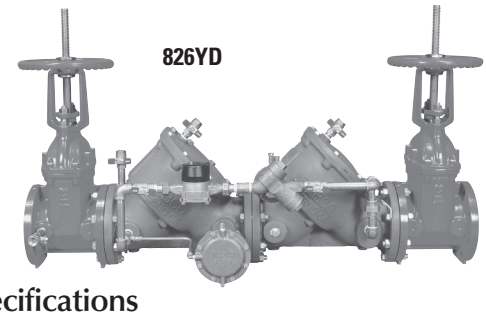
SPECIFICATION SHEET

Series 826YD

Reduced Pressure Detector Assemblies

Size: 2½" - 10" (65mm - 250mm)



The FEBCO Series 826YD Reduced Pressure Detector Assemblies designed for use in used applications with Automatic fire sprinkler systems containing toxic substances.

Features

- The DuraCheck, features all stainless steel check assemblies for corrosion resistance, reduced fouling and longer valve life.
- DuraCast, ductile iron body for superior strength, corrosion resistance and lighter weight. By-pass line has water meter in series with an approved reduced pressure assembly.
- Low Head Loss
- Approved by the Foundation for Cross-Connnection Control and Hydraulic Research at the University of Southern California.
- End Detail is Flanged

Operation

In a nonflow condition, check valves on the by-pass and mainline units are closed with pressure between the checks, called the zone, being maintained at least 5psi (35 kPa) lower than the inlet pressure and the relief valve is maintained closed. If the differential between the zone and the upstream pressure drops to 2psi (14kPa), the differential relief valve will open, maintaining proper zone differential. The by-pass reduced pressure backflow preventer will operate identically to the mainline assembly.

The by-pass opens to detect initial flow and the mainline opens for all other flows.

Models

- Less Gates
- Air Gap Drain
- Left hand by-pass
- Remote Reader
- Meter CFM/GPM

Approvals

- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California.*

ASSE 1047 · CLASSIFIED UL * · FM Approved *

* Valves must be supplied with resilient seated shutoff valves for USC and FM approvals to be in effect. UL and FM Listings only applicable with approved OS&Y gates.

Specifications

Reduced pressure detector assembly shall consist of a mainline reduced pressure configured backflow assembly in parallel with a reduced pressure by-pass assembly.

Flow curves shall be documented by independent laboratory testing. Mainline valve bodies and covers shall be manufactured of ductile iron ASTM A-536, Grade 65-45-12 and shall be flanged, ANSI B 16.1, Class 125, internal and external fusion epoxy coating.

The by-pass shall consist primarily of a bronze water meter in series with a bronze reduced pressure backflow preventer.

All low flow demands up to a minimum of 3 gpm (0.189 L/s) are to pass only through the by-pass meter and meter-size reduced pressure assembly and be accurately recorded. All flows above that of 3 gpm will pass through both the line-size reduced pressure assembly and by-pass without accurate registration by or damage to the meter.

Shutoff valves and testcocks shall be resilient seated with full flow characteristics and are to be considered integral to the assembly. The mainline shut-offs are also to be OS&Y, UL/FM for fireline service.

Reduced pressure detector assemblies shall be rated 175psi CWWP (32°F to 140°F), factory assembled and tested to assure proper mainline/by-pass balance and cross over performance. Reduced pressure detector assemblies shall be FEBCO Series 826YD or prior approved equal.

Note: The gap drain is not designed to catch the maximum discharge possible from the relief valve. The installation of FEBCO air gap with the drain line terminating above a floor drain will handle any normal discharge or nuisance spitting through the relief valve. However, floor drain size may need to be designed to prevent water damage caused by a catastrophic failure condition. Do not reduce the size of the drain line from the air gap fitting.

Pressure – Temperature

Maximum Working Pressure:	175psi (12.1 bar)
Hydrostatic Test Press:	350psi (24.1 bar)
Temperature Range:	32ºF to 140ºF (0ºC to 60ºC)

Materials

Main Valve Body:	Ductile iron grade 65-45-12 epoxy coated internal 10-20 mils
Internal Check Assembly:	Stainless Steel
Trim:	Bronze
By-Pass Valve Body:	Bronze
By-Pass Meter:	Totalizing, 1 to 20 gpm, size 5/8" x 3/4"
Main Valve Shutoffs:	OS&Y, UL/FM
Elastomers:	Nitrile and Nitrile/ fabric reinforced

Remote reading flow meters available.

Job Name _____ Contractor _____

Job Location _____ Approval _____

Engineer _____ Contractor's P.O. No. _____

Approval _____ Representative _____

Installation

The Reduced Pressure Detector Assembly should be installed horizontally with a suggested minimum clearance of 12" (300mm) between the assembly and the floor or grade. They must be installed where discharge from the relief valve will not be objectionable and can be positively drained away. They should be installed where easily accessible for testing and maintenance and must be protected from freezing. Thermal water expansion and/or water hammer downstream of the backflow preventer can cause excessive pressure. Excessive pressure situations should be eliminated to avoid possible damage to the system and assembly.

