

Administration of  
Dadra and Nagar Haveli, U.T.,  
(Department of Police)  
SILVASSA

No. DNH/Police/ GNL/ Water Canon /2018-19/

Dated:- 01/7/2019

**E- T E N D E R ( O N L I N E ) I N V I T A T I O N N O T I C E**

Sealed Tender are hereby invited on behalf of the President of India by the undersigned through on-line tender in two bid system through online on [www.dnhtenders.gov.in](http://www.dnhtenders.gov.in) from interested Manufacturer/ Authorized Dealers/Suppliers for supply of **Water Cannon** over 25 Tonnes Chassis for Police Department, D & N.H., Silvassa as schedule below.

Sr. No	Description Item	Estimated cost	Earnest money Deposit	Tender Fees (Non-Refundable)
1	<b>Fabrication work of water Canon on 25 Tonnes Chassis-BS-IV for Police Department, Dadra and Nagar Haveli, Silvassa</b>  (As per attached Technical specification -Annexure- II)	Rs. 50.00 lakhs	Rs.1,25,000/-	Rs. 2000/-

* Online downloading start Date:-	on <b><u>02/7/2019</u></b>
* Bid documents download ended Date :-	on or before <b><u>24/7/2019</u></b> up to 14.00 hrs.
* Last date & time for receipt of Bid document	on <b><u>24/7/2019</u></b> up to 16.30 hrs.
*Physical submission of tender fees in form of DD & EMD in form of FOR. Registration Certificate of the Manufacturers/Dealers and Suppliers/Manufacturing License or an authorized license as supply of Water Canon, PAN No. Certificate of GST Registration, signed & stamped copy of terms & conditions on letter head and other document etc. in hard copy in the office of the Tender Inviting Authority by RPAD/Speed Post. In case, physical submission through RPAD/Speed post, the Tender inviting Authority shall not be responsible for any postal delay or loss of documents.	on <b><u>25/7/2019</u></b> up to 18:00 hrs
* Online documents opening/Technical bid :	on <b><u>26/7/2019</u></b> 12.00 hrs.

* Online opening of price bids	:	on <b><u>26/7/2019</u></b> 17.00 hrs.
<ul style="list-style-type: none"> <li>The tender inviting authority reserves the right to accept/reject any or all tenders without assigning any reasons thereof.</li> </ul>		
<ul style="list-style-type: none"> <li>The tender will be opened on the same day in presence of the tenderer, if possible. The offers received without obtaining tender documents or without EMD and tender fee shall be rejected.</li> </ul>		
<ul style="list-style-type: none"> <li>The tender fee is Non Refundable even in case of non opening of price Bid due to disqualification of bidder.</li> </ul>		
<ul style="list-style-type: none"> <li>The tender form alongwith all details including schedule and terms &amp; conditions can be down loaded from the web site <a href="http://www.dnhtenders.gov.in">www.dnhtenders.gov.in</a>. The tender fees(Non refundable) in form of DD and EMD in form of FDR from any schedule/commerc</li> </ul> <p>ial banks in favour of the undersigned may be kept in technical bid alongwith the above mandatory documents. The price bid shall be opened to those firms/agencies who qualify in technical bid.</p>		
<ul style="list-style-type: none"> <li>Bidder have to submit the price bid in Electronic format only on <a href="http://www.dnhtenders.gov.in">www.dnhtenders.gov.in</a> website till the last date &amp; time for submission. Price Bid in physical format shall not be accepted in any case.</li> </ul>		
<p>* However, Tender Inviting Authority shall not be responsible for any postal delay or less of documents and reserves the right to Accept/ reject any or all the tenders to be received without assigning any reasons thereof.</p>		
<ul style="list-style-type: none"> <li>Bidder shall have to post their queries on E-mail address: dysp-hq-dnh @ gov. in.</li> </ul>		

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**Deputy. Superintendent of Police(HQ)**  
**For Dy. Inspector General of Police**  
Dadra and Nagar Haveli,  
Silvassa.

**Copy fd.wcs. to:-**

1. The Director (IT), Department of Information Technology, Room No.207,208, Second Floor Secretariat, AmlI, Silvassa with a request to publish in website.
2. Copy to CPO, Dadra and Nagar Haveli, Silvassa for wide Publicity in News Paper.
3. Copy to all reputed Firms/agencies/manufacture for information and necessary action .
4. Copy to M.T. Section, PHQ, Silvassa for information.

SCHEDULE

ANNEXURE-I

**SCHEDULE FOR SUPPLY OF WATER CANON FOR POLICE DEPARTMENT  
DNH POLICE, SILVASSA.**

Sr. No.	Description of Item	Qty.	Rates per Unit Set with all taxes.	Total Amount
1	<b>Fabrication work of water Canon on 25 Tonnes Chassis – BS-IV for Police Department, Dadra and Nagar Haveli, Silvassa</b>  ( The items as per Technical Specification / requirements for Water Canon – As per Annexure- II )	01		

Signature of the Proprietor  
With Seal

-sd  
**Deputy Superintendent of Police(HQ)**  
**For Dy. Inspector General of Police,**  
Dadra and Nagar Haveli,  
Silvassa

**SPECIFICATION AND ALLIED TECHNICAL DETAILS FOR FABRICATION OF ONE WATER CANNON OVER 25 TON. CHASSIS BS-IV (DIESEL) FOR USE OF DADRA AND NAGAR HAVELI POLICE**

