

# Template:MTBF description

MTBF approval.



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## Description

**Mean time between failures (MTBF)** is the predicted elapsed time between inherent failures of a mechanical system, during normal system operation. MTBF can be calculated as the arithmetic mean (average) time between failures of a system. The term is used in both plant and equipment maintenance contexts. For example, three identical systems starting to function properly at time 0 are working until all of them fail. The first system failed at 100 hours, the second failed at 120 hours and the third failed at 130 hours. The MTBF of the system is the average of the three failure times, which is 116.667 hours.

In general, MTBF is the "up-time" between two failure states of a repairable system during operation as outlined here:



MTBF graph