BART SERVICE

CATALOGUE

TROLLEY SHELTERS - CAR SHELTERS - ROOFINGS

www.bart-service.com.pl

BART-SERVICE Bojarscy Sp.j.
Teofilowska 62/64 Street 91-203 Lodz, Poland

Bart-Service was established in 1998.
The expansion of the large retail sector, starting in Poland at that time, needed new products - shopping trolley shelters. Bart-Service's designing and manufacturing capabilities attracted the first serious customers, i.e. chain stores, to our company:
The market has evolved, new investors have appeared, the other ones have disappeared, and their needs have changed as well.
Our company has evolved together with the market.
We have started from looking for subcontractors for the production of the shelters.
Now we are a **certified manufacturer of CE-marked steel structures according to PN-EN 1090 and PN-ISO 3834**.
We oversee every aspect of the shelter creation process for our customers - from the architectural design and static calculations, careful selection of suppliers of materials and production services, to the work of experienced and trained production and assembly workers.
Over 23 years the group of our customers has expanded by, inter alia, ··· and many towns and communities.
Your expectations have also changed at that time.
Our attention to the high quality of the product and customer satisfaction has formed new standards on the market. Thanks to our efforts, the safety of your customers is fully guaranteed today. No one now questions galvanisation of 100% structure, production of the shelter on the basis of precise static calculations (a map of areas for which we analyse loads nearby) and necessity of foundation.
Together we have managed to develop higher safety standards and create aesthetically better environment of your stores.
The high quality of our shelters ensures their trouble-free operation for a long time. Our service may extend their usability by successive years and solve other problems that sometimes appear during the usage. Furthermore, we replace your shelters for even better products whenever necessary.
We are grateful for your confidence thanks to which we can develop all the time!

Magdalena Bojarska-Dyba

Tomasz Bojarski

BART SERVICE

About structures...

For 23 years we have manufactured the shelters whose structures are still evolving.
Your needs, design and production standards are changing.
Only the highest quality of our shelters remains unchanged.

FRAME SHELTERS

Technologically advanced structures with glass-filled walls.
Selected by all Bart-Service's customers from inside and outside the European Union.
Can be combined in joined systems ensuring the almost infinite number of types and modification.
Open concept - a final shelter design is often developed taking the customer's remarks into account.

POLYCARBONATE SHELTERS

Main foundation structure with polycarbonate walls.
Selected by many customers in Poland.
Transported to the customer as complete structures so the stay of the Bart-Service team in the customer's car park can be reduced to a minimum (below one hour if the foundations are earlier prepared).

OTHER SHELTERS

Designed and realised solutions for of cycle, car and boat storage.
Urban and inter-urban transport service stops, smoking rooms and online shopping collectors.
Basing on our shopping trolley shelters we create thousands of solutions for our customers.

under construction:

CATALOGUE
- bike shelters-

CATALOGUE
- car shelters -

CATALOGUE
- Bus stop shelters-

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trolley shelters

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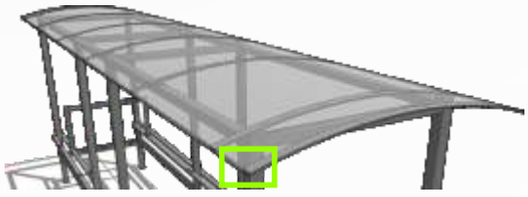
Frame structures

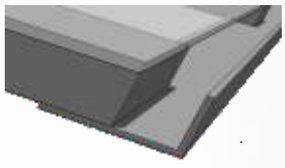
Roof types/ shapes

arched

F type

- roof does not project beyond the frame outline
- light aluminium structure
- roofing: 6 mm cellular polycarbonate with UV filter
-water discharged by steel gutters
-complete multiplications can be formed

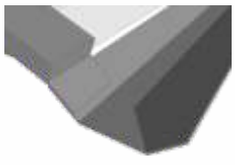




P type

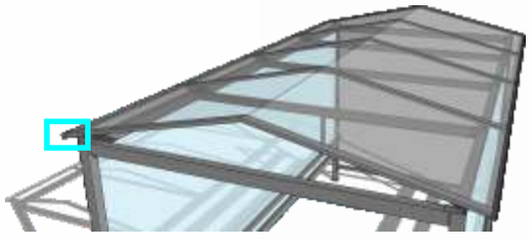
- roof projects beyond the frame outline
- stable steel structure
- roofing: 6 mm cellular polycarbonate with UV filter
- water discharged by steel angle
-series of frames can be formed

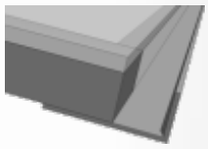
gabled



G type

- roof does not project beyond the frame outline
- stable steel structure
- roofing: 6 mm cellular polycarbonate with UV filter
-water discharged by steel gutters
-complete multiplications can be formed





R type

- roof projects beyond the frame outline
- stable steel structure
- roofing: 6 mm cellular polycarbonate with UV filter
- water discharged by steel angle
-series of frames can be formed

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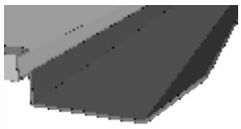
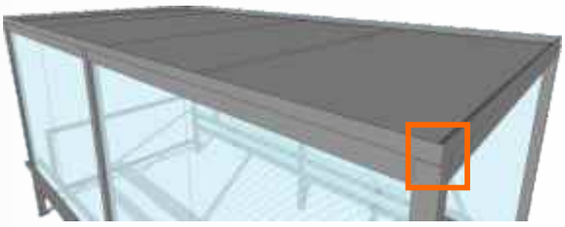
Roof types/ shapes

flat



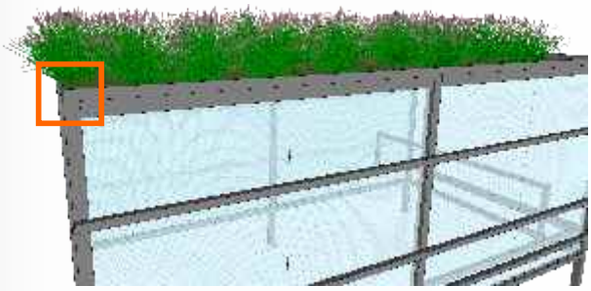
H type

- roof does not project beyond the frame outline
- stable steel structure
- roofing: 8 mm cellular polycarbonate with UV filter (optional: plexy, solid polycarbonate)
-water discharged by steel gutters
-complete multiplications can be formed



S type

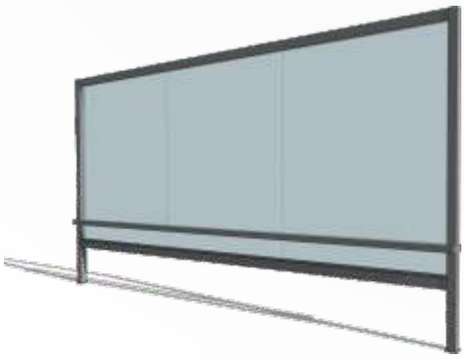
- roof does not project beyond the frame outline
- stable steel structure
- roofing: 8 mm cellular polycarbonate with UV filter
- water discharged by frame column
-complete multiplications can be formed



Green type

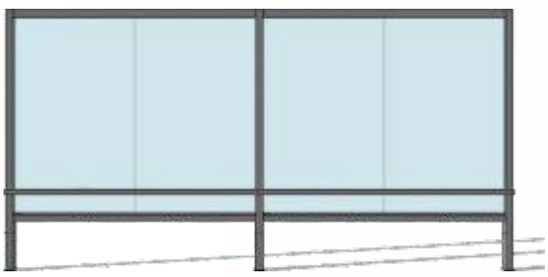
- structure for coverage with extensive vegetable
- roof does not project beyond the frame outline
- stable steel structure
- roofing: aluminium sheet or galvanised steel sheet
- water discharged by frame column
- complete multiplications can be formed
- 50% of coverage surface classified as a space of biologically active area

