

# FOCUSED ON COMPRESSED AIR TREATMENT

Heat Reactivated Dessicant Dryers | TWP & TWB Series



ENGINEERING YOUR SUCCESS.

# FOCUSED ON EFFICIENCY

Parker Airtek Externally Heated and Blower Purge Desiccant Air Dryers use the absorption method to remove moisture from compressed air. Nominal pressure dew point of  $-40^{\circ}\text{F}$  ( $-40^{\circ}\text{C}$ ) is achieved by directing the flow of saturated compressed air over a bed of desiccant.

The most commonly used desiccant is activated alumina, a spherically shaped, hygroscopic material, selected for its consistent size, shape and extreme surface to mass ratio. This physically tough and chemically inert material is contained in two pressure vessels commonly referred to as "dual" or "twin" towers. As the saturated compressed air flows through the bed of the "on-line" tower, its moisture content adheres to the surface of the desiccant.

The dry compressed air is then discharged from the vessel into the distribution system.

An Allen-Bradley® PLC cycles the flow of compressed air between the towers. While one tower is "on-line" drying, the other tower is "off-line" regenerating. Regeneration, sometimes referred to as "purging", is the process of stripping the accumulated moisture from the "off-line" bed.

Both types of Parker Airtek Heat Reactivated Dryers combine heat with either a small portion of the dried compressed air or with forced ambient air to affect regeneration. The heated, low pressure purge air flows gently through the regenerating bed, adsorbing the moisture that accumulated on the surface of the desiccant during the drying cycle and exhausting it to the atmosphere.



**Model TWB**





## Flow Schematic

Parker Airtek's patented **Multi-Port Regeneration System (TWP Series)** affects superior desiccant bed regeneration and, as a result, provides better and more consistent performance. The Multi-Port Regeneration System injects heated purge air at precise points up and down the towers' length providing a more balanced distribution of heat. This system prevents the desiccant on top from prematurely deteriorating while providing the bottom of the chamber with enough heated purge air to allow complete regeneration on every cycle.

The energy saving temperature monitoring system senses the exiting purge air temperature. When the purge air temperature increases to a pre-set point at which the desiccant bed is fully heated and regenerated, the heater is turned off.

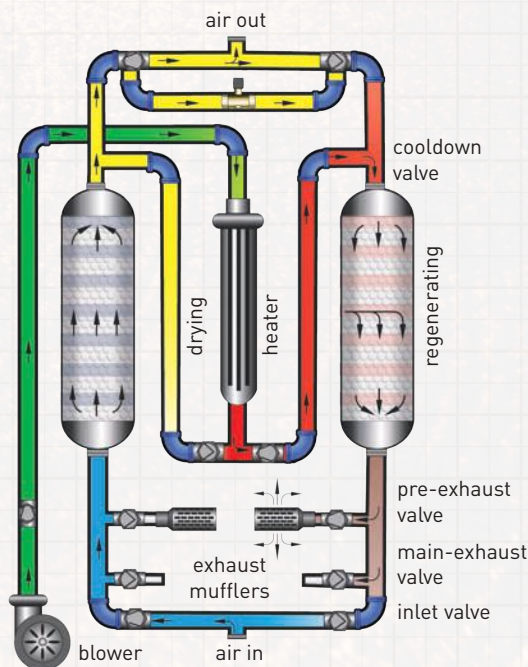
Parker Airtek's Primary Blowdown System is standard on TWP Series 401 and larger and TWP Series 1001 and larger. It improves performance and efficiency while increasing desiccant life. The depressurization stage also strips moisture from the bottom of the tank through a purge muffler.

Once depressurization is complete, the system switches to the main exhaust where final regeneration is accomplished with low pressure purge air. By eliminating the main exhaust mufflers, back pressure is also eliminated which allows for more thorough regeneration and less maintenance.

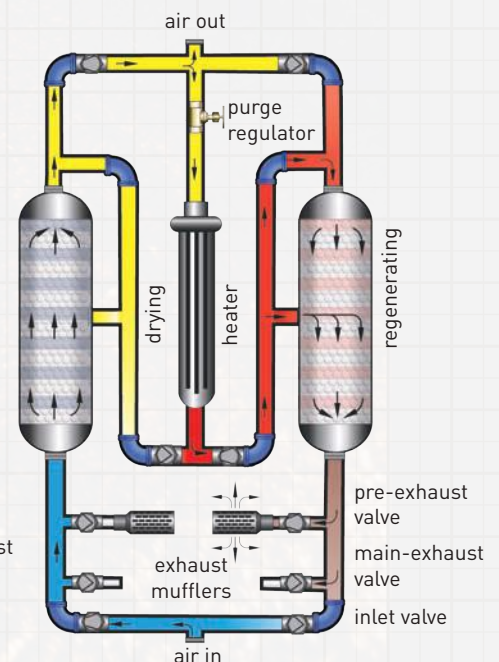
### Up Flow Versus Down Flow Drying

In the event of prefilter/auto drain failure, up flow drying protects the desiccant bed from contamination of bulk liquids and oil since they stay on the bottom of the tank and get discharged during blowdown. With downflow drying, any liquids put into the dryer by inefficient pre-filtration or drain failure will collect at the bottom of the vessel. As a result of this liquid presence, the upflow regeneration cannot lift the liquid slugs through the entire desiccant bed, resulting in liquid being sent downstream at tower switch over.

