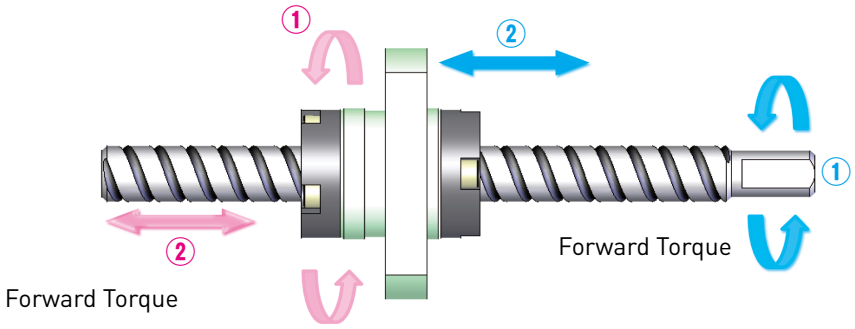
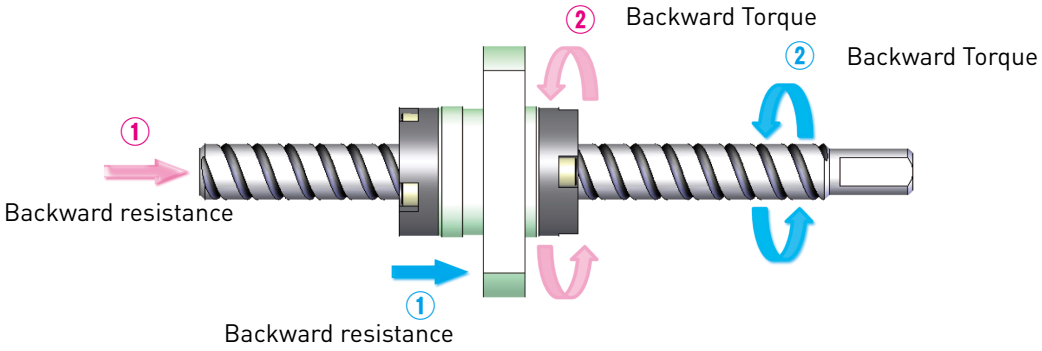
Q&A

Question: What is the "Direct (Forward) operation" or "Reverse (backward) operation" of Ball Screws? What is the "Forward efficiency" or "Backward efficiency"?

Ball Screws are mechanical parts, which convert rotational motion into linear motion and vice versa. These are called "Direct operation" or "Forward operation" and "Reverse operation" or "Backward operation" (see figure below).



Direct (Forward) operation ; Motor (Shaft) rotates and Nut moves linearly (Bule).
Or Nut rotates and Shaft moves linearly (Pink).



Reverse (Backward) operation ; Apply load on Nut and make Shaft rotate (Bule).
Or push Shaft and make Nut rotate (Pink).

The convert (Rotation to linear motion, linear motion to rotation) efficiency is called "Forward efficiency" or "Backward efficiency". The Torque during Direct (Forward) or Reverse (Backward) operation is called Forward Torque or Backward Torque, especially the load to make Reverse (Backward) operation is often called Backward resistance.

It is well known that Ball screw function is conversion from rotational to linear, and vice versa.