



# Technical Bulletins

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## 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 1,400 miles of travel under ideal conditions. In actuality we have received many reports from customers in the field documenting cylinders which have lasted well in excess of 1,400 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, however we do recommend additional lubrication throughout the cylinder's service life to extend service. The best method is to provide a constant source of lubrication by providing an in-line air mist type lubricator. Should this not be feasible we recommend direct introduction of oil into the cylinder ports every 500 hours of operation. We recommend our Bimba HT-99 Lubricant for use with Buna N seals. Dow Corning # 710 is recommended for the optional high temperature seals.

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