GF Piping Systems

TOP LOAD CLAMP

STRAP STYLE

Operation Manual

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Thank you for selecting Georg Fischer Central Plastics' products. GFCP strives to deliver the best technology and materials combined with rugged, durable construction to provide a productive and reliable connection for your polyethylene system.

To ensure this product lives up to all expectations, it is important to receive proper training from an authorized instructor and to read and comply with this instruction manual.

This manual is intended to provide a general introduction to the tools and steps required for proper use of the product. GFCP assumes no liability in connection with the data contained herein, nor assumes liability for the operation, safety, or use of third party tools and equipment in conjunction with this system. All data is accepted at the user's risk.

GFCP strongly recommends that its products and fittings be installed only by persons that have received training from an authorized instructor, that have a strong working knowledge of polyethylene and heat fusion, and that have demonstrated their understanding of these requirements by making fusion joints that have been qualified by destructive testing. Persons responsible for the joining of polyethylene pipe for regulated gas applications must qualify according to the requirements of Title 49 Code of Federal Regulations, Part 192.285. Other regulations may also apply depending on the application, local codes, and/or jurisdictional oversight of state and local regulating agencies.

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Safety Notes and Warning Symbols

Safety notes are included in this manual where appropriate, however this manual does not purport to address all of the safety concerns associated with its use. It is the responsibility of the user of this manual to establish appropriate safety and health practices and to determine the applicability of regulatory limitations prior to use.

Symbols are used throughout this manual to indicate the potential for danger, injury, and/or material damage, and to alert the user of important information related to the fusion process. Symbols indicate that particular attention should be given and that an action is necessary.

Symbol	Meaning
	Attention! – Important Information! Possible danger, damage, or risk of injury.
	Best Practice – This symbol is used to indicate an instruction that is considered to be a “best practice”. This practice is highly recommended and potentially vital to success.
	Prohibited! – This symbol is used to indicate a practice, material, tool, or action that is specifically prohibited in conjunction with instructions in this manual.

- ⚠ Electrofusion fittings and fusion equipment are not to be considered as “explosion proof”.
- ⚠ Caution should be exercised when working with generators and other electrical power sources.
- ⚠ Tools may have sharp edges. Use with care to avoid injury.
- ⚠ Tools should be in good working order and inspected before use for wear and/or damage. Damaged or worn tools should not be used until repaired or replaced.

These instructions pertain solely to the operation of the subject product. These instructions must be followed carefully. Observe all safety precautions prescribed by your company, the pipeline owner, and those prescribed by equipment manufacturers whose equipment may be used in conjunction with the subject product(s).

⚠ Failure to observe these procedures may cause personal injury and/or property damage. Each Operator must be properly trained in the use of this product or equipment prior to conducting and performing the following steps in a live natural gas application.

General Information

Part Number: 360029358

For Top Load Type Saddle Fittings

Size Range: 8 IPS through 16 DIPS

With Fitting Adapters for:

- EF Tapping Tees
- EF High Volume Tapping Tees
- EF Branch Saddle (with 1 1/4 IPS, 1 1/2 IPS, 2 IPS Butt Outlets)
- EF Transition Saddle (female pipe thread or corp thread outlets)

