

WITHOUT **SENTINEL** IT'S A QUESTION OF WHEN, NOT IF

The Sentinel answer to all your water treatment needs for hydronic heating systems

YOUR PROBLEM, OUR SOLUTION

PROBLEM	SOLUTION
New system installation	<ol style="list-style-type: none"> 1. Add X300 New System Cleaner at a 1% system volume concentration. 2. Allow circulation for one hour. 3. Flush and refill the system. 4. Treat the system with X100 Inhibitor equal to 1% system volume. 5. Test level of inhibitor is correct with Sentinel Quick test Kit
Installing a new boiler on an old system to clean the system	<ol style="list-style-type: none"> 1. Add X400 System Restorer at a 1% system volume concentration. 2. Allow circulation for at least one hour. 3. Flush and refill the system. 4. Treat the system with X100 Inhibitor equal to 1% system volume. 5. Test level of inhibitor is correct with Sentinel Quick Test Kit
Protecting a system against frost, scale and corrosion	In place of the Sentinel X100 use Sentinel X500 Inhibited Antifreeze . Dosage will depend on the level of frost protection required; see Sentinel X500 Dosing Rate Table below.

SENTINEL X500 DOSING RATE TABLE

% volume Sentinel X500	20	25	30	35	40	45	50
Freezing Point (°F) ASTM D1177	21	17	12	5	-2	-11	-20

ESTIMATING GUIDE

SYSTEM WATER VOLUME ESTIMATING GUIDE FOR SENTINEL X100, X300 AND X400

This guide is intended to assist in the estimation of the water volume of pressurised commercial and civic heating systems. It is a 'rule of thumb' based on years of experience drawn from equipment manufacturers and system designers. In all cases it assumes that the boiler(s) has been correctly sized to have the heat output needed to satisfy the system.

Boiler Output (BTU/HR)	20,000	100,000	200,000	300,000	400,000	500,000	600,000	700,000	800,000	900,000	1,000,000
System Volume (Gal)	19	93	186	279	372	465	557	650	743	836	929
Sentinel Dosage (1 Qt*)	1	4	7	11	15	19	22	26	30	33	37
Sentinel Dosage (1 Gal)	0.2	0.9	1.9	2.8	3.7	4.6	5.6	6.5	7.4	8.4	9.3

Boiler Output (BTU/HR)	1,100,000	1,200,000	1,300,000	1,400,000	1,500,000	1,600,000	1,700,000	1,800,000	1,900,000	2,000,000	2,100,000
System Volume (Gal)	1,022	1,115	1,208	1,301	1,394	1,486	1,579	1,672	1,765	1,858	1,951
Sentinel Dosage (1 Qt*)	41	45	48	52	56	59	63	67	71	74	78
Sentinel Dosage (1 Gal*)	10	11	12	13	14	15	16	17	18	19	20

Boiler Output (BTU/HR)	2,200,000	2,300,000	2,400,000	2,500,000	2,600,000	2,700,000	2,800,000	2,900,000	3,000,000	3,100,000	3,200,000
System Volume (Gal)	2,044	2,137	2,230	2,323	2,416	2,508	2,601	2,694	2,787	2,880	2,973
Sentinel Dosage (1 Qt*)	82	85	89	93	97	100	104	108	111	115	119
Sentinel Dosage (1 Gal*)	20	21	22	23	24	25	26	27	28	29	30

* Both 1 US Quart bottle and 1 US Gallon drum rounded to nearest bottle/drum

www.sentinelprotects.com





X100 INHIBITOR

Enhanced scale and corrosion protection.

Available in: 275ml concentrate tubes, Rapid-Dose cans, quart bottles, 1 and 5 gallon containers



X200 NOISE REDUCER

A unique, life-long system treatment for the elimination of boiler noise.

Available in: 275ml concentrate tubes, Rapid-Dose cans, quart bottles, 1 and 5 gallon containers



X300 NEW SYSTEM CLEANER

Sentinel X300 System Cleaner is specifically designed for new hydronic heating systems.

Available in: Quart bottles, 1 and 5 gallon containers



X400 SYSTEM RESTORER

Designed for existing systems, Sentinel X400 is a non-acid treatment for cleaning older heating systems.

Available in: 275ml concentrate tubes, Rapid-Dose cans, quart bottles, 1 and 5 gallon containers



X500 INHIBITED ANTIFREEZE

Provides protection against scale & corrosion in all types of indirect heating systems at low temperatures.

Available in: 1 and 5 gallon containers

X100, X200, X300 & X400

One Sentinel concentrate tube or quart is sufficient to treat up to 25 gallons of system water. Larger containers are available.

X500

The dosage of Sentinel X500 will depend on the level of frost protection required. A dosage of 20% volume (i.e. 5 gallons of Sentinel X500 added to a system having a typical volume of 25 gallons) or more is needed to achieve the minimum concentration of corrosion and scale inhibitor.

SENTINEL LIQUIDS

Add/inject to convenient point in heating system e.g. Boiler.

SENTINEL CONCENTRATES

Effective & convenient application for all heating systems.

Q: Is Sentinel designed for steam systems?

A: No, Sentinel X-range products are specifically engineered for hot water boilers only.

Q: What kind of savings and system improvements can I expect?

A: Cleaning a dirty system can improve effectiveness by typically 15%.

Q: Will Sentinel products damage my system pipe work?

A: No, provided the instructions on the packaging are followed correctly.

Q: Are Sentinel products safe for the environment?

A: Sentinel products are completely non-toxic and bio-degradeable.

For details of your nearest distributor call 1 (877) 567 2560

