

# Diaphragm Vacuum Pumps | DRYFAST® Chemical Duty Pumps



See specific Cat no. for specific listing.

Model 2019

Model 2014 DryFast

Models 2034 / 2044 / 2037 / 2047 DRYFAST

Specifications	Ultimate Vacuum Pressure 9 torr to 40 torr					
Model	2019	2014	2034	2044	2037	2047
Free Air Displacement						
cfm(l/min.) @60Hz	1.3 (37)	1.2 (35)	0.9 (25)	1.2 (35)	1.8 (50)	2.5 (70)
m <sup>3</sup> /hr(l/min.) @50Hz	1.9 (31)	1.75 (29)	1.25 (21)	1.75 (29)	2.5 (42)	3.5 (58)
Ult. Vac. Pressure, torr(mbar)	150 (200)	40 (53)	9 (12)	9 (12)	35 (47)	35 (47)
Maximum Vacuum, in. Hg	24	28.3	29.6	29.6	28.5	28.5
Motor Horsepower - HP(watts)	1/15	1/5 (150)	1/5 (150)	1/5 (150)	1/5 (150)	1/5 (150)
Adjustable Vac./Gas Ballast	No	Yes	Yes	Yes	Yes	Yes
Tubing Needed, I.D. in.(mm)	1/4 (7)	1/4 (7)	1/4 (7)	1/4 (7)	1/4 (7)	1/4 (7)
Intake(Exhaust) Thread NPT	1/4 NPT	M14 (1/8)	M14 (1/8)	M14 (1/8)	M14 (1/8)	M14 (1/8)
Weight lbs.(kg)	10.2 (4.6)	15.0 (6.8)	21.25 (9.6)	21.25 (9.6)	21.25 (9.6)	21.25 (9.6)
Overall Dimensions LxWxH in.(cm)	8.8x5.0x8.8 (22x13x22)	12x7.0x8.3 (31x 18x2)	13.8x6.8x8.8 (35x17x22)	13.8x6.8x8.8 (35x17x22)	13.8x6.8x8.8 (35x17x22)	13.8x6.8x8.8 (35x17x22)
Ship Weight, lbs.(kg)	10.2 (4.6)	19 (8.6)	25 (11.3)	25 (11.3)	25 (11.3)	25 (11.3)
Shipping Carton Dimensions LxWxH in.(cm)	16x12x12.8 (41x30x33)	21x14x15 (52x35x37)	21x14x15 (52x35x37)	21x14x15 (52x35x37)	21x14x15 (52x35x37)	21x14x15 (52x35x37)
<b>Ordering Information</b>						
Wired for 115V, 60Hz, 1 Ph with N. Amer. 115V Plug	2019B-01 UL	2014B-01 CSA	2034B-01 CSA	2044B-01 CSA	2037B-01 CSA	2047B-01 CSA
Wired for 230V, 50/60Hz, 1Ph, w/UK and Schuko cord sets included <sup>1</sup>	2019C-02 CE	2014C-02 CE	2034C-02 CE	2044C-02 CE	2037C-02 CE	2047C-02 CE
Wired for 100V, 50/60Hz for Japan	----	2014C-05	2034C-05	2044C-05	---	---

Notes: 1. 230V in US also requires Cord 61-8707 2. For 8 mm Hose Barb, Order 710798

## Applications

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### DryFast Diaphragm Vacuum Pumps

- Chemical Resistant
- Oil Free

#### Tuneable Vacuum

**Model 2019** PTFE coated head for filtration of moderate solvents

**DRYFAST models 2014, 2034, 2044, 2037, 2047 & DryFast Ultra models 2032, 2042.** All major parts in contact with vapor are constructed of corrosion resistant PTFE and perfluoro plastic materials. Models comes standard with tuneable vacuum control.

**Model 2163** Coated heads for moderate solvent vapors

**Models 2052, 2054, 2062, 2064 & 2067** Wetted parts are made of PTFE and other fluorinated plastics. High flow models are commonly used for scale-up operations.



