▼ DESCRIPTION

The ***safety brake*** is a safety device for rolling shutters without springs performing two functions:
- A bearing support for the shutter shaft;
- A mechanical brake to stop the descent of the shutter if sudden acceleration occurs.

It is made up of antioxiding materials, consists of a central body with a hole in which the rolling shutter shaft journal is inserted, and is supported by a floating metal base preventing any tube eccentricity. The GAPOSA ***safety brake*** is equipped with a shock-absorber and a microswitch for disconnecting the electrical supply to the gear motor when the brake locks.

▼ MODELS

- ***M2A*** **max. nominal torque: 137 Nm**
- ***M3A*** **max. nominal torque: 258 Nm**
- ***M4A*** **max. nominal torque: 404 Nm**
- ***M7A*** **max. nominal torque: 708 Nm**
- ***M10A*** **max. nominal torque: 1000 Nm**
- ***M15A*** **max. nominal torque: 1551 Nm**
- ***M30A*** **max. nominal torque: 3109 Nm**

▼ DEFINITIONS

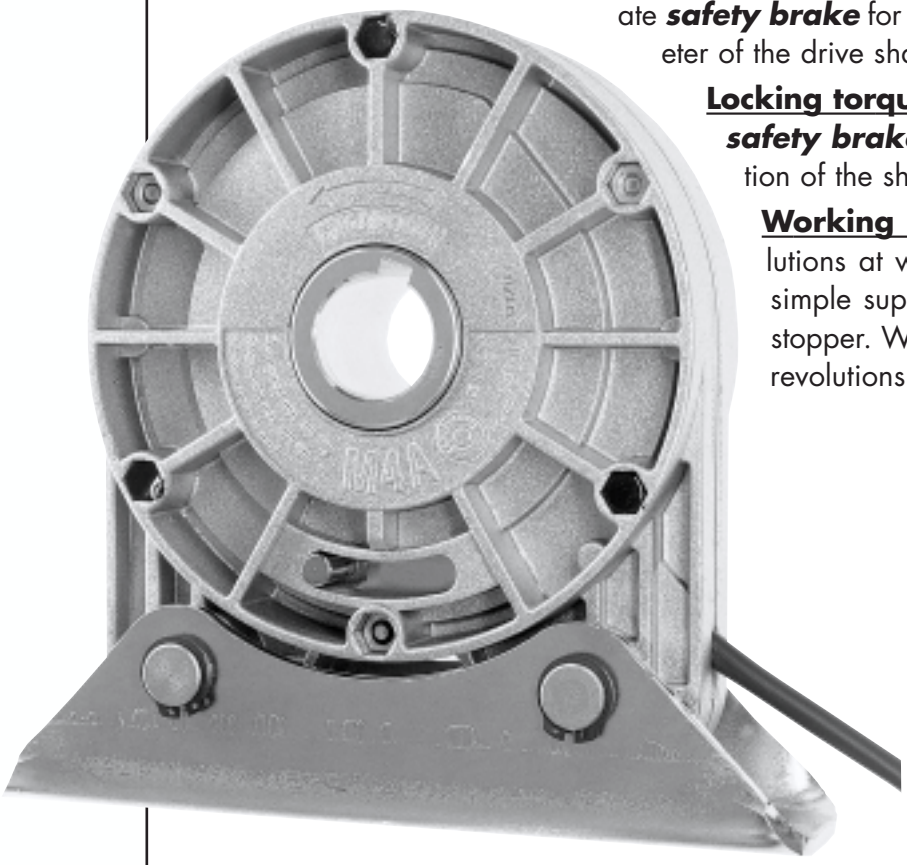
All those ***safety brakes*** (TÜV-Bayern and BG-Bonn approved) are in accordance with DIN EN 12605.
The installation of a ***safety brake*** on power operated shutters for private, commercial or industrial purposes enables to conform perfectly with the safety rule DIN EN 12604.

In order to select the most suitable model for your application, a good understanding of the ***safety brake*** and its operations is essential:

Nominal torque: is the reference value to select the most appropriate ***safety brake*** for the weight of the shutter and the diameter of the drive shaft (see application table).

Locking torque: is the maximum stress to which the ***safety brake*** is subjected when it blocks the rotation of the shaft.

Working speed: refers to the number of revolutions at which the ***safety brake*** works as a simple support without functioning as a descent stopper. Within this value must fall the number of revolutions of the shutter shaft.



