

## Features

- Double solenoid gas train provides the most compact configuration for space restrictive requirements
- Double Hydramotor<sup>®</sup> gas train provides the highest flow and pressure to meet industry's most demanding requirements
- Solenoid and Hydramotor combination provides the most economical solution for slow opening applications
- Optional NPT threaded flange adapters allow direct piping that simplifies the installation and maintenance
- Suitable for boilers, furnaces, ovens, kilns, heating equipment, and gas generators used in commercial and industrial applications
- Low pressure drop and extremely high flow capacity, ideal in low gas supply pressure applications/locations

Please reference 8214(200), AH(E), or V710(B) catalog pages for additional features.

## Fluid

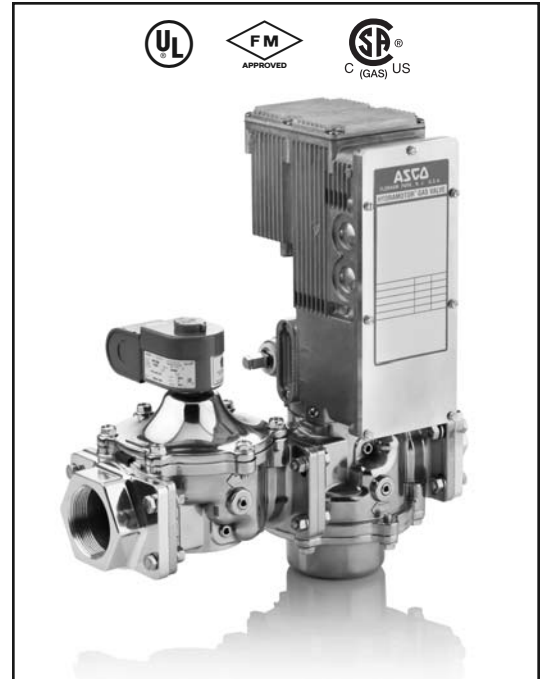
Fuel Gas

## Adapter & Connecting Hardware Kits (Optional)

| Pipe Size (ins)   | 1<br>Inlet Adapter Kit | 2<br>Outlet Adapter Kit | 3<br>Inlet/Outlet Flange Adapter Hardware Kit | 4<br>Connecting Hardware Kit | 5<br>O-Ring Kit |
|-------------------|------------------------|-------------------------|-----------------------------------------------|------------------------------|-----------------|
| 3/4               | 296657-001             | 296658-001              | 296659-001                                    | 294986-001                   | 296663-001      |
| 1                 | 296657-002             | 296658-002              | 296659-002                                    |                              |                 |
| 1 1/4             | 296657-003             | 296658-003              | 296659-003                                    |                              |                 |
| 1 1/2             | 296657-004             | 296658-004              | 296659-004                                    |                              |                 |
| 1 1/4 (High Flow) | 296657-005             | 296658-005              | 296659-005                                    | 294986-002                   | 296663-002      |
| 1 1/2 (High Flow) | 296657-006             | 296658-006              | 296659-006                                    |                              |                 |
| 2                 | 296657-007             | 296658-007              | 296659-007                                    |                              |                 |
| 2 (High Flow)     | 296657-008             | 296658-008              | 296659-008                                    |                              |                 |
| 2 1/2             | 296657-009             | 296658-009              | 296659-009                                    | 294986-003                   | 296663-003      |
| 3                 | 296657-010             | 296658-010              | 296659-010                                    |                              |                 |

