

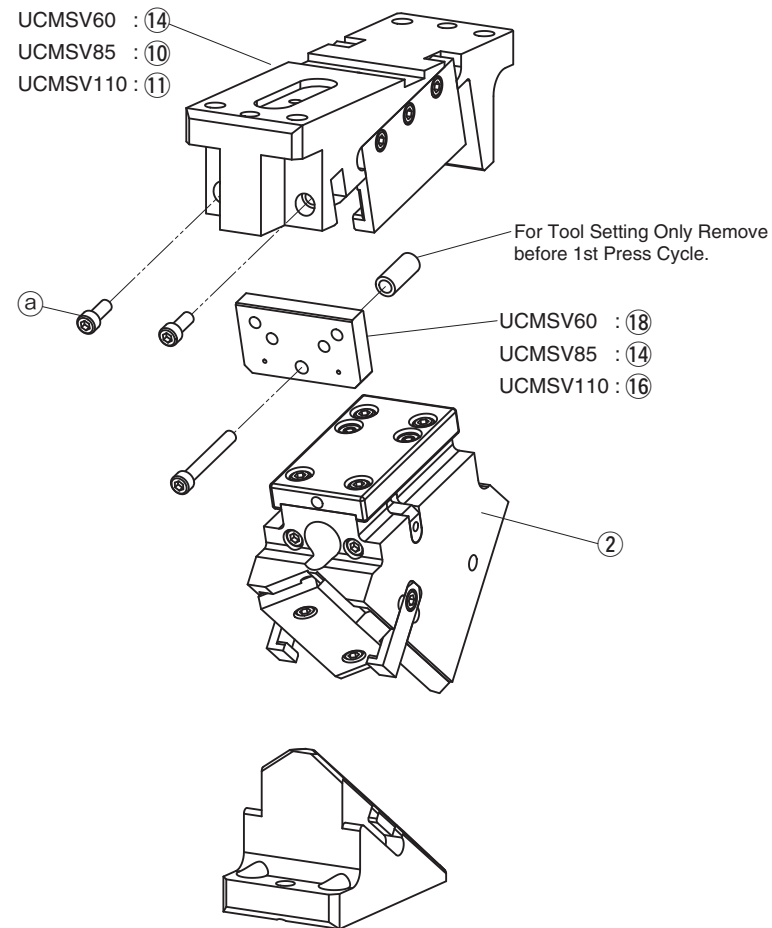


- 60, 85, 110, 165, 200, 250, 300, 350 and 400mm mounting widths are available.
- Available angles are from 0° to 75° in increments of 5°.
- Gas spring can be removed from the cam whilst in the die / press.
- Complying with VDI-BAK specification.

### 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	
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	
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									
140	140	65	94.6				65	71.0				65	94.6	
		70	81.9				70	58.5				70	73.1	
		75	108.2				75	77.3				75	96.6	

