

+GF+

Excess Flow Valves

GasL^oK™

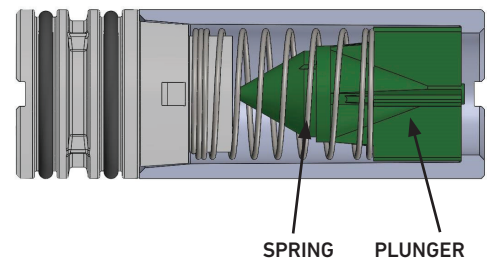
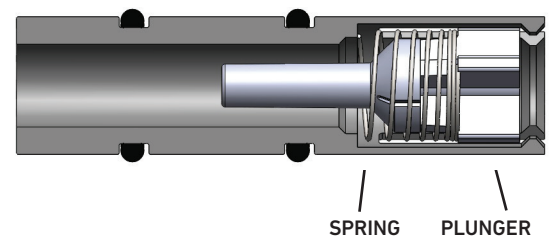


How do Excess Flow Valves work?



An Excess Flow Valve (EFV) is a mechanical safety device installed inside the outlet of a tapping tee or installed inside a short stick of pipe fused to the outlet of a tapping tee, attached to the gas service line.

The GasLOK™ is an excess flow valve – bypass (EFVB) type of excess flow valve. The excess flow valve – bypass (EFVB) allows a small amount of gas to bypass the valve after it has closed. The valve is designed with a spring and plunger. The spring holds the plunger in the open position, allowing normal gas flow associated with gas appliance usage. In the unlikely event of a rupture occurring in the service line, causing abrupt, excessive leak and pressure drop, the change will cause the spring to collapse and the plunger will significantly reduce the flow of gas. Once the gas line pressure is equalized across the valve, the spring in the valve automatically resets and returns the plunger to the open position.



GasLOK™ EXCESS FLOW VALVES



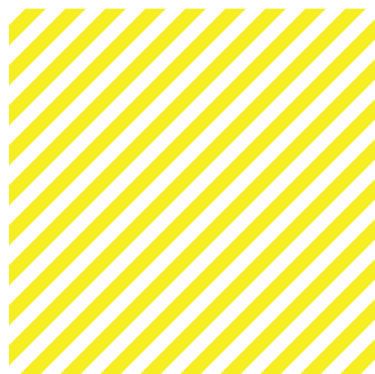
Benefits of EFVs

The GasLOK™ is a self-contained, tamper resistant cartridge, installed on a tapping tee, that does not require additional parts to function and will automatically reset after gas pressure is equalized. The GasLOK EFV reduces liability and creates a safer environment for the customer and service provider by slowing the release of gas during a line rupture. The EPA Natural Gas Star Program recommends the installation of excess flow valves to reduce methane emissions.

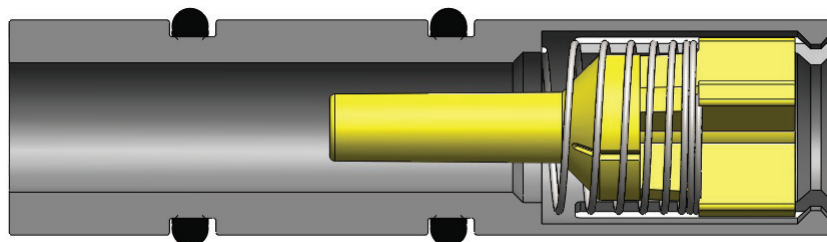


Features of GasLOK™

- Manufactured and fabricated by GF Central Plastics
- Simple and maintenance free design
- Self-contained cartridge – no need for additional tools
- Directional gas flow arrows on all GasLOK EFV labels and include metal field identification tags.
- Tamper resistant and can withstand turbulent flow conditions
- Automatically resets when gas pressure is equalized
- Manufactured in numerous series to accommodate a wide range of service pressures
- Online GasLOK EFV service line protection calculator
- Fully compatible with other PE fittings
- Available in stick versions, cartridge installed inside the outlet of a tapping tee, or a stick fused to a tapping tee outlet
- 100% Tested and Quality Assured:
 - Tested according to ASTM F1802 and ASTM F2138
 - Meets or exceeds DOT 192.381, MSS SP-115, ASTM F1802 and ASTM F2138 requirements

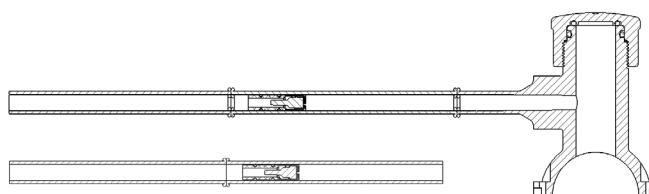


350 Yellow Series

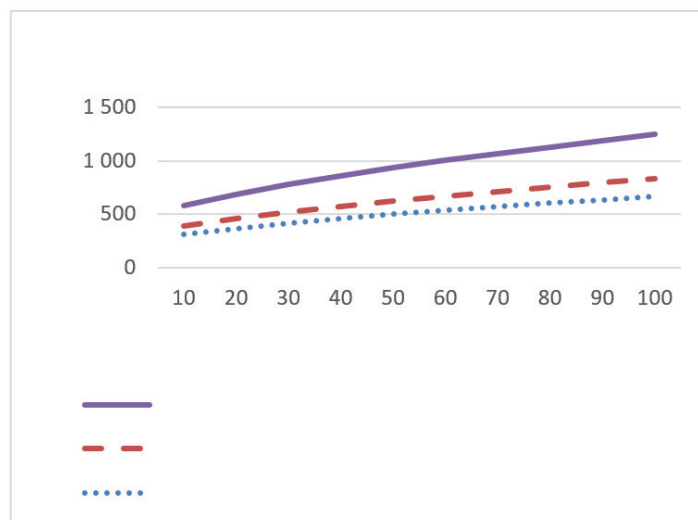


Available Fabricated Options:

