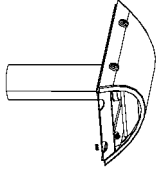
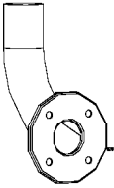
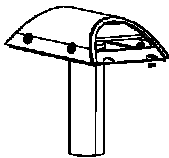
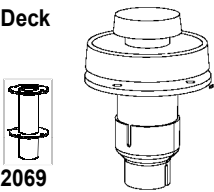
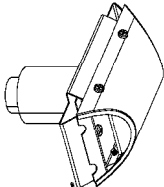
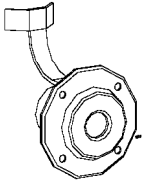
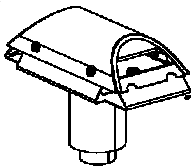
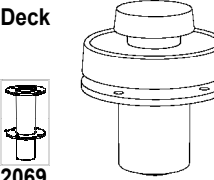


# WALLAS LEAD-THROUGHS 1066, 2460, 2466, 2467, 3467, 3468

Table 1: The mutual properties of different Wallas lead-throughs. Please use this table in choosing the most suitable lead-through.

| Picture   | Art. No. (pipe)       | Exhaust only or combination | Splash guard | Stream resistance * | Wind tolerance | Temperature level of mounting surface | Size and height (mm) | Sealable | Applicability   |
|---|-----------------------|-----------------------------|--------------|---------------------|----------------|---------------------------------------|----------------------|----------|---|
| Hull<br>           | 3467 (1028)           | Exhaust only                | •••••        | ••••                | ••••           | ••                                    | 140 x 73<br>40       | No       | 95DU,<br>95DP,<br>800,<br>900,<br>1000,<br>90, 100<br>and<br>150. |
| Hull<br>           | 1066 (1028)           | Exhaust only                | •            | •••••               | •              | ••••                                  | ~ 65<br>4            | No       |   |
| Deck<br>           | 3467 (1028)           | Exhaust only                | •••••        | ••••                | ••••           | ••                                    | 140 x 73<br>40       | No       |   |
| Deck<br><br>2069 | 2466 (1028)           | Exhaust only                | ••           | ••                  | ••             | ••                                    | ~ 92<br>50           | Yes      |   |
| Hull<br>         | 3468 (2448)           | Combination                 | •••••        | ••                  | •••••          | ••••                                  | 155 x 83<br>56       | No       |   |
| Hull<br>         | 2467 (2448)           | Combination                 | •            | ••••                | ••             | •••••                                 | ~ 92<br>19           | No       |   |
| Deck<br>         | 3468 (2448)           | Combination                 | •••••        | ••                  | •••••          | ••••                                  | 155 x 83<br>56       | No       |   |
| Deck<br><br>2069 | 2460** (2448 or 2428) | Combination                 | ••           | •                   | ••••           | ••••                                  | ~ 92<br>50           | Yes      |   |

\* Relevant especially in long exhaust pipes.

\*\* 2069 always with Nautic 40D.

# FEATURES AND RECOMMENDATIONS FOR USE

## Exhaust lead-throughs:

- Exhaust lead-throughs are intended primarily for use with Wallas products in which combustion air is not drawn from a suction air pipe located around the exhaust pipe.
- Exhaust lead-throughs may be used in other Wallas products if the suction pipe for the combustion air is cut off before the lead-through.
- With devices where the exhaust pipe shall be insulated with a larger diameter metal pipe, the combination lead-through has to be used.
- Exhaust lead-throughs are intended primarily for the following Wallas units: 95DU, 95DP, 800, 900, 1000, 90, 100, 150.
- It is possible to use the 602293 drainage lock with the exhaust lead-throughs to remove occasional splash water and condensation from the exhaust pipe.
- All of the exhaust lead-throughs are stainless steel.
- The exhaust lead-throughs fit into the  $\varnothing$  28 mm 1028 exhaust pipe.

## 3467 Standard lead-through:

- The standard lead-through may be used as a hull lead-through in rough conditions and as a deck lead-through in mild and normal conditions.
- The standard lead-through has the best splashguard of all Wallas lead-throughs.
- The standard lead-through cannot be sealed. For this reason it cannot be used as a deck lead-through, which may be occasionally submerged under water. The standard lead-through's splashguard is more effective than using a sealable lead-through in the open position.
- The standard lead-through withstands wind well and may therefore be used as both hull lead-through and deck lead-through.
- The arched design of the standard lead-through makes it easier, for example, to slide a rope over it. Likewise, a standard lead-through used in the hull will not get caught if the hull comes into contact with a post, for example.

