

PLASTIC CENTRIFUGAL PUMP

**PIPE SIZE: 3/8 HOSE CONNECTION IN
3/8 HOSE CONNECTION OUT
1/8 AIR VENT HOSE CONNECTION**



MODEL 144-01A46 SHOWN

PUMP & MOTOR FEATURES

- .. Chemical resistant construction
 - Body and Adapter made of non-metallic glass reinforced Nylon 6/6
 - Impeller made of non-metallic glass reinforced PPS
- .. Mechanical Seal - carbon / ceramic faces, silicone rubber elastomer
 - Tolerates intermittent dry running
- .. Barbed -Hose Connections
- .. Static Buna O-Ring body/adapter seal
- .. Integrated Air Vent - prevents loss of prime
- .. Compact and Lightweight
- .. Installation/Mounting Versatility - port orientation
- .. Universal - Open Drip Proof Motors with internal fan cooling, UL, listed
 - No 18 Wire leads - 25" long
 - Low amperage
 - 120VAC, 240VAC (Optional: double insulation) and 12VDC versions.

GENERAL

These compact high speed centrifugal pumps are suited for a variety of applications including condensate removal. They are particularly well suited for handling soap solutions in extraction type carpet cleaning equipment.

The design's symmetry provides a wide range of configuration possibilities allowing ready customization of discharge port position and optional air vent orientation relative to the motor base. (see below)

INSTALLATION

Maximum fluid temperature is 180° F (82.2° C). Fluids must be compatible with silicone rubber seal elastomer. To promote long product life, assure that ambient air can circulate around the unit to prevent over-heating.

Ground metal frame motors. There is a #6-32 tapped hole ground connection provided on the end of metal framed motors.

Prevent air trapping in plumbing lines by avoiding loops. Use air vent fitting connection to purge air. Though capable of pulling slight vacuum, the pump performs best under flooded suction conditions when located for gravity feed.

AC Motors (10,000 RPM)

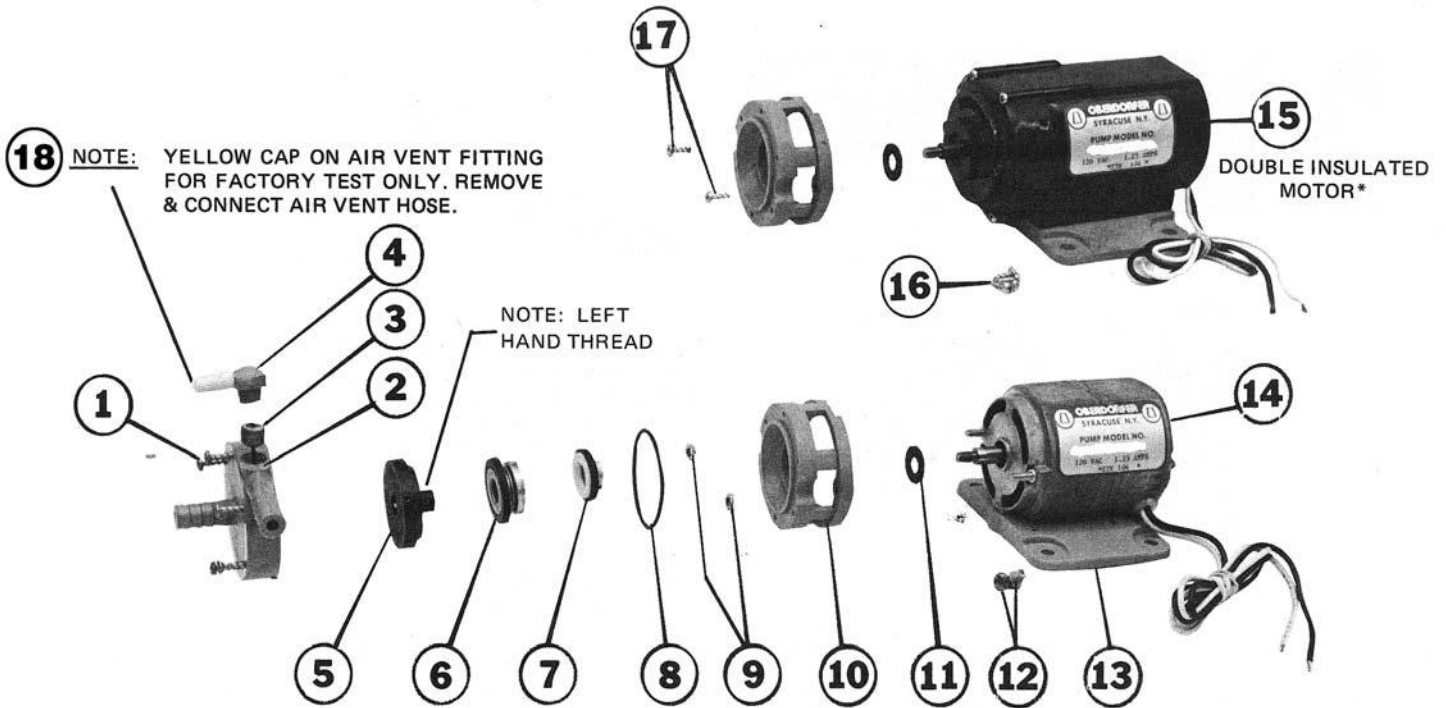
| | | | | | | | | Optimum Efficiency Range | | | |
|---------|--------|-----------------------|------|------|------|------|------|--------------------------|------|------|------|
| HEAD | PSI | | 0 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 |
| | FT.HD. | | 0 | 11.5 | 23 | 34.6 | 46.2 | 57.7 | 69.3 | 80.8 | 92.4 |
| FLOW | GPM | Plugged Vent | 2.2 | 2.1 | 1.9 | 1.7 | 1.4 | 1.1 | 0.7 | 0.4 | 0.1 |
| | GPM | With Bypass thru Vent | 2.0 | 2.0 | 1.7 | 1.5 | 1.2 | 1.0 | 0.6 | 0.2 | - |
| CURRENT | AMPS | @ 120V | 1.35 | 1.34 | 1.33 | 1.31 | 1.29 | 1.26 | 1.23 | 1.20 | 1.18 |
| | AMPS | @ 240V | 0.70 | 0.69 | 0.68 | 0.67 | 0.65 | 0.64 | 0.62 | 0.58 | 0.59 |

