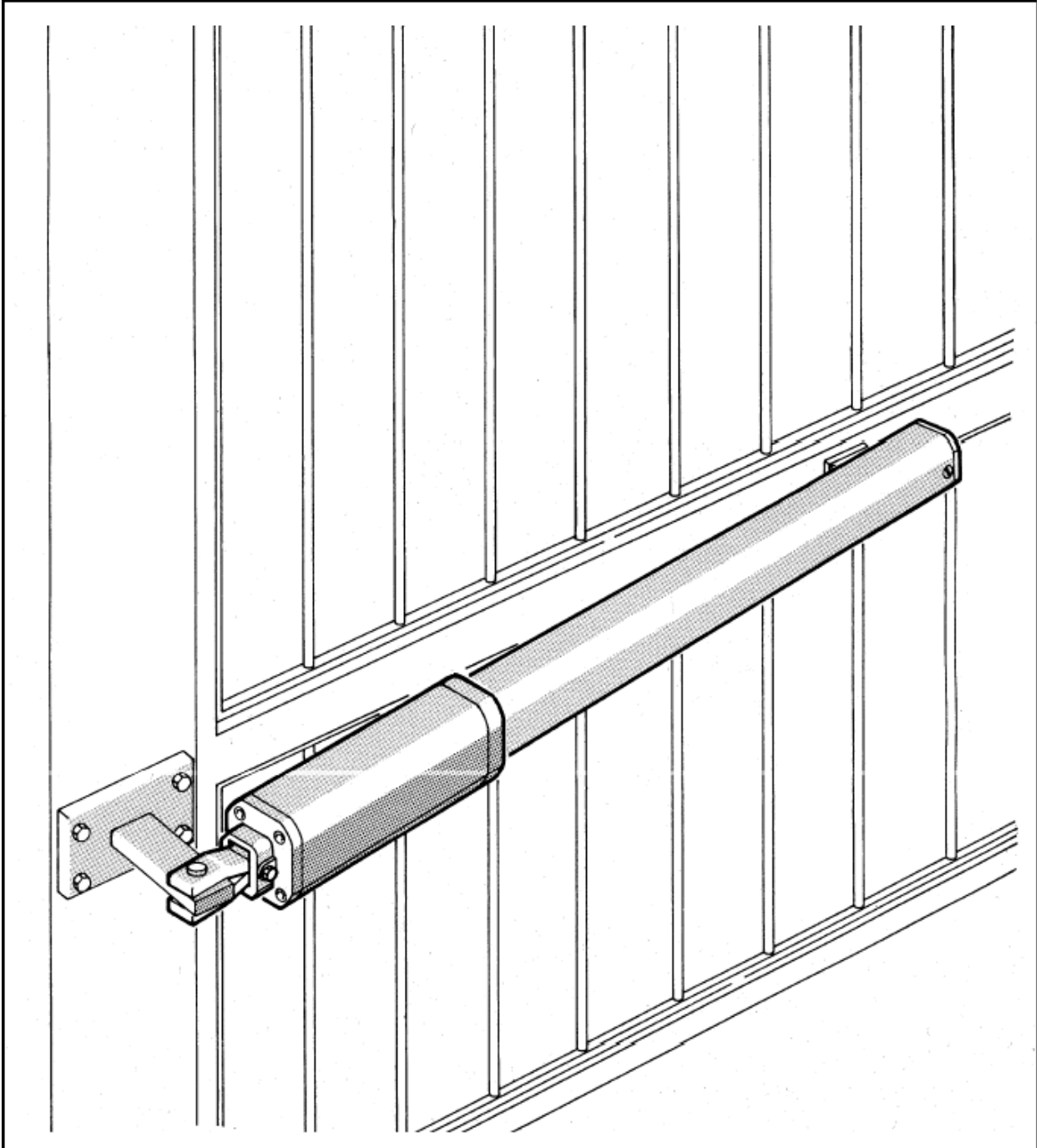


# 402 COMPACT



**FAAC®**

# INSTALLATION DIMENSIONS - COTAS DE INSTALACION

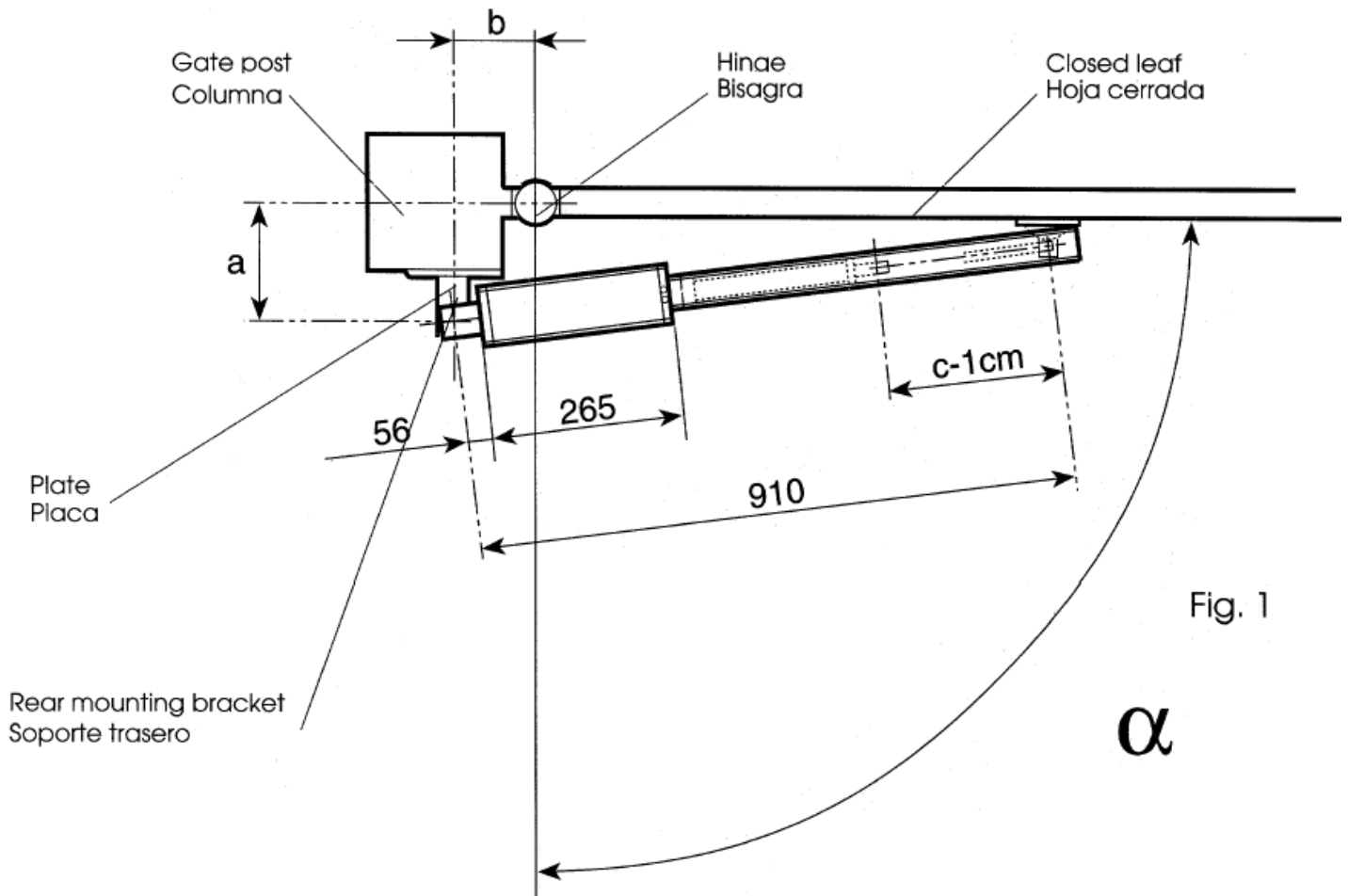


Fig. 1

Table A  
Tabla A

TABLE WITH RECOMMENDED DIMENSIONS  
TABLA DE COTAS SUGERIDAS

OPENING ANGLE " $\alpha$ " ANGULO DE APERTURA " $\alpha$ "	a (cm)	b (cm)	c** (cm)
90°	12	12	25
110° (*)	10	10	

(\*) maximum opening angle  
(\*) ángulo máximo de apertura

(\*\*) c = maximum excursion of piston rod  
(\*\*) c = carrera máxima del vástago

**GENERAL RULE:** for 90° opening  $a + b = c - 1$  cm.

**IMPORTANT NOTE:** should it be necessary to change the dimensions shown in table A observe the following instructions:

- the total of dimensions a and b cannot exceed value  $c - 1$  cm.

