# PRESS RELEASE

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# New press for aerospace manufacturing

## Schuler unveils innovative hot-cold drawing press for the production of titanium parts in the aerospace industry

*Göppingen/Waghäusel, July 7, 2015* – Schuler has developed an innovative drawing press for the forming of titanium parts which is suitable for both cold and hot forming processes. The manufacturer unveiled the combi-press to the public at an in-house fair in Waghäusel over the past few days. Over 60 guests looked on as the hot-cold drawing press formed one titanium part after the other for the aerospace industry.

Whereas conventional deep drawing dies with widths of up to 1.60 meters are used for the cold forming process, a specially designed heating chamber is installed in the press for hot forming. It heats the titanium blanks to temperatures of between 700 and 950 degrees Celsius before they are formed in the hot-deep-drawing die. The press bed is equipped with water cooling and a ceramic insulation layer for protection. Schuler succeeded in integrating the draw cushion with high-temperature-resistant pressure pins into the system. With the aid of the pressure pins – which are led through several temperature layers – the blankholding forces can be set with particularly high accuracy.

In cold operation, the press has a slide force of 3,150 kN and a bed cushion force of 1,250 kN, compared to 800 and 250 kN in hot operation. The forming speed for the titanium parts ranges from 0.1 to 2.0 millimeters per second for hot forming and five to 30 millimeters per second for cold forming. The fair visitors experienced the combi-press in cold operation on Wednesday and in hot operation on Thursday. The press is to be delivered to a customer in the aerospace industry.

Titanium is becoming an increasingly important material for aircraft construction. Whereas the high-strength metal accounts for around six percent of materials used in conventional aluminum aircraft construction, this ratio rises to between 15 and 20 percent for modern composite designs. As this makes aircraft lighter, fuel consumption per seat and kilometer flown decreases.

A further press displayed at the in-house fair in Waghäusel has been earmarked for the aerospace industry: a hydroforming press line with 1,600 metric tons of press force for manufacturing specialist tubular parts. The monoblock press features a water hydraulic system and two axial cylinders.

## Internet

[www.schulergroup.com/Aerospace](http://www.schulergroup.com/Aerospace)

### Captions

Bild1.jpg: Over 60 guests had come to see the hot-cold drawing press (left) and the hydroforming press line.

Bild2.jpg: The readily formed titanium part is taken out of the hot forming die during the press demonstration on day two of the fair.

Bild3.jpg: Titanium parts for the aerospace industry: door surrounding part, housing, support rod, cooler outlet duct, turbine blades (from left).

*Please name Schuler as the photo source.*

***About the Schuler Group –*** [***www.schulergroup.com***](http://www.schulergroup.com)

*Schuler is the technological and global market leader in forming equipment. The company offers cutting edge presses, automation, dies, process know-how and services for the entire metal forming industry and lightweight vehicle construction. Its clients include car manufacturers and their suppliers, as well as companies in the forging, household equipment, packaging, energy and electrical industries. Schuler is the market leader in coin minting presses and supplies systems solutions for the aerospace, railway and large pipe industries. In fiscal year 2014, Schuler posted sales of € 1.18 billion. With around 5,400 employees, Schuler is represented in 40 countries and is a member of the Austrian ANDRITZ Group.*