

Glycol Cooled Beer Dispensing Systems

Overview

Introduction Micro Matic Glycol Cooled Beer Dispensing Systems, capable of delivering draft beer long distances (up to 500'), are gaining in popularity. The systems are reliable, serve a great tasting beer, and are reducing the cost, headaches and waste usually associated with long draw-beer dispensing.

Purpose The purpose of this document is to:

Provide an overview of a Micro Matic Glycol Cooled Beer Dispensing System.

Explain the features, functionality and benefits of purchasing and installing this type of beer system.

**What is a
Glycol Cooled
Beer
Dispensing
System**

A Glycol Cooled Beer Dispensing System consists of a Glycol Cooler (also know as a Power Pack), a refrigeration unit that cools a reservoir containing a blend of food grade antifreeze (Propylene Glycol), and water. Pumps located on the Power Pack circulate the Glycol mixture in polyethylene tubing alongside the patented, *Brewmaster Two*, beer lines.

The beer and coolant lines are wrapped with a plastic moisture barrier and a foil wrap to transfer cooling. These lines are all encased in a moisture proof barrier jacket and is referred to as a Trunk Line.

The Power Pack maintains the temperature of the beer from the keg to the beer tower, a *Kool-Rite* beer tower especially designed and built by Micro Matic to efficiently transfer cooling to the beer faucet(s).

Glycol Cooled Beer Dispensing Systems are becoming increasingly more common with the popularity and necessity of dispensing draft beer remotely.

These systems are capable of dispensing beer up to 500 feet from the kitchen or basement area of a facility to one or more tower/bar locations.

Glycol Cooled System Components

Pro-Line Power Packs (Glycol Cooler) The Power Pack refrigerates a Propylene Glycol and water mixture contained in a reservoir to between 29° to 32°F. This is called a swing or differential. The Power Pack turns off when the temperature reaches 29° and turns back on at 32°F. The bath mixture should result in an approximate -5°F freezing point. The freezing point is adjusted by the amount of Glycol in proportion to the amount of water. The power pack's pump constantly circulates the antifreeze mixture through the beer system.

Micro Matic Power Pack Technical Features

- Utilizes 134a refrigerant
- Utilizes gear pumps which have a longer life span than vane pumps
- Anti-vibration pads reduce motor noise
- UL and NSF approved
- Selection of models available that can handle short runs all the way to 500 feet with a single unit.

Dispense Towers with *Kool-Rite* Technology

The Dispense (Beer) Tower is the focal point of the bar and is where the Bartender dispenses the beer into a glass or pitcher. The tower must be built to take the rigors of busy nights and needs to be designed to keep the faucets and the beer in the tower cold.

All *Kool-Rite* towers come complete with stainless steel faucets, shanks barbs and choke lines. The integrated *Kool-Rite* module provides optimum cooling at the point of dispensing.

The module construction makes the installation process as simple as Plug "N" Pour.

Kool-Rite Technical Features

- Patented Double "D" cold blocks, locks the faucets in place preventing rotation.
- Leak proof stainless steel shank screws directly into the cold block, double o-rings prevent leaks.
- Copper coolant lines have direct contact with cold block held in place with secure tabs to ensure optimum cooling transfer.
- Utilizes stainless steel tubing to maintain best product purity.
- Utilizes triple layer insulation system to ensure proper temperature is maintained.
- Available in a variety of designs.
- Available in a variety of materials, including Polished Stainless Steel or Tarnish-Free PVD Brass finish.
- Includes Stainless Steel Faucets.

Glycol Cooled System Components (continued)

Trunk Lines

The Trunk Line is a larger insulated line that holds both the beer and coolant lines. The Trunk Line sustains temperature while the beer is being transferred from the walk in cooler to the draft tower. Trunk Lines are available in many configurations of Beer and Coolant Line combinations, and are available at any length required.

Micro Matic Trunk Line Technical Features

- Brewmaster Two barrier hose with ultra smooth inner layer lining to help prevent yeast and bacteria growth
- 5/16" I.D. tubing only holds ½ ounce per foot and reduces beer loss during line cleaning by 25%
- Moisture barrier wrap helps to prevent condensation from compromising the integrity of the insulation
- Foil wrap acts as additional thermal barrier, enhancing cold transfer from glycol lines to beer lines
- ¾" closed cell foam insulation helps to prevent hot spots
- The EasyFit Barrier Jacket has a low friction finish which offers greater flexibility, easy installation coupled with greater flexibility and a tear resistant shell
- Available in 3/8" I.D. and with 2 to 12 beer lines

Gas Blenders

A device used to mix CO₂ and Nitrogen gases together to push the beer from the keg without over or under carbonating the beer in the keg.

Gas Blenders are recommended for:

High volume accounts, and accounts where temperature fluctuations are common, and there is a need for a high amount of pressure to push the beer from the keg to the faucet.

Proven benefits of installing a gas blender

- Save money by not buying expensive premixed, low yield cylinders.
- Save labor by not changing cylinders.
- Increase profits by serving a consistently perfect pint.

Micro Matic Gas Blenders Technical Features

- Easy installation.
- A factory setting prevents unwanted tampering.
- Accurate gas blend to within 2%.
- Blending operation shuts down when gas cylinders are empty.

Glycol Cooled System Components (continued)

FOBs Foam On Beer detectors (FOBs) are used to eliminate foam in the beer lines after the keg is empty. Installing a FOB for each beer line will help reduce your pour cost and minimize downtime when changing kegs.

Wall mount FOBs are a must for all long draw beer systems!

Proven benefits of installing FOBs

- Keeps beer lines full when keg empties which reduces waste from foaming during keg changes (1/2 ounce/foot X 85 feet = 42.5 ounces saved each keg change).
- FOB's pay for themselves in only 6 kegs.

Micro Matic "FOB" Technical Features

- Stainless steel construction for durability and draft beer quality.
- Spring load bleeder valve prevents accidental leakage of product.

Secondary Regulator Panels

Depending on the brand or type of beer, each individual keg requires its own specific pressure. Micro Matic secondary regulators reduce the pressure from the gas blender to match the needs of each keg. The regulators are pre-mounted on panels with beer hoses and gas hoses connected for easy installation.

Micro Matic Secondary Regulator Panels Technical Features

- Stainless steel wall brackets and tailpieces.
- Individual regulators to control the applied pressure to each keg.
- Enlarged CO₂ port for high volume dispensing.
- Flow control inlet nipple filter.

CO₂ Gas Filters A CO₂ Purifier is another important component of the system, because it removes contaminants that are commonly found in CO₂ gas that can cause the beer to smell or taste bad.

! The largest Brewer in the USA now requires a CO₂ filters to be installed on all draft beer systems dispensing their product.

Document Control

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