

# OPERATOR'S MANUAL

# NP318X01-X

INCLUDING: OPERATION, INSTALLATION & MAINTENANCE

ALSO INCLUDE MANUALS: NM2318B-X-X PUMP (PN 97999-1128) & S-636 GENERAL INFORMATION (PN 97999-636).

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(REV. 03)

## NP318C01-X and NP318W01-X CART MOUNT AND WALL MOUNT SPRAY PUMP SYSTEMS 3" STAINLESS STEEL, TWO BALL PUMP, 18:1 RATIO



**READ THIS MANUAL CAREFULLY BEFORE INSTALLING,  
OPERATING OR SERVICING THIS EQUIPMENT.**

It is the responsibility of the employer to place this information in the hands of the operator. Keep for future reference.

### SERVICE KITS

- Use only genuine ARO® replacement parts to assure compatible pressure rating and longest service life.
- **637316** for repair of air motor section.
- **637394-X43** for repair of 67310-13-X43 lower pump section.

### PUMP SYSTEM DATA

|                        |   |
|------------------------|---|
| Model Series           | NP318X01-X  |
| System Type            | Air operated, 2-ball, double acting<br>cart or wall mounted pump                          |
| Basic Pump             | models NP318X01-1 . NM2318B-13-C43<br>models NP318X01-2 . NM2318B-13-L43                  |
| Ratio                  | 18:1  |
| Air Motor              | 66917   |
| Motor Repair Kit       | 637316  |
| Motor Diameter         | 3" (7.62 cm)  |
| Stroke                 | 3" (7.62 cm)  |
| Air Inlet (male)       | 1/4 - 18-1/2 N.P.S.M.   |
| Lower Pump End Series  |   |
| models NP318X01-1      | 67310-13-C43  |
| models NP318X01-2      | 67310-13-L43  |
| Lower Pump Repair Kit  |   |
| models NP318X01-1      | 637394-C43  |
| models NP318X01-2      | 637394-L43  |
| Material Outlet (male) | 1/4 - 18-1/2 N.P.S.M.   |
| Weight                 | models NP318C01-X . . . 35.5 lbs (16.1 kgs)<br>models NP318W01-X . . . 21.5 lbs (9.8 kgs) |

### PERFORMANCE

For performance data, refer to the NM2318B-X-X pump model operator's manual.

### MODEL DESCRIPTION CHART

|  |  |
|--|--|
| <b>NP 3 18 X 01 - X</b>  |  |
| <b>AIR MOTOR SIZE</b><br>3 - 3"  |  |
| <b>RATIO</b><br>18 - 18:1  |  |
| <b>MOUNT STYLE</b><br>C - Cart<br>W - Wall   |  |
| <b>PACKING OPTIONS</b><br>1 - UHMW-PE (upper and lower)<br>2 - Mineral filled PTFE (upper and lower) |  |

