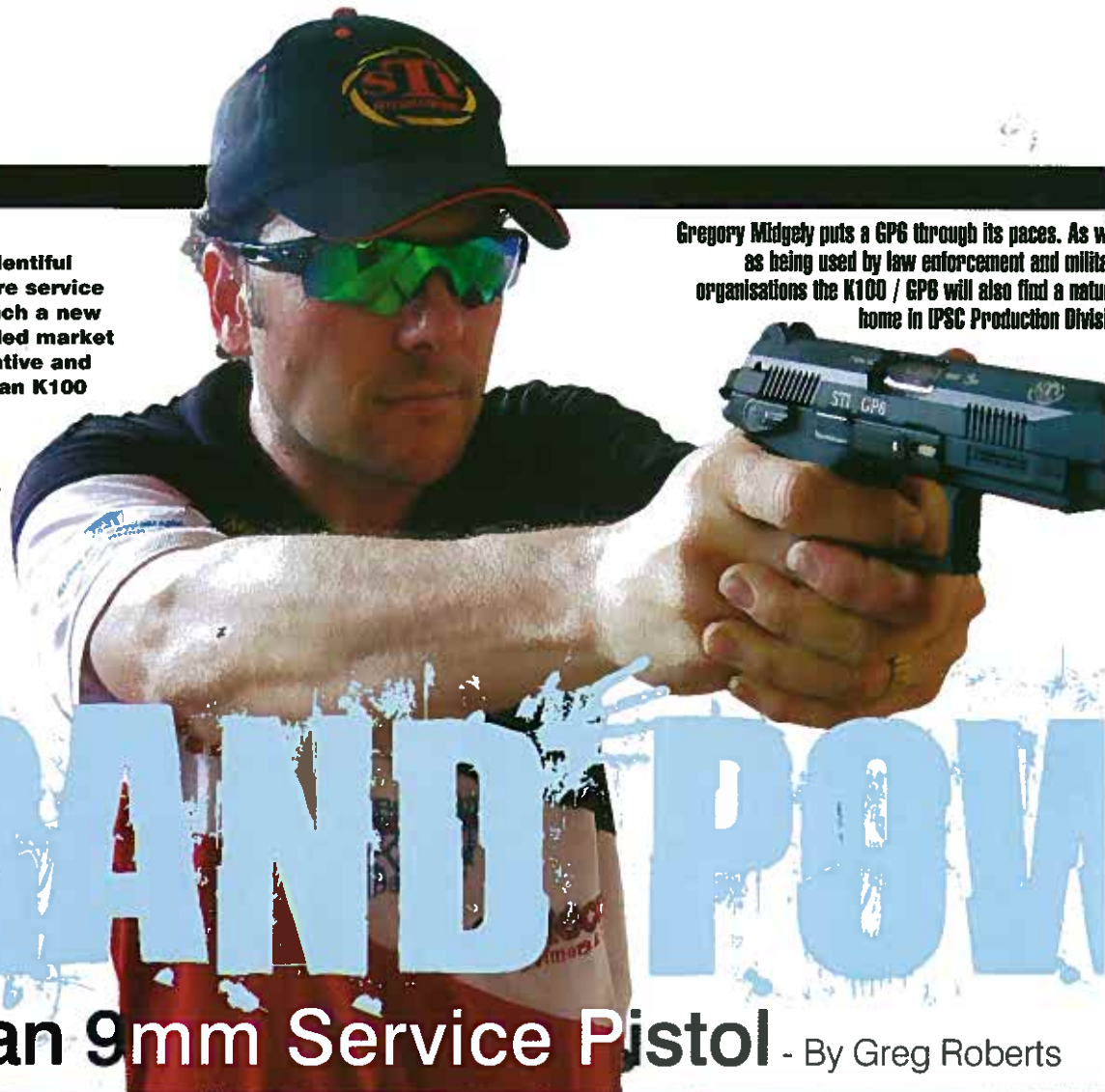


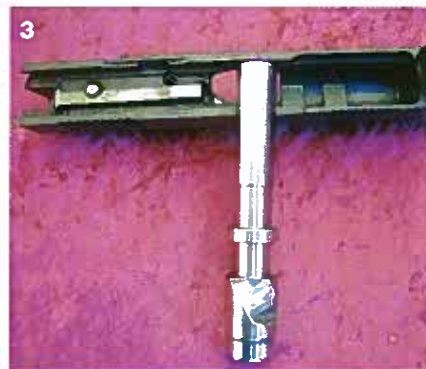
In a world that has a plentiful supply of nine millimetre service pistols, in order to launch a new model on an overcrowded market place it must be innovative and affordable. The Slovakian K100 Grand Power polymer-framed pistol, built in the Slovakian town of Banská Bystrica, offers ambidextrous controls, with a rotating barrel for high accuracy and good ergonomics, combined with an unique design at an affordable price.

Gregory Midgety puts a GP6 through its paces. As well as being used by law enforcement and military organisations the K100 / GP6 will also find a natural home in IPSC Production Division.



GRAND POWER

Slovakian 9mm Service Pistol - By Greg Roberts



The Czech firearm manufacturer Česká Zbrojovka (CZ-UB) supplies both the military and law enforcement organisations of the Czech and Slovak Republics with their small arm requirements and there is no shortage of quality CZ pistols around, so the success of the K100 from a design on paper, with different prototypes, to various production models, says a lot about the sidearm's features.

The story begins with a young man who had a desire to design his own pistol, the obstacles encountered, and how the K100 is poised to enter the world pistol market. The designer of the K100 pistol, Yaroslav Kuracina, was born in 1971 in Slovakia. He grew up in a household that was full of handguns, sub-machineguns and rifles that were a legacy of World War II.

Yaroslav began studying weapons engineering at the Military Academy in Brno in the Czech Republic in 1989 and then served as a weapons officer in the Slovak Army until 1996. All this time he had the idea of creating his own pistol. The Austrian Steyr 1912 was the inspiration for his design, but it needed to be made as economically as possible.

By 1992 Yaroslav had completed his first design drawings of his pistol, but production during the communist era was impossible. During this period firearm ownership was strictly controlled and any 'unofficial' activities would have got you locked up. Completing his military career Yaroslav gained employment at the Povazska Bystrica firearm factory and was promoted to technical director. He prepared the K1