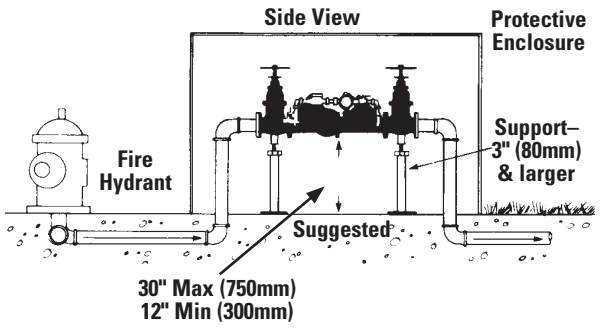
Dimensions – Weights

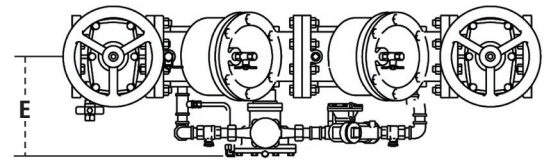
Size: 2½" - 10" (65 - 250mm)

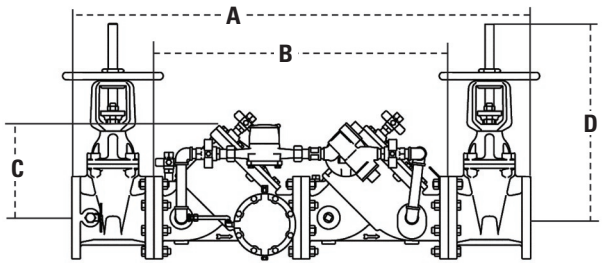
SIZE (DN)		DIMENSIONS										WEIGHT			
		A		B		C		D		E		gates		less gates	
in.	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*lbs.*	*kgs.*	*lbs.*	*kgs.*
2½	65	37¼	946	22⅛	562	7½	191	16⅜	416	10¼	260	243	534.6	134	294.8
3	80	41¾	1061	25⅝	651	8½	216	22¼	565	10½	267	298	655.6	154	338.8
4	100	50⁷⁄₁₆	1281	32⅜	822	11	279	23¼	591	11	279	469	1031.8	194	426.8
6	150	59¾	1518	38⅝	981	14	356	30¼	765	12	305	752	1654.4	397	873.4
8	200	69⁹⁄₁₆	1757	46⅛	1172	18	457	37¾	959	13	330	1207	2655.4	537	1181.4
10	250	84¼	2140	58⅛	1476	22	559	48	1219	14	356	1617	3557.4	957	2105.4

Dimensions shown are nominal, allowance must be made for normal manufacturing tolerances.

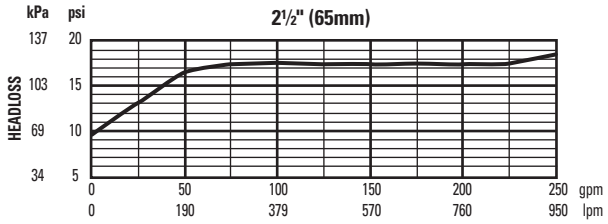
FEBCO MODEL 826YD

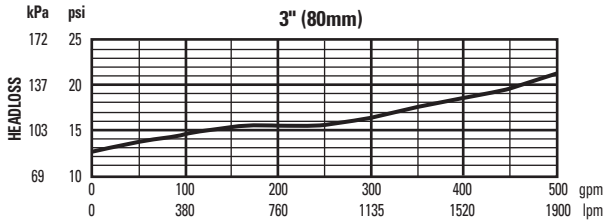


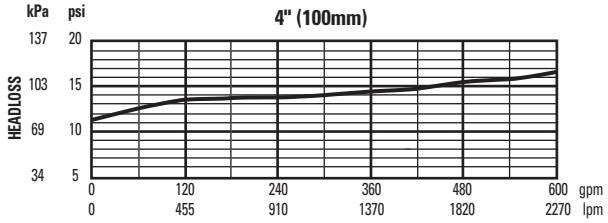


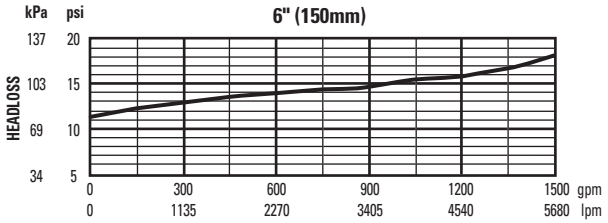


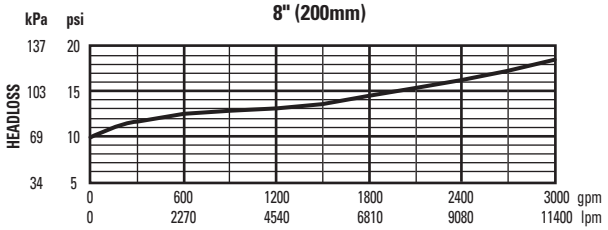
Capacity

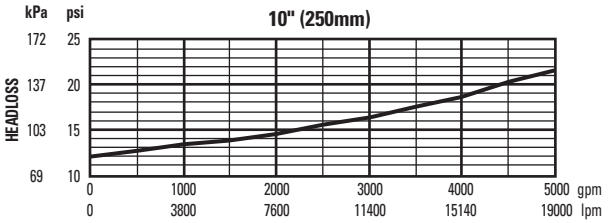












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