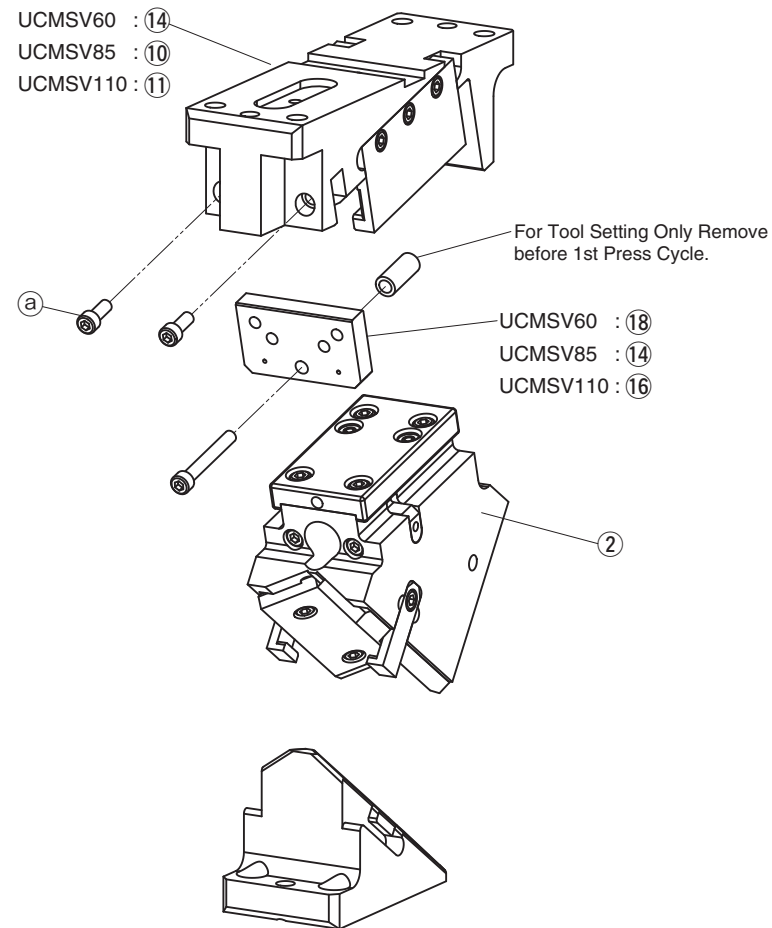


- 60, 85, 110, 165, 200, 250, 300, 350 and 400mm mounting widths are available.
- Available angles are from 0° to 75° in increments of 5°.
- Gas spring can be removed from the cam whilst in the die / press.
- Complying with VDI-BAK specification.

