Replacement of ACR 2400 Internal Cable Harness (Part 2) Installation of P/N: 291.317

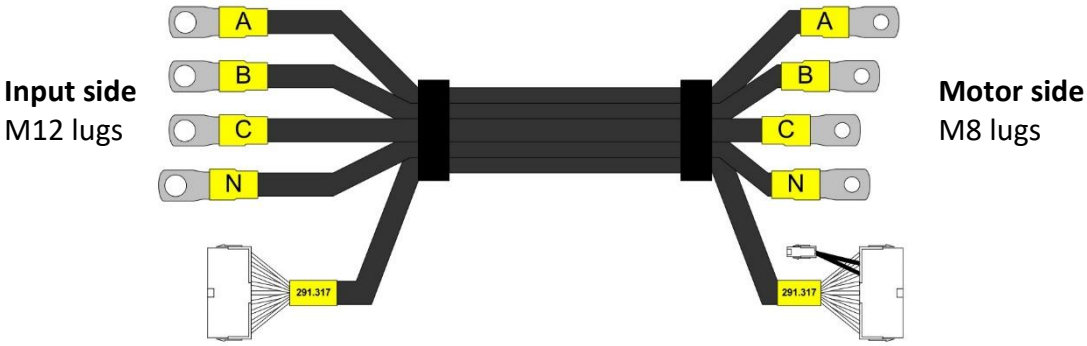
1.

This instruction shows how to step by step to install the cable harness, as removed in part 1.

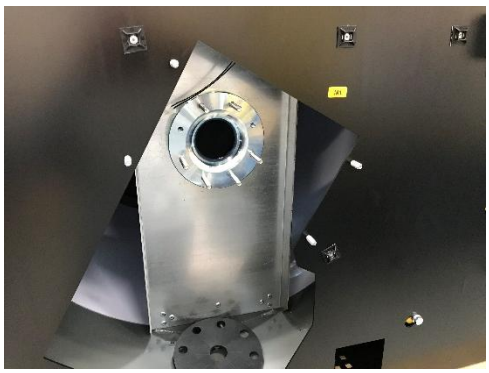
Before starting the job make sure all needed parts are available and intact. The only new parts needed is the cable harness 291.317 and cable ties.

Note.
See part 1 for further information, if needed.

The cable harness shown below and observe correct orientation, when inserting into the drum.



Input Side



Motor Side

2.

1. Start by pushing the cable harness from Input Side, with motor end of the cable first, inside the drum center. Push the cable until you feel resistance when pushing the cable. Stop pushing and step to the motor side

2. From the motor side, put your hand inside the drum and feed the cable through the centre hole in the drum.

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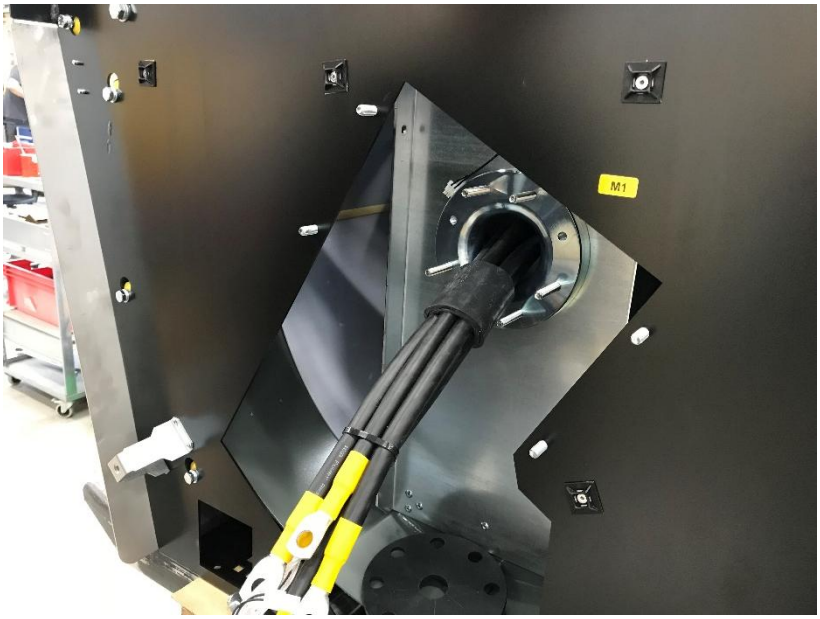
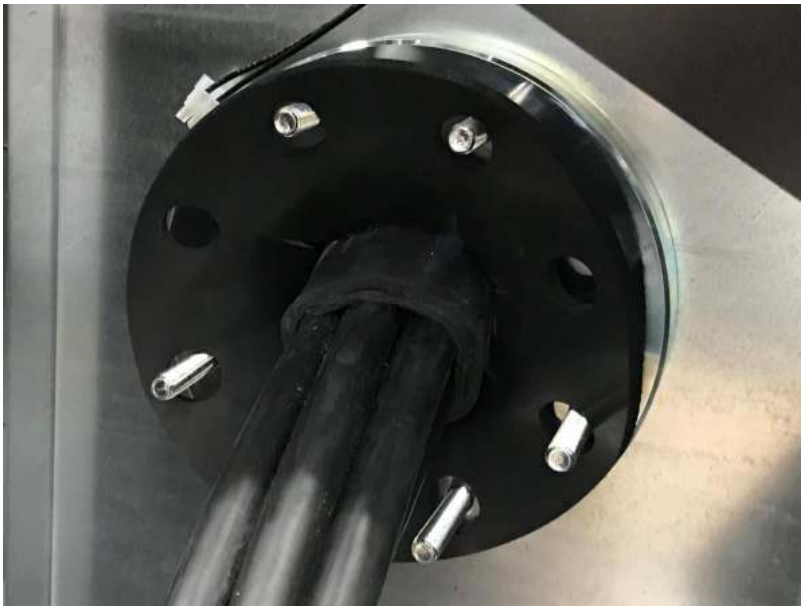
3. Pull the cable harness all the way through, until the cold shrink tubing reach the outer part of the hole.
   Note.
   You may need to step to the other side to push the cable.



