IOMI: 17 873 0094 08/24 Rev - C

CDAS / OFAS / FBP Compressed Air Treatment Systems

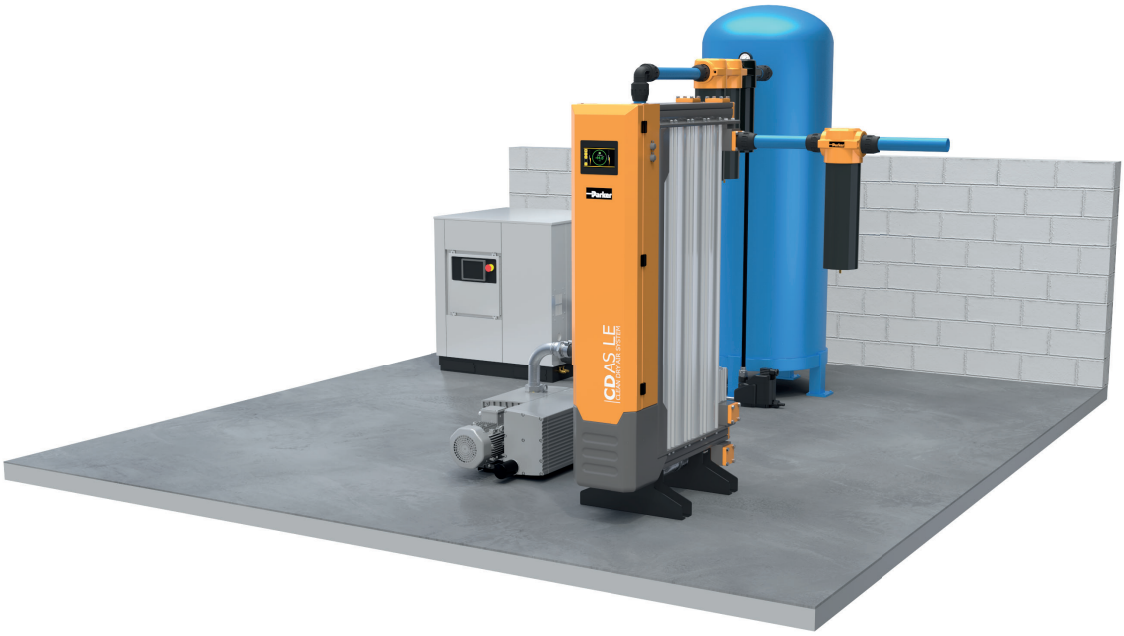
Vacuum Assisted Heatless Low Energy Variants

CDAS LE 100 - CDAS LE 170
OFAS LE 100 - OFAS LE 170
FBP LE 100 - FBP LE 170

USER GUIDE

(EN)

CONTENTS


CDAS LE


OFAS LE
OVR


FBP LE
OVR

SAFETY

SAFETY INFORMATION

Do not operate this equipment until the safety information and instructions in this user guide have been read and understood by all personnel concerned.

USER RESPONSIBILITY

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from Parker Hannifin Corporation, its subsidiaries and authorised distributors provide product or system options for further investigation by users having technical expertise.

The user, through its own analysis and testing, is solely responsible for making the final selection of the system and components and assuring that all performance, endurance, maintenance, safety and warning requirements of the application are met. The user must analyse all aspects of the application, follow applicable industry standards, and follow the information concerning the product in the current product catalogue and in any other materials provided from Parker or its subsidiaries or authorised distributors.

To the extent that Parker or its subsidiaries or authorised distributors provide component or system options based upon data or specifications provided by the user, the user is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably foreseeable uses of the components or systems.

The pressure envelope of the equipment must not be breached under any circumstances. Failure to comply may result in an unplanned release of pressure, and may cause serious personal injury or death. All maintenance procedures that require the pressure envelope to breached must only be performed by competent personnel trained, qualified, and approved by Parker.

Use of the equipment in a manner not specified within this user guide may result in an unplanned release of pressure, which may cause serious personal injury or damage.

When handling, installing or operating this equipment, personnel must employ safe engineering practices and observe all related regulations, health & safety procedures, and legal requirements for safety.

Ensure that the equipment is depressurised and electrically isolated, prior to carrying out any of the scheduled maintenance instructions specified within this user guide.

Only competent personnel trained, qualified, and approved by Parker should perform installation, commissioning, service and repair procedures.

Parker can not anticipate every possible circumstance which may represent a potential hazard. The warnings in this manual cover the most known potential hazards, but by definition can not be all-inclusive. If the user employs an operating procedure, item of equipment or a method of working which is not specifically recommended by Parker the user must ensure that the equipment will not be damaged or become hazardous to persons or property.

Most accidents that occur during the operation and maintenance of machinery are the result of failure to observe basic safety rules and procedures. Accidents can be avoided by recognising that any machinery is potentially hazardous.

Details of your nearest Parker sales office can be found at www.parker.com/gsfe

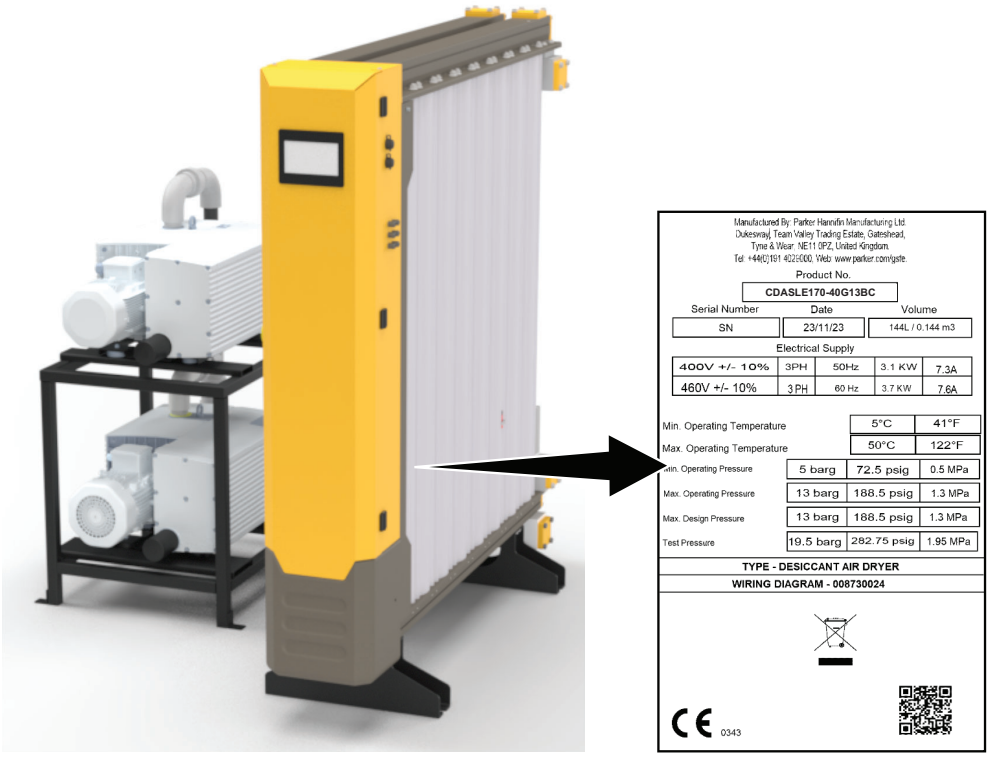
Retain this user guide for future reference.

MARKINGS AND SYMBOLS

The following markings and international symbols are used on the equipment or within this user guide:

	Caution, Read the User Guide.
	Risk of electric shock.
 Warning	Highlights actions or procedures which, if not performed correctly, may lead to personal injury or death.
 Caution	Highlights actions or procedures which, if not performed correctly, may lead to damage to this product.
 Warning	Highlights actions or procedures which, if not performed correctly, could lead to electric shock.
	Read the User Guide.
	Replace fitted end plate with Vacuum Shut Off Valve (VSO) & Pump hose assembly Attention: Keep End plate in case of operation in HL mode requires servicing of the Vacuum Shut Off Valve (VSO)
	Warning: More than one live circuit
	Wear ear protection.
	Pressurised components on the system.
	Remote control. Dryer may start automatically without warning.
	Conformité Européenne
	Waste electrical and electronic equipment should not be disposed of with municipal waste.
	Safety gloves to be worn
	Use a forklift truck to move the generator
	Note: the vacuum pump will continue to run for 10 minutes after the Stop control is pressed.

DRYER MODEL NUMBER IDENTIFICATION



			100					
			110					
			120					
			130					
			140					
	CDAS		150	-20				
	OFAS		160	-40	N (NPT)			
	FBP	LE (Low Energy)	170	-70	G (BSPP)	13	400V (+/-10%) / 3PH / 50Hz 460V (+/-10%) / 3PH / 60Hz	Combination - PLC + Touch screen

	RANGE	REGENERATION TYPE	MODEL	OUTLET DEWPOINT	INLET/OUTLET CONNECTIONS	MAX PRESSURE	POWER SUPPLY	CONTROLLER
Example	CDAS	LE	100	-40	G	13	B	C

CDAS LE / OFAS LE / FBP LE MODELS 100 to 170 OPERATION

OVERVIEW OF OPERATION

CDAS LE / OFAS LE / FBP LE purification systems are based around a heatless adsorption dryer (using the vacuum assisted heatless regeneration method) and associated pre filtration and post filtration.

Adsorption dryers are designed for the treatment of water vapour only and therefore require pre-treatment of the incoming compressed air to operate correctly and protect the adsorbent desiccant bed. CDAS LE / OFAS LE / FBP LE pre filtration consists of a General Purpose coalescing filter (OIL-X Grade AO) and a High Efficiency coalescing filter (OIL-X Grade AA) for the treatment of solid contaminants (atmospheric particulate, rust, pipe-scale, micro-organisms) and aerosols (oil and water). Should liquid water or liquid oil be present at the inlet of the CDAS LE / OFAS LE / FBP LE, a liquid separator (OIL-X Grade WS) will also be required to protect the pre filtration.

The adsorption dryer of CDAS LE / OFAS LE / FBP LE operates on the Vacuum Assisted Pressure Swing Adsorption principle (Heatless Low Energy) and consists of two drying chambers (referred to as Column 1 & Column 2). Each drying chamber is filled with an adsorbent (desiccant) material.

During operation, one column will be used to dry the incoming process air, whilst the opposite column is being regenerated and readied for use. Vacuum Assisted Heatless adsorption dryers use a small proportion of the dry process air known as purge air to regenerate the desiccant material. Purge air is first expanded to atmospheric pressure (where it becomes even drier) before being expanded even further by a vacuum assist system (vacuum pump). The dry purge air is passed over the off-line desiccant bed where it strips the moisture from the desiccant material. The columns will be swapped periodically (referred to as “changeover”) to ensure a constant supply of dry air is always available downstream.

Once the compressed air is dried, the air flow path and final treatment differs between CDAS LE / OFAS LE / FBP LE.

CDAS LE
Once dried, the process air is passed through a general purpose dry particulate filter (OIL-X Grade AO) before exiting the unit.

OFAS LE / FBP LE
OFAS HL and FBP HL models also include an additional adsorption stage (OIL-X grade OVR). After drying, compressed air is passed through the OVR adsorption stage which contains activated carbon for the reduction of oil vapour.

OFAS LE
Upon exiting the OVR adsorption stage, the compressed air is passed through a single general purpose dry particulate filter before exiting the unit.

FBP LE
Upon exiting the OVR adsorption stage, the compressed air is passed through a pair of dry particulate filters (OIL-X Grade AO General purpose and OIL-X Grade AA High Efficiency) before exiting the unit.

Important Notes:
Different beds of desiccant material are used within each dryer, depending upon the outlet dewpoint required.

Two variants are available to cover three outlet dewpoint's of ⩽-20°C, ⩽-40°C and ⩽-70°C.

CDAS LE / OFAS LE / FBP LE OUTLET DEWPOINT	DESICCANT MATERIAL USED
⩽-20°C / ⩽-40°C	90% Activated Alumina / 10% Molecular Sieve
⩽-70°C	20% Silica Gel / 80% Molecular Sieve

Important Notes:

- CDAS LE / OFAS LE / FBP LE dryer models must be ordered to match the required outlet dewpoint of the site.
- CDAS LE / OFAS LE / FBP LE 60 month service kits are therefore specific to the outlet dewpoint of the dryer.

CDAS / OFAS / FBP LE Operation

At the heart of a CDAS / OFAS / FBP Treatment system is an adsorption (desiccant) dryer. These dryers are available with 2 regeneration methods Heatless (HL) and Vacuum Assisted Heatless, also known as Heatless Low Energy (LE).

Adsorption dryers use adsorbent desiccant material to remove water vapour from compressed air. Desiccant does not have an infinite capacity to adsorb water vapour, therefore, at any given time during the operation of an adsorption dryer, only 50% of the desiccant is being used to dry the incoming compressed air, whilst the other 50% is either being regenerated or is ready to be brought into use. A controller and valves are used to direct the incoming compressed air through the correct chamber and ensure the outlet dewpoint required is maintained.

Cycle Times and Operation

CDAS LE / OFAS LE/ FBP LE dryers are designed to use two drying chambers (consisting of multiple drying columns) to deliver a constant outlet pressure dewpoint.

A full cycle is the time it takes the dryer to fully utilise the desiccant material in both drying chambers.

A full cycle on CDAS LE / OFAS LE/ FBP LE dryers operating at full load = 360 Seconds (6 minutes).

A ½ cycle is the time it takes the dryer to fully utilise the desiccant material of a single drying chamber.

A ½ cycle on CDAS LE / OFAS LE/ FBP LE dryers operating at full load = 180 Seconds (3 minutes).

Drying of the Compressed Air (180 Seconds on Fixed Timing Cycle)

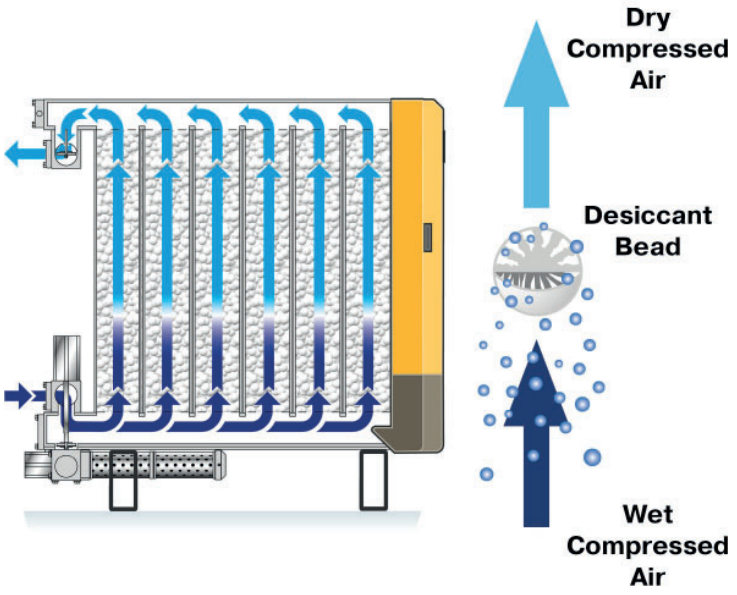
Having passed through the coalescing pre filters, the inlet valves direct the incoming process air into one side of the lower manifold. The lower manifold evenly distributes the compressed air to each of the drying columns connected to that side of the manifold. Collectively, each of the columns connected together form one of two large drying chambers (referred to as Column 1 & Column 2).

When one of the drying chambers is the drying compressed air, it is referred to as the ‘on-line’ column.

Compressed air enters the desiccant of the online column at the bottom and flows upwards where it is in contact with the bed of adsorbent desiccant material. Water vapour in the compressed air is adsorbed by the desiccant material.

Standard drying cycle (no DDS-EST) is 180 seconds.

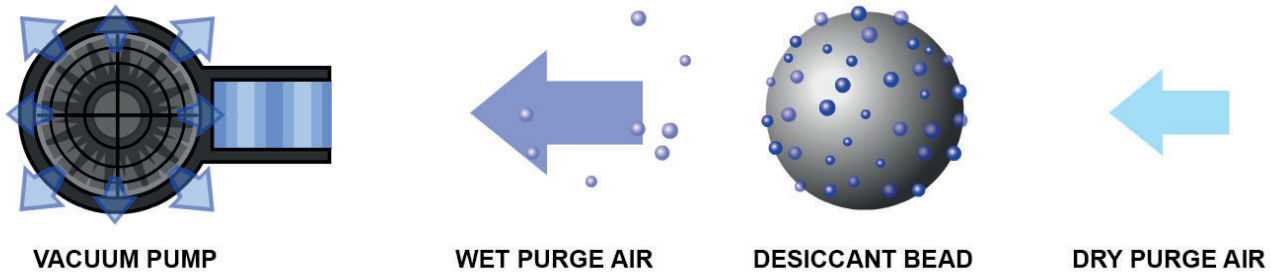
As the dried compressed air reaches the top of the desiccant material, it enters the upper manifold, where it then flows past the outlet check valves and exits the dryer to be treated by the outlet filtration. (General Purpose Dry particulate filter on CDAS models, Absorption Filter and General Purpose Dry Particulate Filter(s) on OFAS and FBP models). FBP models have an additional, High Efficiency Dry Particulate filter installed downstream of the general purpose dry particulate filter.



Regeneration of the Off-line Desiccant Material - CDAS LE / OFAS LE / FBP LE Operating in Heatless Low Energy (LE) Mode

CDAS LE / OFAS LE / FBP LE dryers can be configured to regenerate the off-line desiccant material in one of two modes. LE mode, utilising the Vacuum Assisted Heatless regeneration method, or HL mode utilising the standard Heatless PSA regeneration method. By default, LE modes are configured from the factory to operate in LE mode.

The Vacuum Assisted Heatless regeneration method is almost identical to the standard Heatless PSA method; however, it significantly reduces the amount of dry purge air required by using a vacuum pump to expand the volume of the purge air. This regeneration method reduces energy consumption and lowers air usage.



Exhausting or De-pressurisation (12 Seconds)

The exhaust assembly of a CDAS LE / OFAS LE / FBP LE dryer consists of an exhaust valve with silencer and a 'Vacuum Shut Off' (VSO) valve.

The exhaust valve is used to depressurise the off-line column.

The vacuum shut off valve connects the vacuum pump to the dryer and is used to protect the vacuum pump from over pressure.

At the start of the regeneration cycle, the exhaust valve and vacuum shut off valve are both closed and the offline chamber is at full line pressure.

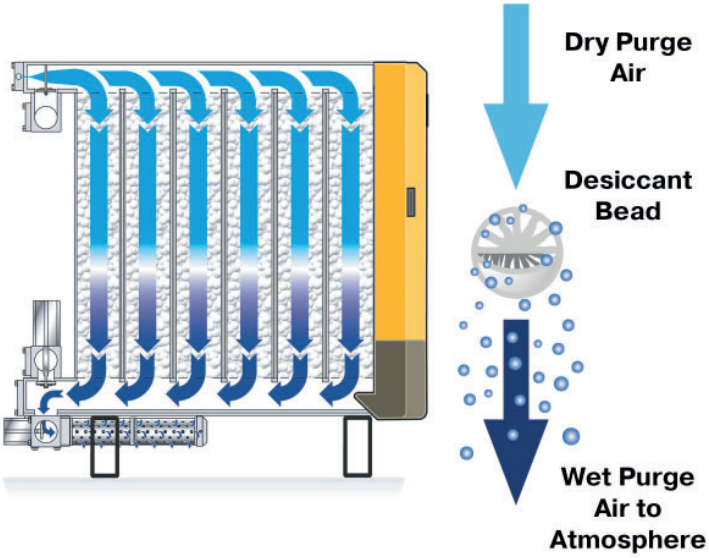
The exhaust valve is then opened and the dry air within the chamber expands rapidly as it leaves the dryer via the exhaust silencer, forcing water from the desiccant material.

Regeneration - LE Mode (148 Seconds)

Once the off-line columns have fully depressurised, the controller interrogates a pressure sensor fitted to the exhaust assembly to ensure that it is safe to open the vacuum shut off (VSO) valve and close the exhaust valve.

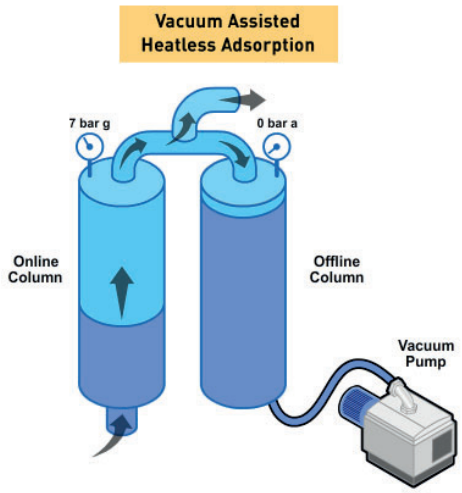
A continuous bleed of dried process air is directed into the upper manifold and evenly distributed down through the off-line desiccant bed for regeneration purposes. This regeneration air is also known as purge air.

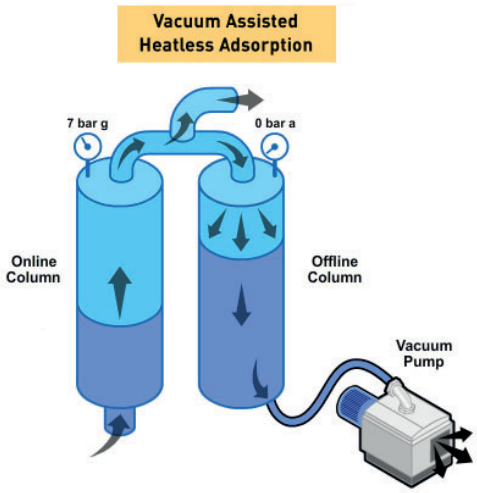
In LE mode, the now saturated purge air exits the dryer via the Vacuum Shut Off Valve (VSO) and through the vacuum pump exhaust.



Important Notes:

- With the vacuum valve open and the vacuum pump operating, a pressure below atmospheric pressure is achieved in the off-line columns.
- This vacuum condition, expands the small volume of purge air into a significantly larger volume of purge air.
- During the expansion process, the purge air becomes even drier, assisting in the regeneration process.





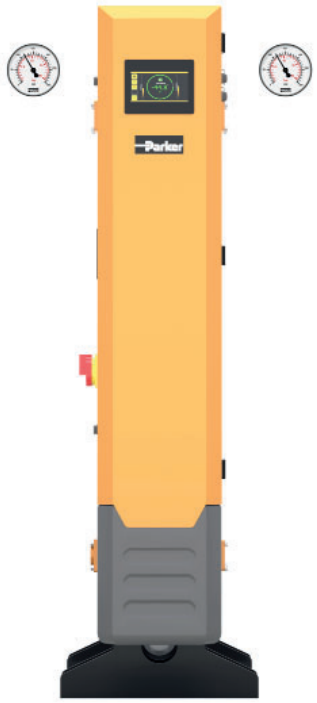
- The volume of purge air required for regeneration in LE mode is lower than the volume of purge air required to operate in HL mode.
- Purge air volume must be set up during commission to supply the correct amount of purge air required for efficient regeneration.

Re-pressurisation (20 seconds)

After 160 seconds of regeneration, the vacuum shut off valve (VSO) will close, and the purge air will repressurise the off-line column with the assistance of a quick re-pressurisation valve. This is to ensure there is no drop in downstream pressure as the drying columns change over. Re-pressurisation time is 20 seconds.

Changeover

Following re-pressurisation, the controller will instruct the dryer to “changeover”. On a fixed timing cycle, drying & regeneration is 180 seconds. Using the inlet valves, the process air flow will once again be redirected over to the newly regenerated desiccant bed, allowing the wet adsorbent material of the opposite column to be regenerated.



Regeneration of the Off-line Desiccant Material - CDAS LE / OFAS LE / FBP LE Operating in Heatless (HL) Mode

Exhausting or De-pressurisation

Before the regeneration cycle starts, the exhaust valve and vacuum shut off valve (VSO) of the dryer are both closed and the offline columns are at full line pressure.

The air in the offline columns has a dewpoint equal to the air leaving the dryer.

The exhaust valve is then opened and the dry air within the off-line columns expands rapidly as it leaves the dryer via the exhaust silencer, forcing water from the desiccant material.

Important Notes:

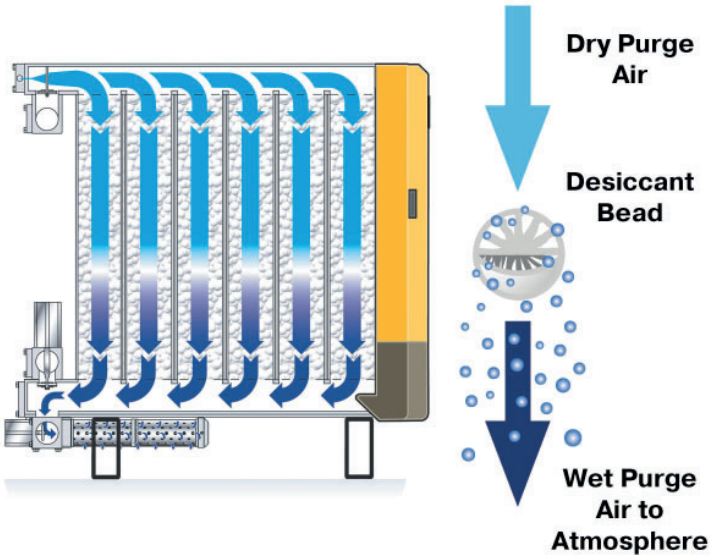
- In heatless HL mode, the vacuum shut off valve (VSO) will remain closed at all times.
- The electrical contactors used to control power to the vacuum pump (or pumps for duplex systems) will remain de-energised and MPU faults will be ignored.

Regeneration (150 Seconds)

Once the offline columns have depressurised, a continuous bleed of dried process air is directed into the upper manifold and evenly distributed down through the off-line desiccant bed for regeneration purposes. This regeneration air is also known as purge air. With the exhaust valve open, the purge air expands from line pressure to atmospheric pressure and flows downwards over the offline desiccant material.

As the purge air at line pressure contains a fixed amount of water vapour, allowing it to expand means the purge air becomes even drier, increasing its capacity to remove water from the saturated desiccant bed.

In HL mode, the now saturated purge air exits the dryer via the exhaust valve / exhaust silencer.



Important Note:

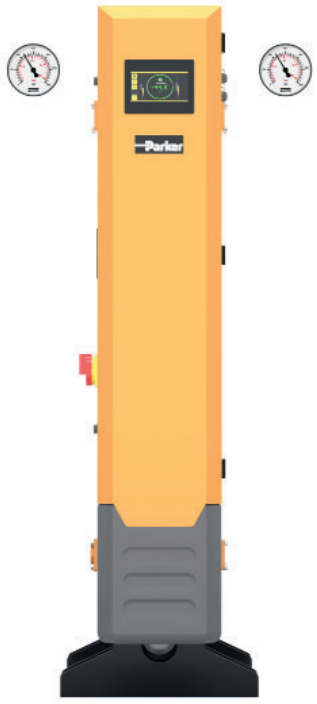
Purge air volume must be set up during commission to supply the correct amount of purge air required for efficient regeneration. Refer to page 74 for HL fall back purge volume settings.

Re-pressurisation (30 seconds)

After 160 seconds of regeneration, the exhaust valve will close, and the purge air will repressurise the off-line column with the assistance of a quick re-pressurisation valve. This is to ensure there is no drop in downstream pressure as the drying columns change over. Re-pressurisation time is 30 seconds.