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### PUMP DATA

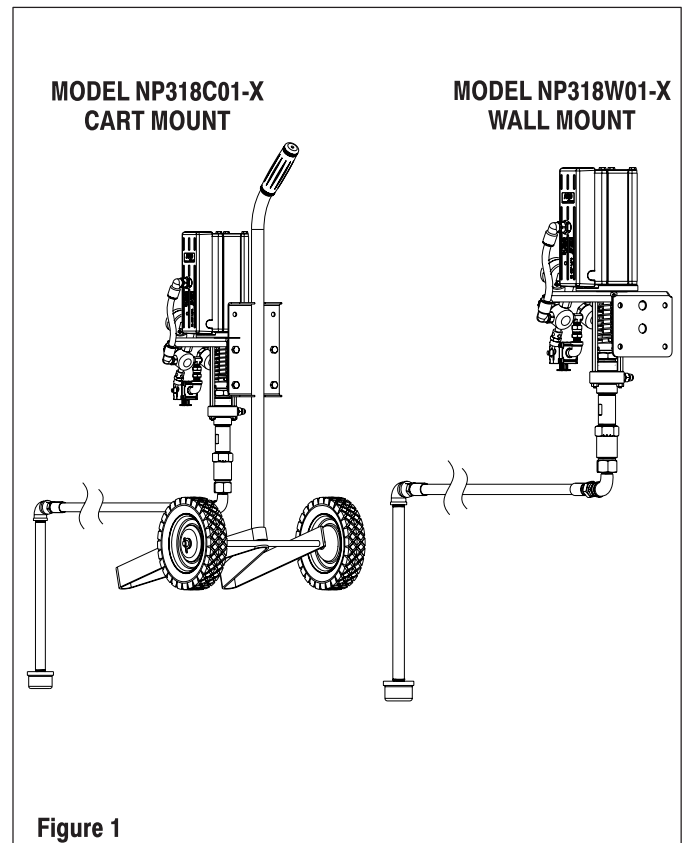


Figure 1

### IMPORTANT

This is one of the five documents which support the pump. Replacement copies of these forms are available upon request.

- ☒ NP318X01-X Model Operator's Manual
- ☐ General Information - Air Operated Pumping Systems (pn 97999-636)
- ☐ NM2318B-X-X Pump Operator's Manual (pn 97999-1128)
- ☐ 67310-X-X Lower Pump End Operator's Manual (pn 97999-1129)
- ☐ 6691X Air Motor Operator's Manual (pn 97999-748)


### OPERATING AND SAFETY PRECAUTIONS


**⚠ WARNING** READ THE GENERAL INFORMATION MANUAL INCLUDED FOR OPERATING AND SAFETY PRECAUTIONS AND OTHER IMPORTANT INFORMATION.

# ARO

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Industrial Technologies

## NP318X01-X PARTS LIST

| Item   | Description (size)  | Qty | Part No.  |
|--|---|-----|---|
| <b>Models NP318C01-X (cart mount) include items 1 thru 33.</b> |   |     |   |
| <b>Models NP318W01-X (wall mount) include items 1 thru 25.</b> |   |     |   |
| 1  | Two-Ball Pump (models NP318X01-1)                                       | (1) | NM2318B-13-C43  |
|  | (models NP318X01-2)   | (1) | NM2318B-13-L43  |
| 2  | Pump Bracket  | (1) | 95015   |
| 3  | 90° Street Elbow (1/4 - 18 N.P.T.)                                      | (3) | Y43-2-C   |
| 4  | Adapter (1/8 - 27 N.P.T. male x 1/4 - 18 N.P.T. female)                 | (2) | Y167-1  |
| 5  | "O" Ring (3/32" x 1-5/16" o.d.)   | (1) | Y325-122  |
| 6  | Shut-Off Valve (1/4 - 18 N.P.T.F.)                                      | (1) | 104390-2  |
| 7  | Gauge (0 - 60 p.s.i.)   | (1) | 100090  |
| 8  | Regulator (0 - 50 p.s.i.)   | (1) | B27122-100  |
| 9  | Elbow (1/4 - 18 N.P.T. male x 1/2" o.d. tube)                           | (2) | 59756-162   |
| 10   | Tubing (1/2" o.d. x 10" long)   | (1) | 94978-X  |
| 11   | Gauge (0 - 160 p.s.i. / 0 - 11 bar)                                     | (1) | 100091  |
| 12   | Regulator (0 - 125 p.s.i.)  | (1) | B27122-000  |
| 13   | 90° Street Elbow (1/2 - 14 N.P.T.)                                      | (1) | Y43-4-S   |
| 14   | Adapter (1/2 - 14 N.P.T.F. male x 1/2 - 14 N.P.S.M. male)               | (1) | 95608   |
| 15   | Hose Assembly (1/2 - 14 N.P.S.M. female x 1/2 - 14 N.P.T.F. male x 60") | (1) | 623510-5  |
| 16   | 90° Elbow (1/2 - 14 N.P.T.)   | (1) | Y43-14-S  |

