



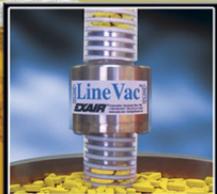
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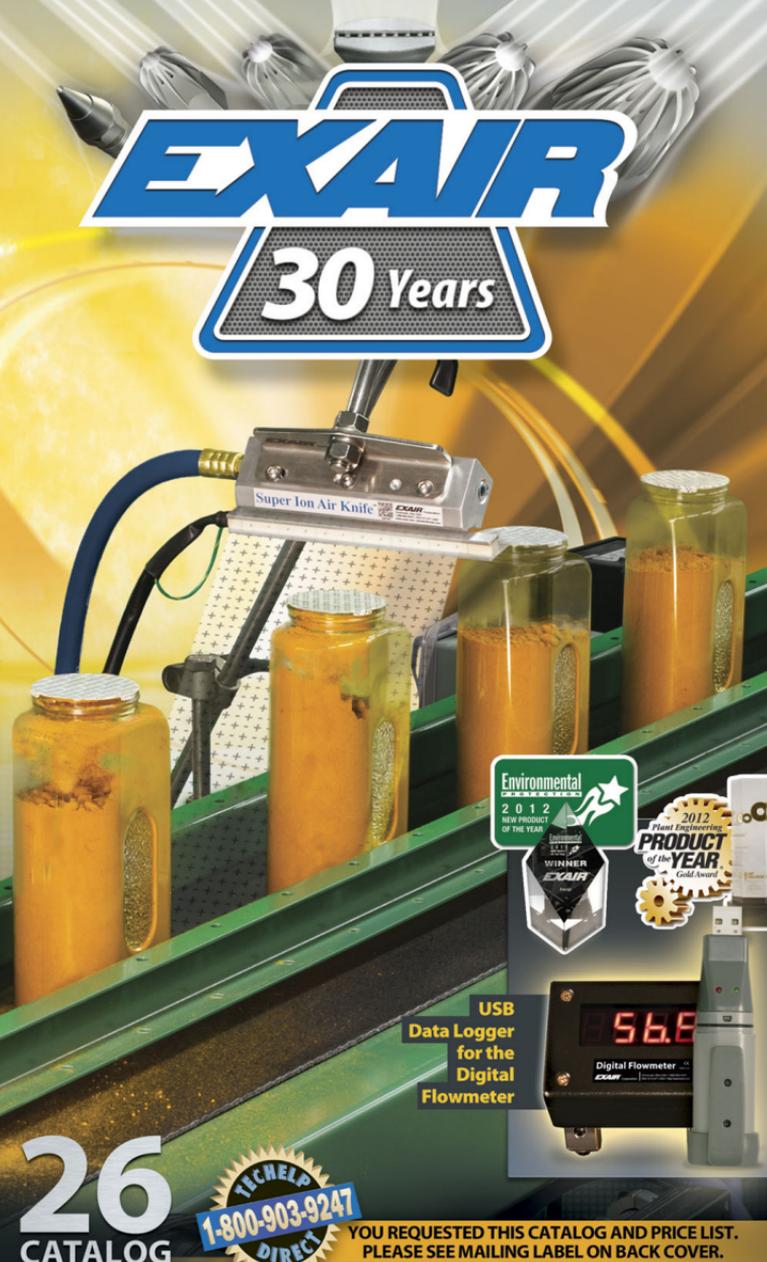
**CONVEY**



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# EXAIR

## 30 Years



USB  
Data Logger  
for the  
Digital  
Flowmeter



# 26

CATALOG



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Intelligent Compressed Air® products are identified throughout this catalog that can help your plant save tens of thousands of dollars over the course of a single year. The Best Practices for Compressed Air Systems manual published by the Compressed Air Challenge® recommends products like the Super Air Knife®, Super Air Amplifier®, and the family of Super Air Nozzles® for energy conservation. Many of the products shown offer unique ways to solve common industrial problems using compressed air. Compressed Air Challenge is a registered trademark of Compressed Air Challenge, Inc.



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EXAIR products are subject to ongoing development. Specifications are subject to change without notice.  
Some products in this catalog are covered by U.S. Patent #5402938, #8153001 and #8268179 and others may be U.S. Patent Pending.  
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\*5 Year Warranty applies to compressed air products only.  
A 1 Year Warranty applies to all accessories and electrically powered products.

**EXAIR's Unconditional Guarantee:** Extends to all U.S. and Canadian customers and includes invoiced U.S. Ground Service shipping charges. Products returned after the 30 day guarantee period are subject to a 15% restocking charge. Products must be returned freight prepaid.



**EXAIR unconditionally guarantees its catalog products for 30 days.**

If you are not satisfied for any reason within that time, you may return the product for full credit with no restocking charge.

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## Optimization

### “Go Green” with Intelligent Compressed Air® Products!

It's a worldwide problem. Compressed air leaks and inefficient blowoffs can waste thousands of dollars of electricity per year, affecting your company's production costs and bottom line. For many plants, the leakage alone accounts for up to 30% of the total compressed air cost.

EXAIR can help your company “go green” with six easy to follow steps. It's as simple as finding the leaks, making the repairs, controlling the air use, and upgrading to efficient blowoffs. EXAIR's Intelligent Compressed Air® Products can help you accomplish these steps so your compressed air system becomes more efficient, along with the benefit of drastically lowering your energy costs.

#### Six Steps To Optimizing Your Compressed Air System

- 1 Measure the air consumption to find sources that use a lot of compressed air.
- 2 Find and fix the leaks in your compressed air system.
- 3 Upgrade your blowoff, cooling and drying operations using engineered compressed air products.
- 4 Turn off the compressed air when it isn't in use.
- 5 Use intermediate storage of compressed air near the point of use.
- 6 Control the air pressure at the point of use to minimize air consumption.



EXAIR's **Digital Flowmeter™** accurately measures compressed air usage and monitors waste. Trends can be monitored to find excessive air use. Detects leaks at compressed air fittings when the machinery is off. Regular monitoring can detect leaks that develop as the machinery ages.

- Easy to install - No adjustments or calibrations needed
- Digital readout displays actual airflow through pipe

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EXAIR's **Ultrasonic Leak Detector** can help you identify costly leaks in your compressed air system. Leaks can account for 30% of total compressor output! In many cases, finding one small leak can quickly pay for the leak detector.

- Detects leaks up to 20' (6.1m) away
- Accurate in noisy industrial environments

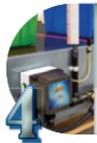
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EXAIR's engineered **Super Air Nozzles™**, **Super Air Knives™**, and **Super Air Amplifiers™** dramatically reduce air consumption and noise. EXAIR's **Digital Sound Level Meter™** can identify and isolate the source of the noisy blowoffs.

- Low cost - replaces noisy blowers
- Improves blowoff performance and safety

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EXAIR's **EFC™** is an electronic flow control that minimizes compressed air use by turning off the compressed air when no part is present. For use on blowoff, drying, cooling, conveying and static elimination operations.

- Easy hook up; 100-240 VAC with eight function timer
- Photoelectric sensor withstands water and dust

Page 4



An EXAIR 60 gallon **Receiver Tank** can be installed at the point of high demand so there is an additional supply of compressed air available for a short duration. Meets ASME pressure vessel code.

