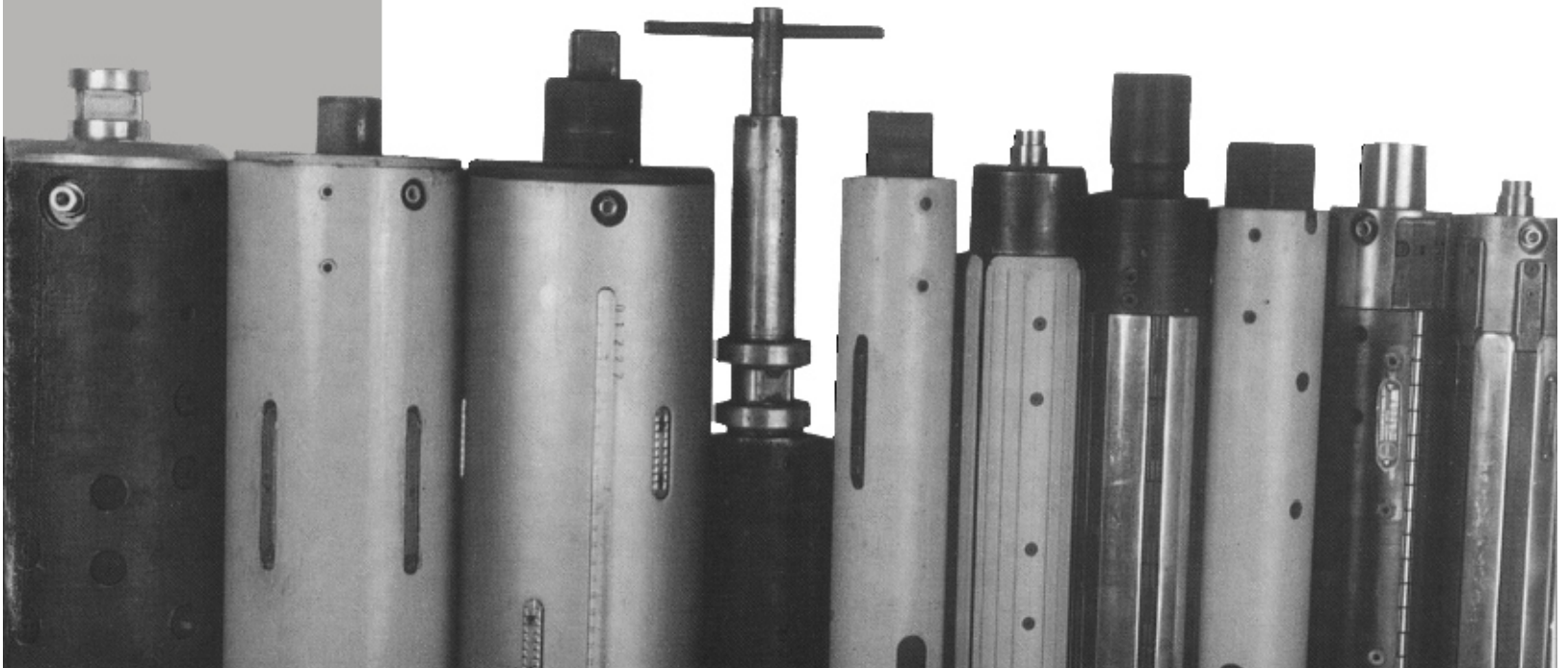


HANDLING & MAINTENANCE GUIDE





PART-1

AIR SHAFT OPERATING INSTRUCTION

1. Air Shaft should be used on the machine for which it is designed. The shaft design is based on the data sheet and design parameter provided by you. Some of them are Reel Weight, Core ID, Minimum Reel Width, Tension and speed. The shaft will get damaged in case of using it for unplanned parameters.
2. Air Shaft needs 5 to 6 Bar (70 to 80 psi) air pressure. Make sure the line pressure is above the required pressure. It is also advisable to use FRL (Filter, Regulator and Lubricator) unit near Air Shaft. (There is a myth that if you fill more air, the rubber bladder will get punctured. In fact, fill as much air as possible to get better gripping.)
3. Air Shafts are designed for a particular web width or reel width. When the total width is not used as shown in Figure 1, do not operate the shaft with open lugs. Life of the rubber tube will deteriorate. In such cases, use the dummy core on the sides to cover remaining lugs as shown in Figure 2.

