Pumps fail for many reasons.

In the vast majority of cases these reasons are either due to abusing (or incorrectly specifying) the pump (excessive pressure, dirt, cavitation, excessive temperature, non-compatible fluid, excessive side / end loads, etc. etc.).

In some cases pumps also fail because they have a material or assembly fault – although this is very rare with a factory-supplied unit as they are all tested.

Here are some sample photos and failure cause:



Longitudinal body failure due to fatigue and/or excessive pressure



Longitudinal body failure due to fatigue and/or excessive pressure



Body wear due to contaminated fluid



Severe body wear due to bearing failure



Fatigue failure of drive shaft



Fatigue failure of (reversible) follower shaft



Wear of gear face due to contaminated fluid



Seizure of wear plates due to trapped compensating seal



Bearing failure due to excessive pressure for size of pump



Bearing failure due to excessive pressure for size of pump



Plate seizure due to axial load on drive shaft



Plate wear to to contaminated fluid



Wear plate erosion due to cavitation



Wear plate erosion due to cavitation



Seal failure due to cavitation