### TWB Series Blower Purge



### TWP Externally Heated with Patented Multi-Port



## Control Enclosures

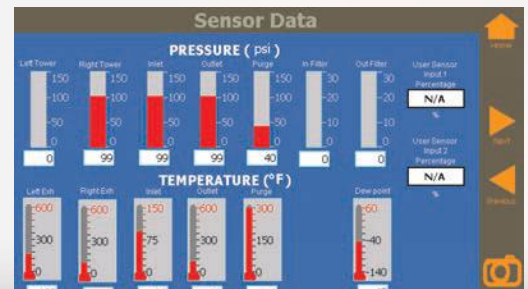
### Low Voltage Control Box

Parker Airtek's touch screen interface controller comes in an all inclusive package for all of our heated and blower purge dryers. These dryers ranging from 200 scfm and larger include an LCD user interface and responsive data retrieval for all your important dryer information. This custom innovative touch screen control is cutting-edge and guarantees hassle-free dryer maintenance and diagnostics.

- 7" HMI, Allen-Bradley® PLC
- Flash drive port for transferring data log
- Serial communications port (optional)
- Remote panel access via ethernet for communications port
- Full color graphics touch panel control for user interface
- User friendly help screens assist in troubleshooting
- 120 VAC power and control solenoids (Other power options available)
- Heatless backup operation
  - Manual stepping
  - Supplemental cooldown (TWB Series)
- Alarms with alarm relay
  - Tower failed to blow down (switch failure)
  - Tower failed to pressurize
  - High and low purge temperatures
  - High muffler pressure
  - Low purge pressure (TWP Series)
  - High inlet temperature
  - Low inlet pressure
  - High pre and after filter differential pressures
  - Blower overload (blower purge only)
  - Low blower flow
  - Stuck drain switch (1500 scfm & larger)
  - High and low user sensor values
  - Sensor probe failure for all sensors
  - Switch failure alarm
- PowerLoc® energy management system
  - Digital dewpoint readout
  - Digital dewpoint control
  - High humidity alarm
  - Optional 4-20 mA signal output
- Two extra user defined 4-20 mA inputs with setpoints and alarms for connection to your flow meter, power meter, etc.
- Automatic data logging 24/7, 365 days of all operational information
- QR code to connect to live chat
- Temperature pressure indication package with digital display and alarms
- ETL listed (UL/CSA Standards)



### Real-Time Sensor Data



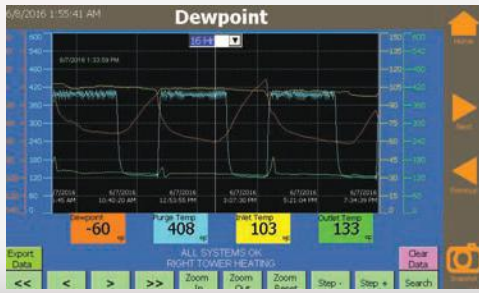
Low Voltage Control Box

### High Voltage Control Box

- Single point connection
- Dual contactors for heater control
- Primary cycling contactor controls heater operation
- Secondary over-temperature contactor protects circuit
- ThermaLoc® redundant heater contactors provide the maximum in heater system protection (5 year heater warranty)
- Built-in fused secondary voltage transformer
- Blower overload protection and motor starters (TWB Series)



### Historical Data Trend - Dewpoint



### Support

Support form fields:

- Driver Model Number: \_\_\_\_\_
- Driver Serial Number: \_\_\_\_\_
- H/W F/W Rev: \_\_\_\_\_ Date: \_\_\_\_\_
- PLC F/W Rev: \_\_\_\_\_ Date: \_\_\_\_\_
- Service Contact Info: \_\_\_\_\_
- Name: \_\_\_\_\_
- Phone 1: \_\_\_\_\_
- Phone 2: \_\_\_\_\_
- Email Address: \_\_\_\_\_
- Buttons: Copy, Print, Enter Info

### Alarm/Troubleshoot

TOUCH ALARM DISPLAY FOR DESCRIPTION			
Left Blowdown	High Inlet Temp	Purge Temp Sensor	Dewpoint Sensor
Right Blowdown	Low Inlet Press	Left Temp Sensor	Low Aux Sensor 1
Left Repressures	High Dewpoint	Right Temp Sensor	High Aux Sensor 1
Right Repressures	Inlet Filter	Inlet Temp Sensor	Low Aux Sensor 2
High Purge Temp	After Filter	Outlet Temp Sensor	High Aux Sensor 2
Low Purge Temp	Drain #1 Switch	Left Press Sensor	Aux Sensor 1
Drain Temp	Drain #2 Switch	Right Press Sensor	Aux Sensor 2
Left Muffler	Control Power Fuse	Inlet Press Sensor	Outlet Press Sensor
Right Muffler	Sensor Power Fuse	Low Purge Press	Purge Press Sensor
Blower Overload	Blower Flow Switch	EMERGENCY STOP	



