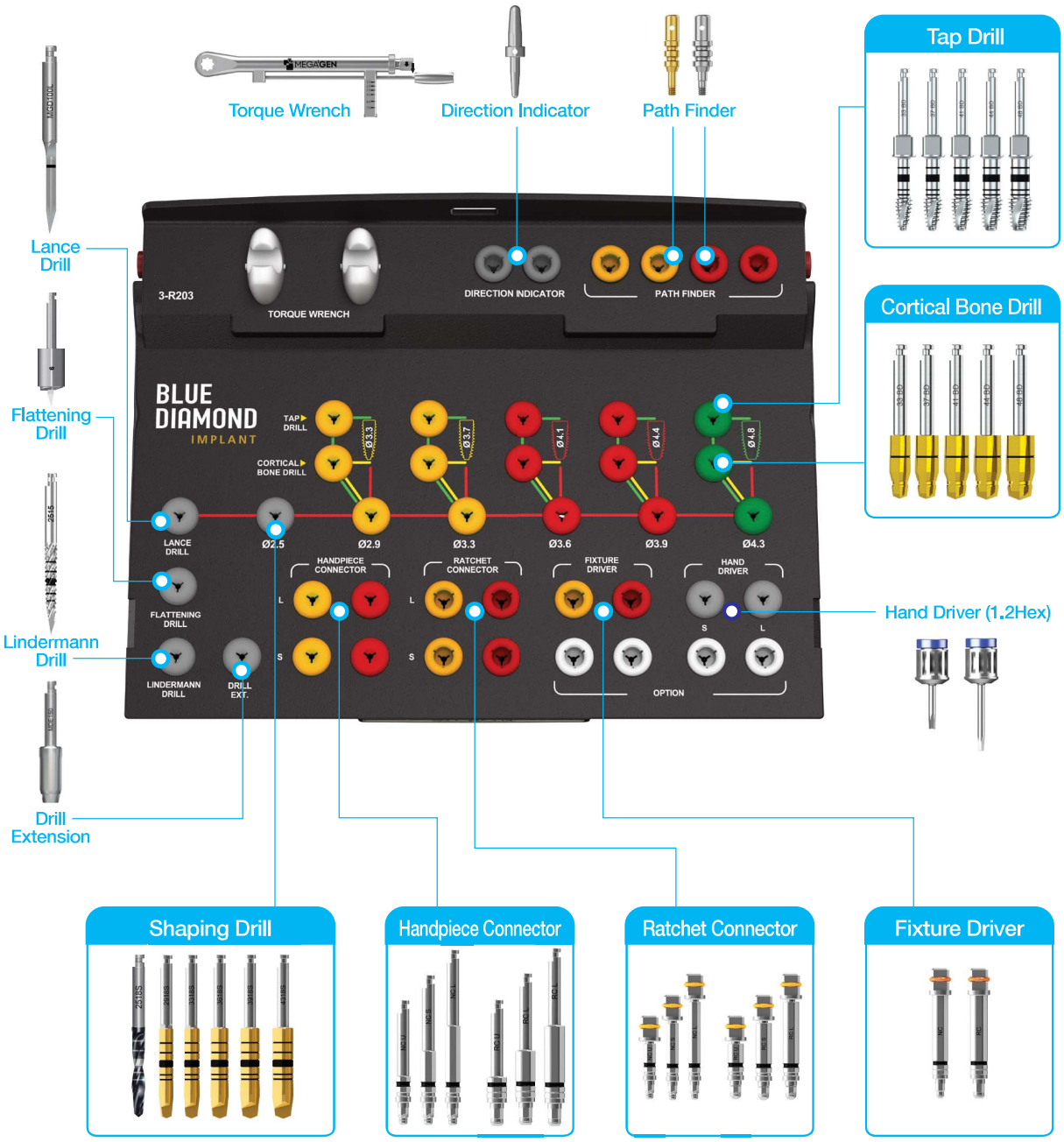
BLUEDIAMOND IMPLANT Kit

I. Surgical Kit : Standard Type

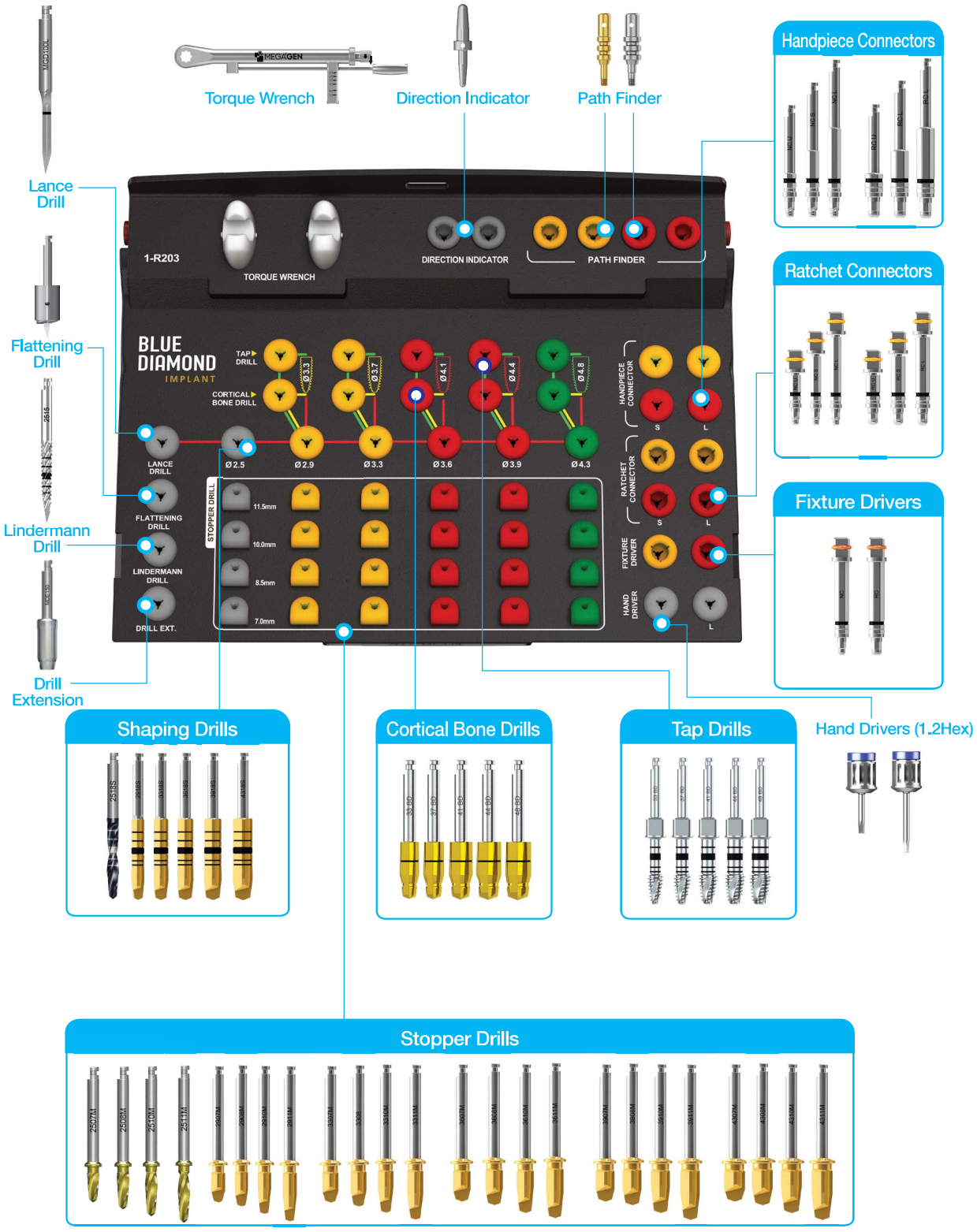
Ref.C
KARO3003



I. Surgical Kit: Full Type

Ref.C

KARO3001



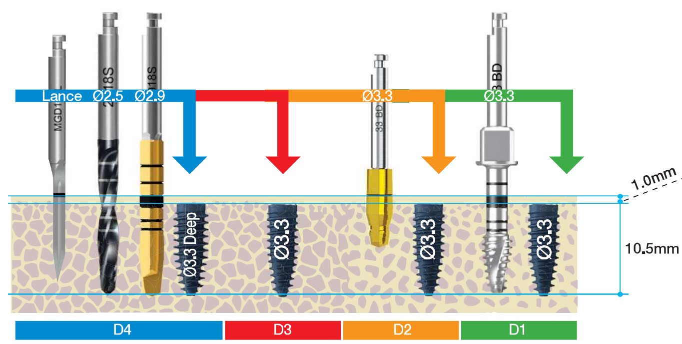
▸▸ Drilling Protocols

- BLUEDIAMOND® implants achieve optimum initial stability when used with a guided drilling sequence
- BLUEDIAMOND implants should be placed 1mm sub-crestal
  0.5 ~1mm sub-crestal placement has been proven to show a better crestal bone response

