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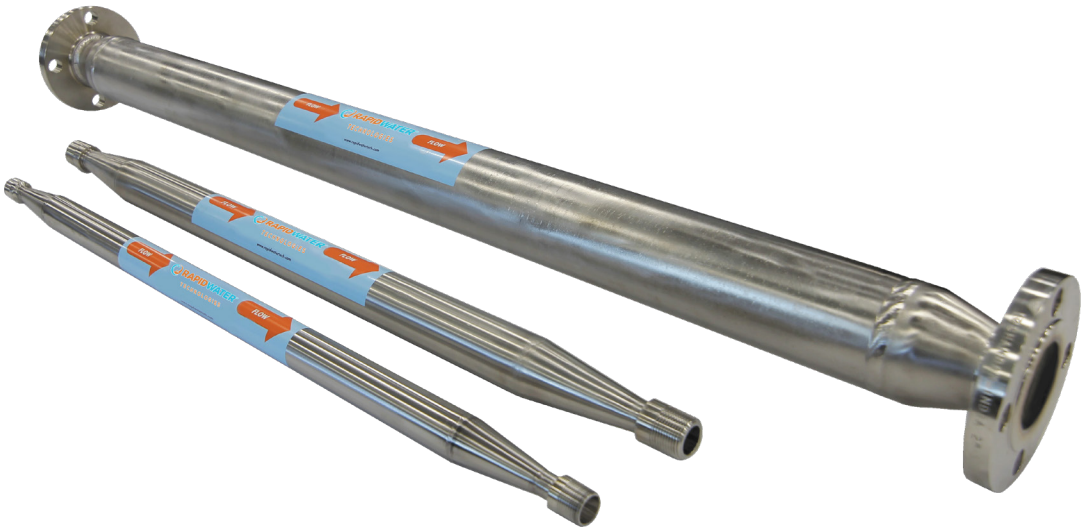
RAPIDWATER® TECHNOLOGIES

Nanobubble Generator



The Rapid Water Technologies Nanobubble Generator removes and prevents the buildup of scale and other deposits in water systems. This can improve system performance by lowering energy costs, reducing cleaning frequency, improving heat transfer and more. The patented technology is easy to install, has no moving parts, requires no maintenance or additional electrical inputs and uses no added chemicals.

Models

Model	Typical Flow Rate (GPM)*	Length	Connection Size	Body Size	Approximate Weight
RWT20	2–5	34 ½″	Threaded ¾″	1 ½″	6 lb
RWT25	10–30	36 13⁄16″	Threaded 1″	2″	9 lb
RWT40	35–60	46 ⅜″	Threaded 1 ½″	2 ½″	21 lb
RWT50	55–95	51 5⁄16″	150 lb Flange 2″	3″	48 lb
RWT80	90–210	52 ⅞″	150 lb Flange 3″	4″	78 lb
RWT100	250–550	98 7⁄16″	150 lb Flange 4″	6″	120 lb
RWT150	550–1150	102″	150 lb Flange 6″	8″	200 lb

Applications

Standard applications include but are not limited to the following:

- Pools
- Process Water
- Car Washes
- Aquaculture
- Irrigation
- Pond Remediation
- Waste Water Treatment
- Dissolved Air Flotation

All applications -- including those listed and not listed here -- should be assessed by an appropriate engineer prior to installation. Questions regarding nanobubble generation installation should be directed to info@rapidwatertech.com.

Operation

A 5 psi pressure drop is recommended across the unit for ideal nanobubble generation. Pressure drops less than this will still result in the creation of nanobubbles, but will take more time to saturate the system. Pressure drops greater than this will create nanobubbles faster and take less time to saturate the system.

