

ADSORPTION CHILLER

ADC Series E-FRAME

FEATURE HIGHLIGHTS

- * Ultra low electricity consumption
- * Zero ozone depletion potential
- * No dangerous chemicals
- * Very few moving parts
- * Ease of maintenance
- * Advanced microprocessor control
- * Designed for outdoor installation
- * Wide temperature ranges allowed

| MODEL | E-150 | E-140 | E-120 | E-100 |
|-------------------------|-------|-------|-------|-------|
| Rated Capacity (Tonnes) | 152 | 142 | 124 | 104 |

Chilled Water

| | | | | |
|---------------------------------------|------|------|------|------|
| Inlet Temperature (°C) | 12.8 | 12.8 | 12.8 | 12.8 |
| Outlet Temperature (°C) | 7.2 | 7.2 | 7.2 | 7.2 |
| Flow Rate (l/min) | 1382 | 1291 | 1128 | 946 |
| Pressure Drop (mtr. H ₂ O) | 9.1 | 8.2 | 7.0 | 5.5 |
| Connection Size: (mm) | 100 | 100 | 100 | 100 |

Condenser Water

| | | | | |
|---------------------------------------|------|------|------|------|
| Inlet Temperature (°C) | 29 | 29 | 29 | 29 |
| Outlet Temperature (°C) | 35 | 35 | 35 | 35 |
| Flow Rate (l/min) | 4164 | 3887 | 3395 | 2846 |
| Pressure Drop (mtr. H ₂ O) | 13.7 | 12.5 | 10.7 | 8.2 |
| Connection Size: (mm) | 150 | 150 | 150 | 150 |

Hot Water

| | | | | |
|---------------------------------------|------|------|------|------|
| Inlet Temperature (°C) | 90.6 | 90.6 | 90.6 | 90.6 |
| Outlet Temperature (°C) | 84 | 84 | 84 | 84 |
| Flow Rate (l/min) | 2301 | 2150 | 1877 | 1575 |
| Pressure Drop (mtr. H ₂ O) | 6.7 | 6.1 | 5.2 | 4.0 |
| Connection Size: (mm) | 100 | 100 | 100 | 100 |

*Rated for maximum capacity mode. Higher efficiencies are available at reduced capacities.

*All data is preliminary and subject to change without notice.

Electrical

| | |
|-------------------------------|-------------|
| Voltage..... | 415-3-50/60 |
| Frequency..... | 50/60 Hz |
| Operating kW Consumption..... | 0.8 kW |
| Maximum kW Consumption..... | 1.9 kW |

Air Supply

| | |
|----------------------------|------|
| Air Pressure (bar)..... | 4.89 |
| Air Consumption (cfm)..... | 0.34 |

Unit Dimensions*

| | |
|------------------|------|
| Width (mm)..... | 2489 |
| Length (mm)..... | 5080 |
| Height (mm)..... | 2921 |

*with cabinets mounted on the side as shown

Weight

| | |
|---------------------|-------|
| Empty (kg)..... | 14969 |
| Operating (kg)..... | 16366 |

Refrigerant type.....Water (H₂O)

Operating Range

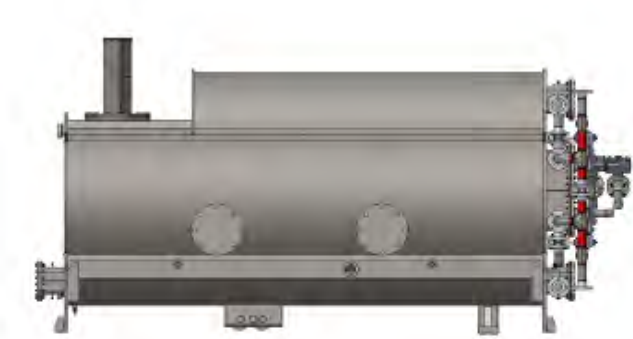
| | |
|---------------------------|----------|
| Chilled Water (°C)..... | 3 to 20 |
| Hot Water (°C)..... | 52 to 93 |
| Condenser Water (°C)..... | 10 to 39 |

Maximum Pressure (bar)..... 4.82

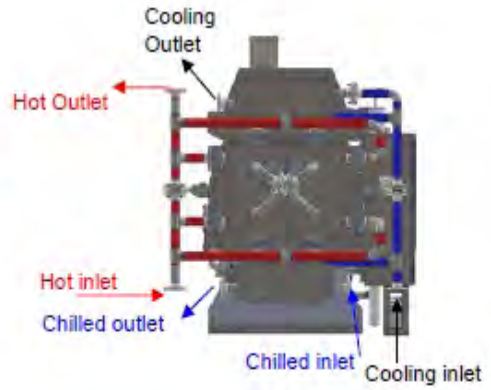
*Maximum pressure 4.82 for hot, chilled, & Condenser water