- Eliminates fluctuations in pressure and volume
- Vertical, space saving design

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EXAIR **Pressure Regulators** permit easy selection of an operating pressure that will allow the air product to work properly without using excessive amounts of compressed air. Reducing the air pressure from 100 PSIG to 80 PSIG reduces energy use by almost 20%.

- Modular design pressure gauge
- Many sizes available

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## EFC™

**Electronic flow control minimizes compressed air use for blow off, drying, cooling, conveying and static elimination operations!**

**Dramatically reduces compressed air costs by turning off the air when no part is present!**

**What Is The EFC?**

EXAIR's EFC™ is a user-friendly electronic flow control for compressed air that is designed to minimize compressed air use on blow off, drying, cooling, conveying and static elimination operations. The EFC combines a photoelectric sensor with a timing control that limits compressed air use by turning it off when no part is present. The timing control permits easy tuning to the application requirements while providing flexibility in sensing distance. The EFC also has eight programmable on and off modes.

**Why The EFC?**

For most companies, the air compressor uses more electricity than any other type of equipment. One simple operation that uses compressed air can easily waste thousands of those electricity dollars per year if not properly controlled. The EFC has been designed to improve efficiency by minimizing compressed air use and, as a result, reduce compressed air costs. It turns on the air only when a part is present and provides just enough air to complete a specific task or operation.

The EFC has an easy electrical connection for voltages from 100 to 240VAC, 50/60Hz making it suitable for applications throughout the world. The compact photoelectric sensor has a sensitivity adjustment and detects objects up to 3' (1m) away. The sensor has superior immunity to noise and inductive loads that are common to industrial environments and installs easily in tight spaces with the supplied mounting bracket. The control system provides flexibility with numerous valve operating modes and timing delays. The polycarbonate enclosure is suitable for use in a wide range of applications including those located in wet environments.

**Applications**

- Auto body blowoff
- Package cleaning
- Part drying after wash
- Dust removal
- Scrap removal
- Filling operations
- Cooling hot parts
- Neutralizing static
- Cleaning molded parts

**Advantages**

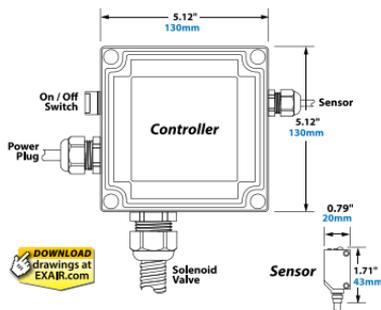
- Easy electrical hook-up; 100-240VAC, 50/60Hz
- NEMA 4/IP66 environments
- Compact sensor for mounting in tight spaces
- Eight function analog timer for on/off, pulsing and delay control
- Timer setting from 0.10 sec. to 120 hrs.
- Sensor withstands water and dust for accurate readings
- Sensor has superior immunity to noise and inductive loads
- Sensor has long distance sensing up to 3 feet (1m)



Photoelectric sensor withstands water and dust.

**Electronic Flow Control**

Model #	Description
9055	EFC Electronic Flow Control, 40 SCFM (1,133 SLPM), solenoid valve, 1/4 NPT
9056	EFC Electronic Flow Control, 100 SCFM (2,832 SLPM), solenoid valve, 1/2 NPT
9057	EFC Electronic Flow Control, 200 SCFM (5,664 SLPM), solenoid valve, 3/4 NPT
9064	EFC Electronic Flow Control, 350 SCFM (9,911 SLPM), solenoid valve, 1 NPT



The timing control unit and the photoelectric sensor are equipped with a 9' (2.74m) power cord. The timing control unit is housed in a polycarbonate NEMA 4 / IP66 water tight enclosure.

There are four models of the EFC. Each includes the timing control unit and photoelectric sensor with a choice of solenoid valve sizes of 40, 100, 200 and 350 SCFM (1,133, 2,832, 5,664 and 9,911 SLPM).

#### Specifications

Power Supply Input	100-240VAC, 50/60Hz, 0.25 - 0.45A
Power Supply Output (To Sensor)	24VDC at .65A
Sensor	12-24VDC input, consumes 30mA
Sensing Range	Diffuse reflective to 3' (1m)
Enclosure Rating	NEMA 4 / IP66
Temperature Rating	-13°F to 131°F (-25°C to 55°C)
RoHS Compliant	Yes
CE Compliant	Yes

## \$5,012.28 Annual Air Savings For Pre-Paint Bumper Cleaning

A manufacturer of car bumpers installed a 60" (1524mm) Super Ion Air Knife in the down draft cleaning area prior to their paint booth. The bumpers enter that area in the same orientation as they would when mounted to the automobile, moving at 10' (3m) per minute with a 12" (305mm) space between bumpers. The bumpers are under the blow off for 10 seconds. 6 seconds pass with no bumper in the ionized airflow. The operation runs around the clock with three shifts.

### Old Method

EXAIR's 60" (1524mm) Super Ion Air Knife was supplied at 40 PSIG to clean the bumper.

At 40 PSIG, EXAIR's 60" (1524mm) Super Ion Air Knife consumes 102 SCFM (2,887 SLPM).

Non-stop blowing of 1,440 minutes (24 hours) per day x 102 SCFM = 146,880 SCF (4,156,704 SL) air usage per day.

### EFC Solution

The EFC was installed to shut off the compressed air for the 6 seconds where no bumper was present - an on cycle reduction of 37.5%. 1,440 minutes x 37.5% = 540 minutes of off time per day

### Cost Difference

Most large plants know their air cost. If the actual cost is unknown, \$0.25 per 1,000 SCF (28,329 SL) is reasonable.

**Before the EFC installation:**

146,880 SCF/1,000 = 146.88 x \$0.25 = \$36.72 air cost per day.

**With EFC installed:** 146,880 SCF x 62.5% on cycle = 91,800 SCF/1,000 = 91.8 x \$0.25 = \$22.95 air cost per day.

\$36.72 (old air cost) - \$22.95 (new air cost) =

**\$13.77 savings per day x 7 days per week =**

**\$96.39 savings per week x 52 weeks per year =**

**\$5,012.28 savings per year.**



The timer was set to "interval" and the sensor mounted next to the

Super Ion Air Knives. When it detected a bumper, it immediately turned on the air for 10 seconds. If the conveyor stopped, it would not turn the air on again until it detected the next bumper.

## \$3,393 Annual Air Savings On A Tank Blowoff Operation

A company that refurbishes large tanks runs the tanks through an oven on a conveyor line to burn off old paint. Only one tank at a time can be processed and each takes 6 minutes to complete the journey. Super Air Knives are used for blowoff at the exit of the oven.

However, the tank travels through the oven for 5 minutes before it reaches the knives for blowoff. At 80 PSIG, the four knives consume 348 SCFM. Once the tanks have been blown off, the conveyor stops, the air is shut off, and a new tank is loaded at the other end. The operation runs 30 tanks per day, 5 days a week.



The timer was set to "on/off delay". The sensor was mounted at the oven exit (1 minute away from the blowoff station). When the sensor detected a tank, the timer turned the air on for one minute, just as the next tank reached the blowoff station.

### Old Method

It takes 6 minutes to complete the process.

