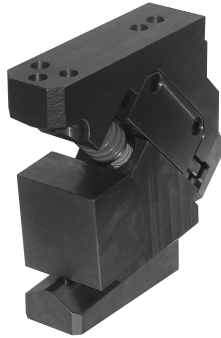


# Aerial Cam Unit General Description of SACE

## WORKING FORCE 3-TON TYPE

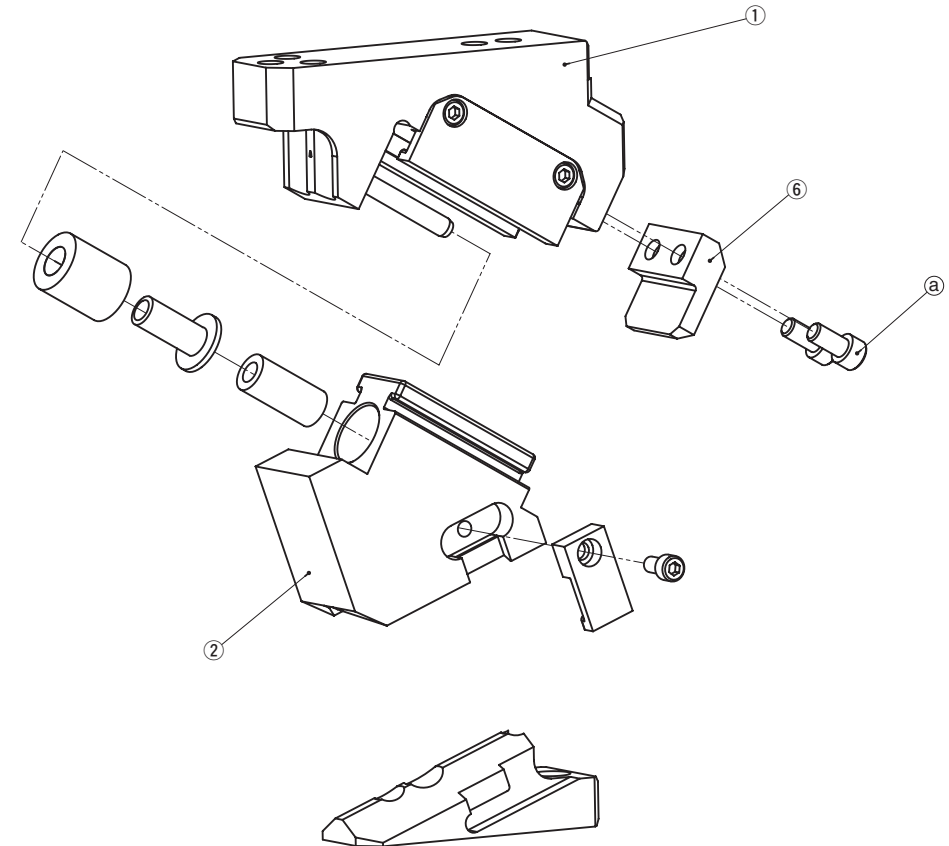


- The standard working force (one million strokes) achieved 29.4 kN with the mounting width of 52 mm.  
The allowable working force (300,000 strokes) is 58.8 kN.
- A spring force just under 10% of the working force is attained, which is optimum for high tensile strength steel sheets and thick plate piercing.
- V-shaped guide.
- Available angle is 0° to 60° at increments of 5°
- Durability of the coil spring improved compared to old SACD model (rated up to 1 million strokes).

### ■ SACE Specifications

Mounting Surface		Working Angle	Travel	Working Force kN(tonf)		Spring Force N(kgf)
W	H			Standard Working Force (one million strokes)	Allowable Working Force (300,000 strokes)	
52	75	00	30.2	29.4 (3.0)	58.8 (6.0)	1425.5 (145.5)
		05	33.4			
		10	36.6			
		15	39.9			
		20	43.3			
		25	47.0			
		30	51.0			
		35	55.4			
		40	60.4			
		45	66.2			
		50	73.1			
		55	64.5			
60	54.0					

### ■ SACE Structure and Assembly / Disassembly



#### ●Disassembly method of SACE52

- 1) Remove hexagon socket head bolt (a), and remove stopper plate (6).
- 2) Pull and remove cam slider (2) from cam holder (1) to the rear.

#### ●Assembly method of SACE52

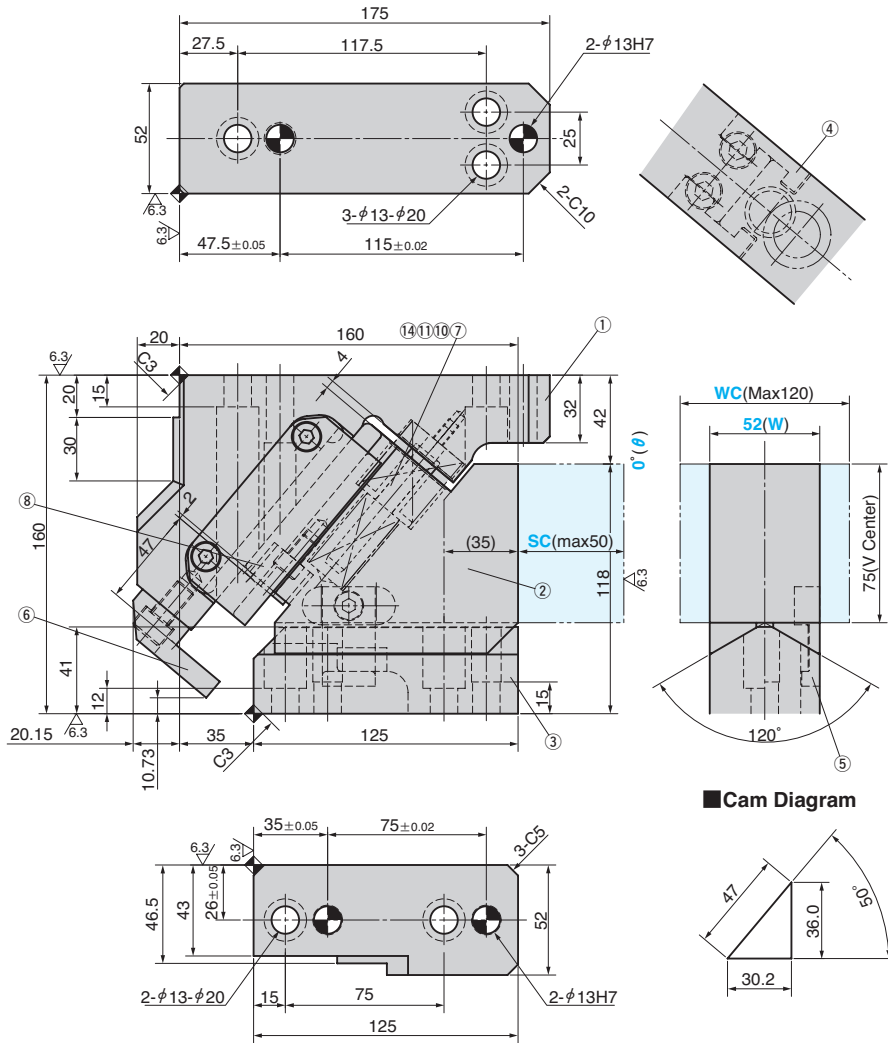
- 1) Assemble components in the reverse order of disassembly.
  - Make sure that there is no foreign matter on the sliding area and assemble components.
  - The clearance between the cam slider and the cam holder is controlled. Match the stamped serial number on the holder and slider before assembly.
  - When cam is disassembled and then reassembled, please do not forget to assemble all bolts provided.

# Aerial Cam Unit

WORKING FORCE 3-TON TYPE

CAD  
FILE

SACE 52-00



Cam Diagram

Travel S	Working Force kN(tonf)		Spring Force N(kgf)		Return Force N(kgf)	Total Weight kg	Catalog No.	W	θ
	Standard Working Force (one million strokes)	Allowable Working Force (300,000 strokes)	Initial Load	Final Load					
30.2	29.4 (3.0)	58.8 (6.0)	14.0 (1.4)	1425.5 (145.5)	1913 (195.2)	8.8	SACE	52	00



Order

Catalog No. **SACE** W **52** - θ **00**



Option

Option Code	Specification
SC	The mount surface is extended in the range from 1 to 50 mm (in the increments of 1 mm).
WC	The mounting surface width (W) is changed within the range 53 mm - 120 mm (1 mm increments).
N12	Dowel Pin holes of cam holder and cam driver are changed to φ12H7

Determine the pierce center position in the range of the cam width.



