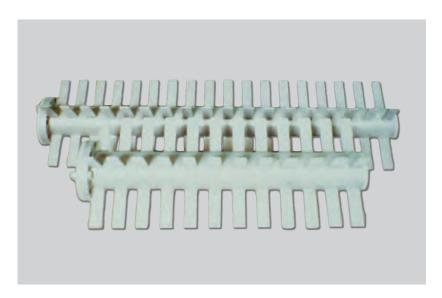
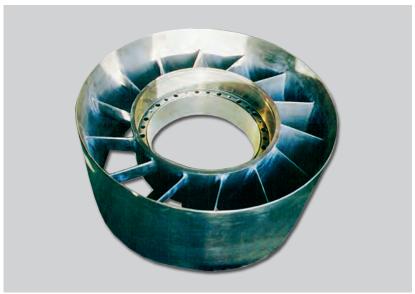
Shot peening and stress corrosion fatigue





Stress corrosion fatigue is caused by stress corrosion and additional dynamic, alternating and/or vibrating loads.

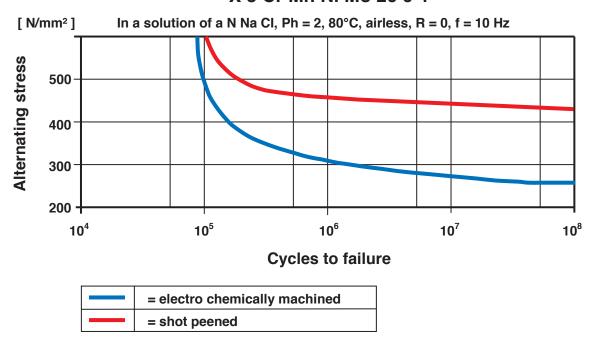
Four conditions are also here necessary to create stress corrosion fatigue:

- susceptible material to stress corrosion
- tensile stress at the surface to start reaction
- corrosive medium
- time to start reaction and crack growth

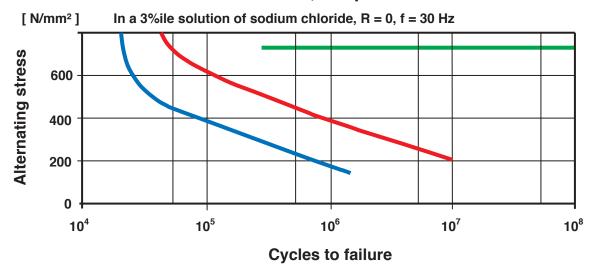
Shot peening induces high compressive residual stress in the surface layer. This eliminates the tensile stress applied by external loads or induced in the surface layer and consequently prevents stress corrosion cracking as well as stress corrosion fatigue.



X 3 Cr Mn Ni Mo 26 6 4



50 Cr v 4, tempered



= in air, not shot peened
 = in solution, not shot peened
= in solution, shot peened