

**BOQ FOR POP UP SPRINKLER IRRIGATION SYSTEM FOR  
IIITD AT OKHLA INDUSTRIAL ESTATE PHASE III, NEW DELHI**

SL.NO.	PRODUCT DESCRIPTION	UNIT	QTY.	RATE (Rs.)	AMOUNT (Rs.)
<b>1.</b>	<b>Piping Network</b>				
	Providing, laying & jointing in position PVC pipe conforming to IS:4985:2000 and suitable for the respective working pressures with all fittings and accessories e.g. couplings, tees, bends, reducers, screwed adapters, flanged tail pieces etc. jointing as per manufacturers' instruction, including earth work in excavation and refilling (Earth work includes 450mm of soil cover over the pipe and width of 300mm).				
a	uPVC Pipe 110mm OD-10kg/cm <sup>2</sup>	m	786		-
b	uPVC Pipe 90mm OD-6kg/cm <sup>2</sup>	m	2736		-
c	uPVC Pipe 75mm OD-6kg/cm <sup>2</sup>	m	1120		-
d	uPVC Pipe 63mm OD-6kg/cm <sup>2</sup>	m	624		-
e	uPVC Pipe 50mm OD-6kg/cm <sup>2</sup>	m	1614		-
f	uPVC Pipe 40mm OD-6kg/cm <sup>2</sup>	m	3168		-
	<b>Make: Supreme/Finolex/George Fisher</b>				
<b>2.</b>	<b>Sprinkler &amp; Accessories</b>				
a	Providing & Fixing of Pop up Sprinkler with Gear driven mechanism having 2" female inlet, dia of coverage 84.0-92.0 m at 6.0-7.0 bar, capable of delivering discharge 9.08-15.6 lps and trajectory of throw 23°. The Sprinkler shall be available in (5) numerically coded interchangeable nozzle, the sprinkler nozzle assembly shall incorporated diffuser screw facility for radius reduction and shall be suitable for use in extremely saline and/ or dirty water condition, so that sprinkler shall not require secondary filtration of any kind. The sprinkler shall provide both part and continuous forward full circle adjustment from 40° to 360°. Sprinkler shall have minimum 16cm Pop up Stroke to bring the rotating nozzle in clean environment. It is suitable for sports fields like Football, Rugby, Hockey, Cricket, Soccer & Baseball. It should have a feature of special internal rubber folding top, avoids the passage of powder, sand and dirty water around the telescopic pipe.	no.	6		-
	<b>Make: Sime, Italy, Vyrsa, Spain, Signature, USA</b>				
b	Providing & Fixing of Gear Driven Pop up Sprinkler with ABS Riser with 1" inlet , 4" Riser, capable of delivering 0.32 - 2.05 lps with dia of coverage from 27.0 - 45.0 m at 2.76 - 6.21bar with trajectory of throw 26°, having Top graduated arc adjustment , arc memory clutch, reversing mechanism, Arc recall, Full & Part Circle adjustments in 1, and 3 discharge ports for even water distribution over close, medium & distant coverage areas, Heavy Duty rubber cover which seals out dirt and increase product durability.	no.	75		-
	<b>Make: K-Rain, USA, Signature, USA, Vyrsa, Spain</b>				
c	Providing & Fixing of Gear Driven Pop up Sprinkler with ABS Riser with 3/4" inlet , 5" Riser, capable of delivering 0.15 - 0.63 lps dia of coverage of 23.2 - 30.6 m at 2.04 - 5.0 bar with trajectory of throw 26°, having Top graduated arc adjustment , arc memory clutch, reversing mechanism, Arc recall, Full & Part Circle adjustments in 1, Heavy Duty rubber cover which seals out dirt and increase product durability.	no.	40		-
	<b>Make: K-Rain, USA, Signature, USA, Vyrsa, Spain</b>				

