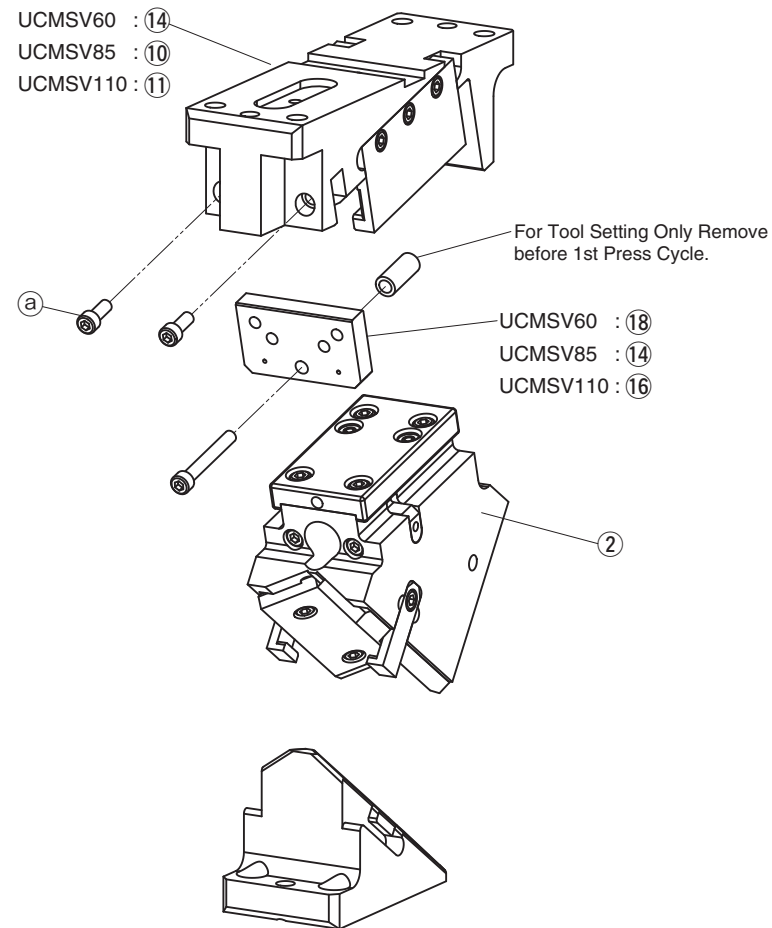


- 60, 85, 110, 165, 200, 250, 300, 350 and 400mm mounting widths are available.
- Available angles are from 0° to 75° in increments of 5°.
- Gas spring can be removed from the cam whilst in the die / press.
- Complying with VDI-BAK specification.

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									
	140	30	54.3				30	54.3				30	65.1		30	65.1	30	70.8	30	70.8	30	77.1
		35	59.0				35	59.0				35	70.8		35	70.8	35	84.5	35	84.5	35	93.3
		40	64.3				40	64.3				40	77.1		40	77.1	40	93.3	40	104.6	40	120.0
		45	70.4				45	70.4				45	84.5		45	84.5	45	93.3	45	104.6	45	120.0
		50	77.8				50	77.8				50	93.3		50	93.3	50	104.6	50	120.0	50	131.2
		55	87.2				55	87.2				55	104.6		55	104.6	55	120.0	55	131.2	55	142.4
140	60	100.0	60	100.0	60	120.0	60	120.0	60	142.4	60	164.8	60	187.2								
	65	94.6	65	94.6	65	115.5	65	115.5	65	137.9	65	160.3	65	182.7								
	70	81.9	70	81.9	70	102.6	70	102.6	70	125.1	70	147.5	70	169.9								
	75	73.3	75	73.3	75	93.3	75	93.3	75	115.5	75	137.9	75	160.3								
	80	64.3	80	64.3	80	84.5	80	84.5	80	104.6	80	126.0	80	147.5								
	85	59.0	85	59.0	85	77.8	85	77.8	85	96.6	85	115.5	85	137.9								

