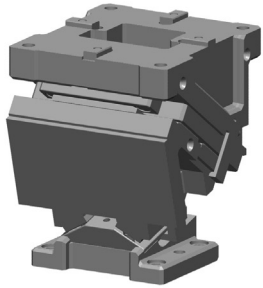


Aerial Cam Unit General Description of UCMSNR

NAAMS STANDARD



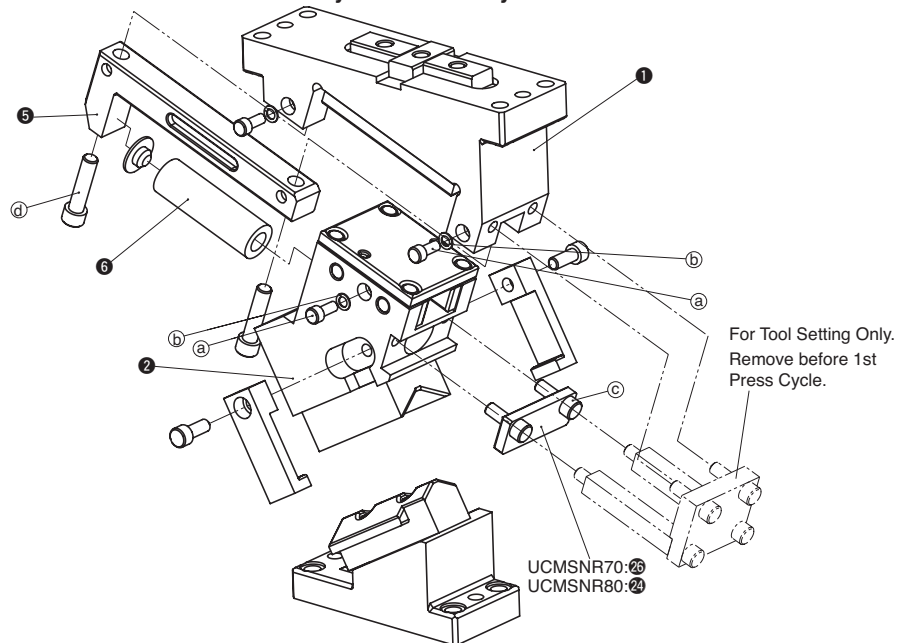
- Mounting surface widths 70, 80, 165, 200, 300, and 400 mm.
- Working angles from 0° to 60° in 5° increments.
- Easier adjustment of Slide Lock for the mounting surface width 165 mm or more.
- High-rigid structure with the material S45C.
- NAAMS Standard adapted.

▲ 65°/ 70°/ 75° upon request.

▲ **Gas Spring**

Please contact your local sales representative, if you prefer to use a gas spring not specified in our catalog. For use and maintenance of gas spring, please contact the manufacturer directly.

UCMSNR 70 and 80 Assembly / Dis-assembly



Disassembling UCMSNR 70 and 80

- 1) Remove Hexagon Socket Head Bolt (a) and Coned Disc Spring (b).
- 2) Loosen Hexagon Socket Head Bolt (c), and remove Spring Stopper Plate (UCMSNR70: ⑥ UCMSNR80: ②). Pull out Spring (⑥).
- 3) Loosen Hexagon Socket Bolt (d), and remove Guide Bar (⑤) and Cam Slider (②) from Cam Holder (①).
- 4) Pull up to remove Guide Bar from Cam Slider.

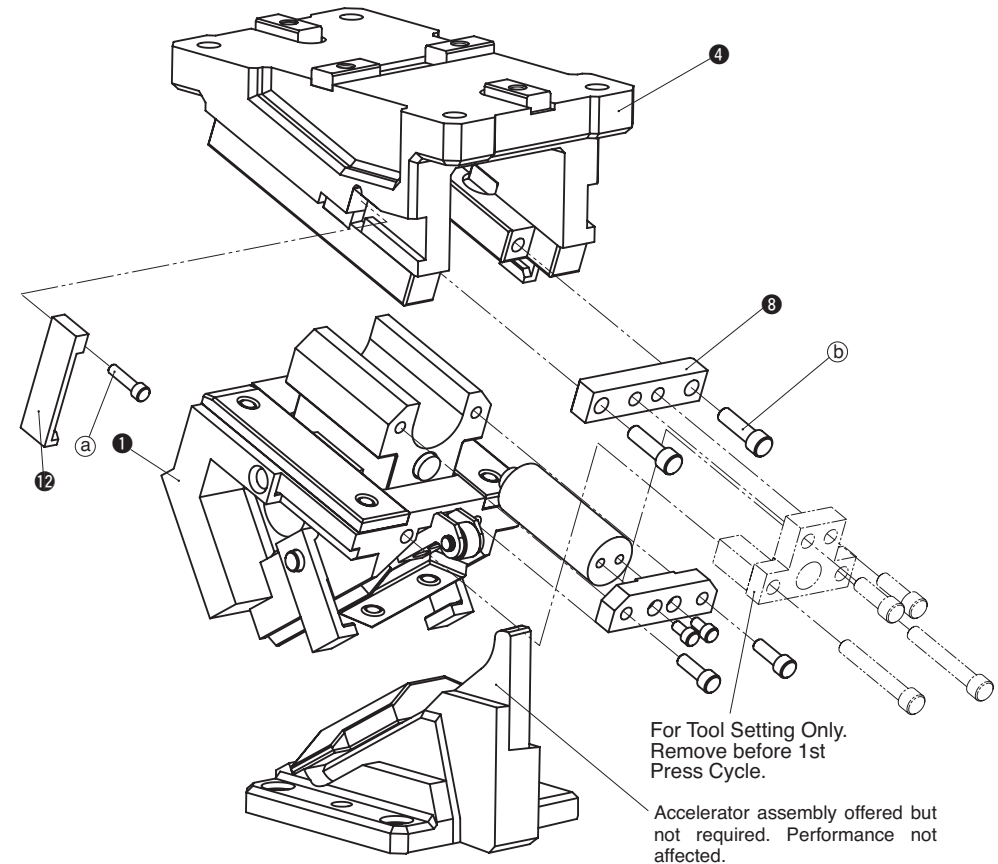
Re-assembly

Reassembly in the reverse procedure of disassembly.

NOTES ● Ensure that all parts are clean, particularly the sliding components, to which a small amount of grease is applied and is then placed on position.

- Take care the respective tolerances are observed when assembling the slider and holder, which also should be identified by the same serial number.
- Ensure that all bolts are tightened to the recommended torque.

UCMSNR 165, 200, 300, and 400 Assembly / Dis-assembly



Disassembling UCMSNR 165, 200, 300, and 400

- 1) Loosen Hexagon Socket Head Bolt (a) and remove Safety Plate (12).
- 2) Loosen Hexagon Socket Head Bolt (b) and remove Stopper Plate (8).
- 3) Pull up to remove Cam Slider (1) from Cam Holder (4).

Re-assembly

Reassembly in the reverse procedure of disassembly.

NOTES ● Ensure that all parts are clean, particularly the sliding components, to which a small amount of grease is applied and is then placed on position.

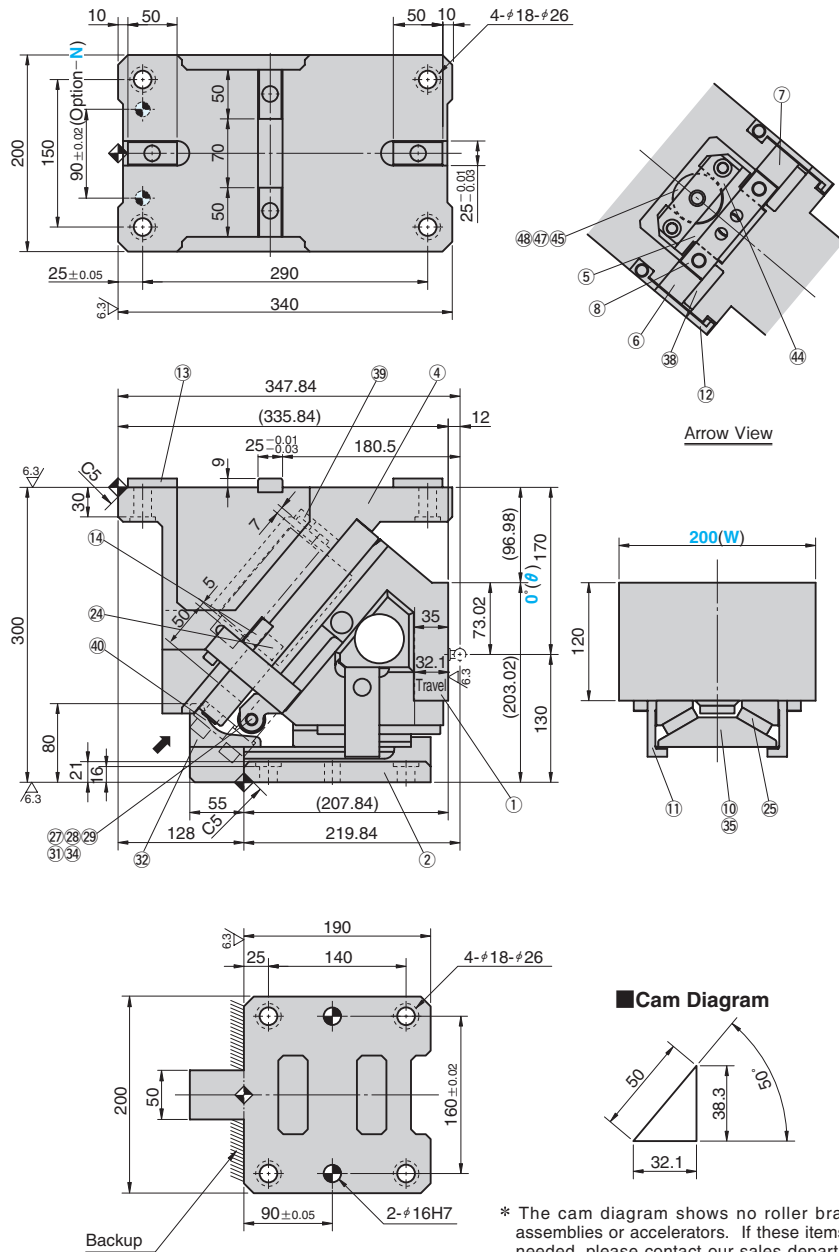
- Take care the respective tolerances are observed when assembling the slider and holder, which also should be identified by the same serial number.
- Ensure that all bolts are tightened to the recommended torque.

Aerial Cam Unit

NAAMS STANDARD



UCMSNR200-00



* The cam diagram shows no roller bracket assemblies or accelerators. If these items are needed, please contact our sales department for details.

Travel S	Working Force kN(tonf)	Spring Force N(kgf)		Return Force N(kgf)	Total Weight (Slider Weight) kg	Catalog No.	W	θ	Spring Type PS
		Initial Load	Final Load						
32.1	353.0 (36.0)	-	6125.0 (624.6)	8363 (853.4)	90.3 (31.9)	UCMSNR	200	00	GK *NGK
		-	5334.0 (543.9)						GD *NGD
		-	6900.0 (703.6)						GS *NGS
		749.2 (76.4)	4494.0 (458.3)						ISO *NISO

* When supplying your own Nitrogen Spring, please add "N" at the beginning of your spring selection to ensure you are supplied the correct mounting hardware.



Order

Catalog No.	W	θ	PS
UCMSNR	200	00	GK
UCMSNR	200	00	NGK
UCMSNR	200	00	NISO

.....Without gas spring
.....Without coil spring



Option

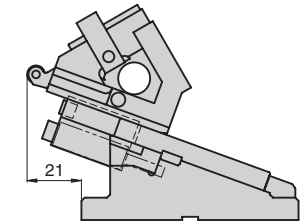
Option Code	Specification
N	φ16mm dowel hole provided in holder.
NF	Nitrogen gas not charged.



