



C0392

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### Disclaimer:

**The maximum holding pressure for any type of connection involving tubing and a ferrule, varies considerably with the tubing material, the ferrule material, the clearance between tubing OD and ferrule ID and the shape of the fitting detail.**

## PEEK Tubing

- 1/32", 1/16", 1/8" and 1/4" OD Tubing Available
- Premium Grade Tubing with Tighter Tolerances
- Easy to Cut
- Biocompatible

PEEK tubing has the strength required to withstand continuous use at HPLC pressure without swelling or bursting. The dense polymer structure of VICI Jour PEEK tubing eliminates the permeability to organic solvents that causes other polymer tubing, such as ETFE to "sweat".

For easy identification of ID VICI Jour tubing is color coded. VICI recommends "Striped Color-Coded" tubing. It is manufactured of virgin, natural PEEK and therefore ensures maximum chemical resistance and biocompatibility. The color dye is applied only to the outer surface and thus not in contact with the fluid stream. "Solid Color-Coded" tubing however is made of pre-dyed raw material.

Remember PEEK tubing is not affected by halide salts, high strength buffers or other aggressive mobile phases that corrode stainless steel. The polymer

surface will not leach metal ions into the eluent or extract metal sensitive components from the sample. By far the most outstanding property is its excellent burst pressure.

PEEK is compatible with almost any of the solvents commonly used in HPLC. Dichloromethane, THF and DMSO may cause swelling in PEEK. Concentrated nitric and sulphuric acid will attack PEEK.

### Premium Grade PEEK Tubing – Dash-Striped Color-Coded

The new VICI Jour dash-striped premium grade PEEK tubing is the best choice for chromatography applications in which tube volume is of importance. The tighter tolerance of +/- 0.025 mm ensures a more consistent internal volume of the transfer lines.



### Premium Grade PEEK Tubing – Dash-Striped Color-Coded

Part No.	OD	ID (mm)	Qty/pkg	Color	bar*	psi*
JR-TP-5998-M3	1/16"	0.064	3 m	Pink	435	6300
JR-TP-5998-M10	1/16"	0.064	10 m	Pink	435	6300
JR-TP-5999-M3	1/16"	0.13	3 m	Red	420	6100
JR-TP-5999-M10	1/16"	0.13	10 m	Red	420	6100
JR-TP-6000-M3	1/16"	0.18	3 m	Yellow	400	5800
JR-TP-6000-M10	1/16"	0.18	10 m	Yellow	400	5800
JR-TP-6001-M3	1/16"	0.25	3 m	Blue	386	5600
JR-TP-6001-M10	1/16"	0.25	10 m	Blue	386	5600

\* = Recommended maximum permanent working pressure (measured with ACN/Water 1:1 at room temperature)  
Other dimensions on request

## SPECS

**Material**  
PEEK

**Dimensions**  
OD and ID, see chart

**Tolerances**  
Premium Grade Tubing  
OD: +/- 0.025 mm (.001")  
ID: +/- 0.025 mm (.001")

**Pressure rating**  
See chart

**Chemical resistance**  
See chart on page 106

Max. recommended working temp. : < 100 °C (continuous)  
for 1/16" OD tubing with ID up to 0.75 mm

**Spares & Tools**  
A clean burr-free perpendicular cut can be achieved with the VICI Jour Clean-Cut tubing cutter JR-797 see page 22

To bend PEEK tubing at the optimum radius, use our Tubing Elbows on page 21

We recommend PEEK fingertight and flangeless fittings for your applications  
Fingertights see pages 27–30  
Flangeless see pages 49–53

VICI Jour Sample Loops for analytical applications are made of Premium Grade Tubing (see pages 96–100)

### Length Conversions

- 0.064 mm ≈ .0025"
- 0.13 mm ≈ .005"
- 0.18 mm ≈ .007"
- 0.25 mm ≈ .010"

## PEEK Tubing

### SPECS

**Material**  
PEEK

**Dimensions**  
OD and ID, see chart

**Tolerances**  
For OD 1/16" PEEK tubing  
OD: +/- 0.05 mm (.002")  
ID: +/- 0.05 mm (.002")

For OD 1/8" PEEK tubing  
OD: +/- 0.10 mm (.004")  
ID: +/- 0.10 mm (.004")

**Pressure rating**  
See chart

**Chemical resistance**  
See chart on page 106

Max. recommended working temp. : < 100 °C (continuous)  
for 1/16" OD tubing with ID up to 0.75 mm

#### Spares & Tools

A clean burr-free perpendicular cut can be achieved with the VICI Jour Clean-Cut tubing cutter JR 797 see page 22

To bend PEEK tubing at the optimum radius, use our Tubing Elbows on page 21

We recommend PEEK fingertight and flangeless fittings for your applications  
Fingertights see pages 27–30  
Flangeless see pages 49–53

VICI Jour Sample Loops for analytical applications are made of Premium Grade Tubing (see pages 96–100)

#### Length Conversions

0.13 mm ≈ .005"  
0.18 mm ≈ .007"  
0.25 mm ≈ .010"  
0.50 mm ≈ .020"  
0.75 mm ≈ .030"  
1.00 mm ≈ .039"  
1.40 mm ≈ .055"

### PEEK Tubing – Striped Color-Coded

Part No.	OD	ID (mm)	Qty/pkg	Color	bar*	psi*
JR-T-5999-M3	1/16"	0.13	3 m	Red	420	6100
JR-T-5999-M10	1/16"	0.13	10 m	Red	420	6100
JR-T-6000-M3	1/16"	0.18	3 m	Yellow	400	5800
JR-T-6000-M10	1/16"	0.18	10 m	Yellow	400	5800
JR-T-6001-M3	1/16"	0.25	3 m	Blue	386	5600
JR-T-6001-M10	1/16"	0.25	10 m	Blue	386	5600
JR-T-6002-M3	1/16"	0.50	3 m	Orange	350	4500
JR-T-6002-M10	1/16"	0.50	10 m	Orange	350	4500
JR-T-6003-M3	1/16"	0.75	3 m	Green	240	3500
JR-T-6003-M10	1/16"	0.75	10 m	Green	240	3500
JR-T-60031-M3	1/16"	1.00	3 m	Grey	165	2400
JR-T-60031-M10	1/16"	1.00	10 m	Grey	165	2400
JR-T-60032-M3	1/16"	1.40	3 m	Black	52	750
JR-T-60032-M10	1/16"	1.40	10 m	Black	52	750

\* = Recommended maximum permanent working pressure (measured with ACN/Water 1:1 at room temperature)  
Other pack sizes and tubing lengths are available on request.  
Please contact your local distributor or VICI directly.

