GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

Material - ASME SA-182 Grade F 911

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

Group - Ferrous Stainless Steel Alloys

Sub Group - ASME SA-182 Grade F 911 Forged or Rolled Alloy and Stainles Steel Pipe Flanges, Forged Fittings and Valves and Parts for Hogh-Temperature Service

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

Grade Belongs to the Industry - Pipe 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 - 9.500
Molybdenum	Mo %	0.900 - 1.100
Niobium	Nb %	0.060 - 0.100
Tungsten	W %	0.900 - 1.100
Aluminium	Al %	0.020 max.
Nitrogen	N %	0.040 - 0.090
Vanadium	V %	0.180 - 0.250
Boron	B %	0.003 - 0.006
Titanium	Ti %	0.010 max.

Chemical Composition		
Zirconium	Zr %	0.010 max.
Iron	Fe%	Balance
-	-	-
-	-	-
-	-	-
Heat Treatment		
Normalising & 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 BHN	187 - 248	
Impact in Joule	-	

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Cross Reference Table			
Material	**Standard**	**Country**	**Grade Belong to the Industry**
K91061	UNS	USA	Steel
A 182 F 911	ASTM	USA	Steel and Pipe
A 213 T911	ASTM	USA	Steel and Tubing
A 335 Grade P911	ASTM	USA	Steel and Pipe
A 369 Grade FP911	ASTM	USA	Steel and Pipe
SA-335 Grade P91	ASME	USA	Steel and Tubing
SA-335 Grade P92	ASME	USA	Steel and Tubing

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

All information in our data sheets and website is indicative only and is not intended to be a substitute for the full specification from which it is extracted. It is intended to provide typical values to allow comparison between metal alloy option rather than a definitive statement of mechanical performance or suitability for a particular application as these will vary with temperature, product type and product application. It is presented apart from contractual obligations and does not constitute any guarantee of properties or of processing or application possibilities in individual cases. Our warranties and liabilities are stated exclusively in our terms of business.