Frame types



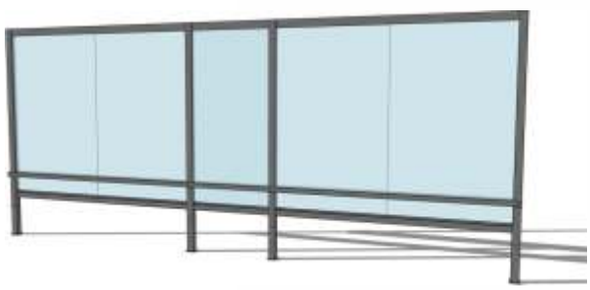
Basic (BS)

- 4 columns - 4 foundation points
- structure: hot-dip galvanised
  and powder-coated thin-wall steel (RAL colours)
- filling: 6 mm toughened glass



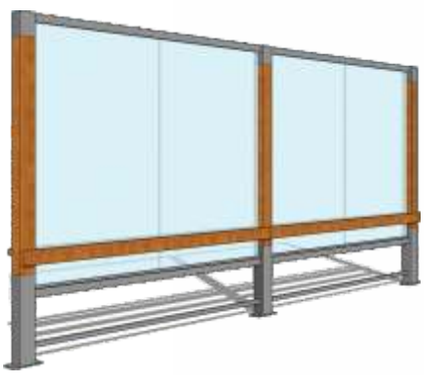
Standard (ST)

- 6 columns - 6 foundation points
- structure: hot-dip galvanised
  and powder-coated thin-wall steel (RAL colours)
- filling: 6 mm toughened glass



Long (LG)

- **extended frame (construction of the whole parking space)**
- 8 columns - 8 foundation points
- structure: hot-dip galvanised
  and powder-coated thin-wall steel (RAL colours)
- filling: 6 mm toughened glass



Wood (W)

- 6 columns - 6 foundation points
- structure: hot-dip galvanised
  and powder-coated thin-wall steel (RAL colours)
  and wax-protected laminated timber
- filling: 6 mm toughened glass

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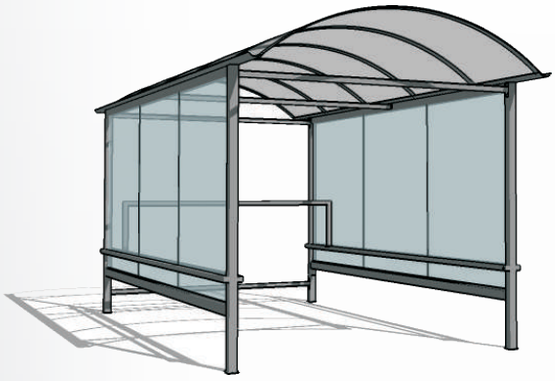
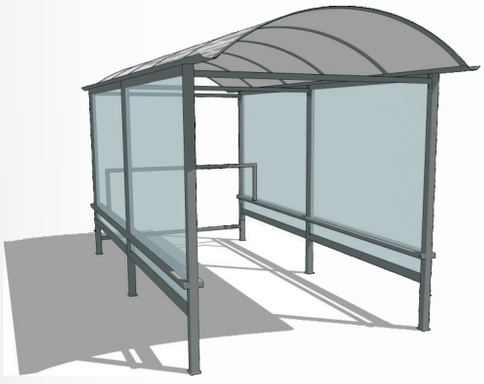
Base structures - arched roof

F type



F BS

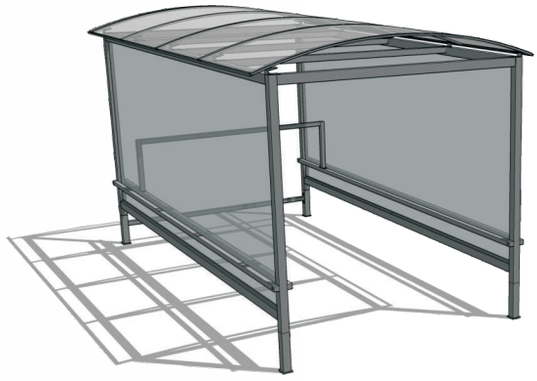


F ST

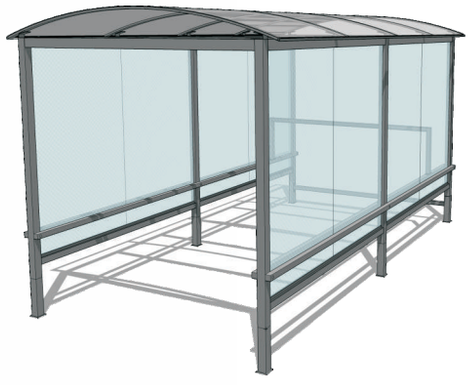
F LONG

F W

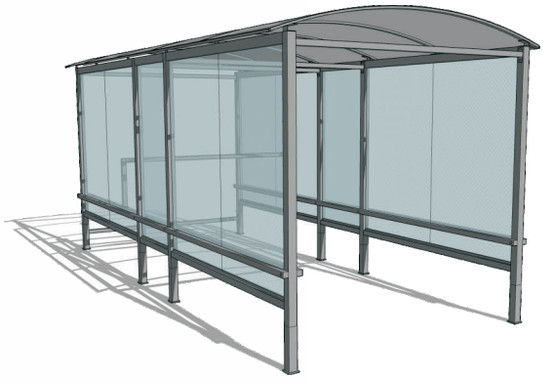
P type



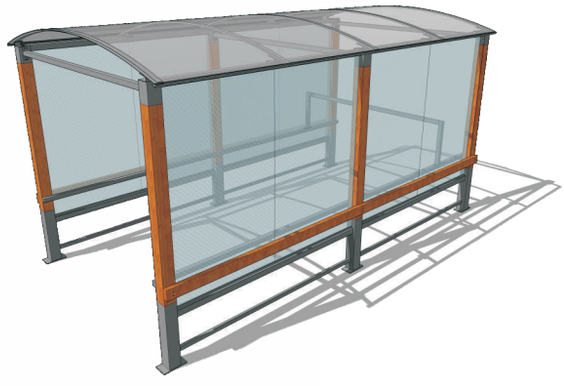
P BS



P ST



P LONG



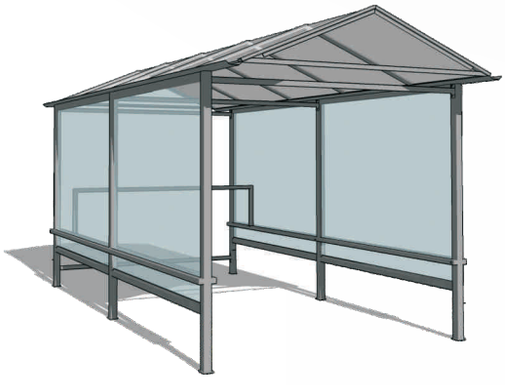
P W

Detailed technical data sheets for each product are available at the request of the customer.

