

Manman Drill

USER MANUAL



Western Surgical

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ACHIEVEMENTS



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"SAMEER IS OUR POWER"

Welcome to Manman Family

Thank you very much for selecting Manman's innovative Surgical tools which save precious time and efforts of your medical staff. Manman Surgical tools are very convenient to use, efficient yet robust in design. Manman Surgical tools are designed, developed, tested, and modified time to time for the best results.

Manman is an ISO 9001:2008 company working in the surgical tools technology since 1978. We are certified by ISO 13485 :2003 too. We are the manufacturers of various surgical power tools required in Cardiac, Neuro, and Ortho surgeries. We are proud to claim that all the products are indigenous and cost effective. We are confident that our product's quality is at par with International standards, as we have never compromised on even a single quality parameter. As a result of our continuous efforts towards best product, we have gained confidence of more than 9000 customers in India and Afghanistan, Bangladesh, Canada, Dubai, England, Fiji, Ghana, Guyana, Indonesia, Iran, Jordan, Kenya, Malaysia, Mauritius, Mexico, Nepal, Nigeria, Oman, Pakistan, Papua New Guinea, Peru, Saudi Arabia, Singapore, Sri Lanka, Sudan, Swaziland, South Africa, Tanzania, Thailand, Trinidad, West Indies, Yemen etc.

Manman has also won prestigious awards like G.S Parkhe award for the best industrial products for number of times for its unique inventions and innovations. Manman takes pride in having you as a valuable member of our ever growing family and we welcome all those who will soon be joining Manman family.

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TABLE OF CONTENTS

01. Introduction	3
02. Basic Drivng Unit	3
Ortho System	
03. Cannulated Drill Handpiece	5
04. T Handle	6
05. Flexible Shaft	7
06. Cannulated Reaming Handpiece	8
07. Sagittal Saw Handpiece	9
08. Reciprocating Saw	10
09. Wire Driver Handpiece	11
10. Sushee System	12
Cardiac System	
11. Stenum Saw Handpiece	14
12. Resternotomy Saw Handpiece	15
Neuro System	
13. Craniotome-Perforator Handpiece	16
Important Instructions	
14. Fault Finding Instructions	19
15. Lubrication Instructions	21
16. Normal Wear and Tear	21
17. Use of Dummy Shaft & Shelf Life	22
18. Feed Back Form	23
19. Oil Schedule Chart	24
20. Care and Maintenance & Sterilization	25

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INTRODUCTION

Manman is proud to present the new-look, user-friendly version of Manman manual. It is smaller in size and easier to handle. It contains plenty of information about Manman's surgical power tools. It is with self-explanatory graphical presentation.

Manman Bone Cutting, Drilling and Reaming System in short it is called as **BCDR** system. This system is user friendly, versatile and with best performance. The wide range of speed control is achieved with Foot Control.

We are please to state that, this single manual comprises relevant data, technical knowhow for Ortho, Cardiac and Neuro surgeons, OT technicians and biomedical engineers. We have tried to cover installations, accessories, standard procedures, lubrications, cleaning, autoclaving, fault finding, basic care and maintenance instructions, Shelf Life instructions in all aspects. Of course, this was not possible without your valuable feedbacks, suggestions and friendly support.

Let me take this opportunity to thank all the Surgeons, Biomedical Engineers, OT Technicians and Well-wishers who were patiently and eagerly waiting for the new version of this manual.

With Warm Regards



Madhukar Gokhale

Life Member Bio-Medical Engineering Society of India

BASIC DRIVING UNIT

Code A

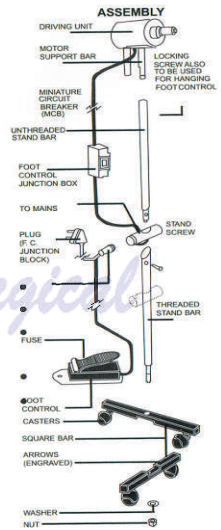


90 Watt

Code A1



200 Watt



- COMPLETELY ENCLOSED
- FOOT CONTROL FOR ON/OFF AND SPEED CONTROL
- CASTORS FOR MOBILITY
- CAN BE EASILY DISMANTLED AND PACKED IN SUITCASE.

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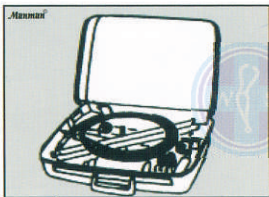


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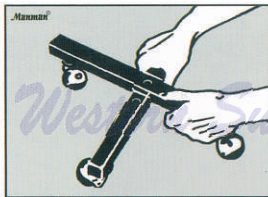
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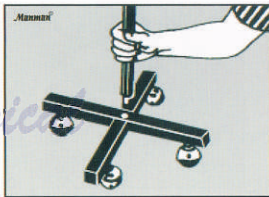


On opening the container, you will find neatly packed Manman BCDR system. It is easy to remove and pack. It is also convenient to carry.

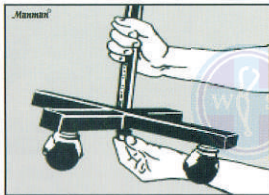


DRIVING UNIT ASSEMBLY

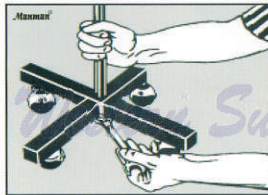
Match the holes on the square bars to assemble the stand base of the system.



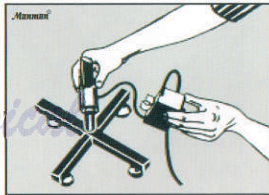
Insert the threaded end of the threaded stand bar and rotate it into the holes of the cross bars.



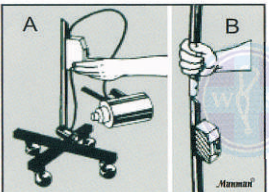
Tighten the nut after placing the washer in position.



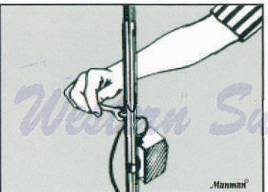
Remember to firmly tighten the nut with the spanner (19 mm spanner provided with tool kit.)



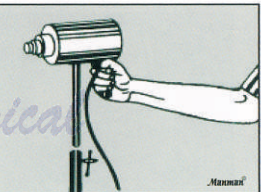
Slide the foot control junction block on the above bar.



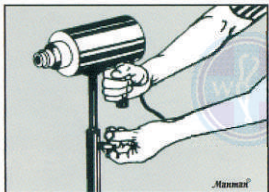
A) Clip on the Miniature Circuit Breaker (MCB) box on the same stand bar. B) Insert the unthreaded stand bar into threaded stand bar.



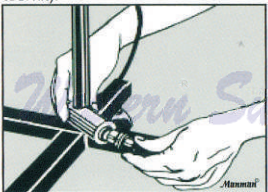
The holes of the bars get automatically matched. Insert the bolts and tighten firmly with 10mm spanner (provided with tool kit).



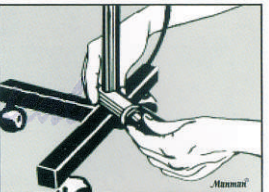
Insert the driving unit (motor support) bar in the top hole of the unthreaded stand bar.