## Content of Hardware Kits/Adapters

| Part Name             | Inlet Adapter Kit | Outlet Adapter Kit | Inlet/Outlet Flange and Hardware Kit | Connecting Hardware Kit | O-Ring Kit |
|-----------------------|-------------------|--------------------|--------------------------------------|-------------------------|------------|
| Inlet Flange Adapter  | 1                 | -                  | 1                                    | -                       | -          |
| Outlet Flange Adapter | -                 | 1                  | 1                                    | -                       | -          |
| Bolt                  | -                 | -                  | 8                                    | 4                       | -          |
| Lock Washer           | -                 | -                  | 8                                    | 4                       | -          |
| Flat Washer           | -                 | -                  | 8                                    | 4                       | -          |
| Nut                   | -                 | -                  | 8                                    | 4                       | -          |
| O-Ring                | 1                 | 1                  | 2                                    | 1                       | 10         |
| I & M Instructions    | 1                 | 1                  | 1                                    | 1                       | 1          |



## Approvals

### 8214(200) valve

UL listed to standard 429 "Electrically Operated Valves," Guide Y10Z, File MP618 Safety Shutoff Valves.

FM Approved to Class 7400 "liquid and gas safety shutoff valves."

CSA Certified to:

- 1) Standard C22.2 No. 139 "Electrically Operated Valves," File 010381.
- 2) Automatic Gas Valves Z21.21 (6.5), C/I, File 112872.
- 3) Automatic Gas Safety Shutoff Valves (3.9), File 112872.

### V710(B) valve with AH(E) Hydramotor

UL listed to standard 429 "Electrically Operated Valves," Guide Y10Z, File MP932 Safety Valves

FM Approved to Class 7400 "liquid and gas safety shutoff valves."

CSA Certified to:

1. Automatic Gas Valves ANSI Z21.21 CSA 6.5, C/I, File 109157 and 113070.
2. Automatic Gas Safety Shutoff Valves (CGA 3.9), File 113070
3. Standard C22.2 No. 139, File 109157 and 113070

## Specifications (English units)

| Modular<br>Double Valves                                                                      |                        | Pipe Size<br>(ins.)                     | Orifice<br>Size<br>(ins.) | Cv Flow<br>Factor<br>(Double Valves) | Flow Capacity ① | Gas Capacity ① | Const.<br>Ref. |
|-----------------------------------------------------------------------------------------------|------------------------|-----------------------------------------|---------------------------|--------------------------------------|-----------------|----------------|----------------|
|                                                                                               |                        |                                         |                           |                                      | ft³/hr          | Btu/hr         |                |
| Valve #1                                                                                      | Valve #2               | COMBUSTION (Fuel Gas) - NORMALLY CLOSED |                           |                                      |                 |                |                |
| 8214 (200)<br>(On/Off)                                                                        | 8214 (200)<br>(On/Off) | 3/4                                     | 1 5/8                     | 8                                    | 419             | 419,400        | 1              |
|                                                                                               |                        | 1                                       |                           | 15                                   | 801             | 800,700        |                |
|                                                                                               |                        | 1 1/4                                   |                           | 23                                   | 1220            | 1,220,100      |                |
|                                                                                               |                        | 1 1/2                                   |                           | 25                                   | 1335            | 1,334,500      |                |
|                                                                                               |                        | 1 1/4 (High Flow)                       | 2 3/32                    | 26                                   | 1362            | 1,362,000      |                |
|                                                                                               |                        | 1 1/2 (High Flow)                       |                           | 32                                   | 1711            | 1,711,000      |                |
|                                                                                               |                        | 2                                       |                           | 39                                   | 2085            | 2,085,000      |                |
|                                                                                               |                        | 2 (High Flow)                           | 3                         | 53                                   | 2860            | 2,860,000      |                |
|                                                                                               |                        | 2 1/2                                   |                           | 73                                   | 3970            | 3,970,000      |                |
|                                                                                               |                        | 3                                       |                           | 74                                   | 4003            | 4,003,400      |                |
| ① 1" W.C. Drop @ 2" W.C. Inlet Pressure, 1,000 Btu/cu.ft. or more, 0.64 Specific Gravity Gas. |                        |                                         |                           |                                      |                 |                |                |

**Note:** The flow values are calculated for joined double valve construction, please reference 8214(200) and V710(B) catalog pages for discrete valve flows, and optional features.

