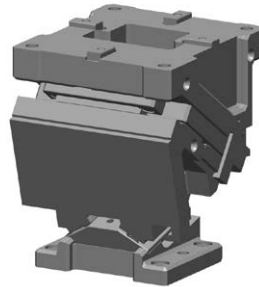


UCMSNR [Overview]

NAAMS Type

Product Information

- Mount face widths 70, 80, 165, 200, 300, and 400.
- Working angles from 0° to 60° in 5° increments.
- Coil or Gas Spring can be selected for pressure source.
- Gas Spring is removable from the rear without disassembling.
- 65°, 70°, 75° upon request.



Mount Face		Working Angle	Travel	Working Force kN (tonf)
W	H			
		00	19.3	
		05	21.3	
		10	23.3	
		15	25.4	
		20	27.6	
		25	30.0	
70	75	30	32.6	98.1 (10.0)
		35	35.4	
		40	38.6	
		45	42.3	
		50	46.7	
		55	43.6	
		60	50.0	
		00	32.1	
		05	35.5	
		10	38.9	
		15	42.4	
		20	46.1	
		25	50.0	
80	75	30	54.3	166.7 (17.0)
		35	59.0	
		40	64.3	
		45	70.4	
		50	77.8	
		55	78.5	
		60	80.0	

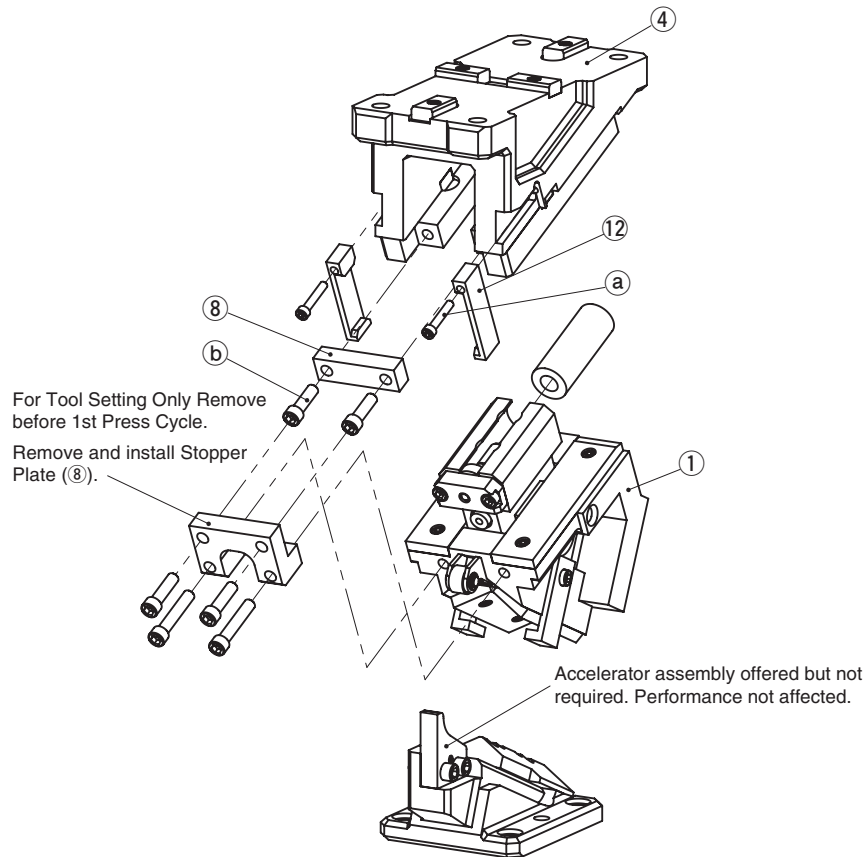
Mount Face		Working Angle	Travel	Working Force kN (tonf)
W	H			
		00	32.1	
		05	35.5	
		10	38.9	
		15	42.4	
		20	46.1	
	120	25	50.0	
165		30	54.3	294.2 (30.0)
		35	59.0	
		40	64.3	
		45	70.4	
		50	77.8	
	125	55	87.2	
		60	100.0	
		00	32.1	
		05	35.5	
		10	38.9	
		15	42.4	
		20	46.1	
		25	50.0	
200	120	30	54.3	353.0 (36.0)
		35	59.0	
		40	64.3	
		45	70.4	
		50	77.8	
		55	87.2	
		60	100.0	
		00	38.6	
		05	42.6	
		10	46.7	
		15	50.9	
		20	55.3	
		25	60.0	
300 400	160	30	65.1	451.1 (46.0)
		35	70.8	
		40	77.1	
		45	84.5	
		50	79.3	
		55	88.9	
		60	102.0	

UCMSNR [Overview]

NAAMS Type

Product Information

■UCMSNR165 Assembly Instructions



● Disassembly

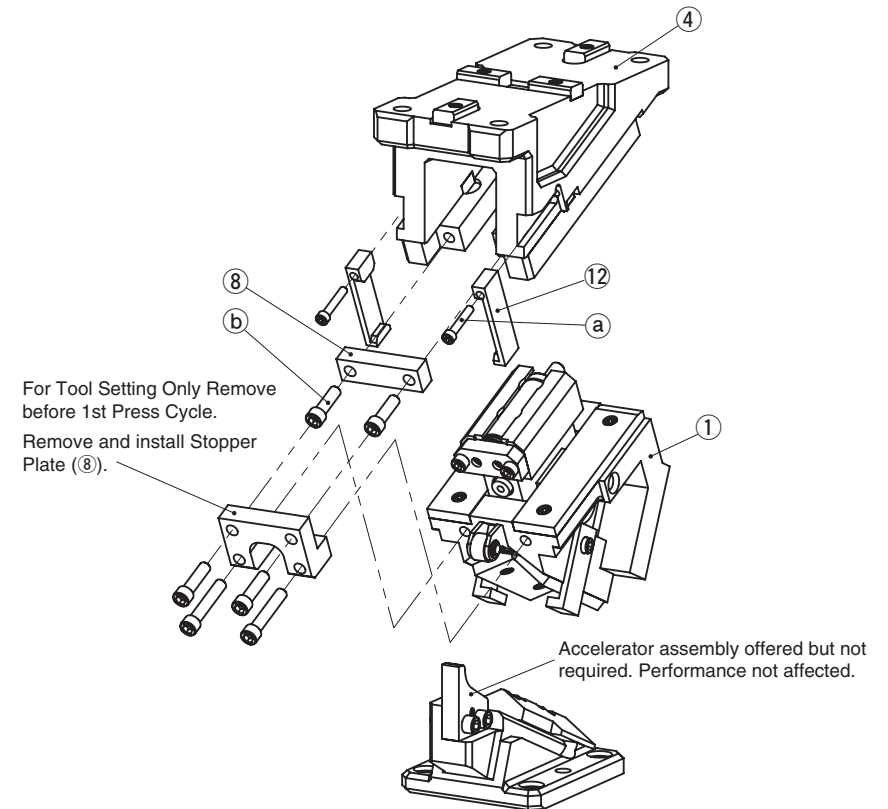
- 1) Remove Hexagon Socket Head Bolts (a), and remove Safety Plate (12).
- 2) Remove Hexagon Socket Head Bolts (b), and remove Stopper Plate (8).
- 3) Pull out and remove Cam Slider (1) from Cam Holder (4) to the rear.

● Assembly

Assembly is the reverse procedure of disassembly.

- Ensure that all parts are clean, particularly the sliding components to which a small amount of lubricant is applied and is then placed in position.
- Take care that the respective tolerances are observed when assembling Cam Slider and Cam Holder, which also should be identified by the same serial number.
- Make sure that all bolts are tighten to the recommended torque after assembly and disassembly.

■UCMSNR165 Assembly Instructions (Gas Spring)



● Disassembly

- 1) Remove Hexagon Socket Head Bolts (a), and remove Safety Plate (12).
- 2) Remove Hexagon Socket Head Bolts (b), and remove Stopper Plate (8).
- 3) Pull out and remove Cam Slider (1) from Cam Holder (4) to the rear.

● Assembly

Assembly is the reverse procedure of disassembly.

- Ensure that all parts are clean, particularly the sliding components to which a small amount of lubricant is applied and is then placed in position.
- Take care that the respective tolerances are observed when assembling Cam Slider and Cam Holder, which also should be identified by the same serial number.
- Make sure that all bolts are tighten to the recommended torque after assembly and disassembly.



Gas Spring

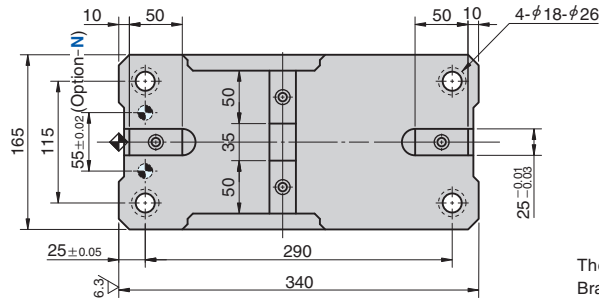
Please contact your local sales representative if you prefer to use a gas spring not specified in our catalog. For use and maintenance of gas spring, please contact the manufacturer directly.