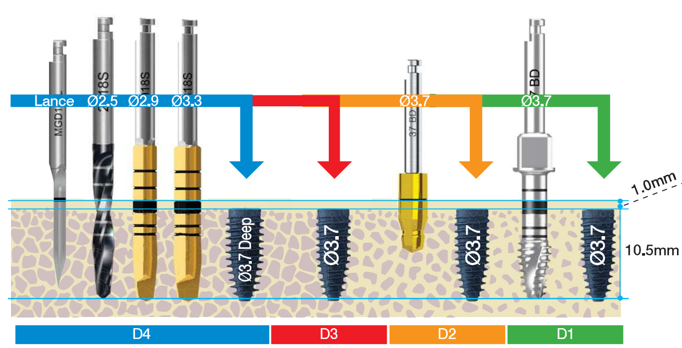
	Flattening Drill	Lance	Shaping Drills						Cortical Bone Drills					Tap Drills					Stopper Drills					
	Ø5.0 / Ø2.0	Ø2.0	Ø2.5	Ø2.9	Ø3.3	Ø3.6	Ø3.9	Ø4.3	Ø3.6	Ø4.0	Ø4.4	Ø4.7	Ø5.0	Ø3.3	Ø3.7	Ø4.1	Ø4.4	Ø4.8	Ø2.5	Ø2.9	Ø3.3	Ø3.6	Ø3.9	Ø4.3
																								
rpm max	400~600	800~1000							300					15					800~1000					

Standard Type | Full Type

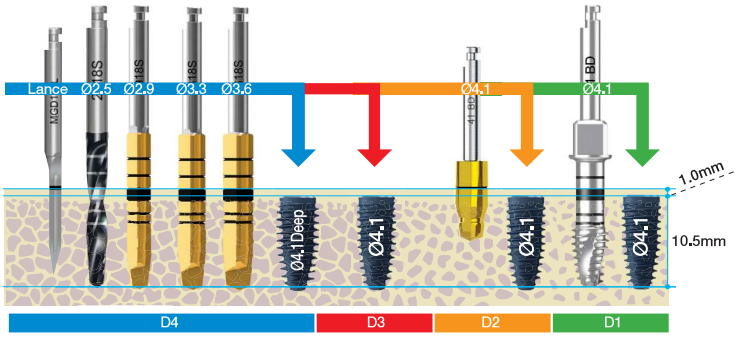
Ø3.3 Fixture
Drilling Sequence



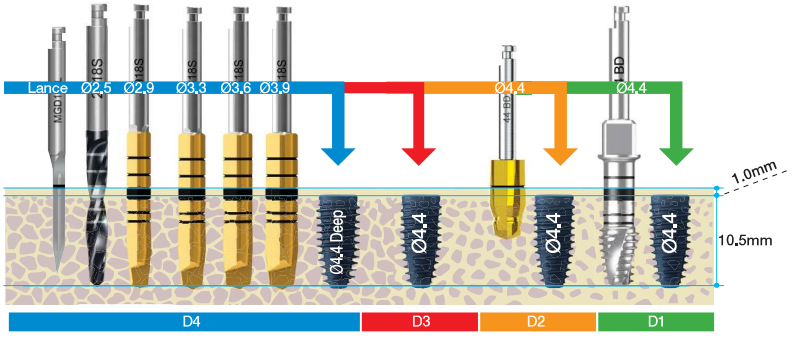
Ø3.7 Fixture
Drilling Sequence



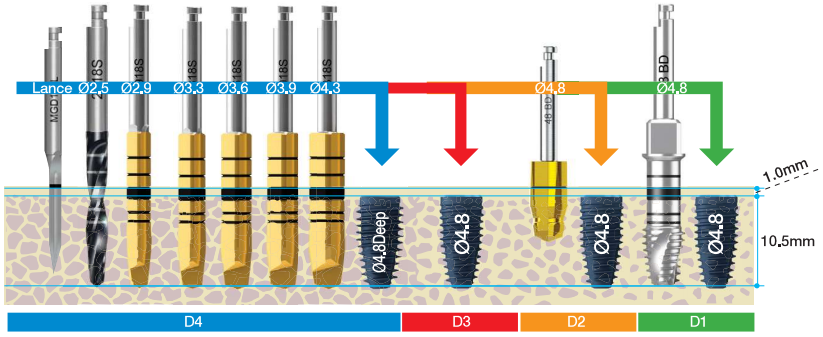
Ø4.1 Fixture
Drilling Sequence



Ø4.4 Fixture
Drilling Sequence



Ø4.8 Fixture
Drilling Sequence



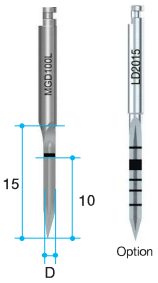
Surgical Kit Component (Continued)