6 minutes x 348 SCF M =

2,088 SCF (59,090 SL)

2,088 SCF x 30 tanks =

62,640 SCF (1,772,712 SL)

### EFC Solution

The EFC was installed to shut off the compressed air for the 5 minutes where no tank was present (one minute of air on).

1 minute x 348 SCFM =

348 SCF x 30 tanks =

10,440 SCF (295,452 SL)

### Cost Difference

Most large plants know their air cost. If the actual cost is unknown, \$0.25 per 1,000 SCF (28,329 SL) is reasonable.

**Before the EFC installation:**

62,640 SCF/1,000 = 62.64 x \$0.25 = \$15.66 air cost per day.

**With the EFC installed:**

10,440 SCF/1,000 = 10.44 x \$0.25 =

\$2.61 air cost per day.

\$15.66 (old air cost) - \$2.61 (new air cost) =

**\$13.05 savings per day x 5 days per week =**

**\$65.25 savings per week x 52 weeks per year =**

**\$3,393 savings per year.**

# Digital Sound Level Meter™

## Prevent worker-related hearing loss!

### What Is The Digital Sound Level Meter?

EXAIR's Model 9104 Digital Sound Level Meter is an easy to use instrument that can measure and monitor the sound level pressure in a wide variety of industrial environments. The source of loud noises can be quickly identified and isolated so corrective measures can be taken to reduce or eliminate the problem. For compressed air noise, it is often as simple as replacing the existing inefficient blowoffs with EXAIR's engineered compressed air products such as the Super Air Knife, Super Air Amplifier or Super Air Nozzles. In many cases, the EXAIR products can reduce noise levels by 10 dBA which is perceived as cutting the sound volume in half.

### Why The Digital Sound Level Meter?

Hearing loss induced by high noise in the workplace is a common problem. Exposure to high noise levels for an extended period of time can lead to permanent hearing loss for workers not wearing proper hearing protection. The Digital Sound Level Meter can help employers protect workers by monitoring noise levels so they don't exceed the limits shown in OSHA Standard 29 CFR – 1910.95(a). Failure to comply can result in hefty fines.



The Sound Level Meter identifies a potential source of hearing loss.



Model 9104 Digital Sound Level Meter comes complete with removable wind screen, battery, and a protective case.

#### OSHA Maximum Allowable Noise Exposure

Hours per day (constant noise)	8	7	4	3	2	1	0.5
Sound level dBA	90	91	95	97	100	105	110

OSHA Standard 29 CFR - 1910.95 (a)

Accurate and responsive, the Digital Sound Level Meter measures the decibels of the sound and displays the reading on the large LCD display that has a backlight button for easier viewing. An "F/S" response time button provides a choice of slow response measurements for comparatively stable noise measurement or fast for varying noise. The "Max Hold" setting will measure the maximum noise level of sounds and updates continuously if a louder sound is detected. Certification of accuracy and calibration traceable to NIST (National Institute of Standards and Technology) is included.

### Advantages

- Measures sound level range from 35 dBA - 130 dBA (Low: 35 to 100; High: 65 to 130 dBA)
- Frequency range 31.5Hz - 8kHz
- A and C weightings (check compliance with safety regulations and acoustic analysis)
- Slow (1 sec) and fast (125ms) response settings to check peak and average noise levels
- Maximum hold feature to measure peak sound levels
- Accuracy is  $\pm 1.5$  dBA
- NIST Certification included
- Four digit LCD display in 0.1 dBA steps with backlight
- Battery life is 50 hours (typical) with low battery alert
- Automatic power off after 15 minutes of non-use
- Meets CE, ANSI and IEC Type 2 SLM standards
- Tripod mounting ideal for taking long term measurements (tripod not included)
- Removable windscreen for use in windy conditions to reduce misreads
- Includes protective carrying case, 9V battery, instruction manual, and removable windscreen



## Ultrasonic Leak Detector

### Locate costly leaks in your compressed air system!

#### What Is The Ultrasonic Leak Detector?

The Ultrasonic Leak Detector (ULD) is a hand-held, high quality instrument that can locate costly leaks in a compressed air system.

A person using the ULD need only aim it in the direction of a suspected leak. When a leak is present, an audible tone can be heard with the use of the headphones, and the LED display will light. Testing the various unions, pipes, valves and fittings of a complete installation can be done quickly and effectively at distances up to 20' (6.1m) away!

#### Why The Ultrasonic Leak Detector?

Plants that aren't maintained can easily waste **up to 30%** of the compressor output through leaks that go undetected. Compressing air is an expensive operation. Saving the wasted compressed air reduces overall operating costs. In large plants, the cost of a small air leak may be insignificant, but many small leaks when located and repaired can amount to huge energy savings.



#### What is Ultrasound?



Ultrasonic sound is a range of sound that is above human hearing capacity. Most people can hear frequencies from 20 Hz to 20 kHz. Sound from 20 kHz to 100 kHz can not be heard and is called "ultrasonic". The Model 9061 Ultrasonic Leak Detector converts ultrasonic sound emissions to a range that is audible to people. (The sound generated by the ULD is 32 times lower in frequency than the sound that is received.)



LED indicators on the Ultrasonic Leak Detector show the exact source of the leak or problem.

#### Advantages

- Detects any pressurized air leak up to 20 feet (6.1m) away
- Converts ultrasound to an audible frequency
- LED display confirms the leak location
- Detects leaks in noisy industrial environments
- Sensitivity controls provide accurate detection
- Not affected by contaminants or windy conditions
- Includes accessories to detect leaks in hard to reach areas
- Rugged carrying case
- Meets ASTM standards

#### Applications

- Locates leaks in air, steam and non-flammable gas systems including pipes, fittings, valves, cylinders and pressure vessels
- Finds the source of bearing and gear wear
- Locates arcing in an electrical system
- Detects refrigeration and air conditioning system leaks
- Locates leaks in brake systems, tubes, tires and radiators
- Senses cracks in moving rubber v-belts
- Detects leaks in vacuum systems
- Checks condition of engine seals

## Ultrasonic Leak Detector

In a plant where loud noise levels exist, it is very difficult to locate leaks by merely listening for them. Most plant noises are in the normal audible range of human hearing, while air escaping from a small orifice is ultrasonic. The ULD can be adjusted to filter out background noise using the three sensitivity settings of X1, X10 and X100 along with an “on/off” thumb wheel for fine sensitivity adjustment. The parabola or tubular extension (*shown below*) can also be attached to the ULD to mask out intense background noise. The ULD detects only the ultrasonic sounds that are generated.



Parabola

Tubular  
AdaptorTubular  
Extension

Headphones

Ultrasound is directional in transmission and is loudest at the source. Turbulence created by the air forced through a small orifice generates ultrasonic sound. This emitted sound is called “white noise” and occurs when the air moves from a high pressure area such as a pipe or vessel and escapes to a low pressure area such as the room. The Ultrasonic Leak Detector converts the turbulent flow to a frequency that can be heard using the headphones. As the ULD moves closer to the leak, more LEDs on the display light up to confirm the source of the leak.



The Model 9061 Ultrasonic Leak Detector comes complete with a hard-shell plastic case, headphones, parabola, tubular adaptor, tubular extension and 9 volt battery.



The Model 9061 Ultrasonic Leak Detector quickly pinpoints a costly leak in a noisy industrial environment.