- dimensions a and b must not be less than 10 cm.

If dimensions a and b were less, peripheral speed of the leaf would be excessive and therefore dangerous. (In any event follow the standards currently in force).

**REGLA GENERAL:** para apertura de 90°  $a + b = c - 1$  cm.

**IMPORTANTE:** si fuese necesario modificar las cotas de la tabla A, respetar las siguientes indicaciones:

- la suma de las cotas a y b no puede superar el valor  $c - 1$  cm.

- las cotas a y b no deben ser inferiores a 10 cm.

Con cotas a y b inferiores a 10 cm, se determinarían velocidades periféricas de la hoja demasiado elevadas y por lo tanto peligrosas (se aconseja, de todas maneras, respetar las normativas en vigor).

Fig. 2

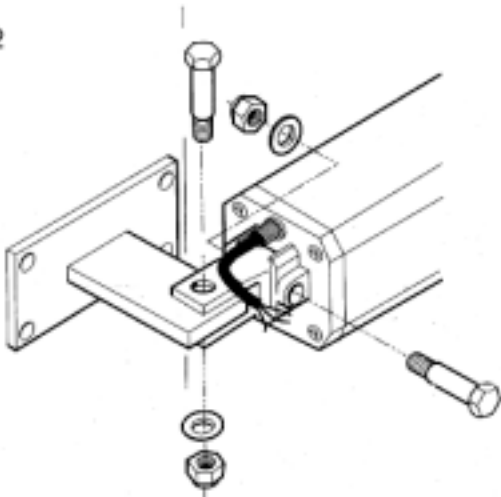


Fig. 3

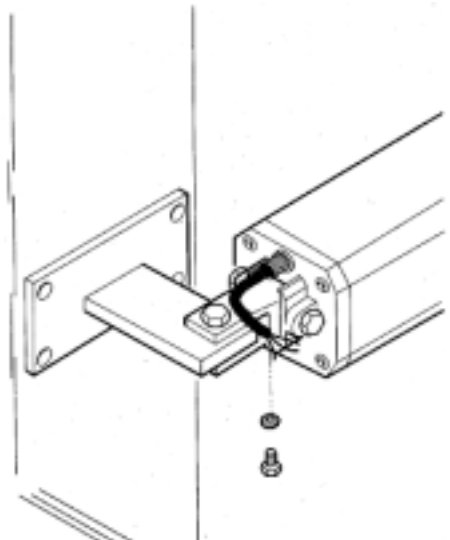


Fig. 4

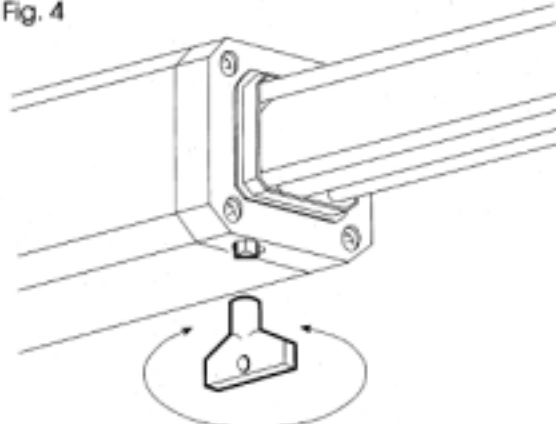


Fig. 5