UCMSV60 / 85 / 110 Assembly Instructions



Disassembly

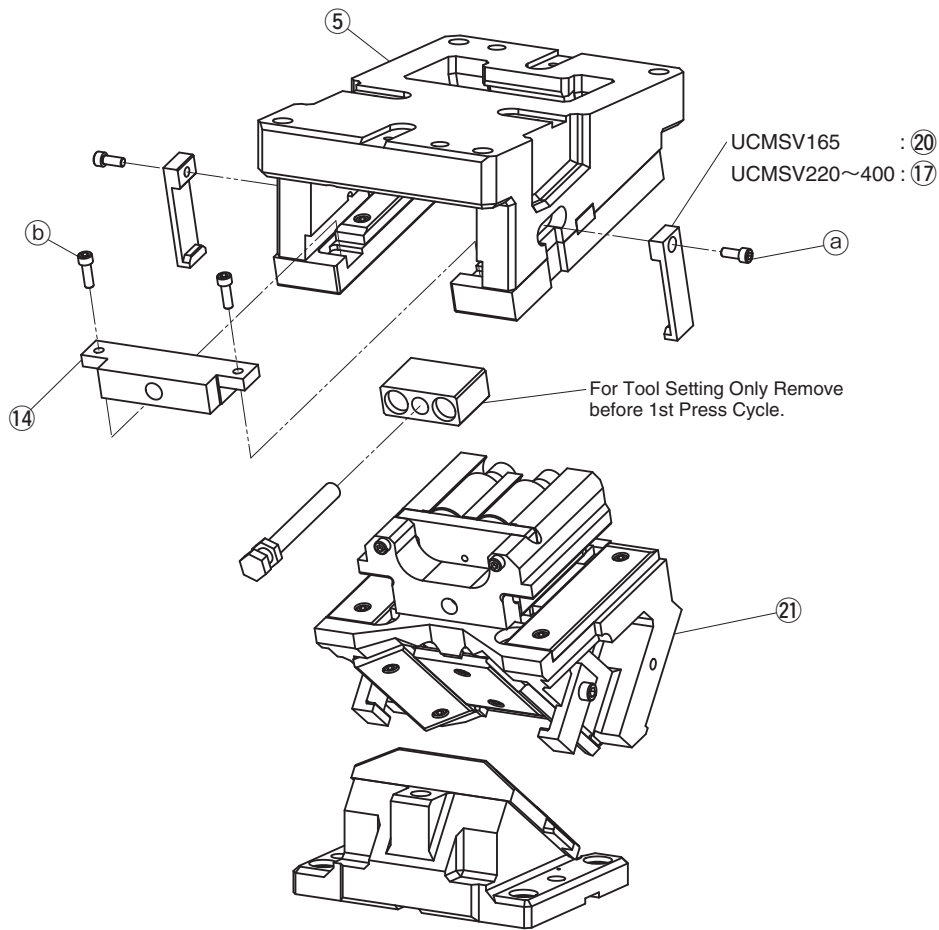
- 1) Remove Hexagon Socket Head Bolts (a), to pull out Stopper Plate (UCMSV60: 18, UCMSV85: 14, UCMSV110: 16).
- 2) Pull out and remove Cam Slider (2) from Cam Holder (UCMSV60: 14, UCMSV85: 10, UCMSV110: 11) to the rear.

