NEW

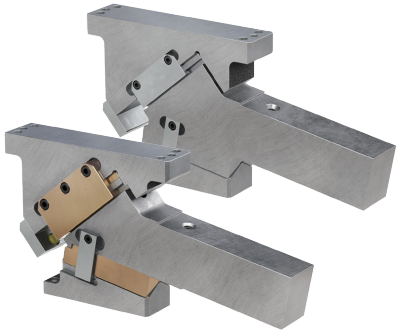
LONG NOSE CAM SULNC•SULNG [Overview]

Panel Avoidance Cam

For Pierce

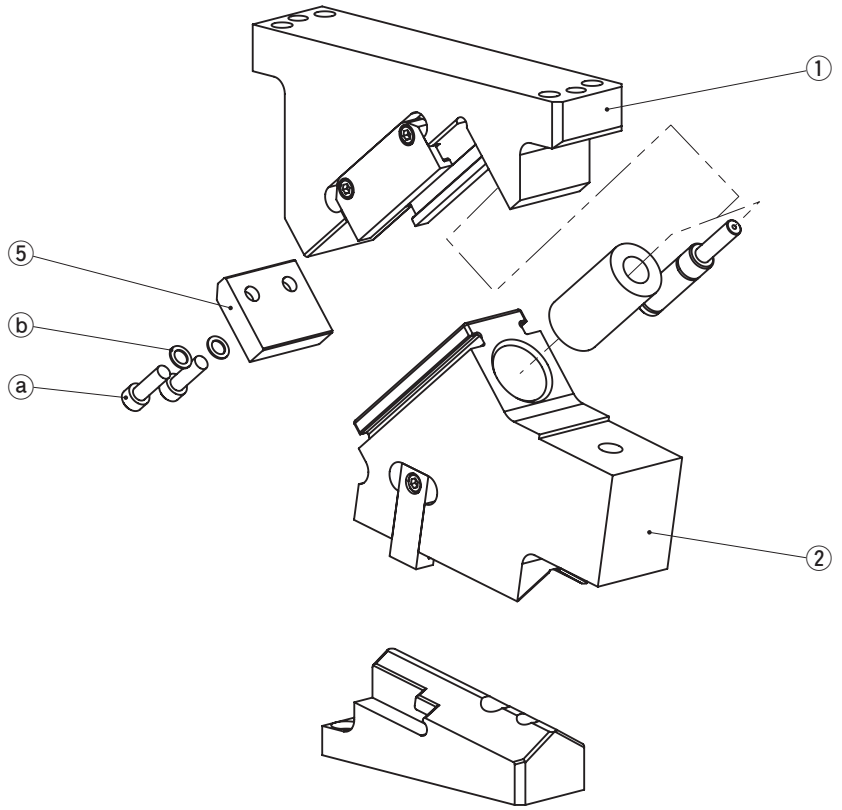
Product Information

- Mount face width 65 mm.
- **SULNC**: Cast iron and solid lubricant sliding Coil spring type.
- **SULNG**: Bronze and solid lubricant sliding Gas spring type. For high speed production.
- Extendable mounting surface up to 150 mm forward with SC option.
- SULNC and SULNG are interchangeable.



Catalog No.	Mount face		Working Angle	Travel	Working Force [kN (tonf)] 300,000 strokes
	W	H			
SULNC SULNG	65	80	00	30.2	14.7 (1.5)
			05	31.9	
			10	35.0	
			15	31.4	
			20	32.3	
			25	35.0	

■SULNC·SULNG Assembly Instructions



● Disassembly

1) Remove Hexagon Socket Head Bolts (ⓐ) and washers (ⓑ), to pull out Stopper Plate (⑤).
2) Pull out and remove Cam Slider (①) from Cam Holder (②) to the rear.

● 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.

