



# MODEL 220A

## AIR POWERED DIAPHRAGM PUMP

### 1 1/2" PORTS - 0 TO 20 GPM



All models are available in heavy duty bronze or lightweight aluminum

**220ACB-150**  
 Edson Air Powered 20 GPM  
 Bronze 1 1/2" Diaphragm Pump

- SAFE TO RUN WHEN DRY
- VOLUMES TO 20 GPM
- POWERFUL VACUUM LIFTS
- DRY START LIFT TO 15'
- PUMP UP TO 50% SOLIDS
- 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

#### 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 for cleaning up our environment and controlling the disposal of liquid waste. Evident by the list of applications the pumps can be used including the requirements for ground water remediation, containment transfers, dewatering, oil and water separations, marina and campground sewage collection, tank, sump and drum transfers, filtration applications, and the collection and transfer of abrasives, slurries.

<b>Performance:</b>	
Static Suction Lift .....	18 ft./5.47m
Dry Suction Lift .....	15 ft./4.57m
Dishcharge Head .....	18 ft./5.47m
Max Volume .....	20 GPM/76 LPM*
	*at 60 cycles per minute
<b>Construction:</b>	
Pump Base .....	Choice of:
(Wetted Parts)	Anodized Aluminum
	Marine Bronze
	Urethane Powder Coating
	PTFE Coating (HALAR)
Diaphragms & Valves.....	Choice of:
	Nitrile
	Viton®
Mounting Frame .....	Same as Pump Base
Hardware Material .....	Stainless Steel
<b>Drives:</b>	
Air Motor .....	2 1/4" bore x 2 1/2" stroke, self-lubricating, air cylinder, controlled by an adjustable 0-30 sec. ceramic air operated timing valve.
Air Consumption .....	8 ACFM*
	*at 60 cycles/min at 85 PSI

#### INDUSTRIAL

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

#### 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

#### MARINE

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



## GENERAL DESCRIPTION

EdsonAir 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 4-way valve make these pumps ideal for applications involving liquids with abrasive solids and high viscosities. All models are portable for use in field applications with portable compressors.

Order Nos. 220ACA-150 and 220ACB-150 are the Edson air powered, base mounted, nominal 20 gallon per minute, 1.5", NPT, diaphragm pumps. The 220ACA is built with the wetted parts made of anodized aluminum and the 220ACB wetted parts are marine bronze. The standard models are supplied with a self lubricating reciprocating air cylinder with 2.25" bore x 2" 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 page 2.

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

Call Edson Customer Service for more details.

## VOLUME PERFORMANCE CHARTS

AT 56 Cycles Per Min.		DISCHARGE HEIGHT		
		0	5 feet 1.5 meters	10 feet 3 meters
S U C T I O N  H E I G H T	1 foot .3 meters	18 gpm 68.4 lpm	17 gpm 64.6 lpm	17 gpm 64.6 lpm
	5 feet 1.5 meters	17.5 gpm 66.5 lpm	17 gpm 64.6 lpm	15.5 gpm 59 lpm
	10 feet 3 meters	16.5 gpm 62.7 lpm	15 gpm 57 lpm	13.5 gpm 51.3 lpm
	17 feet 4.2 meters	6 gpm 22.8 lpm	5 gpm 19 lpm	4 gpm 15.2 lpm

AT 40 Cycles Per Min.		DISCHARGE HEIGHT		
		0	5 feet 1.5 meters	10 feet 3 meters
S U C T I O N  H E I G H T	1 foot .3 meters	12.9 gpm 49 lpm	12.1 gpm 46 lpm	12.1 gpm 46 lpm
	5 feet 1.5 meters	12.5 gpm 47.5 lpm	12.1 gpm 46 lpm	11 gpm 41.8 lpm
	10 feet 3 meters	11.8 gpm 44.8 lpm	10.7 gpm 40.7 lpm	9.6 gpm 36.5 lpm
	17 feet 4.2 meters	5 gpm 19 lpm	4 gpm 15 lpm	3 gpm 11.5 lpm

