



## TECHNICAL SPECIFICATION

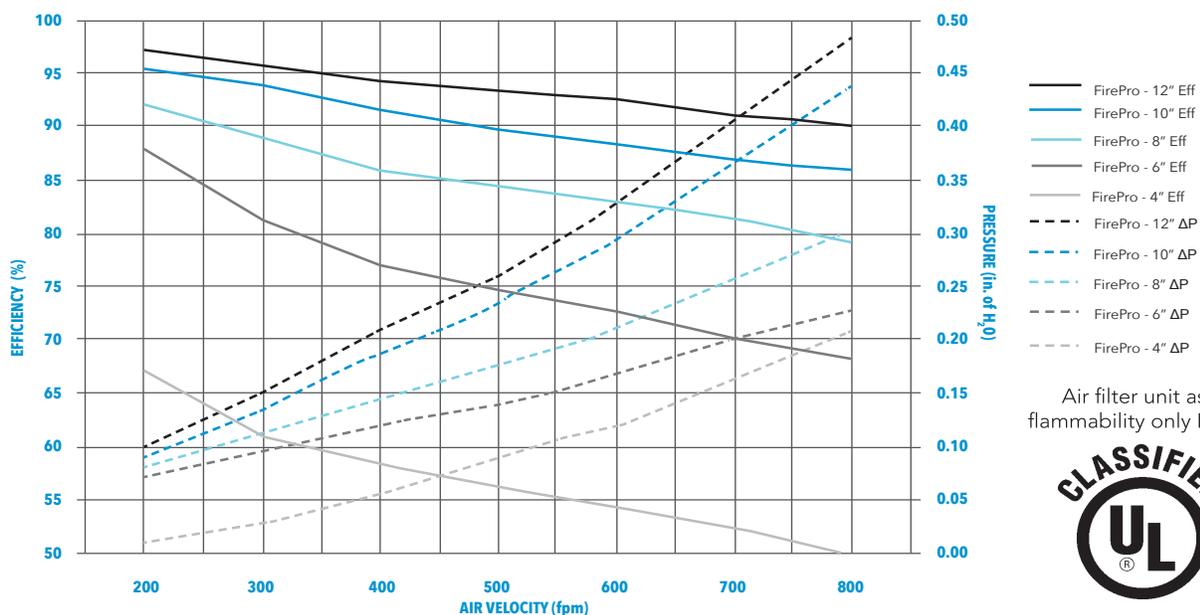
### KUUL EVOLUTION FIREPRO™ EVAPORATIVE MEDIA

If you need adherence to fire codes, look no further than **FirePro**. This technology is made of flame retardant, inorganic materials fortified to provide you with the superior strength that is synonymous with Kuul® evaporative media. **FirePro** is designed to withstand the demands of even the toughest HVAC environment. Due to its unique material composition, **FirePro** has market-leading water absorption properties and saturation efficiency, which allows the product to rapidly respond to fast start-up conditions

and changes in demand.

**Kuul Evolution™** evaporative media is a premier line of specialized evaporative media that provides enhanced cooling performance and reduced pressure drop due to the choice of materials, design process and proprietary manufacturing technique. Only the highest quality materials are used and all components of this line are manufactured in our Center, Texas, United States manufacturing facility.

### KUUL EVOLUTION FIREPRO EVAPORATIVE MEDIA EVAPORATION EFFICIENCY AND PRESSURE DROP



Air filter unit as to flammability only R39037



- The performance data shown above is independently tested and verified by a third party under required, stringent testing conditions.
- Due to external factors including, but not limited to, installation practices, maintenance practices, water quality, humidity and ambient temperature, results may vary.
- The performance data shown above is based on wet media in optimal environmental conditions.

To learn more, visit  
[www.thekuuleffect.com](http://www.thekuuleffect.com)

## Kuil Custom Cassettes

Don't forget to add custom cassettes to your evaporative media. Evaporative media cassettes allow the media to safely travel without the threat of bent corners or warped edges. The cassette shields the edges with a strong layer of protection to ensure it arrives to the intended location in mint condition. Using customizable cassettes, clients can request the exact size to match their unique system specifications without the need to troubleshoot and cut the evaporative media themselves once it arrives. The cassettes are also helpful during the cleaning process because the evaporative media is more accessible, making it easier to brush the surface to remove any scaling that might have occurred. Additionally, when switching out the media, the cassettes effortlessly slide into place, only requiring one-piece removal and placement instead of fitting together multiple pieces.

## TECHNICAL SPECIFICATIONS AND DESIGN INFORMATION

Please refer to the table below for information surrounding design and final installation requirements.

Density of media	[lbs/ft <sup>3</sup> ]	dry media = 1.29	wet media = 5.14
Water carrying capacity from dry to wet	[gal/ft <sup>3</sup> ]	0.617	
Maximum air velocity of media before carry-over	[fpm]	700	
Maximum air velocity of media using DE	[fpm]	800 (If greater consult Kuil Support)	
Maximum height of a single piece of media	[ in " ]	78	
Maximum system height per single header	[ in " ]	120 (If greater consult Kuil Support)	
Recommended supply water over top media surface area	[gal/min/ft <sup>2</sup> ]	1.7 to 1.9 (consult Portacool if system is > 100" in height)	

- For system design advice, please contact Kuil Technical Support for optimum choice
- Kuil offers design consultations to maximize your chosen system configuration

## MAINTENANCE AND UPKEEP

This product has been designed with superior wet strength and chemical stability. The following recommendations pertain to the choice of water chemistry to be used.

<b>PHYSICAL AND CHEMICAL PARAMETERS</b>	
<b>Parameter</b>	<b>Guideline (unless otherwise agreed)</b>
Total alkalinity (ppm CaCO <sub>2</sub> )	Less than 500ppm with pH less than 6.8. Please consult Portacool for advice with scale prevention with values higher than 200ppm.
Chlorine (ppm Cl <sub>2</sub> )	Less than 7 ppm
Sulphate (ppm SO <sub>4</sub> )	Range as recommended by the cleaning specialist in their method statement
Conductivity (mS/m)	Less than 100mS/m recommended for scale control
Total dissolved solids (gravimetric) (ppm)	Less than 900ppm
Suspended solids (ppm)	Less than 20ppm
pH as recommended safe range	6.5 to 8.5 to prevent damage to media chemistry
Soluble Iron (ppm)	Less than 3 ppm
Total copper (ppm)	Less than 1 ppm to prevent corrosion
<b>Hygiene, Bacteria Control</b>	
Sodium Hypochlorite (ppm)	Disinfectant and sterilizer range between 0.5-2.0 ppm
Note: It is recommended to obtain a water analysis to ascertain the scale formation potential.	
Note: It is not recommended to use RO or DI water in aggressive concentrations. Please request guidance from Portacool	
Please refer to Kuil Control series Maintenance and Service Guide for more information.	

- For system design advice, please contact Kuil Support for optimum choice. Portacool, LLC is devoted to sourcing superior materials and manufacturing with the highest quality standards as well as ongoing product development. For current performance data, contact your Kuil® evaporative media expert.