### UCMSV60 / 85 / 110 Assembly Instructions



#### Disassembly

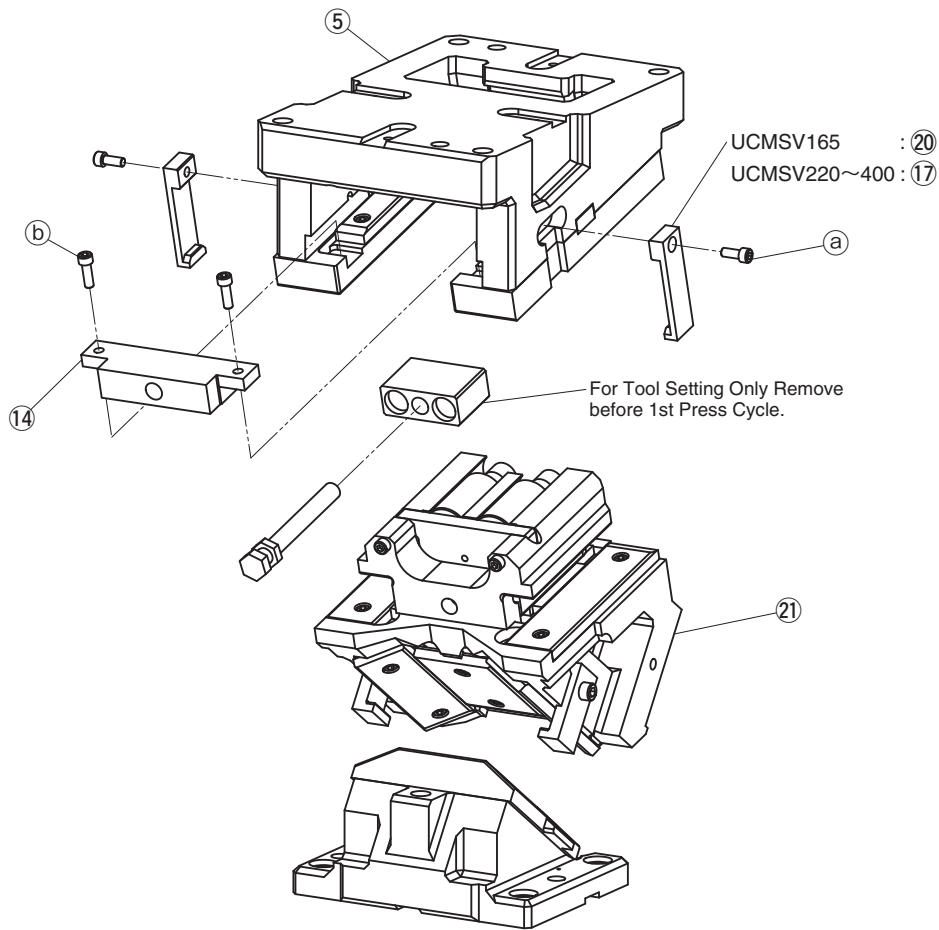
- 1) Remove Hexagon Socket Head Bolts (①), to pull out Stopper Plate ( UCMSV60: ⑱, UCMSV85: ⑭, UCMSV110: ⑲ ).
- 2) Pull out and remove Cam Slider (②) from Cam Holder ( UCMSV60: ⑭, UCMSV85: ⑩, UCMSV110: ⑪ ) to the rear.

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

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



#### ● Disassembly

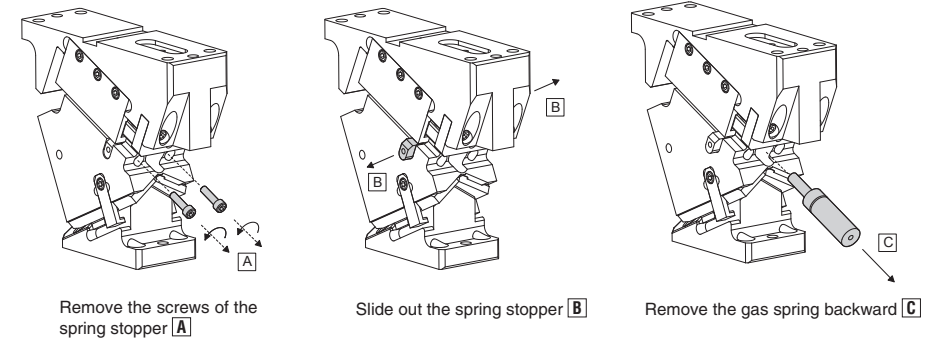
- 1) Remove Hexagon Socket Head Bolts (a), and remove Safety Plate ( UCMSV165: ⑳,UCMSV200~400: ⑰ ).
- 2) Remove Hexagon Socket Head Bolts (b), and remove Stopper Plate (14).
- 3) Pull out and remove Cam Slider (21) from Cam Holder (5) to the rear.

#### ● Assembly

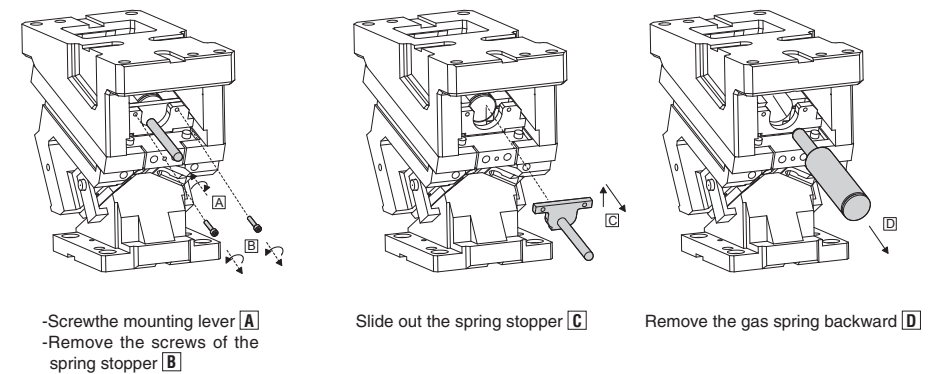
Assembly is the reverse procedure of disassembly.

