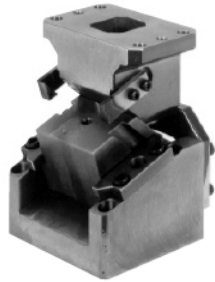


Die Mounted Cam Unit SKCA

Die Mounted Cam Unit

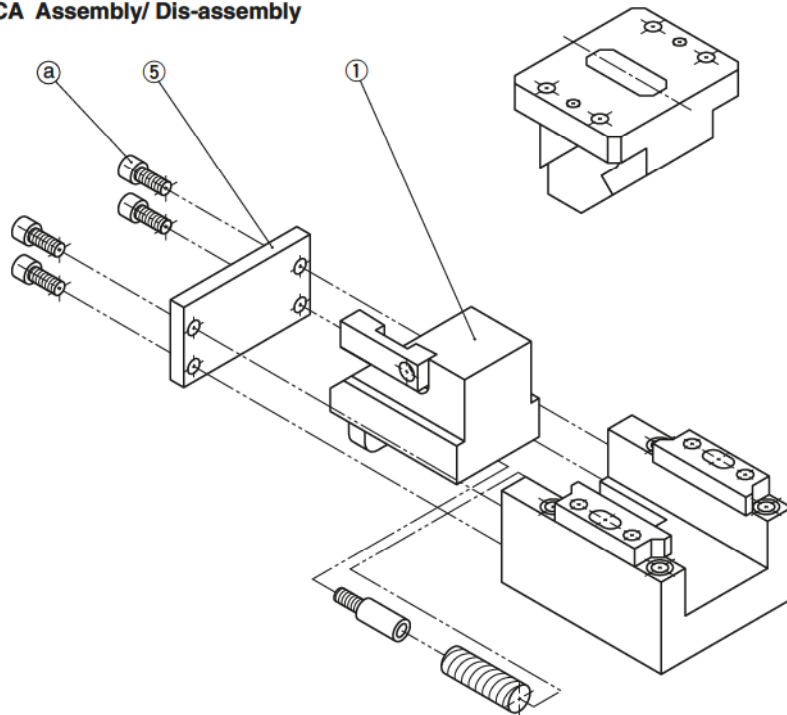


- Mounting surface widths 52, 65, 100, 150, 200, 250, 300 mm
- Working angles from 0° to 20° in 5° increments for the mounting surface widths 65 to 150 mm
- The Box-type holder provides high rigidity

▲ Gas Spring:

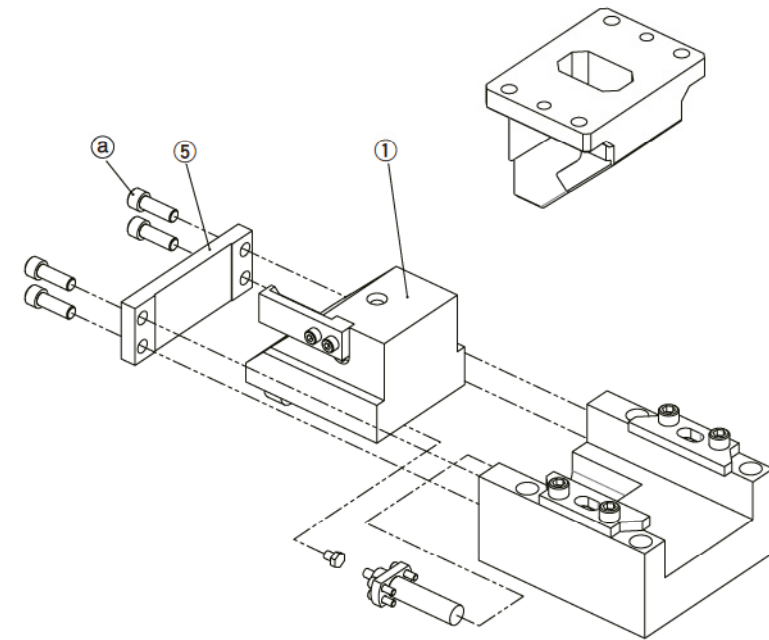
Please contact your local sales representative, if you prefer to use a gas spring not specified in our catalog. For use and maintenance of gas spring, please contact the manufacturer directly.

■ SKCA Assembly/ Dis-assembly



Coil Spring Specification

Technical Information



Gas Spring Specification

●Disassembling SKCA

- 1) Remove Hexagon Socket Head Bolts (a) and Stopper Plate (5).
- 2) Pull out Cam Slider from Cam Holder.

●Re-assembly

Reassembly is the reverse procedure of disassembly.

NOTES:

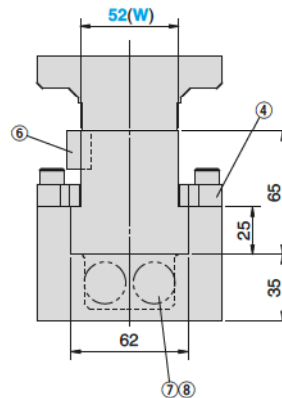
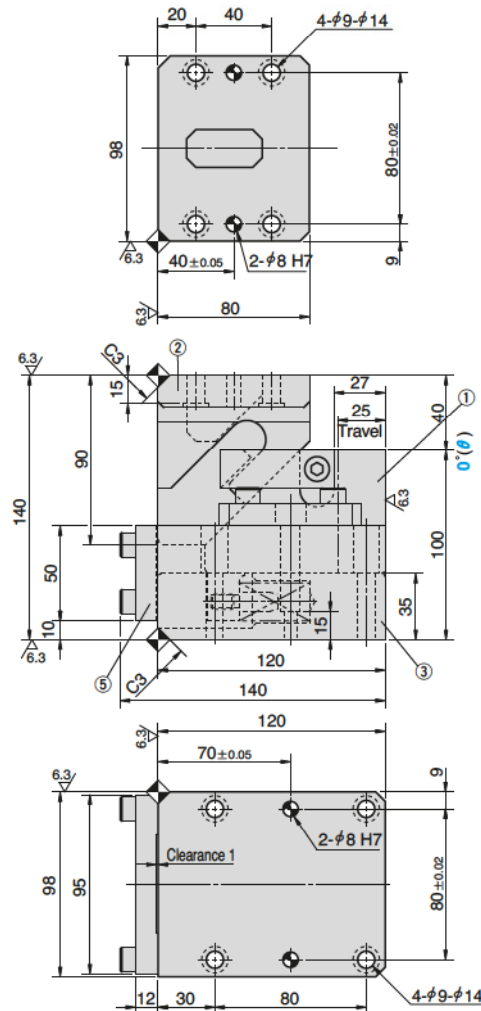
- Ensure that all parts are clean, particularly the sliding components, to which a small amount of grease is applied and is then placed in position.
- Take care that the respective tolerances are observed when assembling the Cam Slider and Cam Holder, which also should be identified by the same serial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

Die Mounted Cam Unit

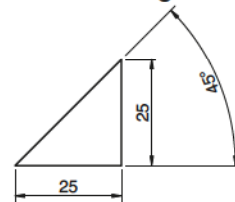
FOR PIERCE

CAD
FILE

SKCA52 - 00 - 25



Cam Diagram



Working Force kN(tonf)		Spring Force N(kgf)		Total Weight kg	Catalog No.	W	θ	Travel S
1,000,000 strokes	300,000 strokes	Initial Load	Final Load					
14.7 (1.5)	29.4 (3.0)	144.3 (14.7)	595.3 (60.7)	8.0	SKCA	52	00	25



Order

Catalog No.	W	θ	S
SKCA	52	00	25



Option

See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	SS400(1020)
⑥	Positive Return Follower	1	S45C(1045)
⑦	Spring Guide Pin	2	φ10×35
⑧	Coil Spring	2	TF20-70

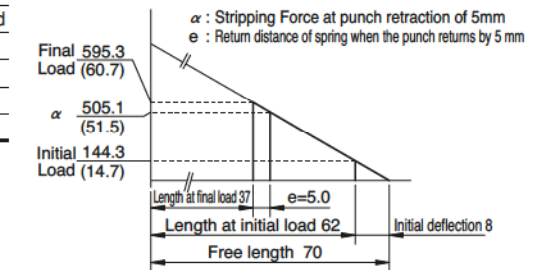


Bolts for assembly are not indicated.

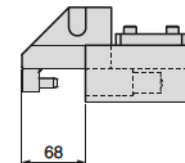
Spring Diagram

(Stripping Force at punch retraction of 5mm)

- Spring used TF20-70 (2 pieces)
- Spring constant 9.02 N/mm (0.92kgf/mm)
- Spring life expectancy 300,000 strokes



Space for removing

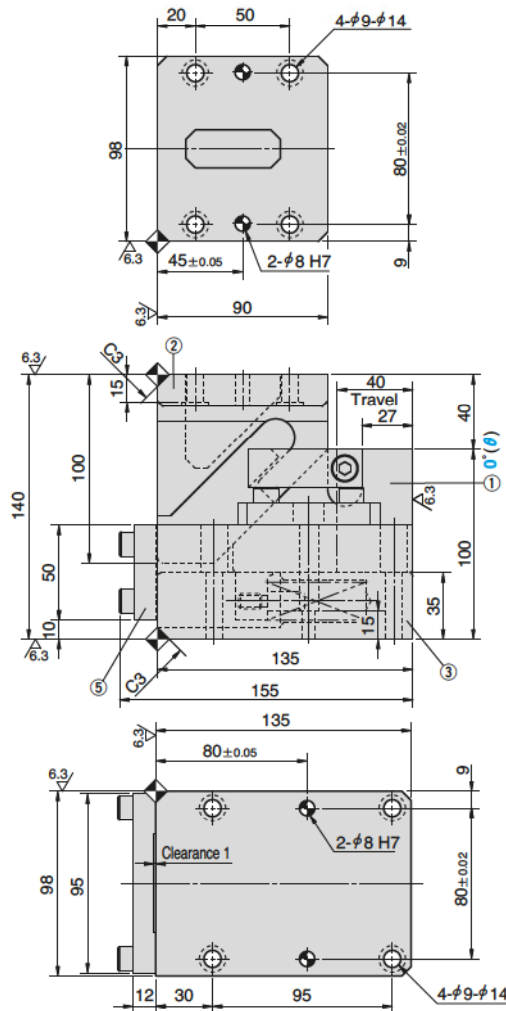


Die Mounted Cam Unit

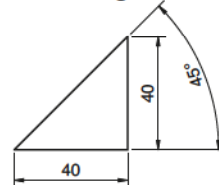
FOR PIERCE

CAD
FILE

SKCA52 - 00 - 40



Cam Diagram



Working Force kN(tonf)		Spring Force N(kgf)		Total Weight kg	Catalog No.	W	θ	Travel S
1,000,000 strokes	300,000 strokes	Initial Load	Final Load					
14.7 (1.5)	29.4 (3.0)	101.0 (10.2)	605.8 (61.4)	8.0	SKCA	52	00	40



Order

Catalog No.	W	θ	S
SKCA	52	00	40



Option

See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

Table of Components

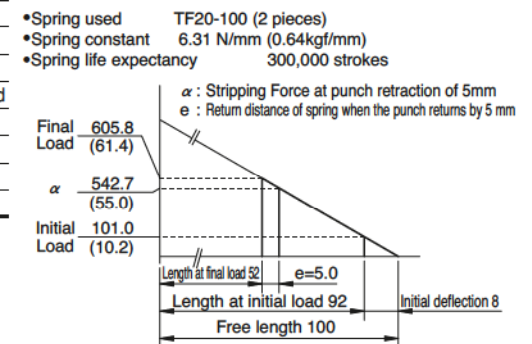
No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	SS400(1020)
⑥	Positive Return Follower	1	S45C(1045)
⑦	Spring Guide Pin	2	φ10×35
⑧	Coil Spring	2	TF20-100



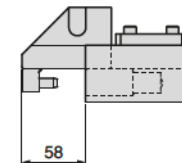
Bolts for assembly are not indicated.

Spring Diagram

(Stripping Force at punch retraction of 5mm)



Space for removing

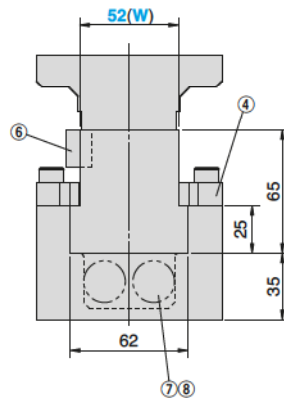
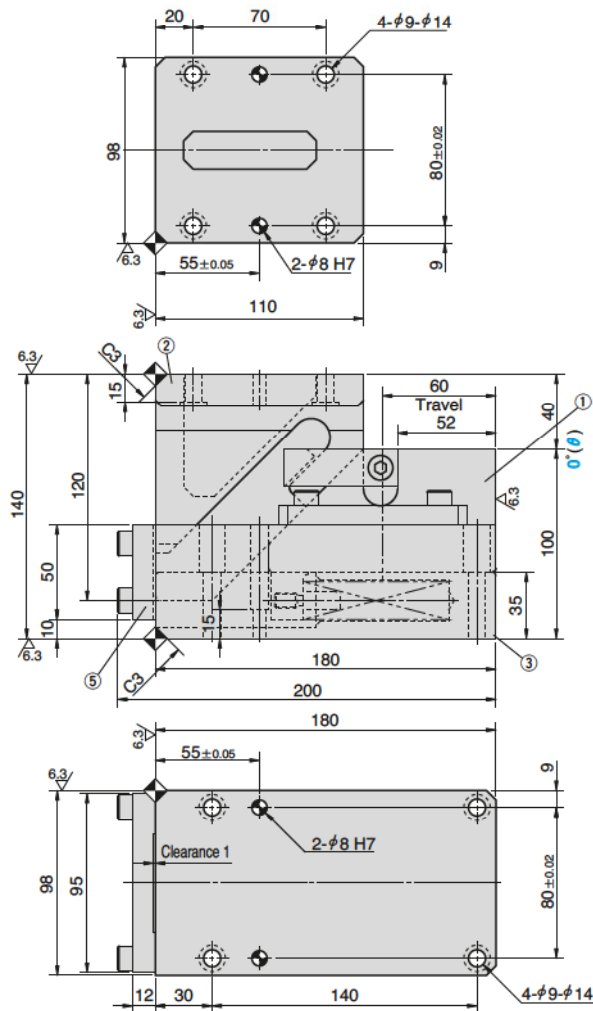


Die Mounted Cam Unit

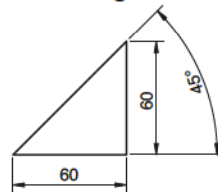
FOR PIERCE

CAD
FILE

SKCA52-00-60



Cam Diagram



Working Force kN(tonf)		Spring Force N(kgf)		Total Weight kg	Catalog No.	W	θ	Travel S
1,000,000 strokes	300,000 strokes	Initial Load	Final Load					
14.7 (1.5)	29.4 (3.0)	109.5 (11.2)	614.7 (62.8)	14.0	SKCA	52	00	60



Order

Catalog No.	W	θ	S
SKCA	52	00	60



Option

See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

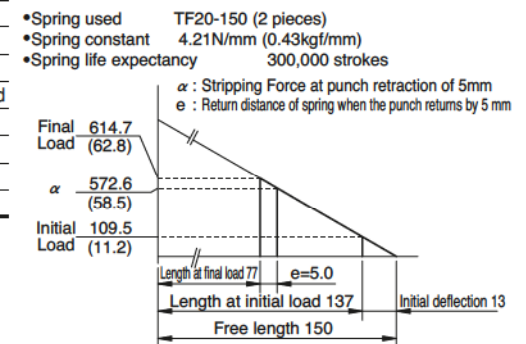
Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	SS400(1020)
⑥	Positive Return Follower	1	S45C(1045)
⑦	Spring Guide Pin	2	φ10×35
⑧	Coil Spring	2	TF20-150

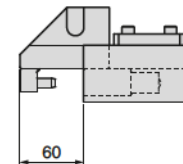
⚠ Bolts for assembly are not indicated.

Spring Diagram

(Stripping Force at punch retraction of 5mm)

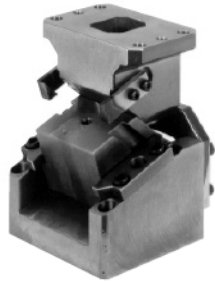


Space for removing



Die Mounted Cam Unit SKCA

Die Mounted Cam Unit

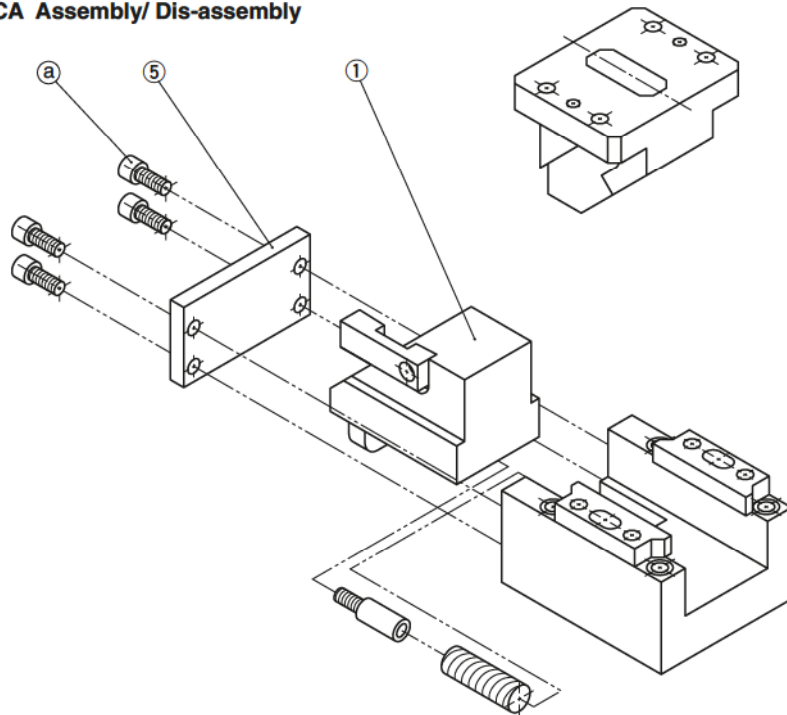


- Mounting surface widths 52, 65, 100, 150, 200, 250, 300 mm
- Working angles from 0° to 20° in 5° increments for the mounting surface widths 65 to 150 mm
- The Box-type holder provides high rigidity

▲ Gas Spring:

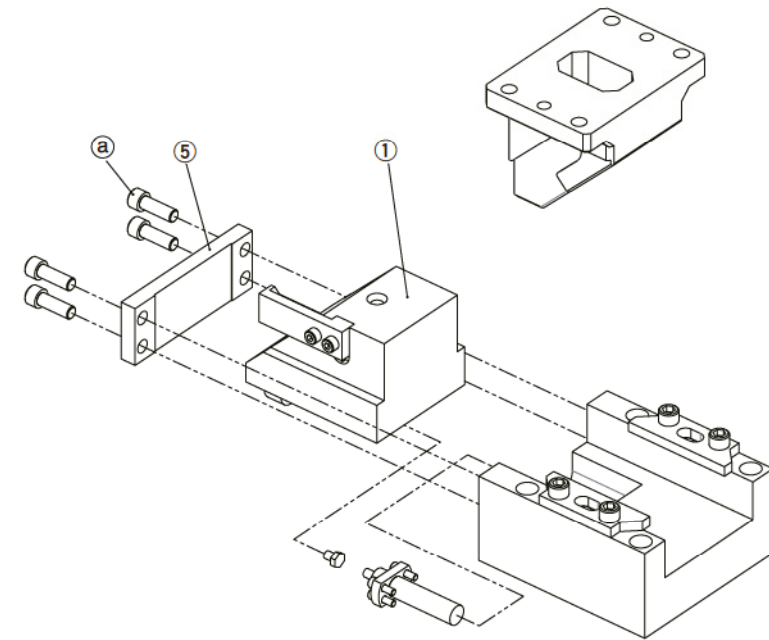
Please contact your local sales representative, if you prefer to use a gas spring not specified in our catalog. For use and maintenance of gas spring, please contact the manufacturer directly.

■ SKCA Assembly/ Dis-assembly



Coil Spring Specification

Technical Information



Gas Spring Specification

●Disassembling SKCA

- 1) Remove Hexagon Socket Head Bolts (a) and Stopper Plate (5).
- 2) Pull out Cam Slider from Cam Holder.

●Re-assembly

Reassembly is 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 in position.
- Take care that the respective tolerances are observed when assembling the Cam Slider and Cam Holder, which also should be identified by the same serial number.
- All bolts shall be tightened to the recommended torque after assembly and dis-assembly.

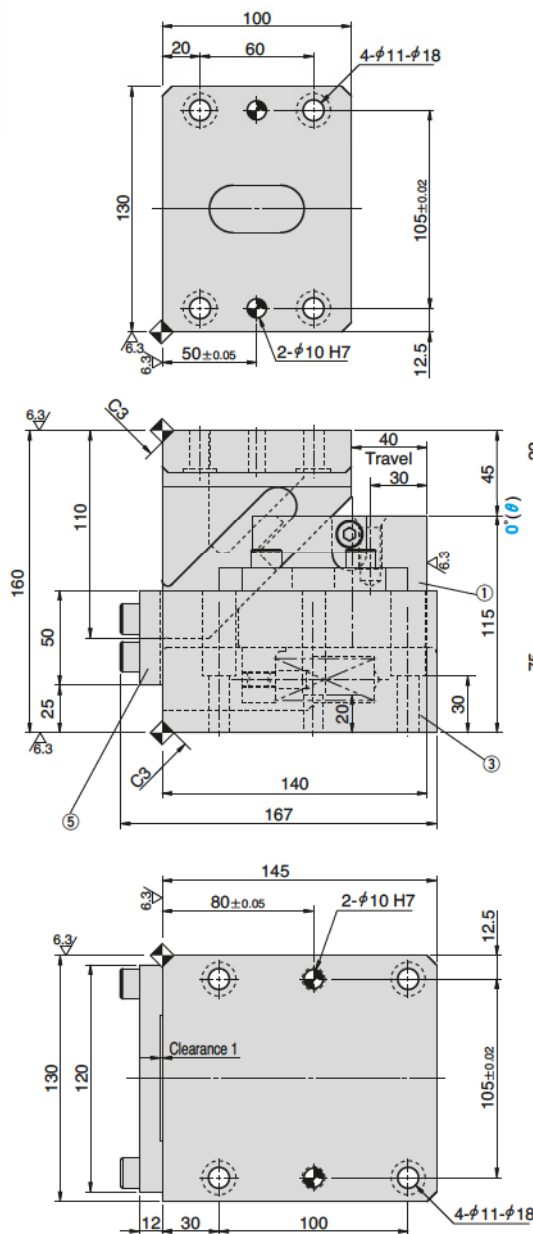
Die Mounted Cam Unit

FOR PIERCE

Addition

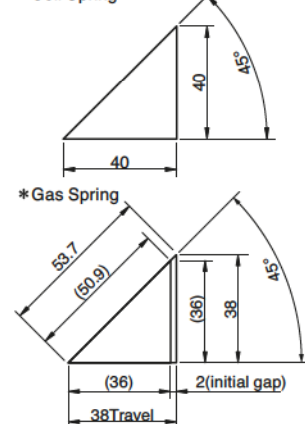
CAD
FILE

SKCA65-00-40



Cam Diagram

* Coil Spring



* Gas Spring

Working Force kN(tonf)		Spring Force N(kgf)		Total Weight kg	Catalog No.	W	θ	Travel S	Spring Tyoe PS
1,000,000 strokes	300,000 strokes	Initial Load	Final Load						
19.6 (2.0)	39.2 (4.0)	125.4 (12.8)	752.6 (76.8)	15.5	SKCA	65	00	40	No code (Coil Spring)
		—	677 (69.1)					40 (38)	GK *NGK GD *NGD GS *NGS

Gas spring travel is 38mm.

