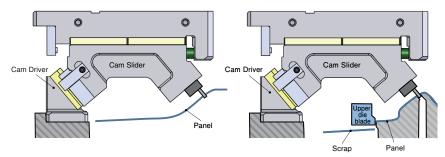
# **Panel Avoidance Cam**

# **Product Information**

- Long reach of cam slider avoids any contact with panel being processed
- Reduced processing time due to less space limitations
- Sufficient space for scrap removal
- Easier disassembly of Cam Slider
- Selectable Cam Slider length



## ■Application Example



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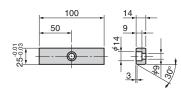
The long reach of Cam Slider and the Cam Driver attached outside of the panel enable the greater processing area to be machined.

An increased layout can be realized with external trimming allowing sufficient space for scrap removal.

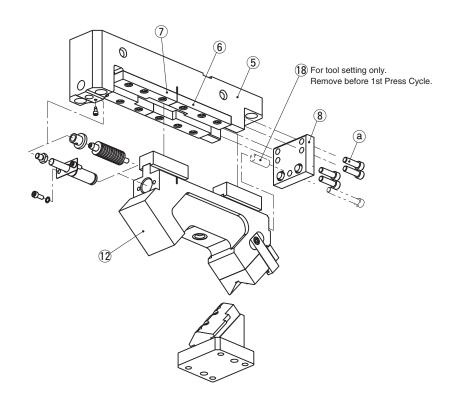
#### **■**Option

#### Key Specification (─K) SACLB80·SACMB80

LKU25-100 (A M8 Bolt is included.)



# ■SACLB·SACMB Assembly Instructions



#### Disassembly

- 1) Remove Hexagon Socket Head Bolts (a), to pull out Stopper Plate (a).
- 2) Slide Cam Slider (12) back to the corresponding notch placed between (6) and (7).
- 3) Pull up Cam Slider from Cam Holder (5).

#### Assembly

Assembly is the reverse procedure of disassembly.

- · Ensure that all parts are clean, particularly the sliding components to which a small amount of lubricant is applied and is then placed in position.
- · Take care that the respective tolerances are observed when assembling Cam Slider and Cam Holder, which also should be identified by the same serial number.
- · Make sure that all bolts are tighten to the recommended torque after assembly and disassembly.



Please contact your local sales representative if you prefer to use a gas spring not specified in our catalog. For use and maintenance of gas spring, please contact the manufacturer directly.



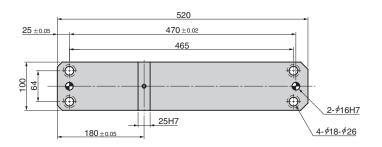
Special Cam Units

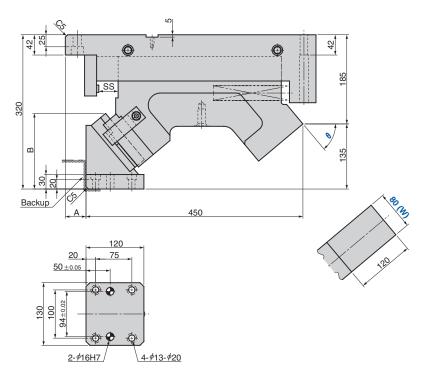
# **Panel Avoidance Cam**

# **Aerial Cam Unit**

#### SACLB80







Working Force [kN (tonf)] 1,000,000 strokes	Catalog No.	w	θ 5° increments	Spring Type PS
58.8 (6.0)	SACLB	80	50~80	No Code (Coil Spring) GK NGK GD NGD

No Code: Coil Spring GK: Gas Spring (KALLER) GD: Gas Spring (DADCO) NGK/NGD: Without Gas Spring Parts for spring assembly are included.



Catalog No.	W	]-[	θ	]-[	PS	]-[	Option
SACLB	80	_	50				
SACLB	80	_	50	_	GK	- NF - K	

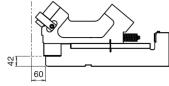


Option Code	Specification				
NF	NF Nitrogen gas not charged.				
K	Key attached.				

Refer to page 377 for the machining details of tapped holes and dowel holes for retainer mounting. Refer to page 587 for key specification.