- 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.

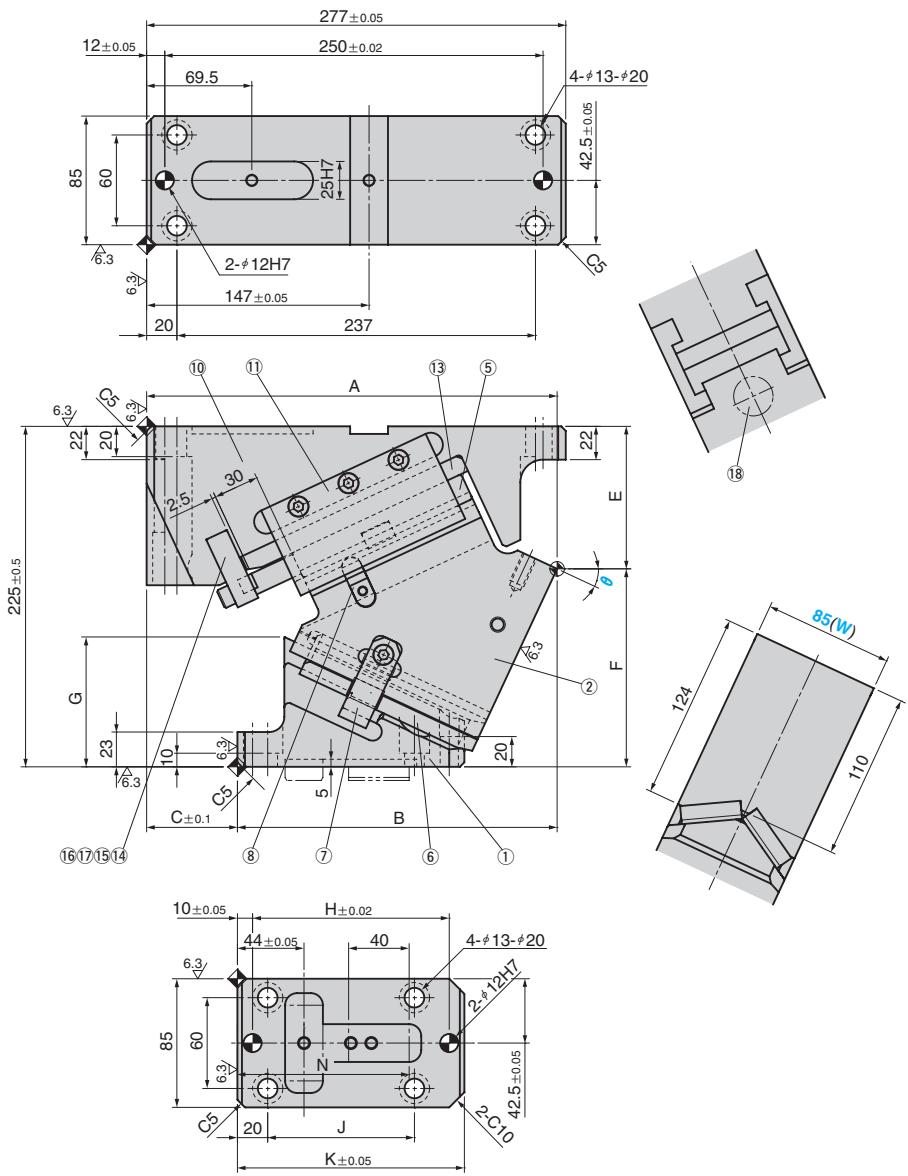
### ■ UCMSV60/85/110 Removing gas spring



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



UCMSV85 (00°~45°)