Adjust the height of the driving unit motor with the help of the locking screw on unthreaded stand bar.



Fit the connector end of the foot control to the junction block accordingly with projection in the notch.



Press the connectors sufficiently enough to tighten the ring nut of the connector for firm electrical connection.

Note : Before operating, please check the earthing connection of the hospital

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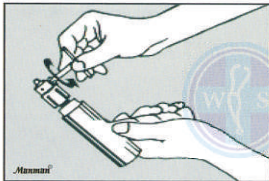
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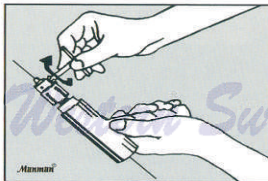
- PISTOL GRIP
- SS JACOB'S DRILL
- CHUCK (0-1/4")
- WEIGHT 800G. APPROX.
- MAX SPEED 1200RPM
- 5.5MM CANNULATION
- IDEAL FOR DRILLING, WIRE DRIVING, NAILING
- AUTOCLAVABLE

MANMAN CANNULATED DRILL HANDPIECE

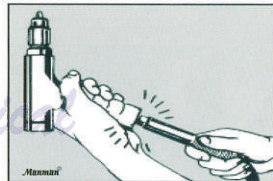


DRILL BIT/K-WIRE FIXATION

To open the jaws of the chuck engage the chuck key with the chuck gear and rotate the chuck key in anticlockwise direction.

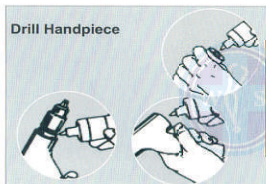


Hold the drill bit or Manman K-wire through the centre of the opened jaws of chuck and rotate the chuck key clockwise until it holds the drill bit or K-wire sufficiently firm.

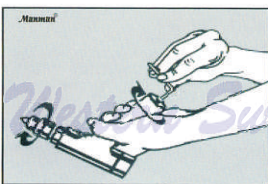


ATTACHMENT OF CANNULATED DRILL HANDPIECE TO FLEXIBLE SHAFT

Push the handpiece end of the shaft into the shaft end of the drill hand piece until it clicks. Give twisting movements to hand piece if necessary for its proper engagement.



Put one drop of lubricant at chuck holder, cannulation hole and the shaft end of the cannulated drill hand piece.



Insert the dummy shaft into the shaft end of drill handpiece and rotate in clockwise direction for better lubrication of drill hand piece.

AUTOCLAVING OF THE DRILL HANDPIECE

The drill handpiece can be autoclaved by normal methods of autoclaving.

- A) Drum Autoclaving
- B) Chamber Autoclaving

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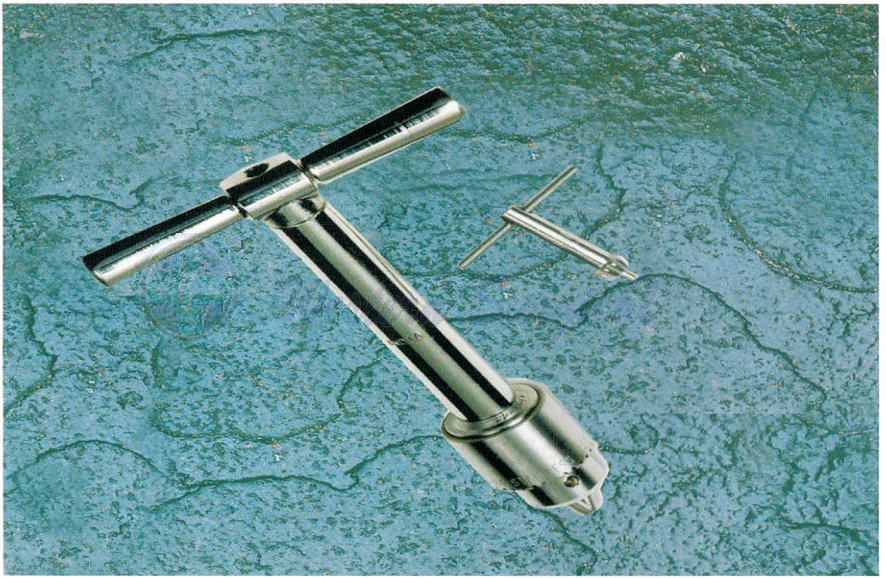


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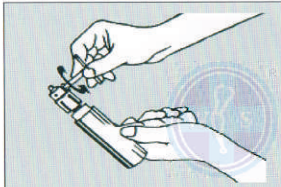
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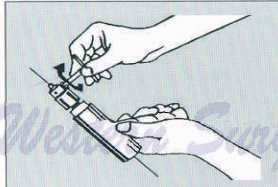


MANMAN 'T' HANDLE

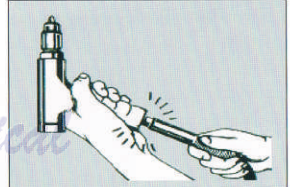


DRILL BIT/K-WIRE FIXATION

To open the jaws of the chuck, engage the chuck key with the chuck gear and rotate. The chuck key in anticlockwise direction.



Hold the drill bit or Manman K-wire through the centre of the open jaws of chuck and rotate the chuck key clockwise until it holds the drill bit or K-wire sufficiently firm.



ATTACHMENT OF CANNULATED DRILL HANDPIECE TO FLEXIBLE SHAFT.

Push the handpiece end of the shaft into the shaft end of the drill handpiece until it clicks. Give twisting movements to hand piece if necessary for its proper engagement.

CARE & MAINTENANCE

→ After use clean the drill handpiece and chuck properly.

→ Before use check the drill handpiece by dummy shaft.

→ If the dummy shaft is not rotating easily then do not connect the flexible shaft to that handpieces as this may damage the flexible shaft.

→ Don't forget to lubricate the handpiece and flexible shaft before every autoclaving.

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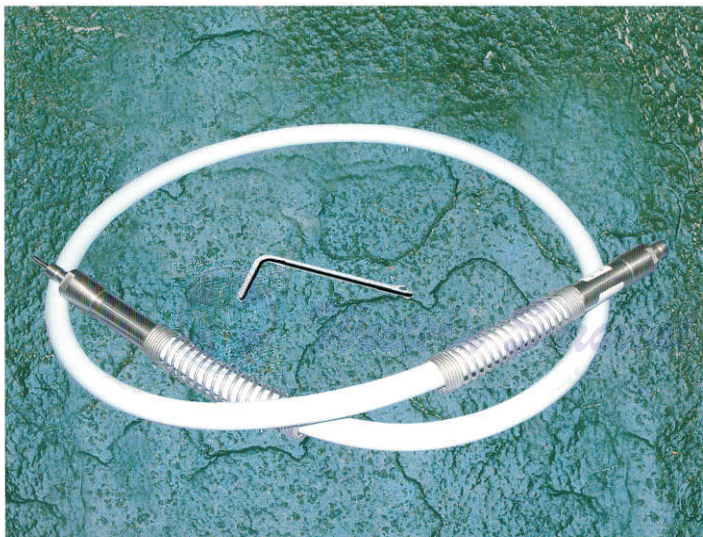


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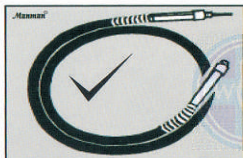
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- LENGTH 1.5 METRS
- WEIGHT : 1 Kg. APPROX.
- PUSH-PULL TYPE ENDS
- AUTOCLAVABLE

MANMAN FLEXIBLE SHAFT WITH DUMMY SHAFT

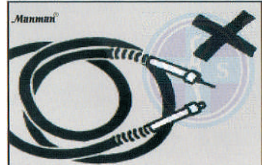


AUTOCLAVING OF THE MANMAN FLEXIBLE SHAFT

Flexible shaft can be sterilized by normal autoclaving.