<b><u>TECHNICAL SPECIFICATIONS</u></b>	
<b>Sr. No.</b>	<b>Specifications</b>
1.	Material, Design, Fabrication, Workmanship and finish accessories and equipment in complete of Water Canon for Riot Control for use by Dadra and Nagar Haveli Police to be fabricated on 25 Ton. Chassis BS-IV (will be provided by Dadra and Nagar Haveli Police). The Water Canon should be fabricated with the best material & good workmanship.
2.	<p><b><u>GENERAL REQUIREMENTS:-</u></b></p> <p>The vehicle mounted Water Cannon shall have water tank of carrying 12000 liter of water. A centrifugal pump capable of delivering 3200 lpm of water at 8.5 kg/sq cm and 2400 lpm at 10.5 kg/sq. cm shall be provided and coupled to a separate engine. The engine used for delivering pumps shall be TATA Cummins Turbo charged engine developing not less about 160 BHP at 2500 r.p.m. Diesel tank shall be filled with the explosion suppression material to avoid explosion in the tank. The height of the vehicle shall be in accordance with the norms laid down by the Transport Department for such vehicles.</p>
3	<p><b><u>MATERIAL SELECTION AND TREATMENT: -</u></b></p> <p>a) Water Tank - M.S</p> <p>b) Indelible Tank - SS 316 L Grade</p> <p>c) Irritant Tank - SS</p> <p>d) Body Building - MS, Aluminum</p> <p>e) Engine Skid - M.S</p> <p>f) Paneling - Aluminum</p> <p>g) Piping for –</p> <p>I. Water Tank - Galvanized pipe as per IS: 1239 Grade: B</p> <p>II. Indelible ink Tank - SS</p> <p>III. Irritant Tank - SS</p> <p>IV. Pneumatic - SS</p> <p>V. Hydraulic - CDS</p> <p>Timber shall not be used in the body construction.</p>
3.1	
3.2	All parts which form water ways 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 after shot/sand blasting and all metal parts exposed to atmosphere shall either be of corrosion resisting material or treated suitably to resist corrosion.

4.1	<p><b><u>DESIGN AND CONSTRUCTION:-</u></b></p> <p>The water tank mounted on the chassis shall be capable of carrying 12000 liters of water. It shall be of welded construction and fabricated out of Mild Steel sheets the thickness of the sheet at the bottom; front and rear side shall not be less than 6 mm. For sides and top minimum 5 mm thick and for baffles not less than 3 mm thick sheet shall be used. The tank shall be suitably baffled in both the directions to prevent surge when the vehicle is accelerating, cornering or braking. The baffles shall be of welded type with bolted panels provided with the openings in the baffles. The tank shall be designed to keep the centre of gravity of the vehicle as low as possible. The mounting shall permit full rated contents of the tank to flow into the pump. The water tank with all its fittings shall withstand hydraulic pressure of 0.3 kg/sq. cm.</p>
4.1.1	Suitable lifting system shall be provided on the shelf of the tank to enable the tank to be lifted off the vehicles for repairs/replacement as necessary.
4.1.2	The tank shall be fitted with the filling orifice, a drain cock and two bolted man holes of 450 mm dia on the top of the tank. A 300 mm dia filling orifice shall be provided on top of one of the man hole cover at the rear. The drain cock shall not be less than 75 mm dia water way through-out. The drain pipe shall be taken down to a point well below the chassis without reducing the effective ground clearance, when fully loaded and shall discharge away from the wheels.
4.1.3	An overflow pipe of not less than 100 mm internal dia shall be fitted to the tank. The overflow pipe shall be taken down to a point well below the chassis without 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 overflow through the pipe only while refilling the tank but no water shall overflow through this pipe when the appliance is in motion is standing on an uneven ground or brakes are applied to the moving vehicles.
4.1.4	Two filling pipes (hydrant connections) 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 couplings incorporating a strainer. The inlet of the filling pipe shall be fitted at the pump control panel. Fool proof arrangements shall be made to prevent pressurization of Water Tank while refilling through these hydrant connections. Suitable arrangements should be provided to ensure the Water from the tank does not leak through the filling pipe.
4.1.5	A tube type water level indicator for the water tank shall be provided and calibrated 1/4, 1/2, 3/4 and full.
4.1.6	Suitable arrangement shall be provided for self filling of water tank directly from the pump using a 75 mm dia pipe line.
4.1.7	The plumbing between the water tank and pump shall have a clear and unobstructed water way of not less than 100 mm throughout. The draw off shall be protected by a brass wire screen filter and shall be fitted with antivortex device.
4.1.8	All plumbing shall be reasonably accessible for maintenance purpose. Drain cocks shall be provided where necessary and control for these all 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	<b><u>PUMP:-</u></b>				
4.2.1	A centrifugal pump shall be connected to a separate TATA Cummins Engine for driving the pump. The pump-engine assemble shall be mounted on a sub frame and fitted on the chassis in a 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 anti friction bearing external of the casing. The gland shall preferably be of self adjusting type. The impeller neck rings in the pump casing shall be replicable 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 3200 lpm at 8.5 kg/cm sq with input shaft speed of not less than 1200 rpm. The pump shall also be capable of giving the performance given in the table below then working with all internal and external strainer (except basket strainer) at sea level and upto 35 degree centigrade water temperature.				
	<b>Sr. No.</b>	<b>LMP</b>	<b>Output Pressure Kg/sq cm</b>	<b>Suction life(measured vertically level to the Suction eye (m) Water level to the Suction eye (m)</b>	<b>Remarks</b>
	1.	3200	8.5	3	When working through Two x 2.5 cm length of specified suction hose.
	2.	2400	10.5	3	-do-
	<b><u>Allowances for Output:-</u></b>				
	a) One percent for every 2.8 degree centigrade rise in Water Temp above 35 degree centigrade.				
	b) 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 cm suction hose connection with internal strainer and blank cap. The strainer shall be retained firmly when in use but shall be readily removable. The Pump shall be provided with two delivery outlets at the pump panel fitted with screw type quick closing clack valves with standard 63 mm delivery hose connection and gun metal blank cap fastened with chairs.				
4.2.5	The pump casing and impeller shall be free from casting defects such as blow holes etc. Pump shall be tested to a hydraulic pressure of 28 kg/sq cm to detect any leakage/perforation etc.				
4.2.6	The pump shall be connected with the water tank, Water Cannon Vehicles and spray nozzles. The various controls for operating the pump unit, cannons, spray nozzles etc. shall be located in the driver's cab. Control for operation of pump shall be duplicated at the side pump control panel.				

