

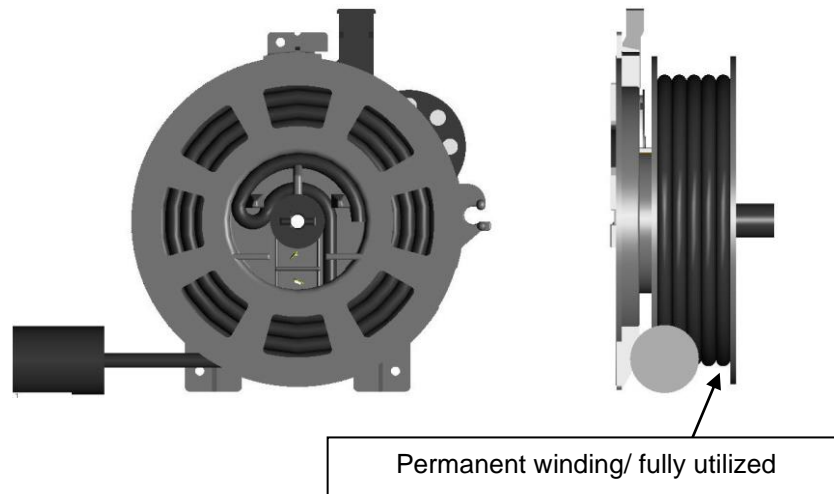
Design installation aid for multi layer cable rewinders

This installation aid is intended to provide the design engineer with assistance in development work on technical appliances which require the use of automatic cable rewinders.

A. Installation

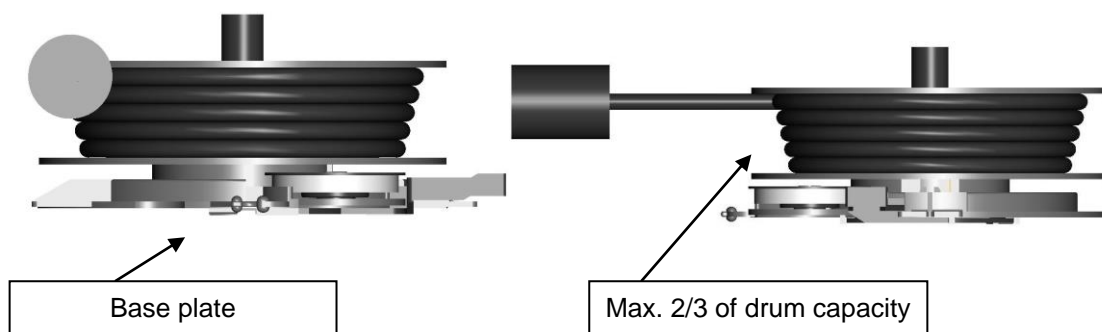
1. The vertical installation position is preferable.

The cable rewriter winds up better in this position.
The winding volume of the drum can be fully utilized.



2. The horizontal installation

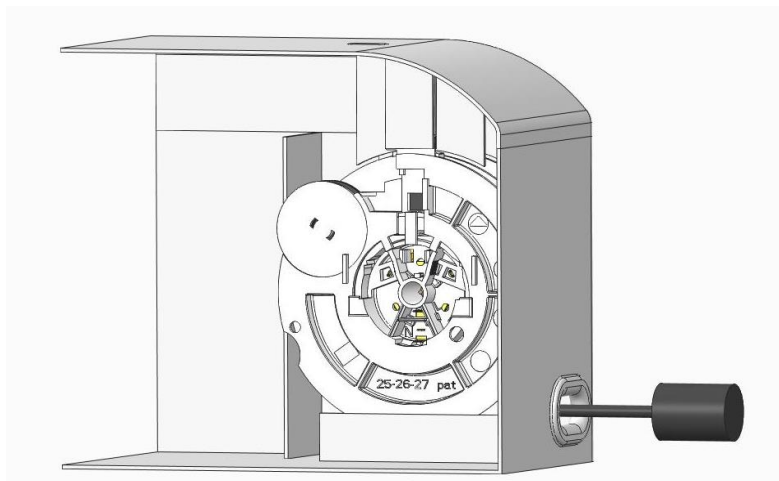
In case of **horizontal installation**, only 2/3 of the drum capacity can be utilized.



