

Pool lift: METALU PK

Hydraulic pool lift.

Designed for in-ground pools.



METALU
ascensoracuatico.com



En todo el repuesto

*Tear-down and
troubleshooting.*



ISO 9001
ISO 14001

BUREAU VERITAS
Certification





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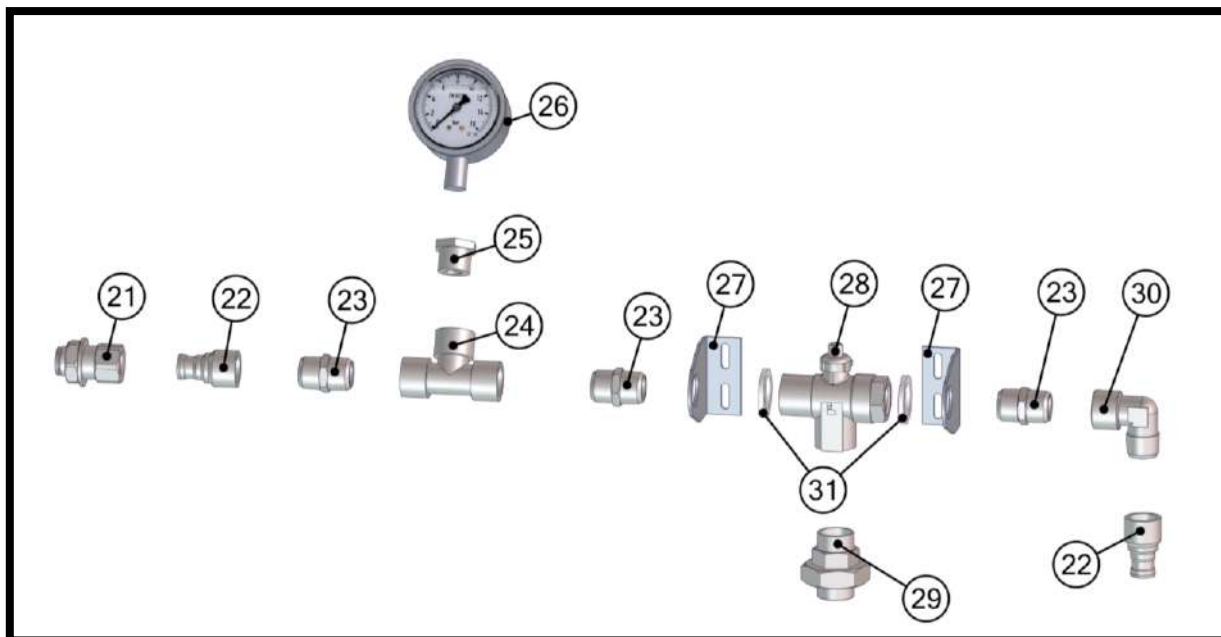
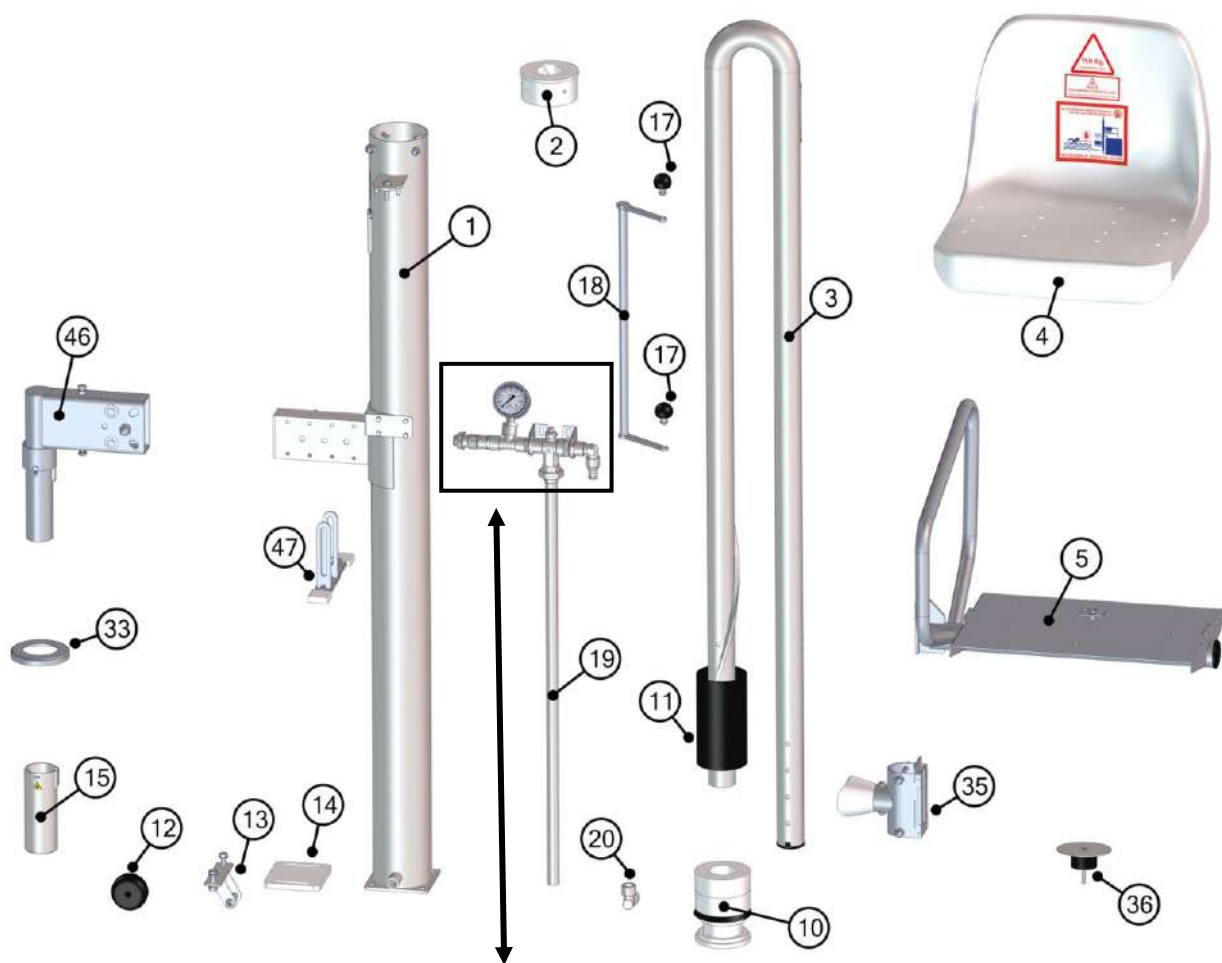


