THE ELEVATOR WITH A COMPACT MACHINE ROOM

KONE S MiniSpace™

KONE S MINISPACE™ – COMPACT AND RELIABLE

Kone is the industry leader in elevator and escalator innovation, we have continued our long history of innovative solutions for People Flow™ with the creation of the KONE S MiniSpace™ – a versatile elevator with a compact machine room that is ideal for offices, hotels and residential buildings. Powered by the revolutionary KONE EcoDisc®, it guarantees reliable operation, reduced noise levels, and provides outstanding performance for generations to come.

Less space, faster construction

With KONE S MiniSpace, the machine room is simply an extension of the elevator shaft, making it easier and more cost-efficient to install.

Impressive energy savings

KONE S MiniSpace elevators consume less energy and result in lower thermal losses than traditional machines.

Attractive interior design

Our elevator design concepts are the work of renowned professionals and designers, who unite attractive interiors with practical durability.

Excellent service from planning to maintenance

KONE offers full service throughout your building's lifecycle. From our expert traffic analysis to our flexible KONE Care™ maintenance plans and modernization services, we keep things running smoothly, safely and efficiently.

A smooth and quiet ride

The V3F variable-frequency drive ensures a smooth, comfortable ride with superior acceleration/deceleration profile, better floor-to-floor travel times, and precision leveling.

Industry standards and requirements

All KONE manufacturing units are ISO 14001 certified and meet all elevator industry standards and requirements, including:

- GB7588-2003 (EN81-1:1998)
- Singapore CP2 Code
- EN81-70 and EN81-72/GB26465
- EN81-20
- EN81-73
- GOST and PUBEL codes

KONE S MINISPACE ELEVATOR RANGE	
Max travel:	Up to 63 floors and 150 meters of travel
Max load:	Up to 1600 kg
Max speed:	Up to 3.0 m/s
Group size:	Up to 8 cars in 1 elevator group
Car height:	Up to 3000 mm, TTC* available

* TTC = Through Type Car (front and rear opening)

ELEVATOR SPECIFICATION IN THREE SIMPLE STEPS

Specifying the optimal elevator solution for your needs takes just three simple steps:

1 Specify your elevator based on the expected People Flow™ and size of your building.

2 Choose a car design to suit your building interior from our professionally designed interiors or create a custom look and feel by choosing from the wide selection of materials in the KONE Design Collection.

3 Select additional options together with your sales representative to further enhance your elevator solution.

TAKING ECO-EFFICIENCY TO NEW HEIGHTS

Save energy, save costs. It is a simple calculation with impressive results. KONE MiniSpace™ elevators, powered by the KONE EcoDisc® hoisting motor, consume less energy than other gearless elevators. KONE EcoDisc also results in lower thermal losses than traditional machines, bringing direct savings in terms of cooling and ventilation costs.

A more efficient hoisting motor is not the only way to reduce the total energy consumption of an elevator. KONE has analyzed every function and option in order to squeeze the total energy consumption.

The eco-efficient KONE EcoDisc hoisting system

A green hoisting system

The KONE EcoDisc® hoisting machine made DC gearless and energy-hungry geared hoisting machines obsolete. The KONE EcoDisc permanent magnet synchronous machine, together with a vector-controlled drive system and energy regeneration options, provides the highest total efficiency and minimizes both mechanical and electrical losses.

Regenerative drive

When the car is descending with a heavy load (or ascending with a light load), it contains potential energy. The regenerative drive recovers this energy, saving up to 30% of the total energy consumed by a typical 13-person KONE elevator.

