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# Parker Global Air Preparation System

**Global.  
Modular.**



*Performance you need,  
**wherever** you need it.*



Full featured particulate and coalescing filters, regulators, filter/regulators, and lubricators are available with a wide range of standard options to meet air preparation needs.

The comprehensive Global Air Preparation System is available in three body sizes with either BSPP or NPT to accommodate thread type requirements.

Individual units can easily be assembled into various combinations, utilizing patented modular lightweight body connectors.

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

# Comprehensive Offering



**P31 Mini Series**  
 1/4" ports  
 40mm body width



**P32 Compact Series**  
 1/4", 3/8" and 1/2"  
 60mm body width



**P33 Standard Series**  
 1/2" and 3/4"  
 73mm body width



## Filters

- 5 $\mu$  particulate, 1.0 $\mu$  and 0.01 $\mu$  coalescing, and adsorber available as standard
- Transparent or metal bowl with manual or auto float drains standard



## Regulators

- Available as stand alone, common port and electronic proportional
- Both relieving and non-relieving versions available



## Filter / Regulators

- Compact design for space savings
- Available with all the same standard options as the filters and regulators



## Lubricators

- Proportional oil delivery over a wide range of air flows
- Fill under pressure



## Combinations

- Compact design for space savings
- Easily assembled
- Many configurations available