# Diaphragm Vacuum Pumps | DRYFAST® Chemical Duty Pumps



Models  
2032 / 2042  
DRYFAST Ultra



Models  
2052 / 2054



Models  
2163 / 2062 / 2064 /  
2067

Coated Heads	Flow Rate > 100 L/min				Ultimate Vacuum Pressure ≤ 2 torr			
2163	2054	2064	2067	2032	2042	2052	2062	
6.1 (173)	3.4 (100)	6.1 (173)	7.8 (221)	0.9 (25)	1.2 (35)	2.3 (65)	4.2 (119)	
----	----	----	----	1.25 (21)	1.75 (29)	----	----	
6 (8)	6 (8)	6 (8)	56 (75)	2 (2.7)	2 (2.7)	1.5 (2)	1.5 (2)	
29.7	29.7	29.7	27.72	29.85	29.85	29.9	29.9	
0.5/0.6 (370/440)	1/2 (370)	0.5/0.6 (370/440)	0.5/0.6 (370/440)	1/5 (150)	1/5 (150)	0.53 (390)	0.53 (370)	
No	No	No	No	Yes	Yes	No	No	
hose connector available	1/4 (8)	hose connector available	hose connector available	1/4 (7)	1/4 (7)	1/4 (8)	1/4 (8)	
NW 16 - 1/4" NPT <sup>2</sup>	NW 16 - 1/4" NPT <sup>2</sup>	NW 16 - 1/4" NPT <sup>2</sup>	NW 16 - 1/4" NPT <sup>2</sup>	M14(1/8)	M14(1/8)	NW 16 - 1/4" NPT	NW 16 - 1/4" NPT	
72.3 (32.8)	40.3 (18.3)	72.3 (32.8)	72.3 (32.8)	21.25 (9.6)	21.25 (9.6)	40.3 (18.3)	72.3 (32.8)	
21x11x12 (53x28x31)	9x15x7 (23x38x18)	21x11x12 (53x28x31)	21x11x12 (53x28x31)	13.8x6.8x8.8 (35x17x22)	13.8x6.8x8.8 (35.2x17x22)	9x15x7 (23x38x18)	21x11x12 (53x28x31)	
88.2 (40.1)	48.5 (22)	88.2 (40.1)	88.2 (40.1)	25 (11.3)	25 (11.3)	49.8 (22.6)	40.3 (18.3)	
23.6x15.8x16.1 (60x40x41)	18.9x12.6x11.8 (48x32x30)	23.6x15.8x16.1 (60x40x41)	23.6x15.8x16.1 (60x40x41)	21x14x15 (52x35x37)	21x14x15 (52x35x37)	10.2x16.6x7.5 (26x42x19)	9.1x15x6.7 (23x38x16.9)	
2163B-01 CE	2054B-01 CE	2064B-01 CE	2067B-01 CE	2032B-01 CSA	2042B-01 CSA	2052B-01 CE	2062B-01 CE	
2163C-02 CE	2054C-02 CE	2064C-02 CE	2067C-02 CE	2032C-02 CE	2042C-02 CE	2052C-02 CE	2062C-02 CE	
----	----	----	----	2032C-05	2042C-05	----	----	

## For a Complete System

**Inlet/Exhaust Separator Jars**  
230 ml glass jar assembly attaches to pump intake or exhaust to capture ingested liquids. See page 79 for replacement Jars.



1423B

Pump Model	CAT. No.
All DryFast models	1423B

## Digital Vacuum Regulator

- Rack mountable
- Variable vacuum control

The Digital Vacuum Regulator works with Welch DryFast™ pumps or any brand dry pump with flow up to 35 l/min torr vacuum ranging from 1 torr(1.3 mbar) to atmosphere. See p. 76 for more information.



