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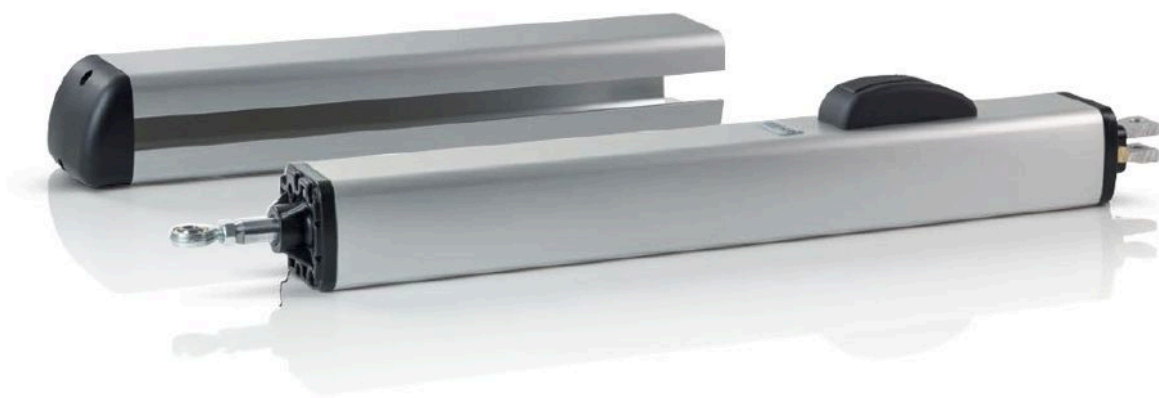
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use and maintenance manual