Order

UCMSNR200 - 00 - GK - N
UCMSNR200 - 00 - GK - NF

Space for removing



Spring Specification

No.	PS	Spring Model	Remark
45	GK	K500-63.5	Gas Spring (KALLER)
	GD	L500.063.138	Gas Spring (DADCO)
	GS	SM500.63	Gas Spring (SDT)
	ISO	TJM50-178	Coil Spring (constant=74.9N/mm)

Guideline of spring durability 500,000 strokes

Table of Components

No.	Description	Qty	Material and Remark
1	Cam Slider	1	FC250
2	Cam Driver	1	FC250
4	Cam Holder	1	FC250
5	Spring Guide	1	Bronze with Graphite
6	Base Plate D-R	1	S45C(1045)
7	Base Plate D-L	1	S45C(1045)
8	Stopper Plate	1	S45C(1045)
10	Cam Slide Guide	1	Bronze with Graphite
11	Positive Return Follower	2	S45C(1045)
12	Safety Plate	2	SS400(1020)
13	Key A	4	SS400(1020)
14	Key B	2	SS400(1020)
24	Stopper	1	Urethane
25	Slide Plate	2	S45C(1045)

No.	Description	Qty	Material and Remark
27	Roller	1	S45C(1045)
28	Roller Pin	1	S45C(1045)
29	Bushing	1	Bronze with Graphite SOB12-18-16
31	Roller Bracket	1	SS400(1020)
32	Roller Driver	1	S45C(1045)
34	Snap Ring E type	2	φ9
35	Key C	1	SS400(1020)
38	Wear Plate	2	Bronze with Graphite
39	Spring Support	1	SS400(1020)
40	Slide Lock Plate	1	SS400(1020)
44	Spring Guide Plate	1	SS400(1020)
45	Spring	1	Refer to the Spring Specification Table.
47	Washer	1	S45C(1045) ISO specification only
48	Spring Guide Pin	1	S45C(1045) ISO specification only



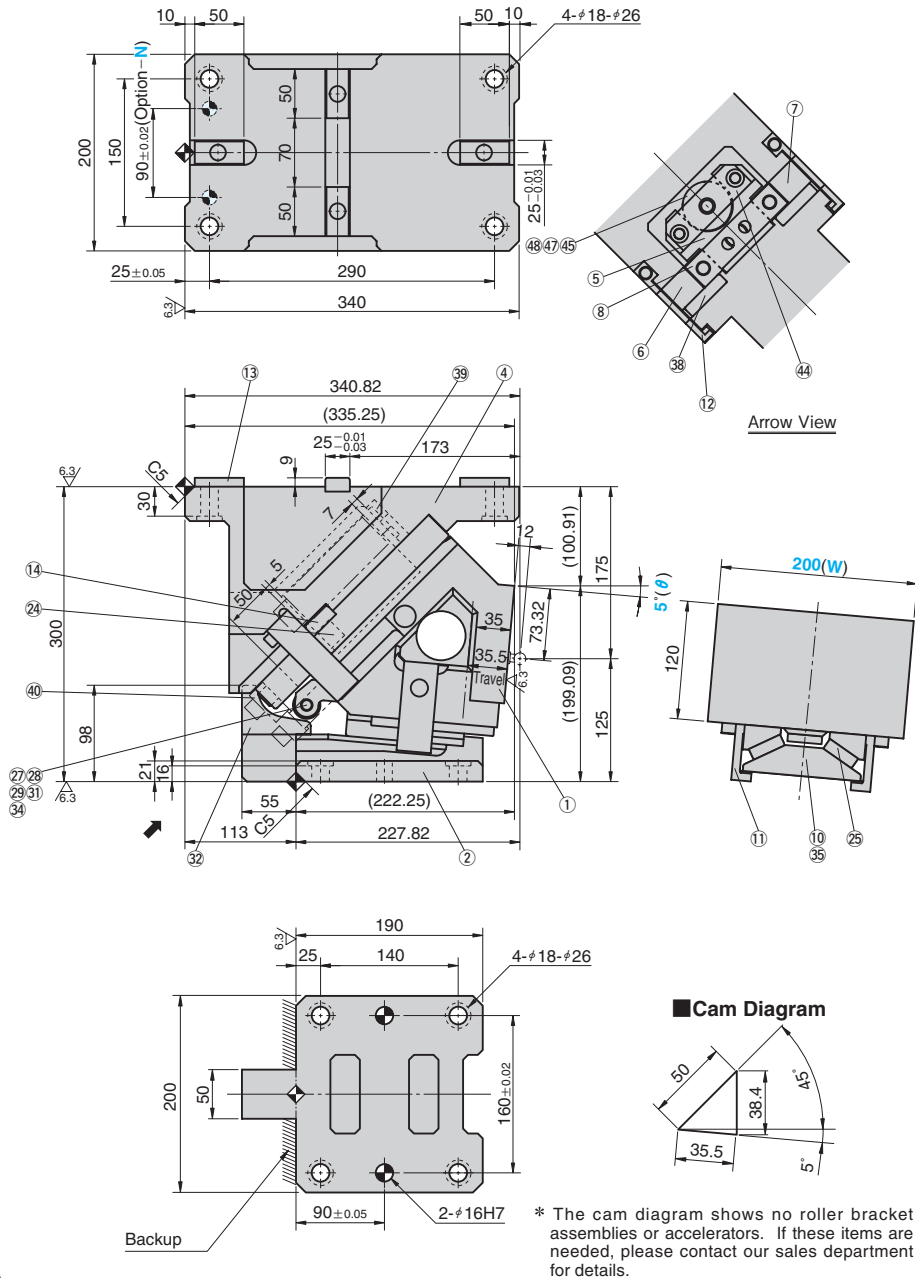
Bolts for assembly are not indicated.

Aerial Cam Unit

NAAMS STANDARD

CAD FILE

UCMSNR200-05



* The cam diagram shows no roller bracket assemblies or accelerators. If these items are needed, please contact our sales department for details.

Travel S	Working Force kN(tonf)	Spring Force N(kgf)		Return Force N(kgf)	Total Weight (Slider Weight) kg	Catalog No.	W	θ	Spring Type PS
		Initial Load	Final Load						
35.5	353.0 (36.0)	-	6125.0 (624.6)	8334 (850.4)	88.0 (31.9)	UCMSNR	200	05	GK *NGK
			5334.0 (543.9)						GD *NGD
			6900.0 (703.6)						GS *NGS
		749.2 (76.4)	4494.0 (458.3)	ISO *NISO					

* When supplying your own Nitrogen Spring, please add "N" at the beginning of your spring selection to ensure you are supplied the correct mounting hardware.



Order

Catalog No.	W	θ	PS
UCMSNR	200	05	GK
UCMSNR	200	05	NGK
UCMSNR	200	05	NISO

.....Without gas spring
.....Without coil spring



Option

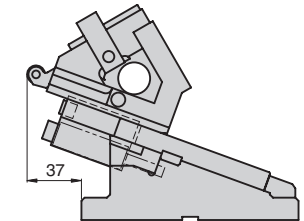
Option Code	Specification
N	φ16mm dowel hole provided in holder.
NF	Nitrogen gas not charged.



Order

UCMSNR200 - 05 - GK - N
UCMSNR200 - 05 - GK - NF

Space for removing



Spring Specification

No.	PS	Spring Model	Remark
45	GK	K500-63.5	Gas Spring (KALLER)
	GD	L500.063.138	Gas Spring (DADCO)
	GS	SM500.63	Gas Spring (SDT)
	ISO	TJM50-178	Coil Spring (constant=74.9N/mm)

Guideline of spring durability 500,000 strokes

Table of Components

No.	Description	Qty	Material and Remark
1	Cam Slider	1	FC250
2	Cam Driver	1	FC250
4	Cam Holder	1	FC250
5	Spring Guide	1	Bronze with Graphite
6	Base Plate D-R	1	S45C(1045)
7	Base Plate D-L	1	S45C(1045)
8	Stopper Plate	1	S45C(1045)
10	Cam Slide Guide	1	Bronze with Graphite
11	Positive Return Follower	2	S45C(1045)
12	Safety Plate	2	SS400(1020)
13	Key A	4	SS400(1020)
14	Key B	2	SS400(1020)
24	Stopper	1	Urethane
25	Slide Plate	2	S45C(1045)

No.	Description	Qty	Material and Remark
27	Roller	1	S45C(1045)
28	Roller Pin	1	S45C(1045)
29	Bushing	1	Bronze with Graphite SOB12-18-16
31	Roller Bracket	1	SS400(1020)
32	Roller Driver	1	S45C(1045)
34	Snap Ring E type	2	φ9
35	Key C	1	SS400(1020)
38	Wear Plate	2	Bronze with Graphite
39	Spring Support	1	SS400(1020)
40	Slide Lock Plate	1	SS400(1020)
44	Spring Guide Plate	1	SS400(1020)
45	Spring	1	Refer to the Spring Specification Table.
47	Washer	1	S45C(1045) ISO specification only
48	Spring Guide Pin	1	S45C(1045) ISO specification only



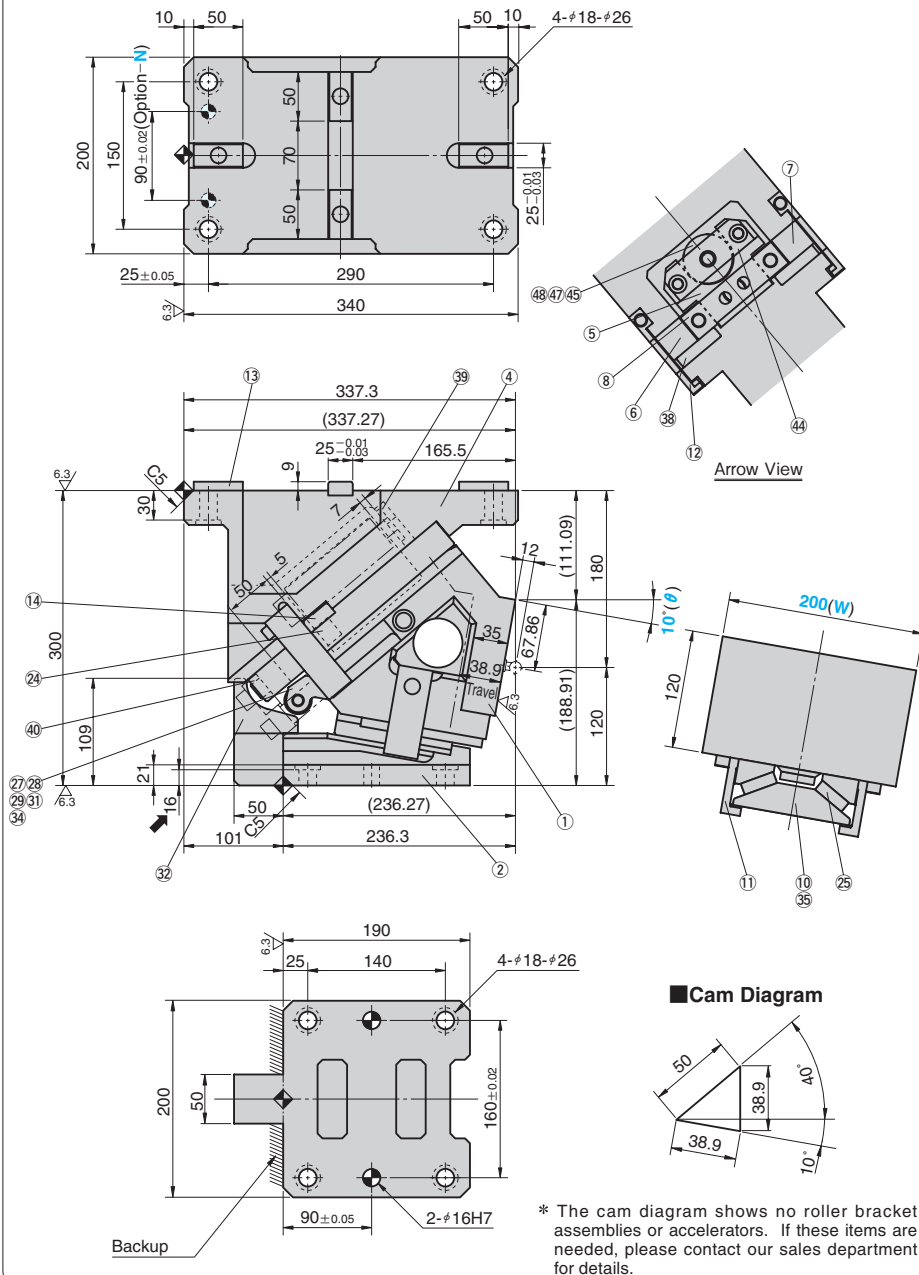
Bolts for assembly are not indicated.

