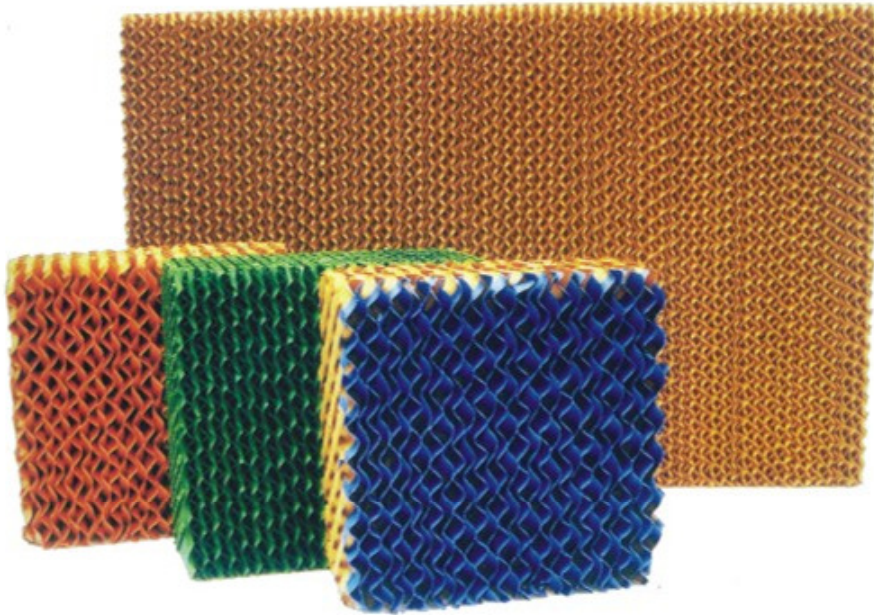


EVAPORATIVE COOLING SYSTEM

CeLPad

the more efficient cooling pad



CeLPad Applications

- Livestocks
- Greenhouses
- Gas Turbine
- Pre-cooler for
- Spray Painting Booth
- Industrial Applications
- Commercial Applications
- Humidification

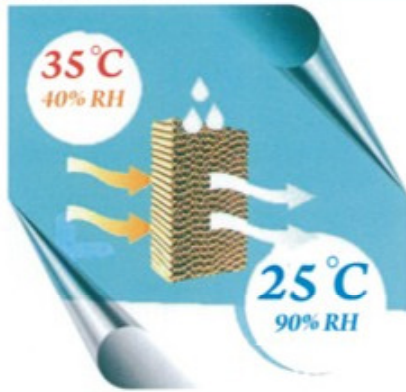
Air-cooled condenser

CeLPad Economical solutions for optimal cooling / humidification

HuTek
HuTek (Asia) Company Ltd.
Climate Control Expert

CeLPad Evaporative Cooling Principal

When air contacts with water, water absorbs thermal energy from the air to evaporate. **CeLPad** amplifies and turns such a simple natural phenomenon into the most economical solution for providing optimal temperature and humidity. Made by specially-impregnated cellulose matrix, **CeLPad** rapidly absorbs water and provides massive contact surface between air and water. When hot and dry air passes through wet **CeLPad**, evaporation process takes place and the air cooled down and humid.



The effectiveness of temperature reduction (ΔT) depends on how effective the evaporation process is, as shown by the following formula

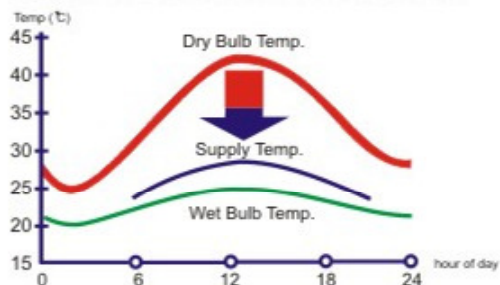
$$\Delta T = \%E * (T_{db} - T_{wb})$$

T_{db} — Dry Bulb Temperature
 T_{wb} — Wet Bulb Temperature
 $\%E$ — Saturation efficiency of CeLPad

Temperature reduction at various relative humidity

Tdb (°C)	Twb (°C)	%RH	%E*	ΔT (°C)
35	22	30%	88%	12
35	24	40%	88%	10
35	26	50%	88%	8
35	28	60%	88%	6

*Based on 1.5 m/s air velocity, CeLPad 0790, 150 mm thickness.



