



POLYTRON PRODUCTS APPLICATION GUIDE

EPTECH CORPORATION

Updated September 2019

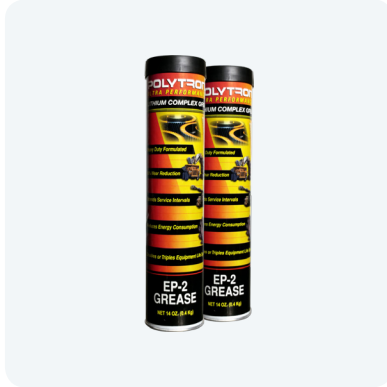
TABLE OF CONTENTS

OUR PRODUCTS	3
POLYTRON Products Features	4
POLYTRON MTC	5
POLYTRON MTC Applications	6
Farm and Heavy Machinery Applications	6
Motor Oils	6
Transmission Fluids	7
Torque Fluids	7
Tractor Hydraulic Fluids	7
Industrial Machinery Oils Applications	8
Paper Machine oils	8
Way Oils	8
Chain Bar Oils	8
Machine Oils	9
Knit Oils	9
Handy Oils	9
Cutting Oils	9
Gear Oils	10
POLYTRON MTC Packages	11
POLYTRON EP-2 LITHIUM COMPLEX GREASE	12
POLYTRON EP-2 Lithium Complex Grease Applications	13
Construction Industry	14
Railroad Industry	14
Other Applications	14
POLYTRON EP-2 Lithium Complex Grease Packages	14
POLYTRON PENETRATING LUBRICANT	15
POLYTRON Penetrating Lubricant Applications	16
General applications	16
Industrial Equipment	16
POLYTRON Penetrating Lubricant Packages	17
POLYTRON FUEL CONDITIONER	18
POLYTRON Fuel Conditioner Applications	19
Directions	20
POLYTRON Fuel Conditioner Packages	21
CASE STUDIES	22
Case Studies	23
Video Reviews	24

OUR PRODUCTS



POLYTRON MTC
(Metal Treatment Concentrate)



POLYTRON EP-2 Lithium Complex



POLYTRON Penetrating Lubricant



POLYTRON Fuel Conditioner



POLYTRON Mineral and Synthetic
Motor Oils

POLYTRON PRODUCTS FEATURES



Each lubricant we manufacture contains our high-tech proprietary additive package that features innovative technology, that converts metallic friction surfaces to much harder and long-lasting surfaces. This significantly reduces friction and almost completely eliminates wear, resulting in much lower costs and much less equipment downtime for our customers.

Among the main features of POLYTRON lubricants and additive packages:

- ✓ They eliminate wear of engine parts, extending service life of engines and equipment 600% to 900%
- ✓ They keep engines completely clean from any carbon deposits
- ✓ They lower operating temperatures in engines and equipment
- ✓ They extend oil change intervals by 300% to 600%
- ✓ They extend the service life of injectors and fuel pumps by 100%
- ✓ They contribute to considerable reductions in fuel and oil consumption
- ✓ Engines and equipment are protected for some time in the event of loss of lubricant
- ✓ They reduce exhaust pollutants 40% to 60%. Systems using POLYTRON lubricants are attractive to health and environmental authorities due to emissions reductions.
- ✓ They reduce equipment maintenance costs by up to 60% and downtime by up to 90%

POLYTRON products have an excellent performance history with more than 20 years of service in industries such as trucking, mining, railroad, marine, farming, industrial production and the military. Their versatility means POLYTRON products can be used in any mechanism requiring lubrication and delivers the same extraordinary performance.

POLYTRON products are so effective that many distributors have developed maintenance - warranty programs for heavy-duty equipment that guarantee a 50% reduction in operational costs and very attractive premium rates based on the extended life span of the warranted equipment.

POLYTRON additive packages reduce exhaust pollutants up to 60%, giving you a cleaner, safer environment for your employees and a competitive edge with municipal and transportation authorities looking to reduce emissions, even in electrical power plants that use diesel generators.

POLYTRON products are not standard lubricants with competitive pricing. Instead, our products are unique lubricants with extraordinary performance that are much more cost-effective than today's most popular brands. POLYTRON's performance has been demonstrated to be consistently superior to these and other lubricants on the market.

