

REHAU®

AQUALOC® Municipal PVC Pressure Pipe

Locking Purity, Safety and Economy
Into Your Water Supply



AQUALOC:

Water Quality You Can Depend On

In communities across the country and around the world, smart planners have discovered the benefits of AQUALOC Municipal PVC Pressure Pipe for their municipal water supplies. They know that they can depend on AQUALOC to safeguard their communities' water supplies.



Besides protecting public health, AQUALOC offers other benefits that municipal engineers demand. Made to withstand extreme pressures without leaking or corroding, this tough pipe is lighter to handle and easier to install than most other pipe available, while its performance and durability mean it's more cost-effective. These advantages make AQUALOC today's optimal choice for tomorrow's water supply demands.

At REHAU, we've been developing and perfecting water main systems for over 25 years, and we continue to be committed to providing a superior product—backed, as always, by our record of service excellence.

Product Range

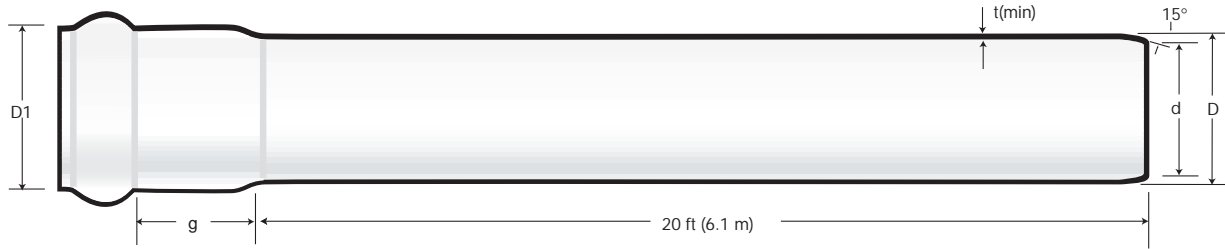


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DR 18 – Class 150 C.I. Outside Diameter - Blue

Size in	D		d		D1		t(min)		g		weight*	
	mm	in	mm	in	mm	in	mm	in	mm	in	kg/m	lb/ft
4	121.9	4.80	108.4	4.27	151.6	5.97	6.78	0.267	70.10	2.76	3.8	2.53
6	175.3	6.90	155.8	6.13	217.7	8.57	9.73	0.383	78.9	3.11	7.6	5.12
8	229.9	9.05	204.3	8.04	280.9	11.06	12.78	0.503	87.9	3.46	13.1	8.80
10	281.9	11.10	250.6	9.87	341.9	13.46	15.67	0.617	95.0	3.74	19.8	13.27
12	335.3	13.20	298.0	11.73	400.6	15.77	18.62	0.733	100.1	3.94	27.9	18.76
14	388.6	15.30	344.9	13.58	476.3	18.75	21.59	0.850	124.9	4.92	39.6	26.64
16	441.9	17.40	389.9	15.35	533.4	21.00	24.61	0.969	150.1	5.91	48.6	32.68

DR 25 – Class 100 C.I. Outside Diameter - Blue

Size in	D		d		D1		t(min)		g		weight*	
	mm	in	mm	in	mm	in	mm	in	mm	in	kg/m	lb/ft
4	121.9	4.80	112.2	4.42	151.6	5.97	4.88	0.192	70.1	2.76	2.8	1.86
6	175.3	6.90	161.2	6.35	217.7	8.57	7.01	0.276	79.0	3.11	5.6	3.74
8	229.9	9.05	211.5	8.33	280.9	11.06	9.19	0.362	87.9	3.46	9.6	6.47
10	281.9	11.10	259.3	10.21	341.9	13.46	11.30	0.445	95.0	3.74	14.5	9.72
12	335.3	13.20	308.5	12.14	400.6	15.77	13.41	0.528	100.1	3.94	20.4	13.93
14	388.6	15.30	357.1	14.06	463.6	18.25	15.60	0.614	125.0	4.92	29.0	19.50
16	441.9	17.40	404.6	15.93	527.1	20.75	17.70	0.697	150.1	5.91	35.6	23.28

*Weights are approximate.



Short Form Specification

AQUALOC Pressure Class 100 and 150 pipe is manufactured in conformance to AWWA C900 and C905 and manufactured and certified to CSA B 137.3, NQ 3624-250, NQ 3660-950 and NSF 61 standards. In addition AQUALOC Pressure Class Pipe is listed to ULC and FM standards.

All AQUALOC Pressure Pipes are manufactured from PVC compounds conforming to ASTM D 1784. The sealing gaskets are locked into the bell during the manufacturing process.

Only REHAU lubricant should be used when assembling AQUALOC pipe.

Installation

AQUALOC pipe shall be installed in strict accordance with the REHAU *Municipal PVC Pipe Installation Guide*. Experienced service and technical support is available at any of REHAU's regional sales offices. If you have any questions concerning pipe installation, a REHAU representative will be glad to assist you.

Pressure Tests

Products	Hydrostatic psi (kPa)	Burst psi (kPa)	Gasketed joints psi (kPa)
DR 18-Class 150	650 (4480)	900 (6200)	752 (5190)
DR 25-Class 100	430 (2965)	650 (4480)	532 (3670)

Superior System Performance

Corrosion Resistance

PVC pipe is immune to all types of metallic corrosion, so no coating, cathodic protection or lining is required. This immunity gives PVC the significant advantages of lower operating costs and longer system life compared with other piping materials.

