

CleanAir[™]Air Control Equipment

Accessories for superior spray finishing. Filters • Regulators • Gauges • Valves







CleanAir[™] for a Quality Finish

Selecting the right equipment for the ultimate in clean air

Air control equipment for today's spray finishing challenges

At DeVilbiss, we do more than make the industry's leading atomizing spray guns—we also create the specialty tools and accessories to support them.

So whether you're spray finishing metal or wood, automobiles or appliances, electronics or aerospace, or anything in-between, you can count on DeVilbiss.

We have the products, the experts and the technologies to help you meet spray finishing challenges. Just ask for us by name. Ask for DeVilbiss.

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DeVilbiss offers a complete line of quality air filtering units

It's the equipment you need to ensure a contaminant-free material application — because today's high solids and waterbornes are even more sensitive to contaminants. The right filter equipment from DeVilbiss can make all the difference.

The fact is, an otherwise great finish can be totally ruined by just a small amount of dirt, oil or water in your air line. And needless to say, flaws like pinholes, blushing, fisheyes or dulling mean a job has to be redone a waste of both time and money.

DeVilbiss has what you need to make your finishes nothing but the best. There are six types of filtering units available from DeVilbiss:

- Centrifugal Filter-Regulator Units
- Coalescer Filter-Regulator Units
- All-in-One Filter, Regulator and Coalescer
- Three-Stage Desiccant Unit
- WhirlWind[™] In-Line Filter
- Breathable Air Units (Ask for Sales Bulletin I-2171)

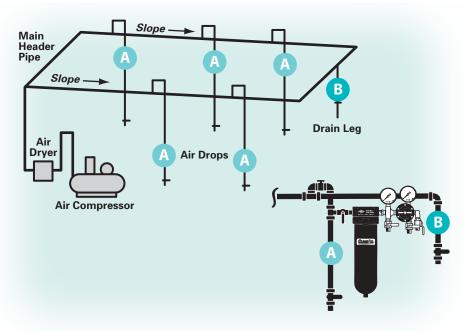
Quality Equipment and Proper Installation

Following some key installation principles will help decrease the risk of contaminants:

- It's important to use the right size air compressor for your application. An overworked air compressor can produce a significant amount of dirt and oil.
- Proper piping is very important to help prevent condensation from forming within the line and contaminating the air supply.

DeVilbiss is ready to assist you with any questions, just contact our Technical Assistance hotline.

Recommended Air Supply Setup

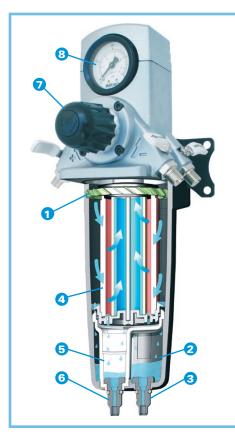


FRC-650 All-In-One

filter, regulator and coalescer

A unique product in the finishing market

- FRC-650 All-In-One combines a filter, regulator and coalescer for shop air into one compact unit.
- Four 1/4" NPS (M) ball valves with unrestricted air passages, (three regulated plus one unregulated outlet.)
- Ball valves inclined 45°—avoids kinking of hoses, which increases life span.



- Robust and durable.
- Solvent-resistant filter bowl and body is indispensible in the spray area.
- Solvent- and slip-resistant knob for easy air adjustment.
- Automatic drains at each stage eliminate water build-up—no need to manually drain.

When the air enters the filter bowl, it is centrifuged by the swirl baffle. This forces the liquid and solid particles toward the walls of the bowl.

- 2 The condensed liquid from the first stage trickles down the walls and accumulates at the bottom of the bowl
- 3 The drain on the right side is used to release the liquid captured in the first stage.
- 4 Next, the air goes through the pre-filter, which traps the remaining residues that accumulate on the coalescing element.
- 5 The liquids condensed between the pre-filter and the coalescing element drip down and collect in the left reservoir.
- 6 The drain on the left side is used to release the remaining liquids from the left reservoir.
- The regulating air knob controls the flow of clean, dry air through the regulating valve.
- 8 When adjusting the regulated air pressure, the automatic relief valve changes the pressure in the 3 outlet air lines to the desired setting.
- The gauge located at the center of the filter bowl indicates the air pressure available at the three regulated outlets.