Order

SACE52-00-SC40-N12  
SACE52-00-WC120  
SACE52-00-SC40-WC120-N12



Refer to page 389 for detailed specifications of tapped holes and dowel pin holes (prepared hole, finished hole) for retainer.

Space for removing

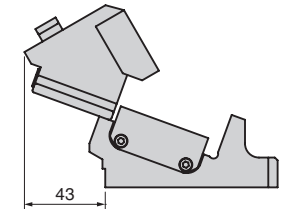
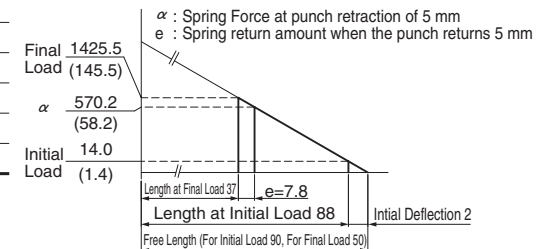


Table of Components

No.	Description	Qty	Material and Remark
①	Cam Holder	1	FCD550
②	Cam Slider	1	FCD550 with Graphite
③	Cam Driver	1	SF700
④	Slide Keeper	2	S45C with Graphite
⑤	Positive Return Follower	1	Bronze
⑥	Stopper Plate	1	S45C(1045)
⑦	Spring Guide Pin	1	S45C(1045)
⑧	Stopper	1	Urethane
⑩	Coil Spring	1	TF20-90
⑪	Coil Spring	1	TM30-50
⑫	Spring Guide Bush	1	Bronze

Spring Diagram

- Spring Used For Initial Load TF20-90(1 piece) 7.01N/mm(0.72kgf/mm)
- For Final Load TM30-50(1 piece) 109.65N/mm(11.18kgf/mm)
- Guideline of spring durability TF20-90 1,000,000 strokes
- TM30-50 1,000,000 strokes



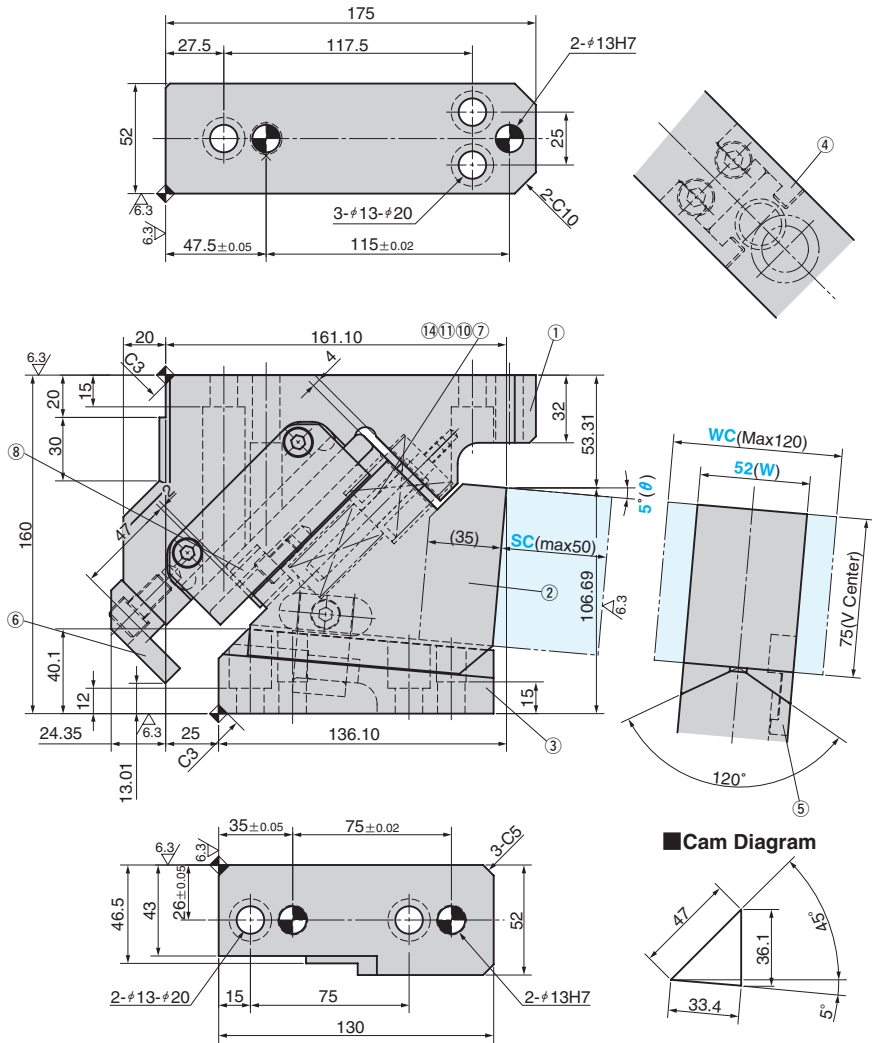
Bolts for assembly are not indicated.

# Aerial Cam Unit

WORKING FORCE 3-TON TYPE

CAD  
FILE

SACE 52-05



Cam Diagram

Travel S	Working Force kN(tonf)		Spring Force N(kgf)		Return Force N(kgf)	Total Weight kg	Catalog No.	W	θ
	Standard Working Force (one million strokes)	Allowable Working Force (300,000 strokes)	Initial Load	Final Load					
33.4	29.4 (3.0)	58.8 (6.0)	14.0 (1.4)	1425.5 (145.5)	1910 (194.9)	8.6	SACE	52	05



Order

Catalog No. **SACE** W **52** - θ **05**



Option

Option Code	Specification
SC	The mount surface is extended in the range from 1 to 50 mm (in the increments of 1 mm).
WC	The mounting surface width (W) is changed within the range 53 mm - 120 mm (1 mm increments).
N12	Dowel Pin holes of cam holder and cam driver are changed to φ12H7

Determine the pierce center position in the range of the cam width.



Order

SACE52-05-SC40-N12  
SACE52-05-WC120  
SACE52-05-SC40-WC120-N12



Refer to page 389 for detailed specifications of tapped holes and dowel pin holes (prepared hole, finished hole) for retainer.

Space for removing

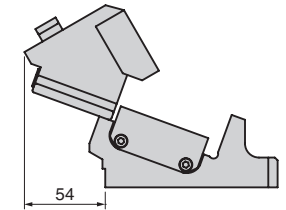


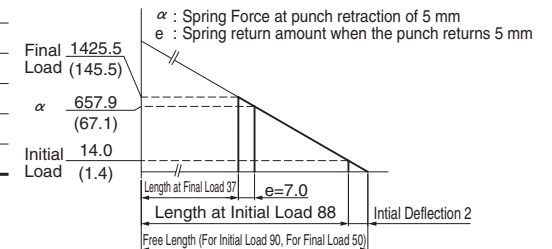
Table of Components

No.	Description	Qty	Material and Remark
①	Cam Holder	1	FCD550
②	Cam Slider	1	FCD550 with Graphite
③	Cam Driver	1	SF700
④	Slide Keeper	2	S45C with Graphite
⑤	Positive Return Follower	1	Bronze
⑥	Stopper Plate	1	S45C(1045)
⑦	Spring Guide Pin	1	S45C(1045)
⑧	Stopper	1	Urethane
⑩	Coil Spring	1	TF20-90
⑪	Coil Spring	1	TM30-50
⑬	Spring Guide Bush	1	Bronze

Bolts for assembly are not indicated.

Spring Diagram

- Spring Used For Initial Load TF20-90(1 piece) 7.01N/mm(0.72kgf/mm)
- For Final Load TM30-50(1 piece) 109.65N/mm(11.18kgf/mm)
- Guideline of spring durability TF20-90 1,000,000 strokes
- TM30-50 1,000,000 strokes