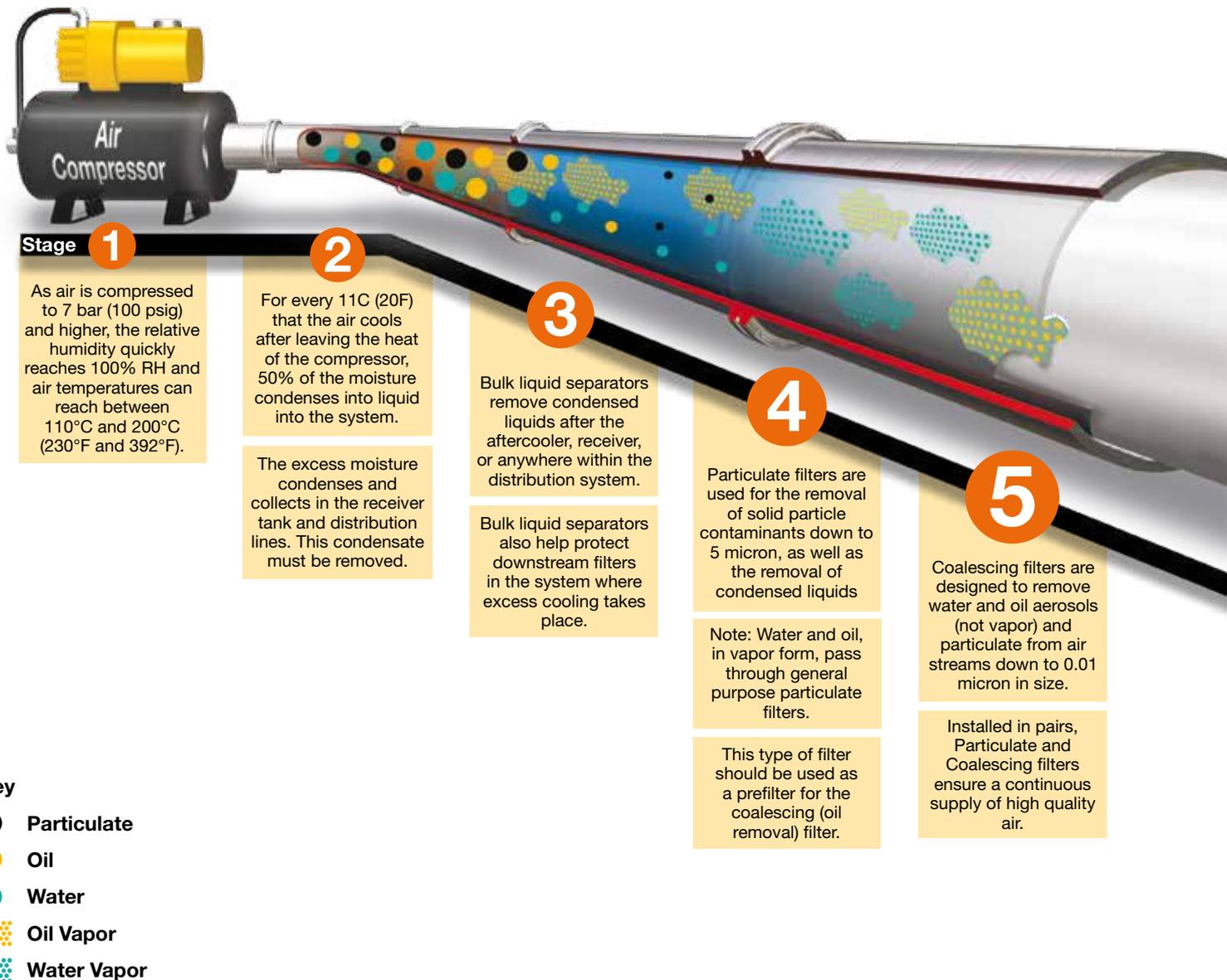
## Accessories

- Solenoid operated soft start, quick dump, and soft start/quick dump valves
- Manifold blocks
- Ball style lockout / shutoff valve
- Repair kits, gauges, etc.

# Together we can power your application with clean, dry air

Fast cycle times, high product quality, and low downtime all require a clean, dry pneumatic system to function properly. Parker has what it takes to make sure pneumatic systems perform at their best.

## Clean, dry pneumatic systems with Parker Global Air Preparation



						
<b>Stages</b>	<b>1 2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
<b>Function</b>	<b>Air Compressor</b>	<b>Bulk Liquid Removal</b>	<b>Particulate Filtration</b>	<b>Coalescing Filtration</b>	<b>Air Dryers</b>	<b>Hydrocarbon Removal</b>
<b>Application</b>	All pneumatic systems	Basic pneumatic systems	Basic pneumatic systems	Systems requiring highest quality air.	Systems requiring air with reduced moisture content	Systems requiring highest quality air for critical applications
<b>Description</b>	Air leaving the compressor room at 93°C (200°F) releases 95% of its moisture into the piping system when it cools to 38°C (100°F)	Removes bulk liquid contamination and protects filters where excess cooling takes place in the distribution piping	Removes solid particulates down to 5 micron, and the separation of bulk contaminants.	Removes liquid aerosols and submicron particulates (not vapor) down to 0.01 micron.	Removes water vapor from air stream. Dew point reduced down to -40°C membrane and -70°C desiccant.	Removal of odors and trace vapors for critical applications.
<b>Parker Global Air Preparation Solution</b>	Customer supplied	P3TF Bulk Liquid Separator	P31, P32, P33 Particulate Filter	P31, P32, P33 Coalescing Filter	P3XJ Membrane Dryer P3TJ Regenerative Desiccant Dryer	P31, P32, P33 Activated Carbon (Adsorber) Filter



