

Record sheet: Retrofitting for risk assessment acc. to EN 81-80:2019

W+W Aufzugskomponenten



Factory number

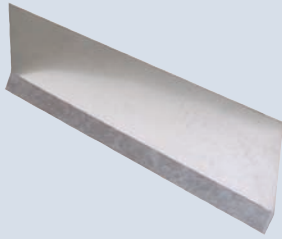
Location

Name

Notes

The present list makes no claim to completeness.
For the most part, the points where W+W Aufzugskomponenten can offer a solution are shown.

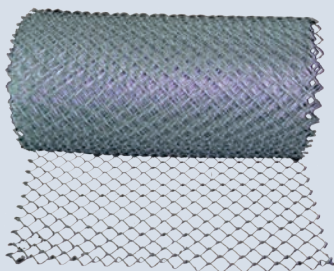
2. Shaft (table A.1)



*Catalogue page 55



*Catalogue page 20



*Catalogue page 24

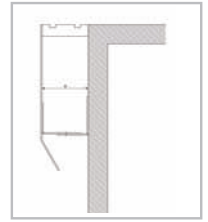
Landing door apron missing / EN 81-80 2.6

(acc. to EN 81-20 5.2.5.3.2)

Door width mm



Mounting kit for landing door apron
(to support the apron on the shaft wall)



Sketch

Universal counterweight cover required / EN 81-80 2.8

(acc. to EN 81-20 5.2.5.5.1)

Depth (max. 450mm)

Width (max. 1600mm)

Shaft separation required / EN 81-80 2.9 and 2.10

(for group lifts acc. to EN 81-20 5.2.5.5.2)

Mesh size



30 x 30mm



40 x 40mm

Width



800mm

Width



800mm



1000mm



1000mm



1250mm



1250mm



1500mm



1500mm



1750mm



1750mm



2000mm



2000mm

Advice:



The distance of the wire netting 40 x 40mm to movable parts must be at least 200mm (acc. to EN 81-20 5.2.5.5.2). With a mesh size of 30 x 30mm the distance can be reduced to 120mm.

Sketch

2. Shaft (table A.1)

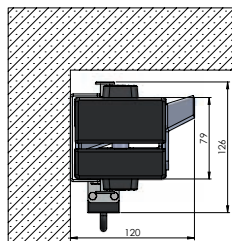
Descent ladder to the shaft pit missing / EN 81-80 2.13 or existing ladder does not correspond to EN 81-20 5.2.2.4

Pit ladder StufiKlapp
switch-monitored, foldable shaft ladder for maximum pit depth 1.75m
Overlap and floor fixation are not necessary with StufiKlapp

Pit depth

- 50cm - 90cm
- 60cm - 117cm
- 88cm - 145cm
- 88cm - 175cm

Dimensions in storing position of StufiKlapp: 120 x 126mm



Alternatively:
Wall ladder near the landing door (max. 800mm from the door sill)

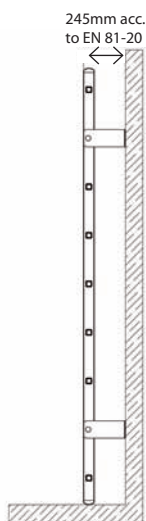
Ladder type 5
removable, leans against door sill

Pit depth
mm



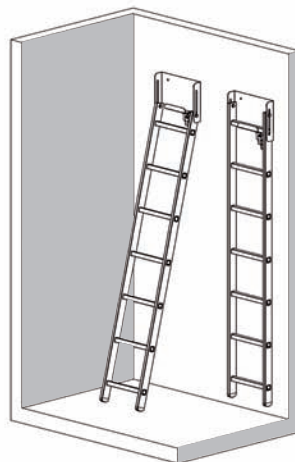
Ladder type 6
is firmly mounted on the wall

