

# GEIGER Impulse

Newsletter worldwide 02/2014



## Make the fast even faster!

Speed is a fascinating topic, and in our modern world, a phenomenon ...



## A fast assembly line and a fast production

Speed is not witchcraft but the result of innovative and intelligent ideas ...



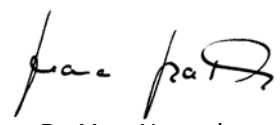
## New products

Electric and mechanical operating systems, system components.



# The way is the goal

Each year about 50 development projects lead to series production of new products. This is the result of a good feel for the international market, a keen sense of current trends as well as targeted and personalized communication with our clients in order to identify their specific requirements. The implementation of our development projects requires our full commitment: each step starting from the initial concept idea through to the finished product is monitored and optimized, ensuring at all times a high level of technical competence - not to mention some time pressure, as competition never sleeps! The key competitive advantage related to our innovations "Made in Germany" is the quality that we achieve and guarantee with our overall concept. To further develop and optimize our GEIGER motors – fast, smooth-running, durable and extremely quiet - and to give our customers the best possible service and support, also beyond the sale, we pursue our goal with passionate determination: a product is not necessarily good when it is finished. It is finished when it's good!



Dr. Marc Natusch

# Make the fast even faster!

*Speed is a fascinating topic, and in our modern world, a phenomenon sometimes difficult to understand: according to Einstein, time slows down or speeds up depending on how fast you move. The acceleration of transport, trade, production and work has had profound effects on our society - speed as the myth of modernity and progress.*

In the field of sun protection operating systems, speed is not calculated in HP and is considered neither a status symbol nor a luxury good. Speed is here associated with safety and comfort: a high-speed motor guarantees the closing of your blind in record time and ensures maximum safety and protection in case of sudden stormy weather.

Moreover the motors are not likely to overheat so that you can use them safely. Darken the interior of a room is also done very quickly which gives you some extra comfort.

With its new Venetian blind motor, the GJ56 .. DuoDrive GEIGER combines two different speeds together: the motor starts slowly so that the slats can be accurately positioned and precisely adjusted by hand. Then the fast opening/closing of the blinds that follow not only offer optimal comfort but also greater safety. The real strength lies in flexibility.





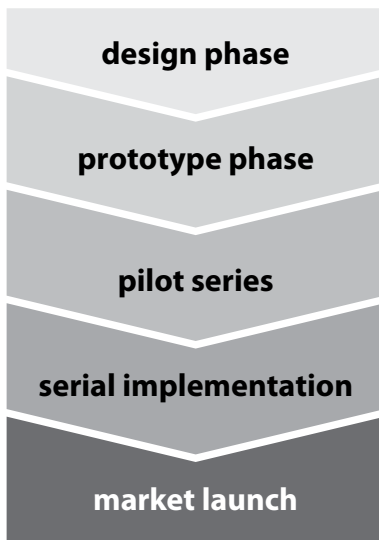
# Integrated overall concept: from the idea to the finished product

**Can you explain the process of creating a GEIGER product by taking the example of the new Venetian blind motor GJ56..-DuoDrive ?**

The idea for the GJ56..-DuoDrive was born in our R&D department as the result of an analysis comparing the advantages and disadvantages of individual shading systems. We noticed that Venetian blinds could not direct the light into the room as advantageously as rolling shutters and textile sun protection devices would do: the rotation of the slats is too jerky and is not precise enough. In addition, a conventional blind takes considerably longer to shade a window surface.

In this context, we have launched a development project for a motor range that turns the slats very slowly but simultaneously ensures a fast closing/opening of the blind (50% faster than previously known on the market). GEIGER managed to combine these seemingly contradictory requirements into a single motor: the GJ56 .. DuoDrive. The development including extensive

tests took five years to complete and went through all the usual steps: design phase, prototype phase, pilot series and serial implementation. GEIGER projects do not end with the series release: our development team supports the market launch for weeks and months afterwards in order to gather the experience of our industrial customers with regard to a 2.0 version.



**How many projects do you conclude per year?**

Each year about 50 GEIGER development projects lead to series production of new products. There are both exclusive, customized development projects as well as in-house development projects that the GEIGER product management initiates, based on its own market assessment. Moreover we have a large number of product modifications that are implemented in close cooperation with the development and the production departments.

The splitting of responsibilities for development projects now belongs to the past. All participants, led by the project manager, are working closely together during the development and implementation phase and benefit

from networking. Following departments and specialists are also integrated into the process: test field, application technology and GEIGER engineering which manufacture the products on specially designed production lines. The early involvement of our manufacturing skills machining production, plastics technology and surface coatings as well as our electronics partners play an increasingly important role. This is a source for key impulses and new ideas for further developments as well as a guarantee to definitely avoid major problems in the preproduction phase.

**From the very beginning you have high requirements on the quality of your products. How do you implement this?**

The product development undergoes a quality control that carefully checks all development steps. Also the production environment and the production equipment are constantly developing. We always strive for a high automation level. After each production step, extensive tests make sure that no errors are taken over into the next production step. In addition, an extensive function control is carried out before delivery.

The quality of our products and services is an essential feature of GEIGER, a key competitive factor and a decisive purchasing argument for our customers. Our quality concept runs like a red thread through all our activities. The employees in the different sectors of the Company consider quality as their personal responsibility and receive appropriate training. To ensure the satisfaction of our customers and to specify our optimization efforts, we carry out regular customer surveys. With our overall concept and high quality products "Made in Germany" we will continue improving our development and release processes, driven by intensifying competition and challenging market conditions.



Hans-Michael Dangel is managing director and partner of the Company Gerhard Geiger GmbH & Co. KG since 1999.

