

## 1) EZ-Frame

### a) Base Assembly

- i) High-impact, UV-rated PVC frame and supports
- ii) Light-weight construction- Frames weigh 30lbs on average
- iii) Joints welded and cross bracing used where needed
- iv) Sprayers, magnets, and supports assembled with 3/16" aluminum blind rivets
- v) Frames treated with anti-microbial spray
- vi) Frame drain with 1/2" push to connect fitting

### b) Screen Assembly:

- i) Fiberglass mesh screen with aluminum frames
- ii) Screen clips run along front perimeter of frame and rotate to lock and unlock screen assembly for quick removal

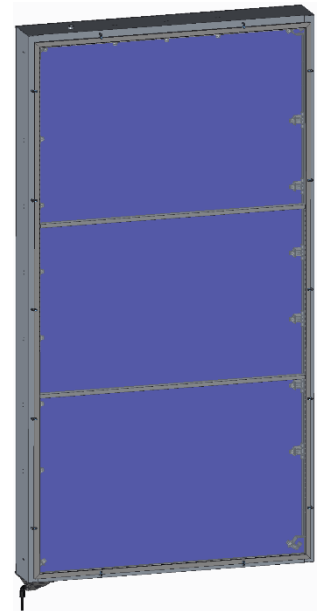
### c) Media

- i) Non-woven polyester with water based latex binder, 1/4" thick, 11oz/sq.yd
- ii) Pressure drop less than 0.1 inches WC when clean and dry
- iii) Installed using industrial strength Velcro for ease of replacement

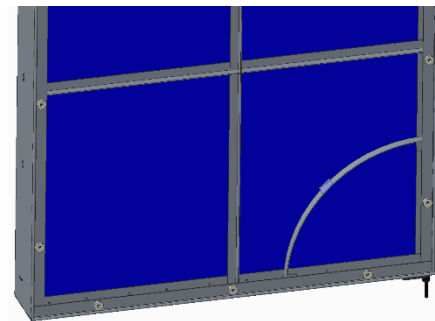
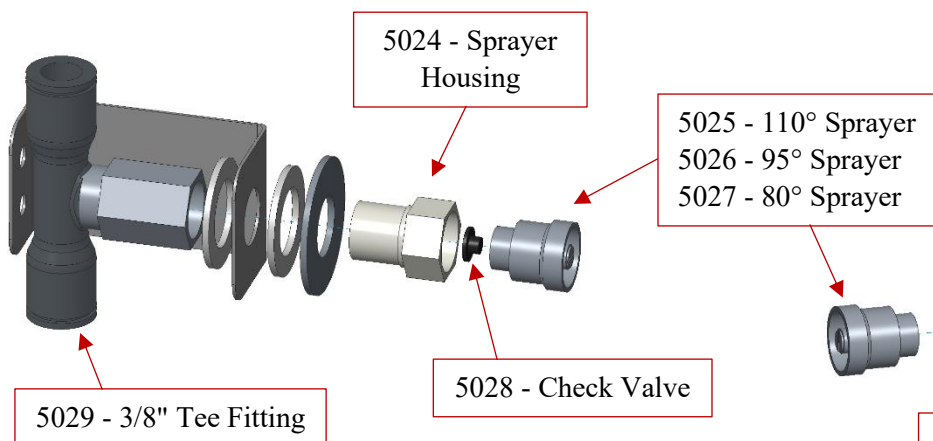
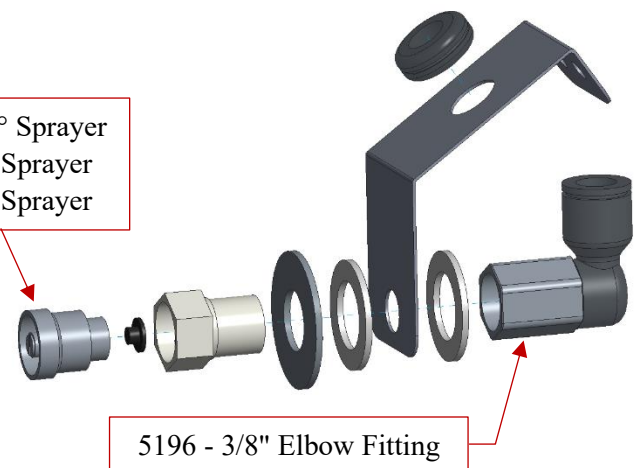
### d) Internal Plumbing