| Item  | Description (size)   | Qty | Part No.    |
|---|--|-----|-------------|
| 17  | Bushing (1/2 - 14 N.P.T.F. - 1 x 13-5/8")                            | (1) | 95108-1     |
| 18  | Screen (1/2 - 14 N.P.S.)   | (1) | 74047-1     |
| 19  | Suction Hose Assembly  | (1) | 67359-1     |
| 20  | Adapter (1/4 - 18 N.P.T.F. - 1 x 1/4 - 18-1/2 N.P.S.M.)              | (2) | 96120       |
| 21  | Tee (1/4 - 18 N.P.T.F.)  | (1) | 94039       |
| 22  | Swivel Union (1/4 - 18 N.P.T.F. - 1 male x 1/4 - 18 N.P.S.M. female) | (1) | 75364       |
| 23  | Pressure Relief Valve (80 p.s.i. / 5.5 bar)                          | (1) | 95604       |
| 24  | Washer (1/4")  | (3) | Y13-4-C     |
| 25  | Hex Cap Screw (1/4" - 20 x 1/2")                                     | (3) | Y6-41-C     |
| <b>The following items are included in models NP318C01-X only.</b>                |  |     |             |
| 26  | Hex Cap Screw (3/8" - 16 x 3/4")                                     | (4) | Y6-63-C     |
| 27  | Nut (3/8" - 16)  | (4) | Y12-6-C     |
| 28  | Lock Washer (3/8")   | (4) | Y14-616-C   |
| 29  | Handle Grip  | (1) | 71747-1     |
| 30  | Cart Assembly  | (1) | 67268       |
| 31  | Wheel (8" o.d. x 1-1/2")   | (2) | 71045-1     |
| 32  | Spacer (1/2" i.d. x 7/8" o.d.)                                       | (4) | 77750       |
| 33  | Cotter Pin (1/8" o.d. x 1")  | (2) | Y15-43      |
|   | Cart Assembly (includes items 29 thru 33)                            | (1) | 67270       |
|  | Bulk Tubing (1/2" o.d. x 100')                                       | (1) | 94978-XXX-X |

## OPERATING INSTRUCTIONS

**⚠ WARNING** DO NOT EXCEED MAXIMUM OPERATING PRESSURE OF 1440 P.S.I. (99.3 BAR) AT 80 P.S.I. (5.5 BAR) AIR INLET PRESSURE.

**⚠ WARNING** REFER TO THE PUMP MANUAL FOR ADDITIONAL OPERATING AND SAFETY PRECAUTIONS AND OTHER IMPORTANT INFORMATION.

### INSTALLATION

#### OPERATING INSTRUCTIONS / INITIAL SETUP PROCEDURE

This unit comes assembled, except for the air supply hose, gun and material hose, which must be attached.

- A connector and air supply hose must be supplied to the air regulator.
- Attach the ground wire to a suitable ground and the ground lug provided on the pump air motor.
- Keep containers covered to prevent contamination.

1. Turn the knob on the air regulator counterclockwise to zero p.s.i.
2. Attach the hose and gun. Place the pump inlet tube into a full container of material.
3. Start the pump to cycle by turning the air regulator knob clockwise. The pump will cycle several strokes until pressure is built up in the

system, at which time it will stop. Check for any loose fittings or leakage. Check all connections and retighten as necessary.

### OPERATION

1. (6) Shut-off valve is the air inlet. With the lockout tab up, air is supplied to both air regulators. With the lockout tab down, the air is shut off to the regulators and any air pressure in the system is relieved through the shut-off valve.
2. (8) Regulator (0 - 50 p.s.i. / 3.4 bar) regulates the air supply to the air assisted airless spray gun.
3. (12) Regulator (0 - 125 p.s.i. / 8.6 bar) regulates the air supply to the pump air motor. NOTE: (23) Pressure relief valve limits the air supply to the air motor at 80 p.s.i. (5.5 bar). This limits the fluid outlet pressure of the pump to 1440 p.s.i. (99.3 bar).  
80 p.s.i. x 18:1 pump ratio = 1440 p.s.i.

### OPERATION

**NOTE:** When removing (13) 90° street elbow or disassembling lower pump end from pump, use a wrench on the flats of (12) tube, (23) inlet body and (29) seat body to prevent from twisting and damaging the tie rods (see Operator's Manual 67310-X-X, p/n 97999-1129 for lower pump end item numbers).