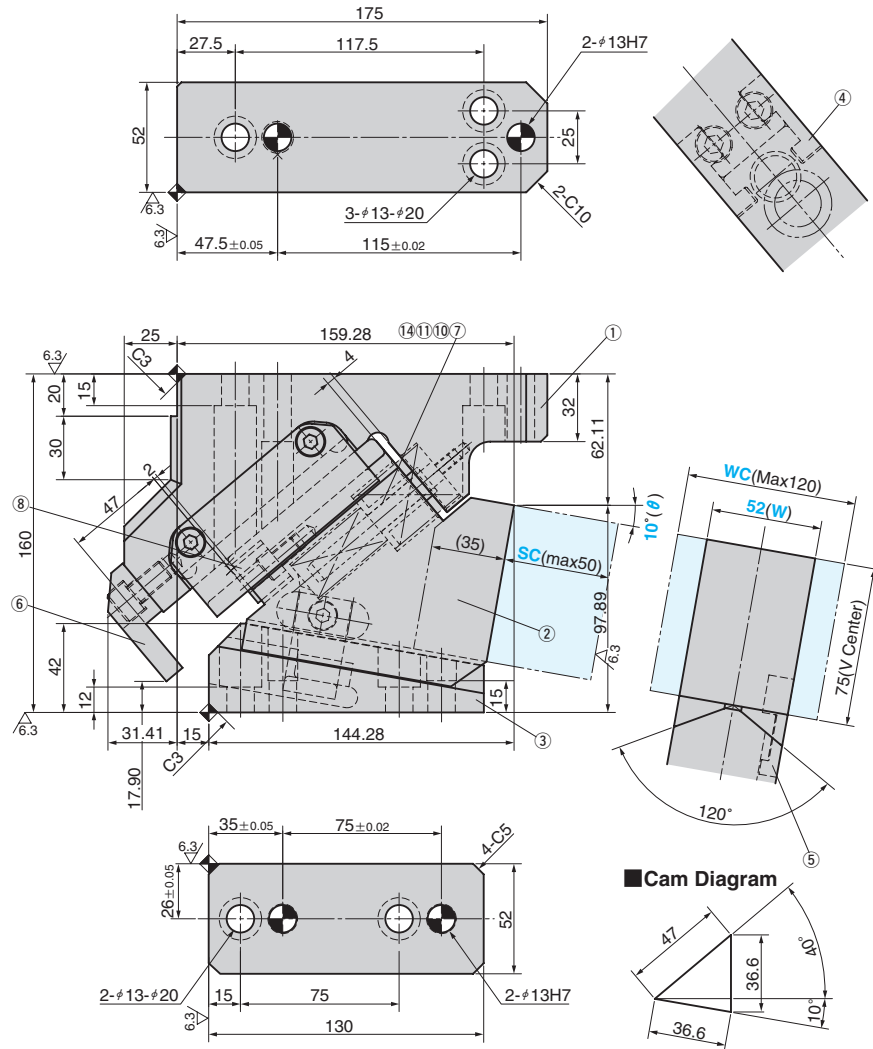


# Aerial Cam Unit

WORKING FORCE 3-TON TYPE

CAD  
FILE

SACE 52 - 10



Cam Diagram

Travel S	Working Force kN(tonf)		Spring Force N(kgf)		Return Force N(kgf)	Total Weight kg	Catalog No.	W	θ
	Standard Working Force (one million strokes)	Allowable Working Force (300,000 strokes)	Initial Load	Final Load					
36.6	29.4 (3.0)	58.8 (6.0)	14.0 (1.4)	1425.5 (145.5)	1906 (194.5)	8.7	SACE	52	10



Order

Catalog No. **SACE** W **52** - θ **10**



Option

Option Code	Specification
SC	The mount surface is extended in the range from 1 to 50 mm (in the increments of 1 mm).
WC	The mounting surface width (W) is changed within the range 53 mm - 120 mm (1 mm increments).
N12	Dowel Pin holes of cam holder and cam driver are changed to φ12H7

Determine the pierce center position in the range of the cam width.



Order

SACE52 - 10 - SC40 - N12  
SACE52 - 10 - WC120  
SACE52 - 10 - SC40 - WC120 - N12

Refer to page 389 for detailed specifications of tapped holes and dowel pin holes (prepared hole, finished hole) for retainer.

Space for removing

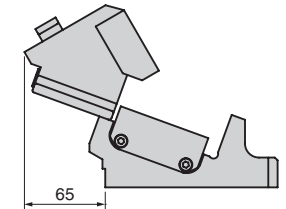


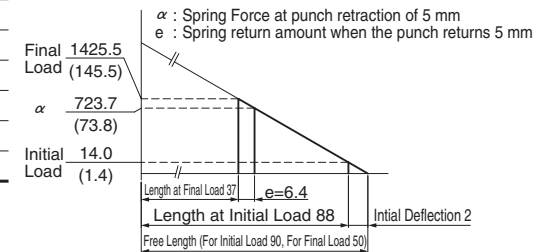
Table of Components

No.	Description	Qty	Material and Remark
①	Cam Holder	1	FCD550
②	Cam Slider	1	FCD550 with Graphite
③	Cam Driver	1	SF700
④	Slide Keeper	2	S45C with Graphite
⑤	Positive Return Follower	1	Bronze
⑥	Stopper Plate	1	S45C(1045)
⑦	Spring Guide Pin	1	S45C(1045)
⑧	Stopper	1	Urethane
⑩	Coil Spring	1	TF20-90
⑪	Coil Spring	1	TM30-50
⑭	Spring Guide Bush	1	Bronze

Bolts for assembly are not indicated.

Spring Diagram

- Spring Used For Initial Load TF20-90(1 piece) 7.01N/mm(0.72kgf/mm)
- For Final Load TM30-50(1 piece) 109.65N/mm(11.18kgf/mm)
- Guideline of spring durability TF20-90 1,000,000 strokes
- TM30-50 1,000,000 strokes



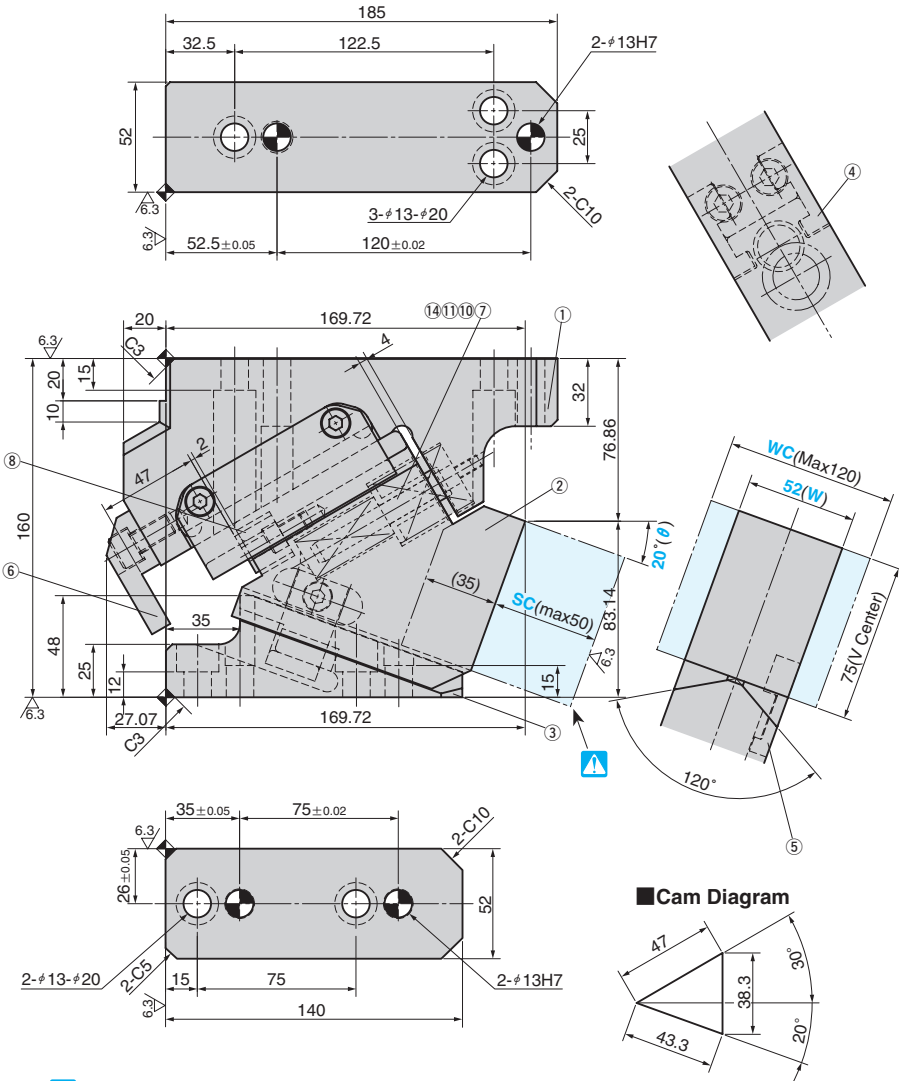


# Aerial Cam Unit

WORKING FORCE 3-TON TYPE

CAD  
FILE

SACE 52 - 20



Cam Diagram

⚠ When the slider interferes with the die due to the protrusion length, you will need to machine the die for clearance.