Aerial Cam Unit

NAAMS STANDARD

CAD FILE

UCMSNR200-10



Travel S	Working Force kN(tonf)	Spring Force N(kgf)		Return Force N(kgf)	Total Weight (Slider Weight) kg	Catalog No.	W	θ	Spring Type
		Initial Load	Final Load						PS
38.9	353.0 (36.0)	-	6125.0 (624.6)	8303 (847.3)	87.5 (31.9)	UCMSNR	200	10	GK *NGK
			5334.0 (543.9)						GD *NGD
			6900.0 (703.6)						GS *NGS
			749.2 (76.4)						ISO *NISO

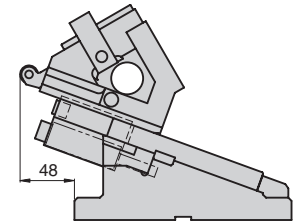
* When supplying your own Nitrogen Spring, please add "N" at the beginning of your spring selection to ensure you are supplied the correct mounting hardware.

Order	Catalog No.	W	θ	PS	
	UCMSNR	200	10	GK	Without gas spring
	UCMSNR	200	10	NGK	Without coil spring
	UCMSNR	200	10	NISO	Without coil spring

Option	Option Code	Specification
	N	φ16mm dowel hole provided in holder.
	NF	Nitrogen gas not charged.

Order **UCMSNR200-10-GK-N**
UCMSNR200-10-GK-NF

Space for removing



Spring Specification

No.	PS	Spring Model	Remark
45	GK	K500-63.5	Gas Spring (KALLER)
	GD	L500.063.138	Gas Spring (DADCO)
	GS	SM500.63	Gas Spring (SDT)
	ISO	TJM50-178	Coil Spring (constant=74.9N/mm)

Guideline of spring durability 500,000 strokes

Table of Components

No.	Description	Qty	Material and Remark
1	Cam Slider	1	FC250
2	Cam Driver	1	FC250
4	Cam Holder	1	FC250
5	Spring Guide	1	Bronze with Graphite
6	Base Plate D-R	1	S45C(1045)
7	Base Plate D-L	1	S45C(1045)
8	Stopper Plate	1	S45C(1045)
10	Cam Slide Guide	1	Bronze with Graphite
11	Positive Return Follower	2	S45C(1045)
12	Safety Plate	2	SS400(1020)
13	Key A	4	SS400(1020)
14	Key B	2	SS400(1020)
24	Stopper	1	Urethane
25	Slide Plate	2	S45C(1045)

No.	Description	Qty	Material and Remark
27	Roller	1	S45C(1045)
28	Roller Pin	1	S45C(1045)
29	Bushing	1	Bronze with Graphite SOB12-18-16
31	Roller Bracket	1	SS400(1020)
32	Roller Driver	1	S45C(1045)
34	Snap Ring E type	2	φ9
35	Key C	1	SS400(1020)
38	Wear Plate	2	Bronze with Graphite
39	Spring Support	1	SS400(1020)
40	Slide Lock Plate	1	SS400(1020)
44	Spring Guide Plate	1	SS400(1020)
45	Spring	1	Refer to the Spring Specification Table.
47	Washer	1	S45C(1045) ISO specification only
48	Spring Guide Pin	1	S45C(1045) ISO specification only

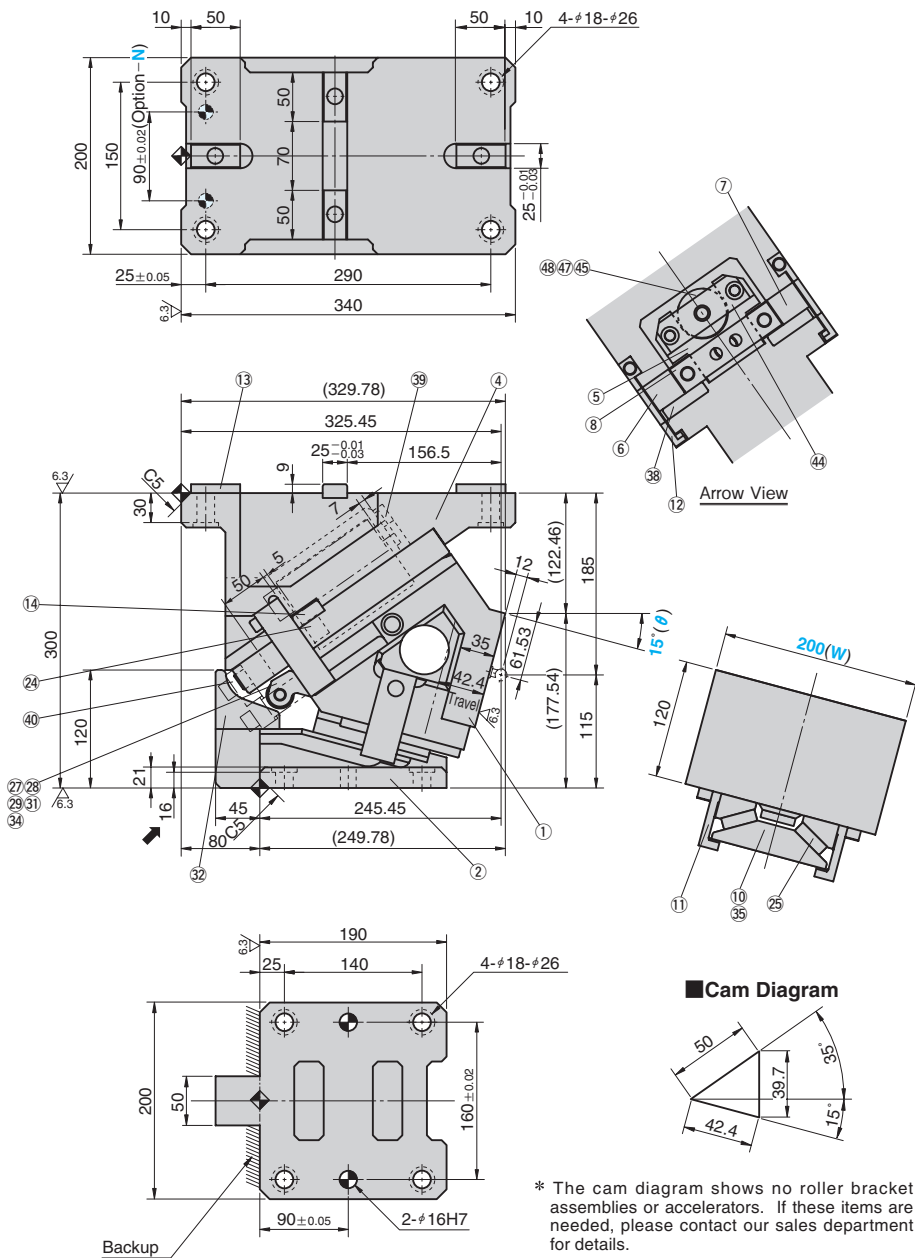
Bolts for assembly are not indicated.

Aerial Cam Unit

NAAMS STANDARD



UCMSNR200-15



Travel S	Working Force kN(tonf)	Spring Force N(kgf)		Return Force N(kgf)	Total Weight (Slider Weight) kg	Catalog No.	W	θ	Spring Type PS
		Initial Load	Final Load						
42.4	353.0 (36.0)	-	6125.0 (624.6)	8270 (843.9)	87.0 (31.9)	UCMSNR	200	15	GK *NGK
			5334.0 (543.9)						GD *NGD
			6900.0 (703.6)						GS *NGS
			749.2 (76.4)	4494.0 (458.3)					ISO *NISO

* When supplying your own Nitrogen Spring, please add "N" at the beginning of your spring selection to ensure you are supplied the correct mounting hardware.



Order

Catalog No.	W	θ	PS
UCMSNR	200	15	GK
UCMSNR	200	15	NGK
UCMSNR	200	15	NISO

.....Without gas spring
.....Without coil spring



Option

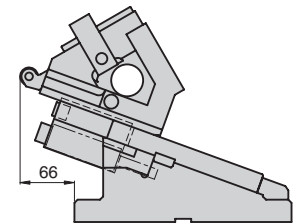
Option Code	Specification
N	φ16mm dowel hole provided in holder.
NF	Nitrogen gas not charged.



Order

UCMSNR200 - 15 - GK - N
UCMSNR200 - 15 - GK - NF

Space for removing



Spring Specification

No.	PS	Spring Model	Remark
45	GK	K500-63.5	Gas Spring (KALLER)
	GD	L500.063.138	Gas Spring (DADCO)
	GS	SM500.63	Gas Spring (SDT)
	ISO	TJM50-178	Coil Spring (constant=74.9N/mm)

Guideline of spring durability 500,000 strokes

Table of Components

No.	Description	Qty	Material and Remark
1	Cam Slider	1	FC250
2	Cam Driver	1	FC250
4	Cam Holder	1	FC250
5	Spring Guide	1	Bronze with Graphite
6	Base Plate D-R	1	S45C(1045)
7	Base Plate D-L	1	S45C(1045)
8	Stopper Plate	1	S45C(1045)
10	Cam Slide Guide	1	Bronze with Graphite
11	Positive Return Follower	2	S45C(1045)
12	Safety Plate	2	SS400(1020)
13	Key A	4	SS400(1020)
14	Key B	2	SS400(1020)
24	Stopper	1	Urethane
25	Slide Plate	2	S45C(1045)

No.	Description	Qty	Material and Remark
27	Roller	1	S45C(1045)
28	Roller Pin	1	S45C(1045)
29	Bushing	1	Bronze with Graphite SOB12-18-16
31	Roller Bracket	1	SS400(1020)
32	Roller Driver	1	S45C(1045)
34	Snap Ring E type	2	φ9
35	Key C	1	SS400(1020)
38	Wear Plate	2	Bronze with Graphite
39	Spring Support	1	SS400(1020)
40	Slide Lock Plate	1	SS400(1020)
44	Spring Guide Plate	1	SS400(1020)
45	Spring	1	Refer to the Spring Specification Table.
47	Washer	1	S45C(1045) ISO specification only
48	Spring Guide Pin	1	S45C(1045) ISO specification only



