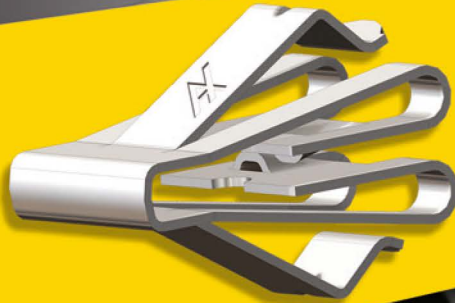


ATAX
ASSEMBLY SYSTEMS



BUTTERFLY[®]
CLIPS

BUTTERFLY[®] CLIPS

■ The constant demand for costs reduction in automotive industry led ATTAX to design and develop Butterfly[®] Clips, a complete range of standardized assembling parts for interior vehicle furniture such door panels, dash boards, glove box,...

With more than 300 million clips over the last 10 years, Butterfly[®] Clips ATTAX were tested and approved by some of the main automotive suppliers. ■

BUTTERFLY[®] CLIPS

BY CLAWING

P 3

BY CLIPPING

P 13

CURRENTLY BEING
DEVELOPED

P 19

AVAILABLE UNDER CAR
MAKERS P/N

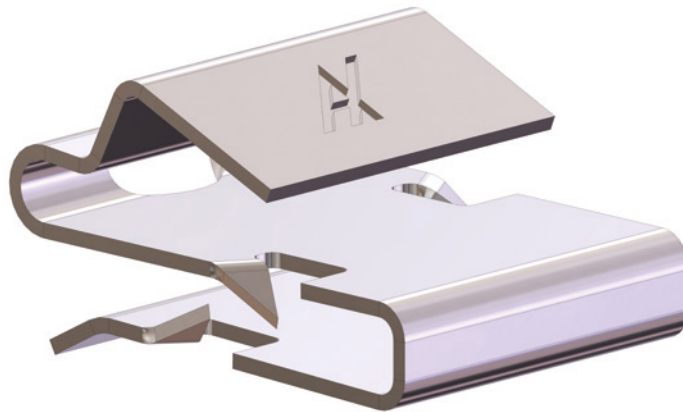
P 20

ABOUT US

P 21

BUTTERFLY[®] CLIPS

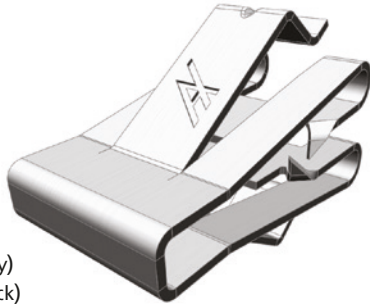
BY CLAWING



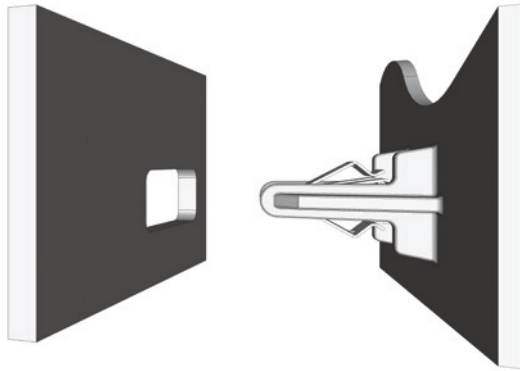
**Clawing Butterfly[®] Clips, an interesting technical solution
avoiding plastic clip holder weakening and allowing plastic injection
moulds costs reductions**

BUTTERFLY® CLIPS

BY CLAWING



- 150 010 251 (grey)
- 150 010 253 (black)
- 150 010 230 (zinc plating)



CHARACTERISTICS

- Installation force ≤ 20 N on a 2 mm thickness slot
- Clipping force from 20 to 35 N
- Unclipping force from 80 to 110 N
- Blind installation from the front side of receiving part
- Function guaranteed to the end-user for 6 mounting/dismounting
- Clipping in a wide radius window
- Assembling elastic tension, allowing slack adjustment
- Dismantling possible

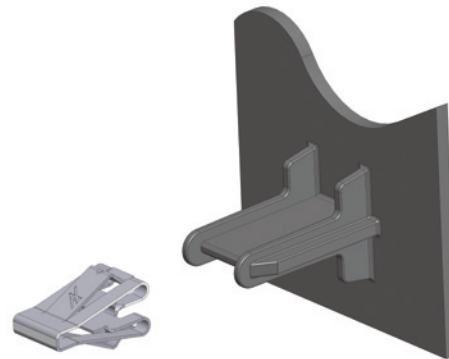
TECHNICAL FEATURES

Material	Spring steel C67 S per NF EN 10132
Heat treatment	Tempered and quenched 480-520 HV
Surface treatment	DELTA Protekt® KL100 (*) Lamellar Zinc plating Per ISO 10683 Salt spray protection 96 hours, red rust Electrolytic Zinc plating Per ISO 4042 Salt spray protection 96 hours, red rust Other colors and finishes available on demand

(*) Integrated lubrication by DOERKEN-MKS

ENVIRONMENT

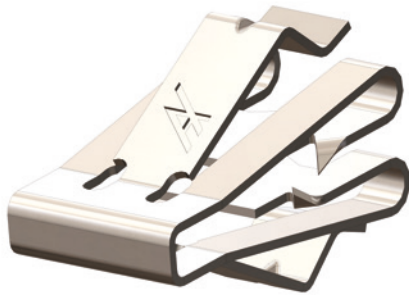
- Installation on plastic parts (ABS – PP)
- Clip holder thickness: 1.5 to 2.0 mm
- Multi-panels mounting on a window thickness from 1.5 to 3.0 mm
- No need for foolproof shape on clip holder



ATAX
ASSEMBLY SYSTEMS

BUTTERFLY[®] CLIPS

BY CLAWING



- 150 011 251 (grey)
- 150 011 253 (black)