Pit depth
mm



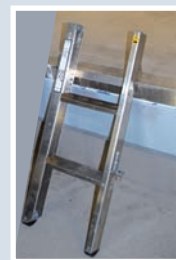
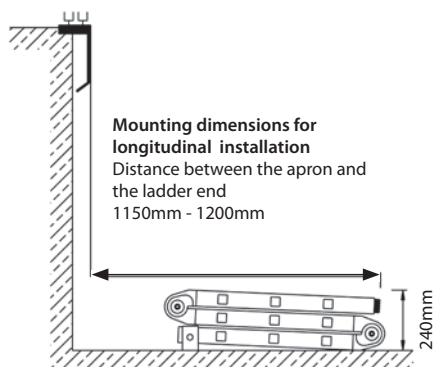
Ladder type 7B
with lever mechanics

Pit depth
mm



According to EN 81-20 the ladder has to be so long, that the upper end or other suitable handholds reach out at least 1.10m above the landing door sill in the vertical position of the ladder (except: StufiKlapp).

Alternatively:
Folding pit ladder with floor attachment
(max. pit depth 1400mm)



*Catalogue pages 158-163



*Catalogue pages 164-165

2. Shaft (table A.1)



*Catalogue pages 112-117



*Catalogue page 124



*Catalogue page 126



*Catalogue pages 128-136

Permanently installed shaft lighting required
or existing lighting is too dark (at least 50 Lux) / EN 81-80 2.14

Shaft height? m

Length LED band = shaft height + 2m

(in general it is sufficient to choose the length of the shaft lighting next smaller than the shaft height)

Assembly of LED band in 1m intervals.

Largest length in one piece 100m.

Supply cable 10m.

Length LED band? m

Distribution box 3-pole, IP54, required
pre-wired distributor with fuse und latching relay

10A (standard)

10A RCB

(with residual current device B10A/30mA)

with pull cord button (latching relay or above-mentioned distribution required)

without cord

20m

38m

with pull cord switch

without cord

20m

38m

Emergency brake switch in the shaft pit required / EN 81-80 2.15
(acc. to EN 81-20 5.2.1.5.1)

only emergency brake switch (Stop)

unwired

wired with m supply line

Pit control box

unwired

wired with m supply line

with STOP, light, alarm, socket

without alarm button

with alarm button 1NO

with alarm button 1NC

without light button

2. Shaft (table A.1)

Emergency call triggering device (alarm) in the shaft pit and on the car required / EN 81-80 2.16 (acc. to EN 81-20 5.2.1.6)

only alarm button

unwired wired with m supply line
 with NC with NO

Twin button light / alarm

unwired wired with m supply line

Pit control box (details see page 4)

unwired wired with m supply line

Shaft wall panelling / EN 81-80 2.17

(acc. to EN 81-20 5.2.5.3.1)

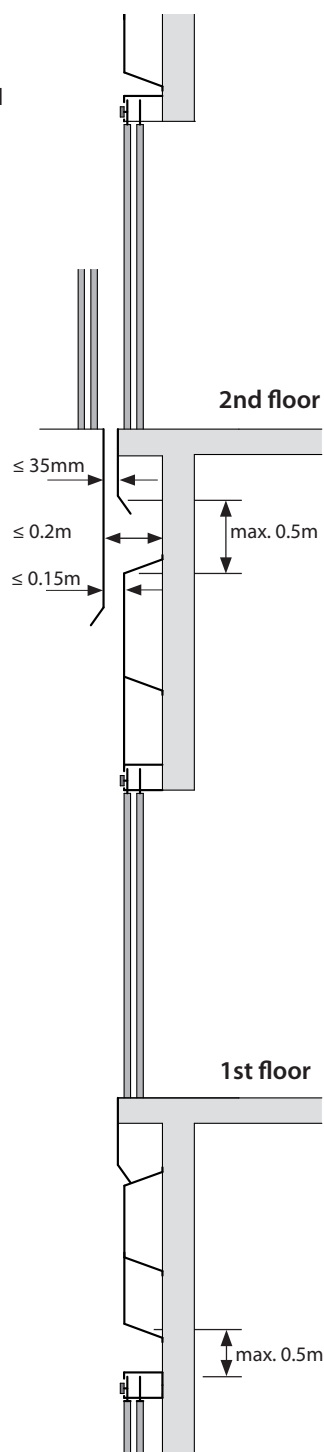
The horizontal distance between the inner shaft wall and the door sill or the door frame of the car or the closing edge of a sliding car door must not exceed 0.15m over the entire shaft height.