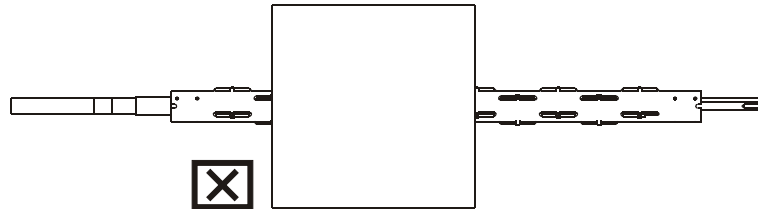


Figure 1: One Reel Mounted on the Shaft. Do not keep the Gripping Area open.

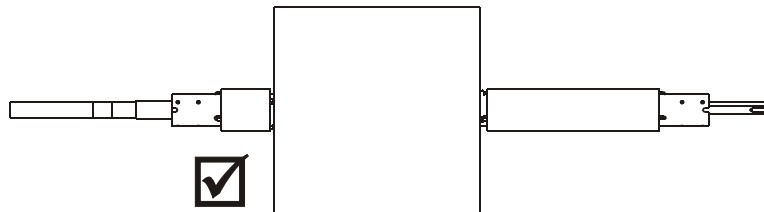


Figure 2: One Reel Mounted on the Shaft, sides cover with Dummy Core to avoid damage to Rubber Bladder.

4. To Grip the Core inflate the shaft: Press the Air Valve (NRV) by Air gun nozzle, shown in Figure 3. Press the Air Gun lever to the extent that the 5 - 6 Bar (70-90 psi) Air Pressure is developed in the bladder. For 3" Air Shaft, apply the air pressure for 45 seconds. For 6" Air Shaft, apply the air pressure for 80-100 seconds. Simpler solution is to count 1 to 50 for 3" shaft and 1 to 100 for 6" shaft, while filling air in the shaft. If you apply air for longer time, rubber bladder will not burst. In fact, it will give you better gripping.



Figure 3: Air Gun Nozzle for Filling Air in the Air Valve. Keep it pressed for Air inflation.

2

5. To Release the Core. Deflate the Shaft; Press the top head of the Air Valve.



TROUBLE SHOOTING FOR AIR SHAFT:

1. During production, if you find the reel slipping over shaft, please check up following points:
 - a. Check the incoming line pressure. It has to be between 5 to 6 Bar (75-90psi). This can happen if enough Air is not filled in the shaft.
 - b. Check the Air Pressure inside the shaft. This can be done by applying Pressure gauge with nipple, similar to Vehicle tire check up. As mentioned above, a easier solution for operator is to count 1 to 50 for 3" shaft and 1 to 100 for 6" shaft, while filling air in the shaft.
 - c. After trying both A & B Solutions, if you still face the problem then check for the Non Return Valve (NRV). NRV might be leaking. For testing, fill the full air in the core holder and then fill the valve input area with water. The air bubbles will start coming near and around the NRV if the valve is leaking. Then, immediate replacement is needed. (Figure 4.)

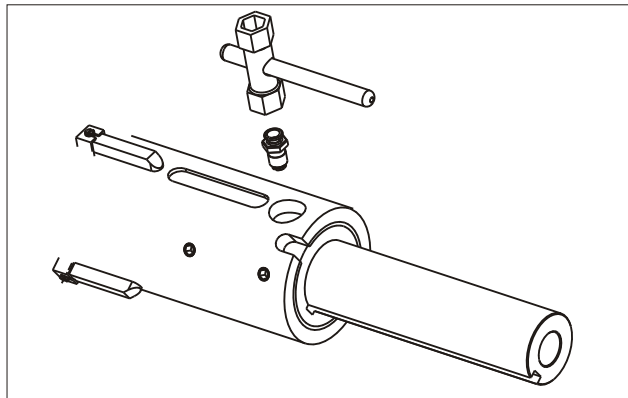


Figure 4: Checking Non Return Valve (NRV) With 19 X 22 Box Spanner

1. If leakage not found from NRV, then most probably internal O-Ring might have been damaged or rubber tube might be damaged. In that case, Air Shaft has to be opened.

