Gruvlok® Branch Outlets

☐ **Fig. 7047** Clamp-T Cross (Thread x Thread)
☐ **Fig. 7048** Clamp-T Cross (Groove x Groove)
☐ **Fig. 7049** Clamp-T Cross (Groove x Thread)

Fig. 7047 Fig. 7048 Fig. 7049

c UL us LISTED FM APPROVED

The Gruvlok® Clamp-T provides a branch or cross connection in light wall or standard wall steel pipe.

The Fig. 7045 Clamp-T female pipe thread branch is available with NPT or ISO 7/1 connection and the Fig. 7046 Clamp-T has grooved-end branch connection.

Clamp-T cross connections are available allowing greater versatility in piping design.

NOTE: 2½" x 1¼" Figure 7046 cannot be used in cross configuration.

For Listings / Approval Details and Limitations, visit our website at www.asc-es.com or contact an ASC Engineered Solutions® Sales Representative.

Material Specifications

Bolts
SAE J429, Grade 5, Zinc Electroplated
ISO 898-1, Class 8.8, Zinc Electroplated
followed by a Yellow Chromate Dip

Heavy Hex Nuts
ASTM A563, Grade A, Zinc Electroplated
ISO 898-2, Class 8.8, Zinc Electroplated
followed by a Yellow Chromate Dip

Housing
Ductile Iron conforming to ASTM A 536, Grade 65-45-12

Coatings
☐ Rust inhibiting paint
Color: Orange (standard)
☐ Hot Dipped Zinc Galvanized (optional)

Gasket Materials
Properties as designated in accordance with ASTM D2000

☐ **Grade "E" EPDM** (Green color code)
-40°F to 230°F (Service Temperature Range)
(-40°C to 110°C)
Recommended for water service, diluted acids, alkalies solutions, oil-free air and many other chemical services.
NOT FOR USE IN PETROLEUM APPLICATIONS.

☐ **Grade "T" Nitrile** (Orange color code)
-20°F to 180°F (Service Temperature Range)
(-29°C to 82°C)
Recommended for petroleum applications, air with oil vapors and vegetable and mineral oils.
NOT FOR USE IN HOT WATER OR HOT AIR.

Lubrication
☐ Standard Gruvlok
☐ Gruvlok Xtreme (Do Not use with Grade "L")
Not for use in copper systems.

GRUVLOK
An ASC Engineered Solution

PROJECT INFORMATION	APPROVAL STAMP
Project:	☐ Approved
Address:	☐ Approved as noted
Contractor:	☐ Not approved
Engineer:	Remarks:
Submittal Date:	
Notes 1:	
Notes 2:	

☐ **Fig. 7047** Clamp-T Cross (Thread x Thread)
☐ **Fig. 7048** Clamp-T Cross (Groove x Groove)
☐ **Fig. 7049** Clamp-T Cross (Groove x Thread)

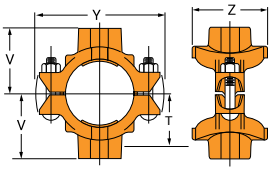

Fig. 7047 – Thread x Thread

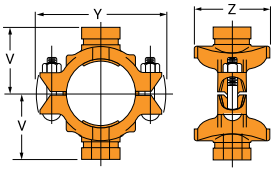

Fig. 7048 – Groove x Groove

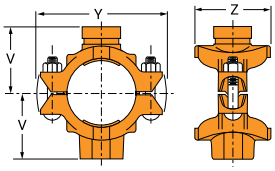

Fig. 7049 – Groove x Thread

Nominal Size	Frictional Resistance (Equivalent Straight Pipe)	
	Threaded	Grooved
In./DN(mm)	Ft	Ft
2-½ x 1	2.2	-
2-½ x 1-¼	2.4	-
2-½ x 1-½	6.6	3.4
3 x 1	1.7	-
3 x 1-¼	2.4	5.1
3 x 1-½	3.8	7
3 x 2	8.5	9.1
4 x 1	1.5	-
4 x 1-¼	1.4	4.7
4 x 1-½	6.6	6.9
4 x 2	8.5	9.1
4 x 2-½	11	6.8
4 x 3	12.6	11.3
5 x 1-½	6.6	7
5 x 2	5.7	9.1

Note:

▲ – Working Pressure Ratings are for reference only and based on Sch. 10 and Sch. 40 pipe. For the latest UL/ULC, FM, VdS and LPCB pressure ratings versus pipe schedule, please visit www.asc-es.com or contact your local ASC Engineered Solutions® Representative.

