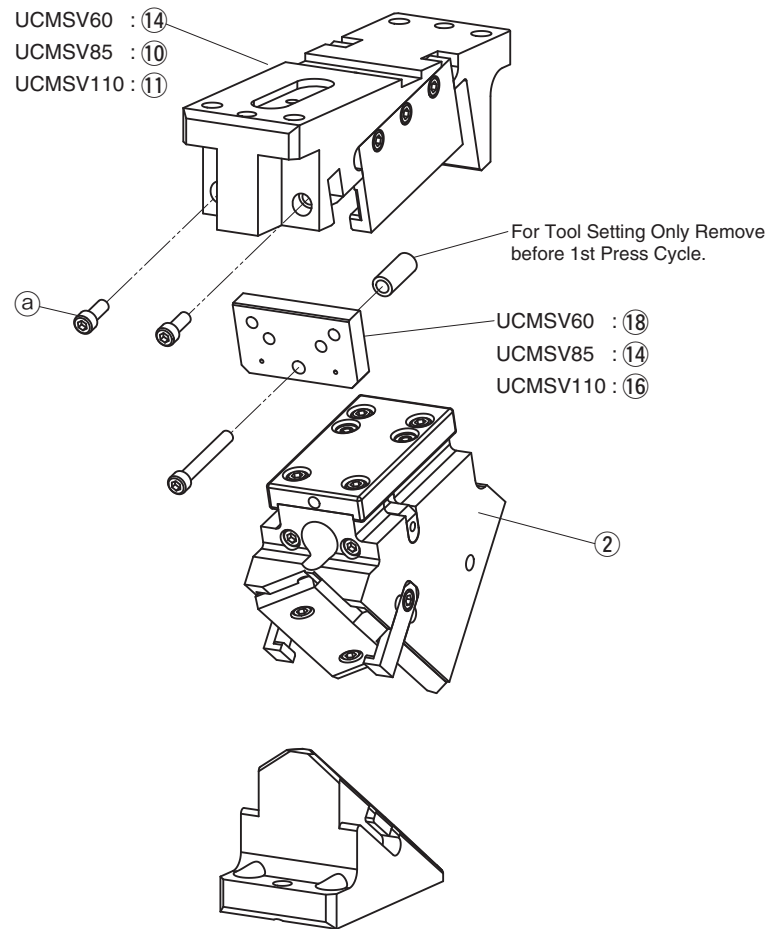


- 60, 85, 110, 165, 200, 250, 300, 350 and 400mm mounting widths are available.
- Available angles are from 0° to 75° in increments of 5°.
- Gas spring can be removed from the cam whilst in the die / press.
- Complying with VDI-BAK specification.

### UCMSV Specifications

Mount face		Working Angle	Travel	Working Force kN(tonf)	Mount face		Working Angle	Travel	Working Force kN(tonf)	Mount face		Working Angle	Travel	Working Force kN(tonf)
W	H				W	H				W	H			
60	100	00	19.3	75 (7.6)	165	115	00	32.1	171 (17.5)	300	155	00	38.6	364 (37.1)
		05	21.3				05	35.5				05	42.6	
		10	23.3				10	38.9				10	46.7	
		15	25.4				15	42.4				15	50.9	
		20	27.6				20	46.1				20	55.3	
		25	30.0				25	50.0				25	60.0	
		30	32.6				30	54.3				30	65.1	
		35	35.4				35	59.0				35	70.8	
		40	38.6				40	64.3				40	77.1	
		45	42.3				45	70.4				45	84.5	
		50	46.7				50	77.8				50	93.3	
		55	52.3				55	87.2				55	104.6	
60	60.0	60	120.0	60	120.0									
65	71.0	65	146.6	65	146.6									
70	81.9	70	173.1	70	173.1									
75	108.2	75	222.2	75	222.2									
85	110	00	19.3	100 (10.2)	200	115	00	32.1	218 (22.2)	350	155	00	38.6	405 (41.3)
		05	21.3				05	35.5				05	42.6	
		10	23.3				10	38.9				10	46.7	
		15	25.4				15	42.4				15	50.9	
		20	27.6				20	46.1				20	55.3	
		25	30.0				25	50.0				25	60.0	
		30	32.6				30	54.3				30	65.1	
		35	35.4				35	59.0				35	70.8	
		40	38.6				40	64.3				40	77.1	
		45	42.3				45	70.4				45	84.5	
		50	46.7				50	77.8				50	93.3	
		55	52.3				55	87.2				55	104.6	
60	60.0	60	120.0	60	120.0									
65	71.0	65	146.6	65	146.6									
70	81.9	70	173.1	70	173.1									
75	108.2	75	222.2	75	222.2									
110	145	00	32.1	150 (15.3)	250	115	00	32.1	284 (29.0)	400	155	00	38.6	450 (45.9)
		05	35.5				05	35.5				05	42.6	
		10	38.9				10	38.9				10	46.7	
		15	42.4				15	42.4				15	50.9	
		20	46.1				20	46.1				20	55.3	
		25	50.0				25	50.0				25	60.0	
	30	54.3	30				54.3	30				65.1		
	35	59.0	35				59.0	35				70.8		
	40	64.3	40				64.3	40				77.1		
	45	70.4	45				70.4	45				84.5		
	50	77.8	50				77.8	50				93.3		
	55	87.2	55				87.2	55				104.6		
60	100.0	60	100.0	60	120.0									
65	113.1	65	113.1	65	146.6									
70	136.4	70	136.4	70	173.1									
75	180.0	75	180.0	75	222.2									

