

Special Fittings

SURGE TANK

A tank connected to a pipe carrying a liquid and intended to neutralize sudden changes of pressure in the flow by filling when the pressure increases and emptying when it drops. There could be number of reasons for change in pressure.

Consider a pipe containing a flowing fluid. When a valve is either fully or partially closed at some point downstream, the fluid will continue to flow at the original velocity. In order to counteract the momentum of the fluid the pressure will rise significantly (pressure surge) just upstream of the control valve and in absence of any protective system, may result in damage to the pipe system. If a surge tank is connected to the pipeline just upstream of the valve, on valve closure the fluid instead of being stopped suddenly by the valve will flow upwards into the surge tank hence reducing the surge pressures experienced in the pipeline.

Upon closure of the valve, the fluid continues to flow, passing into the surge tank causing the water level in the tank to rise. The level in the tank will continue to rise until the additional head due to the height of fluid in the tank balances the surge pressure in the pipeline. At this point the flow in the tank and pipeline will reverse causing the level in the tank to drop. This oscillation in tank height and flow will continue for some time but its magnitude will dissipate due to the effects of friction.

Reverse would be the case if the valve is suddenly opened. In this case the sudden rise in fluid flow requirement due to valve opening is met by the fluid available in the surge tank, eliminating the possibility of pipe collapse due to negative pressure.



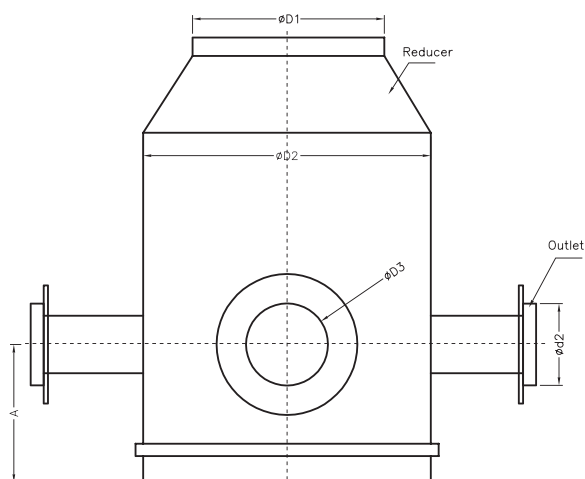
Main Size	Branch Size
500	160
	200
	250
630	160
	200
	250
710	160
	200
	250
800	200
	250
	315
900	200
	250
	315
1000	200
	250
	315
1200	200
	250
	315
1400	200
	250
	315
1600	200
	250
	315

* can be supplied as per requirement

** Sizes other than above specified can also be supplied to suit the specific requirement

Special Fittings

MANHOLE / CHAMBER



ØD	ØD1*	ØD2	ØD3	A
500	500	160	250	500
710	710	200	315	500
1000	1000	315	500	500
1200	1200	355	710	800
1600	1600	500	1000	800