Using POLYTRON products, distributors of equipment, equipment replacement parts and maintenance companies can offer clients a powerful new service with added value and enhance their income streams.



Polytron MTC

POLYTRON MTC APPLICATIONS

FARM AND HEAVY MACHINERY APPLICATIONS

Motor Oils

POLYTRON Metal Treatment Concentrate is a complementary technological additive package to motor oils, mineral, semi synthetic and fully synthetic oils. Use it in any lubricated machinery or equipment to achieve dramatic results in performance and savings.

Add 10 percent by volume to achieve the following results:

- Eliminate wear of engine parts, extending service life 600 to 900 percent
- Keep engine parts clean of any carbon deposits
- Reduce engine running temperature
- Extend oil change intervals 300 to 600 percent
- Make injectors and fuel pumps last 100 percent longer (when combined with POLYTRON FCC)
- Reduce fuel and oil consumption
- Engines and equipment are protected for some time in the event of loss of lubricant
- Reduce exhaust pollutants 40 to 60 percent to help meet health and environmental requirements
- Reduce maintenance costs by up to 60 percent and down time up to 90 percent

Use POLYTRON MTC to achieve dramatic results in any machinery and equipment, including:



Construction Equipment



Diesel Electrical Generators



Farm Machinery



Diesel Marine Engines such as Sulzer, Baldwin and ALCO



Off-Highway Equipment



Light and Heavy Duty Diesel Trucks



Mining Equipment



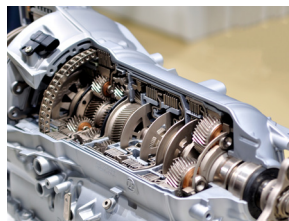
Two-Cycle



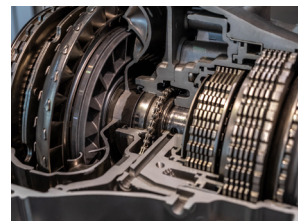
Diesel / Gasoline passenger cars



Pumps



Torque Converters



Torque Converters

POLYTRON MTC APPLICATIONS

FARM AND HEAVY MACHINERY APPLICATIONS



Transmission Fluids

POLYTRON MTC is an excellent complementary technological additive package to transmission fluids in a 10 percent by volume blend.

POLYTRON MTC meets or exceeds the following equipment manufacturer fluid requirements in a five percent by volume blend:

- General Motors DEXRON-III
- Ford MERCON
- Daimler-Benz
- Allison C4 Fluid
- Voith DIWA Transmissions

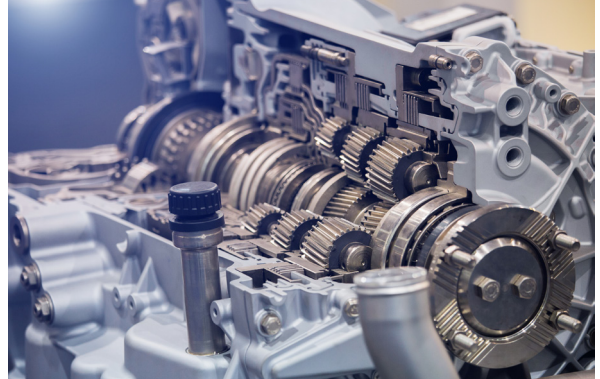
POLYTRON MTC as a complementary additive package (ten percent by volume) to fluids that meet or exceed manufacturer requirements for Caterpillar TO-4, TO-2, and Ellison C4 that are recommended for use in:

- Caterpillar transmissions, final drives (SAE 50/60W viscosity grade)
- Allison Powershift transmissions (SAE 30W viscosity grade)
- Torque converters (SAE 10W viscosity grade)
- Hydraulic systems (SAE 10W viscosity grade). All in heavy duty applications.

POLYTRON MTC as a complementary additive package (ten percent by volume) to synthetic transmission fluid in:

- Eaton Roadranger transmissions
- Rockwell transmissions

POLYTRON MTC as a complementary additive package (ten percent by volume) to fluids that meet and exceed the requirements of Rockwell 0-81 and Eaton PS-081 specifications.



