

**BSP RAZR™ 100**

**HIGH SPEED DRILL SYSTEM**

Instructions for Use



 **BRASSLER USA®**  
SURGICAL POWER & ACCESSORIES

[BrasselerUSAMedical.com](http://BrasselerUSAMedical.com)

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## INTRODUCTION

Thank you for choosing Brasseler USA® Surgical Power & Accessories as your supplier of your high speed drill system.

The information and procedures described in this manual are intended to assist medical professionals in the safe and effective use, care, cleaning, sterilization and long-term maintenance of BSPRAZR™ 100 High Speed Drill System.

## INTENDED USE

The BSPRAZR™ 100 High Speed Drill System, along with an assortment of straight, angled and craniotome attachments is designed for surgical dissection of bone and bioplastic applications in: Neurosurgical, Spine, Orthopaedic, ENT, General Surgery, Plastic Surgery and Maxillofacial Surgery.

The BSPRAZR™ 100 drill motor's high speed enables the operator to cut bone and bioplastics rapidly. The different lengths of straight, angled and craniotome attachments allow access to different anatomical structures. The BSPRAZR™ 100 High Speed Drill System Craniotome Attachments enable the surgeon to cut a flap in the bone of the skull vault (calvarium). The craniotome attachments include a small shielding tip (craniotome foot) at the distal end to prevent the end of the bur/cutter from penetrating the dura mater membrane. It is made of high-grade stainless steel. The drill motor and all attachments are reusable devices. The range of burs/cutters offered allows for a wide range of procedures.

## WARNING

Brasseler USA® Surgical Power & Accessories equipment is designed for use only by medical professionals who are completely familiar with the applicable surgical techniques and instructions for the use of the equipment. Make sure to read and understand the Instructions for Use manual thoroughly before using the BSPRAZR™ 100 High Speed Drill System. Do not use this system unless you have training and experience using high-speed surgical systems.

## EXPLANATION OF SYMBOLS



CATALOG NUMBER.



CAUTION.



DATE OF MANUFACTURE.



LUBRICATION.



DO NOT IMMERSE.



DO NOT OIL OR LUBRICATE.



FOOT-OPERATED CONTROL.



LOCKED.



MANUFACTURER.



SERIAL NUMBER.

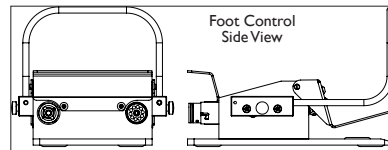
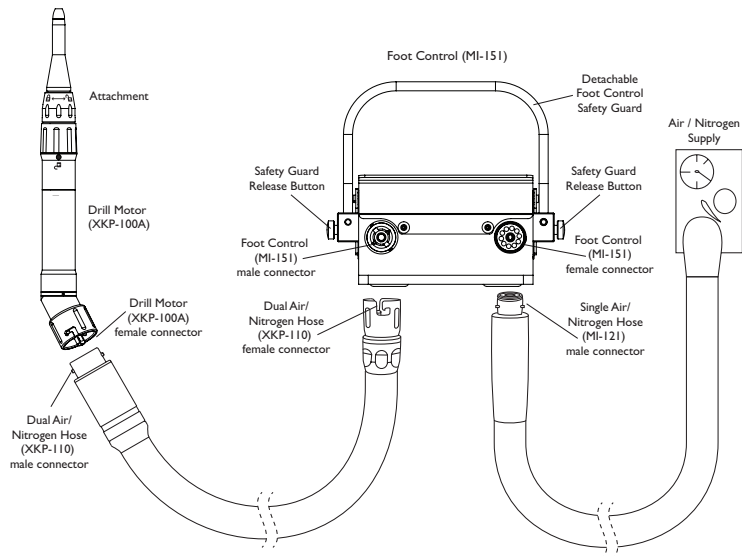


STEAM STERILIZABLE.



UNLOCKED.

## SET-UP ILLUSTRATION



Note: It is extremely important for users to be familiar with the applicable surgical techniques and proper use of this equipment.

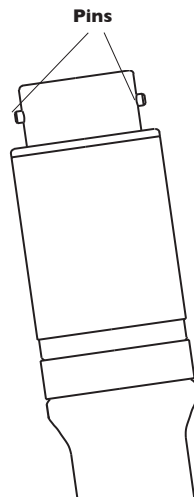
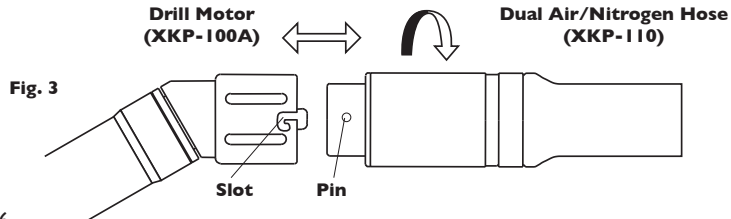
## DRILL MOTOR SETUP

### QUICK CONNECTORS

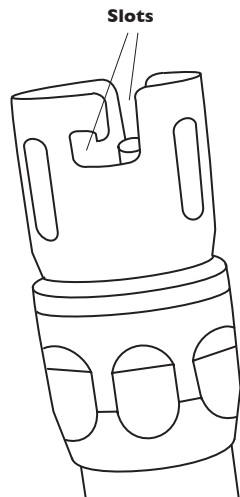
The BSPRAZR™ 100 High Speed Drill System is designed with quick-connect components for easy assembly. No special tools or fittings are required to assemble or operate the system.