HYDRO

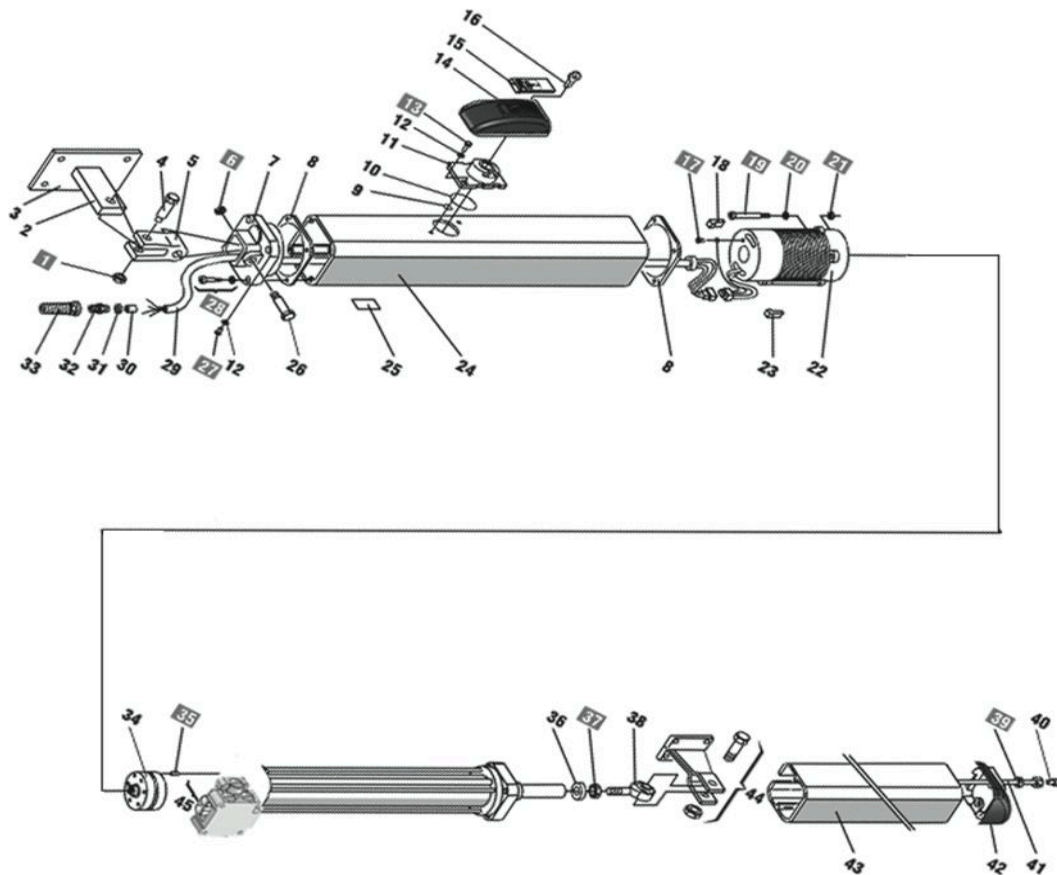
NEW 2017 MODEL

HYDRAULIC OPERATOR FOR SWING GATES



qui  **lö**®
opening solutions

Exploded View



Technical specifications

MODEL	H300BAC	H400BAC
Hydraulic lock	yes open-closed	yes open-closed
Slow travel	Hydraulic slow down (only closing)	
Rod stroke (MAX)	mm 270	mm 390
Rod linear speed	1,3 cm./sec.	
Traction / Thrust force to 15 bar	220 Kg. (2240 N)	220 Kg. (2240 N)
Pump flow-rate (l/m)	1	
Hydraulic oil	Total 52-AT42	
Operating ambient temperature	- 25° C + 70° C	
Protection class	IP 55	
Operator weight	9 Kg.	10 Kg.
Power supply	230 V ac (+6% - 10%) 50/60 Hz	
Absorbed power	250 W	250 W
Absorbed current	1 A	1 A
Electric motor (rpm)	1400	
Thermal protection	120° C	
Capacitor	10 µF	10 µF

These instructions apply to the following models:
HYDRO.

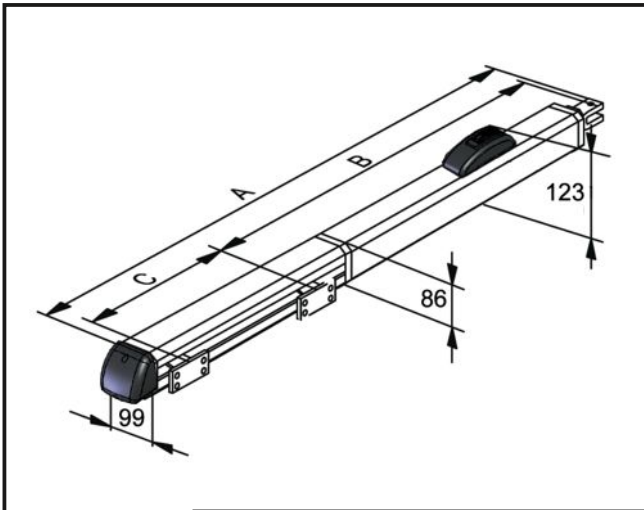
The HYDRO hydraulic operator for swing gate, they are constituted by an enbloc composed of an electric pump and a hydraulic piston that transmits the movement to the the gate.

The HYDRO operator guarantees mechanical locking of the leaf when the motor is not operating.

The hydraulic operator HYDRO is designed and produced to automate swing gates.

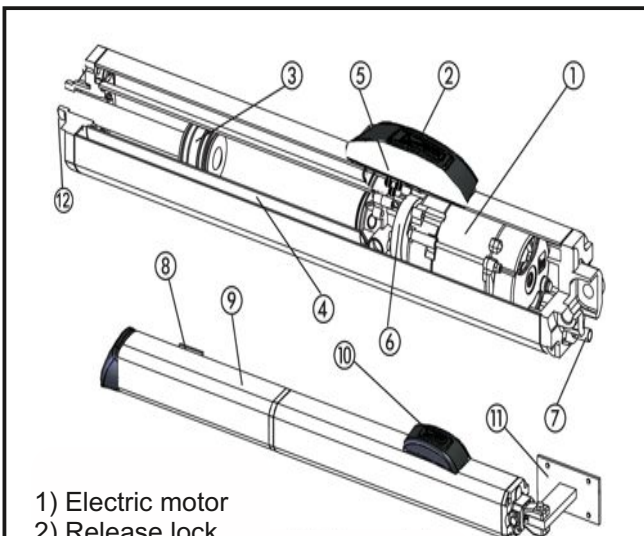
1. DESCRIPTION AND TECHNICAL SPECIFICATIONS

