

Metal Materials Guide

Parts				Specifications			Chemical Composition													Minimum Physical Properties			
Body	Disc	Stem	Handle	Common Designation	Cast Material	Wrought Material	Aluminum	Carbon	Chromium	Copper	Iron	Lead	Manganese	Molybdenum	Nickel	Silicon	Tin	Titanium	Zinc	Tensile (P.S.I)	Yield (P.S.I)	Elongation (Min.)	Brinell NO.
X	X			Aluminum	ASTM-B-262C81A		BAL		35	04	1		06		15	25		25	7	30,000	22,000	3	
			X	Aluminum	ASTM-B-26-B176		BAL		35	04	1		05	6	15	25		25	7	30,000	22,000	3	
X	X			Bronze (Aluminum Bronze)	ASTM-B-148-952		9			BAL	3									65,000	25,000	20	110
X	X		X	Bronze (NI-AL-Bronze)	MIL B23921		11	X		BAL	4				4					90,000	40,000	6	190
X	X			Bronze (Navy M)	ASTM B-61					BAL		1					55		3	34,000	16,000	22	
X				Carbon Steel	ASTM A-216 WCB			03	04	05	BAL		1	25	5	6				70,000	36,000	22	
X	X		X	Cast Iron	ASTM A-126 Class B			22			BAL								2	31,000			
	X			Manganese & Bronze	ASTM B-14865		125			BAL	125		25						393	65,000	25,000	20	
	X			Monel	ASTM A-494 M35 (QQN288A)					30					BAL					65,000	32,500	25	
		X		Monel (Alloy 400)	ASTM B-164					35	125		1		665	25				84,000	55,000	40	
X	X		X	Nodular Iron (65-45-12)	ASTM A536 (65-45-12) Grade						BAL		06			2				65,000	45,000	12	
X	X		X	Nodular Iron (60-45-15)	ASTM A-395 (60-45-15) Grade						BAL					25				60,000	45,000	15	
X	X			316 SS	ASTM 4296 CF-8M				18		BAL		15	2	9	2				70,000	30,000	30	
		x		316 SS	ASTM A-276 Grade 316				18		BAL		2	2	10	1				75,000	30,000	30	
				Alloy 20	ASTM B463 (Plate) B473 (Bar)				19	3	BAL		2	2	32	1				85,000	35,000	30	217
				Steel 4140 (H.T.)	ASTM A-193 B7				8		BAL		75	15		2				125,000	105,000	12	269
				Titanium	ASTM B265-2 (Plate) B473 (Bar)		10				30							BAL		50,000	40,000	20	
				17-4 PH SS	AMS-5355				17	4	BAL				4					150,000	110,000	12	320
		X		17-4 PH (H.T.) SS	AMS 5643	AMS 5643			17	4	BAL				4					150,000	110,000	16	320

- Note:**
1. The above is to be used as a guide only.
 2. For information concerning availability of material consult you local Flow Line representative or the Flow Line factory.
 3. This guide dose not constitute a statement of available materials.