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COMPLETE ELEVATOR SYSTEMS







Complete Elevator Systems



































All you need is in the package... Anything else?







- **In 1980** HAS Elevator started its business journey by producing rubber and plastic components in a small workshop.
- **In 1987** HAS Elevator became pioneer manufacturer by producing first spring rubber buffers which have design belongs to HAS Elevator.
- **In 1994** HAS Elevator continued its business activities by producing cabin and cabin frame.
 - Besides the domestic market, we started to export our products abroad.
- In 1995
- We established our first factory which have 7200 square meter working place with expert
- In 1997 staff, and increased both product range and production capacity.
- Has Elevator vocational high school was established in Bursa, Turkey as a first vocational school to educate students about elevators, the school still have 1000 students and fulfil needs of a qualified workforce of HAS Elevator and Turkish elevator industry as well.
- We moved to our new factory which have 17.000 square meter production plant with more than 150 expert staff, and international sales representatives, capacity to export more than 60 countries and became a company which have international standards, ISO 9001/2015 quality management system, ISO 14001 environment management system, and ISO 27001 information security system.
- **In 2016** We are honoured to be first R&D centre of Turkey which was established with 100% Turkish capital by Ministry of Science, Industry and Technology.
- In 2018 Our R & D department has launched HAS Slim Panel and HAS Prewieded system Also we have presented to our customers goods designs for steel structures.

Since our foundation, we have been recognized as pioneer company for 37 years in elevator industry, we keep continue to serve you with our expert staff and to produce complete elevators and elevator components for domestic and international market within global standards.





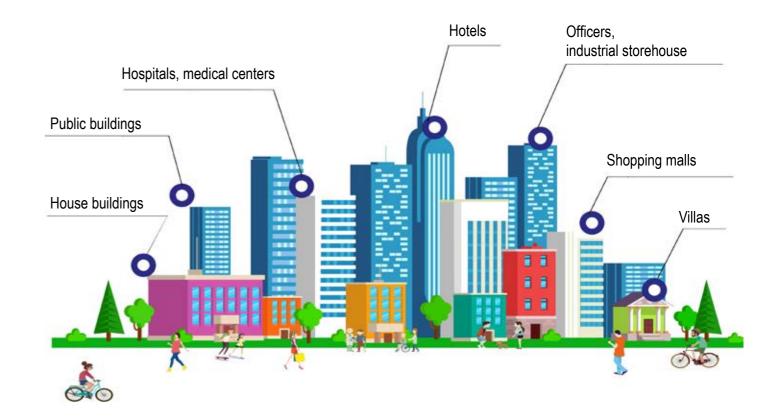


Our Skills

- **Since 1980**
- 17.500 m² Production Area
- **Export to** 75 Countries
- **85.000** pcs per year Semi Automatic Door
- 44.000 pcs per year Automatic Door
- 2.400 pcs per year Complete Elevator System
- 2.500 pcs per year Controller

And **165** professionals work to make better for our clients

Our Solutions





♦ www.hasasansor.com • 9





Because

We are a group of experts who work in first R&D center of Turkish elevator industry which have 100% Turkish capital, always with you to find innovative solutions and provide sufficient service.

We continue to provide best solutions by producing elevators which are suitable for every single shaft instead of providing shafts according to elevators.

We are always your solution partner with our 3D drawings which are designed for your shafts.

We always provide you complete elevators both economic and advanced technology.

We do not fulfill only your needs, we meet your special requests with our elevators which are in different design and color. You should know that we are able to supply any type of elevator components that you may need for a complete elevator with competitive prices.

All elevator safety components are manufactured according to TSE, EN, GOCT standards.



We make your work easier and faster by providing installation manuals and documents.

We respect humanity and nature by producing low energy consuming, quiet, and safe products.

We serve our customers in global standards with help of our multilingual customer services.

HAS Elevator is always ready to provide you technical support with its expert staff whenever you need.

Delivery time of HAS complete elevators.

We need only four weeks to prepare your orders.

Our warranty period.

HAS complete elevators and spare parts are covered by 2-year manufacturer's warranty.





Technical assistance

Our team multilingual engineers will assess your own technicals in how to install our elevator systems. Communication can by telephone, video conference, Skype or in situ.

Technical training

Among the services, we offer our expertise to train your Supervisors, Technical Directors, Operators e.t.c. We can supply deliver training plans tailored to your team at our headquarters by video conference or on location in your country.



