



TECHNICAL DATA

EASYPAC RESIDENTIAL RISER MANIFOLD ASSEMBLIES 1" - 2" (DN25 - DN50)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com

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1. DESCRIPTION

Viking EasyPac Residential Riser Manifold Assemblies are available in sizes 1", 1-1/4", 1-1/2", and 2" for NFPA 13D and NFPA13R residential fire sprinkler systems. The configuration eliminates the need to drain the system before installing the relief valve, while a built in test port allows hydrostatic testing without draining the system. The EasyPac Residential Assemblies include pressure gauges, Potter flow switches, 3-way valve, and 1" drain valve (or 1-1/4" for 2" Manifold). The EasyPac assemblies are made with steel bodies and are available in threaded or grooved connections.



2. LISTINGS AND APPROVALS

Pressure Gauges: UL Listed - Category VEVX, FM Approved

Waterflow Alarm Switch: UL Listed - Category USQT, cUL Listed, FM Approved - Water-flow Detectors (2" VSR only), Vane Type, CSFM Listed

Ball Valve: UL Listed - Category VQGU, FM Approved

AGF TestanDrain Model 1000: UL Listed - Category VEHZ, FM Approved - Sprinkler System Alarm Testers

AGF TestanDrain Model 1011 with Pressure Relief Valve: UL Listed - Category VEHZ, FM Approved - Sprinkler System Alarm Testers

3. TECHNICAL DATA

Specifications and Material Standards:

Available since 2007.

- Pressure Rating: 250 PSI (17.2 bar) maximum water working pressure.
- Fabricated steel pipe.
- Available in male NPT threaded inlet and outlet connections using Schedule 40 steel pipe.
- Available in grooved inlet and outlet connections using Schedule 10 steel pipe.
- Available with male NPT threaded inlet x grooved outlet using Schedule 40 steel pipe.
- Riser bodies coated with black Ecoat.
- Flow Switch: Two single-pole double-throw switches with Form C contacts rated at 15 Amps 125/250 V. AC, 2.5 Amp 0-30 V. DC. Each switch can be wired for open or closed circuit operation. See Figure 1.

Ordering Information:

(Also refer to the current Viking price list.)

There are three different options available for the Residential line:

Basic Residential EasyPac Assemblies with Ball Valve Drain (See Figure 2)

Residential EasyPac Assemblies with TESTanDRAIN Valve (See Figure 3)

Residential EasyPac Assemblies with TESTanDRAIN and Pressure Relief Valve (PRV) (See Figure 4)

See Table 1 for Part Numbers.



WARNING: Cancer and Reproductive Harm-
www.P65Warnings.ca.gov

4. INSTALLATION

Refer to appropriate NFPA Installation Standards.

Note: The EasyPac Residential Riser Manifold Assembly can be installed horizontally with flow switch on top, or vertically with flow upward.

Viking EasyPac Riser Assemblies use Potter VSR flow switches. The literature that accompanies the VSR states that the switch should not be installed within 6" of a change of direction of pipe or within 24" of a valve. This is merely a recommendation to reduce the possibility of the switch not operating while minimal waterflow is occurring. This is a recommendation only, not a requirement.

5. TESTANDRAIN VALVE OPERATING INSTRUCTIONS

1. To Test: Turn valve handle counterclockwise from "Off" to "Test". The handle will stop automatically. After test is completed, return handle to "Off".
2. To Drain: Turn handle counterclockwise from "Off" to "Test". The handle will stop automatically. Depress "Push" button and turn handle to "Drain". When system is empty, return handle clockwise to "Off" position.



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6. INSPECTIONS, TESTS AND MAINTENANCE

Refer to NFPA 25 for Inspection, Testing and Maintenance requirements.

7. AVAILABILITY

The Viking EasyPac Riser Assemblies are available through a network of domestic and international distributors. See The Viking Corporation web site for the closest distributor or contact The Viking Corporation.

8. GUARANTEE

For details of warranty, refer to Viking's current list price schedule or contact Viking directly.

