

DEVELOPED  
FOR



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**SERVICES**

- technical know how in using the MTI process
- professional training for vacuum infusion
- fault analysis
- conversion of production to vacuum infusion
- mold construction
- prototyping
- single piece production/ limited lot production



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PERFECTS THE  
VACUUM INFUSION



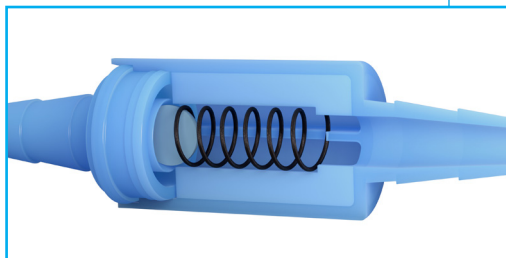
# OPTIMUM FIBER VOLUME RATIO

The MTI valve<sup>®</sup> regulates the infusion of resin into the part. Thereby the valve is put in such a way which is reached an optimum fibre volume ratio.



## ADVANTAGES

- Regulates the infusion of resin
- No resin pooling at inlet point
- complete impregnation of the fabric
- Optimum fibre volume ratio
- Highest quality of parts with reproducible results
- Vacuum infusion becomes easier and reliable
- reduces time and effort



## INTEROPERABLE

MTI  
by DD|COMPOUND

SQUEEZER  
by DD|COMPOUND

SQUEEZEE  
by DD|COMPOUND

## MTI VALVE<sup>®</sup>

### PERFECTS THE VACUUM INFUSION

With the membrane tube infusion process (MTI<sup>®</sup>) DD-Compound has developed the innovation for vacuum infusion. The unique valve<sup>®</sup> perfects this process.

#### Challenge

At the beginning of the vacuum infusion a vacuum is placed on the part. During the subsequent infusion the pressure on the part changes compared to the surrounding pressure in line with the quantity of resin infused. By these means, the individual fibres of the textile or fabric are raised during the infusion and covered with resin.

The close the under pressure on the part approaches the surrounding pressure, the higher are the fibres raised. This allows them to be covered with even more resin. However, the optimum fibre volume ratio is achieved prior to the highest possible erection of the fibres and the associated quantity of infused resin.

#### Answer

The MTI<sup>®</sup> valve is used in the resin line and controls the resin infusion by means of pressure. During the infusion it represents for the resin infusion a counter-pressure to the under pressure in the part.

If this counter-pressure is too big, the valve closes. The resin infusion stops. No more resin enters the part. The valve is adjusted that the counter-pressure becomes too great for the resin at precisely the point when the necessary under pressure in the part for the fibres to reach an optimum height to be covered in resin is achieved - thus also achieving an optimum fibre volume ratio. Supervising the resin supply is not necessary any more, provided that enough resin exists.

The MTI<sup>®</sup> valve provides for the steady infusion of the resin in the part. The fibers are evenly covered with resin. It provides for the highest quality of the parts with reproducible results.

Besides, it is safe and simple in the use.

The MTI<sup>®</sup> process and the new MTI valve are suitable for different part sizes and any degree of complexity. They can be used for prototypes, small series and batch production as well as for the mould building.