Lance Drill

- Use to make indentation in cortical bone to confirm exact drilling location

Diameter	Type	Ref.C
Ø2.0	Long	MGD100L
	Short	*LD2015
	Long	*LD2025
	Ultra-Long	*LD2030

(*) Separate sales item

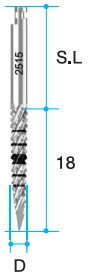


Lindermann Drill

- Use to correct path during drilling

Diameter	Shank Length(mm)	Ref.C
Ø2.5	15 (Short)	LDMD2515
	20 (Middle)	*LDMD2520
	25 (Long)	*LDMD2525

(*) Separate sales item

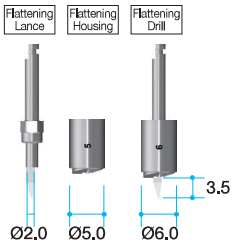


Flattening Drill

- Use to flatten irregular bone & allow exact drilling with stopper drills
- Designed to engage with Flattening Lance & 2 kinds of Housing to match diameters of different final drills (Ø5.0 & Ø6.0)
- Ø5.0 = Stopper Drill Ø2.0 ~ Ø4.3
- Ø6.0 = Stopper Drill Ø4.8 ~ Ø5.4
- Housing boundary becomes indicator for drilling position of next fixture

Diameter	Length(mm)	Ref.C
Ø5.0 / Ø2.0	3.5	FD5020
*Ø6.0 / Ø2.0		FD6020

(*) Separate sales item



1

- Flattening Drill ensures correct drilling position for accurate fixture placement
(If final drill diameter is Ø2.0~Ø4.3, use Ø5.0 Housing, if final drill diameter is Ø4.8, Ø5.4, use Ø6 Housing)

2

- Drilling sequence should consider fixture size & bone density

3

- Place fixture using Handpiece & Ratchet Connector

Shaping Drill

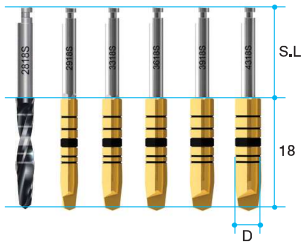
- Each drill has depth markings from 7.0mm to 15.0mm
- Dual marking system (grooves & laser markings) provides visual & radiographic depth verification during surgery
- TiN coating on drills for enhanced corrosion resistance & abrasion resistance

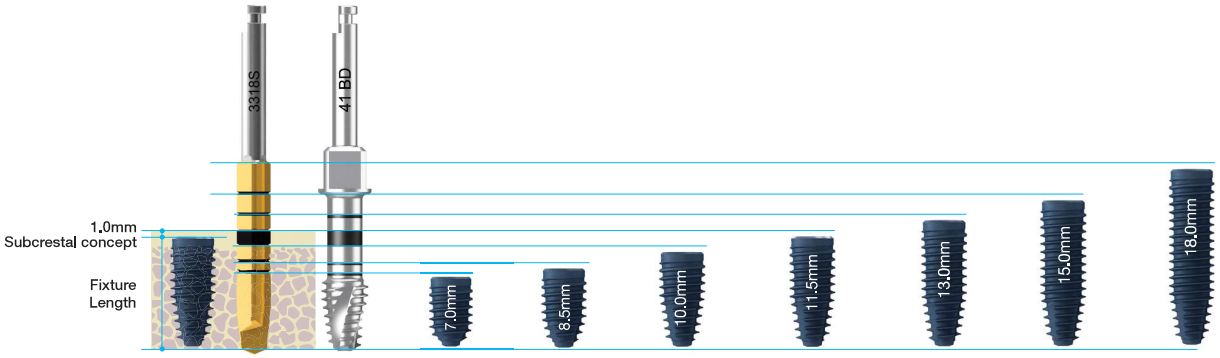
※ Actual drill length does not normally include Y dimension of drill

