



ARP POPPER RECOMMENDATIONS

Calibres // Ammunition samples	Muzzle Velocity	Muzzle Energy	Usable range of 8mm System	Usable range of a 12mm System	Black Carbon ARP recommendation based on largest/most practical usage range.
Cal examples are estimate/approximate samples only			Min to Max range 8mm ARP (200mm)	Min to Max range 12mm ARP (200mm)	
.223 Rem // Federal 55gr Nosler Ballistic Tip	3240 Fps	1199 Ft/lbs	150* meters <i>-/-</i> 250 meters	Not Recommended	8mm system recommended
.243 Win // Federal 95gr Nosler Ballistic Tip	3025 Fps	1840 Ft/lbs	150* meters <i>-/-</i> 500 meters	Not Recommended	8mm system recommended
6.5mm Creedmoor // Hornady 140gr A-max	3010 Fps	2725 Ft/lbs	450 meters <i>-/-</i> 1000 meters	150* meters <i>-/-</i> 800 meters	12mm for best mix of range use. 8mm for medium/long range.
.280 Remington // Federal 140 gr Nosler Ballistic Tip	2990 Fps	2677 Ft/lbs	400 meters <i>-/-</i> 900 meters	150* meters <i>-/-</i> 700 meters	12mm for best mix of range use. 8mm for medium/long range.
.300 AAC Blkout // Remington 123 gr MC	2315 Fps	1359 Ft/lbs	150* meters <i>-/-</i> 325 meters	Not Recommended	8mm system recommended
.308 Win // Federal 175 gr Sierra Match King	2600 Fps	2530 Ft/lbs	350 meters <i>-/-</i> 900 meters	150* meters <i>-/-</i> 600 meters	12mm for short/medium range. 8mm for medium/long range.
.300 Win Mag // Federal 190 gr Sierra Match King	2900 Fps	3429 Ft/lbs	575 meters <i>-/-</i> 1100 meters	150* meters <i>-/-</i> 900 meters	12mm has more usable range. 8mm for medium/long range only.
7mm Rem Mag // Black hills 162 gr Hornady A-max	2950 Fps	3041 Ft/lbs	575 meters <i>-/-</i> 1200 meters	150* meters <i>-/-</i> 1000 meters	12mm has more usable range. 8mm for medium/long range only.
.338 LapMag // Black Hills 300 gr Sierra HPBT (MK)	2800 Fps	5098 Ft/lbs	1125 meters <i>-/-</i> 2000+ meters	300 meters <i>-/-</i> 1600 meters	12mm system recommended
.408 Chytac // 420 gr monolithic copper solid	2850 Fps	7430 Ft/lbs	Not Recommended	800 meters <i>-/-</i> 2000+ meters	12mm system recommended

*** NOTES ***

1) Minimum and maximum ranges are based on the following criteria;

Absolute minimum distance is set by maximum velocity (2800fps at impact all target types), maximum energy (Ft/lbs) and allowing a minimum safety distance of 150*meters. All requirements must be satisfied.

Minimum energy required for popper actuation (200mm mini target C/Ball Mass strike) in 8mm = 500 Ft/lbs (Examples shown)

Minimum energy required for popper actuation (300mm large target C/Ball Mass strike) in 8mm = 700 Ft/lbs

Minimum energy required for popper actuation (200mm mini target C/Ball Mass strike) in 12mm = 800 Ft/lbs (Examples shown)

Minimum energy required for popper actuation (300mm Large target C/Ball Mass strike) in 12mm = 1200 Ft/lbs

Maximum range is the estimate of furthest distance where full target actuation will be effected by projectile strike, this is best known test and approximate, based on central target ball area hits.

Maximum range full actuation may vary with projectile type, environment conditions and popper setting conditions.

Some projectile types/calibres, whilst producing enough energy, may not be completely successful in target acuation. This is due to projectile fragmentation occurring at a low energy point.

This potentially may occur in sub .243 (6.5) calibres (small diameter /calibre projectiles)

2) Maximum energy allowed for 8mm system = 1500 Ft/lbs at impact

3) Maximum energy allowed for 12mm system = 4000 Ft/lbs at impact

* Denotes minimum distance set by safety recommendations.