Advantages of Complete Elevator Systems

- According to your shaft dimensions designed elevator type and size.
- Low En ergy Consumption
- Easy installation
- 7/24 Multilingual technical support
- Excellent travel comfort
- Silent, safety
- Eco efficient performance
- According to current standarts



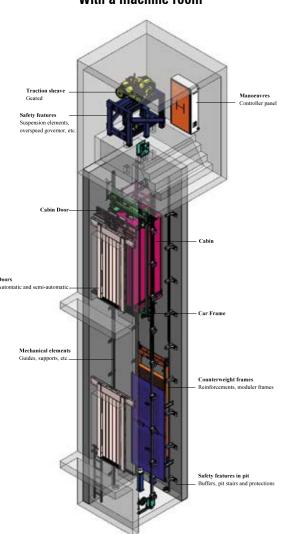




GENERAL CHARACTERISTICS								
Rated Load (kg)	320	450	630	800	1000	Up to 2	000	
Passenger (max)	4	6	8	11	13	Up to 26 Pas	ssengers	
Rated Speed (m/s)			1 m/s			1,6 m/s - 1	2 m/s	
Maximum Travel			90 m			90 m	1	
Maximum Stops Number		30 30						
Car Entrances		Single / Double Double Entrance (180°-90°)						
Drive System					Electrical			
Control	Low er	nergy consump	tion ARKEL & N	Mikrolift e.t.c c	ontrol, with CA	N BUS and preweiring system co	mmunication VVVF	
Door Type			Automatic Side	e Opening / A	utomatic Centr	al Opening / Semi Automatic		
Door Widht (mm)		600 - 7	00 - 800 - 900	- 1000 - 1100 -	1200 - 1300 - 1	1400 e.t.c	Special	
Door Height (mm)		2000 Up to 2300						
Car Dimensions (mm)		See on the drawings Special						
Car Height (mm)				2100			Up to 2400	

Note: Reference only, for detail information, please contact to HAS Elevator

With a machine room



Technical Specifications - MR

Traction equipment

- Geared machine with worm gear
- •1:1 and 2:1 confguration with lower suspension or in cantiliver

Control

• Closed and Open loop, variable frequency regenerative drive The Advantages of the With Machine Room Elevator

Systems

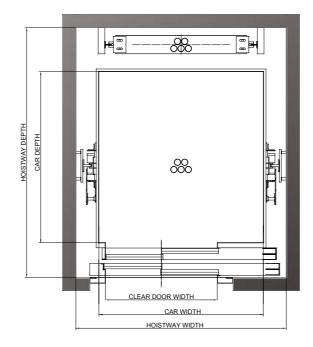
- With latest control techniques provides high sensitivity positioning
- This system easily mounted
- Lifting unit with superior performance provides quiet and comfortable movement
- Allows for fast and efficient installation
- Optimum performance
- Minimum Over Head size
- High capacity
- Manuel brake control

WITH MACHINE ROOM 1/1 CAPACITY / LOAD CAR SHAFT LOAD (kg) DOOR (mm) N° ENTRANCE PIT (mm) HEADROOM (mm) 320 3800 1050 900 700 1400 1500 1350 1000 1250 700 1350 1850 3400 450 1100 1100 1100 800 1450 3800 1700 1250 1300 900 1600 1900 630 1100 3400 800 10 1350 1400 900 1700 2000 1100 3400 1000 1600

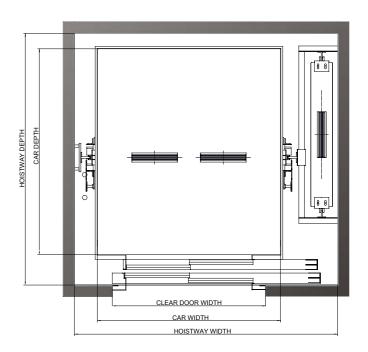
Note: Reference only, for detail information, please contact to HAS Elevator

WITH MACHINE ROOM 2/1										
CAPACITY ,	/ LOAD		CAI	R			SH	IAFT		
PEOPLE P	LOAD (kg)	WIDHT (mm) CW	DEPTH (mm) CD	DOOR (mm)	N° ENTRANCE	WIDHT (mm) SW	DEPTH (mm) SD	PIT (mm)	HEADROOM (mm)	
15	1125	1250	2100	1000	1	1900	2500			
13	1123	1500	1700	1200	1	2150	2100			
17	1275	1400	2100	1200	1200		2100	2500		
1/	12/5	1600	1800	1200	1	2300	2200	1		
21	1600	1400	2400	1200		2100	2800	1100	3400	
21	1600	1600	2000	1300	1	2300	2400			
26	2000	1500	2700	1300		2300	3100			
26	2000	1700	2400	1400	1	2500	2800			