### 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

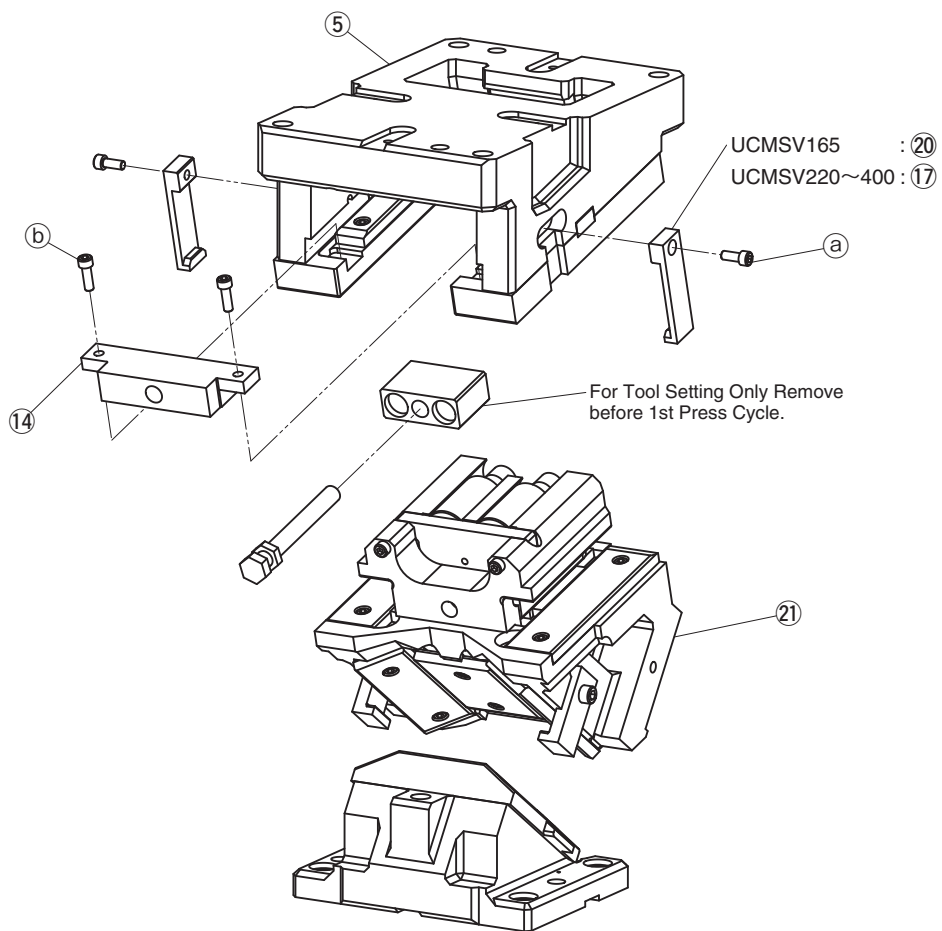
- 1) Remove Hexagon Socket Head Bolts (a), to pull out Stopper Plate ( UCMSV60: 18, UCMSV85: 14, UCMSV110: 16 ).
- 2) Pull out and remove Cam Slider (2) from Cam Holder ( UCMSV60: 14, UCMSV85: 10, UCMSV110: 11 ) to the rear.

#### 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

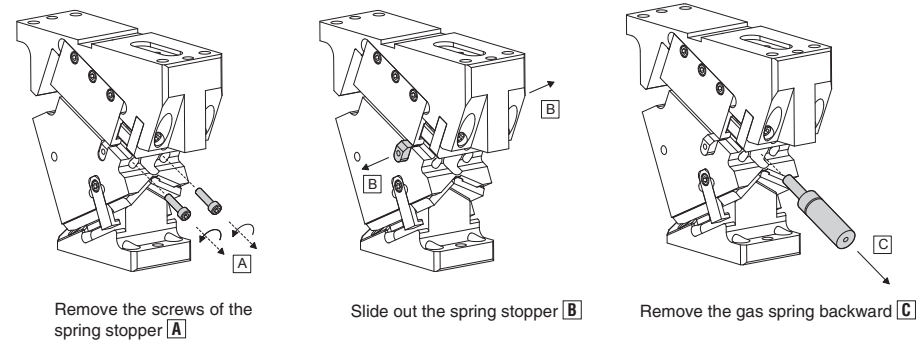
- 1) Remove Hexagon Socket Head Bolts (a), and remove Safety Plate ( UCMSV165: 20,UCMSV200~400: 17 ).
- 2) Remove Hexagon Socket Head Bolts (b), and remove Stopper Plate (14).
- 3) Pull out and remove Cam Slider (21) from Cam Holder (5) to the rear.

