This manual is applicable only to AC Temporiti brakes. For further information visit the website www.temporiti.it or contact the technical office.

1- Symbols

Symbol	Meaning	Description
	DANGER!	Danger of personal damage caused by a general source of danger It refers to an imminent danger that could give place to serious personal damage or death if the correspondent measures of protection are not respected.
	RISK OF ELECTROCUTION!	Danger of personal damage caused by high electrical voltage It refers to an imminent danger that could give place to serious personal damage or death if the correspondent measures of protection are not respected.
	STOP!	Danger of property damage It refers to an imminent danger the could give place to property damage, if the correspondent measures of protection are not respected.
	NOTE!	Important note to ensure troublefree operation
	TIP!	Useful tip for simple handling

2- General Alerts

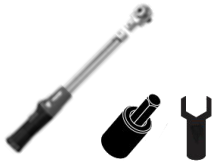
	**THE BRAKE IS DESIGNED TO GUARANTEE, WHILE RESTING AND THROUGH THE TORQUE SPRINGS, THE INTRINSIC SAFENESS VALUE EQUAL TO ITS Nm PLATE VALUE**	The brake function is to stop rotational movement of shaft, according to the operating specifics on the website www.temporiti.it. The use of appropriate safety devices is left to the machine manufacturer (partly completed machine).
	**FEEDING VOLTAGE**	The brake feeding voltage may vary of a ±6% in observance to the nominal tension signed on the label. The electromagnet requires a tension near the nominal value: an insufficent tension may cause a general bad working of the brake.
	**ROOM TEMPERATURE**	The room temperature for the brake correct working is between 5°C and 40°C. Contact technical office for different or further requirements.

3- Toolbox

To follow this manual, you need the following tools:

Wrench set

Allen key set



Dynamometric key

Thickness gauge set

Caliper gauge

	USE STANDARD KEYS	Use standard keys only, without the help of extensions to have a correct bolts and nuts tightening.

4- Static Torque Values

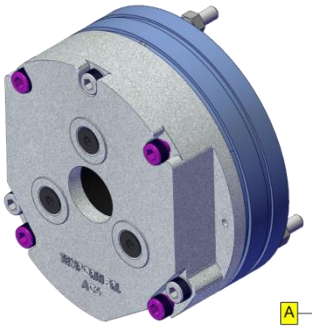
	AC1	AC2	AC3	AC4	AC5	AC6	AC6/D	AC7	AC7/D	AC8	AC8/D
Nominal Static Torque [Nm]	4.5	10	16	20	40	60	120	90	180	200	400

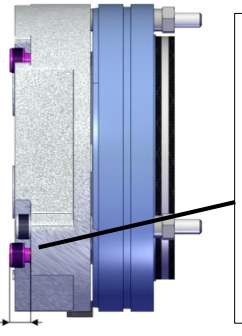
	RUNNING IN THE BRAKE	The static braking torque value of the brake without running in can reach up to -20% of the plate value and up to -35% with the special antisticking friction material. Always run in the brake before use.

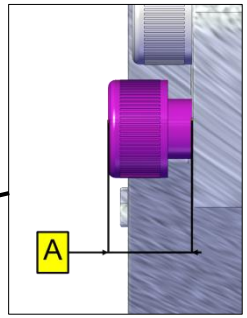
4.1- Braking torque regulation

	AC1		AC2		AC3		AC4		AC5		AC6(AC6/D)		AC7 (AC7/D)		AC8 (AC8/D)	
Torque percentage	A [mm]	Nm	A [mm]	Nm	A [mm]	Nm	A [mm]	Nm	A [mm]	Nm	A [mm]	Nm	A[mm]	Nm	A[mm]	Nm
100%	4.5Nm FIXED TORQUE		5.4	10	6.5	16	6.5	20	6.5	40	7	60 (120)	8.6	90(180)	8.6	200(400)
75%			6.2	7	8.5	11	8.5	15	8.5	30	8	45 (90)	9.9	67 (134)	9.9	150 (300)
50%			7	5	10	7	10	10	10	20	9.5	30 (60)	11.20	45 (90)	11.2	100 (200)