NEW

LONG NOSE CAM

Panel Avoidance Cam

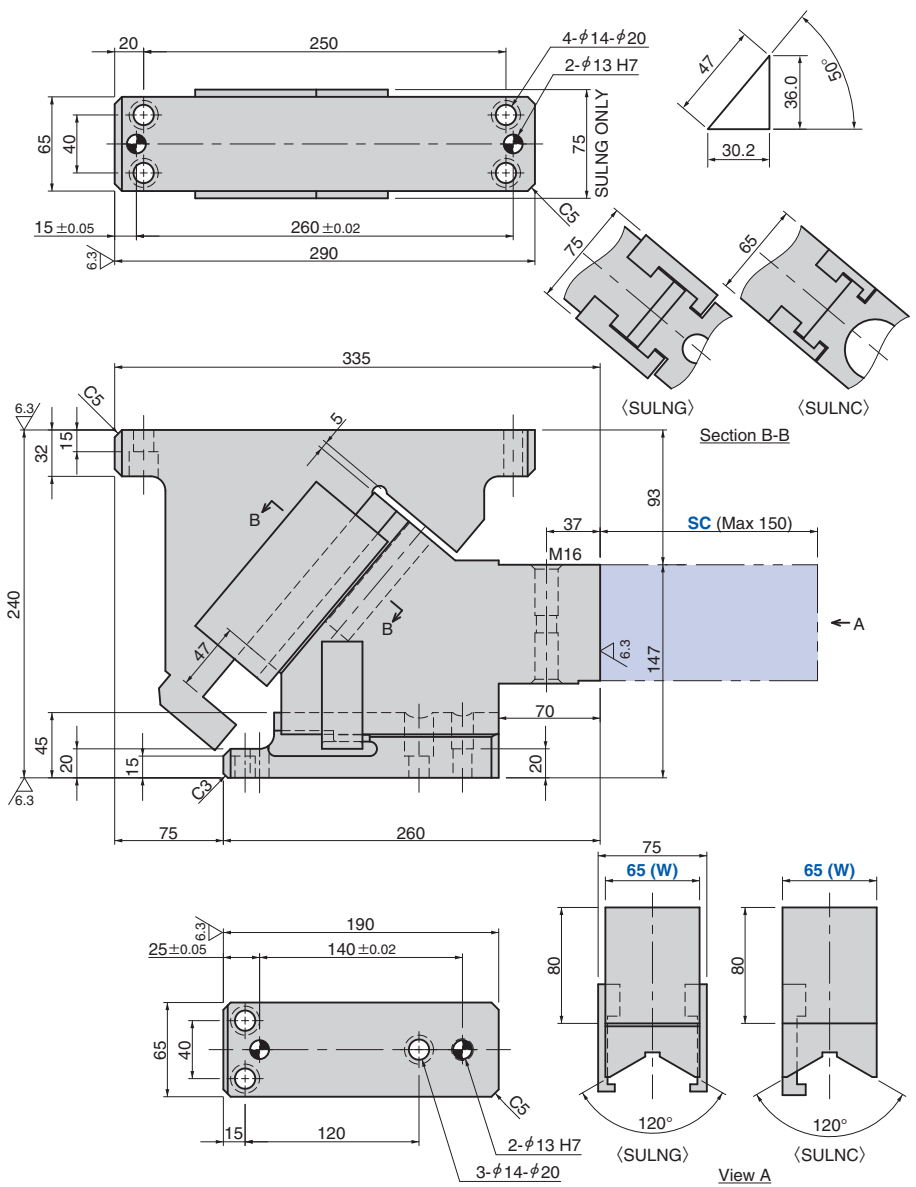
Aerial Cam Unit

For Pierce

SULNC65-00
SULNG65-00

CAD FILE

● Cam Diagram



Travel S	Working Force kN (tonf) 300,000 strokes	Spring Force N (kgf) Initial Load	Spring Force N (kgf) Final Load	Total*1 Weight kg	Catalog No.	W	θ	Spring Type PS
30.2	14.7 (1.5)	126.9 (12.9)	2115.0 (215.7)	33.7	SULNC	65	00	No Code (Coil Spring)
30.2	14.7 (1.5)	—	2527.0 (257.9)	34.5	SULNG	65	00	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.
*1 Weight with SC150 option.

Order

Catalog No.	W	—	θ	—	PS	—	Option
SULNC	65	—	00				
SULNC	65	—	00			—	SC120
SULNG	65	—	00	—	GK	—	NF — SC50 — N12

Option

Option Code	Specification
NF	Nitrogen gas not charged.
SC	Mount face length is extended from 1 to 150 mm in increments of 1 mm.
N12	Dowel holes of cam holder and cam driver are changed to φ12H7.

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

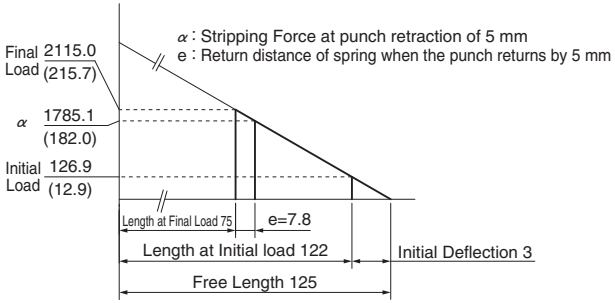
■Spring Specification

No.	PS	Spring Model	Qty	Remark
	No Code	TL40-125	1	Coil Spring
6	GK	X170-50	1	Gas Spring (KALLER)
	GD	U.0175.050.TO.180	1	Gas Spring (DADCO)

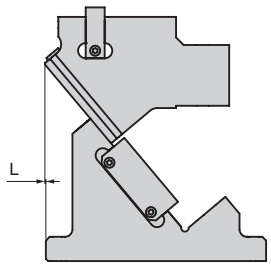
Gas filling pressure: 18 MPa

■Spring Diagram

- Spring Model TL40-125 (1 pieces)
- Spring constant 42.29 N/mm (4.31 kgf/mm)
- Life expectancy of Coil Spring is approximately 300,000 strokes.



■Rear Removal Space



Catalog No.	L
SULNC	1
SULNG	7

Refer to page 585, 586 for Table of Components.