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

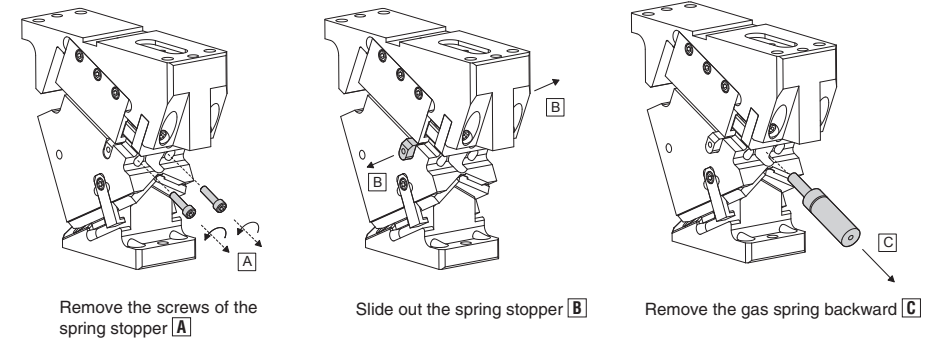
- 1) Remove Hexagon Socket Head Bolts (a), and remove Safety Plate (UCMSV165: ⑳,UCMSV200~400: ⑰).
- 2) Remove Hexagon Socket Head Bolts (b), and remove Stopper Plate (⑭).
- 3) Pull out and remove Cam Slider (⑳) from Cam Holder (⑤) to the rear.

● Assembly

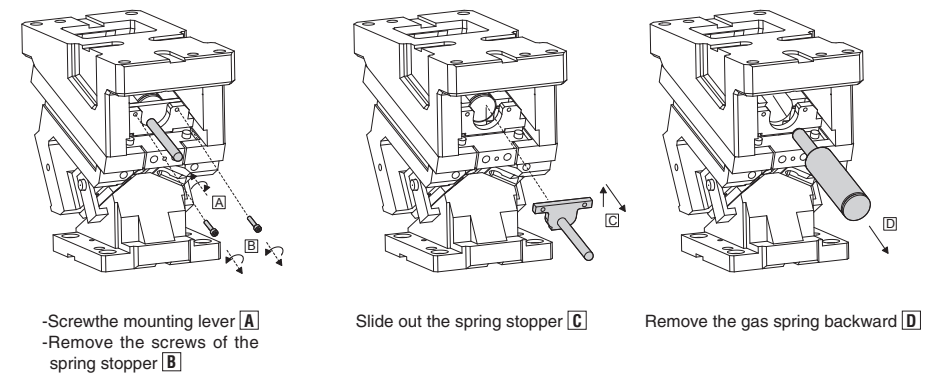
Assembly is the reverse procedure of disassembly.

- 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.

