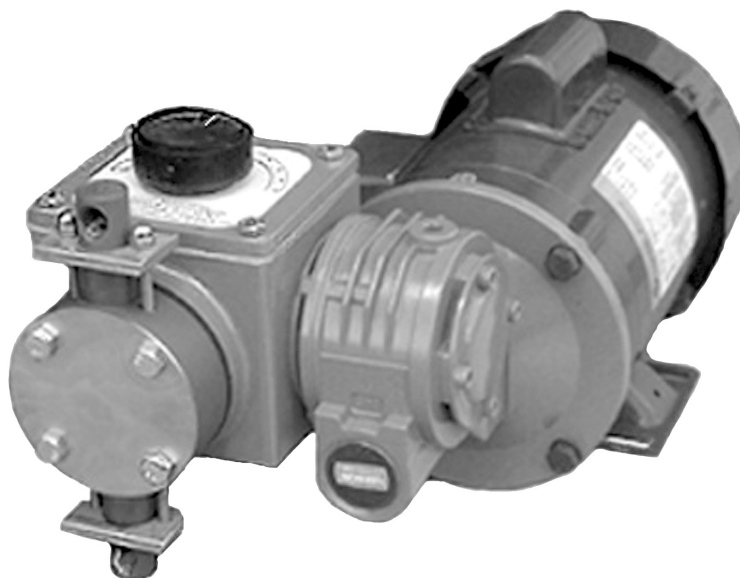


# MADDEN JN Series Diaphragm Metering Pumps

Accurate, Dependable Metering Pumps for Liquid Chemicals



JN Series Simplex Pump (shown with plastic wetted end)

These simple, rugged, accurate pumps are used in many industrial plants for injecting a controlled flow of highly reactive liquids such as acids, caustics and water treatment chemicals. Heavy duty industrial grade construction means these tough little pumps will deliver many years of trouble free 24-7-365 pumping.

- ✓ JN Series pumps are designed for especially low flow rates. Double ball checks with Teflon valve seats assure  $\pm 1\%$  steady state repeatable accuracy over a 10:1 turndown range.
- ✓ Manual output control knob is located on top of the pump for easy access.
- ✓ Automatic pump output control is available for pumps equipped with a variable speed motor and variable frequency drive.
- ✓ Industrial grade worm gear reducer is permanently lubricated and C face mounted to the motor. Precision internal pump parts run in an oil bath for extended service life. No external lubrication required.
- ✓ Double diaphragm option is available for superior protection from dangerous liquids.
- ✓ When equipped with the proper materials the JN Series pumps are excellent for pumping dangerous liquids such as acids, caustics and solvents.
- ✓ Standard motors are industrial grade 1/3 HP 56 frame, C face, foot mounted TEFC. Motors are available for explosion proof, washdown, and mill & chem plant duty, and for 1 or 3 phase, 50 or 60 Hz power.
- ✓ Tough fabric reinforced rubber diaphragms protect the drive train from the pumped liquid. The short .090" stroke with 2" diameter piston increases diaphragm life by reducing fatigue.
- ✓ A simplex pump is shown above. Duplex and Triplex pumps with up to 3 pumping heads are available.