θ	SS	Α	В
50		43	156.8
55	40	38	160.8
60		33	163.8
65	34	21	167.8
70	28	10	168.8
75	21	5	170.8
80	14	0	169.9

# ■Rear Removal Space



# **■**Spring Force

#### Coil Spring

θ	ss	Initial	nitial Load		Load	Spring
0	33	N	kgf	N	kgf	Model
50						
55	40	440.7	45.0	2644.3	260.0	TH30-200
60				2044.3	209.0	
65	34	503.7	51.4			TH30-175
70	28	587.7	60.0	2644.6	269.9	TH30-150
75	21	330.6	33.7	2044.0	209.9	TH30-100
80	14	587.6	60.0	2644.4	269.8	TH30-75

Life expectancy of Coil Spring is approximately 300,000 strokes.

## Gas Spring

Final	Load	Spring Model			
N	kgf	GK	GD		
2532.0	258.4	X320-50	U.0325.050		
		X320-50	0.0325.050		
2416.0	246.5				
2465.0	251.5	X320-38	U.0325.038		
2551.0	260.3	X320-25	U.0325.025		
2439.0	248.9	X320-19	U.0325.019		

oximately 300,000 Gas filling pressure: 10 MPa

SACLB 80

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589

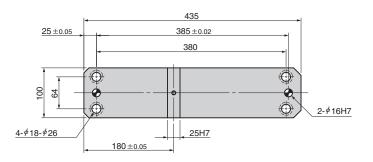
# **LONG BODY CAM**

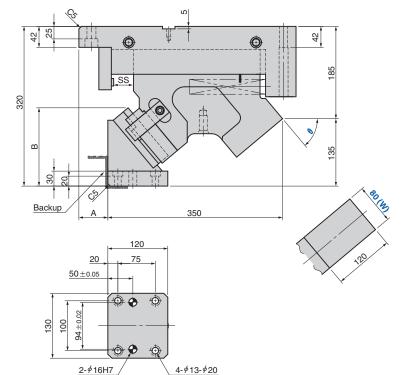
# **Panel Avoidance Cam**

# **Aerial Cam Unit**

## **SACMB80**







Working Force [kN (tonf)] 1,000,000 strokes	Catalog No.	w	θ 5° increments	Spring Type PS
58.8 (6.0)	SACMB	80	50~80	No Code (Coil Spring) GK NGK GD NGD

No Code: Coil Spring GK: Gas Spring (KALLER) GD: Gas Spring (DADCO) NGK/NGD: Without Gas Spring Parts for spring assembly are included.



Catalog No.	W	]-[	θ	]-[	PS	]-	Option
SACMB	80	_	50				
SACMB	80	_	50	_	GK	_	NF – K

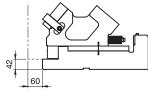


Option Code	Specification					
NF Nitrogen gas not charged.						
K	Key attached.					

Refer to page 377 for the machining details of tapped holes and dowel holes for retainer mounting. Refer to page 587 for key specification.

θ	SS	Α	В
50		58	156.8
55	40	53	160.8
60		48	163.8
65	34	36	167.8
70	28	25	168.8
75	21	20	170.8
80	14	15	169.9

# ■Rear Removal Space



# **■**Spring Force

#### Coil Spring

θ	ss	Initial	Initial Load Final Lo			Spring		
0	33	N	kgf	N	kgf	Model		
50								
55	40	440.7	45.0	26442	269.8	TH30-200		
60				2044.3				
65	34	503.7	51.4			TH30-175		
70	28	587.7	60.0	2644.6	269.9	TH30-150		
75	21	330.6	33.7	2044.0	209.9	TH30-100		
80	14	587.6	60.0	2644.4	269.8	TH30-75		

Life expectancy of Coil Spring is approximately 300,000 Gas filling pressure: 18 MPa strokes.

## Gas Spring

Final Load		Spring Model			
N	kgf	GK	GD		
2624.0	267.8	M2-50-Yellow	0.400.050.V/W		
		M2-50-Yellow	C.180.050.YW		
2528.0	258.0				
2564.2	261.7	M2-38.1-Yellow	C.180.038.YW		
2416.8	246.6	1012-36.1-Yellow	C.160.036.1 W		
2416.0	246.5	M2-25-Yellow	C.180.025.YW		

