

INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS

PRESSURE REDUCING VALVE - RV03: 1/2" - 2" | RV03B: 2-1/2" - 3"



Model: RV03P0-2CC0



Model: RV03S0-6AAG



Model: RV03B0-8G

NOTES TO THE INSTALLER:

1. Please leave this documentation with the owner of the fixture when finished.
2. Please read this entire booklet before beginning the installation.
3. Check your installation for compliance with plumbing and other applicable codes.



WARNING:

You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

FAILURE TO READ AND FOLLOW PROPER INSTALLATION AND MAINTENANCE INSTRUCTIONS MAY RESULT IN PRODUCT FAILURE WHICH CAN CAUSE PROPERTY DAMAGE, PERSONAL INJURY AND/OR DEATH.

MGI CONTROLS® is not responsible for damages resulting from improper installation and/or maintenance. Installation of this valve shall be in accordance with *Uniform Plumbing Code*.

TO ENSURE ACCURATE AND RELIABLE OPERATION OF THIS PRODUCT, IT IS ESSENTIAL TO:

- Properly design the system to minimize pressure variations.
- Implement an annual maintenance program to ensure proper operation and pressure setting of valve(s).
- This valve is factory preset and may be adjusted. It is the responsibility of the installer and or facility maintenance personnel to make sure valve outlet pressure is properly set.
- Following PRV installation and all adjustments thereafter, verify downstream water pressure to ensure PRV is properly set and within applicable Code requirements.

SUPPLIES REQUIRED:

(Not provided by **MGI CONTROLS®**)

1. Teflon tape for sealing water connections.
2. Wrench.



IMPORTANT

- Flush supply lines of all foreign material such as pipe dope, chips or solder prior to connecting to valve.
- To ensure proper installation, review the Manual thoroughly to verify dimensional details before beginning any work.
- Installation and field adjustment are the responsibility of the installer.
- Maximum water pressure is 400 PSI (2758kPa). Maximum temperature rating is 180°F (82°C). The standard pressure adjustment range* is 10-75 PSI (69-517kPa), High Pressure adjustment range* is 30-120 PSI (207-827 kPa).
- PRV assembly must be completely drained prior to being subjected to freezing temperatures

**Under Normal Operating Conditions*

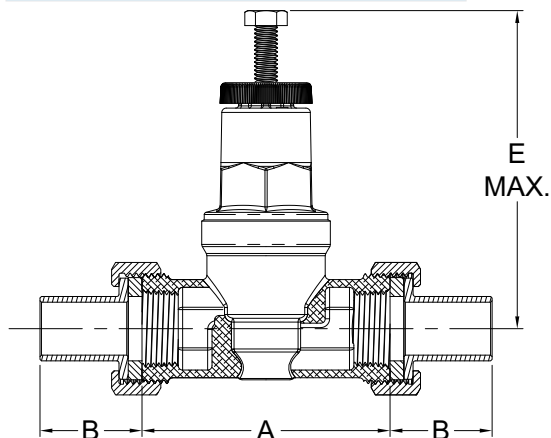
FOR TECHNICAL ASSISTANCE

1-(847)-604-4773

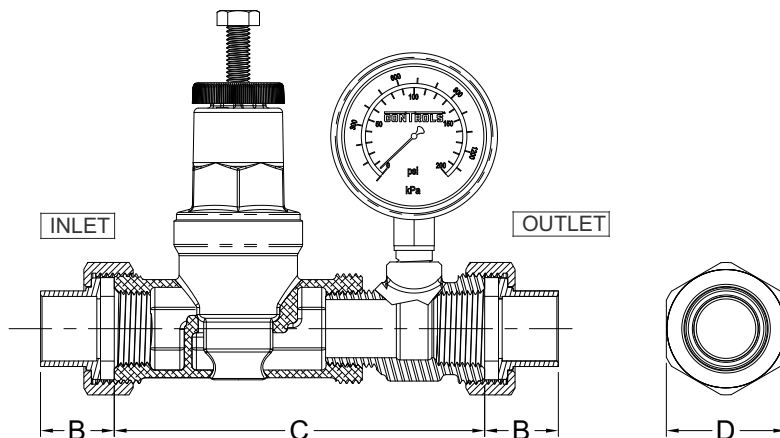


Federal
Public Law
111-380
(No Lead)

ROUGH-IN DIMENSIONS:



RV03P0-2EE0, SHOWN

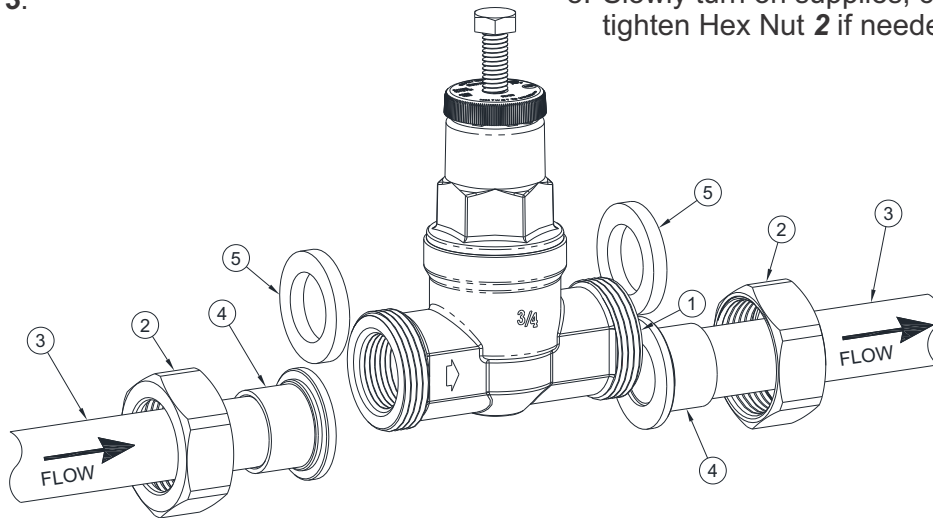


RV03P0-2AAG, SHOWN

VALVE SIZE	ADAPTER	DIMENSION									
		A		B		C		D		E	
1/2"	Sweat	3-3/8"	86mm	1"	25mm	5"	127mm	1-5/8"	41mm	4-3/4"	121mm
	NPTF			7/8"	22mm						
	PEX-B			1"	25mm						
	CPVC			7/8"	22mm						
	Press Fit			1-1/4"	32mm						
	PEX-A			1-5/8"	41mm						
3/4"	Sweat	3-3/8"	86mm	1"	25mm	5"	127mm	1-5/8"	41mm	4-3/4"	121mm
	NPTF			7/8"	22mm						
	PEX-B			1"	25mm						
	CPVC			1-1/8"	29mm						
	Press Fit			1-3/8"	35mm						
	PEX-A			1-7/8"	48mm						
1"	Sweat	3-7/8"	98mm	1-1/8"	29mm	5-3/4"	146mm	1-7/8"	48mm	5-1/2"	140mm
	NPTF			1"	25mm						
	PEX-B			1-1/8"	29mm						
	CPVC			1-1/8"	29mm						
	Press Fit			1-3/8"	35mm						
	PEX-A			2"	51mm						
1-1/4"	Sweat	5"	127mm	1-1/4"	32mm	6-7/8"	175mm	2-3/8"	60mm	8-1/8"	206mm
	NPTF			1-1/8"	29mm						
	PEX-B			1-1/4"	32mm						
	CPVC			1-1/4"	32mm						
	Press Fit			1-5/8"	41mm						
	PEX-A			2-3/8"	60mm						
1-1/2"	Sweat	5"	127mm	1-1/4"	32mm	6-7/8"	175mm	2-7/8"	73mm	8-1/8"	206mm
	NPTF			1-1/8"	29mm						
	PEX-B			1-3/8"	35mm						
	CPVC			1-5/8"	41mm						
	Press Fit			2"	51mm						
	PEX-A			2-3/4"	70mm						
2"	Sweat	5"	127mm	1-1/4"	32mm	7"	178mm	3-1/2"	89mm	8-1/8"	206mm
	NPTF			1-1/8"	29mm						
	PEX-B			1-3/4"	44mm						
	CPVC			2"	51mm						
	Press Fit			2-1/4"	57mm						
	PEX-A			3-1/4"	83mm						

