www.westairps.com.au

WestAir COMPRESSED AIR SYSTEMS

WSD SERIES

Refrigerated Compressed Air Dryers

32cfm to 3108cfm

WESTAIR PNEUMATIC SYSTEMS PTY LTD

FRIULAIR® Dryers

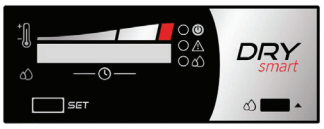
QUALITY, RELIABILITY, ENERGY SAVING, VERSATILITY AND RESPECT FOR THE ENVIRONMENT.

Westair has joined forces with FRIULAIR to distribute their WSD range of dryers across Australia. Friular was established in 1989 in Italy and is now a leading international company in the production of refrigerant air dryers.

FRIULAIR® Dryers

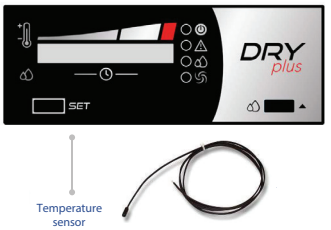
European Electronic Smart Controller

The WSD range uses the Italian made DRY controller. These controllers ensure reliability, high durability, better precision and prevents the dryer from freezing up.



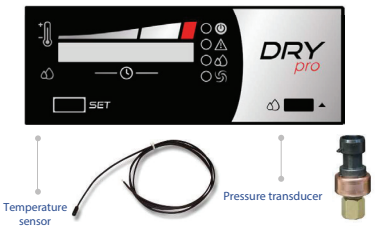
WSD 9 DRY SMART

- Dew point indication via bar LED
- LED dryer ON
- Low dew point and temperature probe failure alarm
- Working hours meter
- Adjustable draining ON/OFF time
- Drainer test button.



WSD 12÷80 DRY PLUS

- Dew point indication via bar LED
- LED dryer ON
- Fan control via pressure sensor
- Potential free alarm contact + LED
- Adjustable high dew point alarm
- Low dew point alarm
- Temperature probe failure alarm
- Working hours meter
- Adjustable draining ON/OFF time
- Drain test button with timed and zero loss
- RS485 connection port.



WSD 100÷880 DRY PRO

- Dew point indication via bar LED
- LED dryer ON
- Fan control via pressure sensor
- Potential free alarm contact + LED
- Adjustable high dew point alarm
- Low dew point alarm
- Temperature and pressure probe failure alarm
- Working hours meter
- Adjustable draining ON/OFF time
- Drain test button with timed and zero loss
- RS485 connection port.

WORLD RENOWNED REFRIGERANT COMPRESSOR PUMP

Quality brands used in the WSD series - Danfoss / Mitsubishi / Embraco

Refrigerant compressors used in this series are:

SD 40÷240 ROTARY

The most utilized and advanced technology for domestic air conditioning.

SD 4÷30 RECIPROCATING

Proven and well known technology that has been used in Friulair dryers for many years.

Applied to air dryer application provides:

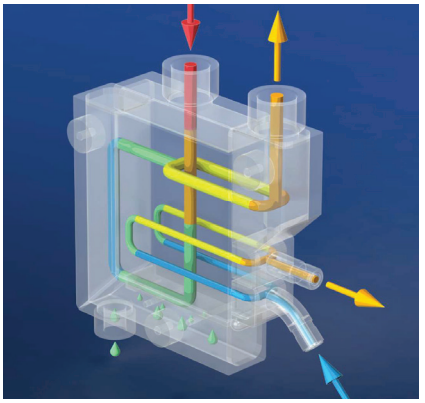
- Long lifetime
- High efficiency
- Low power demand.

SD 320÷880 SCROLL

Applied to air dryer application provides:

- Low power demand
- Low vibration (because of rotor symmetrical structure)
- Low noise
- Simplified refrigerant piping
- Reverse phase protector included.

HEAT EXCHANGER



WSD 12÷880 ALU-DRY

The WSD range is equipped with the latest heat exchange technology to improve performance and reliability.

- All in one: air-to-air (economizer)
- Air-to-refrigerant (evaporator)
- Demister separator & piping
- Counter flow heat exchangers
- Tight pressure dew point
- Air connections on top
- Large air to air section.

HOT GAS BY-PASS VALVE

Hot gas by-pass valve performs the following tasks:

- Avoids evaporator freezing-up during no load or partial load operation
- Tight pressure setting ensuring steady dew point
- Keeps constant heat exchanger temperature even at variable loads
- No field adjustment required.

PROTECTION DEVICES

WSD dryers are fitted with a fault alarm indicator on the controller and multiple overload shutdown protections for optimum safety. They are equipped with world renowned safety parts, which are known for their reliability and performance.

- Compressor internal overload protection (klixon)
- Compressor discharge safety thermo switch, factory set & tested with manual reset (SD 100÷880)
- High pressure switch with manual reset (SD 180÷880)
- Low pressure switch with auto-reset (SD 180÷880)
- Reverse phase & phase loss protector (SD 240÷880).

OZONE FRIENDLY REFRIGERANT GAS

Refrigerant gas used in the WSD series:

- Ozone friendly (Ozone Depletion Potential ODP = 0)
- Widely diffused and known
- Excellent performance

OZONE FRIENDLY R134a — *SD 4÷30*

OZONE FRIENDLY R407C — *SD 40÷880*

REFRIGERANTS	GWP*
~~R404A~~ BANNED	~~3922~~
R410A	2088
R407C	1774
R134a	1430

R407C and R134a are not banned in Compressed Air Dryer application and there are no limits in their use applying today rules.
* Global Warming Potential.