### PEEK Tubing – Solid Color-Coded

Part No.	OD	ID (mm)	Qty/pkg	Color	bar*	psi*
JR-T-6007-M3	1/16"	0.13	3 m	Red	420	6100
JR-T-6007-M10	1/16"	0.13	10 m	Red	420	6100
JR-T-6008-M3	1/16"	0.18	3 m	Yellow	400	5800
JR-T-6008-M10	1/16"	0.18	10 m	Yellow	400	5800
JR-T-6009-M3	1/16"	0.25	3 m	Blue	386	5600
JR-T-6009-M10	1/16"	0.25	10 m	Blue	386	5600
JR-T-6010-M3	1/16"	0.50	3 m	Orange	350	4500
JR-T-6010-M10	1/16"	0.50	10 m	Orange	350	4500
JR-T-6011-M3	1/16"	0.75	3 m	Green	240	3500
JR-T-6011-M10	1/16"	0.75	10 m	Green	240	3500

\* = Recommended maximum permanent working pressure (measured with ACN/Water 1:1 at room temperature)  
Other pack sizes and tubing lengths are available on request.  
Please contact your local distributor or VICI directly.

### PEEK Tubing – Natural

Part No.	OD	ID (mm)	Qty/pkg	bar*	psi*
JR-T-6060-M3	0.36 mm	0.075	3 m	358	5200
JR-T-6060-M10	0.36 mm	0.075	10 m	358	5200
JR-T-5993-M3	1/32"	0.13	3 m	379	5500
JR-T-5993-M10	1/32"	0.13	10 m	379	5500
JR-T-5994-M3	1/32"	0.18	3 m	351	5100
JR-T-5994-M10	1/32"	0.18	10 m	351	5100
JR-T-5995-M3	1/32"	0.25	3 m	310	4500
JR-T-5995-M10	1/32"	0.25	10 m	310	4500
JR-T-60041-M3	1/8"	0.75	3 m	345	5000
JR-T-60041-M10	1/8"	0.75	10 m	345	5000
JR-T-6004-M3	1/8"	1.59	3 m	224	3250
JR-T-6004-M10	1/8"	1.59	10 m	224	3250
JR-T-60042-M3	1/8"	2.00	3 m	165	2400
JR-T-60042-M10	1/8"	2.00	10 m	165	2400
JR-T-6006	1/4"	3.17	per m	227	3300

\* = Recommended maximum permanent working pressure (measured with ACN/Water 1:1 at room temperature)  
 Other pack sizes and tubing lengths are available on request.  
 Please contact your local distributor or VICI directly.



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### SPECS

**Material**  
 PEEK

**Dimensions**  
 OD and ID, see chart

**Tolerances**  
 For OD 1/16" PEEK tubing  
 OD: +/- 0.05 mm (.002")  
 ID: +/- 0.05 mm (.002")

For OD 1/8" PEEK tubing  
 OD: +/- 0.10 mm (.004")  
 ID: +/- 0.10 mm (.004")

**Pressure rating**  
 See chart

**Chemical resistance**  
 See chart on page 106

Max. recommended working temp. : < 100 °C (continuous)  
 for 1/16" OD tubing with ID up to 0.75 mm

**Spares & Tools**  
 A clean burr-free perpendicular cut can be achieved with the VICI Jour Clean-Cut tubing cutter JR-797 see page 22

To bend PEEK tubing at the optimum radius, use our Tubing Elbows on page 21

We recommend PEEK fingertight and flangeless fittings for your applications  
 Fingertights see pages 27–30  
 Flangeless see pages 49–53

VICI Jour Sample Loops for analytical applications are made of Premium Grade Tubing (see pages 96–100)

### Length Conversions

- 0.064 mm ≈ .0025"
- 0.075 mm ≈ .0030"
- 0.13 mm ≈ .005"
- 0.18 mm ≈ .007"
- 0.25 mm ≈ .010"
- 0.36 mm ≈ .014"
- 0.75 mm ≈ .030"
- 1.59 mm ≈ .062"
- 2.00 mm ≈ .079"
- 3.17 mm ≈ .125"

### SPECS

#### Material

PEEK, Fused Silica

#### Dimensions

See chart

#### Tolerances

For ID 50 µm +/- 3 µm,

For IDs 100–150 µm +/- 5 µm

#### Pressure Rating

586 bar (8500 psi)

#### Spares & Tools

PEEK fingertights 1/16"

see pages 28–30

Nanovalome® fittings 1/32"

see pages 38–39

We recommend PEEKclad-FST™ together with our Nanovalome® fittings on pages 38–39

#### Tech Tip

To ensure Zero Dead Volume connections, special cutting techniques and equipment are required. For this reason PEEKclad-FST™ is available only in a variety of pre-cut lengths.

## PEEKclad-FST™ – PEEK-Clad Fused Silica Tubing

- For Zero Dead Volume Connections
- Perfect for Capillary LC
- Inert Smooth Flow Path
- Available with 1/32" and 1/16" OD and 25 up to 300 µm ID

This product combines the inert and smooth inner surface of fused silica with very precise IDs, and the flexibility and easy handling of PEEK. Due to its mechanical strength it can be used both with polymeric or metal ferrules.

The ends are cut perfectly square with sophisticated equipment and polished for Zero Dead Volume connections in capillary LC. In contrast to a polymer sleeve/fused silica connection there is no possibility of liquid filling the gap between the sleeve and the tubing.

All this may result in a lower carry over or cross contamination between samples which can lead to improved reproducibility. The smooth inner wall surface

gives lower band broadening and therefore higher efficiency and resolution.

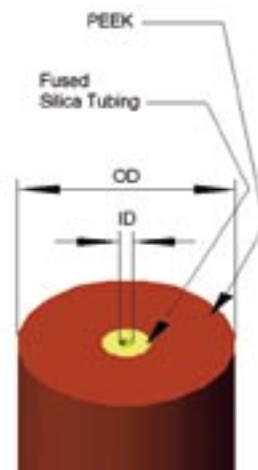
PEEKclad-FST™ is compatible with most organic solvents and strong acids (pH 0–10) but not compatible with hydrofluoric acid.

In fitting details the PEEK outside surface may be wetted and thus the chemical compatibility of PEEK has to be considered.

PEEK coated fused silica tubing can be manufactured in different proprietary processes. Trade names are PEEKclad-FST™ by Valco International Co. Inc. and VICI International and PEEKsil™ by SGE International Pty. Ltd.