Pump Model	CAT. No.
2014, 2034, 2032, 2044, 2042	1640A-01



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# Diaphragm Vacuum Pumps | MPC Chemical Duty



Model  
MPC 090 E



Models  
MPC 095 Z / MPC 110 E  
MPC 105 T



Model  
MPC 101 Z

**CE** All product listings on this page CE listed.

## Specifications

Model	MPC 090 E	MPC 095 Z	MPC 110 E	MPC 101 Z	MPC 105 T
<b>Number of heads / stages</b>	2 / 1	2 / 2	2 / 1	2 / 2	4 / 3
Free Air Displacement m <sup>3</sup> /h(L/min)@50Hz	1(15)	0.5(8)	0.9(15)	1.0(16.7)	1.2(20)
cfm(L/min)@60Hz	0.5(15)	0.3(9.1)	0.6(16.6)	0.6(18)	0.7(20)
Ultimate pressure, mbar(torr)	100(75)	5(3.8)	60(45)	8(6)	2(1.5)
Maximum Vacuum, in. Hg	27	29.8	28.2	29.7	29.9
Max. overpressure, bar	----	----	----	----	----
IN / EX hose connector	DN 6 / silencer	DN 8	DN 8	DN 8	DN 8
Tubing Needed, I.D. mm(in.)	6(0.24)	8(0.32)	8(0.32)	8(0.32)	8(0.32)
Intake(Exhaust) Thread NPT	-(-)	-(1/8)	1/8(1/8)	1/4(1/4)	-(-)
Sound level, dB(A)	<45	44	44	45	44
Motor Power, watts(HP)	20(0.03)	68(0.09)	68(0.09)	60(0.08)	68(0.09)
Type of motor protection, IP	20	42	42	54	42
Weight, lbs.(kg)	5.1(2.3)	13.8(6.3)	13.8(6.3)	14.3(6.5)	16.5(7.5)
Overall Dimensions LxWxH in.(cm)	4.5x6.5x 5.7 (12x 17x 15)	9.3x5.5x 10.9 (24x14x 28)	9.3x5.5x 10.9 (24x14x 28)	7.7x9.3x 5.7 (20x 24x 15)	9.3x5.5x12.9 (24x14x33)
Ship Weight, lbs.(kg)	6.6(3)	17.6(8)	17.6(8)	19.8(9)	22.1(10)
Shipping Carton Dimensions LxWxHin. (cm)	15.7x11.8x6.7 (40x30x17)	11.8x11.8x15.7 (30x30x40)	11.8x11.8x15.7 (30x30x40)	16.1x10.2x9.8 (41x26x25)	11.8x11.8x15.7 (30x30x40)

## Ordering Information

230V, 50/60Hz, 1 Ph <sup>1</sup>	----	----	----	412522	----
115V, 50/60Hz, 1 Ph <sup>2</sup>	----	----	----	412522-01	----
115/230V, 50/60Hz , 1 Ph <sup>3</sup>	----	----	----	----	----
90-260V, 50/60Hz <sup>4</sup>	412021	412422-02	412421-02	----	412443-02
230/400V, 50/60Hz , 3 Ph <sup>6</sup>	----	----	----	----	----

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### MPC Diaphragm Vacuum Pumps

- Chemical Resistant
- Oil Free

**MPC models** use PTFE and other fluorinated plastics for the wetted parts to allow aggressive acids and vapors to be pumped. All two-stage and three-stage MPC pumps come standard with gas a ballast valve.

**Model MPC 302 Z** uses a patented pump head design to significantly improve performance. Optimized construction of the pump heads allows the MPC 302 Z to achieve a 17% higher pumping speed in the application critical vacuum range compared to similar products. Besides the pumping speed the ultimate vacuum pressure is improved as well to 5 mbar(3.8 torr).