## 1066 Hull lead-through:

- The hull lead-through has a slight flow resistance and thermal effect surrounding it.
- The hull lead-through is sensitive to wind; under some circumstances the wind can blow directly into the hole. A strong wind exceeding 15 m/s may shut the unit off.

## 2466 Sealable deck lead-through:

- The sealable lead-through withstands wind well.
- The lead-through may be installed into the deck because of its sealability. It is therefore suitable in rough conditions in which the deck may become submerged under water.

- Always remember to open the lead-through before turning the unit on and to seal it when sailing conditions become rough.
- The lead-through is opened and sealed by simultaneously pressing and turning its cap.
- Under exceptionally rough conditions, the use of the deck lead-through upgrade, 2069, is recommended.

## Combination lead-throughs:

- Combination lead-throughs contain both the exhaust and combustion air jacket tube in the same lead-through.
- Combination lead-throughs are intended primarily for Wallas products in which the combustion air is pre-heated in the suction pipe around the exhaust pipe.
- The combination lead-through may also be used in other Wallas units if the splash guard of the fresh air duct is taken care of for example with an insulation pipe which is cut off after a gooseneck.
- With devices where the exhaust pipe shall be insulated with a larger diameter metal pipe, the combination lead-through has to be used, although a combustion air is taken otherwise.
- Combination lead-throughs are intended primarily for the following Wallas units: 96D, 1300, 1800, 2400, 3200, 30D, 40D.
- All combination lead-throughs are stainless steel.
- Combination lead-throughs fit the  $\varnothing$  28 mm exhaust pipes and the  $\varnothing$  45 mm jacket tube, 2448.

## 3468 Standard lead-through:

- The standard lead-through is suitable for use as a hull lead-through in rough conditions and as a deck lead-through in mild and normal conditions.
- The standard lead-through has the best splashguard of all Wallas lead-throughs.
- The standard lead-through cannot be sealed. For this reason it cannot be used as a deck lead-through, which may be occasionally submerged under water. The standard lead-through's splashguard is more effective than using a sealable lead-through in the open position.
- The arched design of the standard lead-through makes it easier, for example, to slide a rope over it. Likewise, a standard lead-through used in the hull will not get caught if the hull comes into contact with a post, for example.

## 2467 Hull lead-through:

- The combination lead-through increases the wind tolerance of the hull lead-through to some extent as long as wind blowing directly into the pipe does not completely offset it.
- The thermal effect on the hull of the boat is in all cases minimal, because the suction pipe serves as a thermal insulator.

### 2460 Sealable deck lead-through:

- The sealable lead-through withstands wind well.
- Both the suction and exhaust pipes are sealable. The lead-through is therefore suitable for deck installation as it may be occasionally submerged under water in rough conditions.
- Always remember to open the exhaust lead-through

before turning the unit on and to seal it again when conditions become rough.

- The lead-through is opened and sealed by simultaneously pressing and turning its cap.
- Under exceptionally rough conditions, the use of the deck lead-through upgrade, 2069, is recommended.
- A deck lead-through upgrade 2069 must be used with Nautic 40D.

## INSTRUCTIONS FOR INSTALLATION

### General instructions for installation:

- The air current must always be able to flow freely past the lead-through: try to install the lead-through in such a way that enables wind to blow over it. The lead-through must not be located in a corner or behind a closed end where wind pressure can interfere with the functioning of the unit.
- The exhaust gas is hot. Always make sure that there is nothing in the affected vicinity of under 200 mm which is sensitive to heat, such as ropes, fenders, or neighboring boats.
- If necessary, the exhaust pipe can be insulated to avoid fire hazards.
- The exhaust pipe and jacket tube for the suction air must be stainless steel, 1028 or 2448. The aluminum pipe, 4045, is sufficient enough to be used with the exhaust lead-through as an insulating tube.
- The insulation of the lead-through is recommended to prevent electrochemical corrosion in metal-framed boats.
- Using the lead-through as a model when making installation holes for the lead-through is worthwhile, especially with cylindrical lead-throughs.
- Lead-throughs have gasket but if necessary insulate the installation hole with silicon, too.
- Always check the device specific requirements of the unit before the installation of the lead-through.