- i) Plastic, wear resistant, flat spray nozzles with 1/4 turn assembly and angles ranging from 80-110 degrees
- ii) Removable rubber check valves installed in sprayer heads to maintain manifold pressure and minimize dripping
- iii) Push to connect tee fittings attached to each sprayer assembly 3/8" nylon tubing (250 psi working pressure) used to connect sprayers
- iv) 1/2" x 3/8" tee push to connect tee for water inlet to frame

Front View:



Cut away of back of frame:

Side Sprayer Assembly:Corner Sprayer Assembly:

### e) External Fastening

- i) EZ-frame attaches to unit with licensed NdFeB magnets (52lb rated pull strength)
- ii) Flexible bulb seal around entire frame to seal against unit

## 2) NC Solenoid Valve

### a) Assembly

- i) Brass body NC solenoid valve
- ii) Stainless Steel mounting bracket
- iii) Attached to unit with (3) 1" NdFeB Magnets

### b) Electrical

- i) 6W- 24VAC Nema 4X solenoid valve designed for repeated cycling
- ii) IP 65 Canfield Connector MCCR used for valve wiring, can be daisy-chained to connect multiple valves
  - (1) 18g- 3 Conductor Cable (10A Max Rating) available in multiple lengths
- iii) Outdoor rated, can handle temperatures up to 140 °F

### c) Plumbing

- i) Brass in-line 40µ strainer to protect valve & nozzles
- ii) 1/2" female push to connect fitting connections for use with provided nylon tubing
- iii) Rated up to 150psi Water Pressure

## 3) Ancillary Equipment

### a) Plumbing

- i) 1/2" MNPT to 1/2" female push to connect fitting to adapt tubing to field provided water manifold
- ii) 1/2" Nylon tubing for connection to field provided manifold to valve boxes and frames
- iii) Magnetic straps supplied for holding tubing and cables in place

### b) Electrical

- i) 600V outdoor rated electrical cord provided for wiring valve boxes and controllers

## 4) Controllers

### a) Assembly

- i) 2-Channel Performance Monitoring Controller
- ii) Remote and/or onsite configuration
- iii) 24/7 cloud-based data storage with sensor data logging and analysis
- iv) Controller is rated for outdoor temperatures up to 140 °F.
- v) Customer portal for access to system energy savings and performance
- vi) Optional: automated self –diagnostics
- vii) Optional: alerting and incident management

### b) External Fastening

- i) Controllers attach to unit with licensed NdFeB magnets
- ii) Each magnet has 52 lbs. of pull strength and a zinc plated housing

### c) Weather Station

- i) Unaspirated solar radiation shield
- ii) Double louvered high impact thermoplastic
- iii) Ratiometric -22°F - 257°F / 0-100% RH  
Temperature and Relative Humidity sensor
- iv) Preassembled for quick deployment
- v) Attaches to unit with NdFeB magnets or may be optionally mast mounted



**d) Condenser Air and Liquid Line Sensors**

- i) Pre-assembled for quick deployment with stainless steel probe
- ii) Solid-State, durable, and highly accurate  $\pm 2^{\circ}\text{F}$

**e) Compressor or Condenser Fan Current Transducers**

- i) Split-core DC voltage output transducer pre-assembled for quick deployment by snap clamping around measured load conductor
- ii) 0-250 Amp with accuracy  $\pm 2\%$  full scale (50/60 Hz Sinewave) 5% to 120% of rated current

**f) System Water Pressure Sensor**

- i) 0-200 psig ratiometric output, fully calibrated and temperature compensated  $-40^{\circ}\text{F} - 257^{\circ}\text{F}$
- ii) 1/8 MNPT connection for connection to system water distribution piping
- iii) Pre-assembled for quick deployment with transducer quick connect harness