※ Markings on Shaping Drills are 0.8mm longer than fixture, so fixtures will automatically be placed 1mm sub-crestally if drilling protocol is followed

Diameter	Blade Length(mm)	Shank Length(mm)	Ref.C
Ø2.5	18	15(Short)	SD2518S
		25(Long)	*SD2518L
Ø2.9		15(Short)	AROSD2918S
		25(Long)	*AROSD2918L
Ø3.3		15(Short)	AROSD3318S
		25(Long)	*AROSD3318L
Ø3.6		15(Short)	AROSD3618S
		25(Long)	*AROSD3618L
Ø3.9		15(Short)	AROSD3918S
		25(Long)	*AROSD3918L
Ø4.3		15(Short)	AROSD4318S
		25(Long)	*AROSD4318L

(*) Separate sales item

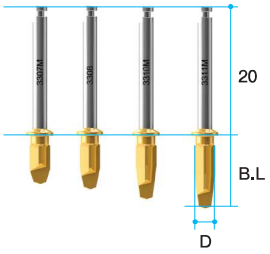




Surgical Kit Component (Continued)

Stopper Drill

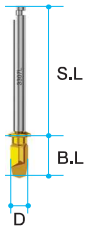
- Each diameter has drill lengths of 7.0 / 8.5/ 10 / 11.5mm
- TiN coating on drills for enhanced corrosion resistance & abrasion resistance



Diameter	Blade Length(mm)	Ref.C
Ø2.5	7.0	SD2507M
	8.5	SD2508M
	10	SD2510M
	11.5	SD2511M
Ø2.9	7.0	AROSD2907M
	8.5	AROSD2908M
	10	AROSD2910M
	11.5	AROSD2911M
Ø3.3	7.0	AROSD3307M
	8.5	AROSD3308M
	10	AROSD3310M
	11.5	AROSD3311M
Ø3.6	7.0	AROSD3607M
	8.5	AROSD3608M
	10	AROSD3610M
	11.5	AROSD3611M
Ø3.9	7.0	AROSD3907M
	8.5	AROSD3908M
	10	AROSD3910M
	11.5	AROSD3911M
Ø4.3	7.0	AROSD4307M
	8.5	AROSD4308M
	10	AROSD4310M
	11.5	AROSD4311M

Stopper Drill (Long type)

- Use products which has long shanks to avoid interference with adjacent teeth



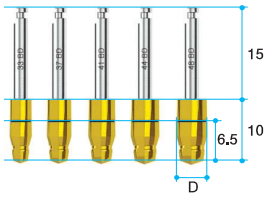
Diameter	Blade Length(mm)	Shank Length(mm)	Ref.C
Ø2.5	7.0	*25	SD2507L
	8.5	*24	SD2508L
Ø2.9	7.0	*25	AROSD2907L
	8.5	*24	AROSD2908L
Ø3.3	7.0	*25	AROSD3307L
	8.5	*24	AROSD3308L
Ø3.6	7.0	*25	AROSD3607L
	8.5	*24	AROSD3608L
Ø3.9	7.0	*25	AROSD3907L
	8.5	*24	AROSD3908L
Ø4.3	7.0	*25	AROSD4307L
	8.5	*24	AROSD4308L

(*) Separate sales item

Cortical Bone Drills

- Use to remove & shape cortical bone to control initial stability in dense bone (type II)
- TiN coating on drills for enhanced corrosion resistance & abrasion resistance

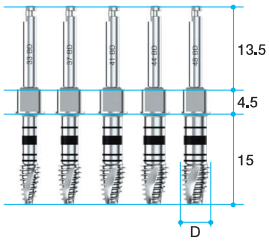
Diameter	Blade Length(mm)	Shank Length(mm)	Ref.C
Ø3.6	10	15	AROCD33
Ø4.0			AROCD37
Ø4.4			AROCD41
Ø4.7			AROCD44
Ø5.0			AROCD48



Tap Drills

- Can be used with both Handpiece (dental implant engine) & Ratchet Wrench

Diameter	Marking	Ref.C
Ø3.6	7/ 8.5/ 10/ 11.5/ 13/ 15	AROTD33
Ø4.0		AROTD37
Ø4.4		AROTD41
Ø4.7		AROTD44
Ø5.0		AROTD48

