



akpen[®]

**UPVC & ALUMINIUM
WINDOW & DOOR
ACCESSORIES**



"We will always be part of your house"

About Us

Our company started its activities with a small workshop in 1988. Nowadays, our company exports to 40 countries employing 370 people and manufacturing products in 26.000 square meters modern and high technology contained closed area factory located in Istanbul Hadimkoy.

Company Akpen, which has adopted the principle of Sustainable Quality Approach and Maximum Customer Satisfaction, has continued its investments in the field of automation and production technologies since 2010 and has become a brand frequently mentioned in the sector with its environmentally friendly high-tech production techniques and developed products.

With more than 30 years of manufacturing experience and experienced staff, it has achieved its goals. Akpen continues to lead his new targets without slowing down and is moving forward with sure steps towards becoming a worldwide known brand.

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Product Information

1. Product information and specified application

Hinges as covered by this definition is one hand-operation side hung hardware for windows and balcony doors in building construction. By turning one handle it enables window and balcony door sashes to open into side hung position due to a hinge mechanism.

Side hung hinges hardware is used on vertically installed windows and balcony doors made of timber, pvc, aluminium or steel and their corresponding material combinations. Conventional side hung hinges hardware as covered by this definition, locks window and balcony door sashes and enables various ventilating positions. When closing, the gasket counter force must be overcome as a rule. Differing applications do not correspond to its specified application.

Burglar-resistant windows and balcony doors, windows and balcony doors for damp rooms and those for use in environments with aggressive, corrosive air content, require hardware adapted for the respective application and individually agreed upon performance features.

2. Misuse

- When obstacles are inserted in the opening vicinity between frame and sash, thus preventing its proper specified use.
- When window and balcony door sashes are pressed adversatively or uncontrolled (for example by the wind) up against the window reveals, so that the hardware, the frame material or other individual window or balcony door sash components are damaged or destroyed and/or if consequential damage can arise.
- When additional loads put on windows or balcony door sashes (for example if children swing on the window or balcony door sash).
- When while closing the window and balcony door sashes, someone reaches into the rebate between the sash and frame (injury hazard).

3. Liability

The respective entire hardware set may only consist of hardware components from AKPEN. In the case of inappropriately assembled hardware, and/or in case of non-original accessory components and/or non factory-approved components, no liability is accepted.

4. Product Information

The main goal of the products which are produced for all sorts of PVC and timber windows, is to offer the customer the required comfort. Therefore in the product range, there are alternatives suitable to the customer's demands and window types.

The security levels of the products, which are produced on the basis of basic security systems, can be easily changed. In some cases the change of the locking plate is sufficient to alter the security level. In other instances, the level of security is increased by changing the products. For security reasons, it is beneficial that the windows and balcony doors are produced according to specifications.

For preventing the sash from closing because of wind power when in tilt position, a snapper is mounted on the products. The wrong operation safety device or the sash positioner, which prevent the sash from being wrongly operated, can also be mounted to the product. Furthermore the resistance capacity is enhanced and the products have been developed so that the mechanisms work smoothly.

All mechanisms used at windows and balcony doors are produced in silver colour. For finishing, the nature-friendly plating technology is used. By this alkali based finishing technique, the corrosion resistance is increased due to powder coating.

5. Product Performance

The AKPEN hardware can be used on all sashes up to 160 kg, as a standard. When sash weight exceeds 100 kg it is advised that AKPEN is consulted and additional hardware is supplied.

6. Maintenance

Security relevant hardware components are to be examined at least once a year for stability and wear and tear. Depending on the requirements, the fixing screws are to be tightened and/or parts to be replaced. In addition to this, the following maintenance work is to be carried out annually:

- All movable parts and locking points of the side hung and tilt-turn hardware have to be controlled and greased.
- Only cleaning and maintenance agents, which do not damage the corrosion protection of the hardware components, are to be used.

The hardware adjustments -particularly in the vicinity of the corner pivot rest and the scissors - as well as replacing parts and the unhinging and hinging of the active sash are to be carried out by a specialist company.

Surface Protection

AKPEN window and door hinges are painted in a fully automated powder coating facility using painting raw materials specially produced by the world's leading paint manufacturers for both aesthetic appearance and high corrosion resistance of the surfaces.

The surface quality of the hinge products is controlled according to the EN 1670 European standard. In this way, AKPEN handle products are ideal for coastal areas and frequently used places such as hotels and business centers.

Cleaning:

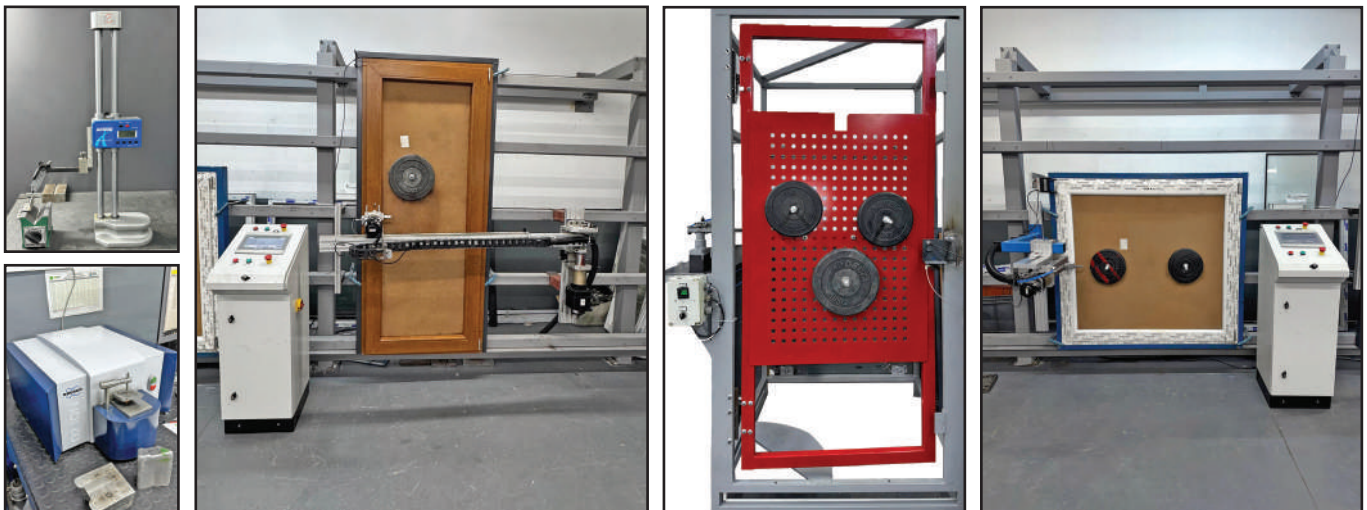
Contamination can be removed with a soft cloth and water. It is not recommended to use sharp cleaning agents. In addition, the handles do not require special care.



Durability

All AKPEN window and door handles are manufactured and tested according to European standards EN 13126-3. This provides long life durability for users. The capacity of hardware has been ensured by certifications according to the regulation EN 13126/3 tested at an European level.

Every step of design, manufacturing and logistic processes are systematically controlled according to AKPEN high level quality requirements.



Article Number Structure

XX.XXXXXX.XX.XX
 1 2 3 4 5

1- BRAND NUMBER (XX.XXXXXX.XX.XX)

00 : Without brand

01 : "AKPEN"

2- PRODUCT GROUP NUMBER (XX.XXXXXX.XX.XX)

AAA : Aluminum British handles

AAK : Aluminum bent handle

ACT : Glass wedge

AKK : Alu door handle

AKM : Adjustable door hinge

AKW : Screw

ALN : Allen key

APK : Alu window handle

ASG : Flyscreen equipments

AVK : Handle for parallel slide

BSI : Simple sliding gear

CNT : Scissors for gasket

CTL : Product catalogue

CTP : Pliers for glass wedge

DBL : Steel anchor

EMN : Safety device

FTL : Weather strip for sliding

G57 : H Mullion cover

HHD : New door handle

HHH : Aluminum and zink scraps

HOK : Mullion profile

INC : Plastic window handle (without spindle)

IZK : Striker zamak

IZO : Insulation materials

KIL : Mortise lock

KKI : Multipoint door lock

KLT : Door lock

KRJ : Sash grid elements

MIN : Mini locks

MNA : Alu hinge

MNC : PVC Cemom hinge

MNF : Vent

MNH : Alu speedy hinge

MNP : Plastic covered steel hinge

MNS : Steel hinge

MSP : Steel easy hinge

PLS : Plastic hinge

PNL : Sandwich panel

PRF : Profile

RTK : Furniture marker

SBL : Jig

SKO : Sliding sash profile

SOB : Mullion connector steel

SRM : Sliding sash with sill

STD : Product show booth

SUR : Insulation wedge for sliding system

TAI : Side hung gear

TCM : Trading products

TED : Ventilation handle

TFL : PTFE material

THI : Thiokol

TKK : Group products

TKM : Group

TPS : Plastic window handle (with spindle)

TSA : Alu sliding parts

TSM : Patallel slide manual systems

TSR : Parallel slide systems

TSS : Tilt and slide systems

TSY : Parallel slide semi-automatic

TTS : Tilt and turn systems

VVV : Tilt system

ZOB : Mullion connector, zamac

3- PRODUCT NUMBER (XX.XXXXXX.XX.XX)

a) TTS (Tilt and turn systems)

* TTS100 - TTS199 : Gear

* TTS200 - TTS299 : Stay arm

* TTS300 - TTS399 : Middle lock

* TTS400 - TTS499 : Diverse

* TTS500 - TTS599 : Double sash

* TTS600 - TTS699 : Hinge

* TTS700 - TTS799 : Shoot bolts

* TTS800 - TTS899 : Strikers

b) BSI - TAI (Sliding and side hung gears)

* BSI202 : 15 mm sliding gear, zamak gearbox

* BSI203 : 7,5 mm eko sliding gear, zamak gearbox

* BSI212 : 15 mm lockable sliding gear, zamak gearbox

* BSI222 : 15 mm sliding gear, steel gearbox

* BSI302 : 15 mm sliding gear, zamak gearbox, zamak pin

* BSI303 : 7,5 mm sliding gear, eko zamak gearbox, zamak pin

* TAI100 - TAI199 : 7,5 mm side hung gear

* TAI200 - TAI299 : 15 mm side hung gear

* TAI300 - TAI399 : 20 mm side hung gear

* TAI400 - TAI499 : 22 mm side hung gear

* TAI500 - TAI599 : 25 mm side hung gear

* TAI600 - TAI699 : 40 mm side hung gear

* TAI700 - TAI799 : 30 mm side hung gear

4- PRODUCT SIZE PROPERTIES (XX.XXXXXX.XX.XX)

a) Door handle products

* OL : Left

* OR : Right

* 00 : D 115 mm

* 01 : D 130 mm

* 02 : D 140 mm

* 03 : D 130 mm + 2 parts in different colours

* 10 : KV + D 115 mm

* 11 : KV + D 130 mm

* 12 : KV + 140 mm

V : Screw

KV : Cuttable screw

D : Spindle length

b) Window handle types

* 00 : D 35 mm

* 01 : D 38 mm

* 02 : D 45 mm

* 11 : D 38 (8 stops)