* Parts for spring assembly are included.



Order

Catalog No.	W	θ	S	PS	Option
SKCA	65	—	00	—	GK
SKCA	65	—	00	—	NGK
SKCA	65	—	00	—	GK — NF

...Without gas spring.



Option

Option Code	Specification
NF	Nitrogen gas not charged.

See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

Spring Specification

No.	PS	Spring Model	Qty	Remark
⑧	—	TF22-100	2	Coil Spring
	GK	R19-38.1-Blue	1	Gas Spring (KALLER)
	GD	C.090.038.BK.100	1	Gas Spring (DADCO)
	GS	SFL.50.38	1	Gas Spring (SDT)

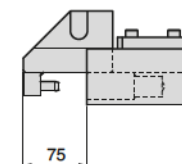
*Gas filling pressure : 10MPa

Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	SS400(1020)
⑥	Positive Return Follower	1	S45C(1045)
⑦	Spring Guide Pin	2	φ10×35 Coil Spring specification only
⑦	Mounting Plate	1	Gas Spring specification only
⑧	Spring	—	Refer to the Spring Specification table.
⑪	Stop Pin	1	Gas Spring specification only

Bolts for assembly are not indicated.

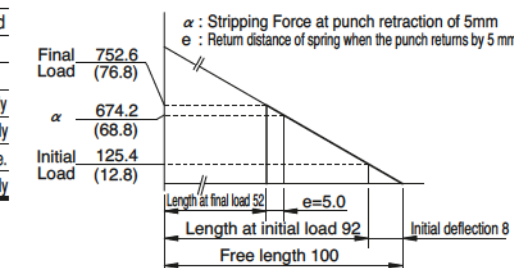
Space for removing



Spring Diagram

(Stripping Force at punch retraction of 5mm)

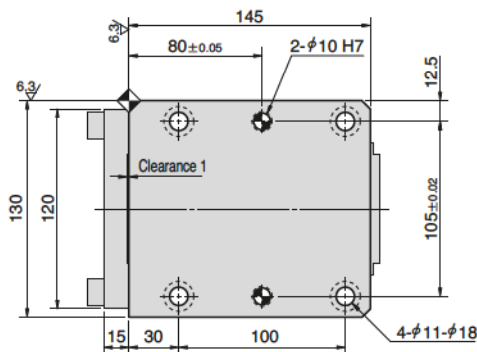
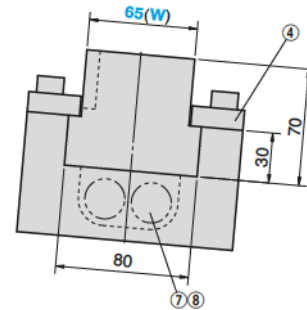
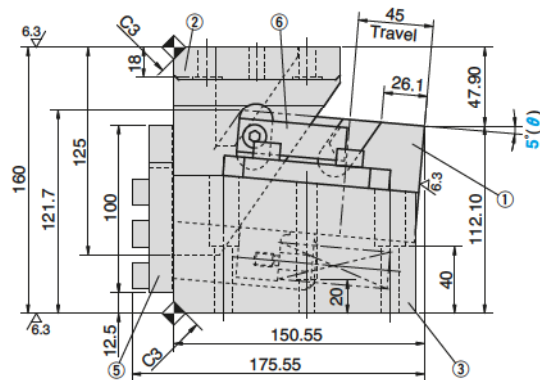
- Spring used TF22-100 (2 pieces)
- Spring constant 7.84N/mm (0.80kgf/mm)
- Spring life expectancy 300,000 strokes



FOR PIERCE

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

- Overall width: 100
- Overall height: 130
- Top edge features:
 - Two circular holes with a diameter of $4 \times \phi 11 - \phi 18$.
 - Distance between hole centers: 60.
 - Distance from left edge to first hole center: 20.
- Bottom edge features:
 - Two circular holes with a diameter of $2 \times \phi 10 \text{ H7}$.
 - Distance between hole centers: 50 ± 0.05 .
 - Distance from left edge to first hole center: 6.3.
- Central feature: A rectangular slot with a width of 105 ± 0.02 and a height of 12.5.
- Corner features: Four chamfers, each with a radius of 6.3.



Working Force kN(tonf)		Spring Force N(kgf)		Total Weight kg	Catalog No.	W	θ	Travel S
1,000,000 strokes	300,000 strokes	Initial Load	Final Load					
19.6 (2.0)	39.2 (4.0)	175.8 (17.9)	741.0 (75.5)	19.0	SKCA	65	05	45



Catalog No.	W	—	θ	—	S
SKCA	65	—	05	—	45

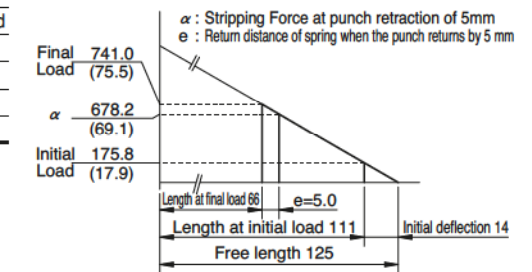


 See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	SS400(1020)
⑥	Positive Return Follower	1	S45C(1045)
⑦	Spring Guide Pin	2	φ10×35
⑧	Coil Spring	2	TF22-125

(Stripping Force at punch retraction of 5mm)

- Spring used TF22-125 (2 pieces)
- Spring constant 6.28N/mm (0.64kgf/mm)
- Spring life expectancy 300,000 strokes



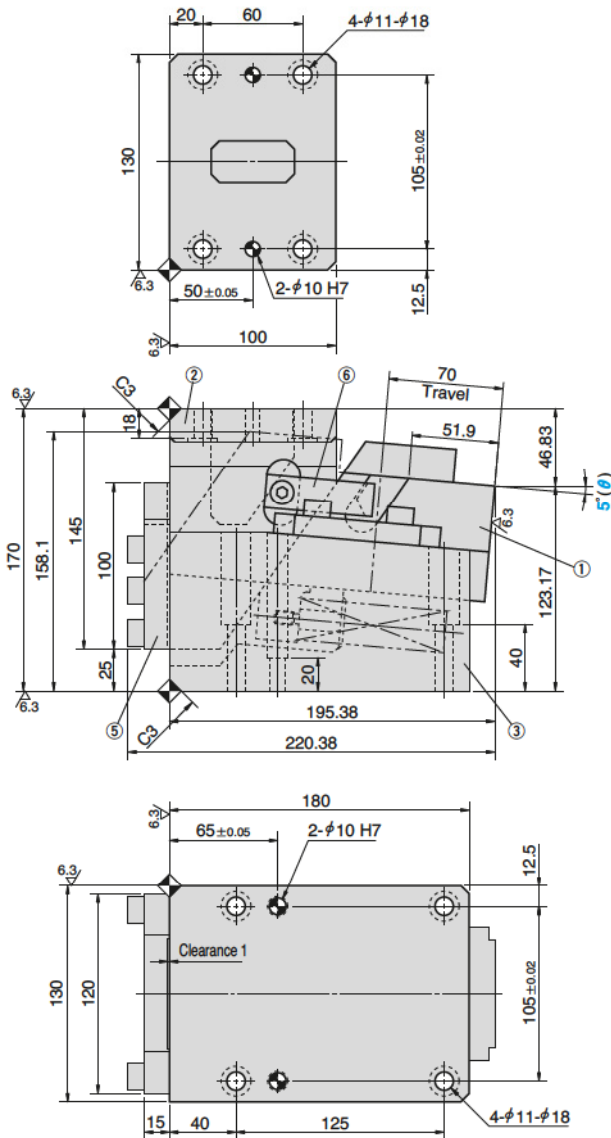
Technical drawing of a mechanical part, showing a side view with a dimension of 85.

Die Mounted Cam Unit

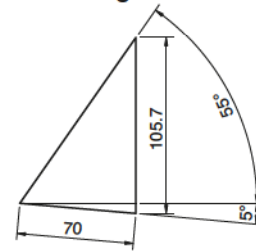
FOR PIERCE

CAD
FILE

SKCA65 - 05 - 70



Cam Diagram



Working Force kN(tonf)		Spring Force N(kgf)		Total Weight kg	Catalog No.	W	θ	Travel S
1,000,000 strokes	300,000 strokes	Initial Load	Final Load					
19.6 (2.0)	39.2 (4.0)	190.4 (19.4)	974.4 (99.2)	22.2	SKCA	65	05	70



Order

Catalog No.	W	θ	S
SKCA	65	05	70



Option

See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

Table of Components

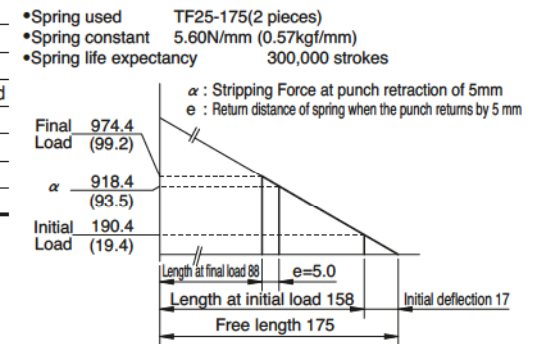
No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	SS400(1020)
⑥	Positive Return Follower	1	S45C(1045)
⑦	Spring Guide Pin	2	φ12×40
⑧	Coil Spring	2	TF25-175



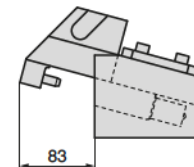
Bolts for assembly are not indicated.

Spring Diagram

(Stripping Force at punch retraction of 5mm)



Space for removing

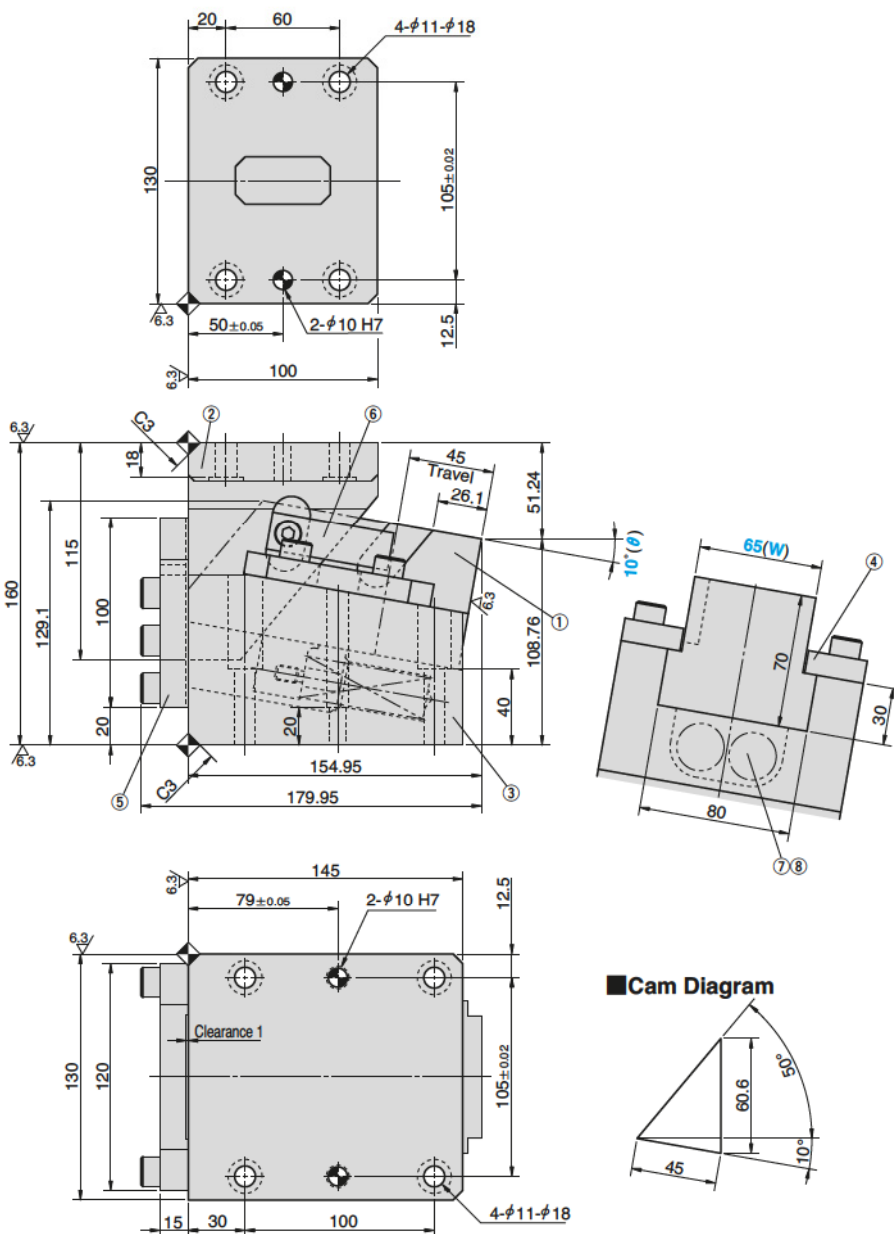


Die Mounted Cam Unit

FOR PIERCE

CAD
FILE

SKCA65-10-45



Cam Diagram

Working Force kN(tonf)		Spring Force N(kgf)		Total Weight kg	Catalog No.	W	θ	Travel S
1,000,000 strokes	300,000 strokes	Initial Load	Final Load					
19.6 (2.0)	39.2 (4.0)	175.8 (17.9)	741.0 (75.5)	19.6	SKCA	65	10	45



Order

Catalog No.	W	θ	S
SKCA	65	10	45



Option

See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	SS400(1020)
⑥	Positive Return Follower	1	S45C(1045)
⑦	Spring Guide Pin	2	φ10×35
⑧	Coil Spring	2	TF22-125

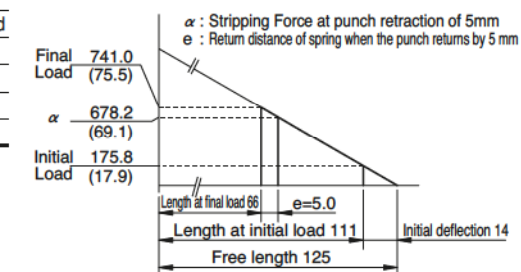


Bolts for assembly are not indicated.

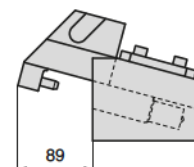
Spring Diagram

(Stripping Force at punch retraction of 5mm)

- Spring used TF22-125(2 pieces)
- Spring constant 6.28N/mm (0.64kgf/mm)
- Spring life expectancy 300,000 strokes



Space for removing



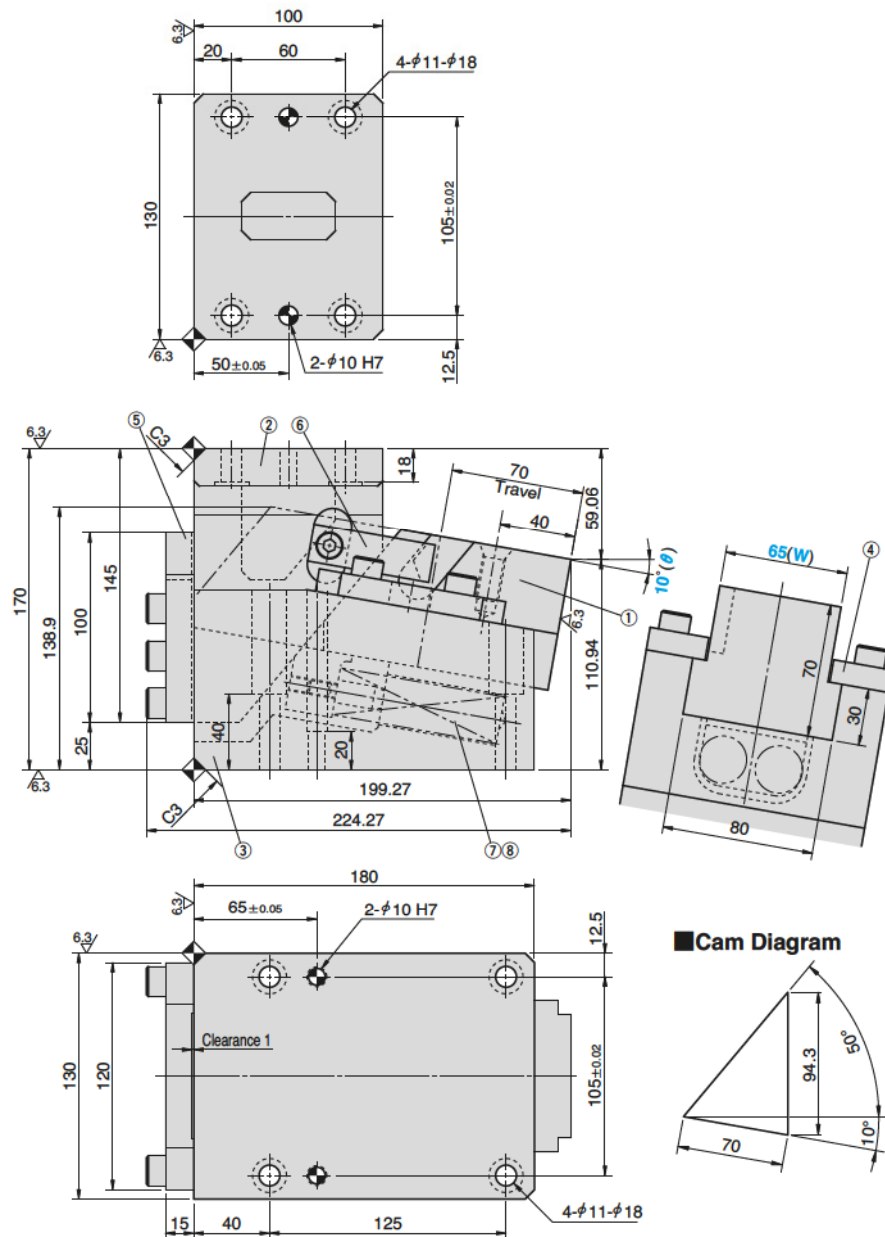
SKCA
65

Die Mounted Cam Unit

FOR PIERCE

CAD
FILE

SKCA65-10-70



Working Force kN(tonf)		Spring Force N(kgf)		Total Weight kg	Catalog No.	W	θ	Travel S
1,000,000 strokes	300,000 strokes	Initial Load	Final Load					
19.6 (2.0)	39.2 (4.0)	190.4 (19.4)	974.4 (99.2)	20.5	SKCA	65	10	70



Order

Catalog No.	W	θ	S
SKCA	65	10	70



Option

See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	SS400(1020)
⑥	Positive Return Follower	1	S45C(1045)
⑦	Spring Guide Pin	2	φ12×40
⑧	Coil Spring	2	TF25-175

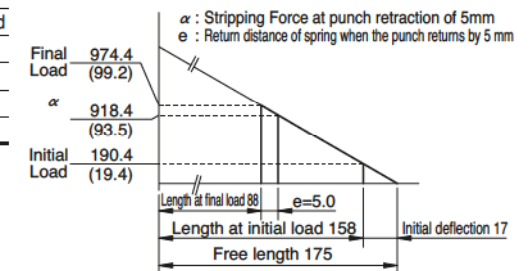


Bolts for assembly are not indicated.