The dual air/nitrogen hose, foot control and motor connections can be connected only one way. Each fitting has a male (Fig. 1) or female (Fig. 2) connector.

Fittings are connected by first aligning the pins of the male connector on the dual air/nitrogen hose with the slots of the female connector on the drill motor/handpiece. Slide the pins into the slots and press the two connectors together slightly. Twist the male connector until the pins rotate to the locked position. (Fig. 3)



**Fig. 1 - Male Connector on Dual Air/Nitrogen Hose (XKP-110)**



**Fig. 2 - Female Connector on Dual Air/Nitrogen Hose (XKP-110)**

## MOTOR/FOOT CONTROL CONNECTIONS

### Dual Air/Nitrogen Hose (XKP-110) to Drill Motor (XKP-100A)

Connect the dual air/nitrogen hose connector to the drill motor connector: (Fig. 4)

### Dual Air/Nitrogen Hose (XKP-110) to Foot Control (MI-151)

Connect the dual air/nitrogen hose female connector to the foot control male connector: (Fig. 5)

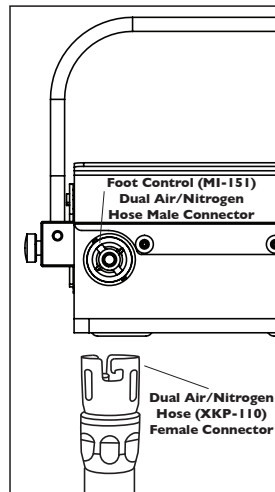
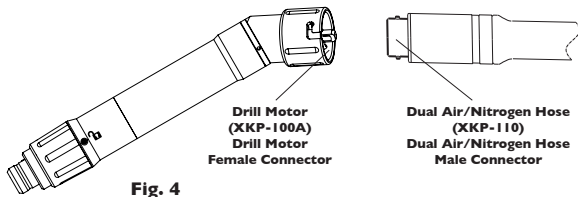
### Single Air/Nitrogen Hose (MI-121) to Foot Control (MI-151)

Connect the single air/nitrogen hose connector to the foot control connector: (Fig. 6)

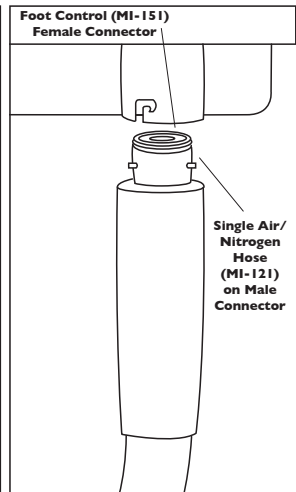
### Single Air/Nitrogen Hose (MI-121) to Wall/Tank

Connect the single air/nitrogen hose to the wall/tank medical grade air or nitrogen supply.  
(For Schrader use MI-121 and for DISS use with MI-121-001)

**CAUTION:** Do not activate foot control while manipulating attachments or burs/cutters.



**Fig. 5**



**Fig. 6**

Note: Ensure the foot control safety guard is properly installed to prevent accidental activation of the drill motor as this may result in patient/user injury.

## ATTACHMENT INSTALLATION - STRAIGHT & ANGLED

All attachments lock securely in place without special tools.

### Angled Attachment

Before installing the angled attachment, rotate the drill motor's collar to the LOCKED position (not shown). This is necessary to allow the motor output to rotate the angled attachment's input drive mechanism.

### Both Straight and Angled Attachments

Make sure the collar on the attachment is rotated fully in the unlocked position. Position attachment over the drill motor and push together gently until the attachment is seated fully on the drill motor. (Fig. 7) If needed, rotate slightly to seat. Hand tighten the Attachment Collar to the locked position. (Fig. 8)

### CAUTION

Do not lubricate attachments.

Always use the appropriate bur/cutter and attachment combination.

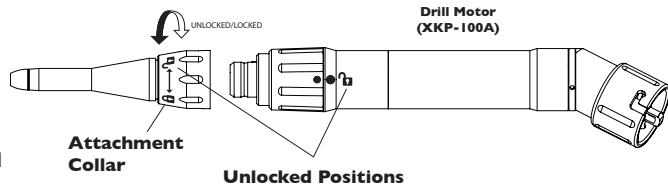


Fig. 7

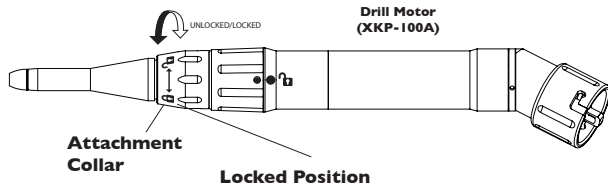


Fig. 8



## BUR/CUTTER INSTALLATION - STRAIGHT ATTACHMENTS

For straight attachments, rotate the drill motor collar to the UNLOCKED position. Insert the bur/cutter through the attachment, into the drill motor and rotate bur/cutter until it seats in place. Twist drill motor collar to the LOCKED position (Fig. 9).