In some cases, the suspected leak is in a hot area and/or close to moving parts. The tubular extension and parabola make it possible to probe these difficult locations from a distance to isolate the leak.

### Find One Leak - Pay For Your Ultrasonic Leak Detector

Consider one small leak that is equivalent to a 1/16" diameter hole. At 80 PSIG, it consumes 3.8 SCFM or 108 SLPM.

Most large plants know their air cost. If you don't know your actual cost per 1,000 SCF, a reasonable average is \$0.25 per 1,000 SCF (28,329 SL).

Dollars consumed per hour = SCFM consumed x 60 minutes x cost/1,000 SCF  
 = 3.8 x 60 x \$0.25/1,000  
 = \$0.06 per hour  
 = \$1.44 per 24 hour period  
 = \$10.08 per week  
 = \$524.16 per year

**ORDER ONLINE**  
at **EXAIR.com**



## Digital Flowmeter™

### Monitor compressed air usage and waste!

#### What Is The Digital Flowmeter?

EXAIR's Digital Flowmeter is the easy way to monitor compressed air consumption and waste! The digital display shows the exact amount of compressed air being used, making it easy to identify costly leaks or inefficient air products. Many companies install the Digital Flowmeter on each major leg of their air distribution system to constantly monitor and benchmark compressed air usage.

#### Why The Digital Flowmeter?

The Digital Flowmeter has an LED display that directly indicates the SCFM or m<sup>3</sup>/hr volume of airflow through that pipe (other flowmeters require the reading to be multiplied by a specific conversion factor to be accurate). Models are available for sizes ½" - 6" in iron or copper pipe. Models from ½" to 4" iron pipe are in stock. Each Digital Flowmeter is calibrated for the pipe size to which it is mounted.

The Digital Flowmeter is designed for permanent or temporary mounting to the pipe. It requires the user to drill two small holes through the pipe using the included drill bit and locating fixture. The two flow sensing probes of the flowmeter are inserted in these holes. The unit seals to the pipe once the two clamps are tightened. No cutting, welding, adjustments or calibration are ever required. If the unit needs to be removed, blocking rings are available.

#### What is the Summing Remote Display?

EXAIR's Summing Remote Display for the Digital Flowmeter has a four digit LED display that makes it easy to monitor compressed air consumption from a convenient location. With the push of a button, the display cycles to show the current air consumption, usage for the previous 24 hours, and total cumulative usage. It is pre-wired with 50' (15.2m) of cable and is powered by the Digital Flowmeter. Mounting hardware is included.

#### What is the USB Data Logger?

EXAIR's award-winning USB Data Logger Model 9147 connects directly to your Digital Flowmeter and is simple to use. Use the included software to configure the Data Logger to record your flow rate from once a second (about nine hours of data) up to once every 12 hours (over 2 years!).

When the Data Logger is removed from the Digital Flowmeter and plugged into a computer, the data can be viewed in the included software or exported directly into Microsoft Excel®. The Data Logger is available pre-installed on the Digital Flowmeter.



#### Advantages

- Easy to install - No moving parts
- Summing Remote Display and Data Logger available
- Sensitive at low flows
- No calibration or setup required
- Includes all components for installation
- Models from ½" to 4" Schedule 40 iron pipe in stock
- Models are available for sizes ½" to 6" in iron or copper pipe



Summing Remote Display



USB Data Logger for the Digital Flowmeter

# Digital Flowmeter

## Digital Flowmeter

Model #	Pipe Size	Range
9090	1/2" (Schedule 40 iron)	1-90 SCFM
9090-M3	1/2" (Schedule 40 iron)	2-153 m <sup>3</sup> /hr
9090-DAT	1/2" (Schedule 40 iron)	1-90 SCFM
9090-M3-DAT	1/2" (Schedule 40 iron)	2-153 m <sup>3</sup> /hr
9091	3/4" (Schedule 40 iron)	1-120 SCFM
9091-M3	3/4" (Schedule 40 iron)	2-204 m <sup>3</sup> /hr
9091-DAT	3/4" (Schedule 40 iron)	1-120 SCFM
9091-M3-DAT	3/4" (Schedule 40 iron)	2-204 m <sup>3</sup> /hr
9092	1" (Schedule 40 iron)	1-160 SCFM
9092-M3	1" (Schedule 40 iron)	2-272 m <sup>3</sup> /hr
9092-DAT	1" (Schedule 40 iron)	1-160 SCFM
9092-M3-DAT	1" (Schedule 40 iron)	2-272 m <sup>3</sup> /hr
9094	1 1/2" (Schedule 40 iron)	2-200 SCFM
9094-M3	1 1/2" (Schedule 40 iron)	3-340 m <sup>3</sup> /hr
9094-DAT	1 1/2" (Schedule 40 iron)	2-200 SCFM
9094-M3-DAT	1 1/2" (Schedule 40 iron)	3-340 m <sup>3</sup> /hr
9095	2" (Schedule 40 iron)	3-350 SCFM
9095-M3	2" (Schedule 40 iron)	5-595 m <sup>3</sup> /hr
9095-DAT	2" (Schedule 40 iron)	3-350 SCFM
9095-M3-DAT	2" (Schedule 40 iron)	5-595 m <sup>3</sup> /hr
9096	2 1/2" (Schedule 40 iron)	5-500 SCFM
9096-M3	2 1/2" (Schedule 40 iron)	8-850 m <sup>3</sup> /hr
9096-DAT	2 1/2" (Schedule 40 iron)	5-500 SCFM
9096-M3-DAT	2 1/2" (Schedule 40 iron)	8-850 m <sup>3</sup> /hr
9097	3" (Schedule 40 iron)	12-1200 SCFM
9097-M3	3" (Schedule 40 iron)	20-2039 m <sup>3</sup> /hr
9097-DAT	3" (Schedule 40 iron)	12-1200 SCFM
9097-M3-DAT	3" (Schedule 40 iron)	20-2039 m <sup>3</sup> /hr
9098	4" (Schedule 40 iron)	20-2000 SCFM
9098-M3	4" (Schedule 40 iron)	34-3398 m <sup>3</sup> /hr
9098-DAT	4" (Schedule 40 iron)	20-2000 SCFM
9098-M3-DAT	4" (Schedule 40 iron)	34-3398 m <sup>3</sup> /hr
901327	Block-Off Rings for 9090 or 9090-M3	
901328	Block-Off Rings for 9091 or 9091-M3	
901329	Block-Off Rings for 9092 or 9092-M3	
901331	Block-Off Rings for 9094 or 9094-M3	
901332	Block-Off Rings for 9095 or 9095-M3	
901333	Block-Off Rings for 9096 or 9096-M3	
901334	Block-Off Rings for 9097 or 9097-M3	
901335	Block-Off Rings for 9098 or 9098-M3	

Note: DAT models have the Data Logger installed.