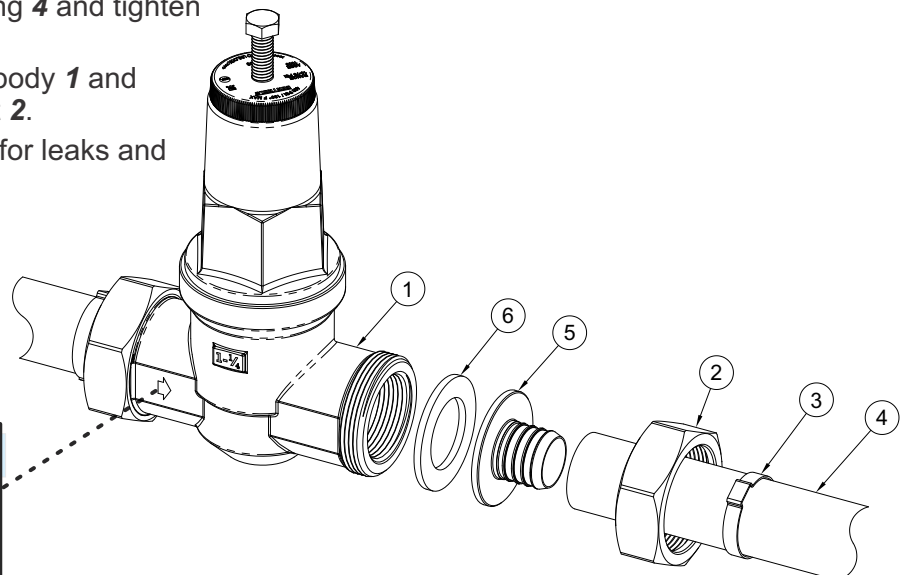
INSTALLATION: -CU & -CPVC

1. Locate PRV **1** in a suitable place accessible for servicing and adjusting.
2. Turn OFF water supply prior to installing PRV.
3. Drain water lines by opening lowest water faucet, then opening highest water faucet to alleviate possible vacuum.
4. Thoroughly flush supplies.
5. Slide Brass Nut **2**, onto supply and outlet Tubing **3**.
6. Insert Tubing Adapter **4** onto the end of the Tubing **3**,
 - a. For -CU sweat Adapter **4** to Tube **3**
 - b. For -CPVC Glue Adapter **4** to end of tubing **3** using appropriate PVC Pipe Cement.
7. Insert Gasket **5** and Gasket **6** between PRV body **1** and Adapter **4** then tighten Hex Nut **2**.
8. Slowly turn on supplies, check for leaks and tighten Hex Nut **2** if needed.



INSTALLATION: -PEX

1. Repeat sets 1 - 4 of previous install and continue with the following steps.
5. Slide Brass Nut **2** and installer provided Gripper/Clamp **3** onto the end of Tubing **4**
6. Insert PEX Adapter **5** into Tubing **4** and tighten Crimp Rings **3**.
7. Insert Gasket **6** between PRV body **1** and Adapter **5** then tighten Hex Nut **2**.
8. Slowly turn on supplies, check for leaks and tighten Hex Nut **2** if needed.



! IMPORTANT

Verify the PRV Flow Direction Indicator Arrow with direction of water supply flow.

