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# C1Po1A-07 [19]: Study on the Load Capacity of New Type Gas-lubricated Spiral-Groove Thrust Bearing

*Monday, July 22, 2019 9:00 AM (2 hours)*

Absrtact: The influence of the number of grooves, the spiral angle, the groove depth, the ratio of length and width of spiral-groove thrust bearing on bearing capacity is analyzed by using fluent fluid computing software, and the influence of two new parameters—slope angle and internal spiral line—on load capacity of spiral-groove thrust bearing is also simulated, the parameters of spiral groove gas bearing are optimized to solve the maximum load capacity gas-lubricated spiral-groove thrust bearing. The results show that there is an optimal value for slope angle and internal spiral line to maximize the load capacity.
Key words: spiral groove; conventional parameters, the slope angle, the internal spiral line, load capacity

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