### Common to deck lead-throughs:

- All lead-throughs heat their environment. Wooden decks in particular may dry from the heating effect.
- Be cautious of the hot surface of the deck lead-through during use.
- Using a drainage lock with the deck lead-through to remove splash water from the exhaust pipe is recommended. The drainage lock's water pipe can be extended to an appropriate water disposal area, for example, by using a rubber hose.
- Making a gooseneck for the exhaust pipe and jacket tube is recommended; the gooseneck must be placed after the drainage lock.

### Common to hull lead-throughs:

- The minimum distance between the hull lead-through and the surface of the water is 300 mm. Make sure that the lead-through is not submerged under water for over 5 seconds. This is especially important in sailboats.

- Install the lead-through as far back as possible, preferably in the stern.
- The hull lead-through must always be equipped with a gooseneck pipe. The highest point on the gooseneck must always be above the water.
- If desired, a drainage lock can be mounted onto the exhaust pipe of the hull lead-through. However, the drainage lock must be placed just after the gooseneck.

### Things to consider when installing standard lead-through pipes 3476 and 3478:

- Standard lead-through pipes can be freely installed to a chosen position. However, in an exemplary installation, the lead-throughs are installed in positions which best suit their function:
  - o When installing in the hull or side of the deck structure, tilt the lead-through slightly towards the rear of the boat. This allows the outer surface of the lead-through to cool both the thermal current flowing through and the wind current.
  - o In a vertical deck installation, tilt the lead-through directly towards the boat.

### Things to consider when installing sealable lead-throughs 2466 and 2460:

- The cap of the sealable lead-through must be loosened when installing.
- Use a screwdriver to loosen the cap by pushing the spring into the pipe. Be careful that the screwdriver does not slip when pushing the spring; it is tight. See Figure 1.
- When assembling the lead-through, check Figure 1 to make sure the parts are in the right order. Also make sure that the spring goes into the right space in the cap, otherwise the lead-through cannot be sealed.

Figure 1:

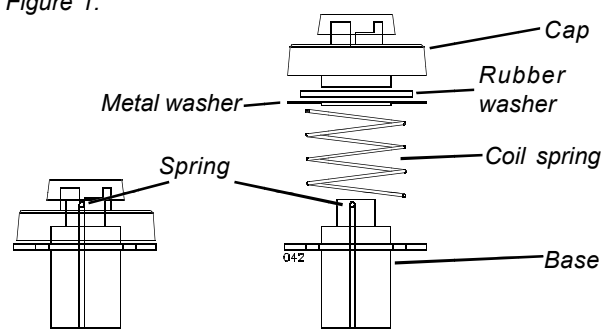


Figure 2: Standard lead-through 3467 installed into the hull for the exhaust gas. The hole for installing the lead-through is  $\varnothing$  35 - 45 mm and the screw holes are 2 x  $\varnothing$  6 mm.