### UCMSV60 / 85 / 110 Assembly Instructions



#### Disassembly

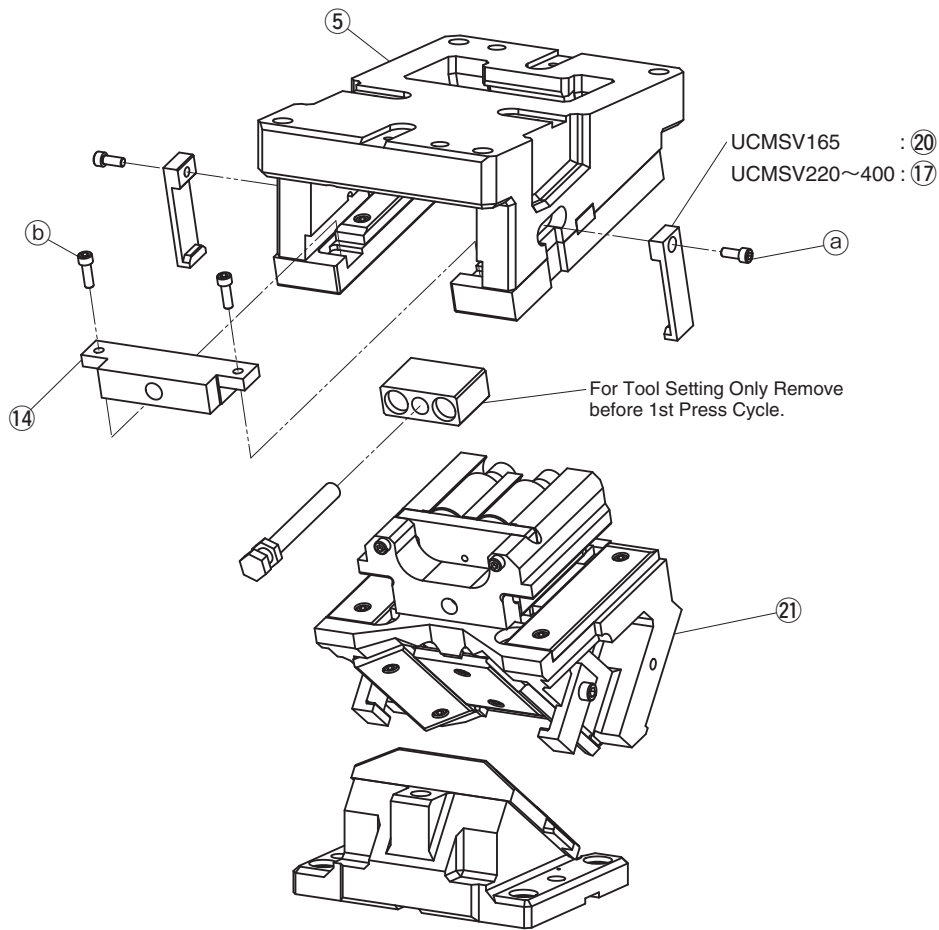
- 1) Remove Hexagon Socket Head Bolts (a), to pull out Stopper Plate ( UCMSV60: 18, UCMSV85: 14, UCMSV110: 16 ).
- 2) Pull out and remove Cam Slider (2) from Cam Holder ( UCMSV60: 14, UCMSV85: 10, UCMSV110: 11 ) to the rear.