### PEEKclad-FST™ – PEEK-Clad Fused Silica Tubing

Part No.	OD	ID	Length/mm	Color	Qty/pkg
JR-TS-3215	1/32"	25 µm	50	Orange	2
JR-TS-32110	1/32"	25 µm	100	Orange	2
JR-TS-32115	1/32"	25 µm	150	Orange	2
JR-TS-32125	1/32"	25 µm	250	Orange	2
JR-TS-32150	1/32"	25 µm	500	Orange	2
JR-TS-3225	1/32"	50 µm	50	Natural	2
JR-TS-32210	1/32"	50 µm	100	Natural	2
JR-TS-32215	1/32"	50 µm	150	Natural	2
JR-TS-32225	1/32"	50 µm	250	Natural	2
JR-TS-32250	1/32"	50 µm	500	Natural	2
JR-TS-3235	1/32"	75 µm	50	Black	2
JR-TS-32310	1/32"	75 µm	100	Black	2
JR-TS-32315	1/32"	75 µm	150	Black	2
JR-TS-32325	1/32"	75 µm	250	Black	2
JR-TS-32350	1/32"	75 µm	500	Black	2
JR-TS-3245	1/32"	100 µm	50	Red	2
JR-TS-32410	1/32"	100 µm	100	Red	2
JR-TS-32415	1/32"	100 µm	150	Red	2
JR-TS-32425	1/32"	100 µm	250	Red	2
JR-TS-32450	1/32"	100 µm	500	Red	2
JR-TS-3265	1/32"	150 µm	50	Purple	2
JR-TS-32610	1/32"	150 µm	100	Purple	2
JR-TS-32615	1/32"	150 µm	150	Purple	2
JR-TS-32625	1/32"	150 µm	250	Purple	2
JR-TS-32650	1/32"	150 µm	500	Purple	2



Part No.	OD	ID	Length/mm	Color	Qty/pkg
JR-TS-1615	1/16"	25 µm	50	Orange	5
JR-TS-16110	1/16"	25 µm	100	Orange	5
JR-TS-16115	1/16"	25 µm	150	Orange	5
JR-TS-16120	1/16"	25 µm	200	Orange	5
JR-TS-16150	1/16"	25 µm	500	Orange	2
JR-TS-1625	1/16"	50 µm	50	Natural	5
JR-TS-16210	1/16"	50 µm	100	Natural	5
JR-TS-16215	1/16"	50 µm	150	Natural	5
JR-TS-16220	1/16"	50 µm	200	Natural	5
JR-TS-16250	1/16"	50 µm	500	Natural	2
JR-TS-1635	1/16"	75 µm	50	Black	5
JR-TS-16310	1/16"	75 µm	100	Black	5
JR-TS-16315	1/16"	75 µm	150	Black	5
JR-TS-16320	1/16"	75 µm	200	Black	5
JR-TS-16350	1/16"	75 µm	500	Black	2
JR-TS-1645	1/16"	100 µm	50	Red	5
JR-TS-16410	1/16"	100 µm	100	Red	5
JR-TS-16415	1/16"	100 µm	150	Red	5
JR-TS-16420	1/16"	100 µm	200	Red	5
JR-TS-16450	1/16"	100 µm	500	Red	2
JR-TS-1665	1/16"	150 µm	50	Purple	5
JR-TS-16610	1/16"	150 µm	100	Purple	5
JR-TS-16615	1/16"	150 µm	150	Purple	5
JR-TS-16620	1/16"	150 µm	200	Purple	5
JR-TS-16650	1/16"	150 µm	500	Purple	2

Other inner diameters on request.

### SPECS

#### Material

PEEK, Fused Silica

#### Dimensions

See chart

#### Tolerances

For ID 50 µm +/- 3 µm,  
For IDs 100–150 µm +/- 5 µm

#### Pressure Rating

586 bar (8500 psi)

#### Spares & Tools

PEEK fingertights 1/16"  
see pages 28–30  
Nanovalome® fittings 1/32"  
see pages 38–39

We recommend PEEKclad-FST™ together with our Nanovalome® fittings on pages 38–39

#### Tech Tip

To ensure Zero Dead Volume connections, special cutting techniques and equipment are required. For this reason PEEKclad-FST™ is available only in a variety of pre-cut lengths.

## Premium Grade Stainless Steel Tubing

### SPECS

#### Material

SS316  
seamless

#### Dimensions

See chart

#### Tolerances

OD: +/- 0.05 mm (.002")

ID: +/- 0.025 mm (.001")

#### Pressure rating

For 1/16" OD tubing:  
varies with ID, min. 365 bar  
(5300 psi)

For 1/8" OD tubing:  
varies with ID, min. 315 bar  
(4600 psi)

#### Tech Tip

We recommend Pre-Cut  
Stainless Steel Tubing for Zero-  
Dead Volume Connections  
(see page 13)

#### Note

ID dimensions in mm are

#### Length Conversions

0.13 mm ≈ .005"  
0.18 mm ≈ .007"  
0.25 mm ≈ .010"  
0.38 mm ≈ .015"  
0.50 mm ≈ .020"  
0.75 mm ≈ .030"  
1.00 mm ≈ .039"  
1.52mm ≈ .060"  
1.78 mm ≈ .070"  
2.16 mm ≈ .085"

## Premium Grade Stainless Steel Tubing

- Premium Grade – Seamless
- Variety of Sizes for HPLC and GC Applications
- Smooth Internal Surface
- Soft Annealed OD for Easy Ferrule Connections

### Premium Grade Stainless Steel Tubing

Part No.	OD	ID (mm)	Qty/pkg
JR-TSS.505-M3	1/32"	0.13	3 m
JR-TSS.505-M10	1/32"	0.13	10 m
JR-TSS.507-M3	1/32"	0.18	3 m
JR-TSS.507-M10	1/32"	0.18	10 m
JR-TSS.510-M3	1/32"	0.25	3 m
JR-TSS.510-M10	1/32"	0.25	10 m
JR-TSS.520-M3	1/32"	0.50	3 m
JR-TSS.520-M10	1/32"	0.50	10 m
JR-TSS105-M3	1/16"	0.13	3 m
JR-TSS105-M10	1/16"	0.13	10 m
JR-TSS110-M3	1/16"	0.25	3 m
JR-TSS110-M10	1/16"	0.25	10 m
JR-TSS115-M3	1/16"	0.38	3 m
JR-TSS115-M10	1/16"	0.38	10 m
JR-TSS120-M3	1/16"	0.50	3 m
JR-TSS120-M10	1/16"	0.50	10 m
JR-TSS130-M3	1/16"	0.75	3 m
JR-TSS130-M10	1/16"	0.75	10 m
JR-TSS140-M3	1/16"	1.00	3 m
JR-TSS140-M10	1/16"	1.00	10 m
JR-TSS230-M3	1/8"	0.75	3 m
JR-TSS230-M10	1/8"	0.75	10 m
JR-TSS240-M3	1/8"	1.00	3 m
JR-TSS240-M10	1/8"	1.00	10 m
JR-TSS260-M3	1/8"	1.52	3 m
JR-TSS260-M10	1/8"	1.52	10 m
JR-TSS267-M3	1/8"	1.78	3 m
JR-TSS267-M10	1/8"	1.78	10 m
JR-TSS285-M3	1/8"	2.16	3 m
JR-TSS285-M10	1/8"	2.16	10 m

