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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.

Stainless Steel Frits – Unidense Type

SPECS

Material

Stainless Steel SS316L
(sintered)

Dimensions

See chart

Tolerances

OD <5mm, +/- 0.05 mm
(.002")
OD 5-12.5mm, +/- 0.08
mm (.003")
OD 12.5-25.4mm, +/- 0.20
mm (.008")

Special Info

Standard frits are without
chamfers – chamfered frits
are available on request

Note

Frit volumes are theoretical
and are calculated by multi-
plying overall frit volume
times the porosity propor-
tion. Porosity proportions
of SS Frits: see chart on
page 121

Stated frit porosities are
only nominal and do not
reflect the maximum pore
size of a frit

The chart on page 121 will
help to choose the right frit
for your application

Stainless Steel Frits – Unidense Type

For both standard frits and those pro-
duced to custom specifications, the frits
offer unexcelled reproducibility and pre-
cision. Proprietary manufacturing proc-
esses ensure uniformity and precise, re-
peatable dimensional control. VICI Jour
Stainless Steel Frits are manufactured of
SS316L material which has extra low car-
bon content. The sintering process used
results in a strong bonding of the sinter
metal particles. Depending upon the
grade of powder used, the porosity of the
frit can be precisely tuned.



Stainless Steel Frits – Unidense Type

| Part No. | Diameter inches | Diameter mm | Thickness inches | Thickness mm | Porosity μm | Frit volume μL | Qty/pkg |
|-------------|--------------------|----------------|---------------------|-----------------|------------------------|------------------------------|---------|
| JR-.5FR1-5 | 1/16" | 1.59 | 0.030 | 0.76 | 0.5 | 0.39 | 5 |
| JR-1FR1-5 | 1/16" | 1.59 | 0.030 | 0.76 | 1 | 0.45 | 5 |
| JR-2FR1-5 | 1/16" | 1.59 | 0.030 | 0.76 | 2 | 0.53 | 5 |
| JR-10FR1-5 | 1/16" | 1.59 | 0.030 | 0.76 | 10 | 0.60 | 5 |
| JR-.5FR2-5 | 1/8" | 3.18 | 0.040 | 1.02 | 0.5 | 2.10 | 5 |
| JR-1FR2-5 | 1/8" | 3.18 | 0.040 | 1.02 | 1 | 2.43 | 5 |
| JR-2FR2-5 | 1/8" | 3.18 | 0.040 | 1.02 | 2 | 2.83 | 5 |
| JR-10FR2-5 | 1/8" | 3.18 | 0.040 | 1.02 | 10 | 3.24 | 5 |
| JR-.5FR4-5 | 1/4" | 6.35 | 0.040 | 1.02 | 0.5 | 8.39 | 5 |
| JR-2FR4-5 | 1/4" | 6.35 | 0.040 | 1.02 | 2 | 11.30 | 5 |
| JR-10FR4-5 | 1/4" | 6.35 | 0.040 | 1.02 | 10 | 12.91 | 5 |
| JR-.5FR6-5 | 3/8" | 9.53 | 0.040 | 1.02 | 0.5 | 18.91 | 5 |
| JR-2FR6-5 | 3/8" | 9.53 | 0.040 | 1.02 | 2 | 25.45 | 5 |
| JR-10FR6-5 | 3/8" | 9.53 | 0.040 | 1.02 | 10 | 29.09 | 5 |
| JR-.5FR8-5 | 1/2" | 12.70 | 0.040 | 1.02 | 0.5 | 33.58 | 5 |
| JR-2FR8-5 | 1/2" | 12.70 | 0.040 | 1.02 | 2 | 45.20 | 5 |
| JR-10FR8-5 | 1/2" | 12.70 | 0.040 | 1.02 | 10 | 51.66 | 5 |
| JR-2FR1K-5 | 1" | 25.40 | 0.060 | 1.52 | 2 | 269.43 | 5 |
| JR-10FR1K-5 | 1" | 25.40 | 0.060 | 1.52 | 10 | 307.92 | 5 |

Other dimensions and porosities are available on request.