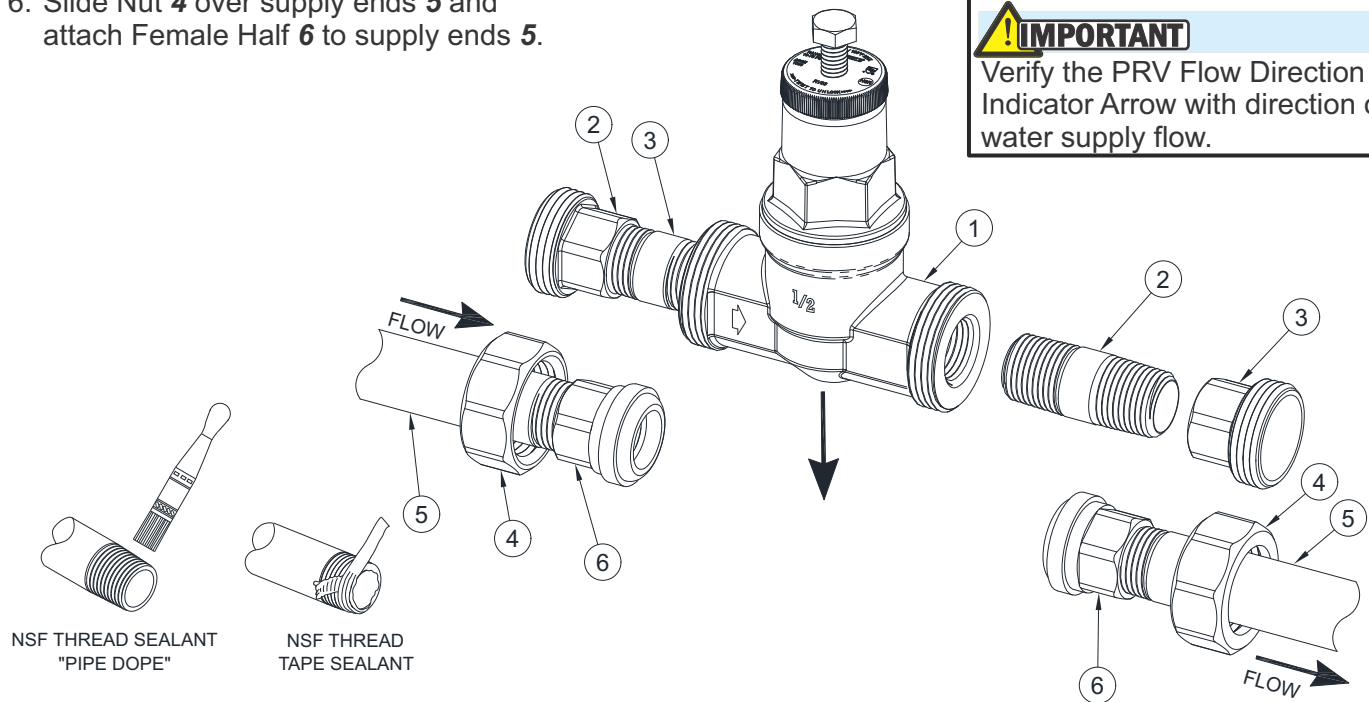
INSTALLATION: -NPT NO ADAPTERS

1. Repeat sets 1 - 4 of previous install and continue with the following steps.
5. Using NSF pipe tape or pipe dope assemble installer provided Male Half 2 and pipe nipple 3 to PRV 1.
6. Slide Nut 4 over supply ends 5 and attach Female Half 6 to supply ends 5.

7. Insert assembled PRV assembly 1 between Female halves 6 and tight Nuts 4.
8. Slowly turn on supplies, check for leaks and tighten as needed.

NOTE: RV03P0-100 (1/2") shown. RV03B0-7 (2-1/2") & RV03B0-8 (3") assembly is the same.

!IMPORTANT
Verify the PRV Flow Direction Indicator Arrow with direction of water supply flow.

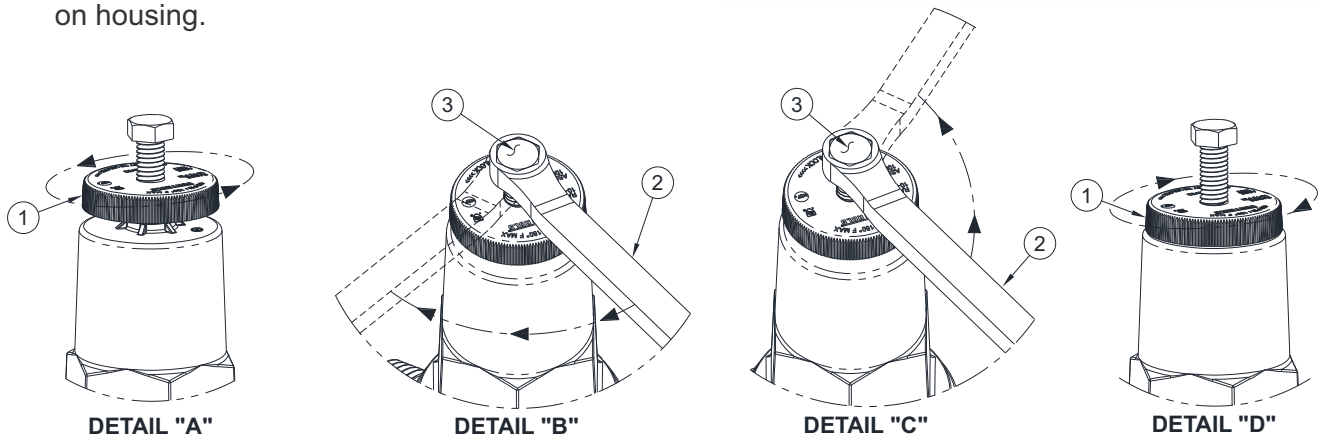


PRESSURE ADJUSTMENT:

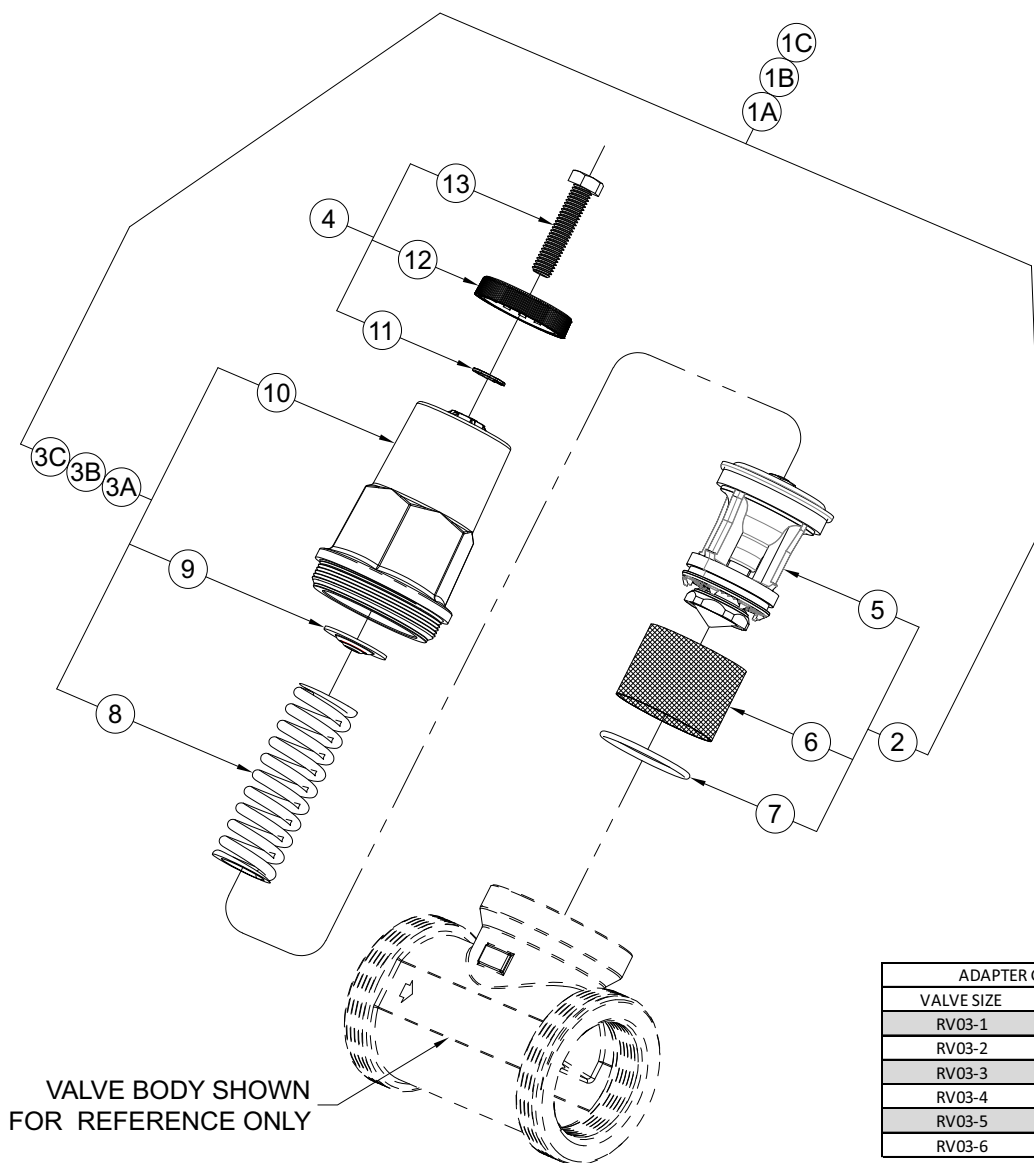
1. In order for most accurate water pressure adjustment, it is recommended to use a Pressure Gauge downstream from PRV.
2. Twist Locking Cap 1 counter-clock-wise to loosen. (DETAIL A)
3. **To increase downstream water pressure**, using a wrench 2 turn Adjusting Bolt 3 clockwise until desired pressure is reached (DETAIL B). Do not bottom out adjustment bolt on housing.

4. **To decrease downstream water pressure**, using a wrench 2 turn Adjusting Bolt 3 counter-clockwise until desired pressure is reached (DETAIL C).
5. Once desired pressure is reached twist Locking Cap 1 clockwise until tight. (DETAIL D)

!IMPORTANT Following adjustments:
Verify downstream water pressure to ensure PRV is properly set and within applicable Code requirements.



REPAIR PARTS: RV03-1 THROUGH 6 (STANDARD SPRING)



ADAPTER GASKET KITS	
VALVE SIZE	KIT NUMBER (10 PK)
RV03-1	7816-128-001
RV03-2	7816-128-001
RV03-3	7852-205-001
RV03-4	7853-205-001
RV03-5	7854-204-001
RV03-6	7855-209-001

