ADJUSTABLE HINGE FOR DOOR

Tested to 1.000.000 of opening/closing cycles Super-fast adjustment Easy and precise installation Carrying capacity and endurance tested RAL150 Kg.



for any details about certificates EB2/150 and EB3/150 certificates please see pages 6 - 7 - 8





DIN EN ISO 9001:2000 Cert.No.:01 100 000250

GB 11/2002

MECHANICA by **SAVIO:** we have



EXCLUSIVE MECHANICA PATENTS

The MECHANICA hinge is covered by 5 exclusive patents, among which:

- > Adjustment system with cam device.
- > Alignment of pin, bushing and adjustment grub screw (which increases fatigue life).
- > Self-centring clamp screws.
- > Increaser for counterplates.
- > Adjustment of closing pressure by means of eccentric bushing with three settings.

attained the most challenging record of all ...simplicity.

SUPER-FAST ADJUSTMENT

Thanks to its innovative concept, covered by five exclusive patents, the MECHANICA hinge is adjusted intuitively, by sight, without having to waste time on complex operations and calculations.

EASY AND PRECISE INSTALLATION

With the MECHANICA hinge, all three adjustments (lateral, closing pressure and height) are independent from each other and are regulated by millimetric increments, with two standard socket-head wrenches and.....easy hand movements.

RAL-TESTED CARRYING CAPACITY AND ENDURANCE



The MECHANICA hinge is the only one to have passed the stringent German RAL EB2/150 and EB3/150 tests for a carrying capacity of 150 Kg. Also its endurance is a record-breaker too, having brilliantly undergone **1.000.000 cycles tested** by the German laboratory of "Gütegemeinschaft Schlösser und Beschläge".

AN UNBEATABLE QUALITY-PRICE RATIO

The RAL certification, along with its technological and applicative values, make MECHANICA the "top-gun" of heavy-duty hinges. At the same time its constructive concept makes its price equal to or less than the average market price: a top-gun at your disposal for all occasions.

MECHANICA: adjustable hinge for doors

Coverplate fixing screws: with progressive gripping action, they increase safety against burglary attempt and they're impossible to access with the door closed.

Special screws with countersunk under head: they are self-centring on the profile machining and assure the perfect positioning of the hinge, reducing clearance, as opposed to hinges with bushing.

Self lubricating eccentric bushing: gasket pressure adjustable by bushing positioning.

Vertical grub screw for easy

vertical adjustment.

Cam device bushing: it allows an easy lateral adjustment without changing gaskets pull-in pressure; moreover the metallic material of the bushing gives the hinge greater stability.

Semispheric pin with thrust bearing effect: even very high axial loads produce low rotation stress and friction.

Cover with dovetail joint that prevents lifting for a greater anti-burglar resistance.

Counterplates 14x14, 20x11 or with universal adapter for a better fastening and applicability to all different profile sections.

Heavy-duty hinges

Three easy, convenient and independent adjustments

2-WING HINGE







Lateral adjustment

Visual, convenient, micrometric - just turn the upper metal bushing (-/+2 mm)

Adjustment of closing pressure

Just rotate the lower bushing to the three different settings (-0.5/0/+0.5 mm)

Height adjustment

Just rotate the grub screw, even with the door already installed (-0/+3 mm)



Test

After RAL EB1/150, Mechanica obtained the prestigious EB2 and EB3 that guarantee the maximum solidity. Mechanica had already obtained in the year 2000 RAL EB1/150 by the German laboratory "Gütegemeischaft Schlösser und Beschläge e.v."

This goal has been reached thanks to other stringent German tests.

Mechanica 2-wing hinge achieved **EB2** thanks to its resistance to stress until to 600 Kg.; **Mechanica 3-wing** hinge achieved **EB3**, having contrasted a force equal to 1000 Kg.

For Savio, this hinge proves a real success in the field of security, making burglary attempts even with specialist tools, more and more difficult.

Mechanica had already obtained a recognition for endurance thanks to the most advanced research and technology. Indeed, after having passed 200.000 opening/closing cycles, the test had been repeated successfully until 1.000.000. of cycles.

RAL tests (guarantee of carrying capacity and performance)



Endurance tests The door is submitted to 200.000 opening/closing cycles.





