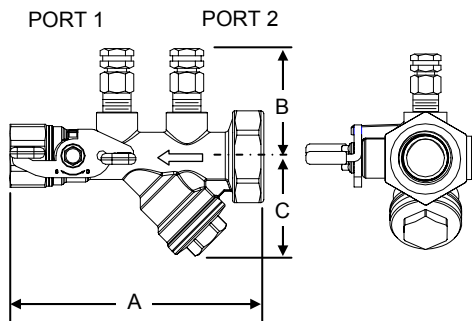


ACCESSIBLE CARTRIDGE

1/2" & 3/4 SpaceSaver Housing



NOTE: SpaceSaver sizes have 2 ports only.
Tee handle shown. Straight handle also available

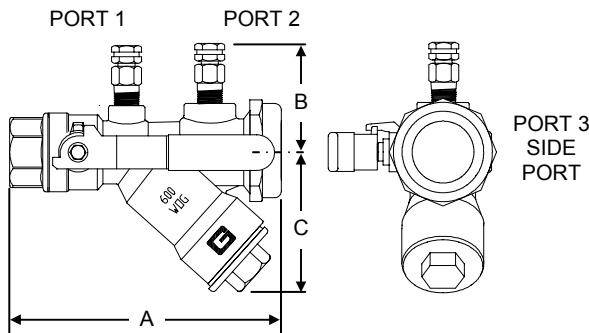
SPECIFICATIONS:

- PSI/Temperature Rating:** 1/2"SS-1-1/2": 400 PSI / 250° F
1-1/2"L-3": 275 PSI / 250° F
- Cartridge:** AISI Type 304 stainless steel
AISI Type 17-7 PH stainless steel spring
- Body Material:** 1/2"SS-1-1/2": Forged brass
1-1/2"L-3": Cast brass
- End Connections:** Brass
- Seals:** EPDM O-Rings
- Body Tappings:** Port 1 and 2: 1/4" NPT with P/T test valves
- Ball Valve:** Nickel-plated brass ball
- Assembly:** Valve comes fully assembled

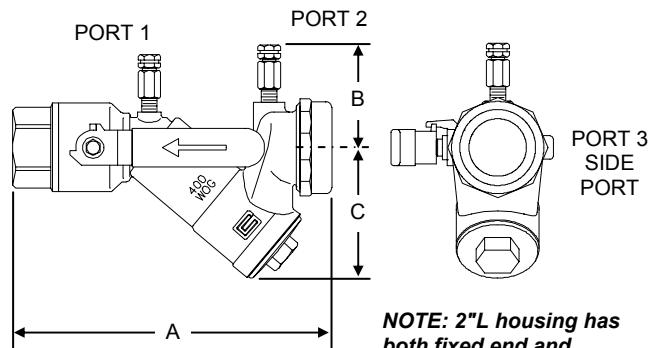
ACCESSORY OPTIONS:

- Body Tappings:** 1/2"-3": Port 1 and 3: 1/4" NPT with P/T test valves, Port 2: 1/4" NPT with Air Vent

1/2"-1-1/2" Housing



1-1/2"L-3" Housing



NOTE: 2"L housing has both fixed end and union end options.

DIMENSIONS & WEIGHTS (NOMINAL)

1/2" & 3/4" SpaceSaver

| SIZE | MODEL NO. | A LENGTH ¹ | UNION END CONNECTIONS (INCHES) ² | | | | | | | B HEIGHT | C HEIGHT | Cv ³ | WEIGHT (LBS.) |
|---------------------|-----------|-----------------------|---|------------------|------|------|------|------|------|----------|----------|-----------------|---------------|
| | | | FNPT | | MNPT | | SWT | | | | | | |
| | | | 1/2" | 3/4" | 1/2" | 3/4" | 3/8" | 1/2" | 3/4" | | | | |
| 1/2" SS, 3/4" SS | 3R0_ | 3.9 | 1.0 | N/A ⁴ | 1.0 | 1.2 | 0.8 | 0.8 | 1.1 | 1.8 | 1.5 | 2.3 | 1.0 |

