

AVG Product Range

Technical Specifications



Contents

1. Expel: Technical Specifications

- Notices and Warnings Page 2
- Range Comparison Page 3
- Parts List Page 4
- Technical Drawings Pages 5-8
- User Guide: Expel 30 Pages 9-10
- User Guide: Expel 3 Pages 11-12

2. AVG Accessories: Technical Specifications

- AVG Auto-Drains: Range Comparison Page 14
- AVG 37 Pages 15-16
- AVG Electronic Timer Drain Pages 17-18
- AVG Float Drain Pages 19-21
- AVG Clear Plastic Drain Page 22
- AVG Automatic Flat Drain SS304 Page 23
- AVG Regulators Page 24
- AVG Lubricators Page 25
- Using Expel with Regulators and Lubricators Page 26

3. Spare Parts and Extras

- Spare Parts and Extras Page 28

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expel

Technical Specifications

Notices and Warnings

Important Notices

The information on this page applies to all Expel units.

The Expel range of compressed air filter are point-of-use filtration devices. For maximum operating performance, they should be installed no more than 2 metres from the air usage point.

You must install appropriate valves or auto drains to operate Expel filters.

Each Expel unit has a 10-year warranty. For further details about the warranty, please contact your local distributor or Original AVG directly.

Warning



Expel units are pressurised devices. Do not exceed the maximum operating pressure stated on the device.



Range Comparison

	Unit	Expel 3	Expel 30	Expel 60M	Expel 90M
Flow Rate	cfm	1-9	4-30	4-60	4-90
	l/min	28-255	141-850	142-1699	141-2548
	m ³ /hr	1.7-15	6.7-51	6.7-102	6.7-153
Inlet/Outlet	BSPT (F)	¼"	¾" (½" reducer inc.)	1, 1 ½ & 2	1, 1 ½ & 2
Drain Connection	BSPT (M)	½"	½"	½"	½"
Operating Pressure	bar	1-15	1-15	1-15	1-15
	psi	15-217	15-217	15-217	15-217
Operation Temperature	°C	0 to + 80	0 to + 80	0 to + 80	0 to + 80
	°F	32 to 176	32 to 176	32 to 176	32 to 176
Max Recommended Inlet Temperature	°C	35	35	35	35
	°F	95	95	95	95
Material Housing		SS 316	SS 304	SS 304	SS 304
Material Internals		ABS	ABS	ABS	ABS
Manifold Unit*		N/A	N/A	Yes	Yes
Qty of Auto-Drains Required		1	1	2	3



Parts List

Model	Part Number	Manifold Unit	Manifold Piping	Mounting Bracket	Portable	Inlet/Outlet Ports	Quantity of Auto-Drains Required
Expel 3	6000-019-AC			✓		1/4"	1
Expel 30	6000-003-AA			✓		3/4" 1/2" reducer inc.	1
Expel 60 M	6001-014-AA	✓	Plastic	✓		1"	2
Expel 60 M	6001-014-AB	✓	Plastic	✓		1 1/2"	2
Expel 60 M	6001-014-AC	✓	Plastic	✓		2"	2
Expel 60 M	6001-011-BA	✓	Galvanised	✓		1"	2
Expel 60 M	6001-011-BB	✓	Galvanised	✓		1 1/2"	2
Expel 60 M	6001-011-BC	✓	Galvanised	✓		2"	2
Expel 60 M	6001-012-AA	✓	Stainless Steel	✓		1"	2
Expel 60 M	6001-012-AB	✓	Stainless Steel	✓		1 1/2"	2
Expel 60 M	6001-012-AC	✓	Stainless Steel	✓		2"	2
Expel 60 M	6001-008-AA	✓	Galvanised		✓	1"	2
Expel 60 M	6001-013-AA	✓	Stainless Steel		✓	1"	2
Expel 90 M	6001-006-AB	✓	Plastic	✓		1"	3
Expel 90 M	6001-006-AD	✓	Plastic	✓		1 1/2"	3
Expel 90 M	6001-006-AC	✓	Plastic	✓		2"	3
Expel 90 M	6001-007-AA	✓	Galvanised			1"	3
Expel 90 M	6001-007-AB	✓	Galvanised			1 1/2"	3
Expel 90 M	6001-007-AC	✓	Galvanised			2"	3
Expel 90 M	6001-017-AA	✓	Stainless Steel	✓		1"	3
Expel 90 M	6001-017-AB	✓	Stainless Steel	✓		1 1/2"	3
Expel 90 M	6001-017-AC	✓	Stainless Steel	✓		2"	3
Expel 90 M	6001-009-AA	✓	Galvanised		✓	1"	3
Expel 90 M	6001-009-AB	✓	Galvanised		✓	2"	3

Technical Drawings

Expel 3

6000-019



Expel 30

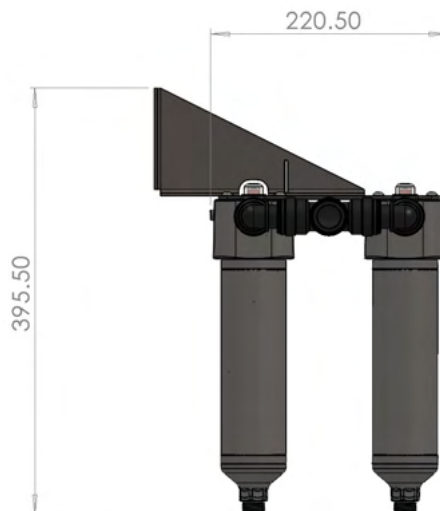
6000-003



Not to scale (mm)

