



= Soft & Smooth Movement

Lapcon series products provide the smoothest opening and closing system imaginable, equipped with Sugatsune's built-in patented dampening device. As a Lapcon opens and closes, it moves with quiet assurance. Lapcon products also provide safety to your application with its revolutionary damper. Doors and lids will come down slowly and softly which eliminates slamming doors or smashed fingers.

LID SUPPORTS



Downward-Opening Lids

Secretary Desks * Keyboard Trays * Media Cabinets

With catch in closed position :

- SDS-C100, SDS-C100TV
- NSDX-10, NSDX-10TV
- HDS-10

Without catch in closed position :

- SDS-100, SDS-100TV

Use with :

- SDH Drop Hinges (P.234, sold separately)
- ML Touch Latches (P.120~120, sold separately)



Upward-Opening Lids

Upper Kitchen & Bath Cabinets * Display Boxes

With catch in open position :

- SDS-C301
- NSDX-35
- HDS-30
- HDSN-30
- SLS-ELAN

Use with :

- 230 Concealed Hinges (P.276~277, sold separately)



Top-Opening Lids

Toy Boxes & Chests * Display Cases * Access Panels

With catch in open position :

- SDS-210, SDS-C301
- NSDX-20
- HDS-20

Use with :

- 230 Concealed Hinges (P.276~277, sold separately)
- LSD Piano Hinges (P.220, sold separately)

Torque Rating

$$\text{Door Weight} \times \text{Door Height} \div 2 = \text{Applied Torque}$$

Approximate lid weight can be calculated as follows

1. Calculate area of lid:
e.g) 28" × 12" = 336 sq. in.
2. Convert to square ft. if needed:
e.g) 336 sq. in. divide by 144 = 2.33 sq. ft
3. Select density factor from table on the left:
e.g) 3.5 lbs./sq. ft for 3/4" thick door (MDF)
4. Determine door weight:
e.g) 2.33 sq. ft × 3.5 lbs./sq. ft = **8.16 lbs.**

Material, 3/4" (19 mm) thick	Density (lbs./sq.ft)
Particle board	3
MDF (Medium Density Fiberboard)	3.5
Plywood (Lumbercore)	2.5
Solid Wood (Oak, Beech, Ash, Birch, Elm, Maple)	2.7
Solid Wood (Red Pine, Red Cedar)	1.9

Above values are approximate. Please weigh lid for exact weight.

Door Weight Range Table (Per pair, in lbs.)

Door Height (inches)	SDS-C100TV		SDS-C100TVZ		SDS-C100		SDS-C301N		NSDX-TV		NSDX	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
6	2.9	6.9	9.5	21.7	-	-	-	-	5.8	11.6	-	-
7	2.5	5.9	8.2	18.6	-	-	-	-	5.0	9.9	-	-
8	2.2	5.2	7.2	16.3	15.0	21.5	17.5	30.0	4.4	8.7	9.5	30.0
9	1.9	4.6	6.4	14.5	13.3	19.1	15.6	26.7	3.9	7.7	8.4	26.7
10	1.7	4.2	5.7	13.0	12.0	17.2	14.0	24.0	3.5	6.9	7.6	24.0
11	1.6	3.8	5.2	11.9	10.9	15.6	12.7	21.8	3.2	6.3	6.9	21.8
12	1.5	3.5	4.8	10.9	10.0	14.3	11.7	20.0	2.9	5.8	6.3	20.0
13	-	-	-	-	9.2	13.2	10.8	18.5	-	-	5.8	18.5
14	-	-	-	-	8.6	12.3	10.0	17.1	-	-	5.4	17.1
15	-	-	-	-	8.0	11.5	9.3	16.0	-	-	5.1	16.0
16	-	-	-	-	7.5	10.8	8.8	15.0	-	-	4.8	15.0
17	-	-	-	-	7.1	10.1	8.2	14.1	-	-	4.5	14.1
18	-	-	-	-	6.7	9.6	7.8	13.3	-	-	4.2	13.3
19	-	-	-	-	6.3	9.1	7.4	12.6	-	-	4.0	12.6
20	-	-	-	-	6.0	8.6	7.0	12.0	-	-	3.8	12.0
21	-	-	-	-	5.7	8.2	6.7	11.4	-	-	3.6	11.4
22	-	-	-	-	5.5	7.8	6.4	10.9	-	-	3.5	10.9
23	-	-	-	-	5.2	7.5	6.1	10.4	-	-	3.3	10.4
24	-	-	-	-	5.0	7.2	5.8	10.0	-	-	3.2	10.0
25	-	-	-	-	4.8	6.9	5.6	9.6	-	-	3.0	9.6
26	-	-	-	-	4.6	6.6	5.4	9.2	-	-	2.9	9.2

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Door Weight Range Table (Per pair, in lbs.)

