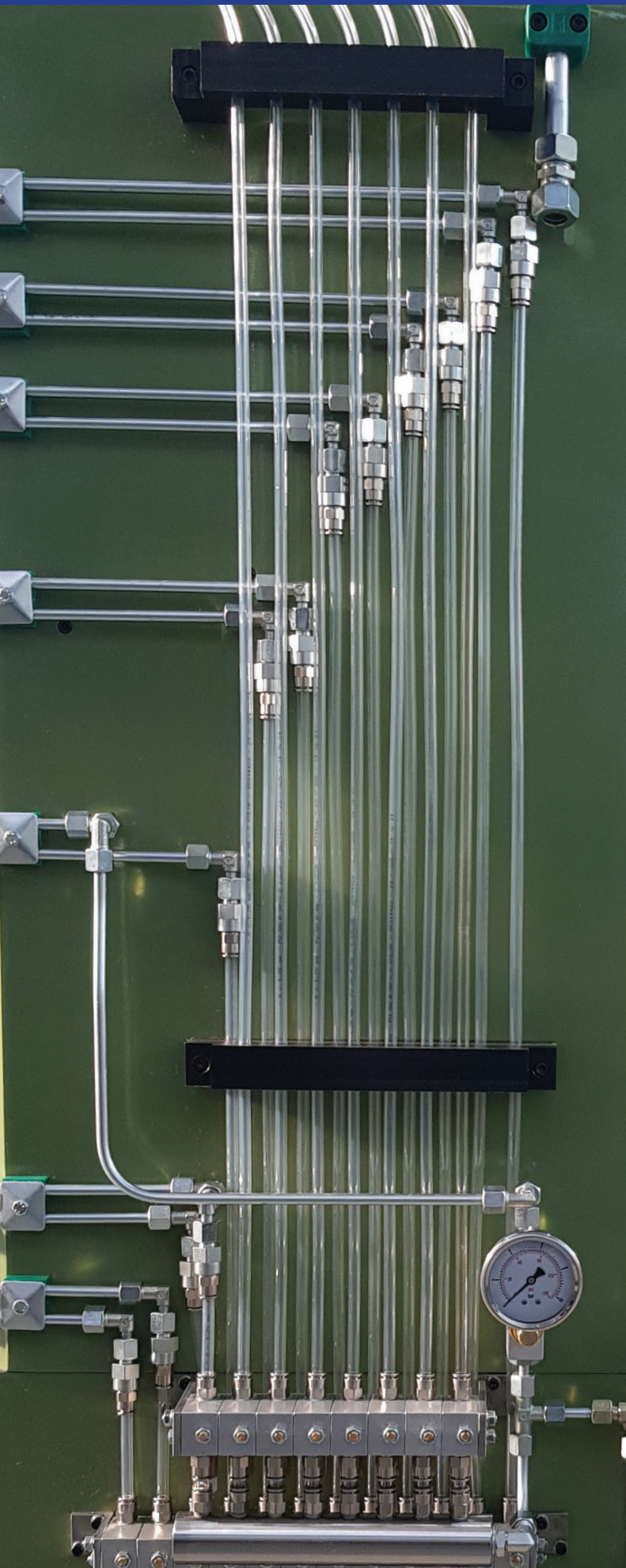




**MACHINE DEPARTMENT**  
**MASCHINENABTEILUNG**





The experience and unique know-how gained by Bludan / IBS in over 200 years of manufacturing files and rasps has also been used to develop new machinery for file production and other different uses. In fact, we are the most important worldwide supplier of machinery for file manufacturing companies.

Our special Hot Forging Machines are the best example. We supply them to the biggest file manufacturers around the world, and also to the most important chisel manufacturers.

We are also on the lead of the market, with the technology we offer in other equipments that we project, design and manufacture in a key-in-hand service to our customers.

Our Induction Hardening & Heating systems are used not only for the file and chisel industries, but for many other production solutions. For example, we supply them to the glass bottle industries for heating up the molds before brazing. We prepare individualized solutions for each induction heating demand.

Our File Sharpening Systems and our Dry Sandblasting Equipments, both with run through belts, for fast & sequential production, are also best sellers.

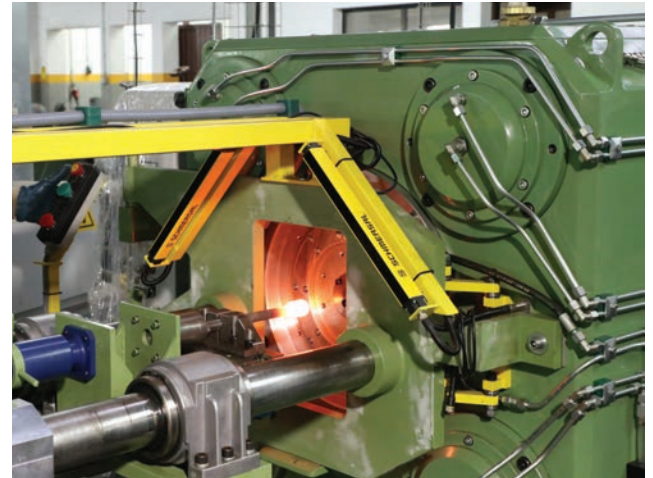
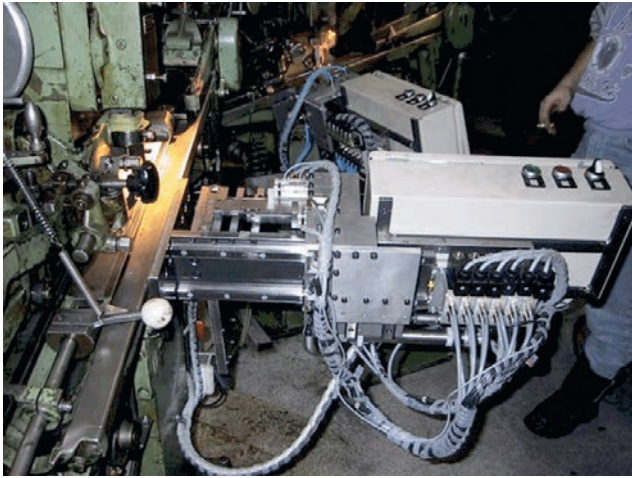
And of course, file cutting machines, either automatic or semi-automatic, with or without feeders, and all machinery concerning file and rasp production are in our product range.

