



Tabletop Pan Oiler

Installation, Operation, and Maintenance Manual

MODEL NO: ATO | VERSION 01.00.00



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WARNING

For your own safety, the instruction manual should be read in its entirety before operating the machine.

When using the AccuSpray Tabletop Pan Oiler, the following safety precautions should be followed:

- Read all instructions thoroughly before operating the unit.
- Read and follow the startup guide, cleaning, and flushing procedures before operating the unit.

EQUIPMENT MISUSE HAZARD

- Use the unit only for its intended purpose.
- Do not use corrosive chemicals in the machine.
- Keep the power cord away from heated surfaces and objects.
- Do not immerse the power cord in water or oil.
- Do not obstruct the spray tip.



1 | Introduction

The AccuSpray Tabletop Pan Oiler is a fully automatic release agent applicator engineered to provide precise and consistent spray application for food production operations that use round baking pans. The integrated metered dispensing system helps optimize release agent usage by delivering controlled, repeatable application and supporting efficient consumption management.

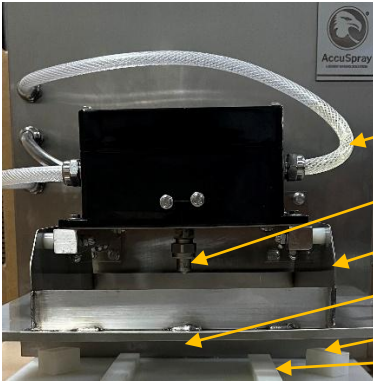
The unit was designed and tested using Synova branded release agents, including products from the Supra and Integra product lines. While the system is compatible with a variety of release agents, optimal performance has been achieved using Supra 110 (bread release oil), a soybean oil/soy lecithin-based product, as the spray system was configured and tested using this formulation.

Features:

- Microprocessor controlled precise oil spraying qualities with consistent spray quantity and minimal deviation from spray to spray
- Automatic recirculating function operates without user intervention, ensuring oil supply in unit is fresh with no stagnation
- NSF-certified pump with DC motor
- All wetted components meet food contact requirements for vegetable oil
- Stainless steel NEMA4 cabinet

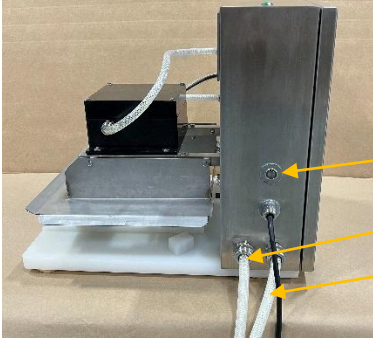


2 | Diagram of Components



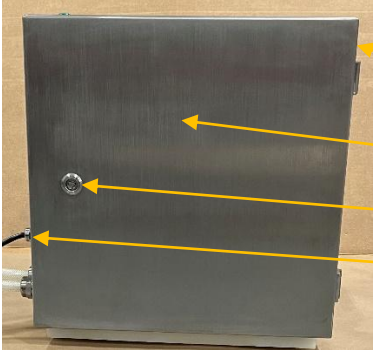
Electrical Cabinet (Front)

- Supply Hoses
- Spray Tip
- Spray Box
- Proximity Sensor
- Pan Stops
- Pan Slides



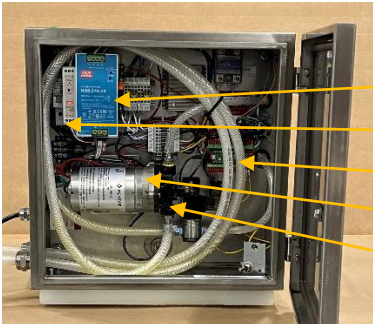
Electrical Cabinet (Side)

- Power Button
- Return Hose to Oil Reservoir
- Supply Hose from Oil Reservoir



Electrical Cabinet (Back – Exterior)

- Prime/Purge Button
- Access Door
- Door Lock
- Power Cord



Electrical Cabinet (Back – Interior)

- Power Supply
- Circuit Breaker
- Supply/Return Hoses
- Pump
- Recirculation Solenoid



3 | Set Up & First Use

The unit has been designed for ease of use and set up.

Remove the unit from the box and place it on a flat sturdy surface near a grounded 110/120 VAC power outlet and the pail of release agent from which the unit will draw from.

NOTE: The unit will vertically draw from an oil pail located below it. To perform properly, the unit should be located as close to the pail as possible.

Locate the supply/return wand exiting the unit on the lower left-hand side (facing the machine's cabinet door) and insert the end of the supply/return wand into the spout opening on the pail lid. Push the spout fitting over the extended pail spout.



Plug the unit into a standard 110/120 VAC power outlet. Locate the power button on the side of the electrical cabinet and depress. After a few seconds, the pump will start and the unit will prime. During this time, observe the supply hose to confirm oil is traveling through it from the oil pail. Once the priming cycle is fully complete, the unit is ready for use.

NOTE: Priming the unit is important because it fills the pump and hoses with oil to ensure accurate and smooth application of oil. If the unit has not been used before, allow the unit to prime for an additional cycle by powering the unit off and back on.

4 | Normal Operation

Operate the unit by sliding a round pan under the spray box until it makes contact with the pan stops. The unit's proximity sensor will automatically detect the pan and spray the set amount of oil.

If the unit has not been used or the unit has been moved, the spray tip will need to be "loaded" with oil. To do this, place a cup directly beneath the spray tip. Next, depress the "purge" button on the side of cabinet and touch the proximity sensor with a metal object. The pump will start and the unit will pulse-spray several times into the cup.

