

FDS MANUAL



FLUID DELIVERY SYSTEM

Introduction:

The Capital Weld Cleaners FDS system represents a significant advancement in our line of weld cleaning equipment. Carefully engineered for seamless integration across our range, from the portable 1X30 to the heavy-duty CW200, the FDS enhances the core capabilities that have made Capital Weld Cleaners a trusted name. This manual provides guidance on installing your new system, empowering both new and experienced users with simpler workflows, expanded control options, and reliably repeatable outcomes for all your passivation needs.

Overview:

The FDS works by using a low pressure tank to deliver cleaning solution directly to the area to be cleaned/passivated. You will need to have access to shop air, and a Capital Weld Cleaners weld cleaning machine (1X30, 2X40, CW110, or the CW200).

Included in your purchase is everything you need to connect to your existing machine and start cleaning.

- 3 Gallon stainless steel tank, with pressure regulator and pressure relief valve pre-installed.
- Fluid delivery gun
- 24ft multi-cable (attached to FDS gun)
- Low pressure precision regulator
- Composite work cart
- Stainless Steel FDS gun caddy
- 2-brush adapter (For CW110 and CW200 machines only)
- 5-pack threaded weld cleaning brushes (GB5T)
- Easy filling funnel



Safety Instructions:

Before operating the FDS system, read all safety protocols in this manual and the weld cleaner equipment manual. Visit www.capitalweldcleaners.com for additional safety information.

Operational Safety:

- Keep work area clean, dry, and well-lit
- Do not use if flammable liquids or gasses are present
- Frequently inspect electrical components and air lines
- Turn unit OFF before connecting or removing the dinse lug connectors
- Use only recommended accessories in good condition
- Allow brushes and workpieces to fully cool before handling

Chemical Safety:

- Store cleaning solutions in their original containers
- Review safety data sheets to understand chemical hazards
- Prevent contact with skin or eyes; flush with water if exposed
- Do not ingest chemicals; get medical attention if ingested

General Safety:

- Avoid contact with brushes while operating
- Service unit only after disconnecting electrical power
- Use effective exhaust ventilation
- Turn unit OFF before plugging/unplugging cord
- Do not leave unattended while powered on
- Store unit and chemicals securely when not in use.

Pressure tank safety:

- Read all warning labels on the tank
- Keep tank in upright position
- Do not attempt to modify, puncture, or alter the tank in any way
- Do not attempt to overfill or over pressurize the tank
- Frequently inspect the tank, fittings, and regulator for damage and/or wear

Personal Protective Equipment:

- Wear eye protection
- Use chemical resistant gloves when working with weld cleaning solutions
- Wear suitable protective clothing and closed-toe shoes
- Use a respirator if adequate ventilation is unavailable



Installation and Operation:

Before proceeding with setup, please confirm that your Capital Weld Cleaner package includes all listed components. Refer to page 1 for a complete inventory. If any components are missing, please contact Capital Weld Cleaners immediately.

Safety Check:

- Inspect the pressure tank and fittings. Check for any damage, dents, or loose fittings.
- Inspect the multi cable for any broken fluid lines or loose electrical connectors.

Installation:

1. Install the weld cleaning machine (not included) on the top shelf of the work cart and plug into a direct power source if possible. Or use appropriately sized extension cable.
2. Insert the FDS gun power cable dinse lug connector into the "Wand" port on the front of the machine and lock into place by turning the dinse lug clockwise.
3. Insert the ground cable dinse lug into the "Ground" port on the front of the machine and lock into place by turning the dinse lug clockwise.
4. Locate the end of the ¼" tubing in the multi-cable and connect it to the ¼" push-to connect fitting on top of the pressure tank
5. Remove the fill cap on the pressure tank and fill with weld cleaning solution up to 2.5gallons (appx 9.4L)
6. Replace fill cap and hand tighten.
7. Connect shop air hose to the regulator fitting
8. Inspect chemical tubing for any damage or leaks.
9. Adjust regulator to 3psi
10. Install brush on the end of the FDS gun. Or if using the multi brush adapter, connect that first then install brushes on the multi brush adapter.
11. With the FDS gun over an appropriate drip container, pull the trigger on the FDS gun until fluid saturates the brushes and drips out. The system is now primed and ready to clean.

Operation:

1. Ensure the ground cable is connected to the workpiece and/or the workpiece is grounded to the table with the ground cable clamped.
2. Clean and neutralize as per the process outlined in the manual that came with your machine (also online)
3. Pull the trigger to dispense more cleaning solution as needed to keep the brushes well saturated.
4. When cleaning is completed remove the shop air hose from the tank and release pressure from the tank.
5. Remove the brushes from the FDS gun and rinse with clean water.
6. Inspect the FDS system for any damage (tank, regulator, valves, cables etc.)

Cleaning/Maintenance:

- Remove the weld cleaning solution from pressure tank.
- This can be done by removing the brushes and pulling the trigger of the gun and dispensing the cleaning solution into a container labeled Weld Cleaning Solution. Pressure can be increased to 5-10psi to speed draining of the tank.
- Then fill pressure tank with 2 quarts of warm water.
- Pressurize the tank to 5-10 psi and flush tank.
- With the FDS gun over an appropriate receptacle, pull the trigger and dispense all the water into the receptacle, flushing out the lines and FDS gun.
- Wipe down the FDS gun and tank and the FDS system can now be safely stored.