- A) Drum autoclaving.
B) Chamber autoclaving.

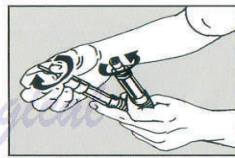
Wrap the flexible shaft in two towels and keep the winding as big as possible (of the drum size)



Do not wind the flexible shaft into small windings.

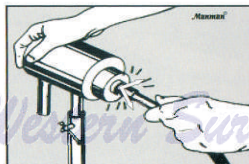


Do not immerse the flexible shaft into water. Drain the water out of the flexible shaft after it is cleaned.



MANUALLY CHECKING THE FLEXIBLE SHAFT

Rotate the handpiece end of flexible shaft and observe if the motor end of the flexible shaft rotates easily. If not, then send us the shaft for repairs.



FLEXIBLE SHAFT

Take the motor end of the flexible shaft and engage it to the motor (shaft end) by pressing it straight with slight twist until it clicks.

For Repair and Service Contact
8975756489

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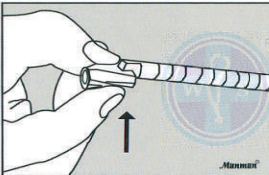
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Code C Code L2
Code J Code M
Code K
Code L1

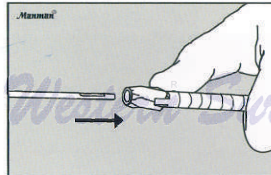


- PISTOL GRIP
- MAX SPEED 400 RPM
- AO COUPLING
- 5.5MM CANNULATION
- IDEAL FOR INTRAMEDULLARY REAMING
- WEIGHT 1 Kg APPROX
- ADAPTORS AVAILABLE : JACOBS, TRINKLE, SYNTHES, HUDSON
- AVAILABLE WITH FIXED AND DETACHABLE REAMER SHAFTS (8MM TO 15MM), 5MM DIFFERENT
- AVAILABLE WITH GUIDE WIRES (100CM) WITH OLIVE AND PLAIN
- AUTOCLAVABLE

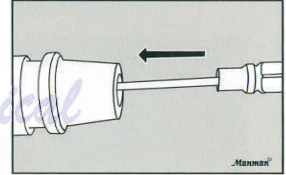
MANMAN CANNULATED REAMING HANDPIECE WITH ACCESSORIES



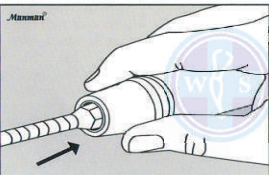
REAMING HEAD TO SHAFT FIXATION
Fix the reamer head (L1) to the detachable type reaming shaft (K) as shown in above figure. Tip of (K) is complementary to (L1) slot.



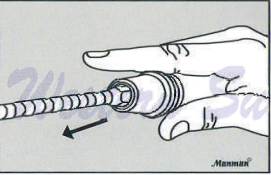
Insert guide wire through Manman reamer shaft through reaming head L1 as shown in figure.



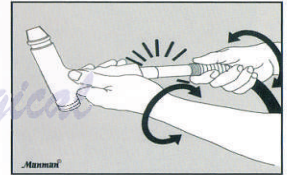
Put the manman olive type guide wire through the cannulation of the reaming shaft.



Press fit the reaming shaft in AO type coupling of the reaming hand piece by slightly pushing AO type sleeve backward and after wards retrieving it.



For removing reaming shaft, pull the AO type coupling slightly with thumb and take out the reaming haft. In the same way Jacob, Hudson, Synthes, Trinkle adaptors are fitted to the reaming hand piece.



ATTACHMENT OF REAMING HANDPIECE TO FLEXIBLE SHAFT

Push the handpiece end of the shaft into the shaft end of the reaming handpiece with little twist until it clicks.

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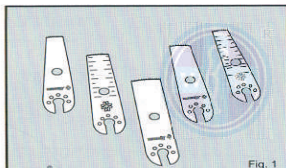
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- PISTOL GRIP
- WITH FIVE TYPES OF BLADES
- WEIGHT 700 G APPROX
- IDEAL FOR TKR, THR AND DEEP CUTS
- AUTOCLAVABLE

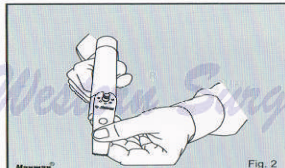
MANMAN

SAGITTAL SAW HANDPIECE (PISTOL GRIP) WITH ACCESSORIES

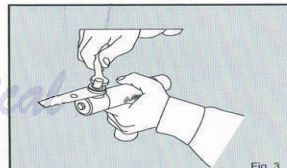


Attachments of Blades with Saw Handpiece

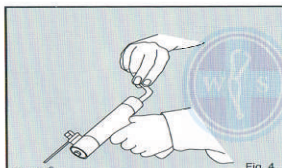
The different sizes of blades are available to suit specific requirement.



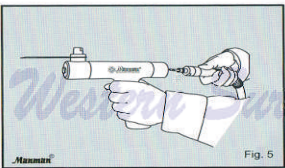
Put the blade on the pivot. Make angular adjustment with the pin on pivot. Blade angle can be changed by changing angular adjustment.



Tighten the blade holder firmly with 10mm spanner (provided with tool kit).

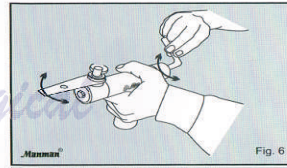


Insert the dummy shaft into the sagittal saw hand piece. Rotate it clockwise for better lubrication.



Connection with Other Medical Device

Push the end of the shaft into sagittal saw hand piece with little until it clicks.



Contra Indication Method To Be Used Before Use

Rotate the dummy shaft in clockwise direction. Observe the oscillations of the blade. If not proper, send the saw hand piece for repairs.

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MANMAN RECIPROCATING SAW HANDPIECE

- ERGONOMICALLY DESIGNED FOR COMFORT
- PISTOL GRIP WITH TWO TYPES OF BLADES
- WEIGHT 750 G APPROX
- IDEAL FOR TKR, THR AND AMPUTATION
- AUTOCLAVABLE

REPAIR AND MAINTENANCE OF EQUIPMENTS (MANMAN RECIPROCATING SAW)

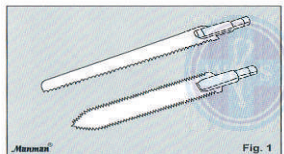


Fig. 1

Attachments of blades with Reciprocating Saw Handpiece

Two types of blades are available. For specific requirement blades can be made.