θ	Travel	A	B	C	E	F	G	H	J	K	N
00	19.3	267.00	152.00	115	63.00	162.00	45.0				
05	21.3	272.39	162.39	110	67.16	157.84	51.9				
10	23.3	275.07	174.07	101	71.77	153.23	59.7				
15	25.4	277.99	185.99	92	79.72	145.28	65.7				
20	27.6	273.08	204.08	69	88.43	136.57	71.0	130	97	150	113.5
25	30.0	271.30	211.30	60	94.15	130.85	85.8				
30	32.6	269.61	217.61	52	100.26	124.74	93.0				
35	35.4	265.99	218.99	47	103.46	121.54	104.0				
40	38.6	262.39	225.39	37	110.53	114.47	110.0	120	87	140	106.5
45	42.3	256.82	233.82	23	117.97	107.03	115.0				

Working Force kN	Return Force N(kgf)	Catalog No.	(W)	θ	Spring Type PS
	7446 (759.8)			00	
	7436 (758.8)			05	
	7426 (757.8)			10	
	7416 (756.7)			15	GS
	7405 (755.6)			20	GK
100	7393 (754.4)	UCMSV	85	25	GD
	7382 (753.2)			30	*NGP
	7370 (752.0)			35	
	7358 (750.8)			40	
	7346 (749.6)			45	

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

Order **Catalog No.** (W) - θ - PS  
**UCMSV 85 - 25 - GK**

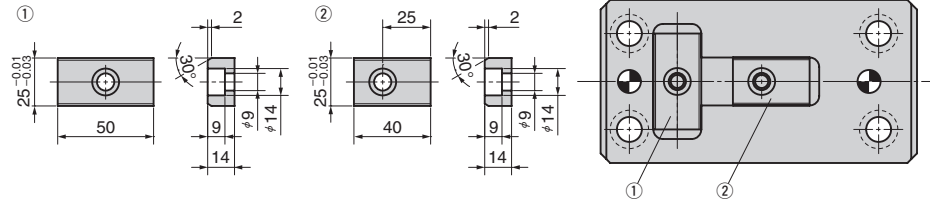
Spring Specification (Qty 1)

Spring Type PS	θ	Spring Force N(kgf)		Model
		Initial Force	Final Force	
GK		4858 (495.7)	X320-038-TD (KALLER)	
GD	00~45	4574 (466.7)	U.0325.038.TO (DADCO)	
GS		5576 (569.0)	SFC.320.38 (SDT)	

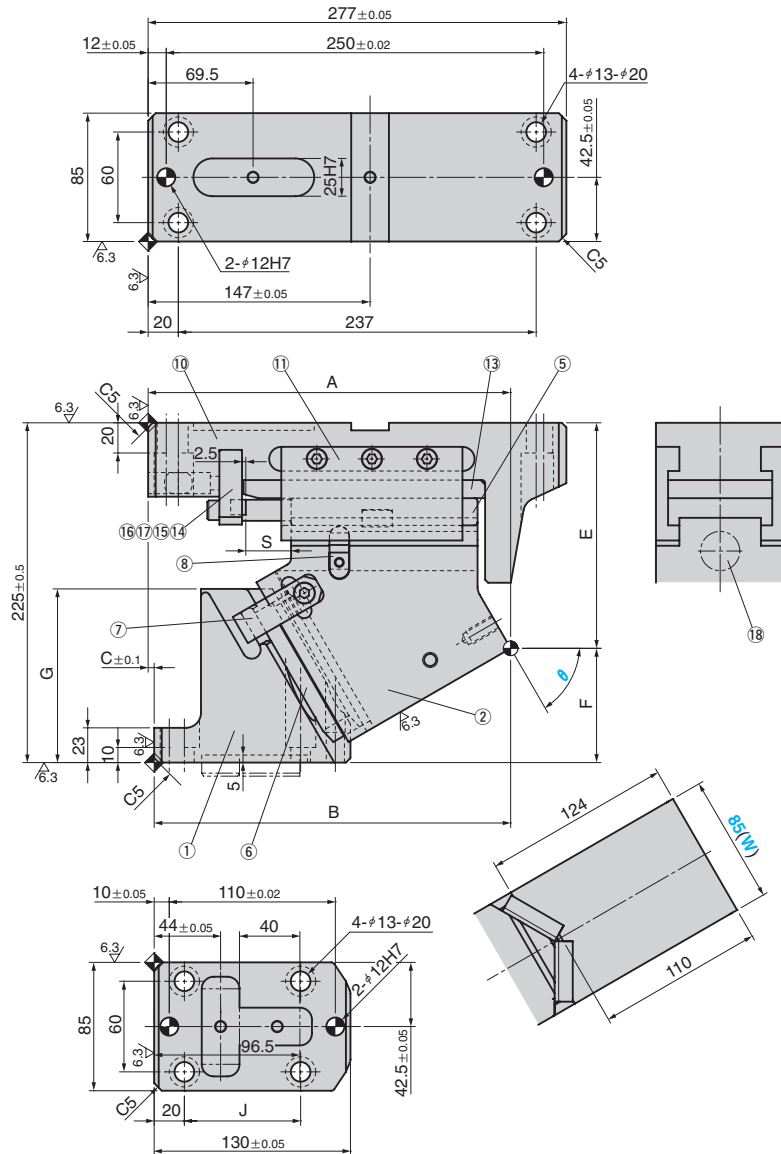
- Option
- K** Dedicated key is attached. (It is not assembled to the main unit)
  - NF** Nitrogen gas is not charged. Applicable to GK, GS and GD only.
- Parts list is shown in p.1655  
 • Cam diagram is shown in p.1653  
 • NF : Gas Springs are not filled with nitrogen gas if delivery is by air freight.

