

米娜[®]上颌窦内提升万能钻工具盒

MINA Master Drill Kit



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产品介绍Introduction

上颌窦内提升手术已成为临床中改善种植骨高度不足时的优选方式之一。相较于传统的敲击提升和水压提升方式，米娜进行了技术升级改良，并且与牙科医生充分沟通后，进行了大量的临床试验，研发出全新一代上颌窦内提升的极简工具--米娜上颌窦内提升万能钻工具盒

独特的钻身反向螺纹设计，使钻孔过程中切削的自体骨屑向钻头前端推进，不仅可以使上颌窦内提升手术更加安全便捷，还可以通过骨挤压的方式增加种植窝洞周围的骨密度。钻孔过程中，前端收集到的自体骨屑可以最大限度避免钻头直接接触到上颌窦膜，通过反复提拉、循序渐进的方式，从而快捷稳定的进行上颌窦内提升

工具盒中包含不同规格的万能钻和停止环，精确控制钻孔深度，通过选择直径和长度逐级递增的提升方式，以应对不同患者临床情况

The maxillary sinus internal elevation surgery has become one of the preferred methods in clinical practice for improving insufficient bone height in implantology. Compared with the traditional methods of percussive elevation and hydraulic elevation, Mina has carried out technological upgrades and improvements. After full communication with dentists, a large number of clinical trials have been conducted, and a brand-new minimalist tool for maxillary sinus internal elevation in the new generation has been developed - Mina Master Drill Kit.

The unique reverse thread design of the drill body makes the autogenous bone chips cut during drilling process pushed forward to the front end of the drill bit. This can not only make the maxillary sinus internal elevation surgery safer and more convenient but also increase the bone density around the implant socket by means of bone expander. During the drilling process, the autogenous bone chips collected at the front end can minimize the direct contact of the drill bit with maxillary sinus membrane. Through the way of repeated lifting and proceeding step by step, the maxillary sinus internal elevation can be carried out quickly and stably.

The kit contains universal drills and stoppers of different specifications, which can accurately control the drilling depth. By choosing the elevation method with the diameter and length increasing step by step, it can respond to the clinical situations of different patients.

产品特征Product Features

1. 钻身的设计，在钻孔的同时能使种植窝洞侧壁骨质增密
2. 钻身采用特殊反向螺纹设计，钻孔时自体骨屑不会外溢，向钻头尖端推进达到快速提升的效果
3. 万能钻能同时完成骨挤压及提升，工具简洁使用方便
4. 在自体残存骨量很少的情况下依然可以安全的进行上颌窦提升，安全快速完成手术
5. 米娜上颌窦内提升万能钻工具盒可以兼容部分品牌种植工具盒的功能，在备洞扩孔的同时达到内提升效果，然后同期植入种植体，节约时间成本，提高种植效率

1. The design of the drill body can increase the density of the bone on the side wall of the implant socket while drilling.
2. The drill body adopts a special reverse thread design. During drilling, the autogenous bone chips will not overflow but will be pushed towards the tip of the drill bit to achieve a rapid elevation effect.
3. The master drill can complete bone expander and elevation simultaneously. It is convenient to use.
4. Maxillary sinus elevation can still be safely carried out even when there is very little remaining autogenous bone, enabling the surgery to be completed safely and quickly.
5. The Kit can be compatible with the functions of some brand implant Kits. It can achieve the internal elevation effect while preparing the socket and enlarging the hole, and then the implant can be placed in the same period, saving time cost and improving implant efficiency.



使用说明&性能介绍 Instruction for Use & Function Introduction

米娜上颌窦万能钻的反向螺纹设计,使其兼具提升和挤压功能,收集切削下的自体骨屑可以很好的帮助增加骨密度。万能钻不仅能使行进方向的前端聚集大量的自体骨,对备洞的侧壁骨组织也有挤压的效果。面对自体骨量贫的患者,使用米娜万能钻进行手术可以大大降低骨裂的风险

The reverse thread design of the Mina master drill endows it with both elevation and expander functions. The collection of the autogenous bone chips cut off can greatly help in increasing bone density. The drill can not only gather a large amount of autogenous bone at the front end in the traveling direction, but also has a expander effect on the bone tissue on the side wall of the prepared socket. For patients with a scarcity of autogenous bone, using the drill can greatly reduce the risk of bone fracture.

