

Aerial Cam Unit

Working Force [kN (tonf)] 1,000,000 strokes	Catalog No.	W	θ 5° increments	Spring Type PS
14.7 (1.5)	VACXSW	46	00~50	No Code (Coil Spring) GK NGK GD NGD 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	—	θ	—	PS	—	Option
VACXSW	46	—	00				
VACXSW	46	—	00	—	GK		
VACXSW	46	—	00	—	NGD	—	SC50
VACXSW	46	—	00	—	GSS	—	NF — SC50 — S



Option

Option Code	Specification
NF	Nitrogen gas not charged.
SC	Mount face length is extended from 1 to 60 mm in increments of 1 mm.
S	Lock plate attached.

■ Spring Force & Return Force

● Coil Spring

θ	Initial Load		Final Load		Return Force		Spring Model
	N	kgf	N	kgf	N	kgf	
00	22.1	2.3	282	28.8	364	37.2	TM12-80
05	22.1	2.3	282	28.8	363	37.1	TM12-80
10	22.1	2.3	282	28.8	362	36.9	TM12-80
15	22.1	2.3	282	28.8	361	36.8	TM12-80
20	22.1	2.3	282	28.8	360	36.7	TM12-80
25	22.1	2.3	282	28.8	358	36.5	TM12-80
30	22.1	2.3	282	28.8	357	36.4	TM12-80
35	22.1	2.3	282	28.8	355	36.3	TM12-80
40	22.1	2.3	282	28.8	354	36.1	TM12-80
45	22.1	2.3	282	28.8	352	36.0	TM12-80
50	22.1	2.3	282	28.8	351	35.8	TM12-80

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

● Gas Spring

θ	Final Load		Return Force		Spring Model
	N	kgf	N	kgf	GK
00	515	52.6	657	67.1	R12-25-RED
05	515	52.6	656	66.9	R12-25-RED
10	515	52.6	655	66.8	R12-25-RED
15	515	52.6	654	66.7	R12-25-RED
20	515	52.6	652	66.6	R12-25-RED
25	515	52.6	651	66.4	R12-25-RED
30	515	52.6	649	66.3	R12-25-RED
35	515	52.6	648	66.1	R12-25-RED
40	515	52.6	647	66.0	R12-25-RED
45	515	52.6	645	65.8	R12-25-RED
50	515	52.6	644	65.7	R12-25-RED

Gas filling pressure: 13.5 Mpa

θ	Final Load		Return Force		Spring Model
	N	kgf	N	kgf	GSS
00	572	58.4	729	74.4	M50-025-A-RD
05	572	58.4	728	74.2	M50-025-A-RD
10	572	58.4	726	74.1	M50-025-A-RD
15	572	58.4	725	74.0	M50-025-A-RD
20	572	58.4	724	73.9	M50-025-A-RD
25	572	58.4	722	73.7	M50-025-A-RD
30	572	58.4	721	73.6	M50-025-A-RD
35	572	58.4	720	73.4	M50-025-A-RD
40	572	58.4	718	73.3	M50-025-A-RD
45	572	58.4	717	73.1	M50-025-A-RD
50	572	58.4	715	73.0	M50-025-A-RD

Gas filling pressure: 13.5 Mpa

Final Load		Return Force		Spring Model
N	kgf	N	kgf	GD
532	54.3	679	69.2	C.045.025.RD
532	54.3	677	69.1	C.045.025.RD
532	54.3	676	69.0	C.045.025.RD
532	54.3	675	68.9	C.045.025.RD
532	54.3	674	68.7	C.045.025.RD
532	54.3	672	68.6	C.045.025.RD
532	54.3	671	68.5	C.045.025.RD
532	54.3	669	68.3	C.045.025.RD
532	54.3	668	68.2	C.045.025.RD
532	54.3	667	68.0	C.045.025.RD
532	54.3	665	67.9	C.045.025.RD

Gas filling pressure: 13.2 Mpa

Aerial Cam Unit

■Cam Travel

θ	Travel mm
00	15.1
05	16.7
10	18.3
15	19.9
20	21.7
25	23.5
30	25.5
35	27.7
40	30.2
45	33.1
50	36.6

■Weight*1

θ	Total Weight kg	Cam Slider Weight kg	Max. Tool Weight*2 kg
00	3.6	1.3	2.1
05	3.6	2.3	2.1
10	3.6	3.3	2.1
15	3.6	4.3	2.1
20	3.6	5.3	2.1
25	3.6	6.3	2.1
30	3.6	7.3	2.1
35	3.7	8.3	2.1
40	3.7	9.3	2.1
45	3.8	10.3	2.1
50	3.9	11.3	2.1

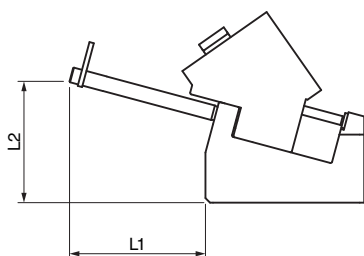
*1 This is the weight without SC option. Reduce tool weight when with SC option since the slider gets heavier.