#### 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 tightened to the recommended torque after assembly and disassembly.

### ■ UCMSV165/200/250/300/350/400 Assembly Instructions



#### ● Disassembly

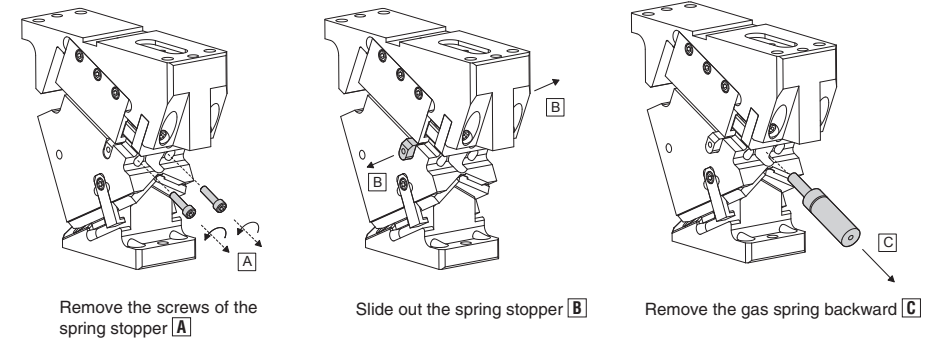
- 1) Remove Hexagon Socket Head Bolts (a), and remove Safety Plate ( UCMSV165: 20, UCMSV200~400: 17 ).
- 2) Remove Hexagon Socket Head Bolts (b), and remove Stopper Plate (14).
- 3) Pull out and remove Cam Slider (21) from Cam Holder (5) to the rear.

#### ● Assembly

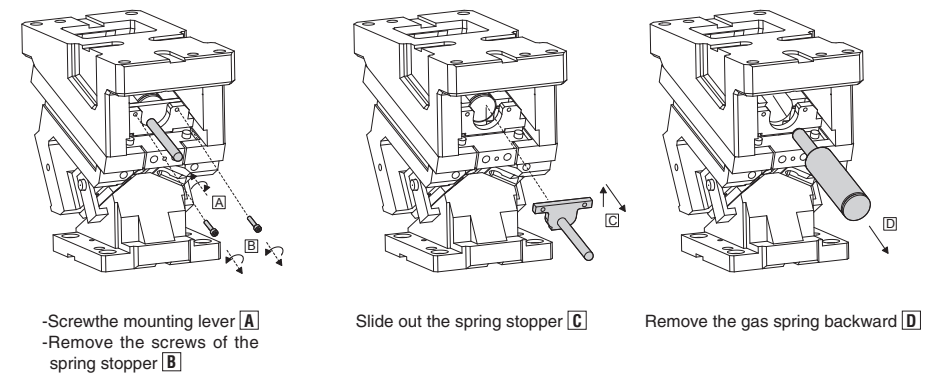
Assembly is the reverse procedure of disassembly.

