

Pistols and Revolvers

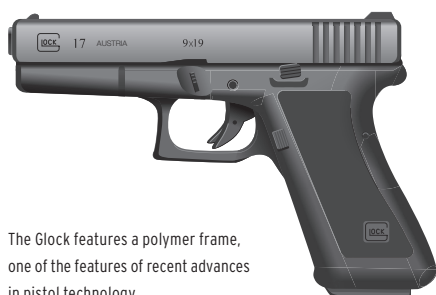
Pistols and revolvers are handguns that are operated and fired from the hands, in contrast to long guns, such as rifles and shotguns, which are fired braced against the shoulder. They are short-range weapons, designed to hit targets at distances of around 25–30 metres, with rapidly diminishing accuracy beyond these ranges.

Historically, the term ‘pistol’ is synonymous with ‘handgun’. In modern use, however, ‘pistol’ is often used to refer to gas-operated, self-loading handguns with a detachable magazine containing numerous cartridges. Revolvers, by contrast, feature a revolving cylinder that houses several (usually 5–7) separate chambers, each of which contains a cartridge. There are no significant differences among most pistols and revolvers designed for civilian, military, and police uses, with the exception of certain specialized target and novelty pistols.

In military use, pistols and revolvers are traditionally back-up weapons: initially employed by officers in lieu of swords, as secondary weapons for cavalry, and now widely carried as a supplement to a primary weapon, such as a rifle or assault rifle. However, defence forces often issue pistols as primary weapons to personnel with a requirement for unrestricted mobility, such as tank crews, aircrew, and auxiliary personnel. Pistols and revolvers also have applications for operations in confined spaces, such as urban warfare, specifically house clearance.

Regular officers in many of the world’s police forces carry pistols and revolvers for short-range self-defence. In police service, the weapons have two advantages over long guns. Firstly, they are small and comparatively discreet. Secondly, handgun calibres tend to have less penetrative power than high-velocity rifle ammunition—thereby reducing the potential for accidental death and injury caused by bullets passing through objects or ‘straying’ to extended ranges.

Glock 17 9 mm pistol



The Glock features a polymer frame, one of the features of recent advances in pistol technology.

In some states, there is widespread civilian ownership of pistols and revolvers for self-defence and sporting purposes, such as range shooting. However, some national governments have come under pressure to control civilian ownership of handguns, because of their use in armed crime (ostensibly for reasons of size and ease of concealment).

Worldwide, the most common pistol calibres in service with defence and security forces are the 9 × 19 mm Parabellum, .45 ACP (Automatic Colt Pistol), and 7.62 × 25 mm. These calibres predominate for several reasons, including:

1. the requirements of ammunition interoperability,¹ which discourages major calibre variations among allied states (e.g. NATO or former Soviet bloc militaries) and among branches of the armed forces in any one country;
2. the preponderance of relatively few primary calibres, but a multitude of manufacturers and suppliers (including of surplus), which offers economies of scale to states that retain existing calibres; and
3. the fact that many sub-machine guns are chambered for pistol ammunition, such as 7.62 × 25 mm or 9 × 19 mm, which further promotes the retention of common calibres.

There is, however, a far wider range of common pistol and revolver calibres in service with police and military forces than assault rifle calibres. This is arguably due to the greater commercialization of the pistol and revolver markets—particularly in major manufacturing states such as Germany, Switzerland, and the United States. In this respect, in some states, police and military personnel deploy non-issue weapons on active duty (often as a back-up).

