

Materials, Terms and Conversion Tables

Pressure

1 bar	= 14.504 psi	1 lb/ft ²	= 47,88 N/m ²
	= 29.530 inch Hg		= 0,4788 mbar
	= 0.987 atm		= 0,0470 mm WC
	= 401.47 inch WC		
1 mbar	= 0.0145 psi	1 inch WC	= 249,08 N/m ²
	= 0.0295 inch Hg		= 2,4908 mbar
	= 0.4019 inch WC		= 25,4 mm WC
	= 2.089 lb/ft ²	1 inch Hg	= 33,864 mbar
1 kPa	= 10 mbar	1 psi	= 68,94757 mbar
1 inch H ₂ O	= 2,49089 mbar	1 inch Hg	= 33,8639 mbar
1 Pa	= 1 N/m ²	1 psi	= 1 lb/ft ²

Temperature

To convert °C in °F use	T _F = 32 + 1,8 T _C
	0°C = 32°F
	100°C = 212°F
To convert °F in °C use	T _C = ⁵ / ₉ (T _F - 32)
	0°F = -17,8°C
	100°F = 37,8°C

Material

DIN Material Number	DIN-Material	ASTM-Material	
0.6020	GG 20	A 278-30	C.I.
0.7040	GGG 40	A 536-77	C.I.
1.0619	GS-C 25	A 216 Gr. WCB	C.S.
1.4301	X5 CrNi 18 10	A 240 Gr. 304	S.S.
1.4408	G-X6 CrNiMo 18 10	A 351 Gr. CF 8 M	S.S.
1.0425	P 265 GH	A 515 Gr. 60	C.S.
1.4541	X6 CrNiTi 18 10	A 240 Gr. 321	S.S.
1.4571	X10 CrNiMoTi 18 10	A 240 Gr. 316 Ti	S.S.
3.2581	G-Al-Si 12	A 413	Alu
Ta	Tantal	UNS R05200	
2.4610	NiMo 16 Cr 16 Ti	UNS N06455	C-4
2.4686	G-NiMo 17 Cr	UNS N30107	Casting
2.4602	NiCr 21 Mo 14 W	UNS N06022	C-22
2.4819	NiMo 16 Cr 15 W	UNS N10276	C-276

The applicable materials are specified in the quotation or the order acknowledgement:

In general the following means
 CC (Carbon steel) = 1.0619 or 1.0425
 SS (Stainless steel) = 1.4408 or 1.4571
 Hastelloy = 2.4686 or 2.4602

Important differences: US decimals in accordance to SI-System

e.g. 1 m	= 100 cm	= 100,00 cm	(UK/US: 100.00 cm)
1 km	= 1.000 m	= 1.000,00 m	(UK/US: 1,000.00 m)

Sealings and Coatings

PTFE	= polytetrafluoroethylene
PVDF	= polyvinylidene fluoride
PFA	= perfluoroalkoxy polyme
FPM 70	= fluor carbon rubber
WS 3822	= aramide and anorganic fibers as well as mineral reinforcement materials bonded with NBR rubber
ECTFE	= ethylene chlorotrifluoro etylene
FEP	= perfluoroethylene propylene

DN	10	15	20	25	32	40	50	65	80	100
Size	1/4	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4

DN	125	150	200	250	300	350	400	450	500	600
Size	5	6	8	10	12	14	16	18	20	24

DN	700	800	900	1000	1200	1400	1600	1800	2000
Size	28	32	36	40	48	56	64	72	80

Length

1 cm	= 0.3937 inch	1 inch	= 25,4 mm
1 m	= 3.2808 ft	1 ft	= 12 inch = 0,3058 m
	= 1.0936 yards	1 yard	= 3 ft = 0,9144 m
1 km	= 0.621 miles	1 mile	= 1,609 km

Area

1 cm ²	= 0.1550 sq inch	1 sq inch	= 6,4516 cm ²
1 m ²	= 10.7639 sq ft	1 sq ft	= 0,0929 m ²
	= 1.196 sq yards	1 sq yard	= 0,836 m ²
1 km ²	= 100 hectares		
	= 0.3861 sq miles		
	= 247 acres		

Volume

1 cm ³	= 0.06102 cu inch	1 cu inch	= 16,3870 cm ³
1 liter	= 0.03531 cu ft	1 cu ft	= 28,317 liter
	= 0.21998 gal (UK)	1 gal (UK)	= 4,5461 liter
	= 0.26428 gal (US)	1 gal (US)	= 3,785 liter
1 m ³	= 35.315 cu ft	1 cu ft	= 0,028317 m ³
	= 6.299 petr. barrels	1 petr. barrel	= 0,15876 m ³

Mass

1 g	= 0.03527 oz	1 oz	= 28,35 g
1 kg	= 2.2046 lb	1 lb	= 16 oz
			= 0,4536 kg

Velocity and Volume Flow

1 m/s	= 196.85 ft/min	1 ft/min	= 0,508 cm/s
1 km/h	= 0.6214 mph	1 mph	= 1,60934 km/h
1 m ³ /h	= 4.403 gal/min (US)	1 gal/min (US)	= 0,227 m ³ /h
	= 3.666 gal/min (UK)	1 gal/min (UK)	= 0,273 m ³ /h
	= 0.5886 cu ft/min	1 cu ft/min	= 28,317 liter/min
1 kg/h	= 0.0367 lb/min	1 lb/min	= 27,216 kg/h
		1 cu ft/h	= 0,028317 m ³ /h

Torsion

1 Nm	= 0.723 lb ft	1 lb ft	= 1,38 Nm
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Density

1 kg/dm ³	= 62.43 lb/cu ft	1 lb/cu ft	= 0,016 kg/dm ³
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