FRC-650 Specifications

1	
Type of Air Regulation	Diaphragm
Air Inlet Port Size	
Air Outlet Port Size	1/4" NPS (M)–(4)
Regulated Air Outlets	3
Unregulated Air Outlets	
Filtered Line Air Inlet	
Max. Working Temperature	
Max. Air Inlet Pressure	175 psi (12.3 kgf/cm2)
Regulated Outlet Pressure	$\dots 0 - 125 \text{ psi} (0 - 8.8 \text{ kgf/cm2})$
Flow Rate	
First Stage Filtering Capacity	5 micron
Second Stage Filtering Capacity	1 micron
Bowl and Body Construction	
Drain	Automatic
Service Bulletin	SB-6-377

FRC-650 Spare Parts

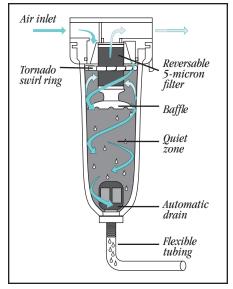
Part No.	Description	Comment
FRC-044	Automatic Filter Drain Assembly	Filter Drain, Retainer Nut
K-4100	Knob Assembly	Reg Knob, Cover Piece, Brass Washer, Clip
K-4103	Ball Valve Assembly	Ball Valve Parts, all parts
K-4105	Coalescent Automatic Drain Assembly	Stem & Ring in plastic box, Drain Body
K-4106	Replacement Kit (Filter and Coalescer Elements and O-rings)	Coalescent Element, Filter Element, 3/ea. O-rings
K-4107	Repair Kit	Regulator Cover Piece, Black Seat, Composite Washer, Clip





BSS CleanAir Centrifugal Filter-Regulator Units

Excellent for eliminating moisture and dirt from an air supply



Tornado-like swirling action removes moisture which collects in the baffled "quiet zone." The reusable 5-micron filter catches smaller impurities. Accumulated liquid is carried away by the automatic drain.



Quick-release filter bowl and spin-off 5-micron filter element allow oneminute filter changes without tools. Pressure drops are minimized by large air inlet and outlet and large internal air passages.

Accessories

Mounting Bracket Assembly Kits

- For HAF-502 air filter and HFRL-508 regulator; order HAF-407.(SB-6-143)
- For HAF-503 air filter, and HFRL-509 and HFRL-511 regulators, order HAF-408. (SB-6-143)

Filter Element Kits (5-Micron reusable)

- •For HAF-502 air filter and HFRL-508 regulator; order HAF-6.
- •For HAF-503 air filter, and HFRL-509 and HFRL-511 regulators, order HAF-15.
- For HAF-505 air filter, order HAF-28.

DeVilbiss CleanAir centrifugal units supply cleaner, drier air to each spray gun in a system. This cleaner air can also increase the life of pneumatic tools.

- · Filters out water and oil aerosols and dirt particulates to 5 microns.
- Ideal for most spray applications, air tools and equipment.
- Water droplets collected in the bowl are removed by an automatic drain (standard feature). No need to manually drain.



SB-6-148





EVILBIS

CLEAN :



HFRL-511

Service Bulletin SB-6-148

HAF-502 Service Bulletin Service Bulletin SB-6-146

HFRL-505 Service Bulletin SB-6-152

HFRL-508 Service Bulletin SB-6-148

HFRL-509 Service Bulletin SB-6-148

Centrifugal Air Filter Units

PART NO.	HAF-502	HAF-503	HAF-505
Filtering Capacity (micron)	5	5	.01
Flow Rate (CFM)	100 @ 90 psi	150 @ 90 psi	55 @ 90 psi
Max. Inlet Pressure	150 psi / 10.3 bar	150 psi / 10.3 bar	150 psi / 10.3 bar
Max. Operating Temp.	150°F / 65.6°C	150°F / 65.6°C	150°F / 65.6°C
Inlet Port Size	1/2" NPT (F)	3/4" NPT (F)	1/2" NPT (F)
Outlet Port Size	1/2" NPT (F)	3/4" NPT (F)	1/2" NPT (F)
Bowl Capacity	17 oz.	34 oz.	17 oz.
Shipping Weight	1 lb. 7 oz.	3 lbs. 1 oz.	1 lb. 8 oz.
Auto Drain	Std.	Std.	Std.
Service Bulletin	SB-6-146	SB-6-148	SB-6-152