Base structures - gabled roof

G type

G BS



G ST

G LONG

G W

R type

R BS

R ST

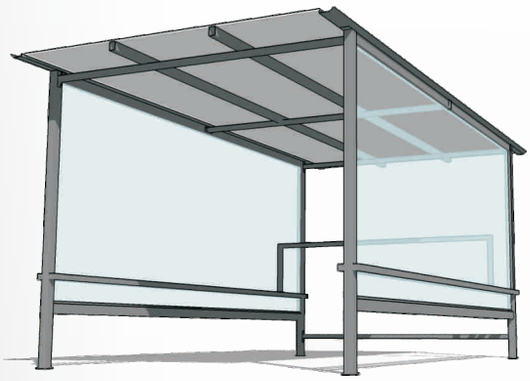
R LONG

R W

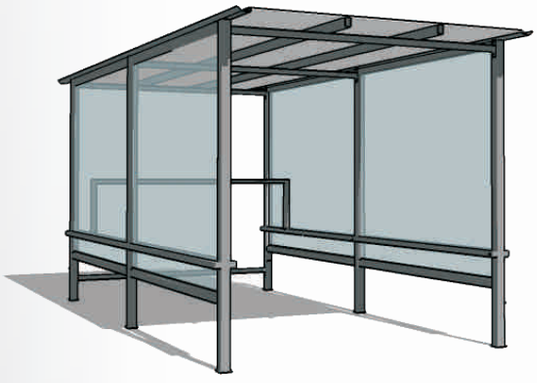
Detailed technical data sheets for each product are available at the request of the customer.

Base structures - flat roof

H type



H BS



H ST

H LONG

H W

S type

S BS

S ST

S LONG

Detailed technical data sheets for each product are available at the request of the customer.

Base structures - flat roof

Green type

Green ST

Green LONG

Detailed technical data sheets for each product are available at the request of the customer.

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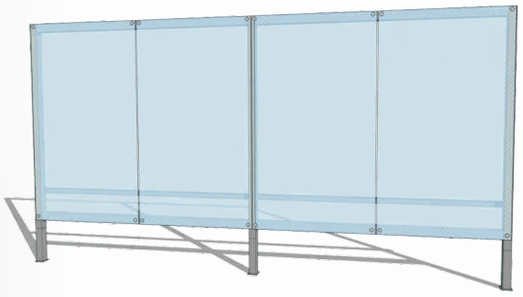
Wall filling options



GS

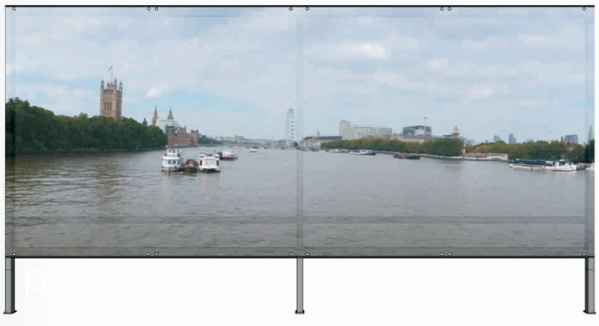
glass

- 6 mm toughened glass fitted directly to the frame
- can be used on every frame type

EC

economic

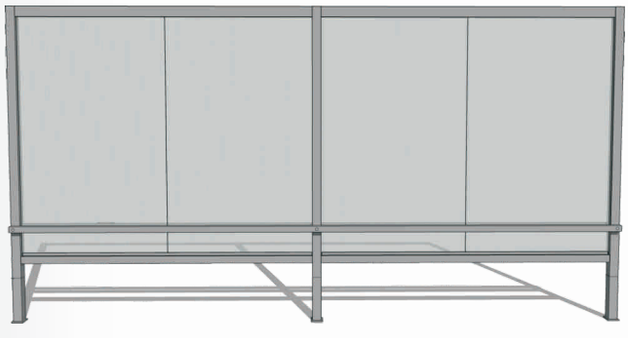
-GS (glass) option modification
-twisted glass on light structure (thinner profiles)
-can be used only in selected locations



DP

display

- shelter frame fulfilling a function of advertising space
- glass surface can be covered with any graphics

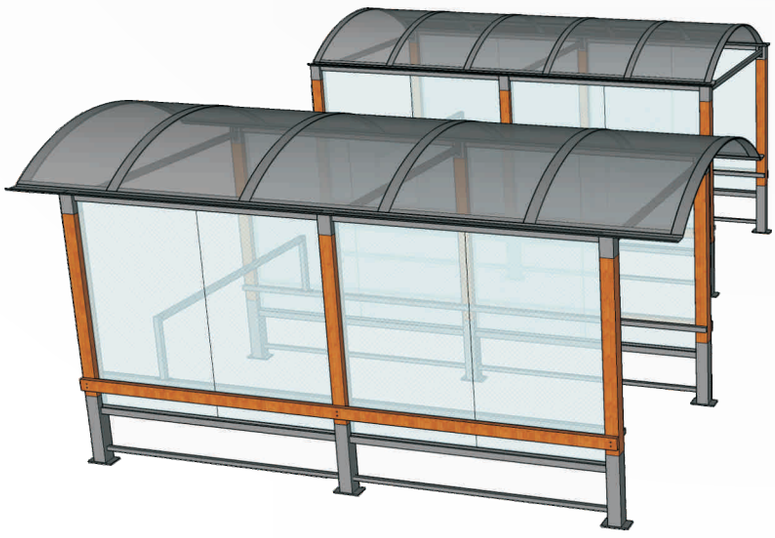


CP

cellular polycarbonate

- polycarbonate panel reinforced with U-profile
- less transparency of the walls

Structure modifications

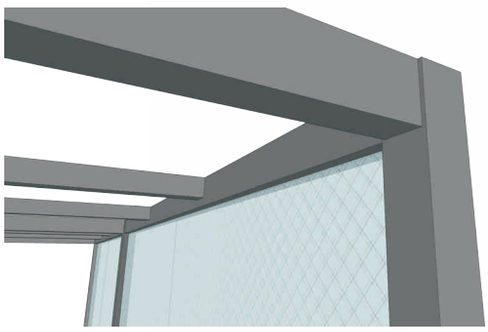


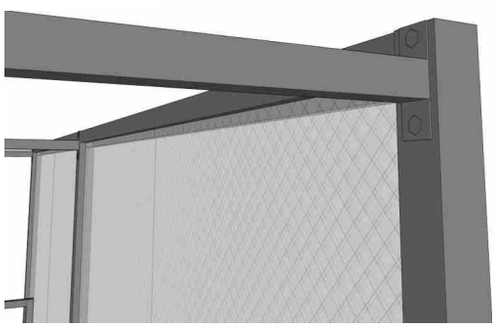
SR
short roof

The reduction of the roof to the frame outline, used for aesthetic reasons or forced by less space, consists in aligning the roof length with the spacing of external columns.

LR
long roof

The extension of the roof beyond the frame outline allows covering the larger area at lower costs.





EX
extra
(hidden connections)

A system of hidden joints is based on a structure in which all elements are assembled by means of hidden bolts. The result is an aesthetically refined structure without visible fixings.