Travel S	Working Force kN(tonf)		Spring Force N(kgf)		Return Force N(kgf)	Total Weight kg	Catalog No.	W	θ
	Standard Working Force (one million strokes)	Allowable Working Force (300,000 strokes)	Initial Load	Final Load					
43.3	29.4 (3.0)	58.8 (6.0)	14.0 (1.4)	1425.5 (145.5)	1899 (193.8)	8.9	SACE	52	20



Order

Catalog No. **SACE** W **52** - θ **20**



Option

Option Code	Specification
SC	The mount surface is extended in the range from 1 to 50 mm (in the increments of 1 mm).
WC	The mounting surface width (W) is changed within the range 53 mm - 120 mm (1 mm increments).
N12	Dowel Pin holes of cam holder and cam driver are changed to φ12H7

⚠ Determine the pierce center position in the range of the cam width.

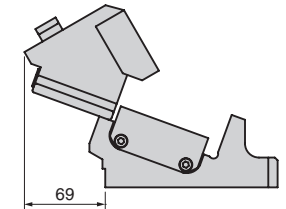


Order

SACE52 - 20 - SC40 - N12  
SACE52 - 20 - WC120  
SACE52 - 20 - SC40 - WC120 - N12

📖 Refer to page 389 for detailed specifications of tapped holes and dowel pin holes (prepared hole, finished hole) for retainer.

Space for removing



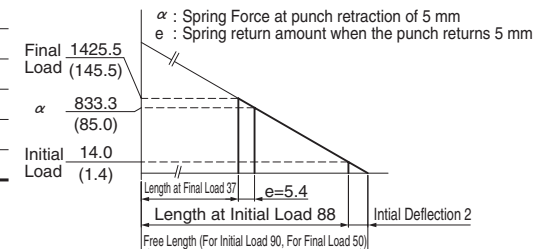
### Table of Components

No.	Description	Qty	Material and Remark
①	Cam Holder	1	FCD550
②	Cam Slider	1	FCD550 with Graphite
③	Cam Driver	1	SF700
④	Slide Keeper	2	S45C with Graphite
⑤	Positive Return Follower	1	Bronze
⑥	Stopper Plate	1	S45C(1045)
⑦	Spring Guide Pin	1	S45C(1045)
⑧	Stopper	1	Urethane
⑩	Coil Spring	1	TF20-90
⑪	Coil Spring	1	TM30-50
⑭	Spring Guide Bush	1	Bronze

⚠ Bolts for assembly are not indicated.

### Spring Diagram

- Spring Used For Initial Load TF20-90(1 piece) 7.01N/mm(0.72kgf/mm)
- For Final Load TM30-50(1 piece) 109.65N/mm(11.18kgf/mm)
- Guideline of spring durability TF20-90 1,000,000 strokes
- TM30-50 1,000,000 strokes

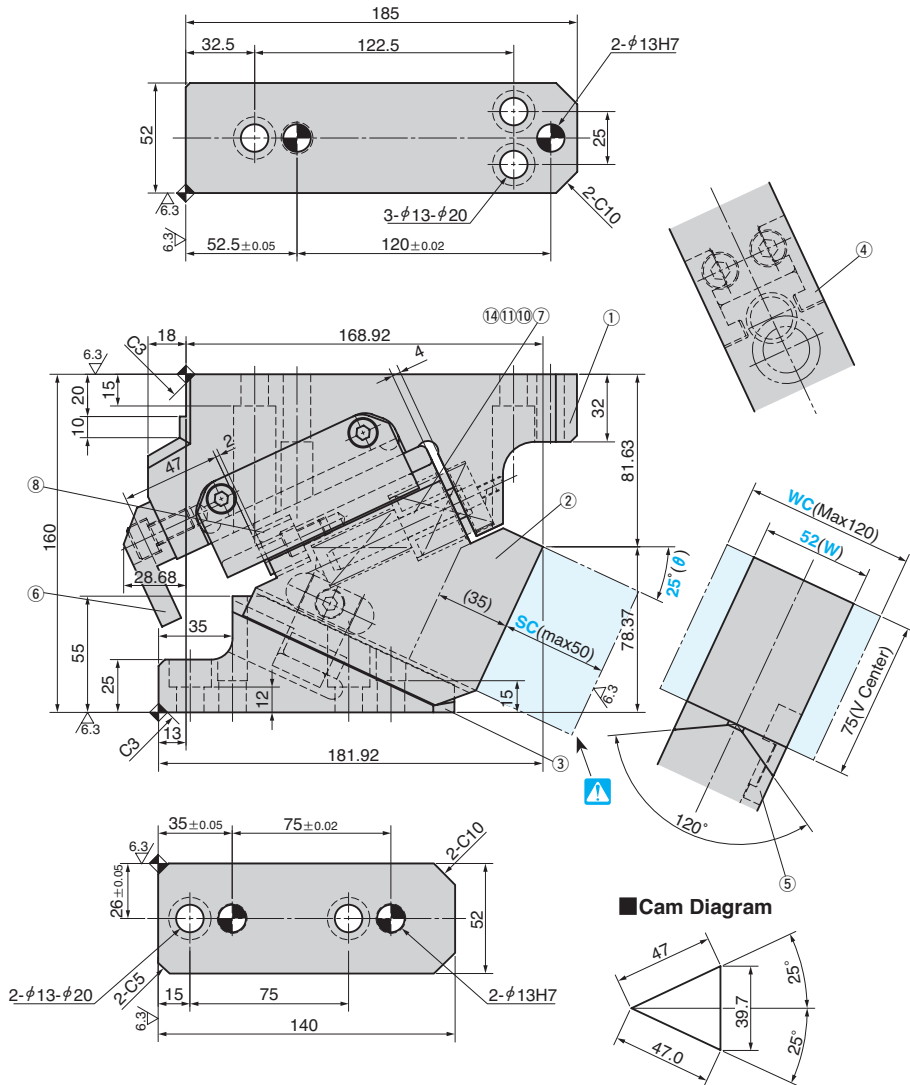


# Aerial Cam Unit

WORKING FORCE 3-TON TYPE

CAD FILE

SACE 52 - 25



Cam Diagram

⚠ When the slider interferes with the die due to the protrusion length, you will need to machine the die for clearance.

Travel S	Working Force kN(tonf)		Spring Force N(kgf)		Return Force N(kgf)	Total Weight kg	Catalog No.	W	θ
	Standard Working Force (one million strokes)	Allowable Working Force (300,000 strokes)	Initial Load	Final Load					
47.0	29.4 (3.0)	58.8 (6.0)	14.0 (1.4)	1425.5 (145.5)	1895 (193.4)	8.8	SACE	52	25



Order

Catalog No. **SACE** W **52** - θ **25**



Option

Option Code	Specification
SC	The mount surface is extended in the range from 1 to 50 mm (in the increments of 1 mm).
WC	The mounting surface width (W) is changed within the range 53 mm - 120 mm (1 mm increments).
N12	Dowel Pin holes of cam holder and cam driver are changed to φ12H7

⚠ Determine the pierce center position in the range of the cam width.

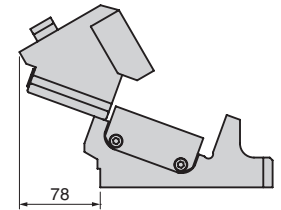


Order

SACE52 - 25 - SC40 - N12  
SACE52 - 25 - WC120  
SACE52 - 25 - SC40 - WC120 - N12

📖 Refer to page 389 for detailed specifications of tapped holes and dowel pin holes (prepared hole, finished hole) for retainer.

Space for removing



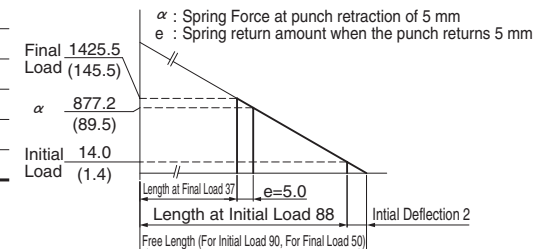
### Table of Components

No.	Description	Qty	Material and Remark
①	Cam Holder	1	FCD550
②	Cam Slider	1	FCD550 with Graphite
③	Cam Driver	1	SF700
④	Slide Keeper	2	S45C with Graphite
⑤	Positive Return Follower	1	Bronze
⑥	Stopper Plate	1	S45C(1045)
⑦	Spring Guide Pin	1	S45C(1045)
⑧	Stopper	1	Urethane
⑩	Coil Spring	1	TF20-90
⑪	Coil Spring	1	TM30-50
⑭	Spring Guide Bush	1	Bronze

⚠ Bolts for assembly are not indicated.