* can be supplied as per requirement

** Sizes other than above specified can also be supplied to suit the specific requirement

1200MM X 400 MMX 160MM



Special Fittings

FLOATING PLATFORM



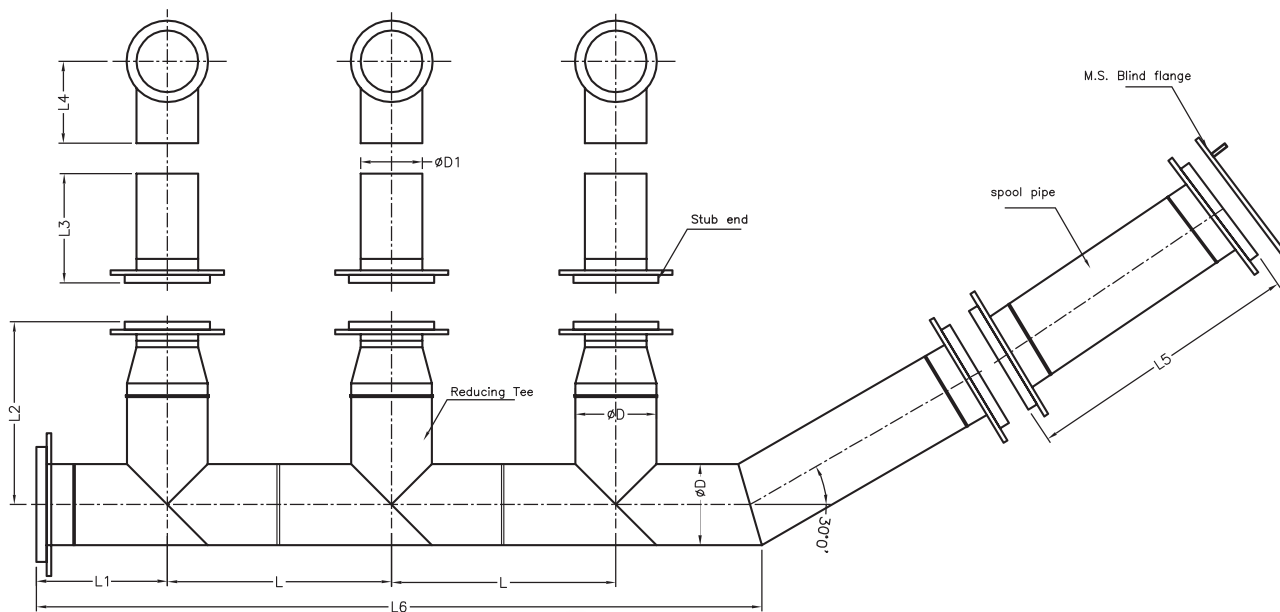
Product Code	Pump Diameter	Pump Length	Pump Weight
FP074X1247X008H1	74	1247	8
FP096X0780X013H1	96	780	13
FP096X0881X016H1	96	881	16
FP096X1118X021H1	96	1118	21
FP098X0942X016H1	98	942	16
FP098X1223X021H1	98	1223	21
FP098X1082X020H1	98	1082	20
FP098X1502X024H1	98	1502	24
FP101X0905X103H1	101	905	103
FP131X0775X020H1	131	775	20
FP131X0904X022H1	131	904	22
FP131X0956X024H1	131	956	24
FP138X1583X073H1	138	1583	73
FP138X2145X087H1	138	2145	87
FP138X2597X100H1	138	2597	100
FP143X1443X045H1	143	1443	45
FP145X1498X056H1	145	1498	56
FP145X1851X061H1	145	1851	61
FP145X1983X050H1	145	1983	50
FP145X1459X049H1	145	1459	49
FP145X1983X057H1	145	1983	57
FP145X1135X051H1	145	1135	51
FP145X1332X049H1	145	1332	49
FP145X1217X060H1	145	1217	60
FP150X1172X150H1	150	1172	150
FP188X2262X167H1	188	2262	167
FP195X2887X189H1	195	2887	189

We manufacture and supply the floating platforms used in the water ponds to float the;

- Submersible pump
- Solar PV modules
- Temporary work stations etc.

Apart from the above specified standard floating platforms used for the submersible pump application, we do manufacture and supply the complete system to suit the specific requirements. We have developed and supplied the floating platforms suitable to float 50HP submersible pump and 25KW solar PV modules.





Special Fittings

DIFFUSER

In desalination plants, the brine water remaining after passing through the membranes is waste and has to be disposed off. The disposal of this brine has to be done at specific rate and in specific fashion deep into the sea so that it does not gets mixed with the suction water again. Apart from that the disposal has to be at specific rate so that brine concentration does not exceed particular level which may affect the aquatic life and ultimately eco system. The fittings used to do that job are called diffusers.

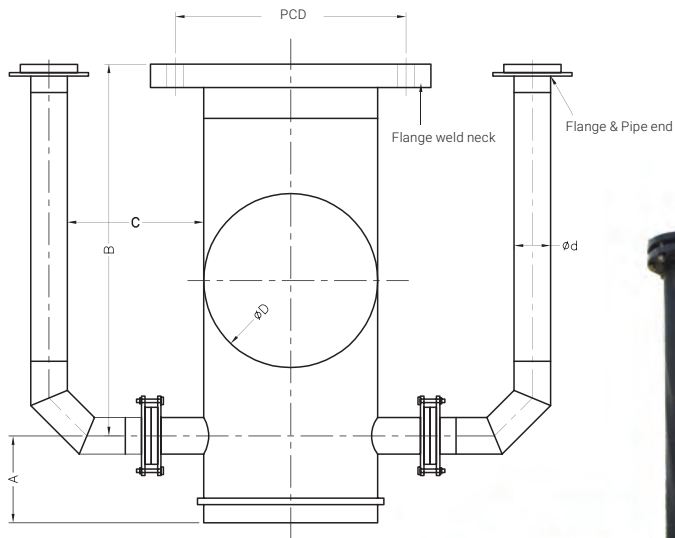
We do manufacture and supply the diffusers required for such application. Product we supply is capable to withstand the different forces acting on it deep into the sea.



