

## Product Information

- Added size variations that allow to choose the cam length and driver height
- Minimal rear space removal and ease of cam slider disassembly
- Compact design with a narrow mounting width
- Spring option : Gas or Coil Spring



### ■ Features

#### Variety of choices

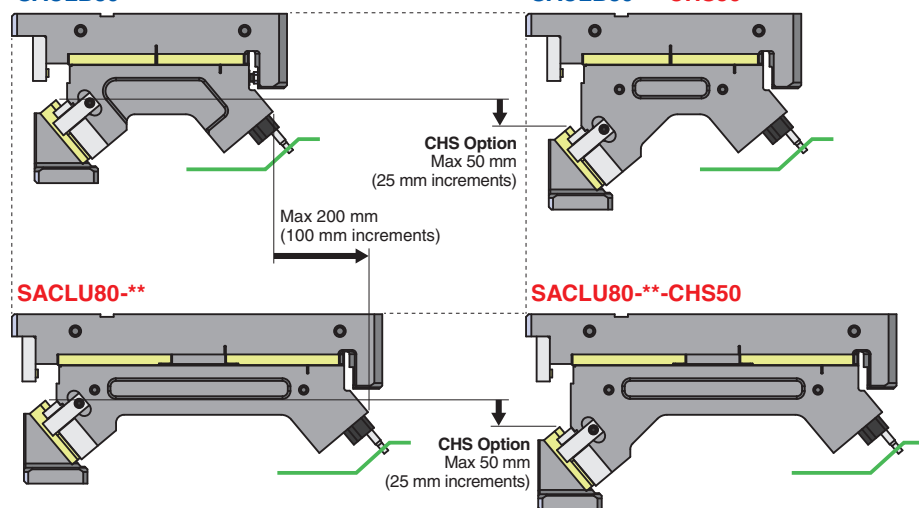
- Added cam length extension variations that allow to select the cam length depending on the machining position.

**SACLB** (Standard) , **SACLS** (+100 mm) , **SACLU** (+200 mm)

- Added the option to change the height of the cam driver. **(-CHS)**

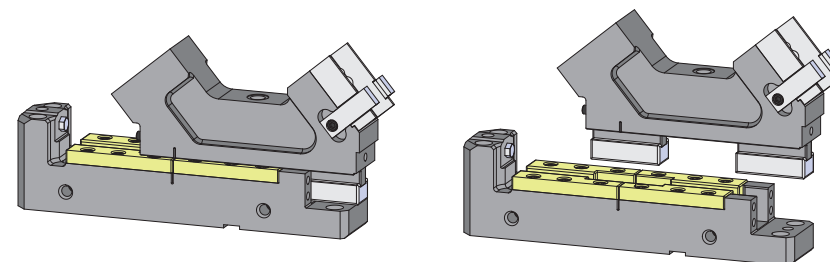
#### SACLB80-\*\*-CHS50

#### SACLB80-\*\*-CHS50



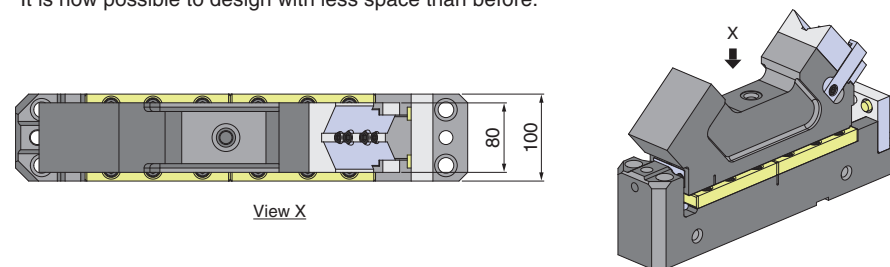
### Structure with ease of cam slider disassembly

The Long Body Cam uses an upper plate notch structure, which greatly reduces the space required for removal at the rear.

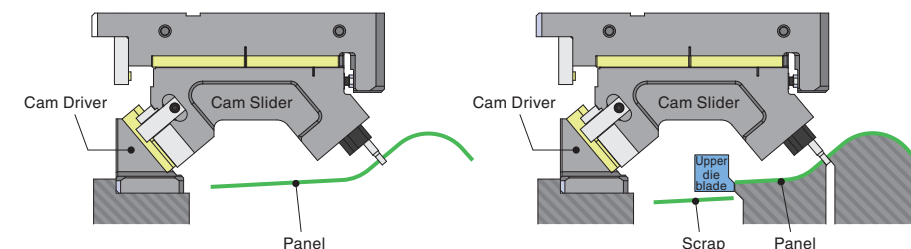


### Compact design with a narrow mounting width

The width of the mounting surface is 80 mm. Overall cam width is 100 mm. It is now possible to design with less space than before.



### ■ Application Example

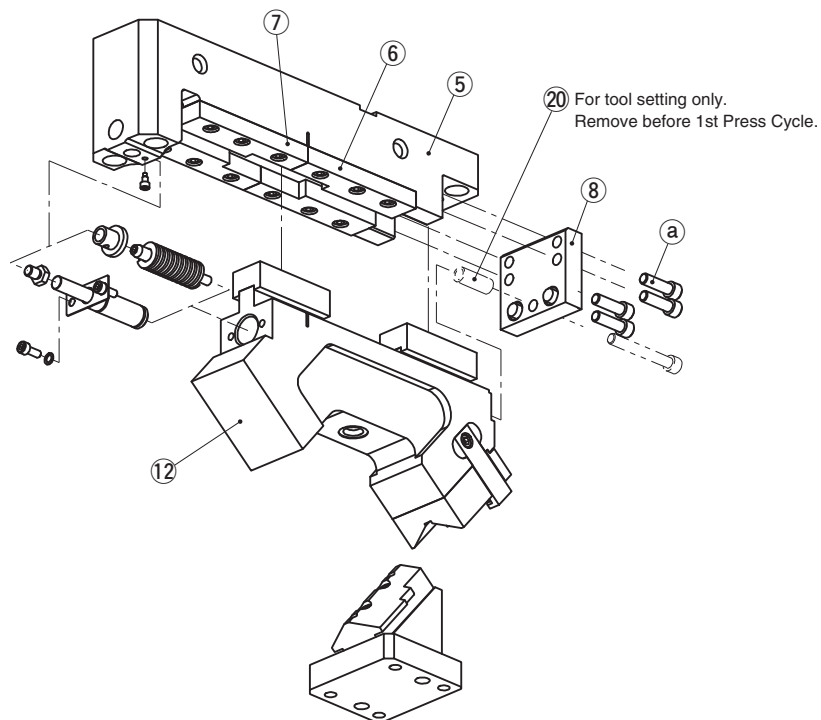


The long reach of Cam Slider and the Cam Driver attached outside of the panel enable the greater processing area to be machined.

