stainless steel

cabinets/pc enclosures/monobloc cabinets

Stainless steel cabinets are for use in both corrosive and food processing environments.
Areta has been manufactured in stainless steel without changing its design structure
or its accessories, thus providing all the benefits offered by the standard painted version.
The range includes also the stainless steel pc enclosures and the monobloc cabinets
with the same technical features of the ones in mild steel.

boxes

Stainless steel boxes are manufactured using the same construction and productive concepts
of the ST and STP mild steel range.
Standard components are also in stainless steel including hinges, screws and the locking cam.
The clean external finish gives the product an aestheticallly very pleasant
and highly professional appearance.
Boxes are placed in a Polythene bag and heavy-duty carton with clear identification labels.

terminal boxes

For use in corrosive and food processing environments, these stainless steel terminal boxes
offer the same benefits as the stainless steel boxes.
The clean external finish gives the product an aesthetically very pleasant
and highly professional appearance.

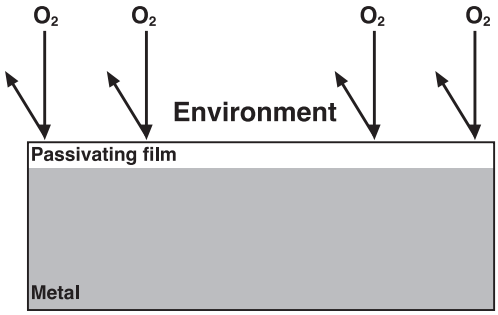
control desks

Stainless steel control desks, both monobloc or modular,
are provided with the same technical features of the ones in mild steel.

features at a glance

- 304 grade stainless steel. 316 also available
- IP 65 protection. Cabinets IP 55
- compatible accessories with mild steel range
- high quality brushed finish
- modifications available on short lead times.

introduction



stainless steel

A highly corrosion resistance iron-based alloy containing between 18% and 20% chromium.
Stainless steel is the strongest of the corrosion resistance materials.
It exhibits many of the same resistances attributed to Fibreglass materials
as well as resistance to polar solvents such as acetone. Generally 2 grades of stainless steel
are available dependant on the application and environment the enclosures are to be placed.
Grade 304 is the most common and is suitable for environments such as food processing
or in general wet areas where a degree of corrosion resistance is required.
Grade 316 material has a higher content of nickel and is generally used
for highly corrosive environments such as off-shore or petro-chemical plants.
Various elements of the materials are:
Austenic steel: Fe + Cr (16÷28%) + Ni (6÷32%) + C (0.02÷0.1%)
Ferritic steel: Fe + Cr (10.5÷30%) + C (0.02÷0.1%)
Martensitic steel: Fe + Cr (12÷19%) + C (0.08÷1.2%)
ETA manufactures from grade 304, offered as the standard, and the more resistant AISI316,
manufactured on request.
AISI304 and AISI316: chemical and physical characteristics.
Grade 304 and 316 are both austenitic, with chrome percentage more than 16%
and nickel percentage more than 6%.
In the below table are listed the main chemical and physical characteristics of austenitic steel.

international denomination							chemical composition					
EN 10088-2 European standard UNI 8317 Italian standard	DIN 17441	AISI (American Iron & Steel Institute)	ASTM International Standard Worldwide A240	BS British Standard 1449pt2	AFNOR NFA35-573 French standardization association	JIS Japan Industrial standard	C%	Si%	Mn%	Cr%	Ni%	Mo%
X5CrNi18-10	WN 1.4301	304	S30400	304S15	Z7CN1809	SUS304	0,08	1	2	18÷20	8÷10	0
X5CrNiMo17-12-2	WN 1.4401	316	S31600	316S31	Z7CND1711 02	SUS316	0,06	1	2	16÷18,5	10÷13	2÷2,5

mechanical properties of grade 304	
tensile strength Rm min, N/mm^2	700
0,2% yield strength Rp min N/mm^2	450

mechanical properties of grade 316	
tensile strength Rm min, N/mm^2	800
0,2% yield strength Rp min N/mm^2	600

ETA manufacturing cycle of stainless steel products

ETA manufacturing process of stainless steel product follows a strict quality system
to ensure optimum product quality is achieved. The various manufacturing processes
which are constantly being reviewed and up-graded include:

a) laser cutting operation, achieved by using high-tech precision machinery

b) folding operation, achieved by using specific tools

c) welding operation, achieved by using TIG technology in inert atmosphere
that allows minimal heat generation around the welded area

d) grinding, polishing operation and rounding of the edges, in order to obtain a uniform
and clean surface and to avoid sharp edges

e) gasket positioning operation, fully automated, maximises IP rating

f) brushing operation, made by automatic process that allows for clean, even surfaces
typical for hygiene requirements. As 304 is the most common grade of steel used,
120 grit level is the most popular grain finish. Other grades, e.g. 230, can be provided
on request. Panels of stainless steel floor standing cabinets are pre-stained and supplied
with a PVC covering to protect the material during handling

g) assembling: the product is finally packed in plastic bags
and then into a heavy-duty carton to provide protection during transportation.

