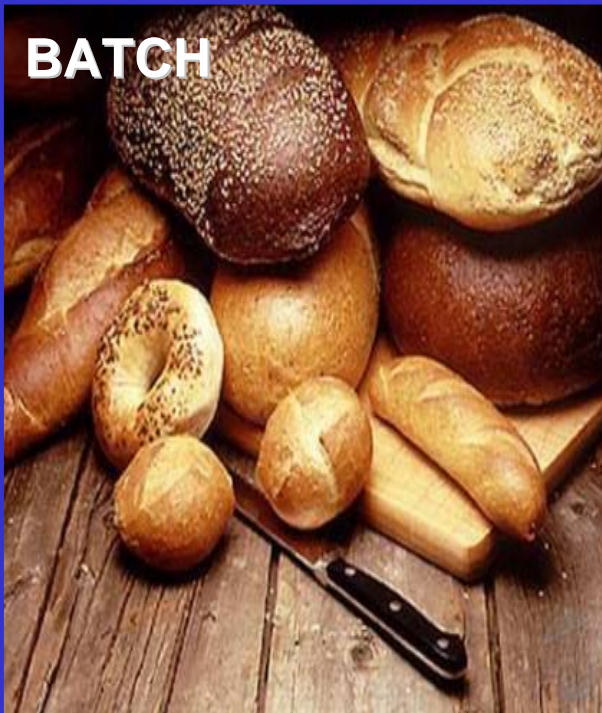


# Potable Water Cooling Systems

**BATCH**



**CONTINUOUS**



**SANITARY**



**INDUSTRIAL**



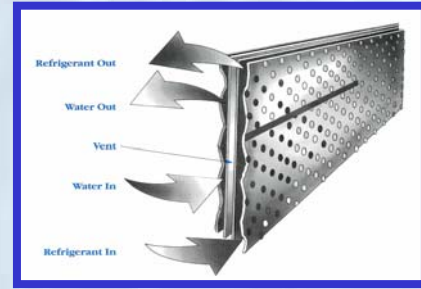


# CONTAMINATION FREE POTABLE WATER COOLING

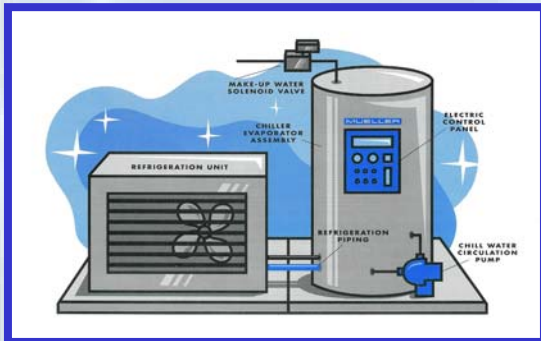
## INTRODUCTION;

Traditional Potable Water and Juice Cooling systems rely on either Direct Expansion or Secondary Heat Transfer Fluid to cool the product. Many food processes such as Mixing Dough, Fruit Salads and Vegetable cooling require potable water as cold as **1°C** which can only be achieved using lower evaporation temperatures.

Low evaporation temperatures well below the freezing point of water may result in freezing up the heat exchanger and as a result contaminating the potable water or product supply. This contamination is considered to be a very high risk for the food industry and it can be completely eliminated by using a patented jacketed vessel with a vent between the water and refrigerant.



## BATCH WATER / PRODUCT COOLING

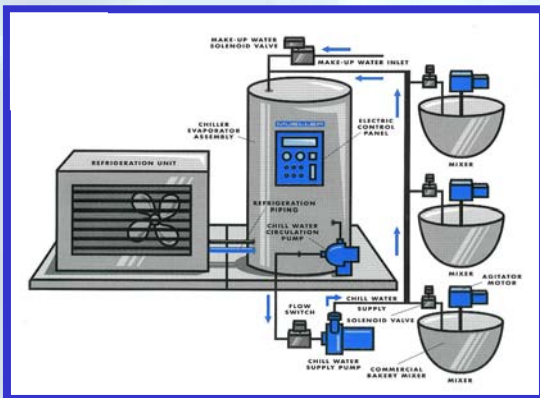


The standard batch cooler is based on a Glass-Lined Stainless Steel tank surrounded with external stainless steel jacketed refrigeration plates and therefore the risk of cross contamination between the refrigerant and water is completely eliminated.

Batch Coolers come with standard matching indoor, as well as outdoor condensing units using environmentally friendly refrigerants for both water and air cooled applications.