OPENING OF AIR SHAFT:

1. First of all, hold the lugs (Rubber/Metal) with the help of M5 mm screws and holder. Tighten the lugs so that they do not fall down while disassembly. (Shown in Figure 5).

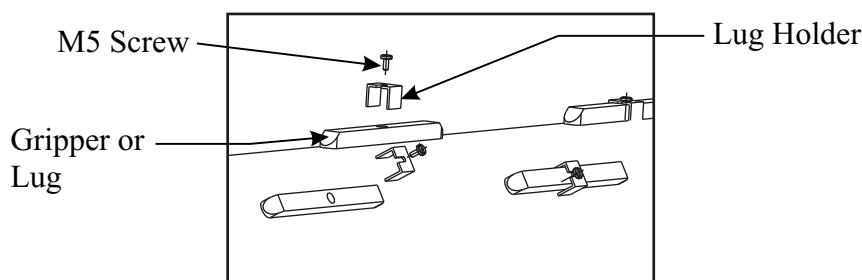


Figure 5: Lugs Are Being Held With Help Of M5 Screws And Lug Holders.



PART-2

AIR CHUCK OPERATING INSTRUCTIONS:

1. Air Chuck should be used for holding 6" Core. We strongly recommend that Air Chuck should be used to handle Low Torque and weight application such as unwinders. We generally advise it to be used for less than 600 kgs per pair of chuck.

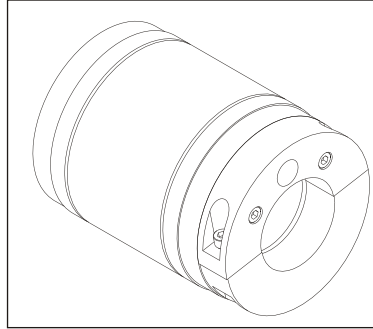


Figure 1: Standard Air Chuck with Side Clamp.

2. Air Chuck is a quick solution to 3" & 6" interchangeable winding issues.
3. For using Air Chuck, slide the chucks on a shaft for which they are ordered. (Make sure to order Bore of the chucks to the size you require.) If you are mounting the chucks on to an Air Shaft, release the air of Air Shaft and slide it onto the shaft. Then tighten up the side clamp bolts (Shown in Figure 2). For easy sliding, we provide 0.1 mm to 0.2 mm clearance above the shaft size you indicated.

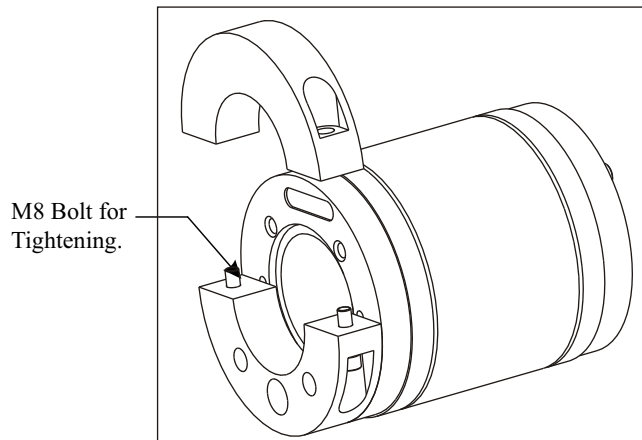


Figure 2: Air Chuck C-Clamp for Tightening it on to A Shaft. (For disassembly, just loosen the bolts, provide only 1-2 mm clearance.)

4. The distance between the chuck should be maintained as per your requirement. However, one must keep the distance in such a way that the bladder is fully covered with core.
5. Fill the air at NRV using Air Gun. Air Chuck needs 5 to 6 Bar (75 to 90 psi) air pressure. Make sure the line pressure is above the required pressure. It is also advisable to use FR (Filter and Regulator) unit near Air Chucks. (There is a myth that if you fill more air, the rubber bladder will get punctured. In fact, fill as much air as possible to get the best gripping.)
6. To Grip the Core, inflate the Chuck. Press the Air Valve (NRV) by Air gun nozzle, shown in Figure 3. The press the Air Gun lever to the extent that the 5- 6 Bar Air Pressure is developed in the bladder.



