



Royal Canadian Mounted Police  
Gendarmerie royale du Canada

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## Purchase Description

### Baton, Extendable

This document has 8 pages including the drawings.

This document was created in English.

The document is available in English and French.

English/Anglais  
Francais/French

The photograph on this page is for reference only.



## **RCMP VIEWING SAMPLE**

A viewing sample, when available, will be supplied to the successful tenderer.

This will be used for the guidance of the manufacturer in all factors not covered by this specification or referred to therein. Variation from the specification may appear in the sample in which case the specification shall govern.

It may be obtained from:

Royal Canadian Mounted Police  
ATTN: Quality Control  
(440 Coventry Road, Warehouse Building)  
1200 Vanier Parkway  
Ottawa, Ontario  
K1A 0R2

It will be sent “prepaid” and is to be returned “prepaid”.

The viewing sample shall be returned to the RCMP in the same condition as received by the manufacturer. Lost or damaged viewing samples shall be replaced by an identical item or the RCMP shall be reimbursed for the cost of an acceptable replacement.

## **PURCHASE DESCRIPTION**

### **BATON, EXTENDABLE**

#### 1. **SCOPE**

This purchase description describes the requirements for a Baton, Extendable for use by R.C.M.P. personnel.

#### 2. **DETAILED DESCRIPTION**

The Baton shall be a straight extendable/locking device manufactured from high grade steel and synthetic grip material. The overall colour shall be black. The baton is to be designed so that a trained adult can deploy (extend) the baton by a sharp flicking action of the wrist and arm. The Baton can then be retracted (closed) by the user striking the tip of the baton against a hard surface with the baton in a perpendicular position. The Baton shall meet the following specified performance tests and construction/material requirements.

2.1 **Construction and Materials** - Verification of Extendable Baton to meet construction and material requirements shall be provided to the R.C.M.P.

2.1.1 **Steel Shafts**: The shafts will be made of a high quality steel with a minimum tensile strength of 240,000 PSI. The steel shall be hardened and tempered as required with a minimum core hardness of 48 Rockwell C scale. It shall have a black chrome finish with corrosion resistance meeting minimum ASTM-B117, 24 hour salt spray Test. Sharp edges burring or other defects are cause for rejection.

2.1.2 **Strike Tip**: The strike tip shall be attached to the final shaft by means of machine threading to shaft with appropriate thread locking treatment.

2.1.3 **Foam Grip**: The handle portion shall be covered with a replaceable black high grade seamless synthetic grip which will provide proper user holding ability during normal climatic conditions encountered in Canada (4 season use). The grip shall have a high tear and abrasion resistance.

2.1.4 **End Cap**: There shall be a black metal end cap with corrosion resistant requirements stated in previous paragraphs. The end cap shall be attached by means of internal or

external machine threads. The retention spring shall be held in place by the end cap. There shall be a high quality “O” ring between the seating surface of the end cap and the handle.

2.1.5 Retention Spring: There shall be a replaceable high grade adjustable metal retention spring held in place by the end cap. The retention spring shall be adjustable by means of factory approved tools and methods as specified in Care & Handling instructions provided by the manufacturer.

2.1.6 Maintenance Access: It shall be possible to remove the end cap by hand without tools. Access to the friction lock tapers for cleaning purposes must be possible and this may require the removal of the strike tip as specified by the manufacturer.

2.1.7 Dimensions: There shall be three different overall lengths of baton as follows:

Size	Length Extended	Maximum Retracted Length
Short	40cm (16") Nominal	16cm (6.25")
Medium	53cm (21") Nominal	20cm (8")
Long	66cm (26") Nominal	25cm (9.75")

Handle Diameter - 2.7cm Nominal.

Tip Size - 1cm x 1.5cm diameter.

2.2 Performance Requirements - Suppliers shall provide evidence in the form of test reports that their products meet R.C.M.P. requirements in order to be considered as a source of supply for R.C.M.P. Extendable Batons. Suppliers shall provide at their own expense a minimum of one baton of each size for the testing outlined in paras. 2.2.1, 2.2.2 & 2.2.3, and six (6) ‘Long’ batons, as per para. 2.1.7 above for the testing outlined in para. 2.2.4. All testing is to be carried out at the manufacturer’s expense at the R.C.M.P. approved facility listed in para. 2.5 below. Failure of any baton at any stage of the testing shall halt further testing of batons and the baton shall be deemed to have failed to meet performance requirements.