*2 Tool weight is estimated value. Allowable tool weight varies depending on press speed.

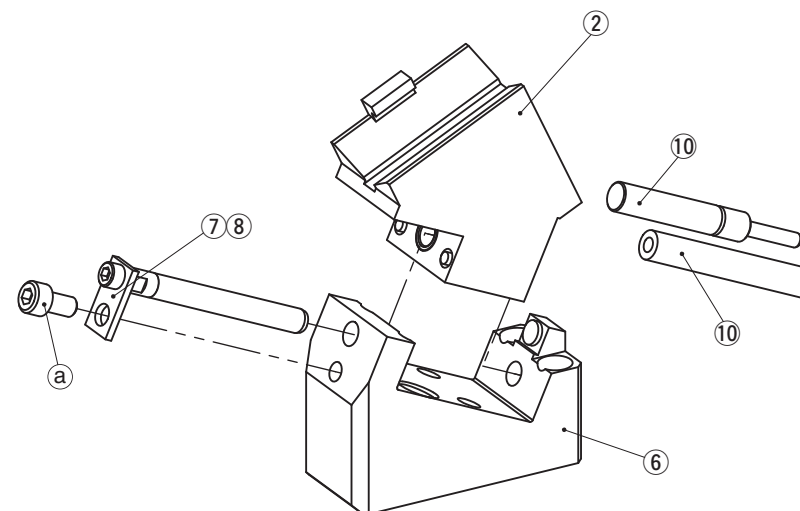
■Rear Removal Space

- Coil Spring
- Gas Spring

θ	L1 mm	L2 mm
00	48.5	165.9
05	55.9	155.8
10	63.2	144.8
15	70.3	132.1
20	76.2	119.7
25	81.8	105.8
30	86.1	92.4
35	90.0	79.7
40	93.6	65.9
45	96.7	52.9
50	98.5	40.0



■VACXSW46 Assembly Instructions



●Disassembly

- 1) Loosen hexagonal socket head bolts (a) and remove Guide bar, Plate (7/8).
- 2) Pull out and remove Cam Slider (2) from Cam Holder (6) to the rear.

* Note that the Coil Spring (10) and Gas Spring (10) is not fixed to Cam Slider.

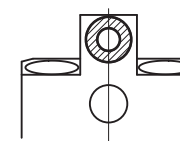
●Assembly

Assembly is the reverse procedure of disassembly.

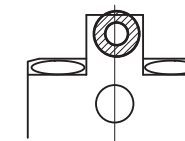
- Ensure that all parts are clean, particularly the sliding components to which a small amount of lubricant is applied and is then placed in position.
- Take care that the respective tolerances are observed when assembling Cam Slider and Cam Holder, which also should be identified by the same serial number.
- When assembling the coil spring, make sure to set it in the center of the spring seat of the Cam Holder (see diagram below).

If it is used while misaligned, the coil spring may be damaged.

- Make sure that all bolts are tighten to the recommended torque after assembly and disassembly.



Good



Bad



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

VALCAM-XS™

Cam Width

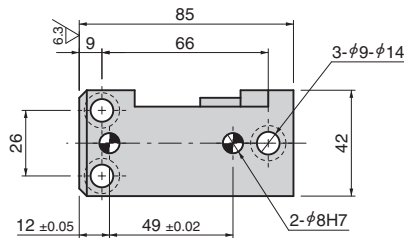
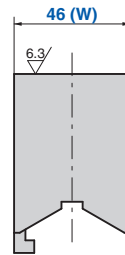
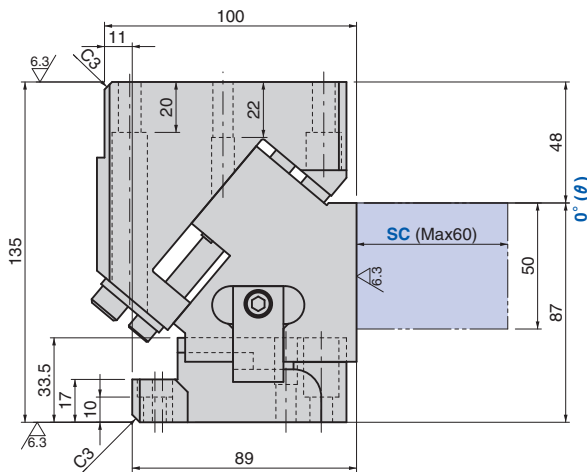
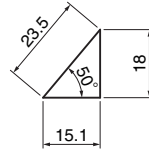
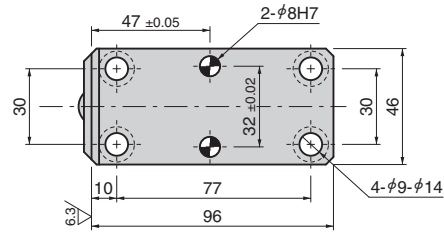
46

