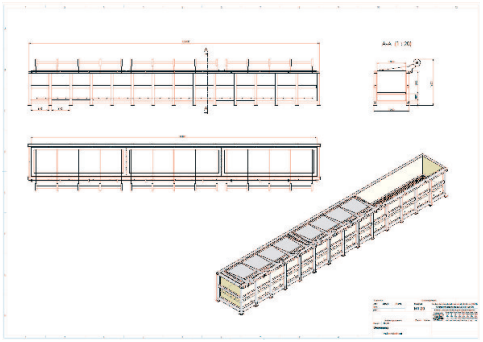
GEFAT
Engineering GmbH



Vulcanization Bath for Stator Production

Vulcanization baths are used to vulcanize stators.

Vulcanized rubber will be sprayed via an extruder into the stator pipe.
The stator pipe then will be vulcanized in the vulcanization bath.

The advantage of this kind of production technology compared to the classic production via autoclave is, that the amount of heat inclosed within the special gycol is much higher than the steam added via autoclave.
The result is, that the stator is heated up faster and more equally which again leads to a better quality and vulcanization outcome.

Furthermore the vulcanization temperature can be regulated accurate to a degree.

Vulcanization bath for stator production

The electrically heated, double-walled and insulated vulcanization bath for the production of stators is available in many sizes and various connection power. The stator length and number is deciding the necessary size of the bath.

The control is equipped with a PLC, either Siemens S7 or Allen Bradley, as per customer`s request, which regulates exactly the desired vulcanization temperature. The electrical triggering of the heating elements is carried out contactless and therefore absolutely free from wear.
To avoid wire breakage and short circuit, each heating wire will individually be monitored to ensure the production quality. This is to avoid unnoticed vulcanization differences within the stator pipe. The request of several temperature sensors enables an accurate temperature guidance.

Production course: the operator places the pipe injected with rubber via crane or hoist in the bath filled with a special vulcanization glycol. Via the operator panel, executed in the language of the country, the operator may select comfortably the pipe parameters for the suitable pipe from the provided pipe-library. The operator starts the vulcanization time at the push of a button at the inlaying position.

Termination of the vulcanization time will be displayed optically via a 2 color traffic lamp (green/red) and acoustically via a signal tone. This enables the operator to recognize the termination of the vulcanization time even from a further distance.

Possible trouble announcements, such as leakage check of the double-walled bath will be displayed via the operator panel in clear text in the language of the country. The temperature courses of the bath may be displayed via a chart resp. trend. The set-point temperature and each stator parameter may be entered comfortably via the operator panel.
An operation and production data registration via Ethernet as well as the ability for tele-maintenance for the control are optionally available.

New Technology- better Vulcanization Result

(Graphic: bulkheads)

Depending on the design of the bath there are insertable bulkheads with some detachable heating zones, which enables saving energy upon shorter stator by only Heating up separate parts of the bath.

With the use of a programmable clock timer it is possible to switch on the bath at night automatically, so that it will be preheated at the beginning of the early shift and the production can start without delay.

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