

Liquidtight Flexible Metal Conduit Connectors with Wire Mesh Strain Relief

STB, STN, and Female ST Types.

Applications

- For use with liquidtight flexible metal conduit subjected to flexure, vibration, motion, or strain. "STB" Type connects to threaded hubs. "STN" Type is for connections to sheet metal enclosures. Female ST Type connects to threaded rigid conduit and IMC.

Features

- Unique long ferrule with more pronounced threads provides over four times UL pull-out requirements.
- Ferrule also provides maximum surface contact for better sealing and a continuous, permanent, positive metal-to-metal ground.
- Stainless steel wire mesh prevents pull-out of flexible conduit from fitting.
- Insulated throat (STB and STN Series) protects against wire damage.
- STN Type has space-saving hex hub wedge adapter that fits nearly flush

against inside walls of enclosures, providing maximum wiring room.

- Liquidtight/raintight/oiltight.
- Suitable for wet locations.
- STB Series has full, machined tapered threads (NPT).

Standard Materials

- Straight STB, STN, and Female ST connectors—3/8" to 1" are steel, 1-1/4" and over are malleable iron.
- 45° and 90° connectors—all sizes are malleable iron.
- Ferrule—3/8" to 1" are steel; 1-1/4" and over are aluminum.
- Wire Mesh—stainless steel.

Standard Finishes

- Steel—zinc electroplate.
- Malleable iron—zinc electroplate, dichromate and epoxy powder/zinc electroplate.




Size Range:

- All STB, Female ST and straight STN connectors: 3/8" thru 3" conduit size.
- STN 90° connectors: 3/8" thru 1" conduit size.

Compliances

- UL Standard 514B.
- CSA Standard C22.2 No. 18
- Suitable for hazardous locations Class I, Div. 2
- Class II, Div. 1 and 2
- Class III, Div. 1 and 2
- NEC 501-4(b), 502-4(a)(2), 503-3(a)

For Wire Mesh Strain Relief (with cap) only, see catalog Section ST.

Catalog Number	Size (In.)	Catalog Number	Size (In.)	Catalog Number	Size (In.)	Hole Dia. (In.) Min.	Hole Dia. (In.) Max.	Wall Thickness(In.) Min.	Wall Thickness(In.) Max.
  									
"STB" Straight—Insulated			"STB" 90°—Insulated			"STN" Straight—Insulated			
STB-38SR	3/8 flex, 1/2 hub	STB-9038SR	3/8 flex, 1/2 hub	STN-38SR	3/8	7/8	15/16	1/16	5/64
STB-50SR	1/2	STB-9050SR	1/2	STN-50SR	1/2	7/8	15/16	1/16	5/64
STB-75SR	3/4	STB-9075SR	3/4	STN-75SR	3/4	1-3/32	1-5/32	1/16	5/64
STB-100SR	1	STB-90100SR	1	STN-100SR	1	1-11/32	1-7/32	3/32	1/4
STB-125SR	1-1/4	STB-90125SR	1-1/4	STN-100SR	1	1-11/32	1-13/32	1/16	5/64
STB-150SR	1-1/2	STB-90150SR	1-1/2	STN-125SR	1-1/4	1-11/16	1-15/32	3/32	1/4
STB-200SR	2	STB-90200SR	2	STN-125SR	1-1/4	1-11/16	1-25/32	1/16	5/64
STB-250SR	2-1/2	STB-90250SR	2-1/2	STN-150SR	1-1/2	1-15/16	1-27/32	3/32	5/16
STB-300SR	3	STB-90300SR	3	STN-150SR	1-1/2	1-15/16	2-1/32	1/16	5/64
				STN-200SR	2	2-25/64	2-3/32	3/32	5/16
				STN-200SR	2	2-25/64	2-17/32	1/16	5/64
				STN-250SR	2-1/2	2-57/64	2-19/32	3/32	5/16
				STN-300SR	3	3-33/64	3-1/64	3/32	5/16
				STN-300SR	3	3-33/64	3-41/64	3/32	5/16

