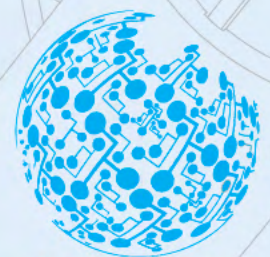


# Jain Sure Loc Plus™

Column Piping System



Patented Technology  
From The World Leaders

## INTRODUCTION



Jain Irrigation Systems Limited is a Company globally Renowned for our uPVC products used for Ground water Tapping, Aquifer Recharge Wells, Rain Water Harvesting Systems as well as Infiltration and Sub Soil Drainage Systems.

These products have gained the confidence of users throughout the world and this has encouraged Jains to get our R & D to design and manufacture yet another product which will be a forward integration of the above stated Group of Ground Water Tapping Pipe System. This will convey the tapped water with efficiency combined with economy and have a long life.

Introducing JAIN uPVC SURE LOC PLUS COLUMN PIPES for use in TUBE and BORE WELLS to pump water efficiently and economically with SUBMERSIBLE PUMPS.

**Patented technology from the world leaders. Its threadless jointing system eliminates the thread damage problem. Its innovative continuous rib structure absorbs thrust and stops movement of splines. Thus, possibility of the pump falling down and loss of borehole is completely eliminated.**

### SAVE CAPITAL, RUNNING & REPLACEMENT COST.

Complete Column pipe system comes with NO METAL PARTS except Pump Connector.

- NO SPANNERS AND PIPE WRENCHES FOR JOINTING!!
- LONG LIFE- WEAR & TEAR IS NIL.
- PRESSURE SEALED BY PUSH-FIT JOINTS .
- QUICK AND EASY INSTALLATION & DISMANTLING.
- COMES WITH SPECIAL CABLE CLIPS ON EACH PIPE.
- LIGHT IN WEIGHT, EASY TO HANDLE AND TRANSPORT.

## STANDARD AND RANGE

Jain Sure Loc Plus™ Column Pipes conform and exceed the requirements specified in ASTM D 1785 and are available in Schedule-80 and Schedule-120 for various depths of installation in sizes ranging from 1.25" to 8" diameter and in standard lengths of 3 meters.

## Material Properties

Properties	Standard	Unit	Typical Value
Tensile Strength	ASTM D638	PSI	7000
Modulus of Elasticity in Tension	ASTM D638	PSI	400,000
Izod Impact Strength	ASTM D256	Ft-lb/in of notch	>0.65
Heat Distortion Temperature at 264 psi	ASTM D648	°F	158
Burning Rate	ASTM D635	-	Self Extinguishing
Vicat Softening Temperature	IS 12235-2	°C	80
Density	IS 12235-14	gm/cc	Below 1.43



# Jain Sure Loc Plus™

## Column Piping System

# INSTALLATION PROCEDURE



1  
Connect the Pump Connector with the Pump



2  
Mount the Holding Clamp



3  
Lower the Pump



4  
Connect the Pump Guard



5  
Prepare the Pipe for Lowering



6  
Connect the Pipe



7  
Lock the Cable using Cable Clip



8  
Repeat the Step 5,6 & 7 till all the pipes are lowered and connect the Top Connector



9  
The well is ready to use

## Do's

- Jain Sure Loc Plus™ Column Pipe should be used in tube wells where the diameter of the tube well is at least two inches more than the diameter of the pump.
- If the pump does not have open discharge at the well head, NRV should be installed at the well head between top connector and piping system to be connected.
- Use double split clamps to hold the column pipe at the well head.
- Use plain water or soap solution to lubricate the rubber ring and the spigot end of the pipe while making jointing of the column pipes during installation.
- Store the pipes under shade and on level ground in ventilated space.

