

# ISO 7494-2:2022-07 (E)

## Dentistry - Stationary dental units and dental patient chairs - Part 2: Air, water, suction and wastewater systems

---

<b>Contents</b>		<b>Page</b>
Foreword .....		v
<b>1</b>	<b>Scope .....</b>	<b>1</b>
<b>2</b>	<b>Normative references .....</b>	<b>1</b>
<b>3</b>	<b>Terms and definitions .....</b>	<b>2</b>
<b>4</b>	<b>Classification .....</b>	<b>4</b>
4.1	Classification of suction systems .....	4
4.2	Classification of suction air flow rate .....	4
<b>5</b>	<b>Requirements .....</b>	<b>4</b>
5.1	Connections from the stationary dental unit to dental handpieces .....	4
5.1.1	General .....	4
5.1.2	Powered scaler .....	4
5.1.3	Multifunction handpiece .....	5
5.1.4	Handpiece and motor .....	5
5.1.5	Powder jet handpiece .....	5
5.1.6	Simultaneous use of more than one dental handpiece .....	6
5.2	Supply connections to the stationary dental unit .....	6
5.3	Water and wastewater systems .....	8
5.3.1	General .....	8
5.3.2	Incoming water .....	8
5.3.3	Materials used for construction of procedural water systems within the stationary dental unit .....	8
5.3.4	Backflow prevention device for stationary dental units connected to the external drinking water supply .....	9
5.3.5	Cuspidors .....	9
5.3.6	Water venturi .....	9
5.3.7	Particle filter .....	9
5.3.8	Bacterial filter .....	9
5.3.9	Bottled water system supplying procedural water or solution .....	9
5.3.10	Retraction .....	9
5.3.11	Treatment method for biofilm .....	10
5.3.12	Water sampling connection point .....	10
5.3.13	Wastewater drain connection .....	11
5.4	Air system .....	11
5.4.1	General .....	11
5.4.2	Incoming dental air .....	11
5.4.3	Particle filters .....	11
5.4.4	Bacterial filters .....	11
5.5	Stationary dental unit suction systems .....	12
5.5.1	General .....	12
5.5.2	Maximum suction pressure .....	12
5.5.3	Suction pressure head loss .....	12
5.5.4	Configuration of cannula connectors and cannula .....	12
5.5.5	Operating hoses with cannula connectors .....	14
5.5.6	Solids filter .....	14
5.5.7	Air separator .....	14
5.5.8	Stationary dental unit suction source connection point .....	14

5.6	Test report .....	14
6	Sampling .....	14
7	Measurement and test methods .....	14
7.1	Visual inspection .....	14
7.1.1	Visual inspection of device .....	14
7.1.2	Visual inspection of documentation or test reports .....	14
7.2	Dental handpiece connection test .....	15
7.2.1	Apparatus .....	15
7.2.2	Procedure .....	15
7.3	Systems directly connected to external drinking water supply test .....	17
7.4	Cuspidor test .....	17
7.5	Particle filter test .....	17
7.6	Retraction test .....	17
7.7	Stationary dental unit suction systems test .....	18
7.7.1	General .....	18
7.7.2	Static suction pressure test .....	18
7.7.3	Suction pressure head loss test .....	19
7.8	Treatment method for the prevention or inhibition of biofilm formation .....	20
7.9	Treatment method for biofilm removal .....	20
8	Instructions for use .....	20
9	Technical description .....	21
Annex A (informative)	Example of schematic diagram of components and connections in a stationary dental unit .....	23
Annex B (informative)	Dental handpiece connection test jig .....	25
Annex C (informative)	Test sequence .....	26
Bibliography	.....	31