Centrifugal Filter-Regulator Units

PART NO.	0	HFRL-508	HFRL-509	HFRL-511
Filtering Capacity (micron)		5	5	5
Flow Rate (CFM)		60+	80+	120+
Max. Inlet Pressure		150 psi / 10.3 bar	150 psi / 10.3 bar	150 psi / 10.3 bar
Regulated Pressure Range (psi)		0 - 125	0 - 125	0 - 125
Max. Operating Temp.		150°F / 65.6°C	150°F / 65.6°C	150°F / 65.6°C
Inlet Port Size		1/2" NPT (F)	3/4" NPT (F)	3/4" NPT (F)
Regulated Outlets (w/ ball valve)		(1) 1/4" NPS (M)	(2) 1/4" NPS (M)	(4) 1/4" NPS (M)
Non-Regulated Outlets (w/ ball valve))	(1) 1/4" NPS (M)	(1) 1/4" NPS (M)	(1) 1/4" NPS (M)
Bowl Capacity		17 oz.	34 oz.	34 oz.
Air Filter Included		HAF-502	HAF-503	HAF-503
Quantity of Air Regulators/Model		(1) HAR-507	(1) HAR-507	(2) HAR-507
Air Gauges (0 - 100 psi)		1	1	2
Air Gauges (0 - 160 psi)		1	1	1
Shipping Weight		9 lbs.	15 lbs.	18 lbs.
Service Bulletin		SB-6-146	SB-6-148	SB-6-148

CleanAir Coalescer Filter-Regulator Units



Removes water, dirt and oil from the system down to .01 micron

CleanAir coalescer filters remove water, dirt and oil from the system down to .01 micron. DeVilbiss coalescer filter units are designed with a quick-release bowl and spin-off element for filter changes without tools. In addition, a filter-change indicator alerts the operator when the element requires changing.

- Borosilicate glass microfiber filter is engineered for high flow, high efficiency, quick change and low pressure drop.
- Ideal for most spray applications, especially where oil aerosols may be a problem.
- Automatic bowl drain and 6' hose eliminate oil and water buildup (standard feature). No need to manually drain.



Accessories

- Mounting bracket assembly kit is available; order HAF-408. (SB-6-143)
- Centrifugal filter element kit has reusable 5-micron filter; order HAF-15.
- Coalescer filter element kit has .01-micron filter; order HAF-38.



Centrifugal-Coalescer Filter Units

HAF-508 COALESCER*	HAF-509 CENTRIFUGAL & COALESCER
5	5
.01	.01
150 @ 90 psi	150 @ 90 psi
150	150
150°F	150°F
3/4" NPT (F)	3/4" NPT (F)
3/4" NPT (F)	3/4" NPT (F)
34 oz.	34 oz.
3 lbs. 2 oz.	6 lbs. 3 oz.
SB-6-148	SB-6-148
	COALESCER* 5 .01 150 @ 90 psi 150°F 3/4" NPT (F) 3/4" NPT (F) 34 oz. 3 lbs. 2 oz.

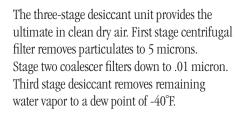
Coalescer-Filter Regulator Units HFRL-512 REGULATED MODELS HFRL-513 5 5 Centrifugal Filtering Capacity (micron) Coalescer Filtering Capacity (micron) .01 .01 Flow Rate (CFM) 80+ 120 +Max. Inlet Pressure (psi) 150 150 Regulated Pressure Range (psi) 0 - 125 0 - 125 Max. Operating Temp. 150°F 150°F Inlet Port Size 3/4" NPT (F) 3/4" NPT (F) Regulated Outlets (w/ ball valve) (2) 1/4" NPS (M) (4) 1/4" NPS (M) Non-Regulated Outlets (w/ ball valve) (1) 1/4" NPS (M) (1) 1/4" NPS (M) Bowl Capacity 34 oz. 34 oz. Quantity of Air Regulators/Model (2) HAR-507 (1) HAR-507 Air Gauges (0 - 100 psi) 2 Air Gauges (0 - 160 psi) 1 1 Shipping Weight 18 lbs. 2 oz. 21 lbs. 2 oz. Service Bulletin SB-6-148 SB-6-148

* HAF-508 coalescer filter should be used in conjunction with a centrifugal type filter to remove the majority of water, oil and dirt, prior to the coalescer filter.



CleanAir Three-Stage Desiccant Unit

Provides the ultimate in clean dry air



- Ideally suited for low to medium production.
- DAD-500 air-drying system includes three filtering units, as well as a wall mount bracket and desiccant filter change indicator.
- Centrifugal and coalescer units include automatic bowl drain (standard feature). No need to manually drain.
- Coalescer filter includes filter change indicator.
- Desiccant filter includes sight glass indicator (Changes color when desiccant needs replacement).



DAD-500* **Desiccant Air Drying System**

DAD-500 AIR DRYING SYSTEM*
1/2" NPT (F)
1/2" NPT (F)
150
DAD-1•
SB-6-156
25

* Includes HAF-502, HAF-505 and HAR-507.

