

DENTAL IMPLANT SYSTEM Timplant®

■Development

Implant system Timplant® was developed in collaboration of II. dental clinic in Brno, company "B&B dent s.r.o." from Frýdek-Místek and company The Iron And Steel Research Institute in Dobrá". It was put on the market in 1994. Development of one-phase and two-phase cylindrical dental implants, accessories and application tools and their pre-clinical tests at the dental surgery of "B&B dent s.r.o." were incorporated into the IGA grant research. After implementation of several hundreds of implants at "B&B dent s.r.o." there was achieved a success rate of 94 % at application of the implant system Timplant® after realisation of dental plate. Development, production and servicing of the implant system Timplant® has been performed in accordance with well-established quality control system and many international, Czech and company standards.

■Certificates

On the basis of external audits, which checked and verified development, production and servicing of the implant system Timplant®, the company Timplant® was granted certificates for established, documented and implemented quality control system satisfying requirements of the standards ČSN EN ISO 9002:1995 and ČSN EN 46002:1998 with effect for manufacturing and servicing of the dental implant system Timplant®.

■Mark of conformity and declaration of conformity

Electrical testing institute (AO201) decided that the quality control system applied for the implant system Timplant® for design, manufacturing and final output inspection of

sanitary equipment complies with provisions of the Attachment II to the paragraph 3 of the Government decree No. 180/1998 Coll. in the wording of the Government decree No. 130/1999 Coll. The Timplant® products can be marked with Czech mark of conformity and it is possible to issue declarations of conformity for them.

■Measures of approval

The implant system Timplant® was approved by the Ministry of Health of Czech Republic and Slovak Republic, as well as by the State Institutes for Inspection of Pharmaceuticals in Czech and Slovak Republics.

■Utility samples and trademark

The Industrial Property Office has issued to the company Timplant® a certificate confirming registration of utility samples for the sphere of dental implants, as well as certificate confirming registration of the trademark Timplant®.

■Training


Training courses about application of implants demonstrate complete procedure of implementation of implants on patients. Participant of the courses receive after their termination certificates about passing of these courses, including practical training.

■Video

An integrated instructive explanation of the implant system Timplant® is contained in commented video, which describes in detail function and purpose of use of individual tools. The procedure of implant application is simulated on the phantom and concluding part demonstrates method of implantation of a two-phase implant. Realisation of dental plate is described in detail. Video is accompanied by commentary.

DENTAL IMPLANTS

ONE-PHASE

	DIRECT HOLLOW HELICAL		
	Typ	H (mm)	L (mm)
	A 21	14,0	22,0
	A 22	12,0	20,0
	A 23	10,0	18,0
	A 24	8,0	16,0

One-phase and two-phase cylindrical dental implants are designed for replacement of stubs when replacing individual teeth, for one-side or both-sides shortened dental arc, for completion of pillars for a long fixing bridgework, for partially or totally removable dentures.

The implants are manufactured from imported pure titanium, which according to long-term clinical tests and in conformity with international standards is a material designed for production of implants. The tests of biological tolerance have confirmed that titanium does not demonstrate cytotoxicity or mutagenic potential on the level of chromosomes of human cells.


Intra-osseal parts of implants are chemically treated by etching or by sand blasting in order to ensure an optimal retention time for this type of implants. The remaining part is polished. Diameter of intra-osseal part is 3.5 mm, with thread of 4 mm, in lengths of 8, 10 and 12 mm, and in overall lengths of two-phase implants 10.5, 12.5 and 14.5 mm. It is possible to supply upon special order also the implants with diameter of 3.1 mm.


The expandable dental implant AUTOFIX is supplied with length of intra-osseal 10 and 13.5 mm (overall length 12.5 and 16 mm). Method of application of AUTOFIX is identical with application of classical implant into the bone with prepared thread and it is expanded manually by turning of the implant's screw. Design of the AUTOFIX implants enables stronger and longer lasting fixation in the bone in comparison with normal screw implant. It is presumed that it is possible to load the AUTOFIX with solid reconstruction sooner in such cases, where there is available a bone of sufficient quality and quantity. The post-extraction AUTOFIX E can be applied into the extraction cut particularly in the frontal part.


