

2005 Cost optimisation in fastening technology

Arnold Umformtechnik: Taptite 2000 reduces costs

A study has made to show how some major cost reductions can be made by utilising thread-forming screws. The Taptite 2000 generation guarantees efficiency benefits while maintaining process reliability.

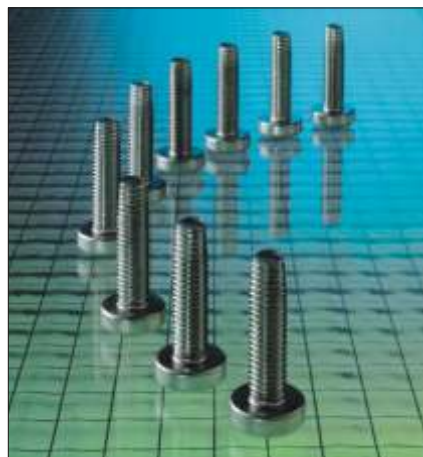
The Taptite 2000 generation of thread-forming screws from Arnold Umformtechnik GmbH & Co KG is making a fundamental contribution to cost reductions in the fastening systems industry. Continuous Studies by the fastener specialists from Forchtenberg (Germany), show that there is huge potential for optimising the preparation costs prior to the actual screw process. It is precisely at this point in a manufacturing process that Taptite 2000 demonstrates the full extent of its engineering design advantages from both a technical and economic point of view. Experience has shown that, when making threaded connections, savings of up to 70 per cent can be made.

According to the results of a number of studies, 85 percent of the total cost of producing conventional threaded connections arises from the secondary costs such as the Hole preparation (drilling), thread-cutting, inspection process, the processing tools, and cleaning of the component. The fastener itself only represents approximately 15% of the total cost.

It is here that the Taptite 2000 generation of thread-forming screws offer themselves as the ideal solution. Where these fasteners are used cost-intensive assembly processes are a thing of the past. Taptite products can drastically

reduce the costs, particularly in the way that the nut threads are formed in a single and completely swarf-less process. Since post-processes such as cleaning and inspection are no longer required, the cost of making the threaded connection is greatly reduced. And where core holes are pre-cast, there is no need for drilling, this can show overall savings of up to 70% in the costs.

Apart from the cost advantage, Taptite 2000 users also benefit from the improved mechanical properties of the connection. The trilobular shape of the



shaft, combined with the thread's unique radius profile flanks, reduce the thread forming torque by around 50% compared with conventional thread forming screws, thus ensuring higher clamping values while at the same time reducing clamp load dispersion. High strip torques together with high break-loose torques and the low screwing-in values can ensure maximum process reliability of the assembly and thus emphasizes the durability of the fastener. Taptite 2000 screws can be used in a

The Arnold Group is a wholly owned subsidiary of the Würth Group, which, with over 46.000 employees and with 314 company's worldwide, operates on a global basis with earnings of over 6 billion euros.

wide variety of applications, in both steel and light alloy applications.

Your contact:

Dipl. Michael Pult

Dipl.-Betriebswirt (FH)

*Marketing and Communications
Manager*

Arnold Umformtechnik GmbH & Co. KG

Tel.: 0049-(0)7947-821-170

Fax: 0049-(0)7947-821-111

Mail: michael.pult@arnold-umformtechnik.de

www.arnold-umformtechnik.de