



# Pneumatic Air Preparation - AFR2 Series Combination Filter and Regulators



Modular Assembly Example



**AFR2-6633-AD**



**AFR2-3233-D**



**AFR2-2133-N**

NITRA<sup>®</sup> pneumatic combination particulate/moisture separation air filters and adjustable pressure regulators are available with 1/8", 1/4", 3/8", 1/2", 3/4" or 1" NPT female port sizes to meet a broad range of pneumatic air supply filtration and regulation applications all in a single convenient unit. Available with either a manual / semi-automatic or automatic drain. All-metal bowls with sight gauge are available in all sizes. Polycarbonate or nylon bowls with metal bowl guards are available in 2xxx, 3xxx and 4xxx sizes. Replaceable 40-micron filter elements are standard. An optional 5-micron filter element (purchased separately and customer installable) is available when stricter filtration is required.

The pressure regulator features a locking pressure adjustment knob, integral pressure gauge and is available in adjustable pressure ranges of 20 - 60 psi or 20 - 130 psi. The regulator will relieve downstream pressure if the setpoint is reduced.

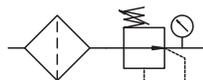
Provided with a mounting bracket for stand-alone applications, the modular design also enables easy field assembly with NITRA pneumatic lubricators (using modular assembly brackets purchased separately).

## Features

- Air filtration and regulation all in a single convenient unit
- 1/8", 1/4", 3/8", 1/2", 3/4" and 1" NPT female port sizes
- 40-micron replaceable filter element standard; for stricter filtration an optional 5-micron filter element purchased separately is easily customer installable
- All-metal bowls with sight gauge available on all sizes. Polycarbonate or nylon bowls with metal bowl guards available on 2xxx, 3xxx and 4xxx sizes.
- Manual / semi-automatic and automatic drains available
- Adjustable ranges of 20 - 60 psi and 20-130 psi
- Locking pressure adjustment knob
- Integral pressure gauge
- Mounting bracket provided for stand-alone applications
- Modular design enables easy field assembly with NITRA lubricators
- 2 year warranty



Mounting bracket included.



Combination Filter-Regulator



See [www.AutomationDirect.com](http://www.AutomationDirect.com) for a wide variety of fitting options



