

75mm Gun M2, M3 & M6

Carriage and mount:	M3 series in mount M1, M4 series in Mount M34 and M34A1		
Length of Chamber (to Rifling):	14.4 inches		
Length of Rifling:	69.6 inches(M2) 96.2 inches (M3 and M6)		
Length of Chamber (to projectile base):	12.96 inches (APC M61), 11.5 inches (HE M48)		
Travel of Projectile in Bore:	(M2) 71 inches (APC M61), 72.5 inches (HE M48) (M3&M6) 97.67 inches, (APC M61), 99.1(HE M48)		
Length of Bore:	84.0 inches, 28.5 calibers (M2); 110.63 inches, 37.5 calibers (M3 and M6)		
Depth of Breach Recess:	7.75 inches (M2 and M3 guns); 5.75 inches (M6 gun)		
Length of Muzzle to rear face of Breach:	(M2) 91.75 inches, 31.1 calibers (M3) 118.38, 40.1 calibers (M6) 116.38 inches; 39.4 calibers		
Additional length, Muzzle Brake, etc.:	none		
Overall length:	(M2)91.75 inches; (M3) 118.38 inches; (M6) 116.38 inches		
Diameter of Bore:	2.95 inches		
Chamber Capacity:	88.05 cubic inches (APC M61), 80.57 cubic inches (HE M48)		
Weight Tube:			
Total Weight:	783 pounds (M2); 893 pounds (M3); 410 pounds (M6)		
Type of Breechblock:	Semiautomatic sliding wedge, Gun mounted so breechblock slides vertically in Mount M1 and horizontally in mounts M34, M34A1 and M64		
Rifling:	24 grooves, uniform right-hand twist, one turn in 25.59 calibers (slope in 7 degrees)		
Ammunition:	Fixed		
Primer:	Percussion		
Weight Complete Round:	APC M61 Projectile (APCBC/HE-T) 19.92 pounds HVAP T45 Shot (APCR-T)* 13.60 pounds AP M72 Shot (AP-T) 18.80 pounds HE M48 Shell (HE), Supercharge 19.56 pounds HE M48 Shell (HE) Normal 18.80 pounds HC B1 M89 Shell, Smoke 9.83 pounds		
Weight, Projectile	APC M61 Projectile (APCBC/HE-T) 14.96 pounds HVAP T45 Shot (APCR-T)* 8.40 pounds AP M72 Shot (AP-T) 13.94 pounds HE M48 Shell (HE), 14.70 pounds HC B1 M89 Shell, Smoke 6.61 pounds		
Maximum Powder Pressure:	38,000 PSI		
Maximum Rate of Fire:	20 rounds a minute		
Muzzle Velocity:		M2 Gun	M3/M6 Guns
	APC M61 Projectile (APCBC/HE-T)	1930 Ft./second	2030 Ft./second
	HVAP T45 Shot (APCR-T)*		2850 Ft./second
	AP M72 Shot (AP-T)	1930 Ft./second	2030 Ft./second
	HE M48 Shell (HE), Supercharge	1885 Ft./second	1980 Ft./second
	HE M48 Shell (HE) Normal	1470 Ft./second	1520 Ft./second
	HC B1 M89 Shell, Smoke	820 Ft./second	850 Ft./second
Muzzle Energy of Projectile: $KE = \frac{1}{2} MV^2$		M2 Gun	M3/M6 Guns
Rotational energy is neglected and values are based on long tons (2240pounds)	APC M61 Projectile (APCBC/HE-T)	387 Ft.-tons	427 Ft.-tons
	HVAP T45 Shot (APCR-T)*		473 Ft.-tons
	AP M72 Shot (AP-T)	360 Ft.-tons	398 Ft.-tons
	HE M48 Shell (HE), Supercharge	362 Ft.-tons	400 Ft.-tons
	HE M48 Shell (HE) Normal	220 Ft.-tons	235 Ft.-tons
Maximum Range (independent of mount):		M2 Gun	M3/M6 Gun
	APC M61 Projectile (APCBC/HE-T)	13,600 yards	14,000 yards
	AP M72 Shot (AP-T)	10,200 yards	10,650 yards
	HE M48 Shell (HE), Supercharge	13,300 Yards	14,000 yards
	HE M48 Shell (HE) Normal	11,000 yards	11,400 yards
	HC B1 M89 Shell, Smoke	Approximately 1500 yards	1500 yards

Data below for **M3** gun only.
book.

Done by the Sherman Tank site with Data from Hunnicutt's Sherman Tank

Shell Name		500 yards (457.2 meters)	1000 yards (914.4 meters)	1500Yards (1371.6 meters)	2000 yards (1828.8 meters)
APC M61	Homogeneous armor at 30 degrees	2.4 inches (60.96mm)	2.2 inches (55.88mm)	2.0 inches (50.8mm)	1.8 inches (45.72mm)
AP M72	Homogeneous armor at 30 degrees	2.4 inches (60.96mm)	2.1 inches (53.34mm)	1.8 inches (45.72mm)	1.5 inches(38.1mm)
APC M61	Face-hardened armor at 30 degrees	2.7 inches (68.58mm)	2.4 inches (60.96mm)	2.2 inches (55.88mm)	1.9 inches (48.26mm)
AP M72	Face-hardened armor at 30 degrees	2.3 inches (58.42mm)	1.8 inches (45.72mm)	1.3 inches (33.02mm)	1.0 inches (25.4mm)
APC M61	Homogeneous armor at 30 degrees	2.6 inches (66.04mm)	2.4 inches (60.96mm)	2.2 inches (55.88mm)	2.0 inches (50.8mm)
AP M72	Homogeneous armor at 30 degrees	3.0 inches (76.2mm)	2.5 inches (63.5mm)	2.0 inches (50.8mm)	1.7 inches (43.18mm)
HVAP T45*	Homogeneous armor at 30 degrees	4.6 inches (116.84mm)	3.8 inches (96.52mm)	3.1 inches (78.74mm)	2.5 inches (63.5mm)
APC M61	Face-hardened armor at 30 degrees	2.9 inches (73.66mm)	2.6 inches (66.04mm)	2.4 inches (60.96mm)	2.1 inches (53.34mm)
AP M72	Face-hardened armor at 30 degrees	2.6 inches (66.04mm)	2.1 inches (53.34mm)	1.6 inches (40.64mm)	1.3 inches (33.02mm)
	*Experimental only				