The distance indicated above may be increased up to 0.20m, if the height does not exceed 0.50 m.

Between two successive landing doors there must not be more than one recess.

Width 1000mm 1500mm
 Height 100mm 120mm

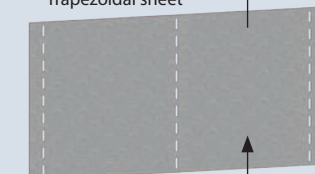
Sketch



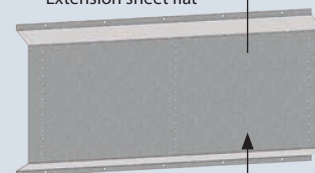
*Catalogue page 129



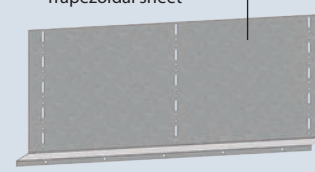
Trapezoidal sheet



Extension sheet flat



Trapezoidal sheet



Angled extension sheet



*Catalogue page 22

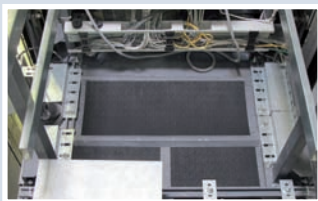
3. Mechanical rooms and pulley rooms (table A.1)



*Catalogue page 126



*Catalogue page 128



*Catalogue page 30

Machine room lighting is too low / EN 81-80 3.2

(acc. to EN 81-20 5.2.1.4.2 at least 200 lux on the floor)
one LED light is supplied, IP54

How many lamps are needed? pieces (at least one piece for 10m²)

Socket missing

m supply line required

Emergency brake switch in pulley rooms required / EN 81-80 3.3

(acc. to EN 81-20 5.2.1.5.2)

unwired wired with m supply line

Anti-slip surface on floor of machine and pulley rooms required / EN 81-80 3.5

(acc. to EN 81-20 5.2.1.9)

Length

Anti-slip mat made of solid rubber, 1.5mm thick, with self-adhesive back

Width

Anti-slip surface also recommended for car roof

(acc. to EN 81-20 5.4.7.1)

4. Shaft doors / Car doors (table A.1)

Door closing weight required / EN 81-80 4.16

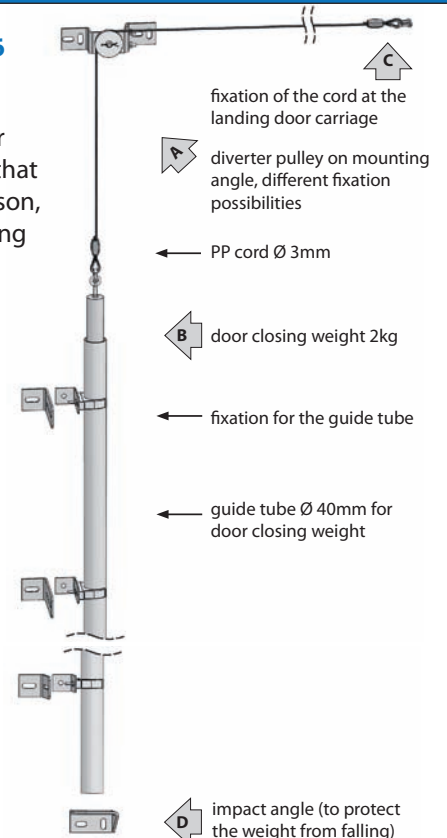
(acc. to EN 81-20 5.3.9.3.4)

In the case of landing doors operated by the car door, a device (spring or weight) has to ensure that the landing door closes when, for whatever reason, it is opened when the car is outside the unlocking zone.

