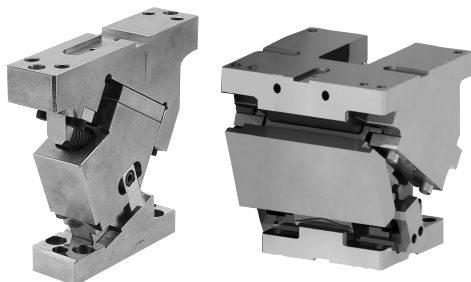


Aerial Cam Unit General Description of UCMSG

FOR PIERCE AND FLANGE



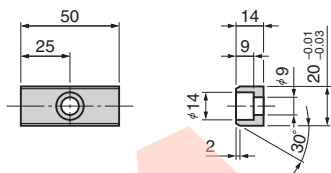
- Highly rigid structure with the overseas automobile manufacturer specification
- 50, 65, 80, 150, 200mm and 300mm are available for the mounting width.
- Angle 0° to 65° increments of 5° is available.
(For 65 mm wide, angle 20° to 60° is in increments of 10°).
- ISO springs are used.

Option for UCMSG

Metric Key Specification(-K)

UCMSG50/65

LKU20-50 (with 3-M8 × 15 bolts)

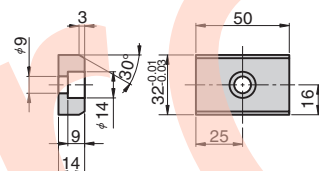


UCMSG80

LKU32-50 (with 3-M8 × 15 bolts)

UCMSG150/200/300

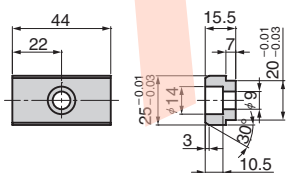
LKU32-50 (with 6-M8 × 15 bolts)



Metric Key Specification(-KA)

UCMSG50

LKA25-20-44 (with 3-M8 × 15 bolts)

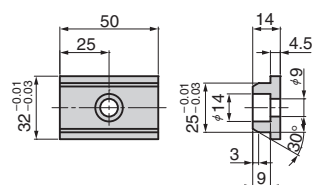


UCMSG80

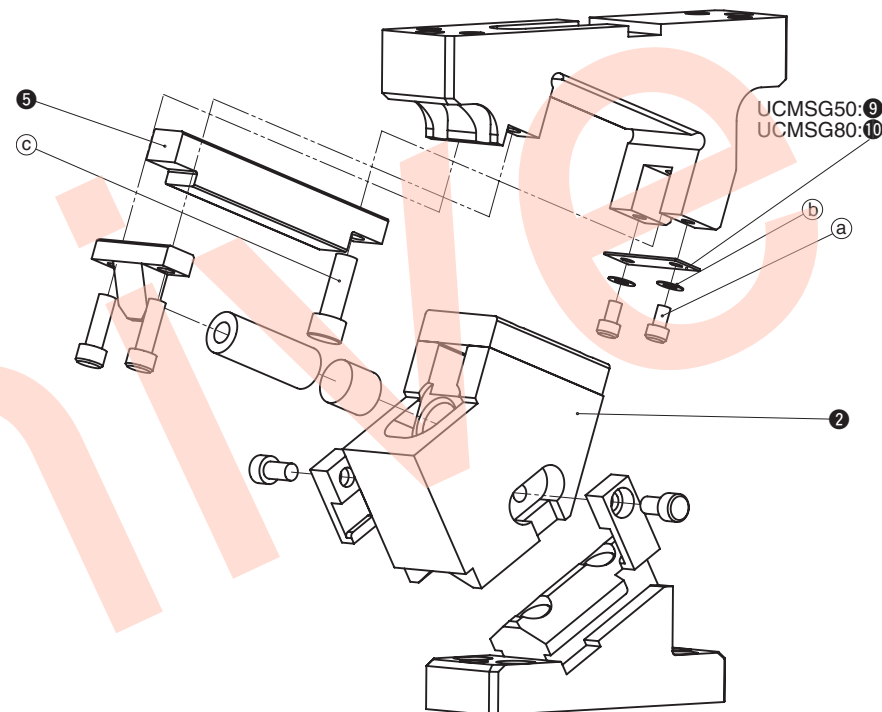
LKE25-32-50 (with 3-M8 × 15 bolts)

UCMSG150/200/300

LKE25-32-50 (with 6-M8 × 15 bolts)



UCMSG50 (UCMSG80) Structure and Assembly / Disassembly



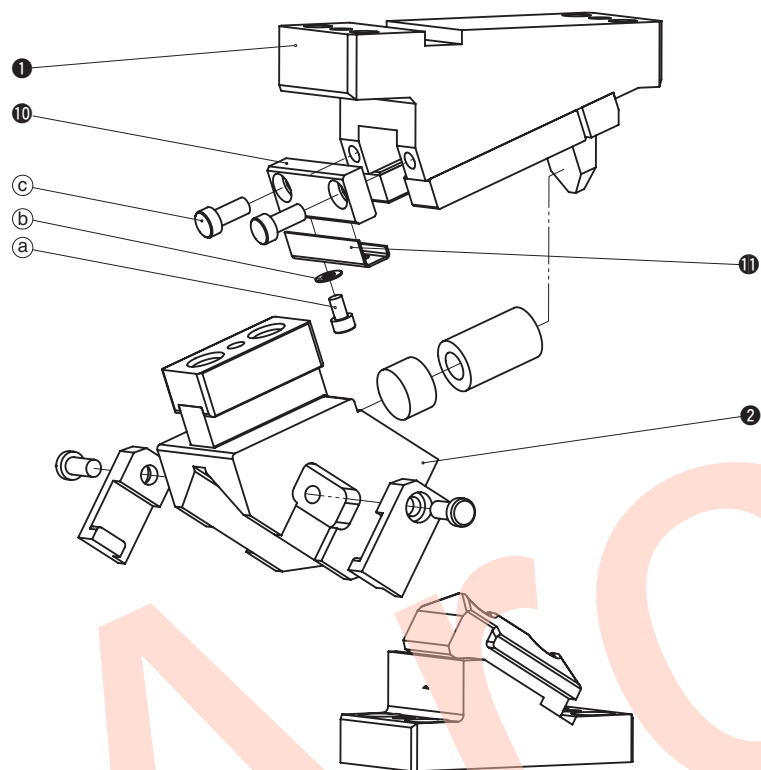
Disassembly method of UCMSG50 (same for UCMSG80)

- 1) Remove hexagon socket head bolt (a) and washer (b) and remove safety plate (UCMSG50: 9 UCMSG80: 10).
- 2) Remove hexagon socket head bolt (c).
- 3) Shift guide bar (5) to the back then remove cam slider (2) from cam holder.

Assembly method of UCMSG50 (same for UCMSG80)

- 1) Assemble components in the reverse order of disassembly.
 - Make sure that there is no foreign matter on the sliding area and assemble components.
 - The clearance between the guide bar/cam slider and the cam holder is controlled. Match the stamped serial number on the holder and slider before assembly.
 - When cam is disassembled and then reassembled, please do not forget to assemble all bolts provided

■UCMSG65 Structure and Assembly / Disassembly



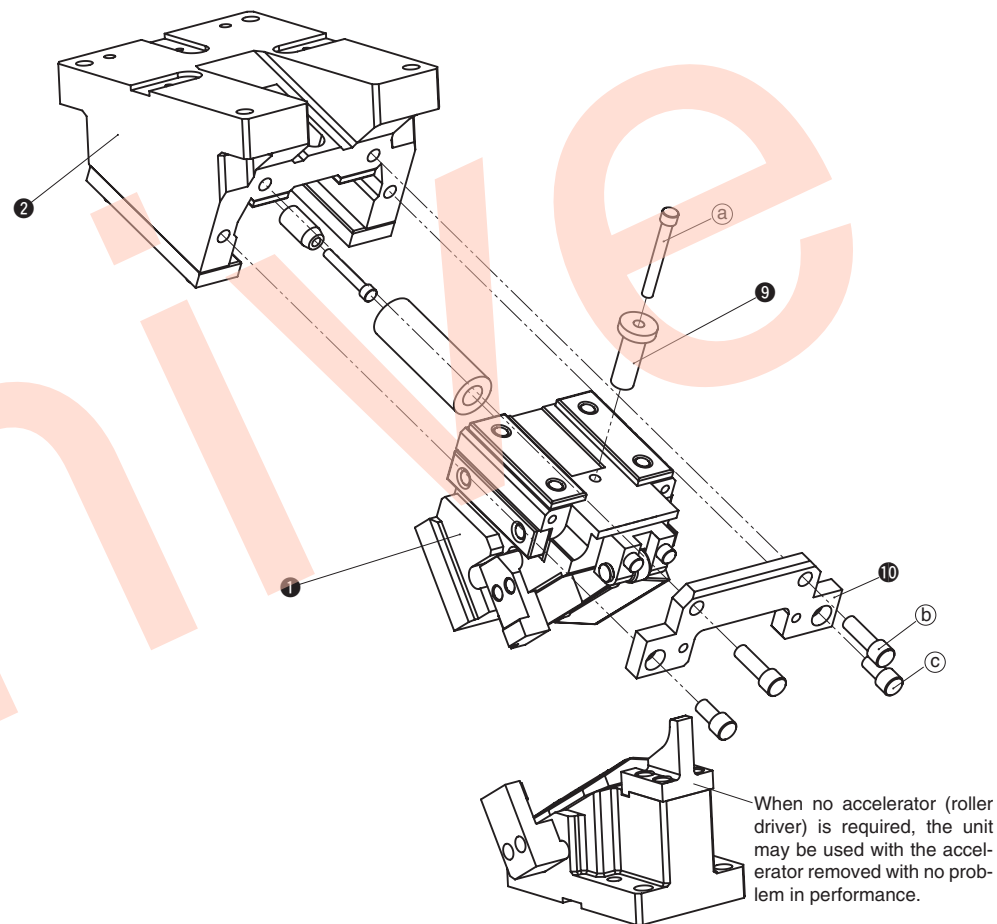
●Disassembly method of UCMSG65

- 1) Remove hexagon socket head bolt (a) and washer (b), and remove safety plate (11).
- 2) Loosen hexagon socket head bolt (c). Remove stopper plate (10).
- 3) Pull cam slider (1) from cam holder (2) to the rear.