Expel 60M

6001-014 - Plastic Manifold

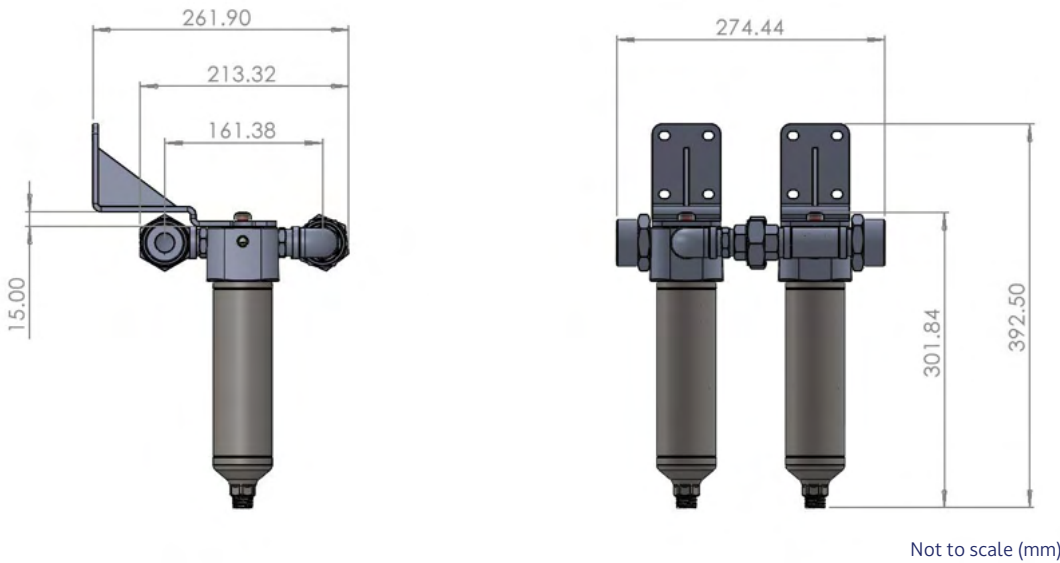


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Technical Drawings

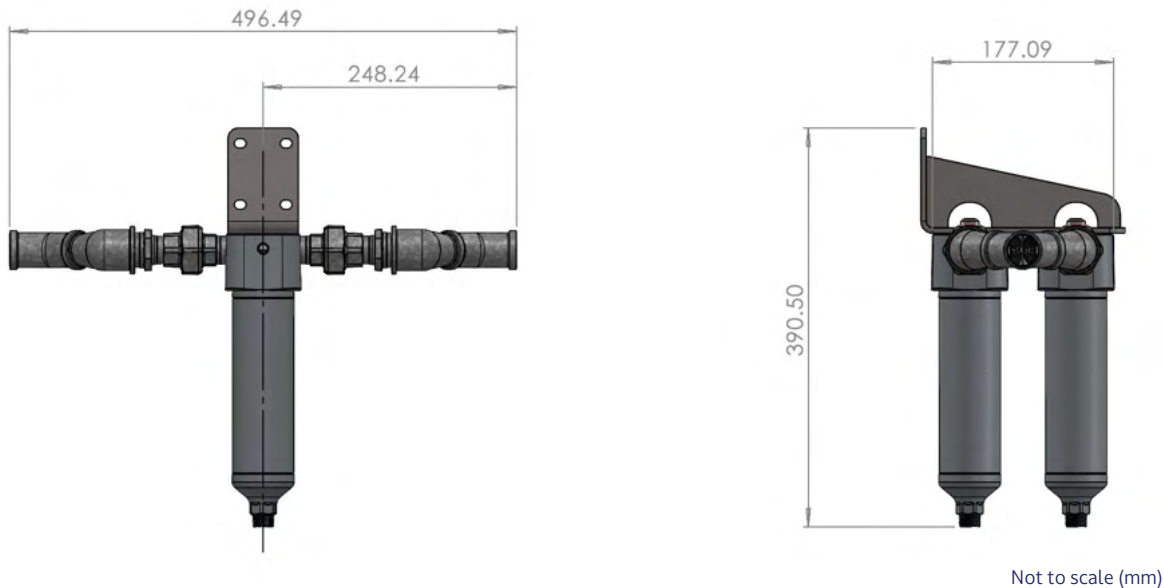
Expel 60M

6001-012 - Stainless Steel Manifold



Expel 60M

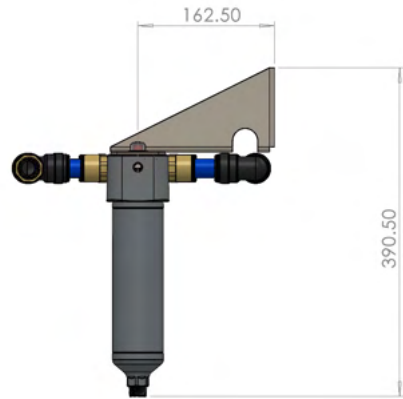
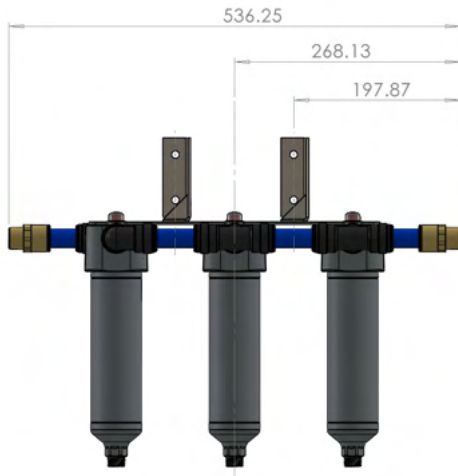
6001-011 - Galvanised Manifold



Technical Drawings

Expel 90M

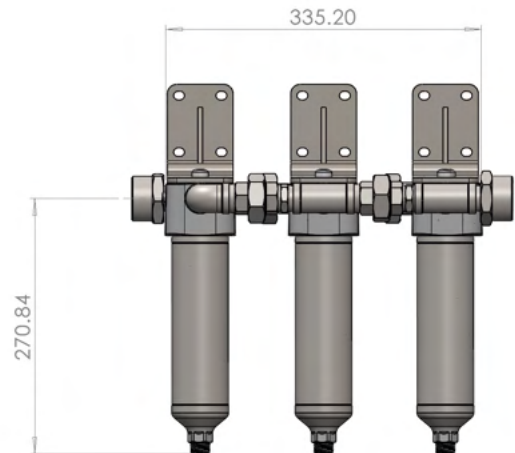
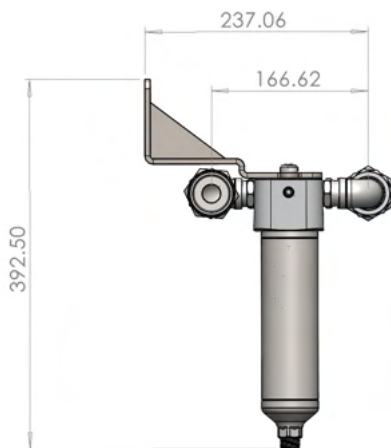
6001-006 - Plastic Manifold



Not to scale (mm)

Expel 90M

6000-017 - Stainless Steel Manifold



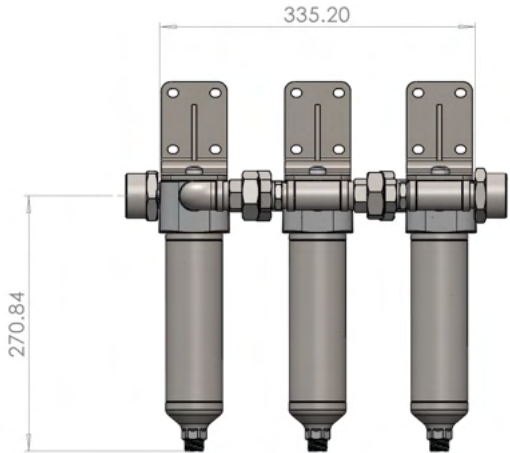
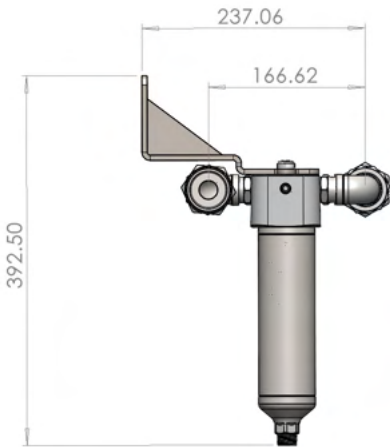
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Technical Drawings

