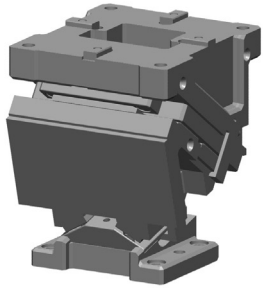


# Aerial Cam Unit General Description of UCMSNR

NAAMS STANDARD



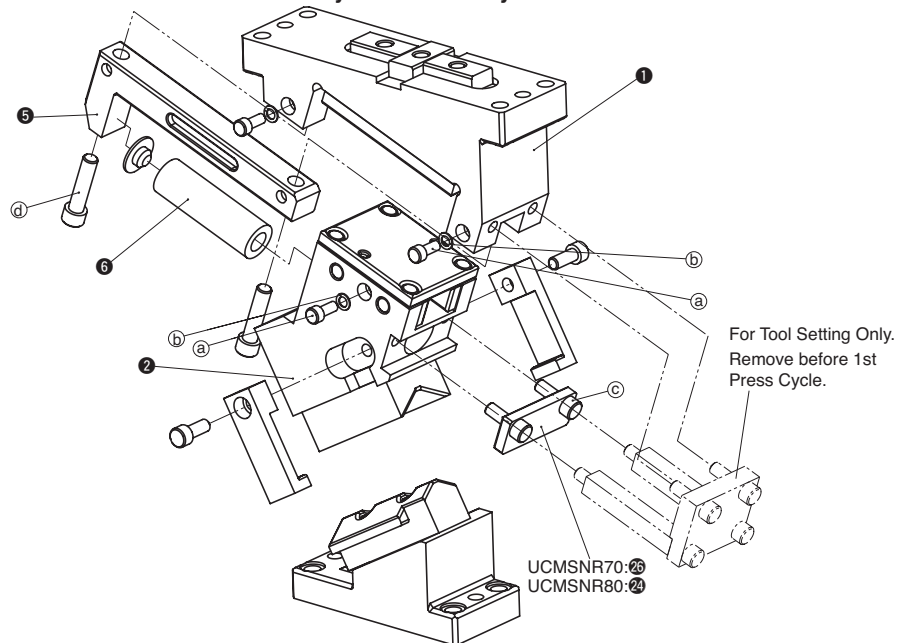
- Mounting surface widths 70, 80, 165, 200, 300, and 400 mm.
- Working angles from 0° to 60° in 5° increments.
- Easier adjustment of Slide Lock for the mounting surface width 165 mm or more.
- High-rigid structure with the material S45C.
- NAAMS Standard adapted.

▲ 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.

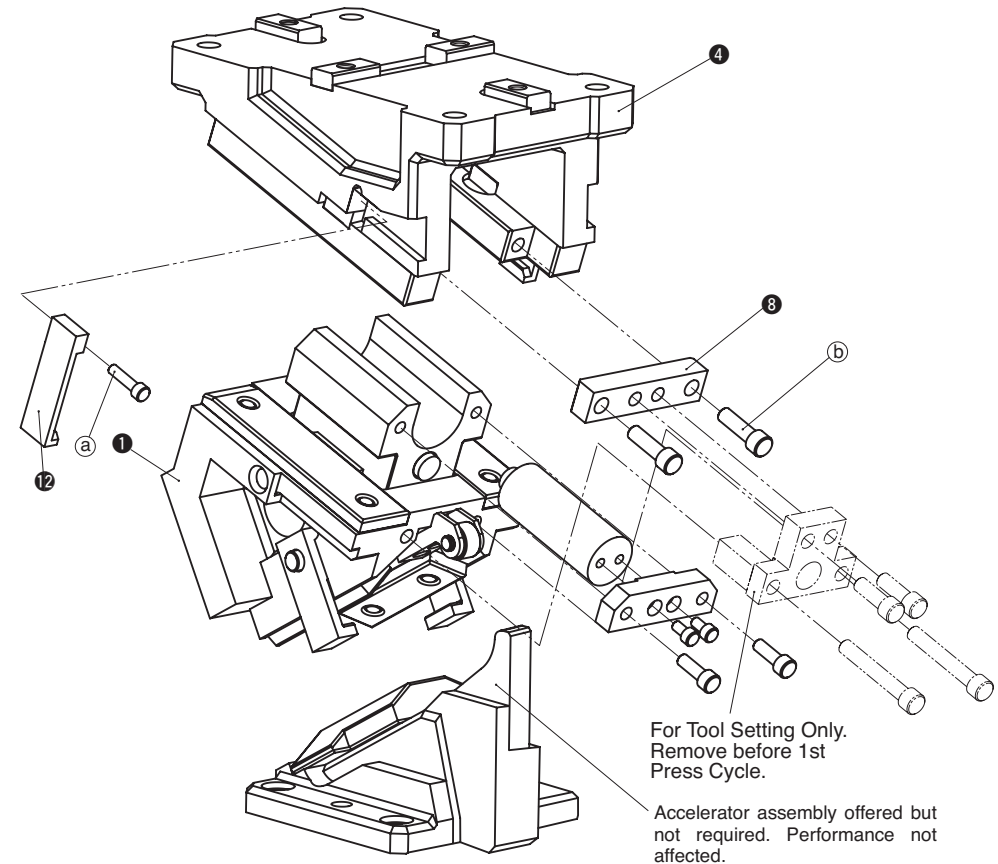
### Re-assembly

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.

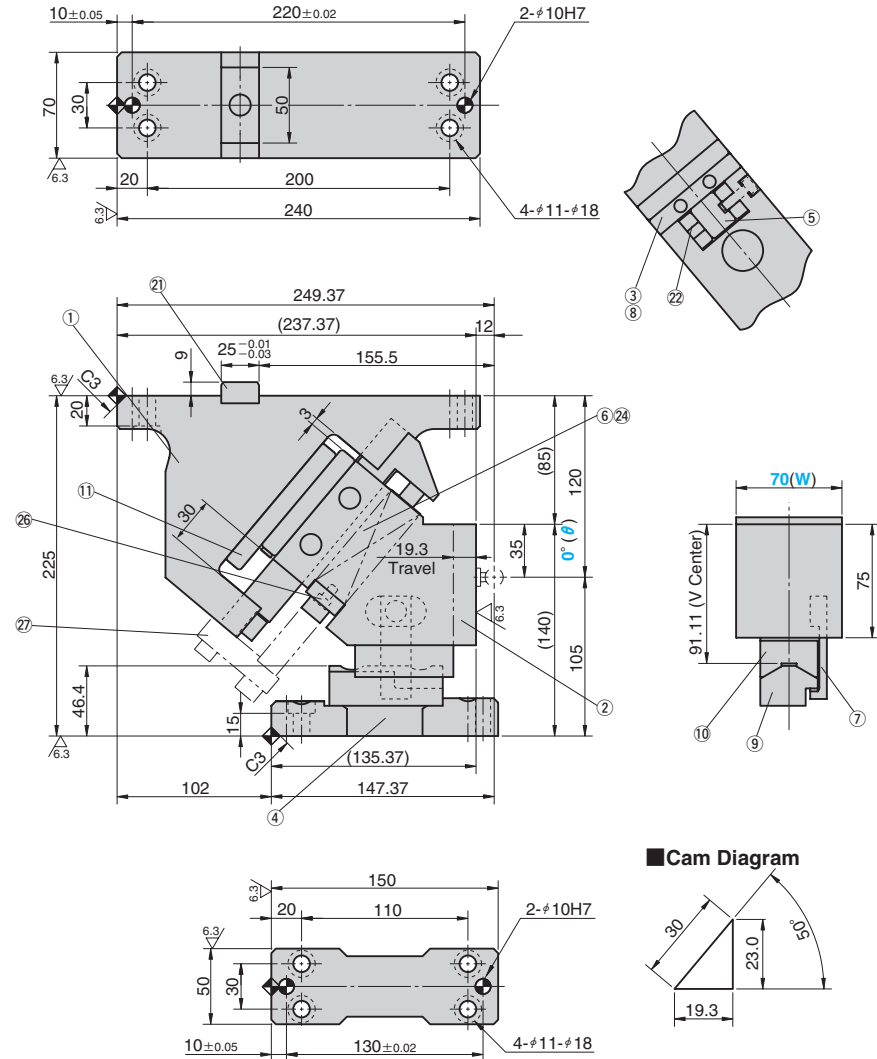
- Take care the respective tolerances are observed when assembling the slider and holder, which also should be identified by the same serial number.
- Ensure that all bolts are tightened to the recommended torque.

# Aerial Cam Unit

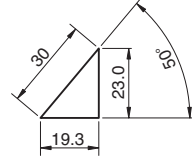
NAAMS STANDARD

CAD FILE

UCMSNR70-00



### Cam Diagram



Travel S	Working Force kN(tonf)	Spring Force N(kgf)		Return Force N(kgf)	Total Weight kg	Catalog No.	W	θ	Spring Type PS
		Initial Load	Final Load						
19.3	98.1 (10.0)	-	2350.0 (239.6)	3150 (321.4)	16.1	UCMSNR	70	00	GK *NGK
			1333.8 (136.0)						GD *NGD
			2280.0 (232.5)						GS *NGS
			88.2 (9.0)						676.2 (69.0)

\* 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	70	00	GK
UCMSNR	70	00	NGK
UCMSNR	70	00	NISO

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



Option

Option Code	Specification
NF	Nitrogen gas not charged.



