



K12 System & K12 System ADJ

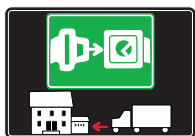
OPENING
SYSTEMS
FOR LIFT
UP AND
DROP
DOWN
DOORS





SYMBOLS AND FINISHES LEGEND

SYMBOLS



= SHELF SAFELY LOCKED DURING TRANSPORTATION AND AT HOME.



= ANTI-TURNOVER LOCKING SYSTEM



= NORMS / PATENTS



= PHILLIPS / POZIDRIV



= WITH BUFFER



= PART NO.



= BLADE SLOT



= WITH MAGNET



= PCS. PER PACKAGE



= COMBI SLOT



= HEXAGONAL SOCKET



= NEWTON



= CAPACITY LOADING



= HEXALOBULAR SOCKET



= FRICTION



= WOOD / GLASS THICKNESS



= COUNTERSUNK HEAD



= AUTOMATIC



= HOLE DIAMETER



= PAN HEAD



= DROP DOWN



= DIAMETER



= FLANGE HEAD



= LENGTH



= FLAT HEAD



= STANDARD HINGE



= HEIGHT



= TRILOBULAR SCREW



= KIMANA HINGE



= RIGHT VERSION



= SELF-TAPPING SCREW



= FLAP HINGE



= LEFT VERSION



= EURO THREAD



= WITH SPRING



= SETTING CODE



= METRIC THREAD



= WITHOUT SPRING



= PCS. PER PAD



= PRE-INSERTED SCREW



= REVERSED SPRING



= CUT ON REQUEST



= PRE-INSERTED SCREW AND SPREADING BUSH



= WITH FLANGE



= SELF ADHESIVE



= WITH FLANGE

NOTE: Printing errors and omissions may exist despite our best efforts to ensure accuracy. We reserve the right to alter specifications without notice.

MATERIALS

ZA = Zinc Alloy	ST = Steel	HSS = High Speed Steel	BR = Brass	ABS = Acrylonitrile Butadiene Styrene
ZAnk = Nickel-plated Zinc Alloy	STzk = Zinc-plated Steel	AL = Aluminium	WD = Wood	EVA = Ethylene Vinyl Acetate

EP = ENGINEERING PLASTIC	+ EP = other engineering plastic available on request	SR = SOFT RUBBER	+ SR = other soft rubber available on request
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EPn = Natural Engineering Plastic	EPc = Clear Engineering Plastic	SRn = Natural Soft Rubber
EPw = White Engineering Plastic	EPg = Grey Engineering Plastic	SRw = White Soft Rubber
EPwg = Water Green Engineering Plastic	EPa = Anthracite Engineering Plastic	SRb = Black Soft Rubber



FINISHES



+ OTHER FINISHES AVAILABLE ON REQUEST

PART NO.	FINISHES	PART NO.	FINISHES	PART NO.	FINISHES
OO	Insignificant finish	IF	Middle Grey	RO	Red
AA	Natural	IJ	Light Grey	UT	T-Met 9007
AB	White	IL	Grey 20	UZ	T-Met
AE	White 9010	IN	Grey met. 26	WA	Bronzed
EA	Black	JB	Bright Aluminium	WI	Burnished
EC	Matt Black	JC	Aluminium - Chrome	XD	Satin-finished Steel
EE	Anthracite	JD	Matt Aluminium	YA	Nickel-plated
EW	Grey 9007	JE	Satin-finished Aluminium	YB	Bright Nickel-plated
FU	Gunmetal	JF	Aluminium - Brass	YC	Matt Nickel-plated
FV	Gunmetal V52	JG	Aluminium 5	YD	Satin-finished Nickel-plated
GR	Raw	JL	Aluminium PE 11	YQ	Black Nickel
HA	Brass-Plated	JM	Aluminium RAL 9006	Z9	Black Zinc
HH	Tropicalized	KA	Chrome	ZA	Zinc alloy
HL	Raw Brass	KB	Bright Chrome	ZN	Zinc-plated
HX	Graphite	KC	Matt Chrome	ZQ	Bright Gold
IA	Grey	LD	Brown 8019	ZY	Titanium
IB	Metallic Grey	NN	Metallic Beige	ZZ	Clear

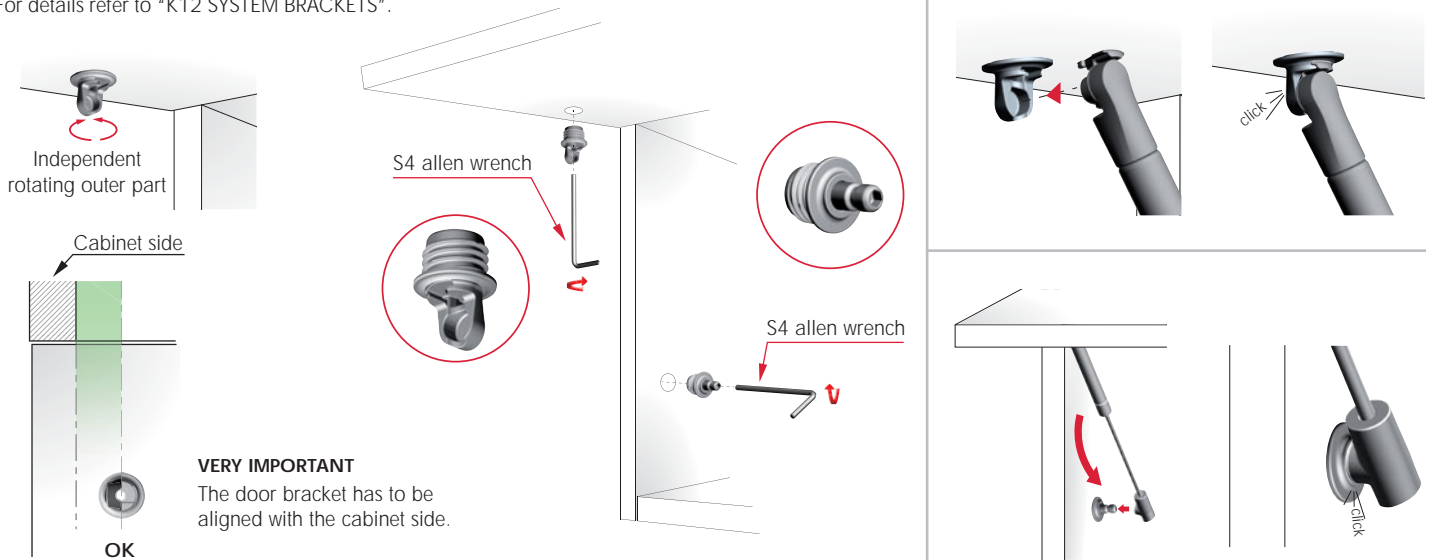
K12 SYSTEM LIFT UP



REGISTERED DESIGN
Certificates available on request. 

BRACKET Ø15 INSTALLATION

- For details refer to "K12 SYSTEM BRACKETS".



SCREW FIXING BRACKETS INSTALLATION

- For details refer to "K12 SYSTEM BRACKETS".





K12 SYSTEM ADJ LIFT UP

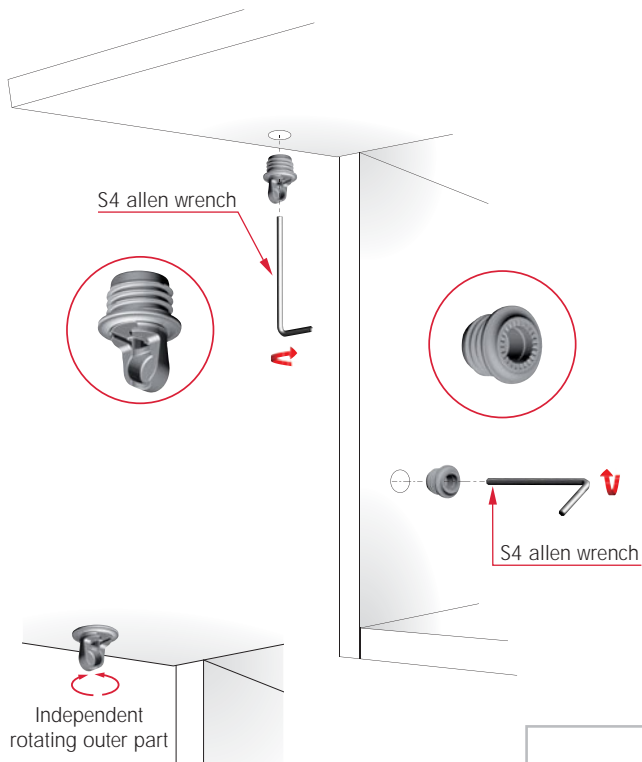


Certificates available on request.

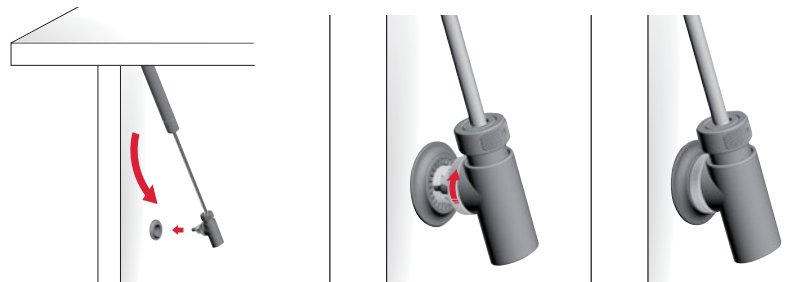


INSTALLATION

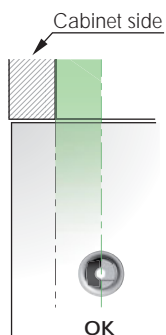
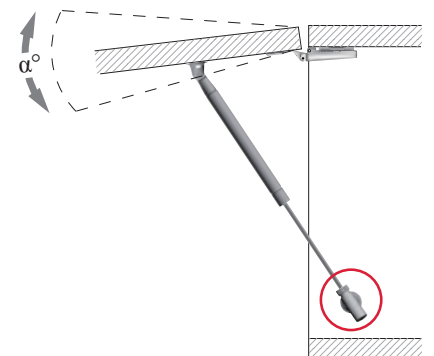
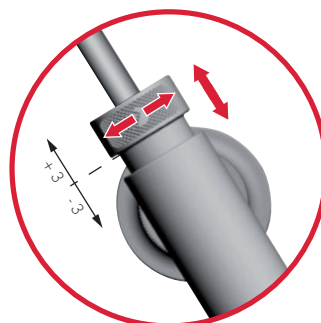
- For details refer to "K12 SYSTEM ADJ BRACKETS".



LOCKING: Rotate the plastic knob.