●Assembly method of UCMSG65

- 1) Assemble components in the reverse order of disassembly.
 - Make sure that there is no foreign matter on the sliding area and assemble components.
 - The clearance between the guide bar/cam slider and the cam holder is controlled. Match the stamped serial number on the holder and slider before assembly.
 - When cam is disassembled and then reassembled, please do not forget to assemble all bolts provided

■UCMSG150, 200, 300 Structure and Assembly / Disassembly



●Disassembly method of UCMSG150, 200, 300

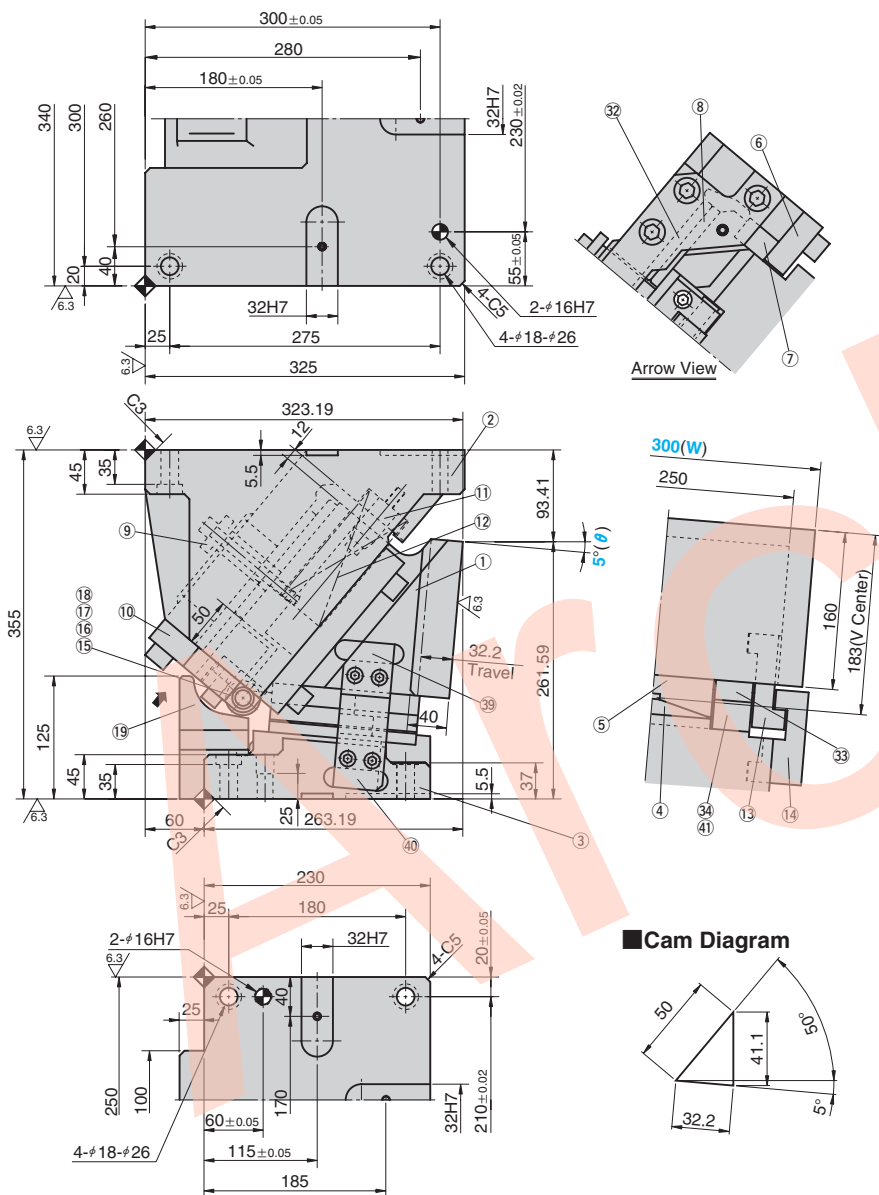
- 1) Loosen hexagon socket head bolt (a) and remove hanger bolt sleeve (9).
- 2) Loosen hexagon socket head bolt (b, c) and remove backup plate (10).
- 3) Pull cam slider (1) from cam holder (2) to the rear.

●Assembly method of UCMSG150, 200, 300

- 1) Assemble components in the reverse order of disassembly.
 - Make sure that there is no foreign matter on the sliding area and assemble components.
 - The clearance between the cam slider and the cam holder is controlled. Match the stamped serial number on the holder and slider before assembly.
 - When cam is disassembled and then reassembled, please do not forget to assemble all bolts provided

The diagram shows a right-angled triangle representing a roof section. The vertical side is labeled 40.9, the horizontal base is labeled 28.6, and the angle between the base and the hypotenuse is labeled 55°. A line segment of length 50 is shown extending from the top vertex of the triangle at an angle.

UCMSG300 - 05



Cam Diagram

Travel S	Working Force kN(tonf)		Spring Force N(kgf)		Return Force N(kgf)	Slider Weight kg	Total Weight kg	Catalog No.	(W)	(θ)
	Standard Working Force (one million strokes)	Allowable Working Force (300,000 strokes)	Initial Load	Final Load						
32.2	294.0 (30.0)	588.0 (60.0)	1724.8 (175.8)	14044.8 (1431.8)	20769 (2119.3)	66.0	181.0	UCMSG	300	05



Order

Catalog No. (W) - (θ)
UCMSG 300 - 05



Option

Option Code	Specification
K	Metric dedicated key is attached for both cam holder and driver. (It is not assembled to the main unit.)
KA	Metric dedicated key is attached for both cam holder and driver. (It is not assembled to the main unit.)

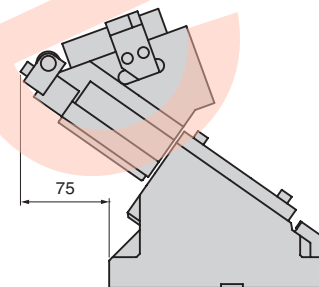


Order

UCMSG300 - 05 - K

For machining details or tapping hole and dowel hole (prepared hole and finished hole) for mounting of the retainer, refer to page 561. For detailed specification of the key, refer to page 1259.

Space for removing



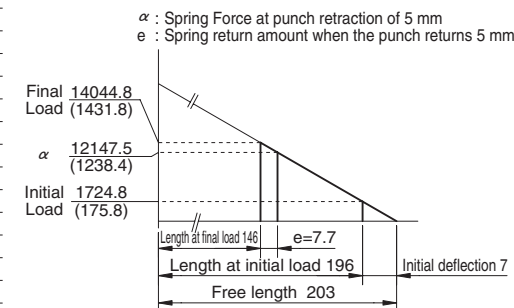
※ This assumes that the (9) Hanger Bolt Sleeve is removed.

Table of Components

No.	Description	Qty	Material and Remark
1	Cam Slider	1	FC250
2	Cam Holder	1	FC250
3	Cam Driver	1	FC250
4	Cam Slide Guide	1	S45C(1045)
5	Cam Slide Guide	1	Bronze with Graphite
6	Upper Plate	2	S45C(1045)
7	Cam Slide Plate	2	Bronze with Graphite
8	Lower Plate A	2	Bronze with Graphite
9	Hanger Bolt Sleeve	1	S45C(1045)
10	Stopper Plate	1	SS400(1020)
11	Spring Guide Pin	2	FC250
12	Coil Spring	2	TJH50-203
13	Driver for Positive Return A	1	Bronze with Graphite
14	Positive Return Follower A	1	S45C(1045)
15	Roller	1	S45C(1045)
16	Shaft	1	S45C(1045)
17	Roller Bracket	1	S45C(1045)
18	Bushing	1	SOB16-22-20
19	Roller Driver	1	S45C(1045)
32	Lower Plate B	4	S45C(1045)
33	Wear Plate	2	Bronze with Graphite
34	Slide Plate A	1	S45C(1045)
39	Driver for Positive Return B	1	Bronze with Graphite
40	Positive Return Follower B	1	S45C(1045)
41	Slide Plate B	1	S45C(1045)