Order

UCMSNR70-00-GK-NF

### Spring Specification

No.	PS	Spring Model	Remark
⑥	GK	M2-150-38.1	Gas Spring (KALLER)
	GD	C180-38.BU	Gas Spring (DADCO)
	GS	SFND150.38	Gas Spring (SDT)
	ISO	TJL25-115	Coil Spring (constant = 19.6N/mm)

Guideline of spring durability 1,000,000 strokes

### Table of Components

No.	Description	Qty	Material and Remark
①	Cam Holder	1	FCD540
②	Cam Slider	1	FCD540
③	Wear Plate	1	Bronze with Graphite
④	Cam Driver	1	FC250
⑤	Guide Bar	1	S45C(1045)
⑥	Spring	1	Refer to the spring specification table.
⑦	Positive Return Follower	1	S45C(1045)
⑧	Stopper	2	Urethane
⑨	Cam Slide Guide	1	Bronze with Graphite
⑩	Cam Slide Guide	1	S45C(1045)

No.	Description	Qty	Material and Remark
⑪	Slide Plate	1	S45C(1045)
⑫	Key A	1	SS400(1020)
⑬	Wear Plate	2	Bronze with Graphite
⑭	Spring Guide Pin	(1)	S45C(1045) ISO specification only
⑮	Spring Stopper Plate	1	SS400(1020)
⑯	Slide Lock Plate	1	SS400(1020)



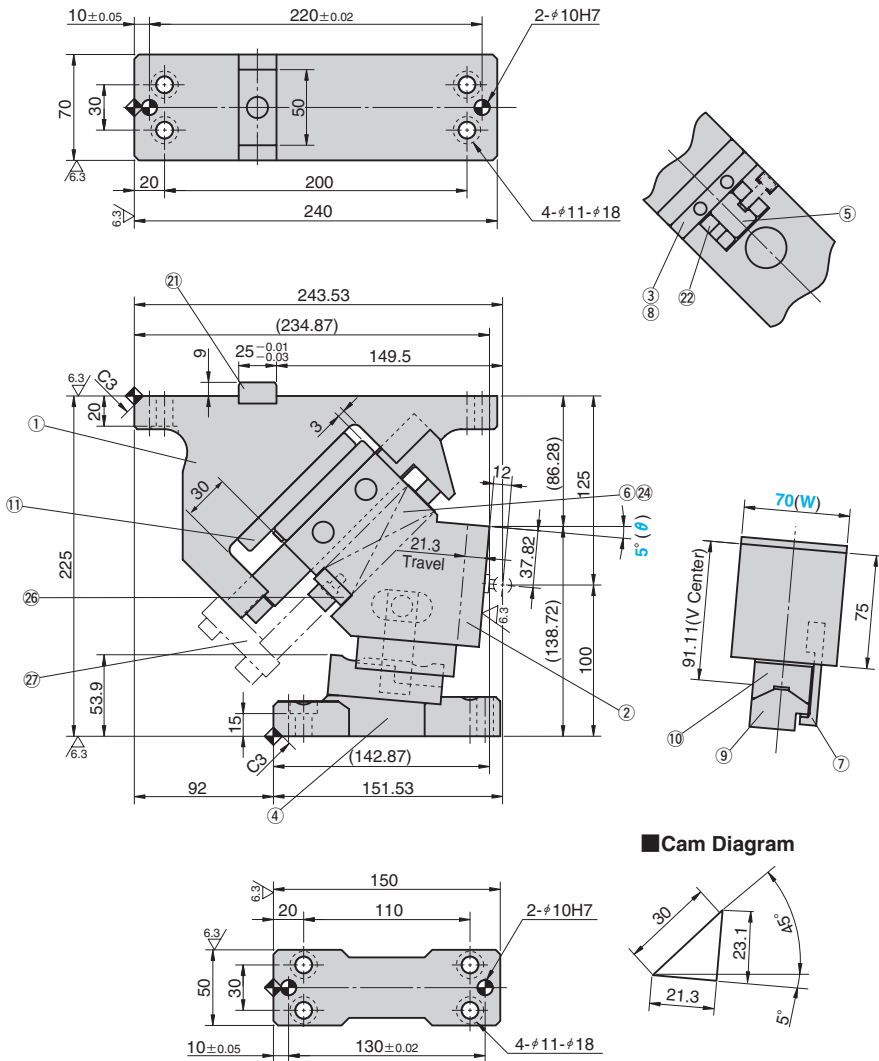
Bolts for assembly are not indicated.

# Aerial Cam Unit

NAAMS STANDARD

CAD FILE

UCMSNR70-05



Cam Diagram

Travel S	Working Force kN(tonf)	Spring Force N(kgf)		Return Force N(kgf)	Total Weight kg	Catalog No.	W	θ	Spring Type
		Initial Load	Final Load						PS
21.3	98.1 (10.0)	-	2350.0 (239.6)	3145 (320.9)	15.4	UCMSNR	70	05	GK *NGK
			1333.8 (136.0)						GD *NGD
			2280.0 (232.5)						GS *NGS
			676.2 (69.0)						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	70	05	GK
UCMSNR	70	05	NGK
UCMSNR	70	05	NISO

.....Without gas spring

.....Without coil spring



Option

Option Code	Specification
NF	Nitrogen gas not charged.



Order

UCMSNR70-05-GK-NF

## Spring Specification

No.	PS	Spring Model	Remark
⑥	GK	M2-150-38.1	Gas Spring (KALLER)
	GD	C180-38.BU	Gas Spring (DADCO)
	GS	SFND150.38	Gas Spring (SDT)
	ISO	TJL25-115	Coil Spring (constant = 19.6N/mm)

Guideline of spring durability 1,000,000 strokes

## Table of Components

No.	Description	Qty	Material and Remark
①	Cam Holder	1	FCD540
②	Cam Slider	1	FCD540
③	Wear Plate	1	Bronze with Graphite
④	Cam Driver	1	FC250
⑤	Guide Bar	1	S45C(1045)
⑥	Spring	1	Refer to the spring specification table.
⑦	Positive Return Follower	1	S45C(1045)
⑧	Stopper	2	Urethane
⑨	Cam Slide Guide	1	Bronze with Graphite
⑩	Cam Slide Guide	1	S45C(1045)

No.	Description	Qty	Material and Remark
⑪	Slide Plate	1	S45C(1045)
⑫	Key A	1	SS400(1020)
⑬	Wear Plate	2	Bronze with Graphite
⑭	Spring Guide Pin	(1)	S45C(1045) ISO specification only
⑮	Spring Stopper Plate	1	SS400(1020)
⑯	Slide Lock Plate	1	SS400(1020)



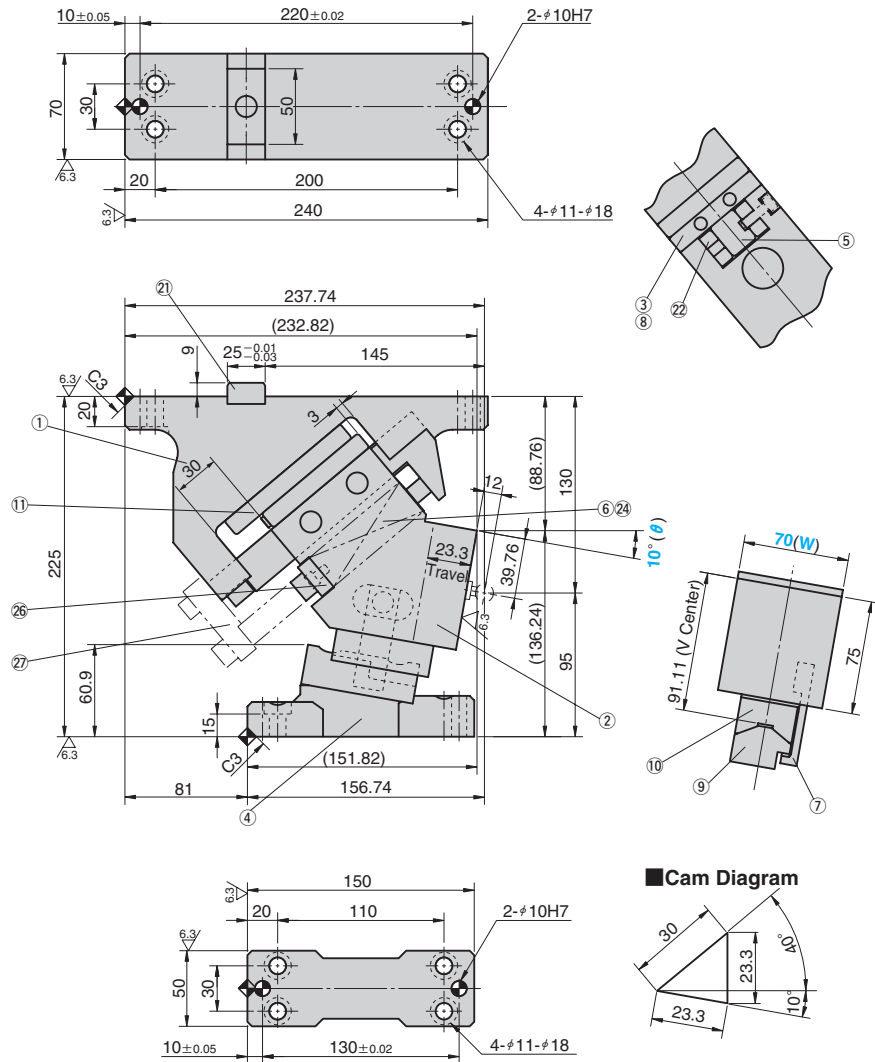
Bolts for assembly are not indicated.

