



Comparative Physical Properties & Machinability

RANDOM PHYSICAL PROPERTIES BASED ON 1" ROUND

(FOR COMPARISON ONLY)

STAINLESS					
	TENSILE	YIELD	ELONG	RED. OF AREA	BHN
302-304	89,800	43,100	61	77	165
303 S	90,000	41,500	56	61	177
316	94,800	66,000	45	72.5	200
416	95,800	77,200	21	56.3	203
CARBON STEELS					
	TENSILE	YIELD	ELONG	RED. OF AREA	BHN
C-1018	78,000	68,000	22	50	165
C-12L14	78,000	68,000	15	45	165
C-1144 (Stressproof)	110,000	100,000	12	28	230
C-1045	110,000	85,000	19	32	223
ALLOY STEEL					
	TENSILE	YIELD	ELONG	RED. OF AREA	BHN
HR-4140 Ann	89,000	62,000	26	58	187
HR-4140 H.T.	125,000	100,000	16	45	302
HR-4340 Ann	101,000	69,000	21	45	207

**MACHINABILITY RATINGS
(FOR COMPARISON ONLY)**

STAINLESS ALLOY					
GRADE	APPROXIMATE SURF. FT. PER MIN.	% RELATIVE SPEED BASED ON C-1215 as 100%	GRADE	APPROXIMATE SURF. FT. PER MIN.	% RELATIVE SPEED BASED ON C-1215 as 100%
303	150	75	E-4130	120	72
304	70	40	E-4140	110	66
316	60	36	E-4340	95	57
416 Ann	150	75		CARBON	
440C	65	40	GRADE	APPROXIMATE SURF. FT. PER MIN.	% RELATIVE SPEED BASED ON C-1215 as 100%
15-5 PH	75	45	C-1018	130	78
17-4 PH	75	45	C-1045	95	57
			C-1144	125	76
			C-12L14	325	198

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