
**Cylindrical gears — Code of inspection
practice —**

Part 2:

Inspection related to radial composite
deviations, runout, tooth thickness and
backlash

*Engrenages cylindriques — Code pratique de réception —
Partie 2: Contrôle relatif aux écarts composés radiaux, au faux-rond,
à l'épaisseur de dent et au jeu entre dents*



CONTENTS

FOREWORD	iv
1 Scope	1
2 References	1
3 Symbols, corresponding terms and definitions	2
3.1 Lower case symbols	2
3.2 Upper case symbols	2
3.3 Greek symbols	2
3.4 Subscript symbols	2
3.5 Definitions	3
4 Measurement of radial composite deviations	6
4.1 Checking principle	6
4.2 The utility of radial composite deviation data	7
5 Measurement of runout, determining eccentricity	8
5.1 Measuring principle	8
5.2 Anvil size for measuring runout	9
5.3 Measuring runout	9
5.4 Evaluation of measurement	11
5.5 Value of runout measurement	11
5.6 The relation between runout and pitch deviations	11
6 Measurement of tooth thickness, tooth span and dimension over balls or cylinders	14
6.1 Tooth thickness measurement	14
6.2 Span measurement	15
6.3 Control of tooth thickness by determining the dimension over balls or cylinders	17
6.4 Tooth thickness measurement with radial composite measurement	19
6.5 Calculations for radial composite action test measurement	19
7 Gear limits and fits	21
7.1 Introduction	21
7.2 Tooth thickness tolerances	22
Annex A Backlash and Tooth Thickness Tolerance	23
A.1 Purpose	23
A.2 Backlash	23
A.3 Maximum Tooth Thickness	23
A.4 Minimum Backlash	23
A.5 Specifications For Tooth Thickness Measurement	24
A.6 Maximum Backlash	24
Annex B Bibliography	26

© ISO 1996

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Organization for Standardization
Case Postale 56 • CH-1211 Genève 20 • Switzerland

Printed in Switzerland