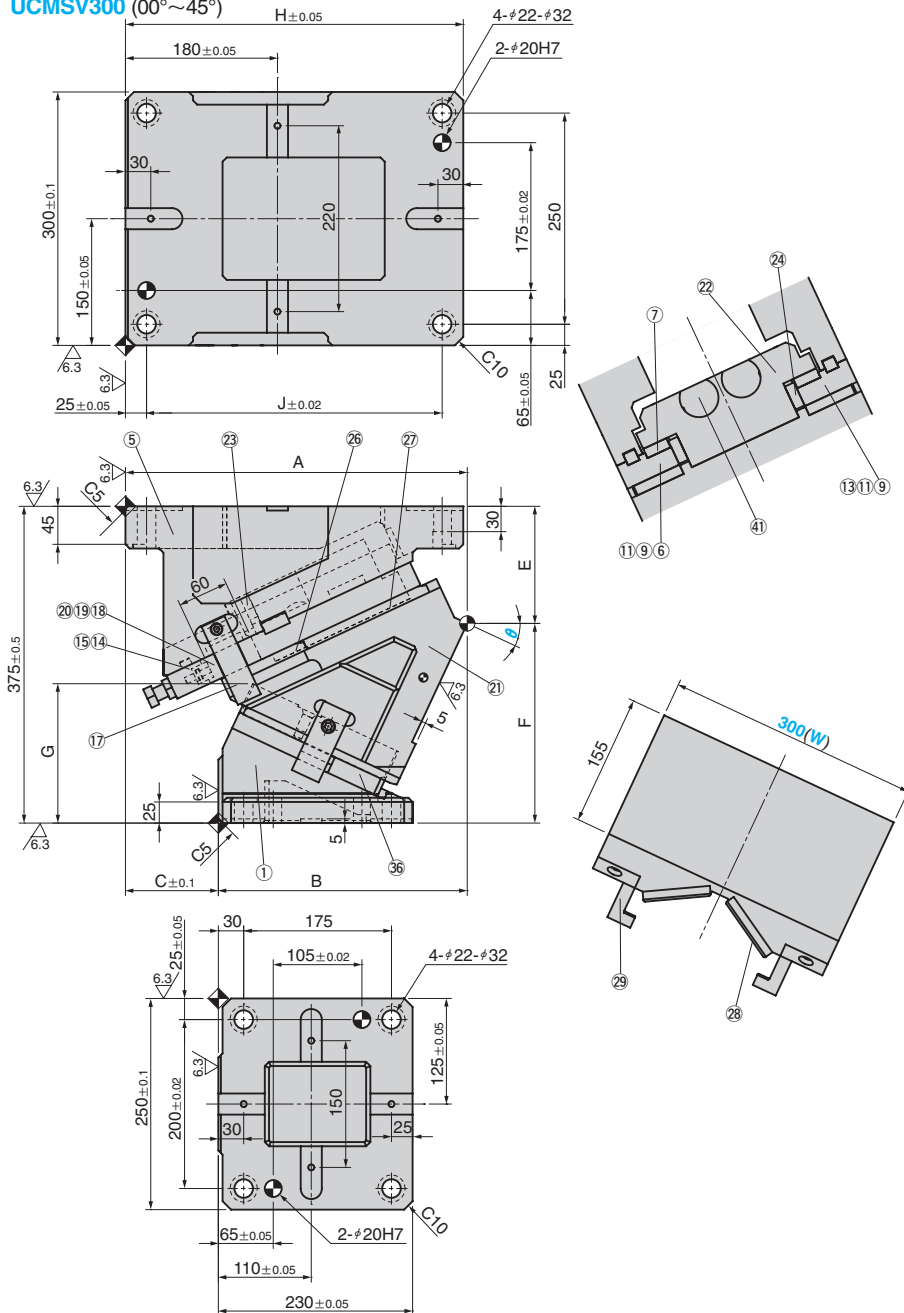
- Ensure that all parts are clean, particularly the sliding components to which a small amount of lubricant is applied and is then placed in position.
- Take care that the respective tolerances are observed when assembling Cam Slider and Cam Holder, which also should be identified by the same serial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

### ■ UCMSV60/85/110 Removing gas spring



### ■ UCMSV165/200/250/300/350/400 Removing gas spring



**UCMSV300 (00°~45°)**


$\theta$	Travel	A	B	C	E	F	G	H	J
00	38.6	395.00	232.00	163	98.00	277.00	105.0		
05	42.6	387.15	232.15	155	104.19	270.81	116.9		
10	46.7	394.13	249.13	145	111.86	263.14	128.5	390	340
15	50.9	395.82	260.82	135	121.01	253.99	139.6		
20	55.3	397.08	277.08	120	131.59	243.41	150.2		
25	60	404.71	294.71	110	138.65	236.35	165.0		
30	65.1	408.22	323.22	85	146.89	228.11	179.2		
35	70.8	404.52	334.52	70	159.17	215.83	189.6	400	350
40	77.1	400.46	345.46	55	167.30	207.70	204.5		
45	84.5	394.84	354.84	40	179.24	195.76	215.6		

Working Force kN	Return Force N(kgf)	Catalog No.	(W)	$\theta$	Spring Type PS
	29608 (3021.2)			00	
	29543 (3014.6)			05	
	29475 (3007.6)			10	
	29402 (3000.2)			15	GS
364	29327 (2992.6)	UCMSV	300	20	GK
	29250 (2984.7)			25	GD
	29170 (2976.5)			30	*NGP
	29089 (2968.3)			35	
	29007 (2959.9)			40	
	28925 (2951.5)			45	

Mark \* Without gas spring but accessories for installation of each type are included.

