SIMPLE MECHANICAL COUPLING BOLT

An accurate, easier way of bolting large rotating machinery couplings

EzFit, the easy way to install coupling bolts
EZFIT EXPANSION SLEEVE COUPLING BOLT

With two radical innovations in expansion-bolt performance, EzFit introduces a whole new class of bolting solutions.

High preloads with hand tools alone
Integral Superbolt multi-jackbolt tensioners (MJTs) enable EzFit to attain extremely high preloads with simple hand tools alone.

Accurate radial force
EzFit’s split, tapered bore sleeve also provides a true radial force that translates to greater flange connection rigidity and eliminates harmful micro-movements at the split line. And because the sleeve can compensate for a wider range of bore tolerances, it simplifies machining and installation.

Advantages

The innovative EzFit expansion sleeve coupling bolt from Superbolt lets you replace large fitted or interference-fit bolts without modifying your equipment.

- Truly fitted bolt ensures optimum drive and prevents coupling slippage.
- Coupling halves are easier to clamp together, because EzFit generates axial and radial forces simultaneously.
- Slash downtime with quick, straightforward installation and disassembly with minimum hole preparation.
- Slash rework by avoiding destructive disassembly and eliminate the cost of through-hole damage repairs.
- Replace conventional bolting systems without modifying equipment while eliminating bolt or coupling hole damage.
- Reusable – installed and removed in clearance condition.
- Safety: use only simple, low-risk hand tools for installation and disassembly.
- The radial fit allows for better coupling alignment and concentricity.
- Less requirement for on-site finish machining.

How conflicting requirements complicate your job
Bolting should be easy to install and remove along with providing rock-solid interference fits for proper torque transfer. These conflicting requirements have made flange manufacturing, as well as on-site operations, difficult and expensive. Machining costs can be steep, while on-site procedures for joint assembly and disassembly can lead to unpredictable scheduling. With Superbolt EzFit, complications are removed.
INNOVATIVE DESIGN ENSURES A SAFER INSTALLATION

How it works

• The mechanical tensioner at the small end of the taper stud (side A) pulls the stud into the expanding split sleeve for radial preloading.

• The split sleeve expands and exerts a large radial force into the bores of the coupling bolt holes to give a truly fitted bolt.

• The mechanical tensioner at the large end of the taper stud (side B) provides the axial clamping forces.

• In removal, the large end tensioner (side B) is used to pull the stud out of the sleeve, which then collapses for easy withdrawal from the hole.

EzFit components

1 Tapered stud
2 Split tapered bore sleeve
3 Positioning spacer
4 MJT and Hardened washer

Application

Coupling bore holes

Challenge: Five standard fitted bolts seized in place during the dismantling of an LP to generator shaft coupling, causing severe damage to the mating holes.

Solution: Superbolt expedited 16 EzFit assemblies to the customer, facilitating a quick and seamless repair for minimal downtime and maximum productivity.

Various other coupling applications:

• Turbines – hydro, wind, gas, steam
• Engines
• Generators
• Compressors
• Motors
• Marine propulsion drives

Types of Superbolt EzFit Bolts

- EBC For through holes. Ø 28–165 mm
- EBB For blind holes. Ø 28–165 mm
- EBA For threadless bores. Dimensions on request.
Utilizing stringently tested and proven technologies, Superbolt Expansion Bolts are truly fitted into the hole due to radial expansion of the conical bore sleeve. By design, accurate radial force combined with the known axial clamping load provides total protection against coupling slippage and thus prevents bolt/hole damage during subsequent removals. Whether hydraulically (HyFit) or mechanically (EzFit) actuated, these bolts can be retrofitted to replace traditional interference or force fitted bolts most reliably and cost effectively.

With production sites in Switzerland and the USA, worldwide material specifications, certifications and shipping are all easily provided. As part of the Nord-Lock Group we have sales offices and representation around the world.

The Nord-Lock Group is focused on making the world a safer place with secure bolting solutions. We offer a unique combination of bolting expertise and a comprehensive product range to provide the best suited solution to bolting challenges in all industries.

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