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

## Product Information

### ■SACMB·SACLB·SACLS·SACLU Assembly Instructions



#### ● Disassembly

- 1) Remove Hexagon Socket Head Bolts (a), to pull out Stopper Plate (8).
- 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.



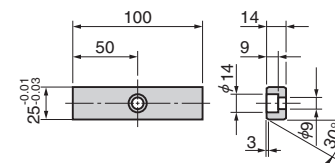
#### Gas Spring

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.

### ■Option

#### ● Key Specification (—K)

LKU25-100 (A M8 Bolt is included.)



### ■Thrust Pad Installation

When the unit is used for trimming, it is recommended a thrust pad be included so an extreme lateral load is eliminated from trimming line to the unit.

### ■Do not use for restriking

The cam unit would break.

### ■Coil Spring life expectancy

Coil Spring life expectancy is approximately 300,000 cycles.

Note that 300,000 cycles is a manufacturer guideline, not a guarantee.

It may break earlier than the life expectancy depending on usage conditions.

NEW

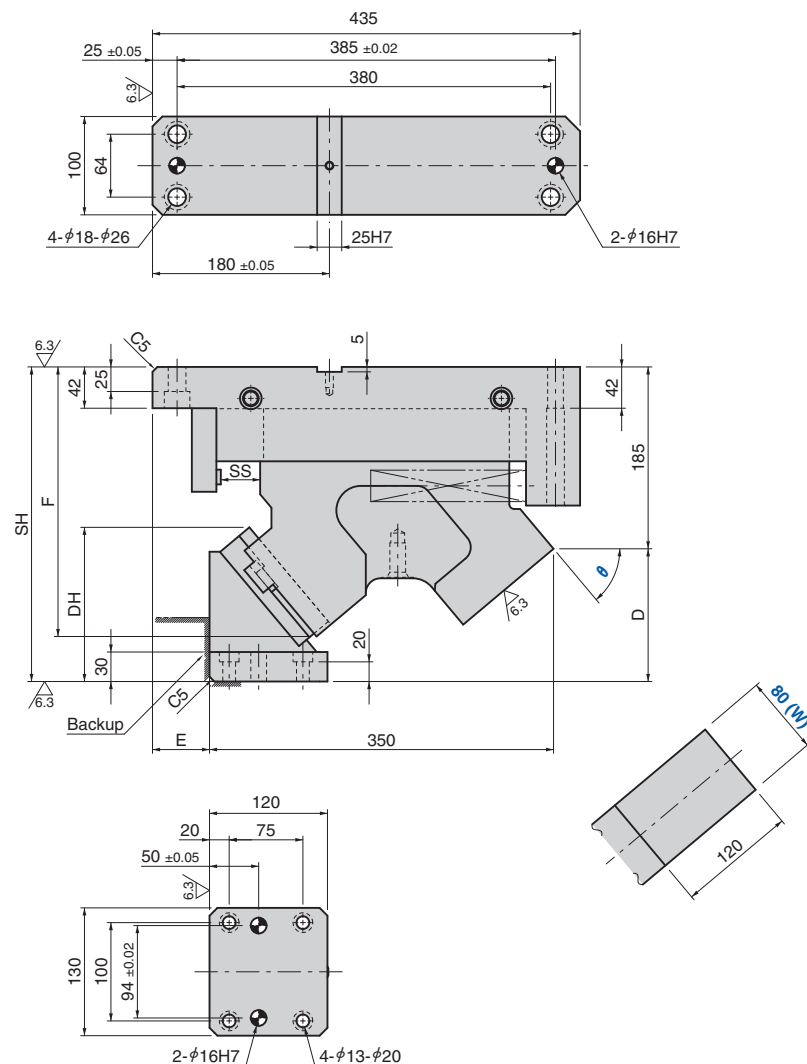
# LONG BODY CAM

Panel Avoidance Cam

Aerial Cam Unit

For Pierce

SACMB80

CAD  
FILE

Refer to page 16 for Table of Components.

| Working Force [kN (tonf)]<br>1,000,000 strokes | Catalog No. | W  | $\theta$<br>5° increments | Spring Type<br>PS                                        |
|------------------------------------------------|-------------|----|---------------------------|----------------------------------------------------------|
| 58.8<br>(6.0)                                  | SACMB       | 80 | 50~80                     | No Code<br>(Coil Spring)<br>GK NGK<br>GD NGD<br>GSS NGSS |

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

| Catalog No. | W  | $\theta$ | Option CHS | PS | Option |
|-------------|----|----------|------------|----|--------|
| SACMB       | 80 | 50       |            |    |        |
| SACMB       | 80 | 50       | CHS25      |    |        |
| SACMB       | 80 | 50       | CHS50      | GK | NF-K   |

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

| Option Code<br>CHS | Specification                                                |
|--------------------|--------------------------------------------------------------|
| CHS25              | The Cam Driver's mounting position will be lowered by 25 mm. |
| CHS50              | The Cam Driver's mounting position will be lowered by 50 mm. |

Refer to page 377 for the machining details of tapped holes and dowel holes for retainer mounting.  
Refer to page 4 for key specification.

| $\theta$ | SS | Option Code<br>CHS | E  | SH  | D   | DH    | F     |
|----------|----|--------------------|----|-----|-----|-------|-------|
| 50       |    | —                  |    | 320 | 135 |       | 274.2 |
|          |    | CHS25              | 58 | 345 | 160 | 156.8 | 299.2 |
|          |    | CHS50              |    | 370 | 185 |       | 324.2 |
| 55       | 40 | —                  |    | 320 | 135 |       | 275.8 |
|          |    | CHS25              | 53 | 345 | 160 | 160.8 | 300.8 |
|          |    | CHS50              |    | 370 | 185 |       | 325.8 |
| 60       |    | —                  |    | 320 | 135 |       | 277.5 |
|          |    | CHS25              | 48 | 345 | 160 | 163.8 | 302.5 |
|          |    | CHS50              |    | 370 | 185 |       | 327.5 |
| 65       | 34 | —                  |    | 320 | 135 |       | 277.2 |
|          |    | CHS25              | 36 | 345 | 160 | 167.8 | 302.2 |
|          |    | CHS50              |    | 370 | 185 |       | 327.2 |
| 70       | 28 | —                  |    | 320 | 135 |       | 278.9 |
|          |    | CHS25              | 25 | 345 | 160 | 168.8 | 303.9 |
|          |    | CHS50              |    | 370 | 185 |       | 328.9 |
| 75       | 21 | —                  |    | 320 | 135 |       | 278.7 |
|          |    | CHS25              | 20 | 345 | 160 | 170.8 | 303.7 |
|          |    | CHS50              |    | 370 | 185 |       | 328.7 |
| 80       | 14 | —                  |    | 320 | 135 |       | 280.5 |
|          |    | CHS25              | 15 | 345 | 160 | 169.9 | 305.5 |
|          |    | CHS50              |    | 370 | 185 |       | 330.5 |

