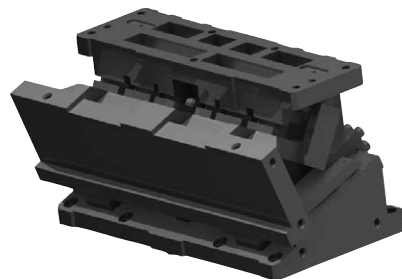


KCMSL [Overview]

Large Type

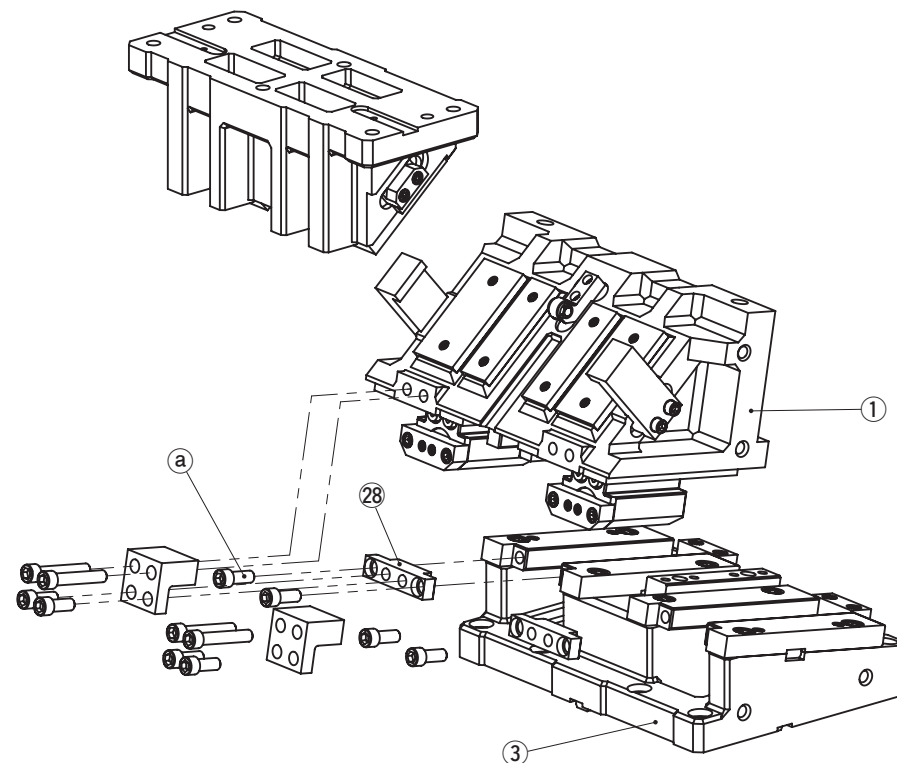
Product Information

- Mount face widths from 500 to 1000 mm in 100 mm increments.
- Working angles from 0° to 20° in 5° increments.
- Gas Spring is removable from the rear without disassembling.
- 1600 mm wide or smaller available on demand.



Mount Face		Working Angle	Travel	Working Force kN (tonf)	Spring Force N (kgf)
W	H				
500 600	180	00	60	313.6 (32.0)	19600.0 (2000.0)
		05			
		10			
		15			
700 800	180	20	60	470.4 (48.0)	19600.0 (2000.0)
		00			
		05			
		10			
900 1000	180	15	60	627.2 (64.0)	39200.0 (4000.0)
		20			
		00			
		05			

KCMSL500/KCMSL600, KCMSL700/KCMSL800 Assembly Instructions



● Disassembly

- 1) Remove Hexagon Socket Head Bolts (a), to pull out Stopper Plate (28).
- 2) Pull out and remove Cam Slider (1) from Cam Holder (3) 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.

KCMSL [Overview]

Large Type

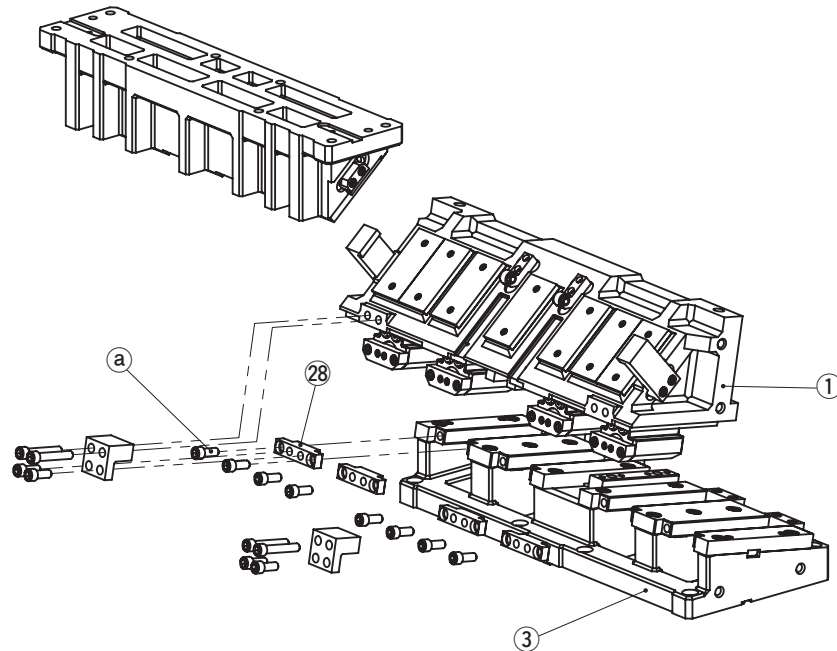
For Pierce

For Trim

For Flange

Product Information

■KCMSL900/KCMSL1000 Assembly Instructions



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● Disassembly

- 1) Remove Hexagon Socket Head Bolts (a), to pull out Stopper Plate (28).
- 2) Pull out and remove Cam Slider (1) from Cam Holder (3) to the rear.

● Assembly

Assembly is the reverse procedure of disassembly.

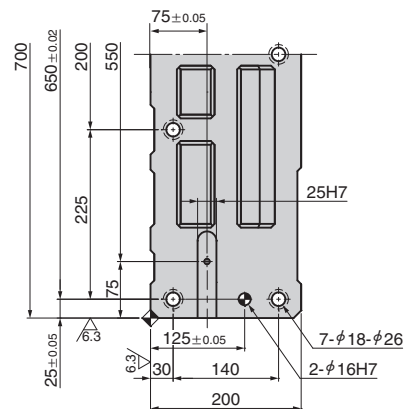
- Ensure that all parts are clean, particularly the sliding components to which a small amount of lubricant is applied and is then placed in position.
- Take care that the respective tolerances are observed when assembling Cam Slider and Cam Holder, which also should be identified by the same serial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



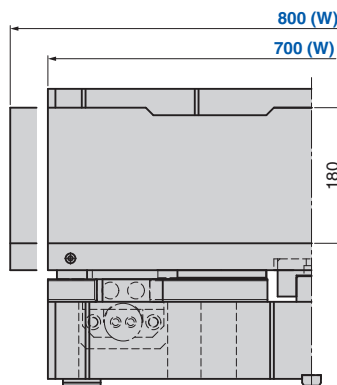
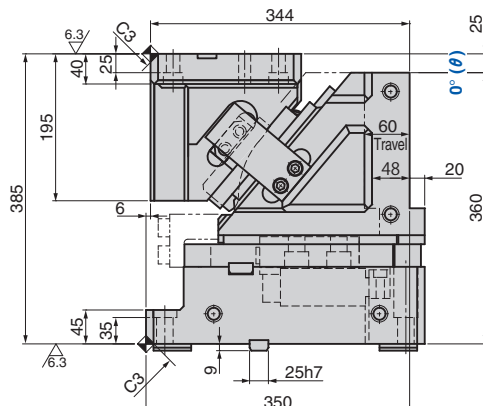
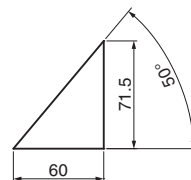
Gas Spring

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.

