

Icecore™ Soda Chillers

eco-friendly



Multiplex

Manitowoc
Foodservice

Key Design Objectives



- Improved Reliability
- Energy Efficient
- Lower Cost Servicing
- Focus on Total Life Cost
- Reduced down time
- Increased fault diagnosis & 'solve at source' capability
- Improved beverage quality & consistency



Features & Benefits

Lift Out Pump Deck / Coil Deck

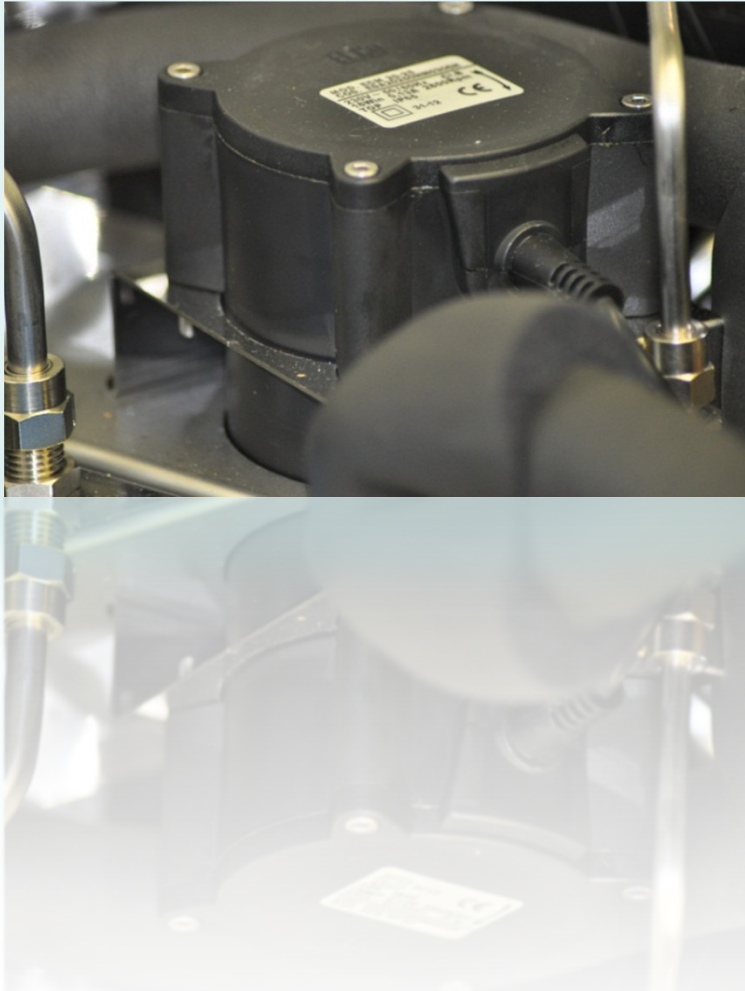
- Modular manufacturing
- Lower cost servicing
- Designed for remanufacture

Features & Benefits



Installation & Service

- Improved python manifold arrangement
- Improved manifold stability and strength
- Nut & Nipple connections as standard
- Two stage overflow & Condensate collection tray
- Spare screws
- Hi-Torque type fasteners to eliminate issues with thread wear and need for shake proof washers.
- One tool access to all critical components by removing three screws.
- Self prime soda circuit