Temperature reduction during the day by CeLPad system

CeLPad The more efficient cooling pad

Maximum Efficiency: **CeLPad** is designed to provide maximum contact surface between air and water. Such massive surface enables an optimum cooling and humidification effect from evaporation.

Maximum Freshness: **CeLPad** acts as a natural filter that purifies inlet air. Carefully designed flute angle directs water towards both the air inlet and outlet side: the water then intrinsically flushes away dust, algae, and mineral build up on the evaporation surfaces.

Maximum Durability: **CeLPad** is made of special cellulose paper impregnated with insoluble chemical compounds to preserve its long working life in your system.

Maximum Toughness: **CeLPad** with proper water bleed-off and regular brushing, can be used in imperfect water and air conditions.

Customization: **CeLPad** can be customized to any sizing, shape, and color of your choices.

Solutions to any applications: **CeLPad** has several configurations that can ensure the most suitable solutions to your various applications.

Ordering key

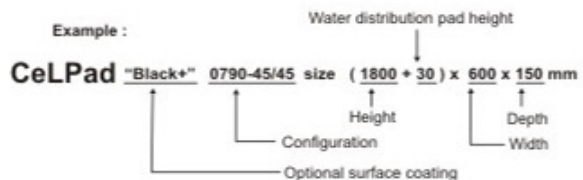
Standard Height : up to 2000 mm.

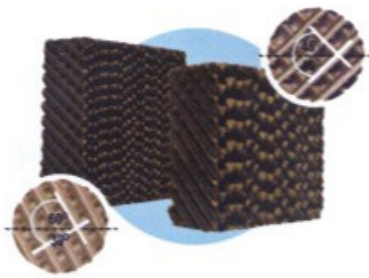
(30 mm or 50 mm for water distribution pad)

Standard Width : 200 mm, 300 mm, 600 mm

Standard Depth : 50 mm, 75 mm, 100 mm, 150 mm, 200 mm, 300 mm

*custom size available upon request





CelPad 0790:

For Maximum Efficiency



CelPad 0760:

For Minimum Static Pressure



CelPad "S" 0590:

For Portable evaporative cooler

Specifications

Flute height: max 7 mm
 0790-45/45 Cross angle: $a=45^\circ$, $b=45^\circ$
 0790-60/30 Cross angle: $a=60^\circ$, $b=30^\circ$
 Evaporation surface (per m^2) : 460 sqm.
 Nominal efficiency*: 88%
 Nominal Pressure drop*: 25 Pa

*Nominal efficiency / pressure drop calculated at 1.5 m/s air velocity, 150 mm pad thickness.

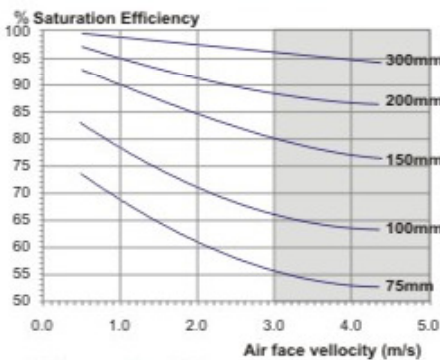
Specifications

Flute height: max 7 mm
 0760-45/55 Cross angle: $a=45^\circ$, $b=15^\circ$
 0760-30/30 Cross angle: $a=30^\circ$, $b=30^\circ$
 Evaporation surface (per m^2) : 460 sqm.
 Nominal efficiency*: 76%
 Nominal Pressure drop*: 11 Pa

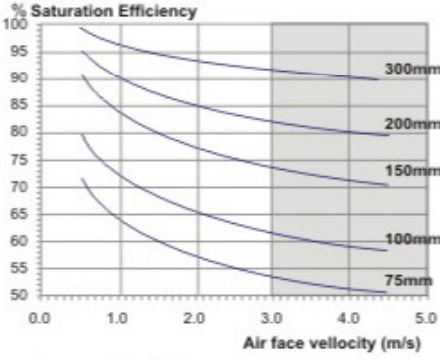
Specifications

Flute height: max 5 mm
 0760-45/55 Cross angle: $a=45^\circ$, $b=45^\circ$
 0760-30/30 Cross angle: $a=60^\circ$, $b=30^\circ$
 Evaporation surface (per m^2) : 690 sqm.
 Nominal efficiency*: 97%
 Nominal Pressure drop*: 44 Pa

