

SPE010 - SPE0250



- “Plug & Play” design for easy installation and operation
- Small space saving design
- High reliability, easy to use and maintain
- All models equipped standard with a digital controller
 - controls integral timed drain
 - various warning and alarms
 - on/off indicator
- Drain has access from both sides
- Non cycling dryer

DRD325 - DRD2400



- Optimum dewpoint levels for highest system performance
- Advanced patented design solutions
- High reliability, easy to use and maintain
- Unique 4-in-1 SmartPack heat exchanger
- Integral drain
- Extremely low pressure drop design
- SmartControl energy saving function (cycling dryer)
- Excellent dewpoint performances
- Advanced compliant scroll compressor

Capacity SCFM @ 100 psig (m³/min @ 6.9 bar)	Primary voltage	Part number	Pipe size (NPT) ‡	Recommended filtration		
				Bulk separator	Pre-filter (5µ particulate)*†	Post-filter (.01µ coalescing w DPI)
10 (17)	115V/1 ph / 60 Hz	SPE010-A11516016TIU	1/2"	WSA-04-FM0	M18-04-BH00B *	M18-04-CH00B
15 (26)	115V/1 ph / 60 Hz	SPE015-A11516016TIU	1/2"	WSA-04-FM0	M18-04-BH00B *	M18-04-CH00B
25 (43)	115V/1 ph / 60 Hz	SPE025-A11516016TIU	1/2"	WSA-04-FM0	M18-04-BH00B *	M18-04-CH00B
35 (60)	115V/1 ph / 60 Hz	SPE035-A11516016TIU	3/4"	WSA-06-FM0	M28-06-BH00B *	M28-06-CH00B
50 (85)	115V/1 ph / 60 Hz	SPE050-A11516016TIU	3/4"	WSA-06-FM0	M28-06-BH00B *	M28-06-CH00B
75 (127)	115V/1 ph / 60 Hz	SPE075-A11516016TIU	1"	WSA-08-FM0	F90-08-SL00 †	M90-08-CL00
100 (170)	115V/1 ph / 60 Hz	SPE0100-A11516016TIU	1"	WSA-08-FM0	F90-08-SL00 †	M90-08-CL00
125 (212)	115V/1 ph / 60 Hz	SPE0125-A11516016TIU	1"	WS0-08-000B	F90-08-SL00 †	M90-08-CL00
150 (255)	115V/1 ph / 60 Hz	SPE0150-A11516016TIU	1-1/2"	WS0-0B-000B	F35-0B-F00 †	M35-0B-F00
175 (297)	115V/1 ph / 60 Hz	SPE0175-A11516016TIU	1-1/2"	WS0-0B-000B	F35-0B-F00 †	M35-0B-F00
175 (297)	230 V/1 ph / 60 Hz	SPE0175-A23016016TIU	1-1/2"	WS0-0B-000B	F35-0B-F00 †	M35-0B-F00
200 (340)	230 V/1 ph / 60 Hz	SPE0200-A23016014TIU	1-1/2"	WS0-0B-000B	F35-0B-F00 †	M35-0B-F00
250 (425)	230 V/1 ph / 60 Hz	SPE0250-A23016014TIU	1-1/2"	WS0-0B-000B	F35-0B-F00 †	M35-0B-F00
325 (552)	230V/3ph/60Hz & 460V/3ph/60Hz	DRD325-A23036014EI DRD325-A46036014EI	2" NPT-F	WS0-0C-000B	F35-0C-F00	M35-0C-F00
400 (680)	230V/3ph/60Hz & 460V/3ph/60Hz	DRD400-A23036014EI DRD400-A46036014EI	2" NPT-F	WS0-0C-000B	F35-0C-F00	M35-0C-F00
500 (849)	230V/3ph/60Hz & 460V/3ph/60Hz	DRD500-A23036014EI DRD500-A46036014EI	2" NPT-F	WS0-0C-000B	F35-0C-F00	M35-0C-F00
700 (1189)	230V/3ph/60Hz & 460V/3ph/60Hz	DRD700-A23036014EI DRD700-A46036014EI	3" NPT-M	WS0-0E-000B	F43-0E-F00	M43-0E-F00
800 (1359)	230V/3ph/60Hz & 460V/3ph/60Hz	DRD800-A23036014EI DRD800-A46036014EI	3" NPT-M	WS0-0E-000B	F43-0E-F00	M43-0E-F00
1000 (1700)	460V/3ph/60Hz	DRD1000-A46036014EI	3" NPT-M	WS0-0E-000B	F43-0E-F00	M43-0E-F00
1200 (2039)	460V/3ph/60Hz	DRD1200-A46036014EI	3" NPT-M	WS0-0E-000B	F43-0E-F00	M43-0E-F00
1600 (2718)	460V/3ph/60Hz	DRD1600-A46036014EI	4" Flg.	WWSA1000F	M55-0F-F00*	M55-0F-FS0
2000 (3400)	460V/3ph/60Hz	DRD2000-A46036014EI	6" Flg.	WWSA1800F	M55-0H-F00*	M55-0H-FS0
2400 (4078)	460V/3ph/60Hz	DRD2400-A46036014EI	6" Flg.	WWSA1800F	M55-0H-F00*	M55-0H-FS0

‡ SPE010-025 are 1/2" NPT compatible. SPE035-0250 are manufactured with BSPP-F ports, but come standard with BSP to NPT adapter.

