STN	Stomatológia Násadce na pieskovanie práškami a prášky (ISO 20608: 2018)	STN EN ISO 20608
		85 6387

Dentistry - Powder jet handpieces and powders (ISO 20608:2018)

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 10/18

Obsahuje: EN ISO 20608:2018, ISO 20608:2018

### **EUROPEAN STANDARD**

#### **EN ISO 20608**

# NORME EUROPÉENNE

### **EUROPÄISCHE NORM**

May 2018

ICS 11.060.20

#### **English Version**

# Dentistry - Powder jet handpieces and powders (ISO 20608:2018)

Médecine bucco-dentaire - Poudres et pièces à main de pulvérisation (ISO 20608:2018)

Zahnheilkunde - Pulverstrahl-Handstücke und Pulver (ISO 20608:2018)

This European Standard was approved by CEN on 22 March 2018.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

#### EN ISO 20608:2018 (E)

Contents	Page
European foreword	3

EN ISO 20608:2018 (E)

#### **European foreword**

This document (EN ISO 20608:2018) has been prepared by Technical Committee ISO/TC 106 "Dentistry" in collaboration with Technical Committee CEN/TC 55 "Dentistry" the secretariat of which is held by DIN.

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 November 2018, and conflicting national standards shall be withdrawn at the latest by November 2018.

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

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

#### **Endorsement notice**

The text of ISO 20608:2018 has been approved by CEN as EN ISO 20608:2018 without any modification.

# INTERNATIONAL STANDARD

ISO 20608

First edition 2018-04

# Dentistry — Powder jet handpieces and powders

Médecine bucco-dentaire — Poudres et pièces à main de pulvérisation



#### STN EN ISO 20608: 2018

ISO 20608:2018(E)



#### **COPYRIGHT PROTECTED DOCUMENT**

© ISO 2018

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office CP 401 • Ch. de Blandonnet 8 CH-1214 Vernier, Geneva Phone: +41 22 749 01 11 Fax: +41 22 749 09 47 Email: copyright@iso.org Website: www.iso.org

Published in Switzerland

Contents			Page	
Fore	word		v	
Intr	oductio	n	vi	
1	Scon	e	1	
2	-	native references		
3		ns and definitions		
4	Class	sification of handpieces	3	
5	_	uirements		
	5.1	Powder for powder jet handpieces		
		5.1.1 General		
	5.2	5.1.2 Biocompatibility Powder jet handpieces		
	3.2	5.2.1 General		
		5.2.2 Biocompatibility of materials		
		5.2.3 Drop test		
		5.2.4 Noise level		
		5.2.5 Surfaces		
		5.2.6 Nozzle rotation		
	5.3	Air and water supply		
		5.3.1 Drive air		
	5.4	5.3.2 Spray water Excessive air and water pressure		
	5.5	Temperature		
	0.0	5.5.1 Maximum temperature during normal use		
		5.5.2 Applied parts not intended to supply heat to a patient	5	
	5.6	Vibrations	5	
	5.7	Resistance to reprocessing		
	5.8	Leakage and/or ingress of water		
	5.9	Operating controls		
	5.10 5.11	Usability Connection		
	3.11	5.11.1 General		
		5.11.2 Connections		
	5.12	Backflow preventer		
	5.13	Electrical safety	6	
	5.14	Test report	7	
6	Samj	pling	7	
7	Meas	Measurement and test methods		
•	7.1	General test conditions		
7.2 7.3	7.2	Visual inspection		
	7.2.1 Visual inspection of equipment			
	= 0	7.2.2 Visual inspection of documentation or test reports		
	7.3	Drive air		
		7.3.1 Apparatus		
	7.4	7.3.2 Procedure Spray water		
	7.7	7.4.1 Apparatus		
		7.4.2 Procedure		
	7.5	Air and water pressure		
		7.5.1 Apparatus		
		7.5.2 Procedure		
	7.6	Connection	8 8	
		COL BUILDING	×	