### Spring Diagram

- Spring Used For Initial Load TF20-90(1 piece) 7.01N/mm(0.72kgf/mm)
- For Final Load TM30-50(1 piece) 109.65N/mm(11.18kgf/mm)
- Guideline of spring durability TF20-90 1,000,000 strokes
- TM30-50 1,000,000 strokes

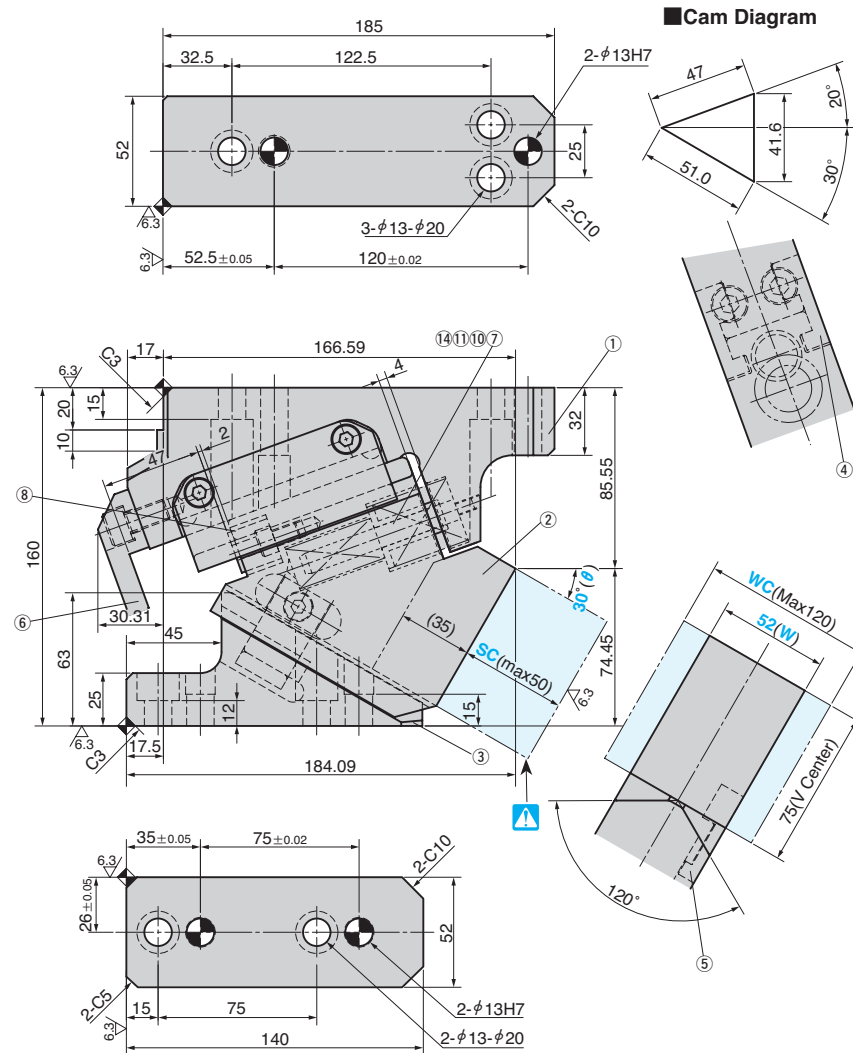


# Aerial Cam Unit

WORKING FORCE 3-TON TYPE

CAD  
FILE

SACE 52 - 30



⚠ When the slider interferes with the die due to the protrusion length, you will need to machine the die for clearance.

Cam Diagram

Travel S	Working Force kN(tonf)		Spring Force N(kgf)		Return Force N(kgf)	Total Weight kg	Catalog No.	W	θ
	Standard Working Force (one million strokes)	Allowable Working Force (300,000 strokes)	Initial Load	Final Load					
51.0	29.4 (3.0)	58.8 (6.0)	14.0 (1.4)	1425.5 (145.5)	1891 (193.0)	8.6	SACE	52	30



Order

Catalog No. **SACE** W **52** - θ **30**



Option

Option Code	Specification
SC	The mount surface is extended in the range from 1 to 50 mm (in the increments of 1 mm).
WC	The mounting surface width (W) is changed within the range 53 mm - 120 mm (1 mm increments).
N12	Dowel Pin holes of cam holder and cam driver are changed to φ12H7

⚠ Determine the pierce center position in the range of the cam width.



Order

SACE52 - 30 - SC40 - N12  
SACE52 - 30 - WC120  
SACE52 - 30 - SC40 - WC120 - N12

📖 Refer to page 389 for detailed specifications of tapped holes and dowel pin holes (prepared hole, finished hole) for retainer.

Space for removing

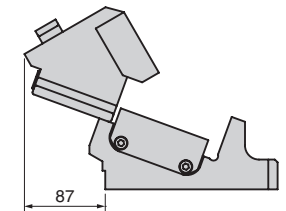


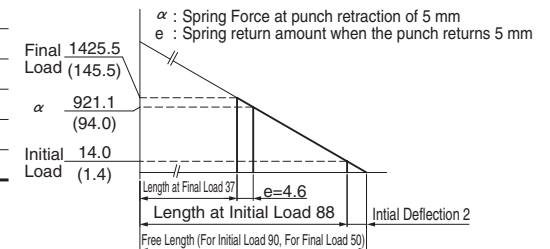
Table of Components

No.	Description	Qty	Material and Remark
①	Cam Holder	1	FCD550
②	Cam Slider	1	FCD550 with Graphite
③	Cam Driver	1	SF700
④	Slide Keeper	2	S45C with Graphite
⑤	Positive Return Follower	1	Bronze
⑥	Stopper Plate	1	S45C(1045)
⑦	Spring Guide Pin	1	S45C(1045)
⑧	Stopper	1	Urethane
⑩	Coil Spring	1	TF20-90
⑪	Coil Spring	1	TM30-50
⑭	Spring Guide Bush	1	Bronze

⚠ Bolts for assembly are not indicated.

Spring Diagram

- Spring Used For Initial Load TF20-90(1 piece)  
7.01N/mm(0.72kgf/mm)
- For Final Load TM30-50(1 piece)  
109.65N/mm(11.18kgf/mm)
- Guideline of spring durability TF20-90 1,000,000 strokes  
TM30-50 1,000,000 strokes



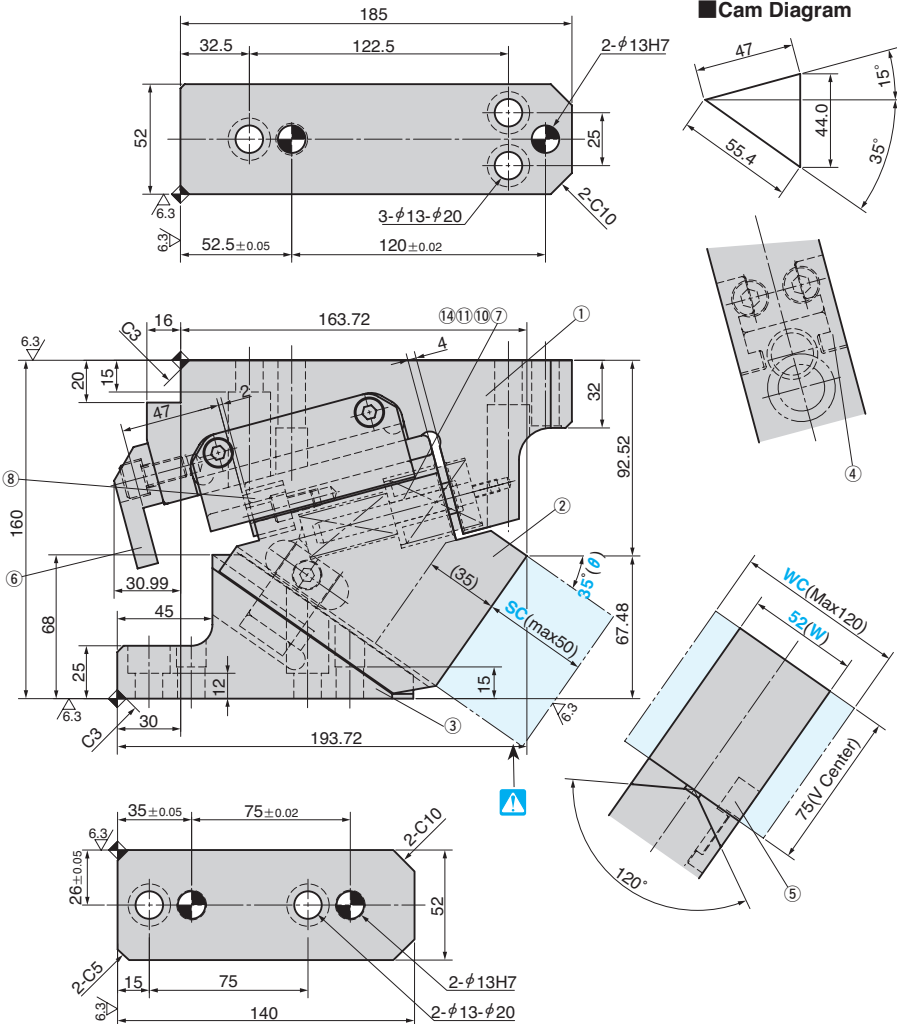


# Aerial Cam Unit

WORKING FORCE 3-TON TYPE

CAD  
FILE

SACE 52 - 35



⚠ When the slider interferes with the die due to the protrusion length, you will need to machine the die for clearance.