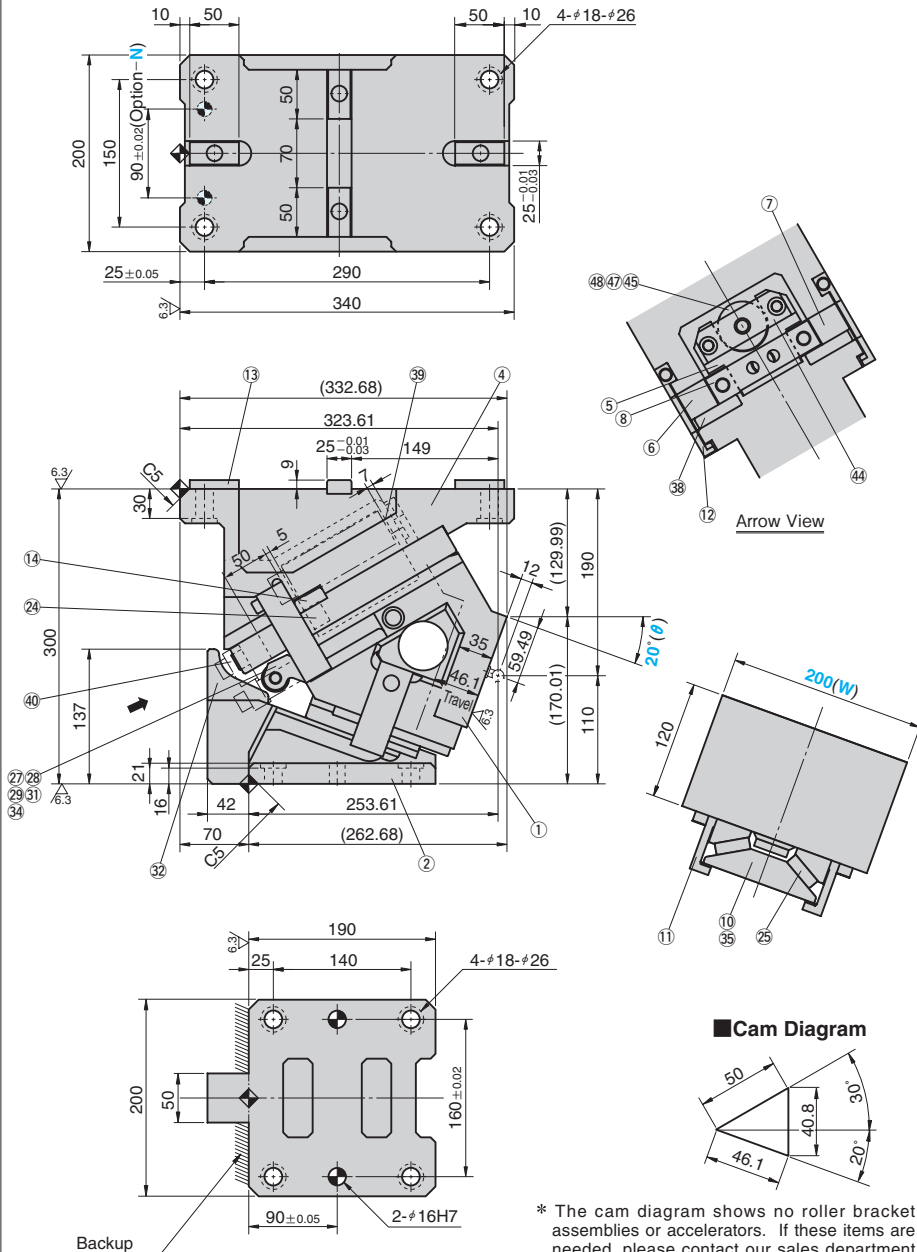
Bolts for assembly are not indicated.

Aerial Cam Unit

NAAMS STANDARD



UCMSNR200-20



* The cam diagram shows no roller bracket assemblies or accelerators. If these items are needed, please contact our sales department for details.

Travel S	Working Force kN(tonf)	Spring Force N(kgf)		Return Force N(kgf)	Total Weight (Slider Weight) kg	Catalog No.	W	θ	Spring Type PS
		Initial Load	Final Load						
46.1	353.0 (36.0)	-	6125.0 (624.6)	8236 (840.4)	85.8 (31.9)	UCMSNR	200	20	GK *NGK
			5334.0 (543.9)						GD *NGD
			6900.0 (703.6)						GS *NGS
		749.2 (76.4)	4494.0 (458.3)	ISO *NISO					

* When supplying your own Nitrogen Spring, please add "N" at the beginning of your spring selection to ensure you are supplied the correct mounting hardware.



Order

Catalog No.	W	θ	PS
UCMSNR	200	20	GK
UCMSNR	200	20	NGK
UCMSNR	200	20	NISO

.....Without gas spring
.....Without coil spring



Option

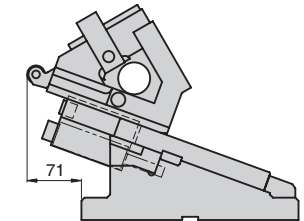
Option Code	Specification
N	φ16mm dowel hole provided in holder.
NF	Nitrogen gas not charged.



Order

UCMSNR200 - 20 - GK - N
UCMSNR200 - 20 - GK - NF

Space for removing



Spring Specification

No.	PS	Spring Model	Remark
45	GK	K500-63.5	Gas Spring (KALLER)
	GD	L500.063.138	Gas Spring (DADCO)
	GS	SM500.63	Gas Spring (SDT)
	ISO	TJM50-178	Coil Spring (constant=74.9N/mm)

Guideline of spring durability 500,000 strokes

Table of Components

No.	Description	Qty	Material and Remark
1	Cam Slider	1	FC250
2	Cam Driver	1	FC250
4	Cam Holder	1	FC250
5	Spring Guide	1	Bronze with Graphite
6	Base Plate D-R	1	S45C(1045)
7	Base Plate D-L	1	S45C(1045)
8	Stopper Plate	1	S45C(1045)
10	Cam Slide Guide	1	Bronze with Graphite
11	Positive Return Follower	2	S45C(1045)
12	Safety Plate	2	SS400(1020)
13	Key A	4	SS400(1020)
14	Key B	2	SS400(1020)
24	Stopper	1	Urethane
25	Slide Plate	2	S45C(1045)

No.	Description	Qty	Material and Remark
27	Roller	1	S45C(1045)
28	Roller Pin	1	S45C(1045)
29	Bushing	1	Bronze with Graphite SOB12-18-16
31	Roller Bracket	1	SS400(1020)
32	Roller Driver	1	S45C(1045)
34	Snap Ring E type	2	φ9
35	Key C	1	SS400(1020)
38	Wear Plate	2	Bronze with Graphite
39	Spring Support	1	SS400(1020)
40	Slide Lock Plate	1	SS400(1020)
44	Spring Guide Plate	1	SS400(1020)
45	Spring	1	Refer to the Spring Specification Table.
47	Washer	1	S45C(1045) ISO specification only
48	Spring Guide Pin	1	S45C(1045) ISO specification only



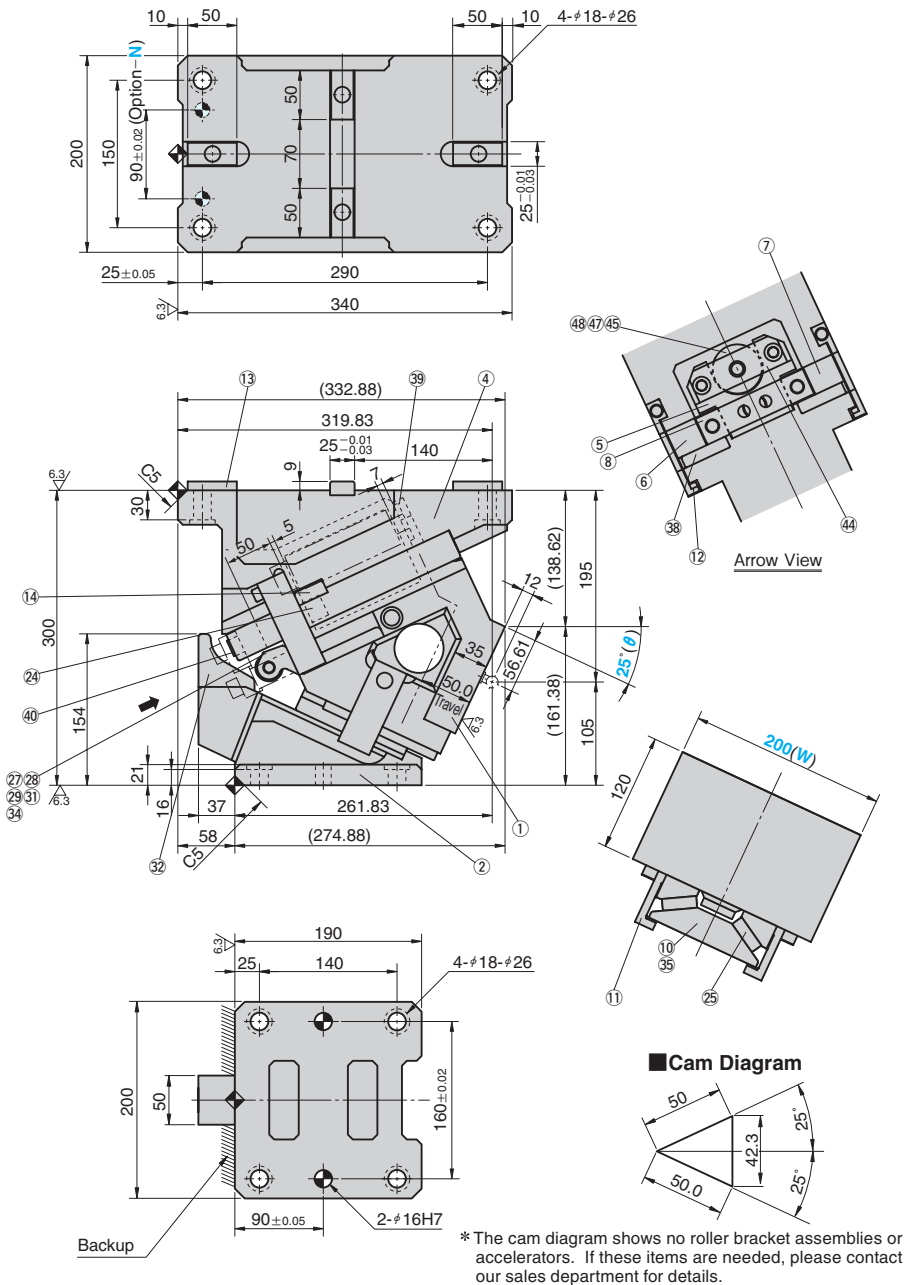
Bolts for assembly are not indicated.

Aerial Cam Unit

NAAMS STANDARD



UCMSNR200-25



* The cam diagram shows no roller bracket assemblies or accelerators. If these items are needed, please contact our sales department for details.

Travel S	Working Force kN(tonf)	Spring Force N(kgf)		Return Force N(kgf)	Total Weight (Slider Weight) kg	Catalog No.	W	θ	Spring Type PS
		Initial Load	Final Load						
50.0	353.0 (36.0)	-	6125.0 (624.6)	8200 (836.8)	UCMSNR	200	25	GK	*NGK
			5334.0 (543.9)	8200 (836.8)				GD	*NGD
		6900.0 (703.6)	8200 (836.8)	GS				*NGS	
		749.2 (76.4)	4494.0 (458.3)	ISO				*NISO	

* When supplying your own Nitrogen Spring, please add "N" at the beginning of your spring selection to ensure you are supplied the correct mounting hardware.



Order

Catalog No.	W	θ	PS
UCMSNR	200	25	GK
UCMSNR	200	25	NGK
UCMSNR	200	25	NISO

.....Without gas spring
.....Without coil spring



Option

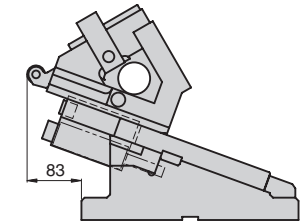
Option Code	Specification
N	φ16mm dowel hole provided in holder.
NF	Nitrogen gas not charged.