1. Tear-down and spare parts.

The following is a list of the main spare parts of the lift. To replace any other component, contact the METALU offices.

1	Cylinder	22	Female thread adapter 1/2"
2	Guide part	23	Double joint 1/2" M – M
3	Shaft	24	T-shaped 1/2" elbow, H-H-H
4	Chair	25	Round reducer 1/2" – 1/4"
5	Chair support	26	Manometer 1/4"
10	Housing with retainer	27	Valve fastening
11	Separator	28	Three-way valve
12	Wheel	29	Connecting nut
13	Wheel support	30	Elbow connector 1/2" 90° M-H
14	Adjustable lower support	31	Spacer washers
15	Cap	33	Trim
17	Ball handle	35	Chair holder
18	Valve controls	36	Cap cover
19	Water tube	46	Anchor
20	Elbow connector 1/2" 90° H - H	47	Stabilizer
21	Quick connector 3/4" – 5/8"		

Tear-down and spare parts.



Tear-down and spare parts.



2. Fault-finding and troubleshooting

The main faults that affect the lift alongside their solution are shown in the following table.

No.	Appearance of fault	Motive or cause	Solution
1	The lift does not go up correctly. It can go up without any load, but can't when carrying a load or has difficulty doing so.	Lack of pressure in the network	Install pressure group (water pump). <i>See annex 1</i>
		Valve is in poor condition. <i>VERIFICATION: With the actuating handle in the lifting position, water escapes as the valve empties.</i>	Change valve <i>See annex 3</i>
		Retainer is in poor condition.	Change retainer. <i>See annex 4</i>
3	The lift does not start the lifting and turning movement.	Incorrect position of the lift (angled away from the pool) <i>VERIFICATION: Check if the lift is angled away from the pool.</i>	Position the lift correctly. <i>See annex 2</i>
		Valve is in poor condition.	Change or clean the valve <i>See annex 3</i>

Main faults and solutions.



ANNEX 1

How to measure the water intake pressure if there are low network pressure problems

A pressure level between 3.5 and 5.5 bar is needed for the lift to work correctly.

To measure the real water intake pressure with the lift's manometer, the following steps must be followed:

1. Check that there are no water losses in the lift.
2. Place the chair at the lower limit with a user seated in it and start raising the lift.
3. **If the water pressure is insufficient, the lift shall stop at a certain point on its trajectory before reaching the end** due to a lack of pressure. Without moving the valve actuation handle, check the pressure displayed by the manometer while the lift is stopped. The pressure displayed by the manometer at this point is the **real drive pressure in the network**.

Measurements taken before or after the point described above do not correspond to the real pressure in the network.

Solution:

Install a pressure or water pump that falls within the necessary pressure limits. **We recommend** installing pumps with the following characteristics:

- Pressure: between 3.5 and 5.5. bar.
- Power: 0.75 CV approximately.
- Flow rate of approximately 500-4800 l/h.

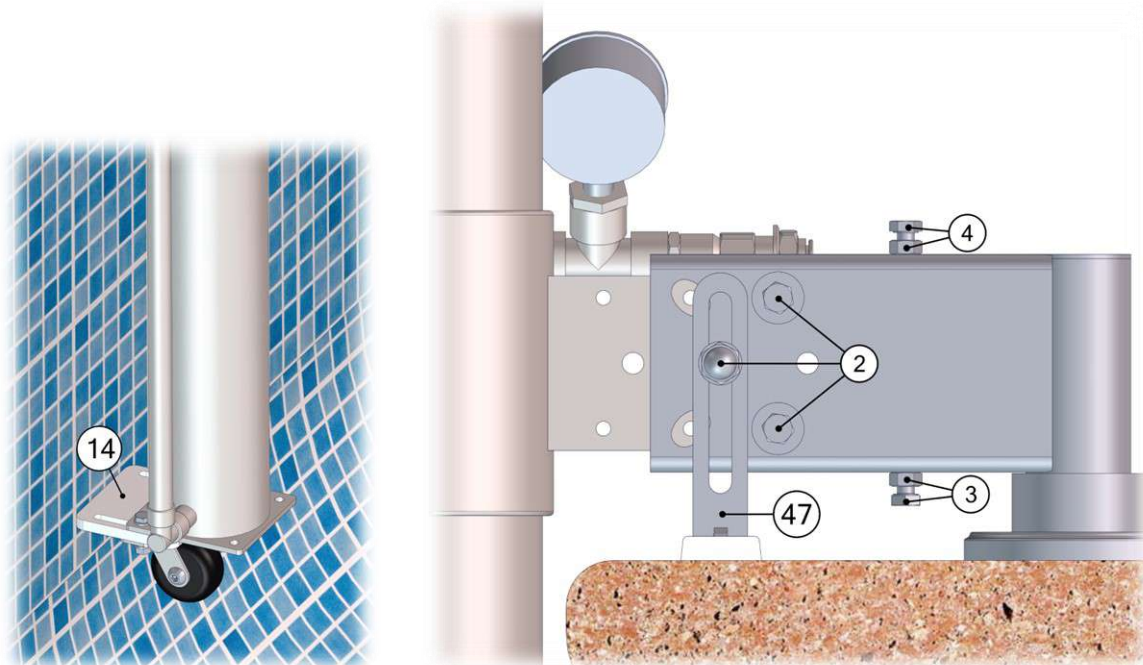
ANNEX 2

Position the lift correctly.