UCMSNR

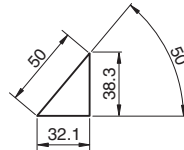
NAAMS Type

Aerial Cam Unit

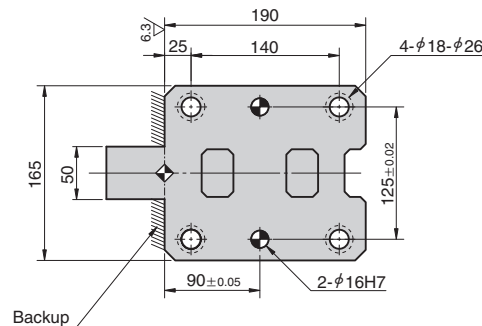
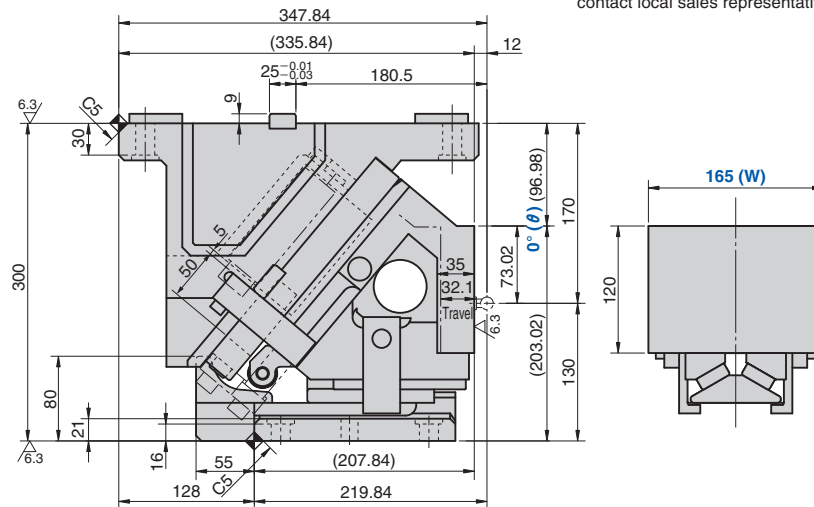
UCMSNR165-00



● Cam Diagram



The Cam Diagram shows no Roller Bracket assemblies or Accelerators. If these items are needed, please contact local sales representative.



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	294.2 (30.0)	—	3430.0 (349.8)	4743 (484.0)	76.1 (25.2)	UCMSNR	165	00	GK NGK
			3518.0 (358.7)						GD NGD
			3490.0 (355.9)						GS NGS
			2694.0 (274.7)						ISO NISO
		449.1 (45.8)	2694.0 (274.7)	3774 (385.1)					

ISO: Coil Spring GK: Gas Spring (KALLER) GD: Gas Spring (DADCO) GS: Gas Spring (SDT)
NGK/NGD/NGS: Without Gas Spring NISO: Without Coil Spring Parts for spring assembly are included.



Catalog No.	W	—	θ	—	PS	—	Option
UCMSNR	165	—	00	—	GK		
UCMSNR	165	—	00	—	NGK		
UCMSNR	165	—	00	—	NISO		
UCMSNR	165	—	00	—	GK	— N	
UCMSNR	165	—	00	—	GK	— NF	



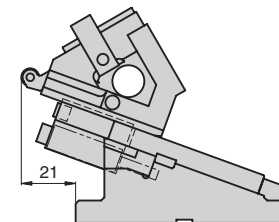
Option Code	Specification
N	φ16H7 dowel hole is drilled on the cam holder.
NF	Nitrogen gas not charged.

Spring Specification

No.	PS	Spring Model	Qty	Remark
47	GK	TU250-63.5	1	Gas Spring (KALLER)
	GD	L300.063.138	1	Gas Spring (DADCO)
	GS	SPF.250.63	1	Gas Spring (SDT)
	ISO	TJM40-178	1	Coil Spring [Spring constant = 44.9 N/mm]

Life expectancy of Coil Spring is approximately 500,000 strokes.

Rear Removal Space



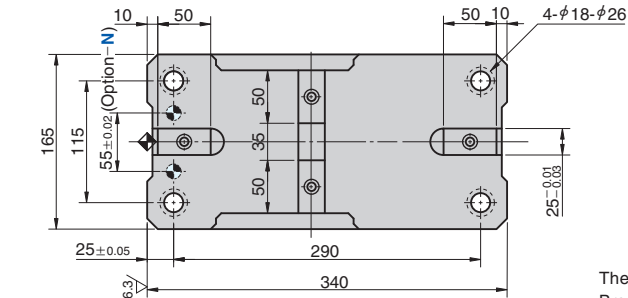
Refer to page 781 for Table of Components.

UCMSNR

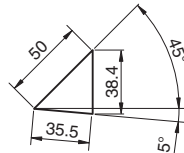
NAAMS Type

Aerial Cam Unit

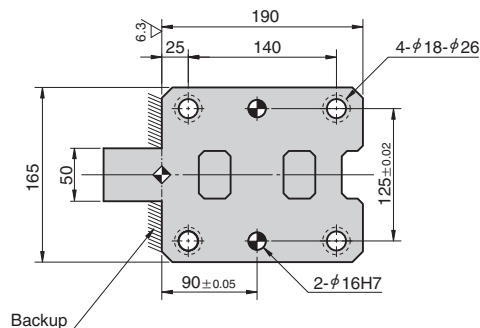
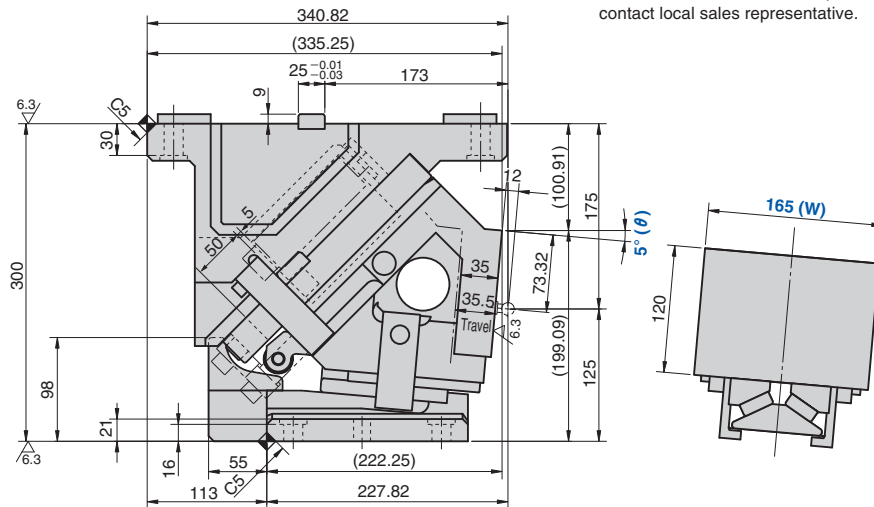
UCMSNR165-05



● Cam Diagram



The Cam Diagram shows no Roller Bracket assemblies or Accelerators. If these items are needed, please contact local sales representative.



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	294.2 (30.0)	—	3430.0 (349.8)	4721 (481.7)	74.2 (25.2)	UCMSNR	165	05	GK NGK
			3518.0 (358.7)						GD NGD
			3490.0 (355.9)						GS NGS
		449.1 (45.8)	2694.0 (274.7)	3752 (382.8)					ISO NISO

ISO: Coil Spring GK: Gas Spring (KALLER) GD: Gas Spring (DADCO) GS: Gas Spring (SDT)
NGK/NGD/NGS: Without Gas Spring NISO: Without Coil Spring Parts for spring assembly are included.



Catalog No.	W	—	θ	—	PS	—	Option
UCMSNR	165	—	05	—	GK		
UCMSNR	165	—	05	—	NGK		
UCMSNR	165	—	05	—	NISO		
UCMSNR	165	—	05	—	GK	— N	
UCMSNR	165	—	05	—	GK	— NF	



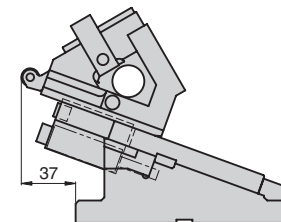
Option Code	Specification
N	φ16H7 dowel hole is drilled on the cam holder.
NF	Nitrogen gas not charged.

Spring Specification

No.	PS	Spring Model	Qty	Remark
47	GK	TU250-63.5	1	Gas Spring (KALLER)
	GD	L300.063.138	1	Gas Spring (DADCO)
	GS	SPF.250.63	1	Gas Spring (SDT)
	ISO	TJM40-178	1	Coil Spring [Spring constant = 44.9 N/mm]

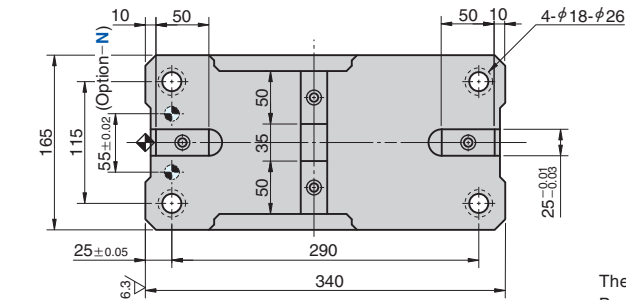
Life expectancy of Coil Spring is approximately 500,000 strokes.

Rear Removal Space

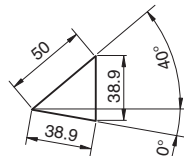


Refer to page 781 for Table of Components.