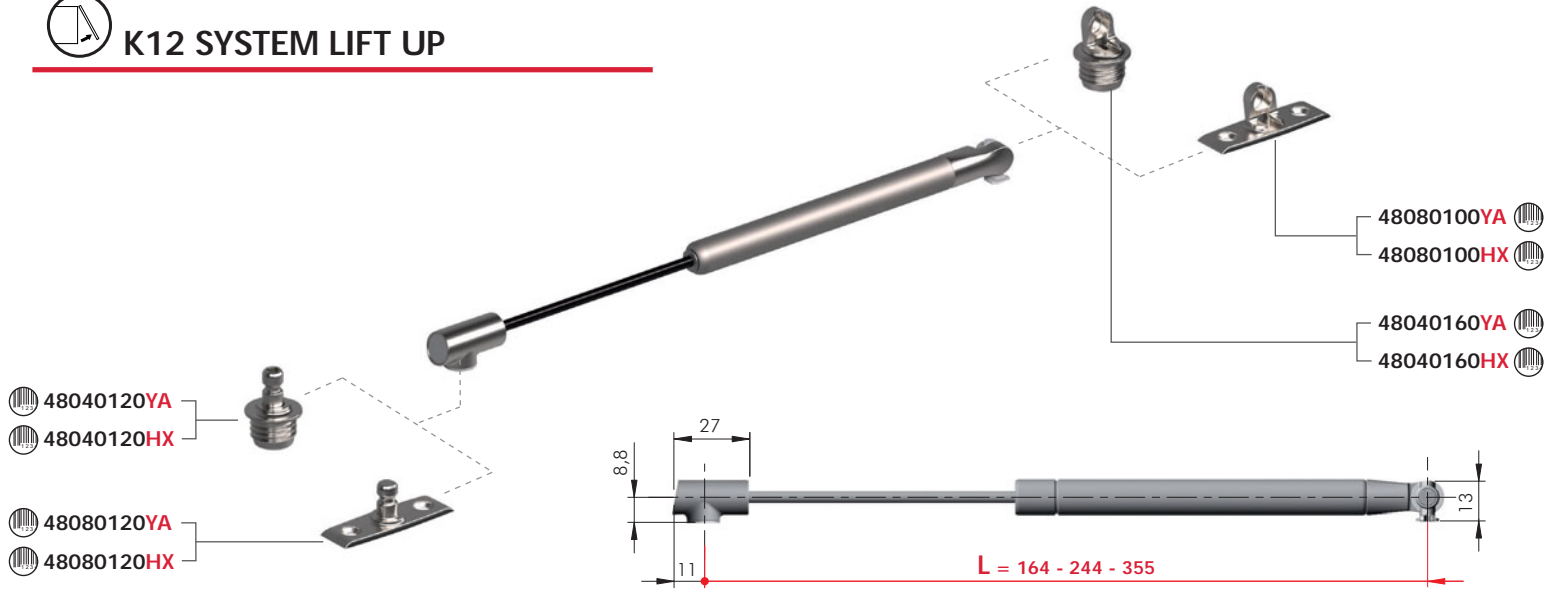


ADJUSTMENT

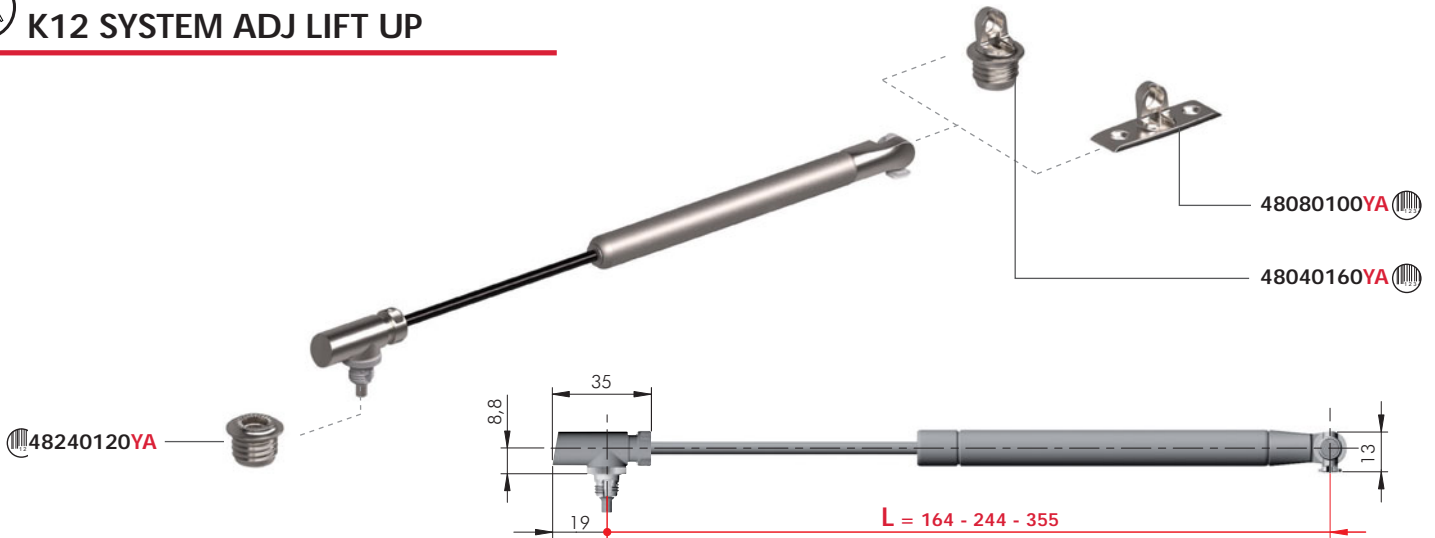


VERY IMPORTANT
The door bracket has to be aligned with the cabinet side.

K12 SYSTEM LIFT UP



K12 SYSTEM ADJ LIFT UP



ZA EP ST

= 100 pcs. for L. 164 mm
50 pcs. for L. 244 and 355 mm

L	K12 SYSTEM	K12 SYSTEM ADJ	N
164	48010420UZ	48210420UZ	50
	48010460UZ	48210460UZ	80
	48010500UZ	48210500UZ	100
	48010540UZ	48210540UZ	120

+ Part.no + HX

L	K12 SYSTEM	K12 SYSTEM ADJ	N
244	48020420UZ	48220420UZ	50
	48020460UZ	48220460UZ	80
	48020480UZ	48220480UZ	100
	48020500UZ	48220500UZ	120
	48020540UZ	48220540UZ	140

+ Part.no + HX

L	K12 SYSTEM	K12 SYSTEM ADJ	N
355	48030430UZ	48230430UZ	60
	48030470UZ	48230470UZ	90
	48030490UZ	48230490UZ	110

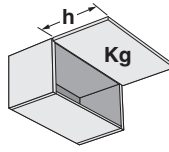
+ Part.no + HX

+ Part.no + HX = K12 System with end parts in graphite finish are available on request.

Further newton strengths available on request.



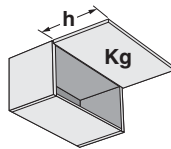
Number of stays chart - L 164 mm



Rev. 02

h	Door weight (Kg)															
	1	1,5	2	2,5	3	3,5	4	4,5	5	5,5	6	6,5	7	7,5	8	8,5
200 - 224	2x50N		2x80N		2x100N			2x120N		3x120N		4x100N		4x120N		
225 - 274	2x50N		2x80N		2x100N			2x120N		3x120N		4x100N		4x120N		
275 - 300	2x50N		2x80N		2x100N		2x120N		3x100N		3x120N		4x100N		4x120N	

Number of stays chart - L 244 mm

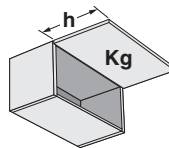


Rev. 02

h	Door weight (Kg)																								
	1	1,5	2	2,5	3	3,5	4	4,5	5	5,5	6	6,5	7	7,5	8	8,5	9	9,5	10	10,5	11	11,5	12	12,5	13
290 - 324	1x50N	1x80N		2x50N		2x80N						2x100N		2x120N		2x140N		2x160N*		2x180N*					
325 - 374	1x50N	1x80N	2x50N		2x80N						2x100N		2x120N		2x140N		2x160N*		2x180N*						
375 - 424	1x50N	1x80N	2x50N		2x80N				2x100N		2x120N		2x140N		2x160N*		2x180N*						3x140N		
425 - 474	1x50N	2x50N			2x80N				2x100N		2x120N		2x140N		2x160N*		2x180N*				3x160N*		3x180N*		
475 - 500	1x50N	2x50N		2x80N			2x100N			2x120N		2x140N		2x160N*		2x180N*		3x160N*				3x180N*			

* Strengths available on request.

Number of stays chart - L 355 mm



Rev. 02

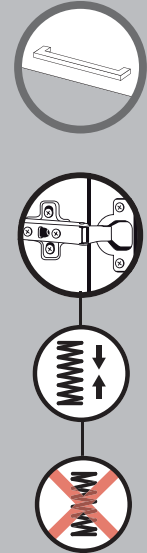
h	Door weight (Kg)																								
	1	1,5	2	2,5	3	3,5	4	4,5	5	5,5	6	6,5	7	7,5	8	8,5	9	9,5	10	10,5	11	11,5	12	12,5	13
390 - 424	1x60N		1x90N		2x60N				2x90N				2x110N				3x90N								
425 - 474	1x60N	1x90N		2x60N				2x90N				2x110N				3x90N				3x110N					
475 - 524	1x60N	1x90N		2x60N				2x90N				2x110N				3x90N				3x110N		4x90N			
525 - 574	1x60N	1x90N		2x60N		2x90N				2x110N				3x90N				3x110N				4x90N		4x110N	
575 - 600	1x90N		2x60N		2x90N			2x110N				3x90N				3x110N				4x90N		4x110N			

These are experimental results to be checked by the customer. Our Technical Department is at your disposal to test further cases out of this chart.

K12 SYSTEM CONFIGURATOR:

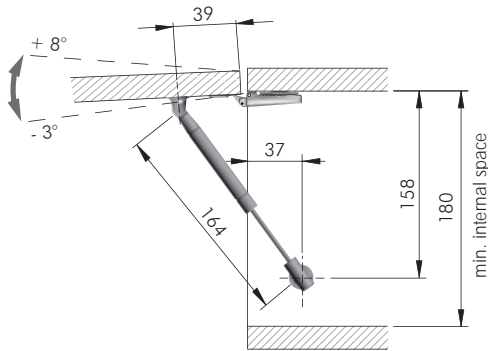


LIFT UP DRILLING PLANS WITH STANDARD HINGES OPENING WITH HANDLE

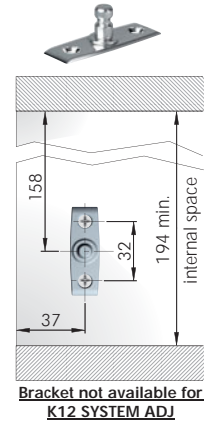
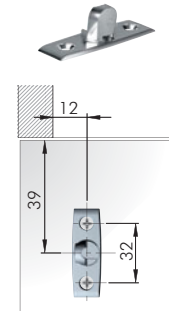


L 164 mm

Opening angle adjustment is possible only with K12 SYSTEM ADJ version.

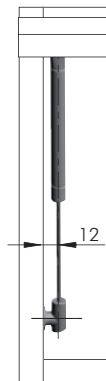
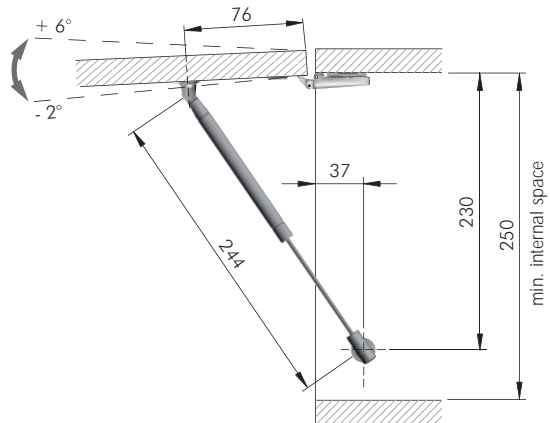


SCREW FIXING BRACKETS:

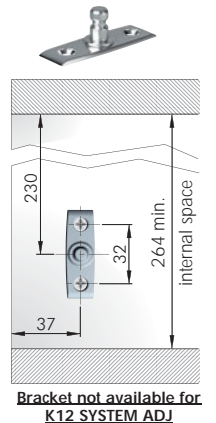
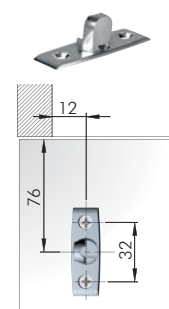


L 244 mm

Opening angle adjustment is possible only with K12 SYSTEM ADJ version.