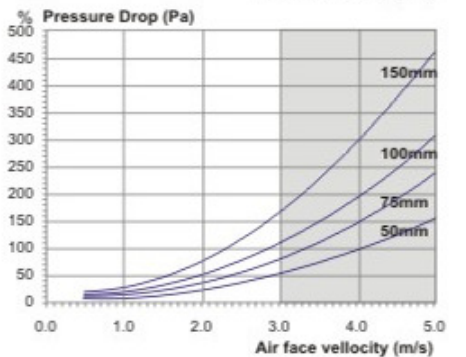
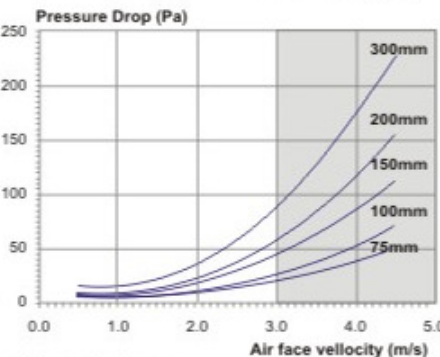
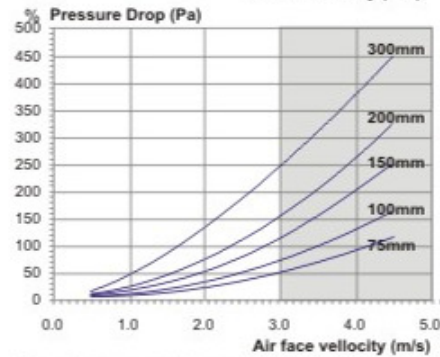
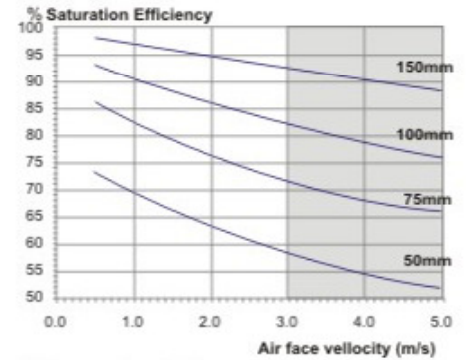
Performance Curve CelPad0790



Performance Curve CelPad0760



Performance Curve CelPad0590



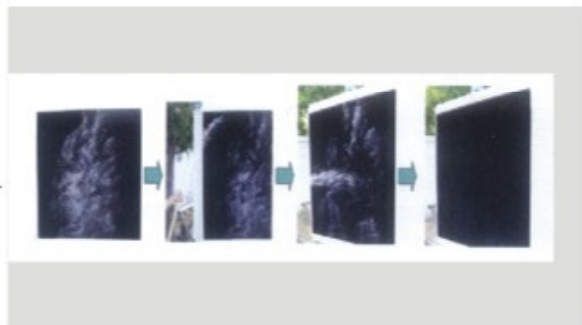
*Droplet separator is recommended for air velocity within shaded area

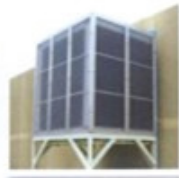
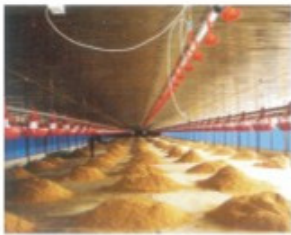
CelPad Black+

Optional protective coating to prevent **CelPad** surface from constantly exposing to tough environment



- ◆ Prevent bacteria/algae/mineral deposits to anchor on **CelPad** surface.
- ◆ Special Anti-Friction modifier for easy cleaning
- ◆ Harden **CelPad** surface so that it can be repeatedly cleaned without damage.
- ◆ Can be applied to any **CelPad** configuration.
- ◆ Color can be customized upon request.





HuTek (Asia) Company Limited is an ISO9001:2008 certified joint venture between Thai and Swedish. We Provide complete solution for climate; ranging from dehumidification and humidification to evaporative cooling and energy recovery. We also provide consultation on how climate control can help reduce costs, enhance productivity, and improve product quality. We provide solution to customers in more than 50 countries world-wide and hope that we can do the same for your business. Please contact us for more details.



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