High Voltage Control Box

# FOCUSED ON THE COMPLETE SOLUTION

Without proper filtration, desiccant air dryers will not operate. Desiccant dryers are designed to adsorb vapor from compressed air, not liquid. When liquid, especially oil, is allowed to enter the desiccant chamber, it coats the desiccant material preventing any further adsorption. Oil coated desiccant can not be regenerated, and must be replaced.

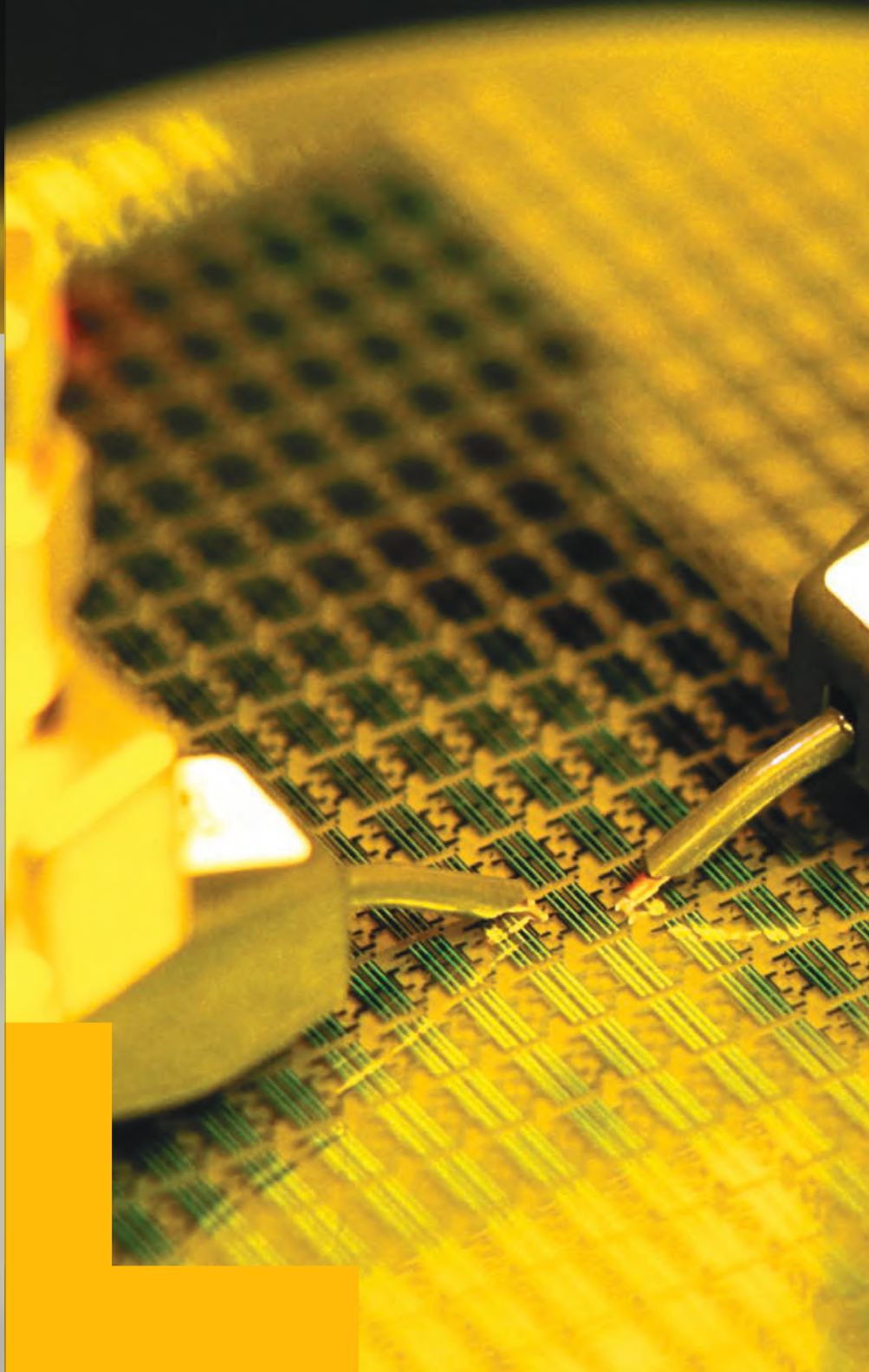
The coalescing pre-filter is installed at the dryer inlet. It protects the dryer by removing liquids and reducing the contamination level of the compressed air. A differential pressure gauge is provided to determine element condition.

