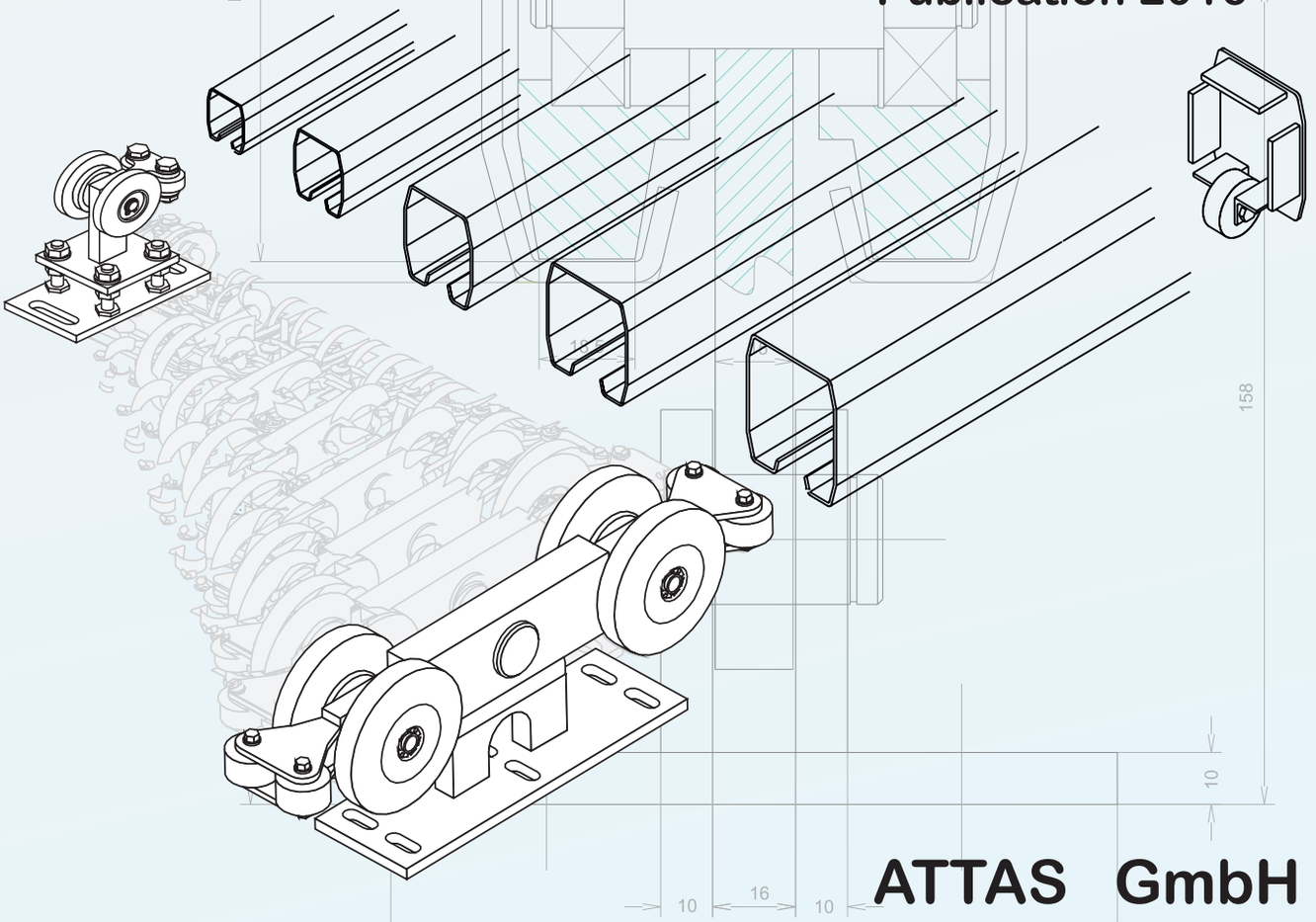
The best choice

The ATTAS® - Steel Profile System

Guaranted best quality in building of cantilever sliding gates till 20,0 m passage clearance

Publication 2016



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ATTAS® Automatische Tür und Tor Antriebs Systeme

The ATTAS® - Steelgatesystem

The ATTAS®- Steelgatesystem is made of cold rolling steelprofiles that are specially developed for the requirements of cantilever sliding gates.

For the manufacturing of our profiles we use coils that are cut from finegrained-steel into the appropriate width. The coils are assembled so that they can be completely galvanized with zinc, this enables the longitudinal edges and corners to be protected from all sides. This is an important advantage when comparing our profiles with the ordinary process done partially by first cutting the zinc-plated material and then shaping the corners and edges. Our symmetrical zinc coating percision makes for an extremly light response when opening the gates, more so than when the whole gatebody after production would be dipped into a galvanized bath of zinc.

The utilization of finegrained-steel is particularly for coldformation suitable. Due to this special method which has proved its stability and its soundness, so that the tread where cracks and other material weakness could form (around edges) can be avoided thus not impairing the function of the gates.

In the more than 25 years of experience the form of our Profiles have been constantly improved so that our steelprofilesystem reaches the highest quality possible. So today we can broaden the roller surfaces, and the quality of steel has improved. In particular the guidance of the secluded bottom flank is highly stabile, which is torsion resitant, which provides an easy moving gate; also taken into to account for is extra weight from passengers this is accomodated without difficulty, thus not damaging or distorting the profile. It is precisely this special manner of how our profiles have been moulded, they are turned towards the inside which interlocks allowing larger gates to be built with a passage clearance width of 20 meters. It`s this method which allows a profile to be built without having to have an extremely thick gate wall. These advantages should be taken into consideration when comparing with competitors.

However, the thickness of the profile wall is chosen so that when required the gate can directly be built in without the use of a bottom railing support . Should you want to hear more on this method please inform us and we will send further information. ATTAS® generally recommends production of the gatebody including the bottom railing support then placing it on the profile afterwards. This recommendation is based on statistics.

The sliding roller components are made of a weldment, partially made from solid finegrained-steel, from ST52 and from stainless steel. The larger sliding rollers are Polyamide 6 (PA6) showing a high resistance to tears and breakage, PA6 keeps holds of little water, and responds only slighly to heat expansion. The high tenacity and impact strength of this material makes it perfect for the use in cantilever sliding gates.

The mounting of the slide or support rollers is done by using extremly large ball bearings and partially done by using large roller bearings, and are built so that they are dustproof.

Through the combination of these components, bound together with end bearings resulting in the extrem mobility of the whole system, which positivly effects the hands on operation and the convenient adaptation of size on our gates motor.

Interference that can come from the side such as strong winds, shearing forces, or through a delay when the gate is partially in the sun has been compensated by the stabile inner crossing rollers. In addition this function is backed up with wider rollers in which their interior and exterior flanks are also used to guide and assist. So it is possible, that by minimum air permeable gates the upper rails may not be needed. ATTAS® suggests production of the gates including the upper railing for extra durability as a safety precaution, thus avoiding potential gale winds and other weather factors.

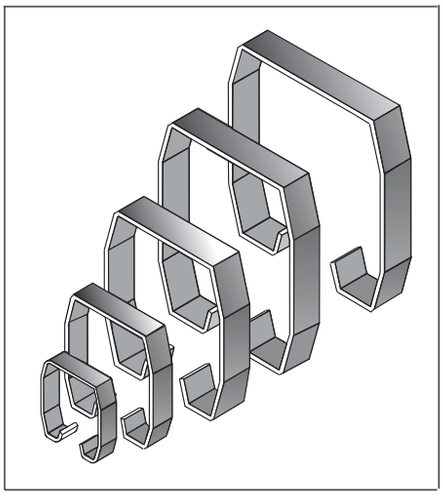
Steel profiles are for many metal construction firms the best solution, because sufficient knowledge is available. You may choose from different forms of profiles, rods, bars, and by special order, measured and cut to your needs. Steel profiles can be processed without difficulty and extra precautions are not necessary as long as you follow a few productional instructions. ATTAS® steel profiles for cantilever sliding gates in comparison to other products provides an optimal price-performance ratio.

All of the above mentioned aspects are important when comparing to other profile forms and profile models, take aluminum for instance. Aluminum might have a radiant future, but when taken into consideration the combination of materials to which the compounds could cause problems. The types of problems that may occure, could be oxydation through chemical modulus, coefficient thermal expansion, or even the difference in tensile strength. ATTAS® steelprofiles and a steel constructions completely avoid these mentioned obstacles.

Of course ATTAS® delivers aluminum profiles, although we then do advise that the complete gatebody be built of aluminium. For detailed information on aluminium gates please do not hesitate to contact our office.

Cantilever profiles come in 5 different sizes

- Made in the highest quality of steel
- Made with the optimal surface protection
- The longitudinal edges are completely covered with zinc



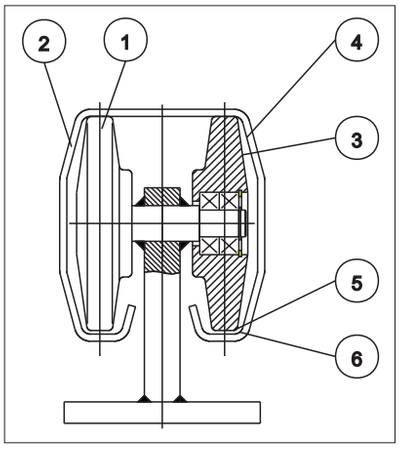
Dimensions : Profile Height x Width x Strength

FST 75	max. 6,0 m passage clearance width **75 x 67 x 3 mm**
FST 95	max. 7,5 m passage clearance width **95 x 85 x 3,75 mm**
FST 115	max. 8,0 m passage clearance width **115 x 104 x 4 mm**
FST 165	max. 13,0 m passage clearance width **165 x 150 x 4 mm**
FST 200	max. 20,0 m passage clearance width **199,6 x 165 x 5 mm**

The Cutting Edge

The zinc covered extension of the edges

The black preliminary material is first cut (the length of the developed profile) zinc covered, chromated, and then shaped and rolled. This guarantees the best covered surface even for the longitudinal edges.



Material Description

Split straps galvanized in zinc	Chromated and
Longitudinal edges are coated	lightly greased
as required by material norms	DIN EN 10147/49 T2
Number of binding material	1.0980
small zinc sp	M
normal surface condition	A
Zinc support	350 g/m²
Steel sortiment HX420LAD by	LRP 75/95/115/165
Steel sortiment HX380LAD by	LRP 200

The contours of the wheel support ① and the sliding roller profile ② are designed to rotate so that a jamming or ascension of the wheel is not possible

It is ensured that the bevel ③ and ④ are fitted to the the pertinent radii ⑤ and ⑥

The light mobility of the ATTAS profile technic is largely due to the support castors made from Polyamide and the exactness of the sliding rolled profiles.

The resistance of Polyamide PA6 and the ballbearing hardness of the profiles raw materials HX420 / Hx380 LAD have been demonstrated and well proven.

The high standard of the rolling quality in the finegrained steel and the area of tolerance remains unchanged for the complete length of the gate. This enables an optimal adaptation of the sliding and support rollers for a very insignificant tilting moment in the gates movement.

Specifics on our charts

When looking at the survey on “Construction Size”, you can take the profile size that is needed for your gate depending on the width of the passage clearance.

In the chart “System Measurements” you then find out which raw materials to be distributed for the gate wings, this done only after the width of the clearance has been found.

Please keep to the staggering measurements on the distance of the sliding rollers “B” on the chart “Construction and Foundation Measures” this is of upmost importancy when constructing the gate.

Our foundation plans ar made so that the upper edges of the foundation lay lower that the unfinished flooring (this enables extra space for tiles or other floor covering). The difference in space between the upper edge and unfinished flooring is generally taken from the specification recommendation from the foundations frame work U-NP and from the Steelform (DIN 1026).

For the foundation (quality of concrete is B25, and reinfored builders steel R221), the ground must be proofed by the foreman before building can begin. Because of adverse conditiones such as one-sided ground work it is important that the land at least be in accordance with the specifications DIN 1054, Tab. 4 (solidly mounted and mixed grained). Otherwise the piece of land must be dug up and substituted by either condensed gravel (machine made) or lean concrete.

Special foundation plans including how to execute the foundation basket are on hand at our offices, please ask and we shall be more than happy to assist you.

The specifications in our charts are based on statistic evaluations and many years of experience. Our firm will also provide individual proof statistics for a design that is extra-ordinary or for a gateway that deviates from our norm for a slight fee.

Corresponding to regulations for power operated windows, doors, and gates DIN EN 12 424, 12 445, 12 453, 12 604, 12 635 or EN 418 (mechanical regulations) the principles that the crush- and shearing points must reach to a height of 2,50 m so that safety is ensured, or that when through contact from persons the gate wing comes to an immediate stop. The gate lengths shown in the charts take into account an interval of 100 mm for the placement of a safety contact edges. In accordance with the new standards on characteristics which no longer go by just the type or method they also take into consideration the area of operation. These regulations are therefore applicable for all power operated gates either for private use or business use.

A suitable motor with the appropriate safety arrangements can be ordered and mailed upon request.

For the planning and execution of a gate project we would be more than happy to assist, and consult your company with our technical and skilled knowledge.

Please be aware that we reserve all rights that service any advancement in our technology to make technical changes as required.

We reserve the right to make technical changes that service advancement

Planned Construction Size

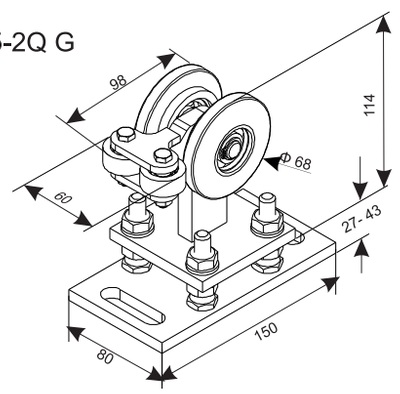
Construction series FST 75
light-weigth model, Gatebodyweight max. 55 kg/lfm

width of passage clearance, m

	4,5	6,0	8,0	13,0	20,0
FST 75	▬				
FST 75/S	▬	▬			

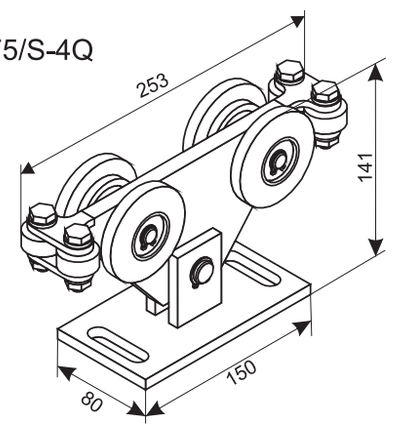
FST 75

LRB 75-2Q G

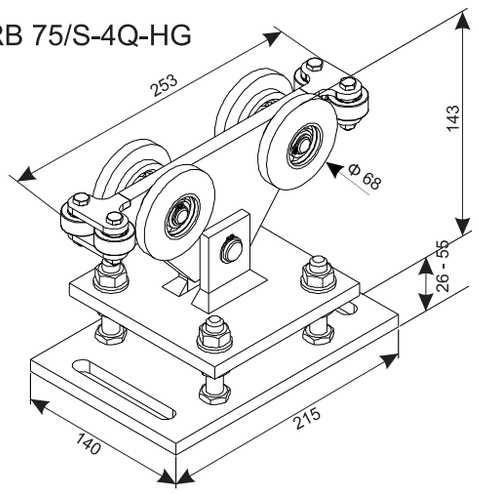


FST 75/S

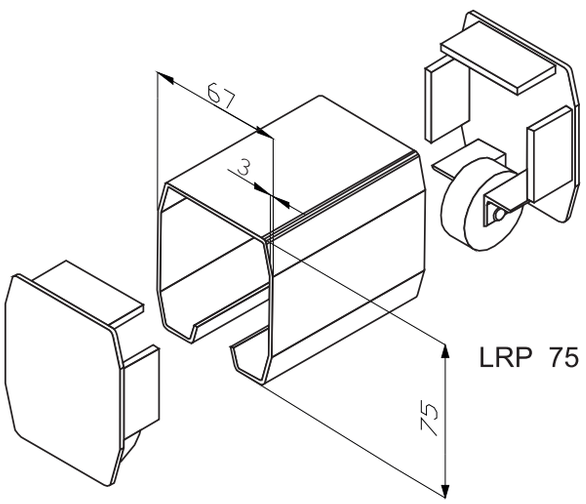
LRB 75/S-4Q



LRB 75/S-4Q-HG



KD 75/SR



LRP 75

KD 75/SR

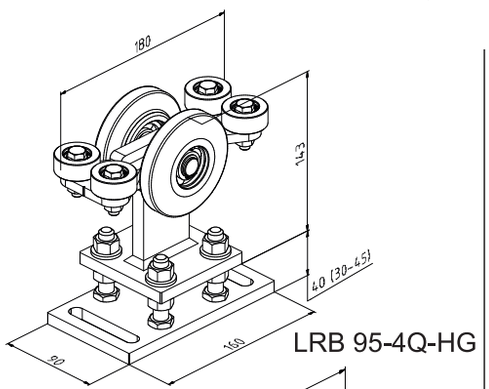
Planned Construction Size

Construction series FST 95
light-weigth model, Gatebodyweight max. 55 kg/lfm

width of passage clearance, m

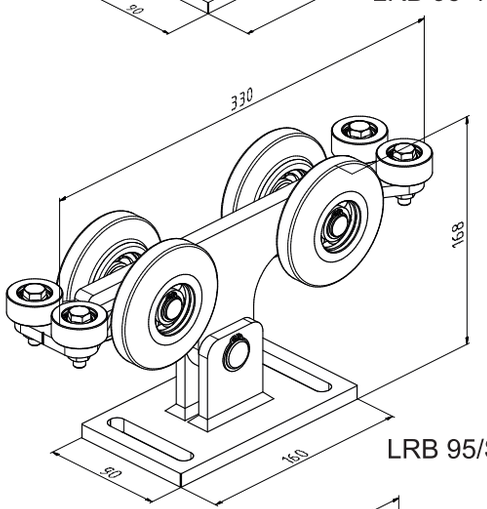
	4,5	5,5	7,5	8,0	13,0	20,0
FST 95	■	■				
FST 95/S		■	■			

FST 95

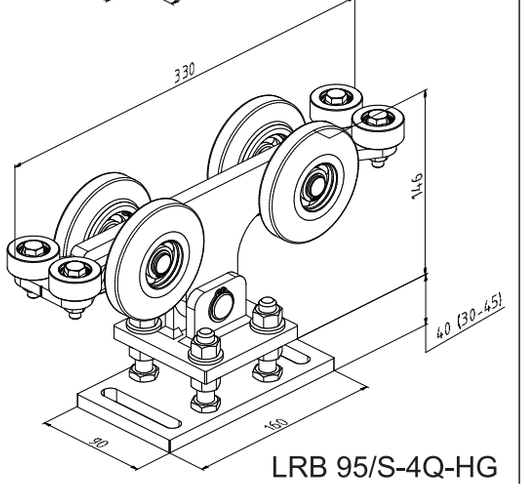


LRB 95-4Q-HG

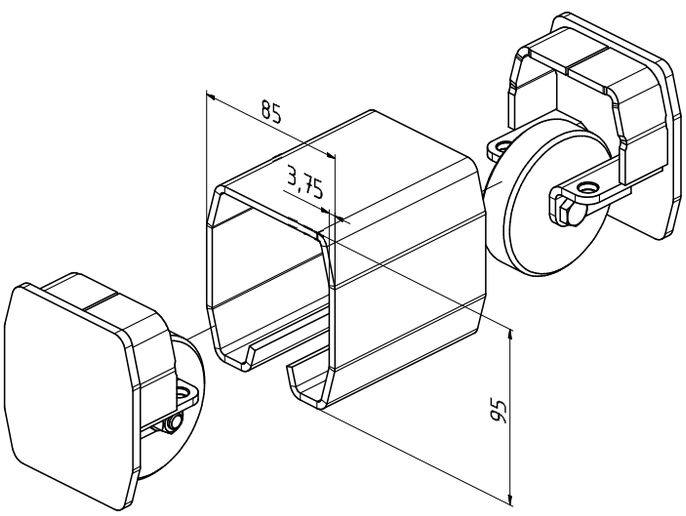
FST 95/S



LRB 95/S-4Q



LRB 95/S-4Q-HG



Planned Construction Size

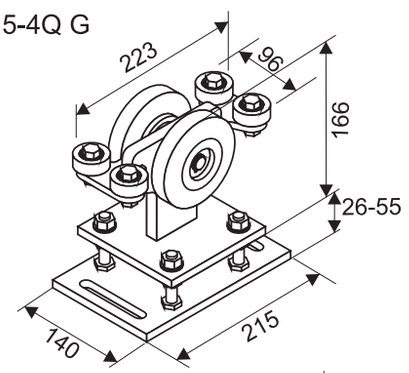
Construction series FST 115
light-weigth model, Gatebodyweight max. 75 kg/lfm

width of passage clearance, m

	4,5	6,0	8,0	13,0	20,0
FST 115	▬	▬			
FST 115/S		▬	▬		

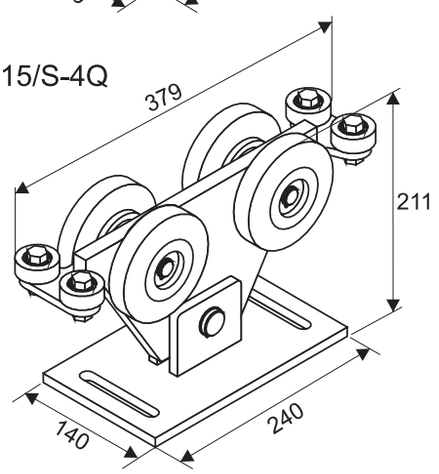
FST 115

LRB 115-4Q G

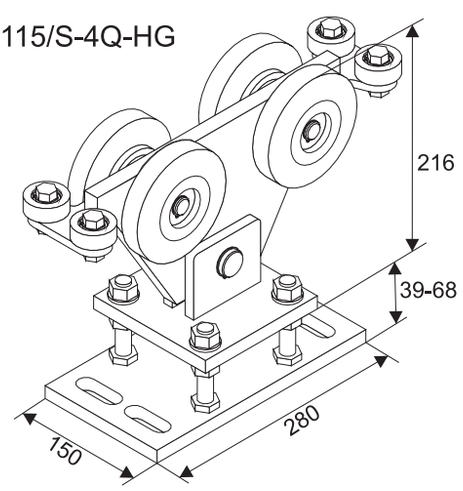


FST 115/S

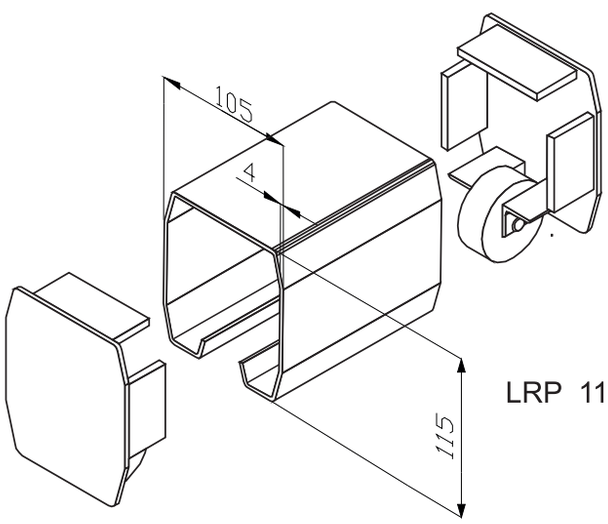
LRB 115/S-4Q



LRB 115/S-4Q-HG



KD 115/SR



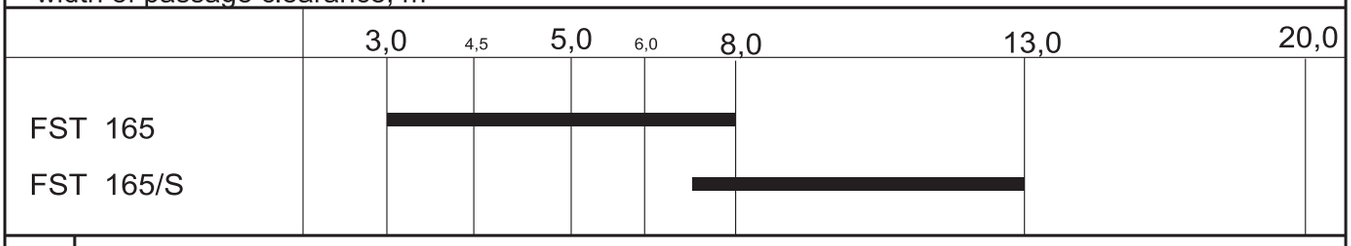
LRP 115

KD 1155/SR

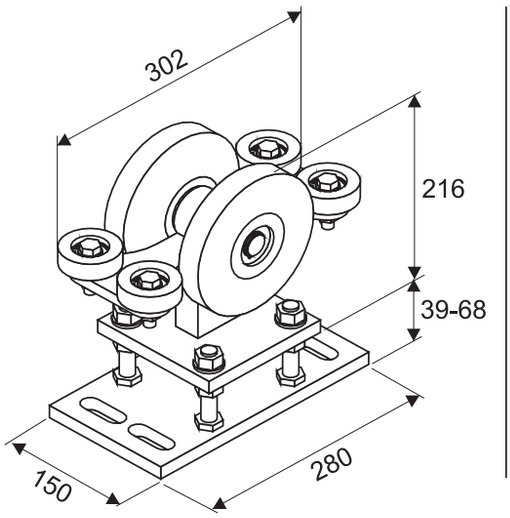
Planned Construction Size

Construction series FST 165
normal-weigth model, Gatebodyweight max. 88 kg/lfm

width of passage clearance, m



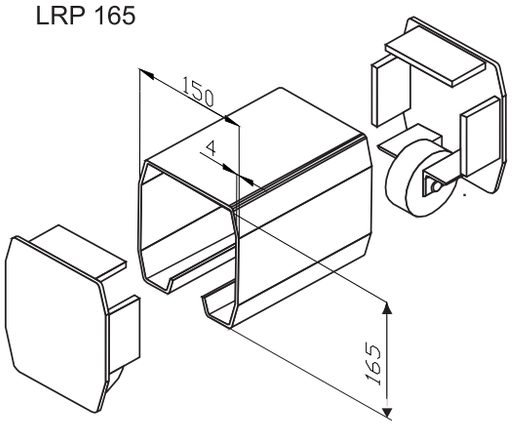
FST 165



LRB 165-4Q G

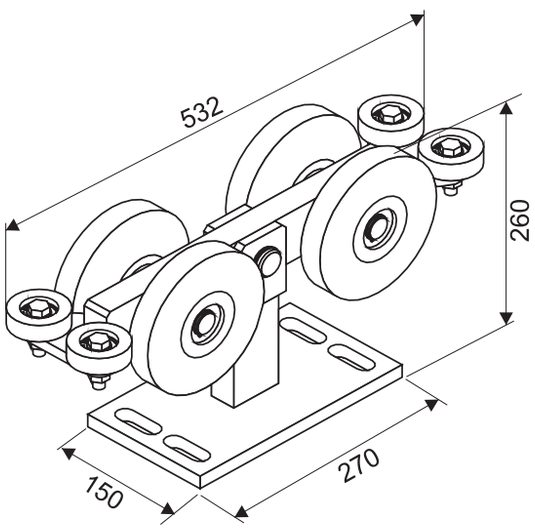
KD 165/SR

LRP 165



KD 165/SR

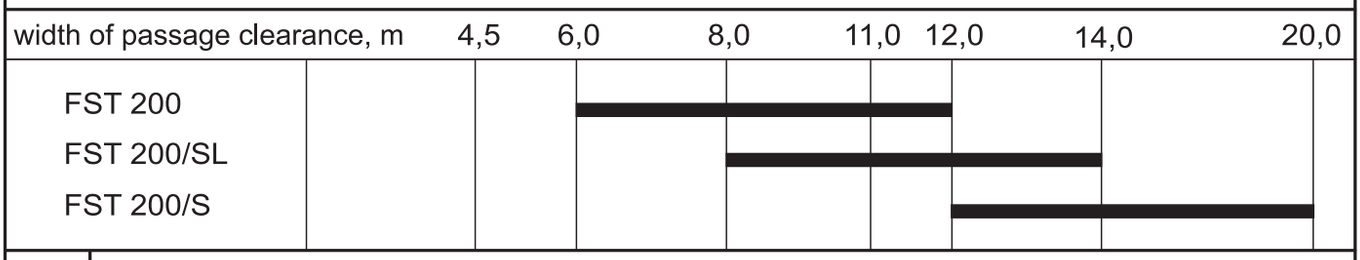
FST 165/S



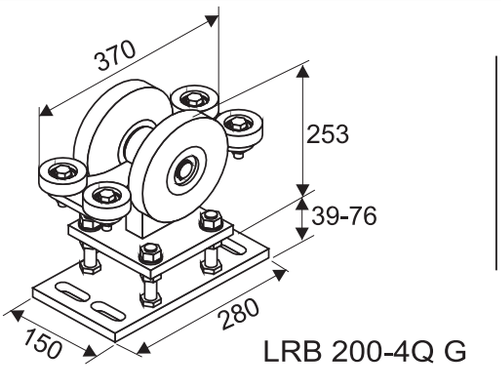
LRB 165/S-4Q

Planned Construction Size

Construction series FST 200
heavy-weigth model, gatebodyweight max. 100/130 kg/lfm



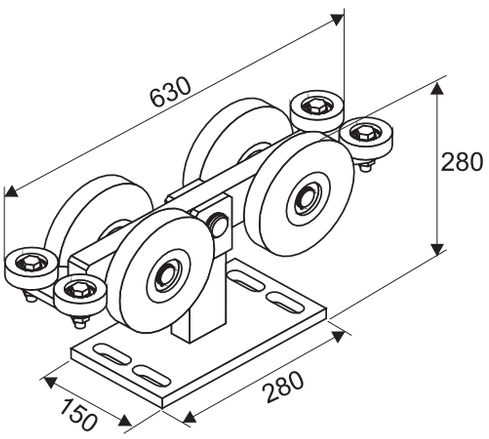
FST 200



LRB 200-4Q G

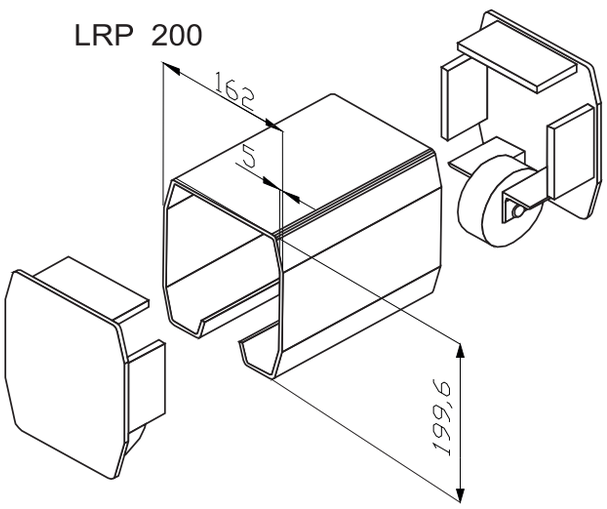
KD 200/SR

FST 200/SL



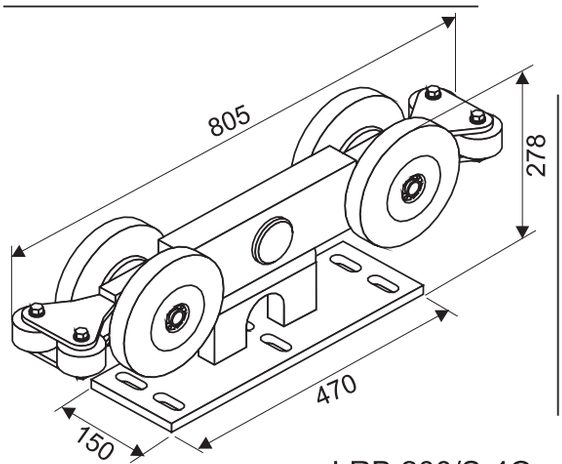
LRB 200/SL-4Q

LRP 200



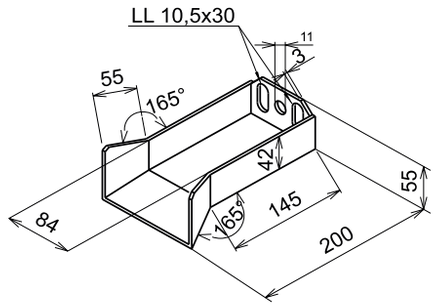
KD 200/SR

FST 200/S

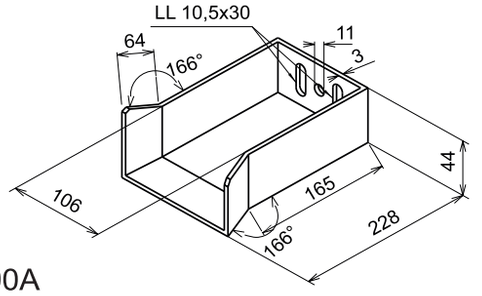


LRB 200/S-4Q

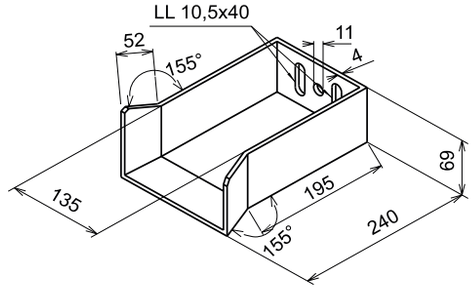
Equipment Parts
Overrunning shoes, Arrival cradles



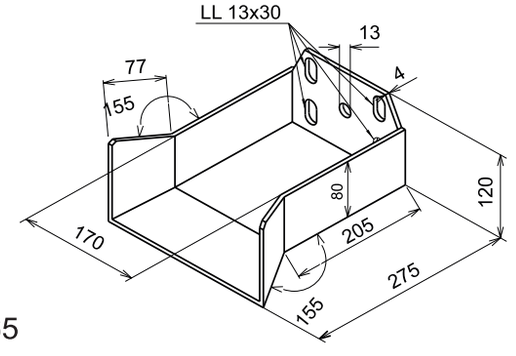
ALS 75



ALS 95 / 90A



ALS 115



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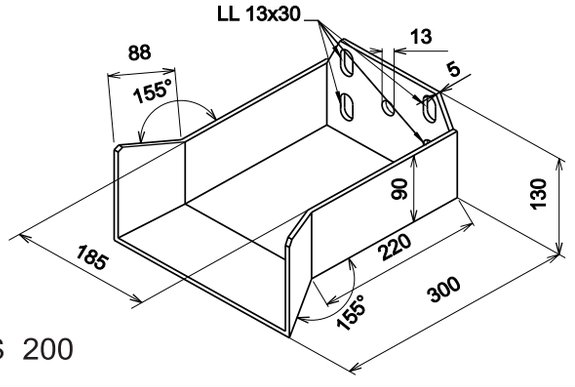

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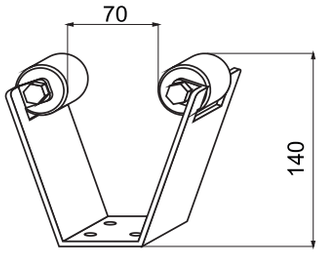
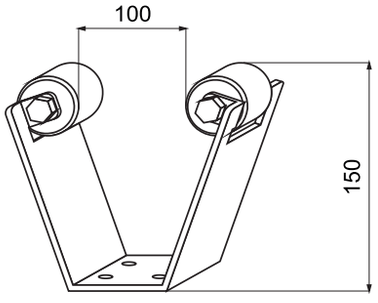


ELG 75 / 95 / 90A



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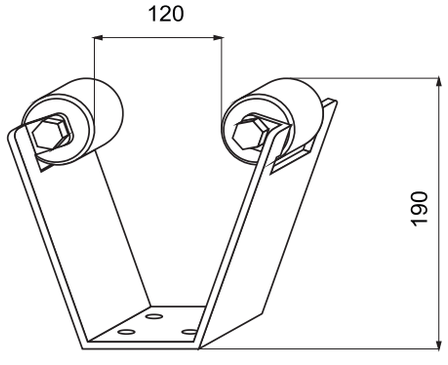
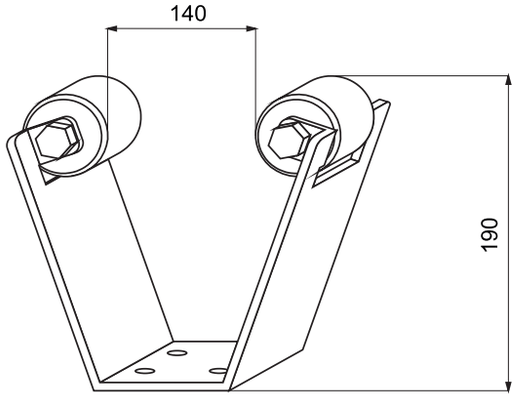
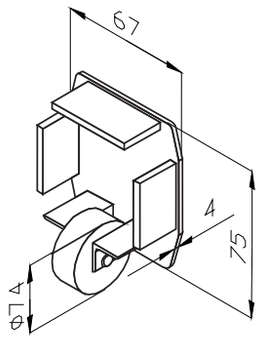