Special  
Cam UnitsSACMB  
80

NEW

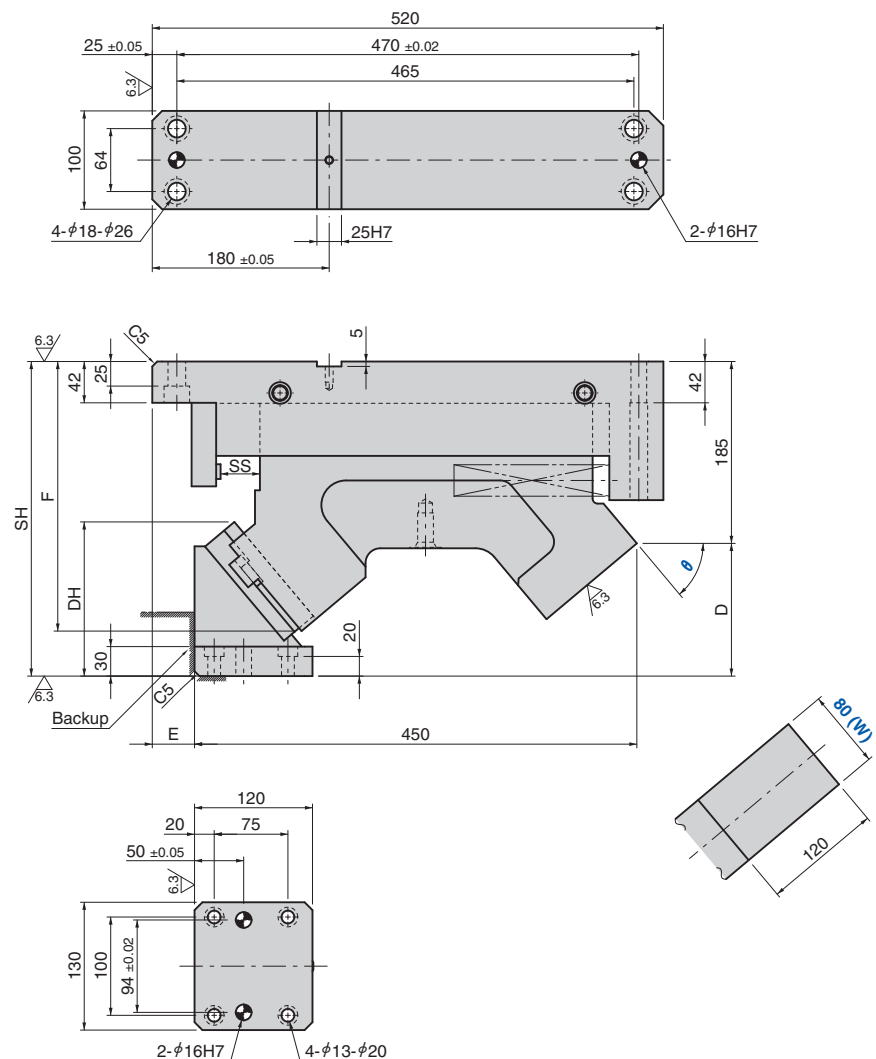
## LONG BODY CAM

Panel Avoidance Cam

Aerial Cam Unit

For Pierce

SACLB80

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| Working Force [kN (tonf)]<br>1,000,000 strokes | Catalog No. | W  | $\theta$<br>5° increments | Spring Type<br>PS                                        |
|------------------------------------------------|-------------|----|---------------------------|----------------------------------------------------------|
| 58.8<br>(6.0)                                  | SACLB       | 80 | 50~80                     | No Code<br>(Coil Spring)<br>GK NGK<br>GD NGD<br>GSS NGSS |

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



Order

| Catalog No. | W  | $\theta$ | Option CHS | PS | Option |
|-------------|----|----------|------------|----|--------|
| SACLB       | 80 | 50       |            |    |        |
| SACLB       | 80 | 50       | CHS25      |    |        |
| SACLB       | 80 | 50       | CHS50      | GK | NF-K   |



Option

| Option Code        | Specification                                                |
|--------------------|--------------------------------------------------------------|
| NF                 | Nitrogen gas not charged.                                    |
| K                  | Key attached.                                                |
| Option Code<br>CHS | Specification                                                |
| CHS25              | The Cam Driver's mounting position will be lowered by 25 mm. |
| CHS50              | The Cam Driver's mounting position will be lowered by 50 mm. |



Refer to page 377 for the machining details of tapped holes and dowel holes for retainer mounting.  
Refer to page 4 for key specification.

| $\theta$ | SS | Option Code<br>CHS | E  | SH  | D   | DH    | F     |
|----------|----|--------------------|----|-----|-----|-------|-------|
|          |    | —                  |    | 320 | 135 |       | 274.2 |
| 50       |    | CHS25              | 43 | 345 | 160 | 156.8 | 299.2 |
|          |    | CHS50              |    | 370 | 185 |       | 324.2 |
|          |    | —                  |    | 320 | 135 |       | 275.8 |
| 55       | 40 | CHS25              | 38 | 345 | 160 | 160.8 | 300.8 |
|          |    | CHS50              |    | 370 | 185 |       | 325.8 |
|          |    | —                  |    | 320 | 135 |       | 277.5 |
| 60       |    | CHS25              | 33 | 345 | 160 | 163.8 | 302.5 |
|          |    | CHS50              |    | 370 | 185 |       | 327.5 |
|          |    | —                  |    | 320 | 135 |       | 277.2 |
| 65       | 34 | CHS25              | 21 | 345 | 160 | 167.8 | 302.2 |
|          |    | CHS50              |    | 370 | 185 |       | 327.2 |
|          |    | —                  |    | 320 | 135 |       | 278.9 |
| 70       | 28 | CHS25              | 10 | 345 | 160 | 168.8 | 303.9 |
|          |    | CHS50              |    | 370 | 185 |       | 328.9 |
|          |    | —                  |    | 320 | 135 |       | 278.7 |
| 75       | 21 | CHS25              | 5  | 345 | 160 | 170.8 | 303.7 |
|          |    | CHS50              |    | 370 | 185 |       | 328.7 |
|          |    | —                  |    | 320 | 135 |       | 280.5 |
| 80       | 14 | CHS25              | 0  | 345 | 160 | 169.9 | 305.5 |
|          |    | CHS50              |    | 370 | 185 |       | 330.5 |



Refer to page 16 for Table of Components.

