

APL APOLLO
uPVC
COLUMN
PIPES

**HAR
PRESSURE
SE BEASAR**



COMPANY OVERVIEW





VISION

We aspire to become a global leader in the field of Plastic Piping Systems through our relentless process of transforming innovative ideas into incredible realities. We aim to be a genuinely global, high-performing organisation that provides excellent goods and services to its customers.

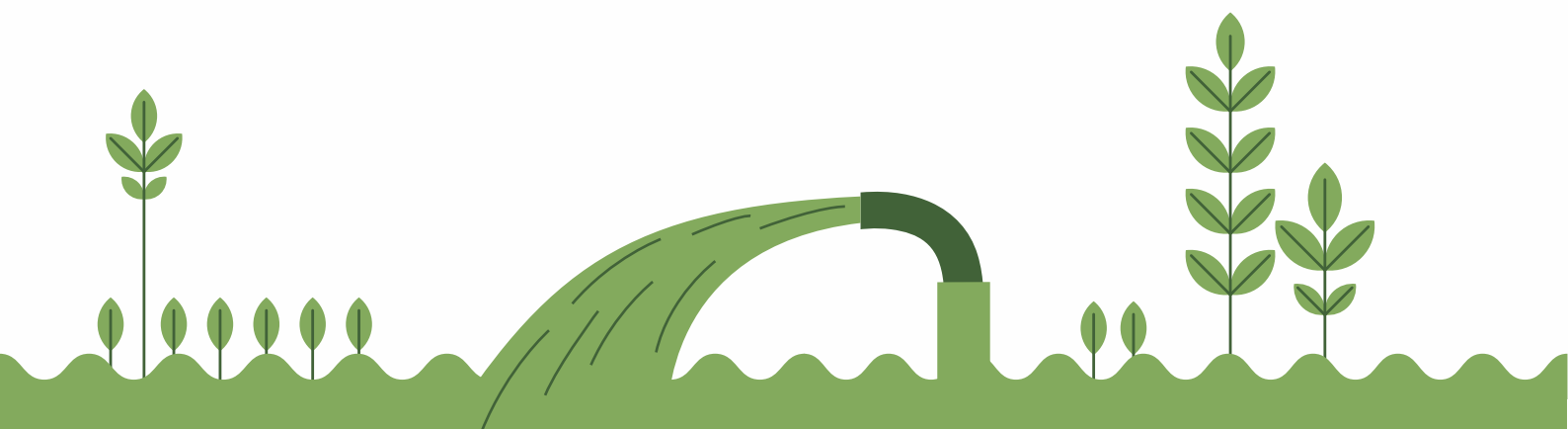
With our ideals, we seek to create an innovative, high-performance company that is dedicated to offering great products to its clients. We strive to achieve total customer satisfaction by continually improving on product quality, ease of use, availability and cost performance. These values have guided our interactions with customers, partners, employees, and shareholders at large.



MISSION

Our mission is to become a market leader by being one of the best quality product suppliers by expanding continuously, using new technologies, improving business methods, satisfying market expectations, and ensuring employee happiness.

We have always believed in returning back to the society, and so we're working to harness the potential of non-renewable energy sources. Furthermore, we are devoted to deliver on every promise to our valued clients, and work with them to fully understand their evolving needs and long-term requirements.





OUR JOURNEY

2022-23

- PPR-C Pipes and Fittings Launch.
- Purchased of new land for upcoming plant at Dadri 2

2020-21

- Concluded the strategic acquisition of 'Kisan Mouldings' unit in Bengaluru.
- Successful listing of company's share on NSE.
- Started manufacturing water tank, solvent cement and Bath Fittings Robust.

2019

- Concluded promoter infusion of 142 crore through issuance of equity shares and fully convertible warents on preferential basis.

2018

- Purchased a land with building in Noida to develop Apollo Pipes corporate office.
- Introduced a brand new products range of faucets, taps, showers and accessories.