characteristics	
INSENSITIVENESS TO LOW TEMPERATURES	reliable performance even at temperatures below zero, due to its properties of high toughness and plasticity
HIGH FIRE RESISTANCE	stainless steel keeps its mechanical characteristics for a period 3 times more than mild steel. Consequently it allows to avoid additional surface treatments like painting or plating
EXCELLENT MECHANICAL RESISTANCE	recommended for applications in seismic areas
BETTER HYGIENE	no additional maintenance is required, other than cleaning
STRENGTH	stainless steel is structurally stronger than mild steel
ULTRAVIOLET RAYS RESISTANCE	no deterioration when exposed to sunlight
EARTHING	can be fully earthed, unlike insulated enclosures
EMC SHIELDING	stainless steel enclosures are easily EMC shielded
CORROSION RESISTANCE	see chart on the side

use	
AISI 304	is moderately priced and generally accepted as the norm for many applications in food industry or chemical
AISI 316	contains more chromium, is more corrosion resistant, but also more expensive

chemical resistances	steel 304	steel 316		steel 304	steel 316
acetylene			zinc chloride		
vinegar			sulphur chloride		
acid fumes			coke		
acetone (100% at 100°C)			ether (100%)		
acetic acid (20%)			formaldehyde		
boric acid (5%)			ammonium phosphate		
butyric acid			sodium phosphate		
cianidric acid (100%)			furfural (100%)		
citric acid (5%)			gas of humid chlorine		
chloridic acid			cookery gas		
chromic acid (5%)			gelatine		
fluoridric acid			glycerine		
phosphoric acid (5%)			ethylic glycol (100%)		
lactic acid (5%)			glucose		
linoleic acid (100% at 100°C)			shellac		
malic acid (10-40% at 50%C)			ammonium hydroxide (40%)		
muriatic acid			calcium hydroxide (10% at 100°C)		
nitric acid (10% at 80°C)			magnesium hydroxide (10% at 100°C)		
oleic acid (100%)			potassium hydroxide (50%)		
oxalic acid (5%)			sodium hydroxide (20%)		
picric acid			calcium hypo chlorite 100%		
sulfydric acid 100% humid			sodium hypo chlorite (100%)		
sulphuric acid, 5% boiling			milk		
sulphuric acid, fuming			yeast		
sulphurous acid 100%			mayonnaise		
stearic acid (100% up to 100°C)			melasses		
tartaric acid (10% at 100°C)			mustard		
water, pure			ammonium nitrate (10-50%)		
hydrogen peroxide (10-30%)			sodium nitrate (10-40%)		
turpentine			mineral oils		
ethylic alcohol			vegetal oils		
methyl alcohol (100%)			paraffin		
melted aluminium			sodium perborate (10% up to 100°C)		
ammonia, dry			hydrogen peroxide (10%)		
acetic anhydride (100%)			sodium peroxide (10% up to 100°C)		
carbon dioxide, dry			melted lead		
sulphurous anhydride (90%)			propane		
aniline (100%)			soap		
soak			sugar syrup		
chrome bath			whey		
photo fixing bath			sodium silicate (100% up to 100°C)		
photo developing bath			aluminium sulphate (10%)		
petrol			ammonium sulphate		
benzol, hot and cold			ferric sulphate (10%)		
sodium bicarbonate			ferrous sulphate		
beer			magnesium sulphate		
sodium bisulphate (15% at 85°C)			nickel sulphate (30%)		
carbon bisulphide			potassium sulphate (10% up to 100°C)		
borax, 5% hot			copper sulphate (10%)		
butane			sodium sulphate (10%)		
coffee			zinc sulphate (10%)		
clorine, dry			sodium sulphide (10%)		
camphor			concentrated orange juices		
sodium carbonate (5% up to 65°C)			concentrated lemon juices		
sodium citrate, hot and cold			carbon tetrachloride (10%)		
chloroform (100%)			sodium thiosulfate (10-60% up to 100°C)		
ammonium chloride (1%)			toluol		
ferric chloride (5-50%)			trichlorethylene (100% at 100°C)		
ferrous chloride (10-20%)			paintings		
magnesium chloride (up to 20%)			wine		
mercury chloride (10%)			whisky		
nickel chloride (10-30%)			melted zinc		
potassium chloride			melted sulphur		
sodium chloride (5%)					