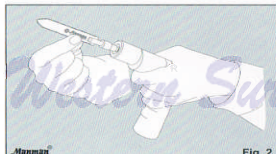


Fig. 2

Match the shank to the blade holder. Insert the blade with required position (i.e. horizontal or vertical) in the blade holder socket.

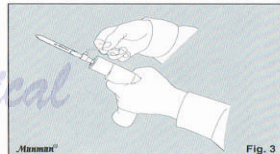


Fig. 3

Place the blade holder screw on pivot and tighten it sufficiently with the help of 3mm allen key which is provided.

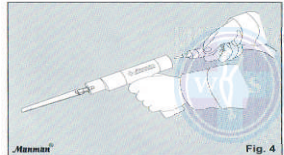


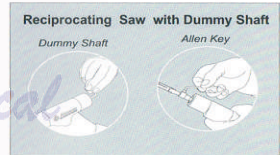
Fig. 4

Attachments of Reciprocating Saw with Flexible Shaft

Push the shaft into saw hand piece with little twist until it clicks.



Before autoclave put one drop of lubricant at blade pivot and at the shaft end of the reciprocating saw handpiece.



For better lubrication and reciprocation insert the dummy shaft and rotate it clockwise. Place the blade holder screw on the pivot and tighten it sufficiently with the help of 3mm allen key.

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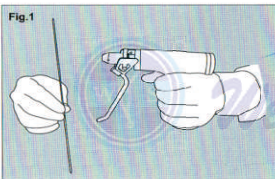
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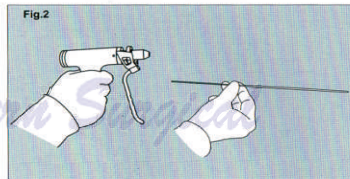
- MAX. SPEED 1200RPM
- PISTOL GRIP
- AUTOCLAVABLE
- IDEAL FOR 1.00mm TO 2.5mm [1.2mm TO 2mm] WIRES
- EASY TO OPERATE COUPLING
- CONTINUOUS WIRE DRIVING POSSIBLE & NONSTOP LEVER REQUIRED ie. WITHOUT STOPPING THE HANDPIECE
- WEIGHT 800G APPROX

MANMAN WIRE DRIVER HANDPIECE

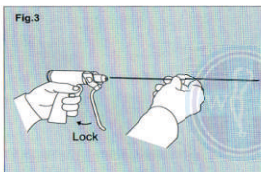
WIRE DRIVER ASSEMBLY INSTRUCTIONS.



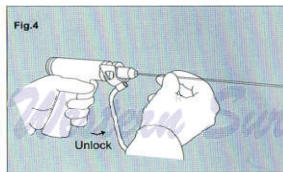
We can use any 'K' wire at 1mm to 2.5mm.



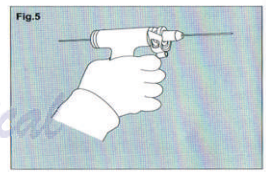
To operate 'K' wire Hand piece insert the wire as shown fig. 2



By pulling the lever we can drive the 'K' wire.



After releasing the lever we can unlock the 'K' wire.



We can drive Manman 'K' wire hand piece as shown in fig. 5

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MANMAN BATTERY OPERATED SYSTEM SUSHEE

INSTRUCTION FOR SUSHEE

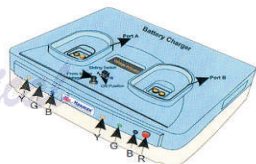


Basic Handpiece

The new Manman Battery operated Drill will be called as "Sushee".

It has a main body which will be use as basic handpiece. The basic hand piece will be complete when battery compartment will be attached to it.

LOADING BATTERY IN THE BATTERY ADAPTOR (CONTAINER)



Charging the Battery Packs

The charger for Battery Packs is supplied with the "Sushee".

The Charger and the BatteryPack are not to be autoclaved.

The system has one charger with two battery packs and a supply cord.

The battery packs can be loaded in different ports provided on the battery charger as shown.

We can load the Battery Pack in the container separately or we can load it when attached in the Basic Handpiece.

Steps in Charging :

Place the battery pack in the port "A" or "B". You can charge two battery packs simultaneously.

When Battery is placed in the port "Y" LED (Orange) "Flash Fast" it indicates the charging started.

When battery is accepted and charging starts "Y" LED (Orange) Flash Slowly.

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Step 1



Funnel for dropping the battery pack into the container.

Step 2



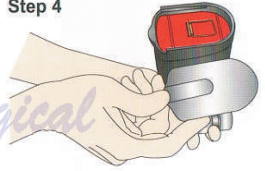
Put the Funnel over the hand piece as shown above.

Step 3



Ask the assistant to put the Battery pack inside through the Funnel as shown.

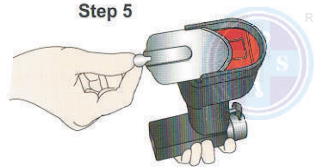
Step 4



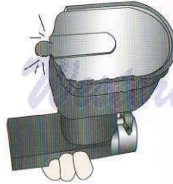
Take the Sterile lid in one hand.

PREPARING THE BASIC HANDPIECE

Step 1



Step 5



Slide the lid carefully through the slot at the bottom as shown.

It clicks when closed.



The Basic Handpiece is assembly of Main body and Battery Adaptor (Container). Both must be sterilized.

The Battery Adaptor (container) can be loaded with battery. (The battery can be loaded later on as discussed earlier.)

Step 2



To Attach or Detach the adaptor (container) to the main body, we have to press the knob as shown.

Then take hold of main body. Simultaneously pull the Adaptor (container) away to detach or towards to attach.

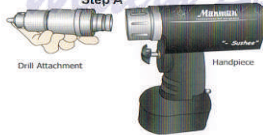
Then release the knob.



The Basic handpiece is now ready for accepting attachments if required.

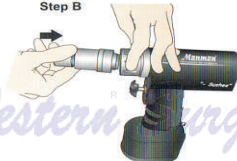
To Attach

Step A



You can see the attachment is in one hand.

Step B



Then you can take hold of the coupler ring and turn the coupler as shown in the fig. To keep the attachment ready to couple.

insert the attachment in proper position.

Now you can release the coupler to take hold of attachment.



Now the Handpiece is ready to use. Similarly you can attach the different types of attachments for example reaming attachment, oscillating, reciprocating saw etc.

CARE & MAINTENANCE

The attachments and the Basic Handpiece both are supposed to be sterile before use.

After use clean with wet cloth.

Remove the battery pack when not in use.

BATTERY DISPOSAL INSTRUCTIONS

1. Do not throw the battery into the dustbin. (Do not recycle.)
2. Do not expose the battery to fire.
3. Do not hammer.
4. Dig a hole of suitable size and bury deep in the ground.