# Aerial Cam Unit

NAAMS STANDARD

CAD FILE

UCMSNR70-10



Cam Diagram

Travel S	Working Force kN(tonf)	Spring Force N(kgf)		Return Force N(kgf)	Total Weight kg	Catalog No.	W	θ	Spring Type PS
		Initial Load	Final Load						
23.3	98.1 (10.0)	-	2350.0 (239.6)	3139 (320.3)	14.8	UCMSNR	70	10	GK *NGK
			1333.8 (136.0)						GD *NGD
		2280.0 (232.5)	GS *NGS						
		88.2 (9.0)	676.2 (69.0)	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 hard ware.



Order

Catalog No.	W	θ	PS
UCMSNR	70	10	GK
UCMSNR	70	10	NGK
UCMSNR	70	10	NISO

.....Without gas spring

.....Without coil spring



Option

Option Code	Specification
NF	Nitrogen gas not charged.



Order

UCMSNR70-10-GK-NF

## Spring Specification

No.	PS	Spring Model	Remark
⑥	GK	M2-150-38.1	Gas Spring (KALLER)
	GD	C180-38.BU	Gas Spring (DADCO)
	GS	SFND150.38	Gas Spring (SDT)
	ISO	TJL25-115	Coil Spring (constant = 19.6N/mm)

Guideline of spring durability 1,000,000 strokes

## Table of Components

No.	Description	Qty	Material and Remark
①	Cam Holder	1	FCD540
②	Cam Slider	1	FCD540
③	Wear Plate	1	Bronze with Graphite
④	Cam Driver	1	FC250
⑤	Guide Bar	1	S45C(1045)
⑥	Spring	1	Refer to the spring specification table.
⑦	Positive Return Follower	1	S45C(1045)
⑧	Stopper	2	Urethane
⑨	Cam Slide Guide	1	Bronze with Graphite
⑩	Cam Slide Guide	1	S45C(1045)

No.	Description	Qty	Material and Remark
⑪	Slide Plate	1	S45C(1045)
⑫	Key A	1	SS400(1020)
⑬	Wear Plate	2	Bronze with Graphite
⑭	Spring Guide Pin	(1)	S45C(1045) ISO specification only
⑮	Spring Stopper Plate	1	SS400(1020)
⑯	Slide Lock Plate	1	SS400(1020)



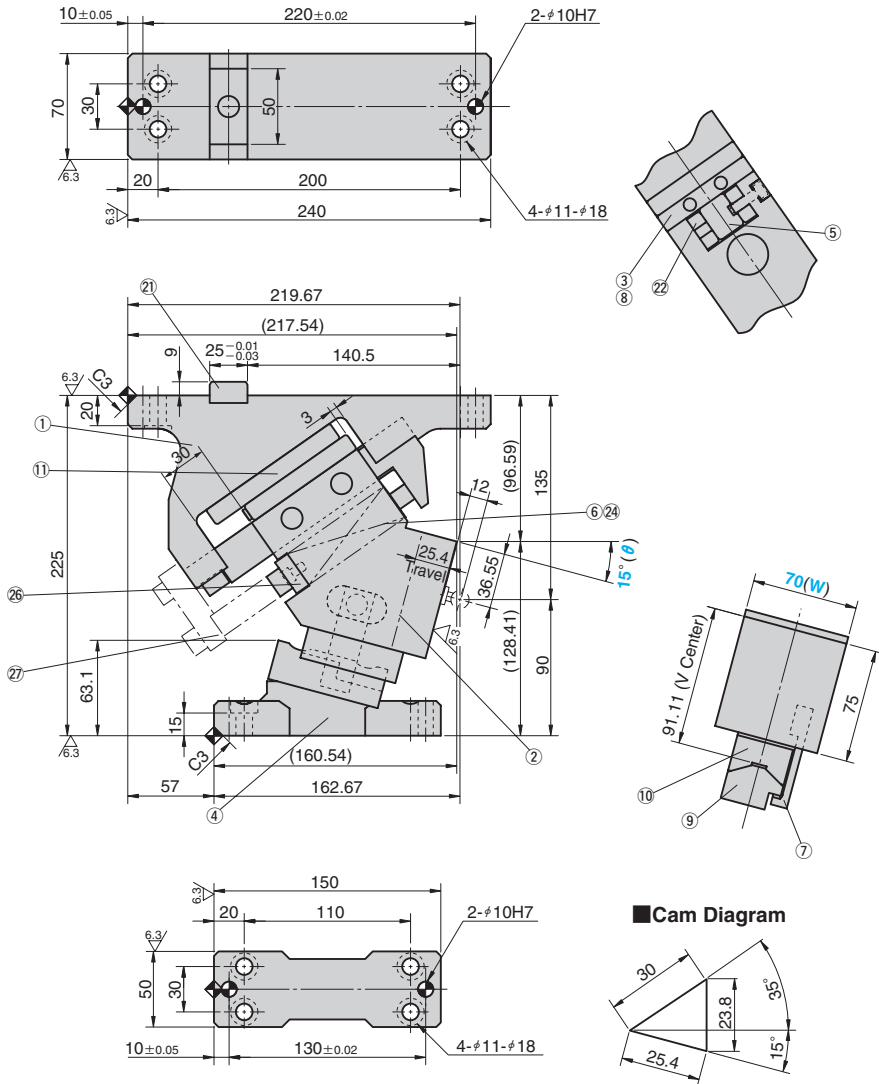
Bolts for assembly are not indicated.

# Aerial Cam Unit

NAAMS STANDARD

CAD FILE

UCMSNR70-15



Cam Diagram

Travel S	Working Force kN(tonf)	Spring Force N(kgf)		Return Force N(kgf)	Total Weight kg	Catalog No.	W	θ	Spring Type PS
		Initial Load	Final Load						
25.4	98.1 (10.0)	-	2350.0 (239.6)	3133 (319.7)	14.1	UCMSNR	70	15	GK *NGK
			1333.8 (136.0)						GD *NGD
			2280.0 (232.5)						GS *NGS
		88.2 (9.0)	676.2 (69.0)						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	70	15	GK
UCMSNR	70	15	NGK
UCMSNR	70	15	NISO

.....Without gas spring

.....Without coil spring



Option

Option Code	Specification
NF	Nitrogen gas not charged.



Order

UCMSNR70-15-GK-NF

## Spring Specification

No.	PS	Spring Model	Remark
⑥	GK	M2-150-38.1	Gas Spring (KALLER)
	GD	C180-38.BU	Gas Spring (DADCO)
	GS	SFND150.38	Gas Spring (SDT)
	ISO	TJL25-115	Coil Spring (constant = 19.6N/mm)

Guideline of spring durability 1,000,000 strokes

## Table of Components

No.	Description	Qty	Material and Remark
①	Cam Holder	1	FCD540
②	Cam Slider	1	FCD540
③	Wear Plate	1	Bronze with Graphite
④	Cam Driver	1	FC250
⑤	Guide Bar	1	S45C(1045)
⑥	Spring	1	Refer to the spring specification table.
⑦	Positive Return Follower	1	S45C(1045)
⑧	Stopper	2	Urethane
⑨	Cam Slide Guide	1	Bronze with Graphite
⑩	Cam Slide Guide	1	S45C(1045)

No.	Description	Qty	Material and Remark
⑪	Slide Plate	1	S45C(1045)
⑫	Key A	1	SS400(1020)
⑬	Wear Plate	2	Bronze with Graphite
⑭	Spring Guide Pin	(1)	S45C(1045) ISO specification only
⑮	Spring Stopper Plate	1	SS400(1020)
⑯	Slide Lock Plate	1	SS400(1020)



