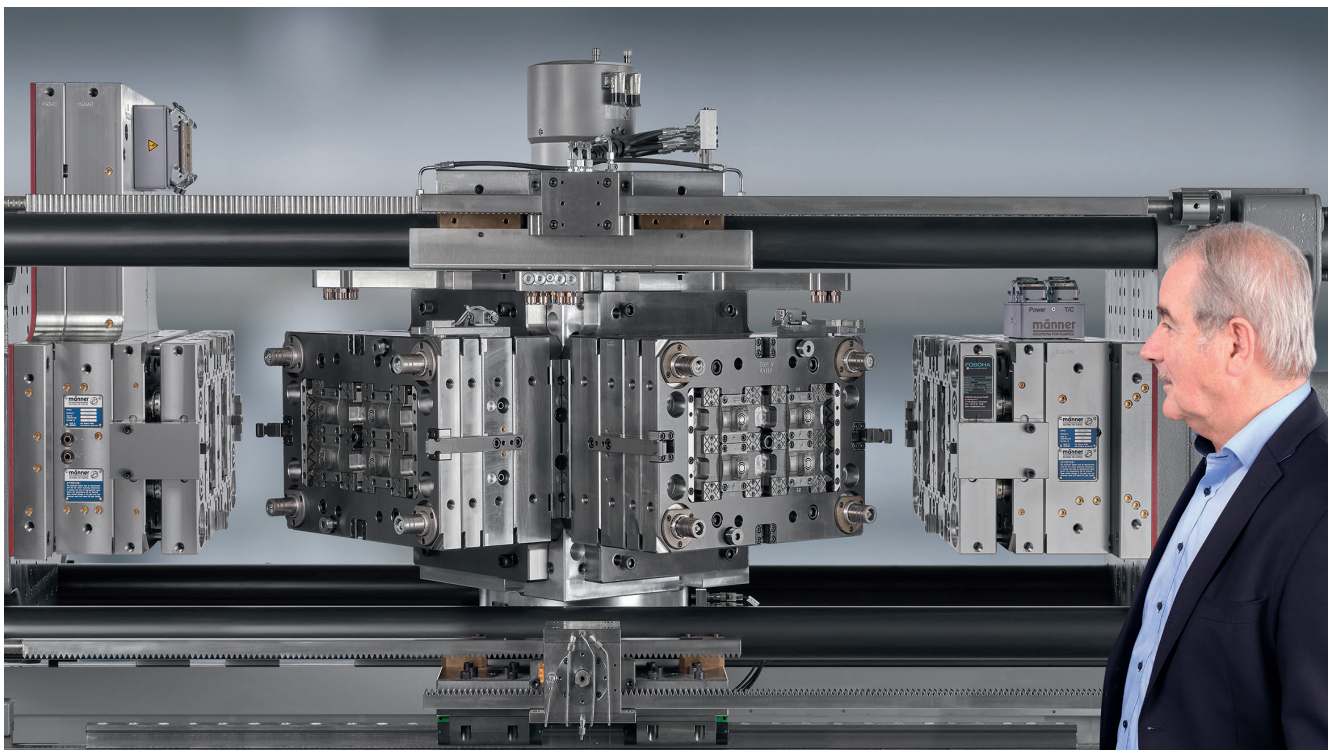


# New Application Areas for Cube Molds on Standard Machines

## *Compactcube Reduces Initial Capital Outlay and Maintenance Requirements*

The newly developed Compactcube mold system from Foboha can be used on slightly modified standard machines in the low to medium clamping force range. This means that the advantages of cube mold technology are now also available for applications with smaller production volumes.



The Compactcube is attractive to the automotive, electronics, and medical technology industries (© Foboha)

## Service

### Digital Version

- A PDF file of the article can be found at [www.kunststoffe-international.com/2020-2](http://www.kunststoffe-international.com/2020-2)

### German Version

- Read the German version of the article in our magazine *Kunststoffe* or at [www.kunststoffe.de](http://www.kunststoffe.de)

Until now, cube systems have mainly been used for the production of 2-component or 3-component closures in the packaging sector, in which high production volumes usually exceeding 100 million parts a year are required. There are 350 cube molds systems from Foboha, a business within Barnes Molding Solutions strategic business unit, successfully deployed worldwide. As market leader in this area, Foboha presented the newly developed Compactcube system for the first time at the K2019. Due to its design, it is also ap-

pealing for other applications such as technical parts for the automotive industry, electrical engineering/electronics, and medical technology.