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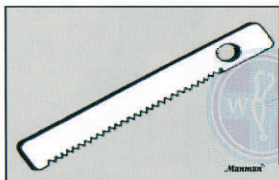
Email : westernsurgical@gmail.com

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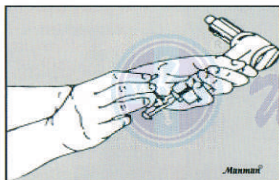
- RECIPROCATING BLADE TYPE
- WEIGHT 850 G APPROX
- AVAILABLE IN PAEDIATRIC AND ADULT TYPE
- IDEAL FOR STERNOTOMY
- AUTOCLAVABLE

MANMAN STERNUM SAW HANDPIECE



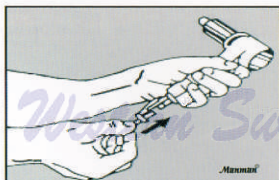
ATTACHMENTS OF BLADES WITH STERNUM SAW HANDPIECE

Special quality S.S. blade for adult and paediatric cardiac surgeries are available.



REMOVE THE BLADE

With the help of allen key 3mm loosen the blade holder screw and take it out.

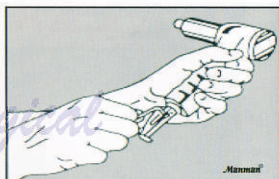


INSERT THE BLADE

Insert the blade from the sit of blade anchor and match the hole of blade and blade holder pivot.

MAINTENANCE

- The Sternum Saw blades is to be used for one operation only.
- But can be used maximum five operations.
- Always remove the blades after surgery and clean it.
- Do not use blunt blades.



TIGHTEN THE BLADE

Place the blade holder screw on blade holder pivot and tighten it sufficiently with the help of allen key (3 mm provided with the tool kit).

DISPOSE METHOD

Spoil the blade with plier so than cannot be used by anyone.

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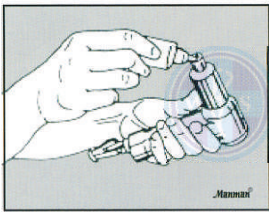


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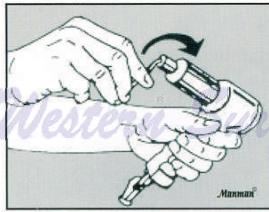
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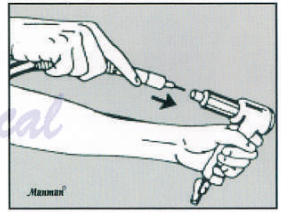
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Put one drop of lubricant at the shaft end of the sternum saw hand piece.

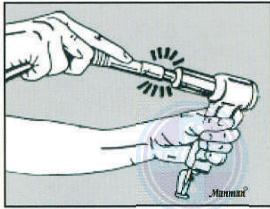


Insert the dummy shaft into the shaft end of the sternum saw hand piece and rotate it in clockwise direction for better lubrication.



ATTACHMENT OF STERNUM SAW HAND PIECE WITH FLEXIBLE SHAFT

The hand piece end of the flexible shaft engages with shaft end of the saw hand piece by simple push pull system.



Push the hand piece end of the shaft into shaft end of saw hand piece until it clicks. While inserting the shaft in saw hand piece give twisting movements to the hand piece if necessary for proper engagement.

AUTOCYLAVING OF MANMAN STERNUM SAW HAND PIECE

Sternum saw handpiece can be autoclaved by usual methods of autoclaving.

- A) Drum autoclaving
- B) Chamber autoclaving

Manman Oil Bottle available in 100ml for Rs. 260/-

Code P



- OSCILLATING BLADE TYPE
- WEIGHT 750 G APPROX
- IDEAL FOR RESTERNOTOMY
- SECTOR TYPE BLADES
- NOW AVAILABLE WITH DEPTH
- SUPPORT DISC FOR BETTER SAFETY
- AUTOCLAVABLE

MANMAN RESTERNOTOMY SAW (REDO SAW)

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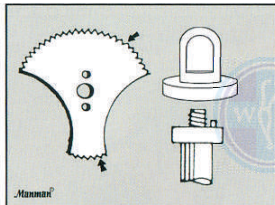


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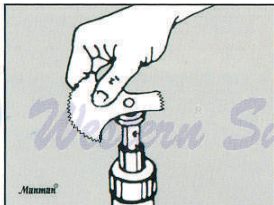
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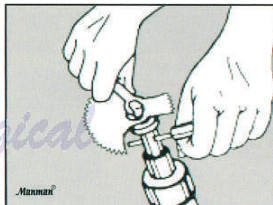
RESTERNOTOMY SAW (REDO SAW)

The Redo saw blade is specially designed and is known as sector blade.

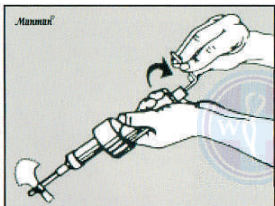


ATTACHMENT OF BLADE WITH REDO SAW HANDPIECE

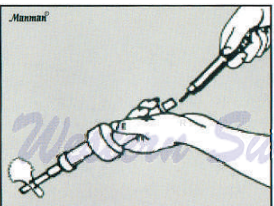
Put the blade on the pivot, match the angular adjustment hole of blade with the pin on the blade pivot.



Tighten the blade holder nut sufficiently firm with 10mm spanner.

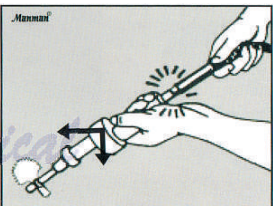


Insert the dummy shaft into the shaft end of the Redo saw hand piece and rotate it in clockwise direction for better lubrication.



ATTACHMENT OF REDO SAW HANDPIECE WITH FLEXIBLE SHAFT

The end of the flexible shaft engages with shaft end of the saw by push-pull system.



Push the handpiece end of the shaft into shaft end of saw handpiece with little twist until it clicks.

FOR NEURO SYSTEM

Code Q & R

- ROUTER CUTTER
- WEIGHT 700 G APPROX
- IDEAL FOR CRANIOTOMY
- 20,000 RPM
- AVAILABLE IN ADULT,
- PAEDIATRIC TYPE
- AUTOCLAVABLE



- AUTOSTOP AS SOON AS CUTTER TOUCHES DURA MATER
- FOUR FLUTED PERFORATOR CUTTER (8MM, 10MM, 12MM) (ADULT/PAEDIATRIC TYPE)
- WEIGHT 800 GM APPROX IDEAL FOR CRANIUM
- PERFORMANCE
- SPEED 1200 RPM
- AUTOCLAVABLE

MANMAN CRENIOTOME - PERFORATOR HANDPIECE

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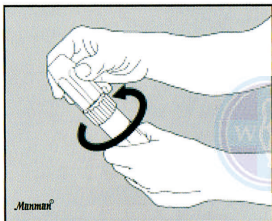


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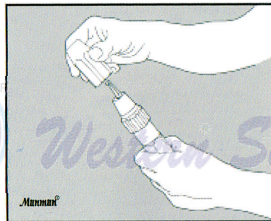
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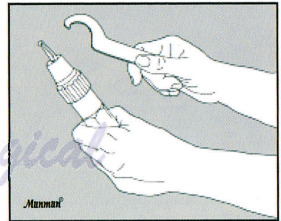


MANMAN CRANIOTOME HANDPIECE

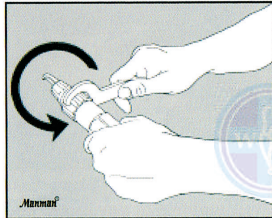
To fit or change a new cutter on Manman craniotome, open anchor cap.