Number



*Catalogue pages 32-33



4. Shaft doors / Car doors (table A.1)

Lighting at landing doors required / EN 81-80 4.13

Extract from the norm (EN 81-20 5.3.7.1)

"The natural or artificial lighting of the landings in the vicinity of landing doors shall be at least 50 lux at floor level, such that a user can see ahead when he is opening the landing door to enter the lift, even if the car light has failed"

Variant 1 LineLED 3x1W 50 Lux landing door lighting

Door width mm



Door height mm

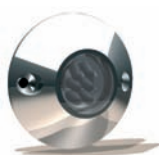
Number of shaft doors

Variant 2 ZargenLED - 0.8W 50 Lux lighting landing door frames

Door width mm

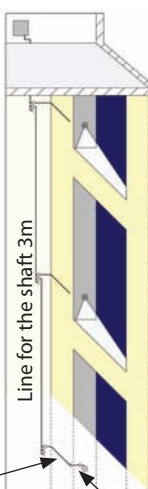
Number of shaft doors

Surface mounted variant
Ø = 65mm,
Mounting height = 16mm

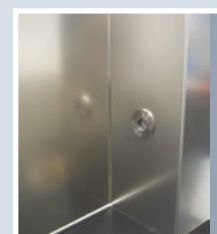
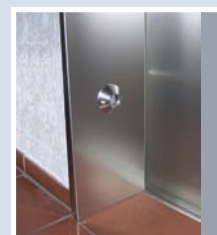


Built-in variant
Ø = 65mm

Line for the floor 2m



Line for the door 400mm



*Catalogue pages 78-81

5. Car and counterweight (table A.1)

Cabin lighting required / EN 81-80 5.7

Acc. to EN 81-20 5.4.7.1 the illuminance 1m above the ground must be 100 lux.

CabinLED variants

CabinLED3

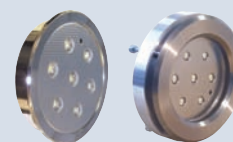
CabinLED3-ESG

CabinLED5

CabinLED5-ESG

CabinLED7

CabinLED7-vandal proof



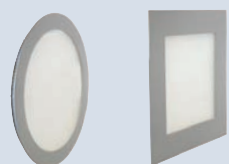
*Catalogue pages 84-97

SQUARE-LED variants

SQUARE-LED round, built-in

SQUARE-LED angular, built-in

SQUARE-LED angular, on-surface mouting



*Catalogue pages 106-109

5. Car and counterweight (table A.1)



*Catalogue pages 98-101

Emergency lighting in the cabin (emergency power supply) required / EN 81-80 5.8

(acc. to EN 81-20 5.4.10.4)

100-240V AC 50Hz/ 60Hz, 2m supply line, for connection to **W+W Cabin LED** (see page 7), batteries included, protection of depth discharge and capacity monitoring acc. to EN 81-28

Emergency lighting in the cabin (emergency power supply) required / EN 81-80 5.8

(acc. to EN 81-20 5.4.10.4)

100-240V AC 50Hz/ 60Hz, 2m supply line, for connection to an **external emergency light** batteries included, protection of depth discharge and capacity monitoring acc. to EN 81-28

Emergency lighting on the car roof required / EN 81-80 5.9

(acc. to EN 81-20 5.4.10.4)

230V, 2W with magnetic base, 2m supply line, with integrated battery

Car apron is missing or does not conform to standards / EN 81-80 5.2 (vertical length at least 750mm)

(acc. to EN 81-20 5.4.5)

Door width mm

Pit depth* mm

*Is the pit deep enough for standard apron? ⇨ use telescopic apron if necessary!

Telescopic apron required

Determine the lowest possible point of the car door sill:

Shaft pit depth minus underpass and buffer lift

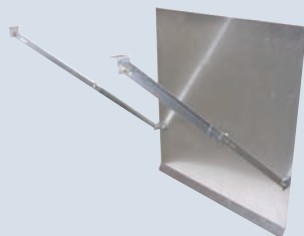
(Car is on the buffer with nominal load)

Dimensions: car door sill - shaft pit floor mm

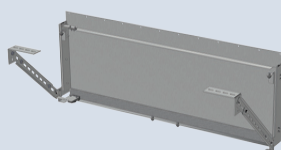
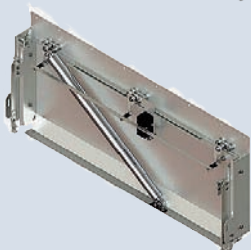
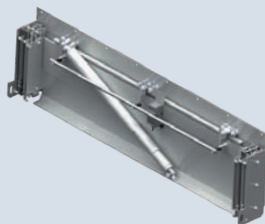
TekoS - 265, 4-part (with locking) Door width mm
Dimensions of retracted apron: 265mm

