GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

Material - ASME SA-705 S45503

Standard Specification for Age-Hardening Stainless Steel Forgings

Group - Ferrous Stainless Steel Alloys

Sub Group - ASME SA-705 S45503 Age-Hardening Stainless Steel Forgings

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

Grade Belongs to the Industry - Forging

Chemical Composition		
Carbon	C %	0.010 max.
Manganese	Mn %	0.500 max.
Phosphorus	P %	0.010 max.
Sulphur	S %	0.010 max.
Silicon	Si %	0.200 max.
Chromium	Cr %	11.000 - 12.500
Nickel	Ni %	7.500 - 9.500
Molybdenum	Mo %	0.500 max.
Copper	Cu %	1.500 - 2.500
Titanium	Ti %	1.000 - 1.350
Nb + Ta	Nb%+Ta%	0.100 - 0.500
Iron	Fe %	Balance
-	-	-
-	-	-
-	-	-

Heat Treatment
Solution Annealing or Precipitation Hardening

Mechanical Properties	
Tensile Strength in Mpa	1620 min.
Yield Strength in Mpa	1520 min.
Elongation in %	8 min.
Reduction of Area in %	30 min.
Hardness in BHN	444 min.
Impact in Joule	-

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Cross Reference Table			
Material	**Standard**	**Country**	**Grade Belong to the Industry**
A 705 XM-16	ASTM	USA	Steel and Forging
A 959 Type XM-16	ASTM	USA	Steel
A 564 S45503	ASTM	USA	Bars and Shapes
A 313 Type XM-16	ASTM	USA	Steel
A 564 XM-16	ASTM	USA	Bars and Shapes
5617	AMS	USA	Bars, Wire and Forging
5860	AMS	USA	Sheet, Strip, and Plate

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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