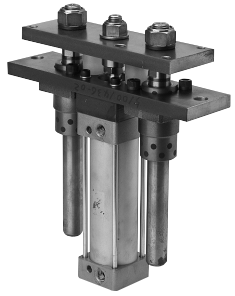
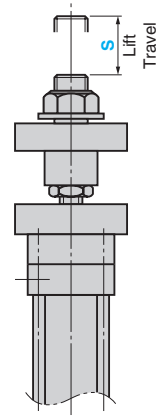
H-Type Lifter

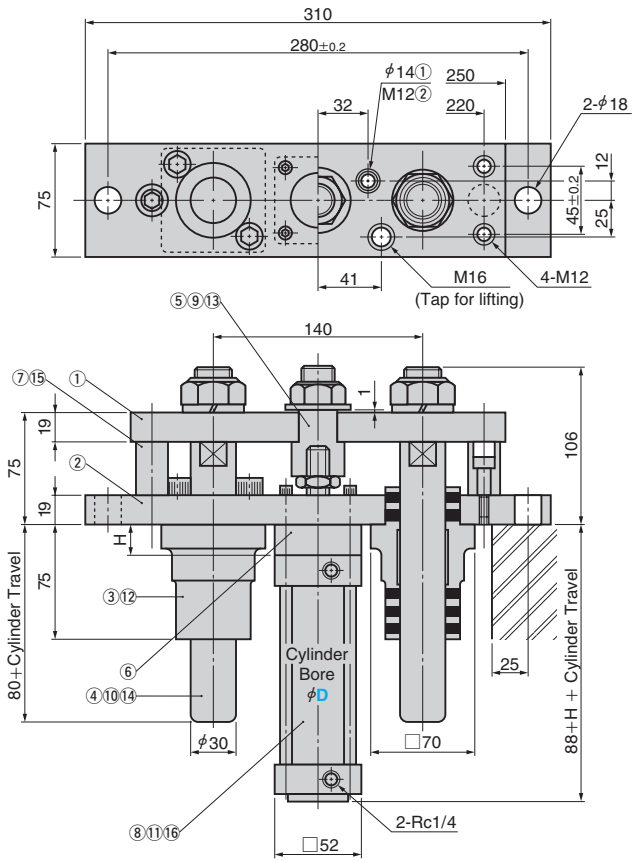
AVAILABLE IN 10 mm INCREMENT TRAVEL TYPES

CAD FILE

HLSGT40







■Table of Components

No.	Description	Qty	Material and Remark
①	Lifter Plate	1	SS400
②	Cylinder Holder Plate	1	SS400
③	Guide Holder	2	FC250 with Graphite
④	Guide Pin	2	S45C HRC55 to 60
⑤	Joint	1	SS400
⑥	Block	1	SS400
⑦	Stopper	2	Urethane
⑧	Air Cylinder	1	by 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	M12×35
⑬	Flat Washer	1	M20
⑭	Spring Washer	2	M24
⑮	Shoulder Bolt	2	M8×20
⑯	Spring Washer	4	M6

Lift 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.	Cylinder Bore D	Lift Travel S: Increments of 10 mm
HLSGT	40	10 to 50
		60 to 100
		110 to 150

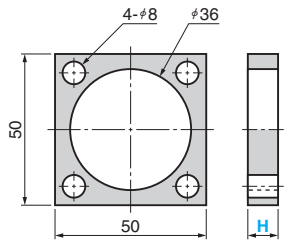
•Cylinder actual output
Air pressure: 0.5MPa Approx. 600×0.7 = 420 N.

Order

Catalog No.	D		S
HLSGT	40	–	110

■For Block (⑥) HLSGT40

HLSPC



Material : SS400

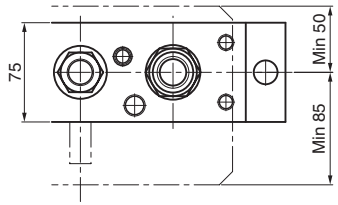
Catalog No.	D	H
HLSPC	40	10
		20
		30
		40

Order

Catalog No.	D		H
HLSPC	40	–	30

■For Operation

Refer to the dimension of the casting hole below for installation.