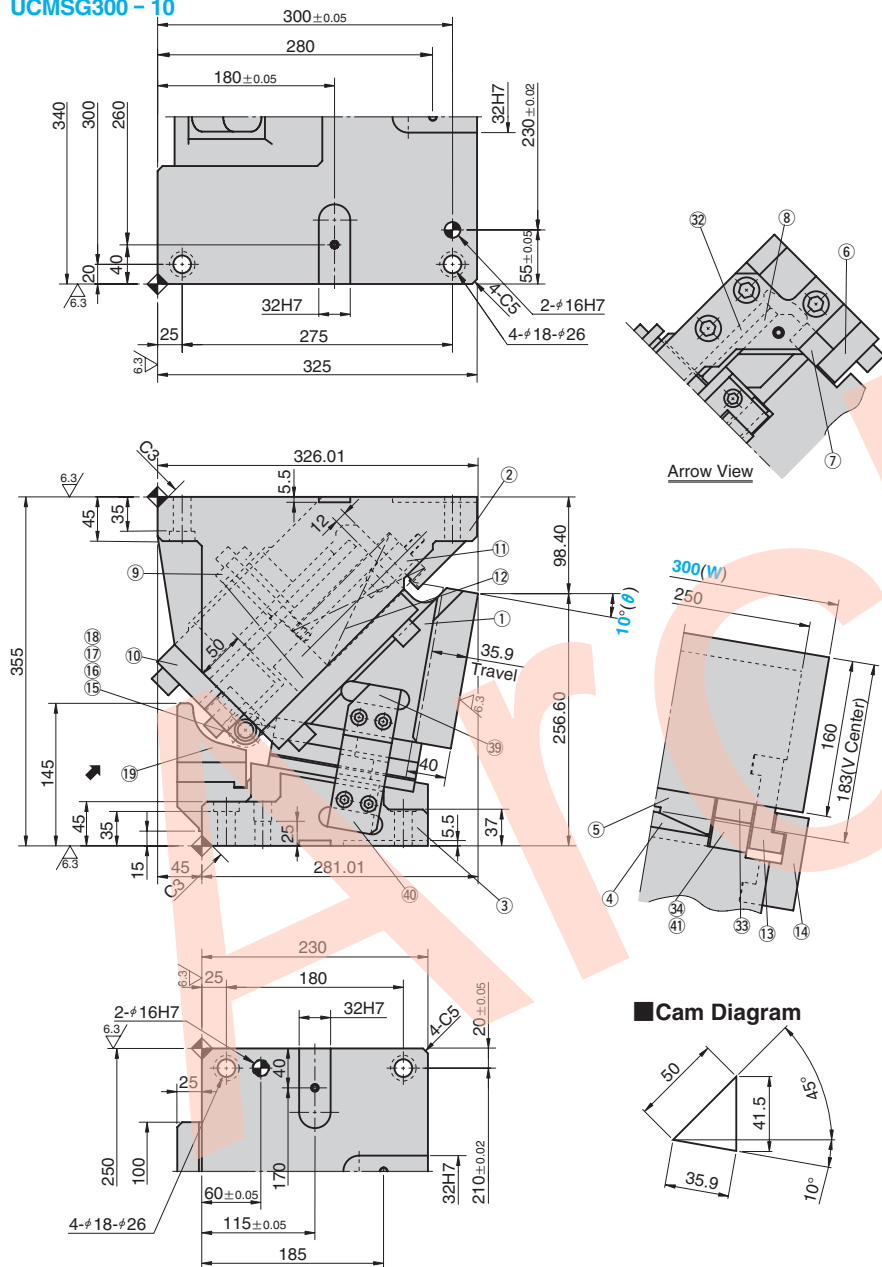
Spring Diagram

- Spring used TJH50-203 (2 piece)
- Spring constant 123.2N/mm(12.56kgf/mm)
- Guideline of spring durability 300,000 strokes



Bolts for assembly are not indicated.

UCMSG300 - 10



Travel S	Working Force kN(tonf)		Spring Force N(kgf)		Return Force N(kgf)	Slider Weight kg	Total Weight kg	Catalog No.	(W)	(θ)
	Standard Working Force (one million strokes)	Allowable Working Force (300,000 strokes)	Initial Load	Final Load						
35.9	294.0 (30.0)	588.0 (60.0)	1724.8 (175.8)	14044.8 (1431.8)	20706 (2112.8)	66.0	178.7	UCMSG	300	10



Order

Catalog No. (W) - (θ)
UCMSG 300 - 10



Option

Option Code	Specification
K	Metric dedicated key is attached for both cam holder and driver. (It is not assembled to the main unit.)
KA	Metric dedicated key is attached for both cam holder and driver. (It is not assembled to the main unit.)

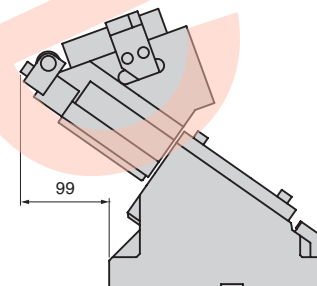


Order

UCMSG300 - 10 - K

For machining details or tapping hole and dowel hole (prepared hole and finished hole) for mounting of the retainer, refer to page 561. For detailed specification of the key, refer to page 1259.

Space for removing



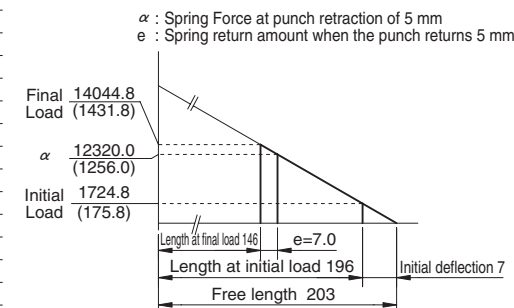
※ This assumes that the (9) Hanger Bolt Sleeve is removed.

Table of Components

No.	Description	Qty	Material and Remark
1	Cam Slider	1	FC250
2	Cam Holder	1	FC250
3	Cam Driver	1	FC250
4	Cam Slide Guide	1	S45C(1045)
5	Cam Slide Guide	1	Bronze with Graphite
6	Upper Plate	2	S45C(1045)
7	Cam Slide Plate	2	Bronze with Graphite
8	Lower Plate A	2	Bronze with Graphite
9	Hanger Bolt Sleeve	1	S45C(1045)
10	Stopper Plate	1	SS400(1020)
11	Spring Guide Pin	2	FC250
12	Coil Spring	2	TJH50-203
13	Driver for Positive Return A	1	Bronze with Graphite
14	Positive Return Follower A	1	S45C(1045)
15	Roller	1	S45C(1045)
16	Shaft	1	S45C(1045)
17	Roller Bracket	1	S45C(1045)
18	Bushing	1	SOB16-22-20
19	Roller Driver	1	S45C(1045)
32	Lower Plate B	4	S45C(1045)
33	Wear Plate	2	Bronze with Graphite
34	Slide Plate A	1	S45C(1045)
39	Driver for Positive Return B	1	Bronze with Graphite
40	Positive Return Follower B	1	S45C(1045)
41	Slide Plate B	1	S45C(1045)

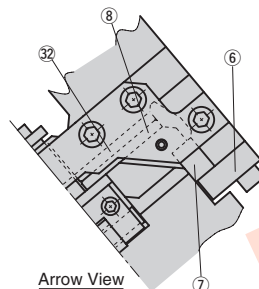
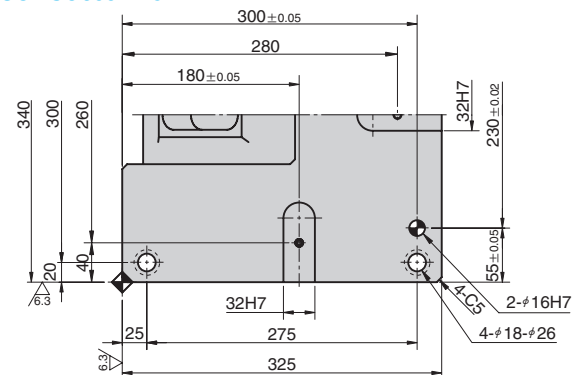
Spring Diagram

- Spring used TJH50-203 (2 piece)
- Spring constant 123.2N/mm(12.56kgf/mm)
- Guideline of spring durability 300,000 strokes

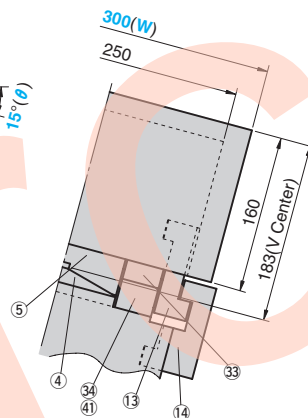
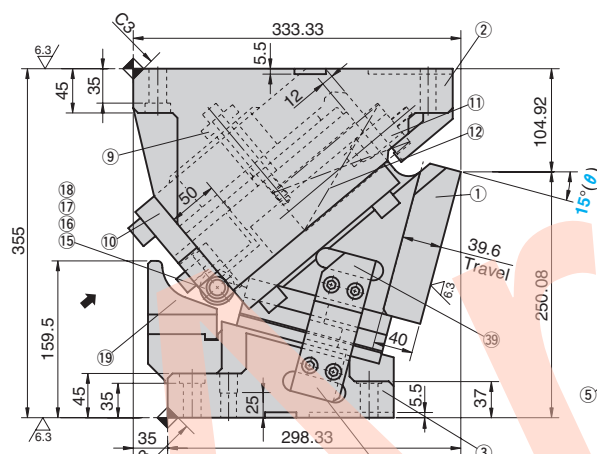


Bolts for assembly are not indicated.

