

# Pump Selection Guide

**COMPACT BELLOWS PUMPS**

## BASE MODELS

Model No.	Description
16001-XXX	Single Pump
16002-XXX	2 - Tandem Pump
16003-XXX	3 - Tandem Pump
16004-XXX	4 - Tandem Pump

- Using **Chart A**, select bellows module(s) and a motor RPM combination whose maximum output meets or exceeds your flow requirements. Best metering accuracy occurs when bellows modules operate at 50% or more of their maximum output.
- Using **Chart B**, select appropriate 3-digit dash number to add to base model number according to the motor RPM determined in Chart A.
- Using **Chart C**, select appropriate F-code for each module's O-ring and poppet valve elastomers. Place largest bellows module closest to motor. Refer to example at the top of this page.

*(Order notes continued on following page.)*

**Order Notes:** When ordering a compact bellows model, refer to steps 1 through 5 and follow the example provided.

**Example:** The model number and code for a 4-tandem pump with 1½", 1", 1" and ½" bellows, with EPT/EPDM elastomers for the first two bellows modules and Hypalon® for the last two bellows modules and ¾" elbow connectors, and a ⅛" I.D. compression fitting on the ½" module, all driven by a 230V, 50/60 Hz, 45.6 RPM motor would be: 16004-004 F-008 T-008, F-005 T-008, F-004 T-008, F-001 T-001.

**CHART A**

BELLOWS MODULE OUTPUT											
Bellows Size		½"	¾"	1"	1½"	2"					
Flow Rate (ml per stroke)		.5	1.8	5	10.5	18					
Flow Rate (ml/min per motor RPM @ 50/60 Hz)		Bellows Size									
		½"	¾"	1"	1½"	2"					
Motor RPM	Hz	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
38	50	3.8	19	13.7	68.4	19	190	39.9	399	68.4	684
45.6	60	4.5	22.8	16.4	82.1	22.8	228	47.8	478.8	82.1	820.8
75	50	7.5	37.5	27	135	37.5	375	78.8	787.5	135	1350
90	60	9	45	32.4	162	45	450	94.5	945	162	1620

**CHART B**

BASE MODELS (with Motor)				
Base Model Number	Motor (Volts/RPM's)			
	115V 45.6 RPM @ 60 Hz 38 RPM @ 50 Hz	115V 90 RPM @ 60 Hz 75 RPM @ 50 Hz	230V 45.6 RPM @ 60 Hz 38 RPM @ 50 Hz	230V 90 RPM @ 60 Hz 75 RPM @ 50 Hz
16001	-002	-003	-004	-005
16002	-002	-003	-004	-005
16003	-002	-003	-004	-005
16004	-002	-003	-004	-005

**CHART C**

O-RING AND POPPET VALVE ELASTOMER OPTIONS			
Bellows Size	EPT/EPDM	Hypalon®	Viton®/Fluoroelastomer
½"	F-001	F-002	F-003
¾"	F-035	F-036	F-037
1"	F-004	F-005	F-006
1½"	F-007	F-008	F-009
2"	F-031	F-032	F-033

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(continued)

4. Using **Tubing Connector Chart**, select one T-code for each F-code chosen from Chart C.
5. Optional: Place H-code from **Chart D** at end of model number if motor cover is required.



T-CODES			
T-Code	For Elastomeric Tubing Size	Connector Type	Bellows Module Size
T-001	1/8" I.D. x 1/4" O.D.	Barbed Compression	1/2"
T-002	1/4" I.D. x 3/8" O.D.	Barbed Compression	1/2"
T-003	3/8" I.D.	Barbed	3/4", 1", 1 1/2" & 2"
T-004	1/2" I.D.	Barbed	3/4", 1", 1 1/2" & 2"
T-005	1/8" pipe thread	Female NPT	3/4", 1", 1 1/2" & 2"
T-006**	1/8" I.D. x 1/4" O.D.	Barbed Compression	3/4", 1", 1 1/2" & 2"
T-007**	1/4" I.D. X 3/8" O.D.	Barbed Compression	3/4", 1", 1 1/2" & 2"
T-008	3/8" I.D.	Elbow Swivel, Barbed	3/4", 1", 1 1/2" & 2"
T-009	1/2" I.D.	Elbow Swivel, Barbed	3/4", 1", 1 1/2" & 2"
T-011	1/4" I.D.	Elbow Swivel, Barbed	3/4", 1", 1 1/2" & 2"
T-012*	4mm (5/32") I.D.	Elbow Swivel, Barbed	3/4", 1", 1 1/2" & 2"
T-013*	4mm (5/32") I.D.	Elbow Swivel, Barbed	1/2" & 3/4"
T-014	1/4" I.D.	Barbed	3/4", 1", 1 1/2" & 2"

For flows of 1620 ml/min and above, 1/2" I.D. tubing connectors recommended.

\*Use of 4mm connector is limited by flow rate; please contact factory with specifications.

\*\*Cost added for connector.

CHART D	
MOTOR COVER OPTIONS	
H-Code	Description
H-001	Cover only
H-003	Cover with On/Off Switch, 6' Cord with Plug, 115V
H-004	Cover with On/Off Switch, 6' Cord with Plug, 230V
H-005	Cover, 6' Cord without Plug, 115V
H-006	Cover, 6' Cord without Plug, 230V
H-008	Cover, 6' Cord with Plug, 115V