

Excess Flow Valves

GasL^oK™

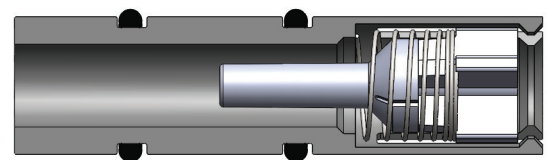


How do Excess Flow Valves work?

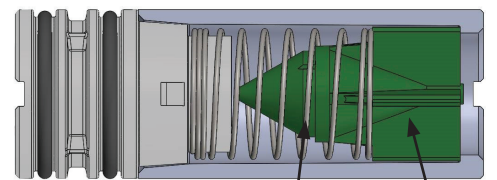


An Excess Flow Valve (EFV) is a mechanical safety device installed inside the outlet of a tapping tee or installed inside a short stick of pipe fused to the outlet of a tapping tee, attached to the gas service line.

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.



SPRING PLUNGER



SPRING PLUNGER

GasLOK™ EXCESS FLOW VALVES



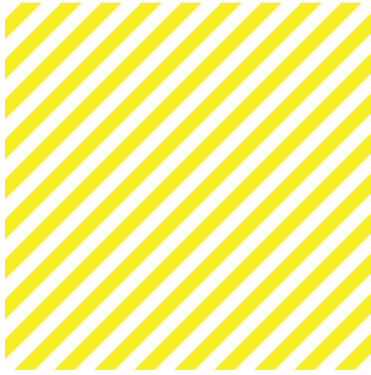
Benefits of EFVs

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.

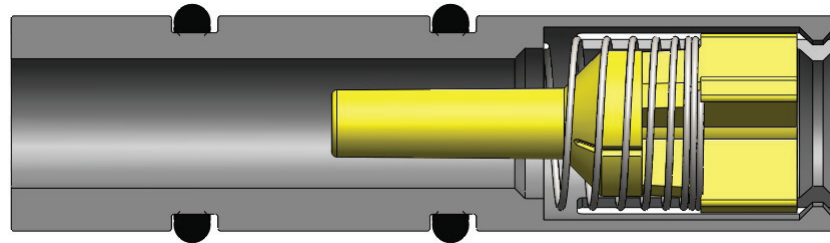


Features of GasLOK™

- 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

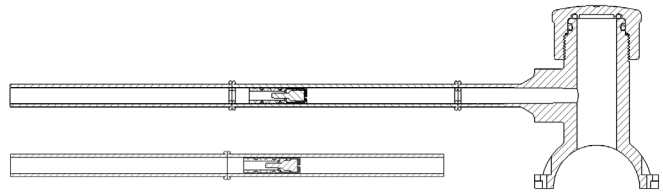


350 Yellow Series

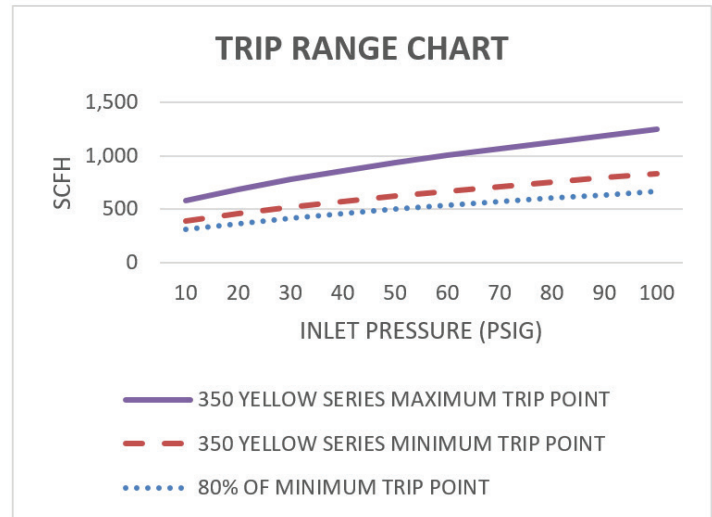


Available Fabricated Options:

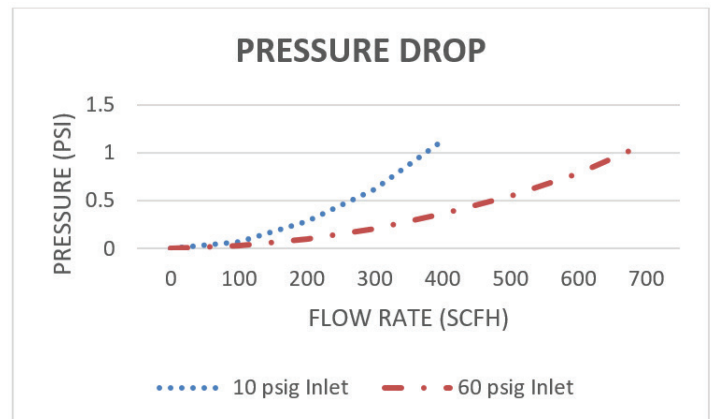
PE4710 or PE2708
 ½ CTS, ½ IPS Tapping Tee
 ½ CTS, ½ IPS Stick



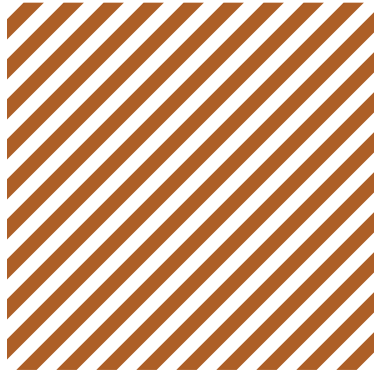
| INLET PRESSURE | 350 SERIES MINIMUM TRIP POINT | BYPASS FLOW AFTER TRIP (NOM. MAX) | 80% OF MINIMUM TRIP POINT |
|----------------|-------------------------------|-----------------------------------|---------------------------|
| psig | SCFH | SCFH | SCFH |
| 10 | 385 | 20 | 308 |
| 20 | 456 | 24 | 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 |



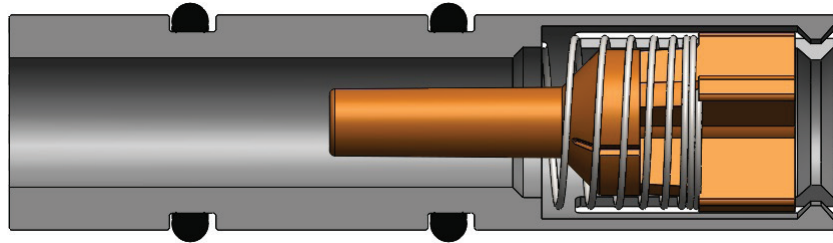
| PROTECTED SERVICE LINE LENGTH (FT) | | |
|------------------------------------|----------------|----------------|
| INLET PRESSURE psig | 1/2 CTS 0.436" | 1/2 IPS 0.649" |
| 10 | 140 | 923 |
| 20 | 292 | 1,924 |
| 30 | 439 | 2,891 |
| 40 | 585 | 3,854 |
| 50 | 732 | 4,822 |
| 60 | 880 | 5,799 |
| 70 | 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.

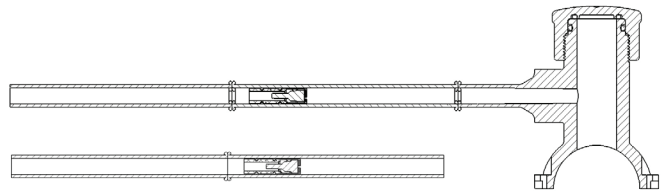


550 Brown Series

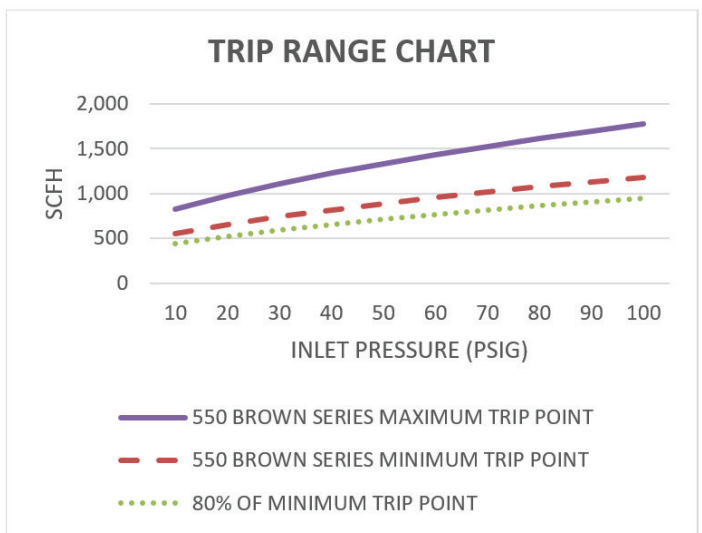


Available Fabricated Options:

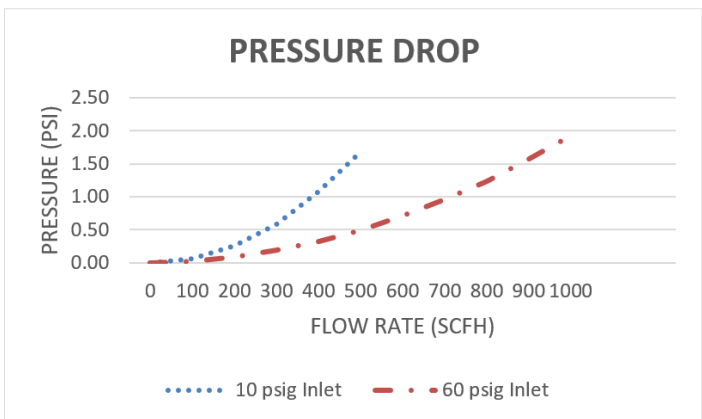
PE4710 or PE2708
 ½ CTS, ½ IPS Tapping Tee
 ½ CTS, ½ IPS Stick



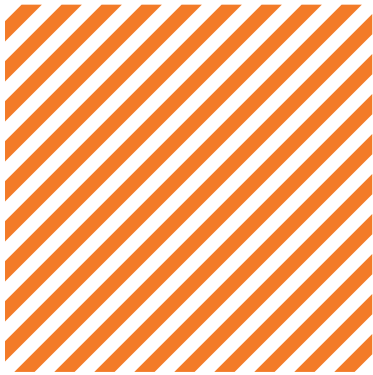
| INLET PRESSURE | 550 SERIES MINIMUM TRIP POINT | BYPASS FLOW AFTER TRIP (NOM. MAX) | 80% OF MINIMUM TRIP POINT |
|----------------|-------------------------------|-----------------------------------|---------------------------|
| psig | SCFH | SCFH | SCFH |
| 10 | 550 | 20 | 440 |
| 20 | 652 | 24 | 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 |



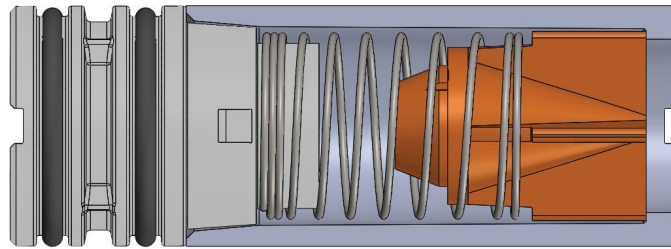
| PROTECTED SERVICE LINE LENGTH (FT) | | |
|------------------------------------|----------------|----------------|
| INLET PRESSURE psig | 1/2 CTS 0.436" | 1/2 IPS 0.649" |
| 10 | 65 | 425 |
| 20 | 145 | 958 |
| 30 | 224 | 1,474 |
| 40 | 302 | 1,989 |
| 50 | 381 | 2,507 |
| 60 | 460 | 3,031 |
| 70 | 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

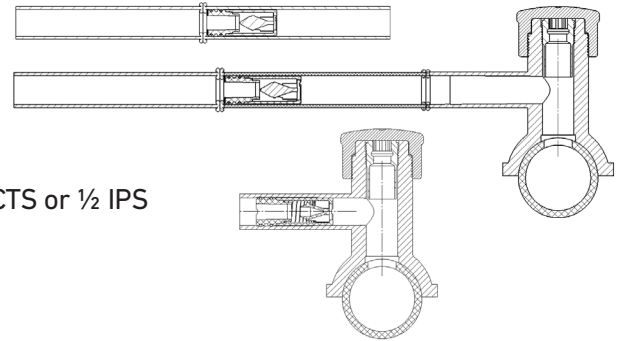
1 CTS, 1 ¼ CTS, ¾ IPS, 1 IPS, 1 ¼ IPS, 2 IPS Stick

¾ IPS Inserted in Tapping Tee Outlet

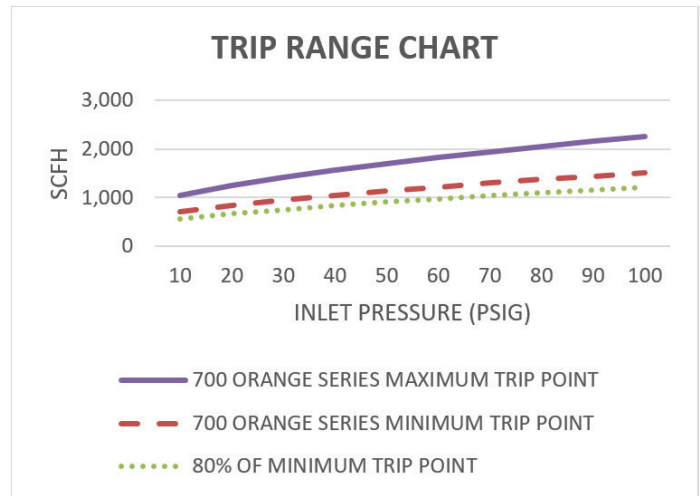
¾ IPS Inserted in Tapping Tee Outlet with Electrofusion Reducer ½ CTS or ½ IPS