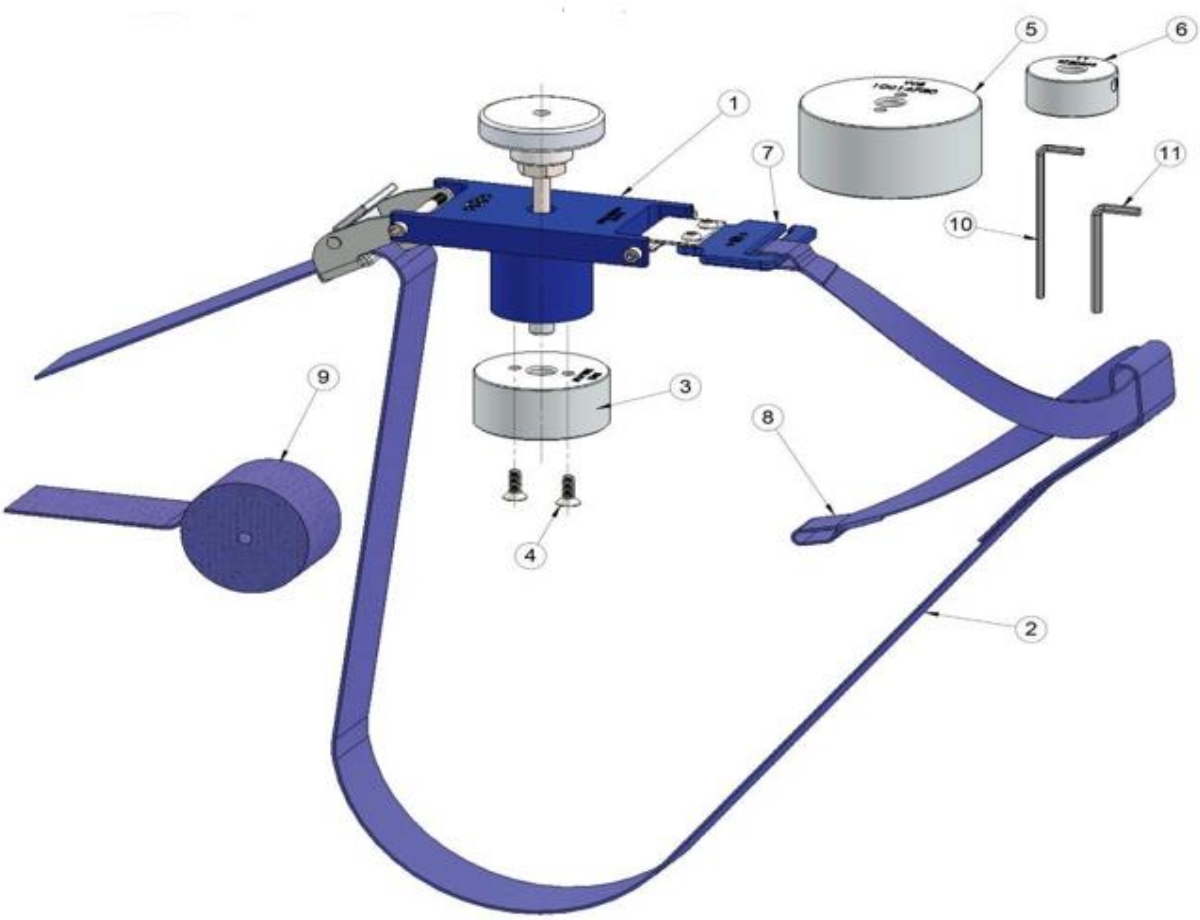
Equipment Needed:

