

# Респираторные аксессуары

## Описание

По вопросам продаж и поддержки обращайтесь:

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# Aerosol Nebulizer

The Aerosol Nebulizer is a jet nebulizer ideal for nebulizing drugs sensitive to ultrasonic cavitation and higher temperatures.

- Low particle sizes (100% of the nebulized particles are below 10 µm on fluids with a viscosity like a saline solution)
- No solution warming required
- Aerosol is automatically transported by compressed air
- Connecting block required to attach Nebulizer to HSE-HA single/double chamber plethysmograph or mouse plethysmograph
- Multigas Inlet Adapter (73-2919) required for use with MicroVent, MiniVent or MidiVent
- Available with Multi-Gas Adapter Kit for Chamber/Box use

Item No.	Description
73-1963	Aerosol Nebulizer
73-3433	Aerosol Nebulizer with Multi-Gas Adapter Kit and stand to use with Chamber/Box Use
73-2919	Multi-Gas Inlet Adapter and stand to connect Aerosol Nebulizer and MicroVent, MiniVent or MidiVent
73-3300	Aerosol Nebulizer Connection Kit for Pressure Regulator (1.5 to 2 bar, 22 to 30 PSI ). Includes quick connector (shut off) and 2m pressure tube (ID 2mm, OD 3mm)



## DETAILS

The Aerosol Nebulizer is a jet nebulizer ideal for nebulizing drugs sensitive to ultrasonic cavitation and higher temperatures.

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- Available with Multi-Gas Adapter Kit for Chamber/Box use

This aerosol jet nebulizer requires an operating pressure of approximately 1.5 bar (22 psi) from a compressed air source. All of the particles generated by the jet nebulizer are 10  $\mu\text{m}$  or less in size with 60% of the particles being 2.5  $\mu\text{m}$  or less. A special connecting block is used to attach the nebulizer to the HSE-HA single and double chamber plethysmographs and are configured in a number of respiratory mechanics applications.

**SPECIFICATIONS**

Particle Size, µm	% Nebulized		Particle Size Range in Band, µm	% of Total Particles in Band
10.5	100		13.6 to 10.5	0
8.19	99.7		10.5 to 8.19	0.2
6.37	98.0		8.19 to 6.37	1.7
4.97	92.2		6.37 to 4.97	5.8
3.88	80.9		4.97 to 3.88	11.3
3.04	68.3		3.88 to 3.04	12.6
2.40	61.5		3.04 to 2.40	6.8
1.90	57.7		2.40 to 1.90	3.8
1.52	54.5		1.90 to 1.52	3.2
1.22	52.0		1.52 to 1.22	2.5

# PTM Type HSE Pneumotachometer

The HSE pneumotachometer PTM is a transducer for airflow measurement on rodents. The main feature of the new design is the small dead space. This ensures a good gas exchange in acute experiments. In combination with the silicon rubber tubing and the tracheal cannula the PTM is used for acute experiments (Intubation or tracheotomy). It is also designed for respiratory flow measurement on isolated lung of rats, guinea pigs or mice.

- Ideal pneumotachs for mice, rats or guinea pigs
- For isolated lung applications
- Small dead space volume
- Transparent design permits early detection of mucus in the pneumotach which helps to eliminate erroneous measurements

Item No.	Description
73-0981	HSE-Pneumotachometer PTM for Mice (Type 378/0.9)
73-0980	HSE-Pneumotachometer PTM for Rats and Guinea Pigs (Type 378/1.2)
73-3599	HSE-PNEUMOTACHOMETER PTM TYPE 378/1.2 FOR RATS & GUINEA PIGS WITH SIDE PORT FOR AIRWAY PRESSURE MEASUREMENT, INCLUDES 3.0mm OD TRACHEAL CANNULA
73-3592	HSE-PNEUMOTACHOMETER PTM TYPE 378/0.9 FOR MICE WITH SIDE PORT FOR AIRWAY PRESSURE MEASUREMENT, INCLUDES TRACHEAL CANNULAE 1.3 MM OD, 20 MM LENGTH



## DETAILS

The HSE pneumotachometer PTM is a transducer for airflow measurement on rodents. The main feature of the new design is the small dead space. This ensures a good gas exchange in acute experiments. In combination with the silicon rubber tubing and the tracheal cannula the PTM is used for acute experiments (Intubation or tracheotomy). It is also designed for respiratory flow measurement on isolated lung of rats, guinea pigs or mice.