12 VDC Motor (7,000 RPM)

| HEAD | PSI | | 0 | 5 | 10 | 15 | 20 |
|---------|--------|--------------|------|------|------|------|------|
| | FT.HD. | | 0 | 11.5 | 23 | 34.6 | 46.2 |
| FLOW | GPM | Plugged Vent | 1.9 | 1.7 | 1.4 | 1.1 | 0.5 |
| CURRENT | AMPS | @ 12V | 1.35 | 1.34 | 1.33 | 1.31 | 1.29 |

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EXPLODED VIEW AND PARTS LIST



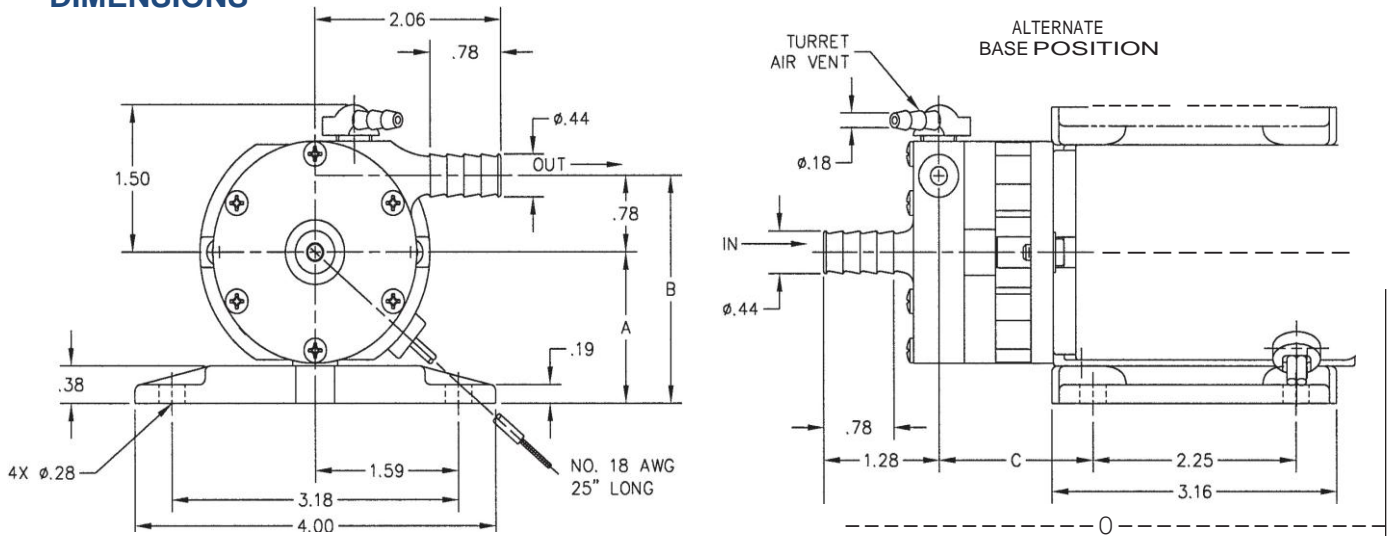
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|---------|---------|---------|--------------|----------|-----------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| SCREW | BODY | PLUG | VENT FITTING | IMPELLER | SEAL HEAD | SEAL SEAT | O-RING | NUT | ADAPTER | SLINGER | SCREW | BASE | MOTOR | MOTOR | SCREW | SCREW | VENT CAP |
| 6 Req'd | 1 Req'd | 1 Req'd | 1 Req'd | 1 Req'd | 1 Req'd | 1 Req'd | 1 Req'd | 2 Req'd | 1 Req'd | 1 Req'd | 2 Req'd | 1 Req'd | 1 Req'd | 1 Req'd | 4 Req'd | 2 Req'd | 1 Req'd |

