



MRL W Line

MODULAR MACHINE ROOMLESS ELECTRIC ELEVATOR



safety in motion™

www.wittur.com



WITTUR A TRULY GLOBAL COMPANY

45

years of value
creation

We are your global solution
provider in the elevator world.

Our experience reaches back 45
years in which we became a
valued supplier for more than
500 customers in 60 countries
around the world.

safety [™] in motion

The key to our success is based on the ideas, commitment and expertise of our more than 3000 employees, which contribute to continuous improvement on all levels. In each of our 10 manufacturing sites we committed ourselves to the same standards of excellence, assuring that our products are of highest quality, produced efficiently by environmentally friendly manufacturing processes.





10
manufacturing sites

60
countries



3.000
employees



safety **in** *motion*™

Wittur is Safety in Motion! We are a driving force in the elevator industry and are continuously looking for ways to improve our performance. The high level of safety we supply is not only reflected by our products and solutions but starts in our manufacturing sites with Wittur Production System: a process incorporating Concern Rooms, Safety Corners and Functional Excellence Management (FEM) Boards to engage all members of the Wittur team in the accomplishment of quality, production and safety targets.

MRL W Line

MRL W Line is a machine roomless electric elevator using components designed and produced by Wittur in an innovative modular package.

Key features

Rated load	320-2500 kg
Rated speed	1.0 – 1.6 – 2.0
Travel height	up to 90 m
Car sling	central guided
Drive	energy efficient Wittur WSG gearless drive 2:1
Entrance	single or double (180°)
Doors	center or side opening
Package	mechanical package or complete package with Wittur E-Pack Can Bus controller

1 Quick installation

The MRL W Line is easy and quick to install. Handling on site is highly optimised: the elevator's sub components are delivered in clearly labelled packages.

Each component has a separate user-friendly manual, making the steps of the assembly process easy to follow and fail-safe. The assembly of the electrical components has also been made simpler thanks to Wittur's "Plug and Play" concept. All the customer has to do is connect the components using the pre-installed fail-safe plugs as instructed in the manuals. No welding or manual cable connection necessary.





2 Durable and reliable

The MRL W Line offers the highest level of safety during installation and maintenance procedures. A highly efficient design and the use of quality components by Wittur result in high reliability, safety and operating comfort for the end user of each MRL W Line elevator.

3 A silent and comfortable ride

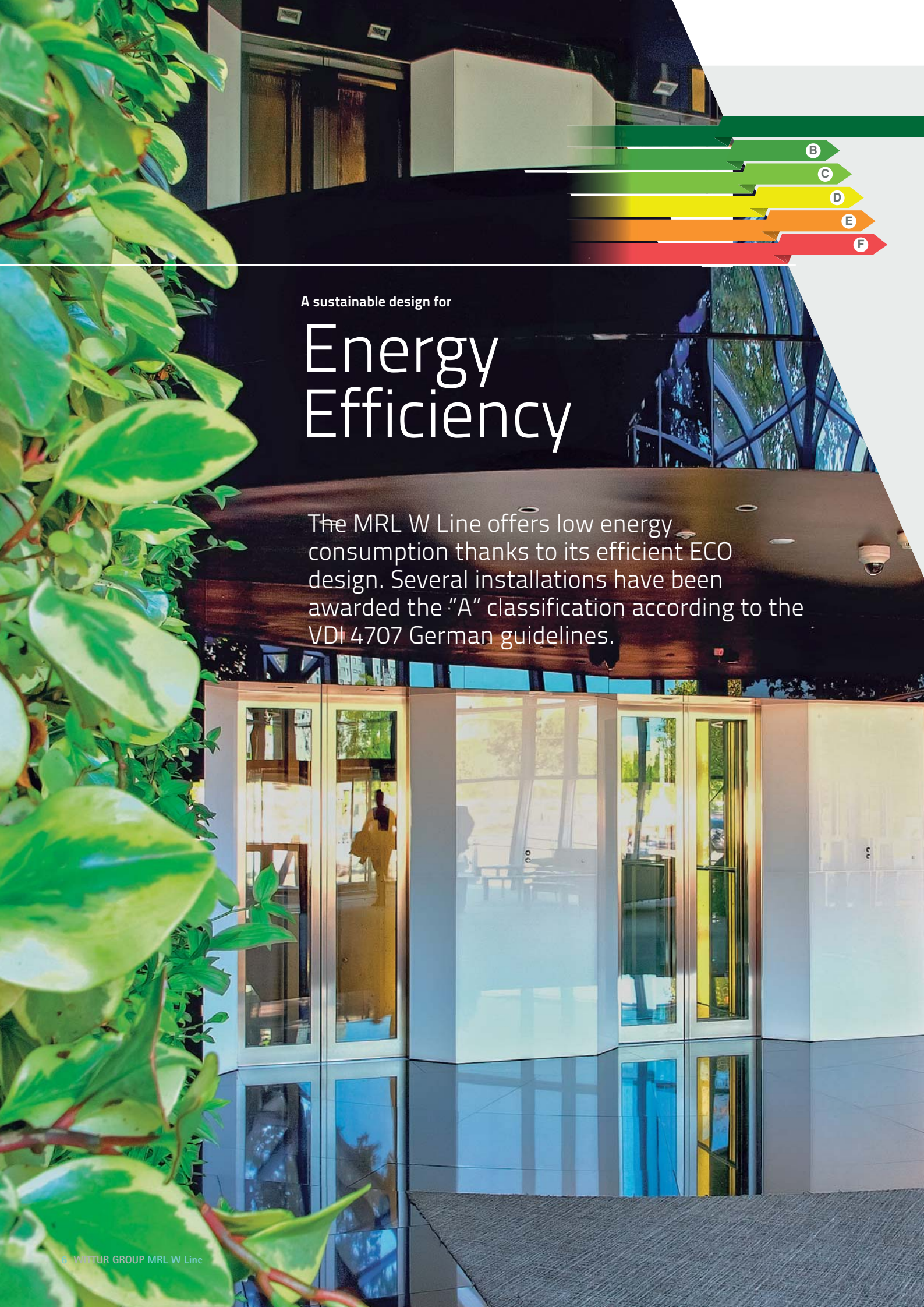
Through the combination of highly efficient mechanical and electrical components (like the gearless drive), use of isolation pads, drive control by means of a frequency inverter, balanced rope arrangement and low friction sliding guide shoes, it has been possible to obtain a high ride comfort and low noise levels compliant with VDI 2566-2. The "Comfort Kit" with its silent blocks are provided for all range. The noise level perceived by the passenger from inside the car is limited to 50 dBA.