NEW

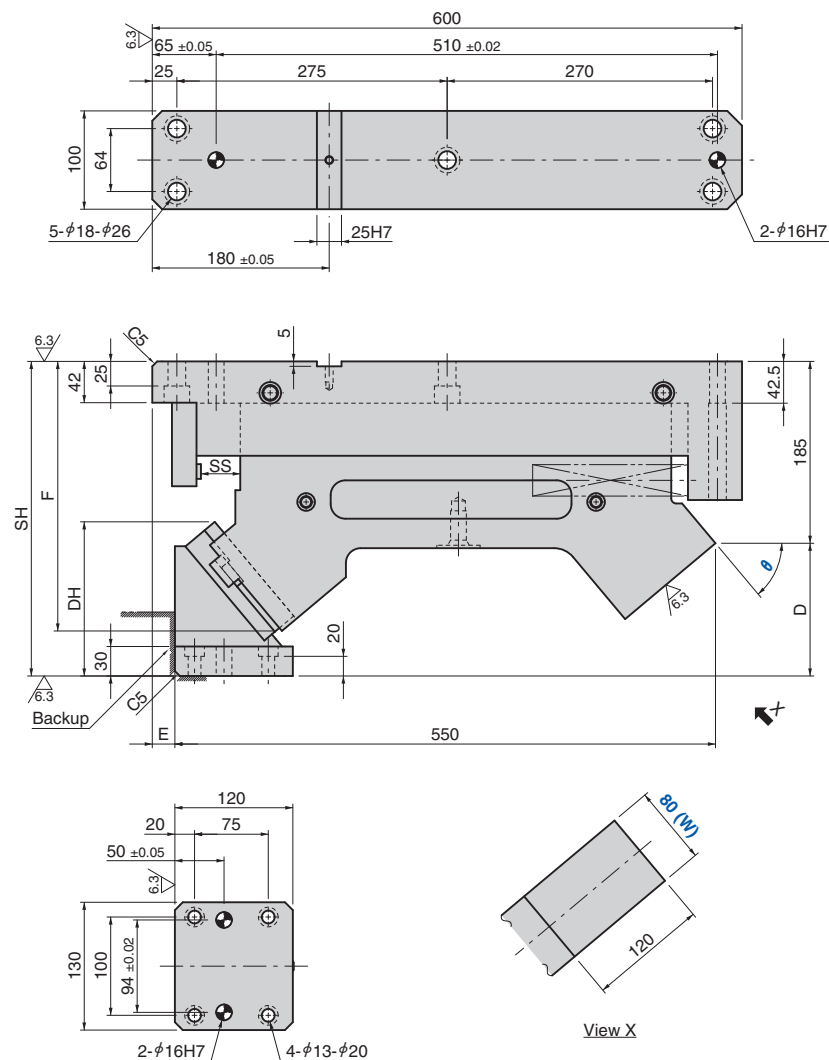
## LONG BODY CAM

Panel Avoidance Cam

Aerial Cam Unit

For Pierce

SACLS80

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| Working Force [kN (tonf)]<br>1,000,000 strokes | Catalog No.  | W         | $\theta$<br>5° increments | Spring Type<br>PS                                        |
|------------------------------------------------|--------------|-----------|---------------------------|----------------------------------------------------------|
| 58.8<br>(6.0)                                  | <b>SACLS</b> | <b>80</b> | <b>50~80</b>              | No Code<br>(Coil Spring)<br>GK NGK<br>GD NGD<br>GSS NGSS |

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

| Catalog No.  | W         | $\theta$  | Option CHS   | PS        | Option        |
|--------------|-----------|-----------|--------------|-----------|---------------|
| <b>SACLS</b> | <b>80</b> | <b>50</b> |              |           |               |
| <b>SACLS</b> | <b>80</b> | <b>50</b> | <b>CHS25</b> |           |               |
| <b>SACLS</b> | <b>80</b> | <b>50</b> | <b>CHS50</b> | <b>GK</b> | <b>NF - K</b> |

| Option Code     | Specification                                                |
|-----------------|--------------------------------------------------------------|
| <b>NF</b>       | Nitrogen gas not charged.                                    |
| <b>K</b>        | Key attached.                                                |
| Option Code CHS | Specification                                                |
| <b>CHS25</b>    | The Cam Driver's mounting position will be lowered by 25 mm. |
| <b>CHS50</b>    | The Cam Driver's mounting position will be lowered by 50 mm. |

Refer to page 377 for the machining details of tapped holes and dowel holes for retainer mounting.  
Refer to page 4 for key specification.

| $\theta$ | SS | Option Code CHS | E   | SH  | D   | DH    | F     |
|----------|----|-----------------|-----|-----|-----|-------|-------|
| 50       |    | —               |     | 320 | 135 |       | 274.2 |
|          |    | CHS25           | 23  | 345 | 160 | 156.8 | 299.2 |
|          |    | CHS50           |     | 370 | 185 |       | 324.2 |
| 55       | 40 | —               |     | 320 | 135 |       | 275.8 |
|          |    | CHS25           | 18  | 345 | 160 | 160.8 | 300.8 |
|          |    | CHS50           |     | 370 | 185 |       | 325.8 |
| 60       |    | —               |     | 320 | 135 |       | 277.5 |
|          |    | CHS25           | 13  | 345 | 160 | 163.8 | 302.5 |
|          |    | CHS50           |     | 370 | 185 |       | 327.5 |
| 65       | 34 | —               |     | 320 | 135 |       | 277.2 |
|          |    | CHS25           | 1   | 345 | 160 | 167.8 | 302.2 |
|          |    | CHS50           |     | 370 | 185 |       | 327.2 |
| 70       | 28 | —               |     | 320 | 135 |       | 278.9 |
|          |    | CHS25           | -10 | 345 | 160 | 168.8 | 303.9 |
|          |    | CHS50           |     | 370 | 185 |       | 328.9 |
| 75       | 21 | —               |     | 320 | 135 |       | 278.7 |
|          |    | CHS25           | -15 | 345 | 160 | 170.8 | 303.7 |
|          |    | CHS50           |     | 370 | 185 |       | 328.7 |
| 80       | 14 | —               |     | 320 | 135 |       | 280.5 |
|          |    | CHS25           | -20 | 345 | 160 | 169.9 | 305.5 |
|          |    | CHS50           |     | 370 | 185 |       | 330.5 |

Dimension E is positive (+) on the left side and negative (-) on the right side with respect to the backup surface of the cam driver.

Refer to page 16 for Table of Components.