* 12 : D 45 (8 stops)

Article Number Structure

c) 80 kg - 120 kg Adjustable door hinges

* 00 : Frame part size 14 - 18 mm

KS:Z = Frame Zamak

KS:A = Frame Aluminum

KN:Z = Sash Zamak

KN:A = Sash Aluminum

d) 160 kg Adjustable door hinges

* 00 : Frame part size 15 - 19 mm * 01 : Frame part size 17 - 21 mm * 02 : Frame part size 19 - 23 mm * 03 : Frame part size 23 - 27 mm

e) Hinge group article numbers

* 01 : Eko Hinge

* 03 : Heavy Hinge

* 05 : Egepen Max. Hinge

* 07 : Hinges with combinations

* 02 : AK Hinge

* 04 : Egepen Hinge

* 06 : Ado Marmara Hinge

f) Side hung and sliding gear sizes

* 01 : 300 mm (M-)

* 06 : 1200 mm (M-)

* 02 : 400 mm (M-)

* 07 : 1400 mm (M-)

* 03 : 600 mm (M-)

* 08 : 1600 mm (M+)

* 04 : 800 mm (M-)

* 09 : 1800 mm (M+)

* 05 : 1000 mm (M-)

* 10 : 2000 mm (M+)

(M-) : Without centering pin

(M+) : With centering pin

g) Lockable gears

* 00 : With standard locking pin

* 01 : With security locking pin

h) Mortise locks

* 00 : Standard lock

* 01 : Standard lock + locking plate

* ZZ : Lock with zamak WC cylinder

i) Tilt and turn parts

* 00 : Without locking pin

* 01 : With standard locking pin

* 02 : With security locking pin

j) Profile fitting groove positions

* 01 : 9 mm

* 02 : 13 mm

* 04 : 14 mm

k) Rebate Hinge groove positions and directions

* L1 : Left 13 mm

* L4 : Left 14 mm

* R1 : Right 13 mm

* R4 : Right 14 mm

* L2 : Left 9 mm

* R2 : Right 9 mm

l) Shoot bolt striker types

* 01 : Adjustable shoot bolt striker (rounded)

* 06 : Zamak shoot bolt striker, 9 mm

* 02 : Adjustable shoot bolt striker (cornered)

* 07 : Zamak shoot bolt striker 13 mm

* 03 : Adjustable shoot bolt striker (rounded) with anchorage

* 08 : Double sash thin striker

* 04 : Adjustable shoot bolt striker (cornered) with anchorage

* 09 : Security striker

* 05 : Steel shoot bolt striker

* 10 : Top striker for long shoot bolt with lever

* 11 : Bottom striker for long shoot bolt with lever

m) Tilt locking plate types

* 11 : Tilt locking plate vertical, 9 mm

* 21 : Tilt locking plate horizontal, 9 mm

* 12 : Tilt locking plate vertical, 13 mm

* 22 : Tilt locking plate horizontal, 13 mm

* 13 : Tilt locking plate vertical, 10 mm

* 23 : Tilt locking plate horizontal, 10 mm

* 14 : Tilt locking plate vertical, 14 mm

* 24 : Tilt locking plate horizontal, 14 mm

5 - SURFACE TREATMENT TYPES AND SIZES (XX.XXXXXX.XX.XX)

a) Surface treatments

* 00 : Zink plated surface

* 05 : RAL 8022 Black brown

* 11 : RAL 1001 Beige

* 16 : Anodized bronze

* 01 : RAL 9016 Traffic white

* 06 : RAL 9005 Jet black

* 12 : RAL 1011 Brown beige

* 17 : RAL 1013 Oyster white

* 02 : RAL 8003 Clay brown

* 07 : RAL 1015 Light ivory

* 13 : Anodized gold - 1

* 18 : Gold 4

* 03 : RAL 8017 Chocolate brown

* 08 : RAL 7016 Anthracite grey

* 14 : Anodized gold - 2

* 19 : Anodized bronze 4

* 04 : RAL 8019 Grey brown

* 15 : Anodized grey

* 20 : Anodized bronze 5

b) Tilt and turn gear lengths

* 00 : 250 mm (450 - 550)

* 02 : 900 mm (700 - 1200)

* 04 : 1400 mm (1200 - 1700)

* 06 : 2100 mm (1900 - 2400)

* 01 : 400 mm (550-700)

* 03 : 1100 mm (900 - 1400)

* 05 : 1900 mm (1700 - 2200)

c) Stay arm sizes

* 01 : 450 mm (350 - 600) * 02 : 500 mm (400 - 600) * 03 : 700 mm (600 - 850) * 04 : 950 mm (850 - 1100) * 05 : 1200 mm (1100 - 1350)

d) Middle lock sizes

* 01 : 170 mm

* 02 : 500 mm

* 03 : 700 mm

* 04 : 1000 mm

* 05 : 1500 mm

* 06 : 1700 mm

3D Adjustable Hinges



3D ADJUSTABLE HINGES (WITH SOFT CORNERS)

Load Capacity	160 kg
Knuckle Length	110 mm
Knuckle Diameter	Ø25 mm
Material	Zamac