RWT20 ¾"x1 ½"		RWT25 1"x2"		RWT40 1 ½"x2 ½"		RWT50 2"x3"		RWT80 3"x4"		RWT100 4"x6"		RWT150 6"x8"	
GPM	Pressure Drop (psi)	GPM	Pressure Drop (psi)	GPM	Pressure Drop (psi)	GPM	Pressure Drop (psi)	GPM	Pressure Drop (psi)	GPM	Pressure Drop (psi)	GPM	Pressure Drop (psi)
1.1	2.5	6.7	2.5	20.9	2.7	43.0	3.5	60.0	3.0	150.0	2.8	350.0	3.2
1.4	3.1	8.3	3.1	26.5	3.4	46.0	3.9	70.0	3.4	175.0	3.3	400.0	3.7
1.7	3.8	10.0	3.8	32.1	4.1	50.0	4.4	80.0	3.9	200.0	3.8	450.0	4.2
1.9	4.4	11.7	4.4	35.0	4.5	53.0	4.6	90.0	4.4	225.0	4.2	500.0	4.6
2.2	5.0	13.3	5.0	37.8	5.0	56.0	4.8	100.0	4.9	250.0	4.7	550.0	5.1
2.5	5.6	15.0	5.6	39.3	5.3	60.0	5.0	110.0	5.4	275.0	5.2	600.0	5.5
2.8	6.3	16.7	6.3	40.6	5.7	63.0	5.3	120.0	5.9	300.0	5.6	650.0	6.0
3.1	6.9	17.5	6.6	42.0	6.0	66.0	5.8	130.0	6.4	325.0	6.1	700.0	6.5
3.3	7.5	18.3	6.9	43.5	6.4	70.0	6.3	140.0	6.9	350.0	6.6	750.0	6.9
3.6	8.1	20.0	7.5	44.9	6.8	73.0	6.5	150.0	7.4	375.0	7.0	800.0	7.4
3.7	8.4	21.7	8.1	46.3	7.1	76.0	7.0	160.0	7.9	400.0	7.5	850.0	7.8
3.9	8.8	22.5	8.4	47.7	7.5	80.0	7.5	170.0	8.4	425.0	8.0	900.0	8.3
4.0	9.0	23.3	8.8	49.1	8.1	83.0	7.7	180.0	8.9	450.0	8.4	950.0	8.8
4.2	9.4	25.0	9.4	52.0	8.2	86.0	8.2	190.0	9.4	475.0	8.9	1000.0	9.2
4.4	10.0	25.8	9.7	54.9	8.3	90.0	8.8	200.0	9.8	500.0	9.4	1050.0	9.7
4.6	10.4	26.7	10.0	57.7	9.3	93.0	9.4	210.0	10.3	525.0	9.8	1100.0	10.2
4.7	10.6	28.3	10.6	60.5	10.4	96.0	10.3	220.0	10.8	550.0	10.3	1150.0	10.6
5.0	11.3	30.0	11.3	63.4	11.4	100.0	12.5	230.0	11.3	575.0	10.8	1200.0	11.1

Installation

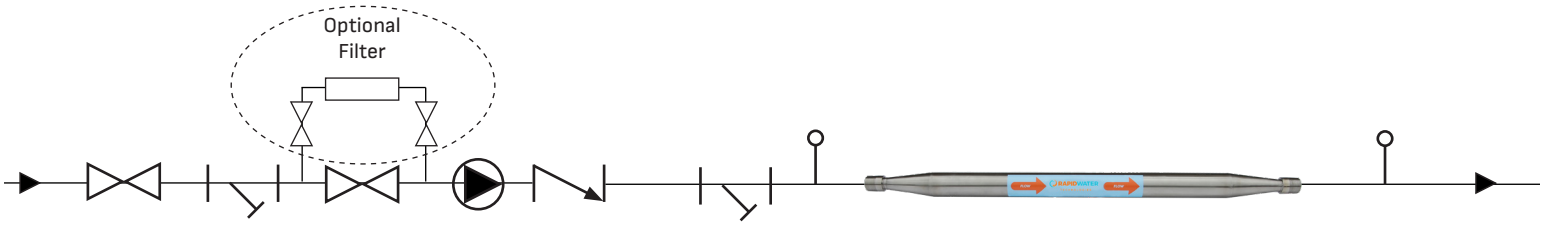
The following instructions can be used as guidance for the installation of a patented Rapid Water Technologies Nanobubble Generator. Sizes range from .75" to 8" and GPM from 1 GPM to 1150 GMP with sidestream application. Applications and systems will vary and should be reviewed by experienced personnel prior to installation. A licensed mechanical contractor should perform the installation.

