Ball Screws with Nut Cooling

Nut Cooling can simplify ball screw cooling to help make machine tools run faster and more precise. Cooling capacity greater or equal to existing hollow-shaft ball screws is achieved. No sliding seals or rotary joints are required. Dimensions for mounting area are identical for HMD nuts; therefore, the nut cooling can be implemented without changing machine designs.

Product Features

• Highly effective cooling: Optimized nut cooling mechanism gives cooling capacity ≥ than hollow-shaft ball screws
• Innovative internal design: Preload torque does not increase even if the nut is cooled
• Improved handling: Achieved by attaching piping to the outer periphery of the nut flange removes need for sliding seal & rotary joints

Benefits

• Low cost, compact design and simple cooling mechanism
• Equivalent or better compared to hollow shaft cooling
• Controlling heat by high speed is essential for machine tools requiring accuracy in microns
• Effective cooling of the ball screw, heat transfer to the table is blocked.
• Nut cooling can be implemented without changing machine designs for HMD nuts. For other nut designs please contact NSK engineers who can advise you.

Condition Description

• High Accuracy
• High Load
• High Speed
• High Temperature
• Low Noise

Industries

• Machine Tools
• Steel and Metals
• Woodworking