

## Solution Spotlight: Meeting Specialized Needs Of Air Compressors

Written by LMT Staff  
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Plant operations rely on proper and consistent performance from air compressors—*when compressors fail, production can quickly be brought to a halt*

. Accurate compressor lubricant selection is essential to prevent lubricant-related issues that could cost a plant considerable downtime. The type of lubricant needed can vary greatly depending on the type of compressor or gas being used, while different gas temperatures and discharge pressures may require different qualities in the oil.

"It is critical to match the proper lubricant with its intended application," says Bill Stein, a product application specialist with Shell Lubricants. "When developing compressor lubricants, consideration must be given to the fluid type and additives used, as well as the intended use of the product."

To meet the complex needs of today's air compressors, Shell is now offering next-generation technology in its line of air-compressor oils: Shell Corena AP, Shell Corena AS and Shell Corena S.

### **Shell Corena AP Oils**

These products are intended for the lubrication of industrial reciprocating air compressors, in particular, those up to and above air discharge temperatures of 220 C (428 F) with continuous high delivery pressures. According to the manufacturer, Shell Corena AP incorporates a combination of specially selected synthetic esters and advanced additive technology. As a result, this product works well in the most demanding of conditions, handling continuous high pressures and high temperatures, where traditional mineral oils are not suitable. A low tendency for deposit build-up helps promote continued high compressor performance over long periods. Moreover, the normal valve maintenance period, typically between 250 and 1000 hours of operation using conventional mineral oils, can be extended to 2000, or even 4000 hours.

### **Shell Corena AS Oils**

These advanced synthetic rotary air compressor oils use a specialized additive technology. Shell Corena AS is capable of giving high performance in oil-flooded air compressors of screw or vane design. It provides effective lubrication, even under severe conditions, to oil-flooded single- and two-stage compressors, in particular those operating with output pressures of greater than 20 bar (290 psi) and with air-discharge temperatures greater than 100 C (212 F)—*including intermittent operation under these conditions*

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The manufacturer also notes that Shell Corena AS can help increase oil drain intervals significantly compared to conventional mineral oils, where allowed by the manufacturer— *up to a maximum of 12,000 hours, even when operating at a continuous maximum discharge air temperature in excess of 100 C (212 F).*

### **Shell Corena S Oils**

A premium performance mineral oil, Shell Corena S is suitable for the lubrication of rotary sliding vane and screw air compressors, operating with lower discharge temperatures. Based on a blend of high-viscosity index, Group II paraffinic mineral oils and carefully selected additives, the oil provides thermal stability, good water-shedding properties, good seal compatibility, anti-oxidancy, anti-wear and low oil carryover. In field use, Shell Corena S has demonstrated more than 5000 hours of operation.

**Shell Lubricants**  
**Houston, TX**