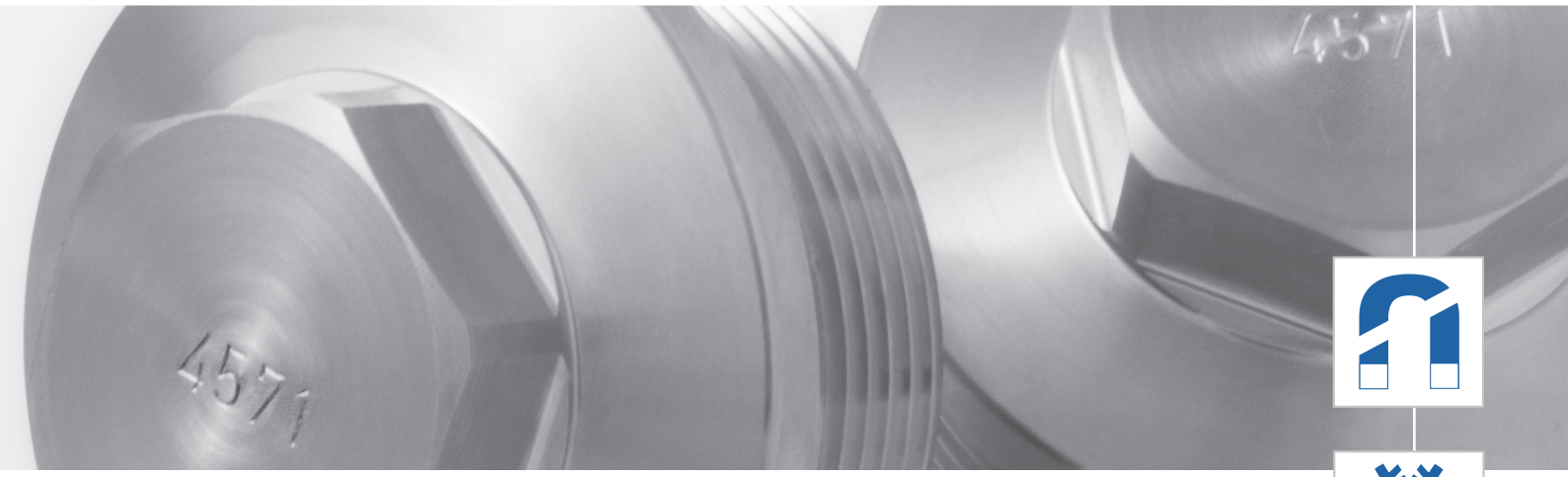
Stainless, austenitic chromium-nickel-molybdenum steel with titanium additive

1.4571

C ≤ 0,08 / Cr 16,5 – 18,5 / Ni 10,5 – 13,5 / Mo 2,0 – 2,5 / Ti 5xC bis 0,7
1.4571 / X6 CrNiMoTi 17-12-2 / DIN EN 10088 / DIN 17440
AISI 316 Ti / BS 320 S 31 / SIS 2350*



- 50 °C

up to 750 °C

Applications

Mechanical engeneering; chemical industry; food industry/agricultural engeneering; aviation; transportation/automotive engeneering; military engeneering; nautical gear.

Processing techniques

Machining; open-die and drop forging.

Corrosion resistance ●●●●○

Compared to material 1.4301, material 1.4571 is characterised by its properties in nitric acid and in organic cooled acid solutions. The stability is higher than that of 1.4541.

Mechanical properties ●●○○○

Optimal processing properties are achieved by means of heat treatment in the temperature range of between 1020 and 1100 °C followed by rapid cooling in air or water.

Forging ●○○○○

Slow heating to 1150 °C. Hot forming at 1150 to 950 °C. Cooling in air or water.

Welding ●●●●○

Material 1.4571 can be welded without difficulty.

Machining ●○○○○

Material 1.4571 shows a tendency towards work-hardening during processing. A sulphur content of 0.020 to 0.030 % has a beneficial effect.

Note

1.4571 can be weakly magnetic. The magnetizability can increase as the cold forming increases.

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* See "international comparison of materials"