The base plate should be arranged at the bottom so that the weight of the cable and the drum are absorbed by the base plate.

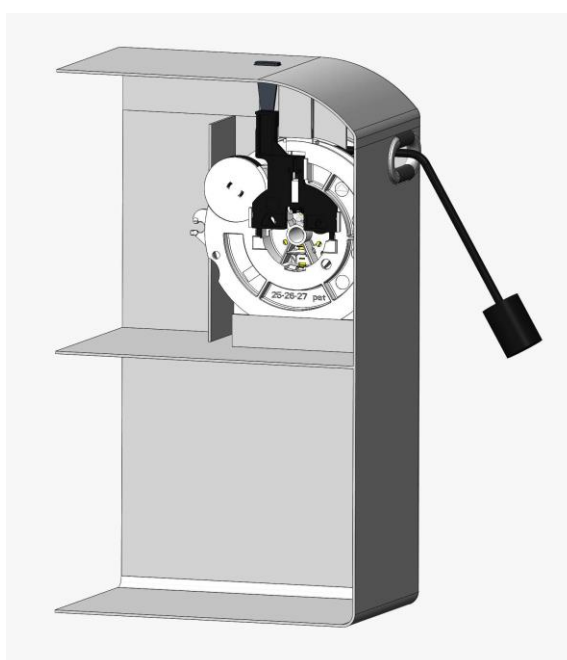
3. Rewinder position low - high

Cable rewinders should preferably be installed in the lower part of the appliance so that the cable and plug do not have to be lifted. The spring force is normally only dimensioned to overcome the friction of the cable and plug running along the ground. The force is often not sufficient to raise a certain cable mass or pull the cable around corners.



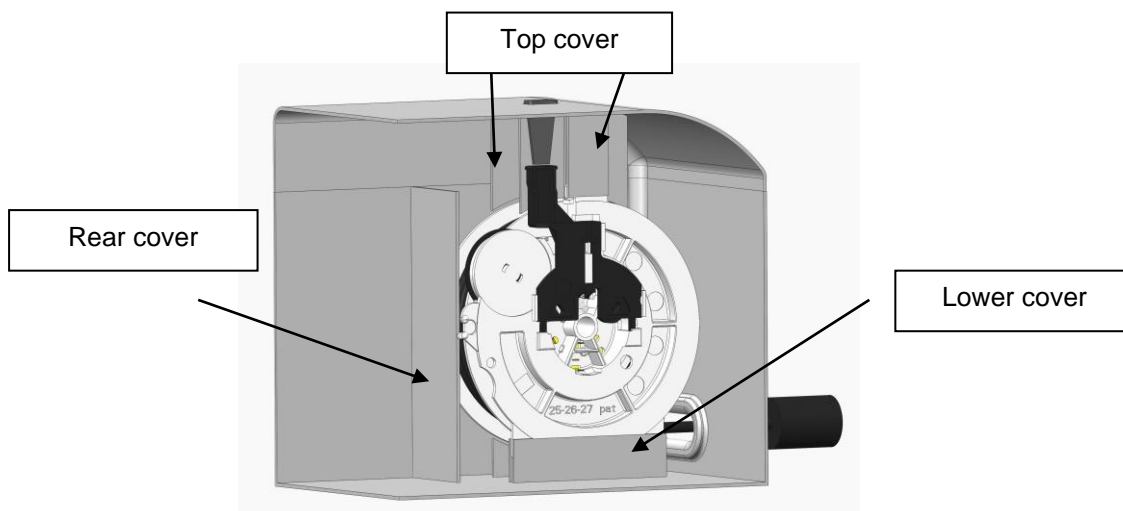
Preferably at the bottom of appliance

In such an incorporation situation (cable must be pulled up, friction at the inlet) the spring force must be increased in advance and the cable inlet should be optimized, e.g. by rolls.