NEW

LONG NOSE CAM

Panel Avoidance Cam

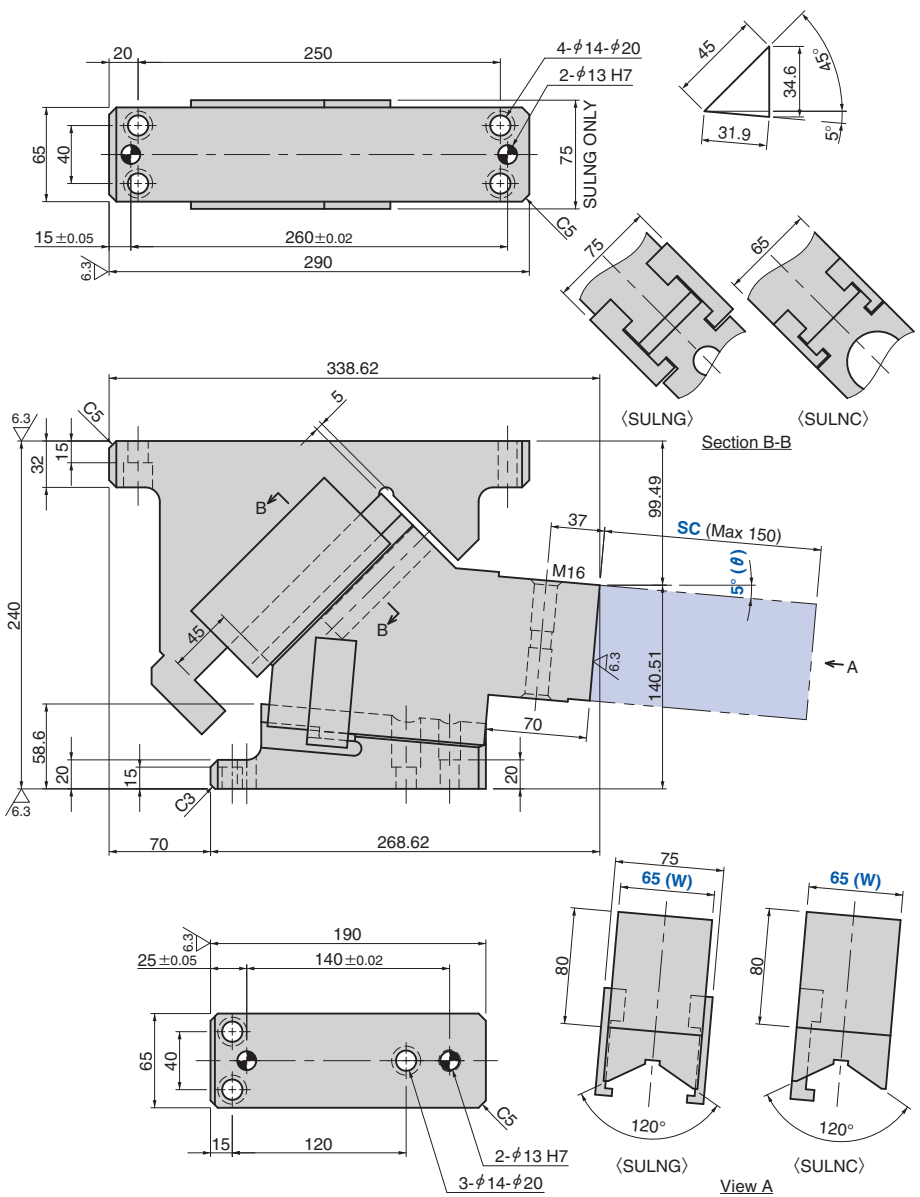
Aerial Cam Unit

For Pierce

SULNC65-05
SULNG65-05

CAD FILE

● Cam Diagram



Refer to page 585, 586 for Table of Components.

Travel S	Working Force kN (tonf) 300,000 strokes	Spring Force N (kgf) Initial Load	Spring Force N (kgf) Final Load	Total*1 Weight kg	Catalog No.	W	θ	Spring Type PS
31.9	14.7 (1.5)	211.5 (21.6)	2115.0 (215.7)	33.2	SULNC	65	05	No Code (Coil Spring)
31.9		—	2489.0 (254.0)	34.0	SULNG	65	05	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.
*1 Weight with SC150 option.

Order

Catalog No.	W		θ		PS		Option
SULNC	65	—	05				
SULNC	65	—	05			—	SC120
SULNG	65	—	05	—	GK	—	NF — SC50 — N12

Option

Option Code	Specification
NF	Nitrogen gas not charged.
SC	Mount face length is extended from 1 to 150 mm in increments of 1 mm.
N12	Dowel holes of cam holder and cam driver are changed to φ12H7.

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

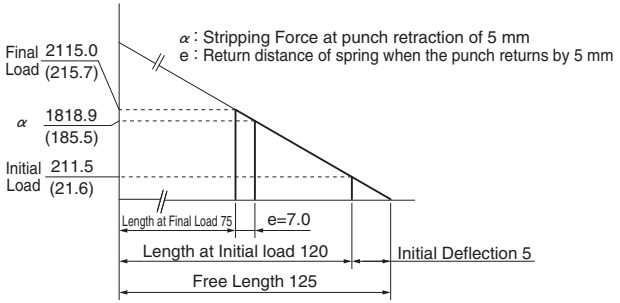
■Spring Specification

No.	PS	Spring Model	Qty	Remark
	No Code	TL40-125	1	Coil Spring
6	GK	X170-50	1	Gas Spring (KALLER)
	GD	U.0175.050.TO.180	1	Gas Spring (DADCO)

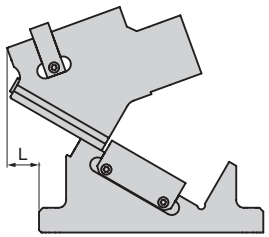
Gas filling pressure: 18 MPa

■Spring Diagram

- Spring Model TL40-125 (1 pieces)
- Spring constant 42.29 N/mm (4.31 kgf/mm)
- Life expectancy of Coil Spring is approximately 300,000 strokes.