A zero air loss float drain is provided on systems 200 through 1200 scfm to ensure proper drainage. On systems 1500 scfm and larger, a zero air loss demand drain and electronic timed drain are provided. The drain (1500 scfm & larger) is controlled via the PLC, which includes a test function and user settings for time open and delay.

To protect downstream equipment from desiccant dust, a high temperature particulate after-filter is installed at the dryer discharge. The after-filter element is designed to remove solid particulates from compressed air. The hybrid pleated filter media provides high dirt retention, low pressure drop, and long element life. A DP gauge is provided to determine element condition.

Most field problems experienced with desiccant air dryers are the result of improper filter selection, installation, maintenance, and/or draining of condensate. Considering the importance of filtration to dryer performance, Parker Airtek recommends that all desiccant dryers be ordered as a complete, factory assembled Air Treatment System.

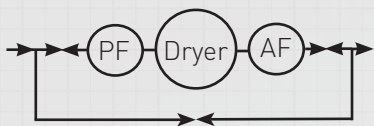
Factory packaging, with matched components and single point connections reduces installation costs, ensures performance and allows Parker Airtek to assume total responsibility for system integrity.



## Filter Package Schematic

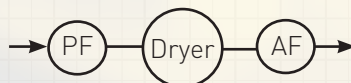
**Package "B"**  
(Standard TWP/TWB201 - TWP/B801)  
(Optional for TWP/TWB1001 and Larger)

Includes dryer with factory installed pre-filter and after-filter with system bypass



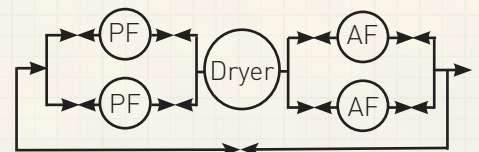
**Package "F"**  
(Standard TWP/TWB1001 & Larger)

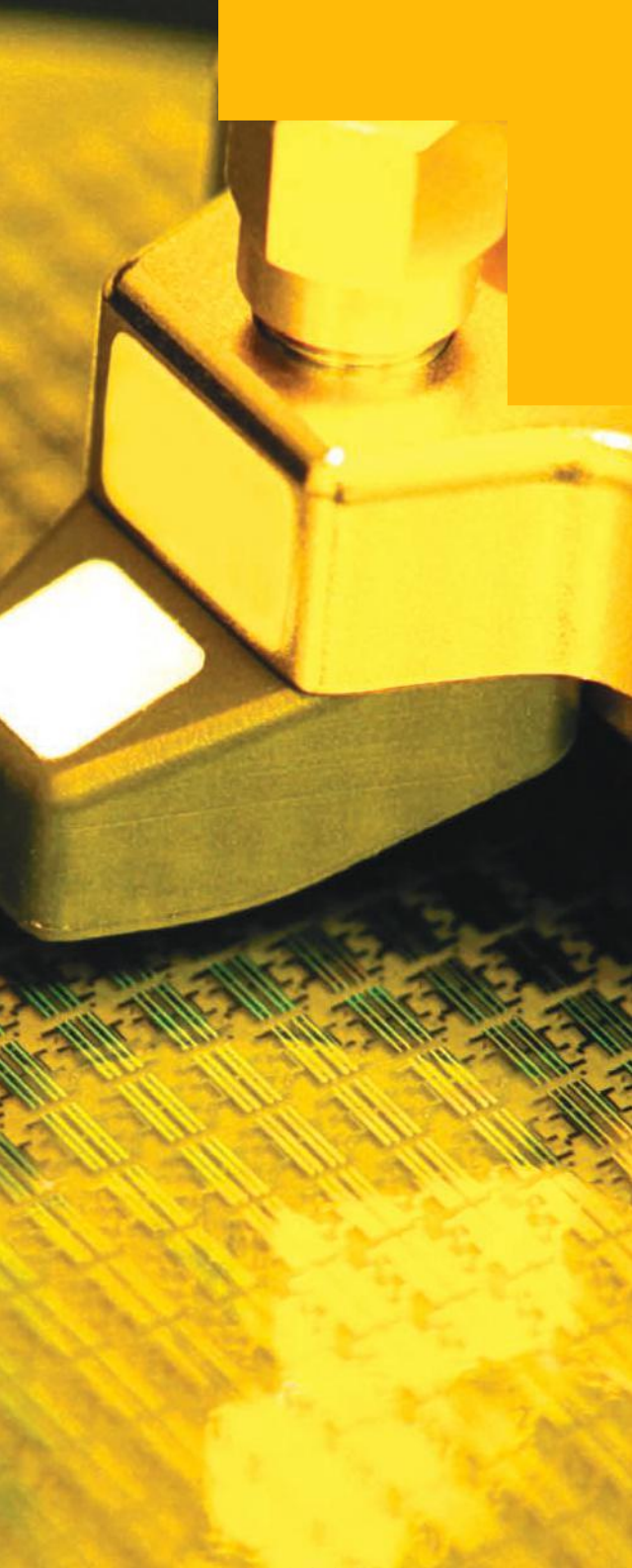
Includes dryer with factory installed pre-filter and after-filter



