Robusta® Swing Gate

1 Scope

This specification specifies requirements for swing gates with Robusta® infill.
The gate consists of different components:

- Gate posts with square fixation strip (hinge post and latch post)
- Wing (with or without dental strip)
- Accessories (hinges, lock-system, ground bolt)

There are 2 types; single Robusta® swing gates (figure 1) and double Robusta® swing gates (figure 2). Robusta® swing gates are CE labelled, in accordance with EN 13241-1.

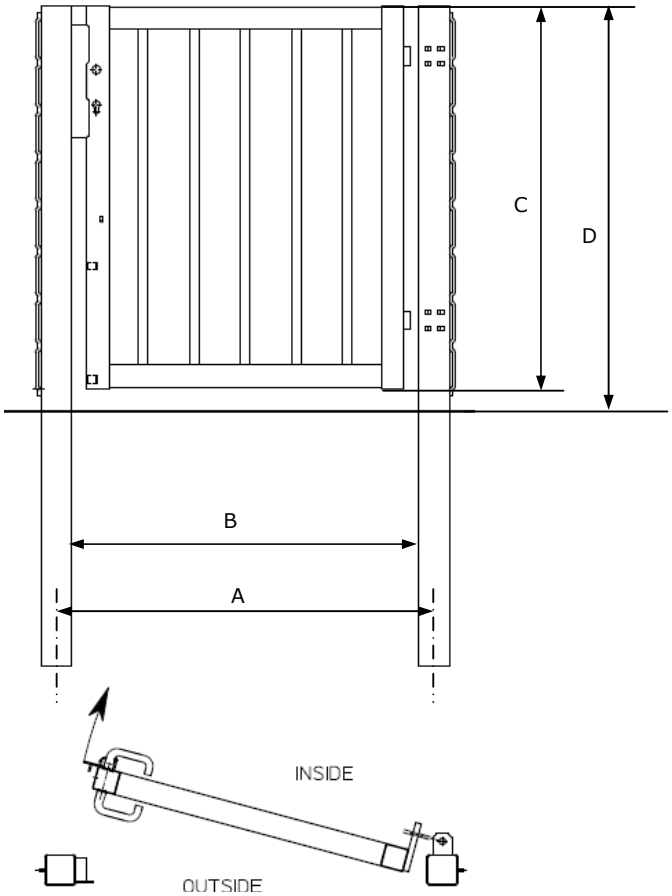

Figure 1: Single Robusta® Swing Gate

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

Robusta® Swing Gate

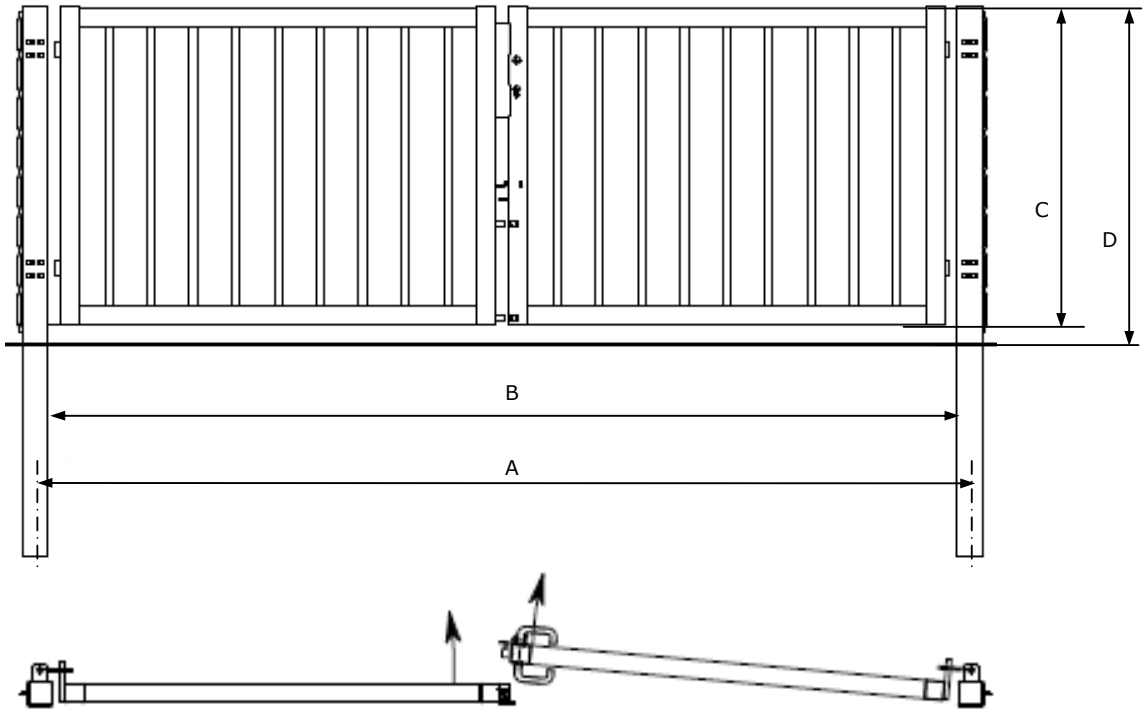

Figure 2: Double Robusta® Swing Gate

1.1 Normative References

- EN 10027-1: Designation system for steel - Part 1: Steelnames.
- EN 10088-1: Stainless steels: Part1: List of stainless steels
- EN 10326: Continuously hot-dip coated strip and sheet of structural steels – Technical delivery conditions
- EN 10327: Continuously hot-dip coated strip and sheet of low carbon steels for cold forming - Technical delivery conditions
- EN 13241-1: Industrial, commercial and garage doors and gates - Product standard - Part 1: Products without fire resistance or smoke control characteristics
- EN 13438: Powder organic coatings for galvanized steel products for construction purposes
- 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.

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2 Raw materials

2.1 Steel

