

# SURGICAL MANUAL



IMPLANTATION OF DR  
IMPLANTS WITH **ONE-PHASE**  
SURGICAL PROCEDURE

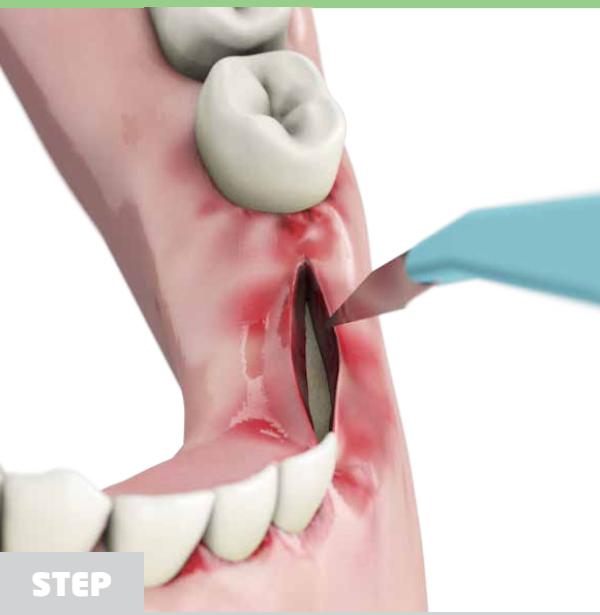




## IMPLANTATION OF DR IMPLANTS WITH ONE-PHASE SURGICAL PROCEDURE

### STEP

#### 1.a EXPLORATION



According to the planned location of the implant we usually explore the surface of the mental spine from the incision lead along the spinal line.

### STEP

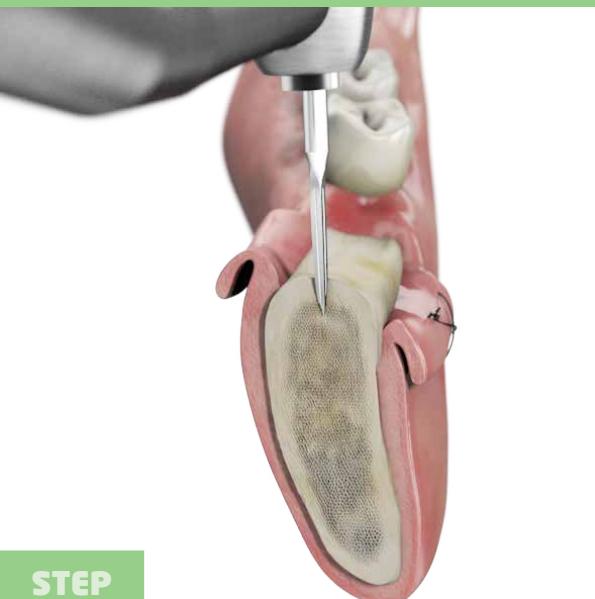
#### 1.b EXPLORATION



We underprepare the mucoperiosteum to the sides so that the wound edges can be held apart without any tension. The bone surface becomes visible and then we review it.

**STEP**

## 2. MARKING

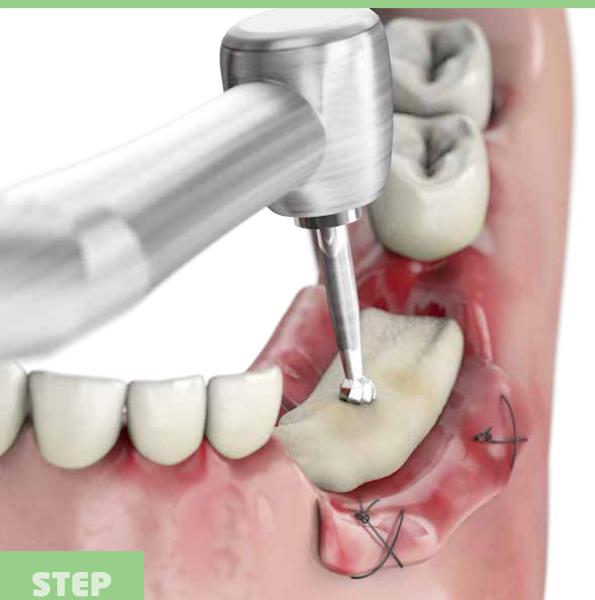


In case of a thin mental spine we mark the future location of the implant(s) with a spotting drill.