### Standard Features

- \* Potable Water down to 1.0 °C
- \* Cross Contamination Free Operation
- \* Stainless Steel Water Pump
- \* Glass-lined Storage Tank
- \* Fully Automated Operation
- \* Pressurised Tanks for Continuous Flow Applications
- \* Atmospheric Tanks for Batch Cooling Applications
- \* Fully Adjustable Electronic Temperature Control



Batch coolers are ideal for bakery dough mixing, fruit juice and salad production and any other direct food applications.

Batch Coolers can be designed to work one-to-one or in a central system arrangement to satisfy the whole factory potable water cooling requirements.

The standard range of batch coolers are highlighted in the following table. For custom-made units to suit your application please consult our design team.

Model	Storage Capacity (Litres)	Draw-off Rate (Lt./min)	Condensing Unit		Electrical Data	Shipping Weight (kg)	Working Weight (kg)	Dimensions		
			Type	(HP)				L (mm)	W (mm)	H (mm)
25/50-PC	189	19	Indoor	2	230V/1Ph/50Hz	200	389	1,321	610	1,829
25/50-RC	189	19	Outdoor	2	230V/1Ph/50Hz	136	325	813	610	1,829
40/50-PC	189	53	Indoor	2	230V/1Ph/50Hz	200	389	1,321	610	1,829
40/50-RC	189	53	Outdoor	2	230V/1Ph/50Hz	136	325	813	610	1,829
40/50-RS	454	53	None	-	230V/1Ph/50Hz	136	590	813	610	1,829
70/120-PC	454	68	Indoor	4	230V/1Ph/50Hz	420	874	2,083	864	2,134
70/120-RC	454	68	Outdoor	4	230V/1Ph/50Hz	320	774	1,067	864	2,134
70/120-RS	454	68	None	-	230V/1Ph/50Hz	320	774	1,067	864	2,134



# SAFEST POTABLE WATER COOLING TECHNOLOGY

## CONTINUOUS WATER / PRODUCT COOLING

### Potable Water to 1.0 °C Continuous Flow or Batch Cooling

- ▶ The unit reduces chilling time, increases production and brings a faster return on your investment.
- ▶ Available as low side heat exchanger or as a complete package.

- ▶ The Mueller patented quad plate design eliminates potential chiller freeze up.
- ▶ Double-wall vented to eliminate the potential of cross contamination.

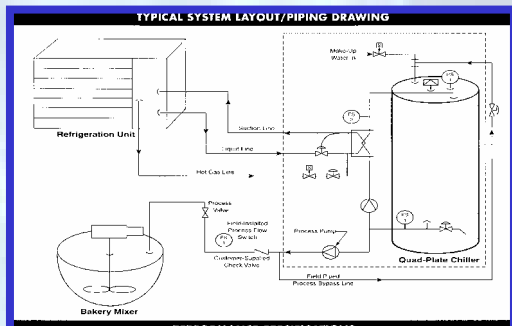


#### Standard Features:

- ▶ A double-wall, vented heat exchanger eliminates contamination of the fluid being chilled by refrigerant.
- ▶ Designed to provide chilled fluids to within 1°C of their freeze points.
- ▶ Rated operational pressure of 28 Barg at 121 °C which provides you with positive freeze protection.
- ▶ Constructed of 316L stainless steel.

#### Applications:

- Ingredient Water
- Food Product Cooling
- Bakery-Potable Water Cooling
- Hydrocooling
- Drinking Water
- Pre-cooling water for ice making
- Plastic / Hydraulic Machine Cooling

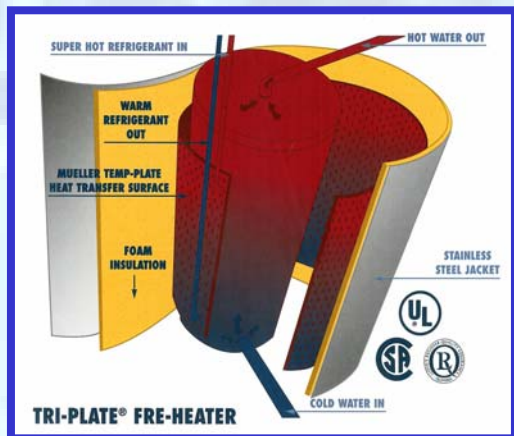


## HEAT RECOVERY



Whether your bakery, food production or dairy operation is large or small, you need plenty of hot water for equipment clean up. What better way is there to meet your everyday needs than with FREE hot water.

Mueller **Fre-Heater** unit can produce free hot water from the wasted heat generated by the refrigeration system. The Model "D" and "DE" Fre-Heaters are heat recovery units that harvest up to 60 percent of this normally wasted heat energy and use it to create hot water.



