



autoVimation

building machine vision

Assembly of Dolphin Enclosures



This brochure is for customers only!

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Protect your Vision System!

autoVimation's aim is to provide simple to use products to make it possible to **use machine vision cameras in any environment**. Maintenance trips can be expensive, so protecting the sensitive camera equipment from damage or just manipulation is equally important.

Build your Vision System!

The second motivation for autoVimation's products was to allow simpler installation of camera systems in a manufacturing environment - "**plug and play**" **also for mechanics**. Once the camera is mounted in an enclosure, it can be easily adjusted and robustly installed on the machine, using our mounting kits and brackets as well as our range of matching dovetail profiles. This can avoid expensive, time-consuming manufacturing of dedicated mounting frames and brackets.

Limited warranty

The original autoVimation product is covered by a limited warranty of 24 months for defect free delivery according to EU regulations.

autoVimations warranty refers to the constant quality of the products falling in line with the specifications according to the general terms of delivery and payment. autoVimation presuppose correct handling and treatment of the function and condition, particularly observance of the product specifications and assembly- and operating manuals. Limitations of use published, such as temperatures, are based on measurements made under the testing conditions and can therefore only serve as an indication for an actual application.

Working conditions and varying application conditions outside the sphere of influence of autoVimation shall preclude any warranty claims. autoVimation would recommend verifying whether the product is suitable for the purpose of application intended. The way the products are applied, used and processed is not a matter autoVimation is able to control, and for this reason lies solely in the customers area of responsibility. Should there nevertheless be a case for liability, it shall be restricted to the value of the product supplied by autoVimation and used by the customer for all and any damage incurred.

The suitability of the product for the user's application which regard to load capacity (long term application), conforming with temperature limits of 3rd party equipment used, the chemical durability or ageing of sealing materials, as well as the correct mechanical or electrical installation must be checked and ensured by the customer under the particular practical conditions concerned. If, within the warranty period, the product is determined to be defective (at the date of original purchase) due to improper materials or workmanship, autoVimation GmbH or their service partners will, without charge for labor or parts, repair or (at the discretion of autoVimation GmbH) replace the product or its defective parts. The following cases are not covered by the above warranty:

- Consumable parts and parts subject to wear and tear
- Minor faults or deviations in the quality of a product which do not affect the product's value or fitness for its intended purpose
- Faults resulting from improper use (e.g. operating errors, mechanical damage, incorrect operating voltage)
- Any modification of autoVimation products effected by the customer or a third party, unless autoVimation has given its prior written consent to the nature and extent of the modification
- Faults due to force majeure
- Faults of which the purchaser was already aware at the time of purchase

All warranty claims become void if the product is tampered with by unauthorized persons or repair shops. Further, this warranty is voided by removal or alteration of identification labels, serial numbers or safety labels on the product or its parts. Warranty claims can be enforced in any country throughout the world in which the statutory rights of the country concerned are not in conflict with the warranty regulations. No other warranty claims or claims over and above the rights stated in these terms and conditions will be accepted. Consumers may be entitled to statutory rights in their own countries which are not restricted by these warranty terms and conditions, as the warranty is governed by the laws of the country in which the autoVimation product was purchased by the consumer. The provisions of the UN Convention on the International Sale of Goods do not apply to this service.

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What we advise both orally and in writing with regard to technical application is based on our experience and to the best of our belief; this should, however, be understood as a pointer without obligation.

Feedback welcome! Please send us an email to sales@autovimation.com, if you find any errors or find a subject requires more explanation!
Subject to change without prior notice!

Content

1 Important general notes.....	3
2 Dolphin enclosure assembly.....	4
2.1 Rear wall assembly.....	4
2.2 Adapter and Cable gland assembly.....	6
2.3 Front lid assembly.....	7

1 Important general notes

- Please follow carefully these assembly guidelines when assembling autoVimation's enclosures, as the IP protection rating stated may otherwise not be reached!
- Inappropriate handling of the enclosure or any parts thereof may lead to a leaky enclosure and may cause damage to the enclosed camera. autoVimation can take no liability for damages caused by improper handling.
- autoVimation's enclosures have been designed for a typical machine vision application where the camera set-up is done once in order to build an application. Frequent disassembly of the enclosure requires all seals and gaskets to be renewed. Please order replacement seals or O-rings from autoVimation when disassembling the enclosure.
- autoVimation uses the best possible sealing materials for typical applications. However every application is different - please check if our sealing material is durable under the use intended. A material duration overview is provided in the appendix. If in doubt please ask us for assistance - we usually have different sealing materials in stock or are able to source alternative materials if required.
- Do not assemble the enclosure if any parts are damaged – this counts especially for the seals and sealing flanges of the enclosure! In doubt – please contact autoVimation for advice.
- Tighten the lids as far as possible and don't use excessive force in case it is not possible to screw the lid completely down to the housing.

Separate assembly instructions are available for more complex systems (Water Cooling, Turtle enclosures with Peltier Cooling, controlled Heating Plate, etc.).



The light bulb highlights useful hints and advice.



