# Precision Storage Vessels



## **INLINE AIR SEPARATOR**













### Inline Air Separator

Precision manufactures Standard Velocity Inline Air Separator and High Velocity Inline Air Separators with sizes from 2" to 36". Maximum optimal flow range for standard series is 14906 GPM and for High velocity series Maximum optimal flow range is 33466 GPM. Precision InLine Air Separators are designed to eliminate air associated with any hydronic system. Inline Air Separators are designed and manufactured as per ASME Section VIII Div I and registered with National Board of Boiler and Pressure Vessel inspectors. Material of construction will be carbon steel. Connections are flanged to Class I 50, Class 300, PN I 6 or PN25. External surface will be grit blasted to SA 2.5 and then coated with red oxide primer and with one coat of red enamel paint. Standard working pressure will be I 0 bar. Designs up to 30 bar available on request.

Each Inline Air Separator to be fixed with air vent. A tap is fitted on body top to facilitate system fast fill, removal of floating impurities and air trapped within the air separator.

#### Application

Precision Inline Air Separator removes entrained air bubbles in the system. Small air bubble coalesce and form larger air bubbles which rise to the top of the vessel and vented through the air vent. Dirt particles that are collected at the bottom of the separator can be removed through the blow down valve. Precision inline air separators provide higher efficiency with reduced pressure drops so a smaller pump can be used to achieve maximum efficiency.

## Pall Ring Technology

Precision Inline Air Separator use proven PALL Ring technology. By using pall ring technology micro bubbles as small as 18 microns can be removed, It removes air from place where air vent cannot be installed and also it removes and separates solid particles. Pall rings are kept in a basket. Pall rings are made of Stainless Steel 304 material. Air bubbles are separated by the pall ring through coalescence process where dirt particles are caught and drifted to the bottom of the tank, further removed through blowdown valve.

### Air Vent

Precision heavy duty air vent made of brass is supplied along with all Inline Air Separators. Air vent will be made of brass rated to 150 PSI (10 bar) operating pressure. Conical shape of the vent increases the distance between and water level and float mechanism reducing the dirt floating at the top of the air vent blocking the passage of air release area. Air vent will have an outlet connection for <sup>3</sup>/<sub>4</sub>" size. Air vent will be high capacity type suitable for all commercial systems.