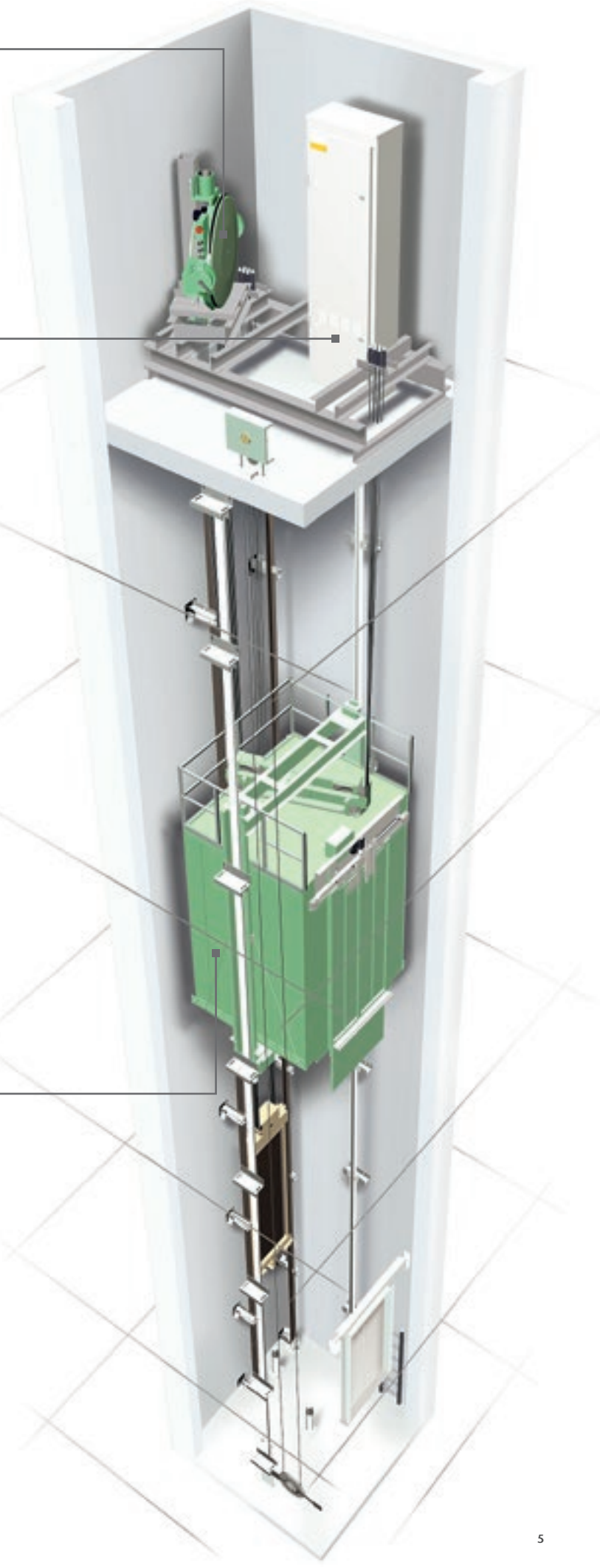
Further energy savings with standby mode

Lights, signalization, and ventilation can consume a considerable amount of energy even when the elevator is not moving. In a residential elevator witha low usage rate, this can represent a considerable portion of yearly energy costs. KONE offers the following options to minimize energy consumption:

1. Automatic car light operation turns off the lights automatically when the car is not in use and on again when the car is called.
2. Corridor illumination control automatically controls the light on the destination floor.
3. The power stage of the drive is set to sleep mode when not in use.
4. Signalization displays are dimmed when not in use.
5. The car fan is turned off when the elevator is not in use.

Eco-efficient car lighting

Surprisingly, the car lighting can account for up to 40% (1100 kWh) of an elevator's energy consumption. Halogen spots have been replaced with eco-efficient, long-lasting LED and modern fluorescent lighting technology. The lights are optimized for maximum efficiency and natural color saturation. LED lights last up to 10 times longer than traditional halogen bulbs and use up to 80% less energy.



AWARD-WINNING DESIGN

THAT HELPS YOUR BUILDING STAND OUT

WHAT SETS KONE DESIGN APART

1 Easy selection of car interiors

A collection of 52 functional and visually appealing designs created by KONE's award-winning design professionals.