Order

UCMSNR200-25-GK-N
UCMSNR200-25-GK-NF

Space for removing



Spring Specification

No.	PS	Spring Model	Remark
45	GK	K500-63.5	Gas Spring (KALLER)
	GD	L500.063.138	Gas Spring (DADCO)
	GS	SM500.63	Gas Spring (SDT)
	ISO	TJM50-178	Coil Spring (constant=74.9N/mm)

Guideline of spring durability 500,000 strokes

Table of Components

No.	Description	Qty	Material and Remark
1	Cam Slider	1	FC250
2	Cam Driver	1	FC250
4	Cam Holder	1	FC250
5	Spring Guide	1	Bronze with Graphite
6	Base Plate D-R	1	S45C(1045)
7	Base Plate D-L	1	S45C(1045)
8	Stopper Plate	1	S45C(1045)
10	Cam Slide Guide	1	Bronze with Graphite
11	Positive Return Follower	2	S45C(1045)
12	Safety Plate	2	SS400(1020)
13	Key A	4	SS400(1020)
14	Key B	2	SS400(1020)
24	Stopper	1	Urethane
25	Slide Plate	2	S45C(1045)

No.	Description	Qty	Material and Remark
27	Roller	1	S45C(1045)
28	Roller Pin	1	S45C(1045)
29	Bushing	1	Bronze with Graphite SOB12-18-16
31	Roller Bracket	1	SS400(1020)
32	Roller Driver	1	S45C(1045)
34	Snap Ring E type	2	φ9
35	Key C	1	SS400(1020)
38	Wear Plate	2	Bronze with Graphite
39	Spring Support	1	SS400(1020)
40	Slide Lock Plate	1	SS400(1020)
44	Spring Guide Plate	1	SS400(1020)
45	Spring	1	Refer to the Spring Specification Table.
47	Washer	1	S45C(1045) ISO specification only
48	Spring Guide Pin	1	S45C(1045) ISO specification only



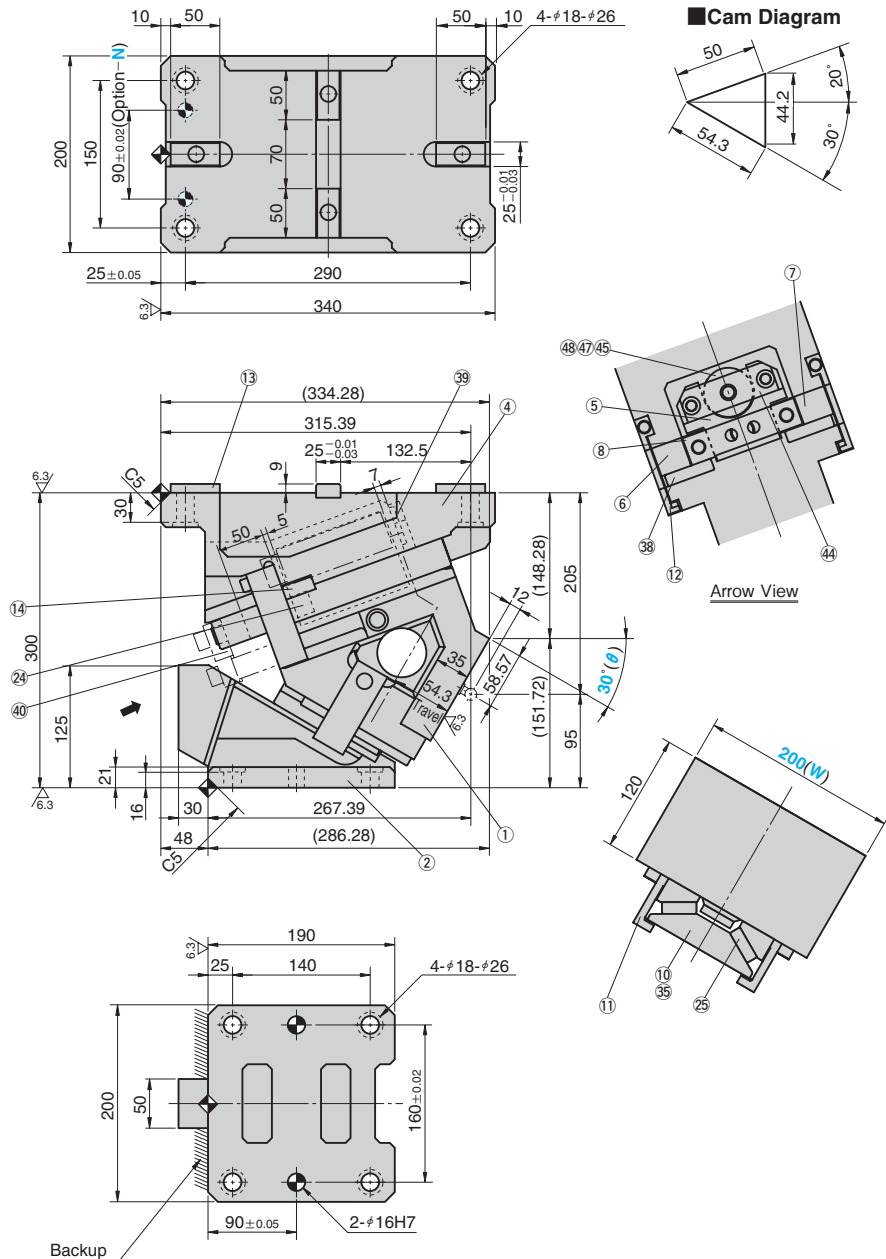
Bolts for assembly are not indicated.

Aerial Cam Unit

NAAMS STANDARD

CAD FILE

UCMSNR200-30



Travel S	Working Force kN(tonf)	Spring Force N(kgf)		Return Force N(kgf)	Total Weight (Slider Weight) kg	Catalog No.	W	θ	Spring Type PS
		Initial Load	Final Load						
54.3	353.0 (36.0)	-	6125.0 (624.6)	8163 (833.0)	85.6 (31.9)	UCMSNR	200	30	GK *NGK
			5334.0 (543.9)	8163 (833.0)					GD *NGD
			6900.0 (703.6)	8163 (833.0)					GS *NGS
			749.2 (76.4)	4494.0 (458.3)					ISO *NISO

* When supplying your own Nitrogen Spring, please add "N" at the beginning of your spring selection to ensure you are supplied the correct mounting hardware.



Order

Catalog No.	W	θ	PS
UCMSNR	200	30	GK
UCMSNR	200	30	NGK
UCMSNR	200	30	NISO

.....Without gas spring
.....Without coil spring



Option

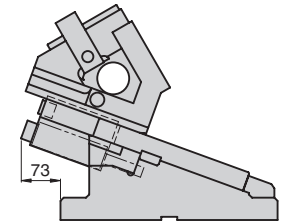
Option Code	Specification
N	φ16mm dowel hole provided in holder.
NF	Nitrogen gas not charged.



Order

UCMSNR200-30-GK-N
UCMSNR200-30-GK-NF

Space for removing



Spring Specification

No.	PS	Spring Model	Remark
④5	GK	K500-63.5	Gas Spring (KALLER)
	GD	L500.063.138	Gas Spring (DADCO)
	GS	SM500.63	Gas Spring (SDT)
	ISO	TJM50-178	Coil Spring (constant=74.9N/mm)

Guideline of spring durability 500,000 strokes

Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250
②	Cam Driver	1	FC250
④	Cam Holder	1	FC250
⑤	Spring Guide	1	Bronze with Graphite
⑥	Base Plate D-R	1	S45C(1045)
⑦	Base Plate D-L	1	S45C(1045)
⑧	Stopper Plate	1	S45C(1045)
⑩	Cam Slide Guide	1	Bronze with Graphite
⑪	Positive Return Follower	2	S45C(1045)
⑫	Safety Plate	2	SS400(1020)
⑬	Key A	4	SS400(1020)

No.	Description	Qty	Material and Remark
⑭	Key B	2	SS400(1020)
⑳	Stopper	1	Urethane
㉑	Slide Plate	2	S45C(1045)
㉓	Key C	1	SS400(1020)
㉔	Wear Plate	2	Bronze with Graphite
㉕	Spring Support	1	SS400(1020)
㉖	Slide Lock Plate	1	SS400(1020)
㉗	Spring Guide Plate	1	SS400(1020)
㉘	Spring	1	Refer to the Spring Specification Table
㉙	Washer	1	S45C(1045) ISO specification only
㉚	Spring Guide Pin	1	S45C(1045) ISO specification only



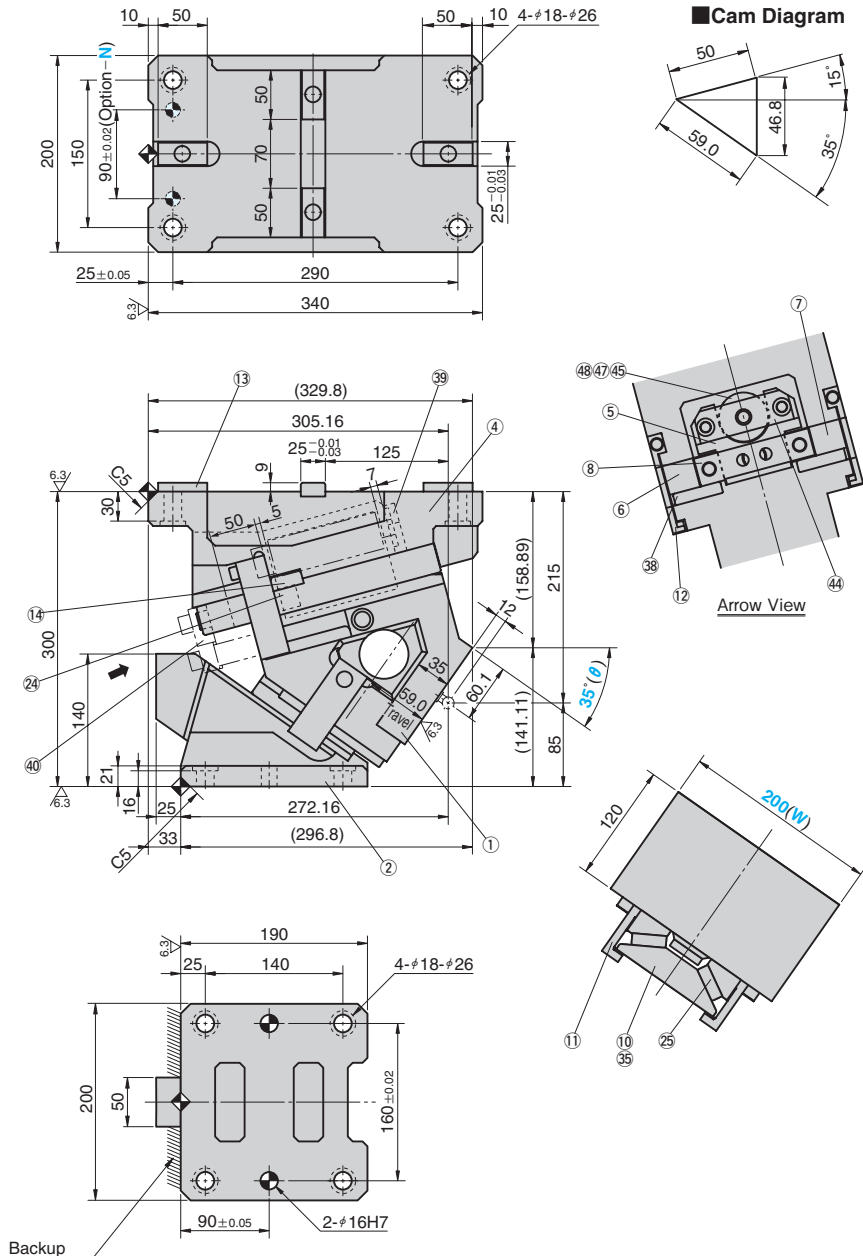
Bolts for assembly are not indicated.