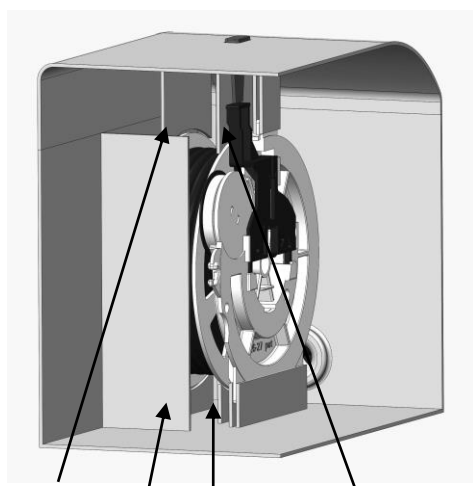
4. Drum cover

The drum should be covered so that the cable cannot jam or jump off. Therefore it is necessary to provide winding protection at minimum 3 positions (above, below and at the back).



5. Clearance between rewinder and housing

Leave enough room at the sides between the drum and the housing so that the drum does not rub against the housing (min. 2 mm).

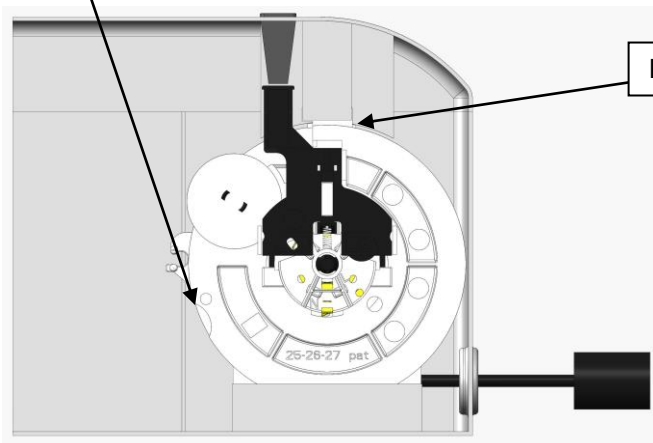


The clearance between drum and cover should be 2.0mm +0.5mm



The distance between the covers should be min. equal with the inner drum diameter.

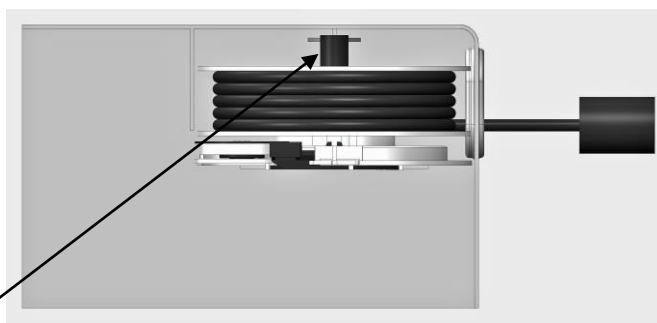
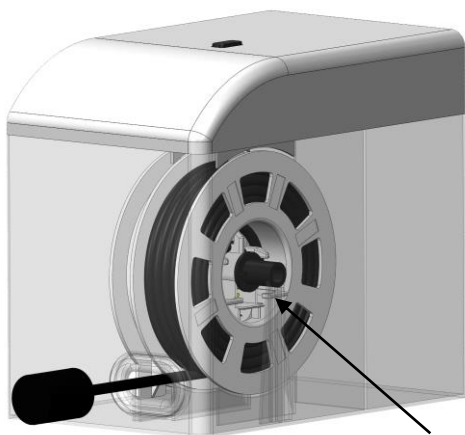
The distance between the drum and the back covering should be 2.0mm +0,5



