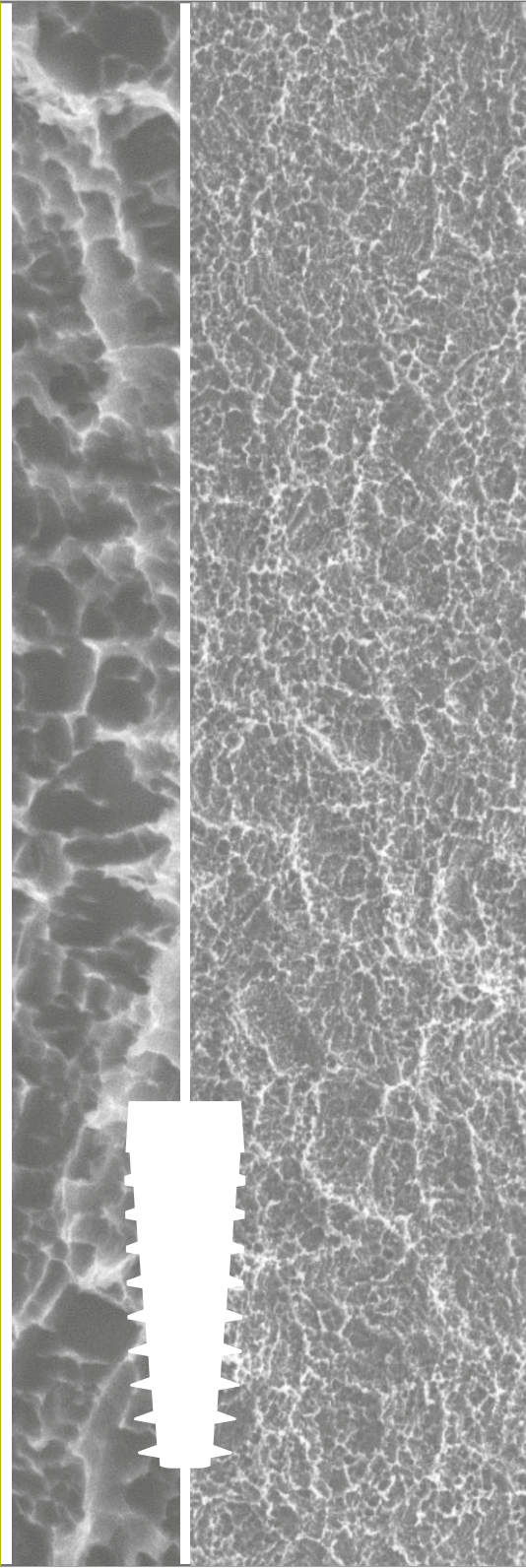




Dental Implant

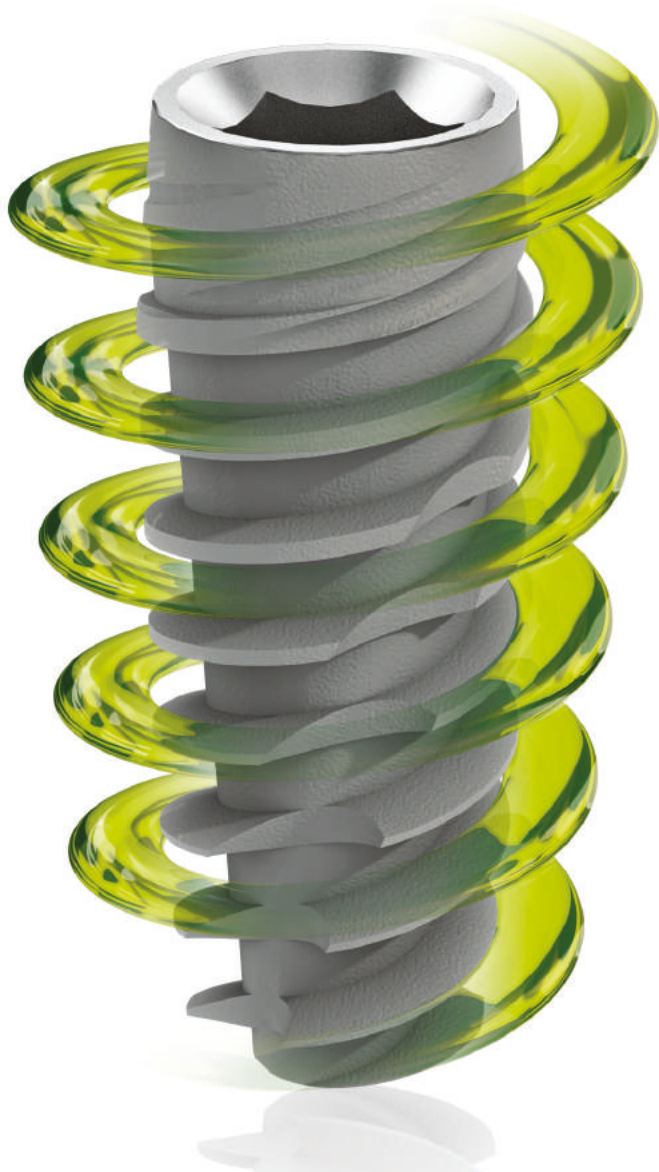
JDEVOLUTION[®] S.L.A.