• Shipping weight approximately 10 lbs.

Air Vizor[™]

DAD-504

- Converts DAD-500 into a breathing air source
- Charcoal filter for hydrocarbon and odor removal
- 28 CFM breathing air regulator. Includes all necessary fittings
- Can be used with up to four DeVilbiss Air Vizors
- Automatic drain
- Refer to Service Bulletin SB-6-176



Order No. Model No.	Belt Regulator and Hood Assembly	Breathable Air Hose (30')	No. of Visor Covers Included	Filtration Unit Included	Filtration Description
MPV-625	Yes	No	2	None	—
MPV-650	Yes	Yes	12	DAD-504	Desiccant Retrofit System
MPV- 651	Yes	Yes	12	DAD-503	3 Stage Filtration with Desiccant Air Dryer System
MPV-652	Yes	Yes	12	HAF-601	3 Stage Filtration System

*Air VizorTM requires proper air line filtration and carbon monoxide (CO) monitoring to complete an approved supplied air respirator. See descriptions at right for proper air line filtration. A carbon monoxide (CO) monitor may be purchased locally or from ENMET Corporation:

(734) 761-1270 (phone). Order form F-1073-B available from DeVilbiss upon request.



Service Bulletin SB-6-159

DAD-503

- Converts shop air into clean, dry, contaminant-free air for breathing systems and spray operations
- 5 micron particulate filter (Stage 1)
- .01 micron coalescing filter (Stage 2)
- Charcoal filter for hydrocarbon and odor removal (Stage 3)
- 28 CFM breathing air regulator
- Desiccant system removes water vapor for spray gun (rated for 25 CFM maximum flow)
- 60 CFM spray gun regulator
- Automatic drains (Stages 1, 2 and 3)
- Can be used with up to four Air Vizors
- 1/2" NPT inlet
- Refer to Service Bulletin SB-6-159



HAF-601

- · Converts shop air into clean, contaminant-free air for breathing systems and spray operations
- 5 micron particulate filter (Stage 1)
- .01 micron coalescing filter (Stage 2)
- Charcoal filter for hydrocarbon and odor removal (Stage 3)
- 28 CFM breathing air regulator
- 60 CFM spray gun regulator
- Automatic drains (Stages 1, 2 and 3)
- Wall-mount bracket
- Can be used with up to four Air Visors • 1/2" NPT inlet
- Refer to Service Bulletin SB-6-132

The filtration units above are only one part of a complete breathable air system. These must be combined with a supplied air respirator and Grade D breathable air. A carbon monoxide (CO) monitor must also be used.

Air Control Accessories **CleanAir Air Regulators**



HAR Air Regulators

General purpose regulators for line takeoff use or as integral regulators on pumps, pressure tanks and other air operated devices. Require separate trap or filter in air line to remove moisture or dirt.

- Unique three position, non-rising adjusting knob.
- Removable plug and cap.
- All metal body; durable Delrin® cap and knob; Buna N diaphragm and disc.
- · Accurate regulator mechanism provides precision air control.
- Self-relieving design. .
- Both main line and regulated outlets • available from same units.



HAR-507

HAR-501^{*} Air Regulator

Extra Sensitive regulator for use with precision control on pressure feed tanks or other dead-end applications. Can be used to control atomization pressure for one spray gun.

- Self-relieving regulator.
- Tough, reinforced Buna N diaphragm • for extended service life.
- 100 mesh stainless steel strainer Removable bottom plug for easy •
- service.
- · Forged brass body and stainless steel or brass internal parts for long service.
- High ratio of diaphragm surface to oriface area provides stable uniform regulation.

CleanAir Tank Regulator Conversion Kits

QMS-436	100 psi gauge, DM Nipple, HAR-507 Regulator
QMS-4003	150 psi gauge, ¼" NPT Street Tee, ¼" NPS(m) x 1" Swivel, Ball Valve, No Regulator
QMS-4006	150 psi gauge, 3/8" Bushings, Swivel Adapter, Ball Valves, HAR-511 Regulator
QMS-4007	150 psi gauge, 100 psi gauge, DM Nipple, 3/8" Bushings, Swivel Adapter, Ball Valves, HAR-507 Regulator, HAR-511 Regulator
QMS-4010	30 psi gauge, 3/8'' Bushings, ¼'' NPT Male