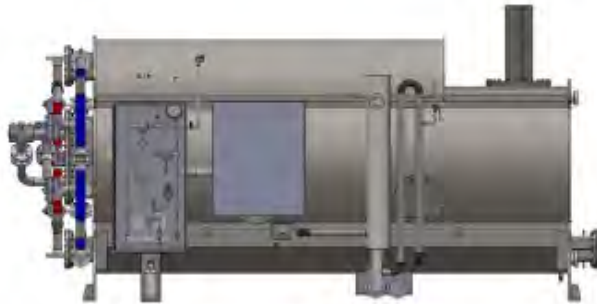
DIMENSIONAL DATA & DUCT CONNECTION



LEFT SIDE



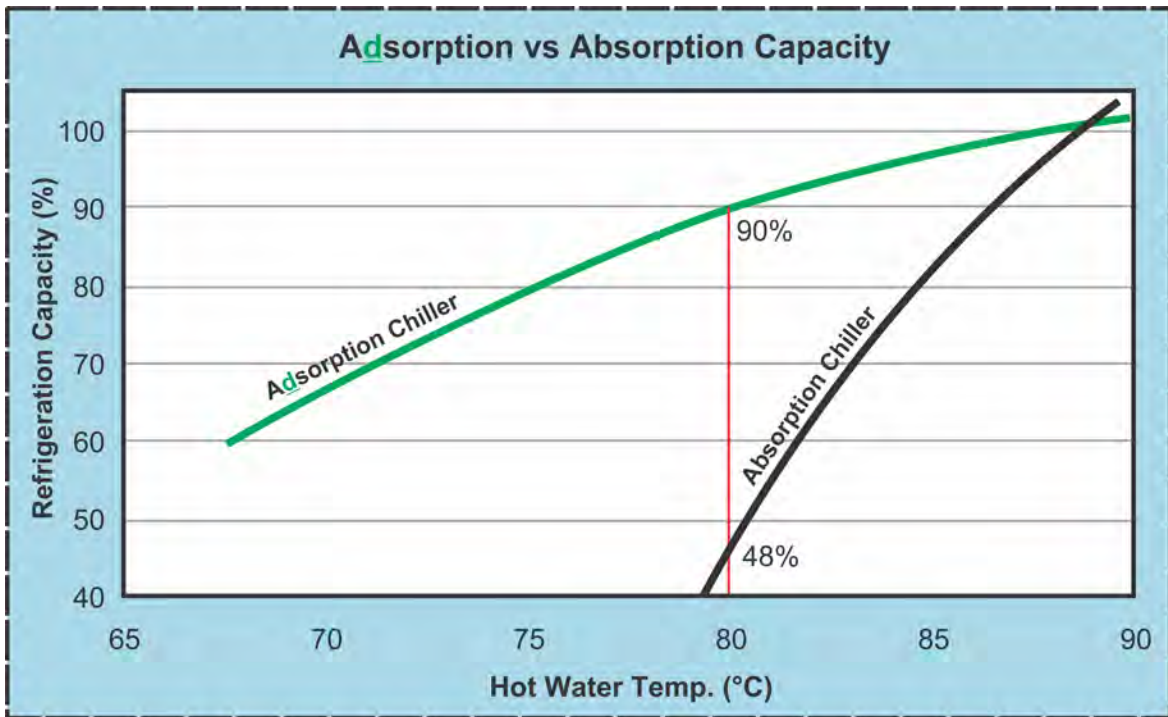
FRONT



RIGHT SIDE

See drawings for specific piping connections and sizes.

PERFORMANCE CHART



High Efficiency even at Low Hot Water temperature

FEATURE OVERVIEW

Main Benefits

| Factors | Adsorption Chillers | Absorption Chillers |
|---|---|--|
| Life Expectancy | Greater than 20 Years | 7 to 9 Years |
| Maintenance | Negligible Maintenance | Require High Maintenance |
| Regeneration Temperature (Hot Water) | Down to 50°C (122°F) | Shuts down at 82°C (180°F), Needs Back-up Heater |
| Desiccant Used | Special Silica Gel (Inert)-S ₂ | Lithium Bromide (Highly Corrosive) |
| Replacement Requirements (Periodic Maintenance) | Not Required | Heat Exchangers, Boilers, Absorbent Replacement Required |

Additional Benefits

- Start up Times 5 to 7 Minutes compared to 15 minutes for absorption
- Chilled Water output 4°C-13°C (40°-55°F)
- No crystallization, corrosion, hazardous leaks, or chemical disposal issues
- Vibration or noise & simple and continuous operations
- Quite High COP (Coefficient of Performance)
- Versatile operation – Can be used for a wide range of Industrial and commercial application.

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