JDEvolution[®] implant with Sand-blasted Large grit Acid-etched surface.



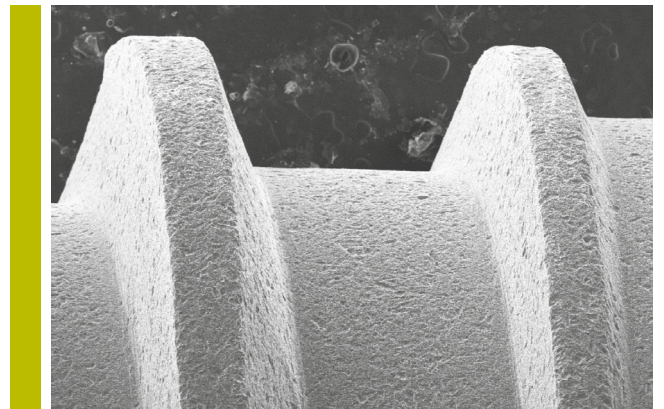
JD EVOLUTION[®] S.L.A.

THE STATE OF THE ART FOR IMPLANT SURFACE



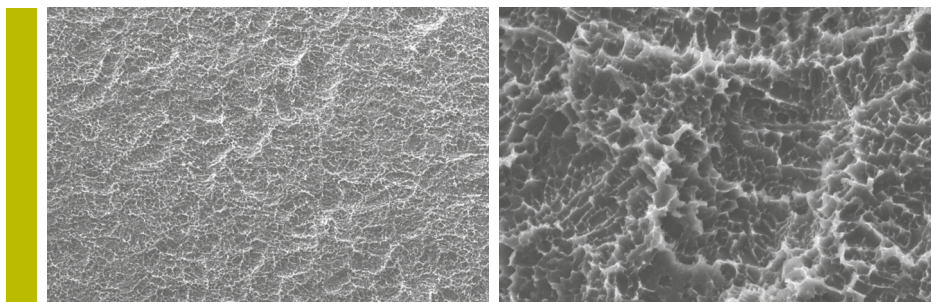
The S.L.A. surface is produced using a large-grit sandblasting technique which gives the titanium surface a macro roughness. An acid-etching procedure produces a superimposed micro roughness.

In-vitro studies show increased cell activities^{1,2} favoring a greater bone-implant contact at a shorter time. Results from these experimental studies reinforce the concept. Removal torque experiments and histologic analyses from in-vivo studies further confirm the fast osseointegration of the implants with the S.L.A. surface³.



JDEvolution® implant with Sand-blasted Large grit Acid-etched surface.

Quantitative evaluation of surface roughness of JDEvolution® implants has been conducted, providing values for all the parameters defined in the standard. These data are reported in the table below, together with measurements performed on the S.L.A. reference sample and data obtained from the literature (data are expressed in micrometers, as the mean and standard deviation).



SEM pictures a treated JDEvolution® implant with S.L.A. surface. The macro and the micro roughnesses are identifiable.

PARAMETER	S.L.A. JDEVOLUTION our measurements	S.L.A. STRAUMANN our measurements	S.L.A. STRAUMANN literature ⁴	S.L.A. STRAUMANN literature ⁵
Ra	1.37 ± 0.14	1.52 ± 0.19	1.53 ± 0.11	1.19 ± 0.04
Rq	1.58 ± 0.32	1.90 ± 0.41	nr	nr
Rz	9.32 ± 0.54	10.54 ± 0.44	9.19 ± 0.47	10.53 ± 0.72
Rp	5.10 ± 0.42	6.40 ± 0.65	nr	nr
Rv	4.22 ± 0.78	4.13 ± 0.43	nr	nr
Rc	5.41 ± 0.43	5.63 ± 0.67	nr	nr

Data from the previous table show good agreement between present data obtained on JDEvolution® implant surface and the measured S.L.A. Straumann sample; and good agreement between ours and literature data.

**DATA CONFIRMED THAT
JDENTALCARE S.L.A. SURFACE
IS PERFECTLY IN AGREEMENT
WITH THE STANDARD ONE
REPORTED IN THE LITERATURE**

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3. Buser D, Schenk RK, Steinemann S, Fiorellini JP, Fox CH, Stich H. Influence of surface characteristics on bone integration of titanium implants: A histometric study in miniature pigs. *J Biomed Mater Res.* 1991;25:889-902.
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