Leakproof Design

REHAU's locked-in gasket system eliminates the threat of gasket roll. The sealing gaskets are in accordance with CSA B 137.3 and ASTM F 477. Each joint can withstand many times its pressure rating, even under deflected conditions specified in standard tests, without any leakage. Pipe joints are manufactured and hydrostatically tested in accordance with ASTM D 3139 and are certified to meet these requirements under CSA B 137.3. This virtually eliminates both the health risks associated with infiltration and the high cost of exfiltration.

Flexibility

PVC is tough, yet flexible enough to allow the pipe to move with the surrounding soil. This means fewer repairs due to stress cracks.

Strength

REHAU's Pressure Class Pipe provides an additional safety factor for short-term surge pressures and a 2 1/2-to-1 safety factor for 4"-12" and 2-to-1 for 14 and larger for long-term hydrostatic pressure.

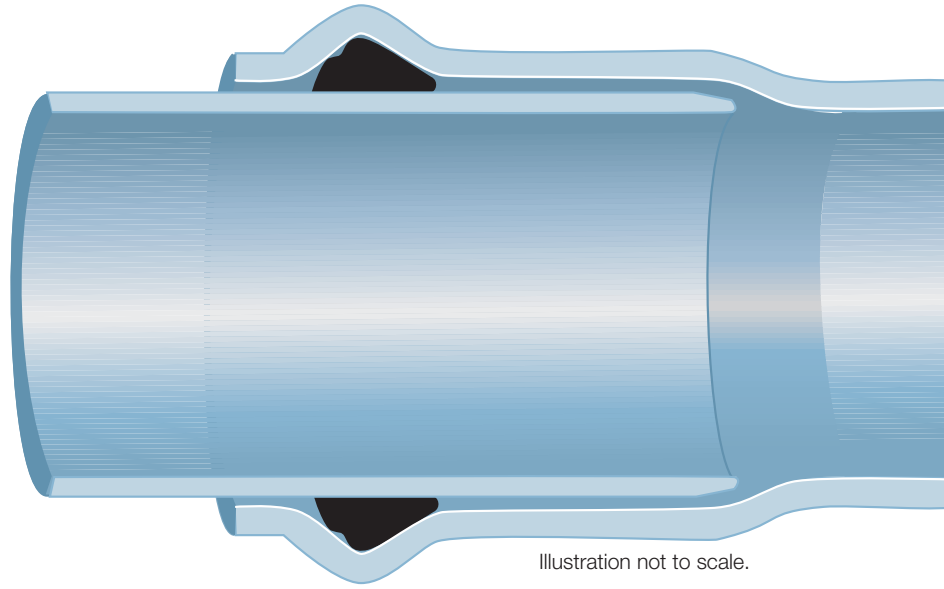


Illustration not to scale.

Reduced Maintenance and Operation Costs

Because PVC's smooth bore resists tuberculation, scaling and abrasion, AQUALOC retains its flow capacity longer than other piping materials. It never needs cleaning, so pumping is not impeded and costs are kept to a minimum. The Hazen-Williams flow coefficient (C-factor), which has been set conservatively at 150, is easily sustainable.

Ease of Installation and Handling

With its high strength-to-weight ratio, AQUALOC combines superior performance with low installation and handling costs. When compared with other materials, PVC pipe can be handled with smaller equipment and can be installed faster—some sizes can even be lifted by hand. See the *REHAU Municipal PVC Pipe Installation Guide* for complete installation instructions.

Ease of Direct Tapping

AQUALOC Classes 100 and 150 are easily tapped for 20 mm (3/4") and 25 mm (1") corporation mains for pipe sizes 150 mm (6") and above. See the *REHAU AQUALOC Pressure Pipe Tapping Guide* for details.

Compatibility

AQUALOC DR 18 and DR 25 have ductile iron outside diameters and can be used with Class 150 PVC push-on fittings as well as D.I. push-on or M.J. fittings.

Complete Quality Assurance

Quality Control

Impact

In accordance with CSA B 137.3, AQUALOC will not split or crack during impact tests performed at 0°C (32°F).

Flattening

AQUALOC can withstand a compression of 95% of its original O.D. without splitting or breaking.

Extrusion Quality

Average outside diameter, out-of-roundness and wall thickness are measured hourly to ensure extrusion quality conforms to standards.

Materials

The PVC compound meets all requirements of cell classification 12454-B according to ASTM D 1784.

Fusion

AQUALOC shows no visible sign of flaking or cracking when immersed in anhydrous acetone for 20 minutes.

Elastomeric Seals

Gaskets used for joining PVC pressure pipe shall conform to CSA B 137.3 and ASTM F 477 standards.



Standards

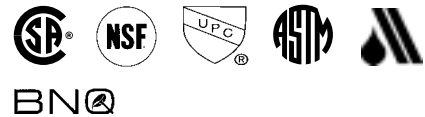
- Canadian Standards Association – CSA B 137.3, B 137.0
- American Water Works Association – AWWA C900 and C905 (Class 150 and Class 100)
- Bureau de Normalisation du Québec – NQ 3624-250, 3660-950
- Factory Mutual – FM 1610 (for underground fire protection)
- Underwriter's Laboratories of Canada – ULC
- National Sanitation Foundation – NSF 61



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