#### ADDITIONAL FEATURES:

**4.5-kW heating element** - fast recovery to maintain desired temperature. Automatic operation and controls for maintaining 48 - 76°C water

#### MODEL "D" AND "DE" FEATURES :

- Available in three sizes** - 189, 300 and 454 litres.
- Patented stainless steel Temp-Plate heat transfer surface** - the heart of the Fre-Heater system .
- Fully insulated storage tank** - up to 50mm of foam insulation to keep water hot until you need it.
- Industrial-grade storage tank** - glass is fused to the metal interior for strength and durability. Two replaceable, magnesium anode rods protect against natural water corrosion and increase the life of the tank.
- Stainless steel outer jacket** - resists rust and helps keep the unit looking new for many years

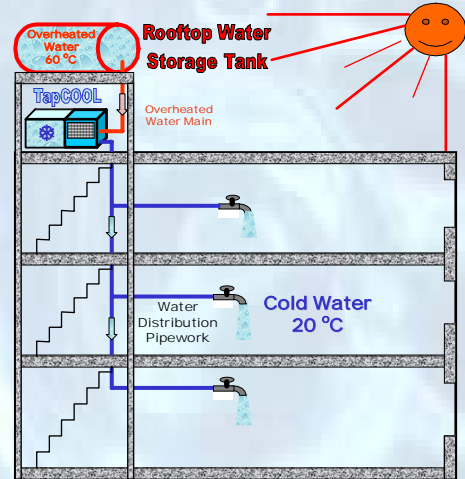


## SANITARY WATER COOLING

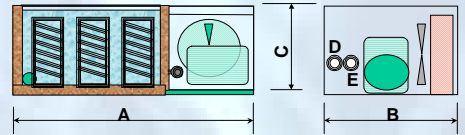
High ambient together with solar gains cause excessively high temperatures within the roof level water storage tank during the summer season and it results in excessive high tap water temperatures



**TapCOOL** unit offers a simple, reliable and cost effective solution to overcome this problem. It offers a new way of providing refreshing **Cool Water** on demand without the need for expensive and inefficient continuous cooling option.



The factory finished unit consists of an ice storage vessel comprising ice heat exchanger surface, refrigeration unit, water heat exchanger and associated circulation pump complete with a central control panel for fully automated operation.



**TapCOOL** Domestic Water Cooling is based on a relatively small thermal energy storage volume which can be generated over-night using lower ambient and electricity prices to store sufficient energy for use during day peak periods.

Flow Rate (l/min)	Flow Rate (m³/h)	Flow Rate (m³/d)	Flow Rate (m³/wk)	Flow Rate (m³/mo)	Flow Rate (m³/yr)	Flow Rate (m³/yr)	Flow Rate (m³/yr)	Flow Rate (m³/yr)	Flow Rate (m³/yr)
1.00	1.20	2.40	16.80	72.00	864.00	10368.00	124416.00	1492992.00	17915904.00
2.00	2.40	4.80	33.60	144.00	1728.00	20736.00	248832.00	2985984.00	35831808.00
3.00	3.60	7.20	50.40	216.00	2592.00	31104.00	377280.00	4543968.00	54947712.00
4.00	4.80	9.60	67.20	288.00	3456.00	41472.00	500736.00	6011952.00	72138208.00
5.00	6.00	12.00	84.00	360.00	4320.00	51744.00	621888.00	7454304.00	89565760.00
6.00	7.20	14.40	100.80	432.00	5184.00	61488.00	738240.00	8865168.00	106278976.00
7.00	8.40	16.80	117.60	504.00	6048.00	71776.00	861984.00	10318752.00	123934720.00
8.00	9.60	19.20	134.40	576.00	6912.00	82752.00	994368.00	11902704.00	142721280.00
9.00	10.80	21.60	151.20	648.00	7776.00	93408.00	1117248.00	13397184.00	160823040.00
10.00	12.00	24.00	168.00	720.00	8640.00	103680.00	1244160.00	14929920.00	179159040.00

## INDUSTRIAL WATER COOLING

**A chilling solution  
Water Cooling as low as 1.0 °C**

- ▶ Easy to clean and inspect with virtually no downtime for maintenance.
- ▶ Patented Temp-Plate design eliminates potential chiller freeze-up.
- ▶ Unit reduces chilling time, increases production, and brings a faster return on your investment
- ▶ Accepts incoming fluid temperatures in excess of 27 °C without the need of a secondary heat exchanger.



## TECHNICAL SUPPORT

EPS offers full system design support to assist in proper selection and integration into existing or new installations as part of our customer commitment. Please consult our technical sales team at [sales@epsLtd.co.uk](mailto:sales@epsLtd.co.uk) for your specific application or visit our web site [www.epsLtd.co.uk](http://www.epsLtd.co.uk).

For additional information contact;

Distributor / Installer Stamp



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