TekoS - 350, 3-part (with locking) Door width mm
Dimensions of retracted apron: 350mm

TekoS - 450, 2-part (without locking) Door width mm
Dimensions of retracted apron: 450mm



*Catalogue page 54



*Catalogue pages 42-54

5. Car and counterweight (table A.1)

Protection against falling (guard rail) not available or standard / EN 81-80 5.5

When choosing the guard rail, the free distances acc. to EN 81-20 5.4.7.4 are to be considered:



- 0.70m height at distances 0.30m up to 0.50m (interior edge hand rail - shaft wall)
- 1.10m height at distances beyond 0.50m (interior edge hand rail - shaft wall)
- 10cm distance between outer edge hand rail and any parts in the shaft.

How wide or long must the guard rail be? mm

Guard rail **RIGID**, maximum width: 1.30m (can be shortened on site)

Basic package

Height 700mm 1100mm

Extension package

Height 700mm 1100mm

Shall the guard rail be foldable? (reduced shaft head)

Guard rail **FOLDABLE**, maximum width: 1.30m (can be shortened on site)

Height 1100mm (foldable to 528mm)

Shall the guard rail be telescopic? (reduced shaft head)

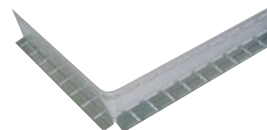
Guard rail **TELESCOPIC**, maximum width: 1.30m (can be shortened on site)

Height 500-700mm 700-1100mm

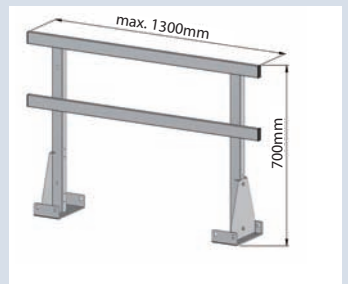
10cm high floor safety device required on the car ceiling

(acc. to EN 81-20 5.2.6.3.3)

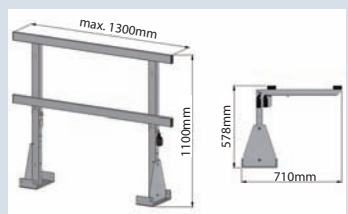
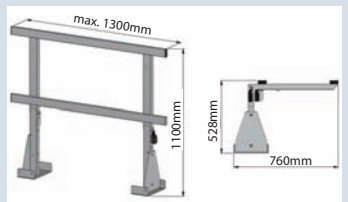
circulating length? mm



Sketch



RIGID



FOLDABLE



TELESCOPIC

*Catalogue pages 26-30

6. Covers in the engine room (table A.1)

Traction sheave cover required / EN 81-80 6.1

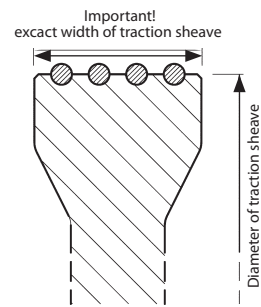
(acc. to EN 81-20 5.5.7)

exact width of traction sheave
(do not measure at the hub)

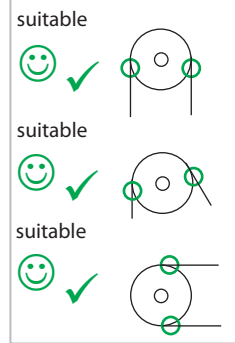
mm

exact diameter of traction sheave
(groove centre - groove centre)

mm



Suitable entering points overview:



*Catalogue pages 10-11

Alternatively:

Universal finger and rope jump off protection / EN 81-80 6.2

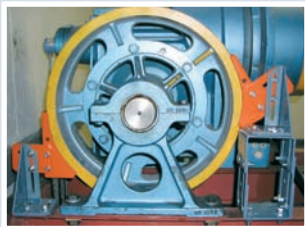
Traction sheave width up to 154mm up to 218mm

