

अति आवश्यक / महत्वपूर्ण / आज ही निर्गत  
**उत्तर प्रदेश पुलिस तकनीकी सेवायें मुख्यालय,**

चतुर्थ तल, जवाहर भवन, अशोक मार्ग, लखनऊ-226001  
पत्रांक-टीएस/एमओडी-49/2014(वाटर कैमन) दिनांक-लखनऊ, अक्टूबर 9 2014  
सेवा में,

निदेशक,  
सूचना एवं जन सम्पर्क विभाग, (विज्ञान प्रभाग)  
उत्तर प्रदेश, लखनऊ।

महोदय,

कृपया पुलिस विभाग हेतु शासन द्वारा स्वीकृत 03 अदद वाटर कैमन के कय हेतु कार्यवाही तकनीकी सेवायें मुख्यालय, लखनऊ द्वारा की जा रही है, जिस हेतु निविदा आमंत्रित किया जाना है।

2/ उक्त वाटर कैमन के कय हेतु विज्ञापन का प्रारूप हिन्दी में संलग्न कर इस आशय से प्रेषित है कि कृपया राष्ट्रीय / महानगर स्तर पर प्रकाशित होने वाले प्रमुख दैनिक समाचार पत्रों हिन्दी एवं अंग्रेजी (जैसे लखनऊ से प्रकाशित हिन्दी दैनिक जागरण, दैनिक हिन्दुस्तान, दि प्वाइनियर, न्यू इन्डियन एक्सप्रेस व अन्य) में व्यापक प्रचार प्रसार कराने का कष्ट करें।

3/ इस सम्बन्ध में निविदा के विज्ञापन की स्वच्छ टंकित प्रति एवं एमएस वर्ड (फारमेट में सी0डी) साफ्ट कापी भी वेब साइट पर प्रसारित कराने हेतु संलग्न की जा रही है। अनुरोध है कि कृपया संलग्न निविदा को प्राथमिकता के आधार पर प्रकाशित कराने का कष्ट करें।  
संलग्नक-निविदा 5 प्रतियों में

भवदीय,

(नेहा पाण्डेय)

पुलिस अधीक्षक, तकनीकी सेवायें,  
उ0प्र0 पुलिस कम्प्यूटर केन्द्र, लखनऊ।

प्रतिलिपि-पुलिस महानिरीक्षक, प्र00/बजट उ0प्र0 पुलिस मुख्यालय, इलाहाबाद को सूचनार्थ एवं आवश्यक कार्यवाही हेतु।

2- प्रतिलिपि-पुलिस अधीक्षक/सहायक निदेशक, उ0प्र0 पुलिस कम्प्यूटर केन्द्र, लखनऊ विज्ञापित निविदा की एक प्रति एवं सी0डी0 संलग्न कर इस आशय से प्रेषित है कि उक्त निविदा को उत्तर प्रदेश पुलिस की वेबसाइट पर भी प्रसारित कराने का कष्ट करें।  
(संलग्न-यथोपरि)

3- प्रतिलिपि-निम्नांकित को निविदा की एक एक प्रति संलग्न कर इस आशय से प्रेषित है कि उक्त निविदा के सम्बन्ध में अग्रेतर कार्यवाही कराते हुये विज्ञापन की एक प्रति कार्यशाला के नोटिस बोर्ड पर भी चस्पा कराने का कष्ट करें-

1-राज्य पुलिस मोटर वाहन अधिकारी, सीतापुर (2)प्रभारी अधिकारी/पुलिस मोटर वाहन अधिकारी लखनऊ/आगरा (3)प्रभारी निरीक्षक, रीजनल पीएमटी वर्कशाप, मुरादाबाद/वाराणसी।

2- प्रतिलिपि- नोटिस बोर्ड, तकनीकी सेवायें, लखनऊ को चस्पा करने हेतु।

Phone/Fax No. 0522-2286615

## U.P. POLICE TECHNICAL SERVICES HEADQUARTERS

IVth. FLOOR JAWAHAR BHAWAN, ASHOK MARG, LUCKNOW-226001

TENDER NO. TS-MOD-49/2014

DATED. OCT 7 2014

### NOTICE INVITING TENDER

1- The tender documents for tender mentioned below alongwith technical specification for each equipment may be purchased on payment at the cost given against tender in Demand Draft from the office of the undersigned on any working day between 10-00AM to 6-00PM. Those desirous of obtaining the tender document by Speed Post or Courier may send Demand Draft for tender document cost+Rs. 75/-drawn in favour of Superintendent of Police, Uttar Pradesh Police Computer Centre, payable at Lucknow.

2- Tender documents can be down loaded from U.P. Police website <http://uppolice.gov.in>. In this case the tenderer will have to enclose the cost of tender documents in the form of Bank Draft drawn in favour of above with the technical offer. Separate Bank draft in the respect of the cost of tender document and earnest money should be enclosed. Cost of tender document is not refundable, while earnest money is refundable.

3- Each Tenderer will have to deposit an Earnest Money (EMD) as mentioned against tender in the form of DD/Banker cheque/FDR in favour of Superintendent of Police, Uttar Pradesh Police Computer Centre, payable at Lucknow.

4- Cost of tender document is not refundable, while earnest money is refundable. Tender documents will not be given on cash through Technical Services Head Quarter

5- Successful tenderers will have to deposit a Security Money @ 10% of the order value, which is returnable after expiry of warranty period.

