



#### **FEATURES**

- Ultra-lightweight, compact design for easy dust-free blasting.
- Stainless steel spray nozzle for long life.
- Durable tungsten carbide lined mixing nozzle and body for maximum service.
- Standard Sand Induction Hose Assembly permits visual inspection of sand draw.

## **COMMON SPECIFICATIONS**

| Maximum Pressure  | 3650 PSI  | (250 BAR)   |  |
|---|-----------|-------------|--|
| Maximum Temperature   | 195°F     | (90°C)      |  |
| Inlet Port  | 1/4" NPTF | (1/4" NPTF) |  |
| Sand Inlet Hose ID  | 1/2" NPT  | (1/2" NPT)  |  |
| Hose Tube & Probe Size  | 1/4" NPT  | (1/4" NPT)  |  |
| Weight — Housing  | 1.75 lbs. | (.79 kg)    |  |
| — Housing, Probe, Hose  | 3.15 lbs. | (1.41 kg)   |  |
| Length — Housing with Barb  | 5.12"     | (130 mm)    |  |
| — Probe   | 19.13"    | (486 mm)    |  |
| Wet Sandblaster is stamped with a European safety pressure. Use only at |           |             |  |

**SELECTION:** Select the sandblaster model by orifice size to match your system flow and pressure. The special Sand Induction Hose Assembly should be used to prevent collapsing during operation. For optimum performance the sand inlet hose should not exceed the 25 feet included in the assembly.

above specifications to assure proper wet sandblaster life and performance.

**INSTALLATION:** For best results the sand unit should be connected to a quality high pressure water source. A pressure gauge should be installed on the system to