#### ● Assembly

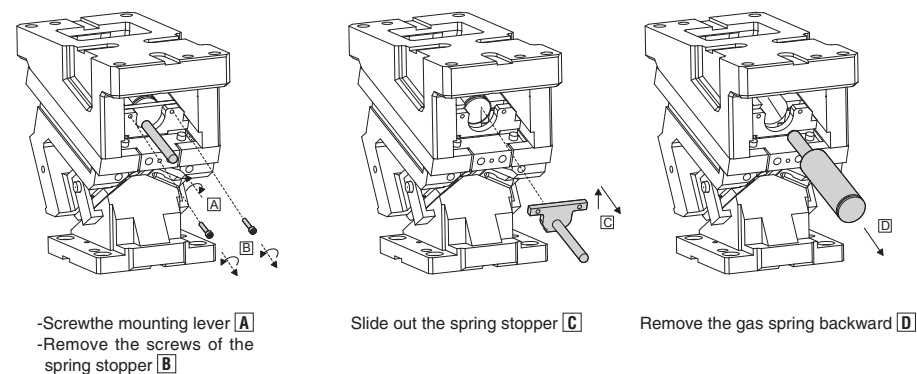
Assembly is the reverse procedure of disassembly.

- 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.

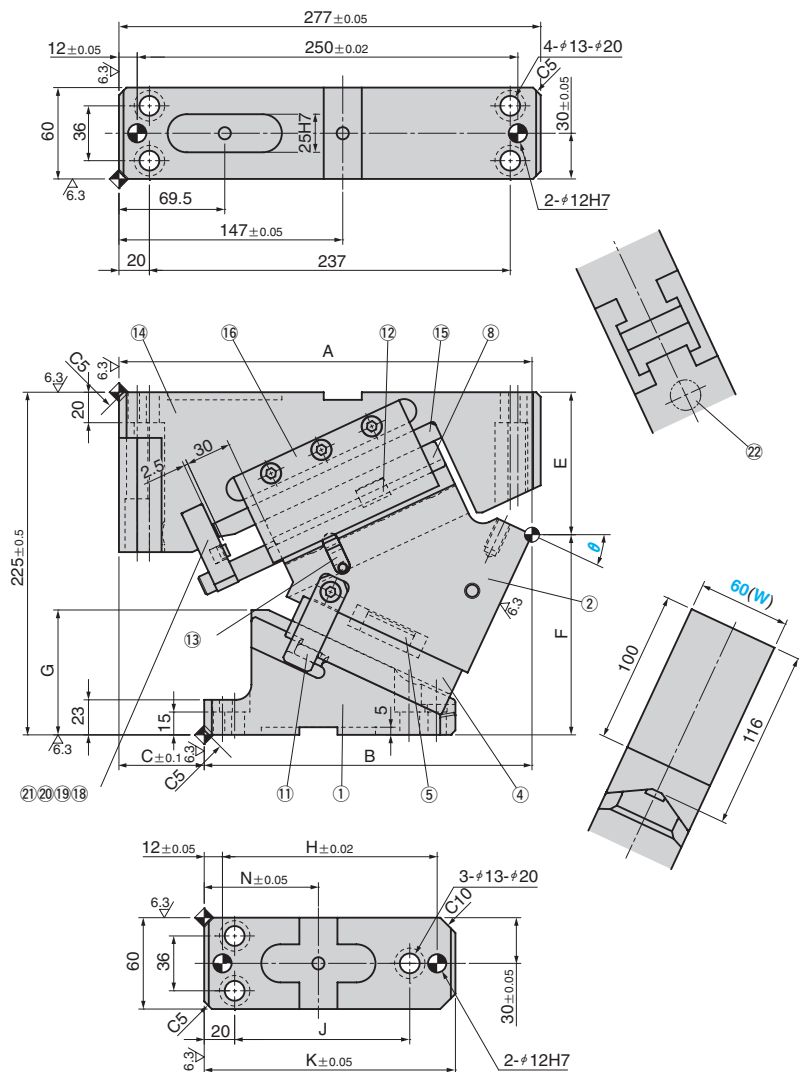
### ■ UCMSV60/85/110 Removing gas spring



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



UCMSV60 (00°~45°)