¾ IPS Steel Service Tee Transition Fitting

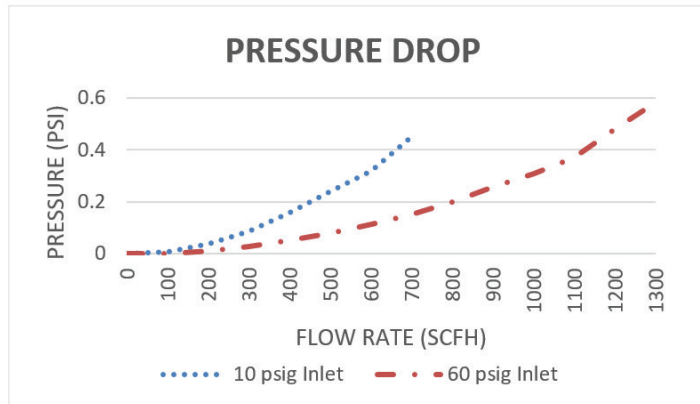
Note: Only ¾ IPS tapping tees are available with EFVs inserted into the outlets.



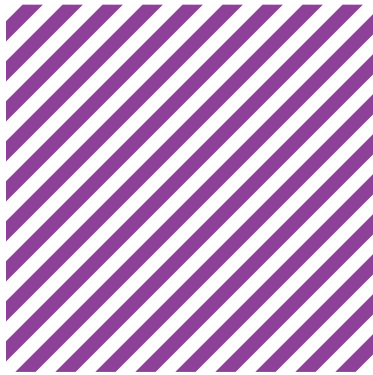
| INLET PRESSURE | 700 SERIES MINIMUM TRIP POINT | BYPASS FLOW AFTER TRIP (NOM. MAX) | 80% OF MINIMUM TRIP POINT |
|----------------|-------------------------------|-----------------------------------|---------------------------|
| psig | SCFH | SCFH | SCFH |
| 10 | 700 | 20 | 560 |
| 20 | 830 | 24 | 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 |



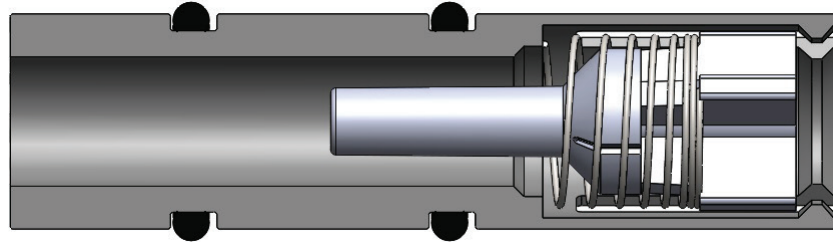
| PROTECTED SERVICE LINE LENGTH (FT) | | | | | |
|------------------------------------|---------------------|--------------|--------------|-----------------------|--------------|
| INLET PRESSURE psig | 1 CTS .099 W 0.915" | ¾ IPS 0.849" | 1 IPS 1.061" | 1-1/4 IPS DR10 1.308" | 2 IPS 1.917" |
| 10 | 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.