Torque Fluids

POLYTRON MTC is the perfect torque fluid technological additive package in a ten-percent by volume blend in:

- Allison Powershift transmissions
- Torque converters requiring Allison Type C4 fluid
- Heavy-duty truck and tractor automatic transmissions



Tractor Hydraulic Fluids

Use POLYTRON MTC in a five percent by volume blend that meets the requirements of:

- AGCO
- John Deere J20C
- Ford New Holland Q-1826
- Case Corporation JIC-143, JIC-145, MS 1206, MS 1207
- Oliver Type 55
- Minneapolis-Moline Fluids
- Renk Bus Automatic Transmission Fluid
- Allison C4

INDUSTRIAL MACHINERY OILS APPLICATIONS



Paper Machine Oils

POLYTRON MTC can be used in five to ten percent volume blend in lubricants used in paper machine bearing and circulating ISO 150, 220, 320 oils to reduce wear and extreme temperatures in:

- Systems
- Gear Boxes
- Dryer Section Accessories
- Moisture Profiler
- Calendar Rolls
- Crown Control Rolls
- High Temperature Air Compressors
- High Pressure Hydraulic Pumps
- Many more applications where lubrication is required

Use it in any industrial oils in a 10 percent by volume blend and in mineral and synthetic compressor oils (ISO 32, 68, 100), in a 5 percent by volume blend, for:

- Portable and stationary rotary vane and screw compressors
- Single stage, two stage, and multistage reciprocating compressors from but not limited to:
 - Ingersoll-Rand
 - Quincy
 - Sullair
 - Atlas Copco
 - Gardner-Denver



Way Oils

POLYTRON MTC can be used (10 percent by volume) in Way Oils approved by Cincinnati Milacron under their p-47 (ISO 68), and P-50(ISO 220) Way Lubricants specifications for:

- Ways in many types of machine tools such as lathers, planers, shapers, drilling and tapping machines, including those where the loads can be very high
- Enclosed gears
- Industrial plain and anti-frictional bearings
- Lubrication of chain drives



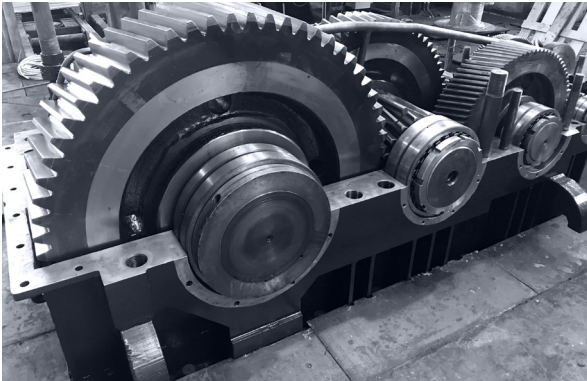
Chain Bar Oils

POLYTRON MTC can be used (10 percent by volume) in Chain Bar Oils for:

- Chainsaws with either hand-operated or automatic chain oilers to lubricate the chain, bar and sprocket
- Chain drivers on straddle lift lumber carriers, motorcycle chains
- Lawnmowers
- Farm equipment

POLYTRON MTC APPLICATIONS

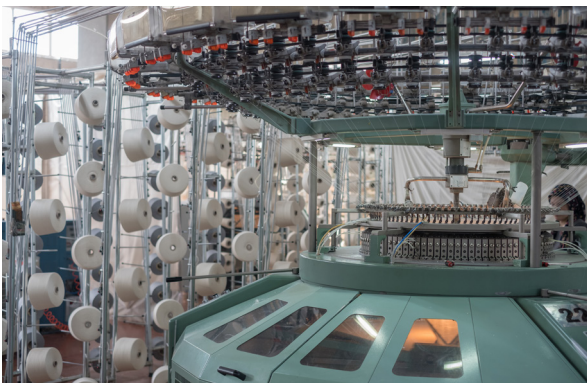
INDUSTRIAL MACHINERY OILS APPLICATIONS



Machine Oils

Use POLYTRON MTC (10 percent by volume) in Machine Oils, ISO 22, 32, 46, 68, 100, and 150 for:

- Reduction gears
- Plain and antifriction bearings
- Electric motor bearings.
- Air compressors
- High speed gears
- All machine oils meeting AGMA Specifications 1, 2, 3, and 4 for gear lubrication



Knit Oils

POLYTRON MTC is recommended for use in Knit Oils, ISO 22 and 32 (five percent by volume) for:

- Circular double-knit machines
- Circular single-knit
- Full-fashioned
- Tricot and all other knitting machines



Handy Oils

Use it (10 percent by volume) in lubricants used in:

- Small electric motors in household appliances,
- sewing machines.
- Office equipment
- Garden tools
- Door hinges and locks

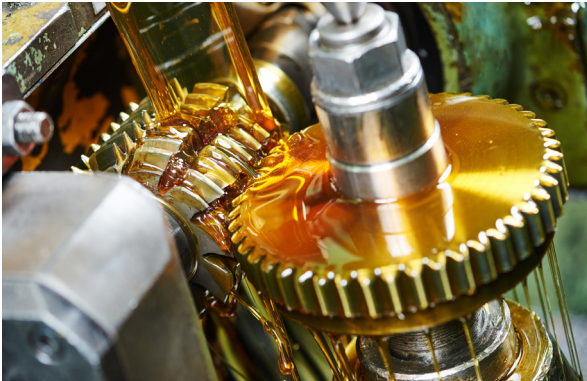


Cutting Oils

Use POLYTRON MTC in Metalworking Cutting Oils in a 10 percent by volume blend in the following applications:

- Metalworking cutting oils Grades 11D, 21D, 31A, 31C, 41B, 41E, 43B, 44A, 45A, 45B for turning, threading, tapping, and broaching tough alloy steels

INDUSTRIAL MACHINERY OILS APPLICATIONS



Gear Oils

POLYTRON MTC can be used in gear oils in a 10 percent by volume blends:

- Closed gear oils that meet API Service Classification GL-5, MIL-L-2105E and all Mack requirements as GO-G/S and GO-H/S in the following applications:
 - Rear axles
 - Transmissions
 - Differentials
 - Spiral bevel
 - Power dividers
 - Oil-lubricated steering axle wheel bearings
- Enclosed industrial gearboxes running at wide range of temperatures and under severe load conditions
- Open Gear Oils Grades 100 NC, 250 NC, and 800 NC used in:
 - Open gears
 - Wire ropes and cables
- All the grades provide lubrication for mining equipment including:
 - Girth and pinion gears on rod and ball mills
 - Rack and pinion gears on shovel dipsticks
 - Swing and pinion gears on top of the lower frame of shovels and draglines which are sometimes served with an automatic lubrication system
 - Open gear oils that meet Bucyrus-Erie and P&H requirements for electric shovels and draglines

POLYTRON MTC PACKAGES



16-ounce (473 ml) plastic bottles for passenger cars and pickup trucks

- 24 bottles / case
- 108 cases / pallet
- 10 pallets / 20-ft. container
- 20 pallets / 40-ft. container



4-liter plastic bottles for trucks and heavy-duty equipment

- 6 bottles / case
- 54 cases / pallet
- 10 pallets / 20-ft. container
- 20 pallets / 40-ft. container



19-liter (5-gal) pails for trucks and heavy-duty equipment

- 56 pails/pallet
- 10 pallets / 20-ft. container
- 20 pallets / 40-ft. container



208-liter drums for trucks and heavy duty equipment

- 79 drums/20-ft container

NOTE:

1. All our lubricants (motor oils, machine oils, hydraulic oils, compressor oils, etc.) contain POLYTRON MTC and offer the same outstanding performance as POLYTRON MTC. However, for ease and efficiency, many of our customers prefer using our finished products.
2. You can, however, use POLYTRON MTC only, since it can be added in the field directly to 99 percent of lubricants through equipment oil tanks or central oil reservoirs with the same extraordinary results.
3. In engines, it is essential to use POLYTRON MTC together with POLYTRON Fuel Conditioner (FC) for ideal engine maintenance and operation. POLYTRON FC provides all the benefits to the fuel and upper part of the engine that POLYTRON MTC provides to the oil and lower part of the engine. Maximum performance and ideal condition of engines requires the use of POLYTRON MTC in motor oil together with POLYTRON FC in the fuel.