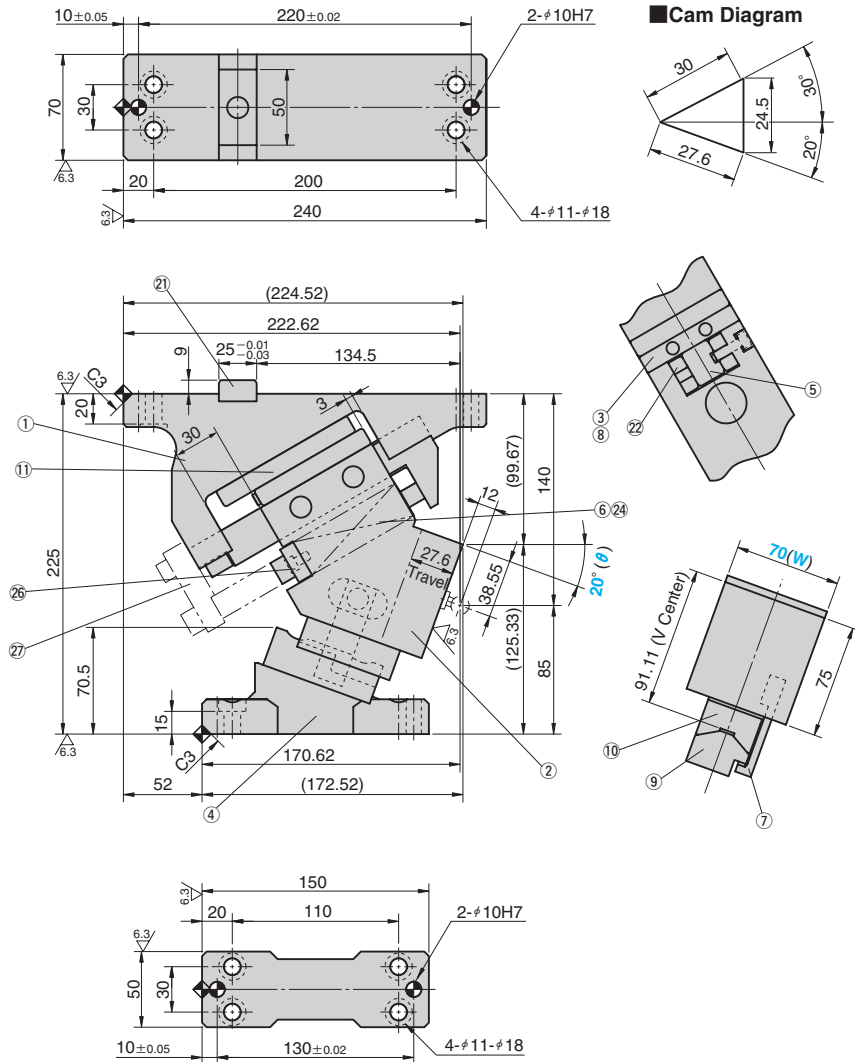
Bolts for assembly are not indicated.

# Aerial Cam Unit

NAAMS STANDARD

CAD  
FILE

## UCMSNR70-20



Travel S	Working Force kN(tonf)	Spring Force N(kgf)		Return Force N(kgf)	Total Weight kg	Catalog No.	W	θ	Spring Type PS
		Initial Load	Final Load						
27.6	98.1 (10.0)	-	2350.0 (239.6)	3127 (319.1)	14.1	UCMSNR	70	20	GK *NGK
			1333.8 (136.0)						GD *NGD
			2280.0 (232.5)						GS *NGS
		88.2 (9.0)	676.2 (69.0)						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	70	20	GK
UCMSNR	70	20	NGK
UCMSNR	70	20	NISO

.....Without gas spring

.....Without coil spring



Option

Option Code	Specification
NF	Nitrogen gas not charged.



Order

UCMSNR70-20-GK-NF

### Spring Specification

No.	PS	Spring Model	Remark
⑥	GK	M2-150-38.1	Gas Spring (KALLER)
	GD	C180-38.BU	Gas Spring (DADCO)
	GS	SFND150.38	Gas Spring (SDT)
	ISO	TJL25-115	Coil Spring (constant = 19.6N/mm)

Guideline of spring durability 1,000,000 strokes

### Table of Components

No.	Description	Qty	Material and Remark
①	Cam Holder	1	FCD540
②	Cam Slider	1	FCD540
③	Wear Plate	1	Bronze with Graphite
④	Cam Driver	1	FC250
⑤	Guide Bar	1	S45C(1045)
⑥	Spring	1	Refer to the spring specification table.
⑦	Positive Return Follower	1	S45C(1045)
⑧	Stopper	2	Urethane
⑨	Cam Slide Guide	1	Bronze with Graphite
⑩	Cam Slide Guide	1	S45C(1045)

No.	Description	Qty	Material and Remark
⑪	Slide Plate	1	S45C(1045)
⑫	Key A	1	SS400(1020)
⑬	Wear Plate	2	Bronze with Graphite
⑭	Spring Guide Pin	(1)	S45C(1045) ISO specification only
⑮	Spring Stopper Plate	1	SS400(1020)
⑯	Slide Lock Plate	1	SS400(1020)



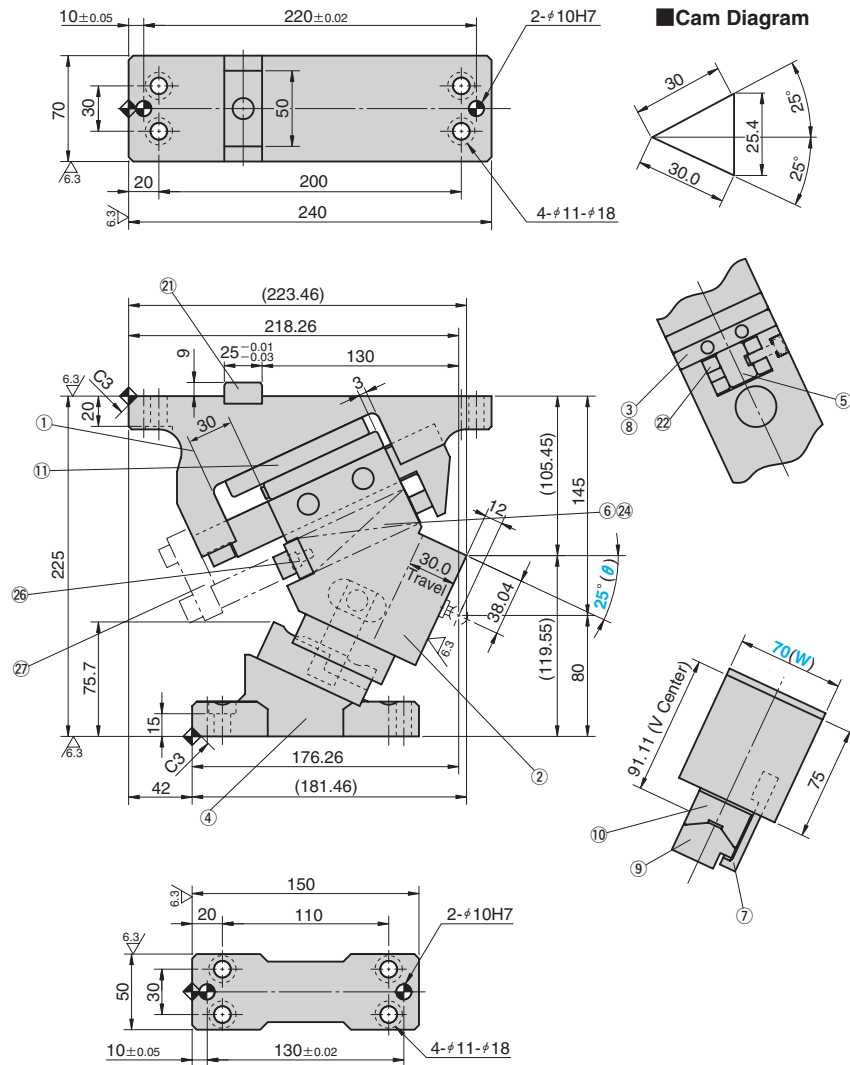
Bolts for assembly are not indicated.

# Aerial Cam Unit

NAAMS STANDARD

CAD  
FILE

## UCMSNR70-25



Travel S	Working Force kN(tonf)	Spring Force N(kgf)		Return Force N(kgf)	Total Weight kg	Catalog No.	W	θ	Spring Type PS
		Initial Load	Final Load						
30.0	98.1 (10.0)	-	2350.0 (239.6)	3121 (318.5)	14.0	UCMSNR	70	25	GK *NGK
			1333.8 (136.0)						GD *NGD
			2280.0 (232.5)						GS *NGS
			88.2 (9.0)						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	70	25	GK
UCMSNR	70	25	NGK
UCMSNR	70	25	NISO

.....Without gas spring

.....Without coil spring



Option

Option Code	Specification
NF	Nitrogen gas not charged.