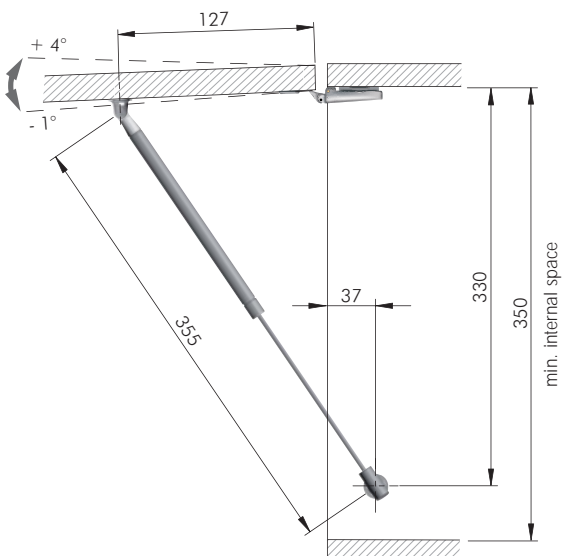


SCREW FIXING BRACKETS:

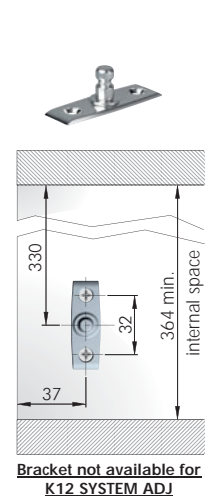
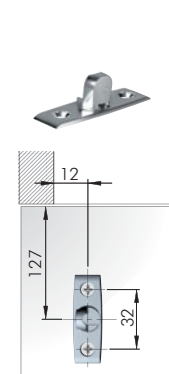


L 355 mm

Opening angle adjustment is possible only with K12 SYSTEM ADJ version.



SCREW FIXING BRACKETS:



The dimensions of the above drilling plans refer to carcasses which use **standard sprung or unsprung hinges** and mounting plates 0 mm. Please note that the opening angle varies with respect to the hinge brand and adjustment carried out.

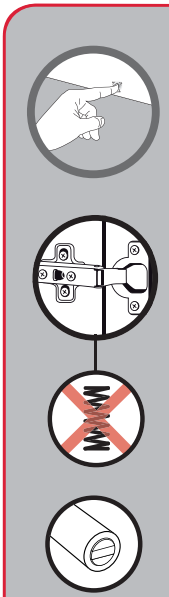


Please note that in case of use of **unsprung hinges**, magnet **K Lock** is required. For details refer to section "PUSH CATCHES & MAGNETIC CATCHES".



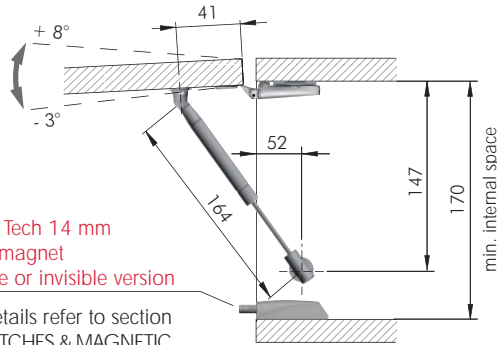
**LIFT UP DRILLING PLANS WITH STANDARD HINGES
PUSH TO OPEN**

K12 SYSTEM CONFIGURATOR:



L 164 mm

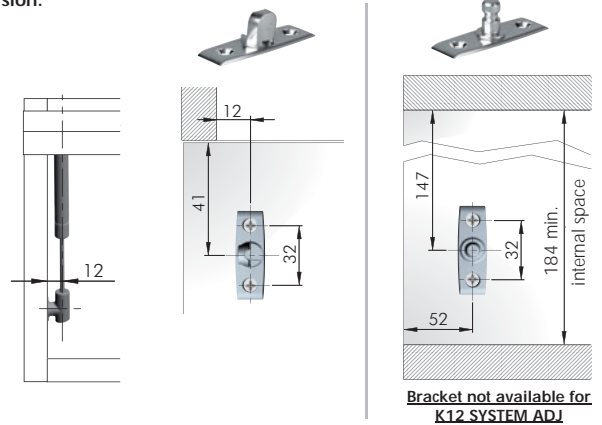
Opening angle adjustment is possible only with K12 SYSTEM ADJ version.



K Push Tech 14 mm
- With magnet
- Visible or invisible version

For details refer to section "PUSH CATCHES & MAGNETIC CATCHES".

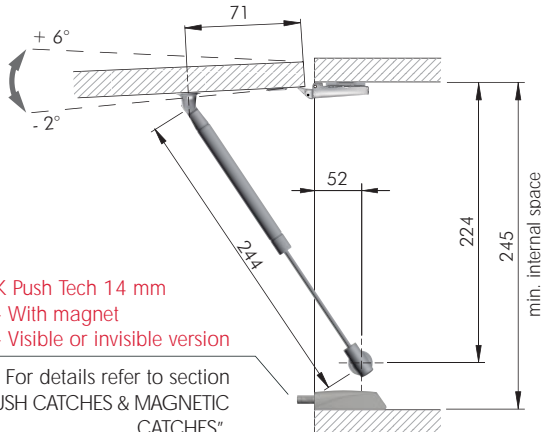
SCREW FIXING BRACKETS:



Bracket not available for K12 SYSTEM ADJ

L 244 mm

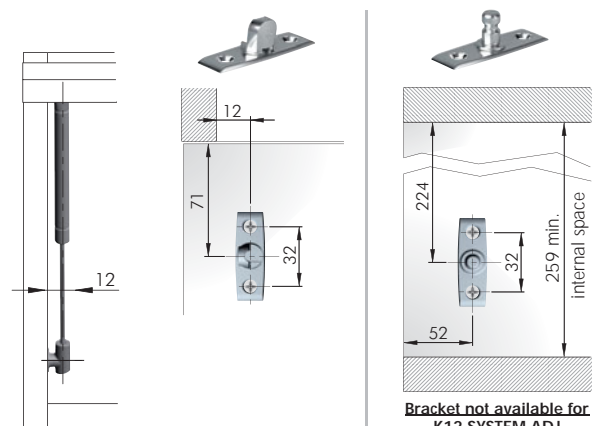
Opening angle adjustment is possible only with K12 SYSTEM ADJ version.



K Push Tech 14 mm
- With magnet
- Visible or invisible version

For details refer to section "PUSH CATCHES & MAGNETIC CATCHES".

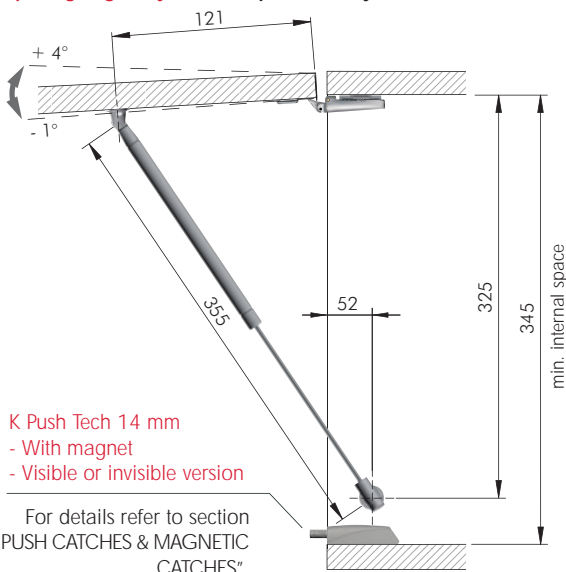
SCREW FIXING BRACKETS:



Bracket not available for K12 SYSTEM ADJ

L 355 mm

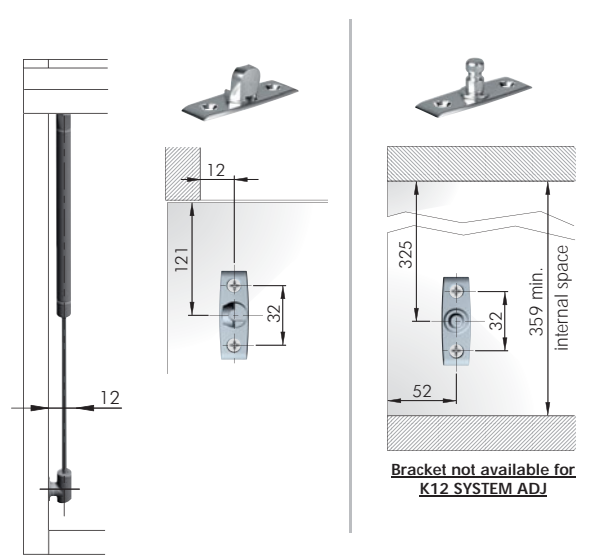
Opening angle adjustment is possible only with K12 SYSTEM ADJ version.



K Push Tech 14 mm
- With magnet
- Visible or invisible version

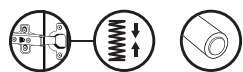
For details refer to section "PUSH CATCHES & MAGNETIC CATCHES".

SCREW FIXING BRACKETS:



Bracket not available for K12 SYSTEM ADJ

The dimensions of the above drilling plan refer to carcasses which use **standard unsprung hinges** and mounting plates 0 mm. Please note that the opening angle varies with respect to the hinge brand and adjustment carried out.



Please note that utilization with **standard sprung hinges** and **K Push Tech with buffer** is also possible. In such case, after the door is initially released by K Push Tech, a manual opening approx. 7cm is required (in order to win the spring resistance). Consequently, the door will automatically open to the fullest. For details refer to section "PUSH CATCHES & MAGNETIC CATCHES".