4.3	<p><b><u>PRIMER:-</u></b> The Primer shall be capable of lifting water at least from a depth of 7 mtr at a rate not less than 30 cms/sec. and shall preferably be of exhaust ejector type.</p>
4.4	<p><b><u>ENGINE FOR DRIVING PUMP:-</u></b> High Quality like Tata Cummins etc. Water Cooled Direct Injection, Turbo Charged Intercooled Diesel Engine with Viscous Fan shall be used for driving the pump. The engine pump assemble shall be mounted in a locker behind the driver's cabin. Adequate arrangement shall be provided in the gap for ventilation.</p>
4.5 4.5.1	<p><b><u>COOLING SYSTEM:-</u></b> In addition to the radiator cooling, indirect cooling system of the open circuit type shall be provided with the pump-engine, discharging water to the waste, this shall be enable full power output to be maintained during continuous stationary running of the engine without overheating.</p>
4.5.2	<p>The operating temperature of the cooling water shall be thermostatically controlled.</p>
4.5.3	<p>The oil in the oil pump shall be prevented from overheating and the pump shall be prevented and the pump characteristics shall be so chosen that the engine does not run at its maximum speed for giving maximum output.</p>
4.5.4	<p>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.</p>
4.5.5	<p>Protective wire mesh guard of 10 gauge wire dia and 25 mm opening shall be provided underneath the pump engine. Locker to cover the open space.</p>
4.5.6	<p><b><u>IRITANT AND INDELIBLE INK TANKS</u></b></p> <ul style="list-style-type: none"> <li>(a) Two stainless steel tanks each of 500 liter capacity shall be suitably mounted on the chassis. The tanks 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 think stainless steel sheets and shall be of and welded construction reinforced suitably. Its shall withstand a hydraulic pressure of 0.3Kg./Sq. cm.</li> <li>(b) Each tank shall have a filing orifice of not less than 150 mm dia with a removable strainer fitted on it. A drain cock and pipe of not less than 50 mm dia shall also be provided.</li> <li>(c) The draw off tube shall be suitably locked 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 two and body of tank shall be leak proof. Suitable venting arrangement shall also be provided.</li> <li>(d) 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 be provided in the driver's cabin and calibrated to read empty, 1/4, 1/2, 3/4 and full.</li> </ul>
4.5.7	<p><b><u>PROPORTIONATOR</u></b> Around the pump indicator should be fitted between the suction and the delivery of the pump which will induct irritant or indelible ink as required into the water stream with no less in delivery pressure from the pump. The proportionate shall comprise of an indicator and two selector valves calibrated</p>