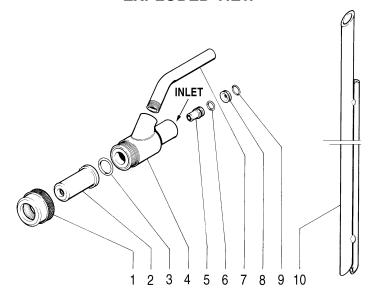
# Wet Sandblaster Models 30417-30422

# **SPECIFICATIONS**

| MODEL 30417         Max. Flow       3.8 GPM       (14.5 L/M)         Nozzle Orifice       0.047"       (1.2 mm)         Sand Flow       6.0-9.0 lb/min       (2.7-4.0 kg/min)         MODEL 30418       (19.5 L/M)         Max. Flow       5.1 GPM       (19.5 L/M)         Nozzle Orifice       0.055"       (1.4 mm)         Sand Flow       6.5-10.0 lb/min       (2.9-4.5 kg/min)         MODEL 30419       (23 L/M)         Max. Flow       6.0 GPM       (23 L/M)         Nozzle Orifice       0.059"       (1.5 mm)         Sand Flow       7.0-11.0 lb/min       (3.1-5.0 kg/min)         MODEL 30420       (25 L/M)         Max. Flow       6.5 GPM       (25 L/M)         Nozzle Orifice       0.063"       (1.6 mm)         Sand Flow       7.5-13.0 lb/min       (3.4-5.9 kg/min)         MODEL 30421       (29 L/M)         Max. Flow       8.5-13.0 lb/min       (3.8-5.9 kg/min)         MODEL 30422       (34 L/M)         Max. Flow       9.1 GPM       (34 L/M) |                | U.S. Measure     | Metric Measure   |
|---|----------------|------------------|------------------|
| Nozzle Orifice  | MODEL 30417    |                  |                  |
| Sand Flow       6.0-9.0 lb/min.       (2.7-4.0 kg/min)         MODEL 30418       (19.5 L/M)         Max. Flow       5.1 GPM       (19.5 L/M)         Nozzle Orifice       0.055"       (1.4 mm)         Sand Flow       6.5-10.0 lb/min.       (2.9-4.5 kg/min)         MODEL 30419       (23 L/M)         Max. Flow       6.0 GPM       (23 L/M)         Nozzle Orifice       0.059"       (1.5 mm)         Sand Flow       7.0-11.0 lb/min.       (3.1-5.0 kg/min)         MODEL 30420       (25 L/M)         Nozzle Orifice       0.063"       (1.6 mm)         Sand Flow       7.5-13.0 lb/min.       (3.4-5.9 kg/min)         MODEL 30421       (29 L/M)         Max. Flow       7.6 GPM       (29 L/M)         Nozzle Orifice       0.070"       (1.8 mm)         Sand Flow       8.5-13.0 lb/min.       (3.8-5.9 kg/min)   | Max. Flow      | 3.8 GPM          | (14.5 L/M)       |
| MODEL 30418         Max. Flow       5.1 GPM       (19.5 L/M)         Nozzle Orifice       0.055"       (1.4 mm)         Sand Flow       6.5-10.0 lb/min       (2.9-4.5 kg/min)         MODEL 30419       (23 L/M)         Max. Flow       6.0 GPM       (23 L/M)         Nozzle Orifice       0.059"       (1.5 mm)         Sand Flow       7.0-11.0 lb/min       (3.1-5.0 kg/min)         MODEL 30420       (25 L/M)         Nozzle Orifice       0.063"       (1.6 mm)         Sand Flow       7.5-13.0 lb/min       (3.4-5.9 kg/min)         MODEL 30421       (29 L/M)         Nozzle Orifice       0.070"       (1.8 mm)         Sand Flow       8.5-13.0 lb/min       (3.8-5.9 kg/min)         MODEL 30422  | Nozzle Orifice | 0.047"           | (1.2 mm)         |
| Max. Flow       5.1 GPM       (19.5 L/M)         Nozzle Orifice       0.055"       (1.4 mm)         Sand Flow       6.5-10.0 lb/min       (2.9-4.5 kg/min)         MODEL 30419         Max. Flow       6.0 GPM       (23 L/M)         Nozzle Orifice       0.059"       (1.5 mm)         Sand Flow       7.0-11.0 lb/min       (3.1-5.0 kg/min)         MODEL 30420         Max. Flow       6.5 GPM       (25 L/M)         Nozzle Orifice       0.063"       (1.6 mm)         Sand Flow       7.5-13.0 lb/min       (3.4-5.9 kg/min)         MODEL 30421         Max. Flow       7.6 GPM       (29 L/M)         Nozzle Orifice       0.070"       (1.8 mm)         Sand Flow       8.5-13.0 lb/min       (3.8-5.9 kg/min)         MODEL 30422   | Sand Flow      | 6.0-9.0 lb/min.  | (2.7-4.0 kg/min) |
| Max. Flow       5.1 GPM       (19.5 L/M)         Nozzle Orifice       0.055"       (1.4 mm)         Sand Flow       6.5-10.0 lb/min       (2.9-4.5 kg/min)         MODEL 30419         Max. Flow       6.0 GPM       (23 L/M)         Nozzle Orifice       0.059"       (1.5 mm)         Sand Flow       7.0-11.0 lb/min       (3.1-5.0 kg/min)         MODEL 30420         Max. Flow       6.5 GPM       (25 L/M)         Nozzle Orifice       0.063"       (1.6 mm)         Sand Flow       7.5-13.0 lb/min       (3.4-5.9 kg/min)         MODEL 30421         Max. Flow       7.6 GPM       (29 L/M)         Nozzle Orifice       0.070"       (1.8 mm)         Sand Flow       8.5-13.0 lb/min       (3.8-5.9 kg/min)         MODEL 30422   | MODEL 30418    |                  |                  |
| Nozzle Orifice       .0.055"       (1.4 mm)         Sand Flow       .6.5-10.0 lb/min.       (2.9-4.5 kg/min)         MODEL 30419  |                | 5.1 GPM          | (19.5 L/M)       |
| Sand Flow       6.5-10.0 lb/min.       (2.9-4.5 kg/min)         MODEL 30419       (23 L/M)         Max. Flow       6.0 GPM       (23 L/M)         Nozzle Orifice       0.059"       (1.5 mm)         Sand Flow       7.0-11.0 lb/min.       (3.1-5.0 kg/min)         MODEL 30420       (25 L/M)         Max. Flow       6.5 GPM       (25 L/M)         Nozzle Orifice       0.063"       (1.6 mm)         Sand Flow       7.5-13.0 lb/min.       (3.4-5.9 kg/min)         MODEL 30421       (29 L/M)         Nozzle Orifice       0.070"       (1.8 mm)         Sand Flow       8.5-13.0 lb/min.       (3.8-5.9 kg/min)         MODEL 30422   |                |                  | ,                |
