

### Product details

Johnson lifts: Johnson Lifts, India's leading manufacturer of Lifts and Escalators, was started 58 years ago in 1963. Providing Lift products right from small home lifts to large Lifts for commercial buildings and public utilities, Johnson Lifts was the 1st company to have its own manufacturing facility for escalators in India. With their first Lift plant in Vyasarpadi, then in Ambattur, followed by Poonamallee, subsequently at Nagpur and now in Sengadu and also an Escalator Factory at Oragadam, Johnson is the only company in India to have multi-location manufacturing facilities and has been manufacturing Commercial & Heavy Duty Escalators since 2010.

Schindler lifts: Schindler Holding Ltd. is a Swiss multinational company which manufactures escalators, moving walkways, and elevators worldwide, founded in Switzerland in 1874. Schindler produces, installs, maintains and modernizes lifts and escalators in many types of buildings including residential, commercial and high-rise buildings. The company is present in over 140 countries and employs more than 66,000 people worldwide. The production facilities are located in Brazil, China, Slovakia, Spain, Switzerland, India and the United States. Innovation is part of our identity. It characterizes the way we think. At the plant, in the office, at every site worldwide. It means developing solutions for our customers – Big and Small: Today and Tomorrow. As a diversified multinational organization, we offer reliable products, services and solutions – on schedule, in premium quality, and with a convincing price-performance ratio. Our Swiss-engineered vertical transportation solutions move more than 1.5 billion people a day. Founded in 1874 in Lucerne, Switzerland, Schindler is at the forefront of industry innovation, pushing the boundaries of technological engineering with a strong focus on safety, comfort, efficiency and reliability. Established in 1998, Schindler India is a wholly-owned subsidiary of Schindler Holding Co. We can be found in the world's most recognizable buildings, busiest transportation hubs and retail centres. We are everywhere, where people are on the move.

#### 1.1 Product specification comparison between Johnson & Schindler

Parameters	Johnson lifts -STELLAR	Johnson lifts MINI SUKRANTI – Low rise	Schindler 1000 - Alpha	Schindler 1000
GQ (kg)	278-544kg	278-544kg	408-544kg	408-544kg
Passenger Capacity (Pax)	4-8 passenger	4-8 passenger	6-8 passenger	6-8 passenger
Speed (m/s)	0.66 m/s	0.66 m/s	0.63 & 1 m/s	0.63 & 1 m/s
Maximum.Stops	7 stops	7 stops	8 stops	16 stops
Max Travel (Mtr.)	21 m	21 m	22 m	45 m
No. of entrances	1	1	1	1
Car Width (BK)	800-1100 mm	900 mm	1000/1100 mm	1000/1100 mm
Car Depth (TK)	950-1300 mm	1100 mm	1100/ 1300 mm	950-1300 mm
Car Height (HK)	2100 mm	2200 mm	2100/2200 mm	2100/2200 mm
Door type	T2 & C2	T2	T2 & C2	T2 & C2

<b>Door Width (BT)</b>	700 & 800 mm	700 mm	T2 – 750 mm C2 – 800 mm	T2 – 750 mm C2 – 800 mm
<b>Door Height (HT)</b>	2000 mm	2000 mm	2000/2100 mm	2000/2100 mm
<b>Control Grouping</b>	1	1	2	4
<b>Car decor</b>	Powder Coated	Powder Coated & Stainless steel	Powder Coated & Stainless steel	Powder Coated & Stainless steel

### 1.2 Product specification comparison between Johnson & Schindler

<b>Parameters</b>	<b>Johnson lift Mini Sukranti-Mid rise</b>	<b>Johnson lifts - SUKRANTI</b>	<b>SCHINDLER 3000</b>
<b>GQ (kg)</b>	408-1020kg	408-1632kg	544-1360kg
<b>Passenger Capacity (Pax)</b>	6-15 passenger	6-24 passenger	8-20 passenger
<b>Speed (m/s)</b>	1.25 m/s	1.25 & 1.75 m/s	1 to 2.5 m/s
<b>Maximum Stops</b>	15 stops	28 stops	30 stops
<b>Max Travel (Mtr.)</b>	45m	78m	80m
<b>No. of entrances</b>	2	2	2
<b>Car Width (BK)</b>	900-1550mm	900-1700mm	1000-2000mm
<b>Car Depth (TK)</b>	1100-2150mm	1100-2400mm	1300-2400mm
<b>Car Height (HK)</b>	2200mm	2800mm	2100-2700mm
<b>Door type</b>	T2 & C2	T2 & C2	T2 & C2
<b>Door Width (BT)</b>	700-1000mm	700-1000mm	800-1000mm
<b>Door Height (HT)</b>	2100mm	2100-2800mm	2000-2400mm
<b>Control Grouping</b>	2	4	6
<b>Car deco</b>	Powder Coated & Stainless steel	Powder Coated, Stainless steel & Glass	Powder Coated, Stainless steel, Back-painted Glass, Door & Rear side glass