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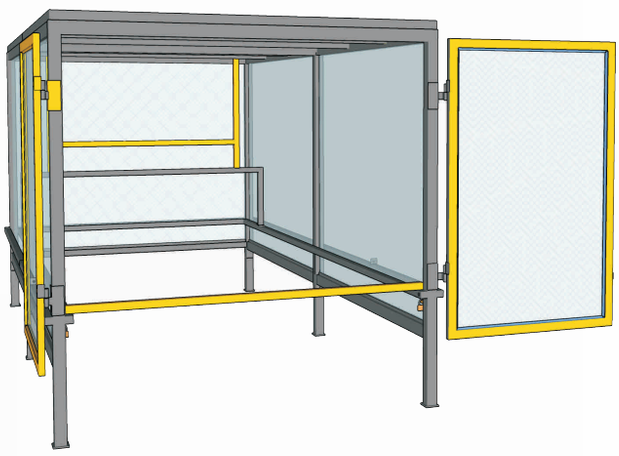
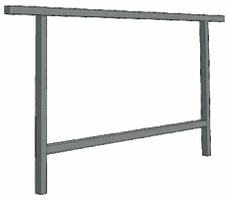
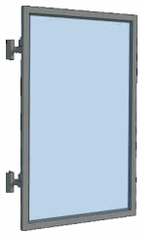
Accessories



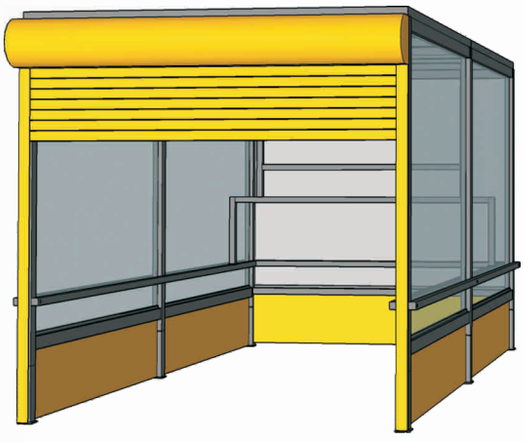


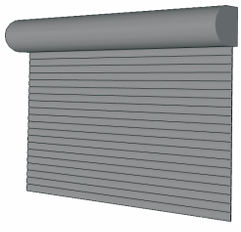
AF
advertising frame



TD
transparent doors

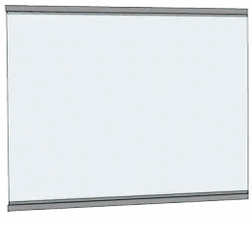
CC
closing crossbeam





RD
rolling doors

SH
shields



BW
back wall

L
logo

trolley shelters

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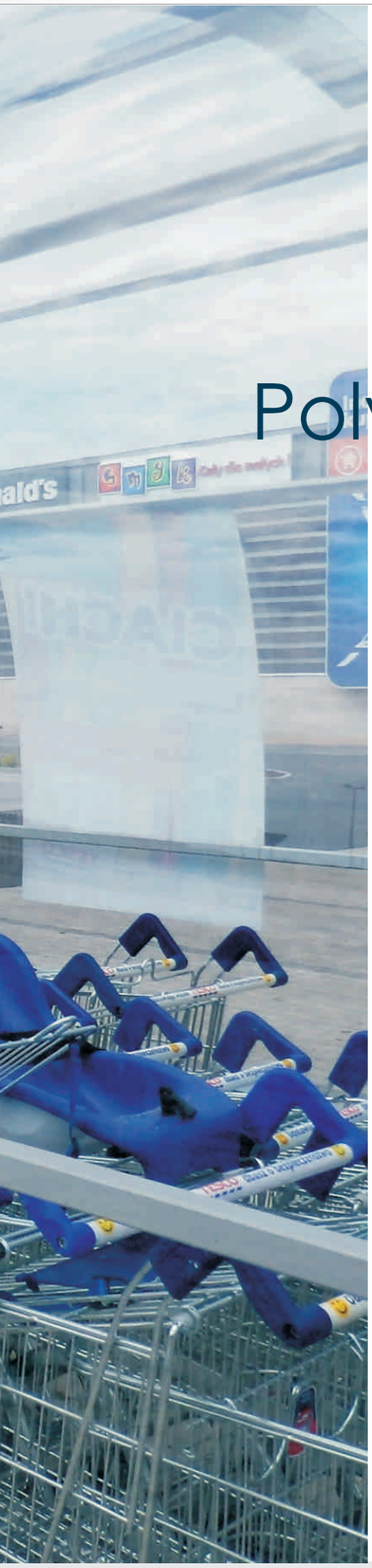


Polycarbonate structures

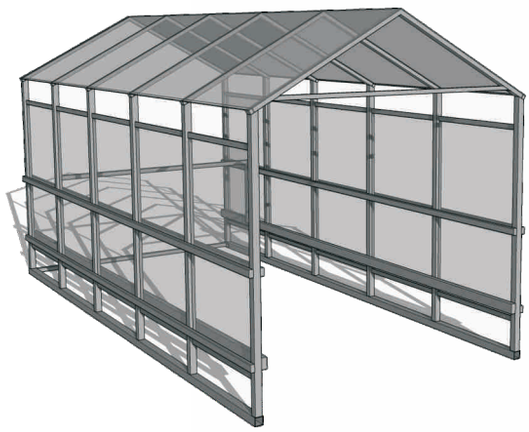
Types of polycarbonate structures

arched

T type

- foundation shelter transported as a complete structure
- structure: hot-dip galvanised
  and powder-coated thin-wall steel (RAL colours)
- filling: 6 mm cellular polycarbonate with UV filter
- 4 columns - 4 foundation points

gabled



C type

- foundation shelter transported as a complete structure
- structure: hot-dip galvanised
  and powder-coated thin-wall steel (RAL colours)
- filling: 6 mm cellular polycarbonate with UV filter
- 4 columns - 4 foundation points

A type

- shelter transported as a complete structure
and erected on feet
- structure: hot-dip galvanised
  and powder-coated thin-wall steel (RAL colours)
- filling: 6 mm cellular polycarbonate with UV filter
- 4 columns - 4 foundation points

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tunnel

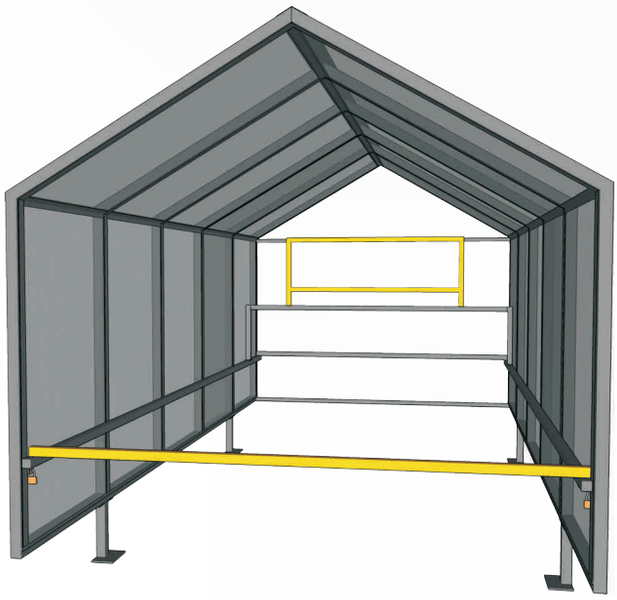
M type

- foundation shelter transported as a complete structure
- structure: hot-dip galvanised
  and powder-coated thin-wall steel (RAL colours)
- filling: 6 mm cellular polycarbonate with UV filter
- 4 foundation points

N type

- structure: hot-dip galvanised
  and powder-coated thin-wall steel (RAL colours)
- filling: **3 mm solid polycarbonate**
  optional 6 mm cellular polycarbonate with UV filter
- 6 foundation points
- series with any length can be formed

