

VENTINOX®

Chimney Lining System

Trusted in thousands of American homes since 1982, VENTINOX® features the ONLY WELDED design and is precision engineered.

The only time tested flexible stainless steel chimney liner, VENTINOX® provides safe, reliable venting for gas, oil & wood.

Available in
3" through 12"
Diameters
Featuring pop-riquet
free components.

Technical Bulletin



PTS **PROTECH SYSTEMS, INC.**
LEADERS IN VENTING TECHNOLOGY

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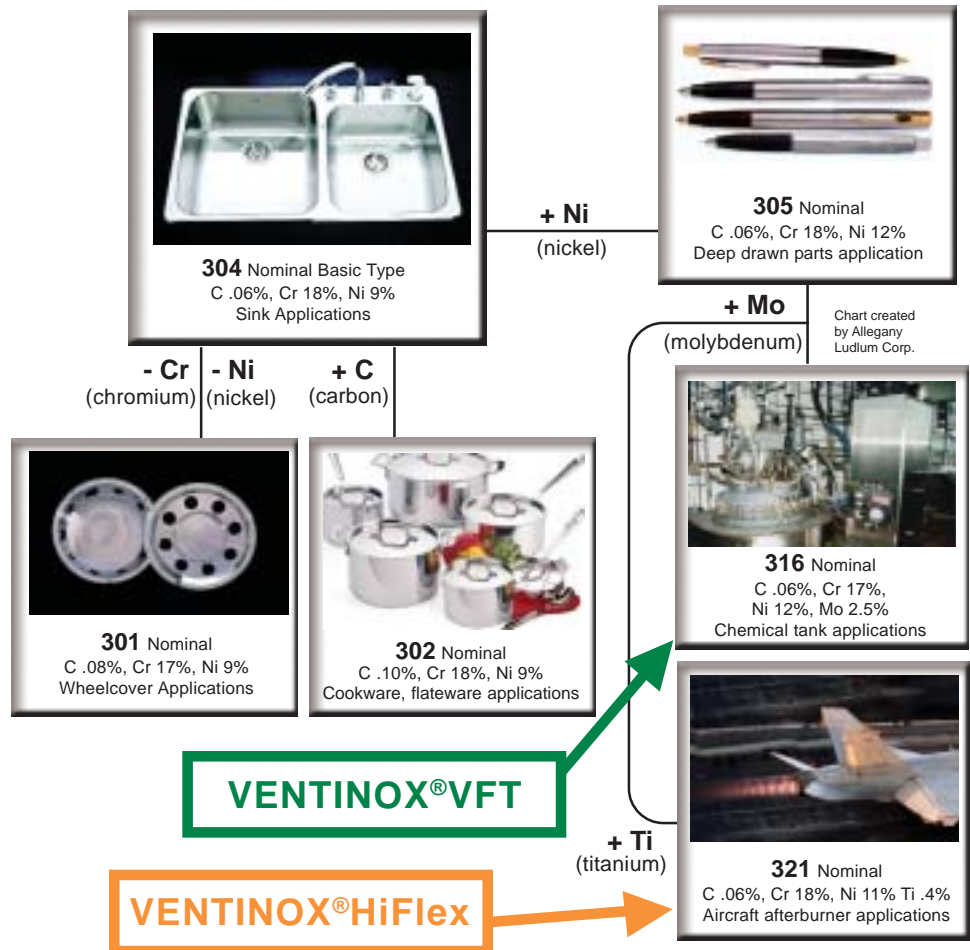
VENTINOX[®] super alloys consistently outperform aluminum and commonly available stainless steel liners in corrosive environments.

Designing a lining system is a difficult task that requires hard choices, relating directly to product reliability, longevity and ultimately, the sense of security a good system provides to the homeowner. We'd like you to take a look at our criteria for making these choices.

Material Selection

Selecting the right stainless steel is one of the most fundamental of design considerations. The steel alloy must prove long term corrosion resistance when exposed to the often aggressive environments created during the combustion and venting processes of various fuels. All other features of a chimney lining system hinge on the correct raw material composition.