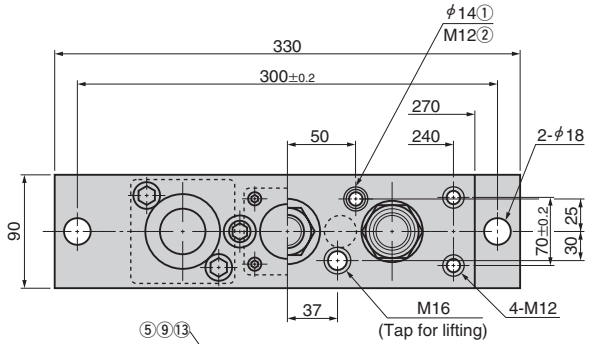
Panel Transfer Components

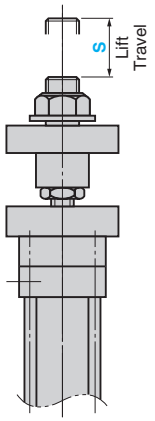
H-Type Lifter

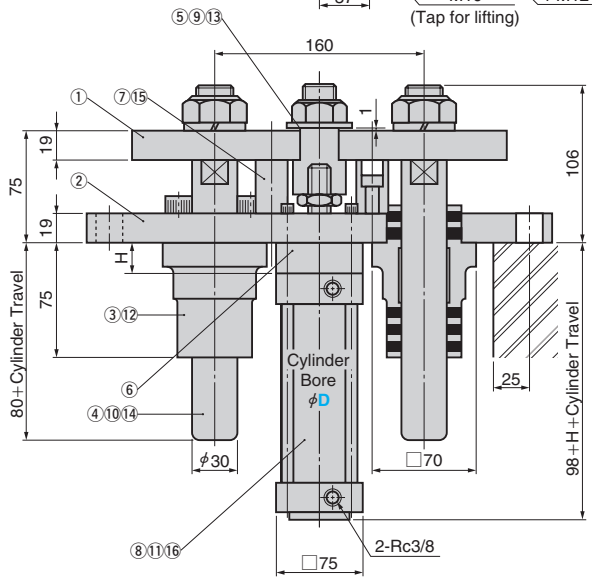
AVAILABLE IN 10 mm INCREMENT TRAVEL TYPES

CAD FILE

HLSGT63







■Table of Components

No.	Description	Qty	Material and Remark
①	Lifter Plate	1	SS400
②	Cylinder Holder Plate	1	SS400
③	Guide Holder	2	FC250 with Graphite
④	Guide Pin	2	S45C HRC55 to 60
⑤	Joint	1	S45C
⑥	Block	1	SS400
⑦	Stopper	2	Urethane
⑧	Air Cylinder	1	by 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	M12×35
⑬	Flat Washer	1	M20
⑭	Spring Washer	2	M24
⑮	Shoulder Bolt	2	M8×20
⑯	Spring Washer	4	M8

Lift 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				

Lift 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.	Cylinder Bore D	Lift Travel S: Increments of 10 mm
HLSGT	63	10 to 50
		60 to 100
		110 to 150
		160 to 200
		210 to 250

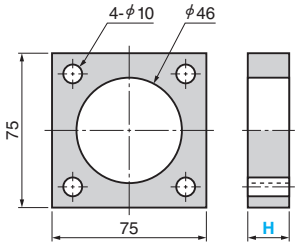
- Cylinder actual output
  Air pressure: 0.5MPa Approx. 1,500×0.7=1,050N

Order

Catalog No.	D	–	S
HLSGT	63	–	160

■For Block (⑥)HLSGT63

HLSPC



Material : SS400

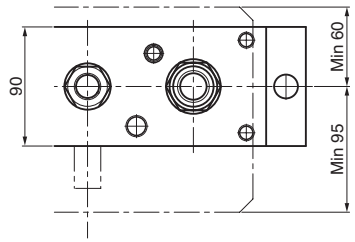
Catalog No.	D	H
HLSPC	63	10
		20
		30
		40

Order

Catalog No.	D	–	H
HLSPC	63	–	10

■For Operation

Refer to the dimension of the casting hole below for installation.