Polytron EP-2 Lithium Complex Grease

POLYTRON EP-2 LITHIUM COMPLEX GREASE APPLICATIONS

POLYTRON EP-2 Grease eliminates 95 - 99 percent of equipment wear while lowering operating temperature and noise levels. Performance is maintained in severe operating conditions, including high dust and moisture environments, and the equipment is protected in a wide range of temperatures.

These features contribute to savings in direct costs and maintenance and direct for operators and warranty service providers in automotive, transportation, light and heavy industrial environments where equipment operates under severe conditions and temperatures:



Mining Equipment



Construction Equipment



Material Handling Equipment



Marine Deck Equipment and Cranes



Oil Fields and Offshore Drilling Equipment



Pulp and Paper Machines



Dredging Equipment



Logging Equipment



Rock Quarry Equipment (Jaw Crushers)



Truck Fleets

POLYTRON EP-2 is an excellent lubricant for:

- Slides and guides
- Ways
- Chains
- Screws
- Cams
- Racks
- Pinion sets in sawmills
- Plywood presses
- Chain tracks

POLYTRON EP-2 LITHIUM COMPLEX GREASE APPLICATIONS

Construction Industry

POLYTRON EP-2 is widely used in as a construction equipment lubricant for fifth wheels, kingpins, wheel bearings, steering system bearings, and all chassis points including ball joints and universal joints, journal bearings in low and moderate speed and antifriction bearings in:

Cranes, Bulldozers, Loaders, Scrapers, Roller chains, trunnions, gears, cables, sheaves, slides, chassis bearings, Conveyor bearings, sliding and rubbing surfaces, kiln car bearings, heavily-loaded pivot pins, splined shafts or other surfaces subjected to sliding, vibration, or oscillation where fretting is encountered.

More specific applications include lubrication of:

- Steering drag links
- Transmission cross shaft spring pins
- Shackle pins
- Brake camshafts
- Fifth wheel faceplates and pivots operating under a wide range of temperatures.
- Water pumps operating in water, mud or dusty conditions

Railroad Industry

In the railroad industry, POLYTRON EP-2 is an excellent lubricant for contact areas between locomotive and railroad car wheel flanges and railroad tracks using automatic rail-curve lubricators.

Other Applications

POLYTRON EP-2 can also be used:

- As Thread Closure Grease for casing and tubing connections
- As a life-pack lubricant of automotive generators, alternators, and starters to protect against moisture and road splash Bearings on air-conditioning units in buildings
- On unsealed electric motor bearings operating under moist conditions
- With applications where silent operations are called for
- With antifriction bearings operating at high speeds

POLYTRON EP-2 LITHIUM COMPLEX GREASE PACKAGES



14 ounce (0.4 kg) tube

- 12 tubes/case
- 210 cases/pallet
- 10 pallets/20-ft. container
- 20 pallets/40-ft. container




35 pound, 19-liter pails (5 gallons) for trucks and heavy duty equipment

- 56 pails per pallet
- 10 pallets/20-ft. container
- 20 pallets/40-ft. container



208 liter drums for trucks and heavy duty equipment

- 79 drums/20-ft. container



POLYTRON Penetrating Lubricant

POLYTRON PENETRATING LUBRICANT APPLICATIONS

POLYTRON Penetrating Lubricant keeps equipment parts clean from build-up, dramatically improving performance. It lowers operating temperature and noise level while eliminating 95 - 99% of equipment wear. Equipment is protected in a wider range of temperatures and POLYTRON Penetrating Lubricant's performance does not deteriorate in severe operating conditions of dust, dirt and moisture.

POLYTRON Penetrating Lubricant is an excellent preventive parts lubricant before assembly of mechanisms or engines. It is also effective for smoother and easier fitting during assembly. It penetrates and retards rusty and oxidized surfaces in mechanisms operating in severe moisture and temperature conditions.