It may happen that, once the lift is installed, the cylinder will not be properly levelled vertically (aligned) and may be angled away from the pool. In this case, the position of the cylinder affects the start of the movement and the turning of the lift.

To correct how the lift is angled, strictly follow the steps below without changing the order:

1. Loosen the bolts of the lower end stop no. 14 (2 bolts).
2. Loosen bolts no. 2 from both sides of the anchor (4 bolts and 2 nuts).
3. Loosen the lock nut and bolts no. 3 and no. 4 (2 bolts and 2 lock nuts).
4. Fully unscrew bolt no. 4 (1 bolt).
5. Move the no. 3 lock nut towards the head of the bolt (1 lock nut).
6. Tighten bolt no. 3, which will angle the cylinder towards the pool (1 bolt).
7. Tighten the lock nut of bolt no. 3. (1 lock nut).
8. Tighten bolt no. 4 and lock nut no. 4 (1 bolt and 1 lock nut).
9. Tighten support part no. 47.
10. Tighten bolts no. 2 from both sides of the anchor (4 bolts and 2 nuts).
11. Tighten the bolts of part no. 14 (2 bolts).



ANNEX 3

Change or clean the 3-way valve

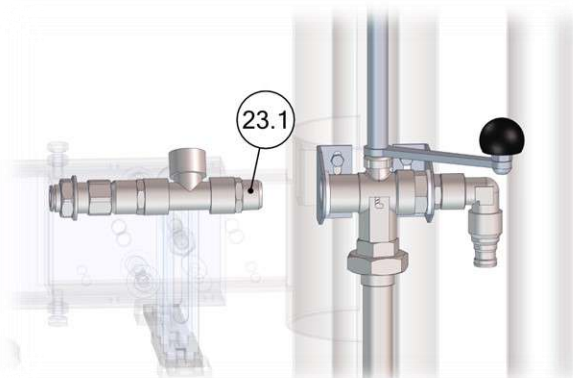
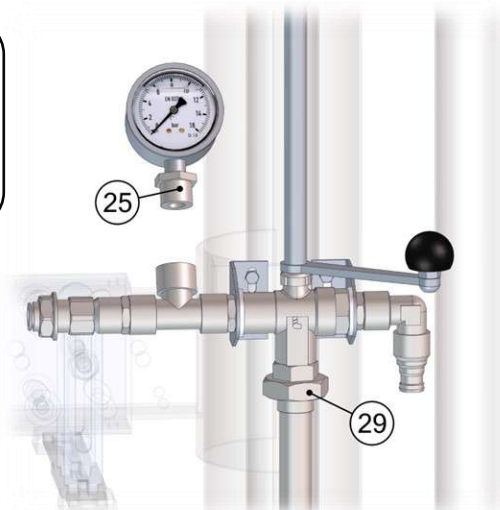
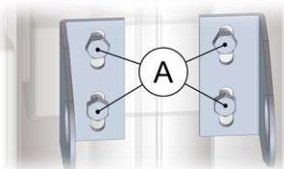
Tools needed:

- 20 mm flat wrench 1 Unit
- 22 mm flat wrench 2 Units
- 25 mm flat wrench 1 Units
- 37 mm flat wrench 1 Units
- 8 mm flat wrench 1 Units
- 5 mm Allen wrench 1 Units
- Teflon to place on the threads and joints during assembly.

To change the valve, it is not necessary to remove the lift from where it is installed.

First, lower the lift to the end of its trajectory and disconnect it from the water intake.

Step 1: Loosen the round reducer (25) next to the manometer to facilitate the rest of the disassembly and loosen the four holding bolts (A). Loosen the connecting nut a reasonable amount (29).



Step 2: Disassemble the couplings from the left side starting with the M-M double joint nut (23.1).

