

## THE VERDARA VERSA-40 EXTRACTOR SYSTEM

The VERDARA VERSA-40 Extractor System is an industry leading automated end-to-end, cryogenically -chilled ethanol botanical extractor capable of processing up to 120 lbs/Hr. of biomass. It combines three traditionally separate and manually operated processing steps into one fully automated process. With a small footprint and highly integrated system, the Total Cost of Ownership is superior to its competitors and it is designed with operators in mind.



### FOOTPRINT

- 120"(3M) Wide x 60"(1.5M) Dp x 120" (3M) Ht Clearance

### ELECTRICAL REQUIREMENTS

- 480VAC or 240VAC 3PH

### CAPACITY / PERFORMANCE

- Cooling: -40°F(-40C) at 17KW
- Extraction: 40 lbs(18kg) biomass / 35 gal(132L) ethanol
- Batch time: 20 mins
- 98+% botanical extraction efficiency
- 98+% solvent recovery from biomass
- 98+% solvent recovery from oil

### SPECIFICATIONS

#### CENTRIFUGE

- 1561 RPM,900G centrifugal extractor
- Positive pressure food grade shaft seal with barrier tank onboard
- Multi-function jacketed basin
- Pneumatically operated lid and lid closures
- Operational Footprint: 55" (1.5M) x 32" (0.8M) x 40" (1M)

### FILTRATION, COLOR REMEDIATION AND SOLVENT RECOVERY

- Pre-filtration
- Micron level particulate removal
- Color remediation
- Final stage particulate filtration
- Sight glass for visual verification between stages
- FFE Efficiency: 98%
- FFE Recovery Rate: 60 GPH (340LPH)
- FFE Operational Temperature: 200°F to 210°F (93-99C)
- Operational Footprint: 34" (1M) x 60" (1.5M) x 90" (2.25M) Skid

### FEATURES

- Fully automated and recipe driven
- Interior Finish - Solvent-Wet Areas Ra72 or better
- Sanitary Tri-Clamp process connections
- Ethernet (IoT Compatibility)
- Engineered and Made in the USA

### ANCILLARY EQUIPMENT

THE FOLLOWING EQUIPMENT IS SELECTED BASED ON SITE CONDITIONS, AND NECESSARY TO OPERATE THE SYSTEM

- Ethanol Chiller
- Water Heater and Pump
- Water Chiller(Cooling Tower) and Pump

FOR MORE, PLEASE VISIT [WWW.VERDARATECH.COM](http://WWW.VERDARATECH.COM)

# Powerful CENTRIFUGE and INTEGRATED SYSTEM Greatly Decrease Post Processing

## Verdara VERSA-40

### AT A GLANCE

The VERDARA Extractor System is an industry leading automated end-to-end, cryogenically-chilled ethanol botanical extractor capable of processing up to 120 lbs/Hr. of biomass at -40 C. It combines four traditionally separate and manually operated processing steps into one fully automated process.



### FEATURES

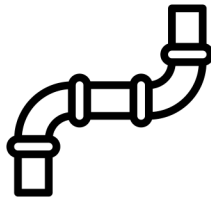
- ✓ Fully automated and recipe driven
- ✓ Interior Finish - Solvent-Wetted Areas >Ra72
- ✓ Principal Product-Touching Materials 316SS
- ✓ Sanitary Tri-Clamp process connections
- ✓ Ethernet (IoT Compatibility)
- ✓ Engineered and Made in the USA



**EASILY  
CLEANED**



**REMOTE  
DIAGNOSTICS**



**SANITARY  
CONNECTIONS**



**AUTOMATED  
WITH DATA  
ANALYTICS**



**FILTRATION / COLOR  
REMEDICATION @ -40C  
EXTRACTION**

### WHO WE ARE

At Verdara, we provide high yield plant-based processing and extraction solutions for the botanical extraction industry.

