

SPECIFICATIONS

MODEL	RED	BLUE
Mechanism	Venturi Type	
For Use With	55 Gal (205 Litre) Drums	
Water Inlet	1/2"	
Bung Size	2"	
Hose Length	39.37" (1 m)	
Suction Tube O.D	0.62" (16 mm)	0.69" (17.6 mm)
Application	Metal Working Fluids	Soap Solutions
Mixing Ratio	0 to 11 %	0 to 57 %
Capacity	1100 Litre per Hour (290 Gallons per hour)	1250 Litre per hour (330 Gallons per hour)

WETTED COMPONENTS

Aluminium, Stainless Steel, Brass, Nylon, PVC, Nitrile Rubber

RECOMMENDED USE

Cutting / Metal Working Fluids, Select Chemicals, Wind Screen Fluids, Antifreeze, Detergents / Soap Solutions

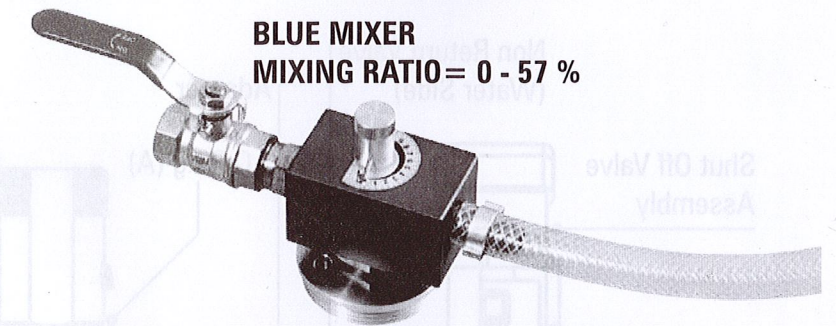
INSTRUCTION MANUAL

S1900, Rev A

Coolant / Liquid Mixers CMX/1, CMX/2

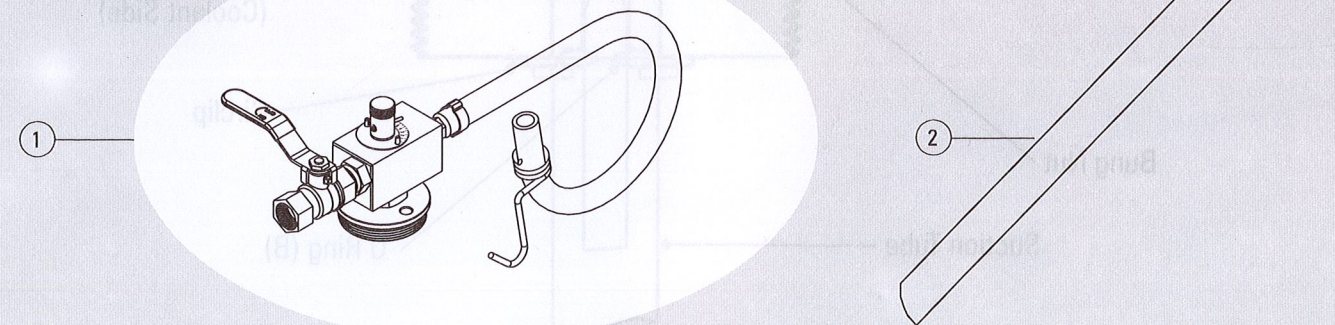
DESCRIPTION

- Designed for mixing liquid coolant concentrate with water for supply to machines, used in workshops & garages for mixing water with detergents, antifreeze etc.
- Driven by pressure from water supply
- Rotary Disc Valve, precision CNC machined from Stainless Steel & highly accurate
- Compact construction & minimal parts make these mixers easy to install & highly reliable
- Lightweight Aluminium body
- Includes full flow Brass Ball valve & also fitted with 2 back flow preventers
- Adjustment of mixing ratio is variable & controlled through a simple turn of the knob



CONSTITUENTS

1. Mixer Assembly (with Shut Off Valve, Bung Nut & Hose Assembly)
2. Suction Tube



WORKING OF COOLANT MIXER

This is a Venturi type proportional mixer that is driven by water pressure supplied via a full flow Brass Ball Valve. It uses water passing over an orifice to create suction that draws the concentrate from the drum into a Mixing Chamber where it is mixed with water.

The unit has two Non Return Valves :-

1. at the Water Side (to prevent the back flow of coolant into the water pipe)
2. at the Coolant side (to prevent the back flow of water into the drum)

Concentration is controlled by turning a metering device (i.e a Rotary Disc Valve) with the help of a Regulator Knob.