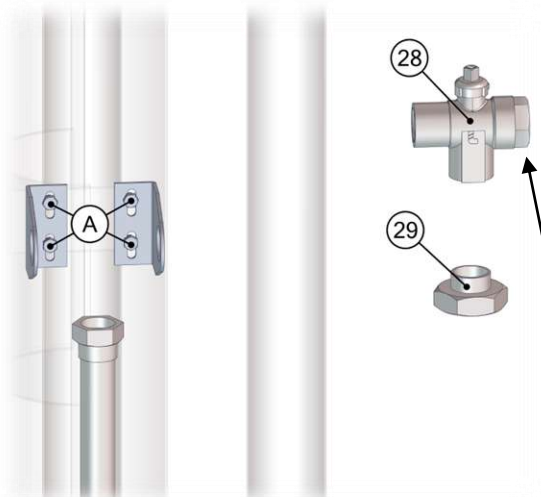
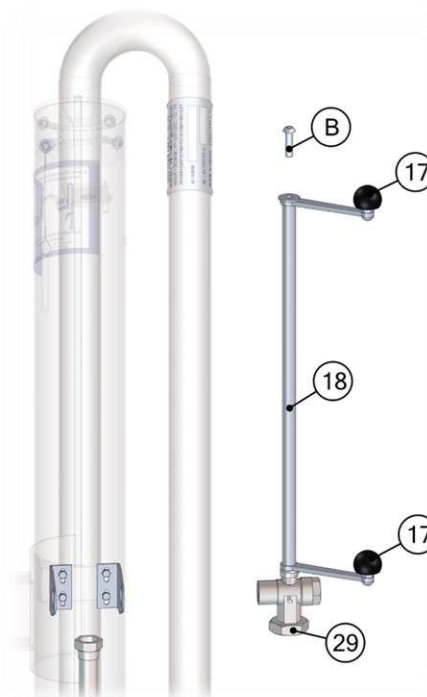
Step 3: Disassemble the couplings from the right side starting with the M-M double joint nut (23.2).



Step 4: Position the handles (17) in the **lowered position**, unscrew the connecting nut (29) and remove the valve control tube (18) by unscrewing the top bolt (B).

TAKE CARE DURING ASSEMBLY!

The spare valve comes in the lowered position from the factory. When assembling the hand control (18) in the valve, do so in the **same direction as it was disassembled**.



Step 5: Unscrew the connecting nut (29) of the faulty valve and screw it on the new valve (28).

TAKE CARE DURING ASSEMBLY!

Assemble the new valve in the same position as the defective valve is removed.

(Take the existing nut on one end as a reference)

When assembling the new valve, follow the steps in reverse order, paying special attention to the “TAKE CARE DURING ASSEMBLY” annotations.

NOTE 1: Do not tighten the bolts (A, B) or the connecting nut (29) until the entire system is assembled. Once assembled, first tighten the connecting nut (29), then the bolts holding the valve (A) and, lastly, the top bolt (B).

The images may not match your lift because of the continuous improvements that we carry out. However, you should not have any difficulty identifying the parts mentioned.

ANNEX 4

Change or clean retainer.

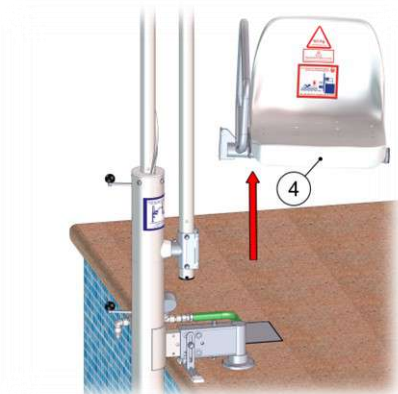
Tools needed:

- | | |
|------------------------------------|---------|
| • 13 mm flat wrench | 2 Units |
| • 4 mm Allen wrench | 1 Unit |
| • 5 mm Allen wrench | 1 Unit |
| • 17 mm pipe wrench | 1 Unit |
| • Flathead screwdriver | 1 Unit |
| • Marker pen | 1 Unit |
| • Trestle supports (optional) | 2 Units |
| • Limescale remover (if needed) | |
| • Microfibre cloths (for cleaning) | |

Before starting, we recommend **taking a picture of the lift** to refer back to the position of the parts if needed.