2017

- Largest plastic piping solution company.
- Installed capacity of moulding division enhanced to 27,000 MTPA

2016

- First in north India to install 900kg/hr PVC extension line.
- Expanded capacity by 10,000 MTPA
- Took total available capacity to 50,000 MTPA

2013-15

- Started manufacturing uPVC plumbing pipes fittings with 180 MTPA Capacity.
- Commenced CPVC pipes & fittings using kemone, France resin.
- Started manufacturing uPVC agri and SWR fittings.

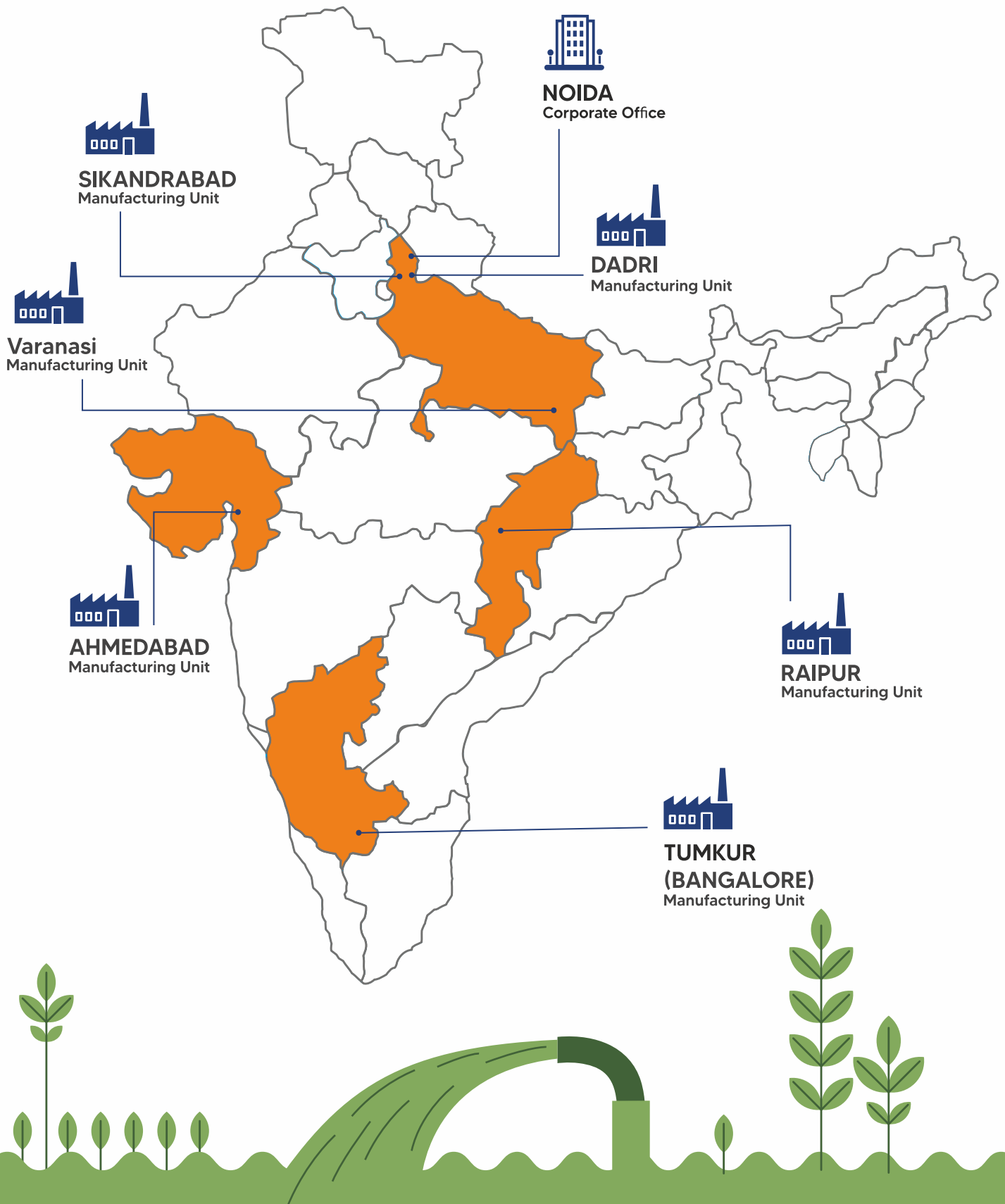
2005-10

- Started manufacturing HDPE pipes
- Setup new plant at Dadri-UP of capacity 21,000 MTPA

2000

- Commercial PVC pipe manufacturing operations.
- Establishd 3000 MTPA in Sikanderabad, U.P.