**Package "D" (Optional for all models)**

Includes dryer with factory installed dual selectable pre and after-filters with system bypass



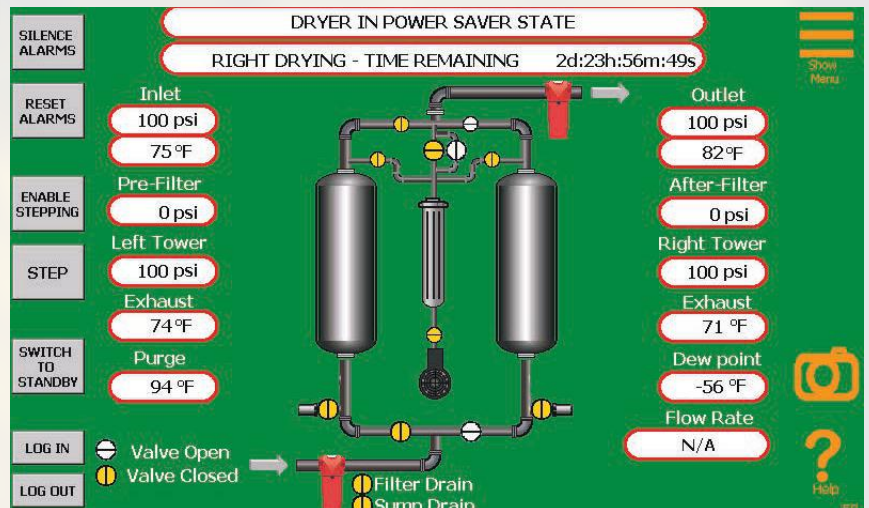
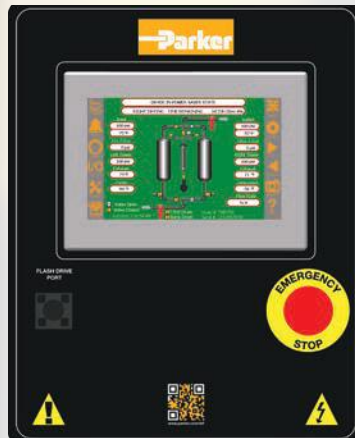


## PowerLoc® Energy Management System Standard

Energy savings can be achieved with the proven PowerLoc energy management system. Regeneration requirements are dependent on flow, pressure and temperature. The PowerLoc system allows the cost of drying compressed air to be matched exactly to your plant conditions.

PowerLoc controls the drying cycle by continuously reacting to the loading under which the dryer is operating and minimizes the energy input required.

As dryers rarely operate at full rated capacity all of the time (e.g. during shift work and periods of low demand), this energy management system will provide considerable energy savings.



CLASS	Dirt			Water	Oil
	Maximum number of particles per m <sup>3</sup>			Pressure Dewpoint °F [°C]	(incl. vapor) mg/m <sup>3</sup>
	0.1 - 0.5 micron	0.5 - 1 micron	1 - 5 micron		
1	100	1	0	-94°F [-70°C]	0.01
2	100,000	1,000	10	-40°F [-40°C]	0.1
3	-	10,000	500	-4°F [-20°C]	1
4	-	-	1,000	37.4°F [3°C]	5
5	-	-	20,000	44.6°F [7°C]	-
6	-	-	-	50°F [10°C]	-

## Compressed Air Quality to ISO 8573.1:2010 The Industry Standard Method for Specifying Compressed Air Cleanliness

The ISO 8573.1:2010 international standard for compressed air quality provides a simple system of classification for the three main contaminants present in any compressed air system - dirt, water, and oil. To specify the quality class required for a particular application, simply list the class for each contaminant.



## High Performance Components



### Tower insulation

The tower, heater, and purge lines are insulated to increase dryer performance and efficiency by reducing radiant heat loss. It also keeps the unit within the safety parameters set forth by OSHA. Insulation suitable for indoor service is standard on all Parker Airtek heat reactivated dryers (Insulation suitable for outdoor service is an available option).

### Angle Seat Valves

#### TWP/TWB201 - TWP/TWB 801

Dryers up to 800 scfm are equipped with angle seat valves. Versatile and durable best describes these valves which can surpass millions of cycles.

- High performance poppet valve
- Stainless steel body
- Stainless steel internals
- PTFE seal
- Air activated, spring return
- Visual position indicator on exhaust valves
- ANSI Class VI shutoff
- Long service life
- Repair kits available
- 5 year valve warranty



### Actuated Butterfly Valves

#### TWP/TWB1001 - TWP/TWB & Larger

High Performance Actuated Butterfly Switching Valves are standard on dryers 1000 scfm and larger. These premium, air operated butterfly valves are specifically designed for compressed air. They provide more opening and closing force compared to other types of valves. An indicator shows the "opened/closed" position of the valve and service can be performed without disturbing dryer piping.