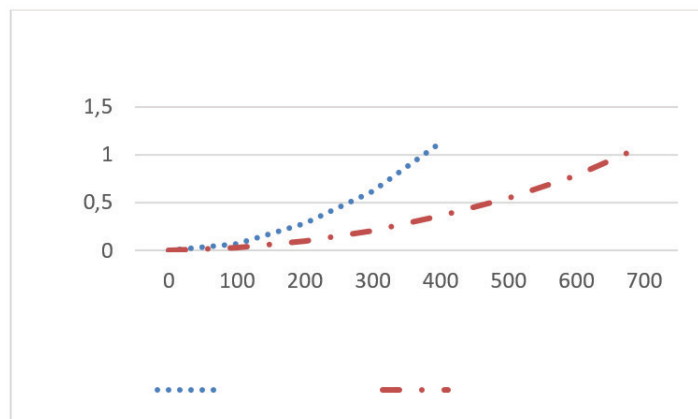
PE4710 or PE2708
 ½ CTS, ½ IPS Tapping Tee
 ½ CTS, ½ IPS Stick



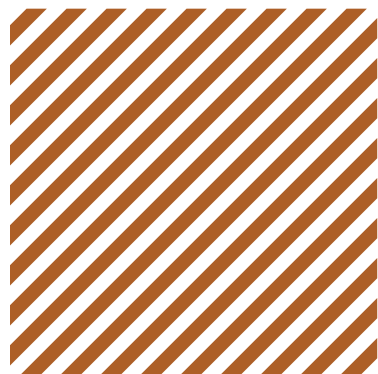
INLET PRESSURE	350 SERIES MINIMUM TRIP POINT	BYPASS FLOW AFTER TRIP (NOM. MAX)	80% OF MINIMUM TRIP POINT
psig	SCFH	SCFH	SCFH
10	385	20	308
20	456	24	365
30	518	27	414
40	573	30	458
50	623	32	498
60	670	35	536
70	713	37	570
80	754	39	603
90	793	41	634
100	830	43	664
110	865	45	692
120	899	47	719



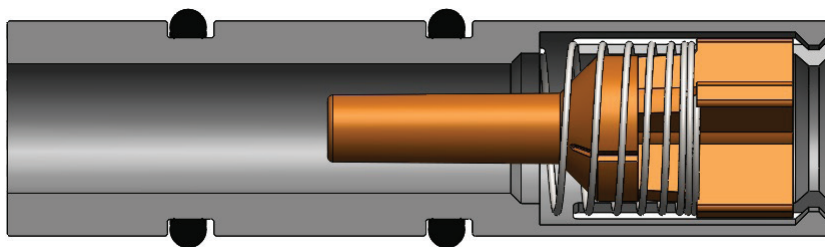
PROTECTED SERVICE LINE LENGTH (FT)		
INLET PRESSURE psig	1/2 CTS 0.436"	1/2 IPS 0.649"
10	140	923
20	292	1,924
30	439	2,891
40	585	3,854
50	732	4,822
60	880	5,799
70	1,030	6,787
80	1,182	7,785
90	1,335	8,794



Values reported are based on standard conditions of 60°F natural gas with a specific gravity of 0.6.

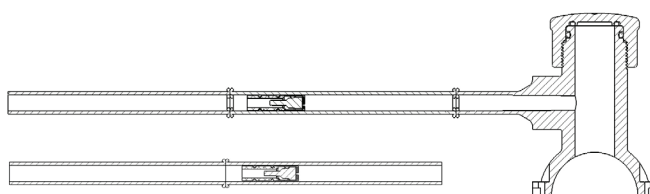


550 Brown Series

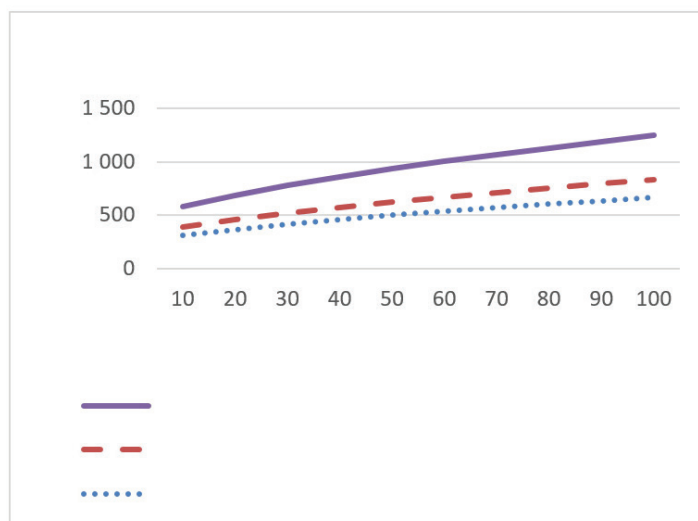


Available Fabricated Options:

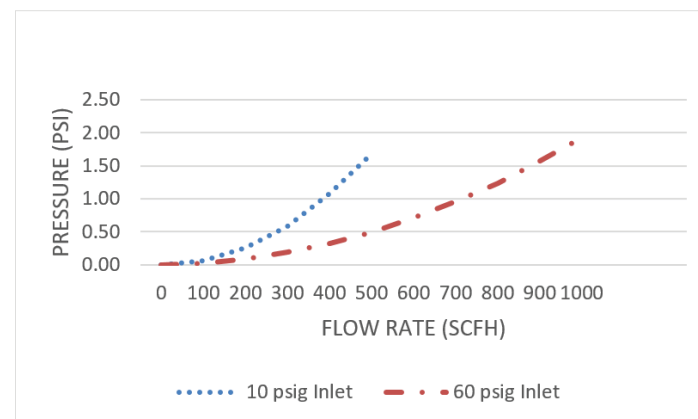
PE4710 or PE2708
 ½ CTS, ½ IPS Tapping Tee
 ½ CTS, ½ IPS Stick



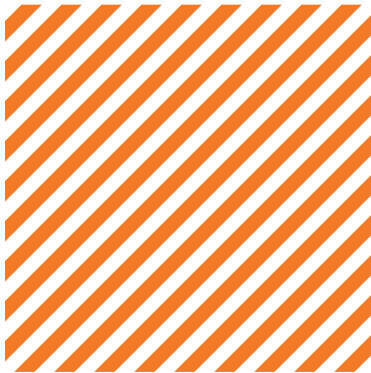
INLET PRESSURE	550 SERIES MINIMUM TRIP POINT	BYPASS FLOW AFTER TRIP (NOM. MAX)	80% OF MINIMUM TRIP POINT
psig	SCFH	SCFH	SCFH
10	550	20	440
20	652	24	522
30	740	27	592
40	818	30	655
50	890	32	712
60	956	35	765
70	1,018	37	815
80	1,077	39	862
90	1,132	41	906
100	1,185	43	948
110	1,236	45	989
120	1,284	47	1,028
125	1,308	48	1,046



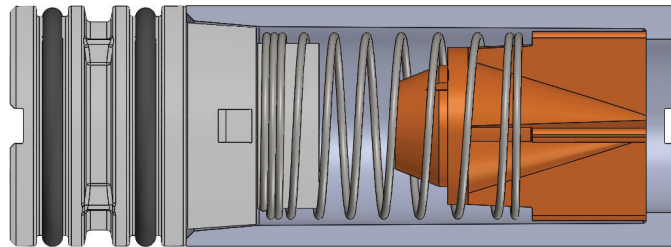
PROTECTED SERVICE LINE LENGTH (FT)		
INLET PRESSURE psig	1/2 CTS 0.436"	1/2 IPS 0.649"
10	65	425
20	145	958
30	224	1,474
40	302	1,989
50	381	2,507
60	460	3,031
70	540	3,560
80	622	4,095
90	704	4,655



Values reported are based on standard conditions of 60°F natural gas with a specific gravity of 0.6.



700 Orange Series



Available Fabricated Options:

PE4710 or PE2708

1 CTS, 1 ¼ CTS, ¾ IPS, 1 IPS, 1 ¼ IPS, 2 IPS Tapping Tee

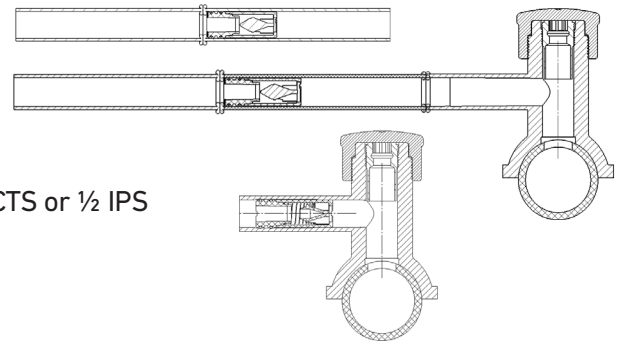
1 CTS, 1 ¼ CTS, ¾ IPS, 1 IPS, 1 ¼ IPS, 2 IPS Stick

¾ IPS Inserted in Tapping Tee Outlet

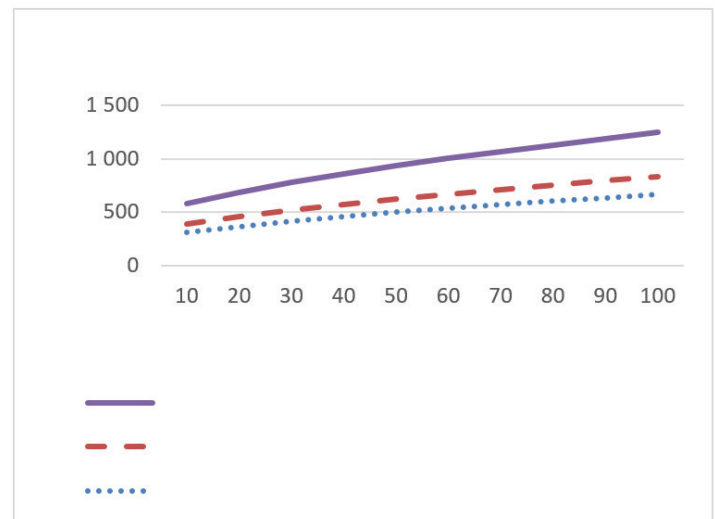
¾ IPS Inserted in Tapping Tee Outlet with Electrofusion Reducer ½ CTS or ½ IPS

