GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

Material - ASME SA-336 Grade F911

Standard Specification for Alloy Steel Forgings for Pressure and High-Temperature Parts

Group - Ferrous Stainless Steel Alloys
Sub Group - ASME SA-336 Grade F911 Alloy Steel Forgings for Pressure and High-Temperature Parts
Application - Intended for Valve, Pump, General Engineering, Automotive and other Industries
Grade Belongs to the Industry - Forgings

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
Vanadium	V %	0.180 - 0.250
Niobium	Nb %	0.060 0.100
Nitrogen	N %	0.040 - 0.090
Aluminium	Al %	0.020 max.
Titanium	Ti %	0.010 max.
Boron	B %	0.0003 - 0.0060
Tungsten	W %	0.900 - 1.100

Chemical Composition		
Titanium	Ti %	0.010 max.
Zirconium	Zr %	0.010 max.
Iron	Fe %	Balance
-	-	-
-	-	-
Heat Treatment		
Annealing or Normalising & Tempering or Quenching & Tempering		
Mechanical Properties		
Tensile Strength in Mpa	620 - 830	
Yield Strength in Mpa	440 min.	
Elongation in %	20 min.	
Reduction of Area in %	40 min.	
Hardness in HB	-	
Impact in Joule	-	

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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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