4 Compact design with reduced dimensions

The MRL W Line makes optimal use of available shaft space and, depending on rated load, rated speed and the height of the car, can be installed in any type of shaft with a pit depth starting at 1100 mm (for 1 m/s and \leq 630kg) or 1200 mm (for 1,6 m/s and \leq 630kg), 1,6 m/s and \leq 630kg) or 1350 mm (for 2,0 m/s and \geq 630kg), and headroom starting at just 3630 mm (for 1 m/s and \leq 630 kg) or 3780 mm (for 1,6 m/s and \leq 630kg) or 3970 mm (for 2,0 m/s and \geq 630kg). Mounted directly onto the guide rails under Wittur patent, the MRL W Line uses Wittur bed plates and WSG S-series gearless drives, which offer smaller dimensions through the use of reduced rope diameters with smaller traction sheaves (240 mm for rated loads up to 630 kg, and 320 mm for rated loads up to 1050 kg and 400 mm for rated loads up to 2500 kg).

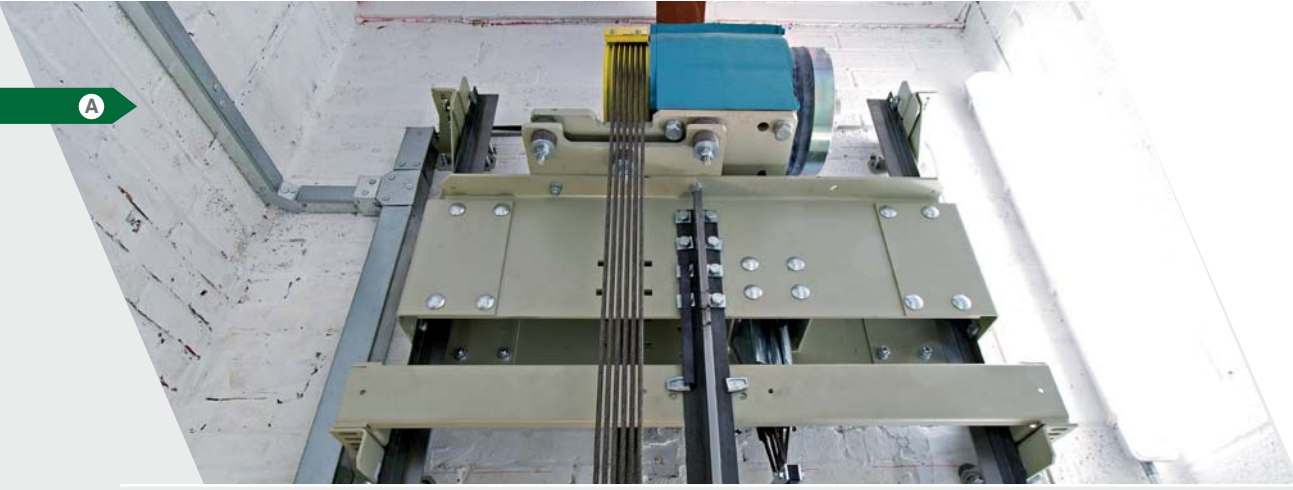




A sustainable design for

Energy Efficiency

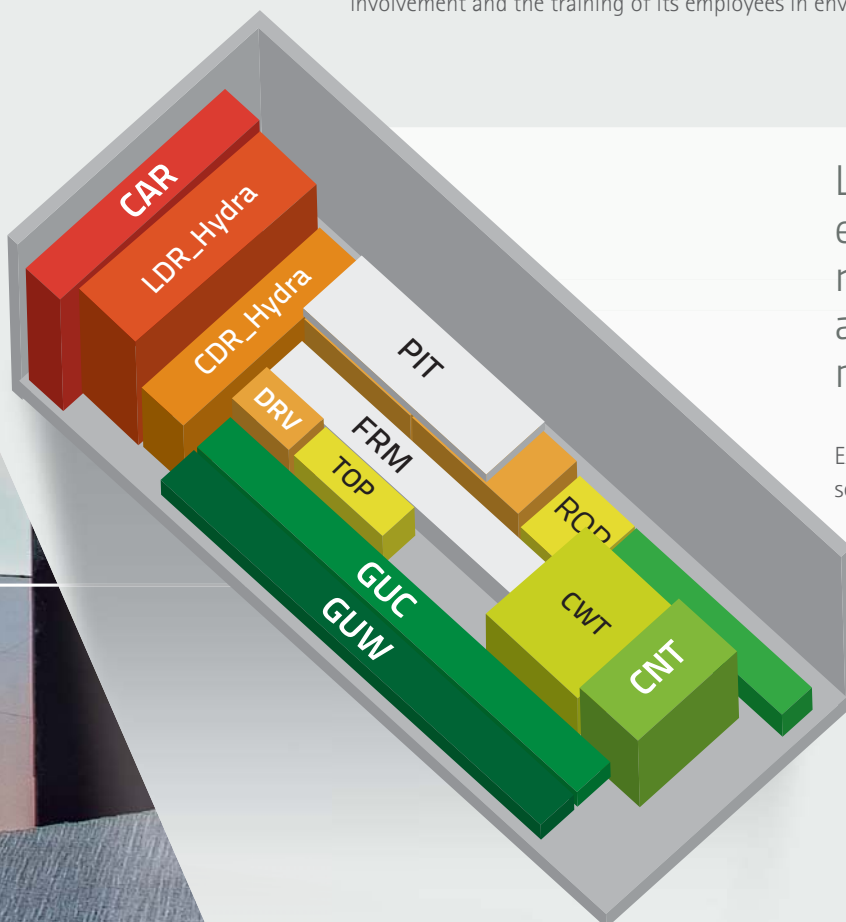
The MRL W Line offers low energy consumption thanks to its efficient ECO design. Several installations have been awarded the "A" classification according to the VDI 4707 German guidelines.



