

Save Money.
Save the Environment.

Switch to Green



GreenLine[®]
Tubular Gauge Glass

Improving the Environment and Adding to Your Bottom Line.

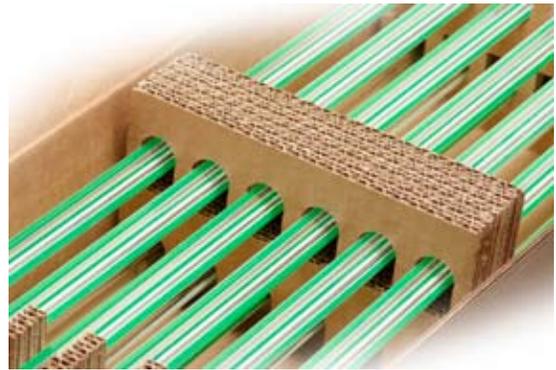
Going Green...

Introducing **GreenLine®** made from high quality Borosilicate glass tubing. Green is the key to this glass. Not only was glass one of the first materials to be completely recycled, we are taking it a step further.

GreenLine® glass has a green line running the length of the tube with white surrounding for ease of view in the poorest lighting conditions.

Environment

Not only is glass recyclable. So is our packaging. All of our packaging for **GreenLine®** Gauge Glass is made from recycled cardboard. NO styrofoam or plastics found in our stuff.



Lower Cost

We have streamlined our processes and want to help everyone by sharing our innovation to create a lower cost material which will ultimately aid our customers in lowering operating costs in helping boost profits.

With streamlining our process, we have also managed to improve our overall product tolerances. Aimed purely at better performance and value for money.

Quality

As with all PEGASUS products, **GreenLine®** tubing is manufactured utilizing the most up to date and advanced technologies.

GreenLine® is manufactured with SIMAX® borosilicate glass 3.3 products comply with the most current international standards i.e. ISO 3585, CSN ISO 3585, ASTM E438 TYPE 1, class A. All of Kavalier's manufacturing phases are controlled electronically and through a stringent Quality Management System standards are monitored and maintained.

SIMAX® glass has been awarded a TÜV CERT Certificate in compliance with EN ISO 9001:2000.

Chemical Durability

Class of Resistance to Water Effects (ISO 719)	HGB 1
Class of Resistance to Acid Effects (ISO 1776 a DIN 12116)	Class S1
Class of Resistance to Various Kinds of Hydroxides (ISO 695)	Class A2

SIMAX® borosilicate glass 3.3 is highly resistant to water effects, neutral and acid solutions, heavy acids and their mixtures, to chlorine, bromine, iodine and organic compounds. Even long-term effects at temperatures above 100°C, SIMAX® borosilicate glass 3.3 outperforms most metals and other permeable materials.

Due to water and acid effects SIMAX® glass releases only trace amounts of primarily monovalent ions. A very thin, permeable siliceous gel layer forms on the surface of the glass which creates a barrier to further attack. The exceptions to SIMAX® glass chemical durability are the following chemicals to be avoided: hydrogen fluoride (any concentration), hot concentrated phosphoric acid and alkaline solutions. Alkaline solutions attack glass slowly at room temperatures but rate of attack increases with concentration and temperature.

Safety

A Check list for Use and Care of GreenLine® and Heavy Wall Clear Gauge Glass

- NEVER perform any work unless these instructions have been read and understood.
- NEVER reuse any of the components once disassembled. (i.e.: glass, and seals)
- NEVER use glass which appears to be damaged in any way. (i.e.: scratches, chips, inclusions)
- NEVER allow the glass to be hit, impacted, or scratched.
- NEVER overtighten adjoining hardware beyond gauge manufacturers specification.
- NEVER operate unless gauge valve sets are equipped with drain vent and safety ball check.
- NEVER allow glass to come in contact with metal.
- NEVER allow glass to be subjected to bending, twisting, or shear stresses.
- ALWAYS install protective guards, where necessary to protect personnel.
- ALWAYS protect the gauge glass from sudden temperature changes, such as drafts.
- ALWAYS remove debris and deposits from the sealing areas.
- ALWAYS examine gauge glass and seals for damage.
- ALWAYS verify that you have the correct size of glass and seals prior to installation.
- ALWAYS ensure that the gauge glass is protected by a safety shut-off system. (i.e.: safety ball check)
- NEVER weld, impact, or sandblast in the area where a gauge glass is present. If necessary, always insure that the gauge is adequately covered and protected.
- NEVER clean the glass while unit is in operation. Cleaning should be performed in place without removing.
- NEVER allow pressures to exceed recommended values stated by the glass or gauge manufacturers specifications.