### IMPORTANT

Tug slightly on bur/cutter to ensure it is fully locked in-place.

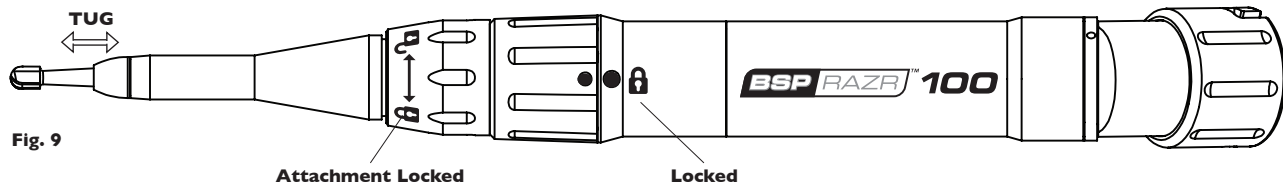


Fig. 9

## BUR/CUTTER INSTALLATION - ANGLED ATTACHMENTS

For angled attachments rotate the attachment's collar to the UNLOCKED position. Insert the bur/cutter into the attachment and rotate bur/cutter until it seats in place. Twist the attachment collar to the LOCKED position. Also, position the drill motor collar to the LOCKED position to unlock the drill motor allowing the motor output to rotate the angled attachment's input drive mechanism. (Fig 10).

Note: When using an angled attachment, the drill motor collar also must be in the LOCKED position in order for the drill motor to rotate.

### IMPORTANT

Tug slightly on bur/cutter to ensure it is fully locked in-place.

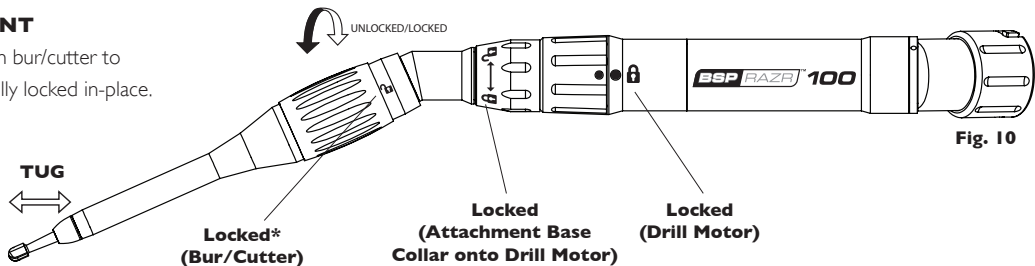


Fig. 10

*\*Not shown in this view*

## CRANIOTOME BUR/CUTTER ATTACHMENT INSTALLATION

For Craniotome attachments rotate the drill motor collar to the UNLOCKED position. Insert the bur/cutter directly into the drill motor and rotate until it seats in place. Twist collar to the LOCKED position. (Fig. 11)

### IMPORTANT

Tug slightly on bur/cutter to ensure it is fully locked in-place. (Fig. 12)  
Make sure the collar on the craniotome attachment is rotated fully in the unlocked position. Position the corresponding craniotome attachment over the bur/cutter and push together gently until the craniotome attachment is seated securely on the drill motor. If needed, rotate attachment slightly to seat. Hand tighten the attachment collar clockwise to the locked position. (Fig. 13)

### CAUTION

Do not attempt to rotate collar of the drill motor and/or collar of the attachments into unlocked position while operating the drill motor.

Exercise extreme caution to prevent the application of excessive forces toward the dura mater to prevent damage of the dura mater.

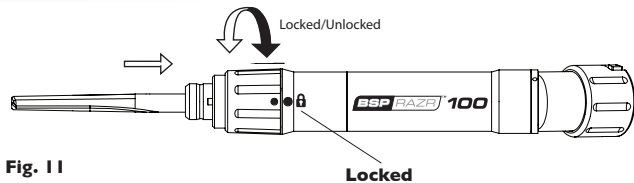


Fig. 11



Fig. 12

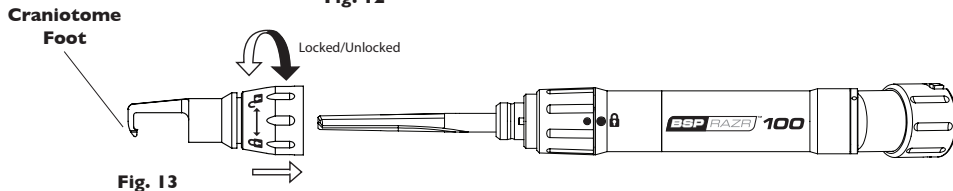


Fig. 13

## STRAIGHT, ANGLED & CRANIOTOME ATTACHMENTS

All attachments lock securely into place without special tools. The attachments come in three main groups: Straight, Angled and Craniotomes (Fig. 14, 15 and 16). There are four sizes each of straight and angled attachments in 50 mm, 70 mm, 90 mm and 110 mm lengths and two sizes of Craniotomes, 12 mm and 16 mm. Install straight, angled and craniotome attachments as outlined in the Attachment Installation sections on pages 8, 10 and 11.

### CAUTION

Failure to use only Brasseler USA® Surgical Power & Accessories attachments and cutting accessories (burs/cutters) may create potential harm to patient, surgical delay, additional anesthesia exposure and/or damage to system components.