¾ IPS Steel Service Tee Transition Fitting

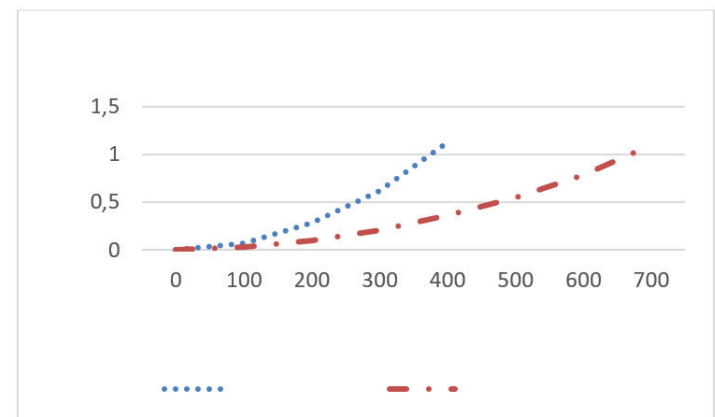
Note: Only ¾ IPS tapping tees are available with EFVs inserted into the outlets.



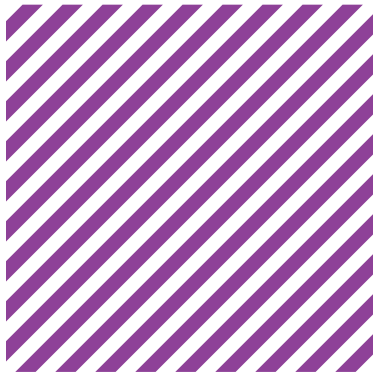
INLET PRESSURE	700 SERIES MINIMUM TRIP POINT	BYPASS FLOW AFTER TRIP (NOM. MAX)	80% OF MINIMUM TRIP POINT
psig	SCFH	SCFH	SCFH
10	700	20	560
20	830	24	664
30	942	27	753
40	1,042	30	833
50	1,133	32	906
60	1,217	35	974
70	1,296	37	1,037
80	1,371	39	1,097
90	1,441	41	1,153
100	1,508	43	1,207
110	1,573	45	1,258
120	1,635	47	1,308
125	1,665	48	1,332



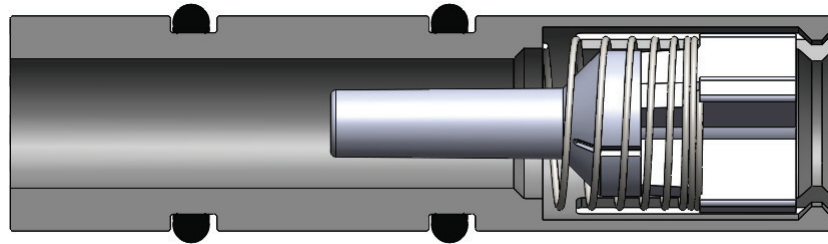
PROTECTED SERVICE LINE LENGTH (FT)					
INLET PRESSURE psig	1 CTS .099 W 0.915"	¾ IPS 0.849"	1 IPS 1.061"	1-1/4 IPS DR10 1.308"	2 IPS 1.917"
10	1,935	1,357	3,903	10,522	64,396
20	3,753	2,632	7,570	20,409	124,906
30	5,507	3,862	11,107	29,946	183,274
40	7,250	5,052	14,623	39,427	241,302
50	9,002	6,313	18,156	48,953	299,600
60	10,768	7,552	21,720	58,560	358,398
70	12,553	8,803	25,318	68,263	417,781
80	14,355	10,068	28,954	78,066	477,775
90	16,176	11,345	32,627	87,968	538,378



Values reported are based on standard conditions of 60°F natural gas with a specific gravity of 0.6.



800 Purple Series



Available Fabricated Options:

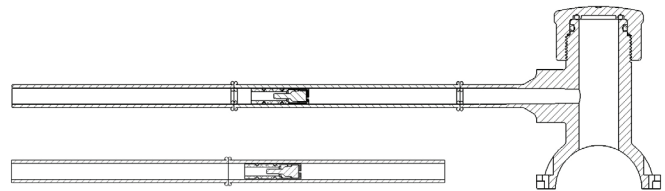
PE4710 or PE2708

½ CTS, ½ IPS Tapping Tee

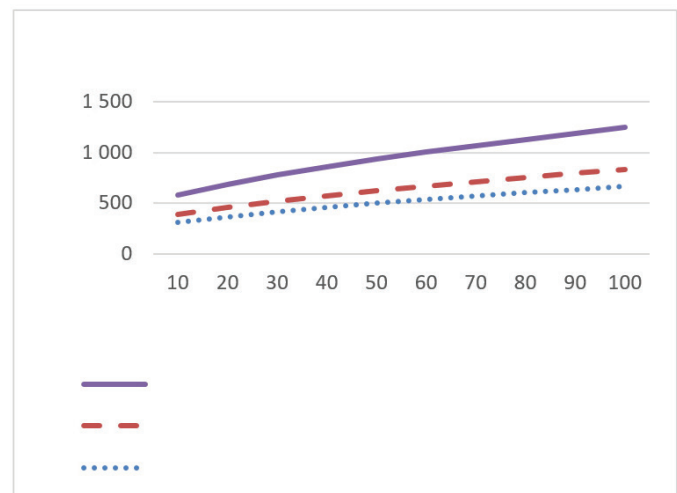
½ CTS, ½ IPS Stick

½ CTS, ½ IPS, 1 IPS Tapping Tee

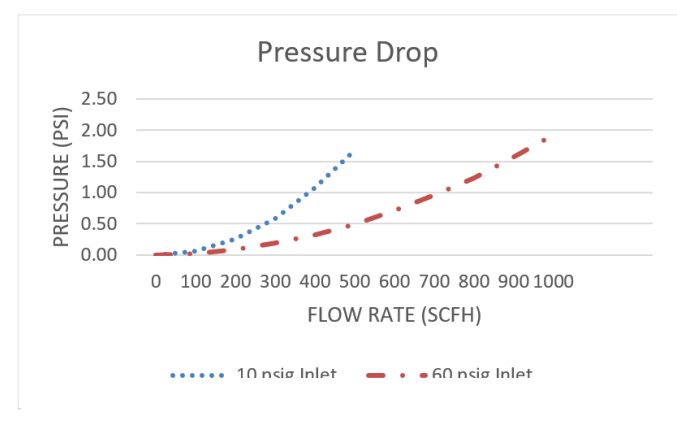
½ CTS, ½ IPS, 1 IPS Stick



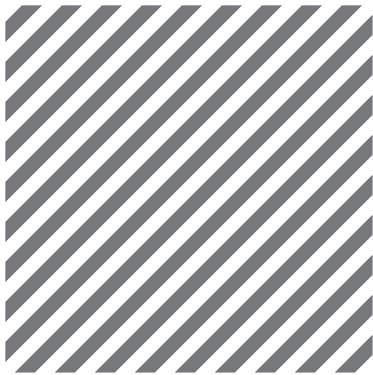
INLET PRESSURE	800 SERIES MINIMUM TRIP POINT	BYPASS FLOW AFTER TRIP (NOM. MAX)	80% OF MINIMUM TRIP POINT
psig	SCFH	SCFH	SCFH
10	800	20	640
20	948	24	759
30	1,076	27	861
40	1,191	30	952
50	1,295	32	1,036
60	1,391	35	1,113
70	1,481	37	1,185
80	1,566	39	1,253
90	1,647	41	1,318
100	1,724	43	1,379
110	1,798	45	1,438
120	1,868	47	1,495
125	1,903	48	1,522



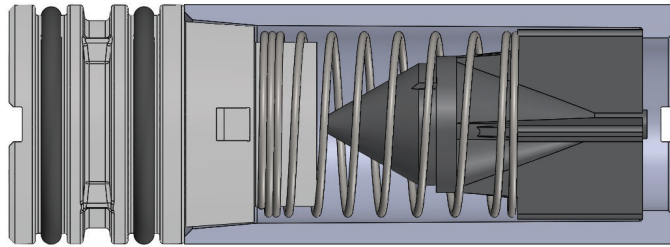
PROTECTED SERVICE LINE LENGTH (FT)		
INLET PRESSURE psig	1/2 CTS 0.436"	1/2 IPS 0.649"
10	16	108
20	57	373
30	96	633
40	136	895
50	176	1,160
60	217	1,429
70	258	1,701
80	300	1,977
90	342	2,256



Values reported are based on standard conditions of 60°F natural gas with a specific gravity of 0.6.



1100 Gray Series



Available Fabricated Options:

PE4710 or PE2708

1 CTS, 1 ¼ CTS, ¾ IPS, 1 IPS, 1 ¼ IPS, 2 IPS Tapping Tee

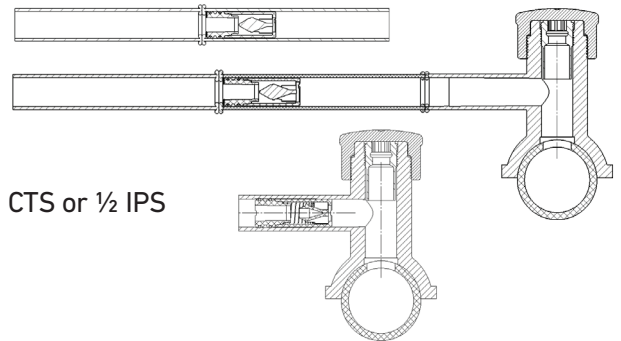
1 CTS, 1 ¼ CTS, ¾ IPS, 1 IPS, 1 ¼ IPS, 2 IPS Stick

¾ IPS Inserted in Tapping Tee Outlet

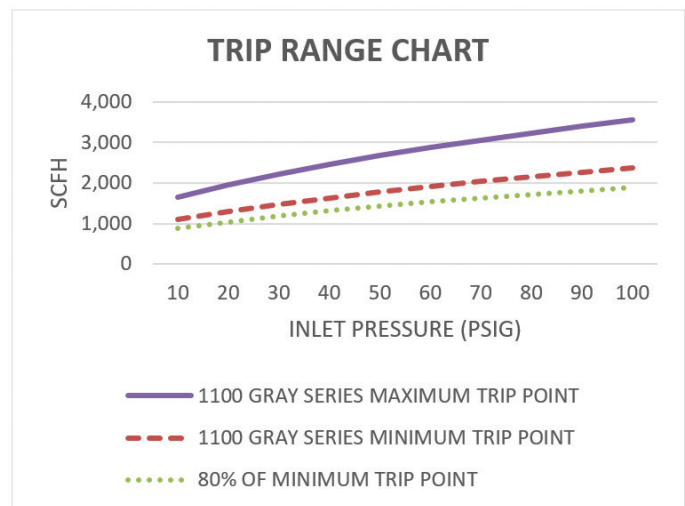
¾ IPS Inserted in Tapping Tee Outlet with Electrofusion Reducer ½ CTS or ½ IPS