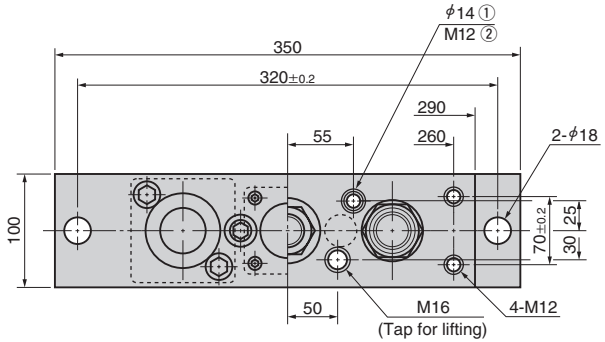
Panel Transfer Components

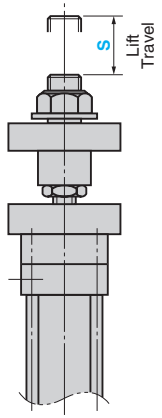
H-Type Lifter

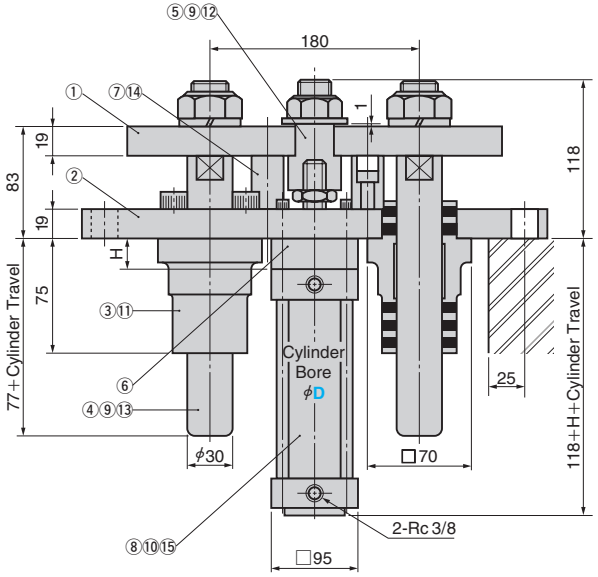
AVAILABLE IN 10 mm INCREMENT TRAVEL TYPES

CAD FILE

HLSGT80







■Table of Components

No.	Description	Qty	Material and Remark
①	Lifter Plate	1	SS400
②	Cylinder Holder Plate	1	SS400
③	Guide Holder	2	FC250 with Graphite
④	Guide Pin	2	S45C HRC55 to 60
⑤	Joint	1	S45C
⑥	Block	1	SS400
⑦	Stopper	2	Urethane
⑧	Air Cylinder	1	by SMC(ϕ80)

No.	Description	Qty	Material and Remark
⑨	U Nut	3	M24
⑩	Hexagon Socket Head Bolt	4	M10
⑪	Hexagon Socket Head Bolt	4	M12×35
⑫	Flat Washer	1	M24
⑬	Spring Washer	2	M24
⑭	Shoulder Bolt	2	M8×20
⑮	Spring Washer	4	M10

Lift 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				

Lift 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.	Cylinder Bore D	Lift Travel S: Increments of 10 mm
HLSGT	80	10 to 50
		60 to 100
		110 to 150
		160 to 200
		210 to 250

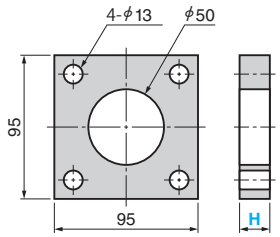
- Cylinder actual output
  Air pressure: 0.5MPa Approx. 2,450×0.7=1,715N

Order

Catalog No.	D	–	S
HLSGT	80	–	120

■For Block (⑥)HLSGT80

HLSPC



Material: SS400

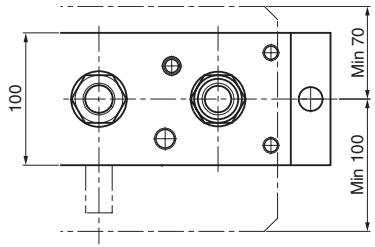
Catalog No.	D	H
HLSPC	80	10
		20
		30
		40

Order

Catalog No.	D	–	H
HLSPC	80	–	20

■For Operation

Refer to the dimension of the casting hole below for installation.



