

Equipment Technical Bulletin

Summit E and XL: Water Supply System for Low Water Pressure Conditions



PROBLEM

In some situations, water pressure to Summit E or XL is insufficient for proper functioning.

SOLUTION

We recommend that you construct a system as shown in Figures 1 and 2, using the components listed on the following pages. Please note that these components are not supplied by Beta Technology.

The system illustrated here is designed to boost water pressure in situations where water pressure is 15 psi or less. This setup can sufficiently boost water pressure for 5 or more Summit E or XL flush manifold installations.

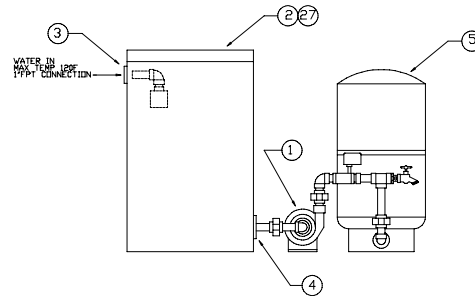


Figure 1. Complete Water Supply System

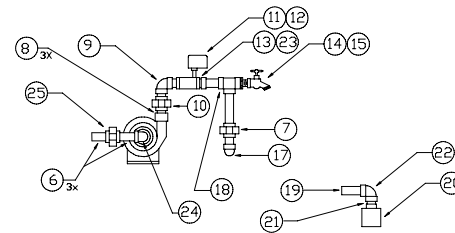


Figure 2. Plumbing Detail

Water supply system for low pressure accounts (Summit E/XL)

Sequence No.	Description	Material	Manufacture info	Supplier/Part no.	Qty needed	Approx cost
1	Water pump	Bronze/sst	Dayton 4TU27	Grainger #4TU27	1	470.00
2	Tank 55gal	Polyethylene	n/a	US Plastics #4032	1	66.08
3	Bulkhead fitting 1" w/nut	PVC	n/a	US Plastics #16613	1	13.62
4	Bulkhead fitting 1-1/4" w/nut	PVC	n/a	US Plastics #16614	1	18.44
5	Expansion tank	steel/butyl	Well-X-trol #WX-202	Aqua Science WX-202 http://www.aq	1	191.00
6	Pfng, nipple, 1-1/4X6"L, TBE	PVC80	Lasco 212-060 or eq	US Plastics #27081	3	3.96
7	Union, 1" slip	PVC80	Lasco 897-010 or eq.	US Plastics #28063	1	4.24
8	Pfng, nipple, 1", close	Brass	n/a	McMaster-Carr #4568K221	3	11.52
9	Pfng, elbow, 1" FPT	Brass	n/a	McMaster-Carr #4429K165	1	9.80
10	Union, 1" FPT	Brass	n/a	McMaster-Carr #4429K216	1	23.26
11	Pressure switch-pump	steel	n/a	Grainger #5B415	1	17.54
12	Pfng, nipple, 1/4" hex	Brass	n/a	McMaster-Carr #5485K221	1	1.72
13	Check Valve, 1" FPT-2 port	Brass	n/a	Grainger #SYM32	1	13.21
14	Valve, hose bib, 3/4MPT	Brass	n/a	Grainger #SE415	1	3.51
15	Pfng, 1X3/4", SpigXFPT	PVC40	Lasco 438-031 or eq.	US Plastics #28256	1	1.55
16	Not used					
17	Pfng, elbow, 1" slip	PVC40	Lasco 406-010 or eq.	US Plastics #28304	1	1.18
18	Pfng, tee, 1" slip	PVC40	Lasco 401-010 or eq.	US Plastics #28328	1	1.55
19	Pfng, nipple, 1" X 5" TBE	PVC80	Lasco 210-050 or eq.	US Plastics #27070	1	0.95
20	Float valve	n/a	n/a	US Plastics #23098	1	22.90
21	Pfng, nipple, close, 1"	PVC80	Lasco 210-015 or eq.	US Plastics #27065	1	0.54
22	Pfng, elbow, 1" FPT	PVC80	Lasco 808-010 or eq.	US Plastics #27255	1	2.84
23	Pfng, male adapter, 1"MPTX1" slip	PVC40	Lasco 436-010 or eq.	US Plastics #28363	2	2.06
24	Pfng, elbow, 1-1/4" threaded	PVC80	Lasco 808-012 or eq.	US Plastics #27268	1	3.05
25	pfng, union, 1-1/4" threaded	PVC80	Lasco 898-012 or eq.	US Plastics #27274	1	12.02
26	Pfng, nipple, 1-1/4"X 5"L TBE	PVC80	Lasco 212-050 or eq.	US Plastics #27080	1	1.17
27	Cover for tank	Polyethylene	n/a	US Plastics #3025	1	22.38
				Total		920.12

Other items needed:

Pipe, 1" Sch40 or Sch80 (6FT) Need to cut lengths to connect expansion tank plumbing from checkvalve (#13). Cut lengths to be determined at installation.

Not Shown on drawing:

Pipe nipple for pump inlet (use seq #6)
Male adapter Seq #23 needed for connection to expansion tank (inlet)

Notes:

Pump capable of supplying 14GPM @ 45PSI
System is sized to be capable of filling expansion tank @5 GPM and also supply 5 manifolds @ 5 GPM at same time.
Expansion tank drawdown 8gal @40 to 20PSI. This should allow for several feeds before pump needs to regenerate supply.

Suppliers

Grainger
McMaster-Carr
U.S Plastics
Aqua Science

website link

<http://www.grainger.com/Grainger/wvg/start.shtml>
<http://www.mcmaster.com/>
<http://www.usplastic.com/catalog/default.asp>
<http://www.aquascience.net/tanks.htm#wellxtrol>

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