

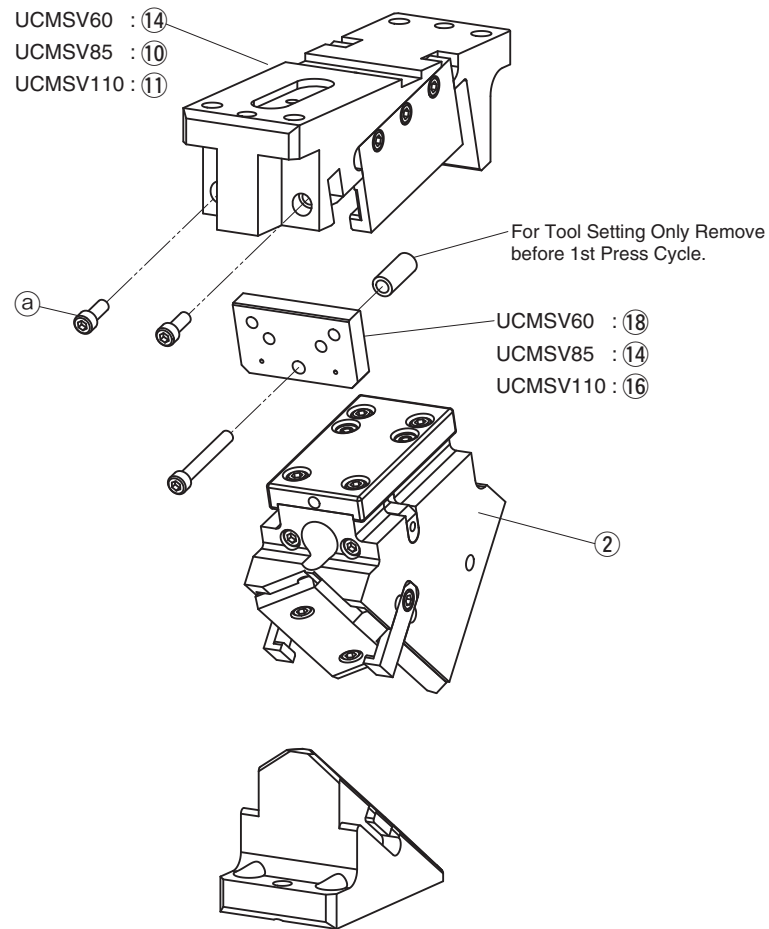


- 60, 85, 110, 165, 200, 250, 300, 350 and 400mm mounting widths are available.
- Available angles are from 0° to 75° in increments of 5°.
- Gas spring can be removed from the cam whilst in the die / press.
- Complying with VDI-BAK specification.

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	116.6	65	116.6	65	146.6									
70	138.1	70	138.1	70	173.1									
75	184.4	75	184.4	75	222.2									