OUR PRESENCE



MANUFACTURING UNITS



Manufacturing Plant - Dadri (U.P.)



Corporate Office - Noida (U.P.)



Manufacturing Plant - Raipur (Chhattisgarh)



Manufacturing Plant - Bawla (Gujarat)



Manufacturing Plant - Sikandrabad (U.P.)



Manufacturing Plant - Tumkur (Karnataka)

AWARDS & CERTIFICATIONS



Best Brand Award-2021
by
The Economic Times



Iconic Brands Award of India-2022
by
The Economic Times



Best Manufacturing Award - 2024
by
Industry Outlook



uPVC COLUMN PIPES



uPVC COLUMN PIPES

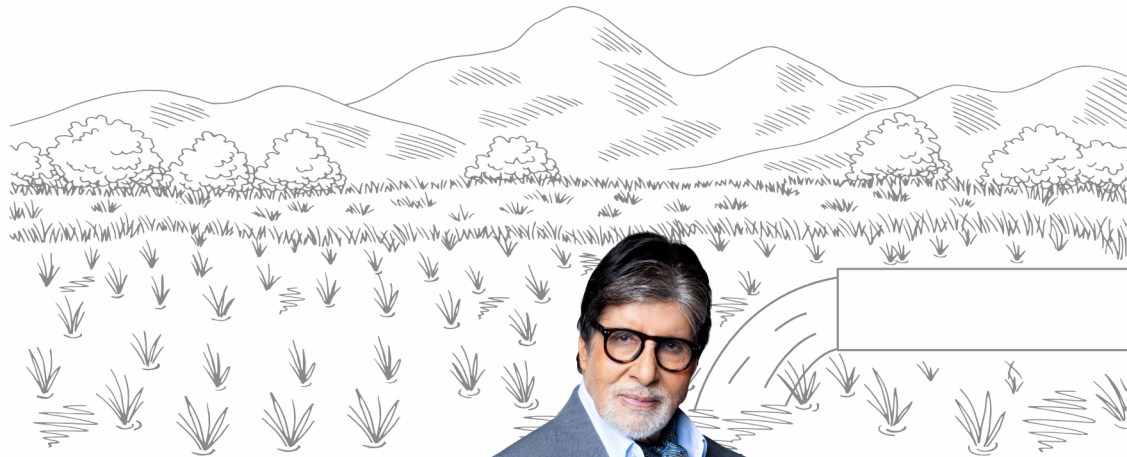
APL Apollo Column Pipes have been specially designed and manufactured for submersible/bore well under stringent quality standards. They are tested to withstand system load comprising pump, water and Pipe weight with adequate factor of safety. Due to unique design of threads, they can withstand considerable shock and jerk load during operation. Pipes supplied with separate couplers are integrally locked with the Pipes. Couplers are permanently locked with the Pipes by nylon wire which is superior than metallic wire.

APL Apollo Column Pipes for submersible pump offer many advantages like-light weight, high tensile load capacity, leak-proof joints and long life with economy and hence, emerges as the best option for conventional metal pipes. These pipes are available in different classes. Pipes are available in 3 metre length with square threads fitted with rubber sealing ring at male threaded end.

Available in various sizes starting from in 33 to 168 mm (1" to 6") diameter, APL Apollo Column Pipes are made of uPVC and are non-corrosive, Hi-tech, Hi-tensile pipes, having a successful installation track record of over 10 years across the globe. The thick and thin technology to ensure uniform thickness across the length of the pipe and the square threads for extra strength, are some of the unique features of APL Apollo Column Pipes. These pipes are available in light duty, medium duty, standard duty, heavy duty and super heavy duty for varying needs based on installation depths up to 400 mtrs.

