

## Test Intention: wear after 100.00 cycles

### Intention

In this test we compared three different types of nuts / steel lead screw systems and wanted to investigate the wear after 100.000 cycles.

### Client:

Name: Stefan Niermann

Team: drylin®

Date: KW 40/2014

### Order-Info:

Customer / No.: intern

Series / No: intern

Installation type:

Customer test: Yes  No

Development test: Yes  No

### Technical data

nut PA+PTFE / stainless steel  
lead screw, POM+PTFE /  
stainless steel lead screw,  
iglide® J / DST® lead  
screw

lubrication no

load 200N

cycles 100.000

stroke 140mm

temperature ~23°C

rotation/speed 100rpm

thread DS10x25, 3/8"-1"

### Experimental setup

The experimental setup is shown in picture 1.

#### picture 1:

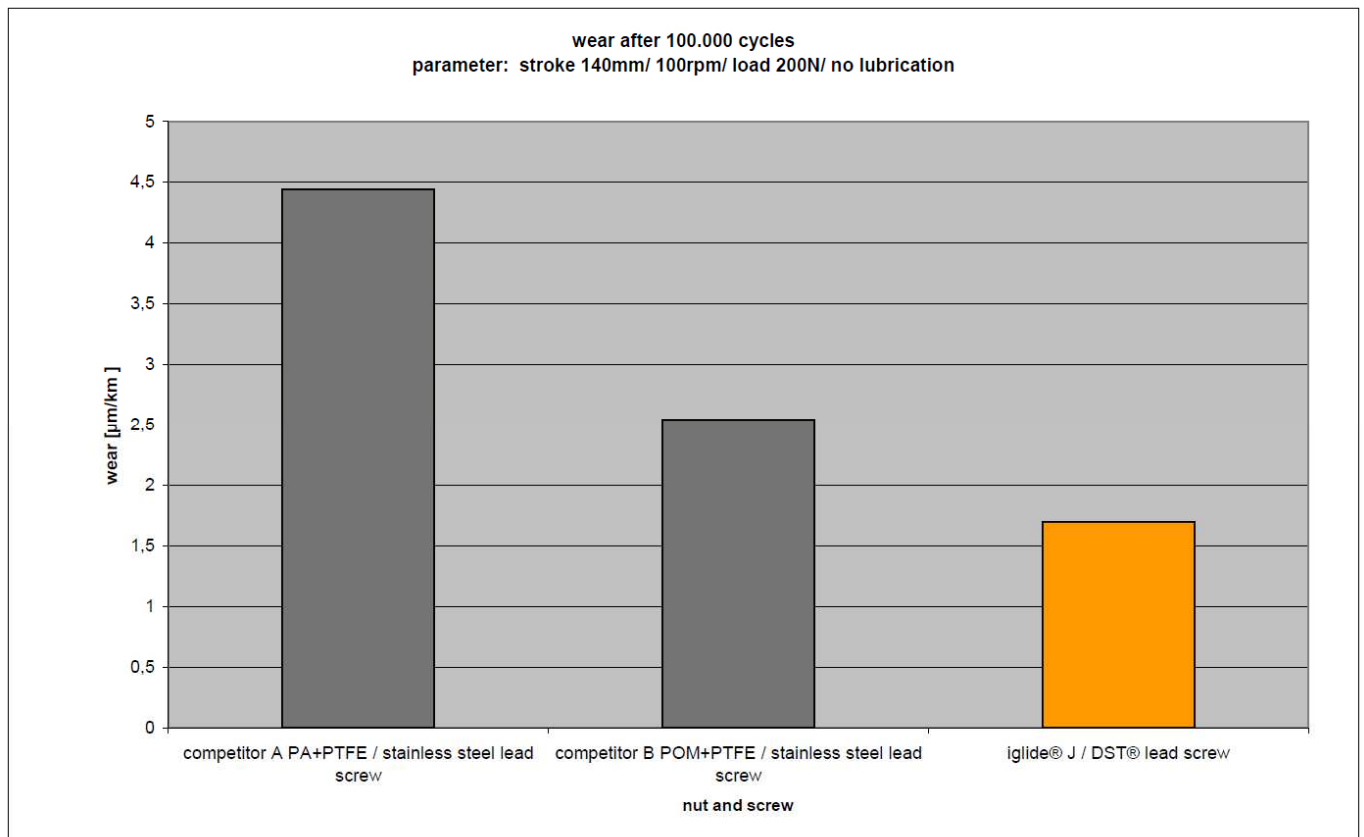


#### For internal use only

The managing data show the results of the accomplished examinations. With all data it still acts neither around one or more warranties of certain characteristics around one or more warranties regarding the suitability of a product for a certain targeted application, since the examinations on laboratory conditions took place. The warranty of certain characteristics of the products and/or their suitability for a certain application requires writing in the confirmation of order. Finally we recommend user-specific measurements under genuine operating conditions.

## Result

graph 1: wear after 100.000 cycles



The results of the test are shown in table 2.

table 2:

|      | Competitor A PA+PTFE / stainless steel lead screw | Competitor B POM+PTFE / stainless steel lead screw | iglide® J / DST® lead screw |
|------|---|--|-----------------------------|
| wear | 4,44  | 2,54   | 1,7                         |

## Evaluation

The wear characteristics of all tested materials are different. The wear of iglide® J is significantly better than those of the competitors A und B. At a wear of 1,7 µm, iglide® J has about 61% and 33% lower wear than the other tested materials.

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