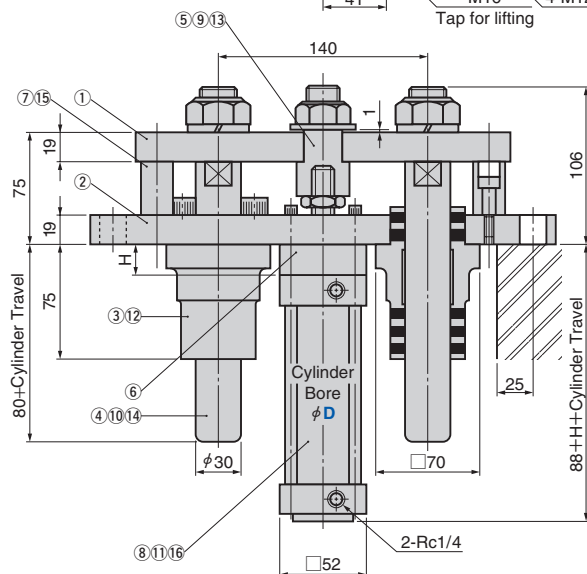
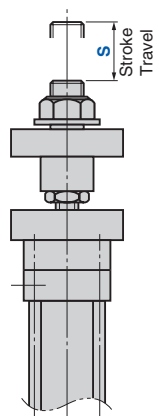
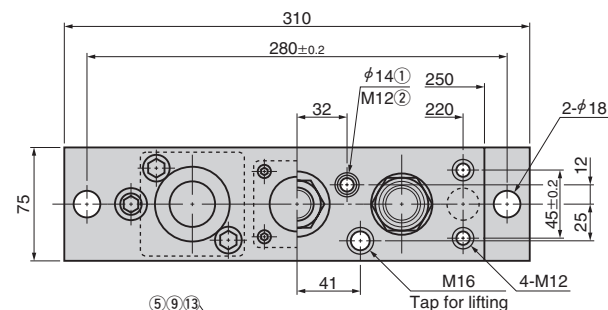


H-Type Lifter

Panel Transfer Components

HLSGT40

CAD
FILE



| No. | Description | Qty | Material and Remark |
|-----|-----------------------|-----|---------------------|
| 1 | Lifter Plate | 1 | Steel |
| 2 | Cylinder Holder Plate | 1 | Steel |
| 3 | Guide Holder | 2 | SO#50F |
| 4 | Guide Pin | 2 | Steel |
| 5 | Joint | 1 | Steel |
| 6 | Block | 1 | Steel |
| 7 | Stopper | 2 | — |
| 8 | Air Cylinder | 1 | SMC (φ40) |

| No. | Description | Qty | Material and Remark |
|-----|--------------------------|-----|---------------------|
| 9 | U Nut | 1 | M20 |
| 10 | U Nut | 2 | M24 |
| 11 | Hexagon Socket Head Bolt | 4 | M6 |
| 12 | Hexagon Socket Head Bolt | 4 | M12x35 |
| 13 | Flat Washer | 1 | M20 |
| 14 | Spring Washer | 2 | M24 |
| 15 | Shoulder Bolt | 2 | M8x20 |
| 16 | Spring Washer | 4 | M6 |

| Catalog No. | Cylinder Bore D | Stroke Travel S |
|-------------|-----------------|----------------------------|
| HLSGT | 40 | 10~ 50 (10 mm increments) |
| | | 60~100 (10 mm increments) |
| | | 110~150 (10 mm increments) |

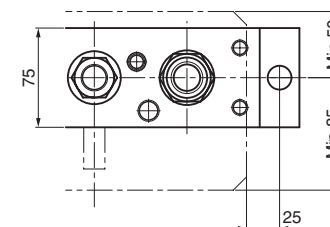
| Stroke Travel S | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | 140 | 150 |
|-----------------|----|----|----|----|----|-----|----|----|----|-----|-----|-----|-----|-----|-----|
| Block Height H | 40 | 30 | 20 | 10 | — | 40 | 30 | 20 | 10 | — | 40 | 30 | 20 | 10 | — |
| Cylinder Travel | 50 | | | | | 100 | | | | | 150 | | | | |



Catalog No. D — S
HLSGT 40 — 110

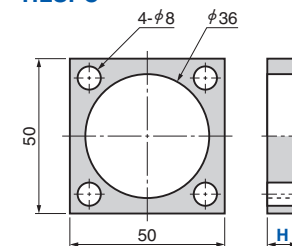
Design Guideline

Cylinder actual output Air pressure: 0.5 MPa Approx. $600 \times 0.7 = 420$ N.
Refer to the dimension of the casting hole below for installation.



