

NEW KID IN TOWN



RICHARD RAWLINGSON TRAVELS TO GERMANY TO SEE THE NEW BLASER F3 IN PRODUCTION

THE IMPRESSIVE NEW PRODUCTION BLOCK.

Over the years I have been writing about guns I have seen many new models come and go. It would be true to say however that few launches have sparked my interest quite as strongly as the introduction of the Blaser F3. This one promised to be special for so many reasons – it was a new entrant to the shotgun market for one, and a completely new design too, full of innovation. More than that though was the scale of Blaser’s ambition for the

gun. From the very first moment I heard CEO Bernhard Knobel talking about the project, I sensed that here was a company not content to just dip a toe into the shotgun waters. No, they were going for a swim, sharks or no sharks.

Since that first sight in the summer of 2004, my respect for the gun has increased. Supply was erratic in the early days and there were one or two minor glitches, as must be expected with any new

product. The issue was how the company dealt with the problems. The response was swift and professional. Meanwhile, the early buyers seemed delighted with their choice and two veteran World titles for Great Britain team member John Bidwell proved the gun’s competition credentials.

John had told me of the impressive extension to the Blaser factory – built to accommodate the F3 launch and so in February I took up Knobel’s invitation to visit the company and see for myself how the gun is built. It entailed a return journey to Southern Germany, as Blaser is based in the pretty town of Isny, a relatively short drive from Krieghoff’s home in Ulm.

Any thoughts that I might be going to a bleak industrial site were quickly dispelled. This sub-Alpine region is primarily a tourist destination and the Blaser factory occupies a prime site on the edge of town. It has been designed to blend in with the local architecture, particularly the newest part which cost some three million euros (around \$3.6 million) and has been operational just two years.

But first some history. In



gunmaking terms Blaser is a youngster. Founder Horst Blaser is a former car body repairer who married the daughter of a gunsmith. Gunmaking fascinated him, but the laborious removal of metal with hand tools did not! He developed his first hunting rifle – the Diplomat – in 1957 and began

and a new factory was built in Isny to accommodate the growing enterprise. Innovations included a unique scope mount and the Model ES70 rifle, with its interchangeable barrels – a foretaste of things to come. In 1977 the ingenious tilting block locking system of the Model K770 rifle was introduced, a masterpiece of

strength and precision that is still used on a number of current models.

THE BIRTH OF THE R93

In the 1980s came the first CNC (Computer Numerically Controlled) milling machines, opening up new areas of design thanks to the close tolerances that can be achieved. They were used

to produce Blaser’s first repeating rifle, the Model 830, which caught the eye of a businessman and passionate hunter called Gerhard Blenk, who was granted the export rights for the American market. It became a big hit as first the Blaser ‘Ultimate’ and later the R84, so much so that in 1986 Blenk took a controlling interest in the company.

Blenk and his head of design Meinrad Zeh soon began work on



WHERE IT ALL STARTS... THE F3 IS A PRODUCT OF THE COMPUTER AGE.

the product that most closely defines Blaser today – the R93 repeating rifle. Its modular design was made possible by the computer revolution and it established Blaser as a major international force in sporting rifles.

A decade of steady progress followed and in 1997 Blenk began a collaboration with the giant Swiss

trading under the Blaser name in 1963. From the outset he looked to replace traditional skills with modern technology and the Diplomat’s successor, the Model 60, was the first German sporting rifle to be almost entirely machine made. For over 40 years the company has remained wedded to this philosophy, staying at the cutting edge in areas such as computer-aided design and machining and surface treatments of steel.

By 1971 the company had expanded to around 40 workers



NOT ALL F3S ARE PLAIN GREY. THIS IS A STUNNING ‘IMPERIAL’ GRADE CUSTOM GUN.



TOP. DARREN HULL CHECKS SEAR ENGAGEMENT DEPTH UNDER THE MICROSCOPE.

MIDDLE. AN F3 FRAME GETS ITS FINAL POLISH.

BOTTOM. CNC MACHINES SHAPE WOOD AS WELL AS METAL.

TOP. HAND CHECKERING IS ONE TRADITIONAL SKILL THAT IS RETAINED ON THE F3.

BOTTOM. THE PERILS OF WORKING WITH NATURAL MATERIALS – STOCK BLANKS ARE OFTEN FOUND WITH STONES OR EVEN BULLETS EMBEDDED IN THEM!