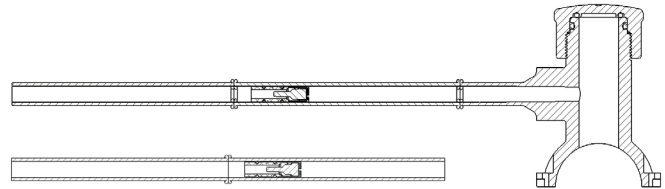


800 Purple Series

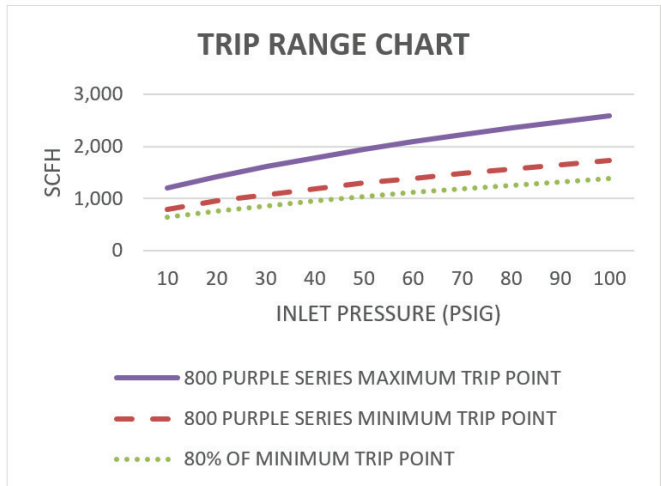


Available Fabricated Options:

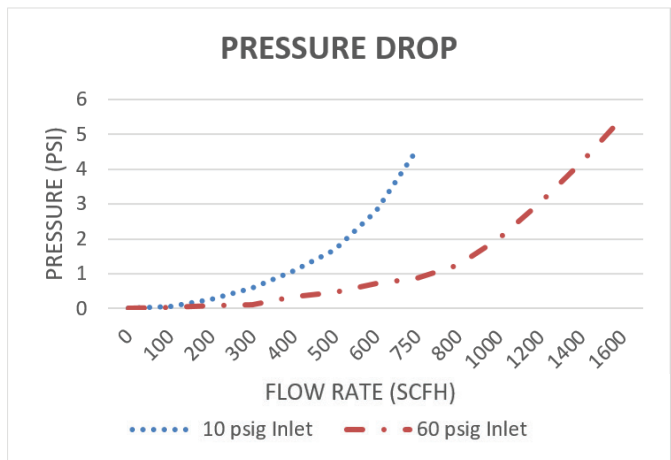
PE4710 or PE2708
 ½ CTS, ½ IPS Tapping Tee
 ½ CTS, ½ IPS Stick



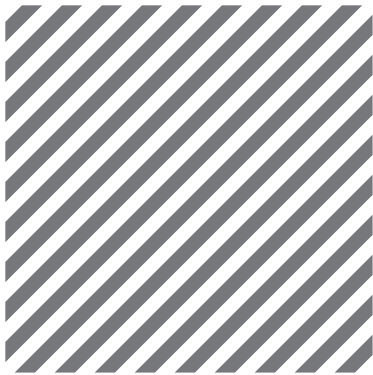
| INLET PRESSURE | 800 SERIES MINIMUM TRIP POINT | BYPASS FLOW AFTER TRIP (NOM. MAX) | 80% OF MINIMUM TRIP POINT |
|----------------|-------------------------------|-----------------------------------|---------------------------|
| psig | SCFH | SCFH | SCFH |
| 10 | 800 | 20 | 640 |
| 20 | 948 | 24 | 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 |



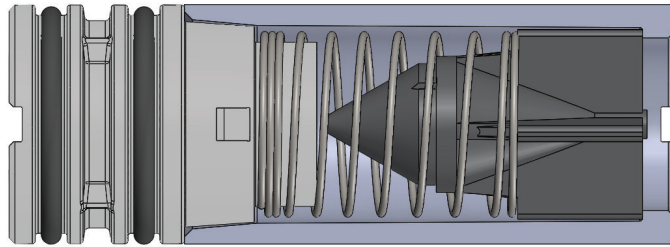
| PROTECTED SERVICE LINE LENGTH (FT) | | |
|------------------------------------|----------------|----------------|
| INLET PRESSURE psig | 1/2 CTS 0.436" | 1/2 IPS 0.649" |
| 10 | 16 | 108 |
| 20 | 57 | 373 |
| 30 | 96 | 633 |
| 40 | 136 | 895 |
| 50 | 176 | 1,160 |
| 60 | 217 | 1,429 |
| 70 | 258 |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

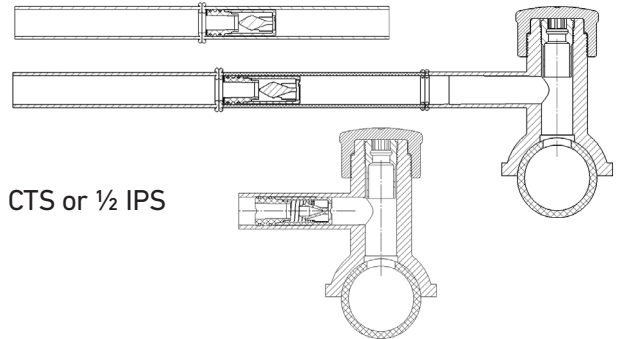
1 CTS, 1 ¼ CTS, ¾ IPS, 1 IPS, 1 ¼ IPS, 2 IPS Stick