Changeover

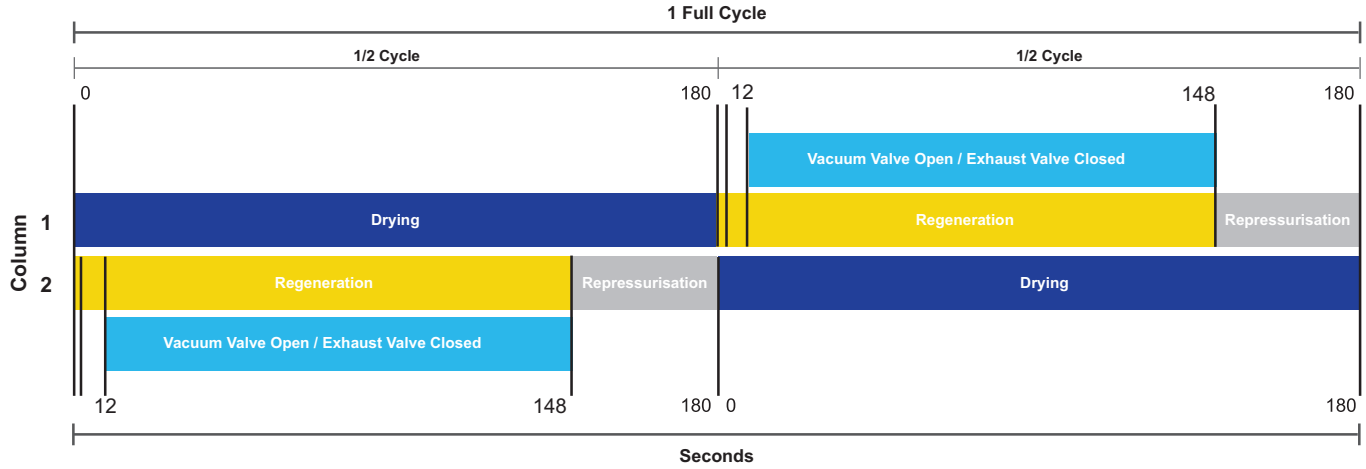
Following re-pressurisation, the controller will instruct the dryer to “changeover”. On a fixed timing cycle, drying & regeneration is 180 seconds. Using the inlet valves, the process air flow will once again be redirected over to the newly regenerated desiccant bed, allowing the wet adsorbent material of the opposite column to be regenerated.



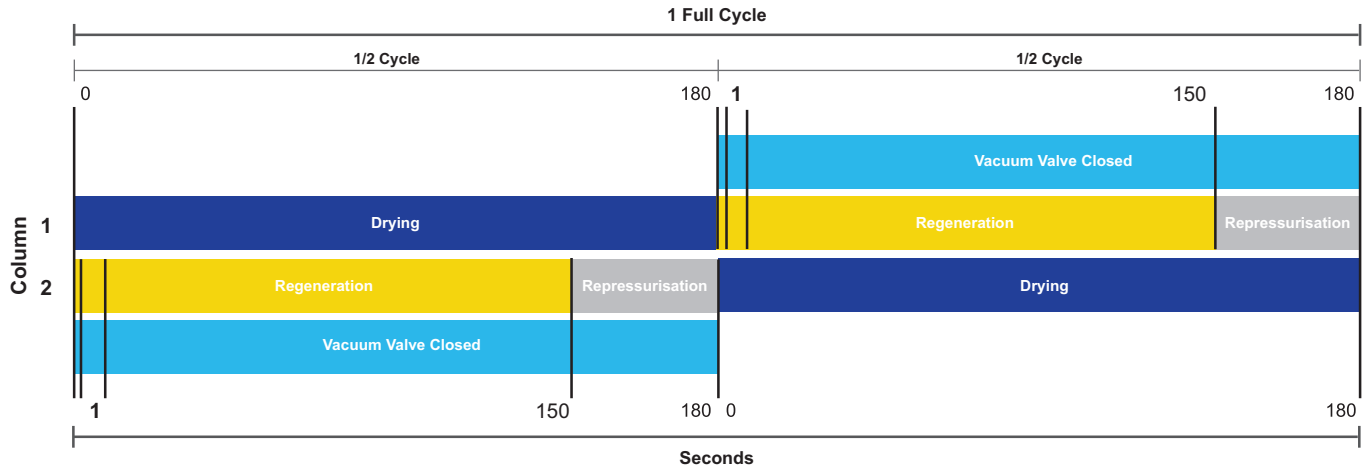
Graphical Representation of CDAS LE / OFAS LE / FBP LE Dryer Timing Cycles

All adsorption dryers have a standard fixed cycle to ensure drying / regeneration / changeover is continuous.

The diagram below illustrates the fixed timing cycle of a CDAS LE / OFAS LE / FBP LE dryer operating in LE mode.



The diagram below illustrates the fixed timing cycle of a CDAS LE / OFAS LE / FBP LE dryer operating in HL mode.



A full cycle = 360 Seconds (6 minutes) / A ½ cycle = 180 Seconds (3 minutes)

Important Note:

- During the operation of a CDAS LE / OFAS LE / FBP LE dryer in HL mode, the vacuum shut off valve (VSO) will remain closed.

CDAS LE / OFAS LE / FBP LE Energy Saving Technologies

To provide a consistent outlet dewpoint, the desiccant bed of an adsorption air dryer must be “sized” to match the maximum water vapour loading of the site and ensure that the adsorption bed is large enough to deliver a consistent outlet dewpoint based upon the fixed timing cycle.

The energy consumed by a CDAS LE / OFAS LE / FBP LE dryer comes from generation of the process air used as purge air to regenerate the off-line desiccant bed and the electrical energy to operate the vacuum pump.

In periods of low demand and or in winter, when the water vapour loading of the incoming compressed air can be reduced, operating on a fixed timing cycle will consume more energy than is required. To significantly reduce this energy loss, each CDAS LE / OFAS LE / FBP LE dryers include two energy saving functions as standard, called DDS-EST & Purge Economy.

DDS-EST – Dewpoint Dependent Switching - Energy Saving Technology (Also known as DDS)

Each CDAS / OFAS / FBP dryer includes an electronic control system consisting of a PLC (+expansion modules on LE variants) and a 7" Touch screen HMI, providing a visual indication of the unit's performance. Linked to this control system is a dewpoint hygrometer which constantly monitors the outlet dewpoint and adjusts the drying and regenerating cycle to exactly match the incoming water vapour loading of the dryer.

DDS-EST Operation

At the end of the regeneration cycle and prior to column changeover, the exhaust valve and vacuum shut off valve (VSO) are closed to re-pressurise the off-line column. After re-pressurisation, both drying chambers will be at full line pressure, no purge air is being used for regeneration.

With a fixed timing cycle, the drying columns would now proceed to change over automatically, however with DDS-EST, the controller will use the included dewpoint hygrometer to check the outlet dewpoint of the dryer. If the compressed air dewpoint is lower than the DDS-ECO set point (the dewpoint for which the dryer was selected to deliver), the desiccant material is only partially saturated and has drying capacity remaining within it.

The DDS-EST energy saving technology will therefore override the standard timing cycle and the dryer will continue to dry on the same column. At this point, no purge air is being consumed and the vacuum pump is shut down, therefore the dryer is in a state of zero energy consumption.

During this period, the “DDS ECO” icon will be displayed on the controller screen above the outlet dewpoint value.

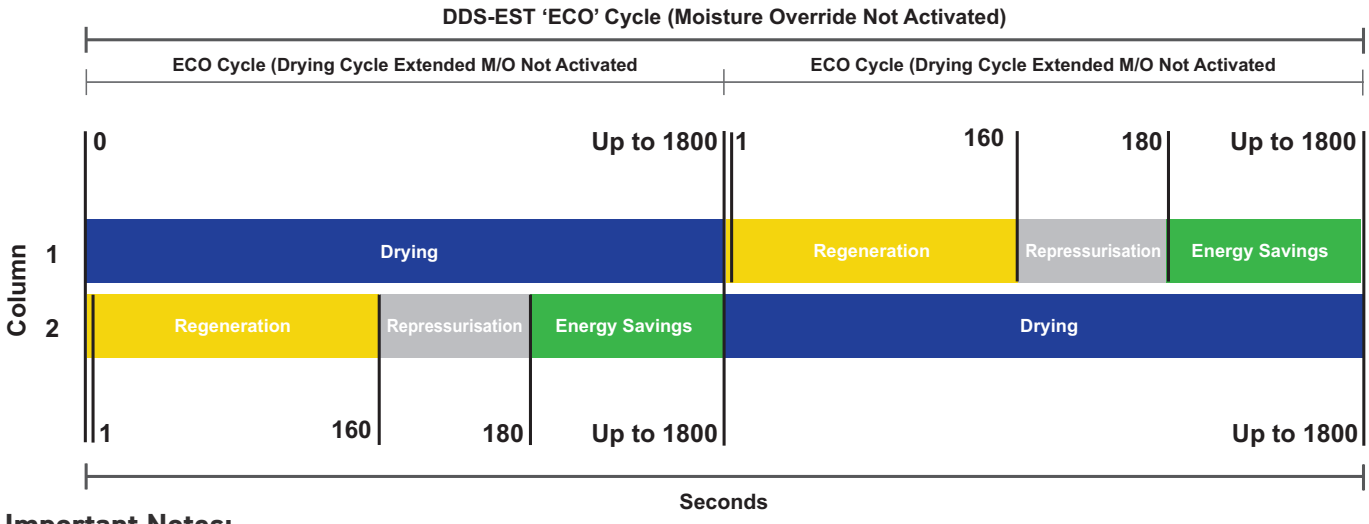
The dewpoint sensor constantly monitors the outlet pressure dewpoint until the DDS-ECO set point is reached, at which point column changeover will occur.

The drying and regenerating cycle will then continue normally until the next column changeover when the DDS-EST energy saving technology may again extend the drying cycle as dictated by the outlet pressure dewpoint.

During the extension of the drying cycle, no purge air or electrical energy is consumed, saving compressed air, energy and money.

DDS-EST Timing Cycle

The diagram below illustrates the DDS-EST timing cycle of a CDAS / OFAS / FBP operating at variable inlet conditions (DDS-EST ‘ECO’ active, Moisture Override Not Activated).



Important Notes:

- Should an fault occur with the dewpoint sensor, an Outlet Dewpoint Sensor Alarm will activate. The outlet dewpoint figure on the home screen change to -999.0.
- The dryer will revert to a fixed 3 minute half cycle (3 minutes drying / 2.5 minutes regenerating / 30 seconds repressurisation) until the sensor is replaced.

DDS-ECO Set Point

The DDS-ECO set point is the value at which the dryer will enter the DDS-EST ECO Cycle. During commissioning, the outlet dewpoint should be checked / selected. Each outlet dewpoint setting has a pre-defined DDS-ECO set point and dewpoint alarm set point.

OUTLET DEWPOINT SELECTED	DDS-ECO SET POINT (PDP Dryer Enters DDS-ECO)	DDS-ECO EXIT SET POINT (PDP Dryer Exits DDS-ECO)	DEWPOINT ALARM SET POINT
≤-20°C (-4°F)	-21°C (-4°F)	-20°C (-4°F)	<-10°C (+14°F)
≤-40 (-40°F)	-41 (-40°F)	-40 (-40°F)	<-30 (-22°F)
≤-70 (-100°F)	-71 (-100°F)	-70 (-100°F)	<-60 (-76°F)

Moisture Override

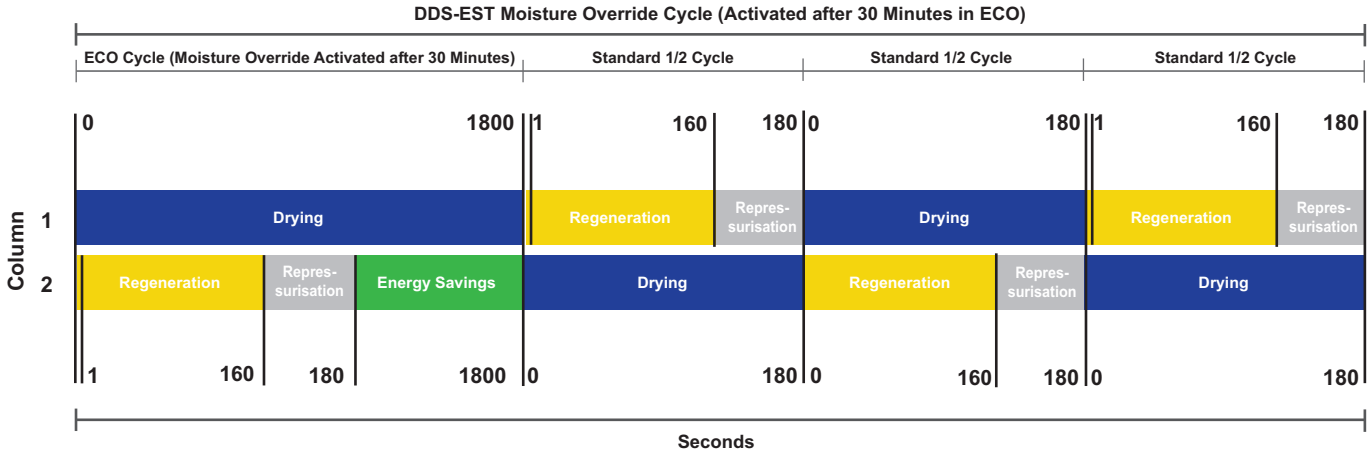
In certain geographical locations, a dryer can be operated for extended periods with low amounts of water vapour in the inlet air (for example, some countries can have an ambient temperature up to +40˚C in summer and as low as -40˚C in winter). As the dryer must be sized for summer conditions, during winter, months, DDS-EST will save the user air, energy & money.

However, due to the way a desiccant bed adsorbs water vapour, during winter months with low levels of water vapour in the incoming air, the saturation profile of the desiccant bed changes and a condition may occur where the bed becomes too saturated to be regenerated by the standard purge regeneration cycle.

Therefore, the CDAS / OFAS / FBP controller also incorporates a safety feature to protect the desiccant material. The safety feature, called Moisture Override activates after 30 minutes (1800 seconds), interrupting the DDS-EST energy management function and changing the drying columns over.

Once Moisture Override has been activated, the dryer will revert to a fixed timing cycle for 3 half cycles before going back into energy saving mode (if the outlet dewpoint is again lower than the DDS-ECO set point). This allows energy savings to be realised without causing damage to the desiccant bed.

The diagram below illustrates the DDS-EST timing cycle of a CDAS / OFAS / FBP operating at variable inlet conditions (DDS-EST active, Moisture Override Activated).



Important Notes:

- When the drying cycle is being extended, a green DDS-ECO icon will be displayed on the controller screen.
- The length of time spent in DDS-EST energy saving mode is dependent upon the moisture loading of the incoming compressed air and the subsequent outlet dewpoint.
- DDS-EST energy saving mode can extend the drying cycle from 180 seconds (3 minutes) up to 1800 seconds (30 minutes).
- If MOISTURE OVERRIDE is active, the number of remaining standard ½ cycles will be shown in a circle underneath the outlet dewpoint.
- The number denotes the number of ½ cycles remaining before the dryer can once again enter the DDS-EST energy saving mode.
- The default moisture override time of 1800 seconds (30 minutes) and the subsequent activation of the standard timing cycle for 3 half cycles can be modified by a trained engineer (please note, that changing these parameters can affect the performance of the dryer and should only be carried out following consultation with Parker)

Purge Economy (Purge ECO Mode)

Purge economy is designed to save energy (by stopping purge air) when the air compressor goes off load. To use Purge Economy requires a wired connection between the air compressor and the dryer controller and the Purge Economy digital input ENABLED in the controller software. When the Purge Economy digital input is ENABLED, a PURGE ECO icon will be displayed on the main controller screen above the outlet dewpoint.

There are two PURGE ECO modes for purge economy.

- **INSTANT** (Default) - When Purge Economy is activated, the dryer immediately closes the exhaust valve to repressurise the off-line column then stops the cycle.
- **DELAYED** (Option) – When Purge Economy is activated, the dryer continues until the end of the regeneration cycle, closes the exhaust valve then stops the cycle after repressurisation of the off-line column.

Important Notes:

- DDS-EST & Purge Economy can be used together.
- Purge Economy takes priority over DDS-EST .
- When purge economy is active, the green PURGE ECO icon will be displayed above the outlet dewpoint.

CDAS LE / OFAS LE / FBP LE
MODELS 100 to 170
HMI MENUS & SCREENS
USER LEVEL ACCESS

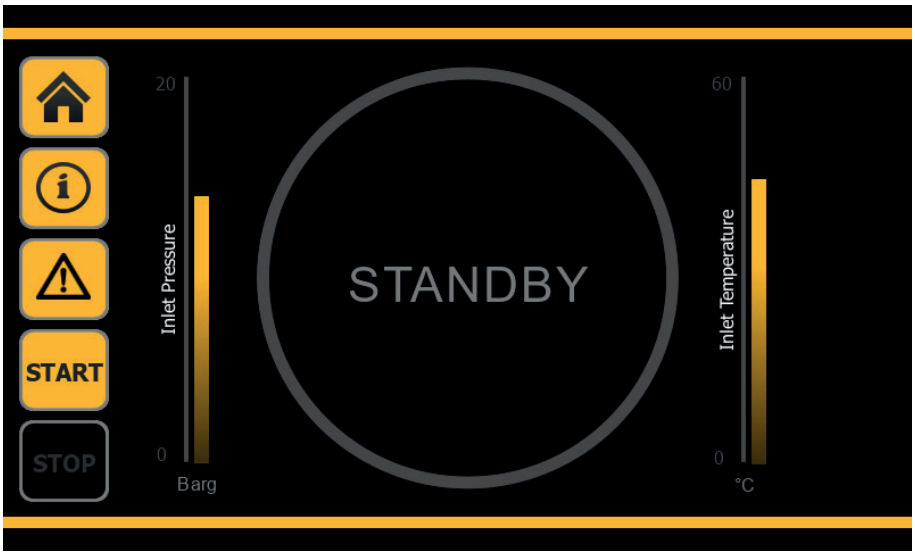
Power on Splash Screen

Upon power up, the splashscreen will be displayed for 30 seconds before showing the **HOMEPAGE**

HOMEPAGE

Standby Screen

The buttons on the HOMEPAGE are identified below:



Home Button

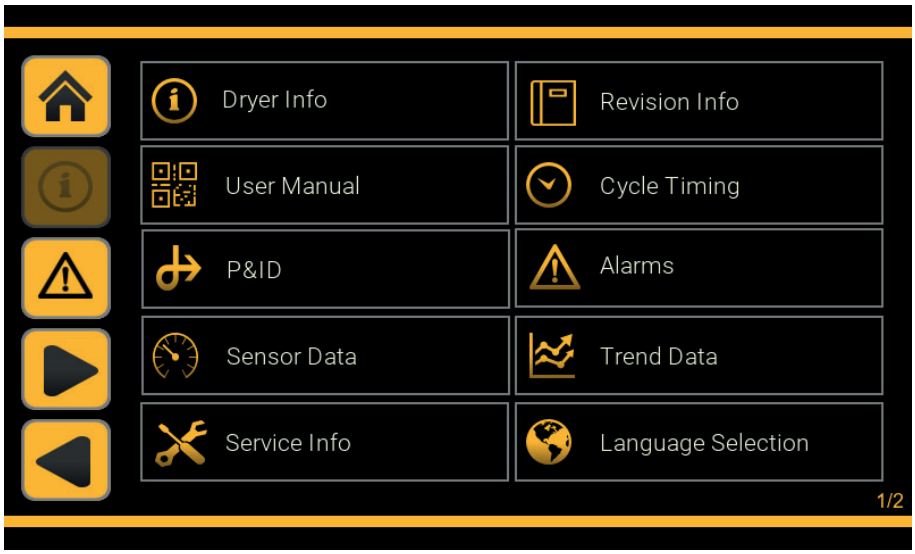
Information Button

Alarms Button

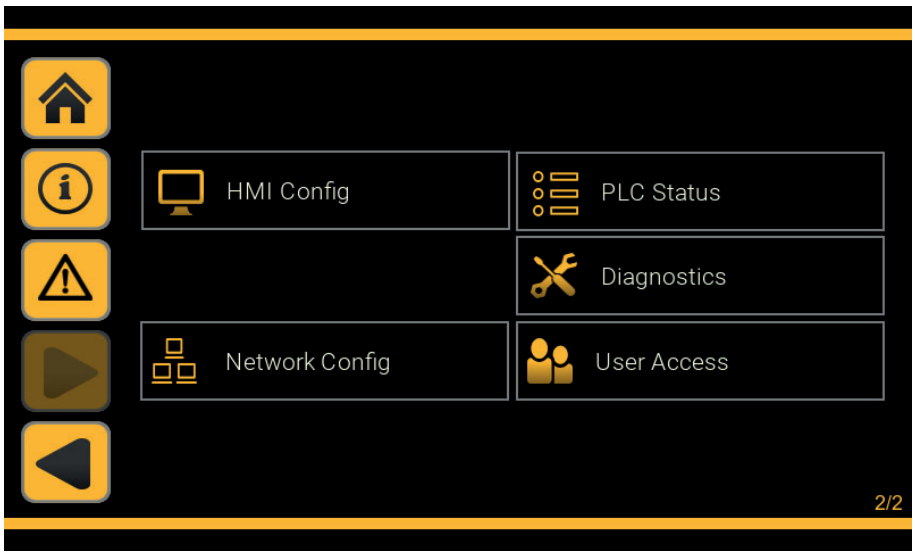
Start Button

Stop Button

Pressing the INFORMATION button will bring up the following menu page.

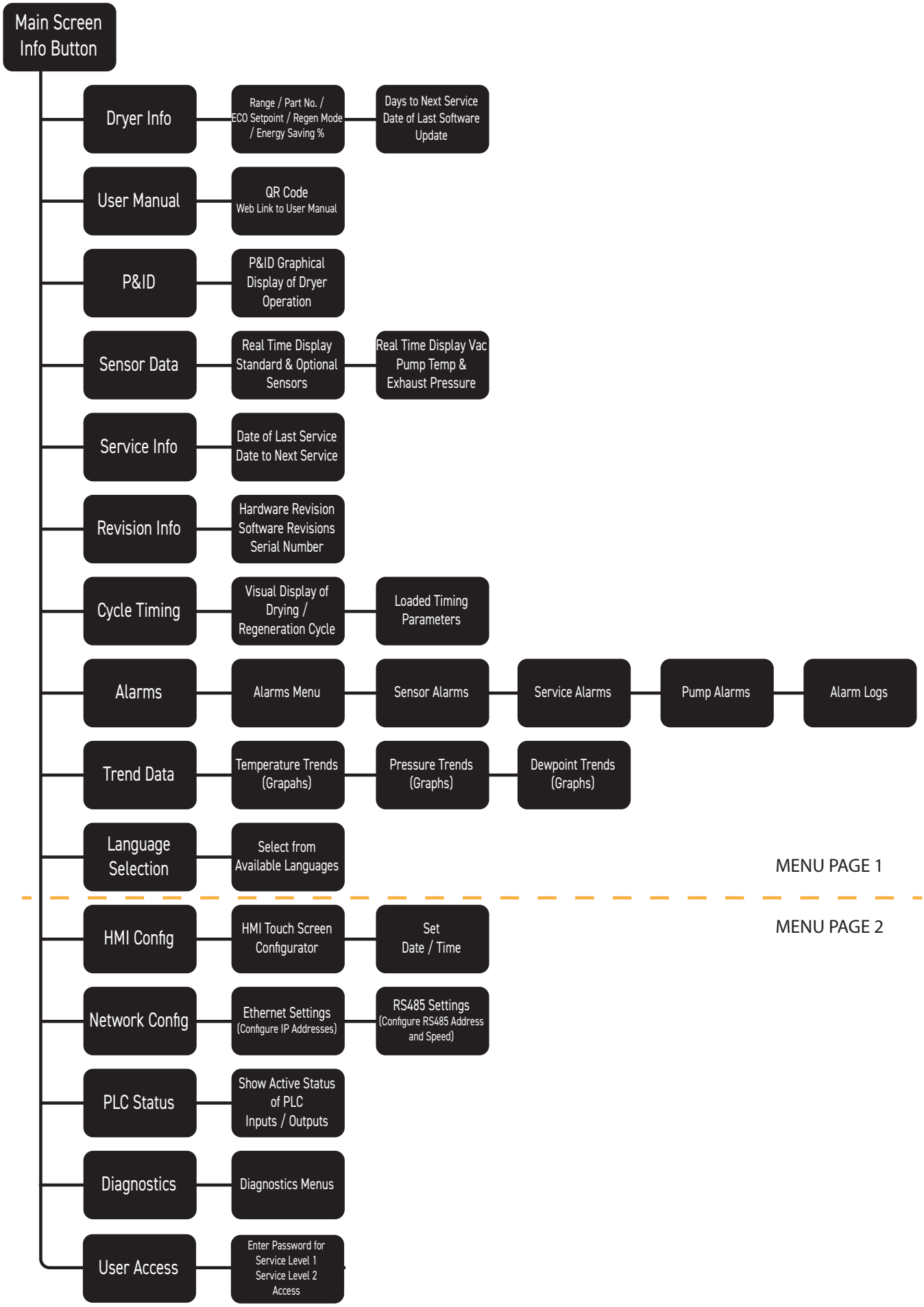


Pressing the NEXT button will move to Page 2



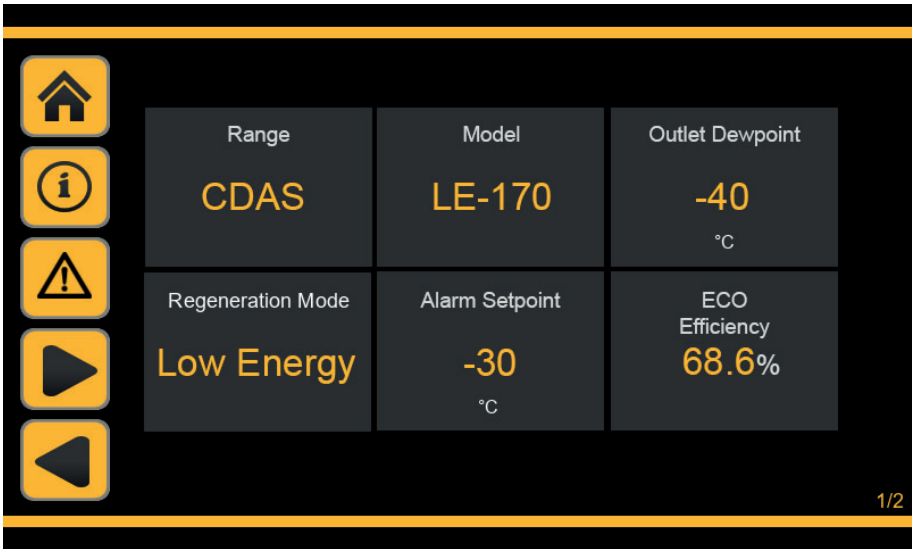
Pressing the RETURN button will move back to Page 1

Menu Map
Info Button - User Level



Pressing the DRYER INFO button will bring up the following page.

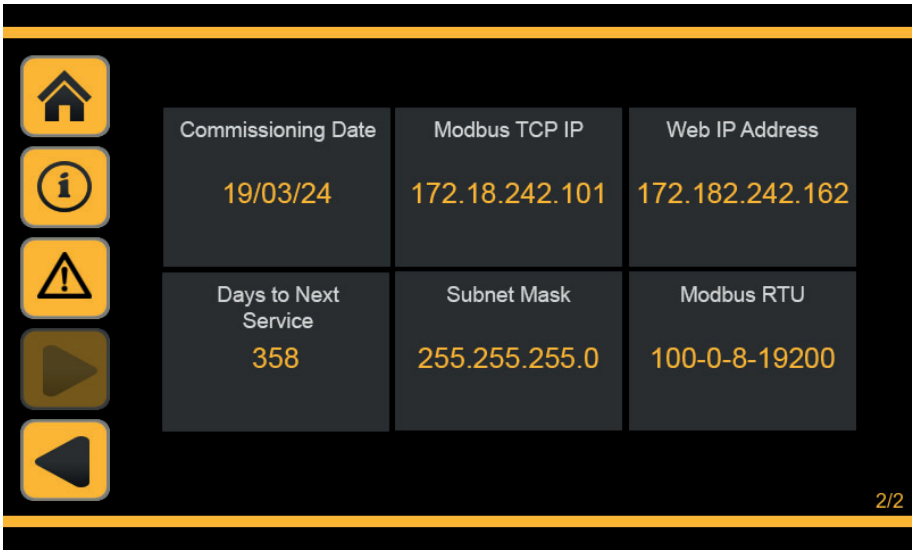
Dryer Info Page 1 (Read Only)
This screen provides information regarding the dryer configuration (CDAS / OFAS / FBP), target outlet dewpoint, regeneration mode (Heatless or Heatless Low Energy) alarm set point & percentage of time spent in DDS-ECO mode.



Pressing the NEXT button will move to Dryer Info Page 2

Pressing the RETURN button will return to the Home Page

Dryer Info Page 2 (Read Only)
This screen provides information regarding Commissioning Date, Modbus TCP IP address, Webserver IP address, Days to next service / date of last service (can be toggled by pressing box), Subnet Mask & Modbus RTU settings.



Pressing the RETURN button will return to Dryer Info Page 1

Pressing the HOME button return to the home page.