1.1. DIMENSIONS



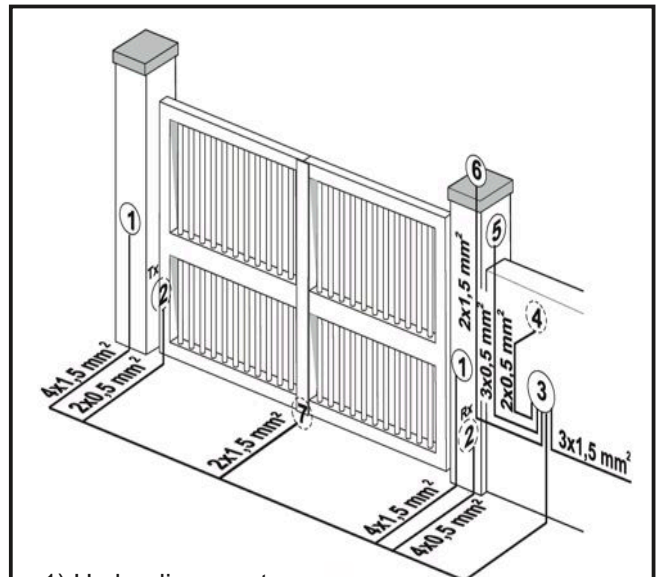
MODEL	DIMENSIONS (mm)		
	LENGTH (A)	Distance attacks (B)	Rod stroke (C)
H300	1090	705	270
H400	1330	825	390

1.2. OPERATOR DESCRIPTION



- | | |
|---------------------------|---------------------|
| 1) Electric motor | 8) Front attack |
| 2) Release lock | 9) Cover for stroke |
| 3) Hydraulic piston | 10) Kit release |
| 4) Cylinder | 11) Rear attack |
| 5) By-pass valves | 12) Rod end |
| 6) Pump | |
| 7) Electrical power cable | |

2. ELECTRIC STANDARD DEVICES



- | | |
|---------------------------|-------------------|
| 1) Hydraulic operators | 5) Receiver |
| 2) Photocells | 6) Flashing light |
| 3) Electronic control box | 7) Electric lock |
| 4) Key selector | |



You needs always to separate the connecting cables of the low voltage accessories from the 230 V. Use separate sheaths to avoid any type of interference.

Connect power cables hydraulic operator:

- Co (Common) = gray cable
- Ap (open) = brown cable
- Ch (closing) = black cable
- T (earth) = yellow / green

3. INSTALLING SYSTEM

3.1. PRELIMINARY CHECKS OF THE GATE

For a correct operating gate must satisfy the following conditions:

- robust and rigid structure of the leaves;
- the leaf movement should be smooth and uniform but without any friction during the race;
- the hinges must be in excellent state;
- limit mechanical stops placed.

Any metalwork shall be conducted before installation of automation.

The state of the gate structure influence the reliability and safety of the automatism.

3.2. HYDRAULIC OPERATOR INSTALLATION

A) Attach the rear mounting on the pillar and follow the signs of Tables A and B, modify, if necessary, the length of the attack (fig. 1).

Compliance with the dimensions shown in the above tables to ensure the smooth operation of the automatism.

In the case of an iron pillar carefully weld the rear mounting directly on the pier.

In the case of masonry opt for one of the following solutions:

- 1) Cash suitably a plate to wall, and then pay back the attack;
- 2) Fix to the pillar, with screws and dowel, the rear mounting plate and weld the rear mounting plate (Fig. 2);

B) Attach the operator to the rear (Fig. 2);

C) Tighten the front end in the middle (rod) on the shaft and tighten the nut (fig. 3);

D) Release the hydraulic operator; (Fig. 10)

E) Remove the chromed rod to the full bar;

F) Re-lock the hydraulic operator; (Fig. 10)

G) Install the front end on the stroke (Fig. 4);

H) Close the door of the gate and, keeping the operator in perfectly level position, locate the position of a front on the wing (Fig. 4);

I) Temporarily fasten the front attachment on the gate by two spot welds (protect the stroke from any welding slag);

L) Release the hydraulic operator, make sure the gate is open and free to stay on the mechanical stops to limit pre-installed and verify that the movement of the gate is smooth and without friction;

M) Remove the operator from its temporarily and permanently weld the front attachment on the wing(Fig. 5);

N) Attach the cover rod hydraulic operator (Fig. 7);

O) Re-lock the hydraulic operator and to effectue the electrical connections with the electronic equipment, according to the instructions in the manual.