A

5 Reduced energy consumption

MRL W Line is powered by energy efficient permanent magnet Wittur WSG gearless drives. Wittur E-Pack controller with integrated inverter is pre-set at the factory with optimal drive parameters for high energy efficiency. Wittur latest generation ECO+ and MIDI+ brushless door drives offer a significant reduction of power consumption per working cycle and ride comfort. Wittur doors are pre-arranged for Zero watt standby mode to cut energy consumption when lift is not in use. Wittur car lighting is based on cutting edge LED (light-emitting diode) technology. LEDs have the many advantages over other types of light sources including lower energy consumption, longer lifetime, improved physical robustness reduced heat dissipation and small size. Timed car light (available as an option) additionally increases the energy efficiency. Wittur Production System (WPS) using lean production criteria is used in all Wittur production facilities to obtain levelled and efficient processes. Wittur group pursues a continuous improvement of the environmental compatibility of its production. The Wittur Group production facilities implement and maintain an effective Environmental Management System according to UNI EN ISO 14001 requirements, with the target to reduce the consumption of energy resources, water and materials, improve waste management through recovery and recycling, verify the achieved goals and promote the involvement and the training of its employees in environmental matters.



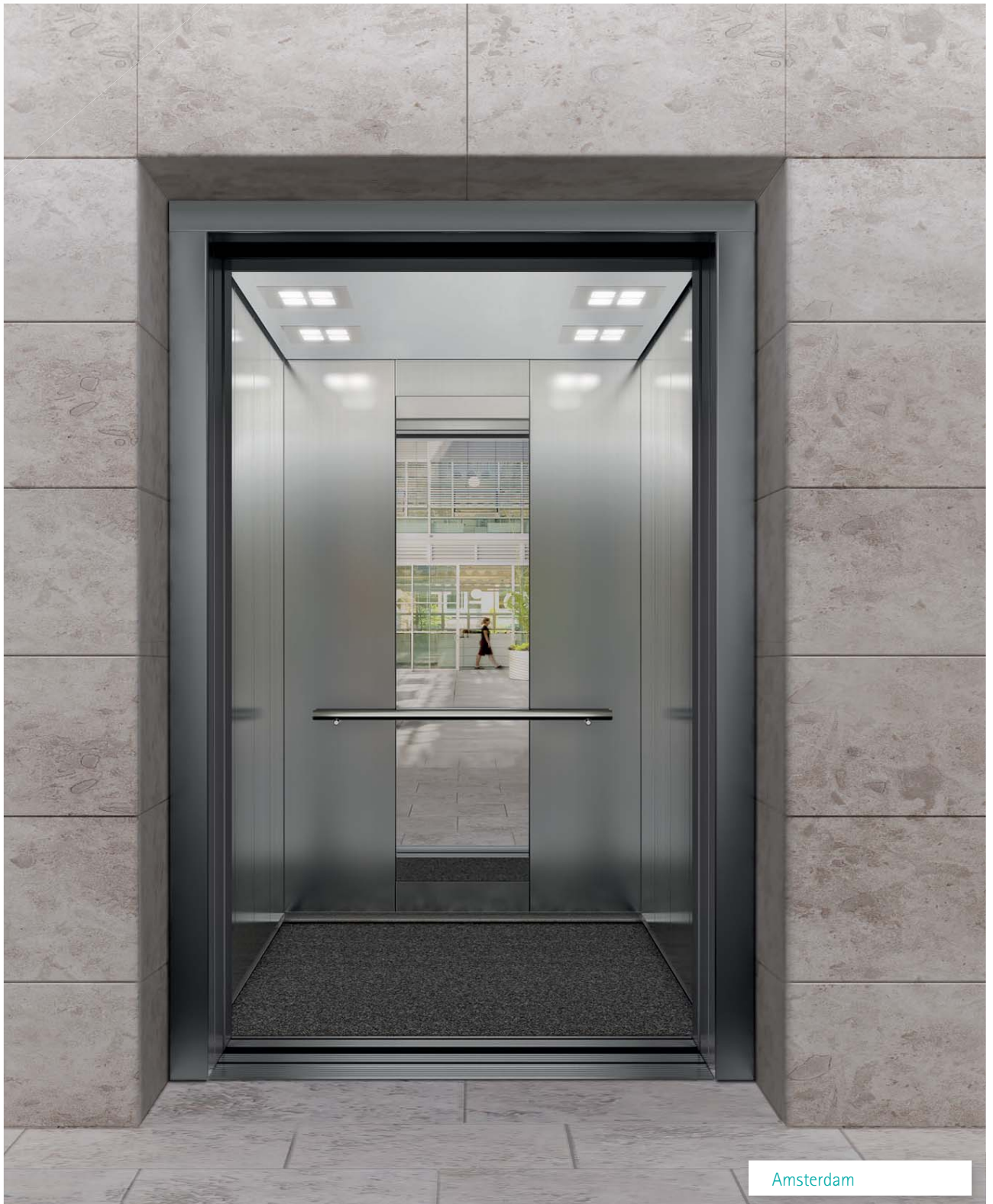
Logistic enhancements for reduction of shipping and better waste management

Example of truck loading suggested scheme provided by Wittur.



Available finishes

The simplicity of the MRL W Line in no way detracts from the versatility of the options and car decorations available. The standard decorations, with their functional designs, offer the added advantage of a short production lead-time, but the MRL W Line can be supplied in a most versatile range of decorations to suit any request including PVC coated sheet (wood or leather), RAL painted sheet in a variety of colours, back-painted glass and stainless steel. For the full range of available decorations, please contact your local Wittur representative.