ELG 165

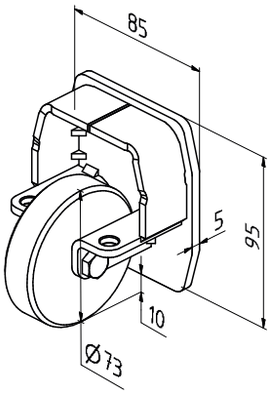


ELG 200

Equipment Parts
End Plates



KD 75



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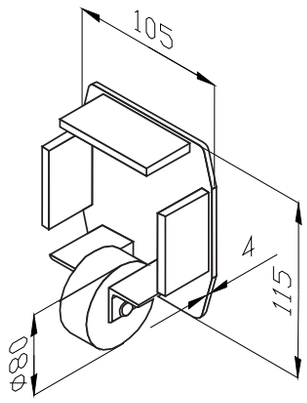

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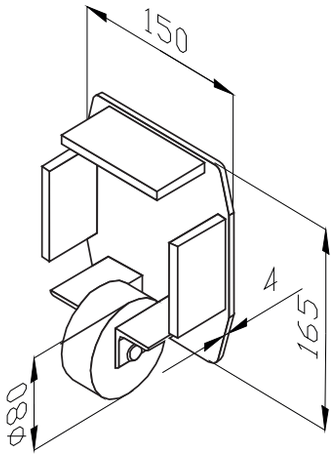

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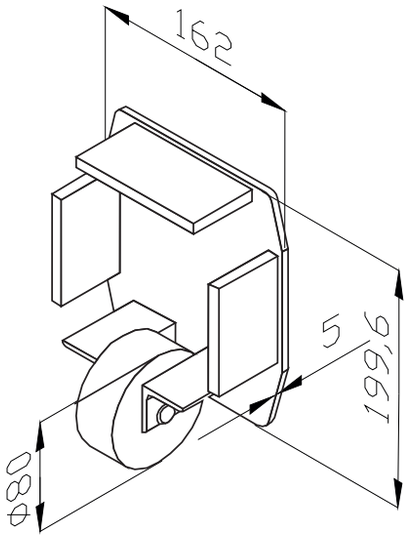
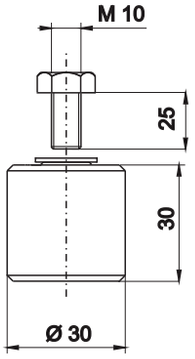
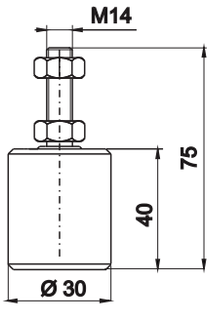


KD 200

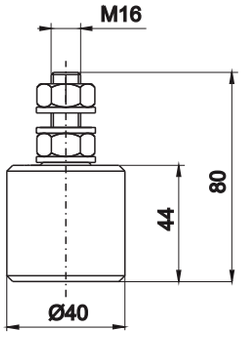
Equipment Parts
Upper guidance rollers



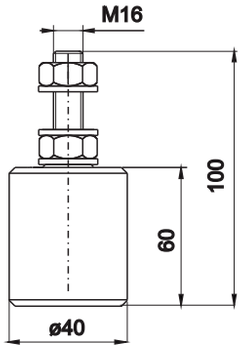
OFR 30/30



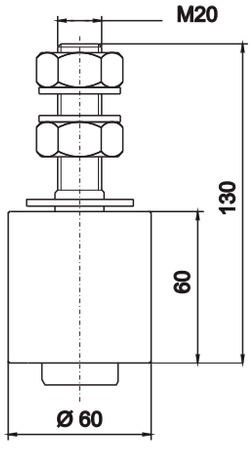
OFR 30/40



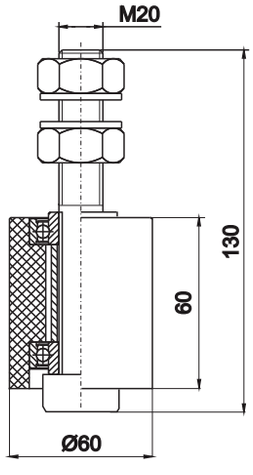
OFR 40/44-E



OFR 40/60



OFR 60/60

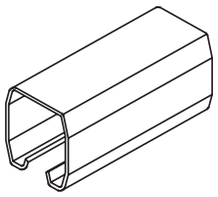
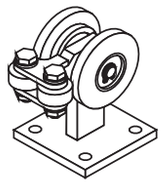
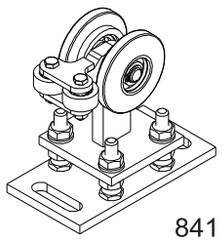
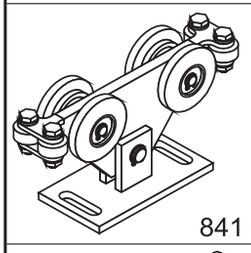
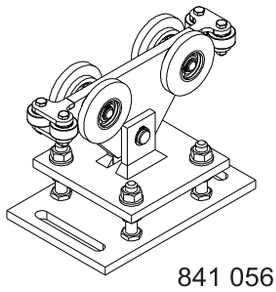
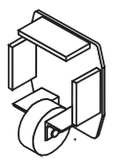


OFR 60/60/L

OFR 60/60/L-E

Cantilever Steel Sliding Gates
Series: FST 75, FST 75/S

Price on request

	Sliding roller profilesType LPR 75 Sliding roller profile LPR 75, constructed to DIN 1016-87, rollprofile 75 x 67 x 3 mm, Split strap galvanized in zinc, chromated Longitudinal edges zinc coated	
841 003	Storage length : 4,2 m — 24,8 kg/bar	
841 006	Storage length : 4,9 m — 29,0 kg/bar	
841 004	Storage length : 6,1 m — 36,7 kg/bar	
841 005	Storage length : 8,4 m — 50,3 kg/bar	
841 002	Price per running meter	
841 090	Cost of raw measure for customized cut	
	Sliding roller profilesType: LRB 75-2Q For max. gatebody weight 250 kp, Seated bearing Polyamide- sliding and crossing rollers. Steel parts are galvanized.	
841 050	Without the height-adjustable floor plate — 1,1 kg	
	Sliding roller profilesType: LRB 75-2Q For max. gatebody weight 250 kp, Seated bearing Polyamide- sliding and crossing rollers. Steel parts are galvanized.	
841 052	With the height-adjustable floor plate — 1,5 kg	
	Sliding roller profilesType: LRB 75/S-4Q For max. gatebody weight 450 kp, Seated bearing Polyamide- sliding and crossing rollers. Steel parts are galvanized.	
841 055	without the height-adjustable floor plate — 3,0 kg	
	Sliding roller profilesType: LRB 75/S-4Q HG For max. gatebody weight 450 kp, Seated bearing Polyamide- sliding and crossing rollers. Steel parts are galvanized.	
841 056	with the height-adjustable floor plate — 5,45 kg	
	End-plate with Supporting rollers Type:KD 75/SR Shown as a piece that is fitted to profile Steel construction with Polyamide-Supporting rollers Steel parts are galvanized	
841 021	0,4 kg	

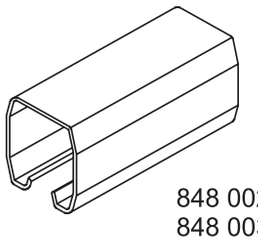
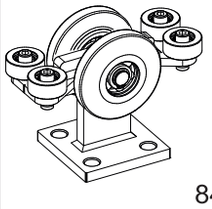
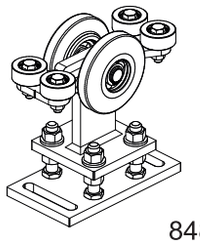
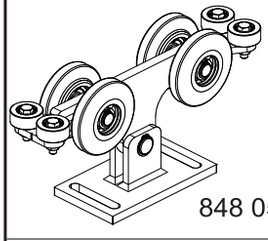
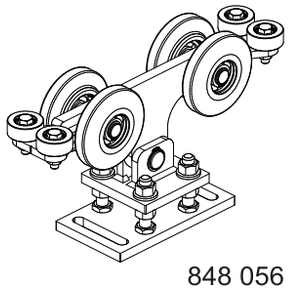
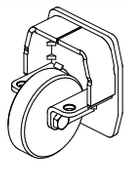
Prices are subject to changes, Value-added-tax not included: Delivery from storage facility in Waiblingen, freight and packaging charges are extra.

Discount on bulk orders upon inquiry.

Rights to technical changes reserved.

Cantilever Steel Sliding Gates Series: FST 95, FST 95/S

Price on request

	Sliding roller profilesType LPR 95 Sliding roller profile LPR 95, constructed to DIN 1016-87, rollprofile 95 x 85 x 3,75 mm, Split strap galvanized in zinc, chromated Longitudinal edges zinc coated	
848 002	Storage length 5,45 m — 24,8 kg/bar	
848 003	Storage length 6,1 m — 29,0 kg/bar	
848 004	Storage length 8,2 m — 36,7 kg/bar	
848 005	Storage length 9,68 m — 50,3 kg/bar	
848 006	Storage length 10,38 m — 93,9 kg/bar	
848 091	Price per running meter	
848 090	Cost of raw measure for customized cut	
	Sliding roller profilesType: LRB 95-2Q For max. gatebody weight 450 kp, Seated bearing Polyamide- sliding and crossing rollers. Steel parts are galvanized.	
848 050	Without the height-adjustable floor plate — 1,1 kg	
	Sliding roller profilesType: LRB 95-2Q-HG For max. gatebody weight 450 kp, Seated bearing Polyamide- sliding and crossing rollers. Steel parts are galvanized.	
848 052	With the height-adjustable floor plate — 1,5 kg	
	Sliding roller profilesType: LRB 95/S-4Q For max. gatebody weight 600 kp, Seated bearing Polyamide- sliding and crossing rollers. Steel parts are galvanized.	
848 055	without the height-adjustable floor plate — 3,0 kg	
	Sliding roller profilesType: LRB 95/S-4Q HG For max. gatebody weight 600 kp, Seated bearing Polyamide- sliding and crossing rollers. Steel parts are galvanized.	
848 056	with the height-adjustable floor plate — 5,45 kg	
	End-plate with Supporting rollers Type KD 95/SR Shown as a piece that is fitted to profile Steel construction with Polyamide-Supporting rollers Steel parts are galvanized	
848 021	0,4 kg	

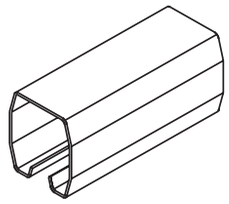
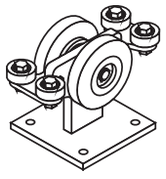
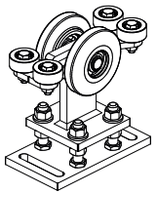
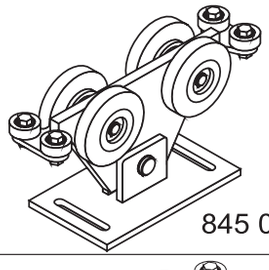
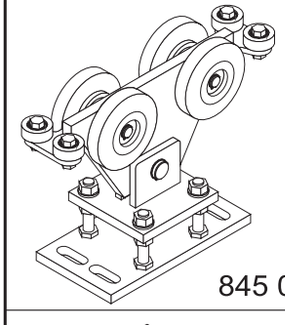
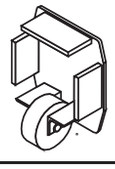
Prices are subject to changes, Value-added-tax not included: Delivery from storage facility in Waiblingen, freight and packaging charges are extra.

Discount on bulk orders upon inquiry.

Rights to technical changes reserved.

Cantilever Steel Sliding Gates Series: FST 115, FST 115/S

Price on request

	Sliding roller profilesType: LPR 155 Sliding roller profile LPR 115 constructed to DIN 1016-87, rollprofile 115 x 105 x 4 mm, weight 12,52 kg/prm, Split strap galvanized in zinc, chromated, Longitudinal edges zinc coated	
845 003	Storage length : 6,1 m — 76,37 kg / bar	
845 004	Storage length : 8,2 m — 102,66 kg / bar	
845 006	Storage length : 9,7 m — 120,16 kg / bar	
845 005	Storage length : 11,2 m — 140,22 kg / bar	
845 002	Price per running meter	
845 090	Cost of raw measure for customized cut	
	Sliding roller profilesType: LRB 115-4Q For max. gatebody weight 550 kp, Seated bearing Polyamide- sliding and crossing rollers. Steel parts are galvanized.	
845 050	Without the height-adjustable floor plate 4,4 kg	
	Sliding roller profilesType: LRB 115-4QG For max. gatebody weight 550 kp, Seated bearing Polyamide- sliding and crossing rollers. Steel parts are galvanized.	
845 052	With the height-adjustable floor plate 6,85 kg	
	Sliding roller profilesType: LRB 115/S-4Q For max. gatebody weight 840 kp, Seated bearing Polyamide- sliding and crossing rollers. Steel parts are galvanized.	
845 055	without the height-adjustable floor platee 9,5 kg	
	Sliding roller profilesType: LRB 115/S-4Q For max. gatebody weight 840 kp, Seated bearing Polyamide- sliding and crossing rollers. Steel parts are galvanized. with the height-adjustable floor plate	
845 056	15,1 kg	
	End-plate with Supporting rollers Type: KD 115/SR Shown as a piece that is fitted to profile Steel construction with Polyamide-Supporting rollers	
845 021	Steel parts are galvanized 0,95 kg	

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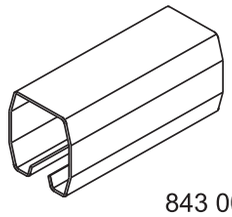
Discount on bulk orders upon inquiry.

Rights to technical changes reserved.

Cantilever Steel Sliding Gates Series: FST 165, FST 165/S

Price on request



843 003
843 004
843 007
843 006
843 005

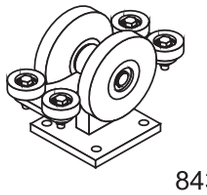
Sliding roller profilesType: LPR 165

Sliding roller profile LPR 165 constructed to DIN 1016-87, rollprofile 165 x 150 x 4 mm, weight 17,458 kg/m, Split strap galvanized in zinc, chromated, Longitudinal edges zinc coated

Storage length	6,0 m	104,75 kg / bar
Storage length	9,2 m	160,61 kg / bar
Storage length	11,2 m	195,53 kg / bar
Storage length	12,5 m	218,23 kg / bar
Storage length	13,5 m	235,68 kg / bar

843 002 Price per running meter

843 090 Cost of raw measure for customized cut

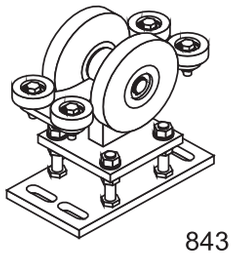


843 015

Sliding roller profilesType: LRB 165-4Q

For max. gatebody weight 820 kp, Seated bearing Polyamide-sliding and crossing rollers. Steel parts are galvanized.

Without the height-adjustable floor plate 9,4 kg

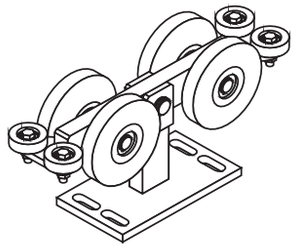


843 016

Sliding roller profilesType: LRB 165-4Q-HG

For max. gatebody weight 820 kp, Seated bearing Polyamide-sliding and crossing rollers. Steel parts are galvanized.

With the height-adjustable floor plate 14,95 kg

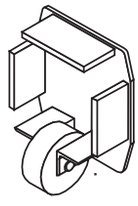


843 017

Sliding roller profilesType: LRB 165/S-4Q

For max. gatebody weight 1700 kp, Seated bearing Polyamide- sliding and crossing rollers. Steel parts are galvanized.

Only without the height-adjustable floor plate 19,5 kg



843 021

End-plate with Supporting rollers Type: KD 165/SR

Shown as a piece that is fitted to profile
Steel construction with Polyamide-Supporting rollers
Steel parts are galvanized

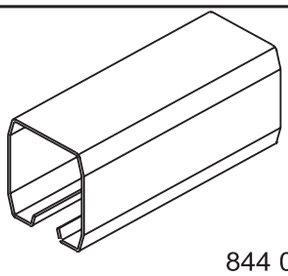
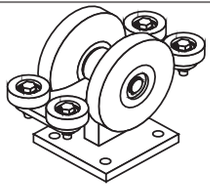
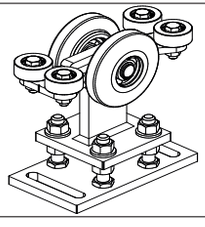
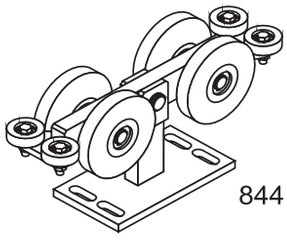
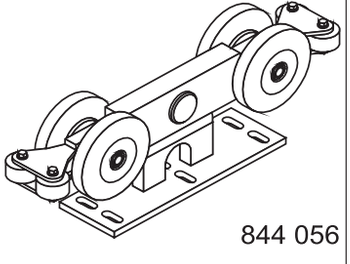
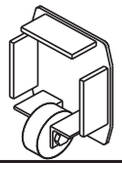
2,3 kg

Prices are subject to changes, Value-added-tax not included: Delivery from storage facility in Waiblingen, freight and packaging charges are extra.

Discount on bulk orders upon inquiry.

Rights to technical changes reserved.

Cantilever Steel Sliding Gates Price on request
Series: FST 200, FST 200/SL/200/S

 844 005 844 003 844 004 844 006	Sliding roller profilesType: LPR 200 Sliding roller profile LPR 200 constructed to DIN 1016-87, Rollprofile 199.6 x 165 x 5 mm, weight 27,70 kg / bar, Split strap galvanized in zinc, chromated, Longitudinal edges zinc coated Storage length : 6,0 m 151,3 kg / bar Storage length : 8,0 m 201,8 kg / bar Storage length : 12,0 m 302,6 kg / bar Storage length : 13,9 m 350,6 kg / bar	
844 002 844 090	Price per running meter Cost of raw measure for customized cut	
 844 050	Sliding roller profilesType: LRB 200-4Q For max. gatebody weight 1800 kp, Seated bearing Polyamide- sliding and crossing rollers. Steel parts are galvanized. Without the height-adjustable floor plate 12,55 kg	€
 844 052	Sliding roller profilesType: LRB 200-4Q-HG For max. gatebody weight 1800 kp, Seated bearing Polyamide- sliding and crossing rollers. Steel parts are galvanized. With the height-adjustable floor plate 18,1 kg	
 844 055	Sliding roller profilesType: LRB 200/SL-4Q For max. gatebody weight 2600 kp, Seated bearing Polyamide- sliding and crossing rollers. Steel parts are galvanized. Only without the height-adjustable floor plate 26,5 kg	€
 844 056	Sliding roller profilesType: LRB 200/S-4Q For max. gatebody weight 3600 kp, Seated bearing Polyamide- sliding and crossing rollers. Steel parts are galvanized. 40,1 kg	€
 844 021	End-plate with Supporting rollers Type: KD 200/SR Shown as a piece that is fitted to profile Steel construction with Polyamide-Supporting rollers Steel parts are galvanized 2,55 kg	

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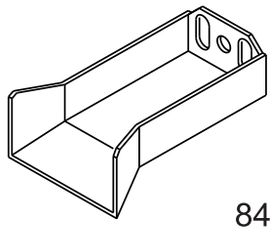
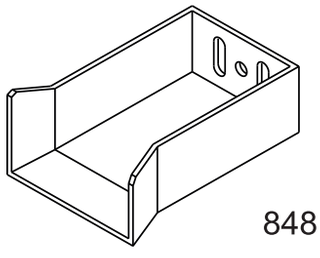
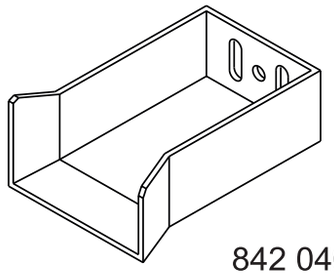
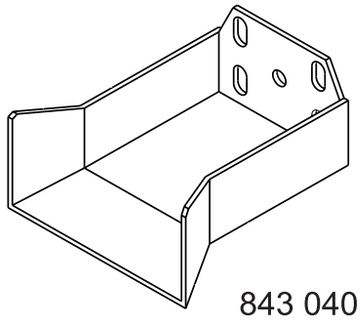
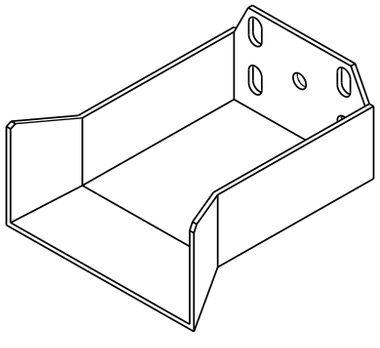
Cantilever Steel Sliding Gates

Series: FST 75 / 95 / 90A / 115 / 165 / 200

Price on request

Overrunning Shoe with lateral guidance

 841 040	Overrunning Shoe Type: ALS 75 Welded steel construction, inox V2A, WN 1.4301, 3 mm, to help relieve with a lateral locking of the gates end points 1,15 kg	
 848 040	Overrunning Shoe Type: ALS 95 / 90A Welded steel construction, inox V2A, WN 1.4301, 3 mm, to help relieve with a lateral locking of the gates end points 2,35 kg	
 842 040	Overrunning Shoe Type: ALS 115 Welded steel construction, inox V2A, WN 1.4301, 4 mm, to help relieve with a lateral locking of the gates end points 2,85 kg	
 843 040	Overrunning Shoe Type: ALS 165 Welded steel construction, inox V2A, WM 1.4301, 4 mm, to help relieve with a lateral locking of the gates end points 4,3 kg	
 844 040	Overrunning Shoe Type: ALS 200 Welded steel construction, inox V2A, WN 1.4301, 5 mm, to help relieve with a lateral locking of the gates end points 5 kg	

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Discount on bulk orders upon inquiry.

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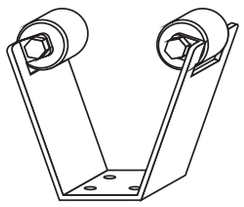
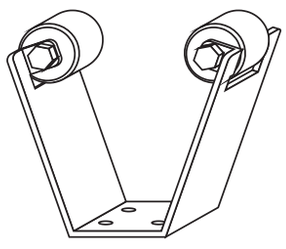
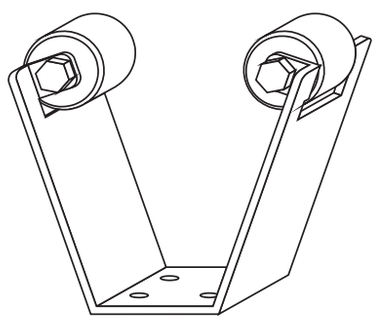
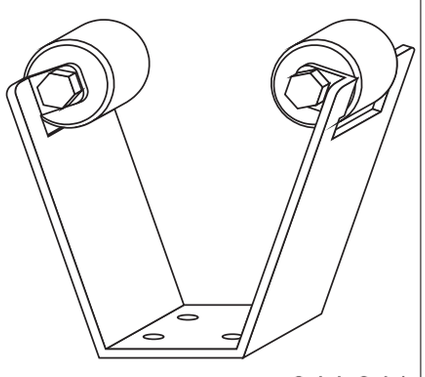
Cantilever Steel Sliding Gates

Price on request

Series: FST 75/95/90A/115/165/200, Arrival Cradle

 841 041	Arrival Cradle Type: ELG 75 / 95 / 90A Steel construction, inox V2A, WN 1.4301, 3 mm with polyamide rollers PA6, opening width 70 mm 1,05 kg	
 842 041	Arrival Cradle Type: ELG 115 Steel construction, inox V2A, WN 1.4301, 4 mm, with polyamide rollers PA6, opening width 100 mm 1,15 kg	
 843 041	Arrival Cradle Type: ELG 165 Steel construction, inox V2A, WN 1.4301, 4 mm, with polyamide rollers Pa6, opening width 120 mm 2,4 kg	
 844 041	Arrival Cradle Type: ELG 200 Steel construction, inox V2A, WN 1.4301, 4 mm with polyamide rollers PA6, opening width, 140 mm 3 kg	

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Discount on bulk orders upon inquiry.

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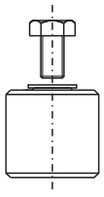
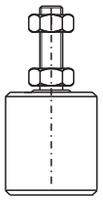
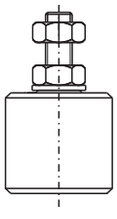
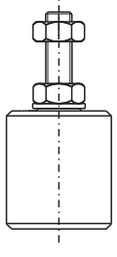
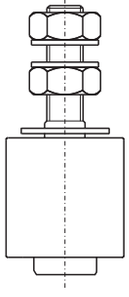
Cantilever Steel Sliding Gates

Series: FST 75/95/90A/115/165/200

Upper guidance roller

Price on request

805 412 	Upper guidance roller Type: OFR 30/34 Polyamide roller in black, Ø 30 x 34 SK-screws M 10 x 25 mm with flat washer 0,05 kg	
805 117 	Upper guidance roller Type: OFR 30/40 Polyamide roller Ø 30 x 40 SK-screws M 14 x 75 mm with nuts and flat washer 0,15 kg	
805 128	with finger protect housing 0,18 kg	
805 114 	Upper guidance roller Type: OFR 40/44-E Polyamide roller, Ø 40 x 44 SK-screws M 16 x 80 mm with nuts INOX Stainless steel version 0,25 kg	
805 118 	Upper guidance roller Type: OFR 40/60 Polyamide roller, Ø 40 x 60 SK-screws M 16 x 100 mm with nuts 0,3 kg	
805 318	with finger protect housing 0,36 kg	
801 119 805 119 	Upper guidance roller Type: OFR 60/60 Polyamide roller Ø 60 x 60 SK-screws M 20 x 130 mm with nuts and flat washer INOX Stainless steel version Galvanized version 0,6 kg	

Prices are subject to changes, Value-added-tax not included: Delivery from storage facility in Waiblingen, freight and packaging charges are extra.

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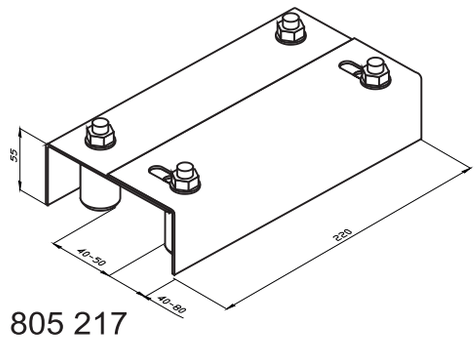
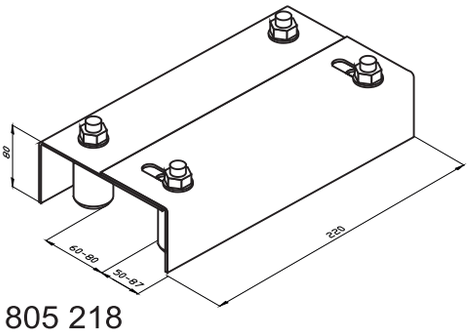
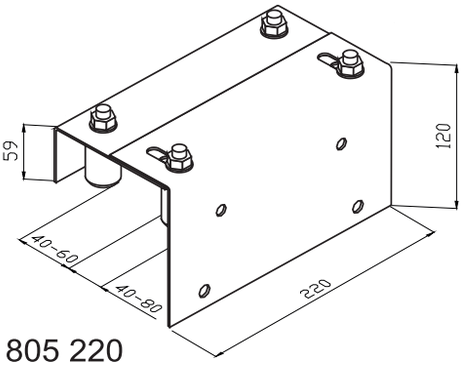
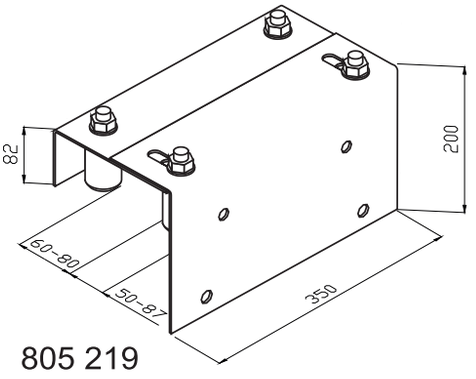
Cantilever Steel Sliding Gates **Price on request**

Adjustable guidance element with 4 guidance rollers
Series: FST 75/ 95 / 90A / 115

 805 217	<u>Adjustable guidance element with 4 guidance rollers</u> Polyamide roller Ø 30 x 40 screws M 12 with nuts and flat washer Type : RFE 75 2,2 kg	
 805 218	<u>Adjustable guidance element with 4 guidance rollers</u> Polyamide roller Ø 40 x 60 screws M 12 with nuts and flat washer Type : RFE 115 2,35 kg	
 805 220	<u>Adjustable guidance element</u> for installation on a cement wall with 4 guidance rollers Polyamide roller Ø 30 x 40 screws M 12 with nuts and flat washer Type : RFE/L 75 2,5 kg	
 805 219	<u>Adjustable guidance element</u> for installation on a cement wall with 4 guidance rollers Polyamide roller Ø 40 x 60 screws M 16 with nuts and flat washer Type : RFE/L 115 6,7 kg	

Prices are subject to changes, Value-added-tax not included: Delivery from storage facility in Waiblingen, freight and packaging charges are extra.

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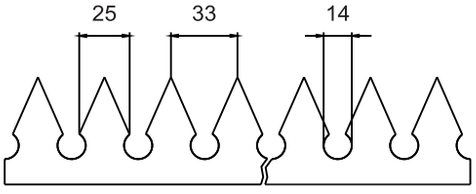
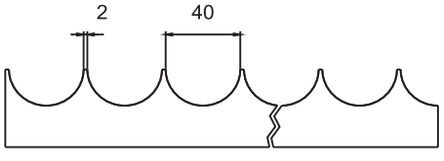
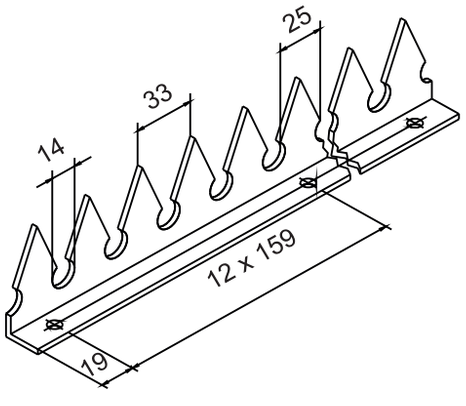
Cantilever Steel Sliding Gates

Series: FST 75/95/115/165/200

Price on request

Jagged Moulder

 846 001	Jagged moulder for welding Steel profile 55 x 3 mm Storage length 1947 mm Material quality: ST 37 / STW 22 Type: ZKS 1,55 kg		
 846 002	Jagged moulder for welding Steel profile 43 x 3 mm Storage length 1955 mm Material quality: ST 37 / STW 22 Type: ZKR 1,35 kg		
 846 003	Jagged moulder for screwing on Steel profile 55 x 20 x 3 mm Storage length 1947 mm Material quality: ST 37 / STW 22 Screws M6 for drilling purposes Type: ZKSA 2,2 kg		

Prices are subject to changes, Value-added-tax not included: Delivery from storage facility in Waiblingen, freight and packaging charges are extra.

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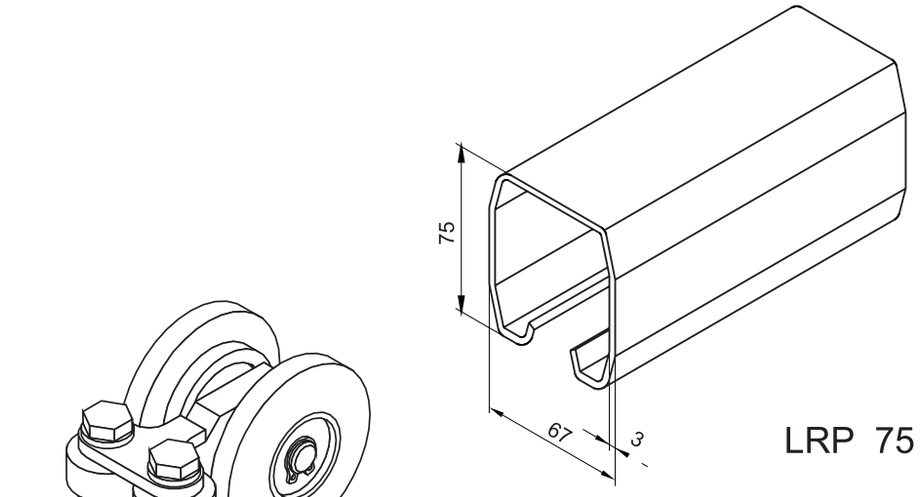
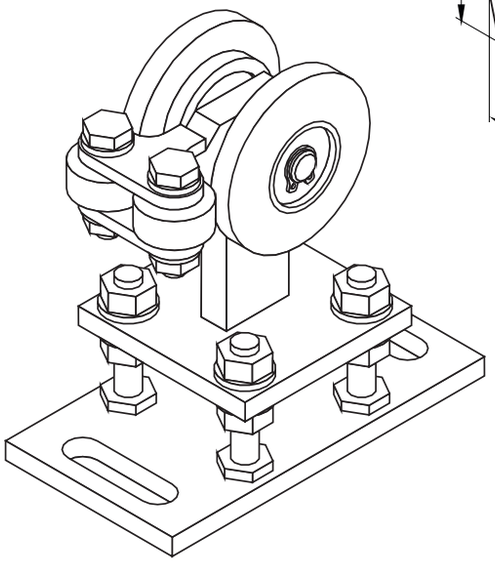
Cantilever Sliding Gatesystems

FST 75 Light-Weight Model

Maximum 4,5 m passage clearance width



LRP 75



LRB 75-2Q G

Standard safety measuers

1. Maximum gatebody weight = 250 kp

2. Tracking force per roller component = 420 kp
Type : LRB 75-2Q (G)

3. Wind velocity per roller component = 225 kp
(Wrought iron railing compound)

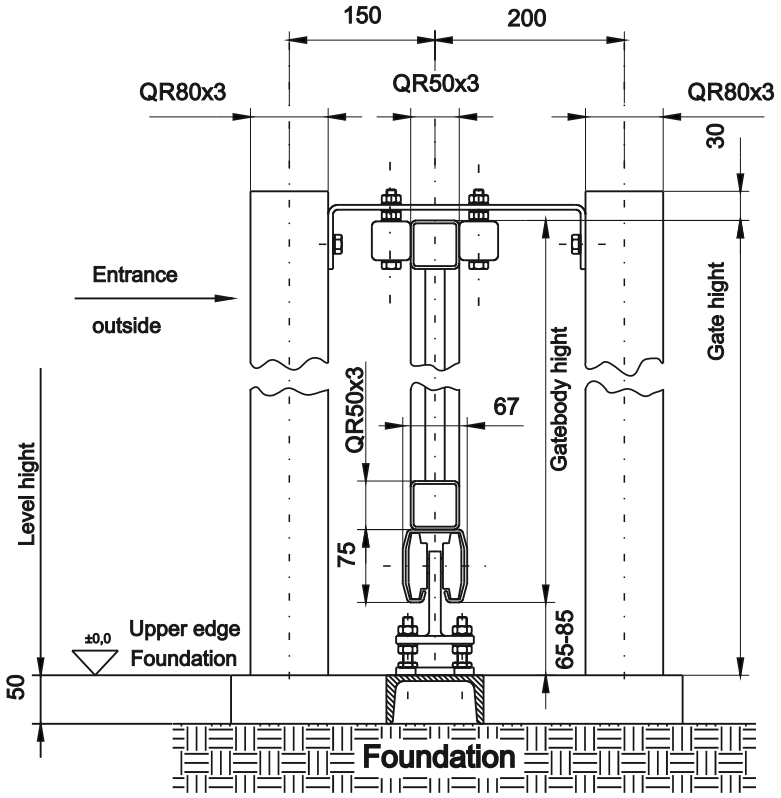
The wind velocity is determined by standard DIN EN 12424 grade 1, quality seal.
In the grade 1 lays a difference in pressure of 300 N/m².
Our statistic calculations are based on partially open wrought iron railing compound with a coefficience degree of 30%. According to standard DIN 12444 is by high gale winds the extra strain on the gate not perceived (statically calculated).