Pressing the USER MANUAL button will bring up the following page.

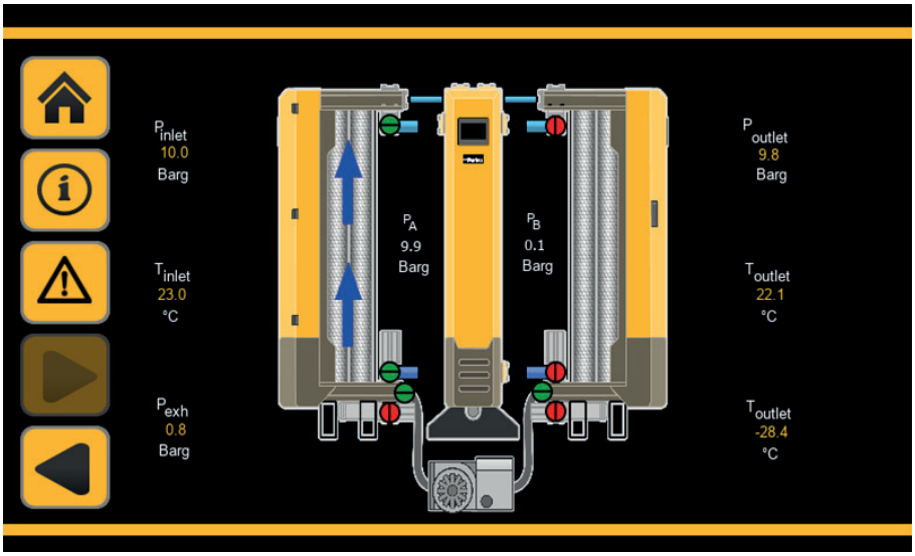
This screen provides a QR code that will take a mobile device to a location on Parker.com containing the product Userguide.

Pressing the RETURN button will return to the Information Menu

Pressing the HOME button return to the home page.

Pressing the P&ID button will bring up the following page.

This screen provides a real-time graphical representation of dryer function. LE variant in Low Energy Regeneration Mode shown.



Pressing the RETURN button will return to the Information Menu

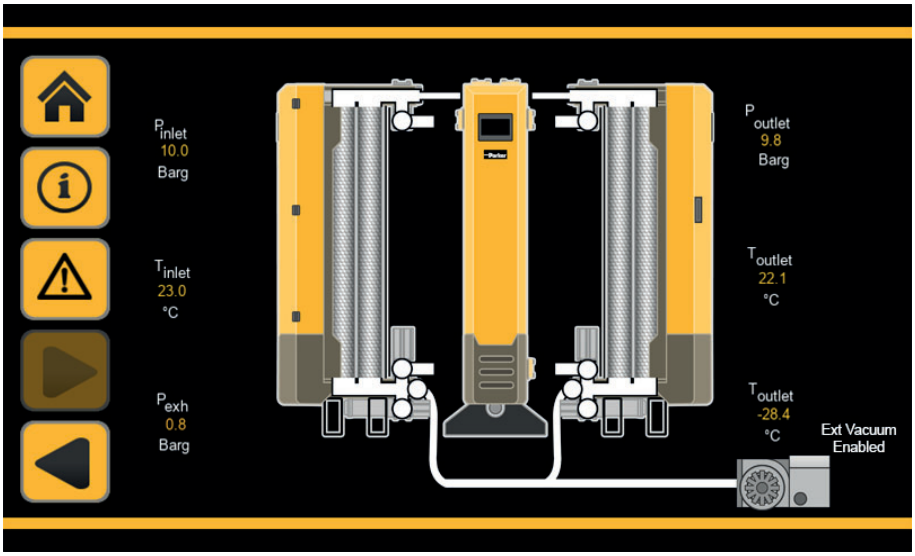
Pressing the HOME button return to the home page.

Important Notes:

- Some sensors are optional extras.
- The above image shows all sensors fitted and enabled.
- If optional sensors are not fitted and enabled, they will not be displayed on the P&ID screen.
- Sensors fitted as Standard: Inlet Pressure / Inlet Temperature / Outlet Pressure dewpoint.

P&ID

LE variant in Low Energy Regeneration Mode shown with External Vacuum control Enabled.

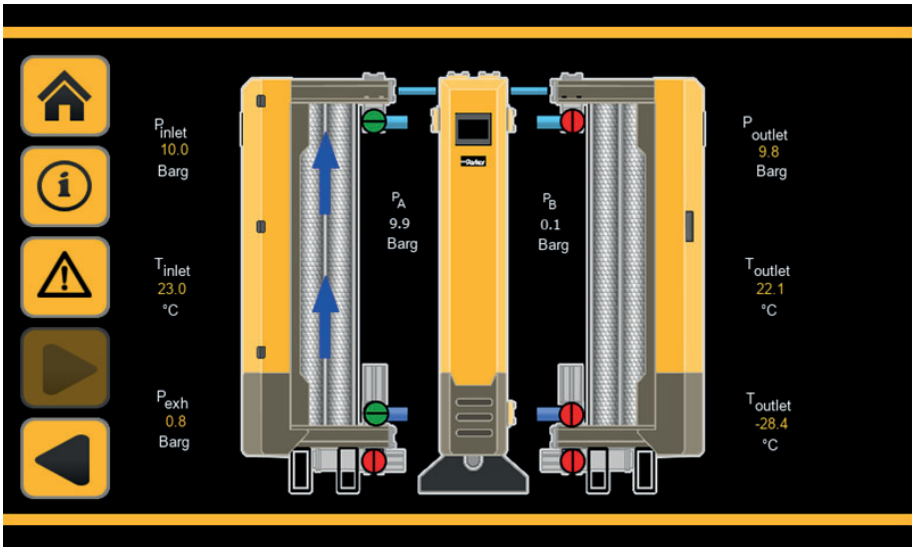


Pressing the RETURN button will return to the Information Menu

Pressing the HOME button return to the home page.

P&ID

LE variant in Heatless Regeneration Mode shown.



Pressing the RETURN button will return to the Information Menu

Pressing the HOME button return to the home page.

Important Notes:

- Some sensors are optional extras.
- The above image shows all sensors fitted and enabled.
- If optional sensors are not fitted and enabled, they will not be displayed on the P&ID screen.
- Sensors fitted as Standard: Inlet Pressure / Inlet Temperature / Outlet Pressure dewpoint.

Pressing the SENSOR DATA button will bring up the following page.

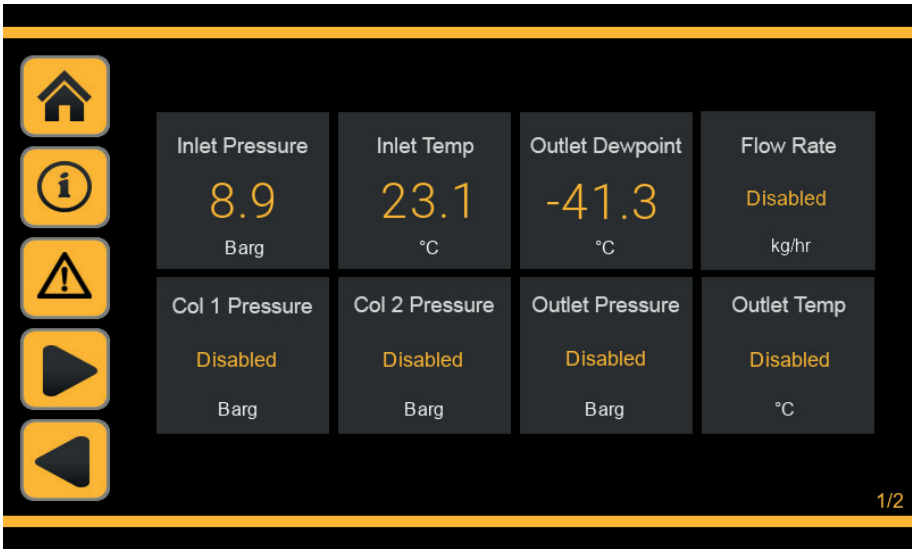
This screen provides real-time information from installed sensors.

Important Note:
Some sensors are optional extras. If optional sensors are not fitted, '**Disabled**' will be displayed for that sensor.

Pressing the RETURN button will return to the Information Menu

Pressing the NEXT button will move to Sensor Data Page 2

Pressing the HOME button return to the home page.

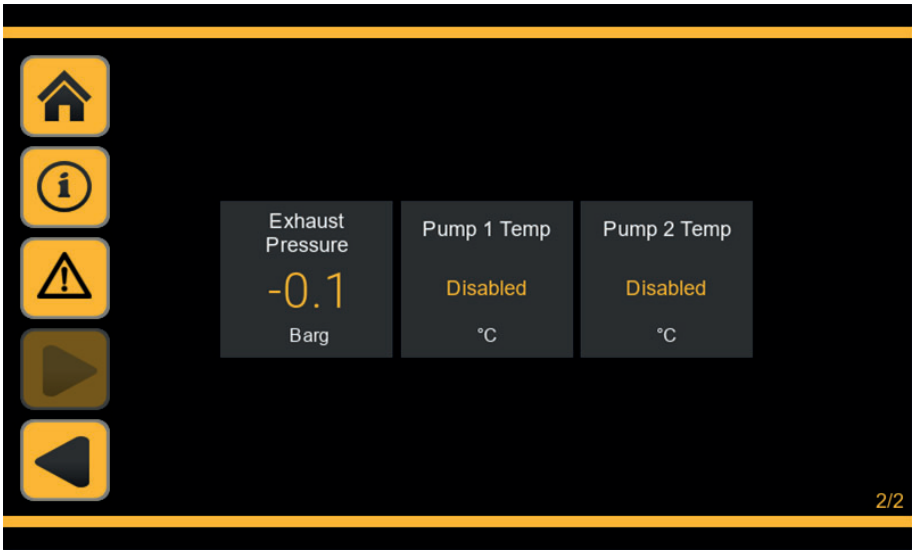


This screen provides real-time information from installed sensors.

Important Note:
Some sensors are optional extras. If optional sensors are not fitted, '**Disabled**' will be displayed for that sensor.

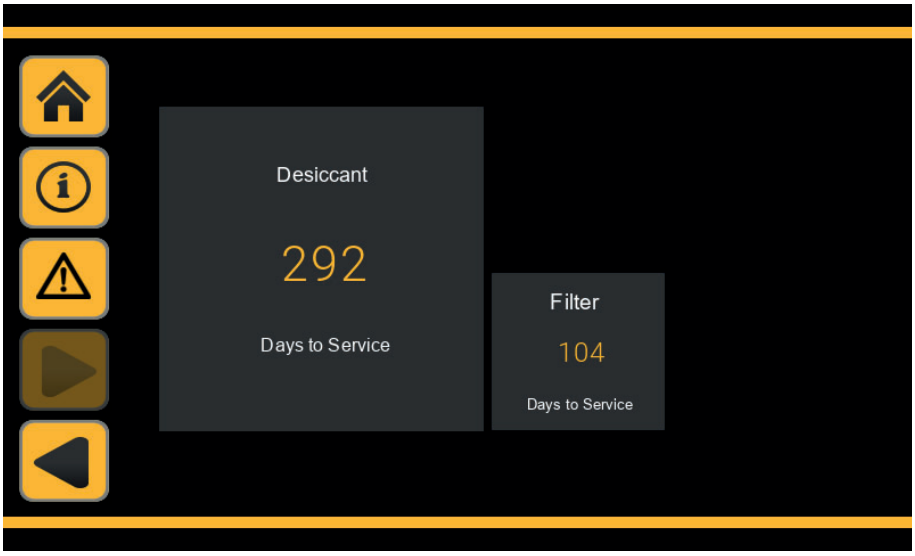
Pressing the RETURN button will return to Sensor Data Page 1

Pressing the HOME button return to the home page.

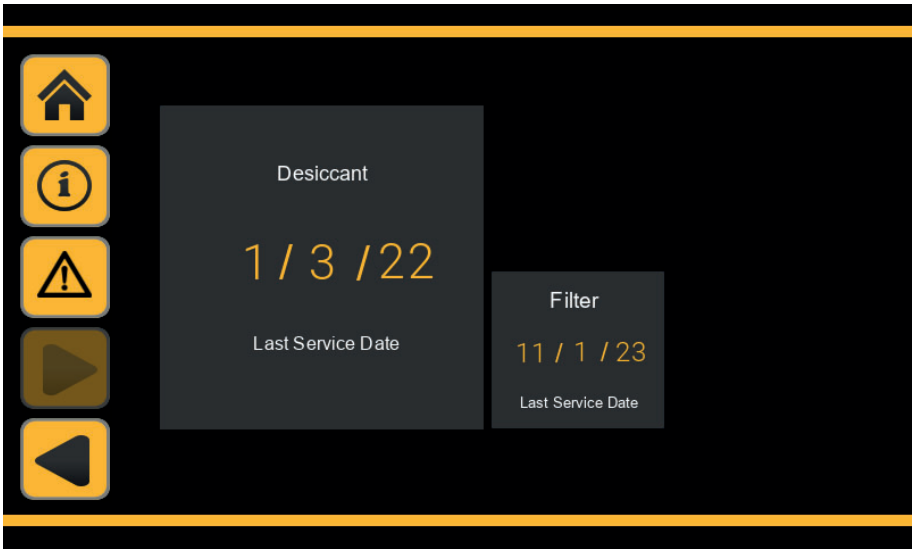


Pressing the SERVICE INFO button will bring up the following page.

This screen advises how many days to next service for critical consumables.



Whilst on the SERVICE INFO page, tapping on the screen will toggle between DAYS TO SERVICE and LAST SERVICE DATE



Pressing the RETURN button will return to the Information Menu

Pressing the HOME button return to the home page.

Pressing the REVISION INFO button will bring up the following page.

This screen provides the Hardware Revision, Software Revision and Serial Number of the dryer.

Pressing the RETURN button will return to the Information Menu

Pressing the HOME button return to the home page.

Pressing the CYCLE TIMING button will bring up the following page.

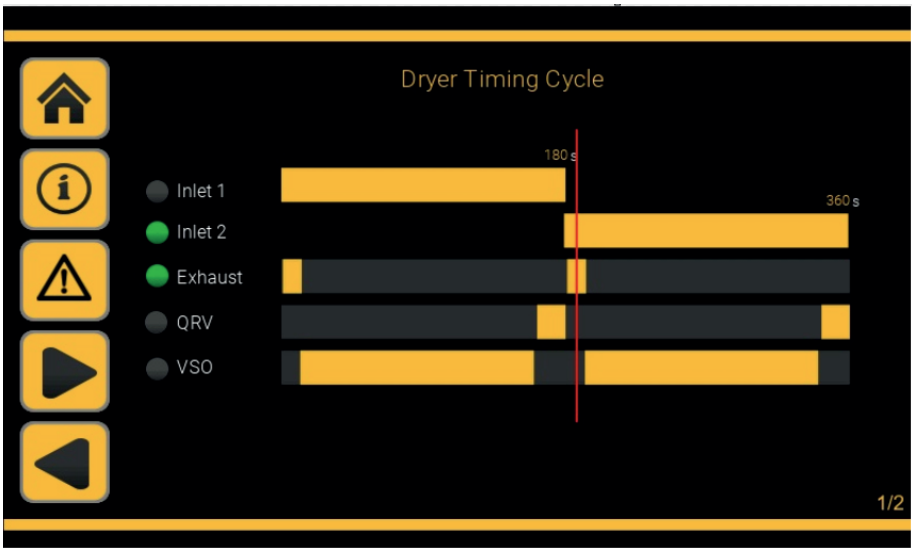
This screen provides a real-time display of the dryer timing cycle and the current position in the timing cycle.

Important Note:
There are 3 variations of the Dryer Timing Cycle screen.

Standard Cycle (Fixed Timing, No Energy Management Active).

DDS - Dewpoint Dependent Switching Timing Cycle Active

Purge Economy Timing Cycle Active



Pressing the RETURN button will return to the Information Menu

Pressing the NEXT button will move to Page 2

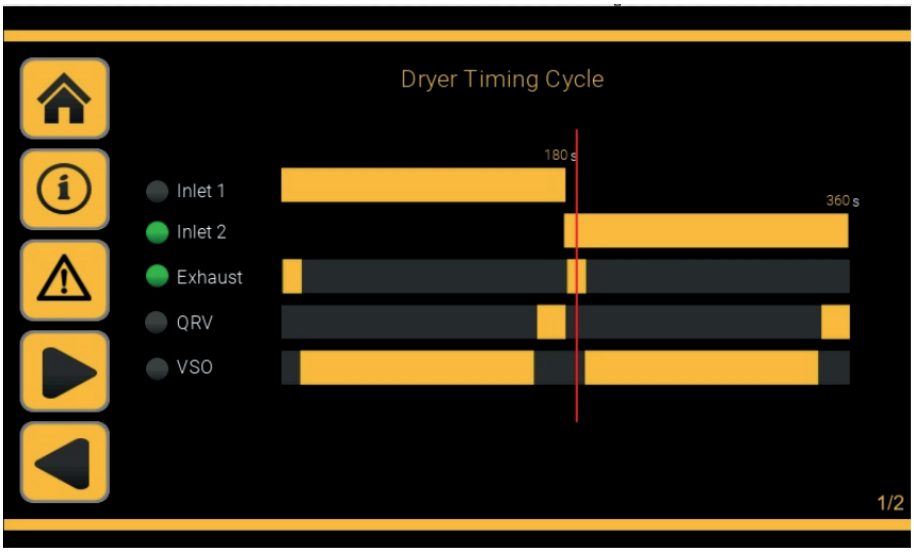
Pressing the HOME button return to the home page.

STANDARD TIMING CYCLE

Dryer Timing – Standard Cycle

Standard fixed drying / regeneration cycle (refer to operation section for full description of operation)

- **Inlet 1 / Inlet 2:** Opens to direct air through on-line column. Green indicates open (active) inlet valve (side 1 or side 2).
- **Exhaust**: Green indicates an open (active) exhaust valve, Grey indicated closed exhaust valve.
- **QRV (Quick Repressurisation Valve):** Opens to allow rapid repressurisation of off-line column prior to changeover. Green indicates valve open (active).
- **VSO (Vacuum Shut Off Valve):** Closes to protect vacuum pump during dryer depressurisation. Green indicates valve open (active).

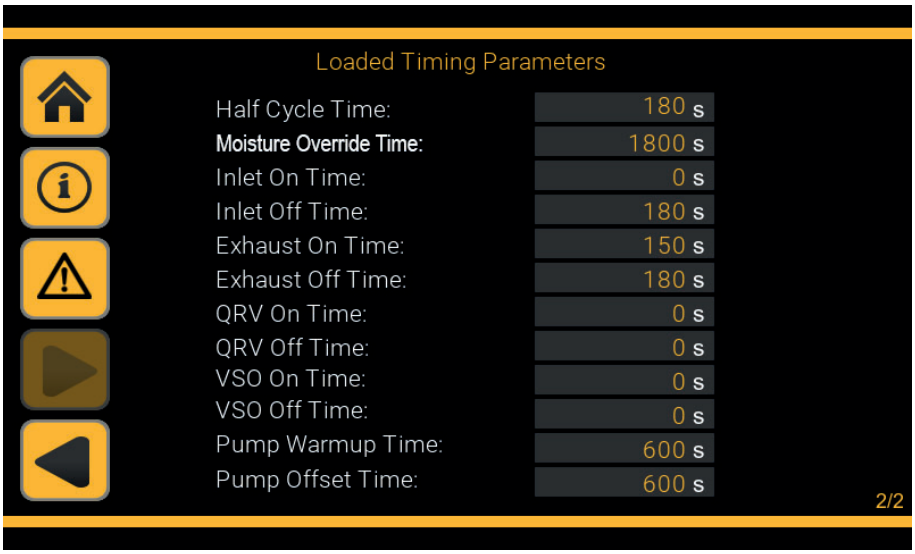


STANDARD TIMING CYCLE

Page 2 provides a display of the cycle time parameters.

Important Note:
The image (right) is for an LE (Low Energy) dryer variant.

If the dryer is configured as an HL (Heatless) variant, VSO On Time, VSO Off Time, Pump Warm up Time and Pump Offset Time will display '**0S**' as these are not required in HL mode.



Pressing the RETURN button will return to the Information Menu

Pressing the NEXT button will move to Page 2

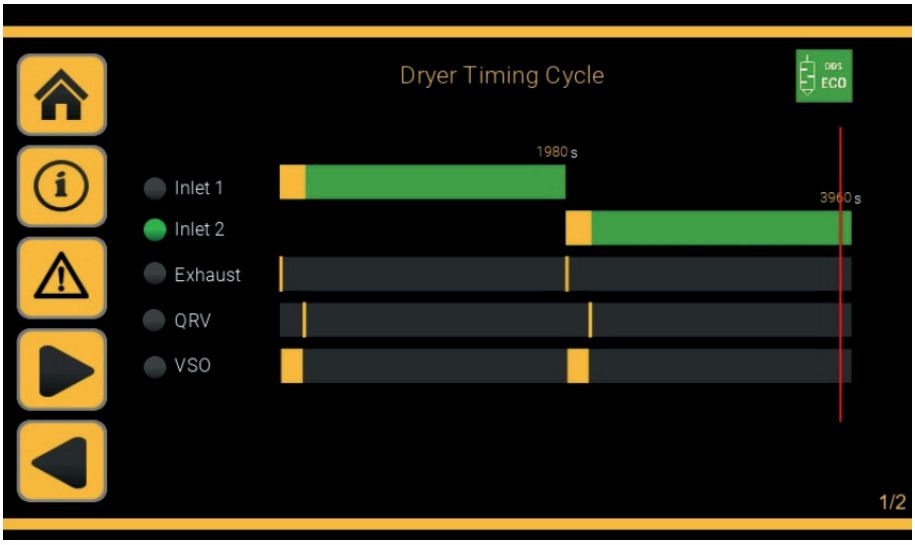
Pressing the HOME button return to the home page.

DDS - DEWPOINT DEPENDENT SWITCHING TIMING CYCLE

Dryer Timing – DDS Dependent Switching

DDS -ECO Extended drying cycle (refer to operation section for full description of operation)

- **Inlet 1 / Inlet 2:** Opens to direct air through on-line column. Green indicates open (active) inlet valve (side 1 or side 2).
- **Exhaust**: Green indicates an open (active) exhaust valve, Grey indicated closed exhaust valve.
- **QRV (Quick Repressurisation Valve):** Opens to allow rapid repressurisation of off-line column prior to changeover. Green indicates valve open (active).
- **VSO (Vacuum Shut Off Valve):** Closes to protect vacuum pump during dryer depressurisation. Green indicates valve open (active).



Important Notes:

- When the DDS (Dewpoint Dependent Switching) Energy Saving Cycle is active, the drying cycle can be extended from 180 seconds up to a 1800 seconds (default), dictated by the outlet dewpoint.
- When in DDS Extended drying cycle, the timing bars for inlet 1 / Inlet 2 will show green and the DDS ECO Icon will be present in the upper right of the screen.

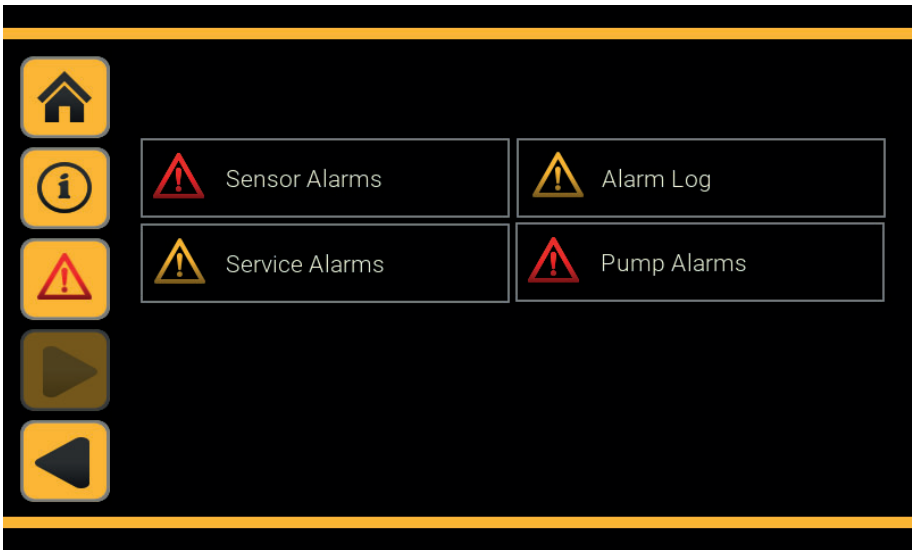
Pressing the RETURN button will return to the Information Menu

Pressing the HOME button return to the home page.

Pressing the ALARMS button will bring up the following page.

This screen provides a real-time display of the dryer alarms.

Important Note:
An Active Alarm is indicated by a RED warning triangle.



Pressing the RETURN button will return to the Information Menu

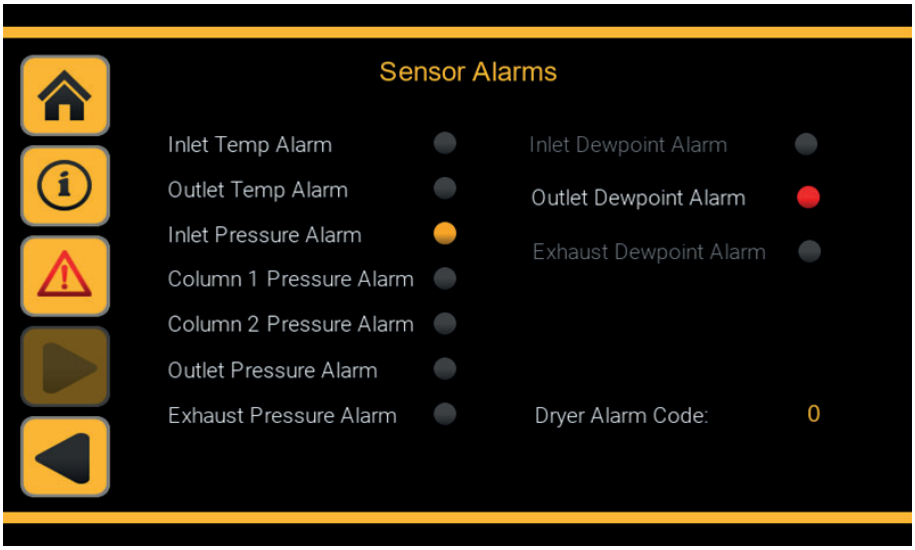
Pressing the HOME button return to the home page.

Pressing the SENSOR ALARMS button will bring up the following page.

This screen provides a real-time display of the dryer sensor alarms.

Important Notes:
For pressure and temperature alarms, an Active Alarm is indicated by a solid yellow or solid red circle.

Yellow = Under Set Point
Red = Over Set Point



Pressing the RETURN button will return to the ALARMS menu

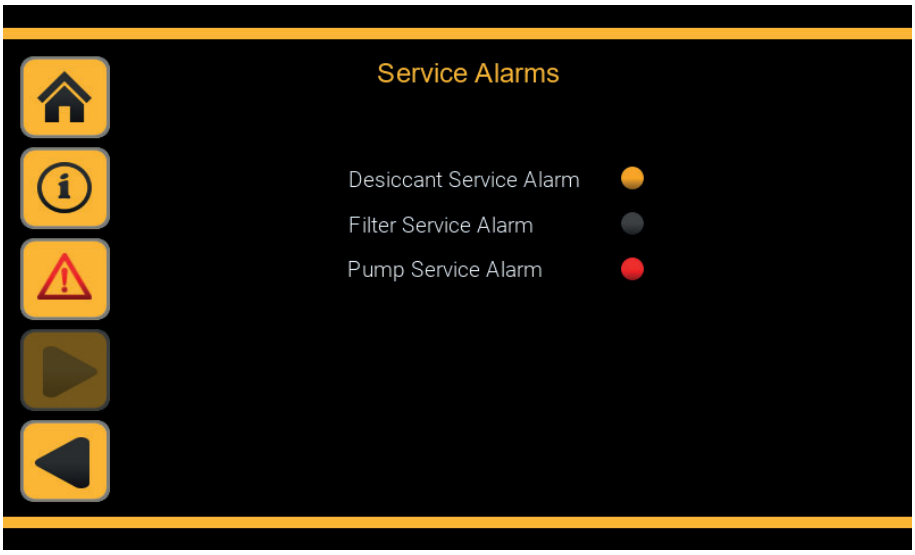
Pressing the HOME button return to the home page.

