

Basic Detail Report

PULL

SCREW SIZE

#2
#3
#4
#5
#6
#8
#10
1/4
3/8
1/2
5/8
3/4
7/8
1
1 1/4
1 1/2

THREADS per INCH

NC	NF
20	28

ALLEN SOCKET SET SCREWS

ROCKWELL HARDNESS "C" 47-52

TYPES OF SET SCREW POINTS

ALLEN POINT
(CUP POINT)

FLAT POINT

OVAL POINT

CONE POINT

HALF DOG POINT

A		C		R		Y		P		Q		H		TAP DRILL SIZE	
ALLEN-POINT DIA.		FLAT POINT DIA.		OVAL POINT RADIUS		CONE POINT ANGLE		HALF-DOG POINT DIA.		HALF-DOG LENGTH		HEX SIZE		NC NF	
MAX.	MIN.	MAX.	MIN.			118° ± 2° Under	90° ± 2° Over	MAX.	MIN.						
.125	.114	.132	.118	3/16	1/4	5/16	3/32	.149	1/16	1/8	#7	#1	#7	#1	

AVERAGE TORSIONAL YIELD AND SHEAR OF STANDARD ALLEN HEX KEYS

KEY SIZE	Torsional Yield (inch pounds)	Torsional Shear (inch pounds)	KEY SIZE	Torsional Yield (inch pounds)	Torsional Shear (inch pounds)
.035	1.5	2.0	5/16	1200.0	1450.0
.050	4.3	5.5	3/8	1750.0	2100.0
1/16	8.7	12.5	7/16	2700.0	4300.0
5/64	16.5	23.0	1/2	4100.0	6100.0
3/32	30.0	39.0	9/16	5600.0	8300.0
1/8	70.0	98.0	5/8	7300.0	11000.0
5/32	140.0	210.0	3/4	12000.0	18000.0
3/16	220.0	330.0	7/8	18000.0	26500.0
1/32	350.0	570.0	1	26000.0	36500.0
1/4	515.0	720.0	1 1/8	37000.0	52000.0

TIGHTENING FORCES EXCEEDING VALUES IN TORSIONAL YIELD COLUMN NOT RECOMMENDED

ALLEN "TRU GROUND" SOCKET SHOULDER SCREWS

SHOULDER SCREW ROCKWELL HARDNESS "C" 36-40

MAX. **.365**

SCREW SIZE **#10 24**

ALLEN

Basic Detail Report



Title Advertisement: Allen Socket Set Screws

Date 1955

Primary Maker Allen Manufacturing Co.

Medium plastic, paper

Description Advertisement for Allen Socket Manufacturing Company. A size chart detailing the dimensions of various Allen Socket Screws including, Allen Socket Set Screws, Allen 'Tru Ground' Socket Shoulder Screws, and Allen 'Pressur-Formd' Cap Screws.

Dimensions Primary Dimensions: $3 \times 6 \frac{1}{2}$ in. (7.6×16.5 cm)