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**GLAND PUMP HEADS**  
**MODELS: Q-CSC-W,**  
**Q-CSC-WT, & Q-CKC-W**

ISO  
9001

**WASH GLAND ISOLATION PUMP HEADS** are designed for hard to handle, sticky, air sensitive, and crystal forming solutions that would normally tend to bind your piston. The gland ports are designed to take an appropriate "barrier" fluid and wash the seal area of the pump to isolate it from the "problem" fluid of the main metered flow. The glands are typically gravity fed or by use of low pressure. (Fig. 1) is a general "W" wash gland set up.

**CKC-W** - Ceramic and fluorocarbon wetted surfaces - barbed gland adapters for 1/8" I.D. soft tubing - Maximum temperature of 212°F (100°C) and pressure up to 60 psig (4.1 bar).

**CSC-W** - 316 SS and ceramic wetted surfaces - for use at temperatures to 350°F (180°C) and pressures to 100 psig (6.9 bar), including 10-32 female gland ports with plastic barbs for 1/8" (.3175 cm) I.D. tubing.

**PUMP LIMITATIONS:** Within our specified temperature limit 350°F (180°C) all normal pump ratings apply. Fitting type should be considered for example "POLYPROPYLENE" fittings are rated at 200° F (93°C) and "TEFLON" tubing at 700° F (371°C).

**CSC-WT** - 316 SS and ceramic wetted surfaces for temperature controlled applications - Pump Head Modules have 1/8" NPT female gland ports and 1/4" NPT female main flow ports. Pump heads also come drilled for standard 1/4" x 1" to 1 1/2" cartridge heaters of 30 to 300 watts and thermocouples of ANSI type K or J depending on Temperature Controller used.

**MAXIMUM TEMPERATURE:** 350°F (180°C). A 1/8" (.3175 cm) diameter hole 1" (2.54 cm) deep is available for the attachment of a temperature probe for the Controller.

**NOTE: USE EXTREME CAUTION**

**A TEMPERATURE CONTROLLER IS REQUIRED WHEN USING HEATER. NOTE (2) 80 WATT HEATERS WILL RAISE THE IDEAL PUMP TEMPERATURE TO 200°F (93°C) FROM 70°F (21°) AMBIENT IN APPROXIMATELY 3 ½ MINUTE.**

**HEATER INFORMATION:** Required heaters are cartridge types, 1/4" (.635 cm) diameter by 1 1/2" (3.81 cm) maximum length. Heaters are available in this size from 30 to 300 watts. Extreme caution should be exercised in any high temperature application; a Temperature Controller and Thermocouple must both be used when installing heaters. High temperature type "RTV" adhesive is recommended for the attachment of the heaters. Always follow the recommendations of the Heater manufacturer for the best performance of the Heaters. Fluid Metering does not supply Heaters and it is the customers' responsibility to insure the Heaters are used in a safe and non-hazardous manner. Extreme Heat can cause serious injury and fire.

**NOTE: EXTREME TEMPERATURE**

**EXTREME CAUTION SHOULD BE USED TO AVOID BURNS, OTHER INJURIES, OR FIRE.**

# Temperature Controlled Pump Heads CSC-WT

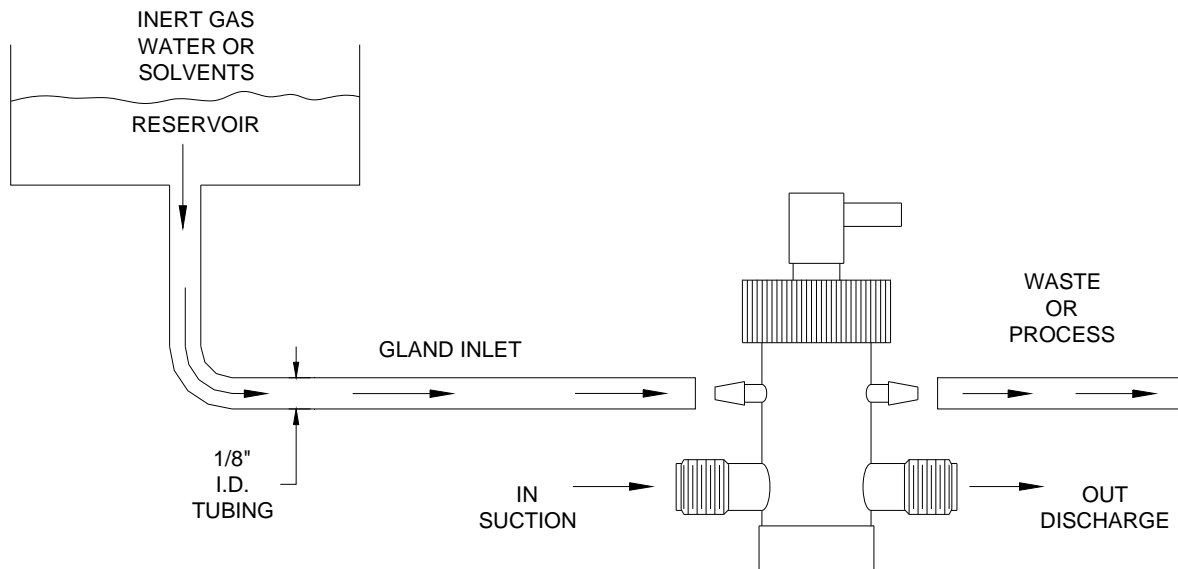
True Temperature Control of your FMI Pump Head up to 350°F (180°C)  
For:

- **Pharmaceutical**
- **Cosmetic**
- **Laboratory**
- **Process**
- **Food & Dairy**
- **Pilot Plant**
- **Industrial**
- **Reactor Feed**



Figure 1

## TYPICAL ISOLATION "W" GLAND PUMP HEAD SETUP



- GLAND FEED RATE - 2-5 mL/MIN
- PRESSURE FEED - GLAND INLET PRESSURE MUST BE LESS THAN OR EQUAL TO THE MATERIAL BEING PUMPED
- GRAVITY FEED - FOR CONTINUOUS OPERATION WE SUGGEST INSTALLING A LEVEL DEVICE SO THE GLAND DOES NOT RUN DRY.