The implant is fixed in a glass packing by special holder and it is supplied together with a plug screw or protective cap.


Cover page shows a photo of partially expanded post - extraction implant AUTOFIX E with skewed pillar superstructure P55.


TWO-PHASE

	DIRECT HOLLOW HELICAL		
	Typ	H (mm)	L (mm)
	B 21	12,0	14,5
	B 22	10,0	12,5
	B 23	8,0	10,5

	DIRECT MASSIVE HELICAL		
	Typ	H (mm)	L (mm)
	B 41	12,0	14,5
	B 42	10,0	12,5
	B 43	8,0	10,5

	SKEWED HOLLOW SMOOTH		
	Typ	H (mm)	L (mm)
	B 51	12,0	15,0
	B 52	10,0	13,0
	B 53	8,0	11,0


	AUTOFIX		
	Typ	H (mm)	L (mm)
	B 82	10,0	12,5


	AUTOFIX E		
	Typ	H (mm)	L (mm)
	B 85	13,5	16,0

ACCESSORIES

The accessories serve for closing of implants during period of healing (plug screws and healing screws, protective caps), for other alternate use of different sizes of pillar superstructures - supragingival constructions, impression and prothetic laboratory work. The accessories, which are in permanent contact with the implant, are made of pure titanium. Laboratory items are made of non-ferrous metals or high-molecular burnable polymers.