CHARACTERISTICS

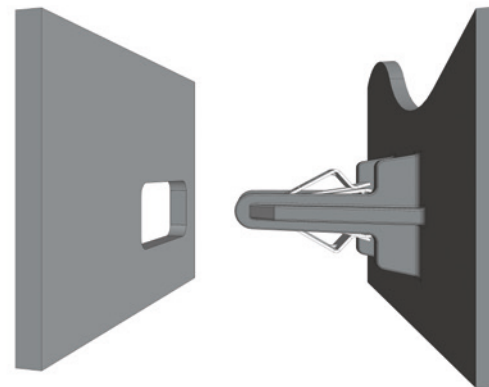
- Installation force ≤ 20 N on a 2 mm thickness slot
- Clipping force from 20 to 35 N
- Unclipping force from 35 to 85 N
- Blind installation from the front side of receiving part
- Function guaranteed to the end-user for 6 mounting/dismounting
- Clipping in a wide radius window
- Assembling elastic tension, allowing slack adjustment
- Dismantling possible

TECHNICAL FEATURES

Material	Spring steel C67 S per NF EN 10132
Heat treatment	Tempered and quenched 480-520 HV
Surface treatment	DELTA Protokt [®] KL100 (*) Lamellar Zinc plating Per ISO 10683 Salt spray protection 96 hours, red rust Other colors and finishes available on demand <small>(*) Integrated lubrication by DOERKEN-MKS</small>

ENVIRONMENT

- Installation on plastic slots (ABS – PP)
- Clip holder thickness: 1.5 to 2.0 mm
- Multi-panels mounting on a window thickness from 1.5 to 3.0 mm
- No need for foolproof shape on clip holder



BUTTERFLY[®] CLIPS

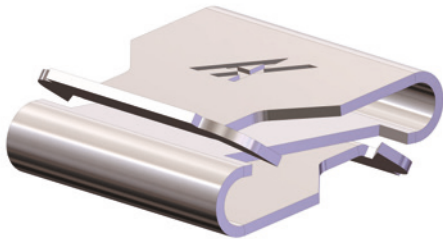
BY CLAWING

CHARACTERISTICS

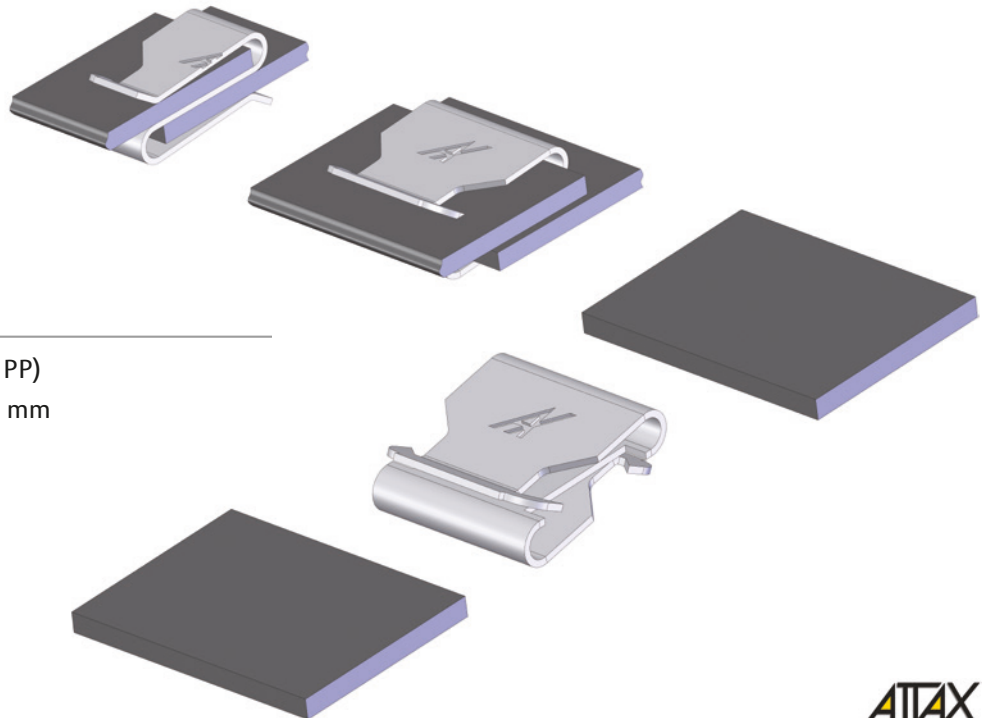
- Assembling two panels one on the other

TECHNICAL FEATURES

Material	Spring steel C67 S per NF EN 10132
Heat treatment	Tempered and quenched 480-520 HV
Surface treatment	DELTA Protekt [®] KL100 (*) Lamellar Zinc plating Per ISO 10683 Salt spray protection 96 hours, red rust Other colors and finishes available on demand (* Integrated lubrication by DOERKEN-MKS)



- 150 080 251 (grey)
- 150 080 253 (black)



ENVIRONMENT

- Installation on plastic panels (ABS – PP)
- For Panels thickness from 0.7 to 2.1 mm

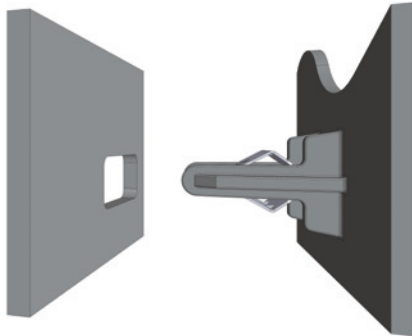
BUTTERFLY® CLIPS

BY CLAWING



■ 150 090 251 (grey)

■ 150 090 253 (black)



CHARACTERISTICS

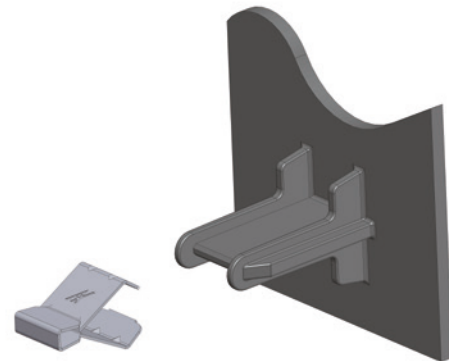
- Installation force ≤ 150 N
- Clipping force from 25 to 40 N
- Unclipping force from 60 to 90 N
- Blind installation from the front side of receiving part
- Long life expectancy in an environment subject to vibrations
- Function guaranteed to the end-user for 6 mounting/dismounting
- Clipping in a wide radius window
- Assembling elastic tension, allowing slack adjustment
- Dismantling possible

