

PTFE HOSE

TCR-115 HOSE ASSEMBLIES

TCR-122 CONDUCTIVE HOSE ASSEMBLIES

BUY 
AMERICAN
ACT COMPLIANT

These general purpose PTFE hoses are the most widely utilized hoses throughout the industry. They are presently found in operations as diverse as chemical transfer, steel processing, paint spraying, fuel, and lubricant handling, hydraulic systems, plastic molding machines, food processing, marine, and transportation industries.

Sizes 1/8" I.D. through 5/8" I.D. are rated for full vacuum. Larger hose sizes can be reinforced with an internal support spring for full vacuum service. For continuous pneumatic service at the highest pressure ratings, we recommend the use of high pressure hoses for enhanced performance.

CONSTRUCTION

TCR-115 has a smooth inner-core of extruded white PTFE resin with type 304 stainless steel wire braid reinforcement.

TCR-122 has a precisely controlled amount of carbon black added to the inner 15% of the PTFE inner-core. This homogeneous material provides a continuous conductive path to the metal and fittings, to bleed off static electricity.

Temperature Range:

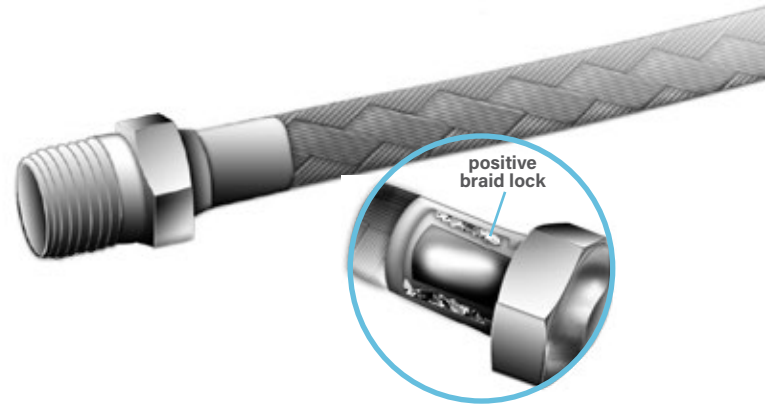
-65°F to 450°F (-54°F to 232°C) for continuous service.

-100°F to 500°F (-73°C to 260°C) for intermittent service only.

Standards:

Meets requirements for SAE 100R5 and is accepted by the U.S. Coast Guard.

Specifications:



HOSE PART NUMBER	NOMINAL SIZE IN.	NOMINAL ID IN.	NOMINAL OD IN.	OPER. PSI AT ROOM TEMP.	OPER. PSI AT 450°F	MIN. BURST PSI AT ROOM TEMP.	TYP. MAX CONTINUOUS LENGTH FT.	MIN. BEND RADIUS IN.	HOSE WEIGHT LB. / FT.
TCR-115-3	3/16	.125	.234	3,000	3,000	15,000	200	2	.050
TCR 115 / 122-4	1/4	.187	.312	3,000	3,000	15,000	200	2	.070
TCR 115 / 122-5	5/16	.250	.375	3,000	3,000	14,000	150	3	.099
TCR 115 / 122-6	3/8	.312	.445	2,500	2,500	12,000	150	4	.110
TCR 115-6T *	3/8	.375	.503	2,250	2,250	10,000	150	4.5	.124
TCR-115 / 122-8	1/2	.406	.549	2,000	2,000	10,000	100	5.2	.123
TCR-115 / 122-10	5/8	.500	.648	1,500	1,500	8,500	100	6.5	.154
TCR-115 / 122-12	3/4	.625	.778	1,200	1,200	6,000	75	7.7	.170
TCR-115-12T *	3/4	.755	.886	1,100	1,100	4,500	75	8.2	.198
TCR-115 / 122-16	1	.875	1.030	1,000	1,000	4,000	60	9	.273
TCR-115-16T *	1	1.000	1.135	900	900	3,800	60	10	.305
TCR-115-16Z †	1	.875	1.065	1,250	1,250	8,000	60	9	.409
TCR-122-20	1 1/4"	1.125	1.315	800	800	3,200	40	16	.540

* True Bore. NOTE: Standard fittings are not available for true bore hoses.

† Double braid.