Use a caliper gauge to measure the distance "A" and adjust the distance with an allen key	
The values in the chart are approximate. Real torque values must be always verified by measurement	



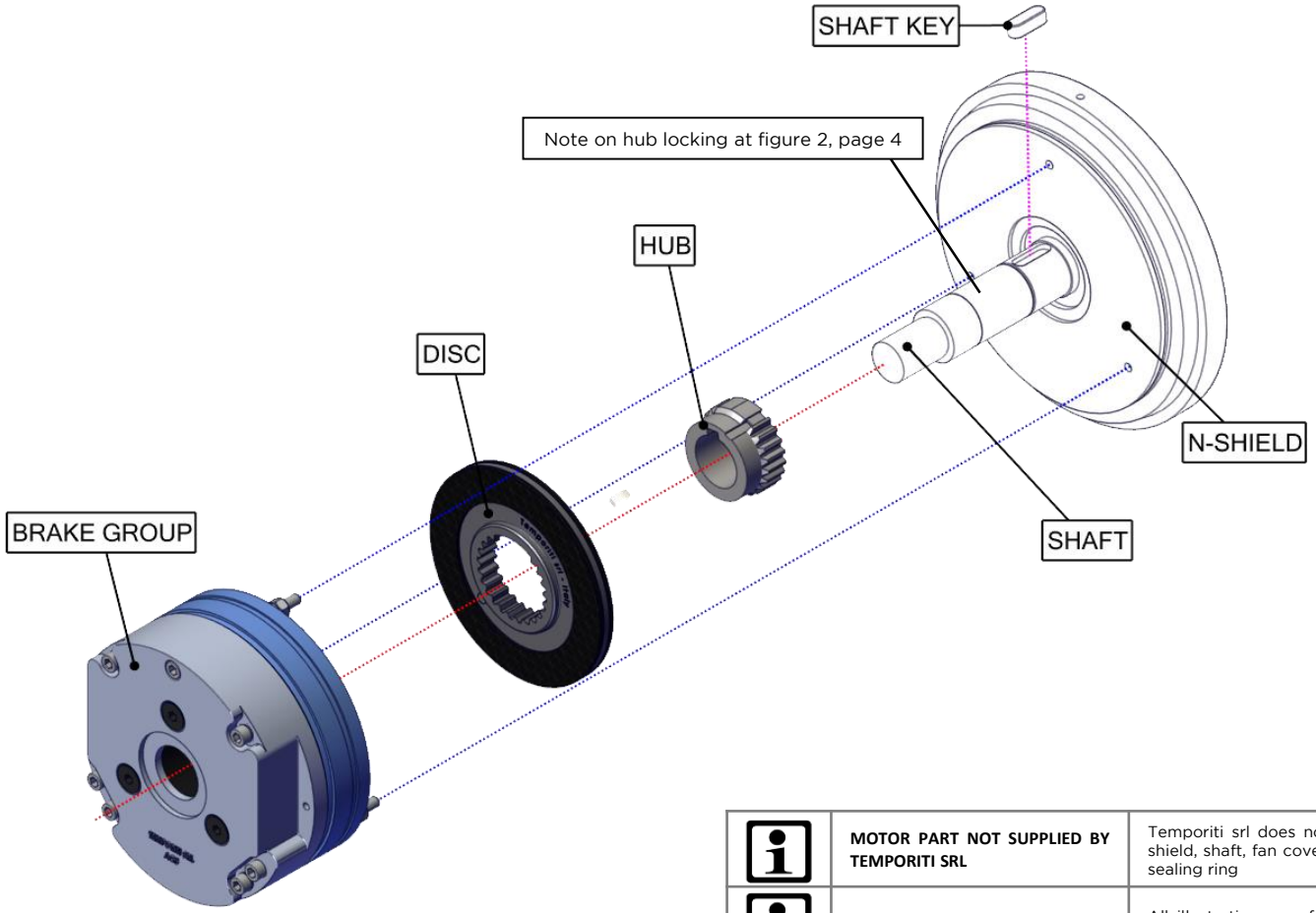




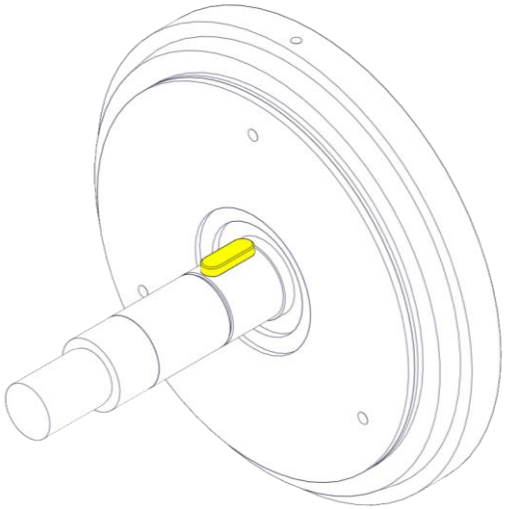
	NEVER REMOVE AND NEVER COMPLETELY UNSCREW THE TORQUE SCREWS	Never remove the torque screw: in this case the brake will be able to ensure about the 30% of couple static values
	ADJUSTING THE BRAKING TORQUE LESS THAN 50% OF THE MAXIMUM TORQUE VALUE	Adjustment of the torque braking lower than 50% of maximum torque value is not guaranteed or provided from Temporiti srl. For more information, contact the Temporiti technical office.