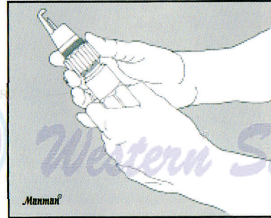
Observe if the cutter anchor and craniotome cutter are in proper shape and alignment.



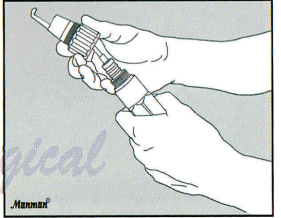
To open the anchor holder of craniotome handpiece, use special spanner provided in Manman tool kit.



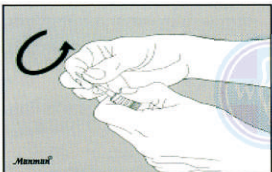
Firmly hold the anchor holder with spanner and rotate anticlockwise to open it.



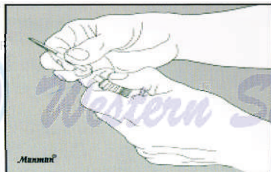
After sufficiently loosening the anchor by spanner, rotate the anchor holder manually and carefully.



Remove the anchor holder carefully (Take care that the anchor does not cause any harm to craniotome cutter).



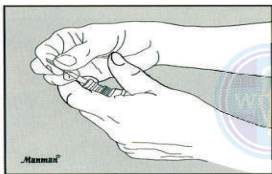
To remove craniotome cutter, retrieve cutter holder sleeve and rotate cutter anticlockwise.



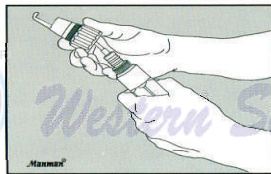
Pull and remove the cutter from cutter holding sleeve and release the sleeve.



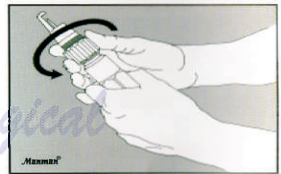
For the new cutter fixation, retrieve cutter holding sleeve and rotate cutter for firm engagement with clockwise direction as shown in fig.



Release the cutter sleeve and observe if it is completely released and in normal position. Recheck the firm fitting of the cutter by pulling it out (It must not come out while cutter sleeve is released).



Replace the anchor holder carefully without damaging the cutter.



Manually rotate the anchor holder clockwise to fit it over craniotome handpiece body.

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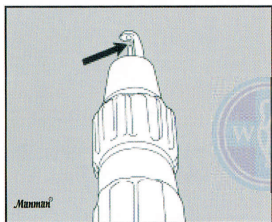


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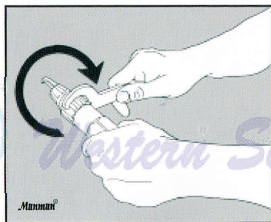
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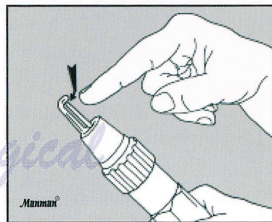
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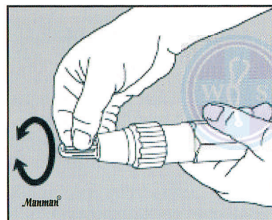
If the cutter falling short or is extending beyond the hole of anchor tip, refitting of cutter is necessary.



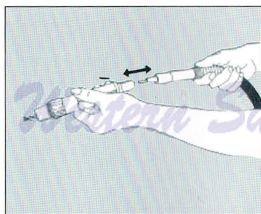
Sufficiently tighten the anchor holder with spanner.



Observe the proper engagement and alignment (tip of cutter must get inserted into complementary anchor hole) of cutter with anchor.

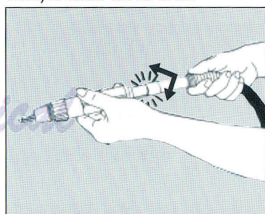


After proper fitting of the cutter, observe manually free rotation of the cutter.

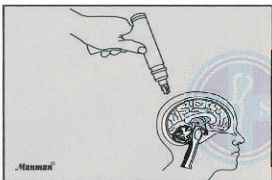


ATTACHMENT OF CRANIOTOME WITH FLEXIBLE SHAFT.

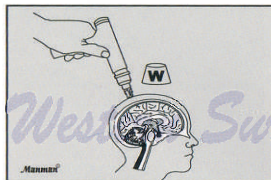
The handpiece end of the flexible shaft engages with shaft end of the craniotome by push pull system.



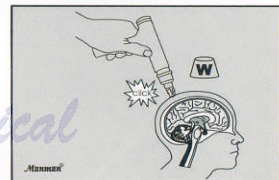
Push the handpiece end of the shaft into shaft end of craniotome with little twist until it clicks.



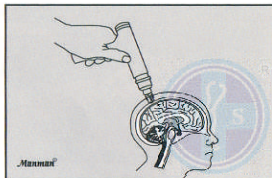
Machine is ON. Cutter not moving. (Special arrangement inside will not allow the cutter to move without external pressure)



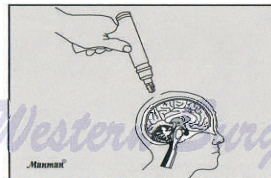
Machine is ON. Put pressure on the Cutter against the skull.



There will be a CLICK sound indicating the cutter is engaged. (Do not release or change the pressure.) Continue the cutting.



You will cross the outer table and then the middle layer but do not change the pressure and continue in the inner table. The cutter will stop cutting further automatically as soon as it touches the dura.



Now you can stop the machine and withdraw the cutter.

CARE & MAINTENANCE

- After use always remove the perforator cutter from handpiece, clean them & keep it in safe place.
- Before use check the Perforator handpiece by dummy shaft.
- If the dummy shaft is not rotating easily then don't connect the flexible shaft to that handpieces as this may damage the flexible shaft.
- Don't forget to lubricate the handpiece & flexible shaft before every autoclaving.

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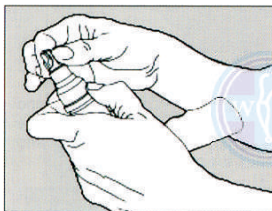


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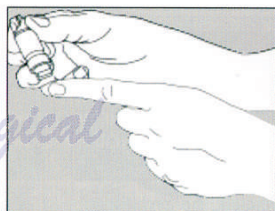
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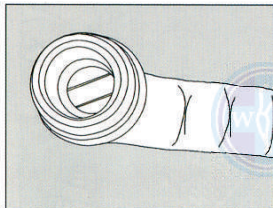
To change perforator cutter, hold the tip of perforator cutter and retrieve cutter holding sleeve.



Feel the release of perforator cutter inside cutter sleeve and pull out the cutter while sleeve remains retrieved.