Additional load The door is turned by 45° and a load applied equal to 100 Kg. for the duration of 2.5 minutes; the test is then repeated with the door turned by 90°. Door 180 kg + additional load Kg.= 280 Kg.

Dynamic impact A leather bag weighing 45 Kg. is made to drop 5 times in the centre of gravity of the door; before each subsequent load, it is checked that the bag has regained its spherical shape.

EB test (guarantee of security against intrusion)



Dynamic impact

A leather bag weighing 45 Kg. is made to drop 5 times on the top hinge, then on the bottom hinge; before each subsequent load, it is checked that the bag has regained its spherical shape.



Static load with horizontal force Using a hydraulic actuating device, a force equal to 600 Kg.(2-wing Mechanica) and 1000 Kg.(3-wing Mechanica) is applied first on the top hinge, then on the bottom hinge.





* Esa Alluminio Serie BLINDALL 60, see fastening system P12079 dated 13/02/01 to be found in the assembly instructions 89010503/505



Esa Alluminio Serie BLINDALL 60, see fastening system P12080 dated 06/02/01 to be found in the assembly instructions 89010506/507

Carrying capacity diagrams (excluded versions for narrow frames)

Carrying capacity diagrams referred to art.: 1145, 1146, 1146.1, 1146.2

Two 2-wing MECHANICA hinges: carrying capacity 150 Kg.

Three 2-wing MECHANICA hinges: carrying capacity 180 Kg.



Carrying capacity diagrams referred to art.: 1145.3, 1146.3, 1146.13, 1146.23



Three 3-wing MECHANICA hinges: carrying capacity 180 Kg.



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MECHANICA codes - MKD series

Art. 1145/53 1145/60MR 1145/67MR	Description (patented) 2-wing adjustable hinge made of aluminium for narrow frame, centre distance of 53-60-67 mm., centre of rotation 20 mm., 0 mm. step. Including: 1 stainless steel pin Ø 11 mm., pre-assembled on a black galvanized zamak cam bushing, 2 aluminium coverplates, 2 nylon caps, 1 self-lubricating bushing, 1 zamak adjustment grub screw.	Pcs.	Finishing (art. 1145/53) C, F, ZE, NE, HL, 1013, 1015, 1247 ANAG, 8019,
1145/53 1145/60MR 1145/67MR	(<i>patented</i>) 2-wing adjustable hinge made of aluminium for narrow frame , centre distance of 53-60-67 mm., centre of rotation 20 mm., 0 mm. step. Including: 1 stainless steel pin Ø 11 mm., pre-assembled on a black galvanized zamak cam bushing, 2 aluminium coverplates, 2 nylon caps, 1 self-lubricating bushing, 1 zamak adjustment grub screw.	50 Solution	(art. 1145/53) C, F, ZE, NE, HL, 1013, 1015, 1247 ANAG, 8019,
	Complete with galvanized fastening kit, consisting of: 1 zamak counterplate 14x14 mm., 2 pre-hardened burnished steel leaf spring, 1 extruded aluminium counterplate 9x14 mm., 2 galvanized screws M8x28 for counterplate fastening (leaf side), 2 galvanized screws M6x20 for counterplate fastening (frame side), 2 centring bushings for frame side, 2 galvanized screws for coverplate fastening (TCEI M4x16 and M4x14), 1 galvanized grub screw M6x8 for cam bushing fastening. Carryng capacity: 2 hinges 80 Kg., 3 hinges 100 Kg.	10 hovver	9005, 9010, 9010 SAT, 9016 (art. 1145/60MR e 1145/67MR) F, NE, 9010
Art.	Description	Pcs.	Finishing
1145/60* 1145/67 1145/79 1145/86 1145/93	 (patented) 2-wing adjustable hinge made of aluminium , centre distance of 60 - 67 - 79 - 86 - 93 mm, centre of rotation 20 mm., 0 mm step. Including: tainless steel pin Ø 11 mm., pre-assembled on a black galvanized zamak cam bushing, 2 aluminium coverplates, 2 nylon caps, 1 self-lubricating bushing, zamak adjustment grub screw. *only 1145/60 also available in PVD H, PVD X e XSD and each bag contains 4 pieces. (patented) Like 1145/93 but with symmetric wings. 	20 servain C minimization 2 Association 2	(art.1145/60, /67, /79, /93) C, F, ZE, NE, HL, 1013, 1015 (only 1145/60), 1247 AlVAG, 8019, 9005, 9010, 9010 SAT, 9016 (art. 1145/86, /93SM) F, NE, 9010
contains, 2 cov	er holding clips		
	Art. 1145/60* 1145/79 1145/86 1145/93 1145/93SM contains, 2 cove	1 extruded aluminium counterplate 9x14 mm., 2 galvanized screws M8x28 for counterplate fastening (leaf side), 2 galvanized screws M6x20 for counterplate fastening (frame side), 2 centring bushings for frame side, 2 galvanized screws for coverplate fastening (TCEI M4x16 and M4x14), 1 galvanized grub screw M6x8 for cam bushing fastening. Carryng capacity: 2 hinges 80 Kg., 3 hinges 100 Kg. Art. Description 1145/60* (patented) 2-wing adjustable hinge made of aluminium , centre distance of 60 - 67 - 79 - 86 - 93 mm, centre of rotation 20 mm., 0 mm step. 1145/60* (patented) 2-wing adjustable hinge made of aluminium , centre distance of 60 - 67 - 79 - 86 - 93 mm, centre of rotation 20 mm., 0 mm step. 1145/60* 1 stainless steel pin Ø 11 mm., pre-assembled on a black galvanized zamak cam bushing, 2 aluminium coverplates, 2 nylon caps, 1 self-lubricating bushing, 1 zamak adjustment grub screw. * only 1145/60 also available in PVD H, PVD X e XSD and each bag contains 4 pieces. 1145/93SM (patented) Like 1145/93 but with symmetric wings.	1 extruded aluminium counterplate 9x14 mm., 2 galvanized screws M8x28 for counterplate fastening (leaf side), 2 galvanized screws M6x20 for counterplate fastening (frame side), 2 centring bushings for frame side, 2 galvanized screws M6x20 for counterplate fastening (frame side), 2 centring bushings for frame side, 2 galvanized screws M6x8 for cam bushing fastening. Carryng capacity: 2 hinges 80 Kg., 3 hinges 100 Kg. Art. Description Pcs. 1145/60* (patented) 2-wing adjustable hinge made of aluminium , centre distance of 60 - 67 - 79 - 86 - 93 mm, centre of rotation 20 mm., 0 mm step. 20 1145/60* Including: 1 stainless steel pin Ø 11 mm., pre-assembled on a black galvanized zamak cam bushing, 2 aluminium coverplates, 2 nylon caps, 1 self-lubricating bushing, 1 zamak adjustment grub screw. * only 1145/60 also available in PVD H, PVD X e XSD and each bag contains 4 pieces. 1145/93SM (patented) Like 1145/93 but with symmetric wings. contains, 2 cover holding clips

