

FOR COMPONENTS WITH THICKNESSES BETWEEN 2.51 AND 9.0 MM

HIGH THICKNESS FIT SOLUTIONS – Technical Product Sheet

# RIFAST® DBB THICK SHEET STAKING BOLT

The robust and space-saving thick sheet staking bolt product line mechanically joined to thick metal components by means of automated insertion technology

### > THE RIFAST® SYSTEMS ADVANTAGE

# Systems expertise from designing, manufacturing clinch fasteners and automation equipment to consultation and realization in serial production

With over 25 years of expertise as a full system provider RIFAST<sup>®</sup> is the partner for developing economical solutions for reliable integration of mechanically joined clinch fasteners. The systems approach of clinch fasteners through automation equipment for in-die and off-line operations guarantees the optimal joint connection. The mechanical joining with the RIFAST<sup>®</sup> staking die designed to the customer component ensures consistent performance values in addition to eliminating thermal influences and distortions observed during welding.

#### > THE RIFAST® THICK SHEET STAKING BOLT ADVANTAGE

#### Compact, reliable, weight-optimized, secure and watertight

Optimized for thick metal applications, the RIFAST<sup>®</sup> thick sheet staking bolt is the proven and reliable solutions for sheet metal parts, extruded profiles and castings. Whether this is with steels, aluminum or copper alloys, the thick sheet staking bolt performs through its compact and lightweight characteristics. Available with different thread ends in accordance with DIN EN ISO 4753 and MAThread<sup>®</sup>, the clinch fastener offers a flat contact surface for attachment of mating parts (no protrusion on component underside after joining process). Depending on component material and thickness, watertight joining is possible - with no cracks on the clinch fastener. The RIFAST<sup>®</sup> DBB is the solution for components with thicknesses between 2.51 and 9.0 mm.





#### Application example RIFAST® DBB i.e. aluminium diecasting parts, extruded aluminum profiles, frame parts

## > TECHNICAL DATA

Thread Sizes	M5, M6, M8, M10, M12				
Strenght Grade	8.8, 9.8, 10.9 (DIN EN ISO 898-1)				
Surface Coating	OEM-approved coatings				
RIFAST <sup>®</sup> Standard	WN 10340 (DBB)				
Tensile Strength	150 - 600 N/mm <sup>2</sup>				
Component Materials	Steels, aluminum alloys, copper alloys				
Automation Equipment	Press, C-Frame (automatic or manual)				
Thread Size	M5	M6	M8	M10	M12
Application Thickness (mm)	2.51 - 9.0	2.51 - 9.0	2.51 - 9.0	2.51 - 9.0	2.51 - 9.0
Push-Out in 5.0 mm (kN) <sup>1</sup>	6.0	6.0	8.0	10.0	10.0
Torque-Out in 5.0 mm (Nm) <sup>1</sup>	9	15	38	81	140

<sup>1</sup> Performance values for reference, derived from destructive testing in a component made out of steel DC01 with a thickness of 5.0 mm by RIFAST® Application Engineering

Performance values for push-out and torque-out are dependent on the component material (steel, aluminum alloy, copper alloy), the application thickness and in combination with RIFAST® staking die. Performance values for other component materials and application thickness can be validated through RIFAST® Application Engineering.

# > MECHANICAL JOINING PROCESS AND CROSS-SECTION