Expel 90M

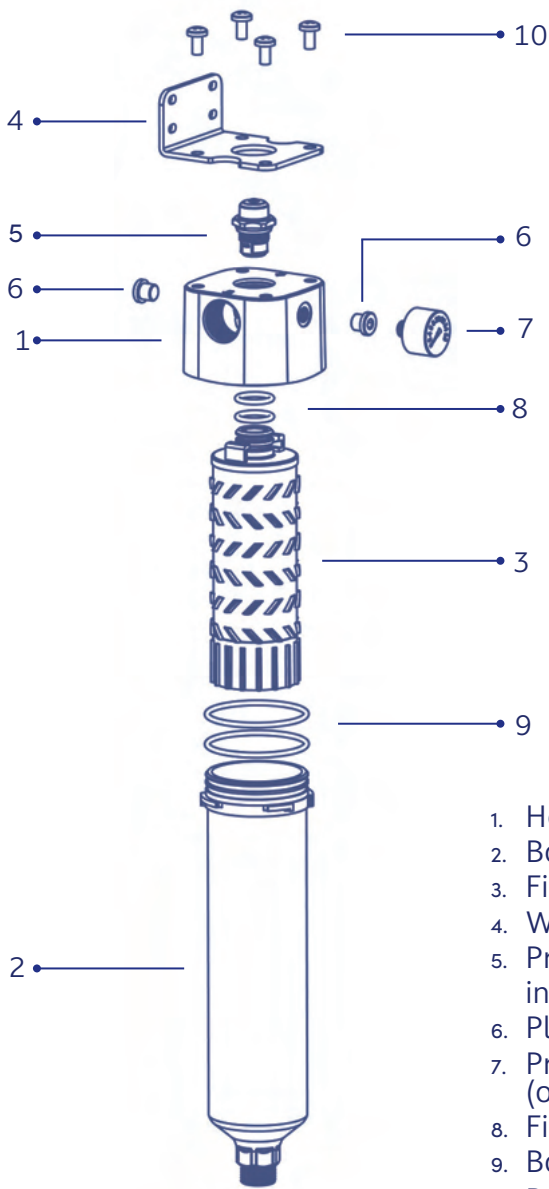
6001-007 - Galvanised Manifold



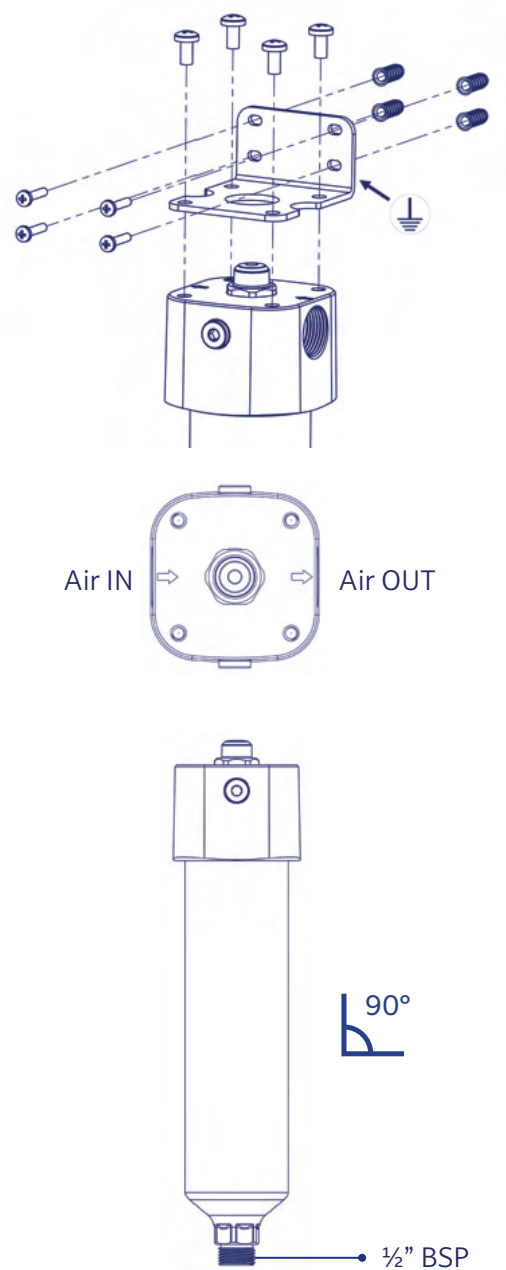
Not to scale (mm)

Expel 30

PARTS LIST



INSTALLATION

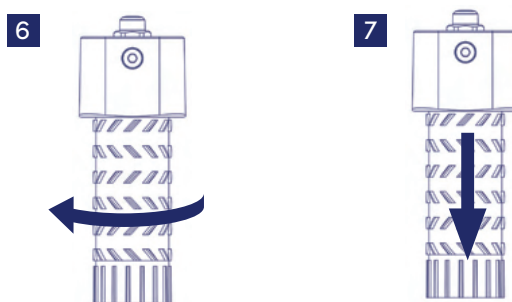
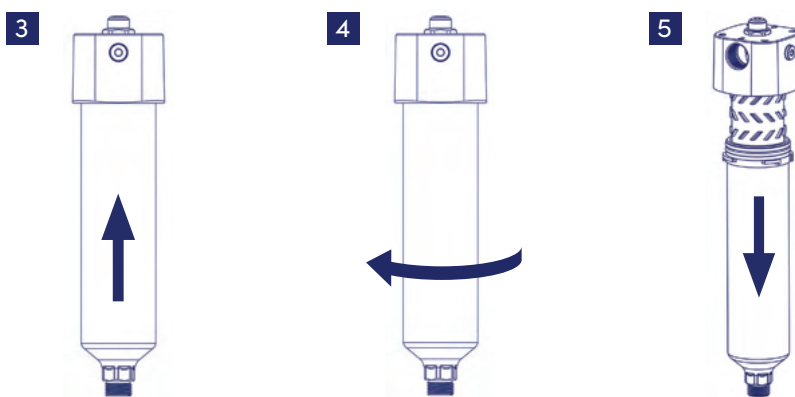