* 0.5µ coalescing

† 5 micron

■ = “Most Popular”

The importance of compressed air as a provider of energy for modern industrial processes is widely known. What is often overlooked however is the need to provide quality treatment for this air.

In fact, the air entering the system contains condensate which, when cooled, will turn into liquid water, causing extensive damage not only to the compressed air network, but also to the finished product.

DRD refrigeration dryers actively remove this condensate to achieve extremely dry compressed air.

Our SmartPack heat exchanger offers minimal pressure drops and class leading performance, and significantly increases the efficiency of the whole compressed air treatment process. The innovative SmartControl function automatically and continuously adjusts dryer operation to the effective working conditions, minimizing operating costs and maximizing performances.

Compressed air purification equipment must deliver uncompromising performance and reliability while providing the right balance of air quality with the lowest cost of operation. Many manufacturers offer products for the filtration and purification of contaminated compressed air, which are often selected only upon their initial purchase cost, with little or no regard for the air quality they provide, the cost of operation throughout their life or their environmental impact. When purchasing purification equipment, delivered air quality, the overall cost of ownership and the equipment's environmental impact must always be considered.



Smart Technology: The Benefits

SmartPack Heat Exchanger Provides Less Than 2 PSI Pressure Drop

The SmartPack (patent pending) heat exchanger features an extremely robust, all-in-one aluminum design, with no interconnecting tubing.

The geometry of the heat exchanger has been designed in order to optimize its performances. In particular, large volumes allow low air velocity through the heat exchanger section, resulting in high exchange efficiency and low pressure drops. Pressure drops are further improved thanks to the absence of interconnecting pipes through the different sections of the heat exchanger and to a straight forward path of the compressed air flow with smooth and minimum changes of flow directions.

Smart BMS Interface

Simple BMS interface includes:

- RS485 serial card provides direct communication to Modbus. Requires no gateway or A.N.I.
- Provides visualization of dewpoint, alarm conditions and service indication.
- Provides remote control of the dryer including on/off and alarm reset (depending on actual alarm)

SmartDrain - Dual Mode Zero Air Loss Drain

The drainage chamber is integrated into the heat exchanger while the valve mechanism is fitted in an easily accessible drain niche. The SmartDrain continuously adjusts itself to the actual working conditions, ensuring zero air loss and a notable reduction in system power consumption.

An innovative control system continuously monitors for fault situations. If a fault does occur, an alarm is signaled and the drain switches to conventional timed solenoid drain operation. The dual mode circuitry ensures maximum reliability.

Smart Control With SmartSave Cycling

The multifunction SmartControl provides a versatile platform for user interface and SmartSave Cycling (if enabled). The innovative SmartSave (patent pending).

Cycling Control continuously monitors the demand placed on the dryer. At conditions of low demand the refrigerant compressor is cycled off to save energy. A sophisticated algorithm continuously adapts the operation of the dryer for optimum energy efficiency while minimizing the dewpoint spikes common to traditional thermal mass dryers.

Compliant Scroll Compressors

These units feature Compliant Scroll compressors, offering energy savings of 20 -30% when compared with piston compressors. The ability to tolerate liquid returns coupled with 50% less moving parts render them nearly indestructible and highly reliable. Low vibration levels increase overall refrigeration circuit.

= "Most Popular"

Operating information

Dryer Models	Dewpoint	Operating pressure		Operating temperature		Ambient maximum	Electrical supply	Thread	Noise level bB(A)	Refrigerant type
		Min	Max	Min	Max					
SPE010 - SPE050	ISO 8573-1 Class 5	29 psig (2 bar)	232 psig (16 bar)	41°F (5°C)	149°F (65°C)	122°F (50°C)	115V 1ph 60 Hz	NPT	<75	R134a
SPE075 - SPE0175			203 psig (14 bar)		230 1ph 60 Hz					
SPE0200 - SPE0250										

Controller Functions

Dryer Models	Power on indication	Visual fault indication	Compressed air temperature	Dryer service indicator	Fault relay power loss
SPE010-0250	X	X	X	X	X

Quality Assurance / IP Rating / Pressure Vessel Approvals

Development/Manufacture ISO 9001 / ISO 14001
 Ingress Protection Rating IP22 Indoor Use Only

Product Selection and Correction Factors

Capacities are based upon: Ambient temperature - 100°F (38°C); inlet temperature - 100°F (38°C); and working pressure - 100 psig (7 bar g)

Minimum Drying Capacity = System flow x CFIT x CFATx CFMIP

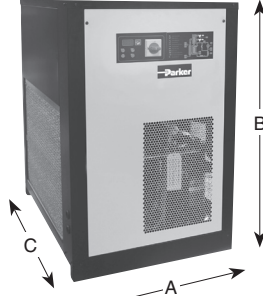
NOTE: Flowrate, temperatures, and pressure MUST be provided by customer.