TECHNICAL FEATURES

Material	Spring steel C67 S per NF EN 10132
Heat treatment	Tempered and quenched 480-520 HV
Surface treatment	DELTA Protekt® KL100 (*) Lamellar Zinc plating Per ISO 10683 Salt spray protection 96 hours, red rust Other colors and finishes available on demand (*) Integrated lubrication by DOERKEN-MKS

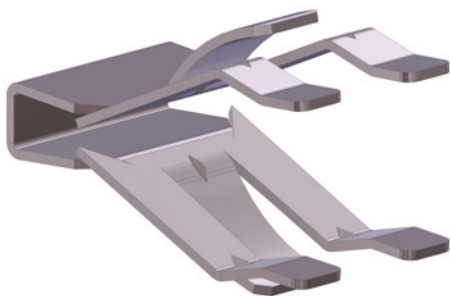
ENVIRONMENT

- Installation on plastic slots (ABS – PP)
- Clip holder thickness: 1.5 to 2.0 mm
- Multi-panels mounting on a window thickness from 1.5 to 3.0 mm
- No need for foolproof shape on clip holder



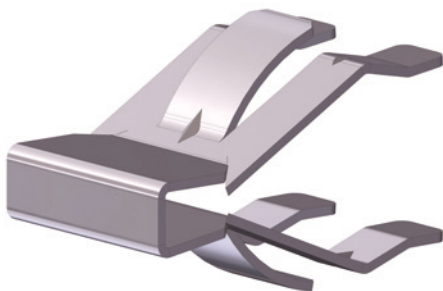
BUTTERFLY[®] CLIPS

BY CLAWING



- 150 092 251 (grey)
- 150 092 253 (black)

VEDOR[®]



CHARACTERISTICS

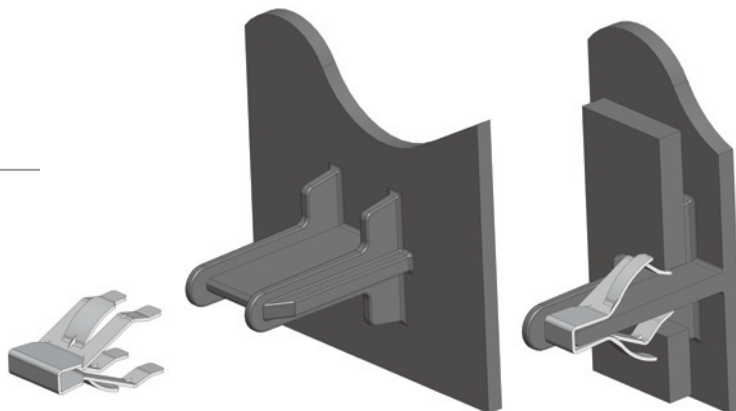
- Installation force ≤ 150 N
- Clipping force from 25 to 40 N
- Unclipping force from 60 to 90 N
- Blind installation from the front side of receiving part
- Dismantling possible with potential damages on the environment
- Clipping in a wide radius window
- Assembling elastic tension, allowing slack adjustment

TECHNICAL FEATURES

Material	Spring steel C67 S per NF EN 10132
Heat treatment	Tempered and quenched 480-520 HV
Surface treatment	DELTA Protekt [®] KL100 (*) Lamellar Zinc plating Per ISO 10683 Salt spray protection 96 hours, red rust Other colors and finishes available on demand <small>(*) Integrated lubrication by DOERKEN-MKS</small>

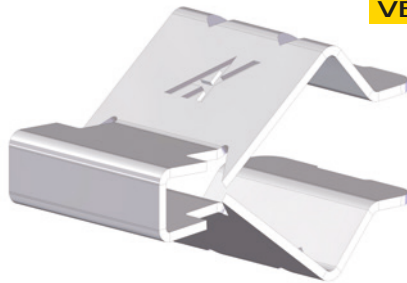
ENVIRONMENT

- Installation on plastic slots (ABS – PP – PA – PPTD 20%)
- Clip holder thickness: 1.5 to 2.0 mm
- Multi-panels mounting on a window thickness from 1.5 to 3.0 mm
- No need for foolproof shape on clip holder



BUTTERFLY[®] CLIPS

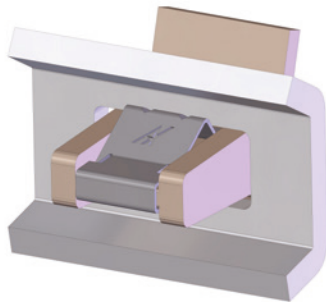
BY CLAWING



VEDOR[®]

■ 150 093 251 (grey)

■ 150 093 253 (black)



CHARACTERISTICS

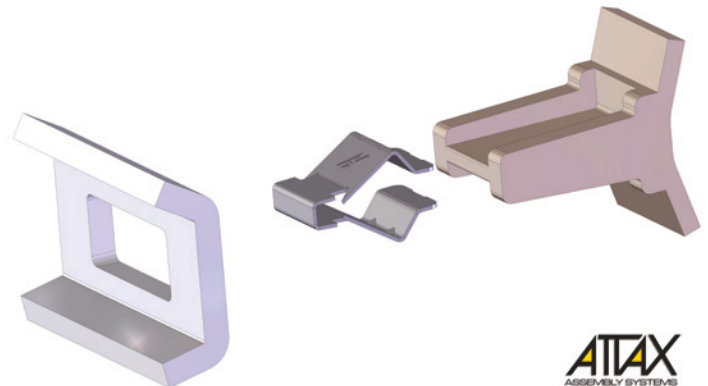
- Installation force ≤ 150 N
- Clipping force ≤ 60 N
- Unclipping force from 104 to 156 N
- Blind installation from the front side of receiving part
- Long life expectancy in an environment subject to vibrations
- Function guaranteed to the end-user for 6 mounting/dismounting
- Clipping in a wide radius window
- Assembling elastic tension, allowing slack adjustment
- Dismantling possible