▼ SELECTION TABLE

The following table will help you to select the most suitable ***safety brake*** according to the weight and sizes of the shutter and the tube diameter.

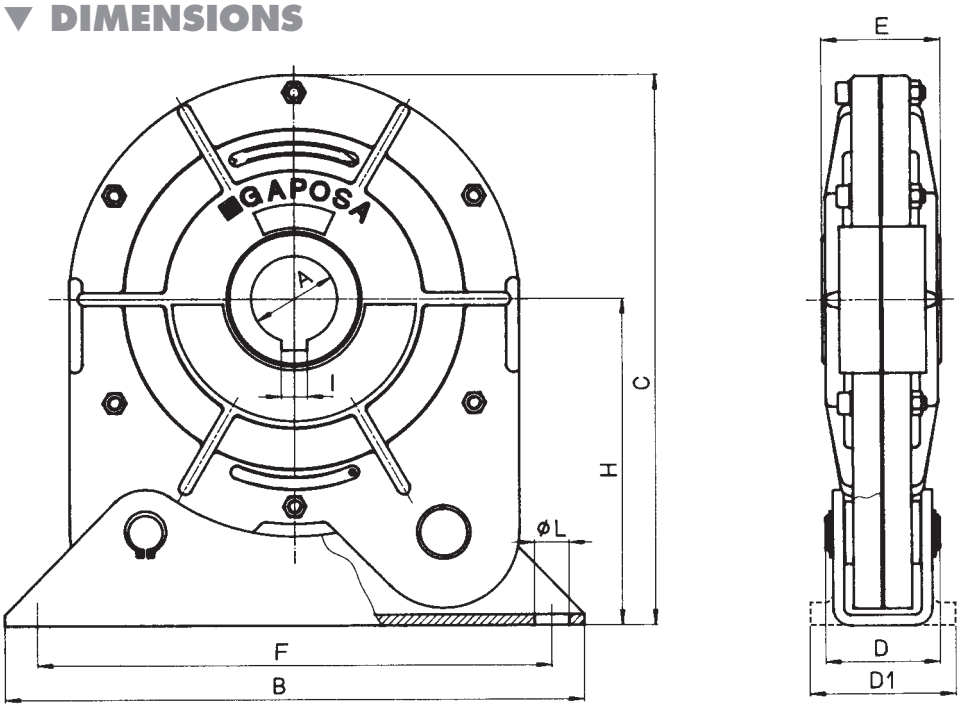
Safety brakes

Ø tube x thickness	Shutter dimensions (m)		M3A			M4A			M7A			M10A			M15A			M30A
			roller shutter max. weight (kg)*															
	width		3	5	7	3	5	7	3	5	7	3	5	7	3	5	7	
88,9 x 3,2	height	3	285	165	112													
		5	285	165	112													
		7	285	165	112													
101,6 x 3,6		3	360	245	167													
		5	312	245	167													
		7	279	245	167													
108,0 x 3,6		3	351	279	191													
		5	306	279	191													
		7	275	275	191													
133,3 x 4,0		3	314	314	214	493	345											
		5	284	283	283	425	345											
		7	259	259	258	375	345											
159,0 x 4,5		3	279	278	278	434	430	389										
		5	260	260	259	387	384	380										
		7	242	241	259	348	345	342										
168,0 x 4,5		3	267	266	265	412	408	386										
		5	252	251	250	373	369	364										
		7	235	235	234	338	333	330										
177,8 x 5,0		3				392	387	382	553	548	545							
		5				359	354	349	510	506	503							
		7				327	322	318	467	464	460							
193,7 x 5,4		3				360	353	347	509	505	499	823	816	809				
		5				336	329	323	480	475	470	759	753	746				
		7				309	303	297	444	440	435	692	687	681				
219,1 x 5,9		3							446	439	432	721	711	701	1160	1156	868	
		5							433	426	419	686	676	667	1142	1138	868	
		7							408	402	396	637	629	619	1095	1091	868	
244,5 x 6,3		3							394	384	375	632	619	606	1039	1033	1028	
		5							389	380	371	616	603	590	1033	1028	1023	***2300***
		7							373	364	355	581	570	557	1007	1002	997	
267,0 x 7,1		3							353	340	328	564	547	529	948	941	934	
		5							351	339	327	557	540	522	944	937	931	***2100***
		7							341	329	318	533	517	500	933	926	919	
298,5 x 7,1		3										486	465	443	843	834	--	
		5										484	463	441	840	831	822	***1880***
		7										472	451	430	837	828	820	
323,9 x 8,0		3										--	--	--	767	757	746	
		5										427	399	370	767	756	744	***1730***
		7										421	393	365	765	754	742	
355,6 x 8,0																		***1575***
368,0 x 8,0		3													665	650	635	
		5													664	649	--	***1520***
		7													663	648	633	
406,4 x 8,8																		***1382***
419,0 x 8,8		3													567	546	523	
		5													566	545	524	***1339***
		7													--	--	--	
457,2 x 10																		***1227***
508,0 x 11																		***1100***