- High performance valve
- Non-lubricated
- Carbon steel body
- Stainless steel internals
- RTFE seat
- Double offset stem and disc design for reduced seatwear and zero leakage
- Repair kits available
- 5 year valve warranty







## Standard Equipment

### Factory Installed Filtration

- Single point connection for system integrity
- Differential pressure indicators for element condition
- Filter drain(s)

### Switching Valves

- Five year switching valve warranty from manufacturer's defects (see warranty policy)

### Heater

- Five year heater warranty from manufacturer's defects (see warranty policy)

### Allen-Bradley® PLC

- 7" LCD Touchscreen
- All critical information available
- Automatic data logging

### PowerLoc™ Energy Demand Control

- Digital dewpoint readout and control
- High humidity alarm
- Repressurization circuit

### Additional Features

- Energy savings temperature monitoring system
- Heatless backup mode
- Separate tower pressure gauges
- Exhaust mufflers with safety relief
- ASME/CRN vessels
- Tower insulation
- Desiccant fill and drain ports
- Safety relief valves
- Stainless steel diffuser screens
- Control air line filter
- ETL listed (UL/CSA standards)
- LED din connector(s) all solenoid valves
- 480 VAC power (other options available - consult factory)
- Steel base TWP/B 1001 and larger
- Two year dryer warranty (parts and labor)

## Options

- Custom filter packaging
- All NEMA classifications
- Control air tubing - stainless steel
- Low ambient package (-20°F to +40°F air temperature)
- Instrumentation
  - Locally mounted pressure and temperature gauges at inlet and outlet
- ASME B31.3 piping
- Corrosion allowance

### LED Din Connectors

- Easy to maintain and service
- Valve(s) may be serviced without opening electrical enclosure
- No hard wiring required
- Visual indication of valve activation
- Valve labeling



# TWP Product Selection

-40°F (-40°C) with Activated Alumina Desiccant

Model	Flowrate @ 100 psig (scfm)	Heater (kW)	Dimensions ins (mm)			Weight		Dryer Air In/Out	Pre-Filter	After-Filter
			Height (H)	Width (W)	Depth (D)	lbs	kg			
TWP201	200	3	82 (2083)	45 (1143)	47 (1194)	920	417	1 1/2" NPT	AAP030GNFI	JC0350-FH
TWP251	250	3	83 (2108)	46 (1168)	48 (1219)	1180	535	1 1/2" NPT	AAP035GNFI	JC0350-FH
TWP301	300	4	85 (2159)	46 (1168)	48 (1219)	1370	621	1 1/2" NPT	AAP035GNFI	JC0350-FH
TWP401	400	6	87 (2210)	53 (1346)	51 (1295)	1700	771	2" NPT	AAP040HNFI	JC0450-FH
TWP501	500	6	86 (2184)	55 (1397)	51 (1295)	2060	934	2" NPT	AAP045INFI	JC0625-FH
TWP601	600	9	93 (2362)	57 (1448)	51(1295)	2350	1066	2" NPT	AAP045INFI	JC0625-FH
TWP801	800	9	92 (2337)	68 (1727)	56 (1295)	3035	1377	2" NPT	AAP050INFI	JC0800-FH
TWP1001	1000	13	103 (2616)	78 (1981)	63 (1422)	4195	1903	3" Flg	AAP055JNFI	JC1000-FH
TWP1201	1200	13	116 (2946)	78 (1981)	63 (1600)	5215	2365	3" Flg	AAP055JNFI	JC1008-FH
TWP1501	1500	18	115 (2921)	114 (2896)	66 (1600)	7765	3522	3" Flg	JZ-C01501NXX	JZ-F02500NXX
TWP2001	2000	25	113 (2870)	120 (3048)	72 (1676)	8565	3885	4" Flg	JZ-C02001OXX	JZ-F02500OXX
TWP2601	2600	25	111 (2819)	144 (3658)	78 (1829)	11562	5244	4" Flg	JZ-C03001OXX	JZ-F03320OXX
TWP3001	3000	30	111 (2819)	144 (3658)	78 (1981)	12002	5444	6" Flg	JZ-C03001OXX	JZ-F03320PXX
TWP4001	4000	50	113 (2870)	168 (4267)	96 (2438)	18260	8283	6" Flg	JZ-C04501PXX	JZ-F04000PXX
TWP5001	5000	50	112 (2845)	180 (4572)	96(2438)	19760	8963	6" Flg	JZ-C06001PXX	JZ-F07500PXX
TWP6001	6000	60	112 (2845)	186 (4724)	102 (2591)	22260	10097	6" Flg	JZ-C06001PXX	JZ-F07500PXX
TWP7501	7500	85	137 (3480)	204 (5182)	109 (2769)	26860	12183	8" Flg	JZ-C10500QXX	JZ-F07500QXX