	to ensure correct intake of irritant/indelible ink from 0 to 8%.
4.6	<p><b><u>WATER CANNON:-</u></b></p> <p>Two Water Cannons shall be mounted on the roof of the cab in such a manner that this can be manually and hydraulic/Pneumatically operated by members of crew from within the driver's cabin. The Cannons shall be capable of traversing through AZIMUTH 125 degree + 125 degree- in the horizontal plane and ELEVATION movement 20 degree downward and 50 degree upward in the vertical plane. A powerful search light shall be suitably fitted with the cannon so as to adequately illuminate the area of operation. The search light should be movable in the same angle as that of canons and removable. The length of the Water Cannon Vehicles barrels shall be not less than 3 feet so that operating members of the crew can see the direction of the barrels from the driver's cabin. The output of the each cannon shall be 1100 liter per minute at a pressure of 10 kg/cm<sup>2</sup> and a throw of not less than 50 meter. The cannons shall be manual and pneumatic/hydraulic controlled type so that cannons movement could be effected by means of separate joystick suitable located in the driver's cabin. All controls shall be provided with manual override controls so that in case of failure of hydraulic or pneumatic systems it should be possible to operate the cannons manually from within the driver's compartment and option to operate single or both canons simultaneously.</p>
4.7	<p><b><u>PULSE JET ARRANGEMENT:-</u></b></p> <p>The Water Cannons shall be fitted with the pulse jet arrangement so as to discharge water in the form of water shots (pulse of short duration) i.e. 2 sec 'ON' and 2 Sec 'OFF'. If required the cannons 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.</p>
4.8	<p><b><u>GROUND SPRAY NOZZLES:-</u></b></p> <p>To protect the vehicle during the operation it shall be provided will two nos. spray nozzles in front of the vehicle between the front wheels. The spray nozzles shall have a wide jet pattern to cover and area, at least twice the width of vehicle with a throw of min 6 m.</p>
4.9	<p><b><u>REAR SPRAY NOZZLES:-</u></b></p> <p>Three Nos. Rear Spray nozzles shall be provided to protect the vehicle from the Rear so that the mob does not come near the vehicle from rear Wide pattern spray nozzles shall be located suitably having a minimum throw of 6 m.</p>
5	<p><b><u>BODY WORK AND STOWAGE:-</u></b></p> <p>Enclosed accommodation with double compartment for driver and leader in the front seat and a crew of four in the rear seat shall be provided. The design of the can shall be such that it shall 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 be opened outward and shall hung forward and have locks with double catch striking plates. All doors/windows shall be fitted on polycarbonate sheets and should have winding type regulators. Wind screen of the splinter proof safety type shall be provided with removable protective wire mesh guard of 10 gauge wire dia and 25 mm opening. Wire mesh guard is also to be provided on head and other lights of the vehicles. All glasses including wind shield and search light shall be provided with removable protective wire mesh screen. A protective grill shall also be provided to keep crowd away from controls of cannons.</p>



6	<p><b>INSTRUMENT AND CONTROL:-</b>  The following controls to be provided at the pump panel:-</p> <ol style="list-style-type: none"> <li>a) Pressure Guage calibrated from 0 to 20 kg/cm<sup>2</sup></li> <li>b) Compound Guage calibrated as follows:- <ol style="list-style-type: none"> <li>i) Pressure from 0 to 7 kg/cm<sup>2</sup>.</li> <li>ii) Pressure from 0 to 760 mm of mercury</li> </ol> </li> <li>c) Cooling Water temperature Guage.</li> <li>d) Oil pressure Guage.</li> <li>e) Engine Starter</li> <li>f) Engine Throttle</li> <li>g) Pump suction connection</li> <li>h) Fuel Guage</li> <li>i) Control for Tank to pump</li> <li>j) Priming lever</li> <li>k) Pump to tank valve</li> <li>l) Indelible ink control</li> <li>m) Irritant control</li> <li>n) Selector valve control for mixing indelible ink/irritant (Percentage)</li> <li>o) Control for air release.</li> </ol> <p>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 manufacturers:-</p> <ol style="list-style-type: none"> <li>a) Pressure Guage Calibrate from 0 to 20 kg/CM<sup>2</sup>. There should be separate pressure gauges to show output of pump and two canons.</li> <li>b) Water level indicator to read 0,1/4,1/2,3/4 and Full.</li> <li>c) Compound Guage calibrated as above.</li> <li>d) Pneumatically operated control for the following:- <ol style="list-style-type: none"> <li>1. Tank to Pump</li> <li>2. All controls for Cannons with manual over rides</li> <li>3. Control for Front and Rear Spray Nozzles.</li> <li>4. Control for pump engine stop</li> <li>5. Control for cooling system</li> </ol> </li> <li>e) Master switch for locker lights</li> <li>f) Switch for siren, cannon search light etc.</li> <li>g) Throttle control for engine</li> <li>h) Switch for cabin light/blinker light, beacon light siren etc.</li> <li>i) Engine Starter &amp; Throttle for Pump Engine.</li> <li>j) Pump hour metre.</li> <li>k) Batteries- Main Engine, Pump Engine and Operating System of Cannon all shall be 24 Volts DC Battery compatible.</li> </ol>
7	<p><b>COMPRESSED AIR CYLINDER:-</b>  Air supply of pneumatic shut off devices shall be provided by additionally installed compressed air cylinder.</p>
8	<p><b>WORKMANSHIP &amp; FINISH:-</b>  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 inside of lockers shall be painted Gray. Under chassis shall be painted black. Necessary air-corrosion and priming</p>