Table 1 - Commercial EasyPac Assemblies

Pipe Size	Inlet / Outlet Connections	Option	Pipe Size	Viking Part Number
1"	Thread / Thread	Ball Valve	Schedule 40	15226
		TESTanDRAIN		15227
		TESTanDRAIN and PRV		15228
	Groove / Groove	Ball Valve	Schedule 10	15243
		TESTanDRAIN		15244
		TESTanDRAIN and PRV		15245
1-1/4"	Thread / Thread	Ball Valve	Schedule 40	14840
		TESTanDRAIN		15229
		TESTanDRAIN and PRV		15230
	Groove / Groove	Ball Valve	Schedule 10	14841
		TESTanDRAIN		15231
		TESTanDRAIN and PRV		15232
	Thread / Groove	Ball Valve	Schedule 40	14905
		TESTanDRAIN		15233
		TESTanDRAIN and PRV		15234
1-1/2"	Thread / Thread	Ball Valve	Schedule 40	14842
		TESTanDRAIN		15235
		TESTanDRAIN and PRV		15236
	Groove / Groove	Ball Valve	Schedule 10	14843
		TESTanDRAIN		15237
		TESTanDRAIN and PRV		15238
	Thread / Groove	Ball Valve	Schedule 40	14849
		TESTanDRAIN		15239
		TESTanDRAIN and PRV		15240
2"	Thread / Thread	Ball Valve	Schedule 40	14844
		TESTanDRAIN		15241
		TESTanDRAIN and PRV		14901
	Groove / Groove	Ball Valve	Schedule 10	14845
		TESTanDRAIN		15242
		TESTanDRAIN and PRV		14900
	Thread / Groove	Ball Valve	Schedule 40	14846
		TESTanDRAIN		15246
		TESTanDRAIN and PRV		15247

TESTanDRAIN Option:

Includes a test orifice with size specified from 3/8" (K2.8) to 25K ESFR*, depending on the smallest sprinkler installed on the system. Must add suffix to the part number for the desired orifice size.

Orifice Suffix:

A = 3/8" (K 2.8)
B = 7/16" (K 4.2)
C = 1/2" (K 5.6)
D = 17/32" (K 8.0)

TESTanDRAIN with PRV Option:

Includes test orifice and pressure relief valve. The test orifice must be specified based on the smallest sprinkler installed on the system for 3/8" (K2.8) to K25 ESFR*. The pressure relief valve is not factory assembled to the TestanDrain. Must add suffix to the part number for the desired orifice size and pressure setting of the pressure relief valve.

Orifice Suffix:

A = 3/8" (K 2.8)
B = 7/16" (K 4.2)
C = 1/2" (K 5.6)
D = 17/32" (K 8.0)

PRV Suffix:

175
200
225
300

NOTE: It is important to note that the pressure rating of the relief valve indicates an operating range of pressure for both opening and closing of the valve. Standard relief valves are required to OPEN in a range of pressure between 90% and 105% of their rating. The valves are required to CLOSE at a pressure above 80% of that rating.