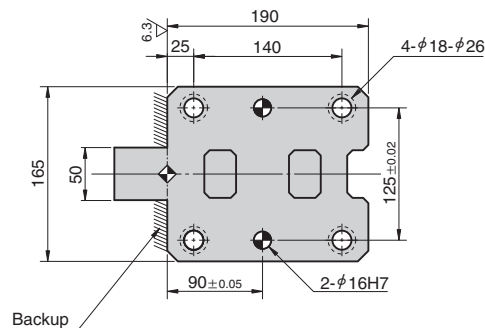
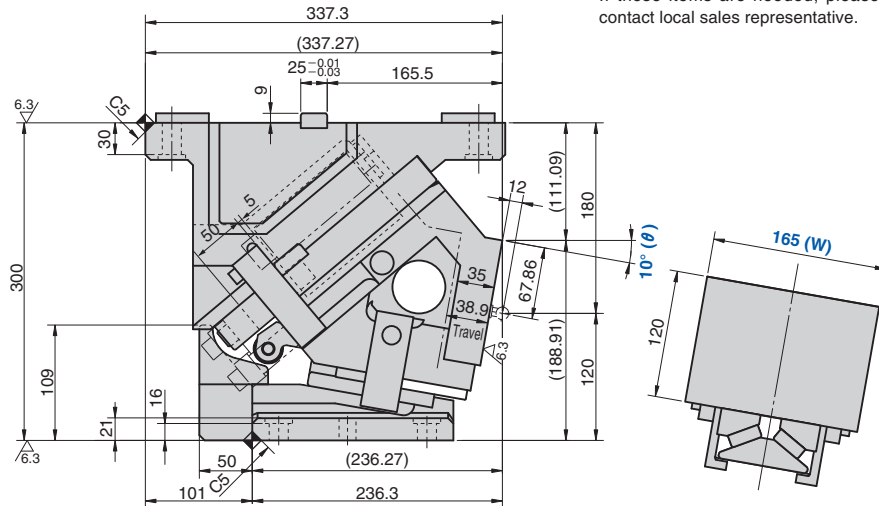
UCMSNR165-10



● Cam Diagram



The Cam Diagram shows no Roller Bracket assemblies or Accelerators. If these items are needed, please contact local sales representative.



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						
38.9	294.2 (30.0)	—	3430.0 (349.8)	4697 (479.3)	73.8 (25.2)	UCMSNR	165	10	GK NGK
			3518.0 (358.7)						GD NGD
			3490.0 (355.9)						GS NGS
		449.1 (45.8)	2694.0 (274.7)	3728 (380.4)					ISO NISO

ISO: Coil Spring GK: Gas Spring (KALLER) GD: Gas Spring (DADCO) GS: Gas Spring (SDT)
NGK/NGD/NGS: Without Gas Spring NISO: Without Coil Spring Parts for spring assembly are included.



Order

Catalog No.	W	—	θ	—	PS	—	Option
UCMSNR	165	—	10	—	GK		
UCMSNR	165	—	10	—	NGK		
UCMSNR	165	—	10	—	NISO		
UCMSNR	165	—	10	—	GK	— N	
UCMSNR	165	—	10	—	GK	— NF	



Option

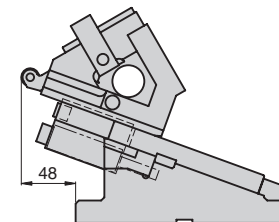
Option Code	Specification
N	φ16H7 dowel hole is drilled on the cam holder.
NF	Nitrogen gas not charged.

Spring Specification

No.	PS	Spring Model	Qty	Remark
47	GK	TU250-63.5	1	Gas Spring (KALLER)
	GD	L300.063.138	1	Gas Spring (DADCO)
	GS	SPF.250.63	1	Gas Spring (SDT)
	ISO	TJM40-178	1	Coil Spring [Spring constant = 44.9 N/mm]

Life expectancy of Coil Spring is approximately 500,000 strokes.

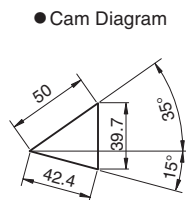
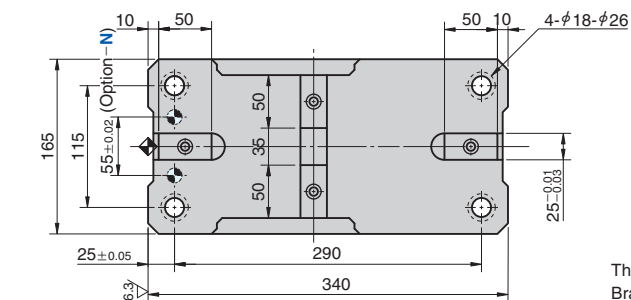
Rear Removal Space



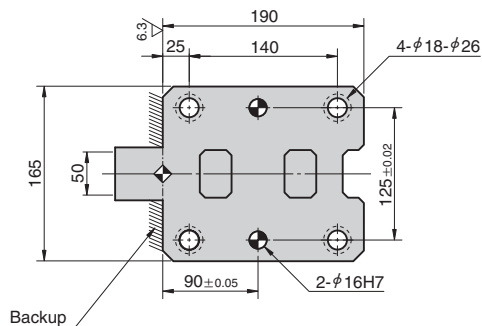
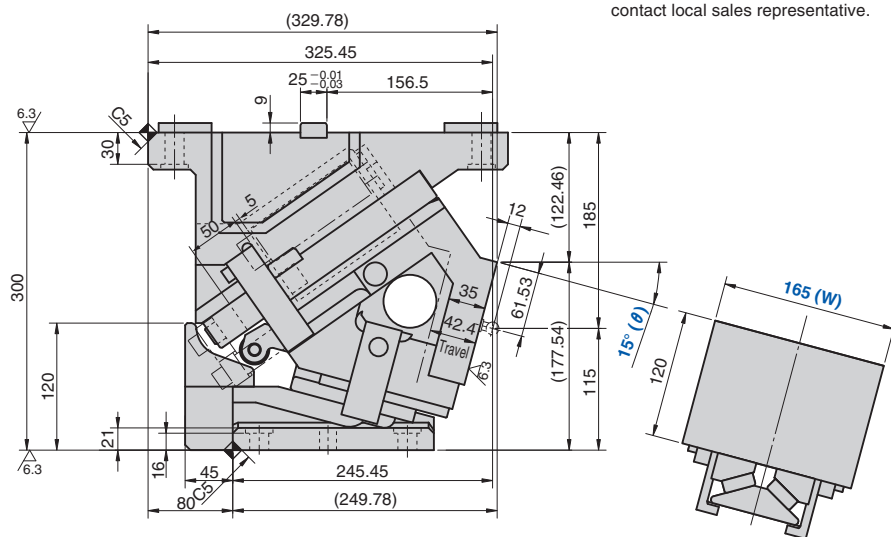
NAAMS Type

Aerial Cam Unit

UCMSNR165-15



The Cam Diagram shows no Roller Bracket assemblies or Accelerators. If these items are needed, please contact local sales representative.



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	294.2 (30.0)	—	3430.0 (349.8)	4671 (476.7)	73.1 (25.2)	UCMSNR	165	15	GK NGK
			3518.0 (358.7)						GD NGD
			3490.0 (355.9)						GS NGS
		449.1 (45.8)	2694.0 (274.7)	3703 (377.8)	ISO NISO				

ISO: Coil Spring GK: Gas Spring (KALLER) GD: Gas Spring (DADCO) GS: Gas Spring (SDT)
NGK/NGD/NGS: Without Gas Spring NISO: Without Coil Spring Parts for spring assembly are included.



Catalog No.	W	θ	PS	Option
UCMSNR	165	15	GK	
UCMSNR	165	15	NGK	
UCMSNR	165	15	NISO	
UCMSNR	165	15	GK	N
UCMSNR	165	15	GK	NF



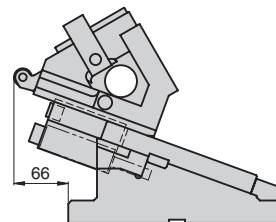
Option Code	Specification
N	φ 16H7 dowel hole is drilled on the cam holder.
NF	Nitrogen gas not charged.

■ Spring Specification

No.	PS	Spring Model	Qty	Remark
47	GK	TU250-63.5	1	Gas Spring (KALLER)
	GD	L300.063.138	1	Gas Spring (DADCO)
	GS	SPF.250.63	1	Gas Spring (SDT)
	ISO	TJM40-178	1	Coil Spring [Spring constant = 44.9 N/mm]

Life expectancy of Coil Spring is approximately 500,000 strokes.

