

# Maxima C Plus™



**Vacuum Pumps for:**  
Vacuum Ovens, Glove Boxes, Freeze Dryers,  
Centrifugal Concentrators, Annular Spaces/Transfer Lines

**ONE SOURCE. INFINITE SOLUTIONS.®**



# Fisher Scientific™ Vacuum Pumps

Maxima C Plus™ Vacuum Pumps Configured Ready to Use

## Design Features

**Gas Ballast**  
To minimize condensation of vapors in pump.

**Hose Barb**  
Allowing two sizes of I.D. hose to connect to your system per pump.

**Oil Mist Eliminator**  
Trapped oils naturally fall back into the oil case via gravity after pump down.

**Intake Antisuckback Valve**  
To prevent oil back flow on power shut down or power failure.

**PTFE Coated Oil Case**  
Prevents particles and sludge from clinging to the walls of the oil case to simplify oil change.

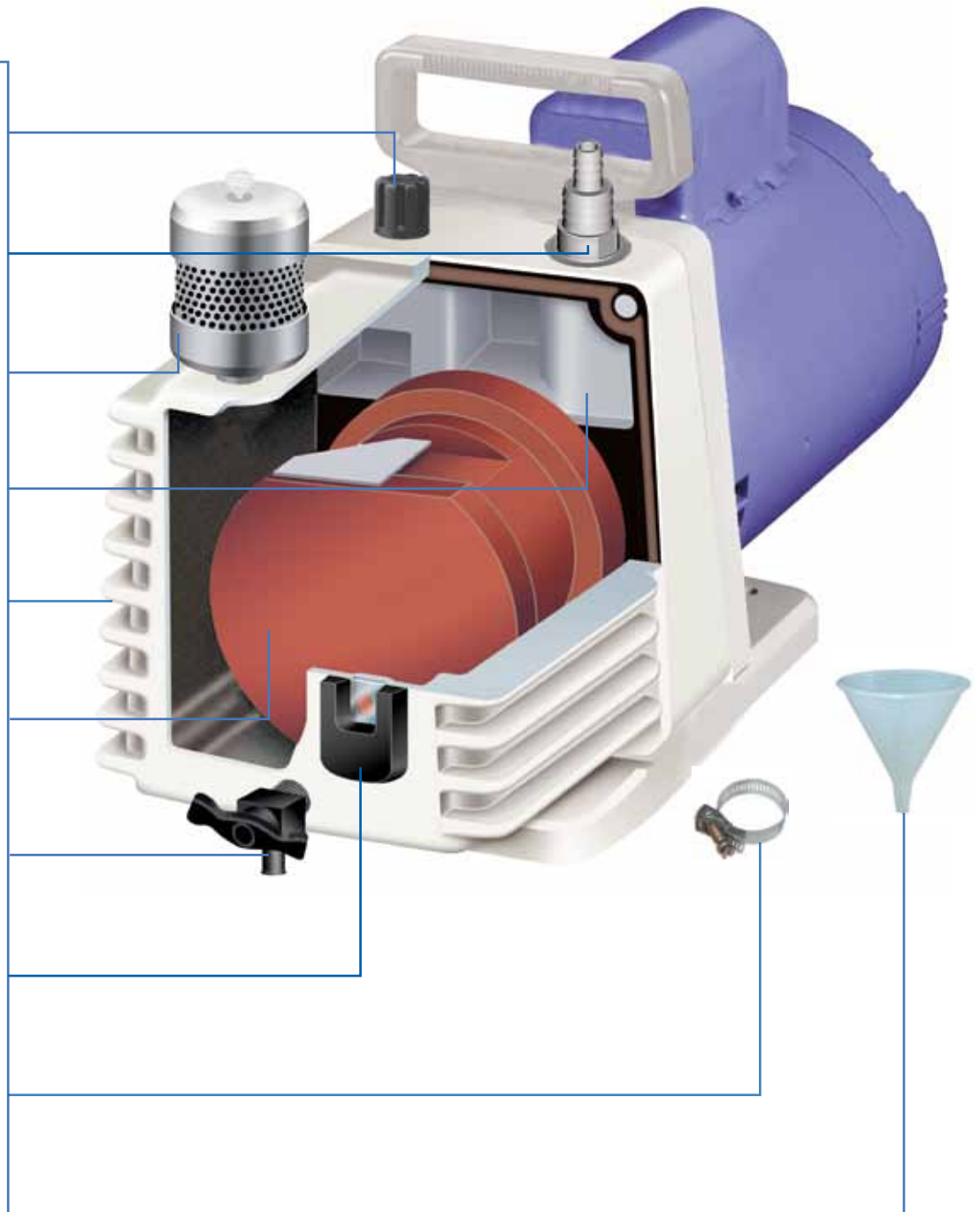
**Black Oxide Coated Pump Module**  
Coated to prevent corrosion when exposed to vapors. Valves, fasteners, flanges and connectors are made of stainless steel.