产品优势 Product Advantages

1. 钻孔的同时就可以获得较好的挤压能力,增强骨的致密性,提升骨质
2. 尖端线条流畅圆润,钻孔时不易打滑,极大的提高了手术稳定性
3. 上颌窦内提升手术中,可以极大程度的保留自体骨,残留骨屑和切削下的自体骨屑都可以随钻头向前推进,聚集在窦黏膜底部并进行提升
4. 使用万能钻过程中产生的骨屑,在最大程度上避免了钻头直接接触到窦黏膜,降低上颌窦膜损伤风险,增加安全性

1. While drilling, good expander ability can be achieved, enhancing the compactness of the bone and improving its quality.
2. The tip has a smooth and rounded shape, which is not easy to slip during drilling and greatly improves the stability of the operation.
3. During the maxillary sinus internal elevation surgery, a large amount of autogenous bone can be retained. The residual and the autogenous bone chips can be pushed forward along with the drill bit, gathered at the bottom of the sinus mucosa and then lifted.
4. The bone chips generated during the use of the drill can avoid direct contact of the drill bit with the sinus mucosa to the greatest extent, reducing the risk of maxillary sinus membrane damage and increasing the safety.



•安全的进行上颌窦提升
Conduct maxillary sinus elevation safely.



万能钻 Master Drill

万能钻在钻孔时,会把切削下的自体骨,向钻头前部输送,形成挤压。从底部视角能看到骨粉大量聚集
万能钻在狭窄的牙槽骨上钻孔时不会出现骨裂,而是引导自体骨根据螺纹走向形成骨挤压
When the master drill is drilling, it will transport the autogenous bone chips cut off to the front part of the drill bit, forming expander. From the bottom view, a large amount of bone powder can be seen accumulated.
When the drill drills on the narrow alveolar bone, bone fractures will not occur. Instead, it guides the autogenous bone to form bone expander according to the thread direction.



普通钻 Ordinary Drill

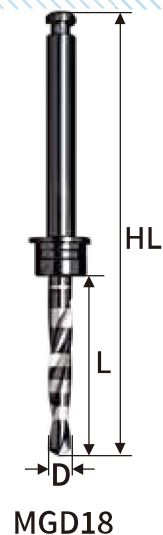
普通钻在钻孔时骨粉会往外排出,钻孔反向部位孔较干净
普通钻在狭窄的牙骨上钻孔时可能会出现骨裂现象
When an ordinary drill is drilling, the bone powder will be discharged outwards, and the reverse part of the drilled hole is relatively clean.
When an ordinary drill drills on the narrow alveolar bone, bone fracture may occur.

产品构成Components

01 定位钻(Guide Drill)

- 定位钻直径1.8mm(D)
- 定位钻工作端长14mm(L)
- 定位钻长35mm(HL)
- 推荐转速:600~1000 rpm
- The diameter of the Guide drill is 1.8mm (D).
- The working end length is 14mm (L)
- The length of the Guide drill is 35mm (HL)
- Recommended speed: 600 - 1000 rpm

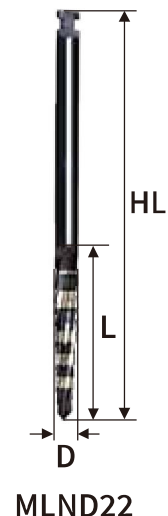
型号 Model	MGD18
D (mm)	Ø 1.8
L (mm)	14
HL (mm)	35



02 侧切钻(Lindemann Drill)

- 侧切钻直径2.2mm(D)
- 侧切钻工作端长16mm(L)
- 侧切钻长36.3mm(HL)
- 推荐转速:600~1000 rpm
- The diameter of the Lindemann drill is 2.2mm (D)
- The working - end length is 14mm (L)
- Length of the Lindemann drill is 36.3mm (HL)
- Recommended speed: 600 - 1000 rpm

型号 Model	MLND22
D (mm)	Ø 2.2
L (mm)	16
HL (mm)	36.3



03 万能钻(Master Drill)

- 万能钻一共有10种型号
- 万能钻钻身长14mm
- 其中MMD22-MMD30可配合停止环使用
- 推荐转速:800~1200 rpm
- There are a total of 10 models of the master drills.
- The length of the drill body is 14mm.
- Among them, MMD22 - MMD30 can be used in combination with stoppers.
- Recommended speed: 800 - 1200 rpm.



注意：建议选择型号从小到大依次使用

Note: It is recommended to use the models in ascending order one by one.