UCMSV60 / 85 / 110 Assembly Instructions



Disassembly

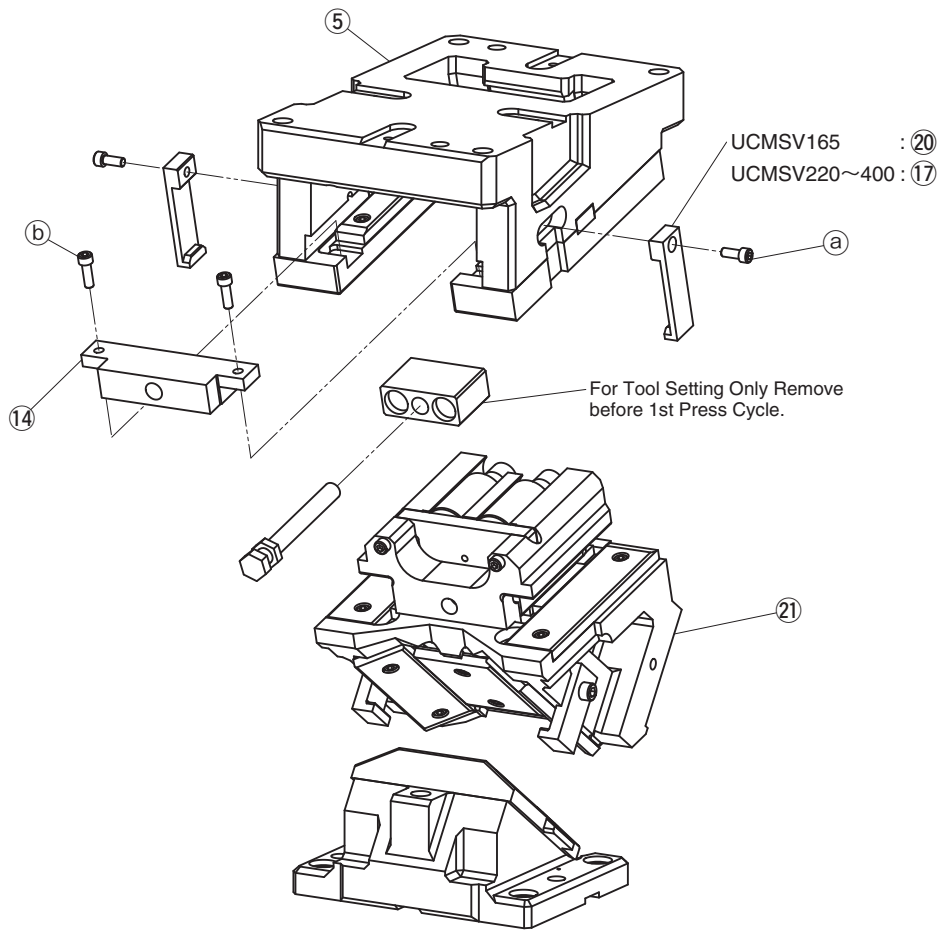
- 1) Remove Hexagon Socket Head Bolts (a), to pull out Stopper Plate (UCMSV60: 18, UCMSV85: 14, UCMSV110: 16).
- 2) Pull out and remove Cam Slider (2) from Cam Holder (UCMSV60: 14, UCMSV85: 10, UCMSV110: 11) to the rear.

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

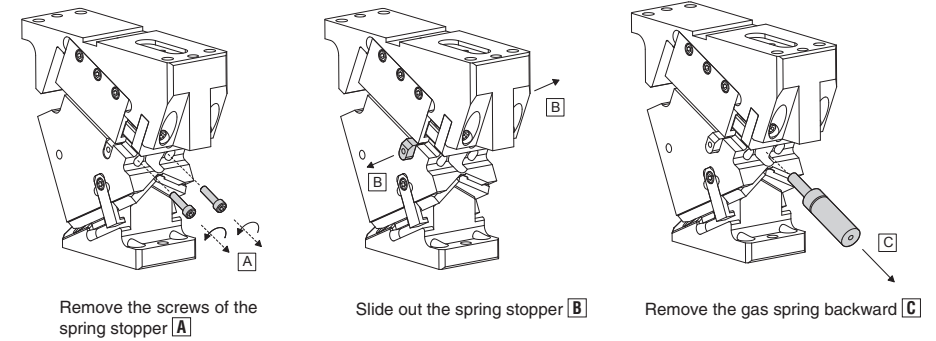
- 1) Remove Hexagon Socket Head Bolts (a), and remove Safety Plate (UCMSV165: 20,UCMSV200~400: 17).
- 2) Remove Hexagon Socket Head Bolts (b), and remove Stopper Plate (14).
- 3) Pull out and remove Cam Slider (21) from Cam Holder (5) to the rear.