FINISH COLOURS

All colours shown in page 5

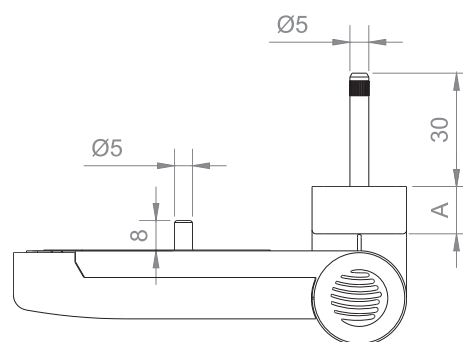
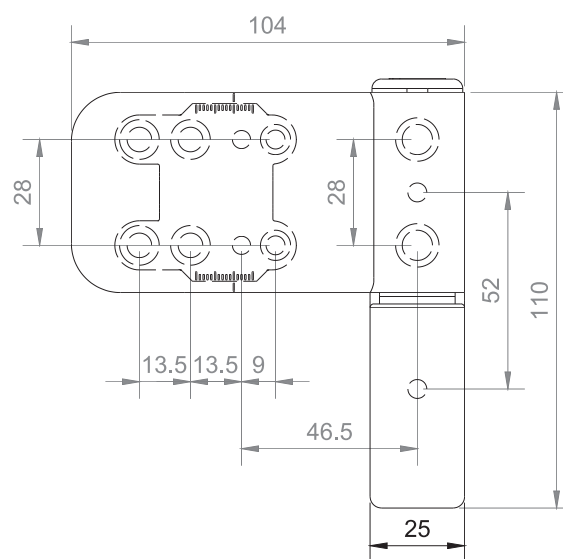
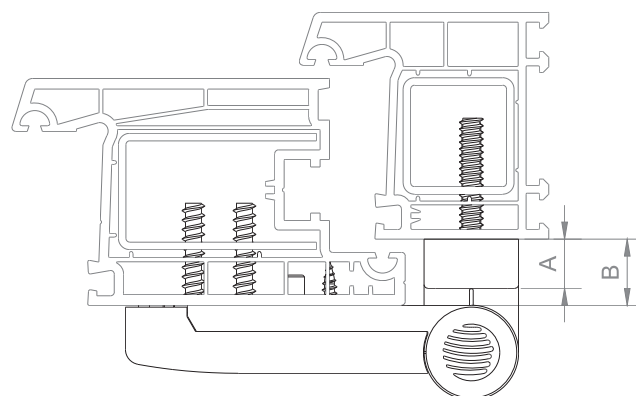
INSTALLATION TOOLS

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See page ?

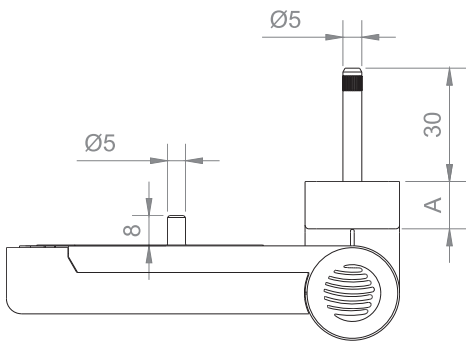
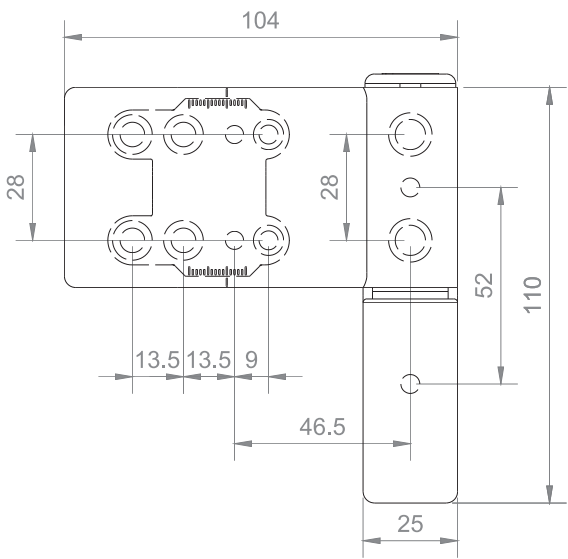
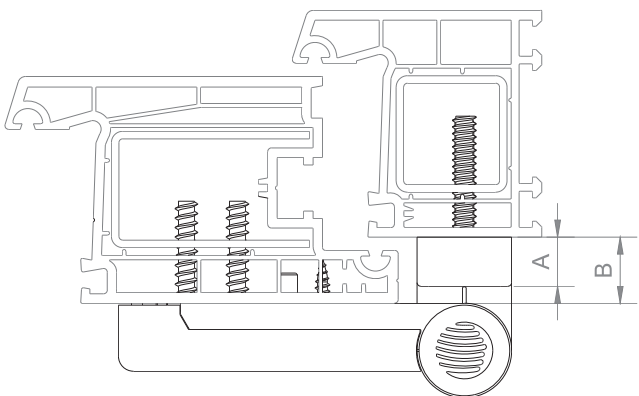
ADJUSTMENTS

Side	-10 / +5 mm
Height	-1 / +3 mm
Compression	±2 mm
See page ?	