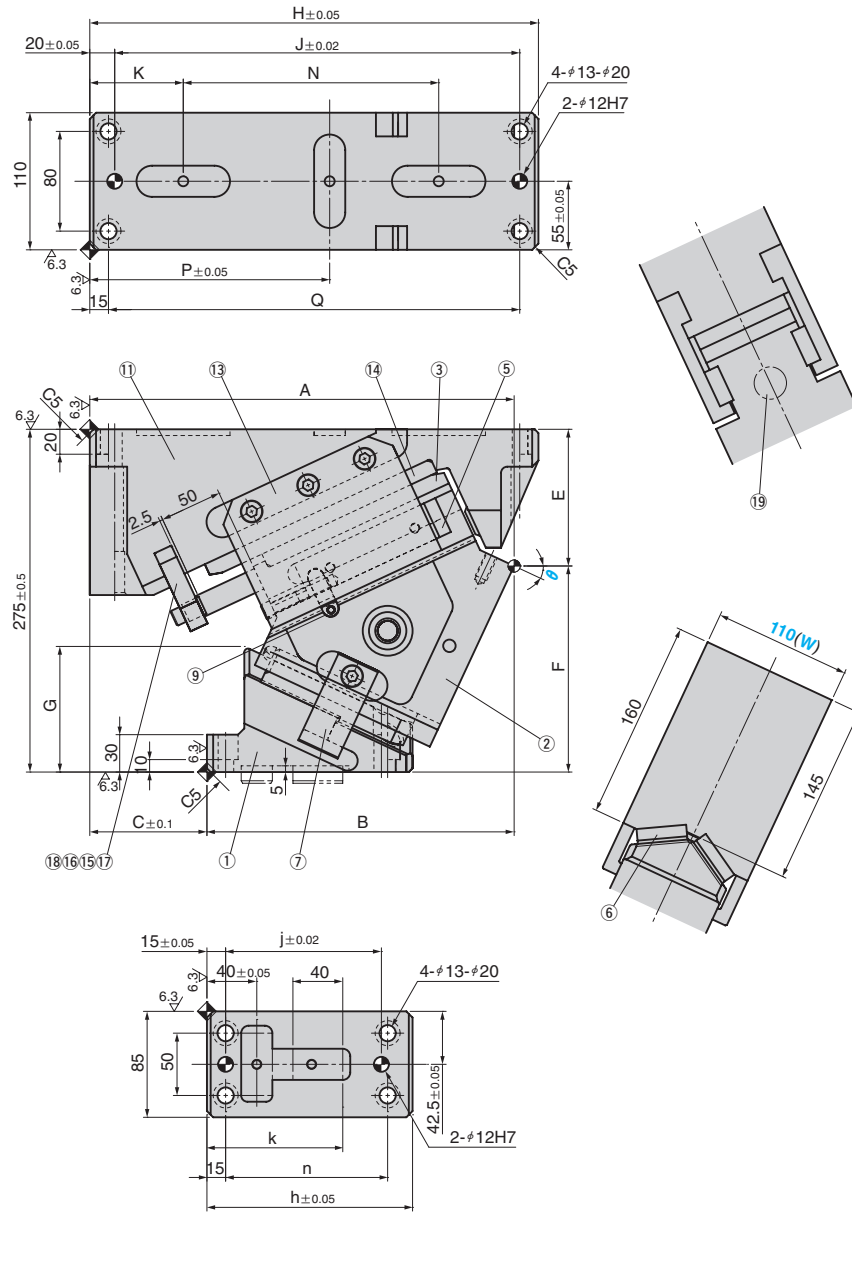
■ UCMSV60/85/110 Removing gas spring



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



UCMSV110 (00°~45°)



θ	Travel	A	B	C	E	F	G	H	J	K	N	P	Q	
00	32.1	318.00	180.00	138	70.00	205.00	55.0	330	295	70	185	137.5	300	
05	35.5	324.46	194.46	130	79.26	195.74	59.6							
10	38.9	330.22	209.22	121	84.13	190.87	70.2							
15	42.4	336.2	222.2	114	94.45	180.55	76.8							
20	46.1	339.32	234.32	105	100.42	174.58	89.3	360	325	75	205	192.5	330	
25	50.0	340.51	246.51	94	109.67	165.33	100.8							
30	54.3	348.36	278.36	70	120.54	154.46	124.5							
35	59.0	343.52	289.52	54	127.82	147.18	125.0							
40	64.3	332.59	268.59	64	139.41	135.59	130.0							
45	70.4	322.52	277.52	45	149.44	125.56	140.0							

j	k	n	h	Working Force kN	Return Force N(kgf)	Catalog No.	(W)	θ	Spring Type PS
125	109	130	165	150	7533 (768.7)	UCMSV	110	00	GS
					7516 (767.0)			05	
					7499 (765.2)			10	
					7480 (763.3)			15	
					7461 (761.3)			20	
					7441 (759.2)			25	
140	115	145	180	150	7420 (757.1)	UCMSV	110	30	*NGP
					7399 (755.0)			35	
					7378 (752.8)			40	
105	95	110	150	150	7356 (750.6)	UCMSV	110	45	

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

Order **Catalog No.** **(W)** - **θ** - **PS**
UCMSV 110 - 25 - GK

Spring Specification (Qty 1)

Spring Type PS	θ	Spring Force N(kgf)		Model
		Initial Force	Final Force	
GK	00~45	-	4867 (496.6)	X320-063-TD (KALLER)
GD		4581 (467.4)	U.0325.063.TO (DADCO)	
GS		5589 (570.3)	SFC.320.63 (SDT)	



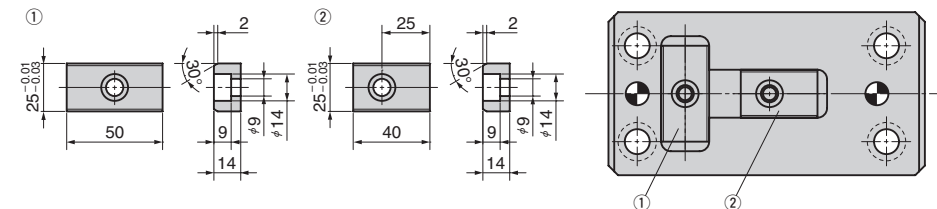
Code	Specification
K	Dedicated key is attached. (It is not assembled to the main unit)
NF	Nitrogen gas is not charged. Applicable to GK, GS and GD only.