REFERENCE NO.	Ø(MM)	CUTTING DEPTH (MM)	MAX. U/MIN
8000-067	Pontozó fúró	1,50	12,0

**STEP**

## 3. SPHERICAL FRASER

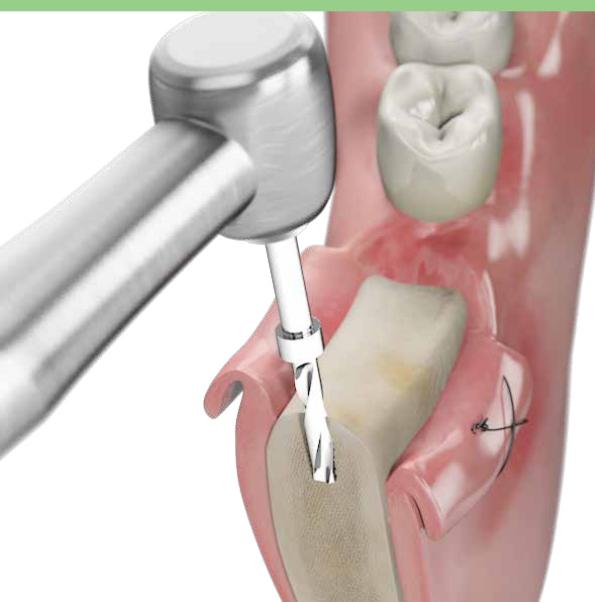


After that (in accordance with the previous marking) we form an approximately 2 mm deep plate-shaped hole on the bone surface with a spherical fraser. This is called the preparation of the bone nest. The recommended speed of the fraser is 1500-2000 U/minute. Accordingly with the planned location of the implant we smooth the possible uneven areas on the mental spine.

REFERENCE NO.	Ø(MM)	MAX. U/MIN
8000-066	spherical fraser	2,70

**STEP**

## 4.a PRELIMINARY DRILLING



In case of implantation of DR implants with one-phase surgical procedure we have to pay attention to the fact that the size noted on the implant package refers to the total length of the passivized body of the implant. So if we want to perform the implantation of DR implants with one-phase procedure, in case of choosing the body-length of the implant we have to think over that the neck of it is 2 mm high. Due to this fact, we have to deduct this 2 mm from the length noted on the package to get the implantation depth of the threaded body of the implant. During drilling the leading canal special attention should be paid on parallelism of the boreholes.

**STEP**

## 4.b PRELIMINARY DRILLING

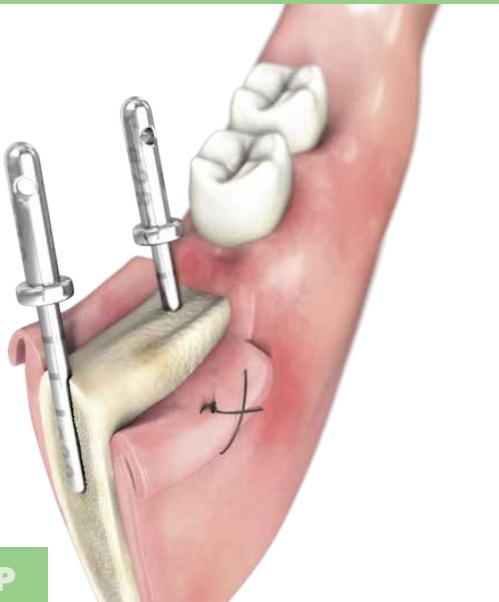


Drill with the pilot drill with stop into the direction and depth defined before treatment.

REFERENCE NO.		Ø(MM)	CUTTING DEPTH (MM)	MAX. U/MIN
8010-095	Pilot drill with stop	2,0	9,5	800-1200
8010-115	Pilot drill with stop	2,0	11,5	800-1200
8010-135	Pilot drill with stop	2,0	13,5	800-1200
8010-155	Pilot drill with stop	2,0	15,5	800-1200