Note: Reference only, for detail information, please contact to HAS Elevator



1:1 Gear drawing Automatic side opening doors



2:1 Gear drawing

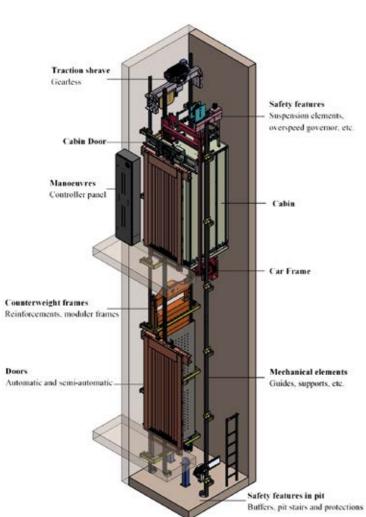




	MACHINE ROOM - LESS (MRL)										
CAPACITY	CAPACITY / LOAD CAR							IAFT			
PEOPLE T	LOAD (kg)	WIDHT (mm) CW	DEPTH (mm) CD	DOOR (mm)	N° ENTRANCE	WIDHT (mm) SW	DEPTH (mm) SD	PIT (mm)	HEADROOM (mm)		
4	320	900	1050	800	1	1500	1450	1250			
4	320	900	1030	1050 800		1500	1600	1450			
6	450	1000	1250	800	1	1600	1650	1250	3400		
0	450	1000	1230	800	180°	1600	1800	1400	3400		
8	630	630 1100	1400	900	1	1700	1800	1250			
8	030	1100		900	180°	1700	1950	1300			
		1300	1500	1000	1	1900	1900				
10	800	1300	1500	900	180°	1900	2050				
10	800	1400	1400	1100	1	2000	1800				
		1400	1400	900	180°	2000	1950	1250	3450		
		1100	2100	900	1	1700	2500	1250	3430		
13	1000	1100	2100	900	180°	1700	2650				
15	1000		1600	900	1	2000	2000				
		1400	1000	900	180°	2000	2150				

Note: Reference only, for detail information, please contact to HAS Elevator

Without a machine room



Technical Specifications MRL

Traction equipment

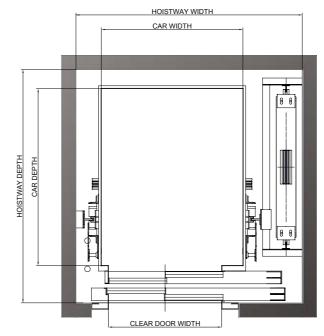
- Gearless machine with permanent magnet motor
- 2:1 confguration with lower suspension or in cantiliver Control
- Closed loop, variable frequency regenerative drive

The Advantages of the Machine Roomless Elevator Systems

- With gearless motor's economic size provides save on the volume of the building
- With latest control techniques provides high sensitivity positioning
- This system easily mounted to all kinds of buldings
- Lifting unit with superior performace provides quiet and comfortable movement
- Consumes less energy and draws less starting current
- Allows for fast and efficient instalation
- Optimum performance

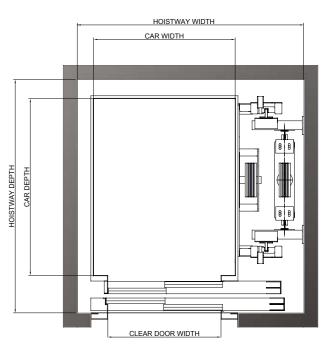
MACHINE ROOM - LESS (MRL - L)										
CAPACITY	/ LOAD		CAI	R			SH	IAFT		
PEOPLE T	LOAD (kg)	WIDHT (mm) CW	DEPTH (mm) CD	DOOR (mm)	N° ENTRANCE	WIDHT (mm) SW	DEPTH (mm) SD	PIT (mm)	HEADROOM (mm)	
		900	1050	800	1	1500	1450		00 3400	
4	320	800	1200	700	180°	1400	1750			
		900	1050		90°	1650	1450	1200		
		450 1000		900	1	1600	1650			
6	450		1250		180°	1650	1800			
					90°	1750	1700			
					1	1700	1800			
8	630	1100	1400		180°	1750	1950			
					90°	1850	1800			
					1	1850	1900			
10	800	800 1250	1500	1000	180°	1850	2050			
					90°	2000	1900			

Note: Reference only, for detail information, please contact to HAS Elevator



2:1 Gearless drawings (MRL) Automatic side opening door

MR



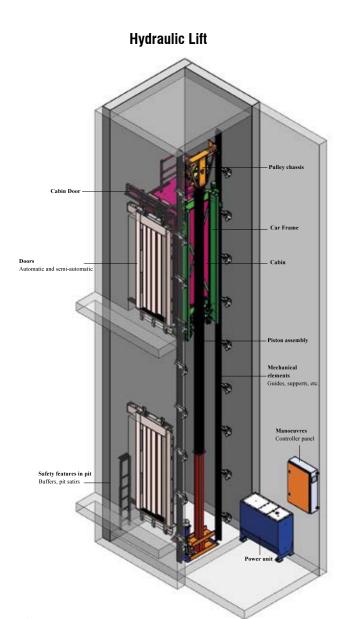
2:1 Gearless drawings (MRL L TYPE) Automatic side opening door





