



# SLOVENSKI STANDARD SIST EN ISO 14539:2003

01-oktober-2003

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## Manipulirni industrijski roboti – Predmeti z grabilnimi prijemalniki in ravnanje z njimi – Slovar in prikaz lastnosti (ISO 14539:2000)

Manipulating industrial robots - Object handling with grasp-type grippers - Vocabulary and presentation of characteristics (ISO 14539:2000)

Industrieroboter - Werkstückhandhabung mit Fingergreifern - Wörterbuch und Darstellung von Charakteristika (ISO 14539:2000)

Robots manipulateurs industriels - Manipulation des objets par préhenseurs a pince - Vocabulaire et présentation des caractéristiques (ISO 14539:2000)

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Ta slovenski standard je istoveten z: **EN ISO 14539:2001**

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25.040.30	Industrijski roboti. Manipulatorji	Industrial robots. Manipulators

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NORME EUROPÉENNE  
EUROPÄISCHE NORM

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December 2001

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**Manipulating industrial robots - Object handling with grasp-type grippers - Vocabulary and presentation of characteristics (ISO 14539:2000)**

Robots manipulateurs industriels - Manipulation des objets par préhenseurs à pince - Vocabulaire et présentation des caractéristiques (ISO 14539:2000)

Industrieroboter - Werkstückhandhabung mit Fingergreifern - Wörterbuch und Darstellung von Charakteristika (ISO 14539:2000)

This European Standard was approved by CEN on 16 November 2001.

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EUROPÄISCHES KOMITEE FÜR NORMUNG

**Management Centre: rue de Stassart, 36 B-1050 Brussels**

EN ISO 14539:2001 (E)

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## Foreword

The text of ISO 14539:2000 has been prepared by Technical Committee ISO/TC 184 "Industrial automation systems and integration" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 14539:2001 by Technical Committee CEN/TC 310 "Advanced Manufacturing Technologies", the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2002, and conflicting national standards shall be withdrawn at the latest by June 2002.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

### Endorsement notice

The text of ISO 14539:2000 has been approved by CEN as EN ISO 14539:2001 without any modifications.

NOTE Normative references to International Standards are listed in Annex ZA (normative).

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## Annex ZA (normative)

### Normative references to international publications with their relevant European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

NOTE Where an International Publication has been modified by common modifications, indicated by (mod.), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN</u>	<u>Year</u>
ISO 8373	1994	Manipulating industrial robots - Vocabulary	EN ISO 8373	1996
ISO 9409-1	1996	Manipulating industrial robots - Mechanical interfaces - Part 1: Plates (form A)	EN ISO 9409-1	1996
ISO 9409-2	1996	Manipulating industrial robots - Mechanical interfaces - Part 2: Shafts (form A)	EN ISO 9409-2	1996
ISO 9787	1999	Manipulating industrial robots - Coordinate systems and motion nomenclatures	EN ISO 9787	1999

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**Manipulating industrial robots — Object  
handling with grasp-type grippers —  
Vocabulary and presentation of  
characteristics**

iTeh STANDARD PREVIEW

**Robots manipulateurs industriels —  
Manipulation des objets par préhenseurs  
à pince — Vocabulaire et présentation  
des caractéristiques**

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## Contents

Page

Foreword.....	v
Introduction .....	vii
1 Scope .....	1
2 Terms and definitions .....	1
3 Vocabulary of object handling .....	2
3.1 Type of handling .....	2
3.2 Grasps.....	5
3.3 Coordinate systems in object handling .....	8
3.4 Sensing in object handling .....	10
4 Vocabulary of grasp-type grippers .....	11
4.1 Type of end effectors .....	11
4.2 Elements and mechanisms of grasp-type grippers .....	12
4.3 Type of grasp-type grippers .....	14
4.4 Type of fingers .....	15
4.5 Finger control.....	16
4.6 Clamping elements.....	18
4.7 Robot interfaces.....	19
4.8 Safety in grasps and grasping .....	19
Annex A (normative) Formats for the presentation of gripper characteristics .....	21
Alphabetical index .....	30

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## Sommaire

Page

Avant-propos.....	vi
Introduction .....	viii
1 <b>Domaine d'application</b> .....	1
2 <b>Termes et définitions</b> .....	1
3 <b>Vocabulaire de la manipulation d'objet</b> .....	2
3.1   Type de manipulation .....	2
3.2   Prises .....	5
3.3   Systèmes de coordonnées lors de la manipulation d'objets .....	8
3.4   Contrôle lors de la manipulation d'objets .....	10
4 <b>Vocabulaire des préhenseurs à pince</b> .....	11
4.1   Types de terminaux .....	11
4.2   Éléments et mécanismes des préhenseurs à pince.....	12
4.3   Types de préhenseurs à pince .....	14
4.4   Types de doigts.....	15
4.5   Commande des doigts .....	16
4.6   Éléments de serrage.....	18
4.7   Interfaces robot.....	19
4.8   Sécurité pour les prises et actions de préhension.....	19
<b>Annexe A (normative) Fiches techniques pour la présentation des caractéristiques des préhenseurs</b> .....	21
<b>Index alphabétique</b> .....	31

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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 14539 was prepared by Technical Committee ISO/TC 184, *Industrial automation systems and integration*, Subcommittee SC 2, *Robots for manufacturing environment*.

Annex A of this International Standard is for information only.

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**ISO 14539:2000(E/F)****Avant-propos**

L'ISO (Organisation internationale de normalisation) est une fédération mondiale d'organismes nationaux de normalisation (comités membres de l'ISO). L'élaboration des Normes internationales est en général confiée aux comités techniques de l'ISO. Chaque comité membre intéressé par une étude a le droit de faire partie du comité technique créé à cet effet. Les organisations internationales, gouvernementales et non gouvernementales, en liaison avec l'ISO, participent également aux travaux. L'ISO collabore étroitement avec la Commission électrotechnique internationale (CEI) en ce qui concerne la normalisation électrotechnique.

Les Normes internationales sont rédigées conformément aux règles données dans les Directives ISO/CEI, Partie 3.

Les projets de Normes internationales adoptés par les comités techniques sont soumis aux comités membres pour vote. Leur publication comme Normes internationales requiert l'approbation de 75 % au moins des comités membres votants.

L'attention est appelée sur le fait que certains des éléments de la présente Norme internationale peuvent faire l'objet de droits de propriété intellectuelle ou de droits analogues. L'ISO ne saurait être tenue pour responsable de ne pas avoir identifié de tels droits de propriété et averti de leur existence.

La Norme internationale ISO 14539 a été élaborée par le comité technique ISO/TC 184, *Systèmes d'automatisation industrielle et intégration*, sous-comité SC 2, *Robots pour environnement de fabrication*.

L'annexe A de la présente Norme internationale est donnée uniquement à titre d'information.

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## Introduction

ISO 14539 is one of a series of standards dealing with the requirements of manipulating industrial robots. Other documents cover such topics as terminology, general characteristics, coordinate systems, performance criteria and related test methods, safety, mechanical interfaces and graphical user interfaces for programming. It is noted that these standards are interrelated and also related to other International Standards.

Object handling with manipulating industrial robots is steadily diversifying as robots proliferate in automated manufacturing. This standard provides the vocabulary for understanding and planning of object handling and presentation of characteristics of grasp-type grippers.

Successful object handling is achieved with the cooperation of both robots and end effectors. In some cases robot arms/wrists play major roles in positioning objects. In some other cases, however, end effectors with adaptively controlled fingers can perform flexible object handling.

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