NORMALIENreport

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Interesting facts for the tool- and mould making of





Inaugurated: In Kesseldorf the new Tech Center Carbon Composits was put into operation

ThyssenKrupp uses the technology of STRACK NORMA

The standard part specialist has a lot of know how in the CFK-processing

ThyssenKrupp focuses its activities in the sector of carbon-fiber supported plastic materials (CFK) at the location Kesselsdorf near Dresden. In June Stanislaw Tillich, prime minister of Free State of Saxony and Dr. Heinrich Hiesinger, chairman of the ThyssenKrupp AG, officially inaugurated the Tech Center Carbon Composits as well as the production plant ThyssenKrupp Carbon Components GmbH.

While the TechCenter, enterprise wide, is looking after ongoing CFK projects until the readiness for series production, Thyssen Carbon Components principally occupies with the development and production of automobile components as for example lightweight wheels out of fiber reinforced plastics.

"Our TechCenter stands for the expansion of research and development, the investment in future-oriented technologies and for the intensified cooperation with top universities and institutes. We recognized the technological advantages of the fiber reinforced plastics and its increasing market potentials," explains Dr. Heinrich Hiesinger.

Today light weight construction is a central topic. In application sectors such as aircraft construction and shipbuilding, in the industrial sector or in wind power plants, the application of carbon fiber supported plastic materials plays an increasingly important role. In the vehicle construction this trend is strengthened by the regulations for emission and fuel consumption. Here several substitute fields open for ThyssenKrupp, for example by the Multi-Material-Designs in combination with innovative steel solutions, in the automation- and tool technology or in the field of light weight vehicle components. Concerning the wheels out of CFK weight advantages of 30 up to 50 % can be achieved compared to the traditional lightweight wheels out of metallic materials.

In the sales tools of the TechCenter different ejector construction groups of STRACK NORMA GmbH & Co.KG are used. These construction groups are used for the demoulding and the ventilation and deaeration of the sensitive components. They are produced with high precision and prove the know-how of STRACK NORMA in this sector. For about three years STRACK NORMA has occupied with the topic light weight construction. Components which

>> Editorial <<



The megatrends of the future are offering chances for the location Germany; chances to be able to respond to the international competition.

At an early stage Strack has already counted on the technology of the carbon-fiber supported plastic material; a technology, which is now establishing in different industrial sectors on the market. The best example is the automotive manufacturer BMW which is now introducing with the i3 an electric car in the CFK lightweight construction on the market.

In the world of standard parts we are setting standards in the technology with our offer and our know-how and here we are also trendsetters as supplier. Noted producers revert to our products for the CFK-processing. Read more in our cover story.

Enjoy reading the report

Dag Friedrich

Q. Ridil

Business Manager

are used in such tools are delivered to the automotive industry and to toolmaking companies throughout Europe.

In this sector STRACK NORMA also sells units for the height adjustment in the tools, a wide variety of carrier units and other components.

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At ThyssenKrupp more than 150.000 employees in about 80 countries are working with passion and high competence on product solutions for sustainable progress.

Their qualification and engagement are the basis for our success. In the business year 2011/2012 ThyssenKrupp generated a turnover of 40 billion euro.

Innovation and technological progress are key factors for us to make the global growth and the application of restricted resources sustainable. Our engineering competence allows our customers to gain advantages in the worldwide competition and to produce innovative products economically and resource-saving.

"STRACK NORMA GmbH & Co.KG is a reliable partner with whom we have been working for several years."

A suitcase full of safety

Patented mould insert leak pressure unit provides safety and helps to reduce costs

Checking the leak tightness of the temperature control circuits has practically become a daily affair of the toolmaker.

Up to now, the state of technology only allowed to perform the control in the installed condition of the tool.



Adapters are delivered in the common sizes M5/M6, M8/M10 and M 12

If the tempering medium leaks from one point, the following procedure is difficult and is associated with undesired costs. The tool has to be dismounted from the machine and the leak has to be detected. The tool has also to be cleaned before the new setting up of the machine.

The patented mould insert leak pressure unit set Z 7755 increases the reliability of the leak tightness of the tool significantly. At the same time the costs compared to the traditional test procedure can be reduced by 90 %.

This cost reduction is achieved due to the possibility to test the tool in the dismounted condition- thus before the real installation. Thus in advance possible leaks can be eliminated quickly and comfortably. In addition to the process safety the delivery date is not at risk because of delay. Setup- and down times are considerably reduced, because of the fact that the tool can be assembled on the machine more quickly.

Z7755 is delivered with test body and 3 three adapter sizes respectively, which are delivered in pairs. These can be used for the common sizes M5/M6, M8/M10 and M12. All components are stored in a handy suitcase. A test pump, a connecting coupling and a dummy plug can be ordered optionally.



