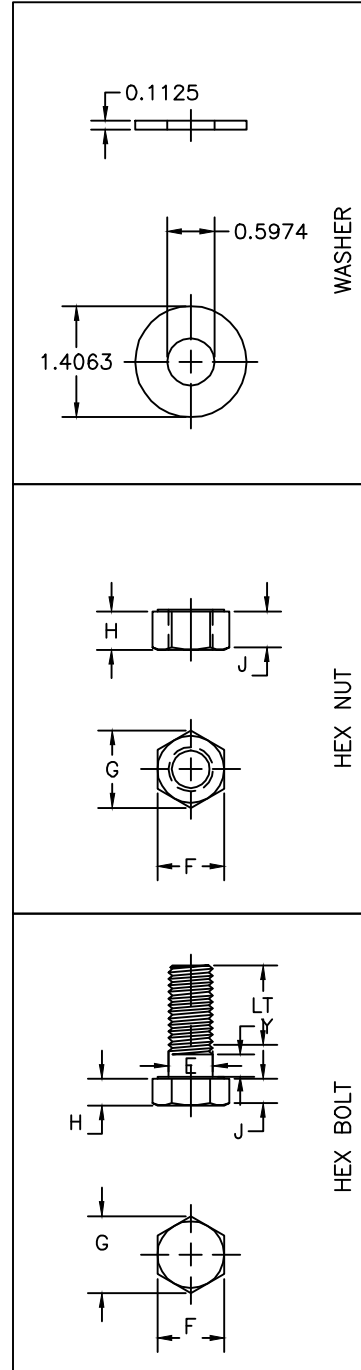


DIMENSIONS OF HEAVY HEX BOLTS,
NUTS & WASHERS

NOMINAL SIZE OR BASIC PRODUCT DIA.	E		F		G		H		J	LT		Y	RUNOUT OF BEARING SURFACE FIM MAX.
	BODY DIA.		WIDTH ACROSS FLATS		WIDTH ACROSS CORNERS		HEIGHT		WRENCH- IN. HEIGHT.	THREAD LENGTH FOR SCREWS LENGTHS		TRANSITION THREAD LENGTH	
	MAX.	MIN.	BASIC	MIN.	MAX.	MIN.	MAX.	MIN.		BASIC	MAX.		
1/2 UNC13 BOLT	.5000	.482	3/4	.725	.875	.850	5/16	.323	.215	1.250	1.500	.385	.016
1/2 UNC13 NUT			3/4	.725	.875	.850	7/16	.438	.403				

GRADE DESIGNATION	PRODUCT	NOMINAL SIZE DIA. IN.	PROOF LOAD (STRESS) PSI	TENSILE STRENGTH (STRESS) MIN. PSI	YIELD STRENGTH (STRESS) MIN. PSI	TENSILE STRENGTH (STRESS) MIN. PSI	ELONGATION MIN., %	REDUCTION OF AREA MIN., %	ROCKWELL 30M MAX.		ROCKWELL		GRADE IDENTIFICATION MARKING
									MIN.	MAX.	MIN.	MAX.	
2	BOLTS, SCREWS, STUDS	1/4 THRU 3/4"	55,000	74,000	57,000	74,000	18	35	-	-	B80	B100	NONE
5	BOLTS, SCREWS, STUDS	>3/4 TO 1-1/2"	33,000	60,000	36,000	60,000	18	35	-	-	B70	B100	NONE
		1/4 THRU 1"	65,000	120,000	92,000	120,000	14	35	54	54	C25	C34	
		>1 TO 1-1/2"	74,000	105,000	81,000	105,000	14	35	50	50	C19	C30	



GRADE 2 = ASTM A 307