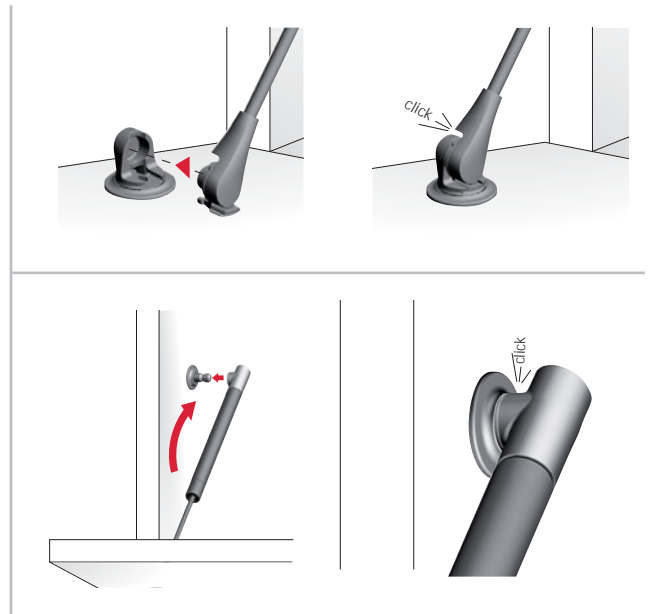
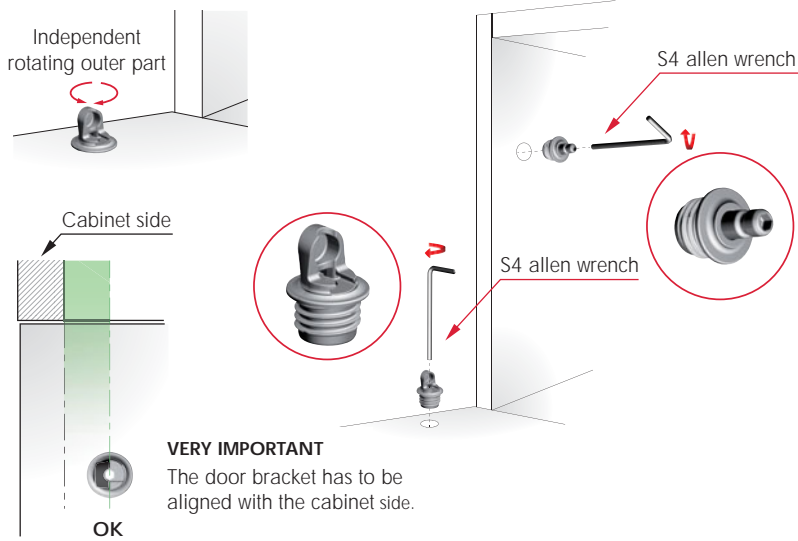
K12 SYSTEM DROP DOWN



REGISTERED DESIGN 
Certificates available on request.

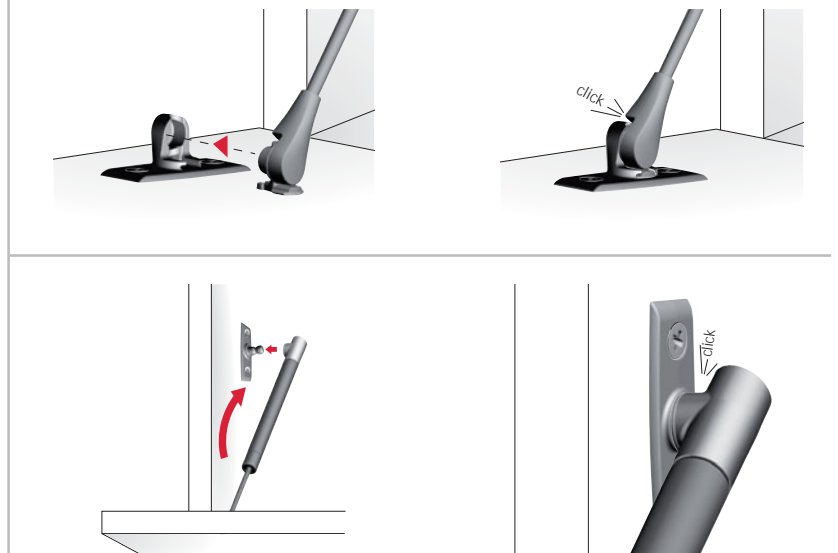
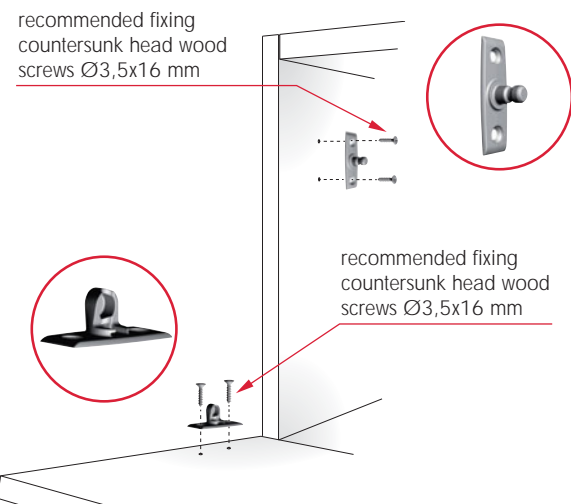
BRACKET Ø15 INSTALLATION

- For details refer to "K12 SYSTEM BRACKETS".



SCREW FIXING BRACKETS INSTALLATION

- For details refer to "K12 SYSTEM BRACKETS".





 **K12 SYSTEM ADJ DROP DOWN**

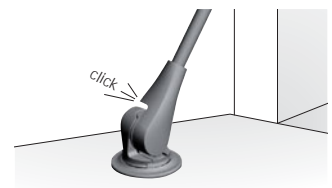
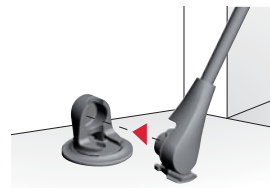
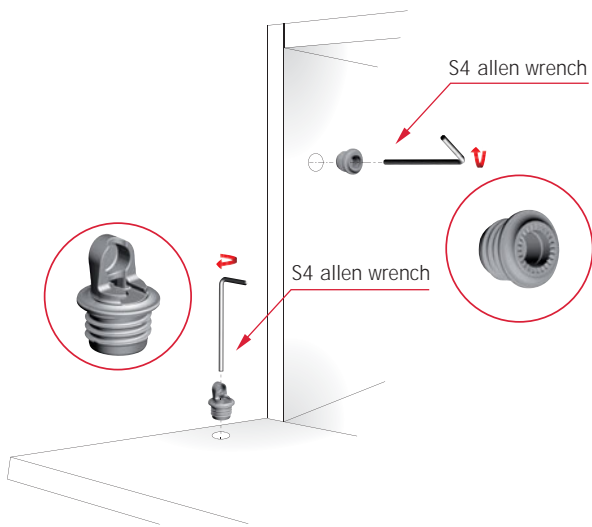


Certificates available on request.

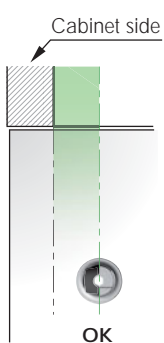
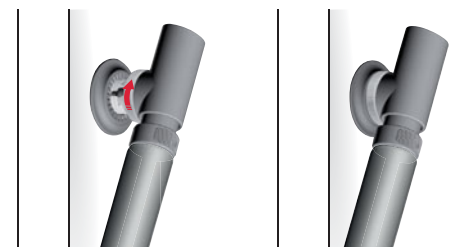
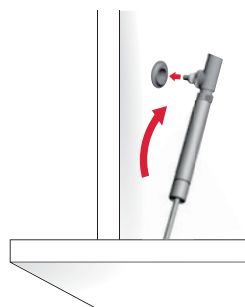


BRACKET Ø15 INSTALLATION

- For details refer to "K12 SYSTEM ADJ BRACKETS".

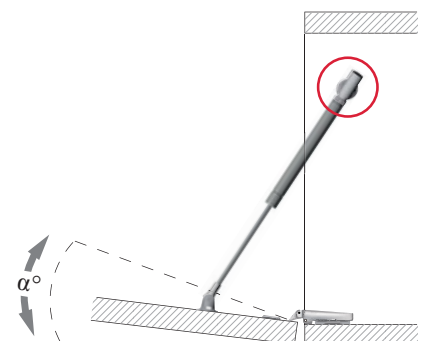
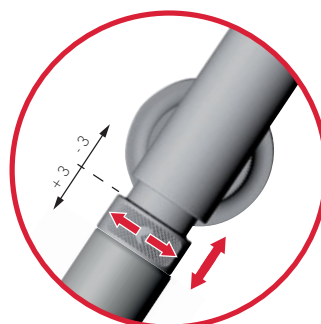


LOCKING: Rotate the plastic knob.

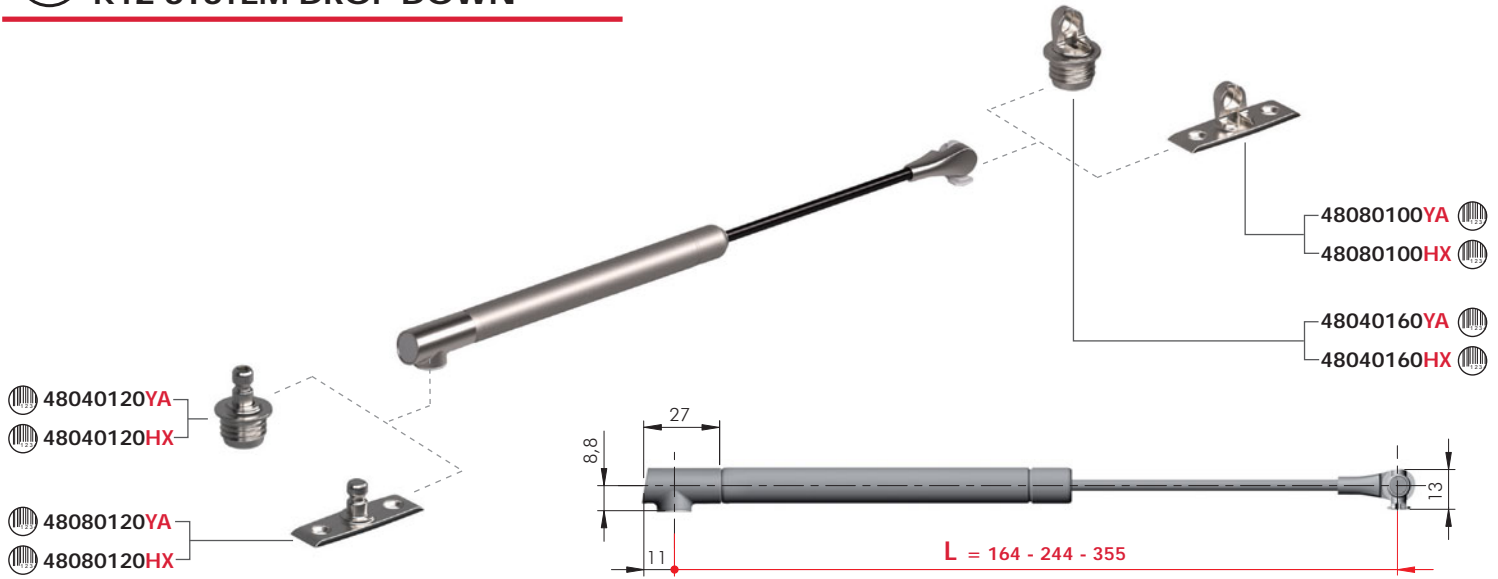


VERY IMPORTANT
The door bracket has to be aligned with the cabinet side.

