

TECHNICAL GUIDE

431S29 / 1.4057

Steel Description

431S29 / 1.4057 is a high chromium, low nickel, martensitic stainless steel and is generally supplied in the hardened and tempered condition. It is characterised by very good corrosion resistance in atmospheric corrosive environments, with good resistance to mild marine and industrial atmospheres and is resistant to many organic materials, including nitric acid and petroleum products. 431S29 / 1.4057 is used extensively for parts requiring a combination of high tensile strength, good toughness and corrosion resistant properties. Typical applications are: Aircraft parts and components, nuts & bolts, fasteners, pump & propeller shafts, studs and valve parts.

EN 10088-3	BS970: 1991	COLOUR CODE	DESCRIPTION
1.4057	431S29		Martensitic freecutting stainless steel

CHEMICAL ANALYSIS	
Car	0.12 / 0.20
Sil	0.80 max
Mang	1.00 max
Phos	0.040 max
Sul	0.030 max
Chr	15.0 / 18.0
Moly	-
Nick	2.00 / 3.00

INTERNATIONAL SPECIFICATION COMPARISON	
BRITISH BS 970:1991	431S29
BRITISH BS 970:1955	
GERMAN DIN	
FRENCH AFNOR	
SWEDISH SS	
AMERICAN SAE	
EUROPEAN STEEL NO.	1.4057
EUROPEAN STEEL NAME	X20CRNi17-2
EUROPEAN STANDARD	EN10088-3

QUICK VIEW SYSTEM	
MACHINEABILITY	60
WELDABILITY	Not recommended
HARDENABILITY	Not applicable
SELECTION GUIDE AND USAGE EXAMPLES	Used in mildly corrosive conditions. General engineering applications

SIZE RANGE SUMMARY			
	Rounds	IMP	7/8" - 2" dia

SEE STOCK RANGE FOR SPECIFIC SIZES.