risk of corrosion

no corrosion

possibility of corrosion

data not available

Areta stainless steel

characteristics

STRUCTURE
Rails are made up of unique closed profile manufactured from 1.5mm AISI 304 stainless steel.
The frame corners are manufactured with orthogonal joints in AISI 304 stainless steel, laser welded to the rails.
Doors manufactured from 2mm AISI 304 (AISI316 on request) satin stainless steel with tubular stiffening frame.
Hinges are made in zinc alloy, chrome plated, open 180° (Hinges manufactured from AISI 316 stainless steel on request).
Rear panel manufactured from 1.5mm AISI 304 (AISI 316 on request) satin stainless steel.
Roof manufactured from 1.5mm AISI 304 (AISI 316 on request) satin stainless steel.
Bottom manufactured from 1.5mm AISI 304 (AISI 316 on request) satin stainless steel.

supply includes

- structure
- doors complete with Ø 3mm double bar locking system
- rear panel
- removable roof
- bottom with removable cable entry.

conformity and approval

protection degree

- IP 55 complying with EN50298; EN60529
- type 12 complying with UL508A; UL50
- impact resistance IK10 complying with EN50298; EN50102.

To be ordered separately:
• eyebolts and/or lifting brackets (see page 236).

Areta stainless steel single blank door

code		cabinet dim.			usable inner area			
mod.	art.	L (*)	A	P	W	H	I	N
ARETX	061804PR	600	1809	414	500	1700	300	1630
	061805PR			514			400	
	062005PR		2009	514		1900	400	1830
	062006PR			614			500	
	081804PR	800	1809	414	700	1700	300	1630
	081805PR			514			400	
	082005PR		2009	514		1900	400	1830
	082006PR			614			500	
	101805PR	1000	1809	514	900	1700	400	1630
	101806PR			614			500	
	102005PR		2009	514		1900	400	1830
	102006PR			614			500	

(*) With side panels mounted overall dimension is 616, 816, 1016.

To order a stainless steel enclosure in high grade AISI 316, please add H to the catalogue number.
E.g.: ARETX-082005PRH.

Areta stainless steel double blank door

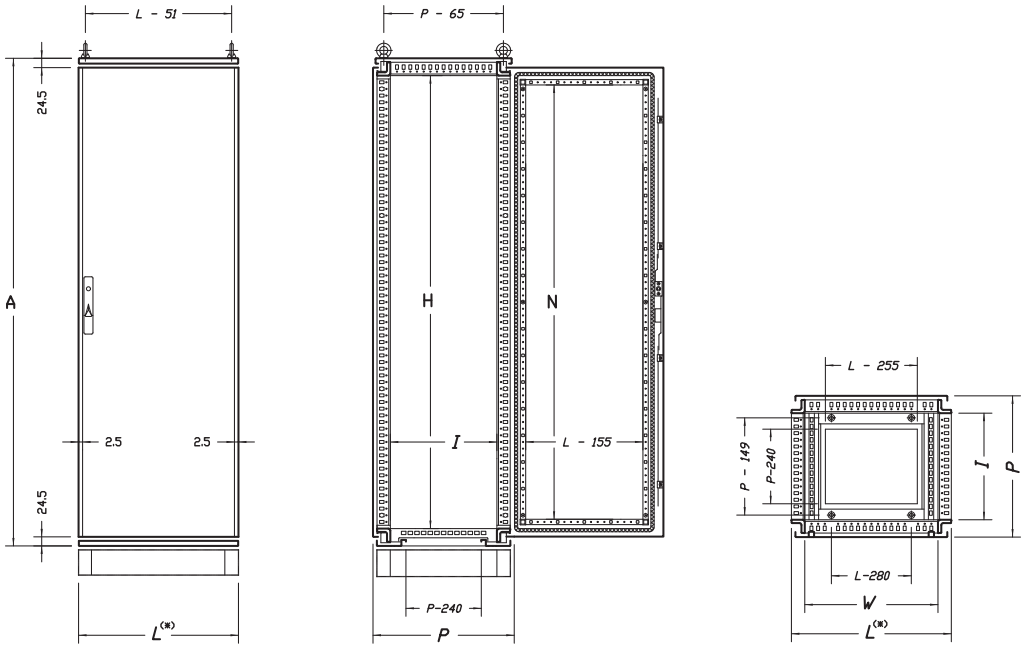
code		cabinet dim.			usable inner area			
mod.	art.	L (*)	A	P	W	H	I	N
ARETX	121804PR	1200	1809	414	1100	1700	300	1630
	121805PR			514			400	
	122005PR		2009	514		1900	400	1830
	122006PR			614			500	

(*) With side panels mounted overall dimension is 1216.