2 The most flexible and versatile offering

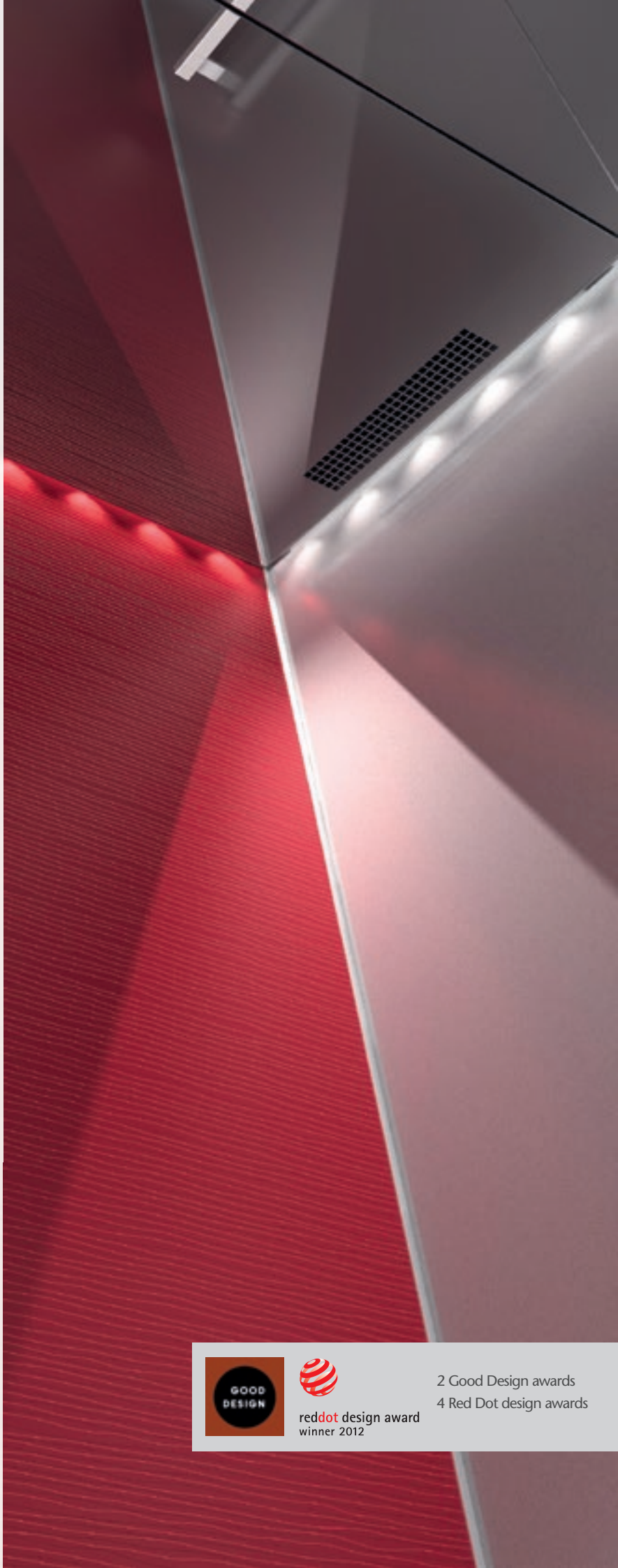
100 different materials and accessories that can be combined freely and used in all elevator products, for both new buildings and modernization projects.

3 The most innovative materials

The combination of unique textured, patterned, and 3D-effect wall materials with novel lighting solutions creates a stunning visual effect.

4 Award-winning design

KONE's elevator and signalization design concepts have received both Red Dot and Good Design awards.



GOOD DESIGN

reddot design award
winner 2012

2 Good Design awards
4 Red Dot design awards

SOLUTIONS FOR SMARTER AND SMOOTHER PEOPLE FLOW

KONE's comprehensive and flexible People Flow Intelligence solutions are designed to ensure smooth people flow in and around buildings while simultaneously providing improved security and access control. They are based on industry-leading technology that can be adapted according to your changing needs, adding real value to your property.