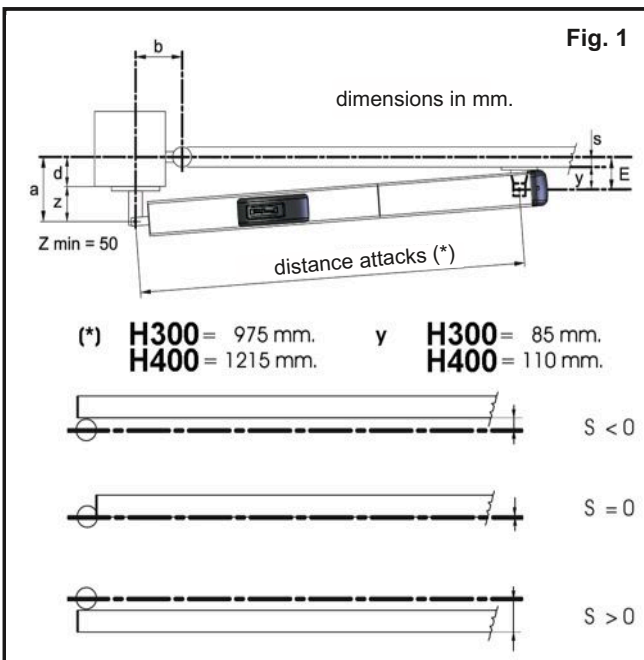
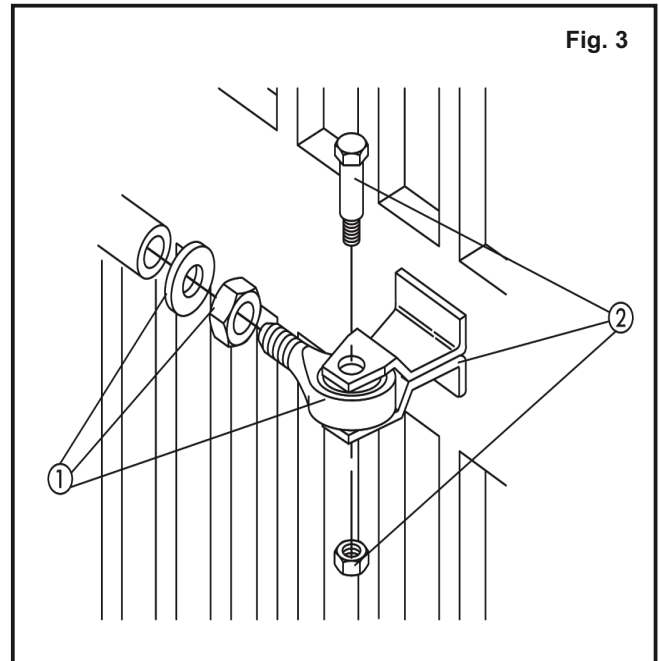
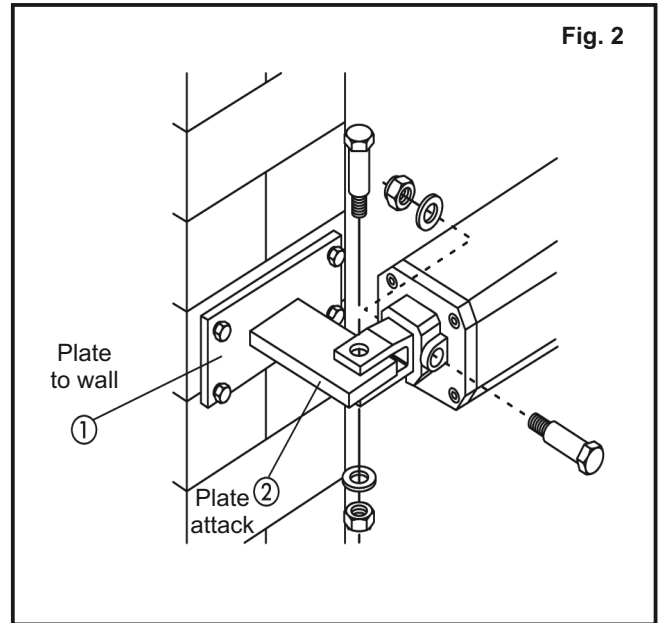