Amsterdam



Boston



Manhattan



Atlanta



New York



Monte Carlo Turquoise



Monte Carlo Pure



Monte Carlo Dark



Monte Carlo Ruby

	Amsterdam	Boston	Manhattan	Atlanta	New York	Monte Carlo
Ceiling	Naturalbond / Fire Rated / Metallic Silver + St. Steel / Brushed / GP 320 N	St. Steel / Brushed / GP 320 N	St. Steel / Brushed / GP 320 N	St. Steel / Super Mirror	St. Steel / Super Mirror	Naturalbond / Fire Rated / Metallic Silver + St. Steel / Brushed / GP 320 N
Lighting	LED0101	LED0200	LED0400	LED0300	LED0300	LED0100
Floor	Linoleum / Antrasit 86484	Granite / Natural / Rosso Balmoral	Granite / Natural / Blue Pearl	Granite / Natural / Blue Pearl	Granite / Natural / Blue Pearl	Granite / Natural / Blue Pearl
Side walls	St. Steel / Brushed / GP 320 N	Laminate / HPL / Rose + St. Steel / Brushed / GP 320 N	St. Steel / Brushed / GP 320 N + St. Steel / Titanium Gold Mirror	St. Steel / Super Mirror + Alucor + Float Mirror Standard	St. Steel / Super Mirror	St. Steel / Brushed / GP 320 N + Laminated Glass / Opaque Blue
Corner walls	St. Steel / Brushed / GP 320 N	St. Steel / Brushed / GP 320 N	St. Steel / Brushed / GP 320 N + St. Steel / Titanium Gold Mirror	St. Steel / Super Mirror	St. Steel / Super Mirror	St. Steel / Brushed / GP 320 N
Rear walls	St. Steel / Brushed / GP 320 N	St. Steel / Brushed / GP 320 N	St. Steel / Brushed / GP 320 N + St. Steel / Titanium Gold Mirror	St. Steel / Super Mirror + Alucor + Float Mirror Standard	St. Steel / Super Mirror	St. Steel / Brushed / GP 320 N
Mirror	Float Mirror / Standard	Float Mirror / Bronze	Float Mirror / Standard	-	Float Mirror / Standard	Float Mirror / Standard
Entrances	St. Steel / Brushed / GP 320 N	St. Steel / Brushed / GP 320 N	St. Steel / Brushed / GP 320 N	St. Steel / Super Mirror	St. Steel / Super Mirror	St. Steel / Brushed / GP 320 N
Handrail	Brushed st. Steel	Brushed st. Steel	Brushed st. Steel	St. Steel / Super Mirror	St. Steel / Super Mirror	Brushed st. Steel
EN81-70	✓	✓	✓	✓	✓	✓

Lighting

LED0100	SQUARE LED MODULE 12,5X12,5 with Diffuser Cover 0100
LED0101	SQUARE LED MODULE 12,5X12,5 with Diffuser Cover 0101
LED0200	MINI SPOTS with Power LED
LED0300	LINEAR LED PCB MODULE
LED0400	PHILIPS coreview panel (30X120 / 60X60)

Cars are available up to 1275 kg.
Please contact your local Wittur representative for cars in larger models.



A wide range to choose your

Doors



Pegasus

PEGASUS is Wittur heavy traffic door for installations in public buildings, offering high opening speeds and very smooth operation.



Augusta EVO

AUGUSTA EVO is the affordable Wittur quality door for the residential market, with good performance and reduced maintenance.



Hydra

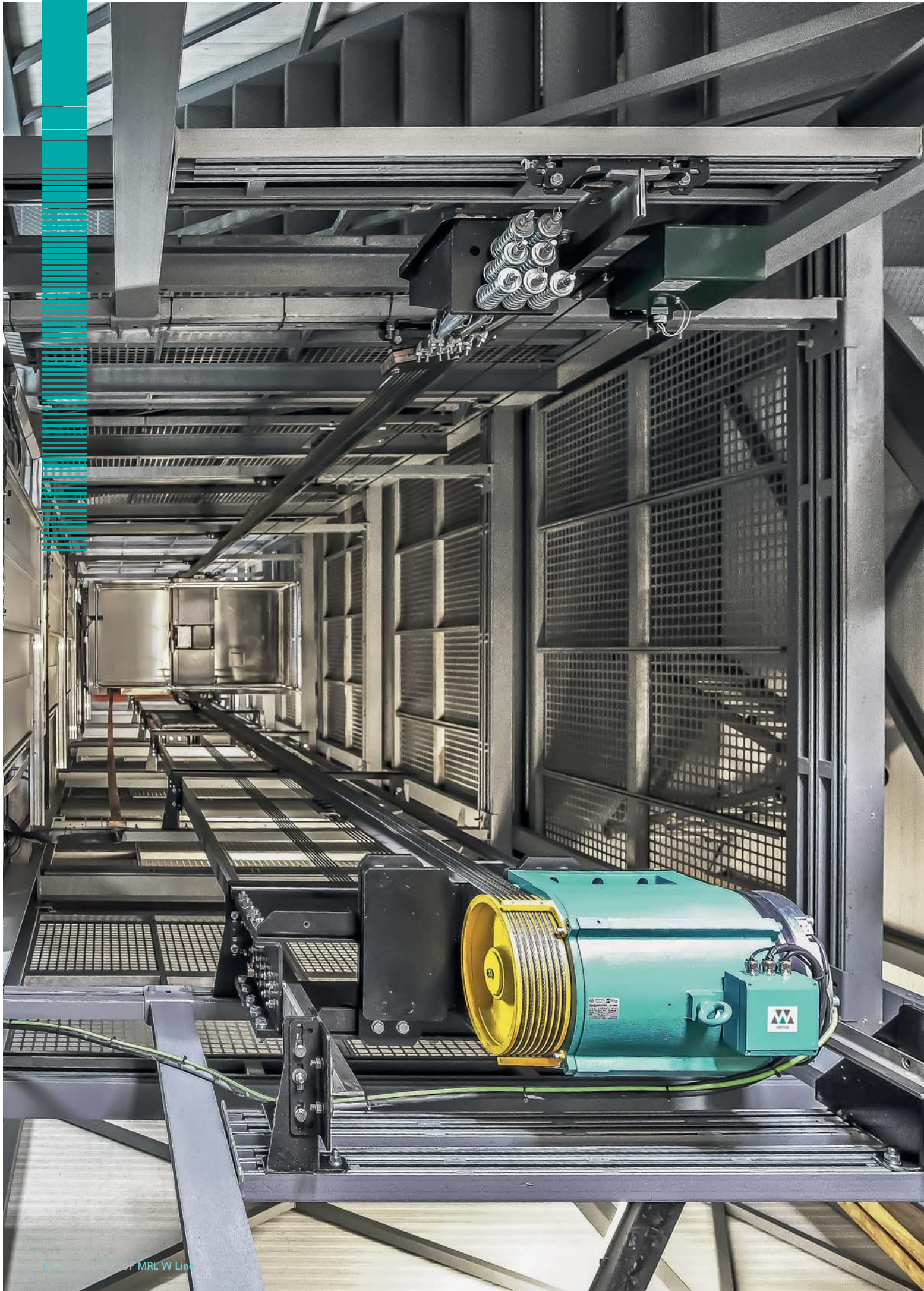
HYDRA is the Wittur multifunctional system designed for maximum application flexibility. The variety of executions can be used with any kind of application, from residential buildings up to office buildings and hotels. Hydra is available in a wide range of dimensions, execution and finishes. It offers sturdiness and reliability, simple maintenance and easy installation.



