

# Steels for the oil industry

ThyssenKrupp offers a wide range of Oil Industry Steel for manufacturing finished products, in solid or bored bars.

## 4145 H API 7

For Subs, pup joints and all different items requiring high quality API 7-1 steel.

Standard stock sizes range from 3 1/8" to 12" OD.

Standard bar lengths are 9.45m and they can be solid or bored.

Larger diameters and shorter or longer lengths can be manufactured on request.

## 4140 H-L 80 API6A/5CT/NACE MR 01.75

For all production tools.

Standard stock sizes range from 1" OD to 23 1/4".

Standard bar lengths are 4.5-6m and they can be solid or bored.

## 4130 API 6A/NACE MR 01.75

For flanges, X mas trees, wellhead equipment.

Standard stock sizes range from 1" OD to 23 1/4".

Standard bar lengths are 4.5-6m and they can be solid or bored.

**All material is 100% ultrasonic inspected and fully traceable.**

### Chemical composition in %

	C	Mn	Cr	Mo	P	S	Si	Ni	Cu	Hardness
4145 H	0.42-0.49	0.70-1.20	0.80-1.30	0.15-0.35	≤ 0.025	≤ 0.025	0.15-0.40	≤ 0.50	≤ 0.35	285-340 HB
4140 H	0.38-0.43	0.75-1.00	0.80-1.10	0.15-0.25	≤ 0.025	≤ 0.025	0.15-0.35	≤ 0.25	≤ 0.35	197-234 HB
4130	0.28-0.33	0.40-0.60	0.80-1.10	0.15-0.25	0.025	0.025	0.15-0.35	0.25	0.35	197-234 HB

### Mechanical properties

	Yield strength		Tensile strength		Elongation % mini	Reduction area % mini	Impact test KV Joules
	Mpa min.	PSI min.	Mpa	PSI min.			
4145 H 3 1/8 to 6 7/8 7 to 11	758 689	110000 100000	965 931	140000 135000	13 13	45 45	+20°C ≥ 52 -20°C ≥ 30
4140 H	552-654	80000 to 95000	655	95000	18	35	-32°C ≥ 42
4130	517	75000	655	95000	18	35	-60°C ≥ 27