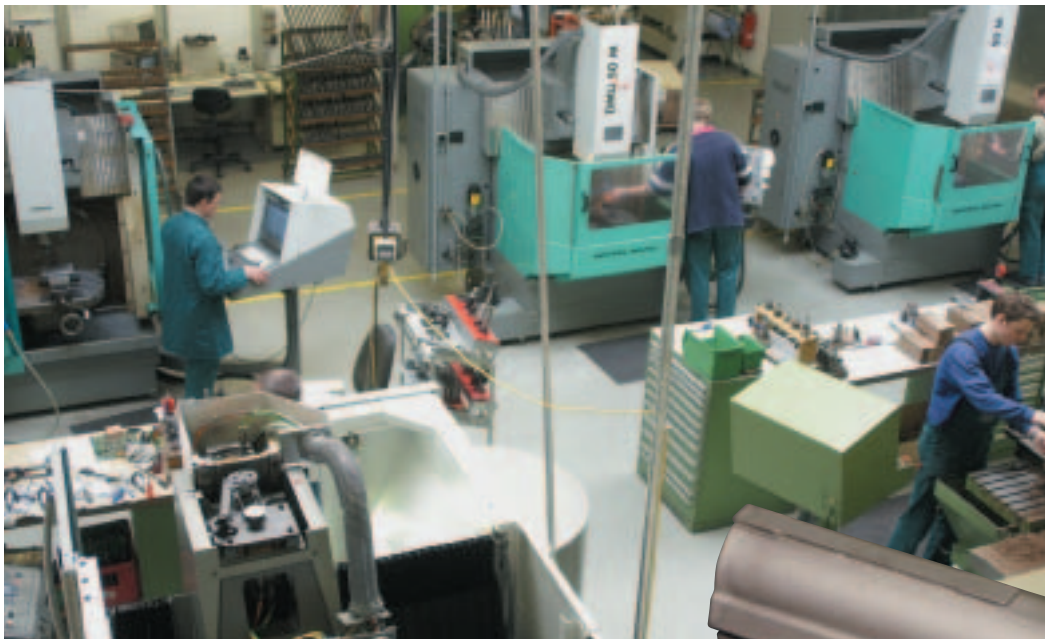
industrial firm SIG that eventually led to Blaser becoming part of SIG's gunmaking group of companies that also included Sauer, Mauser and Hammerli.

Shortly afterwards, however, a major policy turn around by the parent company resulted in a decision to get out of the firearms market entirely to concentrate on the core business of packaging technology. Two of Blaser's customers, entrepreneurs Thomas Luke and Michael Ortmeier, were interested in acquiring the business but with SIG willing only to sell the entire group, found themselves at the head of a large conglomerate.

These two men have been the driving force behind the next phase of expansion at Blaser and especially the F3 shotgun project. Bernhard Knobel, who has an unusual combination of both commercial and gunmaking skills, was headhunted from rivals Krieghoff to run the company, freeing Meinrad Zeh to return to his principle role as head of research and development. The ingredients for the F3 were in place.

THE NEW SHOTGUN

Conceptually, the F3 owes a great deal to the R93 rifle. The modular approach allows barrels, stocks and fore-ends to be interchanged at will, with no skilled fitting required. If required, a single receiver can form the heart of a complete family of shotguns, ranging from lightweight game gun, through competition sporter to dedicated trap model. The crossover from the R93 is perhaps most obvious in the barrel technology, with every barrel length (including the soon to be available 34" tubes) having identical weight and weight distribution. All the competition



FORGET BLOOD, SWEAT AND TOIL – THERE IS AN ATMOSPHERE OF ALMOST SURGICAL CALM IN THE PRODUCTION HALL.

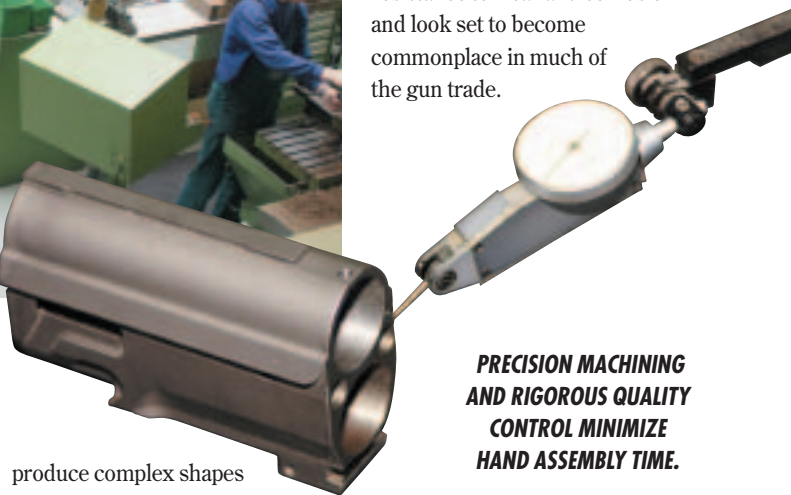
barrels weigh 1600 grams (3.5 lbs) with flush steel chokes fitted, regardless of length. To achieve that, each length has its own unique contour.

The barrels are hammer forged in the highest grade steel and arrive at Isny as near-finished single tubes from another group company. They are joined to the monobloc with a secret mixture of soft and silver solder. The bases for the interchangeable ribs are laser welded in place to minimize the risk of distortion. After being sand blasted, the tubes are plasma nitrated against corrosion, blued and hard chrome lined. Most of the hand work involved in the F3 is done to the barrels, machinery having yet to match the skills needed for final striking up and preparation for blueing.

Elsewhere, technology rules. In an almost surgical environment, ranks of CNC machines turn out micron perfect clones of receiver and lock parts from blocks of solid steel. Alongside them are wire EDM (Electrical Discharge Machining) units, that are used to



THE PRECISION OF EDM MACHINING IS SHOWN BY THIS BEFORE AND AFTER SHOT OF THE MONOBLOC FOR A 'DRILLING' COMBINATION RIFLE/SHOTGUN.