- Top Load Clamp Kit
- Electrofusion Processor
- Pipe Scraper
- Permanent Marker

Kit Contents

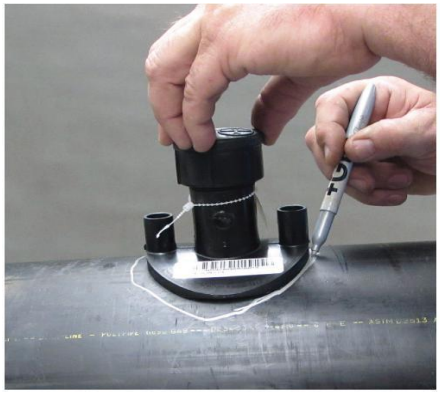
Kit Part Number: 360029358

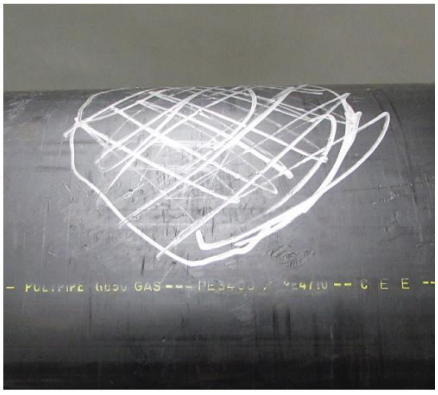
ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
1	1	360040330	FSEQ,TOOL,TOP LOAD CLAMP,STRAP TYPE
2	1	360060618	STRAP, WINCH STRAP, WEB, 2 IN. X 5 FT., WITH ONE END LOOP
3	1	360040539	FITTING ADAPTER BODY, HI-VOL TAP TEE, EF TOP LOAD CLAMP
4	2	360006861	FSNR,SCREW,CAP,FLAT HD,HEX SOCKET,1/4-20,UNC 2A,,.75 LG,,ALLOY,,,ZINC PLATED
5	1	360040540	FITTING ADAPTER BODY, EF, HVTT, WB, BS, TF
6	1	360002945	SERVICE TEE FITTING ADAPTER ELECTROFUSION TOP LOAD CLAMP
7	1	360040560	STRAP HOOK ASSEMBLY, EF TOP LOAD STRAP CLAMP
8	1	360040561	STRAP, 1 INCH X 22 LONG, DOUBLE LOOP, EF HVTT
9	1	360040596	STRAP, WINCH STRAP, WEB, 2 IN. X 10 FT. , ONE END LOOP, (14 IPS & LARGER)
10	1	360010949	WRENCH, HEX KEY, 5/32 IN., LONG ARM, STANDARD L, 4.13 LG. REF.
11	1	360004044	WRENCH, HEX KEY, 3/16 IN., SHORT ARM, STANDARD L, 2.75 LG. REF.
12	1	360064433	CASE, CARRYING, FOR TOP LOAD STRAP CLAMP



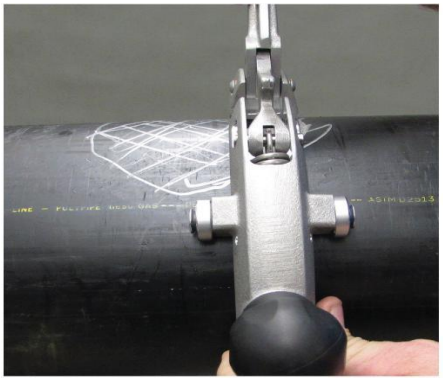
Operating Instructions

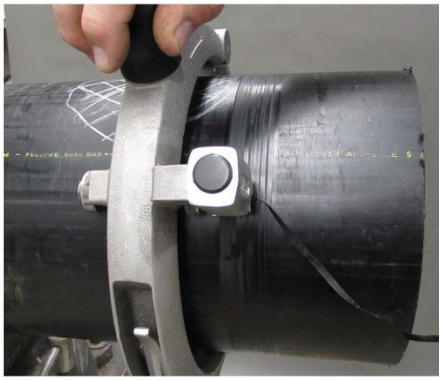
Step 1: Place fitting on the pipe and mark area to be scrapped.



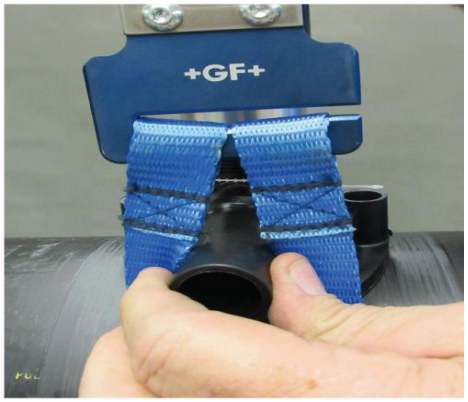


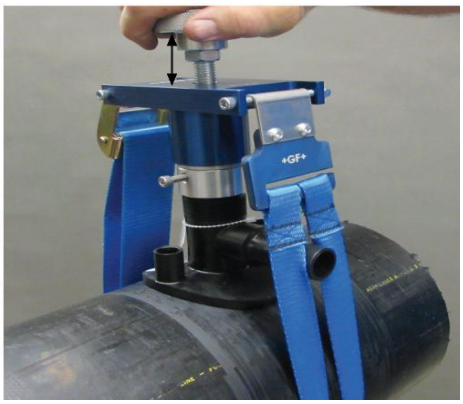
Step 2: Using the scraping tool, remove outer layer of pipe in order to reach virgin material.