## Don'ts

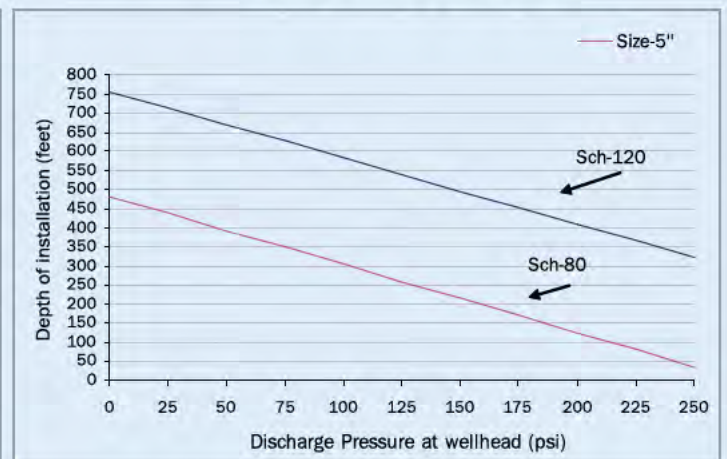
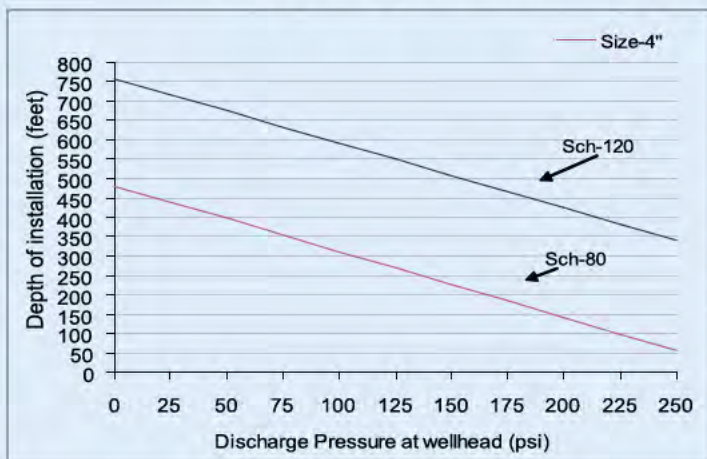
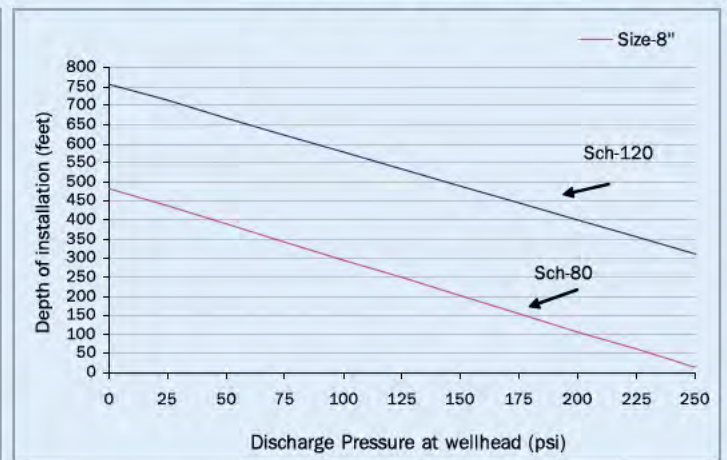
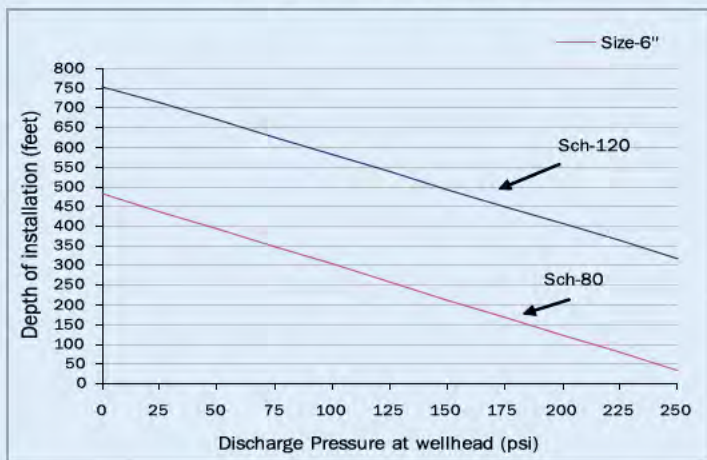
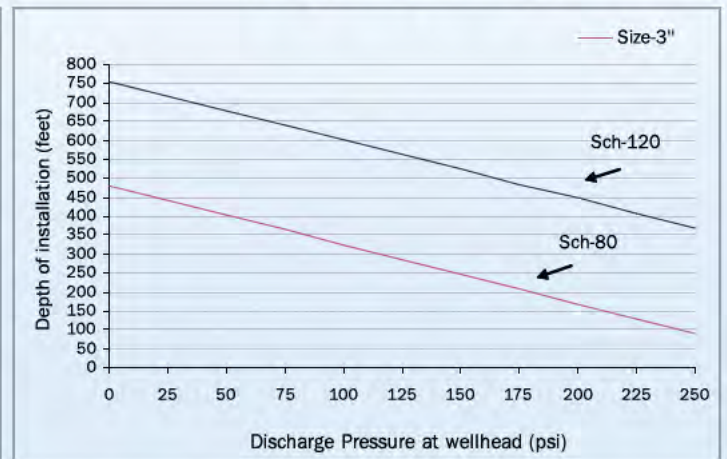
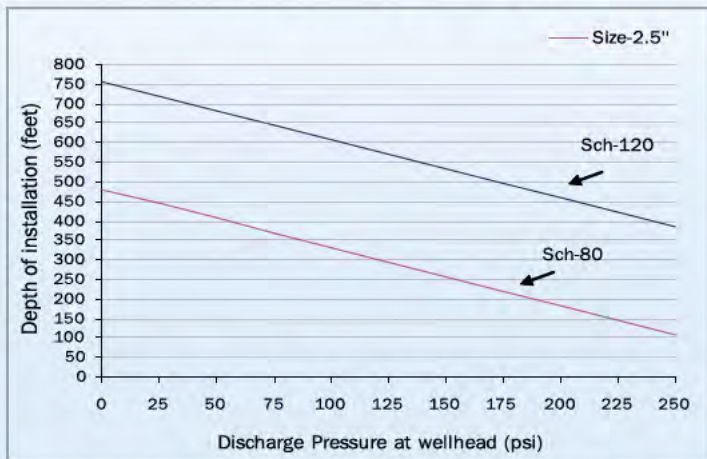
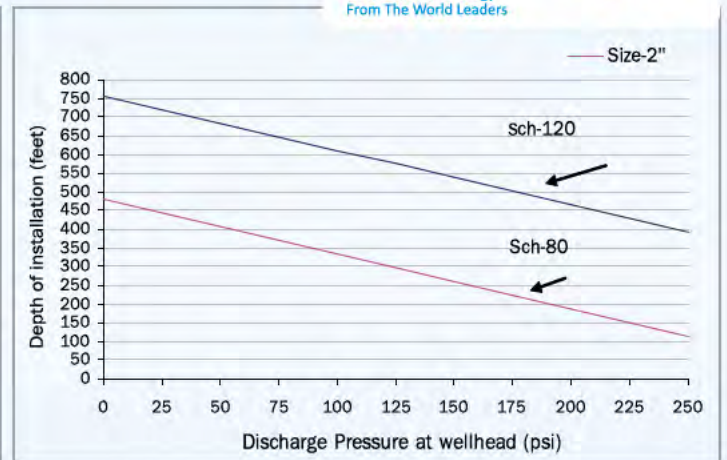
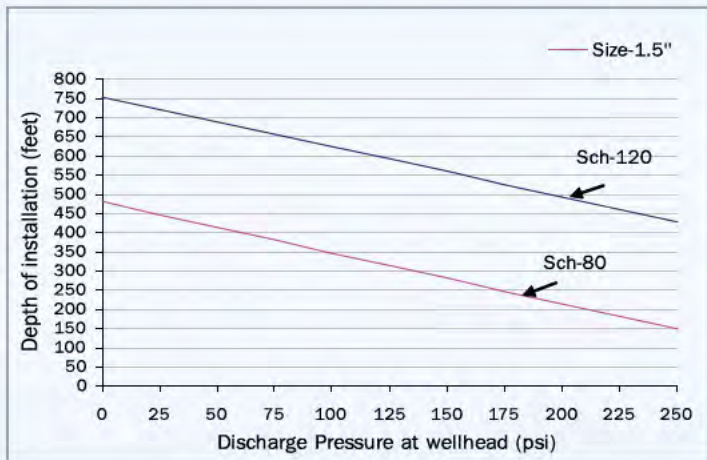
- Do not install the pump without the non return valve in the pump.
- Do not use any grease or lubricant in the spline groove or on the spline.
- Do not use pipes with damaged / scratched spigot ends as such a joint may leak or fail.
- Do not disturb the factory fitted assembly of pump connector.
- Do not remove the coupler by holding the pipe alone in the split clamp.