Gas Ballast



# Diaphragm Vacuum Pumps | MPC Chemical Duty



Model  
MPC 201 T



Model  
MPC 301 E



Models  
MPC 301 Z / MPC 302 Z  
MPC 601 E



Models  
MPC 301 Z ef

MPC 201 T	MPC 301 E	MPC 301 Z	MPC 302 Z	MPC 301 Z ef Ecoflex	MPC 601 E
4 / 3	1 / 1	2 / 2	2 / 2	2 / 2	2 / 1
2.0(33)	2.3(38)	2.3(38)	2.6(43)	2.6(43)	3.8(63)
1.3(36)	1.5(41)	1.5(41)	1.8(52)	1.6(43)	2.5(70)
2(1.5)	75(56.3)	8(6)	<5(3.8)	8(6)	75(56.3)
29.9	27.7	29.7	29.8	29.7	27.7
----	----	----	----	----	----
DN 8	DN 8	DN 8	DN 8	DN 8	DN 8
8(0.32)	8(0.32)	8(0.32)	8(0.32)	8(0.32)	8(0.32)
1/4(1/4)	-(-)	-(-)	-(-)	-(-)	-(1/4)
45	45	45	45	44	45
90(0.12)	180(0.25)	180(0.25)	180(0.25)	200(0.27)	180(0.25)
54	54	54	54	54	54
22.7(10.3)	19.6(8.9)	24.7(11.2)	24.7(11.2)	34.2(15.5)	24.7(11.2)
7.9x 10.2x5.9 (20x26x15)	10.2x6.4x9.9 (26x16x25)	9.1x10.4x6.7 (23x27x17)	9.1x10.4x6.7 (23x27x17)	10.2x12.2x7.5 (26x31x19)	9.1x10.4x6.7 (23x27x17)
28.7(13)	26.5(12)	30.9(14)	30.9(14)	39.7(18)	30.9(14)
16x10x10 (41x26x25)	14x10x12 (35x25x30)	19x13x12 (48x32x30)	19x13x12 (48x32x30)	19x13x12 (48x32x30)	19x13x12 (48x32x30)
412543	412711	412722	414722	412922	412721
412543-01	412711-01	412722-01	414722-01	412922-01	412721-01
----	----	----	----	----	----
----	----	----	----	----	----
----	o.r. <sup>8</sup>	412722-02 <sup>7</sup>	414722-02 <sup>7</sup>	----	412721-02 <sup>7</sup>

## For a Complete System

1. With Schuko and UK plug leads
2. With US plug lead
3. With Schuko, UK and US plug leads
4. With AC/DC adapter, Schuko, UK and US plug leads
5. With JP plug lead
6. Requires hard wiring to switched supply
7. With 3 phase 16A CEE plug lead

Note: Pumps can be adapted for OEM equipment integration or for all-in-one packages.

### Vacuum Regulator with Dial Gauge

The regulator valve for intake allows the adjustment of the ultimate pressure. The dial vacuum gauge indicates the vacuum level. The air regulator valve will be mounted directly on the pump. See page 75.

For Pump Model	CAT. No.
MPC 095 Z, MPC 110 E, MPC 105 T	700459
MPC 101 Z, MPC 201 T, MPC 301 E, MPC 301 Z, MPC 601 E	700458



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# Diaphragm Vacuum Pumps | MPC Chemical Duty