6- The undersigned may cancel the tender at anytime without assigning any reason for the same in the public interest.

Tender No.	Item	Qty	EMD (in Rs.)	Cost of Tender Document (in Rs.)
TS-MOD-49/2014	Water Cannon	03	1,10,000/- Each Cannon	300/-

Start of Sale of Tender documents from

15-10-2014 at 11-00 am

Last date of receipt of tenders

17-11-2014 upto 11-00am

last date of deposit of tenders

17-11-2014 upto 02-00pm

Date of opening of Technical Bid

17-11-2014 at 04-00pm

Date of Purchase committee meeting for technical evaluation

19-11-2014 at 11-30am

Date of opening of financial offer

20-11-2014 at 11-30am

Date of purchase committee meeting for financial evaluation

20-11-2014 at 4-00 pm



(Neha Pandey)

Supdt. Of Police, Technical Services,  
Lucknow.



आवश्यक / द्वारा फैक्स

## उत्तर प्रदेश पुलिस तकनीकी सेवायें मुख्यालय,

चतुर्थ तल, जवाहर भवन, अशोक मार्ग, लखनऊ

संख्या-टीएस-एमओडी-49/14 (वाटर कैनन)

दिनांक - अक्टूबर 9, 2014

### निविदा सूचना

उत्तर प्रदेश पुलिस विभाग हेतु 03 अदद वाटर कैनन के कय हेतु सील बन्द निविदा आमत्रित की जाती है:-

- 1- वाटर कैनन के टेण्डर उनके सम्मुख अंकित टेण्डर धनराशि में डिमाण्ड ड्राफ्ट देकर कार्यालय दिवस में 1000 बजे से 1600 बजे के मध्य कय किये जा सकते हैं। टेण्डर फार्म को स्पीड पोस्ट/कोरियर से टेण्डर फार्म फीस + 75/- रु0 डिमाण्ड ड्राफ्ट जो पुलिस अधीक्षक/सहायक निदेशक, उ0प्र0 पुलिस कम्प्यूटर केन्द्र, लखनऊ के नाम देय होगा, द्वारा भी प्राप्त किया जा सकता है।
- 2- टेण्डर फार्म उत्तर प्रदेश पुलिस वेबसाइट <http://uppolice.gov.in> डाउनलोड किया जा सकता है। टेण्डर फार्म डाउनलोड करके मय टेण्डर फीस के ( बैंक ड्राफ्ट के रूप में ) तकनीकी आफर में रॉलन कर प्रेषित किया जायेगा। टेण्डर डाकुमेंट्स की फीस तथा टेण्डर की ई0एम0डी0 अलग अलग प्रेषित की जायेगी। टेण्डर डाकुमेंट की फीस वापस नहीं की जायेगी, जबकि ई0एम0डी0 तत्समय वापस कर दी जायेगी। टेण्डर डाकुमेंट तकनीकी सेवायें मुख्यालय द्वारा नगद भुगतान पर देय नहीं होगा।
- 3- प्रत्येक निविदादाता अलग अलग टेण्डर की ई0एम0डी0 डी0डी0/एफ0डी0आर0 के रूप में, जो पुलिस अधीक्षक/सहायक निदेशक, उत्तर प्रदेश पुलिस कम्प्यूटर केन्द्र, लखनऊ के नाम देय होगा, जमा की जायेगी।
- 4- सफल निविदादाता द्वारा कयादेश का 10 प्रतिशत सिक्योरिटी मनी के रूप एफ0डी0आर/ बैंक गारन्टी जमा किया जायेगा, जिसे वारन्टी अवधि पूर्ण होने के उपरान्त वापस किया जायेगा।
- 5- प्राधिकृत अधिकारी द्वारा जनहित में किसी भी समय बिना किसी पूर्व सूचना/कारण के टेण्डर को निरस्त किया जा सकता है।

टेण्डर संख्या	आइटम	संख्या	ई0एम0डी0 (रु0 में)	टेण्डर डाकुमेंट का मूल्य (रु0 में)
टीएस-एमओडी-49/2014	वाटर कैनन	03	1,10,000/- प्रति कैनन	300/-

निविदा विकी की तिथि

निविदा फार्म प्राप्त करने की अन्तिम तिथि

निविदा जमा करने की अन्तिम तिथि

तकनीकी भाव पत्र खोले जाने की तिथि

तकनीकी भाव पत्र पर कय समिति की बैठक

वित्तीय भाव पत्र खोले जाने की तिथि

वित्तीय भाव पत्र पर कय समिति की बैठक

15-10-2014 समय 11-00 बजे पूर्वाह्न

17-11-2014 समय 11-00 बजे पूर्वाह्न

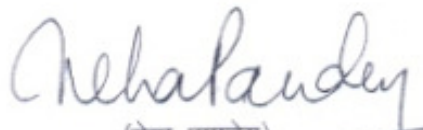
17-11-2014 समय 02-00 बजे अपराह्न

17-11-2014 समय 04-00 बजे अपराह्न

19-11-2014 समय 11-30 बजे पूर्वाह्न

20-11-2014 समय 11-30 बजे पूर्वाह्न

20-11-2014 अपराह्न 04-00 बजे अपराह्न

  
(नेहा पाण्डेय)  
पुलिस अधीक्षक, तकनीकी सेवायें  
लखनऊ।



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# SPECIFICATIONS FOR WATER CANNON