The motor and angled attachments colleting mechanisms must be rotated fully to their corresponding locked position indicator to ensure a proper secure lock. All of the attachments locking collars must be hand tightened clockwise to their locking position. Tug slightly on bur/cutter to ensure it is fully locked in place. Failure to do so may result in the attachment or accessory loosening or disconnecting causing a delay of surgery, prolonged/additional anesthesia exposure, and/or patient/user injury.

Do not use attachments for prying or bending.

Do not force bur/cutter or use excessive force.

Allow the drill motor and bur/cutter to do the cutting.

Guide the drill motor with your fingertips using light force and a smooth tapping or circular motion.

Failure to follow these instructions could result in damage to attachments and/or breakage of accessories causing delay of surgery, prolonged/additional anesthesia exposure, and patient/user injury.

## STRAIGHT, ANGLED & CRANIOTOME ATTACHMENTS (continued)

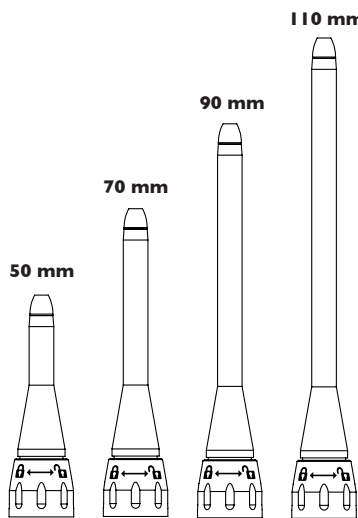


Fig. 14 Straight Attachments

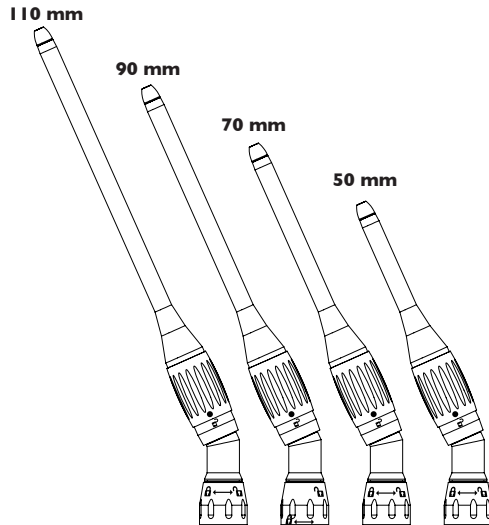


Fig. 15 Angled Attachments

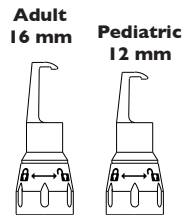


Fig. 16 Craniotome Attachments

## BUR/CUTTER COMPATIBILITY

### STRAIGHT & ANGLED ATTACHMENTS/CUTTERS

Each group of attachments (Short 50 mm, Medium 70 mm, Long 90 mm, Extra Long 110 mm) is designed to operate with a wide range of Brasseler USA® Surgical Power & Accessories burs/cutters. Straight and angled attachments of 50 mm, 70 mm, 90 mm and 110 mm lengths must be used with 50 mm, 70 mm, 90 mm, 110 mm length burs/cutters respectively.

Example:

Cutter Item number S30RDX indicates the following:

S = 50 mm attachment

30 = 3.0 mm head diameter

R = Round head shape

D = Diamond head type

X = Extra Coarse

In case of unexpected bur/cutter anomaly it is recommended to have backup consumable accessories to reduce any surgical delays.

Attachment	Head Diameter	Head Shape	Head Type	Coarseness/Grit
S = 50 mm	06 = 0.6 mm	R = Round	F = Fluted	F = Fine
M = 70 mm	10 = 1.0 mm	M = Match Head	D = Diamond	C = Coarse
L = 90 mm	20 = 2.0 mm	A = Acorn		X = Extra Coarse
X = 110 mm	30 = 3.0 mm	PC = Pin Cutter		
	40 = 4.0 mm			
	50 = 5.0 mm			
	60 = 6.0 mm			
	70 = 7.0 mm			
	90 = 9.0 mm			

## BUR/CUTTER COMPATIBILITY (continued)

### CRANIOTOME ATTACHMENTS/CUTTERS

#### **IMPORTANT**

Craniotome attachment must be used only with its corresponding size craniotome bur/cutter:

Size	Craniotome Attachment	Craniotome Bur/Cutter
Pediatric	XKP-C12	CFI 2S
Adult	XKP-C16	CFI 6S

#### **CAUTION**

Always use the appropriate bur/cutter and attachment combination to avoid potential patient/user injury, delay of surgery, prolonged/additional anesthesia exposure, debris remaining in surgical site and inability to complete surgical cut.

