

Robusta® Medium SQ 20 Swing Gate

1 Scope

This technical data sheet specifies requirements for Robusta® Medium SQ 20 swing gates with Robusta® infill.

The gate consists of different components:

- Gate posts (Hinge and latch post)
- Wing
- Accessories (Hinges, lock-system, ground bolt)

There are 2 types: Single Robusta® Medium SQ 20 swing gates (figure 1) and double Robusta® Medium SQ 20 swing gates (figure 2).

Robusta® Medium SQ 20 swing gates are CE labeled, in accordance with EN 13241-1.

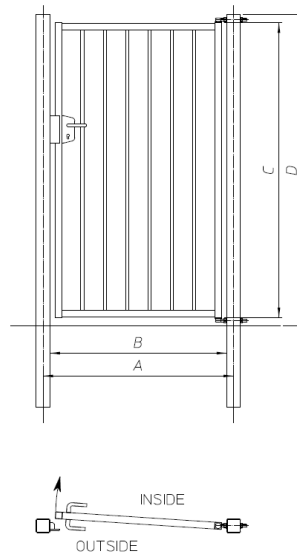
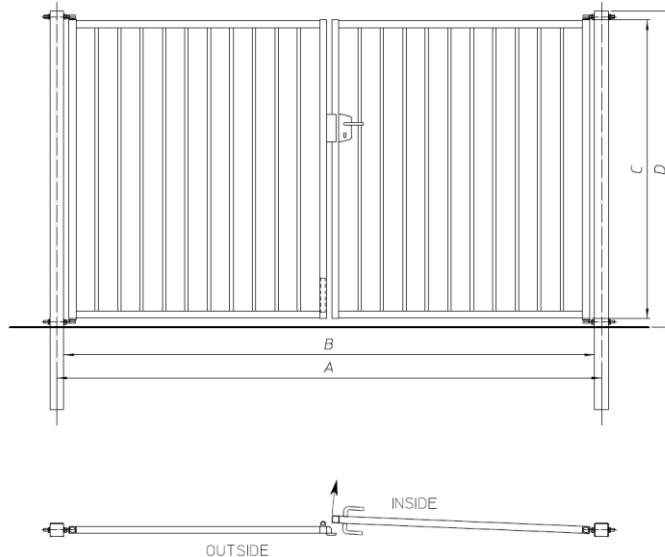


Figure 1: Single Robusta® Medium SQ 20 Swing Gate

Robusta® Medium SQ 20 Swing Gate**Figure 2: Double Robusta® Medium SQ 20 Swing Gate****1.1 Normative references**

- EN 13241-1: Industrial, commercial and garage doors and gates - Product standard - Part 1: Products without fire resistance or smoke control characteristics.
- EN 10219-1: Cold formed welded structural hollow sections of non-alloy and fine grain steels - Part 1: technical delivery conditions.
- ISO 1461: Hot dip galvanized coatings on fabricated iron and steel articles - Specifications and test methods.
- ISO 9227: Corrosion tests in artificial atmospheres; salt spray tests.
- ISO 16474-3: Paints and varnishes - Methods of exposure to laboratory light sources - Part 3: Fluorescent UV lamps.

2 Raw materials**2.1 Steel used for the posts, wing frame and infill**

The posts, frame and infill are made out of construction steel: Type S235 JRH class 1, in accordance with EN 10219-1.

Page: 2 / 11 Date: 09-12-2016 Replaces edition: 18-07-2016	Made up by: Werner Frans Group Quality Department	Approved by: Rafal Jordan Plant Manager	Approved by: Willy Naesens Group Quality Manager
---	---	---	--

Robusta® Medium SQ 20 Swing Gate

2.2 Zinc (Zinc used for hot dip galvanisation bath)

In accordance with ISO 1461.

2.3 Polyester

The polyester is free from Lead and Cadmium.

3 Properties

3.1 Dimensions and tolerances

See table 1 and 2, figures 1 and 2.