"STB" 45°—Insulated

- STB-4538SR 3/8 flex, 1/2 hub
- STB-4550SR 1/2
- STB-4575SR 3/4
- STB-45100SR 1
- STB-45125SR 1-1/4
- STB-45150SR 1-1/2
- STB-45200SR 2
- STB-45250SR 2-1/2
- STB-45300SR 3

Female "ST" Connectors

- ST-38FSR 3/8 flex, 1/2 hub
- ST-50FSR 1/2
- ST-75FSR 3/4
- ST-100FSR 1
- ST-125FSR 1-1/4
- ST-150FSR 1-1/2
- ST-200FSR 2
- ST-250FSR 2-1/2
- ST-300FSR 3



"STN" 90°—Insulated

- STN-9038SR 3/8 7/8 15/16 1/16 5/64
- STN-9050SR 1/2 7/8 15/16 1/16 5/64
- STN-9075SR 3/4 1-3/32 1-5/32 1/16 5/64
- STN-90100SR 1 1-11/32 1-13/32 1/16 5/64

Liquidtight Connectors and Hubs for Liquidtight Flexible Metal Conduit

General Information and special features.

Applications

- Seal out oil, water, dirt, dust and fumes wherever liquidtight flexible metal conduit is used.
- Typical applications include food processors, beverage plants, chemical plants, dairies, machine shops, plastic fabricators, petroleum machinery, and gantry cranes.

ST and STB Series

For connections to threaded hubs. Insulated throat on STB protects conductors. Connectors are available with grounding lugs. Straight sizes 3/8" thru 5"; 45° and 90°, 3/8" thru 4". Straight and 90° styles in sizes 3/8" thru 2" also available with certain metric thread sizes. See page I-49.

STN Space-Saving Connectors for Enclosures

Appleton STN Series makes liquidtight connections to sheet metal enclosures. Space-saving, self-locking gasketed wedge forms a perfect seal and allows more wiring room. Straight sizes 3/8" thru 4"; 90° sizes 3/8" thru 1".

STG Neoprene Sealing Gasket Assembly

Steel backed, neoprene gasket assembly assures a liquidtight connection to a rough metal surface such as knock-outs in steel junction boxes. Sizes 1/2" thru 4" feature bonded gasket/retainer assembly. 1/4 and 3/8 available in thermoplastic material.

Female Steel ST Connectors

For liquidtight connections to threaded rigid metal conduit. Sizes 3/8" thru 1".

Features

- **Extra-long ferrule resists pull-outs.** All Appleton liquidtight fittings feature a one-piece, deep-grip ferrule design that simplifies installation and prevents conduit sleeving. Its extra length and sharply defined threads provide greater surface contact with the conduit for excellent grounding continuity, greater pull-out strength (4X UL requirements)...and added protection against excessive external conduit flexing and vibration. It virtually eliminates the need for an external strain relief in many applications.



Straight ST/STB

90° ST/STB

45° ST/STB



Female ST



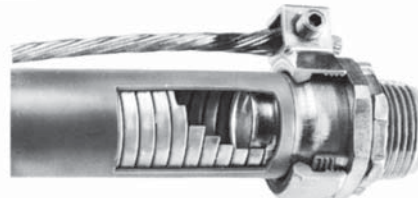
STG Neoprene Sealing Gasket Assembly



90° STN



Straight STN



Cutaway view—ST with External Grounding Lugs



STB with Strain Relief

- **External grounding lugs available on all Appleton liquidtight connectors.** Where National Electrical Code permits an external equipment bonding jumper, [NEC sections 250-96(b), 501-16(b) and 502-16(b)], Appleton ST and STB connectors are offered with an integral bonded steel zinc electroplated lug. Cut-away view shows extended ferrule design for maximum grounding effectiveness. Grounding lugs also available in STN, STL and Female ST Series. Consult factory.

- **Wire mesh strain relief available on all STB, STN, and female ST connectors.** Woven stainless steel mesh sleeve alleviates flexing stress at liquidtight connection.