General Applications

POLYTRON Penetrating Lubricant is used in:

- Slides
- Guides
- Ways
- Chains
- Screws
- Cams
- Racks
- Pinion sets
- Moving parts of electrical and air tools
- Moving parts of conveyors and electrical motors in commercial and industrial equipment

Industrial Equipment

In the machining of ferrous and non ferrous metals, using POLYTRON Penetrating Lubricant Spray on cutting tools or saw blades will:

- Reduce tool wear
- Provide a smoother surface finish.
- Prevent welding (sticking to the cutting tools)
- Protect electrical contacts, terminals and electrical collectors from corrosion and electrical oxidation
- Serve as moisture repellent in electric-motor operated equipment, like cranes, elevators, etc.

POLYTRON PENETRATING LUBRICANT PACKAGES



7-ounce (200 ml) spray can

- 12 cans /case
- 200 cases/pallet
- 10 pallets/20-ft. container
- 20 pallets/40-ft. container



4-liter plastic bottles for trucks, heavy duty equipment and production

- 6 bottles/case
- 54 cases/pallet
- 10 pallets/20-ft. container
- 20 pallets/40-ft. container



19-liter pails (5 gal) for trucks heavy-duty equipment and production

- 56 pails per pallet
- 10 pallets/20-ft. container
- 20 pallets/40-ft. container



208-liter drums for trucks, heavy-duty equipment and production

- 79 drums / 20-ft. container



Polytron Fuel Conditioner

POLYTRON FUEL CONDITIONER APPLICATIONS

POLYTRON Ultra Performance Fuel Conditioner is scientifically designed fuel enhancer that improves combustion, cleans and lubricates the working parts of the fuel system and the upper part of the engine. POLYTRON Fuel Conditioner dissolves and removes carbon deposits and prevents future harmful build-up. POLYTRON Fuel Conditioner improves mileage and overall engine performance, and contributes to longer service life of the fuel system components as well as combustion chamber components.

POLYTRON Fuel Conditioner cleans entire fuel system, including injectors, intake valves, ports, valve seats and combustion chamber, increasing compression and lowering fuel consumption. When used regularly, exhaust pollutants are reduced considerably. It extends the effective life of diesel fuel held in storage tanks and can be used with any gasoline or diesel fuel.

Use POLYTRON Fuel Conditioner in all gas and diesel engines of:



Diesel Electrical Generator



Farm Machinery



Diesel Marine Engines



Off-Highway Equipment



Light and Heavy Duty
Diesel Trucks



Mining Equipment



Railroad Engines



Two-Cycle Engines



Diesel / Gasoline passenger cars



Tractors



Oil Field Equipment

POLYTRON FUEL CONDITIONER APPLICATIONS

Directions

For regular use in cars, add two ounces (60 ml) to every fifteen gallons (60 lit) of gasoline or diesel fuel. In two-cycle engines add two ounces (60 ml) to every fifteen gallons (60 lit) of fuel before blending with oil.

In trucks and heavy duty equipment, as well as in large generators, add 0.1 percent of FC by volume (or 1 ml of FC to every liter of fuel) In large fuel tanks, add 1 lit of FC to every 1000 lit of fuel.

Very important: before adding FC to a large tank make sure that it is completely clean from any deposits.

As a complementary additive package to Diesel Fuels in Heavy duty diesel engines for the following functions:

- Injector clean-up from deposits, in both low and high sulfur diesel fuel thus restoring lost power, reducing smoke and pollutants
- Full clean-up of the fuel system
- Lubrication of the fuel system and upper engine with full anti-wear protection
- Rust and corrosion prevention throughout the fuel system
- Prevention of fuel filter blockage

As a complementary additive package to Gasoline fuel for passenger, light trucks and two-cycle engines.

- To provide prompt engine start-up at cold weather
- Lubricate upper cylinder during cold cranking
- To prevent CCDI (combustion chamber deposit interference, in some new cars)
- For protection the entire intake system against rust and corrosion that can be caused by corrosion in gasoline tanks
- To help remove water to prevent gas line freeze
- For full clean-up of the fuel system and reduction in emissions

This additive package produces much better fuel consumption, much cleaner emission gases and a reduction in maintenance costs.