Minimum order quantity: 100 pcs.

Please contact your local distributor or VICI directly.

Stainless Steel Frits – PEEK Encased

Stainless Steel Frits – PEEK Encased

- For HPLC columns or in-line filters
- Low dead volume
- Various porosities and dimensions available

VICI Jour PEEK encased frits with 0.118" or 1/4" ring OD are intended for HPLC columns with ID's of 3.2, 3.9 and 4.6 mm. By surrounding the frit with a PEEK ring the actual porous surface is reduced to the column ID. The compressed PEEK

ring forms a seal between the bottom of the fitting and the column end preventing the mobile phase and the sample entering the previously accessible poorly swept areas.



SPECS

Material
Frits: SS316L
Ring: PEEK

Dimensions
See chart

Tolerances
+/- 0.05 mm (.002")

Special Info
Eliminates Poorly Swept Volume - Improves Peak Symmetry

Note
Stated frit porosities are only nominal and do not reflect the maximum pore size of a frit

The chart on page 121 will help to choose the right frit for your application

Stainless Steel Frits – PEEK Encased

| Part No. | Ring OD inches | Ring OD mm | Frit OD inches | Frit OD mm | Thickness inches | Thickness mm | Porosity μm | Frit volume μl | Qty/pkg |
|---------------|----------------|------------|----------------|------------|------------------|--------------|------------------------|---------------------------|---------|
| JR-1110-05P-5 | 0.118 | 3.00 | 0.038 | 0.97 | 0.028 | 0.70 | 0.5 | 0.13 | 5 |
| JR-1110-2P-5 | 0.118 | 3.00 | 0.038 | 0.97 | 0.028 | 0.70 | 2 | 0.18 | 5 |
| JR-1110-5P-5 | 0.118 | 3.00 | 0.038 | 0.97 | 0.028 | 0.70 | 5 | 0.20 | 5 |
| JR-1111-05P-5 | 0.118 | 3.00 | 0.077 | 1.96 | 0.028 | 0.70 | 0.5 | 0.55 | 5 |
| JR-1111-2P-5 | 0.118 | 3.00 | 0.077 | 1.96 | 0.028 | 0.70 | 2 | 0.74 | 5 |
| JR-1111-5P-5 | 0.118 | 3.00 | 0.077 | 1.96 | 0.028 | 0.70 | 5 | 0.80 | 5 |
| JR-1104-05P-5 | 1/4 | 6.35 | 0.078 | 2.00 | 0.062 | 1.59 | 0.5 | 1.30 | 5 |
| JR-1104-2P-5 | 1/4 | 6.35 | 0.078 | 2.00 | 0.062 | 1.59 | 2 | 1.74 | 5 |
| JR-1103-05P-5 | 1/4 | 6.35 | 0.181 | 4.60 | 0.032 | 0.80 | 0.5 | 3.46 | 5 |
| JR-1103-2P-5 | 1/4 | 6.35 | 0.181 | 4.60 | 0.032 | 0.80 | 2 | 4.65 | 5 |
| JR-1102-05P-5 | 1/4 | 6.35 | 0.125 | 3.20 | 0.062 | 1.59 | 0.5 | 3.32 | 5 |
| JR-1102-2P-5 | 1/4 | 6.35 | 0.125 | 3.20 | 0.062 | 1.59 | 2 | 4.47 | 5 |
| JR-1101-05P-5 | 1/4 | 6.35 | 0.153 | 3.90 | 0.062 | 1.59 | 0.5 | 4.94 | 5 |
| JR-1101-2P-5 | 1/4 | 6.35 | 0.153 | 3.90 | 0.062 | 1.59 | 2 | 6.64 | 5 |
| JR-1100-05P-5 | 1/4 | 6.35 | 0.181 | 4.60 | 0.062 | 1.59 | 0.5 | 6.87 | 5 |
| JR-1100-2P-5 | 1/4 | 6.35 | 0.181 | 4.60 | 0.062 | 1.59 | 2 | 9.24 | 5 |

Other dimensions and porosities are available on request.
Minimum order quantity: 100 pcs.
Please contact your local distributor or VICI directly.