## Specifications (Metric units)

| Modular Double Valves                                                                         |                     | Pipe Size (ins.)                        | Orifice Size (mm) | Kv Flow Factor (Double Valves) | Flow Capacity Ⓞ (m³/hr) | Gas Capacity Ⓞ Btu/hr | Const. Ref. |
|-----------------------------------------------------------------------------------------------|---------------------|-----------------------------------------|-------------------|--------------------------------|-------------------------|-----------------------|-------------|
| Valve #1                                                                                      | Valve #2            | COMBUSTION (Fuel Gas) - NORMALLY CLOSED |                   |                                |                         |                       |             |
| 8214 (200) (On/Off)                                                                           | 8214 (200) (On/Off) | 3/4                                     | 41                | 6.9                            | 12                      | 419,400               | 1           |
|                                                                                               |                     | 1                                       |                   | 13.0                           | 23                      | 800,700               |             |
|                                                                                               |                     | 1 1/4                                   |                   | 20.0                           | 35                      | 1,220,100             |             |
|                                                                                               |                     | 1 1/2                                   |                   | 21.6                           | 38                      | 1,334,500             |             |
|                                                                                               |                     | 1 1/4 (High Flow)                       | 53                | 22.5                           | 39                      | 1,362,000             |             |
|                                                                                               |                     | 1 1/2 (High Flow)                       |                   | 28                             | 49                      | 1,711,000             |             |
|                                                                                               |                     | 2                                       |                   | 34                             | 59                      | 2,085,000             |             |
|                                                                                               |                     | 2 (High Flow)                           | 76                | 46                             | 81                      | 2,860,000             |             |
|                                                                                               |                     | 2 1/2                                   |                   | 63                             | 112                     | 3,970,000             |             |
|                                                                                               |                     | 3                                       |                   | 64                             | 113                     | 4,003,400             |             |
| Ⓞ 1" W.C. Drop @ 2" W.C. Inlet Pressure, 1,000 Btu/cu.ft. or more, 0.64 Specific Gravity Gas. |                     |                                         |                   |                                |                         |                       |             |

**Note:** The flow values are calculated for joined double valve construction, please reference 8214(200) and V710(B) catalog pages for discrete valve flows, and optional features.

## Specifications (English units)

| Modular Double Valves  |                                | Pipe Size (ins.)                        | Orifice Size (ins.) | Cv Flow Factor (Double Valves) | Flow Capacity ①<br>ft <sup>3</sup> /hr | Gas Capacity ①<br>Btu/hr | Const. Ref. |
|------------------------|--------------------------------|-----------------------------------------|---------------------|--------------------------------|----------------------------------------|--------------------------|-------------|
| Valve #1               | Valve #2                       | COMBUSTION (Fuel Gas) - NORMALLY CLOSED |                     |                                |                                        |                          |             |
| 8214 (200)<br>(On/Off) | AH2E/V710(B)<br>(On/Off)       | 3/4                                     | 1 5/8               | 9                              | 466                                    | 466,400                  | 2           |
|                        |                                | 1                                       |                     | 15                             | 801                                    | 800,700                  |             |
|                        |                                | 1 1/4 (High Flow)                       |                     | 28                             | 1,490                                  | 1,490,000                |             |
|                        |                                | 1 1/2 (High Flow)                       | 2 3/32              | 35                             | 1,890                                  | 1,890,000                |             |
|                        |                                | 2                                       |                     | 44                             | 2,360                                  | 2,360,000                |             |
|                        |                                | 2 (High Flow)                           |                     | 58                             | 3,121                                  | 3,121,000                |             |
|                        |                                | 2 1/2                                   | 3                   | 79                             | 4,238                                  | 4,238,000                |             |
|                        |                                | 3                                       |                     | 88                             | 4,733                                  | 4,733,000                |             |
| 8214 (200)<br>(On/Off) | AH4E/V710(B)<br>(Low/High/Off) | 3/4                                     | 1 5/8               | 9                              | 466                                    | 466,400                  | 2           |
|                        |                                | 1                                       |                     | 14                             | 755                                    | 754,900                  |             |
|                        |                                | 1 1/4 (High Flow)                       |                     | 27                             | 1,462                                  | 1,462,000                |             |
|                        |                                | 1 1/2 (High Flow)                       | 2 3/32              | 34                             | 1,820                                  | 1,820,000                |             |
|                        |                                | 2                                       |                     | 43                             | 2,273                                  | 2,273,000                |             |
|                        |                                | 2 (High Flow)                           |                     | 57                             | 3,052                                  | 3,052,000                |             |
|                        |                                | 2 1/2                                   | 3                   | 74                             | 3,957                                  | 3,957,000                |             |
|                        |                                | 3                                       |                     | 81                             | 4,341                                  | 4,341,000                |             |