PILLAR SUPERSTRUCTURES


	SKEWED LOW PILLAR SUPERSTRUCTURE	
	Typ	P (mm)
	P 50	3,6

	SKEWED SMOOTH PILLAR SUPERSTRUCTURE	
	Typ	P (mm)
	P 51	4,6

	SMALL SKEWED PILLAR SUPERSTRUCTURE	
	Typ	P (mm)
	P 52	4,6


	BIG SKEWED PILLAR SUPERSTRUCTURE	
	Typ	P (mm)
	P 53	5,6

	SPHERICAL ATTACHMENT	
	Typ	P (mm)
	P 54	3,5


	SKEWED PILLAR SUPERSTRUCTURE 10°	
	Typ	P (mm)
	P 55	5,0


SCREWS


	PROTECTIVE CAP	
	Typ	S(mm)
	P 01	1,0

	FIXING SCREW	
	Typ	S (mm)
	P 03	1,0


	PLUG SCREW	
	Typ	S (mm)
	P 05	1,0


	HEALING SCREW	
	Typ	S (mm)
	P 06	2,0
	P 07	3,0
P 08	4,0	


	MODELLING CAP	
	Typ	V (mm)
	P 82	6,0

	MODELLING CAP	
	Typ	V (mm)
	P 83	7,0


AUXILIARY ELEMENTS


	PROTHETIC IMPLANT	
	Typ	V(mm)
	P 71	20,0

	IMPRESSION CAP	
	Typ	V (mm)
	P 72	6,5

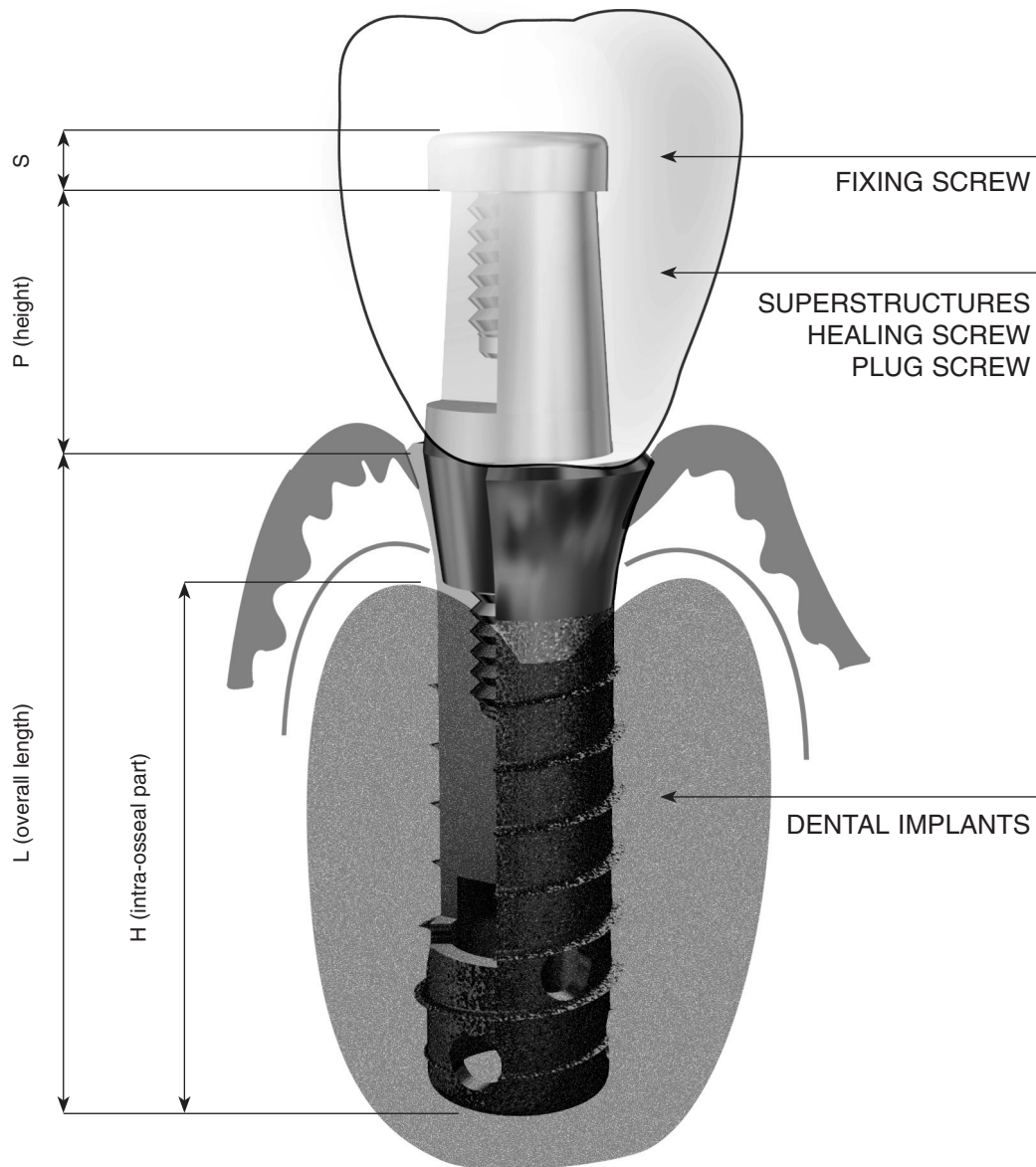
	IMPRESSION CAP	
	Typ	V (mm)
	P 73	8,5

	SPHERICAL ATTACHMENT MATRIX	
	Typ	V (mm)
	P 74	4,5

	FORMING STUD	
	Typ	V (mm)
	P 75	12,5


	STRUCTURE FOR YOKE	
	Typ	V (mm)
	P 76	2,5


MARKING OF IMPLANTS' DIMENSIONS AND ACCESSORIES





SET OF TOOLS


The application tools Timplant® can be characterised according to their function as preparation, application and cleaning tools. They serve for preparation of tissue, application of full assortment of dental implants and superstructures Timplant®, as well as for cleaning of other tools. They are made of stainless surgery steel and they are supplied in a complete implantation set in metallic case, which is designed for sterilisation in steam or hot-air steriliser. Alternate special surface treatment of preparation tools guarantees multiple prolongation of service life of their the most exposed parts. Time of utilisation of tools is not limited.


