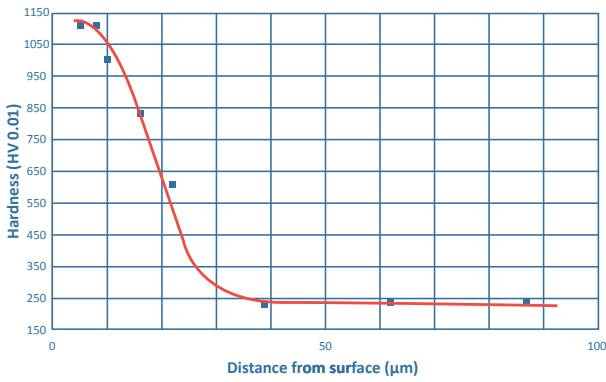
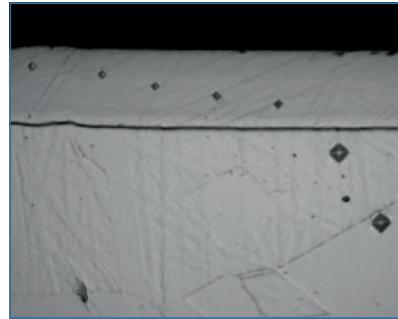


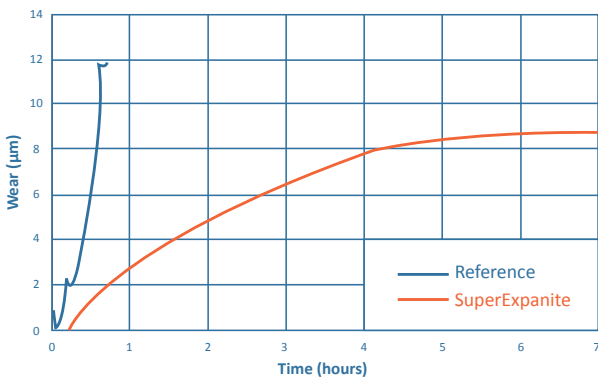
PROCESS: SuperExpanite



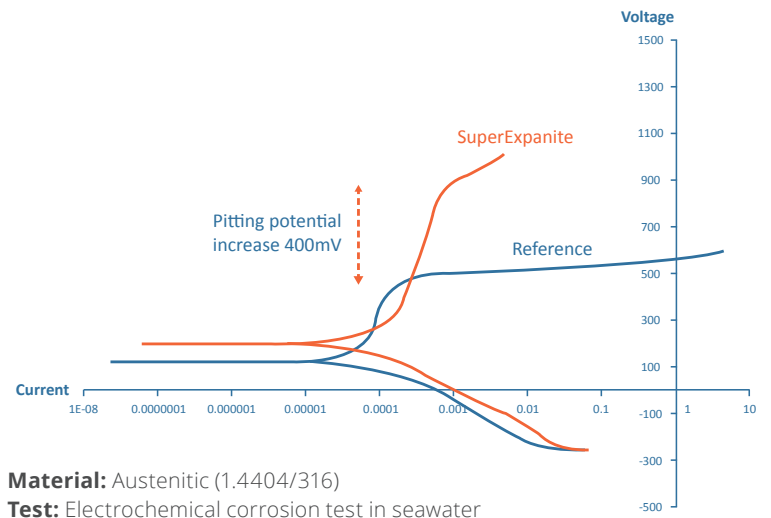
Material: Austenitic (1.4404/316)
Test: Hardness profile



Material: Austenitic (1.4404/316)
Test: Hardness profile

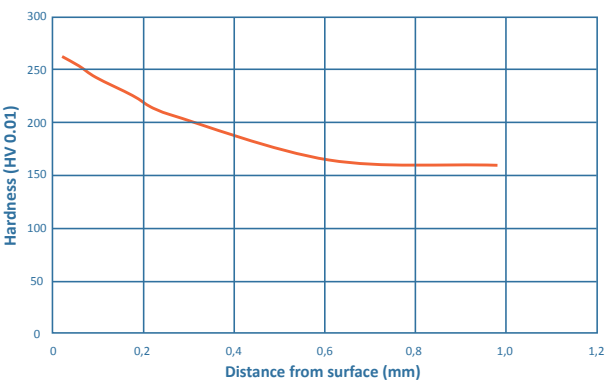


Material: Austenitic (1.4301/304)
Test: Wear test

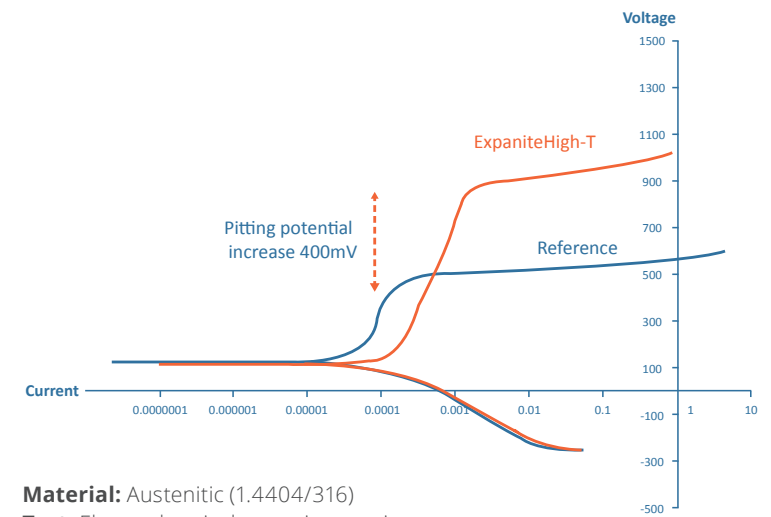


Material: Austenitic (1.4404/316)
Test: Electrochemical corrosion test in seawater