¾ IPS Inserted in Tapping Tee Outlet

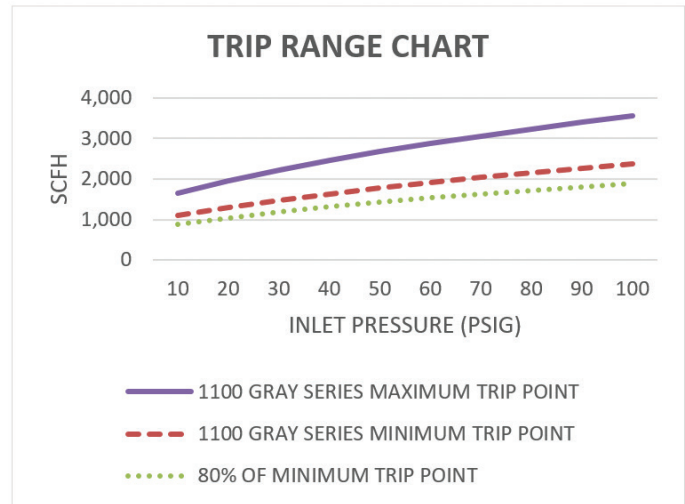
¾ IPS Inserted in Tapping Tee Outlet with Electrofusion Reducer ½ CTS or ½ IPS

¾ IPS Steel Service Tee Transition Fitting

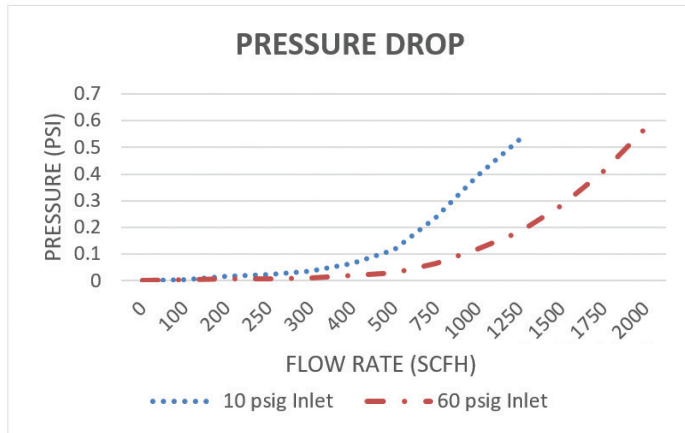
Note: Only ¾ IPS tapping tees are available with EFVs inserted into the outlets.



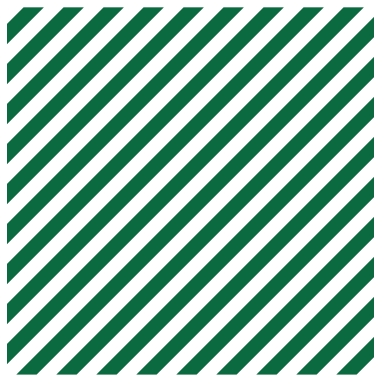
| INLET PRESSURE | 1100 SERIES MINIMUM TRIP POINT | BYPASS FLOW AFTER TRIP (NOM. MAX) | 80% OF MINIMUM TRIP POINT |
|----------------|--------------------------------|-----------------------------------|---------------------------|
| psig | SCFH | SCFH | SCFH |
| 10 | 1,100 | 20 | 880 |
| 20 | 1,304 | 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 |



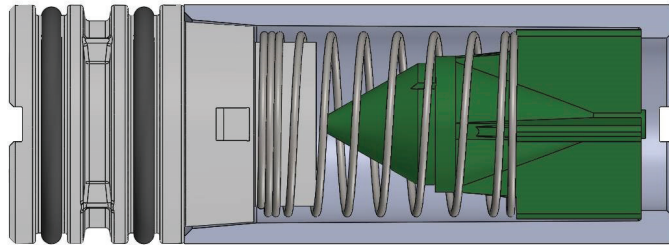
| INLET PRESSURE psig | PROTECTED SERVICE LINE LENGTH (FT) | | | | |
|---------------------|------------------------------------|--------------|--------------|-----------------------|--------------|
| | 1 CTS .099 W 0.915" | ¾ IPS 0.849" | 1 IPS 1.061" | 1-1/4 IPS DR10 1.308" | 2 IPS 1.917" |
| 10 | 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