2-wing hinge fastening kit

N	Art.	Description	Pcs.						
.1 4000	1145.704 1145.705	 (patented) Galvanized fastening kit for flat profiles, consisting of: 2 zamak counterplates 14x14 mm., 4 galvanized special screws M8x28 for counterplates fixing, 2 galvanized screws TCEI M4x16 for coverplate fixing, 1 galvanized grub screw M6x8 for cam bushing fastening, 2 pre-hardened burnished steel leaf springs. (patented) Stainless steel fastening kit for flat profiles, consisting of: 2 zamak counterplates 14x14 mm., 4 stainless steel special screws M8x28 for counterplates fixing, 2 stainless steel screws TCEI M4x16 for coverplate fixing, 1 galvanized grub screw M6x8 for cam bushing fastening, 2 pre-hardened burnished steel leaf springs. 	20	10 bags containig 2 kits					
N	Art.	Description	Pcs.						
· · ··································	1145.706 1145.707	 (patented) Galvanized fastening kit for flat profiles, consisting of: 2 zamak counterplates 20x11 mm., 4 galvanized special screws M8x28 for counterplates fixing, 2 stainless steel screws TCEI M4x16 for coverplate fixing, 1 galvanized grub screw M6x8 for cam bushing fastening, 2 pre-hardened burnished steel leaf springs. (patented) Stainless steel fastening kit for flat profiles, consisting of: 2 zamak counterplates 20x11 mm., 4 stainless steel special screws M8x28 for counterplates fixing, 2 stainless steel screws TCEI M4x16 for coverplate fixing, 1 stainless steel grub screw M6x8 for cam bushing fastening, 2 stainless steel leaf springs. 	20	10 bags containig 2 kits					
	Art.	Description	Pcs.						
1 June 1	1145.710 1145.711	 ((patented) Galvanized fastening kit for overlapped profiles and thermal break profiles, consisting of: 2 zamak counterplates 14x14 mm., 2 galvanized special screws M8x28 for counterplates fixing, 2 galvanized screws TCEI M4x16 for coverplate fixing, 1 galvanized grub screw M6x8 for cam bushing fastening, 2 pre-hardened burnished steel leaf springs. (patented) Stainless steel fastening kit for overlapped profiles and thermal break profiles, consisting of: 2 zamak counterplates 14x14 mm., 2 stainless steel special screws M8x28 for counterplates fixing, 2 stainless steel fastening, 1 stainless steel grub screw M6x8 for counterplates fixing, 2 stainless fixing, 2 stainless fixing, 1 stainless steel grub screw M6x8 for counterplates fixing, 1 stainless s	20	10 bags containig 2 kits					