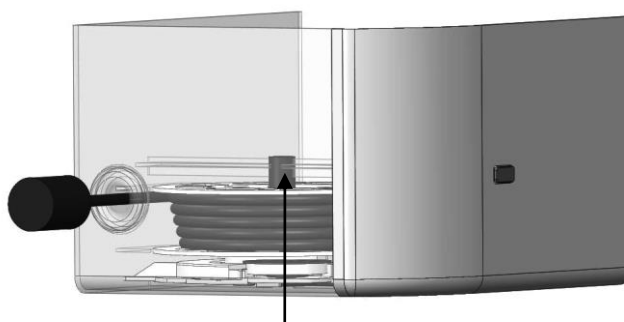
Plan to use a cable coverage

6. Counter supports

If possible, a support at the drum side should be used as a counter bearing. ATHOS has several standard supports available.



Counter support, vertical installation (right: top view from above)

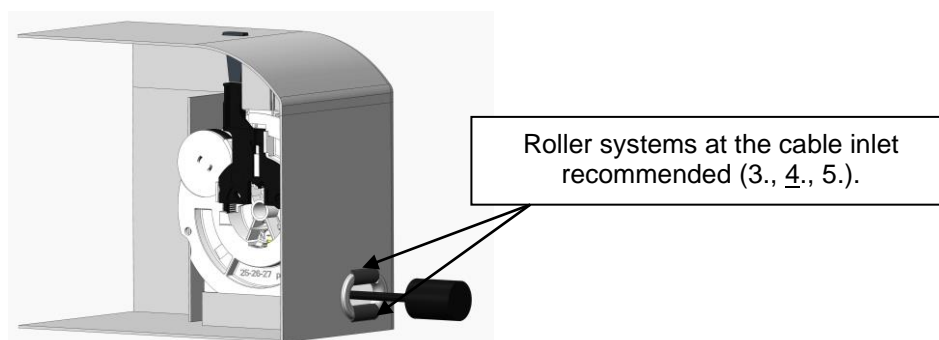
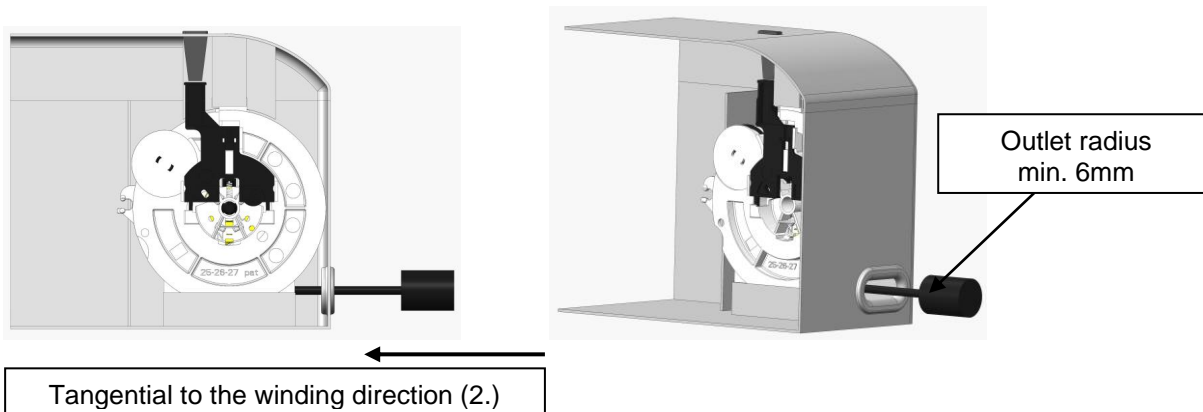


