

## **NBC: National Building code of India 2016**

Table 12 Recommended Dimensions of Passenger Lifts and Service Lifts with Machine Room as per NBC  
(Clause 5.10.3.1)  
All dimensions in millimetres.

No. of passenger	Rated Load	Car size		COPD door	Shaft sizes for Passenger and service lifts with Machine room for speed											
					Rated speed < 1m/s		3.0m/s <=Rated speed<=3.5m/s		4.0m/s <=Rated speed<=5.0m/s		Rated speed = 6m/s		7.0m/s <=Rated speed<=8.0m/s		9.0m/s <=Rated speed<=10.0m/s	
	kg(3)	Widt h(4)	Dept h(5)	Widt h(6)	Widt h(7)	Dept h(8)	Width (11)	Depth (12)	Width (13)	Depth (14)	Width (15)	Depth (16)	Width (17)	Depth (18)	Width (19)	Depth (20)
4	272	1100	700	800	1900	1300										
6	408	1100	1000	800	1900	1700										
8	544	1300	1100	800	1900	1900										
10	680	1300	1350	800	1900	2150										
13	884	2000	1100	900	2600	1900										
14	952	1600	1400	900	2200	2100	2200	2150	2250	2150	2250	2250	2300	2300	2300	2450
16	1088	1600	1600	1000	2300	2300	2300	2350	2300	2350	2300	2450	2300	2500	2300	2650
18	1224	2000	1400	1100			2600	2150	2600	2150	2600	2250	2700	2300	2700	2450
20	1360	2000	1500	1100			2600	2250	2600	2250	2600	2350	2700	2400	2700	2550
22	1496	2100	1600	1100			2700	2350	2700	2350	2700	2450	2800	2500	2800	2550
26	1768	2350	1600	1200			3000	2350	3000	2350	3000	2450	3050	2550	3050	2550
29	1972	2350	1700	1200			3000	2500	3000	2500	3000	2550	3050	2600	3050	2700

### **NOTES**

- All dimensions given above for lifts having centre opening power operated doors (COPD) with counterweight at rear, are recommended dimensions primarily for architects and building planners. Any variations mutually agreed between the manufacturer and the purchaser are permitted. However, variation in,
  - car inside dimensions shall be within the minimum and maximum area limits specified in accordance with accepted standards [8-5A(6)].
  - entrance width on higher side is permitted.
  - entrance width on lower side is permitted up to 100 mm subject to minimum of 700 mm.
- The minimum size of the lift car and all other requirements relating to accessibility, in all public buildings shall be in accordance with 13 of Part 3 'Development Control Rules and General Building Requirements' of the Code.

All dimensions in millimetres

No. of passenger	Rated Load	Round off rated load	Car size		2P TSPD Door	Shaft sizes for Hospital beds/stretchers with Machine room for speed											
						Rated speed < 1m/s		3.0m/s <=Rated speed<=3.5m/s		4.0m/s <=Rated speed<=5.0m/s		Rated speed = 6m/s		7.0m/s <=Rated speed<=8.0m/s		9.0m/s <=Rated speed<=10.0m/s	
	kg(3)	kg(4)	Widht h(5)	Dept h(6)	Widht h(7)	Widht h(8)	Dept h(9)	Width (12)	Depth (13)	Width (14)	Depth (15)	Width (16)	Depth (17)	Width (18)	Depth (19)	Width (20)	Depth (21)
15	1020		1000	2400	800	1800	3000										
20	1360		1300	2400	1200			2350	3000	2350	3000	2350	3000	2500	3000	2500	3000
26	1768	1800	1400	2550	1200			2500	3050	2500	3050	2500	3050	2600	3150	2650	3150
29	1972	2000	1500	2700	1400			2600	3200	2600	3200	2600	3200	2700	3200	2700	3200
36	2448	2500	1800	2700	1400			2900	3200	2900	3200	2900	3200	3000	3200	3000	3200

## NOTES

1. All dimensions given above for lifts having two panel telescopic doors (2P TSPD) with counterweight at side, are recommended dimensions primarily for architects and building planners. Any variations mutually agreed to between the manufacturer and the purchaser are permitted. However, variation in:
  - a) car inside dimensions shall be within the maximum area limits specified in accordance with accepted standards [8-5A(6)].
  - b) entrance width on higher side is permitted.
  - c) entrance width on lower side is permitted up to 100 mm subject to minimum of 700 mm.
2. Car depth of 2100 mm may be considered in residential/commercial buildings, where use of only ambulance stretcher is envisaged. The hoist-way depth maybe reduced accordingly

All dimensions are in millimetres

[illegible]

