What makes NORD-LOCK[®] work



The NORD-LOCK® principle requires two washer-shaped pieces that have inclined cams on one side and a series of ridges on the other. When the inclined cams are mated and installed as shown in the illustration, one washer seizes to the joint material and the other to the nut or cap screw.



When a bolt or stud elongates due to vibration or shock, the nut or cap screw starts to rotate loose. NORD-LOCK® prevents this since the cam rise angle is greater than the lead angle of the thread. As one piece of the NORD-LOCK® attempts to rotate with the nut or cap screw, the preload is actually increased, further locking the nut.



When the bolt contracts, the inclined planes of the cams cause the nut or cap screw to rotate back to its original position. This creates a fastening system that is vibration-proof according to military specifications. The NORD-LOCK® fastening system may be loosened by exerting approximately 50% more torque than required for tightening.