1: STI International import the K100 into the USA where it is known as the GP6. Note that the safety catch and slide lock lever are ambidextrous to allow use of either hand

2: The frame has ambidextrous controls so that left handed users can operate the safety, slide lock lever and magazine release button with ease.

3: The K100 is supplied with a chunky barrel. Here you can see the cut-out in the barrel on which it rotates to unlock during the firing cycle

(forerunner of the K100) for production, then obtained employment with Česká Zbrojovka Brno as a consultant. He next established the company Grand Power in 2002 and started production of the K100.

GRAND POWER

In addition to holding the Contractor Industrial Security Certificate, issued by the Slovak Republic National Security Office, the company was also granted the NATO Commercial and Governmental Entity Code for manufacturers and suppliers. This system is intended for the codification of products, such as nomenclature, classifying, identifying and allocating NATO Stock Numbers (NSN) to suppliers' items.

The main advantages of K100 self-loading pistol are high accuracy, durability and reliability by the use of

various ammunition types. The excellent features of the gun are the result of unique design of the locking system, which is based on locking by a rotating barrel guided by a cross pin. The K100 is a short recoil operated, locked breech gun. To unlock from the slide on recoil, the barrel rotates slightly. The barrel has a curved guide machined into it which

Below:
STI International have now been given permission to import the K100

During different comparative tests the K100 came out as equal to and, in some parameters, it had a better performance than ranking models from other manufacturers. In 2004 the K100 was tested by the law enforcement and

Yaroslav Kuracina. It is an improved version of his Q2000 pistol, made in Považská Bystrica from the first construction drawings that started in 1994. In 1998 the first prototypes of the K1 were manufactured in Kinex Grand, and in 2000 the K1 was introduced for the first time at the IWA Exhibition in Nürnberg.

