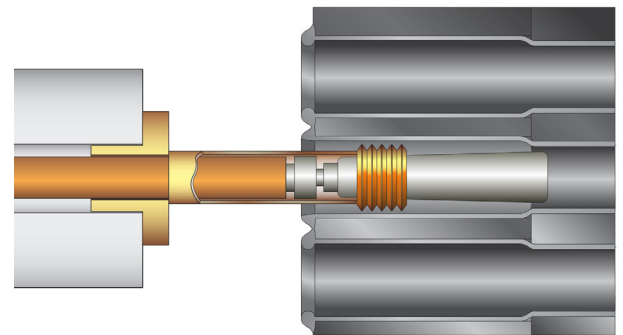
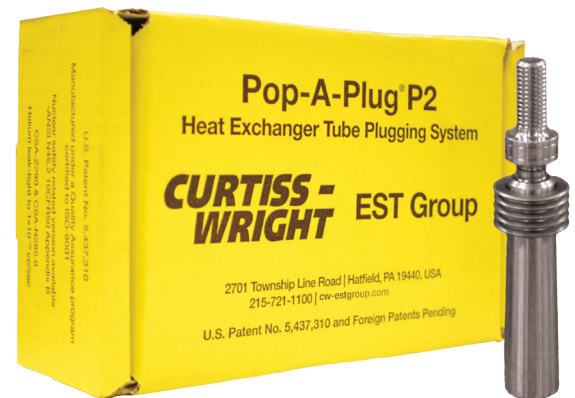


Pop-A-Plug® P2 Heat Exchanger Tube Plugging System

Proven Performance at Supercritical Pressures up to 7000 PsiG (483 BarG)

The Pop-A-Plug P2 Heat Exchanger Tube Plugging System is the only mechanical tube plug that features both external and patented internally serrated rings designed to maintain a leak-tight seal under extreme thermal and pressure cycling. Pop-A-Plug P2 Tube Plugging System reduces downtime, eliminates welding and explosives, and will not damage your tubes, tubejoints or tubesheet.

Simple Installation – Prepare and size tubes using the brush and Go/No-Go gage supplied with kit, and install plug with hydraulic ram using shop air. As the ram pulls the tapered pin through the ring, it expands into the tube, creating a leak tight seal. When the proper force is reached, the breakaway “pops”. This controlled force provides a consistent, repeatable installation each time by any installer, while protecting surrounding tubes and ligaments.



- **Safe** - Pressure rated up to 7000 PsiG (483 BarG)
- **Reliable** - Provides helium leak tight seal to 1×10^{-10} cc/sec
- Simple hydraulic installation significantly reduces turnaround duration and plant down time
- Lowest life cycle cost compared to alternative plugging methods
- Permanent solution, engineered for optimal performance throughout the life cycle of the heat exchanger
- Controlled installation force for consistent repeatable results
- Standard Sizes - 0.400 - 1.460 in (10.16 - 37.08 mm)
- Larger sizes and/or special materials available upon request
- Eliminates need for welding or explosives
- 24/7 Emergency manufacturing service available
- High Expansion Range - Each plug covers .020 in (.51 mm)
- Meets ASME PCC-2 Article 3.12 requirements
- Compliant with several QA Systems, including; ANSI N45.2, 10 CFR 50 App. B, and 10 CFR 21

