

## TP 304 • UNS S30400 • 1.4301 • TPS-INOX-4301-304

The most popular stainless steel has an economic balance of alloying elements to ensure its good cold formability corrosion resistance, toughness and good mechanical properties with no excessive work-hardening. It performs well in unpolluted atmospheres but can tarnish or lightly rust in damp atmospheres around some industrial and on/offshore locations. The steel has been used extensively for potable water tubing and in fresh feedwater systems where precautions are taken to avoid crevice attack under deposits, etc. Performance in aerated seawater is not good without adequate galvanic or cathodic protection. Stability and toughness at cryogenic temperatures is high.

Material grade	Norm	Chemical composition • mass in %									
		C	Si	Mn	P	S	Cr	Ni	Mo	Ti	Sonst.
		max.	max.	max.	max.	max.	min. – max.	min. – max.	min. – max.		
1.4301	EN 10216-5	0,070	1,00	2,00	0,040	0,015	17,00 - 19,50	8,00 - 10,50	-	-	N 0,11 max
1.4307	EN 10216-5	0,030	1,00	2,00	0,040	0,015	17,00 - 19,50	8,00 - 10,00	-	-	-
TP304	ASME SA/AST M A 213	0,080	1,00	2,00	0,045	0,030	18,00 - 20,00	8,00 - 11,00	-	-	-

Material grade	Norm	Mechanical properties and heat treatment					
		Rp 0,2 [MPa]	Rp 1,0 [MPa]	Rm [MPa]	A [%]	Härte	Wärmebehandlung
		min.	min.	min. – max.	min	HRB max.	
1.4301	EN 10216-5	195	230	500 - 700	40	-	lösungsgeglüht
1.4307	EN 10216-5	180	215	460 - 680	40	-	lösungsgeglüht
TP304	ASME SA/AST M A 213	205	-	515	35	90	lösungsgeglüht

Tolerances				
AD - Rohr	AD	WD	special WT	ID
ab Ø4,550 mm	±0,050 mm	±0,150 mm	±0,100 mm	X
ab Ø9,530 mm	±0,050 mm	±0,100 mm	±0,080 mm	±0,050 mm
ab Ø30,001 mm***	±0,100 mm	±0,150 mm		±0,050 mm

\*\*\* to max. ø44,500 mm

- Tolerances acc. to DIN EN 10305-1 can be confirmed to OD 30mm
- Tolerances acc. to DIN EN ISO 1127 / DIN EN 10216-5 can be confirmed
- Tolerances acc. to ASTM can be confirmed generally

Abmessungsbereich\*

Abmessungsspektrum

AD	WD	[mm]	0,89	1,00	1,20	1,24	1,65	1,82	2,00	2,11	2,30	2,35	2,50	2,60	2,64	2,77	2,87	3,00	3,20	3,25	3,60	3,85	3,91	4,00	4,40	5,50	6,35	7,00
[mm]	[inch]	[inch]	0,035			0,048	0,065	0,072		0,083		0,093			0,104	0,109	0,113		0,126	0,128			0,154				0,250	
6,00																												
6,35	0,250																											
7,00																												
7,50																												
8,00																												
9,00																												
9,53	0,375																											
10,00																												
11,00																												
12,70	0,500																											
13,00																												
15,00																												
15,88	0,625																											
16,00																												
16,80																												
17,15	0,675																											
18,00																												
19,00																												
19,05	0,750																											
20,00																												
21,34	0,840																											
22,00																												
22,23	0,875																											
23,00																												
25,00																												
25,40	1,000																											
26,00																												
26,67	1,050																											
28,00																												
30,00																												
31,75	1,250																											
32,00																												
33,40	1,315																											
36,00																												
38,10	1,500																											
42,00																												
44,50	1,750																											