Order **UCMSV85 - 25 - GK - NF**

Key Specification



### UCMSV85 (50°~75°)



$\theta$	Travel	A	B	C	E	F	G	S	J
50	46.7	249.24	229.24	20	133.48	91.52	115.0		
55	52.3	250.67	231.67	19	140.79	84.21	110.0	30	77
60	60.0	240.10	236.10	4	149.35	75.65	115.0		
65	71.0	235.00	240.00	-5	159.05	65.95	120.0		
70	58.5	230.00	245.00	-15	168.88	56.12	120.0	20	80
75	77.3	228.00	253.00	-25	186.99	38.01	135.0		90

Working Force kN	Return Force N(kgf)	Catalog No.	(W)	$\theta$	Spring Type PS
100	7334 (748.3)	UCMSV	85	50	
	7979 (814.2)			55	GS
	8822 (900.2)			60	GK
	9948 (1015.1)			65	GD
	11571 (1180.7)			70	*NGP
	13839 (1412.2)			75	

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

Order **Catalog No.**  **(W)**  -  **$\theta$**   - **PS**   
**UCMSV 85 - 60 - GK**

#### Spring Specification (Qty 1)

Spring Type PS	$\theta$	Spring Force N(kgf)		Model
		Initial Force	Final Force	
GK	50~65		4858 (495.7)	X320-038-TD (KALLER)
GD		-	4574 (466.7)	U.0325.038.TO (DADCO)
GS			5576 (569.0)	SFC.320.38 (SDT)
GK	70~75		4800 (489.8)	X320-025-TD (KALLER)
GD		-	4592 (468.6)	U.0325.025.TO (DADCO)
GS			5608 (572.2)	SFC.320.25 (SDT)

