GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

Material - ASTM A182 F911

Standard Specification for Forged or Rolled Alloy-Steel Pipe Flanges, Forged Fittings, and Valves and Parts for High-Temperature Service

Group - Ferrous Stainless Steel Alloys

Sub Group - ASTM A182 F911 Forged or Rolled Alloy-Steel Pipe Flanges, Forged Fittings, and Valves and Parts for High-Temperature Service

Application - Intended for Valve, Pump, General Engineering, Automotive and Other Industries

Grade Belongs to the Industry - Pipe, Bars and Forging

Chemical Composition		
Carbon	C %	0.090 - 0.130
Manganese	Mn %	0.300 - 0.600
Phosphorus	P %	0.020 max.
Sulphur	S %	0.010 max.
Silicon	Si %	0.100 - 0.500
Nickel	Ni %	0.400 max.
Chromium	Cr %	8.500 - 10.500
Niobium	Nb %	0.060 - 0.100
Molybdenum	Mo %	0.900 - 1.100
Tungsten	W %	0.900 - 1.100
Aluminium	Al %	0.040 max.
Nitrogen	N %	0.040 - 0.090
Vanadium	V %	0.180 - 0.250
Boron	B %	0.0003 - 0.0060
Iron	Fe %	Balance

Heat Treatment
Normalizing & Tempering

Mechanical Properties	
Tensile Strength in Mpa	620 min.
Yield Strength in Mpa	440 min.
Elongation in %	18 min.
Reduction of Area in %	40 min.
Hardness in HB	187 - 248
Impact in Joule	-

Cross Reference Table			
Material	**Standard**	**Country**	**Grade Belong to the Industry**
K91061	UNS	USA	Steel
SA-1017 Grade 911	ASME	USA	Steel and Plate
A 213 T911	ASTM	USA	Steel and Tubing
A 335 Grade P911	ASTM	USA	Steel
A 1017 Grade 911	ASTM	USA	Steel and Plate
A 234 Grade WP911	ASTM	USA	Steel
A 369 Grade FP911	ASTM	USA	Steel and Pipe

Further any inquiry to discuss with Gravity Cast Pvt. Ltd. – Gravity Group of Companies team member Call on +918469160029, or email marketing@gravitycastindia.com

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