TECHNICAL FEATURES

Material	Spring steel C67 S per NF EN 10132
Heat treatment	Tempered and quenched 480-520 HV
Surface treatment	DELTA Protekt [®] KL100 (*) Lamellar Zinc plating Per ISO 10683 Salt spray protection 96 hours, red rust Other colors and finishes available on demand (*) Integrated lubrication by DOERKEN-MKS

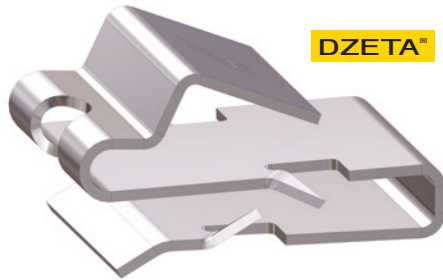
ENVIRONMENT

- Installation on plastic slots (ABS – PP – PA – PPTD 20%)
- Clip holder thickness: 1.5 to 2.0 mm
- Multi-panels mounting on a window thickness from 1.5 to 3.0 mm
- No need for foolproof shape on clip holder



BUTTERFLY[®] CLIPS

BY CLAWING

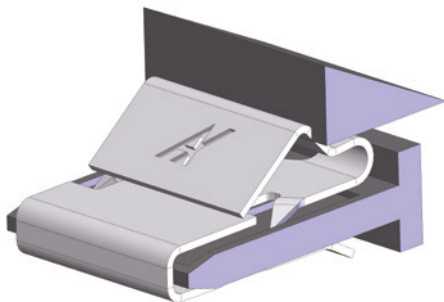


DZETA[®]

- 150 110 251 (grey)
- 150 110 253 (black)

ENVIRONMENT

- Installation on plastic slots (ABS – PP)
- Clip holder thickness: 1.5 to 2.0 mm
- Multi-panels mounting on a window thickness from 1.5 to 3.0 mm



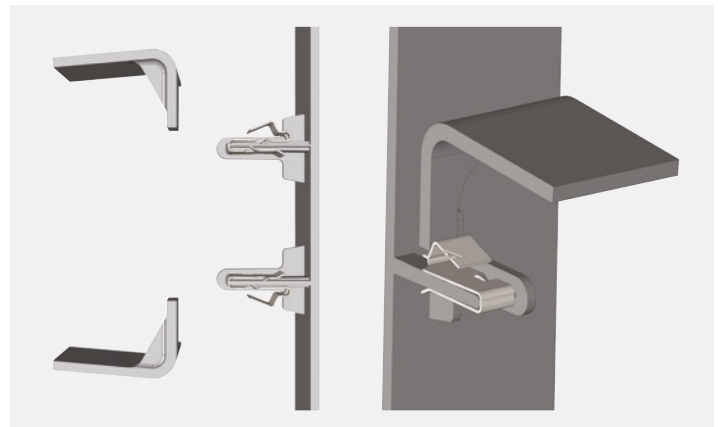
CHARACTERISTICS

- Clipping force ≤ 30 N
- Unclipping force to be defined according to the application
- Blind installation from the front side of receiving part
- Function guaranteed to the end-user for 6 mounting/dismounting
- Assembling elastic tension, allowing slack adjustment
- Dismantling possible

TECHNICAL FEATURES

Material	Spring steel C67 S per NF EN 10132
Heat treatment	Tempered and quenched 480-520 HV
Surface treatment	DELTA Protekt [®] KL100 (*) Lamellar Zinc plating Per ISO 10683
	Salt spray protection 96 hours, red rust
	Other colors and finishes available on demand

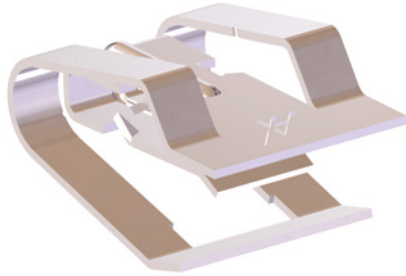
(*) Integrated lubrication by DOERKEN-MKS



ATAX
ASSEMBLY SYSTEMS

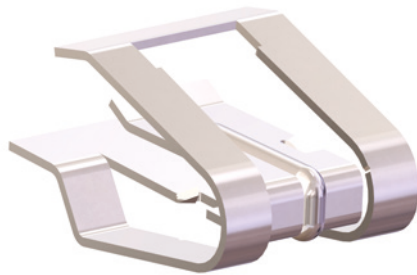
BUTTERFLY® CLIPS

BY CLAWING



- 150 120 251 (grey)
- 150 120 253 (black)

DOUBLE U™



ENVIRONMENT

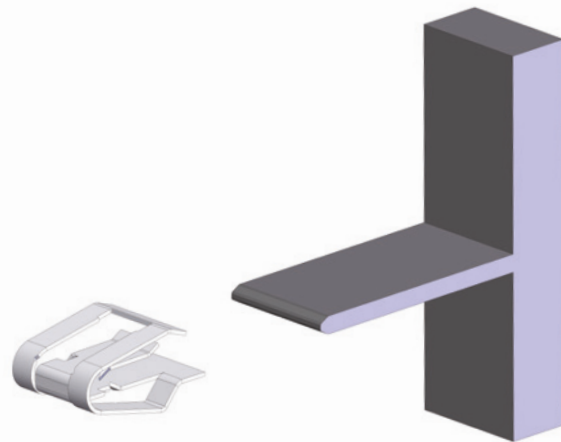
- Installation on plastic slots (ABS – PP)
- Clip holder thickness: 1.5 to 2.0 mm
- Multi-panels mounting on a window thickness from 1.5 to 3.0 mm

CHARACTERISTICS

- Installation force ≤ 25 N
- Clipping / Unclipping force to be defined according to the environment
- Blind installation from the front side of receiving part
- Function guaranteed to the end-user for 6 mounting/ dismounting
- Assembling elastic tension, allowing slack adjustment
- Dismantling possible