- Parts list is shown in p.1663
- Cam diagram is shown in p.1661
- NF : Gas Springs are not filled with nitrogen gas if delivery is by air freight.

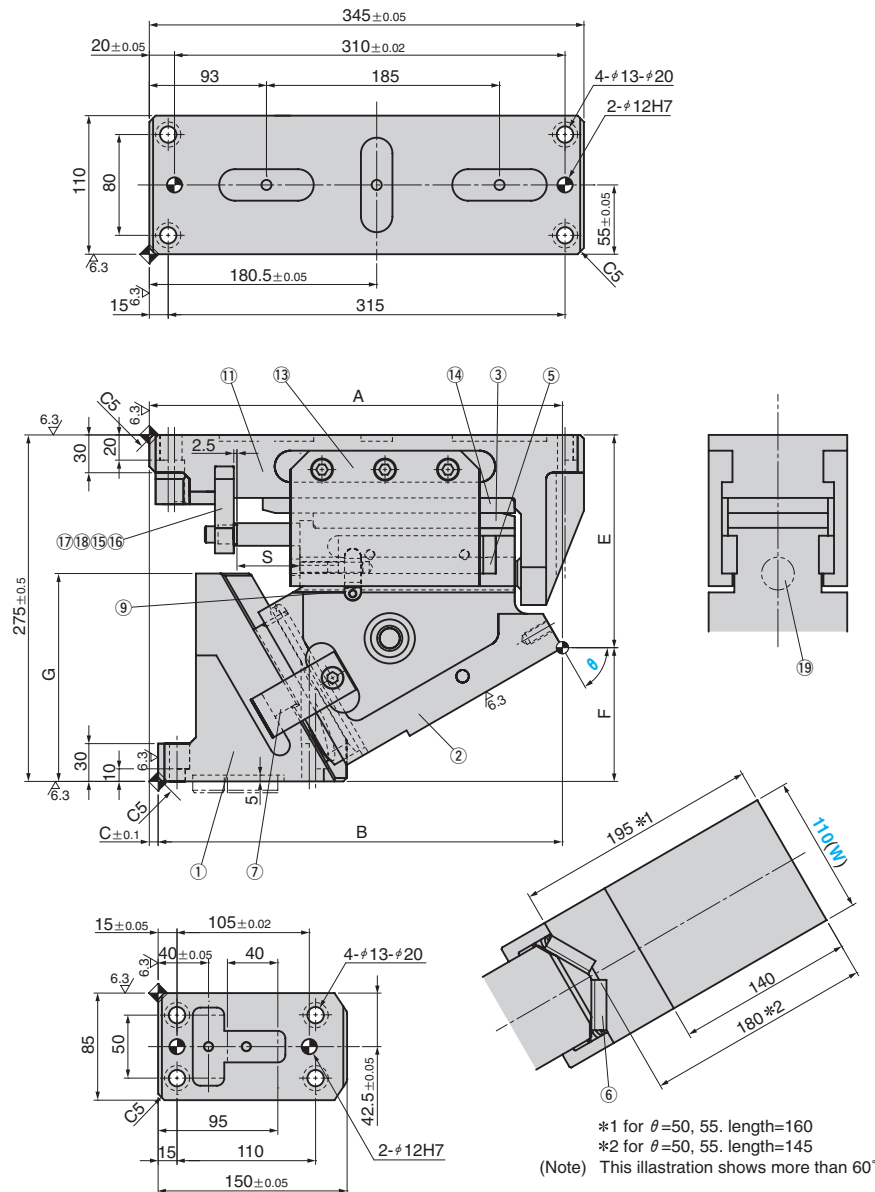


Order **UCMSV110 - 25 - GK - NF**

Key Specification



UCMSV110 (50°~75°)



