

APPLICATION PROFILE

# Stainless steel corrosive environment solutions

## *T&B Liquidtight Systems®*



The T&B Liquidtight Systems® brand encompasses a complete range of stainless steel liquid-tight flexible metallic conduit system solutions, for applications where exceptional corrosion protection is required.



### Introduction

The T&B Liquidtight Systems portfolio provides one of the widest ranges of liquid-tight flexible metallic conduit solutions for stainless steel corrosive environment applications. Material selection and rigorous testing are the key factors to these highly engineered and superior performance temperature solutions.

### Typical applications

For use in indoor or outdoor installations:

- Food and beverage equipment
- Washdown applications
- Water/wastewater treatment plants
- Marine and coastal environments
- Highly caustic environments
- Bottling lines
- Processing plants
- Food packaging equipment
- Pharmaceutical equipment
- Pulp and paper plants
- Petrochemical plants
- Offshore drill platforms



### System components

Stainless steel installations require system solutions considering critical application parameters such as material specifications, temperature ratings, ingress ratings, trade sizes and approvals.

### Materials

T&B Liquidtight Systems stainless steel solutions are primarily designed of ANSI 316 and 316L stainless steel. These materials provide the highest protection capabilities for industrial environments and greatly extend installation life.

### Corrosion protection system components

- Flexible metallic conduits
- Fittings
- Seal gaskets
- Locknuts
- Supports
- Wire mesh grips
- Hole plugs

## Stainless steel solutions

- 01 Series 5300SST6HT LT fittings
- 02 Type LT6XE extreme temp LFMC
- 03 Series 526x-HT high temp seal gaskets



### System components

- Liquid-tight flexible metallic conduit
  - Stainless steel 316 cores
  - UV-resistant PVC and TPU jackets
  - Food and beverage
  - Trade sizes 3/8" to 4"
- Liquid-tight fittings
  - NPT and ISO metric threads
  - Straight, 45° and 90° elbows
  - Trade sizes 3/8" to 4"
- Seal gaskets
- Conduit supports
- Mesh grips

### T&B product lines

- Types LT4GE, LT6GE, LT6XE, LT6FE
  
- Series 5300SST6 stainless steel 316
- Series 5300SST6HT high temp stainless steel 316
  
- Series 5260 and 5260-HT versions
- Series HS1 and HS9
- Series WMG

### System ingress ratings

Complete system solutions have been tested by ABB Installation Products and third-party certification organizations.

	Test standard	Ratings	Approvals and certifications
UL	UL 50E	Type 3, 3R, 4, 4X, 12, 13	UL listed when using listed conduits
CSA	CSA C22.2 No. 18.3	Type 3, 3R, 4, 4X, 12, 13	CSA certified when using listed conduits
IEC IP	IEC/EN 60529	IP66, IP67	CE certified with all conduits
NEMA	NEMA 250	Type 3, 3R, 4, 4X, 12, 13	Self-certified, tested to UL 50E with all conduits

### System temperature ratings

System temperature ratings are achieved by ensuring that all components have been designed and tested to the appropriate product standard requirements or to the manufacturer’s targeted performance characteristic. In the case of T&B Liquidtight Systems extreme temperature

solutions, product standard performance tests were used at wider temperature ranges than the product standards recognize. Diligent material evaluation and testing ensure that the T&B rating claims meet the highest performance standards possible.

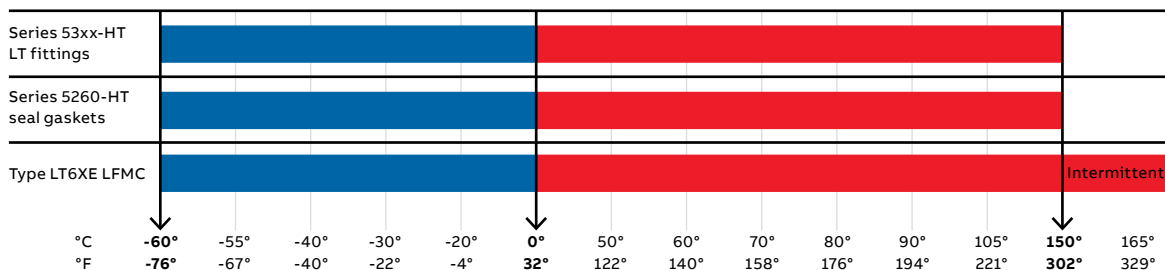


01

### Type LT6XE extreme temperature conduits

IEC/EN 61386-1, -23	CE certified	-45 to +150 °C (-49 to +302 °F)
T&B engineered and tested	General	-60 to +150 °C (-76 to +302 °F)

