REPLACEMENT SETS OF TUBING
Cat. No. Description
3370 Replacement set of tubing and fittings/hips/ples for pump
Cat. #3384 and #3385. Identical to the set supplied with the
tubing and corresponding fittings/hips/ples.
3377 Replacement set of tubing and fittings/hips/ples for pump
Cat. #3386. Identical to the set supplied with the pump. Sup-
pplied with 1/8", 1/4", 3/32", 3/16", and 1/4"-inch i.d. tubing and
corresponding fittings/hips/ples.
3378 Replacement set of tubing and fittings/hips/ples for pump
Cat. #3387. Identical to the set supplied with the pump. Sup-
pplied with 1/8", 3/32", 3/16", and 1/4"-inch i.d. tubing and
corresponding fittings/hips/ples.

REPLACEMENT TUBING ONLY
Cat. No. Description
3360, 3361 1/8"-inch i.d. Silicone tubing, 25 ft. (all pumps)
3361, 3362 1/4"-inch i.d. Silicone tubing, 25 ft. (all pumps)
3362, 3363 3/32"-inch i.d. Silicone tubing, 25 ft. (all pumps)
3363, 3364 3/16"-inch i.d. Silicone tubing, 25 ft. (all pumps)
3364, 3365 1/4"-inch i.d. Silicone tubing, 25 ft. (Cat. #3384 and #3385)
3365, 3366 1/4"-inch i.d. Silicone tubing, 25 ft. (Cat. #3386 and #3387)

REPLACEMENT TUBING ASSEMBLIES
Cat. No. Description
3371, 3372 1/8"-inch i.d. Silicone tubing and fittings/hips/ples for Cat.
#3384, #3385 and #3386
3372, 3373 1/4"-inch i.d. Silicone tubing and fittings/hips/ples for Cat.
#3386, #3387 and #3388
3373, 3374 3/32"-inch i.d. Silicone tubing and fittings/hips/ples (fittings
color-coded red inside) for Cat. #3384, #3386 and #3387
3374, 3375 3/16"-inch i.d. Silicone tubing and fittings/hips/ples (fittings
color-coded blue inside) for Cat. #3384, #3387 and #3386
3375, 3376 1/4"-inch i.d. Silicone tubing and fittings/hips/ples for Cat.
#3384 and #3385
3376, 3377 1/4"-inch i.d. Silicone tubing and fittings/hips/ples for Cat.
#3386
3390, 3391 1/8"-inch i.d. Silicone tubing and fittings/hips/ples for Cat.
#3388
3391, 3392 3/32"-inch i.d. Silicone tubing and fittings/hips/ples for Cat.
#3388
3392, 3393 3/16"-inch i.d. Silicone tubing and fittings/hips/ples for Cat.
#3389
3393, 3394 1/4"-inch i.d. Silicone tubing and fittings/hips/ples for Cat.
#3389

ACCESSORIES
Control Cat. No. 3280 "Tight-Seal" Hose/Tubing Clamp Assort-
ment includes 5 each of 3 different sizes. Clamps have an inside
diameter of 0.246 to 1.610 inches. Clamps securely fasten tubing on
connectors, pumps, glassware, and filteration units. Chemical-cor-
rrosion-resistant, rustproof, and nonconducing nylon is ideal for use in
wide-temperature range of 32 to 184°F.
Control Cat. No. 3285 "Tight-Ties", Cable Ties Assortment
includes 400 ties with lengths from 4 to 14 inches. One-piece,
self-locking ties are made of chemical-corrosion-resistant, rustproof,
and nonconducing nylon, ideal for use in wide-temperature range of
-40 to 185°F.
Control Cat. No. 3287 European Power Supply 220 volts, 50 hertz
(Pumps Pump II, III, or IV).

WARRANTY, SERVICE OF RECALIBRATION
For warranty, service, or recalibration contact:

CONTROL COMPANY
4455 Rex Road
Friendswood, Texas 77546 USA
Ph. 281-462-1714 Fax 281-462-9440
Email sales@control3.com
www.control3.com

Control Company is ISO 9001 Certified by DNV and ISO 17025 accredited
as a Calibration Laboratory by A2LA.