Model	Flow Range @ 100 psig (7 barg)	Dewpoint	Design Pressure	Pressure Relief Valve Setpoint	Max Operating Pressure	Min Operating Pressure	Max Inlet Temp	Min Inlet Temp	Standard Electrical Supply
TWP201 - TWP251	200 - 250 cfm	-40°F (-40°C) Standard	165 psig (10.3 barg)	165 psig (11.4 barg)	150 psig (10.3 barg)	80 psig (5.5 barg)	120°F (49°C)	50°F (10°C)	240V/1Ph/60Hz 480V/3Ph/60Hz (optional) 575V/3Ph/60Hz (optional)
TWP301 - TWP1501	300 - 1500 cfm	-40°F (-40°C) Standard	165 psig (10.3 barg)	165 psig (11.4 barg)	150 psig (10.3 barg)	80 psig (5.5 barg)	120°F (49°C)	50°F (10°C)	480V/3Ph/60Hz - (575V/3Ph/60Hz optional)
TWP2001 - TWP7501	2000 - 7500 cfm	-40°F (-40°C) Standard	150 psig (10.3 barg)	150 psig (10.3 barg)	135 psig (9.3 barg)	80 psig (5.5 barg)	120°F (49°C)	50°F (10°C)	480V/3Ph/60Hz - (575V/3Ph/60Hz Optional)

### Notes

- Above information should be used as a guideline. Flows are at 100 psig inlet pressure, 100°F inlet temperature and 100°F ambient temperature.
- For specific applications, please consult Parker Airtek Applications Engineering.
- For sizing at other temperatures and pressures, please consult factory.
- Weight includes desiccant (shipped loose TWP2001 and up).
- Dimensions and weight shown on Models TWP201 — TWP801 are with Package B.
- Dimensions and weight shown on Models TWP1001 and larger are with Package F.
- Pressure relief valve variance +/- 10%.

### Correction Factors

To obtain dryer capacity at new conditions, multiply nominal capacity x C1 x C2.

Temperature Correction Factor CFT										
Maximum Inlet Temperature (C1)	°F	80	85	90	95	100	105	110	115	120
	°C	27	29	32	35	38	41	43	46	49
	CFT	1.17	1.17	1.17	1.15	1.00	0.87	0.76	0.66	0.58

Pressure Correction Factor CFP													
Minimum Inlet Pressure (C2)	psi g	80	85	90	95	100	105	110	115	120	125	130	135
	bar g	5.51	5.86	6.21	6.55	6.89	7.24	7.58	7.93	8.27	8.62	8.96	9.31
	CFP	0.83	0.87	0.91	0.96	1.00	1.04	1.09	1.13	1.17	1.22	1.26	1.31

# TWB Product Selection

-40°F (-40°C) with Activated Alumina Desiccant

Model	Flowrate @ 100 psig (scfm)	Blower (HP)	Heater (kW)	Dimensions ins (mm)			Weight		Dryer Air In/Out	Pre-Filter	After-Filter
				Height (H)	Width (W)	Depth (D)	lbs	kg			
TWB201	200	.75	6	82 (2083)	57 (1448)	44 (1118)	1500	680	1 1/2" NPT	AAP030GNFI	JC0350-FH
TWB301	300	1.5	6	84 (2134)	58 (1473)	44 (1118)	1900	862	1 1/2" NPT	AAP035GNFI	JC0350-FH
TWB401	400	1.5	9	87 (2210)	65 (1651)	56 (1422)	2180	989	2" NPT	AAP040HNFI	JC0450-FH
TWB501	500	3	12	85 (2159)	66 (1676)	49 (1245)	2840	1288	2" NPT	AAP045INFI	JC0625-FH
TWB601	600	3	12	89 (2261)	73 (1854)	52 (1321)	3420	1551	2" NPT	AAP045INFI	JC0625-FH
TWB801	800	5	15	96 (2438)	85 (2159)	60 (1524)	4490	2037	2" NPT	AAP050INFI	JC0800-FH
TWB1001	1000	5	18	103 (2616)	78 (1981)	60 (1524)	5700	2585	3" Flg	AAP055JNFI	JC1000-FH
TWB1201	1200	4	25	116 (2946)	78 (1981)	69 (1753)	6300	2858	3" Flg	AAP055JNFI	JC1008-FH
TWB1501	1500	7.5	30	114 (2896)	114 (2896)	66 (1676)	7165	3250	3" Flg	JZ-C01501NXX	JZ-F02500NXX
TWB2001	2000	7.5	38	113 (2870)	132 (3353)	72 (1829)	9850	4468	4" Flg	JZ-C02001OXX	JZ-F02500OXX
TWB2601	2600	10	50	111 (2819)	156 (3962)	84 (2134)	12210	5538	4" Flg	JZ-C03001OXX	JZ-F03320OXX
TWB3001	3000	10	60	111 (2819)	168 (4267)	84 (2134)	12650	5738	6" Flg	JZ-C03001OXX	JZ-F03320PXX
TWB4001	4000	15	85	113 (2870)	180 (4572)	96 (2438)	18910	8577	6" Flg	JZ-C04501PXX	JZ-F04000PXX
TWB5001	5000	20	100	112 (2845)	186 (4724)	102 (2438)	21590	9793	6" Flg	JZ-C06001PXX	JZ-F07500PXX
TWB6001	6000	20	120	112 (2845)	186 (4724)	102 (2591)	24890	11290	6" Flg	JZ-C06001PXX	JZ-F07500PXX
TWB7501	7500	25	150	137 (3480)	204 (5182)	106 (2692)	29490	13376	8" Flg	JZ-C10500QXX	JZ-F07500QXX