Pressing the SERVICE ALARMS button will bring up the following page.

This screen provides a real-time display of the dryer service alarms.

Important Notes:
An Active Alarm is indicated by a solid yellow or solid red circle.

Yellow = Service Imminent
Red = Service Overdue



Pressing the RETURN button will return to the ALARMS menu

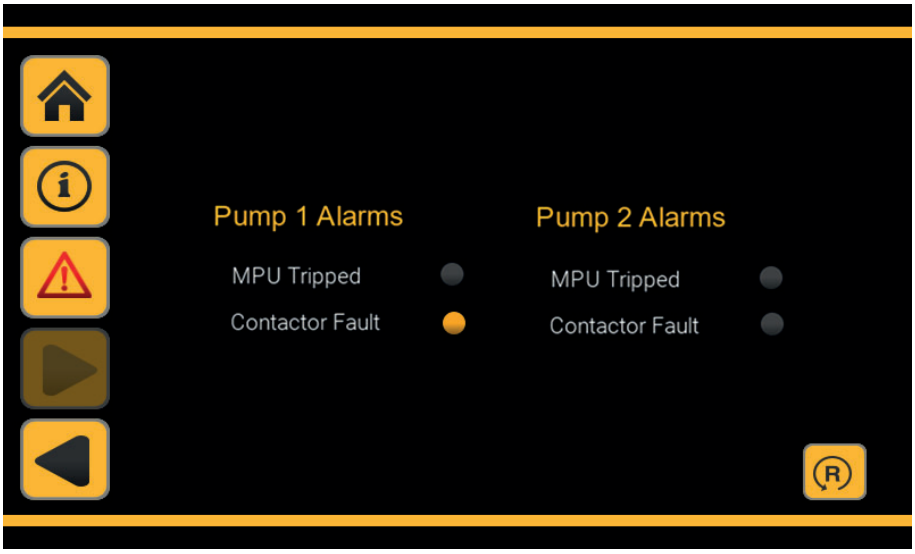
Pressing the HOME button return to the home page.

Pressing the PUMP ALARMS button will bring up the following page.

This screen provides a real-time display of the vacuum pump alarms (LE Low Energy Variants Only).

Important Notes:
For pressure and temperature alarms, an Active Alarm is indicated by a solid red or solid yellow circle.

Red = Over Set Point
Yellow = Under Set Point



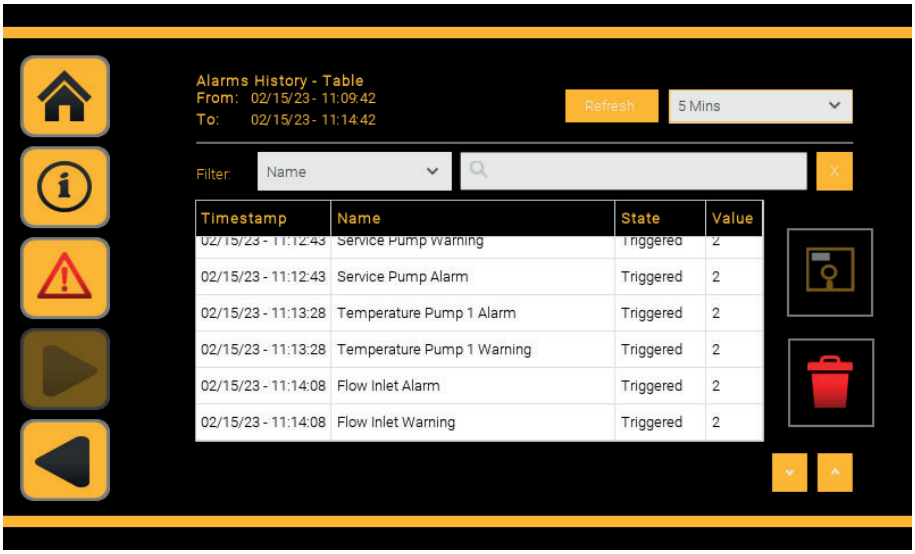
Pressing the RETURN button will return to the ALARMS menu

Pressing the HOME button return to the home page.

Pressing the ALARM LOG button will bring up the following page.

This screen provides the user with the ability to select and view alarm events.

Alarm events can also be saved to a USB drive via the external USB connection (data saved in a .CSV format).



Pressing the RETURN button will return to the ALARMS menu

Pressing the HOME button return to the home page.

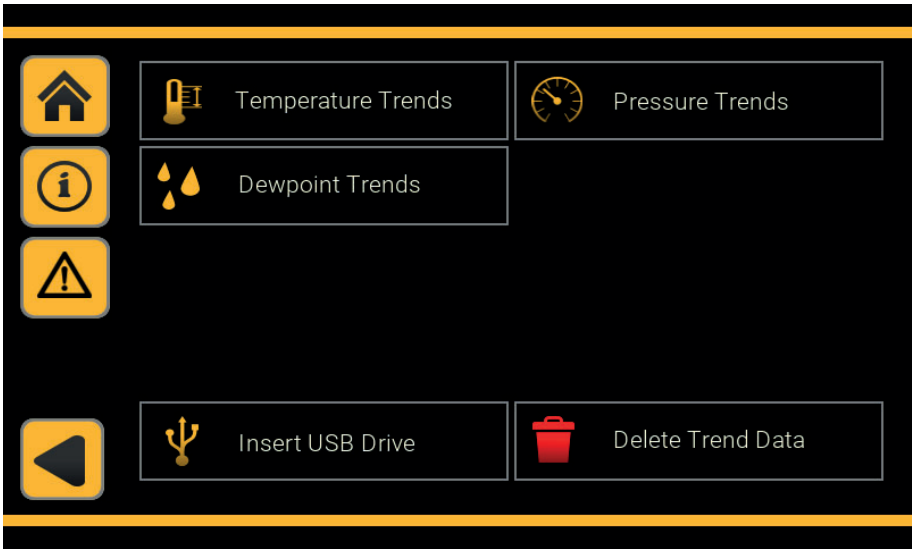
Pressing the TREND DATA button will bring up the following sub menu.

This menu allows the user to view recorded data from installed sensors.

Important Notes:
As standard, CDAS / OFAS / FBP dryers are supplied with an inlet temperature, inlet pressure and outlet pressure dewpoint sensor.

If optional sensors are not fitted, the respective icon will be greyed out.

Trend data for active sensors can also be saved to a USB drive via the external USB connection (data saved in a .CSV format).



Pressing the RETURN button will return to the Information Menu

Pressing the HOME button return to the home page.

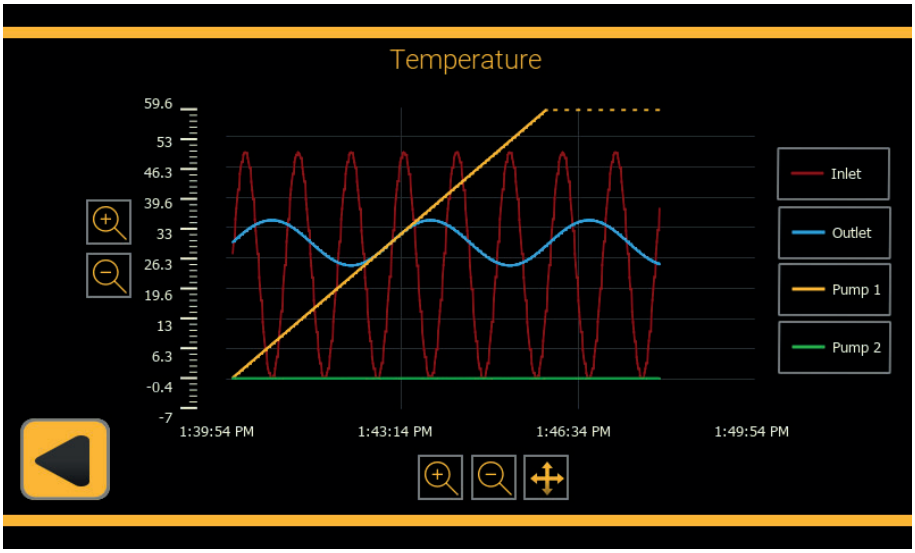
Pressing the TEMPERATURE TRENDS button will bring up the following page.

This page allows the user to view recorded data from the temperature sensors.

Important Notes:
As standard, CDAS / OFAS / FBP dryers are supplied with an inlet temperature sensor.

If optional outlet temperature sensor is fitted, data will be shown on the temperature trends graph.

If CDAS / OFAS / FBP LE (Low Energy) variants have temperature sensors fitted to the vacuum pump (or pumps - duplex setup), these can also be connected and displayed on the temperature graph.



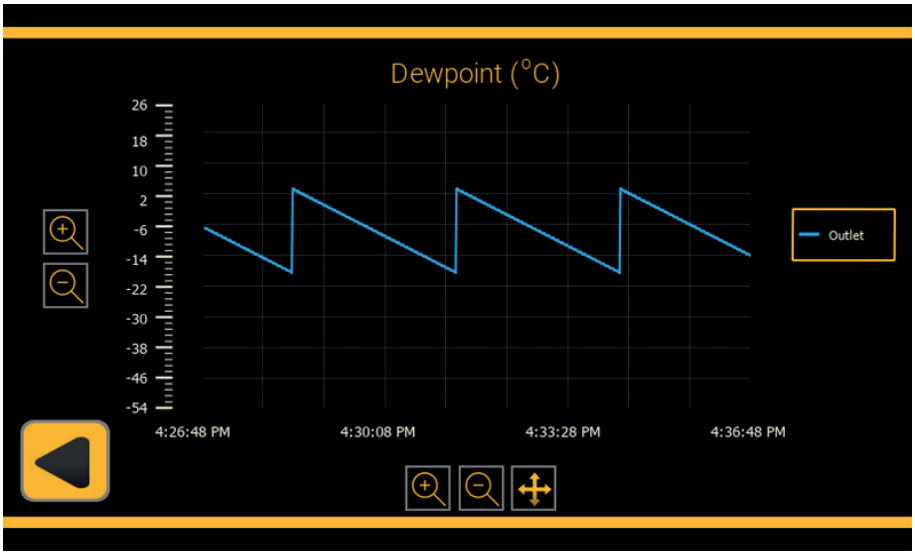
Pressing the RETURN button will return to the Information Menu

Pressing the HOME button return to the home page.

Pressing the DEWPOINT TRENDS button will bring up the following page.

This page allows the user to view recorded data from the dewpoint sensor.

Important Notes:
As standard, CDAS / OFAS / FBP dryers are supplied with an outlet dewpoint sensor.



Pressing the RETURN button will return to the Information Menu

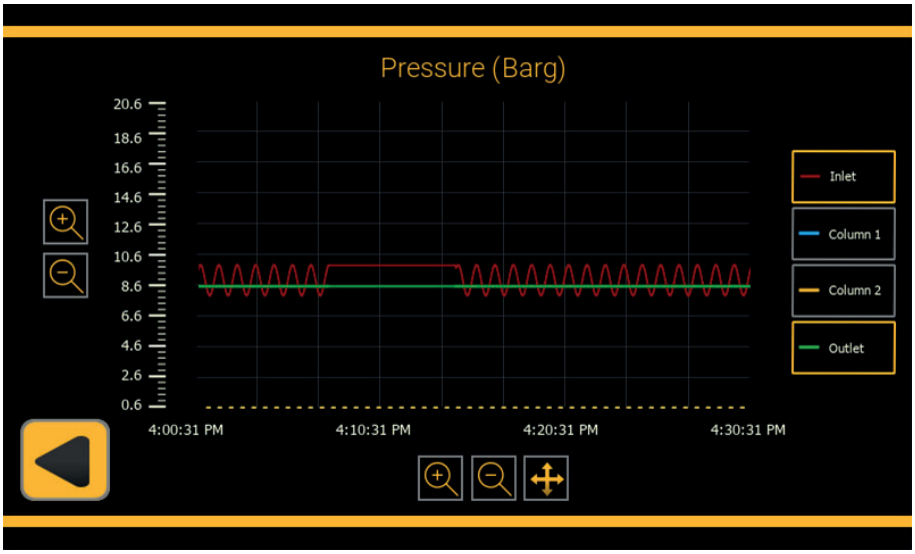
Pressing the HOME button return to the home page.

Pressing the PRESSURE TRENDS button will bring up the following page.

This page allows the user to view recorded data from the inlet pressure sensor.

Important Notes:
As standard, CDAS / OFAS / FBP dryers are supplied with an inlet pressure sensor.

If optional column pressure sensors and/or outlet pressure sensors are fitted, data will be shown on the pressure trends graph.



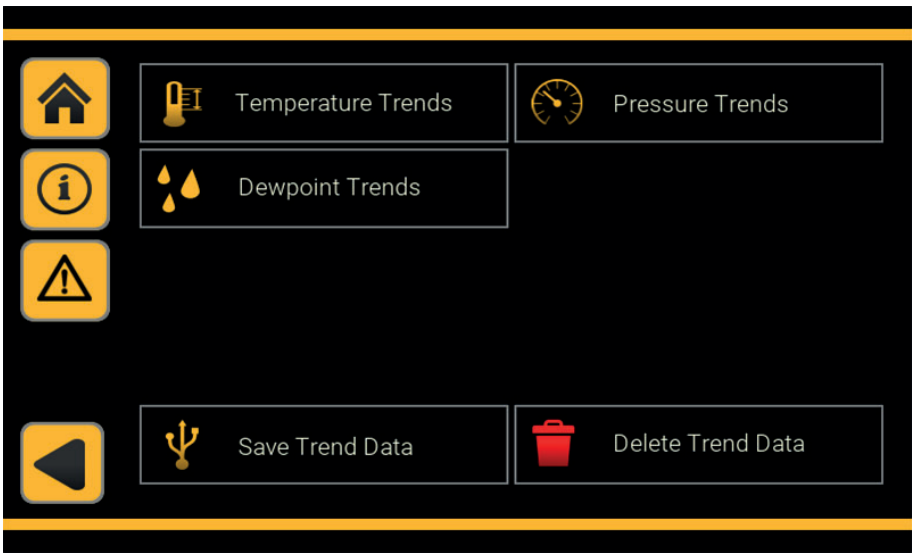
Pressing the RETURN button will return to the Information Menu

Pressing the HOME button return to the home page.

Pressing the INSERT USB DRIVE button has no effect until a USB drive is inserted.

Inserting a USB drive will change the INSERT USB DRIVE button to **SAVE TREND DATA**.

Pressing the SAVE TREND DATA button will save the trend data to the USB drive.



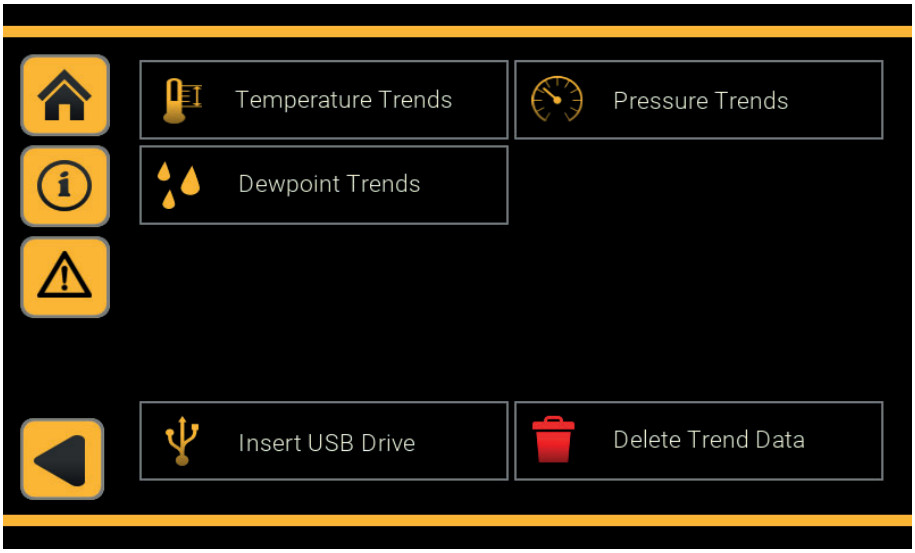
Pressing the RETURN button will return to the Information Menu

Pressing the HOME button return to the home page.

Pressing the DELETE TREND DATA button will illuminate the button whilst stores data is deleted.

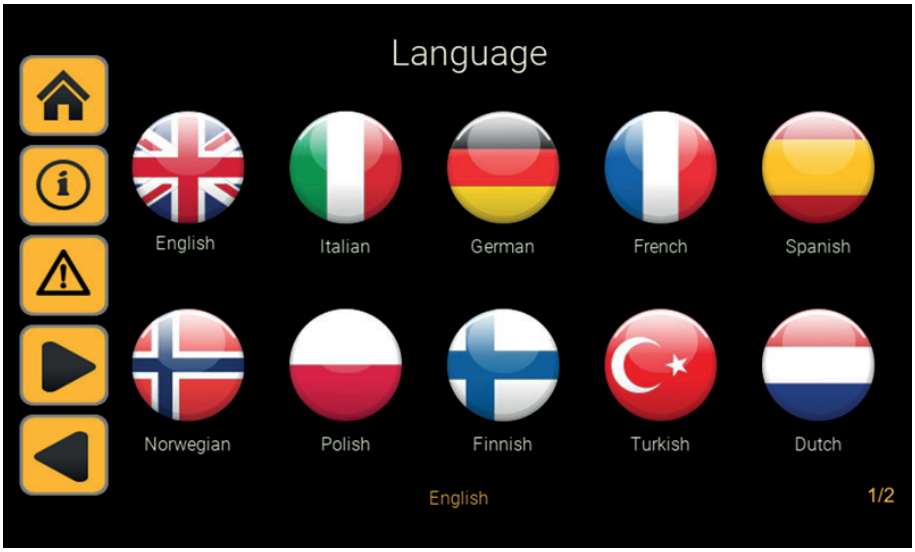
Pressing the RETURN button will return to the Information Menu

Pressing the HOME button return to the home page.



Pressing the LANGUAGE SELECTION button will bring up the following page.

This page allows the user to select the language displayed by the HMI.

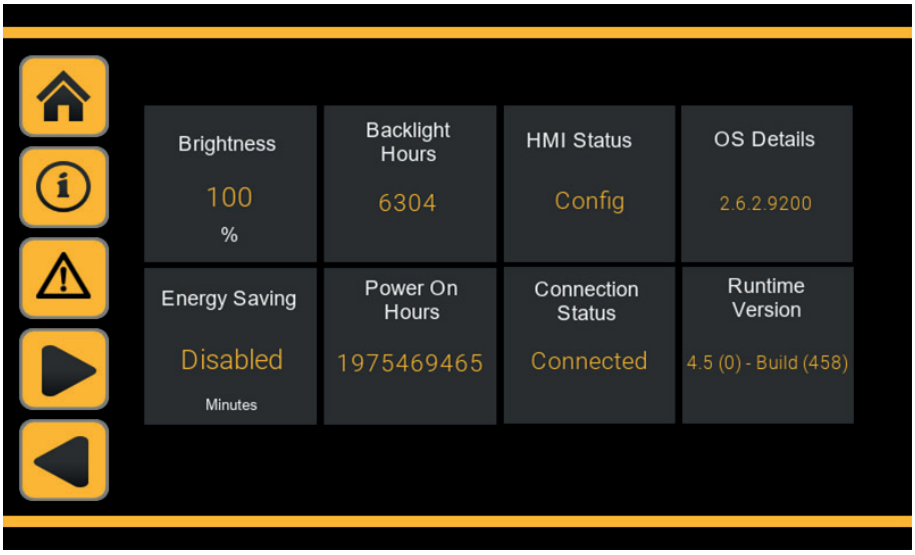


Pressing the RETURN button will return to the Information Menu

Pressing the HOME button return to the home page.

Pressing the HMI CONFIG button will bring up the following page.

This page allows the user to view information about the HMI (screen) including firmware revision and set brightness level and screen saver (Energy Saving) off or time out in minutes.



Pressing the RETURN button will return to the Information Menu Page 2

Pressing the HOME button return to the home page.

Pressing the Right Arrow button on HMI CONFIG page 1 will bring up the following page.

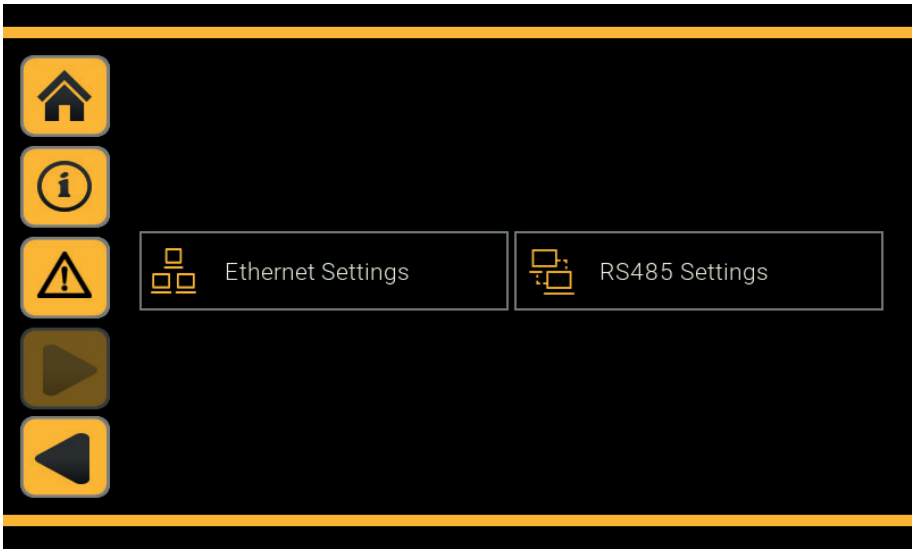
HMI Config page 2 allows the user to set the real time clock.

Pressing the RETURN button will return to the HMI Config Page 1

Pressing the HOME button return to the home page.

Pressing the NETWORK CONFIG button will bring up the following sub menu.

This page allows the user to set up Ethernet or RS485 connections to allow for remote monitoring via web server or MODBUS.



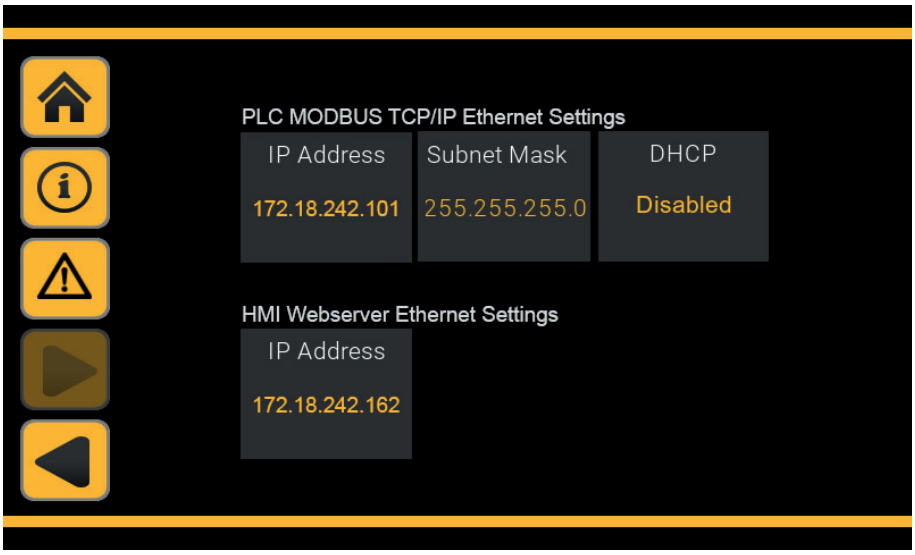
Pressing the RETURN button will return to the Information Menu Page 2

Pressing the HOME button return to the home page.

Pressing the ETHERNET SETTINGS button will bring up the following page.

This page allows the user to view the current IP Address, Subnet Mask and DHCP status.

Important Note:
The user can use this screen to set up a static IP address if required.



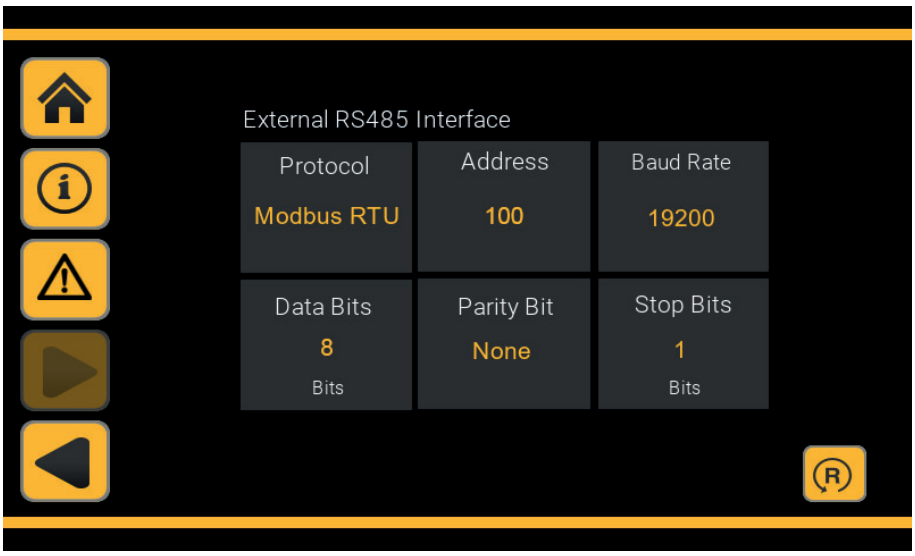
Pressing the RETURN button will return to the Network Config menu

Pressing the HOME button return to the home page.

Pressing the RS485 SETTINGS button will bring up the following page.

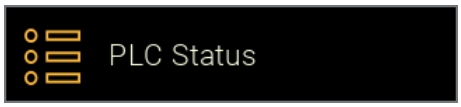
This page allows the user to view the current RS485 connection.

Important Note:
The user can use this screen to set communication protocol, node number (address), baud rate, data bits, parity bit and stop bits to match system requirements.



Pressing the RETURN button will return to the Network Config menu

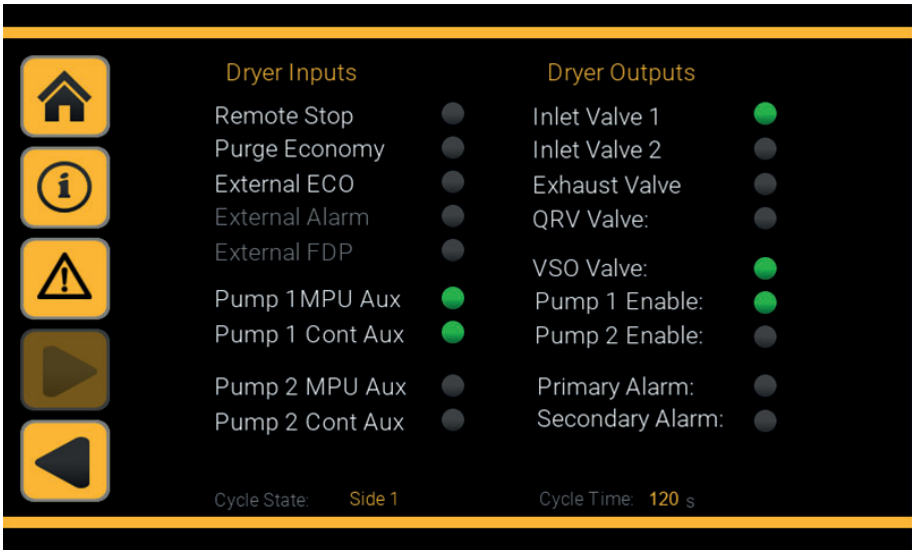
Pressing the HOME button return to the home page.



Pressing the PLC STATUS button will bring up the following page.

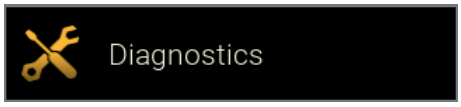
This page allows the user to see the status of the PLC controllers inputs and outputs.

Important Note:
An active input or active output is indicated by a solid green circle.



Pressing the RETURN button will return to the Information Menu Page 2

Pressing the HOME button return to the home page.

