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# WEAR PREVENTATIVE REPORT

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COMPRESSOR OIL SYSTEM

# Wear Preventative Characteristics of Lubricating Fluid ASTM D-4172 (4-Ball Method)

This test method is used to determine the anti-wear properties of a fluid. It is conducted with 3 steel balls clamped together and covered with the lubricant to be evaluated. The fourth ball is pressed with force into the cavity formed by the 3 balls clamped together. The temperature of the test lubricant is regulated and the fourth ball is rotated. Using the average size of the wear scars candidates were subjected to 75° C, 1200 RPM and 40kg of force.

The diameters of the wear scars are measure in millimetres. Lower values represent better anti-wear performance.

Brand / Product	4-Ball Wear Test
<b>SULLAIR SRF 1/4000</b>	<b>0.36 LOWER IS BETTER</b>
<b>PSI-SUPERLUBE 46</b>	<b>0.52</b>
<b>GARDNER DENVER AEON 9000 SP</b>	<b>0.60</b>
<b>I-R ULTRA COOLANT</b>	<b>0.63</b>
<b>SULLAIR SULLUBE 32</b>	<b>0.64</b>
<b>I-R SSR COOLANT</b>	<b>0.71</b>
<b>LeROI SSL-46</b>	<b>0.75</b>
<b>KAESER S-460</b>	<b>0.85</b>

## Copper Corrosion ASTM D-130

Corrosion resistance is an important consideration in compressor oils. Copper corrosion characteristics were measured using the ASTM D-130 test. This test operates for 3 hours at 100° C with a copper strip submerged in the candidate oil.

All oils tested were non-corrosive and achieved a perfect score 1a.

## Physical Data

Other data has been accumulated to describe the properties of the various oils. This is physical data and does provide an indication of performance in certain areas such as cold temperature operation.

Three data points are presented: