

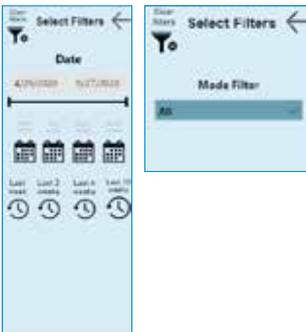
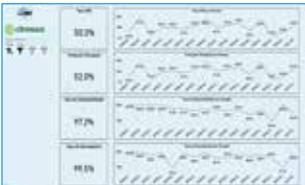
Optimize READYGo™ d-LIMONENE  
production for better equipment control and  
operation with JBT iOPS®.

JBT iOPS® is Overall Equipment Effectiveness (OEE) software for improved terpene recovery utilization, visibility and control. **With iOPS® manufacturers can capture more data, analyze it faster, and act on it immediately.** Get access to important production effectiveness data in real time to locate bottlenecks and root causes through production and machine utilization reports. iOPS® is based on **agnostic technology to connect with your existing systems.**

 <b>REAL TIME DATA</b>	 <b>CAPTURE MORE DATA</b>	 <b>FASTER ANALYZES</b>	 <b>IMMEDIATE ACTIONS</b>
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iOPS® collects data 24/7 and uploads to a military grade secure cloud service. From connection to transmission and storage, all data is fully encrypted with two-factor authentication. By monitoring OEE & downtime, manufacturers can pinpoint failures within the READYGo™ d-LIMONENE production environment. The data can then be analyzed and viewed from different angles with user friendly dashboards. **The insights gained help to formulate improvement measures in your production line.**

## iOPS® DETAIL DASHBOARDS

DASHBOARD	OEE RATE	MACHINE CYCLES	ALARM LOGGING
 	 <p>On this page, the machine's OEE data can be found in more details for the selected period.</p> <p><b>OEE RATE = Quality Rate* Availability Rate* Productivity Rate*</b></p>	 <p>Detailed machine cycles, when it was started, ended, cycle duration, etc.</p> <ul style="list-style-type: none"> <li>✓ Cycle execution overview</li> <li>✓ Time arrangement of cycles in pie chart</li> <li>✓ Graph showing the evolutions of cycles</li> </ul>	 <p>Record of all alarms and an occurrence list</p> <ul style="list-style-type: none"> <li>✓ Alarms overview, provides a list of all alarms that occurred sorted by time</li> <li>✓ All system alarms occurrence log</li> </ul>

**iOPS®: Smarter and simpler.**

## Features & Benefits

- ✓ Analytic status reports
- ✓ Real time trending available
- ✓ Configurable alarms and triggers
- ✓ Powerful drill-down reporting
- ✓ Higher productivity at lower cost
- ✓ Initiate work orders for maintenance
- ✓ Central location of data in a single dashboard
- ✓ Predefined set of managerial reporting available

- ✓ Analysis on operational processes
- ✓ Operational benchmarking to compare performance over time



The main iOPS® dashboard contains high level key performance indicator statistics for measuring OEE, Availability, Productivity and more. Click on any of the information buttons on the main dashboard to drill down to detailed granular KPI data. All dashboards generate reports and filter by date ranges, with drill down by

predefined time periods or zoom on month, week and day. Detailed, color coded-graphs and charts enable the maintenance team to quickly view and analyze data and formulate improvement measures in the production line. Additional filters include the ability to sort by lot, batch, recipe, alarm, operator and customer.

## iOPS® DETAIL DASHBOARDS

### MTBF & MTTD + MTTR



**MTBF** (Mean Time Between Failures).  
**Average Duration Production Run**  
**Total Downtime** in hours  
**Average Downtime** in minutes  
 List of all machine stops  
**Evolution of MTBF** in graphical form

### MANAGEMENT REPORT



- ✓ Total oil production (d-limonene)
- ✓ Total steam consumption
- ✓ Total emulsion consumption
- ✓ Evolution in Pareto chart

### PRODUCTION REPORT



Condenser heat exchange behavior, monitoring inlet and outlet water temperature along with the oil temperature.

Process parameters controlled by the machine; mixing pressure; mixing temperature; flow; steam pressure; amount of oil produced; steam consumption x oil recovery.

### PRODUCTION REPORT 2



- Analysis of process variables controlled by the system and the produced oil value
- ✓ Back pressure
  - ✓ Temperature
  - ✓ Emulsion flow
  - ✓ Produced oil flow



## COUNT ON JBT TO HELP PROTECT YOUR INVESTMENT

JBT's greatest value in PRoCARE® services comes from preventing unexpected costs through smart, purposeful, and timely maintenance based on unmatched knowledge and expertise. PRoCARE service packages are offered as a maintenance agreement in various service levels, depending on your production and cost management requirements.



## JBT DIVERSIFIED FOOD & HEALTH

FRESH PRODUCE TECHNOLOGIES | FRESH-CUT, ROBOTICS, STEAMING | FRUIT AND VEGETABLE PROCESSING | SECONDARY PROCESSING | ASEPTIC SYSTEMS | FILLING AND CLOSING | IN-CONTAINER STERILIZING | TRAY SEALING | SECONDARY PACKAGING | HIGH-PRESSURE PROCESSING | POWDER PROCESSING | TUNA PROCESSING

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