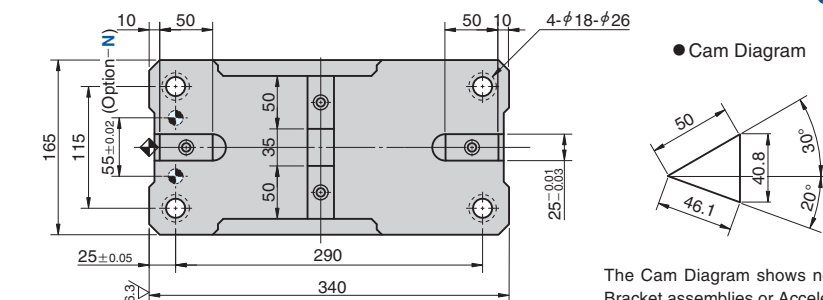
■Rear Removal Space



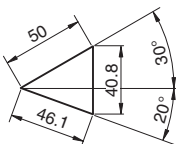
NAAMS Type

Aerial Cam Unit

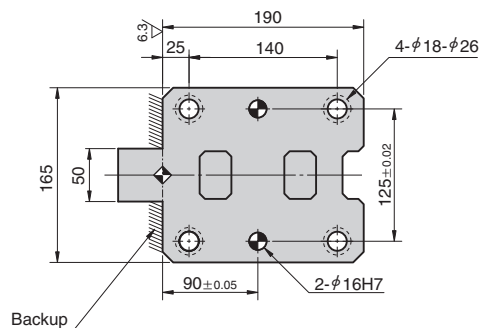
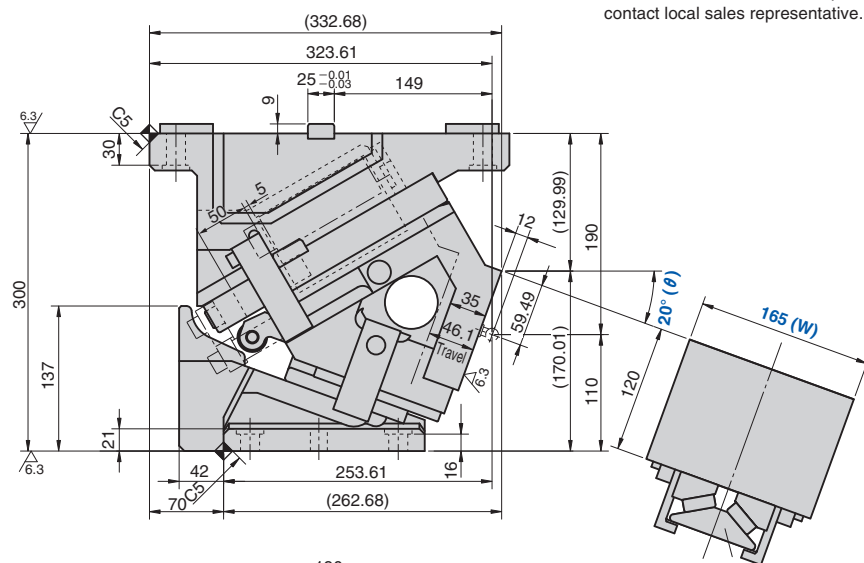
UCMSNR165-20



- Cam Diagram



The Cam Diagram shows no Roller Bracket assemblies or Accelerators. If these items are needed, please contact local sales representative.



Backup

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	294.2 (30.0)	—	3430.0 (349.8)	4645 (474.0)	72.3 (25.2)	UCMSNR	165	20	GK NGK
			3518.0 (358.7)						GD NGD
			3490.0 (355.9)						GS NGS
		449.1 (45.8)	2694.0 (274.7)	3676 (375.1)	ISO NISO				

ISO: Coil Spring GK: Gas Spring (KALLER) GD: Gas Spring (DADCO) GS: Gas Spring (SDT)
NGK/NGD/NGS: Without Gas Spring NISO: Without Coil Spring Parts for spring assembly are included.



Catalog No.	W	θ	PS	Options
UCMSNR	165	20	GK	
UCMSNR	165	20	NGK	
UCMSNR	165	20	NISO	
UCMSNR	165	20	GK	N
UCMSNR	165	20	GK	NF



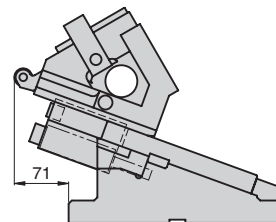
Option Code	Specification
N	φ 16H7 dowel hole is drilled on the cam holder.
NF	Nitrogen gas not charged.

■ Spring Specification

No.	PS	Spring Model	Qty	Remark
47	GK	TU250-63.5	1	Gas Spring (KALLER)
	GD	L300.063.138	1	Gas Spring (DADCO)
	GS	SPF.250.63	1	Gas Spring (SDT)
	ISO	TJM40-178	1	Coil Spring [Spring constant = 44.9 N/mm]

Life expectancy of Coil Spring is approximately 500,000 strokes.

■Rear Removal Space



Standard Cam Units

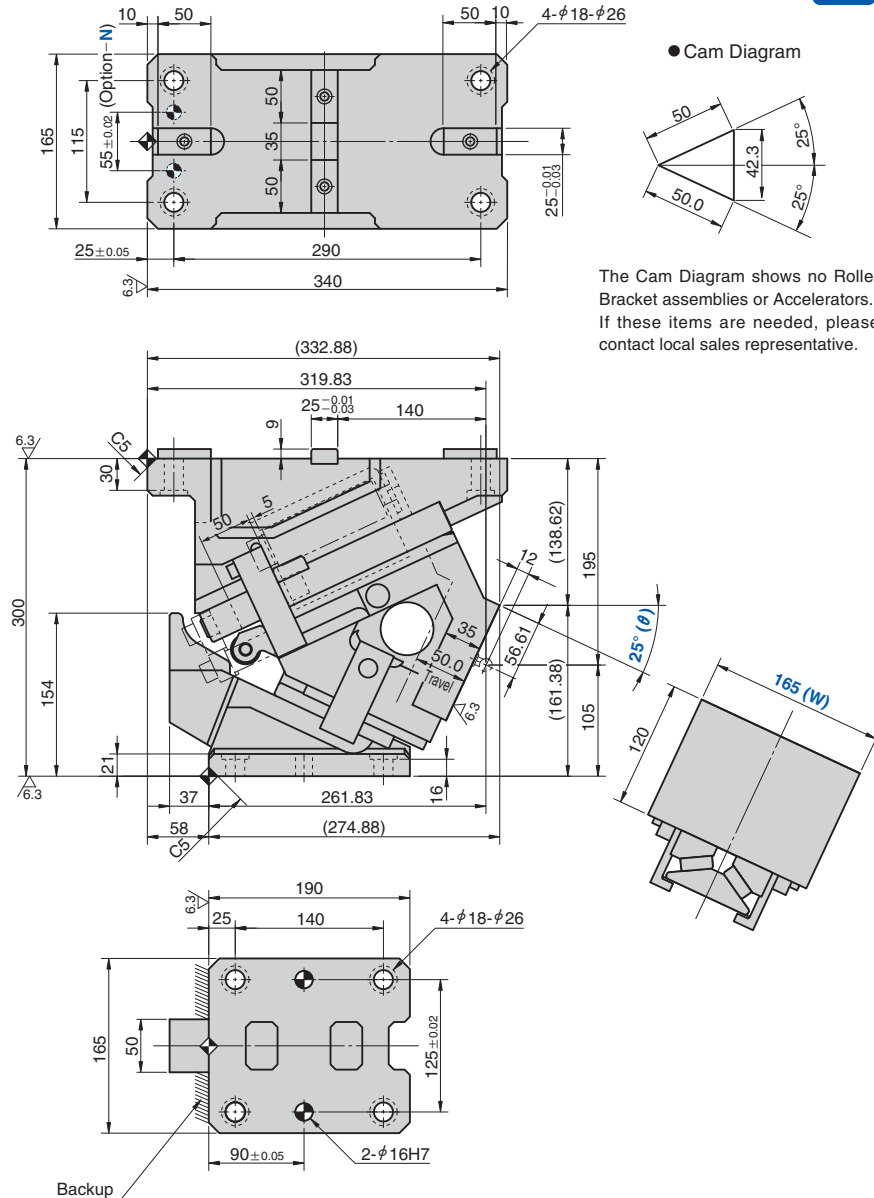
UCMSNR
165

UCMSNR

NAAMS Type

Aerial Cam Unit

UCMSNR165-25



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	294.2 (30.0)	—	3430.0 (349.8)	4618 (471.2)	72.1 (25.2)	UCMSNR	165	25	GK NGK
			3518.0 (358.7)						GD NGD
			3490.0 (355.9)						GS NGS
		449.1 (45.8)	2694.0 (274.7)	3649 (372.4)					ISO NISO

ISO: Coil Spring GK: Gas Spring (KALLER) GD: Gas Spring (DADCO) GS: Gas Spring (SDT)
NGK/NGD/NGS: Without Gas Spring NISO: Without Coil Spring Parts for spring assembly are included.



Catalog No.	W	—	θ	—	PS	—	Option
UCMSNR	165	—	25	—	GK		
UCMSNR	165	—	25	—	NGK		
UCMSNR	165	—	25	—	NISO		
UCMSNR	165	—	25	—	GK	— N	
UCMSNR	165	—	25	—	GK	— NF	



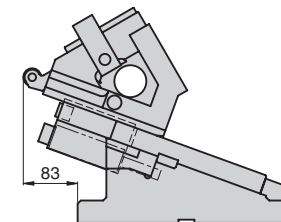
Option Code	Specification
N	φ16H7 dowel hole is drilled on the cam holder.
NF	Nitrogen gas not charged.

Spring Specification

No.	PS	Spring Model	Qty	Remark
47	GK	TU250-63.5	1	Gas Spring (KALLER)
	GD	L300.063.138	1	Gas Spring (DADCO)
	GS	SPF.250.63	1	Gas Spring (SDT)
	ISO	TJM40-178	1	Coil Spring [Spring constant = 44.9 N/mm]

Life expectancy of Coil Spring is approximately 500,000 strokes.