钻头直径 Drill bit diameter	1.6mm	1.9mm	2.1mm	2.4mm	2.6mm	3.0mm	3.2mm	3.4mm	3.6mm	3.9mm
钻中直径 Diameter within the drill	2.2mm	2.5mm	2.7mm	3.0mm	3.2mm	3.5mm	3.7mm	4.0mm	4.2mm	4.5mm
钻尾直径 Drill shank diameter	2.8mm	3.1mm	3.3mm	3.6mm	3.8mm	4.2mm	4.4mm	4.6mm	4.8mm	5.1mm
										
型号 Model	MMD22	MMD25	MMD27	MMD30	MMD32	MMD35	MMD37	MMD40	MMD42	MMD45

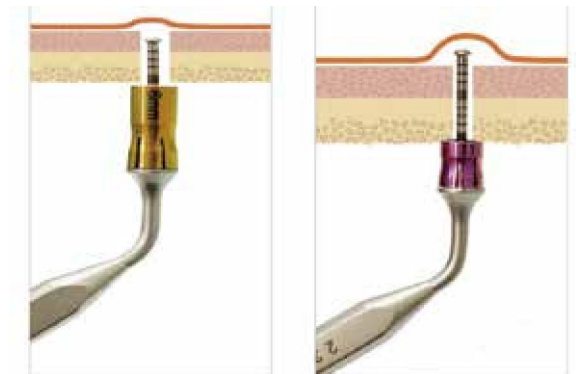
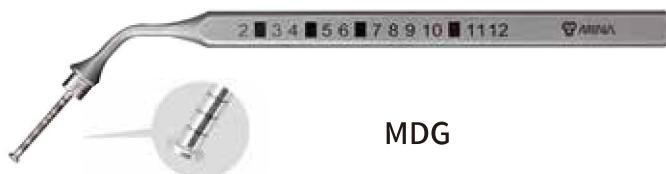
04 停止环(Stopper)

- 从2-12mm共11个，每个相差1mm
- 标注了钻体突出的长度
- There are 11 sizes ranging from 2mm to 12mm, with a difference of 1mm between each size.
- The projection length of the drill body is marked.



05 测深尺(Depth Gauge)

- 测量残存骨厚度
- 确认顶部上颌窦是否提升
- 连接停止环使用
- 禁止一次性提升1mm以上
- Measure the thickness of remaining bone.
- Confirm whether the maxillary sinus at the top has been elevated.
- Use it in connection with the stopper.
- It is prohibited to elevate more than 1mm at one time.



使用说明 Instruction for Use

米娜上颌窦内提升万能钻工具盒 MINA Master Drill Kit

- 以牙槽骨5mm，植入 $\varnothing 4.0 \times 8$ 的种植体为例，进行上颌窦内提升万能钻工具盒的使用顺序说明
- Taking the implantation of a $\varnothing 4.0 \times 8$ implant in the alveolar bone with a thickness of 5mm as an example, the usage sequence instructions are as follows.

1. 使用定位钻(或者侧切钻)及3mm停止环进行钻孔 Use the guide drill (or Lindemann drill) and the 3mm stopper to drill holes.



*注意事项 Precautions

1. 推荐使用转速: 800~1200rpm
2. 手术前可以根据实际情况选择定位钻或者侧切钻进行定点定位钻孔，如果使用定位钻进行钻孔时方向发生偏移，可以选择侧切钻进行矫正(钻孔时可适当冲水)
1. The recommended rotational speed: 800 - 1200 rpm.
2. Either the guide drill or Lindemann drill can be selected according to actual situation to conduct fixed-point and positioning drilling before the operation. If the drilling direction deviates when using the guide drill, the Lindemann drill can be chosen for correction (appropriate water flushing can be carried out during drilling).



2. 使用MMD22结合4mm停止环进行深入钻孔 Use MMD22 in combination with a 4mm stopper to drill deeper.



*注意事项 Precautions

1. 推荐使用转速: 800~1200rpm
2. 钻孔时可适当冲水
1. The recommended rotational speed: 800 - 1200 rpm.
2. Appropriate water flushing can be carried out during drilling.