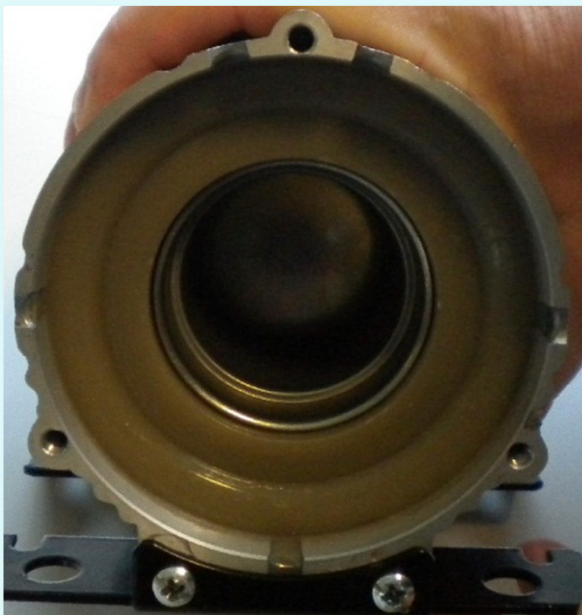
Features & Benefits

Agitator & Condenser Fan Motor

- Electronically commutated motor
- Low Energy consumption
- Very Low running temperature compared to traditional motors (improves fridge performance)
- Improved reliability
- Stainless steel Condenser Fan shroud (Improved fridge performance)

Features & Benefits

Soda Recirculation

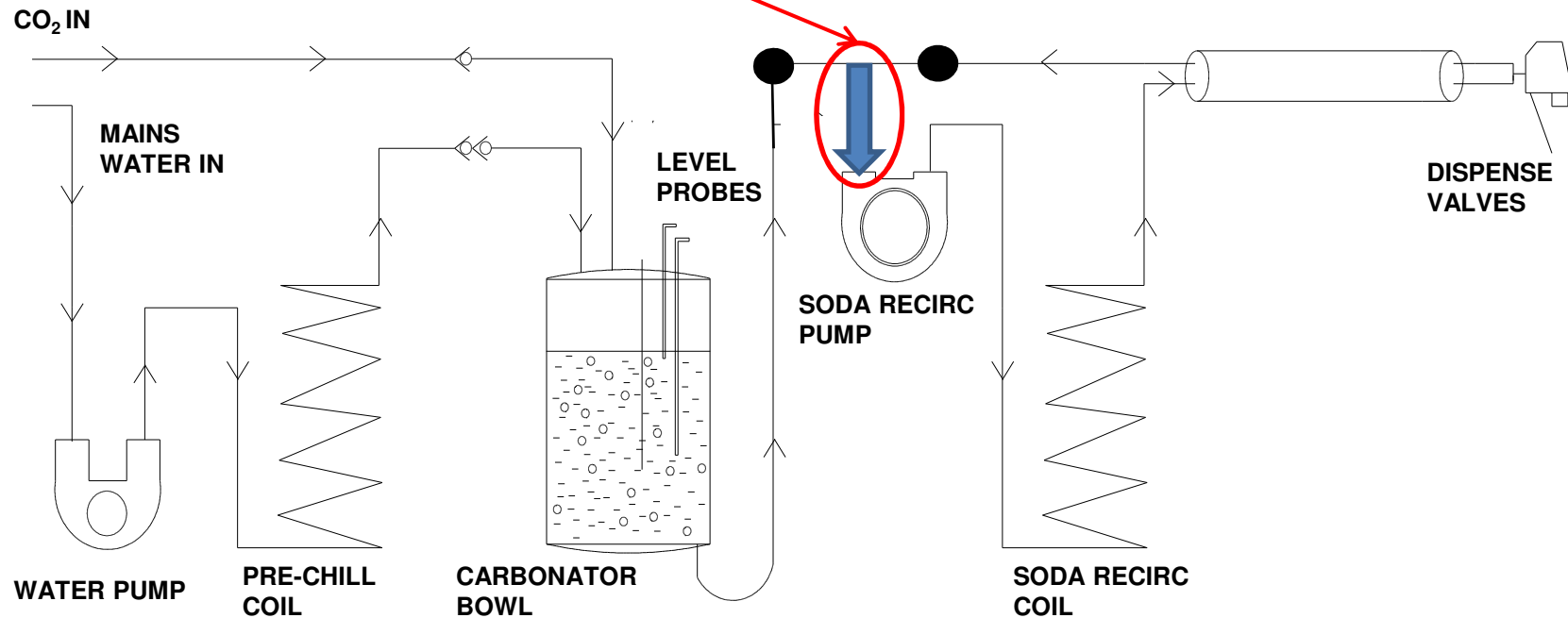


- Magnetically coupled soda pump.
- Temperature controlled variable speed (500-3500rpm) – Energy efficient & increased reliability
- Through Bowl Carbonation (Self-prime, improved beverage consistency & quality)
- Motor windings resin sealed and protected from condensation & leakage from pump failures
- Longer bearing & motor life resulting from lower running temperatures
- Reduced refrigeration cycle times