While the cubes had previously only been operated on specially equipped injection molding machines with a clamping force of 3500 to 6500 kN, the new Compactcube system is also suitable for standard machines. Injection molding machines with clamping forces ranging from 1000 to 3000 kN only require minimal modification.

The Compactcube is based on the cube tool technology Foboha has been successfully deploying for over 25 years. With these tool systems, the core of the mold rotates in four steps by 90° increments. With two parting lines in the mold, the number of cavities can be doubled with the same clamping surface. It is also possible to carry out several production steps such as mold filling, cooling, or part removal at the same time. When molded parts consist of two different plastic components, productivity can especially increase with a cube tool because the cycle times are considerably reduced. Even very complex components can be produced on a single machine and with a single mold.

Significant optimization of the production process can be carried out directly at the four stations of the cube tool without extending the cycle time. For example, options can involve assembly steps (in-mold assembling), injection of parts, or quality inspection of molded parts.

In comparison with turntable, index plate, or transfer technology, the Compactcube offers considerable advantages due to its ability to double the potential number of cavities with the same machine size or reduce the machine size while retaining the same number of cavities. The Compactcube requires around 25% less space and about 10 to 15% less

energy consumption. Depending on the product design, an additional cycle advantage of up to 40% can be achieved compared to simple stack turning technology.

### *Space Requirements, Energy Consumption, Number of Cavities: Advantages Everywhere*

When designing the Compactcube, Foboha emphasized availability (overall equipment effectiveness or OEE) and reduced the effort involved in maintenance and system setup to a minimum. With Compactcube, relevant parts of the turning system can be removed and serviced while the mold remains in the machine. Therefore, the interruption to production amounts to no more than two or three days.

Having highly available, efficient production of multi-component parts, and quality testing or assembly functions all in one tool and in one machine are clear competitive advantages for many industries. The medical and pharmaceutical industries and their high infrastructure costs resulting from cleanroom production; the automotive supply industry, which is under constant price pressure; and manufacturers of electrical engineering/electronic components all benefit from the high production output per square meter of the Foboha Compactcube. ■

## Company Profile

Foboha is a manufacturer of high-performance molds in the plastic injection molding industry. With a wide range of patents, the company is particularly active in stack turning mold and cube technology. Founded in 1973, the company has locations in Europe, the US and Asia. The manufacturer exports its high-end technology to more than 30 countries around the world. Foboha has been a Barnes Group Inc. company since 2016.

» [www.foboha.com](http://www.foboha.com)

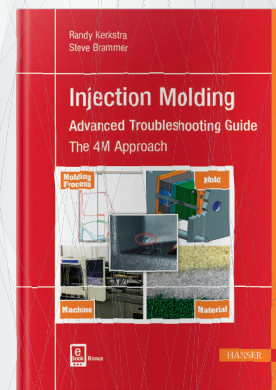
Barnes Molding Solutions is a strategic business unit within Barnes Group, which includes highly respected brands in plastic injection molding tooling, hot runners and controls, Synventive, männer, Thermoplay, Priamus, Gammaflux, and Foboha.

» [www.BGinc.com](http://www.BGinc.com)

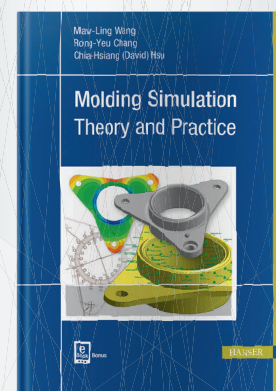
## The Author

**Dr.-Ing. Harald Sambale** is a freelance journalist specializing in the plastics industry; [post@redaktionsambale.de](mailto:post@redaktionsambale.de)

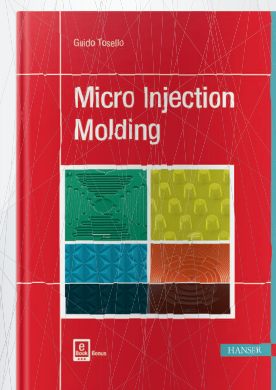
# Best of Molding!



ISBN 978-1-56990-645-3 | € 150,-



ISBN 978-1-56990-619-4 | € 150,-



ISBN 978-1-56990-653-8 | € 150,-

Bestellen Sie jetzt unter  
[www.hanser-fachbuch.de](http://www.hanser-fachbuch.de)