ITEM	DESCRIPTION	RV03PO-1 KIT NUMBER	RV03PO-2 KIT NUMBER	RV03PO-3 KIT NUMBER	RV03PO-4 KIT NUMBER	RV03PO-5 KIT NUMBER	RV03PO-6 KIT NUMBER
1A	COMPLETE REBUILD KIT (PLASTIC)	7851-500-001	7851-500-001	7852-500-001	7855-500-001	7855-500-001	7855-500-001
2	CARTRIDGE REPLACEMENT KIT	7850-501-001	7850-501-001	7852-501-001	7855-501-001	7855-501-001	7855-501-001
3A	BONNET REBULD KIT (PLASTIC)	7851-502-001	7851-502-001	7852-502-001	7855-502-001	7855-502-001	7855-502-001
4	ADJUSTMENT/LOCKING KIT	7851-503-001	7851-503-001	7855-503-001	7855-503-001	7855-503-001	7855-503-001

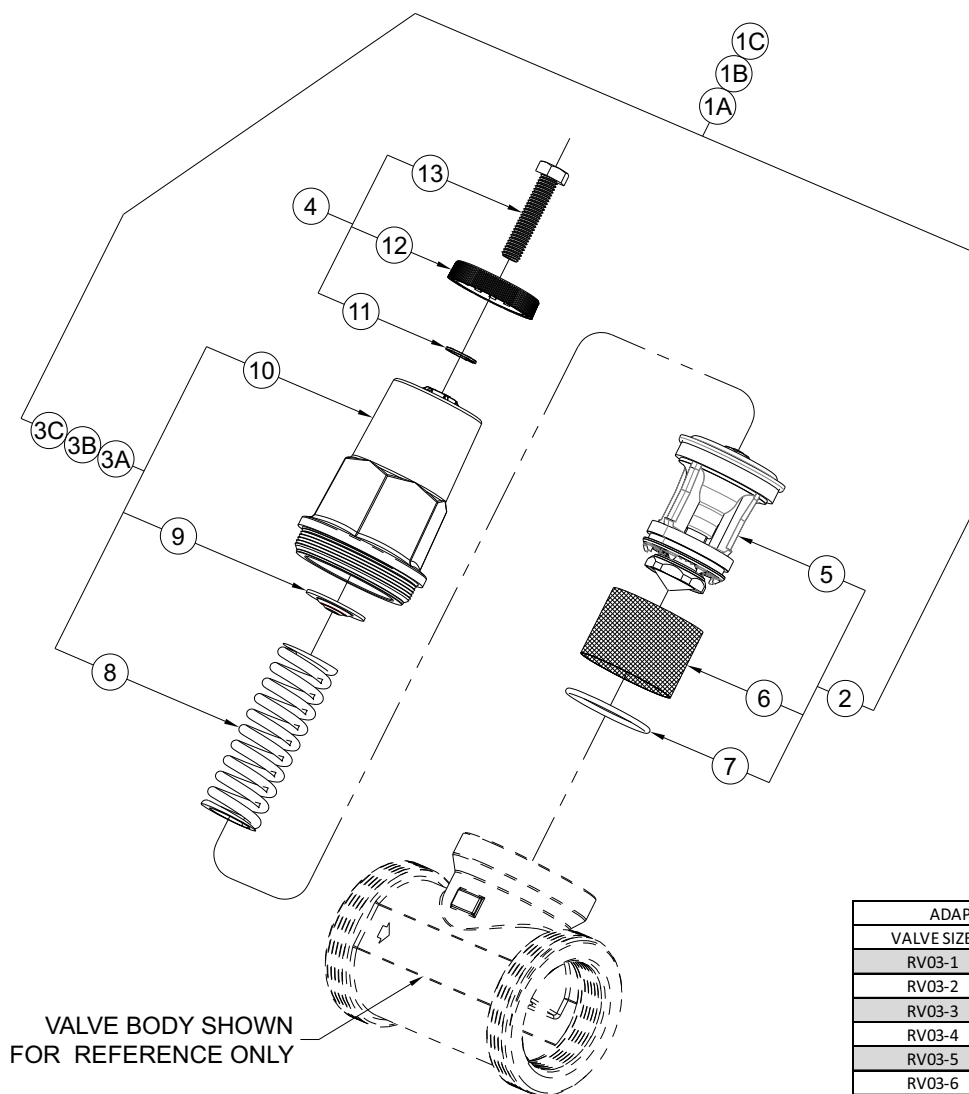
ITEM	DESCRIPTION	RV03SO-1 KIT NUMBER	RV03SO-2 KIT NUMBER	RV03SO-3 KIT NUMBER	RV03SO-4 KIT NUMBER	RV03SO-5 KIT NUMBER	RV03SO-6 KIT NUMBER
1B	COMPLETE REBUILD KIT (STEEL)	7851-500-003	7851-500-003	7852-500-003	7855-500-003	7855-500-003	7855-500-003
3B	BONNET REBULD KIT (STEEL)	7851-502-003	7851-502-003	7852-502-003	7855-502-003	7855-502-003	7855-502-003