▼ TECHNICAL DATA

Safety brakes		M3A	M4A	M7A	M10A	M15A	M30A
nominal torque	Nm	258	404	708	1000	1551	3109
locking torque	Nm	978	1979	3299	3560	8842	
working speed	min^{-1}	16	14	12	12	12	8
screw tightening torque	Nm	5,5	5	6	8	12	30
approval number	BE	01082	00047	00048	00049	01083	
weight	kg	2,1	4,7	10	12,5	19,5	45

▼ DIMENSIONS



Paracadute		M3A	M4A	M7A	M10A	M15A	M30A
Sizes (mm)	A (H8)	25	30	40	40	50	70
	B	165	216	268	280	320	415
	C	158	202	255	260	265	348
	D	33	53	53	70	71	104
	D1					80	110
	E	30	50	55	57	58	105
	F	145	186	240	240	290	365
	H	91	123	151	156	140	191
	I	8	8	12	12	14	20
	L*	9	12	15	16	18	22
	*screw	M8	M10	M14	M14	M16	M20

▼ REPLACEMENT INTO SERVICE AFTER LOCKING

The ***safety brake***, as a safety device, can lock more than once and each time be reset. You only need to follow the reference manual carefully and to be provided with a torque wrench.

▼ M2A SAFETY BRAKE

The **M2A** safety brake is a safety device for rolling shutters in accordance with DIN EN 12605. On garage, commercial and industrial doors, the installation of M2A enables them to conform to DIN EN 12604.

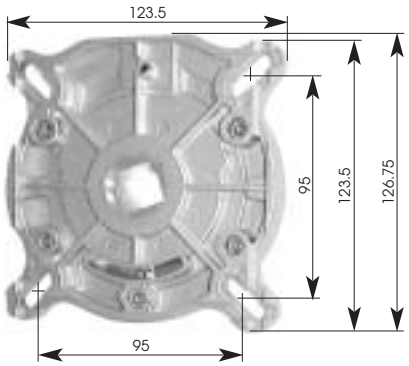


Features:

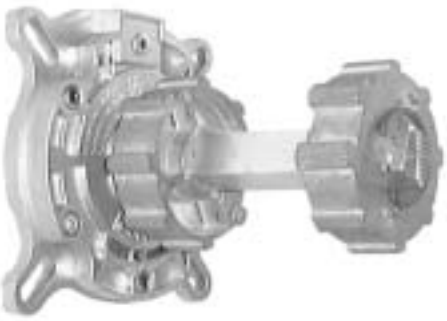
- *Locking system in both directions. The side of the brake during the installation is no more worth considering;*
- *Quick fixing bracket integrated to the brake with a profile fit for the end cap system;*
- *O-ring: to protect the internal parts of the brake from atmospheric agents;*

▼ DATA/SELECTION TABLE

PCM2A		Ø Tube	max. shutter weight
Nominal torque	Nm 137	70 mm	kg. 170
Locking torque	Nm 503	83 mm	kg. 150
Working speed	20 min^{-1}	88,9 mm	kg. 207
Screw tightening torque	Nm 4,0	98 mm	kg. 198
Approval number BG-Bonn	Nr. 02184	101,6 mm	kg. 195
Weight	kg. 1	108 mm	kg. 190
		125 mm	kg. 173



▼ ADJUSTABLE CAP







Cap: complete kit

Code	Description
AXC57	Cap with square pin 18mm x octagonal adaptor Ø 70mm
AXCD589	Cap with square pin 18mm x Deprat adaptor Ø 89mm
AXCR70	Cap with square pin 18mm x round adaptor Ø 70mm
AXCR101	Cap with square pin 18mm x round adaptor Ø 101,6mm