Titanium Frits – Unidense Type

SPECS

Material

Titanium (sintered)

Dimensions

See chart

Tolerances

OD <5mm,
 +/- 0.05 mm (.002")
 OD 5-12.5mm,
 +/- 0.08 mm (.003")
 OD 12.5-25.4mm,
 +/- 0.20 mm (.008")

Special Info

Standard frits are without chamfers – chamfered frits are available on request

Note

Stated frit porosities are only nominal and do not reflect the maximum pore size of a frit

The chart on page 121 will help to choose the right frit for your application

Titanium Frits – Unidense Type

- Biocompatible
- Recommended for protein analysis
- Higher corrosion resistance
- Various pore sizes and dimensions

Titanium is preferred over stainless steel for applications related to the analysis of sensitive substances in general and large biomolecules in particular. Evidently proteins have a tendency to adsorb on the stainless steel (Iron) frit and consequently reduce recovery or may even decompose. Titanium also offers higher corrosion resistance and can be used with solvents containing halides.



Titanium Frits – Unidense Type

| Part No. | Diameter inches | Diameter mm | Thickness inches | Thickness mm | Porosity μm | Frit volume μL | Qty/pkg |
|--------------|-----------------|-------------|------------------|--------------|------------------------|---------------------------|---------|
| JR-.5FR1TI-5 | 1/16" | 1.59 | 1/16" | 1.59 | 0.5 | 0.82 | 5 |
| JR-2FR1TI-5 | 1/16" | 1.59 | 0.040 | 1.02 | 2 | 0.71 | 5 |
| JR-2FR2TI-5 | 1/8" | 3.18 | 0.040 | 1.02 | 2 | 2.83 | 5 |
| JR-2FR4TI-5 | 1/4" | 6.35 | 0.040 | 1.02 | 2 | 11.30 | 5 |
| JR-2FR6TI-5 | 3/8" | 9.53 | 0.040 | 1.02 | 2 | 25.45 | 5 |
| JR-2FR8TI-5 | 1/2" | 12.70 | 0.040 | 1.02 | 2 | 45.20 | 5 |
| JR-10FR8TI-5 | 1/2" | 12.70 | 0.040 | 1.02 | 10 | 51.66 | 5 |
| JR-2FR1KTI-5 | 1" | 25.40 | 0.040 | 1.02 | 2 | 180.80 | 5 |

Other dimensions and porosities are available on request.

Minimum order quantity: 100 pcs.

Please contact your local distributor or VICI directly.

Titanium Frits – PEEK Encased

Titanium Frits – PEEK Encased

- For HPLC columns or in-line filters
- Low dead volume
- Biocompatible – recommended for protein analysis
- Higher corrosion resistance
- Various pore sizes and dimensions

In terms of “biocompatibility” the frit is the critical spot for contributing metal ions to the mobile phase and interaction with protein samples. VICI Jour PEEK encased frits with 1/5” or 1/4” ring OD are intended for HPLC columns with ID’s of 3.2 and 4.6 mm. By surrounding the frit with a PEEK ring the actual porous surface is reduced to the column ID. The

compressed PEEK ring forms a seal between the bottom of the fitting and the column end prevents the mobile phase and the sample from entering the previously accessible poorly swept areas. These frits can also be used as spare parts frits for the PEEK In-Line Filter Kit (see page 82).