## Stainless Steel Tubing

- Variety of Sizes for HPLC and GC Applications
- Smooth Internal Surface
- Soft Annealed OD for Easy Ferrule Connections

### Stainless Steel Tubing

Part No.	OD	ID (mm)	Qty/pkg
JR-T-625-04-M3	1/16"	0.13	3 m
JR-T-625-04-M10	1/16"	0.13	10 m
JR-T-625-05-M3	1/16"	0.18	3 m
JR-T-625-05-M10	1/16"	0.18	10 m
JR-T-625-10-M3	1/16"	0.25	3 m
JR-T-625-10-M10	1/16"	0.25	10 m
JR-T-625-20-M3	1/16"	0.50	3 m
JR-T-625-20-M10	1/16"	0.50	10 m
JR-T-625-30-M3	1/16"	0.75	3 m
JR-T-625-30-M10	1/16"	0.75	10 m
JR-T-625-40-M3	1/16"	1.00	3 m
JR-T-625-40-M10	1/16"	1.00	10 m
JR-T-626-00-M3	1/8"	2.10	3 m
JR-T-626-00-M10	1/8"	2.10	10 m
JR-T-628-00	1/4"	4.65	per m



### SPECS

#### Material

SS316  
welded under inert gas

#### Dimensions

See chart

#### Tolerances

OD: +/- 0.05 mm (.002")  
ID: +/- 0.05 mm (.002")

#### Pressure rating

For 1/16" and 1/8" OD tubing:  
varies with ID, min. 315 bar  
(4600 psi)

#### Tech Tip

We recommend Pre-Cut  
Stainless Steel Tubing for Zero-  
Dead Volume Connections  
(see page 13)

#### Length Conversions

0.13 mm ≈ .005"  
0.18 mm ≈ .007"  
0.25 mm ≈ .010"  
0.50 mm ≈ .020"  
0.75 mm ≈ .030"  
1.00 mm ≈ .039"  
2.10 mm ≈ .083"  
4.65 mm ≈ .183"

### SPECS

#### Material

Electroformed Nickel (EFNI)

#### Dimensions

See chart

#### Tolerances

OD: +/- 0.025 mm

ID: +/- 0.025 mm

#### Note

ID dimensions in mm are converted from nominal inch dimensions

## Electroformed Nickel Tubing

- Variety of Sizes for HPLC and GC Applications
- Extremely Smooth Internal Surface
- Ideal for Transfer Lines, Loops and Columns

This small bore tubing is made by electroplating nickel over a diamond drawn mandrel in a continuous process. When the mandrel is removed from the tubing, what's left is in an extremely inert and smooth interior surface – an incredible 1–2 microinch finish. The mirrorlike interior means that EFNI can be used instead of fused silica glass-lined tubing, or silica-lined tubing.

The highly inactive, non-adsorptive surface makes EFNI tubing ideal for transfer lines, sample loops, or columns, or any application which requires minimum carryover potential.

The ID of commercial drawn tubing is typically +/- 10% of the nominal size. This variance added to the voids, pits, and striations in the wall leads to a large uncertainty in calculated volumes. Our EFNI tubing is held to +/- 0.025 mm of the nominal size, and its microsmooth surface means that the absolute volume can be calculated very accurately.

Electroformed nickel tubing is electrolytically cut, electropolished, and steam cleaned, ready for use.

### Electroformed Nickel Tubing

Part No.	OD	ID (mm)	Qty/pkg
JR-TEFNI.502-M1	1/32"	0.05	1 m
JR-TEFNI.504-M1	1/32"	0.10	1 m
JR-TEFNI.505-M1	1/32"	0.13	1 m
JR-TEFNI.510-M3	1/32"	0.25	3 m
JR-TEFNI.510-M10	1/32"	0.25	10 m
JR-TEFNI.515-M3	1/32"	0.38	3 m
JR-TEFNI.515-M10	1/32"	0.38	10 m
JR-TEFNI.520-M3	1/32"	0.50	3 m
JR-TEFNI.520-M10	1/32"	0.50	10 m
JR-TEFNI130-M3	1/16"	0.75	3 m
JR-TEFNI130-M10	1/16"	0.75	10 m
JR-TEFNI140-M3	1/16"	1.00	3 m
JR-TEFNI140-M10	1/16"	1.00	10 m

#### Length Conversions

0.05 mm ≈ .0020"

0.10 mm ≈ .0040"

0.13 mm ≈ .005"

0.25 mm ≈ .010"

0.38 mm ≈ .015"

0.50 mm ≈ .020"

0.75 mm ≈ .030"

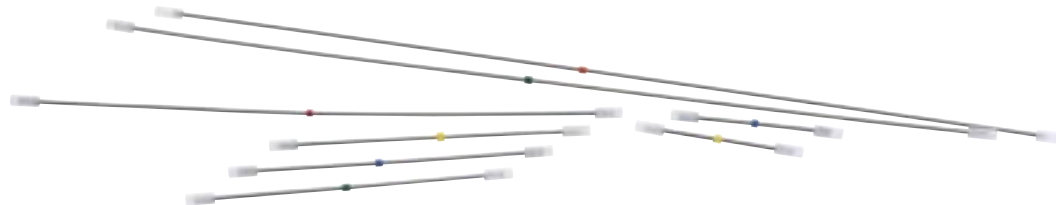
1.00 mm ≈ .040"

### Pre-Cut Premium Stainless Steel Tubing

- Zero Dead Volume Connections
- Ready to Use
- Cleaned
- Soft Annealed OD for Easy Ferrule Connections

VICI offers pre-cut stainless steel tubing in lengths most commonly required in HPLC systems. These tubes are cut to square, burr-free ends for Zero Dead Volume connections.

VICI pre-cut tubing is electrolytically cut and specially steam cleaned to remove both organic and inorganic contaminants. Softener-free Polyethylene caps are used to avoid contamination of the tubing.



