

## Fastener Assembly for Jigsaw

**Company:** Parmaco

**Application Sector:** Consumer Goods



**Requirements:** The assembly holds a jigsaw blade while the pusher Tube is moved up and down by the jigsaw's motor. Potential production methods were machining of steel, Al- and Zn-die casting, steel precision casting and MIM.

**Benefits:** While machined steel gave the required precision and strength but was too costly. With Zn- and Al-die casting cost was favourable but strength and/or precision was inadequate. Precision casting was able to meet the strength and cost requirements but could not meet the precision requirement. In the end only MIM met all the requirements.

**Density of MIM components:** > 7.8 g/cm<sup>3</sup>

**MIM-Receptor:** HVI 450+/-50, C-content 0.2-0.3%, through hardened

**MIM-Slide:** HVI 680 +/-70, case depth 0.5+/-0.1mm

**Relative density: MIM-Receptor:** > 99% **MIM-Slide:** > 99%

**Finishing: MIM-Receptor:** 1. case hardening, 2. Laser welding to pusher Tube, 3. Coating **MIM-Slide:** 1. Case hardening, 2. Coating.