Expel 30

EXPEL UNDER PRESSURE



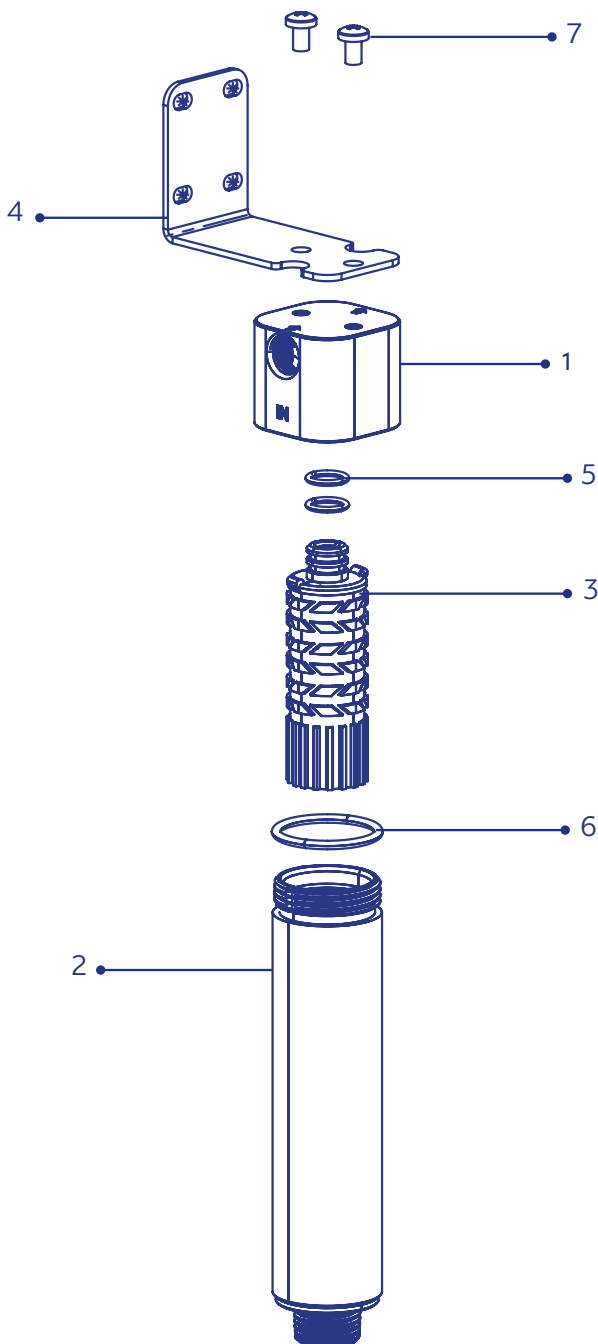
MAINTENANCE



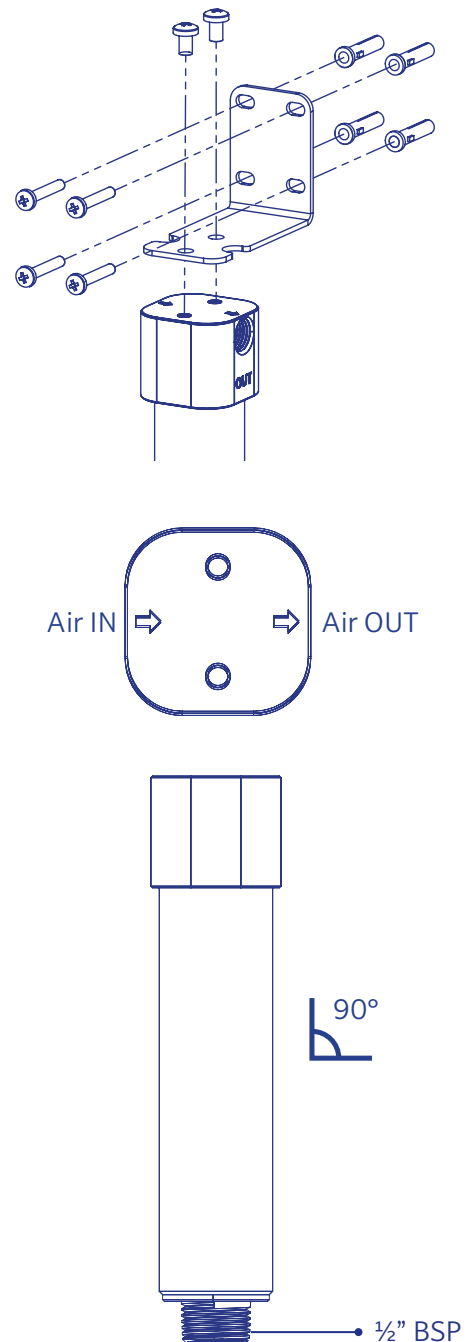
Maximum operating pressure: 15 bar

Expel 3

PARTS LIST

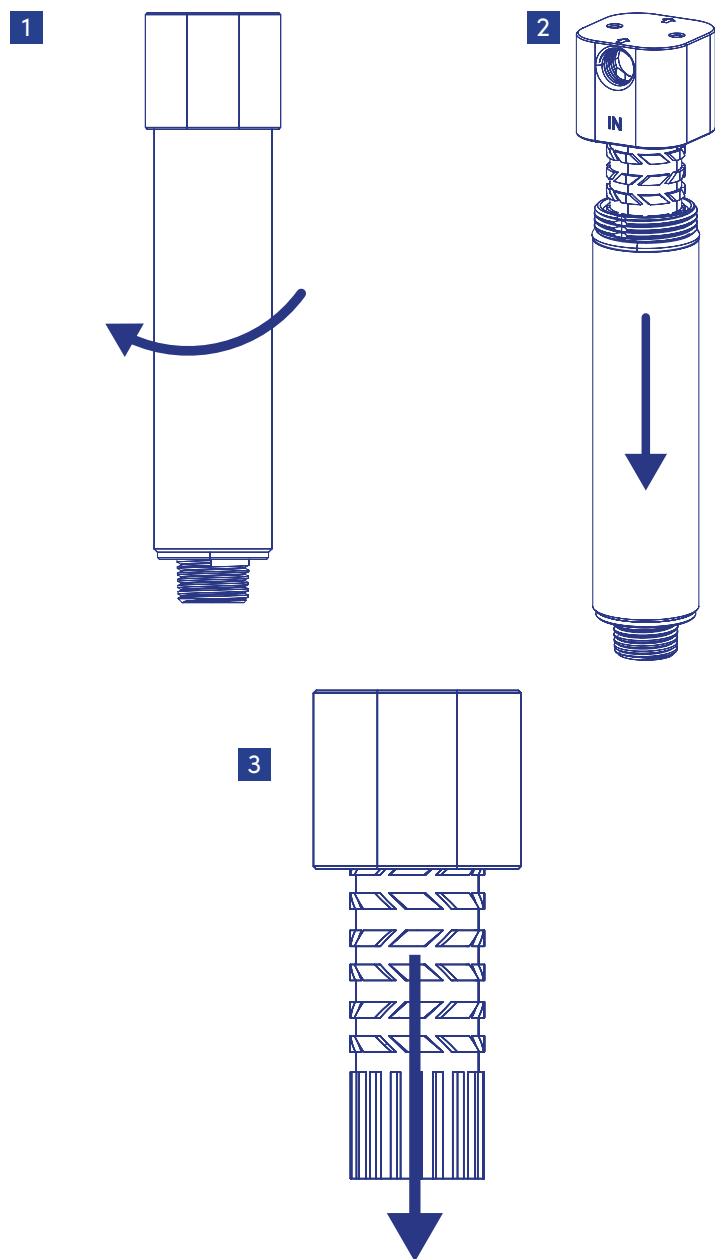


INSTALLATION



Expel 3

MAINTENANCE



 **Maximum operating pressure: 15 bar**

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AVG Accessories

Technical Specifications

AVG Auto-Drains

Range Comparison



AVG 37



AVG Electronic Timer Drain



AVG Float Drain



AVG Clear Plastic Drain



AVG Automatic Float Drain SS304

	Airline Condition	Operating Pressure	Part Number	Voltage		Drain Type	Power Required	Serviceable	Inlet Port	Outlet Port	
AVG 37	Extremely Dirty	0 – 40 bar	6100-079	24	VDC	4.5 V	Timer Drain	Yes	Yes	1.2" BSP	1.2" BSP
			6100-080	230	VAC						
			6100-081	115	VAC						
AVG Electronic Timer Drain	Very Dirty	0 – 16 bar	6100-078	380	VAC	4.5 V	Timer Drain	Yes	Yes	1/2" BSP	1.2" BSP
			6100-073	230	VAC						
			6100-074	115	VAC						
			6100-075	24	VAC						
			6100-076	24	VDC						
			6100-077	12	VDC						
AVG Float Auto Drain	Dirty	0 – 10 bar	6100-084				Float Drain	No	Yes	1/2" Rc	1/2" Rc
AVG Automatic Float Drain SS304	For alternative compressed gas applications	0 - 16 bar	6100-093				Float Drain	No	No	1/2" NPT	1/2" NPT
AVG Clear Plastic Auto Drain	Clean	0 - 10 bar	6100-023				Float Drain	No	Yes	1/2" BSPT	Ø6mm

Important Notice: You must install appropriate valves or auto-drains to operate Expel filters.

AVG 37

Technical Specifications

AVG 37 is the ultimate auto drain for the harshest conditions. This motorised ball valve auto drain can withstand extreme volumes of rust and dirt without getting blocked and clogged.