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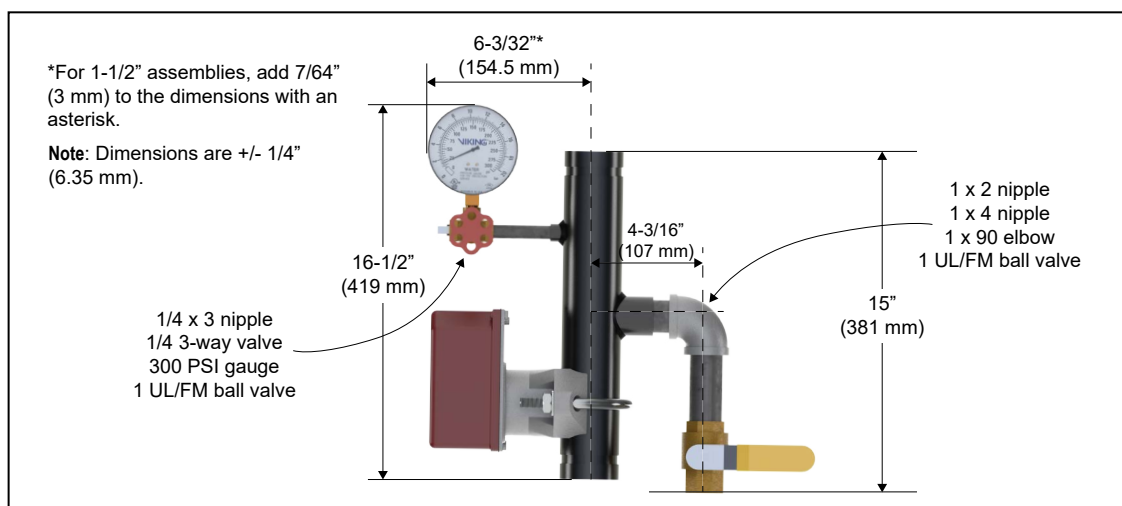
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Table 2 - Pipe Diameters				
	1"	1-1/4"	1-1/2"	2"
Pipe OD	1.315" (33.4 mm)	1.660" (42 mm)	1.900" (48 mm)	2.375" (60 mm)
Schedule 10 Pipe ID	1.097" (27.9 mm)	1.45" (36.6 mm)	1.69" (42.7 mm)	2.16" (54.8 mm)
Schedule 40 Pipe ID	1.049" (26.6 mm)	1.38" (35.1 mm)	1.61" (40.9 mm)	2.07" (52.5 mm)