KCMSL700-00 / KCMSL800-00



● Cam Diagram



Travel S	Working Force kN (tonf)	Spring Force [N (kgf)]		Catalog No.	W	θ	Spring Type PS
		Initial Load	Final Load				
60.0	470.4 (48.0)	—	20200 (2060)	KCMSL	700 800	00	GK NGK
		—	19600 (2000)				GD NGD

GK: Gas Spring (KALLER) GD: Gas Spring (DADCO)
NGK/NGD: Without Gas Spring Parts for spring assembly are included.



Order

Catalog No.	W	—	θ	—	PS	—	Option
KCMSL	700	—	00	—	GK		
KCMSL	800	—	00	—	NGK		
KCMSL	700	—	00	—	GK	—	NF



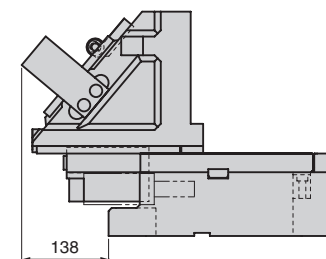
Option

Option Code	Specification
NF	Nitrogen gas not charged.

Spring Specification

No.	PS	Spring Model	Qty	Remark
13	GK	K750-80	2	Gas Spring (KALLER)
	GD	L750.075.TO.140	2	Gas Spring (DADCO)

Rear Removal Space



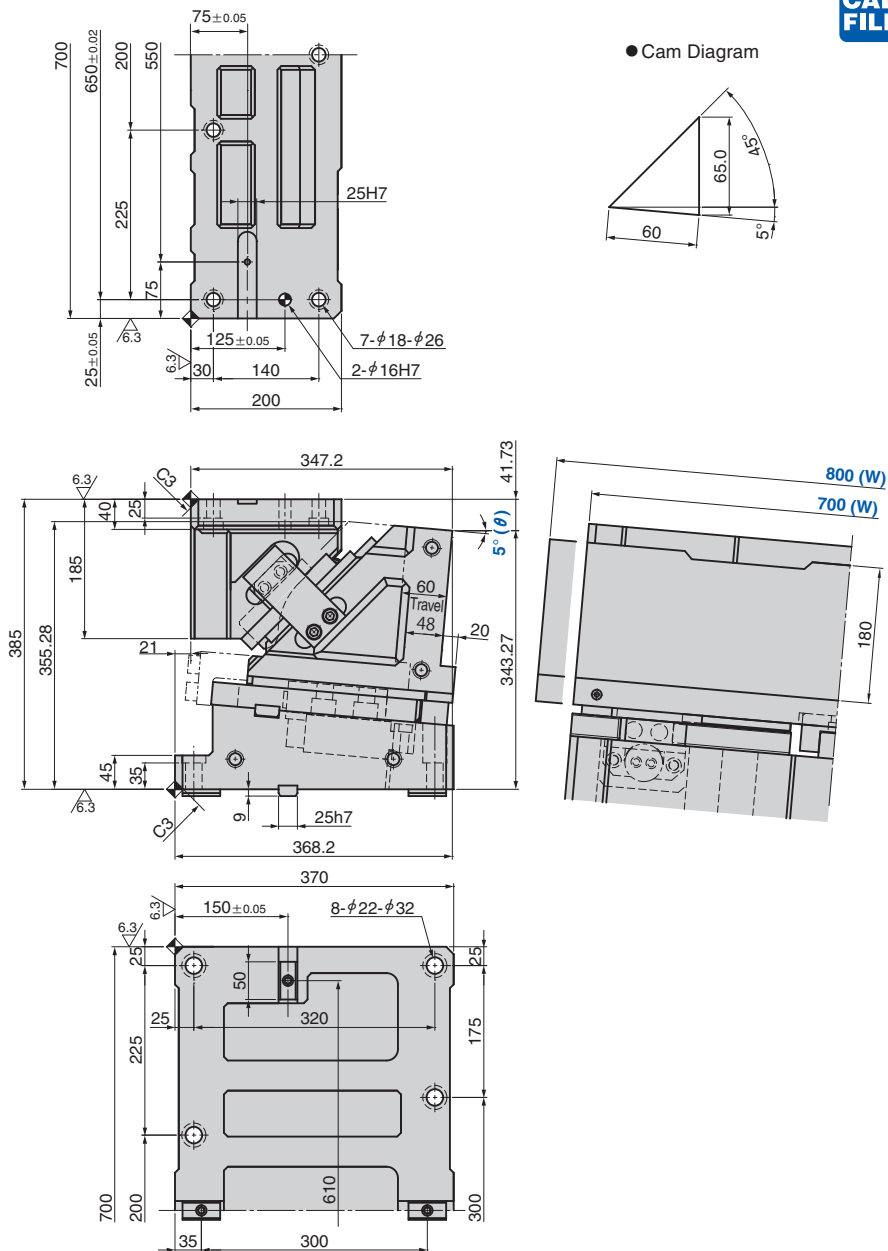
Weight

W	Cam Slider Weight kg	Total Weight kg
700	197.0	436
800	205.4	446



Refer to page 1079 for Table of Components.

KCMSL700-05 / KCMSL800-05



Travel S	Working Force kN (tonf)	Spring Force [N (kgf)]		Catalog No.	W	θ	Spring Type PS
		Initial Load	Final Load				
60.0	470.4 (48.0)	—	20200 (2060)	KCMSL	700 800	05	GK NGK
		—	19600 (2000)				GD NGD

GK: Gas Spring (KALLER) GD: Gas Spring (DADCO)
NGK/NGD: Without Gas Spring Parts for spring assembly are included.



Order

Catalog No.	W	—	θ	—	PS	—	Option
KCMSL	700	—	05	—	GK		
KCMSL	800	—	05	—	NGK		
KCMSL	700	—	05	—	GK	—	NF



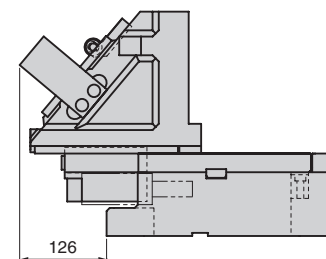
Option

Option Code	Specification
NF	Nitrogen gas not charged.