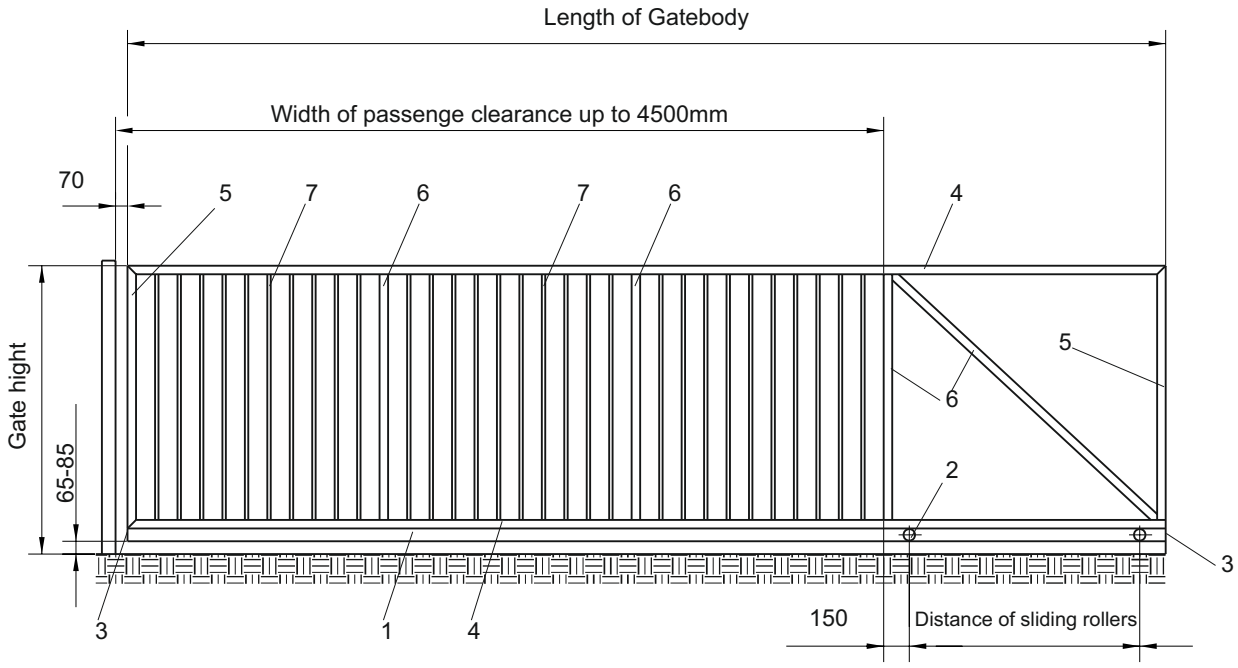
Cantilever Steel-Gatesystem

System dimensions FST 75

width of passenge clearance max 4,5 m

Light-weigth model
Wind velocity 300 N/m²
To standard DIN EN 12424





1. Sliding roller profile	LRP	75
2. Sliding roller	LRB	75 -2QG
3. End plate	KD	75 -SR

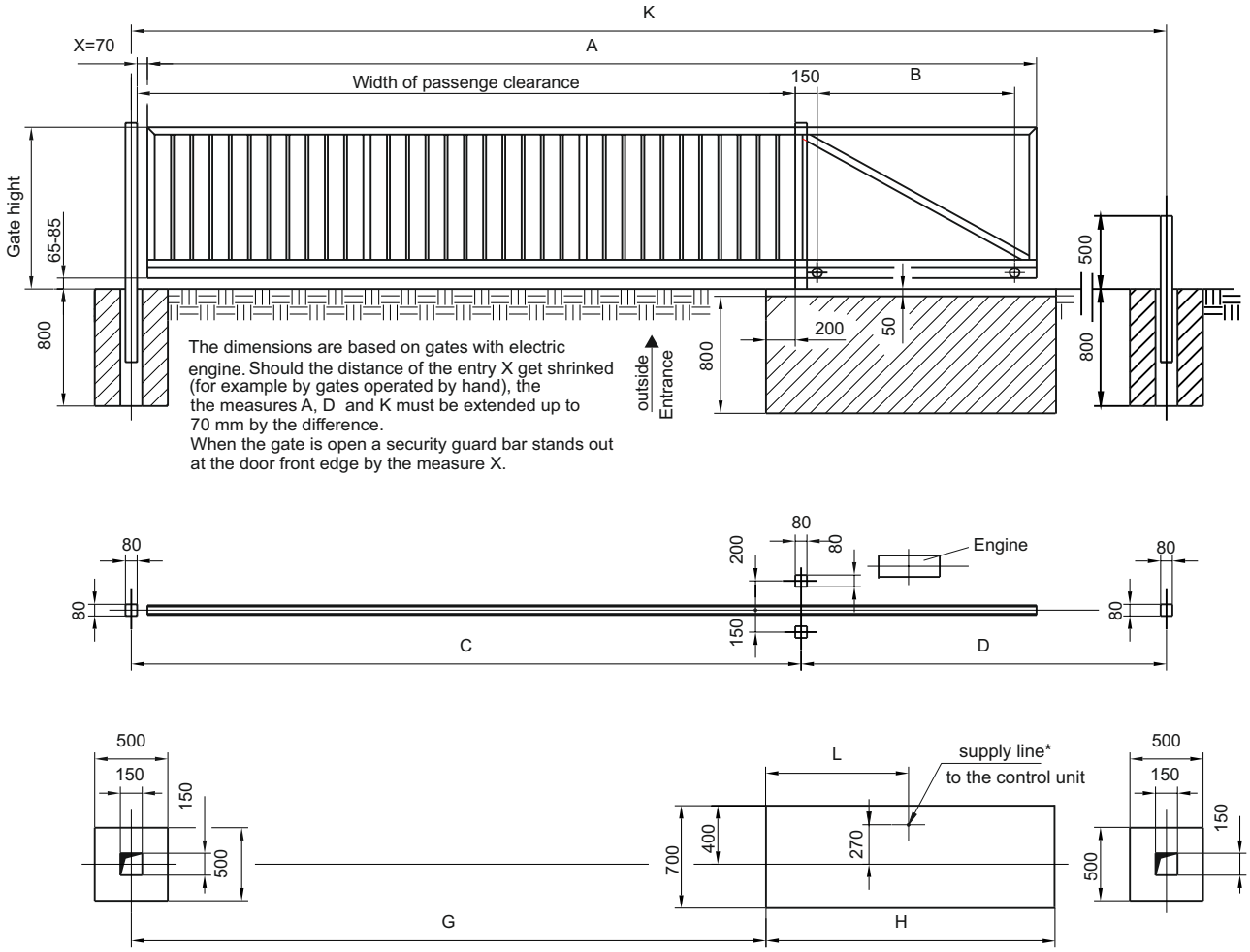
4. Top- and Under-chord	QR 50 x 3,0 mm
5. Outer rods	QR 50 x 3,0 mm
6. Inner rods	QR 50 x 3,0 mm
7. Filling rods	QR 20 x 2,0 mm

Cantilever Steel-Gatesystem

FST 75 Construction- and foundation dimensions

width of passenge clearance max 4,5 m

Light-weight model — Wind velocity 300N/m² To standard DIN EN 12424



Measures / width of passenge clearance	A	B	C	D	G	H	K	L*
2,0m	2.900	670	2.080	2.950	1.840	1.270	5.030	600
2,5m	3.550	820	2.580	3.600	2.340	1.420	6.180	630
3,0m	4.200	970	3.080	4.250	2.840	1.570	7.330	650
3,5m	4.900	1.170	3.580	4.950	3.340	1.770	8.530	680
4,0m	5.530	1.300	4.080	5.580	3.840	1.900	9.660	750
4,5m	6.100	1.370	4.580	6.150	4.340	1.970	10.730	750

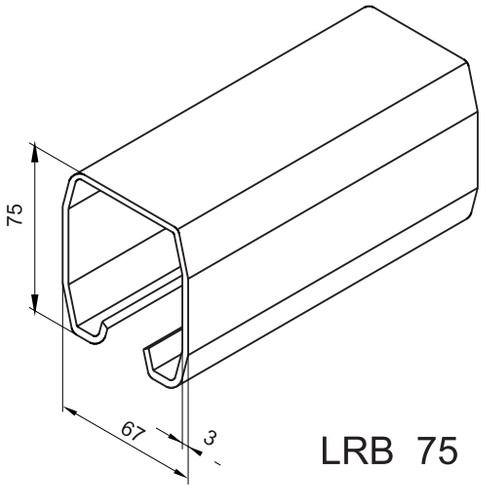
Indeed length of profile = A less 2 x material thickness of end plates (here 2 x 4 mm)

*may vary depending on wich electric engine is used.

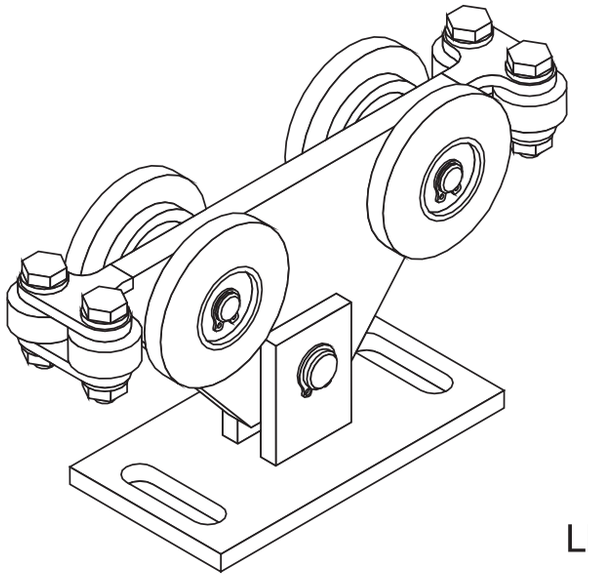
Cantilever Sliding Gatesystems

FST 75 Light-Weight Model

Maximum 6,0 m passage clearance width



LRB 75



LRB 75/S-4Q

<u>Standard safety measuers</u>

1. Maximum gatebody weight = 450 kp

2. Tracking force per roller component = 960 kp
Type : LRB 75/S-4Q

3. Wind velocity per roller component = 450 kp
(Wrought iron railing compound)

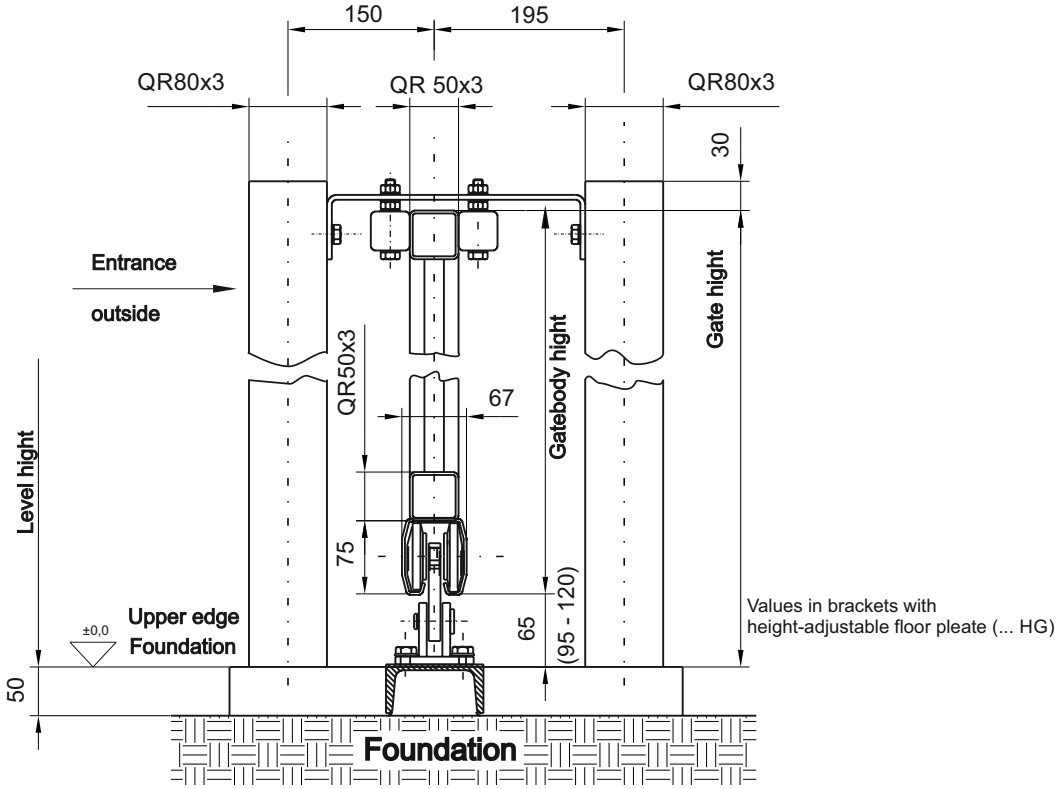
The wind velocity is determined by standard DIN EN 12424 grade 1, quality seal.
In the grade 1 lays a difference in pressure of 300 N/m².
Our statistic calculations are based on partially open wrought iron railing compound with a coefficience degree of 30%. According to standard DIN 12444 is by high gale winds the extra strain on the gate not perceived (statically calculated).

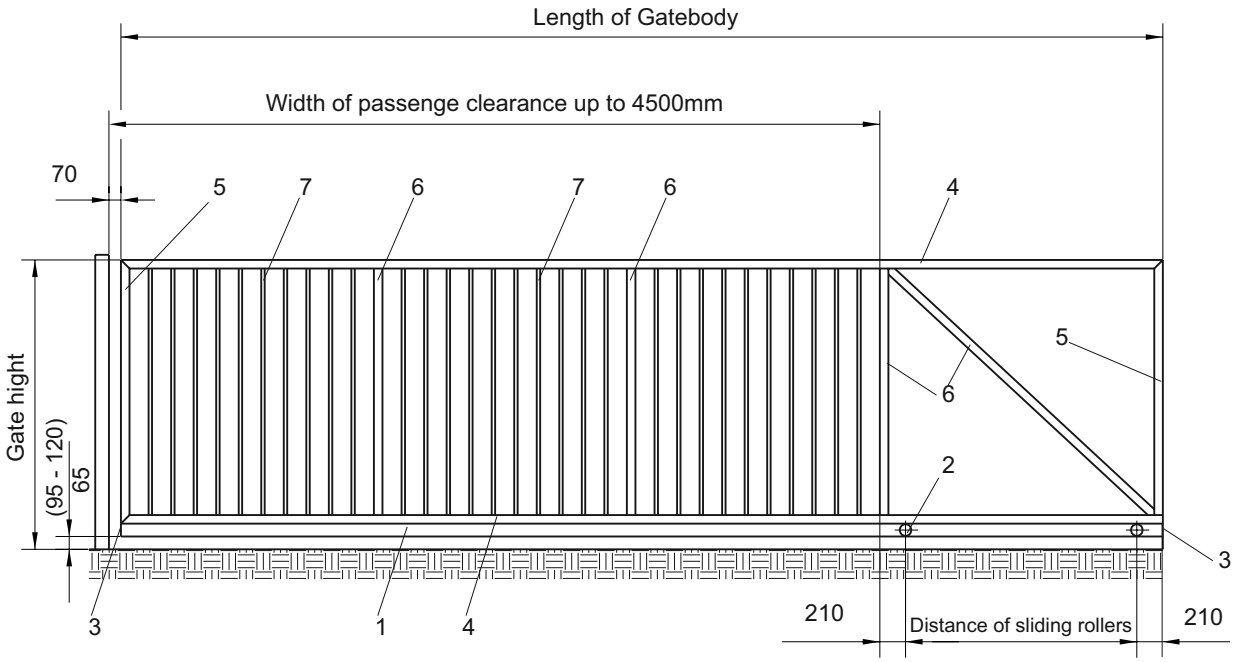
Cantilever Steel-Gatesystem

System dimensions FST 75/S

width of passenge clearance max 4,5 m

Light-weigth model
Wind velocity 300 N/m²
To standard DIN EN 12424





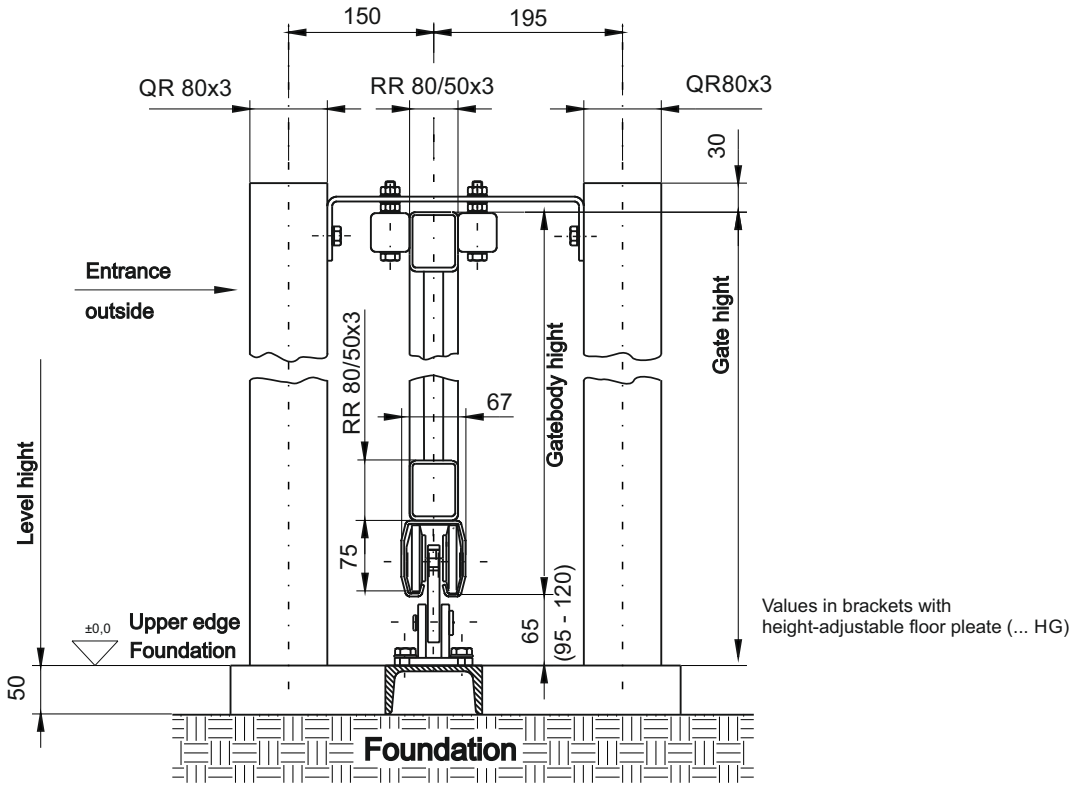
1. Sliding roller profile	LRP 75	4. Top- and Under-chord	QR 50x3,0 mm
2. Sliding roller	LRB 75/S-4Q	5. Outer rods	QR 50x3,0 mm
3. End plate	KD 75/SR	6. Inner rods	QR 50x3,0 mm
		7. Filling rods	QR 20x2,0 mm

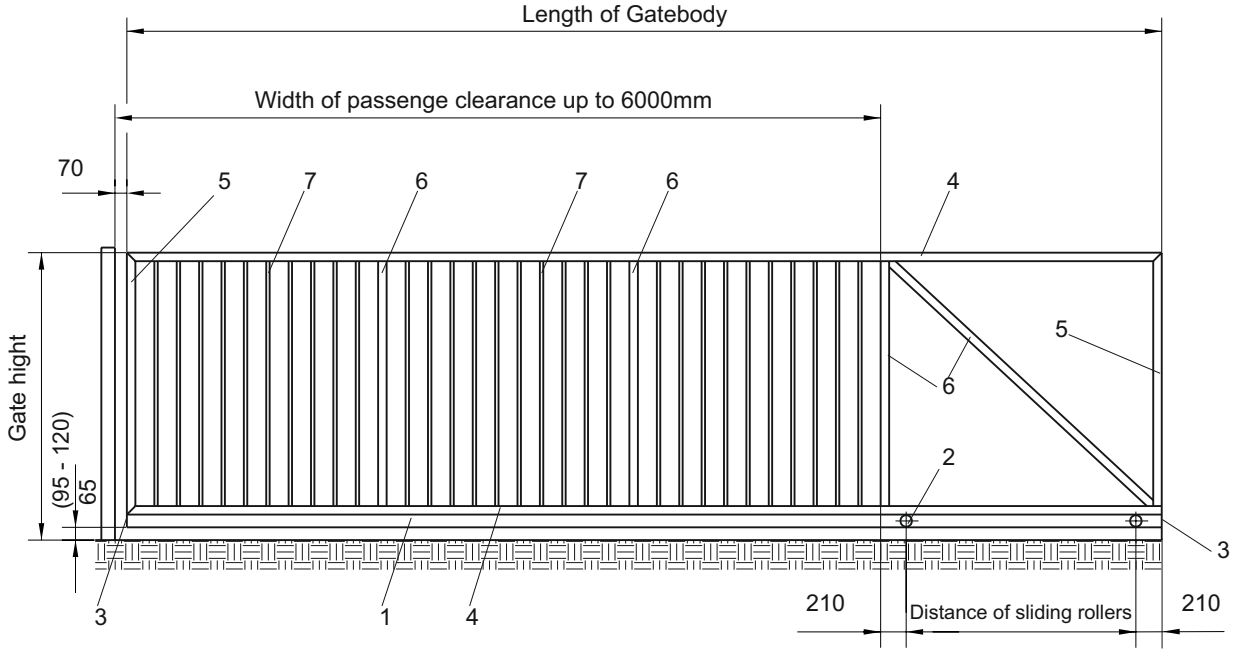
Cantilever Steel-Gatesystem

System dimensions FST 75/S

width of passenge clearance max 6,0 m

Light-weigth model
Wind velocity 300 N/m²
To standard DIN EN 12424





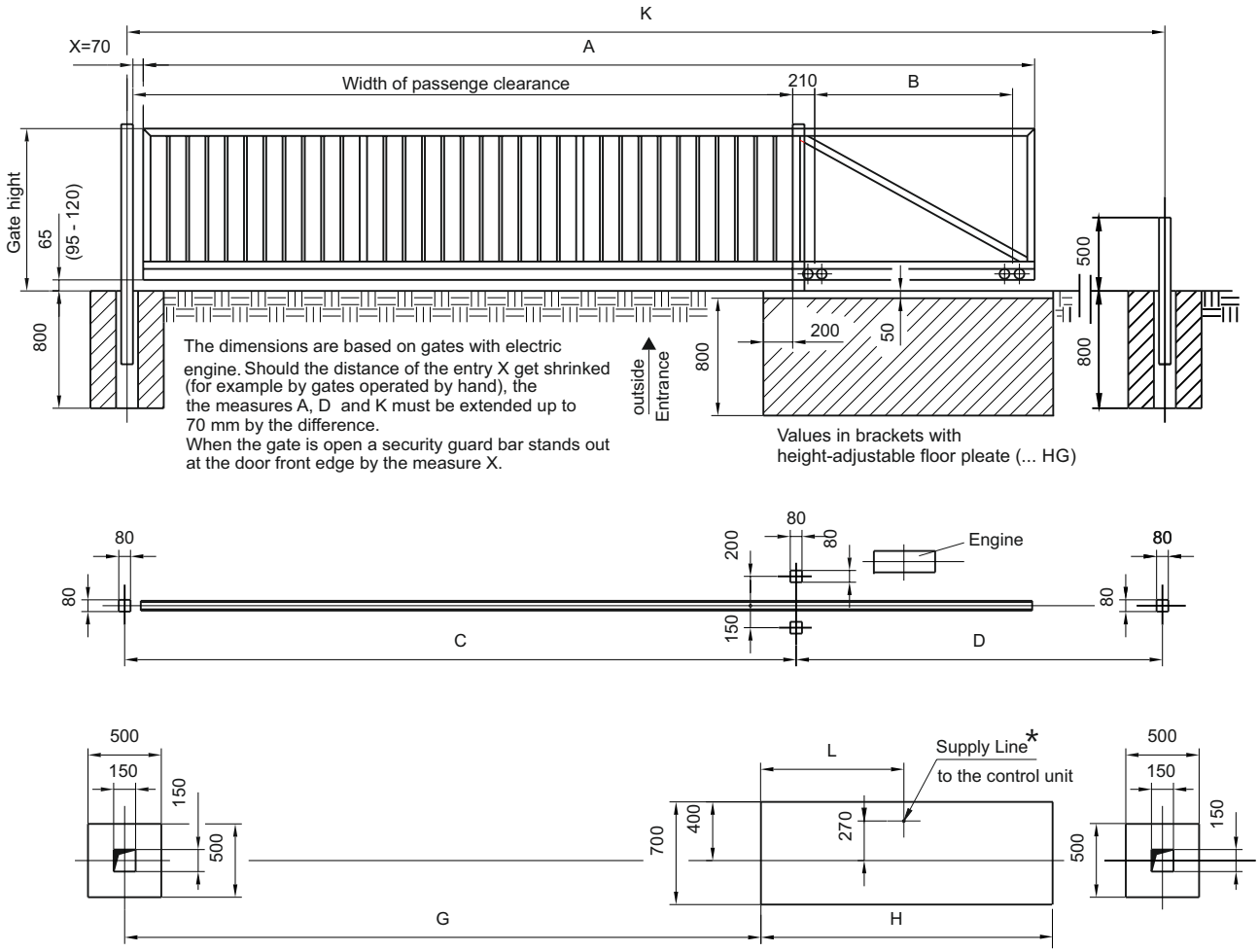
1. Sliding roller profile	LRP 75	4. Top- and Under-chord	RR 80/50x3,0 mm
2. Sliding roller	LRB 75/S-4Q	5. Outer rods	RR 80/50x3,0 mm
3. End plate	KD 75/SR	6. Inner rods	RR 80/50x3,0 mm
		7. Filling rods	QR 20/20x2,0 mm

Cantilever Steel-Gatesystem

FST 75/S Construction- and foundation dimensions

width of passenge clearance max 6,0 m

Light-weight model — Wind velocity 300N/m² To standard DIN EN 12424



Measures / width of passenge clearance	A	B	C	D	G	H	K	L*
2,0m	3.000	650	2.080	3.050	1.840	1.370	5.130	630
2,5m	3.670	800	2.580	3.720	2.340	1.540	6.300	650
3,0m	4.330	980	3.080	4.380	2.840	1.700	7.460	680
3,5m	5.000	1.150	3.580	5.050	3.340	1.870	8.630	700
4,0m	5.640	1.290	4.080	5.690	3.840	2.010	9.770	730
4,5m	6.300	1.450	4.580	6.350	4.340	2.170	10.930	750
5,0m	6.980	1.630	5.080	7.030	4.840	2.350	12.110	770
5,5m	7.650	1.800	5.580	7.700	5.340	2.520	13.280	800
6,0m	8.330	1.980	6.080	8.380	5.840	2.700	14.460	820

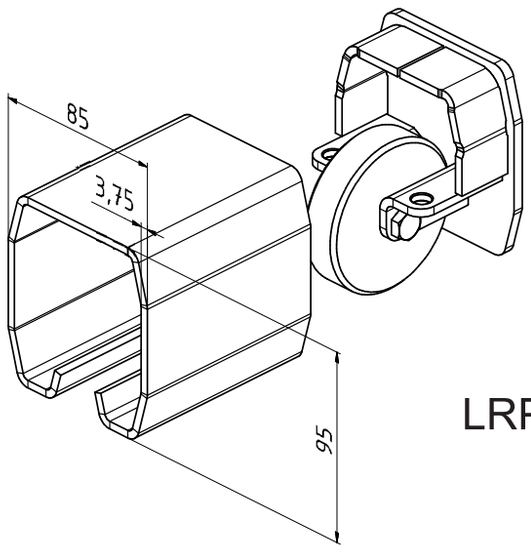
Indeed length of profile = A less 2 x material thickness of end plates (here 2 x 4 mm)

*may vary depending on wich electric engine is used.

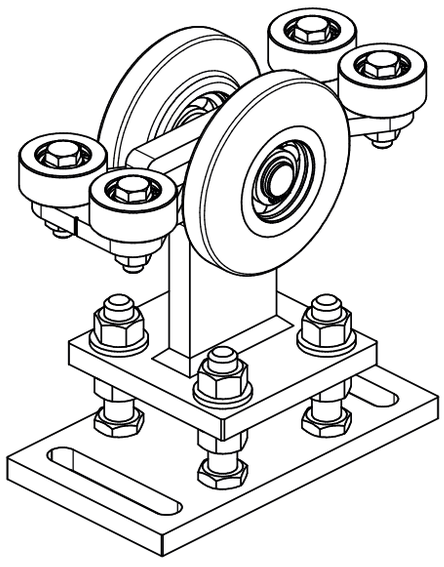
Cantilever Sliding Gatesystems

FST 95 Light-Weight Model

Maximum 5,5 m passage clearance width



LRP 95



LRB 95 - 4Q and 95 - 4Q - HG

<u>Standard safety measuers</u>

1. Maximum gatebody weight = 450 kp

2. Tracking force per roller component = 950 kp (9,5 kN)
Type : LRB 95-4Q (HG)

3. Wind velocity per roller component = 450 kp
(Wrought iron railing compound)

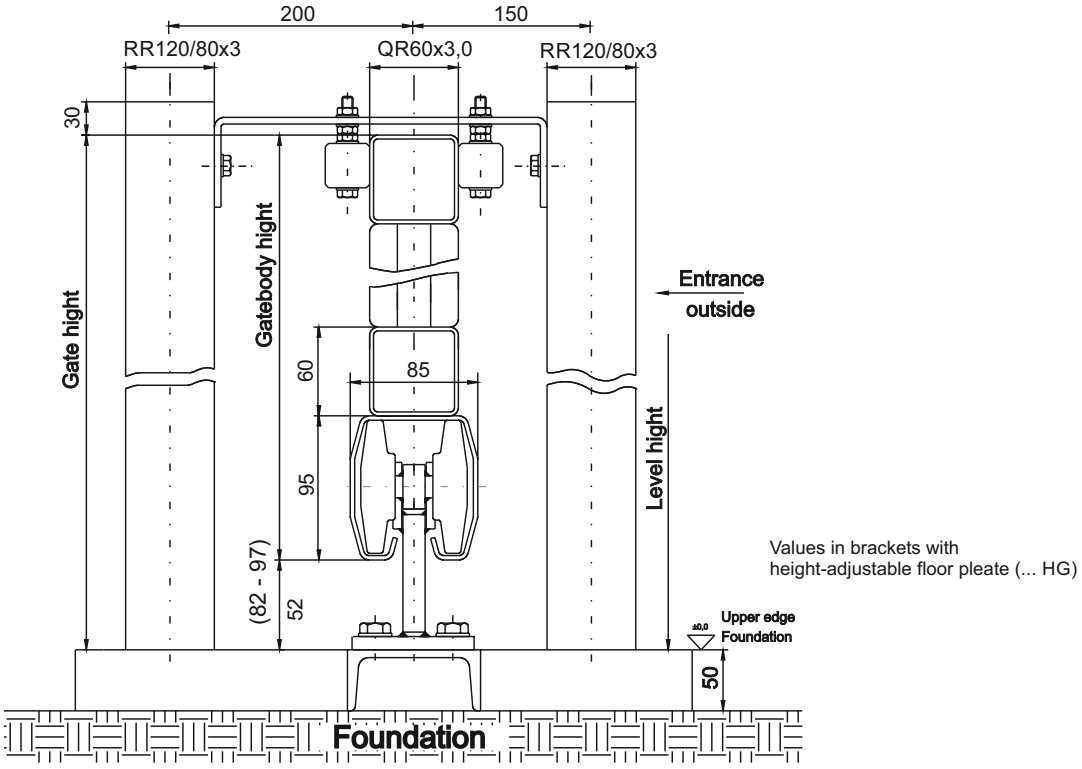
The wind velocity is determined by standard DIN EN 12424 grade 3, quality seal.
In the grade 3 lays a difference in pressure of 700 N/m².
Our statistic calculations are based on partially open wrought iron railing compound with a coefficience degree of 30%, with a gate construction of ST37-2. According to standard DIN 12444 is by high gale winds the extra strain on the gate not perceived (statically calculated).

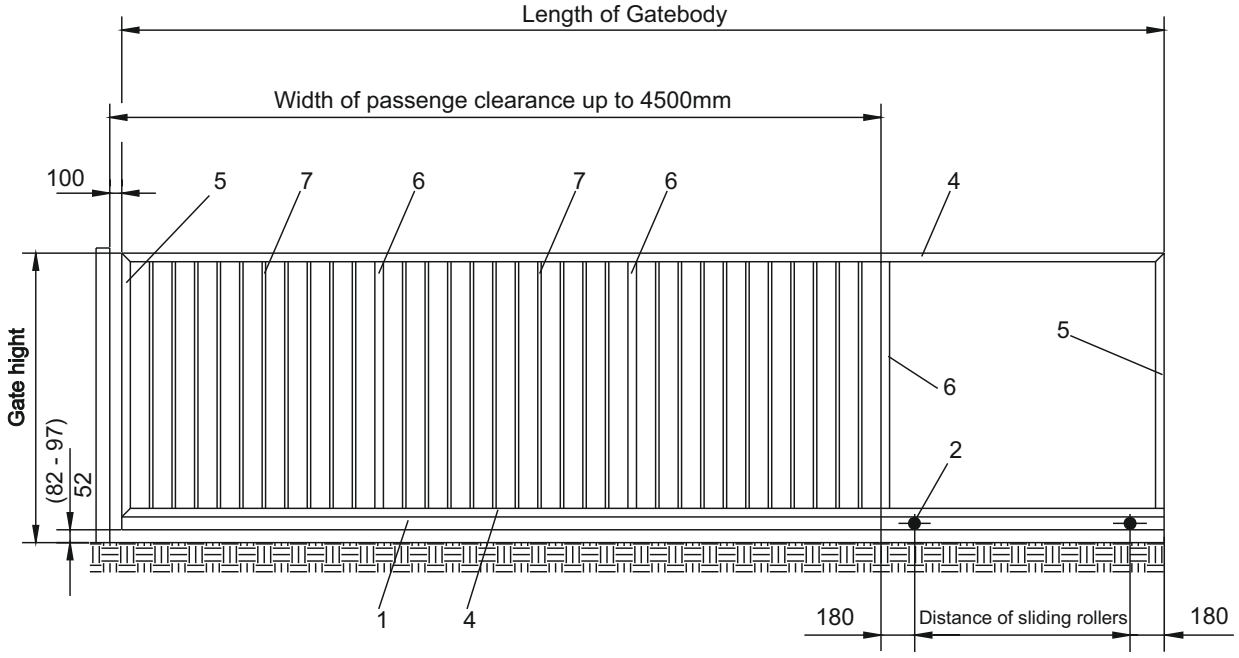
Cantilever Steel-Gatesystem

System dimensions FST 95

width of passenge clearance max 4,5 m

Light-weigth model
Wind velocity 700 N/m²
To standard DIN EN 12424





1. Sliding roller profile	LRP	95
2. Sliding roller	LRB	95 - 4Q (HG)
3. End plate	KD	95-SR

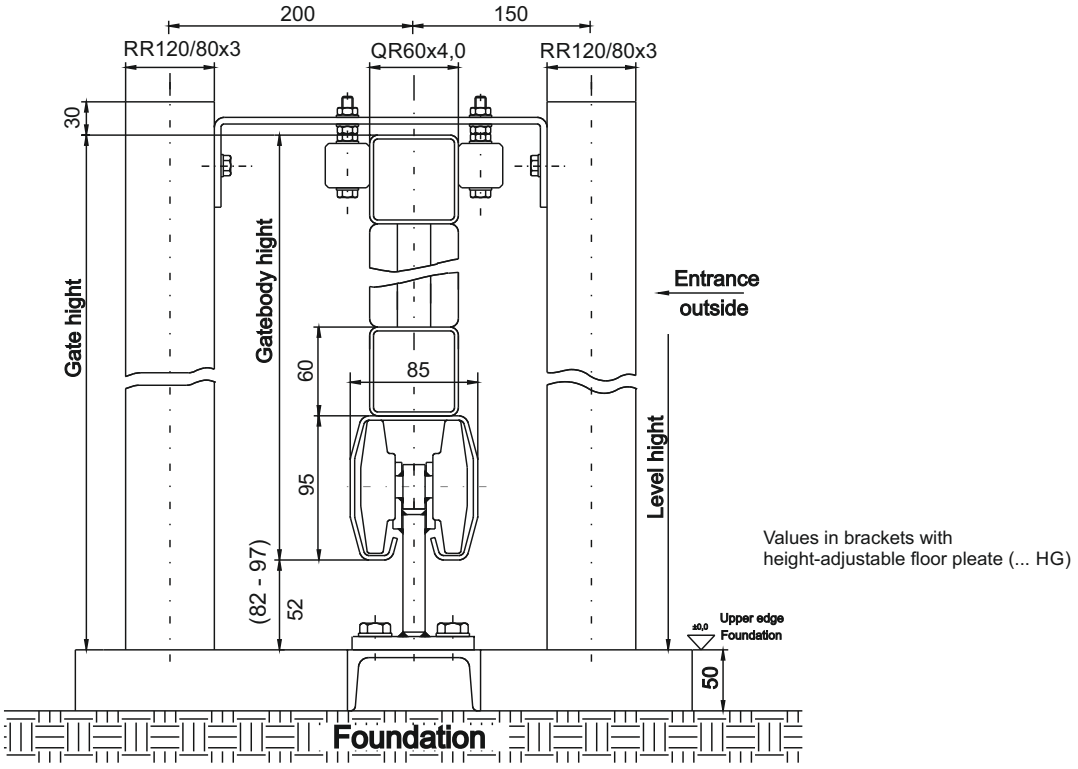
4. Top- and Under-chord	QR	60 x 3,0 mm
5. Outer rods	QR	60 x 3,0 mm
6. Inner rods	QR	60 x 3,0 mm
7. Filling rods	QR	20 x 2,0 mm