- Ideal pneumotachs for mice, rats or guinea pigs
- For isolated lung applications
- Small dead space volume
- Transparent design permits early detection of mucus in the pneumotach which helps to eliminate erroneous measurements

These pneumotachs are made of transparent perspex, which allows good viewing of the inside during the experiment. It also makes these units easier to clean. The flow resistance consists only of straight boring and also is easy to clean.

The transparent design allows easy detection of any mucus that comes up into the PTM during the experiment. This prevents measurement errors caused by artificial increases of the airway resistance

due to pneumotach obstruction. In addition the perspex has low heat transfer properties compared to metal so that heating is not needed to prevent condensation of the moisture in the expired air.

The basic principle of the transducer is the generation of a pressure proportional to the airflow across a flow resistance. For the measurement of the pressure we recommend the Validyne differential pressure transducer type DP 45-14.

Calibration:

The PTM type 378/X are only calibrated approximately. The values in the technical specifications are only nominal values and are subject to change in the range of manufacturing tolerance. Volume calibration (injection of a specific volume using a calibrated syringe and integration of the flow signal) must be performed for each experiment.

SPECIFICATIONS

Specifications	73-0981	73-0980
Dead Space Volume	25 ul	50 ul
Flow Resistance, Approximate	1.0 mmH2O.ml/sec	0.4 mmH2O/ml/sec
Nominal Flow Rate (ml/sec)	+/-10.5 ml/sec	+/- 27 ml/sec
Nominal Sensitivity (ml/sec/mmH2O)	10 mmH2O for 10.5 ml/sec	10 mmH2O for 27 ml/sec
Species	Mice	Rats, Guinea Pigs

# Tygon® Laboratory Tubing (E-3603)

The most consistently reliable tubing for the transfer of liquids and gases, Tygon® Laboratory Tubing handles virtually all inorganic chemicals found in today's laboratories. Long-lasting and crack-resistant, this tubing is crystal clear and flexible, providing excellent lot-to-lot consistency for reproducible results.

- Less permeable than rubber tubing
- Outstanding chemical resistance
- Autoclavable
- Durometer hardness: Shore A, 55\*
- Remains flexible at -45°F (-43°C)

The glassy-smooth inner bore helps prevent buildup so that cleaning is facilitated. Coils are marked at 1-foot intervals for easy measuring. Tygon tubing outlasts other clear tubing 2 to 1 in peristaltic pumps.

\*Higher durometer values correlate with stiffer less flexible tubing

Item No.	Description
72-1014	Tygon <sup>®</sup> E-3603 Tubing, 15.2 m (50 ft) Length, 0.8 mm (1/32 in) ID, 2.4 mm (3/32 in) OD
72-1015	Tygon <sup>®</sup> E-3603 Tubing, 15.2 m (50 ft) Length, 1.6 mm (1/16 in) ID, 3.2 mm (1/8 in) OD
72-1016	Tygon <sup>®</sup> E-3603 Tubing, 15.2 m (50 ft) Length, 1.6 mm (1/16 in) ID, 4.8 mm (3/16 in) OD
72-1017	Tygon <sup>®</sup> E-3603 Tubing, 15.2 m (50 ft) Length, 2.4 mm (3/32 in) ID, 4.0 mm (5/32 in) OD
72-1018	Tygon <sup>®</sup> E-3603 Tubing, 15.2 m (50 ft) Length, 2.4 mm (3/32 in) ID, 5.6 mm (7/32 in) OD
72-1019	Tygon <sup>®</sup> E-3603 Tubing, 15.2 m (50 ft) Length, 3.2 mm (1/8 in) ID, 4.8 mm (3/16 in) OD