In 2003, with the name changed to K100, a series of 370

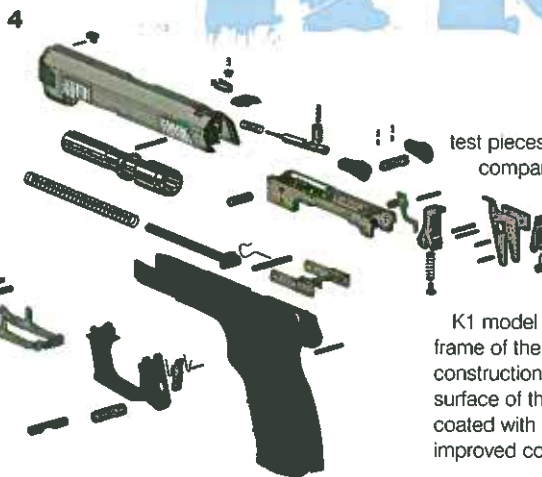


in the USA, where it will be known as the GP6

4: Exploded diagram of K100 pistol showing all its component parts

5: A metal container which has the rails on which the slide reciprocates, and where the trigger and firing mechanism is placed, is moulded into the frame. Note also the recoil guide rod and circular metal pin on which the barrel rotates to both lock and unlock

6: The K100 magazines are made by Mec-Gar in Italy and hold 17 rounds of 9mm ammunition



test pieces were manufactured by the company Grand Power. An additional series of test pieces were also produced based on the results of the testing of the first series.

Changes compared to the K1 model mainly dealt with the plastic frame of the pistol and with simplifying the construction of the slide stop lever. The surface of the metal parts of the gun was coated with the Tenifer treatment, which improved corrosion resistance.

Further changes mainly affected the material of the barrel and surface coating, which also uses Tenifer treatment, but with a thicker protective layer. The barrel is to test series, made of chrome steel with 53 HRC temper hardness. By now the K100 was also available with a matt chrome slide. The recoil spring was changed to improve reliability, and changes were also made to the construction of the firing pin. The length was increased by 3mm in order to ignite harder primers found in some brands of ammunition.

In 2004 the number of Grand Power models was extended with the DAO and QA model K100. Then in 2005 the third series offered the K100 Whisper silenced version and introduction of the K100 Compact, which is 15 mm shorter in length.

Grand Power uses various Computer Numerical Controlled (CNC)



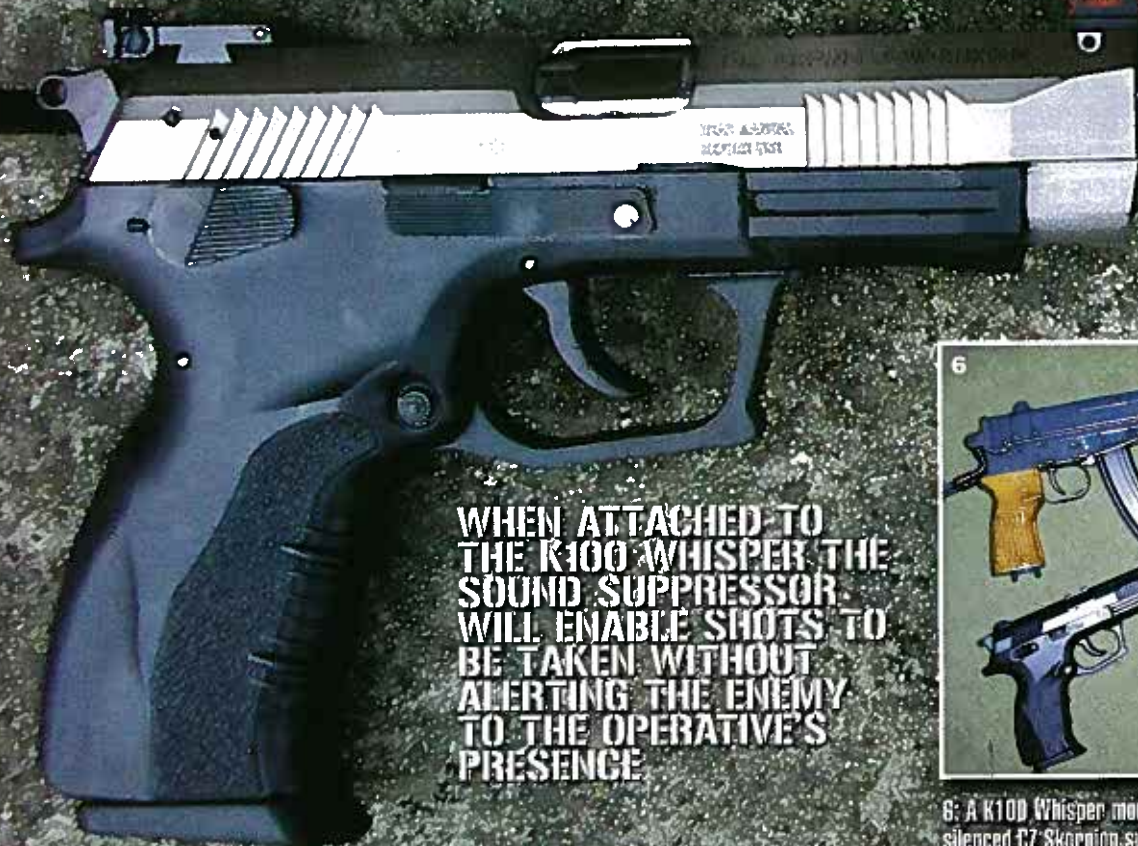
military forces of the Slovak Republic and was assessed as being above the required standards and applicable for use by Slovak Forces. They found that the biggest assets were the accuracy, reliability and the ergonomics which make the K100 comfortable to shoot.