● For Block (6) HLSGT40

HLSPC



| Catalog No. | D | H |
|-------------|----|----|
| HLSPC | 40 | 10 |
| | | 20 |
| | | 30 |
| | | 40 |



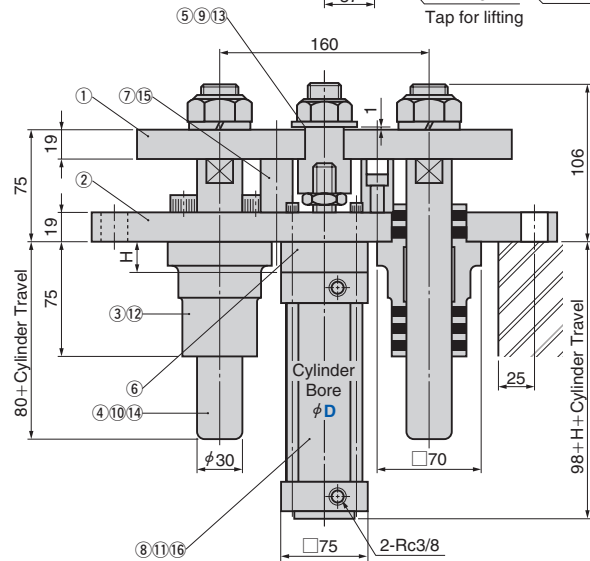
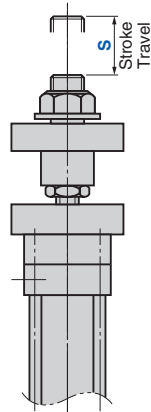
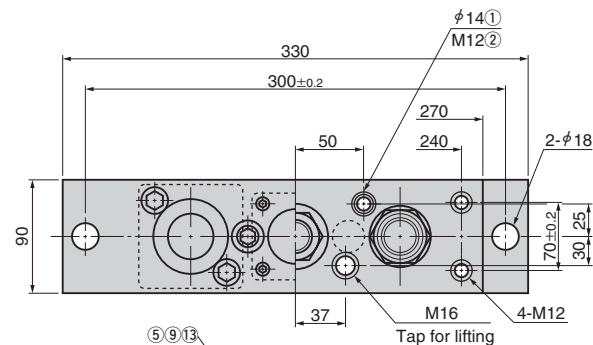
Catalog No. D — H
HLSPC 40 — 30

H-Type Lifter

Panel Transfer Components

HLSGT63

CAD
FILE



| No. | Description | Qty | Material and Remark |
|-----|-----------------------|-----|---------------------|
| 1 | Lifter Plate | 1 | Steel |
| 2 | Cylinder Holder Plate | 1 | Steel |
| 3 | Guide Holder | 2 | SO#50F |
| 4 | Guide Pin | 2 | Steel |
| 5 | Joint | 1 | Steel |
| 6 | Block | 1 | Steel |
| 7 | Stopper | 2 | — |
| 8 | Air Cylinder | 1 | SMC (φ63) |

| No. | Description | Qty | Material and Remark |
|-----|--------------------------|-----|---------------------|
| 9 | U Nut | 1 | M20 |
| 10 | U Nut | 2 | M24 |
| 11 | Hexagon Socket Head Bolt | 4 | M8 |
| 12 | Hexagon Socket Head Bolt | 4 | M12x35 |
| 13 | Flat Washer | 1 | M20 |
| 14 | Spring Washer | 2 | M24 |
| 15 | Shoulder Bolt | 2 | M8x20 |
| 16 | Spring Washer | 4 | M8 |

| Catalog No. | Cylinder Bore D | Stroke Travel S |
|-------------|-----------------|-----------------------------|
| HLSGT | 63 | 10~ 50 (10 mm increments) |
| | | 60~ 100 (10 mm increments) |
| | | 110~ 150 (10 mm increments) |
| | | 160~ 200 (10 mm increments) |
| | | 210~ 250 (10 mm increments) |

| Stroke Travel S | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | 140 | 150 |
|-----------------|----|----|----|----|----|-----|----|----|----|-----|-----|-----|-----|-----|-----|
| Block Height H | 40 | 30 | 20 | 10 | — | 40 | 30 | 20 | 10 | — | 40 | 30 | 20 | 10 | — |
| Cylinder Travel | 50 | | | | | 100 | | | | | 150 | | | | |

