## **Yellowstone** EXTRACTION COMPANY





## **REQUEST A QUOTE**

US DISTRIBUTOR

APPLIED PROCESSING

PHONE: 1.877.277.9783 EMAIL: HELLO@APPLIED-PROCESSING.COM WWW.APPLIED-PROCESSING.COM

YELLOWSTONE EXTRACTION CO.
DIRECT SUPPORT & TECHNICAL QUESTIONS

PHONE: 1.226.203.4316
EMAIL: INFO@YELLOWSTONEEXTRATION.COM
WWW.YELLOWSTONEEXTRACTION.COM

## MACHINE SPECIFICATIONS

VOLTAGE

AMPERAGE

WATTAGE

ALCOHOL RECOVERY RATE

OPERATIONAL FOOTPRINT

SOLUTE MAX TEMPERATURE

**DWELL TIME** 

ADDITIONAL EQUIPMENT INCLUDED

480 V 3 PHASE

75.5 A - 82 A

60 kW

250-300 LPH (66-79 GPH)

4' x 4' x 8'

194 F (90 C)

5 Seconds

Radiator & Control Panel

## THE YS-EV **DIFFERENCE**

1

Cleanability. The product contact surfaces of the Yellowstone Extraction Falling Film Evaporator are designed to be easily cleaned using an integrated cleaning cycle. Frequent cleaning using our cleaning cycle is intuitive and simple. A clean process optimizes efficiency and eliminates contamination between batches.

2

Safety. The Yellowstone Extraction Falling Film Evaporator has been engineer peer reviewed and is approved for installation in Class I, Division 2/Zone 2 hazardous locations across North America.

3

Small Footprint. Measuring at just 4' x 4' and 8' tall, the Yellowstone Extraction Falling Film Evaporator comfortably fits into any size of facility.



C<sub>1</sub>D<sub>2</sub>



## O-SERIES FEATURES

· Full view borosilicate sight glass

 $\cdot$  Low cost downtime prevention & easy to service components

· Highly efficient insulation

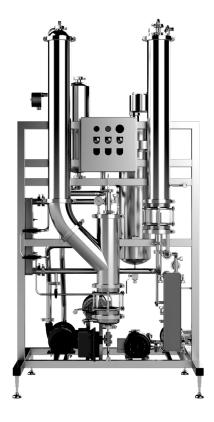
· Up to 2 m^2 surface area on heat exchangers

## NO CHILLER REQUIRED

**65% LESS ENERGY CONSUMPTION** 

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## S-SERIES **EXCLUSIVE**

- $\cdot \ \text{The condenser has been upgraded from glass to stainless steel, insuring the current UL 1389 standards to be met.}$
- $\cdot$  The upgraded centrifugal oil pump results in higher speed performances within the S-Series.
- $\cdot$  With added sight glasses, drainage points, and new reset button feature, the user experience is easier than ever with the S-Series.
- $\cdot \ Through switching temperature controllers to proportionate control, users have an even greater command on temperature control.$
- $\cdot \ \mathsf{Added} \ \mathsf{data} \ \mathsf{point} \ \mathsf{sensors} \ \mathsf{provides} \ \mathsf{an} \ \mathsf{easy} \ \mathsf{upgrade} \ \mathsf{to} \ \mathsf{Yellowstone} \ \mathsf{Extraction} \ \mathsf{HMI/PLC} \ \mathsf{features} \ \mathsf{once} \ \mathsf{officially} \ \mathsf{released}.$

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## S-SERIES PRO



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## MACHINE **SPECIFICATIONS**

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## THE YS-EV **DIFFERENCE**

## S-SERIES PRO **EXCLUSIVE**

Exclusive features of the S-Series Pro model

Exterior Cleanability. The

exterior Cleanability. In e Yellowstone FFE is made almost entirely out of stainless steel and PTFE, meaning it will withstand some of the harshest cleaning chemicals which may be used in a GMP facility. Additionally, all

electronic components area all rated to NEMA 4X or higher, allowing for the system to be easily sprayed down with cleaners.

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are an important part of quality control in GMP processes. The separation of the tubesheets insures that there is no fluid mixing in the unlikely event of a leak, as well as allowing the leak to be visually identified. By utilizing double tubesheet exchancers on tubesheet exchangers on Yellowstone systems, we eliminate the potential risk of product spoiling as the result of leakage.





Traceability. Our GMP models come with an extensive turnover package, containing the necessary documentation to validate the quality of materials. Thorough documentation ensures that Yellowstone systems will be easily implemented into GMP facilities.