# Pneumatic Air Preparation - AFR2 Series Combination Filter and Regulators

AFR2 Series Combination Filter and Regulators																	
Part No.	Price	Weight (lbs)	Port Size (FNPT)	Drain Bowl Capacity	Drain Type	Fluid	Temperature	Filtering Grade	Operating Pressure	Maximum Pressure	Proof Pressure	Drawing Link					
<a href="#">AFR2-2132-N</a>	\$62.00	0.82	1/8"	25cc nylon with metal bowl guard	Manual/ Semi-Automatic	Air	-5°C to 70°C (23°F to 158°F)	40µ (5µ element can be ordered separately and field installed)	20~60psi (0.14~0.41MPa) (1.4~4.1 bar)	60psi (0.41MPa) (4.1 bar)	215psi (1.5MPa) (15 bar)	<a href="#">PDF</a>					
<a href="#">AFR2-2132-D</a>	\$72.00	0.85		25cc die-cast aluminum bowl w/ sight								<a href="#">PDF</a>					
<a href="#">AFR2-2132</a>	\$62.00	0.83		25cc polycarbonate with metal bowl guard								<a href="#">PDF</a>					
<a href="#">AFR2-2133-N</a>	\$62.00	0.83		25cc nylon with metal bowl guard								<a href="#">PDF</a>					
<a href="#">AFR2-2133-D</a>	\$72.00	0.86		25cc die-cast aluminum bowl w/ sight								<a href="#">PDF</a>					
<a href="#">AFR2-2133</a>	\$62.00	0.84		25cc polycarbonate with metal bowl guard								<a href="#">PDF</a>					
<a href="#">AFR2-2232-N</a>	\$62.00	0.82	1/4"	25cc nylon with metal bowl guard	Manual/ Semi-Automatic				20~60psi (0.14~0.41MPa) (1.4~4.1 bar)	60psi (0.41MPa) (4.1 bar)		40µ (5µ element can be ordered separately and field installed)	20~130psi (0.14~0.90MPa) (1.4~9.0 bar)	145psi (1.0MPa) (10 bar)	<a href="#">PDF</a>		
<a href="#">AFR2-2232-D</a>	\$72.00	0.84		25cc die-cast aluminum bowl w/ sight											<a href="#">PDF</a>		
<a href="#">AFR2-2232</a>	\$62.00	0.82		25cc polycarbonate with metal bowl guard											<a href="#">PDF</a>		
<a href="#">AFR2-2233-N</a>	\$62.00	0.83		25cc nylon with metal bowl guard											<a href="#">PDF</a>		
<a href="#">AFR2-2233-D</a>	\$72.00	0.86		25cc die-cast aluminum bowl w/ sight											<a href="#">PDF</a>		
<a href="#">AFR2-2233</a>	\$62.00	0.84		25cc polycarbonate with metal bowl guard											<a href="#">PDF</a>		
<a href="#">AFR2-3232-N</a>	\$71.00	1.34		60cc nylon with metal bowl guard					Automatic	20~60psi (0.14~0.41MPa) (1.4~4.1 bar)			60psi (0.41MPa) (4.1 bar)	40µ (5µ element can be ordered separately and field installed)	20~130psi (0.14~0.90MPa) (1.4~9.0 bar)	145psi (1.0MPa) (10 bar)	<a href="#">PDF</a>
<a href="#">AFR2-3232-D</a>	\$81.00	1.38		60cc die-cast aluminum bowl w/ sight													<a href="#">PDF</a>
<a href="#">AFR2-3232</a>	\$71.00	1.35		60cc polycarbonate with metal bowl guard													<a href="#">PDF</a>
<a href="#">AFR2-3232-AN</a>	\$88.00	1.37		60cc nylon with metal bowl guard													<a href="#">PDF</a>
<a href="#">AFR2-3232-AD</a>	\$98.00	1.41		60cc die-cast aluminum bowl w/ sight													<a href="#">PDF</a>
<a href="#">AFR2-3232-A</a>	\$88.00	1.39		60cc polycarbonate with metal bowl guard													<a href="#">PDF</a>
<a href="#">AFR2-3233-N</a>	\$71.00	1.36	60cc nylon with metal bowl guard	Manual/ Semi-Automatic	20~130psi (0.14~0.90MPa) (1.4~9.0 bar)					145psi (1.0MPa) (10 bar)		40µ (5µ element can be ordered separately and field installed)	20~60psi (0.14~0.41MPa) (1.4~4.1 bar)		60psi (0.41MPa) (4.1 bar)	<a href="#">PDF</a>	
<a href="#">AFR2-3233-D</a>	\$81.00	1.39	60cc die-cast aluminum bowl w/ sight													<a href="#">PDF</a>	
<a href="#">AFR2-3233</a>	\$71.00	1.37	60cc polycarbonate with metal bowl guard													<a href="#">PDF</a>	
<a href="#">AFR2-3233-AN</a>	\$88.00	1.39	60cc nylon with metal bowl guard													<a href="#">PDF</a>	
<a href="#">AFR2-3233-AD</a>	\$98.00	1.42	60cc die-cast aluminum bowl w/ sight													<a href="#">PDF</a>	
<a href="#">AFR2-3233-A</a>	\$88.00	1.4	60cc polycarbonate with metal bowl guard													<a href="#">PDF</a>	
<a href="#">AFR2-3332-N</a>	\$71.00	1.33	3/8"	60cc nylon with metal bowl guard	Manual/ Semi-Automatic	20~60psi (0.14~0.41MPa) (1.4~4.1 bar)	60psi (0.41MPa) (4.1 bar)	40µ (5µ element can be ordered separately and field installed)	20~130psi (0.14~0.90MPa) (1.4~9.0 bar)	145psi (1.0MPa) (10 bar)	<a href="#">PDF</a>						
<a href="#">AFR2-3332-D</a>	\$81.00	1.37		60cc die-cast aluminum bowl w/ sight							<a href="#">PDF</a>						
<a href="#">AFR2-3332</a>	\$71.00	1.35		60cc polycarbonate with metal bowl guard							<a href="#">PDF</a>						
<a href="#">AFR2-3332-AN</a>	\$88.00	1.36		60cc nylon with metal bowl guard							Automatic	<a href="#">PDF</a>					
<a href="#">AFR2-3332-AD</a>	\$98.00	1.38		60cc die-cast aluminum bowl w/ sight								<a href="#">PDF</a>					
<a href="#">AFR2-3332-A</a>	\$88.00	1.38		60cc polycarbonate with metal bowl guard								<a href="#">PDF</a>					

See our Web site [www.AutomationDirect.com](http://www.AutomationDirect.com) for complete Engineering drawings.