Special executions

SPECIAL EXECUTIONS such as glass framed, full glass panels, panels with glass window or vandal resistant EN81-71 doors are available upon request.





Energy efficient and compact

Drives

System type	Capacity	Roping	Speed	Drive type	Connection	TS
MRL 320-630	320...630 kg	2 : 1	1...1,6 m/s	WSG-S1.3	cables	φ 240
MRL 800-1000	800...1000 kg	2 : 1	1...2 m/s	WSG-S2.2	cables	φ 320
MRL 1275	1275 kg	2 : 1	1...1,6 m/s	WSG-S3.4	terminal box	φ 400
MRL 1600	1600 kg	2 : 1	1...2 m/s	WSG-S3.4	terminal box	φ 400
MRL 2000	2000 kg	2 : 1	1...2 m/s	WSG-S3.5	terminal box	φ 400
MRL 2500	2500 kg	2 : 1	1...1,6 m/s	WSG-S3.6	terminal box	φ 400



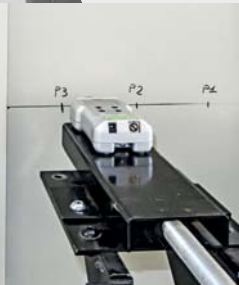
Mounted directly onto the guide rails under Wittur patent, the MRL W Line uses Wittur bed plates and WSG S-series gearless drives, which offer smaller dimensions through the use of reduced rope diametres with smaller traction sheaves (240 mm for rated loads up to 630 kg, and 320 mm for rated loads up to 1000 kg).

Built to the highest standards

Certifications & Safety

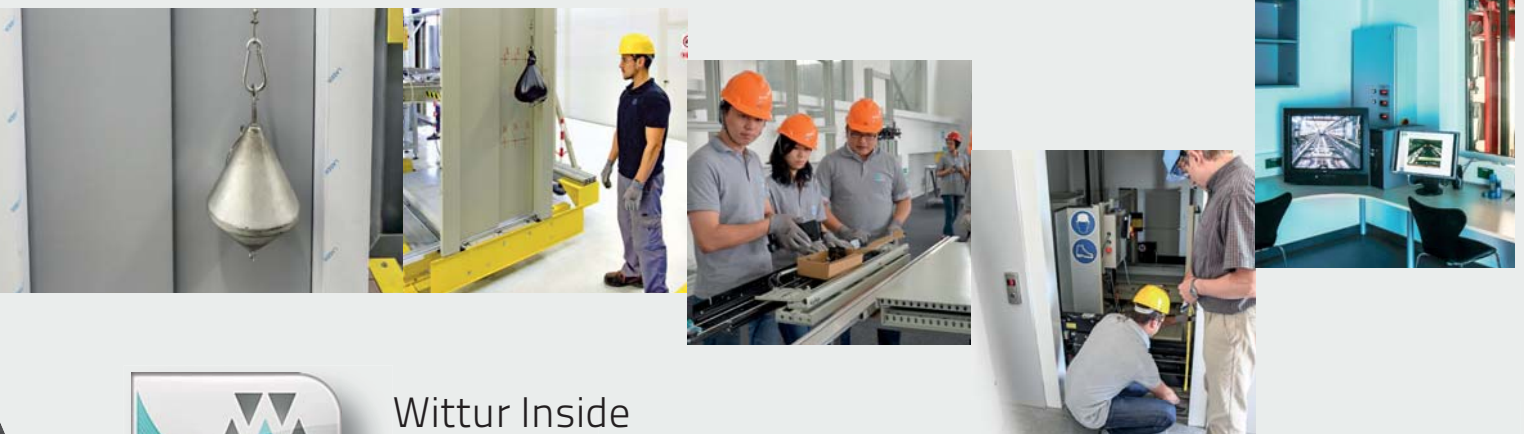
Norm compliant

The MRL W Line fulfills all the requirements of the Lift Directive 95/16/EC, as well as the standards EN81-1A3, EN81-28 and EN81-58. Wittur additionally offers the option of supplying the MRL W Line to comply with EN81-70 (designed specifically for passengers with reduced mobility) and EN81-73 (behaviour of lifts in the event of fire). Upon request, the MRL W Line can be manufactured to comply with the standards EN81-71 and EN81-72.



**Complete System MRL W Line
Standard Compliance**

- 95/16 EC
- EN 81-1
- EN 81-1/A2
- EN 81-70 (1)
- EN 81-58 (2)
- ISO 4190
- PB10-558-03 (3)
- DIN 15306
- EN 12015
- EN 12016



Wittur Inside

The MRL W Line incorporates components manufactured by Wittur to the highest standards of quality, reliability and safety.