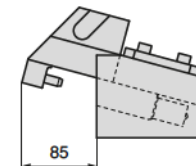
Spring Diagram

(Stripping Force at punch retraction of 5mm)

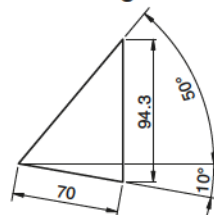
- Spring used TF25-175(2 pieces)
- Spring constant 5.60N/mm (0.57kgf/mm)
- Spring life expectancy 300,000 strokes



Space for removing



Cam Diagram

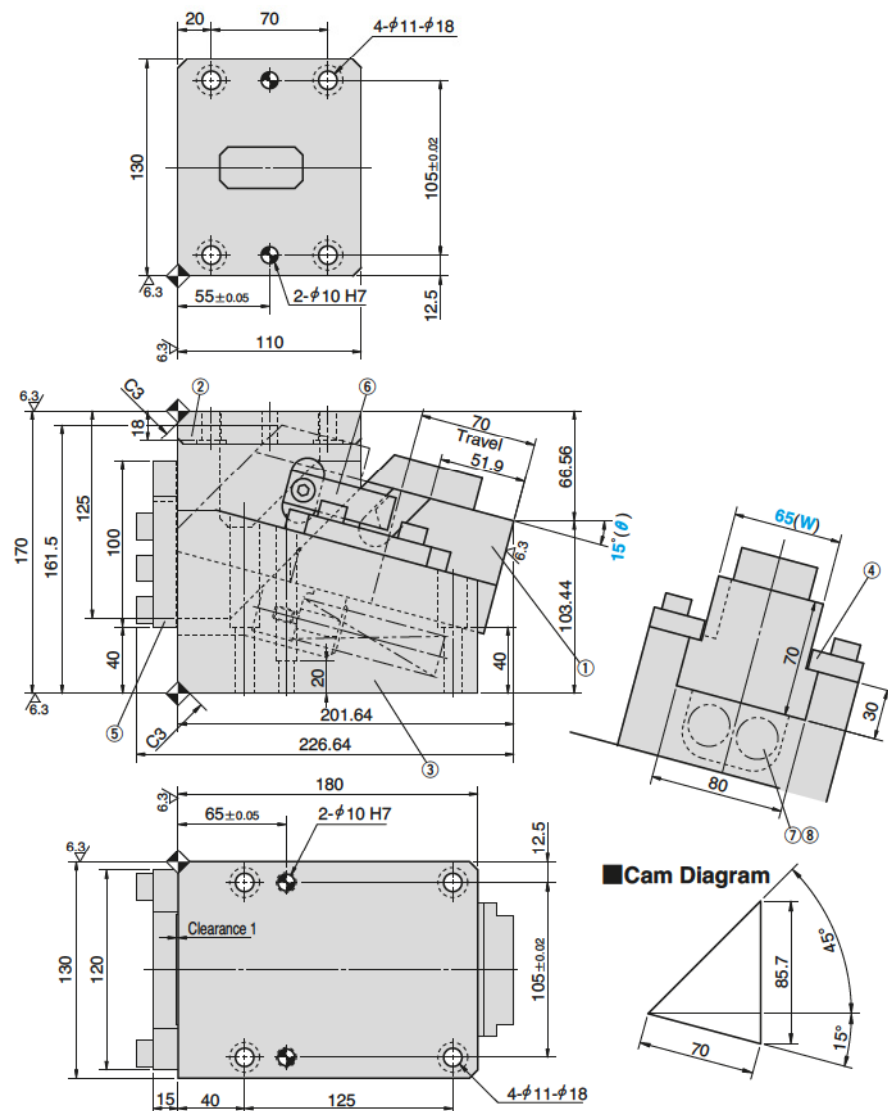


Die Mounted Cam Unit

FOR PIERCE

CAD
FILE

SKCA65 - 15 - 70



Cam Diagram

Working Force kN(tonf)		Spring Force N(kgf)		Total Weight kg	Catalog No.	W	θ	Travel S
1,000,000 strokes	300,000 strokes	Initial Load	Final Load					
19.6 (2.0)	39.2 (4.0)	190.4 (19.4)	974.4 (99.2)	22.3	SKCA	65	15	70



Order

Catalog No.	W	θ	S
SKCA	65	15	70



Option

See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	SS400(1020)
⑥	Positive Return Follower	1	S45C(1045)
⑦	Spring Guide Pin	2	φ12×40
⑧	Coil Spring	2	TF25-175

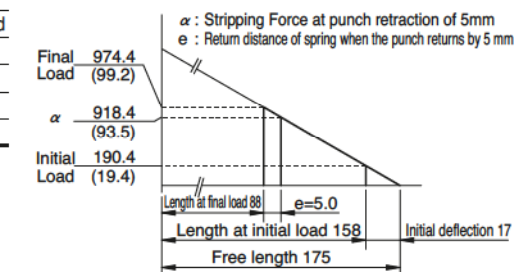


Bolts for assembly are not indicated.

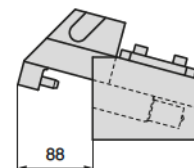
Spring Diagram

(Stripping Force at punch retraction of 5mm)

- Spring used TF25-175(2 pieces)
- Spring constant 5.60N/mm (0.57kgf/mm)
- Spring life expectancy 300,000 strokes



Space for removing

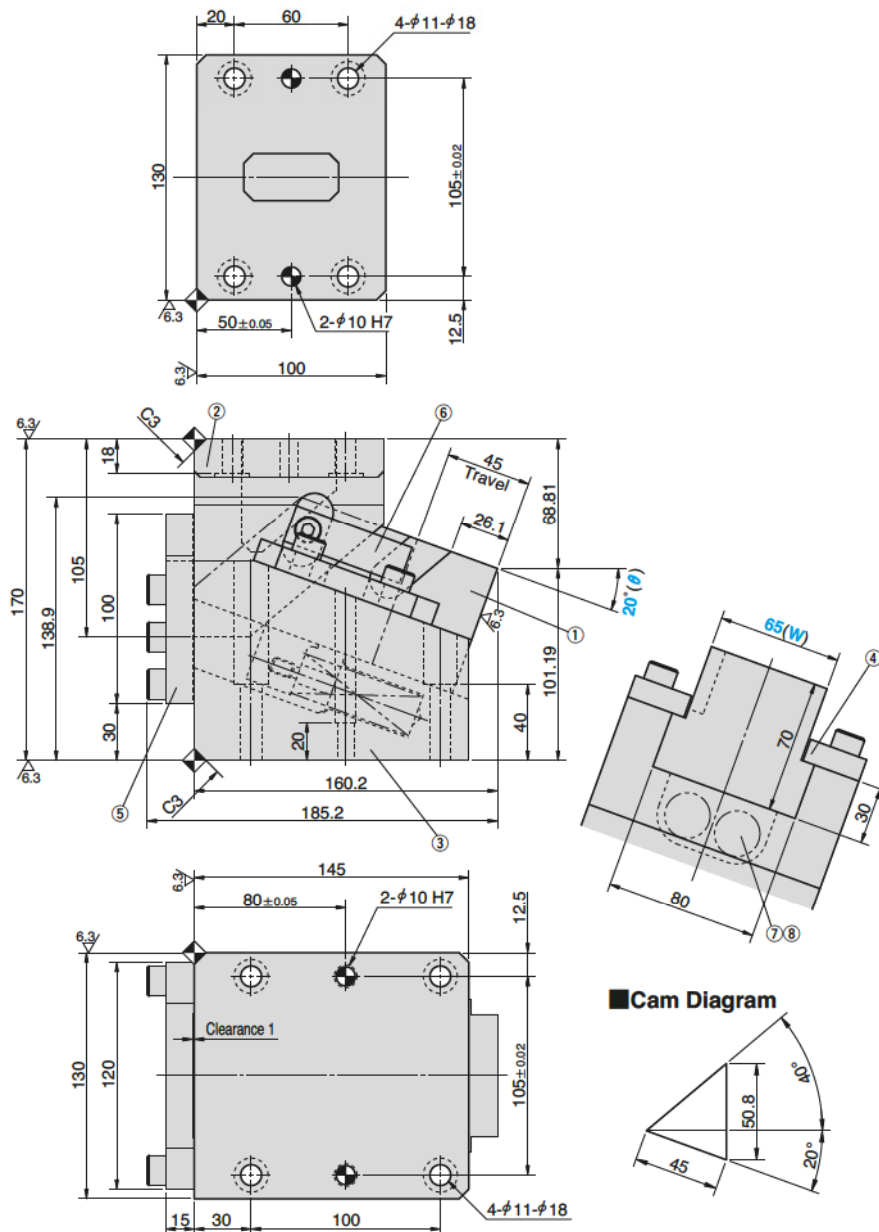


Die Mounted Cam Unit

FOR PIERCE

CAD
FILE

SKCA65-20-45



Cam Diagram

Working Force kN(tonf)		Spring Force N(kgf)		Total Weight kg	Catalog No.	W	θ	Travel S
1,000,000 strokes	300,000 strokes	Initial Load	Final Load					
19.6 (2.0)	39.2 (4.0)	175.8 (17.9)	741.0 (75.5)	22.3	SKCA	65	20	45



Order

Catalog No.	W	θ	S
SKCA	65	20	45



Option

See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	SS400(1020)
⑥	Positive Return Follower	1	S45C(1045)
⑦	Spring Guide Pin	2	φ10×35
⑧	Coil Spring	2	TF22-125

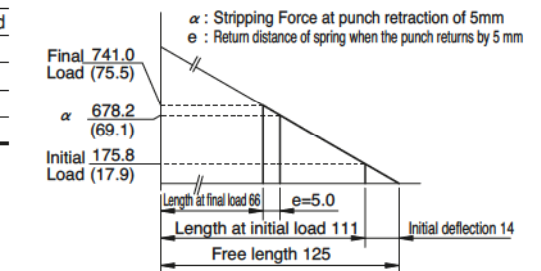


Bolts for assembly are not indicated.

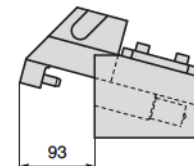
Spring Diagram

(Stripping Force at punch retraction of 5mm)

- Spring used TF22-125(2 pieces)
- Spring constant 6.28N/mm (0.64kgf/mm)
- Spring life expectancy 300,000 strokes



Space for removing

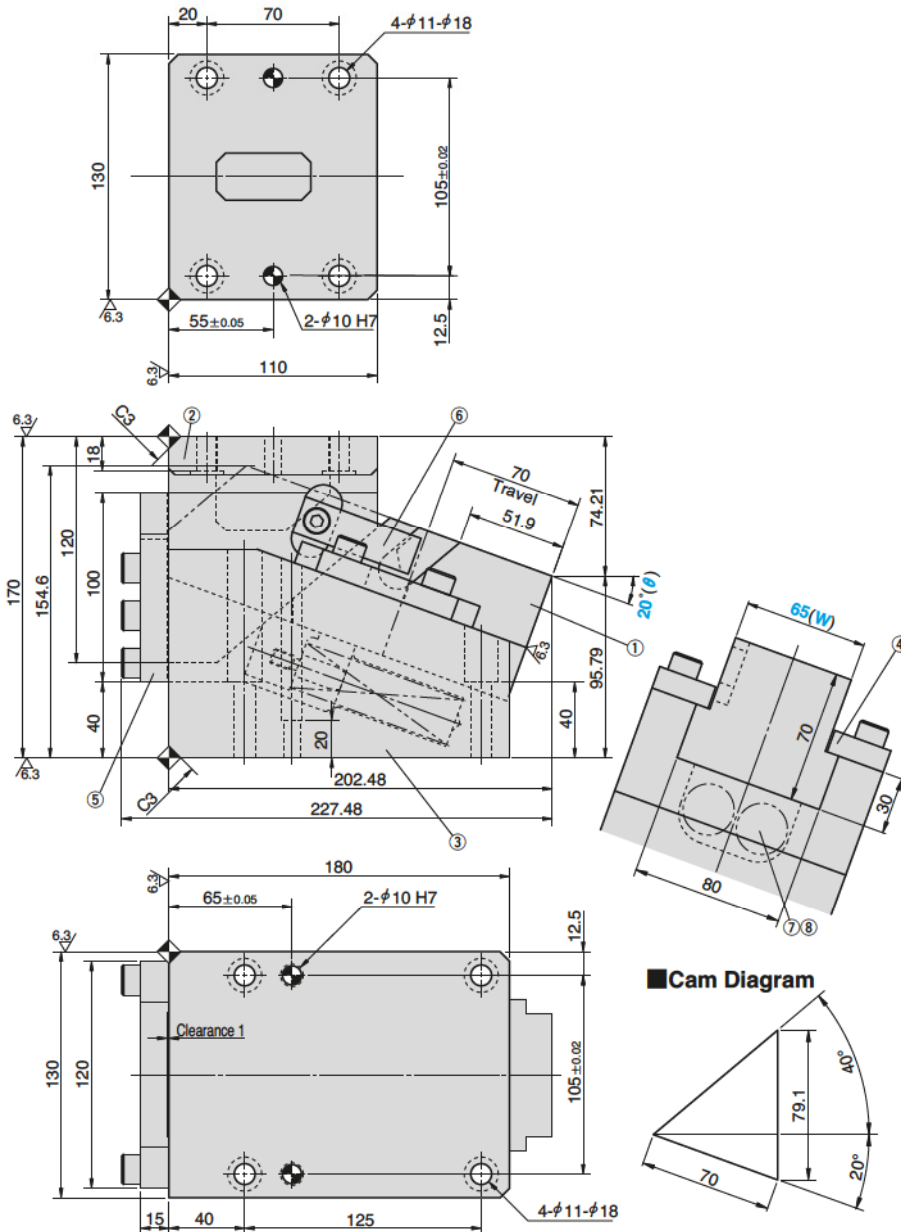


Die Mounted Cam Unit

FOR PIERCE

CAD
FILE

SKCA65-20-70



Cam Diagram

Working Force kN(tonf)		Spring Force N(kgf)		Total Weight kg	Catalog No.	W	θ	Travel S
1,000,000 strokes	300,000 strokes	Initial Load	Final Load					
19.6 (2.0)	39.2 (4.0)	190.4 (19.4)	974.4 (99.2)	21.3	SKCA	65	20	70



Order

Catalog No.	W	θ	S
SKCA	65	20	70



Option

See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	SS400(1020)
⑥	Positive Return Follower	1	S45C(1045)
⑦	Spring Guide Pin	2	φ12×40
⑧	Coil Spring	2	TF25-175

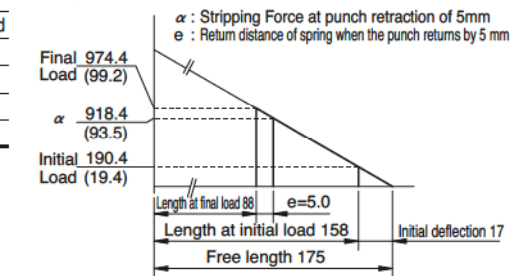


Bolts for assembly are not indicated.

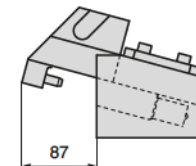
Spring Diagram

(Stripping Force at punch retraction of 5mm)

- Spring used TF25-175(2 pieces)
- Spring constant 5.60N/mm (0.57kgf/mm)
- Spring life expectancy 300,000 strokes

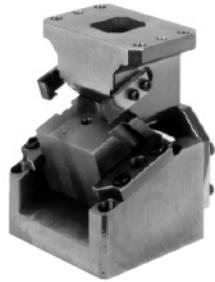


Space for removing



Die Mounted Cam Unit SKCA

Die Mounted Cam Unit

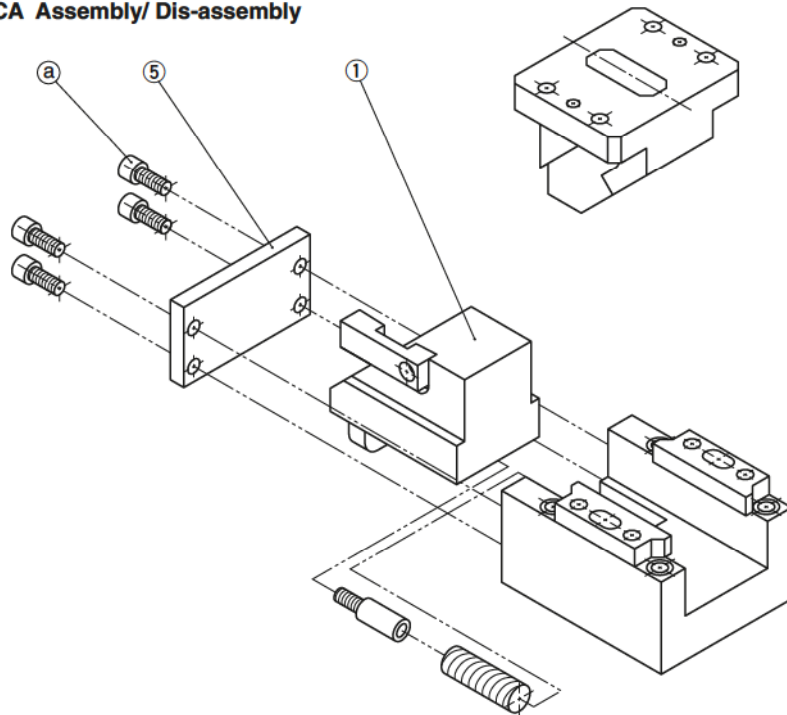


- Mounting surface widths 52, 65, 100, 150, 200, 250, 300 mm
- Working angles from 0° to 20° in 5° increments for the mounting surface widths 65 to 150 mm
- The Box-type holder provides high rigidity

▲ Gas Spring:

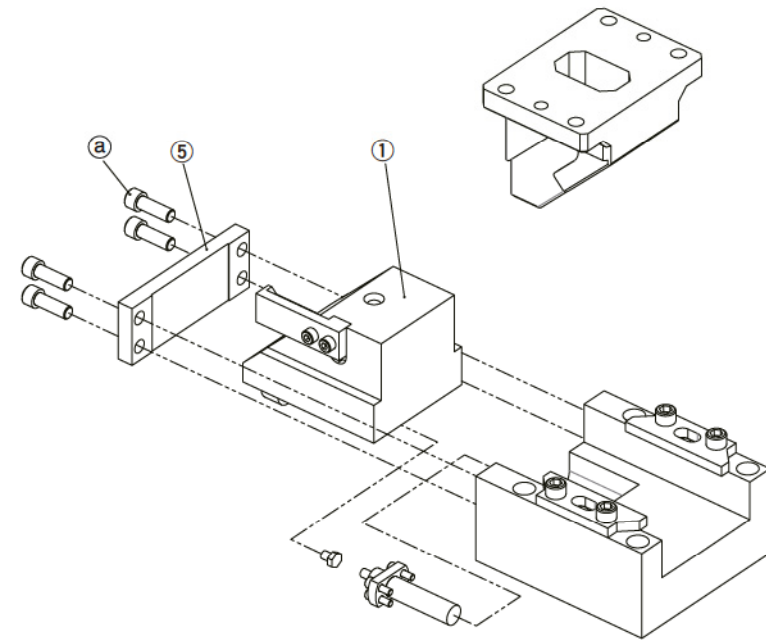
Please contact your local sales representative, if you prefer to use a gas spring not specified in our catalog. For use and maintenance of gas spring, please contact the manufacturer directly.

■ SKCA Assembly/ Dis-assembly



Coil Spring Specification

Technical Information



Gas Spring Specification

●Disassembling SKCA

- 1) Remove Hexagon Socket Head Bolts (a) and Stopper Plate (5).
- 2) Pull out Cam Slider from Cam Holder.

●Re-assembly

Reassembly is the reverse procedure of disassembly.

NOTES:

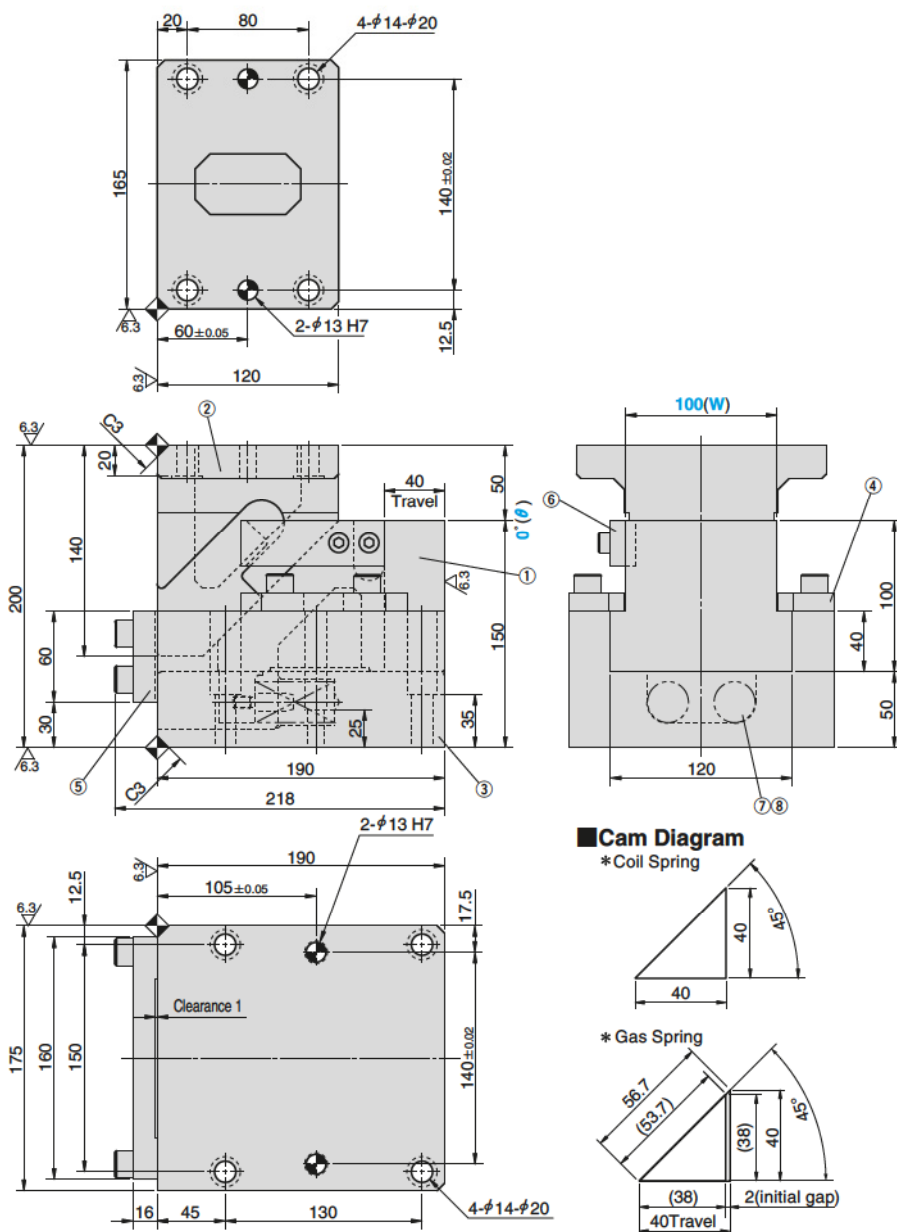
- Ensure that all parts are clean, particularly the sliding components, to which a small amount of grease is applied and is then placed in position.
- Take care that the respective tolerances are observed when assembling the Cam Slider and Cam Holder, which also should be identified by the same serial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

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Addition



SKCA100 – 00 – 40



Working Force kN(tonf)		Spring Force N(kgf)		Slider Weight kg	Total Weight kg	Catalog No.	W	θ	Travel S	Spring Type PS
1,000,000 strokes	300,000 strokes	Initial Load	Final Load							
29.4 (3.0)	58.8 (6.0)	188.5 (19.2)	1130.9 (115.2)	10.5	37.0	SKCA	100	00	40	No code (Coil Spring)
		—	1111 (113.4)							GK *NGK
										GD *NGD
										GS *NGS

* Parts for spring assembly are included.



Order

Catalog No.	W	θ	S	PS	Option
SKCA	100	00	40	GK	
SKCA	100	00	40	NGK	
SKCA	100	00	40	GK	NF

...Without gas spring.



Option

Option Code	Specification
N12	φ 12mm dowel holes provided on holder.
NF	Nitrogen gas not charged.

- See page 389 for specifications of tapped and dowel pin holes
- for mounting a retainer.