■Rear Removal Space



Catalog No.	L
SULNC	8
SULNG	17

Special Cam Units

SULNC SULNG 65

NEW

LONG NOSE CAM

Panel Avoidance Cam

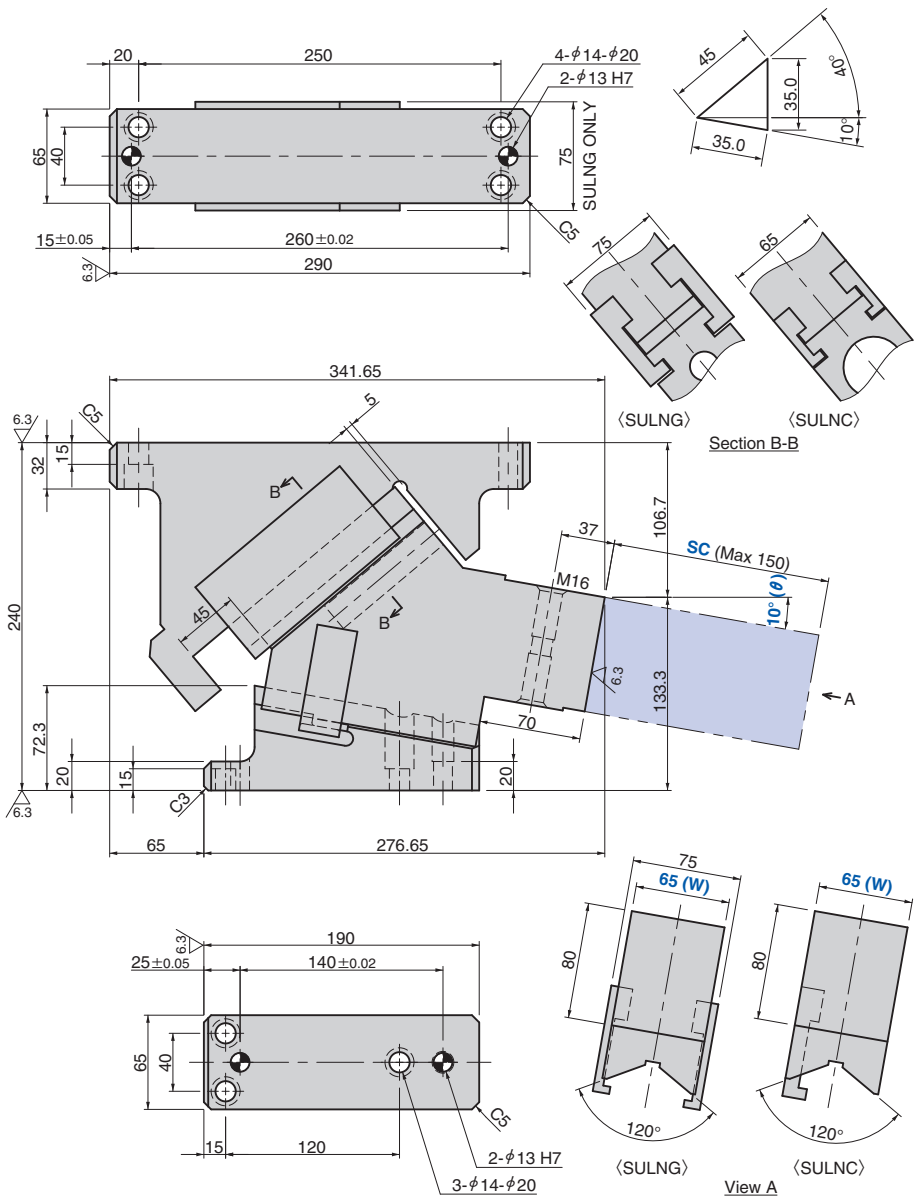
Aerial Cam Unit

For Pierce

SULNC65-10
SULNG65-10

CAD FILE

● Cam Diagram



Travel S	Working Force kN (tonf) 300,000 strokes	Spring Force N (kgf) Initial Load	Spring Force N (kgf) Final Load	Total*1 Weight kg	Catalog No.	W	θ	Spring Type PS
35.0	14.7 (1.5)	211.5 (21.6)	2115.0 (215.7)	32.7	SULNC	65	10	No Code (Coil Spring)
35.0		—	2489.0 (254.0)	33.4	SULNG	65	10	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.
*1 Weight with SC150 option.

Order

Catalog No.	W		θ		PS		Option
SULNC	65	—	10				
SULNC	65	—	10			—	SC120
SULNG	65	—	10	—	GK	—	NF — SC50 — N12

Option

Option Code	Specification
NF	Nitrogen gas not charged.
SC	Mount face length is extended from 1 to 150 mm in increments of 1 mm.
N12	Dowel holes of cam holder and cam driver are changed to φ12H7.

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

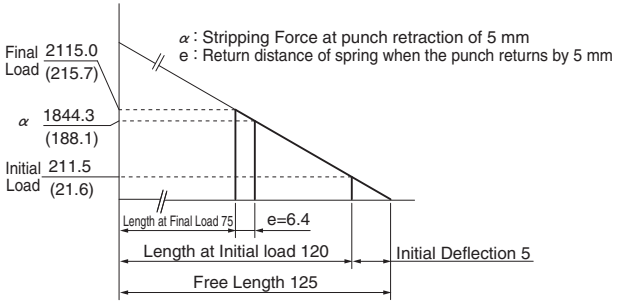
■Spring Specification

No.	PS	Spring Model	Qty	Remark
	No Code	TL40-125	1	Coil Spring
6	GK	X170-50	1	Gas Spring (KALLER)
	GD	U.0175.050.TO.180	1	Gas Spring (DADCO)

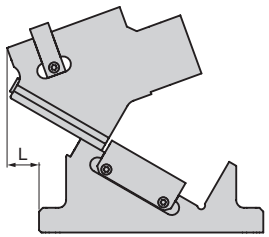
Gas filling pressure: 18 MPa

■Spring Diagram

- Spring Model TL40-125 (1 pieces)
- Spring constant 42.29 N/mm (4.31 kgf/mm)
- Life expectancy of Coil Spring is approximately 300,000 strokes.



■Rear Removal Space



Catalog No.	L
SULNC	15
SULNG	25

Refer to page 585, 586 for Table of Components.

