

A (3 wire) Teflon jacketed control lead is run from the submerged motor to the SOLO temperature controller located in the SAVVY panel enclosure or MCC. The SOLO is a high performance micro-processor based smart temperature indicator/controller with relay output for alarm indication and control. The SOLO has selectable °F/°C temperature readout on the bright 4 digit LED display. Alarm relay has LED indication and programmable High Temperature and Reset Temperature set points.

The PT-100 is not approved as motor overload protection. Motor warranty will be void if Factory approved MCP or fused disconnect switch, motor overload protection and SYMCOM motor monitoring devices are not installed as required by THE MASTRRR COMPANY.



PT-100 SPECIFICATIONS:

Wire Size: #20 AW (3 wire) Lead Insulation: Teflon jacket Lead Length: 30' feet

Temperature Range:

-70° to 400°F (-56.6° to 204.4°C)

Output: 0-100 ohm Platinum



SOLO SPECIFICATIONS:

Power: 120 VAC

Input: #20 AW (3 wire) PT-100 Accuracy: 0.2% of span ± 1 digit

Operating Environment: 32° to 122°F (0° to 50°C)

Output Relay: 1 - SPST 3A@250VAC



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GAS MASTRRR SERIES 32 FRANKLIN ELECTRIC SUBMERSIBLE MOTORS 3-25 HP



The GAS MASTRRR Series 32 Chemical Induction Mixers utilize USA manufactured motors from Franklin Electric.

Franklin Electric motors are submersible type, water cooled, liquid filled, with a corrosion resistant 316 stainless steel shell for maximum chemical corrosion resistance in water and wastewater applications.

The hermetically sealed windings include a self healing "anti-track" resin system and maximum temperature winding wire NEMA class 200.

The motors require submergence and periodic inspection of the mineral oil fill.

OIL FILL RESERVOIR **PLUG** OIL FILL RESERVOIR HOLDS UPS MINERAL OIL FOR INTERNAL **COMPONENTS** LUBRICATION SELF- ALIGNING "KINGSBURY" THRUST **BFARINGS** UPPER ALIGNMENT BEARING **HERMETICALLY** SEALED WINDINGS ROTOR ASSEMBLY • WITH SELF HEALING "ANTI-TRACK" RESIN SYSTEM 316 STAINLESS STEEL MOTOR SHELL FX-1 PVC WIRE REINFORCED FLEXIBLE CHEMICAL FEED HOSE **UPTHRUST BEARING** SOOW ROUND 10G., 4 WIRE SUBMERSIBLE POWER CORD **LOWER** (UL-LISTED) ALIGNMENT **BEARING** SILICON SUBMERSIBLE POWER CORD CARBIDE MOTOR

MOTOR CUT AWAY DRAWING

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316 STAINLESS STEEL

"WATER BLOC" LEAD

TITANIUM LOWER SEAL CUP

TITANIUM SHAFT EXTENSION

UHMW POLYETHYLENE

DISTRIBUTOR

& LOWER SEAL ASSEMBLY FOR SHAFT ISOLATION -

ASSEMBLY





SEAL ASSEMBLY

CAM & GROOVE

DISCONNECT

SHC. 80 PVC ELBOW & CLOSE NIPPLES

UHMW POLYETHYLENE

HOUSING/FEED PORT

SHAFT BOLT (ISOLATED)

FITTING