### Pre-cut Stainless Steel Tubing

Part No.	OD	ID (mm)	Color	Length (mm)
JR-T-97005	1/16"	0.13	Red	50
JR-T-97010	1/16"	0.13	Red	100
JR-T-97015	1/16"	0.13	Red	200
JR-T-97020	1/16"	0.13	Red	300
JR-T-97025	1/16"	0.18	Yellow	50
JR-T-97030	1/16"	0.18	Yellow	100
JR-T-97035	1/16"	0.18	Yellow	200
JR-T-97040	1/16"	0.18	Yellow	300
JR-T-97045	1/16"	0.25	Blue	50
JR-T-97055	1/16"	0.25	Blue	100
JR-T-97060	1/16"	0.25	Blue	200
JR-T-97065	1/16"	0.25	Blue	300
JR-T-97075	1/16"	0.50	Orange	50
JR-T-97080	1/16"	0.50	Orange	100
JR-T-97085	1/16"	0.50	Orange	200
JR-T-97090	1/16"	0.50	Orange	300
JR-T-97095	1/16"	0.75	Green	50
JR-T-97100	1/16"	0.75	Green	100
JR-T-97105	1/16"	0.75	Green	200
JR-T-97110	1/16"	0.75	Green	300

### SPECS

#### Material

Tubing: SS316L,  
seamless  
Caps: Polyethylene

#### Dimensions

OD: 1/16", ID see chart

#### Tolerances

OD: +/- 0.05 mm (.002")  
ID: +/- 0.025 mm (.001")

#### Pressure rating

For 1/16" OD tubing:  
varies with ID, min. 365 bar  
(5300 psi)

For 1/8" OD tubing:  
varies with ID, min. 315 bar  
(4600 psi)

#### Spares & Tools

We recommend our Valco  
Stainless Steel Fittings on  
page 40.

#### Length Conversions

0.13 mm ≈ .005"  
0.18 mm ≈ .007"  
0.25 mm ≈ .010"  
0.50 mm ≈ .020"  
0.75 mm ≈ .030"

### PTFE & PTFE-Like Tubing

- Low and Mid Pressure Applications
- Biocompatible

#### PTFE Tubing

PTFE tubing (PolyTetraFluoroEthylene) is chemically inert and suitable for lower pressure applications. Typically 1/16" OD tubing holds up to 62 bar (900 psi) and 1/8" up to 35 bar (500 psi).

For easy identification of the ID and to differentiate the transfer lines, PTFE tubing is available in a color-coded version.

#### Black PTFE Tubing

PTFE is too translucent and for certain light sensitive applications the use of black PTFE tubing is recommended. Typical applications:

- Light sensitive enzymatic reactions
- Luminescent reactions
- Connections to the flow-cell
- Radioactive HPLC

#### PFA Tubing

PFA tubing (PerFluoroAlkoxy) has excellent chemical stability and mechanical strength. Always use PFA instead of PTFE if gas permeability is an issue. 1/16" OD high purity tubing has a maximum pressure rating of up to 100 bar (1450 psi), while 1/8" OD maximum 72 bar (1050 psi).

#### FEP Tubing

FEP (FluorinatedEthylenePropylene) is chemically inert to most HPLC solvents and is recommended for low pressure applications. Typically 1/16" OD holds up to 117 bar (1700 psi) and 1/8" holds up to 70 bar (1000 psi). We recommend FEP for ion chromatography applications. Max. operating temperature for FEP is 80 °C.

#### ETFE Tubing

ETFE tubing has some outstanding properties which make it particularly suitable for HPLC since it has a higher burst pressure when compared to PTFE. The most common dimension is 1/16" x 0.25 mm which will withstand up to 186 bar (2700 psi) using water as mobile phase. It is important, however, to note that when using ETFE with organic solvents it may swell and will reduce the max. pressure to 70 bar (1000 psi). It is the ideal polymer for applications with chloride salts, which typically corrode stainless steel.



### PTFE Tubing – Natural

Part No.	OD	ID (mm)	Qty/pkg	bar*	psi*
JR-T-6805-M3	1/16"	0.18	3 m	62	900
JR-T-6805-M10	1/16"	0.18	10 m	62	900
JR-T-6805-M25	1/16"	0.18	25 m	62	900
JR-T-4011-M3	1/16"	0.25	3 m	55	800
JR-T-4011-M10	1/16"	0.25	10 m	55	800
JR-T-4011-M25	1/16"	0.25	25 m	55	800
JR-T-4183-M3	1/16"	0.50	3 m	50	700
JR-T-4183-M10	1/16"	0.50	10 m	50	700
JR-T-4183-M25	1/16"	0.50	25 m	50	700
JR-T-4036-M3	1/16"	0.75	3 m	37	550
JR-T-4036-M10	1/16"	0.75	10 m	37	550
JR-T-4036-M25	1/16"	0.75	25 m	37	550
JR-T-6807-M3	1/16"	1.00	3 m	25	350
JR-T-6807-M10	1/16"	1.00	10 m	25	350
JR-T-6807-M25	1/16"	1.00	25 m	25	350
JR-T-6800-M3	1/8"	1.59	3 m	35	500
JR-T-6800-M10	1/8"	1.59	10 m	35	500
JR-T-6800-M25	1/8"	1.59	25 m	35	500
JR-T-4037-M3	1/8"	2.40	3 m	18	250
JR-T-4037-M10	1/8"	2.40	10 m	18	250
JR-T-4037-M25	1/8"	2.40	25 m	18	250
JR-T-6801-M3	2.00 mm	1.70	3 m	10	150
JR-T-6801-M10	2.00 mm	1.70	10 m	10	150
JR-T-6801-M25	2.00 mm	1.70	25 m	10	150
JR-T-4039	4.00 mm	3.00	per m	17	250
JR-T-4041	4.76 mm	3.76	per m	14	200
JR-T-6810	1/4"	4.75	per m	17	250

C0583



### SPECS

#### Material

PTFE

#### Dimensions

See chart

#### Tolerances

For OD 1/16" tubing  
OD: +/- 0.05 mm (.002")  
ID: +/- 0.05 mm (.002")

For OD 1/8" tubing

OD: +/- 0.10 mm (.004")  
ID: +/- 0.10 mm (.004")

#### Pressure rating

See chart on page 106

#### Chemical resistance

See chart on page 22

#### Special Info

Low pressure applications:  
Check carefully for gas permeability

#### Spares & Tools

The VICI Jour Clean-Cut tubing cutter gives you burr-free perpendicular cuts JR-797 page 21