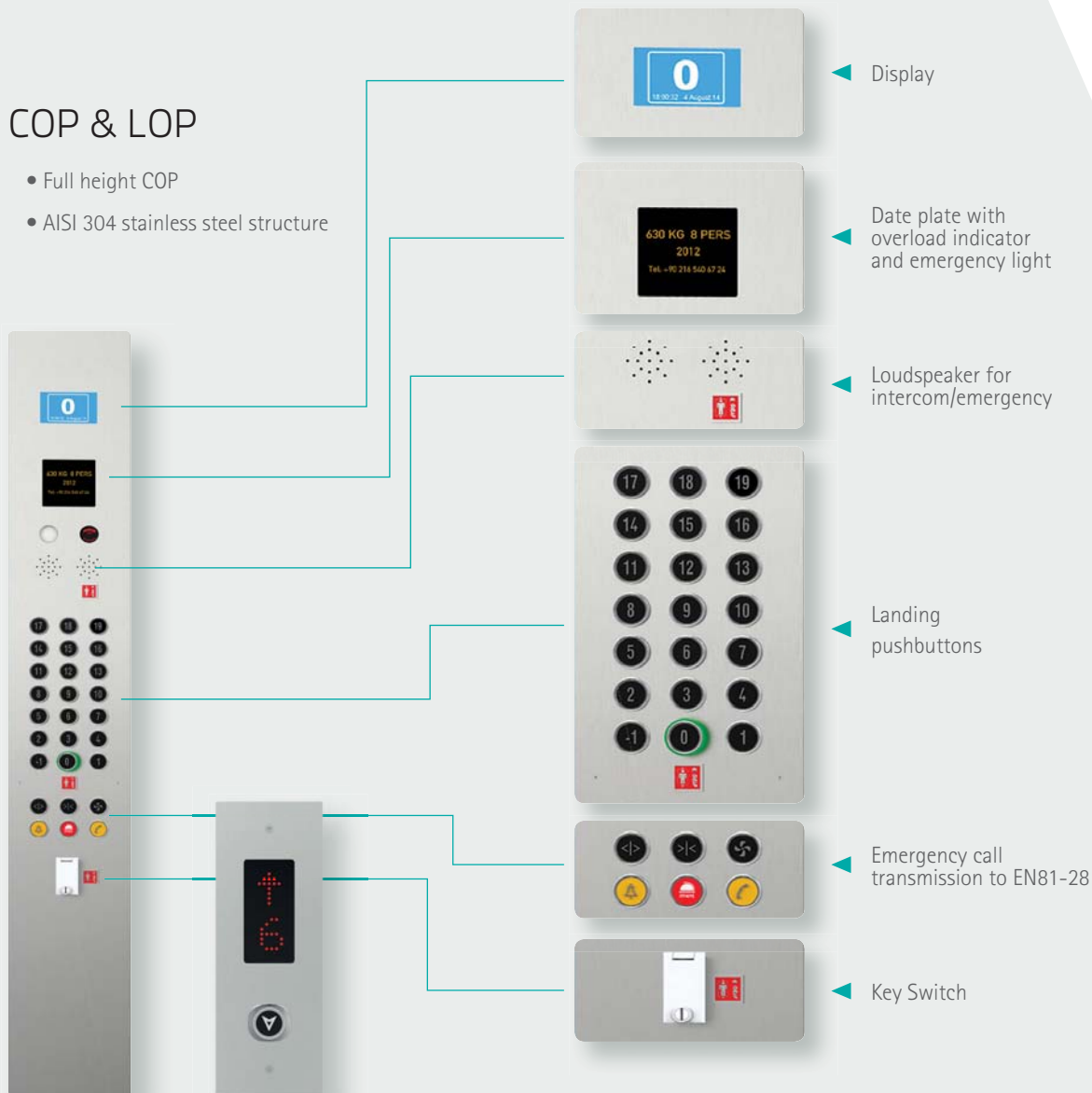
Integrated drive solution



- **Compact design:** Elevator controller and motor inverter in one housing;
- **Fast installation:** Pre-arranged cabinet complete with all electrical components. Push buttons, cabling, shaft lighting, alarm telephone systems are included and pre-configured;
- **Fits in every shaft:** compact standard cabinet or cabinet integrated in landing door frame + small remote cabinet in the shaft;
- **Easy update:** Integrated SD card reader in the hand terminal;
- **Easy setting:** Automatic motor tuning, shaft learning features;
- **Remote control:** hand-held terminal with TFT color display connected via CAN bus. No PC or other equipment necessary for E-Pack installation;
- **5 pre-set comfort settings:** no complex acceleration and deceleration parameters, quick installation menu;
- **Easy check:** Automatic procedure to control shaft and car CAN bus, connected elements and encoder;
- **Updated manuals always available:** Manuals are stored in the firmware in several languages and can be accessed using the hand-held terminal;
- **Advanced features:** High stopping accuracy, direct landing, energy-saving mode, digital shaft learning, short floor travel without additional hardware, internal input EMI filter, internal DC choke, 230VAC safety circuit voltage;
- **E-Pack:** available for rated loads up to 2500 kg.

COP & LOP

- Full height COP
- AISI 304 stainless steel structure



Cabinet in the shaft + slim panel integrated in front of the door frame

- Slim panel in front of the frame of one of the landing doors + cabinet placed in the shaft
- RAL 7032 powder painted structure for shaft cabinet
- AISI 304 stainless steel structure available as option for shaft cabinet
- slim panel finish according to landing door finish
- shaft cabinet dimensions: 1020 mm x 625 mm x 250 mm
- slim panel dimensions: 120 mm x 120 mm, 2000/2100 mm height according to landing door height
- main supply: 3 x 400 VAC \pm 15% / 3 x 230 VAC \pm 15%
- car / shaft power supply: 1 x 230 VAC \pm 15%
- shaft temperature: +5°C - +40°C
- protection class IP20
- This execution is only available according to EN81-1 standard for MRL

Cabling features

- Connection to Overspeed governor and gearless machine
- Pre-wired CAN bus serial communication with fast connectors
- Connected LED energy-saving shaft lighting
- Inspection box on car roof with connections to shaft positioning. Shaft positioning is performed with the motor encoder switches, load weighing device and limit switches
- Up to two independently operated car entrances

Additional Controller modules

- re-levelling function and door pre-opening
- internal change-over relays for evacuation operation according to EN81 73
- Inter-communication channel with cabinet (for travel heights > 30 m.)
- additional inter-communication channel (for travel heights > 30 m.)
- Y-Sense induction loop module for hearing impaired passenger compliant with EN 81-70
- emergency rescue with battery pack (5x12V Ah)
- 60 Volt DC operation with active motor drive load independent directions

Additional COP functions

- Voice synthesizer
- Induction loop system for hearing impaired passengers
- VIP key switch
- Key switch instead of push buttons
- EN81-28 compliance with remote alarm telephone unit



Remote control by CANbus hand-held terminal with TFT colour display and real time animation of the lift operations. Manuals are accessible from the unit.

Displays



Liftmedia 2877

- 5.7" 320x240 px colour TFT
- CANbus connection
- Video playing capability up to 1/4 of the display size
- High quality music playback
- Date, time, temperature display
- SD card support
- Voice announcements of floor messages and elevator events
- User-friendly visual editor for graphic contents with built-in graphic effects
- Supports mp3, mpeg, avi, wmv, flv, mp4, m4u, wav, jpg, bmp, gif, png



LCD 240128

- 240 x 128 pixel resolution (114 mm x 64 mm active area) monochrome screen
- CANbus connection
- High quality music playback
- Date and time display
- User-friendly editor for graphic contents: static/animated arrows, logo, subtitles, floor indicator, "out of service" and "overload" pictures
- Screensaver mode to reduce power consumption



LCD Display

- for installation in the side frame of landing door

LIP (Landing Indicator Panel)



9000.PA

ARROWS

- Compliance with EN81-70
- Surface mount stainless steel press body, special PVD coating color options.

Universal LOP's Surface Mount Series



7105.B3



7115.B3



7220.DM



7205.DM



7205.AGRF

Standard pushbuttons



B3 Series



CUSTOMIZED PUSHBUTTONS

- Reinforced design
- Die-cast metal body
- Frontal mount
- Raised symbols (EN 81-70)



V.2P

V.3 Gold



LOP Flush Mount Series



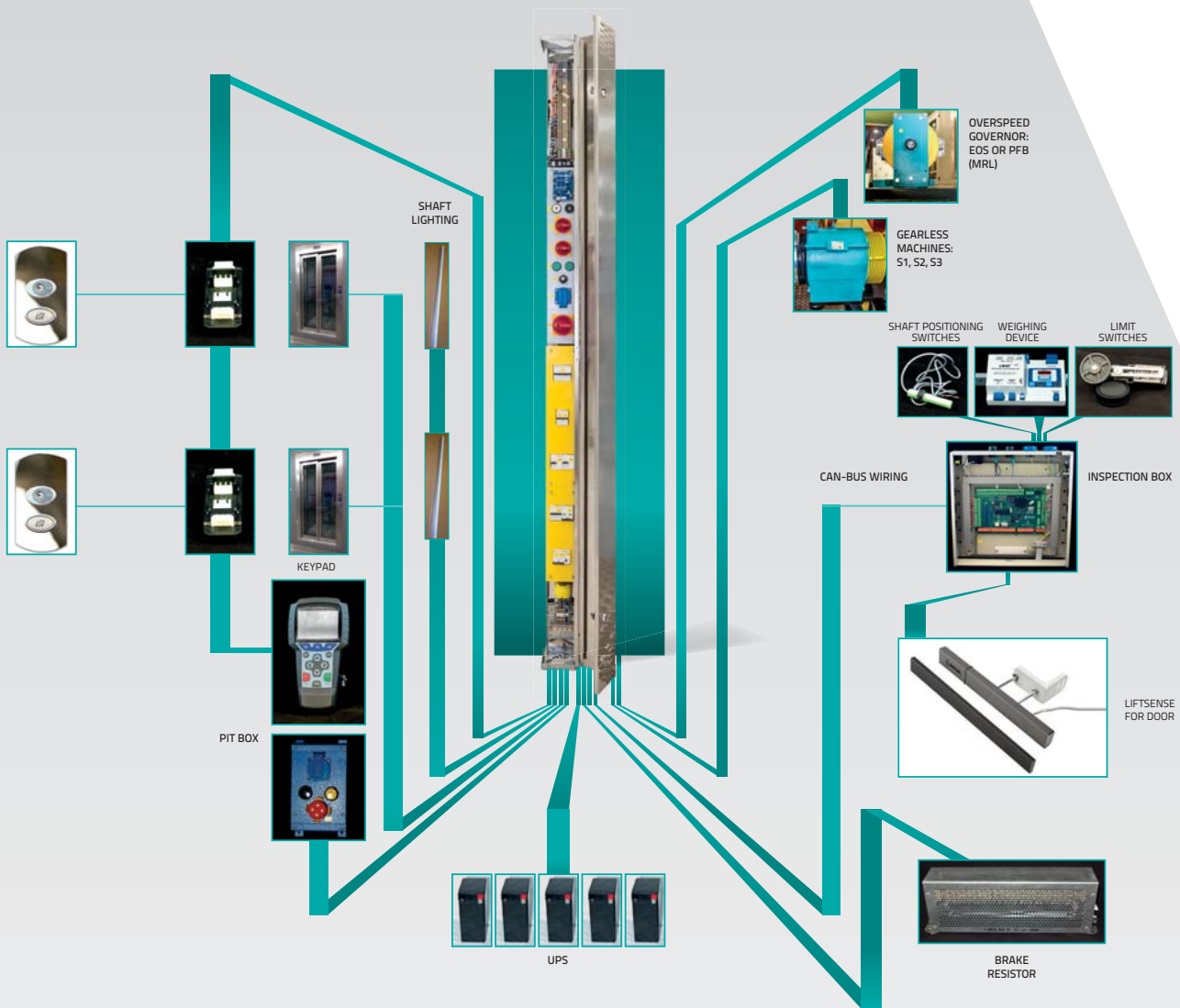
205.KK3X



205.DM



INTEGRATED DRIVE SOLUTION FOR WITTUR ELEVATOR PACKAGES



Installation type	Installation of new Wittur MRL W Line elevators
Motor control	Synchronous (gearless) machines
Drive system	Machine room less
Cabinet installation	Inside the shaft or outside the shaft
Speed range	Up to 2 m/s
Group operation	Up to 8 lifts
Number of floors	Up to 15 floors
Car wiring	With CAN bus serial communication (standard)
Landing wiring	With pre-wired CAN bus serial wiring
Car positioning	With incremental or absolute motor encoder
Door operation	2 independently operated car entrances
Evacuation operation	By using a 1-phase 230V UPS and battery
Motor Feedback	Absolute or incremental encoders (5V TTL or 10-30V HTL)

