

## Royal® Flushometer

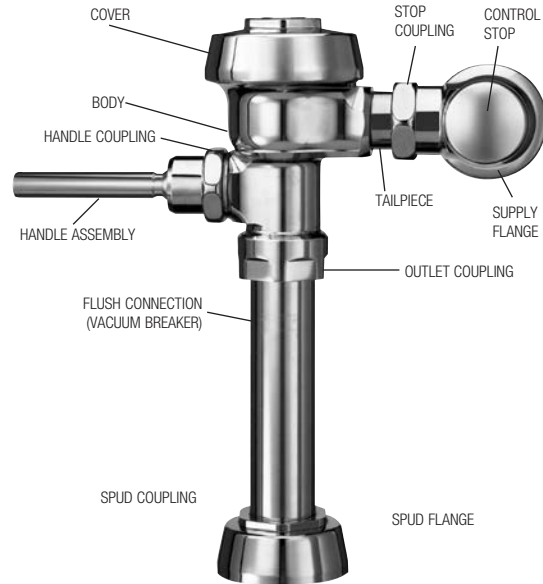
### DUAL-FILTERED DIAPHRAGM ASSEMBLY

Available in diaphragm only and Royal® Performance™ Kits.

Royal® Performance™ Kit includes dual-filtered diaphragm assembly (item 3), handle repair kit with triple seal packing (item 8), high back pressure vacuum breaker repair kit (item 11), and one tailpiece O-ring (item 15A). DIAPHRAGM ONLY KIT contains “drop-in” dual-filtered diaphragm assembly (item 3) ONLY.

The dual-filtered diaphragm can be used in Royal®, Regal®, and similar diaphragm-style valve bodies. For use in Sloan valve bodies with a bell-shaped cover (manufactured before 1964), replace the bottom filter ring in these kits with a blue A-108 filter ring (not shown Sloan Code No. **5301283**).

NOTE: In January 1998, the Royal® diaphragm design was upgraded to a preassembled unit with two (2) plastic filtering rings attached to the rubber diaphragm (one on top and one on bottom). If the flushometer you are servicing has our older, segmented diaphragm with brass by-pass hole, refer to our Regal section for additional troubleshooting information.



### ROYAL® PERFORMANCE KIT

Code No.	Part No.	Description	Relief Valve†	Refill Head*	Flow Ring
<b>3301070</b>	A-1101-A	Low Consumption Water Closets-1.6 gpf (6.0 Lpf)**	Green	Gray	Smooth
<b>3301071</b>	A-1102-A	Water Saver Water Closets-3.5 gpf (13.2 Lpf)**	White	Gray	Smooth
<b>3301072</b>	A-1103-A	9 Liter European Water Closets-2.4 gpf (9.0 Lpf)	Blue	Gray	Smooth
<b>3301073</b>	A-1106-A	Wash Down Urinals-0.5 gpf (1.9 Lpf)	Green	Black	Smooth
<b>3301074</b>	A-1107-A	Low Consumption Urinals-1.0 gpf (3.8 Lpf)**	Green	Black	Slotted
<b>3301075</b>	A-1108-A	Water Saver Urinals-1.5 gpf (5.7 Lpf)**	Black	Black	Smooth

\*Closet refill heads (gray) have larger slots than urinal refill heads (black).