Art.	Description	Pcs.
1145.805	(patented) Zamak width adapter for counterplate 14x14 mm.	100

3-wing range

5 wing range				
	Art.	Description	Pcs.	Finishing
AL	1145.3/60 1145.3/67 1145.3/79 1145.3/93	(<i>patented</i>) 3-wing adjustable door hinge made of aluminium, distance between centres of 60 - 67 - 79 - 93 mm, centre of rotation 20 mm, step 0 mm. Including: 1 stainless steel pin Ø 11 mm., pre-assembled on black galvanized zamak cam device	ntaining 2 pieces	C, F, ZE, NE, HL, 1013, 8019, 9005,
~	,	bushing, 3 aluminium coverplates, 2 nylon caps, 2 nylon self-lubricating bushings, 1 zamak adjustment grub screw, 1 nylon spacer for counterplates and 1 rubber ring.	5 boxes cor	9010

Notes: Each 3-wing MECHANICA package contains, 1 cover holding clips

3-wing hinge fastening kit				
	Art.	Description	Pcs.	
	1145.714 1145.715	(patented) Galvanized fastening kit for flat profiles, with: 3 zamak counterplates 14x14 mm., 6 galvanized special screws M8x28 for counterplate fastening, 3 galvanized screws TCEI M4x16 for cover fastening, 1 galvanized grub screw M6x8 for cam bushing fastening, 3 pre-hardened burnished steel leaf springs. (patented) Stainless steel fastening kit for flat profiles, with: 3 zamak counterplates 14x14 mm., 6 stainless steel special screws M8x28 for counterplate fastening, 3 stainless steel screws TCEI M4x16 for cover fastening, 1 stainless steel grub screw M6x8 for cam bushing fastening, 3 stainless steel leaf springs.	10	5 bags containing 2 kits
	Art.	Description	Pcs.	
	1145.712 1145.713	(patented) Galvanized fastening kit for overlapped and thermal break profiles, with: 3 zamak counterplates 14x14 mm., 2 galvanized special screws M8x28 for counterplate fastening, 3 galvanized screws TCEI M4x16 for cover fastening, 1 galvanized grub screw M6x8 for cam bushing faste- ning, 3 pre-hardened burnished steel leaf springs. (patented) Stainless steel fastening kit for overlapped and thermal break profiles, with: 3 zamak counterplates 14x14 mm., 2 stainless steel special screws M8x28 for counterplate fastening, 3 stainless steel screws TCEI M4x16 for cover fastening, 1 stainless steel grub screw M6x8 for cam bushing fastening, 3 stainless steel leaf springs.	10	5 bags containing 2 kits



Art.	Description	Pcs.
1145.805	(patented) Zamak width adapter for counterplate 14x14 mm.	100