A regular construction steel is used. Yield strength: minimum 235 N/mm².

2.2 Polyester

Free from Lead and Cadmium. The colour of the polyester is green Ral 6005. Other colours on request.

3 Properties

3.1 Dimensions

See table 1 and figures 1 and 2.

TABLE 1: DIMENSIONS STANDARD ROBUSTA® SWING GATES

SINGLE SWING GATES

Width (mm)	Height (mm)	Post ♣ (mm)	Height of the wing 'C' (mm)	Total Height 'D' (mm)	Free Passage 'B' (mm)	Center-Center 'A' (mm)	Frame ♣ (mm)
1000	x 1000	80 x 80 x 3 x 1750	1016	1076	920	1000	60 x 60 x 1,5
	x 1200	80 x 80 x 3 x 1950	1216	1279			
	x 1500*	80 x 80 x 3 x 2250	1472	1557			
	x 1700	80 x 80 x 3 x 2450	1716	1790			
	x 2000*	80 x 80 x 3 x 2700	1969	2034			
1500	x 1000	80 x 80 x 3 x 1750	1016	1076	1470	1550	60 x 60 x 1,5
	x 1200	80 x 80 x 3 x 1950	1216	1279			
	x 1500	80 x 80 x 3 x 2250	1472	1557			
	x 1700	80 x 80 x 3 x 2450	1716	1790			
	x 2000	80 x 80 x 3 x 2700	1969	2034			
2000	x 1000	80 x 80 x 3 x 1750	1016	1076	1970	2050	60 x 60 x 1,5
	x 1200	80 x 80 x 3 x 1950	1216	1279		2050	
	x 1500	80 x 80 x 3 x 2250	1472	1557		2050	
	x 1700	100 x 100 x 3 x 2450	1716	1790		2070	
	x 2000	100 x 100 x 3 x 2700	1969	2034		2070	
2500	x 1000	120 x 120 x 3 x 1750	1016	1076	2470	2590	60 x 60 x 1,5
	x 1200	120 x 120 x 3 x 1950	1216	1279			
	x 1500	120 x 120 x 3 x 2250	1472	1557			
	x 1700	120 x 120 x 3 x 2450	1716	1790			
	x 2000	120 x 120 x 3 x 2700	1969	2034			
3000	x 1000	120 x 120 x 3 x 1750	1016	1076	3000	3120	60 x 60 x 2,0
	x 1200	120 x 120 x 3 x 1950	1216	1279			
	x 1500	120 x 120 x 3 x 2250	1472	1557			

