NORMALIENreport

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Interesting facts for the tool- and mould making of





production line at Volkswagen Sachsen GmbH in Zwickau

Delivery promise for the automotive industry

STRACK NORMA delivers PowerMax®cams within 24 hours

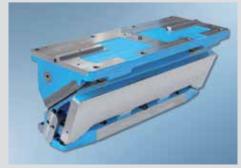
Daily up to 1.350 vehicles can be built in the vehicle factory Zwickau of the Volkswagen Sachsen GmbH and can be supplied worldwide. Thus, the site is one of the most important production sites within the Volkswagen Group. Volkswagen produces in Saxony with tool standard parts of STRACK NORMA. The standard part producer from Lüdenscheid, as a supplier of standard tool elements for the automotive industry, is already homologated as supplier with its cam unit PowerMax[®] for years in the VW Group. In addition to the successful models Passat, Golf and Golf Variant since 2001 also bodies for the luxury class of the Group are built, such as for example for the Phaeton and the Group brand Bentley.

MQB-the toolkit for the future

The Modular Transverse Toolkit (MQB) was introduced in the Volkswagen Group in the year 2012. The toolkit principle forms the basis for a variety of vehicle models within the group and allows synergies between the different segments and brands. Not seldom a good idea creates new challenges which must at first be solved by the engineers. Here as well, where the tools have always been calculated on the base of the item numbers of the Golf (1.000.000 items). Now the item numbers are

considerably higher at an MQB component which can be used at the same time in different vehicles.

In the pressing plant of Zwickau high requirements are placed to the installed standard parts. A further aspect is that in future the tool levels should be reduced. Therefore there are demands on the compact construction, particularly for the purchased cams to summarize more working stages in one tool. All these requirements were combined by STRACK NORMA with the PowerMax[®] cam series. Just standard parts meeting the requirements of the future.



PowerMax[®] aerial cam unit

>> Editorial <<



The PowerMax[®] story of success continues! Short delivery times, high flexibility and excellent quality are today the preconditions for the suppliers of the automotive industry. Also this year, to meet the requirements, we invested in our future and thus in a further machining centre for the PowerMax[®] cam program.

A delivery time of 24 h! This is a promise which we have just proven several times as it shows the cover story about the well-known automobile manufacturer VW!

The trademark PowerMax[®] has already established on the global market. We started the year by establishing a new representation in Korea to be able to react even more flexible to the requirement of the international market. Meanwhile STRACK is present on all continents.

Enjoy reading the report!

Dag Friedrich

Q. Ridif

Managing Director

PowerMax[®] cam creates new perspectives in the design

The cam units PowerMax[®] by STRACK NOR-MA, a system offering areal- and die-mounted variants, cuts, shapes and punches the sheet precisely.

In the dimensions completely identical, the variants Basis, Medium and Premium only differ in the technical details.

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The Basis cam realizes the retraction forces over an integrated gas spring as with conventional cams. In the Medium- and Premium cam a patented active return is used, which is reaching a mechanical retraction force of 10 % of the cam press force, a novelty in the cam construction.

Optimal positioned force application points and the generously dimensioned prism guidance in combination result in high-precision guiding qualities. A constantly high running precision over a long service life is provided for the customer.

The constructing engineer is pleased about the more compact design which even has a positive effect at greater cams with a reduction of the installation depth of up to 65 mm. This compact design facilitates the work of the design engineers to include more and more operations in fewer tools. The installation time in the tool due to strongly restricted tolerances is considerably reduced which is resulting in a cost reduction for the customer.

A further additional cost reduction in the tool making is reached by the standard complete finishing of the cam.

The PowerMax[®] standard-cam program already covers a wide range of sizes (65-1000 mm) and cam angles between 0°-75° in 5° steps. Particularly at high-strength sheets it is necessary that at punching operations the cutting element meets the sheet right-angled. STRACK NORMA offers special designs of cams in each desired angle.



For customer-specific solutions such as asymmetric work surfaces or relief cuts for the mechanization in the presses, the standard part producer offers special cams adapting to the conditions of the respective tool. The calculations of the press- and retraction forces also belong to the services as well as the providing of the required 3-D-data.

The promise: Delivery within 24 hours

Due to the required high item numbers at Volkswagen, it is important that replacement for wear is provided to the customer very promptly. Timely means here: a delivery within 24 hours which is ensured by STRACK NORMA.

In the past year the standard part producer has fulfilled several times the delivery promise and has proved its reliability. This requires a perfectly organized logistical process in the production and stock at STRACK NORMA. Defined wear parts are always available from stock. By means of the high-tech machine park, the units can immediately be machined and installed. Often CAD-data provided by the customer are directly introduced to guarantee an even more efficient installation in the plant. Time is just money. Then the units begin their journey to Zwickau – just in time via express delivery.

Standard part-shopping by mouse-click

Even more informative and more comfortable: new web shop goes online in June.

It wasn't only a laborious task to renovate the old webshop of STRACK thoroughly. Not surprising for a product range of more than 130.000 articles to which the customer can access by mouse click. In June the new shop will replace the old version. This means that the customers can shop in the net even faster, more informative and more comfortable.