Rope departure both vertical one inclined

Traction sheave diameter 300 - 470mm

480 - 720mm

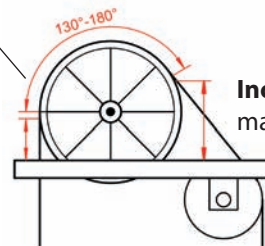
730 - 1100mm



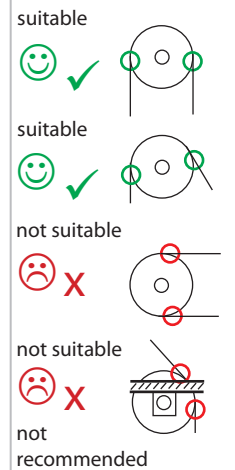
*Catalogue pages 8-9

Vertical entering point
max. 250mm standard

max. 600mm
with accessory
bent



Suitable entering points overview:

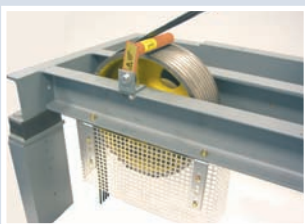


Missing covers on diverter pulleys, which are located in the supporting frame or project max. 100 mm beyond the machine frame. There is a danger of fingers being drawn in at the rope transition / EN 81-80 6.3

Number of diverter pulleys piece

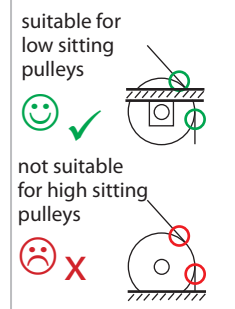
Width of pulleys up to 200mm

up to 300mm



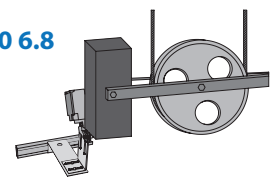
*Catalogue pages 12-13

Suitable entering points overview:



*Catalogue page 142

Slack rope switch on the governor rope required / EN 81-80 6.8



Cover on tension weight pulley of overspeed governor required / EN 81-80 6.1

Diameter of pulley


up to 300mm

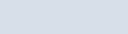
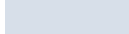
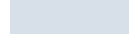
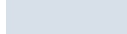
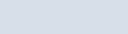
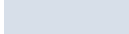
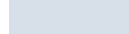
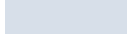
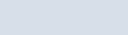
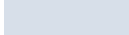
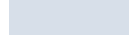
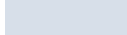
up to 400mm

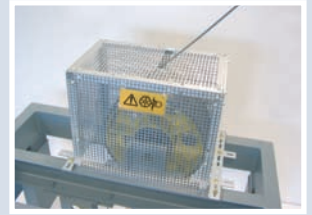
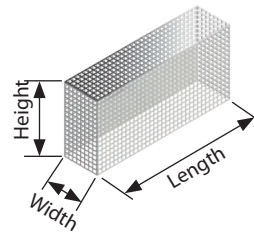


*Catalogue page 17

6. Covers in the engine room (table A.1)

 Covers on diverter pulleys with vertical, horizontal or inclined rope departure required / EN 81-80 6.1 / 6.3


Number	Dimensions hoods		
Piece	Length (mm)	Width(mm)	Height(mm)
			
			
			

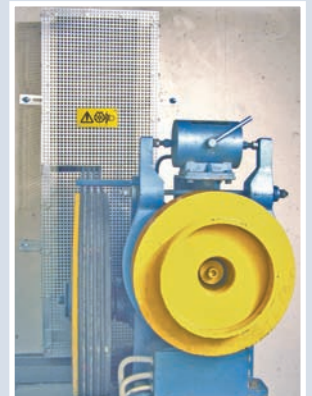
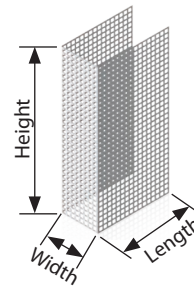
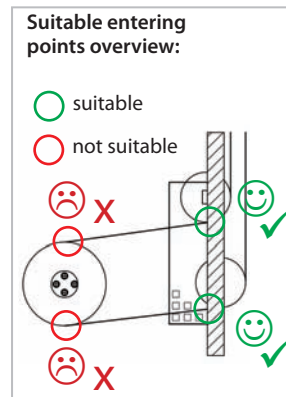