		7.6.2 Procedure	8
	7.7	Noise level	8
		7.7.1 Apparatus 7.7.2 Test chamber	8
		7.7.2 Test chamber	8
		7.7.3 Procedure	8
	7.8	Maximum temperature during normal use	<u></u>
	7.9	Applied parts not intended to supply heat to a patient	<u>9</u>
	7.10	Resistance to reprocessing	<u></u>
	7.11	Resistance to reprocessing Backflow preventer	<u>C</u>
B	Instr		
	8.1	Powder jet handpieces	1(
	8.2	Powder	13
9	Techi	nical description	11
	9.1	Powder jet handpiece	11
	9.2	Powder	11
10	Mark	king and labelling	11
	10.1		
	10.2	Powder jet handpieces	12
	10.3	Powders	
11	Pack	aging	12
Anne	<b>x A</b> (inf	formative) Example of a test report	13

#### **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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see <a href="https://www.iso.org/directives">www.iso.org/directives</a>).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see <a href="https://www.iso.org/patents">www.iso.org/patents</a>).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: <a href="https://www.iso.org/iso/foreword.html">www.iso.org/iso/foreword.html</a>.

This document was prepared by Technical Committee ISO/TC 106, *Dentistry*, Subcommittee SC 4, *Dental instruments*.

#### Introduction

Powder jet handpieces have been used in applications and procedures in the field of dentistry for many years.

Technological developments continuously create better powder jet handpieces that are easier to handle, as well as the associated powders in use, for example for teeth cleaning. The correct combination of these elements is very important in order to achieve a good clinical performance

### **Dentistry** — **Powder jet handpieces and powders**

#### 1 Scope

This document specifies the general requirements, test methods, manufacturer's information, marking and packaging, independently of the design of the powder jet handpieces (see Figure 1).

This document applies to powder jet handpieces and their associated powders for use in the field of dentistry. They are used on patients to remove dental debris, discolourations and plaque and to clean and polish teeth where abrasion is a side effect.

It is also applicable to powder jet handpieces and their associated powders that are used in dentistry for air driven abrasion, e.g. minimally invasive cavity preparation, preparation of surfaces for adhesives and for the removal of cement residues where abrasion is part of the desired outcome.

This document is not applicable for the dental units that are employed to supply the powder jet handpieces.

This document is not applicable to dental prophylaxis handpieces (contra angles), or electrically driven plaque removers (scalers) or multifunctional handpieces (syringes).

#### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 1942, Dentistry — Vocabulary

ISO 5349-1, Mechanical vibration — Measurement and evaluation of human exposure to hand-transmitted vibration — Part 1: General requirements

ISO 5349-2, Mechanical vibration — Measurement and evaluation of human exposure to hand-transmitted vibration — Part 2: Practical guidance for measurement at the workplace

ISO 7494-1, Dentistry — Dental units — Part 1: General requirements and test methods

ISO 9168, Dentistry — Hose connectors for air driven dental handpieces

ISO 9687, Dentistry — Graphical symbols for dental equipment

ISO 10993-1, Biological evaluation of medical devices — Part 1: Evaluation and testing within a risk management process

ISO 11014, Safety data sheet for chemical products — Content and order of sections

ISO 14971, Medical devices — Application of risk management to medical devices

ISO 15223-1, Medical devices — Symbols to be used with medical device labels, labelling and information to be supplied — Part 1: General requirements

ISO 17664, Processing of health care products — Information to be provided by the medical device manufacturer for the processing of medical devices

ISO 21531, Dentistry — Graphical symbols for dental instruments

IEC 60601-1:2005+AMD1: 2012, Medical electrical equipment — Part 1: General requirements for basic safety and essential performance

IEC 61672-1, Electroacoustics — Sound level meters — Part 1: Specifications

IEC 62366-1, Medical devices — Part 1: Application of usability engineering to medical devices

IEC 80601-2-60:2012, Medical electrical equipment — Part 2-60: Particular requirements for basic safety and essential performance of dental equipment

## koniec náhľadu – text ďalej pokračuje v platenej verzii STN