PTFE HOSE

PERMANENTLY ATTACHED FITTINGS

FOR TCR-115 AND TCR-122 HOSE

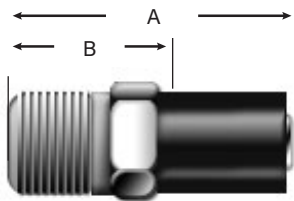
The PTFE inner-core and over-braid are firmly locked between the fitting collar and insert for a permanent, leak-proof assembly. The positive braid lock assures that strain is absorbed by the braid, not the PTFE hose. TCH has the capability to manufacture custom end fitting terminations. For special requirements, consult the factory.

MATERIALS

Fittings are available in carbon steel, brass, a combination of carbon steel and brass, or stainless steel, according to the specification table for each fitting. The wet surfaces of stainless steel fittings are type 303; other parts are type 304.

END FITTINGS

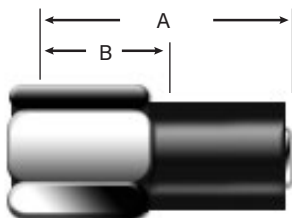
Male Pipe NPT



STAINLESS STEEL PART NUMBER	BRASS PART NUMBER	SIZE IN.	THREAD	LENGTH A IN.	LENGTH B IN.	NOMINAL ID IN.
TC 100003	TC 110003	3/16"	1/8 - 27	1.155	.767	.095
TC 100104	TC 110104	1/4"	1/8 - 27	1.255	.767	.156
TC 100004	TC 110004	1/4"	1/4 - 18	1.472	.984	.156
TC 100005	TC 110005	5/16"	1/4 - 18	1.472	.984	.207
TC 100106	TC 110106	3/8"	1/4 - 18	1.602	.984	.277
TC 100006	TC 110006	3/8"	3/8 - 18	1.632	1.014	.277
TC 100108	TC 110108	1/2"	3/8 - 18	1.684	1.014	.358
TC 100008	TC 110008	1/2"	1/2 - 14	1.932	1.262	.358
TC 100010	TC 110010	5/8"	1/2 - 14	2.049	1.282	.469
TC 100012	TC 110012	3/4"	3/4 - 14	2.214	1.374	.594
TC 100016	TC 110016	1"	1 - 11 1/2"	2.562	1.583	.812

Female Swivel JIC (37° SEAT) SAE (45°)

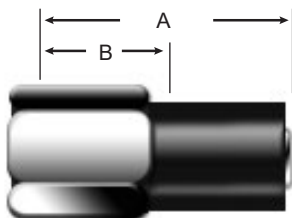
* All sizes except -6 and -12 are interchangeable



STAINLESS STEEL PART NUMBER	BRASS PART NUMBER	SIZE IN.	THREAD	LENGTH A IN.	LENGTH B IN.	NOMINAL ID IN.
TC 100203	TC 110203	3/16"	3/8 - 24	.850	.467	.095
TC 100204	TC 110204	1/4"	7/16 - 20	.950	.467	.156
TC 100205	TC 110205	5/16"	1/2 - 20	1.010	.526	.207
TC 100206	TC 110206	3/8"	9/16 - 18	1.185	.572	.277
-----	* TC 110306	3/8"	5/8 - 18	1.185	.572	.277
TC 100208	TC 110208	1/2"	3/4 - 16	1.300	.635	.358
TC 100210	TC 110210	5/8"	7/8 - 14	1.470	.708	.469
TC 100212	TC 110212	3/4"	1 1/16" - 12	1.560	.725	.594
-----	* TC 110312	3/4"	1 1/16" - 24	1.560	.725	.594
TC 100216	TC 110216	1"	1 5/16 - 12	1.750	.776	.812

* SAE Thread Only

Female Pipe NPT



STAINLESS STEEL PART NUMBER	BRASS PART NUMBER	SIZE IN.	THREAD	LENGTH A IN.	LENGTH B IN.	NOMINAL ID IN.
TC 100400	TC 110405	5/16"	1/4 - 18	1.421	1.932	.207

PTFE HOSE

CONVOLUTED PTFE HOSE

TCR-272 HOSE ASSEMBLIES

TCR-276 CONDUCTIVE ASSEMBLIES

TCR-272 transfer hose is the most broadly applied convoluted PTFE hose; a general purpose work-horse found in hundreds of chemical transfer and industrial applications. Its present uses typically include water purification systems and food processing equipment.

TCR-276 conductive transfer hose has the same general purpose usefulness as TCR-272, with special suitability where higher flow rates and the possibility of static charge accumulation are involved. Its conductive inner-core is an important provision in such applications as fuel handling. It has unusually high resistance to thermal cycling; therefore it is used extensively in tire presses, laundry presses, and other types of steam service, where on/off operating cycles cause wide temperature fluctuations inside the hose.