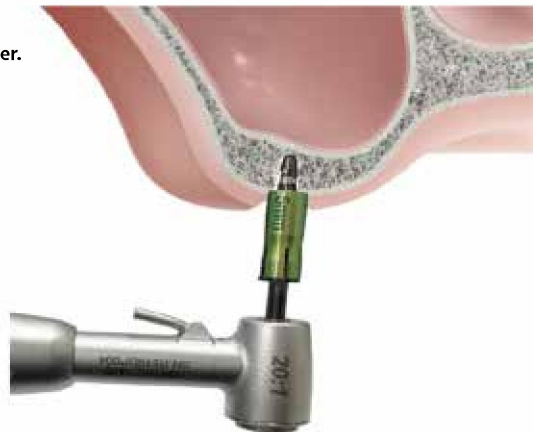


3. 使用MMD25结合5mm停止环进行扩张和深入钻孔 Use MMD25 in combination with a 5mm stopper to perform expansion and drill deeper.



*注意事项 Precautions

1. 推荐使用转速: 800~1200rpm
2. 钻孔时可适当冲水
1. The recommended rotational speed: 800 - 1200 rpm.
2. Appropriate water flushing can be carried out during drilling.



使用说明Instruction for Use

4.使用测深尺配合5mm停止环进行确认, 是否穿透骨壁接触到骨膜

Use the depth gauge in combination with the 5mm stopper to confirm whether the bone wall has been penetrated and the periosteum has been reached.



*注意事项Precautions

1. 连接停止环使用
2. 禁止一次性提升1mm以上
1. Use it in connection with the stopper.
2. It is prohibited to elevate more than 1mm at one time.

5.如果未接触到, 继续使用MMD25结合6mm停止环 继续深入钻孔(为避免骨膜被钻破, 此时应该缓慢钻孔)

If it has not been reached, continue to use MMD25 in combination with a 6mm stop ring to drill deeper (to avoid the periosteum from being drilled through, slow drilling should be carried out at this time).

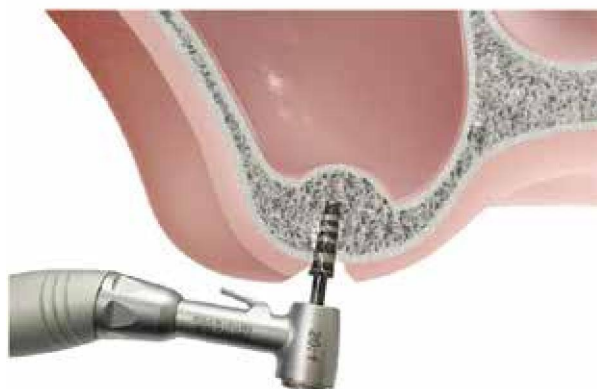


*注意事项Precautions

1. 推荐使用转速: 500rpm
2. 钻孔时可适当冲水
1. The recommended rotational speed: 500 rpm.
2. Appropriate water flushing can be carried out during drilling.

5.骨壁穿透时, 根据患者骨质, 可以选择使用 MMD35或MMD37进行扩张以及钻孔

If it has been reached, can choose MMD35 or MMD37 to expand and drill according to patient bone.