① 1" W.C. Drop @ 2" W.C. Inlet Pressure, 1,000 Btu/cu.ft. or more, 0.64 Specific Gravity Gas.

**Note:** The flow values are calculated for joined double valve construction, please reference 8214(200) and V710(B) catalog pages for discrete valve flows, and optional features.

## Specifications (Metric units)

| Modular Double Valves  |                                | Pipe Size (ins.)                        | Orifice Size (mm) | Kv Flow Factor (Double Valves) | Flow Capacity ①<br>(m <sup>3</sup> /hr) | Gas Capacity ①<br>Btu/hr | Const. Ref. |
|------------------------|--------------------------------|-----------------------------------------|-------------------|--------------------------------|-----------------------------------------|--------------------------|-------------|
| Valve #1               | Valve #2                       | COMBUSTION (Fuel Gas) - NORMALLY CLOSED |                   |                                |                                         |                          |             |
| 8214 (200)<br>(On/Off) | AH2E/V710(B)<br>(On/Off)       | 3/4                                     | 41                | 7.8                            | 13                                      | 466,400                  | 2           |
|                        |                                | 1                                       |                   | 13.0                           | 23                                      | 800,700                  |             |
|                        |                                | 1 1/4 (High Flow)                       |                   | 24.2                           | 42                                      | 1,490,000                |             |
|                        |                                | 1 1/2 (High Flow)                       | 53                | 30                             | 54                                      | 1,890,000                |             |
|                        |                                | 2                                       |                   | 38                             | 67                                      | 2,360,000                |             |
|                        |                                | 2 (High Flow)                           |                   | 50                             | 88                                      | 3,121,000                |             |
|                        |                                | 2 1/2                                   | 76                | 68                             | 120                                     | 4,238,000                |             |
|                        |                                | 3                                       |                   | 76                             | 134                                     | 4,733,000                |             |
| 8214 (200)<br>(On/Off) | AH4E/V710(B)<br>(Low/High/Off) | 3/4                                     | 41                | 7.8                            | 13                                      | 466,400                  | 2           |
|                        |                                | 1                                       |                   | 12.1                           | 22                                      | 754,900                  |             |
|                        |                                | 1 1/4 (High Flow)                       |                   | 23.4                           | 42                                      | 1,462,000                |             |
|                        |                                | 1 1/2 (High Flow)                       | 53                | 29                             | 52                                      | 1,820,000                |             |
|                        |                                | 2                                       |                   | 37                             | 65                                      | 2,273,000                |             |
|                        |                                | 2 (High Flow)                           |                   | 49                             | 87                                      | 3,052,000                |             |
|                        |                                | 2 1/2                                   | 76                | 64                             | 112                                     | 3,957,000                |             |
|                        |                                | 3                                       |                   | 70                             | 123                                     | 4,341,000                |             |

① 1" W.C. Drop @ 2" W.C. Inlet Pressure, 1,000 Btu/cu.ft. or more, 0.64 Specific Gravity Gas.