# Pneumatic Air Preparation - AFR2 Series Combination Filter and Regulators

AFR2 Series Combination Filter and Regulators Cont.																		
Part No.	Price	Weight (lbs)	Port Size (FNPT)	Drain Bowl Capacity	Drain Type	Fluid	Temperature	Filtering Grade	Operating Pressure	Maximum Pressure	Proof Pressure	Drawing Link						
<a href="#">AFR2-3333-N</a>	\$52.00	1.34	3/8"	60cc nylon with metal bowl guard	Manual/Semi-Automatic	Air	-5°C to 70°C (23°F to 158°F)	40μ (5μ element can be ordered separately and field installed)	20~130psi (0.14~0.90MPa) (1.4~9.0 bar)	145psi (1.0MPa) (10 bar)	215psi (1.5MPa) (15 bar)	<a href="#">PDF</a>						
<a href="#">AFR2-3333-D</a>	\$81.00	1.39		60cc die-cast aluminum bowl w/ sight								<a href="#">PDF</a>						
<a href="#">AFR2-3333</a>	\$71.00	1.37		60cc polycarbonate with metal bowl guard								<a href="#">PDF</a>						
<a href="#">AFR2-3333-AN</a>	\$88.00	1.37		60cc nylon with metal bowl guard	Automatic							<a href="#">PDF</a>						
<a href="#">AFR2-3333-AD</a>	\$98.00	1.42		60cc die-cast aluminum bowl w/ sight								<a href="#">PDF</a>						
<a href="#">AFR2-3333-A</a>	\$88.00	1.4		60cc polycarbonate with metal bowl guard								<a href="#">PDF</a>						
<a href="#">AFR2-4433-N</a>	\$111.00	2.33	1/2"	100cc nylon with metal bowl guard	Manual/Semi-Automatic							Air	-5°C to 70°C (23°F to 158°F)	40μ (5μ element can be ordered separately and field installed)	20~130psi (0.14~0.90MPa) (1.4~9.0 bar)	145psi (1.0MPa) (10 bar)	215psi (1.5MPa) (15 bar)	<a href="#">PDF</a>
<a href="#">AFR2-4433-D</a>	\$125.00	2.41		100cc die-cast aluminum bowl w/ sight														<a href="#">PDF</a>
<a href="#">AFR2-4433</a>	\$111.00	2.4		100cc polycarbonate with metal bowl guard														<a href="#">PDF</a>
<a href="#">AFR2-4433-AN</a>	\$95.00	2.4		100cc nylon with metal bowl guard	Automatic													<a href="#">PDF</a>
<a href="#">AFR2-4433-AD</a>	\$142.00	2.42		100cc die-cast aluminum bowl w/ sight														<a href="#">PDF</a>
<a href="#">AFR2-4433-A</a>	\$128.00	2.28		100cc polycarbonate with metal bowl guard														<a href="#">PDF</a>
<a href="#">AFR2-6633-D</a>	\$190.00	5.26	3/4"	205cc die-cast aluminum bowl w/ sight	Manual/Semi-Automatic	<a href="#">PDF</a>												
<a href="#">AFR2-6633-AD</a>	\$154.00	5.29			Automatic	<a href="#">PDF</a>												
<a href="#">AFR2-6833-D</a>	\$190.00	5.13	1"		Manual/Semi-Automatic	<a href="#">PDF</a>												
<a href="#">AFR2-6833-AD</a>	\$207.00	5.27			Automatic	<a href="#">PDF</a>												