TABLE «A»:H300 - Fixing brackets

OPENING ANGLE	a (mm)	b (mm)	c(*) (mm)	d(**) (mm)	s (mm)
90°	130	130	270	80	20
115°	100	120	270	50	20
125°	90	120	270	40	0

(*) rod stroke required to stem the hydraulic slowdown in the closing
 (**) max dimensions

TABLE «B»:H400 - Fixing brackets

OPENING ANGLE	a (mm)	b (mm)	c(*) (mm)	d(**) (mm)	s (mm)
90°	200	160	390	150	20
115°	170	160	390	110	20
125°	130	170	390	80	20

(*) rod stroke required to stem the hydraulic slowdown in the closing
 (**) max dimensions

In the case that the dimensions of the pillar or the position of the hinge (dimension D) are not able to contain the dimension A as it wishes, it is necessary to make a niche on the pillar (Fig. 6), the dimension A must be always greater than the distance E.

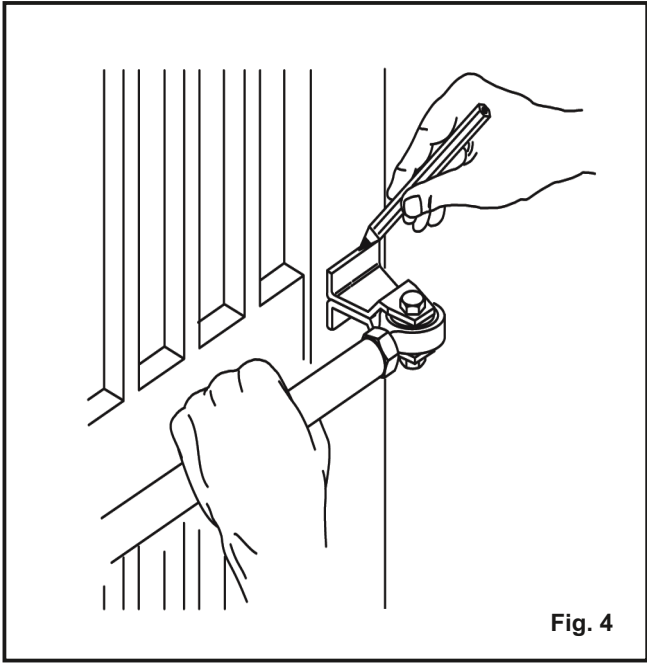


Fig. 4

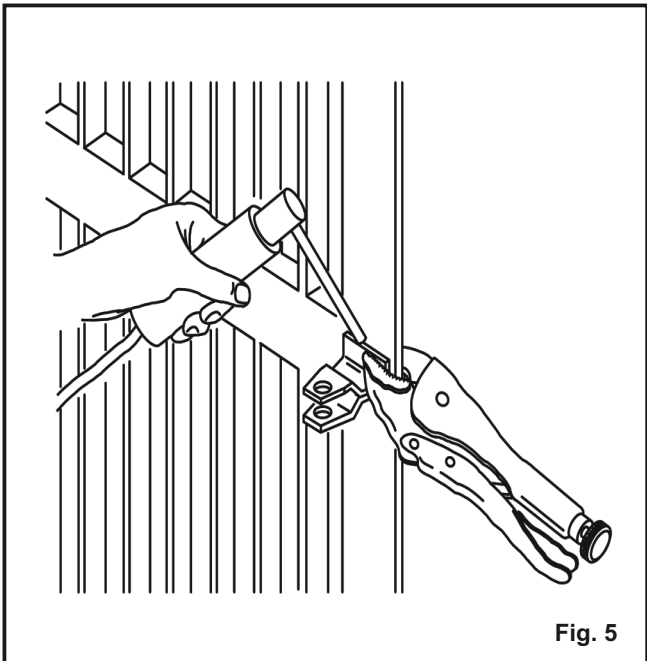


Fig. 5

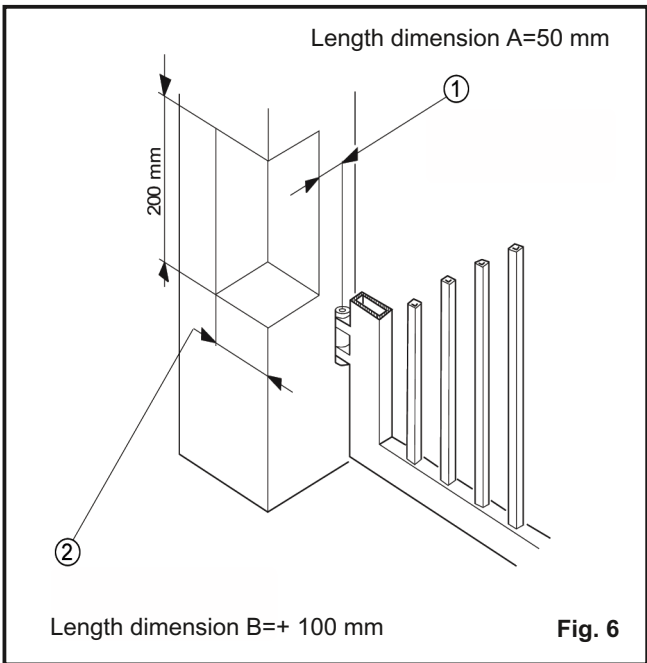
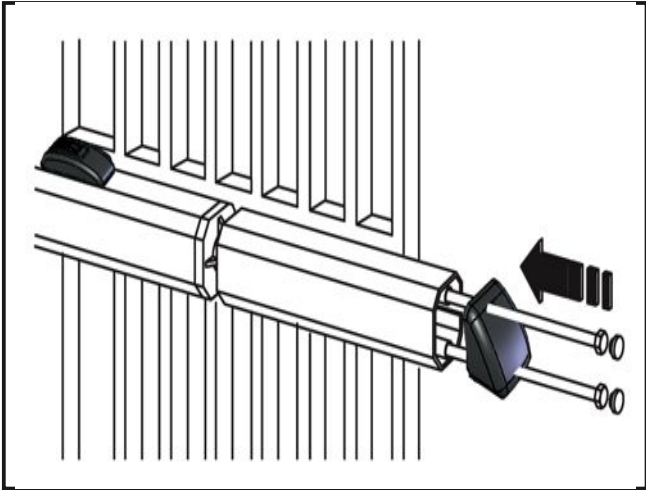


Fig. 6