¾ IPS Steel Service Tee Transition Fitting

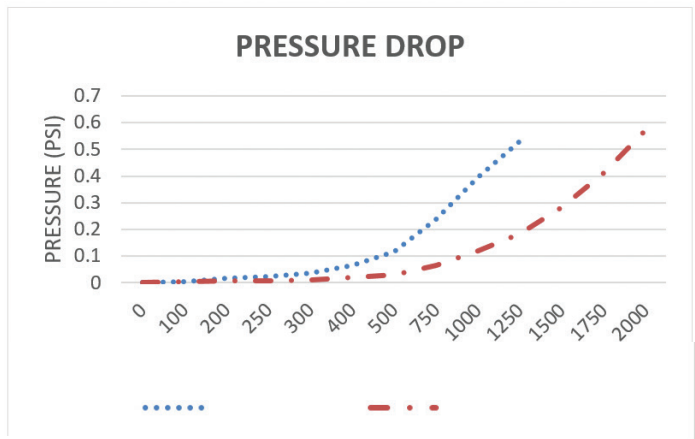
Note: Only ¾ IPS tapping tees are available with EFVs inserted into the outlets.



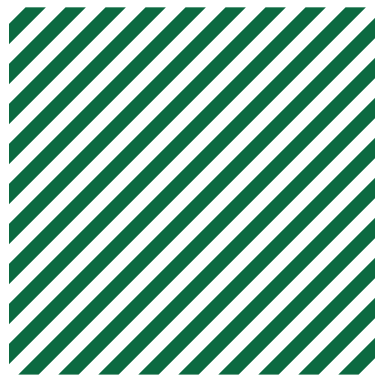
INLET PRESSURE	1100 SERIES MINIMUM TRIP POINT	BYPASS FLOW AFTER TRIP (NOM. MAX)	80% OF MINIMUM TRIP POINT
psig	SCFH	SCFH	SCFH
10	1,100	20	880
20	1,304	24	1,043
30	1,480	27	1,184
40	1,637	30	1,310
50	1,780	32	1,424
60	1,913	35	1,530
70	2,037	37	1,630
80	2,154	39	1,723
90	2,265	41	1,812
100	2,370	43	1,896
110	2,472	45	1,977
120	2,569	47	2,055
125	2,616	48	2,093



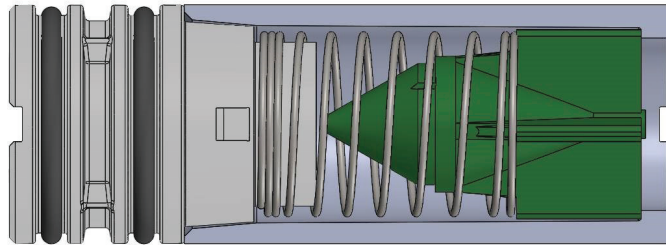
PROTECTED SERVICE LINE LENGTH (FT)					
INLET PRESSURE psig	1 CTS .099 W 0.915"	¾ IPS 0.849"	1 IPS 1.061"	1-1/4 IPS DR10 1.308"	2 IPS 1.917"
10	872	612	1,760	4,745	29,037
20	1,700	1,192	3,430	9,247	56,591
30	2,499	1,753	5,040	13,590	83,173
40	3,293	2,310	6,642	17,909	109,603
50	4,091	2,869	8,251	22,247	136,158
60	4,896	3,433	9,875	26,624	162,941
70	5,708	4,003	11,514	31,044	189,992
80	6,530	4,579	13,170	35,509	217,322
90	7,359	5,161	14,843	40,020	244,929



Values reported are based on standard conditions of 60°F natural gas with a specific gravity of 0.6.



1800 Green Series



Available Fabricated Options:

PE4710 or PE2708

1 CTS, 1 ¼ CTS, ¾ IPS, 1 IPS, 1 ½ IPS, 2 IPS Tapping Tee

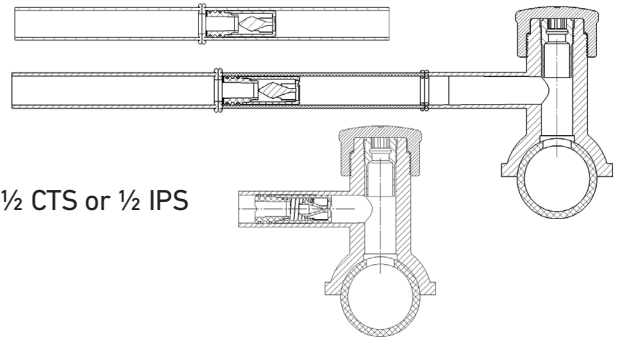
1 CTS, 1 ¼ CTS, ¾ IPS, 1 IPS, 1 ½ IPS, 2 IPS Stick

¾ IPS Inserted in Tapping Tee Outlet

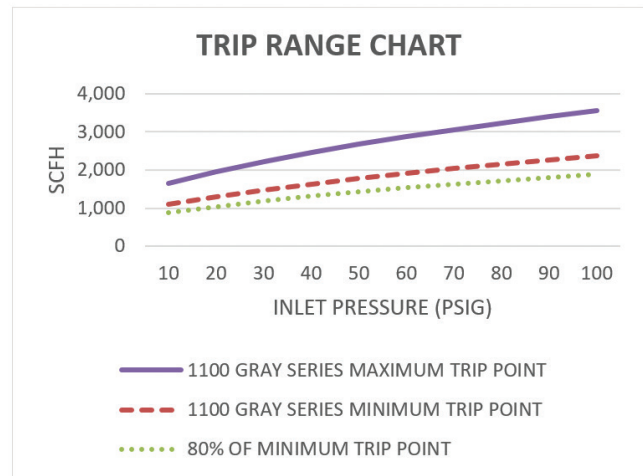
¾ IPS Inserted in Tapping Tee Outlet with Electrofusion Reducer ½ CTS or ½ IPS

