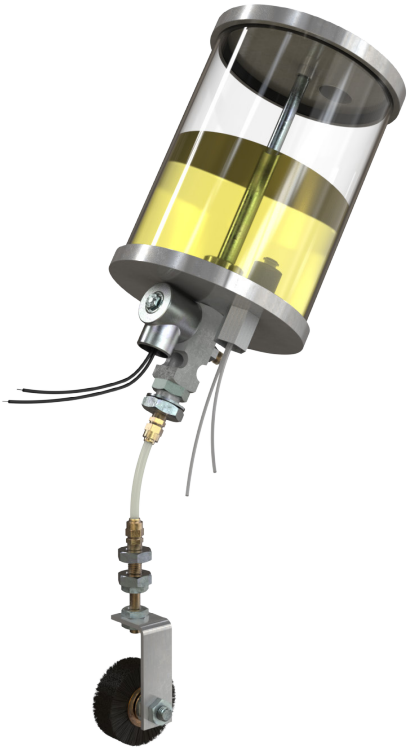
REPLACEMENT & AFTERMARKET

24 VOLT DC ELECTRIC CONVEYOR OILERS



Collaborate / Create / Convey

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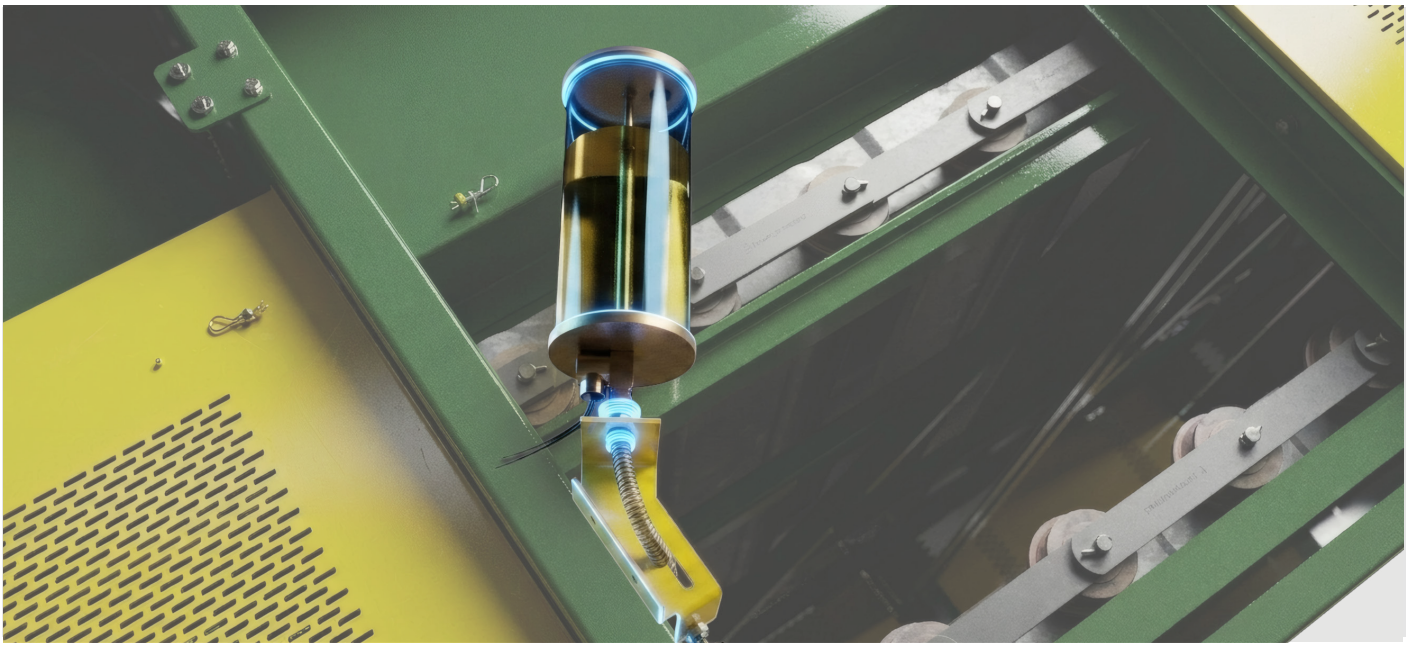


24 Volt Dc Electric Conveyor Oilers

Roller chain conveyors accumulate abrasive fines, dust, and moisture inside pin and bushing clearances with every revolution, and lubrication that depends on maintenance schedules rarely matches actual chain runtime. On modern PLC and VFD controlled lines, tapping line voltage upstream of the drive for lubrication equipment adds transformers, relays, and wiring complexity that many control architectures were never designed to carry. Chains oiled too late elongate, run loud, and grind against sprocket teeth until articulation points bind, compounding into premature chain and sprocket replacement, unplanned line stops, and lost throughput.

