

Kerk Nuts.txt

Haydon Kerk  
1 Kerk Drive  
Hollis, NH 03049  
603-465-7227

There were a number of sizes we used. They are usually purchased with a screw. If they only need the nut (in most cases) say "nut only" after the part number.

Below is a list based on machines...

Stepper CNC's

VHDY8020 - all axis

Servo CNC's

VHDY8050 - z axis

VHDF12050 - x,y axis

Joinery Machines. This includes Tenoners, Mortisers, Dovetailers and Combos

VHDY8050 - y,z axis

VHDF12050 - x axis

VHDF12100 - x axis longer than 48"



*Thank you for purchasing KERK products for your motion control application.*

With minor precautions, these products should provide many years of reliable service.

ANTI-BACKLASH NUTS: (KHD,HDP, VHD SERIES)

If nuts are not provided mounted on screws, or if nuts are removed and re-installed, please refer to the attached assembly and adjustment procedures.

**IMPROPER ADJUSTMENT OF THE BACKLASH TAKE-UP MECHANISM COULD CREATE EXCESSIVE WEAR, VIBRATION, OR OVERLOADING.**

ZBC, ZBX SERIES:

Drag torque is factory set and no further adjustments should be needed. *If lower torque is required consult factory.* If any parts are removed from the nut assembly be sure they are replaced in exactly the same orientation.

LUBRICATION:

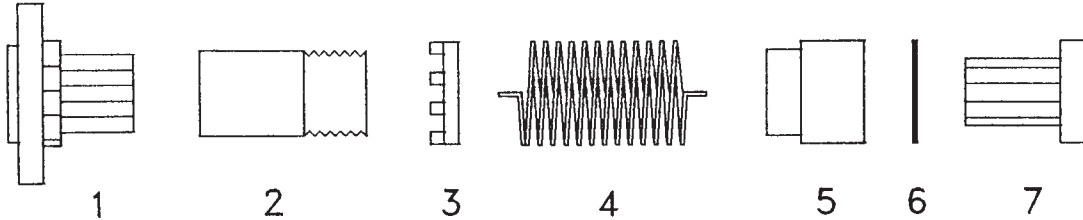
Kerk assemblies use self-lubricating poly acetal plastics and optional TFE screw coating (a Kerk custom composition) to eliminate the need for additional lubricants.

TFE (Teflon) coated screws should **NOT** be lubricated. Wet lubrication can cause pasting of the TFE particles, damage to the anti-backlash mechanism or removal of the coating. Wet lubricants can also cause malfunctioning of the anti-backlash mechanism in KHD, HDP, VHD and NTB nut series. If lubricants are used on Kerk stainless screws:

- ~ use very sparingly
- ~ do not apply to nuts
- ~ light mineral-based lubricants are acceptable

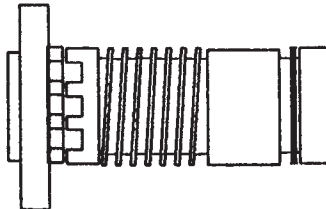
## MANUFACTURING PROCEDURE

TITLE: VHD ASSEMBLY INSTRUCTIONS



- [1] Mounting Body (either flange or thread mount)
- [2] Inner Body Spline
- [3] Spring Adjustment Collar
- [4] Spring
- [5] Spacer Nut
- [6] Rubber Washer
- [7] Rear Body

- A. Insert Mounting Body [1] into the Inner Body Spline [2].
- B. With the Spring [4] engaged in the Spring Adjustment Collar [3] and the Spacer Nut [5], turn the Spacer Nut counterclockwise until the nut reaches its limit. *Note:* Item [3] must be prevented from engaging with item [1] while turning the Spacer Nut [5].
- C. Place the Rubber Washer [6] on the Rear Body [7].
- D. Insert the Rear Body [7] into the Inner Body Spline [2].



*Note:* The nut should be fully assembled at this stage with the Spring Adjustment Collar [3] disengaged from the spline on the Mounting Body [1].

- E. Thread the leadscrew into the nut assembly. Overall length of the nut should be less than 2.2" for the flange mount nut, and less than 2.5" for the thread mount nut. If the nut grows longer than this disassemble the Rear Body [7] from the nut, rotate one notch on its spline, rethread the leadscrew and check the nut length. There are six possible combinations for the spline engagement of the Rear Body, the best is the combination that results in the smallest nut when assembled to the leadscrew.
- F. Turn the Spring Adjustment Collar clockwise until the desired spring tension is obtained (approximately  $\frac{3}{4}$  of a wrap is normal) and snap the Adjustment Collar [3] into the spline on the Mounting Body [1].
- G. Turn the Spacer Nut [5] slightly counterclockwise and release, it should return to its initial position.
- H. If torque between the leadscrew and nut is higher than desired the Spring may be loosened by disengaging the Spring Adjustment Collar [3] and reducing the amount of wrap. It is not recommended to relax the Spring less than  $\frac{1}{2}$  wrap.