¾ IPS Steel Service Tee Transition Fitting

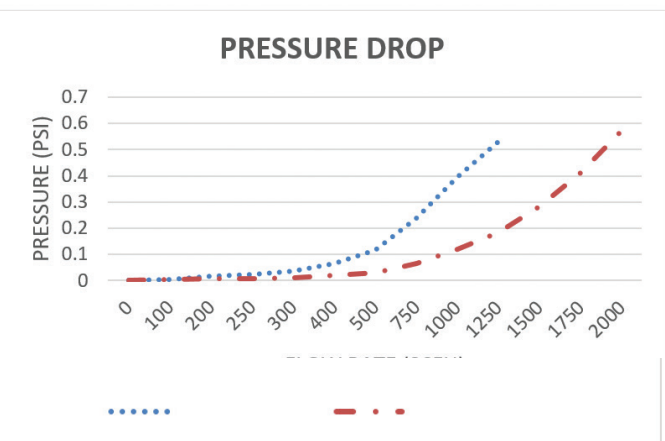
Note: Only ¾ IPS tapping tees are available with EFVs inserted into the outlets.



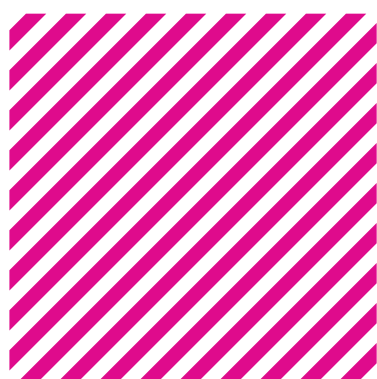
INLET PRESSURE	1800 SERIES MINIMUM TRIP POINT	BYPASS FLOW AFTER TRIP (NOM. MAX)	80% OF MINIMUM TRIP POINT
psig	SCFH	SCFH	SCFH
10	2,000	20	1,600
20	2,371	24	1,896
30	2,691	27	2,152
40	2,976	30	2,381
50	3,237	32	2,590
60	3,478	35	2,782
70	3,704	37	2,963
80	3,916	39	3,133
90	4,118	41	3,294
100	4,310	43	3,448
110	4,494	45	3,595
120	4,671	47	3,736
125	4,756	48	3,805



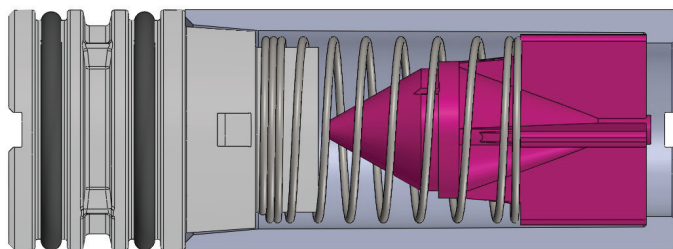
PROTECTED SERVICE LINE LENGTH (FT)					
INLET PRESSURE psig	1 CTS .099 W 0.915"	¾ IPS 0.849"	1 IPS 1.061"	1-1/4 IPS DR10 1.308"	2 IPS 1.917"
10	249	174	501	1,352	8,273
20	537	377	1,084	2,922	17,886
30	817	573	1,648	4,443	27,191
40	1,096	768	2,210	5,958	36,461
50	1,376	965	2,775	7,482	45,789
60	1,659	1,163	3,346	9,020	55,206
70	1,945	1,364	3,922	10,576	64,725
80	2,234	1,567	4,506	12,148	74,347
90	2,526	1,772	5,095	13,737	84,071



Values reported are based on standard conditions of 60°F natural gas with a specific gravity of 0.6.



2600 Pink Series



Available Fabricated Options:

PE4710 or PE2708

1 CTS, 1 1/4 CTS, 3/4 IPS, 1 IPS, 1 1/4 IPS, 2 IPS Tapping Tee

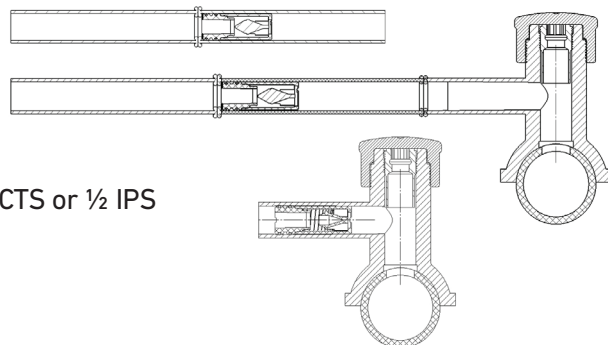
1 CTS, 1 1/4 CTS, 3/4 IPS, 1 IPS, 1 1/4 IPS, 2 IPS Stick