Aerial Cam Unit

NAAMS STANDARD

CAD FILE

UCMSNR200-35



Travel S	Working Force kN(tonf)	Spring Force N(kgf)		Return Force N(kgf)	Total Weight (Slider Weight) kg	Catalog No.	W	θ	Spring Type PS
		Initial Load	Final Load						
59.0	353.0 (36.0)	-	6125.0 (624.6)	8127 (829.2)	86.2 (31.9)	UCMSNR	200	35	GK *NGK
			5334.0 (543.9)	6900.0 (703.6)					GD *NGD
			749.2 (76.4)	4494.0 (458.3)					GS *NGS
									ISO *NISO

* When supplying your own Nitrogen Spring, please add "N" at the beginning of your spring selection to ensure you are supplied the correct mounting hardware.



Order

Catalog No.	W	θ	PS
UCMSNR	200	35	GK
UCMSNR	200	35	NGK
UCMSNR	200	35	NISO

.....Without gas spring
.....Without coil spring



Option

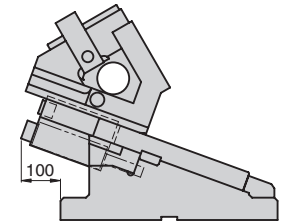
Option Code	Specification
N	φ16mm dowel hole provided in holder.
NF	Nitrogen gas not charged.



Order

UCMSNR200 - 35 - GK - N
UCMSNR200 - 35 - GK - NF

Space for removing



Spring Specification

No.	PS	Spring Model	Remark
45	GK	K500-63.5	Gas Spring (KALLER)
	GD	L500.063.138	Gas Spring (DADCO)
	GS	SM500.63	Gas Spring (SDT)
	ISO	TJM50-178	Coil Spring (constant=74.9N/mm)

Guideline of spring durability 500,000 strokes

Table of Components

No.	Description	Qty	Material and Remark
1	Cam Slider	1	FC250
2	Cam Driver	1	FC250
4	Cam Holder	1	FC250
5	Spring Guide	1	Bronze with Graphite
6	Base Plate D-R	1	S45C(1045)
7	Base Plate D-L	1	S45C(1045)
8	Stopper Plate	1	S45C(1045)
10	Cam Slide Guide	1	Bronze with Graphite
11	Positive Return Follower	2	S45C(1045)
12	Safety Plate	2	SS400(1020)
13	Key A	4	SS400(1020)

No.	Description	Qty	Material and Remark
14	Key B	2	SS400(1020)
24	Stopper	1	Urethane
25	Slide Plate	2	S45C(1045)
35	Key C	1	SS400(1020)
38	Wear Plate	2	Bronze with Graphite
39	Spring Support	1	SS400(1020)
40	Slide Lock Plate	1	SS400(1020)
44	Spring Guide Plate	1	SS400(1020)
45	Spring	1	Refer to the Spring Specification Table.
47	Washer	1	S45C(1045) ISO specification only
48	Spring Guide Pin	1	S45C(1045) ISO specification only



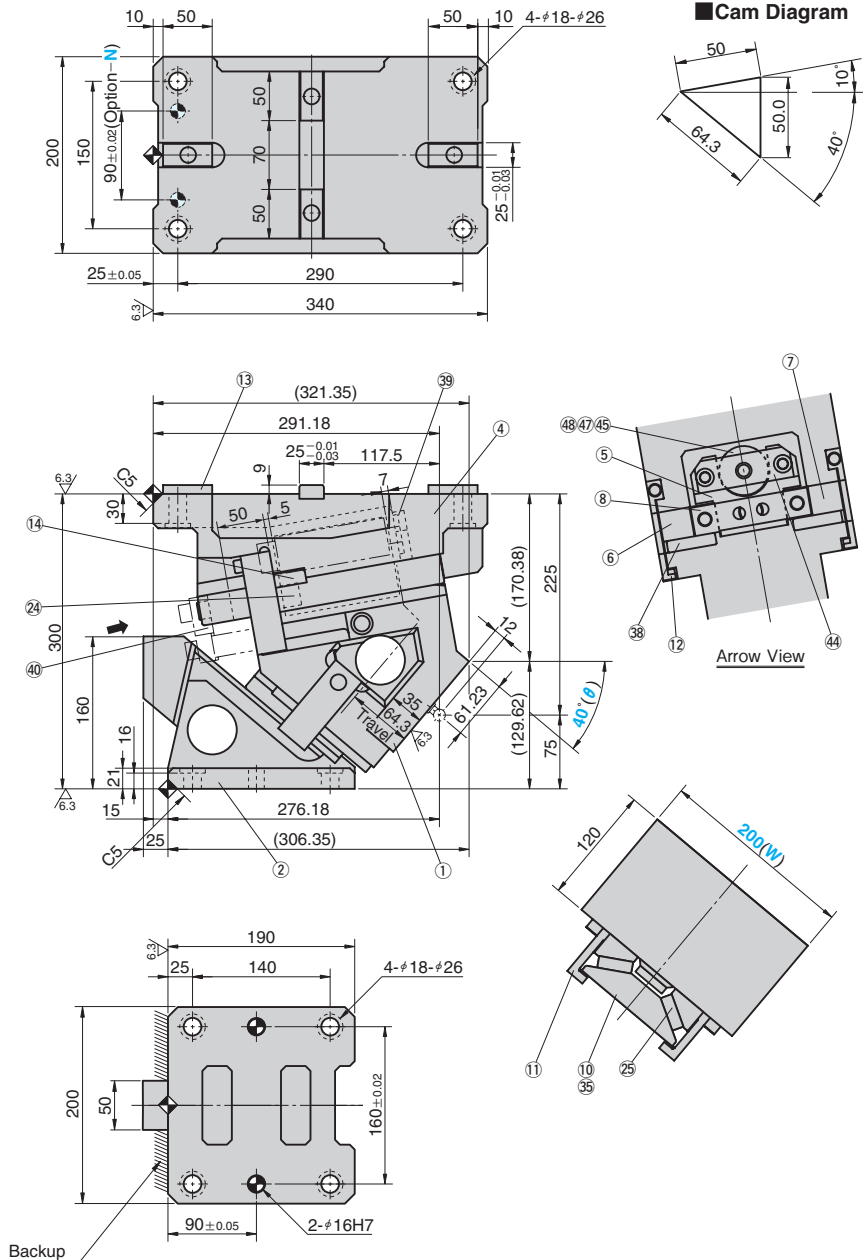
Bolts for assembly are not indicated.

Aerial Cam Unit

NAAMS STANDARD



UCMSNR200-40



Travel S	Working Force kN(tonf)	Spring Force N(kgf)		Return Force N(kgf)	Total Weight (Slider Weight) kg	Catalog No.	W	θ	Spring Type PS
		Initial Load	Final Load						
64.3	353.0 (36.0)	-	6125.0 (624.6)	8089 (825.5)	86.6 (31.9)	UCMSNR	200	40	GK *NGK
			5334.0 (543.9)						GD *NGD
			6900.0 (703.6)						GS *NGS
			749.2 (76.4)	4494.0 (458.3)					ISO *NISO

* When supplying your own Nitrogen Spring, please add "N" at the beginning of your spring selection to ensure you are supplied the correct mounting hardware.



Order

Catalog No.	W	θ	PS
UCMSNR	200	40	GK
UCMSNR	200	40	NGK
UCMSNR	200	40	NISO

.....Without gas spring
.....Without coil spring



Option

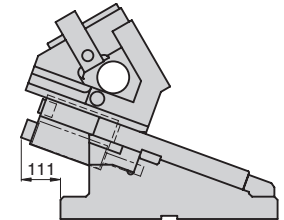
Option Code	Specification
N	φ16mm dowel hole provided in holder.
NF	Nitrogen gas not charged.



Order

UCMSNR200 - 40 - GK - N
UCMSNR200 - 40 - GK - NF

Space for removing



Spring Specification

No.	PS	Spring Model	Remark
④⑤	GK	K500-63.5	Gas Spring (KALLER)
	GD	L500.063.138	Gas Spring (DADCO)
	GS	SM500.63	Gas Spring (SDT)
	ISO	TJM50-178	Coil Spring (constant=74.9N/mm)

Guideline of spring durability 500,000 strokes

Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250
②	Cam Driver	1	FC250
④	Cam Holder	1	FC250
⑤	Spring Guide	1	Bronze with Graphite
⑥	Base Plate D-R	1	S45C(1045)
⑦	Base Plate D-L	1	S45C(1045)
⑧	Stopper Plate	1	S45C(1045)
⑩	Cam Slide Guide	1	Bronze with Graphite
⑪	Positive Return Follower	2	S45C(1045)
⑫	Safety Plate	2	SS400(1020)
⑬	Key A	4	SS400(1020)

No.	Description	Qty	Material and Remark
⑭	Key B	2	SS400(1020)
⑳	Stopper	1	Urethane
㉑	Slide Plate	2	S45C(1045)
㉓	Key C	1	SS400(1020)
㉔	Wear Plate	2	Bronze with Graphite
㉕	Spring Support	1	SS400(1020)
㉖	Slide Lock Plate	1	SS400(1020)
㉗	Spring Guide Plate	1	SS400(1020)
㉘	Spring	1	Refer to the Spring Specification Table.
㉙	Washer	1	S45C(1045) ISO specification only
㉚	Spring Guide Pin	1	S45C(1045) ISO specification only

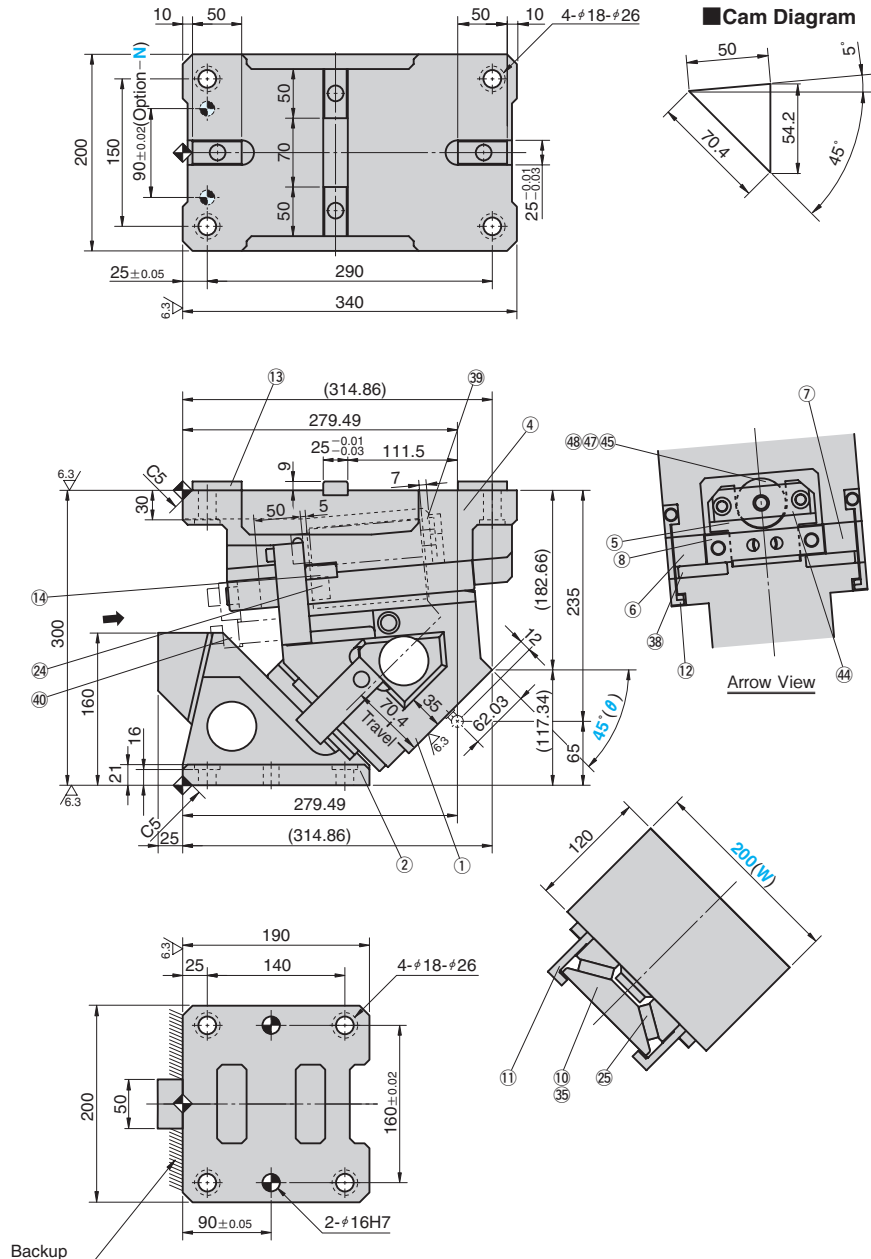
▲ Bolts for assembly are not indicated.