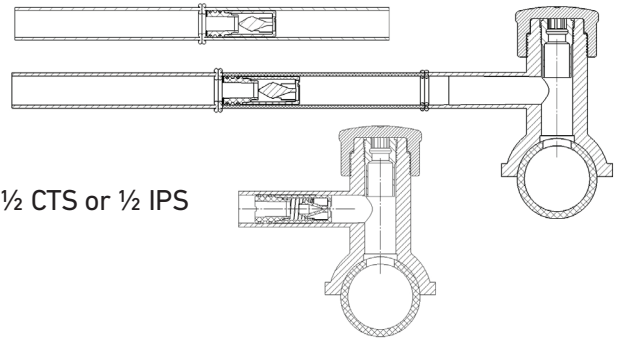
1 CTS, 1 ¼ CTS, ¾ IPS, 1 IPS, 1 ½ IPS, 2 IPS Stick

¾ IPS Inserted in Tapping Tee Outlet

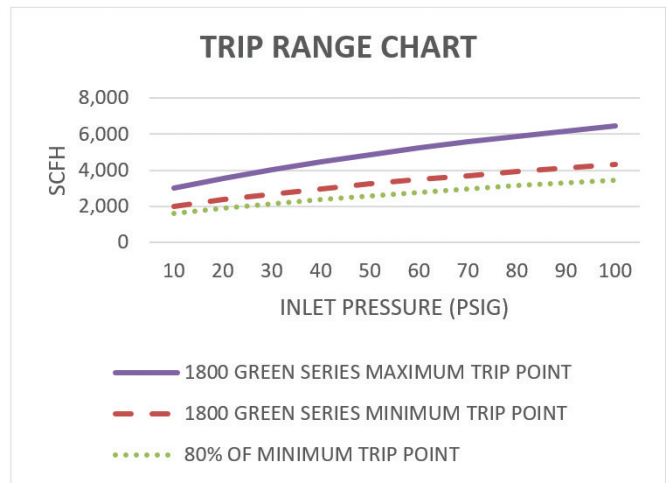
¾ IPS Inserted in Tapping Tee Outlet with Electrofusion Reducer ½ CTS or ½ IPS

¾ IPS Steel Service Tee Transition Fitting

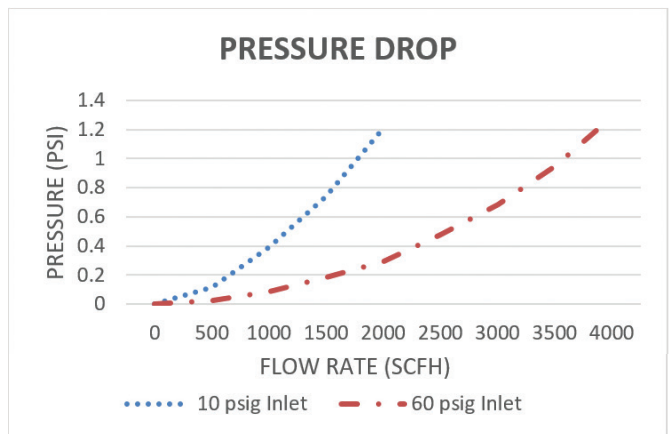
Note: Only ¾ IPS tapping tees are available with EFVs inserted into the outlets.



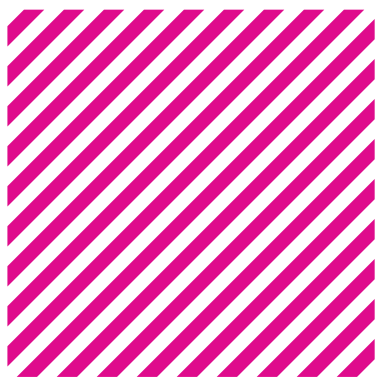
| INLET PRESSURE | 1800 SERIES MINIMUM TRIP POINT | BYPASS FLOW AFTER TRIP (NOM. MAX) | 80% OF MINIMUM TRIP POINT |
|----------------|--------------------------------|-----------------------------------|---------------------------|
| psig | SCFH | SCFH | SCFH |
| 10 | 2,000 | 20 | 1,600 |
| 20 | 2,371 | 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 |