	coat shall be applied before painting.
8 (a)	<p><b>STABILITY:-</b> The stability of the appliance shall be such that no over tuning occurs beyond 27-degree slope from the horizontal. Under fully equipped and loaded conditions (equivalent weight of crew to be loaded in lieu of the crew).</p>
9.	<p><b>LITERATURE, ACCESSORIES AND EQUIPMENTS:-</b></p>
9.1	<p><b>The following literature shall be provided:-</b></p> <ol style="list-style-type: none"> <li>User Handbook: With illustration both for operating and normal maintenance procedure for the appliance.</li> <li>Illustrated Part identification: It shall include an item wise and illustration spare part the proper reference number such that parts are made easily available when necessary.</li> <li>Drawings it must consist of part drawing, sub assembly and assembly drawings of the total system along with master list of drawings.</li> <li>CCES and Equipment dossier.</li> </ol>
9.2	<p><b>The following accessories shall be provided in addition to those normally fitted on modern commercial vehicles:-</b></p> <p><b>CCTV Cameras with TFT &amp; DVR: - 8 Nos.</b> Close Circuit TV Cameras (1x3" CCD 3.6 mm wide angle lens, 380 TBL) shall be fitted on all four sides of vehicle (02 on each side) duly covered with wire-mesh for protection. These cameras shall be connected with tough pad TFT &amp; Digital Video Recorder (Motion Detector, 8 Channel Input, 320 GB HDD) fully functional for recording, installed in Driver's cabin. Reverse Sensor linking with CCTV System &amp; Siren shall be fitted to safeguard the vehicle. <b>Electric Siren:</b> A battery operated siren of 2 km range shall be suitable located on the cab roof. <b>Fog Lamps(Two):</b> Low mounted of design approved by Purchaser. <b>Reversing Light (One):</b> Suitably situated to assist in reversing. <b>Twin Amber Blinker light (One):</b> Situated on the head of driver's cab. <b>Trafficators (one set):</b> Illuminated with indicating light on instrument panel or in any other prominent position.</p> <p><b>Search Light(One):</b> Adjustable to give flood or beam light mounted on a convenient position but capable of being readily disconnected and mounted on tripod stand away from the appliance, complete with tripod stand and 30 m TRS cable on a reel mounted on the appliance. <b>Inspection Lamp with Bracket (One):</b> Protected type of wander lead type plug. A socket shall be provided near control panel in driver's cab for plugging in the lamp. <b>Trickle type battery charger:</b> One mounted suitable in driver's cab with 30 m cable and plug/socket arrangement. <b>Cab instrument panel and locker lights.</b> <b>Battery operated 100 watt amplifier system with control in the driver's cabin and loud speaker on the driver's cabin roof.</b> <b>Standard Fire Extinguisher of ISI Mark</b> <b>Tools: All tools required for normal maintenance of the appliance.</b></p>
9.3	One roof light should be provided in the driver's cabin dual vision and external rear view mirrors should be fitted to the cab.
9.4	The driver-cum-crew cabin shall be provided with full four doors, one for driver, one for officer and two at the crew compartment. The door shall be

	generously size for easy embarking/disembarking of crew members. All the doors shall be fitted on the super structural members, each hung upon three invisible coach type M.S. stout hinges and fitted with best quality handles.
9.5	The door handle on out side of driver seat shall have a locking arrangement. Other door shall be lockable from inside. In addition to the doors locks, aluminum tower bolt shall be provided for all the doors from inside adequate grab rails shall be provided for easily boarding and alighting from the appliance.
9.6	The windscreen glass shall be provided in the two halves and shall be semi curved type. Each glass shall be fitted in E.P.D.M rubber beading. The glasses shall be 5 mm thick toughened safety glass. There should be provision for riot proof guard.
9.7	The rubber beading used for fitting glasses and window frame shall be E.P.D.M rubber.
9.8	The driver seat shall be adjustable type vertically, forward and backward. The other officer seat shall be fixed type. Both the seats shall be rigidly fixed to the flooring by means of nuts and bolts.
9.9	The seat cushion shall be of latex foam rubber 75 mm thick upholstered in good quality foam leather cloth.
9.10	Below the crew seat, two lockers shall be provided one for battery box and another for keeping accessories. The extra length of battery cable if required shall be provided.
9.11	The crew seat shall be rigidly fixed to floor by means of nuts and bolts, running full width of the vehicle suitable for sitting five police personnel , covered with 75mm X 50mm cushion latex foam rubber upholstered in good quality foam leather of approved shape.
9.12	The rear body shall be fabricated in continuation and in line. The under frame cross members shall be fabricated from rolled M.S channel of 100 X 50 X 5 mm size.
9.13	The M.S runner of 100 X 50 X 5 mm size shall be provided over the full length of the chassis member for the uniform distribution of load over the chassis.
9.14	Each cross members shall be secured to the chassis frame by 16 mm dia 'U' Bolts with aluminum packing block and self locking unit.
9.15	Balata packing of thickness 6 mm shall be provided in between the chassis frame and cross member.
9.16	The structure/ frame work shall be welded constructions and made from 2 mm thick M.S pressed sections and square tubes. The angles and channels used shall be of minimum 3 mm thickness. The complete structure material shall be treated for anti corrosion by ZINC PLATING. The plating thickness shall not be less than 20 microns. Two coats of epoxy paint shall be applied to the completely welded structure. The complete rear of the vehicle should be closed type to prevent crowd from climbing on the vehicle. A door with internal locking system should be provided on the rear of the vehicle. The approach ladder and the NRV control should be housed inside the door.
9.17	The structure shall be so designed so as to avoid any vibration/rattling/ deformation in the intended usage of the vehicle.