Item No.	Description
72-1020	Tygon <sup>®</sup> E-3603 Tubing, 15.2 m (50 ft) Length, 3.2 mm (1/8 in) ID, 6.4 mm (1/4 in) OD
72-1021	Tygon <sup>®</sup> E-3603 Tubing, 15.2 m (50 ft) Length, 4.0 mm (5/32 in) ID, 5.6 mm (7/32 in) OD
72-1022	Tygon <sup>®</sup> E-3603 Tubing, 15.2 m (50 ft) Length, 4.0 mm (5/32 in) ID, 7.1 mm (9/32 in) OD
72-1023	Tygon <sup>®</sup> E-3603 Tubing, 15.2 m (50 ft) Length, 4.8 mm (3/16 in) ID, 6.4 mm (1/4 in) OD
72-1024	Tygon <sup>®</sup> E-3603 Tubing, 15.2 m (50 ft) Length, 4.8 mm (3/16 in) ID, 7.9 mm (5/16 in) OD
72-1026	Tygon <sup>®</sup> E-3603 Tubing, 15.2 m (50 ft) Length, 6.4 mm (1/4 in) ID, 9.5 mm (3/8 in) OD
72-1027	Tygon <sup>®</sup> E-3603 Tubing, 15.2 m (50 ft) Length, 7.9 mm (5/16 in) ID, 11.1 mm (7/16 in) OD; for Models 1405 & 1407
72-1028	Tygon <sup>®</sup> E-3603 Tubing, 15.2 m (50 ft) Length, 7.9 mm (5/16 in) ID, 14.3 mm (9/16 in) OD
72-1029	Tygon <sup>®</sup> E-3603 Tubing, 15.2 m (50 ft) Length, 9.5 mm (3/8 in) ID, 14.3 mm (9/16 in) OD
72-1030	Tygon <sup>®</sup> E-3603 Tubing, 15.2 m (50 ft) Length, 9.5 mm (3/8 in) ID, 15.9 mm (5/8 in) OD
72-1033	Tygon <sup>®</sup> E-3603 Tubing, 15.2 m (50 ft) Length, 12.7 mm (1/2 in) ID, 17.5 mm (11/16 in) OD; for Model 1423
72-1034	Tygon <sup>®</sup> E-3603 Tubing, 15.2 m (50 ft) Length, 12.7 mm (1/2 in) ID, 19.1 mm (3/4 in) OD

Item No.	Description
72-1039	Tygon <sup>®</sup> E-3603 Tubing, 15.2 m (50 ft) Length, 17.5 mm (11/16 in) ID, 22.2 mm (7/8 in) OD
72-4621	Tygon <sup>®</sup> E-3603 Tubing, 15.2 m (50 ft) Length, 9.5 mm (3/8 in) ID, 12.7 mm (1/2 in) OD



## DETAILS

The most consistently reliable tubing for the transfer of liquids and gases, Tygon<sup>®</sup> Laboratory Tubing handles virtually all inorganic chemicals found in today's laboratories. Long-lasting and crack-resistant, this tubing is crystal clear and flexible, providing excellent lot-to-lot consistency for reproducible results.

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- Outstanding chemical resistance
- Autoclavable
- Durometer hardness: Shore A, 55\*

- Remains flexible at -45°F (-43°C)

The glassy-smooth inner bore helps prevent buildup so that cleaning is facilitated. Coils are marked at 1-foot intervals for easy measuring. Tygon tubing outlasts other clear tubing 2 to 1 in peristaltic pumps.

\*Higher durometer values correlate with stiffer less flexible tubing.

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# Ultrasonic Aerosol Nebulizer System

This nebulizer does not alter the formulation's molecular integrity. The system includes Nebulizer, filler cap, control and timing unit with power supply, and low dead volume adapter.

- High quality aerosol, precise particle size 2.5 to 4  $\mu\text{m}$
- Low flow rate approximately 0.1 ml/min
- Low residual volume <0.2 ml
- Nebulized substance does not contaminate the inspiration path of the ventilator
- Suitable for rats, guinea pigs or rabbits
- Low dead volume adapter keeps system compliance to 1.5 ml
- System does not exceed 30°C after 15 min of use

Item No.	Description
73-3948	Ultrasonic Aerosol Nebulizer System
73-3732	Ultrasonic Nebulizer with Filler Cap
73-3733	Ultrasonic Nebulizer Control Unit with Power Supply and Timer
73-3734	Low Dead Volume Adapter for Ultrasonic Aerosol Nebulizer



## DETAILS

This nebulizer does not alter the formulation's molecular integrity. The system includes Nebulizer, filler cap, control and timing unit with power supply, and low dead volume adapter.