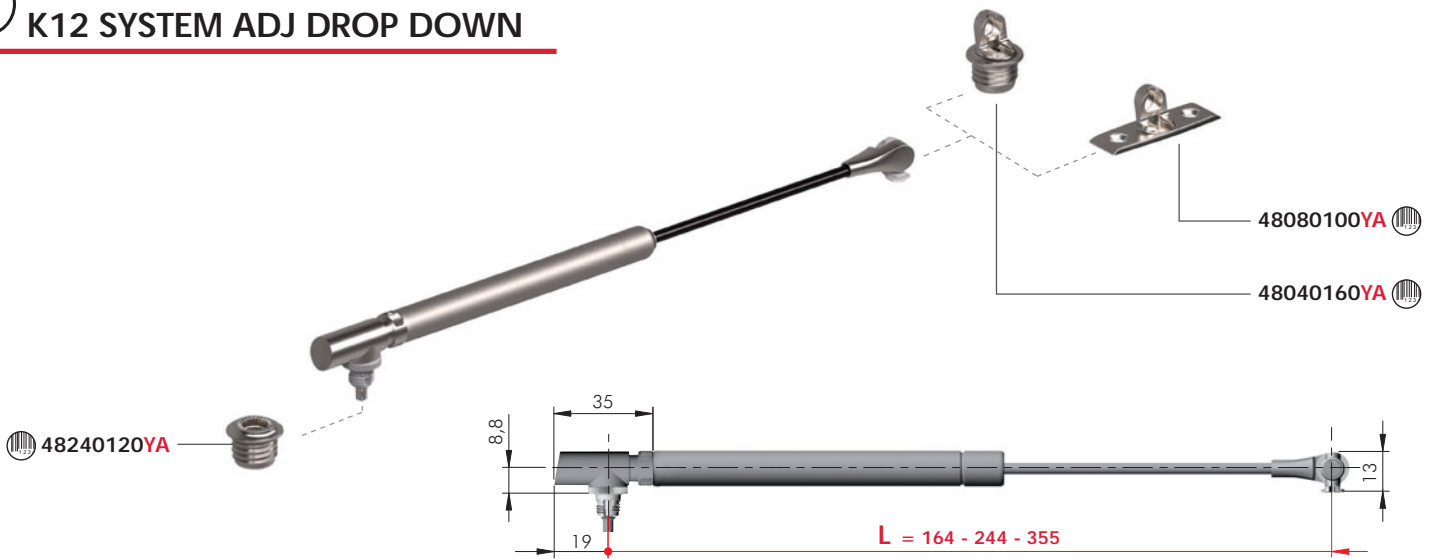
ADJUSTMENT



K12 SYSTEM DROP DOWN



K12 SYSTEM ADJ DROP DOWN



ZA EP ST

= 100 pcs. for L. 164 mm
50 pcs. for L. 244 and 355 mm

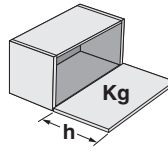
L	K12 SYSTEM	K12 SYSTEM ADJ
164	48050200UZ	48250200UZ
244	48060200UZ	48260200UZ
355	48070200UZ	48270200UZ

+ Part.no + HX

+ Part.no + HX = K12 System with end parts in graphite finish are available on request.



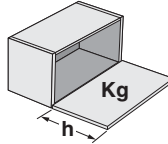
Number of stays chart - L 164 mm



Rev. 02

h	Door weight (Kg)					
	1	2	3	4	5	6
200 - 224	1 x K12		2 x K12			
225 - 274	1 x K12		2 x K12			3 x K12
275 - 300	1 x K12		2 x K12		3 x K12	

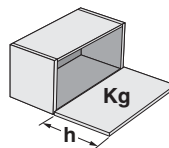
Number of stays chart - L 244 mm



Rev. 02

h	Door weight (Kg)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
290 - 324	1 x K12		2 x K12				3 x K12				4 x K12		
325 - 374	1 x K12		2 x K12				3 x K12				4 x K12		
375 - 424	1 x K12		2 x K12			3 x K12				4 x K12			
425 - 474	1 x K12		2 x K12		3 x K12			4 x K12				-	
475 - 500	1 x K12		2 x K12		3 x K12		4 x K12			-			

Number of stays chart - L 355 mm



Rev. 02

h	Door weight (Kg)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
390 - 424	-		1 x K12			2 x K12					3 x K12		
425 - 474	-		1 x K12			2 x K12					3 x K12		
475 - 524	-		1 x K12			2 x K12					3 x K12		
525 - 574	-		1 x K12			2 x K12			3 x K12				
575 - 600	1 x K12			2 x K12				3 x K12					4 x K12

These are experimental results to be checked by the customer. **In accordance with the actual European regulation, we suggest to use at least two stays for each door.** Our technical department is at your disposal to test further cases out of this chart.

K12 SYSTEM CONFIGURATOR:



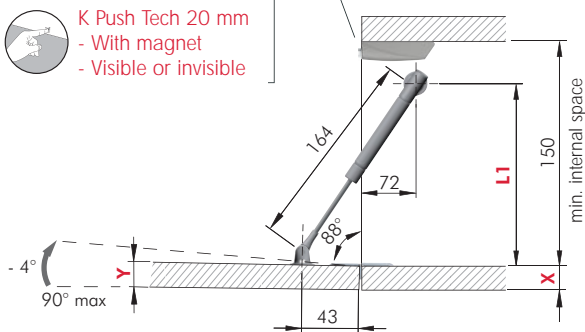
DROP DOWN DRILLING PLANS WITH KIMANA HINGE

L 164 mm

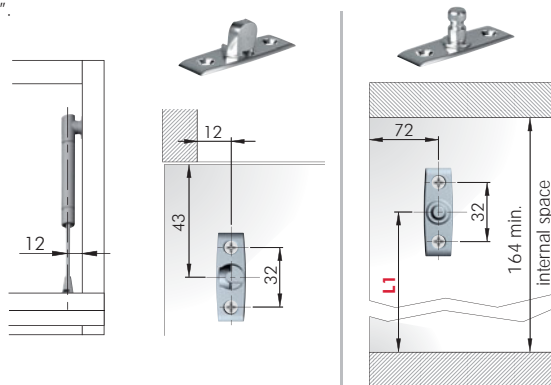
Magnet K Lock visible or invisible

K Push Tech 20 mm
- With magnet
- Visible or invisible

For details refer to section "PUSH CATCHES & MAGNETIC CATCHES".



SCREW FIXING BRACKETS:



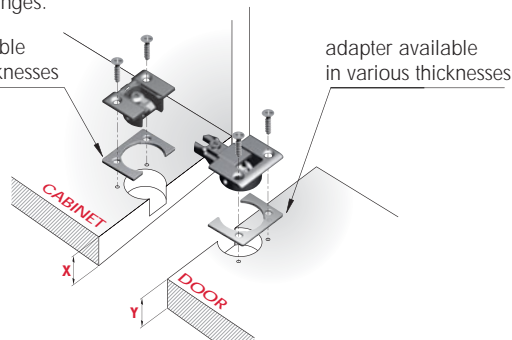
Bracket not available for K12 SYSTEM ADJ

Opening angle adjustment is possible only with K12 SYSTEM ADJ version.

⚠ Overcrossing 90° door opening angle, it negatively effects the Kimana hinges.

Cabinet (X)	Door (Y)	L1
16 mm	4 mm	129
16 mm	4 mm	131
18 mm	2 mm	129
19 mm	-	125
19 mm	-	127
20 mm	-	127

adapter available in various thicknesses



adapter available in various thicknesses

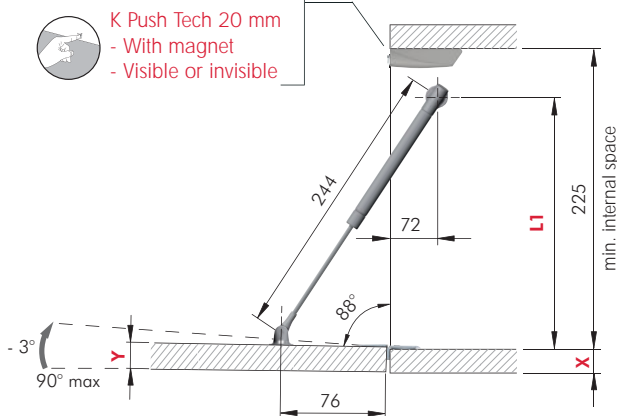
For Kimana and adapter details refer to section "HINGES".

L 244 mm

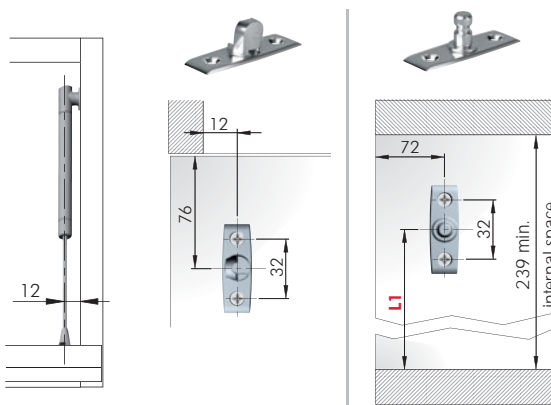
Magnet K Lock visible or invisible

K Push Tech 20 mm
- With magnet
- Visible or invisible

For details refer to section "PUSH CATCHES & MAGNETIC CATCHES".



SCREW FIXING BRACKETS:



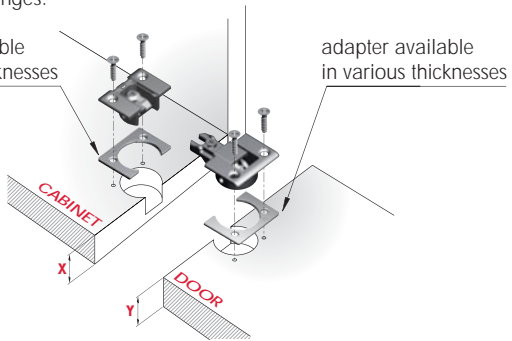
Bracket not available for K12 SYSTEM ADJ

Opening angle adjustment is possible only with K12 SYSTEM ADJ version.

⚠ Overcrossing 90° door opening angle, it negatively effects the Kimana hinges.

Cabinet (X)	Door (Y)	L1
16 mm	4 mm	208
16 mm	4 mm	210
18 mm	2 mm	208
19 mm	-	204
19 mm	-	206
20 mm	-	206

adapter available in various thicknesses



adapter available in various thicknesses

For Kimana and adapter details refer to section "HINGES".



L 355 mm

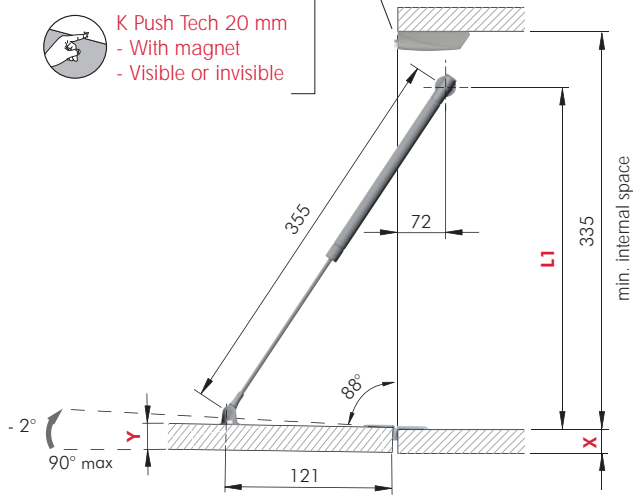


Magnet K Lock
visible or invisible

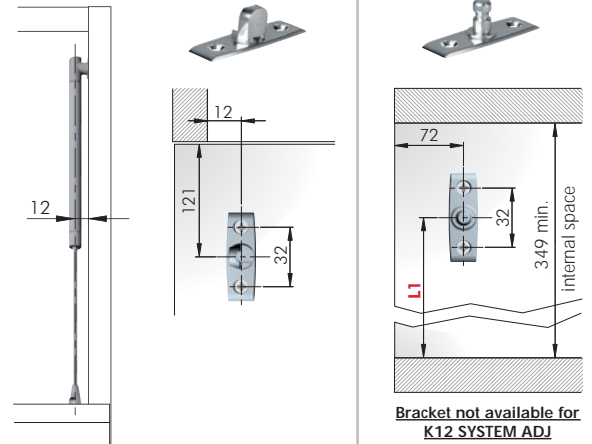


K Push Tech 20 mm
- With magnet
- Visible or invisible

For details refer to section
"PUSH CATCHES & MAGNETIC CATCHES".