To put new perforator cutter, observe the rectangular ridge-projection at the base of the cutter end.

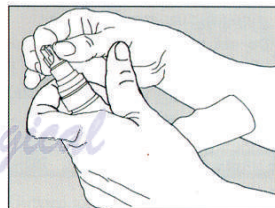


The projection-ridge on perforator cutter and the notch-depression inside the cutter holding sleeve are complementary to each other.



FIXATION OF CUTTER HEAD

Retrieve cutter holding sleeve and insert perforator cutter into the cutter sleeve.



Release the sleeve after matching the rectangular ridge-projection of cutter and rectangular notch-depression of handpiece. Make sure that the cutter should not come out after pulling.

FAULT FINDING INSTRUCTIONS

NOTE : PLEASE READ OUR FAULT FINDING INSTRUCTIONS CAREFULLY. YOUR CO-OPERATION BY FOLLOWING THE WAYS WILL HELP US PROVIDE YOU TIMELY AND BETTER SERVICE.

★ If the problem still exist, then replace the fuse and check the hospital mains for supply (220 V, 5A) to the wire connection and insulations.

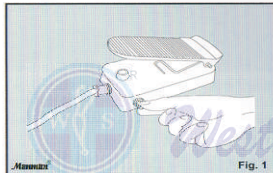
★ If the motor is running properly with no irregular sound then driving unit is okay. Go to step 3.

★ If the motor is not running and produces irregular sound, separate the driving unit and foot control and send it to us for repair.

★ Isolate the problematic part of the system.

★ To send the parts to us for necessary correction and servicing, neatly pack the parts in woolen, plywood, or corrugated paper case.

★ Do not send any part that is loosely packed. Send the pack by Regd. Post parcel or courier service. Intimate us immediately about the dispatch

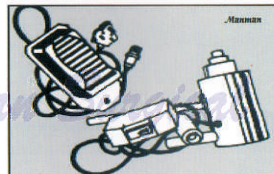
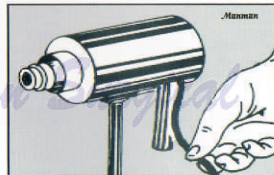


STEP 2 CHECKING THE WIRES OF DRIVING UNIT & FOOT CONTROL

★ Check the wires of driving unit and foot control for proper insulation, for contacts and continuity of wires.

★ If there is any fault in these wires, please send the driving unit and foot control to us for repair.

★ If wires are intact, then connect the system to mains and press the foot control.



STEP 1 CHECKING THE FUSE

★ The fuse is fitted on the foot control (on the base, in older model.)

★ If okay, go to step 2. Check the fuse contacts/fuse wires. Tighten the loose fuse contact. Replace the fuse wires if fused and check again.

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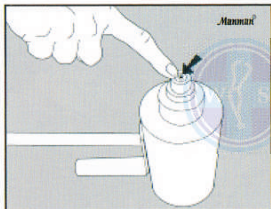


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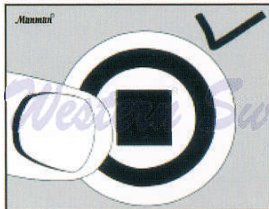
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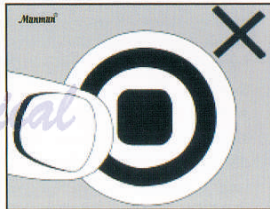


LOSS OF TORQUE ?

Observe the square hole of the shaft holding notch of the motor in which the square tip of the motor end of flexible shaft gets engaged by pushing in.



The square hole of the shaft holding notch of the motor in which the square tip of flexible shaft are complementary.



If the square hole of the shaft holding notch of the motor gets rounded. You may feel the loss of required torque while drilling, reaming and cutting.

This happens because of wear and tear after long usage.

In this case please isolate the motor, pack it neatly and send us for proper repair.

**For any
A/C Queries
and
Dispatch Details
Contact
9922445504**

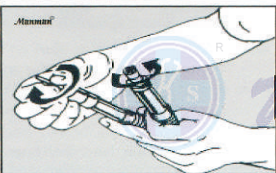
STEP 3 CHECKING OF FLEXIBLE SHAFT

Flexible shaft can be checked in two ways.

A) If the driving unit and foot control are okay, attach the flexible shaft to driving unit. Hold hand piece end (user's end) of the shaft in your hand. Put on the mains and press the foot control and observe the shaft tip. You can press the moving tip against ant wooden plank. If it stops rotating or not rotating properly then send the shaft to us for necessary repair.

If the shaft is okay go to step 4.

MANUAL CHECKING OF FLEXIBLE SHAFT



B) Hold the tip of handpiece end (user's end) of the shaft in to your fingers and rotate the tip manually.

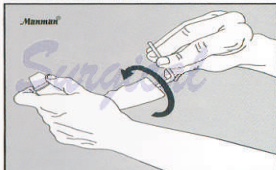
- ★ **Observe** the movement of the tip at the other end (Motor end). If the movement is proper, shaft is okay, then go for step 4.
- ★ **If the shaft tip is not moving properly or locked or faulty, send the shaft to us for rectification.**

STEP 4 CHECKING THE HANDPIECE

Handpiece can be checked in 2 ways

- ★ **A) If all other parts of the system are working i.e. Driving Unit, Foot Control, Flexible Shaft are working properly. Attach handpiece to the flexible shaft. Put on the Mains and press the foot control.**
- ★ **If the movement of the chuck/saw blade is proper then the handpiece and the system are okay.**
- ★ **If the movement of the chuck/sw blade is not proper, send the handpiece to us for its rectification.**

MANUAL CHECKING OF HANDPIECE



B) Insert the dummy shaft into the shaft end of the handpiece and rotate the dummy shaft in clockwise direction and observe the movement of the chuck/saw blade.

- ★ **If it moving properly then there is no problem in the system.**
- ★ **If the chuck/saw blade is not moving properly or locked, send the handpiece to us for its rectification.**

Please do not allow any unauthorized person to repair and open the Manman system.

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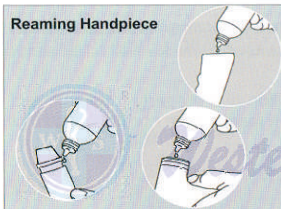
LUBRICATION



Always use Manman special lubricant before sterilizing the Manman Handpieces. It maintains its properties at high temperature.

Do not use any other oil. If use we are not responsible for maintenance.

