

SUPER CADDY GENERATION 3



Manufactured exclusively for
SERVICEGARD

Oil Service
PRODUCTS
from Schroeder

TABLE OF CONTENTS

1.	Warnings / Cautions & Notes	4
1.1	Acronym List.....	5
2.	Specifications.....	6
3.	Controls and Indicators.....	7
4.	General Operations.....	11
5.	Cleaning Methods & Times.....	12
5.1	Filtration Technique.....	12
5.2	Expected Cleaning Times.....	13
5.3	Manual / Auto Mode Selector Switch.....	14
5.4	Start-Up.....	15
6.	Maintenance.....	16
6.1	Servicing Filter Elements.....	16
6.2	Servicing the Strainer.....	17
6.3	DC Motor.....	17
7.	TCM Description of Measuring Modes.....	18
8.	TCM Operation.....	18
9.	TCM Modes & Menus.....	21
9.1	Filtration Technique.....	21
9.2	Expected Cleaning Times.....	22
	Sales Draw-	
10.	TCM Technical Data.....	24
11.	Contamination Control Software (CoCos 1000).....	25
11.1	System Requirements.....	25
11.2	Adapter Box – Driver Instructions.....	25
11.3	Installing CoCos 1000.....	27
11.4	Using CoCos 1000.....	30
11.5	Internal Memory.....	32
11.6	Save Results.....	35
12.	Testmate Water Sensor (TWS).....	36
12.1	TWS-C Technical Data.....	37
13.	Maintenance Procedure.....	38
	Appendix A	40
	Appendix B	42
	Appendix C1: ISO 4406.....	44
	Appendix C2: SAE AS 4059.....	45
	Appendix C3..NAS 1638.....	46
	Sales Drawing.....	47
	Parts List Drawing.....	48
	Hydraulic Schematic Drawing.....	49
	Control Panel Drawing.....	50
	Control Panel Schematic.....	51

1. WARNINGS, CAUTIONS AND NOTES

Recognize Safety Information

This is the safety alert symbol. When you see this symbol on your machine or in this manual, be alert for the potential of personal injury.

Follow the precautions and safe operating practices highlighted by this symbol.

A signal word — **DANGER, WARNING, or CAUTION** —

used with the safety alert symbol. DANGER identifies the most serious hazards. General precautions are on CAUTION labels.



Follow Safety Instructions

Read the safety messages in this manual and on the machine. Follow these warnings and instructions carefully. Review them frequently. Be sure all operators of this machine understand every safety message. Replace safety labels immediately if missing or damaged.

Operate Only If Qualified

Do not operate this machine unless you have read the operator's manual carefully and you have been qualified by supervised training and instruction. Familiarize yourself with the job site and your surroundings before operating.

Inspect Machine

Inspect the equipment carefully before each use. Keep all parts in good condition and properly installed. Fix damage and replace worn or broken parts immediately. Pay special attention to hydraulic hoses and electrical power cord.

Handle Fluids Safely—Avoid Fires

Filtering of fuel or other flammable liquids is not recommended. Store flammable fluids away from fire hazards. Do not incinerate or puncture pressurized containers. Make sure machine is clean of trash, grease, and debris. Do not store oily rags; they can ignite and burn spontaneously.

Prepare for Emergencies

Be prepared if a fire starts. Keep a first aid kit and fire extinguisher handy. Keep emergency numbers for doctors, ambulance service, hospital, and fire department near your telephone.

Practice Safe Maintenance

Understand service procedure before doing work. Work area should level, clean, and dry.

Before servicing machine:

- Position machine on a level surface
- Allow to cool if hot

Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Remove any buildup of grease, oil, or debris.

Handle Chemical Products Safely

Direct exposure to hazardous chemicals can cause serious injury. Potentially hazardous chemicals used with John Deere equipment include such items as lubricants, coolants, paints, and adhesives.

A Material Safety Data Sheet (MSDS) provides specific details on chemical products: physical and health hazards, safety procedures, and emergency response techniques. Check the MSDS before you start any job using a hazardous chemical. That way you will know exactly what the risks are and how to do the job safely. Then follow procedures and recommended equipment. (See your John Deere dealer for MSDS documents on chemical products used with John Deere equipment).

Wear Protective Clothing

Wear close fitting clothing and safety equipment appropriate to the job. Operating equipment safely requires the full attention of the operator. Do not wear radio or music headphones while operating the machine.

Service Machines Safely

Tie long hair behind your head. Do not wear a necktie, scarf, loose clothing, or necklace when you work near machine tools or moving parts. If these items were to get caught, severe injury could result. Remove rings and other jewelry to prevent electrical shorts and entanglement in moving parts.

Illuminate Work Area Safely

Illuminate your work area adequately but safely. Use a portable safety light for working inside or under the machine. Make sure the bulb is enclosed by a wire cage. The hot filament of an accidentally broken bulb can ignite spilled fuel or oil.

Work In Clean Area

Before starting a job:

- Clean work area and machine
- Make sure you have all necessary tools to do your job.
- Have the right parts on hand.
- Read all instructions thoroughly; do not attempt shortcuts.

Use Proper Tools

Use tools appropriate to the work. Makeshift tools and procedures can create safety hazards. For loosening and tightening hardware, use the correct size tools. DO NOT use U.S. measurement tools on metric fasteners. Avoid bodily injury caused by slipping wrenches. Use only service parts meeting John Deere specifications.