Spring Specification

No.	PS	Spring Model	Qty	Remark
13	GK	K750-80	2	Gas Spring (KALLER)
	GD	L750.075.TO.140	2	Gas Spring (DADCO)

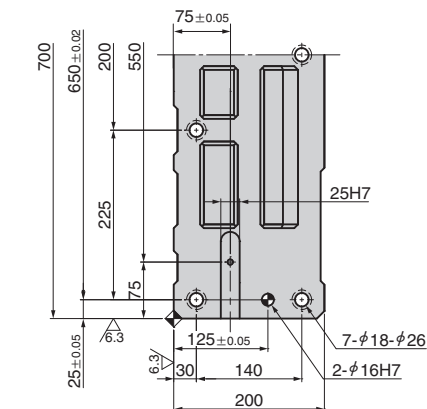
Rear Removal Space



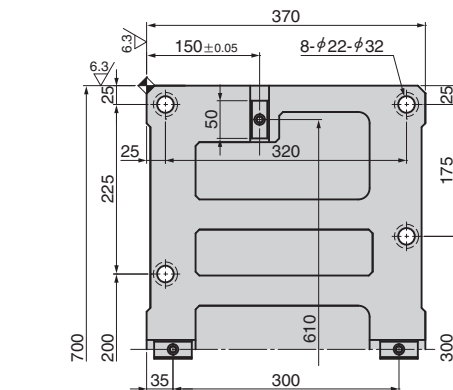
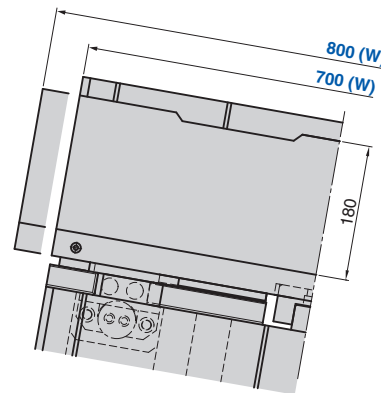
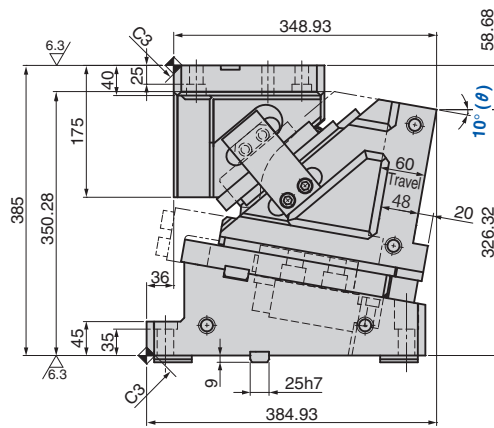
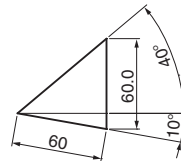
Weight

W	Cam Slider Weight kg	Total Weight kg
700	197.0	429
800	205.4	438

KCMSL700-10 / KCMSL800-10



● Cam Diagram



Travel S	Working Force kN (tonf)	Spring Force [N (kgf)]		Catalog No.	W	θ	Spring Type PS
		Initial Load	Final Load				
60.0	470.4 (48.0)	—	20200 (2060)	KCMSL	700 800	10	GK NGK
		—	19600 (2000)				GD NGD

GK: Gas Spring (KALLER) GD: Gas Spring (DADCO)
NGK/NGD: Without Gas Spring Parts for spring assembly are included.



Order

Catalog No.	W	—	θ	—	PS	—	Option
KCMSL	700	—	10	—	GK		
KCMSL	800	—	10	—	NGK		
KCMSL	700	—	10	—	GK	—	NF



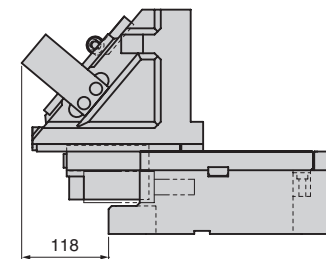
Option

Option Code	Specification
NF	Nitrogen gas not charged.

Spring Specification

No.	PS	Spring Model	Qty	Remark
13	GK	K750-80	2	Gas Spring (KALLER)
	GD	L750.075.TO.140	2	Gas Spring (DADCO)