Surface Finish. In order to verify that Yellowstone machinery is cleanable and not additive to the process, we exclusively use 316L stainless steel for metallic product contact surfaces. Stainless steel is highly polished, limiting areas where bacteria and particulate can accumulate. High quality materials and smooth surface finishes ensure that Yellowstone machinery is easily validated in GMP facilities



**Drainability in Lines.** In order for processes to be validated, it is important to ensure that product is not being contaminated by outside contaminants, past batches, or cleaners. One of the batches, or cleaners. One of the ways this is accomplished in a Yellowstone system is with fully drainable lines. Through use of angled lines, strategic drain ports, and careful design, all Yellowstone lines are fully





## NO CHILLER REQUIRED

**65% LESS ENERGY CONSUMPTION** 

## **EV O-SERIES**

## THE OLD FAITHFUL MODEL

The O-Series is our classic design. Revolutionary condensing technology make the O Series the most efficient evaporator on the market.

## **EV** S-SERIES

## THE SPECIALIZED MODEL

The EV S-Series provides customers with the same great performance as the O series with upgraded pumping and control options. The S-Series is a reliable solution for any facility

## **EV S-SERIES PRO**

## THE GMP MODEL

Traceability, drainability, and high quality materials make the S-Series Pro the right choice for GMP processing facilities.

| CAPACITY   |   |   |
|--|---|---|
| 50-300 LPH   | 250-300 LPH   | 250-300 LPH   |
| CLASSIFICATION   |   |   |
| ID2  | C1D2  | C1D2  |
| SOLVENT COMPATIBILITY                                      |   |   |
| THANOL, ISOPROPYL ALCOHOL,<br>ETHANOL                      | ETHANOL, ISOPROPYL ALCOHOL, HEXANE, HEPTANE, METHANOL       | ETHANOL, ISOPROPYL ALCOHOL, HEXANE, HEPTANE, METHANOL                     |
| HERMAL FLUID PUMP RATE                                     |   |   |
| 8 LPH  | 189 LPH   | 189 LPH   |
| GMP COMPLIANT  |   |   |
| •  |   |   |
| ADDITIONAL FEATURES  |   | ·   |
| ULL VIEW BOROSILICATE SIGHT GLASS                          | · FULL VIEW BOROSILICATE SIGHT GLASS                        | · FULL VIEW BOROSILICATE SIGHT GLASS                                      |
| OW COST DOWNTIME PREVENTION &<br>ASY TO SERVICE COMPONENTS | · LOW COST DOWNTIME PREVENTION & EASY TO SERVICE COMPONENTS | · LOW COST DOWNTIME PREVENTION & EASY TO SERVICE COMPONENTS               |
| HIGHLY EFFICIENT INSULATION                                | · HIGHLY EFFICIENT INSULATION                               | · HIGHLY EFFICIENT INSULATION   |
| IP TO 2 M^2 SURFACE AREA ON<br>IEAT EXCHANGERS             | · UP TO 2 M^2 SURFACE AREA ON<br>HEAT EXCHANGERS            | · UP TO 2 M^2 SURFACE AREA ON HEAT EXCHANGERS                             |
| •  | · THERMAL FLUID FILLING SIGHTGLASS                          | · THERMAL FLUID FILLING SIGHTGLASS  |
| •  | · MANUAL VACUUM BREAK                                       | · MANUAL VACUUM BREAK   |
| •  | · ADDITIONAL DRAINAGE POINTS                                | · ADDITIONAL DRAINAGE POINTS  |
| •  | · PROPORTIONATE<br>TEMPERATURE CONTROLLER                   | · PROPORTIONATE<br>TEMPERATURE CONTROLLER                                 |
| •  | · HMI COMPATIBLE  | · HMI COMPATIBLE  |
| •  | •   | DOUBLE TUBE SHEET HEAT EXCHANGER FOR CONTAMINATION PREVENTION             |
| •  |   | 316 STAINLESS STEEL INTERIOR WITH POLISHED SURFACE ON ALL PRODUCT CONTACT |
| •  | •   | · ADDED DRAINABILITY IN LINES FOR EASY SANITATION PROCESS                 |
| •  | •   | · WELD CERTIFICATES & 3RD PARTY<br>BOROSCOPE INSPECTION                   |
| •  | •   | DESIGNED TO BPE STANDARDS   |
| •  | •   | · ELECTROPOLISHED & PASSIVATED  |
| •  | •   | · COMPLETE MATERIAL TRACEABILITY  |