

Hydraulic Elevator Upgrades

For improved performance, efficiency and safety



Soft start solid state line starter

Schindler offers a range of upgrade products capable of making significant performance and reliability improvements to your existing hydraulic elevators.

Soft start for hydraulic elevators

Schindler offers solid state line starters, also referred to as “soft start”, as standard equipment with all new hydraulic elevators. Schindler can also upgrade older hydraulic elevator systems with soft start technology. Soft starts provide environmental and safety benefits such as motor overload protection, reduced energy consumption, increased elevator reliability and the elimination of audible noise pollution. The starting current limit is adjustable so the motor is smoothly started and the unit includes a built-in solid state overload and fault contactor. By upgrading you’ll achieve:

- Reduced maintenance costs because there are no contacts to wear out
- Quicker floor to floor times by eliminating the delay associated with timers
- Elimination of high inrush currents
- Reduced voltage dips
- Adjustable current limit (100 – 450% of starter rating)
- Dynamic stall protection guarantees motor will start under cold oil conditions
- Reduced stress on motor windings and the pump
- Patented motor wiring detection prevents the motor from starting if miswired.

Optional software is available for setup and diagnostics using a laptop computer, and an optional infrared port and software package is available for communication with a PDA.

Customer benefits include:

- Eliminating noise caused by constant picking and dropping of conventional line starters each time the car runs
- Reducing and usually eliminating house light flickering caused by elevator starts
- Improving reliability by reducing mechanical stress between the motor and pump during start-up, and by eliminating contact wear
- Meets all ASME codes and has CSA approval.

KT
Kits

AC
Accessories

CW
Counter-weights

SA
Safeties

FI
Fixtures

CA
Cars

DO
Doors

MM
Mechanical material

CO
Controls

DR
Drives



Schindler

Hydraulic power unit for quiet, reliable operation

Submersible power units consist of a directly coupled pump and motor submerged in oil within the reservoir. The valve and muffler assembly are generally mounted above the tank for ease of adjustment, maintenance and replacement if necessary. With the motor submerged in oil, the sound level is decreased, making this an ideal solution to noise sensitive environments. Built for dependable service with low noise operation, features include:

- Positive displacement screw pump and submersible motor
- Direct coupled motor and pump
- Pump submerged in oil to eliminate dust and dirt problems
- Low noise operation with anti-vibration mounts
- Top mounted hydraulic valve permits easy access for maintenance.

Customer benefits include:

- Quiet operation
- Improved reliability
- Added safety
- Improved performance.

Be prepared for cold weather with a hydraulic oil tank heater

The viscosity of the oil used to move your hydraulic elevator up and down can have an impact on the smoothness of the ride and accuracy of the landings. In cold temperatures the oil can thicken and possibly cause erratic, sluggish operation. This is particularly true if the machine room is not well heated. The introduction of a hydraulic oil tank heater from Schindler will go a long way to minimizing cold weather problems. Thermostatically controlled, the heater helps maintain the oil in the tank at a consistent temperature, helping give you smoother operation. With the oil at a better temperature, the pump and motor will likely experience less wear, helping to reduce shutdowns as well.

Features include:

- A reliable thermostat controls the heating to keep the oil in the tank at optimum temperature
- Oil in the hydraulic jack or piping is heated as it circulates in and out of the tank
- Heater draws its power from a standard 110VAC power source
- Thermostat pre-set to 110°F
- Oil-tight fittings and non-metallic pipe protect electrical parts submersed in hydraulic oil.

Handle the heat with the HydroCool™ hydraulic oil tank cooler

In warm temperatures oil can heat to the point where it thins and can affect the operation of the system. Our oil cooler can make a big difference in your system's performance. Excess heat is dissipated outdoors, when feasible, or into the machine room, which may have to be cooled to permit the oil cooler to function properly. For high usage elevators specify our HydroCool unit, and for less frequently used elevators our affordable HydroCool II unit.

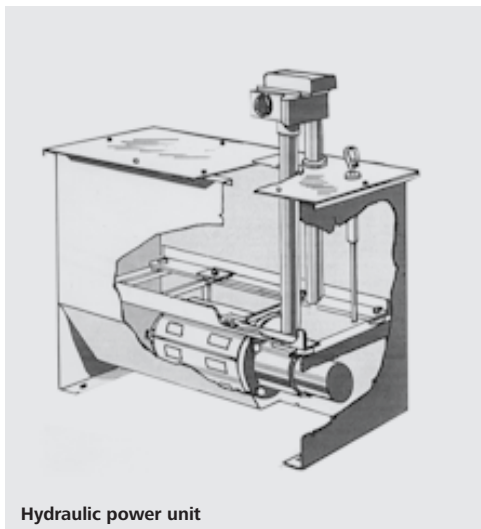
HydroCool features:

- Adjustable thermostat control
- Separate pump and fan motors
- 17,500 BTU/hr cooling capacity
- 8 gallons per minute pump capacity
- 120 VAC, 20A circuit
- 28" H x 24" W x 17.5" D, weight approx. 140 lbs.
- Can be mounted up to 110 feet horizontally or 55 feet vertically from power unit.