Order **Catalog No.** **(W)** -  **$\theta$**  - **PS**  
**UCMSV 300 - 25 - GK**

### Spring Specification (Qty 2)

Spring Type PS	$\theta$	Spring Force N(kgf)		Model
		Initial Force	Final Force	
GK			21550 (2199.0)	X750-080-TD (KALLER)
GD	00~45	-	20700 (2112.2)	U.0800.080.TO (DADCO)
GS			21975 (2242.3)	SFC.750.80 (SDT)

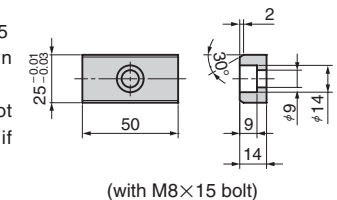
### Option

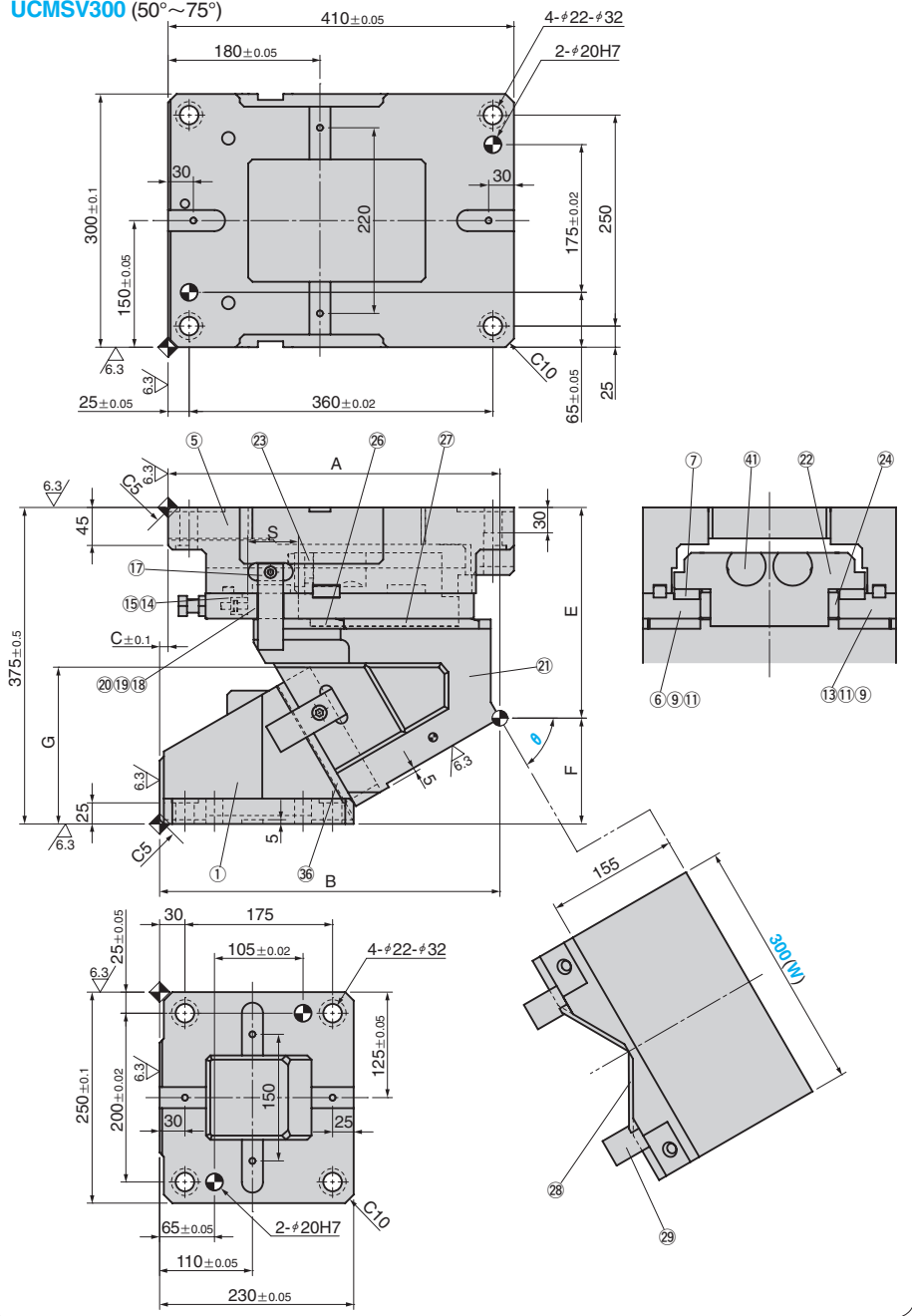
Code	Specification
K	Dedicated key is attached. (It is not assembled to the main unit)
NF	Nitrogen gas is not charged. Applicable to GK, GS and GD only.