**Caution:** Ensure that Jain Sure Loc Plus™ uPVC Column Pipe is selected and installed as per the recommended design calculations based on various design parameters like depth of water / draw-down in the well and discharge of the well during development. Please consult Company engineers for more details.

# QUICK SELECTION CHART FOR JAIN SURE-LOC PLUS™



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From The World Leaders





• **Patented technology from the world leaders.**

• Smooth inner wall, no scale build-up or erosion, resulting in energy saving of over 10%

• Tested SAFE for Potable Water as per BS 6920: part 1: 2000 Specifications, WRAS & DVGW approved

• Jain Sure Loc Plus™ Joint is designed with external ribs on pipe and passage in couplers to restrict the movement due to torque at start and stop of the pump

• Each Sure Loc Plus™ coupler is with four splines to provide extra tensile strength to the joint with a good factor of safety

• 100% leak proof joint with two rubber 'O' rings in each Sure Loc Plus™ coupler

• Jain Sure Loc Plus™, uniquely designed with entry and exit holes for spline, ensures complete insertion and visual confirmation

• Complete range of column pipe, fittings and accessories are available ex-stock in all JAIN Depots and Dealer outlets

## FEATURES & ADVANTAGES

## FITTINGS & ACCESSORIES

Following factory supplied fittings and accessories are recommended for compatibility and trouble-free installation of Jain Sure Loc Plus™ uPVC Column Pipes.



**Top Connector**

The Top Connector is made of high quality uPVC Compound. It is machined to suit the Sure Loc Plus™ coupler at one end and the other end is BSP threaded to match with conventional threaded fittings.



**Pump Connector**

The Pump Connector is an assembly of BSP threaded stainless steel pipe at one end to match the socket threads in the pump head and Sure Loc Plus™ coupler on the other end. This is a factory fitted assembly and Installers/ users are advised not to disturb the assembly.



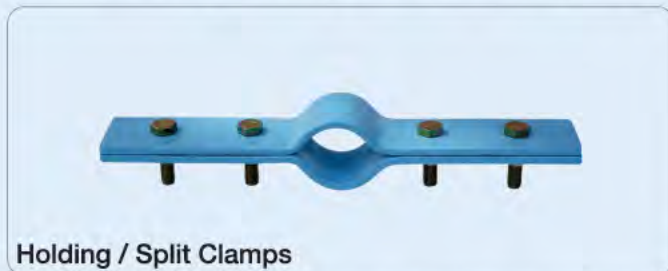
**Coupler**

The uniquely designed coupler has two sets of grooves on each side to house the spline that aligns perfectly to the grooves on the pipe to be joined. The coupler also has longitudinal grooves providing pipe locking mechanism & for absorbing sudden jerk from the pump. The coupler is housed with 'O' rings making Sure Loc Plus™ leak proof.