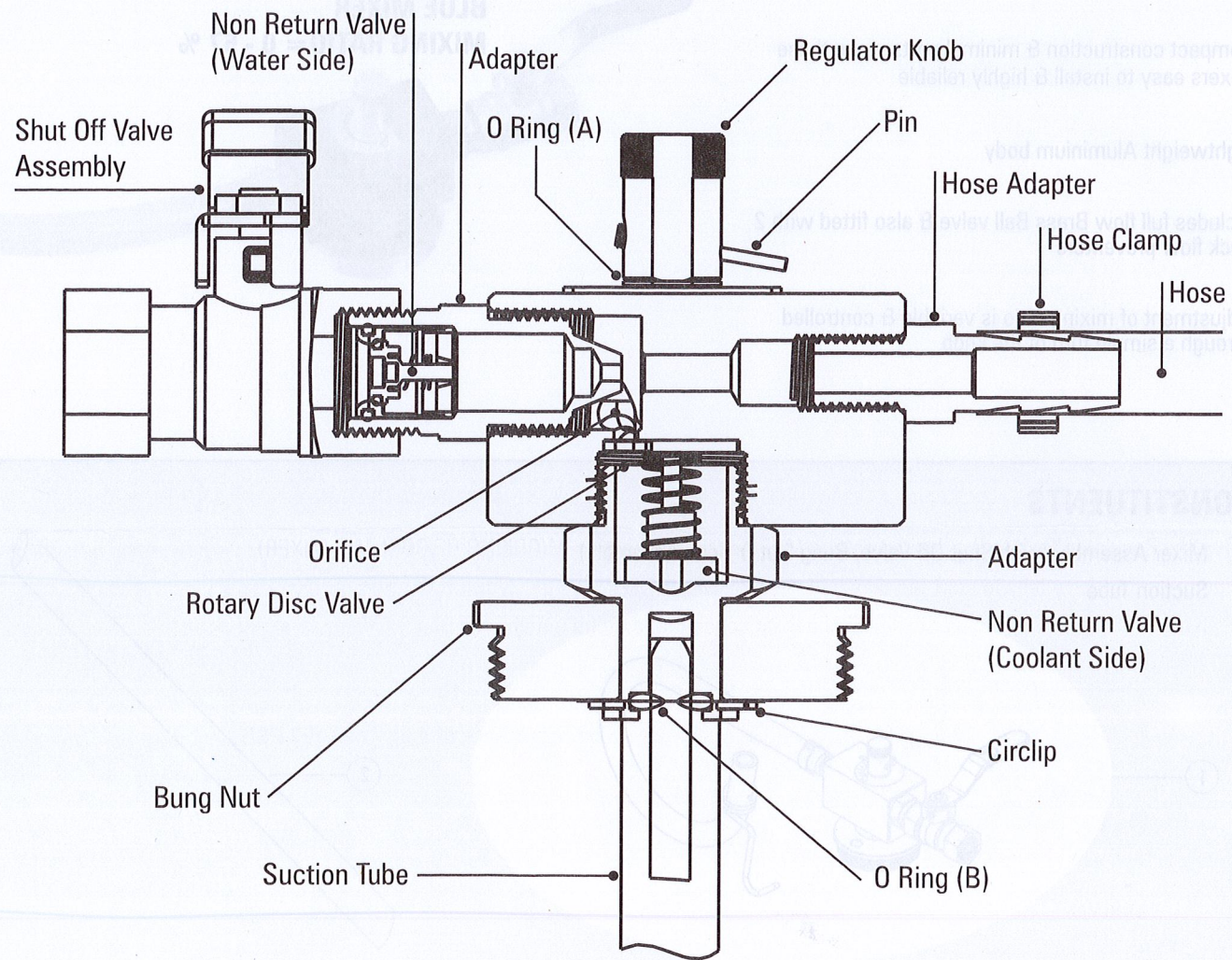
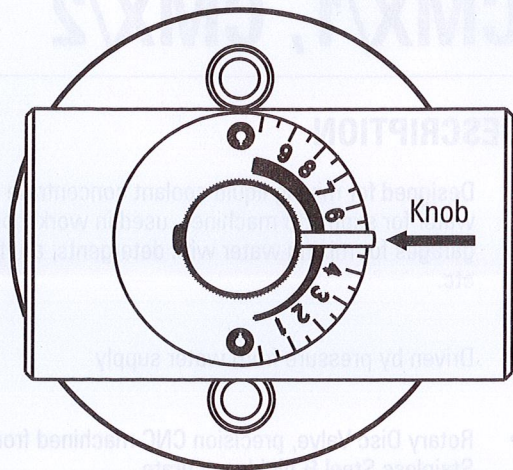
A Regulator Plate divides the whole range of possible concentrations into 10 equal settings.

