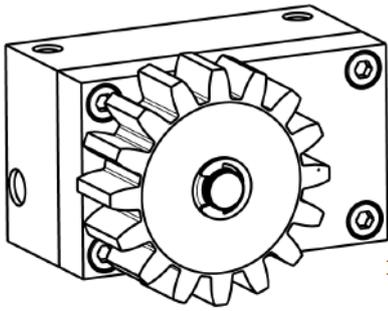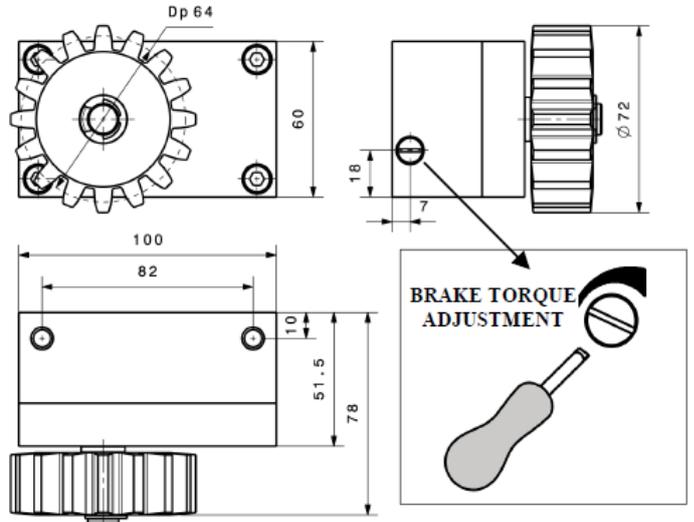## HYDRAULIC ROTATING BRAKE M4 - Z16

1. Description

Fig.1

The hidraulic rotating brake M4 - Z16 has been designed to regulate and control the speed of the door or gate in installations when the door or gate is not hung vertically and opening or closing must be controlled against gravity for safety reasons. The shock absorber only provides resistance in one rotational direction; the opposite direction has free movement.

This accessory can be used on automatic doors or gates with a module 4rack. Rotating brake is made of anticorrosive materials, aimed to be used

2. Dimensions and technical characteristics.

Technical Charateristic	Hydraulic rotating brake
COG MODULE	M4
Nº of TEETH	Z16
TYPE OF LIQUID	SILICONE 3000
SERVICE TEMPARATURE	-15ºC +70ºC
MAXIMUM WEIGHT	7NM
BRAKE DIRECTION	LEFT OR RIGHT
LOAD ADJUSTMENT	YES

BRAKE TORQUE ADJUSTMENT

Fig.2

3. Assembly instructions.

3.1 Changing brake direction.

To change the brake direction you must remove the cir-clip (Fig.3), remove the cog (Fig.4) turn it round as per (Fig.5). Replace

Fig.3   Fig.4   Fig.5
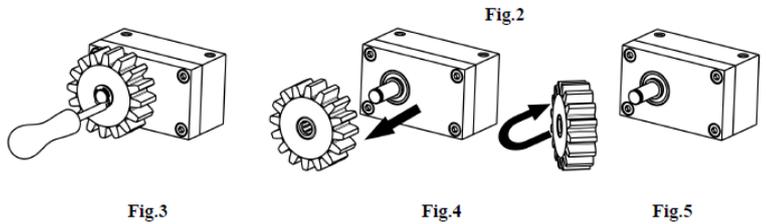
3.2 Assembly.

HYDRAULIC ROTATINg BRAKE M4 must be placed as close as possible to the control mechanism (Fig.6) and adjusted to the correct height, leaving one millimetre of clearance between the cog and the rack (Fig.7).
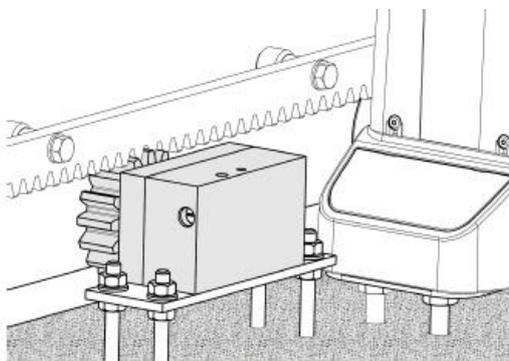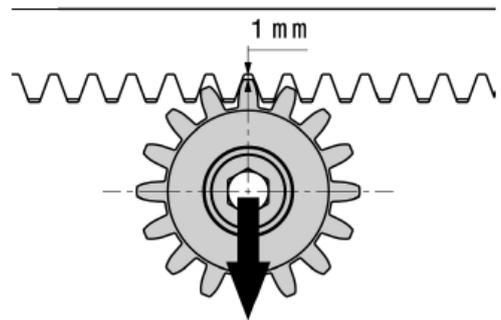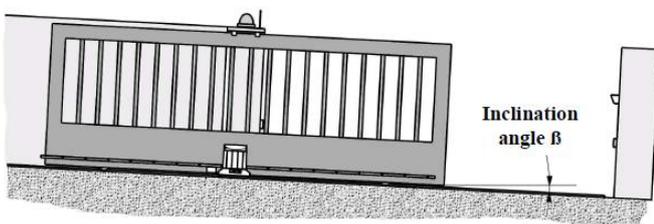

Fig.6

3.3 Calculation.

Inclination angle ß

Fig.8

1 mm

Fig.7

M [Nm] = P x sinß x 0,032
P = weight of the door in Newtons (9.8N=1Kg)
ß = inclination in degrees

Example for calculation:
Hydraulic rotating brake M4 can be used on doors which weigh 4000kg and have an inclination of 3º?
P = 9.8 x 400kg = 3920 Newton
M = 3920 Newton x without 3 x 0.032 = 6.56 Nm
6.5 Nm is less than 7 Nm (maximum allowed), and is