Step 1: Separate the cylinder and shaft.

Point 1.1: Remove the seat (4) from the lift.

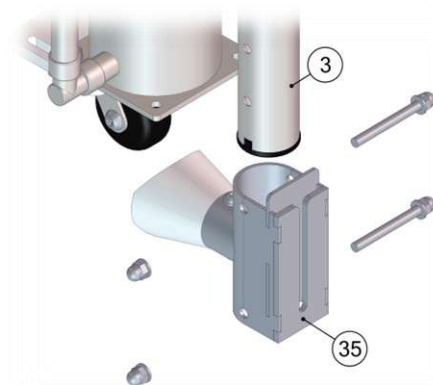
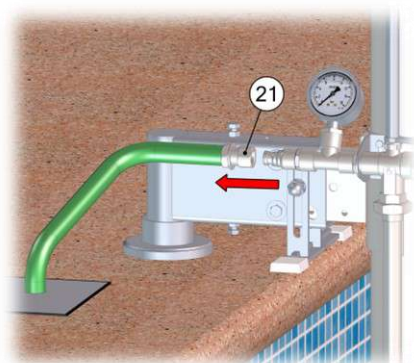


Point 1.2: Lower the lift to the end of its trajectory.

Point 1.3: Disconnect the quick connector (21), that is, the lift's water intake.

Point 1.4: Remove the lift and position it horizontally (we recommend using trestle supports).

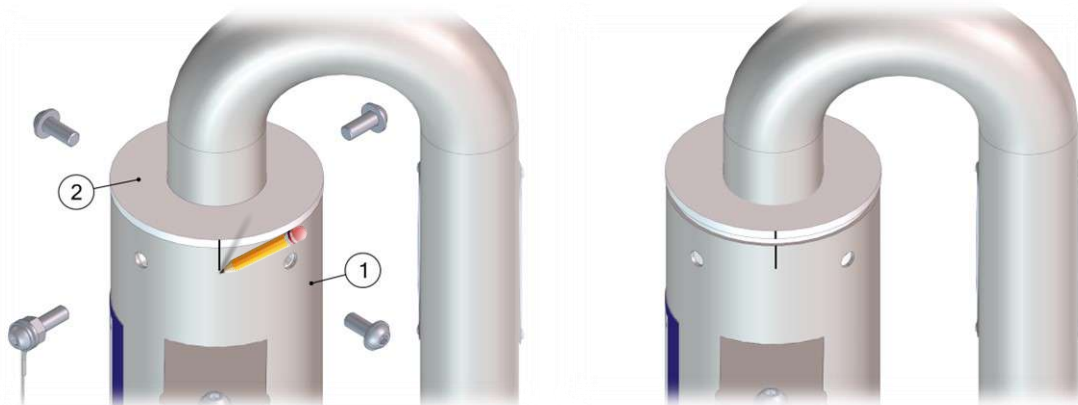
Point 1.5: Remove the chair holder (35) and remove it from the lower part of the shaft (3).





Point 1.6: Mark the guide (2) and the cylinder (1) with a marker pen so that you can reassemble it in the same position.

Point 1.7: Remove the bolts from the guide.