$\theta$	Travel	A	B	C	E	F	G	H	J	K	N
00	19.3	267.00	167.00	100	69.00	156.00	38.0				
05	21.3	274.45	179.45	95	73.08	151.92	46.5				
10	23.3	272.04	186.04	86	77.56	147.44	55.0				
15	25.4	273.74	196.74	77	82.44	142.56	62.0	141	115	165	75
20	27.6	273.50	204.50	69	88.73	136.27	71.0				
25	30.0	271.28	215.28	56	93.53	131.47	82.0				
30	32.6	270.02	222.02	48	98.57	126.43	96.5				
35	35.4	266.76	217.76	49	105.15	119.85	101.0				
40	38.6	262.47	223.47	39	112.10	112.90	108.0	121	95	145	65
45	42.3	256.13	225.13	31	126.50	98.50	110.0				

Working Force kN	Return Force N(kgf)	Catalog No.	(W)	$\theta$	Spring Type PS
	3667 (374.2)			00	
	3661 (373.5)			05	
	3654 (372.8)			10	GS
	3647 (372.1)			15	GK
	3640 (371.4)			20	GD
75	3632 (370.6)	UCMSV	60	25	*NGS
	3624 (369.8)			30	*NGK
	3616 (369.0)			35	*NGD
	3608 (368.2)			40	
	3600 (367.4)			45	

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

Order **Catalog No.** **(W)** -  **$\theta$**  - **PS**  
**UCMSV 60 - 25 - GK**

Spring Specification (Qty 1)

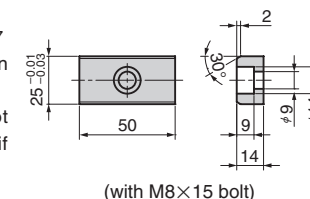
Spring Type PS	$\theta$	Spring Force N(kgf)		Model
		Initial Force	Final Force	
GK			2568 (262.0)	X170-038-TD (KALLER)
GD	00~45	-	2458 (250.8)	U.0175.038.TO (DADCO)
GS			2734 (279.0)	SFC.170.38 (SDT)

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.

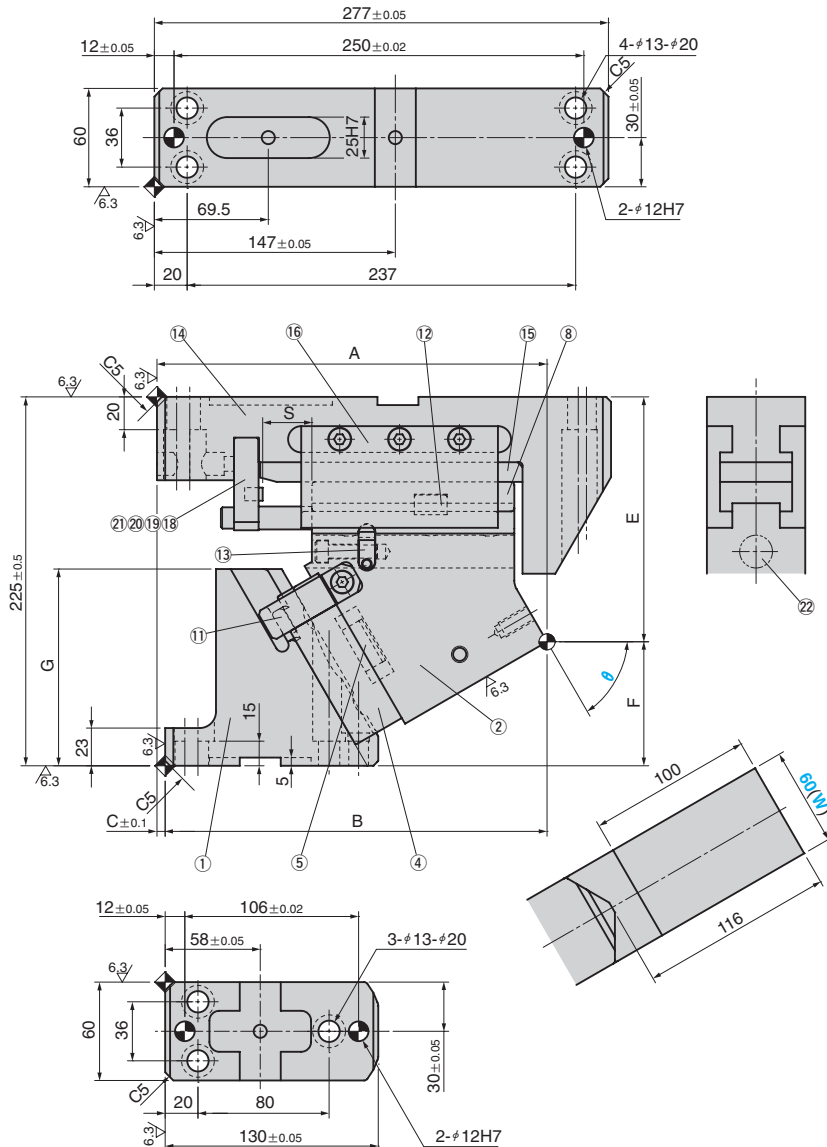
- Parts list is shown in p.1647
- Cam diagram is shown in p.1645
- NF : Gas Springs are not filled with nitrogen gas if delivery is by air freight.