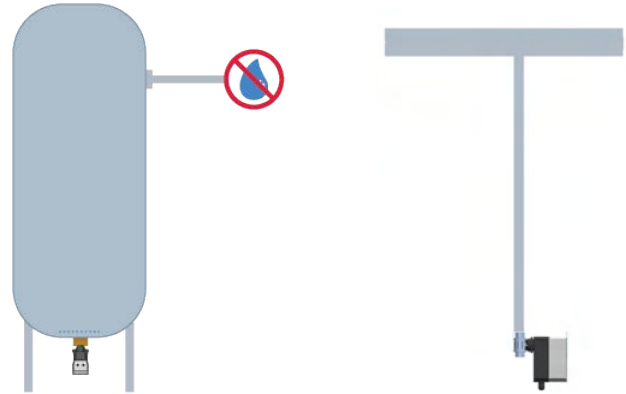
Max. Compressor Capacity	Any size
Pressure Range	0-600 psi / 0-16 bar
Supply Voltage Options	24VDC, 115VAC, 230VAC 50/60hz
Medium Temperature	1-60°C / 34 - 140°F
Ambient Temperature	1-55°C / 34-131°F
Timer Cycle Range (on/off)	7 seconds to 15 minutes on / 4 minutes to 24 hours off
Actuator PCB	SMD technology, ensuring consistency in production
Timer Cycle Indication	Bright LED illumination, LED program indicator
Test Feature	Yes
Valve Type	2/2 way, motorised ball valve
Valve Orifice	12mm
Valve Seals	FPM and Teflon
Inlet/Outlet Connections	1/2" BSP
Inlet Connection Height	0.4"
Serviceable Valve	Yes
Valve Housing Material	Brass Nickel plated, ball valve stainless steel
Power Connection	Cable and plug
Environmental Protection	NEMA4 (IP65)
Remote Switch Option	Yes

AVG 37

Technical Specifications

Applications

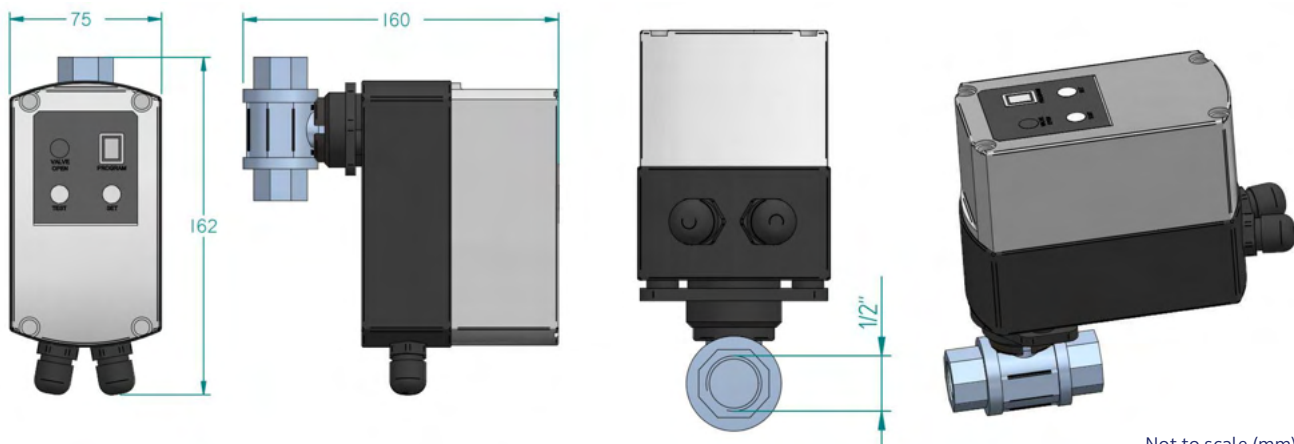
1. Air receiver tanks
2. Drops



Range Comparison

Model	Part Number	Port	Voltage	Operating Pressure Range	Valve Housing Material
AVG 37 - Motorised Ball Valve Drain - G1/2 24VDC 40 bar	6100-079	G1/2	4.5 V 24VDC	0-40 bar	Brass
AVG 37 - Motorised Ball Valve Drain - G1/2 230VAC	6100-080	G1/2	4.5 V 230VAC	0-40 bar	Brass
AVG 37 - Motorised Ball Valve Drain - G1/2 115VAC 40 bar	6100-081	G1/2	4.5 V 115 VAC	0-40 bar	Brass

Technical Drawings



Not to scale (mm)

AVG Electronic Timer Drain

Technical Specifications

The AVG Electronic Timer Drain is robust, reliable and suitable for various applications. The drain can withstand airlines where dirt and rust are present.