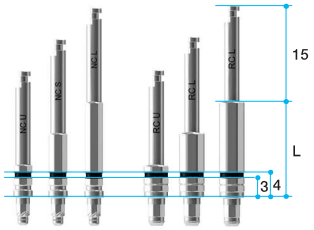


Handpiece Connector

- Use with Handpiece when removing fixture from ampule & placing fixture
- Spring-type connection allows easy & secure pick-up & positioning of fixture
- First mark on shaft indicates position of fixture platform
- Bottom & top of black line indicate 3mm & 4mm from fixture platform, respectively
- Especially useful in flapless surgery

Length (mm)	Type	Connection (mm)	Ref.C
5	*Ultra-short	Octa. 2.05	AROHCU21
10	Short		AROHCS21
15	Long		AROHCL21
5	*Ultra-short	Octa. 2.5	AROHCU25
10	Short		AROHCS25
15	Long		AROHCL25

(*) Separate sales item



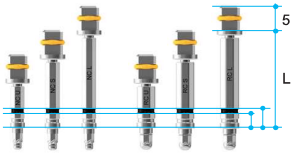
Surgical Kit Components

Ratchet Connector

- Use with Ratchet Wrench when inserting or removing fixture
- Make sure Ratchet Connector is securely seated in Ratchet Wrench before using
- Excessive force can cause damage to internal Octa of fixture
- Marks on shaft indicate position of fixture platform
- Bottom & top of black line indicate 3mm & 4mm from fixture platform, respectively
- Especially useful in flapless surgery

Length (mm)	Type	Connection (mm)	Ref.C
5	*Ultra-short	Octa. 2.05	ARORCU21
10	Short		ARORCS21
15	Long		ARORCL21
5	*Ultra-short	Octa. 2.5	ARORCU25
10	Short		ARORCS25
15	Long		ARORCL25

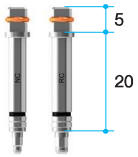
(*) Separate sales item



Fixture Driver

- If Ratchet Connector breaks from over-torquing during placement, connect Fixture Driver to Torque Wrench (Ratchet type) to remove fixture
- Excessive force can cause damage to internal Octa of fixture

Length (mm)	Connection (mm)	Ref.C
20	Octa. 2.05	AROFDN
	Octa. 2.5	AROFDR



Hand Driver (1.2 Hex)

- For use with all Cover Screws, Abutment Screws & Healing Abutments
- 4 lengths available
- Directly insert into Torque Wrench without adapter
- Hex tip can withstand 35-45Ncm of torque
- without distortion

Length(mm)	Type	Ref.C
5	*Ultra-short	TCMHDU1200
10	Short	TCMHDS1200
15	Long	TCMHDL1200
20	*Extra-long	TCMHDE1200

(*) Separate sales item

Drill Extension

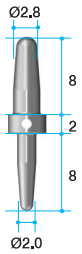
- For extending drills & other handpiece tools
- Up to 45Ncm torque: can be distorted when too much force is applied

Ref.C
MDE150

Direction Indicator

- Confirms drilling direction & functions as parallel guide for additional osteotomies
- Each end of Direction Indicator has different diameter - Ø2.0 & Ø2.8.

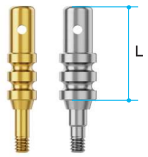
Length(mm)	Ref.C
Ø2.0 / Ø2.8	MDI100



Path Finder

- Use to guide parallel placement of subsequent fixtures
- Grooves measure gingival depth, especially useful for flapless surgery
- Recommend torque : by Hand(5~8Ncm)

Length(mm)	Type	Ref.C
10	NC	AROPFN
	RC	AROPFR

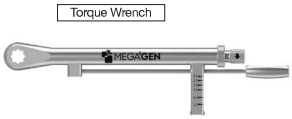


Torque Wrench

(Ratchet type)

- Torque range: 15Ncm to 75Ncm
- Use for implant placement & final tightening of abutment screw

Type	Ref.C
Torque Wrench	TWSQ70

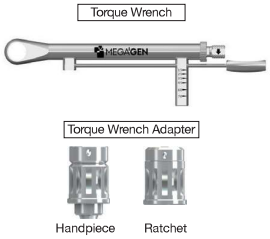


Torque Wrench & Adapter

- Torque range: 15Ncm to 75Ncm
- Use for implant placement & final tightening of abutment screw

Type	Ref.C
*Torque Wrench (~70Ncm)	TW70
*Torque Wrench (~45Ncm)	MTW300A
*Torque Wrench Adapter (Handpiece)	TTAI100
*Torque Wrench Adapter (Ratchet)	TTAR100

