ISO 13050:2014-12 (E)

Synchronous belt drives - Metric pitch, curvilinear profile systems G, H, R and S, belts and pulleys

Contents

Page

Foreword v

1 Scope 1

2 Normative references 1

3 Synchronous belt drive system types 2

4 Belt nomenclature 3

5 Pulley nomenclature 3

6 Profile system G 4
6.1 Belt dimensions and tolerances 4
6.1.1 Belt tooth dimensions 4
6.1.2 Belt widths and tolerances 5
6.1.3 Pitch length measurement 5
6.2 Pulleys, profile system G 7
6.2.1 General 7
6.2.2 Generating tool rack 7
6.2.3 Pulley groove profile dimensions and tolerances 9
6.2.4 Pulley outside diameters 10
6.2.5 Pulley width 12

7 Profile system H 13
7.1 Belt dimensions and tolerances 13
7.1.1 Belt tooth dimensions 13
7.1.2 Belt widths and tolerances 14
7.1.3 Pitch length measurement 15
7.1.4 Procedure 15
7.2 Pulleys, profile system H 17
7.2.1 General 17
7.2.2 Generating tool rack 17
7.2.3 Pulley groove profile dimensions and tolerances 19
7.2.4 Pulley outside diameters 21
7.2.5 Pulley width 24

8 Profile system R 25
8.1 Belt dimensions and tolerances 25
8.1.1 Belt tooth dimensions 25
8.1.2 Belt widths and tolerances 26
8.1.3 Pitch length measurement 26
8.2 Pulleys, profile system R 29
8.2.1 General 29
8.2.2 Generating tool rack 29
8.2.3 Pulley groove profile dimensions and tolerances 31
8.2.4 Pulley outside diameters 32
8.2.5 Pulley width 35

9 Profile system S 38
9.1 Belt dimensions and tolerances 38

9.1.1 Belt tooth dimensions 38
9.1.2 Belt widths and tolerances 39
9.1.3 Pitch length measurement 39
9.2 Pulleys, profile system S 41
9.2.1 General 41
9.2.2 Generating tool rack 42
9.2.3 Pulley groove profile dimensions and tolerances 43
9.2.4 Pulley outside diameters 44
9.2.5 Pulley width 45

Annex A (normative) Belt pitch lengths and tolerances 47

Annex B (normative) Relationship between centre distance and belt pitch length 49

Annex C (normative) Pulley tolerances 50

Annex D (normative) Flange dimensions 53

Bibliography 54