Travel S	Working Force kN(tonf)		Spring Force N(kgf)		Return Force N(kgf)	Total Weight kg	Catalog No.	W	θ
	Standard Working Force (one million strokes)	Allowable Working Force (300,000 strokes)	Initial Load	Final Load					
55.4	29.4 (3.0)	58.8 (6.0)	14.0 (1.4)	1425.5 (145.5)	1887 (192.6)	8.8	SACE	52	35



Order

Catalog No. **SACE** W **52** - θ **35**



Option

Option Code	Specification
SC	The mount surface is extended in the range from 1 to 50 mm (in the increments of 1 mm).
WC	The mounting surface width (W) is changed within the range 53 mm - 120 mm (1 mm increments).
N12	Dowel Pin holes of cam holder and cam driver are changed to φ12H7

⚠ Determine the pierce center position in the range of the cam width.



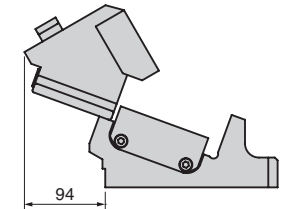
Order

SACE52 - 35 - SC40 - N12  
SACE52 - 35 - WC120  
SACE52 - 35 - SC40 - WC120 - N12



Refer to page 389 for detailed specifications of tapped holes and dowel pin holes (prepared hole, finished hole) for retainer.

## Space for removing



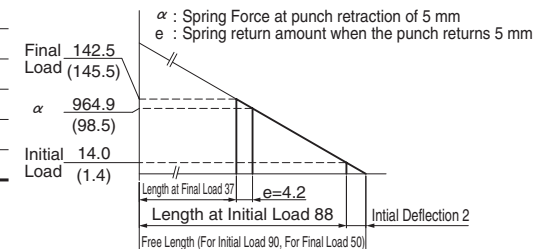
## Table of Components

No.	Description	Qty	Material and Remark
①	Cam Holder	1	FCD550
②	Cam Slider	1	FCD550 with Graphite
③	Cam Driver	1	SF700
④	Slide Keeper	2	S45C with Graphite
⑤	Positive Return Follower	1	Bronze
⑥	Stopper Plate	1	S45C(1045)
⑦	Spring Guide Pin	1	S45C(1045)
⑧	Stopper	1	Urethane
⑩	Coil Spring	1	TF20-90
⑪	Coil Spring	1	TM30-50
⑭	Spring Guide Bush	1	Bronze

⚠ Bolts for assembly are not indicated.

## Spring Diagram

- Spring Used For Initial Load TF20-90(1 piece) 7.01N/mm(0.72kgf/mm)
- For Final Load TM30-50(1 piece) 109.65N/mm(11.18kgf/mm)
- Guideline of spring durability TF20-90 1,000,000 strokes
- TM30-50 1,000,000 strokes

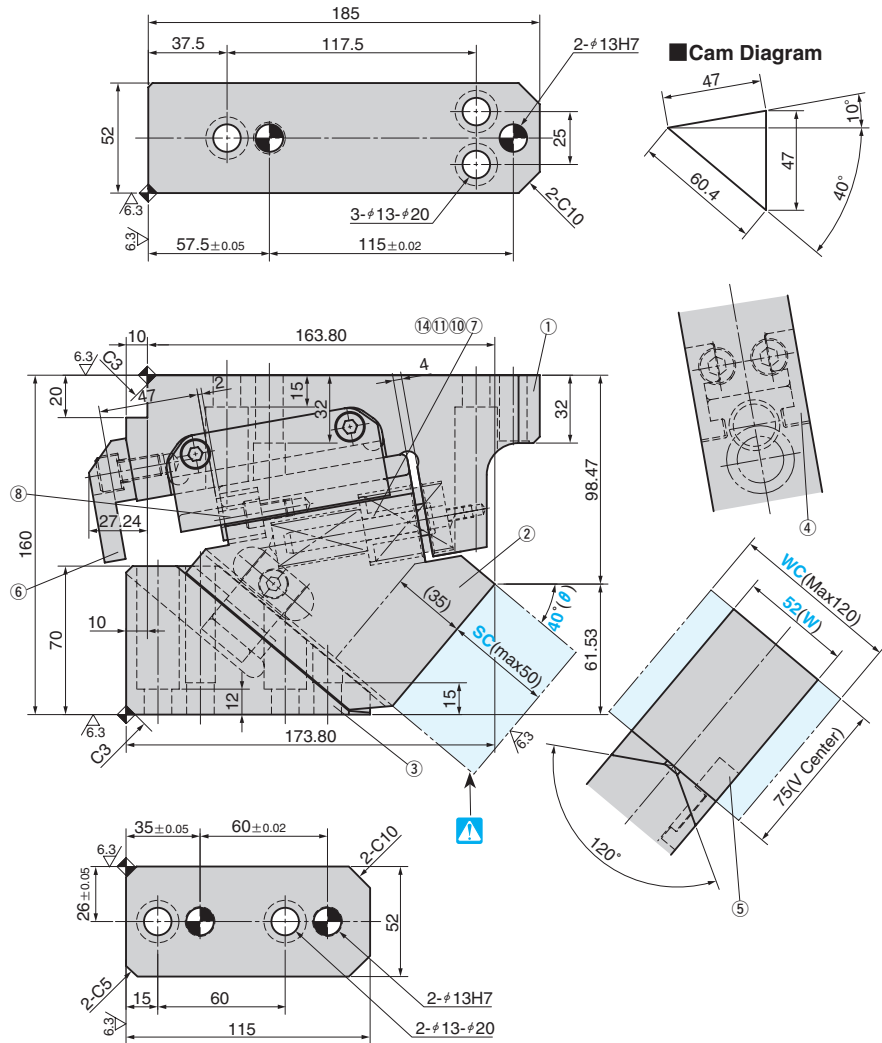


# Aerial Cam Unit

WORKING FORCE 3-TON TYPE

CAD  
FILE

SACE 52 - 40



⚠ When the slider interferes with the die due to the protrusion length, you will need to machine the die for clearance.

Travel S	Working Force kN(tonf)		Spring Force N(kgf)		Return Force N(kgf)	Total Weight kg	Catalog No.	W	θ
	Standard Working Force (one million strokes)	Allowable Working Force (300,000 strokes)	Initial Load	Final Load					
60.4	29.4 (3.0)	58.8 (6.0)	14.0 (1.4)	1425.5 (145.5)	1883 (192.2)	8.9	SACE	52	40



Order

Catalog No. **SACE** W **52** - θ **40**



Option

Option Code	Specification
SC	The mount surface is extended in the range from 1 to 50 mm (in the increments of 1 mm).
WC	The mounting surface width (W) is changed within the range 53 mm - 120 mm (1 mm increments).
N12	Dowel Pin holes of cam holder and cam driver are changed to φ12H7

⚠ Determine the pierce center position in the range of the cam width.



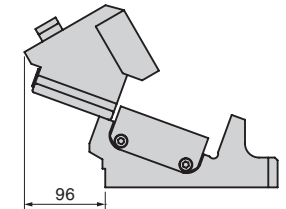
Order

SACE52 - 40 - SC40 - N12  
SACE52 - 40 - WC120  
SACE52 - 40 - SC40 - WC120 - N12



Refer to page 389 for detailed specifications of tapped holes and dowel pin holes (prepared hole, finished hole) for retainer.

Space for removing



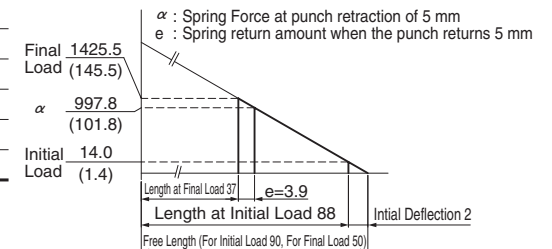
### Table of Components

No.	Description	Qty	Material and Remark
①	Cam Holder	1	FCD550
②	Cam Slider	1	FCD550 with Graphite
③	Cam Driver	1	SF700
④	Slide Keeper	2	S45C with Graphite
⑤	Positive Return Follower	1	Bronze
⑥	Stopper Plate	1	S45C(1045)
⑦	Spring Guide Pin	1	S45C(1045)
⑧	Stopper	1	Urethane
⑩	Coil Spring	1	TF20-90
⑪	Coil Spring	1	TM30-50
⑭	Spring Guide Bush	1	Bronze

⚠ Bolts for assembly are not indicated.

