

Guidance to the required reference connectors and equipment for testing small-bore connectors used in breathing systems and driving gases

ISO 80369-2:2018 Reference Connectors and ISO 80369-20:2015 Test Equipment			
ISO 80369-2:2018 Clause	Required Annex of ISO 80369-20:2015	Enersol equipment required	Required Enersol reference connectors for testing ISO 80369-2 small bore connectors
Clause 6 - all sub-clauses	Annex B through I requires the assembly of the appropriate reference connector (i.e. from ISO 80369-2 Annex C) with the test sample, using a specified force and torque to assemble them.	S15B - Connector assembly device	Any/all reference connectors
Clause 6.1 - Leakage by pressure decay	Annex B - Leakage by Pressure Decay	S77A - Automated Pressure Decay Tester - For R1 connectors S77B - Automated Pressure Decay Tester - For R2 connectors	S80 - Fig. C.1 - RESP-125 (R1) - FC for testing MC S82 - Fig. C.3 - RESP-125 (R1) - MC for testing FC S84 - Fig. C.8 - RESP-6000 (R2) - FC for testing MC S86 - Fig. C.10 - RESP-6000 (R2) - MC for testing FC
Clause 6.2 - Subatmospheric pressure air leakage	Annex D - Subatmospheric pressure air leakage	S78A - Automated Subatmospheric Pressure Air Leakage Tester - For R1 connectors S78B - Automated Pressure Decay Tester - For R2 connectors	S80 - Fig. C.1 - RESP-125 (R1) - FC for testing MC S82 - Fig. C.3 - RESP-125 (R1) - MC for testing FC S84 - Fig. C.8 - RESP-6000 (R2) - FC for testing MC S86 - Fig. C.10 - RESP-6000 (R2) - MC for testing FC
Clause 6.3 - Stress cracking**	Annex E - Stress cracking	S15B along with S77A and S78A - For R1 connectors S15B along with S77B and S78B - For R2 connectors	S80 - Fig. C.1 - RESP-125 (R1) - FC for testing MC S82 - Fig. C.3 - RESP-125 (R1) - MC for testing FC S84 - Fig. C.8 - RESP-6000 (R2) - FC for testing MC S86 - Fig. C.10 - RESP-6000 (R2) - MC for testing FC
Clause 6.4 - Resistance to separation from axial load	Annex F - Resistance to separation from axial load	S18B - Separation force device	S81 - Fig. C.2 - RESP-125 (R1) - FC for testing MC S83 - Fig. C.4 - RESP-125 (R1) - MC for testing FC S85 - Fig. C.9 - RESP-6000 (R2) - FC for testing MC S87 - Fig. C.11 - RESP-6000 (R2) - MC for testing FC
Clause 6.5 - Resistance to separation from unscrewing	Annex G - Resistance to separation from unscrewing	S19A - Unscrewing torque device	S80 - Fig. C.1 - RESP-125 (R1) - FC for testing MC S82 - Fig. C.3 - RESP-125 (R1) - MC for testing FC S84 - Fig. C.8 - RESP-6000 (R2) - FC for testing MC S86 - Fig. C.10 - RESP-6000 (R2) - MC for testing FC
Clause 6.6 - Resistance to overriding	Annex H - Resistance to overriding	S15B	S81 - Fig. C.2 - RESP-125 (R1) - FC for testing MC S83 - Fig. C.4 - RESP-125 (R1) - MC for testing FC S85 - Fig. C.9 - RESP-6000 (R2) - FC for testing MC S87 - Fig. C.11 - RESP-6000 (R2) - MC for testing FC
Clause 6.7 - Disconnection by unscrewing	Annex I - Disconnection by unscrewing	S79 - Disconnection by unscrewing tester	Undefined in the FDIS. TBC. In other standards (e.g. ISO 80369-3) it is those used for resistance to separation from unscrewing that are used for disconnection by unscrewing.
			KEY: FC = Female Connector MC = Male Connector
** = Both the leakage by pressure decay and subatmospheric pressure air leakage tests are to be performed after stress cracking conditioning.			