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TECHNICAL BULLETIN

25th October 2005

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TECHNICAL BULLETIN 05 TB-027

DIELESS CRIMPING TOOLS FOR 4-POINT SHALLOW INDENTATION COMPRESSION SYSTEM - ESKOM SPECIFICATION SCSSCAAG5

NOTE:

This Technical Bulletin replaces the Technical Bulletin DT 00TB- 06. and the technical Bulletin 04 TB 030.

This Technical Bulletin replaces the technical Instruction DT 01 TI-015

This Technical Bulletin to be read in conjunction with Specification SCSSCAAG5.

1. Approved Tools

Since a compression tool is not an "end item" it is not recommended to include compression tools or spares in the buyers catalogue with a SAP number and description. To avoid an influx of aged technology tools a list of approved tools will be published in this technical bulletin.

Tools on the approval list have been subjected to approval by Distribution Technology. **Tools that are not on the approval list, shall not be purchased for Eskom use.** The approval process is included in SCSSCAAG5. The compression tool approval team consists of Kris Rozmmiarek, Gareth Stanford and Barry Hill.

There are two approved compression tools:

1

Approved Tool: CCL Bimetal 4 - E
Approved Supplier: Mc Wade Productions.
Manufacturer: IZUMI , manufactured under license to Mc Wade Productions.
Tel 011 316 2262

The above tool is described as follows:

The crimping head is totally encapsulated in black rubber. The head rotates 180 degrees. Handles are yellow fiberglass with black rubber grips.

Low and high pressure hydraulic pump provides rapid advance and self priming system. Release mechanism is of twist grip type. Tool is fitted with gauge outlet for checking of hydraulic system pressure. Side jaws run on a monorail system on a yoke. The tool carries a one year guaranty and comes with wire brush, extra grease, operation and maintenance guide and robust steel carry case.

2

Approved Tool: Klauke type HK60VP
Approved Supplier: Eberhardt Martin cc.
Manufacturer: Klauke
Tel 011 288 0000

The above tool is described as follows:

The head rotates 360 degrees. Handles are covered with black rubber insulation.

Low and high pressure hydraulic pump provides rapid advance and self priming system. Nib retraction is automatic when the correct pressure is achieved at the nibs. For retraction before the correct pressure a retraction lever mechanism is situated on the head. The tool is supplied with aluminium slug and a go/no-go gauge for checking of hydraulic system pressure. Side jaws run on guiding pins. The tool carries a twelve-month warranty and comes with wire brush, extra grease, operation and maintenance guide and robust steel carry case.

2. Pressures

Both makes of tools were tested with both manufactures namely CCL and EBM of the aluminum fittings. The tests were done on squirrel and fox conductor. It was found conclusively that any tool set above 55kN caused the conductor to break in the mouth of the fitting well below 90% UTS of the conductor.

For crimping forces between 48kN and 55kN the conductors broke well above 90% UTS of the conductors.

The indent force of the 4-point indent tools shall be between 48kN and 55kN.

3. Maintenance of Tools

All tools are to be checked every 3 months to ensure that the force applied by the indents is between the range 48kN and 55kN. If the range of pressures is **below** or **above** the range stated, the tool is then to be serviced before using it again. Refer also to Technical Bulletin 02 TB 022. For the purchase of the slugs and the go no gauge refer to buyers guide DDT 3040.

4. Purchase of Tools

When a tool is purchased in the Regions, the choice of tool to be purchased must be made based on training from the supplier, field of application, maintenance backup and not only on the cost per tool basis.

The two approved tools may either be battery operated or hand operated.

5. Tool / Joint combination.

The above two approved tools were tested by Distribution Technology personnel , Gareth Stanford and Barry Hill, with a combination of EBM and CCL joints and with varying pressures and found that the pressures as stated in this bulletin are correct and that the tools are interchangeable with CCL and EBM joints.

Signed

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Signed

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