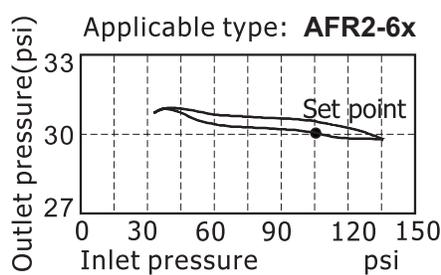
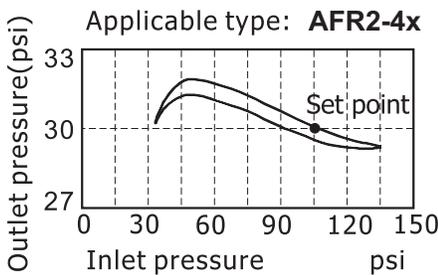
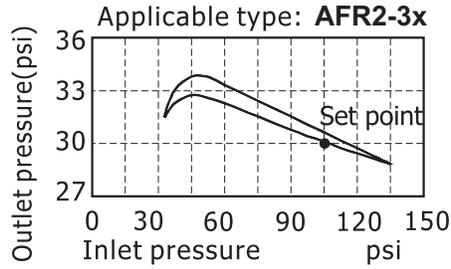
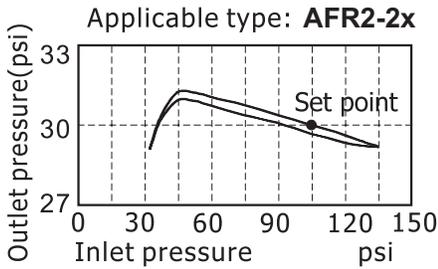
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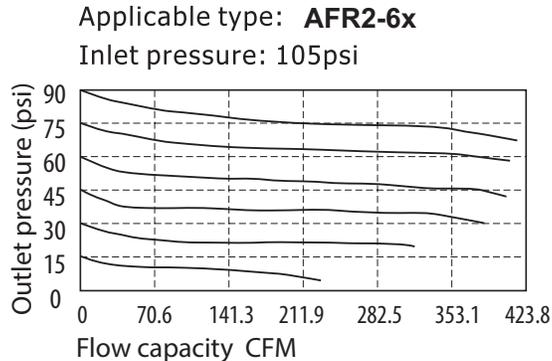
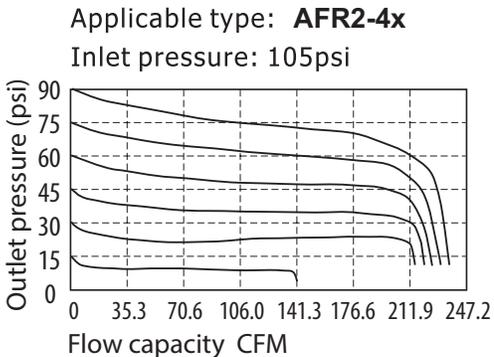
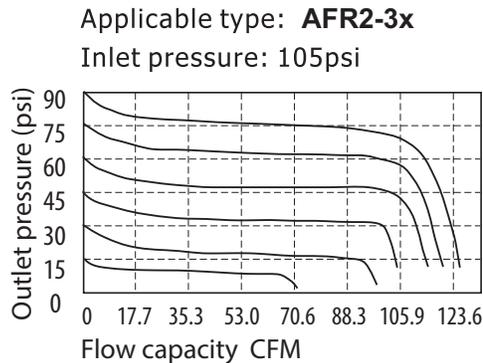
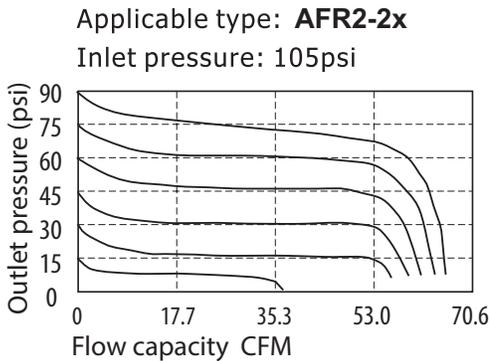
# Pneumatic Air Preparation - AFR2 Series Combination Filter and Regulators

## Performance Charts

### Pressure chart



### Flow chart





# GEN 2 Pneumatic Air Prep Accessories



**Part No. [AGP2-21](#)**



**Part No. [AGP2-31](#)**



**Part No. [AGP2-42](#)**

GEN 2 Pneumatic Air Preparation Accessories				
Part No.	Price	Description	Weight (lbs)	Drawing Link
<a href="#">AGP2-21</a>	\$5.25	NITRA pneumatic gauge port adapter plate, 1/8in female NPT connection(s), aluminum. For use with Ax-2 series air prep components. (3) o-rings included.	0.02	<a href="#">PDF</a>
<a href="#">AGP2-31</a>	\$6.75	NITRA pneumatic gauge port adapter plate, 1/8in female NPT connection(s), aluminum. For use with Ax-3 series air prep components. (3) o-rings included.	0.04	<a href="#">PDF</a>
<a href="#">AGP2-42</a>	\$7.50	NITRA pneumatic gauge port adapter plate, 1/4in female NPT connection(s), aluminum. For use with Ax-4 and Ax-6 series air prep components. (3) o-rings included.	0.04	<a href="#">PDF</a>



