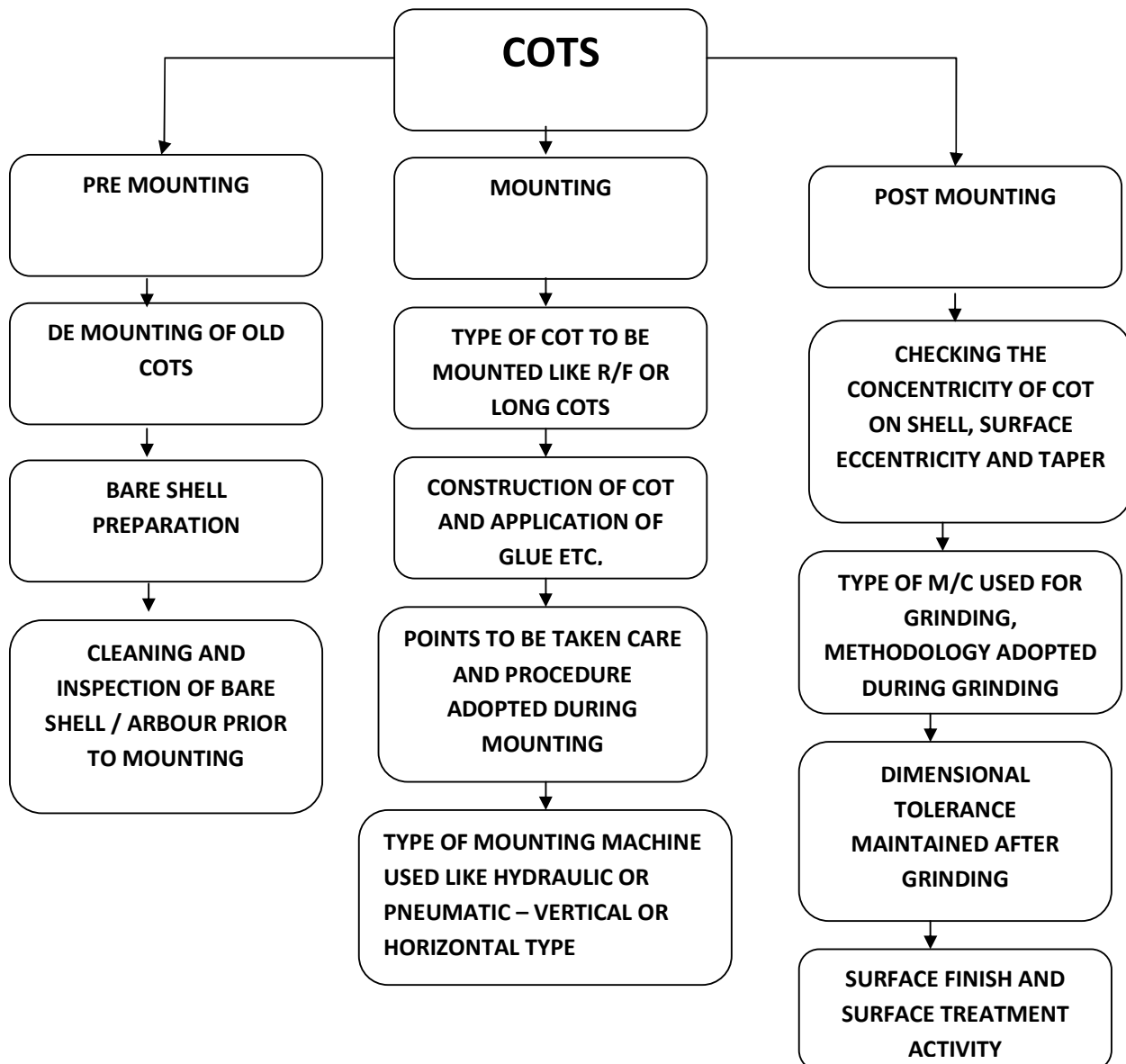


Handbook on Cots and Aprons Installation and Maintenance

Steps for mounting Cots



Mounting of R/F & S/F cots:

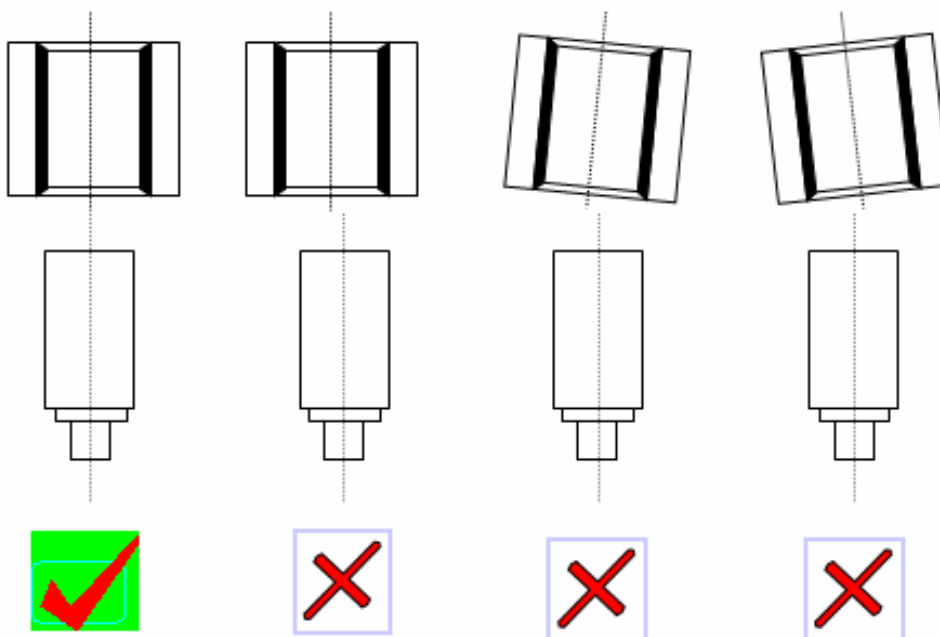
Do

- Use 'Vertical Mounting Machine'. For faster mounting pneumatic mounting machine is recommended, otherwise hand mounting (manual) machine is sufficient.
- Align Base Plate & Mounting Ram before mounting.
- Mount Plain Cots within 20-30 minutes of adhesive application & buff only after 24 hours of drying.
- Use MEK or acetone to remove excess adhesive, which comes out during mounting.
- Use 'centering pin' for Stress Free Plus(SF+) & Alufitt cots

Don't

- Don't mount Alufitt / SF cots with jerky movements.
- Don't use an adhesive for Alufitt / SF cots.
- Don't use 'taper cone' with base dia. 19mm.

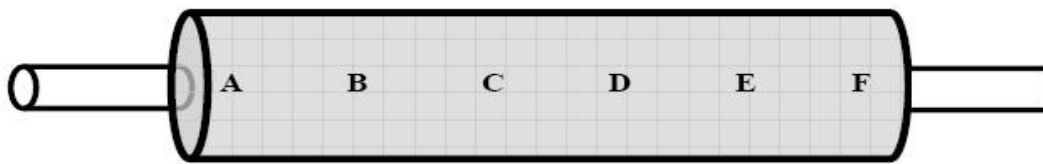
Mounting of R/F & S/F cots:



Mounting of Long Cots

Pre-mounting Checks:

Check the 'eccentricity' / 'taper' of roller & ensure that end bushes are not damaged.



Position	A	B	C	D	E	F
OD in mm						
Taper ness						

Ensure that the following conditions are achieved before Mounting.

- Check OD variation on the surface w.r.t end shaft.
- Check the eccentricity / taper with an eccentricity tester. Std Tolerance ± 0.025 MM

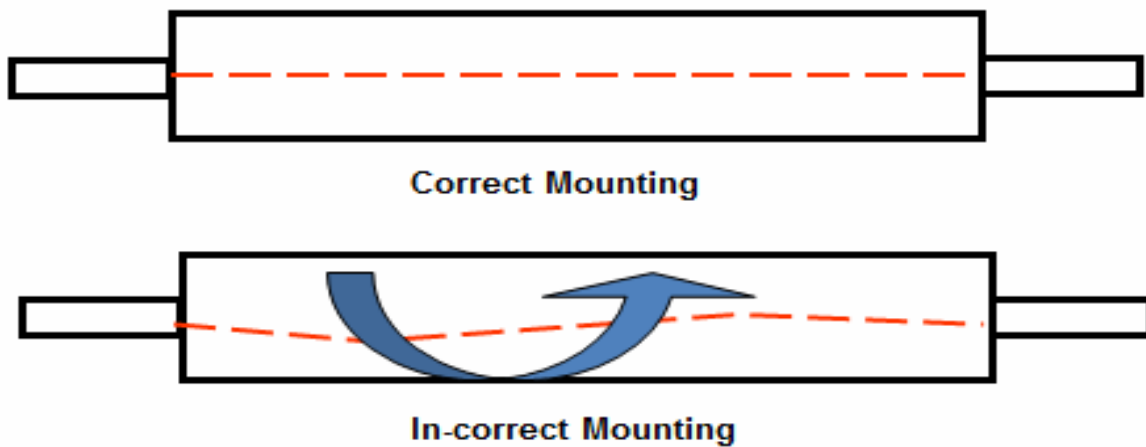
Mounting of Plain / EF Cots:

- Ensure that 'grooves' on roller are thoroughly clean & are not worn out.
- Mount cots with in 20-30 minutes of adhesive application.
- Draw a 'straight line' on the cot before mounting & whether the line is 'straight' after mounting or not. If not, then mounting is not done correctly.
- Calendar the rollers immediately after mounting.