(*) Separate sales item



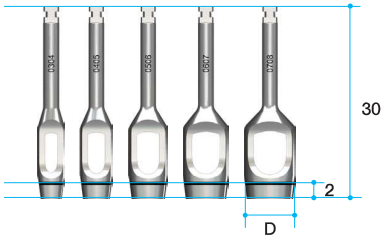
IV. Optional Component (continued)

- not included in surgical kit
- may be purchased separately & placed in spaces provided in surgical kit

Tissue Punch

- For removing soft tissue from osteotomy socket, especially useful in flapless surgery
- Identify soft tissue thickness using laser marking at 2mm
- Minimizes loss of soft tissue in flapless surgery
- Can stop bleeding when used with healing abutment

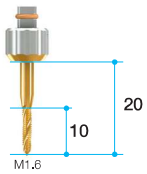
Diameter	Marking	Ref.C
In. Ø2.1 / Out. Ø2.6	2mm	TCMTPM2535
In. Ø3 / Out. Ø4		TCMTPM0304
In. Ø4 / Out. Ø5		TCMTPM0405
In. Ø5 / Out. Ø6		TCMTPM0506
In. Ø6 / Out. Ø7		TCMTPM0607
In. Ø7 / Out. Ø8		TCMTPM0708



Hand Tap

- Useful when internal screw of fixture has been damaged
- For re-tapping disabled thread
- Caution: use of excessive force can cause further damage, so apply force slowly & gradually

Length(mm)	Type	Ref.C
10	M1.6	THT160L



Ratchet Wrench

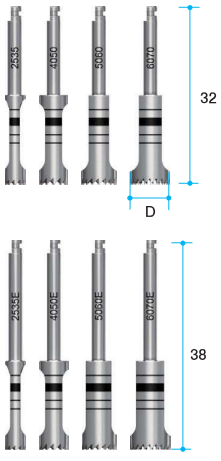
- Used to exert more force than Handpiece
- No bearing system: no breakage or corrosion problems
- Attaches to Ratchet Extension
- Arrow laser marking indicates direction of force

Ref.C
MRW040S

Trephine Bur

- Use to minimize drilling steps, especially for wider fixtures
- Helpful for collecting autogenous bone
- Useful for removing failed & fractured fixtures
- Depth markings are 7, 8.5, 10, 11.5, 13mm, same as fixture depths (no Y dimension, so markings are actual length)
- Markings on drill shaft represent inside / outside diameter of Trephine Burs

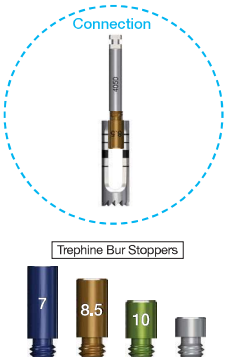
Diameter	Type	Ref.C
Ø3.5 (in Ø2.5)	Short (32mm)	TANTBL2535
Ø5.0 (in Ø4.0)		TANTBL4050
Ø6.0 (in Ø5.0)		TANTBL5060
Ø7.0 (in Ø6.0)		TANTBL6070
Ø3.5 (in Ø2.5)	Long (38mm)	TANTBE2535
Ø5.0 (in Ø4.0)		TANTBE4050
Ø6.0 (in Ø5.0)		TANTBE5060
Ø7.0 (in Ø6.0)		TANTBE6070



Trephine Bur Stopper

- Controls depth of trephination
- Especially useful in cases with limited available bone

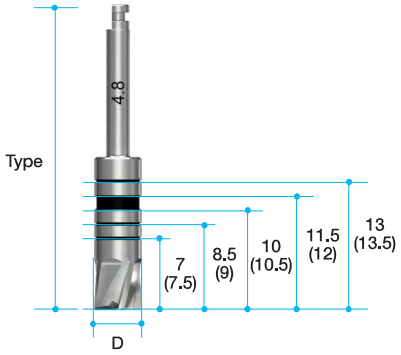
Type	Ref.C
7.0	TANTSF2307
8.5	TANTSF2308
10.0	TANTSF2310
11.5	TANTSF2311



Bottom Drill

- Removes remaining bone in osteotomy socket after trephine drilling
- Laser markings of fixture sizes: 7, 8.5, 10, 11.5 & 13mm