Careful consideration for both metal selection and material thickness makes VENTINOX[®] the top choice for ensuring ease of installation, safety and reliability.



VENTINOX[®] liners are made from the right materials and welded, not just interlocked or crimped. They do not tear or pull apart during installations. Corrosive condensates cannot settle between seam layers to corrode and destroy the liner.

VENTINOX[®]VFT

Titanium stabilized, Type 316Ti stainless steel is used to manufacture VENTINOX[®]VFT. This alloy can withstand the high temperatures associated with solid fuel combustion; the corrosive elements typical in gas vents and the sulfuric acid exposure in oil applications. 316Ti exhibits good pitting resistance and is typically utilized in pressure vessels and chemical storage tanks. VENTINOX[®]VFT is a very good overall choice for wood, gas and coal. It is the best choice for venting oil fired equipment.

VENTINOX[®]HiFlex

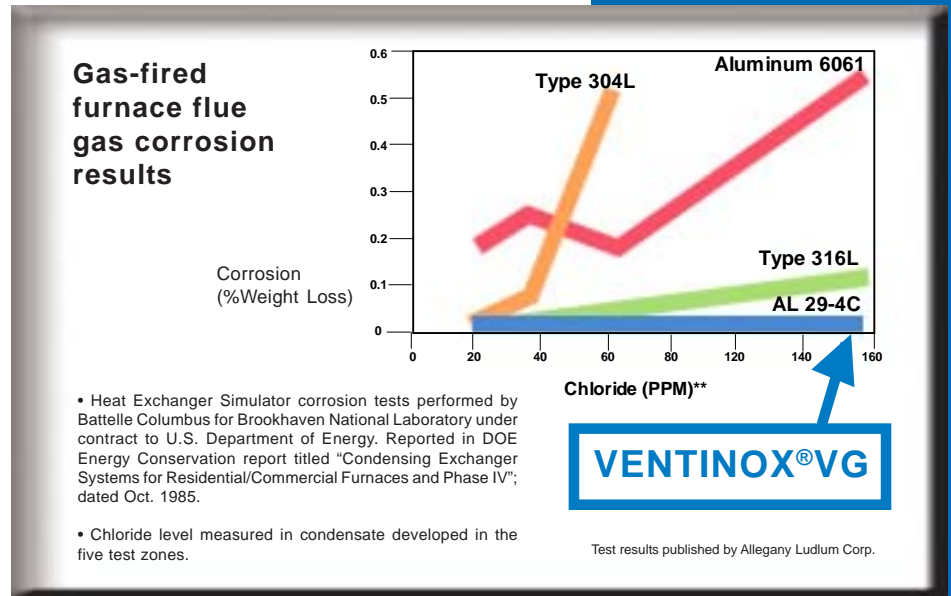
Our decision for using titanium stabilized, Type 321 stainless steel to produce VENTINOX[®]HiFlex is based on conditions typically found in chimneys that vent fireplaces, pellet stoves or other solid fuel burning appliances, where chimney fires can create extreme temperatures and physical stress conditions. Type 321ss can withstand such severe heat exposure, while resisting intergranular corrosion and maintaining its physical strength. Typically used in aircraft afterburners, this titanium stabilized alloy is unmatched in the industry and has been successfully used to produce VENTINOX[®] since 1982.

Research applied in designing our products has earned us the trust of Chimney Professionals.

VENTINOX®VG

The ultimate choice for venting gas heating equipment, VENTINOX®VG is made from Type AL29-4C® (S44735) stainless steel. This superferritic alloy can withstand the highly corrosive condensates (hydrochloric acid) formed in gas flues. AL29-4C® exhibits extreme resistance to chloride pitting, crevice corrosion, stress corrosion and cracking. Therefore, this steel is typically used in power plant condensers and secondary heat exchangers. Introduced in 1986, VENTINOX®VG serves in thousands of American homes today and has established a track record second to none.