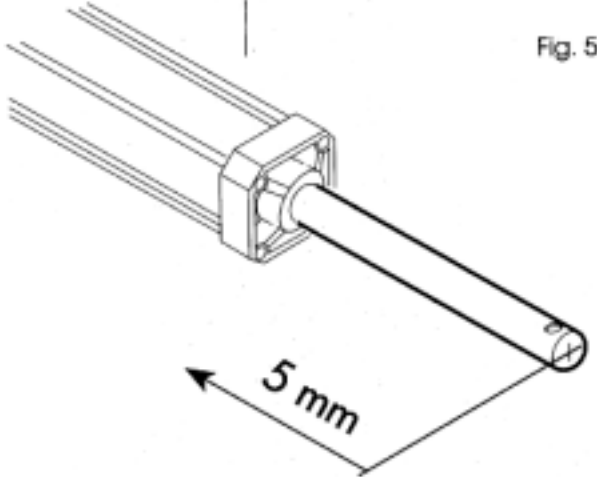


Fig. 6

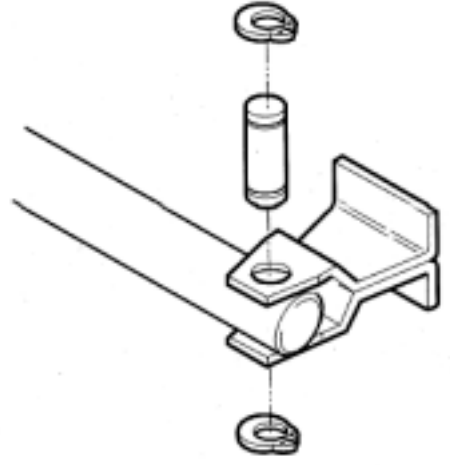


Fig. 7

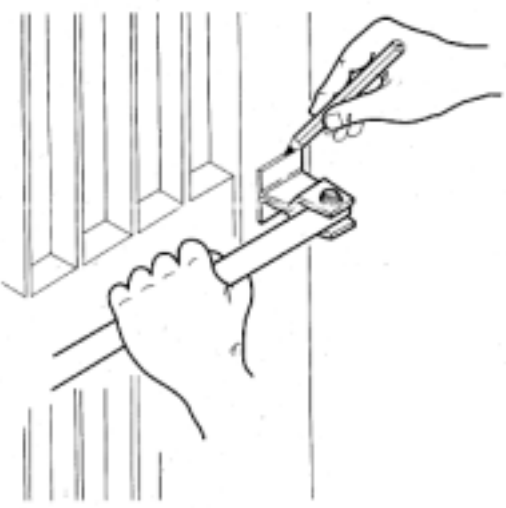


Fig. 8

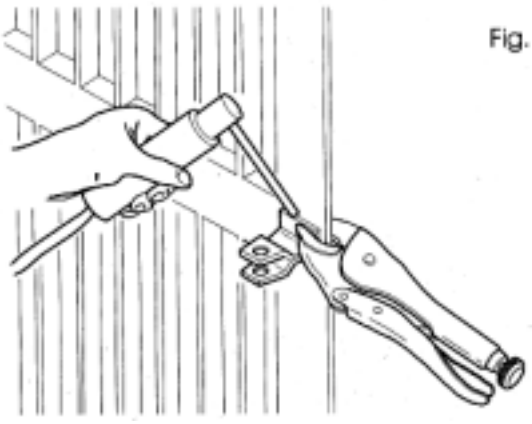
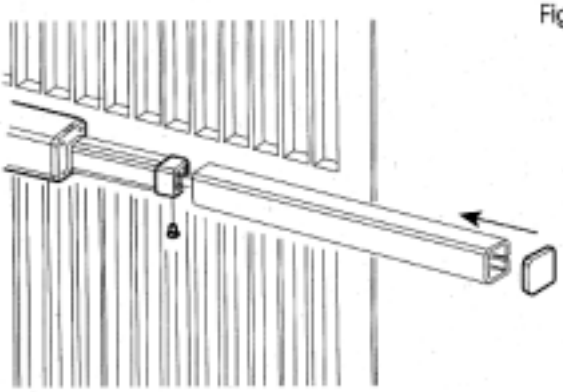


Fig. 9



## MAXIMUM DUTY CYCLE CURVE

The curve makes it possible to determine the maximum operating time (T) as a function of duty cycle (F).

e.g. The ram can work continuously at a duty cycle of 40%.

To ensure smooth running, operation should be kept within the duty area below the curve.

**IMPORTANT NOTE:** the curve was plotted on the basis of operation at 24°C.

Allow for up to 20% reduction of the duty cycle in the case of higher ambient temperatures.

### CALCULATING THE DUTY CYCLE

The duty cycle is the actual operating time (opening and closing) compared with the total time of the cycle (opening + closing + stationary time).