| MODEL 30419         Max. Flow       6.0 GPM       (23 L/M)         Nozzle Orifice       0.059"       (1.5 mm)         Sand Flow       7.0-11.0 lb/min.       (3.1-5.0 kg/min)         MODEL 30420         Max. Flow       6.5 GPM       (25 L/M)         Nozzle Orifice       0.063"       (1.6 mm)         Sand Flow       7.5-13.0 lb/min.       (3.4-5.9 kg/min)         MODEL 30421         Max. Flow       7.6 GPM       (29 L/M)         Nozzle Orifice       0.070"       (1.8 mm)         Sand Flow       8.5-13.0 lb/min.       (3.8-5.9 kg/min)   |                |                  | , ,              |
| Max. Flow       6.0 GPM       (23 L/M)         Nozzle Orifice       0.059"       (1.5 mm)         Sand Flow       7.0-11.0 lb/min.       (3.1-5.0 kg/min)         MODEL 30420         Max. Flow       6.5 GPM       (25 L/M)         Nozzle Orifice       0.063"       (1.6 mm)         Sand Flow       7.5-13.0 lb/min.       (3.4-5.9 kg/min)         MODEL 30421         Max. Flow       7.6 GPM       (29 L/M)         Nozzle Orifice       0.070"       (1.8 mm)         Sand Flow       8.5-13.0 lb/min.       (3.8-5.9 kg/min)         MODEL 30422   |                |                  | (                |
| Nozzle Orifice       .0.059"       (1.5 mm)         Sand Flow       .7.0-11.0 lb/min.       (3.1-5.0 kg/min)         MODEL 30420       .6.5 GPM       (25 L/M)         Max. Flow       .0.063"       (1.6 mm)         Sand Flow       .7.5-13.0 lb/min.       (3.4-5.9 kg/min)         MODEL 30421       .0.070"       (29 L/M)         Nozzle Orifice       .0.070"       (1.8 mm)         Sand Flow       .8.5-13.0 lb/min.       (3.8-5.9 kg/min)         MODEL 30422  |                |                  |                  |
| Sand Flow       7.0-11.0 lb/min.       (3.1-5.0 kg/min)         MODEL 30420       Max. Flow       6.5 GPM       (25 L/M)         Nozzle Orifice       0.063"       (1.6 mm)         Sand Flow       7.5-13.0 lb/min.       (3.4-5.9 kg/min)         MODEL 30421         Max. Flow       7.6 GPM       (29 L/M)         Nozzle Orifice       0.070"       (1.8 mm)         Sand Flow       8.5-13.0 lb/min.       (3.8-5.9 kg/min)   |                |                  | ,                |
| MODEL 30420         Max. Flow       6.5 GPM       (25 L/M)         Nozzle Orifice       0.063"       (1.6 mm)         Sand Flow       7.5-13.0 lb/min.       (3.4-5.9 kg/min)         MODEL 30421       (29 L/M)         Nozzle Orifice       0.070"       (1.8 mm)         Sand Flow       8.5-13.0 lb/min.       (3.8-5.9 kg/min)         MODEL 30422   |                |                  | , ,              |
| Max. Flow       6.5 GPM       (25 L/M)         Nozzle Orifice       0.063"       (1.6 mm)         Sand Flow       7.5-13.0 lb/min.       (3.4-5.9 kg/min)         MODEL 30421       (29 L/M)         Max. Flow       7.6 GPM       (29 L/M)         Nozzle Orifice       0.070"       (1.8 mm)         Sand Flow       8.5-13.0 lb/min.       (3.8-5.9 kg/min)         MODEL 30422  | Sand Flow      | 7.0-11.0 lb/min. | (3.1-5.0 kg/min) |
| Nozzle Orifice  | MODEL 30420    |                  |                  |
| Sand Flow       7.5-13.0 lb/min.       (3.4-5.9 kg/min)         MODEL 30421       (29 L/M)         Max. Flow       7.6 GPM       (29 L/M)         Nozzle Orifice       0.070"       (1.8 mm)         Sand Flow       8.5-13.0 lb/min.       (3.8-5.9 kg/min)         MODEL 30422  | Max. Flow      | 6.5 GPM          | (25 L/M)         |
| MODEL 30421         Max. Flow       7.6 GPM       (29 L/M)         Nozzle Orifice       0.070"       (1.8 mm)         Sand Flow       8.5-13.0 lb/min       (3.8-5.9 kg/min)         MODEL 30422  | Nozzle Orifice | 0.063"           | (1.6 mm)         |
| Max. Flow       7.6 GPM       (29 L/M)         Nozzle Orifice       0.070"       (1.8 mm)         Sand Flow       8.5-13.0 lb/min       (3.8-5.9 kg/min)         MODEL 30422  | Sand Flow      | 7.5-13.0 lb/min. | (3.4-5.9 kg/min) |
| Max. Flow       7.6 GPM       (29 L/M)         Nozzle Orifice       0.070"       (1.8 mm)         Sand Flow       8.5-13.0 lb/min       (3.8-5.9 kg/min)         MODEL 30422  | MODEL 30421    |                  |                  |
| Nozzle Orifice  |                | 7.6 GPM          | (29 L/M)         |
| Sand Flow8.5-13.0 lb/min. (3.8-5.9 kg/min)  MODEL <b>30422</b>  | Nozzle Orifice | 0.070"           | ,                |
|   |                |                  | ,                |
|   | MODEL 30422    |                  |                  |
| (04 L/W)  |                | 9.1 GPM          | (34   /M)        |
| Nozzle Orifice  |                |                  |                  |
| Sand Flow   |                |                  | ,                |