3.3. SPECIAL INSTALLING FOR HYDRAULIC OPERATOR WITH OPENING GATE OUT (Fig. 8)

The mounting dimensions of the hydraulic operator is detected by the following Table C.

In case of opening gate to the outside, adjust the anti-trap, as follows:

- Screw A = valve regulation closing force,
- Screw B = valve regulation opening force.

To reduce the torque, you need to turn the screw counterclockwise;

To increase the torque, you need to turn the screws clockwise.

TABLE «C»:H300 - Fixing brackets

OPENING ANGLE	a (mm)	b (mm)	s (mm)	d(**) (mm)	c(*) (mm)
90°	100	90	0	50	190
90°	110	100	0	60	210
90°	120	110	0	70	230
90°	130	120	0	80	250

(*) rod stroke required without the hydraulic slowdown
 (**) max dimensions

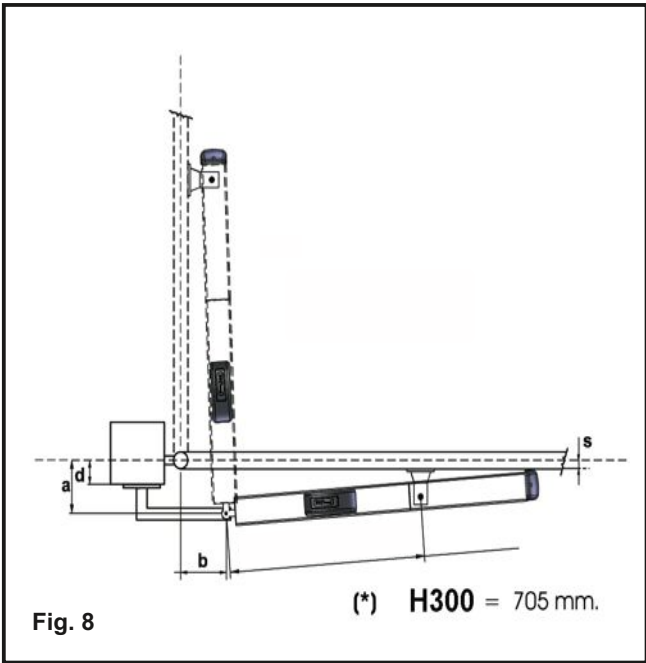


Fig. 8

**4. ANTI-CRUSHING CONTROL SYSTEM
- FINAL OPERATIONS - TEST AUTOMATION**

4.1. SETTING ANTI-TRAP (fig.9)

The hydraulic operators have a security anti-trap for to control the hydraulic operator force, in the presence of an obstacle during the movement of the gate.