GENERAL CHARACTERISTICS								
Rated Load (kg)	320	320 450 630 800 1000 Up to 5000						
Passenger (max)	4	6	8	11	13	U	p to 66 Pas	ssengers
Rated Speed (m/s)					Up to 1			
Maximum Travel (m)					Up to 15			
Maximum Stops Number		6						
Car Entrances		Single Double Entrance (180°-90°) Triple Entrance						
Drive System		Hydrau	ilic, mechanica	l valves		Hydraulic, low energy	y consump	tion electronic valves
Control		Low ene	rgy consumption	on ARKEL & Mil	rolift e.t.c con	trol, with CAN BUS co	mmication	valves
Door Type		Automatic Si	ide Opening		Automatio	: Central Opening		Semi Automatic
Door Widht (mm)		60	00 - 700 - 800 -	900 - 1000-110	00-1200-1300	e.t.c.		Special
Door Height (mm)		2000 Up to 2300						
Car Dimensions (mm)		See on the drawings Special						
Car Height (mm)				2100				Up to 2400

Note : Reference only, for detail information, please contact to HAS Elevator



Technical Specifications Hydraulic Elevator

Traction equipment

• Pump unit with asynchrone motor

Control

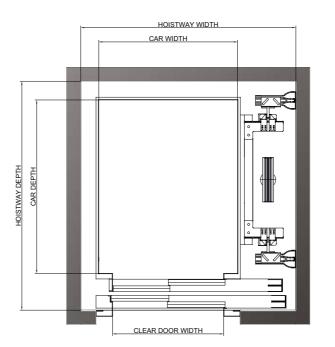
• Closed and Open loop, variable frequency regenerative drive

The Advantages of the Hydraulic Elevator Systems

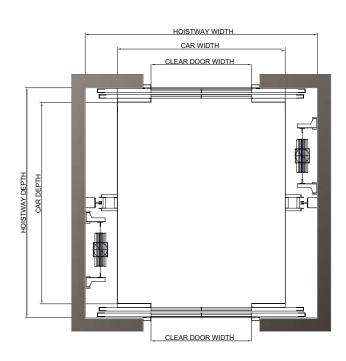
- With latest control techniques provides high sensitivity
- This system easily mounted to all kinds of buldings
- Lifting unit with superior performace provides quiet and comfortable movement
- Allows for fast and efficient instalation
- Optimum performance
- PIT and Over Head minimum
- High load capacity

	HYDRAULIC LIFTS										
CAPACITY / LOAD CAR						SHAFT					
PEOPLE	LOAD (kg)	WIDHT (mm) CW	DEPTH (mm) CD	DOOR (mm)	N° ENTRANCE	WIDHT (mm) SW	DEPTH (mm) SD	PIT (mm)	HEADROOM (mm)		
		900	1000		1	1450	1400				
4	320	900	1100	700	180°	1430	1650				
		900	1000		90°	1600	1400				
					1	1550	1650				
6	450 1000	450 1000	450 1000	450 1000	1250	800	180°	1550	1800		
					90°	1700	1650				
		630 1100		900	1	1650 1800	1800	1100	3400		
8	630		1400		180°		1950				
					90°		1800				
					1	1850	1900				
10	800	1300	1500	1000	180°	1030	2050				
					90°	2000	1900				
13	1000 -1	1100	2100	900	1	1650	2500				
15	1000-1	1100	2100	900	180°	1630	2650				
		·			1	1950	2000				
13	1000 -2	1000 -2 1400 1600	1600	1100	180°		2150				
					90°	2100	2000				