9.18	<p><b><u>EQUIPMENTS:</u></b> - Equipment's as per below table shall be supplied.</p> <table border="1" data-bbox="375 216 1417 814"> <tr> <td data-bbox="375 216 914 331">Armoured suction house in 2.5 m length with internal diameter of 100 mm with standard round thread coupling</td> <td data-bbox="914 216 1166 331">IS-902/2410</td> <td data-bbox="1166 216 1417 331">Four Nos.</td> </tr> <tr> <td data-bbox="375 331 914 415">Low level suction strainer for use with 100 mm suction hose</td> <td data-bbox="914 331 1166 415">IS – 907</td> <td data-bbox="1166 331 1417 415">One No.</td> </tr> <tr> <td data-bbox="375 415 914 457">Basket Strainer for above</td> <td data-bbox="914 415 1166 457">IS – 3582</td> <td data-bbox="1166 415 1417 457">One No.</td> </tr> <tr> <td data-bbox="375 457 914 499">Suction Wrenches</td> <td data-bbox="914 457 1166 499">IS – 4643</td> <td data-bbox="1166 457 1417 499">One Pair</td> </tr> <tr> <td data-bbox="375 499 914 573">Suction collecting head 3 way Gun Metal</td> <td data-bbox="914 499 1166 573">-</td> <td data-bbox="1166 499 1417 573">One No.</td> </tr> <tr> <td data-bbox="375 573 914 657">RRL hose 63 diameter and 30 m long with Gun metal instantaneous couplings</td> <td data-bbox="914 573 1166 657">IS-636 II &amp; IS-903</td> <td data-bbox="1166 573 1417 657">Two Nos.</td> </tr> <tr> <td data-bbox="375 657 914 741">Light Alloy branch pipe with 19 mm and 25 mm nozzles.</td> <td data-bbox="914 657 1166 741">-</td> <td data-bbox="1166 657 1417 741">Two sets</td> </tr> <tr> <td data-bbox="375 741 914 814">Suction adapter to hydrant 100 mm x 63 mm.</td> <td data-bbox="914 741 1166 814">-</td> <td data-bbox="1166 741 1417 814">One Nos.</td> </tr> </table>	Armoured suction house in 2.5 m length with internal diameter of 100 mm with standard round thread coupling	IS-902/2410	Four Nos.	Low level suction strainer for use with 100 mm suction hose	IS – 907	One No.	Basket Strainer for above	IS – 3582	One No.	Suction Wrenches	IS – 4643	One Pair	Suction collecting head 3 way Gun Metal	-	One No.	RRL hose 63 diameter and 30 m long with Gun metal instantaneous couplings	IS-636 II & IS-903	Two Nos.	Light Alloy branch pipe with 19 mm and 25 mm nozzles.	-	Two sets	Suction adapter to hydrant 100 mm x 63 mm.	-	One Nos.
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10.	<p><b><u>ACCEPTANCE TEST</u></b></p> <p>The following test shall be carried out before accepting the vehicle. These shall be carried out at 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.</p> <p><b>a) LOAD DISTRIBUTION:</b> - The front axle, rear axle and total weight of the fully loaded appliance shall be checked as per GVW of Chassis and weight of front axle and rear axle should not exceed the recommended weight of the chassis manufacturer.</p> <p><b>Stability test:</b> - To check fulfillment of requirement of clause 8 (a).</p> <p><b>b) PUMP TEST:-</b></p> <p>i) The Pump shall be run for a period of four hours non stop to check the rated output at varying pump pressure with 3 m suction lift using an appropriate size suction hose. The test may be conducted after mounting the engine and pump on the chassis and before connecting 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°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 °C.</p> <p>ii) The pump casing and impeller shall be subjected to hydraulic pressure of twice the rated pressure or one and an half time the shut-off pressure, whichever is more to detect any leakage, perforation etc.</p> <p>iii) Test shall be made to check fulfilment of the requirements laid down in <b>para 4.2.3.</b></p>																								

	<p><b>c) PRIMER TEST:</b> The lift for the primer test shall be measured from the centre of suction eye to the water level and the shall be carried out to check the fulfilment of requirement laid down in <b>para 4.3</b></p> <p><b>d) WATER CANNON &amp; SPRAY NOZZLES:</b> The tests shall be conducted to check the requirement laid down in <b>para 4.6 to 4.9</b> to the satisfaction of inspecting committee.</p> <p><b>e) WATER TANK, INK AND IRRITANT TANKS:</b> The tank shall be subjected to hydraulic pressure of 0.3 kg/Cm<sup>2</sup>. The tank should with stand the pressure without any leakage/bulging.</p>
11.	<b><u>GUARANTEE/WARRANTEE:</u></b>
11.1	<b>GUARANTEE/WARRANTY:</b> The warranty period of the fabrication job shall be for two years from the date of final delivery. The tenderer will be bound to carry out all minor repairs during the warranty period of fabrication work within the minimum barest time in Dadra and Nagar Haveli, Silvassa on receipt of information
11.2	The fabricator shall give a certificate regarding the fulfilment of the requirement laid down in this specification.
11.3	The fabricator 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.
12	<b>TRAINING:</b> The fabricator will provide operation and maintenance and training twice for period of 5 working days each free of cost. First such training at time of delivery and Second after 1 year.
13	<b>MARKING:</b> The appliance shall be clearly and permanently marked with the following preferably on a metal plate in the driver's cab and also at the pump operating control panel. <ul style="list-style-type: none"> <li>a) Manufacturers name or trade mark.'</li> <li>b) Year of manufacturer.</li> <li>c) Capacity of pump (in lpm), water tank, irritant tank and indelible ink tank (in liters).</li> <li>d) Engine and chassis number.</li> <li>e) Pump number.</li> </ul> <p>An anodized plate with operating/maintenance instructions suitably printed on it should be provide on the pump-operating panel for easy reference to the operator. The name of the vehicle to be displayed in front as "VARUN"</p>

Signature of the Proprietor  
With Seal

-sd  
**Deputy Superintendent of Police(HQ)**  
**For Dy. Inspector General of Police,**  
Dadra and Nagar Haveli,  
Silvassa

Administration of  
Dadra and Nagar Haveli, U.T.  
( Department of Police)  
Silvassa-396 230.