■ Spring Specification

No.	PS	Spring Model	Qty	Remark
⑧	—	TF27-100	2	Coil Spring
	GK	R19-50-Yellow	1	Gas Spring (KALLER)
	GD	C.090.050.YW	1	Gas Spring (DADCO)
	GS	SFL.90.50	1	Gas Spring (SDT)

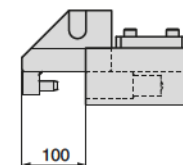
*Gas filling pressure : 18MPa

■ Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	SS400(1020)
⑥	Positive Return Follower	1	S45C(1045)
⑦	Spring Guide Pin	2	φ12X40 Coil Spring specification only
⑦	Mounting Plate	1	Gas Spring specification only
⑧	Spring	—	Refer to the Spring Specification table.
⑪	Stop Pin	1	Gas Spring specification only

 Bolts for assembly are not indicated.

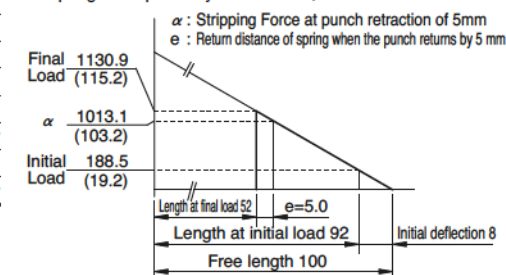
■ Space for removing



■ Spring Diagram

(Stripping Force at punch retraction of 5mm)

- Spring used TF27-100 (2 pieces)
- Spring constant 11.78N/mm (1.20kgf/mm)
- Spring life expectancy 300,000 strokes

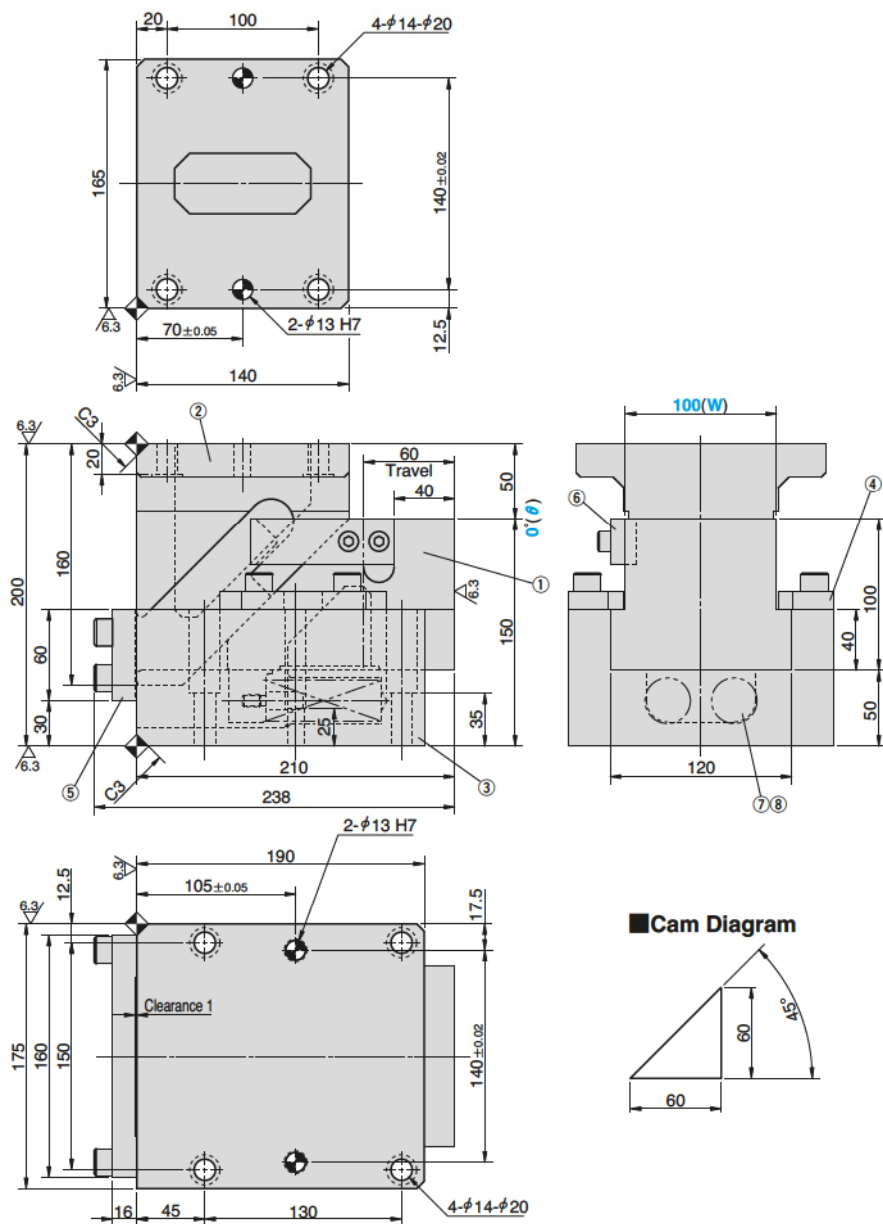


Die Mounted Cam Unit

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SKCA100 - 00 - 60



Working Force kN(tonf)		Spring Force N(kgf)		Slider Weight kg	Total Weight kg	Catalog No.	W	θ	Travel S
1,000,000 strokes	300,000 strokes	Initial Load	Final Load						
29.4 (3.0)	58.8 (6.0)	204.1 (20.8)	1146.1 (116.8)	10.5	38.0	SKCA	100	00	60



Order

Catalog No.	W	θ	S
SKCA	100	00	60



Option

Option Code	Specification
N12	φ12mm dowel holes provided on holder.



See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	SS400(1020)
⑥	Positive Return Follower	1	S45C(1045)
⑦	Spring Guide Pin	2	φ12×40
⑧	Coil Spring	2	TF27-150

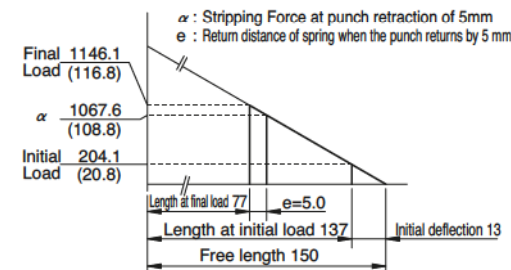


Bolts for assembly are not indicated.

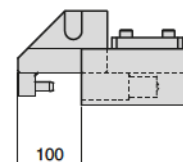
Spring Diagram

(Stripping Force at punch retraction of 5mm)

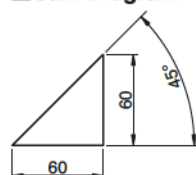
- Spring used TF27-150 (2 pieces)
- Spring constant 7.85N/mm (0.80kgf/mm)
- Spring life expectancy 300,000 strokes



Space for removing



Cam Diagram



Cam Unit

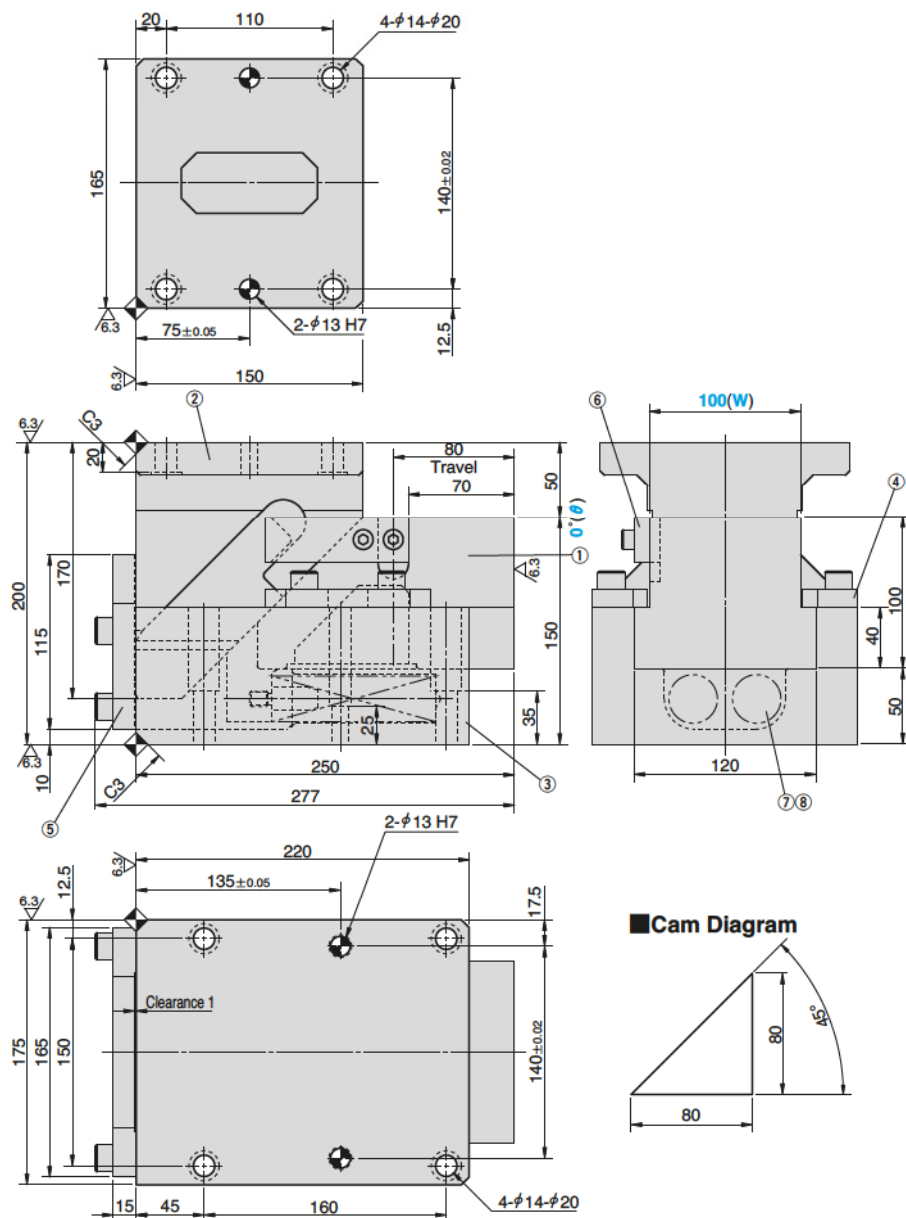
SKCA
100

Die Mounted Cam Unit

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SKCA100 - 00 - 80



Working Force kN(tonf)		Spring Force N(kgf)		Slider Weight kg	Total Weight kg	Catalog No.	W	θ	Travel S
1,000,000 strokes	300,000 strokes	Initial Load	Final Load						
29.4 (3.0)	58.8 (6.0)	169.9 (17.3)	1302.7 (132.5)	11.9	44.0	SKCA	100	00	80



Order

Catalog No.	W	θ	S
SKCA	100	00	80



Option

Option Code	Specification
N12	φ12mm dowel holes provided on holder.

See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

Table of Components

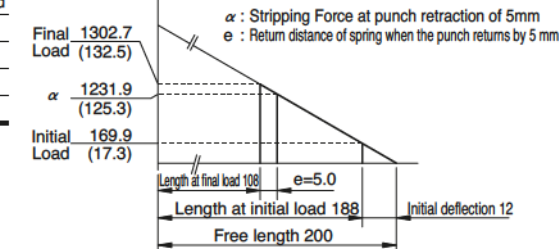
No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	SS400(1020)
⑥	Positive Return Follower	1	S45C(1045)
⑦	Spring Guide Pin	2	φ15×45
⑧	Coil Spring	2	TF30-200

Bolts for assembly are not indicated.

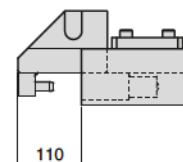
Spring Diagram

(Stripping Force at punch retraction of 5mm)

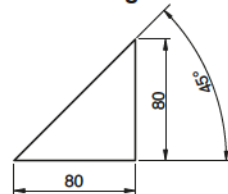
- Spring used TF30-200 (2 pieces)
- Spring constant 7.08N/mm (0.72kgf/mm)
- Spring life expectancy 300,000 strokes



Space for removing



Cam Diagram



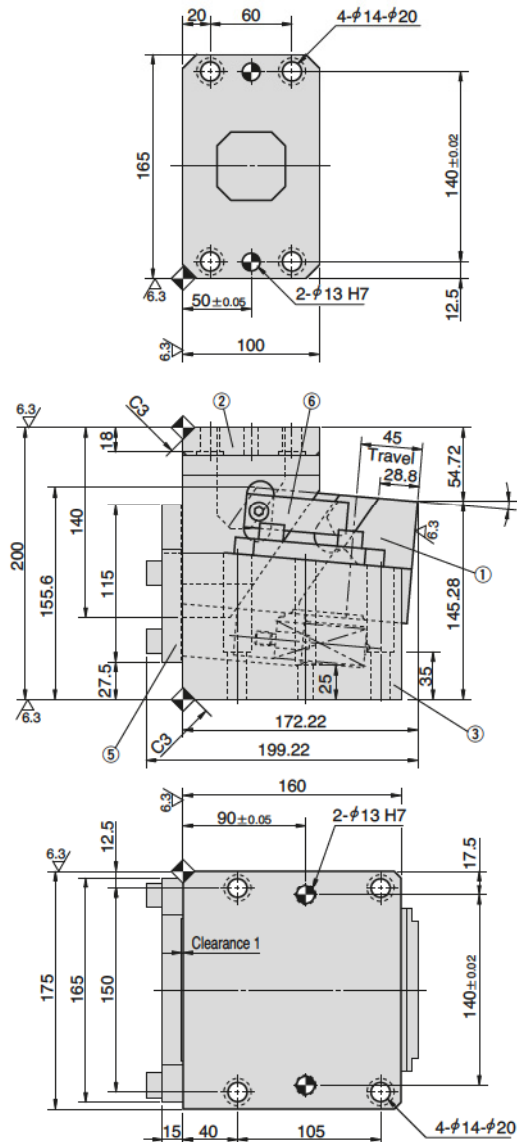
SKCA
100

Die Mounted Cam Unit

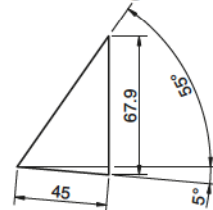
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SKCA100 - 05 - 45



Cam Diagram



Working Force kN(tonf)		Spring Force N(kgf)		Slider	Total	Catalog No.	W	θ	Travel S
1,000,000 strokes	300,000 strokes	Initial Load	Final Load	Weight kg	Weight kg				
39.2 (4.0)	78.4 (8.0)	263.8 (26.9)	1111.6 (113.3)	7.2	33.0	SKCA	100	05	45



Order

Catalog No.	W	θ	S
SKCA	100	05	45



Option

Option Code	Specification
N12	φ12mm dowel holes provided on holder.



See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	SS400(1020)
⑥	Positive Return Follower	2	S45C(1045)
⑦	Spring Guide Pin	2	φ12×40
⑧	Coil Spring	2	TF27-125

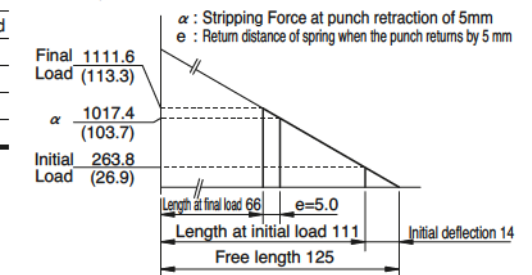


Bolts for assembly are not indicated.

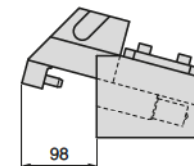
Spring Diagram

(Stripping Force at punch retraction of 5mm)

- Spring used TF27-125 (2 pieces)
- Spring constant 9.42N/mm (0.96kgf/mm)
- Spring life expectancy 300,000 strokes



Space for removing



Cam Unit

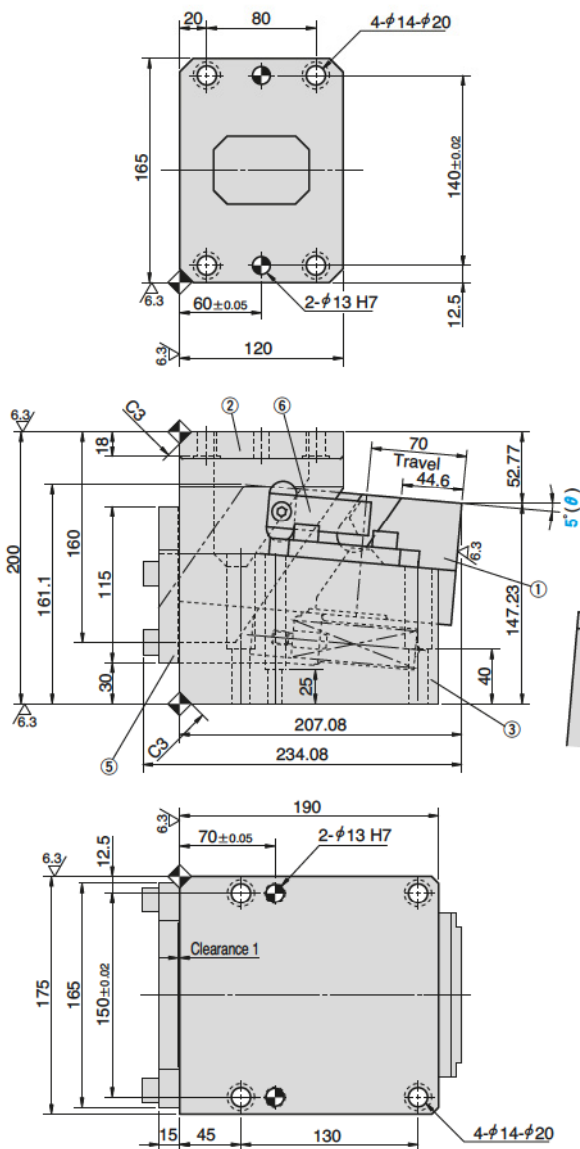
SKCA
100

Die Mounted Cam Unit

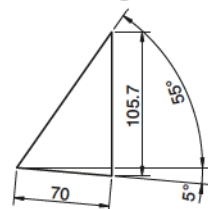
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SKCA100 - 05 - 70



Cam Diagram



Working Force kN(tonf)		Spring Force N(kgf)		Slider Weight kg	Total Weight kg	Catalog No.	W	θ	Travel S
1,000,000 strokes	300,000 strokes	Initial Load	Final Load						
39.2 (4.0)	78.4 (8.0)	195.2 (20.0)	1137.4 (116.6)	10.0	38.0	SKCA	100	05	70



Order

Catalog No.	W	θ	S
SKCA	100	05	70



Option

Option Code	Specification
N12	φ12mm dowel holes provided on holder.



See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	SS400(1020)
⑥	Positive Return Follower	2	S45C(1045)
⑦	Spring Guide Pin	2	φ12×40
⑧	Coil Spring	2	TF27-175

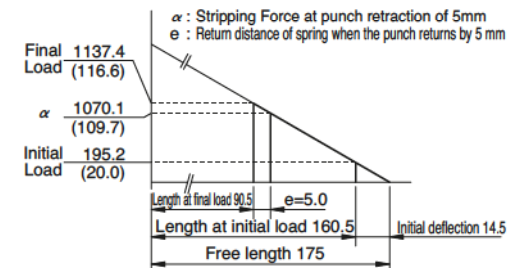


Bolts for assembly are not indicated.

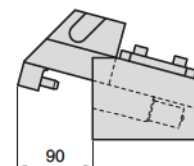
Spring Diagram

(Stripping Force at punch retraction of 5mm)

- Spring used TF27-175 (2 pieces)
- Spring constant 6.73N/mm (0.69kgf/mm)
- Spring life expectancy 300,000 strokes



Space for removing



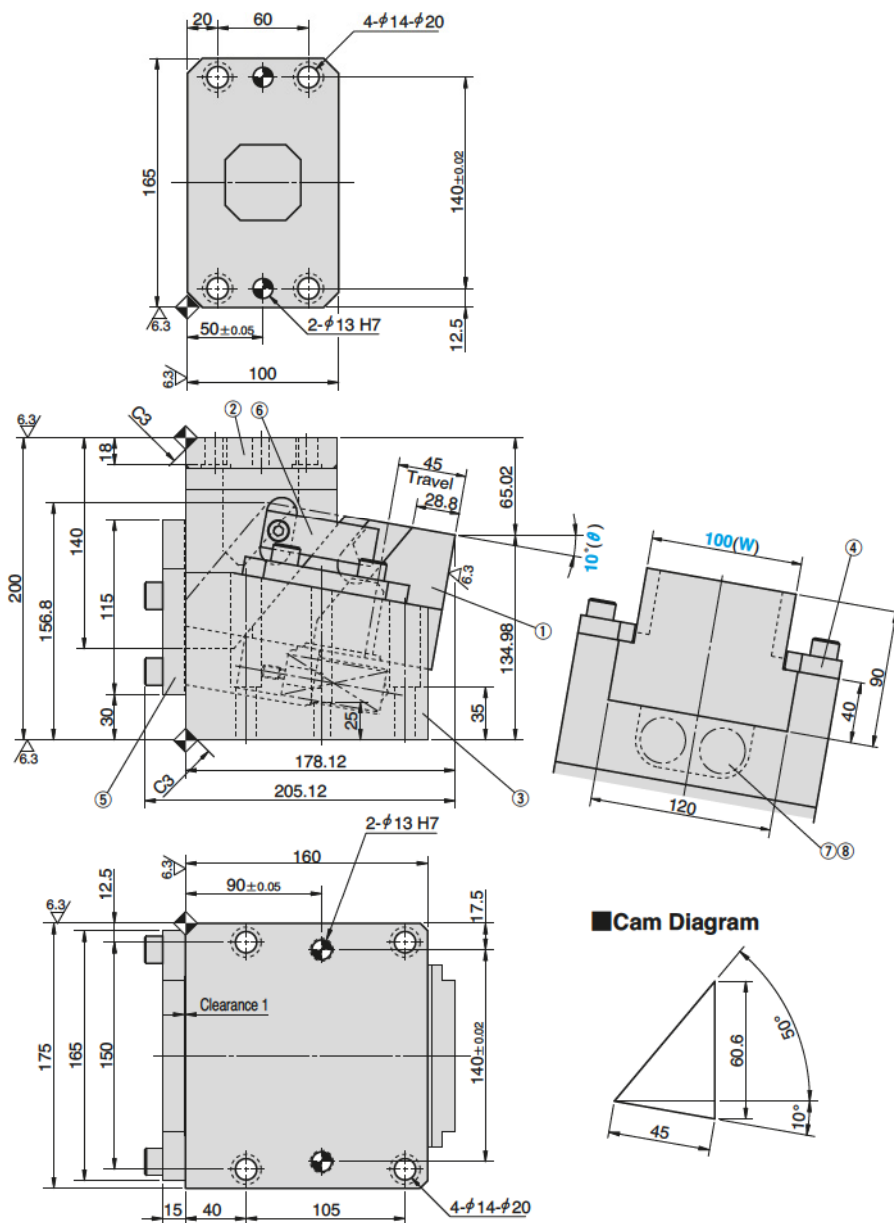
SKCA
100

Die Mounted Cam Unit

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SKCA100 - 10 - 45



Cam Diagram

Working Force kN(tonf)		Spring Force N(kgf)		Slider Weight kg	Total Weight kg	Catalog No.	W	θ	Travel S
1,000,000 strokes	300,000 strokes	Initial Load	Final Load						
39.2 (4.0)	78.4 (8.0)	263.8 (26.9)	1111.6 (113.3)	7.0	33.0	SKCA	100	10	45



Order

Catalog No.	W	θ	S
SKCA	100	10	45



Option

Option Code	Specification
N12	φ12mm dowel holes provided on holder.