Application

APL APOLLO uPVC Column Pipes are usually used to bring out underground stream water with submersible pumps in farms.



Why should you choose APL Apollo Column Pipes over other pipes?

- ⦿ Super Lock System
- ⦿ Smoother (inner) surface
- ⦿ Leak proof joints ⦿ Quality Water
- ⦿ Chemical Resistance ⦿ Long Life



Column Pipe Load & Pressure Technical Chart				
Sizes & Types	Ultimate Breaking Load (in Kgs)	Safe Pulling Load With Chain Pully (in Kgs)	Safe Allowable Hydro Static Pressure (KG/CM ²)	Safe Total Pump Delivery Head (m)
OD:33mm, NB:25 mm (1")				
ECO LIGHT	900	550	12.5	125
LIGHT	1000	600	15	150
MEDIUM	1250	750	21	210
STANDARD	1900	1100	30	300
OD:42mm (11/4") DN: 32mm				
V4-1ECO	1300	800	12.5	125
LIGHT	1550	900	15	150
MEDIUM	1800	1050	21	210
STANDARD	2550	1500	25	250
HEAVY	3100	1800	35	350
OD:48 mm (11/2") DN:40MM				
LIGHT	2000	1200	15	150
MEDIUM	2500	1500	21	210
HEAVY	4050	2350	35	350
OD:60 mm (2") DN:50MM				
LIGHT	2150	1200	11	110
ECO MEDIUM	1700	1000	8	80
MEDIUM	2450	1450	13	130
STANDARD	3600	2100	20	200
HEAVY	4700	2800	27	270
SUPER HEAVY	5650	3350	35	350
OD:75mm, (21/2") DN:65mm				
MEDIUM	3500	2100	11	110
STANDARD	4650	2700	16	160
HEAVY	9300	5400	27	270
SUPER HEAVY-35	9000	5300	35	350
OD:88mm (3") DN: 80mm				
MEDIUM	4450	2600	11	110
STANDARD	6800	4000	17	170
HEAVY	9600	5650	26	260
SUPER HEAVY-35	12400	7300	35	350

Column Pipe Load & Pressure Technical Chart

Sizes & Types	Ultimate Breaking Load (in Kgs)	Safe Pulling Load With Chain Pully (in Kgs)	Safe Allowable Hydro Static Pressure (KG/CM ²)	Safe Total Pump Delivery Head (m)
OD:113 mm (4") DN:100mm				
MEDIUM	6800	4000	10	100
STANDARD	10000	5900	15	150
HEAVY	15900	9350	26	260
SUPER HEAVY-35	20600	12150	35	350
OD:140 mm (5") DN:125MM				
MEDIUM	11600	6400	10	100
STANDARD	16400	9650	16	160
HEAVY	24000	14600	26	260
SUPER HEAVY-35	30500	18600	35	350
OD:168 mm (6") DN:150 MM				
HEAVY	40000	23500	26	260
STANDARD	21800	12000	15	150

The NB - OD of HEAVY, SUPER HEAVY & SUPER HEAVY PLUS Specification of Column Pipes Could be Higher

Colour coding of pipes

Class of pipe	Printing colour
ECO with Bell End	Dark Blue
ECO with Coupler	Purple
LIGHT	Light Blue
MEDIUM	Yellow-Green