**SACMB** 80

Special Cam Units

591

# **NEW LONG BODY CAM [Table of Components]**

# Panel Avoidance Cam

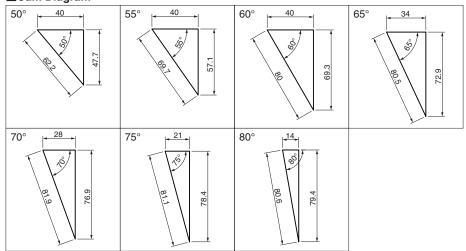
# **Aerial Cam Unit**

## **SACLB·SACMB**

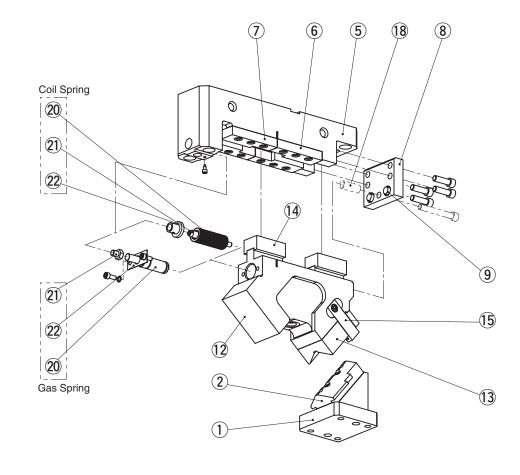
# ■Weight

θ	Slider Weight [kg]		Total Weight [kg]	
	SACLB	SACMB	SACLB	SACMB
50	26.4	21.5	62.7	52.8
55	25.9	21.2	62.3	52.7
60	25.6	20.8	62.3	52.6
65	25.3	20.6	62.4	52.7
70	25.3	20.7	62.5	53.0
75	25.1	20.3	62.7	52.9
80	25.0	20.1	62.9	53.0

# **■**Cam Diagram



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No.	Description		
1	Cam Driver		
2	Cam Bottom Slide Plate		
5	Cam Holder	1	
6	Cam Upper Plate A	2	
7	Cam Upper Plate B	2	
8	Stopper Plate	1	
9	Stopper	2	
12	Cam Slider	1	
13	Cam Bottom Guide Plate	1	

No.	Description	Qty
14	Cam Lower Slider	2
15	Positive Return	
18	Collar	1
20	Coil Spring	1
21	Spring Guide Pin	1
22	Spring Guide Washer	1
20	Gas Spring	1
21	Stop Pin	1
22	Spring Stopper	1

Bolts, nuts, dowels, and washers for assembly are not indicated.

SACLB SACMB

# **Cam Units [Overview]**

# **Additional Machining**

**Information** 

# ■Tapped Hole and Dowel Hole (Prepared Hole, Finish) Machining for Retainer Mounting

#### Instruction method for machining

Indicate the tapped hole diameter and the dowel hole (or prepared hole) diameter with the XY coordinates.

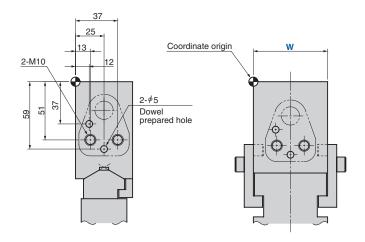
#### To indicate the coordinates

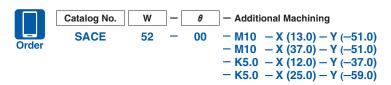
- The origin is positioned at the upper left corner of the mount face. (However, machining uses our machining datum as the reference.)
- · Indication symbol
- -M ··· Tapped hole, -N ··· Dowel prepared hole, -K ··· Dowel finish hole

#### Machining standard

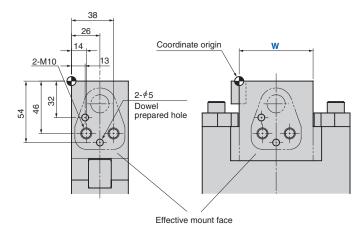
- · Tapped holes and dowel prepared holes are machined to general tolerances.
- The hole depth is 2.5 times the diameter for both tapped holes and dowel holes. The dowel pilot hole is processed for 2 times the diameter.
- $\cdot$  The dowel hole spacing is machined to the tolerance of  $\pm 0.02$ . The hole tolerance is H7.

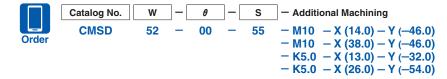
## (Example of Aerial Cam Unit)





## ⟨Example of Die Mounted Cam Unit⟩





# **■**Other machining

Please give instructions on a separate drawing for drilling or cutting other than tapped holes and dowel holes.