- High quality aerosol, precise particle size 2.5 to 4  $\mu\text{m}$
- Low flow rate approximately 0.1 ml/min
- Low residual volume <0.2 ml
- Nebulized substance does not contaminate the inspiration path of the ventilator
- Suitable for rats, guinea pigs or rabbits
- Low dead volume adapter keeps system compliance to 1.5 ml
- System does not exceed 30°C after 15 min of use

## Included Items

### Ultrasonic Aerosol Nebulizer System

Includes 73-3732 Ultrasonic Aerosol Nebulizer Unit, 73-3733 Ultrasonic Nebulizer Control Unit with Power Supply and Timing Unit, 73-3734 Low Dead Volume Adapter for Nebulizer

**Ultrasonic Nebulizer with Filler Cap**

High quality aerosol (precise particle size VMD between 2.5 and 4  $\mu\text{m}$ , low-velocity aerosol, flow rate 0.1ml/min), low residual volume < 0.2ml, does not alter formulation's molecular integrity, aerosolizes a broad range of formulations in liquid without increasing concentration

**Low Dead Volume Adapter**

Effective dead volume 1.5ml, connection ports 6mm OD, 5mm ID

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# Differential Pressure Transducers MPX

Ideal for measuring tracheal, esophageal or transdiaphragmatic pressures with air-filled catheter.

Item No.	Description
73-0064	Differential Pressure Transducer MPX, Range +- 100 cmH <sub>2</sub> O, HSE Connector
73-3744	Differential Pressure Transducer MPX, Range +- 100 cmH <sub>2</sub> O, for ADI Amplifier ML110 or ML112 or Newer Versions



## DETAILS

These MPX Differential Pressure Transducers can be used with most research animals to measure tracheal, esophageal or transdiaphragmatic pressures with air-filled catheter. It is ideal for use with mouse, hamster, rat, guinea pig, rabbit, ferret, cat and dog.

## SPECIFICATIONS

Pressure Range	±100 cmH <sub>2</sub> O (±100 mbar)
Sensitivity	0.3 to 0.8 mV/mbar, excitation of 5 V
Linearity	±1.5%
Thermal Zero Shift	5 mbar (0° to 85°C)
Input Resistance	400 to 550 MΩ
Output Resistance	600 to 1000 MΩ
Offset Voltage	1 mV maximum
Excitation Voltage	0 to 5 VDC or VAC
Overpressure	±1000 mbar (750 mmHg)
Inlet/Outlet Nozzle (ID x OD x L)	2.0 x 4.7 x 9.0 mm
Housing Size, H x W x D	24 x 42 x 36 mm (0.9 x 1.7 x 1.4 in)
Weight	190 g (6.7 oz)
Application	Only for dry air



# Linear Pneumotachometer, Heated

These Linear Pneumotachometers have a special screen design which assures a linear signal over a range of flow rates and have minimum dead space.

- For use with Differential Pressure Transducers
- Available heated or non-heated

For Non-Heated Pneumotachometers please see:

Item No.	Description
72-6310	Heated Linear Pneumotachometer with Luer side port for airway pressure, 0 to 160 L/min flow rate, dead space 13.87 ml. Port OD = 22 mm, ID = 15 mm. Opposite port: OD 15 mm, ID = 13.2 mm. Requires heater controller.



## DETAILS

A pneumotachometer converts the flow of gases through it into a proportional signal of pressure difference on either side of a central screen. These Linear Pneumotachometers have a special screen design which assures a linear signal over a range of flow rates and have minimum dead space.

- For use with Differential Pressure Transducers
- Available heated or non-heated

The Heated Pneumotachometers require a Heater Controller and are recommended when condensation of water vapor occurs. The heater shell is removable if heating is not required. Two Heater Controllers are available to heat one or two Pneumotachometers. The cable from the Pneumotachometer heater shell connects to the rear panel of the Controller.

Both the Heated and Unheated Pneumotachometers are linear and bidirectional (produce signals for gas flow in either direction). They are available in seven flow ranges.

All Pneumotachometers are supplied with calibration curves. Adapter diameters measuring 7.5, 10.5, 15 or 22 mm are standard medical tapers. All other connectors are straight. When selecting a Pneumotachometer it is important to select the appropriate adapter size and style to match existing

equipment.