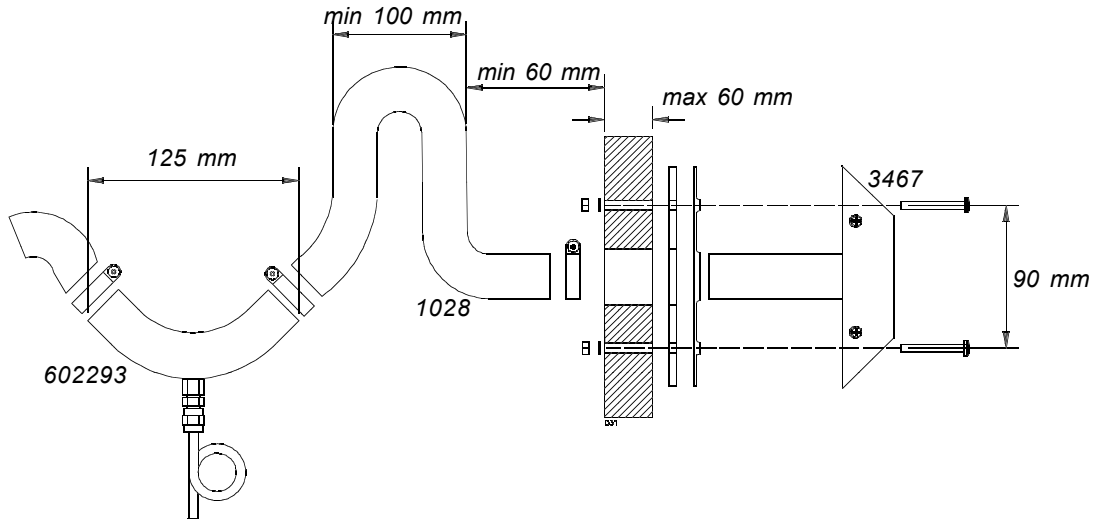


Figure 3: Installation for the hull exhaust lead-through, 1066. The installation hole is  $\varnothing$  35 mm and the screw holes are 4 x  $\varnothing$  5 mm.

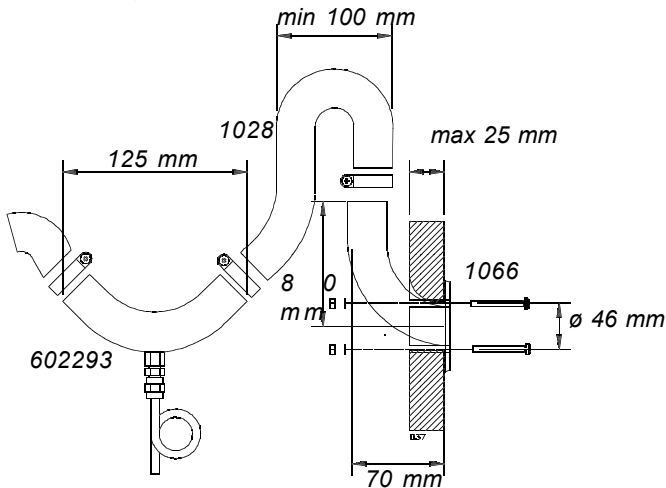


Figure 4: Standard lead-through 3467 installed into the deck for the exhaust gas. The installation hole is  $\varnothing$  35 - 45 mm and the screw holes are 2 x  $\varnothing$  6 mm.

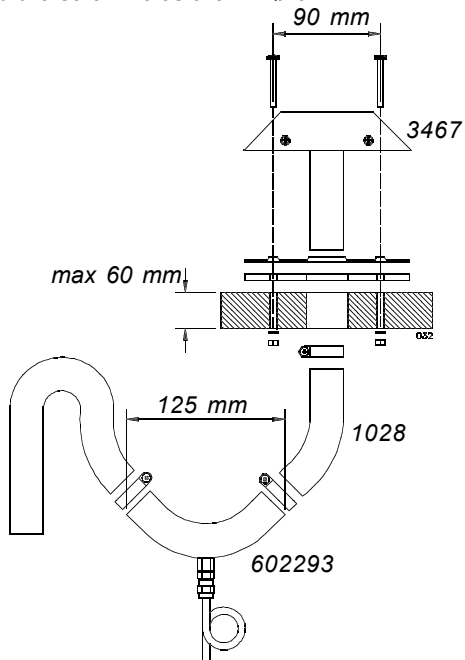
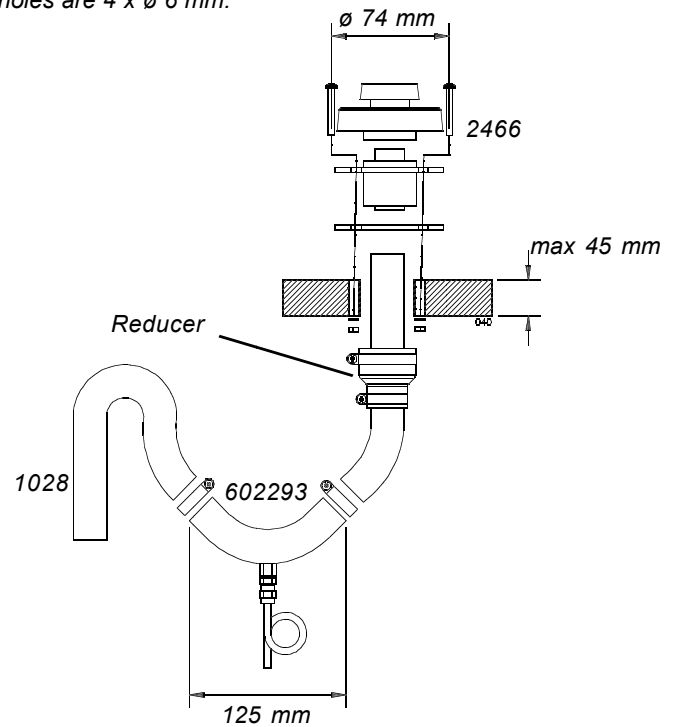


Figure 5: Installation for the sealable deck lead-through, 2466. The installation hole is  $\varnothing$  45 mm and the screw holes are 4 x  $\varnothing$  6 mm.