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	x 1700	120 x 120 x 3 x 2450	1716	1790			
	x 2000	120 x 120 x 3 x 2700	1969	2034			
DOUBLE SWING GATES							
Width (mm)	Height (mm)	Post ♣ (mm)	Height of the wing 'C' (mm)	Total Height 'D' (mm)	Free Passage 'B' (mm)	Center-Center 'A' (mm)	Frame ♣ (mm)
3000	x 1000	80 x 80 x 3 x 1750	1016	1076	2900	2980	60 x 60 x 1,5
	x 1200	80 x 80 x 3 x 1950	1216	1279			
	x 1500*	80 x 80 x 3 x 2250	1472	1557			
	x 1700	80 x 80 x 3 x 2450	1716	1790			
	x 2000*	80 x 80 x 3 x 2700	1969	2034			
4000	X 1000	80 x 80 x 3 x 1750	1016	1076	3900	3980	60 x 60 x 1,5
	x 1200	80 x 80 x 3 x 1950	1216	1279		3980	
	x 1500*	80 x 80 x 3 x 2250	1472	1557		3980	
	x 1700	100 x 100 x 3 x 2450	1716	1790		4000	
	x 2000*	100 x 100 x 3 x 2700	1969	2034		4000	
5000	x 1000	120 x 120 x 3 x 1750	1016	1076	4900	5020	60 x 60 x 1,5
	x 1200	120 x 120 x 3 x 1950	1216	1279			
	x 1500*	120 x 120 x 3 x 2250	1472	1557			
	x 1700	120 x 120 x 3 x 2450	1716	1790			
	x 2000*	120 x 120 x 3 x 2700	1969	2034			
6000	x 1000	120 x 120 x 3 x 1750	1016	1076	5960	6080	60 x 60 x 2,0
	x 1200	120 x 120 x 3 x 1950	1216	1279			
	x 1500*	120 x 120 x 3 x 2250	1472	1557			
	x 1700	120 x 120 x 3 x 2450	1716	1790			
	x 2000*	120 x 120 x 3 x 2700	1969	2034			
8000	x 1000	140 x 140 x 4 x 1750	1016	1076	7980	8120	V 60 x60 x 2 H 80 x 60 x 2
	x 1200	140 x 140 x 4 x 1950	1216	1279			
	x 1500	140 x 140 x 4 x 2250	1472	1557			
	x 1700	140 x 140 x 4 x 2450	1716	1790			
	x 2000*	140 x 140 x 4 x 2700	1969	2034			
10000	x 1000	160 x 160 x 5 x 1750	1016	1076	9980	10140	V 60 x60 x 2 H 80 x 60 x 2
	x 1200	160 x 160 x 5 x 1950	1216	1279			
	x 1500	160 x 160 x 5 x 2250	1472	1557			
	x 1700	160 x 160 x 5 x 2450	1716	1790			
	x 2000	160 x 160 x 5 x 2700	1969	2034			

* = stock product

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

A dental strip which is welded on the wing(s), is standard for all gates with height ≥ 2000 mm.

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3.2 Coating

Posts and wing are coated with zinc and polyester, resulting in an excellent corrosion resistance.

3.2.1 Metallic coating

Wing and posts are zinc coated. Minimum zinc weight: 275 g/m² (sum of both sides of the sheet).

3.2.2 Organic coating

Posts and wings are coated with a Polyester coating system. The layer-thickness is minimum 60 µm. Standard colour Green Ral 6005, other colours on request.

Adhesion: make two scratches by means of a hard metal pointed graving tool, penetrating through the metal and intersecting at an angle of 30° ± 5°. 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 salt spray: make a rectangular diagonal cross by means of a hard metal pointed graving tool, penetrating through the metal. Test in accordance with ISO 9227 (neutral salt spray). After 720 h there shall be no corrosion beneath the polyester or loss of adhesion in excess of 5 mm from the diagonals and no signs of blistering, cracking or crazing on any part of the specimen.

3.3 Accessories

- Hinges: are adjustable and are made out of hot dip galvanized steel to assure a good corrosion resistance.
- Ground bolt: made out of stainless steel. The analysis is in accordance with AISI 302/304 and the quality X5CrNi18-10 as specified in the European Standard EN 10088-1.
- Lock System: all metal parts of the lock system are made out of stainless steel or coated steel to assure good corrosion resistance.

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