Warning: For dry pipe systems and freezer applications lubrication of the gasket is required, Gruvlok Xtreme™ Lubricant is required.

asc-es.com

Building connections that last™

☐ **Fig. 7047** Clamp-T Cross (Thread x Thread)
☐ **Fig. 7048** Clamp-T Cross (Groove x Groove)
☐ **Fig. 7049** Clamp-T Cross (Groove x Thread)

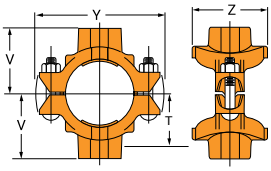

Fig. 7047 – Thread x Thread

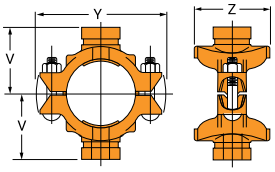

Fig. 7048 – Groove x Groove

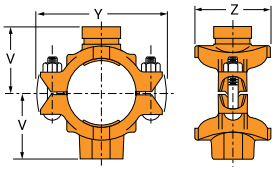

Fig. 7049 – Groove x Thread

Nominal Size	Frictional Resistance (Equivalent Straight Pipe)	
	Threaded	Grooved
In./DN(mm)	Ft	Ft
5 x 2-½	11	10.9
5 x 3	4.2	17.3
6 x 1-½	6.6	7
6 x 2	8.5	8.1
6 x 2-½	9.1	10.9
6 x 3	12.6	17.3
6 x 4	12.2	12.2
8 x 2	8.5	7.3
8 x 2-½	11	8.7
8 x 3	8.7	7.1
8 x 4	15.4	15.4

Note:

▲ – Working Pressure Ratings are for reference only and based on Sch. 10 and Sch. 40 pipe. For the latest UL/ULC, FM, VdS and LPCB pressure ratings versus pipe schedule, please visit www.asc-es.com or contact your local ASC Engineered Solutions® Representative.

Warning: For dry pipe systems and freezer applications lubrication of the gasket is required, Gruvlok Xtreme™ Lubricant is required.

asc-es.com

Building connections that last™

Fig. 7047, Fig. 7048, & Fig. 7849
Clamp-T Branch Outlets

1 Pipe Preparation
Cut the appropriate size hole in the pipe and remove any burrs. Be sure to remove any debris from inside the pipe. Clean the gasket sealing surface within 5/8" of the hole and visually inspect the sealing surface for defects that may prevent proper sealing of the gasket.

2 Check & Lubricate Gasket
Check the gasket to be sure it is compatible for the intended service. Apply a thin layer of Gruvlok® lubricant to the back surface of the gasket. Be careful that foreign particles do not adhere to the lubricated surfaces. Insert the gasket back into the outlet housing making sure the tabs in the gasket line up with the tab recesses in the housing.

Branch Size	Hole Saw Size
In.	In./(+1/8, -0)
1/2, 3/4, 1	1 1/2
1 1/4, 1 1/2	2
2	2 1/2
2 1/2	2 3/4
3	3 1/2
4	4 1/2

3 Gasket Installation
Lubricate the exposed surface of the gasket. Align the outlet housing over the pipe hole making sure that the locating collar is in the pipe hole.

4 Alignment
Align the strap around the pipe, insert the bolts and tighten the nuts finger tight.

5 Tighten Nuts
Alternately and evenly tighten the nuts to the specified bolt torque.

6 Assembly Complete

ALWAYS USE A GRUVLOK LUBRICANT FOR PROPER COUPLING ASSEMBLY.

Thorough lubrication of the gasket is essential to assist the gasket into the proper sealing position.

Figs. 7047, 7048, & 7849 Specified Bolt Torque

Specified bolt torque is for the oval neck track bolts used on the Gruvlok Clamp-T's. The nuts must be tightened alternately and evenly until fully tightened. **Caution:** Use of an impact wrench is not recommended because the torque output can vary significantly due to many variables including air pressure, battery strength and operational variations.

CAUTION: Overtorquing the bolts may result in damage to the bolt and / or casting which could result in lower pressure retention capabilities, lower bend load capabilities, pipe joint leakage and pipe joint separation.

ANSI Specified Bolt Torque

Bolt Size	Wrench Size	Specified Bolt Torque*
In.	In.	Ft.-Lbs
1/2	7/8	60-80
5/8	1 1/16	100-130
3/4	1 1/4	130-180

* Non-lubricated bolt torques

asc-es.com

Building connections that last™