



Ballistics Program for Experienced Handloaders

Calculates the effects of varying Interior Ballistics properties and evaluates loading data for ammunition

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Interior Ballistics Program based on a thermodynamical model - Your Interior Ballistics Laboratory on your PC
 Min. system requirements: PC with MS-Windows® 2000, XP, Vista, Windows 7&8. 70 MB free space on HD

Input data:

- Cartridge data, manually or retrieved from database
- Bullet data, manually or retrieved from database
- Propellant data, manually or retrieved from database
- Groove caliber
- Case capacity
- Case length
- Cartridge O.A.L.
- Barrel length
- Bullet mass
- Bulet length
- Boattail dimensions
- Charge mass
- Friction- and heating losses (Weighting-factor)
- Forcing resistance (offset pressure)
- Maximum Average Pressure
- Reference pressure course
- Cross sectional area of bore
- Desired Pressure
- Desired Load Ratio (Density)
- Propellant temperature

QuickLOAD Cartridge Dimensions

Cartridge type: Projectile type or name:

30-378 Weath. Mag.

Cartridge length	3.600	91.44	Boattail / Hollowbase	
Projectile length	1.344	34.14	Grains	11.854
Projectile diam.	0.308	7.82	Grains H2O	6.836
Case length	2.913	74.00	Maximum case capacity, overflow	133.00
Seating depth	0.602	15.29	Remaining case capacity	121.93
Caliber, grooves	0.308	7.82	Displaced volume	11.07
Barrel length, bulk face to muzzle	24.0	609.6	psi	0.717
Projectile travel	21.889	550.9	Max.Avg.Pressure	63816
Cross section area of bore	0.73346	47.32	Meas. Method	PI620 CP
			Weighting factor	0.35

QuickLOAD Charge

Propellant type:

Alliant Reloder-22

Heat of Explosion: 3930 kJ/kg

Ratio of specific heats: 1.2310

Burning rate factor Ba: 0.3890 1/s

Prog./Regress. factor a0: 1.4217

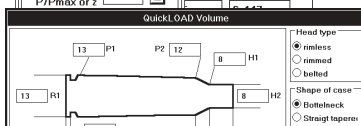
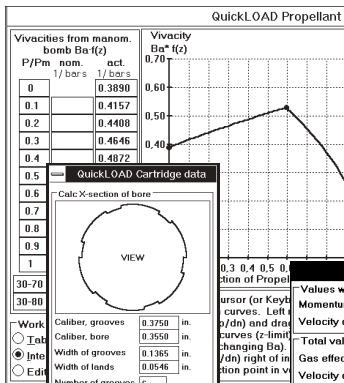
0.595 x 100%

2.1342

1.610 g/cm³

3625 psi

Charge weight



QuickLOAD Recoil Analysis

Values when projectile base passes muzzle

Momentum, muzzle exit: 101.82 lb/N/s Gun travel: 0.089 in.

Velocity of gun: 13.57 fps Energy of recoiling mass: 21.46 ft.lb.

Total values at end of gas aftereffect (free recoiling mass)

Gas effect duration, avg.: 2.19 ms Gun travel: 0.579 in.

Velocity of gun: 19.44 fps Energy of recoiling mass: 44.10 ft.lb.

Stress on scope or on mounting parts

Peak force on mount: 13548 lbf Scope + Mount weight: 1.102 lb.

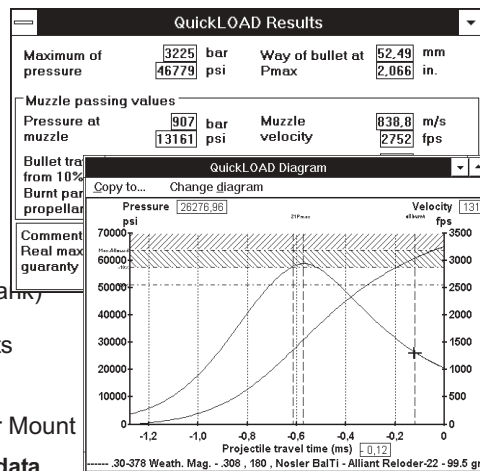
Peak force of gun recoil: 82157 lbf Momentum, aftereffect: 44.12 lb/N/s

Muzzle gas force: 24761 lbf Momentum, total: 145.94 lb/N/s

Fwd. moved part of charge: 0.35 Total gun weight: 7.496 lb.

Computing of:

- Bullet Velocity
- Pressure Course
- Way of Projectile
- Bullet Energy
- Barrel Time
- Loading Density
- Loading Tables
- Area of Bore
- Case Capacity
- Seating Depth (Shank)
- Loading Ratio
- Burning Coefficients
- Burning of Powder
- Recoil Calculation
- Stress on Scope or Mount



Database simulates data of 250+ propellants :

- Accurate
- ADI
- Alliant
- Bofors
- Elcho
- Rottweil
- Lovex
- Hodgdon
- IMR
- Kazan
- Norma
- PB Clermont
- Ramshot
- SNPE
- Somchem
- Vihtavuori
- Winchester
- coming soon Nitrochemie Wimmis Trademark Reloder Swiss
- see reverse side of this leaflet for details

More than 1310 cartridge case/caliber data included, currently ranging from .10 Eichelberger Dart to 14,5 x 114mm

2100+ Bullet data sets included as example

- All data sets can be easily defined by the user himself

QuickLOAD includes the Exterior Ballistics Program QuickTARGET

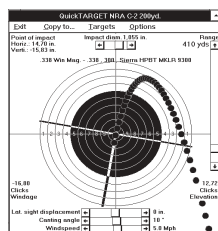
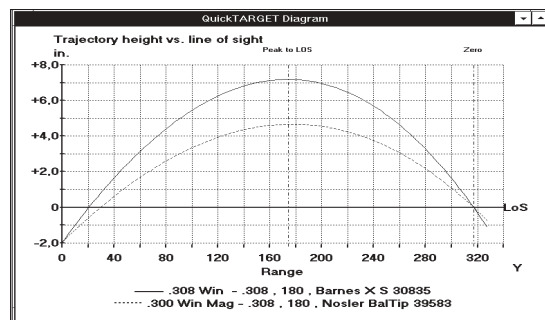
calculating flat trajectories according to G1 and G7-Drag function up to 2500 yards using up to 5 Ballistic coefficients for modern bullet designs, and

QuickTARGET Unlimited,

3 D.O.F.- Model without range limitations, free user selectable drag functions and radar range data for most LAPUA and Standard bullets

1270 + GPS-positions of gunsites, directions of fire, of worldwide rifle ranges, a maximum shooting range of 300 yards and more.

GPS Coordinates can be used with Google Earth by copy and paste.



- Fast evaluation of almost any Interior Ballistics System
- Calculates case volume from dimensions and case weight
- Calculates cross sectional area from bore dimensions
- Defining cartridge case data
- Computer supported variation of propellant properties
- Adaption of propellant properties
- Loading tables and various graphs
- Graph of pressure and velocity vs. travel and time
- Database of cases, propellants and projectiles
- Data transfer to MS-Excel when supported
- Saving and loading of cartridge / load data
- Printing of results as spreadsheet or diagram
- Conversion of units calculator, sight adjustment
- Target lead, crosswind, canting the gun, power factors
- Graph tracking with crosshairs and coordinate display
- Muzzle velocity predictor for black powder charges
- Mehl PVM 21 & BMC 18/21 chronograph interface
- User's Guide on harddisk in PDF - Format

QuickLOAD is an indispensable and valuable tool together with current loading manuals for the experienced handloader.

UK Distributor: JMS Arms

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<http://quickload.co.uk>

