

DIN EN ISO 14457:2013-04 (E)

Dentistry - Handpieces and motors (ISO 14457:2012)

Contents		Page
Foreword		4
Introduction		5
1 Scope		6
2 Normative references		6
3 Terms and definitions		7
4 Classification of handpieces		9
5 Requirements and performance		9
5.1 General		9
5.2 Materials		9
5.3 Drop test		9
5.4 Noise level		9
5.5 Surfaces		9
5.6 Power supply		10
5.7 Air and water pressure		11
5.8 Temperature		11
5.9 Vibrations		11
5.10 Resistance to reprocessing		11
5.11 Leakage and/or ingress of water		11
5.12 Electromagnetic compatibility		11
5.13 Operating controls		11
5.14 Usability		12
5.15 Connection and supply		12
5.16 Chuck system for shanks		14
5.17 Test mandrel		14
5.18 Speed		16
5.19 Eccentricity		16
5.20 Torque		16
5.21 Dimensions of head and nose		16
6 Sampling		17
7 Testing		17
7.1 General test conditions		17
7.2 Visual inspection		18
7.3 Power supply — Electrical		18
7.4 Power supply — Air		18
7.5 Spray air supply		18
7.6 Spray water supply		18
7.7 Air and water pressure		19
7.8 Motor cooling air		19
7.9 Connector for handpiece attachment and for air-powered handpiece		19
7.10 Connection and supply		19
7.11 Test mandrels		19
7.12 Chuck for shanks		20
7.13 Dimensions (of head and nose)		20
7.14 Eccentricity		21
7.15 Torque		21
7.16 Noise level		21
7.17 Speed		22
7.18 Temperature rise of housing		22
7.19 Temperature, excessive		22
7.20 Resistance to reprocessing		22

8	Instructions for use, maintenance and service	22
9	Technical description	23
10	Marking	23
10.1	General	23
10.2	Handpieces	23
10.3	Motors	23
11	Labelling	23
12	Packaging	23
	Annex A (informative) Handpiece categories	25
	Bibliography	27