Automatic settings	Auto-tuning shaft learning control gain calculation
Handset (AREM)	User-friendly color TFT display with multilingual interface Control the system from anywhere via CAN bus
Software update (Firmware)	Fast and reliable updating system via AREM at one time
E-PACK peripherals	Inspection box controller Car panel controller Control panel connection board ENCA unit to get absolute encoder data ENCI unit to get incremental encoder data Door contact bridging board Landing call unit Landing call and indicator unit with dot matrix display Landing call and indicator unit with LCD display

Product range

MRL W Line

Layout number	Number of person	Rated load kg	Car weight kg	Rated speed m/s	Car internal dimensions mm
320 R-1	4	320	799	1	0900 x 1000
320 R-2	4	320	897	1	0900 x 1000
400 S-1	5	400	851	1	1100 x 1000
400 S-2	5	400	949	1	1100 x 1000
400 S-3	5	400	856	1	1100 x 1000
400 S-4	5	400	959	1	1100 x 1000
450 L-1	6	450	865	1	1000 x 1200
450 L-2	6	450	963	1	1000 x 1200
450 L-3	6	450	870	1	1000 x 1200
450 L-4	6	450	973	1	1000 x 1200
450 S-1	6	450	880	1	1000 x 1250
450 S-2	6	450	983	1	1000 x 1250
630 G-1	8	630	954	1 / 1,6	1100 x 1400
630 G-2	8	630	1071	1 / 1,6	1100 x 1400
630 G-3	8	630	940	1 / 1,6	1100 x 1400
630 G-4	8	630	1043	1 / 1,6	1100 x 1400
800 G-1	10	800	1089	1 / 1,6 / 2	1350 x 1400
800 G-2	10	800	1205	1 / 1,6 / 2	1350 x 1400
1000 T-1	13	1000	1284	1 / 1,6 / 2	1100 x 2100
1000 T-2	13	1000	1401	1 / 1,6 / 2	1100 x 2100
1000 L-1	13	1000	1185	1 / 1,6 / 2	1750 x 1300
1000 L-2	13	1000	1302	1 / 1,6 / 2	1750 x 1300
1000 G-1	13	1000	1189	1 / 1,6 / 2	1600 x 1400
1000 G-2	13	1000	1334	1 / 1,6 / 2	1600 x 1400
1000 C-1	13	1000	1256	1 / 1,6 / 2	2100 x 1100
1275 H-1	16	1275	1434	1 / 1,6 / 2	1200 x 2300
1600 H-1	21	1600	1591	1 / 1,6 / 2	1400 x 2400
2000 H-1	26	2000	1676	1 / 1,6 / 2	1500 x 2700
2500 H-1	33	2500	1810	1 / 1,6	1800 x 2700

Door width mm	Door opening C/S	Clear well mm	Min. well pit mm	Min. headroom mm	Number of car entrance	Handicapped accessibility
700	S	1460 x 1375	1100	3630	1	
700	S	1460 x 1560	1100	3630	2	
700	S	1660 x 1375	1100	3630	1	
700	S	1660 x 1560	1100	3630	2	
800	S	1660 x 1375	1100	3630	1	
800	S	1660 x 1560	1100	3630	2	
700	S	1565 x 1575	1100	3630	1	
700	S	1565 x 1760	1100	3630	2	
800	S	1565 x 1575	1100	3630	1	
800	S	1565 x 1760	1100	3630	2	
800	S	1565 x 1625	1100	3630	1	
800	S	1565 x 1810	1100	3630	2	
900	S	1665 x 1775	1100 / 1200	'3630 / 3780	1	✓
900	S	1665 x 1960	1100 / 1200	'3630 / 3780	2	✓
800	S	1665 x 1775	1100 / 1200	'3630 / 3780	1	✓
800	S	1665 x 1960	1100 / 1200	'3630 / 3780	2	✓
900	C	1940 x 1745	1100 / 1200 / 1350	3670 / 3820 / 3970	1	✓
900	C	1940 x 1900	1100 / 1200 / 1350	3670 / 3820 / 3970	2	✓
900	S	1680 x 2475	1100 / 1200 / 1350	3670 / 3820 / 3970	1	✓
900	S	1680 x 2660	1100 / 1200 / 1350	3670 / 3820 / 3970	2	✓
900	S	2330 x 1675	1100 / 1200 / 1350	3670 / 3820 / 3970	1	✓
900	S	2330 x 1860	1100 / 1200 / 1350	3670 / 3820 / 3970	2	✓
1100	C	2340 x 1745	1100 / 1200 / 1350	3670 / 3820 / 3970	1	✓
1100	C	2340 x 1900	1100 / 1200 / 1350	3670 / 3820 / 3970	2	✓
1200	S	2680 x 1700	1100 / 1200 / 1350	3670 / 3820 / 3970	1	✓
1100	S	2015 x 2675	1300 / 1400 / 1550	4350 / 4500 / 4650	1	✓
1300	S	2315 x 2775	1300 / 1400 / 1550	4350 / 4500 / 4650	1	✓
1300	S	2315 x 3075	1300 / 1400 / 1550	4350 / 4500 / 4650	1	✓
1300	S	2540 x 3075	1300 / 1400	4350 / 4500	1	✓



WITTUR

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Hungary
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India
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Israel
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Japan
Kazakhstan



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Liechtenstein
Lithuania
Malaysia
Mexico
Moldova
Morocco
Netherlands
Norway
Poland
Portugal
Romania
Russia
Saudi Arabia
Serbia
Singapore
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More information
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