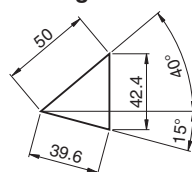
UCMSG300 - 15



Arrow View



Cam Diagram



Travel S	Working Force kN(tonf)		Spring Force N(kgf)		Return Force N(kgf)	Slider Weight kg	Total Weight kg	Catalog No.	(W)	(θ)
	Standard Working Force (one million strokes)	Allowable Working Force (300,000 strokes)	Initial Load	Final Load						
39.6	294.0 (30.0)	588.0 (60.0)	1724.8 (175.8)	14044.8 (1431.8)	20638 (2105.9)	66.0	177.3	UCMSG	300	15



Order

Catalog No.	(W)	—	(θ)
UCMSG	300	—	15



Option

Option Code	Specification
K	Metric dedicated key is attached for both cam holder and driver. (It is not assembled to the main unit.)
KA	Metric dedicated key is attached for both cam holder and driver. (It is not assembled to the main unit.)

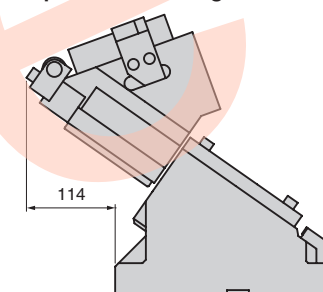


Order

UCMSG300 - 15 - K

For machining details or tapping hole and dowel hole (prepared hole and finished hole) for mounting of the retainer, refer to page 561. For detailed specification of the key, refer to page 1259.

Space for removing



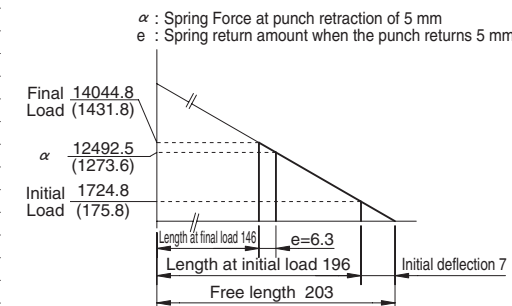
※ This assumes that the (9) Hanger Bolt Sleeve is removed.

Table of Components

No.	Description	Qty	Material and Remark
1	Cam Slider	1	FC250
2	Cam Holder	1	FC250
3	Cam Driver	1	FC250
4	Cam Slide Guide	1	S45C(1045)
5	Cam Slide Guide	1	Bronze with Graphite
6	Upper Plate	2	S45C(1045)
7	Cam Slide Plate	2	Bronze with Graphite
8	Lower Plate A	2	Bronze with Graphite
9	Hanger Bolt Sleeve	1	S45C(1045)
10	Stopper Plate	1	SS400(1020)
11	Spring Guide Pin	2	FC250
12	Coil Spring	2	TJH50-203
13	Driver for Positive Return A	1	Bronze with Graphite
14	Positive Return Follower A	1	S45C(1045)
15	Roller	1	S45C(1045)
16	Shaft	1	S45C(1045)
17	Roller Bracket	1	S45C(1045)
18	Bushing	1	SOB16-22-20
19	Roller Driver	1	S45C(1045)
32	Lower Plate B	4	S45C(1045)
33	Wear Plate	2	Bronze with Graphite
34	Slide Plate A	1	S45C(1045)
39	Driver for Positive Return B	1	Bronze with Graphite
40	Positive Return Follower B	1	S45C(1045)
41	Slide Plate B	1	S45C(1045)

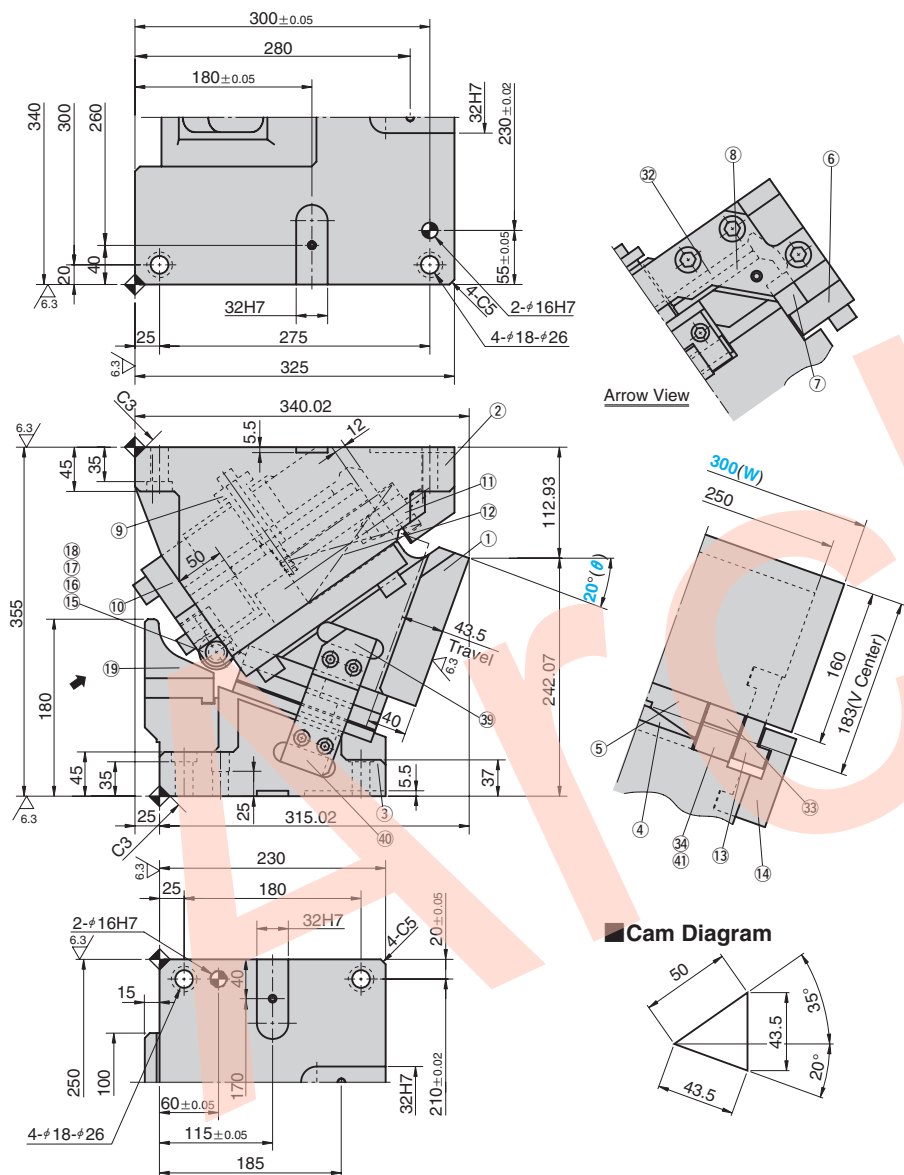
Spring Diagram

- Spring used TJH50-203 (2 piece)
- Spring constant 123.2N/mm(12.56kgf/mm)
- Guideline of spring durability 300,000 strokes



Bolts for assembly are not indicated.

UCMSG300 - 20



■ Cam Diagram

Travel S	Working Force kN(tonf)		Spring Force N(kgf)		Return Force N(kgf)	Slider Weight kg	Total Weight kg	Catalog No.	(W)	(θ)
	Standard Working Force (one million strokes)	Allowable Working Force (300,000 strokes)	Initial Load	Final Load						
43.5	294.0 (30.0)	588.0 (60.0)	1724.8 (175.8)	14044.8 (1431.8)	20566 (2098.6)	66.0	176.0	UCMSG	300	20



Order

Catalog No. (W) - (θ)
UCMSG 300 - 20



Option

Option Code	Specification
K	Metric dedicated key is attached for both cam holder and driver. (It is not assembled to the main unit.)
KA	Metric dedicated key is attached for both cam holder and driver. (It is not assembled to the main unit.)

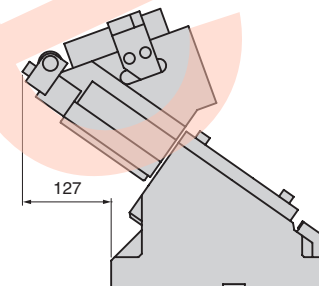


Order

UCMSG300 - 20 - K

For machining details or tapping hole and dowel hole (prepared hole and finished hole) for mounting of the retainer, refer to page 561. For detailed specification of the key, refer to page 1259.

■ Space for removing



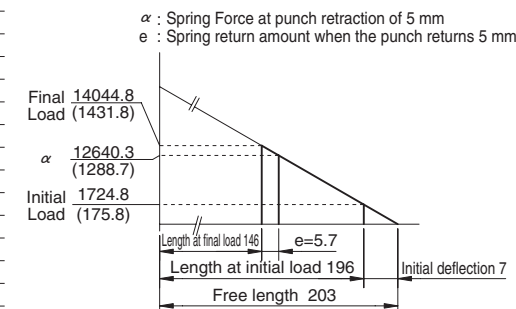
※ This assumes that the (9) Hanger Bolt Sleeve is removed.

