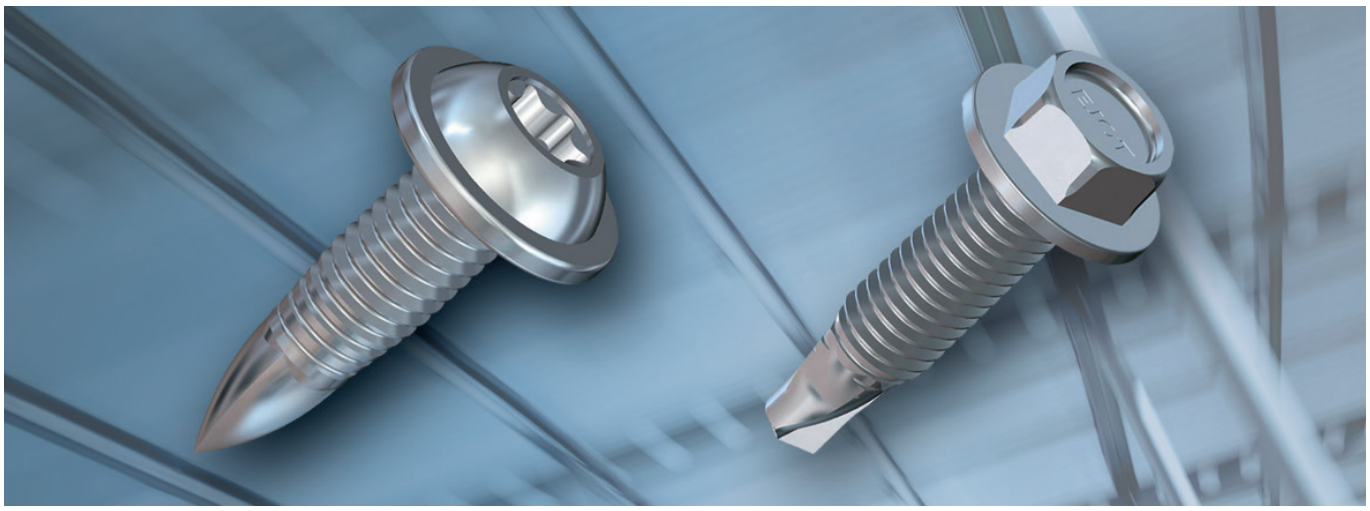
EJOT FDS®

The flow drill screw for high strength sheet metal joints



The EJOT FDS® flow drilling screw enables a high strength screw joint, due to increased thread engagement in the formed draught.

The female thread, which is formed without producing chips, is true to gauge so that a common metric screw can be used in case of future maintenance or repair.

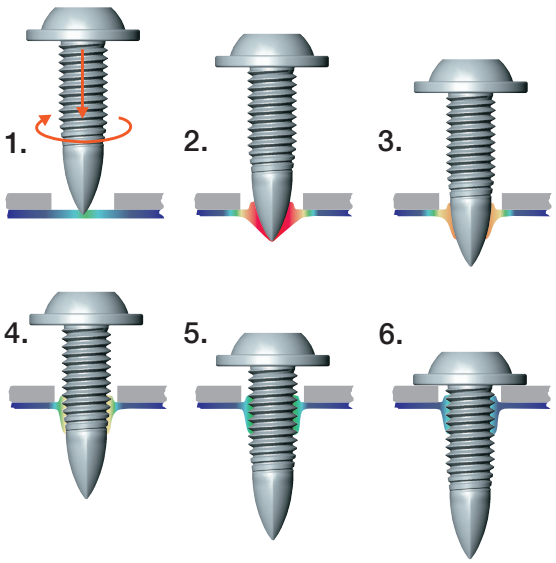
Since there is no need for preparations like punching or drilling, the usual tolerance problems such as overlapping of draught and insertion hole, do not apply. The one-sided accessibility of the part provides for an assembly into hollow profiles (hydroformed or aluminium extrusion profiles) without any counter support, as might be necessary for other joining methods.

Characteristics

- Removable and high quality screw joint, without part preparations, such as pre-drilling or punching
- No hole overlap problems
- No material waste while forming the draught / no chips during thread forming
- Use with various sheet surfaces
- Easy removal and recycling

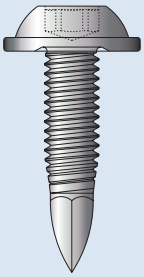
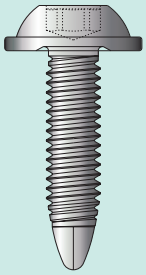
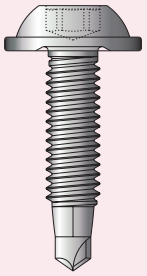
Assembly stages:

1. **Warming up**
2. **Penetration of the material**
3. **Forming of the draught**
4. **Thread forming**
5. **Full thread engagement**
6. **Tightening**



EJOT. Bringing it together.

Designs

Type	Standard	PKS	BS
FDS®			
Material	Case hardened mild steel Heat-treated steel, inductive hardened	Case hardened mild steel Heat-treated steel, inductive hardened	Case hardened mild steel Heat-treated steel, inductive hardened
Surface coating	Chrome VI-free surfaces zinc plated, blue passivated zinc plated, blue passivated + EJOSEAL (240h resistance to Zn-corrosion) zinc flake coating (with or without black top coats) ZnNi / black passivated Other platings upon request		
Application	Assembly without pilot hole	Assembly with pilot hole	Assembly without pilot hole
Sheet material:	steel 0,3 - 1,8 mm aluminium 0,8 - 5,0 mm magnesium 0,8 - 3,5 mm	steel 0,4 - 2,0 mm aluminium 0,4 - 3,0 mm magnesium 0,8 - 3,5 mm stainless steel 0,4 - 1,5 mm	steel 0,4 - 1,5 mm aluminium 0,4 - 2,0 mm magnesium 0,8 - 2,0 mm
Characteristics	assembly without pilot hole no hole overlap problems with through-hole possible especially suited for automated assembly extremely high strength screw joint one-sided assembly the ideal screw for the safe assembly of dynamically loaded screw joints	pre-hole in the sheet metal with approximately half of the nominal screw diameter a certain tolerance absorption possible through different sized pre and through-holes possible preferable for manual assembly low pressure force necessary one-sided assembly high process stability and strength of the screw joint despite pre–hole	fastening in unpunched sheet metal no hole overlap problems with through-hole possible suitable for manual and automated assembly low pressure force necessary one-sided assembly extremely high strength screw joint

02.20/PDF11.25 All technical data may be subject to technical improvements.