2.2.1 Deployment and Retraction: The baton shall fully deploy (extend) and lock into position, and shall fully retract (close) a minimum of 45 times out of 50. Failure of a baton to retract when the tip is struck in a perpendicular direction against a hard surface such as concrete or pavement and that requires excessive force to complete the

retraction such as striking the tip with a hammer, is unacceptable. Structural failure of a baton during deployment and retraction is unacceptable. One baton of each size shall be supplied by the manufacturer for this test.

- 2.2.2 Side Force Test: A fully deployed baton shall rest horizontally between two points with the strike tip resting at one end and not more than 3 cm of the handle resting at the opposite end. A weight of 45.36 kg shall be suspended by means of a rope not more than 12 mm in diameter just at the point where the smallest segment meets the middle segment. The weight shall remain suspended in this fashion for a minimum of 5 minutes. After the weight is removed the baton shall be retested as per para. 2.2.1. One baton of each size shall be supplied by the manufacturer for this test at the manufacturer's expense. Batons used to test 'Deployment and Retraction' as per para. 2.2.1 above shall be used for this test.
- 2.2.3 Side Strike Test: 'Long' Batons, as per Para. 2.1.7, shall be deployed and subjected to side strike tests as outlined below. Six (6) new batons shall be tested in this manner, once each, for a total of six (6) results. Batons shall maintain an unbroken friction lock after not less than a minimum average of twelve (12) side strikes.
- 2.2.3.1 Deployment of Batons for Side Strike Test: Batons shall be deployed (extended) for the side strike test by means of a pneumatic cylinder driven ram, in a consistent manner (to simulate the extending of a baton by a user). The baton will be held by the tip, with the tip pointing in the direction of piston travel. The release spring shall not be engaged by the baton segments, with the tip segment extending approx. 25mm beyond the handle. The piston stroke of the machine shall be 381mm +/-12mm, and the velocity of the ram shall be 7.92m/s +/- 0.40m/s. This velocity has been determined to adequately represent the average opening force used by trained police personnel when deploying extendable friction lock batons.
- 2.2.3.2 Side Strike Test Apparatus: Once the batons to be tested have been deployed by the apparatus referred to in Para. 2 above, they shall be individually placed in a horizontal cantilevered position in the side strike test apparatus, with the handle being secured by dual 'V-blocks' and clamps. No part of the baton other than the handle portion shall be so secured. The tip shall be unsupported but held with enough clearance so as to prevent any contact of the tip with the apparatus during a side strike test. Any rubber or foam material covering the handle shall be removed prior to the start of the test, to allow a fully secured mounting of the baton in the fixture. A guided-wire object with an impact face made of ultra-high molecular weight polyethylene (UHMWPE) plastic, block dimensions of 38mm x 38mm x 113mm, with a mass of 1.80kg +/- 0.1kg, shall be dropped onto the tip of the baton from a height of 1 metre. The impactor shall be

prevented from striking any rebound hits on the baton. This simulates the striking action of the baton on a target body when deployed during use.

- 2.2.3.3 After each impact, the baton shall be examined manually while in the fixture to see if the friction lock has broken. The number of impacts required to achieve this state shall be recorded as the performance value of the baton for the side strike performance requirement.
- 2.2.4 Observation of Damage: Any noticeable cracking, chipping or separation of metal components during any testing shall be considered a failure. Burring of the strike tip, slight wear of the black finish and slight corrosion are acceptable conditions.
- 2.3 Care & Handling Instructions - Each baton shall come with appropriate care and handling instructions provided by the manufacturer.
- 2.4 Warranty: The baton shall have a lifetime warranty which will ensure that batons that have not been subjected to excessive use during police operations and are shown to be defective are replaced at no cost to the buyer.
- 2.5 Test Facility: The only test facility approved by the RCMP to conduct testing on extendable batons as outlined in Para. 2.2 is:

Biokinetics & Associates Ltd.  
2470 Don Reid Dr.  
Ottawa, Ontario  
K1H 1E1  
CANADA  
web address: [www.biokinetics.com](http://www.biokinetics.com)