Dispose of Waste Properly

Improperly disposing of waste can threaten the environment and ecology. Potentially harmful waste used with John Deere equipment include such items as oil, fuel, coolant, brake fluid, filters, and batteries. Use leak-proof containers when draining fluids. Do not use food or beverage containers that may mislead someone into drinking from them. Do not pour waste onto the ground, down a drain, or into any water source.

1.1 ACRONYM LIST

TCM	TestMate® Contamination Monitor
TWS	TestMate® Water Sensor
DHC	Dirt Holding Capacity
GPM	Gallons Per Minute
VAC	Voltage Alternating Current
VDC	Voltage Direct Current
POT	Potentiometer
NPT	National Pipe Thread
ORB	O-Ring Boss

2. SPECIFICATIONS

Design Parameters

Process Fluid Type:	Hydraulic and lubricating oils
Seal Compatibility:	Nitrile seals: compatible with most mineral based oils.
Inlet Fluid Temperature:	-20°F - 160°F (-29°C - 66°C) MAX
Inlet Pressure:	15 PSIG (1.0 bar) (a positive inlet pressure may damage pump shaft seals and cause fluid loss)
Fluid Circulation Rate:	3 - 8 GPM (11 - 30 LPM)
Operating Viscosity:	230 cSt (1000 SUS) MAX
Electrical Power Requirements:	120/220 VAC, 1 Phase, 60 Hz, 15 Amp 120/220 VAC, 1 Phase, 50 Hz, 15 Amp
Weight:	195 lbs. (88 kg)
Dimensions:	26.6 inch x 23.5 inch x 45 inch (675.6 mm x 596.9 mm x 1143 mm)


External Components

Hose Connections:	Inlet: 1" SAE, Hose 15' with 3' x 1" 304 SS wand Outlet: 1" clear hose with 3' x 3/4" 304 DOM Zinc Plated wand
Electrical Control Box:	NEMA 4 consolette containing variable speed drive, operation controls, indicator lights, particle counter display, water sensor display, USB connection
Motor:	1 HP (0.75 kw), 90 VDC Variable Speed
Pump:	External gear pump
Wheels:	10 inch (25.4 cm) pneumatic wheels

Schroeder Added Value

Particle Filter:	High efficiency 5µm element
Filtration Ratio wrt ISO 16889:	$\beta_{4,8}(c) \geq 200$ $\beta_{6,3}(c) \geq 1000$
Dirt Holding Capacity:	238 gm (8.4 oz)
Water Removal Filter:	22 oz. (651 mL) water capacity
Particle Counter:	Laser particle monitor for measuring particle contamination; reports data (in 90 second intervals) as ISO 4406:1999 cleanliness code. Download results to a PC via USB connection.
Water Sensor:	Monitors dissolved water content in system fluid and displays measurement as percent of fluid saturation.

3. CONTROLS AND INDICATORS

Control/Indicator	Description
<p>Operator Interface</p>	<p>Each button, switch, and knob on the Operator Interface is clearly labeled on every Super Caddy 3. The numbers on the picture below correspond to the detailed explanation below.</p> 
<p>Stop Push Button (1)</p>	<p>A detented red mushroom head push button. When depressed push button will remain in the depressed condition until operator twists clockwise to reset. Unit will not operate when button is depressed. The E-stop will stop unit operation of motor.</p>
<p>Manual, Off, Auto Mode Selector Switch (2)</p>	<p>A three position switch, where the position of the switch determines the mode of operation. The Manual position is used for oil transfer operations where particle counter readings may be low, or for transferring oil. Although the TCM particle counter display will still show readings, the Super Caddy 3 will run continuously until the operator turns the unit off. The Auto position is used for circulating oil through the filtering system. The unit will shut down when particle counts are below the preset level.</p> <p>Note: The unit will not shut down until the desired cleanliness class is reached for three continuous measurements.</p>
<p>Flow Control (3)</p>	<p>A flow range of 3-8 gpm (11 - 30 L/min) is possible with the Super Caddy 3. To control the flow turn the knob to the desired flow rate.</p>
<p>TWS-C Display (4)</p>	<p>The Schroeder TWS-C water sensor displays water content (as a percent of saturation) of the oil being processed.</p> <p>Note: While water content in the new oil may vary, typically new oil water content ranges from 30-40% of saturation. Since an oil's saturation point rises with increased temperature, oil with water content above 50% of saturation at operating temperature can potentially exhibit free water at lower temperatures. The Super Caddy 3 includes a water removal filter that removes free water that forms at lower temperatures. Oils with high free water content (above 100% saturation) can have milky appearance. The Super Caddy 3 should not be used on fluids with a milky appearance.</p>
<p>USB Communication Port (5)</p>	<p>This USB communication port allows connectivity to a laptop where the user can change TCM settings, record live data, or download to internal memory through CoCoS1000.</p>
<p>TCM Particle Counter Display (6)</p>	<p>The Schroeder TCM particle monitor reports fluid cleanliness per ISO4406-1999. The unit is rated at IP67 and has an internal memory capable of sorting 100,000 measurements. Operation and functionality of the unit is defined later in this manual.</p>

Buy Now



Our support email:

ebooklibonline@outlook.com