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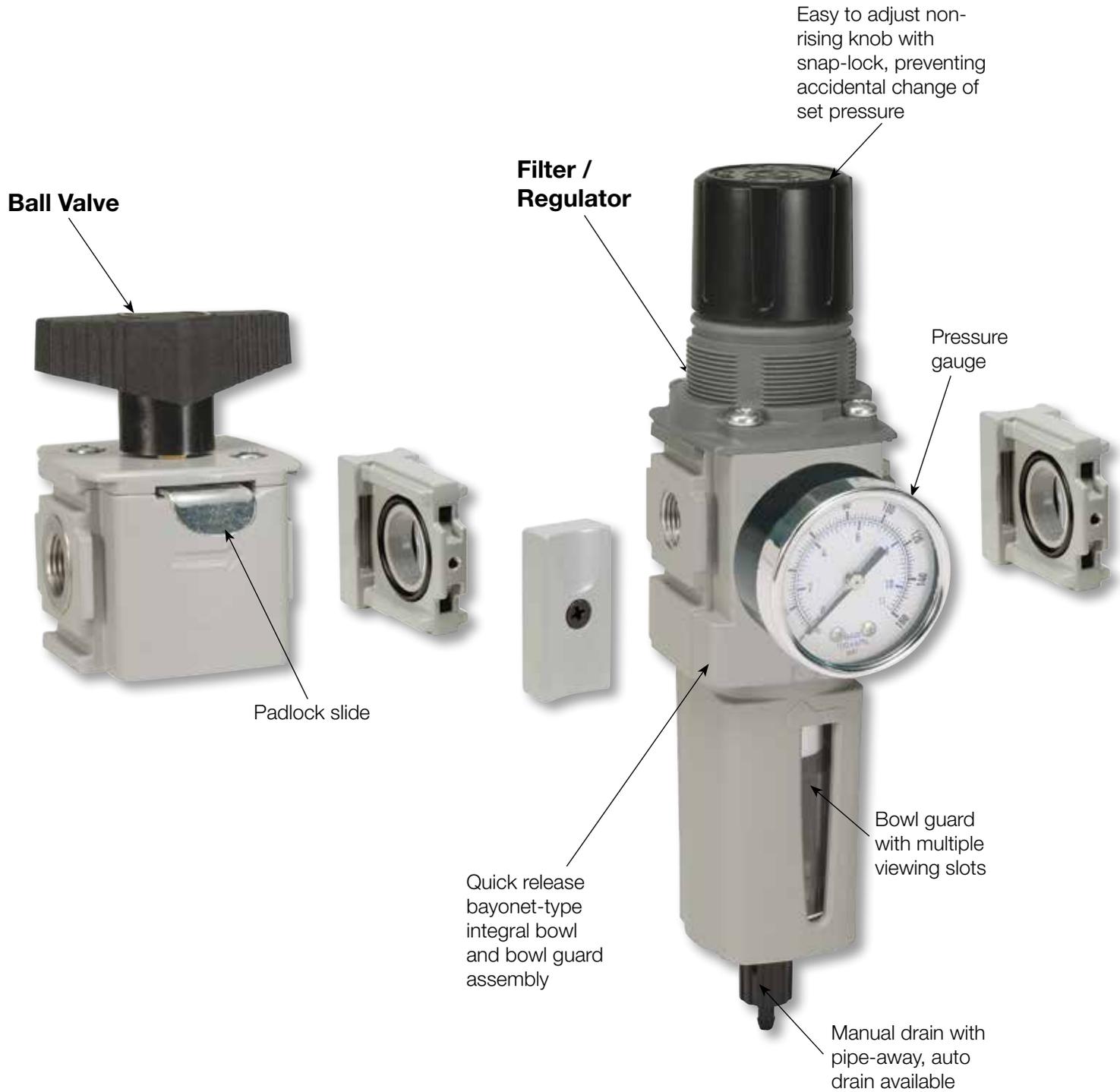
Refrigeration, membrane and desiccant dryers lower the air's dew point by removing water vapor, providing appropriately dry air for the downstream application.

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Hydrocarbon and oil vapors are removed using filters utilizing activated carbon. These airborne hydrocarbons are often left over from the compressor oils.

**Clean Dry Air**

# A completely modular air preparation system





# Air Preparation

## P31 Mini Series

40mm body width  
 1/4" Ported

Flows up to:	dm <sup>3</sup> /s	(SCFM)
Filter	12	(25)
Coalescer	3.6	(7.5)
Regulator	32	(68)
Filter/Regulator	10	(22)
Lubricator	19	(40)

Features:

- Space saving integral gauge
- Manifold style regulators available
- OSHA compliant shut-off valves
- Soft-Start & Quick Dump valves
- Electronic Proportional Regulator



## P32 Compact Series

60mm body width  
 1/4", 3/8", & 1/2" Ported

Flows up to:	dm <sup>3</sup> /s	(SCFM)
Filter	39	(82)
Coalescer	17	(36)
Regulator	78	(165)
Filter/Regulator	64	(136)
Lubricator	42	(90)

Features:

- Manifold style regulators available
- OSHA Compliant shut-off valves
- Soft-Start & Quick Dump valves
- Electronic Proportional Regulator



## P33 Standard Series

73mm body width  
 1/2" & 3/4" Ported

Flows up to:	dm <sup>3</sup> /s	(SCFM)
Filter	40	(85)
Coalescer	34	(72)
Regulator	111	(233)
Filter/Regulator	108	(230)
Lubricator	71	(150)

Features:

- OSHA Compliant shut-off valves
- Soft-Start & Quick Dump valves  
 (Utilizes P32 size only)
- Electronic proportional regulator  
 (Utilizes P32 size only)



# Valves and Actuators

## Mini Series Complimentary Products

The P31 Mini Series FRL's and accessories are well matched for use with these Parker valves and actuators.



Isys Micro



Moduflex



OSP-P



P1D



P1A

## Compact Series Complimentary Products

The P32 Series FRL's & accessories are well matched for use with these Parker valves and actuators.