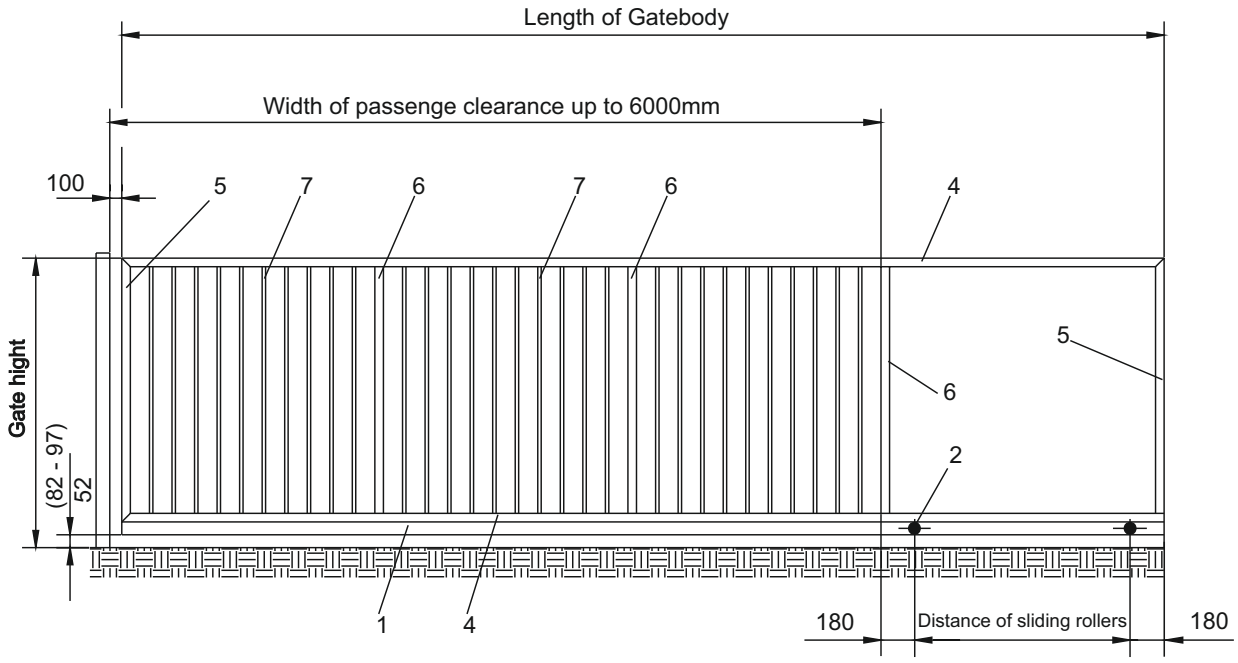
Cantilever Steel-Gatesystem

System dimensions FST 95

width of passenge clearance max 5,5 m

Light-weigth model
Wind velocity 700 N/m²
To standard DIN EN 12424





1. Sliding roller profile	LRP	95
2. Sliding roller	LRB	95 - 4Q (HG)
3. End plate	KD	95-SR

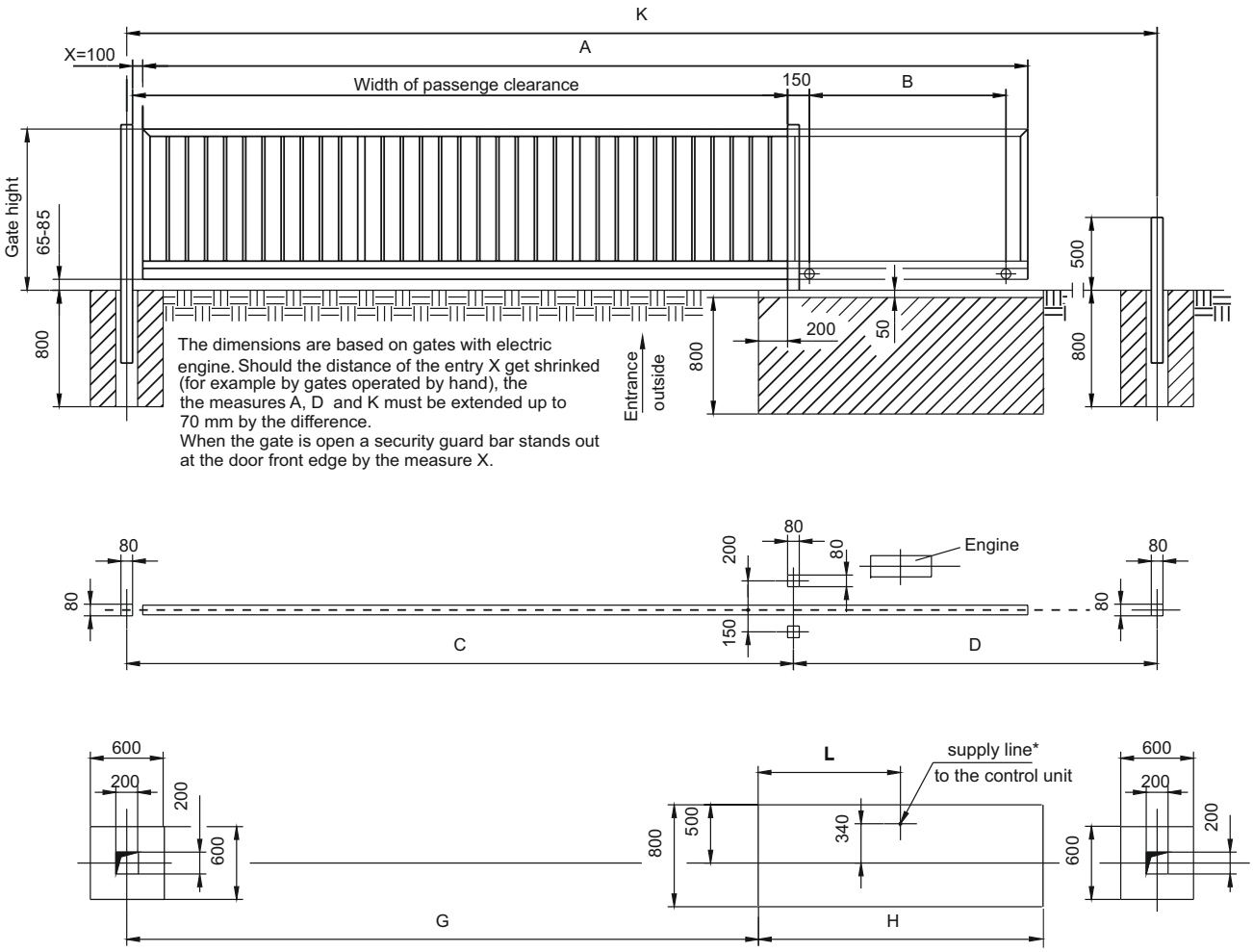
4. Top- and Under-chord	QR	60 x 4,0 mm
5. Outer rods	QR	60 x 4,0 mm
6. Inner rods	QR	60 x 4,0 mm
7. Filling rods	QR	20 x 2,0 mm

Cantilever Steel-Gatesystem

FST 95 Construction- and foundation dimensions

width of passenge clearance max 5,5 m

Light-weight model — Wind velocity 700N/m² To standard DIN EN 12424



Measures / width of passenge clearance	A	B	C	D	G	H	K	L *
2,5m	3.540	750	2.580	3.590	2.340	1.300	6.170	650
3,0m	4.190	900	3.080	4.240	2.840	1.450	7.320	670
3,5m	4.840	1.050	3.580	4.890	3.340	1.600	8.470	700
4,0m	5.460	1.200	4.080	5.510	3.840	1.750	9.590	730
4,5m	6.110	1.360	4.580	6.160	4.340	1.910	10.740	760
5,0m	6.790	1.500	5.080	6.840	4.840	2.050	11.920	800
5,5m	7.460	1.650	5.580	7.510	5.340	2.200	13.090	840
6,0m **	8.208	1.820	6.080	8.258	5.840	2.379	14.338	860

Indeed length of profile = A less 2 x material thickness of end plates (here 2 x 4 mm)

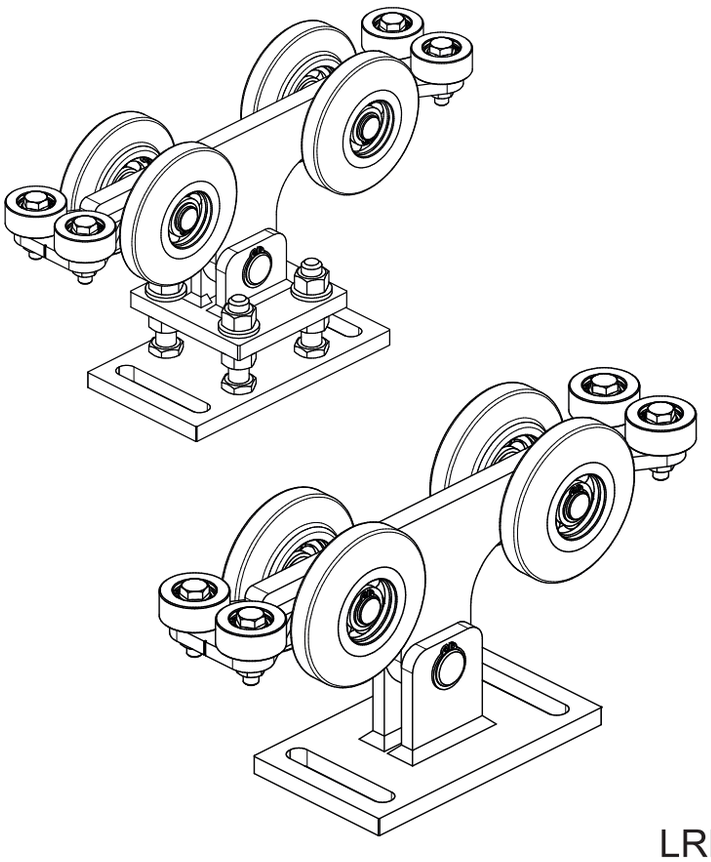
*may vary depending on wich electric engine is used.

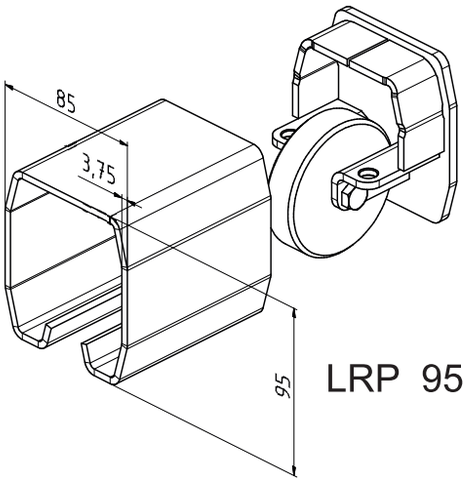
** optional for gates in the private sector with low operating frequency

Cantilever Sliding Gatesystems

FST 95 / S Light-Weight Model

Maximum 7,5 m passage clearance width





LRP 95

LRB 95/S-4Q und 95/S - 4Q - HG

Standard safety measuers

1. Maximum gatebody weight = 600 kp

2. Tracking force per roller component = 1.150 kp (11,5 kN)
Type : LRB 95/S-4Q (HG)

3. Wind velocity per roller component = 500 kp
(Wrought iron railing compound)

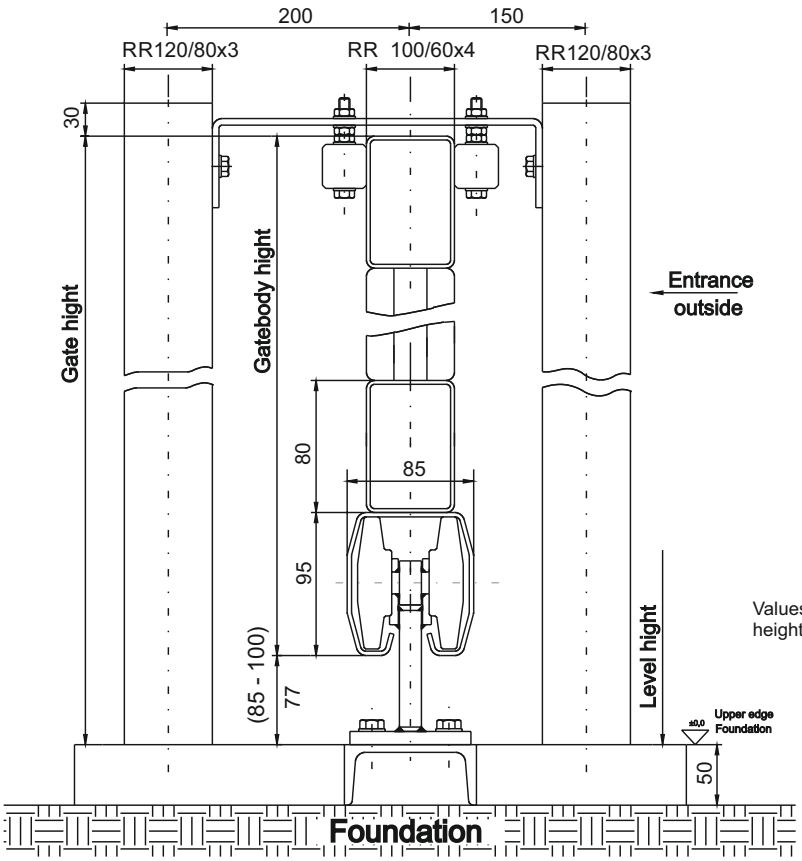
The wind velocity is determined by standard DIN EN 12424 grade 3, quality seal.
In the grade 3 lays a difference in pressure of 700 N/m².
Our statistic calculations are based on partially open wrought iron railing compound with a coefficience degree of 30%, with a gate construction of ST37-2. According to standard DIN 12444 is by high gale winds the extra strain on the gate not perceived (statically calculated).

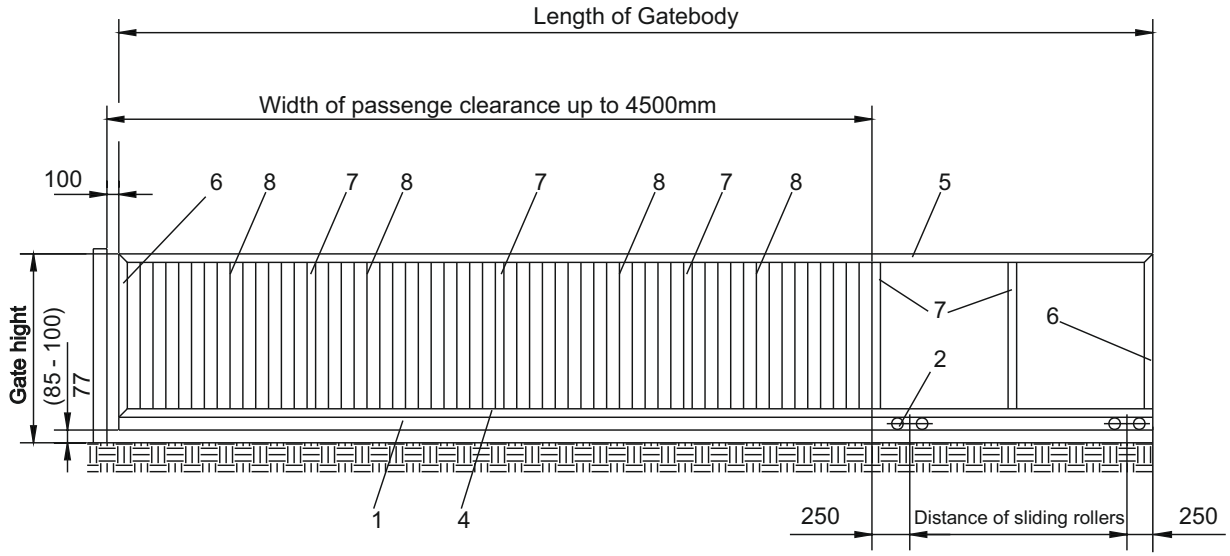
Cantilever Steel-Gatesystem

System dimensions FST 95/S

width of passenge clearance max 6,0 m

Light-weigth model
Wind velocity 700 N/m²
To standard DIN EN 12424





1. Sliding roller profile	LRP	95
2. Sliding roller	LRB	95/S-4Q
3. End plate	KD	95-SR

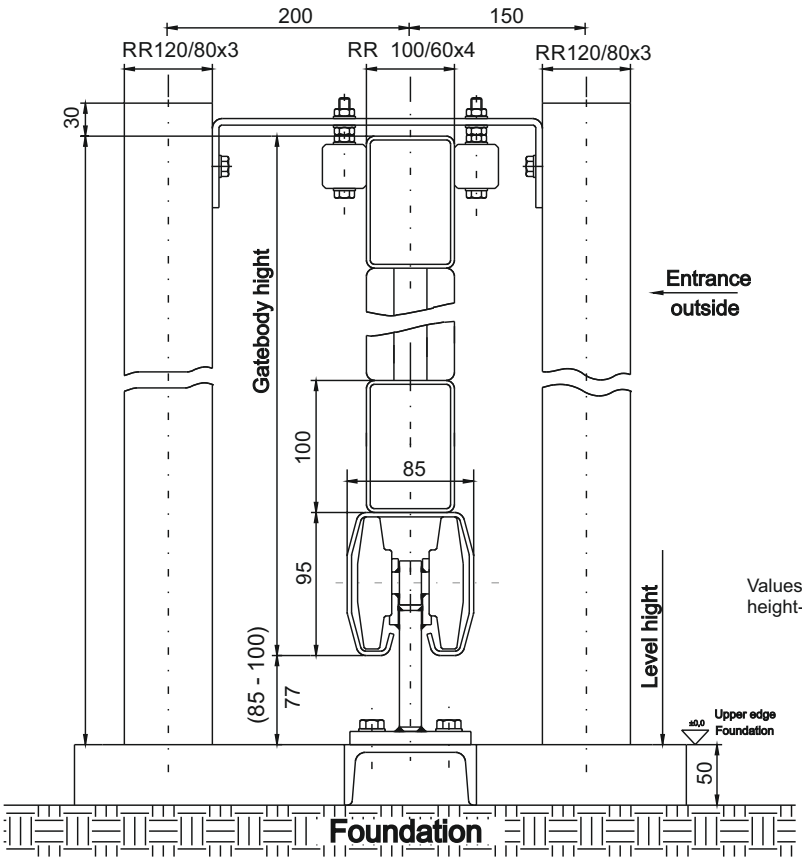
4. Under-chord	RR	80/60 x 4,0 mm
5. Top-chord	QR	60 x 4,0 mm
6. Outer rods	QR	60 x 4,0 mm
7. Inner rods	QR	60 x 4,0 mm
8. Filling rods	QR	20 x 2,0 mm

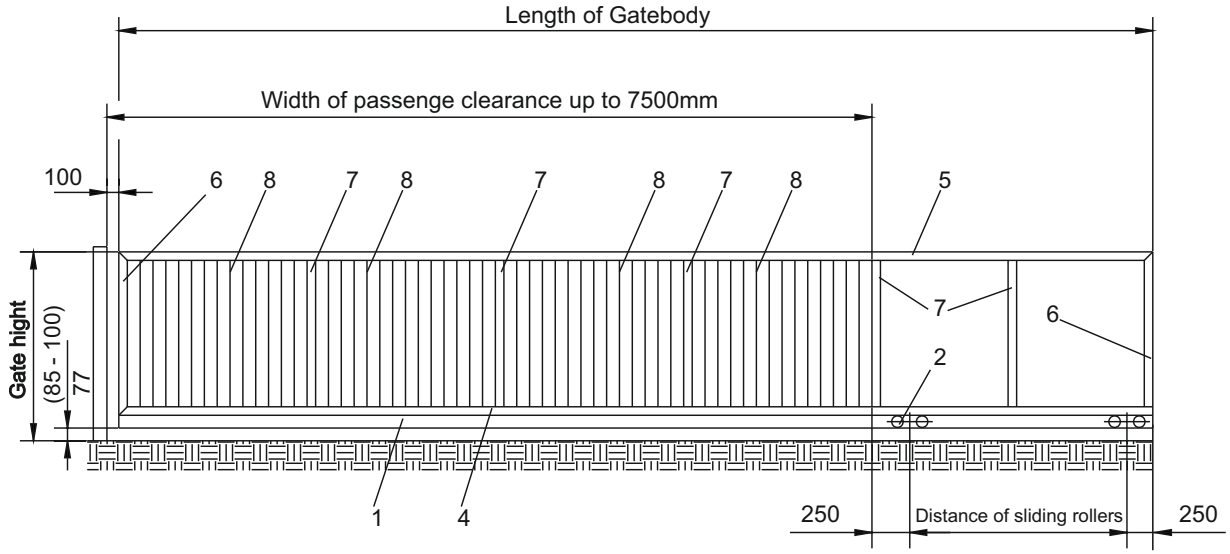
Cantilever Steel-Gatesystem

System dimensions FST 95/S

width of passenge clearance max 7,5 m

Light-weigth model
Wind velocity 700 N/m²
To standard DIN EN 12424





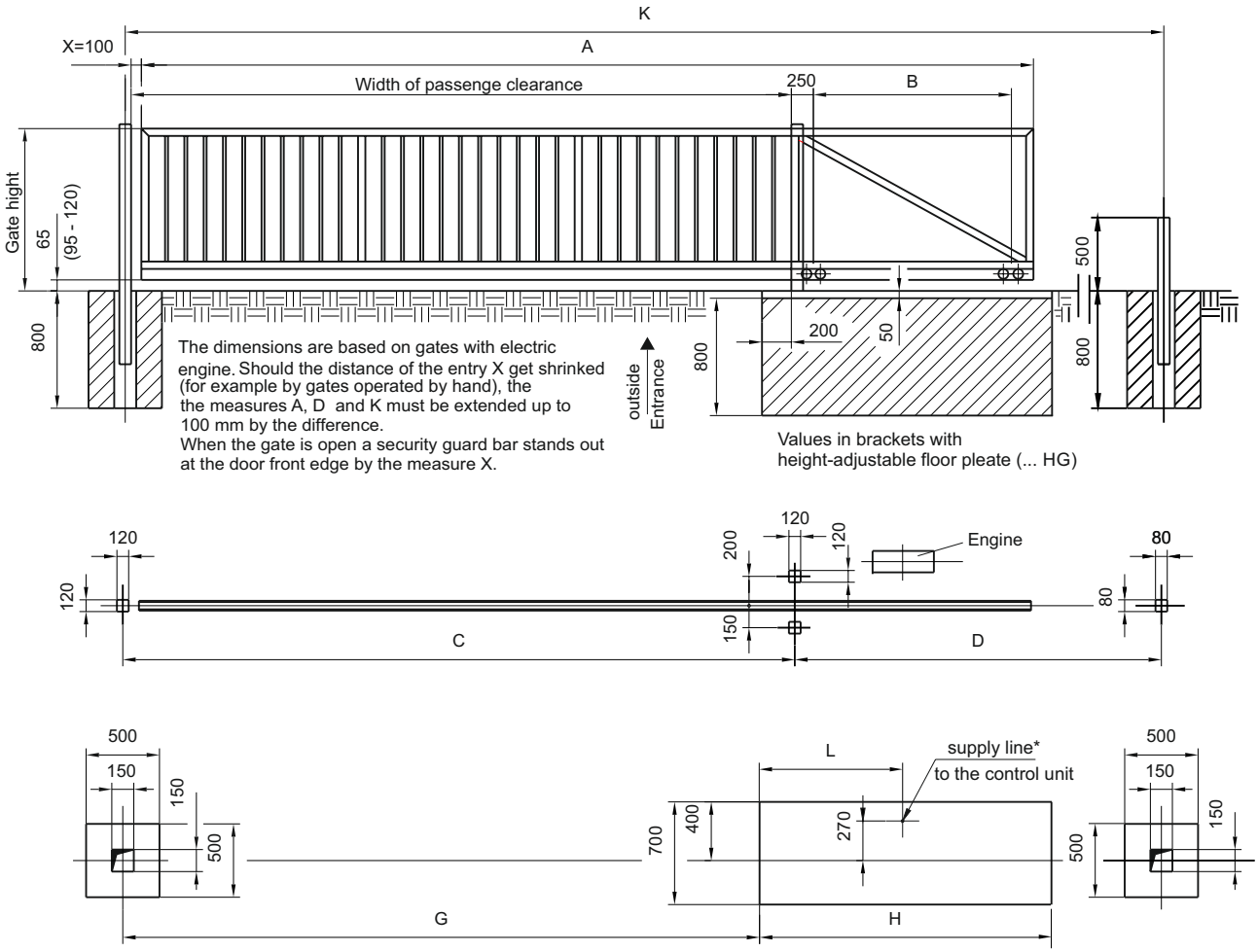
1. Sliding roller profile	LRP 95	4. Under-chord	RR 100/60 x 4,0 mm
2. Sliding roller	LRB 95/S-4Q	5. Top-chord	QR 60 x 4,0 mm
3. End plate	KD 95-SR	6. Outer rods	QR 60 x 4,0 mm
		7. Inner rods	QR 60 x 4,0 mm
		8. Filling rods	QR 20 x 2,0 mm

Cantilever Steel-Gatesystem

FST 95/S Construction- and foundation dimensions

width of passenge clearance max 7,5 m

Light-weight model — Wind velocity 700N/m² To standard DIN EN 12424



Measures / width of passenge clearance	A	B	C	D	G	H	K	L *
4,0 m	5.458	1.060	4.120	5.510	3.860	1.760	9.630	630
4,5 m	6.108	1.210	4.620	6.160	4.360	1.910	10.780	650
5,0 m	6.900	1.470	5.120	6.950	4.860	2.170	12.070	680
5,5 m	7.550	1.650	5.620	7.600	5.360	2.350	13.220	700
6,0 m	8.208	1.810	6.120	8.260	5.860	2.510	15.060	730
6,5 m	8.890	1.990	6.620	8.940	6.360	2.690	15.560	750
7,0 m	9.688	2.290	7.120	9.740	6.860	2.990	16.860	770
7,5 m	10.388	2.490	7.620	10.440	7.360	3.190	18.060	770

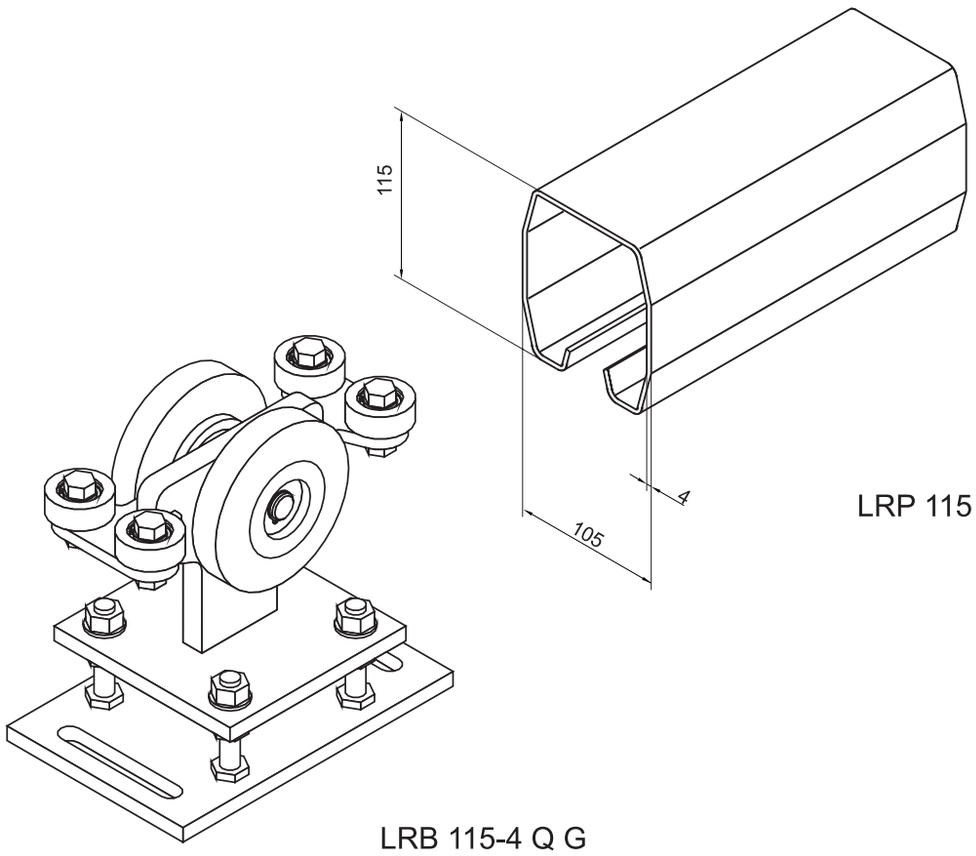
Indeed length of profile = A less 2 x material thickness of end plates (here 2 x 4 mm)

*may vary depending on wich electric engine is used.

Cantilever Sliding Gatesystems

FST 115 Light-Weight Model

Maximum 6,0 m passage clearance width



LRP 115

LRB 115-4 Q G

<u>Standard safety measuers</u>

1. Maximum gatebody weight = 550 kp

2. Tracking force per roller component = 1100 kp
Type : LRB 115-4Q (G)

3. Wind velocity per roller component = 540 kp
(Wrought iron railing compound)

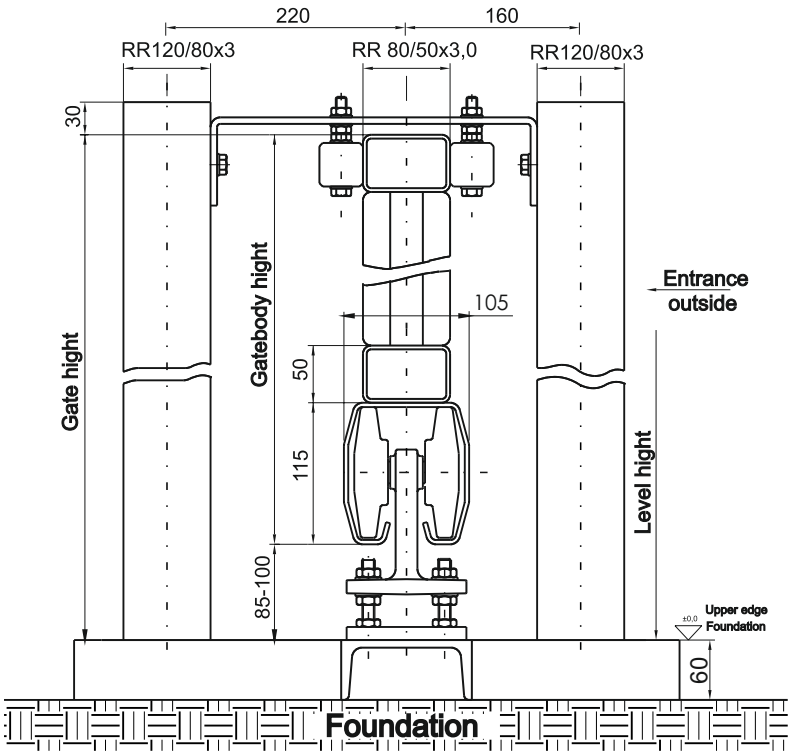
The wind velocity is determined by standard DIN EN 12424 grade 1, quality seal.
In the grade 1 lays a difference in pressure of 300 N/m².
Our statistic calculations are based on partially open wrought iron railing compound with a coefficience degree of 30%. According to standard DIN 12444 is by high gale winds the extra strain on the gate not perceived (statically calculated).

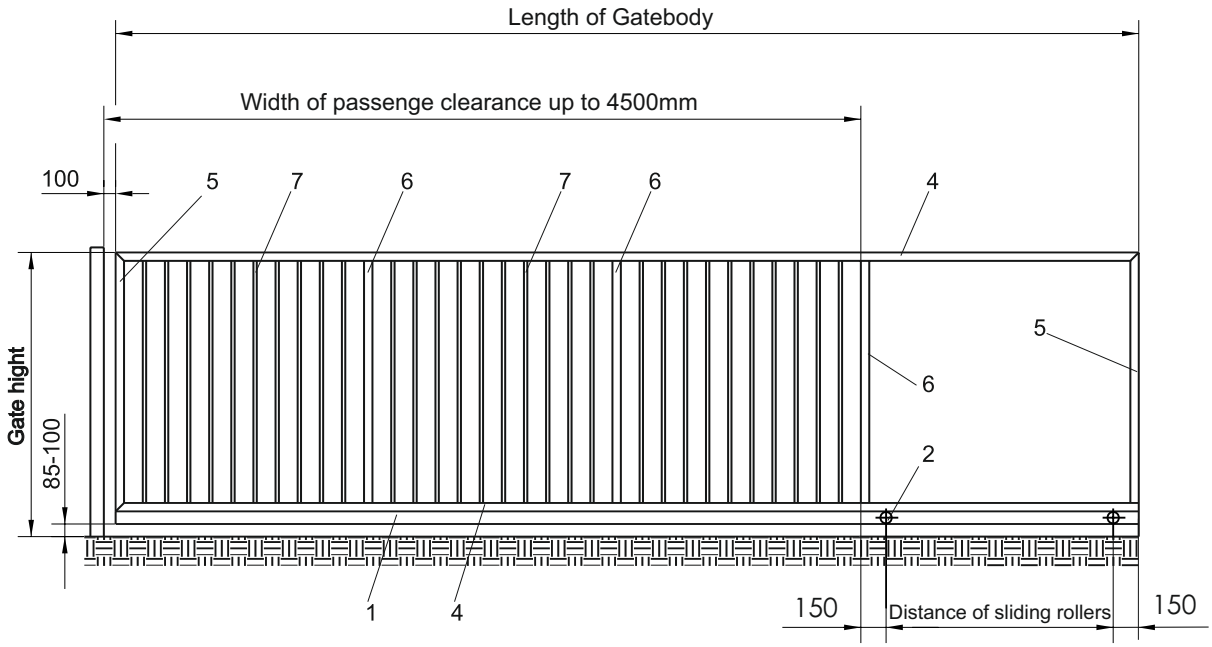
Cantilever Steel-Gatesystem

System dimensions FST 115

width of passenge clearance max 4,5 m

Light-weigth model
Wind velocity 300 N/m²
To standard DIN EN 12424





1. Sliding roller profile	LRP	115
2. Sliding roller	LRB	115 -4Q
3. End plate	KD	115 -SR

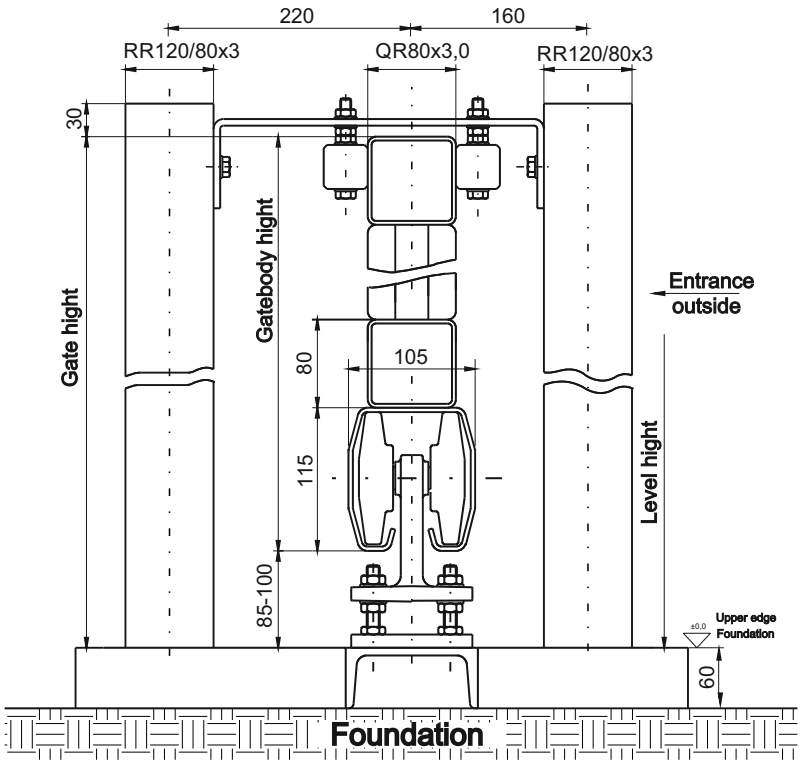
4. Top- and Under-chord	RR 80 x 50 x 3,0 mm
5. Outer rods	RR 80 x 50 x 3,0 mm
6. Inner rods	RR 80 x 50 x 3,0 mm
7. Filling rods	RR 30 x 20 x 2,0 mm

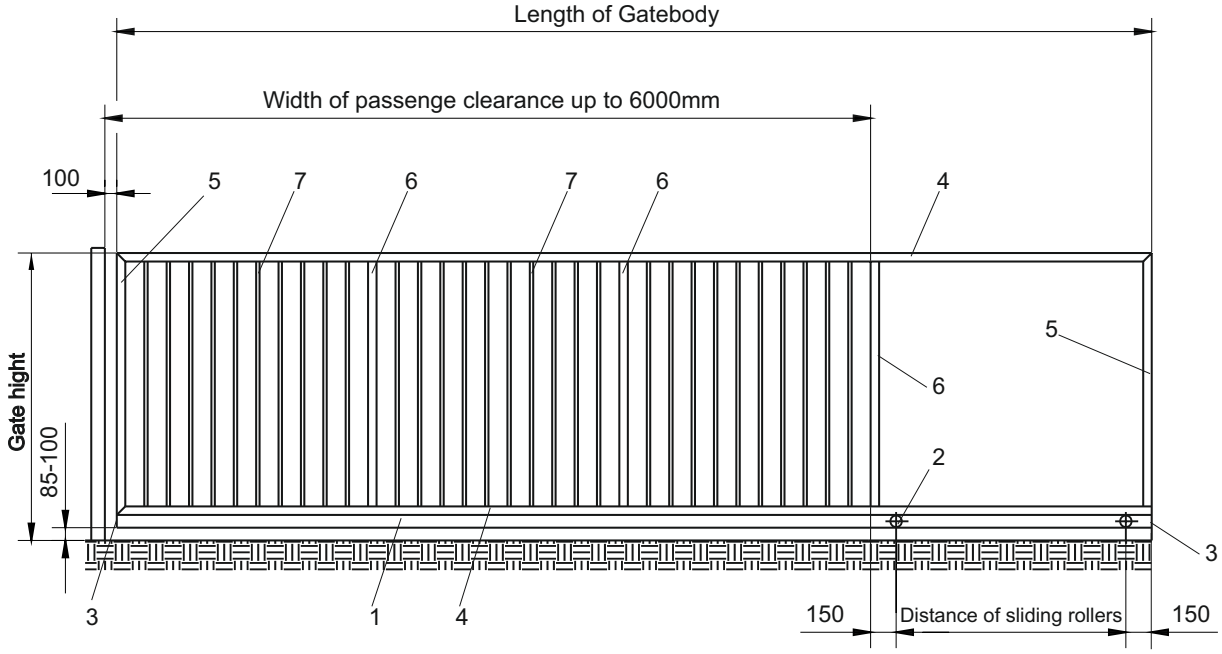
Cantilever Steel-Gatesystem

System dimensions FST 115

width of passenge clearance max 6,0 m

Light-weigth model
Wind velocity 300 N/m²
To standard DIN EN 12424





1. Sliding roller profile	LRP	115
2. Sliding roller	LRB	115 -4Q
3. End plate	KD	115 -SR

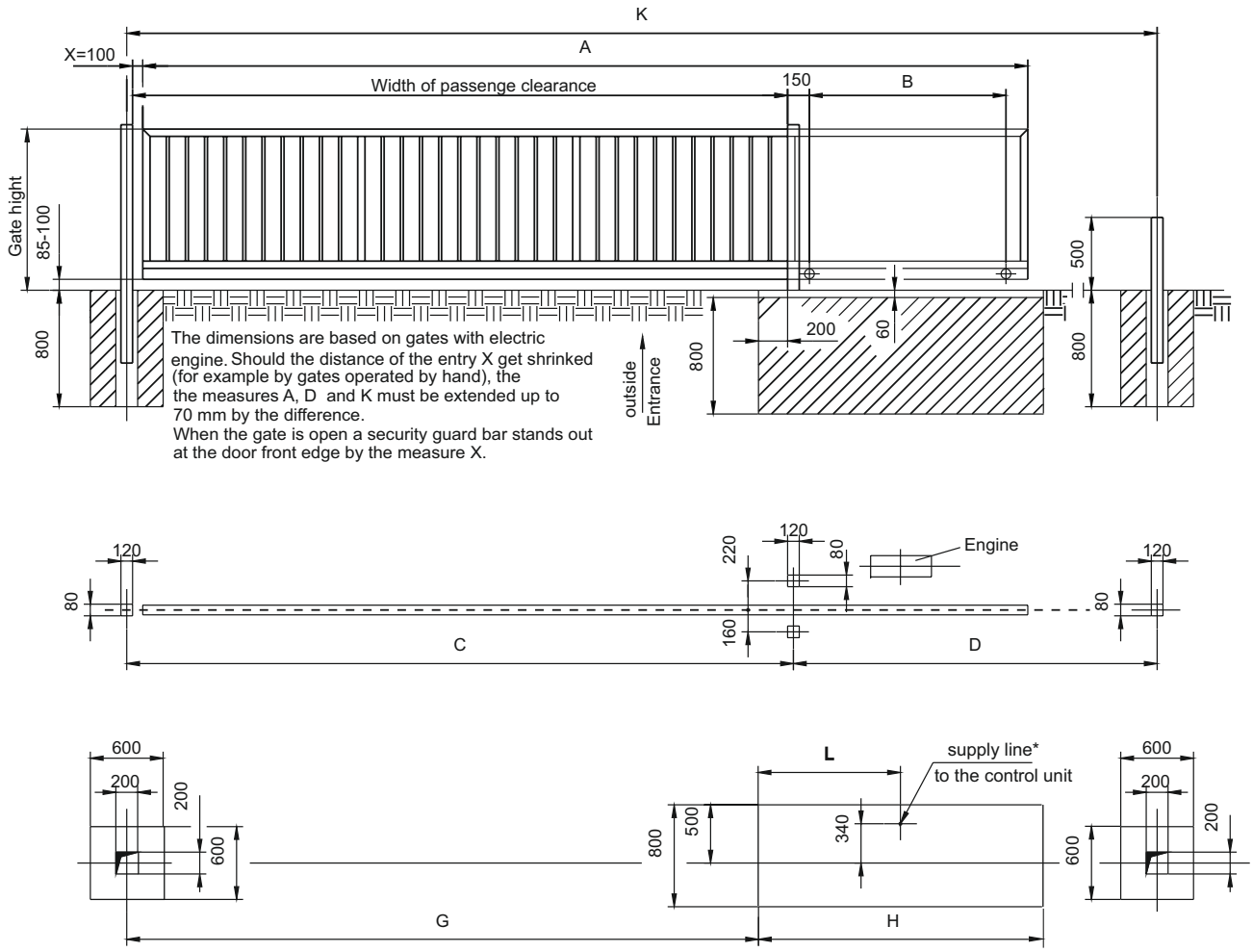
4. Top- and Under-chord	QR	80 x 3,0 mm
5. Outer rods	QR	80 x 3,0 mm
6. Inner rods	QR	80 x 3,0 mm
7. Filling rods	RR	30/20 x 2,0 mm

Cantilever Steel-Gatesystem

FST 115 Construction- and foundation dimensions

width of passenge clearance max 6,0 m

Light-weight model — Wind velocity 300N/m² To standard DIN EN 12424



Measures / width of passenge clearance	A	B	C	D	G	H	K	L*
2,5m	3.520	820	2.620	3.570	2.360	1.420	6.190	650
3,0m	4.200	1.000	3.120	4.250	2.860	1.600	7.370	670
3,5m	4.840	1.140	3.620	4.890	3.360	1.740	8.510	700
4,0m	5.480	1.280	4.120	5.530	3.860	1.880	9.650	730
4,5m	6.100	1.400	4.620	6.150	4.360	2.000	10.770	760
5,0m	6.820	1.620	5.120	6.870	4.860	2.220	11.990	800
5,5m	7.500	1.800	5.620	7.550	5.360	2.400	13.170	840
6,0m	8.170	1.970	6.120	8.220	5.860	2.570	14.340	880

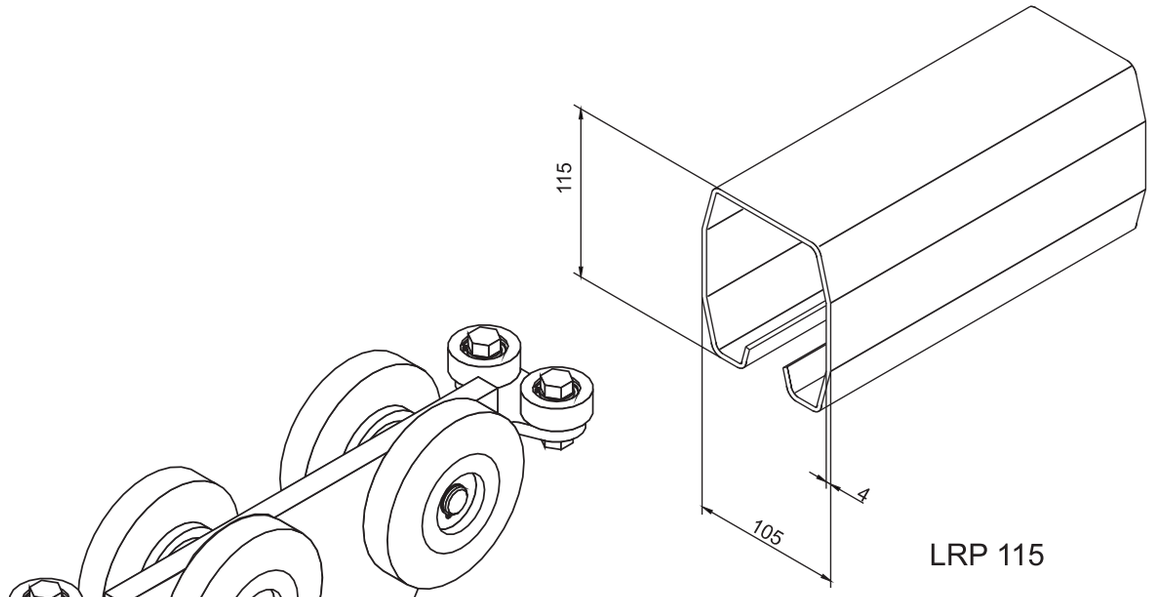
Indeed length of profile = A less 2 x material thickness of end plates (here 2 x 5 mm)

*may vary depending on wich electric engine is used.

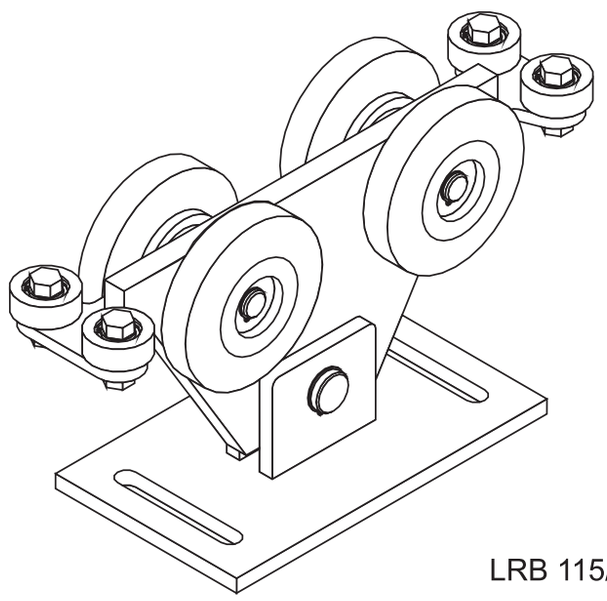
Cantilever Sliding Gatesystems

FST 115 / S Light-Weight Model

Maximum 8,00 m passage clearance width



LRP 115



LRB 115/S-4Q

<u>Standard safety measuers</u>

1. Maximum gatebody weight = 840 kp

2. Tracking force per roller component = 1800 kp
Type : LRB 115/S-4Q

3. Wind velocity per roller component = 800 kp
(Wrought iron railing compound)

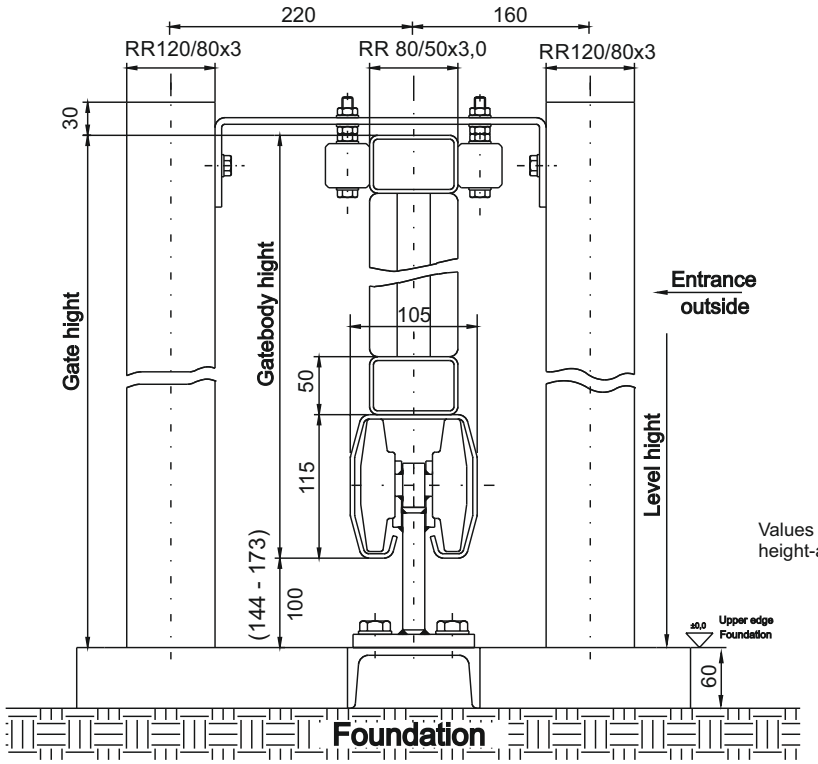
The wind velocity is determined by standard DIN EN 12424 grade 1, quality seal.
In the grade 1 lays a difference in pressure of 300 N/m².
Our statistic calculations are based on partially open wrought iron railing compound with a coefficience degree of 30%. According to standard DIN 12444 is by high gale winds the extra strain on the gate not perceived (statically calculated).

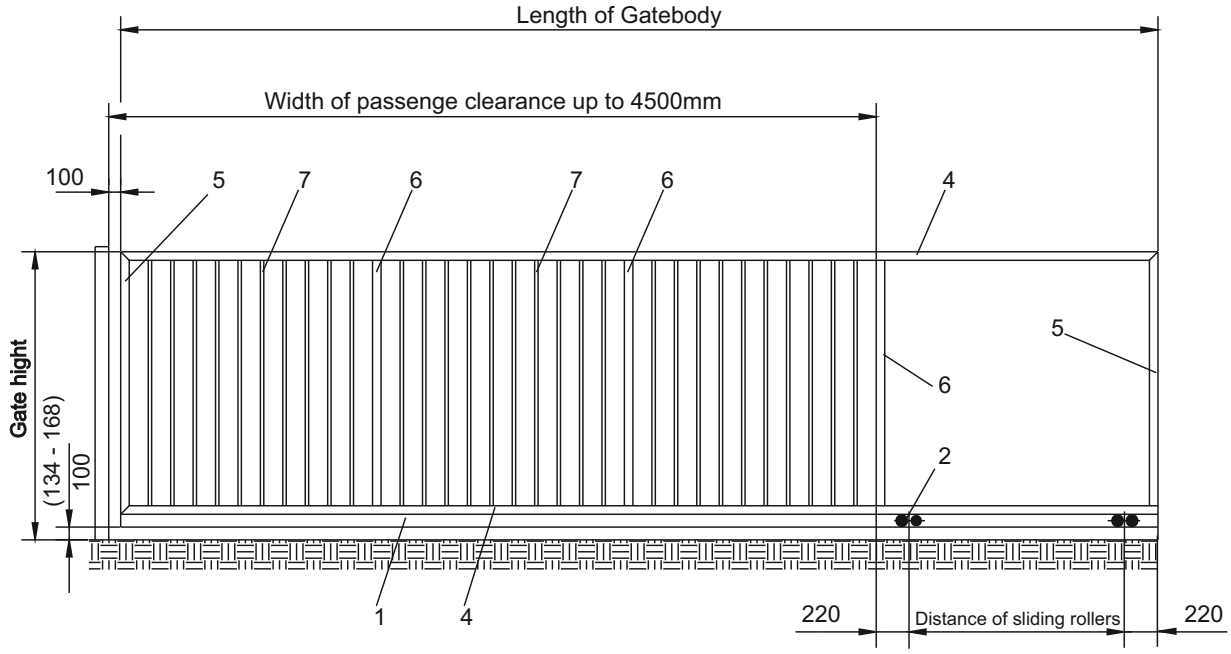
Cantilever Steel-Gatesystem

System dimensions FST 115/S

width of passenge clearance max 4,5 m

Light-weigth model
Wind velocity 300 N/m²
To standard DIN EN 12424





1. Sliding roller profile	LRP	115
2. Sliding roller	LRB	115/S-4Q
3. End plate	KD	115 -SR

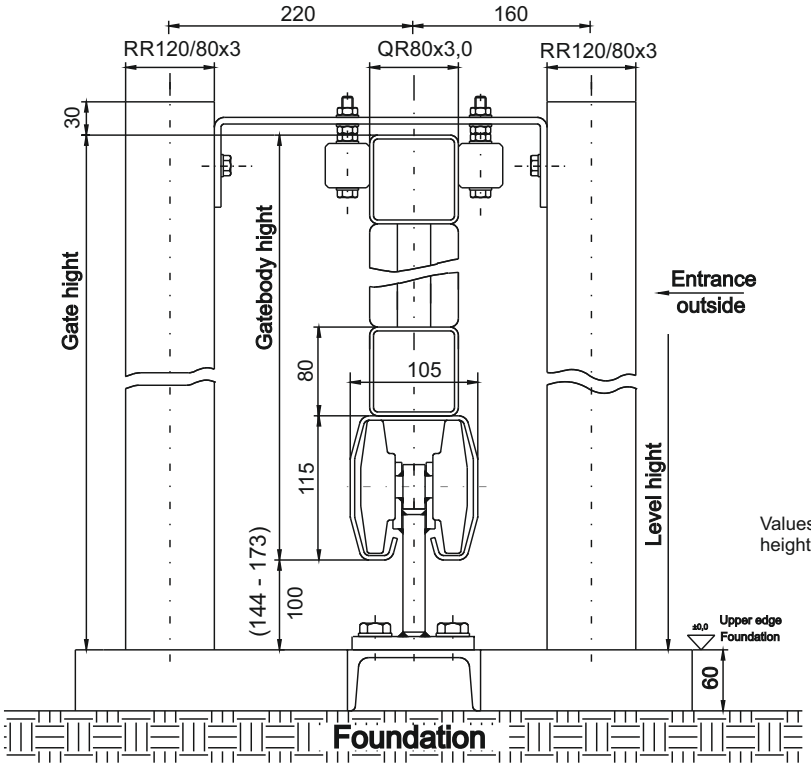
4. Top- and Under-chord	RR 80/50 x 3,0 mm
5. Outer rods	RR 80/50 x 3,0 mm
6. Inner rods	RR 80/50 x 3,0 mm
7. Filling rods	RR 30/20 x 2,0 mm

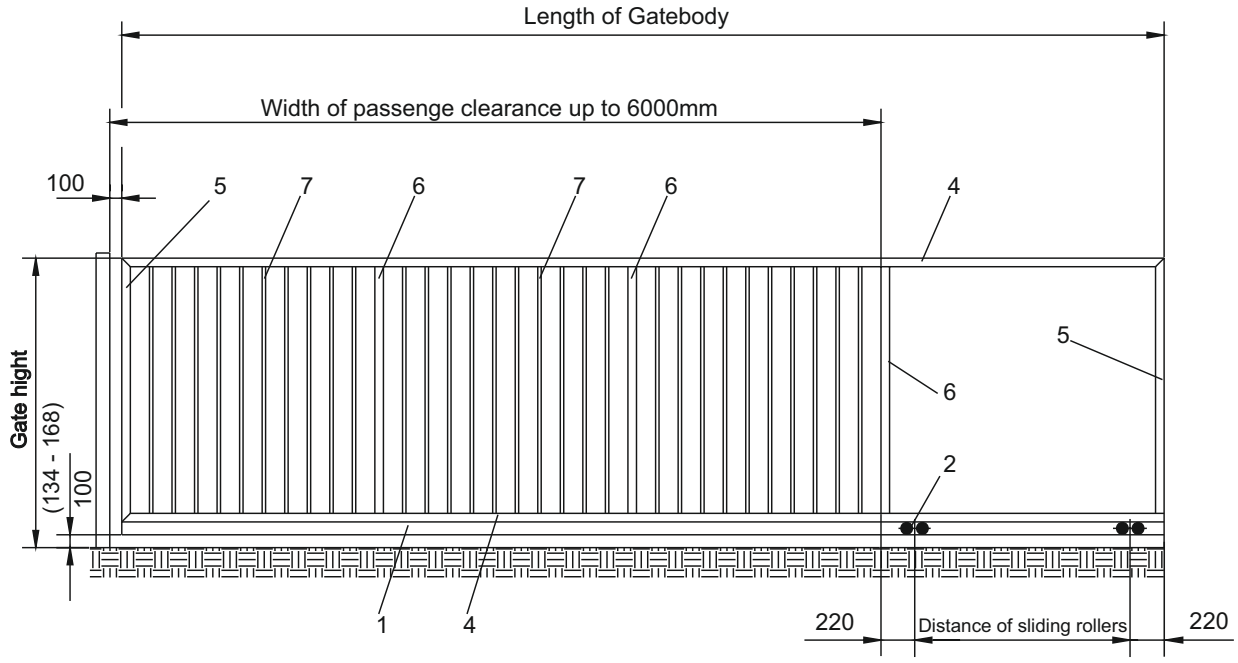
Cantilever Steel-Gatesystem

System dimensions FST 115/S

width of passenge clearance max 6,0 m

Light-weigth model
Wind velocity 300 N/m²
To standard DIN EN 12424





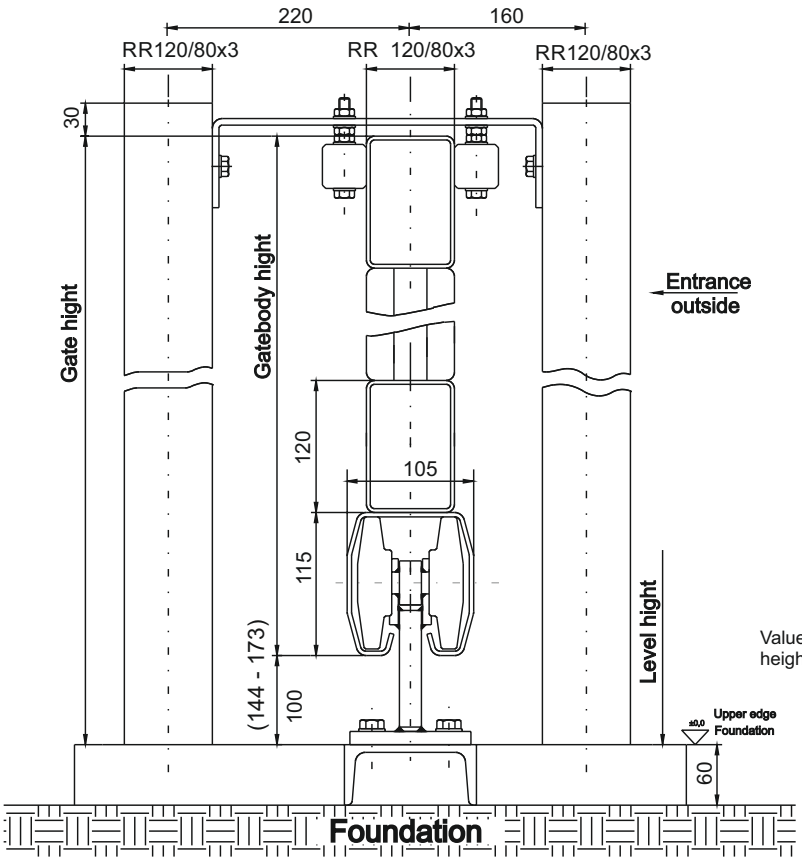
1. Sliding roller profile	LRP 115	4. Top- and Under-chord	QR 80 x 3,0 mm
2. Sliding roller	LRB 115/S-4Q	5. Outer rods	QR 80 x 3,0 mm
3. End plate	KD 115-SR	6. Inner rods	QR 80 x 3,0 mm
		7. Filling rods	RR 30/20 x 2,0 mm

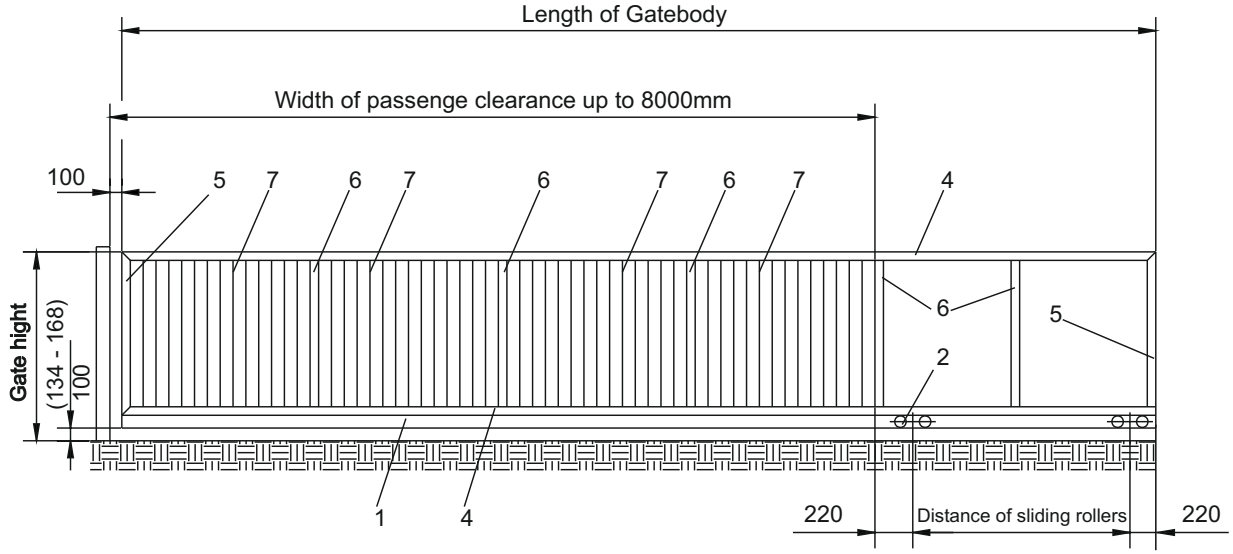
Cantilever Steel-Gatesystem

System dimensions FST 115/S

width of passenge clearance max 8,0 m

Light-weigth model
Wind velocity 300 N/m²
To standard DIN EN 12424





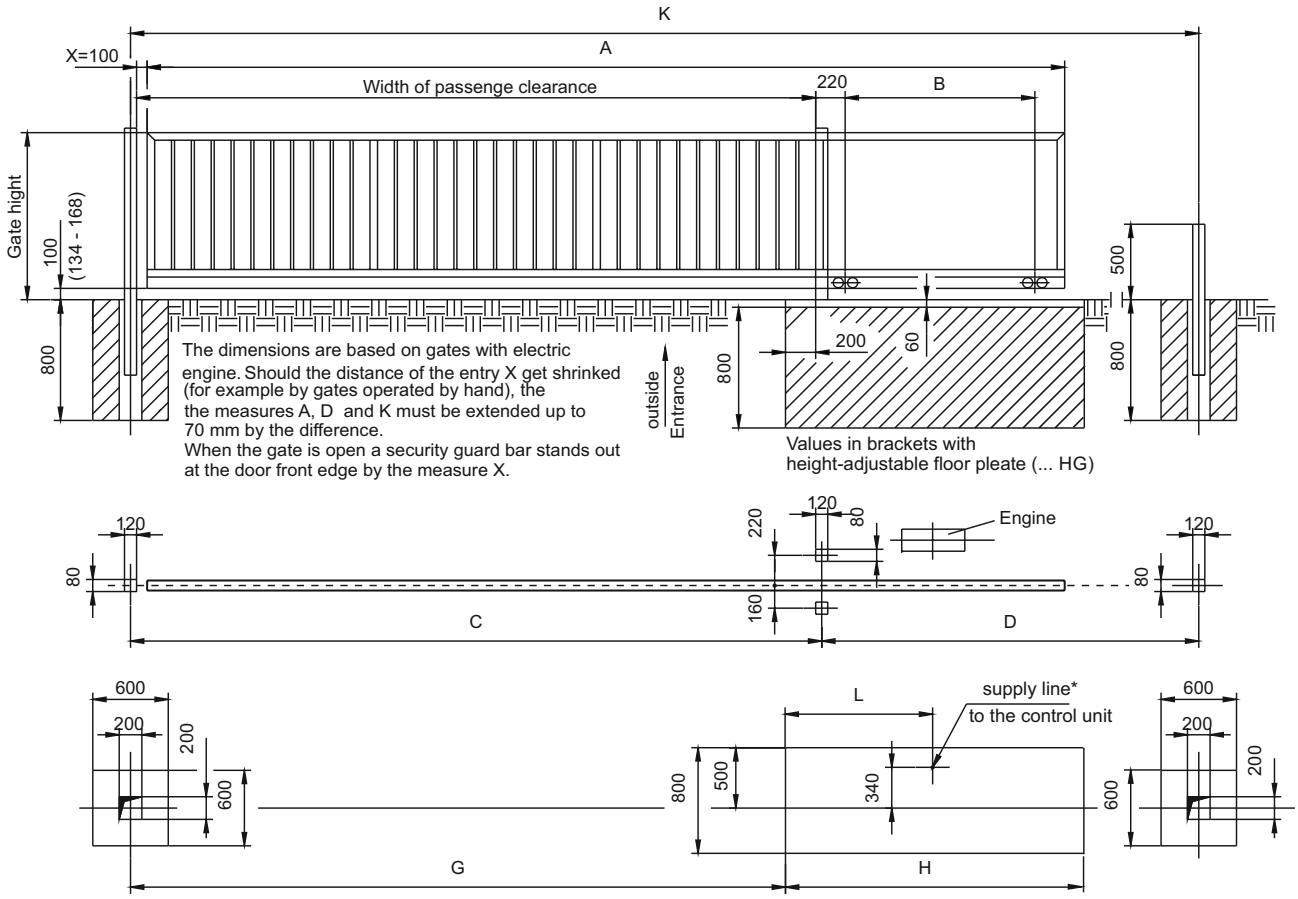
1. Sliding roller profile	LRP 115	4. Top- and Under-chord	RR 120/80 x 3,0 mm
2. Sliding roller	LRB 115/S-4Q	5. Outer rods	RR 120/80 x 3,0 mm
3. End plate	KD 115-SR	6. Inner rods	QR 80 x 3,0 mm
		7. Filling rods	RR 30/20 x 2,0 mm

Cantilever Steel-Gatesystem

FST 115/S Construction- and foundation dimensions

width of passenge clearance max 8,0 m

Light-weight model — Wind velocity 300N/m² To standard DIN EN 12424



Measures / width of passenge clearance	A	B	C	D	G	H	K	L*
3,0m	4.140	800	3.120	4.190	2.860	1.540	7.310	650
3,5m	4.820	980	3.620	4.870	3.360	1.720	8.490	680
4,0m	5.460	1.120	4.120	5.510	3.860	1.860	9.630	750
4,5m	6.100	1.260	4.620	6.150	4.360	2.000	10.770	790
5,0m	6.790	1.450	5.120	6.840	4.860	2.190	11.960	820
5,5m	7.470	1.630	5.620	7.520	5.360	2.370	13.140	850
6,0m	8.140	1.800	6.120	8.190	5.860	2.540	14.310	880
6,5m	8.840	2.000	6.620	8.890	6.360	2.740	15.510	920
7,0m	9.670	2.330	7.120	9.720	6.860	3.070	16.840	950
7,5m	10.340	2.500	7.620	10.390	7.360	3.240	18.010	980
8,0m	11.140	2.800	8.120	11.190	7.860	3.540	19.310	1.020

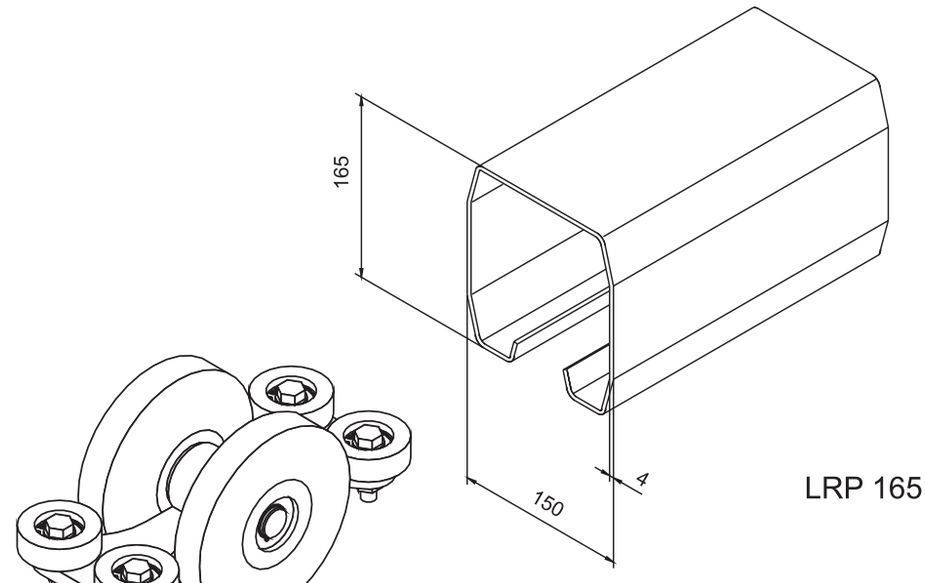
Indeed length of profile = A less 2 x material thickness of end plates (here 2 x 5 mm)

*may vary depending on wich electric engine is used.

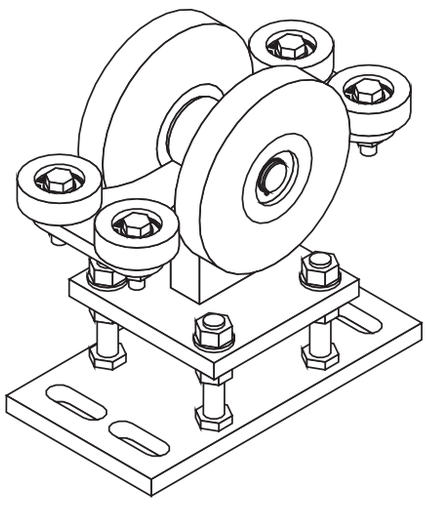
Cantilever Sliding Gatesystems

FST 165 Middle heavy-weight Model

Maximum 9,00 m passage clearance width



LRP 165



LRB 165-4Q G

Standard safety measuers

1. Maximum gatebody weight = 820 kp

2. Tracking force per roller component = 1600 kp
Type : LRB 165-4Q (G)

3. Wind velocity per roller component = 1140 kp
(Wrought iron railing compound)

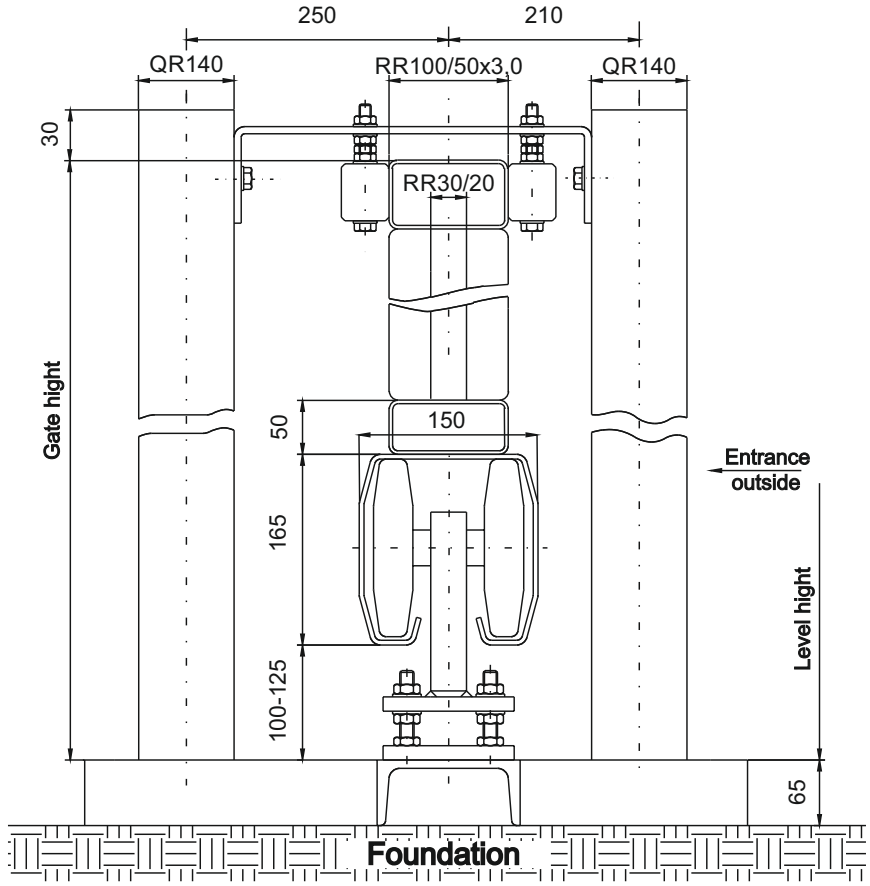
The wind velocity is determined by standard DIN EN 12424 grade 1, quality seal.
In the grade 1 lays a difference in pressure of 300 N/m².
Our statistic calculations are based on partially open wrought iron railing compound with a coefficience degree of 30%. According to standard DIN 12444 is by high gale winds the extra strain on the gate not perceived (statically calculated).

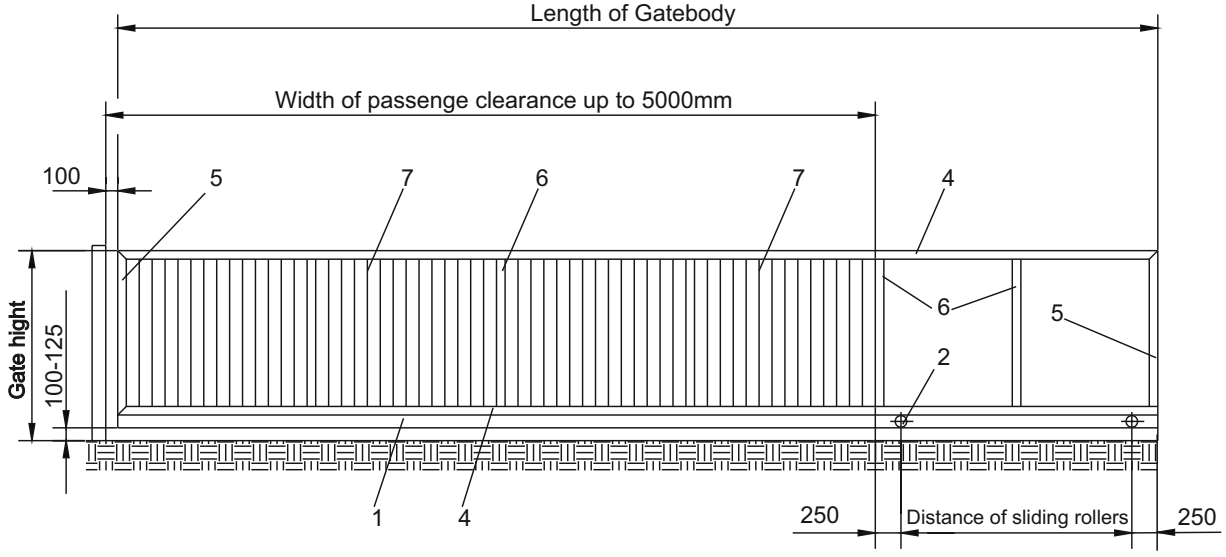
Cantilever Steel-Gatesystem

System dimensions FST 165

width of passenge clearance max 5,0 m

Medium-weigth model
Wind velocity 300 N/m²
To standard DIN EN 12424





1. Sliding roller profile	LRP 165
2. Sliding roller	LRB 165-4Q
3. End plate	KD 165-SR

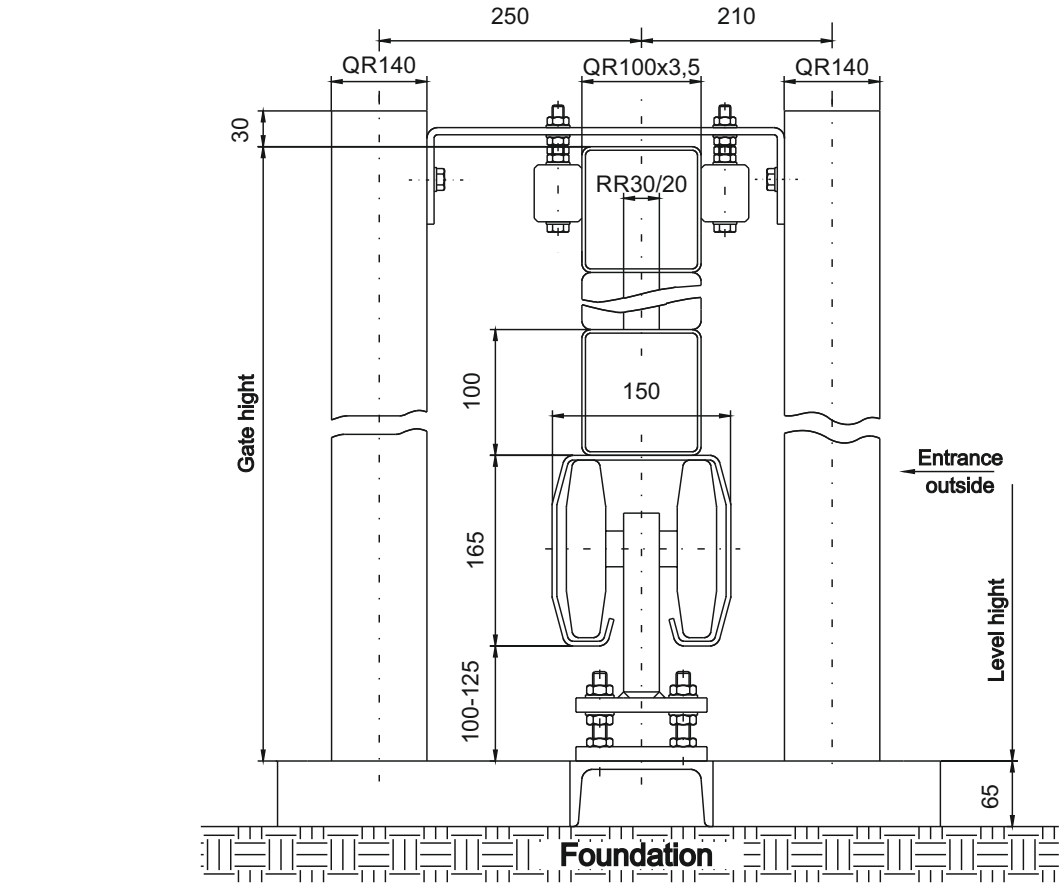
4. Top- and Under-chord	RR 100/50 x 3,6 mm
5. Outer rods	RR 100/50 x 3,6 mm
6. Inner rods	RR 100/50 x 3,6 mm
7. Filling rods	RR 30/20 x 2,0 mm

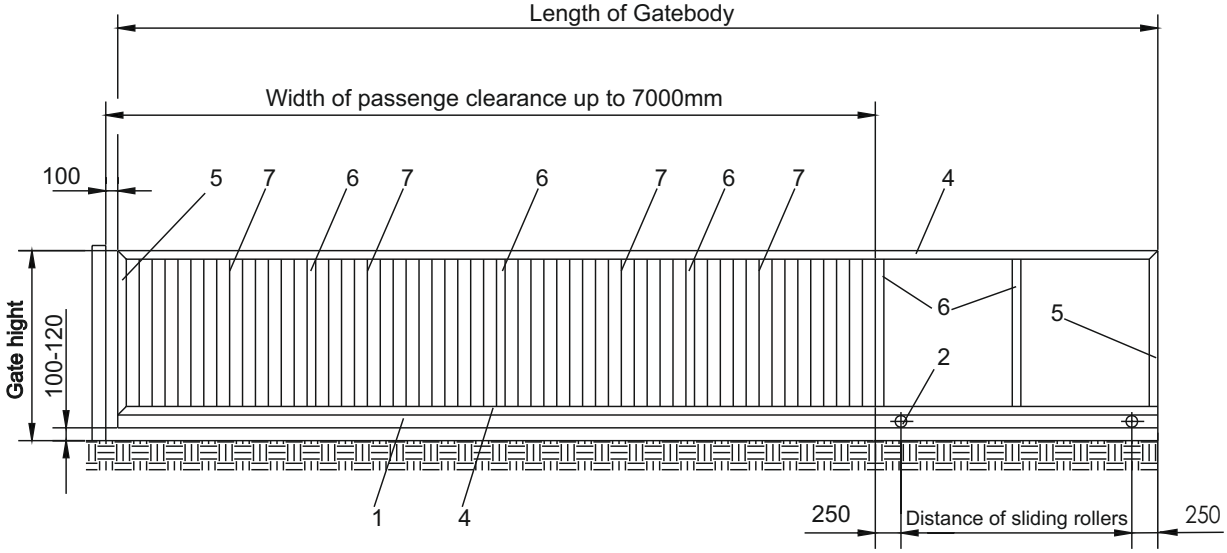
Cantilever Steel-Gatesystem

System dimensions FST 165

width of passenge clearance max 7,0 m

Medium-weigth model
Wind velocity 300 N/m²
To standard DIN EN 12424





1. Sliding roller profile	LRP	165
2. Sliding roller	LRB	165-4Q
3. End plate	KD	165-SR

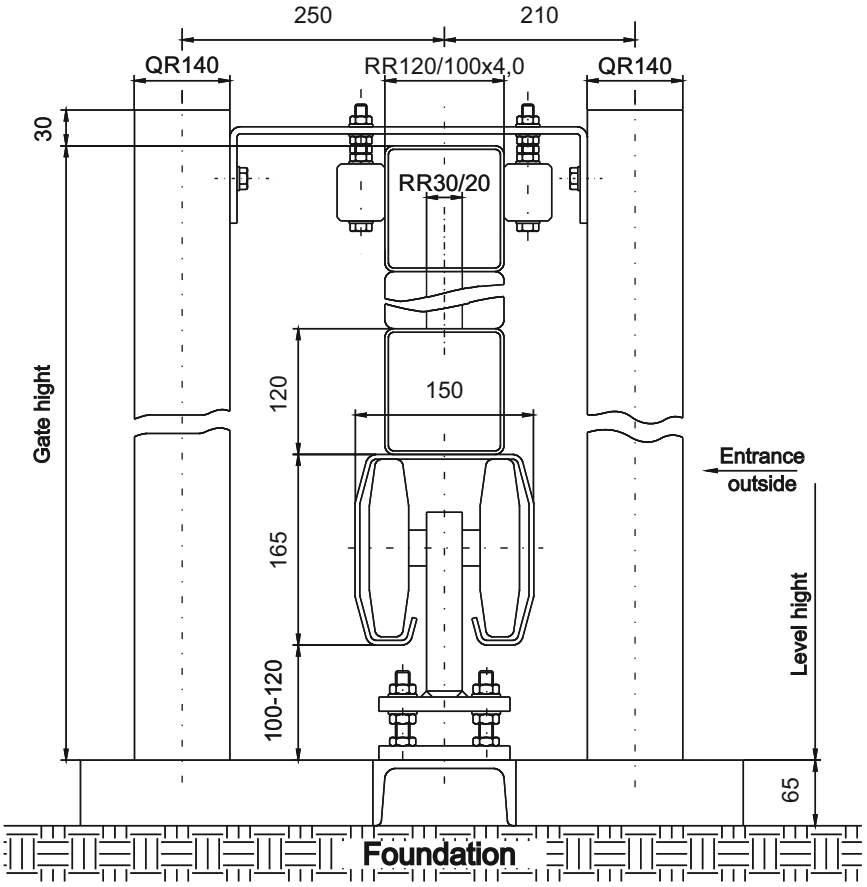
4. Top- and Under-chord	QR	100 x 4 mm
5. Outer rods	QR	100 x 4 mm
6. Inner rods	QR	100 x 4 mm
7. Filling rods	RR	30/20 x 2,0 mm

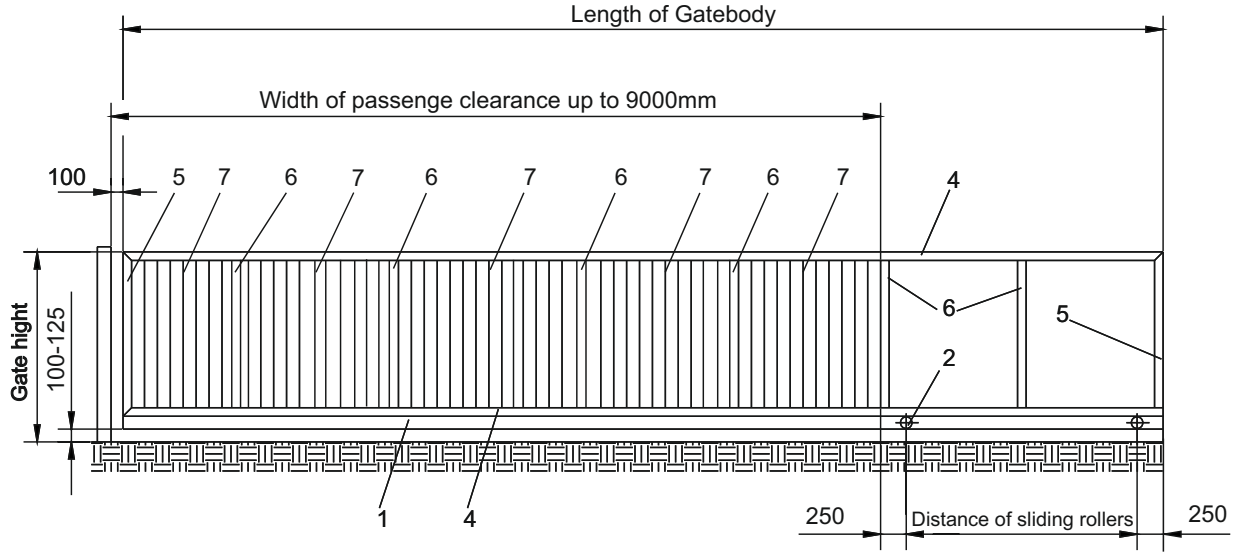
Cantilever Steel-Gatesystem

System dimensions FST 165

width of passenge clearance max 9,0 m

Medium-weigth model
Wind velocity 300 N/m²
To standard DIN EN 12424





1. Sliding roller profile LRP 165
2. Sliding roller LRB 165-4Q
3. End plate KD 165-SR

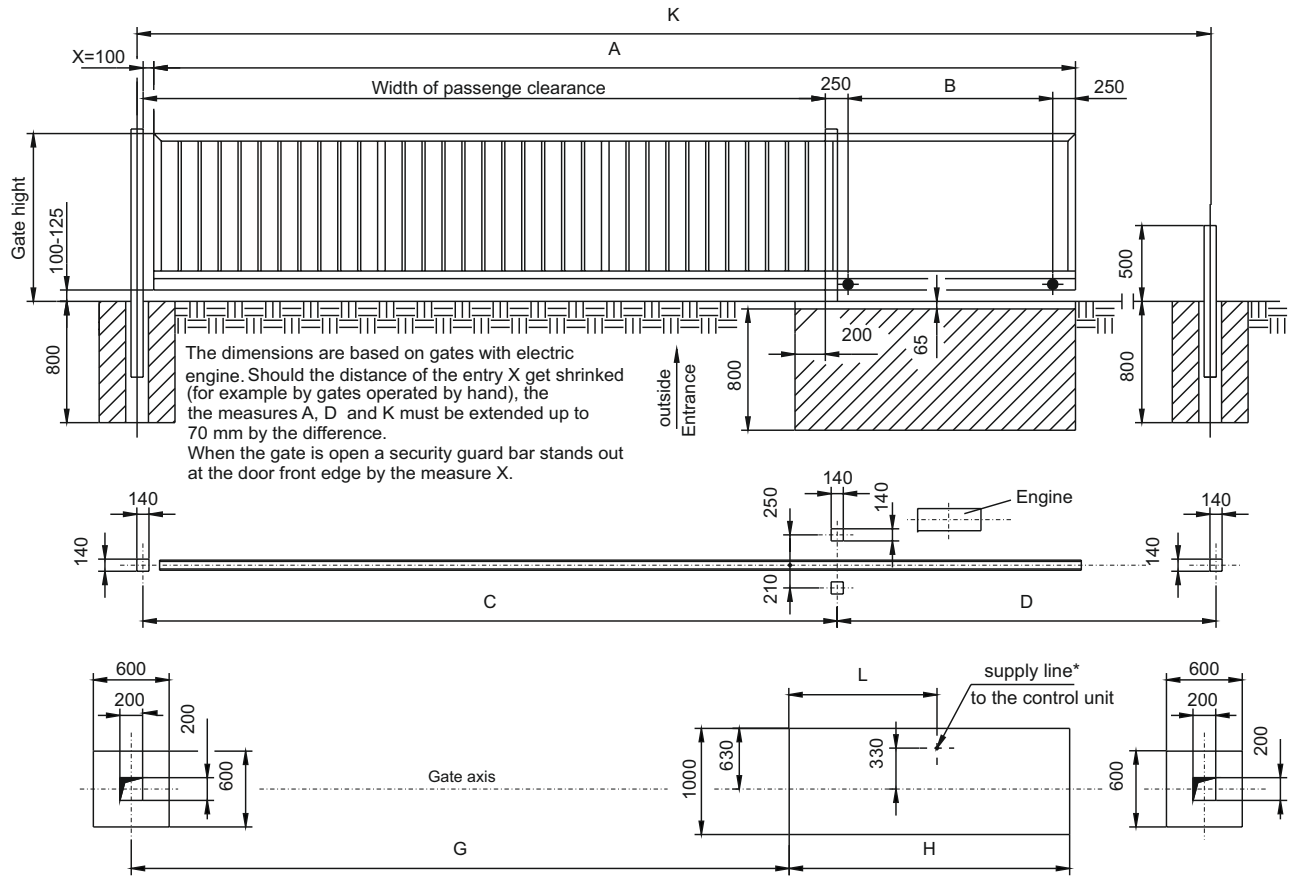
4. Top- and Under-chord RR 120/100 x 4,0 mm
5. Outer rods RR 120/100 x 4,0 mm
6. Inner rods RR 120/100 x 4,0 mm
7. Filling rods RR 30/20 x 2,0 mm

Cantilever Steel-Gatesystem

FST 165 Construction- and foundation dimensions

width of passenge clearance max 9,0 m

Medium-weight model — Wind velocity 300N/m² To standard DIN EN 12424



Measures / width of passenge clearance	A	B	C	D	G	H	K	L *
3,0m	4.500	1.000	3.140	4.550	2.870	1.700	7.690	625
3,5m	5.200	1.200	3.640	5.250	3.370	1.900	8.890	725
4,0m	5.850	1.350	4.140	5.900	3.870	2.050	10.040	800
4,5m	6.500	1.500	4.640	6.550	4.370	2.200	11.190	875
5,0m	7.200	1.700	5.140	7.250	4.870	2.400	12.390	975
5,5m	7.850	1.850	5.640	7.900	5.370	2.550	13.540	1.050
6,0m	8.500	2.000	6.140	8.550	5.870	2.700	14.690	1.125
6,5m	9.200	2.200	6.640	9.250	6.370	2.900	15.890	1.175
7,0m	9.850	2.350	7.140	9.900	6.870	3.050	17.040	1.225
7,5m	10.500	2.500	7.640	10.550	7.370	3.200	18.190	1.300
8,0m	11.200	2.700	8.140	11.250	7.870	3.400	19.390	1.400
8,5m	11.850	2.850	8.640	11.900	8.370	3.550	20.540	1.475
9,0m	12.500	3.000	9.140	12.550	8.870	3.700	21.690	1.550

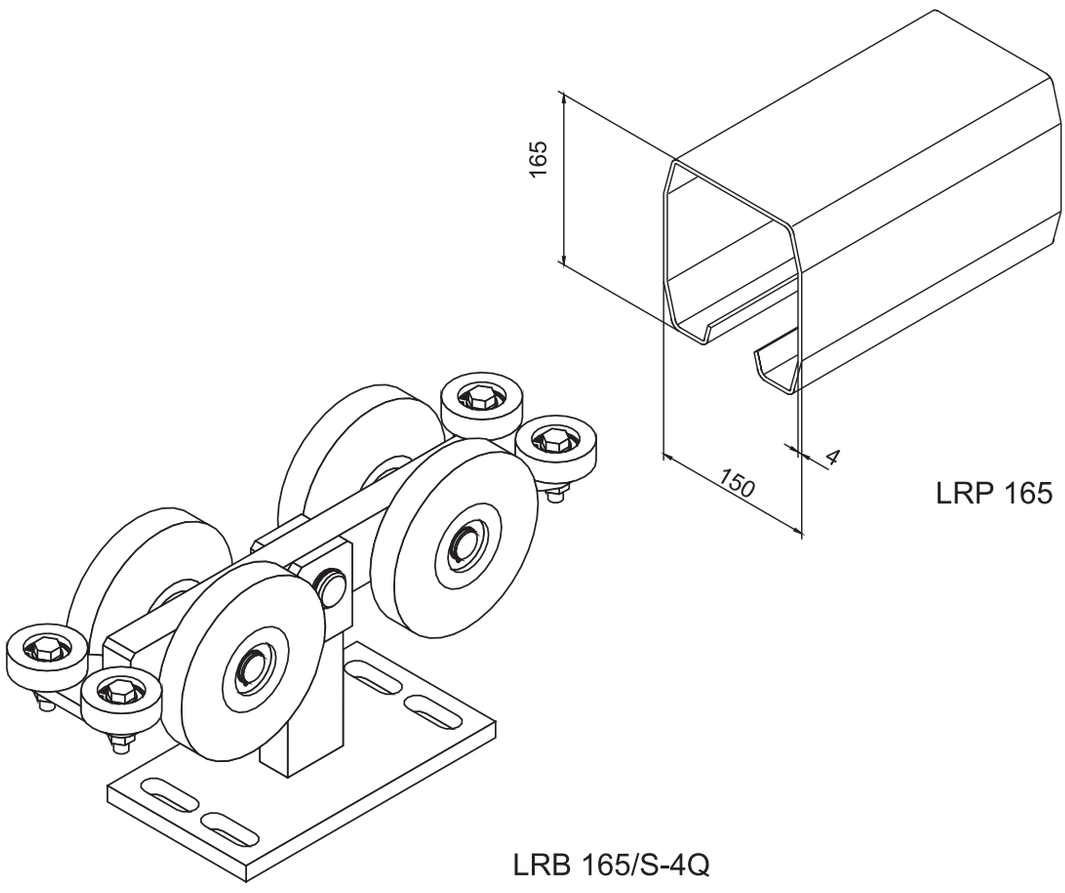
Indeed length of profile = A less 2 x material thickness of end plates (here 2 x 5 mm)

*may vary depending on wich electric engine is used.

Cantilever Sliding Gatesystems

FST 165/S Middle heavy-weight Model

Maximum 13,00 m passage clearance width



LRP 165

LRB 165/S-4Q

Standard safety measuers

1. Maximum gatebody weight = 1600 kp

2. Tracking force per roller component = 3680 kp
Type : LRB 165/S-4Q

3. Wind velocity per roller component = 1140 kp
(Wrought iron railing compound)

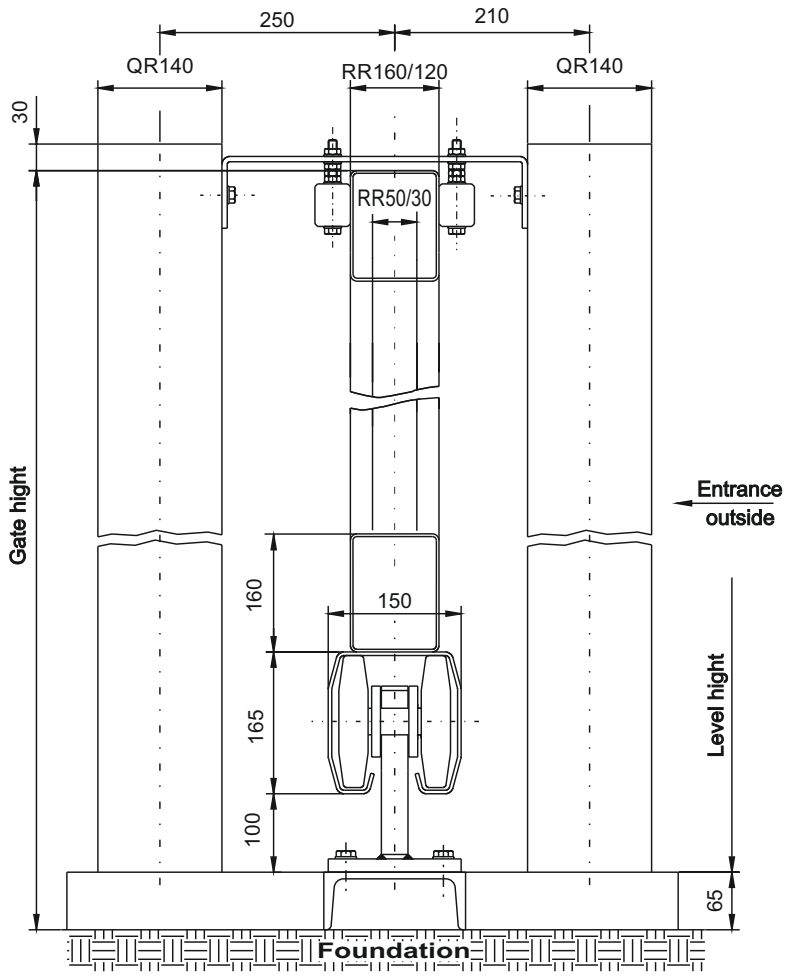
The wind velocity is determined by standard DIN EN 12424 grade 1, quality seal.
In the grade 1 lays a difference in pressure of 300 N/m².
Our statistic calculations are based on partially open wrought iron railing compound with a coefficience degree of 30%. According to standard DIN 12444 is by high gale winds the extra strain on the gate not perceived (statically calculated).

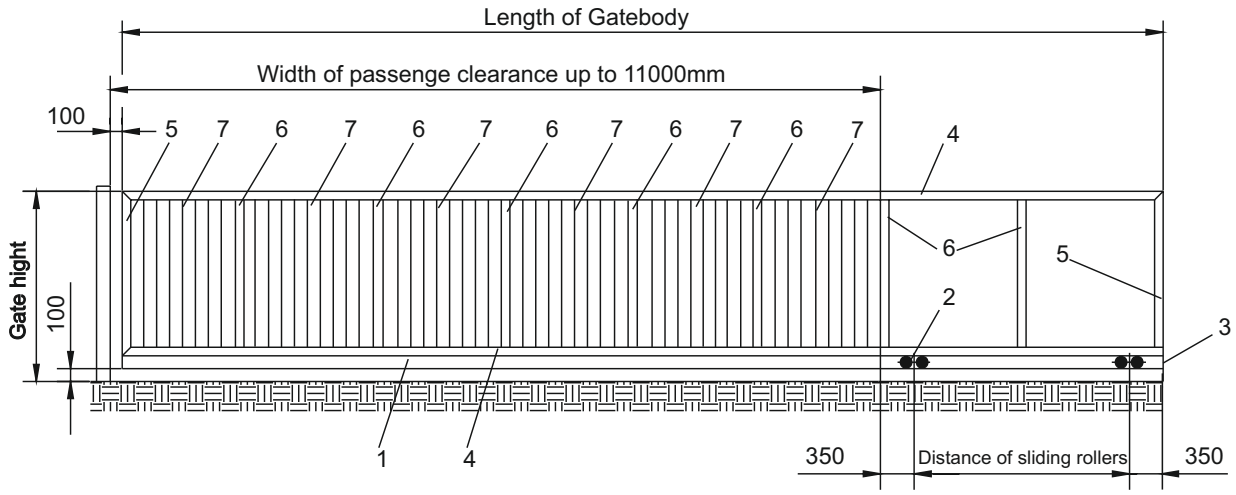
Cantilever Steel-Gatesystem

System dimensions FST 165/S

width of passenge clearance max 11,0 m

Medium-weigth model
Wind velocity 300 N/m²
To standard DIN EN 12424





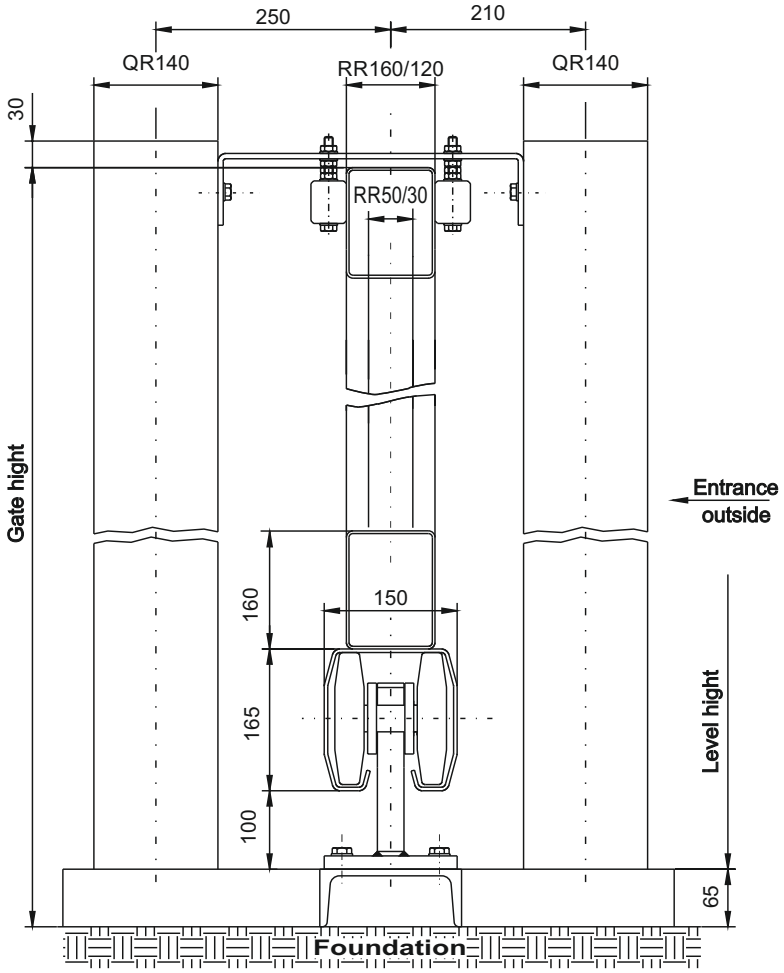
1. Sliding roller profile	LRP 165	4. Top- and Under-chord	RR 160/120 x 4,0 mm
2. Sliding roller	LRB 165/S-4Q	5. Outer rods	RR 160/120 x 4,0 mm
3. End plate	KD 165-SR	6. Inner rods	RR 140/100 x 4,0 mm
		7. Filling rods	RR 50/ 30 x 2,5 mm

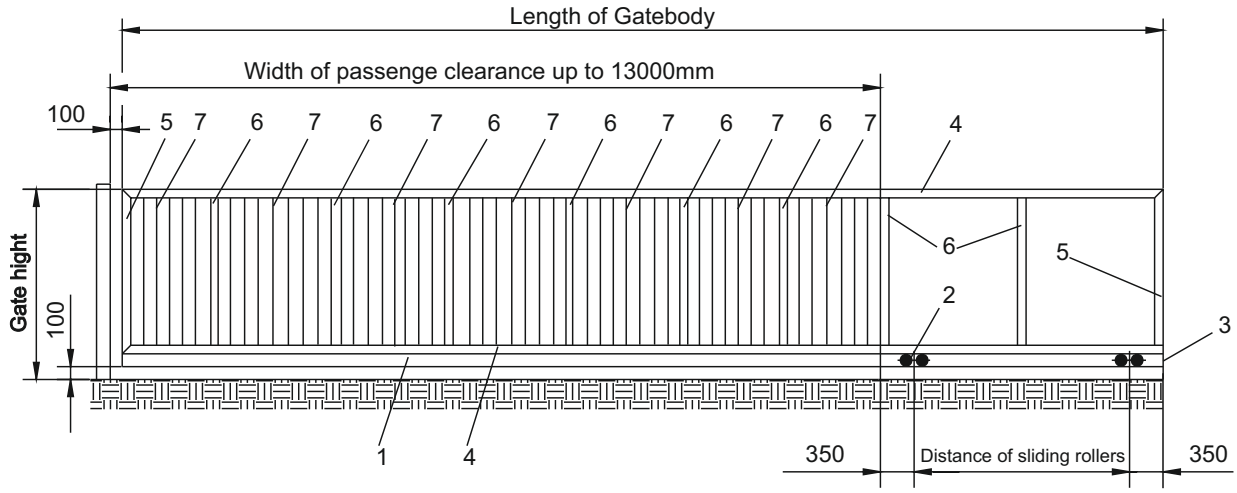
Cantilever Steel-Gatesystem

System dimensions FST 165/S

width of passenge clearance max 13,0 m

Medium-weigth model
Wind velocity 300 N/m²
To standard DIN EN 12424





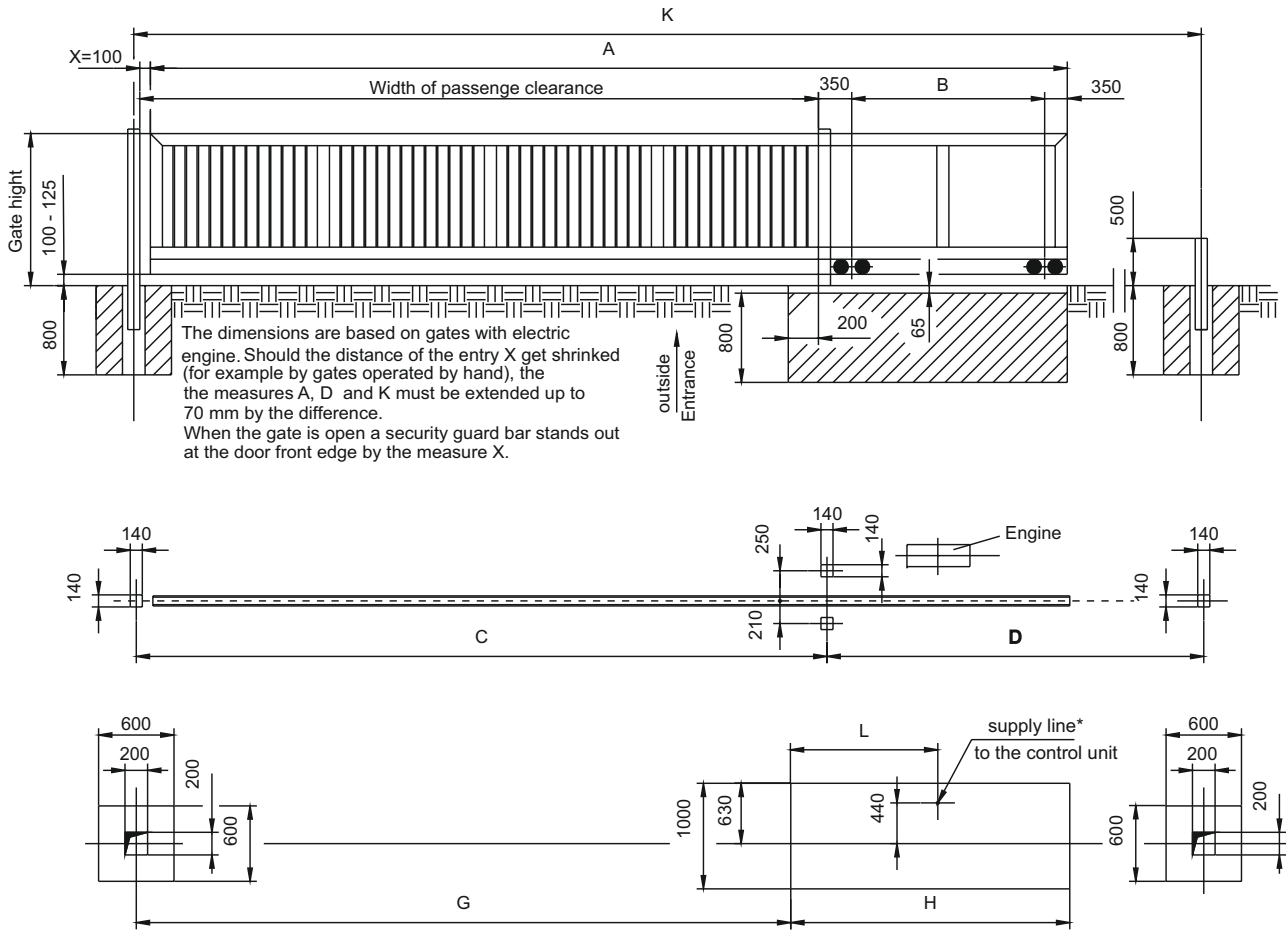
1. Sliding roller profile	LRP 165	4. Top- and Under-chord	RR 160/120 x 4,0 mm
2. Sliding roller	LRB 165/S-4Q	5. Outer rods	RR 160/120 x 4,0 mm
3. End plate	KD 165-SR	6. Inner rods	RR 150/100 x 4,0 mm
		7. Filling rods	RR 50/ 30 x 2,5 mm

Cantilever Steel-Gatesystem

FST 165/S Construction- and foundation dimensions

width of passenge clearance max 13,0 m

Medium-weight model — Wind velocity 300N/m² To standard DIN EN 12424



Measures / width of passenge clearance	A	B	C	D	G	H	K	L *
8,5m	12.050	2.850	8.640	12.100	8.370	3.750	20.740	1.475
9,0m	12.730	3.030	9.140	12.780	8.870	3.930	21.920	1.565
9,5m	13.400	3.200	9.640	13.450	9.370	4.100	23.090	1.650
10,0m	14.050	3.350	10.140	14.100	9.870	4.250	24.240	1.725
10,5m	14.700	3.500	10.640	14.750	10.370	4.400	25.390	1.800
11,0m	15.400	3.700	11.140	15.450	10.870	4.600	26.590	1.900
11,5m	16.050	3.850	11.640	16.100	11.370	4.750	27.740	1.975
12,0m	16.700	4.000	12.140	16.750	11.870	4.900	28.890	2.050
12,5m	17.400	4.200	12.640	17.450	12.370	5.100	30.090	2.150
13,0m	18.100	4.400	13.140	18.150	12.870	5.300	31.290	2.250

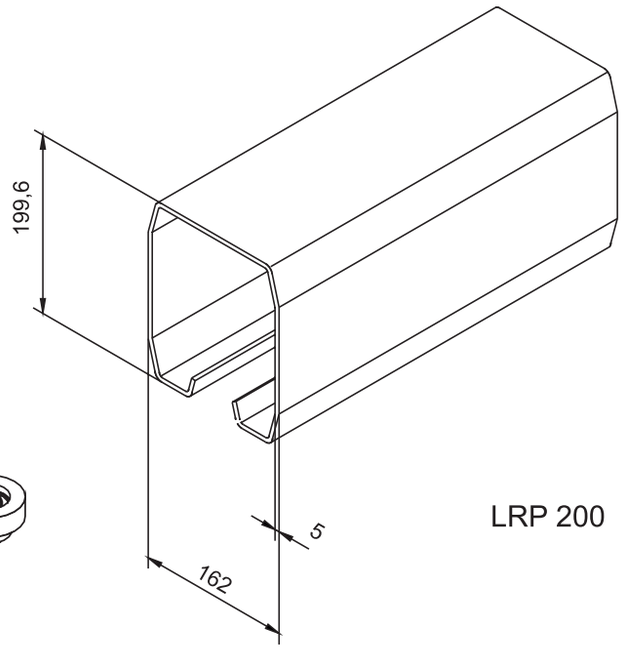
Indeed length of profile = A less 2 x material thickness of end plates (here 2 x 5 mm)

*may vary depending on wich electric engine is used.

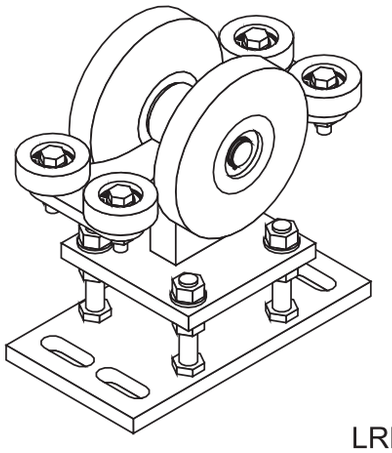
Cantilever Sliding Gatesystems

FST 200 Heavy-weight Model

Maximum 11,50 m passage clearance width



LRP 200



LRB 200-4Q G

<u>Standard safety measuers</u>

1. Maximum gatebody weight = 1800 kp

2. Tracking force per roller component = 4600 kp
Type : LRB 200-4Q (G)

3. Wind velocity per roller component = 1900 kp
(Wrought iron railing compound)

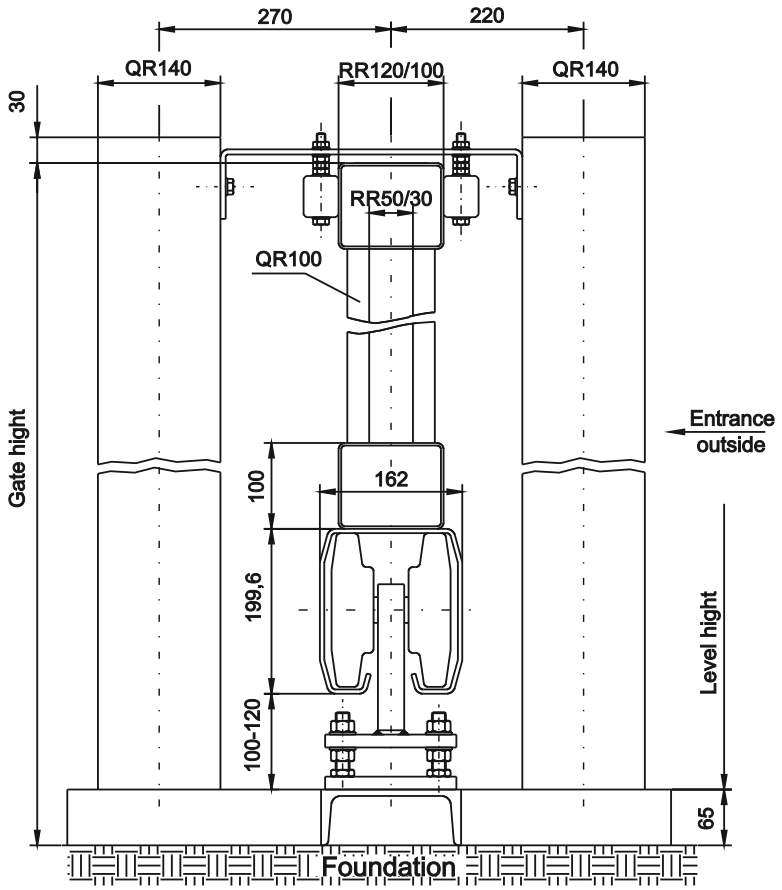
The wind velocity is determined by standard DIN EN 12424 grade 1, quality seal.
In the grade 1 lays a difference in pressure of 300 N/m².
Our statistic calculations are based on partially open wrought iron railing compound with a coefficience degree of 30%. According to standard DIN 12444 is by high gale winds the extra strain on the gate not perceived (statically calculated).

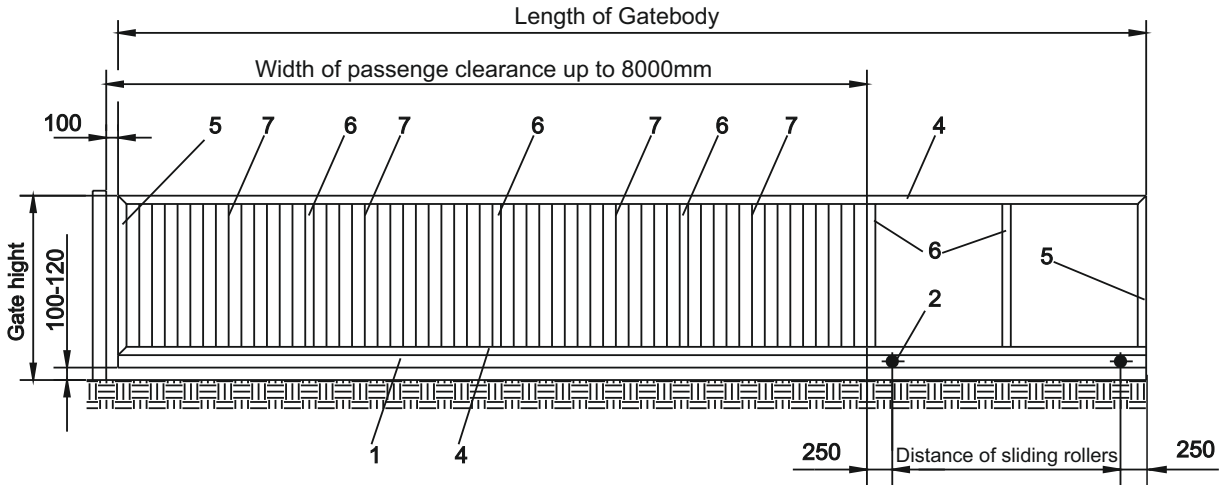
Cantilever Steel-Gatesystem

System dimensions FST 200

width of passenge clearance max 8,0 m

Heavy-weigth model
Wind velocity 300 N/m²
To standard DIN EN 12424





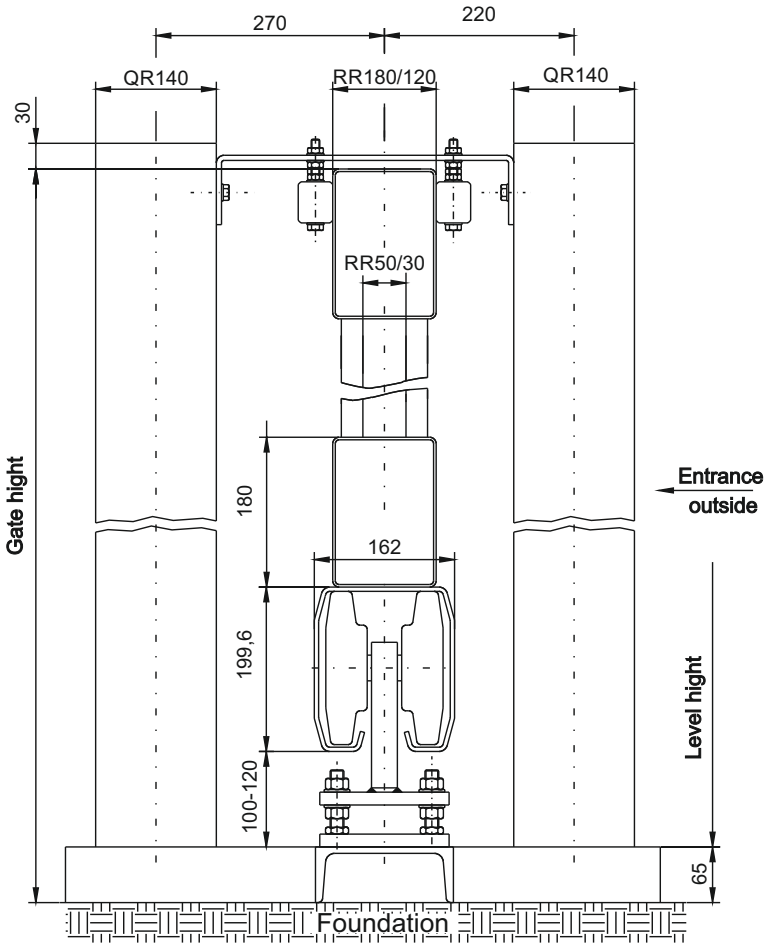
1. Sliding roller profile	LRP 200	4. Top- and Under-chord	RR 120/100 x 3,0 mm
2. Sliding roller	LRB 200-4Q	5. Outer rods	RR 120/100 x 3,0 mm
3. End plate	KD 200-SR	6. Inner rods	QR 100 x 3,0 mm
		7. Filling rods	RR 50/30 x 2,0 mm

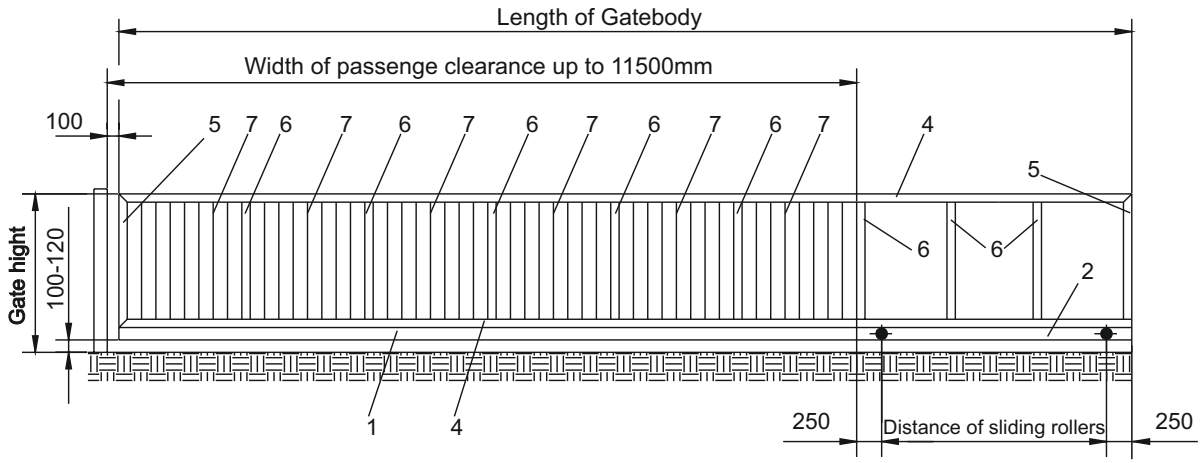
Cantilever Steel-Gatesystem

System dimensions FST 200

width of passenge clearance max 11,5 m

Heavy-weigth model
Wind velocity 300 N/m²
To standard DIN EN 12424





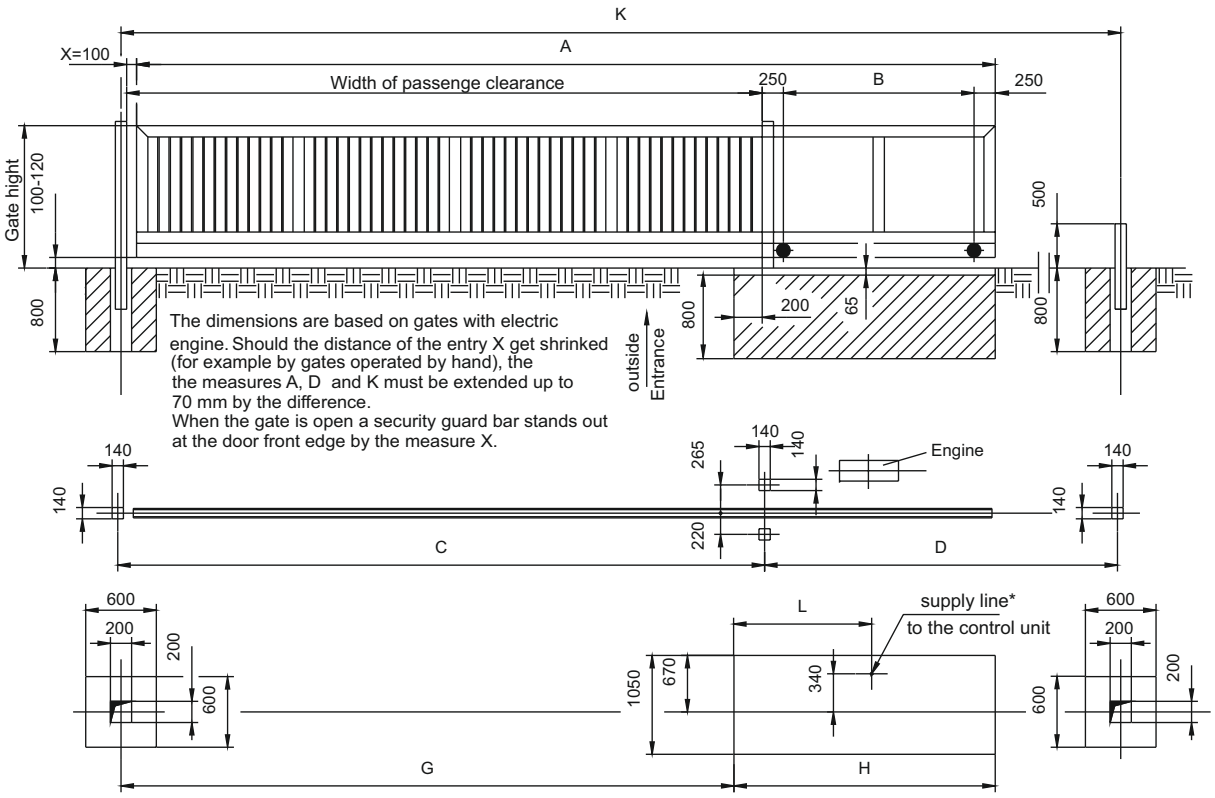
1. Sliding roller profile	LRP 200	4. Top- and Under-chord	RR 180/120 x 3,0 mm
2. Sliding roller	LRB 200-4Q	5. Outer rods	RR 180/120 x 3,0 mm
3. End plate	KD 200-SR	6. Inner rods	RR 150/100 x 3,0 mm
		7. Filling rods	RR 50/30 x 2,0 mm

Cantilever Steel-Gatesystem

FST 200 Construction- and foundation dimensions

width of passenge clearance max 11,5 m

Heavy-weight model — Wind velocity 300N/m² To standard DIN EN 12424



Measures / width of passenge clearance	A	B	C	D	G	H	K	L*
6,0m	8.500	2.000	6.140	8.550	5.870	2.700	14.690	1.380
6,5m	9.200	2.200	6.640	9.250	6.370	2.900	15.890	1.480
7,0m	9.850	2.350	7.140	9.900	6.870	3.050	17.040	1.555
7,5m	10.500	2.500	7.640	10.550	7.370	3.200	18.190	1.630
8,0m	11.200	2.700	8.140	11.250	7.870	3.400	19.390	1.730
8,5m	11.850	2.850	8.640	11.900	8.370	3.550	20.540	1.855
9,0m	12.500	3.000	9.140	12.550	8.870	3.700	21.690	2.030
9,5m	13.200	3.200	9.640	13.250	9.370	3.900	22.890	2.130
10,0m	13.900	3.400	10.140	13.950	9.870	4.100	24.090	2.230
10,5m	14.500	3.500	10.640	14.550	10.370	4.200	25.190	2.280
11,0m	15.200	3.700	11.140	15.250	10.870	4.400	26.390	2.380
11,5m	15.850	3.850	11.640	15.900	11.370	4.550	27.540	2.455

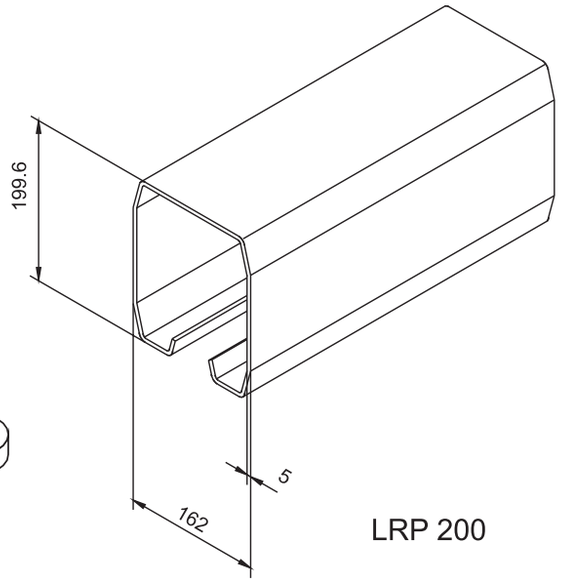
Indeed length of profile = A less 2 x material thickness of end plates (here 2 x 5 mm)

*may vary depending on wich electric engine is used.

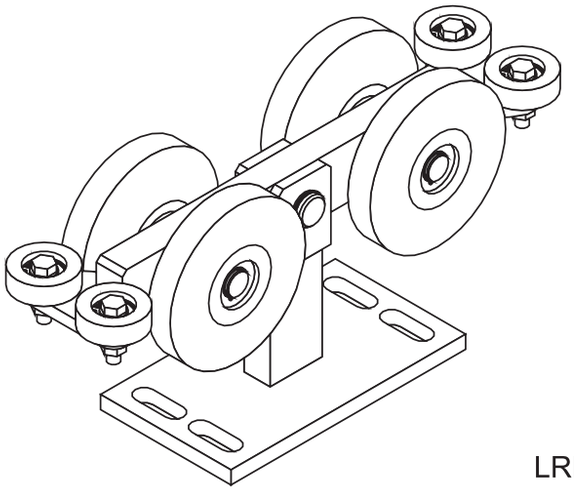
Cantilever Sliding Gatesystems

FST 200/SL Heavy-weight Model

Maximum 14,50 m passage clearance width



LRP 200



LRB 200/SL-4Q

Standard safety measuers

1. Maximum gatebody weight = 2600 kp

2. Tracking force per roller component = 5300 kp
Type : LRB 200-4Q (G)

3. Wind velocity per roller component = 2000 kp
(Wrought iron railing compound)

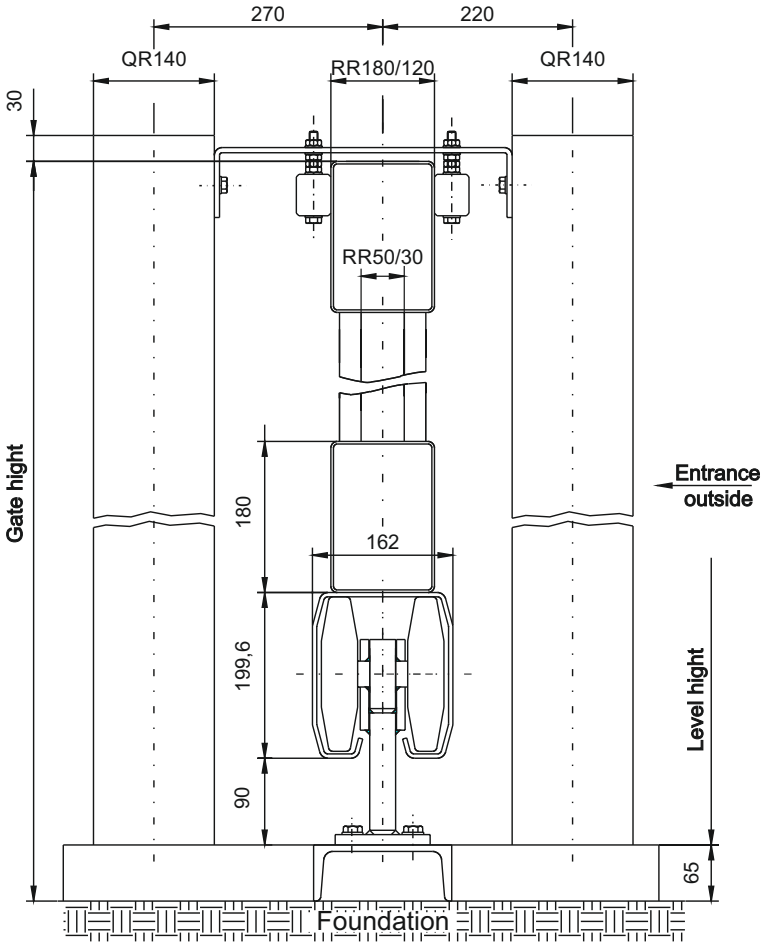
The wind velocity is determined by standard DIN EN 12424 grade 1, quality seal.
In the grade 1 lays a difference in pressure of 300 N/m².
Our statistic calculations are based on partially open wrought iron railing compound with a coefficience degree of 30%. According to standard DIN 12444 is by high gale winds the extra strain on the gate not perceived (statically calculated).

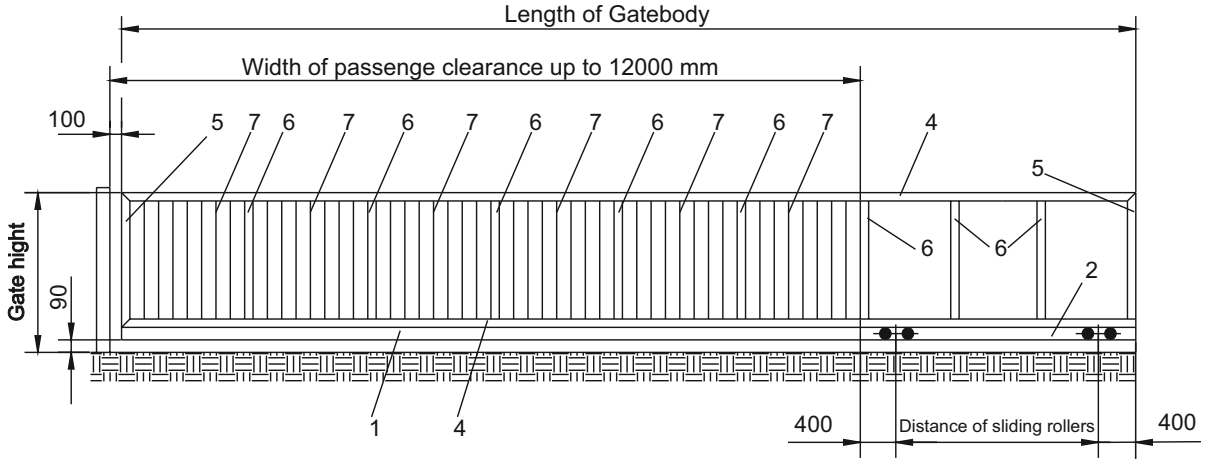
Cantilever Steel-Gatesystem

System dimensions FST 200/SL

width of passenge clearance max 12,0 m

Heavy-weigth model
Wind velocity 300 N/m²
To standard DIN EN 12424





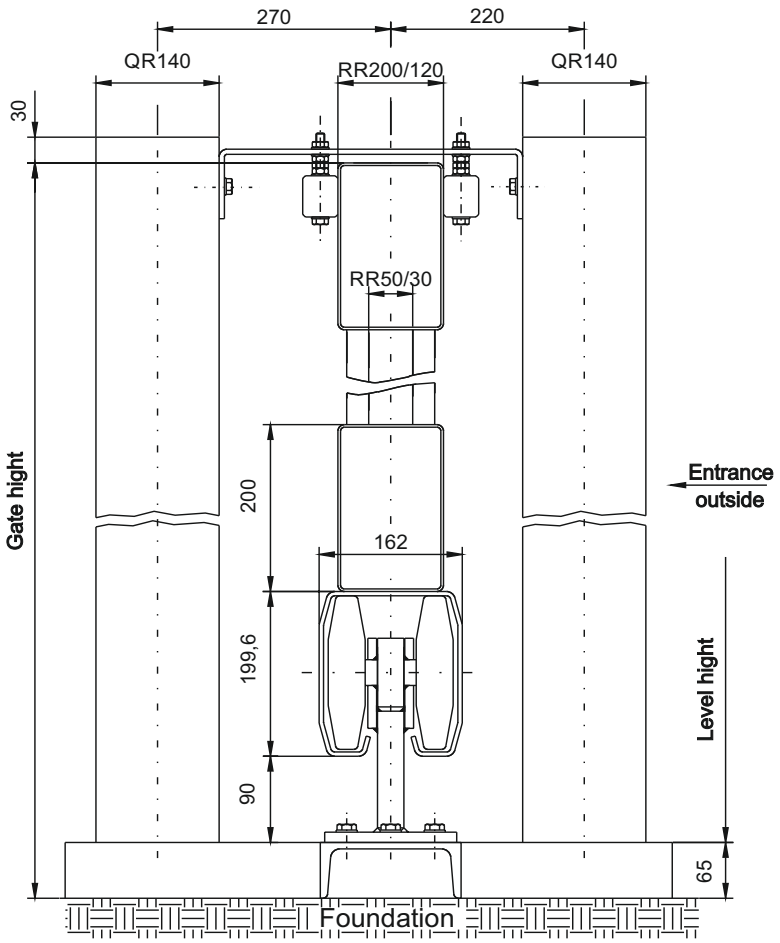
1. Sliding roller profile	LRP 200	4. Top- and Under-chord	RR 180/120 x 3,0 mm
2. Sliding roller	LRB 200/SL-4Q	5. Outer rods	RR 180/120 x 3,0 mm
3. End plate	KD 200-SR	6. Inner rods	RR 140/100 x 3,0 mm
		7. Filling rods	RR 50/30 x 2,0 mm

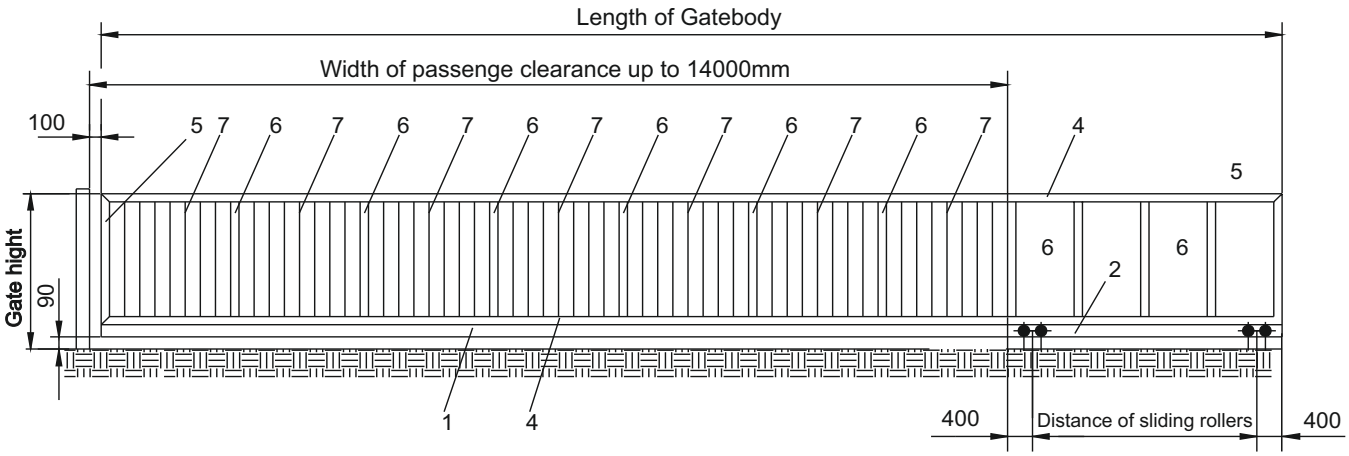
Cantilever Steel-Gatesystem

System dimensions FST 200/SL

width of passenge clearance max 14,0 m

Heavy-weigth model
Wind velocity 300 N/m²
To standard DIN EN 12424





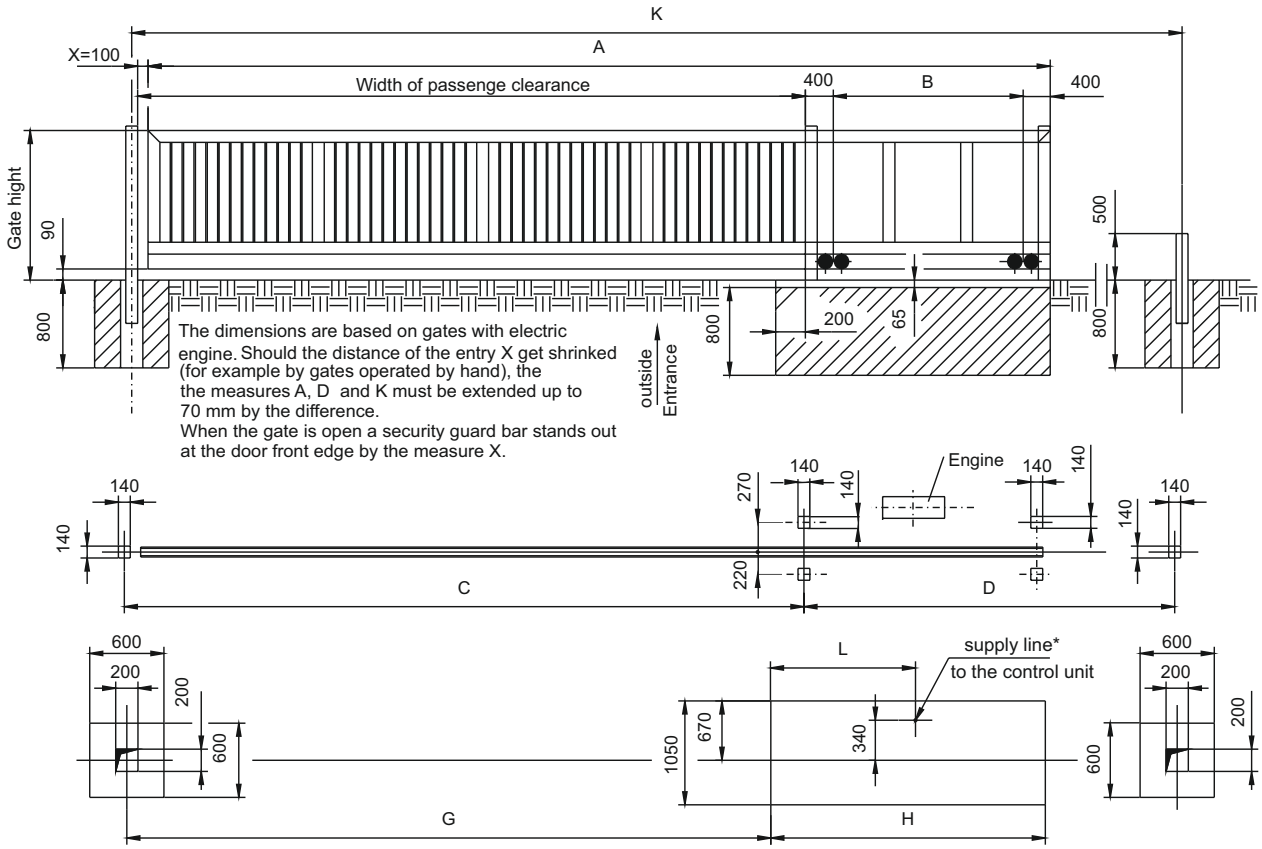
1. Sliding roller profile	LRP 200	4. Top- and Under-chord	RR 200/120 x 5,0 mm
2. Sliding roller	LRB 200/SL-4Q	5. Outer rods	RR 200/120 x 5,0 mm
3. End plate	KD 200-SR	6. Inner rods	RR 200/100 x 5,0 mm
		7. Filling rods	RR 50/30 x 3,0 mm

Cantilever Steel-Gatesystem

FST 200/SL Construction- and foundation dimensions

width of passenge clearance max 14,0 m

Heavy-weight model — Wind velocity 300N/m² To standard DIN EN 12424



Measures / width of passenge clearance	A	B	C	D	G	H	K	L*
8,5m	12.190	2.890	8.640	12.240	8.370	3.890	20.880	1.995
9,0m	12.800	3.000	9.140	12.850	8.870	4.000	21.990	2.050
9,5m	13.500	3.200	9.640	13.550	9.370	4.200	23.190	2.150
10,0m	14.200	3.400	10.140	14.250	9.870	4.400	24.390	2.250
10,5m	14.800	3.500	10.640	14.850	10.370	4.500	25.490	2.300
11,0m	15.500	3.700	11.140	15.550	10.870	4.700	26.690	2.400
11,5m	16.200	3.900	11.640	16.250	11.370	4.900	27.890	2.500
12,0m	16.800	4.000	12.140	16.850	11.870	5.000	28.990	2.550
12,5m	17.500	4.200	12.640	17.550	12.370	5.200	30.140	2.650
13,0m	18.200	4.400	13.140	18.250	12.870	5.400	31.390	2.750
13,5m	18.800	4.500	13.640	18.850	13.370	5.500	32.490	2.800
14,0m	19.500	4.700	14.140	19.550	13.870	5.700	33.690	2.900

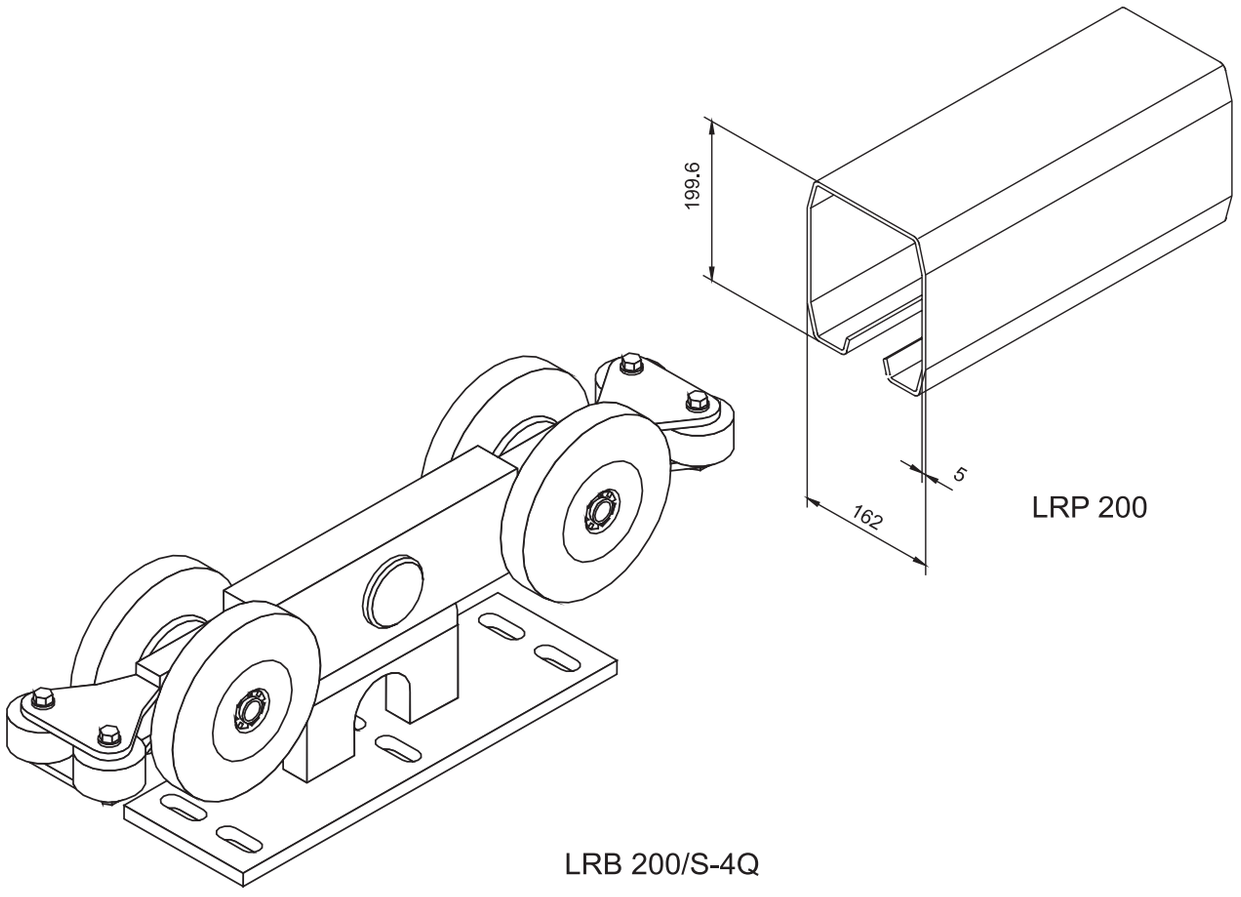
Indeed length of profile = A less 2 x material thickness of end plates (here 2 x 5 mm)

*may vary depending on wich electric engine is used.

Cantilever Sliding Gatesystems

FST 200/S Heavy-weight Model

Maximum 20,00 m passage clearance width



LRP 200

LRB 200/S-4Q

Standard safety measuers

1. Maximum gatebody weight = 3600 kp

2. Tracking force per roller component = 7000 kp
Type : LRB 200-4Q (G)

3. Wind velocity per roller component = 2800 kp
(Wrought iron railing compound)

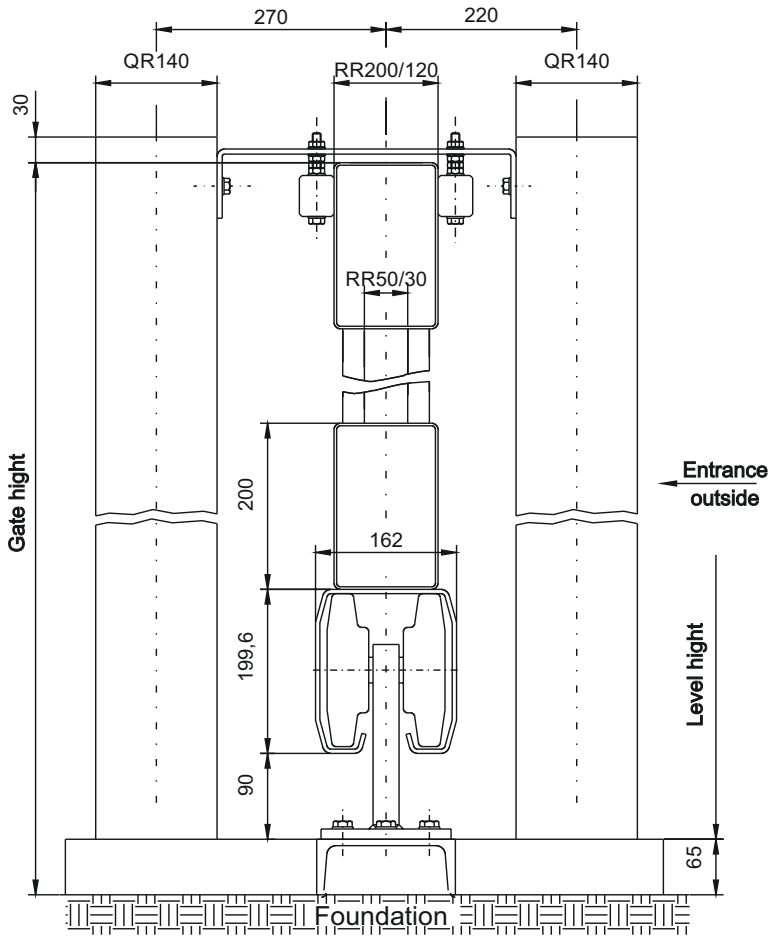
The wind velocity is determined by standard DIN EN 12424 grade 1, quality seal.
In the grade 1 lays a difference in pressure of 300 N/m².
Our statistic calculations are based on partially open wrought iron railing compound with a coefficience degree of 30%. According to standard DIN 12444 is by high gale winds the extra strain on the gate not perceived (statically calculated).

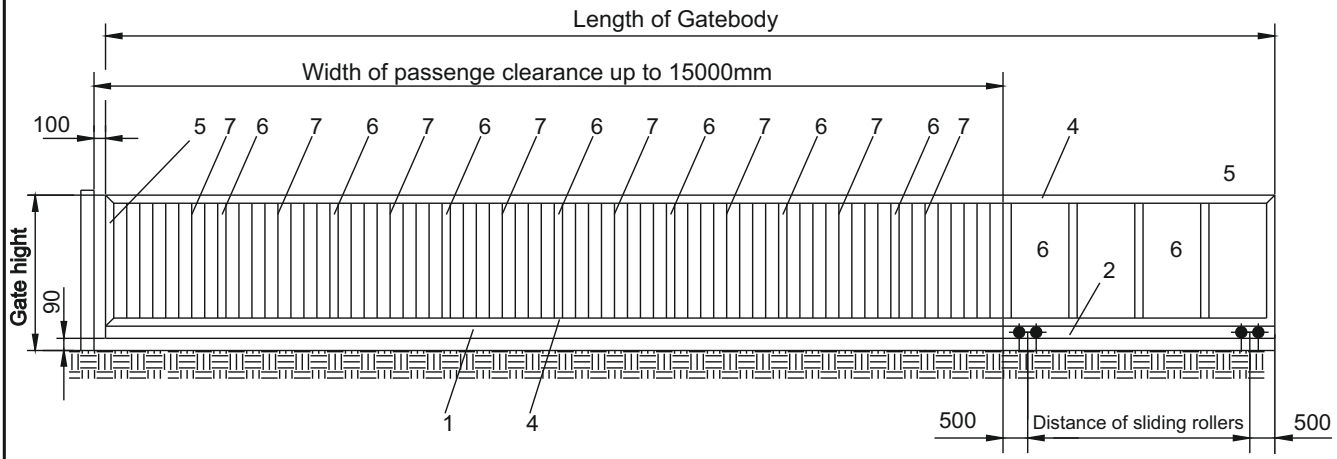
Cantilever Steel-Gatesystem

System dimensions FST 200/S

width of passenge clearance max 15,0 m

Heavy-weigth model
Wind velocity 300 N/m²
To standard DIN EN 12424





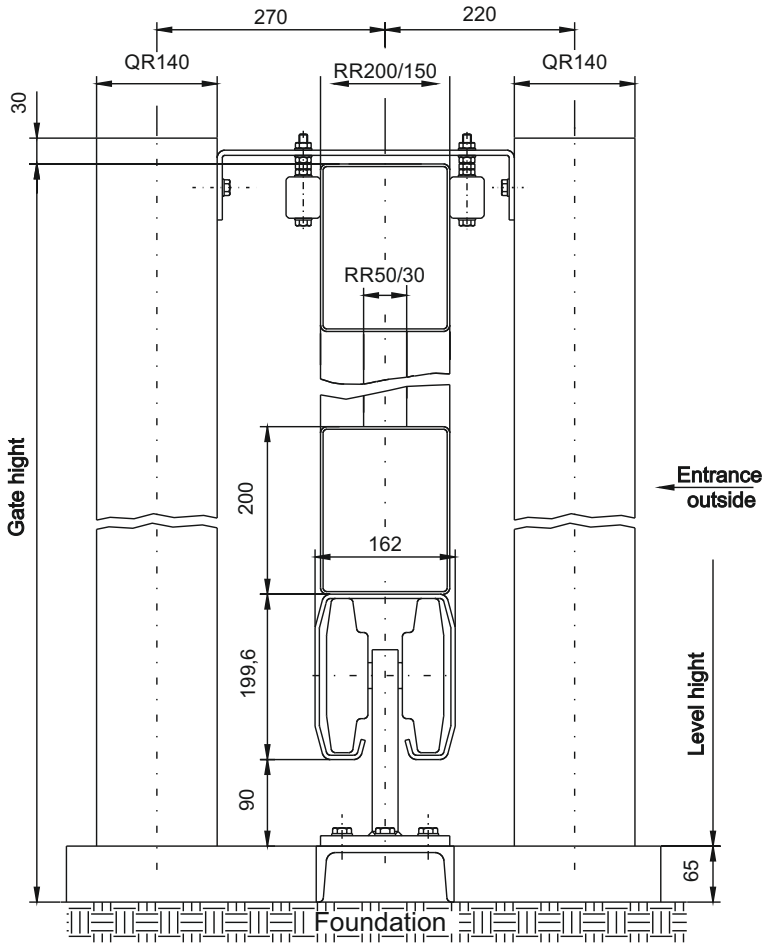
1. Sliding roller profile	LRP 200	4. Top- and Under-chord	RR 200/120 x 5,0 mm
2. Sliding roller	LRB 200/S-4Q	5. Outer rods	RR 200/120 x 5,0 mm
3. End plate	KD 200-SR	6. Inner rods	RR 200/100 x 5,0 mm
		7. Filling rods	RR 50/30 x 3,0 mm

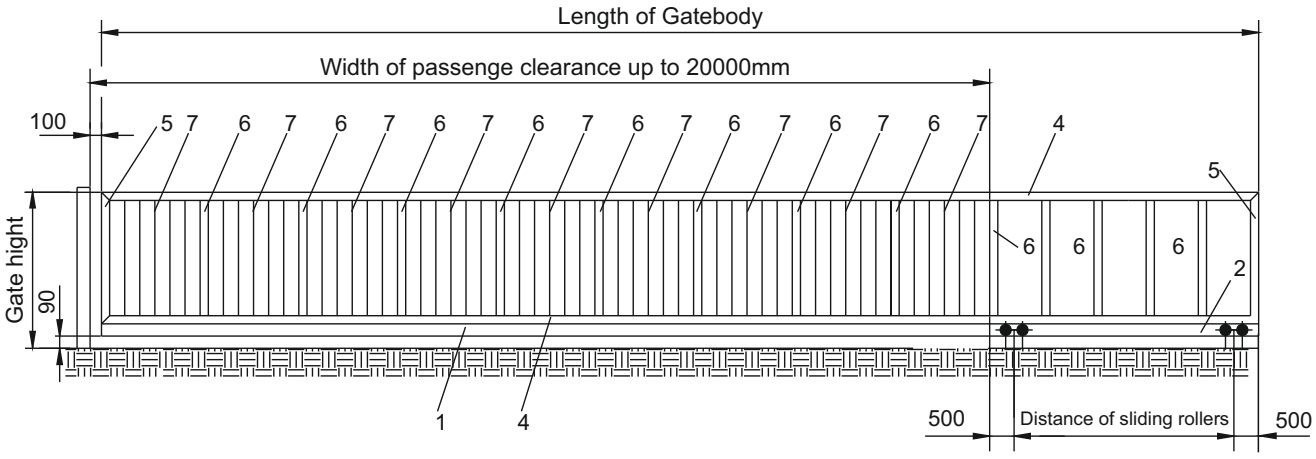
Cantilever Steel-Gatesystem

System dimensions FST 200/S

width of passenge clearance max 20,0 m

Heavy-weigth model
Wind velocity 300 N/m²
To standard DIN EN 12424





1. Sliding roller profile	LRP 200
2. Sliding roller	LRB 200/S-4Q
3. End plate	KD 200-SR

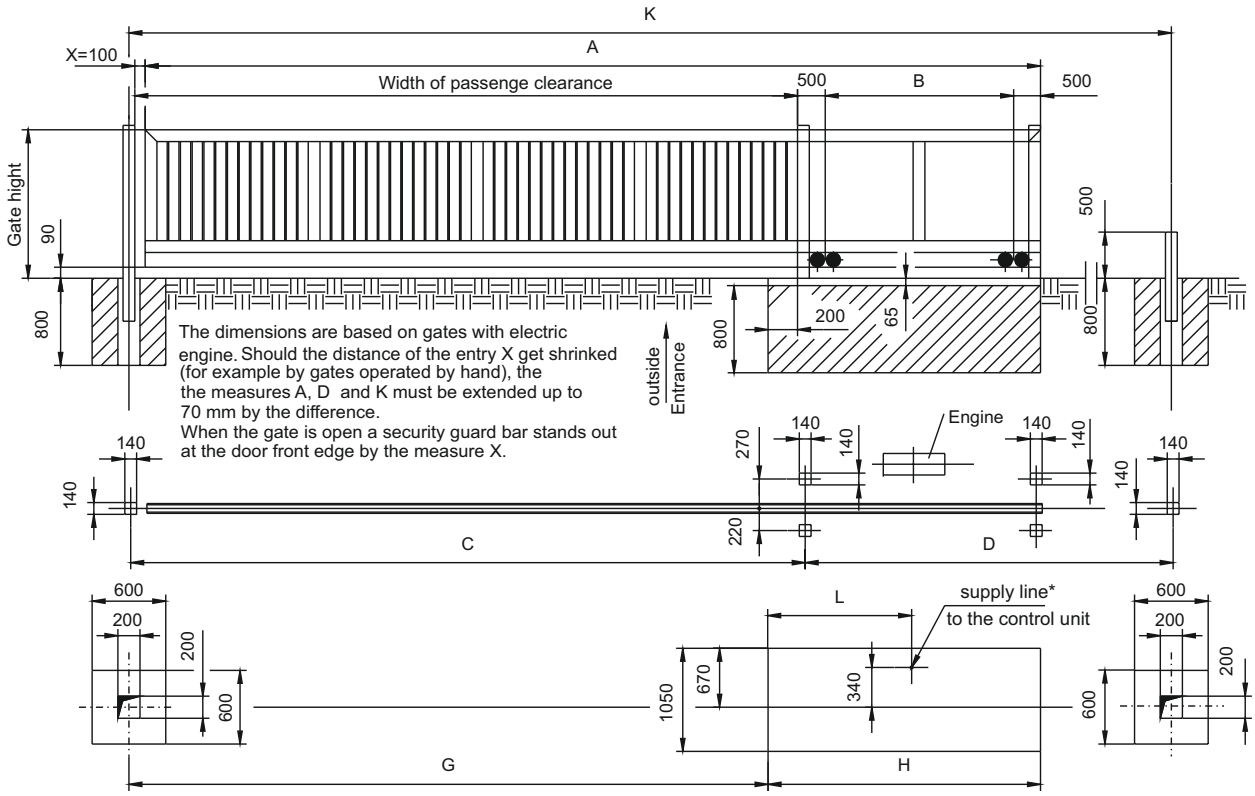
4. Top- and Under-chord	RR 200/150 x 5,0 mm
5. Outer rods	RR 200/150 x 5,0 mm
6. Inner rods	RR 250/150 x 5,0 mm
7. Filling rods	RR 50/30 x 3,0 mm

Cantilever Steel-Gatesystem

FST 200/S Construction- and foundation dimensions

width of passenge clearance max 20,0 m

Heavy-weight model — Wind velocity 300N/m² To standard DIN EN 12424



Measures / width of passenge clearance	A	B	C	D	G	H	K	L *
12,0m	17.000	4.000	12.140	17.050	11.870	5.200	29.190	2.680
12,5m	17.700	4.200	12.640	17.750	12.370	5.400	30.390	2.780
13,0m	18.400	4.400	13.140	18.450	12.870	5.600	31.590	2.880
13,5m	19.000	4.500	13.640	19.050	13.370	5.700	32.690	2.930
14,0m	19.700	4.700	14.140	19.750	13.870	5.900	33.890	3.030
14,5m	20.400	4.900	14.640	20.450	14.370	6.100	35.090	3.130
15,0m	21.000	5.000	15.140	21.050	14.870	6.200	36.190	3.180
15,5m	21.700	5.200	15.640	21.750	15.370	6.400	37.390	3.280
16,0m	22.400	5.400	16.140	22.450	15.870	6.600	38.590	3.380
16,5m	23.000	5.500	16.640	23.050	16.370	6.700	39.690	3.430
17,0m	23.700	5.700	17.140	23.750	16.870	6.900	40.890	3.530
17,5m	24.400	5.900	17.640	24.450	17.370	7.100	42.090	3.630
18,0m	25.000	6.000	18.140	25.050	17.870	7.200	43.190	3.680
18,5m	25.700	6.200	18.640	25.750	18.370	7.400	44.390	3.780
19,0m	26.400	6.400	19.140	26.450	18.870	7.600	45.590	3.880
19,5m	27.000	6.500	19.640	27.050	19.370	7.700	46.690	3.930
20,0m	27.700	6.700	20.140	27.750	19.870	7.900	47.890	4.030

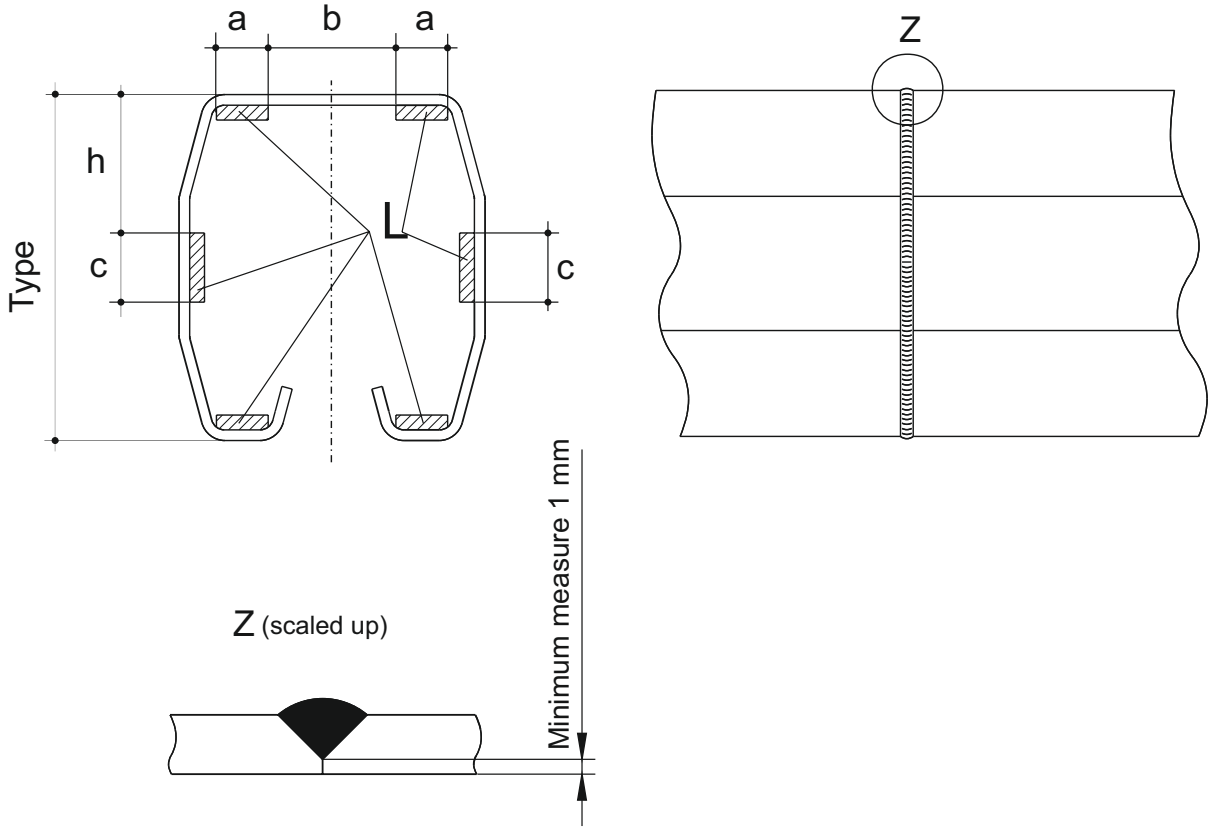
Indeed length of profile = A less 2 x material thickness of end plates (here 2 x 5 mm)

*may vary depending on wich electric engine is used.

Sliding roller profile - Connection by welding

FST 75/95/115/165/200

Care must be taken when welding the roller profiles that no burn-through occurs in the marked areas "L".
Areas "L" are running surfaces of the transporting rolls and transverse rolls.



Type	a, mm	b, mm	c, mm	h, mm
FST 75	11	28	20	27
FST 75/S	11	28	20	23
FST 95	16	30	20	22
FST 95/S	16	30	20	22
FST 115	20	44	22	26
FST 115/S	20	44	22	26
FST 165	26	71	28	72
FST 165/S	26	71	28	50
FST 200	30	73	30	87
FST 200/SL/S	30	73	44	78

For welding galvanized materials, it is recommended to use stainless steel electrodes.

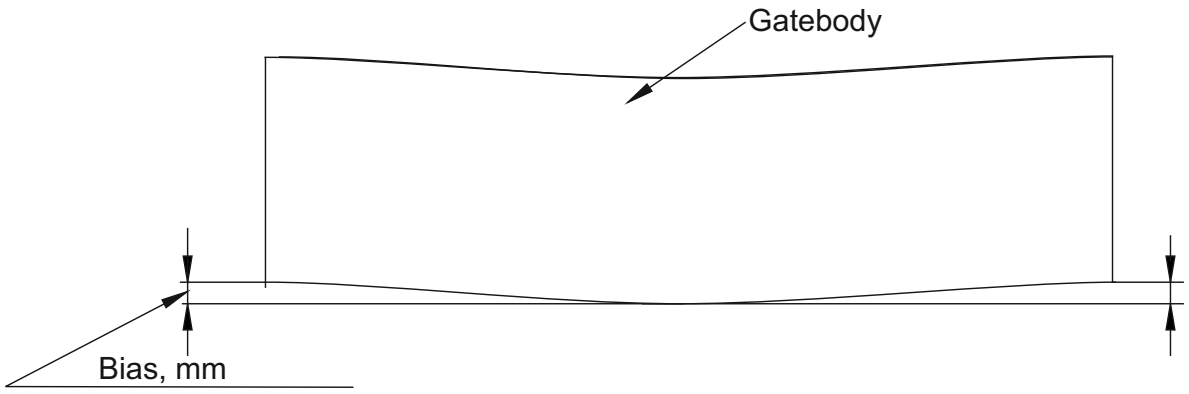
Width of the Under-chord - Bias of the Gatebody

FST 75/95/115/165/200

The convex gate frame deformation, due to the extremely bulky weight, can be minimized by concave bias in the manufacturing process.

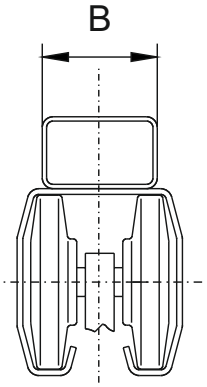
Approximate values of the bias:

Type	max width of passenge clearance in m	max deflection of the gatebody in mm	Necessary bias in mm
FST 75	4,50	11	10
FST 75/S	6,00	17	10
FST 95	5,50	22	14
FST 95/S	7,50	32	20
FST 115	6,00	23	15
FST 115/S	8,00	28	15
FST 165	9,00	35	20
FST 165/S	13,00	40	20
FST 200	11,50	60	30
FST 200/SL	14,00	65	30
FST 200/S	20,00	77	35



The in the processing guidelines (referring to the static proof) listed width of the under-chord „B“ have to be complied exactly.

The lateral, vertical underholm profile flanks stabalize the treads of the supporting rollers.

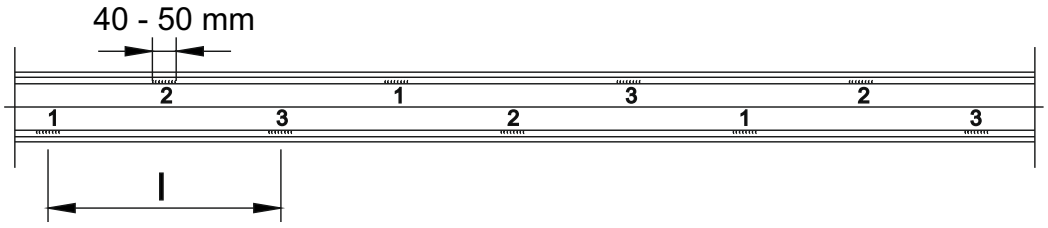


Type	FST 75	FST 95	FST 115	FST 165	FST 200/200/S
B, mm	50	60	80	100 120	120 150

Gate frame connection - Welded Connection and bolted connection
FST 75/95/115/165/200

If the connection should be done by welding, it‘s recommended to connect the sliding roller profile and the gatebody with welding seams of 50 mm length and interruptions with the length of „l“.

To avoid a buckling of the sliding roller profile, the following sequences have to be considered during the welding: 1-1-1..., 2-2-2..., 3-3-3... and so on (see drawing).

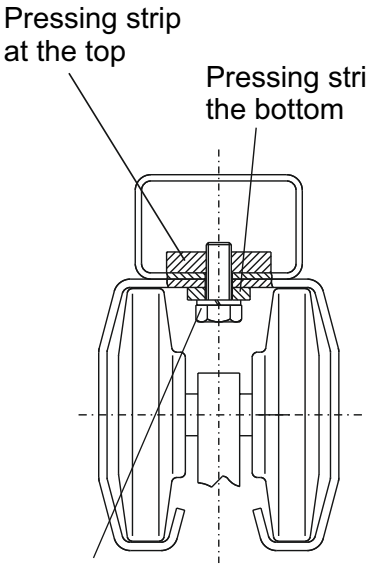


Type	Distance between the seams l, mm	Thickness of the seams a, mm
FST 75	450 … 550	3
FST 95	450 … 550	3
FST 115	450 … 550	4
FST 165	450 … 550	4
FST 200	450 … 550	4

In case of a deviation from our specifications, you should avoid welding stitched directly in the rolled edges of the caster profiles. Due to thermal Properties, in particular by solving the Rolling stresses could otherwise be the Change the running characteristic of the profile.

When welding galvanized materials, it is recommended to use stainless steel electrodes, for example Niro-Super-Electrodes TS44ZX or similar, if recommended Manufacturer proof can be sent by ATTAS.

The sliding roller profile and the gatebody also can be connected by a bolted connection. For this purpose, two pressing strips on the entire gate length are required (see drawing).



Bolt DIN 6914, Quality 10.9
Distance of the bolts l = 300mm

Type	Bolts	Strength of bias Pv, in kN	Pressing strip at the top, Material St 50	Pressing strip on the bottom, Material St 37
FST 75	M 10 x 25	30	Fl 30 x 10	nicht erforderlich
FST 95	M 10 x 25	40	Fl 40 x 10	Fl 25 x 5
FST 115	M12 x 30	50	Fl 40 x 10	Fl 30 x 3
FST 165	M 12 x 30	50	Fl 60 x 10	Fl 50 x 6
FST 200 bis 12 m LD	M 12 x 40	50	Fl 100 x 15	Fl 60 x 10
FST 200 bis 20 m LD	M 12 x 40	100	Fl 100 x 15	Fl 60 x 10

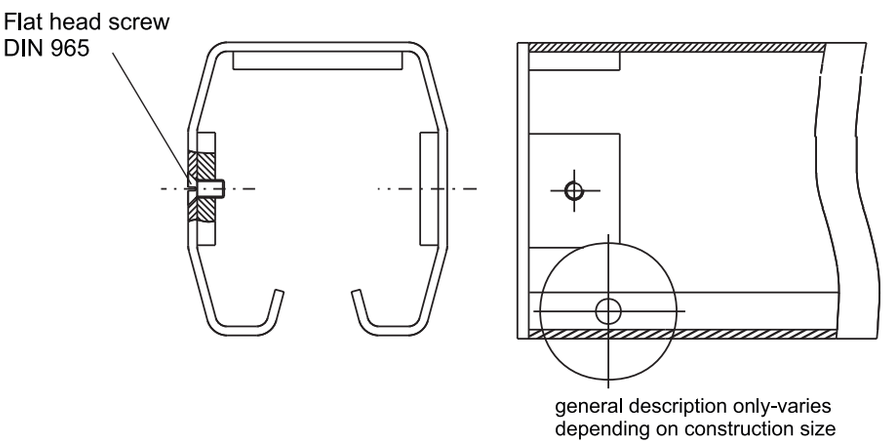
End-Plate with built-in support rollers Construction details
FST 75/95/115/165/200

The end plates (KD) are a welded steel construction galvanized in zinc with a built in support roller.

The sliding rollers are form fitted to stabilize the cantiler profil for both end bearings against distortion.

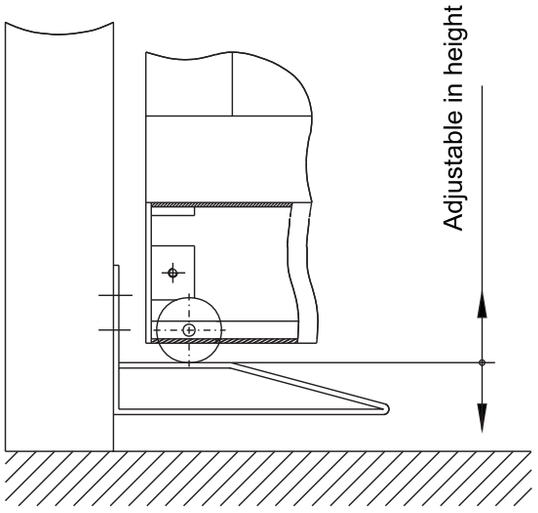
The fitting and screwing of the end plates in the sliding roller profile is done as following. The appropriate size of the screw joints are taken from the worksheet of the four different castor or sliding roller profiles.

Type	Screw
75	M6
95	M8
115	M8
165	M8
200	M10



The support rollers run into the gate-end-point on an overrunning shoe that can be adjusted in height.The extrem load on the support roller mechanism because of the gates body weight can be reduced and the convex distorition of the gatebody minimized.

The construction of the end plate is done so that a disengagement of the sliding roller profile is not necessary when installing the end plates



Upper Guidance Roller Construction details
FST 75/95/115/165/200

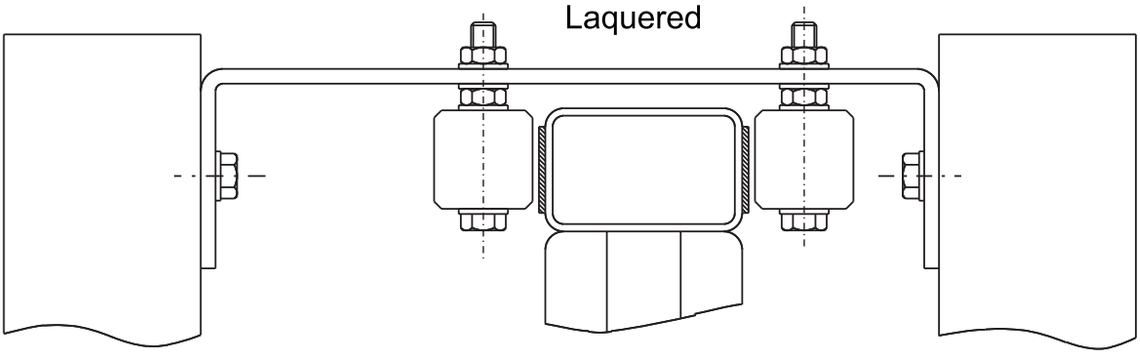
2 pieces, matched into pairs, the upper guidance roller ensures the stability of the gates dimension in height.

1. The gavanized floatational sliding gates are brought on with the upper guidance roller directly on to the flanks of the upper railing.

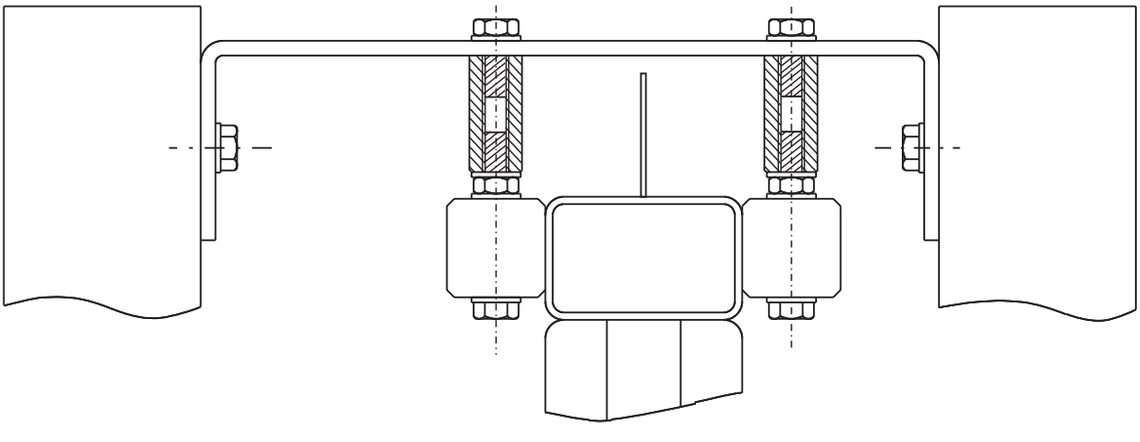
2. Lacquered or powder coated floatation sliding gates in addition are equipted with native treads for the upper guidance rollers. A normal procedure that can be done is for instance, a two sided alu-flat profile of 30 x 3 mm brought on with a flat countersunk rivet along the whole length of the railing.
   This prevents damage to the lamanation and helps to keep a long lasting visually splendid gateway.

3. By installation of the jagged moulders the height of the upper guidance rollers should be extended by the height of the jagged moulder.

Laquered



Galvanized with jagged moulders



Distance casing are produced by a metal worker
or by the producer of the gate

1. General Informatior

For the execution of all given orders, the terms of business and contract are subject to the following conditions. Any deviation of the buying conditions from th part of the agency ordering should be placed in writting, and only when acknowlege on our behalf in writting is it acceptable. The generally accepted terms of business an delivery are applicable for any consecutive orders following, this without having separate agreement

2. Our Offer

Offers covers price, payment, and delivery information, this is subject to alteration. Th price, payment, and delivery information is first final when the order technically in eve point clear is. Our offer is valid for two months (when no other written authority is given) beginning with the date that is on the offer contract

3. Price

The price information unless otherwise stated is always in the currency of EURO, fron our factory or our storage area south without installation or mounting plus sundry cost (packaging, shipping, insurance, etc)The appropriate value-added-tax will be add accordingly. Any increase in wages, raw- and, or other materials costs for the manufacturing or transport of the items, the price validity is set by the date of deliver This is not applicable when the terms of contract have been signed constituting th order so that the terms of business are carried out within six months of contrac

4. Terms of paymen

Payment of goods and services is due within 15 days of invoice date without rebat By payments paid within 8 days there is a general rebate of 2% (s-konto). Wage and repair payments should be paid within 8 days net amount. First time customers w require payment either prepaid or C.O.D. By customers that there solvency is unknow to us we reserve the right to adjust payment methods. Payment deliverance can or be made directly to our company. By late payments we have the right to demand late fee in the amount of 1% (interest payable) per month from the complete amoun outstanding. We reserve the right for every late invoice to charge a net fee starting at 3 euro in addition to other charges and fees. Unauthorized deduction of the genera rebate (s-konto) will be summoned for payment. By interest payable this does nc release the buyer from punctual payment according to the original invoice. Any del in payment gives our company the right to cancel any delivery, and or collect previously delivered goods in respect to the buyers postponement of payment. A costs that result from and in relation to the payment delay will be charged to the buye By suspension of payment, issued fiat of bankruptcy or insolvency on behalf of the buyer an immediate payment will be demanded. Alteration of payment form is r acceptable. Cheques for payment purposes are valid only when complete and u conditional redemption has been proven as end payment to our company, cos related to cheque cashing carry the buyer.

5. Terms of delivery

All said deliveries are not binding unless otherwise specified in written form. Delive dates are first set once all technical, and commercial details have been cleared. B strikes, lock-outs, malfunctions of all sorts, or due to delays in raw material or metho of production not of our accord, we reserve the right to prolong the date of delivery This prolongation can be a maximum of two months from the original delivery dat Should this extention date lapse, then either party is allowed to draw the resignation of order. There can be no claim for damages or reparation of any sor should the above mentioned happen. Should the impossibilities lay on our behalf the delivery delay, the buyer has the possibility from § 326 BGB to withdraw his ord aslong as all paragraph requirements are filled. Claims for damages can only be fil if proven that our company has been grossly negligent according to § 326 BGB. Additional changes that are made may prolong the date of delivery. The buyer obligated to accept early deliveries.

6. Transition Hazards

All hazards lay in the hands of the buyer once the goods have left the plant, storag area, or once left in the hands of the buyer. The availability of the goods begins wi the agreed upon date of delivery readiness. Should the order be ready for dispat and the customer request a delay in delivery, or should the dispatchment of goo be made impossible by matters not under our control. The product will be stored the cost and risk of the buyer. Should our storage area not be equipted to hold th product we reserve the right to place the goods by a third party at the cost and ris of the buyer.

7. Packing and Shippinc

The package and shipping of goods is done to the best of our knowledge. Unles otherwise specified by the customer, the goods will be transported with no apparer risk to our firm, in our opinion best suitable method of transportation. Insurance fc transport or damage of goods must be requested directly from the buyer. Cost c insurance will be passed on to the buyer, we take no responsibilitie for th enforcement of the insurance itself.

8. Acceptance of Delivery

Delivered products even if insignificantly faulty is to be accepted. The possibility demand a settelment from the retailer is without detriment. This is also applicable whe the retailer indicated the readiness of delivery, and the customeris refuses to colle the goods.

9. Transportation Damages

Transportation damages must be determined immediately after receipt of delive The dispatch office should be contacted, and a claim voucher to be filed (state c affairs). This should be done immediately. Failure to request, fill out, and send th voucher reserves our company the right to decline the claim for indemnity

10. Complaints

Complaints upon delivery of goods should be made within 8 days after acceptan of delivery. After this period the product delivered is considered complete an satisfactory as agreeed in the terms of contract. By entitlement of complaint the buyer has the right to replacement, free of charge as entitled according to the origina contract. Beyond this our company declines any claim for damages or lawf grounds from freight, salary, or sundry costs that have fallen without our consen For the delivered parts from foreign companies we take on the guarantee only fro those companies that have contracted our firm to do so. This is also applicab for machines that have changes there type designatior

11. Guarantee

We guarantee only goods that have been delivered from our company. For th delivered products and machines from our firm we accept for a period of 12, 1 or upto 24 months, depending on product or part from the day of delivery a suitab guarantee, a claim, if in this time frame it can be proven that sub-average ra materials, faulty construction, or inadequate execution is in our opinion the caus of part or product unsuitability. Our firm will then repair, restore or replace the unsuitable parts. Should a guarantee claim be identified, this information is to b forwarded immediately to our offices. To provide proper help for the claim c gurarantee it is important that a time interval be arranged to give our firm the opportuni for proper repair or replacement of articles. Should this interval of time be denie by the customer, we are then freed of any guarantee claim against our company The faulty parts are to be mailed back to our company. By shipment of faulty par or machines shipping costs and risks lay in the hand of the buyer. For repairs mac out of house the buyer will be billed for the mechanics fare, driving time, and hou wages based on our relevent price list. Repairs that are not in direct connection with the guarantee charge will also be billed. There is no entitelment to guarantee clain when instruction and information to construction, connections, adjustment reference are ignored, no standard VDE installation, or connection negligence, inappropriat handling, usage, transportation, or shipment of prducts, flood damage, fire, lightenir strike, or by act of god. Machinal changes, repairs done by self engagement or b third party, and alteration of characteristics and of parts that interfere with the norma operation, and wear with no doubt

12. Technical Documents

Pictures, grafics, and technical documents that are enclosed in an offer, are on binding when explicitly confirmed. The entire documentation especially the grafics ar calculations are exclusive property of our company. These documents cannot b

passed on to a third party without our written approval or consent and for none othe
than the agreed upon business purpose used. When requested all pertinent document
are to be sent immediatetly and without delay to our offices.

13. Right of Ownership

We reserve the right to ownership of all delivered commodities, until complet
payment according to contract has been made, and all our claims and demands ha
been fulfilled. So long that the ownership of commodities belongs to our compan
it is strictly prohibited to pawn, morgage, or market the item. The commodity can b
sold only when customary business routine of sale is followed. Should third part
purchase any item that is lawfully still in our posession, or our joint property, we clai
the right to immediate payment from the purchasing party in the equivalent amount ow
by the original buyer, this can be done without the requirement of explicit conveyanc
Should the price or equivaltent amount be in connection with other items (fro
further development) the approprite proportional installment should be made. Th
buyer has the responsibility to contact our office immediately by any attempt to pawn
morgage or sell any or all commodities still in the posession of our company. W
reserve the right at any given time to demand information from the buyer in regar
to claim recognition of our given rights. We may reserve the right to ask of writte
proof in the conveyance or transfer of ownership

14. Sundries

Through written changes of individual operations , the remaining terms and conditio
maintain their validity. Through an invalid operation in the terms of contract as sa
the remaining terms also maintain their validity. It is in agreement that, what as a
invalid arrangement is the next successional made. Late penalties or claim on damag
of any type, indifference to legal argument, unless otherwise specified are out of the
question.

For installation, or repairs on machines, for start-up and maintenance work
our additional operational services is valid.

15. Place of Contract and Jurisdictior

The place of contract is Waiblingen Germany, and German jurisdiction is bindin

ATTAS GmbH Automatic Doors and Gates Motorized Systems