## VEHICLE MOUNTED WATER CANNON FOR RIOT CONTROL OPERATIONS

  
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तकनीकी सेवायें  
उ०प्र०, लखनऊ



## SPECIFICATIONS FOR WATER CANNON

### VEHICLE MOUNTED WATER CANNON FOR RIOT CONTROL OPERATIONS

#### 1- VEHICLE'S SPECIFICATIONS

**1 ENGINE:** Turbo charged, Intercooled, Diesel Engine, 06 cylinder in line 5883 cc, 179 H.P.@ 2500 rpm, torque 68.8 Kg.-m 1400-1600 r.p.m, Rotary type Fuel Injection pump.

**2- CLUTCH :** Dry single plate of 352 mm dia. booster assisted clutch system.

**3- GEAR BOX:** 06 forward and one reverse gear. synchromesh on all forward gears & constant mesh on reverse gear.

**4- FRONT AXLE:** Heavy duty forged I beam reverse elliot type.

**5- REAR AXLE :** Single speed, hypoid gear in pressed steel welded beam with differential carrier housing. axle shaft fully floating, axle ratio of 6:14.

**6- STEERING:** Power steering system with turning radius of 20500mm.

**7- FRAME:** Ladder type heavy duty frame with 10 no. cross members.

**8- SUSPENSION:** Semi elliptical spring at front & rear hydraulic double acting telescopic type at front only.

**9- BRAKES:** Dual circuit fully air S-cam brakes with auto slack adjuster for front & rear brakes, spring actuated parking brake acting on rear wheels with graduated hand brake valve, exhaust brake of electro pneumatically operated & coupled with service brake.

**10- WHEELS & TYRES:** Tyre size should be 10 R 20-16 PR radial, wheel rim size should be 7.50x20, number of wheels & tyres should be front-2; Rear-8; Spare-1.

**11- FUEL TANK:** 350 Litres

**12- CABIN:** Sleeper Tilt type with chassis.

**13- ELECTRICAL SYSTEM:** 24 v ; 35 Amps-Alternator capacity ; 120 Ah-Battery Capacity.

#### 14- WEIGHT (KG)

GVW : Not to exceed	25000 Kg
FAW :	6000 Kg
RAW	19000 Kg


#### 15- DIMENSIONS (mm)

Overall length	8990 mm
Overall width	2440 mm
Minimum road clearance	259 mm

  
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## 2- BODY'S SPECIFICATIONS

**2.1 General Requirements:** The Vehicle mounted water cannon shall have water tank capable of carrying 12000 litres. of water., An indelible ink tank and an irritant tank, each capable of carrying a 500 litres of indelible ink and irritant respectively. A centrifugal Pump capable of delivering 3200 lpm of water at 8.5 kg/cm<sup>2</sup> and 2400 lpm at 10.5 kg/cm<sup>2</sup> Shall be mounted in a locker just behind the driver cabin coupled to a separate engine.

The engine used for driving the pump shall be Turbo charged engine developing about 135 HP at 2800 rpm as per DIN 6270 B for intermittent rating. Diesel Tank shall be fitted with the expression suppression material to avoid explosion in the tank.

A variable round the pump proportionator shall be fitted between the suction and delivery of the pump. The proportionator shall have three position selector valve. The off position should isolate the proportionator so that the appliance could be used to deliver water only if required.

**3. Material Selection and treatment:** The choice of material to be used in construction of the appliance shall be made with a view to impart strength and durability.

**3.1-** Timber shall not be used in the body construction.

**3.2-** All parts which forms water ways or come in contact with indelible ink and irritant shall be of corrosion resisting material or suitably treated to prevent corrosion. All water pipe lines shall be hot dipped galvanized. The water tank shall be painted internally with Epoxy paint and all metal parts exposed to atmosphere shall either be of corrosion resisting material or treated suitably to resist corrosion.

### **4. Design and construction:**

**4.1-Water Tank:** The water tank mounted on the chassis shall be capable of carrying 12000 litres of water. It shall be of welded construction and fabricated out of mild steel sheet. The thickness of the sheets at the bottom front and rear side should not be less than 5 mm and for sides and top not less than 4 mm and for baffles not less than 3mm thick. The tank shall be suitably baffled in both the directions to prevent surge when the vehicle is accelerating, cornering or braking. The baffle shall be welded type with bolted panel. The tank shall be semi elliptical in shape and so designed and mounted as to bring the center of gravity of the appliance as low as possible. The mounting shall permit full rated contents of the tank flow into the pump. The water tank with all its fitment shall withstand a hydraulic pressure of 0.3 Kgsqcm.

**4.1.2-** Suitable lifting eyes shall be provide on the shall of the tank to enable the tank to be lifted off the vehicle for repairs / replacement as necessary.

**4.1.3-** The tank shall be fitted with a filling orifice, a drain cock and a bolted main hole of 450 mm dia on the top of tank. The filling orifice shall not be less than 250 mm diameter and fitted with a removal, strainer and filler cap clearly marked " Water ". The drain cock and pipe shall not be less than 75 mm dia water way through- out. The drain pipe shall not be taken down to a point well below the chassis with out reducing the effective ground clearance, when fully loaded and shall discharge away from the chassis.