Important: It is essential to use POLYTRON MTC together with POLYTRON FC for ideal engine maintenance and operation. POLYTRON complementary Fuel additive package provides all the benefits to the fuel and upper part of the engine that POLYTRON MTC provides to the oil and lower part of the engine. Maximum performance and ideal condition of engines require use of POLYTRON MTC in the oil system together with POLYTRON FC in the fuel system.

For heavy-duty diesel engines, the POLYTRON FC provides the following benefits:

- Restores lost power in low- and high-sulfur diesel fuel by cleaning build up from injectors
- Reduces smoke and pollutants by up to 60%
- Delivers a full clean-up of the fuel system
- Lubricates the fuel system and upper engine with full anti-wear protection, extending the service life of injectors, fuel pumps, valve skirts and valve seats by more than 100%
- Prevents rust and corrosion throughout the fuel system
- Prevents fuel filter blockage
- Increases compression and lowers fuel consumption.

As a complementary additive package to gasoline fuel for passenger, light trucks and two-cycle engines, POLYTRON FC provides:

- Prompt engine start-up in cold weather
- Lubrication for upper cylinders during cold cranking
- Prevents CCDI (combustion chamber deposit interference) in some new cars
- Protects the intake system from rust and corrosion that can be caused by gasoline tank internal corrosion
- Helps remove water, preventing gas line freeze
- Clean-up of the fuel system reduces emissions up to 60 percent

POLYTRON FUEL CONDITIONER PACKAGES



12-ounce (355 ml) plastic bottles for passenger cars and pickup trucks (treats 355 liters of fuel)

- 12 bottles/case
- 175 cases/pallet
- 10 pallets/20-ft. container
- 20 pallets/40-ft. container



4-liter plastic bottles for trucks and heavy duty equipment (treats 4,000 liters of fuel)

- 6 bottles/case
- 54 cases/pallet
- 10 pallets/20-ft. container
- 20 pallets/40-ft. container



19-liter pails (5 gal) for trucks and heavy duty equipment (treats 19,000 liters of fuel)

- 56 pails per pallet
- 10 pallets/20-ft. container
- 20 pallets/40-ft. container



208-liter drums for trucks and heavy duty equipment (treats 208,000 liters of fuel)

- 79 drums / 20-ft. cont



Case Studies

CASE STUDIES



POLYTRON MTC Slashes Windmill Gearbox Temperature, Vibration and Noise for a Grain Company in India

"We are happy and delighted about the POLYTRON MTC performance. Previously we were using fully synthetic oil now we have changed it to Mineral Oil + POLYTRON MTC. After monitoring those 3 gearboxes for approximately 7 months with commendable performance of POLYTRON MTC, We are pleased to share that we have applied the same combination (mineral oil + POLYTRON Mtc) to our 11 more windmill... gearboxes."

Skathi Murugan Agro Foods Ltd.

[Read More](#)



Major Singapore Deep Sea Exploration Ship Cuts Fuel Consumption by 10% with POLYTRON Products

"We are pleased that there has been a consistent 10 percent reduction in overall fuel consumption of Caterpillar Engine Generator 3 after initial application of POLYTRON MTC. The utilization of POLYTRON was recommended and supervised under G8's MarineCare Program while our company was seeking a solution to reduce the overall fuel consumption of the vessel..."

Pacific Radiance Crest Subsea International

[Read More](#)



POLYTRON MTC Boosts Performance and Mileage, Slashes Maintenance for 200-Cab Fleet

"The Valley Cab Company's 200-vehicle fleet experienced serious maintenance problems, with an average of 13 cabs per day out of service for engine overhaul or replacement. These high-demand vehicles average 543 miles per day under severe driving conditions. Experiments with a half-dozen oil additives and treatments produced no improvement in compression, overall performance, and fuel consumption or down time. Several vehicles incurred clogged oil filters and increased build up during additive tests."

Valley Cab Company, Los Angeles CA

[Read More](#)

VIDEO REVIEWS



Here's a video testimonial from a customer using POLYTRON

Watch



Here's a demonstration of POLYTRON being put to the test against a couple of popular lubricant brands

Watch



ep_tech@msn.com | <http://www.polytron-lubes.com>