Isys ISO



Isys HA / HB



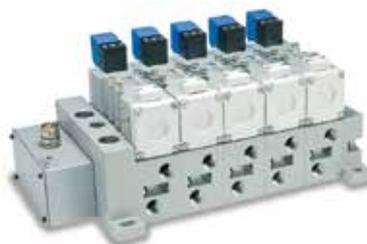
P1D



OSP-P

## Standard Series Complimentary Products

The P33 Series FRL's & accessories are well matched for use with these Parker valves and actuators.



Isys ISO



Isys HA / HB



P1D

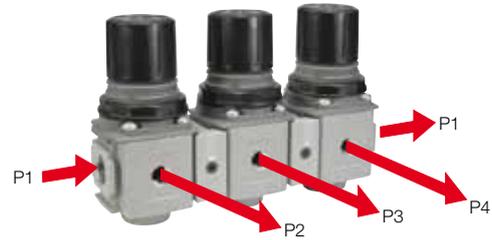


OSP-P

# Complete Pneumatic System

## Common Port Manifold Regulators

- Multiple output pressures (P2, P3, P4, etc.) with common inlet (P1)
- Available in two sizes P31 and P32
- Balanced valve design for accurate pressure regulation
- Outlet pressure ports in front and rear of unit.
- Multiple spring ranges available



## Electronic Proportional Regulator

- Electro-Pneumatic regulator
- Integrated systems control
- Accurate output pressure
- Micro parameter settings
- Selectable I/O parameters
- Quick, full flow exhaust
- LED display indicates output pressure
- No air consumption in steady state
- Multiple mounting options
- Protection to IP65



P31P Mini Series



P32P Compact Series

## Semi Precision Regulator and Filter/Regulator

- Available in P32 compact series
- Fine adjustment sensitivity
- Good repeatability and minimal pressure drop
- Good flow capacity
- Light gray knob for easy identification



## Optional Tamperproof Kits

- One facilitates the permanent tamperproofing of the Regulator and Filter/Regulator units
- Hinged black part clamps over control knob and is locked in place after sliding yellow cover over it
- Other allows for removable lockout/tagout tamperproofing
  - Four pad lock location holes tagout
  - Hinged locking clamp secures over existing knob via yellow cover which is slid over into place



## Additional Options (Consult factory for availability)

- T-Handle (P32 only)



- Preset

- Preset and Tamperproof



- Pressure Limiter

# Application Guide

**FRL to Valve:** The chart below contains recommendations for the correct selection of Global Air Preparation units to suit the number and size of valves in a typical application.

	P31 Mini Series				P32 Compact Series							P33 Standard Series				
	<b>Number of valves that would actuate at once</b>															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<b>Moduflex 1</b>	Yellow	Yellow	Yellow	Yellow	Yellow	Green	Green	Green	Green	Green						
<b>Isys Micro</b>	Yellow	Yellow	Yellow	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
<b>HB / Viking Xtreme</b>	Yellow	Yellow	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
<b>Moduflex 2</b>	Yellow	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
<b>HA / Global ISO</b>	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
<b>See Larger Parker FRL Offering</b>																

**Actuator to FRL:** The chart below contains recommendations for the correct selection of Global Air Preparation units suitable for each cylinder size. If you have a tube length over 2 m, choose one tube size larger than the chart. The table is based on a Maximum cylinder speed of 0.5m/s

Cyl Ø mm Cyl Ø inches		Cylinder bore size														
		5 (5/16)	10 (7/16)	16 (9/16)	20 (3/4)	25 (1)	28 (1-1/8)	32 (1-1/4)	40 (1-1/2)	45 (1-3/4)	50 (2)	63 (2-1/2)	75 (3)	80 (3-1/4)	100 (4)	
Tube Ø mm Tube Ø inches		Tube diameter external														
		4 (5/32)	4 (5/32)	4 (5/32)	6 (1/4)	6 (1/4)	6 (1/4)	6 (1/4)	8 (5/16)	8 (5/16)	8 (5/16)	10 (3/8)	10 (3/8)	12 (1/2)	12 (1/2)	
<b>Number of cylinders actuating at once</b>	1	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
	2	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
	3	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
	4	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
	5	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
	6	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
	7	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
	8	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
	9	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
	10	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
		<b>P31 Mini Series</b>				<b>P32 Compact Series</b>				<b>P33 Standard Series</b>				<b>See Larger Parker FRL Offering</b>		
																

**Note:** Data listed above is simply a guideline for a typical application only. Proper sizing and correct flow requirements must be taken into account.