monitor system pressure as performance of the sandblaster is directly affected by the pressure of the system. A regulator or unloader must be installed in the pump discharge line of any system with a shut-off gun to handle by-pass liquid when the gun is shut off. Connect one end of the sand intake hose to sand siphon probe, place probe into sand supply and attach the other end to the hose connection tube at the body. Connect the sandblaster body to any 1/4" lance with 3500 PSI rating. (continued on back)

## **EXPLODED VIEW**



#### PARTS LIST

| ITEM | P/N   | MATL  | DESCRIPTION   | QTY |
|------|-------|-------|---|-----|
| 1    | 32064 | BB    | Retainer, Nozzle  | 1   |
| 2    | 33013 | BB    | Nozzle, Mixing, Tungsten Carbide Lined                      | 1   |
| 3    | 33014 | NBR   | O-Ring, Mixing Nozzle - 70D                                 | 1   |
| 4    | _     |       | Body, Tungsten Carbide Lined (1/4")                         | 1   |
| 5    | 31048 | S     | Nozzle (1.2 mm) SS w/O-Ring                                 | 1   |
|      | 31049 | S     | Nozzle (1.4 mm) SS w/O-Ring                                 | 1   |
|      | 31050 | S     | Nozzle (1.5 mm) SS w/O-Ring                                 | 1   |
|      | 31056 | S     | Nozzle (1.6 mm) SS w/O-Ring                                 | 1   |
|      | 31058 | S     | Nozzle (1.8 mm) SS w/O-Ring                                 | 1   |
|      | 31068 | S     | Nozzle (2.0 mm) SS w/O-Ring                                 | 1   |
| 6    | _     | NBR   | O-Ring, Spray Nozzle  | 1   |
| 7    | 34006 | STL   | Elbow, Bent   | 1   |
| 8    | 33217 | BB    | Insert  | 1   |
| 9    | 33216 | NBR   | O-Ring, Insert  | 1   |
| 10   | 33016 | STL   | Probe, Sand Siphon  | 1   |
| _    | 34101 | PVC • | Hose (1/2"x25")   | 1   |
| _    | 34102 | •     | Clamps, Hose (1/2")   | 2   |
| -    | 30430 |       | Sand Induction Hose Assembly (1/2"x25') (•Included in Assy) | 1   |
|      |       |       |   |     |