Z7755 is delivered in a handy suitcase



Mounting situation: before mounting the tool is tested



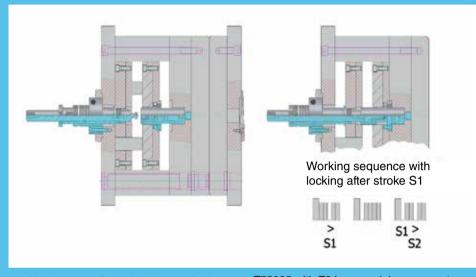
The construction tip:

Two stage ejector Z5085

Sequence on request: two stage ejector in combination with round latch lock Z3

There are framework conditions where it is not possible to secure the demoulding of the produced plastic part with standard components. STRACK NORMA reacted to this situation and created a novelty on the market by combining the series products two stage ejector Z5085 and round latch lock Z3. Up to now at first the stripper plate, then the slide and at last the ejector pin were operated. This sequence must not absolutely be respected in future.

Now two ejector sets can be moved independently from each other, in the drawing marked as ways S1 and S2. At first the rear ejector set makes the way S1, remains in this position and is locked; now the ejector set 2 is advanced without delay by the way S2 to the stop. The closing process takes place in reverse order. The supply of spare parts for this product



combination is effected with standard products. Only the adapter for the connection of

Z75085 with Z3 is a special component.

Cooperation in the United States

Hotset America distributes products of STRACK NORMA

Now standard parts of STRACK NORMA become popular in America. Recently the cooperation with the famous heating specialist Hotset from Lüdenscheid started. All products from the extensive program of injection moulding- and die casting tools are exclusively distributed by the location of Hotset in Vermont. The location of Hotset America entered the market on 1st of June 2010.

Vermont takes care of the markets USA, Canada and Mexico.

David Cieslica presides over the company and has a lot of experience in the range of injection moulding technology. "These markets can only be looked after from an overseas location," the shareholder Andreas Geyer is sure to go in the right direction with Hotset.



In the USA the products for the United States, Canada and Mexico are dispatched from Vermont

PowerMax on Tour de France

Philipe Fournigaut is the new key accounter in France



PowerMax, one of the successful products of STRACK NORMA now also enters Europe. In France the distribution of PowerMax has considerably been extended. In future Philipe

Fournigault, a native speaker with expert knowledge, is the contact person.

In the summer months Philipe Fornigault was made familiar with many products. From now on the Frenchman supports the customers on site. Philipe Fournigault can be contacted under the following contact data:

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PowerMax for more efficiency

The successful STRACK PowerMax cam program already covers a wide range of installation sizes for the construction.

The aim to use less operations for the production of a component in the application of stamping and forming tools, presents day-to-day new challenges to the constructing engineer. Because of the combination of processings particularly the installation space becomes tighter and tighter.

This includes:

- Changes in dimensions of the working surface in width and height
- Lateral extensions or asymmetrical design of the working surface
- Freely selectable cam angles between
 0° and 80°
- · Increase of cam- and retracting forces
- · Cams adapted to the installation space

The new cam concept has also further advantages for the tool making construction. The STRACK concept reduces the installation time for a

cam considerably and at the same time the precision is increased.

Already in the production at STRACK NORMA the cam is progressed again in mounted condition by the patented Lockout System2. All sliding tolerances are set to zero like in the pressed condition.

All necessary processing is carried out by means of the data made available by the customer. The result is a high precision cam being ready for installation. This saves the customer the repeated clamping and processing of PowerMax. More and more customers have already realized the advantage. Normally the cam is ordered ready to be installed in order to reduce costs and to produce the tools even more quickly.

Here the compact construction type of the PowerMax cam meets the requirements of the constructing engineer. Nevertheless there are construction designs which require special solutions. The application engineers of STRACK NORMA will find the solution for the respective application.

Frank Tettenborn on tour in the wine country



Frank Tettenborn is responsible for the sales areas Rhineland-Palatinate and Saarland. Since October the trained toolmaker and mechanical technician for manu-

facturing technology and technical business management is the contact person in these regions.

He replaces Tino Heisel. Frank Tettenborn is a competent contact person for stamping- and forming tools as well as for injection moulding- and die casting tools, because of the fact that he has already belonged to the team of STRACK NORMA for 8 eight years. Before, he worked in the internal sales departments.

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From the mountains in the plain

New regional representative in the North



After several months in the Sauerland region he starts working in the North of the Republic. Since the 1st of November Jan-Peter Niesen has taken over the sales area Hamburg, Meck-

lenburg-West Pomerania and Berlin, one of the biggest sales areas of STRACK NOR-MA. Also the Federal States Brandenburg and Schleswig-Holstein belong to this sales area. From now on he visits the customers on-site and introduces himself personally. I am looking forward to the plain. In the Sauerland region there are too many mountains, Jan Peter Nissen, looking forward to the new task, smiles.

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Home field advantage for Stefan Dohle

Dohle is in future responsible for the sales area Westphalia



He has a lot of knowledge of the subject-matter standard parts. He is not only a trained toolmaker but has also an experience of 20 years in the internal sales service of STRACK NOR-

MA and he knows the product range from back to front. From now on Stefan Dohle is responsible for the sales area Westphalia and Sauerland region. He replaces Kieran Griffin. I am looking forward to the new task," explains the 50 years old father of a family. He will now personally meet many of his customers he has already looked after for years. "This is very exciting," the oldtimer fan reveals.

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Impressum

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