MECHANICA codes - MKW series

2-wing range					
	Art.	Description	Pcs.		Finishing
	1146/59 1146/62.5 1146/67 1146/74.5 1146/78 1146/84 1146/89 1146/92 1146/97 1146/104	(patented) 2-wing adjustable hinge made of aluminium, distance between centres of 59 - 62.5 - 67 - 74.5 - 78 84 - 89 - 92 - 97 - 104.5 mm., centre of rotation 20 mm., step 0 mm. Including: 1 stainless steel pin Ø 11 mm., pre-assembled on black galvanized zamak cam device bushing, 2 aluminium coverplates, 2 nylon caps, 1 nylon self-lubricating bushing, 1 zamak adjustment grub screw.	20	taining 2 pieces 10 boxes containing 2 pieces	(1146/62.5,/ 78,/84,/92) C, F, ZE,NE, 1013, 1247 ANAG, 9005, 9010, 9010 SAT, 9016 (1146/67/ 74.5,/89,/97,/ 104) F, ZE, 9016
Notes: Each 2-wing MECHANICA package contains, 2 cover holding clips.	1146.1/62.5 1146.1/84	(patented) 2-wing adjustable hinge made of aluminium, distance between centres of 62.5 - 84 mm., centre of rotation 36 mm., step 0 mm. Including: 1 stainless steel pin Ø 11 mm., pre-assembled on black galvanized zamak cam device bushing, 2 aluminium coverplates, 2 nylon caps, 1 nylon self-lubricating bushing, 1 zamak adjustment grub screw.	20	containing 2 pieces 10 boxes conta	C, F, ZE,NE, 1013, 9005, 9010
	1146.2/62	(patented) Like 1146/62.5 but with 10 mm. step.	20	0 boxes	F, ZE,9016

2-wing hinge fastening kit				
N	Art.	Description	Pcs.	
	1145.704 1145.705	(patented) Galvanized fastening kit for flat profiles, with: 2 zamak counterplates 14x14 mm., 4 galvanized special screws M8x28 for counterplate fastening, 2 galvanized screws TCEI M4x16 for cover fastening, 1 galvanized grub screw M6x8 for cam bushing fastening, 2 pre-hardened burnished steel leaf springs. (patented) Stainless steel fastening kit for flat profiles with: 2 zamak counterplates 14x14 mm, 4 stainless steel special screws M8x28 for counterplate fastening, 2 stainless steel screws TCEI M4x16 for cover fastening, 1 galvanized grub screw M6x8 for cam bushing fastening, 2 stainless steel leaf springs.	20	10 bags containig 2 kits
	Art.	Description	Pcs.	
	1145.730	(<i>patented</i>) Galvanized fastening kit for flat profiles with: 2 galvanized steel counterplates 20x6 mm., 4 special galvanized screws M8x25 for counterplate fastening, 2 galvanized screws TCEI M4x16 for cover fastening, 1 galvanized grub screw M6x8 for cam bushing fastening.	20	10 bags containig 2 kits
N	Art.	Description	Pcs.	
· · ··································	1145.706 1145.707	(patented) Galvanized fastening kit for flat profiles, with: 2 zamak counterplates 20x11 mm., 4 galvanized special screws M8x28 for counterplate fastening, 2 galvanized screws TCEI M4x16 for cover fastening, 1 galvanized grub screw M6x8 for cam bushing fastening, 2 pre-hardened burnished steel leaf springs. (<i>patented</i>) Stainless steel fastening kit for 2-wing MECHANICA hinges for flat profiles, with: 2 zamak counterplates 20x11 mm., 4 stainless steel special screws M8x28 for counterplate fastening, 2 stainless steel screws TCEI M4x16 for cover fastening, 1 stainless steel grub screw M6x8 for cam bushing fastening, 2 stainless steel leaf springs.	20	10 bags containig 2 kits
N	Art.	Description	Pcs.	
1 Line	1145.710 1145.711	(patented) Galvanized fastening kit for overlapped and thermal break profiles, with: 2 zamak counterplates 14x14 mm., 2 galvanized special screws for counterplate fastening M8x28, 2 galvanized screws TCEI M4x16 for cover fastening, 1 galvanized grub screw M6x8 for cam bushing fastening, 2 pre-hardened burnished steel leaf springs. (patented) Stainless steel fastening kit for thermal break profiles and overlapped profiles, with: 2 zamak counterplates 14x14 mm., 2 stainless steel special screws M8x28 for counterplate fastening, 2 stainless steel screws TCEI M4x16 for cover fastening, 1 stainless steel grub screw M6x8 for cam bushing fastening, 2 stainless steel leaf springs.	20	10 bags containig 2 kits
4	Art.	Description	Pcs.	
	1145.805	(patented) Zamak width adapter for counterplate 14x14 mm.	100	