CONSTRUCTION

The inner-core of convoluted PTFE is externally reinforced with PTFE impregnated fiberglass and type 304 stainless steel wire braid. TCR-276 hose has precisely controlled amounts of carbon black added to the inner 15% of the PTFE inner-core. This homogeneous material provides a continuous conductive path to the metal end fittings,

Temperature Range:

-65°F to 400°F (-54°C to 204°C)

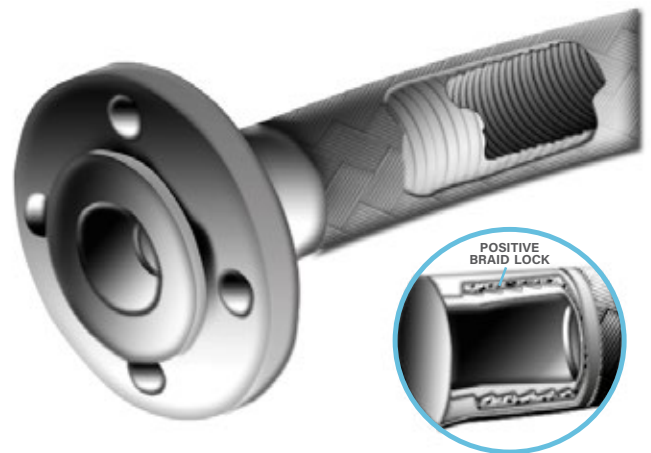
Standards:

Accepted by U.S. Coast Guard.

TCR 272 and TCR-276 Hose Specifications:

HOSE PART NUMBER	NOMINAL SIZE IN.	NOMINAL ID IN.	NOMINAL OD IN.	OPER. PSI AT ROOM TEMP.	MIN. BURST PSI AT ROOM TEMP.	HIGH TEMP. MIN. BUST PSI	TYP. MAX CONTINUOUS LENGTH FT.	MIN. BEND RADIUS IN.	HOSE WEIGHT LB. / FT.
TCR272 / TCR276-8	1/2"	.512	.785	1,000	4,000	2,800	75	1.00	.16
TCR272 / TCR276-12	3/4"	.750	1.090	1,000	4,000	2,500	50	2.00	.27
TCR272 / TCR276-16	1"	.998	1.300	1,000	4,000	2,500	50	3.00	.36
TCR272 / TCR276-20	1 1/4"	1.239	1.560	1,000	4,000	2,500	50	6.25	.48
TCR272 / TCR276-24	1 1/2"	1.500	1.792	750	3,000	2,100	50	7.50	.61
TCR272 / TCR276-32	2"	1.982	2.333	500	2,000	1,700	50	10.00	.97

* Maximum operating pressures shown apply to all temperatures up to 400°F



PTFE HOSE

FITTINGS FOR ALL CONVOLUTED PTFE HOSE

This expanded selection of fittings broadens the areas of application and the convenience of using convoluted hose. With these fittings you can satisfy most installation needs. Stainless steel collars are available for use where stringent FDA requirements call for all stainless construction. Convoluted hose fittings feature the exclusive TCH progressive swaging method of attachment. The inner-core and over-braid are firmly locked between the fitting collar and insert for a permanent, leak-proof assembly. The positive braid lock assures that strain is absorbed by the braid, not the hose inner-core.

MATERIALS

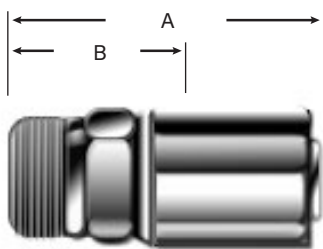
Male pipe and female inserts are available in carbon steel and type 316 stainless steel. Collars for the preceding fittings are either carbon steel or type 304 stainless steel. Flange retaining inserts are available in type 316 stainless steel.

Note: Carbon steel collars may be specified with stainless steel inserts, where only wetted surfaces require corrosion resistance

END FITTINGS

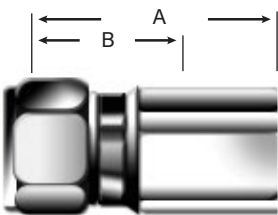
Encapsulated PTFE fittings are available, contact TCH for more information.

