

# INFINITY Turbine Oil

## Fill-For-Life Turbine Oil

This is the last turbine oil you'll ever need



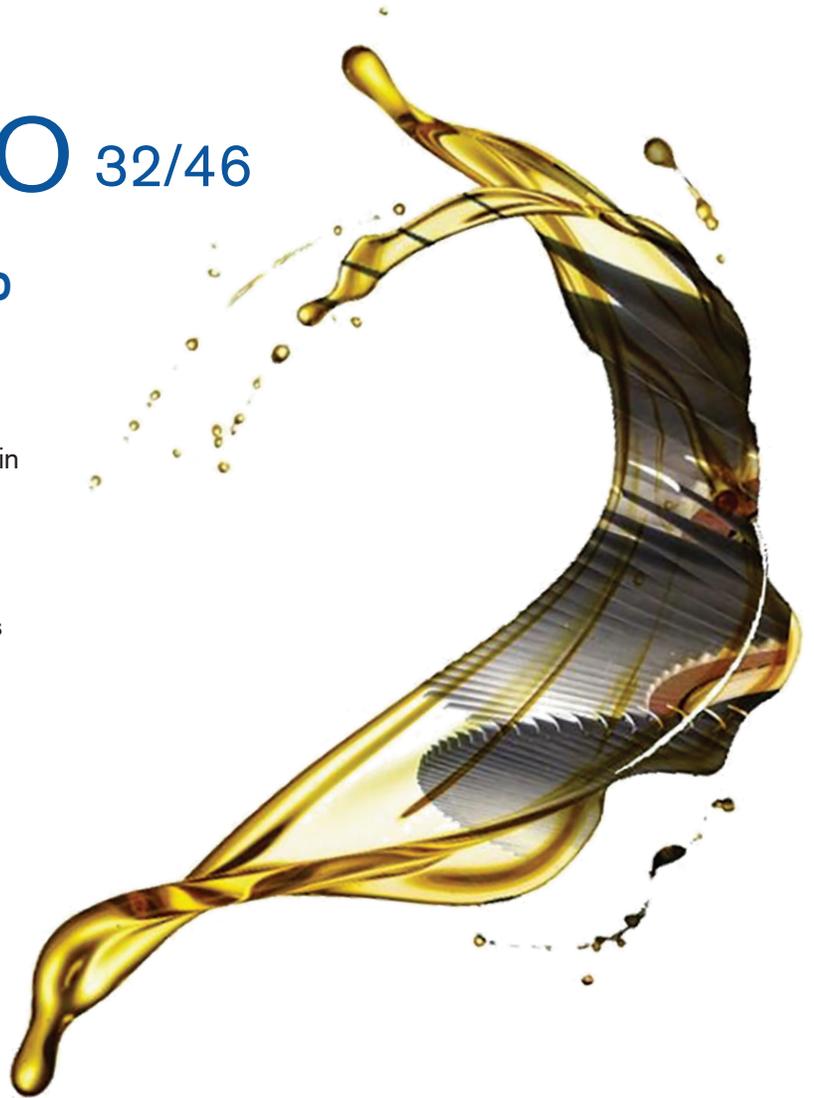
### THE LAST TURBINE OIL YOU'LL EVER NEED

Our number one priority is to understand the oxidative stresses on fluids. Through this deep, genuine comprehension, we decided to remove varnish-forming deposits before they even have a chance to go to work in an effort to in an effort not only to prolong the useful life of your turbine oil but also extend indefinitely the life of your machine.

Introducing Infinity TO, a product which, after years of simulated stress tests, has created virtually no varnish producing by-products. After being beaten up far beyond industry standards, you're left with a pure product whose formula chemically controls by-products to keep you up and running, save you an abundance of money over the lifetime of the machine, and have an incredibly positive impact on the environment.

### TEN-YEAR DEPOSIT CONTROL PERFORMANCE GUARANTEE

- Performance guarantee ensuring the MPC value stays in the normal range for ten years.
- No varnish mitigation equipment required.
- No more performance issues on turbine bearings, servovalves, gears, hydrogen seals, heat exchangers, etc.
- Reduce downtime by eliminating oil flushes.
- This is the only performance guarantee in the industry.
- Significantly reduces lube-oil operational problems such as trips or fail-to-starts.