	VALUES AFTER RUNNING-IN	The values in graphic are concerning to the brake runned in

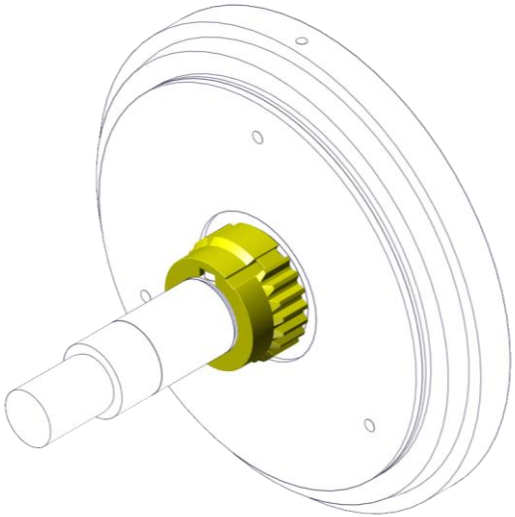
5- Installation and Regulation

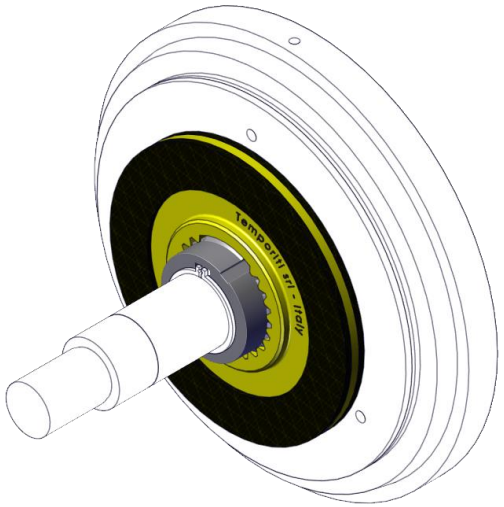
	KEEP METICULOUSLY THE INSTRUCTION ON THIS MANUAL	Adjusting operations carried out without following the operations of this manual, lead to a bad brake working.
	DISCONNECT THE BRAKE FROM POWER SUPPLY	Carry out the inspection, servicing and adjusting operations only after the brake electrically disconnection.
	SURFACES CLEANING	Good plane and braking surfaces cleaning, by using de-greasers that do not leave oily wasters, is necessary for good brake performance