Aerial Cam Unit

VACXSW46-00

CAD
FILE

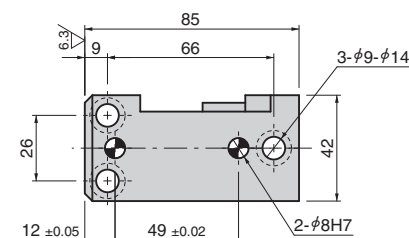
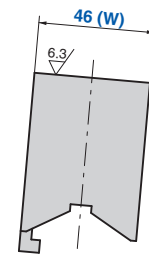
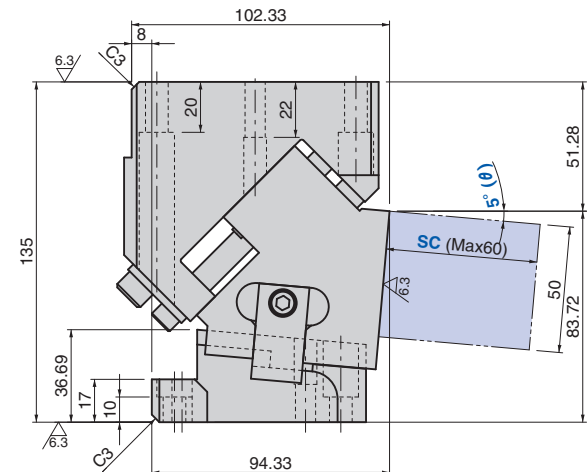
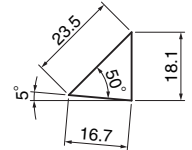
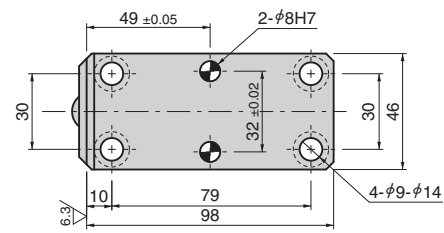
● Cam Diagram



VACXSW46-05

CAD
FILE

● Cam Diagram



Refer to page 22 for Table of Components.

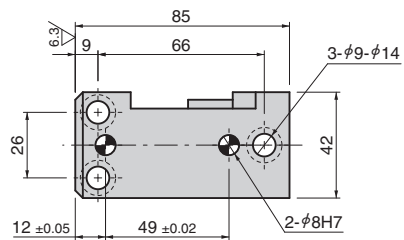
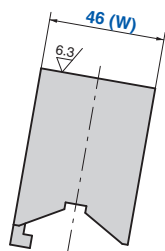
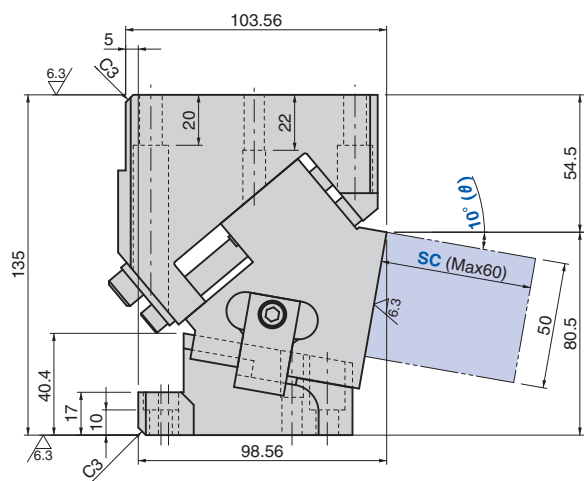
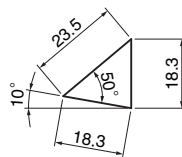
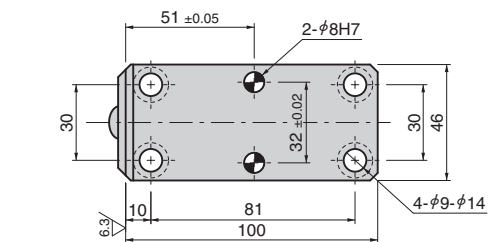
Refer to page 22 for Table of Components.

