

Minimum Estimated Air Consumption for Air Bearings

Caution: This is for guide purposes only. Floor conditions are difficult to judge. A generally good floor may have local problem areas which may require significantly more air flow.

The amount of air flow to operate an air bearing can vary greatly as shown in the chart below:

Air Flow /Air Bearing (Std. Cubic Ft. / Min.)

Floor Conditions	Air Bearing Size										
	10"	12"	14"	17"	20"	24"	30"	36"	43"	48"	54"
Excellent	2.3	2.7	3.2	4.0	4.5	5.5	7.1	8.6	10.3	11.8	13
Average	6.9	8.1	9.6	12	13.5	16.5	21.3	26.8	30.9	35.4	49
Poor	11.5	13.5	16	20	22.5	27.5	35.5	43	51.5	59	65

Excellent Floor Conditions: An excellent air bearing floor surface is considered to have a smooth texture equivalent to that of sheet steel, smooth epoxy or machine troweled concrete with a dense polished finish. The surface is absent of any pits cracks, joints or other defects. When an air bearing is carrying its rated load and riding on an excellent floor surface, the required air consumption for virtually friction free operation, the required air flow is 1 scfm (standard cubic feet per minute) per foot of air bearing perimeter.

Average Floor Conditions: An Average air bearing floor surface is considered to have a texture equivalent to that of steel plate with very minor flaking of mill scale, good machine troweled concrete with minor pits scratches and hairline cracks, or epoxy with an orange peel texture. When an air bearing is carrying its rated load on an average floor surface, the required air flow for mostly free movement is 3 scfm (standard cubic feet per minute) per foot of air bearing perimeter.

Poor Floor Conditions: A poor air bearing floor feels slightly rough to the hand. However, it is much smoother than a broom finished concrete floor. A broom finished concrete floor is unacceptable for air bearing use. When an air bearing is carrying its rated load on a poor air bearing floor, the required air flow for acceptable operation is 5 scfm (standard cubic feet per minute) per foot of air bearing perimeter. Acceptable operation on a poor air bearing floor means that the load can be moved without the air bearing deflating, but will move with difficulty. The load will not float freely.