**Figure 1 - Flow Switch with Two Single Pole, Double Throw
Micro Switches**



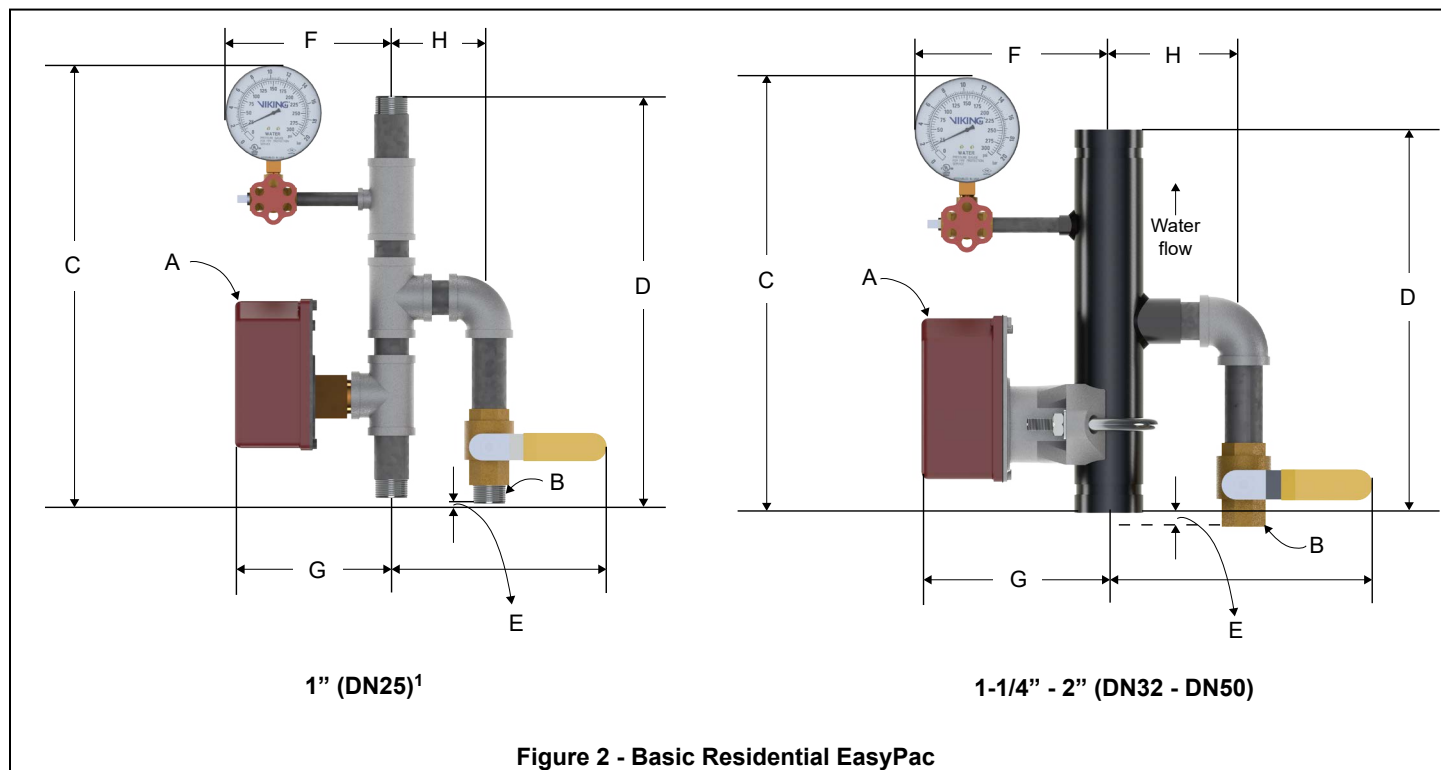
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Size	A	B	C	D	E	F	G	H	I
1" (DN25)¹	VSR-S Flow Switch ³	1" Hose Adapter	16-3/32" (409)	14-15/16" (379)	1" (25)	6-3/16" (157)	5-3/4" (146)	3-1/2" (89)	8" (203)
1-1/4" (DN32)	VSR-S Flow Switch ³	1" NPT	16-1/2" (419)	15" (381)	1-1/2" (38)	6-3/32" (155)	6-11/32" (161)	4-3/16" (107)	8-9/16" (218)
1-1/2" (DN40)	VSR-S Flow Switch ³	1" NPT	16-1/2" (419)	15" (381)	1-1/2" (38)	6-7/32" (158)	6-15/16" (164)	4-5/16" (110)	9-11/16" (246)
2" (DN50)	VSR Flow Switch ⁴	1-1/4" NPT	14-1/2" (369)	13" (330)	-1/2" (-12) ²	6-7/16" (164)	5-51/64" (148)	5" (127)	9-23/64" (238)

¹ The body of the 1" manifold is comprised of four 1" nipples and three tee's.

² Dimension E is negative because the ball valve extends below the end of the manifold body.

³ Mounted with included nipple (As shown above)

⁴ Mounted with included U bolt (Not Shown)

Note: Dimensions may vary by $\pm 1/4"$ (6.3 mm)