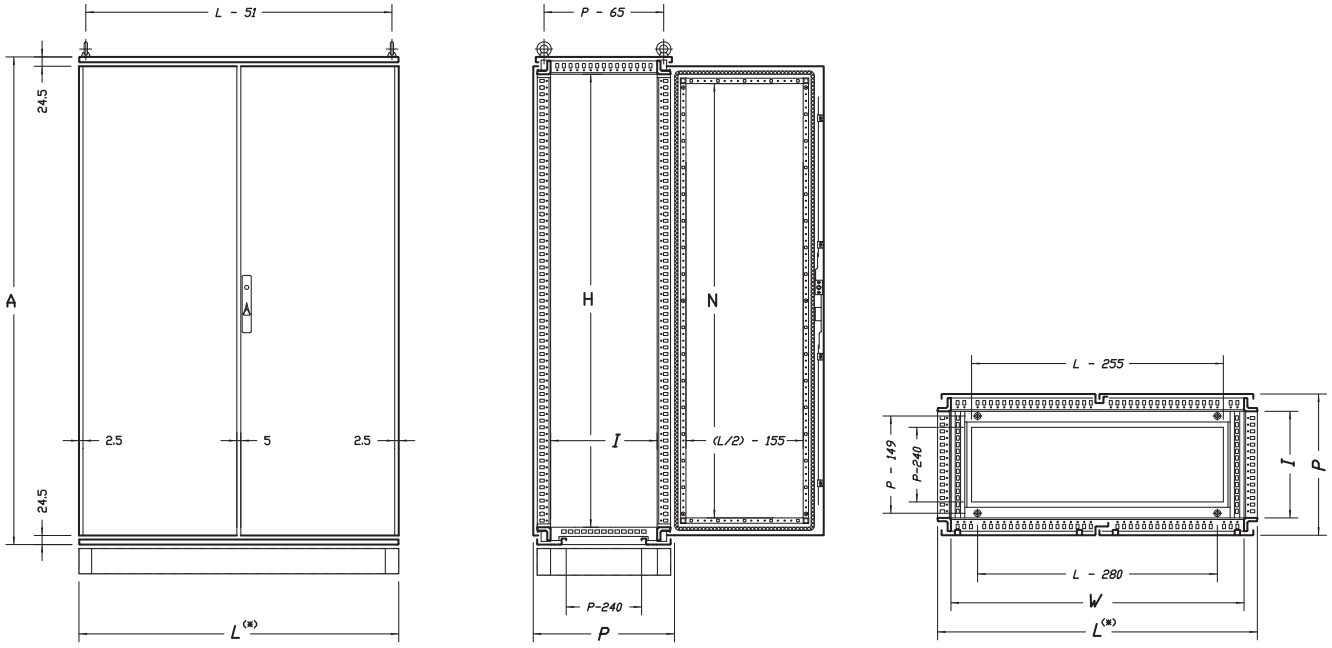
To order a stainless steel enclosure in high grade AISI 316, please add H to the catalogue number.
E.g.: ARETX-082005PRH.

Areta stainless steel

ARETA STAINLESS STEEL SINGLE BLANK DOOR



ARETA STAINLESS STEEL DOUBLE BLANK DOOR



Areta stainless steel with glazed door

characteristics

STRUCTURE
Rails are made up of unique closed profile manufactured from 1.5mm AISI 304 stainless steel.
The frame corners are manufactured with orthogonal joints in AISI 304 stainless steel, laser welded to the rails.
Doors manufactured in 2mm AISI 304 (AISI 316 on request) material with stiffening frame and plexiglas viewing window.
Hinges are made in zinc alloy, chrome plated (hinges manufactured from AISI 316 stainless steel on request).

composition

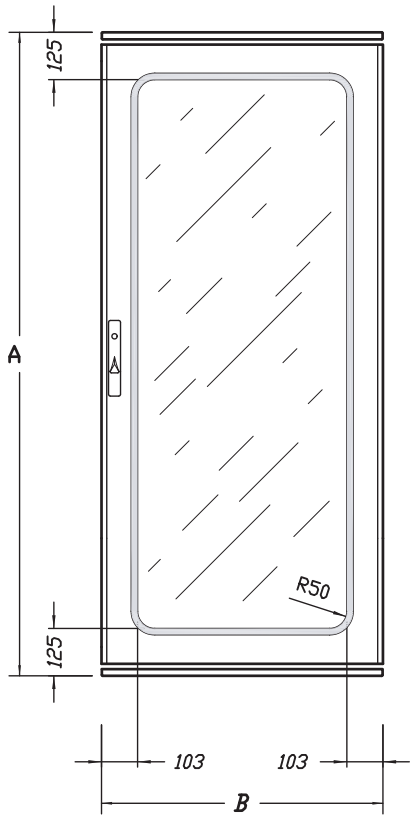
- structure
- doors with plexiglas complete with Ø 3mm double bar locking system
- hinges in zinc alloy, chrome plated
- rear panel
- removable roof
- bottom with removable cable entry.

conformity and approval

protection degree

- IP 54 complying with EN50298; EN60529
- type 12 complying with UL508A; UL50
- impact resistance IK10 complying with EN50298; EN50102.