Note: Reference only, for detail information, please contact to HAS Elevator



Hydraulic lift drawing Automatic side opening doors



Hydraulic lift drawing double entrance 180 Automatic central opening doors





Bill of Materials

	MRL Automatic Door										
	M	RL SYSTI	COMPARTMENT	HAS ELEVATOR CONTROL							
	Guide Rails	CW Rail Rails	Rail Clips	Guide Rail Brackets CW Brackets	Steel Wall Plug	RAIL GROUP	√				
			Infrared Sensor	Landing Door (Mechanism + Panels)	Cabin Door (Operator + Panels)	DOOR GROUP	√				
			Safety Gear	OSG	Machine + Machine Plate	MACHINE GROUP	J				
				Revision Box	Controller	CONTROLLER GROUP	√				
Electronik Over Load	Seperator	Cabin	Weights	CW Frame	Cabin Frame	CABIN & FRAMES GROUP	√				
				Landing Operation Pane (LOP)	Cabin Operation Panel (COP)	OPERATING PANEL GROUP	√				
		Rope Clips	Rope Bottles	Rope for CW	Rope for Cabin	ROPE GROUP	√				
	Spiral Tube	Cable Ring	Cable Tube	NYAF Cable	Flexible	CABLE GROUP	√				
	Illumination	Terminal Strip	Lubricator Oil Collecting Cup	Limit Switch Switch Link Rod	Buffer + Buffer Base	PIT GROUP	√				
		Terminal Strip	Wood Plug	Handgloves	Isolation Band	SECONDARY ELEMENTS	J				

MRI	Semi	-Autor	natic	Door
IAILZE	JEIIII	-Autoi	Hatic	וטטע

	MI	RL SYSTI	EM SUPF	COMPARTMENT	HAS ELEVATOR CONTROL		
	Guide Rails	CW Rail Rails	Rail Clips	Guide Rail Brackets CW Brackets	Steel Wall Plug	RAIL GROUP	\checkmark
	Door Glass	Dashpot	Lirpomp	Landing Door (Mechanism + Panels)	Cabin Door (Operator + Panels)	DOOR GROUP	√
			Safety Gear	OSG	Machine + Machine Plate	MACHINE GROUP	J
				Revision Box	Controller	CONTROLLER GROUP	√
Electronik Over Load	Seperator	Cabin	Weights	CW Frame	Cabin Frame	CABIN & FRAMES GROUP	√
				Landing Operation Pane (LOP)	Cabin Operation Panel (COP)	OPERATING PANEL GROUP	√
		Rope Clips	Rope Bottles	Rope for CW	Rope for Cabin	ROPE GROUP	√
	Spiral Tube	Cable Ring	Cable Tube	NYAF Cable	Flexible	CABLE GROUP	√
	Illumination	Terminal Strip	Lubricator Oil Collecting Cup	Limit Switch Switch Link Rod	Buffer + Buffer Base	PIT GROUP	J
		Terminal Strip	Wood Plug	Handgloves	Isolation Band	SECONDARY ELEMENTS	J
Remarks :							



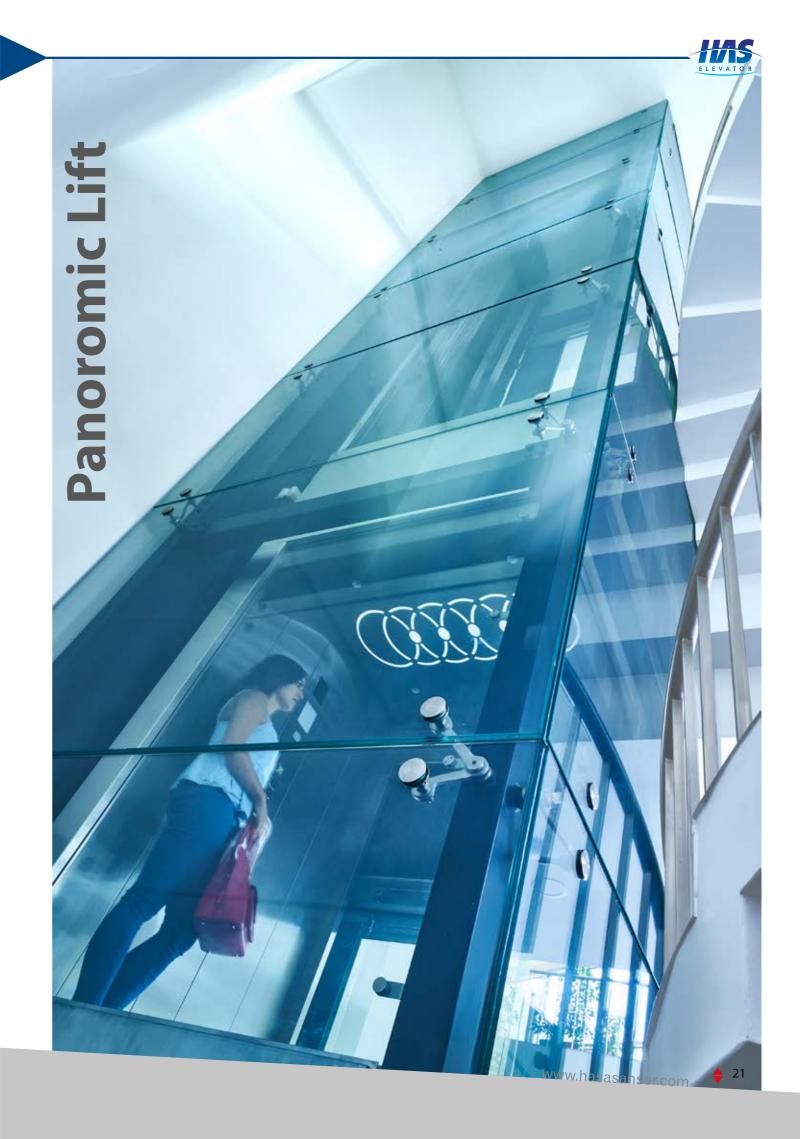
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Other Elevator Systems