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01.AKM302.00.0*	14,5	17 - 21	14
01.AKM303.00.0*	16,5	19 - 23	14
01.AKM304.00.0*	20,5	23 - 27	14



3D Adjustable Hinges



3D ADJUSTABLE HINGES (WITH SOFT CORNERS)

Load Capacity	160 kg
Knuckle Length	110 mm
Knuckle Diameter	Ø25 mm
Material	Zamac

FINISH COLOURS

All colours shown in page 5

INSTALLATION TOOLS

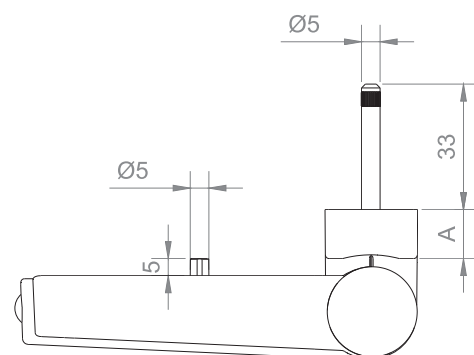
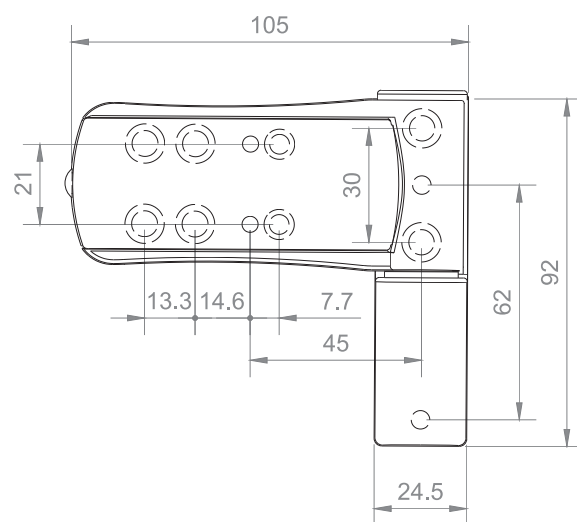
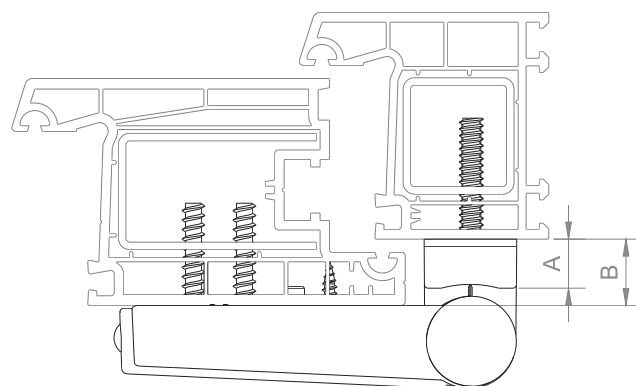
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See page ?

ADJUSTMENTS

Side	-10 / +5 mm
Height	-1 / +3 mm
Compression	±2 mm
See page ?	

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01.AKM402.00.0*	14,5	17 - 21	14
01.AKM403.00.0*	16,5	19 - 23	14
01.AKM404.00.0*	20,5	23 - 27	14

3D Adjustable Hinges



3D ADJUSTABLE HINGES

Load Capacity	120 kg
Knuckle Length	92 mm
Knuckle Diameter	Ø24,5 mm

FINISH COLOURS

All colours shown in page 5

INSTALLATION TOOLS

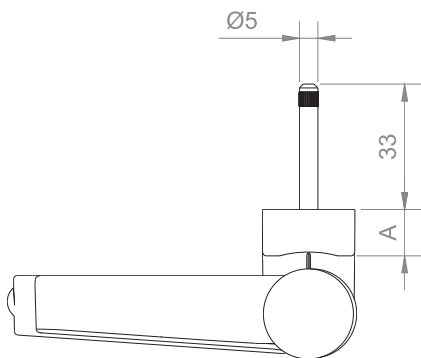
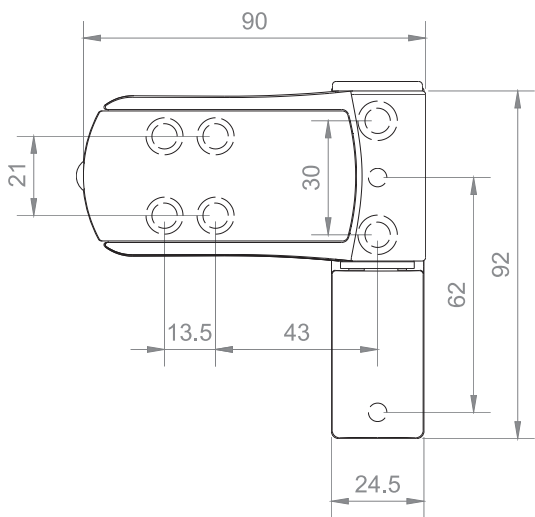
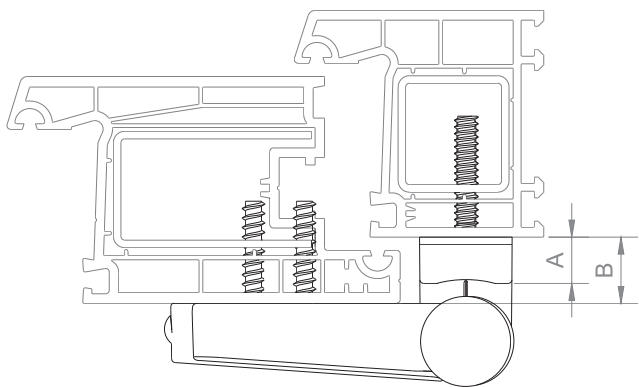
00.SBL008.00.00 : Drilling Jig for 120 kg
See page ?