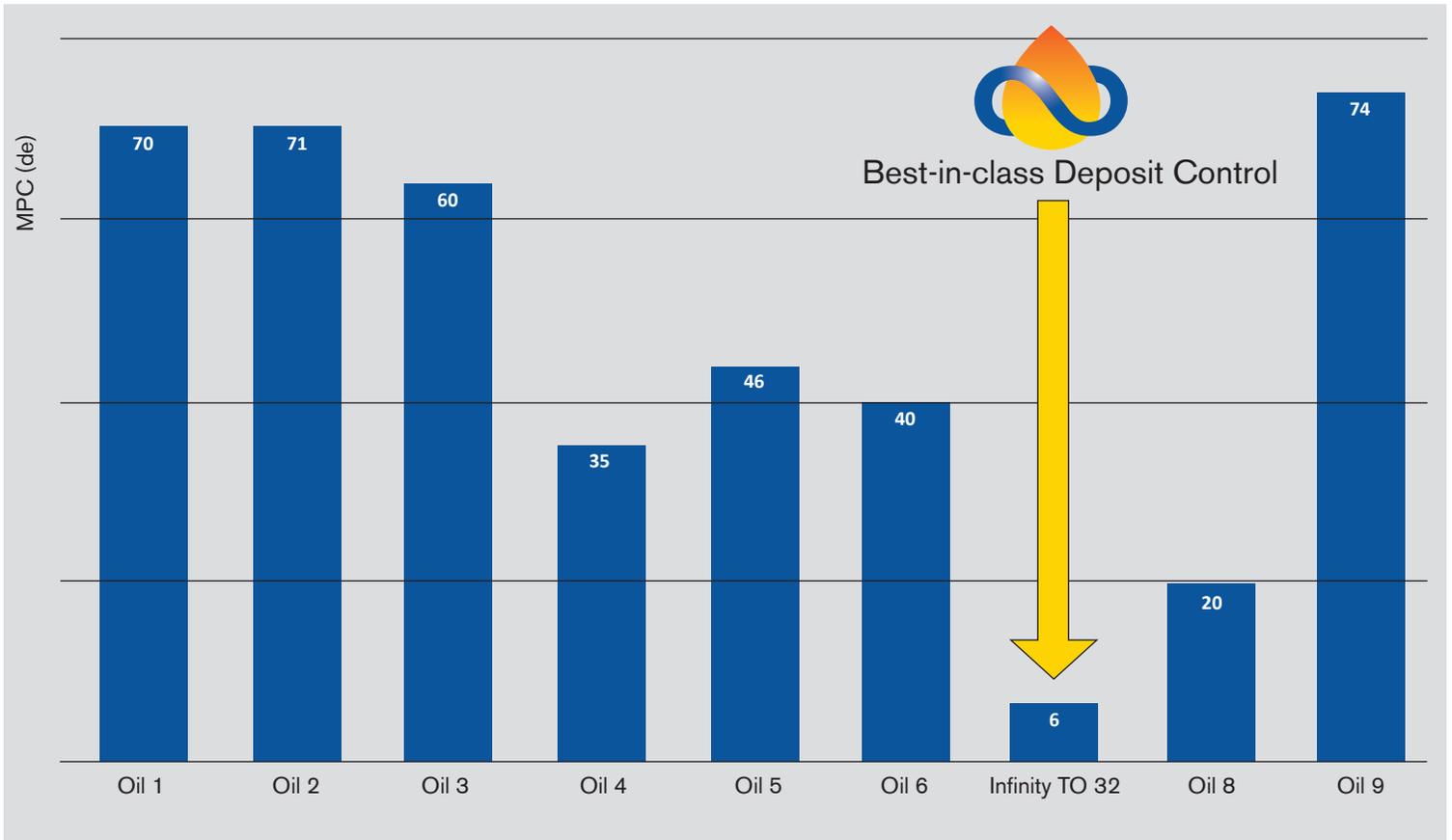


# INFINITY TO

## DEPOSIT CONTROL TECHNOLOGY

Infinity TO features best-in-class deposit control. What does this mean for you and your operation? It means you have no need for varnish mitigation technology during the life of the turbine oil. Its proprietary additive system was designed not only to capture but neutralize degradation products so they never have a chance to form deposits.

Infinity TO outperforms competitive formulations on the market, including PAG-based fluids. With Infinity TO, your operation will sustain a long, healthy life for your machine that is virtually free of varnish.



## PERFORMANCE CHARACTERISTICS

Infinity TO takes perfection into account – even in the details of its job. The benefits of its non-varnish-producing formula are far-reaching, and reassuring in every way. In our stress tests, we monitored for RULER, MPC, RPVOT, Viscosity, Acid Number, Demulsibility, Foam and Metals. The results prove Infinity TO is a generous cut above the rest.