Models  
MPC 601 T / MPC 901 Z  
MPC 1201 E

Model  
MPC 601 T ef

Models  
MPC 1201 T / MPC 1801 Z  
MPC 2401 E



## Specifications

Model	MPC 601 T	MPC 601 T ef	MPC 901 Z	MPC 1201 E	MPC 1201 T
Number of heads / stages	4 / 3	4 / 3	4 / 2	4 / 1	8 / 3
Free Air Displacement					
m <sup>3</sup> /h(L/min)@50Hz	4.5(75)	4.9(81)	6.8(113)	8.3(138)	8.3(135)
cfm(L/min)@60Hz	2.9(81)	2.9(81)	4.4(125)	5.3(151)	5.3(151)
Ultimate pressure, mbar(torr)	2(1.5)	2(1.5)	8(6)	75(56.3)	2(1.5)
Maximum Vacuum, in. Hg	29.9	29.9	29.7	27.7	29.9
Max. overpressure, bar	---	---	---	---	---
IN / EX hose connector	DN 8	DN 8	DN 8	DN 8	DN 16 KF
Tubing Needed, I.D. mm(in.)	8(0.32)	8(0.32)	8(0.32)	8(0.32)	hose connector available
Intake(Exhaust) Thread NPT	- (1/4)	- (1/4)	- (-)	- (1/4)	1/4(1/4)
Sound level, dB(A)	45	44	45	45	48
Motor Power, watts(HP)	370(0.5)	390(0.53)	370(0.5)	370(0.5)	370/440(0.5/0.6)
Type of motor protection, IP	54	54	54	54	54
Weight, kg(lbs.)	18.3(40.3)	22.6(49.8)	18.3(40.3)	18.3(40.3)	32.8( 72.3)
Overall Dimensions					
LxWxH in.(cm)	9.1x15x6.7 (23x38x17)	10.2x16.5x7.5 (26x42x 19)	9.1x15x6.7 (23x38x17)	9.1x15x6.7 (23x38x17)	21.3x11.8x9.4 (54x30x24)
Ship Weight, lbs.(kg)	48.5(22)	63.9(29)	48.5(22)	48.5(22)	88.2(40.1)
Shipping Carton Dimensions					
LxWxH in.(cm)	18.9x12.6x11.8 (48x32x30)	23.6x15.8x22.1 (60x40x56)	18.9x12.6x11.8 (48x32x30)	18.9x12.6x11.8 (48x32x30)	23.6x15.8x16.1 (60x40x41)

## Ordering Information

230V, 50/60Hz, 1 Ph <sup>1</sup>	412743	412943	412742	412741	412783
115V, 50/60Hz, 1 Ph <sup>2</sup>	412743-01	412943-01	412742-01	412741-01	412783-01
230/400V, 50/60Hz, 3 Ph <sup>6</sup>	412743-02	---	412742-02	412741-02	412783-02

## Applications

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### MPC Diaphragm Vacuum Pumps

- Chemical Resistant
- Oil Free

**MPC models** use PTFE and other fluorinated plastics for the wetted parts to allow aggressive acids and vapors to be pumped. All two-stage and three-stage MPC pumps come standard with gas a ballast valve.

**Model MPC 302 Z** uses a patented pump head design to significantly improve performance. Optimized construction of the pump heads allows the MPC 302 Z to achieve a 17% higher pumping speed in the application critical vacuum range compared to similar products. Besides the pumping speed the ultimate vacuum pressure is improved as well to 5 mbar(3.8 torr).

Gas Ballast



# Diaphragm Vacuum Pumps | MPC Chemical Duty



Model  
MPC 1201 T ef



Model  
MPC 301 Zp Ex



Model  
MPC 601 Tp Ex

MPC 1201 T ef	MPC 1801 Z	MPC 2401 E	MPC 301 Zp Ex	MPC 601 Tp Ex
8 / 3	8 / 2	8 / 1	ATEX 2 / 2	ATEX 4 / 3
8.3(138)	12(201)	15.5(258)	2.3(38)	4.5(75)
4.8(138)	7.8(222)	10(283)	1.3(38)	2.7(75)
2(1.5)	8(6)	75(56.3)	8(6)	2(1.5)
29.9	29.7	27.7	29.7	29.9
---	---	---	---	---
DN 16 KF	DN 16 KF	DN 16 KF	DN 8	DN 16 KF
hose connector available	hose connector available	hose connector available	8(0.32)	hose connector available
1/4(1/4)	1/4(1/4)	1/4(1/4)	---	---
47	48	48	45	45
370(0.5)	370/440(0.5/0.6)	370/440(0.5/0.6)	180(0.25)	370(0.5)
54	54	54	55	55
34(75)	32.8(72.3)	32.8(72.3)	22.9(50.5)	29.7(65.5)
21.3x11.8x12.6	21.3x11.8x9.4	21.3x11.8x9.4	9.4x11.8x10.2	9.4x16.7x10.7
(54x30x32)	(54x30x24)	(54x30x24)	(24x30x36)	(24x43x27)
91.3(41.5)	88.2(40.1)	88.2(40.1)	57.3(26)	72.8(33)
60x40x41 (24x16x16)	60x40x41 (24x16x16)	60x40x41 (24x16x16)	48x32x30 (19x13x12)	61x41x58 (24x16x23)
412983	412782	412781	---	---
412983-01	412782-01	412781-01	---	---
---	412782-02	412781-02	4000481-04	4000511-04