ADJUSTMENTS

Side	-5 / +10 mm
Height	-1 / +5 mm
Compression	±1 mm
See page ?	

ARTICLE NO	A	B			
01.AKM110.00.0*	10	14 - 20	Zamac	Zamac	24
01.AKM111.00.0*	10	14 - 20	Aluminum	Aluminum	24
01.AKM112.00.0*	10	14 - 20	Aluminum	Zamac	24
00.AKM211.00.0*	10	14 - 20	Aluminum	Aluminum	100 (Single parts)

3D Adjustable Hinges



3D ADJUSTABLE HINGES (JUNIOR)

Load Capacity	80 kg
Knuckle Length	92 mm
Knuckle Diameter	Ø24,5 mm

FINISH COLOURS

All colours shown in page 5

INSTALLATION TOOLS

00.SBL008.00.00 : Drilling Jig for 80 kg
See page ?

ADJUSTMENTS

Side	±5 mm
Height	-1 / +5 mm
Compression	±1 mm
See page ?	

ARTICLE NO	A	B			
01.AKM090.00.0*	10	14 - 20	Zamac	Zamac	24
01.AKM091.00.0*	10	14 - 20	Zamac	Aluminum	24
01.AKM092.00.0*	10	14 - 20	Aluminum	Aluminum	24

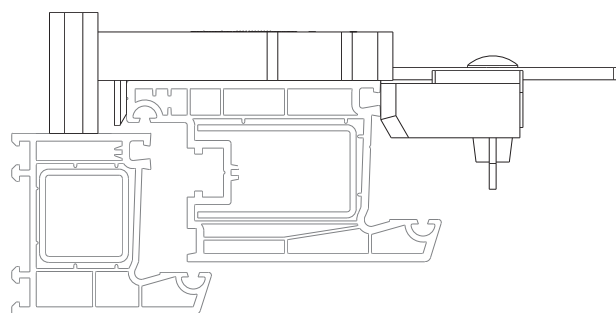
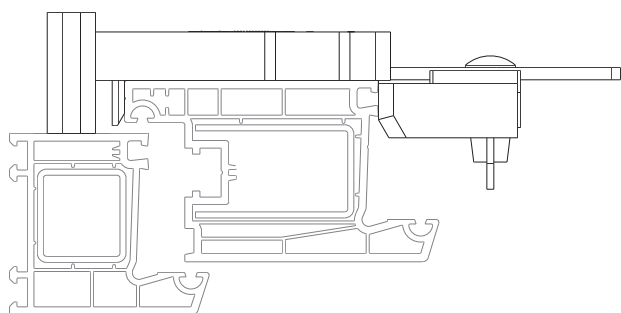
Jigs for 3D Adjustable Hinges



Jig for 160 kg 3D Adjustable Hinges



Jig for 120 and 80 kg 3D Adjustable Hinges
- Adjust the center part according to the hinge type (120 or 80 kg)