Order **UCMSV300 - 25 - GK - NF**

### Key Specification

- Parts list is shown in p.1695
- Cam diagram is shown in p.1693
- NF : Gas Springs are not filled with nitrogen gas if delivery is by air freight.



**UCMSV300 (50°~75°)**


$\theta$	Travel	A	B	C	E	F	G	S
50	93.3	393.35	376.35	17	196.04	178.96	194.8	
55	104.6	393.35	393.35	0	222.75	152.25	188.8	60
60	120.0	393.35	403.35	-10	249.61	125.39	182.3	
65	94.6	387.48	415.48	-28	266.49	108.51	185.4	40
70	73.1	378.65	423.65	-45	281.99	93.01	189.2	
75	96.6	364.72	429.72	-65	296.88	78.12	193.0	25

Working Force kN	Return Force N(kgf)	Catalog No.	(W)	$\theta$	Spring Type PS	
364	28842 (2943.1)	UCMSV	300	50	*NGP	
	31364 (3200.4)			55		GS
	34665 (3537.2)			60		GK
	37172 (3793.0)			65		GD
	40388 (4121.2)			70		
	48308 (4929.4)			75		

Mark \* Without gas spring but accessories for installation of each type are included.

Order **Catalog No.** (W) -  $\theta$  - PS  
**UCMSV 300 - 60 - GK**

### Spring Specification (Qty 2)

Spring Type PS	$\theta$	Spring Force N(kgf)		Model
		Initial Force	Final Force	
GK	50~60	-	21550 (2199.0)	X750-080-TD (KALLER)
GD			20700 (2112.2)	U.0800.080.TO (DADCO)
GS			21975 (2242.3)	SFC.750.80 (SDT)
GK	65	-	20387 (2080.3)	X750-063-TD (KALLER)
GD			22720 (2318.4)	U.0800.063.TO (DADCO)
GS			20905 (2133.2)	SFC.750.63 (SDT)
GK	70~75	-	19200 (1959.2)	X750-050-TD (KALLER)
GD			18680 (1906.1)	U.0800.050.TO (DADCO)
GS			19650 (2005.1)	SFC.750.50 (SDT)

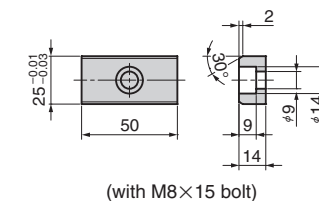
### Option

Code	Specification
K	Dedicated key is attached. (It is not assembled to the main unit)
NF	Nitrogen gas is not charged. Applicable to GK, GS and GD only.