● Assembly

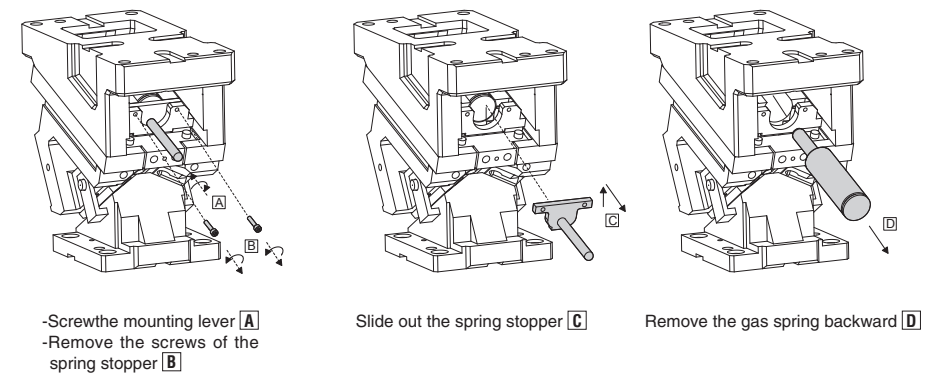
Assembly is the reverse procedure of disassembly.

- 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

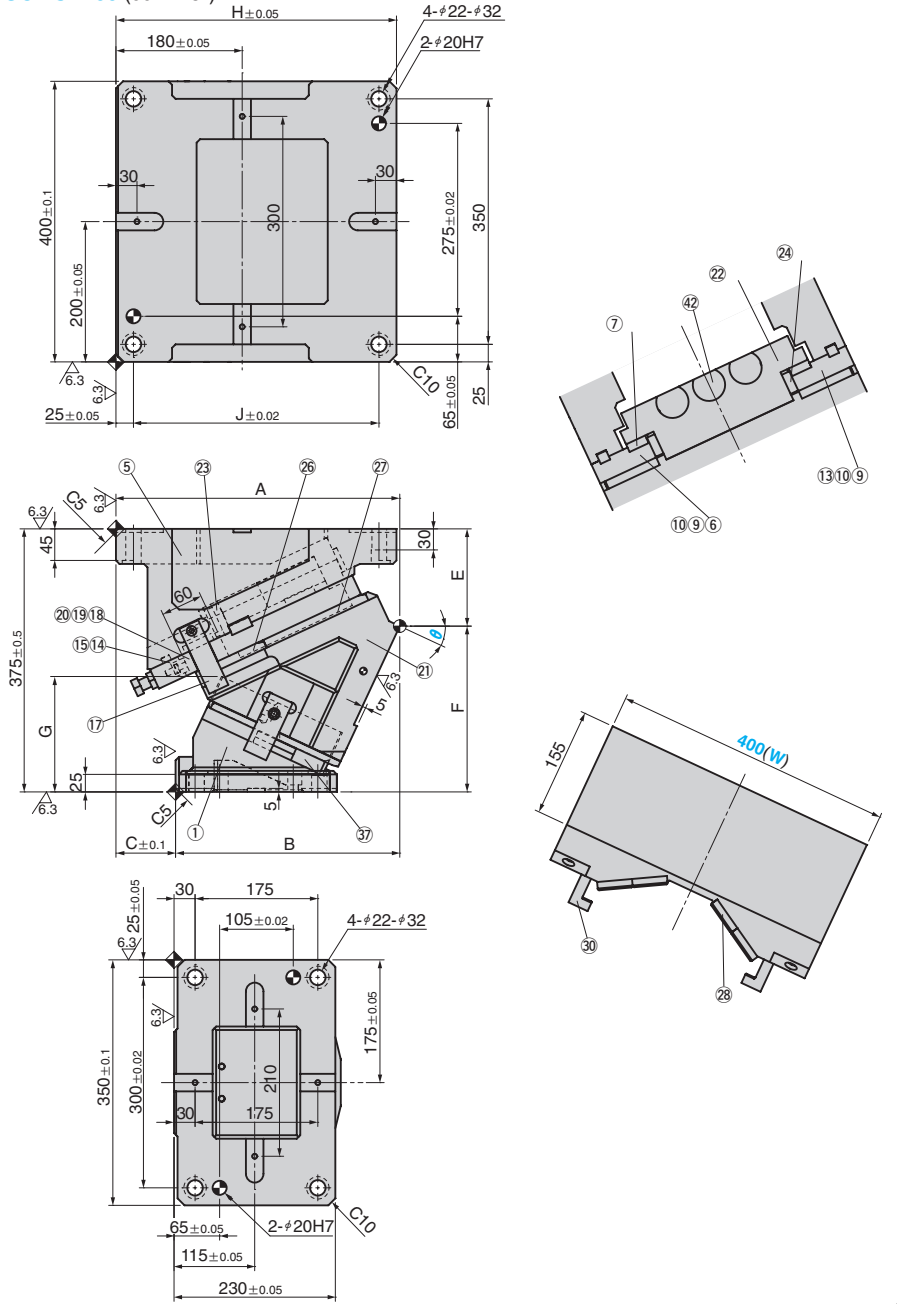


Aerial Cam Unit

VDI-BAK STANDARD

CAD FILE

UCMSV400 (00°~45°)



θ	Travel	A	B	C	E	F	G	H	J
00	38.6	395.00	237.00	158	88.00	287.00	116.0		
05	42.6	387.15	232.15	155	94.19	280.81	126.4		
10	46.7	394.13	249.13	145	106.86	268.14	133.0	390	340
15	50.9	395.82	260.82	135	118.01	256.99	142.1		
20	55.3	397.08	297.08	100	131.59	243.41	149.7		
25	60	404.71	319.71	85	138.65	236.35	1654.5		
30	65.1	408.22	343.22	65	146.89	228.11	178.7		
35	70.8	404.52	354.52	50	159.17	215.83	189.2	400	350
40	77.1	400.46	360.46	40	167.30	207.70	204.1		
45	84.5	394.84	374.84	20	179.24	195.76	215.2		

Working Force kN	Return Force N(kgf)	Catalog No.	(W)	θ	Spring Type PS
	44337 (4524.1)			00	
	44248 (4515.1)			05	
	44154 (4505.5)			10	
	44055 (4495.4)			15	GS
450	43951 (4484.8)	UCMSV	400	20	GK
	43844 (4473.9)			25	GD
	43734 (4462.6)			30	*NGP
	43621 (4451.2)			35	
	43508 (4439.6)			40	
	43395 (4428.0)			45	

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

Order - -

Spring Specification (Qty 3)

Spring Type PS	θ	Spring Force N(kgf)		Model
		Initial Force	Final Force	
GK			32325 (3298.5)	X750-080-TD (KALLER)
GD	00~45	-	31050 (3168.4)	U.0800.080.TO (DADCO)
GS			32963 (3363.6)	SFC.750.80 (SDT)

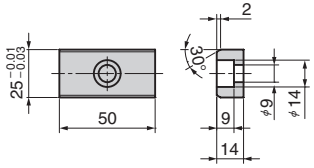


Code	Specification
K	Dedicated key is attached. (It is not assembled to the main unit)
NF	Nitrogen gas is not charged. Applicable to GK, GS and GD only.