Table 1: Dimensions Single Robusta® Medium SQ 20 Swing Gates

Width (mm)	Height (mm)	Gate post (mm)	Wing height (C) (mm)	Total Height (D) (mm)	Opening (B) (mm)	Center-center (A) (mm)	Frame (mm)
1000	x1000	60x60x2x1500	1024	1139	1030	1090	40x40x1,5
	x1200	60x60x2x1700	1224	1339		1090	
	x1500	80x80x2x2000	1524	1639		1110	
	x1700	80x80x2x2200	1724	1839		1110	
	x2000	80x80x2x2500	2024	2139		1110	
1500	x1500	80x80x2x2000	1524	1639	1550	1630	40x40x1,5
	x1700	80x80x2x2200	1724	1839		1630	
	x2000	80x80x2x2500	2024	2139		1630	
2000	x1500	80x80x2x2000	1524	1639	2070	2150	40x40x1,5
	x1700	80x80x2x2200	1724	1839			
	X2000	80x80x2x2500	2024	2139			

Technical Data Sheet
TDS-07-32

Robusta® Medium SQ 20 Swing Gate

Table 2: Dimensions Double Robusta® Medium SQ 20 Swing Gates

Width (mm)	Height (mm)	Gate post (mm)	Wing height (C) (mm)	Total Height (D) (mm)	Opening (B) (mm)	Center-center (A) (mm)	Frame (mm)
3000	x1200	60x60x2x1700	1224	1339	3070	3130	40x40x1,5
	x1500	80x80x2x2000	1524	1639		3150	
	x1700	80x80x2x2200	1724	1839		3150	
	x2000	80x80x2x2500	2024	2139		3150	
4000	x1500	80x80x2x2000	1524	1639	4110	4190	40x40x1,5
	x1700	80x80x2x2200	1724	1839			
	X2000	80x80x2x2500	2024	2139			
5000	x1500	100x100x3x2000	1524	1639	4930	5030	50x50x1,5
	x1700	100x100x3x2200	1724	1839			
	x2000	100x100x3x2500	2024	2139			
6000	X2000	100x100x3x2500	2024	2139	5970	6070	50x50x1,5

Distance between the vertical tubes welded inside the frame: 110 mm.

Dimensions of the tubes: 20 x 20 mm.

All other dimensions and tolerances are specified in the corresponding technical drawings, available on request.

Page: 4 / 11 Date: 09-12-2016 Replaces edition: 18-07-2016	Made up by: Werner Frans Group Quality Department	Approved by: Rafal Jordan Plant Manager	Approved by: Willy Naesens Group Quality Manager
---	---	---	--

The information and data given are typical for the product described. However technical changes are possible without any notice.

Technical Data Sheet
TDS-07-32

Robusta[®] Medium SQ 20 Swing Gate

4 Coating

4.1 Metallic coating

Wing and posts are made from bright steel and afterwards hot dip galvanized in accordance with ISO 1461.

Article and its thickness	Local coating thickness (minimum) ^a	Local coating mass (minimum) ^b	Mean coating thickness (minimum) ^c	Mean coating mass (minimum) ^b
	μm	g/m ²	μm	g/m ²
Steel > 6 mm	70	505	85	610
Steel > 3 mm to ≤ 6 mm	55	395	70	505
Steel ≥ 1,5 mm to ≤ 3 mm	45	325	55	395
Steel < 1,5 mm	35	250	45	325
Castings ≥ 6 mm	70	505	80	575
Castings < 6 mm	60	430	70	505

An excellent corrosion protection is obtained through the thick layer of zinc covering the entire surface, including the cutting edges and the welds of the fabrication. Inherent to this process is the possible appearance of some visual surface roughness.

Page: 5 / 11 Date: 09-12-2016 Replaces edition: 18-07-2016	Made up by: Werner Frans Group Quality Department	Approved by: Rafal Jordan Plant Manager	Approved by: Willy Naesens Group Quality Manager
---	---	---	--

The information and data given are typical for the product described. However technical changes are possible without any notice.

Technical Data Sheet
TDS-07-32

Robusta® Medium SQ 20 Swing Gate

4.2 Polyester coating

Thickness polyester coating:

The total layer is minimum 60 µm thick.

The polyester thickness is the average of 10 measurements done over 1 gate wing / post.

Colour: Green RAL 6005.

Adhesion:

Make two scratches by means of a hard metal pointed graving tool, penetrating through the metal and intersecting at an angle of $30^\circ \pm 5^\circ$. Lift a 30° peak with the point of a knife.

The coating shall not be able to be lifted from the metal by more than 5 mm.

Resistance of the polyester to saltspray:

Make a diagonal cross by means of a hard metal pointed graving tool, penetrating through the metal. Test in accordance with ISO 9227. After 1000 h there shall be no corrosion beneath the polyester or loss of adhesion in excess of 10 mm from the diagonals.

Resistance against UV: In accordance with ISO 16474-3.

After 1000 h QUV and after washing with pure water, the colour difference, expressed as ΔE^* is maximum 3.

Loss of gloss: After 1000 hours max. 50 % of the original one, measured after being washed with pure water.