200 0	1700	2500	4P-1500	2800	3050	2800	3050	2900	3050	3000	3050	3000	3050	3000	3050
250 0	2000	2500	4P-1700	3000	3050	3000	3050	3100	3050	3200	3050	3200	3050	3200	3050
300 0	2000	3000	4P-1700	3000	3550	3000	3550	3100	3550	3200	3550	3200	3550	3200	3550
400 0	2500	3000	4P-2100	3700	3650	3700	3650								
500 0	2500	3600	4P-2100	3850	4250	3850	4250								

#### NOTE

All dimensions given above for lifts having centre opening power operated doors (COPD) with counterweight at side, are recommended dimensions primarily for architects and building planners. Any variations mutually agreed to between the manufacturer and the purchaser are permitted. However, the minimum rated load for the goods lift shall be based on a load of not less than 3.45 kN/m<sup>2</sup> of the net inside car area.

Table 17 Recommended Dimensions of Dumbwaiter Lifts as per NBC  
(Clause 5.10.3.1)

All dimensions in millimetres.

Load	Car Inside			Lift well		Entrance
kg(2)	A(3)	B(4)	H(5)	C(6)	D(7)	E(8)
100	700	700	800	1200	900	700
150	800	800	900	1300	1000	800
200	900	900	1000	1400	1100	900
250	1000	1000	1200	1500	1200	1000

#### NOTE

Entrance width 'E' is based on assumption of provision of vertical biparting doors (no car door is normally provided)

Table 18 Recommended Dimensions of Passenger Lifts MRL COPD as per NBC  
(Clause 5.10.3.1)

All dimensions in millimetres

No. of passenger	Rated Load	Car size		2P COPD door	Shaft sizes for Passenger and service lifts Machine room less (MRL) for speed					
					1m/s<=Rated speed <=2m/s		Rated speed = 2.5m/s		Rated speed = 3.0m/s	
	kg(3)	Width(4)	Depth(5)	Width(6)	Width(7)	Depth(8)	Width(9)	Depth(10)	Width(11)	Depth(12)
4	272	900	850	700	1600	1550				
6	408	1000	1100	800	2000	1700				
8	544	1300	1100	800	2150	1800				
10	680	1350	1300	800	2150	1900				
13	884	1600	1400	1000	2550	1950	2550	2050	2550	2250
15	1020	1600	1550	1000	2550	2050	2550	2150	2550	2250

16	1088	1600	1600	1000	2550	2100	2550	2200	2550	2300
20	1360	1800	1700	1100	2700	2300	2700	2350	2700	2350
22	1496	1800	1900	1100	2700	2400	2750	2450	2750	2450
26	1768	1900	2000	1100	2800	2450	2850	2450	2850	2500
29	1972	2350	1700	1200	3100	2200	3100	2200		

## NOTES

- All dimensions given above for lifts having centre opening power operated doors (COPD) with counterweight at side, are recommended dimensions primarily for architects and building planners. Any variations mutually agreed to between the manufacturer and the purchaser are permitted. However, variation in:
  - car inside dimensions shall be within the maximum area limits specified in accordance with accepted standards [8-5A(6)].
  - entrance width on higher side is permitted.
  - entrance width on lower side is permitted up to 100 mm subject to minimum of 700 mm.
- The minimum size of the lift car and all other requirements relating to accessibility, in all public buildings shall be in accordance with 13 of Part 3 'Development Control Rules and General Building Requirements' of the Code.

Table 19 Recommended Dimensions of Stretcher/Hospital lifts MRL (2P Telescopic Door/4P COPD as per NBC  
Speed 1.0 m/s to 2.0 m/s)  
(Clause 5.10.3.1)  
All dimensions in millimetres

Rated Load		Car Size		Door size	Shaft size	
Persons(2)	kg(3)	Width(4)	Depth(5)	(6)	Width(7)	Depth(8)
15	1020	1100	2400	900	2150	2950
20	1360	1300	2400	1200	2350	2950
23	1600	1400	2400	1300	2450	2950
29	2000	1500	2700	1300	2450	3250

## NOTES

- All dimensions given above for lifts having 2 panel telescopic or 4 panel centre opening power operated doors (4P COPD) with counterweight at side, are recommended dimensions primarily for architects and building planners. Any variations mutually agreed to between the manufacturer and the purchaser are permitted. However, variation in:
  - car inside dimensions shall be within the maximum area limits specified in accordance with accepted standards [8-5A(6)].
  - entrance width on higher side is permitted.
  - entrance width on lower side is permitted up to 100 mm subject to minimum of 700 mm.
- Car depth of 2100 mm may be considered in residential/commercial buildings where use of only ambulance stretcher is envisaged. The hoist-way depth maybe reduced accordingly.