The force is adjusted as follows:

- slide to unlock and lift the cap
 - lift the base of the release
 - to act on the control valves:
- 1) valve "A" to adjust the opening force
 - 2) valve "B" to adjust the closing force
 - 3) valve "C" to unlock it completely.

Turning the valve clockwise to increase torque, and counterclockwise to decrease the torque.

The adjustment of the torque limiters, in EU member states, is subject to standards EN 12445 and EN 12453.

In the other states is subject to local regulations.

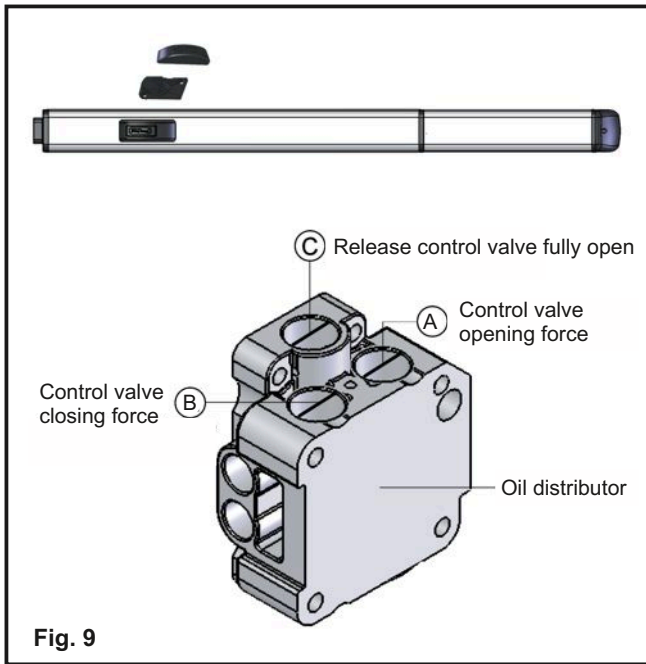


Fig. 9

4.2. FINAL OPERATION

After the adjusting anti-trap, follow these steps:

- close the device of the release
- remove the vent screw (Fig. 10).

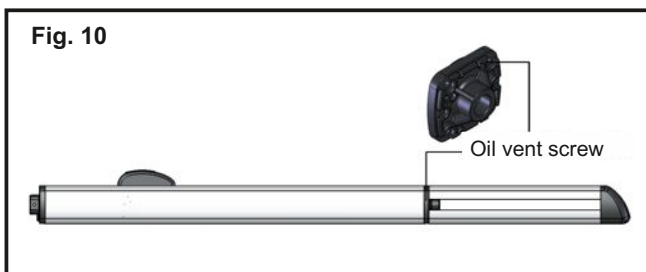


Fig. 10

4.3. AUTOMATISM TEST

After installation proceed with care to the test for verification the automation functionality and all the accessories connected with particular attention to security devices.

Give the "User Guide" to customer and explain the correct use of the automated system and highlight areas of potential danger from it.

5. MANUAL OPERATION AND RESET

5.1. MANUAL OPERATION

In case is necessary to manually operate the gate for absence of electric tide or damage of the automation, you must be acted on the device of unblocking as it follows:

- to open the cork of coverage unblocking and to insert the special key in endowment;
- to rotate the key counterclockwise sense for to unlock;
- to effect manually the manoeuvre opening or closing of the gate.

5.2. AUTOMATED SYSTEM RESET

Before proceeding to the reset of the automated system, after manual unblocking, it is advisable to disconnect the power supply of the automatism, with the purpose to avoid that an unintentional impulse can operate the automation.

The reset operation must be effected as it follows:

- to rotate the key of unblocking counterclockwise sense up to the arrest;
- to close again the cork of coverage of the unblocking system;
- to insert again the power supply of the automation;
- to start the automation.