■ Table of Components

No.	Description	Qty	Material and Remark
1	Cam Slider	1	FC250
2	Cam Holder	1	FC250
3	Cam Driver	1	FC250
4	Cam Slide Guide	1	S45C(1045)
5	Cam Slide Guide	1	Bronze with Graphite
6	Upper Plate	2	S45C(1045)
7	Cam Slide Plate	2	Bronze with Graphite
8	Lower Plate A	2	Bronze with Graphite
9	Hanger Bolt Sleeve	1	S45C(1045)
10	Stopper Plate	1	SS400(1020)
11	Spring Guide Pin	2	FC250
12	Coil Spring	2	TJH50-203
13	Driver for Positive Return A	1	Bronze with Graphite
14	Positive Return Follower A	1	S45C(1045)
15	Roller	1	S45C(1045)
16	Shaft	1	S45C(1045)
17	Roller Bracket	1	S45C(1045)
18	Bushing	1	SOB16-22-20
19	Roller Driver	1	S45C(1045)
32	Lower Plate B	4	S45C(1045)
33	Wear Plate	2	Bronze with Graphite
34	Slide Plate A	1	S45C(1045)
39	Driver for Positive Return B	1	Bronze with Graphite
40	Positive Return Follower B	1	S45C(1045)
41	Slide Plate B	1	S45C(1045)

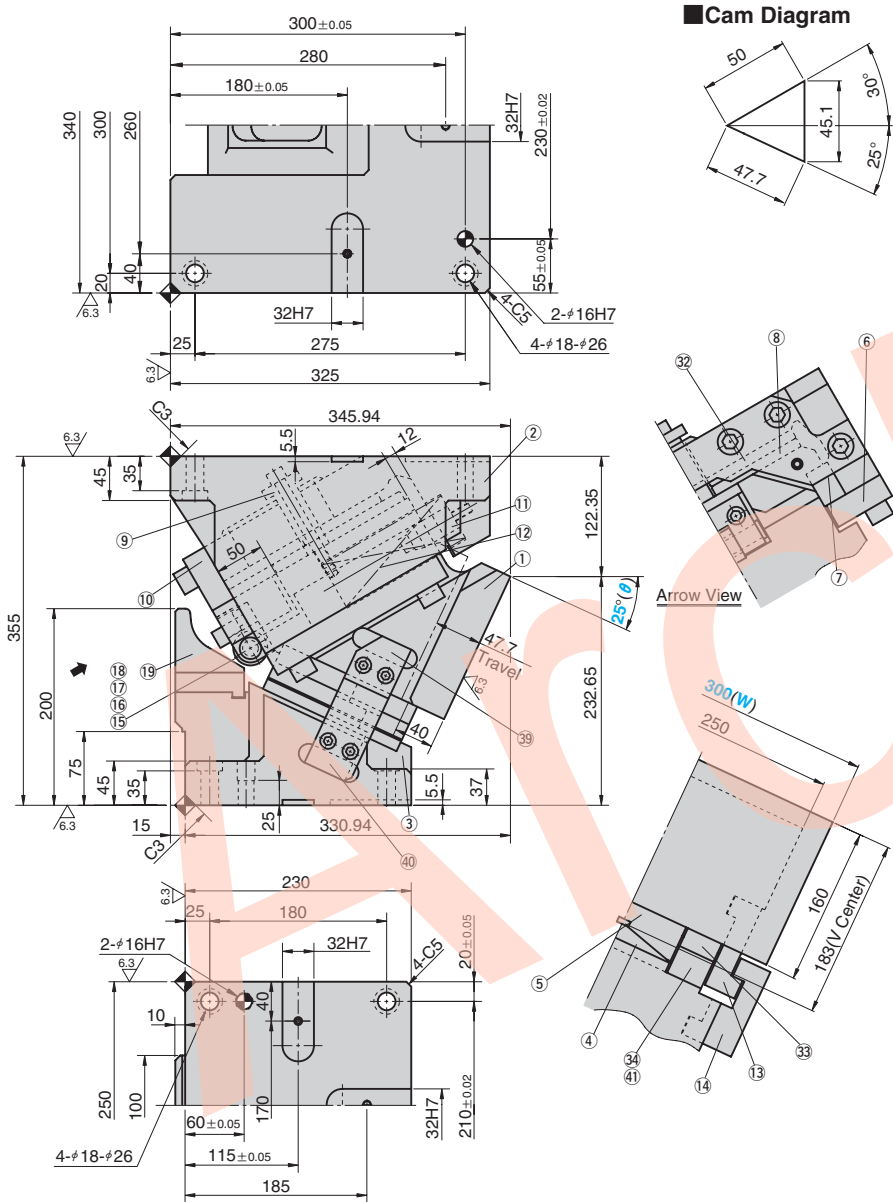
■ Spring Diagram

- Spring used TJH50-203 (2 piece)
- Spring constant 123.2N/mm(12.56kgf/mm)
- Guideline of spring durability 300,000 strokes

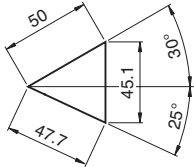


▲ Bolts for assembly are not indicated.

UCMSG300 - 25



Cam Diagram



Travel S	Working Force kN(tonf)		Spring Force N(kgf)		Return Force N(kgf)	Slider Weight kg	Total Weight kg	Catalog No.	(W)	(θ)
	Standard Working Force (one million strokes)	Allowable Working Force (300,000 strokes)	Initial Load	Final Load						
47.7	294.0 (30.0)	588.0 (60.0)	1724.8 (175.8)	14044.8 (1431.8)	20491 (2090.9)	66.0	174.9	UCMSG	300	25



Order

Catalog No. (W) - (θ)
UCMSG 300 - 25



Option

Option Code	Specification
K	Metric dedicated key is attached for both cam holder and driver. (It is not assembled to the main unit.)
KA	Metric dedicated key is attached for both cam holder and driver. (It is not assembled to the main unit.)

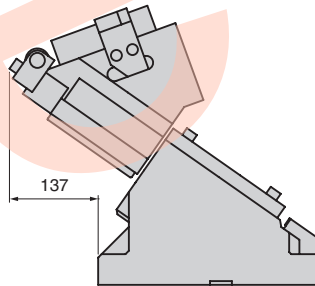


Order

UCMSG300 - 25 - K

For machining details or tapping hole and dowel hole (prepared hole and finished hole) for mounting of the retainer, refer to page 561. For detailed specification of the key, refer to page 1259.

Space for removing



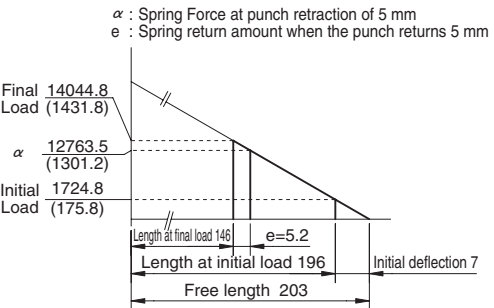
※ This assumes that the (9) Hanger Bolt Sleeve is removed.

Table of Components

No.	Description	Qty	Material and Remark
1	Cam Slider	1	FC250
2	Cam Holder	1	FC250
3	Cam Driver	1	FC250
4	Cam Slide Guide	1	S45C(1045)
5	Cam Slide Guide	1	Bronze with Graphite
6	Upper Plate	2	S45C(1045)
7	Cam Slide Plate	2	Bronze with Graphite
8	Lower Plate A	2	Bronze with Graphite
9	Hanger Bolt Sleeve	1	S45C(1045)
10	Stopper Plate	1	SS400(1020)
11	Spring Guide Pin	2	FC250
12	Coil Spring	2	TJH50-203
13	Driver for Positive Return A	1	Bronze with Graphite
14	Positive Return Follower A	1	S45C(1045)
15	Roller	1	S45C(1045)
16	Shaft	1	S45C(1045)
17	Roller Bracket	1	S45C(1045)
18	Bushing	1	SOB16-22-20
19	Roller Driver	1	S45C(1045)
32	Lower Plate B	4	S45C(1045)
33	Wear Plate	2	Bronze with Graphite
34	Slide Plate A	1	S45C(1045)
39	Driver for Positive Return B	1	Bronze with Graphite
40	Positive Return Follower B	1	S45C(1045)
41	Slide Plate B	1	S45C(1045)

Spring Diagram

- Spring used TJH50-203 (2 piece)
- Spring constant 123.2N/mm(12.56kgf/mm)
- Guideline of spring durability 300,000 strokes



Bolts for assembly are not indicated.