KONE People Flow Intelligence comprises solutions for access and destination control, as well as information communication and equipment monitoring.

Destination

Destination control systems for increased elevator performance and passenger comfort.

Access

Access control systems for increased building security

Information

Systems for information sharing inside elevators and in lobby areas.

Monitoring

Systems for monitoring and managing elevator and escalator operation.

EASY INSTALLATION AND FLEXIBLE MAINTENANCE SOLUTIONS

KONE's modern installation methods ensure that elevator installation is safe, fast and cost-efficient. After installation our network of service technicians ensure that the elevator will continue performing optimally for years to come.

Innovation through installation

The KONE MiniSpace™ solution not only saves space and energy throughout its lifetime, but it also saves money during construction. KONE has devised scaffold-less installation methods and special tools to erect the KONE S MiniSpace elevator. When the Site Absolutes are met, the installation process is uninterrupted and requires minimal or no assistance from the builder.

Save time with Construction Time Use elevators

KONE's Construction Time Use elevators (CTUs) enable safer, more weatherproof, and faster transportation of people and goods on building sites during the construction phase compared with an exterior hoist. After completion of your project, KONE CTU elevators are quickly converted into the building's permanent elevators.

KONE CARE SOLUTIONS

- **KONE Care Standard** is a cost-effective solution for reliable and top-quality maintenance that ensures compliance with safety laws and standards.
- **KONE Care Plus** simplifies maintenance management by making maintenance expenditure more predictable and providing real-time information on maintenance work.
- **KONE Care Premium** is the recommended solution if disruptions to People Flow would have a major impact on your business. The solution provides a first-class level of service and rapid response times. Maintenance costs are also fully predictable.
- **KONE Care 24/7 Connected Service** brings intelligent services to elevators and escalators. The system enables vast amounts of data from elevator sensors to be monitored, analyzed and displayed in real-time, improving equipment performance, reliability and safety.

Excellence in service around the clock

An elevator needs regular maintenance to ensure optimal performance. Our KONE Care™ maintenance solutions take into account the type, age, and usage of your equipment to maximize reliability and safety and minimize downtime and maintenance costs. KONE provides you with service excellence 365 days a year, 24 hours a day and flexible maintenance options to meet your specific needs.

KONE REFERENCES

Coastal View, Residential Compound, Qingdao

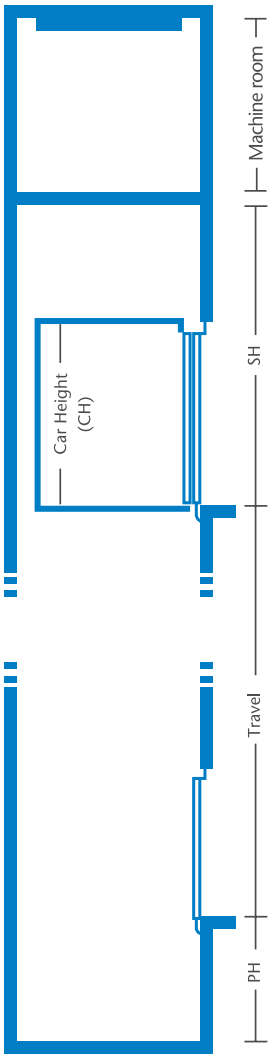
Intelligent commercial building, Shanghai