SPECS

Material
Frit: Titanium
Ring: PEEK

Dimensions
See chart

Tolerances
+/- 0.05 mm (.002")

Special Info
Eliminates poorly swept volume – improves peak symmetry

Note
Stated frit porosities are only nominal and do not reflect the maximum pore size of a frit

The chart on page 121 will help to choose the right frit for your application

Titanium Frits – PEEK Encased

| Part No. | Ring OD inches | Ring OD mm | Frit OD inches | Frit OD mm | Thickness inches | Thickness mm | Porosity μm | Frit vol. μ | Qty/ pkg |
|---------------|----------------|------------|----------------|------------|------------------|--------------|------------------------|-----------------|----------|
| JR-1127-05P-5 | 1/4" | 6.35 | 0.125 | 3.20 | 0.062 | 1.59 | 0.5 | 3.32 | 5 |
| JR-1127-2P-5 | 1/4" | 6.35 | 0.125 | 3.20 | 0.062 | 1.59 | 2 | 4.47 | 5 |
| JR-1125-05P-5 | 1/4" | 6.35 | 0.181 | 4.60 | 0.062 | 1.59 | 0.5 | 6.87 | 5 |
| JR-1125-2P-5 | 1/4" | 6.35 | 0.181 | 4.60 | 0.062 | 1.59 | 2 | 9.24 | 5 |
| JR-1125-5P-5 | 1/4" | 6.35 | 0.181 | 4.60 | 0.062 | 1.59 | 5 | 10.04 | 5 |
| JR-1125-10P-5 | 1/4" | 6.35 | 0.181 | 4.60 | 0.062 | 1.59 | 10 | 10.56 | 5 |
| JR-1128-5P-5 | 1/5" | 5.08 | 0.102 | 2.60 | 0.062 | 1.59 | 5 | 3.21 | 5 |

Other dimensions and porosities are available on request.
Minimum order quantity: 100 pcs.
Please contact your local distributor or VICI directly.

NEW

Polyethylene Frits

- Biocompatible
- Metal free
- Unidense
- PEEK encased

Our polymer frits are made of UHMWPE (Ultra High Molecular Weight PolyEthylene).

They are a competitively priced alternative to titanium and completely metal free.

These PE frits can be used in combination with our PEEK In-Line Filter JR-68247 /JR-68253 for pressure ratings up to 210 bar (3000 psi) or as spare frits for our PEEK columns.



SPECS

Material
UHMWPE, PEEK

Dimensions
See chart

Tolerances
OD < 5 mm,
+/- 0.05 mm (.002")
OD 5-12.5 mm,
+/- 0.08 mm (.003")

Note
Stated frit porosities are only nominal and do not reflect the maximum pore size of a frit

The chart on page 121 will help to choose the right frit for your application

For single use only

Polyethylene Frits – Unidense

| Part No. | Diameter inches | Diameter mm | Thickness inches | Thickness mm | Porosity μm | Frit volume μL | Qty/pkg |
|---------------------|-----------------|-------------|------------------|--------------|------------------------|---------------------------|---------|
| JR-F-255-079-10PE-5 | 0.255 | 6.50 | 0.079 | 2.00 | 10 | 26.5 | 5 |

Other dimensions and porosities are available on request.
Minimum order quantity: 100 pcs.
Please contact your local distributor or VICI directly.

Polyethylene Frits – PEEK Encased

| Part No. | Ring OD inches | Ring OD mm | Frit OD inches | Frit OD mm | Thickness inches | Thickness mm | Porosity μm | Frit vol. μl | Qty/pkg |
|---------------|----------------|------------|----------------|------------|------------------|--------------|------------------------|-------------------------|---------|
| JR-1150-10P-5 | 1/5" | 5.08 | 0.098 | 2.50 | 0.059 | 1.50 | 10 | 2.94 | 5 |
| JR-1151-10P-5 | 1/4" | 6.35 | 0.193 | 4.90 | 0.059 | 1.50 | 10 | 11.31 | 5 |

Other dimensions and porosities are available on request.
Minimum order quantity: 100 pcs.
Please contact your local distributor or VICI directly.