NEW

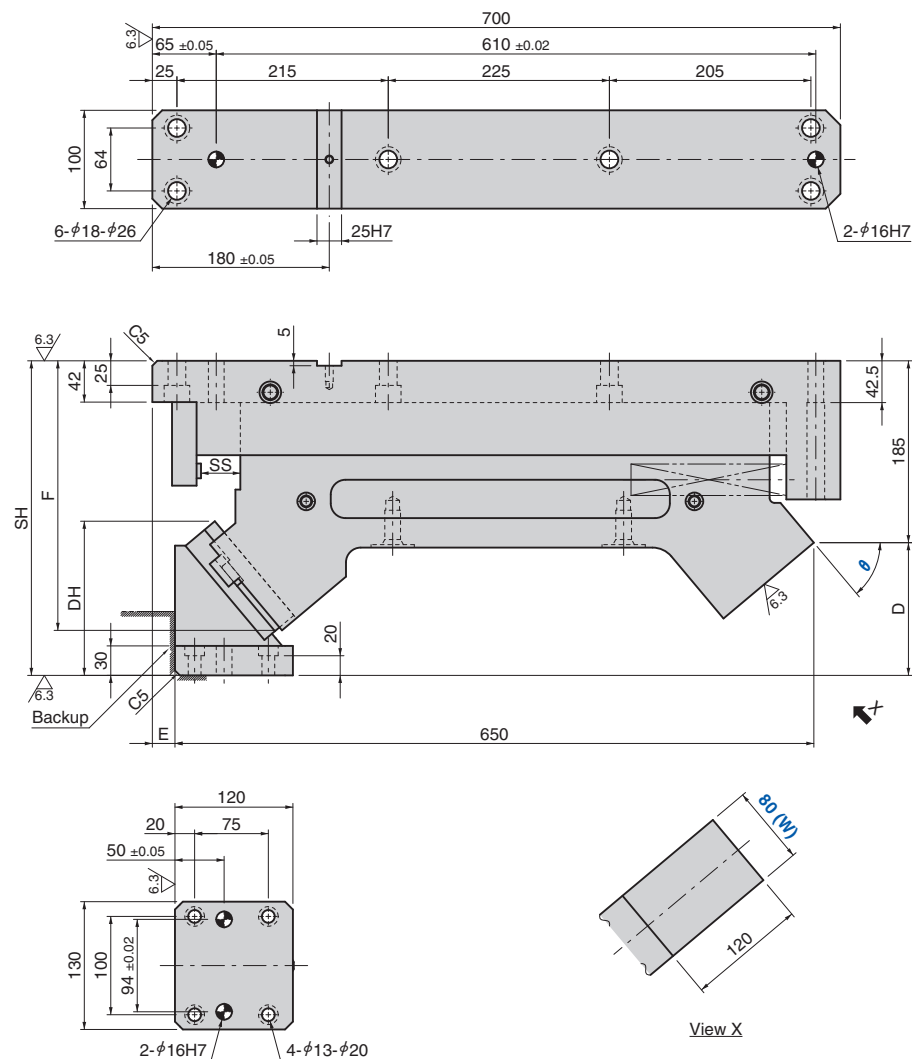
## LONG BODY CAM

Panel Avoidance Cam

Aerial Cam Unit

For Pierce

SACLU80

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| Working Force [kN (tonf)]<br>1,000,000 strokes | Catalog No.  | W         | $\theta$<br>5° increments | Spring Type<br>PS                                        |
|------------------------------------------------|--------------|-----------|---------------------------|----------------------------------------------------------|
| 58.8<br>(6.0)                                  | <b>SACLU</b> | <b>80</b> | <b>50~80</b>              | No Code<br>(Coil Spring)<br>GK NGK<br>GD NGD<br>GSS NGSS |

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

| Catalog No.  | W         | $\theta$  | Option CHS   | PS        | Option        |
|--------------|-----------|-----------|--------------|-----------|---------------|
| <b>SACLU</b> | <b>80</b> | <b>50</b> |              |           |               |
| <b>SACLU</b> | <b>80</b> | <b>50</b> | <b>CHS25</b> |           |               |
| <b>SACLU</b> | <b>80</b> | <b>50</b> | <b>CHS50</b> | <b>GK</b> | <b>NF - K</b> |

| Option Code  | Specification                                                |
|--------------|--------------------------------------------------------------|
| <b>NF</b>    | Nitrogen gas not charged.                                    |
| <b>K</b>     | Key attached.                                                |
| Option Code  | Specification                                                |
| <b>CHS25</b> | The Cam Driver's mounting position will be lowered by 25 mm. |
| <b>CHS50</b> | The Cam Driver's mounting position will be lowered by 50 mm. |

Refer to page 377 for the machining details of tapped holes and dowel holes for retainer mounting.  
Refer to page 4 for key specification.

| $\theta$ | SS | Option Code<br>CHS | E   | SH  | D   | DH    | F     |
|----------|----|--------------------|-----|-----|-----|-------|-------|
|          |    | —                  |     | 320 | 135 |       | 274.2 |
| 50       |    | CHS25              | 23  | 345 | 160 | 156.8 | 299.2 |
|          |    | CHS50              |     | 370 | 185 |       | 324.2 |
|          |    | —                  |     | 320 | 135 |       | 275.8 |
| 55       | 40 | CHS25              | 18  | 345 | 160 | 160.8 | 300.8 |
|          |    | CHS50              |     | 370 | 185 |       | 325.8 |
|          |    | —                  |     | 320 | 135 |       | 277.5 |
| 60       |    | CHS25              | 13  | 345 | 160 | 163.8 | 302.5 |
|          |    | CHS50              |     | 370 | 185 |       | 327.5 |
|          |    | —                  |     | 320 | 135 |       | 277.2 |
| 65       | 34 | CHS25              | 1   | 345 | 160 | 167.8 | 302.2 |
|          |    | CHS50              |     | 370 | 185 |       | 327.2 |
|          |    | —                  |     | 320 | 135 |       | 278.9 |
| 70       | 28 | CHS25              | -10 | 345 | 160 | 168.8 | 303.9 |
|          |    | CHS50              |     | 370 | 185 |       | 328.9 |
|          |    | —                  |     | 320 | 135 |       | 278.7 |
| 75       | 21 | CHS25              | -15 | 345 | 160 | 170.8 | 303.7 |
|          |    | CHS50              |     | 370 | 185 |       | 328.7 |
|          |    | —                  |     | 320 | 135 |       | 280.5 |
| 80       | 14 | CHS25              | -20 | 345 | 160 | 169.9 | 305.5 |
|          |    | CHS50              |     | 370 | 185 |       | 330.5 |

Dimension E is positive (+) on the left side and negative (-) on the right side  
with respect to the backup surface of the cam driver.

Refer to page 16 for Table of Components.