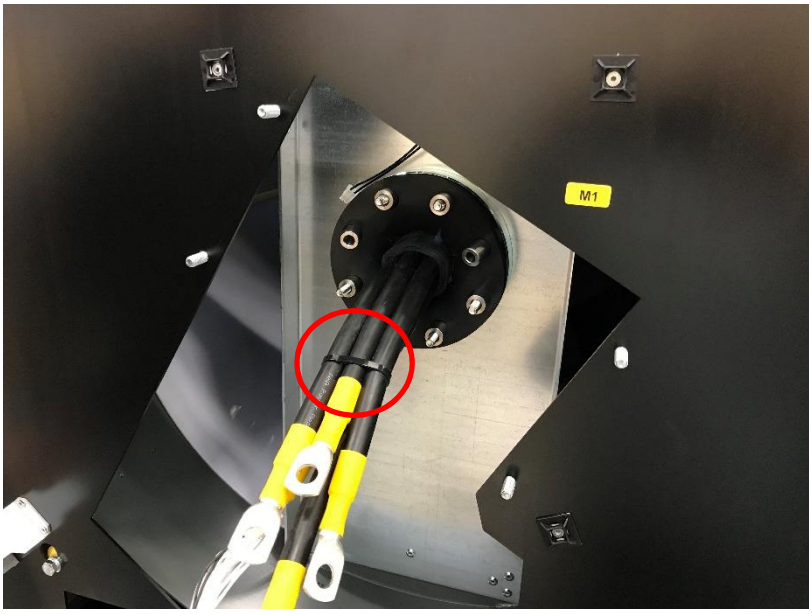
4. Push/Pull the rubber flange onto the cable and push it all the way to the metal flange on the drum.

5. Now pull the cable, just a little, from Input Side, to ensure that the rubber flaps are pointing into the drum.



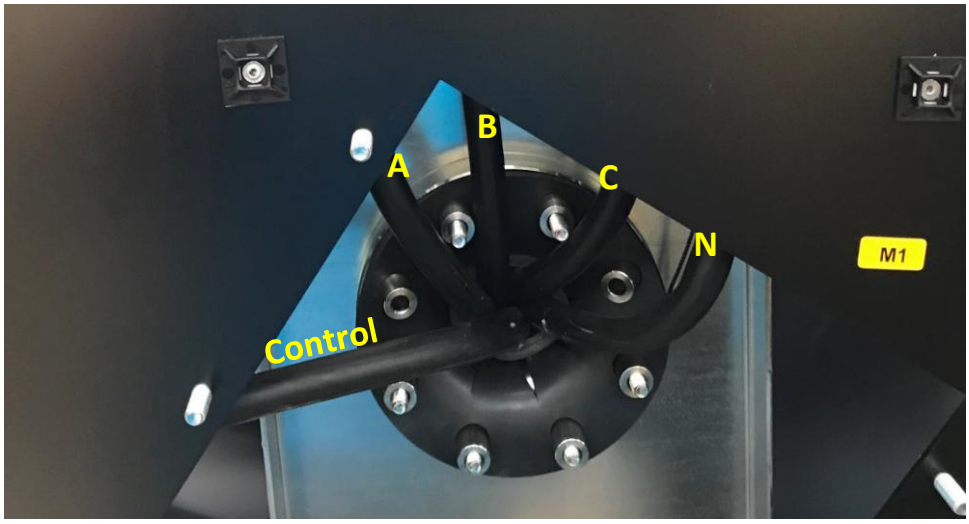
1. Insert all eight spacers into the holes on the rubber flange and cut the cable tie.

Note.
Observe that the short cable (phase B) cable is pointing upwards. You may need to twist the cable, to get it in right position.

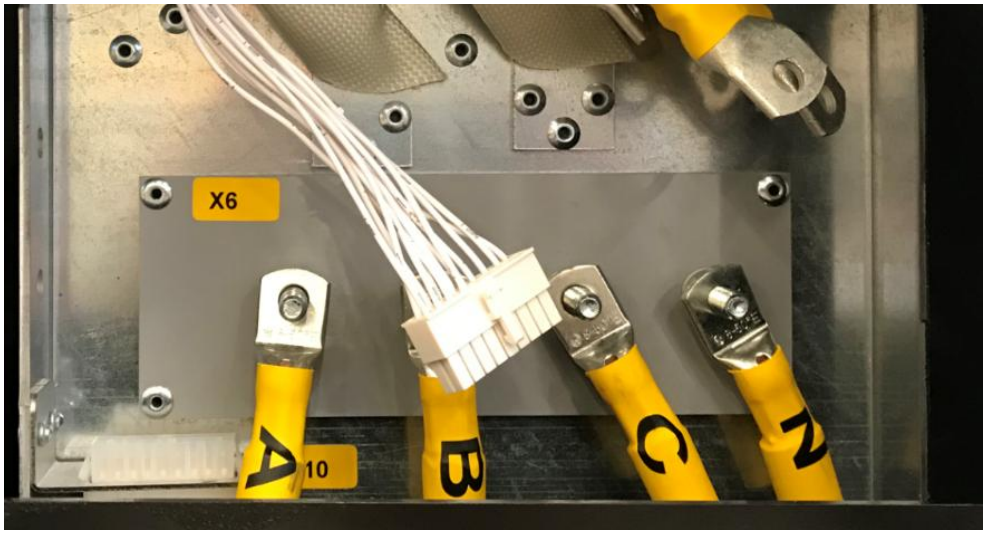


3.

1. Place the cables as shown on picture below.

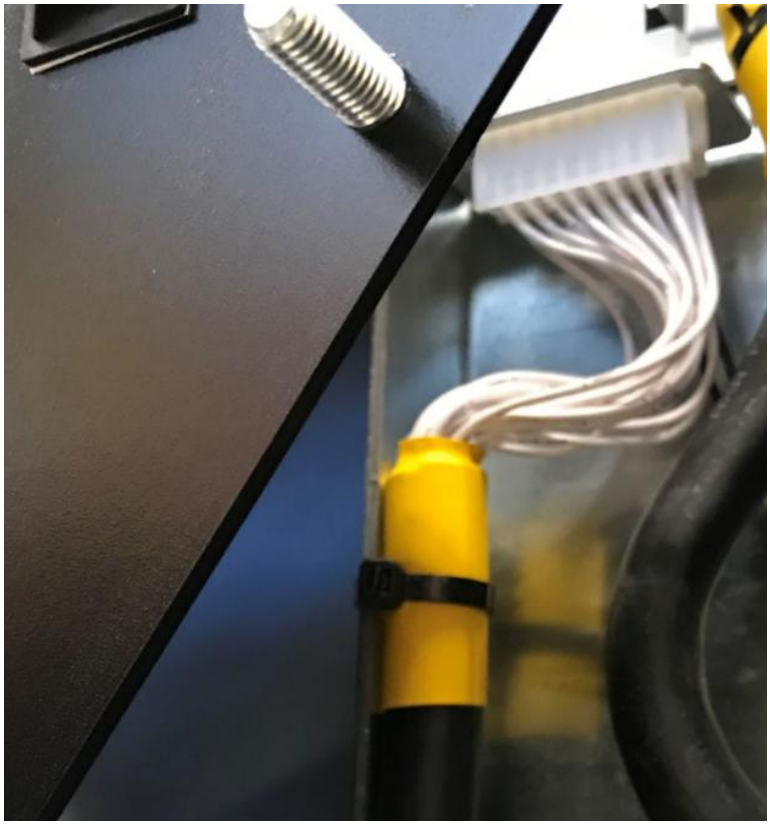


2. The cables can be temporary attached to the above bolts, in correct arrangement, to ease the job when placing the white plastic flange.