**Note:** The flow values are calculated for joined double valve construction, please reference 8214(200) and V710(B) catalog pages for discrete valve flows, and optional features.

## Specifications (English units)

| Modular Double Valves    |                                | Pipe Size (ins.)                         | Orifice Size (ins.) | Cv Flow Factor (Double Valves) | Flow Capacity ①<br>ft³/hr | Gas Capacity ①<br>Btu/hr | Const. Ref. |
|--------------------------|--------------------------------|------------------------------------------|---------------------|--------------------------------|---------------------------|--------------------------|-------------|
| Valve #1                 | Valve #2                       | COMBUSTION (Fuels Gas) - NORMALLY CLOSED |                     |                                |                           |                          |             |
| AH2E/V710(B)<br>(On/Off) | AH2E/V710(B)<br>(On/Off)       | 3/4                                      | 1 5/8               | 10                             | 535                       | 535,000                  | 3           |
|                          |                                | 1                                        |                     | 14                             | 755                       | 754,900                  |             |
|                          |                                | 1 1/4                                    |                     | 31                             | 1,664                     | 1,664,000                |             |
|                          |                                | 1 1/2                                    | 2 3/32              | 40                             | 2,155                     | 2,155,300                |             |
|                          |                                | 2                                        |                     | 52                             | 2,798                     | 2,798,000                |             |
|                          |                                | 2 (High Flow)                            |                     | 64                             | 3,470                     | 3,470,000                |             |
|                          |                                | 2 1/2                                    | 3                   | 85                             | 4,580                     | 4,580,000                |             |
|                          |                                | 3                                        |                     | 113                            | 6,100                     | 6,100,400                |             |
| AH2E/V710(B)<br>(On/Off) | AH4E/V710(B)<br>(Low/High/Off) | 3/4                                      | 1 5/8               | 10                             | 535                       | 535,000                  | 3           |
|                          |                                | 1                                        |                     | 14                             | 755                       | 754,900                  |             |
|                          |                                | 1 1/4                                    |                     | 31                             | 1,664                     | 1,664,000                |             |
|                          |                                | 1 1/2                                    | 2 3/32              | 39                             | 2,085                     | 2,085,200                |             |
|                          |                                | 2                                        |                     | 50                             | 2,673                     | 2,673,400                |             |
|                          |                                | 2 (High Flow)                            |                     | 64                             | 3,470                     | 3,470,000                |             |
|                          |                                | 2 1/2                                    | 3                   | 79                             | 4,224                     | 4,224,000                |             |
|                          |                                | 3                                        |                     | 100                            | 5,347                     | 5,347,000                |             |

① 1" W.C. Drop @ 2" W.C. Inlet Pressure, 1,000 Btu/cu.ft. or more, 0.64 Specific Gravity Gas.

**Note:** The flow values are calculated for joined double valve construction, please reference 8214(200) and V710(B) catalog pages for discrete valve flows, and optional features.