Panel Transfer Components

Outline of H-Type Lifter

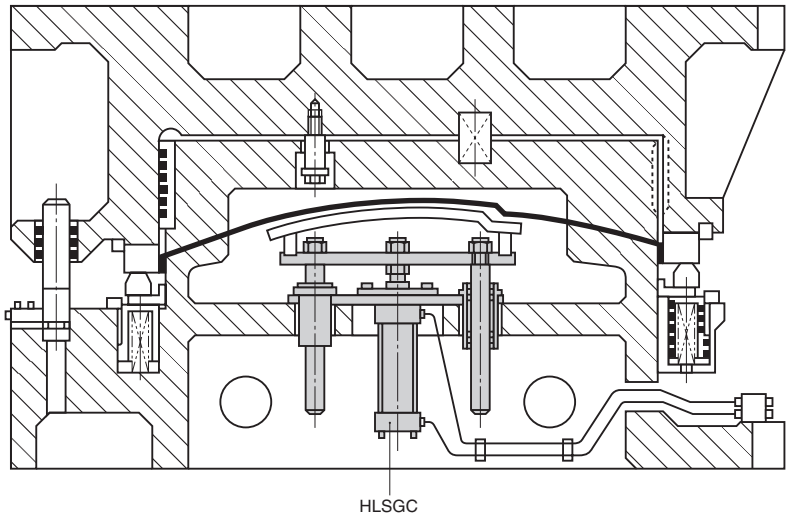
FEATURES AND SELECTION PROCEDURE

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

■Features

(1) The unit has a rigid structure and shows a stable function of lifting. The unit can be used without lubrication for extended periods.
(2) A wide range of the travel distance for lifting from 10 to 250 mm is available.
(3) Guide posts that do not require lubrication are used for the sliding areas.
(4) Various types of lifters that meet lifting of small to large panels are available.
※ The use by panel positioning is not recommended.

■Example of Operation



HLSGC

■Standard Selection Procedure of H type Lifter

Step 1 Cylinder I.D.·····Take the value of the required lifting force (N) ÷ 0.7 on the air cylinder theoretical output of the graph of top right and obtain the cylinder I.D. from the intersection point with the air pressure of the press line.

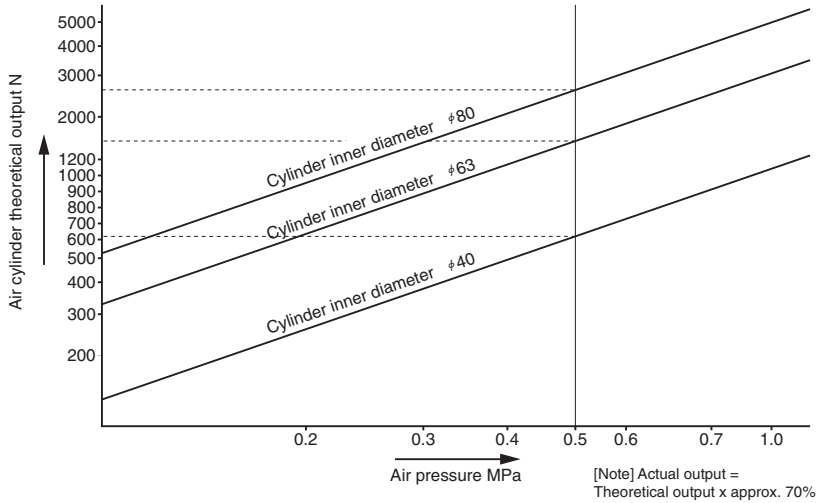
Step 2 From the inner diameter obtained in Step 1, select the standard parts from the standard table according to the required travel.

EX Example 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 1000N ÷ 0.7 = 1430N. 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 ϕ63 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



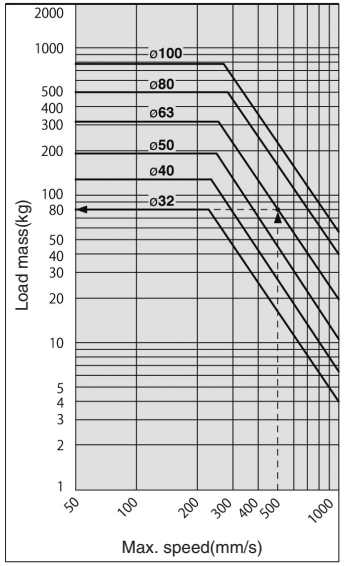
[Note] Actual output = Theoretical output x approx. 70%

■ 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



EX Example Cylinder diameter ϕ63, if the maximum speed of 500mm/s, load mass is 80kg.