5 | Additional Operation Notes

Recirculation Function — The unit is designed to periodically recirculate oil through the system and return it to the oil pail. The purpose of this function is to ensure that the unit always has a fresh supply of oil in the system. The recirculation function runs for

approximately 10 seconds every 30 minutes so long as the unit is turned on and it is not otherwise performing a spray cycle. The unit must be turned on and powered up to perform the recirculation function.

Release Agent Viscosity and Temperature — The unit is designed for use with release agents with up to 8% lecithin content and viscosity up to 250 Cp. It is not designed to handle typical cake grease, which has a higher viscosity in the 1000 Cp range. Use of oils or greases outside the intended operating parameters may affect performance and could void warranty coverage.

The recommended operating temperature of the release agent is 68–95°F (20–35°C).

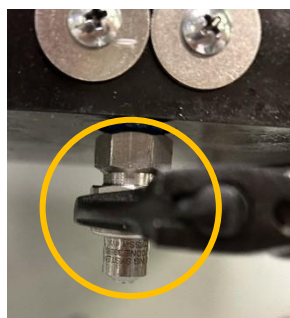
6 | Regular Care

Cleaning the Spray Tip Strainer and Spray Tip — It is recommended that the spray tip strainer and spray tip be removed and cleaned after every two full days of operation, or more as needed. Using a wrench, loosen the spray tip lock collar. Remove the spray tip and spray tip strainer.

Soak the tip and strainer in a container of hot soapy water for at least 10 minutes.

NOTE: Do NOT allow the water to become cool as it will allow any oil residue to harden and clog the tip. If the water does become cool, re-soak the tip in hot soapy water for an additional 5 minutes.

Re-assemble in reverse order.



Flushing the Unit — If the unit will not be used for an extended period (two weeks or longer), it should be flushed before storage. It is recommended to use 70 viscosity food-grade mineral oil for this procedure. Do NOT use water, as it may damage the system.

Place the spout fitting over the extended pail spout and turn the unit on. Allow the unit to run, circulating oil through the system. Turn the unit off and back on once to allow a second circulation cycle to occur. Place a cup underneath the spray tip and depress the purge button. With the button depressed, touch the proximity sensor with a metal object allowing the unit to purge/flush the spray tip. Repeat this step twice.



7 | Troubleshooting

Trouble	Remedy
Unit Will Not Turn On	• Confirm the unit is plugged in and that the outlet is live • Check that the unit's circuit breaker switch is closed by confirming the switch is flipped upward and the green indicator light is on
Unit Turns On and Primes But Does Not Spray	• Verify the pan is positioned within 0.5 mm of the proximity sensor • Test proximity sensor operation by opening the cabinet door, sliding a pan into spray position, and checking for a red illuminated LED on the inside end of the sensor • Inspect the end of the sensor for debris and clean if needed • If sensor adjustment is needed, loosen the thread collar on both sides of the sensor, adjust as necessary, and tighten both collars once adjustment is complete ○ If the sensor lights up but nothing happens, check the wire to the microcontroller for connection issues ○ If the sensor still doesn't light up, check power to the sensor connection wires ○ Check that the pico microcontroller is pushed in and micro USB is fully connected
Unit Sprays, But Spray Is Weak or Spray Pattern Is Deformed	• Cycle the unit off and back on to purge air from the system • Check that supply and return hoses are fully submerged in the oil reservoir • Prime the spray head tip following setup instructions • Remove and inspect spray tip for clogging • Clean spray tip and strainer by soaking in warm soapy water and/or vinegar. Blow out with compressed air and use a soft brush as needed. Replace annually as needed. • If the issue persists, inspect hoses and all connection points for air leaks and secure as needed
Unit Cycles But Spray Does Not Trigger	• Verify oil reservoir has adequate oil supply • Inspect supply and return hoses for blockage • Cycle unit off and on to re-prime system • Check spray assembly for obstructions • Verify solenoids illuminate when the unit is in operation



Excess Oil Is Being Applied to Pan	• Inspect spray tip, tip insert, and mesh for wear or damage • Verify spray cycle is operating normally • Check for excess pressure within the system • Confirm pan positioning is correct
Oil Is Leaking From Unit	• Inspect all hose connections for leaks • Check hoses for cracks, wear, or damage throughout the system • Tighten fittings where needed

If these troubleshooting steps do not resolve the issue, additional service or technical support may be required. Contact the AccuSpray team for assistance to help keep your equipment operating at peak performance and minimize production downtime.

8 | Specifications & Components

Name	Description
Power Consumption	110/120 VAC plug (6 amps)
Pump	Pentair Shurflow 8000-543-290 12VDC Motor / Viton Seals Santoprene Diaphragm – 100 psi max, 95 psi Bypass
Solenoid Valves	Recirculation Solenoid: STC 2S025 24VDC Direct Acting Stainless / Viton Seals 200 psi max 1A
	Spray Head Solenoid: STC 2S025 12VDC Direct Acting Stainless / Viton Seals 200 psi max 1A
Power Supplies	Main: Meanwell NDR-240-24 24VDC 10A AC/DC Power Supply – Input: 100-240VAC 2.8A
	Peripheral: LTC MDR-60-5 5VDC 10A AC/DC Power Supply – Input: 100-240 VAC 1.8A
Processor	Pico 2 Single Board Processor
Switching Controls	Motor: 3-32VDC 25A SSR
	Solenoids: 3-32VDC 8A SSR
Cabinet	NEMA4/IP65 Lockable Stainless Steel

NOTE: All components used in this unit that come into contact with release agent are food grade.





AccuSpray

Spraying Technology

A BUNDY BAKING SOLUTION

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