See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	SS400(1020)
⑥	Positive Return Follower	2	S45C(1045)
⑦	Spring Guide Pin	2	φ12×40
⑧	Coil Spring	2	TF27-125

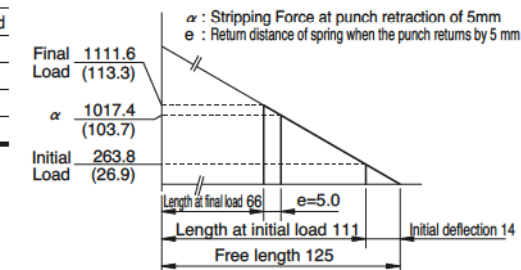


Bolts for assembly are not indicated.

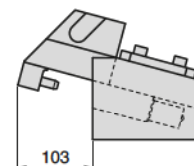
Spring Diagram

(Stripping Force at punch retraction of 5mm)

- Spring used TF27-125 (2 pieces)
- Spring constant 9.42N/mm (0.96kgf/mm)
- Spring life expectancy 300,000 strokes



Space for removing



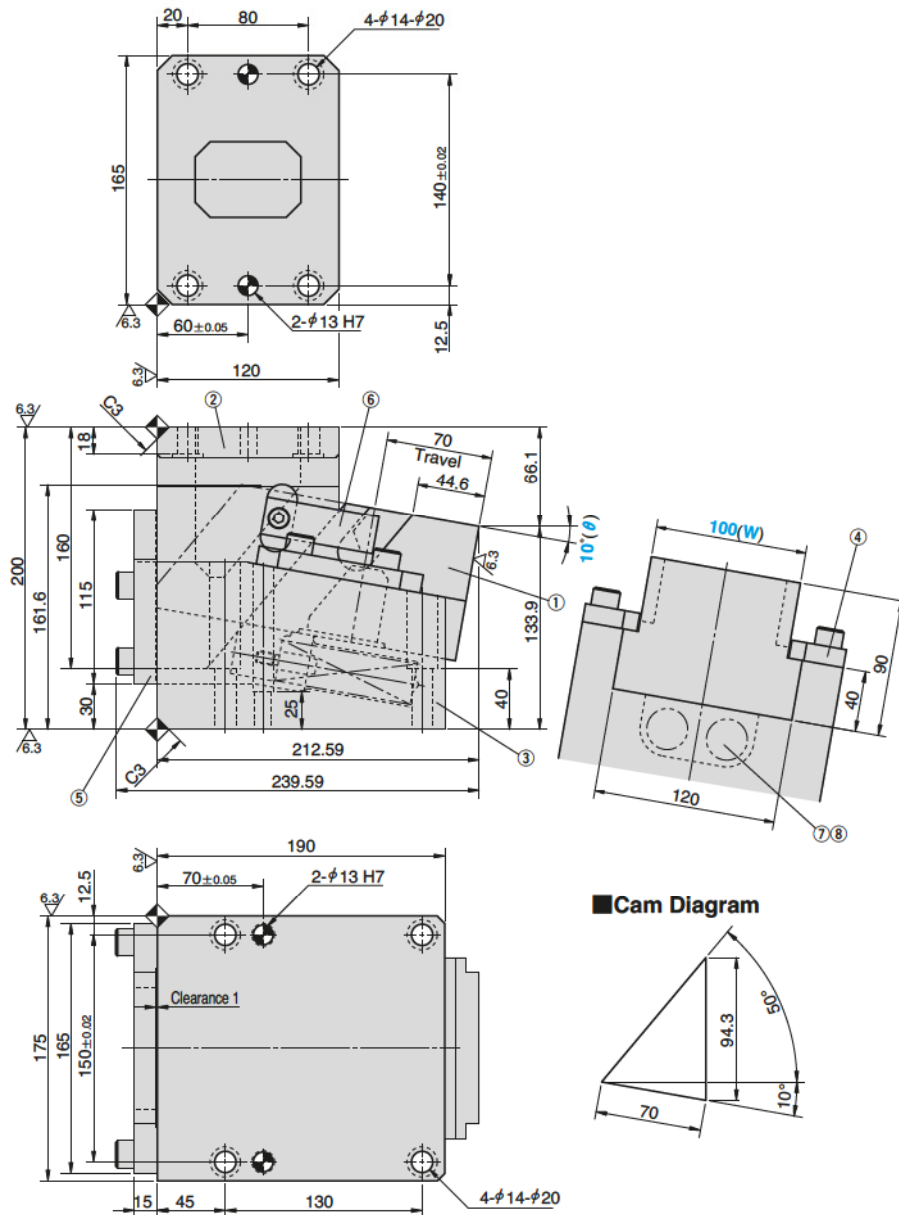
SKCA
100

Die Mounted Cam Unit

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SKCA100 - 10 - 70



Cam Diagram

Working Force kN(tonf)		Spring Force N(kgf)		Slider	Total	Catalog No.	W	θ	Travel S
1,000,000 strokes	300,000 strokes	Initial Load	Final Load	Weight kg	Weight kg				
39.2 (4.0)	78.4 (8.0)	195.2 (20.0)	1137.4 (116.6)	10.0	38.0	SKCA	100	10	70



Order

Catalog No.	W	θ	S
SKCA	100	10	70



Option

Option Code	Specification
N12	φ12mm dowel holes provided on holder.



See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	SS400(1020)
⑥	Positive Return Follower	2	S45C(1045)
⑦	Spring Guide Pin	2	φ12×40
⑧	Coil Spring	2	TF27-175

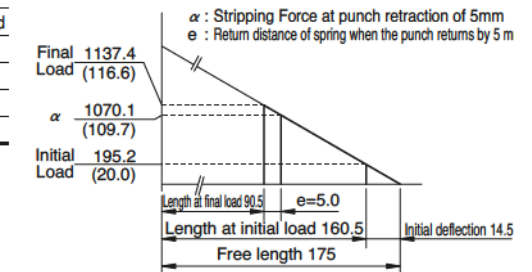


Bolts for assembly are not indicated.

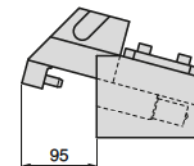
Spring Diagram

(Stripping Force at punch retraction of 5mm)

- Spring used TF27-175 (2 pieces)
- Spring constant 6.73N/mm (0.69kgf/mm)
- Spring life expectancy 300,000 strokes



Space for removing



Cam Unit

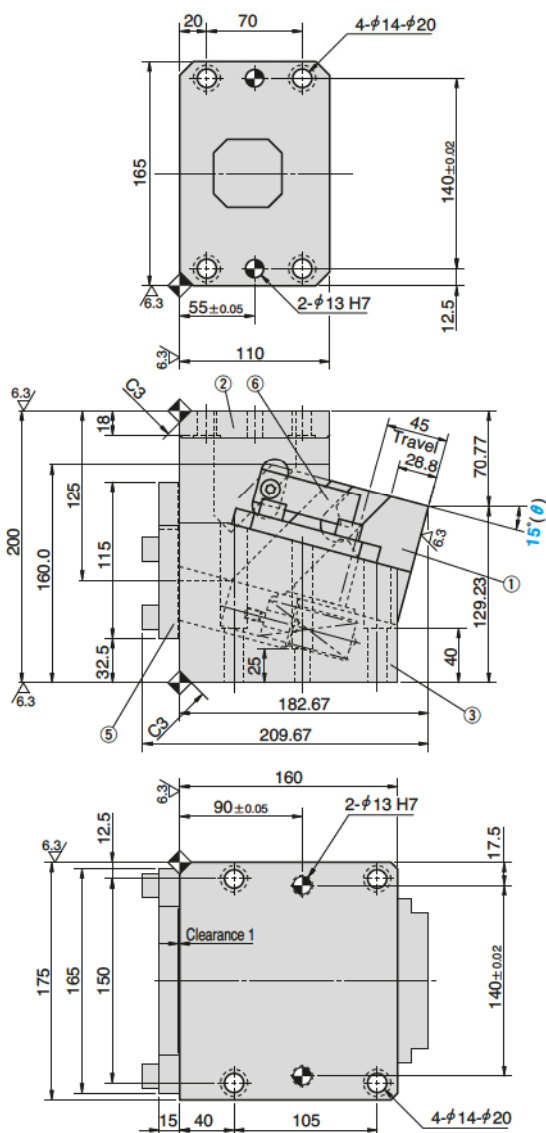
SKCA
100

Die Mounted Cam Unit

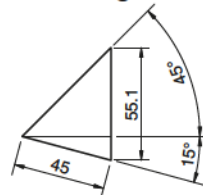
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SKCA100 - 15 - 45



Cam Diagram



Working Force kN(tonf)		Spring Force N(kgf)		Slider	Total	Catalog No.	W	θ	Travel S
1,000,000 strokes	300,000 strokes	Initial Load	Final Load	Weight kg	Weight kg				
39.2 (4.0)	78.4 (8.0)	263.8 (26.9)	1111.6 (113.3)	7.0	33.0	SKCA	100	15	45



Order

Catalog No.	W	θ	S
SKCA	100	15	45



Option

Option Code	Specification
N12	φ12mm dowel holes provided on holder.

See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

Table of Components

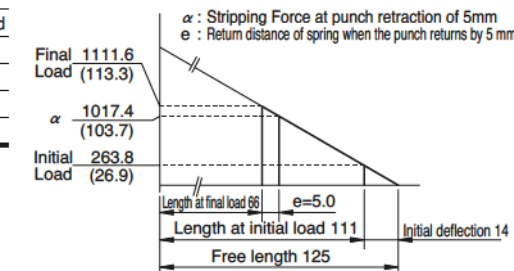
No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	SS400(1020)
⑥	Positive Return Follower	2	S45C(1045)
⑦	Spring Guide Pin	2	φ12×40
⑧	Coil Spring	2	TF27-125

Bolts for assembly are not indicated.

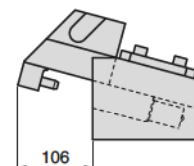
Spring Diagram

(Stripping Force at punch retraction of 5mm)

- Spring used TF27-125 (2 pieces)
- Spring constant 9.42N/mm (0.96kgf/mm)
- Spring life expectancy 300,000 strokes



Space for removing



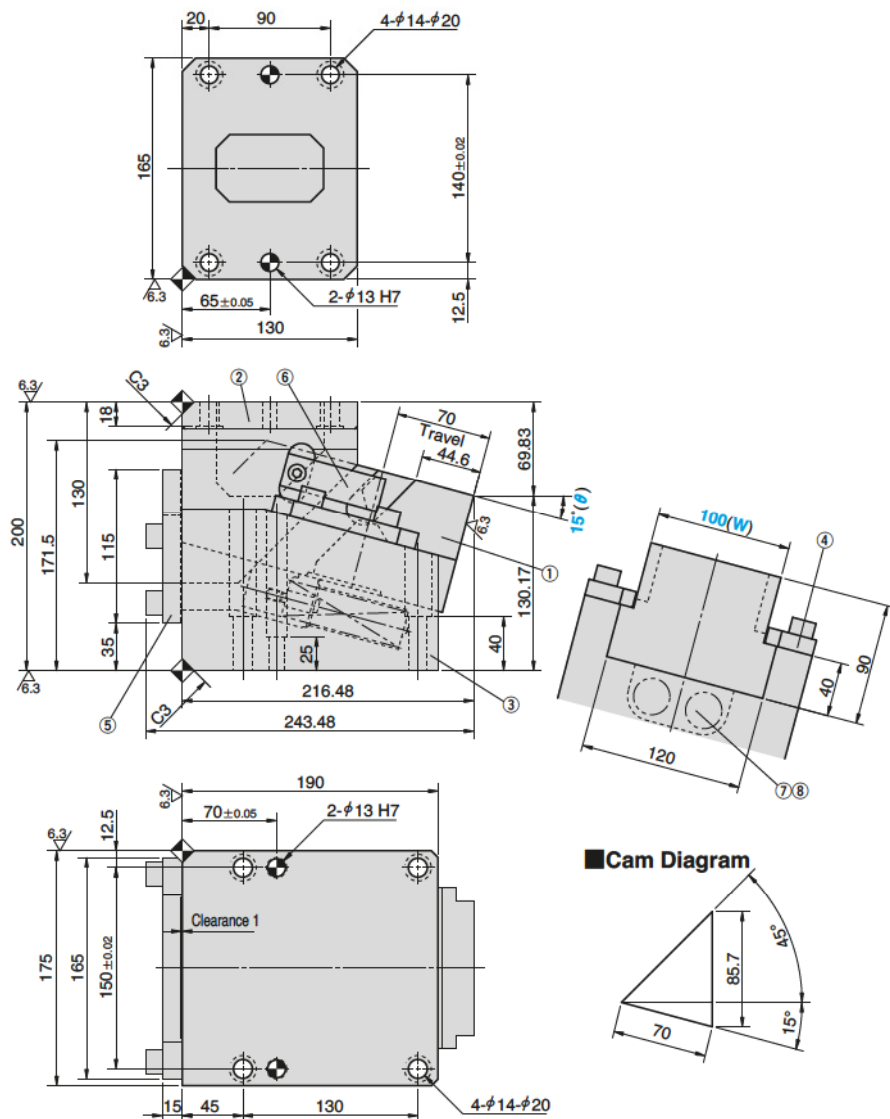
SKCA
100

Die Mounted Cam Unit

FOR PIERCE AND FLANGE

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FILE

SKCA100 - 15 - 70



Cam Diagram

Working Force kN(tonf)		Spring Force N(kgf)		Slider Weight kg	Total Weight kg	Catalog No.	W	θ	Travel S
1,000,000 strokes	300,000 strokes	Initial Load	Final Load						
39.2 (4.0)	78.4 (8.0)	195.2 (20.0)	1137.4 (116.6)	10.0	38.0	SKCA	100	15	70



Order

Catalog No.	W	θ	S
SKCA	100	15	70



Option

Option Code	Specification
N12	φ12mm dowel holes provided on holder.

See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

Table of Components

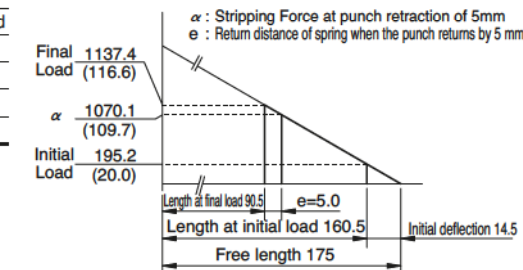
No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	SS400(1020)
⑥	Positive Return Follower	2	S45C(1045)
⑦	Spring Guide Pin	2	φ12×40
⑧	Coil Spring	2	TF27-175

Bolts for assembly are not indicated.

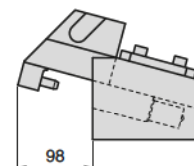
Spring Diagram

(Stripping Force at punch retraction of 5mm)

- Spring used TF27-175 (2 pieces)
- Spring constant 6.73N/mm (0.69kgf/mm)
- Spring life expectancy 300,000 strokes



Space for removing



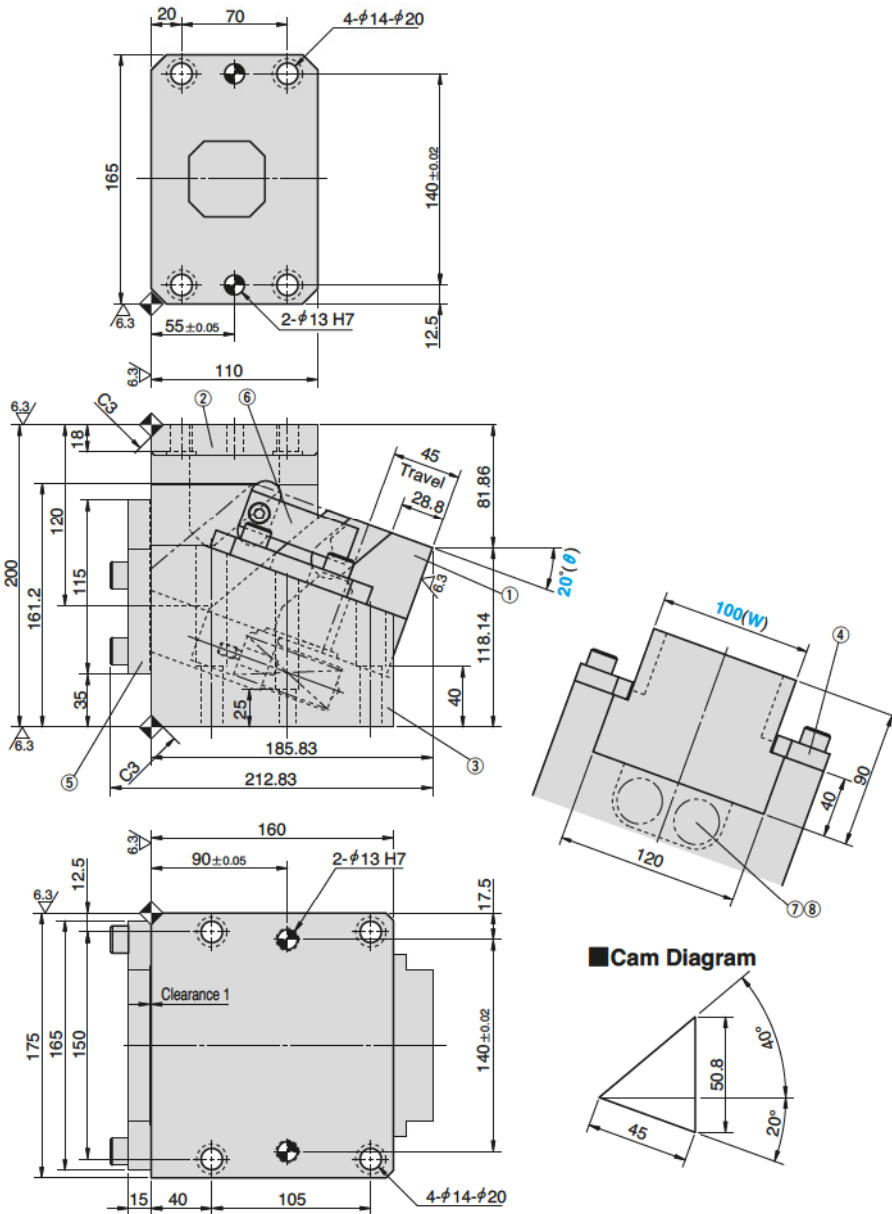
SKCA
100

Die Mounted Cam Unit

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SKCA100 - 20 - 45



Working Force kN(tonf)		Spring Force N(kgf)		Slider Weight kg	Total Weight kg	Catalog No.	W	θ	Travel S
1,000,000 strokes	300,000 strokes	Initial Load	Final Load						
39.2 (4.0)	78.4 (8.0)	263.8 (26.9)	1111.6 (113.3)	7.0	32.0	SKCA	100	20	45



Order

Catalog No.	W	θ	S
SKCA	100	20	45



Option

Option Code	Specification
N12	φ12mm dowel holes provided on holder.



See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	SS400(1020)
⑥	Positive Return Follower	2	S45C(1045)
⑦	Spring Guide Pin	2	φ12×40
⑧	Coil Spring	2	TF27-125

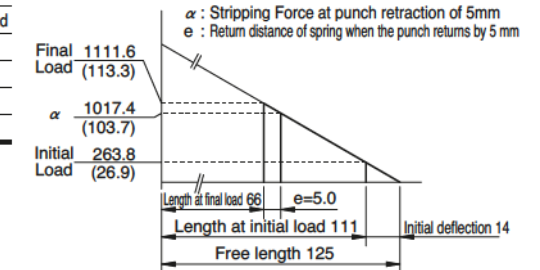


Bolts for assembly are not indicated.