Aerial Cam Unit

VACSW46-10



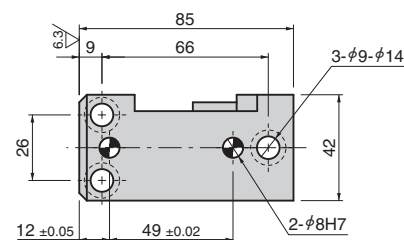
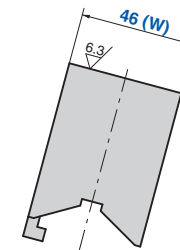
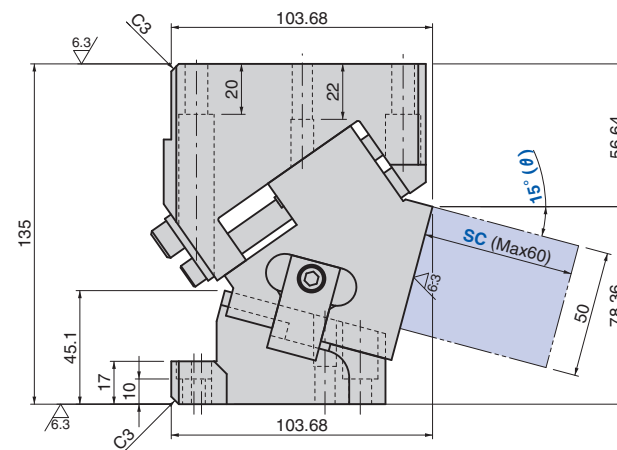
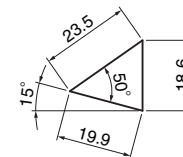
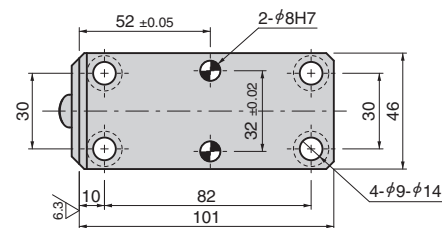
● Cam Diagram



VACSW46-15



● Cam Diagram



NEW

VALCAM-XS™

Cam Width

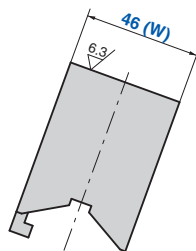
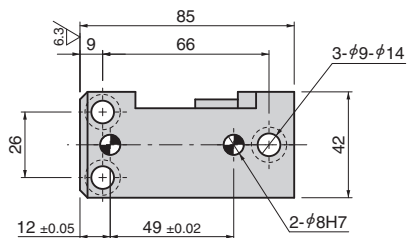
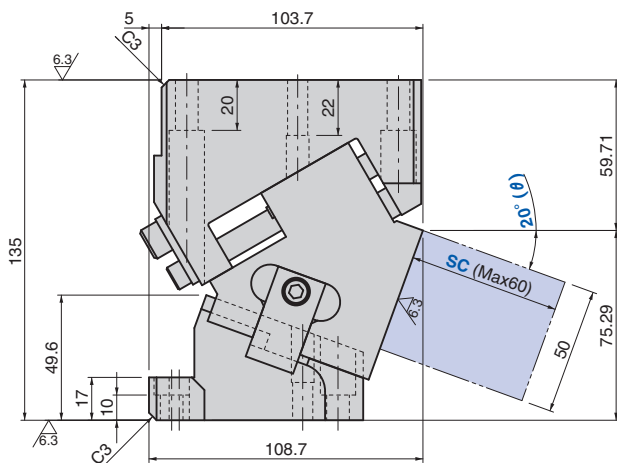
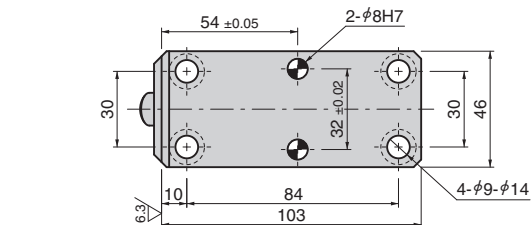
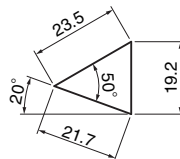
46