1/2" – 1-1/2"

| SIZE | MODEL NO. | A LENGTH ¹ | UNION END CONNECTIONS (INCHES) ² | | | | | | | | | | B HEIGHT | C HEIGHT | Cv ³ | WEIGHT (LBS.) |
|-----------|-----------|-----------------------|---|--------|------------------|-------------------|--------|--------|------|--------|--------|-----|----------|----------|-----------------|---------------|
| | | | FNPT | | | MNPT | | | SWT | | | | | | | |
| | | | 1/2" | 3/4" | 1" | 1/2" | 3/4" | 1" | 3/8" | 1/2" | 3/4" | 1" | | | | |
| 1/2" – 1" | 3R1_ | 5.3 | 1.0 | 1.0 | N/A ⁴ | 1.0 | 1.0 | 1.4 | 1.0 | 0.7 | 0.9 | 1.3 | 2.0 | 2.6 | 10.9 | 2.3 |
| | | | FNPT | | | MNPT ⁵ | | | SWT | | | | | | | |
| | | | 1" | 1-1/4" | 1-1/2" | 1" | 1-1/4" | 1-1/2" | 1" | 1-1/4" | 1-1/2" | | | | | |
| 1"L | | 8.0 | | | | | | | | | | | | | | |
| 1-1/4" | 3R2_ | 7.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.4 | 2.6 | 3.7 | 28.5 | 5.0 | |
| 1-1/2" | | 7.5 | | | | | | | | | | | | | | |

NOTES

- ¹ Length measured with fixed end FNPT; SWT end connection may be longer.
² For overall length, add union connection length to body length.
³ Cv's are based on housing without cartridge.
⁴ Tailpiece not available for this size. Male tailpiece used with coupling.
⁵ 1"L-1-1/2" Valves can also take 1/2"-3/4" MNPT Tailpieces.

Replaces form F-4078D

This specification © 2005 Griswold Controls

2803 Barranca Parkway, Irvine, CA 92606
 (949) 559-6000 Fax (949) 559-6088
 www.GriswoldControls.com

12/05
 F-4078E



DIMENSIONS & WEIGHTS (NOMINAL) Cont'd

1-1/2"L – 2"

| SIZE | MODEL NO. | A LENGTH ⁶ | UNION END CONNECTIONS (INCHES) ⁷ | | | | | | B HEIGHT | C HEIGHT | Cv ⁸ | WEIGHT (LBS.) |
|-------------|-----------|-----------------------|---|-------------------|-------------------|-----|------------------|-----|----------|----------|-----------------|---------------|
| | | | FNPT ⁹ | | MNPT ⁹ | | SWT ⁹ | | | | | |
| | | | 1-1/2" | 2" | 1-1/2" | 2" | 1-1/2" | 2" | | | | |
| 1-1/2"L, 2" | 3R3__ | 9.5 | 1.6 | N/A ¹⁰ | 1.6 | 1.6 | 1.7 | 1.6 | 2.3 | 4.3 | 40 | 8.8 |

2"L–3"

| SIZE | MODEL NO. | A LENGTH | | UNION CONNECTION (INCHES) ⁷ | | | B HEIGHT | C HEIGHT | Cv ⁸ | WEIGHT (LBS.) |
|--------|-----------|----------|------|--|------|-----|----------|----------|-----------------|---------------|
| | | FNPT | SWT | FNPT | MNPT | SWT | | | | |
| 2"L | 3R4_ | 11.5 | 12.7 | 2.5 | 1.6 | 1.6 | 2.8 | 5.7 | 75 | 13.6 |
| 2-1/2" | | 11.8 | N/A | N/A | N/A | N/A | | | | |
| 3" | | 12.1 | N/A | N/A | N/A | N/A | | | | |