We recommend PEEK fingertight and flangeless fittings for your applications  
Fingertights pages 27–30  
Flangeless pages 49–53

#### Length Conversions

0.18 mm ≈ .007"  
0.25 mm ≈ .010"  
0.50 mm ≈ .020"  
0.75 mm ≈ .030"  
1.00 mm ≈ .039"  
1.59 mm ≈ .062"  
2.00 mm ≈ .079"  
2.40 mm ≈ .094"  
3.00 mm ≈ .118"  
3.76 mm ≈ .148"  
4.00 mm ≈ .157"  
4.75 mm ≈ .187"

## PTFE & PTFE-Like Tubing

### SPECS

**Material**  
PTFE, PFA

**Dimensions**  
See chart

**Tolerances**  
For OD 1/16" tubing  
OD: +/- 0.05 mm (.002")  
ID: +/- 0.05 mm (.002")

For OD 1/8" tubing  
OD: +/- 0.10 mm (.004")  
ID: +/- 0.10 mm (.004")

**Pressure rating**  
See chart on page 106

**Chemical resistance**  
See chart on page 22

**Special Info**  
Low pressure applications:  
Check carefully for gas permeability

**Spares & Tools**  
The VICI Jour Clean-Cut tubing cutter gives you burr-free perpendicular cuts JR-797 page 21

We recommend PEEK fingertight and flangeless fittings for your applications  
Fingertights pages 27–30  
Flangeless pages 49–53

### Length Conversions

0.25 mm ≈ .010"  
0.36 mm ≈ .014"  
0.50 mm ≈ .020"  
0.75 mm ≈ .030"  
1.00 mm ≈ .039"  
1.59 mm ≈ .062"

### PTFE Tubing – Solid Color Coded

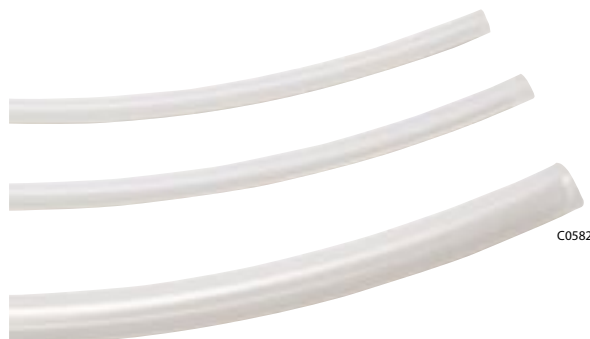
Part No.	OD	ID (mm)	Qty/pkg	Color	bar*	psi*
JR-T-4011C-M3	1/16"	0.25	3 m	Blue	55	800
JR-T-4011C-M10	1/16"	0.25	10 m	Blue	55	800
JR-T-4011C-M25	1/16"	0.25	25 m	Blue	55	800
JR-T-4183C-M3	1/16"	0.50	3 m	Orange	50	700
JR-T-4183C-M10	1/16"	0.50	10 m	Orange	50	700
JR-T-4183C-M25	1/16"	0.50	25 m	Orange	50	700
JR-T-4036C-M3	1/16"	0.75	3 m	Green	38	550
JR-T-4036C-M10	1/16"	0.75	10 m	Green	38	550
JR-T-4036C-M25	1/16"	0.75	25 m	Green	38	550
JR-T-6808-M3	1/16"	0.25	3 m	Black	55	800
JR-T-6808-M10	1/16"	0.25	10 m	Black	55	800
JR-T-6808-M25	1/16"	0.25	25 m	Black	55	800
JR-T-6811-M3	1/16"	0.50	3 m	Black	50	700
JR-T-6811-M10	1/16"	0.50	10 m	Black	50	700
JR-T-6811-M25	1/16"	0.50	25 m	Black	50	700

\* = Recommended maximum permanent working pressure  
Other pack sizes and tubing lengths are available on request. Please contact your local distributor or VICI directly.

### PFA Tubing

Part No.	OD	ID (mm)	Qty/qty	bar*	psi*
JR-T-4001-M3	1/16"	0.50	3 m	100	1450
JR-T-4001-M10	1/16"	0.50	10 m	100	1450
JR-T-4001-M25	1/16"	0.50	25 m	100	1450
JR-T-4002-M3	1/16"	0.75	3 m	76	1100
JR-T-4002-M10	1/16"	0.75	10 m	76	1100
JR-T-4002-M25	1/16"	0.75	25 m	76	1100
JR-T-4007-M3	1/16"	1.00	3 m	55	800
JR-T-4007-M10	1/16"	1.00	10 m	55	800
JR-T-4007-M25	1/16"	1.00	25 m	55	800
JR-T-4003-M3	1/8"	1.59	3 m	72	1050
JR-T-4003-M10	1/8"	1.59	10 m	72	1050
JR-T-4003-M25	1/8"	1.59	25 m	72	1050

\* = Recommended maximum permanent working pressure  
Other pack sizes and tubing lengths are available on request. Please contact your local distributor or VICI directly.



### FEP Tubing

Part No.	OD	ID (mm)	Qty/pkg	bar*	psi*
JR-T-6812-M3	1/16"	0.25	3 m	117	1700
JR-T-6812-M10	1/16"	0.25	10 m	117	1700
JR-T-6812-M25	1/16"	0.25	25 m	117	1700
JR-T-6802-M3	1/16"	0.50	3 m	96	1400
JR-T-6802-M10	1/16"	0.50	10 m	96	1400
JR-T-6802-M25	1/16"	0.50	25 m	96	1400
JR-T-6803-M3	1/16"	0.75	3 m	76	1100
JR-T-6803-M10	1/16"	0.75	10 m	76	1100
JR-T-6803-M25	1/16"	0.75	25 m	76	1100
JR-T-6806-M3	1/16"	1.00	3 m	52	750
JR-T-6806-M10	1/16"	1.00	10 m	52	750
JR-T-6806-M25	1/16"	1.00	25 m	52	750
JR-T-6804-M3	1/8"	1.59	3 m	69	1000
JR-T-6804-M10	1/8"	1.59	10 m	69	1000
JR-T-6804-M25	1/8"	1.59	25 m	69	1000
JR-T-6809	1/4"	4.35	per m	45	650

\* = Recommended maximum permanent working pressure

Other pack sizes and tubing lengths are available on request. Please contact your local distributor or VICI directly.

