ETP HYDRO-GRIP AI
OPERATING INSTRUCTION

Description
ETP HYDRO-GRIP type AI for permanent assembly montage and pressurizing with an Allen T-wrench. Made in short lengths to allow a light press fit. The tool and the sleeve should be bolted together. It is designed and manufactured to a spindle tolerance of g6 and a tool bore tolerance of H7.

Remember!
ETP HYDRO-GRIP sleeves MUST ONLY be pressurized when mounted on a spindle of the correct size and tolerance AND completely covered with tools or spacers. Failure to follow these assembly instructions may result in permanent and not repairable damage to your sleeve.

A normal balanced (G 6.3) sleeve and tool unit can be used up to a maximum speed of 9,000rpm.

Assembly
1. The tool and the hydro sleeve must be thoroughly cleaned, removing all traces of grease and other impurities.

2. If the tolerances of the tool bore and the ETP HYDRO GRIP allow a light press fit, heat the cutting tool until the ETP HYDRO-GRIP easily fits into the tool (approx. 70°C).

3. Make sure the holes in the flange match the threaded holes in the tool.

Let the tool set cool down and lock the screws with Loctite or equivalent and tighten them to min 8 Nm (70 lbf.in).

4. Mount the whole unit onto the grinding machine spindle. Tighten the pressurizing screw until it stops, max 10 Nm (7.4 lbs). Any higher tightening force will not increase the fastening force.

5. Grind the tool

6. Release the pressurizing screw with an Allen T-wrench. Remove the tool unit from the grinding machine and it is now ready to be installed on the machine.

Safety instructions
A) A retaining device must always be fitted to the end of the machine spindle, either a locknut on spindles with threaded ends (but axial loads must not be applied) or a slotted safety ring on plain spindles.

B) The screws securing the tool to the sleeve must always remain in position and fully tightened. They should be securely bonded using, for example Loctite.

C) Any machining of the sleeve must only be carried out in accordance with fully approved, written instruction from ETP.

D) Carrier is to be used together with ETP HYDRO-GRIP. ETP HYDRO-GRIP has two carrier holes and some dimensions have additional threaded holes for carrier pegs.

Cleaning instructions
Ultrasonic cleaning is in general not recommended as this may force cleaning emulsion into the pressurizing system. We recommend a quick wash in max 80°C (175°F) emulsion, containing anticorrosion medium. After cleaning the pressurizing screw should be lubricated with molybdenum disulfide grease.