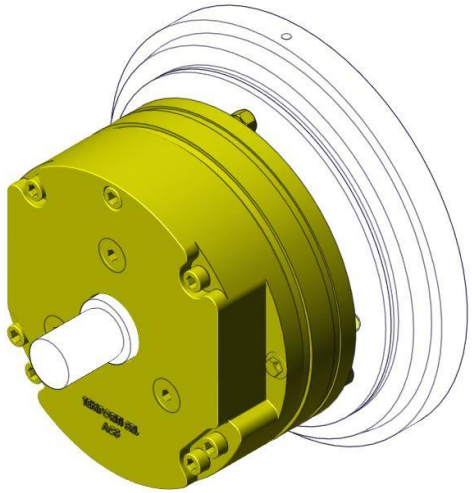
	MOTOR PART NOT SUPPLIED BY TEMPORITI SRL	Temporiti srl does not supply motor parts as n-shield, shaft, fan cover, shaft key, hub seeger and sealing ring
	INDICATIVE ILLUSTRATION	All illustrations are for illustration only and may not accurately depict the actual brakes

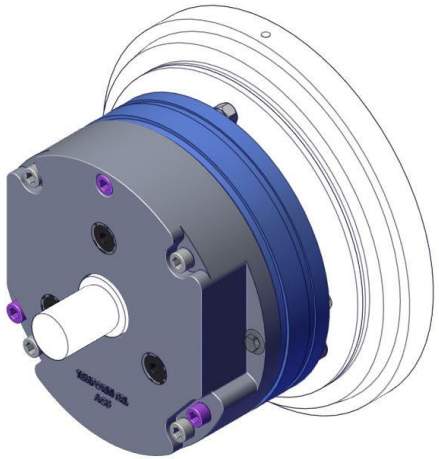


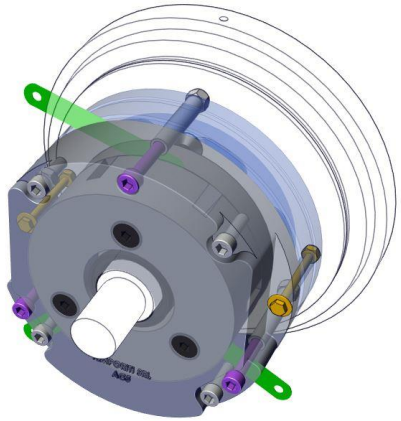




The hub locking on the shaft (not at charge of Temporiti Srl) has to be guaranteed during the assembling using, as example, Seeger rings, hot coupling ecc...

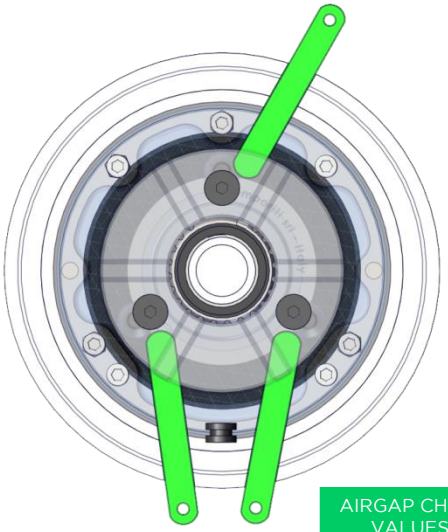






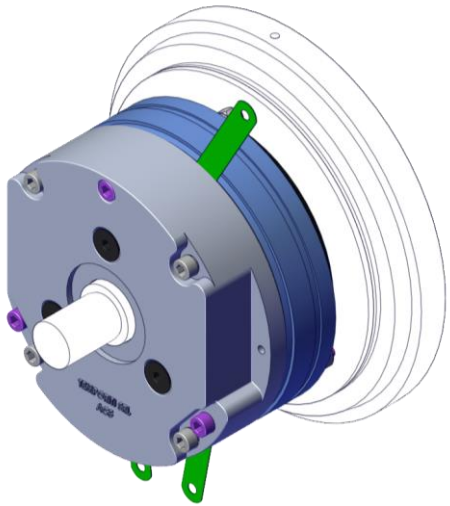
Screw the brake on the motor without locking the fixing screws

Before adjust the screws to have the space to insert thickness gauge between body magnet and armature plate, **REMOVE THE TRANSPORT SCREWS**

