GROVE KETTLES / SPRAY-RING FOUNTAINS

# Spray-ring fountain installation guide

For 3.25FT, 4FT, 5FT and 7FT Grove kettle packages. Ring sections, unions, legs, valves and pump arrangements vary by kit; apply a step only when that component is supplied.

| Kettle | Outside diameter | Overall height | Approx. bare weight |
|---|---|---|---|
| 3.25FT | 39 in | 16 in | 215 lb |
| 4FT | 48 in | 16 in | 245 lb |
| 5FT | 60 in | 20 in | 420 lb |
| 7FT | 84 in | 30 in | 830 lb |

Weights describe the Grove cast iron kettle alone. Plan support and handling for the complete load, including water and equipment. Keep the matching size-specific kettle sheet with this guide.

## Prepare the installation

Set the kettle on a stable support and level it in every direction. Plan electrical access, cord routing, pump service access and the area that may receive wind-blown spray. Keep water away from unprotected electrical connections.

**Disconnect power before handling the system**

Keep the pump unplugged during assembly, nozzle installation, adjustment and servicing. Use the electrical protection and installation required by the actual pump manual, including GFCI protection where specified. Do not cut plugs, modify cords or lift a pump by its cable.

## Check the equipment supplied

Identify the pump and ring before starting. Check the ring sections and support legs, union O-rings, pump manifold, hose, hose clamps, barbs, valves, nozzle tips and supplied tools or lubricant where applicable. Keep preassembled parts together; do not force apart a ring that is supplied assembled.

ASSEMBLY / POWER DISCONNECTED

# Assemble before adding tips

### 1 Position the ring

Lay out the ring sections inside the empty kettle. If loose support legs are supplied, seat them gently in their intended sockets while protecting the ring finish and kettle coating. Keep the ring level and clear of the pump intake and cord.

### 2 Seal and join sections

Seat each supplied O-ring correctly in its union. Use the supplied white grease where approved for those seals and threads. Bring sections into alignment and hand-tighten the union. Use a strap wrench only if needed and permitted; do not force or distort a joint.

### 3 Fit the pump manifold

Install the supplied manifold on the correct pump outlet. Use only the thread sealant or lubricant allowed by the pump/fitting instructions. Do not put pipe sealant on an O-ring sealing surface or assume every thread needs tape.

### 4 Install barbs and hoses

Where loose barbs are supplied, the source instructions place 90-degree barbs at the ring and straight barbs at the manifold. Fit the correct hose and clamps. Keep paired hose runs as equal in length as practical, without kinks, tension or blocked service access.

### 5 Prepare for the first flush

Leave nozzle tips off initially. Check all joints, place the pump correctly, and fill to the operating water level specified for the pump and kettle. The intake must remain adequately submerged. Set supplied ball valves approximately halfway open as a starting point; confirm any pump-specific startup requirements.

Use only the supplied lubricant or a compatible product approved for the specific O-rings, fittings and intended water use. Protect the interior coating when positioning equipment.

FLUSH / AIM / COMMISSION

# Flush then fit the nozzles

### 6 Flush without nozzle tips

With hands and tools clear of the water, run the filled system briefly without nozzle tips to flush loose debris. Watch water return and intake coverage. Stop if the water level falls, a joint leaks or the pump behaves abnormally.

### 7 Disconnect then install and aim

Switch off and unplug the pump before reaching into the kettle or fitting nozzle tips. Install the tips using the supplied blue pliers where appropriate; grip carefully without damaging the tips or threads. Aim them toward the intended pattern. Do not fit nozzles while handling an energized system.

### 8 Test and balance

Clear hands and tools, restore power and adjust the supplied ball valves gradually to set spray height. Confirm that spray returns to the kettle and the pump stays adequately submerged. Stop and unplug before moving the ring, changing hoses or re-aiming tips. Recheck for leaks and stable support.

CARE AND TROUBLESHOOTING

# Keep the spray performing

## If the spray is uneven

| Symptom | Check with power disconnected |
| --- | --- |
| Uneven or low jets | Water level, intake debris, nozzle blockage, hose kinks and valve positions. Clean as the equipment instructions direct. |
| Water leaving the kettle | Kettle/ring level, nozzle aim and excessive height. Reduce flow and consider wind conditions. |
| Leaking section or hose | O-ring seating, aligned union and correct clamp placement. Do not solve a misaligned joint by overtightening. |

Keep nozzles, pump intake and kettle clean. Disconnect before cleaning, follow the actual pump manual, and winterize the ring, hoses and pump where freezing is possible. Show the owner safe shutdown, adjustment and maintenance access.

Record the order number, pump model/serial and ring configuration with your project paperwork. Use the packing list for the actual pump, ring diameter and nozzle count.

Based on the supplied Spray Ring Instructions (1).pdf, with added Grove preparation, power-isolation, testing and care guidance. The source’s live nozzle-fitting step is replaced with a flush-then-disconnect sequence. Keep the pump manufacturer’s instructions with this guide.