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4.1.4-An Over flow pipe of not less than 100 mm internal dia shall be fitted to the tank. The over flow pipe shall be taken down to a point well below the chassis with out put reducing effective ground clearance when fully loaded and shall discharge away from the wheels. The pipe shall be so designed and located to ensure that water will over flow through the pipe only while refilling the tank but no water shall over flow through this pipe when the appliance is in motion, is standing on an uneven ground and or brakes are applied to the moving vehicle.

4.1.5-Two filling pipes(hydrant connection) each with an internal dia of not less than 70 mm shall be fitted to the tank. Each of these shall be fitted with 63 mm instantaneous male coupling incorporating strainer. The inlet of the filling pipes shall be fitted of the pump control panel. Fool Proof arrangement shall be made to prevent pressuration of water tank while refilling through these hydrant connections. Suitable arrangements should be provided to ensure that the water from the tank does not leak through the filling pipes.

4.1.6- A tube type water level indicator for the water tank shall be provided and calibrated  $\frac{1}{4}$ ,  $\frac{1}{2}$ , &  $\frac{3}{4}$  and full.

4.1.7- Suitable arrangements shall be provided for self filling of water tank directly from the pump using a 50 mm pipe line.

4.1.8-The plumbing between the water tank and pump shall have a clear and unobstructed water way of not less than 125 mm throughout. The draw off shall be protected by a brass wire screen filter and shall be fitted with an antivortex device.

4.1.9-All plumbing shall be reasonably accessible for maintenance purpose. Drain cocks shall be provided where necessary and control for these shall be readily accessible and so arranged as to prevent the cocks from being opened by vibrations. The direction in which the valves/cocks/open close shall be clearly marked near each valve/cock.

## 4.2- PUMP

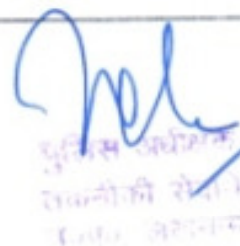
4.2.1-A two stage centrifugal pump shall be connected to separate TC engine for driving the pump. The pump-engine assembly shall be mounted on sub- frame and fitted on the chassis in the locker just behind the driver's cabin. the pump casing and impeller shall be of gun metal. The pump shaft shall be of stainless steel supported by antifricition bearing external of the casing. The gland shall preferably be of self adjusting type. The impeller neck ring in the pump casing shall be renewable and manufactured from high quality bronze. The impeller must be hydraulically balanced to reduce end thrust. A drain plug shall be provided at the bottom of the casing.

4.2.2- The drive to the pump shall be affected by a separate engine, independent from the vehicle engine.

4.2.3-The pump shall be capable of giving its rated output of 3200 lpm. At 8.5 kg/cm<sup>2</sup> with an input shaft speed of less than 2600 rpm. The pump shall also be capable of giving the performance given in the table below when working with all internal and external strainer (except basket strainer) at sea level and up to 35 degree C water temperature.



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राज्य सरकार



	lpm	Kg/cm <sup>2</sup>	Vertically from water level to the suction eye in metre	
1	3200	8.5	3	When working through two 2.5 m length of Specified suction hose
2	2400	10.5	3	Do

#### Allowances for output

- One percent for every 2.8 °C rise in water temp above 35 degree c.
- Four percent for every 300 m elevation above mean sea level.

4.2.4- The suction eye of the pump shall be provided with standard 100 mm suction hose connection with internal strainer and blank capacity. The strainer shall be retained firmly when in use but shall be readily removable. The pump shall be provided with two delivery outlet at the pump panel 68 mm delivery fitted with screw type quick closing clock valves with standard 63 mm delivery hose connection and gun metal blank caps fastened with chains.

4.2.5- The pump casing and impeller shall be free from casting defects such as blow holes etc. and pump shall be tested to a hydraulic pressure of 28 Kgsqcm to detect any leakage, performance etc.

4.2.6- The pump shall be connected with the water tank, monitor (water cannons) and spray nozzles. The various controls for operating the pump unit, monitors spray nozzle etc shall be located in the driver's cab and duplicated at the rear pump control panel.

#### 4.3- PRIMER

4.3.1- The primer shall be capable of lifting water at least from a depth of 7 m at a rate not less than 30cm/sec and shall preferably be of the water ring/exhaust ejector type.

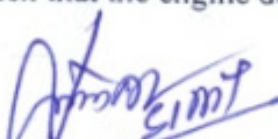
#### 4.4- ENGINE FOR DRIVING PUMP

4.4.1- turbo charged 6 cylinder water cooled direct injection 5675 CC diesel engine 135 bhp at 2800 rpm shall be used for driving the pump.

4.5- COOLING SYSTEM - In addition to the radiator cooling, and indirect cooling system of the open circuit type shall be provided with the pump engine, discharging water to the waste, this shall enable full power output to the maintained during continuous stationary running of the engine with out over heating.


4.5.2- The operating temperature of the engine cooling water shall be thermostatically controlled.

4.5.3- The oil in the oil pump shall be prevented from overheating and the pump characteristics shall be so chosen that the engine does not run at its maximum output.

  
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4.5.4-Suitable gauge for cooling water and glow lamp for lubricating system of pump engine shall be provided in the driver's cab and on pump panel. This shall be marked with operating temperature.