PRECISION MACHINING AND RIGOROUS QUALITY CONTROL MINIMIZE HAND ASSEMBLY TIME.

produce complex shapes from solid steel. This is one of the most accurate manufacturing processes currently available and is ideal for relatively low volume but high precision output, with accuracy to +/- 0.0005". It works by eroding material in the path of electrical discharges that form an arc between the part and the wire electrode.

Quality control is evident throughout the plant, not just in the dedicated QC department. "The part and the production tolerances dictate the level of checking needed," Knobel told me. "Where accuracy is essential, we may test every single component as it leaves the machine, others will just be batch tested." It is difficult to stress too highly the importance of such precision, fundamental to both the assembly process and the way in which both the F3 and R93 are designed to be used.

Blaser, like many other makers, has been experimenting with new

surface treatments to enhance and protect the metal parts. The older, in-house, nickel chrome treatment has been largely superseded by coating the receiver with titanium carbo-nitride under a Physical Vapor Deposition process (PVD). These hard coatings, widely used in the automotive industry, give steel components excellent resistance to wear and corrosion and look set to become commonplace in much of the gun trade.

FROM PARTS TO SHOTGUN

The heart of the new manufacturing hall is a central paternoster elevator parts store, where components for each gun are assembled onto a cart according to a specific order. The gunsmith will then take his cart back to the bench and assemble the complete gun. This is in contrast to the methods employed by many other makers, where the gun travels along a line of workers, each carrying out specific tasks. Not only does the latter approach have the potential for production bottlenecks, it reduces the individual's personal commitment to the finished product. It is possible because individual fitting and fettling of parts has been largely eliminated from the assembly process and the final quality is not dependant on that

human element. “I want the guns to be as good as the design, not as good as the gunsmith,” is Knobel’s summing up of the process.

The layout and production flow of the new hall was determined by

**THE CHOICE IS YOURS...
FORE-ENDS WAIT TO
BE MATCHED TO A
SUITABLE STOCK.**

(where a group of parts are all at an extreme of production tolerances) occurred. The minimum acceptable depth was identified and a microscope with scale readout was installed on the production line. Every completed action is now checked before final assembly. Service Manager,



**ANYONE WHO
APPRECIATES FINE
QUALITY WOOD
ON A SPORTING
GUN WILL BE IN
AWE OF BLASER'S
INVENTORY...**

Porsche Consulting, bringing automobile thinking to gunmaking. The gains in efficiency were startling. “They found that each gun previously traveled more than 2,700 feet from the start of assembly to the finished gun. Under the new system it is now just 540 feet.”

Teething problems with the F3 have been remarkably minor and swiftly corrected. Occasional doubling on early guns was traced back to the sear engagement depth on some guns, possible if ‘tolerance stacking’



ALL GUNS ARE TEST FIRED ON THE IN-HOUSE RANGE

Darren Hull, also has a portable version as part of his kit when attending major shoots – “very useful too for spotting bodged gunsmithing work,” he told me with a chuckle.

WALNUT HEAVEN

Anyone who appreciates fine quality wood on a sporting gun will be in awe of Blaser's inventory. The company assesses its wood into 11 grades, grade 2 being the specification for the base model F3. The top two grades are reserved for one-off custom and exhibition guns. Many customers, especially in Britain, opt to upgrade their wood while keeping to the standard plain action. Taking that theme on further, an 'Attache' grade was launched at the IWA 2006 trade show in Germany, combining a black action in place of the standard grey with grade 7 wood. The sample I saw looked

stunning and I predict this will be a popular choice with competition shooters.

CNC technology is also applied to stockmaking, with stocks and fore-ends being produced from the blanks by copying machines ready for hand checkering and the final finish. Stocks and fore-ends are chosen late in the production process, giving the best possible match. Customers are also welcome to visit the factory to choose their own wood.

Completed guns have to first pass the ultra-critical eyes, ears and hands of the quality control department before being test fired and pattern tested on site. For rifles there is a 100 meter range

and every one is regulated. Also on site is a branch of the official Ulm Proof House that tests and marks every single gun to CIP rules of proof. That hurdle cleared, another F3 is ready for its new owner.

Before this trip I was already a huge fan of the Blaser F3. I made it my gun of the year in 2004 ahead of some stiff competition from established makers. It is clever and innovative, but innovative with a purpose. So many new guns at the moment are packed full of 'features', but so much is just window dressing and gimmickry. The F3 is full of features too, but each brings a benefit to the user, whether it is the brilliant stock

balancer system or the in-line hammer and firing pins that give some of the best trigger pulls to be found, regardless of price. What really sets the Blaser apart though is the price. I truly believe it offers outstanding performance at an amazingly low cost. Before my trip to Isny I was unsure how they could do it. Now I understand that efficiency is built in piece by piece. It would be a great gun from any maker; from one that has never produced a shotgun before it is astonishing. ■

For more details concerning the Blaser F3 contact SIGARMS Hunting Division (603-772-2302). www.sigarms.com