Class of pipe	Printing colour
STANDARD	Yellow
HEAVY	Orange
SUPER HEAVY	Red



Approximate Frictional head loss in Column/Riser/Drop Pipes in Metre / 100 m

Discharge of Pump in ipm													
Size (In)	Type	40	60	80	100	120	150	180	240	300	360	400	500
1"	Eco	3.0883	6.5436	11.1485	16.8536	23.6211	35.72121	50.0563	85.2796	1211.9207	180.7033	279.6388	332.0369
	Light	3.3272	7.0502	12.0113	18.1579	25.4513	38.4758	53.93013	91.8793	138.8977	194.6878	236.6365	357.7330
	Medium	3.6797	7.6699	13.0670	19.7538	27.6882	41.8574	58.6700	99.9546	151.1055	211.7990	257.4345	389.1743
	Standard	5.1667	10.9458	18.6481	28.1911	39.5145	59.7356	83.7292	142.6473	215.6458	302.2627	369.3901	555.3987.
1¼"	Eco	0.8905	1.8969	3.2146	4.8597	6.8116	10.2974	14.335	24.5900	37.1737	52.1050	63.339	95.7414
	Light	0.9758	2.0676	3.5226	5.3252	7.4642	11.2839	15.8162	26.9457	40.7349	57.0967	69.3991	104.9134
	Medium	1.01038	2.3388	5.9846	6.0037	8.4432	12.7639	17	30.4798	46.0776	64.9852	78.5052	96.6754
	Standard	1.2706	2.6927	4.5869	6.9342	9.7194	14.6932	20.5949	35.0871	53.0426	74.3478	90.3672	136.6118
1½"	Heavy	1.8136	3.8430	6.5472	11.6976	13.8732	20.9726	20.3060	50.0822	75.113	106.1219	129.9821	194.9954
	Light	0.5005	1.0605	1.8067	2.7332	3.8281	5.7873	8.1109	13.8200	20.8923	29.2819	35.5936	53.8083
	Medium	0.5637	1.1946	2.0351	3.0766	4.3123	6.5192	9.1377	15.5676	23.5342	32.9872	40.0946	60.6126
	Standard	0.6604	1.1485	2.4167	3.5334	3.1208	7.7413	10.8507	18.4861	27.9481	39.1711	47.811	71.9757
2"	Heavy	0.947	1.9594	3.3382	3.0465	7.0734	10.6932	14.9883	25.5351	38.6025	54.1077	66.7660	99.4212
	Eco Medium	0.1230	0.2606	0.440	0.6713	0.9409	1.4224	1.9938	3.3967	5.1350	7.1875	8.7483	13.2252
	Medium	0.1430	0.3048	0.3125	0.7851	1.1004	1.6635	2.3317	3.9724	6.0053	8.4123	10.2310	15.4666
	Standard	0.1833	0.3884	0.6630	1.0005	14.023	2.1199	2.9714	5.0628	7.6529	10.7268	13.0360	19.7301
2½"	Heavy	0.2414	0.5117	0.8717	1.3179	1.8472	2.7924	3.9140	6.6682	10.0807	14.1297	17.1742	25.9629
	Super Heavy	0.3099	0.6566	1.1187	1.6912	2.3705	3.3836	5.0230	8.5573	12.9367	18.1329	22.0399	53.3188
	Medium	0.0433	0.0917	0.1562	0.2361	0.3310	0.5004	0.7014	1.1949	1.8064	2.5320	3.0775	4.6524
	Standard	0.530	0.1123	0.1913	0.2892	0.4054	0.6128	0.8590	1.4635	2.2124	3.0010	3.7691	5.6980
3"	Heavy	0.0760	0.0760	0.2744	0.4148	0.3814	0.8790	1.2320	2.0990	3.1731	4.4477	5.4060	9.1724
	Super Heavy 35	0.1041	0.1048	0.3783	0.5719	0.3017	1.2119	1.6987	2.0940	4.3749	6.1322	7.4535	11.2677
	Medium	0.0200	0.0424	0.0722	0.1091	0.1530	0.2313	0.3242	0.5525	0.4349	1.1703	1.4224	2.1503
	Standard	0.0250	0.0529	0.0902	0.1364	0.3911	0.2890	0.4050	0.6900	10.432	1.4622	1.7772	2.6867
4"	Heavy	0.0337	0.0715	0.1218	0.2591	0.2581	0.3902	0.5469	0.9318	1.4086	1.9743	2.3998	3.6278
	Super Heavy	0.0475	0.1006	0.1714	0.1530	0.3632	0.3242	0.7696	1.3111	1.9821	2.7782	3.3768	5.1042
	Medium	0.0097	0.0120	0.0205	0.0310	0.0434	1.0656	0.0919	0.1567	0.2368	0.3319	0.4033	0.6099
	Standard	0.0068	0.0144	0.0245	0.0371	0.0520	0.0786	0.1101	0.1876	0.2937	0.3976	0.4833	0.7306
5"	Heavy	0.0099	0.0210	0.0358	0.0542	0.0759	0.1158	0.1609	0.2141	0.4143	0.5808	0.7059	1.4987
	Super Heavy	0.0139	0.0295	0.0503	0.0781	0.1066	0.1612	0.2259	0.3849	0.9819	0.8156	0.9913	0.2669
	Standard	0.0025	0.0053	0.0090	0.0135	0.0190	0.0287	0.0402	0.0686	0.1036	0.1453	0.1766	0.1841
	Heavy	0.0036	0.0076	0.0129	0.0095	0.0275	0.0413	0.0579	0.0986	0.1491	0.2090	0.2541	0.3841
6"	Super Heavy	0.0049	0.0005	0.0179	0.0210	0.0379	0.0571	0.0901	0.136.4	0.2062	0.2691	0.3911	0.5311
	Heavy	0.0019	0.0053	0.0058	0.0065	0.0118	0.0129	0.0251	0.0428	0.0647	0.0906	0.101	0.1865