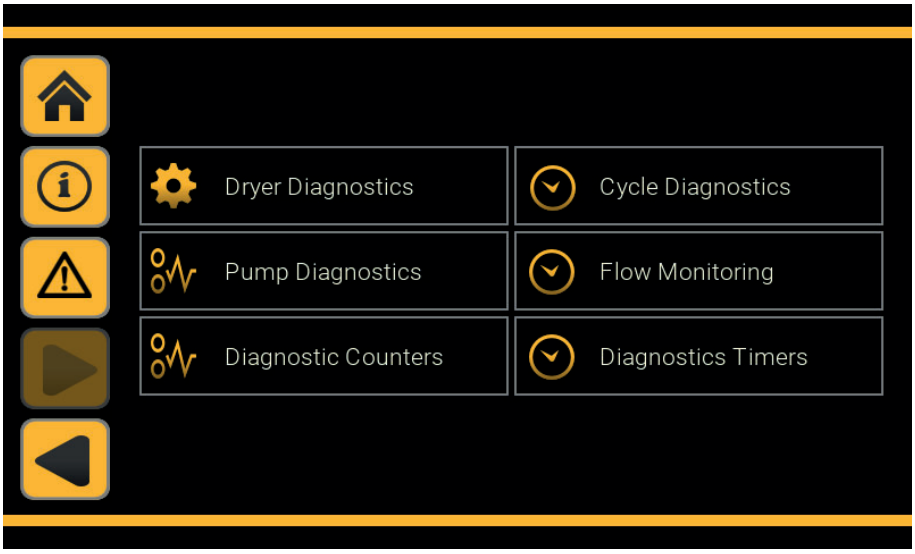


Pressing the HMI CONFIG button will bring up the following page.

This page allows the user to view diagnostic information about the dryer (Read Only).
Pressing a button will open a sub menu with the associated diagnostic information.

Important Notes: Should a problem occur with the dryer, diagnostic information may be requested by Parker or a Parker trained service engineer to aid a service response.

Requested information will be found on the diagnostics menu pages.



Pressing the RETURN button will return to the Information Menu Page 2

Pressing the HOME button return to the home page.

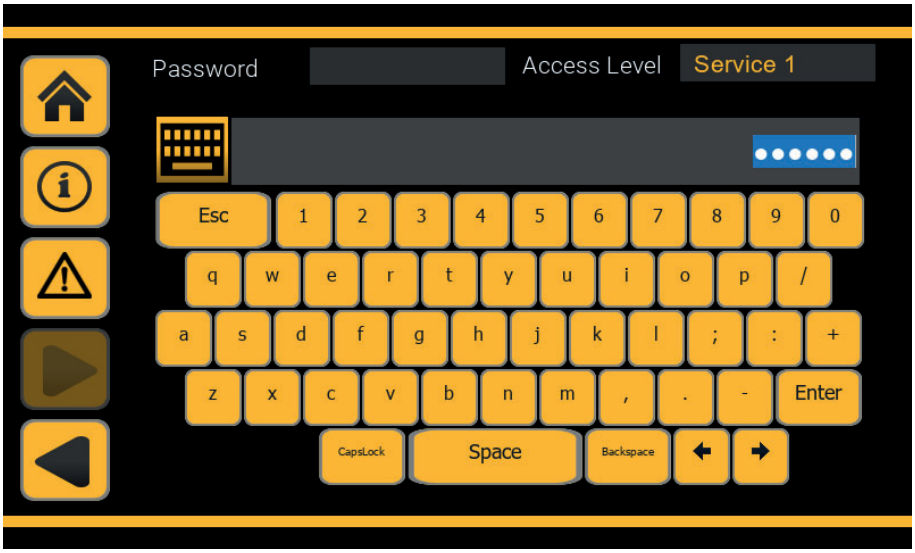
Pressing the USER ACCESS button will bring up the following page.

This page provides a service engineer with access to commissioning & set-up sub menus and is not required by an end user to operate the dryer.

Access to these menus requires a service level password.

Important Notes:
This level provides access to menus that can have a direct impact on dryer operation and outlet dewpoint performance.

Only trained service personnel should access this level.



Pressing the RETURN button will return to the Information Menu Page 2

Pressing the HOME button return to the home page.

CDAS LE / OFAS LE / FBP LE MODELS 100 to 170 FIRST TIME START UP

FIRST TIME START UP

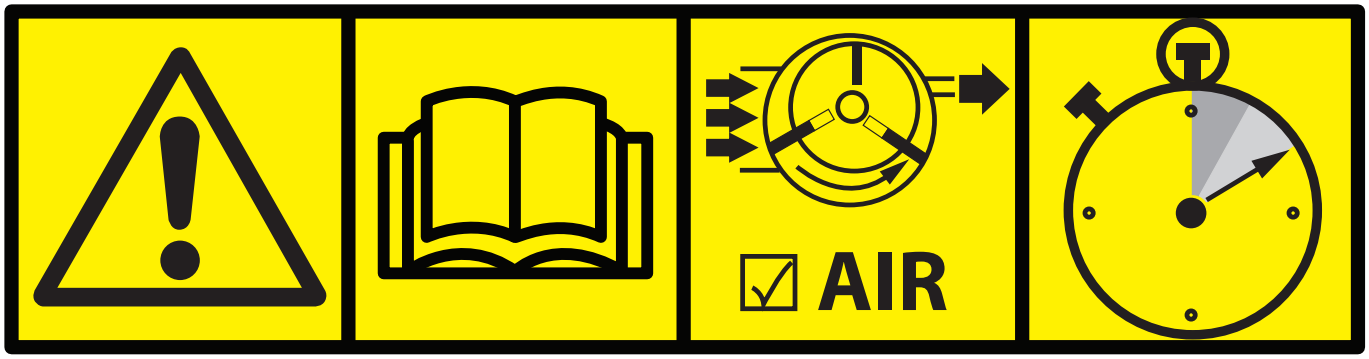
1. Ensure that the compressed air isolation valves on the inlet and the outlet of the dryer are closed.
2. Turn the dryer ON at the electrical isolator and verify that the display illuminates.
3. Slowly open the compressed air isolation valve at the dryer inlet and verify that there are no compressed air leaks.
4. Check that the system pressure relief valve is closed.
5. Test the condensate drains of the inlet coalescing filters (also the optional Water separator if fitted) and ensure they are discharging correctly into a suitable collection vessel.
6. Start the dryer (refer to section "CDAS / OFAS / FBP MODELS 100 to 170 Operating & Monitoring the Dryer Using the HMI" for instruction on how to start / monitor / stop the dryer using the HMI touch screen).
7. Check that the vacuum assist pump is rotating in the direction marked on the pump. If the pump is rotating in the wrong direction, isolate the electrical supply and swap two phases over on the vacuum pump supply cable terminals.

Important Notes:

The factory default configuration for the dryer inlet valves is Normally Closed. Once the dryer has been started, the dryer inlet valves will remain closed until the vacuum pump has reached operating temperature (if pump temperature sensors are connected) or the 10 minute pump warm up period has elapsed.

Dryer Shut Down

1. Press the Stop button on the dryer HMI touch screen.
2. The dryer will stop cycling immediately; however, the vacuum assist pump will continue to run for 10 minutes to evaporate any residual moisture.
3. Do Not turn off the electrical isolator until the pump stops running.



To Depressurise the Dryer

1. Turn the dryer OFF at the electrical isolator.
2. Close the isolation valve on the outlet followed by the isolation valve on the inlet.
3. Slowly open the drain ball valve on the outlet dust filter to depressurise the dryer.

Important Note:

A small amount of air may be trapped between the inlet isolation valve and the dryer inlet.

Emergency Shut-down

In the event of an emergency the system can be shut-down using the electrical isolator switch located on the side of the dryer control enclosure.

Activating this switch disconnects the electrical power to the dryer and the pump.

Important Note:

Do Not use this switch for normal shut-down as this may cause damage to the pump.

CDAS LE / OFAS LE / FBP LE MODELS 100 to 170 OPERATING & MONITORING THE DRYER USING THE HMI

Homepage - Standby

Dryer is in standby mode and not cycling.

Normally Closed Configuration

Inlet valves closed, exhaust valve closed.

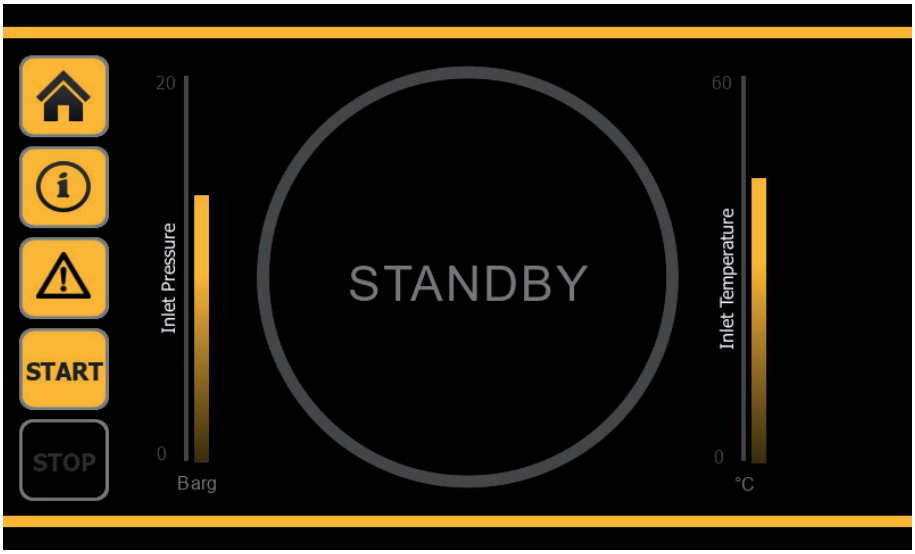
No air flow through dryer

Normally Open Configuration

Inlet valves open, exhaust valve closed.

WARNING: Air flow through the dryer whilst in standby mode will result in damage to desiccant bed (saturation), invalidating warranty.

Pressing the 'Start' button will activate the drying / regeneration cycle.



Pressing the Start button will start the dryer cycling

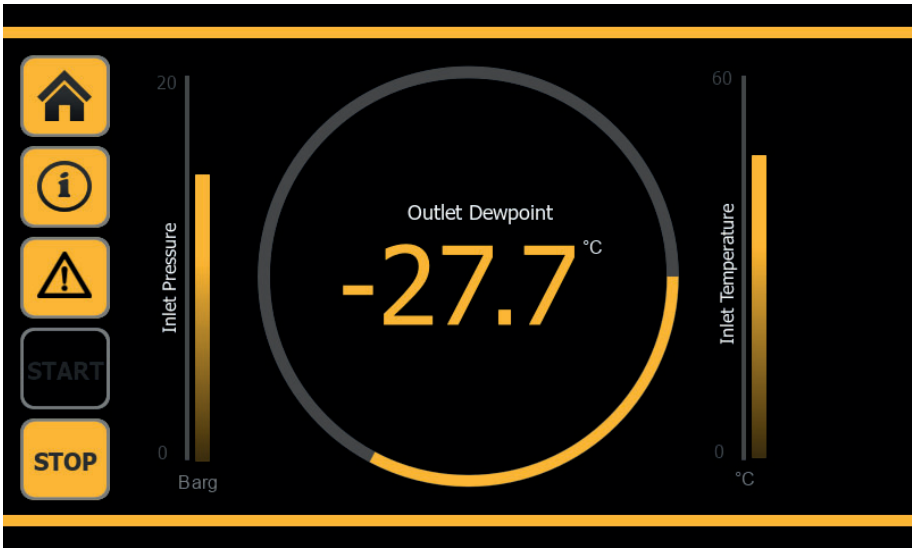
Home Page (Standard Cycling)

Dryer operating normally

Drying Cycle

Fixed Drying Cycle

Note: Yellow circle highlights position in drying cycle



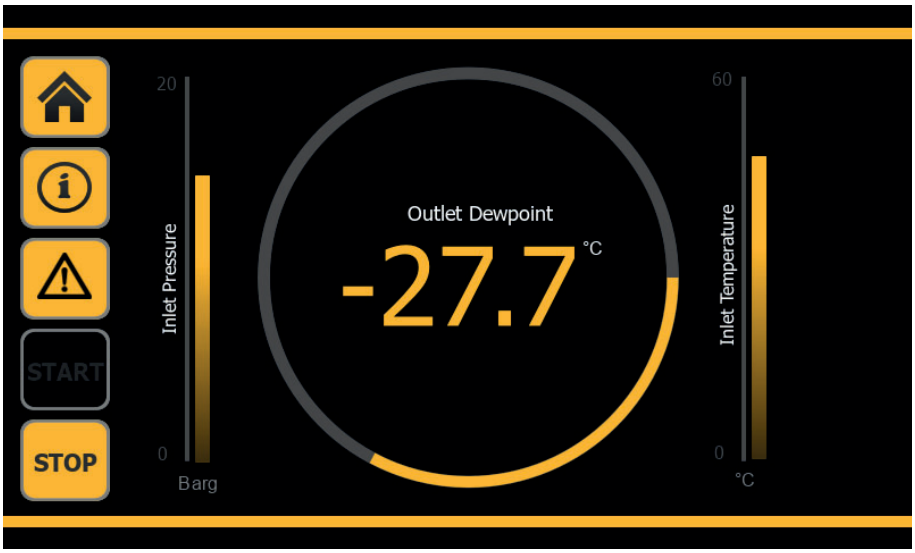
Changing Default Units (Metric to Imperial Units)

Default units are metric.
˚C for Temperature
Bar g for Pressure

To change to imperial units on the main screen:

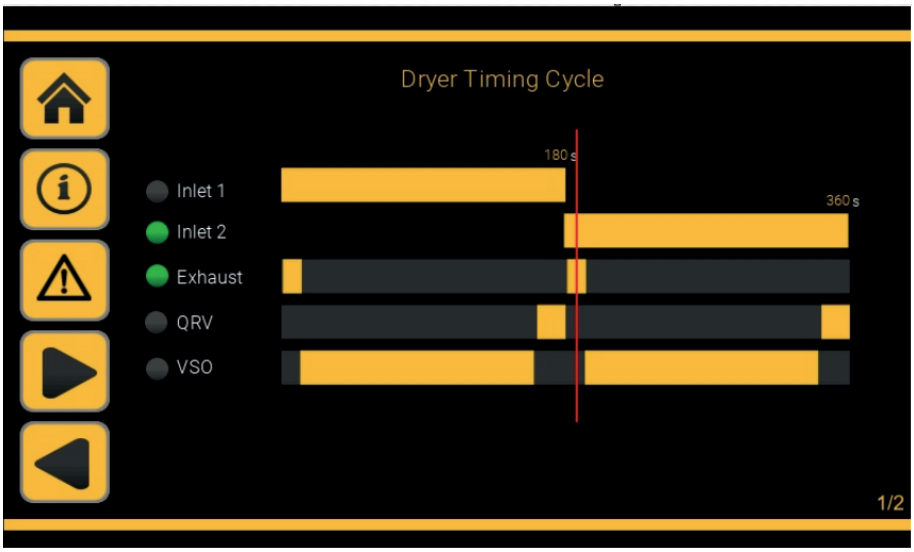
Press the ˚C symbol to change to ˚F

Press the Barg symbol to change to psig



Pressing the INFORMATION button then CYCLE TIMING button will show position in drying cycle and status of valves.

Pressing the HOME button will return to the home page.



KEY

- **Inlet 1 / Inlet 2:** Each drying column has a dedicated inlet valve, used to direct compressed air through the on-line (active) drying column. A solid green circle indicates the open (active) inlet valve (either side 1 or side 2), a solid Grey circle indicates a closed inlet valve.
- **Exhaust:** The exhaust valve is used to depressurise the off-line column. The exhaust valve will remain open (active) during the regeneration cycle. A solid green circle indicates an open (active) exhaust valve, a solid Grey circle indicates a closed exhaust valve.
- **QRV (Quick Repressurisation Valve):** The QRV is used to allow rapid repressurisation of the off-line column prior to column changeover. A solid green circle indicates an open (active) QRV valve, a solid Grey circle indicates a closed QRV valve.
- **VSO (Vacuum Shut Off Valve):** The VSO **(Vacuum Shut Off Valve) is fitted to LE (Low Energy) variants only. The VSO** closes to protect vacuum pump during dryer depressurisation. A solid green circle indicates valve open (active) VSO valve, a solid Grey circle indicates a closed VSO valve.

CDAS LE / OFAS LE / FBP LE models 100 to 170 are equipped as standard with two energy saving modes, DDS-EST (Dewpoint Dependent Switching) and Purge Economy. If either of these modes are active, an icon will be displayed and active text and the cycle timer will be shown in green.

DDS-EST (Dewpoint Dependent Switching)

When DDS-EST mode is active, the DDS ECO icon will be displayed on screen.

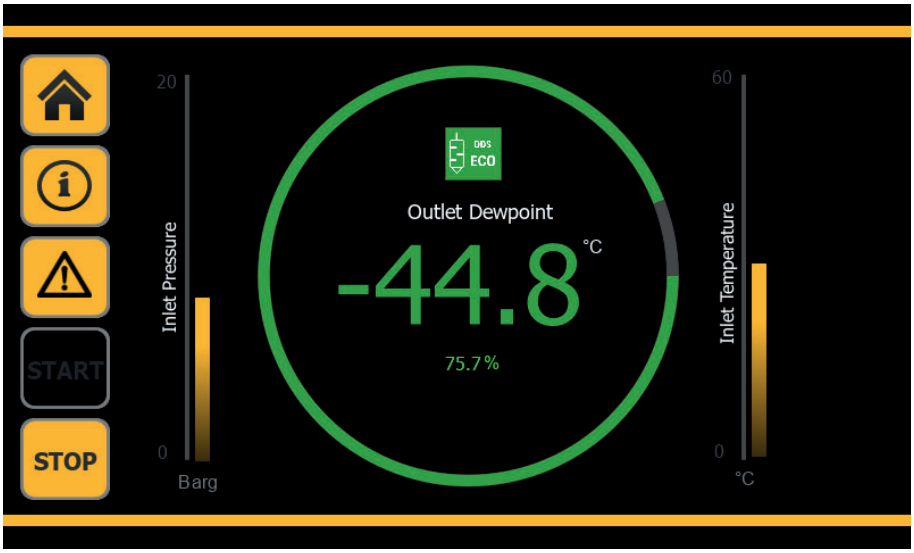
STATUS: Dryer Operating Normally, DDS Energy Saving Mode Active

Drying Cycle

Dryer is operating in an extended drying cycle.

No energy consumed during DDS whilst DDS is active.

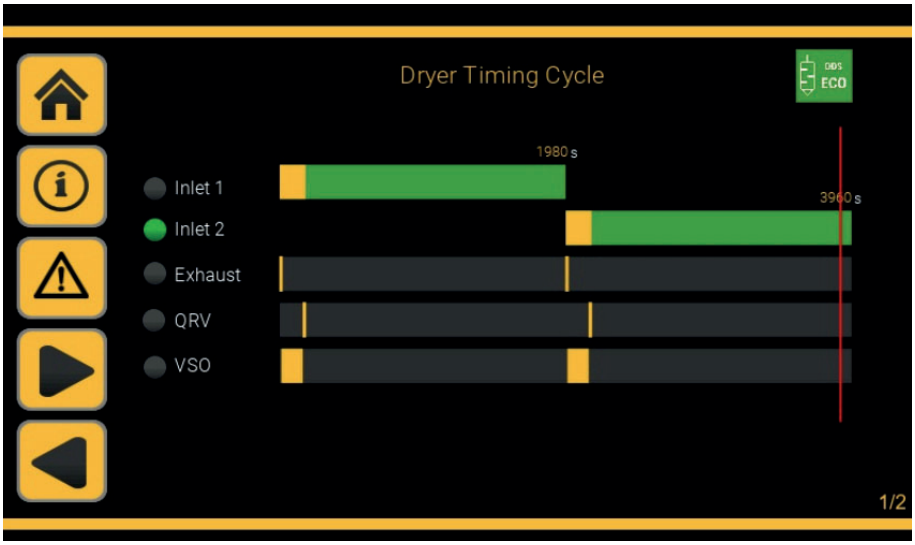
Note: Green circle (Cycle Position Indicator) denotes dryer in DDS energy saving mode and highlights position in extended drying cycle.



Pressing the INFORMATION button then CYCLE TIMING button will show position in drying cycle and status of valves.

Pressing the HOME button will return to the home page.

INFORMATION:
Once DDS-EST is active, the dryer will remain in Energy Saving Mode until either the outlet dewpoint reaches the pre-determined set point or the moisture override set point has been reached (default - 30 minutes), at which point the drying columns will change over.



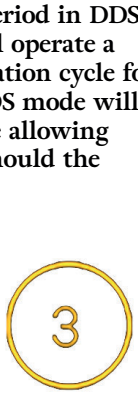
Important Notes:

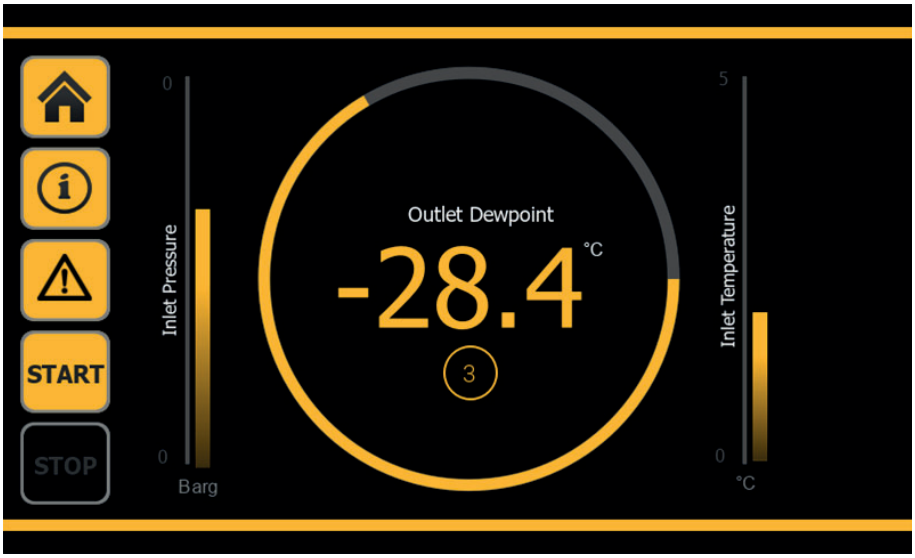
- When the DDS (Dewpoint Dependent Switching) Energy Saving Cycle is active, the drying cycle can be extended from 180 seconds up to a 1800 seconds (default), dictated by the outlet dewpoint.
- When in DDS Extended drying cycle, the timing bars for Inlet 1 / Inlet 2 will show green.

If Moisture Override is activated following an extended period in DDS-EST mode, the dryer will operate a standard drying/regeneration cycle for 3 cycles, after which, DDS mode will once again become active allowing drying cycle extension should the outlet dewpoint dictate.

INFORMATION:

If MOISTURE OVERRIDE is active, the number of remaining standard cycles will be shown in a circle underneath the outlet dewpoint.





Purge Economy

When purge economy mode is active, the PURGE ECO icon will be displayed on screen.

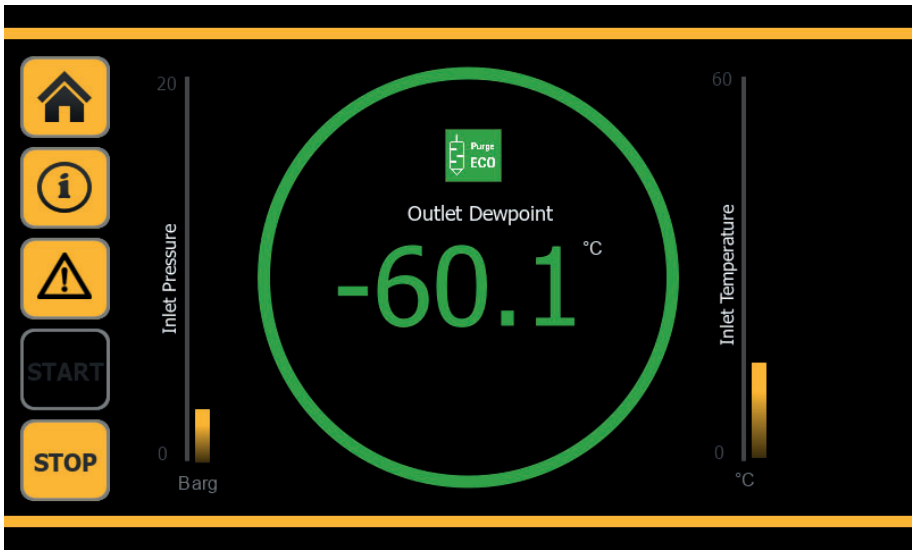
STATUS: Air Compressor Off load, Dryer in Standby mode, activated by air compressor connection.

Purge Economy requires the dryer to be directly connected to the air compressor.

When the air compressor is off load, there will be no air flow from the compressor through the dryer.

The remote connection to the compressor will activate Purge Economy mode.

No energy will be consumed whilst Purge Economy mode is active.



INFORMATION:
Normally Closed Configuration

Inlet valves closed, exhaust valve closed.

Normally Open Configuration

Inlet valves open, exhaust valve closed.

Note: Dryer will remain in standby mode until the air compressor comes back on load.

CDAS LE / OFAS LE / CDAS FBP LE models 100 to 170 have the ability to start and stop dryer operation remotely. This requires a remote connection, either by a dedicated wired connection to the start / stop connections or via RJ45 Web Server connection, RJ45 MODBUS TCP/IP connection or RS485 MODBUS RTU connection.

Remote Stop

When remote stop is active, the REMOTE STOP icon will be displayed on the home page.

STATUS: Dryer has been stopped via remote connection (Dryer in Standby mode).

Normally Closed Valve Configuration (default)

Inlet valves closed, exhaust valve closed.

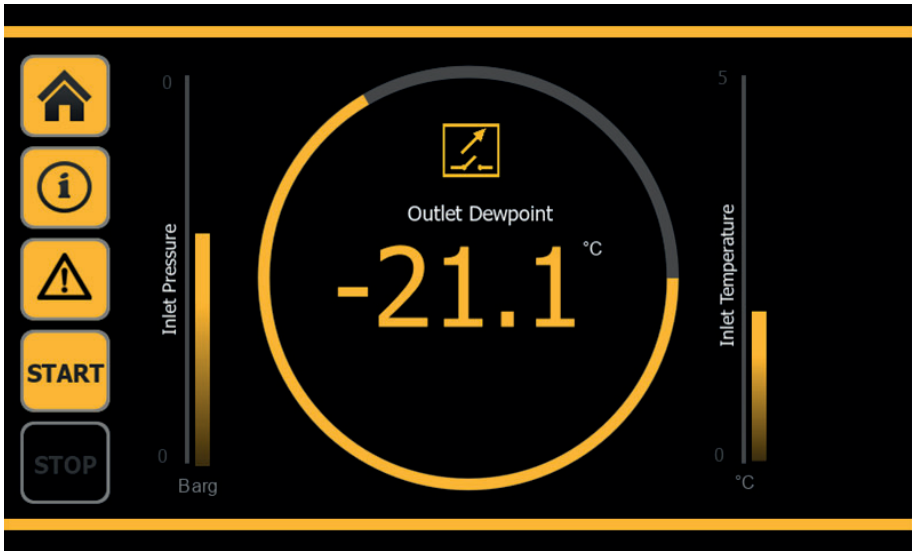
No air flow through dryer

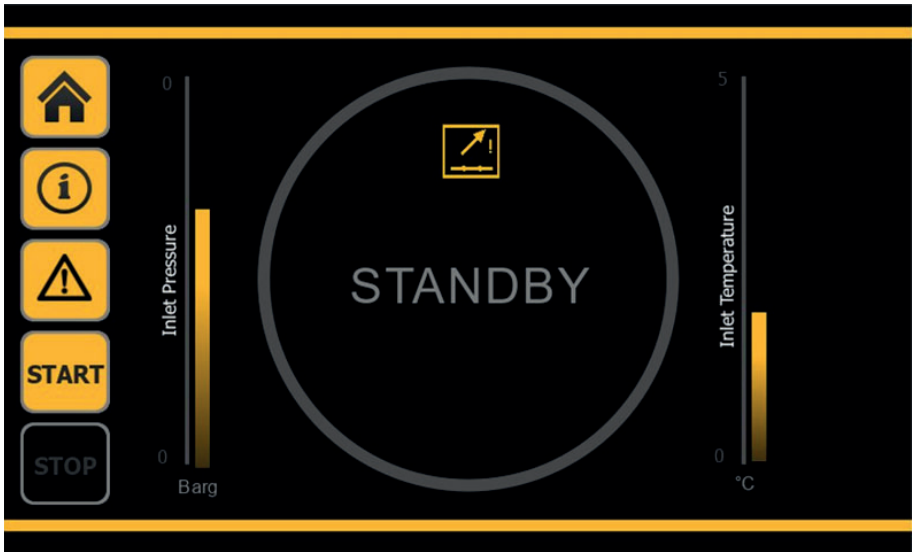
Normally Open Valve Configuration

Inlet valves open, exhaust valve closed.