As with most small arms, compiling aggregate world production figures is near impossible, due to incomplete or opaque reporting and a host of manufacturers (including licensed production and unlicensed copies). However, information on certain product lines offered by selected manufacturers provides a sense of scale. In terms of pistols, for example, Colt Defence LLC sold approximately 2.5 million M1911-pattern .45 pistols to the US government alone in the period 1911–2011 (Colt Defence LLC, 2011). Beretta’s sales of Model 92 pistols number far in excess of a million units (circa 1975–present)² and FN Herstal reports sales (circa 1935–present) of more than a million Hi-Power Pistols (FN Herstal, 2011). In terms of revolvers, between circa 1900 and 2002, Smith & Wesson sold more than six million

Table 1 Common pistol and revolver calibres

Calibres	Example pistols/revolvers
Pistol calibres <ul style="list-style-type: none"> • 7.62 x 25 mm • .32 ACP/7.65 x 17 (SR) mm • 9 x 18 mm • 9 x 19 mm Parabellum • .375 SIG/9.1 x 22 mm • .40 S&W/10 x 22 mm • .45 ACP/11.5 x 23 mm 	<ul style="list-style-type: none"> • Tokarev and derivatives • Walther PP/PPK; Beretta 41 • Makarov and derivatives • FN/Browning Hi-Power; Glock 17 and 19 • Glock 31, 32, and 33; P226 • Glock 22 and 23; S&W SW99; H&K USP • Colt M1911; Glock 21; Springfield .45
Revolver calibres <ul style="list-style-type: none"> • .38 S&W Special/9.1 x 29 (R) mm • .357 Magnum/9.1 x 33 (R) mm • .44 Remington Magnum/10.9 x 33 (R) mm 	<ul style="list-style-type: none"> • S&W Model 10 • Ruger GP-100; S&W .357 • Ruger Redhawk

Notes: (R) denotes rimmed cartridges, (SR) denotes semi-rimmed cartridges; S&W = Smith & Wesson.

Source: Jones and Ness (2008, pp. 3-96; 605-25)

units of its Model 10 (Boorman, 2002, p. 46), while Sturm, Ruger & Co. reportedly manufactured more than 1.5 million Ruger Security Six/Speed Six revolvers in various calibres between 1971 and 1988 (Cumpston, 2000).

Estimating the number of handguns possessed by civilians worldwide is also a particularly challenging task. In 2007 the Small Arms Survey estimated 650 million small arms and light weapons to be in the hands of civilians worldwide (Small Arms Survey, 2007, p. 39). Many of these are long guns, but in the United States, for example, the cumulated stock of pistols and revolvers from 1945 to 1994 is estimated at around 84.6 million handguns (Kleck, 1997, p. 97).

The basic design of pistols and revolvers has changed very little since the early 20th century. Manufacturers have introduced the most significant developments in terms of metallurgy and the use of composite components materials, with the aim of reducing manufacturing costs, enhancing reliability, and decreasing weight. Recent decades have also witnessed experimentation with various calibres, such as cartridges originally designed for use in personal-defence weapons (effectively scaled-down assault rifles), in addition to very large calibres, such as the .50 Action Express (12.7 x 33 mm) pistol and the .454 Casull Magnum (11.5 x 35 mm) revolver.

Recent acquisitions by national military and police forces suggest that there is little demand for radical changes to pistol and revolver design, with most governments prioritizing the reliability and durability of tried and tested models. ■

Notes

- 1 'Interoperability' refers to the standardization of calibres, so that one armed force may use the ammunition of another armed force in its weapons.
- 2 The company had sales of Model 92 pistol exceeding 300,000 to the US government (1985), 110,000 to the French Gendarmerie (1987), and 50,000 to US police forces (1989). Between 2002 and 2009, the company's major, publicized sales contracts to governments totalled more than 550,000 Model 92 pistols (Beretta SpA, 2011; Beretta USA, 2011).

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For more information on pistols and revolvers, please visit <http://www.smallarmssurvey.org/weapons-and-markets/products/small-arms.html>

About the Small Arms Survey

The Small Arms Survey serves as the principal international source of public information on all aspects of small arms and armed violence, and as a resource centre for governments, policy-makers, researchers, and activists. In addition to Research Notes, the Survey distributes its findings through Occasional Papers, Special Reports, Working Papers, Issue Briefs, a Book Series, and its annual flagship publication, the *Small Arms Survey*.

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