TIRE MOLD CONTAINERS

The basic principle of the HERBERT container exists meanwhile for over 50 years. Constant improvements / product care by adjustment to the newest technologies and materials the HERBERT container meets all requirements of HERBERT’s customers. HERBERT Containers are working worldwide for the satisfaction of all customers and can be offered in sizes of motorcycle up to OTR special sizes.

The advantages of the HERBERT Container are:

- Highest accuracy of TIR due to final machining method of the optimal cone surface (all previous tolerances eliminated)
- In the closed condition the back of the sectors rests to 100% against the cone ring and ensures an optimal heat transfer
- Worn out sliding plates in the cone ring can be shimmed and be brought again by turning on the optimal cone surface
  - Reduction of the maintenance costs -
- HERBERT containers can be developed and manufactured in all sizes customized, optimized on the respective requirements
- Long maintenance intervals by use of solid self-lubricating sliding plates and guides in the cone ring
- Maintenance and Spare part purchasing is not bounded to the manufacturer
- HERBERT Container are available for all types of tire curing presses

The following options are specified together with the customer:

- Numbers of sectors
- Main dimensions, (i.e. radial und vertical stroke)
- Inner Dimensions according to existing mold inserts
- Press adaption dimensions
- Container Isolation
MOLDS WITH ENGRAVED TREAD PATTERN

The trend for the tire molds goes clearly toward molds with engraved tread patterns, either into steel or aluminum. The engraved molds feature not only by better results regarding tolerances and material quality, but permit also very short delivery times. HERBERT already started at the beginning of the 90’s with this technology, which represents today the emphasis of the mold manufacturing at HERBERT.

HERBERT offers all manufacturing possibilities without restriction regarding mold dimensions from smallest Scooter molds to the largest earthmover molds.

With the experience of the last years and the adequate machinery, HERBERT counts to the prominent vendors for these molds.

Molds with engraved tread pattern are characterised as follows:

- High precision by using the most modern technology
- High accuracy of concentricity
- No different materials
  - no thermal stresses, no electrolytic corrosion,
  - calculable thermal expansions -
- Long life and dimensional stability of the tread pattern
  - with low abrasion of cleaning medium at steel engraved molds -
- High quality surfaces obtained by using homogenous materials,
  - therefore no porosity -
- Short delivery time
PUZZLE MOLDS - YOUR TIRES ARE SMOOTH

Alternatively to the classical venting by drillings with inserted vent plugs the possibility exists to exhaust the gases inside the mold through micro gaps. This kind of molds are known as "puzzle molds". The principle of the puzzle mold consists of the fact that the mold is divided into individual tread segments. We call these usually radial boundaries between the tread segments "micro gaps". These gaps are sufficient for all gases to be removed, but small enough to prevent rubber to escape (no flash).

Thus the following advantages result:

- No "Flash", respectively "Rubber nipples" on the tire
- No penetration of the rubber mixture into the micro gaps
- Elimination of "trimming" for removal of flash
- Completely smooth surface of the tire directly after curing, therefore modern testing methods such as contactless TIR measuring are possible directly after curing without any risk of falsification of the test results
- The appearance of the tire yields highest requirements
- No necessity for drilling of blocked vent holes
- Same cleaning cycles resemble as with conventional tire molds
- Suitable for segmented and 2-piece molds
- Suitable for passenger car as well as for truck sizes

MOLDS WITH INSERTED TREAD RIBS AND SIPES

Molds with a machined contour and inserted Tread Ribs offer a huge improvement in the accuracy of TIR. The durability of the mold is improved by using steel for Mold Body and Tread Ribs. The tendency goes to tire molds with engraved tread ribs. Hereby all sipes which are bended to the tread ribs can be engraved. This permits economical manufacturing of tire molds in steel with a high number of sipes.

Molds with turned tread surface and inserted tread ribs draw out through:

- Highest accuracy of TIR
- Excellent surface quality
- Long life time due to use of steel
- Re-treading is possible
- Cost effective technology to "high siped" molds
MOLDS WITH CASTED TREAD PATTERN

Tire molds / tread inserts with casted tread pattern still belong to the used technologies. Especially for high siped molds with a high quantity of molds each size and tread pattern, the Monocast technology is still usual. The production range of HERBERT covers the complete product range from Bicycle to Earthmover tire molds.

BLADDER MOLDS

HERBERT Bladder molds are standing for highest bladder quality and for longest bladder durability. The manufacturing of bladder molds takes place either after customer designs or acc. to HERBERT Design in accordance to technical agreement with the customers. HERBERT offers all sizes of bladder molds, necessary on the market, for the production of bladders for Scooter, motorcycle, to passenger car over truck, agricultural tires up to earthmover tires. Also special molds e.g. for the production of air spring bladder molds can be developed and manufactured by HERBERT. HERBERT offers all methods of venting systems and surface coatings.

HERBERT bladder molds fulfill the highest claims of quality regarding accuracy of bladder thickness, as well as regarding the curing surface with your venting systems.

HERBERT offers the following options:

- Mold halves, cores and optional spacer rings (for different sizes) are made of forged steel
- Mold halves and cores are executed with self heating (steam, oil, etc.)
- HERBERT manufactures bladder molds for all press types and press sizes; for the injection technology as well as for the displacement technology
- All methods of venting systems, i.e. vent ribs and/or frog skin are EDM machined or acid etched
- HERBERT offers all kinds of curing surface, i.e. hard chrome plating, teflon coating, etc.
- Core centering and mold guiding by use of bronze wear plates
- Optional: availability of thermocouple and internal pressure sensor, etc.
- Complete Engineering package available by HERBERT
TIRE BUILDING DRUMS

Tire building drums are belonging since a long time to the product range of HERBERT. Tire building drums are made in steel - or because of weight reduction in aluminum welded construction. Beside the classical drum types also customized drums can be developed and manufactured. The drums fulfill highest quality requirements due to modern CNC manufacturing. Important for the development of the HERBERT tire building drums are the following aspects:

- Shoulder contour (profile)
- Outside diameter of the drum
- Required diameter in collapsed conditions
- Adjustment range (width)
- Diameter of the drum shaft, and/or data concerning the tire building machine

RADially EXPANDIBLE TIRE BUILDING DRUMS

The sectors of the 8-parted HERBERT tire building drum are drawn into the centre in radial direction through opposite turning movements. Due to same principle as for collapsible drums the expandible drum can be used on all usual tire building machines. Special requirements such as vacuum connection, cycle counter, etc. can be applied acc. to customers requirements.

COLLAPSABLE TIRE BUILDING DRUMS

HERBERT collapsable tire building drums can be executed 4-, 6- or 8-parted, depending on customers requirements either in gap shield or spacer ring execution.

TRANSFERRINGS

Transfer rings are used for the transport of the belt package in the first tire building stage. Existing transfer rings can be modified to be able to cover for example around several sizes resp. ranges. The following aspects can be considered with the development and/or with the change by transfer rings:

- Hanging or standing execution
- Execution with one or more spacer ring segments to cover different switching positions
- Quick-locking mechanism system for simple and time-saving segment change (use of different spacer rings for different inner diameters)
- Closing and opening cycle with only one cylinder possible
- Developments/designs according to your requirements are possible

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