Rear Removal Space



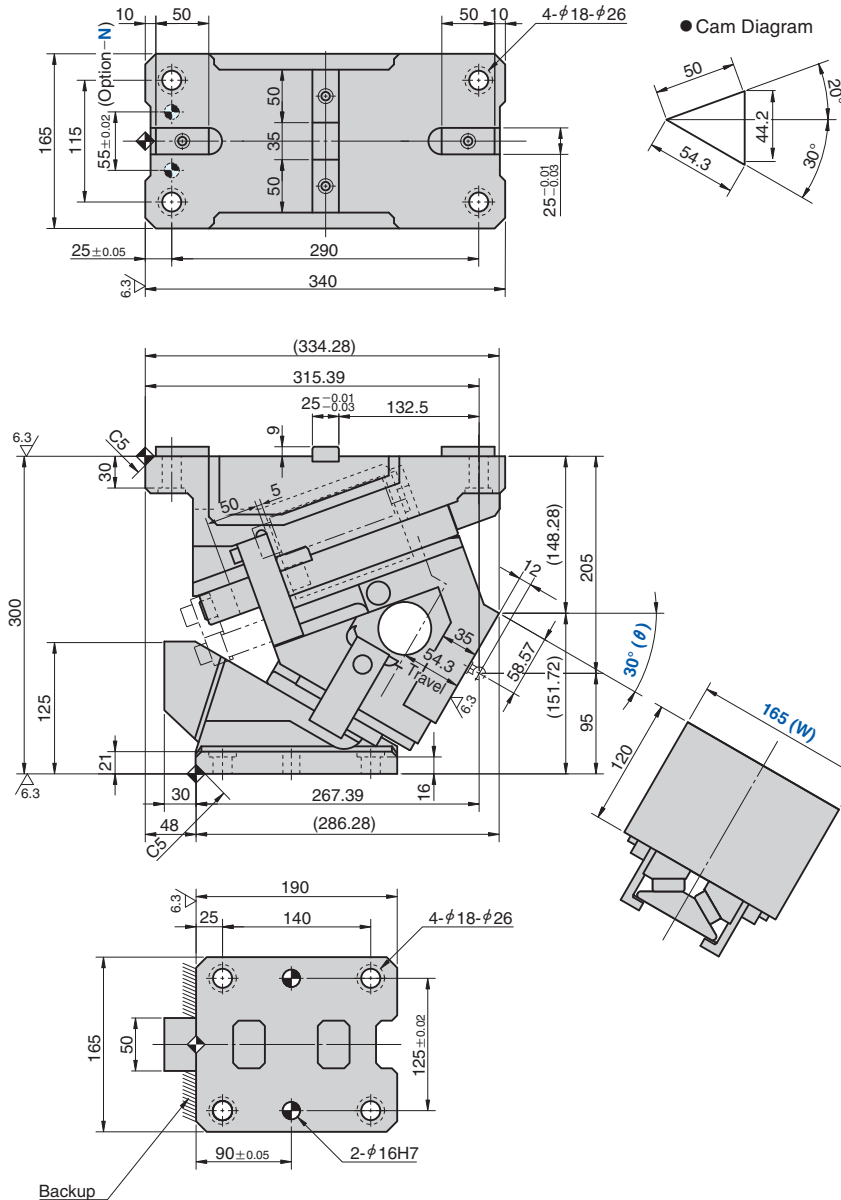
Refer to page 781 for Table of Components.

UCMSNR

NAAMS Type

Aerial Cam Unit

UCMSNR165-30



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	294.2 (30.0)	—	3430.0 (349.8)	4589 (468.3)	71.9 (25.2)	UCMSNR	165	30	GK NGK
			3518.0 (358.7)						GD NGD
			3490.0 (355.9)						GS NGS
		449.1 (45.8)	2694.0 (274.7)	3620 (369.4)					ISO NISO

ISO: Coil Spring GK: Gas Spring (KALLER) GD: Gas Spring (DADCO) GS: Gas Spring (SDT)
NGK/NGD/NGS: Without Gas Spring NISO: Without Coil Spring Parts for spring assembly are included.



Catalog No.	W	—	θ	—	PS	—	Option
UCMSNR	165	—	30	—	GK		
UCMSNR	165	—	30	—	NGK		
UCMSNR	165	—	30	—	NISO		
UCMSNR	165	—	30	—	GK	— N	
UCMSNR	165	—	30	—	GK	— NF	



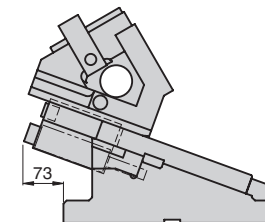
Option Code	Specification
N	φ16H7 dowel hole is drilled on the cam holder.
NF	Nitrogen gas not charged.

Spring Specification

No.	PS	Spring Model	Qty	Remark
47	GK	TU250-63.5	1	Gas Spring (KALLER)
	GD	L300.063.138	1	Gas Spring (DADCO)
	GS	SPF.250.63	1	Gas Spring (SDT)
	ISO	TJM40-178	1	Coil Spring [Spring constant = 44.9 N/mm]

Life expectancy of Coil Spring is approximately 500,000 strokes.

Rear Removal Space



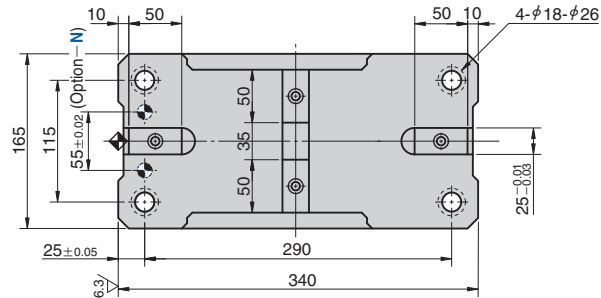
Refer to page 781 for Table of Components.

UCMSNR

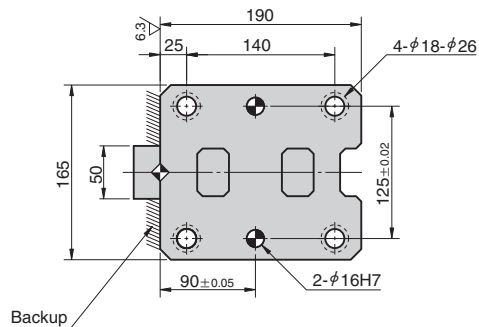
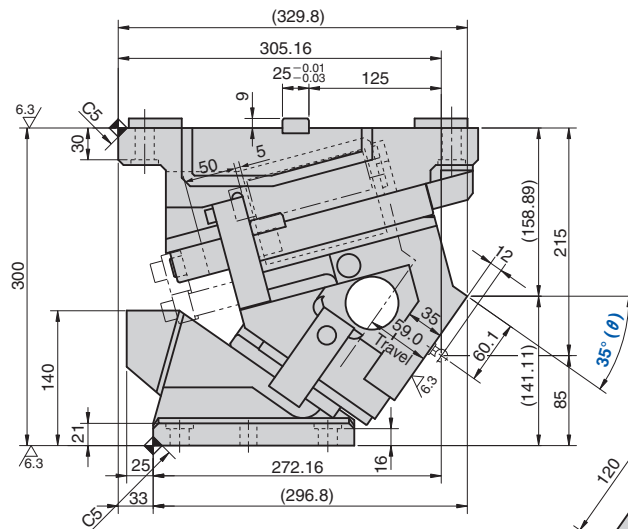
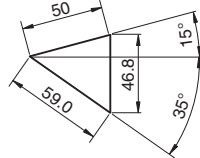
NAAMS Type

Aerial Cam Unit

UCMSNR165-35



● Cam Diagram



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	294.2 (30.0)	—	3430.0 (349.8)	4561 (465.4)	72.2 (25.2)	UCMSNR	165	35	GK NGK
			3518.0 (358.7)						GD NGD
			3490.0 (355.9)						GS NGS
		449.1 (45.8)	2694.0 (274.7)	3592 (366.6)					ISO NISO

ISO: Coil Spring GK: Gas Spring (KALLER) GD: Gas Spring (DADCO) GS: Gas Spring (SDT)
NGK/NGD/NGS: Without Gas Spring NISO: Without Coil Spring Parts for spring assembly are included.



Catalog No.	W	—	θ	—	PS	—	Option
UCMSNR	165	—	35	—	GK		
UCMSNR	165	—	35	—	NGK		
UCMSNR	165	—	35	—	NISO		
UCMSNR	165	—	35	—	GK	— N	
UCMSNR	165	—	35	—	GK	— NF	



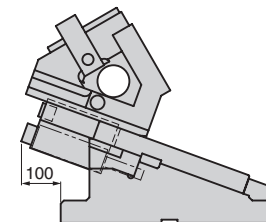
Option Code	Specification
N	φ16H7 dowel hole is drilled on the cam holder.
NF	Nitrogen gas not charged.

Spring Specification

No.	PS	Spring Model	Qty	Remark
47	GK	TU250-63.5	1	Gas Spring (KALLER)
	GD	L300.063.138	1	Gas Spring (DADCO)
	GS	SPF.250.63	1	Gas Spring (SDT)
	ISO	TJM40-178	1	Coil Spring [Spring constant = 44.9 N/mm]

Life expectancy of Coil Spring is approximately 500,000 strokes.