## For a Complete System

1. With Schuko and UK plug leads
2. With US plug lead
3. With Schuko, UK and US plug leads
4. With AC/DC adapter, Schuko, UK and US plug leads
5. With JP plug lead
6. Requires hard wiring to switched supply
7. With 3 phase 16A CEE plug lead
8. These pumps can be delivered on request

Note: Pumps can be adapted for OEM equipment integration or for all-in-one packages.

**Handheld General Range Vacuum Gauge - PIZA 101**  
Piezo resistive robust rough vacuum gauge with digital display. Alternative for mechanical vacuum gauges.

### Features

- With Piezo resistive ceramic sensor
- Economical rough vacuum gauge for multiple uses in laboratories
- Portable unit connects quickly to any vacuum source
- 90-260V, 50/60Hz<sup>4</sup>



Type	Range mbar(torr)	CAT. No.
PIZA 101	1050 to 1(785 to 1)	600071

For more detailed information and other models, see p. 77.

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# Diaphragm Vacuum Pumps | MP Standard Duty



Model  
MP 060 E



Model  
MP 055 Z / MP 105 E



Model  
MP 101 Z



## Specifications

Ilmvac Model	MP 060 E	MP 055 Z	MP 105 E	MP 101 Z
Number of heads / stages	2 / 1	2 / 2	2 / 1	2 / 2
Free Air Displacement				
m <sup>3</sup> /h(L/min)@50Hz	0.6(10)	0.5(8)	0.9(15)	1.0(16.7)
cfm(L/min)@60Hz	0.4(10)	0.3(9.1)	0.6(16.6)	0.7(18)
Ultimate pressure, mbar(torr)	60(45)	5(3.8)	60(45)	8(6)
Maximum Vacuum, in. Hg	28.2	29.8	28.2	29.7
Max. overpressure, bar	----	----	----	----
IN / EX hose connector	DN 6/8 / silencer	DN 8	DN 8	DN 8
Tubing Needed, I.D. mm(in.)	6(0.24) / 8(0.32)	8(0.32)	8(0.32)	8(0.32)
Intake(EXhaust) Thread NPT	- (-)	- (1/8)	1/8(1/8)	1/4(1/4)
Sound level, dB(A)	42	44	44	45
Motor Power, watts(HP)	20(0.03)	68(0.09)	68(0.09)	60(0.08)
Type of motor protection, IP	20	42	42	54
Weight, kg(lbs.)	2.3(5.1)	6.25(13.8)	6.25(13.8)	6.5(14.3)
Overall Dimensions				
L x H xH in.(cm)	11.5x16.5x14.5 (5x7x 6)	23.5x14x27.7 (9x6x11)	23.5x14x27.7 (9x6x11)	9.5x23.5x14.5 (8x9x6)
Ship Weight, kg(lbs.)		8(17.6)	8(17.6)	9(19.8)
Shipping Carton Dimensions				
LxWxH cm(in.)	40x30x17 (16x12x7)	30x30x40 (12x12x16)	30x30x40 (12x12x16)	41x26x25 (16x10x10)

## Ordering Information

230V, 50/60Hz, 1 Ph <sup>1</sup>	----	---	----	411522
115V, 50/60Hz, 1 Ph <sup>2</sup>	----	----	----	411522-01
115/230V, 50/60Hz, 1 Ph <sup>3</sup>	----	411422	411421	----
90-260V, 50/60Hz 4	411121	----	----	----
230/400V, 50/60Hz, 3 Ph 6	----	----	----	----