## OPERATION REQUIREMENTS

- Prior to initial use or any procedure, refer to the IFU for validated cleaning and sterilization instructions, as well as installation and operation instructions.
- Failure to follow validated cleaning and sterilization instructions may result in contaminants/debris interfering with the sterilization process (leaving infectious agents on the device) and may result in infection or allergy symptoms.
- Failure to follow the cleaning instructions provided in this IFU may result in premature fading of product identification marks and symbols. This may result in difficulty matching the proper attachment to bur/cutter selection, locking the attachment to the drill/motor, etc.
- Prior to each use, the drill motor, attachments and accessories must be inspected for proper operation and performance to avoid potential failure to complete the cut, patient/user injury, overheating or metal particle debris in the surgical site due to bur/cutter interference with the foot of the craniotome attachment.
- Always inspect air/nitrogen hoses prior to use. Worn or damaged air/nitrogen hoses should not be used but returned to Brasseler USA® Surgical Power & Accessories for repair/replacement immediately.
- Always wear Personal Protective Equipment (PPE) while operating the drill motor.
- Undue pressure and insufficient irrigation may cause premature bur/cutter damage or necrosis to bone and/or tissue.
- Always connect the proper attachment to the drill/motor before inserting the compatible bur/cutter. Assure the proper length bur/cutter is locked into the drill motor.
- To prevent potential overheating or abnormal vibration, pre-test the drill motor and attachments checking for worn/damaged bearings and/or components as well as internal contamination/debris. Do not reuse bur/cutter and assure the air/nitrogen pressure are at the recommended settings. Always use the proper length bur/cutter for the attachment selected.
- Consider potential patient reactions to contact with a particular metal.

**CAUTION:** Never reuse items marked for single use; risks associated with reuse include: cross contamination between patients, bone necrosis due to extra heat generation, and inaccurate cutting.



## OPERATION REQUIREMENTS (continued)

### DRILL MOTOR OPERATION

Please note the following operational and safety tips:

1. The drill motor should be held like a dissector for precise cutting and better fingertip feedback.
2. Always irrigate thoroughly when cutting to avoid bone necrosis.
3. Never use attachments to bend or pry.
4. Always wear Personal Protective Equipment (PPE).
5. Always use appropriate length attachment with chosen bur/cutter length.
6. Never exceed pressure of 120 psi (8.3 bar) as this may cause the motor to fail, bur/cutter breakage and patient/user injury.

### IMPORTANT

Do not use attachments for prying or bending.

Do not force bur/cutter or use excessive force.

Allow the drill motor and bur/cutter to do the cutting.

Guide the drill motor with your fingertips using light force and a smooth tapping or circular motion.

Failure to follow these instructions could result in damage to attachments and/or breakage of accessories causing delay of surgery, prolonged/additional anesthesia exposure, and patient/user injury.

### DRILL MOTOR SPECIFICATIONS

#### I. Performance

Power Source	Medical Grade Air/Nitrogen
Speed Range	0 – 100,000 rpms
Torque	3.0 in-oz (2.1 N-cm) @ stall
Operating Pressure	90 – 120 psi (6.3 – 8.4 kg/cm <sup>2</sup> ; 6.2 – 8.3 Bar)

## TROUBLESHOOTING

SYMPTOM	POTENTIAL CAUSE	SOLUTION
Drill motor does not rotate or spins slowly.	Inadequate lubrication.	Lubricate per Drill Motor Lubrication Instructions. If condition continues, send drill motor to Brasseler USA® Surgical Power & Accessories for service.
	Incorrect operating pressure	Set pressure to 90 – 120 PSI (6.2 – 8.3 Bar) range.
	Air/nitrogen hoses may not be connected properly.	Check connections between motor and foot control and between the foot control and air/nitrogen supply. Check for kinks.
	Worn or damaged components.	Send drill motor to Brasseler USA® Surgical Power & Accessories for service.
High or abnormal vibration.	Damaged or bent bur/cutter.	Replace with a new Brasseler USA® Surgical Power & Accessories bur/cutter.
	Wrong attachment and bur/cutter combination.	Use proper attachment for selected bur/cutter.
	Worn attachment bearings.	Send attachment to Brasseler USA® Surgical Power & Accessories for service.
	Excessive air/nitrogen pressure setting.	Reduce pressure to 90 - 120 PSI (6.2 - 8.3 Bar) range.
	Drill motor/attachment dropped.	Send drill motor and attachment to Brasseler USA® Surgical Power & Accessories for service.
	Attachment loose.	Re-tighten collar to secure position.
High or abnormal noise.	Inadequate lubrication of drill motor.	Lubricate per Drill Motor Lubrication Instructions.
	Damaged or torn air/nitrogen hoses.	Send damaged hose to Brasseler USA® Surgical Power & Accessories for service.
	Drill motor or attachment bearings worn.	Send drill motor or attachment to Brasseler USA® Surgical Power & Accessories for service.

## TROUBLESHOOTING (continued)

SYMPTOM	POTENTIAL CAUSE	SOLUTION
Drill motor overheating.	Drill motor used immediately after steam sterilization.	Allow drill motor to cool before using.
	Worn/damaged bearings or components.	Send drill motor to Brasseler USA® Surgical Power & Accessories for service.
	Excessive air/nitrogen pressure setting.	Reduce pressure to 90 - 120 PSI (6.2 - 8.3 Bar) range.
Attachments overheating.	Worn/damaged bearings or components.	Send attachment to Brasseler USA® Surgical Power & Accessories for service.
	Worn or dull bur/cutter.	Replace with a new Brasseler USA® Surgical Power & Accessories bur/cutter.
	Excessive air/nitrogen pressure setting.	Reduce pressure to 90 - 120 PSI (6.2 - 8.3 Bar) range.
	Instrument loaded with debris.	Send drill motor to Brasseler USA® Surgical Power & Accessories for service.
Improper connection - dual air/nitrogen hose to motor.	Bent or damaged connectors.	Send drill motor and dual air/nitrogen hose (foot control to motor) to Brasseler USA® Surgical Power & Accessories for service.
Burs/Cutters will not fit and/or not secure.	Debris in collet assembly.	Send drill motor and/or attachment to Brasseler USA® Surgical Power & Accessories for service.
	Not Brasseler USA® Surgical Power & Accessories bur/cutter.	Replace with a new Brasseler USA® Surgical Power & Accessories bur/cutter.
	Damaged collet assembly.	Send drill motor and/or attachment to Brasseler USA® Surgical Power & Accessories for service.