θ	Travel	A	B	C	E	F	G	S
50	77.8	309.47	284.47	25	156.17	118.83	150.0	
55	87.2	311.07	293.07	18	169.79	105.21	155.0	50
60	100.0	327.93	320.93	7	168.85	106.15		
65	94.6	317.17	327.17	-10	185.00	90.00		40
70	81.9	313.12	333.12	-20	205.00	70.00	165.0	
75	108.2	306.76	336.76	-30	225.00	50.00		28

Working Force kN	Return Force N(kgf)	Catalog No.	(W)	θ	Spring Type PS
150	7335 (748.5)	UCMSV	110	50	*NGP
	7979 (814.2)			55	
	8819 (899.8)			60	
	9977 (1018.1)			65	
	11141 (1136.9)			70	
	13323 (1359.5)			75	

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

Order **Catalog No.** **(W)** - **θ** - **PS**
UCMSV 110 - 60 - GK

Spring Specification (Qty 1)

Spring Type PS	θ	Spring Force N(kgf)		Model
		Initial Force	Final Force	
GK	50~60	-	4867 (496.6)	X320-063-TD (KALLER)
GD		-	4581 (467.4)	U.0325.063.TO (DADCO)
GS		-	5589 (570.3)	SFC.320.63 (SDT)
GK	65	-	4880 (498.0)	X320-050-TD (KALLER)
GD		-	4592 (468.6)	U.0325.050.TO (DADCO)
GS		-	5608 (572.2)	SFC.320.50 (SDT)
GK	70~75	-	4747 (484.4)	X320-038-TD (KALLER)
GD		-	4482 (457.3)	U.0325.038.TO (DADCO)
GS		-	5418 (552.9)	SFC.320.38 (SDT)