24 volt DC electric oilers meter oil onto the moving chain through brush applicators, actuated by a normally closed solenoid valve wired directly into the existing 24V DC control circuit. Current draw is low enough for direct connection through PLC digital outputs, VFD internal supplies, or motor contactor coils, with no upstream line voltage tap and no transformer required. Standard configurations cover single feed and multi feed arrangements from 2 to 24 outlets, serving new conveyor builds and retrofit installations. Each unit is matched to chain designation, control architecture, and operating environment before shipment.

APPLICATIONS

Recycling & Material Recovery

Material recovery facilities expose roller chain conveyors to abrasive fines, glass dust, and moisture that penetrate pin and bushing clearances on every pass, while sorting lines increasingly run on VFD controlled drives with 24V DC control power. Solenoid activated oilers wire straight into those DC circuits and deliver metered lubrication only while the chain runs, keeping oil at articulation points without pooling beneath sorting equipment.

Waste Processing

Transfer stations and MSW lines run extended multi shift schedules under heavy chain loads with narrow maintenance windows. Multi feed configurations distribute oil from a single central reservoir to as many as 24 lubrication points, cutting manual service stops across parallel chains.

Scrap Metal & Aggregate

Shredder discharge and aggregate handling generate airborne abrasives that embed in nylon bristles and accelerate brush wear. Stainless steel bristle assemblies transfer oil through abrasive fallout where standard brush materials degrade.

C&D Debris Processing

Construction and demolition lines subject mounted components to constant shock and vibration that drift valve settings and crack rigid reservoirs. Friction locked needle valves hold their drip rate while polycarbonate reservoirs absorb impact loading.

High Temperature Zones

Conveyors positioned near dryers, furnaces, or hot material discharge push reservoir and bristle materials past standard ratings. Pyrex reservoirs rated to 225°F pair with chain driven roto brushes for elevated temperature and high speed service.

Mobile Equipment

Shredders, grinders, and tracked machines operate entirely on 24V DC control power where line voltage never reaches the lubrication point. DC solenoid oilers connect to the onboard supply without voltage conversion hardware.

KEY FEATURES

01

Normally Closed 24V DC Solenoid Valve:

A 24V DC coil opens the oil circuit only when the control circuit energizes, so lubrication tracks chain movement and stops the instant the conveyor does.

02

Friction Lock Needle Valve:

A tapered needle seats into the valve orifice for fine drip rate adjustment, while the friction lock holds the setting against continuous conveyor vibration.

03

Interchangeable Brush Applicators:

Round, flat, and roto brush bodies in nylon or stainless steel bristles mount to span approximately 90% of chain width, transferring metered oil directly onto the moving chain.

04

Sight Feed Valve Assembly:

A transparent sight glass between the reservoir and brush shows individual oil drops, confirming flow initiation and exposing blockages or reservoir depletion without stopping the line.

05

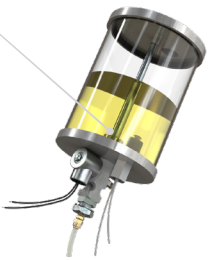
Clean View Acrylic Reservoir:

Shatterproof acrylic construction in capacities from 1 oz to 1 gal eliminates the center tie rod for unobstructed fluid visibility, with a universal fitting that allows capacity swaps without replacing the valve body.

06

Magnetic Reed Float Switch:

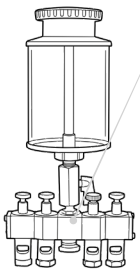
An optional magnetically actuated reed switch rated 24V DC at 0.5A wires normally open into the control circuit, triggering a warning light or conveyor stop signal when the reservoir reaches minimum level.

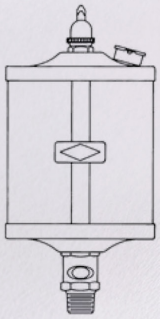


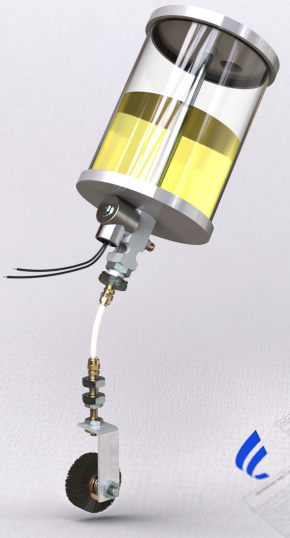
07

Modular Stacking Valve System:

Independent sight feed valves stack from 2 to 24 outlets on a single reservoir, and feeds can be added or removed in the field without replacing the oiler body.