To be ordered separately:
• eyebolts and/or lifting brackets (see page 236).



code		cabinet dim.			B	A
mod.	art.	width	height	depth		
ARETX	061804PX	600	1809	414	600	1809
	061805PX			514		
	062005PX		2009	514		2009
	062006PX			614		
	081804PX	800	1809	414	800	1809
	081805PX			514		
	082005PX		2009	514		2009
	082006PX			614		
	101805PX	1000	1809	514	1000	1809
	101806PX			614		
	102005PX		2009	514		2009
	102006PX			614		

To order a stainless steel enclosure in high grade AISI 316, please add H to the catalogue number.
E.g.: ARETX-082005PXH.

complementary accessories

STANDARD PLINTH: H=100 ATZ1 - H=200 ATZ2

characteristics

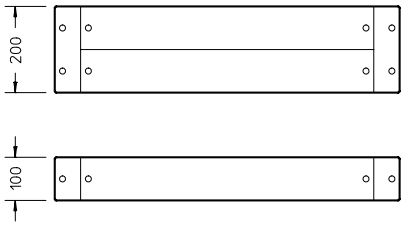
Corners: manufactured from 2mm AISI 304 stainless steel (AISI 316 on request).
Cross channels: manufactured from 2mm AISI 304 stainless steel (AISI 316 on request).

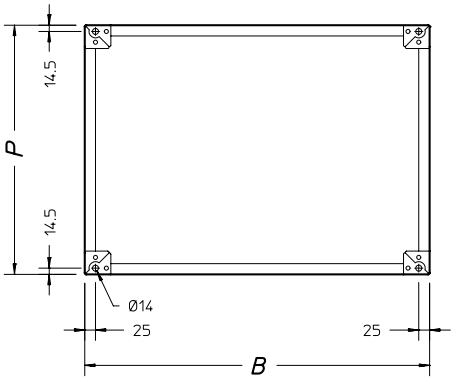
composition

- 4 corners
- cross channels.

The reduced dimension of the corners allows the easy handling of the cabinet.
The side covers can be removed from the front and from the rear.

REMARK: available on request a fully welded plinth with side covers.





plinth

code		cabinet dim.		plinth	
mod.	art.	width	depth	B	P
ATX1 (h=100) ATX2 (h=200)	060040	600	414	600	378
	060050		514		478
	060060		614		578
	080040	800	414	800	378
	080050		514		478
	080060		614		578
	100040	1000	414	1000	378
	100050		514		478
	100060		614		578
	120040	1200	414	1200	378
	120050		514		478
	120060		614		578

To order a stainless steel enclosure in high grade AISI 316, please add H to the catalogue number.
E.g.: ATX1-080050H.

FRONT INSERTED MOUNTING PLATE ATPA

Manufactured from sendzimir sheet steel

- thickness 2.5mm for L<1000
- thickness 3mm for L≥1000.

mounting plate

code		cabinet dim.		plate	
mod.	art.	B	A	L	H
ATPA	060180	600	1809	485	1680
	060200		2009		1880
	080180	800	1809	685	1680
	080200		2009		1880
	100180	1000	1809	885	1680
	100200		2009		1880
	120180	1200	1809	1085	1680
	120200		2009		1880

* For L ≥ 1400
Mounting plate manufactured with two parts with horizontal union and stiffening omega

To be ordered separately:
• mounting accessories: WTKB-002.

complementary accessories

SIDE INSERTED MOUNTING PLATE ATPL

Manufactured from 2.5mm sendzimir sheet steel
Supply includes mounting accessories and sliding guides.

mounting plate

code		cabinet dim.		plate	
mod.	art.	B	A	L	H
ATPL	060180	600	1809	600	1685
	060200		2009		1885
	080180	800	1809	800	1685
	080200		2009		1885
	100180	1000	1809	1000	1685
	100200		2009		1885
	120180	1200	1809	1200	1685
	120200		2009		1885

SIDE PANELS ATFX

Manufactured from 1.5mm AISI 304 stainless steel (AISI 316 on request).

composition

- two side panels
- rapid fasten couplers
- mounting accessories.

side panels

code		cabinet dim.	
mod.	art.	height	depth
ATFX	040180	1800	400
	050180		500
	060180		600
	050200	2000	500
	060200		600

To order a stainless steel enclosure in high grade AISI 316, please add H to the catalogue number.
E.g.: ATFX-050200H.

complementary accessories

INNER DOOR ATPIX

Manufactured from 2mm AISI 304 stainless steel material (AISI 316 on request) and supplied complete with vertical uprights and horizontal rails.