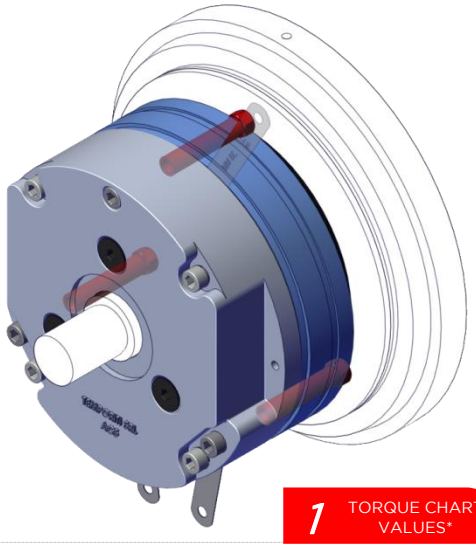


AIRGAP CHART VALUES*

Insert the thickness gauges in corrispondence to countersunk screws to be sure of the correct measurement

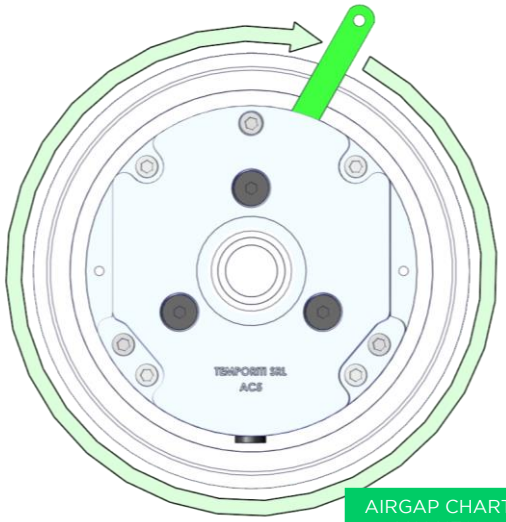


To choose the right thickness gauges dimensions, follow the chart at point 5.2, page 6 and use **start** value as thickness gauge dimension for this step



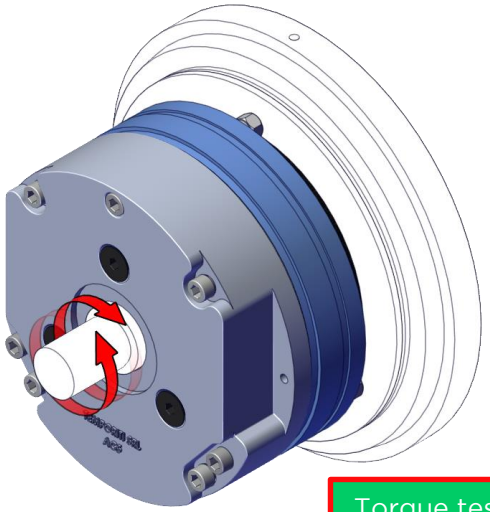
1 TORQUE CHART VALUES*

*For the right torque value follow the chart at point 5.1, page 6



AIRGAP CHART VALUES*

To choose the right thickness gauges dimensions, follow the chart at point 5.2, page 6 and use **control** airgap value as thickness gauge dimension for this step



Torque test

If torque test is failed due a higher or lower torque measured value than necessary, adjust the purple screws as you can see at point 4.1, page 2

CONNECT THE BRAKE TO POWER SUPPLY AT MOTOR CONNECTION BOX AND TEST BRAKE FUNCTIONING

To carry out this operation, follow the connection diagrams at point 5.3, page 6

5.1- Torque Values

ASSEMBLING TORQUE CHART								
	AC1	AC2	AC3	AC4	AC5	AC6 AC6/D	AC7 AC7/D	AC8 AC8/D
Nuts tightening torque [Nm]	3	6	6	10	10	23	23	46