When installing the deck lead-through upgrade 2096, a reducer for extremely rough conditions is attached to the lower edge of the upgrade. The lead-through is attached to the upgrade according to Figure 10.

Figure 6: Hull installation of the standard lead-through, 3468, for exhaust gas and suction air. The installation hole is  $\varnothing 45$  mm and the screw holes are  $2 \times \varnothing 6$  mm.

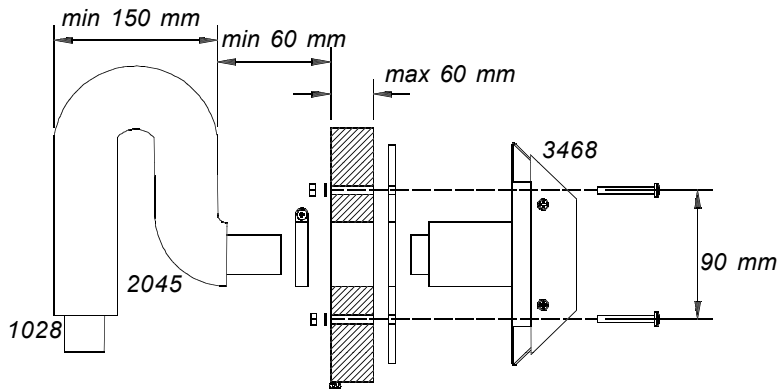


Figure 7: Installed hull lead-through 2467. The installation hole is  $\varnothing 50$  mm and the screw holes are  $4 \times \varnothing 6$  mm.

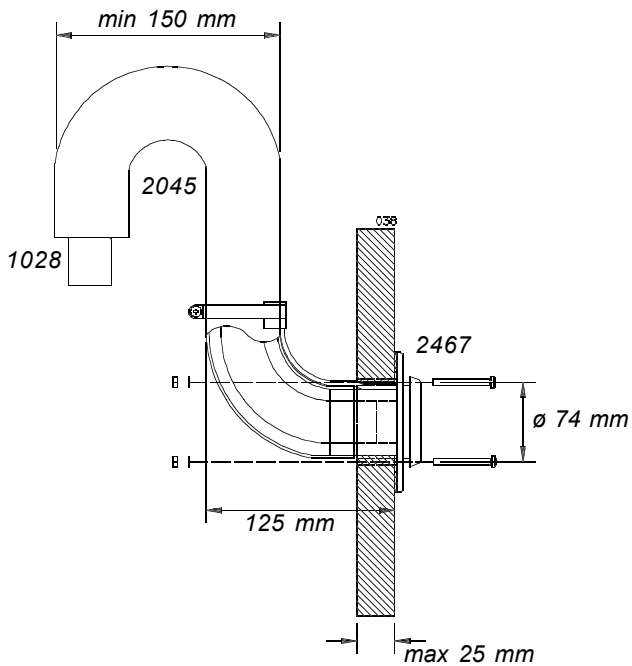


Figure 8: Deck installation for standard lead-through, 3468, for exhaust gas and suction air. The installation hole is  $\varnothing 45$  mm and the screw holes are  $2 \times \varnothing 6$  mm.

