



Hand Diaphragm Primer

THE HAND DIAPHRAGM PRIMER contains a rubber diaphragm working in an aluminum chamber. A levered handle attached to it by a connecting rod actuates the diaphragm. Air is drawn into the chamber through a suction valve on the up-stroke and discharged through a discharge valve on the down-stroke. The primer body is made of a light weight aluminum alloy. The diaphragm is of molded rubber, and it is extremely tough and longwearing. A rubber air discharge valve, built into the diaphragm, provides a positive seal. We manufacture #5 Diaphragm Primers(DP5), #7 Diaphragm Primers(DP7), and #9 Diaphragm Primer(DP9).

Compatible products: Centrifugal Pump.

Common names: hand pump primer, suction lift primer, portable primer, permanent primer.

DP5 (Upper Left), DP7 (Upper Right), DP9 (Center)



HAND DIAPHRAGM PRIMER FEATURES

- The body is made of a lightweight aluminum alloy.
- It can be easily mounted on most centrifugal pumps.
- It contains a tough and durable rubber diaphragm.
- All DP units come equipped with a drain valve.

PRIMER SELECTION CHART	
PRIMER	PIPE SIZE
DP5	2", 3", and 4"
DP7	4", 5", and 6"
DP9	6", 8" or Larger

PRIMER CAPACITY CHART									
PRIMER	# of Strokes to Prime Through 25' of 4" Suction			# of Strokes to Prime Through 25' of 6" Suction			# of Strokes to Prime Through 25' of 8" Suction		
	5" HG	10" HG	15" HG	5" HG	10" HG	15" HG	5" HG	10" HG	15" HG
DP5	10	27	55						
DP7	6	15	32	12	33	65			
DP9	4	9	20	10	23	45	17	37	77

INSTALLATION & OPERATION

1. Attach the mounting bracket to the centrifugal pump or skid.
2. Connect the primer suction inlet to the priming port on the centrifugal pump with a non-collapsible hose or flexible tubing. Be sure all connections are airtight.
3. If the primer is connected to a pump discharge, a cutoff valve should be installed in the priming line. This valve should be closed immediately after priming to prevent the pump from discharging through the primer.
4. If the primer is connected to the pump suction, a cutoff valve is recommended.
5. A cutoff valve may be used on the pump discharge to prevent air from being drawn into the pump from the discharge line while priming.
6. All primers are equipped with a drain cock installed in the suction chamber for draining excess water after each use. The drain cock must always be closed when the primer is in use.

TROUBLESHOOTING

If you cannot get the primer to prime, try one of the following:

1. Make sure the drain cock is closed. The drain cock should only be opened after priming to drain any liquids in the primer body.
2. Make sure there is no debris left inside where the check valve is. Any debris can cause clogging.
3. Inspect the diaphragm for any tears or cracks.
4. Check the line for any blockage or loops. The line must be straight and not twisted in any way.
5. Check any strainers for blockage.
6. Check all sections of the suction for air leaks.

Industries & Applications

- Agricultural irrigation systems
- Fire Fighting
- Chemical plants
- Construction
- Drilling, excavations
- Processing plants
- Pulp mills
- Water treatment plants
- Farming
- Golf Courses
- Land Scaping
- Nurseries
- Fisheries
- Ranching
- Swimming Pool Repairs
- Fountains
- Water Trucks
- Forestry