

Your Partner In Lift Solutions.

Technical Catalogue.

WWW.RALOE.COM

Technical Catalogue

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1.1

Symbio is an electric lift with or without a machine room, capable to adapt to any shaft needs, pit and/ or headroom.

Wide loads spectrum.

Applications

Residential building Shopping centres New development Hotels Hospitals Offices Bedlifts High rise installations High traffic

Advantages

Available for new buildings as well as for existing shafts with reduced pit or headroom (EN81.21).

Versatile:

There is no need for a designated machine room area, this allows greater space utility within the building. Even though it is the quintessential new development lift, it can adapt to almost any shaft dimensions including special shafts.

Flexibility/adaptability:

Customer tailored. Extensive load range, sizes, and speeds. Robust, resistant, and trustworthy. Able to locate operation control panel within the door frame (120mm width) as well as on the landing. Power supply either single-phase or three-phase.

Comfort:

It guarantees a high level of comfort and minimal noise during its travels thanks to a centred arcade sling and 2:1 roping.

Great durability:

Reduced maintenance. The equipment has a long-life expectancy and nearly non-existent repairs.

Easy installation:

Mature design plug and play. Bedplate resting on the guides to minimise space.





(▲) (▼)



Technical characteristics

Rated load (Kg)	300 - 1.600
Rated speed (m/s)	0,5 - 3,0
Machine room	CCM / SCM
Travel (m)	Up to 100
Roping	2:1
Traction ropes diameter (mm)	6,5 - 8,0

Guiding system

Buffered guide shoes for greater comfort.

Q (Kg)	Minimum Pit (mm)		Minimum Headroom (mm)	
	Min pit	Necessary headroom	Min headroom	Necessary pit
450	340	3.370	2.985	615
630	340	3.370	2.985	660
1.000 ⁽²⁾	340	3.370	3.000	660
1.000 ⁽³⁾	345	3.415	3.090	680
1.600	450	3.540	3.330	705

Entrance 0 - 180°

Door type

Automatic - Semiautomatic

Panoramic/scenic car options

Weatherproof

Yes

Yes

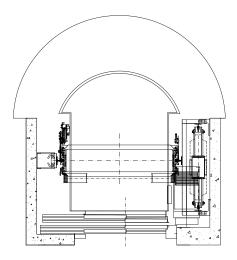
(1) Data for installations at 1m/s. Headroom calculated with 2.005 mm car internal height.

(2) Minimum headroom & pit for P+Q up to 1.933 kg.

(3) Minimum headroom & pit for P+Q up to 2.750 kg.

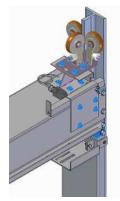
Special solutions.

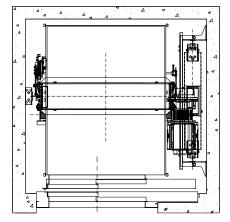
Possible configurations for irregular shafts.



High speeds Up to 3m/s.

For speed ≥ 1,6m/s, car frame with triple rollers. Maximum comfort.





Technical characteristics Symbio HR

Bespoke solutions

, Headroom 2.430 mm.⁽ⁱ⁾

Symbio HR

Rated load (Kg)	300 - 1.600
Rated speed (m/s)	0,5 - 1,0
Machine room	CCM / SCM
Travel (m)	Up to 50
Roping	2:1
Traction ropes diameter (mm)	6,5 - 8,0

Guiding system

Buffered guide shoes for greater comfort.

Q (Kg)	Minimum Headroom (mm) ⁽²⁾		
	Min headroom	Min pit	
450	2430	615	
630	2430	660	
1.000 ⁽³⁾	2430	660	
1.000 ⁽⁴⁾	2.430	680	
1.600	2.760	705	

Entrance	0 - 180°
Door type	Automatic - Semiautomatic
Panoramic/scenic car options	Yes
Weatherproof	Yes

(1) Minimum headroom for lift cars EN81-70, type 2 and shaft width of 1.600 mm.
(2) Data for installations at 1m/s. Headroom calculated with 2.005 mm car internal height.

(3) Minimum headroom & pit for P+Q up to 1.933 kg.

(4) Minimum headroom & pit for P+Q up to 2.750 kg.

En sale

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Technical characteristics Symbio PF

Rated load (Kg)	300-600
Rated speed (m/s)	0,5 - 1,0
Machine room	CCM / SCM
Travel (m)	Up to 50
Roping	2:1
Traction ropes diameter (mm)	6,5

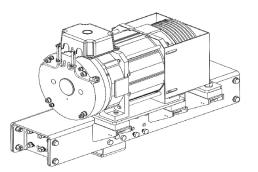
Symbio PF Shaft depth 720 mm.

Max speed 1m/s Control panel on landing

Guiding system

Buffered guide shoes for greater comfort.

Q (Kg)	Minimum Pit (mm)		Minimum Pit (mm) Minimum Headroo		eadroom (mm) ⁽²⁾
	Min pit	Necessary headroom	Min headroom	Min headroom	
450 630	340 340	3.370 3.370	2.985 2.985	615 660	



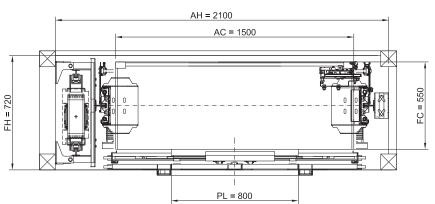
Entrance

0 - 180°

Door type	Automatic - Semiautomatic
Panoramic/scenic car options	Yes
Weatherproof	Yes

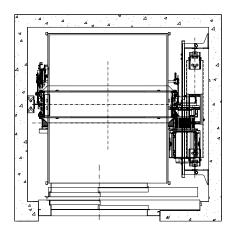
(1) For other loads, please consult.

(2) Data for installations at 1m/s. Headroom calculated with 2.005 mm car internal height.



Technical characteristics Symbio G

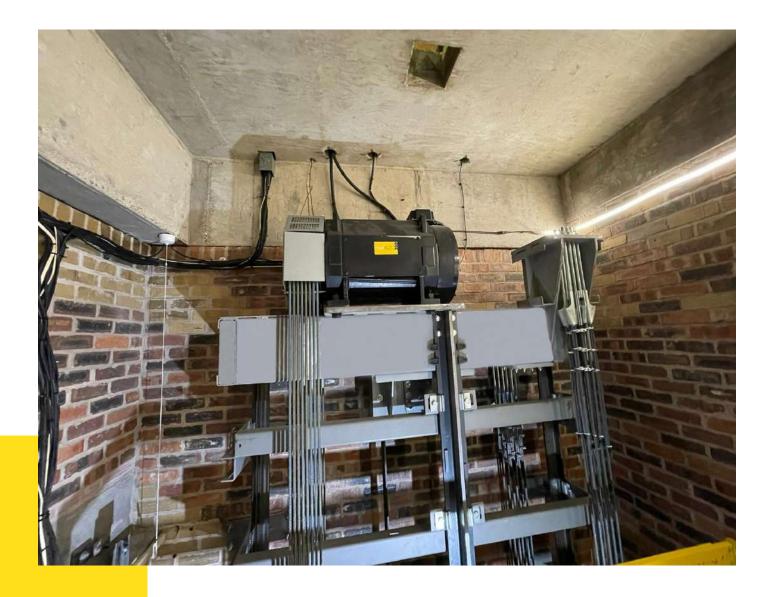
Rated load(Kg)		1.800-3.000
Rated speed (m/s)		0,5 - 1,0
Machine room		CCM / SCM
Travel (m)		Up to 70
Roping		2:1
Traction ropes diamet	er (mm)	8 - 10
Guiding system	Buffered guide sh	oes for greater comfort.
Minimum pit (mm)		780
Minimum headroom (r	mm) ⁽ⁱ⁾	3.485
Entrance		0 - 180°
Door mechanism		Automatic
Panoramic/scenic car	options	Yes
Weatherproof		Yes











1.2

Symbio machine room-less lift for larger duty loads with 4:1 roping.

Applications

Shopping centres Hotels Hospitals Offices Larger loads Industrial

Technical characteristics Symbio GC

Rated load (Kg)	3.100 - 7.000	
Rated speed (m/s)	0,5 - 1,0	
Machine room	CCM / SCM	
Travel (m)	Up to 70	
Roping	4:1	

Traction ropes diameter (mm)

Load (Kg)	Car Internal Height (mm)	Aprox. minimum headroom (mm)	Aprox. minimum pit (mm)
7.000	3.000	5.500	2.000
5.000	2.500	4.500	1.600
4.000	2.500	4.500	1.600

Entrances

0 – 180°

10

Door mechanism	Automatic
Panoramic/scenic car options	Yes
Weatherproof	Yes

Advantages

Confort:

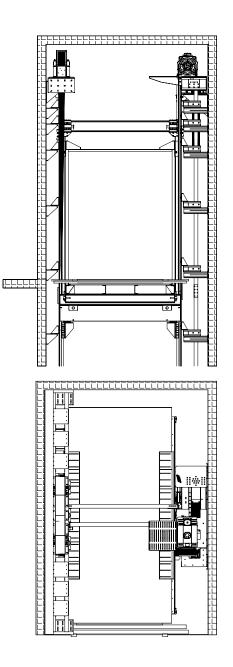
Roping 4:1 with pulleys under the car frame, providing excellent stability and great comfort.

Easy installation:

Self-supported Bedplate, and pulley beam suited to adapt to the shaft.

Adaptability:

Possibility of anti-creep for high specific loads.







1.3

Optimus is the traction lift with or without machine room and is the most shaft-optimised lift on the market. Applications

Residential Refurbishment Existing shafts Modernizations Minimum shaft dimensions

Advantages

Flexibility:

Allows single, double, and triple entrance. Ideal for 90° solutions.

Single-phase:

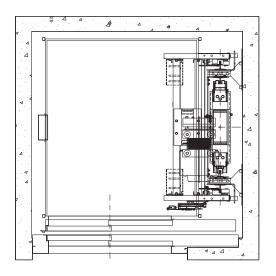
Works on any single-phase 220 V socket.

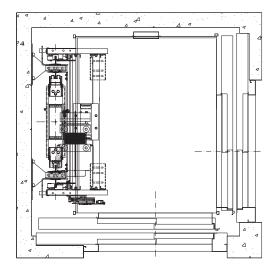
Easy installation:

Self-supporting bed-plate easy to assemble.

Adaptability:

Possibility to design with EN 81.21 standard compensatory measures for reduced pit and headroom. Customised to each client.









Technical characteristics Optimus

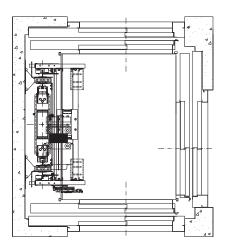
Rated load (Kg)	180 - 1.250
Rated speed (m/s)	0,5 - 1,0
Machine room	CCM / SCM
Entrances	0-90° - 180° - 270°
Roping	1:1 2:1
Traction ropes diameter (mr	m) 6,5 - 8,0
Guiding system	Special liners or rollers on the safety gear side ensure optimal operation

Minimum Pit (mm)		Minimum	Headroom (mm) ()	
Q (Kg)	Min pit	Necessary headroom	Min headroom	Necessary pit
450	300	3.400	3.225	640
630	300	3.400	3.225	640
1.250	470	3.050	3.050	470

Travel	Up to 50
Door type	Automatic - Semiautomatic
Restrictive technical measure	270
Panoramic/scenic car options	Yes
Weatherproof	Yes
Power supply	Single-phase / three-phase

(1) Data for installations at 1m/s. Headroom calculated with 2005 mm car internal height.





Technical characteristics Optimus FHR

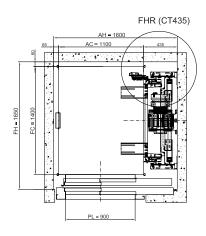
Bespoke Solutions

Rated load (Kg)	180 - 630
Rated speed (m/s)	0,5 - 1,0
Machine room	CCM / SCM
Entrances	0-90° - 180° - 270°
Roping	2:1
Traction ropes diameter (mm)	6,5
Guiding system Special liners	or rollers on the safety gear side ensure optimal operation
Minimum pit (mm)	300
Minimum headroom (mm) ()	2.750
Travel (m)	Up to 50
Door mechanism	Automatic - Semiautomatic
Restrictive technical measure (mr	n) 435
Panoramic car	Yes
Weatherproof	Yes
Power supply	Single-phase / three-phase

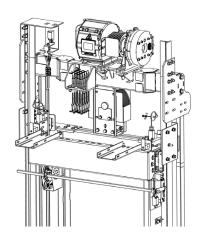
(1) Data for installations at 1m/s. Headroom calculated with 2005 mm car internal height.

Restrictive technical measure 435 mm.

Q max: 630 Kg (Qt max: 1550 Kg) Minimum pit: 265 mm. Minimum headroom: 2400 mm. Technical measure: 435 mm.



FHR-3D





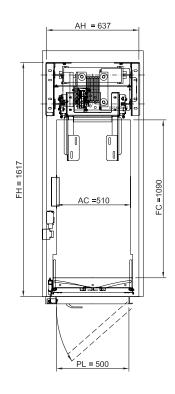
Technical characteristics Optimus GP

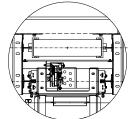
Rated load (Kg)	180 - 375
Rated speed (m/s)	0,5 - 1,0
Machine room	CCM / SCM
Entrances	0-90° - 180° - 270°
Roping	2:1
Traction ropes diameter (mm)	6,5
Guiding system	Rollers
Minimum pit (mm)	350
Minimum headroom (mm) ()	lf HR 2.750 mm/ If normal 3.200 mm
Travel (m)	Up to 50
Door mechanism	Automatic - Semiautomatic
Restrictive technical measure (mm)	410
Panoramic car	Yes
Weatherproof	Yes
Power supply	Single-phase / three-phase

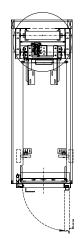
(1) Data for installations at 1m/s. Headroom calculated with 2.005 mm car internal height.

Optimus GP Shaft width 650mm.

Q max: 375 kg (Qt max: 1165 kg.) Min. pit: 320 mm. Min. headroom: 2840 mm. Restrictive technical measure: 395 mm. Control panel on landing.



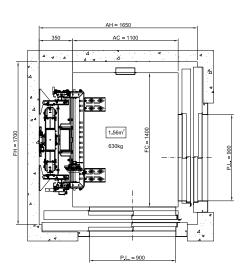




Technical characteristics Optimus FHR PR 281

180 - 630
0,5 - 1,0
CCM / SCM
0-90° - 180° - 270°
2:1
6,5
Rollers
350
2.460
Up to 50
Automatic - Semiautomatic
350
Yes
Yes
Single-phase / three-phase

Optimus 81.70 Entrance 90°



(1) Data for installations at 1m/s. Headroom calculated with 2.005 mm car internal height.





1.4

Genesis is the conventional traction lift with machine room, available with geared or gearless machine.

Applications

Refurbishment High rise buildings High traffic Modernizations

Technical characteristics Genesis

Rated load (Kg)	300 - 5.000
Rated speed (m/s)	0,5 - 3,0
Machine room	ССМ
Travel (m)	Up to 100
Roping	1:1 - 1:2 - 4:1
Traction ropes diameter (mm)	6,5 - 8 - 10- 12

Guiding system

guide shoes >1.6 rollers

Q (Kg)	Minimum pit (mm)			m headroom (mm) ⁽¹⁾
	Mín. pit	Min.headroom	Min. Pit.	Min. Headroom
450	360	3.170	685	3.040
600 1.000	360 730	3.170 3.315	715 730	3.135 3.315
1.350	730	3.315	730	3.315

Entrances

0 - 90° - 180° - 270°

Door mechanism	Automatic- Semiautomatic
Motors	Geared - Gearless
Panoramic car	Yes
Weatherproof	Yes

(1) Data for Installations at 1 m/s. headroom calculated with 2.015 mm cabin internal height

Bespoke Solutions

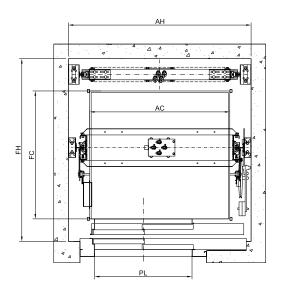
Advantages

Adaptability:

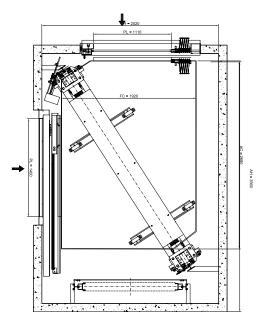
Easy to adapt to existing shafts.

Versatility:

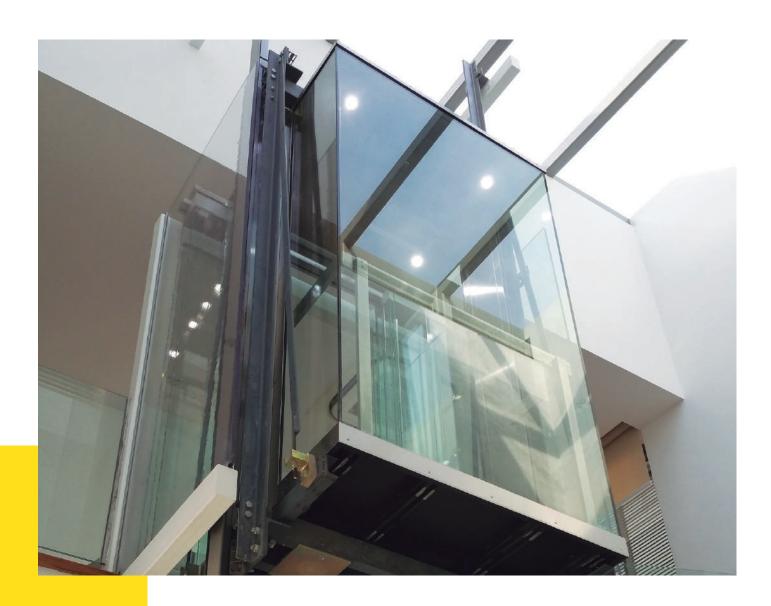
High loads and high travel distance.



Diagonal Guides







1.5

Hydronic is the ideal hydraulic lift for existing buildings, capable of adapting to any shaft type.

Applications

Residential Refurbishments Existing shafts Modernizations Minimum shaft dimensions

Advantages

Versatility:

We adapt each lift to each different shaft optimizing spaces.

Reduced pit and headroom:

In existing buildings, we adapt our lifts in compliance with the Regulations for pit and headroom. (EN 81.21).

Confort:

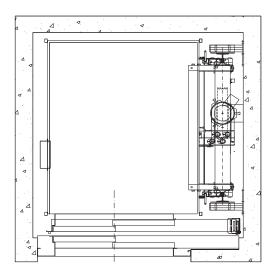
Excellent level of comfort, equivalent to a traction lift using electronic valves

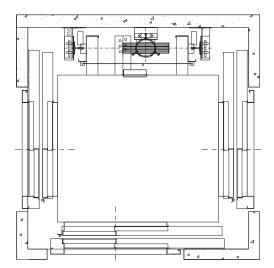
Adaptability:

Easy control and maintenance.

Safety:

Automatic emergency system always active during the descent, even in the event of power failure.









Technical characteristics

Rated load (Kg)	180 - 1.800
Rated speed (m/s)	0.3 – 0.63 (1m/s optional)
Machine room	MR / Power unit cabinet/ MRL Tank in pit
Entrances	0-90° - 180° - 270°
Roping	1:1 2:1
Traction ropes diamete	r (mm) 8,0 - 9,0 - 10,0 - 12

Guiding system Pivoting or rollers on the safety gear side to guarantee operation

Minimum Pit & Headroom (mm)			
Q (Kg)	Mín Pit.	Min. Headroom	
320	255	2.720	
630	265	2.660	
1.000	350	2.860	
1.250	740	2.860	
1.600	740	2.860	

Travel

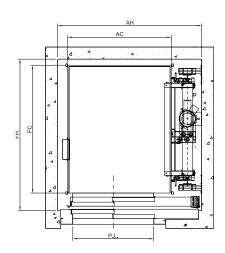
Door type

Automatic - Semiautomatic

Up to 25

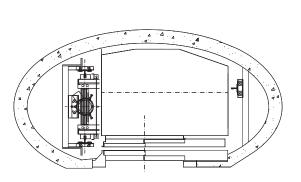
Restrictive technical measure	GMV - MORIS - BUCHER
Panoramic/scenic car options	Yes
Weatherproof	Yes



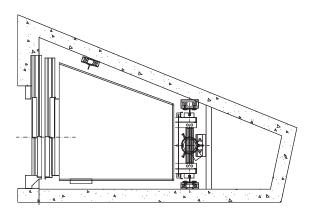


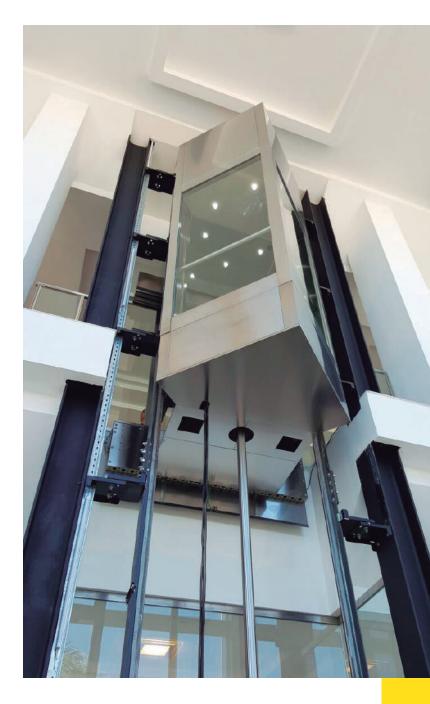
Technical Catalogue

Panoramic

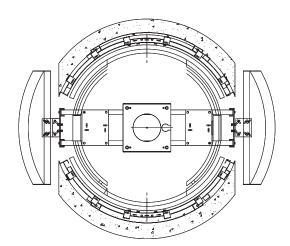


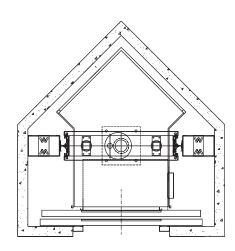
Irregular shaft



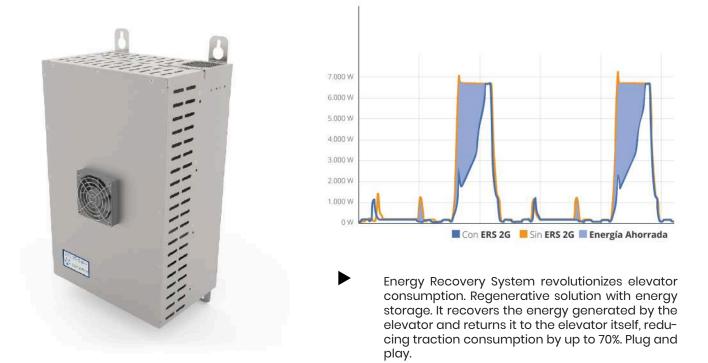


Borehole piston

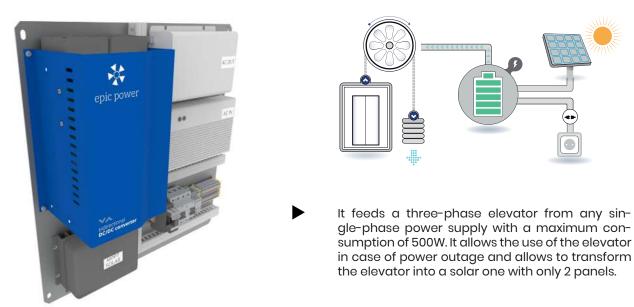




ERS 2G – Energy Recovery System



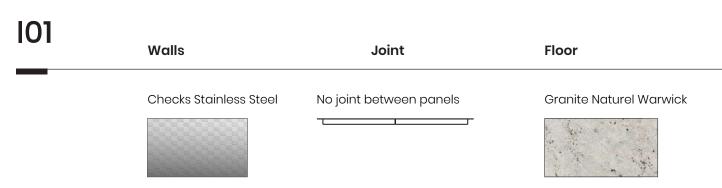
P2S – plug to single-phase



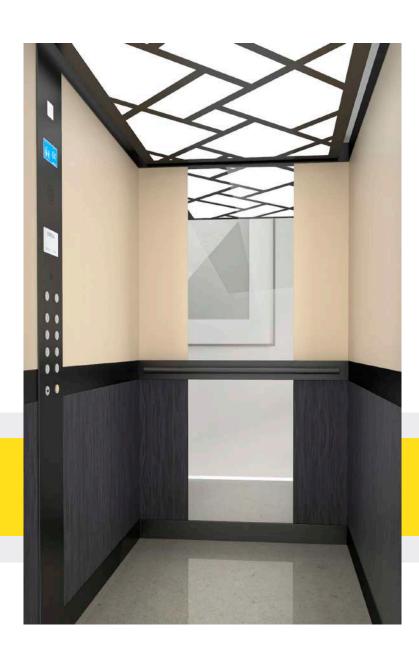
Your Partner In Lift Solutions.

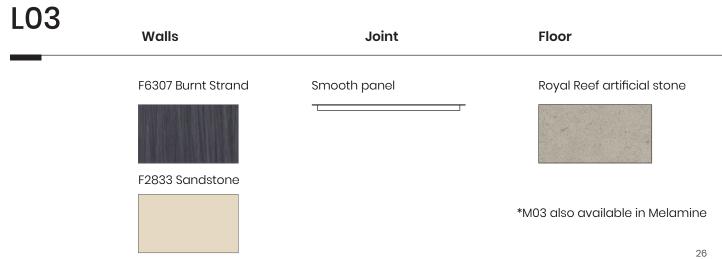






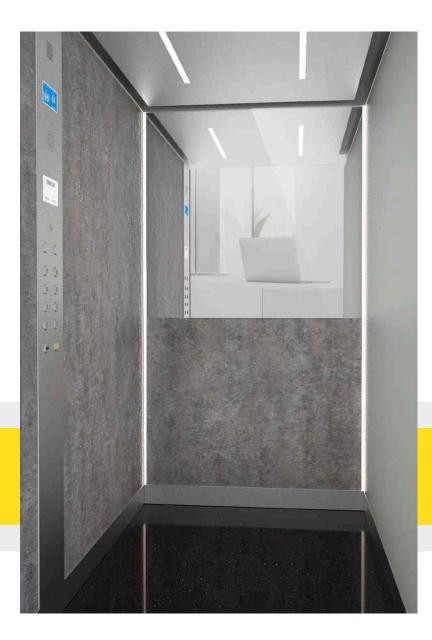


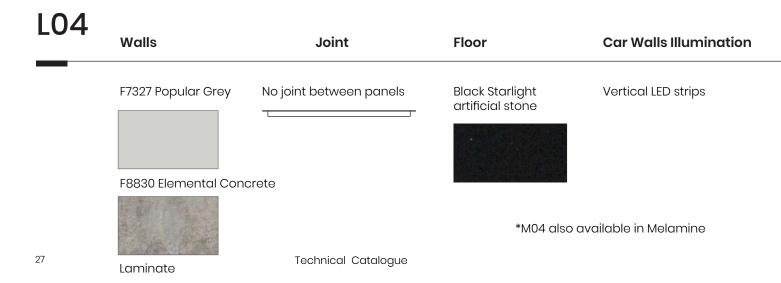




Laminate

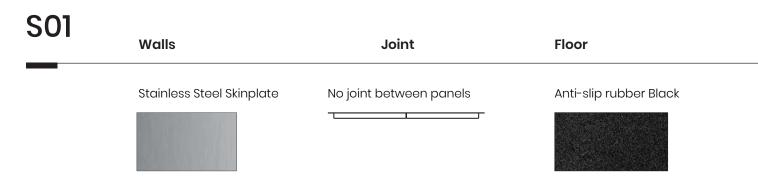




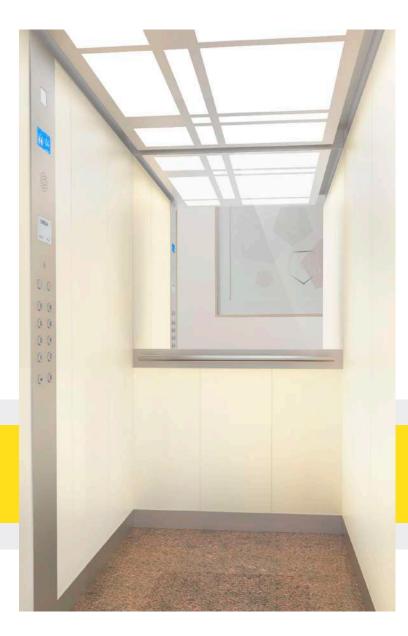


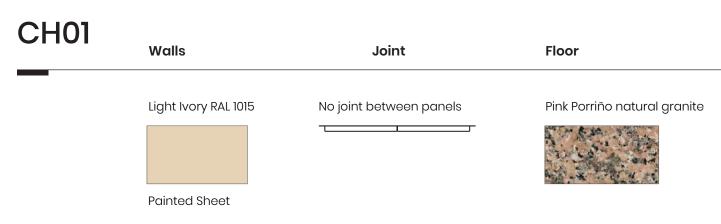




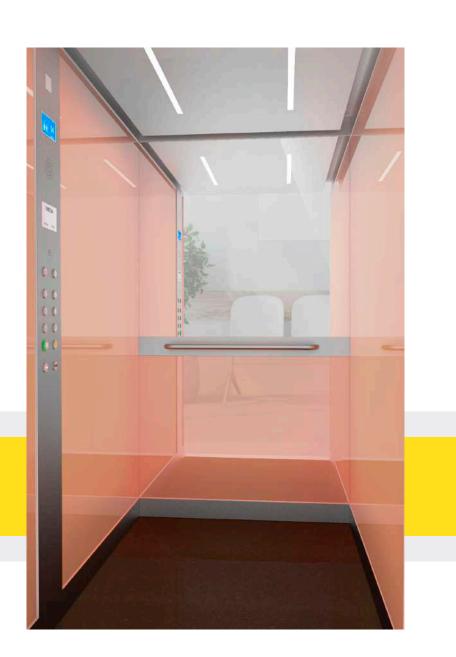












Quartz

Walls

Joint

Smooth panel

Floor

Terracotta Red RAL 8815

Back Painted glass

Intense Black natural granite





Matrix

Square Shaped Cars with different in the arrangement of the glass walls.

Models M100, M200, M300: Framed glass.

Models M100d, M200d, M300d: Frameless glass.





M100

M300











We have a multitude of shapes for panoramic cars with one or more glass walls.



Vector

Polygonal or curved cars, with or without joints between glass panels.

Models V100, V300: Framed glass

Models M100d, M300d: Frameless glass





V100d







For model & load compatibility, please ask for advice.



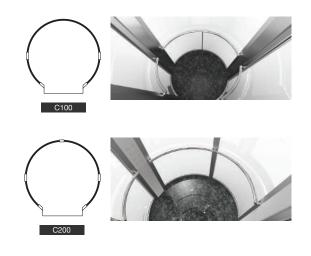


Century

Cabinas acristaladas completamente circulares

Modelos C100: Unión entre cristales enmarcado con perfiles.

Modelos C200: Unión entre cristales sin perfiles.