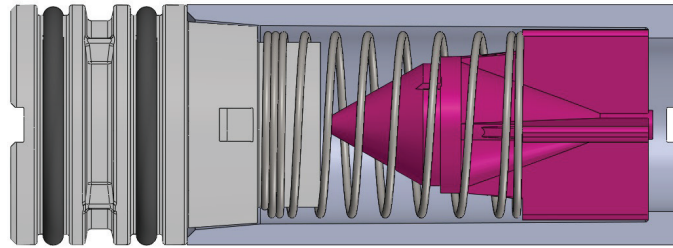
| INLET PRESSURE psig | PROTECTED SERVICE LINE LENGTH (FT) | | | | |
|---------------------|------------------------------------|--------------|--------------|-----------------------|--------------|
| | 1 CTS .099 W 0.915" | ¾ IPS 0.849" | 1 IPS 1.061" | 1-1/4 IPS DR10 1.308" | 2 IPS 1.917" |
| 10 | 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 ¼ CTS, ¾ IPS, 1 IPS, 1 ¼ IPS, 2 IPS Tapping Tee

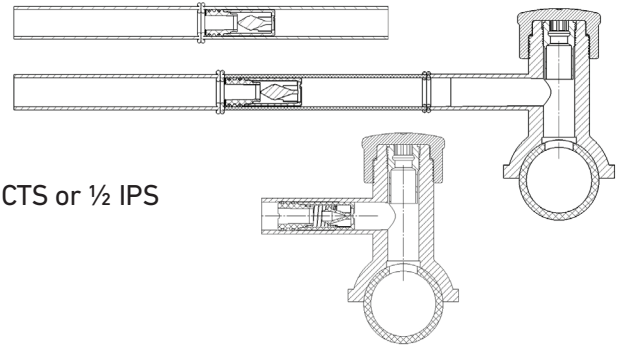
1 CTS, 1 ¼ CTS, ¾ IPS, 1 IPS, 1 ¼ IPS, 2 IPS Stick

¾ IPS Inserted in Tapping Tee Outlet

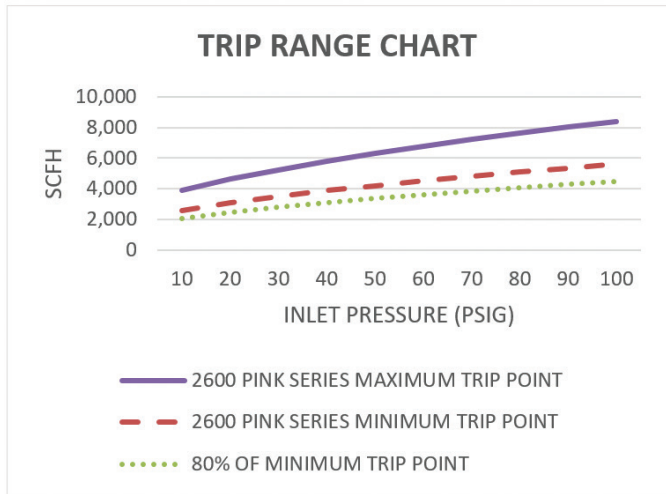
¾ IPS Inserted in Tapping Tee Outlet with Electrofusion Reducer ½ CTS or ½ IPS

¾ IPS Steel Service Tee Transition Fitting

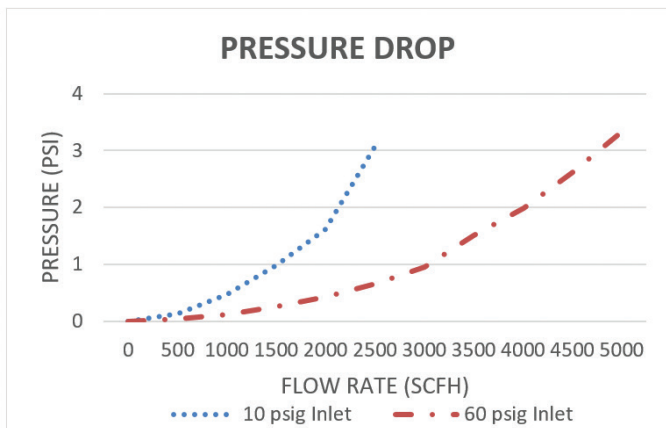
Note: Only ¾ IPS tapping tees are available with EFVs inserted into the outlets.



| INLET PRESSURE | 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 |

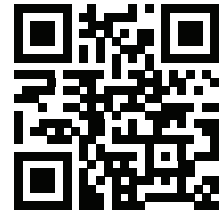


| INLET PRESSURE psig | PROTECTED SERVICE LINE LENGTH (FT) | | | | |
|---------------------|------------------------------------|--------------|--------------|-----------------------|--------------|
| | 1 CTS .099 W 0.915" | ¾ IPS 0.849" | 1 IPS 1.061" | 1-1/4 IPS DR10 1.308" | 2 IPS 1.917" |
| 10 | 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

GF Central Plastics

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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