4.5.5- Protection wire mesh guard of 10 gauge dia and 25 mm opening shall be provided under the pump engine lock to cover the open space.

4.6- **Irritant and indelible ink tanks:** Two stainless steel tanks each of 500 litres capacity shall be suitably mounted on the chassis. The tank shall be separate and distinct units. Which can be removed separately for replacement. The tanks shall be of rigid type and shall be fabricated out of minimum 2mm thick stainless steel sheets and shall be of welded construction reinforced suitably. It shall be withstand a hydraulic pressure of 0.3 Kgs/cm<sup>2</sup>.

4.6.1-Each tank shall have a filling orifice of not less than 150 mm dia with a removal strainer fitted to it. A drain cock and pipe of not less than 50 mm dia shall also be provided.

4.6.2- The draw of tube shall be suitably located and fitted with a gauge strainer of suitable material mesh size and of adequate straining area. The tank top shall be removable and the joint between top and body of tank shall be leak proof. Suitable venting arrangement shall also be provided.

4.6.3-The draw of tube from each tank shall be connected to the proportionator/ inductor and the pump as necessary. The plumbing for this shall have a clear passage of not less than 50 mm through out with out any construction.

4.6.4 A tube type level indicator for ink and irritant tanks shall be provided near the tank and calibrated as empty, 1/4, 1/2, 3/4 and full. In addition level indicators shall also provided in the drivers cabin and calibrated to read empty 1/4, 1/2, 3/4 and full.

4.7 **Proportionator:** A round the pump inductor should be fitted between the suction and then delivery of the pump which will induct irritant or indelible ink as required in to the water stream with no low in delivery pressure from the pump. The proportionator shall comprise of an inductor and two selector valve, calibrated to ensure correct in-take of irritant/indelible ink from 0 to 45%.

4.8-**Water cannons:** Two Nos. Electro Hydraulically operated water cannons shall be mounted on the roof of the cab in such a manner that these can be operated by means of separate joysticks suitably located in the driver's cabin. Each cannon shall be capable of traversing through 210 degree in the horizontal plane and elevating from -15° to +60° in the vertical plane. Four powerful search lights shall be suitably fitted with the cannon so as to adequately illuminate the area of operation. All electrohydraulic Pneumatic controls shall be provided with manual override controls so that in case of failure of electrical or pneumatic systems, it should be possible to operate the cannons manually upto 360 degree from within the drivers compartment.

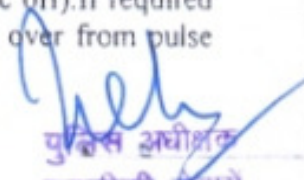
The output from each cannon shall 1100 litres/min at a pressure of 11 kg/cm<sup>2</sup> and a throw of not less than 50 m.

4.9- **Pulse jet arrangement:** The water cannon shall be fitted with pulse jet arrangement so as to discharge water in the form of water shots(pulses of short duration i.e 2 sec on and 2 sec off). If required the cannon shall also be capable of discharging water in continuous stream. The switch over from pulse system to continuous stream shall be affected by simple arrangement.

  
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4.10- Ground spray Nozzles To protect the vehicle during the operation it shall be provided with two nos. spray nozzles in front of the vehicle between the front wheels. The spray nozzles shall have a wide jet pattern to cover an area, at least twice the width of the vehicle with a throw of min. 6 m.

4.11- Rear spray Nozzle: Two/three nos, rear spray nozzle shall be provided to protect the vehicle from the rear so that the mob does not come near the vehicle from rear side. Wide pattern spray nozzle shall be located suitably having a minimum throw of 6 m.

5. Body Work and Storage: Enclosed accommodation with double compartment for driver and leader in front of the crew of four in the rear seat shall be provided. The design of the cab shall be such that it shall be afford maximum possible vision for the crew and shall ensure adequate ventilation. Hinged doors shall be provided on both sides of the appliance. The doors should open out-ward and these shall hung forward and have locks with double catch striking plates. All glasses fitted on doors/windows shall be fitted with polycarbonate sheets and should have winding type regulators and shall be splinter proof safety type. All glasses including wind shield shall be provided with removable protective wire mesh screen of 10 gauge wire dia and 25mm openings. wire mesh guard is also be provided on head and other lights of the vehicle the cab and body should be of composite construction with sufficient rigidity and strength. Square MS sections 32 X 32X1.6mm shall be used for the super structure members. It shall be of all steel construction. Pressed section of sufficient strength shall be used for superstructure. Aluminum sheet of 16 gauge shall be used for paneling outside. For paneling locker on inside, 16 gauge Aluminum sheet shall be used. Checkered plate shall be provided on the top of the entire vehicle. A minimum 6 mm thick rubber skirt shall be provided all along the vehicle from the lower end of the body extending up to the ground to keep of petrol bombs and other missiles thrown on the vehicle by the mob.

A protective grill shall be provided at the front of the vehicle extending below cab to prevent items getting under the vehicle.

Lockers shall be provided for the storage of all the equipment given in the list of equipment at Appendix "A". The locker shall be provided with internal automatic lighting arrangement with master switch in the cab. The locker shall be weather proof and self draining to release all water following a wash down etc.