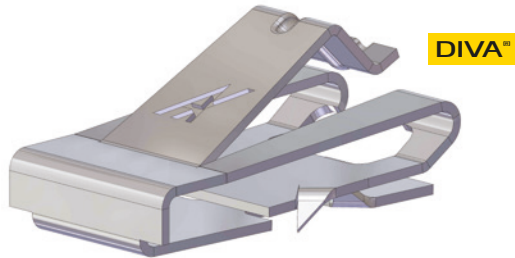
TECHNICAL FEATURES

Material	Spring steel C67 S per NF EN 10132
Heat treatment	Tempered and quenched 480-520 HV
Surface treatment	DELTA Protekt® KL100 (*) Lamellar Zinc plating Per ISO 10683 Salt spray protection 96 hours, red rust Other colors and finishes available on demand
	(*) Integrated lubrication by DOERKEN-MKS



BUTTERFLY® CLIPS

BY CLAWING



DIVA®

- 150 130 251 (grey)
- 150 130 253 (black)



CHARACTERISTICS

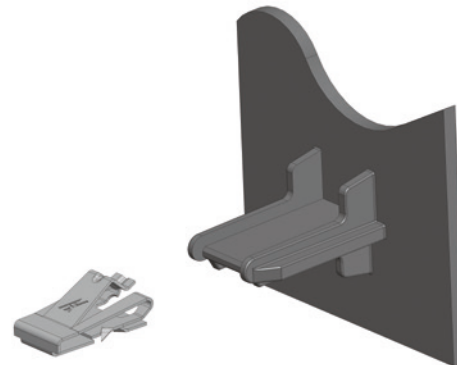
- Installation force ≤ 25 N
- Clipping force from 25 to 55 N
- Unclipping force from 60 to 100 N
- Blind installation from the front side of receiving part
- Long life expectancy in an environment subject to vibrations
- Function guaranteed to the end-user for 6 mounting/dismounting
- Clipping in a wide radius window
- Assembling elastic tension, allowing slack adjustment
- Dismantling possible

TECHNICAL FEATURES

Material	Spring steel C67 S per NF EN 10132
Heat treatment	Tempered and quenched 480-520 HV
Surface treatment	DELTA Protekt® KL100 (*) Lamellar Zinc plating Per ISO 10683 Salt spray protection 96 hours, red rust Other colors and finishes available on demand (*) Integrated lubrication by DOERKEN-MKS

ENVIRONMENT

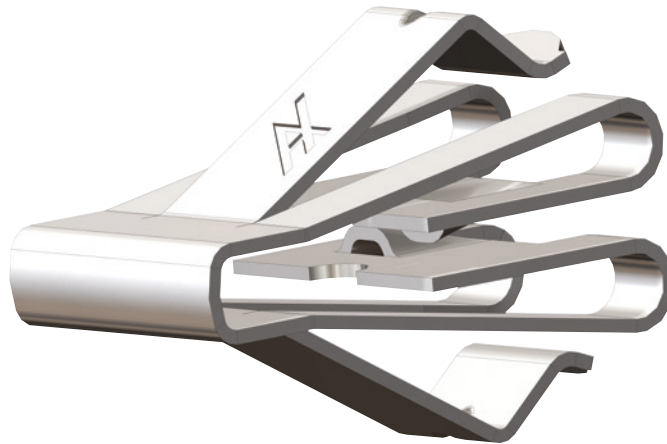
- Installation on plastic slots (ABS – PP)
- Clip holder thickness: 1.5 to 2.0 mm
- Multi-panels mounting on a window thickness from 1.5 to 3.0 mm



ATAX
ASSEMBLY SYSTEMS

BUTTERFLY[®] CLIPS

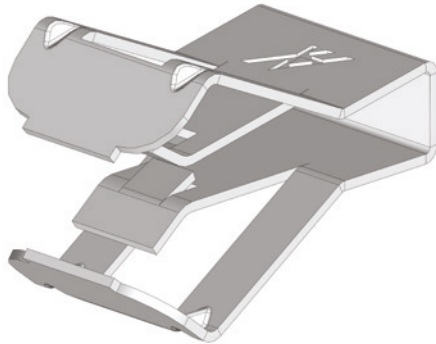
BY CLIPPING



Clipping Butterfly[®] Clips, plastic window mounting recoilless parts preventing from any plastic clip holder deterioration and reducing most of residual moves

BUTTERFLY® CLIPS

BY CLIPPING



- 150 030 251 (grey)
- 150 030 253 (black)

CHARACTERISTICS

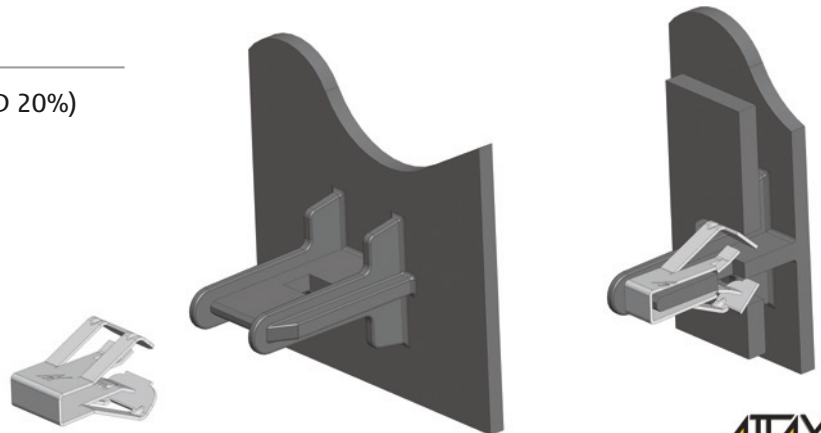
- Installation force ≤ 20 N
- Clipping force from 20 to 30 N
- Unclipping force from 60 to 90 N
- Blind installation from the front side of receiving part
- Function guaranteed to the end-user for 6 mounting/dismounting
- Clipping in a wide radius window
- Assembling elastic tension, allowing slack adjustment
- Dismantling possible