Practical formula

TA : opening time

TC : closing time

TP : stationary time

TI : length of interval between one complete cycle and the next

$$\% F = \frac{TA + TC}{TA + TC + TP + TI} \times 100$$

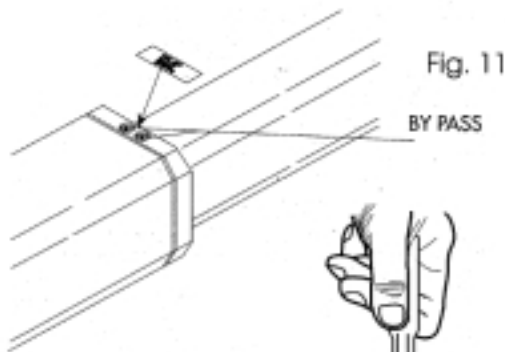


Fig. 11

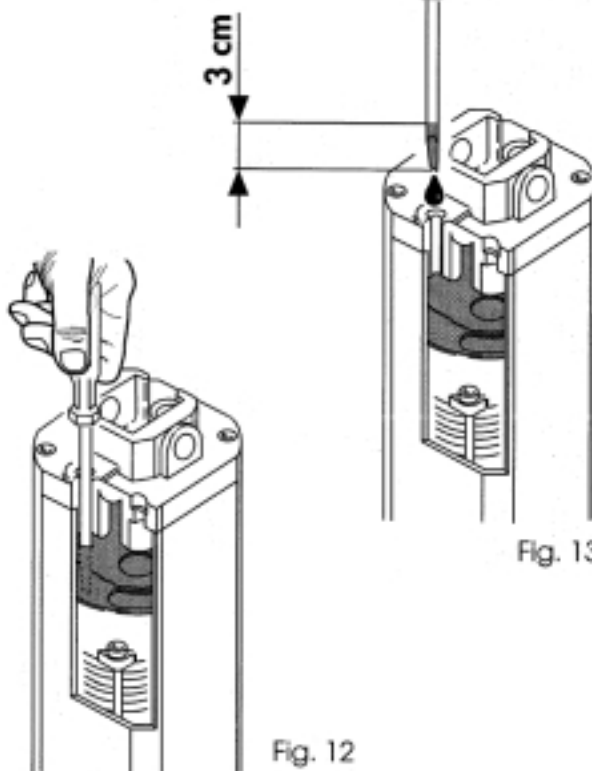


Fig. 13

Fig. 12

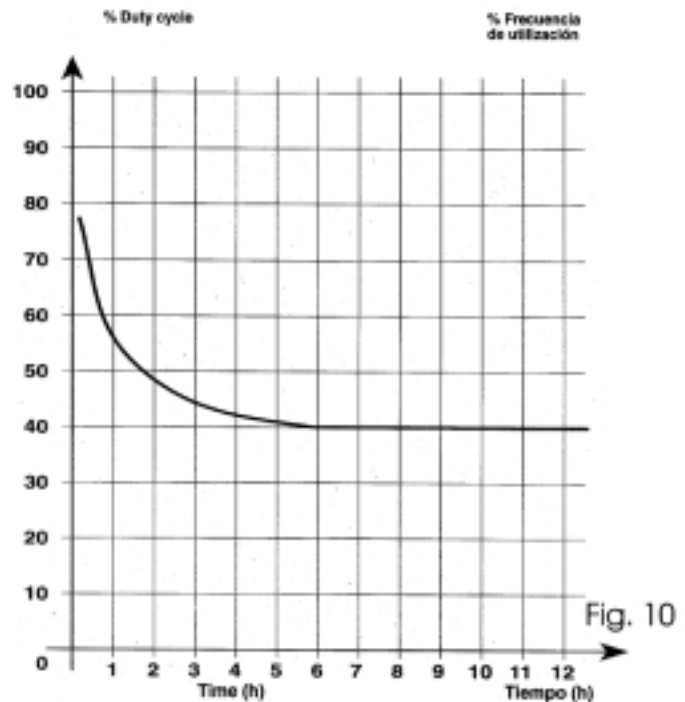


Fig. 10

## CURVA DE MAXIMA UTILIZACION

La curva permite individualizar el tiempo máximo de trabajo (T), en función de la frecuencia de utilización (F).

Ej.: El operador puede funcionar ininterrumpidamente a la frecuencia de utilización del 40%.

Para garantizar el buen funcionamiento, es necesario operar en el campo de trabajo bajo la curva.

**IMPORTANTE:** la curva ha sido obtenida a la temperatura de 24°C.

La exposición a las radiaciones solares directas, puede determinar disminuciones en la frecuencia de utilización de hasta un 20%.

