# Stainless Pipe



## **Standard Of Pipes**

**BSEN 10312** stainless steel welded pipe, primarily for water applications, including water intended for human consumption, supplied in straight length and suitable for different connections such as compression fittings.

**BSEN 10217-7** stainless steel welded pipe, this part specifies the pressure purposes and technical delivery conditions, which are also applied for corrosion resisting purposed at room temperature.

**BS 6362** stainless steel welded pipe, suitable for screwing in accordance with BS21 / ISO 7-1 'pipe threads for tubes and fittings where pressure-tight joints are made on the threads.







Pipe with PE+Foam Coating

### Grade Of Stainless Steel

The following table lists the designation for specific types of 304 and 316 grades of stainless steel and also provides their compositions. 304 grade often specifies for all general purpose application. 316 grade is basically a 304 grade enhanced by the addition of 2-2.5% Molybdenum. Containing large amounts of Molybdenum (Mo) grade (Type 316) are preferred to use in corrosion environment, higher seawater resistance than 304, also can perform excellently in all hot and cold water with chloride contents up to 200ppm.

The low carbon version is designated with "L" after the alloy number (304L or 316L) are preferred to use when welding is the joining method.



### Table of Chemical Composition of Stainless Steel to BSEN10088

				Chemical	Physical Requirement						
Steel Grade	C max.	Si max.	Mn max.	P <sub>max</sub> .	S max.	Ni max.	Cr max.	Mo max.	Yield Strength	Tensile Strength	Elongation
	%	%	%	%	%	%	%	%	(N/mm2)	(N/mm2)	(%)
304/1.4301	0.07	1.0	2.0	0.045	0.03	8-10.5	17.5-19.5	-	215	480	40
316/1.4401	0.07	1.0	2.0	0.045	0.03	10-13	16.5-18.5	2-2.5	225	490	40
361L/1.4404	0.03	1.0	2.0	0.045	0.03	10-13	16.5-18.5	2-2.5	240	510	40

#### Table 1 Stainless Steel Welded Pipe to BSEN 10312 - SERIES 1 (For PET-Joint Compression System):

Nominal Diameter		Outside Diameter (D)		Wall Thickness (T)	Length	Part No. (Plain End)				
						Ex-stoo	ck in Grade 304 (1.43	801)		
mm	inch	Max.	Min.	mm	М	Bare Pipe	With WHITE PE+Foam Coating	With GREEN PE+Foam Coating		
15	1/2"	15.04	14.94	0.6 ± 0.06	5.0	EN15065-4	EN15065P-4			
13	1/2				5.8	EN150658-4	EN150658P-4	N/A		
22	3/4"	22.05	5 21.95	0.7 ± 0.07	5.0	EN22075-4	EN22075P-4			
22		22.03			5.8	EN220758-4	EN220758P-4	EN220758G-4		
28	1"	28.05	27.95	7.95 0.8 ± 0.08	5.0	EN28085-4	EN28085P-4	N/A		
20			27.73		5.8	EN280858-4	EN280858P-4	EN280858G-4		
35	1-1/4"	35.07	34.97	1.0 ± 0.10	5.8	EN351058-4	EN351058P-4			
42	1-1/2"	42.07	41.97	1.1 ± 0.11	5.8	EN421158-4	EN421158P-4	N/A		
54	2"	54.07	53.84	1.2 ± 0.12	5.8	EN541258-4	EN541258P-4			

<sup>#</sup> Material in Grade 316L (1.4404) is available for Batch ordering. # Pipe with PE+Foam Coating is suggested for Hot water application

#### Table 2 Stainless Steel Welded Pipe to BSEN 10312 - SERIES 2 (For PET-Joint Compression System):

Nominal		Outside	Wall	Length	Part No. (Plain End)				
Diam	eter	Diameter (D)	Thickness (T)	Length	Ex-stock in Grade 316L (1.4404)				
mm	inch	mm	mm	М	Bare Pipe	With WHITE PE+Foam Coating	With GREEN PE+Foam Coating		
15	1/2"	15.0 ± 0.10	1.0 ± 0.10	5.8	EN151058-6	EN151058P-6	N/A		
22	3/4"	22.0 ± 0.11	1.2 ± 0.10	5.8	EN221258-6	EN221258P-6	EN221258G-6		
28	1"	28.0 ± 0.14	1.2 ± 0.10	5.8	EN281258-6	EN281258P-6	EN281258G-6		
35	1-1/4"	35.0 ± 0.18	1.5 ± 0.10	5.8	EN351558-6	EN351558P-6			
42	1-1/2"	42.0 ± 0.21	1.5 ± 0.10	5.8	EN421558-6	EN421558P-6	N/A		
54	2"	54.0 ± 0.27	1.5 ± 0.10	5.8	EN541558-6	EN541558P-6			

#### Table 3 Stainless Steel Welded Pipe to BSEN 10217-7 (For Kenlok Grooved System):

Nominal Diameter		Outside Diameter (D)	Wall Thickness (T)		Part No. (Plain End)		
mm	inch	mm	mm	М	Grade 304 (1.4301)	Grade 316L (1.4404)	
65	2-1/2"	76.1	2.9	5.8	EN652958-4	EN652958-6	
80	3"	88.9	2.9	5.8	EN802958-4	EN802958-6	
100	4"	114.3	2.9	5.8	EN1002958-4	EN1002958-6	
150	6"	168.3	3.2	5.8	EN1503258-4	EN1503258-6	
200	8"	219.1	3.6	5.8	EN2003658-4	EN2003658-6	

<sup>#</sup> Tolerance: Outside Diameter: ± 0.75%, Wall Thickness: ± 10%

#### Table 4 Stainless Steel Welded Pipe to BS 6362 (For Screwing purpose):

Nominal	Diameter	Outside Diameter (D)	Outside Diameter (D)		Wall Thickness (T)	Length	Part No. (Plain End)
mm	inch	mm	Maximum	Minimum	mm	М	Ex-stock in Grade 316L (1.4404)
15	1/2"	21.3	21.8	21.0	2.6	5.8	BS152658-6
20	3/4"	26.9	27.3	26.5	2.6	5.8	BS202658-6
25	1"	33.7	34.2	33.3	3.2	5.8	BS253258-6
32	1-1/4"	42.4	42.9	42.0	3.2	5.8	BS323258-6
40	1-1/2"	48.3	48.8	47.9	3.2	5.8	BS403258-6
50	2"	60.3	60.8	59.7	3.6	5.8	BS503658-6
65	2-1/2"	76.1	76.6	75.3	3.6	5.8	BS653658-6
80	3"	88.9	89.5	88.0	4.0	5.8	BS804058-6
100	4"	114.3	115.0	113.1	4.5	5.8	BS1004558-6

<sup>#</sup> Material in Grade 304 (1.4301) is available for Batch ordering

<sup>#</sup> Material in Grade 304 (1.4301) is available for Batch ordering # Pipe with PE+Foam Coating is suggested for Hot water application

<sup>#</sup> Tolerance: Wall Thickness: -12.5% / + not limited