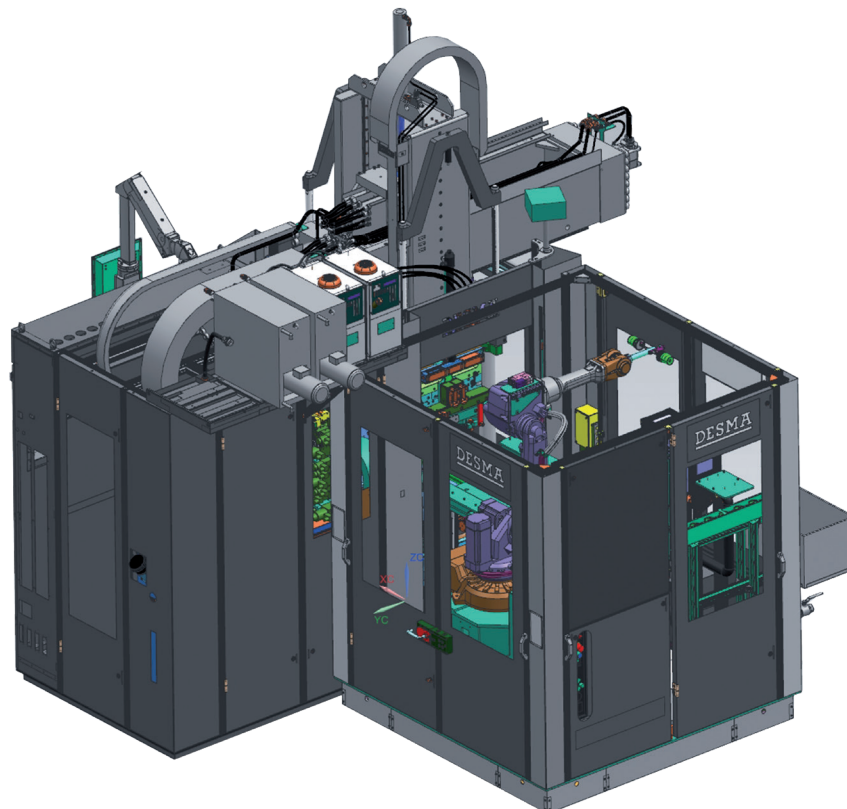


DESMA WHITEPAPER

FLEXCELL

DESMA D 968.250 FLEXCELL

THERE'S TECHNOLOGY INSIDE



PressureSense

With integrated **PressureSense** technology in every cavity it is possible to document the actual change-over pressure of every single nozzle and thus the course of the process as well. The process works with highly sensitive pressure sensors which are positioned in the individual cavities and transmit the internal mold pressures measured to the controller. If the set pressure at the respective cavity is reached, the corresponding needle is closed. No matter how much material is flowing, the mold cavity is precisely filled after every injection process. This facilitates production with low burring in the long term to a considerable degree and provides perfect conditions for article removal by means of robots.

FlexCell

If several injection molding machines or robots, or complex tasks at the manipulation station, are integrated in a cell, a higher-level system computer is necessary. In order to improve and simplify operation, DESMA has developed a host computer concept with the same base control and architecture as for DESMA injection molding machines. In the case of all injection molding machines, people are already familiar with automatic, setup and manual operation; in the case of robot cells, there is an added changeover option between system operation and machine operation.

SmartCube

Extended indicator and information lamps with LED ticker. This makes it possible to display a wide range of information such as error messages, cycle time, cure time remaining, piece counter, indication of machine type or the order number.

DesCure

The degree of vulcanization affects various properties of a molded part. Not all properties are optimal at a maximum degree of vulcanization. The quality of the article is therefore only consistently high if the degree of vulcanization remains constant. With cure time optimization, it is possible to achieve a uniform degree of vulcanization even if there are process fluctuations.

FlexCell ROBOTER

The six-axis robot for 20-kilogram payloads with a reach of 1.65 meters is in use for the first time. It serves as an interface between **FlexCell**, machine and robot. In addition, it offers many safety features such as integrated collision detection as well as the safe tool zone for operator protection. Moreover, the safe axis range ensures more control and flexibility, and safe robot speed maintains a safe speed at the defined level. Safe stand-still monitors the downtime of the robot without switching it off.

DRC 2030 TBM

The rubber control tool with trend-based machine visualization. The 24-inch multi-touch panel in combination with a 2.8 GHZ and 4 GB RAM processor as well as a 64 GB SSD hard drive offers clear added value: the trend-based display uses elaborated threshold management to prevent the production of rejects and machine downtime. It is possible to flexibly select and program up to 5 Fx series. Thus, the complete order management can be mapped. All of the documents required for machine operation can be handled using digitalization. The Setup- Assist function for error-free machine setup has been extended to include mold change guidance and the number of screen pages has been optimized.

AIR CUSHION SYSTEM

Using an air cushion system in connection with a quick clamping system, for easy docking and undocking of the **FlexCell**. This makes it possible to move the cell without any effort or extra transport equipment. Individual air cushion settings are also possible

SmartTrace

The cast product becomes a data medium. **SmartTrace** enables reliable article designation, which makes allocation to production data possible even after many years have passed. Integration in the ERP environment is additionally possible.

SmartLaser

A laser system is used to label and code black rubber articles, thus providing them with a unique designation or ID. This number or a so-called dot code can be used to determine information about process parameters. The process parameters can be visualized locally or globally (web-based).

HydroFit

HydroFit is an oil state sensor in the hydraulic system that measures permeability and conductivity. These values are documented and shown via a trend display on a separate screen page as the current hydraulic oil state. DESMA offers option packages and retrofit packages for oil sensors, additional filter systems and complete oil recycling at the machine.