WARNING: A Normally Open valve configuration has the potential to allow compressed air to flow through the dryer whilst in standby mode. This will result in damage to the desiccant bed (saturation), invalidating warranty.

Note: Dryer will remain in standby mode until restarted by the remote connection.





CDAS LE / OFAS LE / FBP LE (Low Energy) variants use an external vacuum pump (2 x pumps on duplex pump models). To ensure the correct vacuum level is achieved, oil lubricated vacuum pumps require a warm up period to heat up the lubricating oil.

At start-up, the lubricating oil in an oil lubricated vacuum pump must achieve operating temperature before the dryer will start to operate (dry the compressed air).

The default start-up time is 10 minutes. If the vacuum pump temperature probe (2 x probes on duplex pumps) indicates operating temperature has been achieved before the 10 minute default time, the warm up cycle will be overridden and the dryer will begin to cycle (drying the incoming compressed air)..

Home Page - Vacuum Pump Start Up (LE Variants Only)

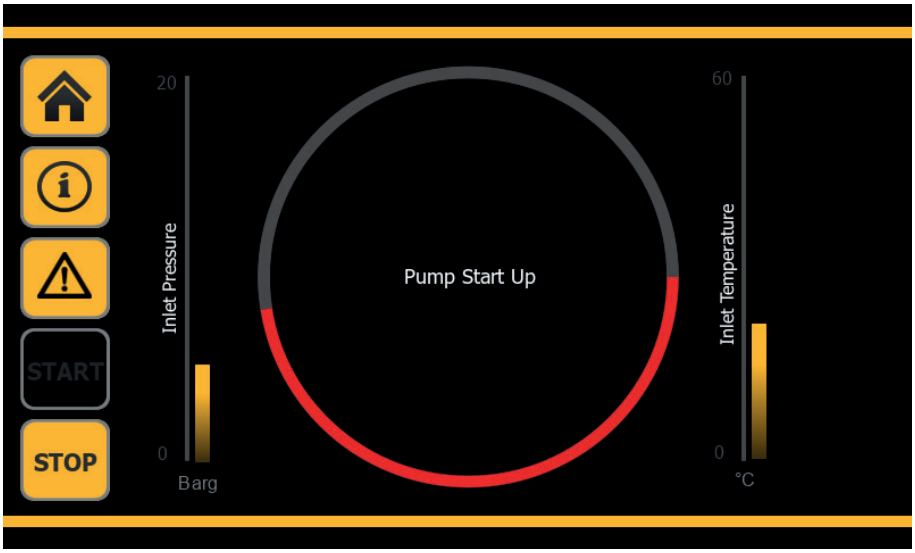
Indicates status of the oil lubricated vacuum pump start up cycle.

Time: Default 10 minutes if no temperature probe(s) fitted to vacuum pumps (red circle indicates position in pump start up cycle).

Normally Closed Valve Configuration (Default)
Inlet valves closed, exhaust valve closed.

No air flow through dryer until start up time or operating temperature is reached.

Normally Open Valve Configuration
Inlet valves open, exhaust valve closed.



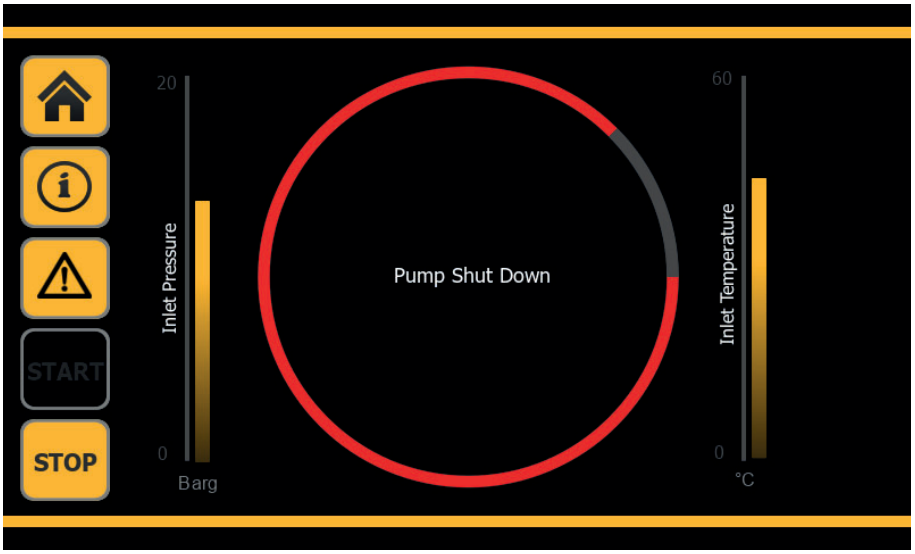
WARNING: A Normally Open valve configuration has the potential to allow compressed air to flow through the dryer whilst in standby mode. This will result in damage to the desiccant bed (saturation), invalidating warranty.

After dryer shut-down, an oil lubricated vacuum pump will continue to run for 10 minutes (default setting) to allow any moisture to be evaporated from lubricating oil, preventing pump damage and providing oil longevity).

Home Page - Vacuum Pump Shut Down (CDAS /OFAS Variants Only)

Indicates status of the oil lubricated vacuum pump shut down cycle

Time: Default 10 minutes (red circle indicates position in cycle).



ALARMS - Outlet Dewpoint Fault

A compressed air dryer is sized and selected to deliver and maintain a minimum outlet pressure dewpoint. Should the dryer fail to achieve the required outlet dewpoint, a dewpoint fault alarm is activated. This critical parameter has a unique alarm indication on the main screen to alert the user.

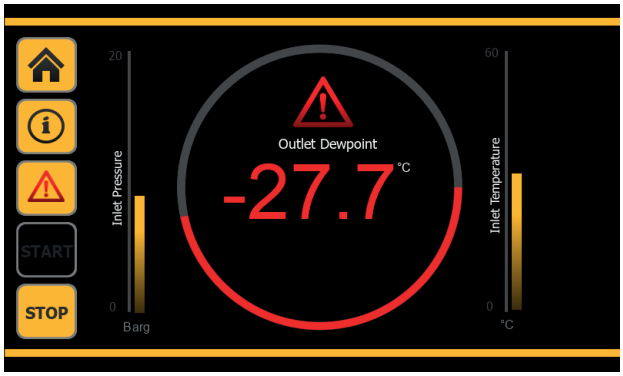
Home Page - Outlet Dewpoint Fault

The dewpoint for which the dryer was selected is set up in the dryer controller by the commissioning engineer.

Selecting the outlet pressure dewpoint during commissioning procedure also pre-loads alarm set-points to advise the user when the minimum outlet pressure dewpoint is not being achieved. A custom outlet dewpoint fault value can be set by a trained engineer.

The Dewpoint Fault Alarm is activated when the dryer outlet dewpoint is below the dewpoint set point of the dryer.

A red warning triangle above the OUTLET DEWPOINT indicates a Dewpoint fault has been activated.



Important Notes:

- At dryer start-up, there is a dewpoint fault alarm delay of 30 minutes to prevent spurious alarms as the dryer dewpoint stabilises.
- Whilst an outlet dewpoint fault is active, the outlet dewpoint value and cycle position indicator will change to a red colour.
- An outlet dewpoint fault will not automatically activate the outlet dewpoint alarm relay.
- After a period of 10 minutes, if the outlet dewpoint fault is still active, the outlet dewpoint alarm relay will be activated.

OUTLET DEWPOINT SELECTED	DEWPOINT ALARM SET POINT
‹-20°C (-4°F)	-10°C (+14°F)
‹-40 (-40°F)	-30 (-22°F)
‹-70 (-100°F)	-60 (-76°F)

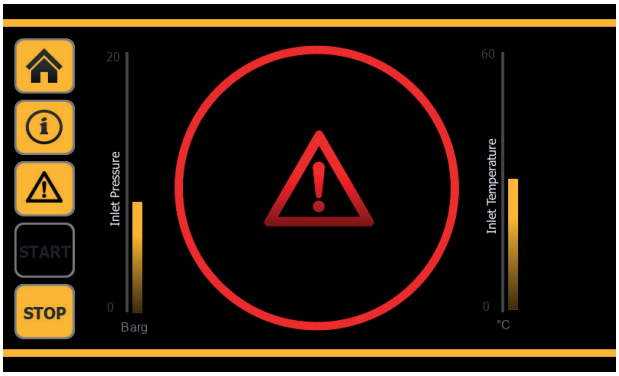
ALARMS - Critical Faults

In addition to the dewpoint fault alarm, the dryer software is able to advise of other critical fault conditions.

Home Page - Critical Fault

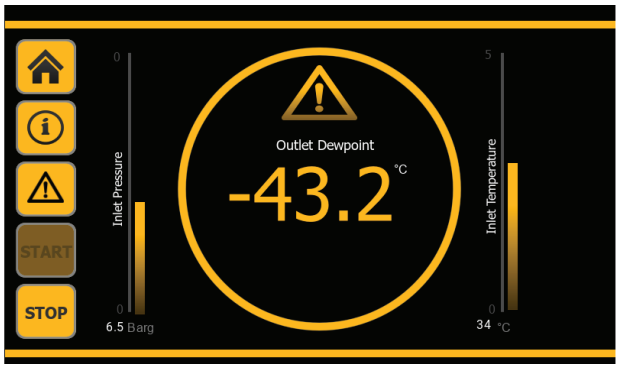
A red warning triangle replacing the outlet dewpoint indicates an alarm other than dewpoint alarm or in addition to a dewpoint alarm.

Whilst an alarm is active, the Cycle Position Indicator will turn red.

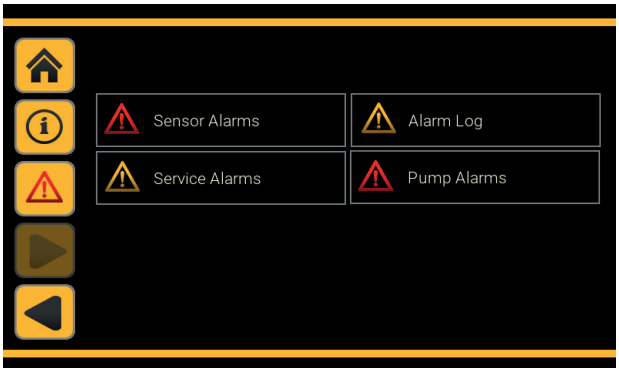


Home Page - Non-Critical Fault

A yellow warning triangle above the outlet dewpoint indicates a non-critical warning



Important Notes: Active non-critical warnings and alarms can be viewed by pressing the INFORMATION button, followed by the ALARMS button. On the ALARMS sub menu, active alarms will be indicated by a red warning triangle on the sub menu button. Pressing the red sub menu button will display the active warning or fault.

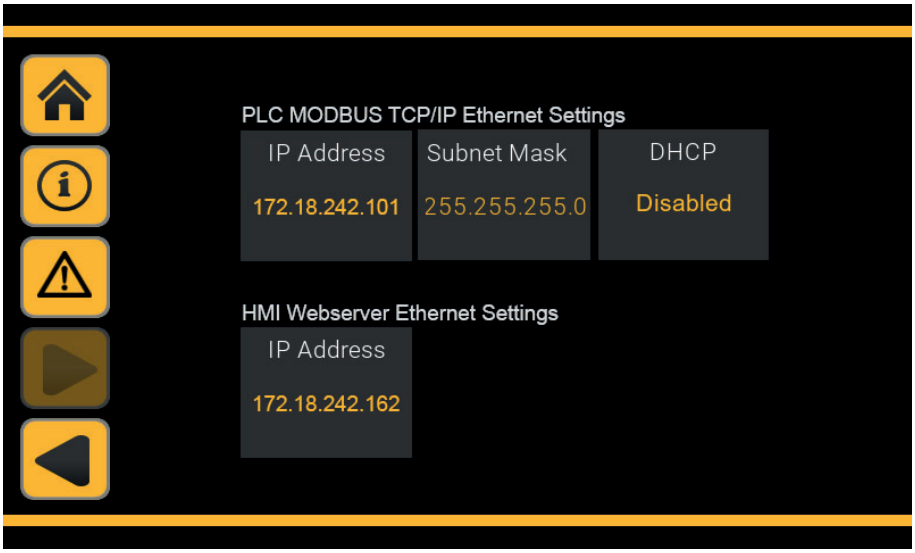


CDAS LE / OFAS LE / FBP LE MODELS 100 to 170 USING THE WEBSERVER FUNCTION

Connecting to the Web Server

In order to use the Web Server function, the HMI Touch screen must first be connected to the Local Area Network (LAN) by the commissioning engineer.
A static IP address for the Webserver must also be configured.

Press the Information Button
Press the Right Key
Press the Network Config Button
Press the Ethernet Settings Button
Press the Ethernet Web Service Button
Enter the desired IP address
For a static IP address, ensure DHCP is Disabled
Record IP address

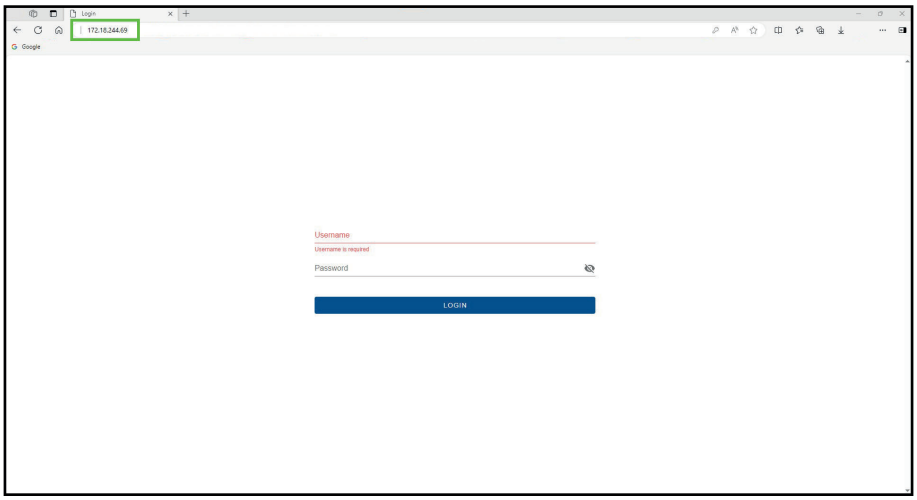


On a PC connected to the same LAN, open a web browser.

Enter the IP address configured above into the browser bar

Enter Username: user

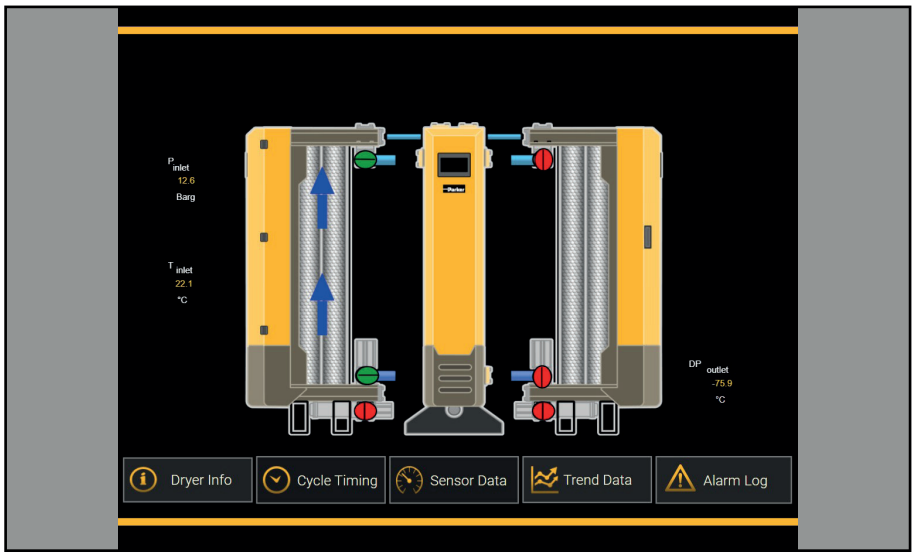
Enter Password: Parker1@



Once connected to the Webserver, the P&ID will be displayed.

The P&ID will allow the user to view the current status of the dryer, including sensor data and valve position (open / closed).

The 5 tabs below the P&ID image will provide further information about the dryer.



Dryer Info Tab

Clicking the Dryer Info tab will open the dryer info Page 1.

This page will display
Hardware Revision
Software Revision
Serial Number
HMI Software Revision
Dryer Range
Base Part Number
DDS-ECO Setpoint
HMI Touch screen Display Status
Regeneration Mode
Alarm Setpoint
DDS-ECO Efficiency

Clicking the Right Arrow will take the user to Dryer Info Page 2

Note: Clicking on a box showing temperature or dewpoint will toggle between ˚C and ˚F.

Dryer Info Page 2 will display the service timers

CDAS dryers will display the service timers for filtration and desiccant

OFAS / FBP dryers will display the service timers for filtration, carbon stage and desiccant

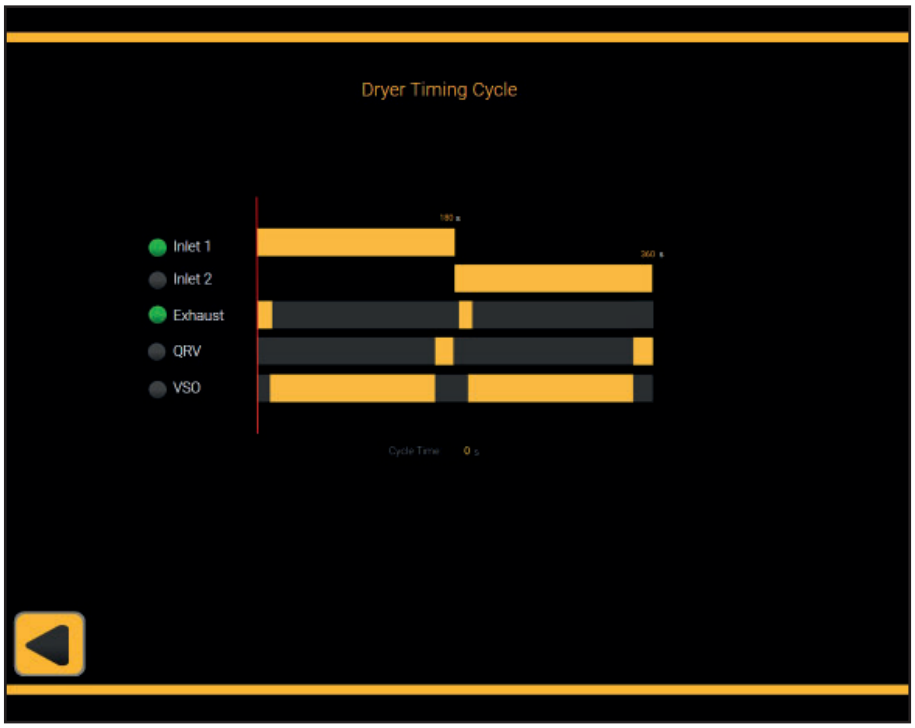
Note: Clicking on a box will toggle between last service Date and Days to Next Service.

Cycle Timing Tab

Clicking the Dryer Cycle Timing tab will open the Cycle Timing page.

This page will display the position in the drying cycle and indicate if a valve is open or closed.

The image left shows the cycle timing page when in standard cycle.



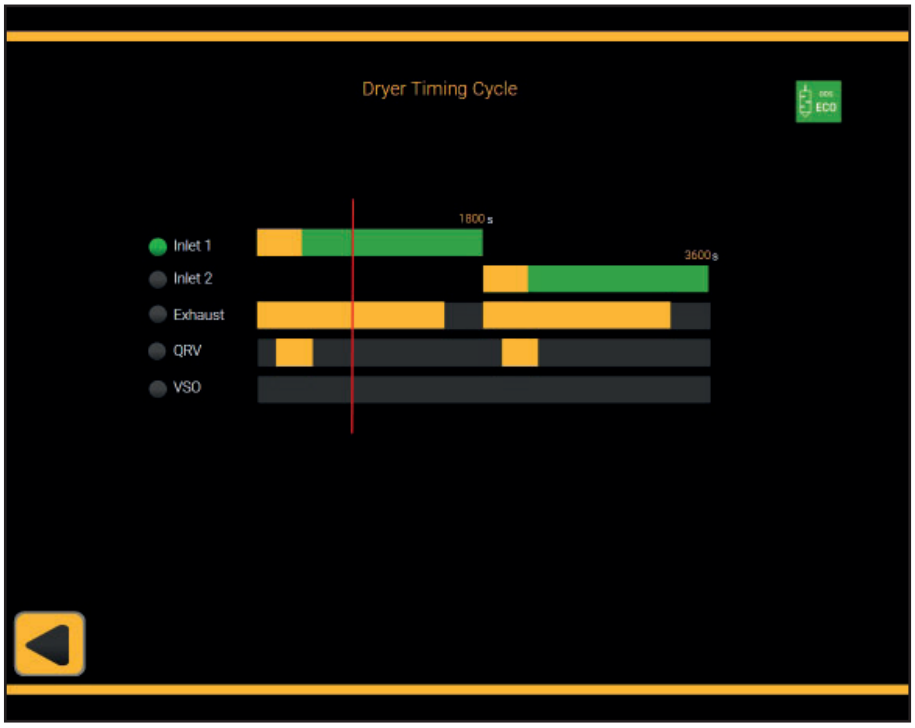
Important Notes:

CDAS LE / OFAS LE / FBP LE Treatment Systems are fitted with a Dewpoint Hygrometer which provides the DDS-EST Energy Saving Technology.

When the dryer is in Energy Free mode, the DDS-ECO icon will be displayed in the upper left corner of the main P&ID screen and cycle timing screen.

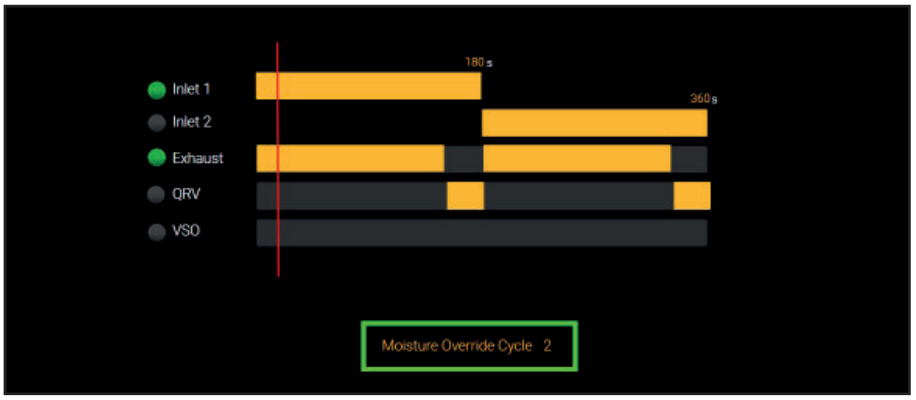
The inlet cycle bars will be extended from 180 seconds to 1800 seconds.

Should the outlet dewpoint be dryer than the DDS-ECO setpoint for longer than 1800 seconds, the dryers are configured to enter moisture override for 3 half cycles (to protect the desiccant bed from over saturation).



If the dryer is in Moisture Override, it will be indicated on cycle timing page (counting down from 3).

The dryer will not re-enter DDS-ECO until the outlet dewpoint is better than the DDS-ECO setpoint and all 3 of the moisture override cycles have been completed.



Sensor Data Tab

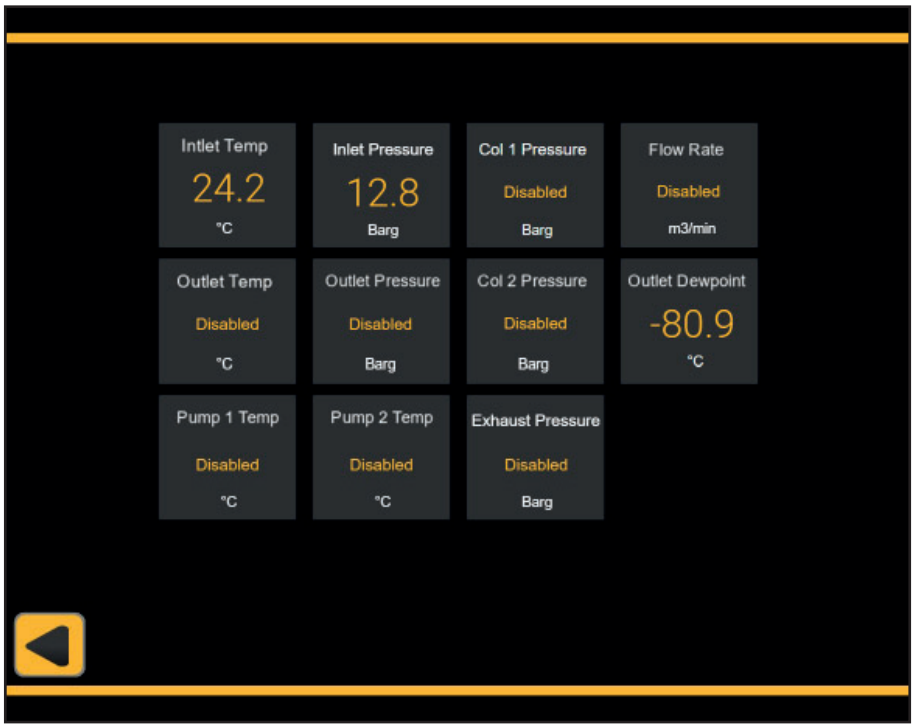
Clicking the Sensor Data tab will open the Sensor Data page.

This page will display the real time values of any sensors connected.

As Standard, CDAS LE / OFAS LE / FBP LE treatment systems are fitted with:

- Inlet Temperature Sensor
- Inlet Pressure Sensor
- Outlet Dewpoint Sensor
- Exhaust Pressure Sensor
- Vacuum Pump Temperature Sensor*

***Only if Parker supplied HLVAP-OL-02 vacuum pumps are fitted**



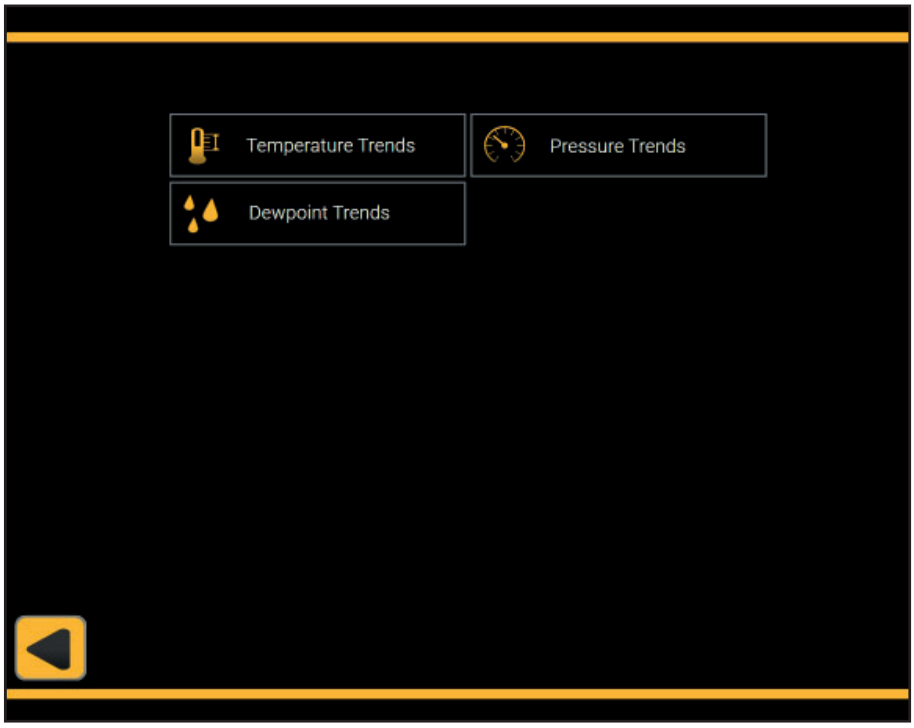
Trend Data

Clicking the Sensor Data tab will open the Sensor Data page.

The trend data logs are available for:

- Temperature
- Pressure
- Outlet Dewpoint

These can be viewed by clicking the required tab.



