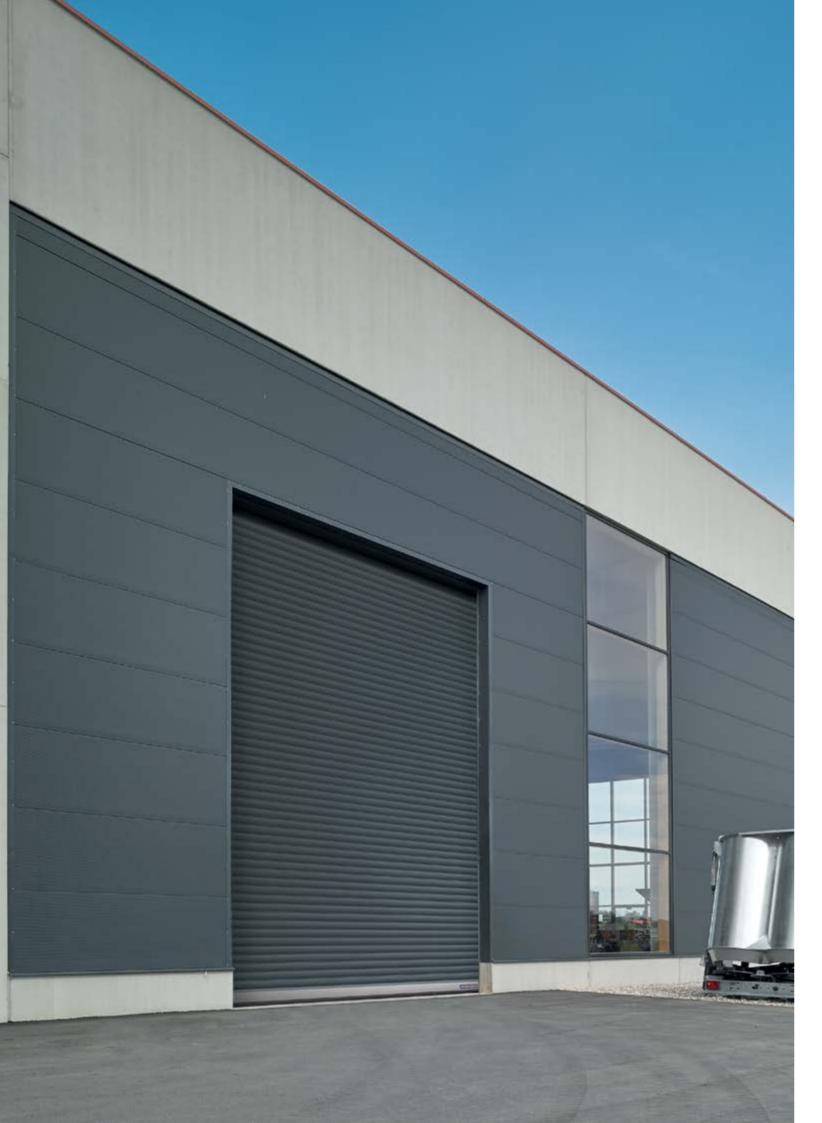




Sectional Door

Installation & Operation Manual





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Sectional Door Applications:



Commercial Buildings and warehouses

Docking Bays

Anti-Rooms

Plant & Machinery Rooms

Industrial Hall

Outer Peripheral Walls

Salient Features

SECTIONAL DOOR

Model 1 - N track - Head room = 440 mm

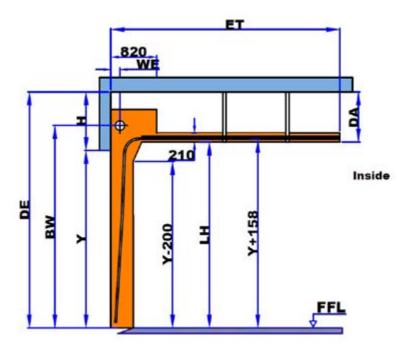
Model 2 - H track - Head room = 880 mm

Model 3 - VU track - Head room = door Height + 350

- Modern alternative to rolling shutter, providing hermetic seal against dust, heat, water, insects etc.
- The articulated roller holder reduces the headroom and protects the top door section from excessive bending
- Soft start & stop ensure especially quiet door travel and extend the service life of the door system
- Finger trap protection
- Spring safety device
- Closing edge safety device
- Optimum counterbalance of door operation.
- 100 % CFC-free & made of hot galvanized steel.
- Thermal insulation U = 1.0 W/m²K
- Acoustic rating: R= 25 dB
- Self-monitoring closing edge safety device
- Emergency hand chain provided in case of power failure

Operation Procedure

For additional details ref to the approved drawings



Before fitting the door, the structural opening and the floor of the building must be completely finished.

Observe the following during fitting:

- Establish a secure connection with the building structure.
- Check that the fixing materials supplied are suitable for the given structural conditions
- Ensure adequate water slope towards the outside in the area of the bottom seal and the frame parts, otherwise there is danger of corrosion.
- Ensure sufficient drying and ventilation in the building, otherwise there is danger of corrosion.
- The door must be effectively protected before carrying out plastering and paintwork, as splashes of mortar, cement, plaster, paint etc. can damage the door surface.

Weight Counterbalance

WARNING!

Danger of injury due to uncontrolled door drops If the counterbalance has not been properly adjusted, this may result in an uncontrolled door drop, which could trap persons or objects.

 Retention the torsion springs. High torque Springs are under high torque stress and may discharge high forces if they are not secured during tensioning.

Check the counterbalance of the door leaf

Open the door manually up to the half-way point. The door must be capable
of holding this position. If the door moves substantially downwards: Retention
the torsion springs.

Rollers and tracks

When the door is closed, the rollers must be easy to turn.

- Adjust rollers if necessary. Observe the operator fitting notes; they contain details on roller adjustment.
- Clean tracks, if necessary, do not grease!

Spring safety device

- 1. Once the spring safety device has been activated, hold the door leaf using a suitable auxiliary tool, then move the spring shaft with a tensioning spindle so that the capture pawl can be released and secured with the security pin.
- 2. Afterwards, let the door leaf down, release the springs and replace the one that has broken.

Inspecting the safety equipment

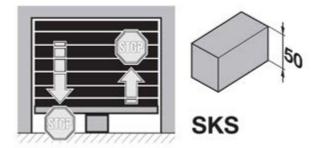
- As the operator of a machine is also responsible for ensuring its safety, regular inspection and maintenance of the power driven door and the overall door system is strongly recommended! In doing so, safety requirements.
- 2. Inspection and repairs may only be carried out by a qualified person (see also the supplied test manual). A visual inspection may be carried out by the operator.

Check reversal limit

Test body: wooden block, 50 mm high.

Trigger a door cycle towards the Close end-of-travel position. If the test body is not recognised (the door continues to travel and makes impact), the following steps are to be taken:

In programming mode, set the reversal limit a little lower (lower function number)



DANGER

Compensating springs are under high tension Serious injuries may occur while adjusting or loosening the compensating springs!

- For your own safety, only have a specialist conduct work on the door compensating springs and, if necessary, maintenance and repair work!
- Never try to replace, adjust, repair or reposition the compensating springs for the counterbalance of the door or the spring mountings yourself.
- In addition, check the entire door system (joints, door bearings, cables, springs and fastenings) for wear and possible damage.
- Check for the presence of rust, corrosion, and cracks. A malfunction in the door system or an incorrectly aligned door can cause serious injuries!
- Do not use the door system if repair or adjustment work must be conducted!

Notes:

- A secured release (SE and ASE) is necessary for areas without a second entrance that prevents the possibility of being locked in or out; this must be ordered separately.
- Check the secured release monthly for proper function.
- When mounting the shaft operator, a suitable type of grease (e.g. copper paste) must be used at the operator / shaft or chain box / shaft connection points.
- The screws should not be tightened until the claw coupling has been fitted to the spring shaft.

Inspection instructions

Claw coupling

The claw coupling is a wearing part, which is why we recommend having it exchanged by a specialist company after max. 100,000 door cycles.

- During maintenance, make sure the that coupling is free of corrosion and that the components do not exhibit any cracks.
- Inspect the torque support and all screws for corrosion, cracks and a tight fit.

Troubleshooting And Remedies

Product: Se	Controller: WA300 S4		
Error Code	Description	Possible cause	Troubleshooting
Off	No display when a button is pushed or a radio impulse for operation is activated / no operating voltage	_	Operating notification
Steady illumination	The operator has been taught in and is ready for operation/taught in for press-and-hold operation	_	Operating notification
Slow flashing	Operator has not been taught in / learning run Fast close learning run	The operator has not been taught in yet	Teaching in the operator
Fast flashing	 During the hold-open phase During the pre-warning phase During programming of the 		Operating notification
Very fast flashing (flashes)	 During the reset process Maintenance cycle counter Press-and-hold operation 		Operating notification Perform maintenance
1x / 2x / 3x / 4x flashes within 10 seconds.	During programming of the automatic timer / during programming of the start warning	_	Operating notification
2x flashing	LS safety equipment has been activated	Photocell was interrupted or is not connected.	Check photocell, replace or connect as necessary
3x flashing	Safety device SKS/power limit in the Close direction has been activated / is defective Blocking protection in the Close direction has been activated	There is an obstruction in the door area Sluggish door travel	Remove the obstruction Check counterbalance
4x flashing	Maintenance release open Hold circuit open Wicket door contact with testing negative	Maintenance release for operator mechanism open Hold circuit plug X30/ST1 open Magnet of contact wrong way round/ wicket door contact defective	 Lock the operator's maintenance release Close contacts/electric circuits, check electric circuits Check magnet/contac
5x flashing	Power-limit for door-open travel direction responded Lintel trap guard EZS responded	There is an obstruction in the door area Sluggish door travel	 Remove the obstruction Check counterbalance Delete any door data, teach in again. Test the lintel trap guard area
6x flashing	General system error		Contact the service department if this error reappears after switching the control back on

Product: Sectional Door		Model: N, VU, H Track	Controller: WA300 S4
Error Code	Description	Possible cause	Troubleshooting
7x flashing	Gear drive temperature sensor	 Over temperature +80°C/ short circuit Under temperature < -25°C/ interruption 	Operator overheated (≥ 80°C) or under temperature (≤ -25°C) Check ambient temperature Short circuit/interruption in the connection with the temperature sensor
8x flashing	Poor counterbalance	Insufficient counterbalance	Check spring tension

Product: Sec	etional Door Model: D	Direct Drive Controller: A445		
Error Code	Cause Of Error Code	Trouble Shooting / Remidies		
01	RSK generally open	Control housing Check jumpers in the connecting plugs X1, X3 Check jumper plug X10		
02	RSK of closing edge safety device (SKS) open	SKS connection housing Yellow LED on: Check colour sequence of coiled cable in X30. Yellow LED off: All the sockets X31 must be assigned. Check wicket door contact, shootbolt. If a resistance contact strip 8k2 is connected at X33, a jumper plug must be inserted in X34."		
03	RSK at socket X40 open	Operator Operator overheated The operator's emergency operation device is in use"		
04	RSK at socket X50 open	Control housing Miniature lock, connected at X4, at position 0"		
11	Self-testing of safety device at socket X30 was unsuccessful or safety device was triggered.	 General Obstacle recognised Optics of the safety devices is dirty Transmitter and receiver are not aligned to each other SKS connection housing Red LED on: Check optosensors. Check connection cable X34. X33 must not be assigned. Red LED off: Check colour sequence of coiled cable. The door only closes in press-and-hold operation: Press the button -> press-and-release attempt -> error message Pressing the button again closes the door in press-and-hold operation Light grille HLG See possible errors section 8.12 		
12	Self-testing of safety device at socket X20 was unsuccessful or safety device was triggered.	 With photocells, check alignment. With photocells, the connection between transmitter and receiver must consist of a version P Y-piece. 		
13	Self-testing of safety device at socket X21 was unsuccessful or safety device was triggered.	 With photocells, check alignment. With photocells, the connection between transmitter and receiver must consist of a version P Y-piece. 		
14	Self-testing of safety device at socket X22 was unsuccessful or safety device was triggered.	 With photocells, check alignment. With photocells, the connection between transmitter and receiver must consist of a version P Y-piece. 		

15	Self-testing of resistance contact strip 8k2 at socket X30 unsuccessful or 8k2 triggered.	SKS connection housing Red LED on: Check connection of resistance contact strip. Red LED off: Check colour sequence of coiled cable. X32 must not be assigned. The door only closes in press-and-hold operation: Press the button -> press-and-release attempt -> error message Pressing the button again closes the door in press-and-hold operation
16	Wicket door contact defective. Self- testing is negative. Door cannot be moved.	Wicket door Magnet of contact wrong way round Wicket door contact defective
17	The Open power limit has been activated.	 Door Springs have lost their tension. Door movement is sluggish. Function number Force setting too sensitive. Check force setting in program menu 05.
18	The Close power limit has been activated.	Door Door movement is sluggish. Function number Force setting too sensitive. Check force setting in program menu 06 (also after exchanging springs)."
21	Operator blocked: Motor does not start.	Door Door movement is sluggish. Operator • Motor disengaged • Connecting cable not connected Control Fuse F1 defective
22	Rotational direction: Rotational direction of motor is inverted.	Programming of the fitting type does not correspond to the actual fitting type used. Electric socket: Check the direction of the phase rotation of the mains lead
23	RPM too slow: Motor does not start or is too slow.	Door Door movement is sluggish.
24	Door type: Operator is not designed for the door type."	Door Door height and door transmission ratio do not match the operator. Derator Chain box 1:2 fitted the wrong way round Electric socket: Check the direction of the phase rotation of the mains lead
31	General malfunction of the power circuit board	Control Power circuit board must be replaced.
32	Running time: Door travel takes longer than permitted.	Door Door height and door transmission ratio do not match the operator.
33	Force measurement	Fuses Check microfuses of main circuit. Control Power circuit board must be replaced.
34	Force measurement	Fuses Check microfuses of main circuit. Control Power circuit board must be replaced.

35	24 V undervoltage	Control Short-circuit or overload of the 24 V supply to the control Disconnect any connected devices and supply separately.
41	Interface COM X40	Control Cable (Absolute encoder AWG/Door position sensor TPG) at socket X40 is not connected or not properly plugged in.
42	Interface COM X50	Control Cable (cover keypad) at socket X50 is not connected or not properly plugged in.
43	Interface COM X51	Control Cable (extension PCBs) at socket X51 is not connected or not properly plugged in.
46	EEPROM test failed.	Functions Permanently stored data is deleted. After switching back on at the mains, all functions must be reprogrammed.
47	RAM test failed.	Control program Temporarily stored data is deleted. After switching back on at the mains, this data will be restored.
48	ROM test failed.	Control program If this error re-appears after switching the control back on, the control is defective.

Product: Sectional Door		Model: N, VU, H Track Controller: B460FU		
Error Code	Cause Of Error Code	Trouble Shooting / Remidies		
01	RSK generally open	Control housing		
02	RSK of closing edge safety device (SKS) open	SKS connection housing Yellow LED on: Check colour sequence of coiled cable in X30. Yellow LED off: All the sockets X31 must be assigned. Check wicket door contact, shootbolt. If a resistance contact strip 8k2 is connected at X33, a jumper plug must be inserted in X34."		
03	RSK at socket X40 open	Operator Operator overheated The operator's emergency operation device is in use		
04	RSK at socket X50 open	Control housing Miniature lock, connected at X4, at position 0		
11	Self-testing of safety device at socket X30 was unsuccessful or safety device was triggered.	General Obstacle recognised Optics of the safety devices is dirty Transmitter and receiver are not aligned to each other SKS connection housing Red LED on: Check optosensors. Check connection cable X34. X33 must not be assigned. Red LED off: Check colour sequence of coiled cable. The door only closes in press-and-hold operation: Press the button -> press-and-release attempt -> error message Pressing the button again closes the door in press-and-hold operation Light grille HLG See possible errors section 8.12		

12	Self-testing of safety device at socket X20 was unsuccessful or safety device was triggered.	 With photocells, check alignment. With photocells, the connection between transmitter and receiver must consist of a version P Y-piece.
13	Self-testing of safety device at socket X21 was unsuccessful or safety device was triggered.	 With photocells, check alignment. With photocells, the connection between transmitter and receiver must consist of a version P Y-piece.
14	Self-testing of safety device at socket X22 was unsuccessful or safety device was triggered.	 With photocells, check alignment. With photocells, the connection between transmitter and receiver must consist of a version P Y-piece.
15	Self-testing of resistance contact strip 8k2 at socket X30 unsuccessful or 8k2 triggered.	SKS connection housing Red LED on: Check connection of resistance contact strip. Red LED off: Check colour sequence of coiled cable. X32 must not be assigned. The door only closes in press-and-hold operation: Press the button -> press-and-release attempt -> error message Pressing the button again closes the door in press-and-hold operation
16	Wicket door contact defective. Self-test-ing is negative. Door cannot be moved.	Wicket door Magnet of contact wrong way round Wicket door contact defective
17	The Open power limit has been activated.	Door Springs have lost their tension. Door movement is sluggish. Function number Force setting too sensitive. Check force setting in program menu 05.
18	The Close power limit has been activated.	Door Door movement is sluggish. Function number Force setting too sensitive. Check force setting in program menu 06 (also after exchanging springs).
21	Operator blocked: Motor does not start.	Door Door movement is sluggish. Operator • Motor disengaged • Connecting cable not connected Control Fuse F1 defective
22	Rotational direction: Rotational direction of motor is inverted.	Function number Programming of the fitting type does not correspond to the actual fitting type used.
23	RPM too slow: Motor does not start or is too slow.	Door Door movement is sluggish.
24	Door type: Operator is not designed for the door type.	Door Door height and door transmission ratio do not match the operator. Operator Chain box 1:2 fitted the wrong way round
25	Communication with the frequency converter	Control Check the wiring. Operator Check the wiring. If error re-occurs after a new travel command has been given, replace the frequency converter.
31	General malfunction of the power circuit board	Control Power circuit board must be replaced.
32	Running time: Door travel takes longer than permitted.	Door Door height and door transmission ratio do not match the operator.
33	Force measurement	Fuses Check microfuses of main circuit. Control Power circuit board must be replaced.

34	Force measurement	Fuses Check microfuses of main circuit. Control Power circuit board must be replaced.
35	24 V undervoltage	Control Short-circuit or overload of the 24 V supply to the control Disconnect any connected devices and supply separately.
41	Interface COM X40	Control Cable (Absolute encoder AWG/Door position sensor TPG) at socket X40 is not connected or not properly plugged in.
42	Interface COM X50	Control Cable (cover keypad) at socket X50 is not connected or not properly plugged in.
43	Interface COM X51	Control Cable (extension PCBs) at socket X51 is not connected or not properly plugged in.
46	EEPROM test failed.	Functions Permanently stored data is deleted. After switching back on at the mains, all functions must be reprogrammed.
47	RAM test failed.	Control program Temporarily stored data is deleted. After switching back on at the mains, this data will be restored.
48	ROM test failed.	Control program If this error re-appears after switching the control back on, the control is defective.
=		Control Cable (Absolute encoder AWG/Door position sensor TPG) at socket X40 is not connected or not properly plugged in.
U		 Functions The control has not been taught in. Permanently stored data is deleted. After switching back on at the mains, all program menu values must be reprogrammed.

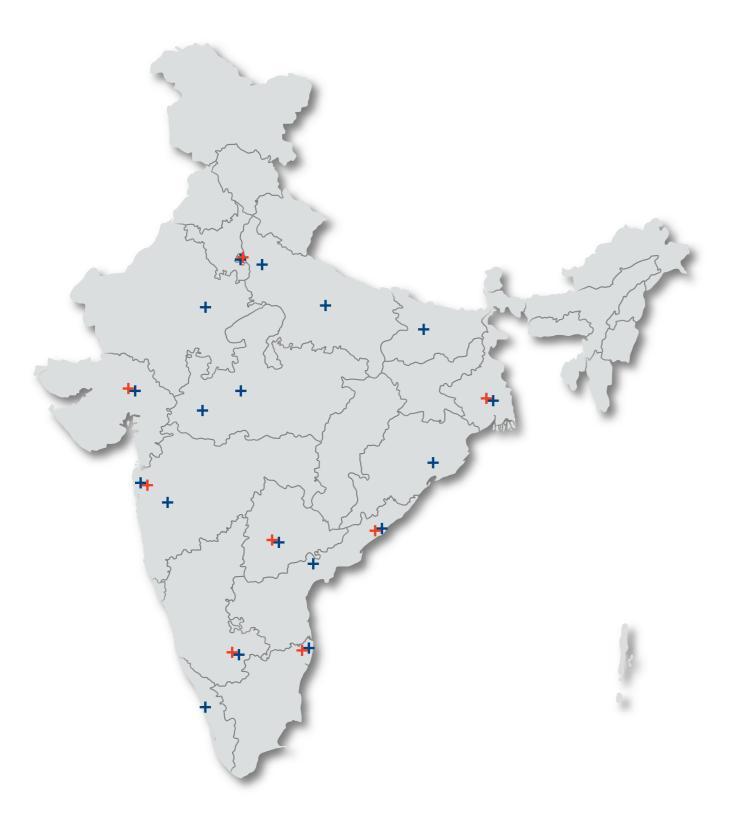
Spare Parts



S.No.	German Article No.	SAP Item Code	UOM	Technical Spare Description		
SECTION	SECTIONAL DOOR					
1	3056063	311653	EA	Bottom door section 42mm, S-ribbed Stucco, RAL 9002		
2	3056065	311655	EA	Door section 42mm, S-ribbed Stucco, RAL 9002		
3	3056067	311657	EA	Door section 42mm, S-ribbed Stucco with Compound Glazing type A42, RAL 9002		
4	3056071	311659	EA	Top door section 42mm, S-ribbed Stucco, with Lintel Seal- RAL 9002		
5		311676	EA	Torsion spring assembly - Left		
6		311677	EA	Torsion spring assembly - Right		
7	3040503	311775	EA	Bottom cable bracket Track application N - Right		
8	3040504	311776	EA	Bottom cable bracket Track application N - Left		
9	3040793	311777	EA	Bottom cable bracket Track application H, HD, HS, HU, HB, V, VU, VS, VB, NH - Right		
10	3040794	311778	EA	Bottom cable bracket Track application H, HD, HS, HU, HB, V, VU, VS, VB, NH - Left		
11	3093587	311779	EA	Roller bracket type 6 with Screws		
12	3039948 3039964 3041157	311780	EA	Roller holders with rollers and screws Galvanized		
13	3094454	311781	EA	Top roller holder Track application N, ND, NS with Buffer Bracket - Right		
14	3094453	311782	EA	Top roller holder Track application N, ND, NS with Buffer Bracket - Left		
15	3094003	312110	EA	Roller bracket top right galv. (old 30468)		
16	3094001	312111	EA	Roller bracket top left galv. (old 30469)		
17	3056279	311783	EA	Hinge Galvanized (without support) with Screws		
18	3060817	311784	EA	Shootbolt with Self-tapping screw A 6.5×20		
19	"3086280 3044800"	311663	EA	Verticle Angle frame side assembly with track - Left		
20	"3086281 3044801"	311664	EA	Verticle Angle frame side assembly with track- Right		
21	3089360	311661	EA	Horizontal track - Left		
22	3089361	311662	EA	Horizontal track - Right		
23	3043189	311785	EA	"Horizontal track - Left - Track application N3, ND3, NH3, H8, HD8, H10, H11"		
24	3043190	311786	EA	"Horizontal track - Right - Track application N3, ND3, NH3, H8, HD8, H10, H11"		
25	3042247	311671	EA	Track suspension L 1499 mm (one Vertical)		
26	3038670	311667	EA	Connection rail		
27	"3094440 3054696"	311673	EA	Double radius 90°		
28	3044138	311787	EA	Shaft support bracket 2, with ballbearing WE = 160, left, size 4		
29	3044139	311788	EA	Shaft support bracket 2, with ballbearing WE = 160, Right, size 4		

		1	1	T
30	3044140	311789	EA	Shaft support bracket 2, with ballbearing WE = 180, left, size 3, 5, 7
31	3044141	311790	EA	Shaft support bracket 2, with ballbearing WE = 180, Right, size 3, 5, 7
32	3044812	311791	EA	Shaft support bracket 1, with ballbearing Left, size 2
33	3044813	311792	EA	Shaft support bracket 1, with ballbearing Right, size 2
34	3011151	311793	EA	Shaft support $x = 140$, $y = 212$, with Hex Screw M10 \times 20
35	3011160	311794	EA	Shaft support x = 160, y = 232 with Hex Screw M10 x 20
36	3086199 3086203 3086205 3086207	311795	EA	Cable drum Track application N, H, V - left
37	3086200 3086204 3086206 3086208	311796	EA	Cable drum Track application N, H, V - Right
38	3094620 3094622	311797	EA	"Cable for Cable Drums (Only One Side)"
39	3040916	311681	EA	Catch Safety Device type - N - with rope
40	3040917	311680	EA	Catch safety device type H-V - with rope
41	3054891	311679	EA	Anti Lift Kit Type - N with Rope
42	3054892	311678	EA	Anti-lift kit type H/V with Rope
43	637939	310213	EA	Telephone cable (6 Core) with bothside Connectors (15Mtrs)
44		311798	EA	Sectional Doors - Anchors Kit - Brick / Concrete
45		311799	EA	Sectional Doors - Anchors Kit - Steel
46		311800	EA	Sectional Doors - Anchors Kit - Puff Panel
47		312059	EA	WA 400 Sectional Door Operator
48	637131 637129 637128	312060	EA	EMERG. HAND CHAIN WA 400
49	638027 638323 638021	312061	EA	MOTOR CABLE
50	"636798 636774"	312077	EA	636798Operator WA 300 S4 Sectional Door
51	"4546392 4549567 638931 638924"	312078	EA	4549567Secured Release WA 300 S4 with Bowden Cable and Accessory Bag
52	637713	311152	EA	Push button DTH- R set
53	637714	311153	EA	Push button DTH- RM set
54	"3044775 3044460 3045172 3045171"	312082	EA	Complete Hand Pulley with Rope / With Link Steel Chain
55	"3056043 3056044 3056045"	312107	EA	Complete Cpl. Chain Hoist, Link Steel Chain
56	638076	310923	EA	Torque Support 5
57	638947	310930	EA	Dog Hub with Spacer, Screws WA300
58	3064443	300148	Mtrs	HG 033-4 BOTTOM SEAL (60 M)
59	3045688	300155	Mtrs	SPRING SHAFT 40X3 MM, WITH GROOVE LENGTH
60	3044205	310863	EA	FLEXIBLE COUPLING

61	3090146	310797	EA	SPRING SAFETY DEVICE CONNECTING WEDGE 56
62	638075	310922	EA	SUPPORT BRACKET 1 WA400
63	637004	310907	EA	DIRECT DRIVE MOUNTING KIT WA400
64	638166	311015	EA	Emergency Handchain Extnset
65	636620	310902	EA	CONTROL UNIT A445 50HZ
66	636640	310903	EA	CONTROL UNIT A460 50HZ
67	636720	311012	EA	Control Box B460FU
68	638094	310924	EA	MAIN CABLE 400 V 3-PHASE
69	638069	311718	EA	DISPLAYCIRCUITBOARD 445 S / T, 460 S / T, A / B 445, A / B 460, B 460 FU, 445 R, 460 R and 360
70	637009	310908	EA	COMPLETE SAFETY EDGE KIT IP65 (SKS)
71	637910	310913	EA	"SYSTEM CABLE 4 WIRES, 7,5 M"
72	637026	310032	EA	"MULTI FUNCTIONAL CIRCUIT BOARD"
73	436727	311120	EA	"2-channel receiver HET/S 24 BS 868 MHz for switching light on and off or to control (impulse) operators of other makes, with 2 volt- free relays "
74	436728	311121	EA	2-channel receiver HET/S 2 BS 868 MHz
75	436721	310033	EA	Remote RECEIVER HE 3BS
76	436752	310890	EA	HS4 BS hand trasmitter 868 Hz
77	436753	310891	EA	HS5 BS WHITE hand transmitter 868 Hz
78	437006	310894	EA	HAND TRANSMITTER HOLDER HSE BS
79	63772	312063	EA	637728 Universal Adapter UAP1-300



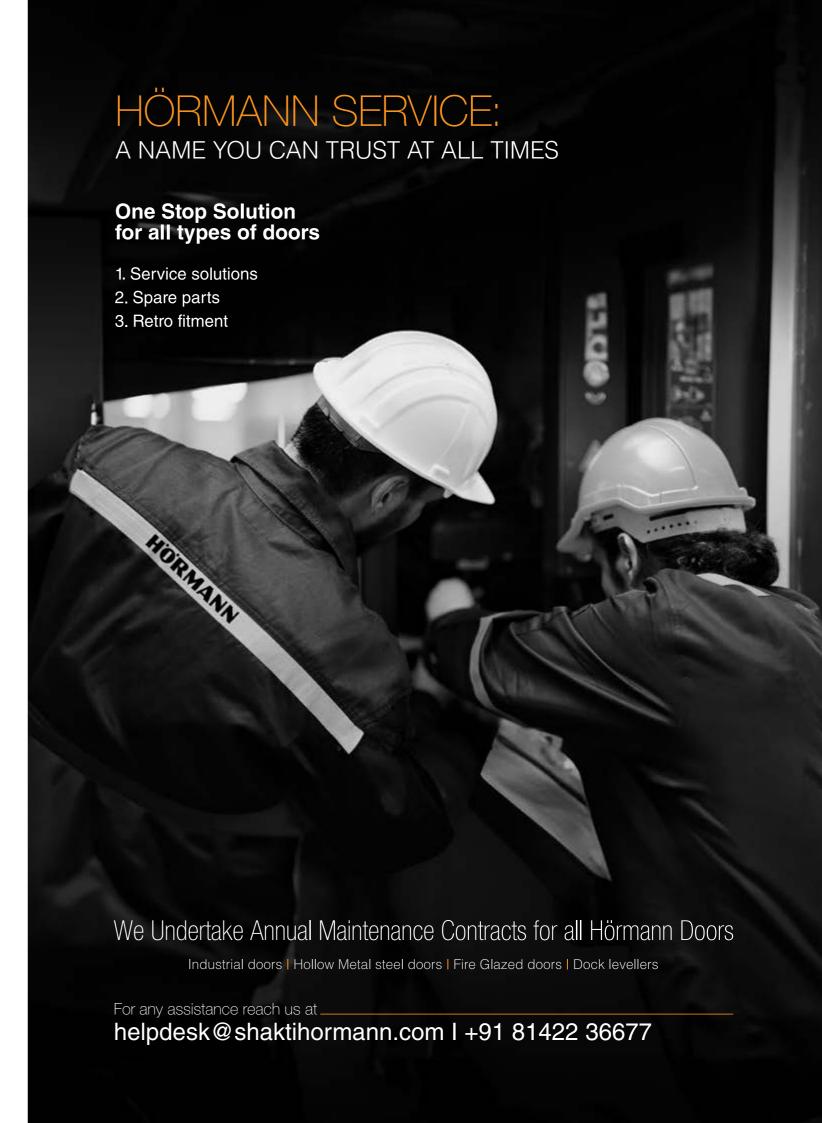
Service and Installation Network

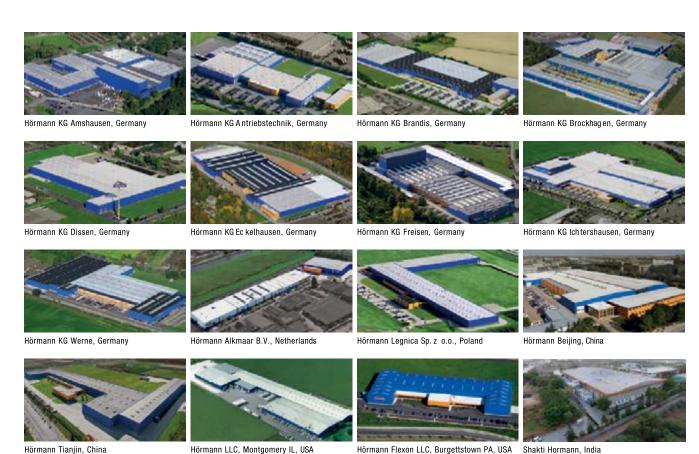
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RESIDENTIAL DOORS I COMMERCIAL DOORS I INDUSTRIAL DOORS LOADING BAY TECHNOLOGY I PERIMETER CONTROL SYSTEMS



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Platinum Rated Green Facility

