

Spec. No.	<b>S114-01</b>
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**NPI No:**

**Raised by:** P Gill

**Date:** 03/06/02

**Part No:** 0108352

**Description:** 10-8mm Reducing Straight Connector

**1. Parts Listing**

Eden Part No.	Description
0108352	10-8mm Reducing Straight Connector
1108352	10-8mm Reducing Straight Body
140702	8mm Washer
190701	8mm Retainer
190702	8mm Release Sleeve
066024	7.6 x 2.4 Oring
310701	8mm Grabring
141002	10mm Washer
191001	10mm Retainer
191002	10mm Release Sleeve
096024	9.6 x 2.4 Oring
311001	10mm Grabring

**4 Scope**

The scope of this specification is to describe the construction and the requirements of the components used in the access network where the guide tubes are cut and connected to a guide tube of a smaller diameter. In this way a dedicated link is obtained to the customers premises for the blowing of cables.

**3.0 Guide Tube**

The input and output ports of the Straight Connectors shall adequately fit the Guide Tubes.

Guide tube specifications for 8mm tube are;

Outer diameter	8mm
Inside Diameter	6.0mm
Material	PE

**Authorised Signature:** \_\_\_\_\_

**Date:** \_\_\_\_/\_\_\_\_/\_\_\_\_

Guide tube specifications for 10mm tube are;

Outer diameter	10mm
Inside Diameter	8.0mm
Material	PE

#### **4.0 Guide Tube Connector**

The connectors shall have the necessary sealing arrangement to operate safely at blowing pressures of 10 Bar and protect the inner cavity against significant ingress of mud, sand and debris.

The connectors must be able to be assembled and disassembled without the use of tools.

For dimensions see drawings in Appendix A

#### **4.1 Material**

The connector body constructed in Polycarbonate, guide tube retainer, release sleeve and washer in POM and the seal in Nitrile. The following performance tests will demonstrate satisfactory design performance and material selection will ensure good lifetime and stability of performance characteristics.

#### **4.2 Performance Tests.**

The Guide Tube Connectors shall withstand the following mechanical and environmental tests:

##### **4.2.1 Tensile Test.**

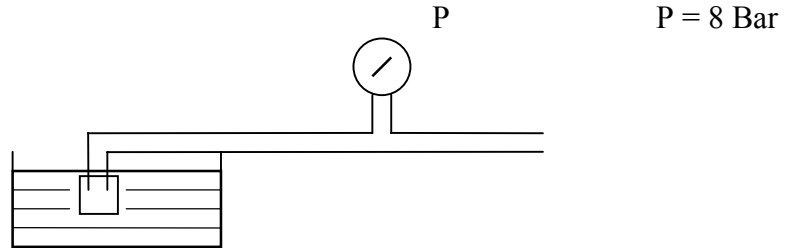
The purpose of the test is to establish the minimum force necessary to destroy the integrity of the assembly.

Connect a piece of 8mm Guide Tube and a piece of the 10mm Guide Tube. Ensure all the connections fully inserted. Place the assembly in a tensometer and perform a destructive test at a rate of extension of 25mm/minute.

Record the maximum force before failure and note also the failure mode. Minimum acceptable force for is 65 Newton's.

**4.2.2 Leak Test**

The connectors shall operate at 8 Bar with a maximum permissible leak rate of 1cc/min.



Pressurise the assembled connectors to 8 Bar and place assembly under water and record the rate of air bubble leak present. 1 bubble every 3 seconds represents a leak rate of 1cc/min.

**4.2.3 Pressurisation.**

The connectors shall seal at internal pressures up to 10 Bar without sustaining damage, or permanent deformation, and shall remain connected to the tube. Pressure shall be increased through to failure of the connector or tube. The pressure and mode of failure shall be recorded.

Pressurise the assembled connectors at a steady increasing rate with a hydraulic water pressure and record the maximum pressure before destruction. The increase in pressure to be applied at a rate, which will result in failure in approximately 1 minute.

**4.2.4 Design Lifetime**

The connector shall meet all performance requirements, over a minimum period of 20 years. It shall be designed and manufactured such that there is no residual stress, which could adversely affect performance over the lifetime of the product.