300(W)

1410

Technical drawing of a rectangular plate with the following dimensions and callouts:

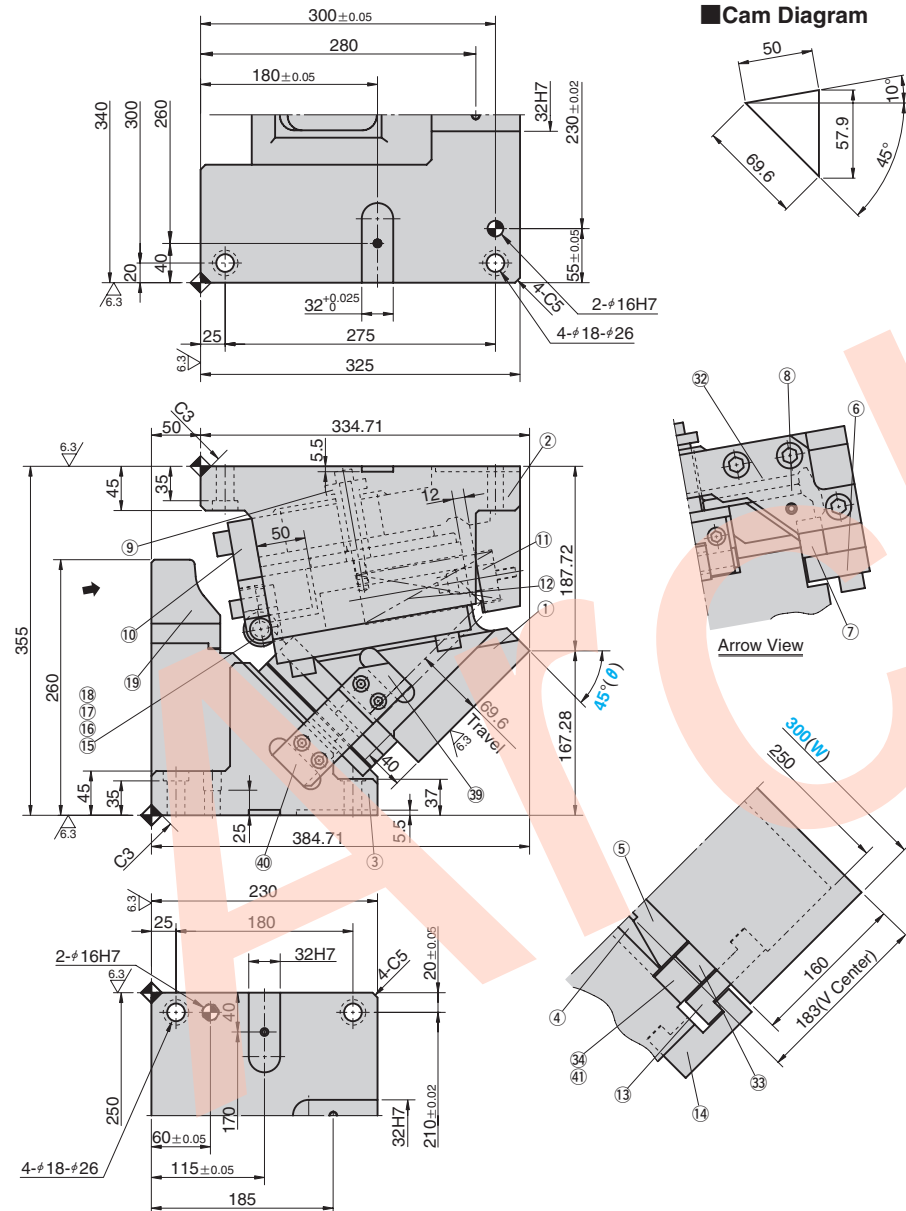
- Overall width: 300(W)
- Overall height: 194.81
- Top edge dimension: 250
- Bottom edge dimension: 160
- Bottom edge dimension: 183(V Center)
- Callouts: 5, 4, 34, 41, 13, 14, 33

※ This assumes that the (9) Hanger Bolt Sleeve is removed.

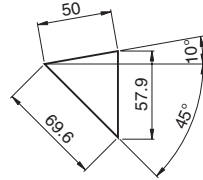
1412

1414

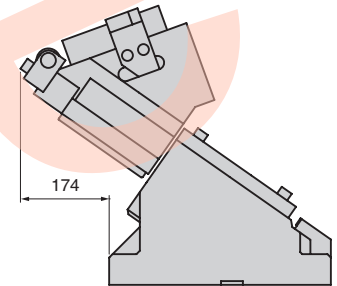
UCMSG300 – 45



■ Cam Diagram



■Space for removing



※ This assumes that the (9) Hanger Bolt Sleeve is removed.

Travel S	Working Force kN(tonf)		Spring Force N(kgf)		Return Force N(kgf)	Slider Weight kg	Total Weight kg	Catalog No.	(W)	(θ)
	Standard Working Force (one million strokes)	Allowable Working Force (300,000 strokes)	Initial Load	Final Load						
69.6	294.0 (30.0)	588.0 (60.0)	1724.8 (175.8)	14044.8 (1431.8)	20171 (2058.3)	66.0	184.5	UCMSG	300	45



Order

Catalog No.	(W)	—	(θ)
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UCMSG 300 – 45



Option

Specification

K	Metric dedicated key is attached for both cam holder and driver. (It is not assembled to the main unit.)
KA	Metric dedicated key is attached for both cam holder and driver. (It is not assembled to the main unit.)



C

UCMSG300 – 45 – K

For machining details or tapping hole and dowel hole (prepared hole and finished hole) for mounting of the retainer, refer to page 561. For detailed specification of the key, refer to page 1259.

■ Table of Components

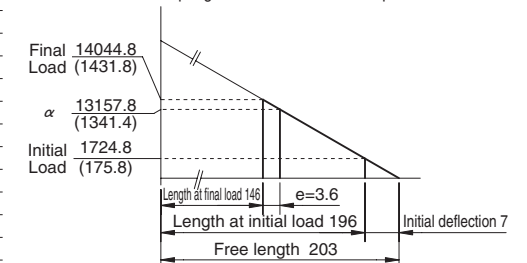
No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250
②	Cam Holder	1	FC250
③	Cam Driver	1	FC250
④	Cam Slide Guide	1	S45C(1045)
⑤	Cam Slide Guide	1	Bronze with Graphite
⑥	Upper Plate	2	S45C(1045)
⑦	Cam Slide Plate	2	Bronze with Graphite
⑧	Lower Plate A	2	Bronze with Graphite
⑨	Hanger Bolt Sleeve	1	S45C(1045)
⑩	Stopper Plate	1	SS400(1020)
⑪	Spring Guide Pin	2	FC250
⑫	Coil Spring	2	TJH50-203
⑬	Driver for Positive Return A	1	Bronze with Graphite
⑭	Positive Return Follower A	1	S45C(1045)
⑮	Roller	1	S45C(1045)
⑯	Shaft	1	S45C(1045)
⑰	Roller Bracket	1	S45C(1045)
⑱	Bushing	1	SOB16-22-20
⑲	Roller Driver	1	S45C(1045)
⑳	Lower Plate B	4	S45C(1045)
㉑	Wear Plate	2	Bronze with Graphite
㉒	Slide Plate A	1	S45C(1045)
㉓	Driver for Positive Return B	1	Bronze with Graphite
㉔	Positive Return Follower B	1	S45C(1045)
㉕	Slide Plate B	1	S45C(1045)

■ Spring Diagram

- Spring used TJH50-203 (2 piece)
- Spring constant 123.2N/mm(12.56kgf/mm)
- Guideline of spring durability 300,000 strokes

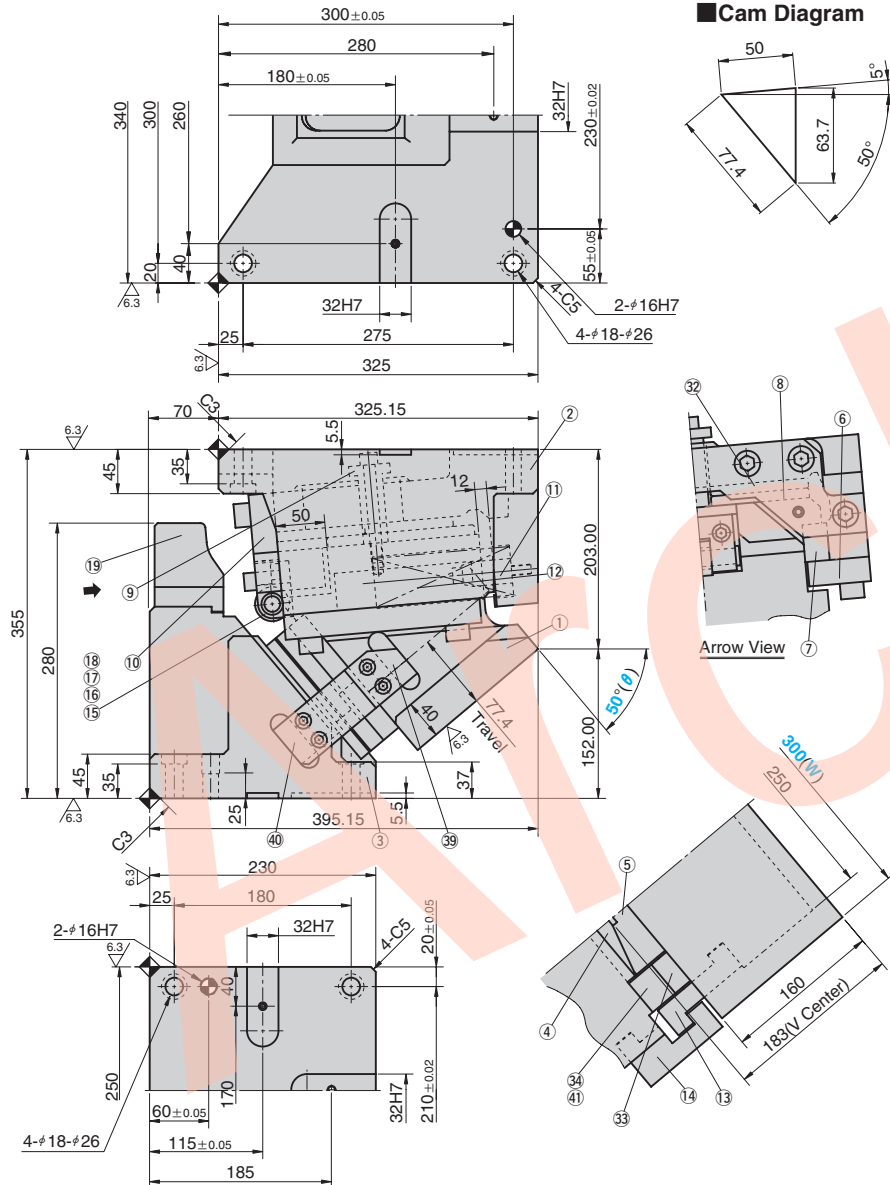
 α : Spring Force at punch retraction of 5 mm

e : Spring return amount when the punch returns 5 mm



 Bolts for assembly are not indicated.

