Written by Heinz P. Bloch Contributing Editor
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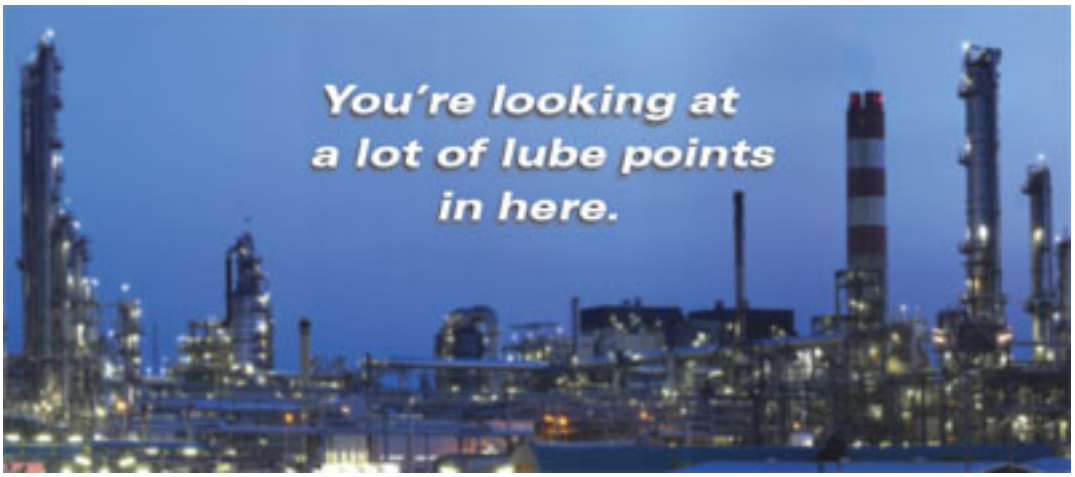
Despite being an accepted method of lubrication in countless reliability-focused process plants around the globe, questions about this technology continue to surface.



In early 2008, two widely read U.S. trade journals carried articles on grease lubrication of electric motors. Neither article mentioned oil mist lubrication, probably because the scope of the articles was, of course, grease lubrication. Failing to mention oil mist as a reasonable alternative for modern process plants, though, is somewhat like aiming an article about the repair of belted automobile tires at today's drivers—as another publication recently did. Belted tires were great for a 1950 Chevrolet, but what savvy car owner is using them on his/her vehicle today?

Dry sump oil mist on electric motors is not new technology. In the mid-1960s, oil mist—a mixture of 200,000 volume parts of clean and dry plant or instrument air with one part of lubricating oil—gained acceptance as the ideal lubricant application method on rolling element electric motor bearings in several major United States oil refineries. Since then, this lubrication method has gained further acceptance at hundreds of reliability-focused process plants in this country and overseas. As of the late 1990s, many thousands of electric motors were being lubricated by dry sump oil mist (Fig. 1).

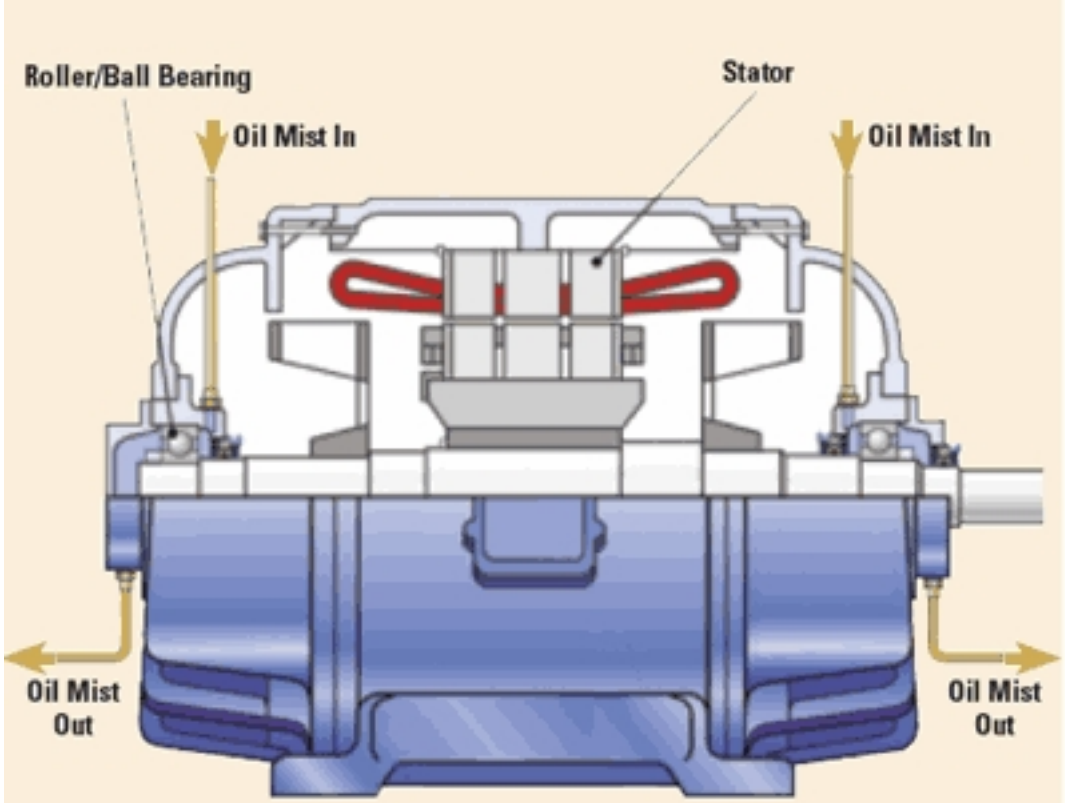


Fig. 1. How oil mist is applied to modern electric motor bearings

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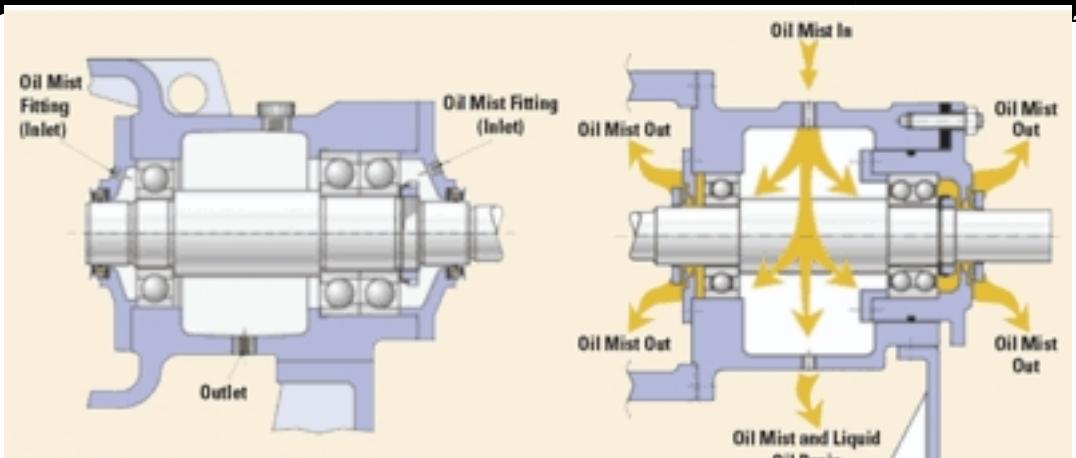

Fig. 2. "Through-flow" oil mist application, per API-610 8th and later editions

Fig. 3. Old-style oil mist application

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