CABINS



Satin stainless steel panels & accessories Handle a single row Half-lenght mirror PVC floor Laser cut ceiling EN 81-20/50



Painted wood panels Super mirror stainless steel accessories Handle a single row Half-lenght mirror Natural granite floor Laser cut ceiling



ESB painted sheet metal panels Handle a single row Half - lenght mirror PVC floor Panels a special form Laser cut roof EN 81-20/50



Satin stainless steel panels Mirror stainless steel accessories Handle a single row Decorative PVC floor Laser cut ceiling with spotlights EN 81-20/50

CABINS



Postforming laminate panels & Satin stainless accessories Handle a single row Half-lenght mirror PVC floor Laser cut ceiling



Stainless steel and laminated glass panel Handle a single row Natural granite floor Laser cut ceiling with spotlights EN 81-20/50



Satin stainless steel and PVC panels Handle a single row Natural granite floor Laser cut ceiling



Satin stainless steel and PVC panels Handle a single row Half-lenght mirror Decorative PVC floor Laser cut ceiling

S S Y H



CABINS



Decorative with painted wood panels Gold mirror accessories Handle a single row Natural granite floor Decorative wood ceiling with spotlights



O M M

Decorative wood panels & Super mirror stainless steel Handle a single row Full-lenght mirror Natural granite floor Laser cut ceiling + with spotlights





Scotch brite stainless steel panels Satin stainless steel accessories Handle a single row Full-lenght mirror PVC floor Laser cut ceiling with spotlights



Laminate panels Satin stainless steel accessorries Handle a single row Half - lenght mirror PVC floor Laser cut ceiling



Formlu paneller Boy Ayna Granit Zemin Lazer kesim Asma Tavan Gizli aydınlatma (Tavan ve Tabanda) Küpeşte EN81-20/50 uygun 1100mmx1400mm 630kg