#### Video Camera and TFT

A vedio Camera and 14" TFT MONITOR shall be supplied and fitted in to the vehicle. The vedio camera shall be mounted on stand provided in a locker at the rear of the vehicle. A TFT monitor shall be provided and suitable located in the driver's cabin to view the activities of the mob at the rear of the vehicle. The T.F.T . monitor shall be in a wooden cabinet capable of rotation in the Horizontal plane. The vedio camera and T.F.T shall be capable of operation through 12 volt, D. C vehicle Battery.

6- An extra alternator for pump driving engine should be provided for proper charging

7. Foldable Ladder should be fitted.

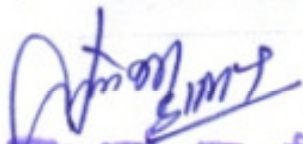
8. Accelerater padel should be provided on pump driving engine instead of handle.

9. Two fans and two tubelights should be fitted in the driver's cabin.


#### 10. Instruments and Controls:

The following controls shall be provided at the pump panel.

- a) Pressure gauge calibrated 20 kg/ cm<sup>2</sup>.
- b) Compound gauge calibrated at follows.
  - i) Pressure from 0 to 7 Kg /cm<sup>2</sup>
  - ii) Vaccumme from 0 to 760 mm of mercury.



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- c) Cooling water valve.
- d) Oil pressure gauge.
- e) Engine Starter.
- f) Engine Throttle.
- g) Fuel gauge.
- h) Control for tank to suction.
- i) Priming lever.
- j) Selector valve and control for proportionator.
- k) Indelible ink and irritant tanks to inductor control.
- l) Pump to Tank valve.
- m) Pump suction connection.
- n) Pump delivery outlet with female instantaneous connection two numbers with ball valves controls.
- o) Control for tank to pump.

A second control panel would be provided in the driver's cabin and would include the following in addition to the controls/gauges provided by the chassis manufacturer.

- a) Pressure gauge calibrate to 20 kg/cm<sup>2</sup>
- b) Compound gauge calibrated as above.
- c) Pneumatically operated control for the following.
  - i) Tank to pump.
  - ii) Control for Cannons with manual overrides.
  - iii) Control for front and rear spray nozzles.
  - iv) Control for ink and irritant tank to inductor.
  - v) Control for pump engine stop..
- d) Master switch for locker lights.
- e) Switch for siren, cannon search lights etc.
- f) Throttle control for pump engine.
- g) Switch for cabin light/blinker light, beacon light etc.
- h) Engine starter & throttle for pump engine.
- i) Water level indicator to read 0, 1/4, 1/2, 3/4 and full.
- j) Indicators/gauges to show location of cannons at any instant.
- k) Selector valves for ink and irritant in cabin.
- l) Pump hour meter.
- m) Ink and irritant indicators to read 0, 1/4, 1/2, 3/4 and full.

11. **Compressed Air Cylinder :** Air supply for pneumatic shut of devices shall be provided by additionally installed compressed air cylinder.

12. **Stability.** The stability of the appliance shall be such that when under fully equipped and loaded conditions (equivalent weight of crew be loaded in of the crew), if the surface on which the appliance stands is fitted to either sides the point at which over turning occurs is beyond 27° from the horizontal.

13. **Workmanship and Finish :** The standard of workmanship and finish of all mechanical and other parts shall be such that the parts normally required to be replaced can be supplied and will fit correctly.

The appliance shall be painted 'Oxford blue on the outside. The driver's compartment and inside of lockers shall be painted cream. The paint should be of standard quality Duco of ICI Co.

Under chassis shall be painted black.

Necessary anti corrosion and priming coat shall be applied before painting.

14. **Litrature Accessories and equipment:**

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14.1. The following literature shall be provided (two sets of hardcopy and one set of softcopy):

- a) **User Hand Book** : With illustration both for operating and normal maintenance procedure for the appliance.
- b) **Illustrated part identification List**: It shall include an itemized and illustrated spare part list giving reference number such that parts are made easily available when necessary.
- c) **Final drawings**(part drawing, subassembly and assembly drawings) of the total system along with master list of drawing.

14.2. **Accessories**: The following accessories shall be provided in addition to those normally fitted on modern commercial vehicle.

- a) **Electric siren**: A battery operated siren of 2 km range of best quality shall be suitable located on the cab roof.
- b) **Fog Lamps (Two)**: Low mounted of design approved by purchaser.
- c) **Reversing Light (One)**: Suitably situated to assist in reversing.
- d) **Twin amber Blinker Light (One)**: Situated on the head of driver's cab.
- e) **Trafficators (One set)**: Illuminated with indicating light on instrument panel in front of driver or in any other prominent position.
- f) **Search Light (Four)**: Adjustable to give flood or beam light mounted on a convenient position but capable of being readily disconnected and mounted on a tripod stand away from the appliance, complete with tripod stand and 60 m TRS cable on reel mounted on the appliance. A mounting bracket shall also be provided in the cabin.
- g) **Inspection lamp with bracket (one)**: Protected type or wander lead type with plug. A socket shall be provided near control panel in driver's cab for plugging in the lamp.
- h) **Trickle type battery charger** : (One mounted suitable in driver's cab with 30 m cable and plug/socket arrangement.
- i) Cab instrument panel and locker lights.
- j) Battery operated amplifier system with control of best quality in the driver cabin and loud speaker on the driver's cabin roof.
- k) **Tools**: All tools required for normal maintenance of the appliance.
- l) additional flood light with 60 mtr. Cable.