Aerial Cam Unit

NAAMS STANDARD



UCMSNR200-45



Travel S	Working Force kN(tonf)	Spring Force N(kgf)		Return Force N(kgf)	Total Weight (Slider Weight) kg	Catalog No.	W	θ	Spring Type PS
		Initial Load	Final Load						
70.4	353.0 (36.0)	-	6125.0 (624.6)	8052 (821.7)	88.0 (31.9)	UCMSNR	200	45	GK *NGK
			5334.0 (543.9)						GD *NGD
			6900.0 (703.6)						GS *NGS
			749.2 (76.4)	4494.0 (458.3)					ISO *NISO

* When supplying your own Nitrogen Spring, please add "N" at the beginning of your spring selection to ensure you are supplied the correct mounting hardware.



Order

Catalog No.	W	θ	PS
UCMSNR	200	45	GK
UCMSNR	200	45	NGK
UCMSNR	200	45	NISO

.....Without gas spring
.....Without coil spring



Option

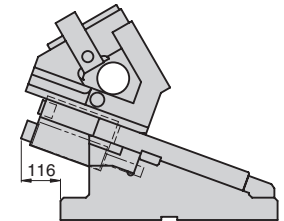
Option Code	Specification
N	φ16mm dowel hole provided in holder.
NF	Nitrogen gas not charged.



Order

UCMSNR200 - 45 - GK - N
UCMSNR200 - 45 - GK - NF

Space for removing



Spring Specification

No.	PS	Spring Model	Remark
45	GK	K500-63.5	Gas Spring (KALLER)
	GD	L500.063.138	Gas Spring (DADCO)
	GS	SM500.63	Gas Spring (SDT)
	ISO	TJM50-178	Coil Spring (constant=74.9N/mm)

Guideline of spring durability 500,000 strokes

Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250
②	Cam Driver	1	FC250
④	Cam Holder	1	FC250
⑤	Spring Guide	1	Bronze with Graphite
⑥	Base Plate D-R	1	S45C(1045)
⑦	Base Plate D-L	1	S45C(1045)
⑧	Stopper Plate	1	S45C(1045)
⑩	Cam Slide Guide	1	Bronze with Graphite
⑪	Positive Return Follower	2	S45C(1045)
⑫	Safety Plate	2	SS400(1020)
⑬	Key A	4	SS400(1020)

No.	Description	Qty	Material and Remark
⑭	Key B	2	SS400(1020)
⑳	Stopper	1	Urethane
㉑	Slide Plate	2	S45C(1045)
㉒	Key C	1	SS400(1020)
㉓	Wear Plate	2	Bronze with Graphite
㉔	Spring Support	1	SS400(1020)
㉕	Slide Lock Plate	1	SS400(1020)
㉖	Spring Guide Plate	1	SS400(1020)
㉗	Spring	1	Refer to the Spring Specification Table.
㉘	Washer	1	S45C(1045) ISO specification only
㉙	Spring Guide Pin	1	S45C(1045) ISO specification only



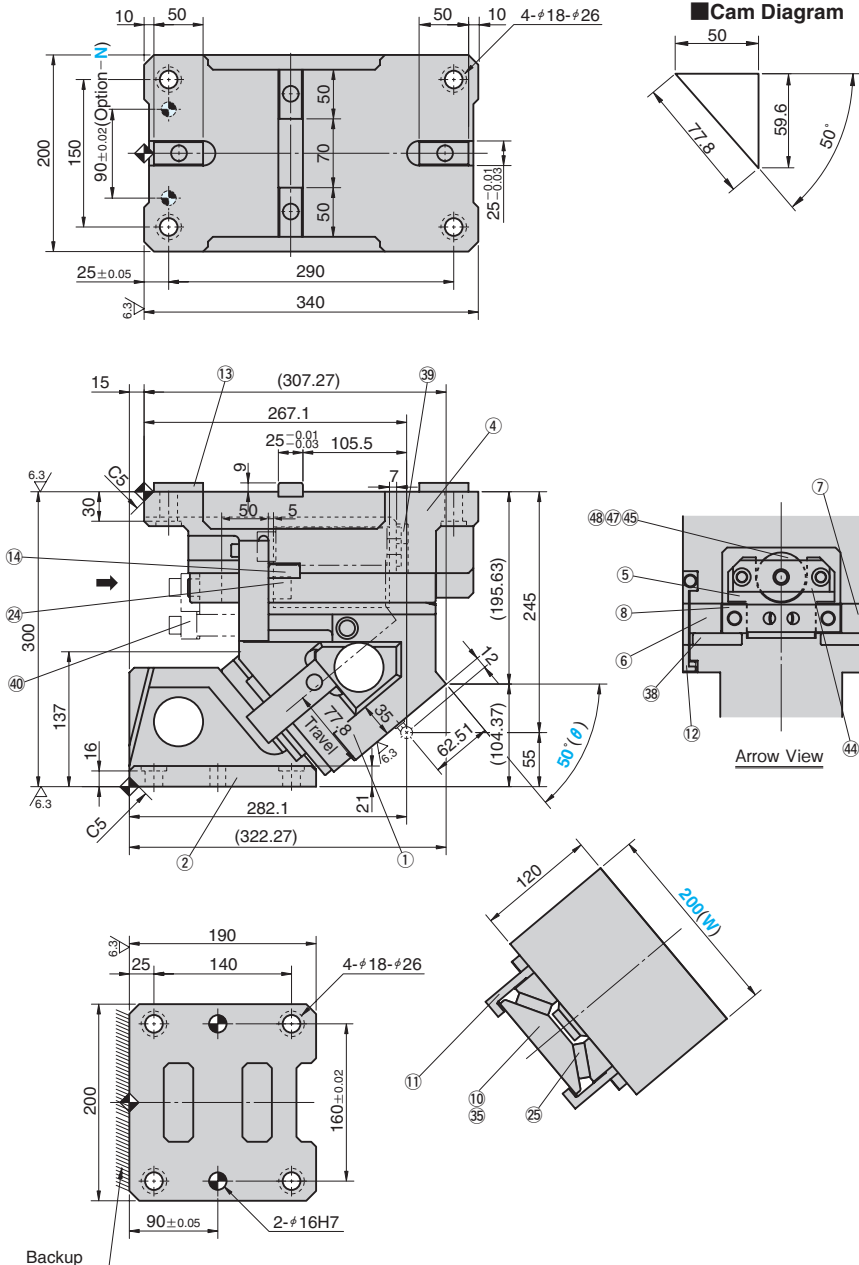
Bolts for assembly are not indicated.

Aerial Cam Unit

NAAMS STANDARD

CAD FILE

UCMSNR200-50



Travel S	Working Force kN(tonf)	Spring Force N(kgf)		Return Force N(kgf)	Total Weight (Slider Weight) kg	Catalog No.	W	θ	Spring Type PS
		Initial Load	Final Load						
77.8	353.0 (36.0)	-	6125.0 (624.6)	8015 (817.9)	78.2 (31.9)	UCMSNR	200	50	GK *NGK
			5334.0 (543.9)						GD *NGD
			6900.0 (703.6)						GS *NGS
			749.2 (76.4)						4494.0 (458.3)

* When supplying your own Nitrogen Spring, please add "N" at the beginning of your spring selection to ensure you are supplied the correct mounting hardware.



Order

Catalog No.	W	θ	PS
UCMSNR	200	50	GK
UCMSNR	200	50	NGK
UCMSNR	200	50	NISO

.....Without gas spring
.....Without coil spring



Option

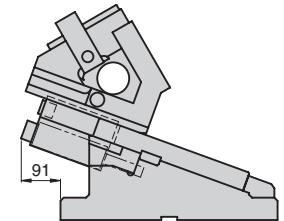
Option Code	Specification
N	φ16mm dowel hole provided in holder.
NF	Nitrogen gas not charged.



Order

UCMSNR200 - 50 - GK - N
UCMSNR200 - 50 - GK - NF

Space for removing



Spring Specification

No.	PS	Spring Model	Remark
④⑤	GK	K500-63.5	Gas Spring (KALLER)
	GD	L500.063.138	Gas Spring (DADCO)
	GS	SM500.63	Gas Spring (SDT)
	ISO	TJM50-178	Coil Spring (constant=74.9N/mm)

Guideline of spring durability 500,000 strokes

Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250
②	Cam Driver	1	FC250
④	Cam Holder	1	FC250
⑤	Spring Guide	1	Bronze with Graphite
⑥	Base Plate D-R	1	S45C(1045)
⑦	Base Plate D-L	1	S45C(1045)
⑧	Stopper Plate	1	S45C(1045)
⑩	Cam Slide Guide	1	Bronze with Graphite
⑪	Positive Return Follower	2	S45C(1045)
⑫	Safety Plate	2	SS400(1020)
⑬	Key A	4	SS400(1020)

No.	Description	Qty	Material and Remark
⑭	Key B	2	SS400(1020)
⑳	Stopper	1	Urethane
㉕	Slide Plate	2	S45C(1045)
㉖	Key C	1	SS400(1020)
㉘	Wear Plate	2	Bronze with Graphite
㉙	Spring Support	1	SS400(1020)
㉚	Slide Lock Plate	1	SS400(1020)
㉜	Spring Guide Plate	1	SS400(1020)
㉝	Spring	1	Refer to the Spring Specification Table.
㉞	Washer	1	S45C(1045) ISO specification only
㉟	Spring Guide Pin	1	S45C(1045) ISO specification only