Reaming Handpiece



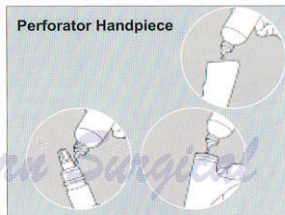
Craniotome Handpiece



Resternotomy Saw Handpiece



Perforator Handpiece



Sagittal Saw Handpiece



Sternum Saw Handpiece



NORMAL WEAR-AND-TEAR

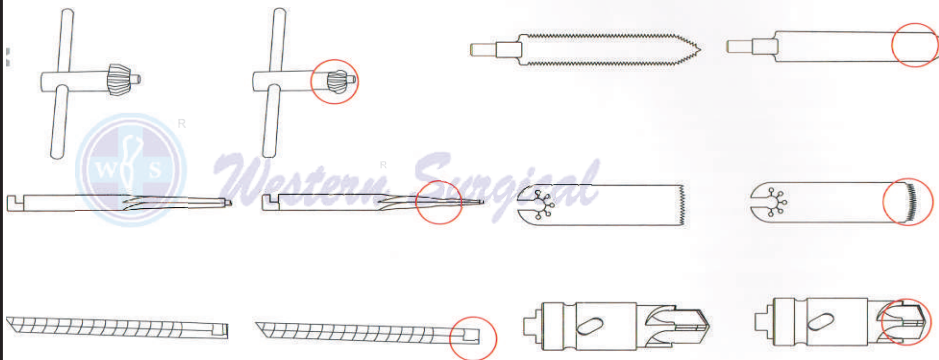
The inevitable physical decline of the condition of a property from time and usage. Normal wear-and-tear increases over the useful life of any property or asset. It results from normal usage by its occupants as well as from weather and other natural forces that surround it.

USE

DON'T USE

USE

DON'T USE



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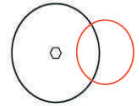
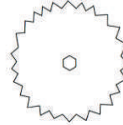
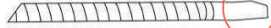
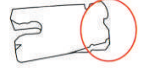
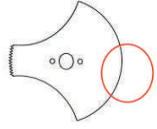
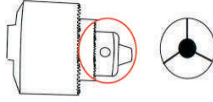
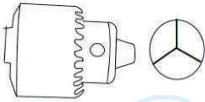


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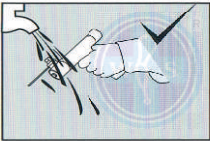
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USE**DON'T USE****USE****DON'T USE**

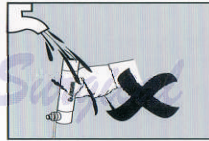
Normal wear-and-tear cannot be avoided, only slowed in various ways through maintenance. Of course, this can reduce the value of the property over time. This usually depends on the nature of the lease and the period of time that the tenant rented the property for.

We thought these small and important instructions may save your instrument life as well as your money too.

CLEANING INSTRUCTIONS



Hold the all handpieces in tilted manner under clean tap water and wipe with clean dry cloth.

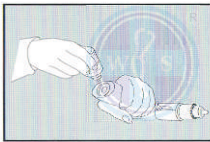


Do not wrongly hold all handpieces under the tap water.

Do not immerse all handpieces in water.

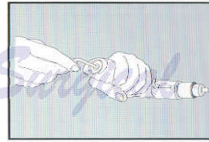
Ensure that water does not enter into handpieces body.

USE OF DUMMY SHAFT



It is an L type key given in tool kit.

To check all handpieces or saw by rotating manually.



If the dummy shaft is not rotating easily then do not connect the flexible shaft to that handpiece as this may damage the flexible shaft.

Send us the hand piece for repair

SHELF LIFE

After sterilization, please store the medical devices in the sterilization packaging in dry and dust free place. The shelf live is depending on the sterile barrier employed, storage manner, environment and handling conditions. A maximum shelf life for sterilized edical devices before use should be defined by each health care facility.

We recommend as follows:

For Instrument	1000 nos. surgeries
For Accessories	500 nos. surgeries
For Consumables	5 surgeries

It is only to be used by the Professionals



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Feed Back Form



Please fill up this feedback form and get free Manman Oil Bottle.



Name : _____

Address : _____

Ph : _____ Email : _____

Remark : _____

Suggestion : _____



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OILING SCHEDULE

Note: Manman system should be lubricated at least twice in a month. The responsible person should tick/sign the given schedule after each lubrication.

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
2012												
2013												
2014												
2015												
2016												
2017												
2018												
2019												
2020												
2021												
2022												

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CARE AND MAINTENANCE

- ☞ Do not immerse the Manman System in Water.
- ☞ Do not put oil into driving motor or foot control.
- ☞ Always put foot control covered in polybag while operating to avoid water or blood to enter it. It also avoids rusting of the foot control.
- ☞ Always hang the flexible shaft in vertically straight position after cleaning.
- ☞ Do not forget to lubricate the handpiece and flexible shaft before every autoclaving.
- ☞ Always use Manman lubricant only for lubrication as it is silicon base oil which can withstand autoclaving which proper rotation after lubrication.
- ☞ Steam autoclaving is always preferable, but if you are using formalin autoclaving then wrap the formalin powder inside the handpiece.
- ☞ Do not forget to wrap the equipment into cloth or towel while autoclaving.
- ☞ Always check the handpiece with dummy shaft for proper rotation after lubrication.
- ☞ Always put a small gauze at the shaft end of your handpiece before autoclaving which will absorb all moisture while autoclaving and handpiece will not drip at the time of surgery.
- ☞ Do not forget to remove the gauze before using the handpiece.
- ☞ Do not ever use blunt blades as it loads the motor unnecessarily.
- ☞ Do not allow any unauthorized person to open the Manman System.
- ☞ In case of any failure, send the material neatly packed to us with proper declarations on Manman's office address.

STERILIZATION

- We recommend steam sterilization technique. Values recommended 140C for maximum 15 - 20 min. Higher values can damage products.
- You can follow different sterilization methods. Have an expert to check the effectiveness of sterilization method under local conditions.
- Use sterilized items when it is in room temperature.
- Do not use hot instruments to keep the quality.



Manman®

INNOVATION FOR SURGEONS

Contact us: 

Manman Manufacturing Co. Pvt. Ltd.

1157 Sadashiv Peth,

Opp Bhave High School

Pune 411030 Maharashtra, India.

Phone: 91-020-24477578 \ 91-020-24450189

Fax: 91-020-24476213

Website: www.manmanindia.com

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7.3 WARRANTY CERTIFICATE

western surgical product is warranted to be free from electrical and mechanical defects in material and workmanship, under normal use. The western surgical product must not have been moved from the site of original installation. A new or remanufactured part to replace the defective part will be provided without charge for the part itself, through an authorized western surgical service dealer. The replacement part assumes the unused portion of the warranty.

WESTERN SURGICAL WILL NOT BE RESPONSIBLE FOR:

1. Damage or repairs required as a consequence of faulty installation or application by others.
2. Damage or repairs needed as a consequence of any misapplication, negligent handling, improper servicing, unauthorized alteration, or improper operations.
3. Failure to start due to voltage conditions, blown fuses, open circuit breakers or other damages due to the inadequacy or interruption of electrical service.
4. Damage as a result of floods, winds, fires, lightning, accidents, corrosive atmosphere, or other conditions beyond the control of western surgical
5. Parts not supplied or designated by western surgical.

Date of Installation	Installed By
Model No.	Serial No.
Warranty Period	
Name of Doctor & Address :	

Customer Sign. With Stamps

Marketed By: Western Surgical
Sign. With Stamps

No Claim Warranty :

- 1) Any Defect Throughout Power Supply
- 2) Any Physical Damage

3) Under Warranty Standby Unit Not Provide

4) Under Warranty When Company Send Parts or Machine we Imidiat send to Buyer.

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Date : 16-10-2015

OUR OTHER PRODUCTS RANGE



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