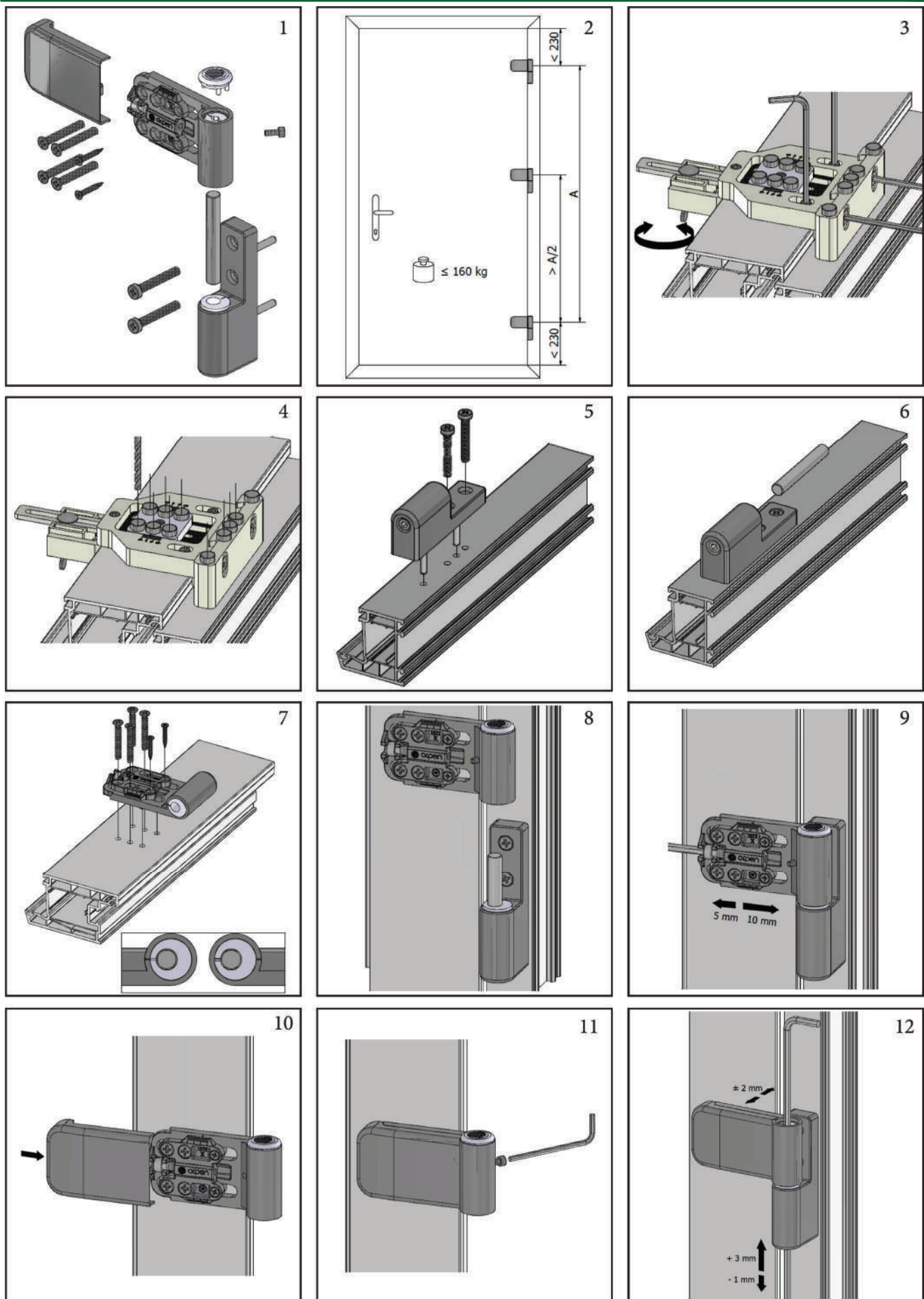


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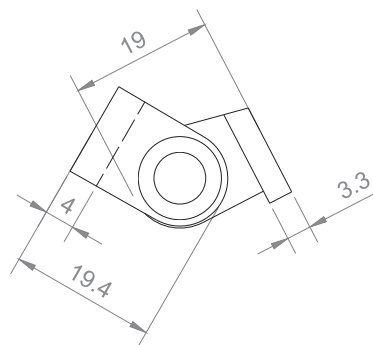
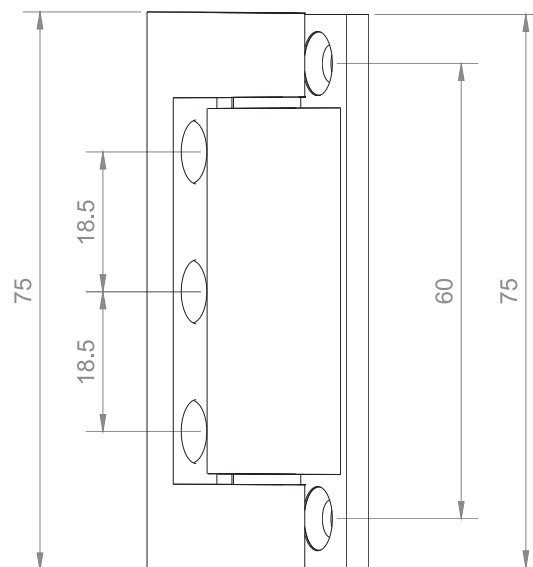
- 5 mm drill
- 4 mm allen key (imbus)
- Assembly instruction

ARTICLE NO	HINGE TYPE
01.SBL007.00.00	160 kg 3D Adjustable Hinges
01.SBL006.00.01	120 and 80 kg 3D Adjustable Hinges

Assembly Instructions

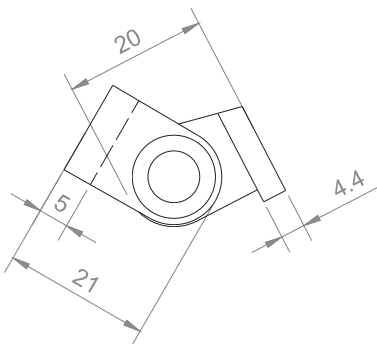
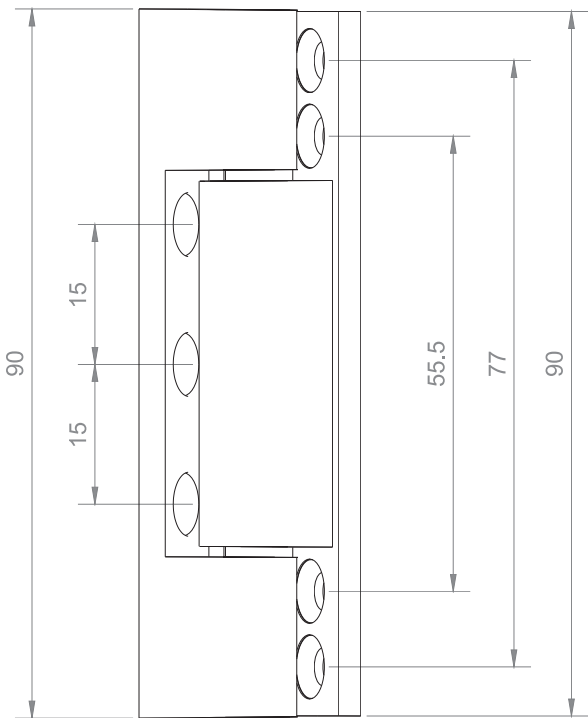