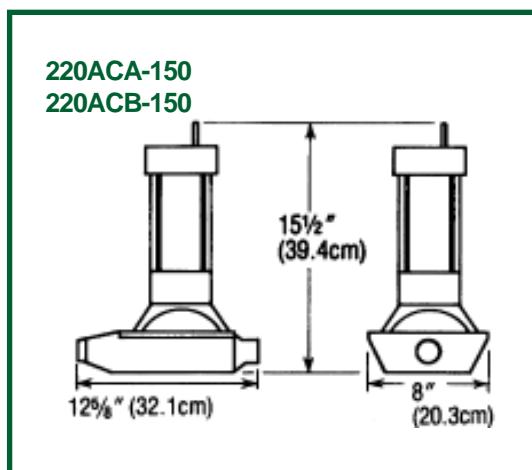
AT 36 Cycles Per Min.		DISCHARGE HEIGHT		
		0	5 feet 1.5 meters	10 feet 3 meters
S U C T I O N  H E I G H T	1 foot .3 meters	11.6 gpm 44.1 lpm	10.9 gpm 41.4 lpm	10.9 gpm 41.4 lpm
	5 feet 1.5 meters	11.3 gpm 42.9 lpm	10.9 gpm 41.4 lpm	10 gpm 38 lpm
	10 feet 3 meters	10.6 gpm 40.3 lpm	9.6 gpm 36.5 lpm	8.7 gpm 33.1 lpm
	17 feet 4.2 meters	5 gpm 19 lpm	4 gpm 15 lpm	3 gpm 11.5 lpm

AT 30 Cycles Per Min.		DISCHARGE HEIGHT		
		0	5 feet 1.5 meters	10 feet 3 meters
S U C T I O N  H E I G H T	1 foot .3 meters	7 gpm 26.5 lpm	6 gpm 22.8 lpm	5 gpm 19 lpm
	5 feet 1.5 meters	6 gpm 21 lpm	5.5 gpm 21 lpm	5 gpm 19 lpm
	10 feet 3 meters	5.5 gpm 21 lpm	5 gpm 19 lpm	5 gpm 19 lpm
	17 feet 4.2 meters	5 gpm 19 lpm	4 gpm 15 lpm	3 gpm 11.5 lpm

AT 20 Cycles Per Min.		DISCHARGE HEIGHT		
		0	5 feet 1.5 meters	10 feet 3 meters
S U C T I O N  H E I G H T	1 foot .3 meters	4.6 gpm 17.5 lpm	4 gpm 15.2 lpm	3.3 gpm 12.5 lpm
	5 feet 1.5 meters	4 gpm 15.2 lpm	3.6 gpm 13.7 lpm	3.3 gpm 12.5 lpm
	10 feet 3 meters	3.6 gpm 13.7 lpm	3.3 gpm 12.5 lpm	3.3 gpm 12.5 lpm
	17 feet 4.2 meters	3.3 gpm 12.5 lpm	2.7 gpm 10 lpm	2 gpm 7.6 lpm

AT 13 Cycles Per Min.		DISCHARGE HEIGHT		
		0	5 feet 1.5 meters	10 feet 3 meters
S U C T I O N  H E I G H T	1 foot .3 meters	3 gpm 11.4 lpm	2.6 gpm 10 lpm	2.2 gpm 8.4 lpm
	5 feet 1.5 meters	2.6 gpm 10 lpm	2.4 gpm 9.1 lpm	2.6 gpm 10 lpm
	10 feet 3 meters	2.4 gpm 9.1 lpm	2.6 gpm 10 lpm	2.6 gpm 10 lpm
	17 feet 4.2 meters	2.6 gpm 10 lpm	1.7 gpm 6.5 lpm	1.3 gpm 4.9 lpm

## DIMENSIONS



## ORDERING INFORMATION

PUMP DESCRIPTION	MATERIAL	WEIGHT lbs / Kgs	ORDER NO.
Base Mount	Aluminum	18.5 / 8.4	220ACA-150
Base Mount	Bronze	27 / 12.2	220ACB-150

All Option order #'s are added to the basic pump order #,  
ie 220AWB-200 w/ 230-11318V & 230-PC

## OPTIONS

DESCRIPTION	ORDER #
Viton® Diaphragm & Valves	230-11318V
Polyurethane Coating	230-PC
Halar Coating	230-Halar

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