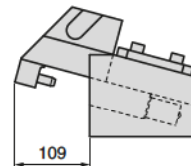
Spring Diagram

(Stripping Force at punch retraction of 5mm)

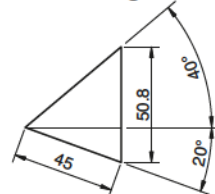
- Spring used TF27-125 (2 pieces)
- Spring constant 9.42N/mm (0.96kgf/mm)
- Spring life expectancy 300,000 strokes



Space for removing



Cam Diagram



Cam Unit

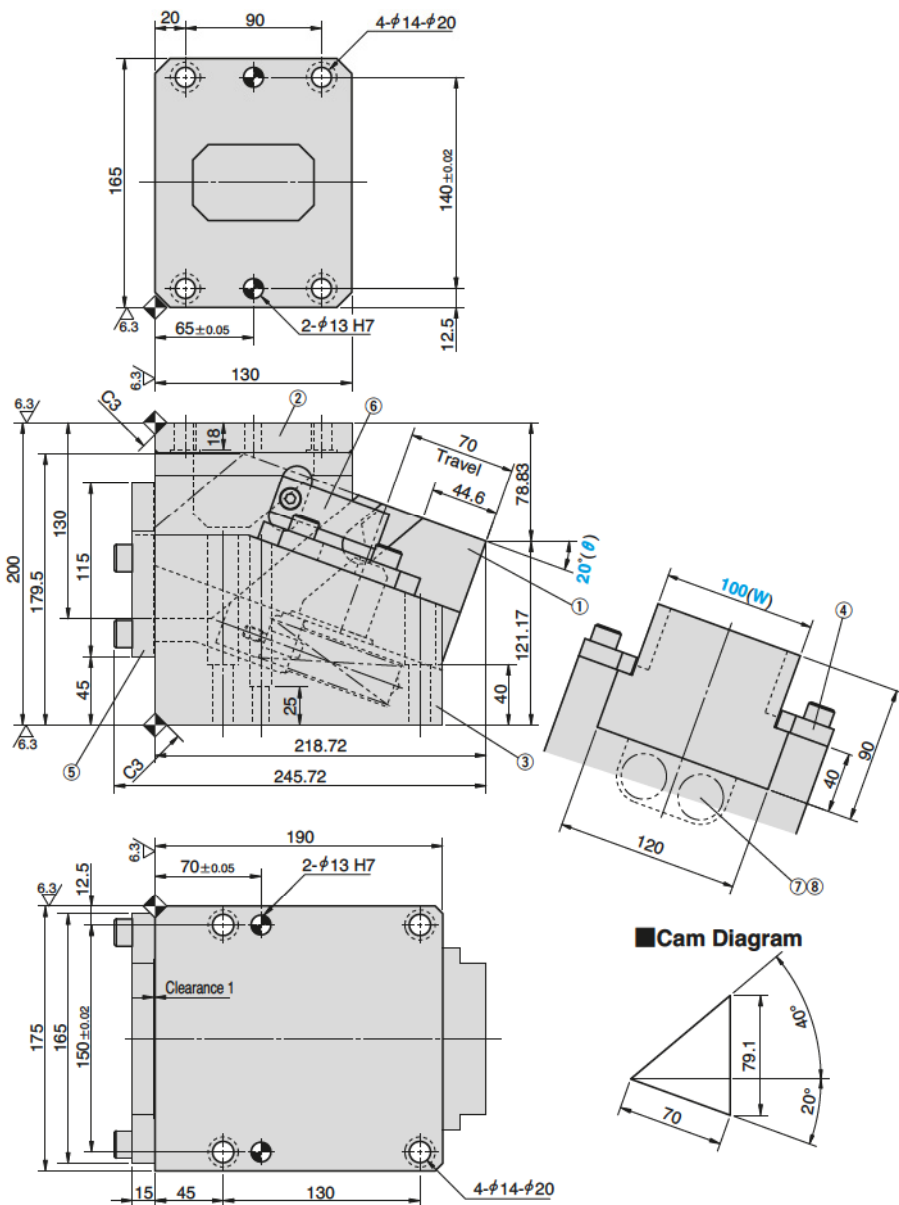
SKCA
100

Die Mounted Cam Unit

FOR PIERCE AND FLANGE

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SKCA100 - 20 - 70



Cam Diagram

Working Force kN(tonf)		Spring Force N(kgf)		Slider Weight kg	Total Weight kg	Catalog No.	W	θ	Travel S
1,000,000 strokes	300,000 strokes	Initial Load	Final Load						
39.2 (4.0)	78.4 (8.0)	195.2 (20.0)	1137.4 (116.6)	10.0	39.0	SKCA	100	20	70



Order

Catalog No.	W	θ	S
SKCA	100	20	70



Option

Option Code	Specification
N12	φ12mm dowel holes provided on holder.



See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	SS400(1020)
⑥	Positive Return Follower	2	S45C(1045)
⑦	Spring Guide Pin	2	φ12×40
⑧	Coil Spring	2	TF27-175

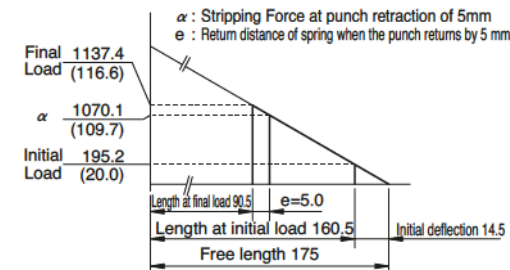


Bolts for assembly are not indicated.

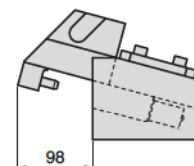
Spring Diagram

(Stripping Force at punch retraction of 5mm)

- Spring used TF27-175 (2 pieces)
- Spring constant 6.73N/mm (0.69kgf/mm)
- Spring life expectancy 300,000 strokes



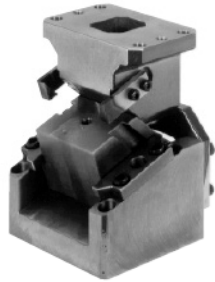
Space for removing



SKCA
100

Die Mounted Cam Unit SKCA

Die Mounted Cam Unit

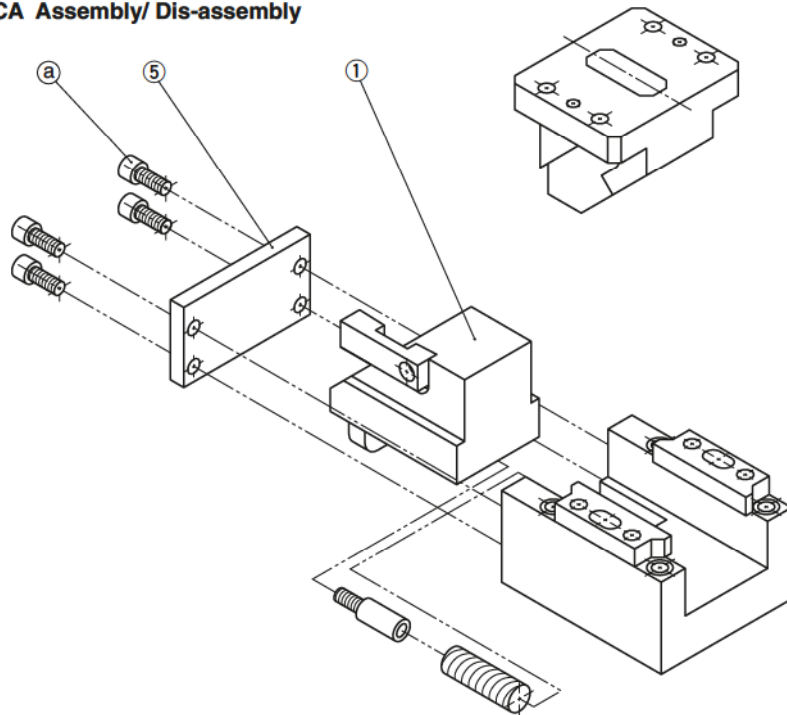


- Mounting surface widths 52, 65, 100, 150, 200, 250, 300 mm
- Working angles from 0° to 20° in 5° increments for the mounting surface widths 65 to 150 mm
- The Box-type holder provides high rigidity

▲ Gas Spring:

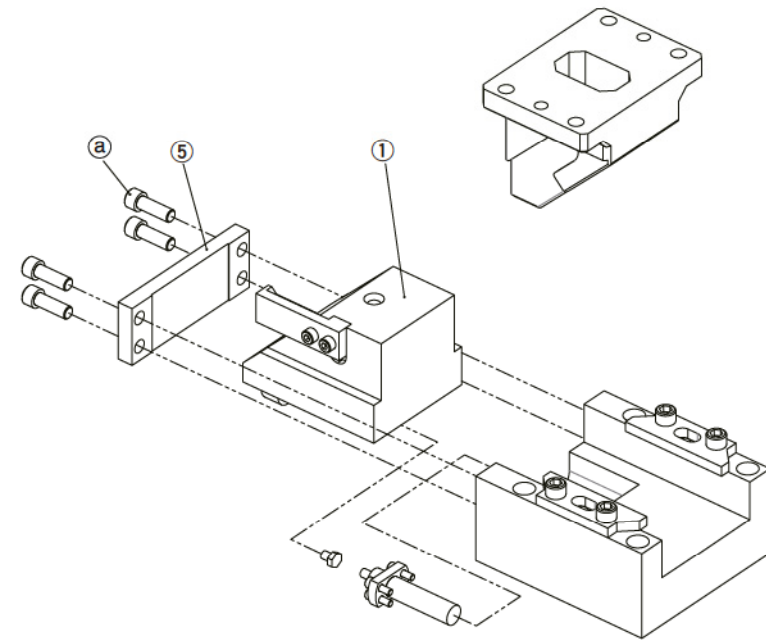
Please contact your local sales representative, if you prefer to use a gas spring not specified in our catalog. For use and maintenance of gas spring, please contact the manufacturer directly.

■ SKCA Assembly/ Dis-assembly



Coil Spring Specification

Technical Information



Gas Spring Specification

●Disassembling SKCA

- 1) Remove Hexagon Socket Head Bolts (a) and Stopper Plate (5).
- 2) Pull out Cam Slider from Cam Holder.

●Re-assembly

Reassembly is 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 in position.
- Take care that the respective tolerances are observed when assembling the Cam Slider and Cam Holder, which also should be identified by the same serial number.
- All bolts shall be tightened to the recommended torque after assembly and dis-assembly.

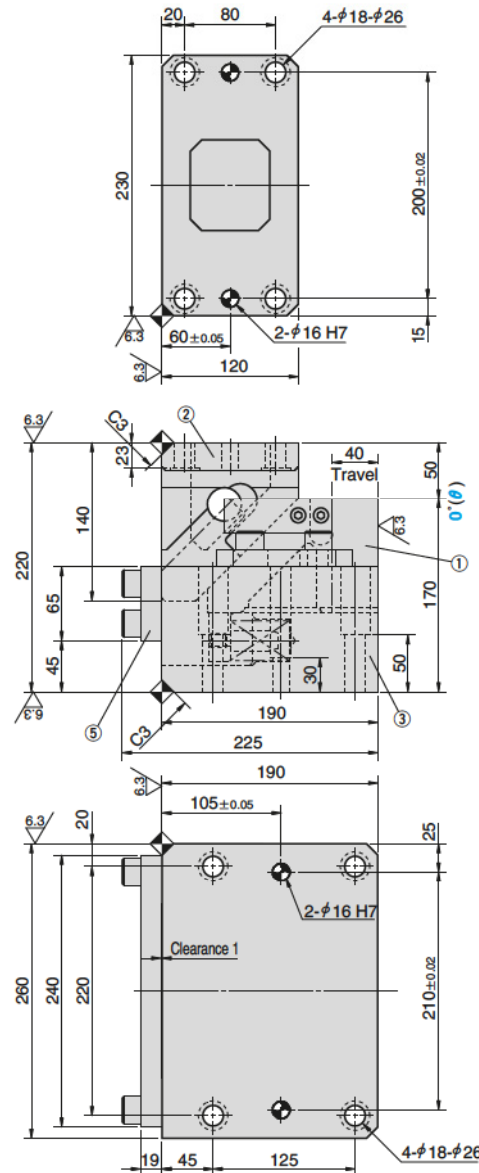
Die Mounted Cam Unit

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Addition

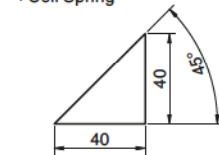
CAD
FILE

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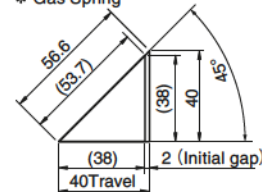


Cam Diagram

* Coil Spring



* Gas Spring



Working Force kN(tonf)		Spring Force N(kgf)		Slider Weight kg	Total Weight kg	Catalog No.	W	θ	Travel S	Spring Type PS
1,000,000 strokes	300,000 strokes	Initial Load	Final Load							
58.8 (6.0)	88.2 (9.0)	306.9 (31.4)	1841.3 (188.2)	14.3	63.0	SKCA	150	00	40	No code (Coil Spring)
		—	2051 (209.3)							GK *NGK
										GD *NGD
										GS *NGS

* Parts for spring assembly are included.



Order

Catalog No.	W	θ	S	PS	Option
SKCA	150	—	00	—	GK
SKCA	150	—	00	—	NGK
SKCA	150	—	00	—	GK — NF

...Without gas spring.



Option

Option Code	Specification
NF	Nitrogen gas not charged.

See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

Spring Specification

No.	PS	Spring Model	Qty	Remark
⑧	—	TF35-100	2	Coil Spring
	GK	M2-50-Red	1	Gas Spring (KALLER)
	GD	C.180.050.BK.135	1	Gas Spring (DADCO)
	GS	SFNA.150.50	1	Gas Spring (SDT)

*Gas filling pressure : 13.5MPa

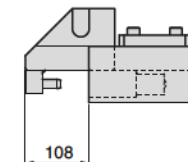
Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	SS400(1020)
⑥	Positive Return Follower	1	S45C(1045)
⑦	Spring Guide Pin	2	φ18×60 Coil Spring specification only
⑦	Mounting Plate	1	Gas Spring specification only
⑧	Spring	—	Refer to the Spring Specification table.
⑪	Stop Pin	1	Gas Spring specification only



Bolts for assembly are not indicated.

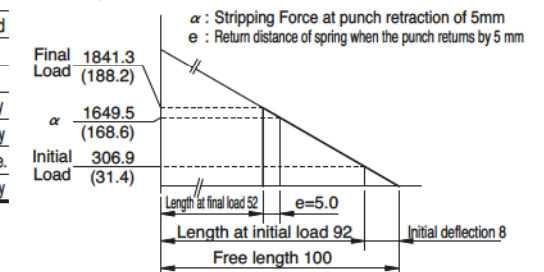
Space for removing



Spring Diagram

(Stripping Force at punch retraction of 5mm)

- Spring used TF35-100 (2 pieces)
- Spring constant 19.18N/mm (1.96kgf/mm)
- Spring life expectancy 300,000 strokes

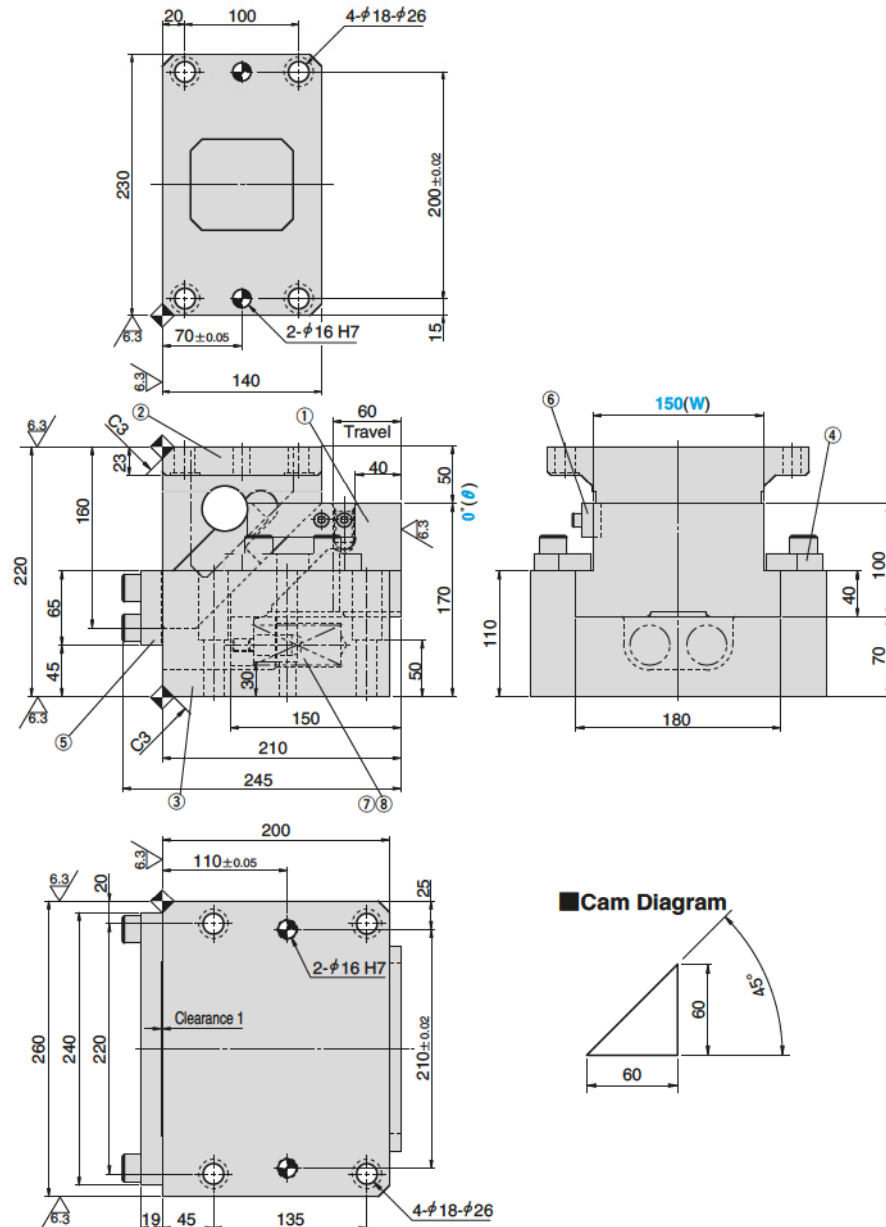


Die Mounted Cam Unit

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SKCA150 - 00 - 60



Working Force kN(tonf)	Spring Force N(kgf)	Spring Force N(kgf)		Slider Weight kg	Total Weight kg	Catalog No.	W	θ	Travel S
		Initial Load	Final Load						
58.8 (6.0)	88.2 (9.0)	332.5 (33.8)	1867.3 (189.8)	14.3	69.0	SKCA	150	00	60



Order

Catalog No.	W	θ	S
SKCA	150	00	60



Option

See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	SS400(1020)
⑥	Positive Return Follower	1	S45C(1045)
⑦	Spring Guide Pin	2	φ18×60
⑧	Coil Spring	2	TF35-150

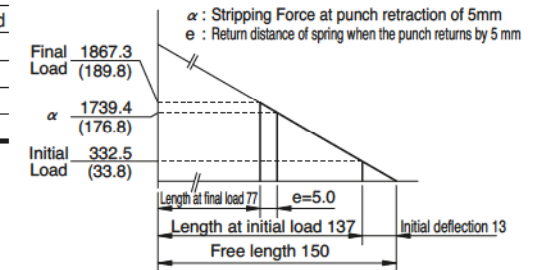


Bolts for assembly are not indicated.

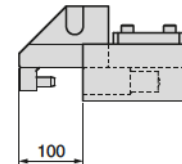
Spring Diagram

(Stripping Force at punch retraction of 5mm)

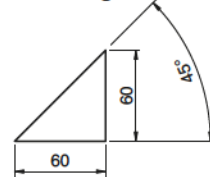
- Spring used TF35-150 (2 pieces)
- Spring constant 12.79N/mm (1.30kgf/mm)
- Spring life expectancy 300,000 strokes



Space for removing



Cam Diagram

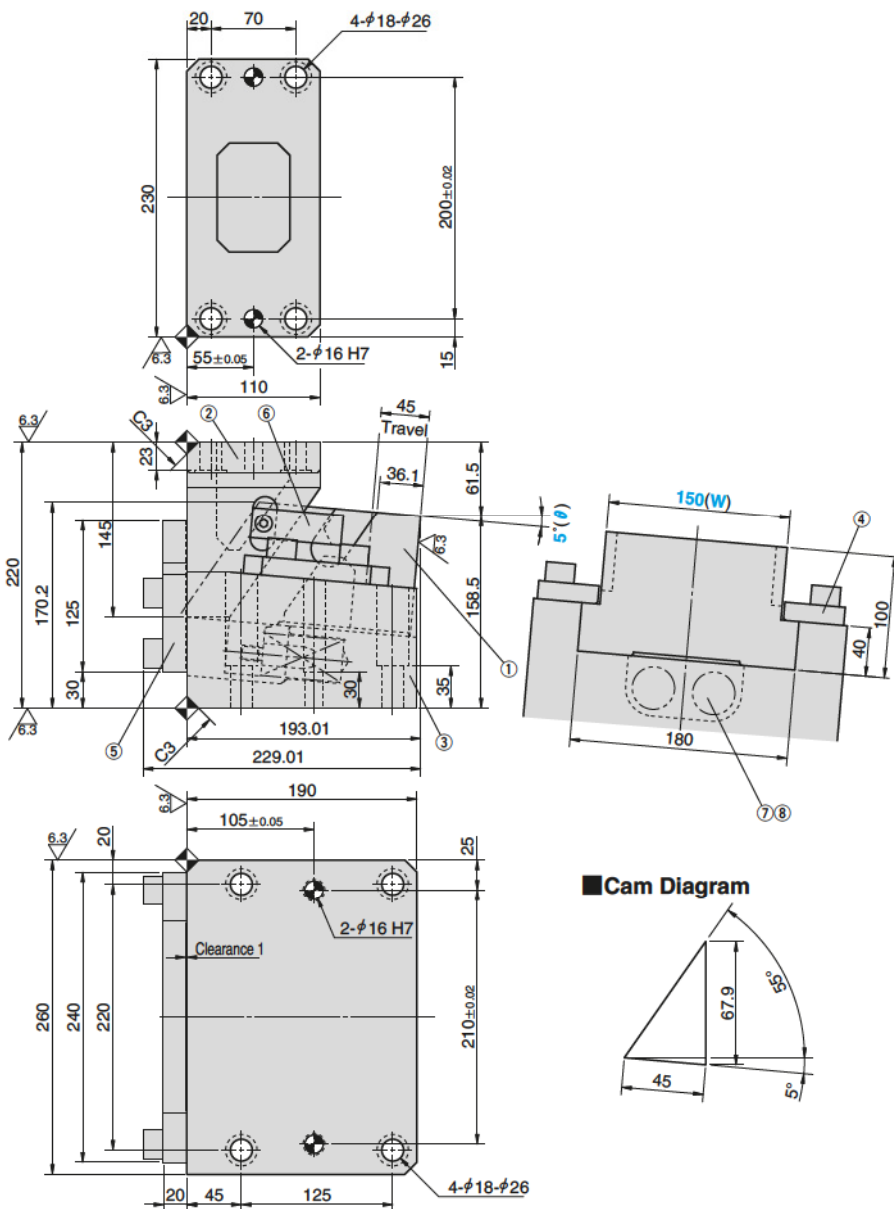


Die Mounted Cam Unit

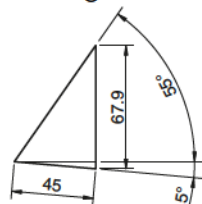
FOR PIERCE AND FLANGE

CAD
FILE

SKCA150 - 05 - 45



Cam Diagram



Working Force kN(tonf)		Spring Force N(kgf)		Slider Weight kg	Total Weight kg	Catalog No.	W	θ	Travel S
1,000,000 strokes	300,000 strokes	Initial Load	Final Load						
64.7 (6.6)	98.0 (10.0)	429.5 (43.7)	1810.1 (184.1)	16.0	62.0	SKCA	150	05	45



Order

Catalog No.	W	θ	S
SKCA	150	05	45



Option

See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	SS400(1020)
⑥	Positive Return Follower	2	S45C(1045)
⑦	Spring Guide Pin	2	φ18×60
⑧	Coil Spring	2	TF35-125

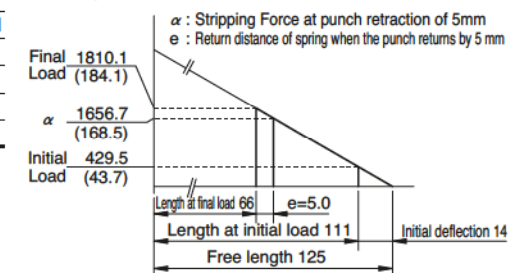


Bolts for assembly are not indicated.