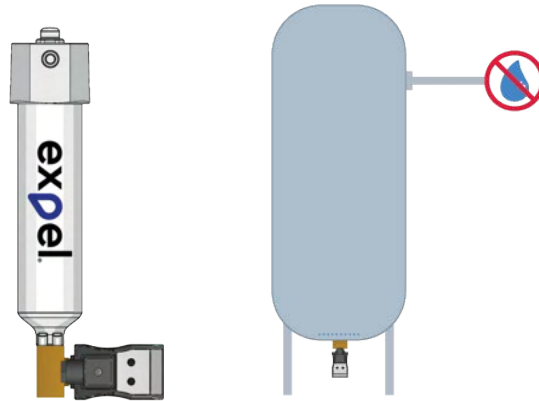
Max. Compressor Capacity	Any size
Pressure Range	0-16 bar
Supply Voltage Options	12-380 VAC/DC
Medium Temperature	1-55°C / 33.8-131°F
Ambient Temperature	1-55°C / 33.8-131°F
Timer Cycle Range (on/off)	0.5-10 seconds / 0.5-45 minutes
Timer PCB	SMD technology, ensuring consistency in production
Timer Cycle Indication	Bright LED illumination
Test Feature	Yes
Valve Type	2/2 way, direct acting
Valve Orifice	4.5mm
Valve Seals	FPM
Inlet/Outlet Connections	1/2" BSP
Inlet Connection Height	1cm
Serviceable Valve	Yes
Valve Housing Material	Brass (stainless steel available)
Power Connection	DIN 43650-A
Environmental Protection	IP65 (NEMA4)

AVG Electronic Timer Drain

Technical Specifications

Applications

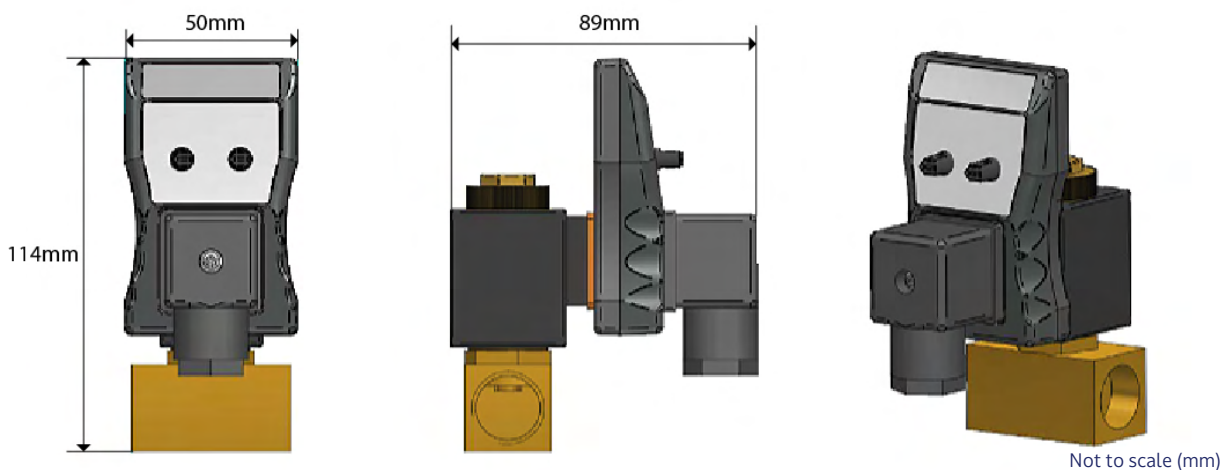
1. Expel units
2. Air receiver tanks



Range Comparison

Voltage Options	Part Number	Port	Valve House Material
4.5 V 230VAC	6100-073	G1/2	Brass
4.5 V 115VAC	6100-074	G1/2	Brass
4.5 V 24VAC	6100-075	G1/2	Brass
4.5 V 24VDC	6100-076	G1/2	Brass
4.5 V 12VDC	6100-077	G1/2	Brass
4.5 V 380VAC	6100-078	G1/2	Brass

Technical Drawings



AVG Float Drain

Technical Specifications

The AVG Float drain is a simple, effective auto drain appropriate for various industries. Suitable for use in environments where dirt is present in the compressed air lines.



Part Number: 6100-084

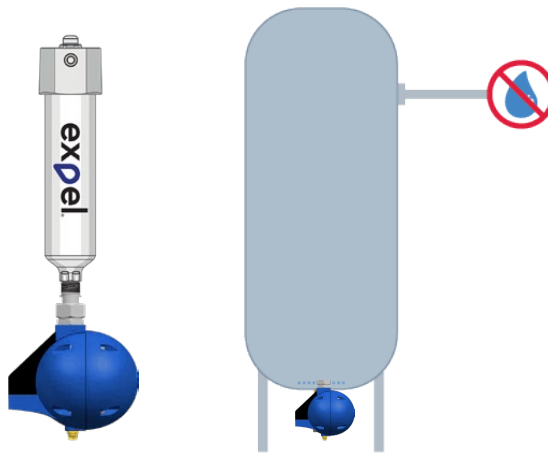
Auto Drain Type	Ball float type
Operating Temperature Range	1.5-65°C / 34.7-149°F
Operating Pressure Range	0-10 bar
Valve Orifice	3mm
Port Size	RC 1/2"
Drain Port Size	RC 1/2"
Initial Discharge Value	72-75ml
Largest Discharge Capacity	400 L/h (6.67L/min)
Bowl Material	Aluminium
Valve Seal Material	Nitrile rubber
Dimensions	134 x 108 x 180mm
Serviceable	Yes
Weight	0.6kg
Includes	Anti-airlock vent tube