**STEP**

## 5. PARALLELISM-CHECKING

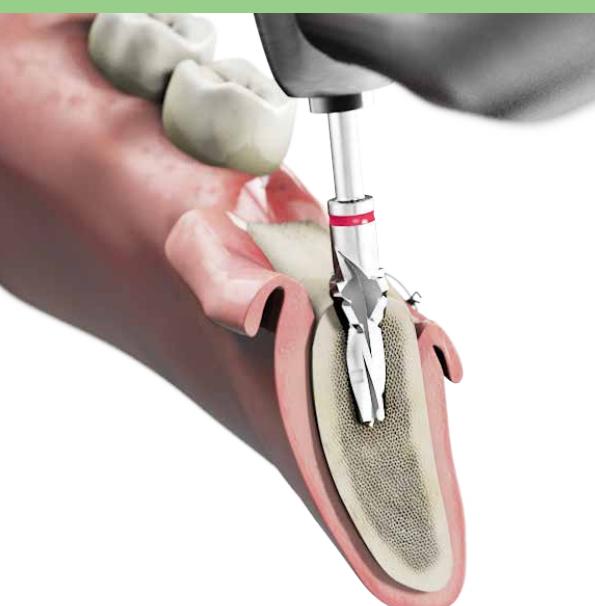


If we push the parallelism-checking probe (8000-058) into the borehole we get good visualization of the direction of the previous bore(s). This way it will help us to form the next borehole, preferably parallel. After that we rinse the borehole with physiological saline solution.

REFERENCE NO.	Ø(MM)
8000-058	1,8

**STEP**

## 6. FORMATION OF THE IMPLANT BED



We are able to perform the expansion of the preliminary borehole to core-size and sinking of the neck in one step by using a „two-in-one” drill. We have to take care of the fact that only with a drill size that fits the implant can we form a nest that completely fits.

The size of the parallel edges of the drills is identical with the body size of the implants. So if we push the two-in-one drill into the bone just until we reach the broadened neck, we can form an expansion bore that completely fits the size of the implant body.

## 6. FORMATION OF THE IMPLANT BED



REFERENCE NO.		Ø(MM)	CUTTING DEPTH (MM)	MAX. U/MIN
R 8033-115	Two-in-one drill	3,3	11,5	800-1200
R 8033-135	Two-in-one drill	3,3	13,5	800-1200
R 8033-155	Two-in-one drill	3,3	15,5	800-1200



REFERENCE NO.		Ø(MM)	CUTTING DEPTH (MM)	MAX. U/MIN
R 8038-095	Two-in-one drill	3,8	9,5	800-1200
R 8038-115	Two-in-one drill	3,8	11,5	800-1200
R 8038-135	Two-in-one drill	3,8	13,5	800-1200
R 8038-155	Two-in-one drill	3,8	15,5	800-1200



REFERENCE NO.		Ø(MM)	CUTTING DEPTH (MM)	MAX. U/MIN
R 8043-095	Two-in-one drill	4,3	9,5	800-1200
R 8043-115	Two-in-one drill	4,3	11,5	800-1200
R 8043-135	Two-in-one drill	4,3	13,5	800-1200
R 8043-155	Two-in-one drill	4,3	15,5	800-1200

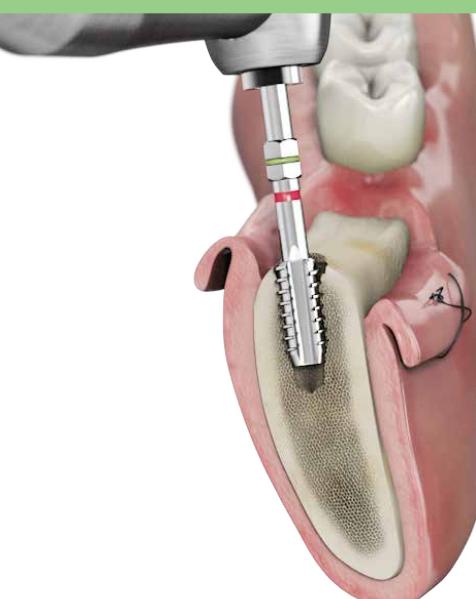


REFERENCE NO.		Ø(MM)	CUTTING DEPTH (MM)	MAX. U/MIN
R 8048-095	Two-in-one drill	4,8	9,5	800-1200
R 8048-115	Two-in-one drill	4,8	11,5	800-1200
R 8048-135	Two-in-one drill	4,8	13,5	800-1200
R 8048-155	Two-in-one drill	4,8	15,5	800-1200



REFERENCE NO.		Ø(MM)	CUTTING DEPTH (MM)	MAX. U/MIN
R 8053-095	Two-in-one drill	5,3	9,5	800-1200
R 8053-115	Two-in-one drill	5,3	11,5	800-1200
R 8053-135	Two-in-one drill	5,3	13,5	800-1200
R 8053-155	Two-in-one drill	5,3	15,5	800-1200

## 7. THREADING



In case of a thick lower jawbone with hard -D1 quality- cortex before screwing the implant in we perform threading with the proper-sized threading drill. The threading is performed with low speed (under 20U/minute) with a surgical drill.

