

ATTACHING A NIPPLE TO A MOLDED PART



■ The task

A small nipple with attached holding springs is to be welded to a molded automotive component made of PA6.6 GF 40.

The problem is the high glass content of the small part and, above all, the attached springs which would be destroyed by the amplitude required for longitudinal ultrasonic welding. Other methods were tried but did not achieve the desired success. (Thickness of the part at the base, delicate structure, glass content).

■ The solution

In this case the process was reliably accomplished with torsional technology using machines of type TSP3000.

■ The advantages

With torsional technology it is possible to transmit the large amount of energy into the part which is required for PA6.6 GF 40 while at the same time not damaging the part. This cannot be achieved with longitudinal ultrasonic processes.

The weld connection is very good and damage is avoided because the ultrasound does not have to penetrate the part and welding only takes place at the adjoining surfaces.

Large series of components can be welded reliably with very short process times.



The application was carried out on a TSP3000 using additional components for the special rigging.

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