TECHNICAL FEATURES

Material	Spring steel C67 S per NF EN 10132
Heat treatment	Tempered and quenched 480-520 HV
Surface treatment	DELTA Protekt® KL100 (*) Lamellar Zinc plating Per ISO 10683 Salt spray protection 96 hours, red rust Other colors and finishes available on demand (*) Integrated lubrication by DOERKEN-MKS

ENVIRONMENT

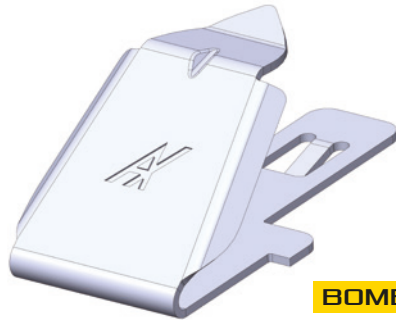
- Installation on plastic slots (ABS – PP – PA – PPTD 20%)
- Clip holder thickness: 1.5 to 2.0 mm
- Multi-panels mounting on a window thickness from 1.5 to 3.0 mm
- No need for foolproof shape on clip holder



ATAX
ASSEMBLY SYSTEMS

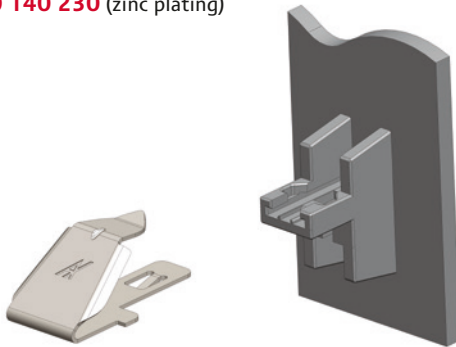
BUTTERFLY® CLIPS

BY CLIPPING



BOMBYX®

- 150 140 251 (grey)
- 150 140 253 (black)
- 150 140 230 (zinc plating)



CHARACTERISTICS

- Installation force ≤ 20 N
- Clipping force from 25 to 70 N
- Unclipping force from 40 to 70 N
- Blind installation from the front side of receiving part
- Long life expectancy in an environment subject to vibrations
- Function guaranteed to the end-user for 6 mounting/dismounting
- Assembling elastic tension, allowing slack adjustment
- Dismantling possible

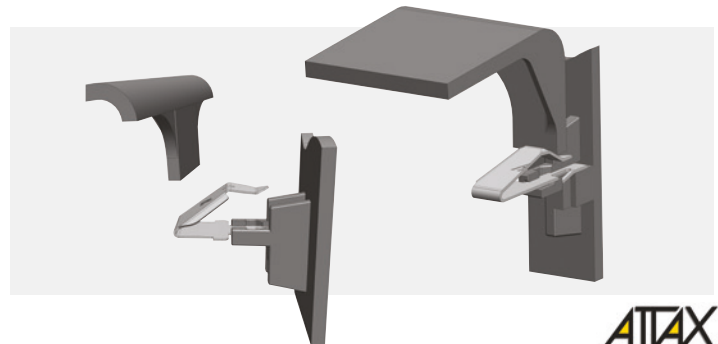
TECHNICAL FEATURES

Material	Spring steel C67 S per NF EN 10132
Heat treatment	Tempered and quenched 480-520 HV
Surface treatment	DELTA Protekt® KL100 (*) Lamellar Zinc plating Per ISO 10683 Salt spray protection 96 hours, red rust Electrolytic Zinc plating Per ISO 4042 Salt spray protection 96 hours, red rust Other colors and finishes available on demand

(*) Integrated lubrication by DOERKEN-MKS

ENVIRONMENT

- Installation on plastic slots (ABS – PP)
- Clip holder thickness: 1.5 to 2.0 mm
- Multi-panels: mounting on a window or panel edge
- Assembling force has to be applied with a maximum variation angle of $\pm 5^\circ$



ATAX
ASSEMBLY SYSTEMS

BUTTERFLY[®] CLIPS

BY CLIPPING



CHARACTERISTICS

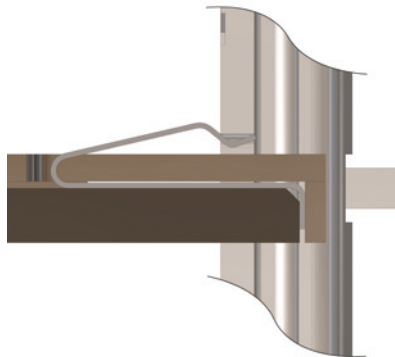
- Maximum clipping force 50 N
(distributed on 4 parts see picture below)
- No installation force needed
- Minimum unclipping force 30 N
(distributed on 4 parts see picture below)

TECHNICAL FEATURES

Material	Stainless steel AISI301 per NF EN 10088 X10CrNi18-8 1.4310 - Rm 1300-1500 MPa
Heat treatment	None
Surface treatment	None

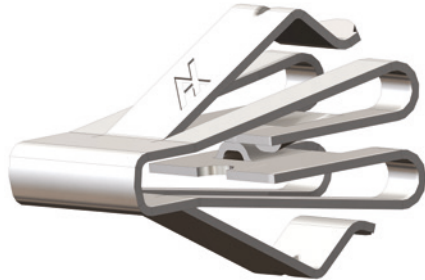
ENVIRONMENT

- Installation on plastic slot
- Clip holder thickness: 2.0 mm
- Window thickness: 2.5 mm

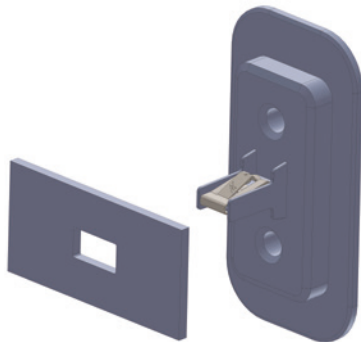


BUTTERFLY[®] CLIPS

BY CLIPPING



- 150 170 251 (grey)
- 150 170 253 (black)
- 150 170 230 (zinc plating)