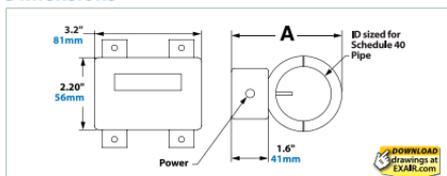
## Summing Remote Display

Model #	Description
9150	LED Readout displays SCFM
9150-M3	LED Readout displays m <sup>3</sup> /hr

## USB Data Logger

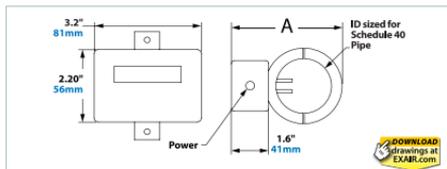
Model #	Description
9147	USB Data Logger for Digital Flowmeter

## Dimensions



DOWNLOAD  
Drawings at  
EXAIR.com

Series	Pipe Size	A	
		in	mm
9090	1/2"	3.00	76
9091	3/4"	3.25	83
9092	1"	3.63	92
9094	1 1/2"	4.38	111
9095	2"	4.88	124



DOWNLOAD  
Drawings at  
EXAIR.com

Series	Pipe Size	A	
		in	mm
9096	2 1/2"	5.75	146
9097	3"	6.38	162
9098	4"	7.38	187



Each Digital Flowmeter includes an 18 VDC power supply, 3/16" drill bit, and hole locating fixture.

## Specifications for Digital Flowmeter

Accuracy	5% of reading, plus 1% of full scale for air temperatures between 40° to 120°F (4° to 49°C).
Operating Pressure	30 to 140 PSIG for best accuracy - 200 PSIG max.
Input Power	250 mA at 18 VDC / Power Adapter 120VAC
Wetted Materials	Stainless steel, gold, thermal epoxy and Viton (seal)
Ring Material	Aluminum
Display	Four-digit LED display
Compliance	CE and RoHS

Note: For use with compressed air and nitrogen only.



EXAIR's Summing Remote Display for the Digital Flowmeter.



## Super Air Knife

An INTELLIGENT  
COMPRESSED AIR®  
Product

# Super Air Knife™

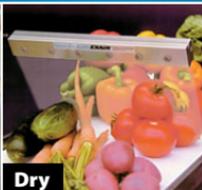
Quiet, hard-hitting curtain of air for blowoff, cleaning, drying, and cooling.

✓ Surprisingly Quiet!  
- Only 69 dBA!

✓ Reduced Air Consumption!

✓ Uniform Airflow!

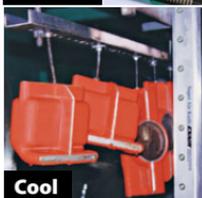
✓ 40:1 Air Amplification!



### What Is The Super Air Knife?

EXAIR's Super Air Knife is the latest generation of our engineered air knife that dramatically reduces compressed air usage and noise when compared to other blowoffs. The Super Air Knife offers a more efficient way to clean, dry or cool parts, webs or conveyors. It delivers a uniform sheet of laminar airflow across the entire length with hard-hitting force.

Noisy blowoffs become a whisper when replaced with the compact Super Air Knife. Even at high pressures of 80 PSIG (5.5 BAR), the sound level is surprisingly quiet at 69 dBA for most applications! Air amplification ratios (entrained air to compressed air) of 40:1 are produced. Meets OSHA maximum dead-ended pressure and noise requirements.



### Applications

- Part drying after wash
- Sheet cleaning in strip mills
- Conveyor cleaning
- Part or component cooling
- Web drying or cleaning
- Environmental separation
- Pre-paint blowoff
- Bag opening/filling operations
- Scrap removal on converting operations

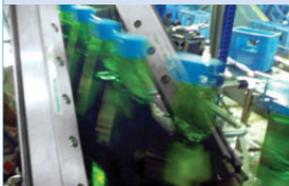
### Advantages

- Quiet - 69 dBA for most applications
- Minimal air consumption
- 40:1 air amplification
- Uniform airflow across entire length
- Variable force and flow
- No moving parts - maintenance free
- Easy mounting - compressed air inlets on each end and bottom
- Compact, rugged, easy to install
- Stainless steel screws in all models
- Recessed hardware
- Stock lengths to 96" (2438mm) in aluminum, 303 stainless steel, and 316 stainless steel (ss - for temperatures up to 800°F (427°C), food processing or corrosive environments), and PVDF up to 54" (1372mm) for superior corrosion resistance.
- Special lengths available
- Unlimited system lengths of uninterrupted airflow available

# Super Air Knife

## Dry

The laminar airflow of the Super Air Knife is perfect for removing moisture prior to packaging, painting, labeling, bar coding and assembly. Common applications include drying parts, rolled steel, circuit boards, webs, bottles, cans and more. Velocity is easily adjusted from a "blast" to a "breeze" with a pressure regulator.



Fast moving bottles are blown dry by (2) Model 110012 12" (305mm) Super Air Knives prior to labeling.



Type 316 Stainless Steel Super Air Knives dry the plated parts and keep harmful vapors away from the operator.



The 54" (1372mm) Super Air Knife dries stamped parts that exit a washer.

## Blowoff

The Super Air Knife is ideal for blowing off chips, dirt or water from parts, webs or conveyors. It delivers a uniform sheet of air that has the same force across the entire length. There are no interruptions or "dead spots", which means all surfaces are dried or cleaned. The Super Air Knife is available in aluminum, stainless steel, or PVDF for corrosive and high temperature applications.



(2) Super Air Knives help maintain the tolerances on machined differentials by blowing metal chips off the chain conveyor and clamping fixture.



(3) Model 110012 12" (305mm) Super Air Knives blow excess honing oil off machined engine sleeves.

## Cool

Large volumes of airflow can be generated in very tight spaces due to the compact size of the Super Air Knife. Flow and force are easily controlled with a pressure regulator, allowing fast or gradual cooling. Shims can be installed if additional hard-hitting velocity is required.



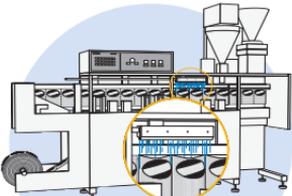
A Model 110018 18" (457mm) Super Air Knife cools molten plastic following dip molding.



High volume airflow from a Model 110006 6" (152mm) Super Air Knife keeps linear induction motors on an indoor roller coaster from overheating.

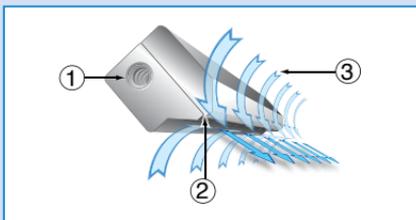
## Open, Float, Separate

The uniform airflow exits the Super Air Knife in a perfectly straight line (does not deflect). It is ideal for opening bags and pouches, floating webs, and keeping environments separate.



A Model 110006 6" (152mm) Super Air Knife opens pouches on a form-fill-seal-bagger.

## How The Super Air Knife Works



Compressed air flows through an inlet (1) into the plenum chamber of the Super Air Knife. The flow is directed to a precise, slotted orifice. As the primary airflow exits the thin slotted nozzle (2), it follows a flat surface that directs the airflow in a perfectly straight line. This creates a uniform sheet of air across the entire length of the Super Air Knife. Velocity loss is minimized and force is maximized as the room air (3) is entrained into the primary airstream at a ratio of 40:1. The result is a well defined sheet of laminar airflow with hard-hitting force and minimal wind shear.

## Intelligent Use Of Compressed Air

Almost every industrial facility has at least one compressor that is used for hundreds of different tools, equipment and operations. While most applications for compressed air present no real problems, some do. Improper use can translate into unnecessary energy costs, high noise levels and dangerous exposure of personnel to high pressure air.