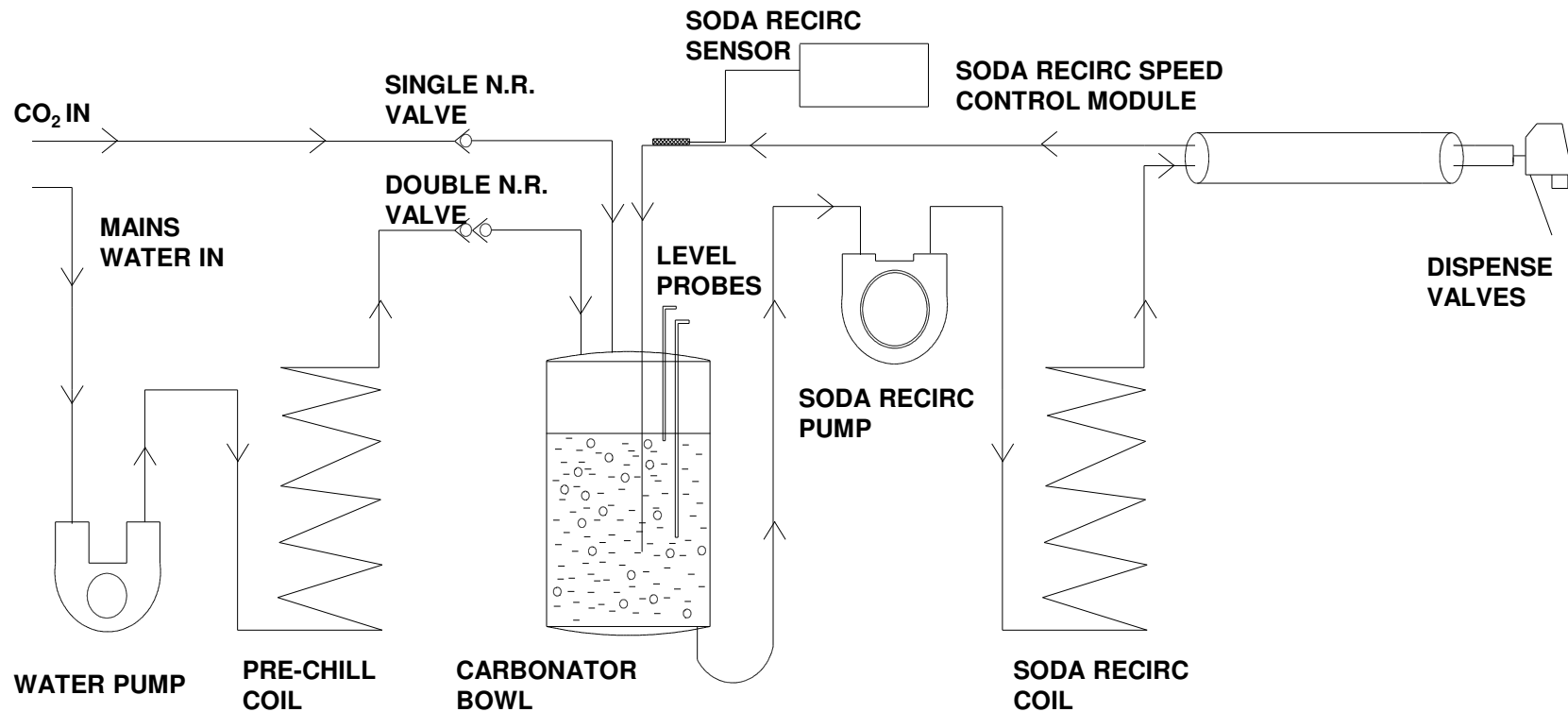
Through Bowl Carbonation System

On traditional post mix systems the recirculated water re-enters the pump here and returns to the point of dispense.