Table 20 Pit Depth for Passenger/Stretcher/Hospital Lifts MRL as per NBC  
(Clause 5.10.3.1)  
All dimensions in millimetres

No. of passenger	Pit depth for Speed					
	1 m/s	1.6 m/s	1.8 m/s	2 m/s	2.5 m/s	3 m/s
4	1600	1800	2000	2200		
6	1600	1800	2000	2200		
8	1600	1800	2000	2200		
10	1600	1800	2000	2200		
13	1600	1800	2000	2200	2500	3100
15	1600	1800	2000	2200	2500	3100
16	1600	1800	2000	2200	2500	3100
20	1800	1800	2000	2200	2500	3100
22	1800	1800	2000	2200	2500	3100
26	1800	1800	2000	2200	2500	3100
29	1800	1800	2000	2200	2500	

**NOTE**

Recommended dimensions for pit depth for different lift speeds are given in the table. These dimensions may differ in practice as per individual manufacturer's design depending upon load, speed, and drive. However, the pit depth shall be such as to conform to the requirements of bottom clearance and top clearance in accordance with the accepted standards [8-5A(7)].

Table 21 Overhead Height for Passenger and Stretcher/Hospital Lifts MRL as per NBC  
(Clause 5.10.3.1)  
All dimensions in millimetres

No. of passenger	Overhead height for passenger and Stretcher/Hospital lifts Machine room less (MRL) for speed			
	1 m/s	1.6 m/s ≤ Rated speed ≤ 2 m/s	2.5 m/s	3 m/s
4	CH + 1900	CH + 2400		
6	CH + 1900	CH + 2400		
8	CH + 1900	CH + 2400		
10	CH + 1900	CH + 2400		
13	CH + 1900	CH + 2400	CH + 2600	CH + 2800
15	CH + 1900	CH + 2400	CH + 2600	CH + 2800
16	CH + 1900	CH + 2400	CH + 2600	CH + 2800
20	CH + 1900	CH + 2400	CH + 2600	CH + 2800
22	CH + 1900	CH + 2400	CH + 2600	CH + 2800
26	CH + 1900	CH + 2400	CH + 2600	CH + 2800
29	CH + 1900	CH + 2400	CH + 2600	

**NOTE:**

1. Recommended dimensions for overhead for different lift speeds are given in the table. These dimensions may differ in practice as per individual manufacturer's design depending upon load, speed and drive. However, the overhead shall be such as to

conform to the requirements of bottom clearance and top clearance in accordance with the accepted standards [8-5A(7)].

2. CH is the clear car height from car finished floor level to car roof (goods lifts will normally not have any false ceiling).
3. Normal range for CH is 2100 mm to 2400 mm.
4. Door height is less than or equal to the car height CH.

Table 22 Recommended Dimensions of Goods Lifts MRL (Speed 1.0 m/s) as per NBC  
(Clause 5.10.3.1)  
All dimensions in millimetres

Rated Load	Car size		Door size	Shaft size for Telescopic door		Shaft size for 4P COPD		Shaft size for 2P COPD		Overhead Height	Pit Depth
	Width	Depth		Width	Depth	Width	Depth	Width	Depth	HR	PH
kg											
500	1300	1100	800					1950	1800	CH + 1900	1600
1000	1600	1550	1000					2250	2050	CH + 1900	1600
1600	1400	2400	1300	2550	3000	2500	3000			CH + 1900	1800
2000	1500	2700	1300	2550	3300	2550	3300			CH + 1900	1800
2500	1800	2650	1700			3150	3250			CH + 2100	1800
3000	2000	2700	1800			3350	3300			CH + 2100	1800
4000	2100	3400	1800			3400	4000			CH + 2100	2100
5000	2500	3500	2200			3800	4100			CH + 2400	2200

#### NOTES

1. CH is the clear car height from car finished floor level to car roof (goods lifts will normally not have any false ceiling).
2. Normal range for CH is 2100 mm to 2400 mm.
3. Door height is less than or equal to the car height CH.
4. In case counterweight safety is applicable check for dimensions with lift manufacturer.
5. All dimensions given above for lifts having telescopic or centre opening power operated doors (COPD) with counterweight at side, are recommended dimensions primarily for architects and building planners. Any variations mutually agreed to between the manufacturer and the purchaser are permitted. However, the minimum rated load for the goods lift shall be based on a load of not less than 1.45 kN/m<sup>2</sup> of the net inside car area.
6. Recommended dimensions for overhead and pit depth for different lift speeds are given in the table. These dimensions may differ in practice as per individual manufacturer's design depending upon load, speed, and drive. However, the overhead and pit depth shall be such as to conform to the requirements of bottom clearance and top clearance in accordance with the accepted standards [8-5A(7)].