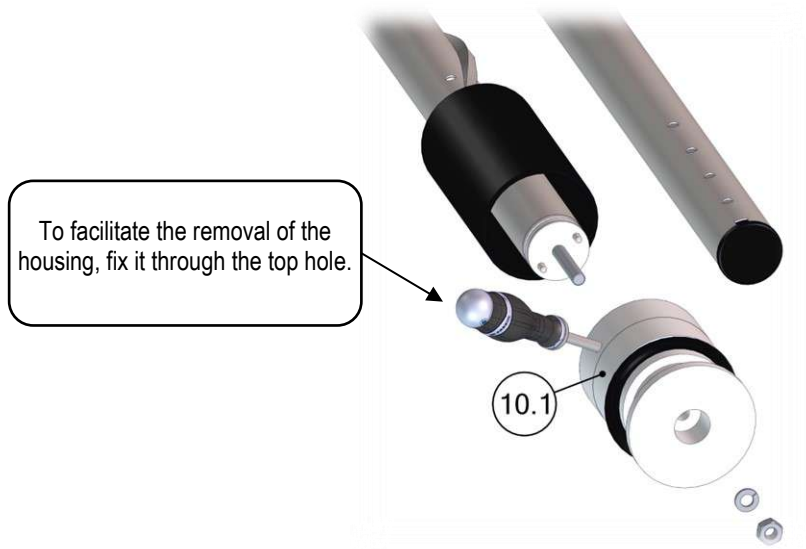
Point 1.8: Separate the shaft (3) from the cylinder (1) and clean the inside of the cylinder.



Before continuing, we recommend **taking a picture of the lift** to refer back to the position of the parts if needed.

Step 2: (only for models made in 2019 or later. For earlier models see Annex 4.1). Replace the used housing with the new one.

Point 2.1: Using the 17 mm pipe wrench, remove the nut from the lower part of the housing and remove the used housing (10.1).



Point 2.2: Assemble the new housing (10.2).



IMPORTANT!

Over-tightening can severely damage the structure. It should be medium tight.

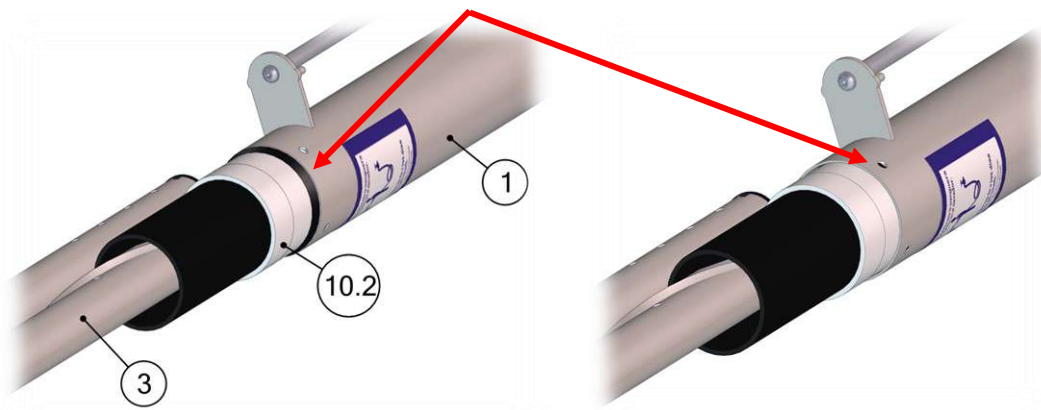
Step 3: Join the cylinder and shaft.

Point 3.1: Assemble the new housing (10.2) with the cylinder (1). Be careful not to damage the retainer.

WARNING!

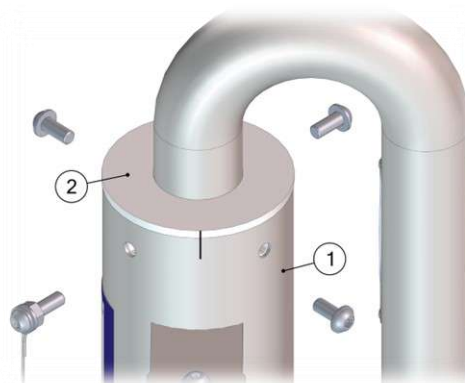
It is sometimes possible to “bite” the retainer when inserting it. Therefore, be aware of sharp edges when passing it through the cylinder and drill holes. If it is damaged, it has to be replaced. We recommend using a flathead screwdriver to place the retainer in the cylinder and soapy water to help the parts slide better.

Never use an oil spray.