Branch Tees, Swivel Adapter, Safety Valve, Ball Valves, HAR-501 Regulator

		MAXIMUM CAPACITY	REGULATED PRESS. RANGE	MAX. AIR INLET PRESS.	MAX. OPERATING TEMPERATURE	DIMENSIONS	WEIGHT	M	AIN AIR INLET	MA	IN LINE OUTLET	REG	ULATED OUTLETS
M	ODEL	CFM	PSI	PSI	°F	H" X W"	LBS.	PORT	SIZE	PORT	SIZE	PORT	SIZE
Н	IAR-535	40	0 - 125	250	120°	4-7/8 x 2-3/8	1-1/8	1	3/8" NPT (F)	1	1/4" NPT (F)	1	3/8" NPT (F)
Η	IAR-555	40	0 - 125	250	120°	4-7/8 x 2-3/8	1-1/8	1	3/8" NPT (F)	2	1/4" NPT (F)	1	1/2" NPT (F)
Н	IAR-507	60	0 - 125	250	150°	4-7/8 x 3	1-1/2	1	3/8" NPT (F)	-	-	3	1/4" NPT (F)
Η	IAR-511	60	0 - 125	150	150°	6-1/2 x 3	2	1	3/8" NPT (F)	2	1/4" NPT (F)	1	1/4" NPT (F)
										-	-	1	3/8" NPT (F)
Н	IAR-501*	15	0 - 20	250	120°	6 x 4-1/2	2-1/4	1	3/8" NPT (F)	-	-	1	3/8" NPT (F)

* Extra-sensitive regulator for precise control on pressure tanks and other dead-end applications.

WhirlWind[™] In-Line Filter HAF-507-K12

The WhirlWind disposable in-line filter attaches to the base of the spray gun or air tool to remove any remaining water, oil, dirt and rust from the air line. This high-quality, high-flow, solvent-resistant air filter has a very low pressure drop and has a floating filter that automatically adjusts for changing air conditions



• Air is swirled to trap droplets, then filtered to absorb remaining particulates. • Multi-layer design extends life, so unit lasts up to 40% longer than other filters. · Perfect for use with HVLP guns, Whirl-Wind provides 55% more air flow than other filters.

HOUSING MATERIAL	PACKAGING	THREADS	MAXIMUM OPERATING PRESSURE	OPERATING TEMPS.	PRESSURE DROP @ 80 PSI w/ 20 SCFM	LIQUID CONTAMINANT	SERVICE BULLETIN
Solvent-resistant Delrin® plastic	1 1	1/4" NSP (M) inlet 1/4" NSP (F) inlet	125 psi	50°F - 110°F	2 psi	1.5 fl. oz.	SI-8-10-1

GA Pressure Gauges

MODEL	SCALE		TYPE	THREAD	DIAMETER	INLET
GA-73	0 - 30 psi	0 - 2 bar	Air, Fluid	1/4" NPT (M)	2"	Bottom
GA-77	0 - 30 psi	0 - 2 bar	Air, Fluid	1/4" NPT (M)	3-1/2"	Bottom
GA-288	0 - 160 psi	0 - 11 bar	Air, Fluid	1/4" NPT (M)	2"	Bottom
GA-313	0 - 15 psi	0 - 1 bar	Air	1/8" NPT (M)	1-1/2"	Bottom
GA-316	0 - 160 psi	0 - 11 bar	Air	1/4" NPT (M)	2"	Back
GA-338	0 - 160 psi	0 - 11 bar	Air	1/8" NPT (M)	1-1/2"	Back
GA-355	0 - 30 psi	0 - 2 bar	Air, Fluid	1/8" NPT (M)	1-1/2"	Bottom



For accurate pressure readings, standard gauges are made from rust-resistant materials and include glass covered dials. Can be used in any location where conditions of vibration or rough service exist.

GA-77 gauge is very accurate in low pressure range and ideal for critical pressure adjustments. Calibrated in ounces from 0 to 10 lbs.; in pounds from 10 to 30 lbs.

Air Regulator Lockout HAR-400

This device allows the painter to set their air regulators to guarantee proper atomization, as well as to assure compliance in areas where air cap pressure is limited to 10 psi or less. Includes one key per unit.



MODEL

Air (Ball)Valves MAX. OPERATING DESCRIPTION PRESSURE MATERIAL

VA-527	3/8" NPS (M) x 3/8" NPT (M)	500	Stainless Steel
VA-528	3/8" NPS (M) x 3/8" NPT (F)	500	Stainless Steel
VA-540	3/8" NPS (M) x 3/8" NPT (M)	500	Brass
VA-542	1/4" NPS (M) x 1/4" NPT (M)	500	Brass

Sales and Service Through a Nationwide Network of Industrial Distributors



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