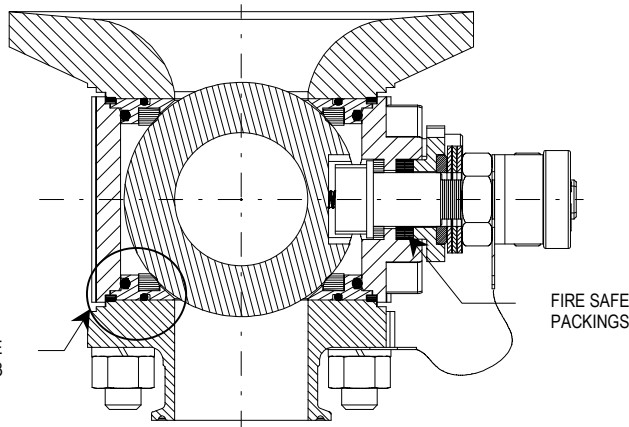
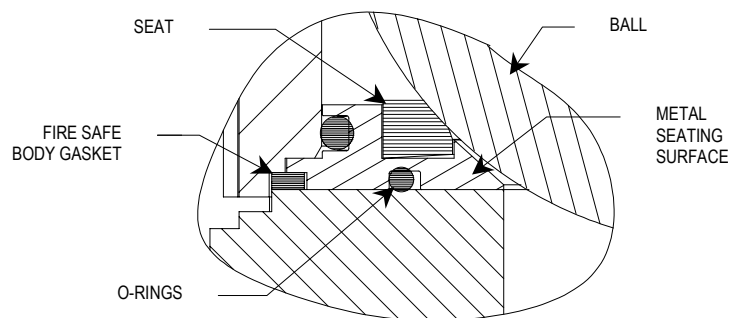
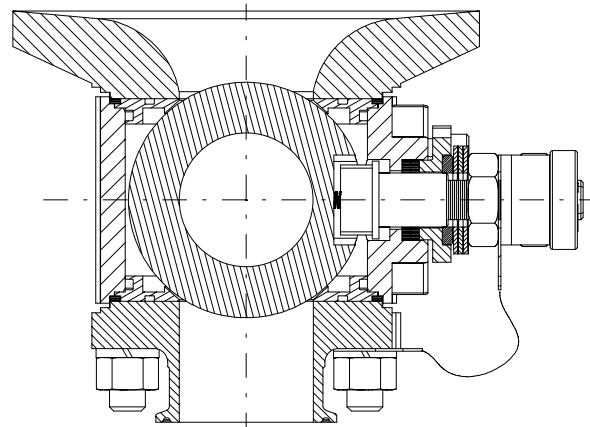


PBM's Series 5 Two-Way and Flush Tank (industrial and sanitary) ball valves feature an API-607, Edition 4 Fire Test option, which accommodates media with flammable ingredients or applications in a critical service environment. The Fire Test design necessitates a non-Adjust-O-Seal<sup>®</sup> configuration and includes special graphite gaskets and stem packing.

**Figure 1: Series 5 Flush Tank valve with Fire Test Option  
 Seats Intact**



**Figure 2: Series 5 Flush Tank valve with Fire Test Option  
 Seats Burned Away**



**Figure 3: Seat Detail**

The API-607 qualified valves feature a backup metal seat against which the ball seals if the normal polytetrafluoroethylene seats melt under fire conditions. This metal to metal seal allows only limited leakage under fire conditions.

Packing leakage is minimized by the use of graphite packing, which backs up the normal elastomeric seal. Body to end fitting leakage is similarly minimized by the use of a backup sealing graphite gasket that retains its integrity under high temperature conditions. Valve tests have demonstrated zero or near zero leakage from these joints during and after fire exposure.

PBM Series 5 Two-Way and Flush Tank Fire Test valves are currently available in sizes ½" through 3" with multiple end fittings. Standard seat, seal, and packing materials include glass-reinforced (RTFE), virgin (VTFE), stainless steel reinforced (S/STFE), and carbon and glass reinforced (PLUS) polytetrafluoroethylene. Choose from a variety of wetted materials in accordance with ASME/ANSI B16.34, Table 1.