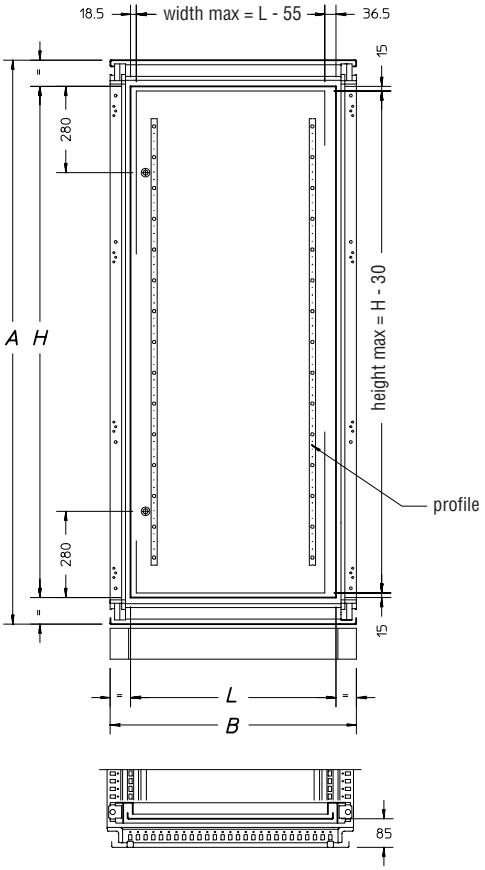
composition

• door complete with Ø 3mm double bar locking system
• hinges
• vertical uprights and horizontal rails
• mounting accessories.

inner door

code		cabinet dim.		inner door	
mod.	art.	B	A	L	H
ATPIX	060180	600	1809	467	1667
	060200		2009		1867
	080180	800	1809	667	1667
	080200		2009		1867
	100180	1000	1809	867	1667
	100200		2009		1867

To order a stainless steel enclosure in high grade AISI 316, please add H to the catalogue number.
E.g.: ATPIX-080200H.



90° STAINLESS STEEL HINGE WTCE-090001XH

Manufactured in AISI 316 stainless steel material.
Supply includes 4 pieces,
with pins and clips in AISI 316 material.

Available on request.

STAINLESS STEEL MOUNTING ACCESSORIES WTAX

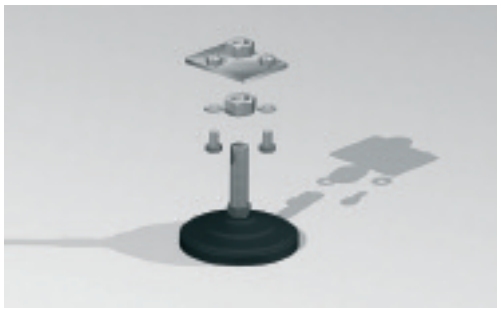
Available on request.

1. REAR PANEL FIXING BRACKETS WTAX-100H
Manufactured in AISI 316 material.
Supply includes 8 pieces.

2. SIDE PANELS FIXING BRACKETS WTAX-200H
Manufactured in AISI 316 material.
Supply includes 16 pieces.

3. DOOR LOCKING POINTS WTAX-300H
Manufactured in AISI 316 material.
Supply includes 4 pieces.

complementary accessories

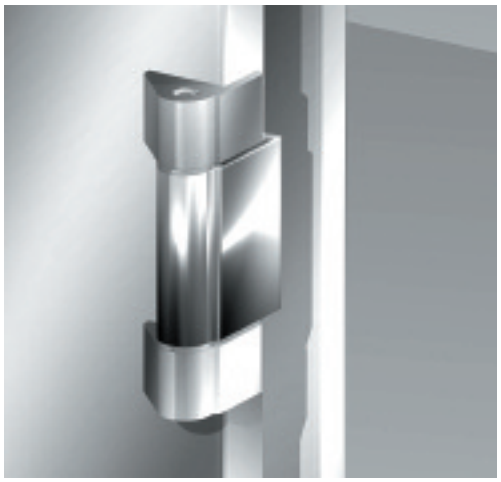


LEVELLING FEET WTPX

They can be applied on the cabinet structure or plinth.
They make easier the floor cleaning and adjust different heights.

composition

4 pieces, plates and mounting accessories.