Counter support, horizontal incorporation

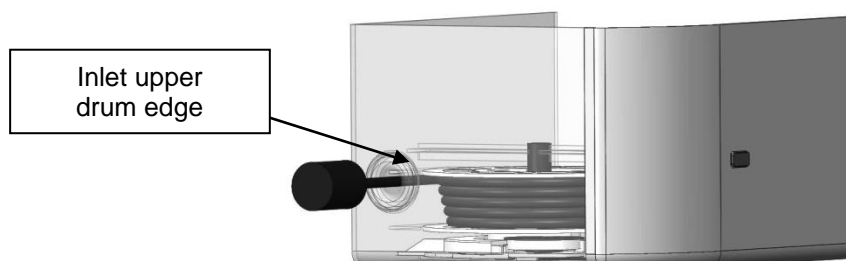
B. Cable Inlet

The following aspects have proved to be well worth recommending for the cable inlet area on the electrical appliance:

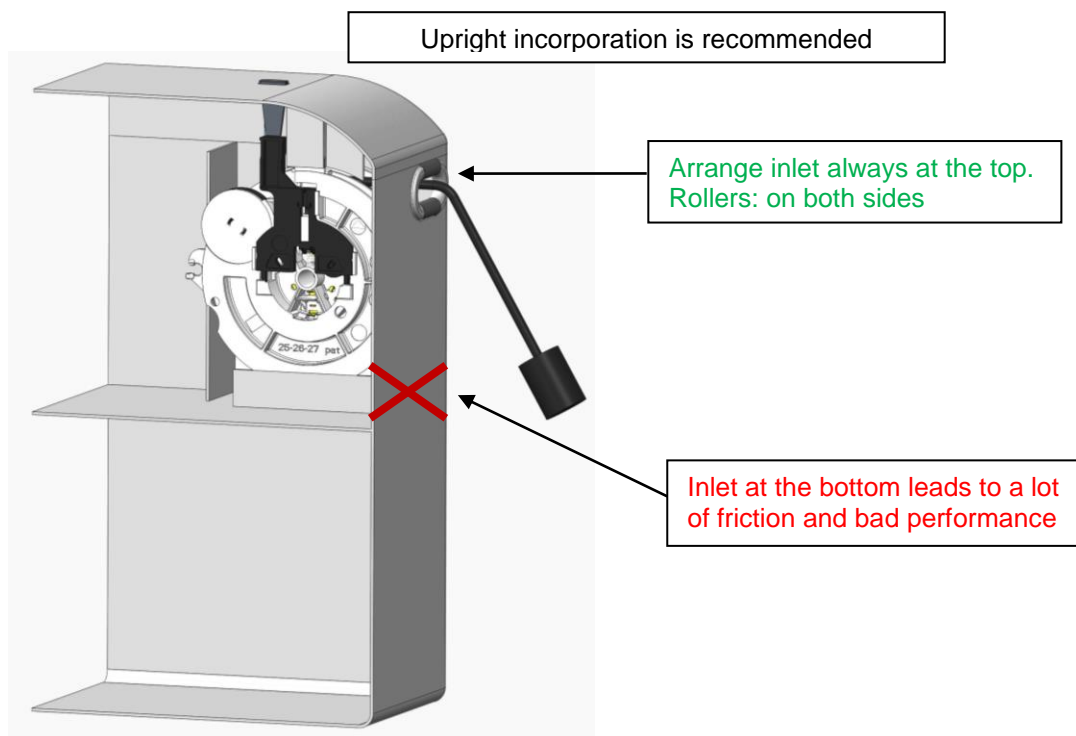
1. In case of vertical incorporation, arrange the cable inlet centrally aligned with the drum body, or design it as a slot over the entire drum width.
2. The appliance inlet should consider the winding direction of the rewinder. Allow the cable to enter the drum as directly as possible without guiding it beforehand around corners or over edges.
3. To improve the winding performance, provide corners or edges with as large radii as possible (min. 6 mm) or with additional rollers. A roller on the bottom edge of the inlet is recommended.
4. Also it is important for fulfilling the 60 ° pull-out-test in accordance to EN/VDE requirements No. 60335-1, 22.16. To pass this test big radii and rollers are recommended.
5. For optimal winding, the cable inlet should be as far as possible from to the drum.