Landlord Butterfly compound, Kunshan

Huasheng Century New Town, Residential compound, Changsha

Hospital of Chinese medicine, Suzhou

KONE S MINISPACE™ PLANNING DATA



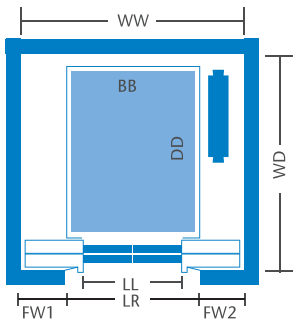
ITEM	SPECIFICATION						REMARK
Speed (m/s)	1.0	1.6	1.75	2.0	2.5	3.0	
Load (kg)	800	800	800	800	800	-	Rear counterweight/ Side counterweight
	1000	1000	1000	1000	1000	1000	
	1150	1150	1150	1150	1150	1150	
	1350	1350	1350	1350	1350	1350	
	1600	1600	1600	1600	1600	1600	
Max. travel (m)	55	85	100	110	120/135[1)]	-	MX14 platform
	-	-	100	110	135	150	NMX18 platform
Max. stops	38				48	63	
Max. units of group control	6					8	
	PT10						Passenger: 10 persons, Load: 1000 kg
	PT13						Passenger: 13 persons, Load: 1000 kg
	PT15						Passenger: 15 persons, Load: 1150 kg
	PT18						Passenger: 18 persons, Load: 1350 kg
	PT21						Passenger: 21 persons, Load: 1600 kg
Car type	Single entrance car Through type car						
Door opening	Optional						
Door height	2100/2200/2300/2400[2)]						
Door width	800, 900, 1000, 1100, 1300 (door center open only)						
Counterweight safety gear	Yes , when speed less 3 m/s						
Main power	380 V, 50 HZ, 3 phases						
Lighting power	220 V 50 Hz						
Min. interfloor distance	HH + 450 mm (high duty), HH + 480 mm (mid duty), HH + 500 mm (base duty),						

[1)] 135 m up to 1000 kg; 120 m for bigger loads
[2)] Car height CH must be greater than Door Height HH

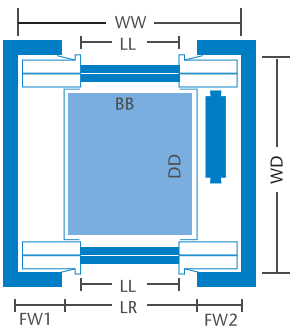
Note:
For further information regarding to the same size of machine room and shaft, reaction in pit and machine room, and etc, please contact our sales representatives.

SHAFT PLAN

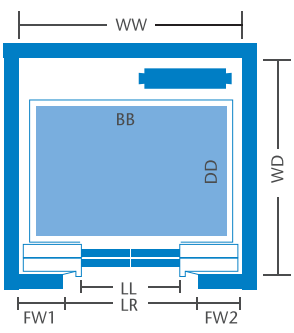
Side counterweight (Single entrance car)



Side counterweight (Through type car)



Rear counterweight



SHAFT DIMENSIONS

KONE S MINISPACE™ SMALL MACHINE ROOM (side counterweight)