- Outstanding air release properties to improve valve performance
- State-of-the-art foam suppression
- Rapid separation from water in case of steam leaks
- Excellent filterability
- Strong rust and corrosion protection
- Compatibility with many formulations on the market\*
- Meets GE and Alstom specifications

(\*Fluitec always recommends performing ASTM D7155 Turbine Oil Compatibility Testing prior to mixing different formulations.)

|  | Infinity TO 32 | Infinity TO 46 |
|--|----------------|----------------|
| Color  | Amber          | Amber          |
| Color ASTM D1500   | L2.0           | L2.0           |
| ISO VG   | 32             | 46             |
| Relative Density @ 60°F/60°F, ASTM D1298                                 | 0.855          | 0.861          |
| Viscosity @ 100°C, cSt, ASTM D445  | 5.55           | 6.70           |
| Viscosity @ 40°, cSt, ASTM D445  | 32.89          | 44.80          |
| Viscosity Index ASTM D2270   | 105            | 102            |
| Flash Point °C (°F) (coc), astm d92                                      | 230 (446)      | 230 (446)      |
| Pour Point °C (°F), ASTM D97   | -24 (-11)      | -24 (-11)      |
| Rust Test 4hrs @ 60° C, Sea H2O, ASTM D665B                              | Pass           | Pass           |
| Copper Corrosion 3hrs @ 100°C, ASTM D2272                                | 1b             | 1b             |
| Oxidation by RPVOT @ 150°C, minutes, ASTM D2272                          | 1100           | 1200           |
| Oxidation by TOST hours, ASTM D943                                       | >10,000        | >10,000        |
| Four-Ball Wear @ 75°C, 1200 rpm, 40 kgf, 60 minutes, mm wear, ASTM D4172 | 0.60           | 0.50           |
| Emulsion Characteristics @ 54°C, oil-water-emulsion/minutes ASTM D1401   | 40-40-40/10    | 40-40-40/10    |
| Foaming Characteristics @ 24°C/93.5°C/24°C, 3 sequences                  | 0/0, 0/0, 0/0  | 0/0, 0/0, 0/0  |
| Emulsion Characteristics @ 54°C, oil-water-emulsion/minutes, ASTM D1401  | 40-40-0/10     | 40-40-0/10     |



## OXIDATIVE PERFORMANCE

As you know, the life of turbine oil is largely determined by its antioxidant health. The Infinity TO line of products features:

- Outstanding antioxidant performance compared to other formulations. We did the tests, we can show you the results!
- Performance which is not only on par with the latest generation turbine oils but far superior to older formulations.
- Limitless life when used in combination with Boost AO.

In addition, Infinity TO is the only available turbine oil that is designed for in-service antioxidant replenishment. Replace the antioxidants in-situ and never change the oil in your turbine again.

## ENVIRONMENTAL IMPACT

Imagine a 16-thousand gallon reservoir of oil. Now think of the incredibly involved and costly process to get the oil where it needs to go. In a normal situation, you'd plan to change out the oil in your turbine. So you buy it. Your big oil company will have to drill it out of the ground. We can all imagine how much money that actually costs. Then consider how much CO<sub>2</sub> is used to drill it out, pump it to shore, process it at the refinery, put it in tankers to drive it somewhere so another tanker can deliver it. That's a lot of steps, and a lot of manpower.

Infinity TO dramatically reduces the need for that process to exist. We assume turbine oil changes need to happen and so we plan for them...and pay for them dearly. But

what if we could shift how we think about our turbine oil consumption and use in the power generation industry? What if we were smarter about the way we use turbine oil and in the end saved ourselves money and ran a smarter, cleaner operation? What if we considered turbine oil to be an asset rather than an expense?

We also invite you to consider the intense environmental impact of not having to dispose of 16,000 gallons of oil. In the base oil alone, 98-99% of what gets thrown away is perfectly good oil. It's just the 1 or 2% that's no good. Infinity TO integrated into our Fill-For-life system eliminates the need for that kind of waste.

## SUCCESS MEANS NEVER HAVING TO CHANGE YOUR TURBINE OIL

We used to say that not every reservoir of oil can be saved. With Infinity TO, that limited mindset is a thing of the past.

- Infinity TO removes an incredible amount of CO<sub>2</sub> from the environment.
- Infinity TO is designed for in-situ antioxidant replenishment using Boost AO.
- Infinity TO presents a massive reduction in operational risk.

It took millions of years for the earth to make your oil. Then it took a tremendous amount of time, energy and money to extract, ship, refine and formulate it. Shouldn't you do everything possible to extend the life of the oil you use, for as long as possible?