Order

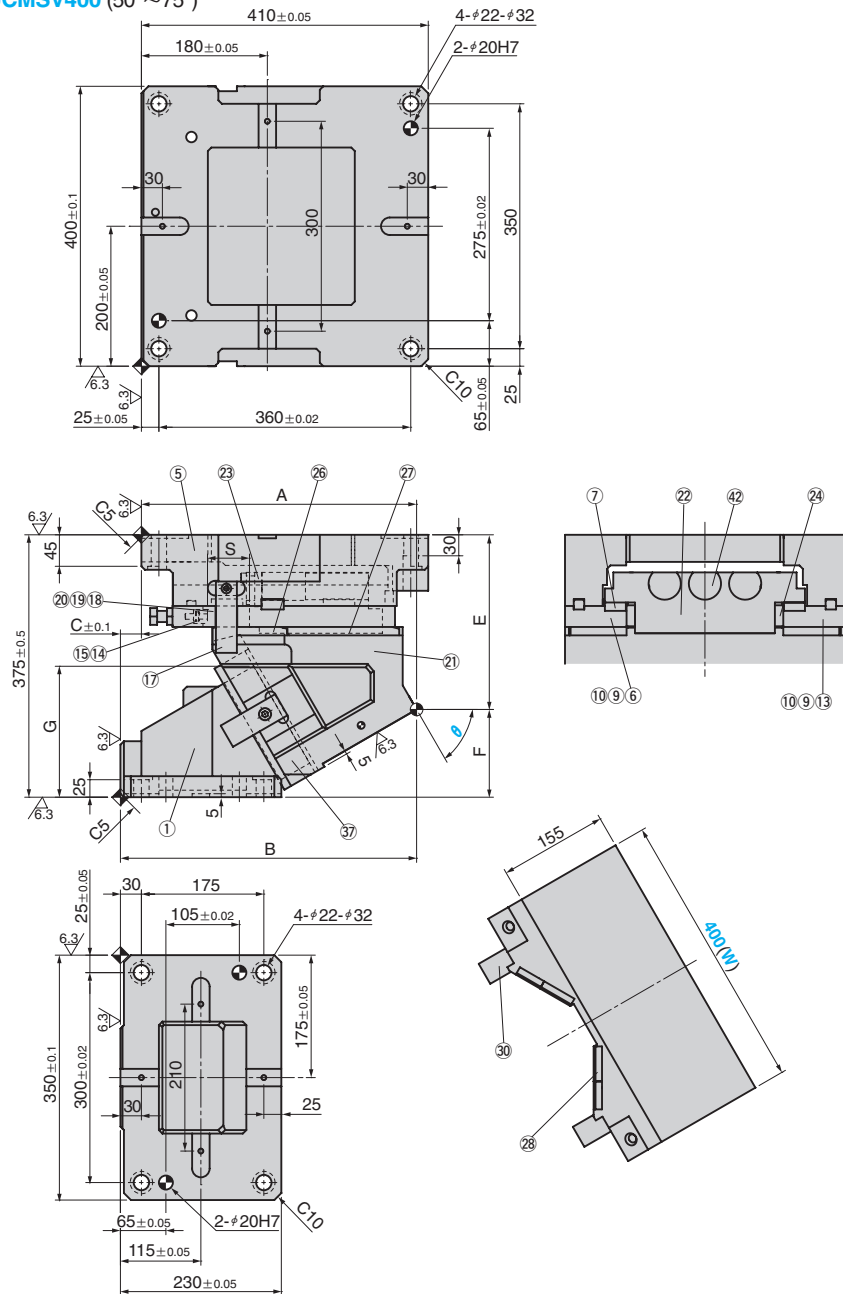
Key Specification

- Parts list is shown in p.1711
- Cam diagram is shown in p.1709
- NF : Gas Springs are not filled with nitrogen gas if delivery is by air freight.



(with M8×15 bolt)

UCMSV 400

UCMSV400 (50°~75°)


θ	Travel	A	B	C	E	F	G	S
50	93.3	393.35	391.35	2	196.04	178.96	198.3	
55	104.6	392.76	405.76	-13	221.83	153.17	193.5	60
60	120.0	393.35	423.35	-30	249.61	125.39	186.4	
65	94.6	387.48	435.48	-48	266.49	108.51	189.7	40
70	73.1	378.65	443.65	-65	281.99	93.01	193.8	
75	96.6	364.72	449.72	-85	296.88	78.12	197.7	25

Working Force kN	Return Force N(kgf)	Catalog No.	(W)	θ	Spring Type PS
450	43282 (4416.5)	UCMSV	400	50	
	47074 (4803.4)			55	GS
	52028 (5308.9)			60	GK
	55793 (5693.1)			65	GD
	60617 (6185.4)			70	*NGP
	72512 (7399.2)			75	

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

Order **Catalog No.** (W) - θ - PS
UCMSV 400 - 60 - GK

Spring Specification (Qty 3)

