

HUMICOOOL DIVISION

GLASdek® with TUFedg®



FIRE RATED EVAPORATIVE COOLING AND HUMIDIFICATION MEDIA

GLASdek FEATURES:

- **High Evaporative Efficiency**
Exceptional cooling and humidification rates are achieved due to the design, manufacturing and materials used in GLASdek.
- **Fire Rated UL®900, Class II for safety**
Munters GLASdek is manufactured from a specially engineered, flame retardant material, making it the only media choice where strict adherence to fire codes is required.
- **High Face Velocity, Low Pressure Drop, Low Drift**
The shallow angle of Munters unequal flute design allows high velocity air to travel through the pad without significant resistance or water droplet carry over.
- **Self-Cleaning Design**
Munters GLASdek resists the clogging caused by dust, sand or other debris. By design, more water is directed toward the air entering face of the pad, where it flushes away dirt and debris.
- **Simple to Maintain**
In most cases, routine maintenance

can be performed while systems are still operating. When properly maintained, Munters GLASdek pads will provide many years of highly efficient cooling and humidification.

TUFedg PROTECTION

- **Protective Edge Coating**
Munters TUFedg is a tough and resilient edge treatment applied to the air entering face of a GLASdek pad. It has been formulated to withstand repeated cleaning without damaging the pad.
- **Algae and Weather Resistant**
Munters TUFedg is nonporous and quick drying. It prevents algae and minerals from anchoring themselves into the substrate of the pad, so they slough off when dried. TUFedg also protects GLASdek pads from the damaging effects of severe weather and long term exposure to UV light.
- **Extends the Service Life of Evaporative Pads**
Munters TUFedg protective edge coating extends the life of the pad over that of non-treated pads.

GLASdek evaporative media is made from a flame retardant material fortified with special rigidifying agents. The cross fluted, unequal angle pad design induces highly turbulent mixing of air and water for optimum heat and moisture transfer. This unique design also functions to continually direct more water to the air entering face of the pad, where the most intense evaporation occurs, further enhancing the operating efficiency of the pad.

DESIGN CONSIDERATIONS

Water Distribution:

The water flow needed is based on the depth of the media used. GLASdek requires 1.5 gallons per minute per square foot of horizontal (top) pad surface area. For installations that have intense evaporation or pad walls taller than 72", additional water may be required.

Supply:

The gutter and sump should be sized to supply the system with enough water to operate at its maximum flow rate and not overflow when the system is shut down.

OPTIONS

Distribution Pads:

Distribution pads disperse water laterally and evenly across the top of the pad. These specially designed pads are also protected with Munters patented edge treatment.

Sizes Available:

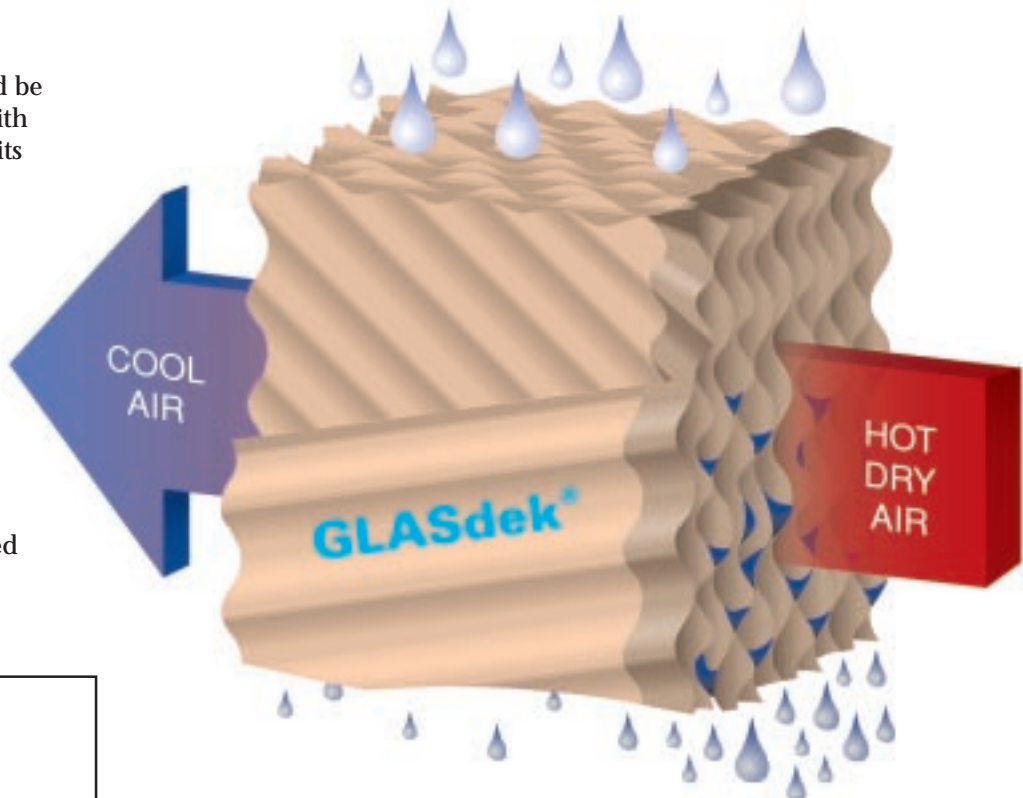
Depth: 4", 6", 8", 12"

Height: 48", 60", 72"

Width: 12"

SELECTION

The depth and height of the media varies by application. Call Munters for help in determining the requirements of specific installations. GLASdek may also be cut to fit smaller equipment.



The steeper angle directs more water to the air entering side of the pad, where it is needed most.

MAINTENANCE

Scale:

Mineral deposits can be minimized by maintaining a continuous water bleed-off, or by periodically dumping the sump. The exact amount will depend on the pH and hardness of the water supply, and Munters can assist by recommending individual bleed-off rates.

Algae:

If algae is allowed to grow freely on GLASdek, it may eventually clog the passages and inhibit the flow of air. This increases the static pressure and reduces the efficiency of the pad. Algae build up can be controlled by early implementation of simple maintenance techniques. Munters maintenance bulletins provide information to help maximize the efficiency and life of GLASdek.



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HumiCool Division

CELdek Evaporative Media



Product Description

Munters CELdek is a high efficiency evaporative cooling media that is engineered to provide maximum cooling and humidification, low pressure drop and years of reliable service

CELdek Features:

High Cooling Efficiency

Exceptional cooling rates are achieved due to the design, manufacturing and materials used in CELdek.

High Face Velocity

The shallower angle of Munters unequal flute design allows high velocity air to travel through the pad without water droplet carryover.

Self-Cleaning Design

The steeper angle of Munters unequal flute design flushes dirt and debris from the surface of the pad. This cleaning action directs water toward the air entering face of the pad where it is needed most.

Low Pressure Drop

The shallow angle of Munters unequal flute design allows high velocity air to travel through the pad without significant resistance or water droplet carry over.

Simple to Maintain

In most cases, routine maintenance can be performed while systems are still operating. When properly maintained, Munters CELdek pads will provide many years of highly efficient cooling and humidification.

PRODUCT INFORMATION

CELdek

High Efficiency

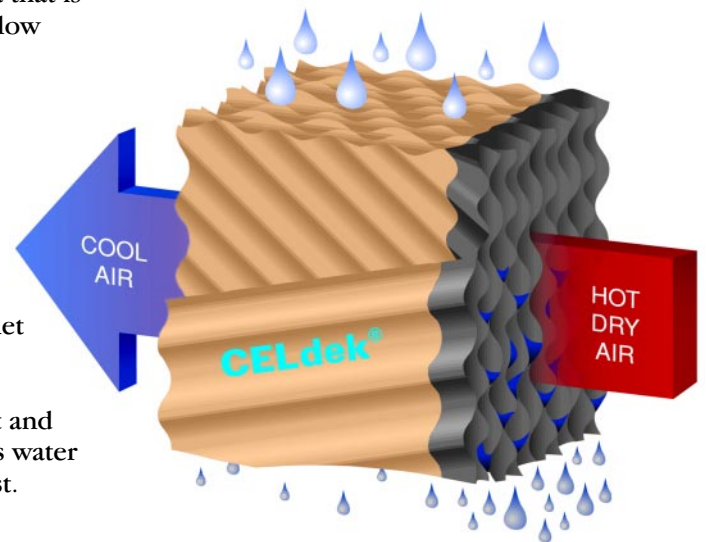
- Maximum Cooling and Humidification
- Low Pressure Drop
- Less Costly to Operate