3/4 IPS Inserted in Tapping Tee Outlet

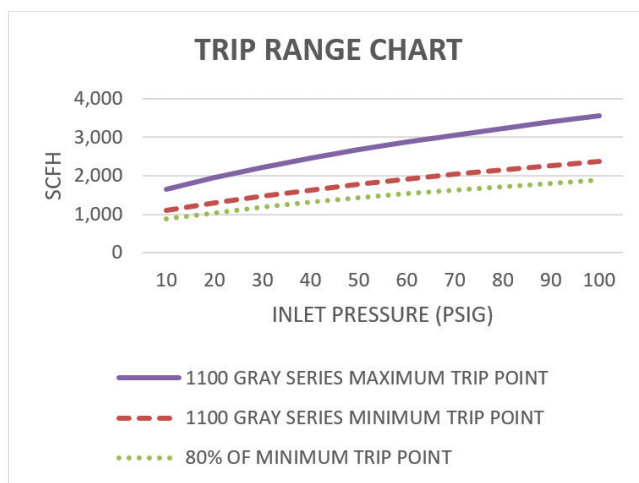
3/4 IPS Inserted in Tapping Tee Outlet with Electrofusion Reducer 1/2 CTS or 1/2 IPS

3/4 IPS Steel Service Tee Transition Fitting

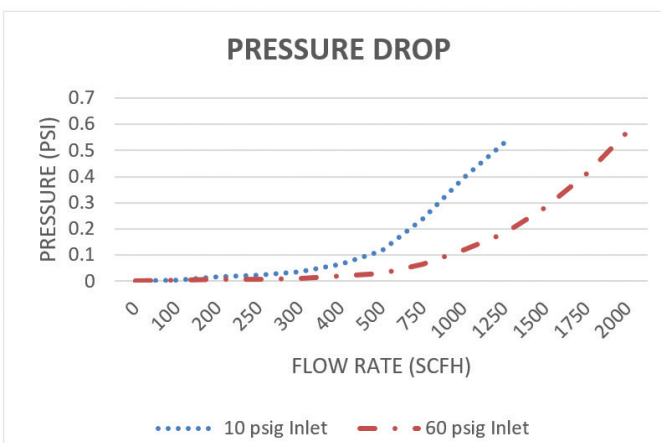
Note: Only 3/4 IPS tapping tees are available with EFVs inserted into the outlets.



INLET PRESSURE	2600 SERIES MINIMUM TRIP POINT	BYPASS FLOW AFTER TRIP (NOM. MAX)	80% OF MINIMUM TRIP POINT
psig	SCFH	SCFH	SCFH
10	2,600	20	2,080
20	3,082	24	2,465
30	3,498	27	2,798
40	3,869	30	3,095
50	4,208	32	3,366
60	4,522	35	3,617
70	4,815	37	3,852
80	5,091	39	4,073
90	5,353	41	4,282
100	5,603	43	4,482
110	5,842	45	4,674
120	6,072	47	4,857
125	6,183	48	4,947

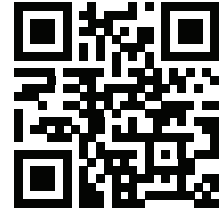


PROTECTED SERVICE LINE LENGTH (FT)					
INLET PRESSURE psig	1 CTS .099 W 0.915"	3/4 IPS 0.849"	1 IPS 1.061"	1-1/4 IPS DR10 1.308"	2 IPS 1.917"
10	54	38	109	293	1,794
20	235	165	474	1,277	7,818
30	414	290	835	2,251	13,779
40	595	417	1,199	3,234	19,791
50	778	545	1,569	4,230	25,886
60	964	676	1,944	5,240	32,071
70	1,152	808	2,324	6,265	38,345
80	1,343	942	2,709	7,304	44,704
90	1,537	1,078	3,099	8,357	51,144



Values reported are based on standard conditions of 60°F natural gas with a specific gravity of 0.6.

Online calculator available at gfps.com/gaslok



Service Line Calculator

EFV Comparison / Calculator

Service Line Protection Calculator

Natural Gas - Service Line Protection Calculator Across Pressure Ranges

WARNING: The calculations used in this program are correct, to the best of our knowledge, and represent calculations determined by GF Central Plastics. Georg Fischer accepts no responsibility for the use or application of this calculator. Every installation has its own set of variables that must be taken into consideration. The user of the calculator must insure that proper engineering practices are followed when selecting the appropriate excess flow valves.

DISCLAIMER: Values reported are based on standard conditions of 60°F natural gas with a specific gravity of 0.6.

For assistance with sizing and technical information on GasLOK™ EFV, please contact Georg Fischer.

EFV Series

GF GasLOK 2600 Pink Series

Tubing or Pipe Size

1 CTS .101 W

Cushion between Min Trip Flow and Load (%)

20

System Pressure (PSIG)

20

Estimated Piping Length (FEET)

130

Customer Desired Load (SCFH)

500

Calculate

Reset

Max Anticipated Load (20% Less Than Min Trip):

2,465 (SCFH)

Max Anticipated Load (20% Less Than Min Trip):

2,465,000 (BTU/HrNG)

Minimum Trip Rate At 20 PSIG:

3,082 (SCFH)

Max Pressure Drop Across EFV At Closure:

7.12 (PSIG)

Protectable Line Length:

230 (FEET)

Approximate Time To Reset:

2.0 (MINUTES)

Pressure (psig)	Min. Trip (SCFH)	Max. Trip (SCFH)	Protected Line Length (ft)
10	2600	3770	53
15	2851	4134	142
20	3082	4469	230
30	3498	5072	405
40	3870	5611	582
50	4209	6102	762
60	4522	6557	944
70	4815	6982	1128
80	5092	7383	1316
90	5354	7763	1505
100	5604	8125	1697
125	6184	8967	2185

Trip Flow Chart



For assistance with sizing and technical information on GasLOK EFV's, please contact GF Central Plastics at 1-800-654-3782

Local support around the world

Visit our webpage to get in touch with your local specialist:

www.gfps.com/our-locations



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