Accessories



AF
advertising frame

CC
closing crossbeam

BW
back wall

L
logo

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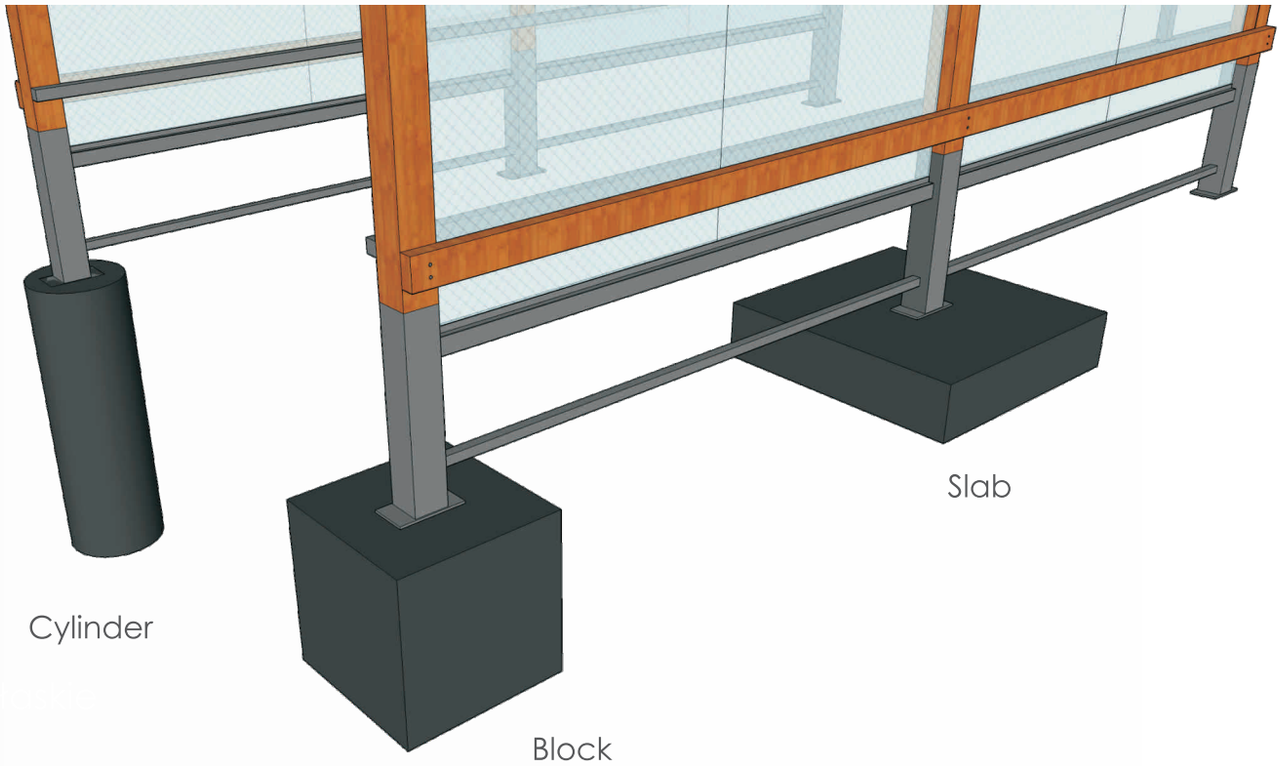
Foundations

A well designed shelter, subject to the full control during the production in order to meet the highest safety standards, needs secure fixing. The base - nearly always not too stable, requiring concrete foundations for proper assembly - is of prime importance to achieve it.
Depending on the ground conditions and structure type Bart-Service selects the most optimal foundation from among the following ones.

Types of foundations:



Start-box

tart-boxes are solutions for roofed car parks, footpaths for pedestrians, underground car parks.
They order shopping trolleys, suggesting locating them in the determined and most advantageous places to the customers. The use of locking mechanisms makes it easier to keep the trolleys in order, however, the structural elements can be used as a supporting structure for advertising purposes etc.

We offer several types of the start-boxes, among other things:

start-box **type 1**

start-box **type 2**

start-box **type 3**

Bus stop shelters, cycle shelters, car shelters, cyckle racks

On the basis of our shopping trolley shelters we create thousands of solutions for our customers.
We construct cycle parks and shelters. We produce smoking rooms, bus stop and car shelters. We cover footpaths for pedestrians with roofs.
For especially demanding customers we create complete sets of structures with various functions that are connected by a common aesthetic principle.

One of our latest projects is a **PICK-UP POINT**, i.e. online shopping collector in a regular store. This structure enables the access of the car to the loading place and the collection of the earlier purchased goods without leaving the car.

Car shelter

Cycle shelter

Pick up point

trolley shelters

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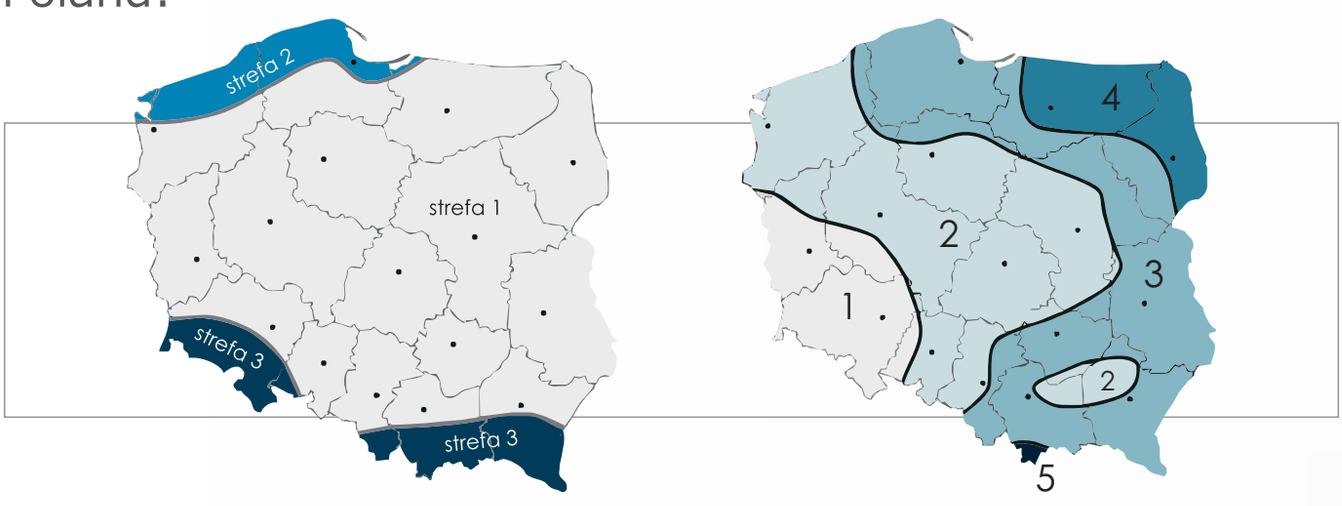
Standards and certificates

Statics and design standards

The design of steel structures is a very responsible job.
The safety of the users depends on the accuracy of workmanship.
A proper selection of designing tools (standards and variable loads (wind, snow) appropriate for a specified location) allows creating structures whose usage does not present a danger to the users.
Basing on such assumptions we manufacture products characterised not by achieving the lowest possible production cost but by ensuring the complete safety. The use of steel profiles of proper thickness, system of correct joints, appropriate shelter foundations or galvanisation of all constructional elements are your quality assurance.
For some manufacturers this is the cost that may be omitted limiting a scope of such assurance.
For Bart-Service it is a base of operation.
Our shelters, in basic versions, meet the standard requirements for the vast majority of locations.
In case of extreme loads we can offer additional reinforcements or structure modifications.
The shelter statics are analysed each time a revision of standards and guidelines takes place.
Therefore we modify our shelters to meet the requirements of more and more restricted regulations.