AVG Float Drain

Technical Specifications

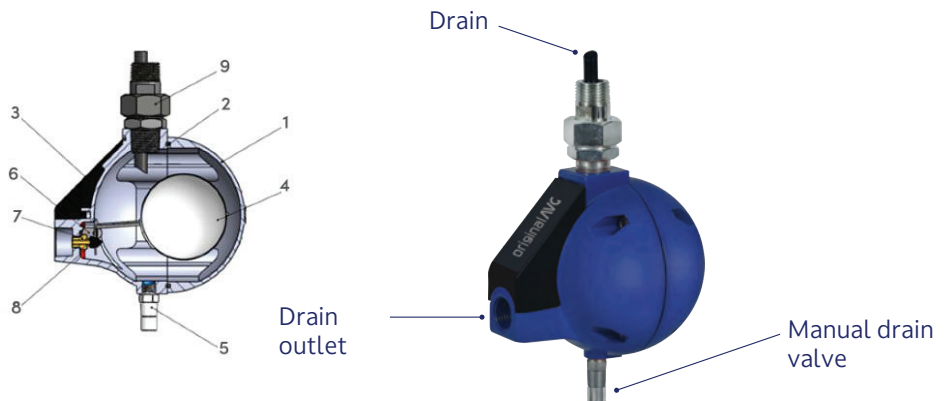
Applications

1. Expel units
2. Air receiver tanks

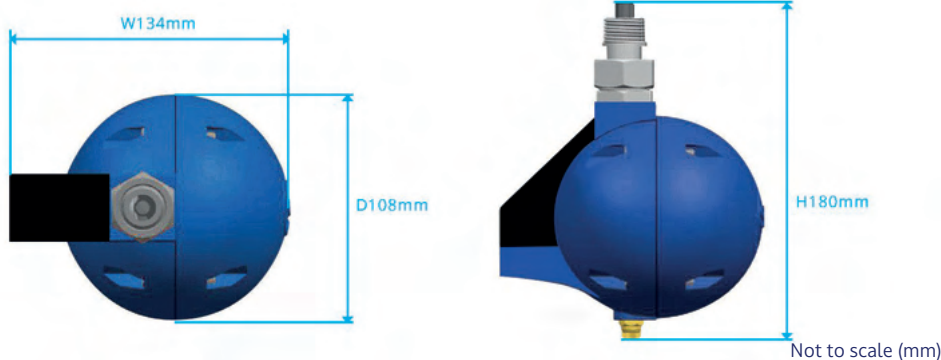


Construction

1. Drain body
2. Plum shaped o-ring
3. Nameplate plastic cap
4. Stainless steel float ball
5. Manual drain valve
6. Fixed kit
7. Drain nozzle
8. Colloid
9. Nipple



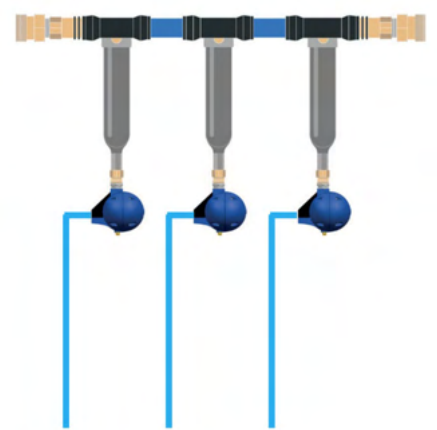
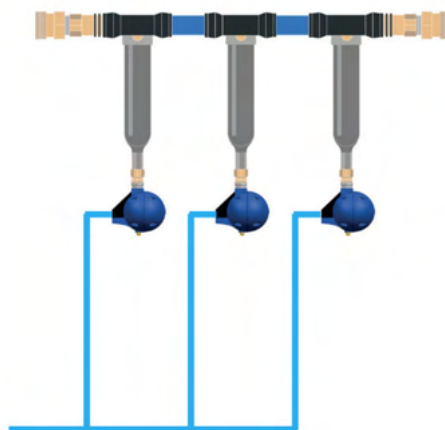
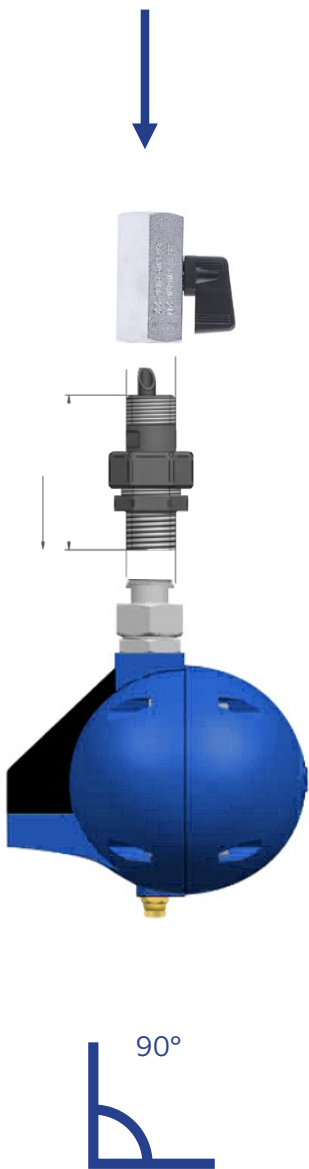
Technical Drawings



For other options please contact our sales team at: sales@originalavg.com

AVG Float Drain

Installation



For other options please contact our sales team at: sales@originalavg.com

AVG Clear Plastic Drain

Technical Specifications

This simple auto drain is suitable for wet airlines.



Part Number: 6100-023

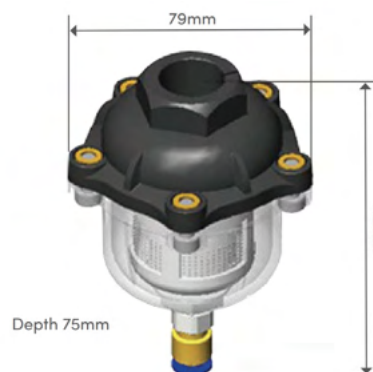
Auto Drain Type	Float
Ambient and Fluid Temperature	1.5-85°C / 34.7-185°F
Operating Pressure Range	0-12 bar
Port Size	1/2" BSPT (F)
Drain Port Size	Ø6mm
Initial Discharge Value	22ml
Largest Discharge Capacity	84L/h (1.4L/min) plastic
Bowl Material	Plastic
Serviceable	Yes
Valve Orifice	Ø6mm
Weight	0.6kg
Test Option	Manual override for immediate condensate discharge

Applications



1. Expel units

Technical Drawing



AVG Automatic Float Drain SS304

Technical Specifications

We recommend the AVG Automatic Float Drain SS304 for applications demanding a fully stainless-steel construction. The drain's robust design makes it ideal for corrosive gas applications in oil and gas, off-shore marine, and pharmaceutical production.