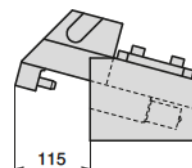
Spring Diagram

(Stripping Force at punch retraction of 5mm)

- Spring used TF35-125 (2 pieces)
- Spring constant 15.34N/mm (1.56kgf/mm)
- Spring life expectancy 300,000 strokes



Space for removing



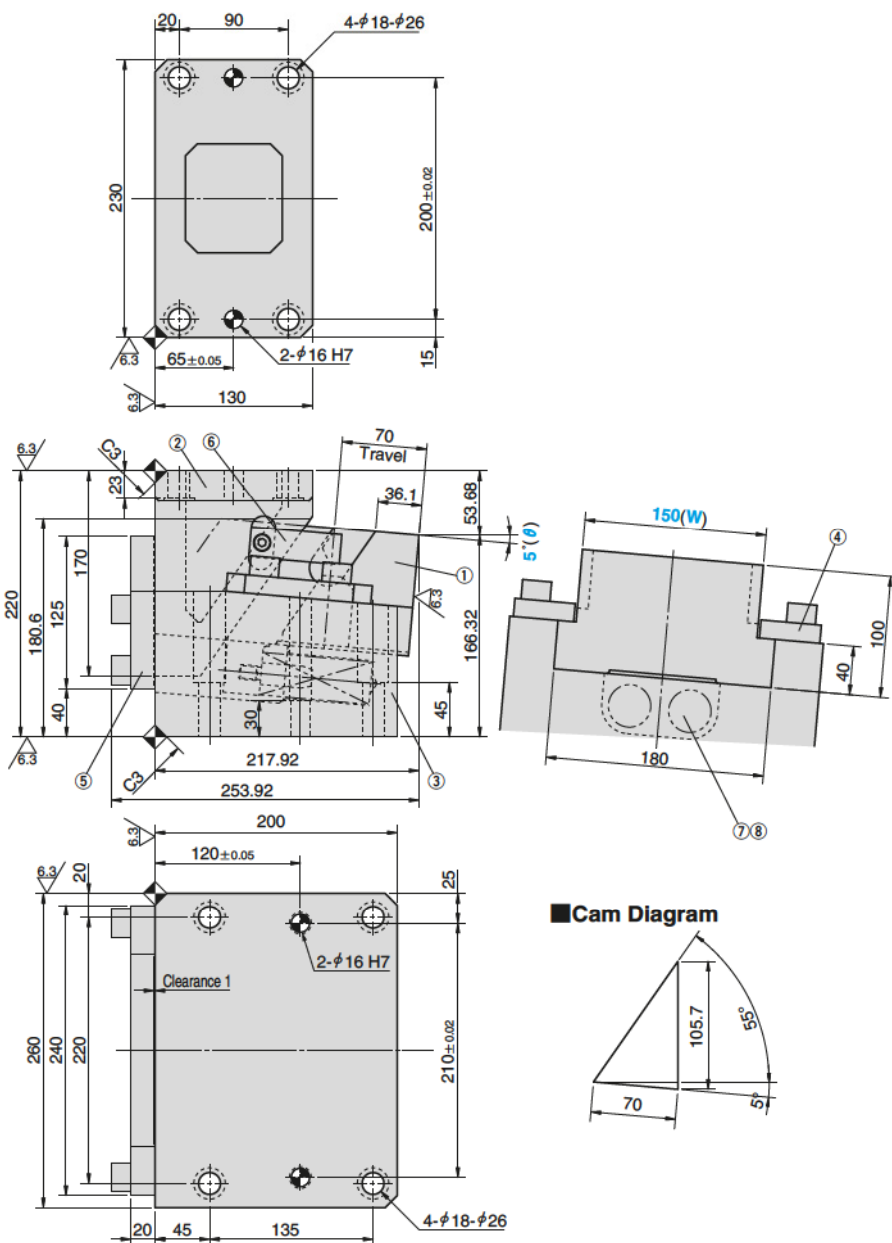
SKCA
150

Die Mounted Cam Unit

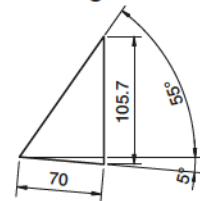
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FILE

SKCA150 - 05 - 70



Cam Diagram



Working Force kN(tonf)		Spring Force N(kgf)		Slider Weight kg	Total Weight kg	Catalog No.	W	θ	Travel S
1,000,000 strokes	300,000 strokes	Initial Load	Final Load						
64.7 (6.6)	98.0 (10.0)	306.9 (31.4)	1841.3 (188.2)	16.0	73.0	SKCA	150	05	70



Order

Catalog No.	W	θ	S
SKCA	150	05	70



Option

See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	SS400(1020)
⑥	Positive Return Follower	2	S45C(1045)
⑦	Spring Guide Pin	2	φ18×60
⑧	Coil Spring	2	TF35-175

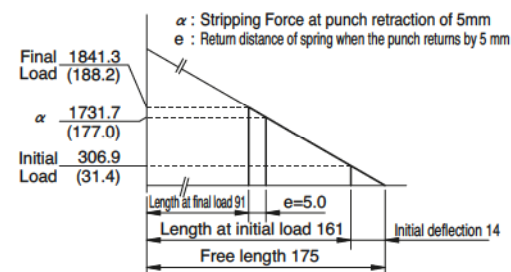


Bolts for assembly are not indicated.

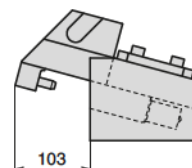
Spring Diagram

(Stripping Force at punch retraction of 5mm)

- Spring used TF35-175 (2 pieces)
- Spring constant 10.96N/mm (1.12kgf/mm)
- Spring life expectancy 300,000 strokes



Space for removing

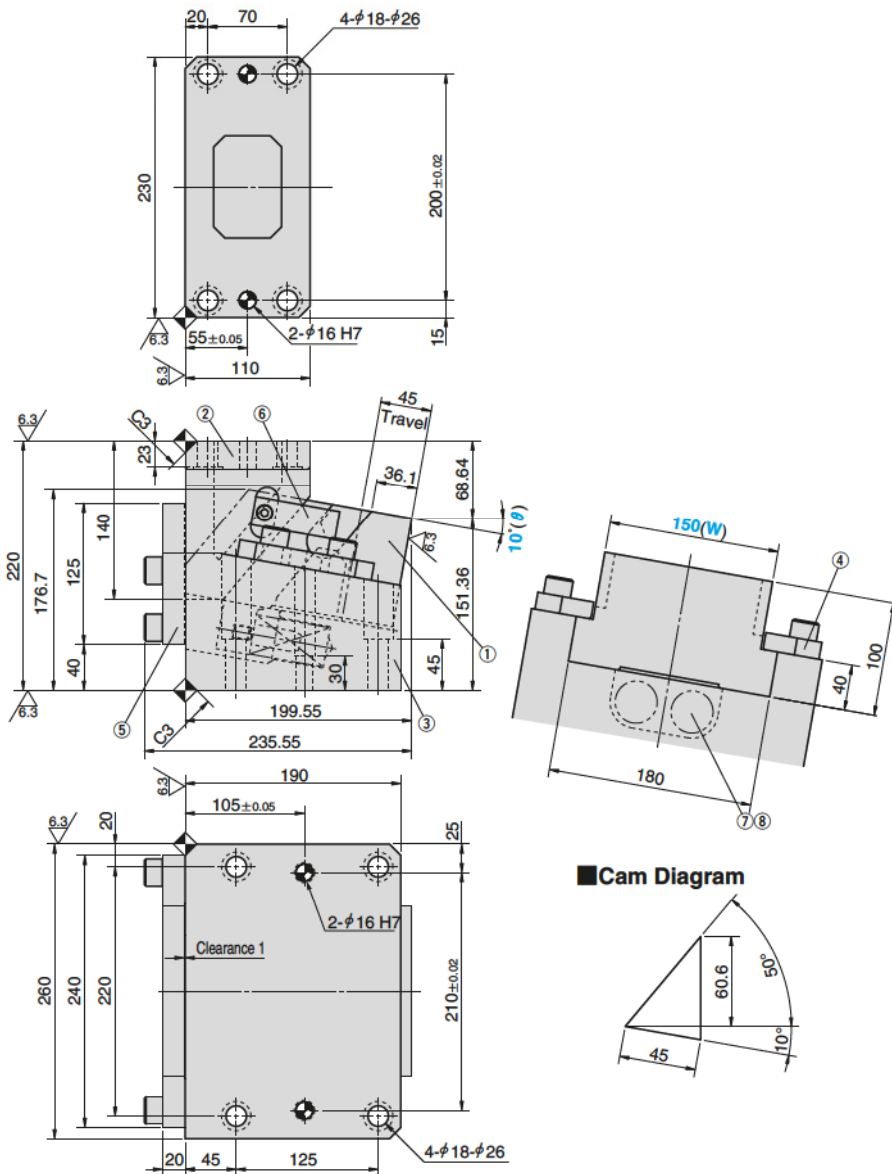


Die Mounted Cam Unit

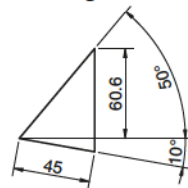
FOR PIERCE AND FLANGE

CAD
FILE

SKCA150 - 10 - 45



Cam Diagram



Working Force kN(tonf)		Spring Force N(kgf)		Slider Weight kg	Total Weight kg	Catalog No.	W	θ	Travel S
1,000,000 strokes	300,000 strokes	Initial Load	Final Load						
64.7 (6.6)	98.0 (10.0)	429.5 (43.7)	1810.1 (184.1)	16.0	63.0	SKCA	150	10	45



Order

Catalog No.	W	θ	S
SKCA	150	10	45



Option

See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	SS400(1020)
⑥	Positive Return Follower	2	S45C(1045)
⑦	Spring Guide Pin	2	φ18×60
⑧	Coil Spring	2	TF35-125

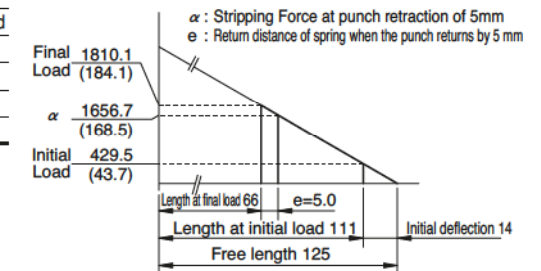


Bolts for assembly are not indicated.

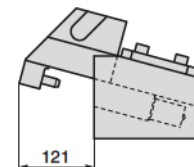
Spring Diagram

(Stripping Force at punch retraction of 5mm)

- Spring used TF35-125 (2 pieces)
- Spring constant 15.34N/mm (1.56kgf/mm)
- Spring life expectancy 300,000 strokes



Space for removing

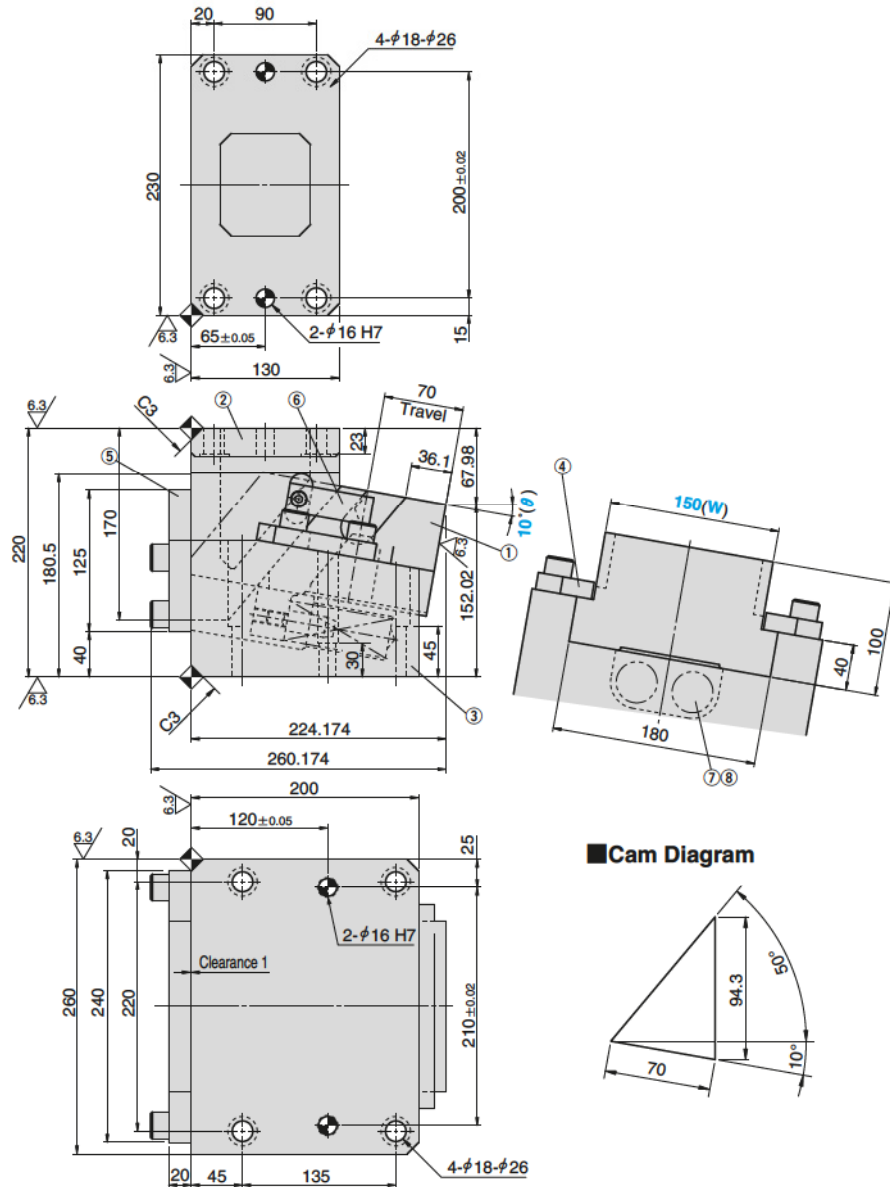


Die Mounted Cam Unit

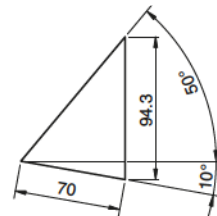
FOR PIERCE AND FLANGE

CAD
FILE

SKCA150 - 10 - 70



■Cam Diagram



Working Force kN(tonf)		Spring Force N(kgf)		Slider Weight kg	Total Weight kg	Catalog No.	W	θ	Travel S
1,000,000 strokes	300,000 strokes	Initial Load	Final Load						
64.7 (6.6)	98.0 (10.0)	306.9 (31.4)	1841.3 (188.2)	16.0	73.0	SKCA	150	10	70



Order

Catalog No.	W	θ	S
SKCA	150	10	70



Option

See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

■Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	SS400(1020)
⑥	Positive Return Follower	2	S45C(1045)
⑦	Spring Guide Pin	2	φ18×60
⑧	Coil Spring	2	TF35-175

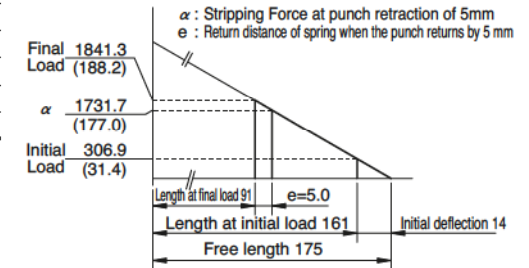


Bolts for assembly are not indicated.

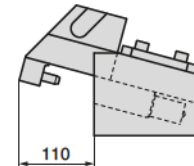
■Spring Diagram

(Stripping Force at punch retraction of 5mm)

- Spring used TF35-175 (2 pieces)
- Spring constant 10.96N/mm (1.12kgf/mm)
- Spring life expectancy 300,000 strokes



■Space for removing

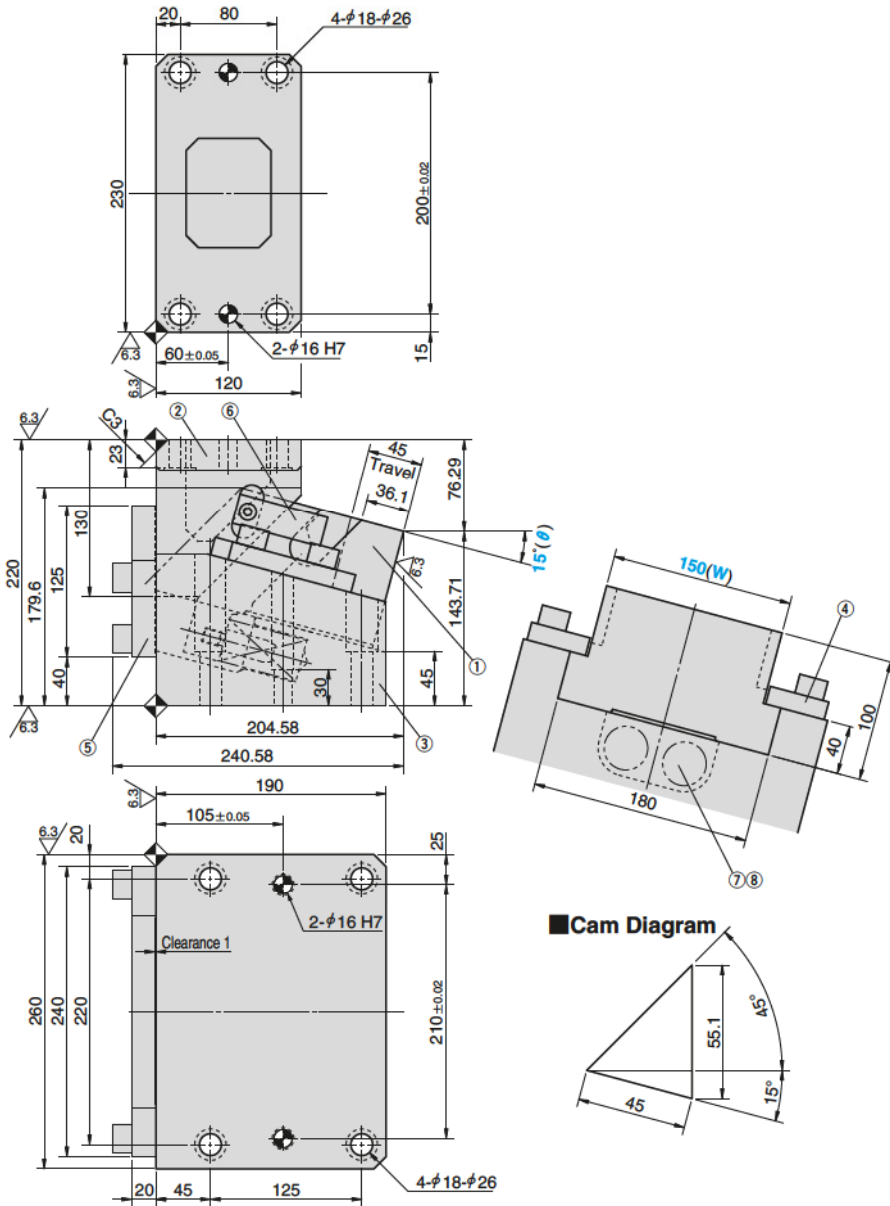


Die Mounted Cam Unit

FOR PIERCE AND FLANGE

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SKCA150 - 15 - 45



Working Force kN(tonf)	Spring Force N(kgf)	Slider		Total Weight kg	Catalog No.	W	θ	Travel S
		1,000,000 strokes	300,000 strokes					
64.7 (6.6)	98.0 (10.0)	429.5 (43.7)	1810.1 (184.1)	16.0 65.0	SKCA	150	15	45



Order

Catalog No.	W	θ	S
SKCA	150	15	45



Option

See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	SS400(1020)
⑥	Positive Return Follower	2	S45C(1045)
⑦	Spring Guide Pin	2	φ18×60
⑧	Coil Spring	2	TF35-125

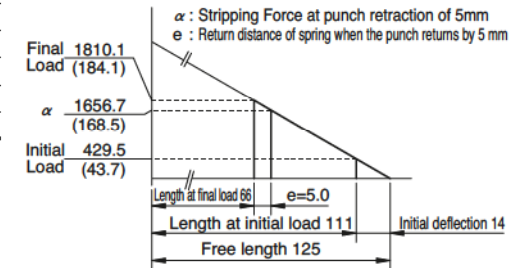


Bolts for assembly are not indicated.