180° CHROME HINGES WTCE-180001C

Supply includes 4 pieces.

180° HINGES AISI 316 STAINLESS STEEL WTCE-180001X

Supply includes 4 pieces.

EYEBOLTS WTGS-001X

M12 lifting eyebolts. Stainless steel.
Supply includes 4 pieces.

LIFTING BRACKETS WTSS-001

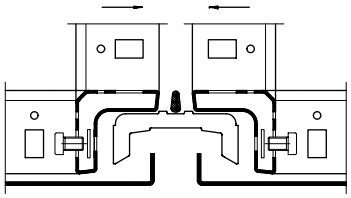
5mm zincpassivated sheet steel lifting brackets.
Supply includes 4 pieces.

complementary accessories

JOINING KIT ATKU-002X

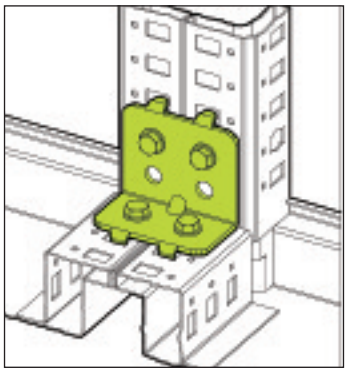
To be used to join two cabinets together.
It is better to use lifting brackets WTSS-001 instead of lifting eyebolts.
Supply includes union spacers, fixing accessories and gasket to guarantee IP protection degree.

Upon request available in chrome plated material (ATKU-002C).



REINFORCING BRACKETS ATKU-003

Manufactured from 4mm zincpassivated sheet steel.
To be used to grant more rigidity to cabinets joined in a suite.
Supply includes:
4 pieces, mounting accessories.



SHROUD FOR FILTER FANS

Installing a shroud over a filter fan and exhaust filter, the protection degree of the enclosure is maintained.

characteristics

Manufactured from 1.2mm stainless steel AISI 304.

composition

Single piece with mounting accessories.

protection degree

IP 55.

code			
mod.	art.	for filter fan	for filter grid
WTCVX	005	WT300/300V WI200/200V	WT330 WI230
	010	WT305/305V WT308/308V WI205/205V	WT335 WI235
	015	WT310/310V WT315/315V WI210/210V	WT340 WI240

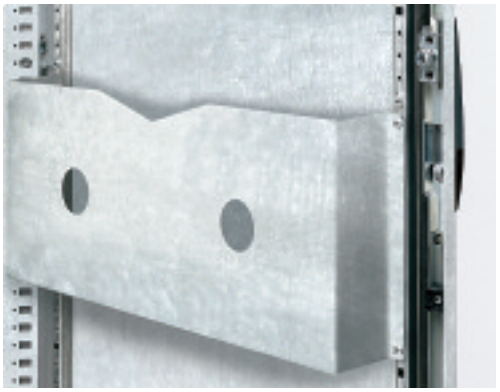
PLAN POCKET WTTS

Large size plan manufactured from 1.5mm stainless steel.

composition

Supply includes: 1 plan pocket complete with mounting screws.

Width 600mm WTTS - 000600X
Width 800mm WTTS - 000800X
Width 1000mm WTTS - 001000X



Areta stainless steel

ARETA MODULAR STAINLESS STEEL

Upon request, power distribution boards in stainless steel are available.
(Cubicles made in sendzimir sheet steel).

conformity and approval

protection degree

Structure with glazed door:
- IP 54 complying with EN50298; EN60529
- type 12 complying with UL508A; UL50.

Areta pc in stainless steel with pull-out keyboard

characteristics

The pc front with pull-out keyboard includes:
- structure in AISI 304 material with rear panel. AISI 316 on request
- top glazed door in stainless steel for monitor viewing
- pull-out keyboard drawer with mouse support
- lower door in stainless steel
- sealed box for keyboard
- adhesive double side tape for keyboard fixing
- gasket and mounting accessories
- monitor support.

protection degree

- IP 55.

dimensions			code	
width	height	depth	mod.	art.
600	1800	600	ATPCX	061806CE
600	2000	600	ATPCX	062006CE

To be ordered separately:
- **side panels ATFX (see page 234)**
- **plinth H=100, H=200 (see page 233).**

To order a stainless steel enclosure in high grade AISI 316, please add H to the catalogue number.
E.g.: ATPCX-061806CEH

Asso, aerial view of the main facility of Special Eta
and the manufacturing site of stainless steel enclosures.