PROCESS: ExpaniteHigh-T



Material: Austenitic (1.4404/316)
Test: Hardness profile



Material: Austenitic (1.4404/316)
Test: Electrochemical corrosion test in seawater

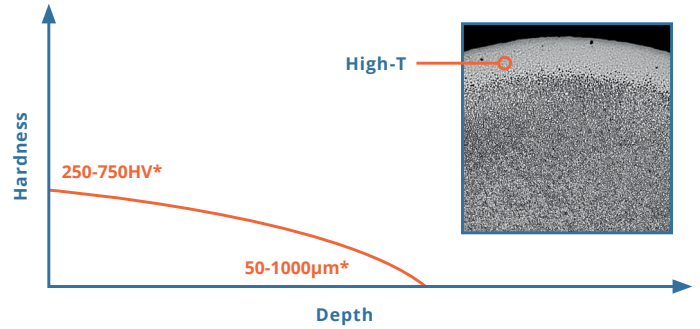
The Expanite processes:

ExpaniteHigh-T

A high-temperature solution-nitriding process pushing nitrogen deep into the bulk material. This re-establishes the core hardness of the material, which creates a unique load-bearing capacity and secures corrosion resistance second-to-none.

Benefit:

Get all the best things of annealing while maintaining core hardness and increasing corrosion resistance.

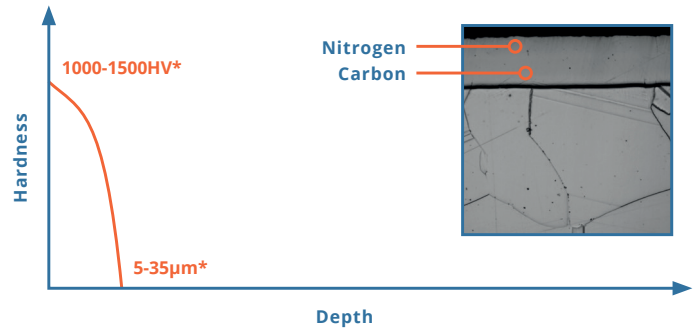


ExpaniteLow-T

A low-temperature nitrocarburizing process, by which a double hardened zone containing nitrogen and carbon is established. Nitrogen adds increased surface hardness while carbon bridges the gap to the softer core. A smooth hardness profile is tailored!

Benefit:

Controlled surface hardness between 1000-1500HV.

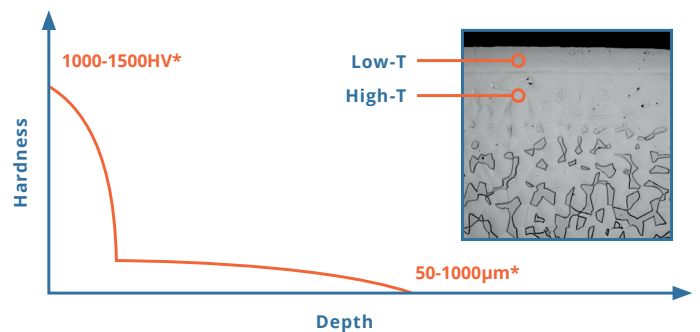


SuperExpanite

By combining the ExpaniteHigh-T and ExpaniteLow-T processes you get a previously unseen surface hardness founded on top of a bulk material, which has very strong loadbearing capacity. Superior corrosion, wear and fatigue properties is the outcome – SuperExpanite is simply setting new standards for what can be achieved by surface-hardening stainless steel.

Benefit:

Superior corrosion, wear, scratch and fatigue properties.



* Exact values depend on alloy, application and requirements

Expanite goes beyond the surface

The philosophy is quite simple; we want to offer the best solutions for surface-hardening of stainless steel!

From our state-of-art facility just north of Copenhagen, Denmark with full-size furnaces and laboratory capabilities – to the shop-floor of our customers – we are pushing the limits of what performance can be expected.

Our patented** and proven technology, scientific know-how and flexible delivery model significantly improves product performance, quality, and reduces costs.

With Expanite's surface hardening process for stainless steel, you and your customers will be much more competitive.

** Patent number US 8,845,823 B2

Expanite processes...

...are applicable to the most common stainless steel alloys incl. austenitic, martensitic, ferritic and duplex grades.

...are gaseous, thus properties can be tailored to match your exact needs.

...can deliver parts that withstand 1000+ hours in salt spray, while having a controlled surface hardness of 1000-1500HV.

...run on a day-to-day basis, resulting in lead-times significantly lower than alternatives.

...can either be offered from our treatment centre or implemented on-site, directly in your production line.