### ETFE Tubing

Part No.	OD	ID (mm)	Qty/pkg	bar*	psi*
JR-T-084-M3	1/32"	0.25	3 m	152	2200
JR-T-084-M10	1/32"	0.25	10 m	152	2200
JR-T-084-M25	1/32"	0.25	25 m	152	2200
JR-T-078-M3	1/16"	0.17	3 m	200	2900
JR-T-078-M10	1/16"	0.17	10 m	200	2900
JR-T-078-M25	1/16"	0.17	25 m	200	2900
JR-T-080-M3	1/16"	0.25	3 m	186	2700
JR-T-080-M10	1/16"	0.25	10 m	186	2700
JR-T-080-M25	1/16"	0.25	25 m	186	2700
JR-T-082-M3	1/16"	0.50	3 m	152	2200
JR-T-082-M10	1/16"	0.50	10 m	152	2200
JR-T-082-M25	1/16"	0.50	25 m <sup>152</sup>		2200
JR-T-083-M3	1/16"	0.75	3 m	117	1700
JR-T-083-M10	1/16"	0.75	10 m	117	1700
JR-T-083-M25	1/16"	0.75	25 m	117	1700
JR-T-085-M3	1/16"	1.00	3 m	83	1200
JR-T-085-M25	1/16"	1.00	10 m	83	1200
JR-T-085-M10	1/16"	1.00	25 m	83	1200
JR-T-086-M3	1/8"	1.59	3 m	110	1600
JR-T-086-M10	1/8"	1.59	10 m	110	1600
JR-T-086-M25	1/8"	1.59	25 m	110	1600

\* = Recommended maximum permanent working pressure

Other pack sizes and tubing lengths are available on request. Please contact your local distributor or VICI directly.

### SPECS

#### Material

FEP, ETFE

#### Dimensions

See chart

#### Tolerances

For OD 1/16" tubing

OD: +/- 0.05 mm (.002")

ID: +/- 0.05 mm (.002")

For OD 1/8" tubing

OD: +/- 0.10 mm (.004")

ID: +/- 0.10 mm (.004")

#### Pressure rating

See chart on page 106

#### Chemical resistance

See chart on page 22

#### Special Info

Low pressure applications:

Check carefully for gas

permeability

#### Spares & Tools

The VICI Jour Clean-Cut tubing

cutter gives you burr-free per-

pendicular cuts JR-797 page 21

We recommend PEEK finger-

tight and flangeless fittings

for your applications

Fingertights pages 27-30

Flangeless pages 49-53

#### Length Conversions

0.17 mm ≈ .0067"

0.25 mm ≈ .010"

0.50 mm ≈ .020"

0.75 mm ≈ .030"

1.00 mm ≈ .039"

1.59 mm ≈ .062"

4.35 mm ≈ .171"

## No-Ox Tubing

### SPECS

#### Material

Tubing: FEP + PVDF

Insert: KEL-F

Ferrule: ETFE

Fitting: PEEK

#### Dimensions

OD: 1/8"

ID: 1.65 mm

#### Tolerances

OD: +/- 0.05 mm (.002")

ID: +/- 0.05 mm (.002")

#### Pressure rating

Low pressure only

#### Special info

Use the special designed KEL-F insert (P/N JR-6141-10) to prevent solvent contact of the PVDF layer

Due to the limited chemical resistance of the outer PVDF layer, the No-Ox tubing should not be used inside a solvent reservoir.

## No-Ox Tubing

- Prevents 'Re-gassing'
- Excellent Chemical Resistance

Most HPLC installations use PTFE tubing as internal low-pressure transfer lines. PTFE is easy to use and chemically extremely inert. But most PTFE and PTFE like polymers have micro pores which allow gases to diffuse freely.

Most solvent degassers are based on this effect. Gases dissolved in solvents are removed by diffusion in applying a vacuum on the outside of the tubing.

A contrary effect can be observed when degassed solvent will pass through PTFE tubing with standard air pressure on the outside. A 're-gassing' will be observed, gases will diffuse through the PTFE tubing back into the newly and costly degassed solvent.

We therefore created the No-Ox tubing. A FEP (PTFE like) tubing is coated on the outside with PVDF tubing. FEP has excellent chemical resistance, but micro

pores are present in the tubing wall. PVDF on the other hand is a very tight polymer, no micro pores can be observed, but it lacks chemical resistance.

Co-extruded No-Ox tubing will combine the two features of FEP and PVDF in the most positive manner, ensuring that degassed solvent will stay degassed until it reaches the HPLC pump. The PVDF-layer can easily be removed (using e.g. VICI Jour P/N 797 Clean-Cutter or a razor blade) and stripped from the FEP so only PTFE will be immersed by solvent i.e. in the solvent reservoir.

The No-Ox tubing is connected with a special KEL-F tubing insert (P/N 6141) to prevent solvent contact of the PVDF layer at the tubing end. The ferrule fits into the ID of the tubing and seals against the bottom of the port.



### No-Ox Tubing

Part No.	Description	Qty/pkg
JR-T-6130-M3	Tubing, No-Ox 1/8" x 1.65 mm ID	3 m
JR-T-6130-M10	Tubing, No-Ox 1/8" x 1.65 mm ID	10 m
JR-6140	No-Ox fitting Kit	1
	contains: 2 pcs KEL-F inserts, 2 pcs PEEK nuts and 2 pcs ETFE Ferrules	

### Spare Parts

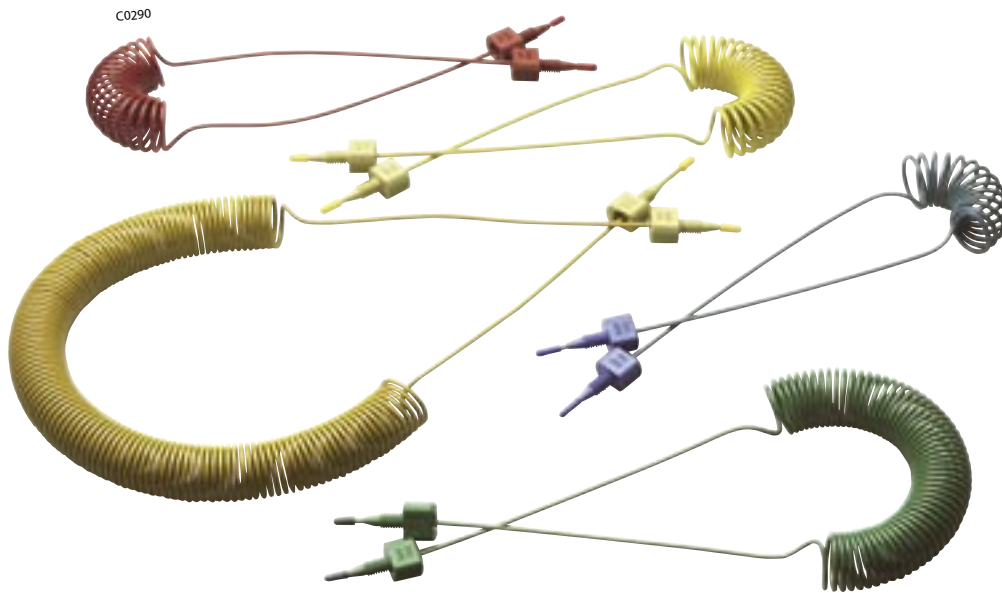
Part No.	Description	Qty/pkg
JR-6141-10	Insert, KEL-F, for No-Ox fitting	10
JR-55071-10	Nut, PPS, flangeless 1/8", 1/4"-28	10
JR-55083-10	Adapter, PP, fingertight sleeve, black	10
JR-051-10	Ferrule, ETFE, 1/8"	10