## Applications

	page
1. Vacuum Filtration	18 - 19
2. Desiccator	20 - 21

### MP Diaphragm Vacuum Pumps

- Standard Duty
- Oil Free

MP models use aluminium pump heads suitable for pumping non-reactive gases/vapors such as air, noble gases and water vapor. PTFE diaphragms are used because they offer longer lifetime than conventional elastomer diaphragms. The diaphragms consist of a PTFE membrane sandwiched to a strong non-wetted backing.

PEEK valves are used due to their excellent resistance to chemical attack and are extremely hard wearing when compared to elastomer valves. Connectors are made from PA with PTFE tubing.

Exhaust silencers are included with MP pumps.

### Exhaust Silencer





# Diaphragm Vacuum Pumps | MP Standard Duty



Model  
MP 101 V / MP 201 T

Model  
MP 301 E

Model  
MP 301 Z / MP 601 E

Model  
MP 301 V

MP 101 V	MP 201 T	MP 301 E	MP 301 Z	MP 301 V	MP 601 E
4 / 4	4 / 3	1 / 1	2 / 2	4 / 4	2 / 1
1.0(16.7)	2.0(33)	2.3(38)	2.3(38)	2.3(38)	3.8(63)
0.7(18)	1.3(36)	1.5(41)	1.5(41)	1.5(41)	2.5(70)
1(0.75)	2(1.5)	75(56.3)	8(6)	1(0.75)	75(56.3)
29.9	29.9	27.7	29.7	29.9	27.7
----	----	----	----	----	----
DN 8	DN 8	DN 8	DN 8	DN 16 KF / DN 8	DN 8
8(0.32)	8(0.32)	8(0.32)	8(0.32)	hose connector available	8(0.32)
1/4(1/4)	1/4(1/4)	- (-)	- (-)	- (-)	- (1/4)
45	45	45	45	45	45
90(0.12)	90(0.12)	180(0.25)	180(0.25)	370(0.5)	180(0.25)
54	54	54	54	54	54
10.3(22.7)	10.3(22.7)	8.9(19.6)	11.2(24.7)	18.3(40.3)	11.2(24.7)
20x26x15 (8x10x6)	20x26x15 (8x10x6)	26x16.2x25.2 (10x6x10)	23x26.5x16.9 (9x10x7)	23x38x16.9 (9x15x7)	23x26.5x16.9 (9.1x10.4x6.7)
13(28.7)	13(28.7)	12(26.5)	14(30.9)	22(48.5)	14(30.9)
41x26x25 (16x10x10)	41x26x25 (16x10x10)	35x25x30 (14x10x12)	48x32x30 (19x13x12)	48x32x30 (19x13x12)	48x32x30 (18.9x12.6x11.8)
411544	411543	411711	411722	411744	411721
411544-01 (2057B-01)	411543-01	411711-01	411722-01	411744-01	411721-01
----	----	----	----	----	----
----	----	----	----	----	----
----	----	o.r. 8	411722-02	411744-02	411721-02

## For a Complete System

1. With Schuko and UK plug leads
2. With US plug lead
3. With Schuko, UK and US plug leads
4. With AC/DC adapter, Schuko, UK and US plug leads
5. With JP plug lead
6. Requires hard wiring to switched supply
7. With 3 phase 16A CEE plug lead
8. These pumps can be delivered on request

Note: Pumps can be adapted for OEM equipment integration or for all-in-one packages.

### Hose Connectors

Type	CAT. No.
DN 8 male 1/8 inch	710953
DN 10 male 1/4 inch	710955
Y - piece	829923

See page 66.

### KF Connectors

Connectors for vacuum hose & DN KF.

