ISO 3408-4:2006-06 (E)

Ball screws - Part 4: Static axial rigidity

Contents

Page

Foreword iv

1 Scope 1

2 Normative references 1

3 Terms and definitions 1

4 Symbols and subscripts 1
4.1 Symbols 1
4.2 Subscripts 2

5 Determination of static axial rigidity, R 3
5.1 General 3
5.2 Static axial rigidity, R 5
5.3 Static axial rigidity of ball screw, Rbs 5
5.4 Static axial rigidity of ball screw shaft, Rs 5
5.4.1 General 5
5.4.2 Rigid mounting of ball screw shaft at one end 5
5.4.3 Rigid mounting of ball screw shaft at both ends 6
5.5 Static axial rigidity of ball nut unit, Rnu 6
5.5.1 Static axial rigidity of ball nut unit with backlash, Rnu1 6
5.5.2 Static axial rigidity of symmetrically preloaded ball nut unit, Rnu2,4 10
5.5.3 Correction for accuracy, far 12

Annex A (informative) Example calculation of static axial rigidity in preloaded symmetrical double nut system 14

Annex B (informative) Correction for load application, fal 17