## Thermo-Formed Polymeric Tubing

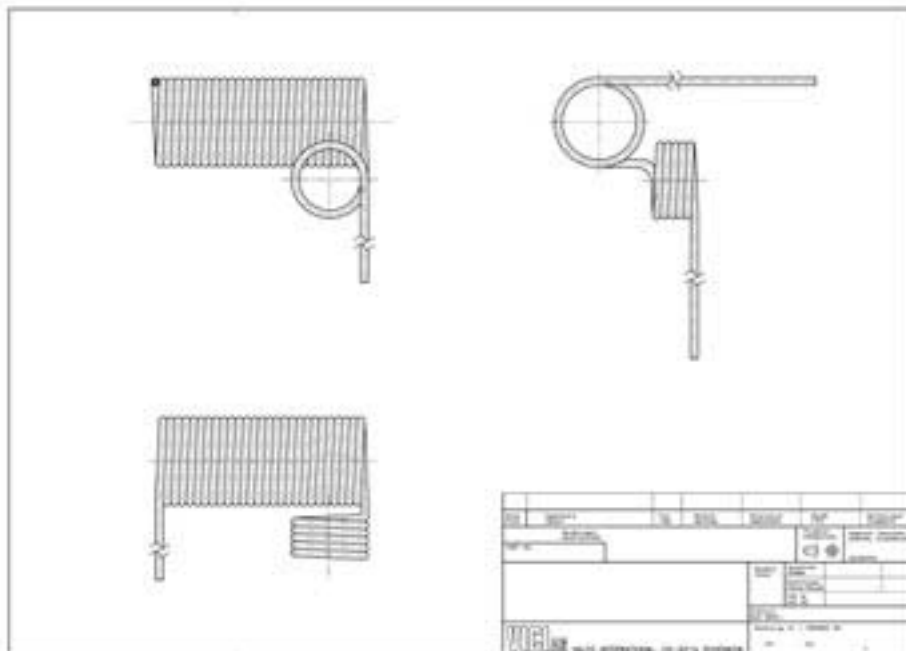
- Various Polymeric Tubing
- Telephone Cables and Customer Specific Items
- Axial Flexibility

VICI offers thermo-formed tubing in various of geometric shapes. Straight tubing, spirals or even more complex forms, just define the form and material on a drawing.

Contact you local distributor or VICI directly for a quotation.



PDF 810 000



## Knitted PTFE Reaction coils

### SPECS

**Material**  
PTFE

**Dimensions**

OD: 1/16"  
ID: see chart

**Tolerances**

OD: +/- 0.05 mm (.002")  
ID: +/- 0.05 mm (.002")

**Pressure rating**

< 55 bar (< 800 psi)

Recommended Volumetric  
Flow Rate:

ID	Lin. Velocity	Vol. Flow
mm	cm/s	ml/min
0.25	10	0.29
0.50	10	1.2
0.75	10	2.7

**Special Info**

Low pressure applications:  
Check carefully for gas  
permeability

## Knitted PTFE Reaction Coils

- Tortuous Flow Path of Optimal Flow Dynamic Design made from Inert PTFE
- Minimized Axial Dispersion combined with Efficient Radial Mixing
- Available in Different Lengths and IDs

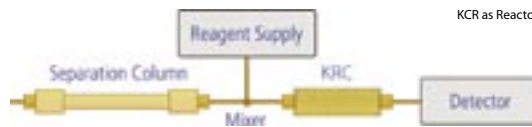
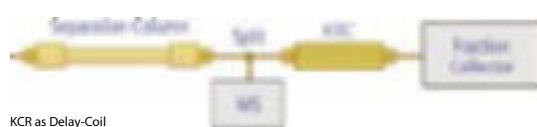
### Preserved chromatographic peak shape

The Knitted PTFE Reaction coils (KRC) are made from tubing which has been knitted into a tortuous path to force the fast moving centre of the liquid stream to mix radially with the slower moving boundary liquid layer, thereby minimizing the axial dispersion. The shape of a chromatographic peak entering the reactor is thus preserved very efficiently. To ensure a stable radial mixing within the KRC, a linear flow rate of 10 cm/s or more is recommended. The KRC is usually the most optimal delay element for use in analytical flow systems, and is typically inserted in the flow path to create a delay line, so that a reaction or other event that requires a certain time can take place. Different delay or reaction times are accomplished by changing the inner diameter and length of the KRC, taking the flow rate through the KRC into consideration.

### Example application areas

KRC can be applied as a delay line in chromatographic separations. One example is the parallel coupling of a MS detector and a fraction collector in preparative separations (see left figure below). The delay time induced by the KRC allows time for detection and therefore an intelligent decision between fraction collection or waste without loss of chromatographic efficiency.

The KRC reactors can also be used in post-column reaction detection in HPLC (see right figure below). In this set-up the KRC also ensures thorough mixing between the column effluent and the added reagents.



### Knitted PTFE Reaction coils

Part No.	ID (mm)	Tubing length
JR-T-3000-123	0.25	1 m
JR-T-3000-223	0.25	2 m
JR-T-3000-423	0.25	4 m
JR-T-3000-133	0.25	10 m
JR-T-3000-233	0.25	20 m
JR-T-3000-125	0.50	1 m
JR-T-3000-225	0.50	2 m
JR-T-3000-425	0.50	4 m
JR-T-3000-135	0.50	10 m
JR-T-3000-235	0.50	20 m
JR-T-3000-128	0.75	1 m
JR-T-3000-228	0.75	2 m
JR-T-3000-428	0.75	4 m
JR-T-3000-138	0.75	10 m
JR-T-3000-238	0.75	20 m



**Length Conversions**

0.25 mm ≈ .010"  
0.50 mm ≈ .020"  
0.75 mm ≈ .030"