Rear Removal Space



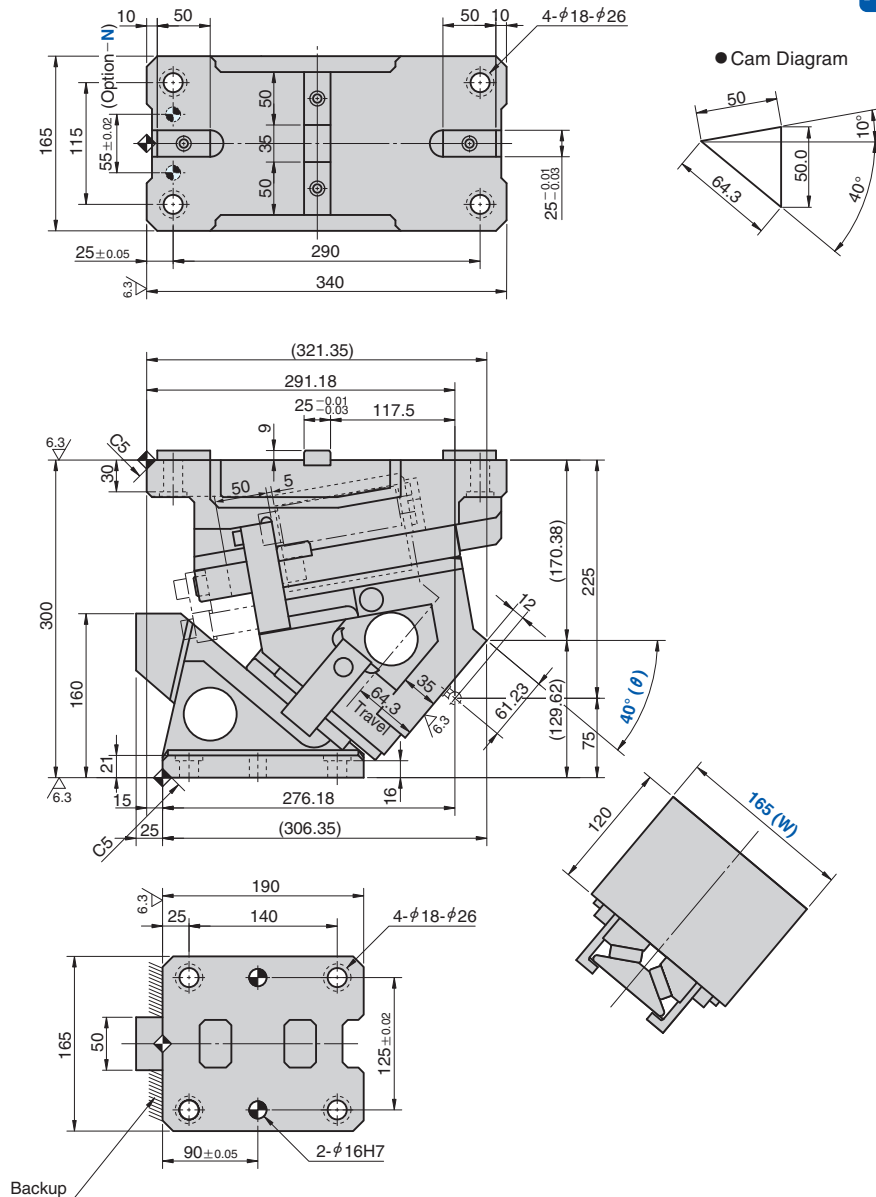
Refer to page 781 for Table of Components.

UCMSNR

NAAMS Type

Aerial Cam Unit

UCMSNR165-40



● Cam Diagram

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	294.2 (30.0)	—	3430.0 (349.8)	4533 (462.5)	72.4 (25.2)	UCMSNR	165	40	GK NGK
			3518.0 (358.7)						GD NGD
			3490.0 (355.9)						GS NGS
		449.1 (45.8)	2694.0 (274.7)	3564 (363.7)					ISO NISO

ISO: Coil Spring GK: Gas Spring (KALLER) GD: Gas Spring (DADCO) GS: Gas Spring (SDT)
NGK/NGD/NGS: Without Gas Spring NISO: Without Coil Spring Parts for spring assembly are included.



Catalog No.	W	—	θ	—	PS	—	Option
UCMSNR	165	—	40	—	GK		
UCMSNR	165	—	40	—	NGK		
UCMSNR	165	—	40	—	NISO		
UCMSNR	165	—	40	—	GK	— N	
UCMSNR	165	—	40	—	GK	— NF	



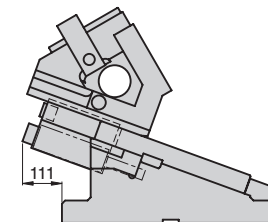
Option Code	Specification
N	φ16H7 dowel hole is drilled on the cam holder.
NF	Nitrogen gas not charged.

Spring Specification

No.	PS	Spring Model	Qty	Remark
47	GK	TU250-63.5	1	Gas Spring (KALLER)
	GD	L300.063.138	1	Gas Spring (DADCO)
	GS	SPF.250.63	1	Gas Spring (SDT)
	ISO	TJM40-178	1	Coil Spring [Spring constant = 44.9 N/mm]

Life expectancy of Coil Spring is approximately 500,000 strokes.

Rear Removal Space



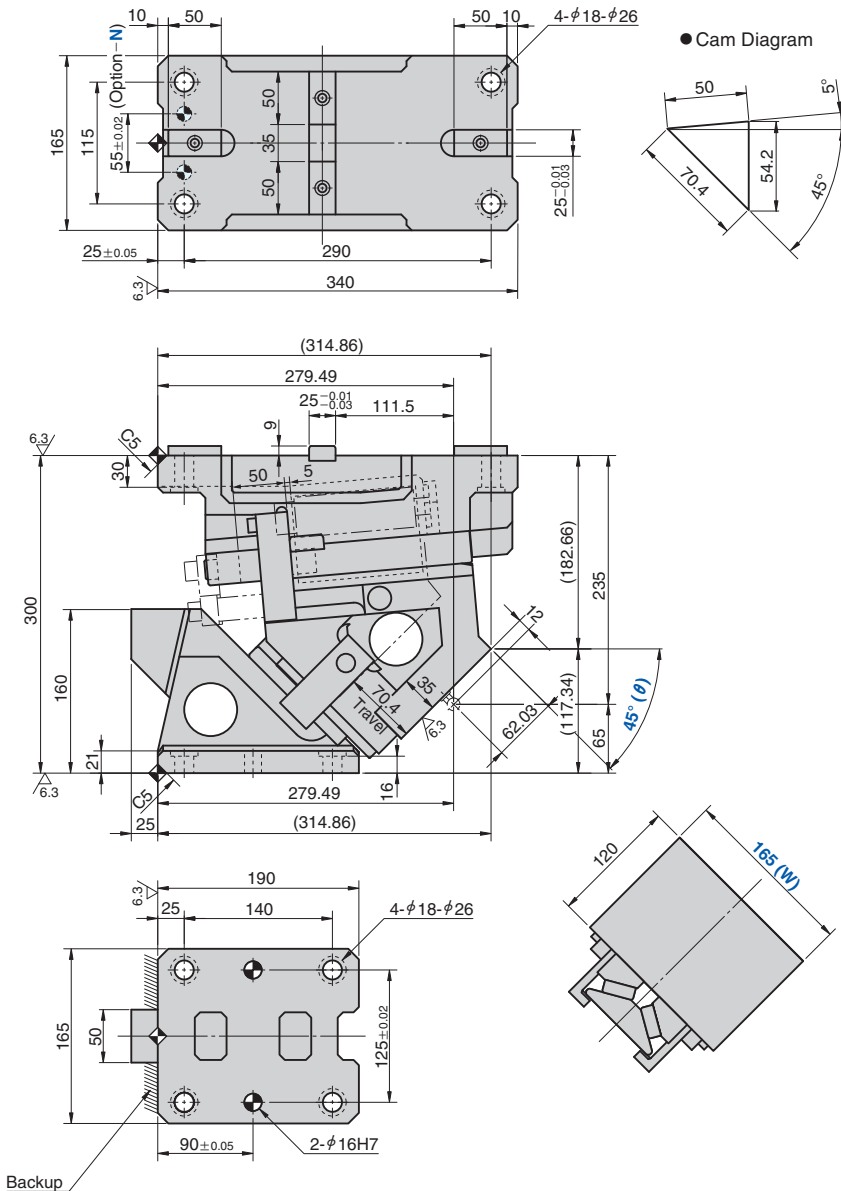
Refer to page 781 for Table of Components.

UCMSNR

NAAMS Type

Aerial Cam Unit

UCMSNR165-45



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	294.2 (30.0)	—	3430.0 (349.8)	4504 (459.6)	65.5 (25.2)	UCMSNR	165	45	GK NGK
			3518.0 (358.7)						GD NGD
			3490.0 (355.9)						GS NGS
		449.1 (45.8)	2694.0 (274.7)	3535 (360.8)					ISO NISO

ISO: Coil Spring GK: Gas Spring (KALLER) GD: Gas Spring (DADCO) GS: Gas Spring (SDT)
NGK/NGD/NGS: Without Gas Spring NISO: Without Coil Spring Parts for spring assembly are included.



Catalog No.	W	—	θ	—	PS	—	Option
UCMSNR	165	—	45	—	GK		
UCMSNR	165	—	45	—	NGK		
UCMSNR	165	—	45	—	NISO		
UCMSNR	165	—	45	—	GK	— N	
UCMSNR	165	—	45	—	GK	— NF	



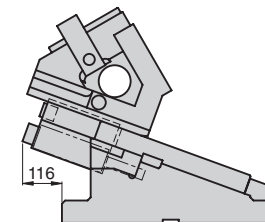
Option Code	Specification
N	φ16H7 dowel hole is drilled on the cam holder.
NF	Nitrogen gas not charged.

Spring Specification

No.	PS	Spring Model	Qty	Remark
47	GK	TU250-63.5	1	Gas Spring (KALLER)
	GD	L300.063.138	1	Gas Spring (DADCO)
	GS	SPF.250.63	1	Gas Spring (SDT)
	ISO	TJM40-178	1	Coil Spring [Spring constant = 44.9 N/mm]

Life expectancy of Coil Spring is approximately 500,000 strokes.