Key Specification



Order **UCMSV60 - 25 - GK - NF**

## UCMSV60 (50°~75°)



θ	Travel	A	B	C	E	F	G	S
50	46.7	249.8	226.8	23	134.78	90.22	113.0	30
55	52.3	247.39	231.39	16	141.94	83.06	112.0	
60	60.0	237.95	232.95	5	149.36	75.64	120.0	
65	71.0	235.00	240.00	-5	163.68	61.32	120.0	20
70	58.5	230.00	245.00	-15	177.95	47.05	135.0	
75	77.3	222.00	247.00	-25	187.73	37.27	135.0	

Working Force kN	Return Force N(kgf)	Catalog No.	(W)	θ	Spring Type PS
75	3592 (366.6)	UCMSV	60	50	GS
	3908 (398.8)			55	
	4321 (440.9)			60	
	4872 (497.1)			65	
	5662 (577.8)			70	
6773 (691.1)	75	*NGP			

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

Order **Catalog No.** **(W)** - **θ** - **PS**  
**UCMSV 60 - 60 - GK**

### Spring Specification (Qty 1)

Spring Type PS	θ	Spring Force N(kgf)		Model
		Initial Force	Final Force	
GK	50~65	-	2568 (262.0)	X170-038-TD (KALLER)
GD		-	2458 (250.8)	U.0175.038.TO (DADCO)
GS		-	2734 (279.0)	SFC.170.38 (SDT)
GK	70~75	-	2580 (263.3)	X170-025-TD (KALLER)
GD		-	2468 (251.8)	U.0175.025.TO (DADCO)
GS		-	2748 (280.4)	SFC.170.25 (SDT)