Poland:



wind zones:

1: $v_{b,0}$= 20 m/s
2: $v_{b,0}$= 24 - 30 m/s
3: $v_{b,0}$= 24 - 47 m/s

snow zones:

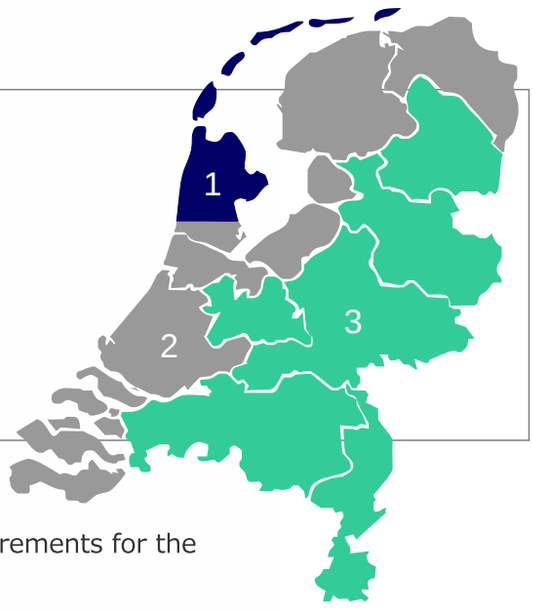
1: $s_k \geq 0{,}70$ kN/m^2
2: $s_k = 0{,}90$ kN/m$_2$
3: $s_k \geq 1{,}20$ kN/m$_2$
4: $s_k \geq 1{,}60$ kN/m$_2$
5: $s_k \geq 2{,}00$ kN/m$_2$

A basic model of most Bart-Service shelters meets the standard requirements for the zones:
3.- wind zone and 4. - snow zone. For the zone 5. we offer a slightly modified reinforced model.

Netherlands:

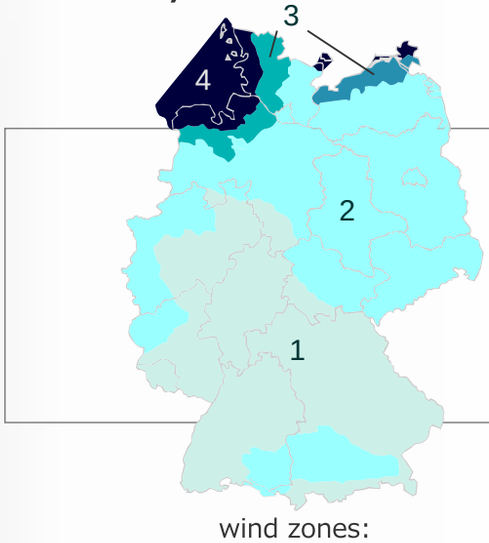
wind zones::
1: $v_{b,0}$= 29,5 m/s
2: $v_{b,0}$= 27,0 m/s
3: $v_{b,0}$= 24,5 m/s

Snow zones - a level of snow zone is assumed for the whole of the Netherlands s_k = 0,7 kN/m^2.



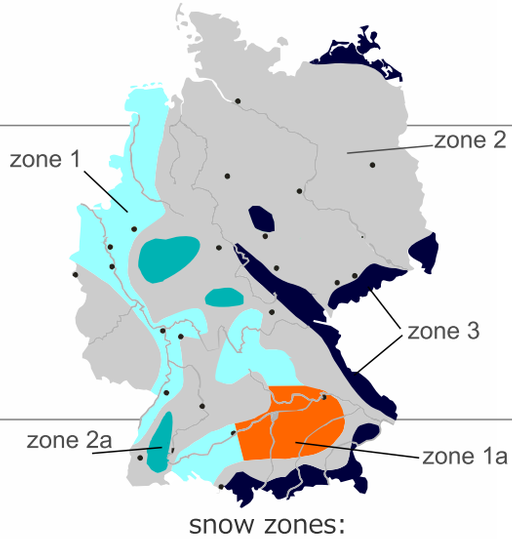
A basic model of most Bart-Service shelters meets the standard requirements for the zones: 2. & 3. - wind zone and permanent snow loads.
For the zone 1. we offer a slightly modified reinforced model.

Germany:



wind zones:

1: $v_{b,0}$ = 22,5 m/s
2: $v_{b,0}$ = 25,0 m/s
3: $v_{b,0}$ = 27,5 m/s
4: $v_{b,0}$ = 30,0 m/s



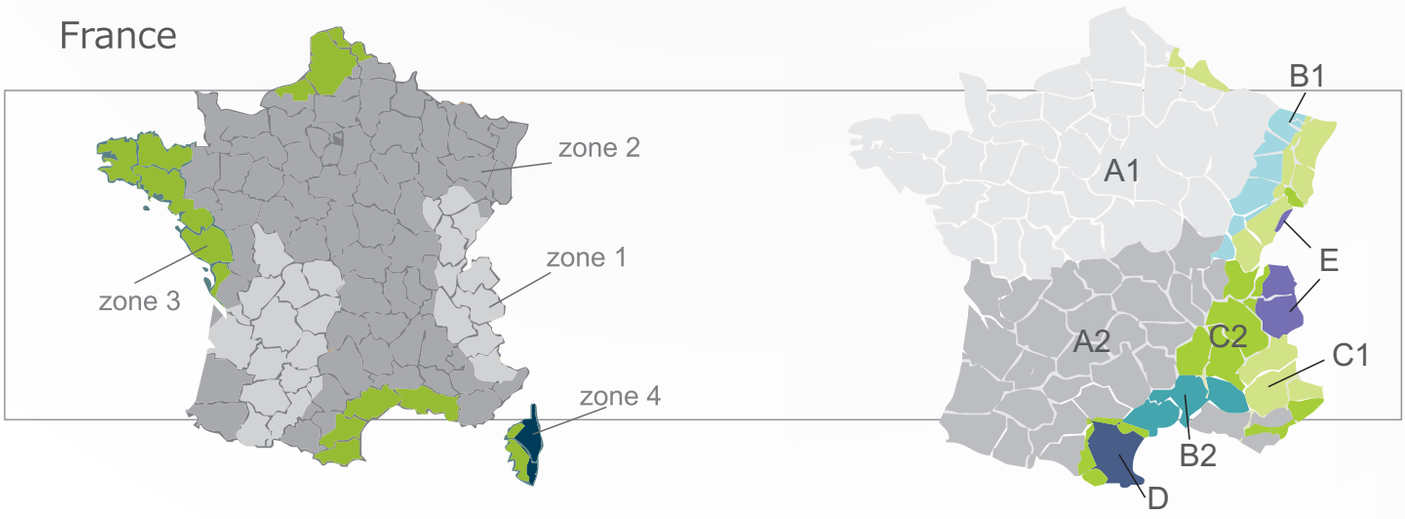
snow zones:

1: s_k = 0,65 - 1,20 kN/m^2
1a: s_k = 0,81 - 1,20 kN/m^2
2: s_k = 0,85 - 1,20 kN/m^2
2a: s_k = 1,06 - 1,20 kN/m^2
3: s_k = 1,10 - 1,20 kN/m^2

A basic model of most Bart-Service shelters meets the standard requirements for the zones:
1. & 2. - wind zone and all snow zones (with limitation of the elevation above sea level). For other areas we offer reinforced models, in case of extreme conditions we propose our individual solutions.