3-wing range					
	Art.	Description	Pcs		Finishing
~	1146.3/59 1146.3/62.5 1146.3/67 1146.3/74.5 1146.3/78 1146.3/84 1146.3/89 1146.3/92 1146.3/97 1146.3/104	(patented) 3-wing adjustable door hinge made of aluminium, distance between centres of 59 - 62.5 - 67 - 74.5 - 78 - 84 - 89 - 92 - 97 - 104.5 mm., centre of rotation 20 mm., step 0 mm. Including: 1 stainless steel pin Ø 11 mm., pre-assembled on black galvanized zamak cam device bushing, 3 aluminium coverplates, 2 nylon caps, 2 nylon self-lubricating bushings, 1 zamak adjustment grub screw and 1 nylon spacer for counterplates.	10	ining 2 pieces 5 boxes containing 2 pieces	(1146/62.5, /78, /84, /92) C, F, ZE, NE, 1013, 9005, 9010 (1146/67, /74.5, /89, /97, /104) F, ZE, 9016
Notes: Each 3-wing MECHANICA package contains, 1 cover holding clips.	1146.13/62 1146.13/84	(patented) 3-wing adjustable hinge made of aluminium, distance between centres of 62.5-84 mm., centre of rotation 36 mm., step 0 mm. Including: 1 stainless steel pin Ø 11 mm., pre-assembled on black galvanized zamak cam device bushing, 3 aluminium coverplates, 2 nylon caps, 2 nylon self-lubricating bushings, 1 zamak adjustment grub screw and 1 nylon spacer for counterplates.	10	xes containing 2 pieces 5 boxes contai	C, F, ZE, NE, 1013, 9005, 9010 F, ZE, 9016
	1146.23/62	(patented) Like 1146.3/62.5 but with 10 mm. step.		5 bo	
3-wing hinge fastening kit					
10	Art.	Description			Pcs.
	1145.714	(patented) Galvanized fastening kit for flat profiles, with: 3 zamak counterplates 14x14 mm., 6 galvanized special screws M8x28 for counterplate fa 3 galvanized screws TCEI M4x16 for cover fastening, 1 galvanized grub screw M6x8 for ca bushing fastening, 3 pre-hardened burnished steel leaf springs. (patented) Stainless steel fastening kit for flat profiles, with: 3 zamak counterplates 14x14 mm., 6 stainless steel special screws M8x28 for counterplate 3 stainless steel screws TCEI M4x16 for cover fastening, 1 stainless steel grub screw M6x8	astening, am e fastening for cam	g,	5 hans contraining 2 kits
* *		bushing fastening, 3 stainless steel leaf springs.			10
No.	Art.	Description			Pcs.
	1145.731	(patented) Galvanized fastening kit for flat profiles, with: 2 galvanized steel counterplates 20x6 mm., 6 galvanized special screws M8x25 for counte 3 galvanized screws TCEI M4x16 for cover fastening, 1 galvanized grub screw M6x8 for ca fastening.	rplate fast am bushin	ening, g	5 hans containing 0 kits
1.00	Art.	Description			Pcs.
	1145.712	(<i>patented</i>) Galvanized fastening kit for overlapped profiles and thermal break profile 3 zamak counterplates 14x14 mm., 2 galvanized special screws M8x28 for counterplate fa 3 galvanized screws TCEI M4x16 for cover fastening, 1 galvanized grub screw M6x8 for cam bushing fastening, 3 pre-hardened burnished steel	s, with: astening, leaf sprin	gs.	10 2 kits
	1145.713	(patented) Stainless steel tastening kit for thermai break profiles and overlapped pro 3 zamak counterplates 14x14 mm., 2 stainless steel special screws M8x28 for counterplat 3 stainless steel screws TCEI M4x16 for cover fastening, 1 stainless steel grub screw M6x8 for cam bushing fastening, 3 stainless steel leaf springs.	e fastenin	1: J,	
4	Art.	Description			Pcs.
	1145.805	<i>(patented)</i> Zamak width adapter for counterplate 14x14 mm.			100
and the	Art.	Description	Pcs.		Finishing
	1147	(patented) Aluminium hinge pivot, centre of rotation 36 mm., 1 zamak counterplate 14x14 mm., 1 stainless steel spring leaf, 2 stainless steel special screws for counterplate fastening, 4 galvanized self-tapping screws TCEI Ø 6.3x22, 4 galvanized crinkled was- hers, 1 stainless steel screw TCEI M5x25 for counterplate fastening, 1 nylon cap.	2		C, F, ZE, NE, 1013, 9005, 9010
	Art.	Description			Pcs.
	1129.801 1129.802 1129.803	Bushing with square hole 14 mm., black galvanized sintered steel. Like 1129.801 but with rectangular hole mm. 22x10 Like 1129.801 but with square hole mm. 16.			10

For overlapped profile steps, tooling and accessories see from page 14 to page 15.