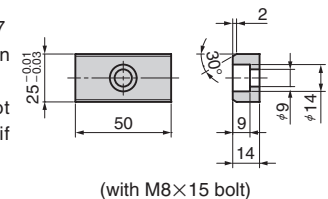
### Option

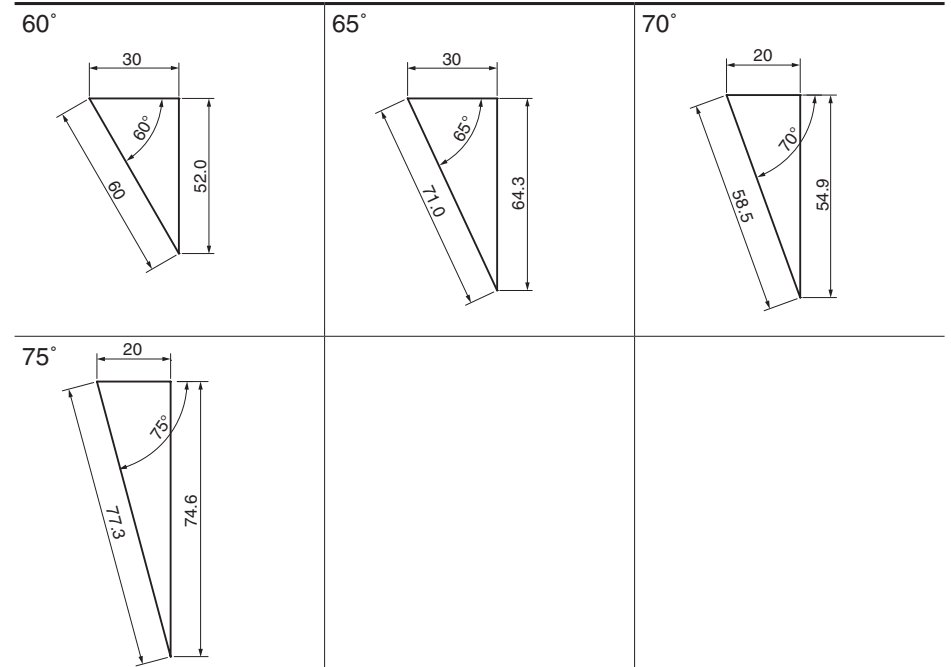
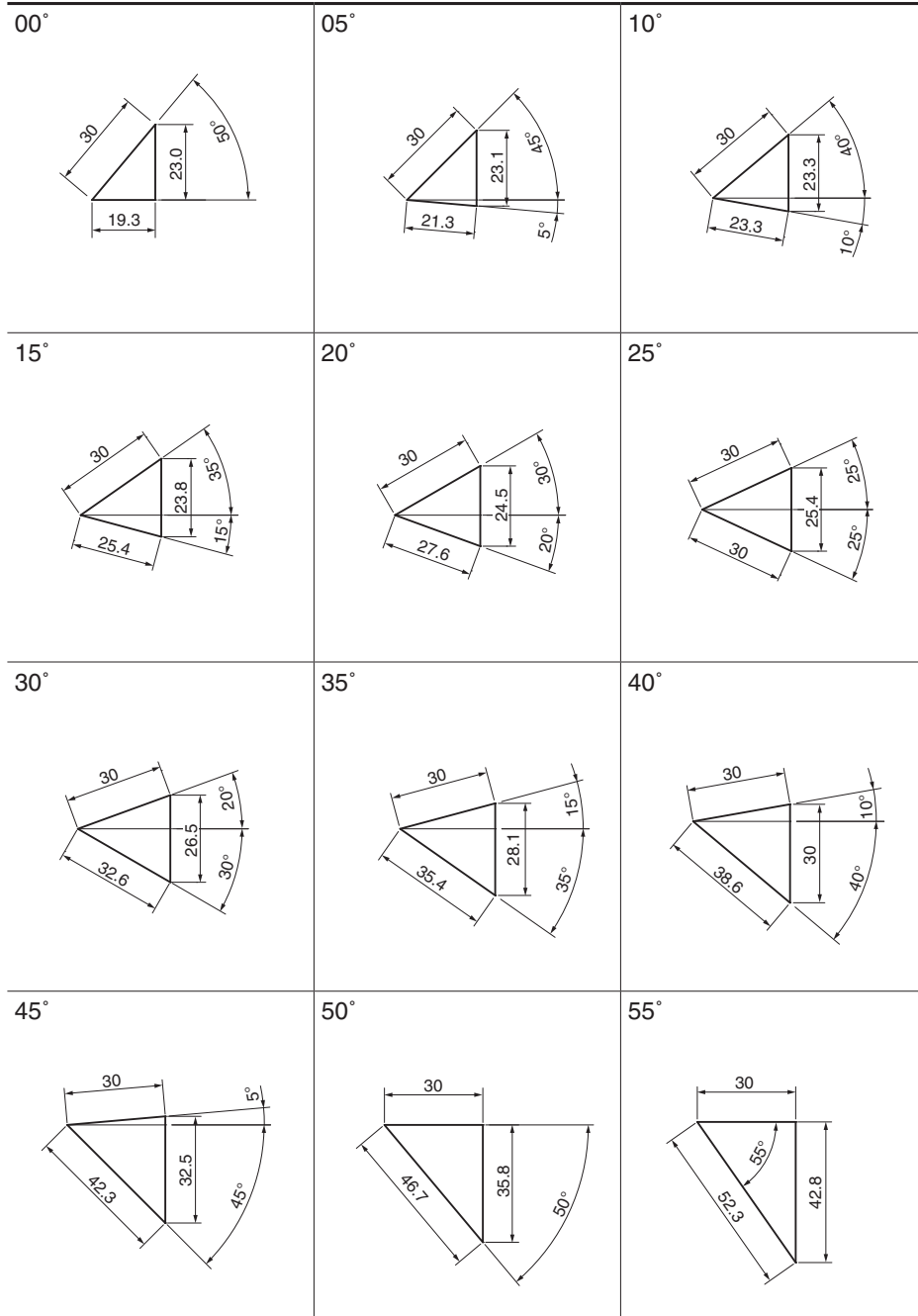
Code	Specification
K	Dedicated key is attached. (It is not assembled to the main unit)
NF	Nitrogen gas is not charged. Applicable to GK, GS and GD only.