SCREW FIXING BRACKETS:

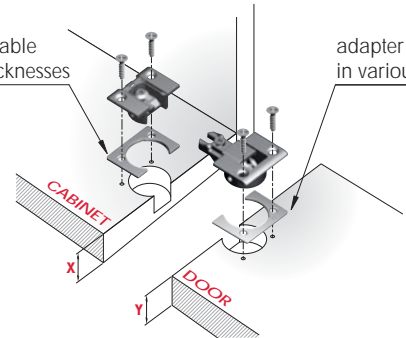


Opening angle adjustment is possible only with K12 SYSTEM ADJ version.

⚠ Overcrossing 90° door opening angle, it negatively effects the Kimana hinges.

Cabinet (X)		Door (Y)		L1
16 mm	4 mm	16 mm	2 mm	314
16 mm	4 mm	19 mm	-	316
18 mm	2 mm	18 mm	-	314
19 mm	-	16 mm	2 mm	310
19 mm	-	19 mm	-	312
20 mm	-	20 mm	-	312

adapter available
in various thicknesses

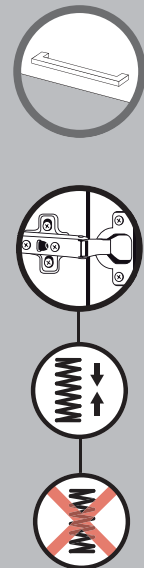


adapter available
in various thicknesses

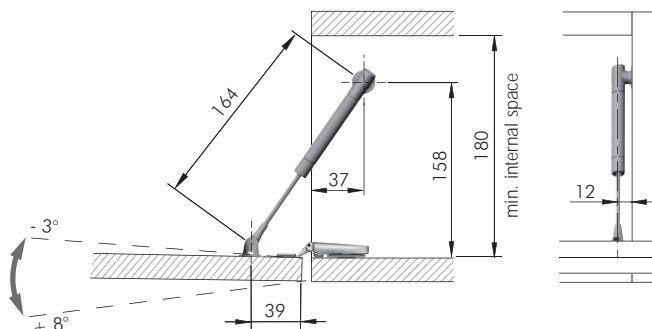
For Kimana and adapter details refer to section "HINGES".

DROP DOWN DRILLING PLANS WITH STANDARD HINGES OPENING WITH HANDLE

K12 SYSTEM CONFIGURATOR:

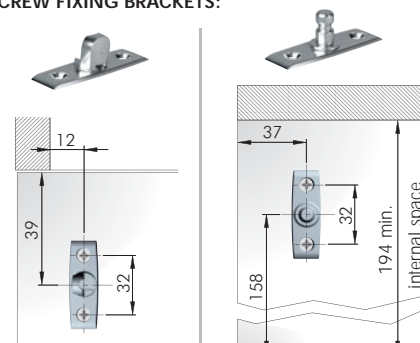


L 164 mm



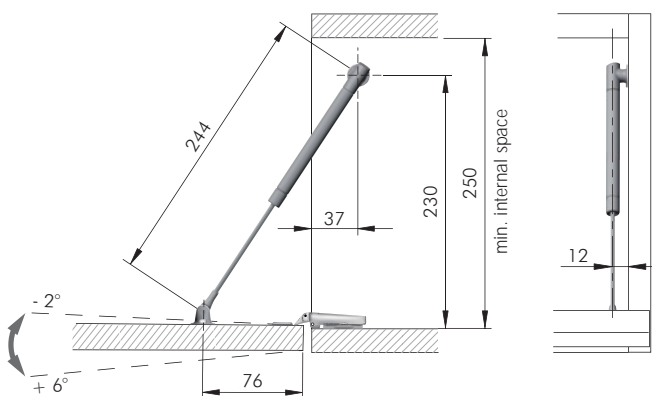
Opening angle adjustment is possible only with K12 SYSTEM ADJ version.

SCREW FIXING BRACKETS:



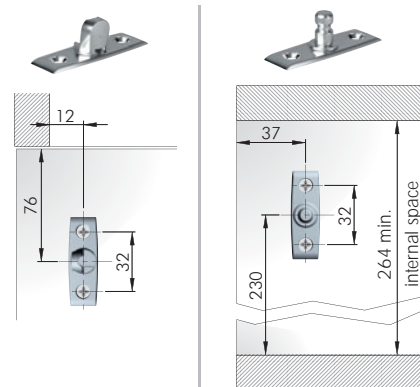
Bracket not available for K12 SYSTEM ADJ

L 244 mm



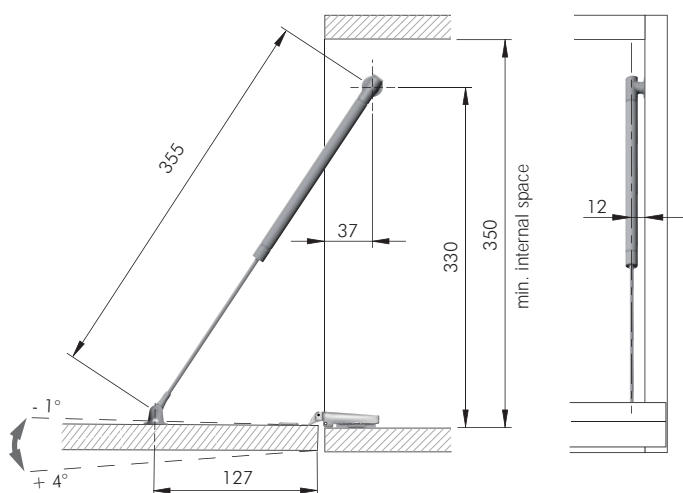
Opening angle adjustment is possible only with K12 SYSTEM ADJ version.

SCREW FIXING BRACKETS:



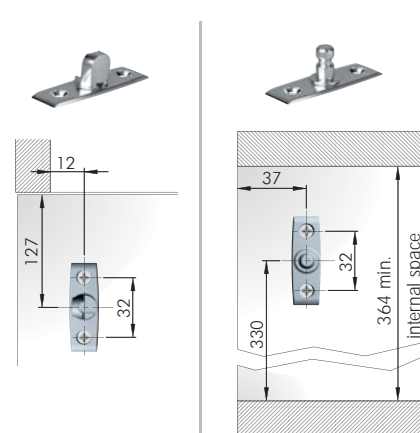
Bracket not available for K12 SYSTEM ADJ

L 355 mm



Opening angle adjustment is possible only with K12 SYSTEM ADJ version.

SCREW FIXING BRACKETS:



Bracket not available for K12 SYSTEM ADJ

The dimensions of the drilling plans refer to carcasses which use **standard sprung hinges** and mounting plates 0 mm. Please note that the opening angle varies with respect to the hinge brand and adjustment carried out.

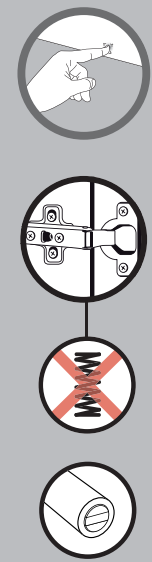


Please note that in case of use of **unsprung hinges**, magnet **K Lock** is required. For details refer to section "PUSH CATCHES & MAGNETIC CATCHES".



DROP DOWN DRILLING PLANS WITH STANDARD HINGES PUSH TO OPEN

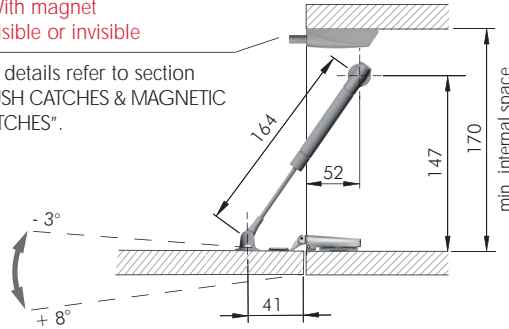
K12 SYSTEM CONFIGURATOR:



L 164 mm

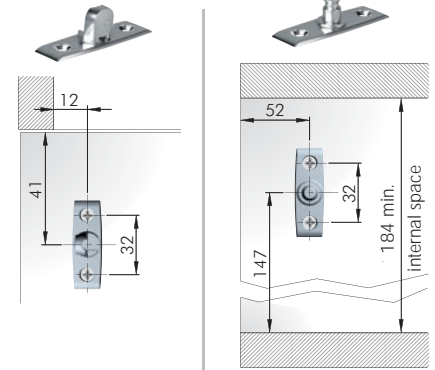
K Push Tech 14 mm
- With magnet
- Visible or invisible

For details refer to section "PUSH CATCHES & MAGNETIC CATCHES".



Opening angle adjustment is possible only with K12 SYSTEM ADJ version.

SCREW FIXING BRACKETS:

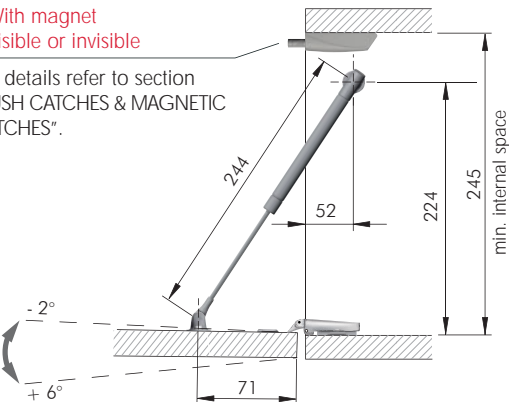


Bracket not available for K12 SYSTEM ADJ

L 244 mm

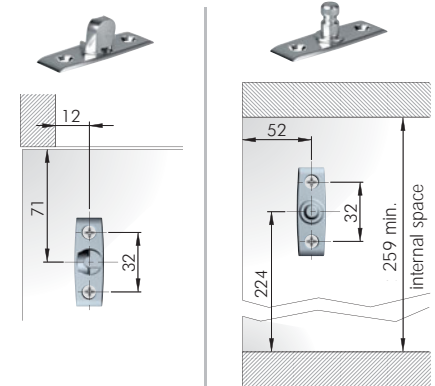
K Push Tech 14 mm
- With magnet
- Visible or invisible

For details refer to section "PUSH CATCHES & MAGNETIC CATCHES".



Opening angle adjustment is possible only with K12 SYSTEM ADJ version.

SCREW FIXING BRACKETS:

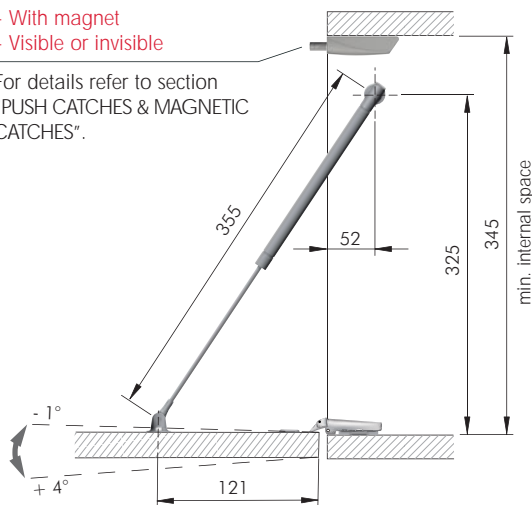


Bracket not available for K12 SYSTEM ADJ

L 355 mm

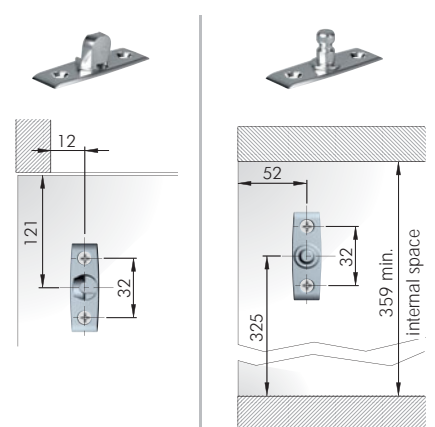
K Push Tech 14 mm
- With magnet
- Visible or invisible

For details refer to section "PUSH CATCHES & MAGNETIC CATCHES".



