

Comparison: Cladded vs. solid stainless steel forks

	Stainless steel cladding	DuplEx cladding	Solid stainless steel fork (hygiene design)	Solid stainless steel fork (ex-proof design)
	W	1		
ATEX certification	Yes, however, DIN EN 1755 recommends: a special characteristic at the underside of the fork to allow wear measurement	Yes	Not necessary	Yes
Material	Cladding: Stainless steel 1.4301	Cladding: stainless steel 1.4301 + brass 2.0321	VQ46	VQ46
Ex-proof	Until the wear limit is reached, i.e. 1 mm remaining cladding thickness	Until the wear limit of 1 mm remaining cladding thickness is reached (visual wear indicator)	Not used in ex-proof areas	Ex-proof is ALWAYS guaranteed
Durability	3 mm wear limit	4 mm wear limit	10 % of the fork cross-section (ISO 5057) + 8 mm additional Optima Fork Heel +2 times higher resistance to wear by the use of high-tech steel = up to 6 times higher durability	
Cross-section fork	+ 10 mm	+ 12 mm	+ 0 mm	+ 0 mm
Surface	Untreated (optionally glass bead blasted, polished) For hygiene areas we recom- mend a polished surface.	Untreated (optionally glass bead blasted, polished) For ATEX areas we recom- mend a glass bead blasted surface.	Polished	Glass bead blasted
Service expenditure wear measuring	Daily measuring and recording of cladding thickness is mandatory to ensure safe application	Daily visual control of the integrated wear indicator that offers ex-proof examination at a glance.	Regular measurement of wear limit (according to ISO 5057)	
Service ex- penditure fork exchange	Exchange of forks as soon as the wear limit of the cladding is reached	Exchange of forks as soon as the wear limit of the cladding is reached	Due to the higher total wear zone and the use of high-tech steel, forks need to be exchanged 6 times less.	
Risk of corrosion	Possible corrosion of un-cladded areas	Possible corrosion of un-cladded areas.	Non-corrasive	
Application hygiene: Cleaning	Easy cleaning of cladding, however, danger of deposits in interspaces	Easy cleaning of cladding, however, danger of deposits in interspaces	Easy and hygienic cleaning (no interspaces)	
Conclusion	Stainless steel claddings are work-intensive in ex-proof areas (daily wear measurement). Hence, they are only partially advisable for this application. In hygiene areas they are an inexpensive, but not 100% hygienic alternative to stainless steel forks.	The VETTER standard in ex-proof areas: DuplEx claddings offer benefits in terms of high safety and low service expenditure.	Stainless steel forks (hygiene and ex-proof) are cost-performance winners. The purchase price is paid off immediately by significantly longer lifetime, higher safety and less service efforts.	

The illustrations only represent the basic principles and do not constitute a contractual entitlement.