**Lifting CAP**

The Lifting Cap is made from high quality uPVC Compounded material. One end is suitable for the Sure Loc Plus™ coupler and the other end is provided with steel hook to facilitate lifting and lowering of column pipe assembly.



**Holding / Split Clamps**

Made from powder coated high quality steel flats with bolts & nuts to hold the assembly safely secured at the well head.



**Hi-Tensile Spline**

Made out of specially engineered plastic material to provide high tensile strength to the Sure Loc Plus™ joint.



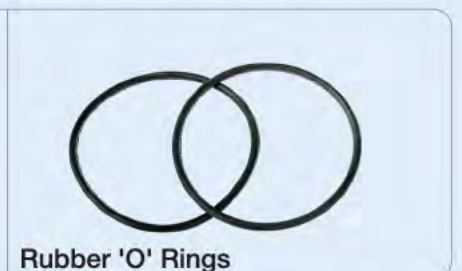
**Cable Clips**

Cable Clips are made out of uPVC or other plastic materials suitable to hold cable along the column pipe enabling installation and lifting of column pipe assembly without damaging the cables.



**Pump Guard**

Made from high quality steel to avoid the pump falling down inside the well in case of joint failure due to overheating of pump (because of dry run).



**Rubber 'O' Rings**

Manufactured from material conforming to Industry standard and of suitable configuration to sustain pressure & achieve 100% leak-proof joint.

# TECHNICAL SPECIFICATIONS

As per ASTM D 1785- Schedule 80



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Nominal Diameter	Outside Diameter		Minimum Wall Thickness	Outside Diameter Over Coupler	Maximum Depth of Installation		Maximum String Weight*		Maximum Joint Strength		Maximum Pump Rating	Maximum Pump Pressure		Maximum Pump Discharge
	Inch	mm			m	feet	kg	lbs	kg	lbs		H.P	Kg/cm <sup>2</sup>	
1.25"	1.660	42.16	4.85	55	145	475	480	1056	680	1496	10	32.91	468	79
1.5"	1.900	48.26	5.08	63	145	475	550	1210	860	1892	15	29.75	423	109
2"	2.375	60.32	5.54	81	145	475	740	1628	1100	2420	20	25.32	360	182
2.5"	2.875	73.02	7.01	95	145	475	1050	2310	1540	3388	25	25.32	360	261
3"	3.500	88.90	7.62	114	145	475	1450	3190	2260	4972	30	23.42	333	407
4"	4.500	114.30	8.56	141	145	475	2180	4796	3650	8030	50	20.25	288	709
5"	5.563	141.30	9.52	168	145	475	3180	6996	4690	10318	75	18.35	261	1123
6"	6.625	168.28	10.97	200	145	475	4460	9812	7200	15840	100	17.72	252	1609
8"	8.625	219.08	12.70	260	145	475	7070	15554	10200	22440	125	15.82	225	2818

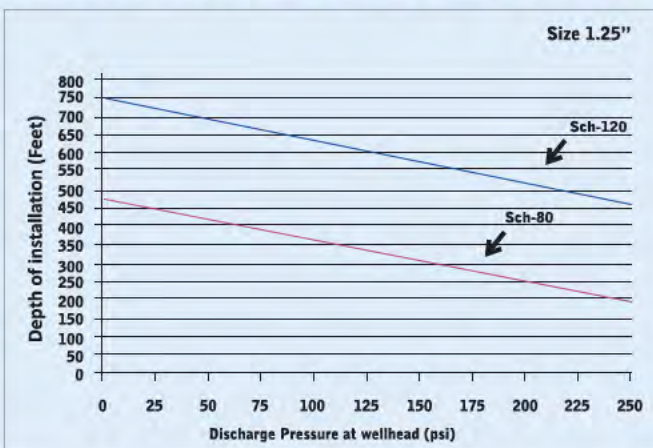
Note: \*considering discharge pressure of 0.3 kg/cm<sup>2</sup> (4.26 psi) at well head.