Low Maintenance

- Self Cleaning Flute Design
- Specially Treated, Algae Resistant Substrate
- Routine Maintenance Can Be Performed While the System is Operating

Long Service Life

- Engineered to Resist Deterioration
- Optional MI-T-edg Edge Protection, for Longer Life



The steeper angle directs more water to the air entering side of the pad, where it is needed the most.



The Humidity Expert



The air entering face of the pad suffers the most damaging effects of sunlight, algae, dirt, and environmental chemicals. Optional MI-T-edge algae resistant edge coating helps guard against these elements, and can significantly extend the life of the evaporative pad.

Design Considerations

Water Distribution

Water flow rates vary based on the depth of the media. CELdek requires 1.5 gallons per minute of water per square foot of horizontal (top) pad surface area. For installations that have intense evaporation or pad walls taller than 72", an additional 10-20% of water may be necessary.

Supply

The gutter and sump should be sized to supply the system with enough water to operate at its maximum flow rate and not overflow when the system is shut down.

Maintenance

Scale

Mineral deposits can be minimized by maintaining a continuous water bleed-off or by periodically dumping the sump. The methods and/or quantity of bleed-off may vary depending on the pH and hardness of the supply water, and Munters can assist you by recommending individual bleed-off rates.

Note: Fractional timers should not be used. These timers do not enhance the performance of a cooling pad and actually contribute to the development of scale.

Algae

If algae is allowed to grow freely on a CELdek pad it may eventually clog the flutes and inhibit the flow of air. This increases the static pressure and reduces the efficiency of the pad. Algae growth can be controlled by early implementation of simple maintenance techniques. Munters maintenance bulletins provide information to help maximize the efficiency and life of CELdek evaporative pads.

Selection

The depth and height of media varies depending on the application. CELdek may also be cut to fit smaller equipment. Call Munters for help in determining the requirements of specific installations.

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Options

MI-T-edg Protection: Protective Edge Coating

MI-T-edg algae resistant edge coating is available for all sizes of CELdek evaporative cooling media for longer pad life and easier cleaning.

Munters MI-T-edg is a tough and resilient edge treatment applied to the air entering face of a CELdek pad. It has been formulated to withstand repeated cleaning without damaging the pad.

Algae and Weather Resistant

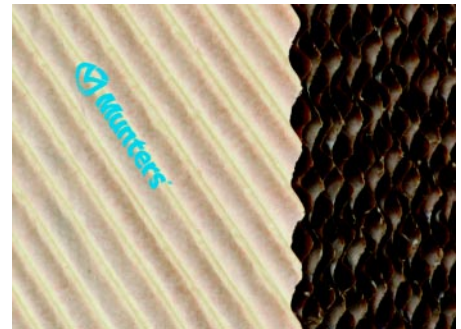
Munters MI-T-edg is nonporous and quick drying. It prevents algae and minerals from anchoring themselves into the substrate of the pad, so they slough off when dried. MI-T-edg also protects CELdek pads from the damaging effects of severe weather and long term exposure to UV light.

Extends the Life of Pads

Munters MI-T-edg protective edge coating extends the life of the pad over that of non-treated pads.

Distribution Pads

CELdek is designed to distribute water from the front to the back of the pad. For lateral distribution, a 2" or 3" distribution pad should be used. These specially designed pads are also protected with Munters patented edge treatment.



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The Humidity Expert