## Reduce Energy Costs

The best way to cut energy costs is through proper maintenance and use of the compressed air system. Leaks and dirty filters require maintenance on a regular basis. Energy savings can also be realized when replacing outdated motors and controls with high efficiency models that often pay for themselves in a short period of time. The most important factor to dramatically boost efficiency is proper use. **The Super Air Knife uses only 1/3 of the compressed air of typical blowoffs** used in cleaning, cooling and drying operations and can be instantly cycled on and off.

## Reduce Noise Levels

High noise levels are a common problem for many plants. Compressed air noise often exceeds OSHA (Occupational Safety and Health Administration) noise level exposure requirements, resulting in hearing loss to those working in close proximity. The sound level of the Super Air Knife is quiet at 69 dBA, even at high pressures of 80 PSIG (5.5 BAR). Using the Super Air Knife, it is possible to obtain hard-hitting force without the high noise.

## OSHA Maximum Allowable Noise Exposure

Hours per day (constant noise)	8	7	4	3	2	1	0.5
Sound level dBA	90	91	95	97	100	105	110

OSHA Standard 29 CFR - 1910.95 (a)

## Eliminate Harmful Dead Ended Pressures

Air can be dangerous when the outlet pressure of a hole, hose or copper tube is higher than 30 PSIG (2 BAR). In the event the opening is blocked by a hand or other body part, air may enter the bloodstream through the skin, resulting in a serious injury. The Super Air Knife has been engineered for safety and cannot be dead ended. It is safe to operate at higher pressures and meets OSHA standard 1910.242(b).

## Replacement For Expensive, Noisy Blowers

Energy conscious plants might think a blower to be a better choice due to its slightly lower electrical consumption compared to a compressor. In reality, a blower is an expensive capital expenditure that requires frequent downtime and costly maintenance of filters, belts and bearings. **Here are some important facts:**

- Filters must be replaced every one to three months.
- Belts must be replaced every three to six months.
- Blower bearings wear out quickly due to the motor that must turn at 17-20,000 RPM in order to generate effective airflows.
- Poorly designed seals that allow dirt and moisture infiltration along with environments above 125°F (52°C) decrease the one year bearing life.
- **Typical bearing replacement is at least once a year at a cost near \$1000.**
- Many bearings can't be replaced in the field, resulting in downtime to send the assembly back to the manufacturer.

Blowers take up a lot of space and often produce sound levels that exceed OSHA noise level exposure requirements. Air volume and velocity are often difficult to control since mechanical adjustments are required.

## Air Amplifiers

**Vent, exhaust, cool, dry,  
clean – with no moving  
parts!**

### What Are Air Amplifiers?

A simple, low cost way to move air, smoke, fumes, and light materials. Air Amplifiers utilize the coanda effect, a basic principle of fluidics, to create air motion in their surroundings. Using a small amount of compressed air as their power source, Air Amplifiers pull in large volumes of surrounding air to produce high volume, high velocity outlet flows. Quiet, efficient Air Amplifiers will create output flows up to 25 times their consumption rate.

### Why Air Amplifiers?

Air Amplifiers have no moving parts, assuring maintenance-free operation. No electricity is required. Flow, vacuum and velocity are easy to control. Outlet flows are easily increased by opening the air gap. Supply air pressure can be regulated to decrease outlet flow.

Both the vacuum and discharge ends of the Air Amplifier can be ducted, making them ideal for drawing fresh air from another location, or moving smoke and fumes away.



Built to Last  
**5** yr.  
WARRANTY  
See page 2 for complete details.



A series of Model 6042 Adjustable Air Amplifiers blows coolant off 16 cylinder diesel engines.



Adjustable Air Amplifiers are ducted to draw clean air for drying.



A Model 120024 4" (102mm) Super Air Amplifier cools an engine during dynamometer testing.

### Applications

- Vent welding smoke
- Cool hot parts
- Dry wet parts
- Clean machined parts
- Distribute heat in molds/ovens
- Ventilate confined areas
- Dust collection
- Exhaust tank fumes

### Advantages

#### Compared to Fans:

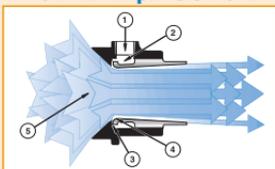
- Compact, lightweight, portable
- No electricity
- No moving parts – no maintenance
- Ends are easily ducted
- Instant on/off
- Variable force and flow
- No RF interference

#### Compared to Venturis and Ejectors:

- More air with lower compressed air consumption
- Higher flow amplification
- No internal obstructions
- Meets OSHA pressure and noise requirements
- Quiet

# Air Amplifiers

## How Air Amplifiers Work



Compressed air flows through the air inlet (1) into an annular chamber (2). It is then throttled through a small ring nozzle (3) at high velocity. This primary airstream adheres to the coanda profile (4), which directs it toward the outlet. A low pressure area is created at the center (5), inducing a high volume flow of surrounding air into the primary airstream. The combined flow of primary and surrounding air exhausts from the Air Amplifier in a high volume, high velocity flow.



This special air amplifier is used to draw polluted air through an activated charcoal filter.

## Air Amplifier Model Selection Guide

Air Amplifier Comparison

	Efficiency	Sound Level	Mounting Flange	Flow Adjustment	Temp. Rating	Corrosive Applications
Super Air Amplifier	High	Low	Yes	With Shims	275°F (135°C)	No
Aluminum Adjustable Air Amplifier	Medium	Variable	No	Infinite (No shims)	275°F (135°C)	No
Stainless Steel Adjustable Air Amplifier	Medium	Variable	No	Infinite (No shims)	400°F (204°C)	Yes
High Temperature Air Amplifier	High	Low	No	With Shims	700°F (374°C)	Yes



A Model 121021 1-1/4" (32mm) High Temperature Air Amplifier directs hot air to a rotational mold cavity for uniform wall thickness of the plastic part.

## Special Air Amplifiers

EXAIR manufactures special Air Amplifiers suited to specific application requirements. A company that specializes in decontaminating and deodorizing industrial environments normally uses an electric blower to pull the offending smells through an activated charcoal filter. When the electric blowers proved to be unreliable, they called EXAIR for a more durable compressed air solution. A special air amplifier (*shown top right*) was mounted to the drum and quickly proved to be more effective than the previous electric units.

The Model 121021 High Temperature Air Amplifier (*shown middle right*) was developed for moving hot air to surfaces requiring uniform heating while in a furnace or oven. Modeled after our Super Air Amplifier, the High Temperature Air Amplifier is the most efficient for pushing high volumes of hot air to points that typically remain cool. This special design is rated for environments up to 700°F (374°C) and its surface is protected from heat stress by a mil-spec. coating process (developed for the aircraft industry), allowing easy disassembly for changing shims or cleaning.

Another stainless steel version for flange mounting was developed as a fan back-up for exhausting flue gases from a furnace (*shown bottom right*). In the event of a power failure, this special Air Amplifier can quickly evacuate the fumes that could be harmful to workers close by.

If you have special requirements, please contact an Application Engineer to discuss your application.



This special stainless steel flange-mount Air Amplifier was designed for exhausting hot flue gases from a furnace.