# LONG BODY CAM [Table of Components]

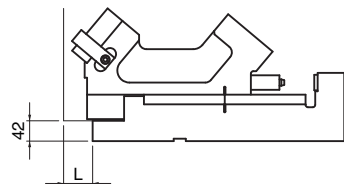
## Panel Avoidance Cam

### Aerial Cam Unit

For Pierce

SACMB·SACLB·SACLS·SACLU

#### ■Rear Removal Space



| Catalog No. | L     |
|-------------|-------|
| SACMB       | 60.0  |
| SACLB       |       |
| SACLS       | 110.0 |
| SACLU       |       |

#### ■Spring Force

● Coil Spring

SACMB

| θ  | SS | Spring Model | Initial Load |      | Final Load |       | Return Force |       |
|----|----|--------------|--------------|------|------------|-------|--------------|-------|
|    |    |              | N            | kgf  | N          | kgf   | N            | kgf   |
| 50 |    |              |              |      |            |       | 3441.1       | 351.1 |
| 55 | 40 | TH30-200     | 440.7        | 45.0 | 2644.3     | 269.8 | 3744.7       | 382.1 |
| 60 |    |              |              |      |            |       | 4141.5       | 422.6 |
| 65 | 34 | TH30-175     | 503.7        | 51.4 | 2644.3     | 269.8 | 4671.5       | 476.7 |
| 70 | 28 | TH30-150     | 587.7        | 60.0 | 2644.6     | 269.9 | 5403.7       | 551.4 |
| 75 | 21 | TH30-100     | 330.6        | 33.7 | 2644.6     | 269.9 | 6464.4       | 659.6 |
| 80 | 14 | TH30-75      | 587.6        | 60.0 | 2644.4     | 269.8 | 8122.4       | 828.8 |

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

SACLB, SACLS, SACLU

| θ  | SS | Spring Model | Initial Load |      | Final Load |       | Return Force |       |
|----|----|--------------|--------------|------|------------|-------|--------------|-------|
|    |    |              | N            | kgf  | N          | kgf   | N            | kgf   |
| 50 |    |              |              |      |            |       | 3407.3       | 347.7 |
| 55 | 40 | TH30-200     | 440.7        | 45.0 | 2644.3     | 269.8 | 3708.4       | 378.4 |
| 60 |    |              |              |      |            |       | 4100.7       | 418.4 |
| 65 | 34 | TH30-175     | 503.7        | 51.4 | 2644.3     | 269.8 | 4625.4       | 472.0 |
| 70 | 28 | TH30-150     | 587.7        | 60.0 | 2644.6     | 269.9 | 5349.6       | 545.9 |
| 75 | 21 | TH30-100     | 330.6        | 33.7 | 2644.6     | 269.9 | 6398.8       | 652.9 |
| 80 | 14 | TH30-75      | 587.6        | 60.0 | 2644.4     | 269.8 | 8039.1       | 820.3 |

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

● Gas Spring

SACMB

| θ  | SS | Spring Model   | Final Load |       | Return Force |       |
|----|----|----------------|------------|-------|--------------|-------|
|    |    |                | N          | kgf   | N            | kgf   |
| 50 |    |                |            |       | 3591.7       | 366.5 |
| 55 | 40 | M2-50-Yellow   | 2759.2     | 281.5 | 3908.6       | 398.8 |
| 60 |    |                |            |       | 4322.7       | 441.1 |
| 65 | 34 | M2-50-Yellow   | 2606.9     | 266.0 | 4603.8       | 469.8 |
| 70 | 28 | M2-38.1-Yellow | 2666.6     | 272.1 | 5448.5       | 556.0 |
| 75 | 21 | M2-38.1-Yellow | 2454.5     | 250.5 | 5993.6       | 611.6 |
| 80 | 14 | M2-25-Yellow   | 2446.0     | 249.6 | 7505.1       | 765.8 |

Gas filling pressure: 18 Mpa

SACMB

| θ  | SS | Spring Model | Final Load |       | Return Force |       |
|----|----|--------------|------------|-------|--------------|-------|
|    |    |              | N          | kgf   | N            | kgf   |
| 50 |    |              |            |       | 3375.6       | 344.4 |
| 55 | 40 | C.180.050.YW | 2595.4     | 264.8 | 3673.5       | 374.8 |
| 60 |    |              |            |       | 4062.7       | 414.6 |
| 65 | 34 | C.180.050.YW | 2481.8     | 253.2 | 4379.7       | 446.9 |
| 70 | 28 | C.180.038.YW | 2528.4     | 258.0 | 5162.3       | 526.8 |
| 75 | 21 | C.180.038.YW | 2366.3     | 241.5 | 5775.1       | 589.3 |
| 80 | 14 | C.180.025.YW | 2361.1     | 240.9 | 7240.9       | 738.9 |

Gas filling pressure: 18 Mpa

SACMB

| θ  | SS | Spring Model  | Final Load |       | Return Force |       |
|----|----|---------------|------------|-------|--------------|-------|
|    |    |               | N          | kgf   | N            | kgf   |
| 50 |    |               |            |       | 3466.7       | 353.7 |
| 55 | 40 | M200-050-B-YW | 2664.5     | 271.9 | 3772.6       | 385.0 |
| 60 |    |               |            |       | 4172.4       | 425.8 |
| 65 | 34 | M200-050-B-YW | 2534.9     | 258.7 | 4474.9       | 456.6 |
| 70 | 28 | M200-038-B-YW | 2574.9     | 262.7 | 5258.6       | 536.6 |
| 75 | 21 | M200-038-B-YW | 2396.3     | 244.5 | 5849.5       | 596.9 |
| 80 | 14 | M200-025-B-YW | 2370.7     | 241.9 | 7270.7       | 741.9 |

Gas filling pressure: 18 Mpa

SACLB, SACLS, SACLU

| Spring Model | Final Load |       | Return Force |       |
|--------------|------------|-------|--------------|-------|
|              | N          | kgf   | N            | kgf   |
|              |            |       | 3312.2       | 338.0 |
| X320-50      | 2573.0     | 262.5 | 3604.9       | 367.8 |
|              |            |       | 3986.2       | 406.8 |
| X320-50      | 2407.3     | 245.6 | 4200.1       | 428.6 |
| X320-38      | 2474.4     | 252.5 | 4996.0       | 509.8 |
| X320-25      | 2567.9     | 262.0 | 6208.2       | 633.5 |
| X320-19      | 2386.0     | 243.5 | 7234.5       | 738.2 |