*注意事项Precautions

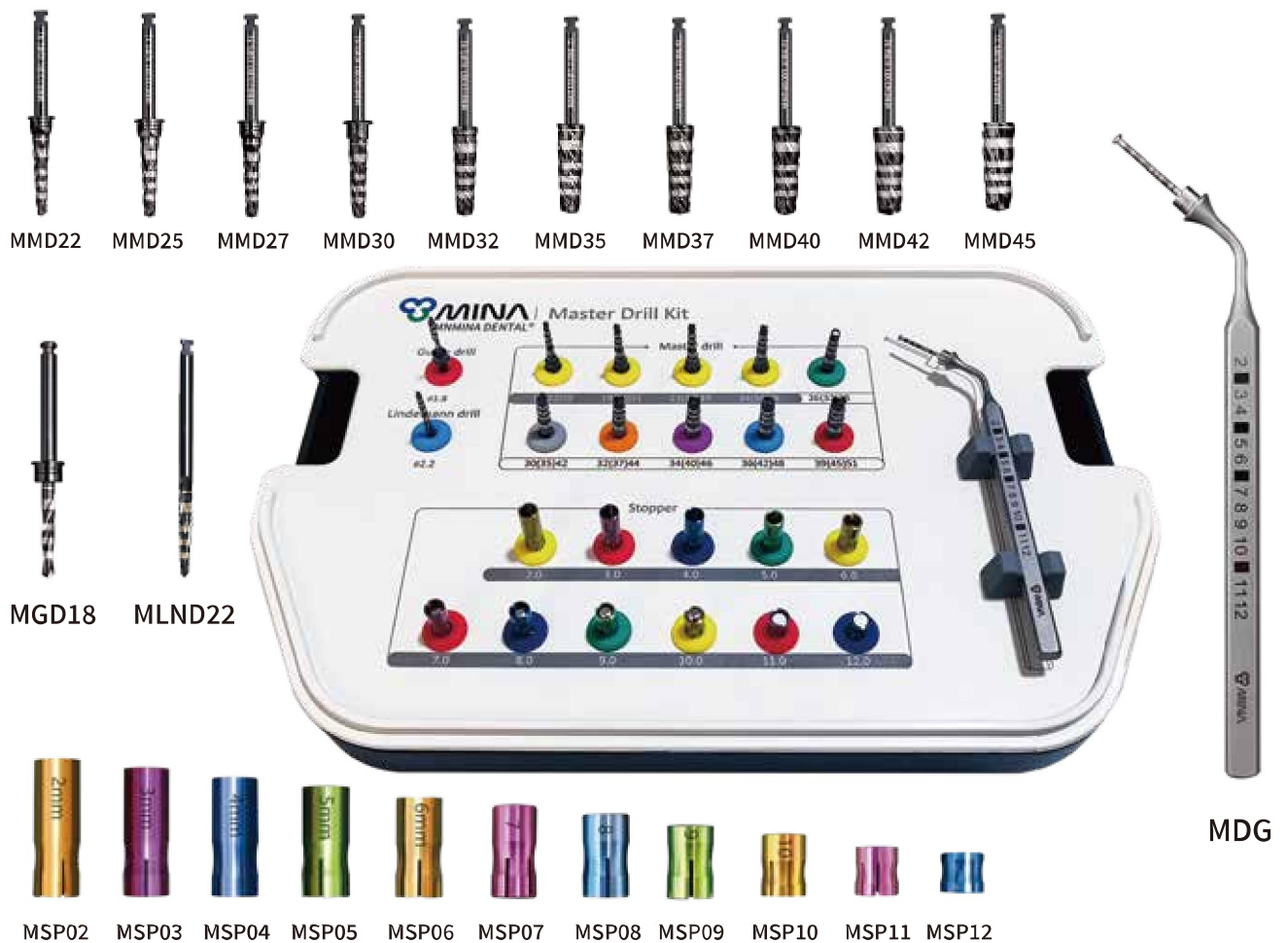
1. 根据实际手术的患者的情况选择合适万能钻进行扩张和钻孔
2. 推荐使用转速: 800~1200rpm
3. 钻孔时可适当冲水
1. Select an appropriate master drill for expansion and drilling according to the actual condition of the patient undergoing the surgery.
2. The recommended rotational speed: 800~1200 rpm.
3. Appropriate water flushing can be carried out during drilling.

注意事项Precautions

- 1.使用万能钻进行提升时,不要用力按压,避免因压力过大造成窦膜创伤
- 2.在进行提升及骨挤压操作时,建议同时注水使用
- 3.一般情况下可以通过钻前端的自体骨聚集,达到提升窦膜的效果,如果自体骨聚集较少可适量添加骨粉
- 4.使用万能钻进行填充骨粉时,请关掉种植机冲水,并调节转速为50~100rpm
- 5.以上内容为厂家建议,操作时需结合临床

1. When using the master drill for elevation, do not press hard to avoid sinus membrane trauma caused by excessive pressure.
2. It is recommended to inject water simultaneously when performing elevation and bone expansion operations.
3. Under normal circumstances, the effect of elevating sinus membrane can be achieved by the accumulation of autogenous bone at the front end of the drill. If there is less accumulation of autogenous bone, an appropriate amount of bone powder can be added.
4. When using the master drill to fill bone powder, please turn off the water flushing of the implanter machine and adjust the rotational speed to 50 - 100 rpm.
5. Above content is the manufacturer's recommendation, and it needs to be combined with clinical practice during operation.

