

Supplementary Material

Design and investigation on static and dynamic characteristics of aerostatic bearings with non-coplanar orifice and groove

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Table S1 List of symbols

Nomenclature			
h	gas film thickness	u_i, u_j	mean and fluctuating velocity components
L	bearing surface length	P	static absolute pressure
B	bearing surface width	C_v	constant-volume specific heat
d	orifice diameter	C_p	constant-pressure specific heat
h_g	groove depth	R	gas constant, 287 J/ (kg K)
L_g	groove length	T	absolute temperature, 293 K
b_g	groove width	E	the sum of internal energy and kinetic energy
L_c	guideway stroke	e	the internal energy per unit mass
P_0	supply pressure	P_T	pressure inside the groove
ρ	density	P_d	pressure after throttling
μ	air viscosity	α	nondimensional groove length
λ	thermal conductivity	γ	nondimensional groove depth