As per ASTM D 1785 - Schedule 120

Nominal Diameter	Outside Diameter		Minimum Wall Thickness	Outside Diameter Over Coupler	Maximum Depth of Installation		Maximum String Weight*		Maximum Joint Strength		Maximum Pump Rating	Maximum Pump Pressure		Maximum Pump Discharge
	Inch	mm			m	feet	kg	lbs	kg	lbs		H.P	Kg/cm <sup>2</sup>	
1.25"	1.660	42.16	5.46	55	230	750	710	1562	820	1804	10	37.97	540	73
1.5"	1.900	48.26	5.72	63	230	750	825	1815	1030	2266	15	34.18	486	101
2"	2.375	60.32	6.35	81	230	750	1125	2475	1390	3058	20	29.75	423	170
2.5"	2.875	73.02	7.62	95	230	750	1600	3520	1790	3938	25	29.75	423	250
3"	3.500	88.90	8.89	114	230	750	2240	4928	2900	6380	30	27.85	396	379
4"	4.500	114.30	11.10	141	230	750	3420	7524	4660	10252	50	27.22	387	637
5"	5.563	141.30	12.70	168	230	750	5000	11000	7230	15906	75	25.32	360	1009
6"	6.625	168.28	14.27	200	230	750	7000	15400	8600	18920	100	23.42	333	1467
8"	8.625	219.08	18.24	260	230	750	11460	25212	14090	30998	125	24.05	342	2504

Note: \*considering discharge pressure of 0.3 kg/cm<sup>2</sup> (4.26 psi) at well head.

## Quick Selection Chart for Jain sure-Loc Plus™





Jain Irrigation Systems Ltd. is a diversified company with turnover in excess of ₹ 4200 crore. We have a Pan-India & Global Presence with 26 manufacturing bases spread over 4 continents. Our products are supplied to over 116 countries with able assistance from more than 3000 Dealers and Distributors worldwide.

We are the second largest Micro Irrigation company in the world. Our businesses include Complete range of Micro Irrigation Systems and Components; PVC and PE Piping Systems; PVC Sheets; Solar Water Heaters; Lighting & Pumping; Processed Fruits & Vegetables; Tissue-Culture, Green Houses etc.

We have the distinction of being the largest processor of Thermoplastic Piping in India. We annually process over 3,00,000 MT of various polymers.

We extrude and injection mold PVC, PE, PP along with other engineering polymers like Polycarbonate, Polyamide, PBT, ABS etc. in our ISO 9001, ISO 14001 & BS OHSAS 18001 certified manufacturing facilities.

We have an enviable track record as a 'Total Solution Provider' for various Piping Systems for Water, Sewerage, Drainage, Sub-Soil Drainage, SWR, HSC, Lift / Drip / Sprinkler Irrigation, Effluents, Chemicals, Ash / Slurry, Offshore / Marine Outfall, Gas & Cable Ducting etc.

Our unending efforts in the pursuit of excellence with ongoing Research and Development have earned the Company the highest R & D awards of the country. Numerous other awards and recognition for our performance have been earned in Exports, Fair Business Practices, Quality, Excellence, Innovation, Environment, Product development etc. under the leadership of our Chairman Padmashree Dr. B.H. Jain.

The Corporation has pioneered the Piping Industry in India and helped harbinger a Second Green Revolution.

The reward has been millions of smiling farmers and scores of customers across the globe.



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Patent: Patent pending for Sure Loc Plus™ Pipe Joint