

# **PTFE Aspirators**

The iPolymer PTFE Air & Liquid Aspirators are manufactured from virgin PTFE (Teflon® - E.I. Dupont) and are designed for efficient and rapid siphoning of hard to handle chemicals.

Our iPolymer Air Aspirator uses clean dry shop air (CDA) or Nitrogen to initiate and sustain a natural or forced siphon. Applications include the draining and mixing of containment vessels and the removal of saturated waste chemistry. Air Aspirators are also used where recovery recirculation is desired in process chemistries.



### Our iPolymer Liquid Aspirators

use common city water or DI Water to aspirate and dilute harsh chemical baths. One common application is the dilution siphoning of Sulfuric Acid (H<sub>2</sub>SO<sub>4</sub>) used for chemical cleaning and etching.

Air & Liquid Aspirators are sold as standalone siphoning bodies or as Aspirator Kits. Kits include 8 feet of PTFE Tubing and Compression Fittings. Our CHK Kit includes a special PTFE check valve mounted on the siphon port to prevent possible back flow.

Essentially, an iPolymert Aspirator is a low cost 100% PTFE Venturi vacuum pump.

### **Performance Specification:**

General Specification:				
Pressure Rating	10 - 60 psi			
Temperature Rating				
Ambient	32°F - 140°F (0°C - 60°C)			
Media	32°F - 212°F (0°C - 100°C)			

Inlet Pressure	Air 3/8" Suction	Air 1/2" Suction	Liq. 3/8" Suction	Liq. 1/2" Suction
50 psi	6.3	7.2	13.0	13.3
40 psi	5.3	5.8	11.3	11.5
30 psi	4.0	4.5	8.9	8.9
20 psi	3.0	3.0	6.4	6.5
10 psi	1.5	1.5	3.8	3.8

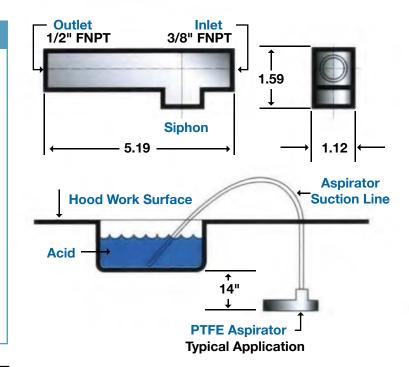
Value represented in inches of Mercury



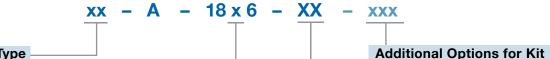


### PERFORMANCE RECOMMENDATIONS:

- The Minimum Pressure to initiate a siphon is 5 psi. This
  pressure is a function of the fluid viscosity and ambient
  conditions.
- The 1/2" Aspirator will siphon with a slightly greater vacuum compared to the 3/8" Aspirator.
- Overall performance will vary based on the viscosity of the media being siphoned.
- Air Aspirators must be mounted at least 14" below the suction point (siphon point). Liquid Aspirators can be mounted level with the suction/siphon point.
- For continuous flow applications, it is best to actuate an Air Aspirator with 30 to 50 psi of CDA for 10 to 15 seconds then turn off the air supply and allow the Air Aspirator to work by pure suction (siphoning action only).
- Back pressure on the Outlet Port will decrease the ability of the Aspirators to create a proper siphon.



### **PTFE Aspirator: ORDERING FORMAT**



### **Aspirator Type**

A = Air (aspirator body only)

KA = Air Kit (see description below)

L = Liquid (aspirator body only)

KL = Liquid Kit (see description below)

### **Siphon Port Size (FNPT)**

6 = 3/8" Siphon with a 3/8" Inlet & 1/2" Outlet

8 = 1/2" Siphon with a 3/8" Inlet & 1/2" Outlet

## DESCRIPTION OF ASPIRATOR KITS:

**Standard Kit includes:** Aspirator Body & Handle, 8 ft of PTFE Tubing and 3 PTFE Compression Fittings for Inlet, Outlet & Siphon Ports (one each).

**Check Valve Kit includes:** Aspirator Body & Handle, 8 ft of PTFE Tubing, 2 PTFE Compression Fittings for Inlet & Outlet, and PTFE Check Valve mounted on Siphon Port.

**Poly Fitting Kit includes:** Aspirator Body & Handle, 8 ft of PTFE Tubing, 2 Poly Compression Fittings for Inlet & Outlet, and PTFE Compression Fitting for Siphon Port.

OPTIONAL LIQUID ASPIRATOR DILUTION ORIFICE PLATE:		
Add to end of Part No.	PTFE Orifice Plate at Siphon Port	
-02	(2 - 3): 1 Dilution Orifice	
-05	(4 - 6): 1 Dilution Orifice	
-10	(8-12): 1 Dilution Orifice	

CHK = Kit with Check Valve

PRO = Kit with Poly Fittings

These Dilution Ratios are approximate. Field results will vary with fluid viscosity, tempatures, orientation of the Liquid Aspirator device. The addition of an orifice plate decreases the siphoning rate.

Spare Part No.	Accessory Description
AH-1	Handle - 3/8" Suction Port
AH-2	Handle - 1/2" Suction Port

#### iPolymer Product Notes:

- 1. Please email Customer Service at info@ipolymer.com
- 2. Call us for special applications.
- 3. Unauthorized disassembly of this product will void the original factory one-year product warranty. For further details please contact your local Distributor or our factory directly.