ATB8 monobloc cabinet in stainless steel

characteristics

STRUCTURE
Manufactured from 1.5mm AISI 304 material with removable rear panel.
Door manufactured from 2mm AISI 304 material with stiffening frame.
Available in AISI 316 on request.
Hinges in zinc alloy, chrome plated.

composition

- cabinet structure
- door complete with Ø 3mm double bar locking system
- adjustable cable entry.

conformity and approval

Certification pending

protection degree

- IP 55 with complying EN50298; EN60529
- type 12 with complying UL508A; UL50
- impact resistance IK10 complying with EN50298; EN50102.

To be ordered separetely:
- **eyebolts (see page 241)**
- **mounting plate (see page 241).**

dimensions			code	
L	H	P	mod.	art.
600	1600	400	ATB8X	061604PR
600	1800	400	ATB8X	061804PR
600	1800	500	ATB8X	061805PR
600	2000	400	ATB8X	062004PR
600	2000	500	ATB8X	062005PR
800	1600	400	ATB8X	081604PR
800	1800	400	ATB8X	081804PR
800	1800	500	ATB8X	081805PR
800	2000	400	ATB8X	082004PR
800	2000	500	ATB8X	082005PR
1000	1800	400	ATB8X	101804PR
1000	2000	400	ATB8X	102004PR
1200	1800	400	ATB8X	121804PR
1200	1800	500	ATB8X	121805PR
1200	2000	400	ATB8X	122004PR

To order a stainless steel enclosure in high grade AISI 316, please add H to the catalogue number.
E.g.: ATB8X-062005PRH. Available on request.

complementary accessories

PLINTH: H=100 ATZ6 - H=200 ATZ7

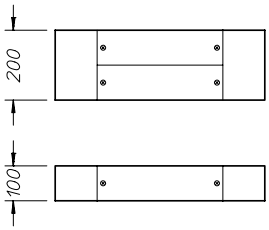
characteristics

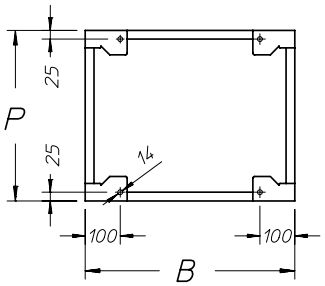
Corners: manufactured from 2mm AISI 304 stainless steel (AISI 316 on request).
Cross channels: manufactured from 2mm AISI 304 stainless steel (AISI 316 on request).

composition

- 4 corners
- cross channels.

Remark: available on request a fully welded plinth with side covers.





code		cabinet dim.		plinth	
mod.	art.	width	depth	B	P
ATX6 (H=100) ATX7 (H=200)	060040	600	400	600	340
	060050		500		440
	080040	800	400	800	340
	080050		500		440
	100040	1000	400	1000	340
	120040	1200	400	1200	340
	120050		500		440

To order a stainless steel enclosure in high grade AISI 316, please add H to the catalogue number.
E.g.: ATX6-060050H.

MOUNTING PLATE ATPA

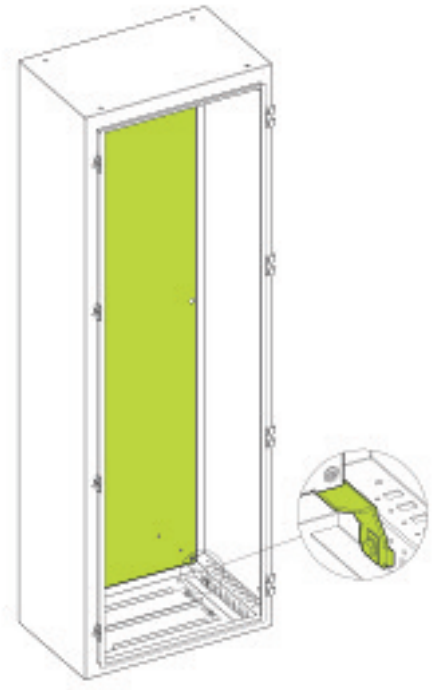
Manufactured from sendzimir sheet steel

- thickness 2.5mm for L<1000
- thickness 3mm for L≥1000.

mounting plate

code		cabinet dim.		plate	
mod.	art.	B	A	L	H
ATPA	060160	600	1609	485	1480
	060180		1809		1680
	060200		2009		1880
	080160	800	1609	685	1480
	080180		1809		1680
	080200		2009		1880
	100180	1000	1809	885	1680
	100200		2009		1880
	120180	1200	1809	1085	1680
	120200		2009		1880

To be ordered separately:
• mounting accessories: WTAC-002.



WTGS-003

Zincpassivated M12 lifting eyebolts.
Supply includes 4 pieces
with nuts and washers.