Opening angle adjustment is possible only with K12 SYSTEM ADJ version.

SCREW FIXING BRACKETS:



Bracket not available for K12 SYSTEM ADJ

The dimensions of the drilling plan refer to carcasses which use **standard unsprung hinges** and mounting plates 0 mm. Please note that the opening angle varies with respect to the hinge brand and adjustment carried out.



Please note that utilization with **standard sprung hinges** and **K Push Tech with buffer** is also possible. In such case, after the door is initially released by K Push Tech, a manual opening approx. 7cm is required (in order to win the spring resistance). Consequently, the door will automatically open to the fullest. For details refer to section "PUSH CATCHES & MAGNETIC CATCHES".

DROP DOWN DRILLING PLANS WITH FLAP HINGE

K12 SYSTEM CONFIGURATOR:

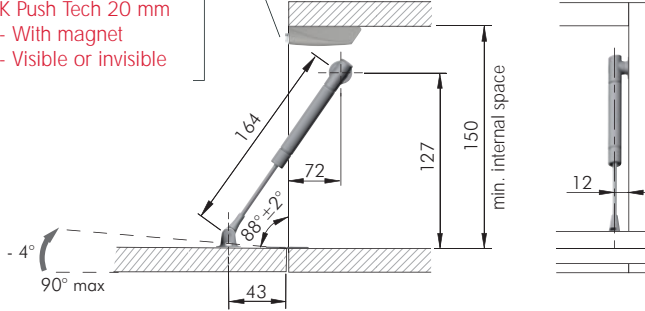


L 164 mm

Magnet K Lock visible or invisible

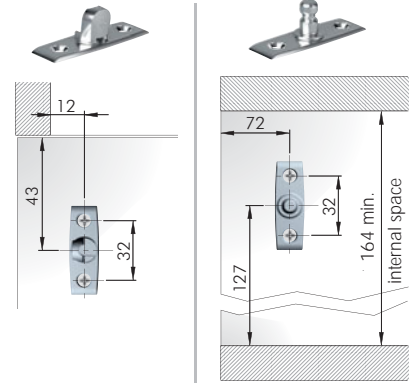
K Push Tech 20 mm - With magnet - Visible or invisible

For details refer to section "PUSH CATCHES & MAGNETIC CATCHES".



Opening angle adjustment is possible only with K12 SYSTEM ADJ version.
 ⚠ Overcrossing 90° door opening angle, it negatively effects the flap hinges.

SCREW FIXING BRACKETS:



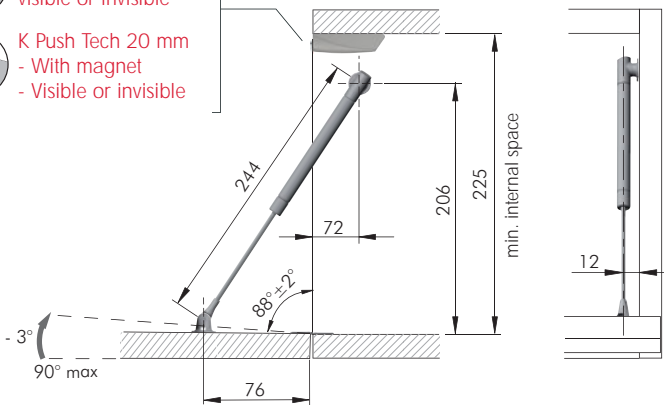
Bracket not available for K12 SYSTEM ADJ

L 244 mm

Magnet K Lock visible or invisible

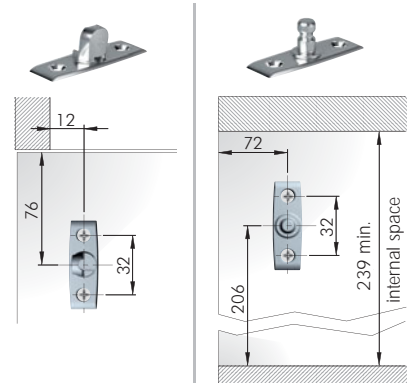
K Push Tech 20 mm - With magnet - Visible or invisible

For details refer to section "PUSH CATCHES & MAGNETIC CATCHES".



Opening angle adjustment is possible only with K12 SYSTEM ADJ version.
 ⚠ Overcrossing 90° door opening angle, it negatively effects the flap hinges.

SCREW FIXING BRACKETS:



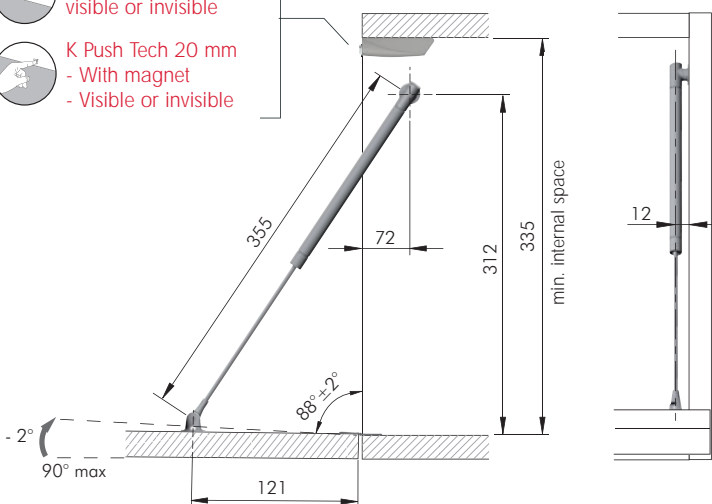
Bracket not available for K12 SYSTEM ADJ

L 355 mm

Magnet K Lock visible or invisible

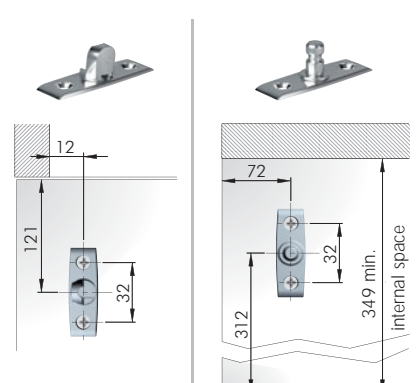
K Push Tech 20 mm - With magnet - Visible or invisible

For details refer to section "PUSH CATCHES & MAGNETIC CATCHES".



Opening angle adjustment is possible only with K12 SYSTEM ADJ version.
 ⚠ Overcrossing 90° door opening angle, it negatively effects the flap hinges.

SCREW FIXING BRACKETS:

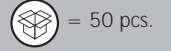
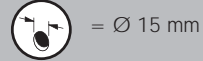
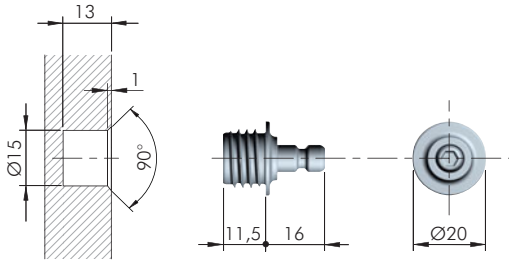


Bracket not available for K12 SYSTEM ADJ



DRILLING PLANS FOR BRACKETS

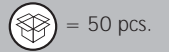
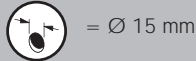
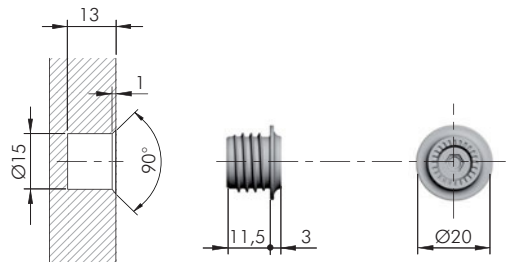
SIDE BRACKET Ø15 - K12 SYSTEM



48040120YA

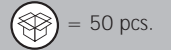
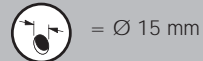
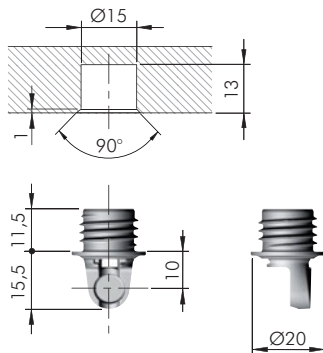
48040120HX

SIDE BRACKET Ø15 - K12 SYSTEM ADJ



48240120YA

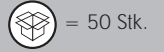
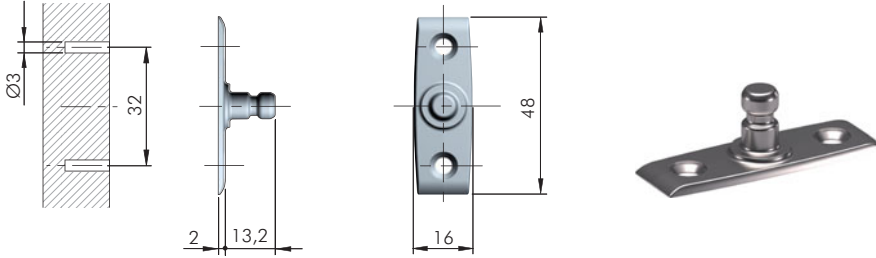
DOOR BRACKET Ø15



48040160YA

48040160HX

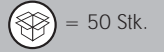
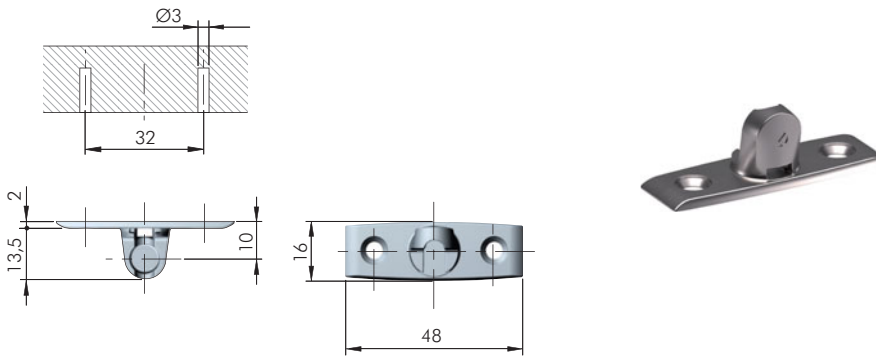
SCREW FIXING SIDE BRACKET (Not for K12 SYSTEM ADJ)