UCMSG300 – 50



Travel S	Working Force kN(tonf)		Spring Force N(kgf)		Return Force N(kgf)	Slider Weight kg	Total Weight kg	Catalog No.	(W)	(θ)
	Standard Working Force (one million strokes)	Allowable Working Force (300,000 strokes)	Initial Load	Final Load						
77.4	294.0 (30.0)	588.0 (60.0)	1724.8 (175.8)	14044.8 (1431.8)	20090 (2050.0)	66.0	188.1	UCMSG	300	50



Order

Catalog No.	(W)	—	(θ)
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UCMSG 300 – 50



Option

Option	Specification
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K

Metric dedicated key is attached for both cam holder and driver. (It is not assembled to the main unit.)

K

Metric dedicated key is attached for both cam holder and driver. (It is not assembled to the main unit.)

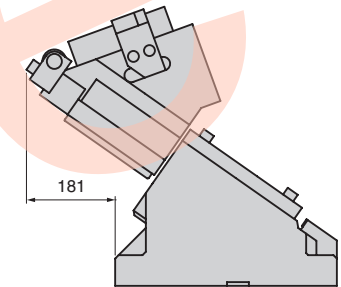


On

UCMSG300 – 50 – K

For machining details or tapping hole and dowel hole (prepared hole and finished hole) for mounting of the retainer, refer to page 561. For detailed specification of the key, refer to page 1259.

■Space for removing



※ This assumes that the (9) Hanger Bolt Sleeve is removed.

■ Table of Components

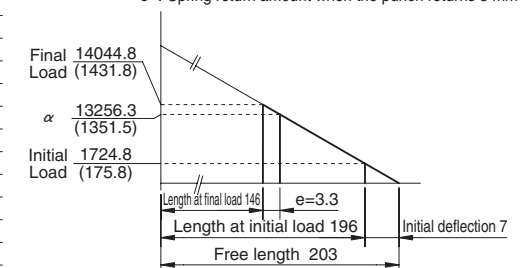
No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250
②	Cam Holder	1	FC250
③	Cam Driver	1	FC250
④	Cam Slide Guide	1	S45C(1045)
⑤	Cam Slide Guide	1	Bronze with Graphite
⑥	Upper Plate	2	S45C(1045)
⑦	Cam Slide Plate	2	Bronze with Graphite
⑧	Lower Plate A	2	Bronze with Graphite
⑨	Hanger Bolt Sleeve	1	S45C(1045)
⑩	Stopper Plate	1	SS400(1020)
⑪	Spring Guide Pin	2	FC250
⑫	Coil Spring	2	TJH50-203
⑬	Driver for Positive Return A	1	Bronze with Graphite
⑭	Positive Return Follower A	1	S45C(1045)
⑮	Roller	1	S45C(1045)
⑯	Shaft	1	S45C(1045)
⑰	Roller Bracket	1	S45C(1045)
⑱	Bushing	1	SOB16-22-20
⑲	Roller Driver	1	S45C(1045)
㉓	Lower Plate B	4	S45C(1045)
㉔	Wear Plate	2	Bronze with Graphite
㉕	Slide Plate A	1	S45C(1045)
㉙	Driver for Positive Return B	1	Bronze with Graphite
㉚	Positive Return Follower B	1	S45C(1045)
㉛	Slide Plate B	1	S45C(1045)


■ Spring Diagram

- Spring used TJH50-203 (2 piece)
- Spring constant 123.2N/mm(12.56kgf/mm)
- Guideline of spring durability 300,000 strokes

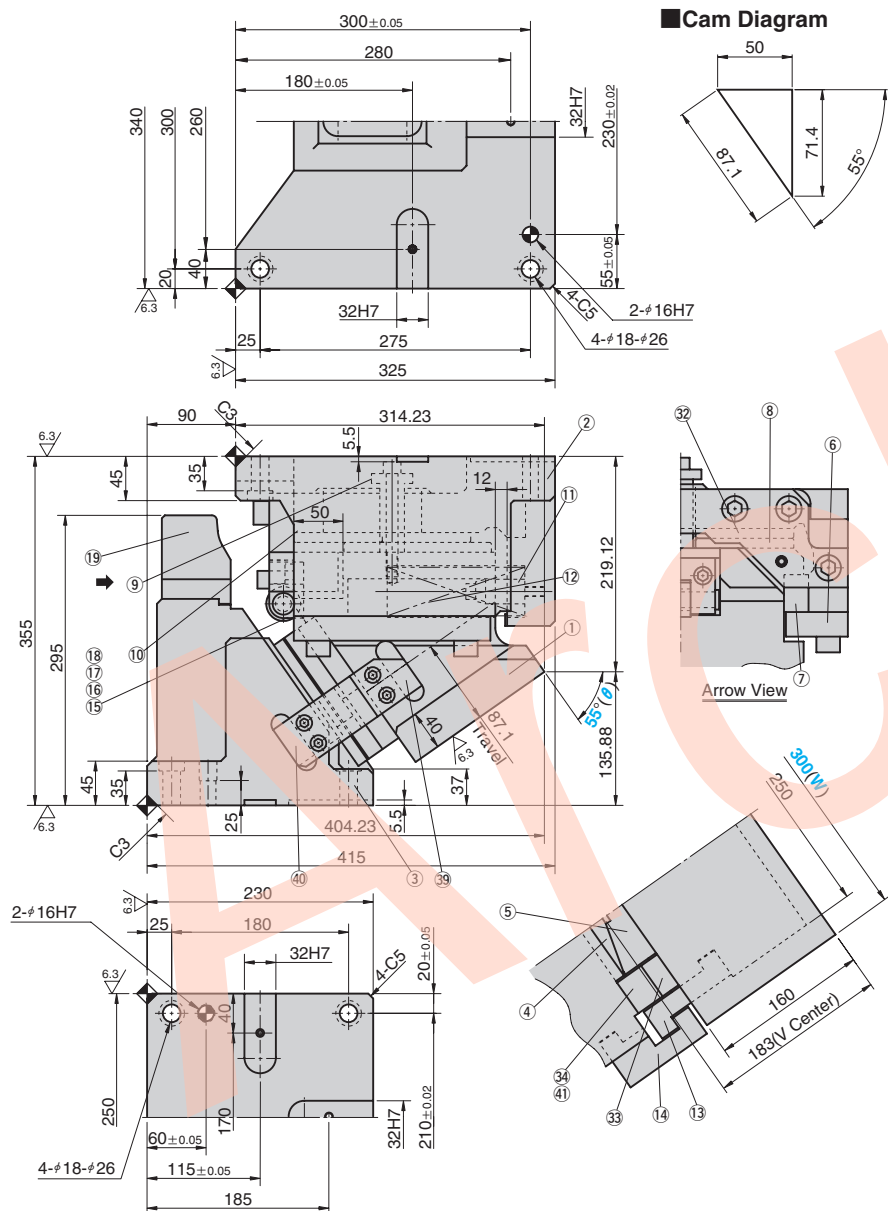
α : Spring Force at punch retraction of 5 mm

e : Spring return amount when the punch returns 5 mm

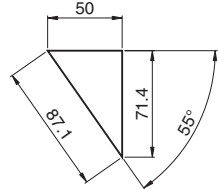


 Bolts for assembly are not indicated.

UCMSG300 - 55



■ Cam Diagram



Arrow View

Travel S	Working Force kN(tonf)		Spring Force N(kgf)		Return Force N(kgf)	Slider Weight kg	Total Weight kg	Catalog No.	(W)	(θ)
	Standard Working Force (one million strokes)	Allowable Working Force (300,000 strokes)	Initial Load	Final Load						
87.1	294.0 (30.0)	588.0 (60.0)	1724.8 (175.8)	14044.8 (1431.8)	20008 (2041.6)	66.0	193.4	UCMSG	300	55



Order

Catalog No. **UCMSG** (W) **300** - (θ) **55**



Option

Option Code	Specification
K	Metric dedicated key is attached for both cam holder and driver. (It is not assembled to the main unit.)
KA	Metric dedicated key is attached for both cam holder and driver. (It is not assembled to the main unit.)

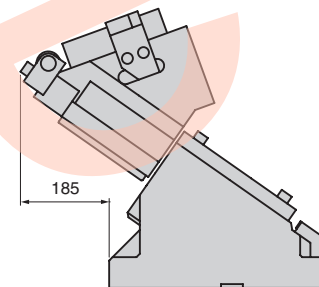


Order

UCMSG300 - 55 - K

For machining details or tapping hole and dowel hole (prepared hole and finished hole) for mounting of the retainer, refer to page 561. For detailed specification of the key, refer to page 1259.