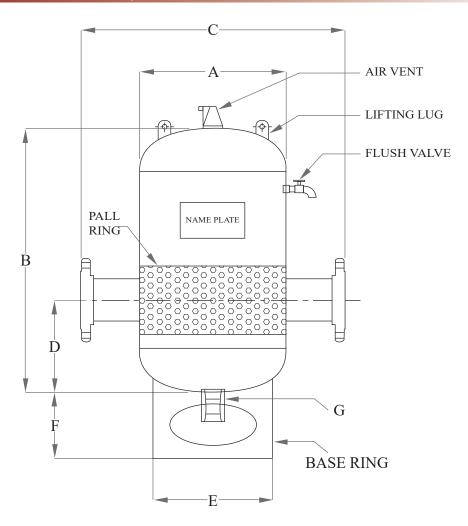






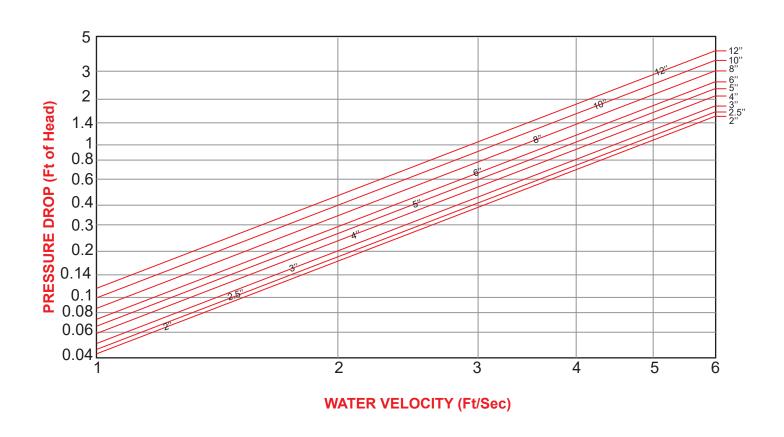


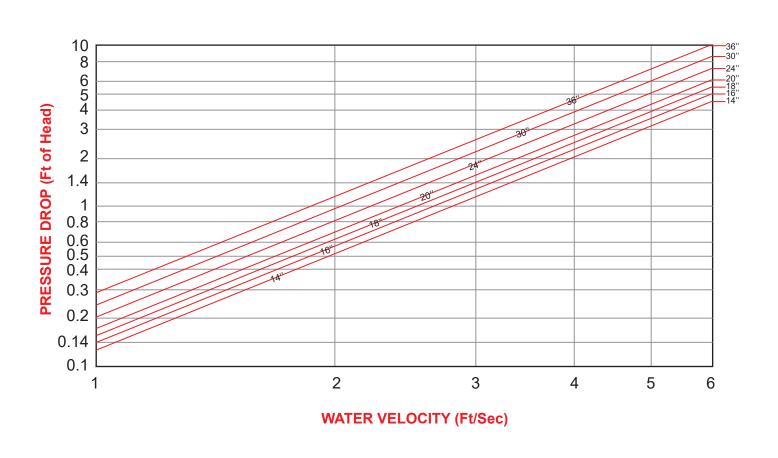
## Standard Series In-Line Air Separators



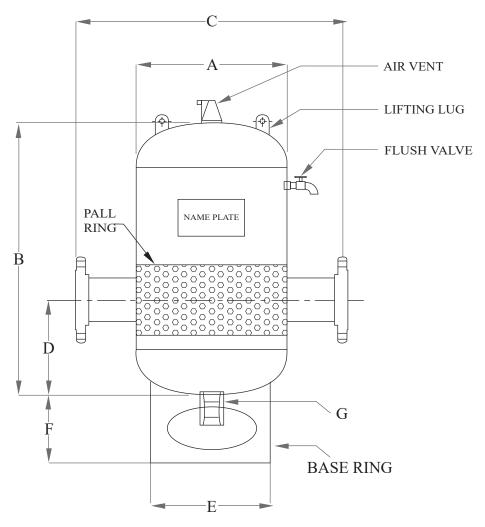
Model Number	Pipe Size (Inch)	Optimum Flow (GPM)	A Dia. (Inch)	B Max. (Inch)	C (Inch)	D (Inch)	E Dia. (Inch)	F (Inch)	G (Inch)	Surface Area (Sq. Ft)	Approx. Weight (LBS)
ILAS-S-2	2	52	10	17	20	8	-	-	1	14	30
ILAS-S-2.5	2½	52	10	17	20	8	-	-	1	14	45
ILAS-S-3	3	116	12	23	22	9	-	-	1	25	65
ILAS-S-4	4	206	12	23	22	9	-	-	1	25	80
ILAS-S-5	5	308	14	30	25	11	13	7	1	40	200
ILAS-S-6	6	470	14	30	25	11	13	7	1	40	215
ILAS-S-8	8	820	18	40	30	14	17	7	1	80	290
ILAS-S-10	10	1295	24	50	38	17	23	7	1½	135	565
ILAS-S-12	12	1840	24	55	38	18	29	7	1½	150	645
ILAS-S-14	14	2110	30	65	45	23	30	8	1½	295	910
ILAS-S-16	16	2795	30	68	45	23	36	8	1½	332	965
ILAS-S-18	18	3675	36	75	50	28	36	9	1½	575	1450
ILAS-S-20	20	4565	42	84	57	31	36	9	1½	840	2130
ILAS-S-22	22	5305	48	93	65	34	41	9	1½	1225	2820
ILAS-S-24	24	6348	48	100	65	34	41	9	1½	1325	3045
ILAS-S-26	26	7650	54	110	70	38	45	10	1½	1700	4170
ILAS-S-30	30	10265	60	125	77	42	51	10	1½	2400	6190
ILAS-S-36	36	14906	72	150	92	51	65	14	1½	4000	10610