For Non-Heated Pneumotachometers please see:

SPECIFICATIONS

Item	DP input to transducer signal pressure(mm/H2O)	Dead space volume (ml)	Flow range (L/min)	Recommended differential pressure transducer	Species
59-9325	10	0.30	0 to 3	600349 or 600350	Mouse
59-9322	10	0.39	0 to 3	600349 or 600350	Mouse
59-9331	8	0.59	0 to 5	600348 or 600349	Mouse / Rat
59-9328	8	0.71	0 to 5	600348 or 600349	Guinea Pig
59-9337	10	1.06	0 to 10	600349 or 600350	Cat
59-9334	10	1.30	0 to 10	600349 or 600350	Cat
59-9340	7	1.66	0 to 10	600348 or 600349	Rabbit
59-9346	7	2.65	0 to 10	600348 or 600349	Rabbit
59-9349	7	3.28	0 to 10	600348 or 600349	Rabbit
59-9343	7	5.06	0 to 10	600348 or 600349	Rabbit
59-9352	7	6.81	0 to 35	600348 or 600349	Small Dog
59-9355	7	8.74	0 to 35	600348 or 600349	Small Dog
59-9358	7	11.45	0 to 35	600348 or 600349	Small Dog
59-9361	10	18.15	0 to 100	600348 or 600349	Medium Dog
59-9367	16	13.87	0 to 160	600350	Large Dog
59-9364	16	14.18	0 to 160	600350	Large Dog

# One-Way Non-Rebreathing Respiratory Valves

These One-Way Respiratory Valves, sometimes referred to as check valves, are for uni-directional respiratory circuits. They permit the flow of gases in only one direction.

- Function in any position; not gravity dependent
- Long life, non-sticky diaphragm maintains elasticity and sensitivity
- Wide range of port sizes

See Details for **Resistance to Flow** data.

Item No.	Description
60-3164	Miniature One-Way Respiratory Valve, 7.5 mm ID x 10.5 mm OD



## DETAILS

These One-Way Respiratory Valves, sometimes referred to as check valves, are for uni-directional respiratory circuits. They permit the flow of gases in only one direction.

- Function in any position; not gravity dependent
- Long life, non-sticky diaphragm maintains elasticity and sensitivity
- Wide range of port sizes

These valves have a non-sticky Spiral-Type™ diaphragm that is very sensitive to low flow ranges, has excellent elastic memory and is not gravity dependent. The valves have two ports of the same size. The outlet port is transparent permitting diaphragm viewing. All body parts are threaded for easy disassembly.

The valves are available in a variety of sizes. Select a valve according to the subject size and resistance to flow required. The 60-3172 One-Way Valve is the only valve that is constructed from autoclavable materials and that has a hose barb for gas sampling or drainage of condensation.

Two types of connectors are available: straight and standard medical tapers. Ports having an OD or ID of 7.5, 10.5, 15 or 22 mm are standard medical tapers. All other sizes are straight connectors. Both types allow quick, leak-free, twist attachment of the Valve to other components.

Resistance to Flow

	Differential Pressure (dP) in cmH <sub>2</sub> O										
Flow Rate, LPM	60-3164	60-3165	60-3166	60-3167	60-3168	60-3169	60-3170	60-3171	60-3172	60-3173	60-3174
2	0.5	0.4	0.6	0.6	0.5	0.4	-	-	-	-	-
4	0.6	0.5	0.7	0.8	0.6	0.5	-	-	-	-	-
6	0.7	0.6	0.8	0.9	0.7	0.6	-	-	-	-	-
8	0.8	0.7	0.9	1.0	0.7	0.7	-	-	-	-	-
10	1.0	1.1	1.1	1.2	0.8	0.8	-	-	-	-	-
15	1.8	2.2	2.2	1.6	1.1	1.0	-	-	-	-	-
20	3.0	3.8	3.8	2.1	1.3	1.2	0.5	0.6	0.5	-	-
25	4.6	5.7	5.6	2.6	1.7	1.5	-	-	-	-	-
30	6.4	8.1	7.7	3.4	2.1	1.8	-	-	-	-	-
35	8.5	10.8	10.3	4.1	2.5	2.2	-	-	-	-	-
60	-	-	-	-	-	-	0.9	1.0	0.9		-
100	-	-	-	-	-	-	1.7	1.7	1.7	1.6	0.5
140	-	-	-	-	-	-	2.9	3.0	2.9	-	-
180	-	-	-	-	-	-	5.0	5.0	5.0	NA	0.8
200	-	-	-	-	-	-	6.3	6.3	6.3	4.7	1.3
300	-	-	-	-	-	-	-	-	-	8.8	2.0
400	-	-	-	-	-	-	-	-	-	-	3.0
500	-	-	-	-	-	-	-	-	-	-	4.1
600	-		-	-	-	-	-	-	-	-	5.5
700	-	-	-	-	-	-	-	-	-	-	6.9