All this can be downloaded as usual under the known address www.strack.de. You still easily reach your desired standard parts comfortably. Moreover the technology inspires the constructing engineer or the toolmaker. The search effects very quickly over the article designation, the denomination or also the item number. When selecting the part lists are auto-

matically filled and the customer can save the shopping cart. At the same time the net prices are clearly displayed.

Features among other things are the access to CAD-data and an OCI-interface

In addition to the standard parts you can search for special parts. But also the access of CAD data offers a lot comfort to the constructing engineer. Additionally the data exchange is possible over an OCI interface. At each visit the customer is quickly and clearly informed about new products and product optimizations. A further feature is the design of variable assemblies. For all things which can't be offered in the net, you can of course contact as usual our application engineers at STRACK NORMA.





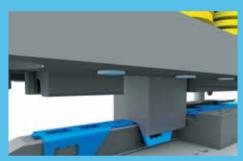
The construction tip

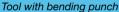
More quality: the bending unit

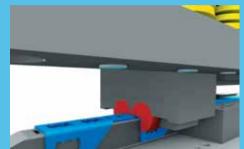
High part quality by precisely rotating movement

With a new series of bending units STRACK NORMA offers the possibility to design forming tools cost-efficiently at simultaneous quality improvement of the sheet articles. The compact forming units allow, among other things, overbendings of up to 120°C in one stroke. Normally such bending operations are realized in two sequences or with very laborious side cams which are susceptible to problems. In the above-shown example in an existing tool, two bending sequences (pre-bending and finished bending) are replaced by a bending unit. The released station was used by the customer to optimize the cutting line on the article. A positive side effect of the application of the bending unit was the elimination of the typical marks on the tool surface caused by the bending punch. The application of bending units comes into consideration for a wide range of material thicknesses and material sorts. Different fixing methods and installation sizes make the application of bending units also interesting in existing tools. Narrow production tolerances are easily realized at high process stability. Due to the fact that each bending unit

is tailored to the specific application there are many reasons to let you be convinced of its advantage in the practical application.







Tool with bending unit

Limit switches show the way

New versions of the switch series in a new design

The limit switches of the standard part specialist STRACK NORMA were reworked. Now an independent design characterizes the complete series. In addition the connection diagram can directly be read on the product.

The application ranges for STRACK limit switches in the mould- and tool construction are versatile; they pass monitoring functions and starting signals on to the control of the machine. These signals can be generated by mechanical or inductive switches. They are among other things applied in the path-dependent position control, the path-dependent operating of additional functions or for the protection of ejector sets, stripper plates, core pulls, slides, underfloor slides and double ejectors.

Depending on the design they are resistant to temperatures of 70° to 120° C and, to a high extent, are splash-proofed according to IP66.

The colour in the corporate design of the company now decorates the housing made of aluminium, which is sealed and to a high extent secured according to protection class IP 66.

It is also new that the connection diagram of the switch can be read on the surface of the product as well as the name of the article.

The actuation of the switching is carried out by a high-quality micro switch which is installed inside the housing and is designed for the normal top-side actuation. The series of mechanical switches is now supplemented by articles which are additionally equipped with a mechanical switching cam for the lateral runover of the limit switch.

In addition to a variety of mechanical limit switches, various designs of inductive (contact-free) limit switches complete the program- for each query a secure solution. Additionally there is an extensive accessory program of cables, carriers, distribution boxes and more which facilitates the work of the toolmaker considerably and makes the processes safe.



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STRACK NORMA on the fair EUROMOLD 2013

Fair marathon around the globe

Strack on the fair Amerimold and the fair FIP in France

The fair season for STRACK begins in spring. In May the first two fairs of six fairs in Germany in this year take place. The wfb fair starts. It takes place on 14th and 15th May in Augsburg. The exhibits of STRACK NORMA can be found at the booth I-02. Only a few days later, on 22nd May the standard part specialist presents itself on the Technology Day in Hohenweststedt. STRACK regularly presents itself with an information booth at this sector highlight. Also abroad STRACK NORMA will present its portfolio on several fairs.

In Poland STRACK presents itself from the 27th to 30th May on the fair Plastpol in Kielce. Then the fair DMC in Shanghai follows. On the 11th and 12th June together with the company Hotset STRACK is on the fair Amerimold in Detroit/USA. In France STRACK visits the fair FIP in Chassieu and also on the fair Manufacturing Expo in Thailand the standard parts from Lüdenscheid can be admired.

STRACK goes Korea

STRACK NORMA continues its world-tour. Since the 1st February 2014 the company is already represented in Korea. John Hyunggin Moon, Managing Director and owner of the representation Economia Col, Ltd. will offer in future the complete STRACK catalogue-program in the Korean area.



Andreas Geyer and John Hyunggijn Moon

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STRACK[®] intern

STRACK NORMA congratulates the employees belonging to company for 25 years

Georgios Tselios in March 2014 **Stamatis Tselios** in April 2014

Congratulation and thank you very much!