Aerial Cam Unit

VACXSW46-20

CAD
FILE

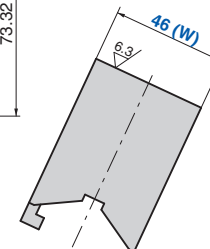
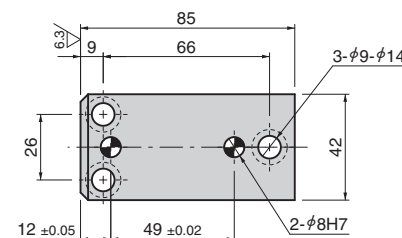
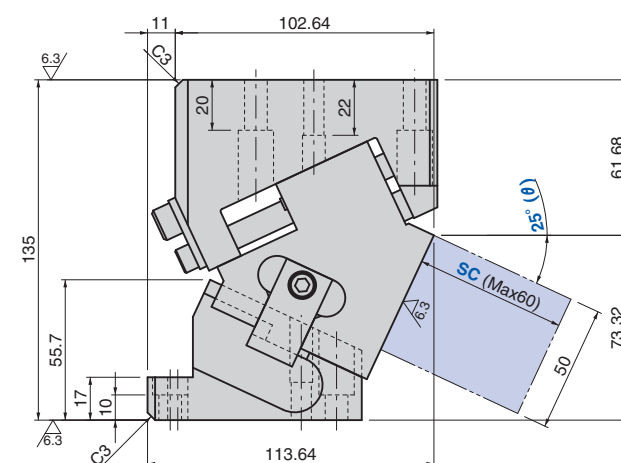
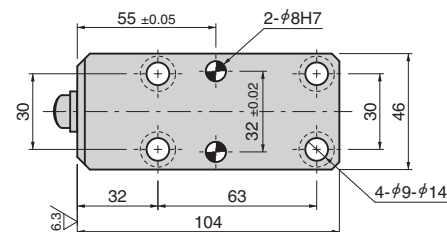
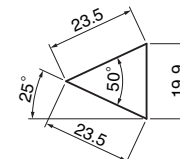
● Cam Diagram



VACXSW46-25

CAD
FILE

● Cam Diagram



Refer to page 22 for Table of Components.

Copyright © Sankyo Oilless Industry, Inc. All Rights Reserved.

Refer to page 22 for Table of Components.

Copyright © Sankyo Oilless Industry, Inc. All Rights Reserved.

VALCAM-XS

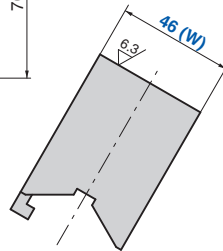
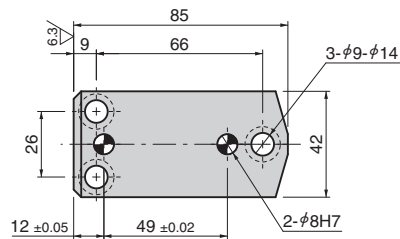
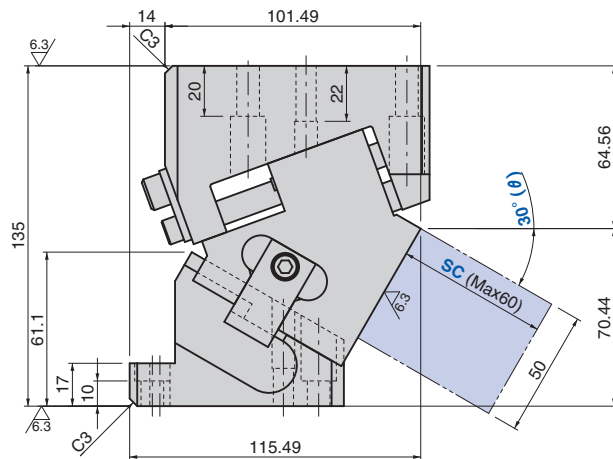
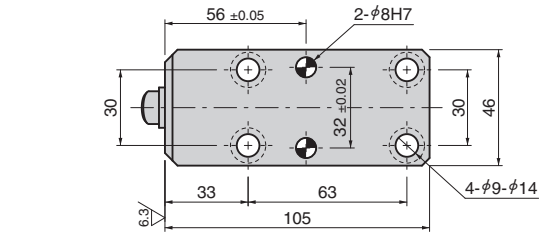
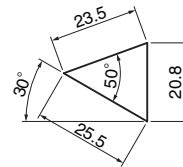
VALCAM-XS
46

