

G-650 TESTING GUN

Heat Exchanger Tube Tester

Find tube joint leaks fast with unique vacuum tester.



EST Group's G-650 Vacuum Joint Testing Gun uses air pressure to generate a vacuum around the tube-to-tubesheet joint to pinpoint leaking connections. Just insert the test gun into the tube end and press the air control valve to fill the cylinder with air. This expands a seal inside the tube, pulling a second seal firmly against the tubesheet surrounding the tube end. Next press the vacuum control valve to divert air through a venturi, creating a vacuum around the tube joint area. Any reduction in vacuum shown on the integral gauge indicates a faulty tube joint.

Interchangeable Manifolds: Allows the G-650 to test tube OD's from 3/8 " to 1-1/4" (9.52 to 31.75 mm). The G-650A is used for tube OD's from 1-1/2" to 2-1/2" (38.1 to 63.5 mm).

Light Weight: Weighs less than 2.7 lbs (1.2 kg), when equipped with a 3/4" manifold.

Uses standard plant air supplies from 40 to 125 psi.

Standard seal material: Neoprene, Viton® optional.

Quality Assurance System: Meets requirements of ANSI N45.2, 10CFR50 Appendix B, 10CFR21, and is certified to ISO-9001.

G-650

Nominal Tube Size	Tube ID Size Range	Gun Part Number	Manifold Part Number	Square Ring Part Number
3/8 in (9.5 mm)	0.28 - 0.33 in (7.1 - 8.4 mm)	GSC-6506	GSC-6606	GSC-6706
1/2 in (12.7 mm)	0.28 - 0.45 in (7.1 - 11.4 mm)	GSC-6508	GSC-6608	GSC-6708
5/8 in (15.9 mm)	0.49 - 0.58 in (12.4 - 14.7 mm)	GSC-6510	GSC-6610	GSC-6700
3/4 in (19.1 mm)	0.50 - 0.70 in (12.7 - 17.8 mm)	GSC-6512	GSC-6612	GSC-6712
7/8 in (22.2 mm)	0.57 - 0.83 in (14.5 - 21.1 mm)	GSC-6514	GSC-6614	GSC-6714
1 in (25.4 mm)	0.70 - 0.95 in (17.8 - 24.1 mm)	GSC-6516	GSC-6616	GSC-6716
1 1/8 in (28.6 mm)	0.83 - 1.08 in (21.1 - 27.4 mm)	GSC-6518	GSC-6618	GSC-6718
1 1/4 in (31.8 mm)	0.95 - 1.20 in (24.1 - 30.5 mm)	GSC-6520	GSC-6620	GSC-6720

G-650A

Nominal Tube Size	Tube ID Size Range	Gun Part Number	Manifold Part Number	Square Ring Part Number
1 1/2 in (38.1 mm)	1.20 - 1.45 in (30.5 - 36.8 mm)	GSC-6524	GSC-6624	GSC-6724
1 3/4 in (44.5 mm)	1.45 - 1.70 in (36.8 - 1.70 mm)	GSC-6528	GSC-6628	GSC-6728
2 in (50.8 mm)	1.70 - 1.95 in (43.2 - 49.5 mm)	GSC-6532	GSC-6632	GSC-6732
2 1/4 in (57.2 mm)	1.95 - 2.15 in (49.5 - 54.6 mm)	GSC-6536	GSC-6636	GSC-6736
2 1/2 in (63.5 mm)	2.20 - 2.40 in (55.9 - 61.0 mm)	GSC-6540	GSC-6640	GSC-6740

G-650 Manifold Extensions

For easier testing when a channel head or water box is present

Length	Part Number
1 ft (304.8 mm)	GSC-6700-01
2 ft (609.6 mm)	GSC-6700-02
3 ft (914.4 mm)	GSC-6700-03
4 ft (1,219.2 mm)	GSC-6700-04

G-650 / G-650A Neoprene Seal and Washer Sets

Part Number, GSC-XXXX-N, where XXXX is the number listed in the chart for the appropriate tube OD and BWG

Tube OD BWG	1/2"	5/8"	3/4"	7/8"	1"	1 1/8"	1 1/4"	1 3/8"	1 1/2"	1 5/8"	1 3/4"	2"	2 1/4"	2 1/2"
8 - 9	—	0030	0043	0056	0068	0081	0093	0106	0118	0131	0143	0168	0193	0218
10 - 11	—	0037	0047	0062	0072	0087	0097	0112	0122	0137	0147	0173	0198	0223
12 - 13	0028	0040	0053	0065	0078	0090	0103	0115	0128	0140	0153	0178	0203	0228
14 - 15	0033	0047	0056	0072	0083	0097	0110	0122	0134	0147	0158	0183	0208	0232
16 - 17	0037	0050	0062	0075	0087	0100	0112	0126	0137	0150	0162	0187	0212	0237
18 - 19	0040	0053	0065	0078	0090	0103	0115	0128	0140	0153	0165	0190	0215	0240
20 - 24	0042	0056	0068	0081	0093	0106	0118	0131	0143	0156	0168	0193	0218	0243

Notes:

- G-650 seal and washer sets contain two seals and four washers.
- For seal sizing and part numbers in SWG, metric or other tube sizes, contact EST Group.
- Optional seal material: Viton®
- Caution: G-650 guns cannot be used where the tubesheet is extremely corroded/eroded; where tube ends are flared and flares overlap; or where tube-to-tubesheet joints are welded.

Ordering Information:

Please Provide tube OD and wall thickness

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