MATERIAL CODES (Not Part of Part Number): BB=Brass NBR=Medium Nitrile (Buna-N) PVC=PVC S=304SS STL=Steel

#### - ⚠ WARNING -

Severe injury can occur with high pressure spray. Do not allow spray to contact any part of body.

# WARRANTY -

#### 90 Day Warranty

Refer to complete CAT PUMPS Warranty for further information.

**OPERATION:** Start the high pressure system. Open trigger on gun to assure system is operating properly. When the sand unit is operating efficiently, there will be a smooth and continuous flow of sand through the nozzle. The pressure and flow rate through the spray nozzle are the factors that determine the rate of sand flow. See **Performance Chart**. If the spray nozzle is chosen to give the maximum pressure and flow rate possible for the pump, the rate of sand flow will also be at maximum. Keep sand supply dry for best performance.

#### CAUTION -

Adequate safety equipment and clothing must be worn during operation of the wet sandblaster.

#### PERFORMANCE CHART

| Model | Spray<br>Nozzle | Approximate flows at selected pressures |      |      |      |      |      |
|-------|-----------------|---|------|------|------|------|------|
|       | Orifice         | 1000                                    | 1500 | 2000 | 2500 | 3000 | 3500 |
| 30417 | 1.2 mm          | 2.0                                     | 2.5  | 2.8  | 3.2  | 3.5  | 3.8  |
| 30418 | 1.4 mm          | 2.8                                     | 3.2  | 3.9  | 4.4  | 4.8  | 5.1  |
| 30419 | 1.5 mm          | 3.2                                     | 3.9  | 4.5  | 5.0  | 5.5  | 6.0  |
| 30420 | 1.6 mm          | 3.5                                     | 4.2  | 4.9  | 5.5  | 6.0  | 6.5  |
| 30421 | 1.8 mm          | 4.1                                     | 4.9  | 5.7  | 6.4  | 7.0  | 7.6  |
| 30422 | 2.0 mm          | 4.6                                     | 5.6  | 6.5  | 7.4  | 8.3  | 9.1  |

#### SAND SUPPLY

| SURFACE         | SUGGESTED SAND TYPE |
|-----------------|---------------------|
| Rust            | Angular 16-50       |
| Metal Scale     | Round 20-40         |
| Painted Metal   | Round Silica 20-40  |
| Painted Masonry | Round River 20-40   |
| Painted Wood    | Round 20-40         |

#### TROUBLESHOOTING -

#### No Sand:

- Plugged sand probe
- Wet sand
- Low vacuum
- Not enough sand:

#### vot enough sand:

- Low water pressure
- Collapsed hose
- Hot water reduces efficiency
- Partially plugged sand probe
- Restricted sand flow

- Clear obstruction in sand probe.
- Remove mixing nozzle and inspect mixing chamber.
- Dry or replace sand.
- Check for air leak in system.
- Check water supply to pump, nozzle size and RPM of pump.
- Use reinforced hose. Remove any obstruction.
- Optimum performance obtained with cold water.
- Remove any restriction from sand probe inlet. Use dry sand.
- Increase diameter of hose.
   Recommend 1/2" ID. Maximum 25 ft.

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