SPECIFICATIONS

Item #	Valve Size	OD (mm)	ID (mm)
60-3164	Miniature	10.5	7.5
60-3165	Miniature	15	10.5
60-3166	Miniature	22	15

60-3167	Extra Small	10,5	7.5
60-3168	Extra Small	15	10,5
60-3169	Extra Small	22	15
60-3170	Small	22	15
60-3171	Small	25.4	22
60-3172	Small	22	15
60-3173	Medium	35	28.6
60-3174	Large	35	28.6

# Platinum Cured Silicone Tubing

This Platinum Cured Silicone Tubing is ultra-flexible and can be sterilized by autoclaving. It is an ultra-pure biopharmaceutical grade tubing which imparts no tastes or odors to fluids transferred.

- Ideal for applications such as sterile fill and transfers, biocompatible for use as catheters, drains and intravenous drug delivery and blood withdrawal
- Excellent for use as catheters, drains and IV drug delivery
- Ultra-pure biocompatible tubing
- Autoclavable
- Durometer hardness: Shore A, 61
- Resistant to temperature extremes, ozone, radiation, moisture, compression sets, weathering, and chemical attack
- Non-toxic and non-hemolytic

Item No.	Description
72-1046	Platinum Cured Silicone Tubing, 0.8 mm (1/32 in) ID x 4.1 mm (5/32 in) OD, 7.6 m (25 ft) long
72-4189	Platinum Cured Silicone Tubing, 0.8 mm (1/32 in) ID x 2.4 mm (3/32 in) OD, 15.2 m (50 ft) long
72-1050	Platinum Cured Silicone Tubing, 1.6 mm (1/16 in) ID x 3.2 mm (1/8 in) OD, 7.6 m (10 ft) long
72-1049	Platinum Cured Silicone Tubing, 1.6 mm (1/16 in) ID x 4.8 mm (3/16 in) OD, 7.6 m (25 ft) long
72-1061	Platinum Cured Silicone Tubing, 2.4 mm (3/32 in) ID x 5.6 mm (7/32 in) OD, 7.6 m (25 ft) long
72-1068	Platinum Cured Silicone Tubing, 3.2 mm (1/8 in) ID x 4.8 mm (3/16 in) OD, 7.6 m (25 ft) long



Item No.	Description
72-1067	Platinum Cured Silicone Tubing, 3.2 mm (1/8 in) ID x 6.4 mm (1/4 in) OD, 7.6 m (25 ft) long
72-1074	Platinum Cured Silicone Tubing, 4 mm (5/32 in) ID x 5.6 mm (7/32 in) OD, 7.6 m (25 ft) long
72-1073	Platinum Cured Silicone Tubing, 4 mm (5/32 in) ID x 7.1 (9/32 in) mm OD, 7.6 m (25 ft) long
72-1080	Platinum Cured Silicone Tubing, 4.8 mm (3/16 in) ID x 6.4 mm (1/4 in) OD, 7.6 m (25 ft) long
72-1079	Platinum Cured Silicone Tubing, 4.8 mm (3/16 in) ID x 7.9 mm (5/16 in) OD, 7.6 m (25 ft) long
72-1084	Platinum Cured Silicone Tubing, 4.8 mm (3/16 in) ID x 9.5 mm (3/8 in) OD, 7.6 m (25 ft) long
72-1086	Platinum Cured Silicone Tubing, 6.4 mm (1/4 in) ID x 7.9 mm (5/16 in) OD, 7.6 m (25 ft) long
72-1085	Platinum Cured Silicone Tubing, 6.4 mm (1/4 in) ID x 9.5 mm (3/8 in) OD, 7.6 m (25 ft) long
72-1090	Platinum Cured Silicone Tubing, 6.4 mm (1/4 in) ID x 11.1 mm (7/16 in) OD, 7.6 m (25 ft) long
72-1088	Platinum Cured Silicone Tubing, 6.4 mm (1/4 in) ID x 12.7 mm (1/2 in) OD, 7.6 m (25 ft) long
72-1089	Platinum Cured Silicone Tubing, 6.4 mm (1/4 in) ID x 15.9 mm (5/8 in) OD, 3 m (10 ft) long
72-1091	Platinum Cured Silicone Tubing, 7.9 mm (5/16 in) ID x 11.1 mm (7/16 in) OD, 7.6 m (25 ft) long
72-1097	Platinum Cured Silicone Tubing, 9.5 mm (3/8 in) ID x 12.7 mm (1/2 in) OD, 7.6 m (25 ft) long



## DETAILS

This Platinum Cured Silicone Tubing is ultra-flexible and can be sterilized by autoclaving. It is an ultra-pure biopharmaceutical grade tubing which imparts no tastes or odors to fluids transferred.