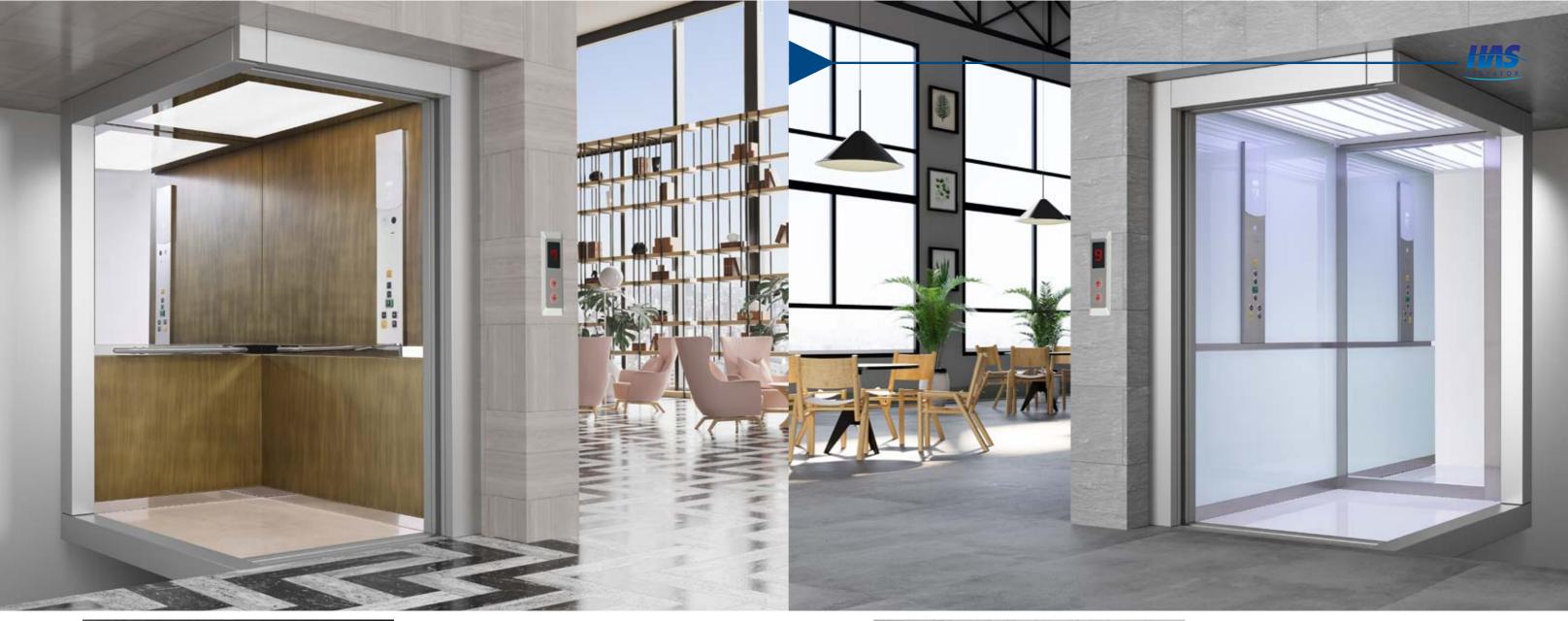
S GALATA TOWER

Özel Tasarım Cam 4+4 Lamine Granit Zemin Lazer Kesim Paneller Panel Gizli Aydınlatma Küpeşte EN81-20/50



YNOMRAH SAI

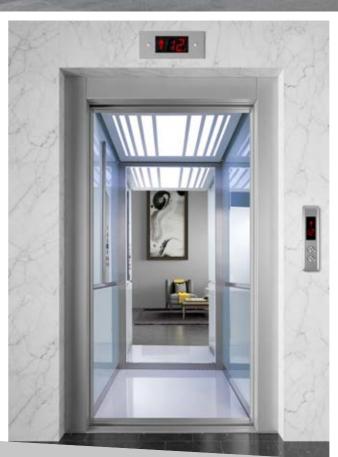
Formlu paneller
Boy Ayna
Granit Zemin
Lazer kesim Asma Tavan
Gizli aydınlatma (Tavan ve Tabanda)
Küpeşte
EN81-20/50 uygun
1100mmx1400mm
630kg





HAS MOONLIGHT

Özel Tasarım Cam 4+4 Lamine Granit Zemin Lazer Kesim Paneller Panel Gizli Aydınlatma Küpeşte EN81-20/50



4+4 Lamine Renkli Cam Granit Zemin Boy Ayna Lazer Kesim Tavan Özel tasarım küpeşte EN81-20/50 uygun 1100mmx1400mm 630kg

DOORS





HAS STANDARD RAL 7032 Semi Auto Landing Door



HAS 20 Stainless Steel Hairline Automatic Landing Door

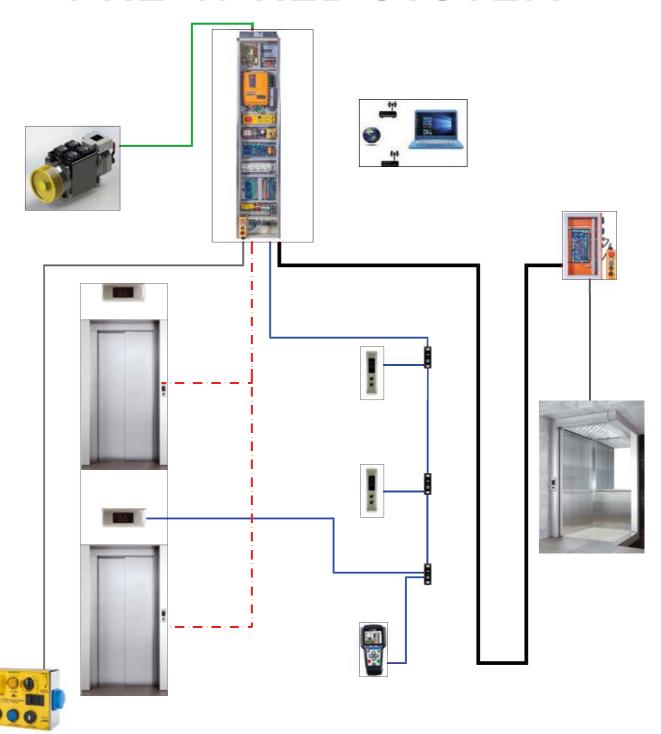


HAS 10 Copper Scrap Semi Auto Ferforge Landing Door



HAS 21 Stainless Steel Hairline Automatic Glass Landing Door

PRE-WIRED SYSTEM



MACHINE MOTORS

New Generation Machine Plate P12









CONTROLLER SYSTEMS



Controller For MRL (Gearless) System s Machine R oom



Cont roller For MRL (Gearless) System s Machine R oom



Innovative Aspects

- Modular design suitable for many machines
- Providing all connections with bolts only
- Anti-vibration rubber
- Lightweight design
- Reduction of production times
- Reduction of the number of scrap parts
- Easy assembly
- Storable product group

