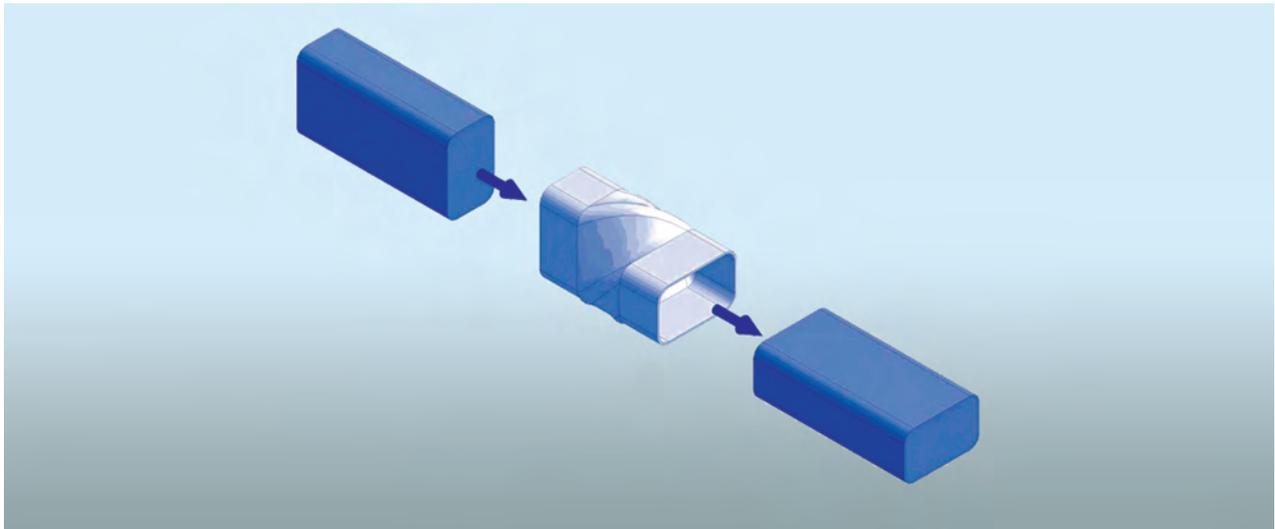


TWIST EXTRUSION TECHNOLOGY



Principal scheme of twist extrusion

Areas of Application

The technology is used for obtaining nonferrous materials with enhanced mechanical properties and operating characteristics for application in medicine (bone and dental implants) and aircraft industry (turbine engine blades)

Specification

The technology is based on severe plastic deformation with the help of special matrix. The use of this matrix enables to create an intensive vortex flow within the treated material, which leads to grain size reduction and significant changes in the microstructure

Advantages

The technology has a lesser material consumption as compared with the analogs (by 30–50%); enables working with profiled materials and is highly integrable into the existing processes. The materials treated by the twist extrusion method have 1.5–2.5 times higher mechanical properties and operating characteristics

Stage of Development. Suggestions for Commercialization

IRL3, TRL2
Vending of license for the technology

IPR Protection

IPR1, IPR3

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