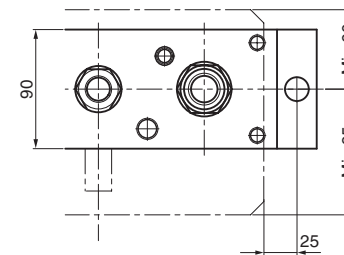
| Stroke Travel S | 160 | 170 | 180 | 190 | 200 | 210 | 220 | 230 | 240 | 250 |
|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Block Height H | 40 | 30 | 20 | 10 | — | 40 | 30 | 20 | 10 | — |
| Cylinder Travel | 200 | | | | | 250 | | | | |



Catalog No. D — S
HLSGT 63 — 160

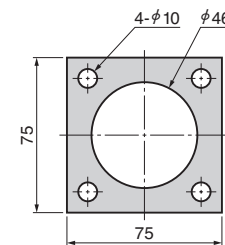
Design Guideline

Cylinder actual output Air pressure: 0.5 MPa Approx. 1,500x0.7 = 1,050 N
Refer to the dimension of the casting hole below for installation.



● For Block (6) HLSGT63

HLSPC



| Catalog No. | D | H |
|-------------|----|----|
| HLSPC | 63 | 10 |
| | | 20 |
| | | 30 |
| | | 40 |

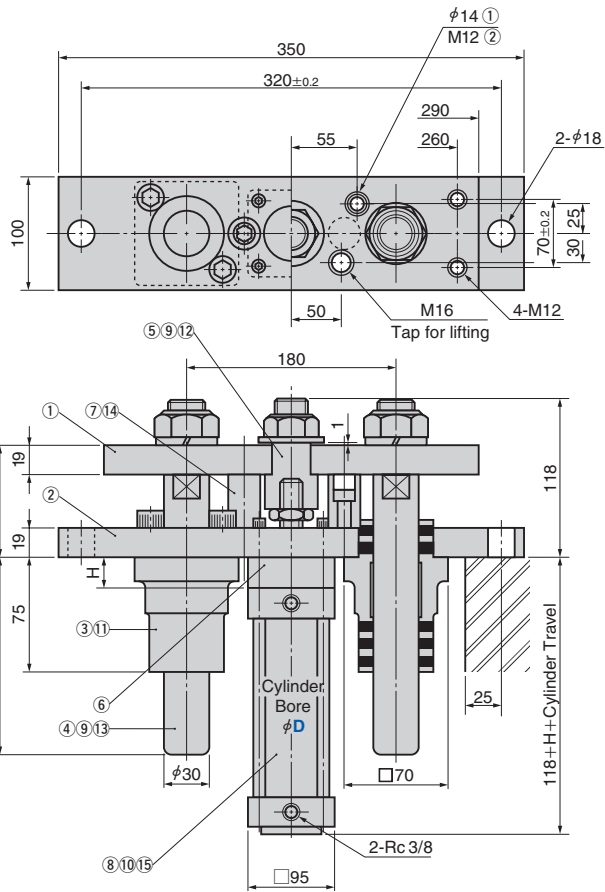
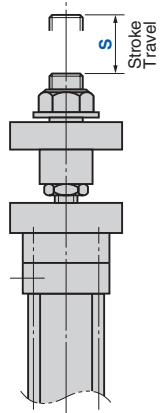
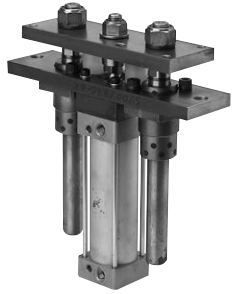