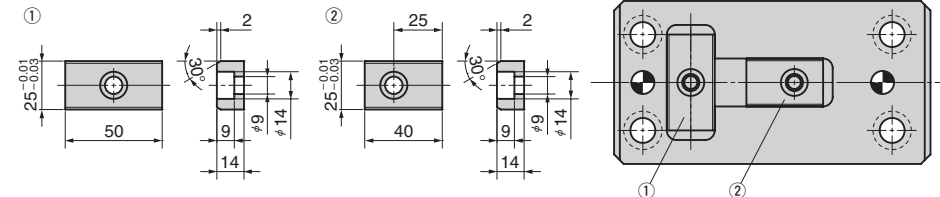


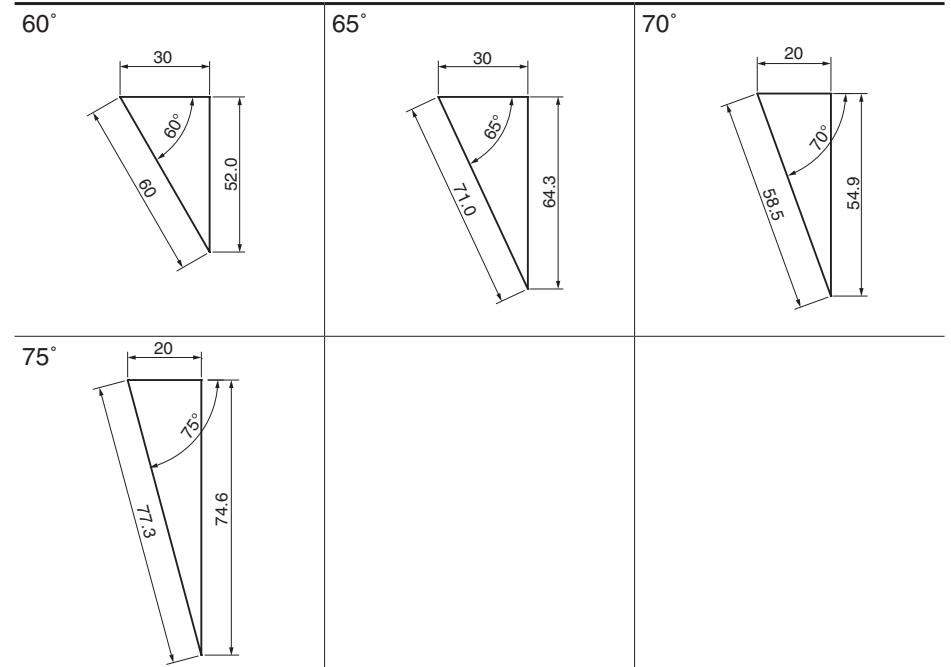
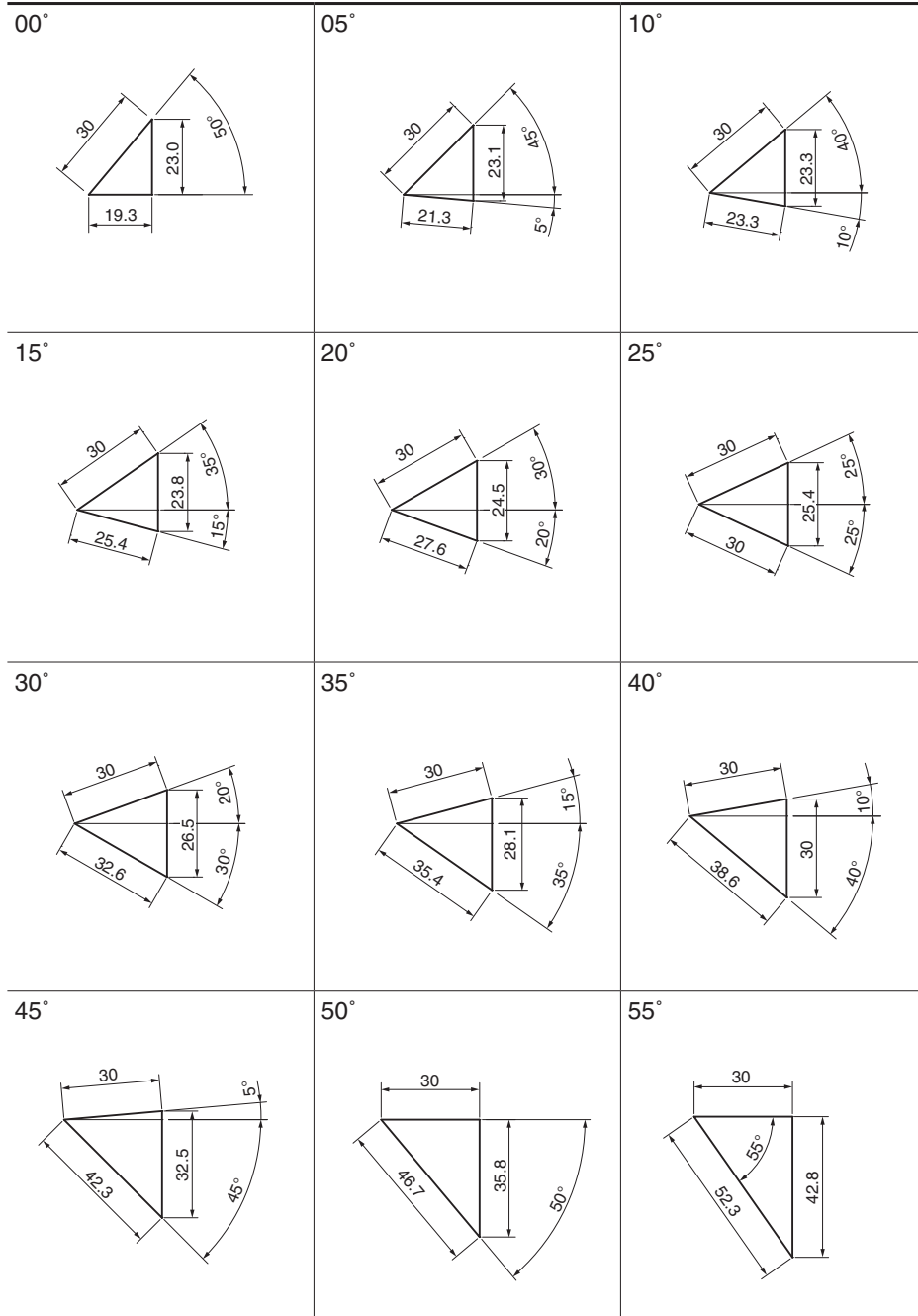
Code	Specification
<b>K</b>	Dedicated key is attached. (It is not assembled to the main unit)
<b>NF</b>	Nitrogen gas is not charged. Applicable to GK, GS and GD only.