### Spring Diagram

- Spring Used For Initial Load TF20-90(1 piece)  
7.01N/mm(0.72kgf/mm)
- For Final Load TM30-50(1 piece)  
109.65N/mm(11.18kgf/mm)
- Guideline of spring durability TF20-90 1,000,000 strokes  
TM30-50 1,000,000 strokes

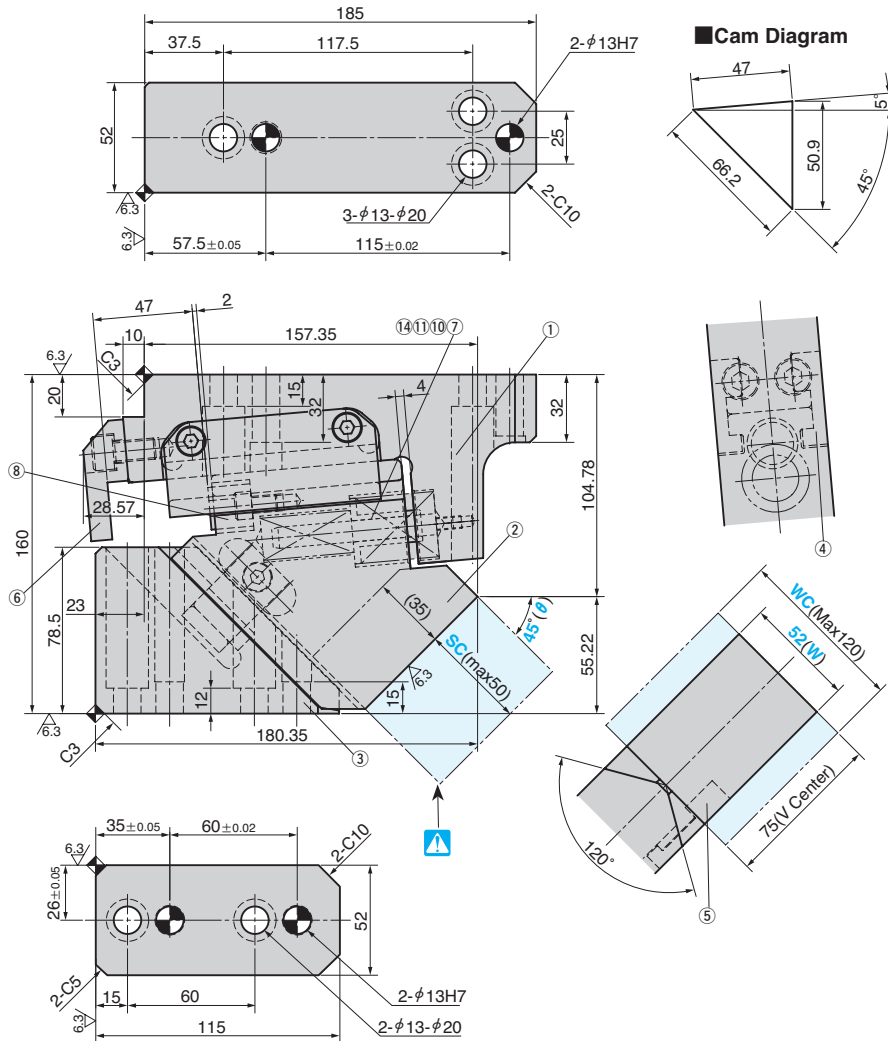


# Aerial Cam Unit

WORKING FORCE 3-TON TYPE

CAD  
FILE

SACE 52 - 45



Travel S	Working Force kN(tonf)		Spring Force N(kgf)		Return Force N(kgf)	Total Weight kg	Catalog No.	W	θ
	Standard Working Force (one million strokes)	Allowable Working Force (300,000 strokes)	Initial Load	Final Load					
66.2	29.4 (3.0)	58.8 (6.0)	14.0 (1.4)	1425.5 (145.5)	1897 (191.7)	9.1	SACE	52	45



Order

Catalog No. **SACE** W **52** - θ **45**



Option

Option Code	Specification
SC	The mount surface is extended in the range from 1 to 50 mm (in the increments of 1 mm).
WC	The mounting surface width (W) is changed within the range 53 mm - 120 mm (1 mm increments).
N12	Dowel Pin holes of cam holder and cam driver are changed to φ12H7

⚠ Determine the pierce center position in the range of the cam width.

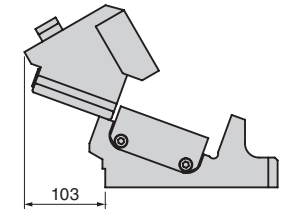


Order

**SACE52 - 45 - SC40 - N12**  
**SACE52 - 45 - WC120**  
**SACE52 - 45 - SC40 - WC120 - N12**

📖 Refer to page 389 for detailed specifications of tapped holes and dowel pin holes (prepared hole, finished hole) for retainer.

### Space for removing



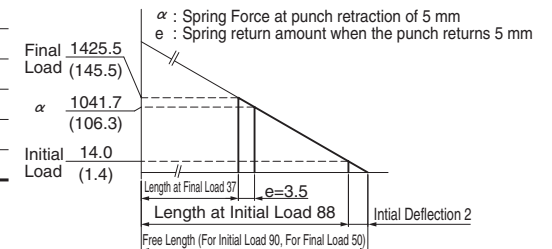
### Table of Components

No.	Description	Qty	Material and Remark
①	Cam Holder	1	FCD550
②	Cam Slider	1	FCD550 with Graphite
③	Cam Driver	1	SF700
④	Slide Keeper	2	S45C with Graphite
⑤	Positive Return Follower	1	Bronze
⑥	Stopper Plate	1	S45C(1045)
⑦	Spring Guide Pin	1	S45C(1045)
⑩	Coil Spring	1	TF20-90
⑪	Coil Spring	1	TM30-50
⑭	Spring Guide Bush	1	Bronze

⚠ Bolts for assembly are not indicated.

### Spring Diagram

- Spring Used For Initial Load TF20-90(1 piece) 7.01N/mm(0.72kgf/mm)
- For Final Load TM30-50(1 piece) 109.65N/mm(11.18kgf/mm)
- Guideline of spring durability TF20-90 1,000,000 strokes
- TM30-50 1,000,000 strokes

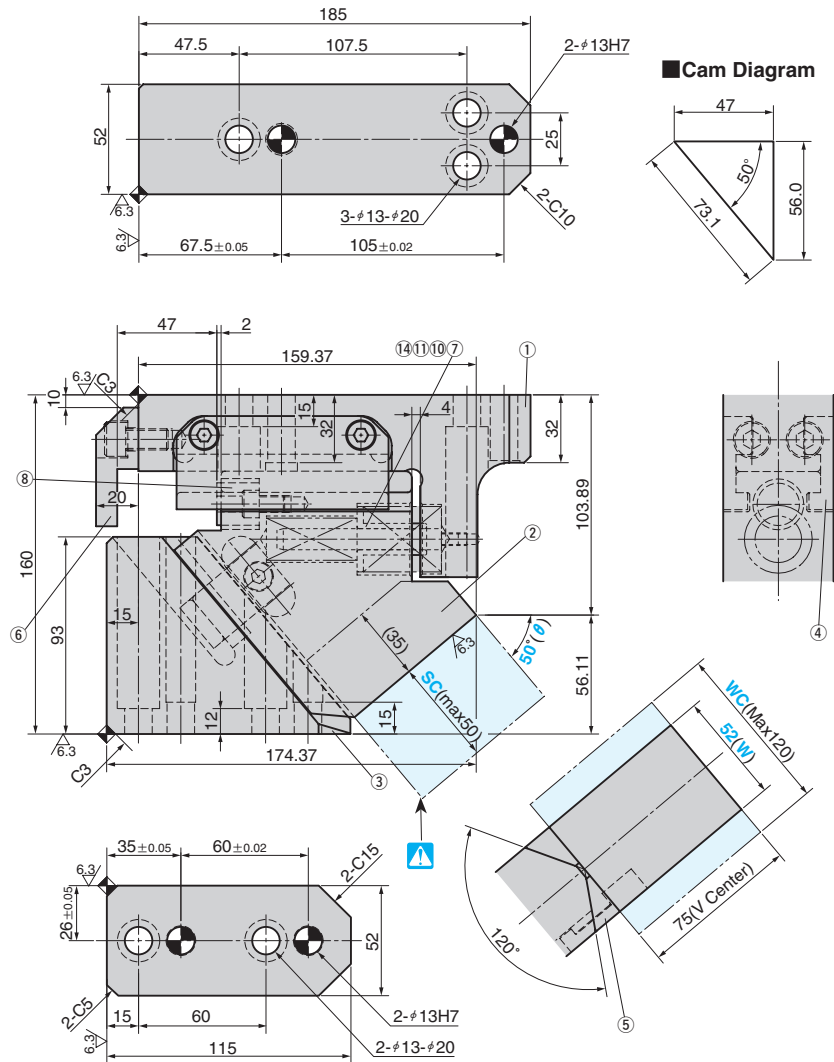


# Aerial Cam Unit

WORKING FORCE 3-TON TYPE

CAD  
FILE

SACE 52 - 50



Cam Diagram

⚠ When the slider interferes with the die due to the protrusion length, you will need to machine the die for clearance.