Installing a Generator in an Existing System

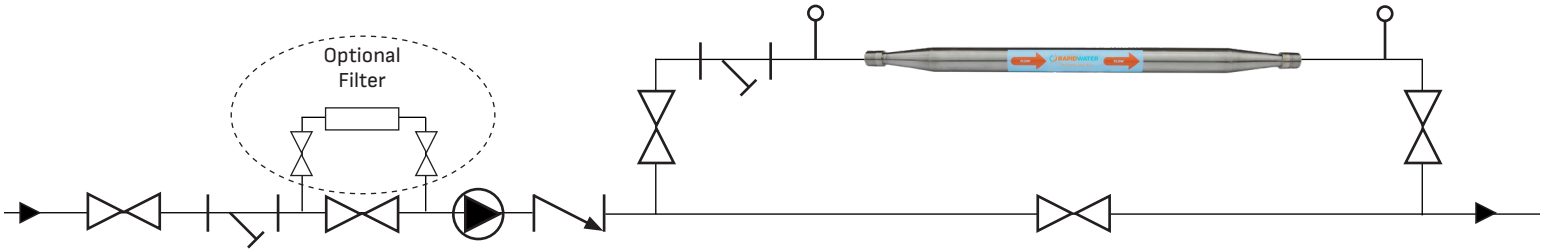
1. Determine flow rate and existing pump capabilities OR colculate system volume and determine turnover rate.
2. Analyze increased pressure drop effect on system.
3. Select appropriate generator and pipe sizing.
4. Drain enough of the system to install tees and valves (see diagram below).
5. Install properly sized generator and piping (full or side stream).
6. Fill system.
7. Start pump.
8. Open generator isolation valves.
9. Shut off by-pass or balance to proper flow rate through generator.
10. Re-balance system, if necessary.
11. Monitor system for proper operation.

To install a Generator in a NEW System, omit steps 2 and 4.

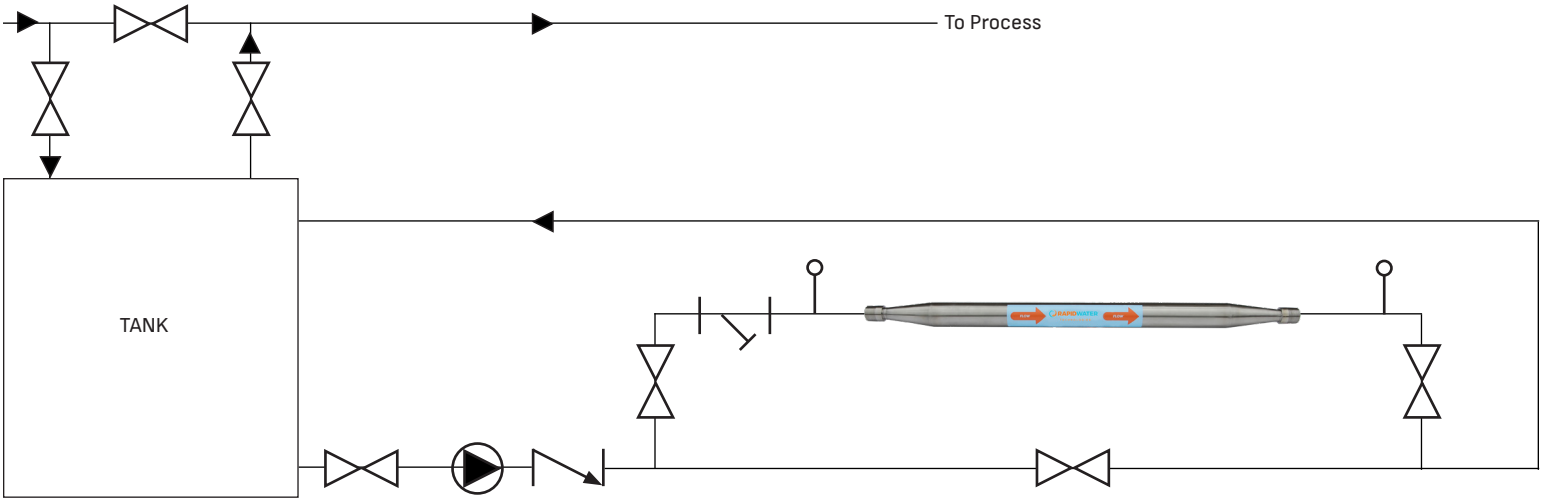
Full Stream Schematic



Side Stream Schematic



Super Saturator Schematic



Warranty

Rapid Water Technologies, LLC warrants to the original user of those products supplied by it and used in the service and in the manner for which they are intended, that such products shall be free from defects in material and workmanship for a period of five (5) years from the date of installation. This warranty does not extend to any product that has been subject to misuse, neglect or alteration after shipment from the Rapid Water Technologies factory. Except as may be expressly provided in a written agreement between Rapid Water Technologies and the user, which is signed by both parties, Rapid Water Technologies **DOES NOT MAKE ANY OTHER REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.**

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2001 Waldorf NW; Grand Rapids, MI 49544 | info@rapidwatertech.com