## TROUBLESHOOTING (continued)

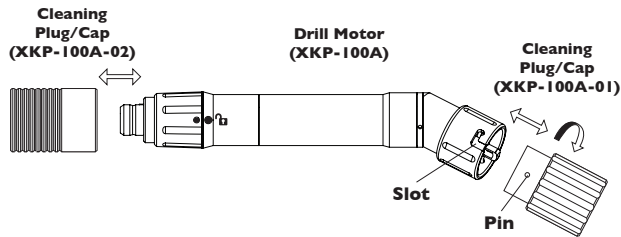
SYMPTOM	POTENTIAL CAUSE	SOLUTION
Color on drill motor fading.	Strong or abrasive cleaner used.	Use mild, non-abrasive cleaner.
	Cleaned in washer sterilizer.	Follow cleaning recommendations.
Craniotome bur/cutter interference to attachment.	Incorrect craniotome attachment or incorrect bur/cutter selection.	Select appropriate bur/cutter for craniotome.
Excessive gap between bur/cutter and craniotome foot.	Incorrect craniotome attachment or incorrect bur/cutter selection.	Select appropriate bur/cutter for craniotome.

## CLEANING, MAINTENANCE & LUBRICATION INSTRUCTIONS

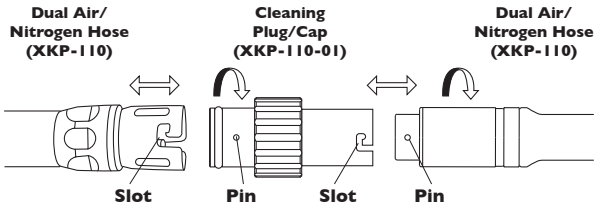
### MANUAL CLEANING

1. Cleaning is to be conducted by trained personnel.
2. Always use Personal Protective Equipment (PPE) during cleaning.
3. Prior to each cleaning, remove attachments from drill motor.
4. Ensure the attachments are fully open when processing.
5. Install appropriate cleaning Plug/Cap prior to cleaning. Cleaning Plug/Cap must be removed prior to sterilization. (Fig. 17-18)

**Fig. 18**



**Fig. 17**



### CAUTION

It is important that following surgical use the devices be cleaned and decontaminated immediately. If transport to decontamination area is delayed, dampen a cloth with deionized or distilled water and place over the device to minimize the drying of debris prior to decontamination.

DO NOT use saline to wet or soak the motor or attachments before transport to the decontamination processing area.

Failure to utilize cleaning plugs/caps during the cleaning process can create premature system failure and may result in delay of surgery, prolonged/additional anesthesia exposure, infection and allergic reaction.

DO NOT immerse drill motor; attachments and dual air/nitrogen hose.

## CLEANING, MAINTENANCE & LUBRICATION INSTRUCTIONS (continued)

### MANUAL CLEANING

6. Thoroughly rinse devices under running water (maximum temperature: 95°F - 35°C) until all traces of debris are removed. Pay particular attention to crevices and areas that may be shielded and expose these areas by rotating collars fully clockwise and counterclockwise throughout the entire rinsing process.
7. According to manufacturer's recommendation, prepare enzymatic cleaning solution with warm tap water. Be sure to only use a cleaning solution that has been declared by the manufacturer as safe for use on anodized aluminum components.
8. Using suitable soft (nylon) non abrasive brushes, thoroughly scrub surfaces using an enzymatic neutral detergent (6.0 pH to 8.0 pH) and water mixture per the manufacturer's instruction. Water temperature should be warm between 80°F (27°C) and 100°F (38°C). Pay particular attention to crevices and areas that may be shielded from brushes. These areas include rotating collars and the mating surfaces surrounding the collars. Expose shielded areas by rotating the collar fully clockwise and counterclockwise. Use an appropriately sized cylindrical soft bristle brush to clean the inner diameter of cannulated attachments, and ensure the brush passes through the entire length of the cannulated center.

Note: Do not use pipe cleaner or cotton swabs as debris will be dispersed throughout the system components and become more difficult to remove

9. Rinse off all traces of the detergent preferably using de-ionized or distilled running water 113°F (45°C) - 149°F (65°C).
10. Place components in a wire basket for processing. Follow the automated washer/disinfector manufacturer's loading recommendations. Thoroughly complete the manual cleaning instructions prior to placing the components into an automated washer/disinfector.
11. Visually inspect the devices for any remaining debris or cleaning solution. If debris or cleaning solution remains, repeat the cleaning and rinsing procedure with fresh clean solution.
12. Proceed to Automated Cleaning.

