

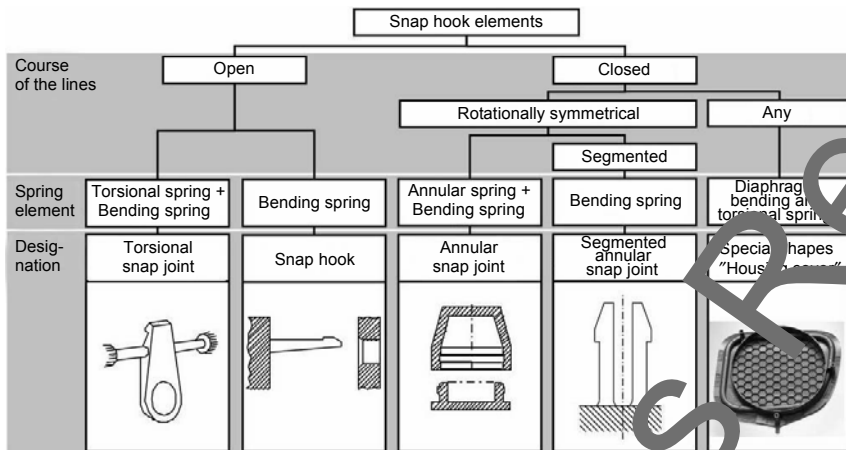
The fundamentals for the designing of snap joints for plastic components are described in the DVS 2242-1 technical code: "Mechanical joining of plastic components – Snap joints". This includes, in particular, the dimensioning of the snap hook and of the snap joint and presents both analytical and computer-assisted methods which are utilised for the calculation of characteristic parameters and with whose aid the various execution shapes of the snap joints can be designed reliably.

Examples which should give the user indications of how snap joints can be utilised for the joining of plastic components are shown in this supplement.

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1 Classification of snap joints

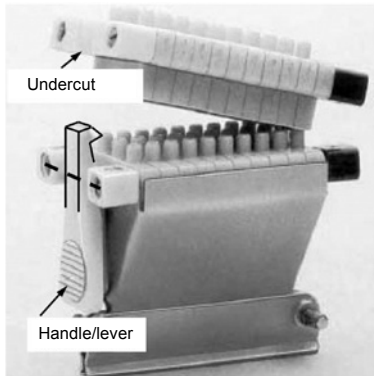


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DVS, Technical Committee, Working Group "Joining of Plastics"

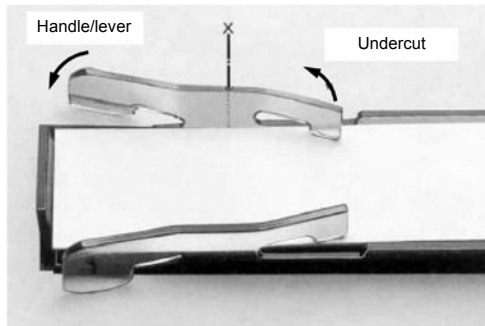
2 Torsional snap joint

2.1 Plug block



The plug block shown here is held together by a torsional snap element. The joint is exposed to rather low static mechanical loads. Since it must be possible to dismantle the push-in joint, the snap hook must be designed for frequent opening and closing operations. The components can be dismantled without any release force since the undercut of the snap joint is released by actuating a lever.

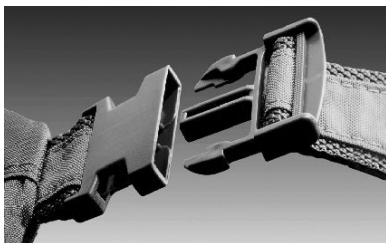
2.2 Writing panel, Airbus A300



The writing panel made of polycarbonate (PC) constitutes another example of a torsional snap joint. The arising mechanical loads are very low here as well since the snap element merely serves to fix the lettering. This joint is also designed for frequent opening and closing.

3 Snap hooks

3.1 Simple snap hook on a buckle made of plastic



The snap hooks of the buckle are exposed to frequently occurring opening and closing operations. The joint must have a defined holding force, and it should be possible to open it only by manually deflecting the snap hook. For example, polypropylene (PP) is utilised as the material for this snap joint. Depending on the arising loads, technical thermoplastics with ductile material behaviour can also be used as the materials.