FLOW RATES (+/-5%)

| SIZE | MODEL NO. | HEAD LOSS IN FEET ¹¹ | PSID RANGE | GPM |
|---------------------|-----------|---------------------------------|------------|---|
| 1/2" SS, 3/4" SS | 3R02B__ | 7.4 | 2-32 | 0.25, 0.33, 0.50, 1.00, 1.50, 2.00, 2.50, 3.00 |
| 1/2", 3/4", 1" | 3R11__ | 3.5 | 1-14 | 0.33, 0.50, 0.67, 1.00, 1.33, 1.67, 2.00, 2.33, 2.67, 3.33, 4.00, 4.67, 5.00 |
| | 3R12__ | 7.4 | 2-32 | 0.55, 0.75, 1.00, 1.50, 2.00, 2.50, 3.00, 3.50, 4.00, 5.00, 6.00, 7.00, 8.00 |
| | 3R14__ | 13.4 | 4-57 | 0.75, 1.00, 1.33, 2.00, 2.67, 3.33, 4.00, 4.67, 5.33, 6.67, 8.00, 9.33, 10.00 |
| | 3R18__ | 30.0 | 8-128 | 1.10, 1.50, 2.00, 3.00, 4.00, 5.00, 6.00, 7.00, 8.00, 10.0, 12.0, 14.0, 16.0 |
| 1"L, 1-1/4", 1-1/2" | 3R21__ | 3.5 | 1-14 | 3.0, 3.33, 4.00, 4.67, 5.33, 6.00, 6.67, 7.33, 8.00, 8.67, 9.33, 10.00, 10.67, 11.33, 12.00, 12.67, 13.33, 14.00, 14.67 |
| | 3R22__ | 7.4 | 2-32 | 4.5, 5.0, 6.0, 7.0, 8.0, 9.0, 10.0, 11.0, 12.0, 13.0, 14.0, 15.0, 16.0, 17.0, 18.0, 19.0, 20.0, 21.0, 22.0 |
| | 3R24__ | 13.4 | 4-57 | 6.00, 6.67, 8.00, 9.33, 10.67, 12.00, 13.33, 14.67, 16.00, 17.33, 18.67, 20.00, 21.33, 22.67, 24.00, 25.33, 26.67, 28.00, 29.33 |
| | 3R28__ | 30.0 | 8-128 | 9.0, 10.0, 12.0, 14.0, 16.0, 18.0, 20.0, 22.0, 24.0, 26.0, 28.0, 30.0, 32.0, 34.0, 36.0, 38.0, 40.0, 42.0, 44.0 |
| 1-1/2"L - 2" | 3R31__ | 3.5 | 1-14 | 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38 |
| | 3R32__ | 7.4 | 2-32 | 18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 48, 51, 54, 57 |
| | 3R34__ | 13.4 | 4-57 | 24, 28, 32, 36, 40, 44, 48, 52, 56, 60, 64, 68, 72, 76 |
| | 3R38__ | 30.0 | 8-128 | 36, 42, 48, 54, 60, 66, 72, 78, 84, 90, 96, 102, 108, 114 |

| SIZE | MODEL NO. | HEAD LOSS IN FEET ¹¹ | PSID RANGE | GPM | | | HEAD LOSS IN FEET ¹¹ | PSID RANGE | HIGHER FLOW RATES/ NO INCREMENTS |
|-----------------|-----------|---------------------------------|------------|-------|-----------|-----|---------------------------------|------------|----------------------------------|
| | | | | MIN. | INCREMENT | MAX | | | |
| 2"L, 2-1/2", 3" | 3R41__ | 3.5 | 1-20 | 14.0 | 2.0 | 60 | 9.2 | 4-20 | 90, 110, 130 |
| | 3R42__ | 7.4 | 2-32 | 17.5 | 2.5 | 75 | 18.4 | 8-32 | 110, 135, 160 |
| | 3R44__ | 13.4 | 4-57 | 23.33 | 3.33 | 100 | NONE | | |
| | 3R48__ | 30.0 | 8-128 | 35.0 | 5.0 | 150 | | | |