GreenLine® Gauge Glass Tubing

GL - GreenLine® Heavy Wall Gauge Glass Tubing

Maximum Recommend Working Pressure, PSI

Diameter	Item ID	Length	pcs/cs	Service up to 150°F	Boiler Service up to 425°F
1/2"	GL1208	8	12	390	300
+ 0	GL1210	10	12	370	295
- 1/64"	GL1212	12	12	360	295
	GL1214	14	12	345	290
	GL1216	16	12	335	285
	GL1218	18	12	325	280
Wall	GL1220	20	12	310	280
5/64"	GL1224	24	12	280	270
+/- 1/64"	GL1230	30	12	250	**
	GL1236	36	12	215	**
	GL1248	48	12	175	**
	GL1260	60	12	135	**
	GL1272	72	12	100	**

Maximum Recommend Working Pressure, PSI

Diameter	Item ID	Length	pcs/cs	Service up to 150°F	Boiler Service up to 425°F
5/8"	GL5808	8	12	360	280
+ 0	GL5810	10	12	340	275
- 1/64"	GL5812	12	12	330	275
	GL5814	14	12	320	270
	GL5816	16	12	310	265
	GL5818	18	12	300	260
Wall	GL5820	20	12	285	250
6/64"	GL5824	24	12	260	250
+/- 1/64"	GL5830	30	12	230	**
	GL5836	36	12	200	**
	GL5848	48	12	160	**
	GL5860	60	12	125	**
	GL5872	72	12	90	**



GreenLine® Gauge Glass Tubing

GL - GreenLine® Heavy Wall Gauge Glass Tubing

Maximum Recommend Working Pressure, PSI

Diameter	Item ID	Length	pcs/cs	Service up to 150°F	Boiler Service up to 425°F
3/4"	GL3408	8	12	360	280
+ 0	GL3410	10	12	340	275
- 1/64"	GL3412	12	12	330	275
	GL3414	14	12	320	270
	GL3416	16	12	310	265
	GL3418	18	12	300	260
Wall	GL3420	20	12	285	250
7/64"	GL3424	24	12	260	250
+/- 1/64"	GL3430	30	12	230	**
	GL3436	36	12	200	**
	GL3448	48	12	160	**
	GL3460	60	12	125	**
	GL3472	72	12	90	**

Maximum Recommend Working Pressure, PSI

Diameter	Item ID	Length	pcs/cs	Service up to 150°F	Boiler Service up to 425°F
1"	GL0124	24	12	390	300
+ 0	GL0136	36	12	370	295
- 1/64"	GL0148	48	12	360	295
	GL0160	60	12	345	280
Wall 1/8"	GL0172	72	12	335	275
+/- 1/64"					



GreenLine® Gauge Glass Tubing

XGL - GreenLine® Heavy Wall Gauge Glass Tubing

Maximum Recommend Working Pressure, PSI

Diameter	Item ID	Length	pcs/cs	Service up to 150°f	Boiler Service up to 425°f
5/8"	XGL5812	12	12	600	340
+ 0	XGL5816	16	12	600	325
- 1/25"	XGL5820	20	12	600	315
	XGL5824	24	12	580	300
Wall 3/16"	XGL5830	30	12	550	**
+1/32" -0	XGL5836	36	12	500	**
	XGL5848	48	12	340	**