Gas filling pressure: 10 Mpa

SACLB, SACLS, SACLU

| Spring Model | Final Load |       | Return Force |       |
|--------------|------------|-------|--------------|-------|
|              | N          | kgf   | N            | kgf   |
|              |            |       | 3293.6       | 336.1 |
| U.0325.050   | 2558.9     | 261.1 | 3584.7       | 365.8 |
|              |            |       | 3963.9       | 404.5 |
| U.0325.050   | 2396.9     | 244.6 | 4181.4       | 426.7 |
| U.0325.038   | 2462.5     | 251.3 | 4971.5       | 507.3 |
| U.0325.025   | 2588.1     | 264.1 | 6258.2       | 638.6 |
| U.0325.019   | 2427.9     | 247.7 | 7365.1       | 751.5 |

Gas filling pressure: 10 Mpa

SACLB, SACLS, SACLU

| Spring Model | Final Load |       | Return Force |       |
|--------------|------------|-------|--------------|-------|
|              | N          | kgf   | N            | kgf   |
|              |            |       | 3470.2       | 354.1 |
| RV320-050-C  | 2692.7     | 274.8 | 3776.9       | 385.4 |
|              |            |       | 4176.4       | 426.2 |
| RV320-050-C  | 2495.2     | 256.7 | 4357.4       | 444.6 |
| RV320-038-C  | 2553.5     | 260.6 | 5159.8       | 526.5 |
| RV320-025-C  | 2651.1     | 270.5 | 6414.2       | 654.5 |
| RV320-019-C  | 2441.6     | 249.1 | 7407.7       | 755.9 |

Gas filling pressure: 10 Mpa

# LONG BODY CAM [Table of Components]

## Panel Avoidance Cam

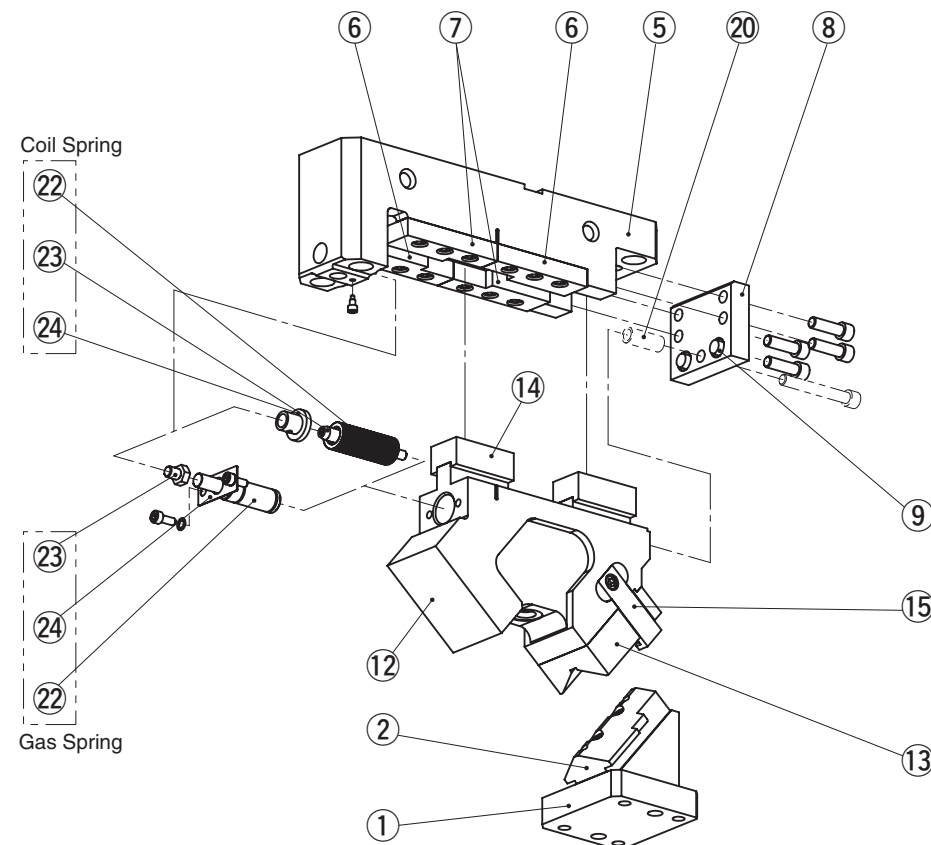
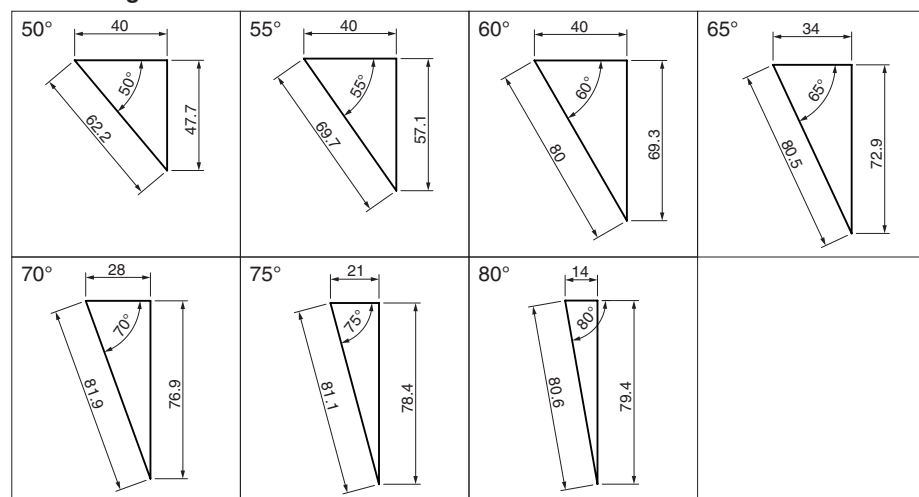
### Aerial Cam Unit