### CALCULO DE LA FRECUENCIA DE UTILIZACION

Es el porcentaje del tiempo efectivo de trabajo (apertura + cierre) con respecto al tiempo total del ciclo (apertura + cierre + tiempos de pausa).

Fórmula Práctica

TA : tiempo de apertura

TC : tiempo de cierre

TP : tiempo de pausa

TI : tiempo de pausa entre dos ciclos completos

$$\% F = \frac{TA + TC}{TA + TC + TP + TI} \times 100$$

## 402

### PRELIMINARY PRECAUTIONS

Ensure that the structure of the gate is in compliance with current regulations and that the movement of the leaves is even and without friction.

Make all necessary adjustments including the fitting of gate stops before installing the automation equipment.

Installation must be carried out in compliance with current regulations.

## INSTALLATION INSTRUCTIONS

1) Fix the rear mounting bracket to the gate post as shown in Fig. 1 and Table A.

**N.B.:** THESE DIMENSIONS ARE CRITICAL TO ENSURE THE CORRECT OPERATION OF THE SYSTEM.

- 2) Fix the ram to the rear mounting bracket (Fig. 2).
- 3) Make the electrical connections to the electronic control box (see relevant instructions).
- 4) Remove the bleed screw as shown in Fig. 3.
- 5) Maintaining the ram in the horizontal position, operate the ram five or six times, checking the smooth operation of the piston rod.

**N.B.:** Should the piston rod tend to jerk, cycle the ram (air bleeding) until the piston rod moves smoothly.

- 6) After bleeding, release the ram by inserting the key in the manual release positioned beneath the cap (Fig. 4). To unlock the ram turn the key anti-clockwise. To lock turn the key clockwise.
- 7) With the ram unlocked, withdraw the piston rod by hand to its full extension and then reinsert it by 5 mm. (Fig. 5).
- 8) Fasten the front bracket to the piston rod (Fig. 6).
- 9) Close the gate, keep the ram in the horizontal position. Locate and mark the position of the front bracket on the leaf (Fig. 7).
- 10) Fix the front bracket to the leaf (Fig. 8).

**N.B.:** To prevent spatter from damaging the rod during welding, disconnect it from the bracket.

- 11) Reconnect the piston rod to the front bracket and fit the piston cover (Fig. 9).
- 12) Relock the manual release.

**N.B.:** All bolts should be greased.

## ADJUSTMENT OF THE ANTI-CRUSHING SAFETY DEVICE

The ram is equipped with an anti-crushing safety device which ensures that movement will stop if an opposing force is encountered or in the event of persons or objects being caught in the path of the gate.

Red and green by-pass screws which are located on the top of the unit are used to adjust the sensitivity.

Closing thrust is set by the red screw.  
Opening thrust is set by the green screw.

Clockwise to increase thrust.  
Anti-clockwise to reduce thrust.

**IMPORTANT NOTE:** ADJUSTMENTS MUST REMAIN WITHIN THE LIMITS LAID DOWN BY ANY CURRENT LEGISLATION.

Having completed the adjustments, apply the protective sticker as shown in Fig. 11.