Model	Flow Range @ 100 psig (7 barg)	Dewpoint	Design Pressure	Pressure Relief Valve Setpoint	Max Operating Pressure	Min Operating Pressure	Max Inlet Temp	Min Inlet Temp	Standard Electrical Supply
TWB201 - TWB1501	200 - 1500 cfm	-40°F (-40°C) Standard	150 psig (10.3 barg)	165 psig (11.4 barg)	150 psig (10.3 barg)	80 psig (5.5 barg)	120°F (49°C)	50°F (10°C)	460V/3Ph/60Hz - (575V/3Ph/60Hz Optional)
TWB2001 - TWB9001	2000 - 7500 cfm	-40°F (-40°C) Standard	150 psig (10.3 barg)	150 psig (10.3 barg)	135 psig (9.3 barg)	80 psig (5.5 barg)	120°F (49°C)	50°F (10°C)	460V/3Ph/60Hz - (575V/3Ph/60Hz Optional)

### Notes

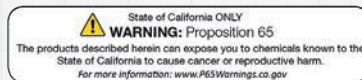
- Above information should be used as a guideline. Flows are at 100 psig inlet pressure, 100°F inlet temperature and 100°F ambient temperature.
- For specific applications, please consult Parker Airtek Applications Engineering.
- For sizing at other temperatures and pressures, please consult factory.
- Weight includes desiccant (shipped loose Models TWB2001 and up).
- Dimensions and weight shown on Models TWB201 — TWB801 are with Package B.
- Dimensions and weight shown on Models TWB1001 and larger are with Package F.
- Pressure relief valve variance +/- 10%.

### Correction Factors

To obtain dryer capacity at new conditions, multiply nominal capacity x C1 x C2.

Temperature Correction Factor CFT										
Maximum Inlet Temperature (C1)	°F	80	85	90	95	100	105	110	115	120
	°C	27	29	32	35	38	41	43	46	49
	CFT	1.17	1.17	1.17	1.15	1.00	0.87	0.76	0.66	0.58

Pressure Correction Factor CFP													
Minimum Inlet Pressure (C2)	psig	80	85	90	95	100	105	110	115	120	125	130	135
	barg	5.51	5.86	6.21	6.55	6.89	7.24	7.58	7.93	8.27	8.62	8.96	9.31
	CFP	0.83	0.87	0.91	0.96	1.00	1.04	1.09	1.13	1.17	1.22	1.26	1.31



# Worldwide Filtration Manufacturing Locations

## North America

### Compressed Air Treatment

#### Industrial Gas Filtration and Generation Division

Lancaster, NY  
716 686 6400  
[www.parker.com/igfg](http://www.parker.com/igfg)

Haverhill, MA  
978 858 0505  
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[www.parker.com/racor](http://www.parker.com/racor)

Holly Springs, MS  
662 252 2656  
[www.parker.com/racor](http://www.parker.com/racor)

### Hydraulic Filtration

#### Hydraulic & Fuel Filtration

Metamora, OH  
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[www.parker.com/hydraulicfilter](http://www.parker.com/hydraulicfilter)

Laval, QC Canada  
450 629 9594  
[www.parkerfarr.com](http://www.parkerfarr.com)

Velcon  
Colorado Springs, CO  
719 531 5855  
[www.velcon.com](http://www.velcon.com)

### Process Filtration

#### domnick hunter Process Filtration SciLog

Oxnard, CA  
805 604 3400  
[www.parker.com/processfiltration](http://www.parker.com/processfiltration)

### Water Purification

#### Village Marine, Sea Recovery, Horizon Reverse Osmosis

Carson, CA  
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#### domnick hunter Filtration & Separation

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#### Parker Gas Separations

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#### Hiross Airtek

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### Engine Filtration & Water Purification

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#### Hydraulic Filter

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#### Condition Monitoring Parker Kittiwake

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[www.kittiwake.com](http://www.kittiwake.com)

### Process Filtration

#### domnick hunter Process Filtration Parker Twin Filter BV

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[www.parker.com/processfiltration](http://www.parker.com/processfiltration)

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