

STAINLESS STEELS

Stainless steel refers to a range of iron based alloys which rely on their chromium content for resistance to corrosion. Research in a number of countries worldwide has shown that in normal soils austenitic stainless steel with a 17% chromium and 9% nickel content gives satisfactory performance, with a design life in excess of 100 years. Whereas in poorly drained gravels, industrial or colliery spoil and in cases where the ground or groundwater contains chlorides (exceeding 1000 ppm) pitting of the steel can occur. In these circumstances then the application of a protective wrapping such as "Densotape" will give adequate protection. Alternatively, in these circumstances an austenitic stainless steel containing molybdenum (minimum 2%) will give better corrosion resistance without the need for additional protection.

Mücher Dichtungen® supplies products in two grades of austenitic stainless steel to suit either normal conditions or conditions when additional corrosion resistance is required.

DIN EN 10088	INTERNATIONAL TERM	COMPOUNDS - %			
		CARBON (C)	CHROMIUM (Cr)	NICKEL (Ni)	MOLYBDENUM (Mo)
1.4301	BS 304 / AISI 304	≤ 0,07	17,0-19,0	8,5-10,5	-
1.4401	BS 316 / AISI 316	≤ 0,08	16,5-18,5	10,5-13,5	2,0-2,5

For use in normal conditions Mücher's standard products use components manufactured from grade 1.4301 (AISI 304) austenitic stainless steel to DIN EN 10088-2:1995. This grade of stainless steel meets the requirements of DIN EN 295-4:1995.

For those conditions requiring higher corrosion resistance then components manufactured from grade 1.4401 (AISI 316) austenitic stainless steel to DIN EN 10088-2:1995 is available to special order. This grade contains 2% molybdenum and is especially suitable for marine environments.