

STAINLESS STEEL
AUSTENITIC GRADE _ WIRE
DSM 1.2.7

Austenitic: (300 series) 18/8

- Highest corrosion resistance.
- Non-magnetic & Non hardening.
- Can be welded
- Max. service temp. 400°C

Definition:

302 Austenitic Stainless Steel. The most common variation of the 18% chromium – 8% nickel austenitic alloy. It is essentially non- magnetic in the annealed condition and can only be hardened by cold working.

Features:

Suitable for applications over a wide range of service temperatures, this grade is quite ductile and can be readily drawn, spun & wire formed. Cold working causes this alloy to gain magnetic properties. Post fabrication annealing is recommended to recover maximum corrosion resistance and a non- magnetic condition. Can be welded.

ASM (DEK) Applications:

Springs and wire forms.

These values are representative and should not be considered as definitive. For critical applications, refer to material data-sheet.

TYPICAL MECHANICAL PROPERTIES @25°C	
DENSITY:	8027 Kg/m ³
YOUNGS MODULUS:	193 GPa
POISSONS RATIO:	0.27 – 0.30
YIELD STRENGTH	205 MPa min.
TENSILE STRENGTH	515 MPa

Issue	01	02	03	04	05	06	07	08	09
DCR	43010	44682	44841						



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CHEMICAL ANALYSIS		BENEFIT
Chrome	17.0/19.0	Combines with Ni: high temp corrosion resistance.
Nickel	8.0/ 10.0	high strength work hardening, without ductility loss
Carbon	0.15 max	Low % content: Good for machining & welding.
Mang.	2.0 max	Improves high temperature ductility.
Silicon	2.0 max	Improves wear resistance & elastic limit.
Molyb.	0.8 max	Increases resistance to corrosion.
Sulphur	0.015 max	Good for machining.

CURRENT INTERNATIONAL SPECIFICATION COMPARISON	
GERMAN: DIN	X5 CrNi 18-7
AMERICAN: AISI	302
EUROPEAN STEEL No.	1.4319
JAPANESE GRADE	JIS G SUS 302
CHINA GRADE	GB ICr18Ni9

REPLACES

BS 2056: 1981	DESCRIPTION
302S26	Austenitic Stainless Steel Wire

Alternatives:

Alternative materials are allowed only with the express written permission of ASMPT. Please email details of your request to engineering_enquiries@asmpt.com

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**These sizes are given in good faith and should not be
considered as definitive**

Gauge : Stainless Steel Wire		
Gauge	inch	mm
31	0.011"	0.28
30	0.013"	0.33
29	0.014"	0.36
28	0.016"	0.41
27	0.017"	0.43
26	0.019"	0.48
25	0.022"	0.56
24	0.025"	0.64
23	0.028"	0.71
22	0.031"	0.79
21	0.034"	0.86
20	0.037"	0.95
19	0.044"	1.1
18	0.050"	1.27
17	0.056"	1.4
16	0.062"	1.59
15	0.070"	1.8

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