### LT6XE system temperature rating



02

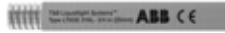


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# Stainless steel solutions

## Product line overview

### Liquid-tight flexible metallic conduit



	LT6GE	LT6XE	LT6FE	LTFU
Product line	General purpose SST 316L	Extreme temp SST 316L	Food and beverage SST 316L	Food and beverage steel
<b>Approvals and certifications</b>				
UL 360	No	No	No	Yes
CSA C22.2, No. 56	No	No	No	Yes
CE certification	Yes	Yes	Yes	Yes
RoHS	Yes	Yes	Yes	Yes
NSF approval	No	No	Yes	Yes
<b>Trade sizes</b>				
UL (Inches)	3/8 to 4	3/8 to 4	3/8 to 2	3/8 to 4
CSA (mm)	12 to 103	12 to 103	12 to 63	12 to 103
BS EN (mm)	16 to 100	16 to 100	16 to 75	16 to 100
<b>Materials</b>				
Core	Stainless steel 304	Stainless steel 316L	Stainless steel 316L	Steel galv
Extruded jacket (UL ID/OD)	PVC	PVC	PVC, FDA compliant	PVC, FDA compliant
Jacket color (standard)	Gray	Black	White	White and blue
UL bond wire (1/2 to 1 1/4")	No	No	No	Yes
<b>Documentation</b>				
Technical data sheet	TDS000087	TDS000088	TDS000086	TDS000021
Quick select table	LT6GE QST 0220	LT6XE QST 0220	LT6FE QST 0220	LTFU QST 0220
CE certificate	EC-012-17-177	EC-012-17-178	EC-012-17-176	EC-012-16-104

### Liquid-tight fittings and accessories



	Series 5300SST6	Series 5300SST6HT	Series 526x, 526x-HT	Series HS1xx-SS, HS9xx-SS
Product line	SST 316 std. temp	SST 316 high temp	Seal gaskets — std. and HT	Supports
<b>Approvals and certifications</b>				
UL 360 Listing	Yes	Yes	UL 514B	—
CSA C22.2, No. 56	Yes	Yes	CSA C22.2, No. 18.3	—
CE Certification	Yes	Yes	—	—
RoHS	Yes	Yes	Yes	Yes
Halogen free	Yes	Yes	Yes	Yes
<b>Materials</b>				
Metal components	Stainless steel 316	Stainless steel 316	Stainless steel 316	Stainless steel 303
Seals, insulators and gaskets	Nylon	Nylon	Santoprene, TPV	—
Ground cone options	Steel galv. (opt. -6, SS 316)	Steel galv. (opt. -6, SS 316)	—	—
<b>Documentation</b>				
Technical data sheet	TDS000126	TDS000124	TDS000232	—
CE Certificate	EC-012-7191	EC-012-7192	—	—

### System ratings

<b>Temperature — dry (see technical data sheets for complete ratings)</b>				
General (with -HT fittings)	-55 to +105 °C (-67 to +221 °F)	-60 to +150 °C (-76 to +302 °F)	-60 to +150 °C (-76 to +302 °F)	—
CE (with -HT fittings)	-45 to +105 °C (-49 to +221 °F)	-45 to +150 °C (-49 to +302 °F)	—	—
UL (fittings and seal gaskets)	-30 to +80 °C (-22 to +176 °F)	-30 to +80 °C (-22 to +176 °F)	-20 to +105 °C (-4 to +221 °F)	—
CSA (fittings and seal gaskets)	-30 to +60 °C (-22 to +140 °F)	-30 to +60 °C (-22 to +140 °F)	-20 to +105 °C (-4 to +221 °F)	—
<b>Ingress</b>				
UL listed/CSA cert — T&B Liquidtight fittings	Type 3, 3R, 4, 4X, 12, 13	Type 3, 3R, 4, 4X, 12, 13	Type 3, 3R, 4, 4X, 12, 13	—
T&B systems tested per UL 50E	Type 3, 3R, 4, 4X, 12, 13	Type 3, 3R, 4, 4X, 12, 13	Type 3, 3R, 4, 4X, 12, 13	—
NEMA	Type 3, 3R, 4, 4X, 12, 13	Type 3, 3R, 4, 4X, 12, 13	Type 3, 3R, 4, 4X, 12, 13	—
IEC/EN 60529	IP66, IP67	IP66, IP67	IP66, IP67	—

Note: Product must be installed in accordance with applicable national and local electrical codes.

## Stainless steel solutions

### Sample kits

T&B Liquidtight Systems® solutions meet global application requirements for corrosive environments installations, stainless steel.



### Sample kit available

Part no.: LTSSST-KIT

#### Materials included:

- 5332SST6 — ½" straight, SST 316 liquid-tight fitting
- 5352SST6 — ½" 90° elbow, SST 316 liquid-tight fitting
- 5262 — ½" seal gasket — standard temp
- 5262-HT — ½" seal gasket — high temp
- 141SST — ½" SST 316 locknut
- LT6GES02G-C — ½" general purpose, CE SST 316L LFMC
- LT6XES02B-C — ½" extreme temp, CE SST 316L LFMC
- LTFUS02W-C — ½" food and beverage, UL, CSA, CE steel LFMC
- Technical data sheets

Sample kits are in stock and available for immediate delivery!

#### How to order:

1. Contact your local ABB sales representative to order
2. Supply your contact information and mailing address
3. ABB sales representative to order sample kit from EP Sales Portal



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