*Catalogue page 14


 Double pulley cover required / EN 81-80 6.1
(mostly at engine room below)

Height	 1000mm
	 1200mm








Width	 200mm	Length	 100mm
	 250mm		 150mm
	 300mm		 200mm
	 400mm		 250mm
	 500mm		 300mm

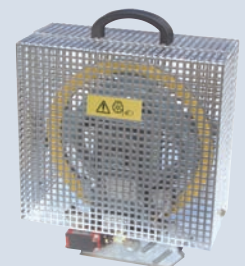
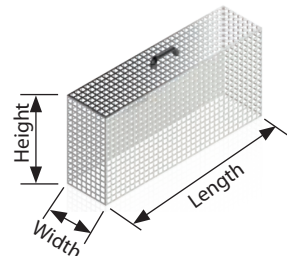


*Catalogue page 13

 Cover for overspeed governor required / EN 81-80 6.1
(overspeed governors in the shaft must also be covered)
(acc. to EN 81-20 5.5.7)

Required hood size

Type A	 L = 250, H = 230, W = 100-175mm
Type B	 L = 250, H = 350, W = 100-175mm Standard 200
Type C	 L = 350, H = 300, W = 100-175mm Standard 300
Type C1	 L = 350, H = 430, W = 100-175mm
Type C2	 L = 540, H = 350, W = 100-175mm
Type D	 L = 250, H = 680, W = 100-175mm
Type E	 L = 350, H = 800, W = 100-175mm



*Catalogue pages 16-17

7. Buffer support, buffer, final limit switch (table A.1)



*Catalogue pages 36-37

Buffer support, lift buffer required / EN 81-80 7.2

(acc. to EN 81-20 5.8)

Maximum load buffer support: 2t (provide several supports in the pit if necessary)

Maximum rated velocity: max. 1m/s (>1m/s use hydraulic buffers)

Buffer support height (adjustable)

Size 1	<input type="checkbox"/>	200 - 282mm	Maximum payload + cabin empty weight	<input type="checkbox"/>	kg
Size 2	<input type="checkbox"/>	283 - 414mm			
Size 3	<input type="checkbox"/>	415 - 720mm			
Size 4	<input type="checkbox"/>	721 - 1020mm	Velocity	<input type="checkbox"/>	m/s
Size 5	<input type="checkbox"/>	1021 - 1400mm			

with lift buffer

Maintenance support required / EN 81-80 7.2

(for a temporary protective space)

Maximum load maintenance support: 2t (provide several supports in the pit if necessary)

Maximum rated velocity: max. 1m/s

Maintenance support height (adjustable)

Size 1	<input type="checkbox"/>	50cm - 70cm	Maximum payload + cabin empty weight	<input type="checkbox"/>	kg
Size 2	<input type="checkbox"/>	70cm - 100cm			
	<input type="checkbox"/>		Velocity	<input type="checkbox"/>	m/s

with lift buffer



*Catalogue pages 38-39

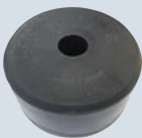
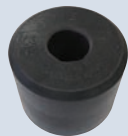
Lift buffer / EN 81-80 7.2

(acc. to EN 81-20/50)

Size

D1 rated velocity: max. 0.63m/s ⇔ load 200-1500kg
 rated velocity: max. 1.00m/s ⇔ load 220- 700kg

D5 rated velocity: max. 1.00m/s ⇔ load 670-2700kg



*Catalogue page 37

Final limit / position switch / EN 81-80 7.3

(acc. to EN 81-20 5.12.5)

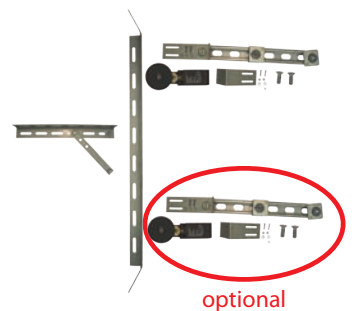
Safety switch with slow acting or snap acting contact