24 VOLT DC ELECTRIC CONVEYOR OILERS SPECIFICATIONS

Parameter	Standard specification
Voltage input	Solenoid valve (normally closed)
Flow control	Adjustable needle valve with sight feed
Reservoir capacity	1 oz, 2.5 oz, 5 oz, 9 oz, 1 pt, 1 qt, 1/2 gal, 1 gal
Reservoir materials	Acrylic (standard), Pyrex, polycarbonate
Reservoir design	Center post or clean view
Temperature range	−20°F to 160°F (acrylic), up to 225°F (Pyrex), up to 120°F (polycarbonate)
Outlet thread size	1/8" female NPT, 1/4" female NPT, 3/8" female NPT, 1/2" male NPT
Mounting threads	1/8" to 1/2" male NPT, 5/8"–18 remote thread mount
Brush configurations	Round (1/4"–1 1/2" dia.), flat (2 1/4"–11 1/4" length), roto (3" dia. × 1" wide)
Bristle materials	Nylon (up to 400 RPM, below 250°F), stainless steel (high temperature, abrasive service)
Valve body material	Aluminum alloy
Covers	Aluminum alloy or polypropylene
Seals	Buna-N standard
Conduit connection	1/2" NPT thread
Reservoir diameter	5 1/2" (standard)
Total height	Varies by capacity (16 9/16" for 1/2 gal)
Filter	100 mesh aluminum filter (optional)

Note: Standard configurations shown. Additional capacities, thread sizes, and material combinations available on request.

24 VOLT DC ELECTRIC CONVEYOR OILERS

Multi Feed Models (2–24 Feeds)

Parameter	Specification
Feed outlets	2 to 24 independent feeds via modular stacking valve system
Feed adjustment	Independent needle valve per feed with friction lock
Distribution	One central reservoir to multiple lubrication points
Low level float switch	Optional magnetically actuated reed switch, 24V DC, 0.5A, normally open
Float switch availability	1/2 gal and 1 gal acrylic reservoir

Note: Multi feed models match single feed specifications for all shared parameters. Contact engineering for configuration details.

SAE oil grade selection

SAE Grade	Temperature Range
SAE 10	-20°F to +80°F
SAE 20	+10°F to +110°F
SAE 30	+20°F to +130°F
SAE 40	+30°F to +140°F
SAE 50	+40°F to +150°F

Note: Specify nondetergent petroleum based oil only. Detergent additives interfere with oil penetration into pin and bushing clearances.

THE ENGINEERING ADVANTAGE

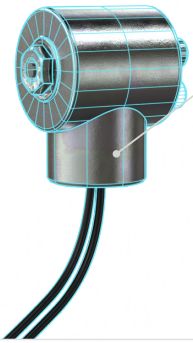
This section outlines the DC control integration methodology behind 24 volt DC electric oilers, covering contactor wiring, PLC output connection, VFD supply sourcing, and timer cycle control to ensure correct fit within existing low voltage control architecture.

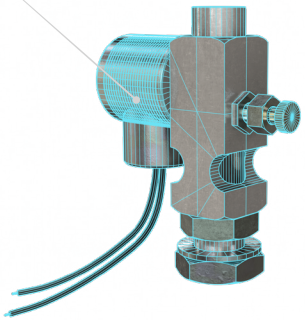
Motor Contactor Parallel Wiring:

The solenoid coil wires in parallel with the motor contactor coil, so lubrication activates when the conveyor starts and cuts when it stops, with no additional relay, timer, or transformer required.

PLC Digital Output Integration:

The solenoid connects to standard sourcing or sinking PLC digital outputs, wiring into the same rung as the drive enable signal or into safety and emergency stop interlocks without auxiliary relay hardware.





Timer Relay Cycle Control:

Wiring the solenoid through a 24V DC timer relay produces adjustable ON and OFF cycle intervals for variable duty applications where continuous activation delivers excess oil.

VFD Internal Supply Sourcing:

On variable frequency drive installations, the solenoid draws from the VFD's internal 24V DC supply or external DC bus and activates through auxiliary run contacts, eliminating any line voltage tap upstream of the drive.

FLUENT CONVEYORS

CONTACT INFORMATION

OUR ENGINEERS WILL SPEC THE EXACT PART FOR YOUR SYSTEM

For product specifications, engineering support, or order inquiries, please contact our team using the information provided below. Our specialists are available to ensure accurate recommendations and efficient service for your application requirements.

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