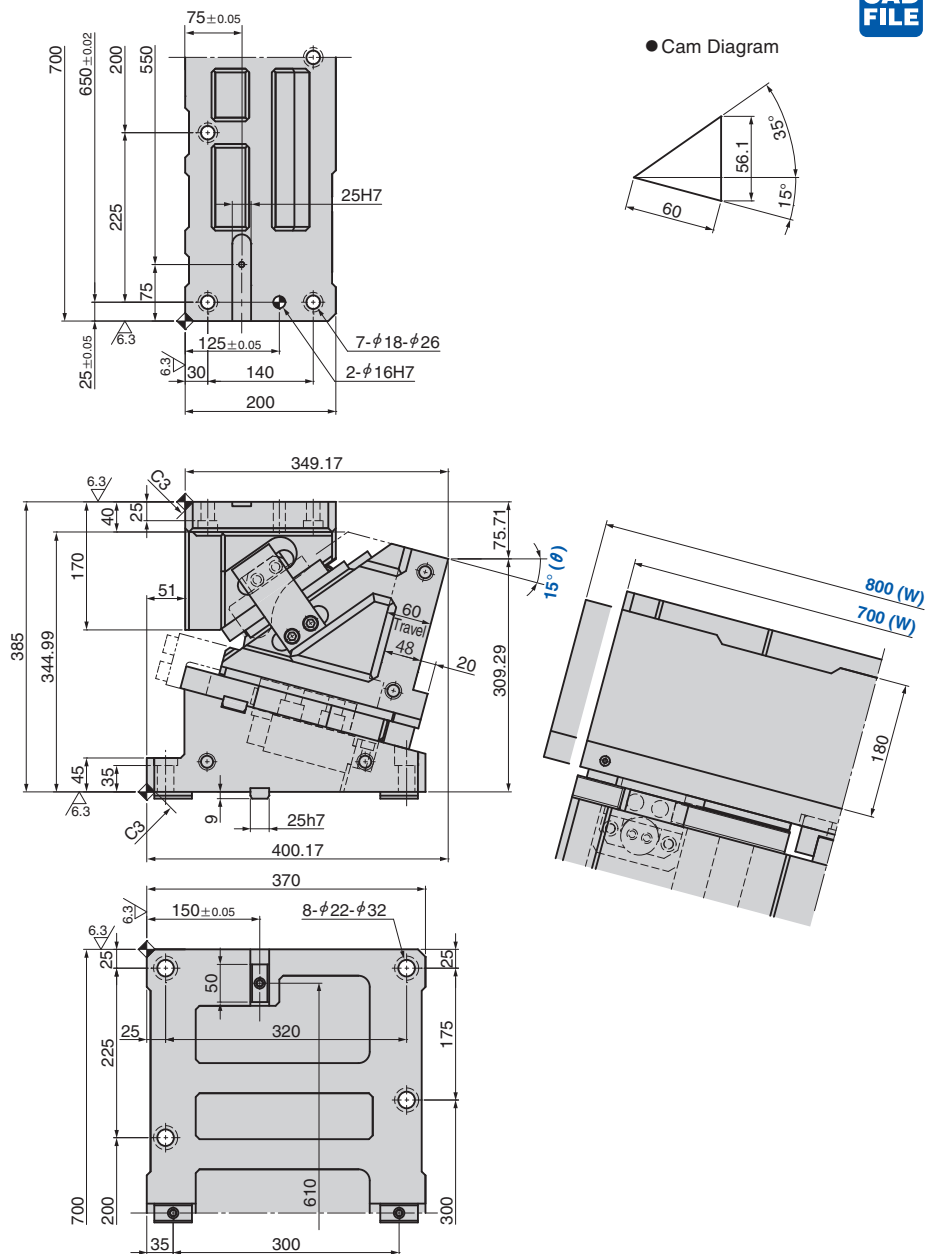
Rear Removal Space



Weight

W	Cam Slider Weight kg	Total Weight kg
700	197.0	421
800	205.4	430

KCMSL700-15 / KCMSL800-15



Travel S	Working Force kN (tonf)	Spring Force [N (kgf)]		Catalog No.	W	θ	Spring Type PS
		Initial Load	Final Load				
60.0	470.4 (48.0)	—	20200 (2060)	KCMSL	700 800	15	GK NGK
		—	19600 (2000)				GD NGD

GK: Gas Spring (KALLER) GD: Gas Spring (DADCO)
NGK/NGD: Without Gas Spring Parts for spring assembly are included.



Order

Catalog No.	W	—	θ	—	PS	—	Option
KCMSL	700	—	15	—	GK		
KCMSL	800	—	15	—	NGK		
KCMSL	700	—	15	—	GK	—	NF



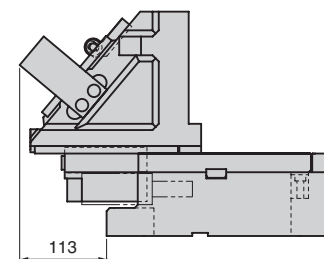
Option

Option Code	Specification
NF	Nitrogen gas not charged.

Spring Specification

No.	PS	Spring Model	Qty	Remark
13	GK	K750-80	2	Gas Spring (KALLER)
	GD	L750.075.TO.140	2	Gas Spring (DADCO)

Rear Removal Space



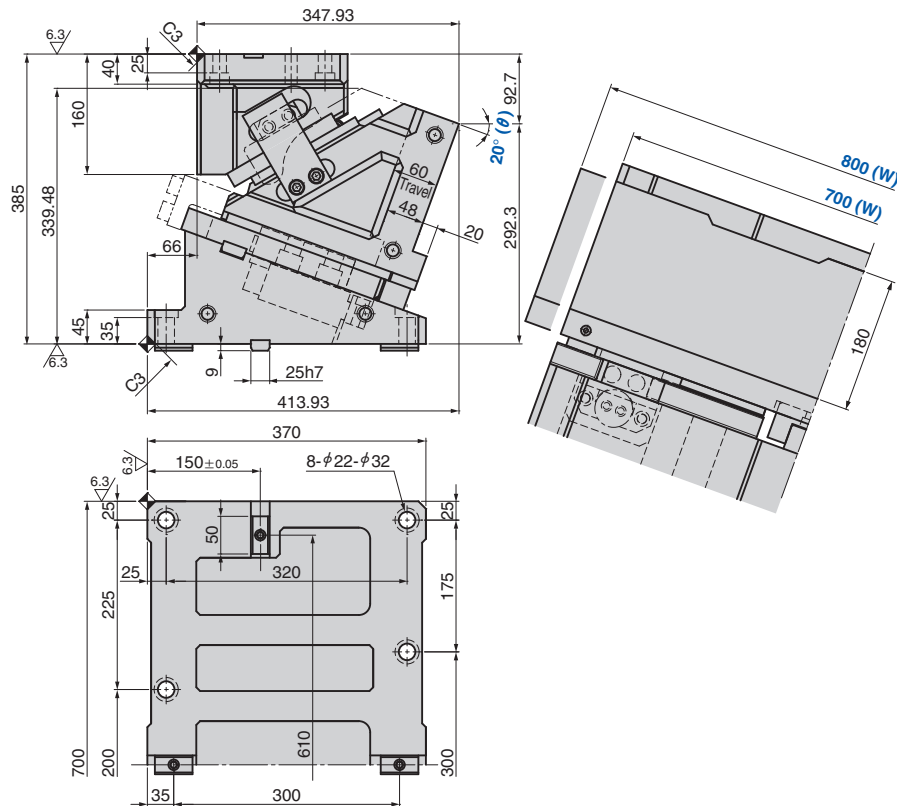
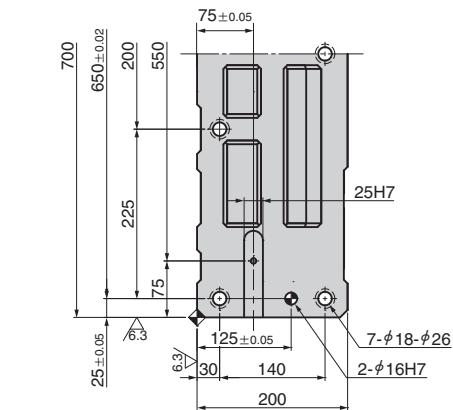
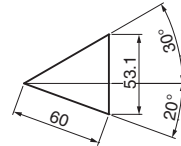
Weight

W	Cam Slider Weight kg	Total Weight kg
700	197.0	415
800	205.4	424

KCMSL700-20 / KCMSL800-20



● Cam Diagram



Travel S	Working Force kN (tonf)	Spring Force [N (kgf)]		Catalog No.	W	θ	Spring Type PS
		Initial Load	Final Load				
60.0	470.4 (48.0)	—	20200 (2060)	KCMSL	700 800	20	GK NGK
		—	19600 (2000)				GD NGD

GK: Gas Spring (KALLER) GD: Gas Spring (DADCO)
NGK/NGD: Without Gas Spring Parts for spring assembly are included.



Order

Catalog No.	W	—	θ	—	PS	—	Option
KCMSL	700	—	20	—	GK		
KCMSL	800	—	20	—	NGK		
KCMSL	700	—	20	—	GK	—	NF



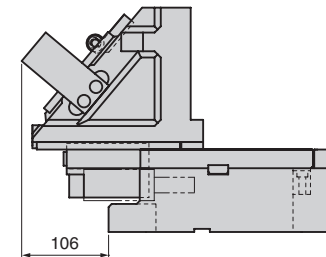
Option

Option Code	Specification
NF	Nitrogen gas not charged.