# SERIES 5 FIRE TEST VALVES—API-607, EDITION 4

PRODUCT Position 1 + 2		MATERIAL 3 + 4		SIZE 5		SERIES 6	END FITTING 7 + 8		SEAT / SEAL 9			
									SEAT/SEAL	FILLER	O-RING	
<b>SP</b>	Two-Way, Full Port	<b>C-</b>	Hastelloy C-276	<b>C</b>	½"	<b>6</b>	<b>A-</b>	Acme Bevel	<b>A</b>	RTFE	None	Viton
<b>SS</b>	Two-Way, Reduced Port	<b>E-</b>	Carbon Steel	<b>D</b>	¾"		<b>B-</b>	Butt Weld Sch. 40	<b>B</b>	RTFE	VTFE	Viton
<b>SI</b>	Igenix™ Sanitary Two-Way, True-Bore®	<b>H-</b>	316 Stainless	<b>E</b>	1"		<b>C-</b>	Butt Weld Sch. 5	<b>C</b>	VTFE	None	Viton
<b>FT</b>	Two-Way Flush Tank, Full Port	<b>HL</b>	316L Stainless	<b>G</b>	1½"		<b>D-</b>	Butt Weld Sch. 10	<b>D</b>	VTFE	VTFE	VITON
<b>FS</b>	Two-Way Flush Tank, Reduced Port	<b>I-</b>	Inconel 600	<b>H</b>	2"		<b>F-</b>	Extended Butt Weld (Tube)	<b>E</b>	PLUS	None	VITON
<b>FI</b>	Igenix™ Sanitary Two-Way Flush Tank, True-Bore®	<b>K-</b>	304 Stainless	<b>K</b>	3"		<b>G-</b>	Cherry Burrell Female I-Line	<b>F</b>	PLUS	VTFE	Viton
		<b>KL</b>	304L Stainless				<b>H-</b>	Cherry Burrell Male I-Line	<b>G</b>	PLUS	PLUS	VITON
							<b>J-</b>	Cherry Burrell Q-Line	<b>H</b>	S/STFE	None	VITON
							<b>K-</b>	Camlock	<b>I</b>	S/STFE	VTFE	VITON
							<b>L-</b>	150# Flange	<b>J</b>	S/STFE	S/STFE	VITON
							<b>M-</b>	300# Flange	<b>T</b>	VTFE	None	EPR
							<b>O-</b>	Grooved	<b>U</b>	VTFE	VTFE	EPR
							<b>P-</b>	Male NPT	<b>V</b>	RTFE	None	EPR
							<b>Q-</b>	Female NPT	<b>W</b>	RTFE	VTFE	EPR
							<b>U-</b>	Socket Weld	<b>X</b>	PLUS	None	EPR
							<b>V-</b>	Socket Weld for Tube	<b>Y</b>	PLUS	VTFE	EPR
						<b>W-</b>	Tri-Clamp (Pipe)	<b>Z</b>	PLUS	PLUS	EPR	
						<b>X-</b>	Tri-Clamp (Tube)	<b>1</b>	S/STFE	VTFE	EPR	
						<b>-Z</b>	No End Fittings	<b>2</b>	S/STFE	S/STFE	EPR	
								<b>7</b>	VTFE	None	ENCAP VITON	
								<b>8</b>	RTFE	None	ENCAP VITON	
								<b>9</b>	PLUS	None	ENCAP VITON	

FLOW PATTERN 10 + 11
Insert two dashes (- -).

- Notes:**
1. Other valve materials available upon request.
  2. For valve sizes larger than 3", consult factory.
  3. For valves with two different end connections, use both end fitting code letters.
  4. Inline weldable end fittings are standard.
  5. Valve part number must contain 15 characters, including dashes.