Ra I 7032 / Stainless Steel

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BUTTONS





5234

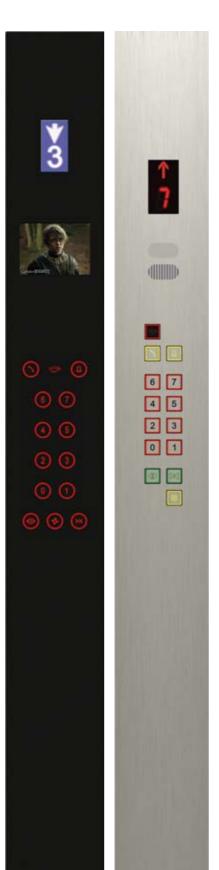


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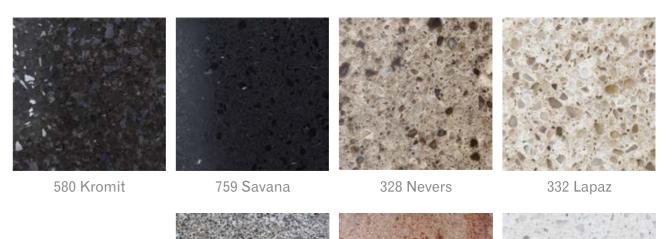


AV 2082



FLOORS

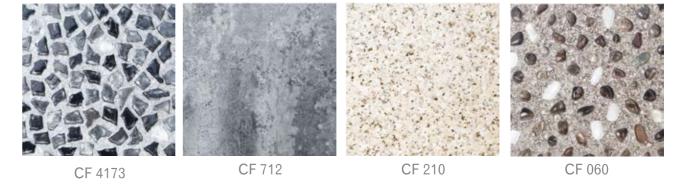
Granite Floors





HS Z004 Hisar Gri HS Z003 900 Lapland

PVC Floors





AV 2002



AV 1072

AV 2072





DECORATIVE STAINLESS

Decorative Stainless









HS mirror ti-gold

HS mirror ti-gold (cx41) HS mirror ti-gold (cx82) HS mirror ti-gold (cx26)





HS mirror ti-gold (cx37) HS mirror ti-gold (cx08)











HS mirror

HS mirror (cx41)

HS mirror (cx82)

HS mirror (cx26)













HS mirror (cx37)

HS mirror (cx03)

HS mirror (cx58)

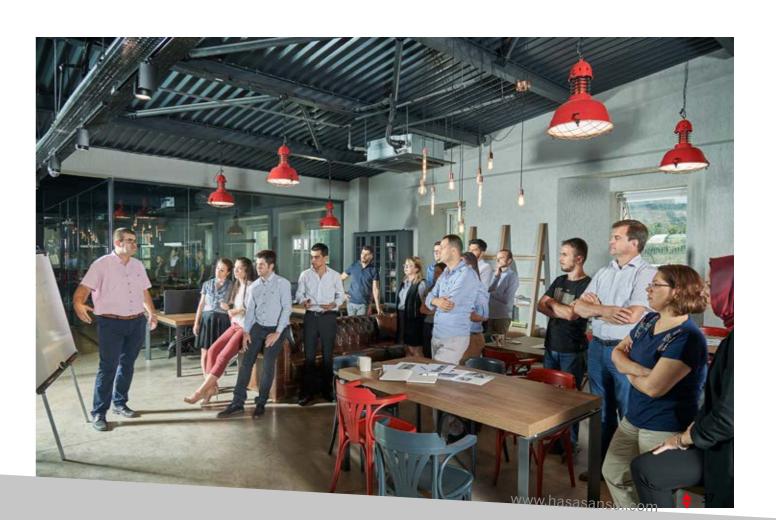
HS mirror (cx99)

Elevator R&D Centre

Since our foundation we keep continue to be pioneers in elevator industry for 37 years. In 2016, we established first R & D centre of Turkish Elevator industry with 100% Turkish capital with purpose of identifying unmet customers' needs and serving elevator sector.

Besides having more than 20 engineers in R&D centre, we are always striving to produce much better products with help of university and academic staff.

HAS Elevator R & D centre has only one goal; to offer best service than expected us for our customers.









HIS Elevator exports to 7 continents & 75 countries

All you need is in the package... **Anything else?**







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