• Male Pipe NPT



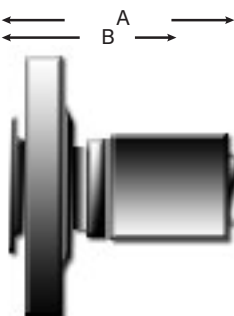
STAINLESS STEEL PART NUMBER	BRASS PART NUMBER	SIZE IN.	THREAD	LENGTH A IN.	LENGTH B IN.	NOMINAL ID IN.
TC 103008	TC 123008	1/2"	1/4	2.590	1.470	.378
TC 103012	TC 123012	3/4"	3/4	2.760	1.640	.630
TC 103016	TC 123016	1"	1 - 11 1/2	2.948	1.828	.849
TC 103020	TC 123020	1 1/4"	1 1/4" - 11 1/2	3.570	2.055	1.069
TC 103024	TC 123024	1 1/2"	1 1/2 - 11 1/2	3.620	2.125	1.306
TC 103032	TC 123032	2"	2 - 11 1/2	3.840	2.345	1.756

• JIC - Female Swivel (37° SEAT)



STAINLESS STEEL PART NUMBER	BRASS PART NUMBER	SIZE IN.	THREAD	LENGTH A IN.	LENGTH B IN.	NOMINAL ID IN.
TC 103208	TC 123208	1/2"	3/4 - 16	2.168	1.073	.378
TC 103212	TC 123212	3/4"	7/8 - 14	2.425	1.312	.630
TC 103216	TC 123216	1"	1 5/16 - 12	2.371	1.272	.849
TC 103220	TC 123220	1 1/4"	1 5/8 - 12	2.970	1.480	1.070
TC 103224	TC 123224	1 1/2"	1 7/8 - 12	2.994	1.524	1.305
TC 103232	TC 123232	2"	1 1/2 - 12	3.168	1.698	1.755

• Flange Retaining Insert Stainless Steel



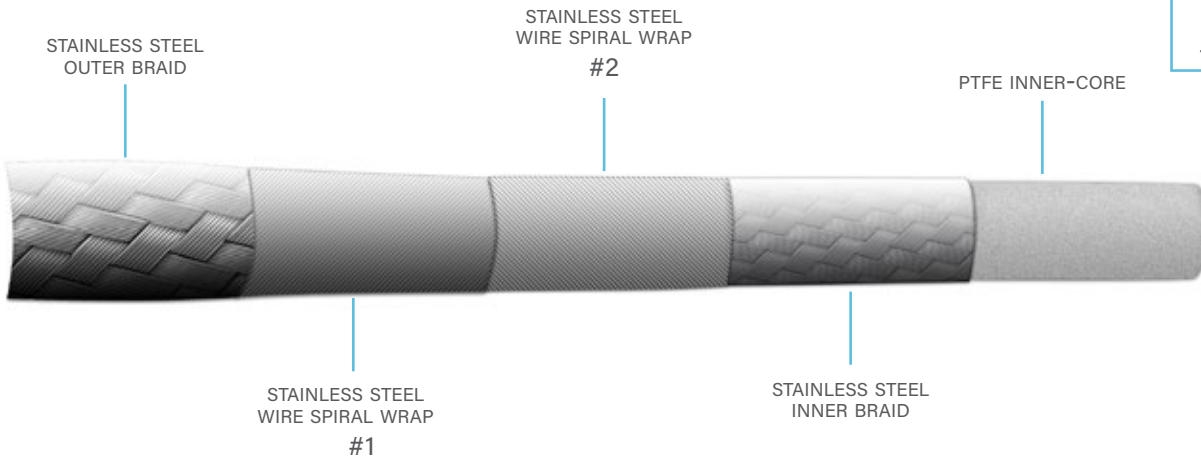
STAINLESS STEEL PART NUMBER	SIZE IN.	LENGTH A IN.	LENGTH B IN.	NOMINAL ID IN.
TC 103512	3/4"	2.428	1.323	.630
TC 103516	1"	2.894	1.791	.814
TC 102524	1 1/2"	3.595	2.105	1.274
TC 103532	2"	3.730	2.249	1.784

PTFE HOSE

TCR-58 SERIES

Spiral wrapped stainless steel braided PTFE hose is made up of a carbon black PTFE inner-core and has many layers of spiral wrap between two layers of braid, which makes this hose the premier in heavy-duty ultra high pressure PTFE hose.