**Easy Oil Change Valve**  
Drain valve for quick and easy oil changes. No tools required.

**Large Site Glass**  
Easily assures proper oil level.

**Hose Clamp**  
Holds hose tight to hose barb.

**Funnel**  
Provided to allow quick oil adds.



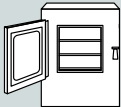

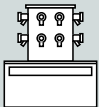
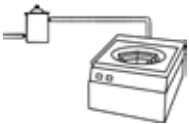

\* Maxima C Plus vacuum pumps not recommended for filtration, aspiration and gel drying or any applications continuously operating above 10-torr absolute pressure.

# Fisher Scientific™ Vacuum Pumps

Picking the Correct Pump for Your Application



Find the correct vacuum pump/system to address your application needs. The Fisher Scientific product line offers a wide range of vacuum pumps – each expertly designed for optimum function in your application.

Application	Size of Lab Apparatus	Accessories	Model
<b>Vacuum Oven</b> Drying Degassing 	28 L (1 ft <sup>3</sup> ) or smaller	A, C, D, E	M2C
	28-70 L (1 to 2.5 ft <sup>3</sup> )		M4C
<b>Glove Box</b> 	4 ft <sup>3</sup> or smaller	A, E	M6C
	6 ft <sup>3</sup> or smaller		M8C
<b>Freeze Dryer*</b> Lyophilizing 	4.5 L or smaller,	A, C, E	M6C
	5-12 L		M8C
	14-25 L		M12C
<b>Centrifugal Concentrators*</b> 	100 Tube	A, C, E	M8C
	200 Tube		M12C
<b>Annular Space/ Transfer Line</b> 	3.8 ft <sup>3</sup>	A, E	M6C
	7.7 ft <sup>3</sup>		M12C
	11.3 ft <sup>3</sup>		M16

\* When Harsh chemicals such as TFA and ACN are being pumped, these chemicals can shorten the pump's life. A cold trap is recommended for extended life. Proper oil maintenance and oil selection is also essential. See owner's manual for more information on how to take care of your vacuum pump.

## Accessories for Maxima C Plus™ Pumps

### A Replacement Element for Oil Mist Eliminator

Use when supplied element becomes saturated with oil.



For Models	Catalog No.
M2C	01-257-6A
M4C, M6C	01-257-6B
M8C	01-257-45
M12C, M16C	01-257-6C

### B Exhaust Oil Recyclers

Use when pumping continuously above 1 Torr. Captures oil mist from the pump, and returns collected oil to the pump via a gas ballast connection.



01-257-7B

For Models	Catalog No.
M2C	01-257-7A
M4C-M16C	01-257-7B

### C Dry Ice/Liquid Nitrogen Trap

Large cold chamber provides fast freezing to condense vapors. Also prevents oil backstreaming. Dry ice/isopropyl slurry to produce at a temperature of (-79° C) or liquid nitrogen (-198° C) may be used as refrigerant. Accepts 1/2 in. OD (12.7mm) tubing.



For Models	Catalog No.
M2C-M16C	01-257-14

### D Vacuum Oven Hose Adapter Kit

Kit ensures proper sized tubing, adapters, and clamps for vacuum-tight connection to Fisher Scientific Isotemp™\* vacuum ovens, models 280A, 281A, 282A, 285A.



For Models	Catalog No.
M2C-M16C	01-257-12

### E Maxima C Plus Pump Oil



For Models	Vacuum Pump Oils	1 Liter	1 Gallon	5 Gallon
M2C, M4C, M6C, M8C, M12C, M16C	Maxima C Plus Pump oil <sup>1,2</sup>	01-257-4A	01-257-4B	01-257-4D

#### Notes:

1. Maxima C Plus Pump oil is a triple-distilled, severely hydrotreated oil designed to resist breakdown at higher RPMs and operating temperatures of direct-drive vacuum pumps. Premium Oil enables Fisher Scientific direct-drive vacuum pumps to maintain the highest vacuum performance.
2. Only use Fisher Scientific Maxima C Plus Pump oil for Maxima C Plus pumps.