Order

UCMSNR70-25-GK-NF

### Spring Specification

No.	PS	Spring Model	Remark
⑥	GK	M2-150-38.1	Gas Spring (KALLER)
	GD	C180-38.BU	Gas Spring (DADCO)
	GS	SFND150.38	Gas Spring (SDT)
	ISO	TJL25-115	Coil Spring (constant = 19.6N/mm)

Guideline of spring durability 1,000,000 strokes

### Table of Components

No.	Description	Qty	Material and Remark
①	Cam Holder	1	FCD540
②	Cam Slider	1	FCD540
③	Wear Plate	1	Bronze with Graphite
④	Cam Driver	1	FC250
⑤	Guide Bar	1	S45C(1045)
⑥	Spring	1	Refer to the spring specification table.
⑦	Positive Return Follower	1	S45C(1045)
⑧	Stopper	2	Urethane
⑨	Cam Slide Guide	1	Bronze with Graphite
⑩	Cam Slide Guide	1	S45C(1045)

No.	Description	Qty	Material and Remark
⑪	Slide Plate	1	S45C(1045)
⑫	Key A	1	SS400(1020)
⑬	Wear Plate	2	Bronze with Graphite
⑭	Spring Guide Pin	(1)	S45C(1045) ISO specification only
⑮	Spring Stopper Plate	1	SS400(1020)
⑯	Slide Lock Plate	1	SS400(1020)



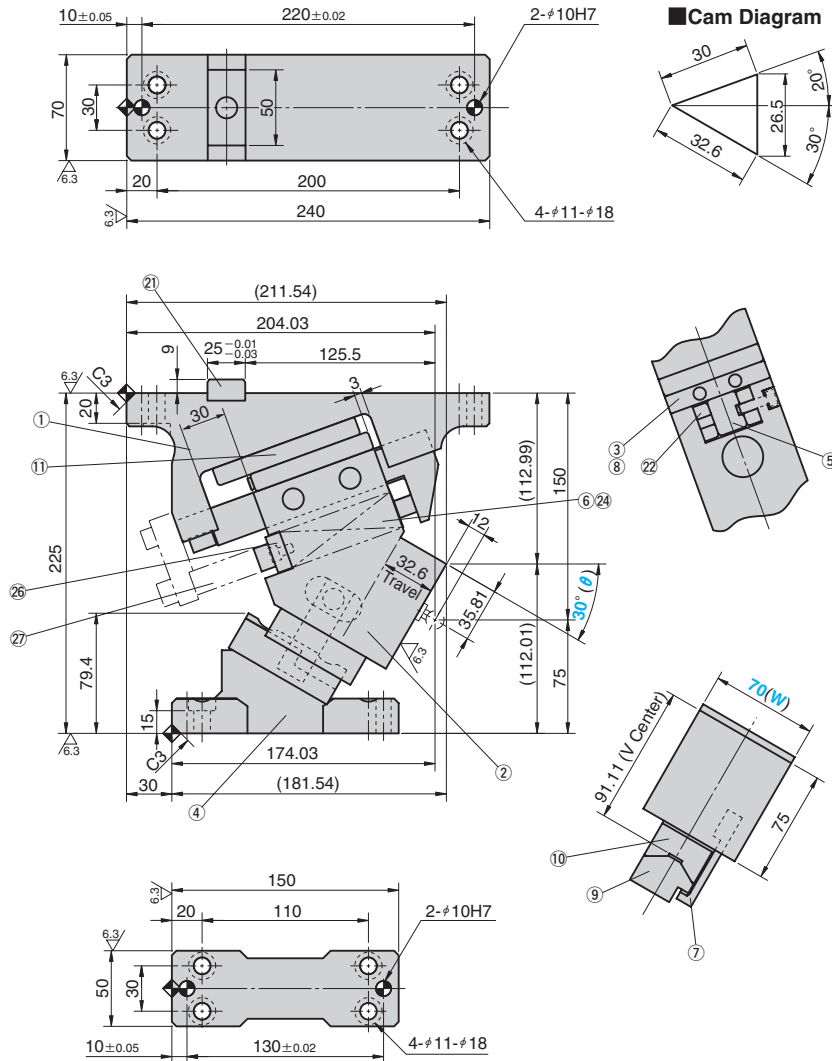
Bolts for assembly are not indicated.

# Aerial Cam Unit

NAAMS STANDARD

CAD  
FILE

## UCMSNR70-30



Travel S	Working Force kN(tonf)	Spring Force N(kgf)		Return Force N(kgf)	Total Weight kg	Catalog No.	W	θ	Spring Type PS
		Initial Load	Final Load						
32.6	98.1 (10.0)	-	2350.0 (239.6)	3114 (317.8)	13.8	UCMSNR	70	30	GK *NGK
			1333.8 (136.0)						GD *NGD
			2280.0 (232.5)						GS *NGS
		88.2 (9.0)	676.2 (69.0)						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	70	30	GK
UCMSNR	70	30	NGK
UCMSNR	70	30	NISO

.....Without gas spring

.....Without coil spring



Option

Option Code	Specification
NF	Nitrogen gas not charged.



Order

UCMSNR70-30-GK-NF

### Spring Specification

No.	PS	Spring Model	Remark
⑥	GK	M2-150-38.1	Gas Spring (KALLER)
	GD	C180-38.BU	Gas Spring (DADCO)
	GS	SFND150.38	Gas Spring (SDT)
	ISO	TJL25-115	Coil Spring (constant = 19.6N/mm)

Guideline of spring durability 1,000,000 strokes

### Table of Components

No.	Description	Qty	Material and Remark
①	Cam Holder	1	FCD540
②	Cam Slider	1	FCD540
③	Wear Plate	1	Bronze with Graphite
④	Cam Driver	1	FC250
⑤	Guide Bar	1	S45C(1045)
⑥	Spring	1	Refer to the spring specification table.
⑦	Positive Return Follower	1	S45C(1045)
⑧	Stopper	2	Urethane
⑨	Cam Slide Guide	1	Bronze with Graphite
⑩	Cam Slide Guide	1	S45C(1045)

No.	Description	Qty	Material and Remark
⑪	Slide Plate	1	S45C(1045)
⑫	Key A	1	SS400(1020)
⑬	Wear Plate	2	Bronze with Graphite
⑭	Spring Guide Pin	(1)	S45C(1045) ISO specification only
⑮	Spring Stopper Plate	1	SS400(1020)
⑯	Slide Lock Plate	1	SS400(1020)



Bolts for assembly are not indicated.

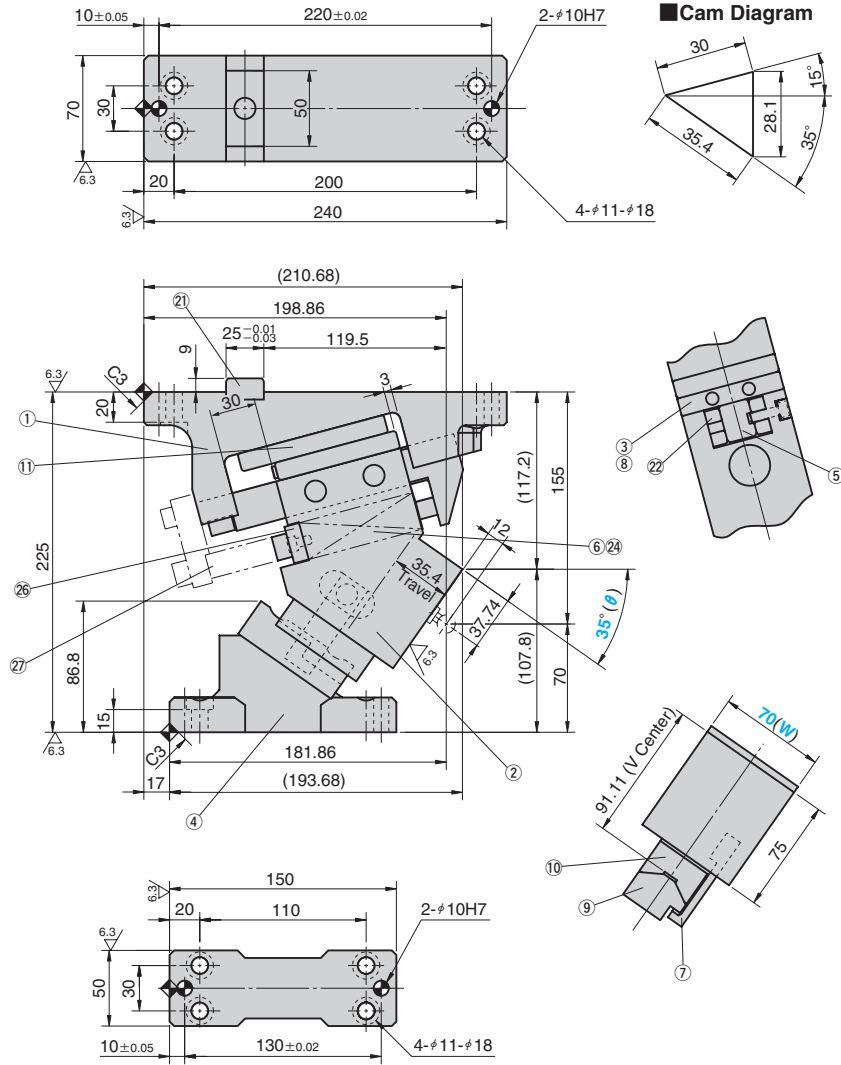


# Aerial Cam Unit

NAAMS STANDARD

CAD FILE

UCMSNR70-35



Travel S	Working Force kN(tonf)	Spring Force N(kgf)		Return Force N(kgf)	Total Weight kg	Catalog No.	W	θ	Spring Type
		Initial Load	Final Load						PS
35.4	98.1 (10.0)	-	2350.0 (239.6)	3108 (317.1)	13.7	UCMSNR	70	35	GK *NGK
			1333.8 (136.0)						GD *NGD
			2280.0 (232.5)						GS *NGS
			676.2 (69.0)						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	70	35	GK
UCMSNR	70	35	NGK
UCMSNR	70	35	NISO

.....Without gas spring

.....Without coil spring



Option

Option Code	Specification
NF	Nitrogen gas not charged.