NEW

LONG NOSE CAM

Panel Avoidance Cam

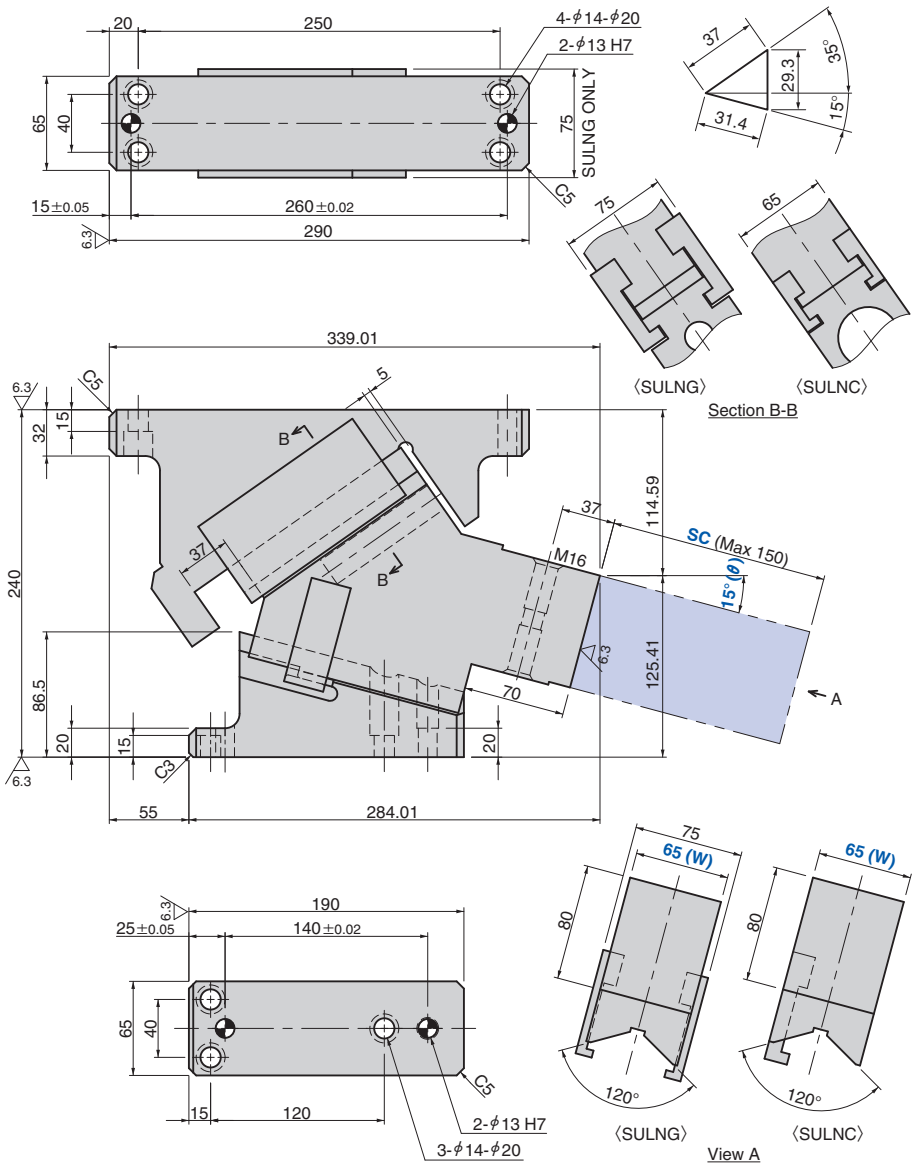
Aerial Cam Unit

For Pierce

SULNC65-15
SULNG65-15

CAD FILE

● Cam Diagram



Travel S	Working Force kN (tonf) 300,000 strokes	Spring Force N (kgf) Initial Load	Spring Force N (kgf) Final Load	Total*1 Weight kg	Catalog No.	W	θ	Spring Type PS
31.4	14.7 (1.5)	550.0 (56.1)	2115.0 (215.7)	32.1	SULNC	65	15	No Code (Coil Spring)
31.4		—	2337.0 (238.5)	32.8	SULNG	65	15	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.
*1 Weight with SC150 option.

Order

Catalog No.	W	—	θ	—	PS	—	Option
SULNC	65	—	15				
SULNC	65	—	15			—	SC120
SULNG	65	—	15	—	GK	—	NF — SC50 — N12

Option

Option Code	Specification
NF	Nitrogen gas not charged.
SC	Mount face length is extended from 1 to 150 mm in increments of 1 mm.
N12	Dowel holes of cam holder and cam driver are changed to ϕ12H7.

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

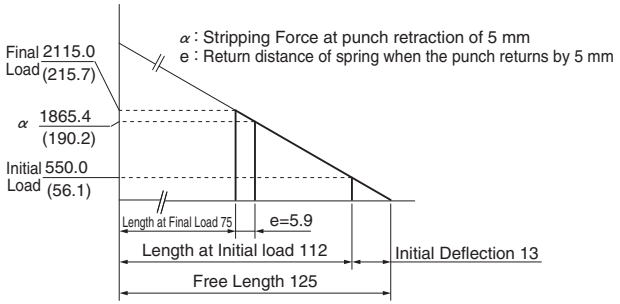
■Spring Specification

No.	PS	Spring Model	Qty	Remark
	No Code	TL40-125	1	Coil Spring
6	GK	X170-50	1	Gas Spring (KALLER)
	GD	U.0175.050.TO.180	1	Gas Spring (DADCO)

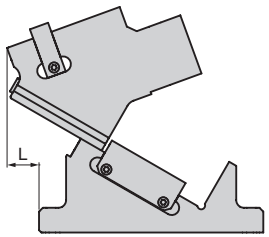
Gas filling pressure: 18 MPa

■Spring Diagram

- Spring Model TL40-125 (1 pieces)
- Spring constant 42.29 N/mm (4.31 kgf/mm)
- Life expectancy of Coil Spring is approximately 300,000 strokes.



■Rear Removal Space



Catalog No.	L
SULNC	26
SULNG	32

Refer to page 585, 586 for Table of Components.

