



RIFAST® ENM

FOR COMPONENTS WITH
THICKNESSES BETWEEN
1.0 AND 2.5 MM

HIGHT STRENGTH FIT SOLUTIONS – Technical Product Sheet

RIFAST® ENM CLINCHING NUT

The innovative clinching nut product line mechanically joined to metal components with high and ultra high strength steels 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® 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 NUT FOR HIGH STRENGTH STEEL ADVANTAGE

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

With its compact, space-saving lightweight design, the RIFAST® clinching nut for high strength steels outperforms in body structures. Whether this is for high and ultra high strength steels or press hardened steels, the clinching nut for high strength steels delivers 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 functional element. The RIFAST® ENM is the solution for components with wall thicknesses between 1.0 and 2.5 mm.



Application examples
RIFAST® ENM
i.e. frame parts, crash
relevant systems

TECHNICAL DATA

Thread Sizes	M5, M6, M8		
Strength Grade	10 (DIN EN ISO 898-2)		
Surface Coating	OEM-approved coatings		
RIFAST® Standard	WN 20360 (ENM)		
Tensile Strength	> 600 - 2000 N/mm ²		
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)	1.0 - 2.5	1.0 - 2.5	1.0 - 2.5
Push-Out in 1.7 mm (kN) ¹	1.0	1.0	2.0
Torque-Out in 1.7 mm (Nm) ¹	12	12	18

¹ Performance values for reference, derived from destructive testing in a component made out of steel HCT780X with a thickness of 1.7 mm 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 PROCESS AND CROSS-SECTION