## Simplex Pumps

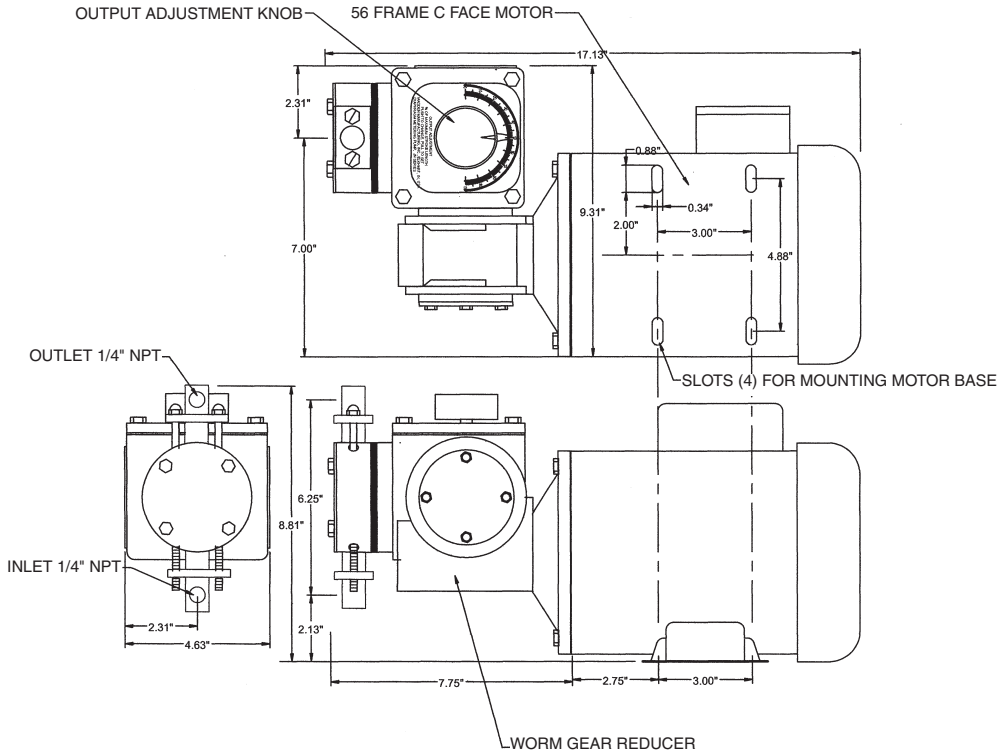
Model Number	Max GPH (L) per head**	Max PSI	Strokes per minute	HP	Piping NPT
JN101A	1 (3.8)	250	22	1/4	1/4"
JN102A	2 (7.6)	250	44	1/4	1/4"
JN104A	4 (15.1)	250	88	1/4	1/4"
JN105A	5 (18.9)	250	115	1/4	1/4"
JN107A	7 (26.5)	250	172	1/4	1/4"
JN111A	11 (42)	250	230	1/4	1/4"

## Duplex Pumps

Model Number	Max GPH (L) per head**	Max PSI	Strokes per minute	HP	Piping NPT
JN201A	1 (3.8)	250	22	1/4	1/4"
JN202A	2 (7.6)	250	44	1/4	1/4"
JN204A	4 (15.1)	250	88	1/4	1/4"
JN205A	5 (18.9)	250	115	1/4	1/4"
JN207A	7 (26.5)	250	172	1/4	1/4"
JN211A	11 (42)	250	230	1/4	1/4"

\*\*Standard motor speed is 1725 rpm. For 1425 rpm 50 Hz motors multiply the figure given by .833. For duplex pumps with the output of both pumping heads combined multiply the figure given by 2, for triplex pumps X 3.

# JN SERIES DIAPHRAGM METERING PUMPS DIMENSIONAL DIAGRAM, JN SERIES SIMPLEX PUMP



**SPECIFICATION:** The Contractor shall furnish a diaphragm metering pump as follows: liquid to be pumped: (liquid), pumping rate: \_\_ GPH, at a maximum pressure: \_\_ PSI. The pump output will be adjustable from 0 to 100% while the pump is running using an adjustment knob located on the pump top. The pump will be of the mechanical diaphragm type with the piston directly connected to the diaphragm. Double check ball valves for both the suction and discharge connections will be included. The industrial grade gear reducer will have a bronze wheel and steel worm, and will be permanently lubricated. The pump mechanism will be enclosed and running in an oil bath. No external lubrication will be required. Pump wetted end materials of construction: wetted end: \_\_\_\_\_, diaphragm: \_\_\_\_, replaceable valve seats: Teflon, double valve balls: \_\_\_\_\_, (optional: Type DDB double diaphragm will be provided for extra protection from the pumped liquid, backup diaphragm material: \_\_\_\_\_.) Piping connections will be ¼" NPT.

The motor will be 56 frame C face, directly mounted to the gear reducer, 1/4 HP or 1/3 HP, 1/60/115-230, 1725 rpm, TEFC. Paint finish: Manufacturer's standard acrylic enamel, or optional polyurethane top coat with epoxy primer for premium corrosion resistance.

Preferred manufacturer: Madden Manufacturing, Inc. Model no. JN10 \_A simplex, duplex or triplex diaphragm metering pump, rated for (1,2,4,5, 7 or 11) gallons per hour.

### Wetted end materials to resist corrosion and abrasion

Solution head and valve bodies	Diaphragm	Backup Diaphragm	Valve balls	Valve seats
PVC	Neoprene	Neoprene	316 SS	Teflon
Teflon/Kynar	Teflon faced		Ceramic	
316 SS	Hypalon	Hypalon	Hastelloy C	
	Viton	Viton	Teflon	