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SPECIFICATION NO.

F1301-924320B  
F1301-924320B(d)  
(CQA 4919)

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15-01-2001

GOVERNMENT OF INDIA  
MINISTRY OF DEFENCE (DGQA)  
CONTROLLERATE OF QUALITY ASSURANCE (AMMUNITION)

Slipping Ring

Specification to Govern Manufacture, Inspection and Supply

Approved on :

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Recd on 5/3/91

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## SPECIFICATION (SPEC.)

FFV

Slipping Ring F1301-152220

No F1301-924320

1 Appendix

Sheet  
1 (7)

Issue	Date	Prepared/ Checked	Approved/ Proposal No.	Issue	Date	Prepared/ Checked	Approved/ Proposal No.
A	86-02-13	UN	AE				
B	88-11-01	UN	11243				

Translated from Swedish/KO

1 RELEVANT DOCUMENTS

In addition to this specification:

Drawing F1301-152220

Specification for Teflon 802-N OR F1301-924330

(D) - TEFLON Co. 51A1 Passing Requirement to Specn.  
Method of test for indentation F1301-924330 ASTM D2240-68

hardness

Sampling procedures and tables SS 02 01 30 or

for inspection by attributes MIL-STD-105D

2 DESCRIPTION OF PRODUCT

The slipping ring is intended for 84 mm shell. Its purpose is to prevent gas leakage in the barrel.

3 PRODUCT REQUIREMENTS

## 3.1 MATERIAL

The material to be Teflon 802-N according to the specification stated in para. 1.



A	B									Appendix	No.
											F1301-924320

### 3.2 DIMENSIONS

The AQLs below apply provided that the deviations are not of abnormal magnitude. (Approximate value <20 % of the tolerance zone.) In case of deviations of abnormal magnitude, the applicable deviation routine shall be used.

AQL for properties not listed 4.0 %.

<u>Dimensions</u>	<u>AQL %</u>
4,1 -0,1	1.0
5.48 h12	1.5
Ø 77.8 H10 min.	0.4
Ø 77.8 H10 max.	1.0

Inspection to be made with the details conditioned to  $25 \pm 2$  °C.

### 3.3 SURFACE QUALITY

The slipping ring shall visually be free from cracks, burrs and dents.

There shall be two correctly placed slots on the slipping ring according to the drawing.

Defects not permissible.

### 3.4 STRENGTH

The slipping rings shall meet the following requirements.  
Defects not permissible.





A	B										Appendix	No.
												F1301-924320

#### 3.4.1 Tensile strength

The mean value of the tensile force to rupture to be between 340 N and 410 N at +20 °C. No individual value over 460 N or below 320 N permissible.

Inspection according to para. 6.4.1.

#### 3.4.2 Elongation on rupture

Elongation on rupture to be  $6 \pm \frac{2}{3}$  mm at +20 °C.

Inspection according to para. 6.4.2.

#### 3.4.3 Hardness

Hardness to be 55-63 Shore D at +20 °C.

Inspection according to para. 6.4.3.

#### 3.5 OTHER REQUIREMENTS

##### 3.5.1 Density

Density to be 2.14 - 2.18 kg/dm<sup>3</sup>.

Defects not permissible.

Inspection according to para. 6.4.4.

A	B									Appendix	No.
											E1301-924320

4 MANUFACTURE

4.1 METHODS AND EQUIPMENT

4.1.1 In manufacture, the only raw material to be used is Teflon 802-N, packaged in the original packing of the manufacturer of the raw material.

4.2 PLANNING AND FOLLOW-UP

4.2.1 Amendments to the technical documents or the manufacture which may affect the requirements of this specification are not permissible without the approval of the purchaser.

4.2.2 A journal shall be kept during manufacture and contain information on the raw materials used in the respective manufacture lots, possible changes in manufacture and results of tests made during manufacture. The journal shall be kept available for at least 20 years and shall be shown on request.

5 DELIVERY

5.1 PACKING

5.1.1 The slipping rings shall be packed in such a way that they are not damaged in transport, handling and storage.

5.1.2 The slipping rings to be delivered in lots of approx. 5 200 or multiples thereof. The last partial delivery, however, may consist of an uneven number.





## SPECIFICATION (SPEC.)

6

No.		A	B									Appendix	No.
													F1301-924320

6.1.4 In case of deviation from the product documents, a deviation procedure agreed upon between the purchaser's and the vendor's inspection departments shall be followed.

6.1.5 Applied in-house inspection specifications shall be available to the purchaser.

6.2 PURCHASER'S INSPECTION

The purchaser is entitled to be present at and to follow the vendor's manufacture and inspection.

6.3 CERTIFICATES

6.3.1 For each delivery lot, the vendor shall supply the purchaser with test certificates describing the extent and the results of the inspection according to para. 6.1. The certificate shall show that the lot has been inspected and approved by the vendor.

6.3.2 For each delivery lot the vendor shall supply the purchaser with certificates for raw materials used, containing, among other things, information on material quality.

6.4 TEST METHODS

6.4.1 The requirement according to para. 3.4.1 to be inspected at the same time as the requirement according to para. 3.4.2.  
The slipping ring to be installed in fixture according to appendix 1. On installation, the cut part of the slipping ring shall be right in front of the place where the fixture parts on pulling.  
The pulling rate shall be 100 mm/min.  
Sample size: See para. 6.1.3.



										Appendix	No.	F1301-924320
A	B											

- 6.4.2 The requirement according to para. 3.4.2 to be inspected at the time as the requirement according to para. 3.4.1.

The elongation to be defined with the distance which the jaws have moved during the load process.

Sample size: see para. 6.1.3.

- 6.4.3 The requirement according to para. 3.4.3 to be inspected according to method of test stated in para. 1 for hardness of rubber and plastics.

Sample size: see para. 6.1.3.

- 6.4.4 The requirement according to para. 3.5.1 to be inspected by submerging small pieces of the slipping ring into fluids with different densities. The density of the fluid in which the material floats is equal to the density of the material. The fluids to be prepared by mixing bromoform (density  $2.81 \text{ kg/dm}^3$ ) and trimethylbromide (density  $1.65 \text{ kg/dm}^3$ ) in such a way that fluids with densities 2.10, 2.12, 2.14, 2.16, 2.18 and 2.20  $\text{kg/dm}^3$  are obtained.

Sample size: see para. 6.1.3.

Alternative method:

The displacement method.

*correct copy of the sealed specification at this date*

*Date 18 feb. 91*

*LA. H. PANICKER*

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For CONTROLLER QUALITY ASSURANCE (ARMY)