Order

UCMSNR70-35-GK-NF

## Spring Specification

No.	PS	Spring Model	Remark
⑥	GK	M2-150-38.1	Gas Spring (KALLER)
	GD	C180-38.BU	Gas Spring (DADCO)
	GS	SFND150.38	Gas Spring (SDT)
	ISO	TJL25-115	Coil Spring (constant = 19.6N/mm)

Guideline of spring durability 1,000,000 strokes

## Table of Components

No.	Description	Qty	Material and Remark
①	Cam Holder	1	FCD540
②	Cam Slider	1	FCD540
③	Wear Plate	1	Bronze with Graphite
④	Cam Driver	1	FC250
⑤	Guide Bar	1	S45C(1045)
⑥	Spring	1	Refer to the spring specification table.
⑦	Positive Return Follower	1	S45C(1045)
⑧	Stopper	2	Urethane
⑨	Cam Slide Guide	1	Bronze with Graphite
⑩	Cam Slide Guide	1	S45C(1045)

No.	Description	Qty	Material and Remark
⑪	Slide Plate	1	S45C(1045)
⑫	Key A	1	SS400(1020)
⑬	Wear Plate	2	Bronze with Graphite
⑭	Spring Guide Pin	(1)	S45C(1045) ISO specification only
⑮	Spring Stopper Plate	1	SS400(1020)
⑯	Slide Lock Plate	1	SS400(1020)



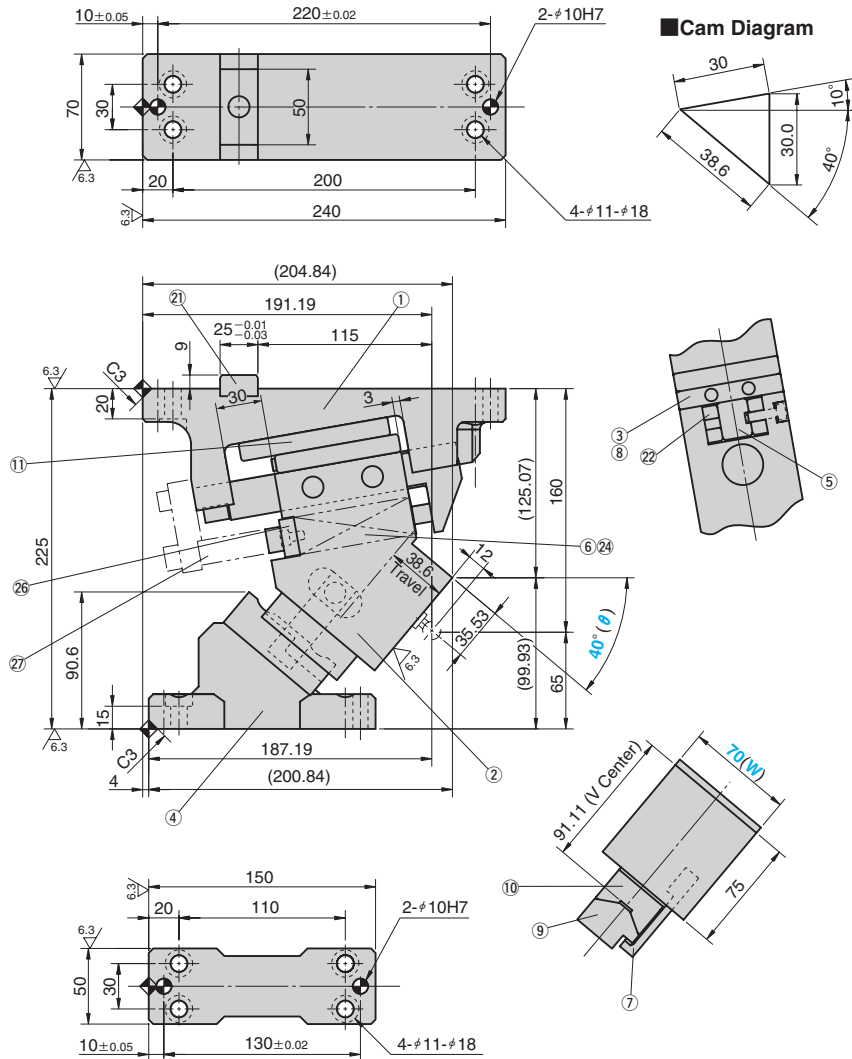
Bolts for assembly are not indicated.

# Aerial Cam Unit

NAAMS STANDARD

CAD  
FILE

UCMSNR70-40



Travel S	Working Force kN(tonf)	Spring Force N(kgf)		Return Force N(kgf)	Total Weight kg	Catalog No.	W	θ	Spring Type PS
		Initial Load	Final Load						
38.6	98.1 (10.0)	-	2350.0 (239.6)	3101 (316.4)	13.8	UCMSNR	70	40	GK *NGK
			1333.8 (136.0)						GD *NGD
			2280.0 (232.5)						GS *NGS
		88.2 (9.0)	676.2 (69.0)						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	70	40	GK
UCMSNR	70	40	NGK
UCMSNR	70	40	NISO

.....Without gas spring

.....Without coil spring



Option

Option Code	Specification
NF	Nitrogen gas not charged.



Order

UCMSNR70-40-GK-NF

## Spring Specification

No.	PS	Spring Model	Remark
⑥	GK	M2-150-38.1	Gas Spring (KALLER)
	GD	C180-38.BU	Gas Spring (DADCO)
	GS	SFND150.38	Gas Spring (SDT)
	ISO	TJL25-115	Coil Spring (constant = 19.6N/mm)

Guideline of spring durability 1,000,000 strokes

## Table of Components

No.	Description	Qty	Material and Remark
①	Cam Holder	1	FCD540
②	Cam Slider	1	FCD540
③	Wear Plate	1	Bronze with Graphite
④	Cam Driver	1	FC250
⑤	Guide Bar	1	S45C(1045)
⑥	Spring	1	Refer to the spring specification table.
⑦	Positive Return Follower	1	S45C(1045)
⑧	Stopper	2	Urethane
⑨	Cam Slide Guide	1	Bronze with Graphite
⑩	Cam Slide Guide	1	S45C(1045)

No.	Description	Qty	Material and Remark
⑪	Slide Plate	1	S45C(1045)
⑫	Key A	1	SS400(1020)
⑬	Wear Plate	2	Bronze with Graphite
⑭	Spring Guide Pin	(1)	S45C(1045) ISO specification only
⑮	Spring Stopper Plate	1	SS400(1020)
⑯	Slide Lock Plate	1	SS400(1020)



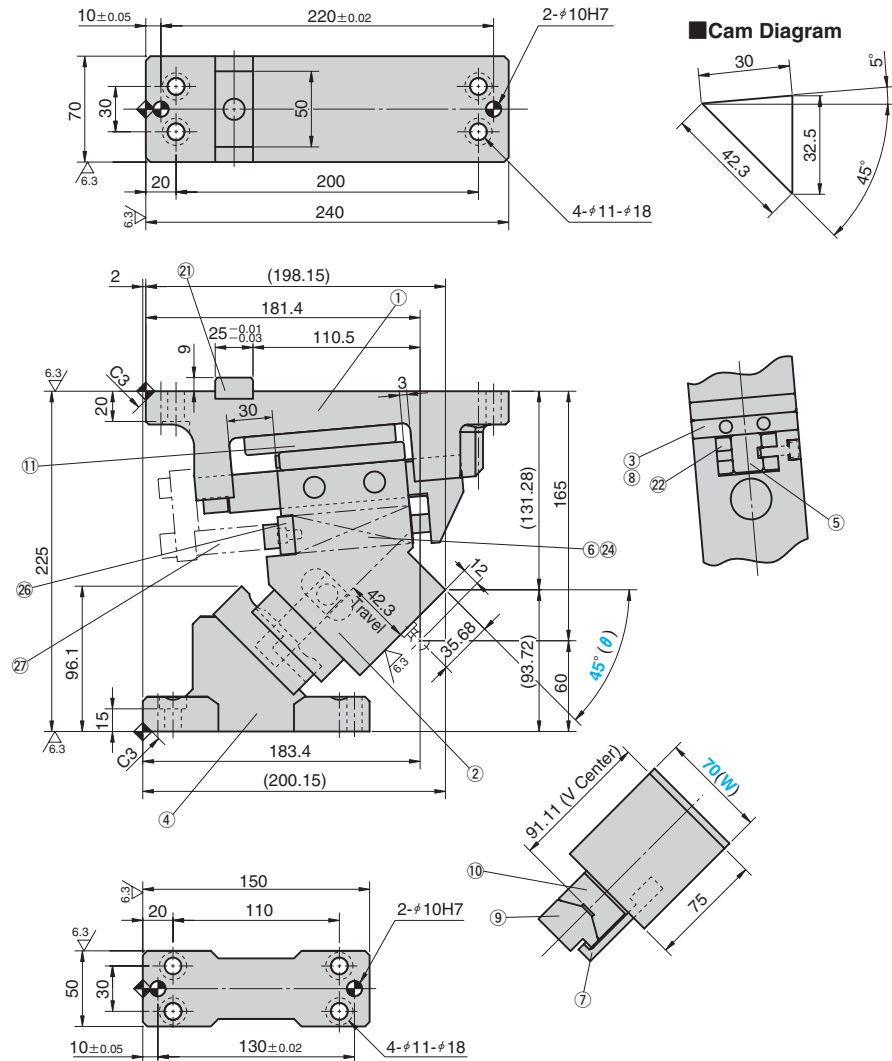
Bolts for assembly are not indicated.