■ Space for removing



※ This assumes that the (9) Hanger Bolt Sleeve is removed.

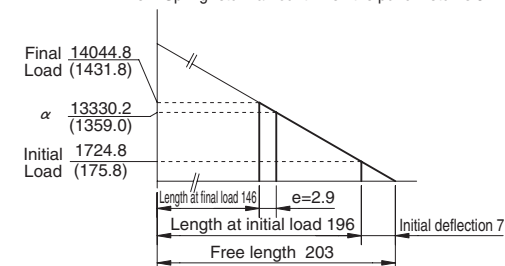
■ Table of Components

No.	Description	Qty	Material and Remark
1	Cam Slider	1	FC250
2	Cam Holder	1	FC250
3	Cam Driver	1	FC250
4	Cam Slide Guide	1	S45C(1045)
5	Cam Slide Guide	1	Bronze with Graphite
6	Upper Plate	2	S45C(1045)
7	Cam Slide Plate	2	Bronze with Graphite
8	Lower Plate A	2	Bronze with Graphite
9	Hanger Bolt Sleeve	1	S45C(1045)
10	Stopper Plate	1	SS400(1020)
11	Spring Guide Pin	2	FC250
12	Coil Spring	2	TJH50-203
13	Driver for Positive Return A	1	Bronze with Graphite
14	Positive Return Follower A	1	S45C(1045)
15	Roller	1	S45C(1045)
16	Shaft	1	S45C(1045)
17	Roller Bracket	1	S45C(1045)
18	Bushing	1	SOB16-22-20
19	Roller Driver	1	S45C(1045)
32	Lower Plate B	4	S45C(1045)
33	Wear Plate	2	Bronze with Graphite
34	Slide Plate A	1	S45C(1045)
39	Driver for Positive Return B	1	Bronze with Graphite
40	Positive Return Follower B	1	S45C(1045)
41	Slide Plate B	1	S45C(1045)

■ Spring Diagram

- Spring used TJH50-203 (2 piece)
- Spring constant 123.2N/mm(12.56kgf/mm)
- Guideline of spring durability 300,000 strokes

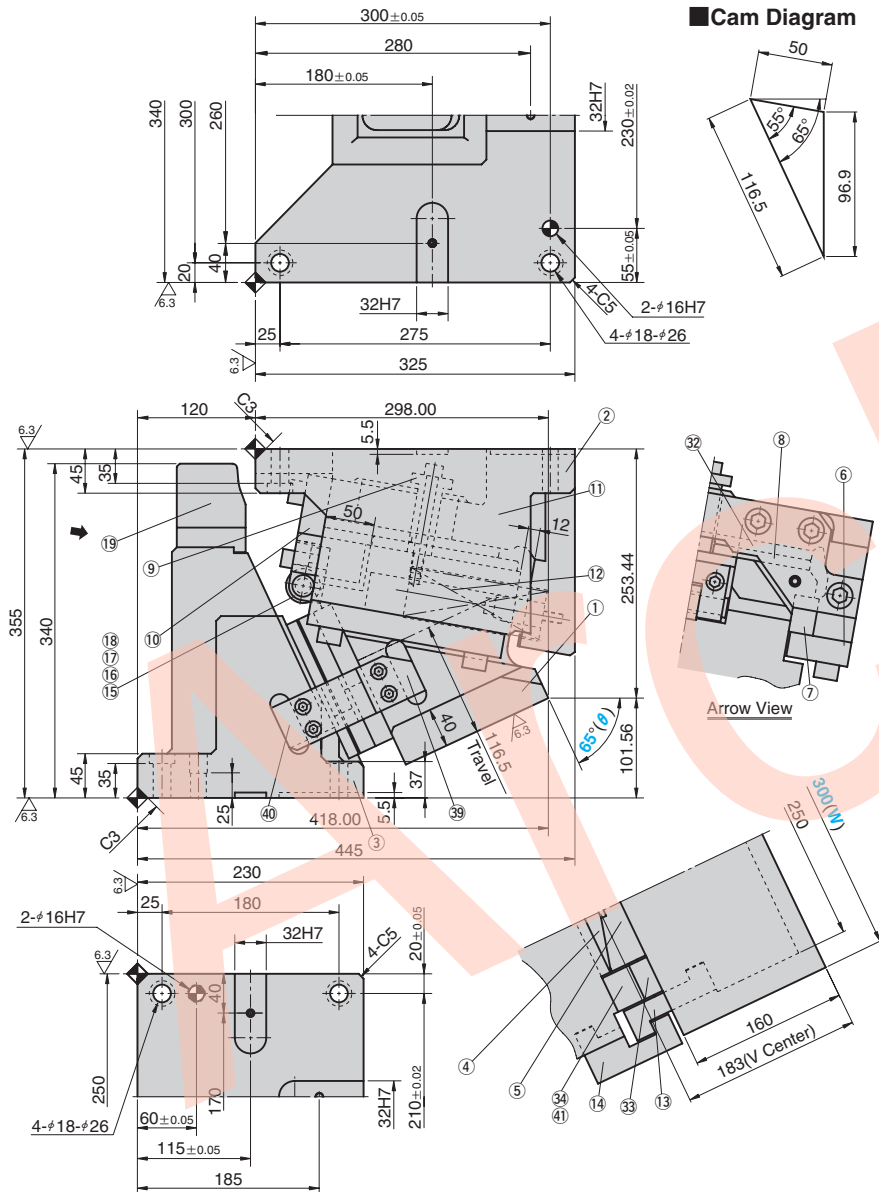
α : Spring Force at punch retraction of 5 mm
e : Spring return amount when the punch returns 5 mm



Bolts for assembly are not indicated.

1422

UCMSG300 – 65



Travel S	Working Force kN(tonf)		Spring Force N(kgf)		Return Force N(kgf)	Slider Weight kg	Total Weight kg	Catalog No.	(W)	(θ)
	Standard Working Force (one million strokes)	Allowable Working Force (300,000 strokes)	Initial Load	Final Load						
116.5	294.0 (30.0)	588.0 (60.0)	1724.8 (175.8)	14044.8 (1431.8)	19849 (2025.4)	66.0	202.9	UCMSG	300	65



Order

Catalog No.	(W)	—	(θ)
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UCMSG 300 – 65



Options

Specification

K	Metric dedicated key is attached for both cam holder and driver. (It is not assembled to the main unit.)
KA	Metric dedicated key is attached for both cam holder and driver. (It is not assembled to the main unit.)

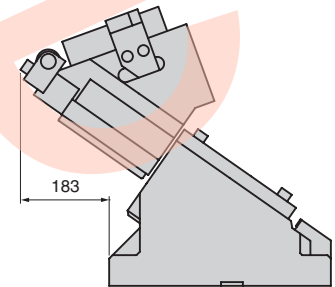


On

UCMSG300 – 65 – K

For machining details or tapping hole and dowel hole (prepared hole and finished hole) for mounting of the retainer, refer to page 561. For detailed specification of the key, refer to page 1259.

■Space for removing



※ This assumes that the (9) Hanger Bolt Sleeve is removed.

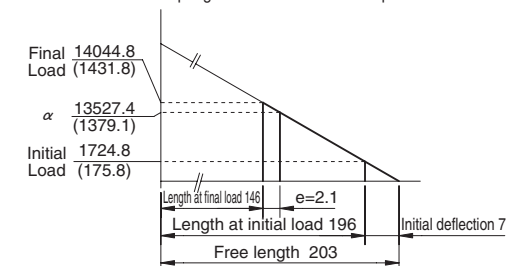
■ Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250
②	Cam Holder	1	FC250
③	Cam Driver	1	FC250
④	Cam Slide Guide	1	S45C(1045)
⑤	Cam Slide Guide	1	Bronze with Graphite
⑥	Upper Plate	2	S45C(1045)
⑦	Cam Slide Plate	2	Bronze with Graphite
⑧	Lower Plate A	2	Bronze with Graphite
⑨	Hanger Bolt Sleeve	1	S45C(1045)
⑩	Stopper Plate	1	SS400(1020)
⑪	Spring Guide Pin	2	FC250
⑫	Coil Spring	2	TJH50-203
⑬	Driver for Positive Return A	1	Bronze with Graphite
⑭	Positive Return Follower A	1	S45C(1045)
⑮	Roller	1	S45C(1045)
⑯	Shaft	1	S45C(1045)
⑰	Roller Bracket	1	S45C(1045)
⑱	Bushing	1	SOB16-22-20
⑲	Roller Driver	1	S45C(1045)
⑳	Lower Plate B	4	S45C(1045)
㉑	Wear Plate	2	Bronze with Graphite
㉒	Slide Plate A	1	S45C(1045)
㉓	Driver for Positive Return B	1	Bronze with Graphite
㉔	Positive Return Follower B	1	S45C(1045)
㉕	Slide Plate B	1	S45C(1045)

■ Spring Diagram

- Spring used TJH50-203 (2 piece)
- Spring constant 123.2N/mm(12.56kgf/mm)
- Guideline of spring durability 300,000 strokes

α : Spring Force at punch retraction of 5 mm
e : Spring return amount when the punch returns 5 mm



 Bolts for assembly are not indicated.