## Specifications (Metric units)

| Modular Double Valves    |                                | Pipe Size (ins.)                         | Orifice Size (mm) | Kv Flow Factor (Double Valves) | Flow Capacity ①<br>(m³/hr) | Gas Capacity ①<br>Btu/hr | Const. Ref. |
|--------------------------|--------------------------------|------------------------------------------|-------------------|--------------------------------|----------------------------|--------------------------|-------------|
| Valve #1                 | Valve #2                       | COMBUSTION (Fuels Gas) - NORMALLY CLOSED |                   |                                |                            |                          |             |
| AH2E/V710(B)<br>(On/Off) | AH2E/V710(B)<br>(On/Off)       | 3/4                                      | 41                | 8.7                            | 15                         | 535,000                  | 3           |
|                          |                                | 1                                        |                   | 12.1                           | 21                         | 754,900                  |             |
|                          |                                | 1 1/4                                    |                   | 27                             | 47                         | 1,664,000                |             |
|                          |                                | 1 1/2                                    | 53                | 35                             | 61                         | 2,155,300                |             |
|                          |                                | 2                                        |                   | 45                             | 79                         | 2,798,000                |             |
|                          |                                | 2 (High Flow)                            |                   | 55                             | 98                         | 3,470,000                |             |
|                          |                                | 2 1/2                                    | 76                | 74                             | 130                        | 4,580,000                |             |
|                          |                                | 3                                        |                   | 98                             | 173                        | 6,100,400                |             |
| AH2E/V710(B)<br>(On/Off) | AH4E/V710(B)<br>(Low/High/Off) | 3/4                                      | 41                | 8.7                            | 15                         | 535,000                  | 3           |
|                          |                                | 1                                        |                   | 12.1                           | 21                         | 754,900                  |             |
|                          |                                | 1 1/4                                    |                   | 27                             | 47                         | 1,664,000                |             |
|                          |                                | 1 1/2                                    | 53                | 34                             | 59                         | 2,085,200                |             |
|                          |                                | 2                                        |                   | 43                             | 76                         | 2,673,400                |             |
|                          |                                | 2 (High Flow)                            |                   | 55                             | 98                         | 3,470,000                |             |
|                          |                                | 2 1/2                                    | 76                | 68                             | 120                        | 4,224,000                |             |
|                          |                                | 3                                        |                   | 87                             | 152                        | 5,347,000                |             |

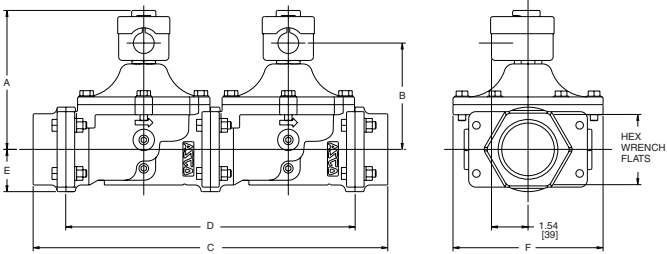
① 1" W.C. Drop @ 2" W.C. Inlet Pressure, 1,000 Btu/cu.ft. or more, 0.64 Specific Gravity Gas.

**Note:** The flow values are calculated for joined double valve construction, please reference 8214(200) and V710(B) catalog pages for discrete valve flows, and optional features.