Spring Specification

No.	PS	Spring Model	Qty	Remark
13	GK	K750-80	2	Gas Spring (KALLER)
	GD	L750.075.TO.140	2	Gas Spring (DADCO)

Rear Removal Space



Weight

W	Cam Slider Weight kg	Total Weight kg
700	197.0	410
800	205.4	418

KCMSL [Table of Components]

Large Type

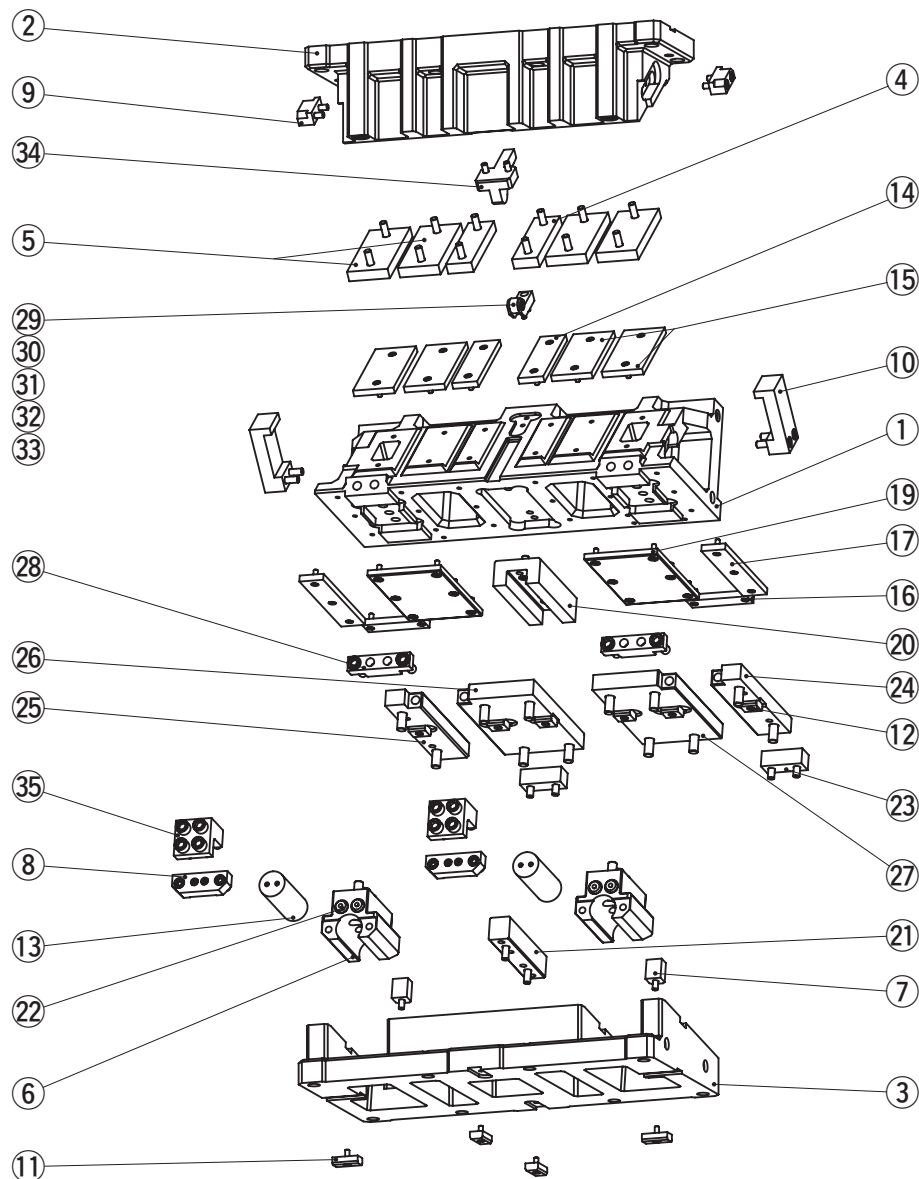
Die Mounted Cam Unit

For Pierce

For Trim

For Flange

KCMSL700/KCMSL800



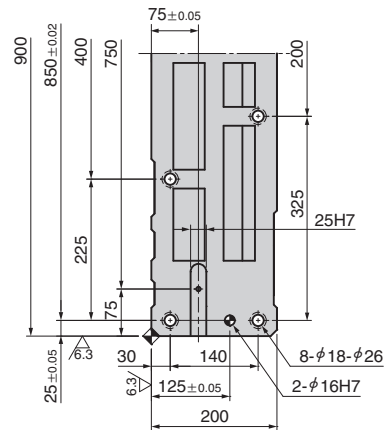
No.	Description	Qty	Material and Remark
1	Cam Slider	1	Cast Iron
2	Cam Driver	1	Cast Iron
3	Cam Holder	1	Cast Iron
4	Cam Driver Plate A	2	Bronze with Graphite
5	Cam Driver Plate B	4	Bronze with Graphite
6	Spring Guide	2	Bronze with Graphite
7	Guide Pin Block	2	Steel
8	Spring Guide Plate	2	Steel
9	Positive Return Block	2	Bronze with Graphite
10	Positive Return Follower	2	Steel
11	Key A	4	Steel
12	Key B	6	Steel
13	Gas Spring	2	Refer to the Spring Specification.
14	Lower Plate A	2	Steel
15	Lower Plate B	4	Steel
16	Slide Lower Plate A	2	Bronze with Graphite
17	Slide Lower Plate B	2	Bronze with Graphite
19	Slide Lower Plate D	2	Bronze with Graphite
20	Center Key Guide	1	Steel
21	Center Key	1	Bronze with Graphite
22	Stopper	4	—
23	Base Plate A	2	Steel
24	Base Plate B L	1	Steel
25	Base Plate B R	1	Steel
26	Base Plate E R	1	Steel
27	Base Plate E L	1	Steel
28	Stopper Plate	2	Steel
29	Roller Bracket	1	Steel
30	Roller	1	Steel
31	Roller Pin	1	Steel
32	Bushing	1	SOB12-18-16
33	E Type Snap Ring	2	φ 9
34	Roller Driver	1	Steel
35	Lock Plate	2	Steel

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

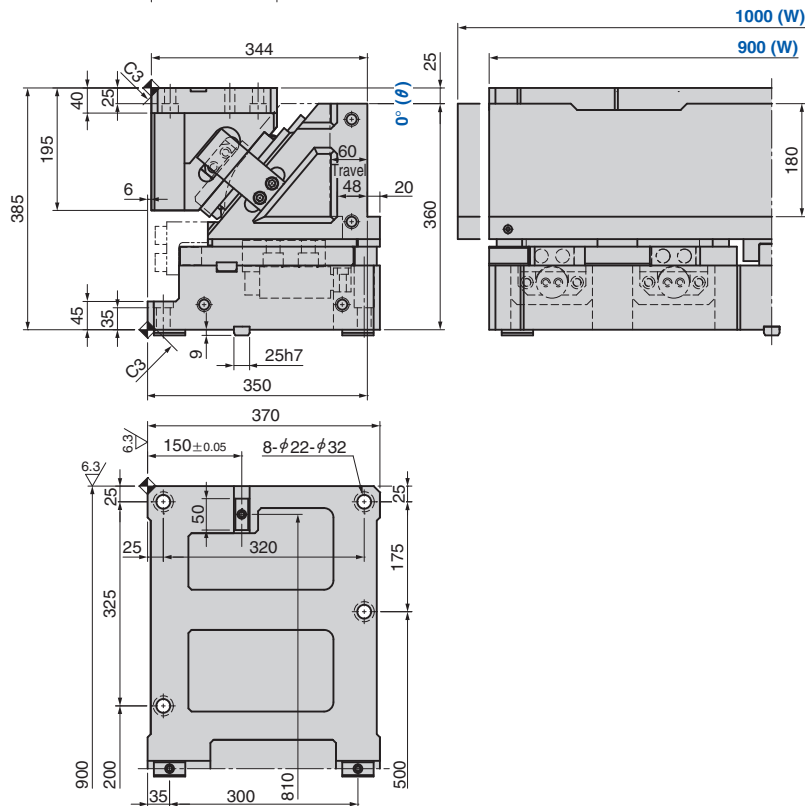
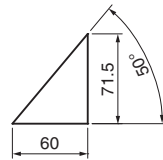
Standard
Cam Units