Mounting of Long Alufitt Cots:

- Use a hydraulic mounting machine. **Mounting machine used must be capable of exerting a force of approx. 5000 N (approx.500 Kgs).**
- Ensure perfect alignment of base plate & mounting ram
- Use correct size of 'Mounting adapter / pin'.
- Use 'plain' rollers for Alufitt Cots.

- Apply few drops of light oil on roller before mounting to reduce friction while mounting.
- Use hydraulically operated cot mounting machine for Draw frames & Comber cots



Buffing Cots:

Don't

- Don't take a cut of more than 0.25 mm in one stroke or the feed rate should not exceed 0.10 mm / sec.
- Don't throw the arbours on floor after buffing.
- Don't grind the cots if parallelism between the cot and stone is disturbed, since it may lead to taper variation.

After Buffing:

Do

- Clean rubber dust from cot surface with acetone/MEK, otherwise lapping may occur during running.

Don't

- Don't touch the cot surface after cleaning.
- Don't use chalk powder or talcum powder in the drafting area.

Surface Treatment:

Rubber polymer chains are ruptured during buffing and open ends of these chains attract fibers and cause lapping on cot surface. Surface treatments are done to improve surface characteristics and prevent lapping.

UV Treatment:

Do

- Set the time duration for U.V Treatment and maintain the temperature inside the chamber.
- Keep the arbours on wooden stand after treatment for cooling to room temperature before installing on the machine.

Maintenance of Cots – a few suggestions

- Buff / grind the cots as per recommended schedule
- If required surface treatment should be done on the cots after buffing

- Do not use sharp blade / knife to remove lapping
- Use round edge/ bevelled edge cots
- Use size as per recommendation of OEM
- In normal spinning/roving traverse mechanism should be checked periodically
- Optimum top arm pressure should be maintained depending upon cot dimension/ type of drafting/application

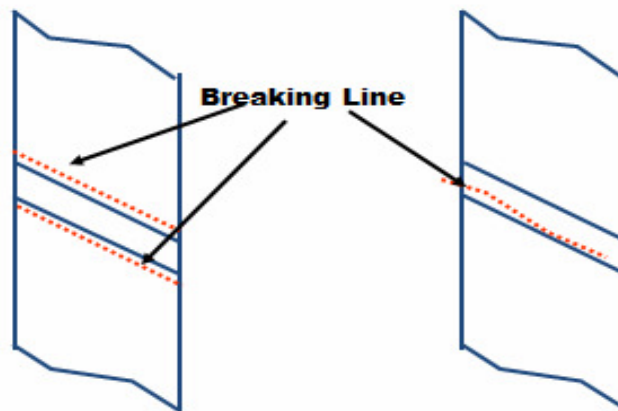
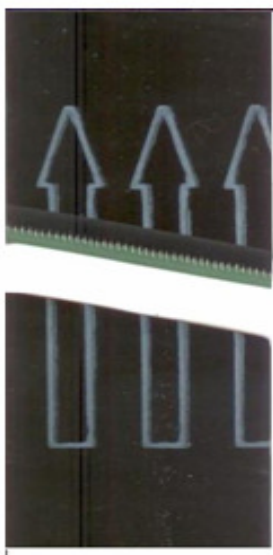
Maintenance of Aprons – a few suggestions

- Do not change top and bottom aprons together
- Use apron size recommended by OEM only
- Use traverse motion 8-10 mm and check it regularly
- Traverse motion with minimum dwelling time is always beneficial since apron wear out will be less
- Wash aprons in lukewarm soap solution and rinse with water thoroughly
- Dry aprons thoroughly before putting them back on machine
- Do not put chalk and graphite powder on aprons
- Do not use sharp blade / knife for removing lapping
- If apron shifts on machine then do not change the ID of apron but check the “tension pulley” for its surface and alignment.
- Do not increase thickness of aprons. It does not help in increasing the life of aprons
- Do not reverse and use the aprons
- Remove the bottom aprons (ID > 55 mm) from stack at least 24 hours before installing on the machine. It helps apron to regain its circular shape & ensures smooth running after installation
- Ensure proper centring of bottom aprons
 - ▶ Top roller saddle should be aligned properly and there should not be tilting or misalignment.

- ▶ Lateral movement of apron tensioning system should be totally avoided to ensure apron position is not disturbed.
- ▶ Alignment of apron tension system with respect of knurled portion of middle bottom roller should be proper.
- ▶ Centre to centre distance of roving guides should have minimum variations

Joining Skived aprons – a few suggestions

- Ensure that arrows on both the ends of aprons are matching and arrow mark is facing the operator.
- Use **Loctite 401** for joining the aprons
- Apply Loctite 401 uniformly on the skived surface and join the ends with proper alignment
- Avoid excess adhesive application
- Use clamp for joining the aprons
- Keep the joint under pressure for 1 – 2 minutes and check the joint from inner layer specially.



'Good Joint' of Skived Apron

'Poor Joint' of Skived Apron