Unmatched Value For All Fuels



Mechanical Considerations

Its unique continuous weld construction renders VENTINOX® air and water tight while providing superior strength and excellent flexibility. VENTINOX® continuously welded stainless steel strip acts as a backbone and produces a lightweight liner 20% stronger than its competitors. FasClamp components make for a professional installation by eliminating pop rivets and the need for pre-drilling liners. The result is a penetration free connection from the heat source to the outside of the home.

Here are some of the issues that are addressed by the manufacturing processes used to make VENTINOX® liners:

Multi directional expansion and contraction during heating cycles are absorbed without creating stresses within the system. Unmatched Value For All Fuels

EXPANSION: Since steel expands when exposed to heat, care needs to be taken to give it a shape that does not create stress within the system after it has been installed in a chimney. VENTINOX® absorbs any expansion in its corrugations and does not twist or grow in length. Therefore, Tee sections don't become deformed and VENTINOX® can be mortared-in solid at the chimney top. This creates a long lasting, watertight seal.

LINER TIGHTNESS: This is important for two reasons: first, to keep water vapors and other by-products of combustion within the liner at all times and second, to keep air (oxygen) out during a chimney fire. VENTINOX® liners are continuously welded to form an airtight conduit from the appliance to the chimney top.

LINER STRENGTH: Liners are used in a construction environment. They must be strong enough to take some abuse. By forming the optimum thickness steel strip into specially designed corrugations and then welding it, a solid backbone is created over the entire length of a liner. VENTINOX® resists crushing and tearing.

LINER WEIGHT: Heavier is not better. Excess weight is only a nuisance during installations, or when the extra weight has negative effects on a chimney structure. The lighter weight of VENTINOX® is possible due to Boa's special manufacturing process. All other design criteria can be met without adding extra weight.



VENTINOX® Chimney Lining Systems

Precision-engineering and a unique design
provide unsurpassed quality.

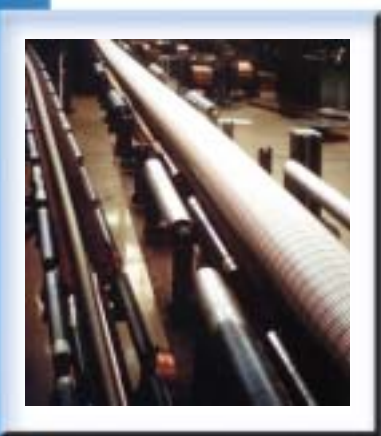
FEATURES



Precision-engineered spiral corrugations and the continuous VENTINOX® weld provide strength and flexibility.



Made by a reputable manufacturer, VENTINOX® is tested and listed by Underwriters Laboratories to UL1777 at Zero Clearance to Combustibles and backed by a lifetime warranty. Proudly made in the U.S. since 1979.



BENEFITS

Unique continuous-weld construction creates a one-piece seamless flue, impervious to flue gases & condensates.



VENTINOX® is remarkably stable and will not warp or buckle in extreme heat. VENTINOX® maintains its shape and keeps on working, even after a chimney fire.

Unlike any other liner, VENTINOX® absorbs multi-directional expansion within its corrugations, making costly expansion joints unnecessary.

The corrugations eliminate heating and cooling stresses that can drastically shorten the life expectancy of other liners.

VENTINOX® has proven to be safe and effective in thousands of American homes and under many operating conditions created by wood, gas and oil-fired heating equipment.

VENTINOX® is recognized and approved by home-heating experts and building code officials for upgrading existing masonry chimneys.

Independent laboratories regularly inspect our VENTINOX® manufacturing processes and raw material certificates to verify consistent product quality and uniform reliability.

VENTINOX® has provided piece of mind to professional installers and their customers for over 20 years.

American BOA has a continuous history of over 90 years in the development of flexible products to all industry segments. ABI started production of VENTINOX® liners in 1979.

Engineering Excellence As part of the IWKA global enterprise, American BOA accesses shared engineering “know-how” and manufacturing technology.

American BOA and the IWKA companies are highly committed to being the best global flexible products supplier. Strong leadership and financial stability insure customer success and satisfaction.

PTSE PROTECH SYSTEMS, INC.
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