2.3

Car finishes

Walls

Skinplates



White



Cream

Painted Sheet



White RAL 9016



Metallic grey RAL 9006

2 Tariff Type 2

* Any other RAL available under request

Stainless Steel



Brushed



Linen



Pearl Light Grey RAL 9022

Checks

Stainless Steel

Beige RAL 1019





Grey



Simil stainless steel



Black RAL 9005

2



Concrete Grey RAL 7023



Light Ivory RAL 1015



Canvas

Available any other finish from:



Leather



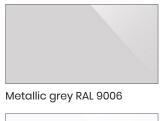




Car finishes

Walls

Back painted glass





White RAL 9003



Light Brown RAL 1236



Black Starlight RAL 0337



Terracotta Red RAL 8815



Green RAL 8615



White Pearl RAL 1013 (matt or gloss)



Pistachio Green RAL 1164



Aluminium RAL 9007

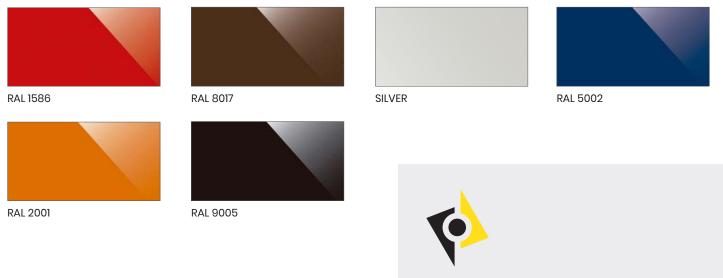


Bronze

2 Tariff Type 2

3 Tariff Type 3

Back painted glass (under request)



Walls

Laminates



F2274 White France

F2273 Seringa



F2833 Sandstone



F8841 White Ash



F0190 Finn Beech



F3091 Crystal White



F1139 Cherry Tree



F1062 Smoked Oak



F5873 SET Ventura Oak



F7927 Folkestone



F8830 Elemental Concrete



F6307 Burnt Strand



F1997 Ocean



F8849 Natural Teak



F8848 Blackened Legno







F7837 Graphite



F8833 Elemental Graphite



F8832 Elemental Corten



F0193 Xenon



F7923 Surf

Colors shown may vary from the actual color depending on the computer monitor settings or the printing conditions.



Car finishes

Walls

Melamina		
Cream	Cervine Pine	Grey
Beech	Chocolat	Cherry tree
Habana Linen	Dark Oak	Blue



Not in compliance with the standard EN 81.20

Floors

Anti-slip rubber 4,5 Kg / m²







Grey



Oak



Grey concrete



Blue



Black



Sand

Artificial Stone 49 kg/m²



Grey Expo



Royal Reef



White North



Ethereal Glow



Concrete Spa



Rougui



Black Starlight



Car finishes

Natural granite 56 kg / m²



Grey Pearl



Grey Quintana



Dark Blue Labrador

- 3 Tariff Type 3
- 4 Tariff Type 4



Pink Porriño



Intense Black



Guyana



White Crystal



Black South Africa



Warwick Rubi



White Trevi



Andromeda

Metallic floor



Aluminum checkerboard 6 Kg/m²

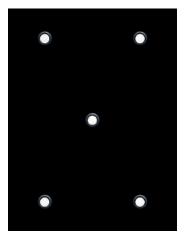


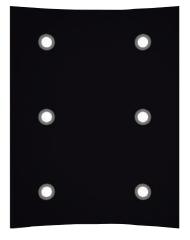
Stainless steel 12 Kg/m²



Steel durbar plate 36 Kg/m 2

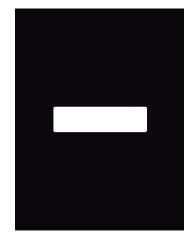
Ceilings



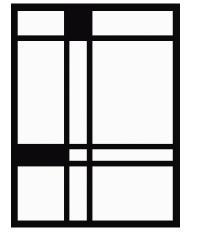


LED spots

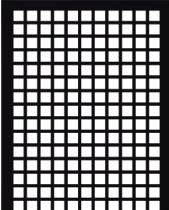
Curved LED spots



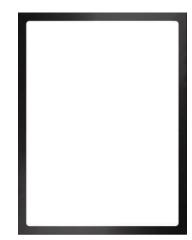
LED Strip



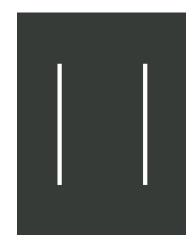








Marco







Tinted glass



Arte



Car finishes

Indirect lighting



Skirting illumination



Car walls illumination

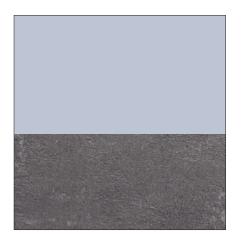
Mirrors



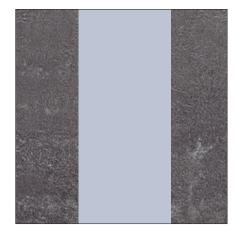
COP Illumination



Ceiling illumination



1/2 Height





Slim mirror panel

Handrail

STANDARD EN 81-20





- 1. Rectangular stainless steel
- 2. Rectangular skinplate
- 3. Straight tubular polished St. Steel
- 4. Curved tubular satin St. Steel
- 5. Curved tubular polished St. Steel
- 6. Curved tubular painted black



Automatic door



Primed Stainless steel



Folding Bus door big vision panel



Big vision panel



Full glass stainless steel frame

Control panel in door frame.