| Pump | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|---------|------|------|------|------|------|------|-----------|------|------|------|------|------|------|------|------|------|----|------|
| 144- 22 | 7819 | 7752 | 7835 | -- | 8900 | 8421 | 3109/5863 | 7818 | | 8455 | 6651 | | 8367 | | | | | -- |
| 144- 01 | | | | | | | | | | | | | | | | | | |
| 144- 02 | | | | | | | | | | | | | | | | | | |
| 144- 04 | 7819 | 7752 | -- | 7799 | 8900 | 8421 | 3109/5863 | 7818 | | 8455 | 6651 | | 8367 | | | | | 7879 |
| 144- 05 | | | | | | | | | | | | | | | | | | |
| 144- 11 | | | | | | | | | | | | | | | | | | |
| 144- 21 | | | | | | | | | | | | | | | | | | |
| 144- 10 | 7819 | 7752 | -- | 7799 | 8900 | 8421 | 3109/5863 | 7818 | | 8455 | 6651 | | -- | | | | | 7879 |
| 144- 20 | | | | | | | | | | | | | | | | | | |
| Motor | | | | | | | | | | | | | | | | | | |
| A44 | | | | | | | | | 7823 | | | 7821 | 8370 | -- | -- | -- | | |
| A46 | | | | | | | | | -- | | | -- | -- | 8516 | 8450 | 9200 | | |
| A47 | | | | | | | | | -- | | | -- | -- | 8517 | 8450 | 9200 | | |
| A91 | | | | | | | | | -- | | | -- | -- | 2057 | 8450 | 9200 | | |

| Repair Kits: | Kit # | | |
|---------------------------------------|-------|----------------|-------------------------------|
| Complete Pump Repair Kit (less motor) | 11336 | includes items | 1,2,3,4,5,6,7,8,9,10,11,17,18 |
| Body Kit | 11337 | includes items | 1,2,3,4,8,18 |
| Adapter Kit | 11338 | includes items | 1,7,8,9,10,11,17 |
| Impeller Kit | 11339 | includes items | 5,6,8 |