Special Fittings

DE SILTING CHAMBER

When the water from the river or pond is conveyed through the closed conduit piping systems, practically it carries the silt along with it even though the system is designed at a zero silt velocity because of the reasons beyond designer's control. This silt, if not removed from the conduits time to time may result in reduced flow through it. We do manufacture and supply the products suitable for that application.



Special Fittings

HDPE PIPE FLOCCULATOR

Flocculators, per their namesake, are designed to provide the mixing action and retention time required to adequately coagulate and flocculate solids in wastewater. Jain takes floc tube design very seriously, as they have a dramatic effect on the separation efficiency of solids in a Dissolved Air Flotation System.

As with all Jain HDPE piping systems, great detail has been given to each design element of the Flocculators, making them arguably the best performing chemical reaction vessels on the market.

How a Flocculator works:

The main objective of a flocculator is to mix coagulants and flocculants into wastewater mixing and aids in floc formation. This approach is contradictory to the fundamental design philosophy of pipe flocculators - to simulate a singular, straight run of pipe.

To achieve proper mixing, Jain employs inline mixing zones by reducing and expanding the pipe diameter over a short pipe run. This accelerates flow-through velocity and disperses chemicals in and immediately after the mixing zone. Chemicals are mixed where and how we want them to mix.



Special Fittings

SIPHON STRAINER



An open source of water such as lake, pond, open well or canal etc. contains different kinds of floating matter and while lifting the water from such source through pipe / closed conduit, those floating matter also flows through it resulting in pipe chock up or deposition of such unwanted matter at the discharge point resulting in increased maintenance cost. So it is always better to segregate such floating matter at source itself.

We do manufacture and supply different kinds of strainers suitable for such application. These strainers are easy to use and clean resulting in improved performance and reduced maintenance cost of system.

SUCTION STRAINER



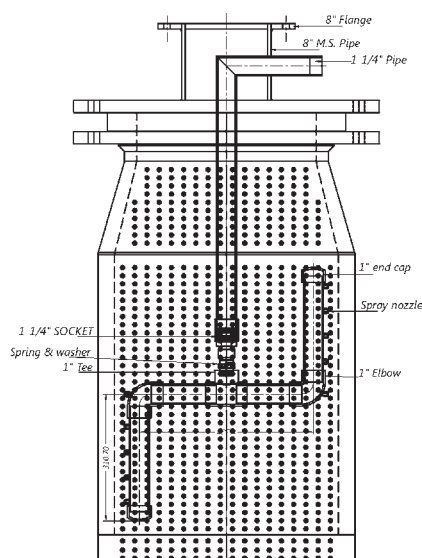
Applications

- Water Intake arrangement in Canal/ Dam/ Lake
- Pump suction strainer
- Strainer at Sea Water intake pipe at desalination plant
- Water Intake arrangement for power plant
- River water infiltration gallery

Special Fittings

PE ROTOCLEAN SUCTION SCREEN

Self cleaning suction filter



Features

- Self cleaning suction filter.
- Flushing of screen using filtered water. Special provision of $\frac{3}{4}$ " screen filter to avoid plugging of nozzles.
- Constructed from PE body
- Low frictional loss across the filter.
- Maintains constant flow rate.
- Helps to improve system efficiency by reducing load on the micro irrigation filters.
- Low maintenance. Does not require frequent removal of suction pipe or cleaning of foot valve.
- Minimum operating pressure for spray rotors is 1 kg/cm² (14 psi).
- Protects pump and piping system damage and clogging due to physical impurities.
- Standard end connections are epoxy coated BSP flanged. Please specify for other end connections.

Applications

- Recommended to use for water source having heavy load of algae, trash, sand and other debris.
- Best suitable for irrigation pumping lines running on open wells, reservoirs, ponds, tanks etc.