***Thoroughly complete the manual cleaning instructions prior to placing the components into an automated washer disinfecter.***

Note: Manual cleaning alone is not validated.

## CLEANING, MAINTENANCE & LUBRICATION INSTRUCTIONS (continued)

### AUTOMATED CLEANING

Phase & Concentration	Recirculation Time	Temperature	Detergent Type
Pre-Wash 1	5 Minutes	Cold Tap Water	N/A
Enzyme Wash	5 Minutes	Hot Tap Water	N/A
Endozime® AWTriple Plus® 1/2 oz./gallon (or similar)			
Rinse 1	2 Minutes	Hot Tap Water	N/A
Rinse 2	2 Minutes	Hot Tap Water	N/A
Thermal Rinse	1 Minute	90°C	N/A
Pure Water Rinse	10 Seconds	66°C	N/A
Drying	20 Minutes	110°C	N/A

After cleaning, inspect and test run the devices prior to sterilization.

## CLEANING, MAINTENANCE & LUBRICATION INSTRUCTIONS (continued)

Note: Do not lubricate attachments.

### DRILL MOTOR LUBRICATION

After drill motor has been properly cleaned and dried, apply 1-3 drops of oil lubricant (KM-M001) into the air intake end of the drill motor. Reconnect dual air/nitrogen hose and test run drill motor for 5-10 seconds before sterilizing. (Fig. 19)

Connect one end of the dual air/nitrogen hose (XKP-110) to the drill motor and the other end to foot control (MI-151). Connect one end of the single air/nitrogen hose (MI-121) to the foot control (MI-151) and the other end to the medical grade air or nitrogen supply (regulated to 90 - 120 psi; 6.3 - 8.4 kg; 6.2 - 8.3 Bar). Run the drill motor (XKP-100A) with all attachments for 30 seconds with appropriate bur/cutter installed. (Pages 9, 10 and 11/ Fig. 9, 10, 11, 12 and 13) Check for rapid temperature rise, unusual noise(s) and other visible malfunctions.

### IMPORTANT

Failure to lubricate may cause premature wear of motor components and/or loss of overall performance and void the warranty.

### CAUTION

Over lubrication may result in toxicological or allergic reaction.

Never clean BSPRAZR™ 100 High Speed Drill System in an ultrasonic cleaner or washer/sterilizer. Never immerse BSPRAZR™ 100 Drill Motor, Attachments and Dual Air/Nitrogen Hose.

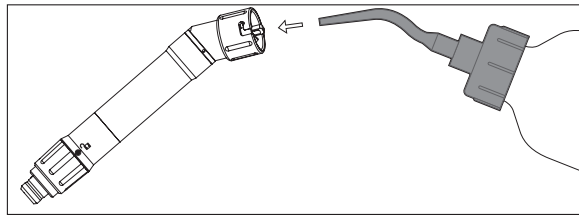


Fig. 19



## ACCIDENTAL IMMERSION

If accidental immersion of the drill motor/attachments/dual air/nitrogen hose occurs, please follow these procedures:

1. Immediately wash, rinse drill motor/attachments/dual air/nitrogen hose under running water.
2. Immerse drill motor/attachments/dual air/nitrogen hose in clean rinse water (preferably de-ionized or distilled) for 1 - 3 minutes. The goal is to rinse away any corrosive fluids and precipitates.
3. Attach the drill motor/attachments/dual air/nitrogen hose to medical grade air/nitrogen (Page 5 in Set-Up Illustration) and operate the drill motor and attachment for a minimum of 30 seconds.
4. If attachment has been cleaned, connect the attachment to the drill motor and run for 30 seconds. Dry drill motor/attachments/dual air/nitrogen hose within 30 minutes of cleaning and running.
5. Lubricate Drill Motor before autoclaving or before sterilization.

## STERILIZATION INSTRUCTIONS

The information and procedures described in this manual are intended to assist medical professionals in the safe and effective use, care, cleaning, sterilization and long-term maintenance of the BSPRAZR™ 100 High Speed Drill System.

The following methods of sterilization have been validated for the BSPRAZR™ 100 High Speed Drill Motor, Attachments and Accessories:

Sterilization Type	Minimum Temperature	Minimum Exposure Time	Minimum Dry Time
Gravity Wrapped	270° F (132° C)	20 minutes	30 minutes
Gravity Unwrapped	270° F (132° C)	15 minutes	30 minutes
Pre-Vacuum Wrapped	270° F (132° C)	4 minutes	30 minutes

Gas sterilization (Ethylene Oxide) is NOT recommended for the BSPRAZR™ 100 High Speed Drill System.

## REPAIR SERVICE

Brasseler USA® Surgical Power & Accessories, recommends that all BSPRAZR™ 100 handpiece and accessories (excluding air/nitrogen hoses) be returned to Brasseler U.S.A. Medical, LLC, Service Department for routine preventive maintenance every twelve (12) months. BSPRAZR™ 100 attachments and air/nitrogen hoses are recommended to be returned to Brasseler U.S.A. Medical, LLC, Service Department for routine preventive maintenance every six (6) months. Follow a regular care regimen that includes routine cleaning after each use, strict adherence to sterilization recommendations and a thorough inspection for damage of all devices after each use. Routine preventive maintenance performed by the Brasseler U.S.A. Medical, LLC, Service Department can increase the reliability and extend the life of your BSPRAZR™ 100 HIGH SPEED DRILL System.

