



# MODEL 120A

## AIR POWERED DIAPHRAGM PUMP

### 2" PORTS - 0 TO 40 GPM



120ACB-200



120AWA-200

All models are available in heavy duty bronze or lightweight aluminum

- SAFE TO RUN WHEN DRY
- VOLUMES TO 38 GPM
- POWERFUL VACUUM LIFTS
- DRY START LIFT TO 1
- PUMP UP TO 50% SOLIDS<sup>2</sup>
- LOW EMULSIVE & SHEER ACTION
- NON-CLOGGING FLOW-THRU DESIGN
- EASY TO SET-UP, USE, CLEAN, AND MAINTAIN
- PERMANENT AND PORTABLE APPLICATIONS
- BUILT TOUGH FOR YEARS OF SERVICE
- LONG LIFE, REINFORCED PUMP DIAPHRAGMS
- ALL MATERIALS SPECIFIED FOR THE MARINE ENVIRONMENT

**Performance:**

Static Suction Lift.....	15 ft (4.57m)
Dry Suction Lift.....	12 ft (3.65m)
Discharge Head / Continuous Duty.....	15 ft (4.57m) / 10 ft (3m)
Max Volume.....	40 GPM / 152 LPM*
	*at 60 cycles per minute

**Construction:**

Pump Base.....	Choice of:
(Wetted Parts)	Anodized Aluminum
	Marine Bronze
	Urethane Powder Coating
	PTFE Coating (HALAR)
Diaphragms and Valves.....	Choice of:
	Nitrile
	Viton®
	Hypalon®
Mounting Frame.....	Powder Coated Aluminum
Hardware Material.....	Stainless Steel

**Drives:**

Air Motor.....	3" bore x 3" stroke, self-lubricating, air cylinder, controlled by an adjustable 0-30 sec. ceramic air operated timing valve.
Air Consumption.....	15 ACFM*
	* at 60 cycles/min at 85 PSI

**APPLICATIONS**

Edson Air Powered Diaphragm Pumps are the most versatile of all Edson Pumps due to the flexibility of the air cylinder drive. They are used for the collection and transfer of waste liquids and pumping liquids with suspended solids. They are capable of handling liquids with large suspended solids without clogging, to prime from dry starts, and to run dry. They have the added feature of low emulsive, non-sheering pumping action. These basic performance features, and Edson's 140 year history of manufacturing quality products, have made our pumps the choice of cleaning up our environment and controlling the disposal of liquid waste. Edson Pumps can be applied to a very broad range of applications, including the requirements for ground water remediation, containment transfers, dewatering, oil & water separations, marina & campground sewage collection, tank, sump & drum transfers, filtration applications, and the collection & transfer of abrasives & slurries.

**INDUSTRIAL**

- Sump Pump-Outs
- Slurry Transfer
- Abrasive Pumping
- Filtration Pumping
- Drum Transfer
- Groundwater Containment
- Spill Cleanup
- Drain Dewatering

**MARINE**

- Pump-Out Stations
- On-Board Waste
- Bilge Pumps
- Light Dredging
- Emergency Dewatering
- Boatyard Utility Pump
- Oil Spill Cleanup

**ENVIRONMENTAL**

- Groundwater Remediation
- Tank Pump-Outs
- Grease & Oil Collections
- Skimming Pumping
- Asbestos Clean-Ups
- Oil-Water Separation
- Oil Spill Clean-Up

**MUNICIPAL & UTILITY**

- Sewage Collection & Transfer
- Waste Water Skimming
- Drain Clean-Out
- Utility Trunk Pump
- Fly Ash Clean-Ups
- Containment Transfer
- Meter Pit Dewatering
- Manhole Dewatering



**GENERAL DESCRIPTION**

Edson Air Powered Diaphragm Pumps are ideal for collection and transfer of liquid waste, dewatering, slurry, and filter applications. An externally mounted reciprocating air cylinder powers the single diaphragm at low air consumption rates. Open flow-through flapper valves and accurate, variable speed ceramic solenoid control make these pumps ideal for applications involving liquids with abrasive solids and high viscosities. Portable models are used for field applications with portable compressors.

**Order Nos. 120ACA-200 and 120ACB-200** are the Edson air powered, base mounted, nominal 40 gallon per minute, 2" NPT diaphragm pumps. The 120ACA is built with the wetted parts made of anodized aluminum and the 120ACB wetted parts are marine bronze. **Order Nos. 120AWA-200 and 120AWB-200** are the cart mounted version with wheels and handle for portability. The standard models are supplied with a self lubricating reciprocating air cylinder with 3" bore x 3" stroke and adjustable 0-30 second ceramic air operated solenoid. With this combination these pumps will operate at cycles between 0 and 60 per minute and perform as detailed in the performance charts on below.