ITEM	DESCRIPTION	RV03BO-1 KIT NUMBER	RV03BO-2 KIT NUMBER	RV03BO-3 KIT NUMBER	RV03BO-4 KIT NUMBER	RV03BO-5 KIT NUMBER	RV03BO-6 KIT NUMBER
1C	COMPLETE REBUILD KIT (BRASS)	7851-500-005	7851-500-005	7852-500-005	7855-500-005	7855-500-005	7855-500-005
3C	BONNET REBULD KIT (BRASS)	7851-502-005	7851-502-005	7852-502-005	7855-502-005	7855-502-005	7855-502-005

ITEM	DESCRIPTION	ITEM	DESCRIPTION	ITEM	DESCRIPTION
5	CARTRIDGE ASSEMBLY	8	SPRING	11	WEDGE LOCK WASHER
6	STAINLESS STEEL MESH SCREEN	9	SPRING RETAINER	12	LOCKING CAP
7	CARTRIDGE O-RING	10	BONNET	13	ADJUSTING BOLT

REPAIR PARTS: RV03-1 THROUGH 6

(MODELS WITH HIGH PRESSURE SPRING)



ADAPTER GASKET KITS	
VALVE SIZE	KIT NUMBER (10 PK)
RV03-1	7816-128-001
RV03-2	7816-128-001
RV03-3	7852-205-001
RV03-4	7853-205-001
RV03-5	7854-204-001
RV03-6	7855-209-001

ITEM	DESCRIPTION	RV03PH-1 KIT NUMBER	RV03PH-2 KIT NUMBER	RV03PH-3 KIT NUMBER	RV03PH-4 KIT NUMBER	RV03PH-5 KIT NUMBER	RV03PH-6 KIT NUMBER
1A	COMPLETE REBUILD KIT (PLASTIC HP)	7851-500-002	7851-500-002	7852-500-002	7855-500-002	7855-500-002	7855-500-002
2	CARTRIDGE REPLACEMENT KIT	7850-501-001	7850-501-001	7852-501-001	7855-501-001	7855-501-001	7855-501-001
3A	BONNET REBULD KIT (PLASTIC HP)	7851-502-002	7851-502-002	7852-502-002	7855-502-002	7855-502-002	7855-502-002
4	ADJUSTMENT/LOCKING KIT	7851-503-001	7851-503-001	7855-503-001	7855-503-001	7855-503-001	7855-503-001