ENVIRONMENT

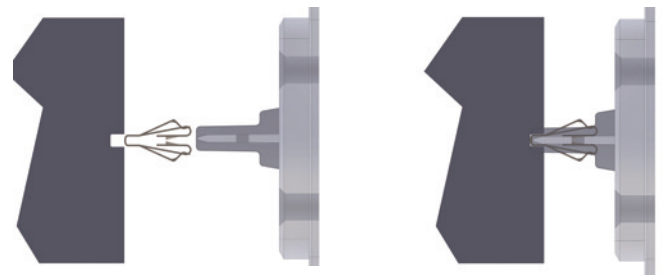
- Installation on specific application
- Clip holder thickness: 1.5 to 2.0 mm
- Multi-panels mounting on a window thickness from 1.5 to 3.0 mm
- No need for foolproof shape on clip holder

CHARACTERISTICS

- Installation force ≤ 20 N on a 2 mm thickness slot
- Clipping force from 20 to 35 N
- Unclipping force from 80 to 110 N
- Blind installation from the front side of receiving part
- Function guaranteed to the end-user for 6 mounting/dismounting
- Clipping in a wide radius window
- Assembling elastic tension, allowing slack adjustment
- Dismantling possible

TECHNICAL FEATURES

Material	Spring steel C67 S per NF EN 10132
Heat treatment	Tempered and quenched 480-520 HV
Surface treatment	DELTA Protekt [®] KL100 (*) Lamellar Zinc plating Per ISO 10683 Salt spray protection 96 hours, red rust Electrolytic Zinc plating Per ISO 4042 Salt spray protection 96 hours, red rust Other colors and finishes available on demand (*) Integrated lubrication by DOERKEN-MKS



BUTTERFLY[®] CLIPS

BY CLIPPING



■ 150 180 695

CHARACTERISTICS

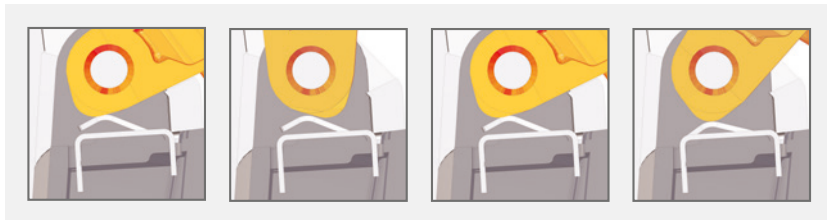
- No installation force needed
- Release force between 2 and 5 N
- Close force between 2 and 5 N
- Testing tool to be defined according to customer assembly
- No dismantling

TECHNICAL FEATURES

Material	Stainless steel AISI301 per NF EN 10088 X10CrNi18-8 1.4310 - Rm 1300-1500 MPa
Heat treatment	None
Surface treatment	Black rilzan patch

ENVIRONMENT

- Pre-installed into a plastic articulating mount



BUTTERFLY[®] CLIPS

CURRENTLY BEING DEVELOPED



DZETA[®]

BY CLIPPING

■ **150 190 251** (grey)

■ **150 190 253** (black)

MOUNTING

- Installation force ≤ 25 N
- Clipping force ≤ 30 N
- Unclipping force to be defined according to the application

CHARACTERISTICS

- Blind installation from the front side of receiving part
- Long life expectancy in an environment subject to vibrations
- Function guaranteed to the end-user for 6 mounting/dismounting
- Clipping in a wide radius window
- Assembling elastic tension, allowing slack adjustment
- Dismantling possible

TECHNICAL FEATURES

Material	Spring steel C67 S per NF EN 10132
Heat treatment	Tempered and quenched 480-520 HV
Surface treatment	DELTA Protekt [®] KL100 (*) Lamellar Zinc plating Per ISO 10683 Salt spray protection 96 hours, red rust Other colors and finishes available on demand

(*) Integrated lubrication by DOERKEN-MKS

ENVIRONMENT

- Installation on plastic slots (ABS – PP)
- Clip holder thickness: 1.5 to 2.0 mm
- Multi-panels mounting on a window thickness from 1.5 to 3.0 mm

BY CLIPPING

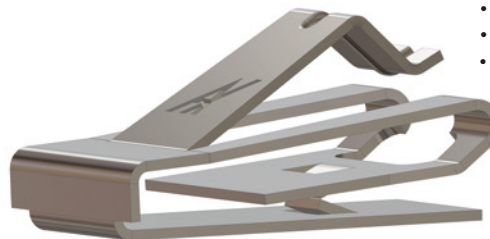
■ **150 200 251** (grey)

■ **150 200 253** (black)




















MOUNTING

- Installation force ≤ 25 N
- Clipping force from 25 to 55 N
- Unclipping force from 60 to 100 N

DIVA[®]

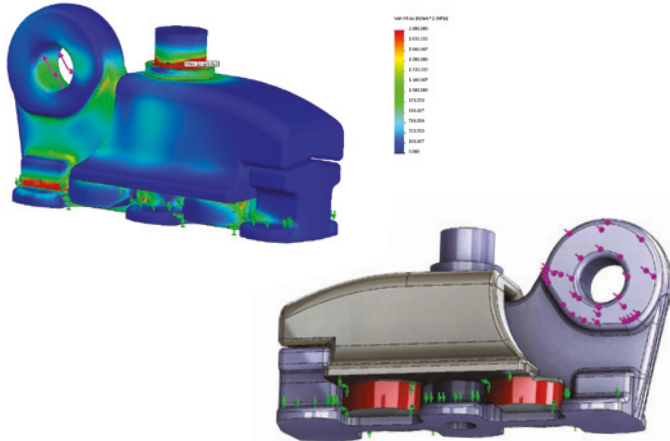


AVAILABLE UNDER CAR MAKERS P/N

P/N	Customer	Customer P/N	Colour	Picture	Surface treatment
E11444		11610511	Spring steel		GMW3044
E11611		—	Spring steel		
E11491		W700970	Stainless steel		
E11516		—	Stainless steel		
E11517		—	Spring steel		
E11522		—	Spring steel		
E11536		—	Spring steel		
E11546		—	Spring steel		VW13750 Ofi T330
E11559		—	Spring steel		KL100 SILVER GMW335
E11570		N909 894	Stainless steel		

ABOUT US

DEVELOPMENT & CONTROL



DEVELOPMENT

All our projects and parts are designed and developed undersoftware solutions powered by SOLIDWORKS and SOLIDWORKS SIMULATION.