TROUBLE SHOOTING FOR AIR CHUCK

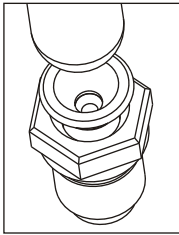


Figure 3: Air Gun Nozzle for Filling Air in the Air Valve.
Keep it pressed for Air inflation.

8. To Release the Core, deflate the chuck. Press the top head of the Air Valve.

TROUBLE SHOOTING FOR AIR CHUCK:

1. During production, if you find the reel slipping over chucks. Do the following check up:
 - a. Check the incoming line pressure. It has to be between 5 to 6 Bar. This can happen if enough Air is not filled in the shaft.
 - b. Check the Air Pressure inside the Air Chucks. This can be done by applying Pressure gauge with nipple, similar to Vehicle tire check up. Simpler solution is to count 1 to 75 for 6" Air Chuck.
 - c. After trying both A & B Solutions, if you still face the problem then check for the Non Return Valve (NRV). NRV might be leaking. For testing, fill the full air in the core holder and then submerge the Chuck in the water barrel or tank. The air bubbles will start coming near and around the NRV. Then, tighten up the NRV 12x13 mm Box Spanner. Or, immediate replacement is needed. (Figure 4)

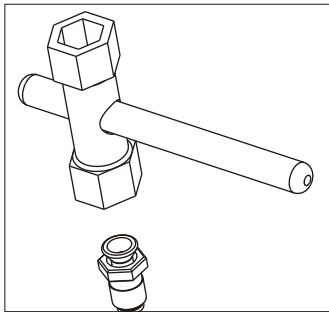


Figure 4: Checking Non Return Valve (NRV) With 12 X 13 Box Spanner

2. If the air bubbles are coming from cap of air chuck body or any bolts, tighten it again. If the bolts are regularly getting loosened up due to vibration do insert a spring washer. For this, you have to use Allen key of appropriate size (5mm, 6mm, or 7mm).
3. If air is coming out directly from the surface of Air Chuck bladder, then most probably the Rubber bladder must be damaged. In that case, Air chuck has to be opened to replace the bladder.

BLADDER REPLACEMENT INSTRUCTIONS:

For Bladder replacement, you will need Air Bladder, 5mm, 6 mm, 7mm Allen Keys, 12x13 mm Box Spanner, Few .5mm Metal Strips or screwdriver.

1. First remove the clamp from the Air Chuck by removing two 8 mm Allen Bolt (6mm Allen Key). As shown in the figure 5 the clamp will be separated from the body.
2. After removing the clamp, you would see two CSK bolts. Using 5 mm Allen key, remove them too. Now you would see the cap, tightly fitted on the chucks.



PART-2

BLADDER REPLACEMENT

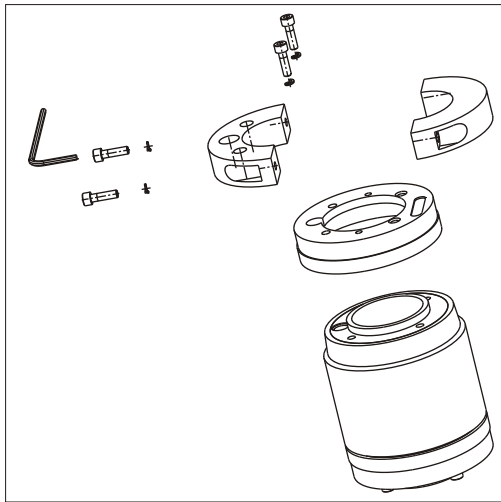


Figure 5: Removing the Side Clamps and Cover from the Air Chuck Body.

3. To easily remove the cap, use M10 Bolt and tighten it in tapped holes. Turn both the bolts simultaneously to remove the cap evenly out. You will see the cap coming out.
4. Follow the same procedure for removing the bottom cap. You will have to remove 4 Bolts with 6 mm Allen key.
5. After removing both the caps, you will see the body with rubber bladder tightly mounted over it.
6. To dismantle the bladder from Body, you will have to insert 4 metal strips (Screw driver) on each side, as shown in the Figure. This is essential as there is an O-ring, which is holding on to it tightly.