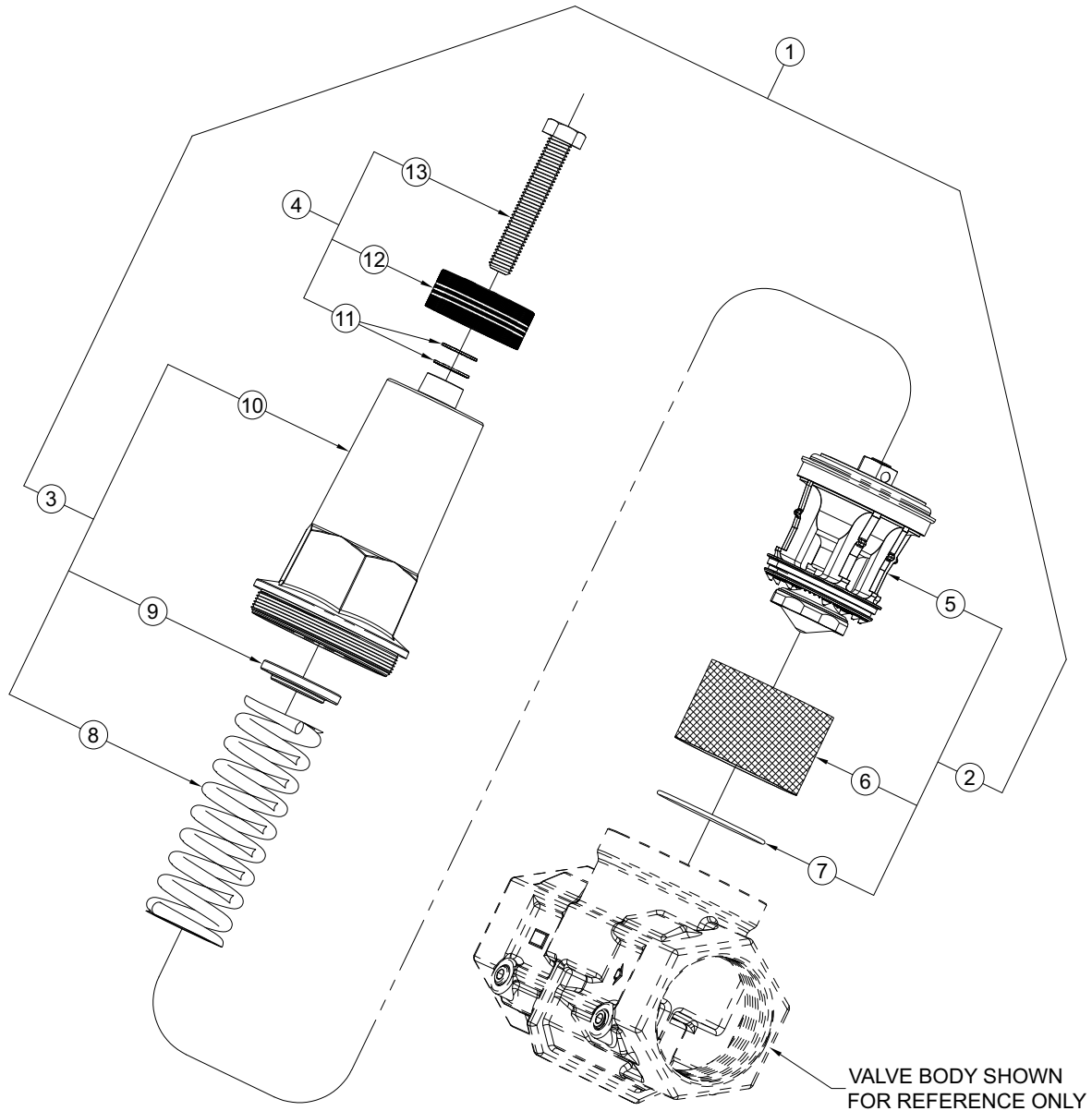
ITEM	DESCRIPTION	RV03SH-1 KIT NUMBER	RV03SH-2 KIT NUMBER	RV03SH-3 KIT NUMBER	RV03SH-4 KIT NUMBER	RV03SH-5 KIT NUMBER	RV03SH-6 KIT NUMBER
1B	COMPLETE REBUILD KIT (STEEL HP)	7851-500-004	7851-500-004	7852-500-004	7855-500-004	7855-500-004	7855-500-004
3B	BONNET REBULD KIT (STEEL HP)	7851-502-004	7851-502-004	7852-502-004	7855-502-004	7855-502-004	7855-502-004

ITEM	DESCRIPTION	RV03BH-1 KIT NUMBER	RV03BH-2 KIT NUMBER	RV03BH-3 KIT NUMBER	RV03BH-4 KIT NUMBER	RV03BH-5 KIT NUMBER	RV03BH-6 KIT NUMBER
1C	COMPLETE REBUILD KIT (BRASS HP)	7851-500-006	7851-500-006	7852-500-006	7855-500-006	7855-500-006	7855-500-006
3C	BONNET REBULD KIT (BRASS HP)	7851-502-006	7851-502-006	7852-502-006	7855-502-006	7855-502-006	7855-502-006

ITEM	DESCRIPTION	ITEM	DESCRIPTION	ITEM	DESCRIPTION
5	CARTRIDGE ASSEMBLY	8	SPRING	11	WEDGE LOCK WASHER
6	STAINLESS STEEL MESH SCREEN	9	SPRING RETAINER	12	LOCKING CAP
7	CARTRIDGE O-RING	10	BONNET	13	ADJUSTING BOLT

REPAIR PARTS: RV03B-7 and RV03B-8

STANDARD and HIGH PRESSURE SPRING



ITEM	DESCRIPTION	RV03B0-7 KIT NUMBER	RV03BH-7 KIT NUMBER	RV03B0-8 KIT NUMBER	RV03BH-8 KIT NUMBER
1	COMPLETE REBUILD KIT	7857-500-001	7857-500-002	7857-500-001	7857-500-002
2	INTERNAL REBUILD KIT	7857-501-001	7857-501-001	7857-501-001	7857-501-001
3	BONNET REBUILD KIT	7857-502-001	7857-502-002	7857-502-001	7857-502-002
4	ADJUSTMENT/LOCKING KIT	7857-503-001	7857-505-001	7857-503-001	7857-505-001

ITEM	DESCRIPTION	ITEM	DESCRIPTION	ITEM	DESCRIPTION
5	CARTRIDGE ASSEMBLY	8	SPRING	11	WEDGE LOCK WASHER
6	STAINLESS STEEL MESH SCREEN	9	SPRING RETAINER	12	LOCKING CAP
7	CARTRIDGE O-RING	10	BONNET	13	ADJUSTING BOLT