Example: 50 scfm flowrate Inlet temperature - 100°F (38°C) = 1.0
 Max ambient temperature - 110°F (43°C) = 1.08
 Min inlet pressure - 80°F (27°C) = 1.09
 50 (1.0) + 1.08 + 1.09 = 59, therefore, a larger 75 scfm dryer is required

	SPE010 - SPE0250										DRD325 - DRD2400							
CFIT - Correction factor minimum inlet temperature																		
°F	90	95	100	110	120	130	140	149			90	100	110	120	130	140		
°C	32	35	38	43	49	54	60	65			32	38	43	49	54	60		
Factor	0.74	0.82	1.00	1.33	1.76	2.38	2.60	2.67			1.22	1.00	0.82	0.68	0.56	0.46		
CFAT - Correction factor maximum ambient temperature																		
°F	60	70	80	90	95	100	110	120	122		70	80	90	100	110	120	122	
°C	16	21	27	32	35	38	43	49	50		21	27	32	38	43	49	50	
Factor	0.93	0.93	0.93	0.93	0.96	1.00	1.08	1.16	1.18		1.22	1.15	1.05	1.00	0.94	0.79	0.71	
CFMIP - Correction factor minimum inlet pressure																		
psig	45	60	80	100	125	145	150	160	175	200	232	60	80	100	125	150	174	203
bar	3	4	6	7	9	10	10	11	12	14	16	3	6	7	9	10	12	14
Factor	1.40	1.17	1.09	1.00	0.88	0.83	0.82	0.81	0.79	0.75	0.71	0.83	0.93	1.00	1.07	1.12	1.15	1.18

Dimensions	Part number	A width	B height	C depth	Weight (kg)
	SPE010-A11516016TIU	11.8 (300)	20.5 (520)	15.7 (400)	53 (24)
	SPE015-A11516016TIU	11.8 (300)	20.5 (520)	15.7 (400)	53 (24)
	SPE025-A11516016TIU	11.8 (300)	20.5 (520)	15.7 (400)	55 (25)
	SPE035-A11516016TIU	13.0 (330)	22.8 (580)	21.7 (550)	77 (35)
	SPE050-A11516016TIU	13.0 (330)	22.8 (580)	21.7 (550)	79 (36)
	SPE075-A11516016TIU	15.7 (400)	25.6 (650)	24.8 (630)	101 (46)
	SPE0100-A11516016TIU	15.7 (400)	25.6 (650)	24.8 (630)	101 (46)
	SPE0125-A11516016TIU	15.7 (400)	25.6 (650)	24.8 (630)	104 (47)
	SPE0150-A11516016TIU	15.7 (400)	25.6 (650)	24.8 (630)	117 (53)
	SPE0175-A11516016TIU	15.7 (400)	25.6 (650)	24.8 (630)	121 (55)
	SPE0175-A23016016TIU	15.7 (400)	25.6 (650)	24.8 (630)	121 (55)
	SPE0200-A23016014TIU	17.7 (450)	33.1 (840)	30.7 (780)	176 (80)
	SPE0250-A23016014TIU	17.7 (450)	33.1 (840)	30.7 (780)	176 (80)

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Dimensions	Part number	A width	B height	C depth	Weight (kg)
 <p>Inches (mm)</p>	DRD325-DRD2400				
	DRD325-A23036014EI	28.0 (711)	42.0 (1067)	41.0 (1041)	320 (145)
	DRD400-A23036014EI	28.0 (711)	42.0 (1067)	41.0 (1041)	320 (145)
	DRD500-A23036014EI	28.0 (711)	42.0 (1067)	41.0 (1041)	342 (155)
	DRD700-A23036014EI	32.0 (813)	52.0 (1321)	46.0 (1168)	529 (240)
	DRD800-A23036014EI	32.0 (813)	52.0 (1321)	46.0 (1168)	529 (240)
	DRD1000-A46036014EI	32.0 (813)	52.0 (1321)	46.0 (1168)	551 (250)
	DRD1200-A46036014EI	40.0 (1016)	67.0 (1702)	43.0 (1092)	816 (370)
	DRD1600-4A6036014EI	40.0 (1016)	68.0 (1727)	71.0 (1803)	1279 (580)
	DRD2000-A46036014EI	40.0 (1016)	68.0 (1727)	71.0 (1803)	1477 (670)
DRD2400-A46036014EI	40.0 (1016)	68.0 (1727)	71.0 (1803)	1521 (690)	