



**GRAVITY CAST PVT. LTD.**  
GRAVITY GROUP OF COMPANIES

## Material - ASTM B 462 R20033

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

**Group - Non-Ferrous Nickel Alloys**

**Sub Group - ASTM B 462 R20033 Forged or Rolled Alloy Pipe Flanges, Forged Fittings, and Valves and Parts for Corrosive High-Temperature Service**

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

**Grade Belongs to the Industry - Pipe Flanges, Forged Fittings and Valve**

Chemical Composition			Heat Treatment	
Carbon	C %	0.015 max.	As-Cast or Annealing or Age Hardning	
Silicon	Si %	0.500 max.		
Manganese	Mn %	2.000 max.		
Chromium	Cr %	31.000 - 35.000		
Sulphur	S %	0.010 max.		
Molybdenum	Mo %	0.500 - 2.000		
Phosphorus	P %	0.020 max.		
Nitrogen	N %	0.350 - 0.600		
Copper	Cu %	0.300 - 1.200	Mechanical Properties	
Nickel	Ni %	30.000 - 33.000	Tensile Strength in Mpa	750 min.
Iron	Fe %	Balance	Yield Strength in Mpa	380 min.
-	-	-	Elongation in %	40 min.
-	-	-	Reduction of Area in %	-
-	-	-	Hardness in BHN	-
-	-	-	Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
B 564 R20033	ASTM	USA	Forging
B 649 R20033	ASTM	USA	Bar and Wire
B 619 R20033	ASTM	USA	Pipe
B 622 R20033	ASTM	USA	Pipe and Tube
B 626 R20033	ASTM	USA	Tube
B 625 R20033	ASTM	USA	Plate, Sheet and Strip
SB-649 R20033	ASME	USA	Bar and Wire

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

**ONE STOP SOLUTION FOR METAL PARTS**