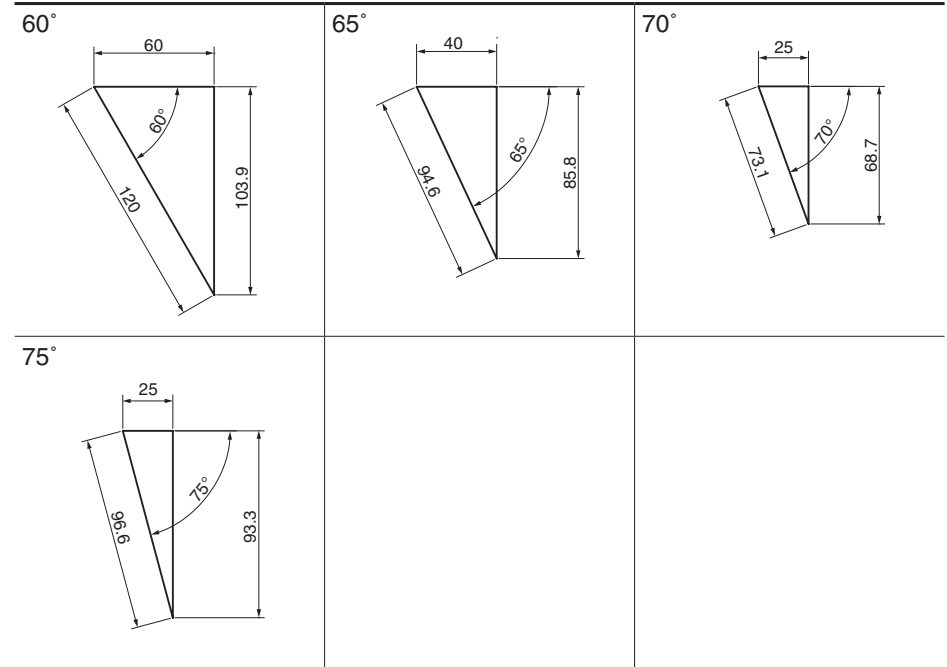
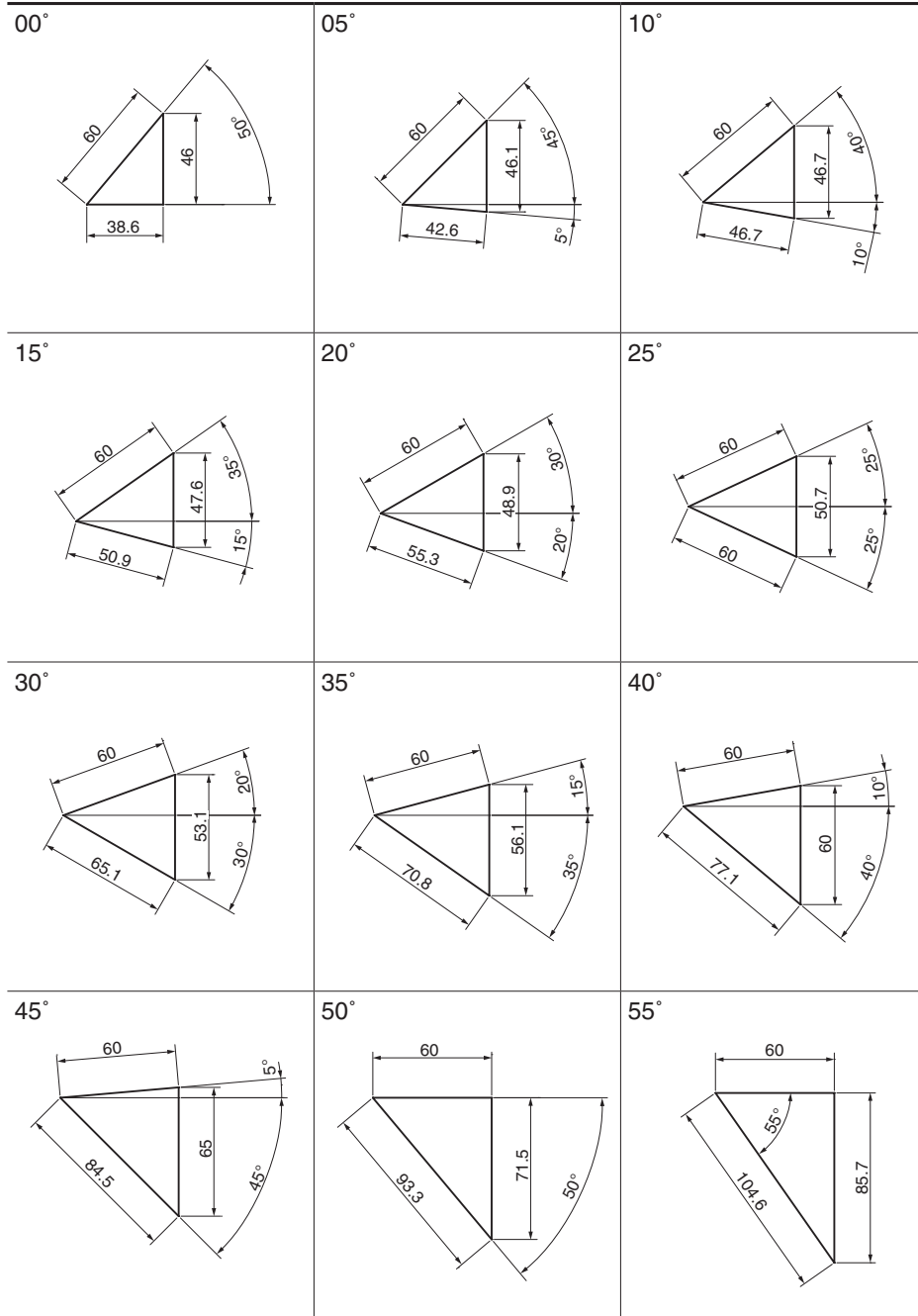
- Parts list is shown in p.1695
- Cam diagram is shown in p.1693
- NF : Gas Springs are not filled with nitrogen gas if delivery is by air freight.