# Pneumatic Air Preparation Accessories



**Part No. ADB-21**



**Part No. AB-4T**



**Part No. AB-4L**



**Part No. AB-4U**

Pneumatic Air Preparation Accessories			
Part No.	Price	Description	Weight (lbs)
<u>ADB-21</u>	\$18.00	NITRA pneumatic distribution block, 1/8in female NPT inlet(s), (3) 1/8in female NPT outlet(s). For use with Ax-21 series air prep components.	0.1
<u>ADB-22</u>	\$18.00	NITRA pneumatic distribution block, 1/4in female NPT inlet(s), (3) 1/4in female NPT outlet(s). For use with Ax-22 series air prep components.	0.1
<u>ADB-32</u>	\$25.50	NITRA pneumatic distribution block, 1/4in female NPT inlet(s), (3) 1/4in female NPT outlet(s). For use with Ax-32 series air prep components.	0.2
<u>ADB-33</u>	\$25.50	NITRA pneumatic distribution block, 3/8in female NPT inlet(s), (3) 3/8in female NPT outlet(s). For use with Ax-33 series air prep components.	0.2
<u>ADB-44</u>	\$27.00	NITRA pneumatic distribution block, 1/2in female NPT inlet(s), (3) 1/2in female NPT outlet(s). For use with Ax-44 series air prep components.	0.4
<u>AB-2T</u>	\$16.50	NITRA modular T-bracket, for use with Ax-2 series air prep components.	0.2
<u>AB-2L</u>	\$16.50	NITRA modular L-bracket, for use with Ax-2 series air prep components.	0.2
<u>AB-2U</u>	\$16.50	NITRA modular U-bracket, for use with Ax-2 series air prep components.	0.1
<u>AB-3T</u>	\$18.00	NITRA modular T-bracket, for use with Ax-3 series air prep components.	0.3
<u>AB-3L</u>	\$18.00	NITRA modular L-bracket, for use with Ax-3 series air prep components.	0.3
<u>AB-3U</u>	\$18.00	NITRA modular U-bracket, for use with Ax-3 series air prep components.	0.2
<u>AB-4T</u>	\$22.00	NITRA modular T-bracket, for use with Ax-4 series air prep components.	0.5
<u>AB-4L</u>	\$22.00	NITRA modular L-bracket, for use with Ax-4 series air prep components.	0.5
<u>AB-4U</u>	\$22.00	NITRA modular U-bracket, for use with Ax-4 series air prep components.	0.4
<u>AB-6T</u>	\$32.00	NITRA modular T-bracket, for use with Ax-6 series air prep components.	1.3
<u>AB-6L</u>	\$30.00	NITRA modular L-bracket, for use with Ax-6 series air prep components.	1.2
<u>AB-6U</u>	\$28.50	NITRA modular U-bracket, for use with Ax-6 series air prep components.	0.8