# NP318X01-X PARTS LIST

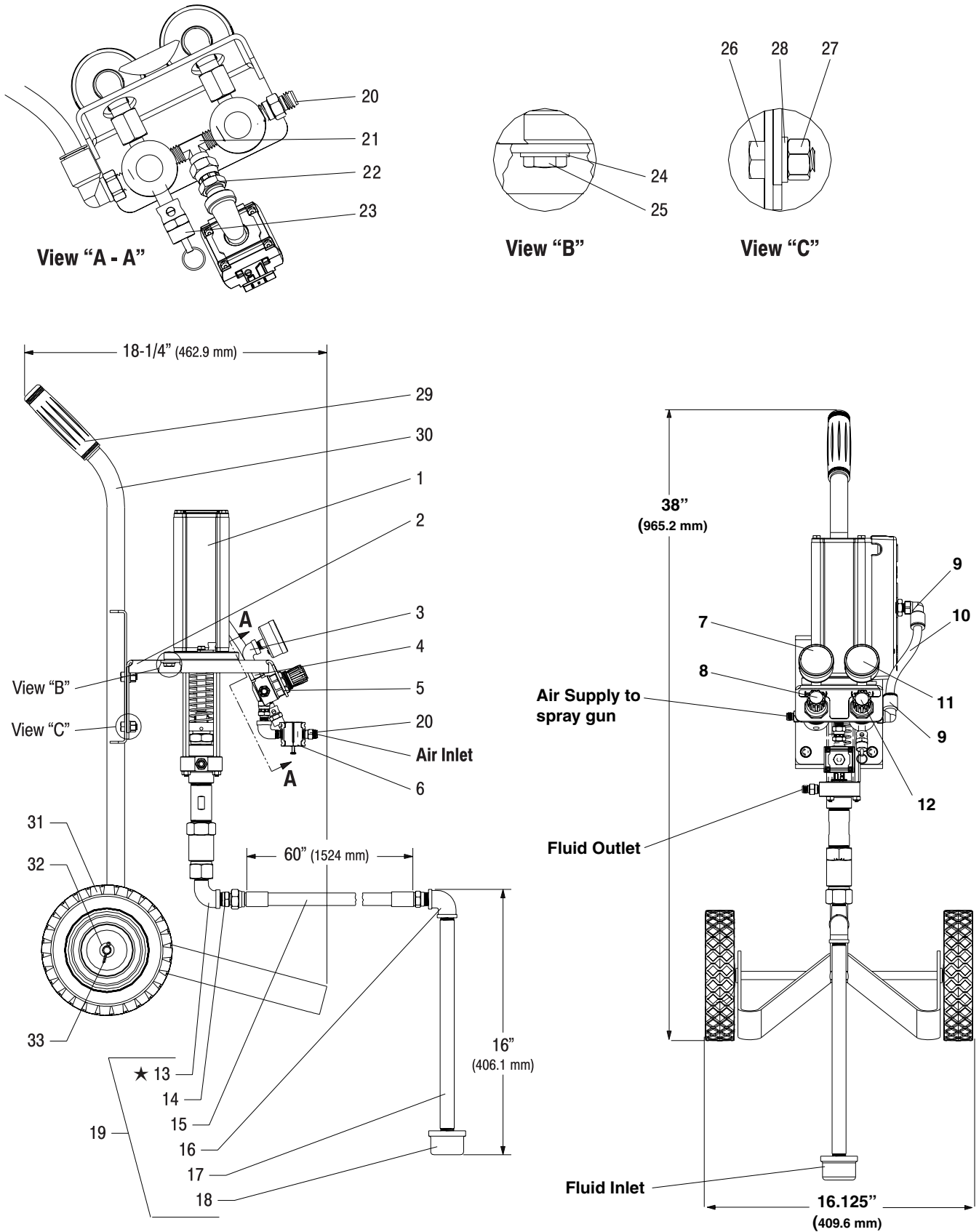


Figure 2