Aerial Cam Unit

VACXSW46-30



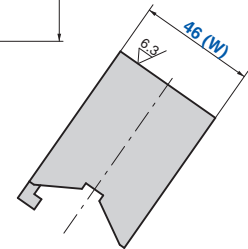
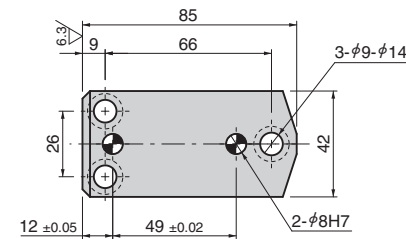
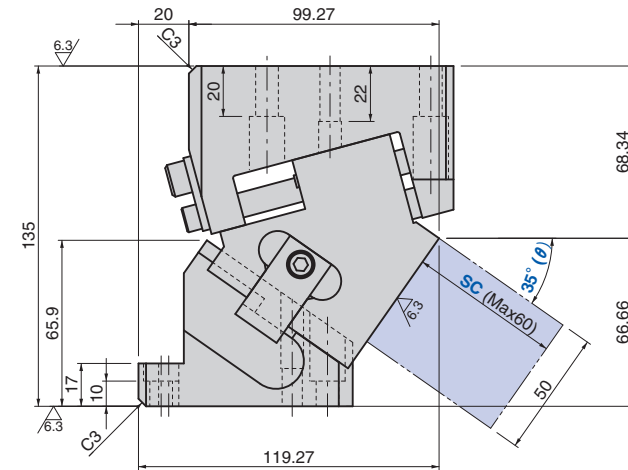
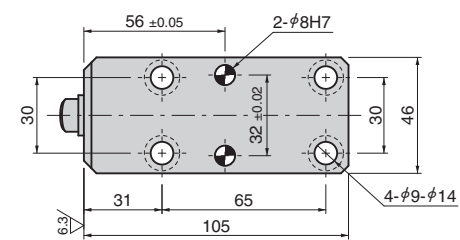
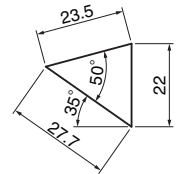
● Cam Diagram



VACXSW46-35



● Cam Diagram

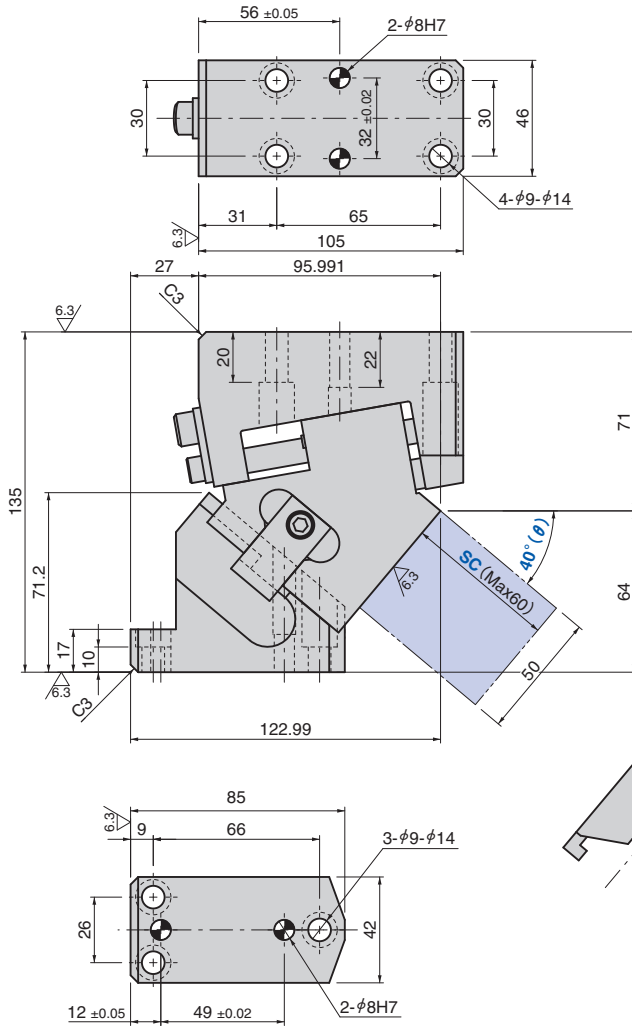
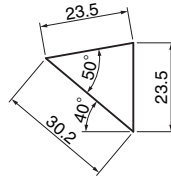