# Pneumatic Air Preparation Accessories



**Part No. [AFE2-43](#)**



**Part No. [AFE2-41](#)**



**Part No. [AFE-24](#)**



**Part No. [AFE-35](#)**

Pneumatic Air Preparation Accessories			
Part No.	Price	Description	Weight (lbs)
<b>NITRA Gen 2 Particulate Filters</b>			
<a href="#">AFE2-23</a>	\$1.50	NITRA particulate filter element, replacement, 40 micron particles, high-density polyethylene (HDPE). For use with AF-2 series filters or AFR-2 series filter regulators.	0.01
<a href="#">AFE2-33</a>	\$3.00	NITRA particulate filter element, replacement, 40 micron particles, high-density polyethylene (HDPE). For use with AF-3 series filters or AFR-3 series filter regulators.	0.01
<a href="#">AFE2-43</a>	\$4.25	NITRA particulate filter element, replacement, 40 micron particles, high-density polyethylene (HDPE). For use with AF-4 series filters or AFR-4 series filter regulators.	0.01
<a href="#">AFE2-63</a>	\$11.00	NITRA particulate filter element, replacement, 40 micron particles, high-density polyethylene (HDPE). For use with AF-6 series filters or AFR-6 series filter regulators.	0.04
<a href="#">AFE2-21</a>	\$1.50	NITRA particulate filter element, replacement, 5 micron particles, high-density polyethylene (HDPE). For use with AF-2 series filters or AFR-2 series filter regulators.	0.01
<a href="#">AFE2-31</a>	\$3.00	NITRA particulate filter element, replacement, 5 micron particles, high-density polyethylene (HDPE). For use with AF-3 series filters or AFR-3 series filter regulators.	0.01
<a href="#">AFE2-41</a>	\$4.25	NITRA particulate filter element, replacement, 5 micron particles, high-density polyethylene (HDPE). For use with AF-4 series filters or AFR-4 series filter regulators.	0.01
<a href="#">AFE2-61</a>	\$11.00	NITRA particulate filter element, replacement, 5 micron particles, high-density polyethylene (HDPE). For use with AF-6 series filters or AFR-6 series filter regulators.	0.04
<b>NITRA Coalescing Filters</b>			
<a href="#">AFE-24</a>	\$20.50	NITRA coalescing oil removal filter element, replacement, 0.3 micron particles, borosilicate glass microfiber. For use with AC-2 series coalescing filters.	0.05
<a href="#">AFE-34</a>	\$25.50	NITRA coalescing oil removal filter element, replacement, 0.3 micron particles, borosilicate glass microfiber. For use with AC-3 series coalescing filters.	0.05
<a href="#">AFE-44</a>	\$40.50	NITRA coalescing oil removal filter element, replacement, 0.3 micron particles, borosilicate glass microfiber. For use with AC-4 series coalescing filters.	0.1
<a href="#">AFE-25</a>	\$20.50	NITRA coalescing oil removal filter element, replacement, 0.01 micron particles, borosilicate glass microfiber. For use with AC-2 series coalescing filters.	0.04
<a href="#">AFE-35</a>	\$25.50	NITRA coalescing oil removal filter element, replacement, 0.01 micron particles, borosilicate glass microfiber. For use with AC-3 series coalescing filters.	0.05
<a href="#">AFE-45</a>	\$40.50	NITRA coalescing oil removal filter element, replacement, 0.01 micron particles, borosilicate glass microfiber. For use with AC-4 series coalescing filters.	0.1



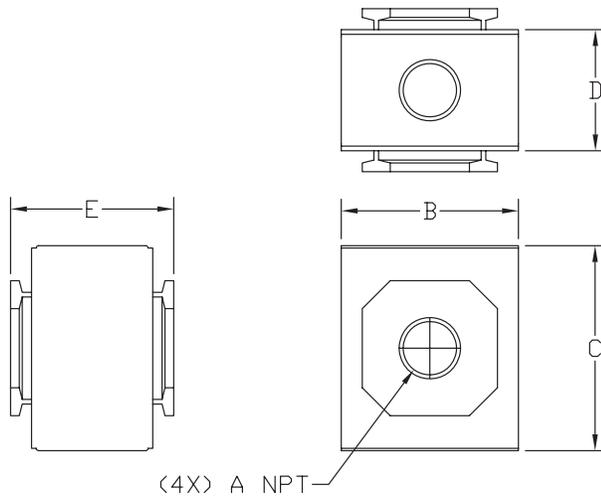
# Pneumatic Air Preparation Accessories

## Dimensions

mm [inches]

**ADB-x**

PART NO.	A NPT	DIM B	DIM C	DIM D	DIM E
ADB-21	1/8	30.0 [1.18]	36.0 [1.42]	19.5 [0.77]	28.5 [1.12]
ADB-22	1/4	30.0 [1.18]	36.0 [1.42]	19.5 [0.77]	28.5 [1.12]
ADB-32	1/4	38.0 [1.50]	44.0 [1.73]	26.0 [1.02]	35.0 [1.38]
ADB-33	3/8	38.0 [1.50]	44.0 [1.73]	26.0 [1.02]	35.0 [1.38]
ADB-44	1/2	52.0 [2.05]	52.0 [2.05]	30.0 [1.18]	42.0 [1.65]



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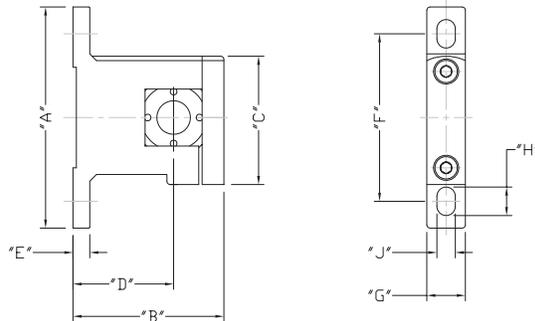