Travel S	Working Force kN(tonf)		Spring Force N(kgf)		Return Force N(kgf)	Total Weight kg	Catalog No.	W	θ
	Standard Working Force (one million strokes)	Allowable Working Force (300,000 strokes)	Initial Load	Final Load					
73.1	29.4 (3.0)	58.8 (6.0)	14.0 (1.4)	1425.5 (145.5)	1875 (191.3)	8.8	SACE	52	50



Order

Catalog No. **SACE** W **52** - θ **50**



Option

Option Code	Specification
SC	The mount surface is extended in the range from 1 to 50 mm (in the increments of 1 mm).
WC	The mounting surface width (W) is changed within the range 53 mm - 120 mm (1 mm increments).
N12	Dowel Pin holes of cam holder and cam driver are changed to φ12H7

⚠ Determine the pierce center position in the range of the cam width.



Order

**SACE52 - 50 - SC40 - N12**  
**SACE52 - 50 - WC120**  
**SACE52 - 50 - SC40 - WC120 - N12**

📖 Refer to page 389 for detailed specifications of tapped holes and dowel pin holes (prepared hole, finished hole) for retainer.

Space for removing

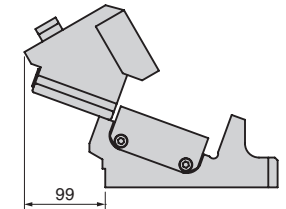


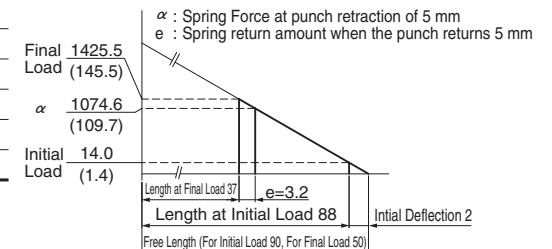
Table of Components

No.	Description	Qty	Material and Remark
①	Cam Holder	1	FCD550
②	Cam Slider	1	FCD550 with Graphite
③	Cam Driver	1	SF700
④	Slide Keeper	2	S45C with Graphite
⑤	Positive Return Follower	1	Bronze
⑥	Stopper Plate	1	S45C(1045)
⑦	Spring Guide Pin	1	S45C(1045)
⑧	Stopper	1	Urethane
⑩	Coil Spring	1	TF20-90
⑪	Coil Spring	1	TM30-50
⑭	Spring Guide Bush	1	Bronze

⚠ Bolts for assembly are not indicated.

Spring Diagram

- Spring Used For Initial Load TF20-90(1 piece)  
7.01N/mm(0.72kgf/mm)
- For Final Load TM30-50(1 piece)  
109.65N/mm(11.18kgf/mm)
- Guideline of spring durability TF20-90 1,000,000 strokes  
TM30-50 1,000,000 strokes



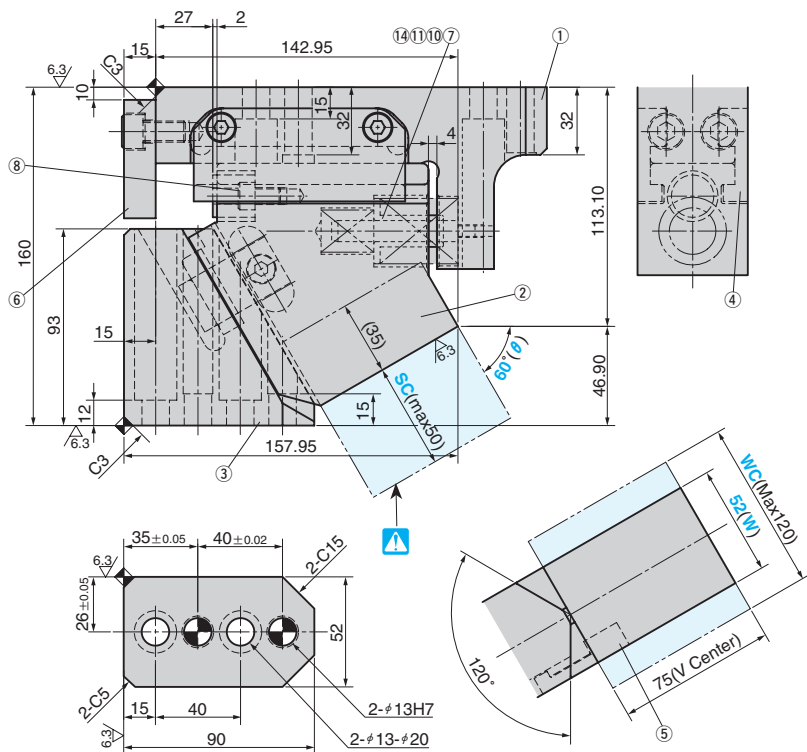
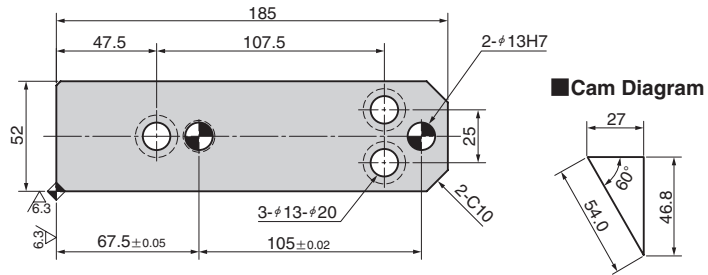


# Aerial Cam Unit

WORKING FORCE 3-TON TYPE

CAD FILE

SACE 52 - 60



⚠ When the slider interferes with the die due to the protrusion length, you will need to machine the die for clearance.

Travel S	Working Force kN(tonf)		Spring Force N(kgf)		Return Force N(kgf)	Total Weight kg	Catalog No.	W	θ
	Standard Working Force (one million strokes)	Allowable Working Force (300,000 strokes)	Initial Load	Final Load					
54.0	29.4 (3.0)	58.8 (6.0)	75.7 (7.7)	1425.5 (145.5)	2255 (230.1)	8.5	SACE	52	60



Order

Catalog No. **SACE** W **52** - θ **60**



Option

Option Code	Specification
SC	The mount surface is extended in the range from 1 to 50 mm (in the increments of 1 mm).
WC	The mounting surface width (W) is changed within the range 53 mm - 120 mm (1 mm increments).
N12	Dowel Pin holes of cam holder and cam driver are changed to φ12H7

⚠ Determine the pierce center position in the range of the cam width.

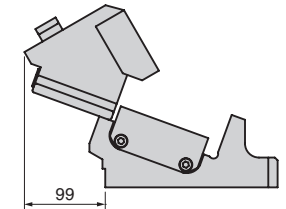


Order

**SACE52 - 60 - SC40 - N12**  
**SACE52 - 60 - WC120**  
**SACE52 - 60 - SC40 - WC120 - N12**

📖 Refer to page 389 for detailed specifications of tapped holes and dowel pin holes (prepared hole, finished hole) for retainer.

Space for removing



## Table of Components

No.	Description	Qty	Material and Remark
①	Cam Holder	1	FCD550
②	Cam Slider	1	FCD550 with Graphite
③	Cam Driver	1	SF700
④	Slide Keeper	2	S45C with Graphite
⑤	Positive Return Follower	1	Bronze
⑥	Stopper Plate	1	S45C(1045)
⑦	Spring Guide Pin	1	S45C(1045)
⑧	Stopper	1	Urethane
⑩	Coil Spring	1	TF20-50
⑪	Coil Spring	1	TM30-50
⑭	Spring Guide Bush	1	Bronze

⚠ Bolts for assembly are not indicated.

## Spring Diagram

- Spring Used For Initial Load TF20-50(1 piece)  
12.62N/mm(1.29kgf/mm)
- For Final Load TM30-50(1 piece)  
109.65N/mm(22.66kgf/mm)
- Guideline of spring durability TF20-50 1,000,000 strokes  
TM30-50 1,000,000 strokes