CONTROL

Each stage of the production is controlled and carefully monitored :

- Geometric measurements are made with optical control device
- Efforts test are applied on 100 % of production batches to ensure endurance to the end-user
- Heat and surface treatments conformity certificates are issued with each production batch
- 100 % of the parts are automatically sorted on specific machines

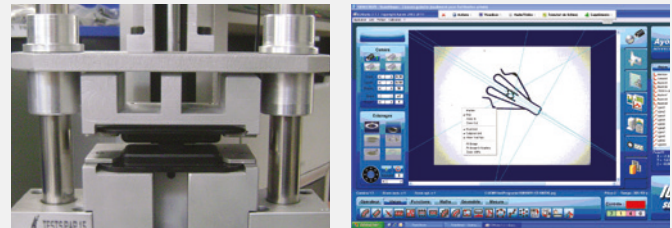
That's why ATTAX is able to provide its customers with high quality performances for the Butterfly® Clips range, with less than 5 ppm non conformity average rate.

Automatic sorting



Butterfly® clips

Endurance & measurement tests



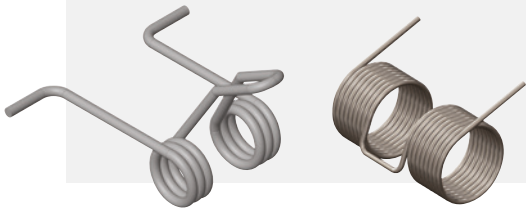
ABOUT US

AUTOMATIVE PARTS

EXTENSION SPRING



PALLET SPRINGS



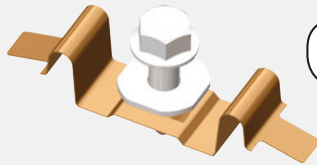
For more than 20 years, innovation is the cornerstone of ATTAX strategy.

Mainly focused on interior trims, ATTAX is now renowned for its capacity to develop innovative solutions answering to the automotive market needs for various assembly parts.

In addition to its Butterfly® Clips range, ATTAX provides its customers with a large products range (fasteners, springs, clips...) complying with car makers and automotive suppliers requirements for interior vehicle applications:

- glove-boxes
- dashboard
- door panels
- embellishers
- air circulators...

PRE POSITIONING
SCREW-HOLDER CLIP



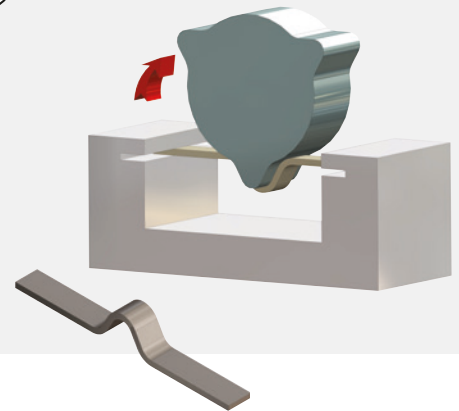
ARMREST CLIPS



SPACER RING



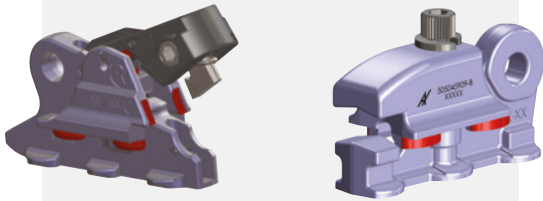
ADJUSTMENT
KNOB SPRING



ABOUT US

OTHER ACTIVITIES

FITTINGS

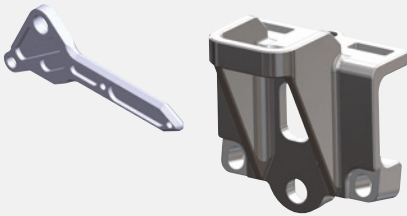


Over the years, ATTAX has gained a tremendous experience in development and manufacturing of assembling solutions for its customers on various industrial markets such as automotive, home appliance, electrical devices or building industry.

ATTAX industrializes
FASTENIC® systems
on 5 main ranges :

- Flat spring systems
- Tubes & cables ties
- Fittings
- Sheet metal work
- Mechanical systems

MECHANICAL SYSTEMS



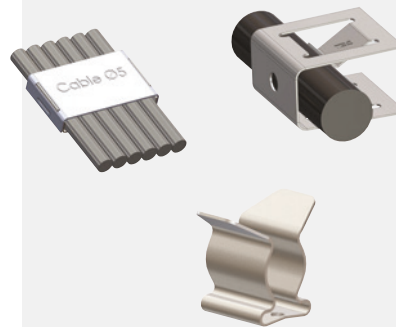
ATTAX has already developed many fasteners or assembling devices to answer to customers specific applications either by improvement of existing solutions or by designing new concepts and parts.

SHEET METAL WORK

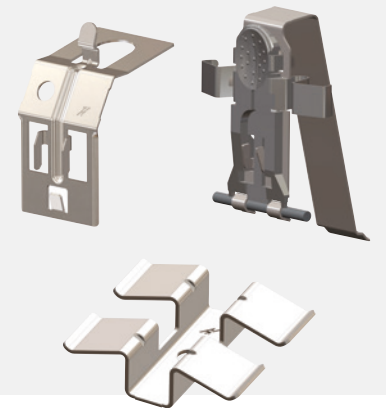
Tube bending – Laser cutting
Stamping - Module assembling



TUBES & CABLES TIES



OTHER PARTS





6 rue des entrepreneurs
78420 Carrières-sur-Seine
FRANCE

Tel : +33 (0)1 61 04 50 50

Fax : +33 (0)1 61 04 05 01

info@attax.com

www.attax.com