Rear Removal Space



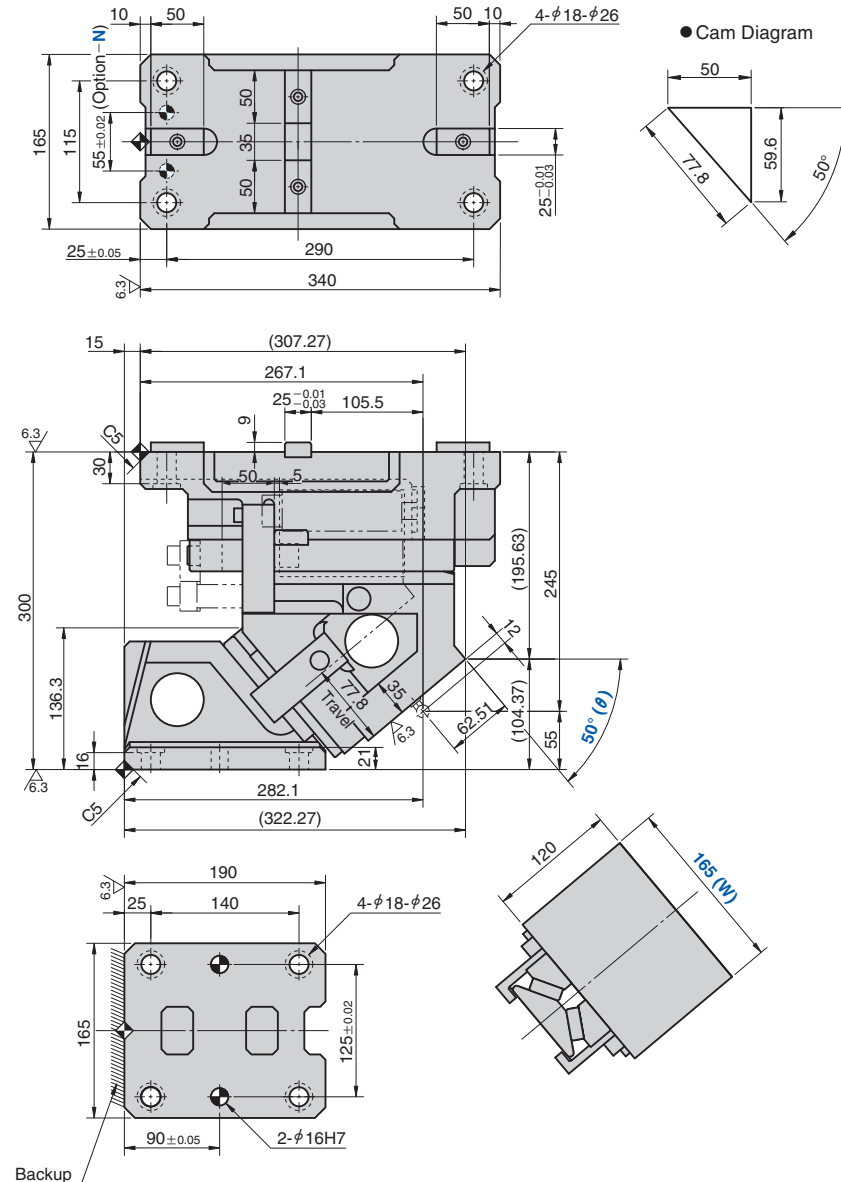
Refer to page 781 for Table of Components.

UCMSNR

NAAMS Type

Aerial Cam Unit

UCMSNR165-50



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	294.2 (30.0)	—	3430.0 (349.8)	4476 (456.7)	72.5 (25.2)	UCMSNR	165	50	GK NGK
			3518.0 (358.7)						GD NGD
			3490.0 (355.9)						GS NGS
		449.1 (45.8)	2694.0 (274.7)	3507 (357.9)					ISO NISO

ISO: Coil Spring GK: Gas Spring (KALLER) GD: Gas Spring (DADCO) GS: Gas Spring (SDT)
NGK/NGD/NGS: Without Gas Spring NISO: Without Coil Spring Parts for spring assembly are included.



Catalog No.	W	—	θ	—	PS	—	Option
UCMSNR	165	—	50	—	GK		
UCMSNR	165	—	50	—	NGK		
UCMSNR	165	—	50	—	NISO		
UCMSNR	165	—	50	—	GK	— N	
UCMSNR	165	—	50	—	GK	— NF	



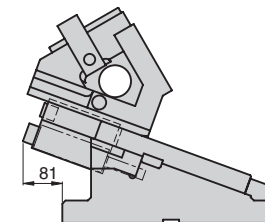
Option Code	Specification
N	φ16H7 dowel hole is drilled on the cam holder.
NF	Nitrogen gas not charged.

Spring Specification

No.	PS	Spring Model	Qty	Remark
47	GK	TU250-63.5	1	Gas Spring (KALLER)
	GD	L300.063.138	1	Gas Spring (DADCO)
	GS	SPF.250.63	1	Gas Spring (SDT)
	ISO	TJM40-178	1	Coil Spring [Spring constant = 44.9 N/mm]

Life expectancy of Coil Spring is approximately 500,000 strokes.

Rear Removal Space

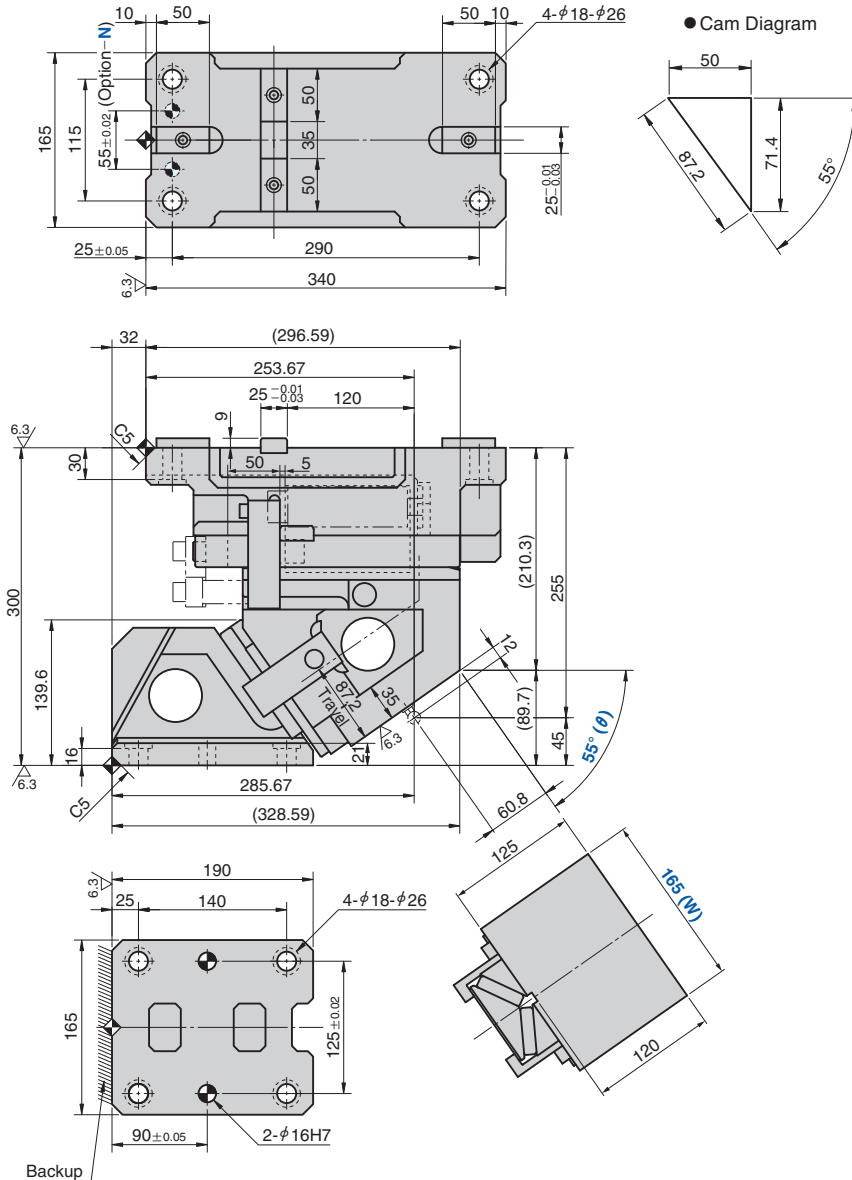


UCMSNR

NAAMS Type

Aerial Cam Unit

UCMSNR165-55



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 PS
		Initial Load	Final Load						
87.2	294.2 (30.0)	—	3430.0 (349.8)	4867 (496.6)	73.3 (26.4)	UCMSNR	165	55	GK NGK
			3518.0 (358.7)						GD NGD
			3490.0 (355.9)						GS NGS
		449.1 (45.8)	2694.0 (274.7)	3813 (389.0)					ISO NISO

ISO: Coil Spring GK: Gas Spring (KALLER) GD: Gas Spring (DADCO) GS: Gas Spring (SDT)
NGK/NGD/NGS: Without Gas Spring NISO: Without Coil Spring Parts for spring assembly are included.



Catalog No.	W	—	θ	—	PS	—	Option
UCMSNR	165	—	55	—	GK		
UCMSNR	165	—	55	—	NGK		
UCMSNR	165	—	55	—	NISO		
UCMSNR	165	—	55	—	GK	— N	
UCMSNR	165	—	55	—	GK	— NF	



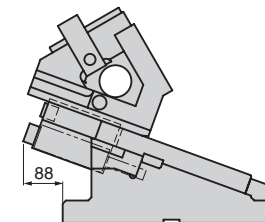
Option Code	Specification
N	φ16H7 dowel hole is drilled on the cam holder.
NF	Nitrogen gas not charged.