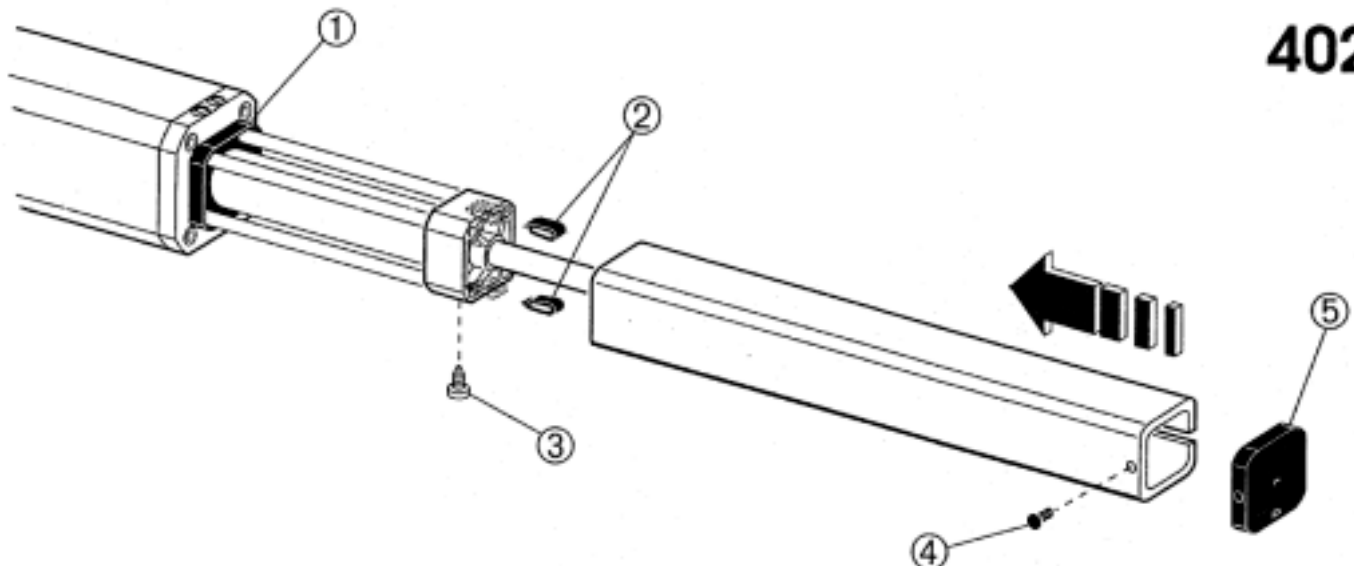
## TECHNICAL SPECIFICATIONS

POWER SUPPLY (V)	220 ± 10%	50 - 60 Hz
POWER CONSUMPTION (W)	220	
CURRENT CONSUMPTION (A)	1	
MOTOR SPEED (g/min)	1400	
THERMAL OVERLOAD CUT-OUT (°C)	100	
PUMP FLOW RATE (l/min)	1	
PISTON ROD SPEED (cm/sec)	1.3	
EFF. PISTON ROD EXCURSION	240	
MAX. THRUST (Kg)	500	
DUTY CYCLE	see Fig. 10	
MAX. LEAF WIDTH (m)	1.6	
HYDRAULIC STOP	ONLY IN CLOSED POSITION	
OIL TYPE	FAAC OIL XD 220	
OIL QUANTITY (l)	0.9	
WEIGHT (kg)	6.5	
ELECTRONIC CONTROL BOX	402 MPS (included)	



NEW GUARD  
NUEVO CARTER

402



- |  |  |
|--|--|
| 1) Insert the two vibration-proof spacers (2) into the front flange.       | 1) Introducir los dos distanciadores antivibradores (2) en la gualdera anterior.   |
| 2) Insert the guard by pressing it firmly into the rear cover (1).         | 2) Colocar el cárter, empujándolo con presión, sobre la tapa posterior (1).        |
| 3) Fasten the carter using the self-threading screw (3).                   | 3) Fijar el cárter con el tornillo autoroscador (3).                               |
| 4) Insert the front cover (5) on the guard and lock using the FIX cap (4). | 4) Colocar la tapa anterior (5) sobre el cárter y fijar todo con el tapón FIX (4). |

The descriptions and illustrations contained in the present manual are not binding. FAAC reserve the right, whilst leaving the main features of the equipments unaltered, to undertake any modifications it holds necessary for either technical or commercial reasons, at any time and without revising the present publication.

Las descripciones y las ilustraciones de este manual no comportan compromiso alguno. FAAC se reserva el derecho, dejando inmutadas las características esenciales de los aparatos, de aportar, en cualquier momento y sin comprometerse a poner al día la siguiente publicación, todas las modificaciones que considere oportunas para el perfeccionamiento técnico o para cualquier otro tipo de exigencia de carácter constructivo o comercial.



**FAAC** per la natura carta riciclata 100%

**FAAC** for nature recycled paper 100%

**FAAC** pour la nature papier recycle 100%

**FAAC** ist umweltfreundlich 100% Altpapier

**FAAC** para la naturaleza 100% papel reciclado



**FAAC**®

For information contact:

Anchor Fence Wholesalers of Miami

3670 NW 79th Street

Miami, FL 33147

Phone: 305-691-7711 • Fax: 305-693-1386

e-Mail: [sales@AnchorMiami.com](mailto:sales@AnchorMiami.com)