**g) Controller System Overview**

Assembly / Accessories	CMM Master Controller	CMC Client Controller
Wireless Backhaul	Private Cellular Network	N/A
Wireless Mesh Communication	900 MHz	900 MHz
Analog Inputs	15 (0-10 VDC)	8 (0-10 VDC)
Digital / Pulse Inputs	2 (5 VDC)	2 (5 VDC)
Digital Outputs	(4) 5 VDC, (2) 24 VAC	(4) 5 VDC, (2) 24 VAC
Ethernet Port	1	N/A
Outdoor Enclosure	NEMA 4 Rated	NEMA 4 Rated
Condenser Air Temperature Sensor (1 per Channel) with 25Ft. Cable	2	2
Liquid Line Temperature Sensor (1 per Channel) with 25Ft. Cable	2	2
Compressor or Condenser Current Transducer with 25Ft. Cable	2	2
RH / Temperature Weather Station with 25Ft. Cable	1	N/A
System Water Pressure Sensor with 25Ft. Cable	1	N/A

**5) Controller Power Supply**

**a) Transformer and Fuse Holder Kit**

- i) 100 VA multi-voltage foot mount transformer (115V, 208-230V, and 460V version available)
- ii) 2P fuse holder rated for 30A and 600VAC
- iii) (1) Set of Class CC time delay fuses included (amp rating depends on voltage option)
- iv) 600V Rated connection wiring included with wiring hardware accessories

**6) Water Distribution Equipment (Designed per Project Requirements)**

**a) Pump**

- i) VFD drive turns on and ramps up as needed to provide constant discharge pressure
- ii) Loss of suction and other built in motor and pump protection
- iii) All wetted components stainless steel or lead-free brass
- iv) Double Check Assy Provided with most Systems
- v) Nema 4 rated version available
- vi) N+1 design available where required

Standard Nema 1 Pump



Nema 4 Option



**b) Water Treatment**

- i) Ion exchange water softener
  - (1) Designed to provide 1gpg or less of hardness
  - (2) Mechanically operated, no electrical connection needed in most cases
- ii) Alternative Scale Control Cartridge to reduce hardness and iron scaling and prolong life of media
  - (1) A proprietary blend of slow-dissolving polyphosphates for control of hard-water scale and iron.
  - (2) Note that more frequent cleaning of the media will be required with this style system.

**c) Filtration**

- i) 5 Micron or better filtration
- ii) Housings selected for specific pressure and flow requirements- plastic or stainless steel only

**d) Pressurized water storage tanks**

- i) Used where required for buffering and extra capacity
- ii) Indoor- lightweight fiberglass versions
- iii) Outdoor- durable epoxy coated steel tanks

**e) Measurement**

- i) Fluid filled gauges provided to measure pressure drop across filter and other points of interest

**f) Modular Roof-Curb systems**

- i) Available where required. Designed for 20 psf load

**7) Typical Contractor Provided Equipment****a) Mechanical**

- i) Sheet metal and silicon sealant for frame mounting and air bypass prevention

**b) Plumbing**

- i) Main water distribution plumbing (fittings, full port ball valves, etc.)
- ii) Drain lines for softener and system drain down
- iii) Water manifold along top of units with 1/2" FNPT fittings for transition to Peak+ provided plumbing
- iv) Drain Manifold for frame drains run to nearest approved drain.

**c) Electrical**

- i) Miscellaneous electrical connectors (wire nuts, ring terminals, etc.)
- ii) Cable ties, electrical tape, etc.

**8) Estimated Useful Life (EUL):**

- a) The Estimated Useful Life (EUL) of the system is 15 years.

**9) Warranty**

- a) All Peak+ frames, valve boxes, performance monitoring and water equipment come with a standard one-year parts only limited warranty provided the system is properly installed and maintained per the Peak+ IOM procedures. Warranty may be extended year to year for a total of five years provided a preventative maintenance program is placed on the Peak+ system (to include maintenance on water equipment) and maintenance is performed per Peak+ requirements by a qualified maintenance provider. Note: Additional OEM component warranties may apply.