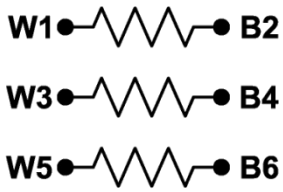
5.2- Airgap values

AIRGAP CHART [mm]															
AC1		AC2		AC3		AC4		AC5		AC6 (AC6/D)		AC7 (AC7/D)		AC8 (AC8/D)	
CONTROL		*CONTROL*		*CONTROL*		*CONTROL*		*CONTROL*		*CONTROL*		*CONTROL*		*CONTROL*	
0.15 GO – 0.25 NO GO		0.20 GO – 0.30 NO GO		0.20 GO – 0.30 NO GO		0.20 GO – 0.30 NO GO		0.20 GO – 0.30 NO GO		0.30 GO – 0.40 NO GO (0.50 GO – 0.60 NO GO)		0.30 GO – 0.40 NO GO (0.50 GO – 0.60 NO GO)		0.30 GO – 0.40 NO GO (0.50 GO – 0.60 NO GO)	
START	*MAX*	*START*	*MAX*	*START*	*MAX*	*START*	*MAX*	*START*	*MAX*	*START*	*MAX*	*START*	*MAX*	*START*	*MAX*
0.15	0.50	0.20	0.60	0.20	0.60	0.20	0.70	0.20	0.70	0.30 (0,50)	0.80 (1.00)	0.30 (0,50)	0.80 (1.00)	0.30 (0,50)	0.80 (1.00)

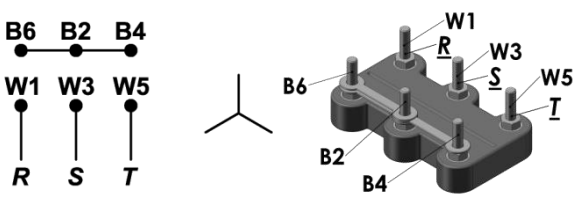
⚠	**MAX AIRGAP VALUE**	Max airgap value is the airgap value for which, once reached, it is compulsory restore to starting airgap value
⚠	**THICKNESS GAUGE POSITIONING**	For a correct airgap measuring, the thickness gauge has to be positioned in correspondence of the magnet surface and not on the external border of the magnet container or resin

5.3- Electrical connection

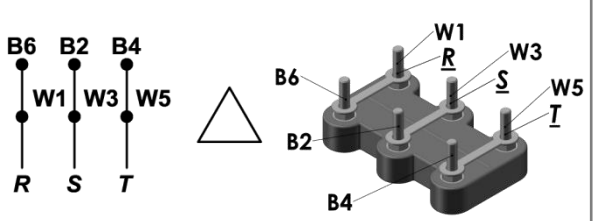
Connect the brake to motor according to the following schema connection



Search for coils using a tester
(check continuity by setting measurement)



Start connection



Delta connection

6- Servicing

A frequent brake inspection is necessary for all parts as the wear depends on a series of factors and mainly on the load inertia, the shaft speed and the operation frequency. Verify the main parts of the brake group and, in case, replace them with original spare parts supplied by Temporiti SRL. The principal values that has to be checked are the airgap and the disc thickness.
The brake airgap value has to be lower than max airgap value stated at point 5.2 , page 6.
The disc thickness value has to be higher than the value stated at point 6.1, page 7.

Servicing may be roughly determined according to what is pointed out on the site.

6.1- Disc replacement

The disc must be replaced after a consumption of 1,5mm per friction material ring, that is when the minimum total thickness value is reached.

Disc replacement thickness limit – B [mm]								
BRAKE SIZE	AC1	AC2	AC3	AC4	AC5	AC6	AC7 AC7/D	AC8 AC8/D
STANDARD FRICTION MATERIAL	4.80	5.50	5.50	5.50	6.30	6.30	7.50	8.10

7-Disposal and recycle information

Recycle in eco-friendly way the packaging, metals and all the parts of no longer working brakes.

DO NOT THROW USED ELECTROBRAKES, OR PARTS THEREOF

Dispose separately from household rubbish the friction material (asbestos-free) after removing it from the metal part of the disk with a proper tool. Remove the resin from the electromagnet with a proper tools and dispose of it in accordance with current law regulations. According the European Directive 2002/96/CE on waste electrical and electronic equipments (RAEE) and its implementation of national law, the electrical equipments no longer usable must be collected separately and must be sent to a recycling step