- Parts list is shown in p.1647
- Cam diagram is shown in p.1645
- NF : Gas Springs are not filled with nitrogen gas if delivery is by air freight.

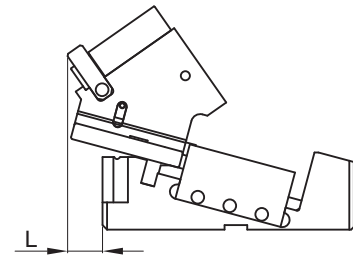
Order **UCMSV60 - 60 - GK - NF**

### Key Specification





■ Rear Removal Space



$\theta$	L
00	0
05	0
10	3
15	11
20	19
25	26
30	31
35	38
40	49
45	59
50	67
55	64
60	73
65	74
70	75
75	78

■  $\theta = 00^\circ \sim 65^\circ$

No.	Description	Qty	Material and Remark
①	Cam Driver	1	GGG60
②	Cam Slider	1	GGG60
④	Cam Bottom Slide Plate	1	Bronze with Graphite
⑤	KEY-B-V60-00-50	1	SS400
⑧	Slide Plate	1	S45C
⑪	Positive Return	2	S45C
⑫	Key A	1	SS400
⑬	Spring Stopper Plate	2	S45C
⑭	Cam Holder	1	GGG60
⑮	Slide Plate(VSM-19)	1	Bronze with Graphite
⑯	Slide Keeper	2	Bronze with Graphite
⑱	Stopper Plate	1	S45C
⑲	Stopper	2	Urethane (DXHK10-8-5-13)
⑳	Hexagon Socket Head Bolt	1	SCM435 M8×60
㉑	Lock Block-00-65	1	SS400
㉒	Gas Spring	1	Refer to the specification table

Bolts for assembly are not indicated.

■  $\theta = 70^\circ \sim 75^\circ$

No.	Description	Qty	Material and Remark
①	Cam Driver	1	GGG60
②	Cam Slider	1	GGG60
④	Cam Bottom Slide Plate	1	Bronze with Graphite
⑤	KEY-B-V60-55-75	1	SS400
⑧	Slide Plate	1	S45C
⑪	Positive Return	2	S45C
⑫	Key A	1	SS400
⑬	Spring Stopper Plate	2	S45C
⑭	Cam Holder	1	GGG60
⑮	Slide Plate(VSM-18)	1	Bronze with Graphite
⑯	Slide Keeper	2	Bronze with Graphite
⑱	Stopper Plate	1	S45C
⑲	Stopper	2	Urethane (DXHK10-8-5-13)
⑳	Hexagon Socket Head Bolt	1	SCM435 M8×50
㉑	Lock Block-70-75	1	SS400
㉒	Gas Spring	1	Refer to the specification table

Bolts for assembly are not indicated.