Through Bowl Carbonation System



Recirculating through the carbonator bowl ensures greater product consistency & self priming capability.



Electronic Control System



- Multi-lingual
- Easy access control panel
- Real time temperature display (Recirc return temperature and bath temperature)
- Adjustable parameters page (password protected)
- Component on/off page
- Lockable screen. Allows pages to be viewed as read only.
- On screen fault diagnostics
 - High Recirc Temperature
 - Clean Condenser
 - High Fridge Temperature
 - Low water pressure (Option)
 - Over Ice
 - High Bath Temperature
 - Carb Time Out
 - Compressor Time Out (18 hours)
 - Carb Over Temperature (Option)
 - Still water boost control. Pressure or electronic (Option)

Energy Savings

Validated energy saving between a standard R134a and R290 Eco Unit on pull down and recovery.

An intelligent control/soda recirc delivers further energy saving over a standard electro-mechanical thermostat/control system.

Trials conducted in the UK have shown as much as a 65% saving over competitor/MBS R134A equivalent.



Key Design Objectives

Requirement	Achieved	How
Reliability Improvement	✓	Improved Refrigeration Balancing EC motors for Agitator, Pumps & Fan.
Ease of Service	✓	Modular Build, Removable coil Deck, Single tool Servicing, easy access to critical/exchangeable parts.
Improved Performance	✓	Through Bowl carbonation, Closed Loop Control System, Temperature Controlled Soda Pump, bath insulation and condenser fan motor shroud.
Improved Energy Efficiency	✓	Increased Water Bath Insulation EC Motors, Improved Refrigeration System, Temperature Controlled Soda Recirculation.
Lower Cost of Ownership	✓	All The Above

Basic & Eco Pack Specifications

Feature	Icecore Basic	Icecore Eco-Pac	Benefit
EC Agitator *		●	Reliability / Energy Reduction / Warranty
EC Condenser Fan *		●	Reliability / Energy Reduction / Warranty
TMFR Recirculation Motor Mag Drive Pump *		●	Reliability / Energy Reduction / Warranty
Smart Electronic Control + Digital Backlit Display	●	●	Energy Reduction / Additional Functionality
Increased Tank Insulation	●	●	Energy Reduction / Performance Improvement
Water Bath Drain	●	●	Installation / Service
Carb Bowl Recirc	●	●	Performance Improvement
Secondary Overflow	●	●	Installation / Service
Energy Reduction **	10% - 15%	60% - 70%	Energy Reduction

Note 1 : * Forms part of the Eco-Pac and qualifies for a 36 month warranty. Icecore Basic will qualify for a 12 month warranty (in both cases warranty is parts only or back to base).

Note 2 : ** Energy reductions confirmed via independent field testing





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Comparative

Feature	Icecore 15 R290 (Benchmark)	Icecore 30 R290
Ice Bank Capacity (kg)	15	30 (+100%)
Dispense Capacity (DPM)*	176	352 (+100%)
Compressor Swept Volume	12cc	14cc (+21%)
Refrigeration Duty (Watts)	800	1040Watts (+30%)
Carbonator Bowl Capacity	1.8Lts	5.2Lts (+188%)

* Drinks Capacity based on 340ml Drink @ 4.0 Dec C or below.



Specification Options

- Gas Type (R134A/R290)
- Pump Protection (Thermal or pressure)
- Number/Type of coils (Syrup/still/beer)
- Flood Protection Solenoid
- Transformer for valve/lamp supplies (100va/200va)
- CO2 Low Pressure Warning
- CO2 Low Pressure Switch (Valve 24V)
- Still Water Boost (Electric/Pressure drop)
- Unit mounting (Castors/Rubber Feet)
- Outer casing (Silver clad/stainless steel)
- Recirculation pump isolation valves
- Telemetry
- Fitting Kit
- Basic/ECO Pack





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