Maximum Recommend Working Pressure, PSI

Diameter	Item ID	Length	pcs/cs	Service up to 150°f	Boiler Service up to 425°f
3/4"	XGL3412	12	12	600	340
+ 0	XGL3416	16	12	600	325
- 1/25"	XGL3420	20	12	600	315
	XGL3424	24	12	580	300
Wall 1/5"	XGL3430	30	12	550	**
+/- 1/32"	XGL3436	36	12	500	**
	XGL3448	48	12	340	**



Clear Gauge Glass Tubing

HW - Heavy Wall Clear Gauge Glass Tubing

Maximum Recommend Working Pressure, PSI

Diameter	Item ID	Length	pcs/cs	Service up to 150°F	Boiler Service up to 425°F
1/2"	HW1208	8	12	390	300
+ 0	HW1210	10	12	370	295
- 1/64"	HW1212	12	12	360	295
	HW1214	14	12	345	290
	HW1216	16	12	335	285
	HW1218	18	12	325	280
Wall	HW1220	20	12	310	280
5/64"	HW1224	24	12	280	270
+/- 1/64"	HW1230	30	12	250	**
	HW1236	36	12	215	**
	HW1248	48	12	175	**
	HW1260	60	12	135	**
	HW1272	72	12	100	**

Maximum Recommend Working Pressure, PSI

Diameter	Item ID	Length	pcs/cs	Service up to 150°F	Boiler Service up to 425°F
5/8"	HW5808	8	12	360	280
+ 0	HW5810	10	12	340	275
- 1/64"	HW5812	12	12	330	275
	HW5814	14	12	320	270
	HW5816	16	12	310	265
	HW5818	18	12	300	260
Wall	HW5820	20	12	285	250
6/64"	HW5824	24	12	260	250
+/- 1/64"	HW5830	30	12	230	**
	HW5836	36	12	200	**
	HW5848	48	12	160	**
	HW5860	60	12	125	**
	HW5872	72	12	90	**



Clear Gauge Glass Tubing

HW - Heavy Wall Clear Gauge Glass Tubing

Maximum Recommend Working Pressure, PSI

Diameter	Item ID	Length	pcs/cs	Service up to 150°F	Boiler Service up to 425°F
3/4"	HW3408	8	12	360	280
+ 0	HW3410	10	12	340	275
- 1/64"	HW3412	12	12	330	275
	HW3414	14	12	320	270
	HW3416	16	12	310	265
	HW3418	18	12	300	260
Wall	HW3420	20	12	285	250
7/64"	HW3424	24	12	260	250
+/- 1/64"	HW3430	30	12	230	**
	HW3436	36	12	200	**
	HW3448	48	12	160	**
	HW3460	60	12	125	**
	HW3472	72	12	90	**

Maximum Recommend Working Pressure, PSI

Diameter	Item ID	Length	pcs/cs	Service up to 150°F	Boiler Service up to 425°F
1"	HW0124	24	12	390	300
+ 0	HW0136	36	12	370	295
- 1/64"	HW0148	48	12	360	295
	HW0160	60	12	345	280
Wall 1/8"	HW0172	72	12	335	275
+/- 1/64"					



Clear Gauge Glass Tubing

XHW -Extra Heavy Wall Clear Gauge Glass Tubing

Maximum Recommend Working Pressure, PSI

Diameter	Item ID	Length	pcs/cs	Service up to 150°F	Boiler Service up to 425°F
5/8"	XHW5812	12	12	600	340
+ 0	XHW5816	16	12	600	325
- 1/25"	XHW5820	20	12	600	315
	XHW5824	24	12	580	300
Wall 3/16"	XHW5830	30	12	550	**
+1/32" -0	XHW5836	36	12	500	**
	XHW5848	48	12	340	**

Maximum Recommend Working Pressure, PSI

Diameter	Item ID	Length	pcs/cs	Service up to 150°F	Boiler Service up to 425°F
3/4"	XHW3412	12	12	600	340
+ 0	XHW3416	16	12	600	325
- 1/25"	XHW3420	20	12	600	315
	XHW3424	24	12	580	300
Wall 1/5"	XHW3430	30	12	550	**
+/- 1/32"	XHW3436	36	12	500	**
	XHW3448	48	12	340	**





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