

## RIFAST® ENB

FOR COMPONENTS WITH  
THICKNESSES BETWEEN 0.75  
AND 2.5 MM

HIGHT STRENGTH FIT SOLUTIONS – Technical Product Sheet

# RIFAST® ENB CLINCHING BOLT

The innovative clinching bolt product line for full automatic, mechanically joining metal components with high and ultra high strength steels

## › THE RIFAST® SYSTEMS ADVANTAGE

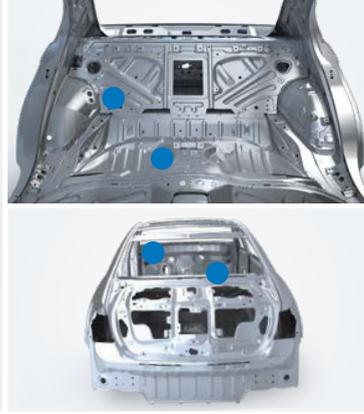
**Systems expertise from designing, manufacturing clinch fasteners and automation equipment to consultation and realization in serial production**

With over 25 years of expertise as a full system provider RIFAST® 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® staking die designed to the customer component ensures consistent performance values in addition to eliminating thermal influences and distortions observed during welding.

## › THE RIFAST® CLINCHING BOLT FOR HIGH STRENGTH STEELS ADVANTAGE

**Compact, weight-optimized, secure and watertight for high and ultra high strength steels**

With its compact, space-saving lightweight design, the RIFAST® clinching bolt for high strength steels outperforms in body structures. Whether this is for high and ultra high strength steels or press hardened steels, the clinching bolt for high strength steels delivers a flat contact surface for attachment of mating parts (no protrusion on component underside after joining process), while being available with different thread ends in accordance with DIN EN ISO 4753 and MATHread®. Depending on component material and thickness, watertight joining is possible - with no cracks on the functional element. The RIFAST® ENB is the solution for components with wall thicknesses between 0.75 and 2.5 mm.



< Application examples  
 RIFAST® ENB  
 i.e. frame parts, seating  
 systems

## TECHNICAL DATA

Thread Sizes	M5, M6, M8		
Strength Grade	8.8, 10.9 (DIN EN ISO 898-1)		
Surface Coating	OEM-approved coatings		
RIFAST® Standard	WN 10350 (ENB)		
Tensile Strength	> 600 - 2000 N/mm <sup>2</sup>		
Component Materials	High and ultra high strengths steels, press hardened steels		
Automation Equipment	Press, C-Frame (automatic or manual)		

Thread Size	M5	M6	M8
Application Thickness (mm)	0.75 - 2.5	0.75 - 2.5	0.75 - 2.5
Push-Out-Force in 1.5 mm (kN) <sup>1</sup>	1.5	1.5	2.0
Torque-Out in 1.5 mm (Nm) <sup>1</sup>	12	19	30

<sup>1</sup> Performance values for reference, derived from destructive testing in a component made out of HCT780X with 1.5 mm in application thickness by RIFAST® Application Engineering

Performance values for push-out and torque-out are dependent on the component material, 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 AND CROSS-SECTION