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d	Providing & Fixing of Gear Driven Pop up Sprinkler with ABS Riser with 1/2" inlet, capable of delivering 0.05 - 0.21 lps dia of coverage of 10.2 - 18.0m at 2.1 - 3.4 bar with trajectory of throw 26°, having Top graduated arc adjustment, arc memory clutch, reversing mechanism, Arc recall, Full & Part Circle adjustments in 1, Heavy Duty rubber cover which seals out dirt and increase product durability.	no.	43		-
	<b>Make: K-Rain, USA, Signature, USA, Vyrsa, Spain</b>				
e	Providing & Fixing of 4" Rain Pro HP Series with Adjustable Arc Nozzle, adjustable from 20° and 360°. Nozzles having matched precipitation rates and color coded for easy radius identification. Pop up has Satinless steel screw for flow and radius adjustment and high impact virgin ABS plastic construction. It is available with female thread or male threads. It has screen include with each nozzle, having uniform coverage, and no special tools required for arc adjustment. It operates from 0.7 to 2.75 bar and optimum pressure 2.1 bar. It is capable of delievering 0.075 - 0.54 lps with dia of coverage of 13.4 - 31.0 m at 2.0 - 5.0 bar.	no.	716		-
	<b>Make: K-Rain, USA, Signature, USA, Vyrsa, Spain</b>				
f	Providing & fixing of Swing Joint 1"	no.	75		-
	<b>Make: Harit/ Aqua/ Irrigation</b>				
g	Providing & fixing of Swing Joint 3/4"	no.	40		-
	<b>Make: Harit/ Aqua/ Irrigation</b>				
h	Providing & fixing of Swing Joint 1/2"	no.	759		-
	<b>Make: Harit/ Aqua/ Irrigation</b>				
i	Providing & fixing of 3/4" one piece brass QCV, <b>Automat (Harit)</b>	no.	50		-
	<b>Make: Harit/ Aqua/ Irritech</b>				
j	Providing & fixing of 3/4" Male X 1/2" Female Brass QCV Key, <b>Automat (Harit)</b>	no.	15		-
	<b>Make: Harit/ Aqua/ Irritech</b>				
k	Providing & fixing of 3/4" X 3/4" Brass Swivel Elbow, <b>Automat (Harit)</b>	no.	15		-
	<b>Make: Harit/ Aqua/ Irritech</b>				
l	Providing & fixing of Service Saddle 110mm X 3/4"	no.	9		-
m	Providing & fixing of Service Saddle 90mm X 3/4"	no.	37		-
n	Providing & fixing of Service Saddle 75mm X 3/4"	no.	2		-
o	Providing & fixing of Service Saddle 50mm X 3/4"	no.	2		-
<b>3.</b>	<b>Valves &amp; Accessories</b>				
a	Providing & fixing of 2.5" Butterfly Valve	no.	2		-
	<b>Make: Zoloto/ Leader/ Sant</b>				
b	Providing & fixing of 1.5" Ball Valve GM	no.	2		-
	<b>Make: Zoloto/ Leader/ Sant</b>				
c	Providing & fixing of 3" Butterfly Valve for isolation purpose	no.	10		-
d	Providing & fixing of 4" Butterfly Valve	no.	22		-
e	Providing & fixing of 3" Butterfly Valve	no.	7		-
	<b>Make: Zoloto/ Leader/ Sant</b>				
f	Providing & fixing of Valve box with cover on all valves. The valve boxes shall be heavy duty plastic with poly vinyl chloride reinforce and a green top.				
i	20" Rectangular Valve Box	no.	39		-
ii	10" Round Valve Box	no.	9		-
iii	6" Round Valve Box	no.	50		-
	<b>Make: MAIS, KSA, Carson, USA/ Palaplast, Greece</b>				
g	Providing and fixing of Aluminum pilot Pressure relief valve size 2" along with bypass arrangement, cover & necessary fittings.	no.	2		-
	<b>Make: Harit/ Aqua/ Bermad</b>				

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h	Providing & fixing of a double acting Continuous Air release valve 2" made of high strength aluminum. The Continuous Air release valve shall be capable of both releasing and admitting air from and into the line during system operation. The working pressure shall be 10 Bars and testing pressure shall be 16 Bars.	no.	2		-
	<b>Make: Harit/ Aqua/ ARI</b>				
i	Providing & fixing of a double acting Air release valve 2" made of plastic with fiber glass reinforced . The Air release valve shall be capable of both releasing and admitting air from and into the line. The working pressure shall be 10 Bars and testing pressure shall be 16 Bars.	no.	9		-
	<b>Make: Harit/ Aqua/ ARI</b>				
<b>4.</b>	<b>Filtration Unit</b>				
a	Providing & Fixing of Disc filter (120 mesh) 50m <sup>3</sup> /hr having an inlet & two outlets connections of 3", 2 pressure gauze ports of 3/4" ,a helix made of fiber glass reinforce polyamide at base of disc filter cartridge to create a helical effect in the incoming water ,spinning particulate in suspension away from the filtering element and so minimizing cleanings frequency ,3/4" outlet for flushing at bottom of filter & maximum working pressure of 14 bars	no.	2		-
	<b>Make: Harit/ Amaid, Israel/ Arkal, Israel</b>				
b	Providing & Fixing of Pressure Gauge Glycerine filled	no.	4		-
	<b>Make: Automat/ Guru/ Wika</b>				
<b>5.</b>	<b>Pumping Unit</b>				
a	Booster Pump Capable of 12.5HP, Discharging 9.5 lps at 50mtr Head with Foot Valve, Suction, Delivery and Header Assembly	set	2		-
	<b>Make: Kirloskar/ CRI or equivalent</b>				
b	Providing & Fixing of Control Panel 12.5HP with ammeter, voltmeter and all necessary protection	no.	2		-
	<b>Make: L &amp; T/ BCH or equivalent</b>				
c	Providing & Fixing of Water Level Sensor Controller	no.	2		-
	<b>Make: Automat or equivalent</b>				
<b>TOTAL PROJECT VALUE (inclusive of taxes)</b>					<b>-</b>