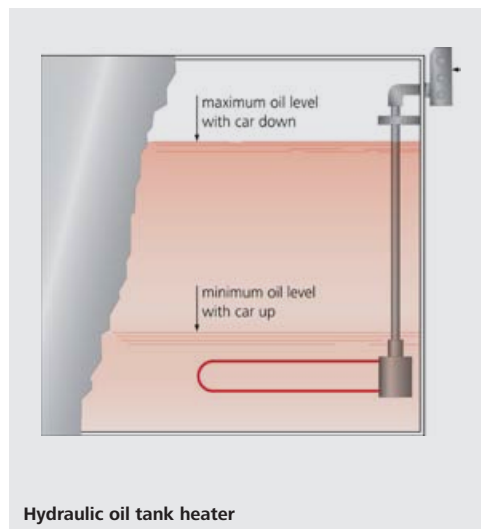
HydroCool II features:

- Starts automatically at 140°F, shuts off at 100°F
- Single motor drives fan and pump
- 12,000 BTU/hr cooling capacity
- 3 gallons per minute pump capacity
- 120 VAC, 20A circuit
- 20.5" H x 26" W x 26" D, weight approx. 125 lbs.
- Mounting options adjacent to reservoir only.

HydroCool is a registered trademark of Adams Elevator Equipment Company.



Hydraulic power unit



Hydraulic oil tank heater



HydroCool hydraulic oil tank cooler

Hydraulic Elevator Upgrades

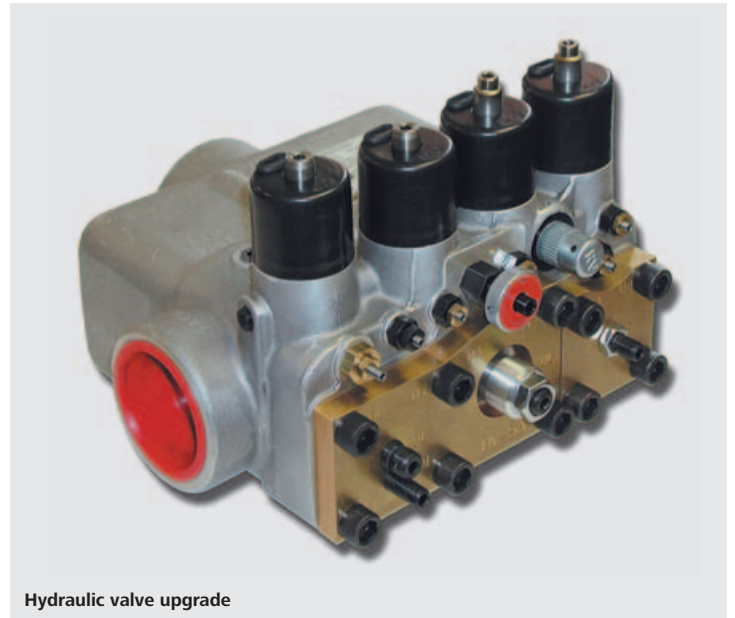
For improved performance, efficiency and safety

Hydraulic valve upgrade for improved performance and safety

Hydraulic valves on the elevator regulate the oil flow to the hydraulic cylinder (jack) and in turn regulate the elevator speed, leveling accuracy and performance as it arrives or leaves a floor. Designed to meet the demands of the hydraulic elevator industry, the hydraulic valves feature individualized adjustments, high efficiency solenoids, integrated relief valves and more. Valve conversions are usually performed to replace an existing obsolete valve that has limited adjustments.

Customer benefits include:

- Improved and consistent leveling operation
- Elimination of overshooting floors when oil is cold or hot
- Faster and consistent floor to floor times
- Smoother transitions
- Improved ride quality
- Improved performance.



For further information, including location of the Schindler office nearest you, please contact:

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www.ca.schindler.com



Schindler has received renewal to ISO 14001:2004 and ISO 9001:2008 certificates.



Schindler is a member organization of the U.S. Green Building Council.



Schindler prints with vegetable-based ink on paper containing post-consumer waste fiber.