Available for Carlos Silva, Elec Megom, Sprinte and New Lift.



RALOE

Semi-automatic doors

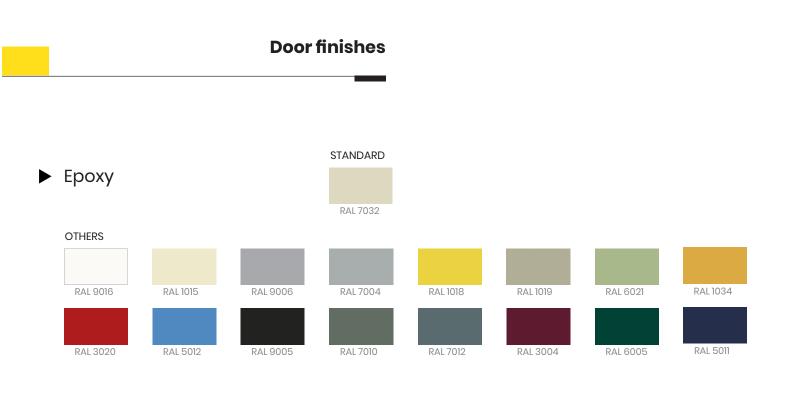


Standard Vision panel



Big vision panel





Smooth Stainless steel

STANDARD							
AISI 441 2B/BA	AISI 304 2B	AISI 316 2B	AISI 441 2B	AISI 304 2B	AISI 304 2B	AISI 316 2B	AISI 316 4N
DECORATIVE							
AISI 304 BA	AISI 304 BA	AISI 316 BA	AISI 304 BA	AISI 304 BA	AISI 304 BA	AISI 304	BA
 Patterned Stainless steel 							
	North Start			ERECTOR	EXERCISE	فراكر كبر كبر كبر	و او او او او
AISI 441 BA ⁽⁾	AISI 304 BA	AISI 304 BA	AISI 316 BA ⁽⁾	AISI 441 BA ⁽¹⁾	AISI 304 BA	AISI 304 BA	AISI 304 BA







AISI 316 BA ⁽¹⁾

Available any other finish from:





2.5 Operating panels & Indicators

Car Operating panels



Landing operating panels













US90 Jumbo





















US95 Jumbo





B3 (Arkel)

B3 Black (Arkel)

V2-P (Arkel)

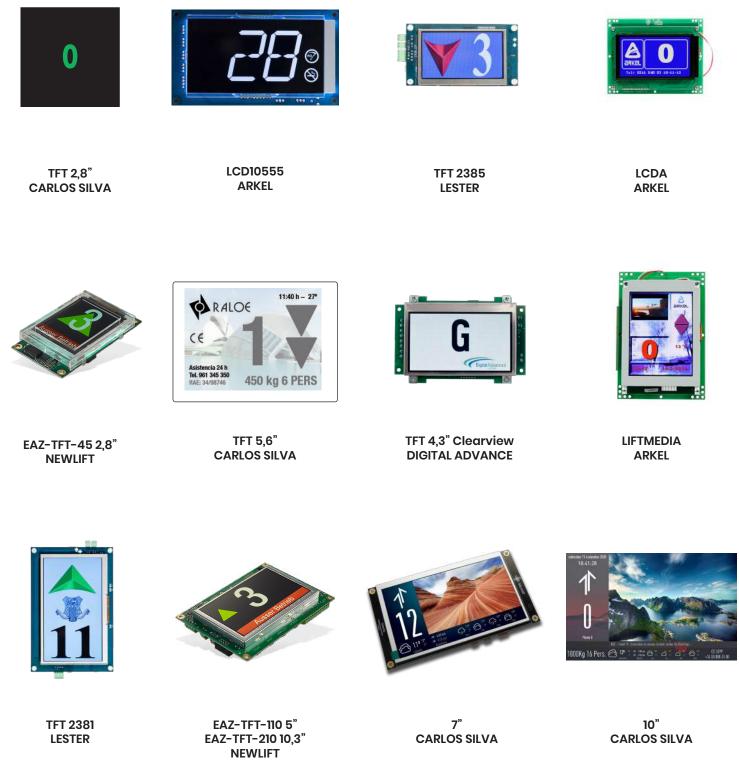
Indicators



SURFACE mounted

2.5 Operating panels & Indicators

Indicators



Technical Catalogue

100

Your Partner In Lift Solutions.





2.6 Structures

The structures for Passenger Lift and Home Lift give us flexibility, by eliminating architectural barriers and bringing solutions for the total accessibility.



STRUCTURES

Colors

Advantages

The assembly time is reduced by over 60% compared to an installation with traditional construction system, with a clean, fast, and quiet product.

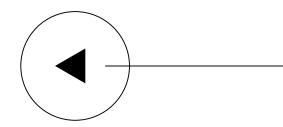
Absolutely respectful with the environment, both in the assembly process and industrial development.

Ease of assembly, makes this product highly simple to operate complying with the higher safety standards.



Characteristics

Multi-purpose technical solution for every building, they can be adapted to the different constructive requirements. TC series are designed to be integrated in the existing building and its environment.





Ceiling (metal sheet or glass)



Canopy over door (metal sheet or glass)



Handrail



Ventilation

Types of enclosure



Transparent glass



Frosted glass



Total glass



Blind sheet



Mesh sheet



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