FROM DRAWINGS TO PRODUCTION

The K100 pistol that we see in its present form is due to the dedication of designer

follows a pin that is fixed into the frame. This is a system used previously in the Austrian Steyr Model 12 pistol and it works. During unlocking the barrel rotates around its centre line. The thick walled barrel is 108 mm long and, like other metal parts, is treated by Tenifer QPQ technology to make it more corrosion resistant and to perform properly with a lack of lubricant and when carbon fouled.

The locking / unlocking mechanism differs from the standard Browning swinging link or cam drop down that you normally find on centre fire pistols. The ergonomically moulded plastic frame is fitted with steel inserts on which the barrel locks and unlocks, the slide reciprocates and where the trigger mechanism is also placed. The recoil spring guide, safety, trigger and trigger guard are also moulded from plastic.



WHEN ATTACHED TO THE K100 WHISPER THE SOUND SUPPRESSOR WILL ENABLE SHOTS TO BE TAKEN WITHOUT ALERTING THE ENEMY TO THE OPERATIVE'S PRESENCE



6: A K100 Whisper model sits alongside silenced CZ Skorpion sub-machinegun



Left: Those pistols that are imported into the USA will have the STI International and CP6 identification markings on them



Power's requirements. The magazines are made in Italy by Mec-Gar, who now manufactures magazines for various firearm companies' pistols. The Grand Power magazine has a capacity of seventeen rounds. Grand Power moulds their plastic parts primarily from Polyamide GF30.

technologies from Hyundai and their own Hermle 600 U five-axis machinery and is an approved ISO 9001/2000 company. In 2006 the first models of the K100 Mk6 were assigned for certification to USA standards and final consecutive certification and this year also saw the introduction of the semi-compact model P1. Future developments will see specific models in .40S&W and .45ACP calibres.

The standard version of the K100 is supplied with a new frame, however the firm still offers the older frame. The new frame has the MIL STD 1913 Picatinny rail, which allows the user to attach various types of lights and laser sighting systems. The front of the trigger guard has been straightened and there is the option of a magazine release button or a magazine release wing, similar to that used on the H&K USP and Walther P99. Production is organised by finishing and assembling the pistols with components either made in-house or subcomponents



made to order from other firearm manufacturers.

A metal container which has the rails on which the slide reciprocates, and where the trigger and firing mechanism is placed, is moulded into the frame. The slide stop lever is made of a hardened compressed metal. The slide is manufactured from chrome-nickel molybdenum steel by Belgian supplier Fabrique Nationale Herstal. The 108mm long barrel is made of 51CrV4 steel manufactured by CZ-UB, to Grand

7: The Mil Std 1913 Picatinny Rail on the forward end of the frame enables many types of lights and lasers to be attached to the K100

8: The K100 can be fired in the double action mode or with the hammer cocked and safety catch applied. Note the rounded sights to avoid any snagging during the draw

STI GP6 Production Division Gun In IPSC events Production Division continues to grow in popularity. At the Czech Extreme European Open in June this year, the number of competitors in Production Division exceeded the number of competitors in either Open or Standard Divisions for the first time at a major match.