Temperature Trends Tab

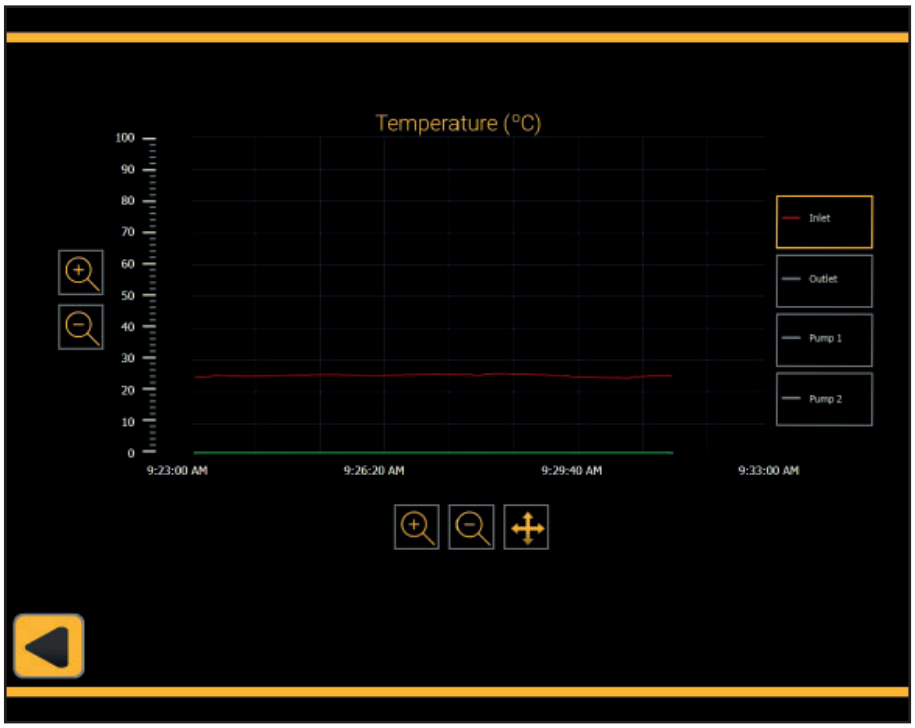
The Temperature Trends Tab will display a graph for all connected temperature sensors.

Standard Temperature Sensors

- Inlet Temperature
- Pump 1 Temperature
- Pump 2 Temperature (duplex pumps)

Optional Temperature Sensors

- Outlet Temperature



Pressure Trends Tab

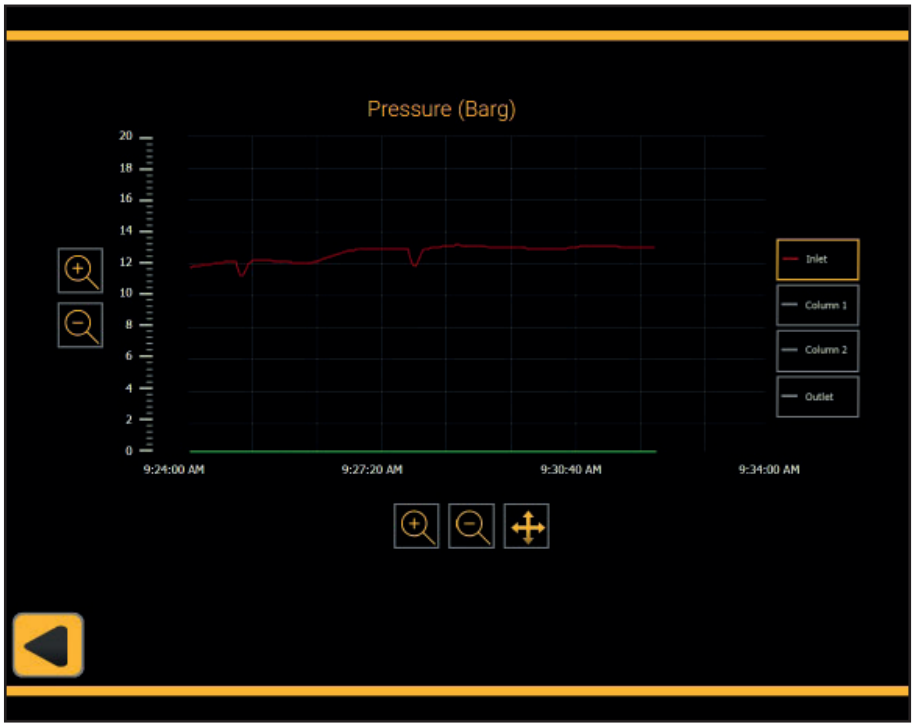
The Pressure Trends Tab will display a graph for all connected pressure sensors.

Standard Temperature Sensors

- Inlet Pressure

Optional Temperature Sensors

- Outlet Pressure
- Column 1 Pressure
- Column 2 Pressure



Dewpoint Trends Tab

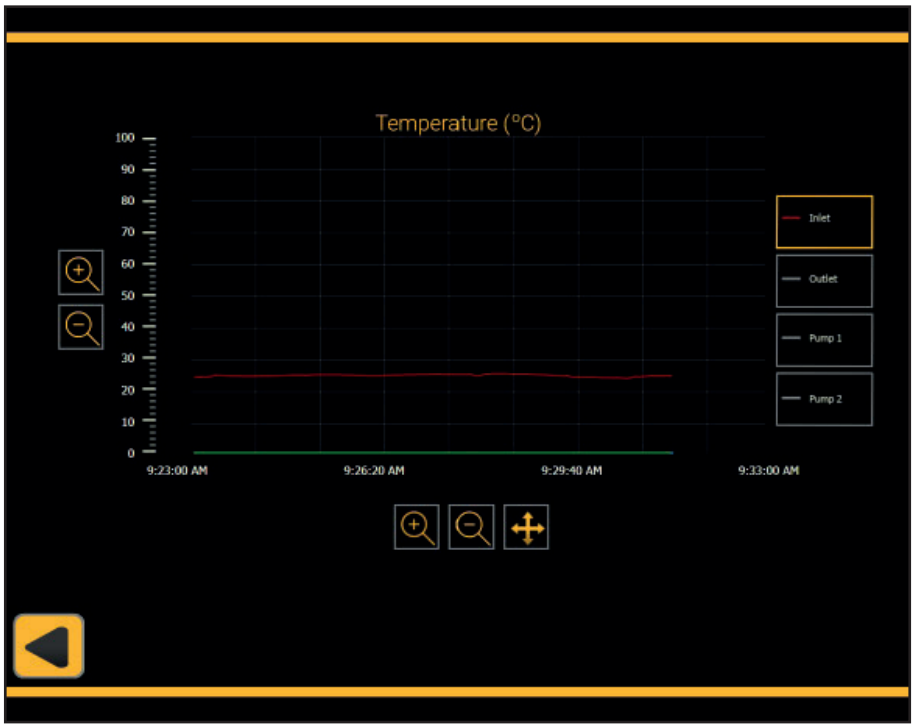
The Dewpoint Trends Tab will display a graph for the dewpoint sensor.

Standard Dewpoint Sensor

- Outlet Pressure Dewpoint

Optional Dewpoint Sensors

- None



Alarm Log

Clicking the Sensor Data tab will open the Sensor Data page.

This page allows the user to view and download the dryers alarm log.

CDAS LE / OFAS LE / FBP LE MODELS 100 to 170 PREVENTATIVE MAINTENANCE

SERVICE INTERVALS - DRYER

Description of Service Required		Service Recommended Every:						
Component	Operation	Daily	Weekly	Monthly	6 Months	12 Months	36 Months	60 Months
Dryer	Check POWER ON and STATUS / FAULT indicators.	✓						
Dryer	Check for air leaks.		✓					
Dryer	Check the pressure gauges during purging for excessive back pressure.			✓				
Dryer	Check the condition of electrical supply cables and conduits.			✓				
Dryer	Check for cyclic operation.	✓						
Dryer	**Replace the exhaust silencers**					🔧		
Dryer	**Replace inlet / outlet / control air filter elements. Replace inlet filter / control air filter float drains.**					🔧		
Dryer	**Replace Dewpoint Hygrometer transmitter**					🔧		
Dryer	Check Operation of 5/2 Valves & Replace if Required						✓	
Dryer	**Replace the valve seats and seals**							🔧
Dryer	**Replace the Desiccant**							🔧

SERVICE INTERVALS - HLVAP VACUUM PUMPS

Description of Service Required		Service Recommended Every:				
Component	Operation	Daily	Weekly	Monthly	6 Months	12 Months
Vacuum Pump	Check the oil level	✓				
Vacuum Pump	Check the pipes and screws for leaks and to ensure they are seated properly and if necessary seal again or tighten up.			✓		
Vacuum Pump	Check the terminal box and cable inlet holes for leaks and if necessary re-seal.			✓		
Vacuum Pump	Clean the ventilation slots on the machine and the motor cooling ribs.			C		
Vacuum Pump	Clean the intake air and gas ballast valve filter.			C		
Vacuum Pump	Check for coupling wear.					✓
Vacuum Pump	**Replace the oil**				🔧	
Vacuum Pump	**Replace the oil and oil separation elements**					🔧

Key

✓	Check	🔧	Recommended Service

PREVENTATIVE MAINTENANCE KITS - VACUUM PUMPS

CATALOGUE NUMBER	DESCRIPTION	TO SUIT PUMPS	6	12	18	24	30	36	QTY
M06.HLVAP-OL-01-100	6 Month Oil Change	HLVAP-OL-01-100 HLVAP-OL-02-100	✔	✕	✔	✕	✔	✕	1
M12.HLVAP-OL-01-100	12 Month Oil Change and Elements	HLVAP-OL-01-100 HLVAP-OL-02-100	✕	✔	✕	✔	✕	✔	1
M06.HLVAP-OL-01-110	6 Month Oil Change	HLVAP-OL-01-110 HLVAP-OL-02-110	✔	✕	✔	✕	✔	✕	1
M12.HLVAP-OL-01-110	12 Month Oil Change and Elements	HLVAP-OL-01-110 HLVAP-OL-02-110	✕	✔	✕	✔	✕	✔	1
M06.HLVAP-OL-01-120	6 Month Oil Change	HLVAP-OL-01-120 HLVAP-OL-02-120	✔	✕	✔	✕	✔	✕	1
M12.HLVAP-OL-01-120	12 Month Oil Change and Elements	HLVAP-OL-01-120 HLVAP-OL-02-120	✕	✔	✕	✔	✕	✔	1
M06.HLVAP-OL-01-130	6 Month Oil Change	HLVAP-OL-01-130 HLVAP-OL-02-130	✔	✕	✔	✕	✔	✕	1
M12.HLVAP-OL-01-130	12 Month Oil Change and Elements	HLVAP-OL-01-130 HLVAP-OL-02-130	✕	✔	✕	✔	✕	✔	1
M06.HLVAP-OL-01-140	6 Month Oil Change	HLVAP-OL-01-140 HLVAP-OL-02-140	✔	✕	✔	✕	✔	✕	1
M12.HLVAP-OL-01-140	12 Month Oil Change and Elements	HLVAP-OL-01-140 HLVAP-OL-02-140	✕	✔	✕	✔	✕	✔	1
M06.HLVAP-OL-01-150	6 Month Oil Change	HLVAP-OL-01-150 HLVAP-OL-02-150	✔	✕	✔	✕	✔	✕	1
M12.HLVAP-OL-01-150	12 Month Oil Change and Elements	HLVAP-OL-01-150 HLVAP-OL-02-150	✕	✔	✕	✔	✕	✔	1
M06.HLVAP-OL-01-160	6 Month Oil Change	HLVAP-OL-01-160 HLVAP-OL-02-160	✔	✕	✔	✕	✔	✕	1
M12.HLVAP-OL-01-160	12 Month Oil Change and Elements	HLVAP-OL-01-160 HLVAP-OL-02-160	✕	✔	✕	✔	✕	✔	1
M06.HLVAP-OL-01-170	6 Month Oil Change	HLVAP-OL-01-170 HLVAP-OL-02-170	✔	✕	✔	✕	✔	✕	1
M12.HLVAP-OL-01-170	12 Month Oil Change and Elements	HLVAP-OL-01-170 HLVAP-OL-02-170	✕	✔	✕	✔	✕	✔	1

		KIT CONTENTS					
CATALOGUE NUMBER	DESCRIPTION	OIL	OIL QTY	OIL FILTER	OIL SEPARATOR ELEMENTS	FILTER GAS BALLAST VALVE	GASKET
M06.HLVAP-OL-01-100	6 Month Oil Change	✔	10 L	✕	✕	✕	✕
M06.HLVAP-OL-01-110	6 Month Oil Change	✔	10 L	✕	✕	✕	✕
M06.HLVAP-OL-01-120	6 Month Oil Change	✔	10 L	✕	✕	✕	✕
M06.HLVAP-OL-01-130	6 Month Oil Change	✔	13 L	✕	✕	✕	✕
M06.HLVAP-OL-01-140	6 Month Oil Change	✔	13 L	✕	✕	✕	✕
M06.HLVAP-OL-01-150	6 Month Oil Change	✔	20 L	✕	✕	✕	✕
M06.HLVAP-OL-01-160	6 Month Oil Change	✔	23 L	✕	✕	✕	✕
M06.HLVAP-OL-01-170	6 Month Oil Change	✔	23 L	✕	✕	✕	✕
M12.HLVAP-OL-01-100	12 Month Oil Change and Elements	✔	10 L	✔	✔	✔	✔
M12.HLVAP-OL-01-110	12 Month Oil Change and Elements	✔	10 L	✔	✔	✔	✔
M12.HLVAP-OL-01-120	12 Month Oil Change and Elements	✔	10 L	✔	✔	✔	✔
M12.HLVAP-OL-01-130	12 Month Oil Change and Elements	✔	13 L	✔	✔	✔	✔
M12.HLVAP-OL-01-140	12 Month Oil Change and Elements	✔	13 L	✔	✔	✔	✔
M12.HLVAP-OL-01-150	12 Month Oil Change and Elements	✔	20 L	✔	✔	✔	✔
M12.HLVAP-OL-01-160	12 Month Oil Change and Elements	✔	23 L	✔	✔	✔	✔
M12.HLVAP-OL-01-170	12 Month Oil Change and Elements	✔	23 L	✔	✔	✔	✔

12 Month Service Kits - CDAS LE

CATALOGUE NUMBER	DESCRIPTION	TO SUIT MODELS	12	24	36	48	60	QTY
M12.FSK.0400	12 Month Service Kit CDAS LE	CDAS LE 100 / CDAS LE 110	✔	✔	✔	✔	✔	1
M12.FSK.0401	12 Month Service Kit CDAS LE	CDAS LE 120	✔	✔	✔	✔	✔	1
M12.FSK.0402	12 Month Service Kit CDAS LE	CDAS LE 130	✔	✔	✔	✔	✔	1
M12.FSK.0403	12 Month Service Kit CDAS LE	CDAS LE 140 / CDAS LE 150	✔	✔	✔	✔	✔	1
M12.FSK.0404	12 Month Service Kit CDAS LE	CDAS LE 160 / CDAS LE 170	✔	✔	✔	✔	✔	1

CATALOGUE NO	DESCRIPTION	TO SUIT MODEL	KIT CONTENTS	CODE	QTY
M12.FSK.0400	12 Month Service Kit CDAS LE	CDAS LE 100 CDAS LE 110	Inlet Coalescing Filter Element Grade AO	040AO	1
			Inlet Coalescing Filter Element Grade AA	040AA	1
			Outlet Dry Particulate Filter Element Grade AO	040AO	1
			Pilot Air Coalescing Filter Element Grade AA	010AA	1
			Coalescing Filter Float Drains	M12.FD.0001	3
			Exhaust Silencer Kit	608620090	1
			Hygrometer Sensor	608203580	1
M12.FSK.0401	12 Month Service Kit CDAS LE	CDAS LE 120	Inlet Coalescing Filter Element Grade AO	045AO	1
			Inlet Coalescing Filter Element Grade AA	045AA	1
			Outlet Dry Particulate Filter Element Grade AO	045AO	1
			Pilot Air Coalescing Filter Element Grade AA	010AA	1
			Coalescing Filter Float Drains	M12.FD.0001	3
			Exhaust Silencer Kit	608620090	1
			Hygrometer Sensor	608203580	1
M12.FSK.0402	12 Month Service Kit CDAS LE	CDAS LE 130	Inlet Coalescing Filter Element Grade AO	045AO	1
			Inlet Coalescing Filter Element Grade AA	045AA	1
			Outlet Dry Particulate Filter Element Grade AO	045AO	1
			Pilot Air Coalescing Filter Element Grade AA	010AA	1
			Coalescing Filter Float Drains	M12.FD.0001	3
			Exhaust Silencer Kit	608620090	2
			Hygrometer Sensor	608203580	1
M12.FSK.0403	12 Month Service Kit CDAS LE	CDAS LE 140 CDAS LE 150	Inlet Coalescing Filter Element Grade AO	050AO	1
			Inlet Coalescing Filter Element Grade AA	050AA	1
			Outlet Dry Particulate Filter Element Grade AO	050AO	1
			Pilot Air Coalescing Filter Element Grade AA	010AA	1
			Coalescing Filter Float Drains	M12.FD.0001	3
			Exhaust Silencer Kit	608620090	2
			Hygrometer Sensor	608203580	1
M12.FSK.0404	12 Month Service Kit CDAS LE	CDAS LE 160 CDAS LE 170	Inlet Coalescing Filter Element Grade AO	055AO	1
			Inlet Coalescing Filter Element Grade AA	055AA	1
			Outlet Dry Particulate Filter Element Grade AO	055AO	1
			Pilot Air Coalescing Filter Element Grade AA	010AA	1
			Coalescing Filter Float Drains	M12.FD.0001	3
			Exhaust Silencer Kit	608620090	3
			Hygrometer Sensor	608203580	1

12 Month Service Kits - OFAS LE

CATALOGUE NUMBER	DESCRIPTION	TO SUIT MODELS	12	24	36	48	60	QTY
M12.FSK.0405	12 Month Service Kit OFAS LE	OFAS LE 100	✔	✔	✔	✔	✔	1
M12.FSK.0406	12 Month Service Kit OFAS LE	OFAS LE 110	✔	✔	✔	✔	✔	1
M12.FSK.0407	12 Month Service Kit OFAS LE	OFAS LE 120	✔	✔	✔	✔	✔	1
M12.FSK.0408	12 Month Service Kit OFAS LE	OFAS LE 130	✔	✔	✔	✔	✔	1
M12.FSK.0409	12 Month Service Kit OFAS LE	OFAS LE 140 / OFAS LE 150	✔	✔	✔	✔	✔	1
M12.FSK.0410	12 Month Service Kit OFAS LE	OFAS LE 160 / OFAS LE 170	✔	✔	✔	✔	✔	1

CATALOGUE NO	DESCRIPTION	TO SUIT MODEL	KIT CONTENTS	CODE	QTY
M12.FSK.0405	12 Month Service Kit OFAS LE	OFAS LE 100	Inlet Coalescing Filter Element Grade AO	040AO	1
			Inlet Coalescing Filter Element Grade AA	040AA	1
			Outlet Dry Particulate Filter Element Grade AO	040AO	1
			Pilot Air Coalescing Filter Element Grade AA	010AA	1
			OVR Carbon Stage Service Kit	P350OVR	1
			Coalescing Filter Float Drains	M12.FD.0001	3
			Exhaust Silencer Kit	608620090	1
			Hygrometer Sensor	608203580	1
M12.FSK.0406	12 Month Service Kit OFAS LE	OFAS LE 110	Inlet Coalescing Filter Element Grade AO	040AO	1
			Inlet Coalescing Filter Element Grade AA	040AA	1
			Outlet Dry Particulate Filter Element Grade AO	040AO	1
			Pilot Air Coalescing Filter Element Grade AA	010AA	1
			OVR Carbon Stage Service Kit	P400OVR	1
			Coalescing Filter Float Drains	M12.FD.0001	3
			Exhaust Silencer Kit	608620090	1
			Hygrometer Sensor	608203580	1
M12.FSK.0407	12 Month Service Kit OFAS LE	OFAS LE 120	Inlet Coalescing Filter Element Grade AO	045AO	1
			Inlet Coalescing Filter Element Grade AA	045AA	1
			Outlet Dry Particulate Filter Element Grade AO	045AO	1
			Pilot Air Coalescing Filter Element Grade AA	010AA	1
			OVR Carbon Stage Service Kit	P400OVR	1
			Coalescing Filter Float Drains	M12.FD.0001	3
			Exhaust Silencer Kit	608620090	1
			Hygrometer Sensor	608203580	1
M12.FSK.0408	12 Month Service Kit OFAS LE	OFAS LE 130	Inlet Coalescing Filter Element Grade AO	045AO	1
			Inlet Coalescing Filter Element Grade AA	045AA	1
			Outlet Dry Particulate Filter Element Grade AO	045AO	1
			Pilot Air Coalescing Filter Element Grade AA	010AA	1
			OVR Carbon Stage Service Kit	P400OVR	1
			Coalescing Filter Float Drains	M12.FD.0001	3
			Exhaust Silencer Kit	608620090	2
			Hygrometer Sensor	608203580	1
M12.FSK.0409	12 Month Service Kit OFAS LE	OFAS LE 140 OFAS LE 150	Inlet Coalescing Filter Element Grade AO	050AO	1
			Inlet Coalescing Filter Element Grade AA	050AA	1
			Outlet Dry Particulate Filter Element Grade AO	050AO	1
			Pilot Air Coalescing Filter Element Grade AA	010AA	1
			OVR Carbon Stage Service Kit	P450OVR	1
			Coalescing Filter Float Drains	M12.FD.0001	3
			Exhaust Silencer Kit	608620090	2
			Hygrometer Sensor	608203580	1
M12.FSK.0410	12 Month Service Kit OFAS LE	OFAS LE 160 OFAS LE 170	Inlet Coalescing Filter Element Grade AO	055AO	1
			Inlet Coalescing Filter Element Grade AA	055AA	1
			Outlet Dry Particulate Filter Element Grade AO	055AO	1
			Pilot Air Coalescing Filter Element Grade AA	010AA	1
			OVR Carbon Stage Service Kit	P500OVR	1
			Coalescing Filter Float Drains	M12.FD.0001	3
			Exhaust Silencer Kit	608620090	3
			Hygrometer Sensor	608203580	1

12 Month Service Kits - FBP LE

CATALOGUE NUMBER	DESCRIPTION	TO SUIT MODELS	12	24	36	48	60	QTY
M12.FSK.0411	12 Month Service Kit FBP LE	FBP LE 100	✔	✔	✔	✔	✔	1
M12.FSK.0412	12 Month Service Kit FBP LE	FBP LE 110	✔	✔	✔	✔	✔	1
M12.FSK.0413	12 Month Service Kit FBP LE	FBP LE 120	✔	✔	✔	✔	✔	1
M12.FSK.0414	12 Month Service Kit FBP LE	FBP LE 130	✔	✔	✔	✔	✔	1
M12.FSK.0415	12 Month Service Kit FBP LE	FBP LE 140 / FBP LE 150	✔	✔	✔	✔	✔	1
M12.FSK.0416	12 Month Service Kit FBP LE	FBP LE 160 / FBP LE 170	✔	✔	✔	✔	✔	1

CATALOGUE NO	DESCRIPTION	TO SUIT MODEL	KIT CONTENTS	CODE	QTY
M12.FSK.0411	12 Month Service Kit FBP LE	FBP LE 100	Inlet Coalescing Filter Element Grade AO	040AO	1
			Inlet Coalescing Filter Element Grade AA	040AA	1
			Outlet Dry Particulate Filter Element Grade AO	040AO	1
			Outlet Dry Particulate Filter Element Grade AA	040AA	1
			Pilot Air Coalescing Filter Element Grade AA	010AA	1
			OVR Carbon Stage Service Kit	P350OVR	1
			Coalescing Filter Float Drains	M12.FD.0001	3
			Exhaust Silencer Kit	608620090	1
			Hygrometer Sensor	608203580	1
M12.FSK.0412	12 Month Service Kit FBP LE	FBP LE 110	Inlet Coalescing Filter Element Grade AO	040AO	1
			Inlet Coalescing Filter Element Grade AA	040AA	1
			Outlet Dry Particulate Filter Element Grade AO	040AO	1
			Outlet Dry Particulate Filter Element Grade AA	040AA	1
			Pilot Air Coalescing Filter Element Grade AA	010AA	1
			OVR Carbon Stage Service Kit	P400OVR	1
			Coalescing Filter Float Drains	M12.FD.0001	3
			Exhaust Silencer Kit	608620090	1
			Hygrometer Sensor	608203580	1
M12.FSK.0413	12 Month Service Kit FBP LE	FBP LE 120	Inlet Coalescing Filter Element Grade AO	045AO	1
			Inlet Coalescing Filter Element Grade AA	045AA	1
			Outlet Dry Particulate Filter Element Grade AO	045AO	1
			Outlet Dry Particulate Filter Element Grade AA	045AA	1
			Pilot Air Coalescing Filter Element Grade AA	010AA	1
			OVR Carbon Stage Service Kit	P400OVR	1
			Coalescing Filter Float Drains	M12.FD.0001	3
			Exhaust Silencer Kit	608620090	1
			Hygrometer Sensor	608203580	1
M12.FSK.0414	12 Month Service Kit FBP LE	FBP LE 130	Inlet Coalescing Filter Element Grade AO	045AO	1
			Inlet Coalescing Filter Element Grade AA	045AA	1
			Outlet Dry Particulate Filter Element Grade AO	045AO	1
			Outlet Dry Particulate Filter Element Grade AA	045AA	1
			Pilot Air Coalescing Filter Element Grade AA	010AA	1
			OVR Carbon Stage Service Kit	P400OVR	1
			Coalescing Filter Float Drains	M12.FD.0001	3
			Exhaust Silencer Kit	608620090	2
			Hygrometer Sensor	608203580	1
M12.FSK.0415	12 Month Service Kit FBP LE	FBP LE 140 FBP LE 150	Inlet Coalescing Filter Element Grade AO	050AO	1
			Inlet Coalescing Filter Element Grade AA	050AA	1
			Outlet Dry Particulate Filter Element Grade AO	050AO	1
			Outlet Dry Particulate Filter Element Grade AA	050AA	1
			Pilot Air Coalescing Filter Element Grade AA	010AA	1
			OVR Carbon Stage Service Kit	P450OVR	1
			Coalescing Filter Float Drains	M12.FD.0001	3
			Exhaust Silencer Kit	608620090	2
			Hygrometer Sensor	608203580	1
M12.FSK.0416	12 Month Service Kit FBP LE	FBP LE 160 FBP LE 170	Inlet Coalescing Filter Element Grade AO	055AO	1
			Inlet Coalescing Filter Element Grade AA	055AA	1
			Outlet Dry Particulate Filter Element Grade AO	055AO	1
			Outlet Dry Particulate Filter Element Grade AA	055AA	1
			Pilot Air Coalescing Filter Element Grade AA	010AA	1
			OVR Carbon Stage Service Kit	P500OVR	1
			Coalescing Filter Float Drains	M12.FD.0001	3
			Exhaust Silencer Kit	608620090	3
			Hygrometer Sensor	608203580	1

60 Month Service Kits (In Addition to 12 Month Service Kit)

CATALOGUE NUMBER	DESCRIPTION	TO SUIT MODEL	12	24	36	48	60	QTY
M60.DSK.0400	60 Month Service Kit CDAS LE / OFAS LE / FBP LE (-20°C PDP/-40°C PDP)	CDAS LE / OFAS LE / FBP LE MODEL 100	×	×	×	×	✓	1
M60.DSK.0401	60 Month Service Kit CDAS LE / OFAS LE / FBP LE (-20°C PDP/-40°C PDP)	CDAS LE / OFAS LE / FBP LE MODEL 110	×	×	×	×	✓	1
M60.DSK.0402	60 Month Service Kit CDAS LE / OFAS LE / FBP LE (-20°C PDP/-40°C PDP)	CDAS LE / OFAS LE / FBP LE MODEL 120	×	×	×	×	✓	1
M60.DSK.0403	60 Month Service Kit CDAS LE / OFAS LE / FBP LE (-20°C PDP/-40°C PDP)	CDAS LE / OFAS LE / FBP LE MODEL 130	×	×	×	×	✓	1
M60.DSK.0404	60 Month Service Kit CDAS LE / OFAS LE / FBP LE (-20°C PDP/-40°C PDP)	CDAS LE / OFAS LE / FBP LE MODEL 140	×	×	×	×	✓	1
M60.DSK.0405	60 Month Service Kit CDAS LE / OFAS LE / FBP LE (-20°C PDP/-40°C PDP)	CDAS LE / OFAS LE / FBP LE MODEL 150	×	×	×	×	✓	1
M60.DSK.0406	60 Month Service Kit CDAS LE / OFAS LE / FBP LE (-20°C PDP/-40°C PDP)	CDAS LE / OFAS LE / FBP LE MODEL 160	×	×	×	×	✓	1
M60.DSK.0407	60 Month Service Kit CDAS LE / OFAS LE / FBP LE (-20°C PDP/-40°C PDP)	CDAS LE / OFAS LE / FBP LE MODEL 170	×	×	×	×	✓	1