## Standard Series In-Line Air Separator Pressure drop curve



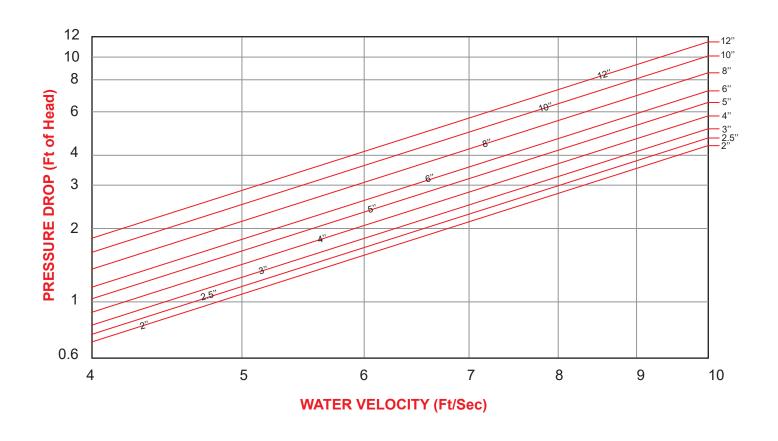


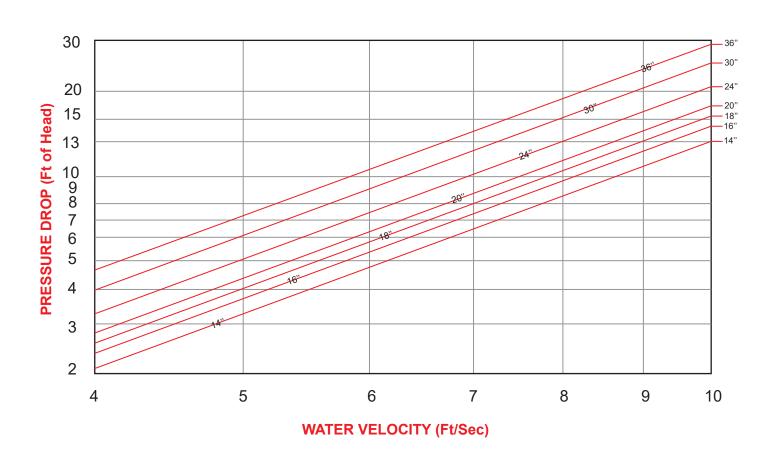
## High Velocity In-Line Air Separators



Model Number	Pipe Size (Inch)	Optimum Flow (GPM)	A Dia. (Inch)	B Max. (Inch)	C (Inch)	D (Inch)	E Dia. (Inch)	F (Inch)	G (Inch)	Surface Area (Sq. Ft)	Approx. Weight (LBS)
ILAS-HV-2	2	115	12	27	22	10	-	-	1	42	85
ILAS-HV-2.5	2½	165	12	27	22	10	-	-	1	42	90
ILAS-HV-3	3	255	14	30	24	11	-	-	1	55	100
ILAS-HV-4	4	460	14	30	26	11	-	-	1	55	110
ILAS-HV-5	5	685	20	42	32	15	17	7	1	112	190
ILAS-HV-6	6	1010	20	42	32	15	17	7	1	112	205
ILAS-HV-8	8	1700	24	50	35	17	17	8	1	193	430
ILAS-HV-10	10	2700	30	61	44	21	21	9	1	308	600
ILAS-HV-12	12	4120	30	61	44	21	24	9	1	308	650
ILAS-HV-14	14	4720	36	73	49	25	24	9	1½	550	940
ILAS-HV-16	16	6200	36	73	49	25	30	9	1½	550	965
ILAS-HV-18	18	8240	42	86	58	25	30	8	1½	800	2160
ILAS-HV-20	20	10230	48	92	63	28	35	9	1½	1075	2715
ILAS-HV-22	22	11875	54	98	68	31	41	10	1½	1450	3890
ILAS-HV-24	24	14245	54	110	68	31	45	10	1½	1600	4230
ILAS-HV-26	26	17170	60	115	75	33	45	10	1½	2130	5590
ILAS-HV-30	30	23040	66	130	83	33	59	14	1½	2800	7670
ILAS-HV-36	36	33460	84	152	105	45	73	15	1½	5100	15110

## High Velocity In-Line Air Separator Pressure drop curve







## **Typical Specification**

Furnish and install as shown on plans, an Inline type air separator. The unit shall have flanged inlet and outlet connections to the vessel. A vent connection shall be fitted to the top of the vessel to enable installation of air vent.

Inline Air Separators shall have all steel body construction designed fabricated and stamped as per ASME Section VIII Div I with a working pressure of 10 bar.

Each Inline Air Separator to be fitted with a blow off tap to remove the air trapped within the separator. Air separator shall use high surface area pall rings made of stainless Steel 304 to separate air with minimal pressure drop.

Note:-		



## RANGE OF PRODUCTS

- → HEAT EXCHANGER PACKAGE
- → AIR RECEIVER
- → OIL AND GAS FIRED WATER HEATERS
- → INDIRECT HEATED STORAGE CALORIFIERS
- **♦** AIR SEPARATORS
- → AIR & DIRT SEPARATORS
- **★** EXPANSION TANKS
- → SURGE VESSEL
- → BASKET STRAINERS
- → FEED TANKS & CONDENSATE RECEIVERS
- → BLOWDOWN VESSEL
- → ELECTRIC WATER HEATERS
- → CHILLED WATER BUFFER TANKS



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