Having seen his pistols excel in both IPSC Open and Standard Divisions, David Skinner, the proprietor of STI International, turned his attention to Production Division. Where Open and Standard division have peaked in terms of the number of competitors, Production Division continues to expand. In this division all pistols used must be catalogued production models, with a



9: The K100 Whisper has a longer threaded barrel that enables the sound suppressor to be attached to it



10: The K100s is also available with a contrasting chrome slide

double action first shot capability, or be a Glock safe action pistol. In the USA the 9mm Glock 17 pistol dominates this competition division, whereas in Europe the CZ75 SP01 and SP01 Shadow are the favourite choice amongst competitors. Production pistols cost production prices and not the cost of a competition pistol. As an STI-made pistol would not compete on price, David Skinner looked at what pistols already being made could compete in this division. He set his sights on the Grand Power K100 pistol and entered into an agreement with the Slovakian company allowing STI to import the K100 into the USA, where it is known as the STI GP6. Some design changes have been made to the GP6 to make it more suitable for IPSC competition shooting.

The K100/GP6 use a rare locking system - shared by the Beretta Cougar, PX4 Storm, and Brügger & Thomet MP9 - which employs a rotating barrel lock, which in the K100 / GP6 barrel is cammed by a cross pin. When the pistol is fired the barrel and slide move backward together for about 10mm while the barrel is cammed counter-clockwise by a flat, twisting, helical cut in the barrel extension. Once the barrel and slide have moved back to the point where the barrel has twisted about 45 degrees to the left, the slide is free to continue travelling back while the barrel's travel is arrested by its interface to the frame via the barrel extension. On the K100/GP6 barrel extension, cam cut and cam tooth are replaced by a frame embedded cross pin and a barrel extension cut with rounded surfaces which engage it. There is no transfer

"I fired three hundred rounds in 30 minutes, which included reloading the magazines, patching the paper targets and setting the steel plates back up, so the pistol had heated up a bit by the time I was finished. Functional reliability was 100 percent..."

- Greg Roberts

Right: Making its mark in IPSC Production against CZ and Glock pistols will be easier with top competitors like Ralf Jensen demonstrating the effectiveness of the K100 / GP6

block per se, and the barrel and barrel extension directly interface with the frame via the cross pin.

The double action / single action (DA/SA) target version has a fully adjustable serrated black blade micrometer rear sight, fibre optic front sight, adjustable trigger with a reduced DA trigger travel and lower trigger pull and an extended magazine release button. It is designed for sport shooting and disciplines of practical shooting, such as IPSC and IDPA. The standard configuration is fitted with a manual safety and DA/SA trigger. The pistol is also available as a single action only version, with any combination of all the currently available accessories.

The slide surface coating of the target model is available in the original black matt