Cat. No. 3384/3385/3386/3387
Variable Flow Mini-Pump Instructions
92-3385-00
Rev. 3 110915

"Traceable" is a registered trademark
of Control Company

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SPECIFICATIONS

Type: Variable flow, self-priming, peristaltic pump
Flow control: Variable
Flow range: 
- Pump I—Ultra Low Flow: 0.05 to 0.900 ml/min
- Pump II—Low Flow: 0.33 to 8.200 ml/min
- Pump III—Medium Flow: 2.0 to 65.0 ml/min
- Pump IV—Medium/High Flow: 4.0 to 600.0 ml/min

Silicone tubing temperature range: -40 to 200°C (-40 to 392°F)
Motor: 12 VDC variable
Case: ABS plastic
Dimensions: 9 x 4 x 4 in (16.8 x 12.0 x 11.5 cm)
Weight: 1 lb (567 g)
Power: 120 V, 60 Hz; 9 or 12 V battery; or European 230 V, 50 Hz

CONTROL PANEL

S1: Powe/Directi switch: For selecting FORWARD, REVERSE, and power OFF.
S2: Pump Speed switch: For selecting FAST, SLOW, and PRIME (PURGE).
C1: Variable Flow Control. For varying flow rate.

TUBING ASSEMBLIES

Slotted (see Fig. 2)
Slotted tubing assemblies consist of a length of tubing with each end terminating in a straight barbed fitting with a slotted tube-lock holding the fitting in place.

Washer (see Fig. 3)
Washer tubing assemblies consist of a length of tubing with each end terminating in a straight barbed fitting with a washer tube-lock holding the fitting in place.

PREPARATION FOR INSTALLATION (TUBING ONLY)

1. After removing the tubing assembly, slide the slotted tube-lock onto each end of the barbed fittings. Remove the barbed fittings and tube-locks from the tubing, discarding the tubing.
2. Prepare a new length of tubing for installation by sliding a tube-lock over the end of the tubing. Insert a fitting on the end of the tubing. Make certain to slide the tubing over the barbed portion of the fitting. Repeat this procedure for the other end of the tubing. The tubing assembly is now ready for installation.

TUBING ASSEMBLY INSTALLATION

The 1/4-inch (6.4-mm) tubing assemblies have tube-lock fittings that consist of nylon washers—they are not slotted. All other tubing assemblies have tube-locks that are slotted.

Slotted Tube-Lock Fittings

1. Press one slotted tube-lock into the metal U-bracket.
2. Feed the tubing around the pump head (stretching the tubing slightly to ensure a good wraparound fit).
3. Press the second tube-lock into the other metal U-bracket.

Washer Tube-Lock Fittings

1. Slip one end of the tubing assembly into the U-bracket with the washer to the right of the bracket.
2. Feed the tubing around the pump head (stretching the tubing slightly to ensure a good wraparound fit).
3. Slip the second end of the tubing assembly into the other U-bracket with the washer to the right of the bracket.

TUBING

This specially formulated pump tubing is made from FDA-approved ingredients. The unique manufacturing process achieves a tubing flexibility greater than other tubing. It is ultraflexible because the flow of the liquid can be observed. It is non-toxic, colorless, and tasteless. It may be used to transfer ultra pure deionized/distilled water with zero contamination. It is bendable, resilient, stretchable, and resistant to compression set. Its high "weathereability" properties resist ultraviolet light, ozone, and gases. May be used in the lab and outdoors. It may be autoclaved. Designed for pumping very hot and very cold liquids, 30 to 230°F (-20 to 110°C).

For best results—
- Select a tubing size with a mid-range for the expected flow rate.
- To extend tubing life, select a tubing size with the largest diameter possible for the desired outlet and operate the pump at lower speeds (without stalling the pump). If too large a diameter tubing is selected, and pump is set at too slow a speed, the pump motor may stall or stop.

TUBING ASSEMBLY REMOVAL

1. Release the protective, transparent cover by depressing the tab on the plastic retaining clip located at both the bottom of the cover. The hinged cover can then be raised to gain access to pump head and tubing assembly.
2. The tubing assembly is held in place by a slotted tube-lock at each end which is fastened securely by friction fit in a metal U-shaped reaming bracket.
3. Grasp the tube-lock (white round slotted part) on each side of the retaining bracket, and remove it by lifting upward.
4. Remove the other tube-lock in the same manner.