Statics and design standards

France



wind zones:

1: $v_{b,0}$ = 28,6 m/s
2: $v_{b,0}$ = 31,1 m/s
3: $v_{b,0}$ = 35,0 m/s
4: $v_{b,0}$ = 38,3 m/s

snow zones:

A1, A2 do wysokości 800 m. n.p.m s_k = 0,45 - 1,2 kN/m^2
B1, B2 do wysokości 730 m. n.p.m s_k = 0,55 - 1,2 kN/m^2
C1, C2 do wysokości 500 m. n.p.m s_k = 0,65 - 1,2 kN/m^2
D do wysokości 500 m. n.p.m s_k = 0,90 - 1,2 kN/m^2
E do wysokości 500 m. n.p.m s_k = 1,40 - 1,2 kN/m^2

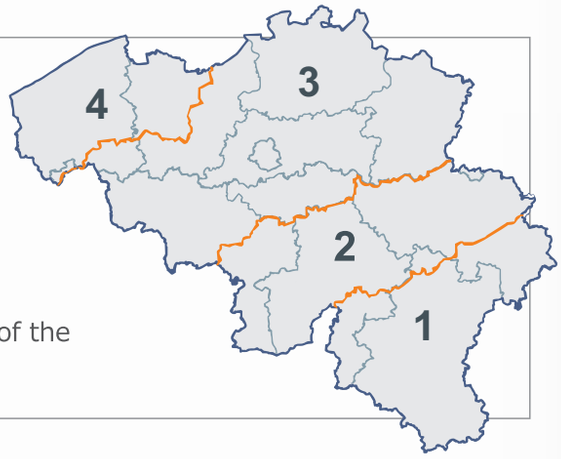
A basic model of most Bart-Service shelters meets the standard requirements for the zones: 4. - wind zone and A-D snow zones (with limitation of the elevation above sea level). For other areas we offer reinforced models, in case of extreme conditions we propose our individual solutions.

Belgium

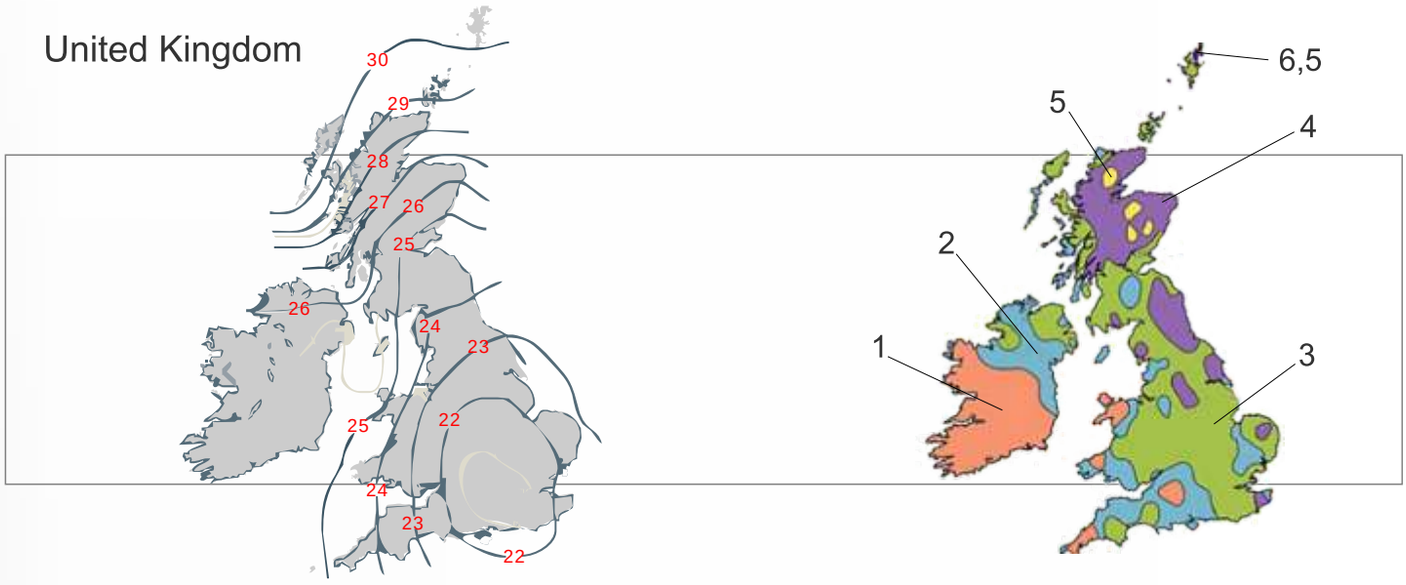
wind zones:

1: $v_{b,0}$ = 23,0 m/s
2: $v_{b,0}$ = 24,0 m/s
3: $v_{b,0}$ = 25,0 m/s
4: $v_{b,0}$ = 26,0 m/s

Snow zones - a level of snow zone is assumed for the whole of the Belgium s_k = 1,2 kN/m^2.



A basic model of most Bart-Service shelters meets the standard requirements for the zones: 4.- wind zone and permanent snow loads.



wind zones:

1: $v_{b,0}$<21 m/s
2: $v_{b,0}$= 21 - 23 m/s
3: $v_{b,0}$= 23 - 25 m/s
4: $v_{b,0}$= 25 - 27 m/s
5: $v_{b,0}$> 27 m/s

snow zones:

1: s_k = 0,30 kN/m^2
2: s_k = 0,40 kN/m^2
3: s_k = 0,50 kN/m^2
4: s_k = 0,60 kN/m^2
5: s_k = 0,70 kN/m^2
6,5: s_k = 0,85 kN/m^2

A basic model of most Bart-Service shelters meets the standard requirements for the zones:
For 3. - wind zone and 5. - snow zone.
For other areas we offer reinforced models, in case of extreme conditions we propose our individual solutions.

Now static loads are analysed for next locations

www.bart-service.com.pl

BART-SERVICE Bojarscy Sp.j.
Teofilowska 62/64 Street 91-203 Lodz, Poland

Standards and CE

Since 1 July 2014 the harmonised standard **PN-EN 1090** has been the only applicable standard on the production of welded steel structures. It specifies not only the performance manner of the structure but the methods controlling this process as well. According to the legislator's recommendation it must be subject to the evaluation and performance constancy verification system supervised by an independent notified body.
Owing to the involvement of Bart-Service in creating the high class products the company has positively passed an audit certifying the quality of welding works and confirming the full compliance of the company's production process (starting from design, through production, to assembly) with the standard requirements.
As a result of the positive evaluation Bart-Service Bojarscy Spółka Jawna was granted by TÜV Rheinland:

Certyfikatu EN 1090-1
Certyfikatu Spawalniczego EN 1090-2
Certyfikatu ISO 3834-2

and given the right to place **CE**-marks on all its products and to issue **declarations of performance for them.**

This is your guarantee of high quality and full safety of delivered products but firstly confirms that requirements concerning the issuance of declarations of performance, imposed on all manufacturers of building products, when placing a product on the market, are fulfilled (resulting from the Regulation of the European Parliament and the Council (EU) No. 305/2011).

All shelters that can be selected form our offer meet the afore-mentioned requirements.

CERTIFICATE

conformity of the Factory Production Control

2627-CPR-1090-1.PL0098.TÜVRh.20.01

In compliance with Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011 (the Construction Products Regulations - CPR)

This certificate applies to the following construction product:

Construction product	Structural components and kits for steel structures to EXC2 according to EN 1090-2:2018
Intended use	for load-bearing structures in all types of buildings
CE-marking method	ZA.3.2-ZA.3.5 according to EN 1090-1:2009+A1:2011
Manufacturer	**BART-SERVICE BOJARSCY SP. J** Teofilowska 62/64 91-203 Łódź Poland
Manufacturing plant Production facility of the manufacturer	Teofilowska 62/64; 91-203 Łódź
Confirmation	This certificate attests that all provisions concerning the assessment and verification of constancy of performance described in Annex ZA of the harmonised standard EN 1090-1:2009+A1:2011 under system 2+ are applied, and that the factory production control fulfills all the prescribed requirements stated therein.
Date of first issue	14.10.2020
Next Surveillance inspection	13.10.2023
Period of validity	This certificate will remain valid as long as the test methods and/or the factory production control requirements included in the harmonised standard used to assess the performance of the declared characteristics do not change, and the product and the manufacturing conditions in the plant are not modified significantly.
Place and date of issue	Zabrze, 27.10.2020

TÜVRheinland 2627 Notified Body

Adam Troszka
Notified Body

www.tuv.com

PCA Polskie Centrum Akredytacji Certyfikacja Wyrobów

TÜVRheinland®
Precisely Right.