- Parts list is shown in p.1655
- Cam diagram is shown in p.1653
- NF : Gas Springs are not filled with nitrogen gas if delivery is by air freight.

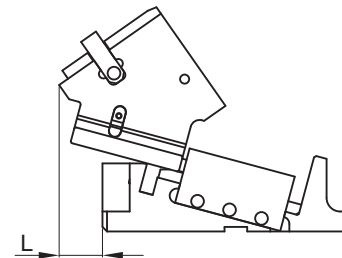
Order **UCMSV85 - 60 - GK - NF**

#### Key Specification





■ Rear Removal Space



$\theta$	L
00	0
05	0
10	0
15	6
20	19
25	28
30	38
35	48
40	55
45	62
50	70
55	69
60	79
65	82
70	81
75	77

**■  $\theta = 00^\circ \sim 65^\circ$** 

No.	Description	Qty	Material and Remark
①	Cam Driver	1	GGG60
②	Cam Slider	1	GGG60
⑤	Slide Plate	1	S45C
⑥	Slide Plate(VSM-18)	2	Bronze with Graphite
⑦	Positive Return	2	S45C
⑧	Spring Stopper Plate	2	S45C
⑩	Cam Holder	1	GGG60
⑪	Slide Keeper	2	Bronze with Graphite
⑬	Slide Plate (VSM-29)	1	Bronze with Graphite
⑭	Stopper Plate	1	S45C
⑮	Stopper	2	Urethane
⑯	Lock Block-00-65	1	SS400
⑰	Hexagon Socket Head Bolt	1	SCM435 M8×60
⑱	Gas Spring	1	Refer to the specification table

Bolts for assembly are not indicated.

**■  $\theta = 70^\circ \cdot 75^\circ$** 

No.	Description	Qty	Material and Remark
①	Cam Driver	1	GGG60
②	Cam Slider	1	GGG60
⑤	Slide Plate	1	S45C
⑥	Slide Plate(VSM-17)	2	Bronze with Graphite
⑦	Positive Return	2	S45C
⑧	Spring Stopper Plate	2	S45C
⑩	Cam Holder	1	GGG60
⑪	Slide Keeper	2	Bronze with Graphite
⑬	Slide Plate (VSM-28)	1	Bronze with Graphite
⑭	Stopper Plate	1	S45C
⑮	Stopper	2	Urethane
⑯	Lock Block-70-75	1	SS400
⑰	Hexagon Socket Head Bolt	1	SCM435 M8×55
⑱	Gas Spring	1	Refer to the specification table

Bolts for assembly are not indicated.