# Pneumatic Air Preparation Accessories

## Dimensions

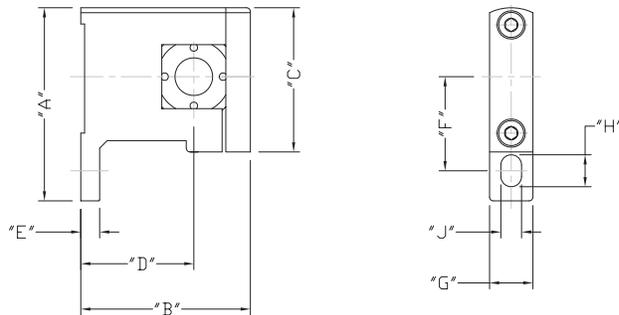
mm [inches]

### AB-xT



PART NUMBER	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"	DIM "F"	DIM "G"	DIM "H"	DIM "J"
AB-2T	66.0 [2.60]	45.0 [1.77]	38.3 [1.51]	30.0 [1.18]	5.0 [0.20]	50.0 [1.97]	11.5 [0.45]	8.5 [0.33]	5.5 [0.22]
AB-3T	88.0 [3.46]	60.5 [2.38]	49.3 [1.94]	41.5 [1.63]	7.0 [0.28]	70.0 [2.76]	12.5 [0.49]	9.0 [0.35]	6.5 [0.26]
AB-4T	104.0 [4.09]	76.0 [2.99]	58.5 [2.30]	50.0 [1.97]	7.0 [0.28]	80.0 [3.15]	15.5 [0.61]	12.0 [0.47]	8.6 [0.34]
AB-6T	128.0 [5.04]	104.0 [4.09]	79.5 [3.13]	70.0 [2.76]	10.0 [0.39]	100.0 [3.94]	19.5 [0.77]	16.0 [0.63]	11.0 [0.43]

### AB-xL



PART NUMBER	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"	DIM "F"	DIM "G"	DIM "H"	DIM "J"
AB-2L	51.3 [2.02]	45.0 [1.77]	38.3 [1.51]	30.0 [1.18]	5.0 [0.20]	25.0 [0.98]	11.5 [0.45]	8.5 [0.33]	5.5 [0.22]
AB-3L	68.6 [2.70]	60.5 [2.38]	49.3 [1.94]	41.5 [1.63]	7.0 [0.28]	35.0 [1.38]	12.5 [0.49]	9.0 [0.35]	6.5 [0.26]
AB-4L	79.5 [3.13]	76.0 [2.99]	58.5 [2.30]	50.0 [1.97]	7.0 [0.28]	40.0 [1.57]	15.5 [0.61]	12.0 [0.47]	8.6 [0.34]
AB-6L	103.5 [4.07]	104.0 [4.09]	79.5 [3.13]	70.0 [2.76]	10.0 [0.39]	50.0 [1.97]	19.5 [0.77]	16.0 [0.63]	11.0 [0.43]

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# Pneumatic Air Preparation Accessories

## Dimensions

mm [inches]

**AB-xU**

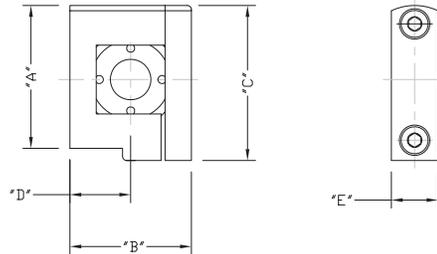


TABLE 1					
PART NUMBER	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"
AB-2U	35.5 [1.39]	30.0 [1.18]	38.3 [1.51]	15.0 [0.59]	11.5 [0.45]
AB-3U	43.8 [1.72]	38.0 [1.50]	49.3 [1.94]	19.5 [0.75]	12.5 [0.49]
AB-4U	52.5 [2.07]	52.0 [2.05]	58.5 [2.30]	26.0 [1.02]	15.5 [0.61]
AB-6U	76.5 [3.01]	68.0 [2.68]	79.5 [3.13]	34.0 [1.34]	19.5 [0.77]

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