All our equipments can be supplied with complete automation, including robot arms, to fit the exact need and requirements of the customer.

We have the know-how and the manufacturing capacity to install complete production lines for different types of files, and we are regularly asked to do so. We supply key in hand solutions, including training and know how transfer. Please contact us for more detailed information about your needs.



Machine Automation



Traditionally file manufacturing is a process with a great deal of incorporated hand labor. To reduce it, we have been automating our machines and production processes according to the available modern technology. Our experience in this area allows us to either conceive fully automated machines or production lines or to automate used machines and equipments that run in your factories. We have a multi-skilled team prepared to study your problem and to present you solutions.

Whatever your needs are in the above areas, please consult us and we will present you a solution that fits your exact requirements.

Our performance will gain your trust!



## Forging Machines

Although some companies still use spring hammers with high ram weight for different forging processes, the result is inconsistent and of low quality finishing. Also, it's an extremely noisy process, producing over 130 dB, much above the values allowed by labor health & security laws, considering the security point for human hearing. The modern way is to forge with automatic 4 or 6 hammer forging machines, especially designed and produced by our company. These machines produce nicely finished blanks, consistent in size and shape.

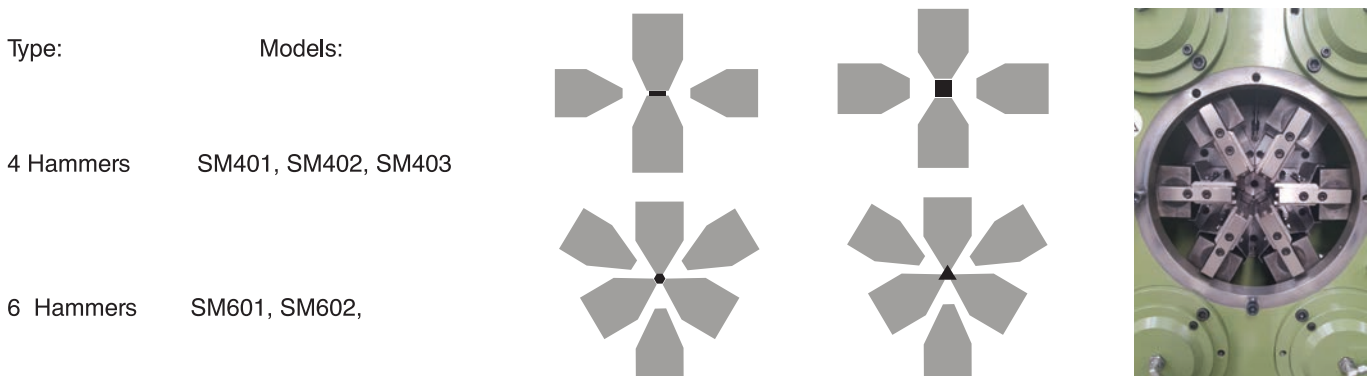
Our Forging Machines are specially developed for precise, fast and economic forging of several tools, namely file tangs and points and chisel points of different formats: flat, square, triangular, round, hexagonal, etc.

They provide a high hourly output, approximately 100 % more than normal power hammers, and at the same time permit a high degree of exactness, and easy operation by semi-skilled workers.

Our equipments, with either 4 or 6 hammers depending to the model, have a robust and noise restraining machine frame, and the forging forces are safely closed inside, resulting in a quiet running operation.

We have been producing our Forging machines for more than 60 years and the market recognizes their high quality & efficiency and their extreme reliability.

Each year we improve them, incorporating the most recent technologies and materials keeping up as n° 1 worldwide producer.



Machine Specifications		SM401	SM402	SM403	SM601	SM602
Forging Capacity (mm) Cross Section x Length		10X120	24X90	50X120	10X120	24X90
Maximum Forging Length (mm)		140	165	175	140	165
Working Pressure Max (N)		120000	220000	450000	120000	220000
Stroke (num/min)		1200	1000	800	1200	1000
Motor Output 1400 U/min (KW/PS)		11/15	15/20	18/25	15/20	18/25
Dimensions (mm)	Width	1600	1700	1800	1750	1850
	Dept	1100	1200	1400	1100	1200
	Hight	1550	1600	1650	1600	1680
Transport Details						
Weight (Kg)	Gross	2000	2750	3900	2800	3850
	Net	1900	2600	3700	2700	3700
Crate Dimensions	Width	1750	1850	1950	1900	2000
	Dept	1250	1350	1550	1250	1350
	Hight	1750	1800	1850	1800	1880



### Induction Equipment & Coils

Traditionally the process of heating up metal either for forging, quenching or other needs was done by means of gas-powered furnaces. The state of the art solution and most efficient process is using high or medium Frequency Induction heating equipments, which are faster, with less energy costs and are ambient friendly.

We have been building and using induction heating systems in our production for the last 20 years, and we supply them also to metallurgical industries, such as mold companies, chisel, and file manufacturers.

If required, we can also supply an adequate feeding system, robotized or otherwise automated, so your parts can be heating in a production line process.

Give us the dimensions, shape and steel specifications of your part, and we will develop a machine with the adequate coil for heating it up.

