

Energy Efficient Falling Film

HELIOS

Energy Efficient Falling Film



60+
Gallons / Hour



99+% Recovery



Fully-Automated
Remote Control



Uses 65%
Less Energy



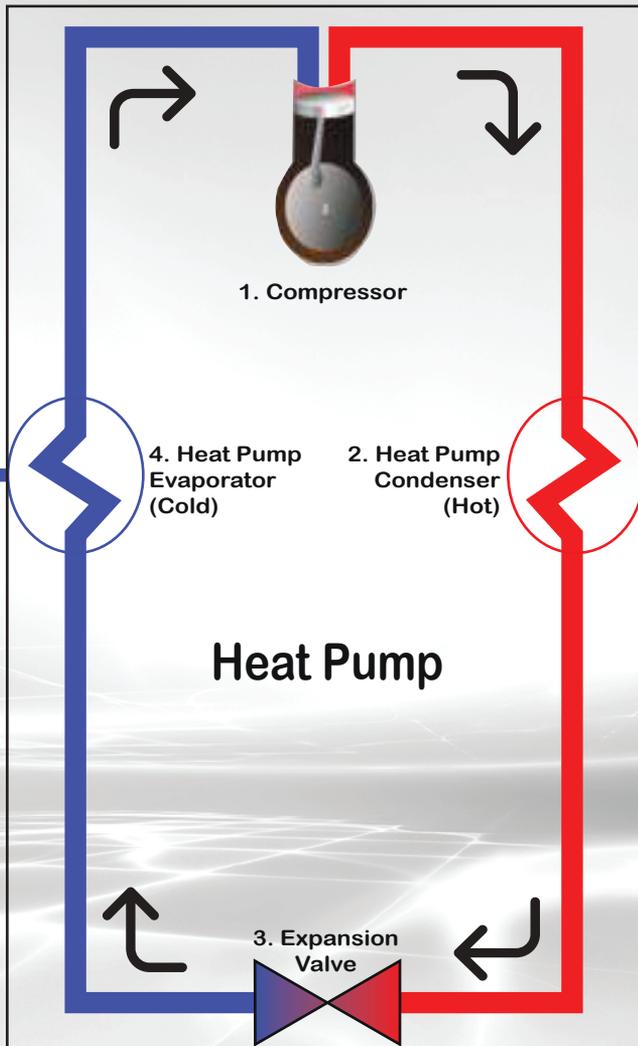
Class I Div I Certified

maratek.com

est. 1967

Heat Pump Benefits

The integrated heat pump allows the Helios to operate without a chiller and with significantly lower energy cost. The heat captured from condensation is reused to heat the incoming feed. This allows the Helios to use up to 65% less energy than standard recovery systems.



How Does It Work?

1. Starting at the Compressor, it provides a flow of pressurized refrigerant in gas form towards the Heat Pump Condenser and Helios Evaporator.
2. At the Heat Pump Condenser, it exchanges energy with the Helios Evaporator and the pressure of the refrigerant stays high, but the temperature drops which causes the refrigerant to become a liquid.
3. After, the liquid refrigerant flows to the Expansion Valve where the pressure of the liquid is lowered. Then it makes its way to the Heat Pump Evaporator and Helios Condenser.
4. Finally, the refrigerant exchanges energy with the Helios Condenser which turns the liquid into a gas and keeps the cycle moving when returning to the compressor at the beginning.

Having multiple changes in physical state causes the release and absorption of its own energy, making for a very energy efficient and economical cycle.

Maratek
\$252,945

Diffusion Condensing
\$309,841

Conventional FFE System
\$591,300

maratek

Savings based on 15c kW/hr, 24 hours a day operation over a 5 year period. The Helios can save you over \$300,000 in utility expenses with the most efficient Falling Film Evaporator available

About Maratek

Maratek is an award-winning industry leader in the solvent recycling and cannabis & hemp oil production industries. We strive for the highest safety and quality standards with all our equipment designated as Class 1 Division 1 certified, and UL listed using only **North American stainless steel, parts, and labour.**

With over 50 years of experience in solvent waste and recovery industry, Maratek has solved a wide variety of engineering challenges. Let us provide world-class engineering services to integrate systems and provide closed loop cannabis & hemp oil production processes.

Cryogenic Ethanol Extraction Series - EV - M



Oil and Ethanol Recovery Systems - OERS & Helios



Fractional Distillation and Dewatering Systems - F-Series

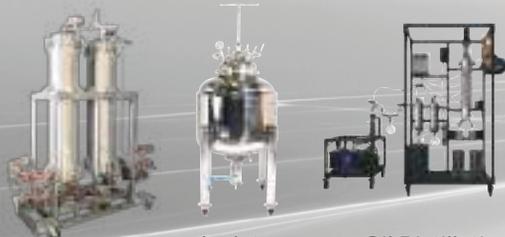
The Maratek Family of Cannabis & Hemp Equipment and Services



Water Extraction and Refining Trident and Poseidon



Turnkey Automatic Winterization Systems - TAWS



MIPs

Isolate Production

Oil Distillation Systems



Engineering Services

Contact

References available upon request with installations in facilities across the US, Canada and globally. Contact us now for a quote on our family of cannabis and hemp solutions!

Call: 905.857.2738 | Toll Free: 1.800.667.6272 | Email: sales@maratek.com | www.maratek.com

Canada
39 Nixon Road
Bolton, Ontario,
Canada,
L7E 1K1

USA
250 Monroe Ave
NW, Suite 400
Grand Rapids, MI
49503

Mexico
Fuente Bella 3299,
Ciudad de Mexico,
14130,
Mexico