The warning sign marks critical aspects that should be followed at all times.

2 Dolphin enclosure assembly

2.1 Rear wall assembly

The rear wall preparation is done ex works from autoVimation. However – please note these steps in case the rear wall has been dismantled.

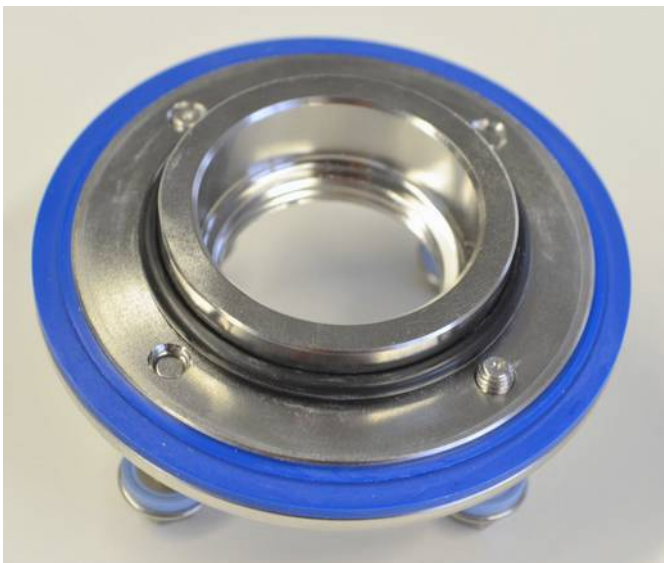


Before mounting rear and front lids to the enclosure mount the camera first into the enclosure (refer to autoVimation's general assembly guide!) and feed the cables through rear wall, adapter cable gland and hygienic protection tube!

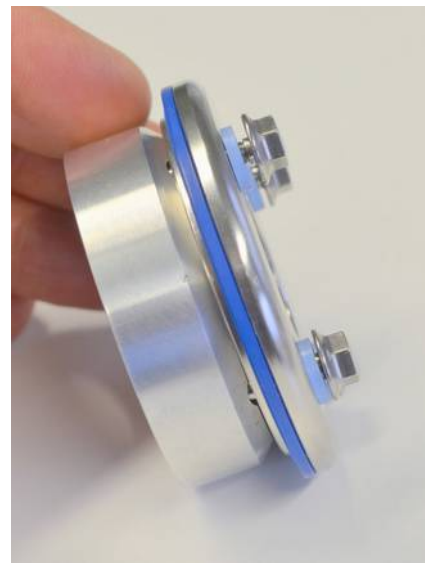


Mount screws with hygienic seal washers (slightly greased with food graded, fat and mineral oil free grease).

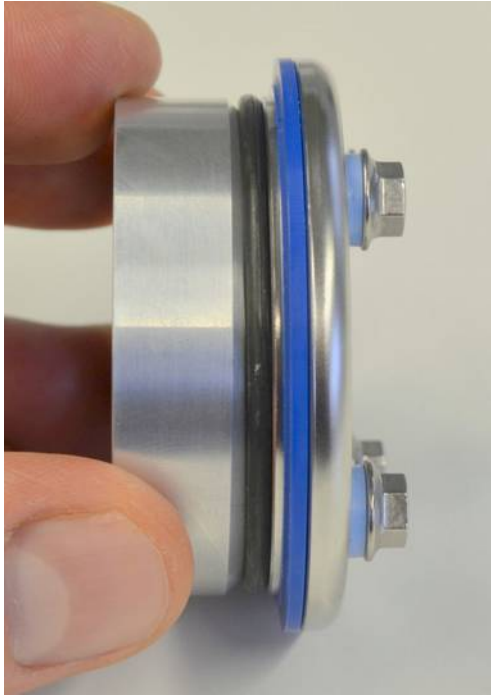
Add small O-Ring to rear lid as shown



Add blue seal with step upwards



Screw hygienic screws loosely into clamping ring.



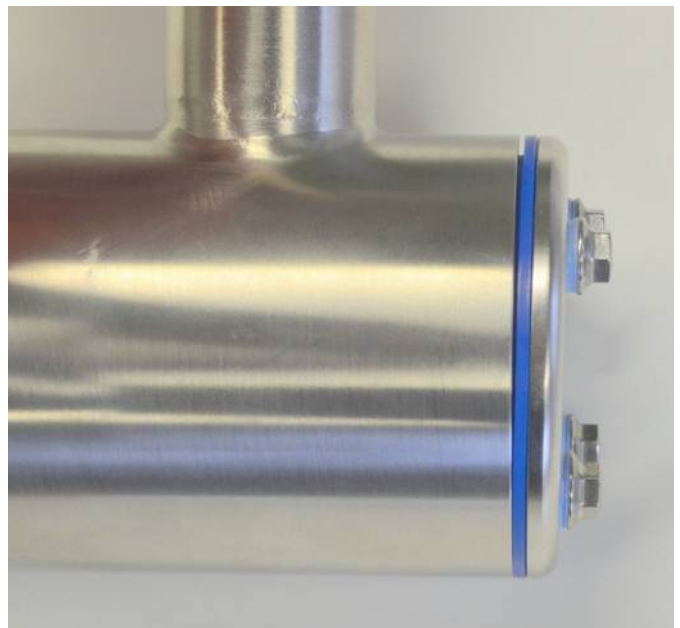
Add large O-Ring that should still fit into the groove – undo screws slightly otherwise!