# SERIES 5 FIRE TEST VALVES—API-607, EDITION 4

BALL / STEM 12		OPERATOR 13 + 14		POLISH 15	
-	No option	-	Manual lever handle	-	No polish
<b>A</b>	300 S/S with 2" Extension	<b>01</b>	Without Handle	<b>A</b>	20 R <sub>a</sub> Max ID
<b>B</b>	300 S/S with 4" Extension	<b>02</b>	Without Handle, prepared for actuator mounting	<b>B</b>	32 R <sub>a</sub> Max OD
<b>C</b>	300 S/S with 6" Extension	<b>03</b>	With Handle	<b>C</b>	20 R <sub>a</sub> Max ID & 32 R <sub>a</sub> Max OD
<b>F</b>	With ground device	<b>04</b>	Locking device	<b>D</b>	15 R <sub>a</sub> Max ID
<b>G</b>	17-4 PH S/S stem	<b>05</b>	Stainless Oval Handwheel	<b>E</b>	10 R <sub>a</sub> Max ID
<b>I</b>	With Monel ball	<b>06</b>	Manual Safety Nut	<b>F</b>	20 R <sub>a</sub> Max ID after Electropolish
<b>K</b>	With Monel stem & followers	<b>07</b>	45 Degree Handle	<b>G</b>	15 R <sub>a</sub> Max ID after Electropolish
<b>L</b>	With Monel ball, stem and followers	<b>08</b>	Manual Gear Operator	<b>H</b>	10 R <sub>a</sub> Max ID after Electropolish
<b>O</b>	With H/C ball	<b>09</b>	T-Handle (24" long)	<b>I</b>	5 R <sub>a</sub> Max ID
<b>P</b>	With H/C ball, stem and followers	<b>10</b>	Manual Spring Return Handle	<b>K</b>	5 R <sub>a</sub> Max ID & 32 R <sub>a</sub> Max OD
<b>R</b>	With Monel stem, followers and bolting	<b>11</b>	Fusible Link Spring Return Unit	<b>L</b>	20 R <sub>a</sub> Max ID & 32 R <sub>a</sub> Max OD after Electropolish
<b>S</b>	With Monel ball, stem, followers and bolting	<b>12</b>	Coupled Vane Actuator for 80 psi	<b>M</b>	Electropolish only (ID & OD)
		<b>13</b>	NEMA 4 Electric Actuator 120 vac	<b>N</b>	10 R <sub>a</sub> Max ID & 32 R <sub>a</sub> Max OD
		<b>14</b>	NEMA 7 Electric Actuator 120 vac	<b>O</b>	15 R <sub>a</sub> Max ID & 32 R <sub>a</sub> Max OD after Electropolish
		<b>15</b>	Square Operating Nut	<b>Q</b>	15 R <sub>a</sub> Max ID & 32 R <sub>a</sub> Max OD
		<b>16</b>	Locking Handle and actuator mount body	<b>S</b>	10 R <sub>a</sub> Max ID & 32 R <sub>a</sub> Max OD after Electropolish
		<b>17</b>	Extended Locking Oval Handwheel		
		<b>18</b>	Extended Locking Lever Handle		
		<b>20</b>	D/A Actuator 80 psi		
		<b>21</b>	D/A Actuator 80 psi w/ NEMA 4 limit switch		
		<b>22</b>	D/A Actuator 80 psi w/ NEMA 4 solenoid		
		<b>23</b>	D/A Actuator 80 psi w/ NEMA 4 limit switch/solenoid		
		<b>24</b>	D/A Actuator 80 psi w/ NEMA 7 limit switch		
		<b>25</b>	D/A Actuator 80 psi w/ NEMA 7 solenoid		
		<b>26</b>	D/A Actuator 80 psi w/ NEMA 7 limit switch/solenoid		
		<b>27</b>	D/A Actuator 60 psi		
		<b>28</b>	D/A Actuator 60 psi w/ NEMA 4 limit switch		
		<b>29</b>	D/A Actuator 60 psi w/ NEMA 4 solenoid		
		<b>30</b>	D/A Actuator 60 psi w/ NEMA 4 limit switch/solenoid		
		<b>31</b>	D/A Actuator 60 psi w/ NEMA 7 limit switch		
		<b>32</b>	D/A Actuator 60 psi w/ NEMA 7 solenoid		
		<b>33</b>	D/A Actuator 60 psi w/ NEMA 7 limit switch/solenoid		
		<b>34</b>	S/R Actuator 80 psi		
		<b>35</b>	S/R Actuator 80 psi w/ NEMA 4 limit switch		
		<b>36</b>	S/R Actuator 80 psi w/ NEMA 4 solenoid		
		<b>37</b>	S/R Actuator 80 psi w/ NEMA 4 limit switch/solenoid		
		<b>38</b>	S/R Actuator 80 psi w/ NEMA 7 limit switch		
		<b>39</b>	S/R Actuator 80 psi w/ NEMA 7 solenoid		
		<b>40</b>	S/R Actuator 80 psi w/ NEMA 7 limit switch/solenoid		
		<b>41</b>	S/R Actuator 60 psi		
		<b>42</b>	S/R Actuator 60 psi w/ NEMA 4 limit switch		
		<b>43</b>	S/R Actuator 60 psi w/ NEMA 4 solenoid		
		<b>44</b>	S/R Actuator 60 psi w/ NEMA 4 limit switch/solenoid		
		<b>45</b>	S/R Actuator 60 psi w/ NEMA 7 limit switch		
		<b>46</b>	S/R Actuator 60 psi w/ NEMA 7 solenoid		
		<b>47</b>	S/R Actuator 60 psi w/ NEMA 7 limit switch/solenoid		

- Notes:**
1. Ball/Stem option F is standard.
  2. Other actuator options available.
  3. Valve part number must contain 15 characters, including dashes.