Aerial Cam Unit

VACXSW46-40

CAD
FILE

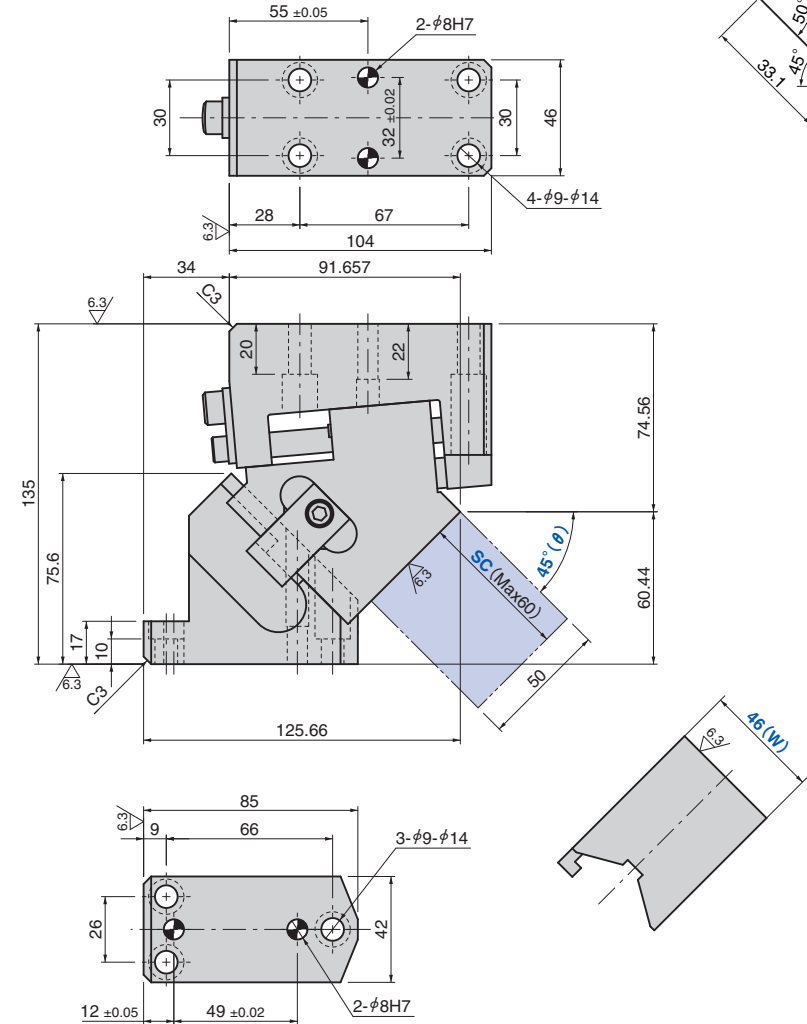
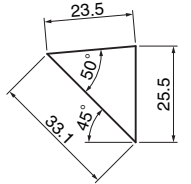
● Cam Diagram



VACXSW46-45

CAD
FILE

● Cam Diagram



Refer to page 22 for Table of Components.



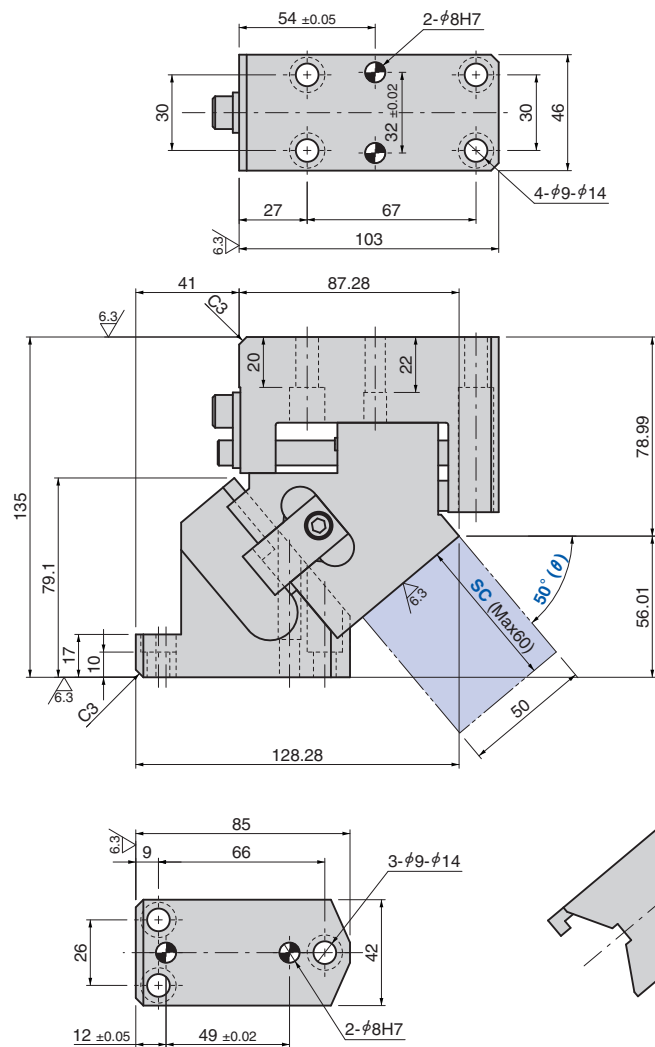
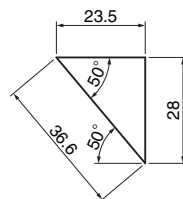
Refer to page 22 for Table of Components.