Approximate Frictional head loss in steel pipe head lost in metre per 100 metre discharge in lpm

Pipe Nominal Bore					
Q Imp (Nominal Dai mm)	40	50	65	80	100
40	1.15	0.38	0.10	0.01	0.01
60	2.57	0.84	0.22	0.08	0.03
60	4.56	1.50	0.40	0.14	0.05
100	7.36	2.36	0.63	0.22	0.07
120	10.30	3.39	0.91	0.32	0.11
150	16.10	5.30	1.42	0.50	0.17
180	23.20	7.60	2.05	0.72	0.24
240	41.25	13.52	3.64	1.29	0.42
300	64.45	21.12	5.69	2.01	0.66
360		30.41	8.19	2.90	0.95
400		37.55	10.11	3.58	1.17
500			15.80	5.59	1.83

No. of pipes packed in each bundle

Size Inch	Types	Number of pipes in each bundle
1"	Eco	35
	Light	30
	Medium	30
	Standard	25
1¼"	Eco	25
	Light	25
	Medium	25
	Standard	25
	Heavy	25
1½"	Eco	20
	Medium	20
	Standard	20
	Heavy	20
2"	Eco	15
	Medium	15
	Light	15
	Standard	15
	Heavy	15
	Super Heavy	10

Size Inch	Types	Number of pipes in each bundle
2"	Medium	10
	Standard	10
	Heavy	10
	Super Heavy	8
3"	Medium	05
	Standard	05
	Heavy	05
	Super Heavy	05
4"	Medium	05
	Standard	05
	Heavy	05
	Super Heavy	03
5"	Standard	03
	Heavy	03
	Super Heavy	03
6"	Heavy	02
	Std	02

INSTALLATION GUIDE

1



STEP 1: Before opening or joining the pipe/adopter ensure to hold the coupler by hand.

2



STEP 2: Join the metal connector with submersible pump with the help of chain wrench.

3



STEP 3: Tighten pipe till half rubber ring is seen with hand last jerk with rope it required.

4



STEP 4: Before joining the pipes, ensure to clean the threads with clean water

5



STEP 5: Before joining the pipes, ensure that the pumpguard is installed properly.

6



STEP 6: At the time of lowering pipes, place the clamp below the coupler clamp the top adopter with the last pipe.

FEATURES & BENEFITS

- Easy to transport, store, handle and install.
- Saves labor & installation cost.
- Smooth bore ensures higher flow compared to G.I. pipeline of the same size. no clogging.
- Bore diameter remains constant ensuring constant flow over lifetime.
- Superior resistance to most of the chemicals, no scaling, makes the system almost maintenance free.
- Long life.