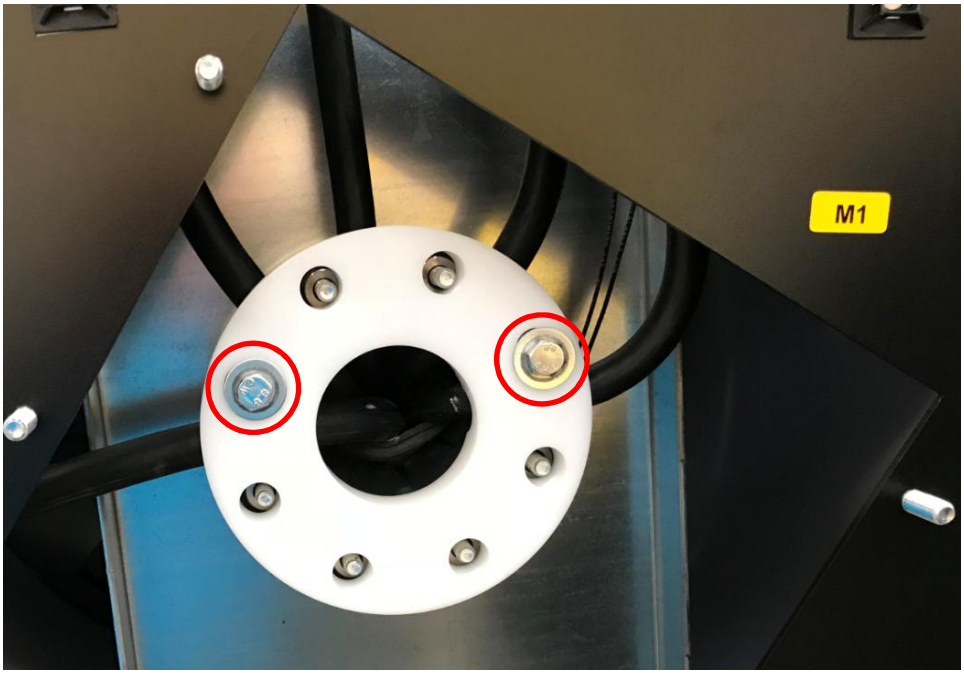
Note.
You may use temporary nuts to hold the cables in place.

3. Secure the control cable to the chassis, by using cable ties.



4. Place the plastic flange on the bolts/spacers and observe that the cables fit into the groves on the plastic flange.

5. Insert the two bolts and tighten loosely



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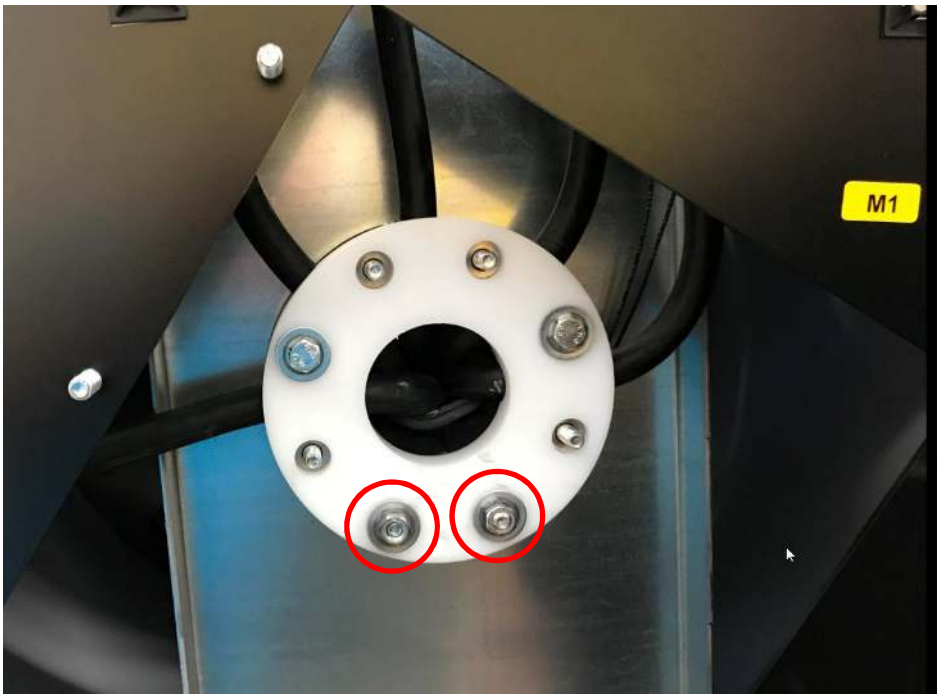
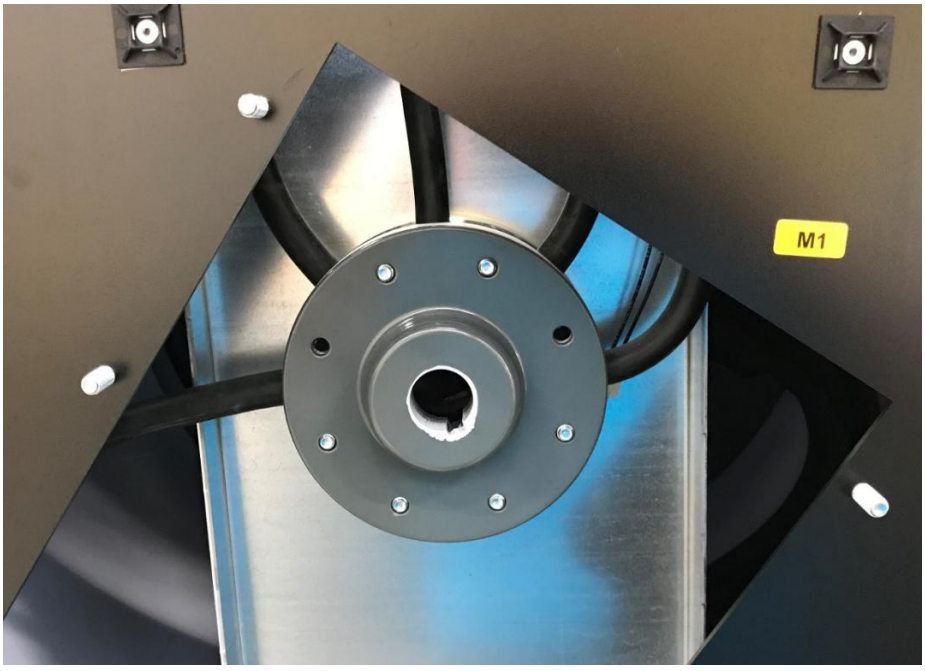
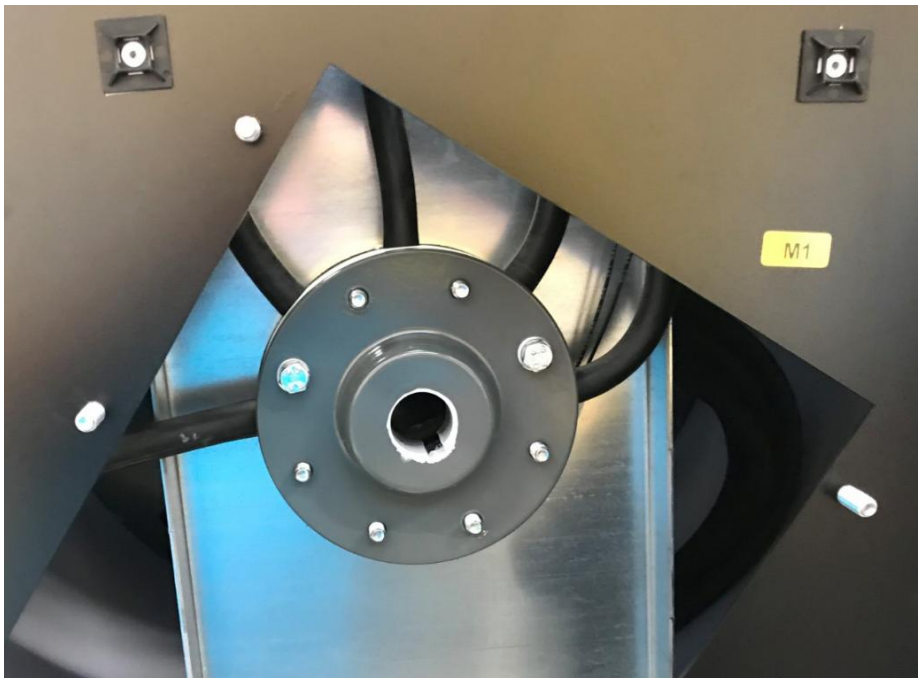
Note.
You may need two nuts / washers temporary to bring the plastic flange in place and let it settle for a minute or two, before continuing.