NEW

LONG NOSE CAM

Panel Avoidance Cam

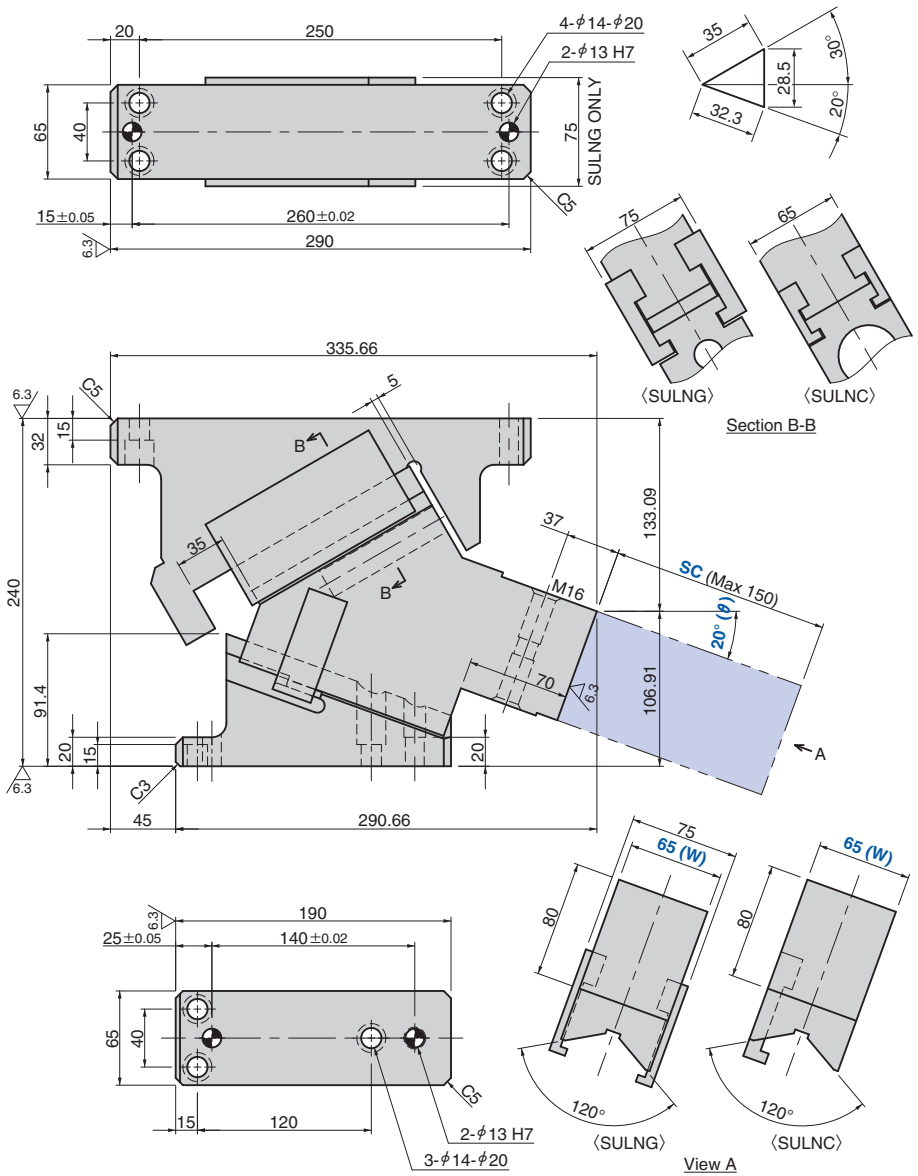
Aerial Cam Unit

For Pierce

SULNC65-20
SULNG65-20

CAD FILE

● Cam Diagram



Travel S	Working Force kN (tonf) 300,000 strokes	Spring Force N (kgf) Initial Load	Spring Force N (kgf) Final Load	Total*1 Weight kg	Catalog No.	W	θ	Spring Type PS
32.3	14.7 (1.5)	634.5 (64.7)	2115.0 (215.7)	32.1	SULNC	65	20	No Code (Coil Spring)
32.3	14.7 (1.5)	—	2299.0 (234.6)	32.8	SULNG	65	20	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.
*1 Weight with SC150 option.

Order

Catalog No.	W		θ		PS		Option
SULNC	65	—	20				
SULNC	65	—	20			—	SC120
SULNG	65	—	20	—	GK	—	NF — SC50 — N12

Option

Option Code	Specification
NF	Nitrogen gas not charged.
SC	Mount face length is extended from 1 to 150 mm in increments of 1 mm.
N12	Dowel holes of cam holder and cam driver are changed to ϕ12H7.

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

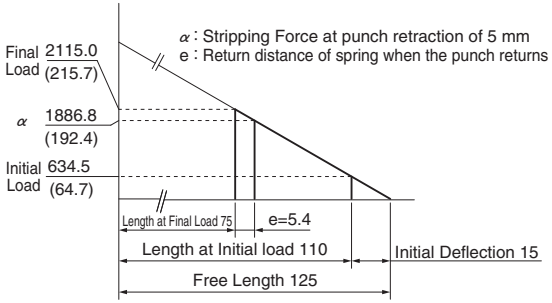
■Spring Specification

No.	PS	Spring Model	Qty	Remark
	No Code	TL40-125	1	Coil Spring
6	GK	X170-50	1	Gas Spring (KALLER)
	GD	U.0175.050.TO.180	1	Gas Spring (DADCO)

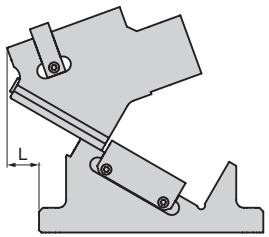
Gas filling pressure: 18 MPa

■Spring Diagram

- Spring Model TL40-125 (1 pieces)
- Spring constant 42.29 N/mm (4.31 kgf/mm)
- Life expectancy of Coil Spring is approximately 300,000 strokes.



■Rear Removal Space



Catalog No.	L
SULNC	37
SULNG	37

Refer to page 585, 586 for Table of Components.