Brasseler USA® Surgical Power & Accessories, warrants any service or repair work performed will be free from defects in material or workmanship for the period of ninety (90) days from date of service or repair. This warranty applies to the actual work performed.

Products must be decontaminated and sterilized before returning.

**Note:** It is unlawful to ship contaminated non-sterilized products.

Contact a Customer Service Representative at Brasseler USA® Surgical Power & accessories at 877-834-7133 (select option 2) to request repair, preventive maintenance, or a loaner instrument. If available, loaner instruments will be supplied in accordance with the Brasseler USA® Surgical Power & Accessories, Loaner Program.

Please include the following information with the returned product(s):

- Indicate on the paperwork or the box the designated call ID number.
- Catalog number, serial number and lot number (if applicable) of device.
- Customer name, address and account number.
- Itemized packing list.
- Brief statement describing reason for product repair or requesting preventive maintenance.

Return to:  
Brasseler U.S.A. Medical, LLC  
4837 McGrath Street  
Ventura, CA 93003

## WARRANTY

Brasseler USA® Surgical Power & Accessories, warrants the BSPRAZR™ 100 Handpiece (drill motor) and Accessories (cleaning plugs/caps, sterilization case, adapter - DISS to Schrader and foot control) to be free from defects in material and workmanship for a period of one (1) year from the invoice date. Brasseler USA® Surgical Power & Accessories, warrants all BSPRAZR™ 100 Attachments and air/nitrogen hoses to be free from defects in material and workmanship for a period of six (6) months from the invoice date. The warranty is limited to the repair of the product without charge. This warranty is nontransferable. In addition, this warranty is void in the event of any of the following: abuse, misuse, neglect or use in other than normal surgery environment, disassembly, alteration or unauthorized repair, or in the event that the product has not been used in reasonable manner and in compliance with the written instructions provided by Brasseler USA® Surgical Power & Accessories.

## PRODUCT DISPOSAL

Dispose of product or recycle in accordance with local laws and regulations.

## RETURN GOODS POLICY

If product needs to be returned, the following applies:

**Consumable / Disposable Product:** Any unused consumable/disposable product may be returned for credit within ninety (90) days of invoice date if it qualifies for resale (unopened and unmarked package). Products may be subject to a restocking fee. Credit will not be issued for products that do not qualify for resale.

**Capital Equipment:** Any unused capital equipment may be returned for credit within thirty (30) days of invoice date if it qualifies for resale (unopened and unmarked package). Products may be subject to a restocking fee. Credit will not be issued for products that do not qualify for resale.

**Packaging and Shipping:**

Returned items should be packaged in original packaging. Credit will not be issued for items damaged in return shipment due to packaging inadequacy.

**Note:** It is unlawful to ship contaminated non-sterilized products.

Contact a Brasseler USA® Surgical Power & Accessories Customer Service Representative at 800.535.6638 to obtain a "Return Merchandise Authorization" (RMA) number.

Please include the following information with the returned product(s):

- Catalog number; serial number and lot number (if applicable) of device.
- Return Merchandise Authorization (RMA) number noted with the return.
- Original invoice number or copy of original invoice.
- Original invoice date.
- Customer name, address and account number.
- Itemized packing list.
- Brief statement describing reason for product return.

Return to:  
Brasseler U.S.A. Medical, LLC  
4837 McGrath Street  
Ventura, CA 93003

## PRODUCT ORDERING INFORMATION

HANDPIECE	
XKP-100A	Drill Motor
ATTACHMENTS - STRAIGHT & ANGLED	
XKP-S50S	Straight, Short, 50 mm
XKP-M70S	Straight, Medium, 70 mm
XKP-L90S	Straight, Long, 90 mm
XKP-X110S	Straight, Extra Long, 110 mm
XKP-S50A	Angled, Short, 50 mm
XKP-M70A	Angled, Medium, 70 mm
XKP-L90A	Angled, Long, 90 mm
XKP-X110A	Angled, Extra-Long, 110 mm
ATTACHMENTS - CRANIOTOMES	
XKP-C12	Pediatric, 12 mm
XKP-C16	Adult, 16 mm

ACCESSORIES	
XKP-100A-01	Cleaning Plug/Cap - Air Intake End for Drill Motor
XKP-100A-02	Cleaning Plug/Cap - Nose End for Drill Motor
XKP-110	Dual Air/Nitrogen Hose (foot control/motor) - 10 ft.
XKP-110-01	Cleaning Plug/Cap - Both Ends for Dual Air/Nitrogen Hose
XKP-188	Sterilization Case
MI-121	Single Air/Nitrogen Hose (foot control/wall) with Schrader Connector - 16 ft.
MI-121-001	Adapter - DISS to Schrader
MI-151	Foot Control
KM-M001	Oil Lubricant - 2 oz.

Brasseler USA® Surgical Power & Accessories offers a complete line of BSPRAZR™ 100 cutting accessories (burs/cutters).





Brasseler U.S.A. Medical, LLC  
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BrasselerUSA.com

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