上颌窦内提升万能钻工具盒(MINA Master Drill Kit)



工具箱管理方法(Kit Management Method)

- ① 所有工具使用完毕后,都要立即浸泡在消毒液中几分钟,避免碎片粘在工具上
注意:不能浸泡过夜。不可使用过氧化氢浸泡,因为过氧化氢会使工具标识变色
- ② 请用软毛刷仔细刷洗工具,直到清洗干净所有碎片
- ③ 请使用钻孔器或者计量注射针来清洗钻头内部
- ④ 如果使用超声波清洗仪,在清洗前,请用干净的纱布将钻头包起来,避免工具钻头互相摩擦
- ⑤ 请使用消毒液清洗所有的底座和盖子
- ⑥ 请在温水中全面地仔细清洗所有的工具、托盘和盖子
- ⑦ 完全干燥后请仔细检查,确认工具没有任何的损坏和腐蚀
- ⑧ 请把所有的工具按照正确的位置标示放回工具箱里的托盘上
- ⑨ 请用消毒袋将工具箱密封
- ⑩ 请把工具箱放在134°C的蒸汽压锅中消毒15分钟,或者参考生产厂家的其他建议
- ⑪ 请把工具箱放在干燥、干净的区域,室温保存

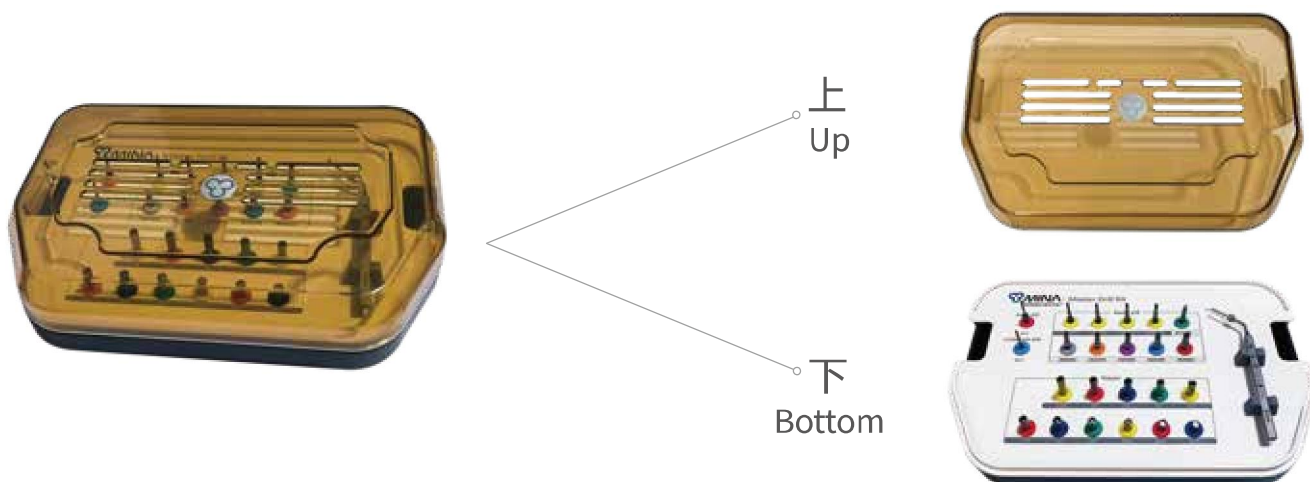
注意事项:

手术后请将所使用的器具及时分离清洗,外科手术器具在手术前建议再进行一次消毒
(温度: 134°C 时间: 15分钟)

- ① After using all the tools, immerse them in the disinfectant solution immediately for a few minutes to avoid chips sticking to the tools.
Note: Do not soak them overnight. Do not use hydrogen peroxide for soaking, as hydrogen peroxide will cause the tool markings to change color.
- ② Please use a soft-bristled brush to scrub the tools carefully until all chips are removed.
- ③ Please use a drill or a measuring injection to clean the inside of drill bits.
- ④ If an ultrasonic cleaner is used, please wrap the drill bits with clean gauze before cleaning to avoid friction between the tool drill bits.
- ⑤ Please use disinfectant solution to clean all bases and lids.
- ⑥ Please thoroughly and carefully clean all tools, trays and lids in warm water.
- ⑦ After complete drying, please check carefully to confirm that there is no damage or corrosion on the tools.
- ⑧ Please put all the tools back onto the trays in the toolbox according to position markings.
- ⑨ Please seal the toolbox with a sterilization bag.
- ⑩ Please sterilize the toolbox in a steam autoclave at 134 °C for 15 minutes, or refer to other suggestions from the manufacturer.
- ⑪ Please store the toolbox in a dry and clean area at room temperature.

Precautions:

After the operation, please separate and clean the used instruments in time. It is recommended to disinfect the surgical instruments once again before next operation (temperature: 134 °C, time: 15 minutes).





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