NEW

LONG NOSE CAM

Panel Avoidance Cam

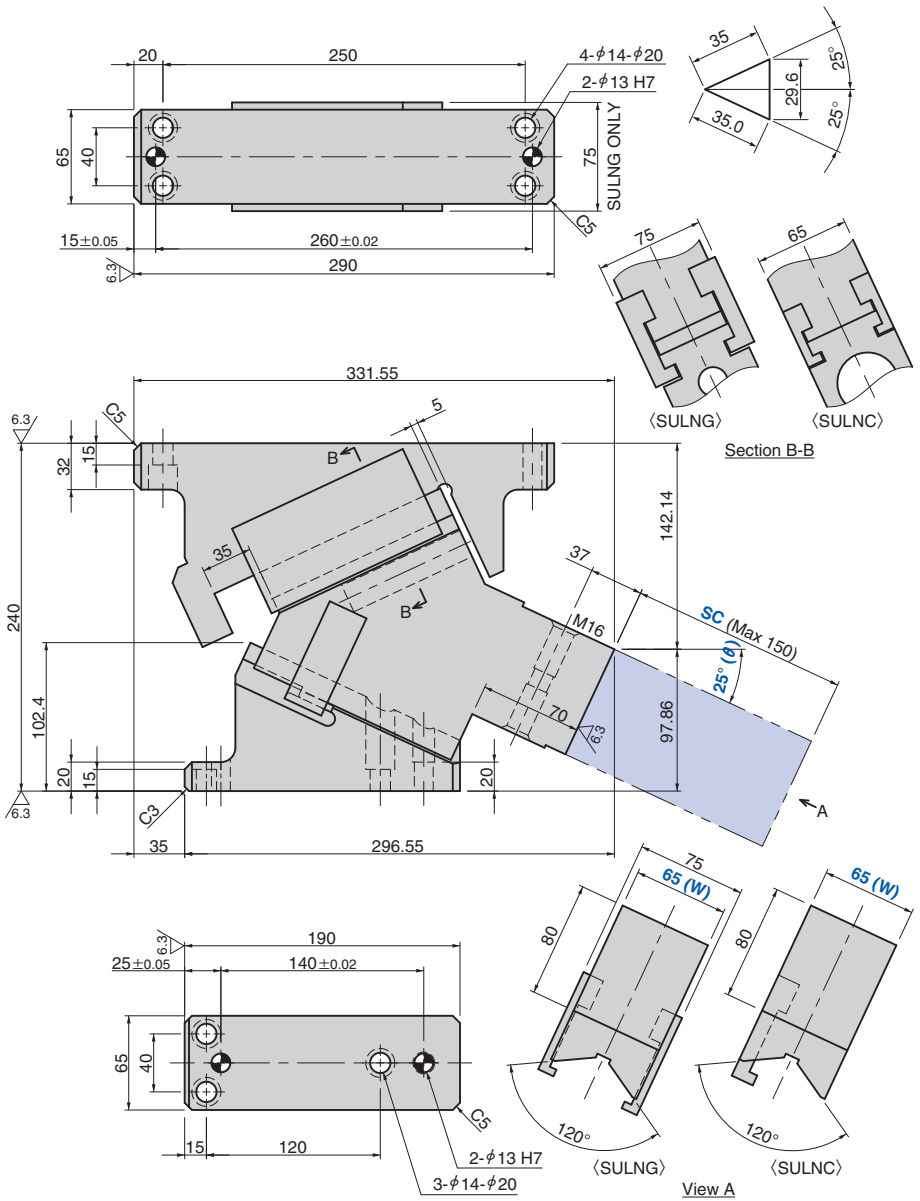
Aerial Cam Unit

For Pierce

SULNC65-25
SULNG65-25

CAD FILE

● Cam Diagram



Refer to page 585, 586 for Table of Components.

Travel S	Working Force kN (tonf) 300,000 strokes	Spring Force N (kgf) Initial Load	Spring Force N (kgf) Final Load	Total*1 Weight kg	Catalog No.	W	θ	Spring Type PS
35.0	14.7 (1.5)	634.5 (64.7)	2115.0 (215.7)	31.8	SULNC	65	25	No Code (Coil Spring)
35.0		—	2299.0 (234.6)	32.6	SULNG	65	25	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.
*1 Weight with SC150 option.

Order

Catalog No.	W		θ		PS		Option
SULNC	65	—	25				
SULNC	65	—	25			—	SC120
SULNG	65	—	25	—	GK	—	NF — SC50 — N12

Option

Option Code	Specification
NF	Nitrogen gas not charged.
SC	Mount face length is extended from 1 to 150 mm in increments of 1 mm.
N12	Dowel holes of cam holder and cam driver are changed to ϕ12H7.

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

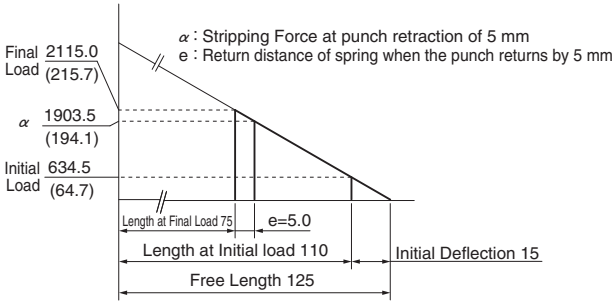
■Spring Specification

No.	PS	Spring Model	Qty	Remark
	No Code	TL40-125	1	Coil Spring
6	GK	X170-50	1	Gas Spring (KALLER)
	GD	U.0175.050.TO.180	1	Gas Spring (DADCO)

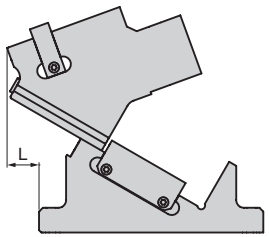
Gas filling pressure: 18 MPa

■Spring Diagram

- Spring Model TL40-125 (1 pieces)
- Spring constant 42.29 N/mm (4.31 kgf/mm)
- Life expectancy of Coil Spring is approximately 300,000 strokes.



■Rear Removal Space



Catalog No.	L
SULNC	49
SULNG	49

NEW

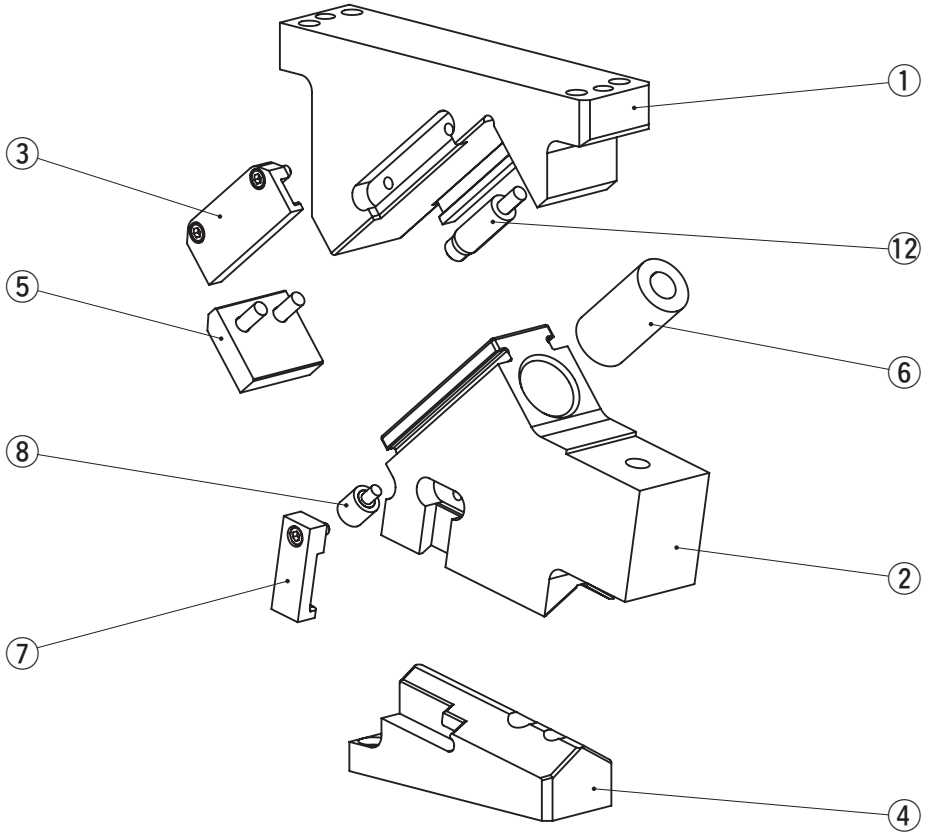
LONG NOSE CAM [Table of Components]