Order **UCMSV300 - 60 - GK - NF**

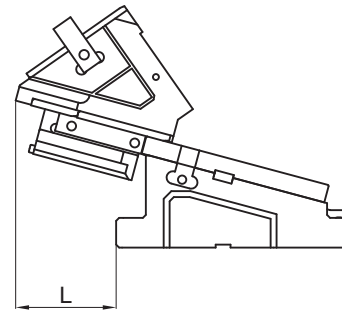
### Key Specification



(with M8×15 bolt)



■ Rear Removal Space



$\theta$	L
00	55
05	89
10	105
15	122
20	135
25	145
30	156
35	169
40	179
45	185
50	184
55	184
60	184
65	190
70	182
75	189

**■  $\theta = 00^\circ \sim 50^\circ$** 

No.	Description	Qty	Material and Remark
①	Cam Driver	1	GGG60
⑤	Cam Holder	1	GGG60
⑥	Base Plate R	1	S45C
⑦	Slide Plate(VSM-15)	2	Bronze with Graphite
⑨	Key	4	SS400
⑪	Key	2	SS400
⑬	Base Plate L	1	S45C
⑭	Stopper plate	1	S45C
⑮	Stopper	4	Urethane(PCU20)
⑰	Safety Plate	2	S45C
⑱	Lock Block	1	SS400
⑲	Hexagonal Bolt	1	SCM435 M16×150
⑳	Hexagonal Nut	1	SCM435 M16
㉑	Cam Slider	1	GGG60
㉒	Spring Guide	1	S45C
㉓	Gas Spring Guide Plate	1	S45C
㉔	Slide Plate(VSM-14)	2	Bronze with Graphite
㉖	Slide Plate(VSM-26)	2	Bronze with Graphite
㉗	Slide Plate(VSM-29)	2	Bronze with Graphite
㉘	Slide Plate(VSM-35)	2	Bronze with Graphite
㉙	Positive Return Plate	2	S45C
㉚	Cam Slide Guide(Lower)	1	S45C
㉜	Gas Spring	2	Refer to the specification table

Bolts for assembly are not indicated.

**■  $\theta = 55^\circ \sim 75^\circ$** 

No.	Description	Qty	Material and Remark
①	Cam Driver	1	GGG60
⑤	Cam Holder	1	GGG60
⑥	Base Plate R	1	S45C
⑦	Slide Plate(VSM-15)	2	Bronze with Graphite
⑨	Key	4	SS400
⑪	Key	2	SS400
⑬	Base Plate L	1	S45C
⑭	Stopper plate	1	S45C
⑮	Stopper	4	Urethane(PCU20)
⑰	Safety Plate	2	S45C
⑱	Lock Block	1	SS400
⑲	Hexagonal Bolt	1	SCM435 M16×150
⑳	Hexagonal Nut	1	SCM435 M16
㉑	Cam Slider	1	GGG60
㉒	Spring Guide	1	S45C
㉓	Gas Spring Guide Plate	1	S45C
㉔	Slide Plate(VSM-14)	2	Bronze with Graphite
㉖	Slide Plate(VSM-26)	2	Bronze with Graphite
㉗	Slide Plate(VSM-29)	2	Bronze with Graphite
㉘	Slide Plate(VSM-34)	2	Bronze with Graphite
㉙	Positive Return Plate	2	S45C
㉚	Cam Slide Guide(Lower)	1	S45C
㉜	Gas Spring	2	Refer to the specification table

Bolts for assembly are not indicated.