**TERMS AND CONDITIONS**

Tender Notice No.DNH/Police/GNL/Water Canon/18/

Date : /7/2019

**E- TENDER ( ONLINE) INVITATION NOTICE FOR SUPPLY OF WATER CANON.**

1. The rate (s) quoted shall imply free delivery of the materials at FOR Silvassa including Transportation, loading/ unloading etc. The rate will be valid and operative for one year from the date of issue of the supply order.
2. The tenderer should invariably submit by e-tender (online) only. Bidders can download the tender document from the website. Bidders have to submit Price Bid in Electronic format only on [www.dnhtenders.gov.in](http://www.dnhtenders.gov.in) website till the last date & time for submission tender fee, E.M.D. cover and technical bid cover are to be physically submitted before closing date & time.
3. The Tenderers should furnish complete Technical details of the equipment offered; clearly indicating special features etc. If any furnish, detailed Literature and Catalogue/ Leaflets with the Tender in support of their quotation. List of Accessories/Spares/consumable should be quoted separately in the Technical bid. The tender will be cancelled in case it is noted during the technical evaluation that technical details are incomplete/not in accordance with the catalogues/literature provided with the Bids.
4. All documents/papers should be put in **Technical Bid** except the price bid. The physical document and Technical Bids will be opened in presence of tenders opening Committee and Tenderer or their authorised representatives . The Commercial Bid i.e. online price bid will be opened of those suppliers who have qualified in the Technical Bid.
5. The tenderer can however do so on payment of Earnest Money Deposit equivalent of 2.50% of the total cost of tenders. The **Earnest Money Deposit** for an amount of **Rs.1,25,000/- (Rupees one lakh twenty five thousand only )** in form of **Fixed Deposit Receipt only from any Nationalized/ Scheduled Bank** drawn in favour of the **under signed** should be enclosed with the Technical Bid of tender. **Tender without E.M.D. or E.M.D. in other form will not be considered and tender will be summarily rejected.** The validity of the FDR shall be for a minimum of six months.
6. The Bidder should be a Manufacturer, Whole Sale Dealer or Supplier of the Water Canon. The tenderer should compulsorily enclose a document of manufacturing license or an authorization license as wholesale agent which shall also be uploaded online. Failing to produce such document, the bidder shall be out rightly rejected.
7. The rates should be quoted inclusive of all taxes i.e GST. The quality and specifications of the supplies shall be strictly as per specifications and terms and conditions mentioned in the Annexure A & B.
8. Telegraphic / Telex / Fax and Letter Head quotations are not acceptable and will be ignored.

9. The bidder must upload the scanned copies of the mandatory/ optional documents duly signed and stamped by the bidder compulsorily online while submission of bid. The Mandatory documents are as under:
- a. Copy of Tender Fee in DD Form.
  - b. Copy of EMD in FDR Form.
  - c. Copy of Registration Certificate of the Manufacturer/ Whole Sale Dealers & Suppliers.
  - d. Copy of Manufacturing license or an Authorized licensee as whole sale agent of Water Canon.
  - e. Copy of PAN No.
  - f. Copy of list of orders, installation executed by them for identical/similar stores for any Institution in India, with copies thereof, in the last three year or Experience Certificate for similar work.
  - g. Copy of Certificate of GST Registration,
  - h. Copy of terms and conditions duly signed and stamped by the bidder on letter head.
  - i. Tenderer should furnish two copies of service manuals for the subject equipment.
- The physical documents / Hard copy of the above is only for reference in case the scanned copy is illegible, failure to upload any documents, will not be replaced by hard copy submitted in the office.
10. The successful bidder has to supply Water Canon strictly as per specification shown in Annexure-II and within prescribed time limit. If the material supplied not found as per the specification and within time limit the entire supply order liable for cancellation and E.M.D. / Security Deposit paid will be forfeited to Government and said agency shall be blacklisted.
11. The successful bidder shall have to pay Security Deposit of an amount equal to 10% of the total value of the articles within ten (10) days from the date of demand, failing which the supply order placed to the agency for supply of article will stand automatically cancelled without any intimation. The amount of EMD deposited at the time of tender, shall be treated as a part of the Security Deposit. The Security can be accepted in the form of FDR only drawn from any Nationalized Bank payable at Silvassa. The validity of the FDR shall be for a minimum of six months period.
12. The Bidder / Firm should confirm that the equipment is brand New, is of latest technology and should have the facility for up gradation, if necessary.
13. In case of imported stores, Tenderers should submit copy of agency agreement clearly stating the quantum of agency commission and elaborating on the responsibility of supplies / principal and services to the tenderer by the India Agent giving details of services available in India.
14. The E.M.D. / Security Deposit paid shall be returned back once the equipment is installed and commissioned successfully and bidder should submit 10% of total value of order as performance Guarantee is furnished on the date of final delivery at DNH valid for two years.
15. The Tenderer shall an option to extend the above Security Deposit as performance Guarantee valid for 2 years after the equipment is accepted. Installed and commissioned successfully.
16. Bidders shall not be under a declaration of ineligibility for corrupt, blacklist, Holiday list, De-registration, Demotion, Suspension, banning for business and fraudulent practices etc. issued

by the department or any department of Administration of DNH or by any Government, Semi Government and Government Under- taking etc or any State/UT within India in accordance with Para below,

Department defines for the purposes of this provision, the terms set forth below as follows.