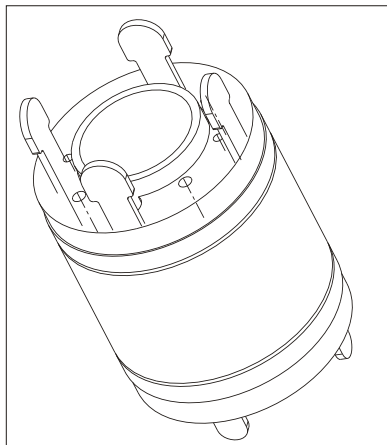


Figure 6: Inserting 1-5 mm thick strips (old 12" hacksaw blades)

7. After inserting the strips shown in Figure 6, push the rubber tube down. This will take some time, however, it needs to be done carefully. Finally, Rubber bladder and body will be separated.
8. Now, fit the freshly supplied bladder back onto body. While doing so, you will have to use the metal strip in the similar fashion as used for sliding down. While mounting is back, make sure for O-ring to seat at appropriate location.
9. Follow the exactly same steps backwards to get the chuck up and running.

**Accessories Needed of Air Chuck Repairing :**

Components	Size	Quantity Needed
Air Valve (NRV)	1/8"	1
Box Spanner	12x13 mm	1
O Ring Air Valve	Based on NRV Size	2
Tommy Bar	7 mm Dia	1
Metal Strips	.5 mm Thick, 10-12 mm wide & 100 mm long	8
Allen Key	3 mm	1
	4 mm	1
	5 mm	1
	6 mm	1
Air Gun Rubber Bladder	For Air Chuck	1

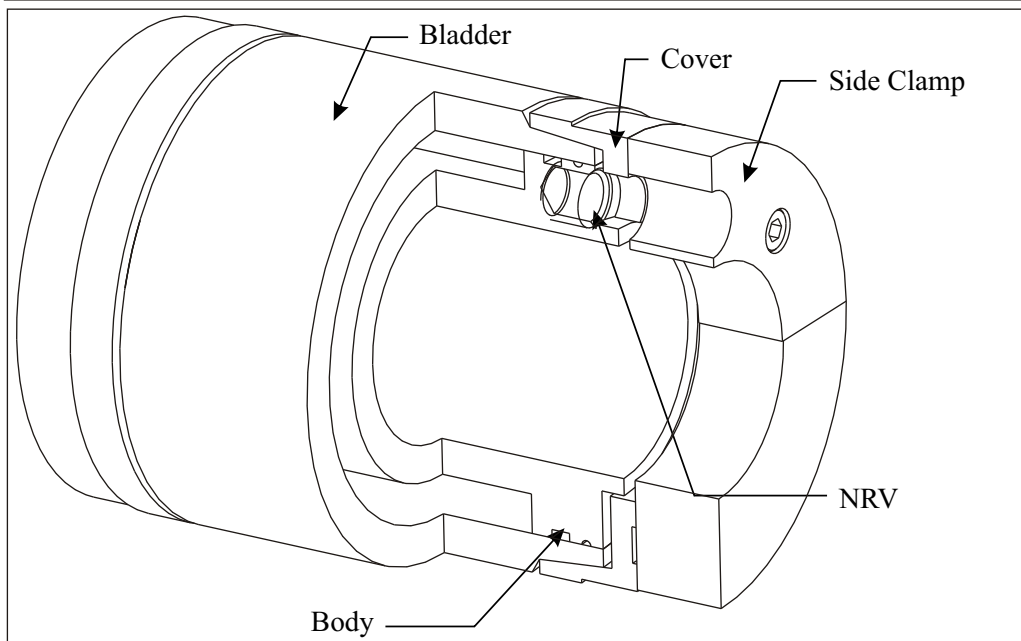


Figure 6: Air Chuck body with Parts.

For Ordering the Rubber Bladder, fax us or emails us the product number for which you need bladder. Every product of RESOURCE has number tag near the air valve; so it is very easy ordering the part.

Shaft No.: _____
Used On: _____
Resource Drawing No.: _____
Manufacturing Date: _____
Notes: _____



For Ordering Any Material or Any problem, contact us at

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