	SPHERICAL DRILL		
	Typ	D (mm)	V (mm)
	N 101	1,8	32,0


	FACE - MILLING CUTTER		
	Typ	D (mm)	V (mm)
	N 141	3,5	25,0
	N 142	3,5	32,5
	N 143	3,5	40,0

	GINGIVAL ROUND TREPANATION TOOL		
	Typ	D (mm)	V (mm)
	N 111	3,0	31,5
	N 112	5,3	31,5

	MANUAL SCREW CUTTER		
	Typ	D (mm)	V (mm)
	N 151	4,0	29,5
	N 152	4,0	39,5

	PILOT DRILL		
	Typ	D (mm)	V (mm)
	N 121	2,0	32,0
			28,0

	CALIBRATION GAUGE		
	Typ	D (mm)	V (mm)
	N 161	3,3	26,0

	PREPARATION DRILL		
	Typ	D (mm)	V (mm)
	N 131	3,4	26,0
	N 133	3,4	32,0
	N 134	3,4	40,0
N 135	3,4	36,0	

SET OF TOOLS


- Preparation tools** - stainless (surgery) nickel-free steel:
- gingival round trepanation tool - preparation of mucous membrane
 - spherical drill - marking of aperture in the bone
 - pilot drill - pre-drilling of aperture in the bone
 - preparation drills - bone preparation
 - face milling cutters- final preparation for hollow and massive implant
 - manual screw taps - cutting of threads in preparation cut for screw implants
 - sinking milling cutter - sinking of implants


The preparation tools are marked on their working parts with marks, which enable creation of precise depth of cavity in the prepared bone in accordance with the applied type and length of implant. Preparation


for hollow implants can be eased by use of shortened drills, which are not included in the basic set of tools.


- Application tools** - made of stainless steel:
- spanner and ratchet for application of dental implants
 - adapters and holder of adapters
 - spanner for implants
 - cap screw holder
 - manipulation tweezers
 - stabiliser and screw-driver - for the implants AUTOFIX


Cleaning tools - needle and brush for cleaning of the tools' cavities
 The identification template, which gives the implant's dimension in the scale 1:1 and 1:1.27 serves for determination of dimensions and type of implant. It is supplied as integral part of application tools.


	ADAPTERS HOLDER	
	Typ	V (mm)
	N 511	20,5


	RATCHET	
	Typ	V (mm)
	N 551	77,5

	FLAT ADAPTER	
	Typ	V (mm)
	N 521	4,0


	OPEN - END SPANNER	
	Typ	V (mm)
	N 561	75,0


	CROSS ADAPTER	
	Typ	V (mm)
	N 541	4,0


	SPANNER FOR IMPLANTS	
	Typ	V (mm)
	N 571	18,5
		22,5
		26,5


	SPANNER FOR ATTACHMENT	
	Typ	V (mm)
	N 581	13,0


TOOLS


	PLUG SCREW HOLDER	
	Typ	V (mm)
	N 591	23,0


	MANIPULATION TWEEZERS	
	Typ	V (mm)
	N 641	135,0


	CLEANING NEEDLE	
	Typ	V (mm)
	N 601	45,0

	SINKING MILLING CUTTER	
	Typ	V (mm)
	N 651	28,5

	BRUSH	
	Typ	V (mm)
	N 611	75,0

	SCREW DRIVER FOR AUTOFIX	
	Typ	V (mm)
	N 661	22,0

	BOX	
	Typ	V (mm)
	N 631	150

	STABILISER FOR AUTOFIX	
	Typ	V (mm)
	N 662	4,6

PROCEDURE OF APPLICATIONS OF THE TIMPLANT® IMPLANTS