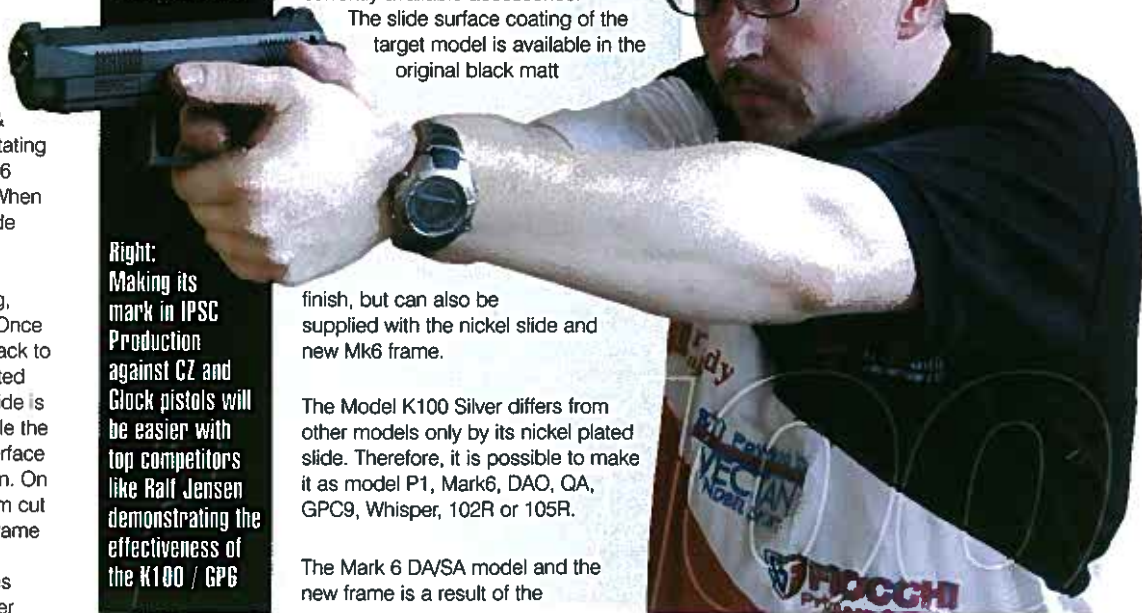
incorporation of desirable requirements for a universal pistol with ergonomics suitable for shooters competing in practical pistol competition disciplines, as well as for law enforcement and military users. After consulting with IPSC shooters the ergonomics of the grip and magazine well were changed in order to improve the effectiveness. The frame has

a new trigger guard and the safety catch, slide lock lever and magazine release button are ambidextrous in their operation.

finish, but can also be supplied with the nickel slide and new Mk6 frame.

The Model K100 Silver differs from other models only by its nickel plated slide. Therefore, it is possible to make it as model P1, Mark6, DAO, QA, GPC9, Whisper, 102R or 105R.

The Mark 6 DA/SA model and the new frame is a result of the



11



11: The K100 MK6 sits above the compact P1 version, which is 15 mm shorter in length

12: The K100 frame is made from polymer. The stippling on the grip, undercut at the rear of the trigger guard, squared front on the trigger guard and flared magazine show the influence of IPSC in modern pistol designs

12



13



13: The target version of the K100 comes with a serrated plain black rear sight that can be adjusted for both elevation and windage. The front sight is steel with a red fibre insert

14



a full hold on the pistol, even with a high capacity double row magazine holding seventeen 9mm rounds.

The frame of the K100 pistol is geometrically constructed for firm grasp and comfortable hold. All of the handling components are fully ambidextrous for right or left hand use. The grip has a roughed surface, and grooving improves holding of the gun even with wet hands. The magazine has a plastic base pad and holds seventeen rounds of 9x19mm calibre ammunition.

SIGHTS

The sights on the K100 are made in the factory and consist of a rounded steel rear sight and plastic front sight. The front sight fits into a slot in the slide and the rear sight is secured in a dovetail groove, which allows left and right adjustment if necessary. Changes in elevation can be achieved by changing the height of the front sight. For rapid alignment while aiming in poor lighting conditions there are three round dots,

For law enforcement and military users the front part of the frame is fitted with the universal tactical MIL 1913 Picatinny Rail. The sights consist of an adjustable steel rear sight with a plain black target blade and a steel front sight with a red plastic fibre optic insert.

PHYSICAL DIMENSIONS

Overall length of standard models is 202.5mm and the semi-compact model length is 187.5 mm. The height without magazine is 133.5mm, the maximum width of the frame is 40mm, and the grip is 30.5 mm wide. The width of the frame allows users with smaller hands to keep

THE GRAND POWER K100 9MM PISTOL TECHNICAL SPECIFICATION

Calibre	9mm Luger (9x19) 17-round magazine capacity
Frame	Textured Polymer grip with integral M1913 Picatinny Rail
Trigger	Double Action / Single Action and Double Action Only
Barrel	108mm long chrome-vanadium steel with 53 HRC surface hardness
Safeties	Ambidextrous thumb safeties and hammer block firing pin safety
Guide Rod	One Piece moulded plastic
Sights	White three dot rounded rear sight and front sight. Adjustable target rear sight and red fibre insert front sight available for IPSC events
Overall Length	202.5 mm (Compact model 187.5mm)
Overall Height	133.5mm
Weight	0.74 kg
Finish	Blue (nickel plated slide available)

which are white in colour. These sights with their low silhouette profile and round edges are appropriate for uniformed duty or concealed carry.