Aerial Cam Unit

VACXSW46-50



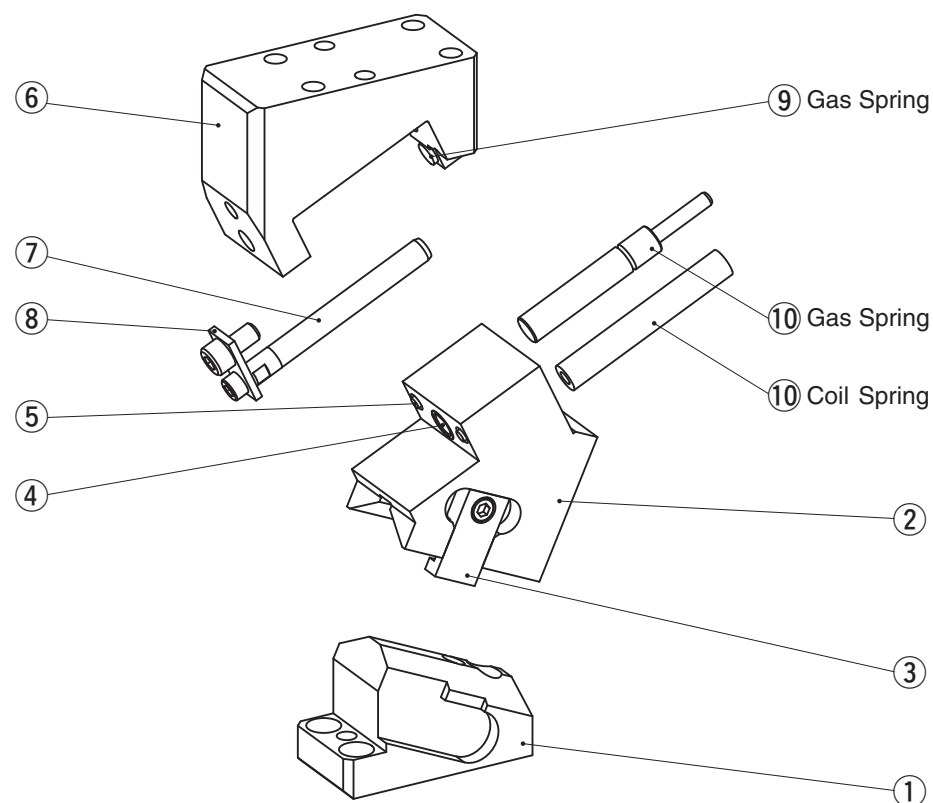
● Cam Diagram



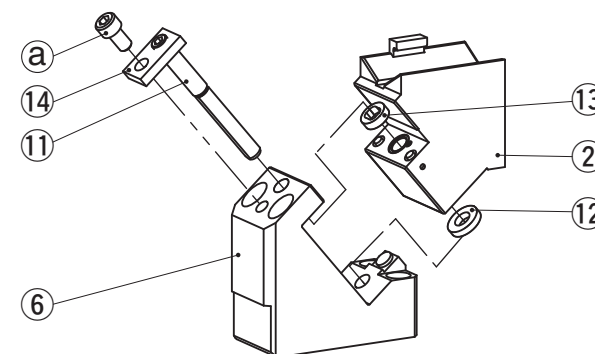
Refer to page 22 for Table of Components.

Aerial Cam Unit

VACXSW46



● Lock System



● Lock System Assembly

- 1) Assemble Lock Plate (14) and Lock Pin (11).
- 2) Place Washer (12), Cam Slider (2), and Washer (13) on Cam Holder (6) and pass the Lock Pin through.
* Note the installation position of the Washers (12) and (13).
- 3) Secure the Plate with hexagonal socket head bolts (a).
- 4) Insert a hexagonal wrench into the hexagonal socket on the end of the Lock Pin and rotate it clockwise until the Cam Slider is secured.

No.	Description	Qty	
		Coil Spring	Gas Spring
1	Cam Driver	1	
2	Cam Slider	1	
3	Positive Return Plate	1	
4	Bush	2	
5	Stopper	2	
6	Cam Holder	1	
7	Guide Bar	1	
8	Plate	1	
9	Stop pin	—	1
10	Coil Spring	1	—
10	Gas Spring	—	1
11	Lock Pin	1	
12	Washer	1	
13	Washer	1	
14	Lock Plate	1	

Bolts for assembly are not indicated.