# Aerial Cam Unit

NAAMS STANDARD

CAD  
FILE

## UCMSNR70-45



Travel S	Working Force kN(tonf)	Spring Force N(kgf)		Return Force N(kgf)	Total Weight kg	Catalog No.	W	θ	Spring Type PS
		Initial Load	Final Load						
42.3	98.1 (10.0)	-	2350.0 (239.6)	3094 (315.7)	13.8	UCMSNR	70	45	GK *NGK
			1333.8 (136.0)						GD *NGD
			2280.0 (232.5)						GS *NGS
		88.2 (9.0)	676.2 (69.0)	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	70	45	GK
UCMSNR	70	45	NGK
UCMSNR	70	45	NISO

.....Without gas spring

.....Without coil spring



Option

Option Code	Specification
NF	Nitrogen gas not charged.



Order

UCMSNR70-45-GK-NF

### Spring Specification

No.	PS	Spring Model	Remark
⑥	GK	M2-150-38.1	Gas Spring (KALLER)
	GD	C180-38.BU	Gas Spring (DADCO)
	GS	SFND150.38	Gas Spring (SDT)
	ISO	TJL25-115	Coil Spring (constant = 19.6N/mm)

Guideline of spring durability 1,000,000 strokes

### Table of Components

No.	Description	Qty	Material and Remark
①	Cam Holder	1	FCD540
②	Cam Slider	1	FCD540
③	Wear Plate	1	Bronze with Graphite
④	Cam Driver	1	FC250
⑤	Guide Bar	1	S45C(1045)
⑥	Spring	1	Refer to the spring specification table.
⑦	Positive Return Follower	1	S45C(1045)
⑧	Stopper	2	Urethane
⑨	Cam Slide Guide	1	Bronze with Graphite
⑩	Cam Slide Guide	1	S45C(1045)

No.	Description	Qty	Material and Remark
⑪	Slide Plate	1	S45C(1045)
⑫	Key A	1	SS400(1020)
⑬	Wear Plate	2	Bronze with Graphite
⑭	Spring Guide Pin	(1)	S45C(1045) ISO specification only
⑮	Spring Stopper Plate	1	SS400(1020)
⑯	Slide Lock Plate	1	SS400(1020)



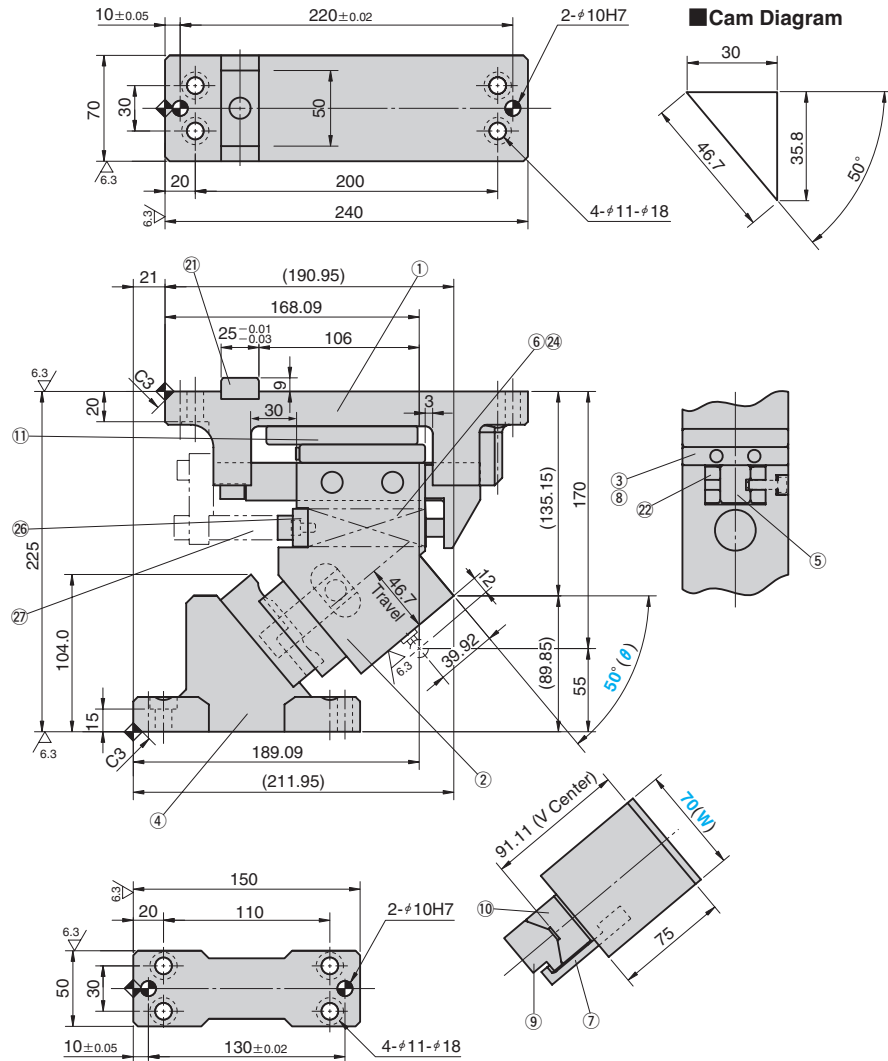
Bolts for assembly are not indicated.

# Aerial Cam Unit

NAAMS STANDARD

CAD FILE

## UCMSNR70-50



Travel S	Working Force kN(tonf)	Spring Force N(kgf)		Return Force N(kgf)	Total Weight kg	Catalog No.	W	θ	Spring Type PS
		Initial Load	Final Load						
46.7	98.1 (10.0)	-	2350.0 (239.6)	3088 (315.1)	13.9	UCMSNR	70	50	GK *NGK
			1333.8 (136.0)						GD *NGD
			2280.0 (232.5)						GS *NGS
			88.2 (9.0)						676.2 (69.0)

\* 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	70	50	GK
UCMSNR	70	50	NGK
UCMSNR	70	50	NISO

.....Without gas spring

.....Without coil spring



Option

Option Code	Specification
NF	Nitrogen gas not charged.



Order

UCMSNR70-50-GK-NF

### Spring Specification

No.	PS	Spring Model	Remark
⑥	GK	M2-150-38.1	Gas Spring (KALLER)
	GD	C180-38.BU	Gas Spring (DADCO)
	GS	SFND150.38	Gas Spring (SDT)
	ISO	TJL25-115	Coil Spring (constant = 19.6N/mm)

Guideline of spring durability 1,000,000 strokes

### Table of Components

No.	Description	Qty	Material and Remark
①	Cam Holder	1	FCD540
②	Cam Slider	1	FCD540
③	Wear Plate	1	Bronze with Graphite
④	Cam Driver	1	FC250
⑤	Guide Bar	1	S45C(1045)
⑥	Spring	1	Refer to the spring specification table.
⑦	Positive Return Follower	1	S45C(1045)
⑧	Stopper	2	Urethane
⑨	Cam Slide Guide	1	Bronze with Graphite
⑩	Cam Slide Guide	1	S45C(1045)

No.	Description	Qty	Material and Remark
⑪	Slide Plate	1	S45C(1045)
⑫	Key A	1	SS400(1020)
⑬	Wear Plate	2	Bronze with Graphite
⑭	Spring Guide Pin	(1)	S45C(1045) ISO specification only
⑮	Spring Stopper Plate	1	SS400(1020)
⑯	Slide Lock Plate	1	SS400(1020)