The sighting radius between the front and rear sights of the K100 is 156mm and, considering the locking principle and the high visibility sights, this provides the K100 with good practical accuracy for a service pistol. In combination with a windage and elevation adjustable rear sight and high visibility front sight the pistol is suitable for target shooting events. For those who want to use the pistol for IPSC practical pistol disciplines Grand Power offers metal front sights with red fibre inserts and both fixed or adjustable black target blade rear sights.

14: The K100 has a good high visibility front sight that can be changed to a metal red fibre insert sight more suitable for IPSC events

Right: The adjustable target rear sight and red fibre insert enable rapid target acquisition for IPSC practical pistol competitions

SAFETY FEATURES

The standard K100 is equipped with an external manual trigger lock. In the models without the external manual trigger lock (QA, DAO and QPC9) the safety is achieved by the increased resistance of the long double action trigger mechanism. The trigger is a conventional double action/single action type. The trigger reset distance is short, making the K100 very fast for follow-up



shots. There is also a double action only (DAO) version and two law enforcement and military only selective fire variants which allow an additional two round or five round burst of shots for tactical effectiveness. The automatic firing pin block prevents movement of the firing pin until the trigger is pulled fully to the rear.

DISASSEMBLY AND ASSEMBLY

Pointing the pistol in a safe direction and keeping your finger off the trigger, remove the magazine from the K100 and draw back the slide to make sure the chamber is unloaded. Pull down the front of the trigger guard and, holding the trigger guard downwards, pull the slide fully to the rear. Lift the slide upwards and out from the slide rails on the frame and, finally, move the slide forward off the frame of the pistol. The barrel can be easily lifted out of the slide and the

15: During our range tests in Germany we utilised the Ghost Competition holster

16: Field stripped for cleaning. From the top are the slide, barrel, recoil spring, frame and magazine.

17: IPSC Production Division is increasingly popular and is

Champion Eric Grauffel and also took the chance to examine and test fire the STI PG6. During the match the GP6 was given out to members of the STI European Team to compete with at matches in Production Division.

On the Monday, when the STI Match was complete and the multiple range complex at Phillipsburg was much quieter, I took a GP6 onto one of the ranges and set up a series of paper and steel knock-down targets set out between 5 and 25 metres. Using a mixture of 9mm ammunition of various makes, I first established that the sights were set to point of aim / point of impact, which they were. Then using one of Ghost's competition holsters (www.ghostinternational.com) I drew and fired magazine after magazine out of the GP6 at the paper and steel targets. This pistol had the standard service sights fitted to it and finding the centre of the steel pepper poppers and paper targets out to 25 metres was easy.

With a precise sight picture I had no problem in hitting the 150mm square steel plates set out at ranges up to 25 metres. Using the lunch break in Eric Grauffel's coaching course I fired three hundred rounds in 30 minutes, which included reloading the magazines, patching the paper targets and setting the steel plates back up, so the pistol had heated up a bit by the time I was finished.

embedded into the sport. Marketed in the USA as the STI GP6 and being used in practical pistol competition by the STI European Team will greatly raise its profile.

Yaroslav Kuracina has achieved his dream by taking the K100 from a concept on an engineering drawing to an actual manufactured product. C&S will spend part of the autumn shooting and training in Eastern Europe, where we will keep an eye on the development and progress of the Grand Power K100.



16

disassembly is now complete. Those of you who have used the Walther PP / PPK series of pistols will find the method of disassembly very familiar. Assembly procedure is done in reverse sequence to disassembly, but the barrel must first be shifted forward in receiver's cut-out.

RANGE TESTS

The STI Match at Phillipsburg in Germany (see last month) was a busy time for C&S as we covered the actual match, a training course by multiple IPSC World and European

now at the point where it equals or exceeds the number of competitors in either Open or Standard Divisions at major matches

Images © Greg Roberts

Functional reliability was 100 percent. The transition from the double action to the single action trigger pull was manageable and magazine speed reloads were slick.

As well as in Europe, the K100 is also used in Central and South America and Canada plus the certification to enter US market has been completed. In IPSC competition the K100 pistol is used in IPSC Production Division by