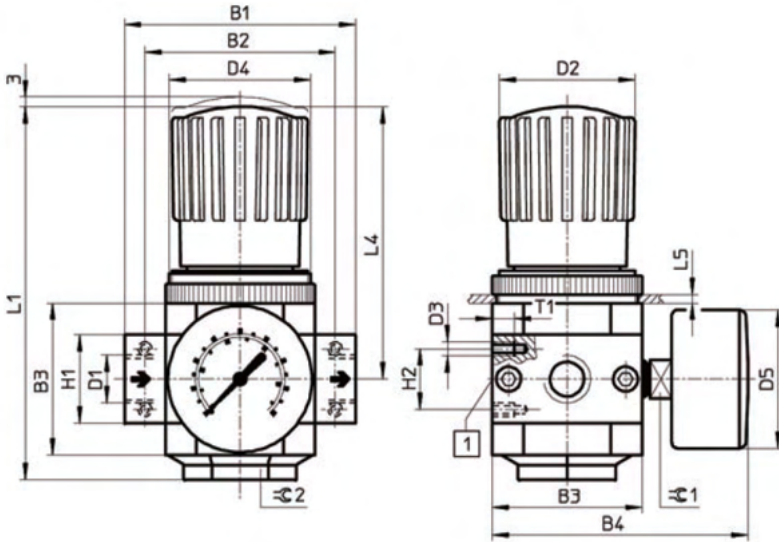
Part Number: 6100-093

Port Size	1/2" NPT
Drain	1/2" NPT
Operating Pressure Range	0.5-16 bar
Maximum Operating Temperature	425°C / 797°F
Materials of Construction	SS304
Housing Material	SS304
Float	Hardened stainless steel
Valve Core	Hardened stainless steel
Valve Seat	SS304
Internal Body	SS304
Diameter	70mm
Height	184mm
Weight	0.7kg

AVG Regulators

Technical Specifications

Pneumatic regulators maintain constant output pressure when installed in pneumatic lines.



Model	B1 (mm)	B2 (mm)	B3 (mm)	B4 (mm)	D1 (in)	D2 (mm)	D3 (mm)	D4 (mm)	D5 (mm)
AVG Regulator 0.25	64	52	40	76	G1/4"	31	M4	M36 x 1.5	41
AVG Regulator 0.5	85	70	55	95	G1/2"	50	M5	M52 x 1.5	50
AVG Regulator 0.75	85	70	55	95	G3/4"	50	M5	M52 x 1.5	50
AVG Regulator 1	96.116	80.91	66	107	G1"	50	M5	M52 x 1.5	50

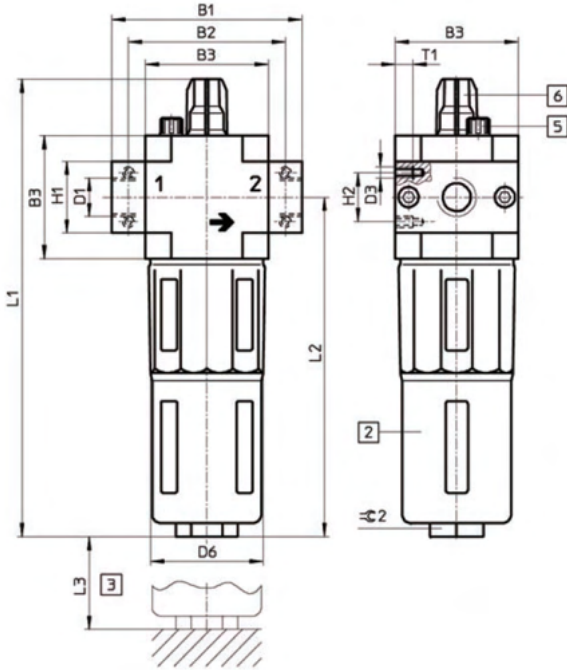
Model	Part Number	Connection Size	Pressure Regulation Range	Housing Material	Temperature Range
AVG Regulator 0.25	2514-006	1/4"	0.5-12 bar	Zinc alloy	-5 to +70°C / 23 to 158°F
AVG Regulator 0.5	2514-003	1/2"	0.5-12 bar	Zinc alloy	-5 to +70°C / 23 to 158°F
AVG Regulator 0.75	2514-004	3/4"	0.5-12 bar	Zinc alloy	-5 to +70°C / 23 to 158°F
AVG Regulator 1	2514-007	1"	0.5-12 bar	Zinc alloy	-5 to +70°C / 23 to 158°F

AVG Lubricators

Technical Specifications

Pneumatic lubricators deliver oil to air tools and equipment to improve performance and reduce wear. The adjustable bolt controls the oil drip-rate.

Recommended lubricant ISO VG 32 / ISO VG 32 or equivalent.



Model	B1 (mm)	B2 (mm)	B3 (mm)	B4 (mm)	D1 (in)	D2 (mm)	D3 (mm)	D4 (mm)	D5 (mm)
AVG Lubricator 1/4"	64	52	40	76	G1/4"	31	M4	M36 x 1.5	41
AVG Lubricator 1/2"	85	70	55	95	G1/2"	50	M5	M52 x 1.5	50
AVG Lubricator 3/4"	85	70	55	95	G3/4"	50	M5	M52 x 1.5	50
AVG Lubricator 1"	96.116	80.91	66	107	G1"	50	M5	M52 x 1.5	50

Model	Part Number	Connection Size	Pressure Regulation Range	Housing Material	Temperature Range
AVG Lubricator 1/4"	2515-004	1/4"	0.5-16 bar	Zinc alloy	-5 to +70°C/ 23 to 158°F
AVG Lubricator 1/2"	2515-000	1/2"	0.5-16 bar	Zinc alloy	-5 to +70°C/ 23 to 158°F
AVG Lubricator 3/4"	2515-001	3/4"	0.5-16 bar	Zinc alloy	-5 to +70°C/ 23 to 158°F
AVG Lubricator 1"	2515-003	1"	0.5-16 bar	Zinc alloy	-5 to +70°C/ 23 to 158°F

Using Expel with Regulators and Lubricators

Please Note: Regulators and lubricators are sold as separate items.



Expel Filter Regulator Lubricator (FRL)



Expel Filter Lubricator



Expel Filter Regulator

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Spare Parts and Extras



Spare Parts & Extras

Important Notice: You do not need to replace Expel's internal element as part of routine maintenance. Only replace internals if they are damaged.

**Expel 30, 60 and 90 Filter
Element: 6100-015**



**Expel 3 Internal Filter Element:
6100-062**



**AVG In-Line Strainer with Drain Tap:
6100-067**



**Drain Tap - 1/2" Mini Ball Valve:
2502-011**



**Expel 30 Pressure Indicator:
6100-008**



**Expel Pressure Gauge:
6100-010**

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Original Ltd, Unit 52 | Atcham Business Park | Shrewsbury | UK | SY4 4UG
T: +44 (0)345 50 50 222 | sales@originalavg.com