MECHANICA codes - MKD and MKW series

Spacers for overlapped profiles				
	Art.	Description	Pcs.	Finishing
	1138.702/7 1138.702/8 1138.702/10	MECHANICA hinge spacers for narrow frames Aluminium spacer of 7 mm., with 2 steel bushings and 2 galvanized steel screws TCEI M6x35. Aluminium spacer of 8,5 mm. with 2 steel bushings and 2 galvanized steel screws TCEI M6x35. Aluminium spacer of 10 mm. with 2 steel bushings and 2 galvanized steel screws TCEI M6x35.	10	C, F, ZE, NE, 1013, 9005, 9010
	Art.	Description	Pcs.	Finishing
~///	1145.702/7 1145.702/8 1145.702/10	Spacers for 2 and 3 wing MECHANICA hinge (<i>patented</i>)7 mm. aluminium spacer, 2 pre-assembled steel bushings and 2 stainless steel special screws M8x38 (<i>patented</i>) Like 1145.702/7, but of 8.5 mm. (<i>patented</i>) Like 1145.702/7, but of 10 mm.	50	C, F, ZE, NE, HL, 1013, 1015, 1247 ANAG, 8019, 9005, 9010, 9010 SAT, 9016
	1145.703/7 1145.703/8	(patented) 7 mm. aluminium spacer, 2 pre-assembled steel bushings and 2 stainless steel special screws M8x38 (also available in PVD H, PVD X and XSD. Each bag contains 10 pieces). (patented) Like 1145.703/7, but of 8.5 mm (also available in PVD H, PVD X and XSD. Each bag contains 10 pieces).	50	C, F, ZE, NE, HL, 1013, 9005, 9010
	1145.703/10	(patented) 10 mm. aluminium spacer, 2 pre-assembled steel bushings and 2 stainless steel special screws M8x38.		

 Fastening kit for armoured profiles

 Art.
 Description
 Pcs.

 1145.708
 (patented) 2 and 3 wing MECHANICA hinge fastening kit for armoured profiles, made of galvanized grub screw M6x8 for cam bushing fastening.
 20
 19,7

 1145.709
 (patented) 2 and 3 wing MECHANICA hinge fastening kit for armoured profiles, made of stainless steel 4 special screws M8x42, 2 screws TCEI M4x16 for coverplates fixing, 1 galvanized grub screw M6x8 for cam bushing fastening.
 20
 19,7

 1145.709
 (patented) 2 and 3 wing MECHANICA hinge fastening kit for armoured profiles, made of stainless steel grub screw M6x8 for cam bushing fastening.
 20
 19,7

NOTES: Kits 1145.708/709 are arranged for 2-wing MECHANICA hinges. For 3-wing MECHANICA use 3 kits for every 2 hinges.

Accessories for thermal break profiles			
	Art.	Description	Pcs.
	1145.801	Internal profile reinforcement for thermal break profiles (from 14 to 20 mm.) and 1 special fixing screw M8x48.	40
	1145.802	Internal profile reinforcement for thermal break profiles (from 20 to 28 mm.) and 1 special fixing screw M8x58.	40
	1145.803	Internal profile reinforcement for thermal break profiles (from 28 to 35 mm.) and 1 special fixing screw M8x65.	40
	1145.804	Internal profile reinforcement for thermal break profiles (from 35 to 42 mm.) and 1 special fixing screw M8x72.	40

Art.	Description	Pcs.
1146.810	Security sphere kit for use on externally opening doors. Made of black nylon, equipped with handgrip and 4 pre-assembled pre-hardened spheres which makes the fitting of the spheres into the hexagonal seat of MECHANICA fastening screws a very speedy operation. - Maximum security against intrusion after assembly - Easy of application	100
	Art. 1146.810	Art. Description 1146.810 Security sphere kit for use on externally opening doors. Made of black nylon, equipped with handgrip and 4 pre-assembled pre-hardened spheres which makes the fitting of the spheres into the hexagonal seat of MECHANICA fastening screws a very speedy operation. • Maximum security against intrusion after assembly • Easy of application N.B.: It's not possible to assemble them on narrow frames.