Door Height (inches)	HDS-K		HDS-M		HDS-H		HDSN-K		HDSN-M		HDSN-H		HDSN-S	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
8	30.3	43.3	43.3	54.0	54.0	65.0	30.5	38.8	39.0	47.5	47.8	56.3	56.5	65.0
9	26.9	38.4	38.4	48.0	48.0	57.8	27.1	34.4	34.7	42.2	42.4	50.0	50.2	57.8
10	24.2	34.6	34.6	43.2	43.2	52.0	24.4	31.0	31.2	38.0	38.2	45.0	45.2	52.0
11	22.0	31.5	31.5	39.3	39.3	47.3	22.2	28.2	28.4	34.5	34.7	40.9	41.1	47.3
12	20.2	28.8	28.8	36.0	36.0	43.3	20.3	25.8	26.0	31.7	31.8	37.5	37.7	43.3
13	18.6	26.6	26.6	33.2	33.2	40.0	18.8	23.8	24.0	29.2	29.4	34.6	34.8	40.0
14	17.3	24.7	24.7	30.9	30.9	37.1	17.4	22.1	22.3	27.1	27.3	32.1	32.3	37.1
15	16.1	23.1	23.1	28.8	28.8	34.7	16.3	20.7	20.8	25.3	25.5	30.0	30.1	34.7
16	15.1	21.6	21.6	27.0	27.0	32.5	15.3	19.4	19.5	23.8	23.9	28.1	28.3	32.5
17	14.2	20.4	20.4	25.4	25.4	30.6	14.4	18.2	18.4	22.4	22.5	26.5	26.6	30.6
18	13.4	19.2	19.2	24.0	24.0	28.9	13.6	17.2	17.3	21.1	21.2	25.0	25.1	28.9
19	12.7	18.2	18.2	22.7	22.7	27.4	12.8	16.3	16.4	20.0	20.1	23.7	23.8	27.4
20	12.1	17.3	17.3	21.6	21.6	26.0	12.2	15.5	15.6	19.0	19.1	22.5	22.6	26.0
21	11.5	16.5	16.5	20.6	20.6	24.8	11.6	14.8	14.9	18.1	18.2	21.4	21.5	24.8
22	11.0	15.7	15.7	19.6	19.6	23.6	11.1	14.1	14.2	17.3	17.4	20.5	20.5	23.6
23	10.5	15.0	15.0	18.8	18.8	22.6	10.6	13.5	13.6	16.5	16.6	19.6	19.7	22.6
24	10.1	14.4	14.4	18.0	18.0	21.7	10.2	12.9	13.0	15.8	15.9	18.8	18.8	21.7
25	9.7	13.8	13.8	17.3	17.3	20.8	9.8	12.4	12.5	15.2	15.3	18.0	18.1	20.8
26	9.3	13.3	13.3	16.6	16.6	20.0	9.4	11.9	12.0	14.6	14.7	17.3	17.4	20.0
27	9.0	12.8	12.8	16.0	16.0	19.3	9.0	11.5	11.6	14.1	14.1	16.7	16.7	19.3
28	8.6	12.4	12.4	15.4	15.4	18.6	8.7	11.1	11.1	13.6	13.6	16.1	16.1	18.6

Door Height (inches)	SLS-ELAN M		SLS-ELAN H		EZS-ELAN LL		EZS-ELAN LM		EZS-ELAN MM		EZS-ELAN MH		EZS-ELAN HH	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
12	16.0	21.7	21.7	29.0	-	-	-	-	-	-	-	-	-	-
13	14.8	20.0	20.0	26.8	-	-	-	-	-	-	-	-	-	-
14	13.7	18.6	18.6	24.9	-	-	-	-	-	-	-	-	-	-
15	12.8	17.3	17.3	23.2	-	-	-	-	-	-	-	-	-	-
16	12.0	16.3	16.3	21.8	-	-	-	-	-	-	-	-	-	-
17	11.3	15.3	15.3	20.5	-	-	-	-	-	-	-	-	-	-
18	10.7	14.4	14.4	19.3	-	-	-	-	-	-	-	-	-	-
19	10.1	13.7	13.7	18.3	-	-	-	-	-	-	-	-	-	-
20	9.6	13.0	13.0	17.4	-	-	-	-	-	-	-	-	-	-
21	9.1	12.4	12.4	16.6	10.0	14.0	13.8	18.3	18.1	22.6	21.6	25.3	25.1	30.8
22	8.7	11.8	11.8	15.8	9.7	13.5	13.3	17.6	17.4	21.7	20.7	24.2	24.1	29.5
23	8.3	11.3	11.3	15.1	9.4	13.0	12.8	16.9	16.7	20.8	19.9	23.3	23.1	28.3
24	8.0	10.8	10.8	14.5	9.1	12.5	12.4	16.3	16.1	20.1	19.2	22.4	22.2	27.2
25	7.7	10.4	10.4	13.9	8.8	12.1	12.0	15.7	15.5	19.3	18.5	21.6	21.4	26.2
26	7.4	10.0	10.0	13.4	8.5	11.7	11.6	15.2	15.0	18.7	17.9	20.9	20.7	25.3
27	7.1	9.6	9.6	12.9	8.3	11.4	11.2	14.7	14.6	18.1	17.3	20.2	20.0	24.4
28	6.9	9.3	9.3	12.4	8.1	11.0	10.9	14.3	14.1	17.5	16.7	19.5	19.4	23.6
29	6.6	9.0	9.0	12.0	7.9	10.7	10.6	13.8	13.7	17.0	16.2	18.9	18.8	22.9
30	6.4	8.7	8.7	11.6	7.7	10.5	10.3	13.5	13.3	16.5	15.8	18.4	18.2	22.2
31	6.2	8.4	8.4	11.2	-	-	-	-	-	-	-	-	-	-
32	6.0	8.1	8.1	10.9	-	-	-	-	-	-	-	-	-	-

*Note: -Door weight range is calculated based on center of gravity point at the middle of door.
 -Door weight range for HDSN is for opening angle 90°.