



Hocker, Plopp, 2007  
Entwurf: Oskar Zieta  
Herstellung: Oskar Zieta, Lehrstuhl für Computer Aided  
Architectural Design, Eidgenössische Technische  
Hochschule Zürich, CH  
Produktion: Hay, Bs Studio A / S, Horsens, DK  
Material/Technik: Stahl, verchromt  
50 × 55 cm  
Dauerleihgabe: Schweizerische Eidgenossenschaft,  
Bundesamt für Kultur Bern

The FIDU process, which was designed in the CAAD department at ETH Zürich, allows two-dimensional metal sheets that have been welded together at the edges to be inflated into three-dimensional hollow volumes. The ultralight *Plopp* stool is now being serially produced by the company Zieta Prozessdesign in Wrocław and Zurich.

In 2003, as a PhD student at the ETH Zürich, the Polish architect Oskar Zieta (b. 1975) began to explore new production technologies in architectural practice. His experiments with digital tools and computer-aided design led to the invention of a new production method. The so-called FIDU process—free inner pressure deformation—turns thin metal sheets into hollow volumes in a seamless digital chain. Two silhouettes cut out with CNC-controlled laser beams are welded together at the edges by a robot into a waterproof volume. The cavity formed between them can then be inflated under pressure with a liquid or air. The metal bulges outward and forms a stable hollow body. This lightweight construction method allows for customized mass production at a low cost using a common manufacturing process. The first application

clearly showed the potential of the FIDU technology. The *Plopp* stool held up under 2.5 tons of weight in the testing hall at the ETH. The formally striking stool betrays a further characteristic of FIDU: in contrast to conventional CNC-manufactured products, *Plopp* looks like a handmade original and has a sculptural quality about it. Available in a choice of vibrant colors, it recalls the inflatable furniture of the seventies yet is as tough and durable as steel. (Renate Menzi)

<https://www.eguide.ch/en/objekt/plopp/>