14.3 **Equipment as per Appendix 'A'** : Shall be supplied.

15. **Acceptance Tests**: The following tests shall be carried out before accepting the vehicle. These shall be carried out at the manufacturers works or at a place to be carried out at the manufacturers works or at a place to be mutually agreed upon. All materials required for the test will be provided by the manufacturer till acceptance.

- a) **Load distribution**: The front axle, rear axle, and total weight of the fully loaded appliance shall be checked as per para 1.
- b) **Stability Test** : To check the fulfillment of requirement of clause 9.





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c) **Pump Test:**

- i) The pump shall be run for a period of four hours non stop to check the rated output at carrying pump pressure with 3 m suction lift and using an appropriate size suction house. The test may be conducted after mounting the engine and the pump on the chassis and before connection the pump to water tank. During the test, the water shall not be replenished for the cooling system and the temperature of engine oil shall not exceed 115 degree C or 90% of the oil manufacturers rated temperature (whichever is less) and engine shall show no signs of distress during the test. The temperature of cooling water ( radiator water) shall not exceed 85 degree C.
- ii) The pump casing and impeller shall be subjected to a hydraulic pressure of 28 Kgsqcm to detect any leakage preformation etc.
- iii) Test shall be made to check the fulfillment of requirements laid down para 4.2.3.
- iv) All pipeline shall be subjected to a hydraulic pressure of 28Kgsqcm.
- d) **Primer Test:** The lift for the primer test shall be measured from the center of suction eye to the water level and shall be carried out to check the fulfillment of requirement laid down in para 4.3.1
- e) **Water Cannon& spray nozzle:** The test shall be conducted to check the requirement laid down in para 4.8 to 4.11 to be satisfied of the inspection officer.
- f) **Water Tank, Ink and irritant tanks:** The tank shall be subjected to a hydraulic pressure of 5 psi. The tanks should withstand the pressure with out any leakage/buldgings.

16. **Manufacture's Certificate and Guarantee:**

16.1- The manufacturer shall furnish a guarantee for the material workmanship and performance of the appliance for a period of five years from the date of receipt of equipment. And warranty of vehicle shall be as per manufacturer.

16.2- The manufacturer shall given a certificate regarding the fulfillment of the requirements laid down in this specification.

16.3- The manufacturer shall be responsible for replacing any part which may become unserviceable due to use of defective of sub standard materials or bad workmanship during the period of guarantee free of all charges.

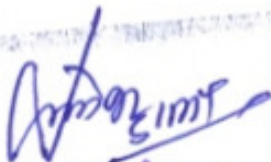
16.4- The manufacturer will provide free services anywhere in the country during warranty period.

16.5- The fabricator will provide maintenance training for period of 15 working days free of cost to the representative of users.

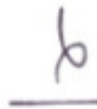
17- **Marking:**


17.1- The appliance shall be clearly and permanently marked with the following preferably on a metal plate on driver's cab and also at the pump operating control panel.

- a) Manufacturer's name and trade mark.

  
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- b) Year of manufacturer.
- c) Capacity of pump ( in Lpm) , water tanks, irritant for tank and indelible ink.(in litres)
- d) Engine and Chassis number.
- e) Pump number

17.2- A brass plate with operating maintenance instructions engraved on it should be provided on the pump operating panel for easy reference to the operator.

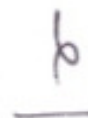
#### APPENDIX-A


#### THE FOLLOWING ACCESSORIES SHALL BE SUPPLIED ALONG WITH VEHICLE.

Sl.No.	Description	Specification No	Qty
a)	Armoured suction hose in 2.5 m length With internal diameter of 100 mm with Standard round thread coupling.	IS-902/2410	04 Nos.
b)	Low level suction strainer for use with 100 mm suction hose.	IS-907	01 No.
c)	Basket Strainer for above	IS:3582	01 No.
d)	Suction Wrenches	IS: 4643	01 Pair
e)	Suction Collecting head 3-way		01 No.
f)	100 mm x 63 mm Hydrant to suction adopter		01 No
g)	RRL Hose 63 mm diameter and 30 m long with Instantaneous coupling.	IS-636 II & IS-903	02 No
h)	Light alloy branch pipe with 19 and 25 mm Nozzles.		02 Sets

  
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# U.P. POLICE TECHNICAL SERVICES, HEAD QUARTERS,

IV<sup>th</sup> FLOOR, JAWAHAR BHAWAN, ASHOK MARG, LUCKNOW-226001

## GENERAL TERMS AND CONDITIONS FOR TENDERS

The details of specifications & instructions are to be followed strictly in accordance with the tender notice.

1 - The tendering firms are requested to submit the offer in TWO PARTS. The First Part will be named as Technical Offer & the Second Part will be called as Financial Offer. **The technical offer as well as financial offer are to be prepared separately for each tender.** BOTH TECHNICAL OFFER AND FINANCIAL OFFER PROPERLY SEALED IN SEPERATE COVERS, MUST BE KEPT IN ONE BIG ENVELOPE AND SEALED. ON EACH COVER INDICATE CLEARLY THE TENDER NO. \_\_\_\_\_ ITEM AND DATE \_\_\_\_\_ OPENING DUE ON \_\_\_\_\_. DO NOT QUOTE RATES IN THE TECHNICAL OFFER, OTHERWISE THE TENDER WILL BE REJECTED.