## Dimensions inches (mm)

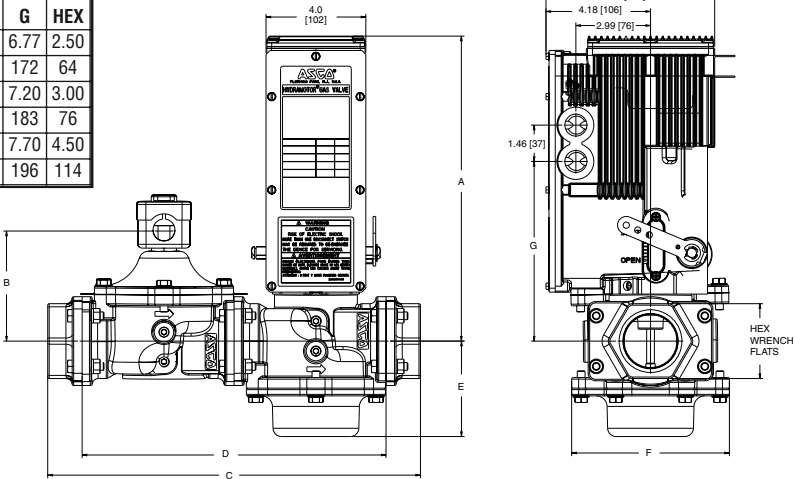
### Const. Ref. 1

| Const. Ref. | Valve Size (ins.)      |      | A    | B    | C     | D     | E    | F    | G | HEX  |
|-------------|------------------------|------|------|------|-------|-------|------|------|---|------|
| 1           | 3/4 to 1 1/2           | ins. | 5.51 | 4.14 | 13.14 | 10.60 | 1.46 | 5.39 | - | 2.50 |
|             |                        | mm   | 140  | 105  | 334   | 269   | 37   | 137  | - | 64   |
|             | 1 1/2 (High Flow) to 2 | ins. | 5.85 | 4.48 | 14.94 | 12.18 | 1.78 | 6.32 | - | 3.00 |
|             |                        | mm   | 149  | 114  | 379   | 309   | 45   | 161  | - | 76   |
|             | 2 (High Flow) to 3     | ins. | 7.23 | 5.86 | 19.64 | 15.60 | 2.39 | 7.95 | - | 4.50 |
|             |                        | mm   | 184  | 149  | 498   | 396   | 61   | 202  | - | 114  |



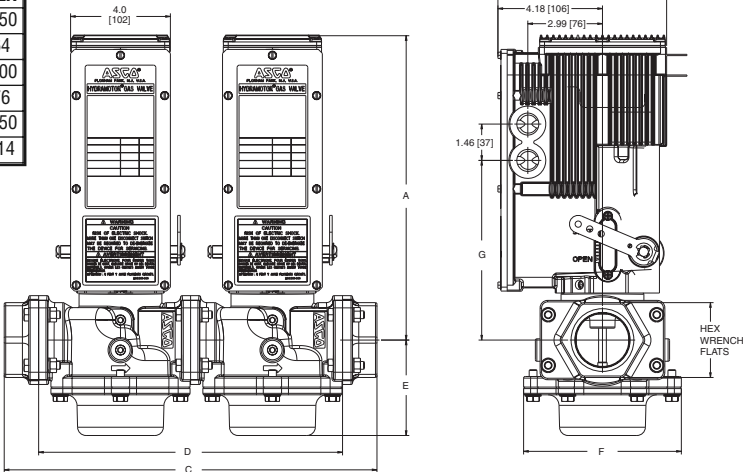
### Const. Ref. 2

| Const. Ref. | Valve Size (ins.)      |      | A     | B    | C     | D     | E    | F    | G    | HEX  |
|-------------|------------------------|------|-------|------|-------|-------|------|------|------|------|
| 2           | 3/4 to 1               | ins. | 11.81 | 4.14 | 13.14 | 10.60 | 3.47 | 5.39 | 6.77 | 2.50 |
|             |                        | mm   | 300   | 105  | 334   | 269   | 88   | 137  | 172  | 64   |
|             | 1 1/2 (High Flow) to 2 | ins. | 12.22 | 4.48 | 14.94 | 12.18 | 3.83 | 6.32 | 7.20 | 3.00 |
|             |                        | mm   | 310   | 114  | 379   | 309   | 97   | 161  | 183  | 76   |
|             | 2 (High Flow) to 3     | ins. | 12.72 | 5.86 | 19.64 | 15.60 | 5.28 | 7.95 | 7.70 | 4.50 |
|             |                        | mm   | 323   | 149  | 498   | 396   | 134  | 202  | 196  | 114  |