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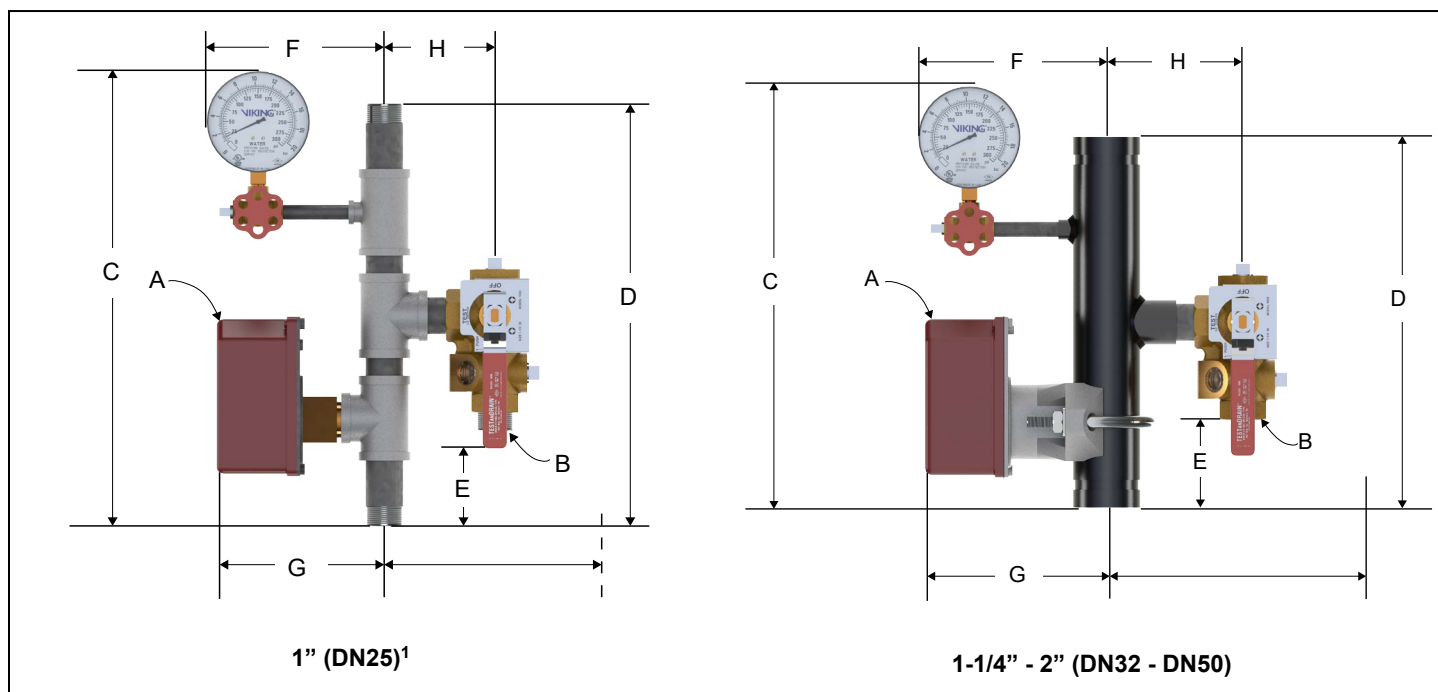


Figure 3 - Residential EasyPac with TESTanDRAIN

Size	A	B	C	D	E	F	G	H	I
1" (DN25)¹	VSR-S Flow Switch ²	1" Hose	16-1/16" (409)	14-15/16" (379)	2-11/16" (68)	6-3/16" (157)	5-3/4" (146)	3-7/8" (98)	8-1/2" (216)
1-1/4" (DN32)	VSR-S Flow Switch ²	1" NPT	16-1/2" (419)	15" (381)	5-1/8" (131)	6-3/32" (155)	6-11/32" (161)	4-15/32" (114)	9-3/32" (231)
1-1/2" (DN40)	VSR-S Flow Switch ²	1" NPT	16-1/2" (419)	15" (381)	5-1/8" (131)	7-19/32" (193)	6-15/16" (164)	4-19/32" (117)	9-7/32" (234)
2" (DN50)	VSR Flow Switch ³	1-1/4" NPT	14-1/2" (369)	13" (330)	3-1/4" (83)	6-7/16" (164)	5-51/64" (148)	5-13/64" (132)	10-45/64" (272)

¹ The body of the 1" manifold is comprised of four 1" nipples and three tee's.

² Mounted with included nipple (As shown above)

³ Mounted with included U bolt (Not Shown)

Note: Dimensions may vary by $\pm 1/4"$ (6.3 mm)