6. Remove the temporary bolts and the nuts.
7. Place the metal flange on top of the white plastic flange. Observe the orientation of the groove in the metal flange (this should reflect the grove in the motor bearing)



8. Insert the two bolts and fasten loosely, until the thread on the other six bolts are visible.



9. Put on the washers/ spring washers / nuts and tighten all bolts / nuts crosswise, using a 10 mm fork wrench.

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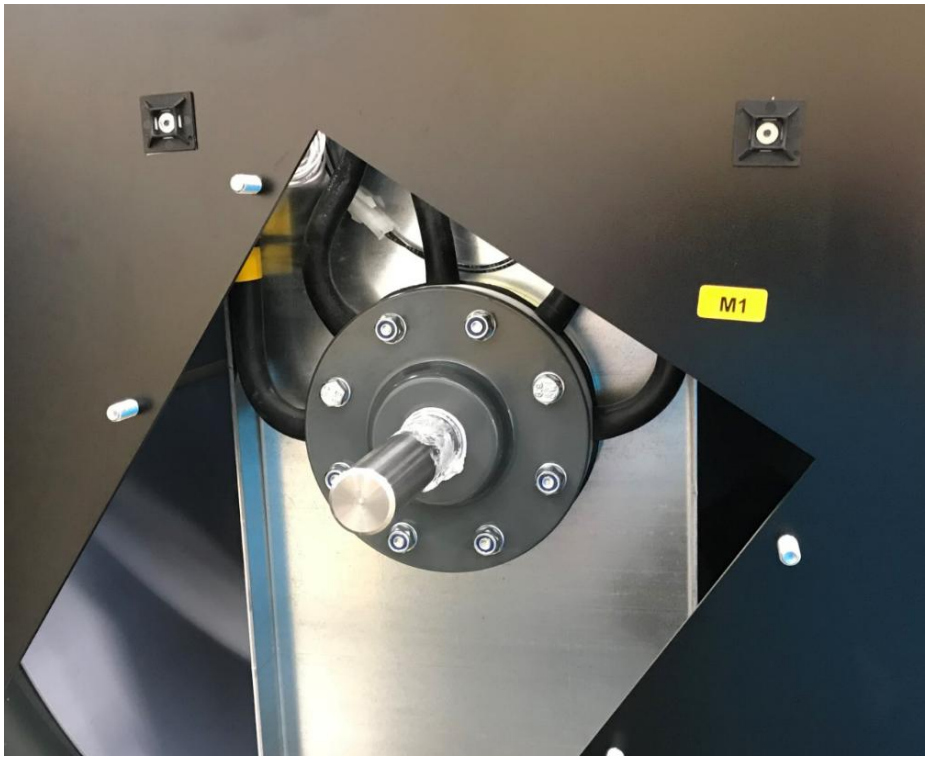
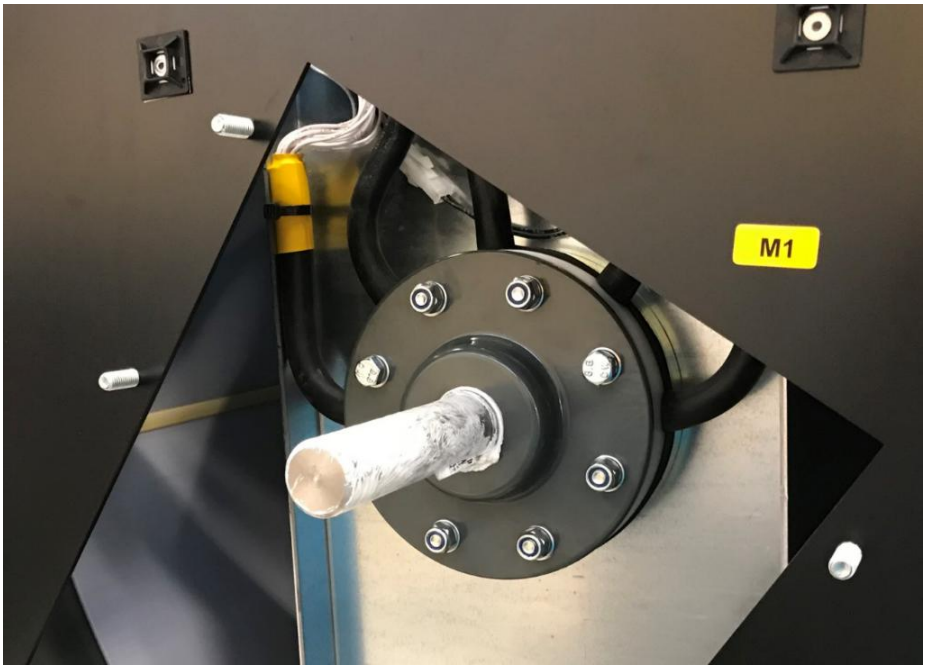
4.