Side-Hung Hinges



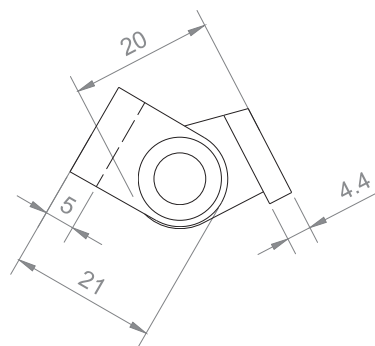
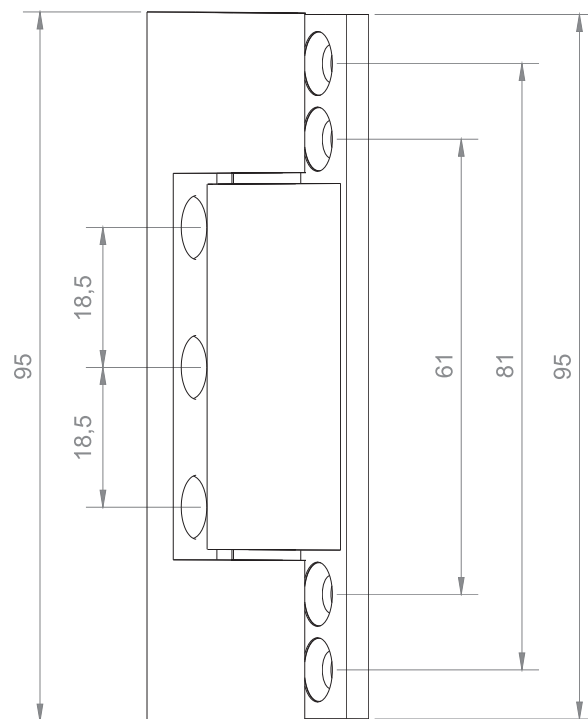
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00.MNZ075.01.0*	75 mm Economic Hinge	Zamac	5	150
00.MNZ075.02.0*	75 mm Hinge	Zamac	5	150
00.MNZ075.06.0*	75 mm Hinge for Adopen Marmara	Zamac	5	150
00.MNA075.00.0*	75 mm Hinge	Aluminum	5	200

Side-Hung Hinges



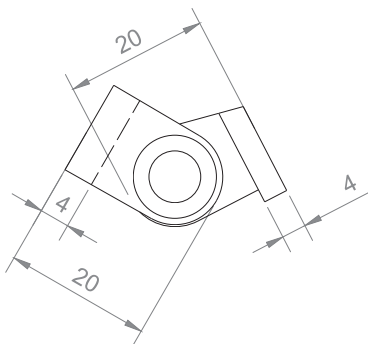
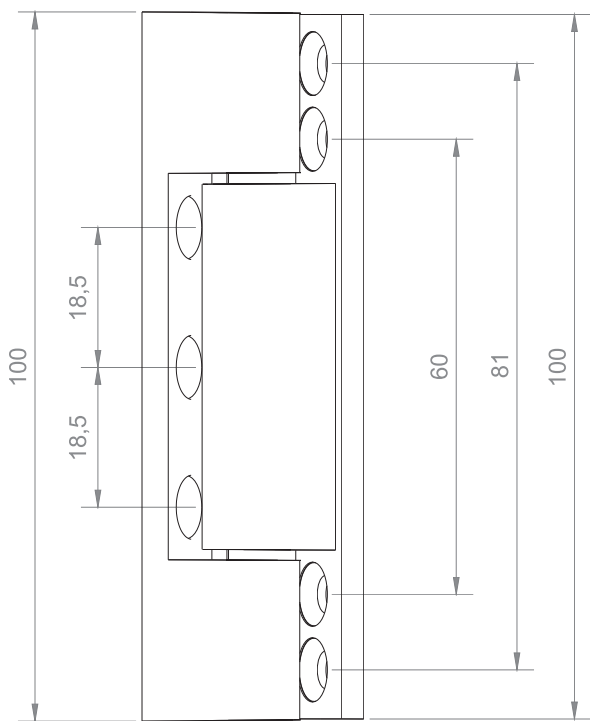
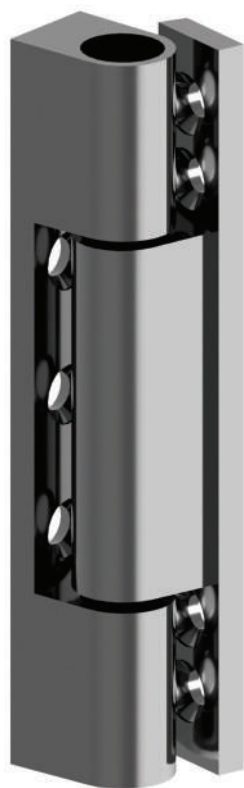
ARTICLE NO	DESCRIPTION	MATERIAL		
00.MNZ090.01.0*	90 mm Hinge for Adopen Marmara	Zamac	7	150

Side-Hung Hinges



ARTICLE NO	DESCRIPTION	MATERIAL		
00.MNA095.00.0*	95 mm Hinge	Aluminum	7	150

Side-Hung Hinges



ARTICLE NO	DESCRIPTION	MATERIAL		
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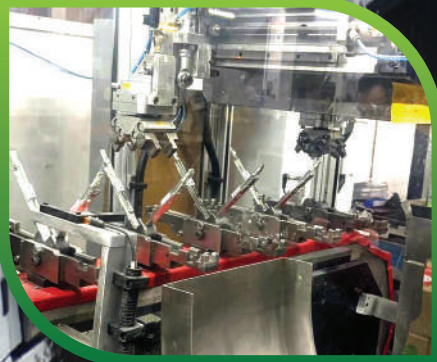
“COOPERATION”



akpen®

UPVC & ALUMINIUM WINDOW & DOOR ACCESSORIES

Product Development



Green Energy



High Technology



LASER MARKING MACHINE
LAZER MARKALAMA MAKİNESİ



Research & Development

"Since 1988"



Renovation

HINGES



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