## Air Nozzles and Jets

**Engineered Air Nozzles and Jets reduce noise levels and air costs.**

**"Go Green" by upgrading your blowoff, cooling, and drying operation to the award winning Super Air Nozzles!**



Air Nozzles & Jets

### What Are Air Nozzles and Jets?

A simple solution to reduce excessive air consumption and noise levels on compressed air blowoff operations. EXAIR Air Nozzles and Jets produce outlet flows up to 25 times compressed air consumption using a small amount of compressed air as the power source. Many power companies now provide attractive rebates to plants who switch to engineered Super Air Nozzles!



### Why Air Nozzles and Jets?

Air savings, compared to open copper tubes or pipes commonly used for blowoff, can be as high as 80%. Less compressed air means less noise. The typical noise level reduction is 10 dBA. All EXAIR Air Nozzles and Jets meet Occupational Safety and Health Administration (OSHA) maximum dead ended pressure and sound level exposure requirements and carry the CE mark.

An open 1/4" (6mm) copper tube, by contrast, ejects pure compressed air at up to 40 standard cubic feet per minute (1,133 SLPM), the entire output of a 10 horsepower compressor. Annual energy cost can exceed \$1,000 per year. Noise levels in excess of 100 dBA are commonly produced. When supply pressure exceeds 30 PSIG (2 BAR), an open pipe, tube or drilled holes violates OSHA static pressure requirements.



Flexible Stay Set Hoses™ are ideal where frequent repositioning of air nozzles is required.



PEEK Super Air Nozzles deliver strong blowing force while providing non-marring protection.

### Applications

- Part cleaning
- Chip removal
- Part drying
- Liquid blowoff
- Part cooling
- Material conveying
- Part ejection
- Fiber conveying
- Air assist

### Advantages

- Reduced compressed air cost
- 10 dBA average noise reduction
- Conserve compressed air
- Improved blowoff performance
- Compact
- Improved safety
- Meets OSHA noise level requirements
- Meets OSHA pressure requirements
- Improved production

# Air Nozzles and Jets

## Safe And Efficient Use Of Compressed Air

The inefficient use of compressed air for blowoff applications may create problems due to the energy costs, noise level and potential danger to personnel who are exposed to high pressure air. Open air pipes, copper tubes and drilled pipes are a few of the common abusers. They consume tremendous amounts of energy and often produce noise levels over 100 dBA.

### Open Air Pipe or Copper Tube



Turbulent compressed air blasts straight out of the pipe or tube. It not only wastes huge amounts of compressed air but also violates OSHA noise and dead ended pressure requirements.

## Reduce Energy Costs

The best way to cut energy costs is through proper maintenance and use of the compressed air system. Leaks and dirty filters require maintenance on a regular basis. Energy savings can also be realized when replacing outdated compressor motors and controls with high efficiency models that often pay for themselves in a short period of time.

The most important factor to dramatically boost efficiency is proper use. Using engineered products like EXAIR's Super Air Nozzles can cut operating costs since they use only a fraction of the compressed air of typical blowoffs. In addition, all of the Air Nozzles and Jets shown in this catalog can be cycled on and off with instantaneous response. EXAIR's EFC (shown on page 4) is an electronic flow control that limits compressed air use by turning on the air only when a part is present.

## Reduce Noise Levels

High noise levels are a common problem for many plants. Compressed air noise often exceeds OSHA noise level exposure requirements, resulting in hearing loss to those working in close proximity. Noisy blowoffs at 80 PSIG (5.5 BAR) that produce noise levels of 100 dBA can be reduced to only 74 dBA when using a Super Air Nozzle. At that pressure, it is still possible to obtain hard-hitting force without the high noise.

## OSHA Maximum Allowable Noise Exposure

Hours per day (constant noise)	8	7	4	3	2	1	0.5
Sound level dBA	90	91	95	97	100	105	110

OSHA Standard 29 CFR - 1910.95 (a)

## Eliminate Harmful Dead Ended Pressures

Air can be dangerous when the outlet pressure of a hole, hose or copper tube is higher than 30 PSIG (2 BAR). In the event the opening is blocked by a hand or other body part, air may enter the bloodstream through the skin, resulting in a serious injury. All of the Air Nozzles and Jets manufactured by EXAIR have been designed for safety. All are safe to be supplied with higher pressure compressed air and meet OSHA standard CFR 1910.242(b).

## Air Consumption of Open Tube And Pipe

Pressure Supply		Air Consumption of Homemade Blowoffs						
PSIG	BAR	Copper Tube			Open Pipe			
		1/4"	5/16"	3/8"	1/8"	1/4"	3/8"	
80	5.5	SCFM	33	58	87	70	140	240
		SLPM	934	1,641	2,462	1,981	3,962	6,792

## Saving Money and Compressed Air

The table above shows the air consumption for typical homemade blowoffs. The pages that follow give the air consumption and other data on EXAIR's Air Nozzles and Jets.

Consider the following example where a Model 1102 Mini Super Air Nozzle replaces a 1/8" (3.2mm) open pipe. The compressed air savings is easy to calculate and proves to be dramatic. Payout for Air Nozzles and Jets, including filter and installation cost is measured in weeks - not years, as is the case for other cost reduction equipment. Based on a 40 hour work week, 52 weeks a year.

### Example:

- Existing blowoff is 1/8" (3.2mm) open pipe at 80 PSIG (5.5 BAR) supply. Air consumption, from the table above, is 70 SCFM (1,981 SLPM).
- Use a 1/8 FNPT Model 1102 Mini Super Air Nozzle also at 80 PSIG (5.5 BAR) supply. Air consumption, from the table on page 45, is 10 SCFM (283 SLPM).
- Compressed air saved = 70 - 10 = 60 SCFM (1,981 - 283 = 1,698 SLPM)
- For this example, the blowoff is continuous. If the duty cycle was 20%, then air saved would be 60 x .2 = 12.5 SCFM (1,698 x .2 = 340 SLPM).
- Most large plants know their cost per 1,000 standard cubic feet of compressed air (10,000 standard liters). If you don't know your actual cost per 1,000 SCF, \$0.25 is a reasonable average to use. (Cost per 10,000 standard liters is approximately \$0.089.)
- Dollars saved per hour = SCFM saved x 60 minutes x cost/1,000 SCF (SLPM saved x 60 min x cost/10,000 SL)  
= 60 x 60 x \$0.25/1,000 (= 1,698 x 60 x \$0.089/10,000)  
= **\$0.90/hour**  
= **\$0.90/hr. is \$36.00/week and**  
= **\$1,872.00/year savings for One nozzle!**

## Pressure Regulators

EXAIR's Model 9008, 9033, 9009 and 9067 Pressure Regulators permit easy selection of the operating pressure. A pressure gauge is included.