### DIAPHRAGM ONLY KIT

Code No.	Part No.	Description	Relief Valve†	Refill Head*	Flow Ring
<b>3301502</b>	A-1041-A	Low Consumption Water Closets-1.6 gpf (6.0 Lpf)**	Green	Gray	Smooth
<b>3301501</b>	A-1038-A	Water Saver Water Closets-3.5 gpf (13.2 Lpf)**	White	Gray	Smooth
<b>3301505</b>	A-1044-A	9 Liter European Water Closets-2.4 gpf (9.0 Lpf)	Blue	Gray	Smooth
<b>3301504</b>	A-1043-A	Wash Down Urinals-0.5 gpf (1.9 Lpf)	Green	Black	Smooth
<b>3301503</b>	A-1042-A	Low Consumption Urinals-1.0 gpf (3.8 Lpf)**	Green	Black	Slotted
<b>3301500</b>	A-1037-A	Water Saver Urinals-1.5 gpf (5.7 Lpf)**	Black	Black	Smooth
<b>3301506</b>	A-1045-A	High-Efficiency Water Closets-1.28 gpf (4.8 Lpf)	Blue	Gray	Smooth
<b>3301142</b>	A-1047-A	High-Efficiency Urinals-0.25 gpf (1.0 Lpf) with White Inserts	White	HEU Black	Smooth
<b>3301143</b>	A-1050-A	High-Efficiency Urinals-0.125 gpf (0.5 Lpf) with White Inserts	Blue	HEU Black	Smooth
<b>3301594</b>	A-1075-A-BX	High-Efficiency Water Closets-1.28 gpf (4.8 Lpf) RW	Blue	Black	Smooth
<b>3301592</b>	A-1073-A-BX	High-Efficiency Urinals-0.5 gpf (1.9 Lpf) RW	Green	Black	Smooth + Slotted
<b>3301591</b>	A-1077-A-BX	High-Efficiency Urinals-0.25 gpf (1.0 Lpf) RW	White	HEU Black	Smooth
<b>3301590</b>	A-1070-A-BX	High-Efficiency Urinals-0.125 gpf (0.5 Lpf) RW	Blue	HEU Black	Smooth

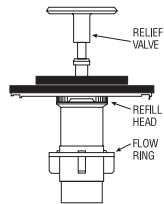
† Consult factory for availability of replacement plastic relief valves (green, black, blue, and white) and brass relief valves.

NOTE: For older water closets that require 4.5 gpf (17.0 Lpf), choose kits A-1102-A or A-1038-A, but remove the flow ring before use. For blowout-style urinals that require 3.5 gpf (13.2 Lpf), choose kits A-1102-A or A-1038-A. For service sinks that require 6.5 gpf (24.6 Lpf), order A-36-A diaphragm repair kit (not shown Sloan Code No. **3301036**) and remove the flow ring before use. Regulations for low consumption fixtures prohibit the use of higher flush volumes.

\*Closet refill heads (gray) have larger slots than urinal refill Heads (black).

\*\* Water Saver (3.5 gpf closet and 1.5 gpf urinal) and Low Consumption (1.6 gpf closet and 1.0 gpf urinal) fixtures must use matching gpf (Lpf) diaphragm kits; using a smaller gpf (Lpf) kit in fixtures not intended for less volume will result in inadequate dilution in urinals and improper evacuation in closets.

RW for use with Reclaimed Water Flushometers.



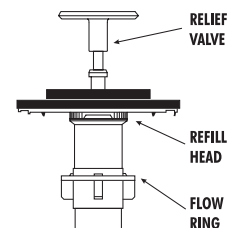
The colors of the relief valve and the refill head plus the shape of flow ring identify the flush volume of a DUAL-FILTERED DIAPHRAGM ASSEMBLY.

## Optima® Flushometers

### ROYAL® ESS (ITEM 24) REPAIR KIT

Code No.	Part No.	Description	Relief Valve	Refill Head*	Flow Ring
3345013	EL-1101-A	Low Consumption Water Closets-1.6 gpf (6.0 Lpf)	Green	Gray	Smooth
3345014	EL-1102-A	Water Saver Water Closets-3.5 gpf (13.2 Lpf)	White	Gray	Smooth
3345015	EL-1103-A	9 Liter European Water Closets-2.4 gpf (9.0 Lpf)	Blue	Gray	Smooth
3345016	EL-1106-A	Wash Down Urinals-0.5 gpf (1.9 Lpf)	Green	Black	Smooth
3345017	EL-1107-A	Low Consumption Urinals-1.0 gpf (3.8 Lpf)	Green	Black	Slotted
3345018	EL-1108-A	Water Saver Urinals-1.5 gpf (5.7 Lpf)	Black	Black	Smooth
3345083	EL-1109-A	High Efficiency Urinals-1.28 gpf (4.8 Lpf)	Blue	Gray	Smooth

To identify the Flush Volume of a DUAL FILTERED DIAPHRAGM ASSEMBLY, look at the color of the **relief valve**, the **refill head** and the shape of **flow ring**.



\*NOTE: Water closet refill heads (gray) have larger slots than urinal refill heads (black).