### 1.3 Comparison of car and landing doors between Johnson & Schindler lifts

Johnson lifts: Johnson can offer all finishes for door, Painted finish, Stainless steel finish and glass doors as well. Both centre opening and side opening doors can be offered by them. Their centre door opening starts from 700mm. Non-fire rated door are offered as a standard option while fire rated door can be provided based on the requirement. The doors offered by Johnson lifts are extremely robust

Schindler lifts: Schindler can offer all finishes for door, Painted finish, Stainless steel finish and glass doors as well. Both centre opening and side opening doors can be offered by them. Their centre door

opening starts from 800mm. 2 hours fire rated doors are offered as a standard option. The doors offered by Schindler lifts has scope for improvement

#### 1.4 Evacuation device offered by Johnson lifts and Schindler lifts

Johnson lifts: Manual brake level is provided for evacuation during mantraps. Evacuation activity requires skilled operators to ensure prompt speed control and levelling of lift. In case where panel comes in terrace of the lift, it will be exposed to rain and high chances of controller getting damaged.

Schindler lifts: Schindler provides a safer manual evacuation method through PEBO. PEBO stands for Pulse Electric Brake Operation. PEBO uses an inch by inch mechanism which is well appreciated in the E&E Industry. This allows a skill free evacuation by lowering or raising the stuck elevator car inch by inch to the nearest floor.

#### 1.5 Motor offered by Johnson lift and Schindler lift

Johnson lifts: Johnson uses KDS Permanent Magnet synchronous Motors in its Sukranti product line. The motor efficiency and power factor at full load is  $\leq 85\%$  for the Nextra product line. The motor offered by Johnson is robust & heavy. The motor has IP40 protective rating. As the machine weight is more an extra head room on side walls is required must be casted with RCC, as the machine weight is more and channel to be provided by customer. Regenerative drive is not provided as a standard offer but can be offered when required; for the government projects especially.

Schindler lifts: Schindler offers permanent magnet synchronous motor in its elevators. Its manufactured in India. The motor size is small and light. Machine is hoisted over the combination bracket of the guide rails, which will also not weaken the guide rails. The motor is highly efficient with the highest power factor in the elevator/lift industry.

#### 1.6 Overspeed governor for safety offered by Johnson lift and Schindler lift

Johnson lifts: The overspeed governors offered by Johnson in their lifts/elevators are electromechanical and centrifugal type. There are two options offered for overspeed governor, first one is instantaneous for lower speed operation and the second one is progressive for high speed operation. Johnson uses rope of 6mm and 8mm diameter in the overspeed governor. The type of rope is used depending on the passenger capacity and the defined speed of the car

Schindler lifts: Overspeed governor offered by Schindler is a mechanical safety device which activates emergency stops when the car moves faster than the maximum allowed speed. It also activates the safety gear if the speed keeps increasing. Schindler uses rope of 6mm and 8mm diameter in the overspeed governor

#### 1.7 Landing door unit offered by Johnson and Schindler lift

Johnson lifts: Landing door unit (LDU) is a completely separate unit which has to be placed with a provision adjacent to the elevator preferably on the last landing floor. Size of LDU is more than 1.5 feet and is substantially bigger in size as compared to Schindler's LDU which is around 6 inch.

Schindler lifts: LDU offered by Schindler in their elevators is compact and is fitted inside the landing door frame. The chances of it getting damaged due to external exposure is less, and it is also aesthetically more pleasing.

#### 1.8 Traction media offered by Johnson and Schindler lift

Johnson lifts: Johnson offered ropes for all their product lines. The ropes are 10mm thick and requires regular lubrication which is a high maintenance. Also for ropes the bending radius is more. Johnson cannot offer belts, and has only rope as the solution for Traction media

Schindler lifts: Schindler offers STM belts. STM belt is made of steel chords and is protected with thermoplastic polyurethane; making it light in weight, abrasion resistant and a highly flexible system with smallest bend radius. Its innovative V-profile enables the belt to tightly engage with the grooves of pulley; allowing the use of green gearless drives and resulting in high performance & low energy consumption

#### 1.9 Limitations in offering made by Schindler & Johnson lifts

Johnson lifts:

1. Maximum of 4 car grouping can be supplied by them in any of their products. Anything above 4 car grouping, they buy from SJEC (China tie up)
2. Touch options are not available for any product
3. Fire rated doors (Normal & Glass) are not given as standard offer
4. Centre Alignment of car cannot be done with equal front entrance wall
5. There is no Safety or Quality team to inspect the site after particular stage. Installation team acts as quality team
6. Aluminium Chequered Plate not available as a car flooring option

Schindler lifts:

1. Half height Full width mirror not available as standard
2. CAT 6 CCTV cable not available as standard offer
3. Standard Centre opening doors not available for smaller car sizes