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DIMENSIONS



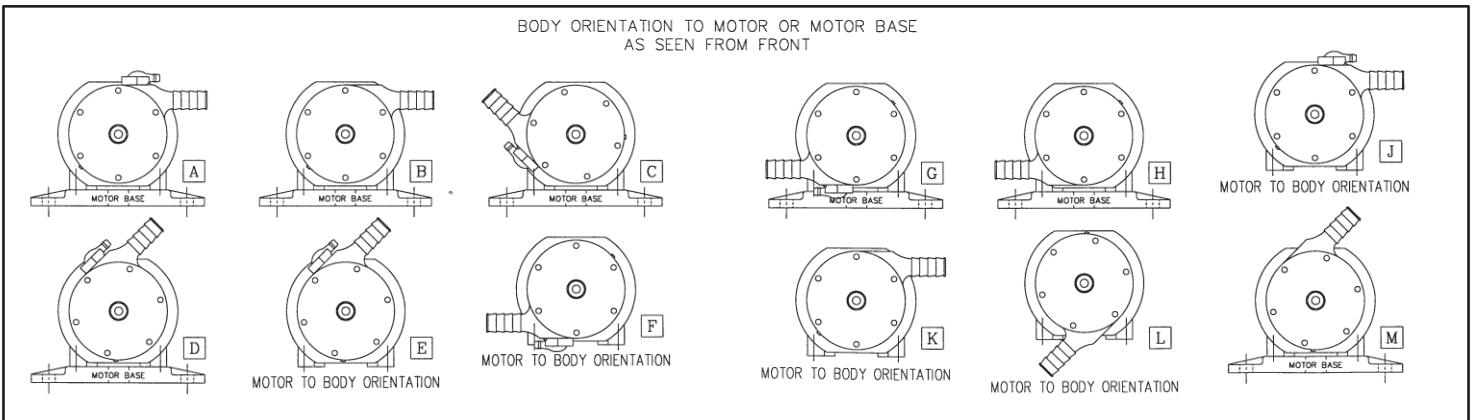
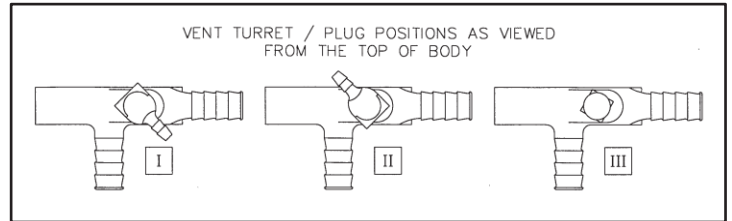
| PUMP | DIMENSIONS | | | |
|-----------|------------|--------|------|------|
| | A | ϕ | C | D |
| 144-01A44 | 1.54 | 2.32 | 1.71 | 6.25 |
| 144-01A46 | 1.67 | 2.45 | 2.74 | 7.16 |
| 144-01A47 | 1.67 | 2.45 | 2.74 | 7.16 |
| 144-01A91 | 1.67 | 2.45 | 2.74 | 7.16 |

Specifications are subject to change without notice. All motor dimensions are subject to variations among motor manufacturers.

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AIR VENT FITTING

The optional air vent fitting prevents loss of prime that can occur due to entrapped air. It is factory installed with a disposable vent cap. Entrapped air can be encountered in applications where the liquid in the supply tank is completely exhausted. Air can be introduced to the system before the next tank filling. For best results, configure and install pump with air vent near the top.



| Pump No | Wet End Features | | Motor Features | | | | |
|---------------|------------------------------|---|----------------|----------|---------------|---------|--------|
| | Vent Turret or Plug Position | Body Orientation to Motor or Motor Base | Insulation | Ground | Nominal Speed | Voltage | Part # |
| 144- A44 | III | B | | External | 10,000 | 120V AC | 8370 |
| 144- 01 A44 | I | A | | External | 10,000 | 120V AC | 8370 |
| 144- 02 A44 | I | G | | External | 10,000 | 120V AC | 8370 |
| 144- 04 A44 | I | D | | External | 10,000 | 120V AC | 8370 |
| 144- 10 A44 | I | J | | External | 10,000 | 120V AC | 8370 |
| 144- 20 A44 | I | F | | External | 10,000 | 120V AC | 8370 |
| 144- 23 A44 | III | M | | External | 10,000 | 120V AC | 8370 |
| 144- 01 A46 | I | A | Double | | 10,000 | 120V AC | 8516 |
| 144- 02 A46 | I | G | Double | | 10,000 | 120V AC | 8516 |
| 144- 04 A46 | I | D | Double | | 10,000 | 120V AC | 8516 |
| 144- 05 A46 | I | C | Double | | 10,000 | 120V AC | 8516 |
| 144- 10 A46 | I | J | Double | | 10,000 | 120V AC | 8516 |
| 144- 11 A46 * | I | A | Double | | 10,000 | 120V AC | 8516 |
| 144- 20 A46 | I | F | Double | | 10,000 | 120V AC | 8516 |
| 144- 21 A46 | I | G | Double | | 10,000 | 120V AC | 8516 |
| 144- 22 A46 | III | B | Double | | 10,000 | 120V AC | 8516 |
| 144- 23 A46 | III | M | Double | | 10,000 | 120V AC | 8516 |
| 144- 01 A47 | I | A | Double | | 10,000 | 240V AC | 8517 |
| 144- 02 A47 | I | G | Double | | 10,000 | 240V AC | 8517 |
| 144- 10 A47 | I | J | Double | | 10,000 | 240V AC | 8517 |
| 144- 20 A47 | I | F | Double | | 10,000 | 240V AC | 8517 |
| 144- 21 A47 | I | G | Double | | 10,000 | 240V AC | 8517 |
| 144- A91 | I | A | | | 7,000 | 12V DC | 2057 |

Notes: *indicates motor base is mounted in forward position