NOTES

- ⁶ Length measured with fixed end FNPT; SWT end connection may be longer
- ⁷ For overall length, add union end connection length to body length
- ⁸ Cv's are based on housing without cartridge.
- ⁹ 1-1/4" FNPT, 1" and 1-1/4" MNPT, 1-1/4" SWT tailpieces also available.
- ¹⁰ Tailpiece not available for this size. Male tailpiece used with coupling.
- ¹¹ Head Loss in Feet is provided for pump head calculations. (1 PSI = 2.307 Feet of Water)

Replaces form F-4078D

This specification © 2005 Griswold Controls

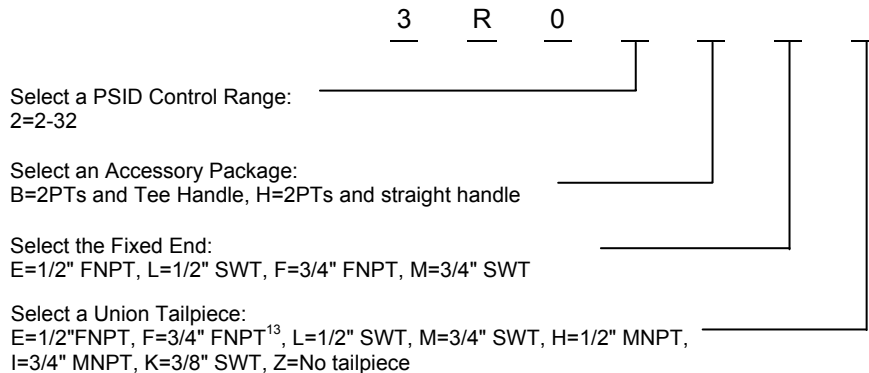
2803 Barranca Parkway, Irvine, CA 92606
 (949) 559-6000 Fax (949) 559-6088
 www.GriswoldControls.com