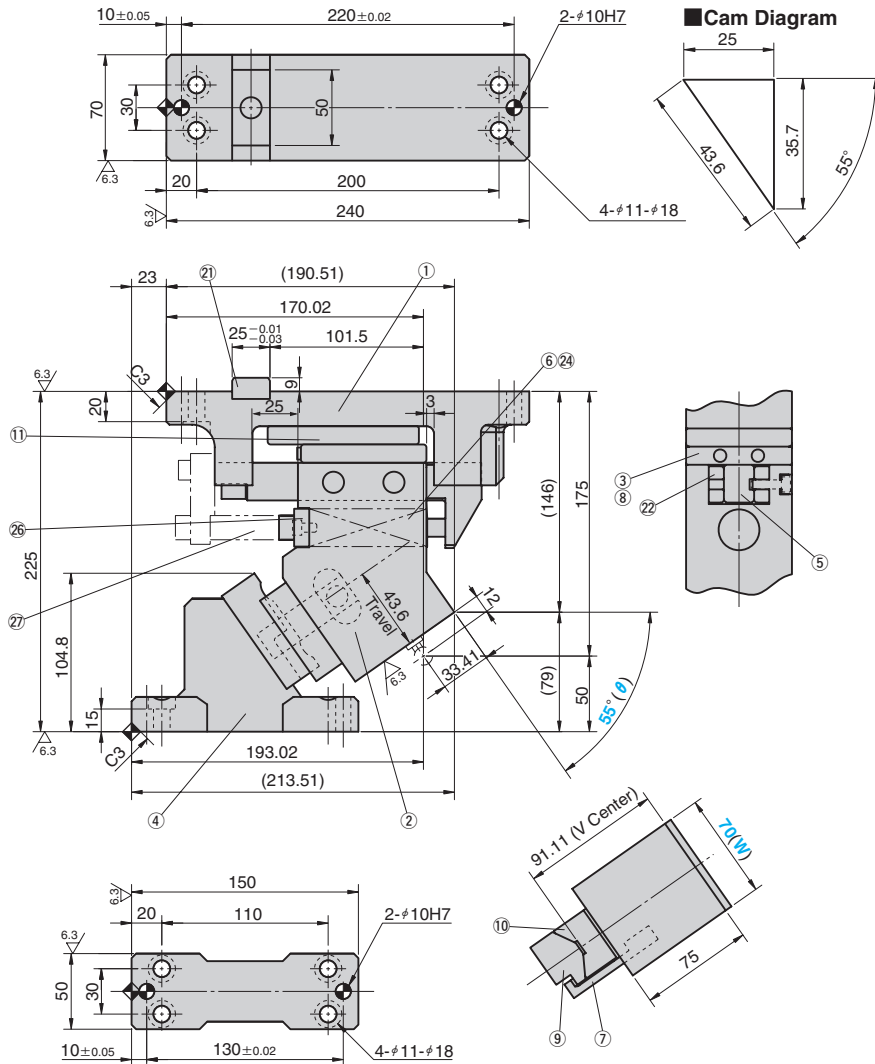
Bolts for assembly are not indicated.

# Aerial Cam Unit

NAAMS STANDARD

CAD FILE

UCMSNR70-55



Travel S	Working Force kN(tonf)	Spring Force N(kgf)		Return Force N(kgf)	Total Weight kg	Catalog No.	W	θ	Spring Type PS
		Initial Load	Final Load						
43.6	98.1 (10.0)	-	2230.2 (227.3)	3359 (342.7)	14.1	UCMSNR	70	55	GK *NGK
			1279.1 (130.4)						GD *NGD
			2280.0 (232.5)						GS *NGS
			88.2 (9.0)	578.2 (59.0)					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	70	55	GK
UCMSNR	70	55	NGK
UCMSNR	70	55	NISO

.....Without gas spring

.....Without coil spring



Option

Option Code	Specification
NF	Nitrogen gas not charged.



Order

UCMSNR70-55-GK-NF

## Spring Specification

No.	PS	Spring Model	Remark
⑥	GK	M2-150-38.1	Gas Spring (KALLER)
	GD	C180-38.BU	Gas Spring (DADCO)
	GS	SFND150.38	Gas Spring (SDT)
	ISO	TJL25-115	Coil Spring (constant = 19.6N/mm)

Guideline of spring durability 1,000,000 strokes

## Table of Components

No.	Description	Qty	Material and Remark
①	Cam Holder	1	FCD540
②	Cam Slider	1	FCD540
③	Wear Plate	1	Bronze with Graphite
④	Cam Driver	1	FC250
⑤	Guide Bar	1	S45C(1045)
⑥	Spring	1	Refer to the spring specification table.
⑦	Positive Return Follower	1	S45C(1045)
⑧	Stopper	2	Urethane
⑨	Cam Slide Guide	1	Bronze with Graphite
⑩	Cam Slide Guide	1	S45C(1045)

No.	Description	Qty	Material and Remark
⑪	Slide Plate	1	S45C(1045)
⑫	Key A	1	SS400(1020)
⑬	Wear Plate	2	Bronze with Graphite
⑭	Spring Guide Pin	(1)	S45C(1045) ISO specification only
⑮	Spring Stopper Plate	1	SS400(1020)
⑯	Slide Lock Plate	1	SS400(1020)



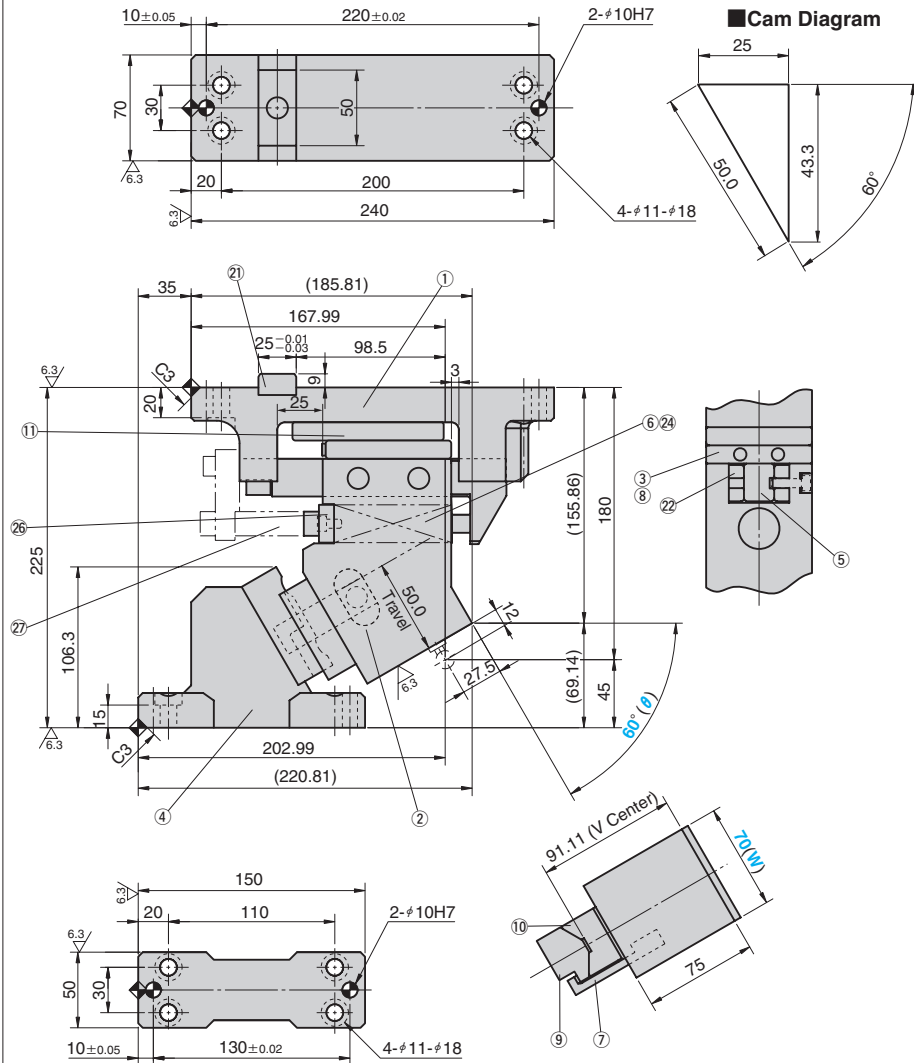
Bolts for assembly are not indicated.

# Aerial Cam Unit

NAAMS STANDARD

CAD FILE

UCMSNR70-60



Travel S	Working Force kN(tonf)	Spring Force N(kgf)		Return Force N(kgf)	Total Weight kg	Catalog No.	W	θ	Spring Type PS
		Initial Load	Final Load						
50.0	98.1 (10.0)	-	2230.2 (227.3)	1279.1 (130.4)	3713 (378.9)	UCMSNR	70	60	GK *NGK
			2280.0 (232.5)	578.2 (59.0)					GD *NGD
									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	70	60	GK
UCMSNR	70	60	NGK
UCMSNR	70	60	NISO

.....Without gas spring

.....Without coil spring



Option

Option Code	Specification
NF	Nitrogen gas not charged.



Order

UCMSNR70-60-GK-NF

## Spring Specification

No.	PS	Spring Model	Remark
⑥	GK	M2-150-38.1	Gas Spring (KALLER)
	GD	C180-38.BU	Gas Spring (DADCO)
	GS	SFND150.38	Gas Spring (SDT)
	ISO	TJL25-115	Coil Spring (constant = 19.6N/mm)

Guideline of spring durability 1,000,000 strokes

## Table of Components

No.	Description	Qty	Material and Remark
①	Cam Holder	1	FCD540
②	Cam Slider	1	FCD540
③	Wear Plate	1	Bronze with Graphite
④	Cam Driver	1	FC250
⑤	Guide Bar	1	S45C(1045)
⑥	Spring	1	Refer to the spring specification table.
⑦	Positive Return Follower	1	S45C(1045)
⑧	Stopper	2	Urethane
⑨	Cam Slide Guide	1	Bronze with Graphite
⑩	Cam Slide Guide	1	S45C(1045)

No.	Description	Qty	Material and Remark
⑪	Slide Plate	1	S45C(1045)
⑫	Key A	1	SS400(1020)
⑬	Wear Plate	2	Bronze with Graphite
⑭	Spring Guide Pin	(1)	S45C(1045) ISO specification only
⑮	Spring Stopper Plate	1	SS400(1020)
⑯	Slide Lock Plate	1	SS400(1020)



Bolts for assembly are not indicated.