1. Insert the axle, mind the groove, into the hole and push as far as possible.



2. Make sure to apply grease to the axle, as shown on picture below.



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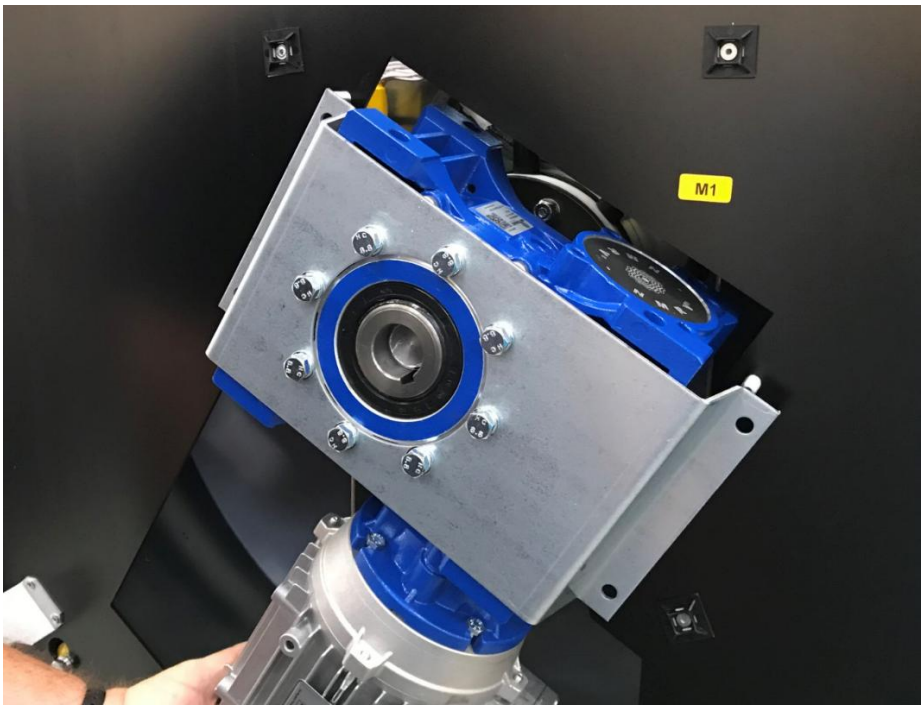
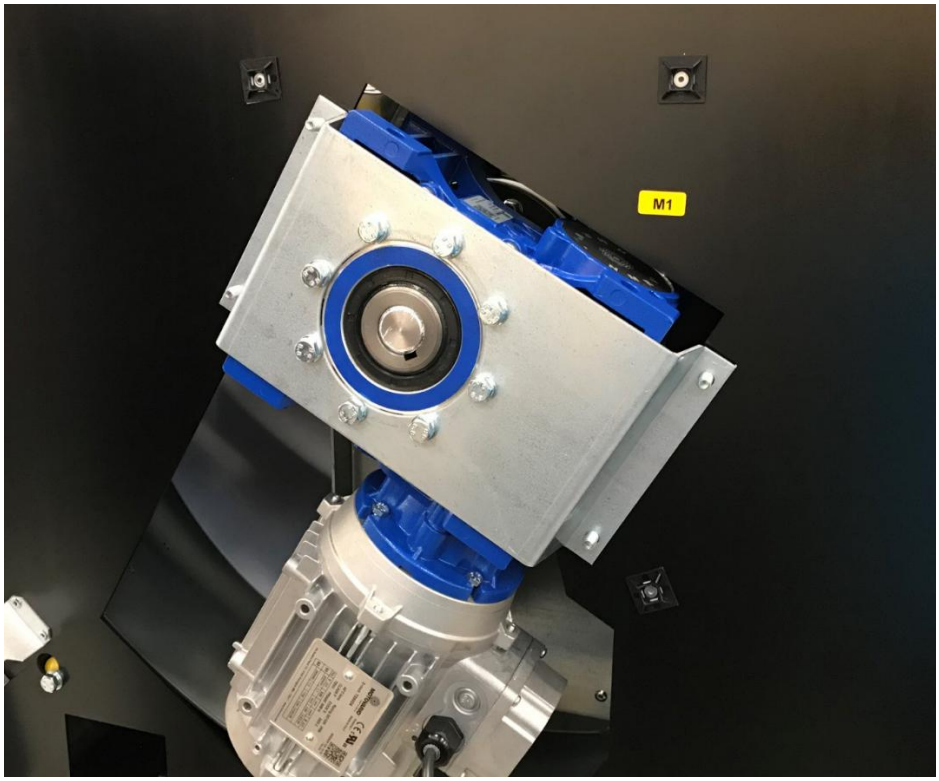
3. Slightly push the motor onto the axle and make it fit the groove.