2 - After submission of tender any addition, alteration or change in any offer shall not be acceptable.

3 - All the enclosures should be valid on the date of opening of the tender.

4 - If any cutting/ corrections, it should be properly attested by the tenderer.

5- The Vehicle mounted water cannon should be according to the specifications given in annexure(A) attached to these notes.

6 - Earnest money (as mentioned in tender advertisement in news papers) has to be deposited **FOR EACH ITEM SEPARATELY** along with the Technical Offer in the form of Fixed Deposit of Scheduled Bank in the name of **Superintendent of Police/ Asstt. Director, Uttar Pradesh Police Computer Center, payable at Lucknow,**. Offers without earnest money will be ignored. If any firm is exempted from furnishing earnest money, enclose government orders. If government order is not submitted by the tenderer his tender will not be considered. E.M.D. of the tender amount quoted shall be deposited by the tenderer is important. This amount shall be in the form of bank draft/Bank guarantee. The amount will be released on signing of this contract by tenderer and deposition of bank grarantee/ bank draft/F.D.R. equal to 10% of the cost of the total quoted amount of the tender for vehicle mounted water cannon.

7 - It shall be the responsibility of the tendering firms to present themselves on the dates of opening of Technical & Financial offers and acquaint themselves with the short comings in the tender if any. No separate intimation will be sent to them in this regard.

8 -Tenderer / Authorized person who shall sign the offer and all the enclosures submitted by them should have signature with their designation, seal and date.

9 – Technical details as per tender specifications or their compatibility with the tender specifications shall be clearly mentioned in the technical offer.

10- Firms must enclose valid U.P. trade tax Registration Certificate/Central sales tax/Vat Registration Certificate.



11- The vehicle mounted water cannon will be delivered at Lucknow.

12- If, after the submission of the tender any tenderer subsequently amends, alters or modifies the contents of his tender which are not acceptable, the tenderer shall be deemed to have with-drawn his tender. U.P. Police Technical Services reserves the right of rejecting all or any of the tenders without assigning any reason and is supersession of any of the conditions given in the notice.

13- If any tenderer is found contacting the under-signed either before the opening or finalization of tender, his tender will be liable to be rejected. The under signed will not be responsible for providing any assistance to any tenderer in regard to procurement of any import licence or release of any raw material etc.

14- The rate quoted by the tenderer will remain in force up to 31-12-16

15- Tenderer, whose tender is approved will have to enter into a contract and execute an agreement with the under signed on behalf of the Governor, Uttar Pradesh and strictly confirm to the terms in the contract deed.

16- The tenderer, on his tender being approved, will have to deposit 10% security money of the tendered amount and will remain deposit up to warranty period.

17- Any sum of money payable to the tenderer in terms of the contract deed (Including the security deposit refundable to him) will be liable to be appropriated by the under signed and set off against any claim of the Governor Uttar Pradesh or his authorized representative in the payment of any sum of money arising out of or under any other contract made by the tenderer firm with the Governor of Uttar Pradesh.

18- Conditional tender will not be accepted.

19- The tenderer is required to submit an affidavit stating that the tenderer has no link ups with Mafia or some unsocial elements or organized crime.

20- The successful tenderer will also sign an agreement containing enabling clause with power to rescind the contract or lease as the case may be in case it borne out from the record or it is proved that some of the prospective bidders were threatened or prevented from participating in the kbid or they were prevented to submit their tenders then in such case, contract shall be cancelled and fresh assignment shall be given after inviting fresh tenders.

21- The vehicle's cowl chassis on which water cannon will be made shall be purchased in the name of Inspector General of Police, Technical Services IVth. Floor, Jawahar Bhawan Lucknow.

22- Vehicle mounted water cannon will be delivered in ten weeks.

23- All disputes will be subject of Jurisdiction of court at Lucknow only.

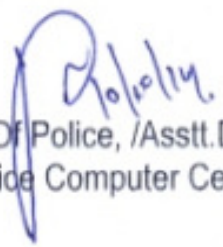
24- The tenderer/Manufacturer shall give a certificate regarding the fulfillment of the requirements laid down in this specification.



25- The tenderer/Manufacturer shall be responsible for replacing any part which may become unserviceable due to use of defective of sub standard materials or bad workmanship during the period of guarantee free of all charges.

26- The tenderer/Manufacturer will provide on site free services anywhere in the country during warranty period.

27- The tenderer/Manufacturer will provide maintenance training for period of 15 working days free of cost to the representative of users.

  
Supdt. Of Police, /Asstt. Director,  
U.P. Police Computer Centre, Lucknow

### DECLARATION

I, (name of authorized representative)-----

--- Son of-----of M/S (Name of firm) -----

-----have read all the rules of tender (1 to 27)

given above. These are acceptable to our firm. Earnest Money in the form of Fixed Deposit of scheduled bank Rs.----- (in words)-----

----- in favors of "Superintendent of Police / Asstt. Director, Uttar Pradesh Police Computer Centre, payable at Lucknow is enclosed herewith.

PLACE: -----

DATE-----

(Signature and seal)