Type	CAT. No.
DN 16 KF - 1/4 AL	710108
DN 25 KF - 1/4 AL	710700



Component	page
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• Inlet / Exhaust Accessories	69, 71
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• Vacuum Controller	75 - 76
• Service Kits	82



# OEM | Diaphragm Pumps



Model MPR 030 Z      Model MPC 155 Z      Model MPC 155 Z      Model MPC 105 T      Model 8115/8157

## Specifications

	MPR 030Z	MPR 060E	MPC 110 E	MPC 155 Z	MPC 105 T	8115 <sup>1</sup>	8157 <sup>1</sup>
Free air displacement lpm@1700 rpm	6	10	17	23	17	43	70
Ult. Vac Pressure, mbar(torr)	5(3.8)	60(45)	60(45)	5(3.8)	2(1.5)	2(2.7)	35(47)
Number of heads	2	2	2	4	4	2	2
Number of stages	2	1	1	2	3	2	1
Chemical or Standard Duty	Chemical	Chemical	Chemical	Chemical	Chemical	Chemical	Chemical
Motor, HP(watts)						85	85
Motor RPM	3000	3000	2000	1500	1500	700-2200	700-2200
Amps@1700 RPM, Ult. Vac. Pressure	2.8	2.8	5.6	5.6	4.3	2	2
Inlet connection	DN8 Hose Nozzle	DN8 Hose Nozzle	DN8 Hose Nozzle	DN8 Hose Nozzle	DN8 Hose Nozzle	¼" hose barb	¼" hose barb
Outlet connection	DN8 Hose Nozzle	DN8 Hose Nozzle	DN8 Hose Nozzle	DN8 Hose Nozzle	DN8 Hose Nozzle	¼" hose barb	¼" hose barb
Weight lbs.(kg)	1.8(0.8)	1.8(0.8)	9.3(4.2)	9.9(4.5)	9.9(4.5)	12.5(7)	12.5(7)
Overall Dimensions LxWxH in(cm)	4.0x 1.9x 5.5 (10x5x14)	4.0x 1.9x 5.5 (10x5x14)	8.0x5.1x 7.9 (20x13x20)	8.0x5.1x 7.9 (20x13x20)	8.0x3.8x 10.1 (20x10x26)	9.5x4.7x6.1 (24x12x16)	9.5x4.7x6.1 (24x12x16)
Ship Weight lbs.(kg)	6.6(3)	6.6(3)	17.6(8)	22(10)	19.8(9)	17(7.7)	17(7.7)
Shipping Carton Dimensions LxWxH in.(cm)	11x8.6x3.9 (28x22x10)	11x8.6x3.9 (28x22x10)	14.2x11x18.5 (36x28x47)	14.2x11x 18.5 (36x28x47)	14.2x11x 18.5 (36x28x47)	14x14x14 (36x36x36)	14x14x14 (36x36x36)

## Ordering Information

24V DC Brushless	420306-03	420307-01	412421-03	412642-03	412443-04	8115D-20	---
230V 50Hz	---	---	---	---	---	8115C-02	8157C-02
115V 60Hz	---	---	---	---	---	8115B-01	8157B-01

Notes: 1. 8115 and 8157 are not CE approved.

**Models MPR 030 Z and MPR 060 E** are compact diaphragm vacuum pumps for small instruments. Wetted surfaces resist chemical attack. Materials of construction include PTFE layer diaphragms, PEEK heads and valves. Recommend operating the pump with an external fan.



MPR 030 Z

**Models MPC 110 E, MPC 155 Z and MPC 105 T** come with mounting brackets for installation vertically inside instrumentations. Materials of construction include PTFE heads, PTFE layer diaphragms and PEEK valves.



MPC 105 T

**Models 8115 and 8157** employ patented tangential diaphragm technology that offers the performance of a 4-head diaphragm pump with only 2 diaphragms and pump heads. The efficient design creates more flow in a smaller pump volume and fewer wear parts compared to competitive technology. All wetted surfaces are of chemically resistant fluorinated plastics: PTFE heads, PTFE layer diaphragms and FFKM valves.



8115