1. "corrupt practice" means behaviour on the part of officials in the public or private sectors by which they improperly and unlawfully enrich themselves and or those close to them, or induce others to do so, by misusing the position in which they are placed, and it includes the offering, giving, receiving or soliciting of anything of value to influence the action of any such official in the procurement process or in contract execution, and
  2. "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Employer, and includes collusive practice among bidders ( prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Employer of the benefits of free and open competition.
  3. The Competent Authority will reject a proposal for award if it department that the bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;
  4. The Competent Authority will declare a firm ineligible, either indefinitely or for a stated period of time, if at any time it departments that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, an department contract.
17. **Guarantee/Warranty :-** The warranty period of the fabrication job of water canon shall be for two year from the date of final delivery. The tenderer will be bound to carry out all minor repairs during the warranty period of fabrication work within the minimum barest time in Dadra and Nagar Haveli, silvassa on receipt of information.
18. No advance payment or part payment will be made. Payment will be made only after full supply as per order given.
19. No form "D" will be issued.
20. No extra charges for packing, forwarding or insurance etc. Will be paid on the rates quoted.
21. In case of failure to Supply of Water Canon ordered for, as per conditions and within stipulated time, the same will be procured if required, from the bidder who offered next lowest or from any other sources as may be decided by the Tender Inviting Authority and the loss to Government on account of such purchase(s) shall be recovered from the original supplier's from E.M.D. / Security Deposit or bills payable. **The Supplier shall have no right to dispute with such procedure.**
22. If at any time, after the order placed to the agency for Supply of Water Canon for any reason whatsoever not required the whole or part of the quantity thereof as specified in the order, the Tender Inviting Authority shall give notice in writing to supplier for such curtailment and in such case, the supplier shall have no claim for compensation by reason of any alteration which shall involve any curtailment or the supply originally contemplated.
23. The E.M.D./ Security Deposit paid by the tenderer(s) earlier against any other tender(s) or supply is/ are not adjustable with E.M.D./ Security Deposit required for this work/tender.



24. The prices should be quoted in words as well as in figures without any over writing or erasing, cutting etc failing which such tenders will be rejected.
25. Each page of the Tender should be numbered and signed by the Tenderer with the seal of the firm while uploading the documents.
26. Water Canon shall not be liable for payment of any demurrage / storage charges for whatsoever reason.
27. If the supplier whose tender is accepted, fails to execute the supply order within the stipulated time, the E.M.D./Security Deposit of such tenderer will stand forfeited to the Government and the contract for the supply shall stand terminated with no further liabilities on either part to the contract.
28. The successful manufacturer/suppliers shall be responsible for transportation of Water Canon to Police Department, D. & NH, Silvassa at his/their own risk and cost. The Transport facilities shall be managed by the successful manufacturer/suppliers at his / their own cost.
29. It shall be presumed that the Terms & Conditions mentioned in the Tender have been duly accepted by the bidder in case he submits the Tender. The Tenderer shall have no right to modify/ alter/ amend/ delete any Terms/ condition mentioned in the Tender document.
30. Tenderers are required to quote strictly as per specification of the equipment given in Annexure-II.
31. Additional features, if any should be listed separately in the offer.
32. If any dispute arises, the case shall be decided within the jurisdiction of Silvassa, D. & N.H.
33. The rate offered by the supplier/s shall be inclusive of all Taxes, GST, Octroi, Cess, Income Tax, Charges on account of transportations, loading, unloading up to the D.& N. H., Silvassa.
34. The successful supplier/s shall have to execute an agreement on Non Judicial Stamp Paper worth Rs.100/- ( Rs. One hundred only ) which will cover all the conditions here under referred.
35. **Inspection:** Inspection is to be done by the designated representation of the Deputy Inspector General of Police, DD and DNH, Silvassa at your cost.
36. **Delivery :** (1) 90 days from the date of work order for Water Canon Vehicles.  
(2) If delivery not made up to within 90 days, then  
For the delay of first 15 days or less- 1% of the cost of per vehicles  
For Additional delay of 15 days or fraction of 15 days – additional 1% penalty up to total delay of 45 days. For additional delay of 15 days or fraction of 15 days after total delay of 45 days additional 2% of the cost of per vehicles.
37. Right to accept or reject without assigning any reason, thereof, any or all tenders in part or whole is reserved with the Tender Inviting Authority and his decision(s) or all matters relating to acceptance or rejection of the tenders as a whole or in part will be final and binding to all.

**AGREEMENT**

Certify that I / We hereby agree to abide with Terms & Conditions as specified in  
Tender.

-sd

**Signature of the Supplier's / Firms with  
Seal.**

**Deputy Superintendent of Police (HQ)  
For Dy. Inspector General of Police  
Dadra and Nagar Haveli  
Silvassa.**

Date: /7/2019

Note:- Please return one copy of these conditions duly signed along with your tender .