Spring Type PS	θ	Spring Force N(kgf)		Model
		Initial Force	Final Force	
GK	50~60		32325 (3298.5)	X750-080-TD (KALLER)
GD			31050 (3168.4)	U.0800.080.TO (DADCO)
GS			32963 (3363.6)	SFC.750.80 (SDT)
GK	65		30581 (3120.5)	X750-063-TD (KALLER)
GD			34080 (3477.6)	U.0800.063.TO (DADCO)
GS			31357 (3199.7)	SFC.750.63 (SDT)
GK	70~75		28800 (2938.8)	X750-050-TD (KALLER)
GD			28020 (2859.2)	U.0800.050.TO (DADCO)
GS			29475 (3007.7)	SFC.750.50 (SDT)

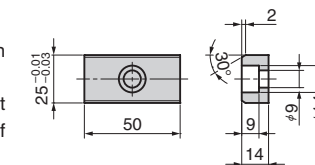
Option

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.

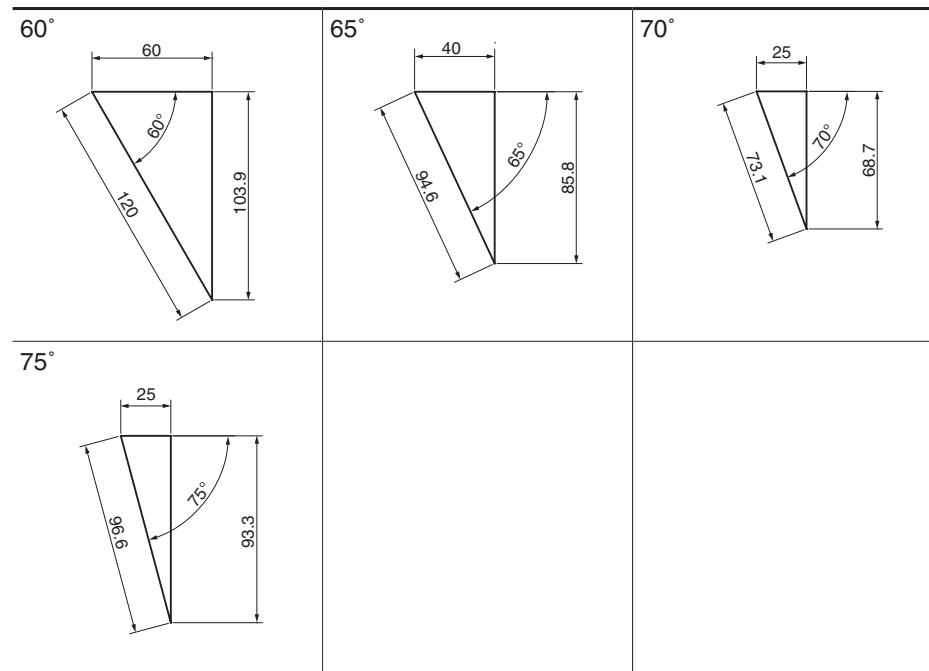
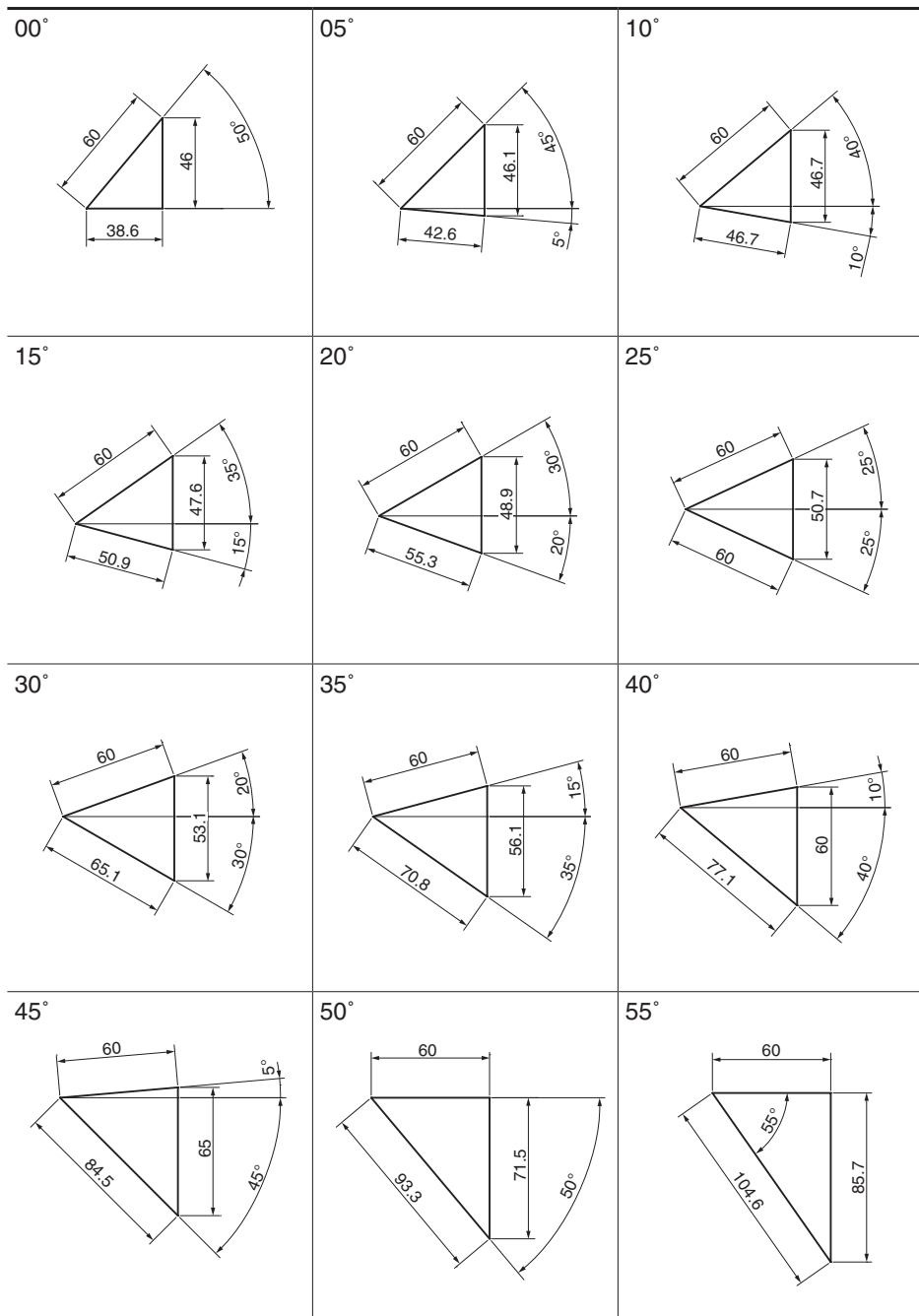
- Parts list is shown in p.1711
- Cam diagram is shown in p.1709
- NF : Gas Springs are not filled with nitrogen gas if delivery is by air freight.

Order **UCMSV400 - 60 - GK - NF**

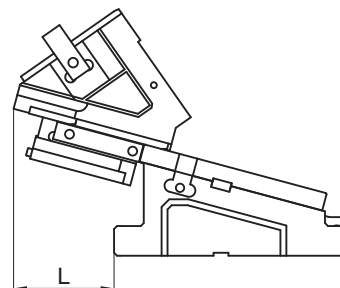
Key Specification



(with M8×15 bolt)



■ Rear Removal Space



θ	L
00	52
05	86
10	102
15	120
20	134
25	145
30	156
35	169
40	179
45	185
50	186
55	185
60	184
65	190
70	184
75	195

■ $\theta = 00^\circ \sim 75^\circ$

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	2	SS400
⑩	Key	4	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-31)	2	Bronze with Graphite
㉗	Slide Plate(VSM-34)	2	Bronze with Graphite
㉘	Slide Plate(VSM-25)	4	Bronze with Graphite
㉚	Positive Return Plate	2	S45C
㉛	Cam Slide Guide(Lower)	1	S45C
㉜	Gas Spring	3	Refer to the specification table

Bolts for assembly are not indicated.