TYPE CODE		PT10				PT13				PT15				PT18	PT21
Load (kg)		800				1000				1150				1350	1600
Car size (mm)		1350x1400		1400x1200		1600x1400		1600x1500		1500x1800		1800x1450		2000 x 1500	1400x2400
Door height (mm)		2100, 2200, 2300, 2400													
Door width (mm)		800, 900		800		900		900		900		1000, 1100		1000, 1100	1000, 1100
Shaft size (mm)	≤ 1.75 m/s	1925x1900		1975x1800		2225x1900		2175x1950		[1]		[1]		[1]	[1]
	2.0 m/s	1950x1900		1975x1850		2250x1950		2175x2050		2150x2150		2500x1950		[1]	2340x2870
	3.0 m/s	NA		NA		1975x2470		[1]	[1]	2185x2470		[1]	[1]	[1]	[1]
Car height (mm)		2280	2400	2280	2400	2280	2400	2280	2400	2280	2400	2280	2400	2400	2400
Over-head height (mm)	1.0 m/s	3750	3900	3750	3900	3750	3900	3750	3900	3750	3900	3750	3900	3830	3830
	1.6 m/s	3850	4000	3850	4000	3850	4000	3850	4000	3850	4000	3850	4000	4010	4010
	1.75 m/s	3900	4050	3900	4050	3900	4050	3900	4050	3950	4050	3950	4050	4100	4100
	2.0 m/s	4050	4150	4050	4150	4050	4150	4050	4150	4050	4150	4050	4150	4170	4200
	2.5 m/s	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500
	3.0 m/s	NA	NA	NA	NA	4950	4950	4950	4950	4900	4900	4900	4900	4900	4950
Pit depth (mm)	1.0 m/s	1360								1420				1270	1270
	1.6 m/s	1460								1490				1360	1360
	1.75 m/s	1490								1510				1460	1460
	2.0 m/s	1650								1700				1600	1620
	2.5 m/s	1970 (TL ≤ 120 m) 2530 (TL = 120 – 130 m) 2850 (TL > 130 m)								2040 (TL ≤ 120 m) 2530 TL = 120 – 130 m) 2850 (TL > 130 m)				2040 (TL ≤ 120 m) 2530 TL = 120 – 130 m) 2850 (TL > 130 m)	2070 (TL ≤ 120 m) 2530 (TL = 120 – 130 m) 2850 (TL > 130 m)
	3.0 m/s	NA						2800 (TL ≤ 100 m), 3100 (TL > 100 m)							

[1] Shaft dimensions are available from FLCAD

KONE S MINISPACE™ SMALL MACHINE ROOMW (rear counterweight)

TYPE CODE		PT10		PT13				PT15				PT18	PT21
Load (kg)		800		1000				1150				1350	1600
Car size (mm)		1350 x 1400		1600 x 1400		1600 x 1500		1800 x 1450		1700 x 1500		2000 x 1500	2100 x 1600
Door height (mm)		2100, 2200, 2300, 2400											
Door width (mm)		800		900		900		1000		1000		1000, 1100	1000, 1100
Shaft size (mm)	≤ 2.0 m/s	[1]		[1]		[1]		2260 x 2050		2160 x 2100		2500 x 2150	2600 x 2250
	2.5 m/s	1750 x 2000		2000 x 2000		2000 x 2100		[1]		[1]		2500 x 2150	2600 x 2250
	3.0 m/s	NA		2120 x 2050		[1]		2185 x 2470		[1]		2580 x 2250	2680 x 2250
Car height (mm)		2280	2400	2280	2400	2280	2400	2280	2400	2280	2400	2400	2400
Over-head height (mm)	1.0 m/s	4080	4200	3780	3900	3780	3900	3780	3900	3780	3900	3830	3830
	1.6 m/s	4170	4290	3840	3960	3840	3960	3840	3960	3840	3960	4010	4010
	1.75 m/s	4240	4360	3910	4030	3910	4030	3910	4030	3910	4030	4100	4100
	2.0 m/s	4330	4450	4000	4120	4000	4120	4000	4120	4000	4120	4170	4600
	2.5 m/s	4700	4820	4300	4420	4300	4420	4300	4420	4300	4420	4500	4900
	3.0 m/s	NA		5150									
Pit depth (mm)	1.0 m/s	1250						1290				1270	1270
	1.6 m/s	1300						1340				1380	1380
	1.75 m/s	1400						1400				1490	1460
	2.0 m/s	1550						1550				1620	1620
	2.5 m/s	2040 (TL ≤ 120 m) 2530 (TL = 120 – 130 m) 2850 (TL > 130 m)						2040 (TL ≤ 120 m) 2530 (TL = 120 – 130 m) 2850 (TL > 130 m)				2070 (TL ≤ 120 m) 2530 (TL = 120 – 130 m) 2850 (TL > 130 m)	2070 (TL ≤ 120 m) 2530 (TL = 120 – 130 m) 2850 (TL > 130 m)
	3.0 m/s	NA		2800 (TL ≤ 100 m), 3100 (TL > 100 m)									

[1] Shaft dimensions are available from FLCAD