[VERDARATECH.COM](http://VERDARATECH.COM)

**CONTACT OUR EXPERTS**

708.713.8081 | [info@verdaratech.com](mailto:info@verdaratech.com)

2022 © Verdara Technologies, Inc. All Rights Reserved

# Verdara VERSA-40 Technical Details

## SYSTEM SPECIFICATIONS

### FOOTPRINT (CLASSIFIED AREA)

- Minimum 300SQ FT ( 28 SQ Meter)

### ELECTRICAL REQUIREMENTS

- 480VAC or 240VAC 3PH

### CAPACITY / PERFORMANCE

- Cooling: -40°F(-40C) at 17KW
- Extraction: 40 lbs(18kg) biomass / 35 gal(132L) ethanol
- Batch time: ~20 mins
- 98+% botanical extraction efficiency
- 98+% solvent recovery from biomass
- 98+% solvent recovery from oil

## COMPONENT SPECIFICATIONS

### CENTRIFUGE

- 1561 RPM, 900 G
- Food-Grade Shaft Seal
  - Includes Positive Pressure Barrier
- Vacuum jacketed basin
- Pneumatically operated lid and lid closures
- Operational Footprint: 55" x 32" x 40"

### FILTRATION & FFE PROCESS SKID

- Operational Footprint:
  - 34" x 60" x 90" Skid

### FOUR-STAGE FILTRATION

- Pre-filtration
- Micron level particulate removal
- Color remediation
- Final stage particulate filtration
- Sight glasses between stages

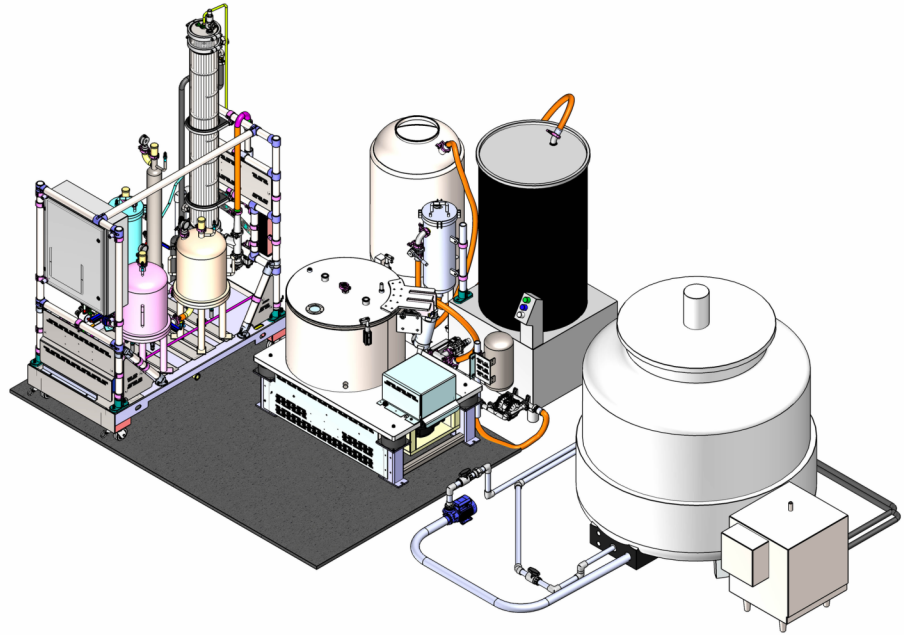
### FALLING FILM EVAPORATOR

- FFE Efficiency: 98%
- FFE Recovery Rate: 90 GPH
- FFE Operational Temperature:
  - 200°F to 210°F

### ANCILLARY EQUIPMENT

THE FOLLOWING EQUIPMENT IS SELECTED BASED ON SITE CONDITIONS, AND REQUIRED TO OPERATE THE SYSTEM

- Ethanol Chiller (C1D2) - LN2 or Mech.
- Water Heater and Pump (SAFE SPACE)
- Water Chiller and Pump (SAFE SPACE)



### FEATURE LIST:

- ✓ PLC/HMI Control System with Touchscreen
- ✓ Rated Electrical Equipment
- ✓ Solvent Feed and Recovery Tanks
- ✓ Low Maintenance and Operational Costs
- ✓ Remote Monitoring and Logistics
- ✓ Custom "Recipe" Creation