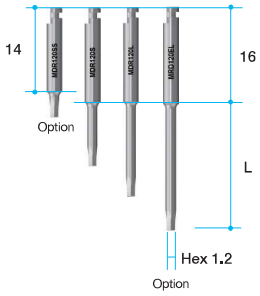
Diameter	Type	Ref.C
Ø3.3	Short (32mm)	TCMBDS33
Ø3.8		TCMBDS38
Ø4.8		TCMBDS48
Ø5.8		TCMBDS58
Ø6.8		TCMBDS68
Ø3.3	Long (38mm)	TCMBDL33
Ø3.8		TCMBDL38
Ø4.8		TCMBDL48
Ø5.8		TCMBDL58
Ø6.8		TCMBDL68



Right Angle Drivers (hex 1.2)

- For engaging with cover screws, abutment screws & healing abutments
- Hex tip designed to withstand torque force of 35~45 Ncm

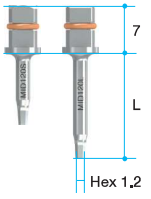
Length(mm)	Type	Ref.C
4	*Ultra-short	MDR120SS
10	Short	MDR120S
15	Long	MDR120L
20	*Extra Long	MDR120EL



Insert Drivers (hex 1.2)

- For engaging with cover screws, abutment screws & healing abutments
- Hex tip designed to withstand torque force of 35~45 Ncm

Length(mm)	Type	Ref.C
10	Short	MID120S
15	Long	MID120L



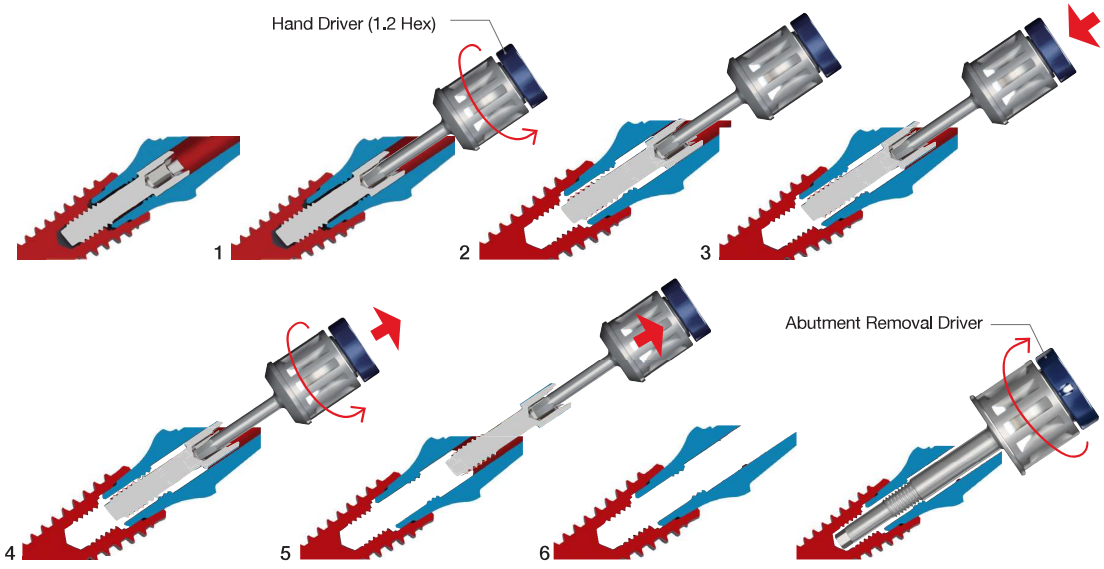
Reamer Drill & Center Pin

- For removing inner lip of cast after casting burn-out cylinders of solid abutment
- Center pins have 4 diameters according to profile diameter of solid abutment

Diameter	Type	Ref.C
Ø10.0	Reamer Drill	TANRD
Ø4.0	Center Pin	TANRDJ40
Ø4.5		TANRDJ50
Ø5.5		TANRDJ60
Ø6.5		TANRDJ70

Removal Driver

Length(mm)	Type	Ref.C
21	M1.6	ARORDS16



1. Use Hand Driver(1.2 Hex) to unscrew abutment screw
2. Continue to turn counter-clockwise until feeling click of disengagement
3. Push down Hand Driver once again to catch & fix abutment screw
4. Lift up Hand Driver lightly & continue to turn counter-clockwise until abutment screw engages with inner screw of abutment
5. Remove abutment screw completely from abutment
6. Insert Abutment Removal Driver & continue to turn clockwise until abutment comes out of fixture. Despite initial resistance, only simple force is needed to disconnect abutment from fixture