NOZZLE SELECTION GUIDE:

TYPE A
Application: General purpose
Calibration reference: 1.0 L/min Ar
End surfaces: lapped
Capillary tip recess, mm: 0.0

TYPE C
Application: High solids
Calibration reference: 1.0 L/min Ar
End surfaces: vitreous
Capillary tip recess, mm: ~0.5

TYPE K
Application: Ar low-flow
Calibration reference: 0.7 L/min Ar
End surfaces: lapped
Capillary tip recess, mm: ~0.5

MODEL DESIGNATION:
TRP-PC-NRa
Substitute A, C, or K for N to select Nozzle type.
Nominal working pressure P is 50 psi (345 kPa).
Nominal aspiration rate, R, is 0.5 mL/min.
Other P and R available on request.

SPECIFICATIONS:
Configurations: Concentric, monolithic
Materials: Borosilicate glass or quartz
Tubulation: Shell, 6mm O.D.
Gas input, 4mm
Liquid input, 0.7 x 3.0 mm
Nozzles: See selection guide (above)
Internal liquid volume: ~0.015 mL
Annular separation at nozzle: ~20 µm
Annular area: 0.03mm²
Capillary I.D.: 0.15 - 0.2 mm
Functional criteria:

\[ P_c \]: Calibration input pressure at rated Ar flow
\[ R_a \]: Water aspiration at -5cm head, rated Ar flow

<table>
<thead>
<tr>
<th>Pc (psig)</th>
<th>Ra (mL/min)</th>
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<tr>
<td>50</td>
<td>41 - 60</td>
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<tr>
<td>0.5</td>
<td>0.3 - 0.6</td>
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NEBULIZER OPERATION:

MEINHARD® Plus Series nebulizers feature very low internal volume for fast analyses and reduced carryover. They will aspirate liquid sample naturally when the rated flow of gas is directed into the sidearm and a sample feed is connected to the liquid input. All models may be operated with externally pumped solution provided the sample flow is not significantly below the natural aspiration rate. Calibrations reflect a standard operational reference and are not intended as limitations on conditions of use, which can vary widely. Operation can be optimized for specific instruments.

NEBULIZER OPTIONS:
TRP Borosilicate glass. TRP-50-A0.5, TRP-50-C0.5, TRP-50-K1 are available from stock. Other versions on request.
TQP Quartz. TQP-50-A0.5 and TQP-50-C0.5 are available from stock. Other versions on request.
SilQ Ultra High Purity Quartz. SilQ-50-A0.5 and SilQ-50-C0.5 are available from stock. Other versions on request.
NEBULIZER ACCESSORIES:

FG
Compatible with all MEINHARD nebulizers, and tested to 100 psi (600 kPa), the fluoropolymer FG fitting provides a secure, high-purity quick disconnect for the gas supply. FG are included with Plus Series nebulizers along with hose barbs for 1/8" and 2.4 mm i.d. gas lines.

F2
The easy-to-grip PFA fitting and PTFE tubing provide a clean, secure solution connection for Plus Series and HEN nebulizers. The high-purity fluoropolymer F2 solution fitting butts tightly against the liquid capillary to provide a smooth, low dead-volume connection. Included with all Plus Series nebulizers, the F2-50 has 60 cm PTFE tubing with an internal diameter of 0.50 mm; 0.25, 0.80, and 1.0 mm are available.

F1
For Plus Series and HEN nebulizers, the fluoropolymer F1 fitting is a demountable version of the F2 fitting that is particularly useful with ESI’s FAST flow-injection systems. The F1-C16 contains a nut and ferrule to facilitate coupling of 1/16" o.d. chromatograph tubing to the nebulizer.

F0
These lowest internal volume fittings incorporate encapsulated microbore PTFE tubing with internal diameters of 0.1, 0.15, 0.2, or 0.25 mm which minimizes peak dispersion in the liquid transfer line.

F4
Used with 4 mm o.d. fluoropolymer gas lines, the F4 gas line connection forms a tight seal over the maria on the sidearm of the MEINHARD® nebulizers, while allowing for quick push-in fitting attachment. F4 offers the same benefits of an easy-to-use quick connect with snap function while maintaining high purity for sensitive ICP and ICPMS applications.

Fit Kit #2
Union and ferrules for secure, high-pressure connection of argon supply line (1/4", 6.3 mm) especially for HEN and DIHEN when pressure exceeds 90 psig (600 kPa).