■ Reference

## New ways in school building

The new school building in Bochum was awarded the "Schulbaupreis NRW 2013" – the prize North-Rhine Westphalia awarded for new school buildings in 2013 (architects Hascher Jehle from Berlin). The high school is attended by approximately 1.400 students.

The ring-shaped three-floor building is an architectural piece of art. In the middle of the first building ring you will find an auditorium, a cafeteria and a student café which are grouped and can be combined with the central space by using movable walls that maximise spacial versatility.

An air-filled ETFE foil cushion roof covers lightly and transparently the common area. For protection against

too much sun the outer film has been invisibly printed from the inside. The windows on the dynamic curved facade are equipped with aluminium Venetian blinds that are operated – reliably, fast and silently - by the GEIGER motor series GJ56..



Photos: Eurosun



■ Crank handle assembly at GEIGER

## A fast assembly line and a fast production

Speed is not witchcraft but the result of innovative and intelligent ideas. This is demonstrated by the GEIGER assembly line mounting system for crank handles. In the last 12 months we produced over a million cranks. This is only possible with an extremely short cycle time of 3,5 seconds. The GEIGER self-designed and self-built fully automated production facility is not only fast, but also extremely flexible.

Each crank handle consists of 12 individual elements in steel, aluminium or plastic. When these elements are on the assembly line their position is first controlled and corrected if necessary by optical sensors. They are then assembled into modules and pinned together. Finally, the grip sleeves are mounted and secured. On request GEIGER also provides laser engraving of the centre pieces with the customers' names or logos. All 240 crank handle models can be produced on the assembly line.

However, the flexibility does not come at the expense of speed. The assembly line can be retooled within a very short time and using servomotors can automatically begin with the new production.

Thus GEIGER ensures the solidity and sustainability of the company, developing a long-term vision of the international competitiveness of Germany as a production site and remaining true to its philosophy of "Made in Germany".



Automatic feeding process of the grips



Assembled crank handles at the end of the line



Every 3,5 seconds a crank handle is assembled from 12 components



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■ Venetian blind motor GJ56..-DuoDrive

## A perfect combination The GEIGER motor makes no compromise

*Until now, when operating electric Venetian blind motors with a fixed motor speed, a compromise had always to be found between the precise adjustment of the slats and fast travel movements. GEIGER managed to combine these seemingly contradictory requirements into a single motor: the new GJ56..-DuoDrive.*

This is achieved with an automatic switching gear unit that combines two different speeds. In the startup phase, the motor slowly rotates with 9 revolutions per minute. The slats can be accurately positioned and precisely adjusted by hand. This is also optimal for the automated daylight control. After a three-quarter turn the motor runs at 39 revolutions per minute.

The subsequent fast travel movements not only offer greater comfort, but also greater safety in case of wind alarm. They also allow more driving cycles before activation of the thermal protection.



■ GEIGER bevel gear ISG

## Setting – as simple as it is ingenious

*GEIGER presents, with the improved version of the bevel gear ISG, a patented gear for awnings of the premium class. GEIGER gives you here for the first time the opportunity to readjust at any time and most easily the lower end position of an awning – whether with cassette or not. The setting screw for the lower end position is now no longer located on the side but is directly accessible through the drive shaft of the gear.*

If you remove the eyelet which is secured by a split pin, you can easily access the setting screw located behind it and make all the necessary adjustments with an Allen key.

The laborious dismantling of the covering parts, especially with cassette awnings, is completely eliminated. This unique patented GEIGER design simplifies – in an ingenious way – the positioning of the lower end position not only during the installation, but above all in case of subsequent readjustments.





■ GEIGER Electric Motor SOLIDline Easy-Z

## Intelligent Automatic Drive

*ZIP screens are becoming increasingly popular. The textile sun protection for outdoor spaces scores with air and light transmission, high wind resistance and a tremendous design flexibility. A weak point remained that GEIGER managed to eliminate by developing the intelligent SOLIDline motor Easy-Z - thus significantly improving safety and comfort.*

Especially in the case of ZIP screens, obstacles in the running area can seriously damage the sun protection device if the motor does not stop in time. With the new GEIGER motor SOLIDline Easy-Z such scenarios are a thing of the past. Thanks to the obstacle detection system in the down direction, the motor stops immediately in order to prevent any accident. Then the SOLIDline Easy-Z motor runs shortly in the UP direction and moves DOWN again. Any number of programmable additional tests in the DOWN direction can be made, for the case that, for example, the motor only stopped because of a strong gust of wind. Both end positions can be set either via free positioning or via torque switch-off.

A cloth protection function is integrated in the upper torque switch-off. The GEIGER radio-controlled version – SOLIDline EasyWireless-Z – is also available.



Photo: J. Paul GmbH

ZIP screens are particularly appreciated among urban planners and architects

■ GEIGER Design Crank Handle Avantgarde 300

## Perfect Balance Between Form and Function



*With the design crank handle Avantgarde 300, GEIGER extends its commitment to product aesthetics by presenting a new crank handle for external sun protection.*

The control elements of rolling shutters, Venetian blinds and textile sun protection devices optically integrate and fit perfectly into every stylish living environment.

GEIGER brings the sun protection consequently in a new dimension in which technical requirements and innovative design meet in the creation of the new GEIGER crank handle Avantgarde and Avantgarde 300. The high degree of functionality combines with an elegant shape that conceals smart technical details. Indeed the articulated mechanism is made invisible by a sliding sleeve which we offer in black, white or genuine wood. With their clear design and the different sleeve models the Avantgarde is a decorating element that will enhance the look of your interior.

With its proven elements (tube diameter, sleeve and working radius) the operation of blinds – even big-sized ones – is very easy with the new crank handle Avantgarde 300 for the exterior sun protection.



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