CATALOGUE NO	DESCRIPTION	TO SUIT MODEL	KIT CONTENTS	CODE	QTY
M60.DSK.0400	60 Month Service Kit CDAS LE / OFAS LE / FBP LE (-20°C PDP/-40°C PDP)	CDAS LE / OFAS LE / FBP LE MODEL 100	Valve Overhaul Kit	608730404	1
			Desiccant Kit AA	608203661	8
			Desiccant Kit MS	608203662	1
			Column Seal Kit	608620098	1

CATALOGUE NO	DESCRIPTION	TO SUIT MODEL	KIT CONTENTS	CODE	QTY
M60.DSK.0401	60 Month Service Kit CDAS LE / OFAS LE / FBP LE (-20°C PDP/-40°C PDP)	CDAS LE / OFAS LE / FBP LE MODEL 110	Valve Overhaul Kit	608730404	1
			Desiccant Kit AA	608203661	12
			Desiccant Kit MS	608203662	2
			Column Seal Kit	608620098	1

CATALOGUE NO	DESCRIPTION	TO SUIT MODEL	KIT CONTENTS	CODE	QTY
M60.DSK.0402	60 Month Service Kit CDAS LE / OFAS LE / FBP LE (-20°C PDP/-40°C PDP)	CDAS LE / OFAS LE / FBP LE MODEL 120	Valve Overhaul Kit	608730404	1
			Desiccant Kit AA	608203661	14
			Desiccant Kit MS	608203662	2
			Column Seal Kit	608620098	1

CATALOGUE NO	DESCRIPTION	TO SUIT MODEL	KIT CONTENTS	CODE	QTY
M60.DSK.0403	60 Month Service Kit CDAS LE / OFAS LE / FBP LE (-20°C PDP/-40°C PDP)	CDAS LE / OFAS LE / FBP LE MODEL 130	Valve Overhaul Kit	608730404	1
			Desiccant Kit AA	608203661	19
			Desiccant Kit MS	608203662	3
			Column Seal Kit	608620098	1

CATALOGUE NO	DESCRIPTION	TO SUIT MODEL	KIT CONTENTS	CODE	QTY
M60.DSK.0404	60 Month Service Kit CDAS LE / OFAS LE / FBP LE (-20°C PDP/-40°C PDP)	CDAS LE / OFAS LE / FBP LE MODEL 140	Valve Overhaul Kit	608730404	1
			Desiccant Kit AA	608203661	24
			Desiccant Kit MS	608203662	3
			Column Seal Kit	608620098	1

CATALOGUE NO	DESCRIPTION	TO SUIT MODEL	KIT CONTENTS	CODE	QTY
M60.DSK.0405	60 Month Service Kit CDAS LE / OFAS LE / FBP LE (-20°C PDP/-40°C PDP)	CDAS LE / OFAS LE / FBP LE MODEL 150	Valve Overhaul Kit	608730404	1
			Desiccant Kit AA	608203661	28
			Desiccant Kit MS	608203662	4
			Column Seal Kit	608620098	2

CATALOGUE NO	DESCRIPTION	TO SUIT MODEL	KIT CONTENTS	CODE	QTY
M60.DSK.0406	60 Month Service Kit CDAS LE / OFAS LE / FBP LE (-20°C PDP/-40°C PDP)	CDAS LE / OFAS LE / FBP LE MODEL 160	Valve Overhaul Kit	608730404	1
			Desiccant Kit AA	608203661	33
			Desiccant Kit MS	608203662	4
			Column Seal Kit	608620098	2

CATALOGUE NO	DESCRIPTION	TO SUIT MODEL	KIT CONTENTS	CODE	QTY
M60.DSK.0407	60 Month Service Kit CDAS LE / OFAS LE / FBP LE (-20°C PDP/-40°C PDP)	CDAS LE / OFAS LE / FBP LE MODEL 170	Valve Overhaul Kit	608730404	1
			Desiccant Kit AA	608203661	37
			Desiccant Kit MS	608203662	6
			Column Seal Kit	608620098	2

60 Month Service Kits (In Addition to 12 Month Service Kit)

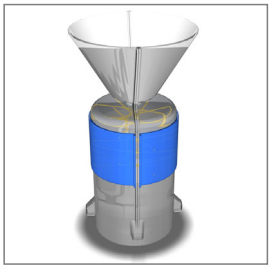
CATALOGUE NUMBER	DESCRIPTION	TO SUIT MODEL	12	24	36	48	60	QTY
M60.DSK.0408	60 Month Service Kit CDAS LE / OFAS LE / FBP LE (-70°C PDP)	CDAS LE / OFAS LE / FBP LE MODEL 100	×	×	×	×	✓	1
M60.DSK.0409	60 Month Service Kit CDAS LE / OFAS LE / FBP LE (-70°C PDP)	CDAS LE / OFAS LE / FBP LE MODEL 110	×	×	×	×	✓	1
M60.DSK.0410	60 Month Service Kit CDAS LE / OFAS LE / FBP LE (-70°C PDP)	CDAS LE / OFAS LE / FBP LE MODEL 120	×	×	×	×	✓	1
M60.DSK.0411	60 Month Service Kit CDAS LE / OFAS LE / FBP LE (-70°C PDP)	CDAS LE / OFAS LE / FBP LE MODEL 130	×	×	×	×	✓	1
M60.DSK.0412	60 Month Service Kit CDAS LE / OFAS LE / FBP LE (-70°C PDP)	CDAS LE / OFAS LE / FBP LE MODEL 140	×	×	×	×	✓	1
M60.DSK.0413	60 Month Service Kit CDAS LE / OFAS LE / FBP LE (-70°C PDP)	CDAS LE / OFAS LE / FBP LE MODEL 150	×	×	×	×	✓	1
M60.DSK.0414	60 Month Service Kit CDAS LE / OFAS LE / FBP LE (-70°C PDP)	CDAS LE / OFAS LE / FBP LE MODEL 160	×	×	×	×	✓	1
M60.DSK.0415	60 Month Service Kit CDAS LE / OFAS LE / FBP LE (-70°C PDP)	CDAS LE / OFAS LE / FBP LE MODEL 170	×	×	×	×	✓	1

CATALOGUE NO	DESCRIPTION	TO SUIT MODEL	KIT CONTENTS	CODE	QTY
M60.DSK.0408	60 Month Service Kit CDAS LE / OFAS LE / FBP LE (-70°C PDP)	CDAS LE / OFAS LE / FBP LE MODEL 100	Valve Overhaul Kit	608730404	1
			Desiccant Kit WS	608203663	2
			Desiccant Kit MS	608203662	7
			Column Seal Kit	608620098	1
CATALOGUE NO	DESCRIPTION	TO SUIT MODEL	KIT CONTENTS	CODE	QTY
M60.DSK.0409	60 Month Service Kit CDAS LE / OFAS LE / FBP LE (-70°C PDP)	CDAS LE / OFAS LE / FBP LE MODEL 110	Valve Overhaul Kit	608730404	1
			Desiccant Kit WS	608203663	3
			Desiccant Kit MS	608203662	11
			Column Seal Kit	608620098	1
CATALOGUE NO	DESCRIPTION	TO SUIT MODEL	KIT CONTENTS	CODE	QTY
M60.DSK.0410	60 Month Service Kit CDAS LE / OFAS LE / FBP LE (-70°C PDP)	CDAS LE / OFAS LE / FBP LE MODEL 120	Valve Overhaul Kit	608730404	1
			Desiccant Kit WS	608203663	4
			Desiccant Kit MS	608203662	13
			Column Seal Kit	608620098	1
CATALOGUE NO	DESCRIPTION	TO SUIT MODEL	KIT CONTENTS	CODE	QTY
M60.DSK.0411	60 Month Service Kit CDAS LE / OFAS LE / FBP LE (-70°C PDP)	CDAS LE / OFAS LE / FBP LE MODEL 130	Valve Overhaul Kit	608730404	1
			Desiccant Kit WS	608203663	5
			Desiccant Kit MS	608203662	17
			Column Seal Kit	608620098	1
CATALOGUE NO	DESCRIPTION	TO SUIT MODEL	KIT CONTENTS	CODE	QTY
M60.DSK.0412	60 Month Service Kit CDAS LE / OFAS LE / FBP LE (-70°C PDP)	CDAS LE / OFAS LE / FBP LE MODEL 140	Valve Overhaul Kit	608730404	1
			Desiccant Kit WS	608203663	6
			Desiccant Kit MS	608203662	21
			Column Seal Kit	608620098	1
CATALOGUE NO	DESCRIPTION	TO SUIT MODEL	KIT CONTENTS	CODE	QTY
M60.DSK.0413	60 Month Service Kit CDAS LE / OFAS LE / FBP LE (-70°C PDP)	CDAS LE / OFAS LE / FBP LE MODEL 150	Valve Overhaul Kit	608730404	1
			Desiccant Kit WS	608203663	7
			Desiccant Kit MS	608203662	25
			Column Seal Kit	608620098	2
CATALOGUE NO	DESCRIPTION	TO SUIT MODEL	KIT CONTENTS	CODE	QTY
M60.DSK.0414	60 Month Service Kit CDAS LE / OFAS LE / FBP LE (-70°C PDP)	CDAS LE / OFAS LE / FBP LE MODEL 160	Valve Overhaul Kit	608730404	1
			Desiccant Kit WS	608203663	8
			Desiccant Kit MS	608203662	29
			Column Seal Kit	608620098	2
CATALOGUE NO	DESCRIPTION	TO SUIT MODEL	KIT CONTENTS	CODE	QTY
M60.DSK.0415	60 Month Service Kit CDAS LE / OFAS LE / FBP LE (-70°C PDP)	CDAS LE / OFAS LE / FBP LE MODEL 170	Valve Overhaul Kit	608730404	1
			Desiccant Kit WS	608203663	9
			Desiccant Kit MS	608203662	33
			Column Seal Kit	608620098	2

Special Tools Required

The adsorbent desiccant material used in CDAS LE / OFAS LE / FBP LE treatment systems is factory filled using a snowstorm filler. When the dryer is serviced, the replacement desiccant must also be filled using a Snowstorm Filler.

Important Note:
Failure to use a snowstorm filler when changing the desiccant material will result in a loss of outlet dewpoint, desiccant attrition, possible blocked outlet dry particulate filter and reduced desiccant lifetime.



CATALOGUE NO	DESCRIPTION	CONTENTS
608201051	Snowstorm Filler	Jumbo Snowstorm Filler

CLEANING

Clean the equipment with a damp cloth only and avoid excessive moisture around any electrical sockets. If required you may use a mild detergent, however do not use abrasives or solvents as they may damage the warning labels on the equipment.

SERVICE RECORD

MODEL NUMBER	
SERIAL NUMBER	
DATE OF INSTALLATION	
COMMISSIONING DATE	
COMMISSIONING ENGINEER	

SERVICE DATE	DETAILS OF SERVICE CARRIED OUT	SERVICE ENGINEER NAME

EU Declaration of Conformity

EN

Parker Hannifin Manufacturing Limited GSFE
Dukesway,Team Valley Trading Estate,Gateshead, Tyne & Wear,NE11 0PZ, UK

Desiccant Air Dryer

.CDAS LE 100, 110, 120, 130, 140, 150, 160 & 170.
.OFAS LE 100, 110, 120, 130, 140, 150, 160 & 170.

Directives	PED	2014/68/EU
	EMC	2014/30/EU
	MD	2006/42/EC
Standards used	PED	Generally in accordance with ASME VIII Div 1 : 2023
	EMC	EN 61326-1 : 2013
	MD	EN 60204-1 : 2018

[Steven Rohan is authorised to compile TCF]
[La Tuiliere 6, Etoy, CH1163, Switzerland]

PED Assessment Route: Module B + D

PED Certificate Number 50351

Notified Body Number: 0525

Notified body for PED: LRQA Deutschland GmbH
Curienstraße 1,
D-20095 Hamburg, Deutschland

Authorised Representative Steven Rohan

Division Engineering Manager,
Parker Hannifin Manufacturing Limited GSFE

Declaration

This declaration of conformity issued under the sole responsibility of the manufacturer and the essential safety requirements have been demonstrated and fulfilled as set out in Annex 1

Signature:

Date: 01 December 2023

Declaration Number:
00325 / 1.12.23

EU Overensstemmelseserklæring

DA

Parker Hannifin Manufacturing Limited GSFE
Dukesway,Team Valley Trading Estate,Gateshead, Tyne & Wear,NE11 0PZ, UK

Desiccant Air Dryer

.CDAS LE 100, 110, 120, 130, 140, 150, 160 & 170.
.OFAS LE 100, 110, 120, 130, 140, 150, 160 & 170.

Direktiver	PED	2014/68/EU
	EMC	2014/30/EU
	MD	2006/42/EC
	.	.
	PED	Generally in accordance with ASME VIII Div 1 : 2023
	.	.
Anvendte standarder	EMC	EN 61326-1 : 2013
	MD	EN 60204-1 : 2018
		[Steven Rohan is authorised to compile TCF] [La Tuiliere 6, Etoy, CH1163, Switzerland]

Forløb for PED-bedømmelse: Module B + D

PED sertifikatnummer 50351

Notified Body Number: 0525

Notificeret organ for PED: LRQA Deutschland GmbH
Curienstraße 1,
D-20095 Hamburg, Deutschland

Autoriseret repræsentant Steven Rohan

Division Engineering Manager,
Parker Hannifin Manufacturing Limited GSFE

Erklæring

Producenten er eneansvarlig for denne overensstemmelseserklæring.

Underskrift:

Dato: 01 December 2023

Erklæringsnummer:
00325 / 1.12.23

EU Konformitätserklärung

DE

Parker Hannifin Manufacturing Limited GSFE
Dukesway,Team Valley Trading Estate,Gateshead, Tyne & Wear,NE11 0PZ, UK

Desiccant Air Dryer

.CDAS LE 100, 110, 120, 130, 140, 150, 160 & 170.
.OFAS LE 100, 110, 120, 130, 140, 150, 160 & 170.

Richtlinien	PED	2014/68/EU
	EMC	2014/30/EU
	MD	2006/42/EC
	.	.
	PED	Generally in accordance with ASME VIII Div 1 : 2023
		.
		.
Angewandte Normen	EMC	EN 61326-1 : 2013
	MD	EN 60204-1 : 2018
		[Steven Rohan is authorised to compile TCF] [La Tuiliere 6, Etoy, CH1163, Switzerland]

Beurteilungsroute der Druckgeräterichtlinie: Module B + D

PED-Zertifikatsnummer 50351

Notified Body Number: 0525

Benannte Stelle für die Druckgeräterichtlinie:
LRQA Deutschland GmbH
Curienstraße 1,
D-20095 Hamburg, Deutschland

Bevollmächtigter Vertreter Steven Rohan

Division Engineering Manager,
Parker Hannifin Manufacturing Limited GSFE

Erklärung

Die alleinige Verantwortung für die Ausstellung dieser Konformitätserklärung trägt der Hersteller.

Unterschrift:

Datum: 01 December 2023

Nummer der Erklärung:
00325 / 1.12.23

EU Declaración de conformidad

ES

Parker Hannifin Manufacturing Limited GSFE
Dukesway,Team Valley Trading Estate,Gateshead, Tyne & Wear,NE11 0PZ, UK

Desiccant Air Dryer

.CDAS LE 100, 110, 120, 130, 140, 150, 160 & 170.
.OFAS LE 100, 110, 120, 130, 140, 150, 160 & 170.

Directivas	PED	2014/68/EU
	EMC	2014/30/EU
	MD	2006/42/EC
Normas utilizadas	.	.
	PED	Generally in accordance with ASME VIII Div 1 : 2023
	.	.
	EMC	EN 61326-1 : 2013
	MD	EN 60204-1 : 2018
		[Steven Rohan is authorised to compile TCF] [La Tuiliere 6, Etoy, CH1163, Switzerland]

Ruta de evaluación de la normativa PED: Module B + D

Número de certificado de PED 50351

Organismo notificado para la normativa PED: Notified Body Number: 0525
LRQA Deutschland GmbH
Curienstraße 1,
D-20095 Hamburg, Deutschland

Representante autorizado Steven Rohan

Division Engineering Manager,
Parker Hannifin Manufacturing Limited GSFE

Declaración

Esta declaración de conformidad se publica bajo la exclusiva responsabilidad del fabricante.

Firma:

Fecha: 01 December 2023

Número de declaración:
00325 / 1.12.23

EU Vaatimustenmukaisuusvakuutus

FI

Parker Hannifin Manufacturing Limited GSFE
Dukesway,Team Valley Trading Estate,Gateshead, Tyne & Wear,NE11 0PZ, UK

Desiccant Air Dryer

.CDAS LE 100, 110, 120, 130, 140, 150, 160 & 170.
.OFAS LE 100, 110, 120, 130, 140, 150, 160 & 170.

Direktiivit	PED	2014/68/EU
	EMC	2014/30/EU
	MD	2006/42/EC
	.	.
	PED	Generally in accordance with ASME VIII Div 1 : 2023
	.	.
Käytetyt standardit	EMC	EN 61326-1 : 2013
	MD	EN 60204-1 : 2018
		[Steven Rohan is authorised to compile TCF] [La Tuiliere 6, Etoy, CH1163, Switzerland]

PED-arviointimenettely: Module B + D

PED-varmenteen numero 50351

PED-säännösten ilmoitettu laitos: Notified Body Number: 0525
LRQA Deutschland GmbH
Curienstraße 1,
D-20095 Hamburg, Deutschland

Valtuutettu edustaja Steven Rohan

Division Engineering Manager,
Parker Hannifin Manufacturing Limited GSFE

Vakuutus

Tämä vaatimustenmukaisuusvakuutus annetaan valmistajan yksinomaisella vastuulla.

Allekirjoitus:

Päiväys: 01 December 2023

Vakuutuksen numero:
00325 / 1.12.23

EU Déclaration de conformité

FR

Parker Hannifin Manufacturing Limited GSFE
Dukesway,Team Valley Trading Estate,Gateshead, Tyne & Wear,NE11 0PZ, UK

Desiccant Air Dryer

.CDAS LE 100, 110, 120, 130, 140, 150, 160 & 170.
.OFAS LE 100, 110, 120, 130, 140, 150, 160 & 170.

Directives	PED	2014/68/EU
	EMC	2014/30/EU
	MD	2006/42/EC
	.	.
	PED	Generally in accordance with ASME VIII Div 1 : 2023
Normes utilisées	.	.
	EMC	EN 61326-1 : 2013
	MD	EN 60204-1 : 2018
		[Steven Rohan is authorised to compile TCF] [La Tuiliere 6, Etoy, CH1163, Switzerland]

Méthode d'évaluation de la directive d'équipements de pression : Module B + D

Numéro de certificat PED 50351

Organisme de notification pour la directive d'équipement sous pression:
Notified Body Number: 0525
LRQA Deutschland GmbH
Curienstraße 1,
D-20095 Hamburg, Deutschland

Représentant agréé Steven Rohan

Division Engineering Manager,
Parker Hannifin Manufacturing Limited GSFE

Déclaration

Cette déclaration de conformité est délivrée sous l'entière responsabilité du fabricant.

Signature :

Date : 01 December 2023

N° de déclaration :
00325 / 1.12.23

EU Megfelelőségi nyilatkozat

HU

Parker Hannifin Manufacturing Limited GSFE
Dukesway,Team Valley Trading Estate,Gateshead, Tyne & Wear,NE11 0PZ, UK

Desiccant Air Dryer

.CDAS LE 100, 110, 120, 130, 140, 150, 160 & 170.
.OFAS LE 100, 110, 120, 130, 140, 150, 160 & 170.

Direktívák	PED	2014/68/EU
	EMC	2014/30/EU
	MD	2006/42/EC
	.	.
	PED	Generally in accordance with ASME VIII Div 1 : 2023
	.	.
Alkalmazott szabványok:	EMC	EN 61326-1 : 2013
	MD	EN 60204-1 : 2018
		[Steven Rohan is authorised to compile TCF] [La Tuiliere 6, Etoy, CH1163, Switzerland]
PED értékelési irányvonal		Module B + D
PED tanúsítvány száma		50351
PED-del kapcsolatban értesített testület:		Notified Body Number: 0525 LRQA Deutschland GmbH Curienstraße 1, D-20095 Hamburg, Deutschland
Hivatalos képviselő		Steven Rohan Division Engineering Manager, Parker Hannifin Manufacturing Limited GSFE

Nyilatkozat

A jelen megfelelőségi nyilatkozat kiállításáért kizárólag a gyártó felel.

Aláírás:

Dátum: 01 December 2023

Nyilatkozat száma:
00325 / 1.12.23

EU Dichiarazione di conformità

IT

Parker Hannifin Manufacturing Limited GSFE
Dukesway,Team Valley Trading Estate,Gateshead, Tyne & Wear,NE11 0PZ, UK

Desiccant Air Dryer

.CDAS LE 100, 110, 120, 130, 140, 150, 160 & 170.
.OFAS LE 100, 110, 120, 130, 140, 150, 160 & 170.

Direttive	PED	2014/68/EU
	EMC	2014/30/EU
	MD	2006/42/EC
	.	.
	PED	Generally in accordance with ASME VIII Div 1 : 2023
	.	.
Norme utilizzate	EMC	EN 61326-1 : 2013
	MD	EN 60204-1 : 2018
		[Steven Rohan is authorised to compile TCF] [La Tuiliere 6, Etoy, CH1163, Switzerland]

Procedura di valutazione PED: Module B + D

Numero certificato PED 50351

Notified Body Number: 0525

Organismo accreditato per PED: LRQA Deutschland GmbH
Curienstraße 1,
D-20095 Hamburg, Deutschland

Rappresentante autorizzato Steven Rohan

Division Engineering Manager,
Parker Hannifin Manufacturing Limited GSFE

Dichiarazione

La presente dichiarazione di conformità è rilasciata sotto la responsabilità esclusiva del produttore.

Firma:

Data: 01 December 2023

Dichiarazione numero:
00325 / 1.12.23

EU Verklaring van Conformiteit

NL

Parker Hannifin Manufacturing Limited GSFE
Dukesway,Team Valley Trading Estate,Gateshead, Tyne & Wear,NE11 0PZ, UK

Desiccant Air Dryer

.CDAS LE 100, 110, 120, 130, 140, 150, 160 & 170.
.OFAS LE 100, 110, 120, 130, 140, 150, 160 & 170.

Richtlijnen	PED	2014/68/EU
	EMC	2014/30/EU
	MD	2006/42/EC
	.	.
	PED	Generally in accordance with ASME VIII Div 1 : 2023
	.	.
Gehanteerde normen	EMC	EN 61326-1 : 2013
	MD	EN 60204-1 : 2018
		[Steven Rohan is authorised to compile TCF] [La Tuiliere 6, Etoy, CH1163, Switzerland]

PED-beoordelingstraject: Module B + D

PED certificaatnummer 50351

Notified Body Number: 0525

Aangemelde instantie voor PED: LRQA Deutschland GmbH
Curienstraße 1,
D-20095 Hamburg, Deutschland

Bevoegde vertegenwoordiger Steven Rohan

Division Engineering Manager,
Parker Hannifin Manufacturing Limited GSFE

Verklaring

Deze conformiteitsverklaring is verstrekt onder volledige verantwoordelijkheid van de fabrikant.

Handtekening: 

Datum: 01 December 2023

Verklaringnummer:
00325 / 1.12.23

EU Konformitetserklæring

NO

Parker Hannifin Manufacturing Limited GSFE
Dukesway,Team Valley Trading Estate,Gateshead, Tyne & Wear,NE11 0PZ, UK

Desiccant Air Dryer

.CDAS LE 100, 110, 120, 130, 140, 150, 160 & 170.
.OFAS LE 100, 110, 120, 130, 140, 150, 160 & 170.

Direktiver	PED	2014/68/EU
	EMC	2014/30/EU
	MD	2006/42/EC
	.	.
	PED	Generally in accordance with ASME VIII Div 1 : 2023
	.	.
Benyttede standarder	EMC	EN 61326-1 : 2013
	MD	EN 60204-1 : 2018
		[Steven Rohan is authorised to compile TCF] [La Tuiliere 6, Etoy, CH1163, Switzerland]
Rute for vurdering av PED (direktivet for trykkpålagt utstyr):		Module B + D
PED sertifikatnummer		50351
Underrettet organ for PED:		Notified Body Number: 0525 LRQA Deutschland GmbH Curienstraße 1, D-20095 Hamburg, Deutschland
Autorisert representant		Steven Rohan Division Engineering Manager, Parker Hannifin Manufacturing Limited GSFE

Erklæring

Denne samsvarserklæringen utstedes under eneansvar av produsenten.

Signatur:

Dato: 01 December 2023

Erklæring nr:
00325 / 1.12.23

EU Deklaracja zgodności

PL

Parker Hannifin Manufacturing Limited GSFE
Dukesway,Team Valley Trading Estate,Gateshead, Tyne & Wear,NE11 0PZ, UK

Desiccant Air Dryer

.CDAS LE 100, 110, 120, 130, 140, 150, 160 & 170.
.OFAS LE 100, 110, 120, 130, 140, 150, 160 & 170.

Dyrektywy	PED	2014/68/EU
	EMC	2014/30/EU
	MD	2006/42/EC
	.	.
	PED	Generally in accordance with ASME VIII Div 1 : 2023
	.	.
Stosowane standardy	EMC	EN 61326-1 : 2013
	MD	EN 60204-1 : 2018
		[Steven Rohan is authorised to compile TCF] [La Tuiliere 6, Etoy, CH1163, Switzerland]
Ścieżka potwierdzania zgodności z PED:		Module B + D
Numer certyfikatu PED		50351
Organ/instytucja powiadamiana na mocy PED:		Notified Body Number: 0525 LRQA Deutschland GmbH Curienstraße 1, D-20095 Hamburg, Deutschland
Autoryzowany przedstawiciel		Steven Rohan Division Engineering Manager, Parker Hannifin Manufacturing Limited GSFE

Deklaracja

Niniejsza deklaracja zgodności została wystawiona na wyłączną odpowiedzialność producenta.

Podpis:

Data: 01 December 2023

Numer deklaracji:
00325 / 1.12.23

EU Försäkran om överensstämmelse

SV

Parker Hannifin Manufacturing Limited GSFE
Dukesway,Team Valley Trading Estate,Gateshead, Tyne & Wear,NE11 0PZ, UK

Desiccant Air Dryer

.CDAS LE 100, 110, 120, 130, 140, 150, 160 & 170.
.OFAS LE 100, 110, 120, 130, 140, 150, 160 & 170.

Direktiv	PED	2014/68/EU
	EMC	2014/30/EU
	MD	2006/42/EC
	.	.
	PED	Generally in accordance with ASME VIII Div 1 : 2023
	.	.
Använda standarder	EMC	EN 61326-1 : 2013
	MD	EN 60204-1 : 2018
		[Steven Rohan is authorised to compile TCF] [La Tuiliere 6, Etoy, CH1163, Switzerland]

Fastställningsväg för PED: Module B + D

PED-certifikatnummer 50351

Notified Body Number: 0525

Anmält organ för PED: LRQA Deutschland GmbH
Curienstraße 1,
D-20095 Hamburg, Deutschland

Auktoriserad representant Steven Rohan

Division Engineering Manager,
Parker Hannifin Manufacturing Limited GSFE

Försäkran

Denna försäkran om överensstämmelse har utfärdats under tillverkarens eget ansvar.

Underskrift:

Datum: 01 December 2023

Försäkran nummer:
00325 / 1.12.23

PARKER HANNIFIN MANUFACTURING LIMITED

Gas Separation and Filtration Division EMEA
Dukesway, Team Valley Trading Est
Gateshead, Tyne and Wear
England NE11 0PZ

Tel: +44 (0) 191 402 9000

Fax: +44 (0) 191 482 6296

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