4. Twist / turn the motor assembly to fit over the bolts.



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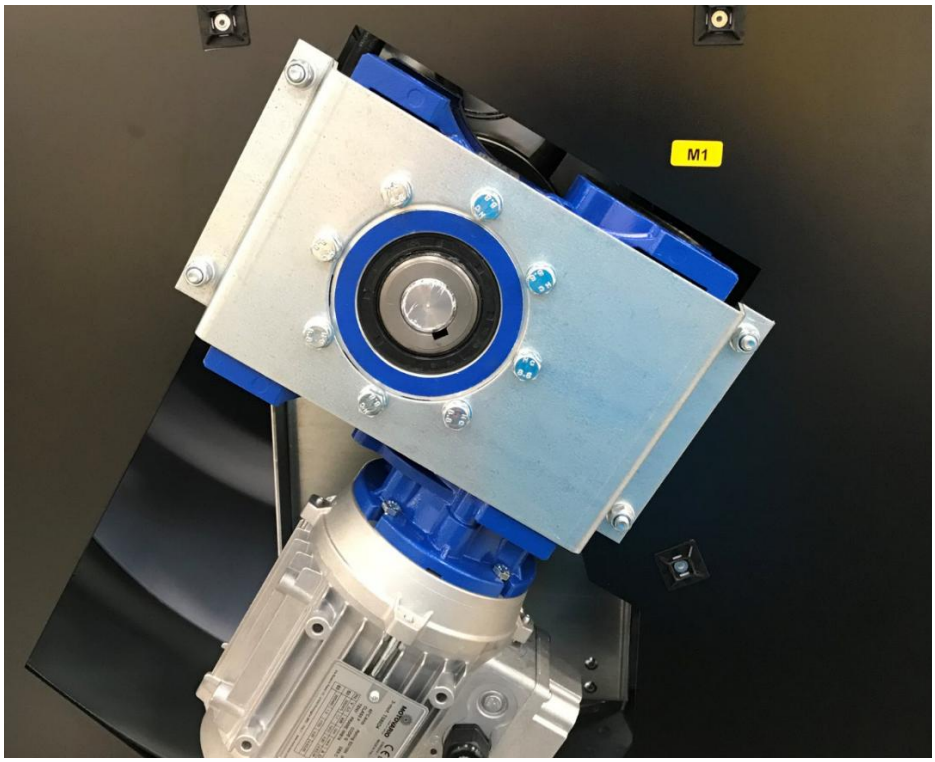
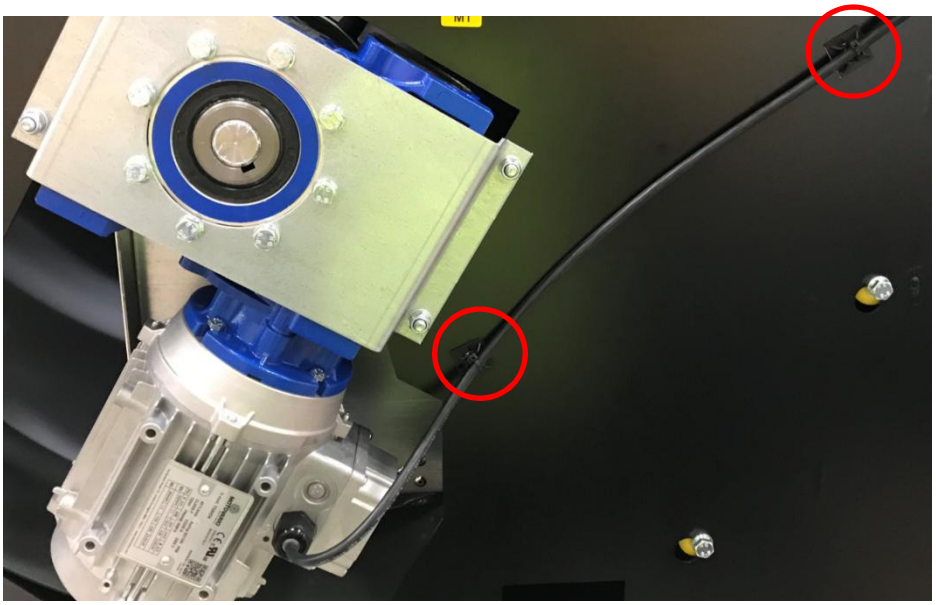
5. Apply washers / nuts and fasten, using a 10 mm fork wrench.



6. Check the motor cable for any damage, replace if necessary. Fasten it with cable ties to the cubicle.



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5.

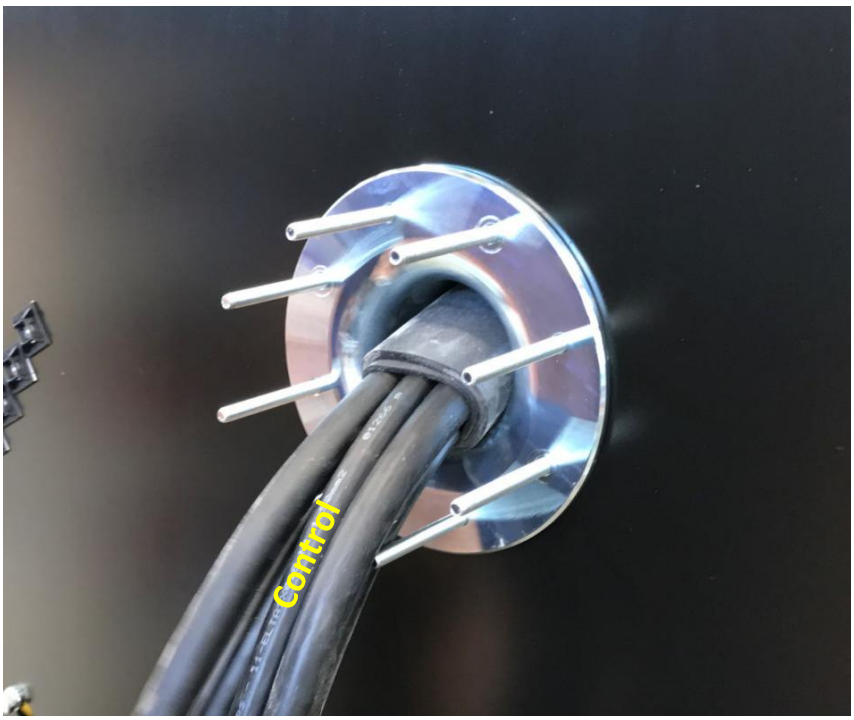
1. Attach the output cables A-B-C-N on top of the flexible cables and fasten those with the washers/spring washers and the nuts, using a 13 mm fork wrench.

Note.
If you used temporary nuts, remove those before attaching any cables.