Tooling			
-	Art.	Description	Pcs
	1130.902	Steel adapter for drilling jig art.1145.908 (narrow frames).	1
	Art.	Description	Pcs.
and a second	1145.901	Aluminium and galvanized steel jig for MECHANICA series MKW.	1
And a state of the	1145.908	Aluminium and galvanized steel jig for MECHANICA series MKD.	1
	Art.	Description	Pcs.
	1145.902	Jig with profile holding clamp for MECHANICA series MKW.	1
	1145.903	Jig with profile holding clamp for MECHANICA series MKD.	1
	Art.	Description	Pcs.
	1145.904	Drill for drilling machine Ø 11 mm. (top reduced at 5 mm.) for drilling with jig art.1130.901, 1145.901/.902/.903/.908.	1
	Art.	Description	Pcs.
5	1145.905	Nylon clip for easy fitting and for cam bushing centring.	10
	Art.	Description	Pcs.
a a hit is a state of the	1145.906 1145.907	Aluminium centring plate for MECHANICA series MKW, 4 screws and 4 galvanized steel bushings. To be used for workings with jigs art. 1145.901/.902. Aluminium centring plate for MECHANICA series MKD, 4 screws and 4 galvanized steel bushings. To be used for workings with jigs art. 1145.903/.908 and with punching machine art. 8300.20.	1
	Art.	Description	Pcs.
	8300.20 8300.21	6-spindle drilling machine with profile roller conveyor for MECHANICA 2 and 3 wing hinge series MKD. <i>N.B.</i> : for hinges for narrow frames, use special drill bits. Bed plate for punching machine art. 8300.20.	1

MECHANICA MKD Series







Art.	Art.	MKD SERIES					
2-WING	3-WING	Α	В	C	D	Н	
1145/53		13,5	39,5	53	78	20	
1145/60	1145.3/60	20,5	39,5	60	88	20	
1145/60MR		13.5	46,5	60	85	20	
1145/67	1145.3/67	20,5	46,5	67	95	20	
1145/67MR		13.5	53.5	67	92	20	
1145/79	1145.3/79	39,5	39,5	79	107	20	
1145/86		39,5	46.5	86	114	20	
1145/93	1145.3/93	39.5	53.5	93	121	20	
1145/93SM		46.5	46.5	93	121	20	



1145/53 /60MR /67MR





1145/60 /67 /79 /86 /93 /93SM

1145.3/60 /67 /79 /93



MECHANICA MKW Series







Art.	Art.	MKW SERIES					
2-WING	3-WING	Α	В	С	D	Н	
1146/59	1146.3/59	17	42	59	87	20	
1146/62.5	1146.3/62.5	20,5	42	62,5	90,5	20	
1146/67	1146.3/67	17	50	67	95	20	
1146/74.5	1146.3/74.5	17	57,5	74,5	102,5	20	
1146/78	1146.3/78	20,5	57,5	78	106	20	
1146/84	1146.3/84	42	42	84	112	20	
1146/89	1146.3/89	47	42	89	117	20	
1146/92	1146.3/92	42	50	92	120	20	
1146/97	1146.3/97	47	50	97	125	20	
1146/104	1146.3/104	47	57,5	104,5	132,5	20	
1146.1/62.5	1146.13/62	20,5	42	62,5	90,5	36	
1146.1/84	1146.13/84	42	42	84	112	36	
1146.2/62	1146.23/62	20,5	42	62,5	90,5	20	



1146 /59 /62.5 /67 /74.5 /78 /84 /89 /92 /97 /104 1146.1/62.5 /84 - 1146.2/62



1146.3/59 /62.5 /67 /74.5 /78 /84 /89 /92 /97 /104 1146.13/62 /84 - 1146.23/62



Technical drawings





1138.702 /7 /8 /10





1145.704



1145.706

















1145.708 /.709











1145.715

1145.713



1145.712



1145.714







Technical drawings



1145.805



4

3

1145.902

A=7-8 e 10mm



1145.801/.802 /.803 /.804



1145.901









EEE

2

8

8

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1145.905



1145.907



1145.908



1146.810



1147





Distance centre range









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