# Fisher Scientific™ Vacuum Pumps

## Maxima C Plus™ Specifications and Ordering Information

### Specifications

### Two-Stage Vacuum Pumps<sup>1</sup>

Fisher Scientific Model	M2C	M4C	M6C	M8C	M12C	M16C
<b>Free Air Displacement</b>						
CFM (L/min) @ 60 Hz	1.8(51)	2.6(73)	3.8(108)	6.1(173)	7.7(218)	11.3(320)
m <sup>3</sup> /hr (L/min) @ 50 Hz	2.6(43)	3.7(61)	5.4(90)	8.6(144)	10.9(182)	16(267)
<b>Ultimate Pressure, Torr(mbar)</b>	2 x 10 <sup>-4</sup> (0.0027)	1x10 <sup>-4</sup> (0.00013)	1x10 <sup>-4</sup> (0.00013)	1x10 <sup>-4</sup> (0.00013)	3 x 10 <sup>-4</sup> (0.0004)	4 x 10 <sup>-4</sup> (0.00053)
<b>Sound Level, dBA</b>	52	50	50	50	54	55
<b>Motor/Pump Speed (60 Hz)</b>	3450	1725	1725	1725	1725	1725
<b>Motor Horsepower (watts)</b>	1/4(190)	1/2(370)	1/2(370)	1/2(370)	1/2(370)	3/4(560)
<b>Oil Capacity, qt. (liters)</b>	0.42(0.4)	1.0(0.95)	0.9(0.86)	0.8(0.76)	1.3(1.2)	1.2(1.1)
<b>Tubing Needed, I.D. in. (mm)</b>	3/16,7/16 (5,11)	7/16,13/16 (11,20)	7/16,13/16 (11,20)	7/16, 13/16 (11,20)	9/16,13/16 (14,20)	9/16,13/16 (14,20)
<b>Intake Connection<sup>2</sup></b>	Hose barb	Hose barb	Hose barb	Hose barb	Hose barb	Hose barb
<b>Exhaust Connection</b>	3/4-20	1-20	1-20	1-20	1-20	1-20
<b>Weight, lbs (kg)</b>	24.5(11.1)	40(18)	41(18)	48(22)	58.5(26.6)	69(31.3)
<b>Overall Dimensions</b>						
L in. (cm)	14.1(35.9)	18.5(47.1)	18.5(47.1)	18.5(47.1)	20.5(52.1)	21.2(53.8)
W in. (cm)	5.1(13)	6.5(16.5)	6.5(16.5)	6.5(16.5)	7.1(17.9)	7.1(17.9)
H in. (cm)	8.4(21.3)	9.6(24.3)	9.6(24.3)	9.6(24.3)	10.7(27.2)	10.7(27.2)
<b>Ship Weight, lbs (kg)</b>	26(11.8)	46(21)	46(21)	53(24)	68(30.8)	77(34.6)
<b>Shipping Carton Dimensions L x W x H in. (cm)</b>	21 x 6.5 x 11.25 (53.3 x 16.5 x 28.6)	28.9x10.7x13.6 (74x25.8x35)	28.9x10.7x13.6 (74x25.8x35)	28.9x10.7x13.6 (74x25.8x35)	29 x 11.5 x 15.5 (73.7 x 29.2 x 39.4)	29 x 11.5 x 15.5 (73.7 x 29.2 x 39.4)

### Ordering Information<sup>3, 4, 5</sup>

#### Catalog Number

Wired for 115V, 60 Hz, 1 Ph with N. American 115V Plug	0125777	0125778	0125779	0125780	0125781	0125782
Wired for 230V, 50 Hz, 1 Ph with Cont. Euro. (Schuko) Plug	0125783	_____	_____	0125784	0125785	_____
Explosion Proof Motor 115V, 60Hz	0125786	0125787	_____	0125788	0125789	0125790

#### Notes:

- Models M2C, M4C, M6C, M8C, M12C, and M16C should not be operated continuously at pressures above 10 Torr.
- Convenient inlet barb connection accepts two sets of tubing ID.
- All single phase motors have overload protection.
- 115V, 60 Hz models are CSA approved.
- 230V, 50 Hz models which are provided with CE mark.

### Set-ups for Lab Applications

Proper vacuum system set-up in lab applications does reduce pump maintenance which lowers cost and increases user productivity. Proper vacuum system set-ups consist of the lab appliance, tubing, vacuum pump, and normally cold or liquid trap. Failure to use or maintain the appropriate trap will result in a shortened service life of the pump.

### Application Note for Filtration, Aspiration and Drying Electrophoresis Gels

Fisher Scientific Models M2C, M4C, M6C, M8C, M12C and M16C high vacuum pumps are not recommended for filtration, aspiration or drying electrophoresis gels. The reason is these drying process occur in the rough vacuum level (above 30 Torr (40 mbar)) and these vane pumps are not designed for high pressure operation.

### Replacement Parts and Service

Available are minor repair kits and gasket and seal kits for each pump model. For a complete listing, pricing and availability of service parts, call Fisher Scientific Services Division at 1-800-395-5442. We also offer service after the sale. Several types of service agreements are available to cover your Maxima C Plus pump. For information and pricing, call Fisher Scientific Services Division at 1-800-395-5442.



**For customer service, call 1-800-766-7000.  
To fax an order, use 1-800-926-1166.  
To order online: [www.fishersci.com](http://www.fishersci.com)**