MAIN EQUIPMENT & ACCESSORIES

DESCRIPTION / MODELS	WSD÷9	WSD 12÷23	WSD 40÷80	WSD 100÷130	WSD 180÷210	WSD 240÷880
STAINLESS STEEL COPPER BRAZED HEAT EXCHANGER	●					
ALU-DRY ALUMINIUM HEAT EXCHANGER		●	●	●	●	●
STATIC CONDENSER	●					
VENTILATED COPPER TUBE AND ALU FINS CONDENSER		●	●	●		
MICROCHANNEL CONDENSER					●	●
CONDENSING CONTROL BY TEMPERATURE PROBE (DRYPLUS)		●	●	●		
CONDENSING CONTROL BY PRESSURE PROBE (DRYPRO)					●	●
SINGLE-PHASE POWER SUPPLY	●	●	●	●	●	
THREE-PHASE POWER SUPPLY						●
HIGH EFFICIENCY COMPRESSOR	●	●	●	●	●	●
R134A ECO-FRIENDLY REFIGERANT	●	●				
R407C ECO-FRIENDLY REFIGERANT			●	●	●	●
AUTOMATIC HOT-GAS BY PASS CONTROL	●	●	●	●	●	●
SAFETY THERMO SWITCH				●	●	●
HIGH AND LOW REFRIGERANT SAFETY PRESSURE SWITCH					●	●
TIMED DRAIN	●	●	●	●	●	●
ZERO LOSS DRAIN		○	○	○	○	○
POTENTIAL FREE ALARM CONTACT		●	●	●	●	●
RS485 SERIAL PORT		●	●	●	●	●

● STANDARD ○ OPTIONAL

WSD TECHNICAL SPECIFICATION

Data refer to the following nominal conditions: ambient temperature of 25°C, with inlet air pressure at 7 bar, inlet air temperature at 35°C and 3°C dew point. Max. working conditions: ambient temperature 45°C, inlet air temperature 55°C and inlet air pressure 16 bar.

MODEL	REFRIGERANT	FLOW-RATE			PRESSURE DROP	CONNECTIONS	POWER SUPPLY	DIMENSIONS [mm]			WEIGHT
		[M³/m]	[l/min]	[scfm]	[bar]	[Ø]	[Ph/V/Fr]	A	B	C	[kg]
WSD 9	R134a	0.9	900	32	0.33	1/2"	1/230/50-60	331	425	439	18
WSD 12	R134a	1.2	1200	42	0.13	1"	1/230/50-60	351	450	491	35
WSD 18	R134a	1.8	1800	64	0.28	1"	1/230/50-60	351	450	491	36
WSD 23	R134a	2.4	2300	85	0.23	1"	1/230/50-60	351	450	491	38
WSD 40	R407C	4.2	4200	148	0.27	1 1/2"	1/230/50	449	595	548	53
WSD 60	R407C	6	6000	212	0.22	1 1/2"	1/230/50	511	785	858	73
WSD 80	R407C	8.1	8100	286	0.18	1 1/2"	1/230/50	511	785	858	83
WSD 100	R407C	10.5	10500	371	0.27	1 1/2"	1/230/50	511	785	858	85
WSD 130	R407C	13	13000	459	0.13	2"	1/230/50	511	785	858	106
WSD 180	R407C	18	18000	636	0.23	2"	1/230/50	691	910	976	123
WSD 210	R407C	21	21000	742	0.17	2 1/2"	1/230/50	691	910	976	140
WSD 240	R407C	24	24000	848	0.23	2 1/2"	3/400/50	691	910	976	178
WSD 320	R407C	32	32000	1130	0.22	Flange DN80	3/400/50	743	1208	1021	251
WSD 440	R407C	44	44000	1554	0.24	Flange DN80	3/400/50	743	1208	1021	267
WSD 640	R407C	64	64000	2260	0.22	Flange DN100	3/400/50	1592	880	1471	380
WSD 880	R407C	88	88000	3108	0.24	Flange DN100	3/400/50	1592	880	1471	428

Please Note: Dimension A refers to the controller side.

CORRECTION FACTOR FOR OPERATING PRESSURE CHANGES:										
Inlet air pressure	[barg]	4	5	6	7	8	10	12	14	16
Factor		0.77	0.86	0.93	1.00	1.05	1.14	1.21	1.27	1.33

CORRECTION FACTOR FOR AMBIENT TEMPERATURE CHANGES:						
Ambient temperature	[°C]	≤ 25	30	35	40	45
Factor		1.00	0.95	0.88	0.79	0.68

CORRECTION FACTOR FOR INLET AIR TEMPERATURE CHANGES:							
Inlet air temperature	[°C]	≤ 30	35	40	45	50	55
Factor		1.11	1.00	0.81	0.67	0.55	0.45

CORRECTION FACTOR FOR DEW POINT CHANGES:					
Dew Point	[°C]	3	5	7	10
Factor		1.00	1.09	1.19	1.37

Distributed by:

Warranty

Standard 1-year warranty
(terms and conditions apply).