SETTING OF THE KNOB

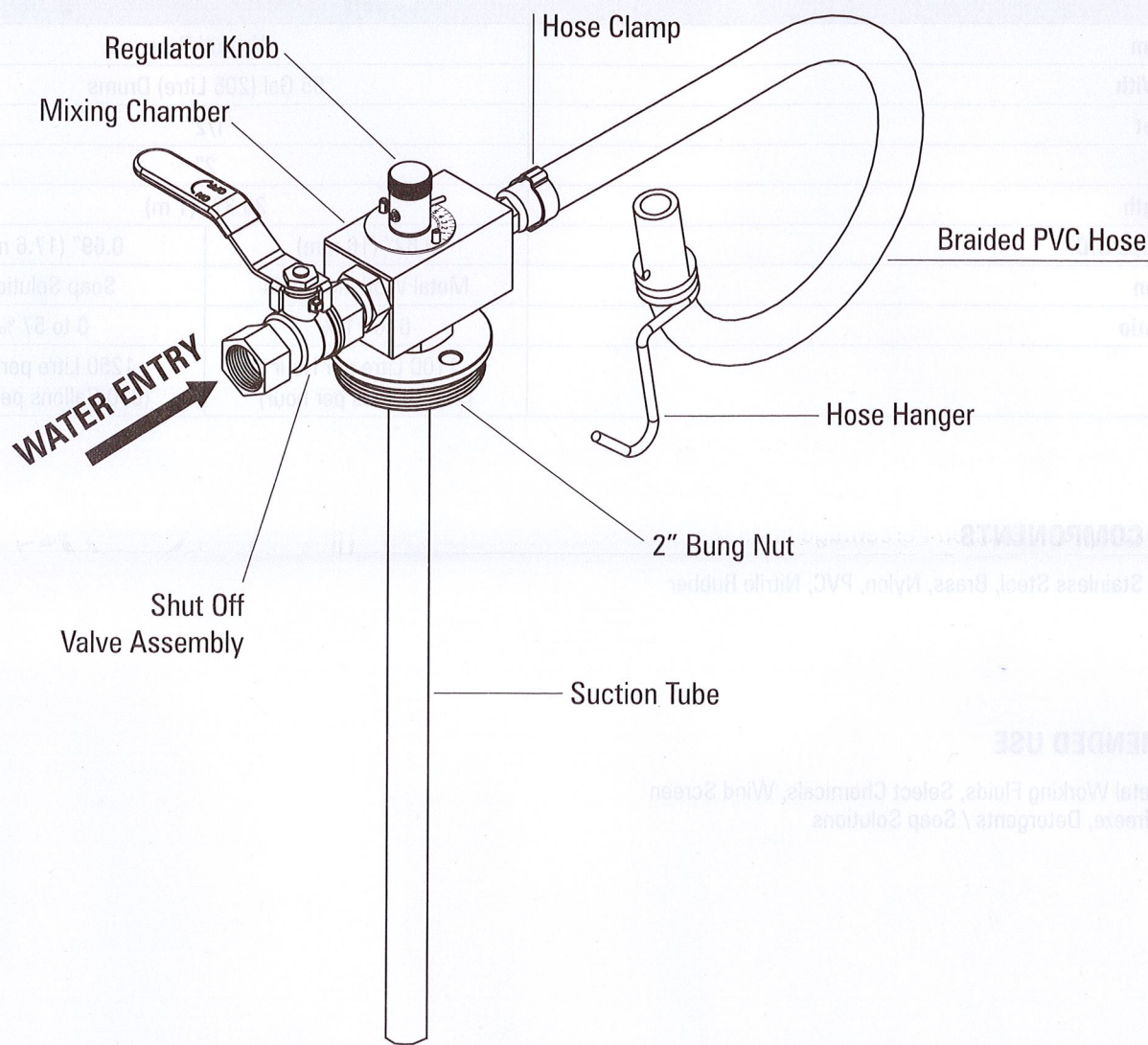
$$= \text{Desired Percentage} \div \left(\frac{\text{Maximum Range} - \text{Minimum Range}}{10} \right)$$

For example, if Desired Percentage is 29 %, & possible range of Mixing Ratio is 0 to 57 %, then

$$\text{SETTING OF THE KNOB} = 29 \div \left(\frac{57 - 0}{10} \right) = 29 \div 5.7 = 5$$



COOLANT MIXER CONSTRUCTION



INSTALLATION & OPERATION

1. The mixer is already assembled with a hose & Shut Off Valve. Push the Suction Tube into Bung Nut.
2. Insert the Suction Tube into the drum & tighten Bung Nut to secure the Coolant Mixer onto the drum.
3. Connect the 1/2" female threads of Shut Off Valve with the water supply.
4. Turn the Regulator Knob to the desired setting (As described in section- WORKING OF COOLANT MIXER).
5. Open Shut Off Valve fully to start the water supply. The Mixer will continuously dispense the desired mixture until the water supply is ON.
6. Take a sample of the dispensed mixture & check its concentration with a Refractometer. Use Regulator Knob to increase or decrease the concentration until you get the precise Mix.

NOTE

- The Mixture Ratios have been specified after testing at a water pressure of 4 kg / cm² (57 PSI)
- Actual Mixture Ratios may vary as per the water pressure
- Higher water pressure leads to higher concentration & vice versa
- The Regulating Scale effectively gives a value based on trial & error. It should not be taken as an absolute Percentage Ratio

CAUTION

- The Mixer must be mounted horizontally within +/- 10° (because of the ball check valve)
- The outlet is supplied with a PVC Hose which must always be open
- Hose must not be connected to any device that can restrict liquid flow