TEMPERATURE RANGE
-65°F TO +400°F
-54°C TO +204°C



All assemblies are supplied with stainless steel 37° JIC swivels and 100% tested to the test pressures shown below

PART NUMBER	NOMINAL SIZE IN.	ACTUAL I.D.	ACTUAL O.D.	WORKING PRESSURE	TEST PRESSURE	ROOM TEMP. BURST	HIGH TEMP. BURST	BEND RADIUS	WEIGHT PER FOOT
TCR-58904	1/4"	.229	.495	6,000	9,000	25,500	12,000	3.00	.24
TCR-58906	3/8"	.300	.617	6,000	9,000	25,500	12,000	5.00	.40
TCR-58908	1/2"	.395	.738	6,000	9,000	25,000	12,000	5.75	.49
TCR-58910	5/8"	.525	.885	4,000	6,000	16,500	12,500	6.25	.67
TCR-58912	3/4"	.650	1.070	4,000	6,000	16,500	12,500	7.75	.93
TCR-58916	1"	1.101	1.390	4,000	6,000	15,000	9,000	9.625	1.45

TCR-58 series comes standard with type 316 stainless steel 37° JIC swivels. When ordering place front of the part number.

HOSE I.D.	DASH SIZE	THREAD SIZE IN.
1/4"	- 4	7/16 - 20
3/8"	- 6	9/16 - 18
1/2"	- 8	3/4 - 16
5/8"	- 10	7/8 - 14
3/4"	- 12	1-1/16 - 12
1"	- 16	1-5/16 - 12

* A wide variety of adapters are available



PTFE HOSE

TCR-1000 SERIES

Dense-Pac stainless steel braided PTFE hose is made from carbon black PTFE inner-core and a multitude of stainless steel wires braided together, to form a single braided ultra high pressure PTFE hose.



TEMPERATURE RANGE
-65°F TO +400°F
-54°C TO +204°C

All assemblies are supplied with 37° JIC swivels and 100% tested to the test pressures shown below

PART NUMBER	NOMINAL SIZE IN.	ACTUAL I.D.	ACTUAL O.D.	WORKING PRESSURE	TEST PRESSURE	ROOM TEMP. BURST	HIGH TEMP. BURST	BEND RADIUS	WEIGHT PER FOOT
TCR-1904	1/4"	.222	.390	5,000	10,000	18,500	12,000	1.50	.10
TCR-1906	3/8"	.308	.490	5,000	10,000	18,000	12,000	2.50	.16
TCR-1908	1/2"	.401	.615	5,000	10,000	18,000	12,000	2.88	.23
TCR-1910	5/8"	.495	.730	5,000	10,000	17,500	12,500	3.25	.32
TCR-1912	3/4"	.617	.990	5,000	10,000	17,500	12,500	3.88	.66
TCR-1916	1"	.867	1.270	5,000	10,000	17,000	9,000	5.00	1.02
TCR-1920	1 1/4"	1.118	1.660	5,000	10,000	16,500	9,500	12.00	1.85
TCR-1924	1 1/2"	1.375	1.900	4,000	9,000	15,000	9,000	14.00	1.91

Working pressure is for non-impulse service. For impulse applications reduce the operating pressure by 1000 PSI, if temperature reaches 400°F all of the above working pressures are 3,000 PSI.

TCR-1000 series gives you the choice of stainless steel or carbon steel JIC swivels. When ordering assemblies place a "C" for carbon steel or "S" for stainless steel in front of the part number to ensure proper fitting material.

HOSE I.D.	DASH SIZE	THREAD SIZE IN.
1/4"	- 4	7/16 - 20
3/8"	- 6	9/16 - 18
1/2"	- 8	3/4 - 16
5/8"	- 10	7/8 - 14
3/4"	- 12	1-1/16 - 12
1"	- 16	1-5/16 - 12
1 1/4"	- 20	1-5/8 - 12
1 1/2"	- 24	1-7/8 - 12



PTFE HOSE

PROTECTIVE HOSE COVERINGS

SPRING GUARD

Prolongs the life of hose lines that are exposed to rugged operating conditions, such as severe flexing. Spring guard prevents kinking and protects the hose from abrasion and rough handling.



SILICONE FIRE SLEEVE

This fiberglass sleeving has a coating of silicone rubber bonded to it, which offers temporary flame resistance, that will protect the hose from extreme temperature conditions.



ARMOR GUARD

A highly flexible heavy-duty metal casing to protect the hose against severe handling abuse and over-bending. This can be applied over the entire length or in short sections at the connection.



HEAT SHRINK TUBING

To minimize hose O.D. heat shrinkable tubing is used in applications where cleanliness is essential, such as food and pharmaceutical processes. This provides easy cleaning of the outer hose surface.



NYLON

An abrasion resistant nylon sleeve protects and extends the service life of hoses that are subjected to severely abrasive environments.

