

High Pressure Peristaltic Pump Tubing Kits

■ for use with ProFlux® M12 System and Easy-Load® pumps in high pressure applications



Tubing kits for high pressure operation are now available for ProFlux M12 TFF systems and for stand-alone pump units equipped with Easy-Load pump heads.

Introduction

High-pressure tubing kits operate at pressures up to 55 psi (3.8 bar), twice the capability (25 psi (1.7 bar) of standard tubing.

High pressure advantages for Ultrafiltration applications include:

- Increase process speed (flux)
- Economically mimic process scale applications in the laboratory.
- Increase batch size to be processed
- Longer tubing service life

The kits are available for operation of Pellicon® 2 Mini and Pellicon 2 cassette holders. Laboratory tests can be run at pressures similar to those applied in full-scale production. Each tubing piece is equipped with stainless steel Sanitary Clamp ends for easy connection and safe operation. Tubing is autoclavable.

Materials of Construction

The tubing is manufactured from a composite material composed of platinum-cured silicone and expanded PTFE. It offers a static burst pressure in excess of 200 psi (13.7 bar)

The tubing material is FDA compliant and USP Class VI tested. The Sanitary Clamp fittings are manufactured of 316-LSS.

Recommended tubing size for Pellicon 2 cassettes

Tubing Size		A channel		C channel		V channel	
in	mm	Mini	Cassette	Mini	Cassette	Mini	Cassette
1/4	6.4	3*	N/A	2	N/A	1	N/A
3/8	9.5	3*	1	3*	1	2	N/A
1/2	12.7	3*	2	3*	1	3	1

* Limited by the cassette holder capacity

The table indicates the maximum number of cassettes for different tubing sizes. Example: To operate 3 Pellicon 2 Mini Cassettes with A channel. *Select 1/4" tubing size.*

Note: The third character from the right in Pellicon 2 catalog numbers indicates the channel type. Example: P2B010**A**01 – This is an "A" channel cassette.

Expected Tubing Life

Expected tubing life at 55 PSI (3.8 bar) continuous operation at ambient temperature for 1/4" tubing is 130 hours, for 3/8" tubing, 70 hours and for 1/2" tubing, 25 hours. Tubing life may vary depending on pressure, temperature and the product being pumped.

High-pressure tubing is compatible with Easy-Load pump heads equipped with grippers as shown in the left photo. *Other gripper types will damage the tubing.* Older pump heads can easily be replaced with the new style. To upgrade, please order Pump Head catalogue number 4605102.

Use only pump head models with *plastic tubing grippers* for operation with composite PTFE/Silicone tubing. Do not use pump heads with abrasive aluminum grippers.

Replace standard tubing with high-pressure tubing to increase pressure performance of stand-alone Easy-Load pumps, catalogue numbers XX80 ELO 00 and XX80 EL2 30



Tubing Grippers

Ordering Information

Tubing sections for high-pressure operation are sold individually or in kits that are sized to operate the Pellicon Mini holder and the Pellicon Cassette Acrylic holder.

For ProFlux M12 operation

Order the high-pressure tubing kit for your Pellicon 2 holder and the standard PharMed® Sanitary Clamp Tubing kits available for the ProFlux M12 system (see the ProFlux M12 data sheet (PB1015EN00) for PharMed Kit part numbers).

The standard kits include a wide selection of tubing sections for fluid transfers etc. The high-pressure kits include the necessary tubing for the high-pressure Feed/Retentate loop.

For Easy-Load stand-alone pumps

Order either a kit or individual tubing sections to match your desired configuration.

- 1/4" for flow rates up to 4 lpm
- 3/8" for flow rates up to 8 lpm
- 1/2" for flow rates up to 10 lpm

High Pressure Tubing Kits

Tubing Size	Tubing Kit Catalogue Number
For Pellicon 2 Mini Holder (catalogue number XX42 PMI NI) Each kit contain one 11.25" (286 mm) and one 16" (406 mm) high pressure section equipped with SS Sanitary Clamp ends.	
1/4" (6.4 mm) kit	XX80 1HP MKIT
3/8" (9.5 mm) kit	XX80 2HP MKIT
For Pellicon 2 Cassette holder (catalogue numbers XX42 P00 60 or XX42 PRV 60) Each kit contain two 16" (406 mm) high pressure section equipped with SS Sanitary Clamp ends.	
3/8" (9.5 mm) kit	XX80 2HP CKIT
1/2" (12.7 mm) kit	XX80 3HP CKIT

Spare High Pressure Tubing Pieces

Each contain one high pressure section (length as indicated below) equipped with SS Sanitary Clamp ends.

Tubing Size	Tubing Catalogue Number
1/4" Spare 11" (406 mm)	XX80 1HP011
3/8" Spare 11" (406 mm)	XX80 2HP011
1/2" Spare 11" (406 mm)	XX80 3HP011
1/4" Spare 16" (406 mm)	XX80 1HP016
3/8" Spare 16" (406 mm)	XX80 2HP016
1/2" Spare 16" (406 mm)	XX80 3HP016

To Place an Order or Receive Technical Assistance

For additional information call your nearest Millipore office.

In the U.S. and Canada, call toll-free **1-800-MILLIPORE (1-800-645-5476)**

In the U.S., Canada and Puerto Rico, fax orders to **1-800-MILLIFX (1-800-645-5439)**

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