### DIAPHRAGM ONLY KIT

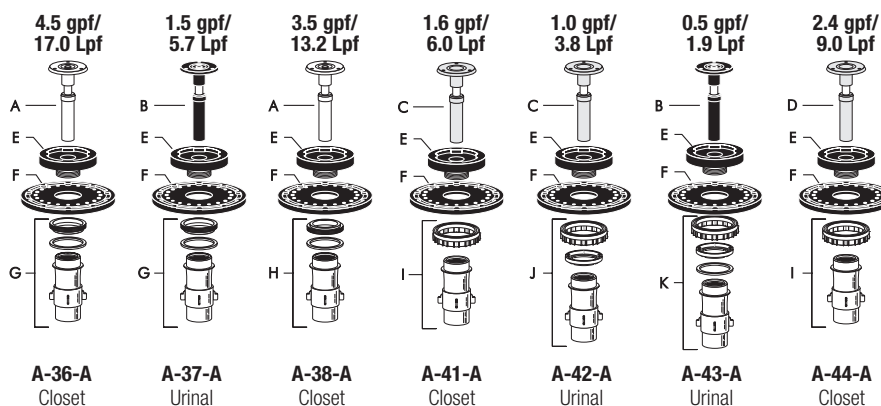
Code No.	Part No.	Description	Relief Valve	Refill Head*	Flow Ring
3301502	A-1041-A	Low Consumption Water Closets-1.6 gpf (6.0 Lpf)	Green	Gray	Smooth
3301501	A-1038-A	Water Saver Water Closets-3.5 gpf (13.2 Lpf)	White	Gray	Smooth
3301506	A-1045-A	High Efficiency Water Closets-1.28 gpf (4.8 Lpf)	Blue	Gray	Smooth
3301505	A-1044-A	9 Liter European Water Closets-2.4 gpf (9.0 Lpf)	Blue	Gray	Smooth
3301504	A-1043-A	Wash Down Urinals-0.5 gpf (1.9 Lpf)	Green	Black	Smooth
3321503	A-1042-A	Low Consumption Urinals-1.0 gpf (3.8 Lpf)	Green	Black	Slotted
3301500	A-1037-A	Water Saver Urinals-1.5 gpf (5.7 Lpf)	Black	Black	Smooth
3301142	A-1047-A	High Efficiency Urinals-0.25 gpf (1.0 Lpf) with White Inserts	White	HEU Black	Smooth
3301143	A-1050-A	High Efficiency Urinals-0.125 gpf (0.5 Lpf) with White Inserts	Blue	HEU Black	Smooth

\*NOTE: Water closet refill heads (gray) have larger slots than urinal refill heads (black).

### REGAL® ESS (ITEM 28) INSIDE PARTS KITS ASSEMBLY

NOTE: Also for use with Regal® XL (Since mid-2010)

Code No.	Part No.	Description
3301036	A-36-A	4.5 gpf/17.0 Lpf-Closet
3301037	A-37-A	1.5 gpf/5.7 Lpf-Urinal
3301038	A-38-A	3.5 gpf/13.2 Lpf-Closet
3301041	A-41-A	1.6 gpf/6.0 Lpf-Closet
3301044	A-42-A	1.0 gpf/3.8 Lpf-Urinal
3301081	A-43-A	0.5 gpf/1.9 Lpf-Urinal
3301024	A-44-A	2.4 gpf/9.0 Lpf-Closet



### REGAL® INSIDE PARTS LIST\*\* NOTE: Also for use with Regal® XL (Since mid-2010)

Item No.	Code No.	Part No.	Description
A.	5301058	A-19-AC	Relief Valve, White (Closet)
B.	5301059	A-19-AU	Relief Valve, Black (Urinal)
C.	5301211	A-19-ALC	Relief Valve, Green (Closet/Urinal-Low Consumption)
D.	0301143	A-19-AL	Relief Valve, Blue (9 Liter Closet)
E.	5301111	A-15-A	Disc
F.	5301188	A-156-A	Diaphragm
G.	5301236	A-163-A	Guide Assembly 4.5 gpf/17.0 Lpf Closet and 1.5 gpf/5.7 Lpf Urinal
H.	5301032	A-152-A	Guide Assembly 3.5 gpf/13.2 Lpf Closet
I.	5301031	A-151-A	Guide Assembly 1.6 gpf/6.0 Lpf Closet
J.	5301155	A-155-A	Guide Assembly 1.0 gpf/3.8 Lpf Urinal
K.	5301157	A-157-A	Guide Assembly 0.5 gpf/1.9 Lpf Urinal

\*\*NOTE: All Regal® inside part items are supplied in 12 per package.