Mount rear wall after mounting the camera inside the enclosure! Feed cables through the rear wall fist! Hold rear wall down firmly in order to avoid gaps (see below). Rotation might assist proper assembly. **The “push-locking” assembly makes it a lot easier to assemble/ remove the rear lid compared with screw-mounting – especially with cables attached to the camera!**



Tighten the hygienic screws cross-wise while holding the lid down.



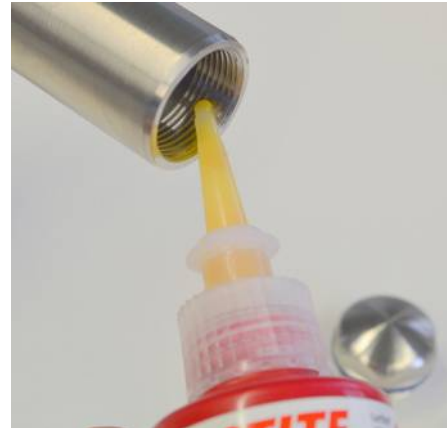
Avoid gaps between seal and enclosure! The enclosure would be still tight, but gaps are not ideal from a hygienic perspective.



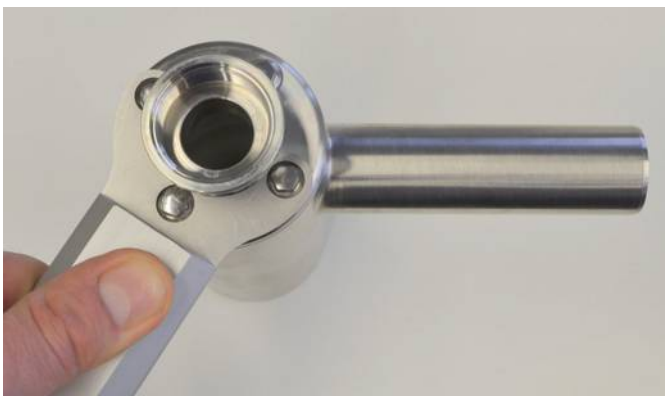
2.2 Adapter and Cable gland assembly



Thread sealing Loctite 577 can be used for additional safety.



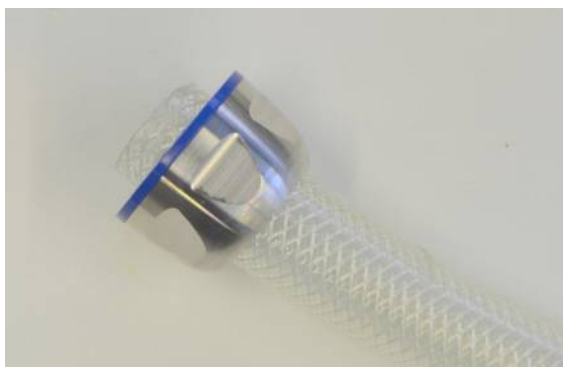
Same at the enclosure handle



Hold screws with mounting tool.



Tighten Adapter and cable gland body, which can also be mounted with Loctite 577 as a precaution.

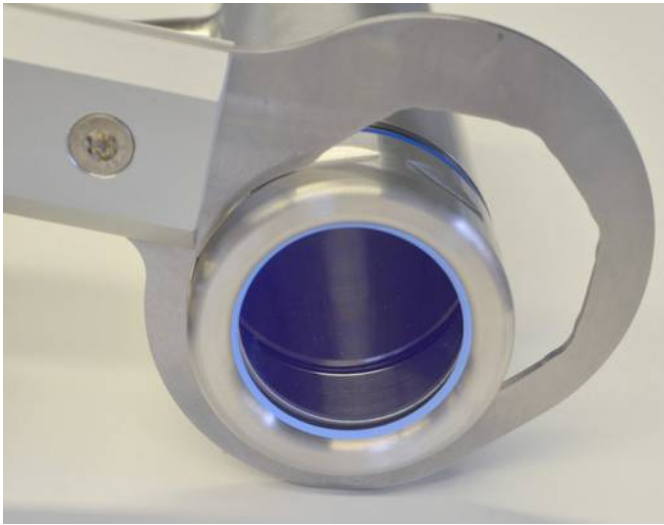


Insert 25mm hygienic tube into M32 cable gland cover nut.



Hold rear lid again with the mounting tool and tighten the cable gland cover nut.

2.3 Front lid assembly



Feed the mounting tool over the enclosure lid at the round hole end.

Slide the tool over the lid in a way that it sits between the jaws of the tool. Insert the enclosure completely and straight into the tool in order to avoid scratching the enclosure lid! Tighten the lid firmly until no gaps are visible at the seal.



Enclosure assembly completed!



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