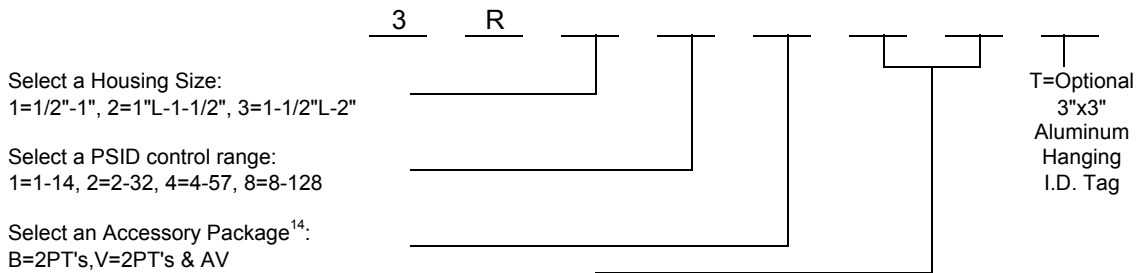
12/05
 F-4078E

MODEL NUMBER SELECTION¹²

1/2" & 3/4" SpaceSaver

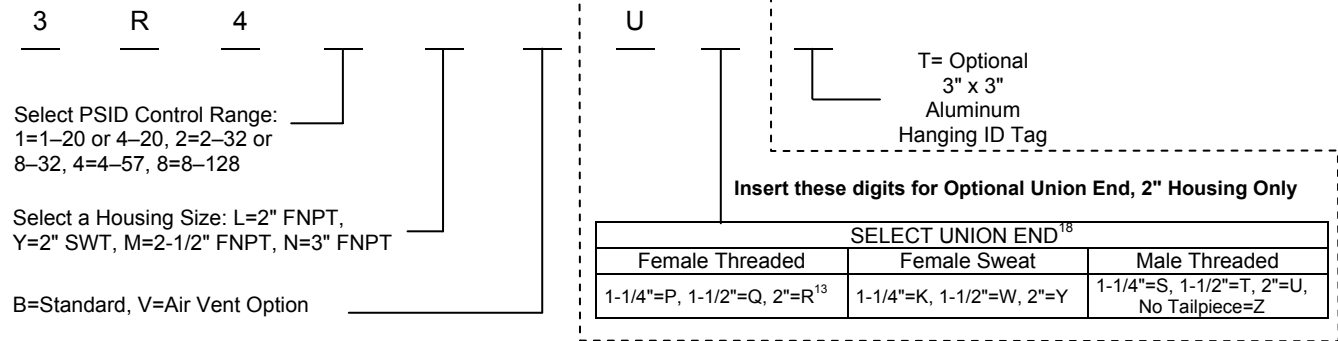


1/2" – 1-1/2", 1-1/2"L – 2"



| Valve | FIXED END OR UNION END ¹⁵ | | UNION END ONLY |
|-------|---|---|--|
| | Female Threaded | Female Sweat | Male Threaded |
| 3R1 | 1/2"=E, 3/4"=F, 1"=G ¹³ | 3/8"=K ¹⁶ , 1/2"=L, 3/4"=M, 1"=N | 1/2"=H, 3/4"=I, 1"=J, No tailpiece=Z |
| 3R2 | 1"=G, 1-1/4"=P, 1-1/2"=Q | 1"=N, 1-1/4"=K, 1-1/2"=W | 1/2"=H, 3/4"=I, 1"=J, 1-1/4"=S, 1-1/2"=T, No tailpiece=Z |
| 3R3 | 1-1/4"=P ¹⁷ , 1-1/2"=Q, 2"=R ¹³ | 1-1/4"=K ¹⁷ , 1-1/2"=W, 2"=Y | 1"=J, 1-1/4"=S, 1-1/2"=T, 2"=U, No tailpiece=Z |

2"L – 3"



NOTES

- ¹² Model no. and flow rate are indicated on label affixed to body.
- ¹³ Tailpiece not available for this size. Male tailpiece used with coupling.
- ¹⁴ PT=Pressure Temperature Test Valve, AV=Manual Air Vent
- ¹⁵ Select the fixed end first and the union end second.
- ¹⁶ Fixed end not available for this size. Union tailpiece only. A fixed end with sweat adapter can be used as a substitute.
- ¹⁷ For 3R3 model, 1-1/4" FNPT and 1-1/4" SWT tailpieces available for union end only.
- ¹⁸ Optional union end is available ONLY for 2" Housing.

Replaces form F-4078D

This specification © 2005 Griswold Controls

2803 Barranca Parkway, Irvine, CA 92606
 (949) 559-6000 Fax (949) 559-6088
 www.GriswoldControls.com

12/05
 F-4078E



OPTIONS (ORDER AS SEPARATE LINE ITEMS)

1/2" and 3/4" SpaceSaver (3R0)

1-1/4" Handle Extension and two 1/4" by 1-1/4" extensions (9666-180)
EZ-Turn Polymer Tee Handle (9666-158)
EZ-Turn Polymer Tee Handle and two 1/4" by 1-1/4" extensions (9666-163)

1/2" to 1" (3R1)

1-1/4" Handle Extension and two 1/4" by 1-1/4" extensions (9666-60)
EZ-Turn Polymer Tee Handle (9666-141)
EZ-Turn Polymer Tee Handle and two 1/4" by 1-1/4" extensions (9666-167)

1"L to 1-1/2" (3R2)

1-1/4" Handle Extension and two 1/4" by 1-1/4" extensions (9666-62)
EZ-Turn Polymer Tee Handle (9666-154)
EZ-Turn Polymer Tee Handle and two 1/4" by 1-1/4" extensions (9666-171)

1-1/2"L to 2" (3R3)

1-1/4" Handle extension and two 1/4" x 1-1/4" extensions (9666-64)

2"L to 3" (3R4)

1-1/2" Handle extension and two 1/4" x 1-1/4" extensions (9666-64)