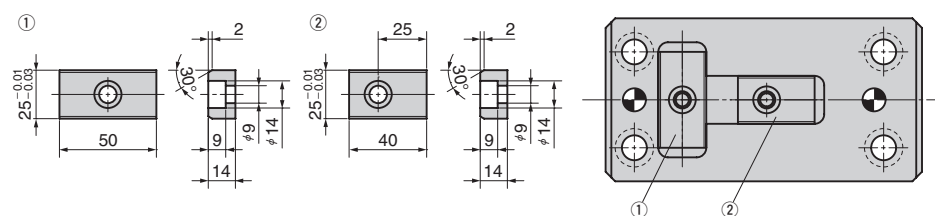
Option

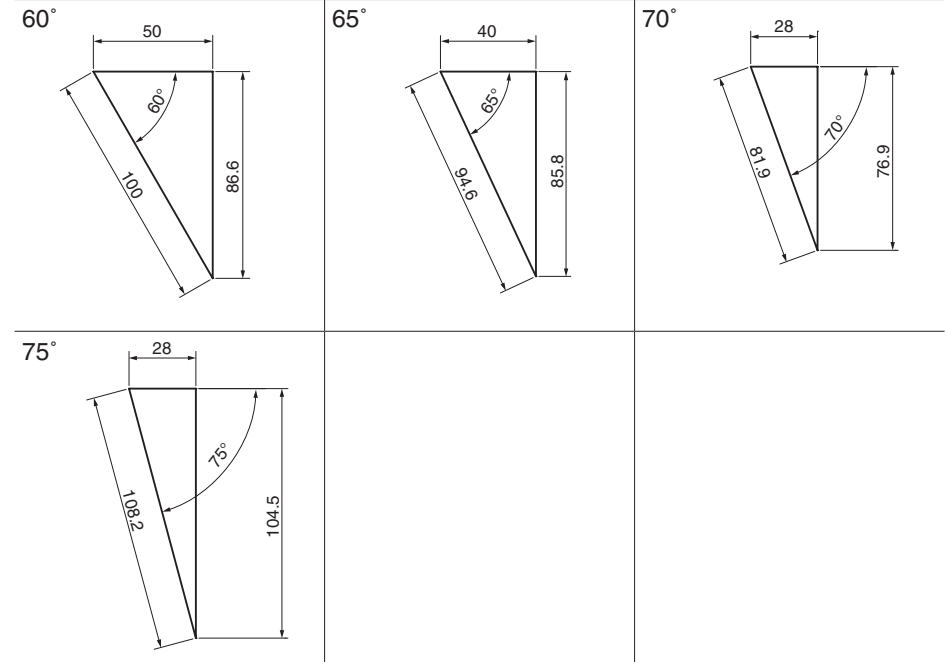
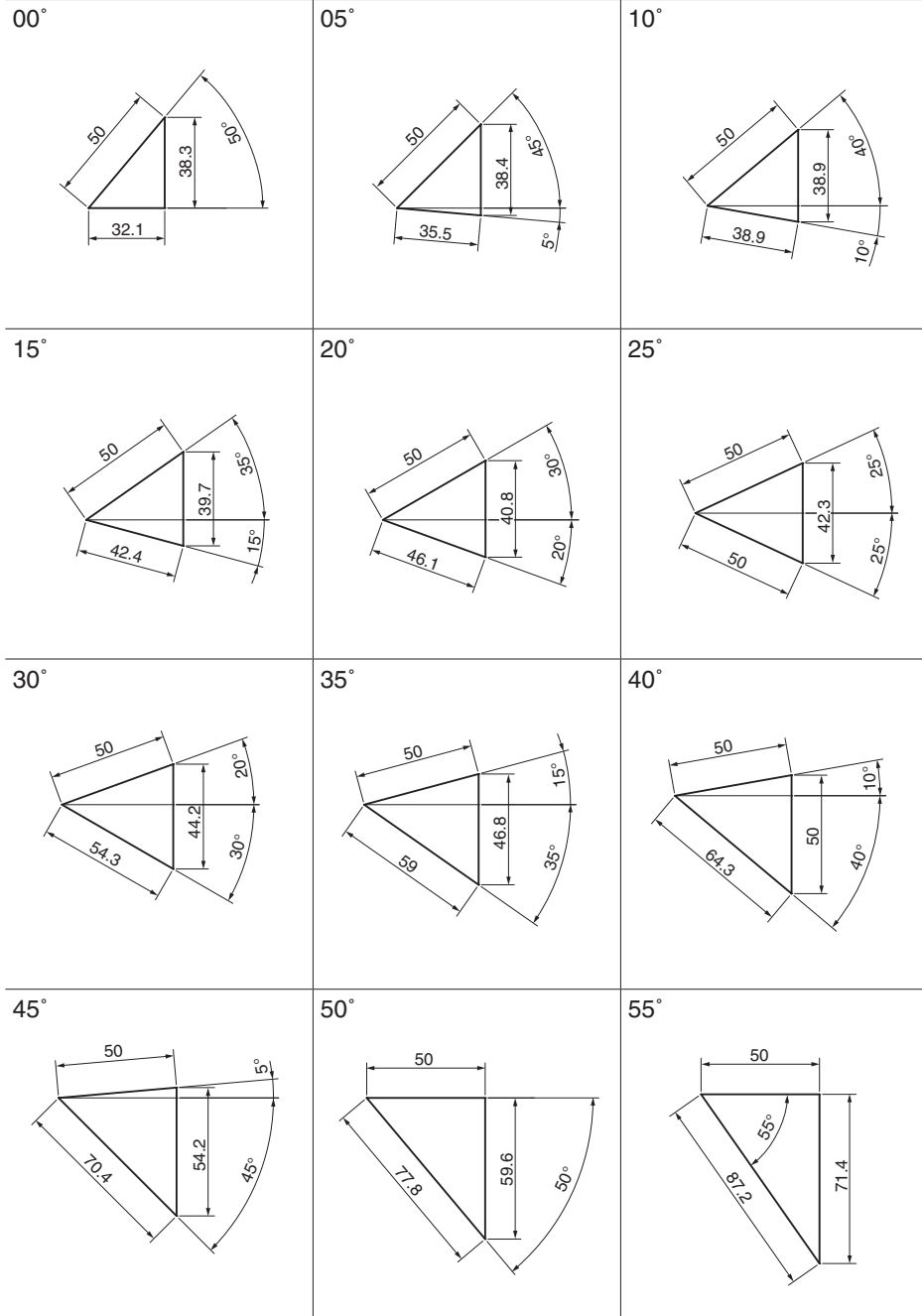
Code	Specification
K	Dedicated key is attached. (It is not assembled to the main unit)
NF	Nitrogen gas is not charged. Applicable to GK, GS and GD only.