For Pierce

#### Weight

| $\theta$ | Option Code<br>CHS | Slider Weight (kg) |       |       |       | Total Weight (kg) |       |       |       | Tool installation Weight (kg)<br>Common |
|----------|--------------------|--------------------|-------|-------|-------|-------------------|-------|-------|-------|-----------------------------------------|
|          |                    | SACMB              | SACLB | SACLS | SACLU | SACMB             | SACLB | SACLS | SACLU |                                         |
| 50       | —                  | 21.5               | 26.1  | 33.7  | 38.8  | 52.8              | 62.1  | 74.4  | 83.8  | 8.0                                     |
|          | CHS25              | 24.0               | 29.4  | 35.1  | 40.8  | 55.4              | 65.4  | 76.4  | 85.8  |                                         |
|          | CHS50              | 25.7               | 31.8  | 38.0  | 43.1  | 57.0              | 67.8  | 78.7  | 88.1  |                                         |
| 55       | —                  | 21.1               | 25.6  | 33.1  | 38.3  | 52.7              | 61.8  | 74.1  | 83.5  | 8.0                                     |
|          | CHS25              | 23.6               | 28.8  | 35.0  | 40.2  | 55.2              | 65.0  | 76.0  | 85.4  |                                         |
|          | CHS50              | 25.2               | 31.0  | 37.2  | 42.4  | 56.7              | 67.2  | 78.2  | 87.6  |                                         |
| 60       | —                  | 20.8               | 25.3  | 32.8  | 38.0  | 52.6              | 61.7  | 74.0  | 83.4  | 8.0                                     |
|          | CHS25              | 23.0               | 28.5  | 34.7  | 39.9  | 54.8              | 64.9  | 75.9  | 85.3  |                                         |
|          | CHS50              | 24.7               | 30.7  | 37.0  | 42.2  | 56.5              | 67.2  | 78.2  | 87.6  |                                         |
| 65       | —                  | 20.6               | 25.0  | 32.5  | 37.7  | 52.8              | 61.8  | 74.0  | 83.5  | 8.0                                     |
|          | CHS25              | 22.6               | 28.0  | 34.3  | 39.5  | 54.7              | 64.7  | 75.8  | 85.3  |                                         |
|          | CHS50              | 24.1               | 30.1  | 36.5  | 41.7  | 56.2              | 66.9  | 78.0  | 87.4  |                                         |
| 70       | —                  | 20.7               | 25.0  | 32.4  | 37.6  | 53.1              | 61.9  | 74.1  | 83.5  | 8.0                                     |
|          | CHS25              | 22.5               | 27.7  | 34.4  | 39.5  | 54.9              | 64.6  | 76.1  | 85.5  |                                         |
|          | CHS50              | 23.9               | 29.7  | 36.6  | 41.8  | 56.3              | 66.7  | 78.3  | 87.7  |                                         |
| 75       | —                  | 20.3               | 24.8  | 32.4  | 37.5  | 53.0              | 62.1  | 74.3  | 83.8  | 8.0                                     |
|          | CHS25              | 22.3               | 27.7  | 34.4  | 39.6  | 55.1              | 65.0  | 76.4  | 85.8  |                                         |
|          | CHS50              | 23.7               | 29.9  | 36.7  | 41.9  | 56.5              | 67.1  | 78.6  | 88.1  |                                         |
| 80       | —                  | 20.1               | 24.7  | 32.1  | 37.3  | 53.1              | 62.2  | 74.3  | 83.8  | 8.0                                     |
|          | CHS25              | 21.9               | 27.5  | 34.1  | 39.3  | 54.9              | 64.9  | 76.3  | 85.7  |                                         |
|          | CHS50              | 23.2               | 29.5  | 36.3  | 41.5  | 56.2              | 67.0  | 78.5  | 88.0  |                                         |

#### Cam Diagram



| No. | Description       | Qty |
|-----|-------------------|-----|
| 1   | Cam Driver        | 1   |
| 2   | Cam Bottom Guide  | 1   |
| 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 Slide  | 1   |

| No. | Description         | Qty |
|-----|---------------------|-----|
| 14  | Cam Lower Slider    | 2   |
| 15  | Positive Return     | 2   |
| 20  | Collar              | 1   |
| 22  | Coil Spring         | 1   |
| 23  | Spring Guide Pin    | 1   |
| 24  | Spring Guide Washer | 1   |
| 22  | Gas Spring          | 1   |
| 23  | Stop Pin            | 1   |
| 24  | Spring Stopper      | 1   |

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

# 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.)

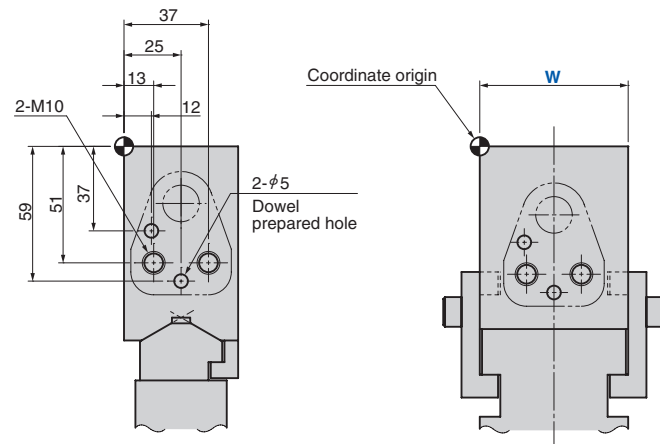
- Indication symbol

—M...Tapped hole, —N...Dowel prepared hole, —K...Dowel finish hole

##### Machining standard

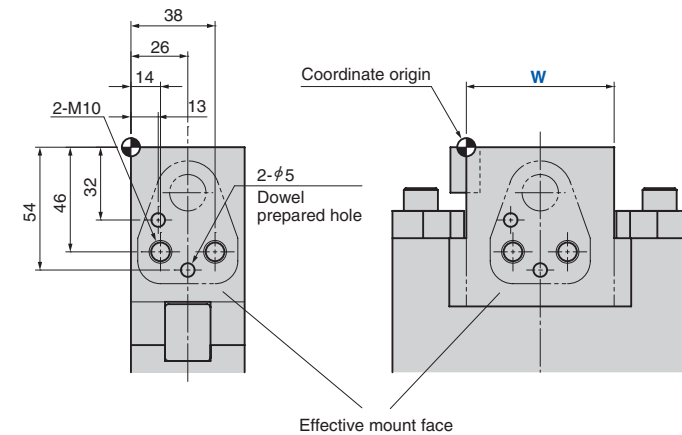
- Tapped holes and dowel prepared holes are machined to general tolerances.
- The hole depth is 2.5 times the diameter for both tapped holes and dowel holes. The dowel pilot hole is processed for 2 times the diameter.
- The dowel hole spacing is machined to the tolerance of  $\pm 0.02$ . The hole tolerance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

〈Example of Aerial Cam Unit〉



| Order | Catalog No. | W  | θ  | Additional Machining                                                                                                           |
|-------|-------------|----|----|--------------------------------------------------------------------------------------------------------------------------------|
|       | SACE        | 52 | 00 | — M10 — X (13.0) — Y (−51.0)<br>— M10 — X (37.0) — Y (−51.0)<br>— K5.0 — X (12.0) — Y (−37.0)<br>— K5.0 — X (25.0) — Y (−59.0) |

〈Example of Die Mounted Cam Unit〉



| Catalog No. | W  | θ  | S  | Additional Machining                                                                                                           |
|-------------|----|----|----|--------------------------------------------------------------------------------------------------------------------------------|
| CMSD        | 52 | 00 | 55 | — M10 — X (14.0) — Y (−46.0)<br>— M10 — X (38.0) — Y (−46.0)<br>— K5.0 — X (13.0) — Y (−32.0)<br>— K5.0 — X (26.0) — Y (−54.0) |

#### ■ Other machining

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