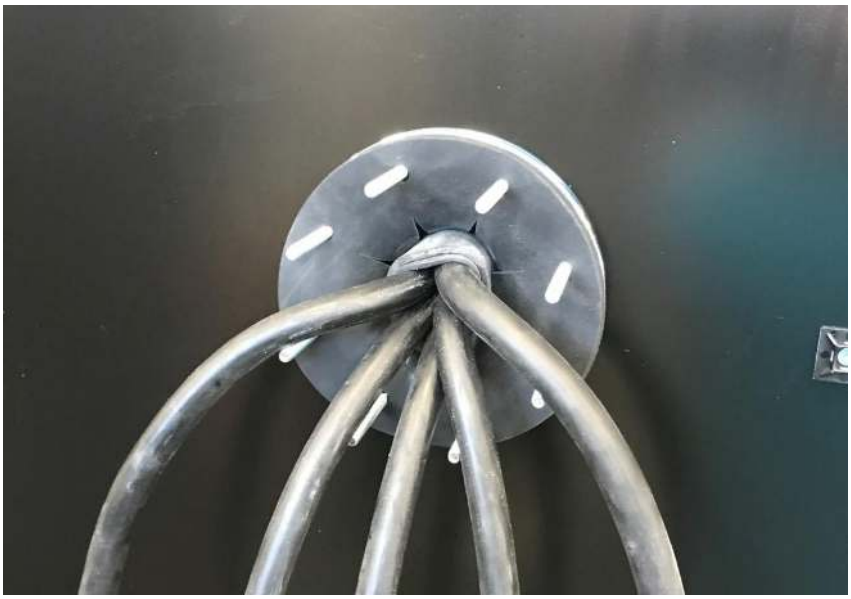
Note.
On some ACR's there might be a temperature sensor on the drum.
If that is the case, remember to connect the plug to the control cable.

6.

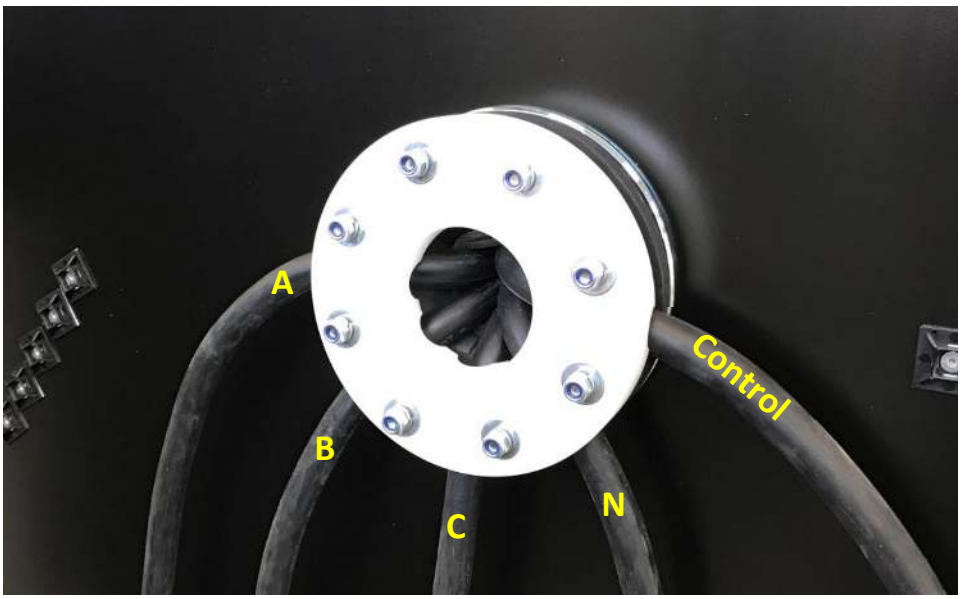
1. Move to the other side of the ACR.
2. Push the cable in to the drum, until the shrinking tube are located at the metal flange. Observe / align until the control cable is pointing upwards.



3. Push/Pull the rubber flange onto the cable and push it all the way to the metal flange on the drum. Check / align to ensure that the rubber flaps are pointing into the drum.



4. Place the plastic flange on the bolts and observe that the cables fit / have the correct orientation, into the groves on the plastic flange.



5. Apply washers / spring washers / nuts and tighten crosswise.

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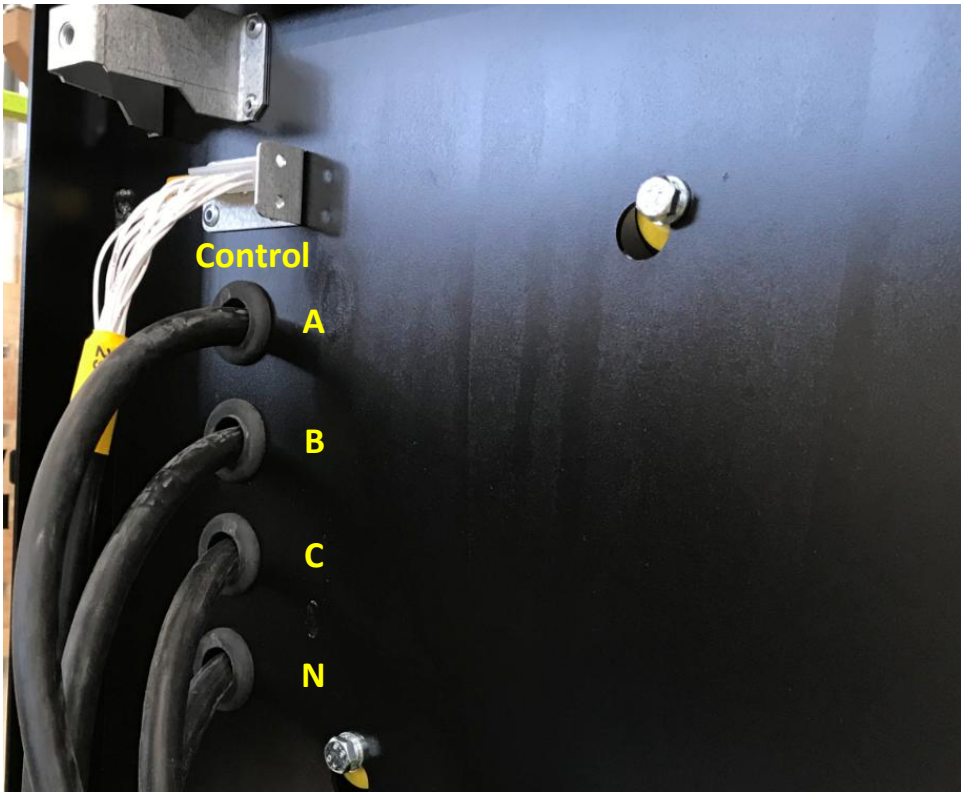
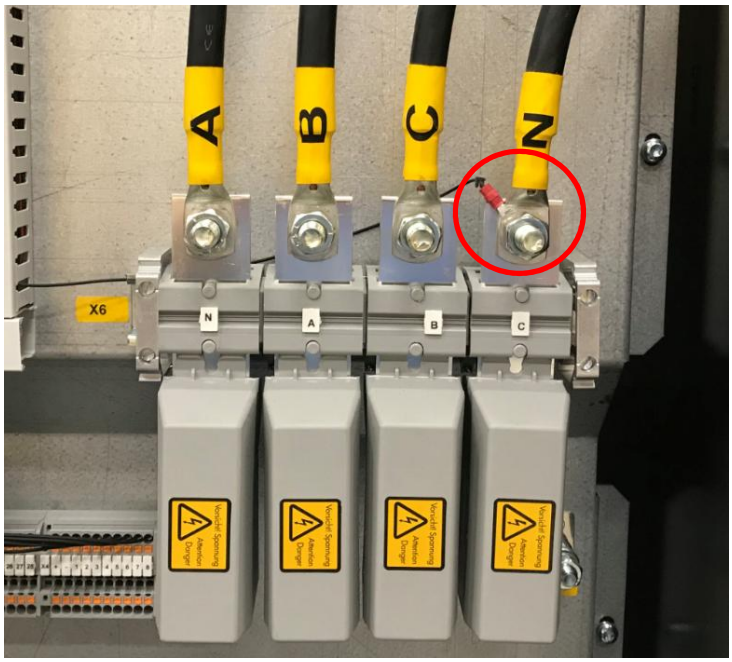
7.