APPLICATIONS

- Water provision for farms & fields.
- Water connections for buildings, railway stations, schools etc.



DO'S & DON'TS

Do's

1. Ensure that pipe threads are proper and clean it with normal water to avoid forceful jointing.
2. Ensure that rubber seal is properly placed in its position, without twist/cut, while tightening the threads to avoid leakages.
3. Before jointing the pipe with pump, it is recommended to provide pump guard between pipe coupler & pump metal adaptor.
4. Assemble the APL Apollo GI metal adaptor with pump.
5. During assembly of the pipe, initially hold the pipe / coupler with hands & tighten it, for final jerk, always use rope / strap wrench to tighten the pipe properly.
6. Fix a nylon rope to cast iron adaptor as a safety measure against falling of submersible pump due to mishap.
7. Clamp the pipe below coupler (at defined location on pipe) at the time of lowering APL Apollo Column pipe in to the borewell.
8. Always use chain pulley for lowering APL Apollo Column Pipe.

Don'ts

1. Don't use any chemical for cleaning the pipe thread.
2. Don't apply any lubricant on pipe thread.
3. Don't over-tighten the joints to avoid breakages.
4. Don't use pipe / chain wrench to tighten the joints.
5. Don't dump gravel at a very high rate to avoid excess abrasion.
6. Don't use agri-pipes (with solvent cement joint) for borewells as their mechanical strength is not designed for this application.
7. Don't hammer the pipes during assembly.

Guidelines for Installation of Screen & Casing Pipe.

Drill the bore of the required size & depth in the ground using the method of auger drilling/water jet boring/hydraulic rotary drilling. During drilling, care should be taken that it is vertically straight down without any bends.

NOTE:

- i) To construct the bore/tube wells Casing/Screening & Rising Main pipes are required.
 - ii) Casing pipes are highly recommended in the area where loose soil & silt/ loose boulders & loose stones are prevalent.
- Fit the rubber gasket properly on the space provided on the ribbed screen / casing pipes.
 - Fit “C” clamp below the bell end on the pipe and lower the assembly done with help of chain pulley block.(Provide sand trap with end plug as necessary)
 - After lowering the pipe up to the clamp level, fix the rubber gasket on another pipe & tighten it gently with the lowered pipe. After tightening, use pipe/chain wrench for proper jointing, but do not over tighten.
 - Fix the next clamp with this above pipe, below bell end & connect the chain pulley with clamp.
 - Remove the clamp of lowered pipe & start lowering further.
 - Repeat the jointing method till the required depth of borewell.
 - Centering guide to be fitted wherever necessary.
 - Fill the gravel between pipe & bore hole.

Guidelines for Installation of Rising Main Pipe.

Once screen & casing pipes are installed properly, follow the below guidelines for installation of Pump & Submersible Delivery Pipe.

- Before starting installation, pre-check if submersible pump is in good working condition.
- Join the APL Apollo metal adaptor with the submersible pump with the help of chain wrench.
- Before joining the pipe with pump, ensure pump guard is installed properly between pipe coupler & pump metal adaptor.
- Assemble Submersible Delivery Pipe with pump, always use strap wrench/rope for last jerk.
- Fix a nylon rope to cast iron adaptor as a safety measure against falling of submersible pump due to mishap (run the nylon rope throughout the borewell length & tie with top clamp).
- Fit the “C” clamp below coupler (at defined location on pipe) & lower the assembly inside the CASING pipe carefully with the help of chain pulley.
- Once pipe will be lowered in the borewell up to the clamp level, fix the rubber ring on other pipe & tighten it gently with the help of rope / strap wrench, till half not the ring gets inside the coupler.
- Fix the next clamp with this above pipe, connect the chain pulley with clamp & lower down it in the borewell.
- Repeat the joining method till the required depth of the borewell.
- Once installation of Submersible Delivery pipe will be over, install the C.I cap for protection, against failing of any external element inside the borewell and finally install the “C” clamp.



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