**STEP**

## 7. THREADING



REFERENCE NO.	Ø(MM)	MAX. U/MIN
8033-030	3,3	20
8038-030	3,8	20
8043-030	4,3	20
8048-030	4,8	20
8053-030	5,3	20

**STEP**

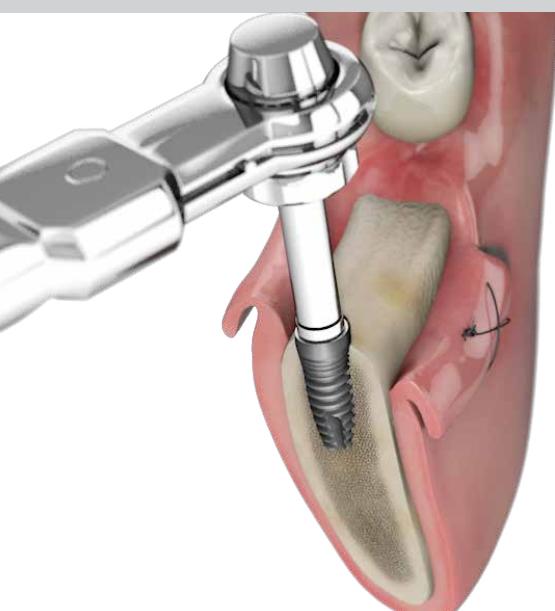
## 8.a MACHINE-MADE SCREWING OF THE IMPLANT



We repeatedly rinse the bone nest then we screw the implant in the nest with a machine-made screwdriver (8034-070, 8034-170, 8455-079, 8455-179) so that only the polished part of the implant neck emerges from the bone surface

**STEP**

## 8.b SCREWING IN THE IMPLANT (BY HAND)



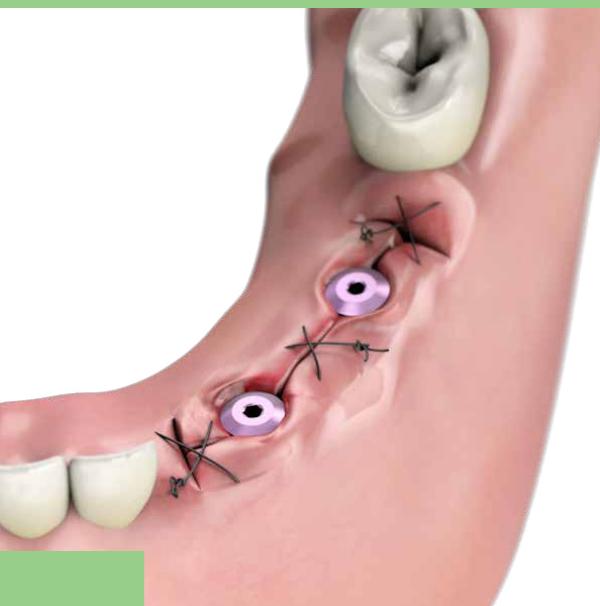
We repeatedly rinse the bone nest then we screw the implant in the nest with a hand-made screwdriver (8034-059, 8455-078) so that only the polished part of the implant neck emerges from the bone surface. Using the adapters 8000-002 or 8000-102 you can convert the implant body drivers from engine-driven into a hand-driven device.

## 8.b SCREWING IN THE IMPLANT



REFERENCE NO.		Ø(MM)	APPLICATION	MAX. U/ MIN
8034-070	Implant body driver with short shaft	24,5	For Ø3,3-3,8 implants	20
8455-079	Implant body driver with short shaft	24,5	For Ø4,3-4,8-5,3 implants	20
8034-170	Implant body driver with long shaft	29,5	For Ø3,3-3,8 implants	20
8455-179	Implant body driver with long shaft	29,5	For Ø4,3-4,8-5,3 implants	20
8034-059	Driver for fixtures, manual	25	For Ø3,3-3,8 implants	20
8455-078	Driver for fixtures, manual	25	For Ø4,3-4,8-5,3 implants	20
8000-002	Hand adapter for ratchet	19,90	For Ø3,3-3,8-4,3-4,8-5,3 implants	20
8000-102	Hand adapter for ratchet, long	25,15	For Ø3,3-3,8-4,3-4,8-5,3 implants	20

## 9. SCREWING THE HEALING SCREW IN, CLOSING THE WOUND



We close the body part with a healing screw and after that we unify the periosteum around the neck of the implants with knotty stitches without tension.