Page: 6 / 11
Date: 09-12-2016
Replaces edition:
18-07-2016

Made up by:
Werner Frans
Group Quality Department

Approved by:
Rafal Jordan
Plant Manager

Approved by:
Willy Naesens
Group Quality Manager

Robusta® Medium SQ 20 Swing Gate**5 Accessories****5.1 Hinges****Hinges:**

The hinges are adjustable.

The hinges are made out of hot dip galvanized steel.

The hinges allow the gate leaves to open up to 90° in the opening direction.

They can be adapted to all possible configurations (left, right, inwards, outwards).

Hinge 160 mm is used in combination with post sections 80 x 80 and 60 x 60 mm.

Hinge 180 mm is used in combination with post section 100 x 100 mm.

**Figure 3**

For wing profiles with dimensions 40 x 40 x 1,5 mm and 50 x 50 x 1,5 mm:

At the bottom and top of the horizontal wing tube close to posts, there is a cap mounted with reinforced aluminium and plastic.

(See figure 4)

In the middle of the aluminium profile there is a hole for mounting the adjustable hinge in it.

**Figure 4**

Technical Data Sheet
TDS-07-32

Robusta® Medium SQ 20 Swing Gate

5.2 Ground bolt

Ground bolt:

For double swing gates, the ground bolt is mounted by means of a "plug connection" which allows invisible installation.

The ground bolt is made out of construction steel and afterwards hot dip galvanized in accordance with ISO 1461.

The housing is made from aluminium and afterwards polyester coated in the colour of the gate.
Standard colours: RAL 6005 and RAL 7030



Picture 1

5.3 Slamplate

Slamplate:

The slamplate is made out of aluminium.



Picture 2

Page: 8 / 11
Date: 09-12-2016
Replaces edition:
18-07-2016

Made up by:
Werner Frans
Group Quality Department

Approved by:
Rafal Jordan
Plant Manager

Approved by:
Willy Naesens
Group Quality Manager

The information and data given are typical for the product described. However technical changes are possible without any notice.

Technical Data Sheet
TDS-07-32

Robusta® Medium SQ 20 Swing Gate

5.4 Lock System

Lock System:

The lock is not adjustable.
The lock is supplied with aluminium handles and 2 keys.
The 25 mm long night pin, assures secured locking.

All metal parts of the lock system are made out of stainless steel or coated steel to assure good corrosion resistance.

Standard colour: RAL 6005 and RAL 7030.



Picture 3

5.5 Post cap

Post cap:

On each post there is black HDPE – standard, weatherproof and UV-resistant plastic cap mounted.
Dimensions: 60 x 60, 80 x 80 and 100 x 100 mm according to the dimensions of the gate posts.



Figure 5

Page: 9 / 11
Date: 09-12-2016
Replaces edition:
18-07-2016

Made up by:
Werner Frans
Group Quality Department

Approved by:
Rafal Jordan
Plant Manager

Approved by:
Willy Naesens
Group Quality Manager

The information and data given are typical for the product described. However technical changes are possible without any notice.

Technical Data Sheet
TDS-07-32

Robusta® Medium SQ 20 Swing Gate

6 Packaging

Each gate is wrapped with shrink foil and separately packed on a wooden pallet.
 See picture below.



Picture 4

Each gate is delivered with a separate accessory box.
 Each gate is foreseen with a product identification label, mentioning: See picture 5

- Production order number
- Sapcode
- Description gate type
- Colour
- Quantity



Picture 5: Position of the product identification label

Page: 10 / 11 Date: 09-12-2016 Replaces edition: 18-07-2016	Made up by: Werner Frans Group Quality Department	Approved by: Rafal Jordan Plant Manager	Approved by: Willy Naesens Group Quality Manager
--	---	---	--

The information and data given are typical for the product described. However technical changes are possible without any notice.

Technical Data Sheet
TDS-07-32

Robusta® Medium SQ 20 Swing Gate

7 CE-marking and Declaration of Performance

CE-marking and Declaration of Performance

These gates are provided with a **CE label**. This means Betafence guarantees the gate has been **produced** following the **CE Regulations**, as specified in the EU Construction Products Regulation (N° 305/2011).

A specific **Declaration of Performance** (DoP) is available for this type of gate with number DoP- Beta-011. The number is written on the CE label and the contents of this Declaration of Performance can be consulted and printed from the web page:

<https://www.betafence.com/en/ce-documentation>

Page: 11 / 11 Date: 09-12-2016 Replaces edition: 18-07-2016	Made up by: Werner Frans Group Quality Department	Approved by: Rafal Jordan Plant Manager	Approved by: Willy Naesens Group Quality Manager
--	---	---	--

The information and data given are typical for the product described. However technical changes are possible without any notice.