Panel Avoidance Cam

For Pierce

Aerial Cam Unit

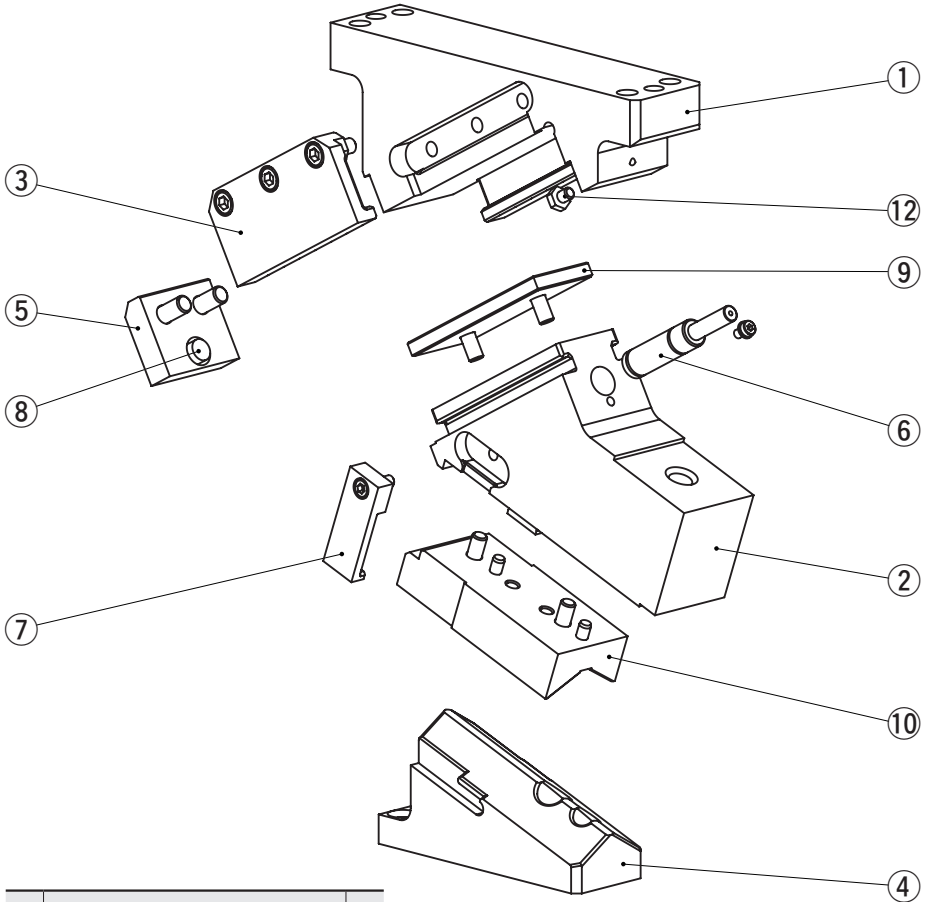
SULNC65



No.	Description	Qty
1	Cam Holder	1
2	Cam Slider	1
3	Slide Keeper	2
4	Cam Driver	1
5	Stopper Plate	1
6	Coil Spring	1
7	Positive Return Follower	1
8	Stopper	1
12	Spring Guide Pin	1

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

SULNG65



No.	Description	Qty
1	Cam Holder	1
2	Cam Slider	1
3	Slide Keeper	2
4	Cam Driver	1
5	Stopper Plate	1
6	Gas Spring	1
7	Positive Return Follower	2
8	Stopper	1
9	Slide Plate	1
10	Cam Slide Guide	1
12	Stop Pin	1

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

Cam Units [Overview]

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

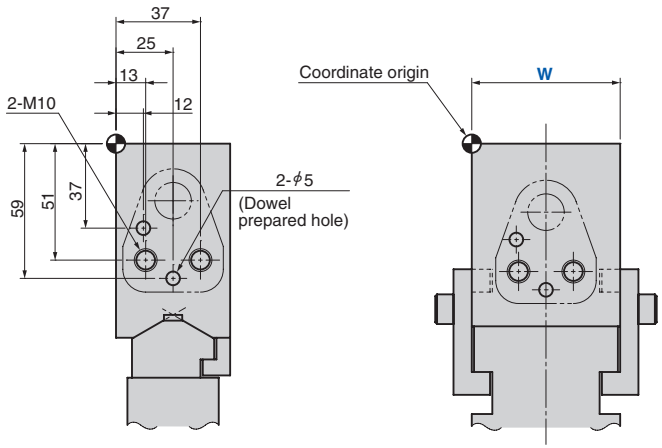
- The origin is positioned at the upper left corner of the mount face. (However, machining uses our machining datum as the reference.)
- Indication symbol

  –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 ±0.02.The hole tolerance is H7.

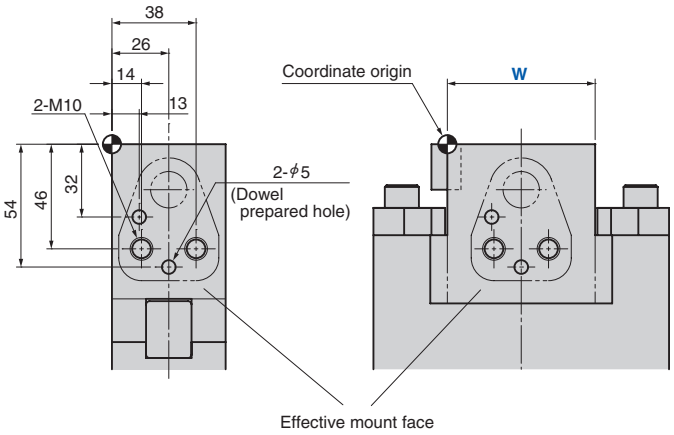
〈Example of Aerial Cam Unit〉



Order

Catalog No.	W	–	θ	– Additional Machining
SACE	52	–	00	– M10 – X (13.0) – Y (–51.0)
				– M10 – X (37.0) – Y (–51.0)
				– K5.0 – X (12.0) – Y (–37.0)
				– K5.0 – X (25.0) – Y (–59.0)

〈Example of Die Mounted Cam Unit〉



Order

Catalog No.	W	–	θ	–	S	– Additional Machining
CMSD	52	–	00	–	55	– M10 – X (14.0) – Y (–46.0)
						– M10 – X (38.0) – Y (–46.0)
						– K5.0 – X (13.0) – Y (–32.0)
						– 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.