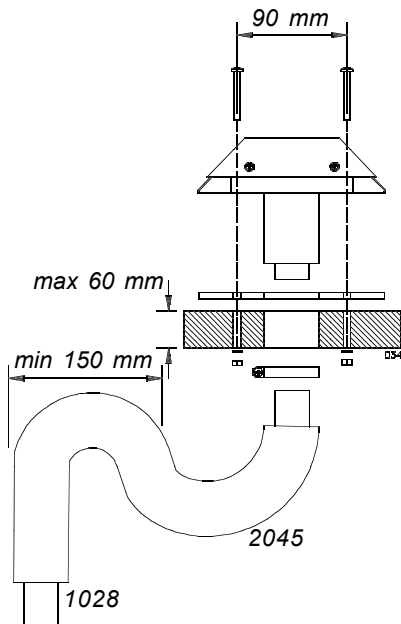
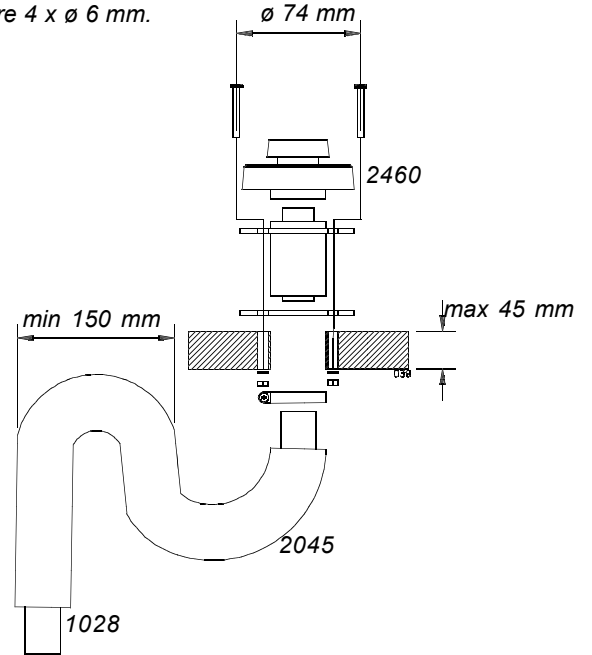
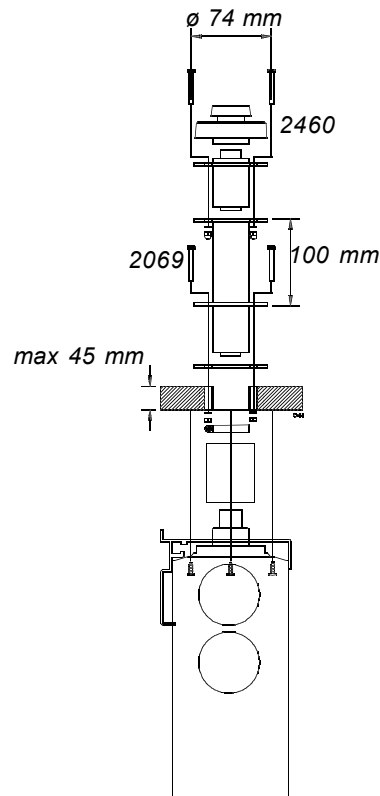


Figure 9: Installation for the sealable deck lead-through, 2460. The installation hole is  $\varnothing 45$  mm and the screw holes are  $4 \times \varnothing 6$  mm.



When installing the upgrade 2069 for extremely rough conditions, the deck lead-through is attached to the upgrade. See Figure 10.

Figure 10: Sealable deck lead-through, 2460, and deck lead-through upgrade 2069 installed directly onto the heater. Water can easily be splashed into the unit with this method of installation. The installation hole is  $\varnothing 60$  mm and the screw holes are  $4 \times \varnothing 6$  mm.



When installing the deck lead-through directly to the unit without the upgrade 2069, the deck lead-through is attached to the deck like the upgrade piece.

# ACCESSORIES

1028

Exhaust pipe;  $\varnothing$  28 mm.

1030

Insulation sleeve for the exhaust pipe;  $\varnothing$  30 mm.

2096

Deck lead-through 2466 and upgrade 2460 for especially rough conditions.

2448

Exhaust and suction pipe;  $\varnothing$  28/45 mm.

2461

Insulation series for circular combination lead-throughs for metal-framed boats (2460, 2467)

2462

Mounting the lead-through 2460 into an older, larger hole.

4045

Aluminum mantle tube,  $\varnothing$  45 mm, for thermal insulation with the exhaust lead-through.

602293

Drainage lock for splash water and condensation in the exhaust pipe.

602308

Insulation series for exhaust lead-throughs for metal-framed boats (1066, 2466, 3467).

602309

Insulation series for standard lead-throughs for metal-framed boats (3467, 3468).

In the Figures of these instructions sale-item article numbers are used to refer to the accessories on the list.