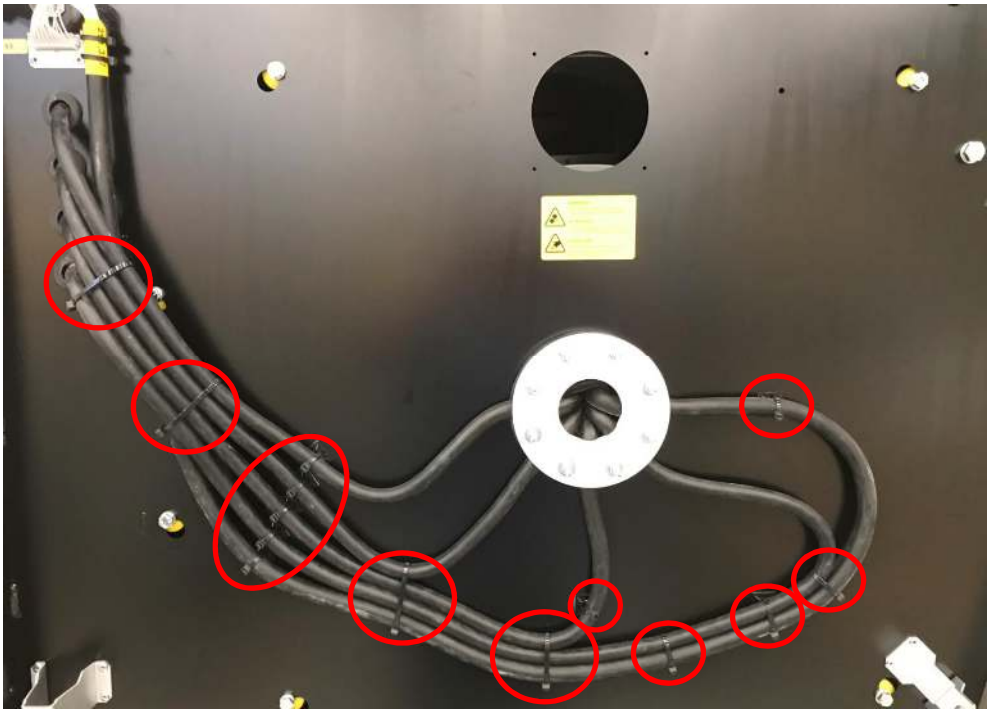
1. Feed the A-B-C-N cables through the holes in the cubicle and keep in mind the sequence of the cables.
2. Connect the control cable plug.



3. Attach the cables to the input terminals and fasten, using a 19 mm fork wrench. Apply the cable covers on the terminals.
   Note.
   Remember to attach the Neutral feedback wire.



4. Arrange cables and apply all cable ties.



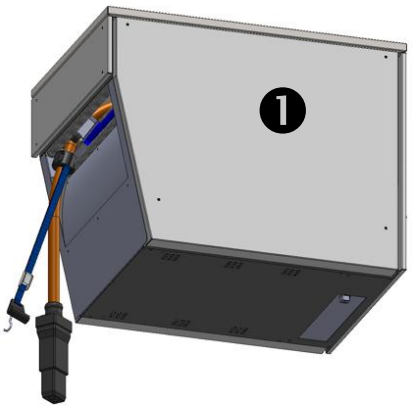
This completes the installation on the second side of the ACR and the complete installation of the flexible cable harness on the ACR.

You may now continue to test the unit.

8.

1. For the test of the ACR you need to switch on the breaker Q1.
2. Use the push buttons on the cable connector head to check if the cable are able to be uncoiled / coiled on the drum.
3. Observe that the flexible harness (via the inspections holes) are twisting in and out when coiling and don't get jammed during coiling.

Note.
Do not continue until the cable & flexible cable harness can be coiled / uncoiled correct.

9.	1. Uncoil the cable and connect a load bank (set to no load) to the output connector. 2. Now you can switch on the 400 Hz Converter and let it supply power to the ACR. 3. Check correct no load voltage at the cable connector. 4. Apply appropriate load (depending on rating of the GPU) and let it run for 10 – 15 minutes. 5. During operation check values at input and at output (voltage / current/ kVA / kW), to verify that the ACR unit works correct. For the above a DVM and current probe, can be used. 6. Stop the 400 Hz converter, remove the load bank and coil back the output on the drum.
10.	1. Retro fit the three panels marked ❶ by using an Allen key size 6.   **Note.** Before attaching the front panels, make sure that the Service switch is Back in off position, if you used it during installation / tests.
11.	**After attaching all covers, the unit is now ready for use.**

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