- Ideal for applications such as sterile fill and transfers, biocompatible for use as catheters, drains and intravenous drug delivery and blood withdrawal
  - Excellent for use as catheters, drains and IV drug delivery
  - Ultra-pure biocompatible tubing
  - Autoclavable
  - Durometer hardness: Shore A, 61
  - Resistant to temperature extremes, ozone, radiation, moisture, compression sets, weathering, and chemical attack
  - Non-toxic and non-hemolytic
-

# Heater Controller for Pneumotachometer

Two Heater Controllers are available to heat one or two Pneumotachometers. The cable from the Pneumotachometer heater shell connects to the rear panel of the Controller.

Item No.	Description
59-9703	Heater Controller for Single Pneumotachometer 230 VAC, 50 Hz



## DETAILS

Two Heater Controllers are available to heat one or two Pneumotachometers. The cable from the Pneumotachometer heater shell connects to the rear panel of the Controller.

Алматы (727)345-47-04  
Ангарск (3955)60-70-56  
Архангельск (8182)63-90-72  
Астрахань (8512)99-46-04  
Барнаул (3852)73-04-60  
Белгород (4722)40-23-64  
Благовещенск (4162)22-76-07  
Брянск (4832)59-03-52  
Владивосток (423)249-28-31  
Владикавказ (8672)28-90-48  
Владимир (4922)49-43-18  
Волгоград (844)278-03-48  
Вологда (8172)26-41-59  
Воронеж (473)204-51-73  
Екатеринбург (343)384-55-89

Иваново (4932)77-34-06  
Ижевск (3412)26-03-58  
Иркутск (395)279-98-46  
Казань (843)206-01-48  
Калининград (4012)72-03-81  
Калуга (4842)92-23-67  
Кемерово (3842)65-04-62  
Киров (8332)68-02-04  
Коломна (4966)23-41-49  
Кострома (4942)77-07-48  
Краснодар (861)203-40-90  
Красноярск (391)204-63-61  
Курск (4712)77-13-04  
Курган (3522)50-90-47  
Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13  
Москва (495)268-04-70  
Мурманск (8152)59-64-93  
Набережные Челны (8552)20-53-41  
Нижний Новгород (831)429-08-12  
Новокузнецк (3843)20-46-81  
Ноябрьск (3496)41-32-12  
Новосибирск (383)227-86-73  
Омск (3812)21-46-40  
Орел (4862)44-53-42  
Оренбург (3532)37-68-04  
Пенза (8412)22-31-16  
Петрозаводск (8142)55-98-37  
Псков (8112)59-10-37  
Пермь (342)205-81-47

Ростов-на-Дону (863)308-18-15  
Рязань (4912)46-61-64  
Самара (846)206-03-16  
Санкт-Петербург (812)309-46-40  
Саратов (845)249-38-78  
Севастополь (8692)22-31-93  
Саранск (8342)22-96-24  
Симферополь (3652)67-13-56  
Смоленск (4812)29-41-54  
Сочи (862)225-72-31  
Ставрополь (8652)20-65-13  
Сургут (3462)77-98-35  
Сыктывкар (8212)25-95-17  
Тамбов (4752)50-40-97  
Тверь (4822)63-31-35

Тольятти (8482)63-91-07  
Томск (3822)98-41-53  
Тула (4872)33-79-87  
Тюмень (3452)66-21-18  
Ульяновск (8422)24-23-59  
Улан-Удэ (3012)59-97-51  
Уфа (347)229-48-12  
Хабаровск (4212)92-98-04  
Чебоксары (8352)28-53-07  
Челябинск (351)202-03-61  
Череповец (8202)49-02-64  
Чита (3022)38-34-83  
Якутск (4112)23-90-97  
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