48080120YA

48080120HX

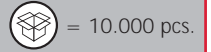
SCREW FIXING DOOR BRACKET



48080100YA

48080100HX

SCREW FIXING BRACKETS ACCESSORY



60101390YA

60101390HX



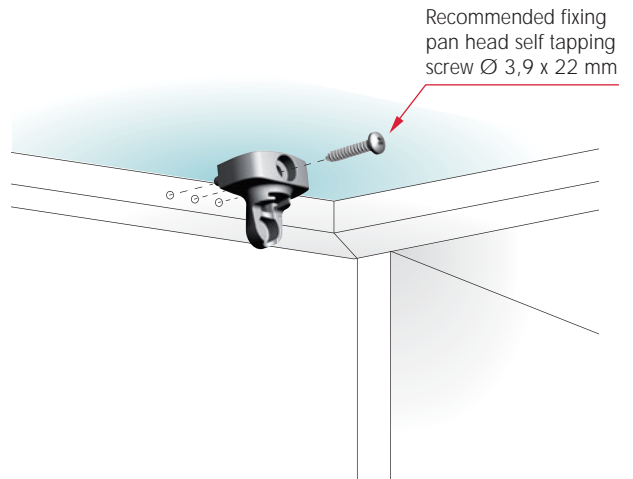
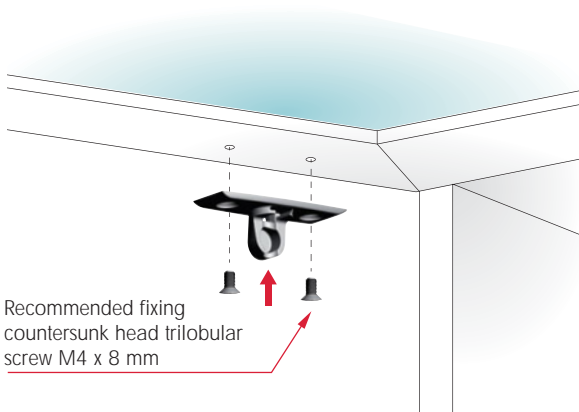
K12 SYSTEM ADAPTERS FOR ALUMINIUM FRAME DOOR



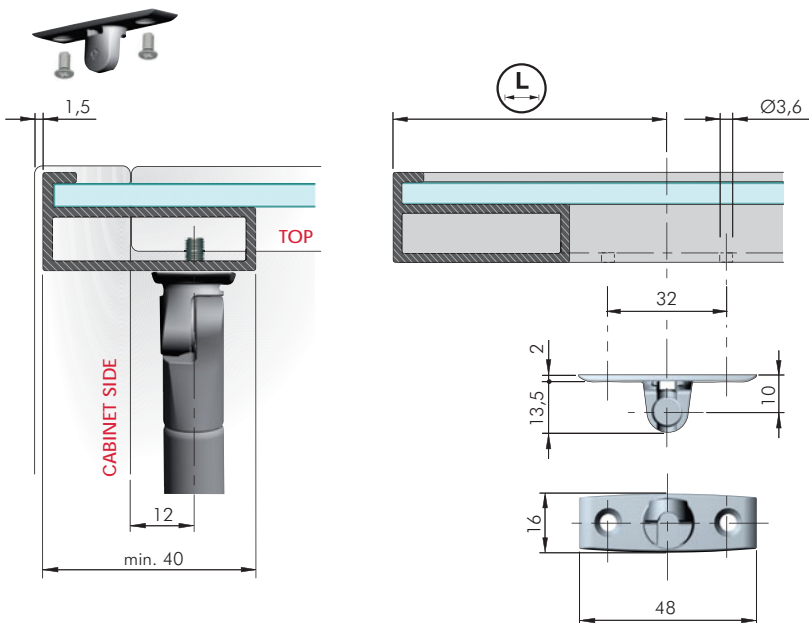
INSTALLATION ON WIDER ALUMINIUM FRAME DOOR



INSTALLATION ON NARROW ALUMINIUM FRAME DOOR

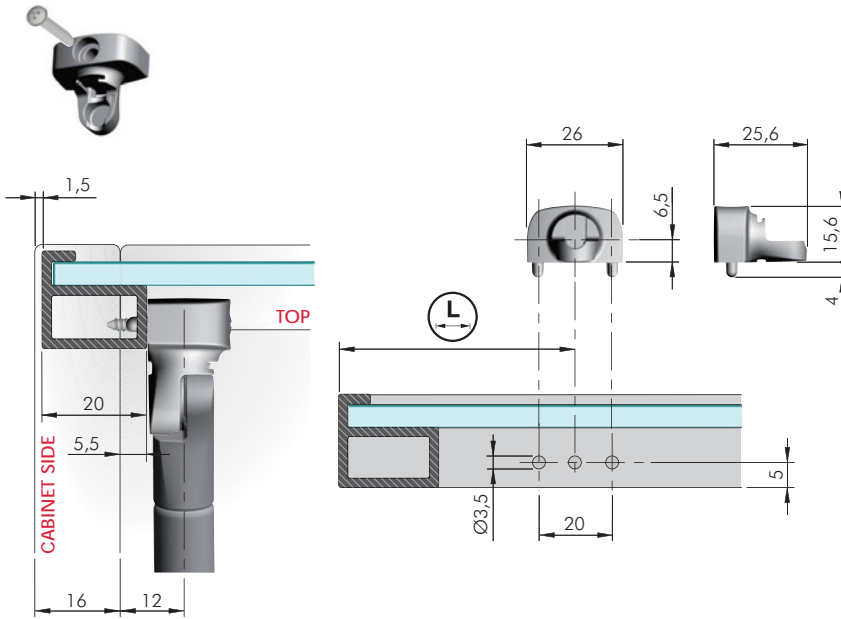


WIDER ALUMINIUM FRAME DOOR (40 mm min.)



	= Ø 3,6 mm		= 50 pcs.
48080100YA			

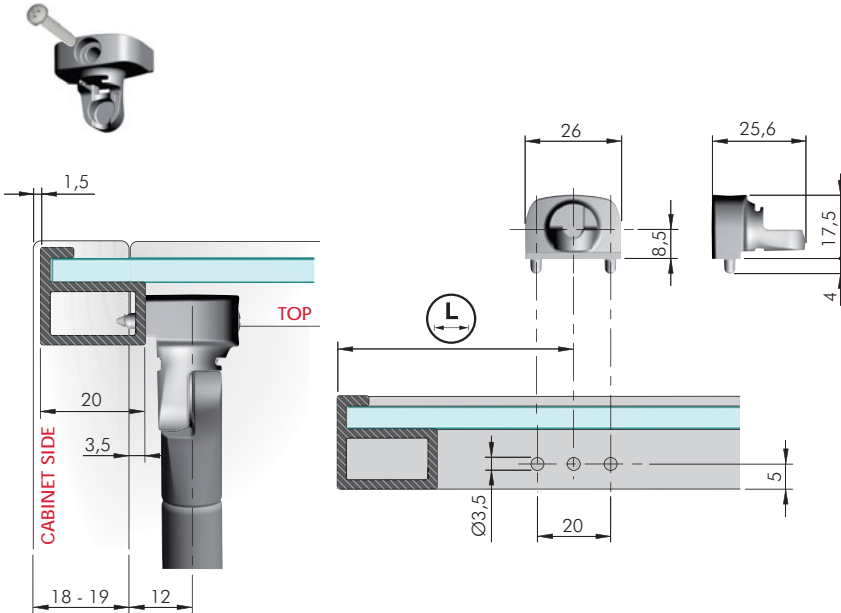
NARROW ALUMINIUM FRAME DOOR (20 mm) WITH SIDE PANEL THICKNESS 16 mm



= Ø 3,5 mm
 = on request
 123

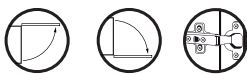
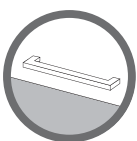
48080140YA

NARROW ALUMINIUM FRAME DOOR (20 mm) WITH SIDE PANEL THICKNESS 18 mm



= Ø 3,5 mm
 = on request
 123

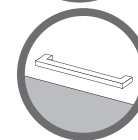
48080150YA



K12 System & K12 System ADJ	
164	39
244	76
355	127



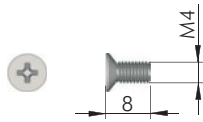
K12 System & K12 System ADJ	
164	41
244	71
355	121



K12 System & K12 System ADJ	
164	43
244	76
355	121

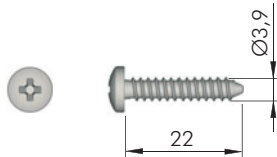


ALUMINIUM ADAPTERS FIXING ACCESSORIES



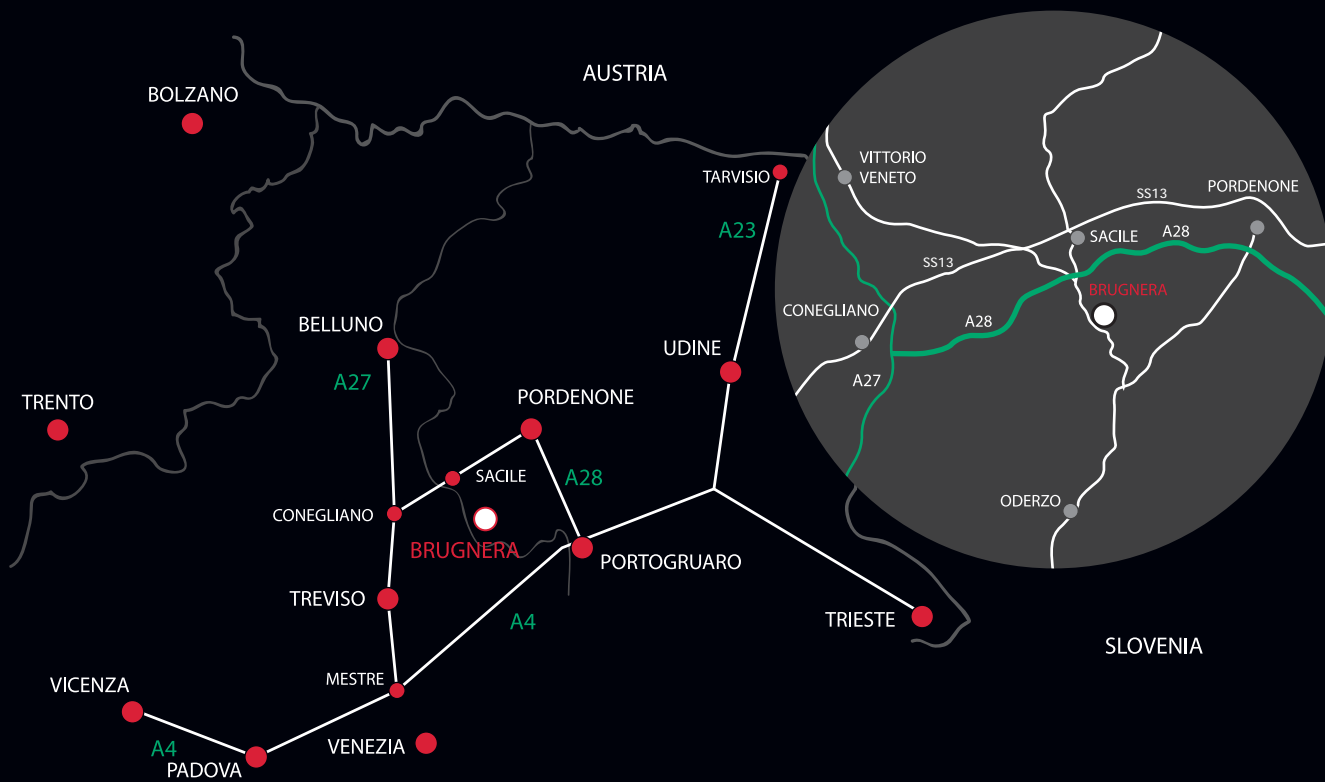
= PZ2
 = on request

123
42906010YA



= PZ2
 = on request

123
60203390YA



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