Technical Tips



Cylinder Life Expectancy

This bulletin will address the issue of Original Line® cylinder life expectancy as well as some of the factors which have a direct impact on cylinder life.

Air cylinder life expectancy is largely dependent on the durability of the components subject to wear. Wear accumulates with total travel rather than total cycles. Since the linear stroke of a cylinder is a user dependent variable Bimba expresses life expectation in "Miles Of Travel" rather than in Cycles. Life testing of our cylinders has been conducted by Bimba Manufacturing Company in our own laboratory. The results of these tests have allowed us to quote a maximum life expectancy of 3,000* miles of travel when properly applied. In actuality we have received many reports from customers in the field documenting cylinders which have lasted well in excess of 3,000* miles.

Several factors can impact efficient cylinder performance. Specifying the proper size and mounting style of a cylinder is critical to prolonging cylinder life. The environment the cylinder will be operated in should also be taken into consideration. For example, extreme temperatures, moisture, or the presence of corrosive agents may necessitate choosing special cylinder components.

Selecting the correct mounting style for your cylinder is critical for your cylinder's service life. The wrong mounting configuration or improper installation can result in a side load on the piston. Side loading a cylinder results in excessive wear on the piston, piston rod, rod bearings, and seals. This excessive wear typically leads to cylinder leakage or binding, both of which can be considered cylinder failure.

Proper lubrication is essential to extending cylinder life. Bimba cylinders are pre-lubricated at our factory, with a proprietary semi-synthetic grease and do not require additional lubrication. Please note that cylinders utilizing fluoroelastomer seals require a specific lubrication (Dow Corning #710) and are rated for 1,400 miles of travel when properly applied and lubricated during service.

*Note: Effective for cylinders manufactured after May 1, 2012. The previous rating was 1,400 miles of travel.

The information presented is in Bimba's best engineering opinion and should be used for reference only. Recommendations derived should be verified under actual operating conditions. Bimba reserves the right to change specifications without prior notice.

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