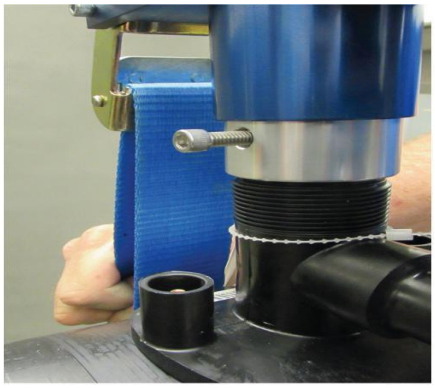
Step 3: Install correct fitting holder on the Top Load Clamp. If using a Tapping Tee, remove the cap from the fitting. For pipe sizes larger than 12", a 10" strap is included. Assure the straps are aligned with the outlet of the tee and the body. Straps wrapping around the pipe should not be twisted.

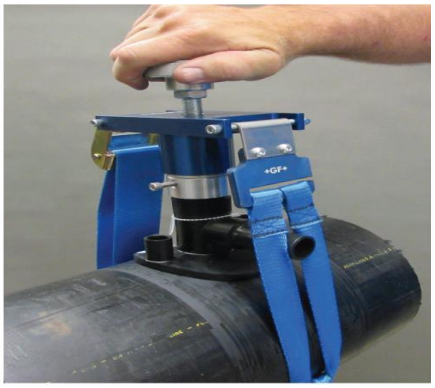




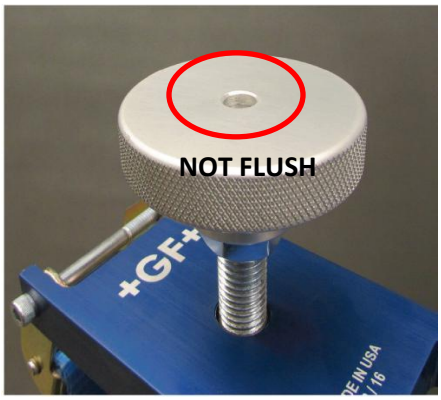
Note: *Make sure that the knob is fully retracted before tightening the strap*.

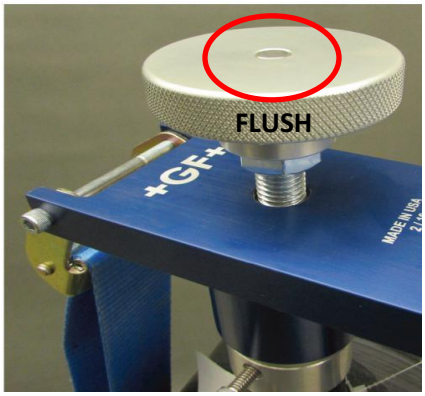
Step 4: Taking care not to contaminate the scraped pipe surface, attach the Top Load Clamp and fitting to the pipe and tighten the strap by hand. Begin applying pressure to the fitting by turning the knob clockwise. After tightening the knob to the recommended position, rock the tee to seat it to the pipe and readjust knob if needed.





Step 5: Tighten until the indicator post (located in the center of the knob) is flush with the top of the knob.





Step 6: Fuse fitting following standard procedures.

Care and Maintenance

Damage Inspection:

Top Loading Clamps are subject to wear and external damage. They should be inspected at each use for proper working condition by examining for any visual damage that might affect the clamp's ability to provide accurate downward force on the fitting. Damaged components should be replaced. Typical components that may become damaged are the nylon strap to affix the clamp around the pipe and fitting; if the strap becomes frayed or worn excessively it may begin to slip when pressure is applied to the load cell and should be replaced.

Maintenance:

Threaded components should turn freely. Inspect threads for damage or debris and clean or replace components as necessary.

Top Load Clamps are pre-set at the factory and do not require calibration under normal circumstances. If the jam nut is adjusted or moved, the tool must be re-set using a calibration gauge (part number 360060660).

Top Load Clamps should be periodically checked to verify that no adjustments have been made to the clamping load cell.

Periodic Inspection:

The load cell utilizes a spring mechanism that provides a force of 200 pounds-force plus or minus 20 pounds-force when properly set. Top Loading Clamps should be inspected at the following intervals for the requirements shown in the table:

Inspection Point	Frequency	Requirements
Damage	Each Use	1. No visible damage. 2. Rigid type: Upright bar is not bent. Strap type: Straps are not cut, frayed, or slipping. 3. Verify load cell jam nut is tight against clamping knob.
Load Cell	Annual	1. Verify load force is within range of 180 to 220 pounds when indicator is flush with clamping knob.

*Refer to Inspection Record – Electrofusion Top Load Clamp for complete checklist.