KCMSL
700/800

KCMSL900-00 / KCMSL1000-00



● Cam Diagram



Travel S	Working Force kN (tonf)	Spring Force [N (kgf)]		Catalog No.	W	θ	Spring Type PS
		Initial Load	Final Load				
60.0	627.2 (64.0)	—	40400 (4120)	KCMSL	900 1000	00	GK NGK
		—	39200 (4000)				GD NGD

GK: Gas Spring (KALLER) GD: Gas Spring (DADCO)
NGK/NGD: Without Gas Spring Parts for spring assembly are included.



Order

Catalog No.	W	—	θ	—	PS	—	Option
KCMSL	900	—	00	—	GK		
KCMSL	1000	—	00	—	NGK		
KCMSL	900	—	00	—	GK	—	NF



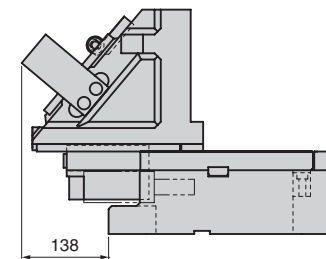
Option

Option Code	Specification
NF	Nitrogen gas not charged.

Spring Specification

No.	PS	Spring Model	Qty	Remark
13	GK	K750-80	4	Gas Spring (KALLER)
	GD	L750.075.TO.140	4	Gas Spring (DADCO)

Rear Removal Space



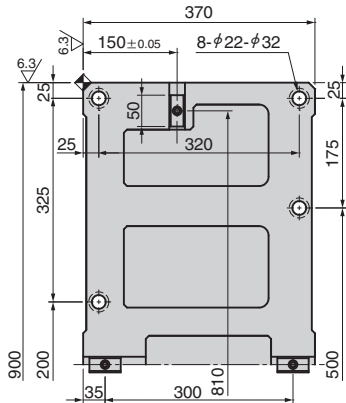
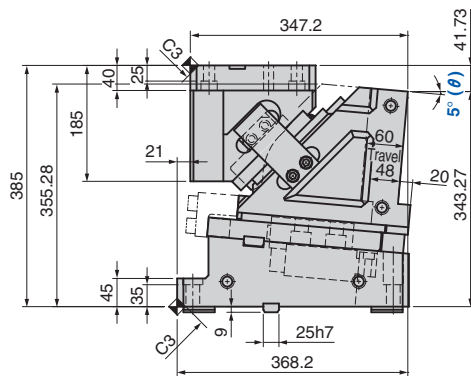
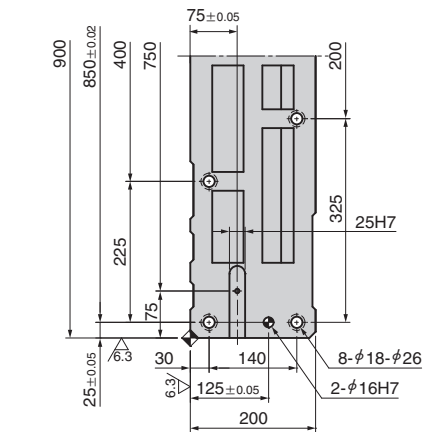
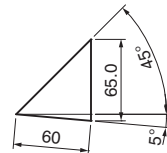
Weight

W	Cam Slider Weight kg	Total Weight kg
900	276.0	571
1000	283.9	579

KCMSL900-05 / KCMSL1000-05



● Cam Diagram



Travel S	Working Force kN (tonf)	Spring Force [N (kgf)]		Catalog No.	W	θ	Spring Type PS
		Initial Load	Final Load				
60.0	627.2 (64.0)	—	40400 (4120)	KCMSL	900 1000	05	GK NGK
		—	39200 (4000)				GD NGD

GK: Gas Spring (KALLER) GD: Gas Spring (DADCO)
NGK/NGD: Without Gas Spring Parts for spring assembly are included.



Order

Catalog No.	W	—	θ	—	PS	—	Option
KCMSL	900	—	05	—	GK		
KCMSL	1000	—	05	—	NGK		
KCMSL	900	—	05	—	GK	—	NF



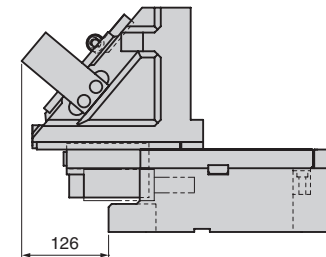
Option

Option Code	Specification
NF	Nitrogen gas not charged.

Spring Specification

No.	PS	Spring Model	Qty	Remark
13	GK	K750-80	4	Gas Spring (KALLER)
	GD	L750.075.TO.140	4	Gas Spring (DADCO)

Rear Removal Space



Weight

W	Cam Slider Weight kg	Total Weight kg
900	276.0	560
1000	283.9	569

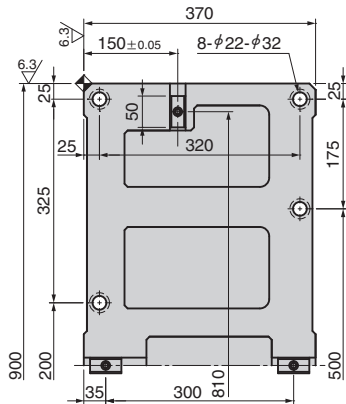
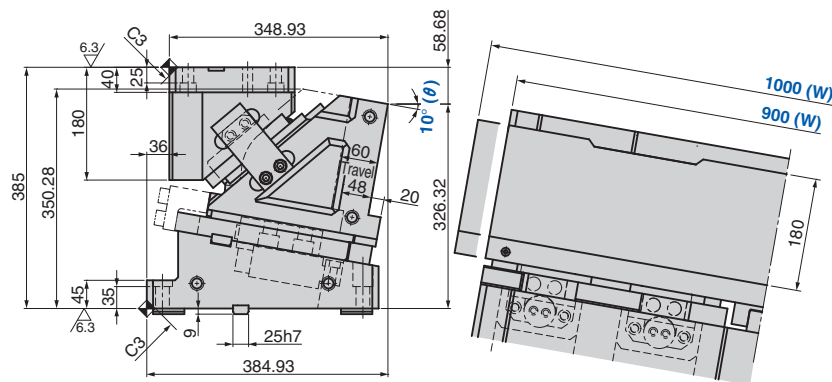
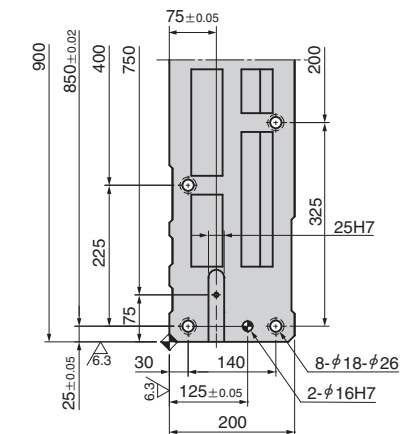
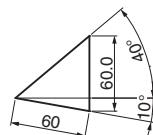


Refer to page 1091 for Table of Components.

KCMSL900-10 / KCMSL1000-10



● Cam Diagram



Travel S	Working Force kN (tonf)	Spring Force [N (kgf)]		Catalog No.	W	θ	Spring Type PS
		Initial Load	Final Load				
60.0	627.2 (64.0)	—	40400 (4120)	KCMSL	900 1000	10	GK NGK
		—	39200 (4000)				GD NGD

GK: Gas Spring (KALLER) GD: Gas Spring (DADCO)
NGK/NGD: Without Gas Spring Parts for spring assembly are included.



Order

Catalog No.	W	—	θ	—	PS	—	Option
KCMSL	900	—	10	—	GK		
KCMSL	1000	—	10	—	NGK		
KCMSL	900	—	10	—	GK	—	NF



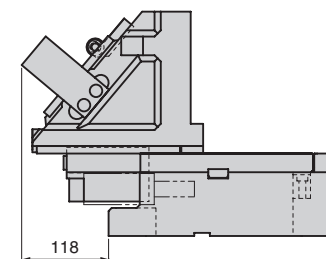
Option

Option Code	Specification
NF	Nitrogen gas not charged.

Spring Specification

No.	PS	Spring Model	Qty	Remark
13	GK	K750-80	4	Gas Spring (KALLER)
	GD	L750.075.TO.140	4	Gas Spring (DADCO)

Rear Removal Space



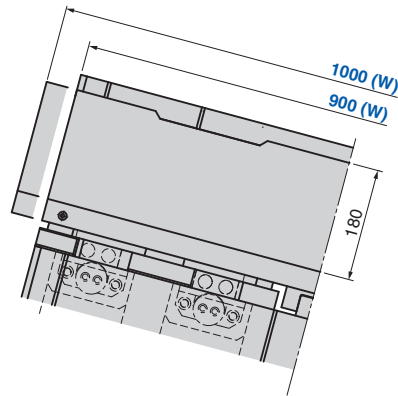
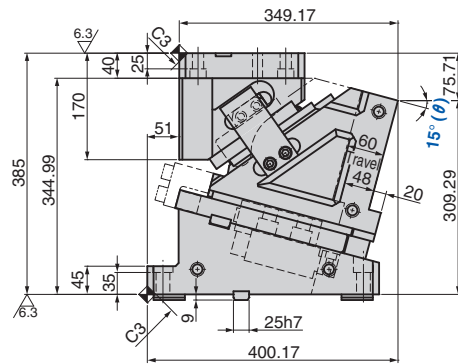
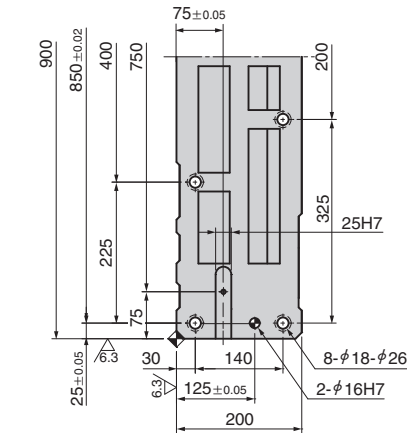
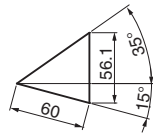
Weight

W	Cam Slider Weight kg	Total Weight kg
900	276.0	551
1000	283.9	560

KCMSL900-15 / KCMSL1000-15



● Cam Diagram



Travel S	Working Force kN (tonf)	Spring Force [N (kgf)]		Catalog No.	W	θ	Spring Type PS
		Initial Load	Final Load				
60.0	627.2 (64.0)	—	40400 (4120)	KCMSL	900 1000	15	GK NGK
		—	39200 (4000)				GD NGD

GK: Gas Spring (KALLER) GD: Gas Spring (DADCO)
NGK/NGD: Without Gas Spring Parts for spring assembly are included.



Order

Catalog No.	W	—	θ	—	PS	—	Option
KCMSL	900	—	15	—	GK		
KCMSL	1000	—	15	—	NGK		
KCMSL	900	—	15	—	GK	—	NF



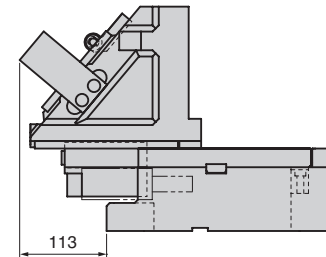
Option

Option Code	Specification
NF	Nitrogen gas not charged.

Spring Specification

No.	PS	Spring Model	Qty	Remark
13	GK	K750-80	4	Gas Spring (KALLER)
	GD	L750.075.TO.140	4	Gas Spring (DADCO)

Rear Removal Space



Weight

W	Cam Slider Weight kg	Total Weight kg
900	276.0	543
1000	283.9	551

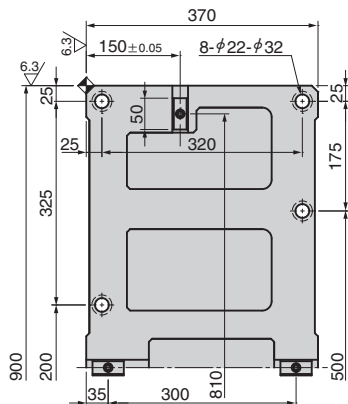
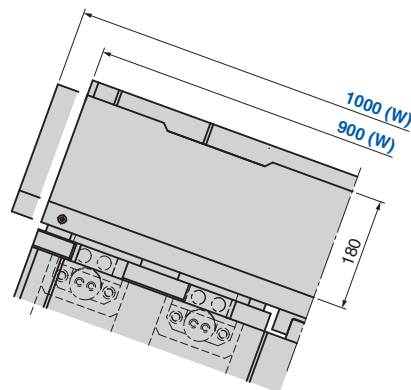
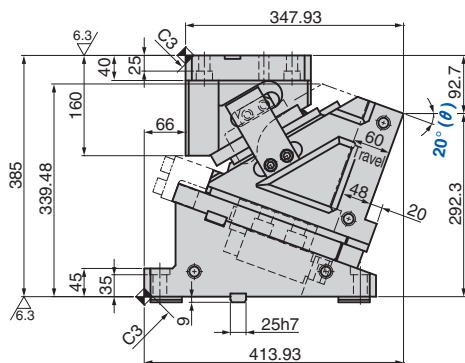
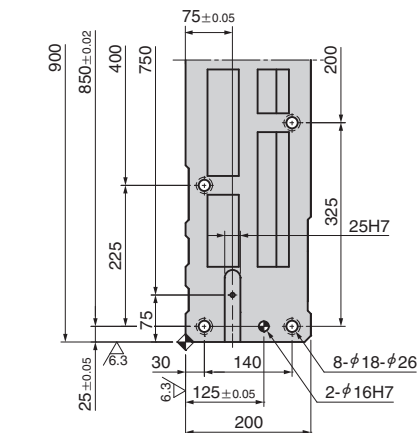
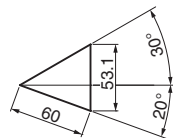


Refer to page 1091 for Table of Components.

KCMSL900-20 / KCMSL1000-20



● Cam Diagram



Travel S	Working Force kN (tonf)	Spring Force [N (kgf)]		Catalog No.	W	θ	Spring Type PS
		Initial Load	Final Load				
60.0	627.2 (64.0)	—	40400 (4120)	KCMSL	900 1000	20	GK NGK
		—	39200 (4000)				GD NGD

GK: Gas Spring (KALLER) GD: Gas Spring (DADCO)
NGK/NGD: Without Gas Spring Parts for spring assembly are included.



Order

Catalog No.	W	—	θ	—	PS	—	Option
KCMSL	900	—	20	—	GK		
KCMSL	1000	—	20	—	NGK		
KCMSL	900	—	20	—	GK	—	NF



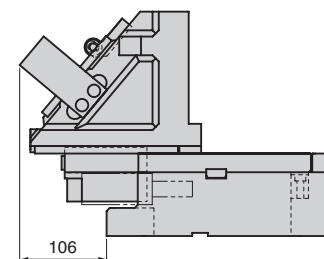
Option

Option Code	Specification
NF	Nitrogen gas not charged.

Spring Specification

No.	PS	Spring Model	Qty	Remark
13	GK	K750-80	4	Gas Spring (KALLER)
	GD	L750.075.TO.140	4	Gas Spring (DADCO)

Rear Removal Space



Weight

W	Cam Slider Weight kg	Total Weight kg
900	276.0	536
1000	283.9	544



Refer to page 1091 for Table of Components.

KCMSL [Table of Components]

Large Type

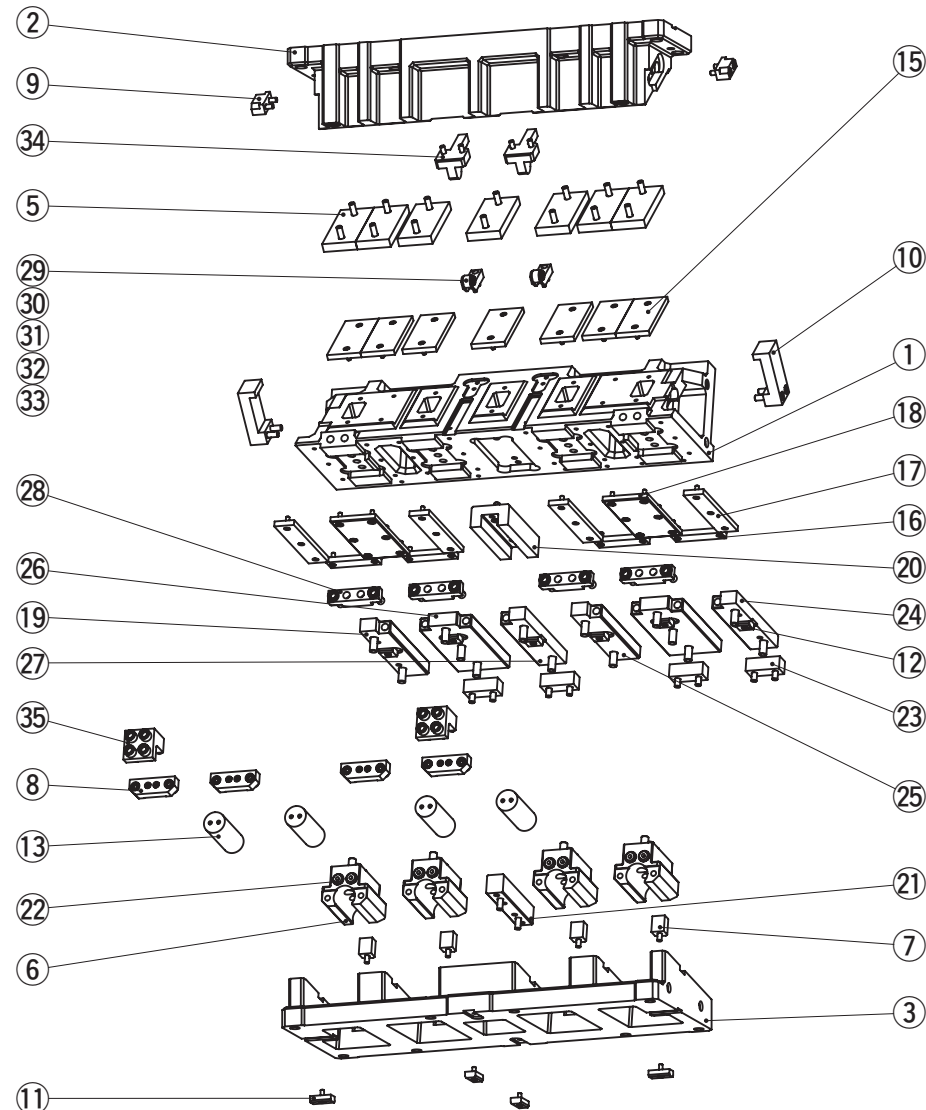
Die Mounted Cam Unit

For Pierce

For Trim

For Flange

KCMSL900/KCMSL1000



No.	Description	Qty	Material and Remark
1	Cam Slider	1	Cast Iron
2	Cam Driver	1	Cast Iron
3	Cam Holder	1	Cast Iron
5	Cam Driver Plate B	7	Bronze with Graphite
6	Spring Guide	4	Bronze with Graphite
7	Guide Pin Block	4	Steel
8	Spring Guide Plate	4	Steel
9	Positive Return Block	2	Bronze with Graphite
10	Positive Return Follower	2	Steel
11	Key A	4	Steel
12	Key B	6	Steel
13	Gas Spring	4	Refer to the Spring Specification.
15	Lower Plate B	7	Steel
16	Slide Lower Plate A	4	Bronze with Graphite
17	Slide Lower Plate B	4	Bronze with Graphite
18	Slide Lower Plate C	2	Bronze with Graphite
19	Base Plate B R	1	Steel
20	Center Key Guide	1	Steel
21	Center Key	1	Bronze with Graphite
22	Stopper	8	—
23	Base Plate A	4	Steel
24	Base Plate B L	1	Steel
25	Base Plate C L	1	Steel
26	Base Plate D	2	Steel
27	Base Plate C R	1	Steel
28	Stopper Plate	4	Steel
29	Roller Bracket	2	Steel
30	Roller	2	Steel
31	Roller Pin	2	Steel
32	Bushing	2	SOB12-18-16
33	E Type Snap Ring	4	φ 9
34	Roller Driver	2	Steel
35	Lock Plate	2	Steel

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

Standard
Cam Units

KCMSL
900/1000