Catalog No. D — H
HLSPC 63 — 10

H-Type Lifter

Panel Transfer Components

HLSGT80



| No. | Description | Qty | Material and Remark |
|-----|-----------------------|-----|---------------------|
| 1 | Lifter Plate | 1 | Steel |
| 2 | Cylinder Holder Plate | 1 | Steel |
| 3 | Guide Holder | 2 | SO#50F |
| 4 | Guide Pin | 2 | Steel |
| 5 | Joint | 1 | Steel |
| 6 | Block | 1 | Steel |
| 7 | Stopper | 2 | — |
| 8 | Air Cylinder | 1 | SMC ($\phi 80$) |

| No. | Description | Qty | Material and Remark |
|-----|--------------------------|-----|---------------------|
| 9 | U Nut | 3 | M24 |
| 10 | Hexagon Socket Head Bolt | 4 | M10 |
| 11 | Hexagon Socket Head Bolt | 4 | M12x35 |
| 12 | Flat Washer | 1 | M24 |
| 13 | Spring Washer | 2 | M24 |
| 14 | Shoulder Bolt | 2 | M8x20 |
| 15 | Spring Washer | 4 | M10 |

| Catalog No. | Cylinder Bore D | Stroke Travel S |
|--------------|--------------------|-----------------------------------|
| | | 10~ 50 (10 mm increments) |
| | | 60~100 (10 mm increments) |
| HLSGT | 80 | 110~150 (10 mm increments) |
| | | 160~200 (10 mm increments) |
| | | 210~250 (10 mm increments) |

| Stroke Travel S | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | 140 | 150 |
|-----------------|----|----|----|----|----|-----|----|----|----|-----|-----|-----|-----|-----|-----|
| Block Height H | 40 | 30 | 20 | 10 | — | 40 | 30 | 20 | 10 | — | 40 | 30 | 20 | 10 | — |
| Cylinder Travel | 50 | | | | | 100 | | | | | 150 | | | | |

| Stroke Travel S | 160 | 170 | 180 | 190 | 200 | 210 | 220 | 230 | 240 | 250 |
|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Block Height H | 40 | 30 | 20 | 10 | — | 40 | 30 | 20 | 10 | — |
| Cylinder Travel | 200 | | | | | 250 | | | | |



Catalog No.

D

S

HLSGT

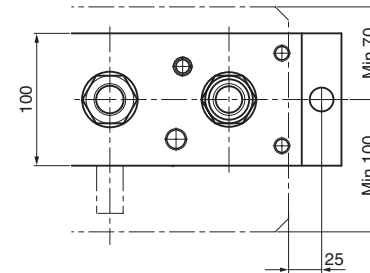
80

120

120

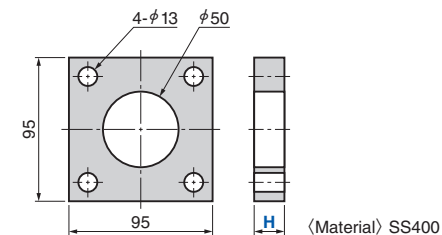
■ Design Guideline

Cylinder actual output Air pressure: 0.5 MPa Approx. $2,450 \times 0.7 = 1,715$ N
Refer to the dimension of the casting hole below for installation.



- For Block (⑥) HLSGT80

HLSPC



| Catalog No. | D | H |
|--------------|-----------|-----------|
| HLSPC | 80 | 10 |
| | | 20 |
| | | 30 |
| | | 40 |



Catalog No.

D

| |
|---|
| H |
|---|

HLSPC

80

20

20

H-Type Lifter [Overview]

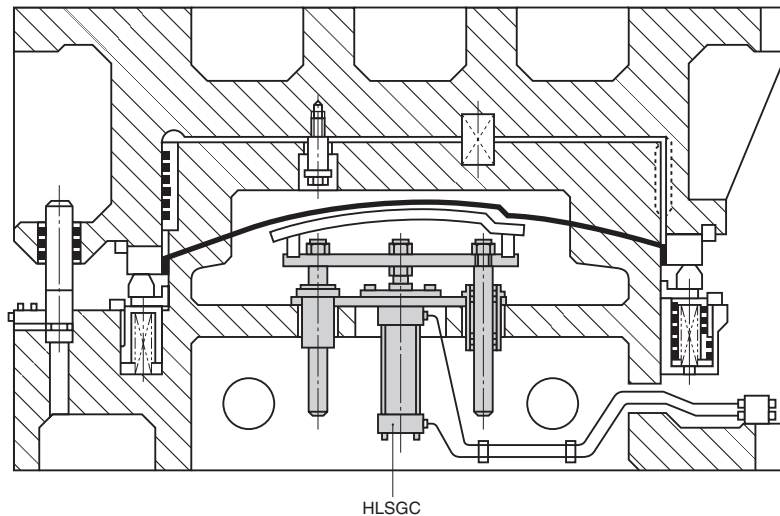
Panel Transfer Components

This H type lifter uses air pressure to lift panels in stable operation.