Spring Specification

No.	PS	Spring Model	Qty	Remark
47	GK	TU250-63.5	1	Gas Spring (KALLER)
	GD	L300.063.138	1	Gas Spring (DADCO)
	GS	SPF.250.63	1	Gas Spring (SDT)
	ISO	TJM40-178	1	Coil Spring [Spring constant = 44.9 N/mm]

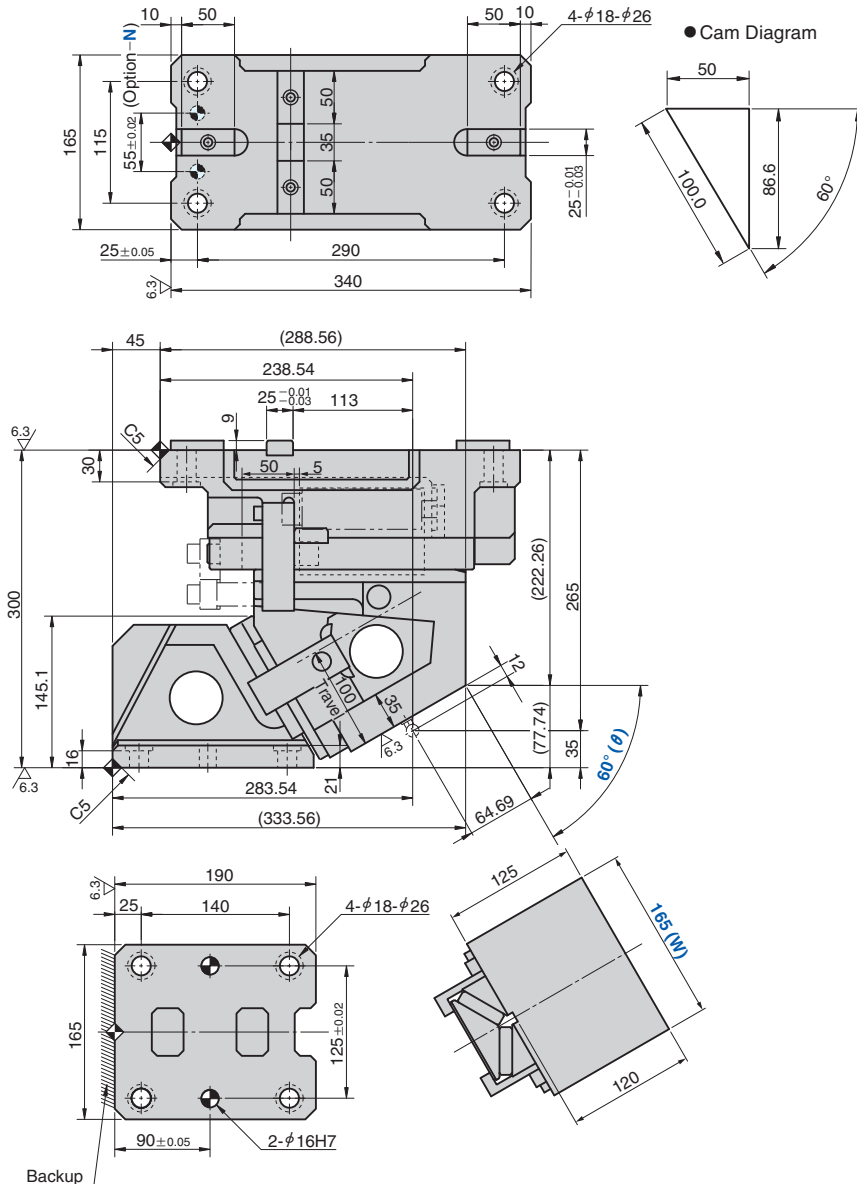
Life expectancy of Coil Spring is approximately 500,000 strokes.

Rear Removal Space



Refer to page 781 for Table of Components.

UCMSNR165-60



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	294.2 (30.0)	—	3430.0 (349.8)	5380 (548.9)	74.4 (26.8)	UCMSNR	165	60	GK NGK
			3518.0 (358.7)						GD NGD
			3490.0 (355.9)						GS NGS
		449.1 (45.8)	2694.0 (274.7)	4214 (430.0)					ISO NISO

ISO: Coil Spring GK: Gas Spring (KALLER) GD: Gas Spring (DADCO) GS: Gas Spring (SDT)
NGK/NGD/NGS: Without Gas Spring NISO: Without Coil Spring Parts for spring assembly are included.



Catalog No.	W	—	θ	—	PS	—	Option
UCMSNR	165	—	60	—	GK		
UCMSNR	165	—	60	—	NGK		
UCMSNR	165	—	60	—	NISO		
UCMSNR	165	—	60	—	GK	— N	
UCMSNR	165	—	60	—	GK	— NF	



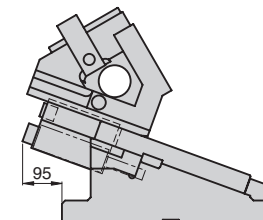
Option Code	Specification
N	φ16H7 dowel hole is drilled on the cam holder.
NF	Nitrogen gas not charged.

Spring Specification

No.	PS	Spring Model	Qty	Remark
47	GK	TU250-63.5	1	Gas Spring (KALLER)
	GD	L300.063.138	1	Gas Spring (DADCO)
	GS	SPF.250.63	1	Gas Spring (SDT)
	ISO	TJM40-178	1	Coil Spring [Spring constant = 44.9 N/mm]

Life expectancy of Coil Spring is approximately 500,000 strokes.

Rear Removal Space

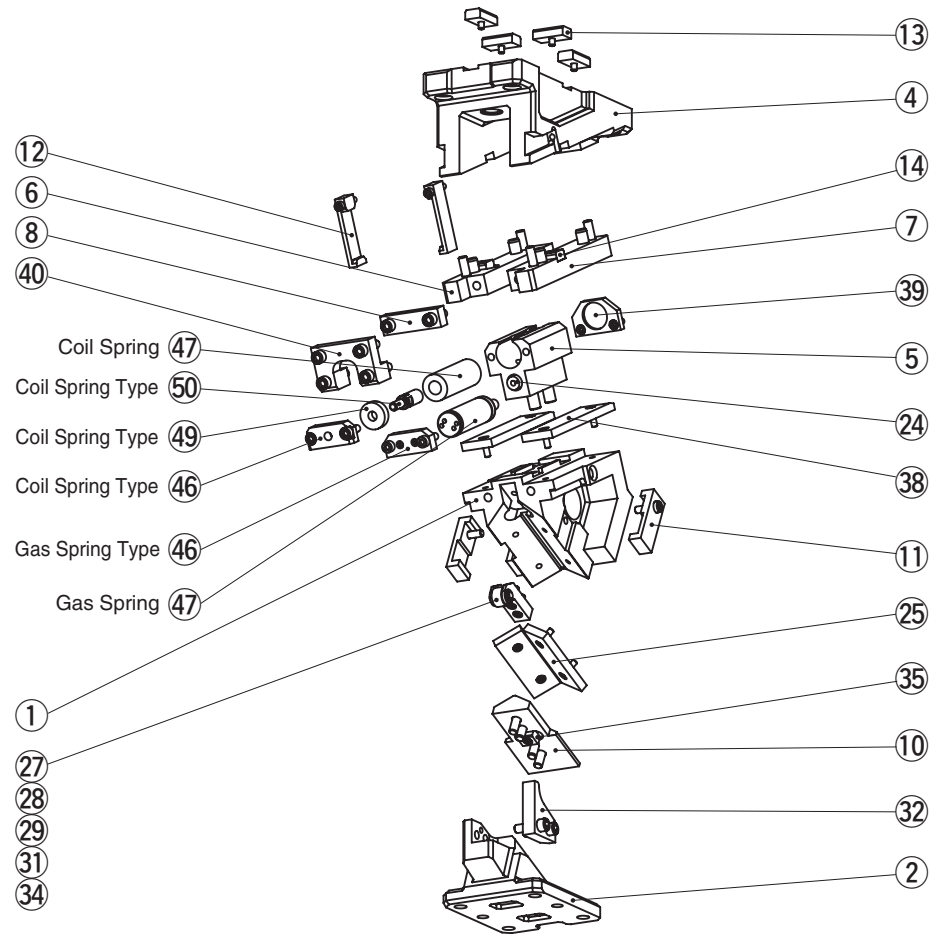


UCMSNR [Table of Components]

NAAMS Type

Aerial Cam Unit

UCMSNR165



No.	Description	Qty		Material and Remark
		Coil Spring	Gas Spring	
1	Cam Slider	1		Cast Iron
2	Cam Driver	1		Cast Iron
4	Cam Holder	1		Cast Iron
5	Spring Guide	1		Bronze with Graphite
6	Base Plate D R	1		Steel
7	Base Plate D L	1		Steel
8	Stopper Plate	1		Steel
10	Cam Slide Guide	1		Bronze with Graphite
11	Positive Return Follower	2		Steel
12	Safety Plate	2		Steel
13	Key A	4		Steel
14	Key B	2		Steel
24	Stopper	1		—
25	Slide Plate	2		Steel
27	Roller	1		Steel 0°~25° only
28	Roller Pin	1		Steel 0°~25° only
29	Bushing	1		SOB12-18-16 0°~25° only
31	Roller Bracket	1		Steel 0°~25° only
32	Roller Driver	1		Steel 0°~25° only
34	Snap Ring E type	2		φ 9 0°~25° only
35	Key C	1		Steel
38	Wear Plate	2		Bronze with Graphite
39	Spring Support	1		Steel
40	Slide Lock Plate	1		Steel
46	Spring Guide Plate	1		Steel
47	Spring	1		Refer to the Spring Specification.
49	Washer	1	—	Steel ISO specification only
50	Spring Guide Pin	1	—	Steel ISO specification only

Bolts, nuts, dowels, and washers for assembly are not indicated.