A ranking order is found in the Eschmann-Hasbargen-Weigand text “Ball and Roller Bearings” (ISBN 0-471-26283-8) for oil and grease-lubed bearings. The author re-assesses this ranking with input derived from the collective experience of a “Rotating Machinery Network.” It is found that, unless plant-wide oil mist systems are justified, the listing in Table 1 is encouraging; it recommends oil-air for rolling element bearings. Details on all oil and grease application methods referenced in ISBN 0-471-26283-8 and ISBN 978-1-4822-2864-9 are explained. Particular emphasis is given to (a) jet oil spray, (b) oil mist, now successfully used on approximately 26,000 electric motors and 130,000 process pumps world-wide, (c) shield orientation in typical grease-lubricated electric motor bearings and (d) good experience with PFPE-based (perfluoropolyether) greases in fully-sealed motor bearings. The PFPE experience completely up-ends prior notions regarding grease-filled (sealed) bearings.

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