PS40SC SC = slow acting contact 1NC/ 1NO

SC = slow acting contact 2NC

PS40SP SP = snap acting contact 1NC/ 1NO

with switch curve fastening



optional

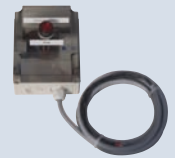


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8. Machine (table A.1)

Run time monitor required / EN 81-80 8.4

(acc. to EN 81-20 5.9.2.7.2 cable lifts)
(acc. to EN 81-20 5.9.3.10 hydraulic lifts)



*Catalogue page 141

9. Electrical installations and devices (table A.1)

Protection against electric shock (control is open on the wall) / EN 81-80 9.1 Control cover required

(acc. to EN 81-20 5.10.1.2.2)

mm height mm width

mm depth




*Catalogue page 19

Lockable main switch required / EN 81-80 9.4

Main switch outside the control cabinet

(acc. to EN 81-20 5.10.5)

16A/7.5kW	<input type="checkbox"/>	required cable length	<input type="checkbox"/>	3-pole
25A/12kW	<input type="checkbox"/>		<input type="checkbox"/>	
32A/16kW	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4-pole (neutral conductor is also switched)
40A/20kW	<input type="checkbox"/>	5m	10m	
63A/30kW	<input type="checkbox"/>	 Decisive for the main switch design is the rated motor current and not the motor power!		
80A/40kW	<input type="checkbox"/>			



*Catalogue page 140

10. Protection against electrical faults, controls (table A.1)

Phase monitor required / EN 81-80 10.2

(acc. to EN 81-20 5.11.1.2)

installation in control cabinet



external housing



with 3m cable



*Catalogue page 141

Inspection control on car roof required / EN 81-80 10.4

wired with m supply line

Inspection control in shaft pit required / EN 81-80 10.5

Note: Retrofitting at old control systems is often problematic



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11. Notes, markings and operating instructions (table A.1)

Notes on safe operation of the lift / EN 81-80 11.1

Safety space
person upright

Safety space
person crouching

Safety space
person lying



*Catalogue pages 168-172

12. Miscellaneous

Edgings at ceiling openings recommended, height 50mm

(acc. to EN 81-20 5.2.6.3.3)

1. Opening mm length mm width

2. Opening mm length mm width

3. Opening mm length mm width

4. Opening mm length mm width

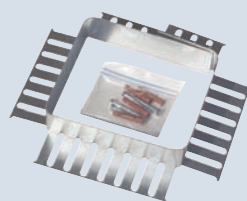
Landing door unlocking device recommended

(acc. to EN 81-20 5.3.9.3.5)

If the landing door is the only access to the pit, according to 5.2.2.3 the door locking device must be safely accessible within a height of 1.80m and at a horizontal distance of not more than 0.80m from the pit ladder, or a permanently installed device must make it possible for a person in the pit to unlock the door.



It is possible that other parts that are not on this list may need to be retrofitted according to EN 81-80. All information is without guarantee. Errors and changes reserved.



*Catalogue page 25



13. Measures recommended

According to EN 81-80 (table A.1) further points must be checked.
These include the following:

Car door available / EN 81-80 4.20

Protective measures against uncontrolled upward movements / EN 81-80 6.5

Light curtain on cabin door missing

Door height mm Number of cabin doors

Remote emergency call system required

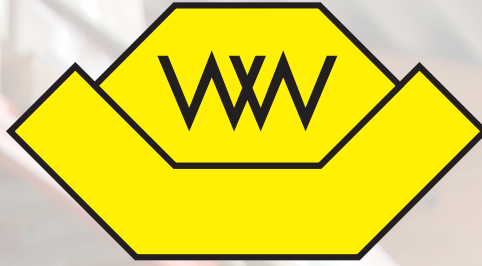
Sufficient protective spaces in shaft head and pit

These recommended points above are **not** covered by W+W Aufzugkomponenten products.

Notes

Please note:

The present list does not claim to be complete.
For the most part, it contains the points where W+W Aufzugkomponenten can offer a solution.



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