■Features

- The unit has a rigid structure and shows a stable function of lifting. The unit can be used without lubrication for extended periods.
- A wide range of the travel distance for lifting from 10 to 250 mm is available.
- Guide posts that do not require lubrication are used for the sliding areas.
- Various types of lifters that meet lifting of small to large panels are available.

■Example of Operation



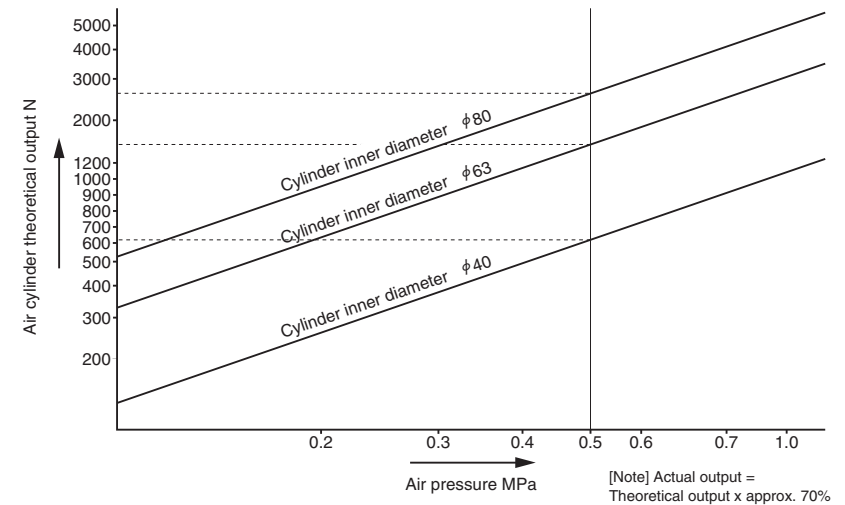
■Standard Selection Procedure of H type Lifter

When the required lifting force is 1000N and the H type lifter with the required travel of 95 mm is obtained

Step 1 The air cylinder theoretical output is $1000\text{N} \div 0.7 = 1430\text{N}$. Take the theoretical output of 1430N on the graph of top right. When the air pressure in the plant is 0.5MPa, the cylinder inner diameter is $\phi 63$ from the intersection. The appropriate type is HLSGT63-S (travel).

Step 2 In HLSGT63-S (travel), when the required travel for lifting panels is 95 mm or more, S = 100 mm. Therefore, HLSGT63-100 is obtained.

●Air Pressure and Cylinder Output



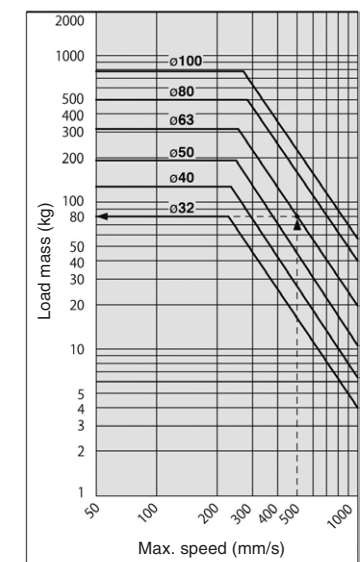
■Consideration

If the mass of the load applies excessive force to the cylinder rod tip, the cylinder rod may break. Please use within the values in the graph below. Also, use of a speed controller is recommended to control speed.

When the stroke is long, the lift plate may rattle at the top home position, so use in panel positioning is not recommended.

When precision is required, please set up a separate guide.

Permissive kinetic energy



Cylinder diameter $\phi 63$, if the maximum speed of 500 mm/s, load mass is 80 kg.