RESILIENT WEDGE GATE VALVES & SUPER CENTURION® FIRE HYDRANTS WITH INTEGRAL HYMAX GRIP® RESTRAINT, CANADA VALVE™ CENTURY FIRE HYDRANT AND B-50-B HYDRANT.

Product Specification

1.1 Meets or exceeds all applicable requirements of ANSI/AWWA C515 Standard to the working pressure of 250 PSIG.

1.2 Epoxy coating meets or exceeds all applicable requirements of ANSI/AWWA C550 Standard.

1.3 Certified to ANSI/NSF 61 & 372.

1.4 Configuration and Sizes:

1.4.1 4" – 12"

1.4.2 Hymax Grip x Hymax Grip & Hymax Grip x Flange

1.5 See the Resilient Wedge Gate Valve Product Specification for more details.

2. SUPER CENTURION 250 FIRE HYDRANT WITH HYMAX GRIP® RESTRAINT

2.1 Meets or exceeds all appliable requirements of ANSI/AWWA C502 Standard to the working pressure of 250 PSIG.

2.2 Epoxy coating meets or exceeds all applicable requirements of ANSI/AWWA C550 Standard.

2.3 Certified to ANSI/NSF 61 & 372.

2.4 Configuration and Sizes:

2.4.1 $5\frac{1}{4}$": Elbowed shoe

2.4.2 $4\frac{1}{2}$": Elbowed shoe

2.5 See the Super Centurion Product Specification for more details.

3. CANADA VALVE™ CENTURY FIRE HYDRANT WITH HYMAX GRIP® RESTRAINT

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3.1 Meets or exceeds all appliable requirements of ansi/awwa c502 standard to the working pressure of 175 psig.

3.2 Epoxy coating meets or exceeds all applicable requirements of ANSI/AWWA C550 Standard.

3.3 Certified to ANSI/NSF 61 & 372.

3.4 Configuration and Sizes:

3.4.1 5": Elbowed shoe

3.4.2 4 1/2": Elbowed shoe

3.5 See the CANADA VALVE™ CENTURY Product Specification for more details.

4. B-50-B WITH HYMAX GRIP® RESTRAINT

4.1 Meets or exceeds all appliable requirements of ANSI/AWWA C502 Standard to the working pressure of 175 PSIG.

4.2 Epoxy coating meets or exceeds all applicable requirements of ANSI/AWWA C550 Standard.

4.3 Certified to ANSI/NSF 61 & 372.

4.4 Configuration and Sizes:

4.4.1 4 1/2": Elbowed shoe

4.5 See the B-50-B Product Specification for more details.

5. FEATURES OF THE HYMAX GRIP® RESTRAINT

5.1 Joins and restrains pipes of different types and diameters.

5.5.1 See Pressure Rating Table (1) for applicable piping.

5.5.2 See Pipe OD Range & Minimum Bolt Torque Table (2) for details.

5.2 Ready to use, stab-fit design.

5.3 Easy-to-access top-facing bolt.

5.4 Dynamic deflection up to 4 degrees per grip joint end.

5.5 Pressure-assist gasket and restraint technology.

6. MATERIALS OF THE HYMAX GRIP® RESTRAINT

6.1 **End Ring -** Ductile Iron Casting ASTM A536.

6.2 **Gasket -** EPDM compounded for water applications.

6.3 **Grippers -** Advanced, Metal Injection Molding (MIM), hardened & coated.

6.4 **Gasket Bridge -** 304 Stainless Steel ASTM A240 / A480 (minimum).

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6.5 **Spherical Spacers -** 304 Stainless Steel ASTM A351 – CF8.

6.6 **Coating -** 100% Fusion Bonded Epoxy.

6.7 **Nuts, Bolts, & Washers -** AISI 304 Stainless Steel (minimum); Rolled Thread and Anti-Galling coating.

7. PERFORMANCE OF THE HYMAX GRIP® RESTRAINT

7.1 **Working Temperature:** -20°F up to +125°F.

7.2 **Dynamic Deflection:** Up to 4° per Grip Joint End.

7.3 **Pipe Insertion:** 3.6" Min. / 5.25" Max.

7.4 **Max. Offset for Misaligned Pipes:** 0.25".

7.5 **Max. Out of Roundness:** 0.16".

7.6 **VACUUM TESTING:** Max .25 in.HG. loss, from 18.25 in.HG. at 23°C+/-2°C over 24hrs.

7.7 **Long Term Testing:** HDPE and PVC tested and compliant to 1M cycle testing of ASTM F1674.

8. INSTALLATION

8.1 Reference Installation Guide (F14454) for more information.

TABLE 1

Pressure Rating for the Hymax Grip® Restraint (psi) by size & application

PIPE SPECIFICATION		AWWA C151	AWWA C900 PVC (DIPS)		ASTM D2241 PVC (IPS)		AWWA C906 HDPE (IPS &DIPS)				
PIPE TYPE		DI	DR14	DR18	SDR17	SDR21	SDR9	SDR11	SDR13.5	SDR17	ΔT
PIPE RATING (PSI)		350	305	235	250	200	250	200	160	125	°f
Pipe Size	4"	250	250	235	250	200	250	200	160	125	40
	6"										
	8"										
	10"										
	12"										

Note:

1. HDPE:
   a. HDPE pipe expands and contracts with changes in temperature and exerts large pull-load forces. ΔT for HDPE pipe is the change in temperature that the restraint can withstand when installed on HDPE pipe.
   b. In accordance with the Plastic Pipe Institute requirements, a stiffener is required when restraining HDPE pipe. To maximize performance and meet those ratings shown above, a full cylinder stiffener shall be used (not wedge style).
   c. HDPE ratings shown are for buried, below ground use only [Vault applications require additional considerations].
2. CI:
   a. The Integral Restraint has been tested on CI. Due to the variety and conditions of the CI pipe in the field, pressure ratings cannot be guaranteed. Installed correctly, on good condition CI, the restraint can perform up to 250psi. Please see the table below for applicable OD ranges.

TABLE 2

Pipe OD Range (Inch) & Minimum Bolt Torque (ft-lb) for the Hymax Grip® Restraint by size

NOMINAL DIAMETER (INCH)	APPLICABLE PIPE OD RANGE (INCH)	BOLT SIZE (INCH)	TORQUE (FT-LB)
4	4.48 - 5.02	5/8	90
6	6.61 - 7.12	5/8	110
8	8.60 - 9.35	3/4	200
10	10.73 - 11.49	3/4	200
12	12.68 - 13.29	3/4	200

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