6. MAINTENANCE AND REPAIR

6.1. MAINTENANCE

The functional verification of the plant is recommended every six months, with particular attention to the efficiency of the safety devices and unblocking, included the verification of the thrust force of the hydraulic operator; it is also well to verify the degree of functionality of the hinges of the gate. Check the level oil inside the oil tank.



In case of oil topping up must be strictly used Total oil 52-AT42

Periodically check the proper adjustment of the anti-crushing safety (valve regulating power) and efficiency of the release system.

6.2. REPAIR

The possible reparations on the automation must be effected exclusively from specialized personal, possibly authorized. To use original spare parts.

7. TROUBLESHOOTING

Gate not moving	<ul style="list-style-type: none"> - control power supply - check that the operator is released - check adjustment anti-crushing system - check oil level in the tank - check efficiency capacitor - check efficiency of the electronic control unit.
Gate moving slowly	<ul style="list-style-type: none"> - check adjustment anti-crushing system
Gate moving to tears	<ul style="list-style-type: none"> - Verify the removal of the bleed screw oil - to eliminate possible air in the hydraulic circuit, effecting complete cycles of opening and closing of the gate
Oil leakage from the vent screw	<ul style="list-style-type: none"> - It is normal for a minimum initial oil leakage, if the oil leakage is continuing, verify the perfect horizontal position of the hydraulic operator. Otherwise, contact an authorized personal.
Stop leaves at slow down	<ul style="list-style-type: none"> - check adjustment anti-crushing system
Rod stroke variable speed	<ul style="list-style-type: none"> - to verify the quotas of the angle opening

EU Declaration of Conformity

and Declaration of Incorporation of "quasi-machines" (pursuant to the Machinery Directive 2006/42/CE, Att.II, B)



Company name:	QUIKO ITALY SRL
Postal address:	Via Seccalegno, 19
Postcode and City:	36040, Sossano (VI) - Italy
Telephone number:	+39 0444 785513
E-Mail address:	info@quikoitaly.com

declare that the DoC is issued under our sole responsibility and belongs to the following product:

Apparatus model/Product:	HYDRO: QK-H400BAC ; QK-H300BAC
Type:	AUTOMATIONS FOR SWING GATES (230V)
Batch:	See the label on the motor

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

- **Directive 2006/42/CE (MD Directive)**

- It is declared that the relevant technical documentation has been drawn-up in compliance with attachment VII B.
- It is also declared that the following essential health and safety requirements have been respected: 1.1.1 - 1.1.2 - 1.1.3 - 1.1.5 - 1.2.1 - 1.2.6 - 1.3.1 - 1.3.2 - 1.3.3 - 1.3.4 - 1.3.7 - 1.3.9 - 1.5.1 - 1.5.2 - 1.5.4 - 1.5.5 - 1.5.6 - 1.5.7 - 1.5.8 - 1.5.10 - 1.5.11 - 1.5.13 - 1.6.1 - 1.6.2 - 1.6.4 - 1.7.2 - 1.7.3 - 1.7.4 - 1.7.4.1 - 1.7.4.2 - 1.7.4.3.
- The undersigned declares that the afore-mentioned "partly-completed machinery" cannot be commissioned until the final machine, into which it has been incorporated, has been declared compliant with the Machinery Directive 2006/42/CE.
- On duly justified request, the manufacturer commits to transmitting the information regarding the "partly-completed machinery" to the national authorities without prejudice to their intellectual property rights.

- **Directive 2014/53/EU (RED Directive)**

- **Directive 2011/65/EU (RoHS)**

The following harmonised standards and technical specifications have been applied:

Title:	Date of standard/specification
EN 61000-6-2	2005 + AC:2005
EN 61000-6-3	2007 + A1:2011+AC:2012,
EN 301 489-1 V2.2.3	2019
EN 301 489-3 V2.1.1	2017
EN 60335-2-103	2015
EN 12453	2017
EN 62479	2010
EN 300 220-2 V3.1.1	2017
EN IEC 63000	2018

Additional information

Signed for and on behalf of:		
Revision:	Place and date of issue:	Name, function, signature
01.00	Sossano, 28/09/2021	(Borinato Luca, Legal Officer)



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