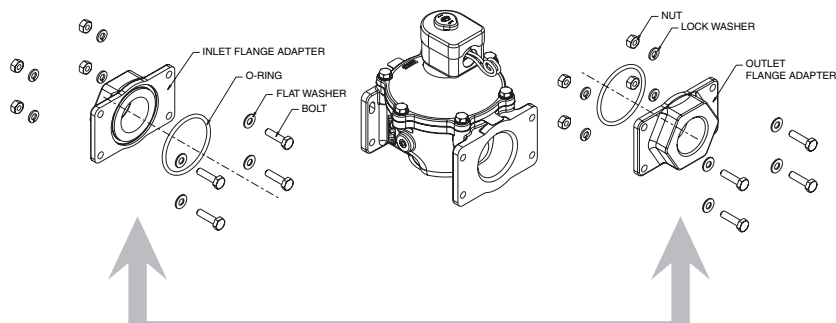


### Const. Ref. 3

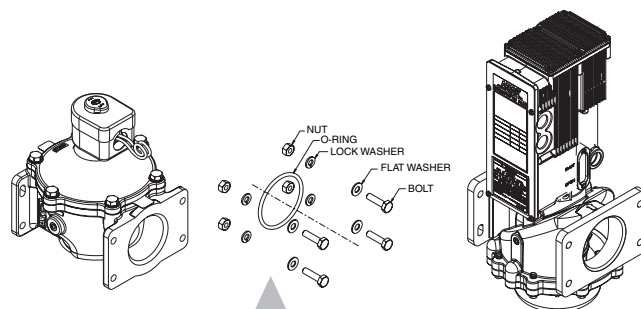
| Const. Ref. | Valve Size (ins.)  |      | A     | B | C     | D     | E    | F    | G    | HEX  |
|-------------|--------------------|------|-------|---|-------|-------|------|------|------|------|
| 3           | 3/4 to 1           | ins. | 11.81 | - | 13.14 | 10.60 | 3.47 | 5.39 | 6.77 | 2.50 |
|             |                    | mm   | 300   | - | 334   | 269   | 88   | 137  | 172  | 64   |
|             | 1 1/2 to 2         | ins. | 12.22 | - | 14.94 | 12.18 | 3.83 | 6.32 | 7.20 | 3.00 |
|             |                    | mm   | 310   | - | 379   | 309   | 97   | 161  | 183  | 76   |
|             | 2 (High Flow) to 3 | ins. | 12.72 | - | 19.64 | 15.60 | 5.28 | 7.95 | 7.70 | 4.50 |
|             |                    | mm   | 323   | - | 498   | 396   | 134  | 202  | 196  | 114  |



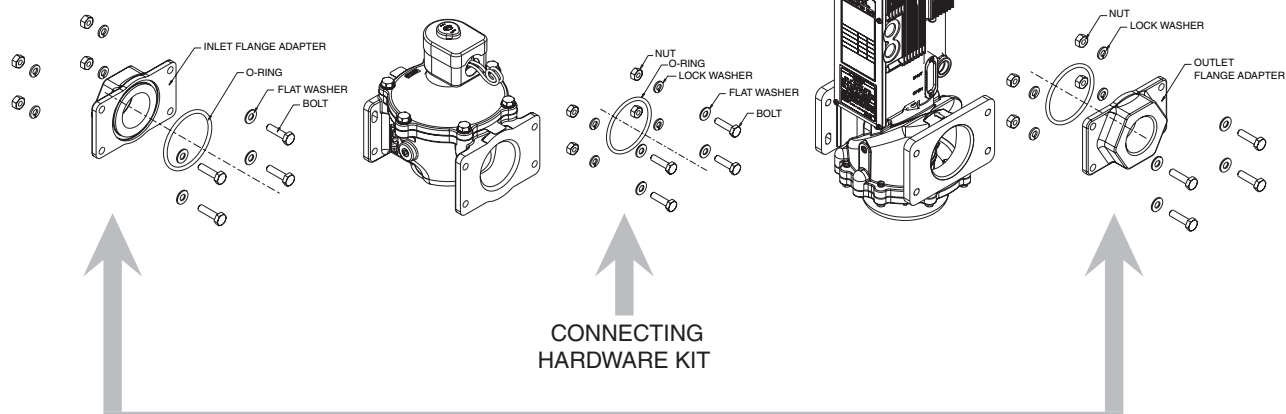
## Adapter & Joining Hardware Kits (Optional)



INLET / OUTLET  
 FLANGE ADAPTERS AND HARDWARE KIT



CONNECTING  
 HARDWARE KIT



INLET / OUTLET  
 FLANGE ADAPTERS AND HARDWARE KIT