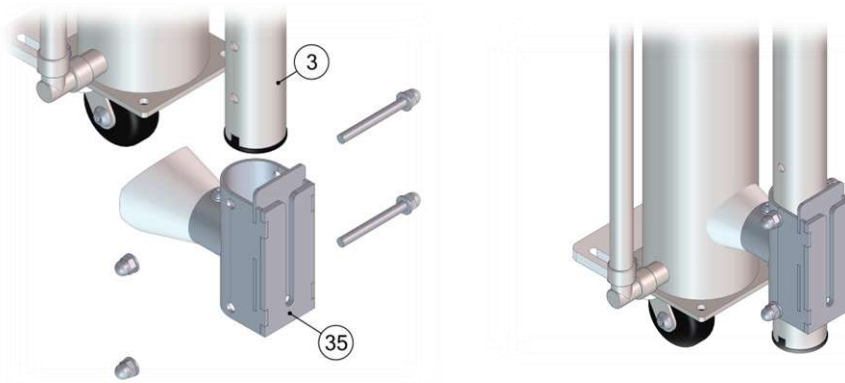


Point 3.2: Insert the shaft (3) all the way to end of the cylinder (1).

Point 3.3: Line up the markings made before and screw in the guide (2) and cylinder (1).



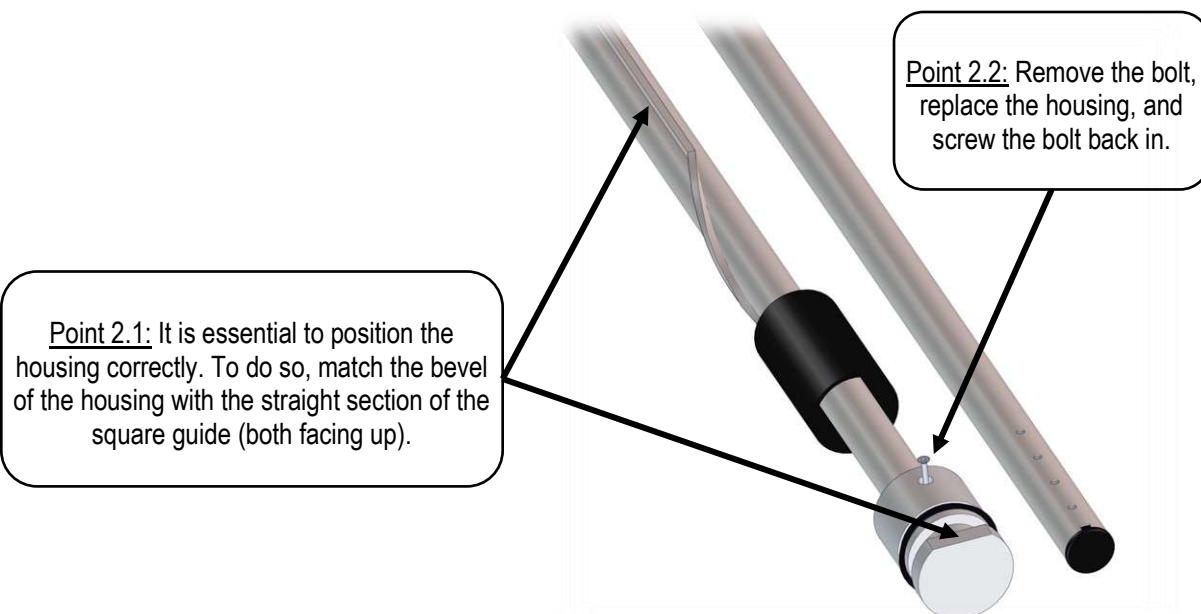
Point 3.4: Install the chair holder (35) in the shaft (3).



Point 3.5: Reinstall the lift at the pool and install the chair.

ANNEX 4.1

Step 2: If your lift was made before 2019, changing the housing is a different process.





Important: The images may not match your lift because of the continuous improvements that we carry out. However, you should not have any difficulty identifying the parts mentioned.

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Ascensor acuático hidráulico modelo METALU PK

Despiece y solución de problemas

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