**Model 9008**



**Model 9033**



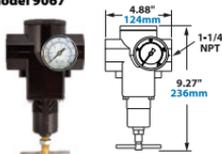
**Model 9009**



**Model 9011**

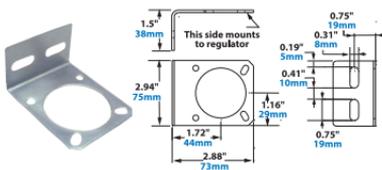


**Model 9067**



Model #	Description
<b>9008</b>	Pressure Regulator with Gauge, 1/4 NPT, 50 SCFM (1,415 SLPM)
<b>9033</b>	Pressure Regulator with Gauge, 1/2 NPT, 100 SCFM (2,832 SLPM)
<b>9009</b>	Pressure Regulator with Gauge, 3/4 NPT, 220 SCFM (6,230 SLPM)
<b>9067</b>	Pressure Regulator with Gauge, 1-1/4 NPT, 600 SCFM (16,990 SLPM)
<b>9011</b>	Pressure Gauge Only, 1/4 NPT, 0-160 PSI (0-11 BAR)

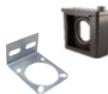
## Pressure Regulator Mtg Brackets



This optional mounting bracket fits Models 9008, 9033 and 9009 Pressure Regulators and includes the bracket and a locking ring.

Model #	Description
<b>900398</b>	Mounting Bracket for Model 9008, 9033 and 9009

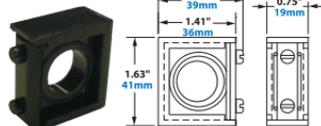
## Mounting and Coupling Kits



Model #	Description
<b>9046</b>	Mounting and Coupling Kit for Model 9001 Filter/Model 9008 Regulator and Model 9032 Filter/Model 9033 Regulator
<b>9047</b>	Mounting and Coupling Kit for Model 9002 Filter/Model 9009 Regulator
<b>9048</b>	Mounting and Coupling Kit for Model 9004 Filter/Model 9005 Oil Removal Filter

## Coupling Kits

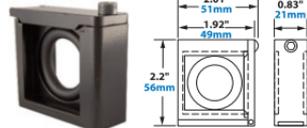
**Model 900394**



EXAIR's Coupling Kits are interlocking slides that couple the modular filters and pressure regulators together.

Model #	Description
<b>900394</b>	Fits auto drain filters and regulators with 1/4 NPT, 3/8 NPT and 1/2 NPT threads
<b>900552</b>	Fits auto drain filters and regulators with 3/4 NPT threads

**Model 900552**



# Accessories

## 60 Gallon Receiver Tank

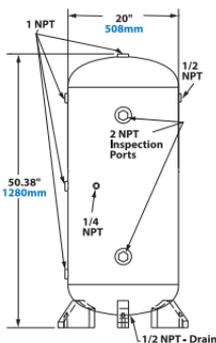


Some applications require an intermittent demand for a high volume of compressed air. This can cause fluctuations in pressure and volume throughout the compressed air system with some points being "starved" for compressed air. EXAIR's Model 9500-60 60 Gallon Receiver Tank can be installed near the point of high demand so there is an additional supply of compressed air available for a short duration. The time between the high volume demand occurrences should be long enough so the compressor has enough time to replenish the EXAIR 60 Gallon Receiver Tank.

The 60 gallon vertical steel tank with mounting feet saves floor space and meets the American Society of Mechanical Engineers (ASME) pressure vessel code. (It is not ASME rated for vacuum.) A drain valve is provided for placement at the bottom of the tank to discharge liquid and contaminants.

A user supplied check valve installed upstream of the receiver tank will maintain the tank at maximum pressure so upstream uses of compressed air do not deplete the tank. A user supplied needle valve can regulate the refilling of the receiver tank, effectively reducing the large intermittent air requirement into a smaller average demand.

- Pressure tank has a primer finish
- Temperature rating is -20° to 450°F
- Tank maximum pressure is 200 PSIG
- No plugs are included for open ports. User must supply pressure rated plugs and pressure relief valve.
- Weight is 165 lbs. (75 kg)
- Please consult your local code requirements prior to installation.



### Receiver Tank

Model #	Description
9500-60	60 Gallon Receiver Tank

## Compressed Air Fittings



Hex Nipple			
Model #	Material	Thread Size	
9890	Brass	1/8 MNPT x 1/8 MNPT	
9944	Brass	1/4 MNPT x 1/4 MNPT	
9759	Brass	3/8 MNPT x 3/8 MNPT	
9760	Brass	1/2 MNPT x 1/2 MNPT	
9761	Brass	3/4 MNPT x 3/4 MNPT	
9958	304SS	1/8 MNPT x 1/8 MNPT	
9959	304SS	1/4 MNPT x 1/4 MNPT	
9960	304SS	3/8 MNPT x 3/8 MNPT	
9961	304SS	1/2 MNPT x 1/2 MNPT	



Close Nipple			
Model #	Material	Thread Size	
9551	Brass	1/4 MNPT x 1/4 MNPT	
9752	Brass	3/8 MNPT x 3/8 MNPT	
900745	Brass	1/2 MNPT x 1/2 MNPT	
900559	Brass	3/4 MNPT x 3/4 MNPT	
900309	NP Brass	1/8 MNPT x 1/8 MNPT	
900084	NP Brass	1/4 MNPT x 1/4 MNPT	
900435	NP Brass	3/8 MNPT x 3/8 MNPT	
900436	NP Brass	1/2 MNPT x 1/2 MNPT	
900409	316SS	1/8 MNPT x 1/8 MNPT	
900160	316SS	1/4 MNPT x 1/4 MNPT	
900505	316SS	3/8 MNPT x 3/8 MNPT	
900506	316SS	1/2 MNPT x 1/2 MNPT	



Coupler			
Model #	Material	Thread Size	
900453	NP Brass	1/8 FNPT x 1/8 FNPT	
9871	Brass	1/4 FNPT x 1/4 FNPT	

MNPT = Male NPT  
FNPT = Female NPT

NP = Nickel Plated



Reducer			
Model #	Material	Thread Size	
900405	Brass	1/4 MNPT x 1/8 FNPT	
900105	Brass	1/4 FNPT x 1/8 MNPT	
9553	Brass	3/8 MNPT x 1/4 MNPT	
9897	Brass	1/2 MNPT x 3/8 MNPT	
900736	Brass	1/2 MNPT x 1/4 MNPT	
900622	Brass	1/2 MNPT x 1/4 FNPT	
900985	Brass	1/2 FNPT x 3/8 MNPT	



Tee			
Model #	Material	Thread Size	
900005	Brass	1/4 FNPT x 1/4 FNPT x 1/4 MNPT	
9851	Brass	1/4 MNPT x 1/4 MNPT x 1/4 MNPT	
9971	Brass	3/8 FNPT x 1/4 FNPT x 3/8 MNPT	
9896	Brass	3/8 FNPT x 3/8 FNPT x 3/8 FNPT	
900621	Brass	1/2 FNPT x 1/2 FNPT x 1/2 FNPT	
900734	Brass	1/2 FNPT x 1/4 FNPT x 1/2 FNPT	



Elbow			
Model #	Material	Thread Size	
7674	Brass	1/8 MNPT x 1/8 FNPT	45°
9555	Brass	1/4 MNPT x 1/4 FNPT	90°
9895	Brass	3/8 MNPT x 3/8 FNPT	90°
900073	Brass	1/4 MNPT x 3/8 Tube	90°



Cross			
Model #	Material	Thread Size	
900735	Brass	1/2 FNPT	



Bulkhead Fitting			
Model #	Material	Thread Size	
900069	Brass	3/4 MNPT x 1/4 FNPT	