6. In case of horizontal incorporation the centre line of the cable inlet must be aligned just under the top drum edge, formed as round hole.



7. Incorporation of the rewinder and the cable inlet in a high position over the floor e.g. barrel wet and dry vacuum cleaners:



C. Release and lock systems

ATHOS winders can be equipped with different release and lock systems, which lock the cable after unwinding and also allow them to be rewound after releasing.

1. Multi-function release

The cable winding can be activated either by pressing a release button on the equipment or also by pulling at the power cord. Here, the versions 2 and 3 have been more or less combined into a single system.

2. Button-press release / locking brake

A classic product - thoroughly tried and tested and unrivalled: The cable is wound by pressing a release button on the equipment. The release button operates a locking release system, which has been mounted on the baseplate. It only needs to be pressed once and then released. This will cause the cable to be fully wound.

The versions 1 and 2 have been equipped with the ATHOS Comfort Function which enables the user to fully wind the cable with a single press on the release button not only gently and safely, but also quickly and without stopping. Simpler and more comfortable would hardly be possible!



3. Catch brake system

Can be used universally: No release button is necessary on the equipment. Cable locking and release are by pulling briefly at the power cord. Our STANDARD rewinders use this release and lock system.

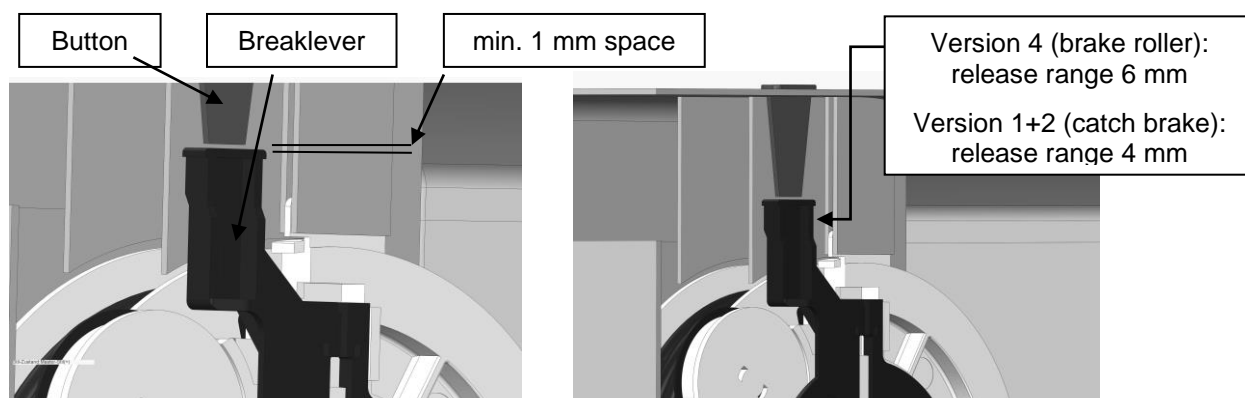
4. Button-press release / brake roller

The cable is wound by pressing and holding down a release button on the equipment. The release button operates a brake roller system, which is attached to the baseplate. It must be permanently pressed and held down to rewind the cable. Releasing the button stops the cable in any position.

5. Permanent pull

Here no locking system is present. The cable is constantly under tension (permanent tension) and rolls up as soon as it is released.

Do you need advice and support? We are happy to offer help. Contact us and let us know about your project, then you can be sure of exactly the right solution for the success of the project!



The following applies to the catch brake:

The cable rewinder with catch brake must be installed in such a way that, when the cable is completely wound up, it is still possible to pull the cable from the drum. If it is not possible to pull the cable from the drum, we refer to this as the "dead angle". If this should occur please contact ATHOS engineers - adjustment can be made during rewinder assembly to avoid the problem.

The following applies for the the Multifunction brake:

Please follow the guidelines for the pushbutton brake. The "dead angle" for the catch brake is not a problem, because alternatively the button can be used.

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**Find much more information on our website under
www.athos-de.de**