WELDING CERTIFICATE

8610-1090-2.PL0076.TÜVRh.20.01

in accordance with EN 1090-1:2009+A1:2011, table B.1 for execution of structural steel components EN 1090-2:2018

Manufacturer	**BART-SERVICE BOJARSCY SP. J** Teofilowska 62/64 91-203 Łódź Poland
Manufacturing plant Production facility of the manufacturer	Teofilowska 62/64; 91-203 Łódź
Technical specification	EN 1090-2:2018
Execution class(es)	EXC2 acc. to EN 1090-1:2009+A1:2011
Welding Process(es) (Reference no acc. to EN ISO 4063)	135 - Metal active gas welding, partly mechanized 141 - TIG gas tungsten arc welding
Material group	1.1, 1.2, 8 according to CEN ISO/TR 15608
Responsible welding coordinator	IWE, PL-IWE-1240/2013
Confirmation	All provisions concerning welding as described in the above mentioned technical specification(s) were applied.
Begin of validity	14.10.2020
Period of validity	13.10.2023
Place and date of issue	Zabrze, 27.10.2020

TÜV Rheinland Certification Body

Adam Troszka
Certification Body

www.tuv.com

TÜVRheinland®
Precisely Right.

Certificate

Inspection of welding process

Certificate No.	**01 8610 PL/A-200104.00**
Name and address of the manufacturer	**BART-SERVICE BOJARSCY SP. J** Teofilowska 62/64 91-203 Łódź Poland
	It is hereby certified that the manufacturer has furnished proof of the quality requirements to be met for his welding activity.
Specification(s)	**EN ISO 3834-3:2005**
Test report No.	**3834/84949787/2020**
Certification scope	**Inspection of welding processes according to EN ISO 3834-3**
Manufacturing plant	Teofilowska 62/64; 91-203 Łódź
Period of validity	**27.10.2020 - 26.10.2023**

Zabrze, 27.10.2020

Adam Troszka
Certification Body

TÜV Rheinland® Certification Body

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PCA
AC 141

TÜVRheinland®
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Declaration of Performance **No. 01/10/2014**	CE 0035
1. Type	Park-box TYPE F BS
2. Production code	F3 BS3 4m 27/10/2014
3. Intended Use	**Structural steelwork construction kits in execution class EXC 2 according to PN-EN 1090-2**
4. Manufacturer	**BART-SERVICE Bojarscy Sp. J.** ul. Teofilowska 62/64, 91-203 Łódź
5. Verification of constancy	**2+**
TÜV Rheinland Industrie Service GmbH No. 0035 has performed verification of constancy (**system 2+**) and inspection of the manufacturing plant and factory product control and continuous surveillance, assessment and evaluation of factory production control and first issued in 14.10.2014 Factory Production Control Certificate **No. 0035-CPR-1090-1.00827.TÜVRh.2014.001** according to **EN 1090-1:2009+A1:201.**	
Performance	
Essential characteristics	**PN-EN 1090-1:2009+A1:2012**
Tolerances on dimensions and shape	**EN 1090-2 i EN 13920**
Weldability	**EN 10025-2 S235JR**
Fracure toughness	27J @ 20ºC/ 0ºC
Impact resistance	NPD
Fire resistance	NPD
Load bearing capacity	NPD
Fatigue strenght	NPD
Resistance to fire	A1
Release of cadmium and its compounds	NPD
Radioactivity	NPD
Durability	**Surface preparation grade: P1** **PN-EN 1461** **PN-EN ISO 12944**
Project	**PN-EN 1993**
Realization/ manufacture	**EN 1090-2**
Execution Class	**EXC 2**
The performance of the product identified above is in conformity with the declared performance identified in the table. Responsible for creating this declaration of performance is only the manufacturer.	

Signed for and on behalf of manufacturer's by:

Name: Tomasz Bojarski

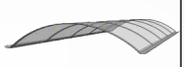
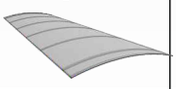
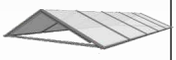
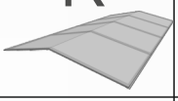
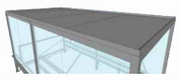
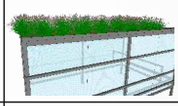
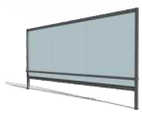
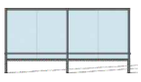
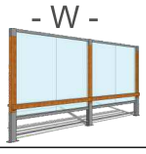
Issue place and date: Łódź, 22.10.2014

BART-SERVICE
Tomasz Bojarski
Kierownik ZKP

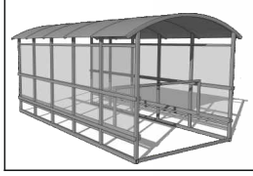
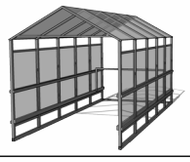
The document has been prepared pursuant to the requirements contained in Annex III REGULATION (EU) No 305/2011 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
Of 9 March 2011 laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC

Shelter selection table

Frame shelters:

roof / frame	F 	P 	G 	R 	H 	S 	Green 
BASIC - BS - 	**F** BS	**P** BS	**G** BS	**R** BS	**H** BS	**S** BS	no possibility
STANDARD - ST - 	**F** ST	**P** ST	**G** ST	**R** ST	**H** ST	**S** ST	**Green** ST
LONG - LG - 	**F** LONG	**P** LONG	**G** LONG	**R** LONG	**H** LONG	**S** LONG	**Green** LONG
WOOD - W - 	**F** W	**P** W	**G** W	**R** W	**H** W	no possibility	**Green** W

Polycarbonate shelters:

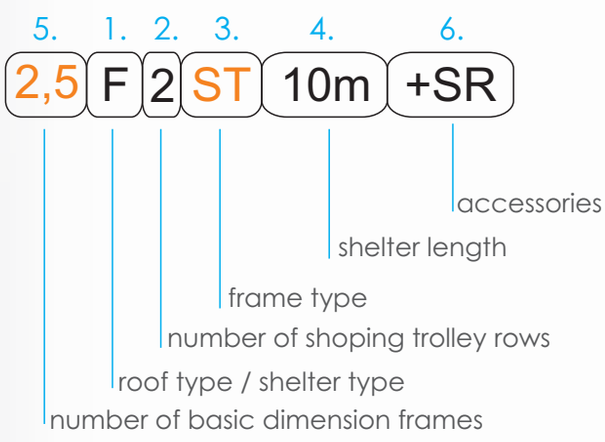
T	C	A	M	N
				

Step-by-step order:

How to place an order:

1. Select a **roof type**
2. Select a **number of shopping trolley rows** in the shelter
3. Select a **frame type**
4. Select a required **shelter length**
5. Configure **muliplications**
6. Select **accessories**

Example:



2,5 F2 ST 10m + SR

Variables marked in orange are available only for frame shelters.

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