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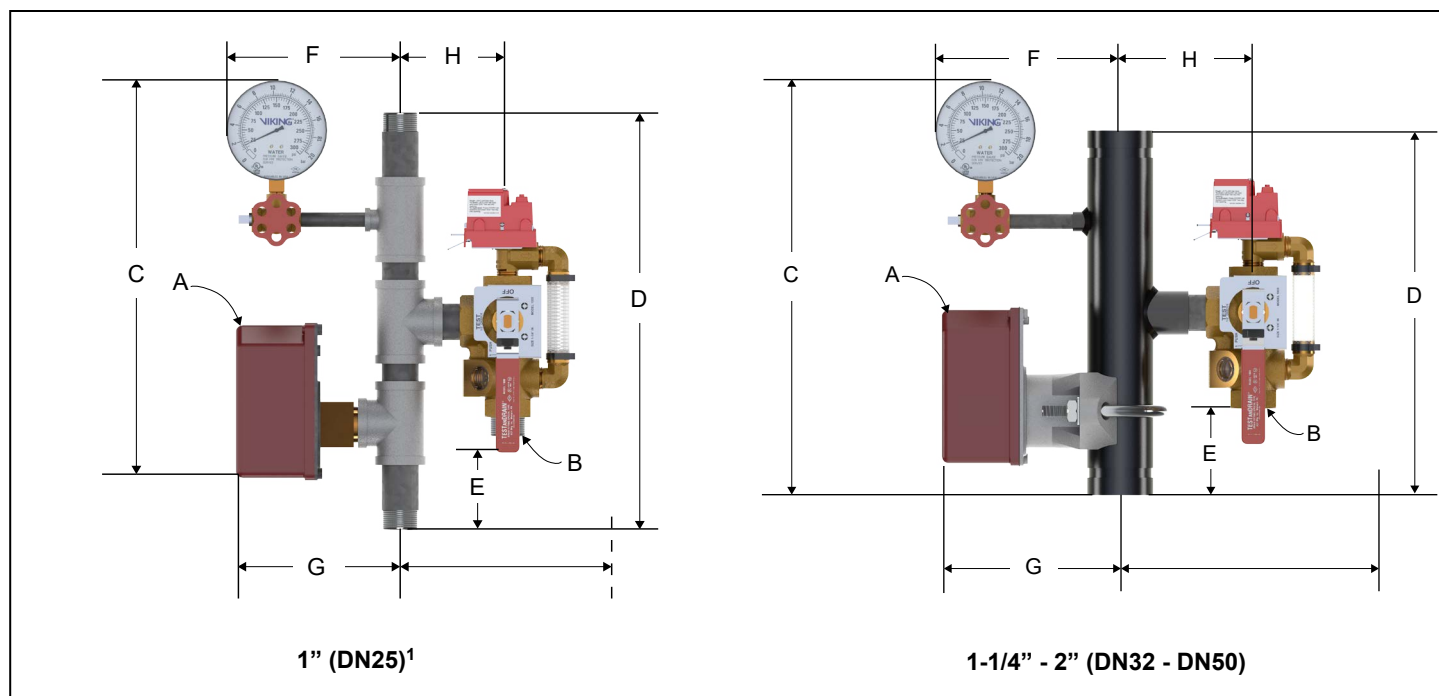


Figure 4 - Residential EasyPac with TESTanDRAIN and PRV

Size	A	B	C	D	E	F	G	H	I
1" (DN25)¹	VSR-S Flow Switch ²	1" NPT	16-1/16" (409)	14-15/16" (379)	2-11/16" (68)	6-3/16" (157)	5-3/4" (146)	3-7/8" (98)	8-1/2" (216)
1-1/4" (DN32)	VSR-S Flow Switch ²	1" NPT	16-1/2" (419)	15" (381)	5-1/8" (131)	6-3/32" (155)	6-11/32" (161)	4-15/32" (114)	9-3/32" (231)
1-1/2" (DN40)	VSR-S Flow Switch ²	1" NPT	16-1/2" (419)	15" (381)	5-1/8" (131)	7-19/32" (193)	6-15/16" (164)	4-19/32" (117)	9-7/32" (234)
2" (DN50)	VSR Flow Switch ³	1-1/4" NPT	14-1/2" (369)	13" (330)	3-1/4" (83)	6-7/16" (164)	5-51/64" (148")	5-13/64" (132)	10-45/64" (272)

¹ The body of the 1" manifold is comprised of four 1" nipples and three tee's.

² Mounted with included nipple (Not Shown)

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Note: Dimensions may vary by $\pm 1/4"$ (6.3 mm)