Ram Package	P2 Kit Part Number	Size Range (inches (mm))
PAP-6600	P2-400-Q	0.400 - 0.420 (10.19 - 10.68)
PAP-6600	P2-420-Q	0.421 - 0.440 (10.69 - 11.19)
PAP-6600	P2-440-Q	0.441 - 0.460 (11.20 - 11.70)
PAP-6600	P2-460-Q	0.461 - 0.480 (11.71 - 12.21)
PAP-6600	P2-480-Q	0.481 - 0.500 (12.22 - 12.72)
PAP-6600	P2-500-Q	0.501 - 0.520 (12.73 - 13.22)
PAP-6600	P2-520-Q	0.521 - 0.540 (13.23 - 13.73)
PAP-6600	P2-540-Q	0.541 - 0.560 (13.74 - 14.24)
PAP-6600	P2-560-Q	0.561 - 0.580 (14.25 - 14.75)
PAP-6600	P2-580-Q	0.581 - 0.600 (14.76 - 15.26)
PAP-6600	P2-600-Q	0.601 - 0.620 (15.27 - 15.76)
PAP-6600	P2-620-Q	0.621 - 0.640 (15.77 - 16.27)
PAP-6600	P2-640-Q	0.641 - 0.660 (16.28 - 16.78)
PAP-6600	P2-660-Q	0.661 - 0.680 (16.79 - 17.29)
PAP-6600	P2-680-Q	0.681 - 0.700 (17.30 - 17.80)
PAP-6600	P2-700-Q	0.701 - 0.720 (17.81 - 18.30)
PAP-6600	P2-720-Q	0.721 - 0.740 (18.31 - 18.81)
PAP-6600	P2-740-Q	0.741 - 0.760 (18.82 - 19.32)
PAP-6600	P2-760-Q	0.761 - 0.780 (19.33 - 19.83)
PAP-6600	P2-780-Q	0.781 - 0.800 (19.84 - 20.34)
PAP-6600	P2-800-Q	0.801 - 0.820 (20.35 - 20.84)
PAP-6600	P2-820-Q	0.821 - 0.840 (20.85 - 21.35)
PAP-6600	P2-840-Q	0.841 - 0.860 (21.36 - 21.86)
PAP-6600	P2-860-Q	0.861 - 0.880 (21.87 - 22.37)
PAP-6600	P2-880-Q	0.881 - 0.900 (22.38 - 22.88)
PAP-6600	P2-900-Q	0.901 - 0.920 (22.89 - 23.38)
PAP-6600	P2-920-Q	0.921 - 0.940 (23.39 - 23.89)
PAP-6600	P2-940-Q	0.941 - 0.960 (23.90 - 24.40)
PAP-6600	P2-960-Q	0.961 - 0.980 (24.41 - 24.91)
PAP-6600	P2-980-Q	0.981 - 1.000 (24.92 - 25.42)
PAP-6600	P2-1000-Q	1.001 - 1.020 (25.43 - 25.92)
PAP-6600	P2-1020-Q	1.021 - 1.040 (25.93 - 26.43)
PAP-6600	P2-1040-Q	1.041 - 1.060 (26.44 - 26.94)
PAP-6600	P2-1060-Q	1.061 - 1.080 (26.95 - 27.45)
PAP-6600	P2-1080-Q	1.081 - 1.100 (27.46 - 27.96)
PAP-6600	P2-1100-Q	1.101 - 1.120 (27.97 - 28.46)
PAP-6600	P2-1120-Q	1.121 - 1.140 (28.47 - 28.97)
PAP-6600	P2-1140-Q	1.141 - 1.160 (28.98 - 29.48)
PAP-6600	P2-1160-Q	1.161 - 1.180 (29.49 - 29.99)

Specifications subject to change without notice.
See DC4002 for more information.



Manufactured in an
ISO 9001:2008
registered facility

Ram Package	P2 Kit Part Number	Size Range (inches (mm))
PAP-1750	P2-1180-Q	1.181 - 1.200 (30.00 - 30.50)
PAP-1750	P2-1200-Q	1.201 - 1.220 (30.51 - 31.00)
PAP-1750	P2-1220-Q	1.221 - 1.240 (31.01 - 31.51)
PAP-1750	P2-1240-Q	1.241 - 1.260 (31.52 - 32.02)
PAP-1750	P2-1260-Q	1.261 - 1.280 (32.03 - 32.53)
PAP-1750	P2-1280-Q	1.281 - 1.300 (32.54 - 33.04)
PAP-1750	P2-1300-Q	1.301 - 1.320 (33.05 - 33.54)
PAP-1750	P2-1320-Q	1.321 - 1.340 (33.55 - 34.05)
PAP-1750	P2-1340-Q	1.341 - 1.360 (34.06 - 34.56)
PAP-1750	P2-1360-Q	1.361 - 1.380 (34.57 - 35.07)
PAP-1750	P2-1380-Q	1.381 - 1.400 (35.08 - 35.58)
PAP-1750	P2-1400-Q	1.401 - 1.420 (35.59 - 36.08)
PAP-1750	P2-1420-Q	1.421 - 1.440 (36.09 - 36.59)
PAP-1750	P2-1440-Q	1.441 - 1.460 (36.60 - 37.10)
PAP-1750	P2-1460-Q	1.461 - 1.480 (37.11 - 37.61)

Ordering Information

When ordering please supply the following information:

- Tube O.D. and wall thickness or measured tube I.D.
- Tube material
- Tubesheet material is required if plug will be installed directly into tubesheet
- Maximum pressure and temperature
- Type of tube to tubesheet joint (rolled, welded, etc.)
- Condition of tubes and age of heat exchanger

Standard Materials

Brass, Carbon Steel, 316 Stainless Steel, 304 Stainless Steel, 4142 Alloy, 70/30 CU/Ni, 90/10 CU/Ni, Monel, Titanium, Duplex 2205, Chromoly Grade 11, Chromoly Grade 22.

**Other materials and grades available,
please contact EST Group for details**

Contact EST Group for information on
installation and removal equipment
or visit www.cw-estgroup.com

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