The pumps can also be ordered with options for pumping materials that require different chemical resistant properties. These options included the wetted surfaces coated with either baked on polyurethane or Hylar. Edson also offers optional diaphragms and valves made of Viton® and Hypalon®.

**Call Edson Customer Service for more details.**

**VOLUME PERFORMANCE CHARTS**

56 Cycles Per Min.		DISCHARGE HEIGHT			S U C T I O N H I G H T	gpm / lpm
		0	5 ft 1.5 m	10 ft 3 m		
1 ft .3 m	38/144	32/121	24/91			
5 ft 1.5 m	30/114	30/114	23/87			
10 ft 3 m	28/106	26/98	16/61			
12 ft 3.7 m	28/106	26/98	14/53			

40 Cycles Per Min.		DISCHARGE HEIGHT			S U C T I O N H I G H T	gpm / lpm
		0	5 ft 1.5 m	10 ft 3 m		
1 ft .3 m	27/102	23/87	17/64			
5 ft 1.5 m	21/81	21/81	16/62			
10 ft 3 m	20/76	19/70	11/43			
12 ft 3.7 m	20/78	19/70	10/38			

36 Cycles Per Min.		DISCHARGE HEIGHT			S U C T I O N H I G H T	gpm / lpm
		0	5 ft 1.5 m	10 ft 3 m		
1 ft .3 m	24/92	21/78	15/58			
5 ft 1.5 m	19/73	19/73	15/56			
10 ft 3 m	18/68	17/63	10/39			
12 ft 3.7 m	18/68	17/63	8/30			

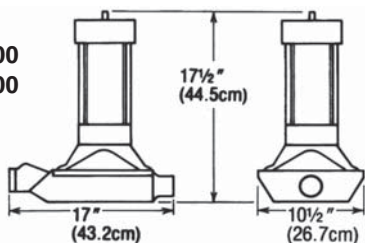
30 Cycles Per Min.		DISCHARGE HEIGHT			S U C T I O N H I G H T	gpm / lpm
		0	5 ft 1.5 m	10 ft 3 m		
1 ft .3 m	20/77	19/72	17/64			
5 ft 1.5 m	17.5/66	17/64	16/61			
10 ft 3 m	17/64	16/61	15/57			
12 ft 3.7 m	13/49	12/47	10/38			

20 Cycles Per Min.		DISCHARGE HEIGHT			S U C T I O N H I G H T	gpm / lpm
		0	5 ft 1.5 m	10 ft 3 m		
1 ft .3 m	14/52	11/42	9/34			
5 ft 1.5 m	11/42	11/42	8/31			
10 ft 3 m	10/38	9/34	6/22			
12 ft 3.7 m	10/38	9/34	5/19			

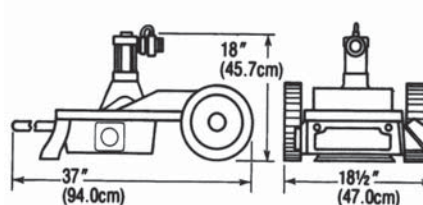
13 Cycles Per Min.		DISCHARGE HEIGHT			S U C T I O N H I G H T	gpm / lpm
		0	5 ft 1.5 m	10 ft 3 m		
1 ft .3 m	9/34	7/26	5/20			
5 ft 1.5 m	7/26	7/26	5/20			
10 ft 3 m	7/26	6/23	4/14			
12 ft 3.7 m	7/26	6/23	3/12			

**DIMENSIONS**

120ACA-200  
120ACB-200



120AWA-200  
120AWB-200



**ORDERING INFORMATION**

PUMP DESCRIPTION	MATERIAL	WEIGHT lbs/kgs	ORDER NO.
Base Mount	Aluminum	35 / 15.9	120ACA-200
Cart Mount	Aluminum	50 / 22.7	120AWA-200
Base Mount	Bronze	59 / 26.8	120ACB-200
Cart Mount	Bronze	68 / 30.8	120AWB-200

**OPTIONS**

DESCRIPTION	ORDER NO.
Viton® Diaphragm & Valves	230-1130V
Hypalon® Diaphragm & Valves	230-1130H
Polyurethane Coating	230-PC
Halar Coating	230-Halar

Option order # is added to the basic pump order #, ie 120AWB-200 w/ 230-1130V & 230-PC

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