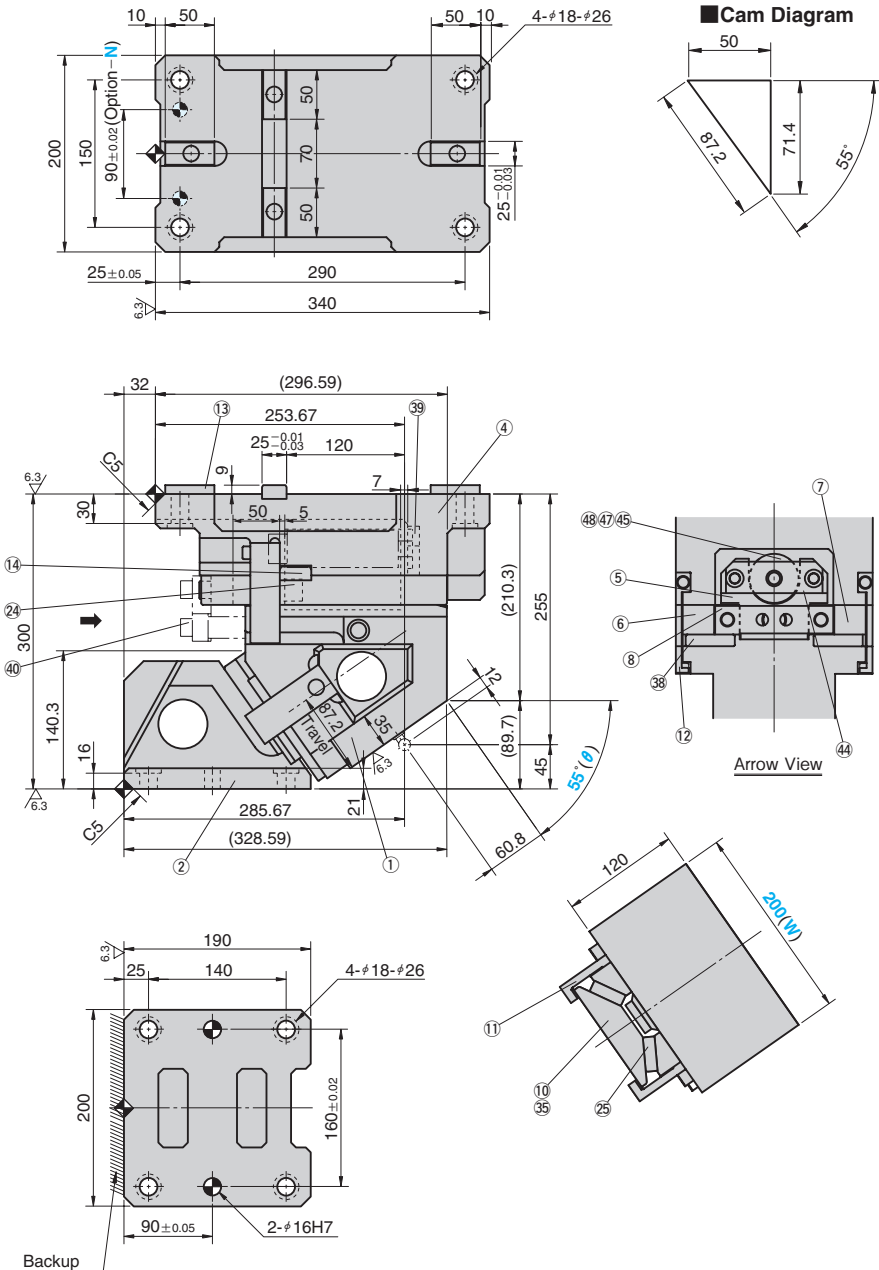
Bolts for assembly are not indicated.

Aerial Cam Unit

NAAMS STANDARD

CAD FILE

UCMSNR200-55



Travel S	Working Force kN(tonf)	Spring Force N(kgf)		Return Force N(kgf)	Total Weight (Slider Weight) kg	Catalog No.	W	θ	Spring Type
		Initial Load	Final Load						PS
87.2	353.0 (36.0)	-	6125.0 (624.6)	8716 (889.4)	80.5 (33.3)	UCMSNR	200	55	GK *NGK
			5334.0 (543.9)						GD *NGD
			6900.0 (703.6)						GS *NGS
			749.2 (76.4)	4494.0 (458.3)					ISO *NISO

* When supplying your own Nitrogen Spring, please add "N" at the beginning of your spring selection to ensure you are supplied the correct mounting hardware.



Order

Catalog No.	W	θ	PS
UCMSNR	200	55	GK
UCMSNR	200	55	NGK
UCMSNR	200	55	NISO

.....Without gas spring
.....Without coil spring



Option

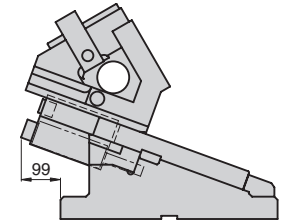
Option Code	Specification
N	φ16mm dowel hole provided in holder.
NF	Nitrogen gas not charged.



Order

UCMSNR200 - 55 - GK - N
UCMSNR200 - 55 - GK - NF

Space for removing



Spring Specification

No.	PS	Spring Model	Remark
④⑤	GK	K500-63.5	Gas Spring (KALLER)
	GD	L500.063.138	Gas Spring (DADCO)
	GS	SM500.63	Gas Spring (SDT)
	ISO	TJM50-178	Coil Spring (constant=74.9N/mm)

Guideline of spring durability 500,000 strokes

Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250
②	Cam Driver	1	FC250
④	Cam Holder	1	FC250
⑤	Spring Guide	1	Bronze with Graphite
⑥	Base Plate D-R	1	S45C(1045)
⑦	Base Plate D-L	1	S45C(1045)
⑧	Stopper Plate	1	S45C(1045)
⑩	Cam Slide Guide	1	Bronze with Graphite
⑪	Positive Return Follower	2	S45C(1045)
⑫	Safety Plate	2	SS400(1020)
⑬	Key A	4	SS400(1020)

No.	Description	Qty	Material and Remark
⑭	Key B	2	SS400(1020)
⑳	Stopper	1	Urethane
㉑	Slide Plate	2	S45C(1045)
㉒	Key C	1	SS400(1020)
㉓	Wear Plate	2	Bronze with Graphite
㉔	Spring Support	1	SS400(1020)
㉕	Slide Lock Plate	1	SS400(1020)
㉖	Spring Guide Plate	1	SS400(1020)
㉗	Spring	1	Refer to the Spring Specification Table.
㉘	Washer	1	S45C(1045) ISO specification only
㉙	Spring Guide Pin	1	S45C(1045) ISO specification only



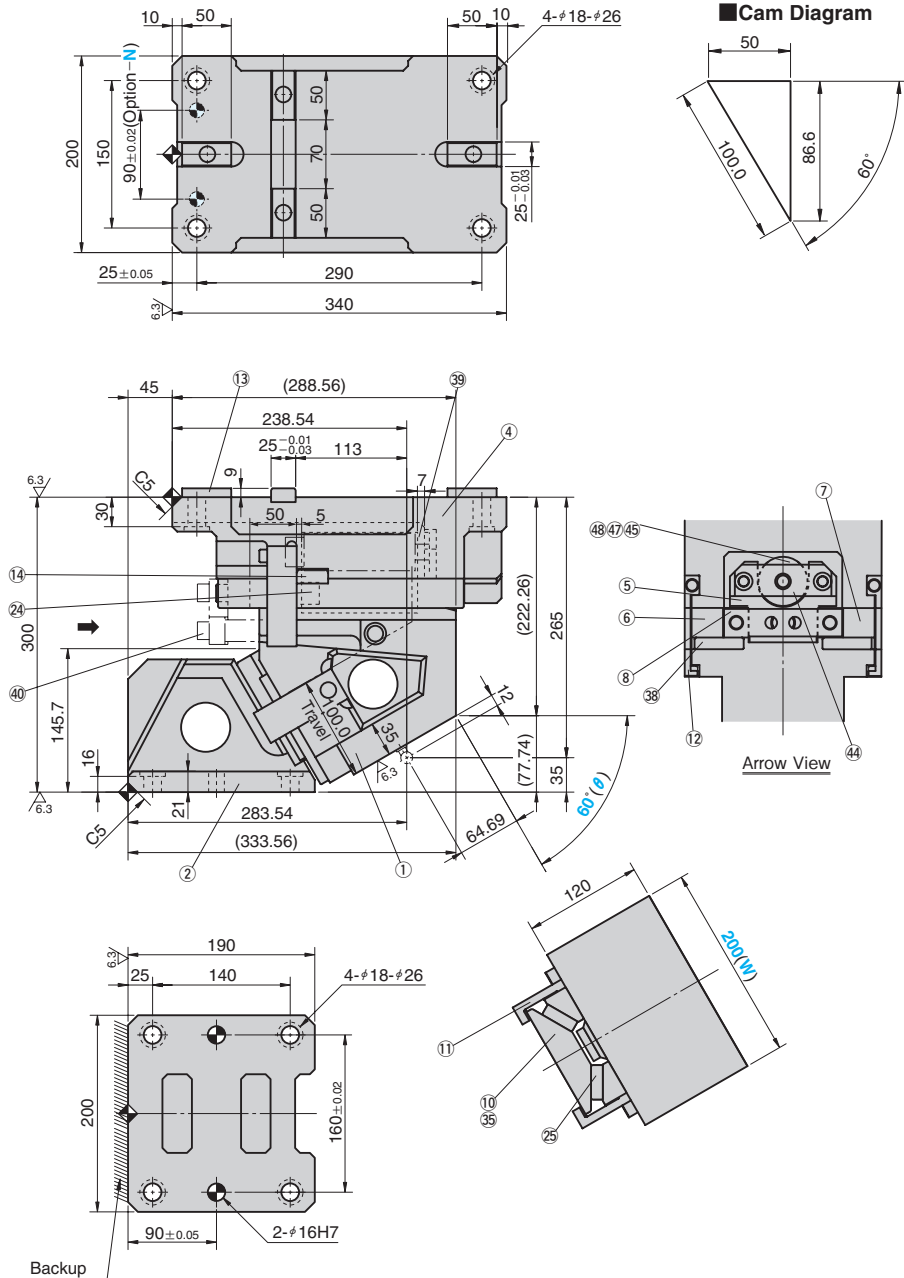
Bolts for assembly are not indicated.

Aerial Cam Unit

NAAMS STANDARD



UCMSNR200-60



Travel S	Working Force kN(tonf)	Spring Force N(kgf)		Return Force N(kgf)	Total Weight (Slider Weight) kg	Catalog No.	W	θ	Spring Type PS
		Initial Load	Final Load						
100.0	353.0 (36.0)	-	6125.0 (624.6)	9636 (983.3)	82.4 (33.8)	UCMSNR	200	60	GK *NGK
			5334.0 (543.9)						GD *NGD
			6900.0 (703.6)						GS *NGS
		749.2 (76.4)	4494.0 (458.3)						ISO *NISO

* When supplying your own Nitrogen Spring, please add "N" at the beginning of your spring selection to ensure you are supplied the correct mounting hardware.



Order

Catalog No.	W	θ	PS
UCMSNR	200	60	GK
UCMSNR	200	60	NGK
UCMSNR	200	60	NISO

.....Without gas spring
.....Without coil spring



Option

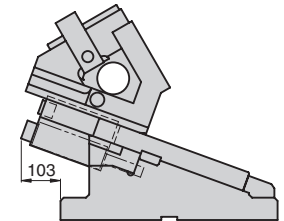
Option Code	Specification
N	φ16mm dowel hole provided in holder.
NF	Nitrogen gas not charged.



Order

UCMSNR200 - 60 - GK - N
UCMSNR200 - 60 - GK - NF

Space for removing



Spring Specification

No.	PS	Spring Model	Remark
45	GK	K500-63.5	Gas Spring (KALLER)
	GD	L500.063.138	Gas Spring (DADCO)
	GS	SM500.63	Gas Spring (SDT)
	ISO	TJM50-178	Coil Spring (constant=74.9N/mm)

Guideline of spring durability 500,000 strokes

Table of Components

No.	Description	Qty	Material and Remark
1	Cam Slider	1	FC250
2	Cam Driver	1	FC250
4	Cam Holder	1	FC250
5	Spring Guide	1	Bronze with Graphite
6	Base Plate D-R	1	S45C(1045)
7	Base Plate D-L	1	S45C(1045)
8	Stopper Plate	1	S45C(1045)
10	Cam Slide Guide	1	Bronze with Graphite
11	Positive Return Follower	2	S45C(1045)
12	Safety Plate	2	SS400(1020)
13	Key A	4	SS400(1020)

No.	Description	Qty	Material and Remark
14	Key B	2	SS400(1020)
24	Stopper	1	Urethane
25	Slide Plate	2	S45C(1045)
35	Key C	1	SS400(1020)
38	Wear Plate	2	Bronze with Graphite
39	Spring Support	1	SS400(1020)
40	Slide Lock Plate	1	SS400(1020)
44	Spring Guide Plate	1	SS400(1020)
45	Spring	1	Refer to the Spring Specification Table.
47	Washer	1	S45C(1045) ISO specification only
48	Spring Guide Pin	1	S45C(1045) ISO specification only



Bolts for assembly are not indicated.