⚠ Parts list is shown in p.1663
 Cam diagram is shown in p.1661
 • NF : Gas Springs are not filled with nitrogen gas if delivery is by air freight.

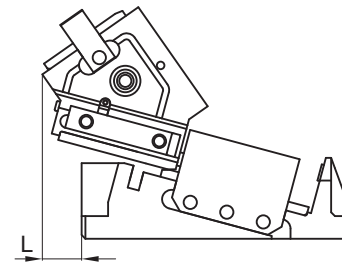
Order **UCMSV110 - 60 - GK - NF**

Key Specification





■ Rear Removal Space



θ	L
00	0
05	2
10	12
15	20
20	28
25	35
30	38
35	52
40	69
45	83
50	97
55	95
60	103
65	105
70	121
75	126

■ $\theta = 00^\circ \sim 60^\circ$

No.	Description	Qty	Material and Remark
①	Cam Driver	1	GGG60
②	Cam Slider	1	GGG60
③	Slide Plate(VSM-34)	1	Bronze with Graphite
⑤	Oilless Plate C	2	SCM435
⑥	Slide Plate(VSM-18)	2	Bronze with Graphite
⑦	Positive Return Plate	2	S45C
⑨	Spring Stopper Plate	2	S45C
⑪	Cam Holder	1	GGG60
⑬	Slide Keeper	2	Bronze with Graphite
⑭	Slide Plate(VSM-65)	1	SCM435
⑮	Stopper	2	Urethane
⑯	Stopper Plate	1	S45C
⑰	Look Block	1	SS400
⑱	Hexagon Socket Head Bolt	1	SCM435 M8×80
⑲	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
③	Slide Plate(VSM-34)	1	Bronze with Graphite
⑤	Oilless Plate C	2	SCM435
⑥	Slide Plate(VSM-18)	2	Bronze with Graphite
⑦	Positive Return Plate	2	S45C
⑨	Spring Stopper Plate	2	S45C
⑪	Cam Holder	1	GGG60
⑬	Slide Keeper	2	Bronze with Graphite
⑭	Slide Plate(VSM-65)	1	SCM435
⑮	Stopper	2	Urethane
⑯	Stopper Plate	1	S45C
⑰	Look Block	1	SS400
⑱	Hexagon Socket Head Bolt	1	SCM435 M8×60
⑲	Gas Spring	1	Refer to the specification table

Bolts for assembly are not indicated.

■ $\theta = 65^\circ$

No.	Description	Qty	Material and Remark
①	Cam Driver	1	GGG60
②	Cam Slider	1	GGG60
③	Slide Plate(VSM-34)	1	Bronze with Graphite
⑤	Oilless Plate C	2	SCM435
⑥	Slide Plate(VSM-18)	2	Bronze with Graphite
⑦	Positive Return Plate	2	S45C
⑨	Spring Stopper Plate	2	S45C
⑪	Cam Holder	1	GGG60
⑬	Slide Keeper	2	Bronze with Graphite
⑭	Slide Plate(VSM-65)	1	SCM435
⑮	Stopper	2	Urethane
⑯	Stopper Plate	1	S45C
⑰	Lock Block	1	SS400
⑱	Hexagon Socket Head Bolt	1	SCM435 M8×75
⑲	Gas Spring	1	Refer to the specification table

Bolts for assembly are not indicated.