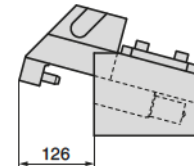
Spring Diagram

(Stripping Force at punch retraction of 5mm)

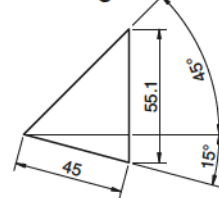
- Spring used TF35-125 (2 pieces)
- Spring constant 15.34N/mm (1.56kgf/mm)
- Spring life expectancy 300,000 strokes



Space for removing



Cam Diagram

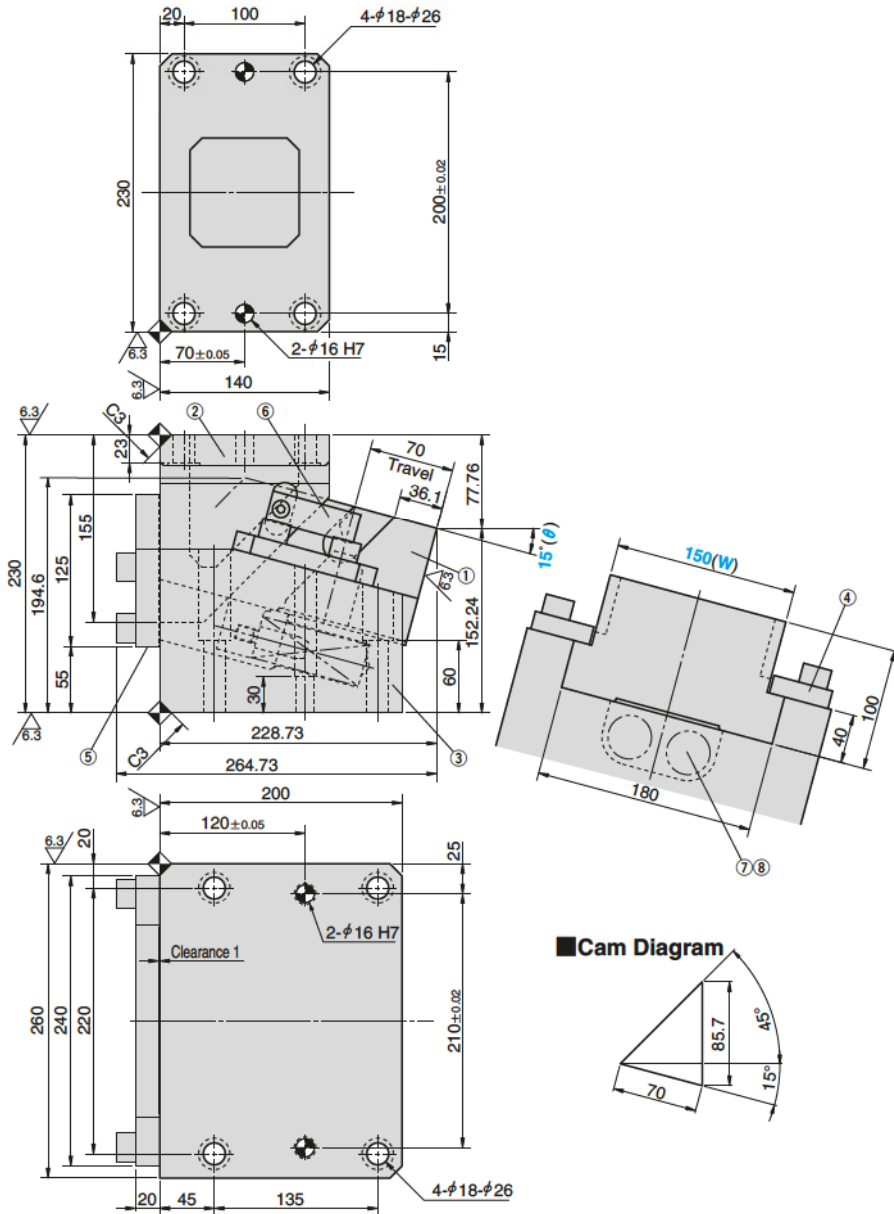


Die Mounted Cam Unit

FOR PIERCE AND FLANGE

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FILE

SKCA150 - 15 - 70



Cam Diagram

Working Force kN(tonf)		Spring Force N(kgf)		Slider Weight kg	Total Weight kg	Catalog No.	W	θ	Travel S
1,000,000 strokes	300,000 strokes	Initial Load	Final Load						
64.7 (6.6)	98.0 (10.0)	306.9 (31.4)	1841.3 (188.2)	16.0	77.0	SKCA	150	15	70



Order

Catalog No.	W	θ	S
SKCA	150	15	70



Option

See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	SS400(1020)
⑥	Positive Return Follower	2	S45C(1045)
⑦	Spring Guide Pin	2	φ18×60
⑧	Coil Spring	2	TF35-175

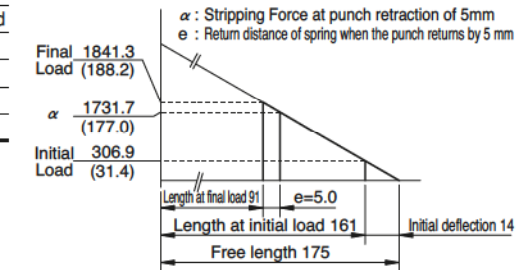


Bolts for assembly are not indicated.

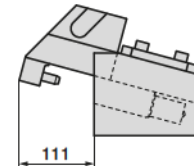
Spring Diagram

(Stripping Force at punch retraction of 5mm)

- Spring used TF35-175 (2 pieces)
- Spring constant 10.96N/mm (1.12kgf/mm)
- Spring life expectancy 300,000 strokes



Space for removing

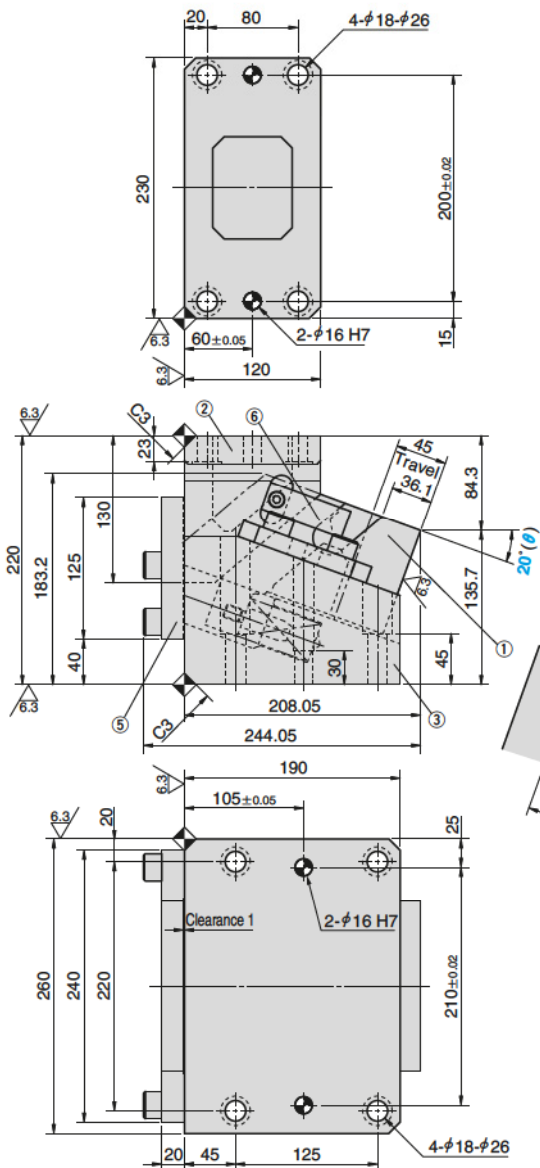


Die Mounted Cam Unit

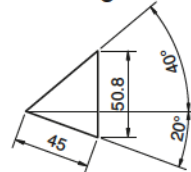
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CAD
FILE

SKCA150 - 20 - 45



Cam Diagram



Working Force kN(tonf)		Spring Force N(kgf)		Slider Weight kg	Total Weight kg	Catalog No.	W	θ	Travel S
1,000,000 strokes	300,000 strokes	Initial Load	Final Load						
64.7 (6.6)	98.0 (10.0)	429.5 (43.7)	1810.1 (184.1)	16.0	66.0	SKCA	150	20	45



Order

Catalog No.	W	θ	S
SKCA	150	20	45



Option

See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	SS400(1020)
⑥	Positive Return Follower	2	S45C(1045)
⑦	Spring Guide Pin	2	φ18×60
⑧	Coil Spring	2	TF35-125

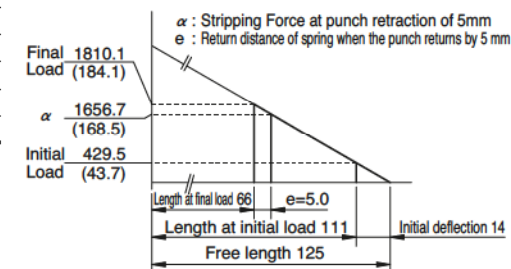


Bolts for assembly are not indicated.

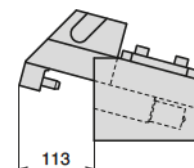
Spring Diagram

(Stripping Force at punch retraction of 5mm)

- Spring used TF35-125 (2 pieces)
- Spring constant 15.34N/mm (1.56kgf/mm)
- Spring life expectancy 300,000 strokes



Space for removing



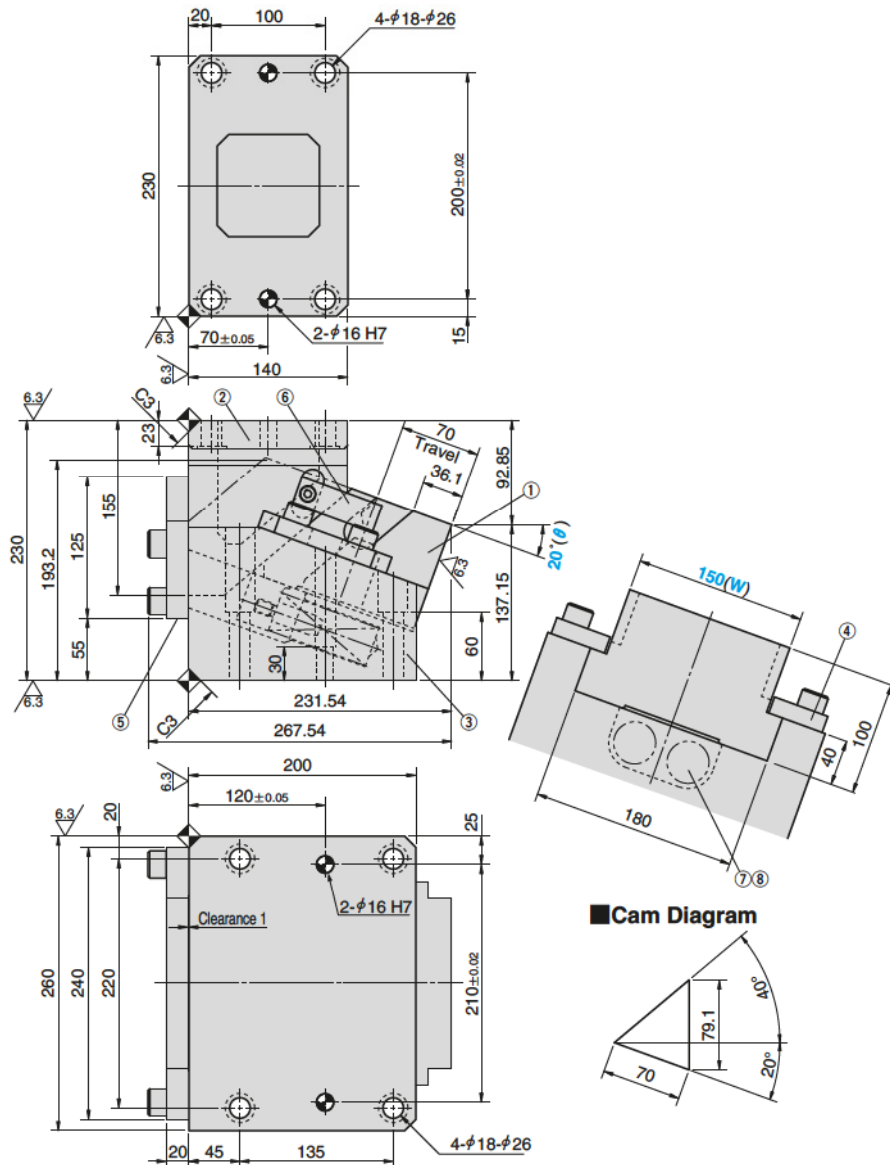
SKCA
150

Die Mounted Cam Unit

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SKCA150 - 20 - 70



Cam Diagram

Working Force kN(tonf)		Spring Force N(kgf)		Slider Weight kg	Total Weight kg	Catalog No.	W	θ	Travel S
1,000,000 strokes	300,000 strokes	Initial Load	Final Load						
64.7 (6.6)	98.0 (10.0)	306.9 (31.4)	1841.3 (188.2)	16.0	75.0	SKCA	150	20	70



Order

Catalog No.	W	θ	S
SKCA	150	20	70



Option

See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	SS400(1020)
⑥	Positive Return Follower	2	S45C(1045)
⑦	Spring Guide Pin	2	φ18×60
⑧	Coil Spring	2	TF35-175

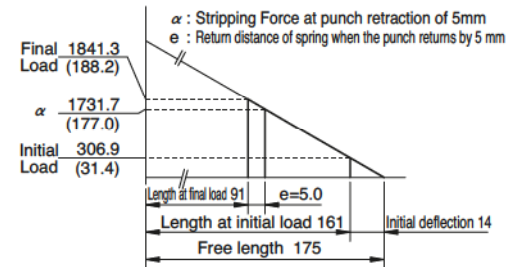


Bolts for assembly are not indicated.

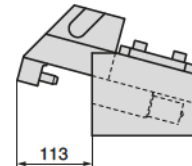
Spring Diagram

(Stripping Force at punch retraction of 5mm)

- Spring used TF35-175 (2 pieces)
- Spring constant 10.96N/mm (1.12kgf/mm)
- Spring life expectancy 300,000 strokes

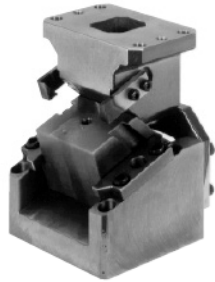


Space for removing



Die Mounted Cam Unit SKCA

Die Mounted Cam Unit

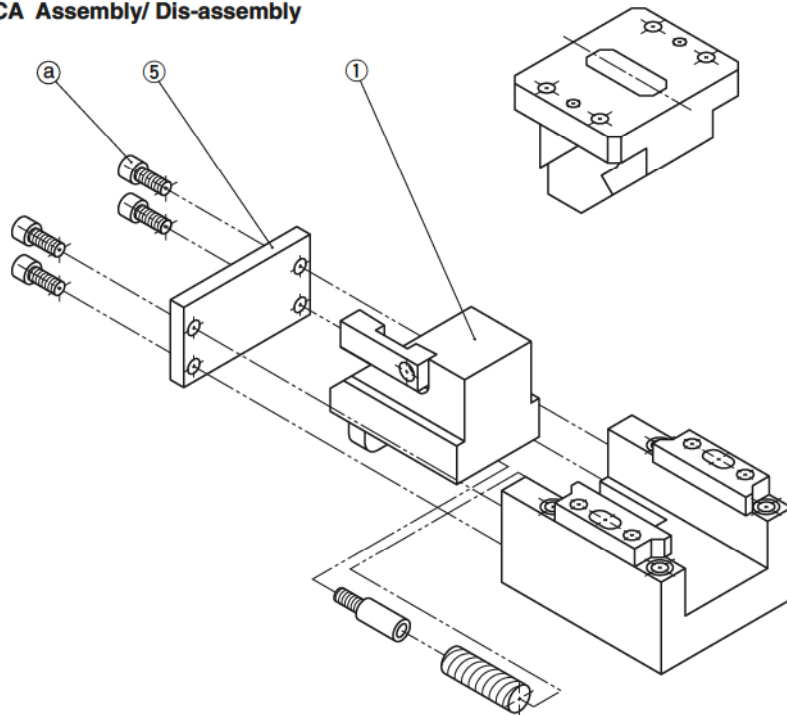


- Mounting surface widths 52, 65, 100, 150, 200, 250, 300 mm
- Working angles from 0° to 20° in 5° increments for the mounting surface widths 65 to 150 mm
- The Box-type holder provides high rigidity

▲ Gas Spring:

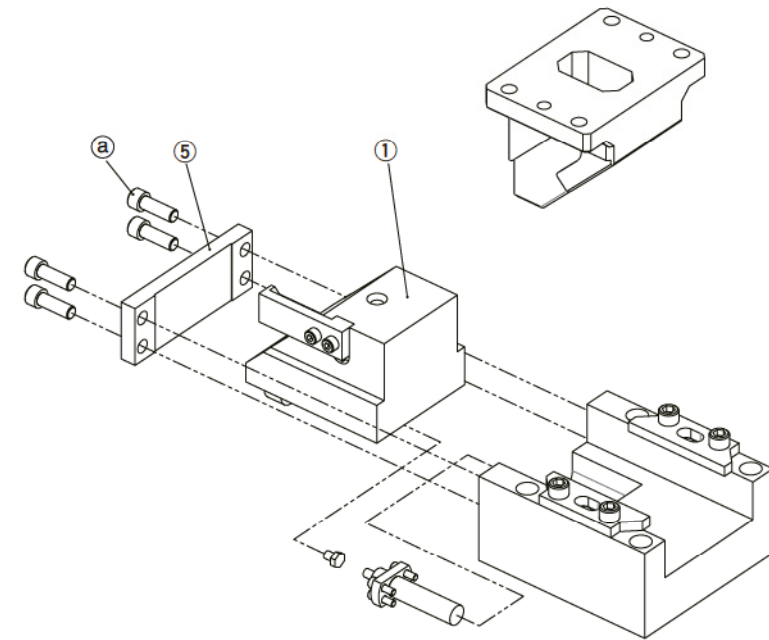
Please contact your local sales representative, if you prefer to use a gas spring not specified in our catalog. For use and maintenance of gas spring, please contact the manufacturer directly.

■ SKCA Assembly/ Dis-assembly



Coil Spring Specification

Technical Information



Gas Spring Specification

●Disassembling SKCA

- 1) Remove Hexagon Socket Head Bolts (a) and Stopper Plate (5).
- 2) Pull out Cam Slider from Cam Holder.

●Re-assembly

Reassembly is the reverse procedure of disassembly.

NOTES:

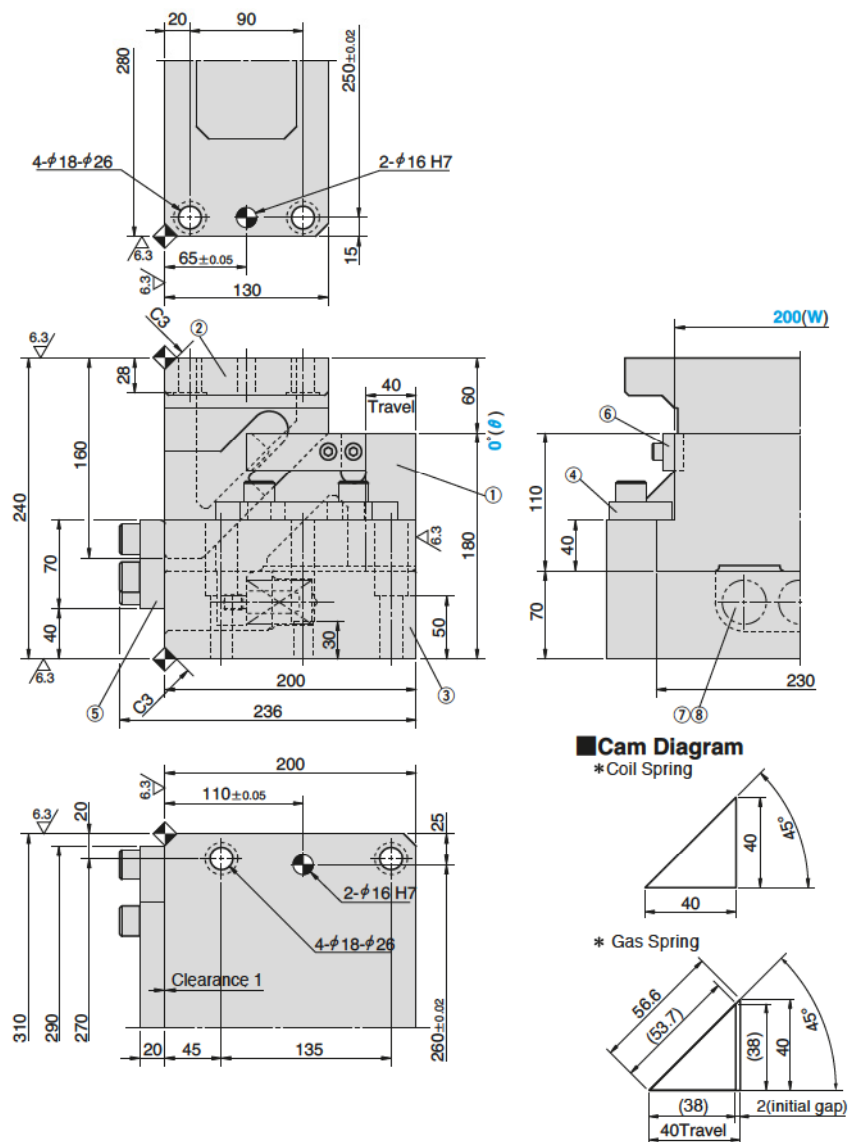
- Ensure that all parts are clean, particularly the sliding components, to which a small amount of grease is applied and is then placed in position.
- Take care that the respective tolerances are observed when assembling the Cam Slider and Cam Holder, which also should be identified by the same serial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

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Addition



SKCA200 - 00 - 40



Working Force kN(tonf)		Spring Force N(kgf)		Slider Weight kg	Total Weight kg	Catalog No.	W	θ	Travel S	Spring Type PS
1,000,000 strokes	300,000 strokes	Initial Load	Final Load							
78.4 (8.0)	117.6 (12.0)	460.3 (47.0)	2761.9 (282.2)	21.0	82.0	SKCA	200	00	40	No code (Coil Spring)
		—	2733 (278.9)							GK *NGK
			GD *NGD							
			GS *NGS							

* Parts for spring assembly are included.



Order

Catalog No.	W	θ	S	PS	Option
SKCA	200	00	40	GK	
SKCA	200	00	40	NGK	
SKCA	200	00	40	GK	NF

...Without gas spring.



Option

Option Code	Specification
NF	Nitrogen gas not charged.

 See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

■ Spring Specification

No.	PS	Spring Model	Qty	Remark
⑧	—	TF35-100	3	Coil Spring
	GK	M2-50-Yellow	1	Gas Spring (KALLER)
	GD	C.180.050.YW	1	Gas Spring (DADCO)
	GS	SFNA.200.50	1	Gas Spring (SDTC)

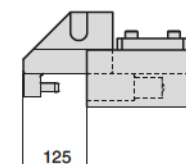
*Gas filling pressure : 18MPa

■ Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	S50C
⑥	Positive Return Follower	2	S45C(1045)
⑦	Spring Guide Pin	3	#18X60 Coil Spring specification only
⑦	Mounting Plate	1	Gas Spring specification only
⑧	Spring	—	Refer to the Spring Specification table.
⑪	Stop Pin	1	Gas Spring specification only

 Bolts for assembly are not indicated.

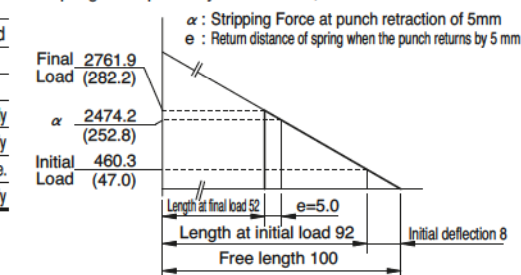
■ **Space for removing**



■ Spring Diagram

(Stripping Force at punch retraction of 5mm)

- Spring used TF35-100 (3 pieces)
- Spring constant 19.18N/mm (1.96kgf/mm)
- Spring life expectancy 300,000 strokes

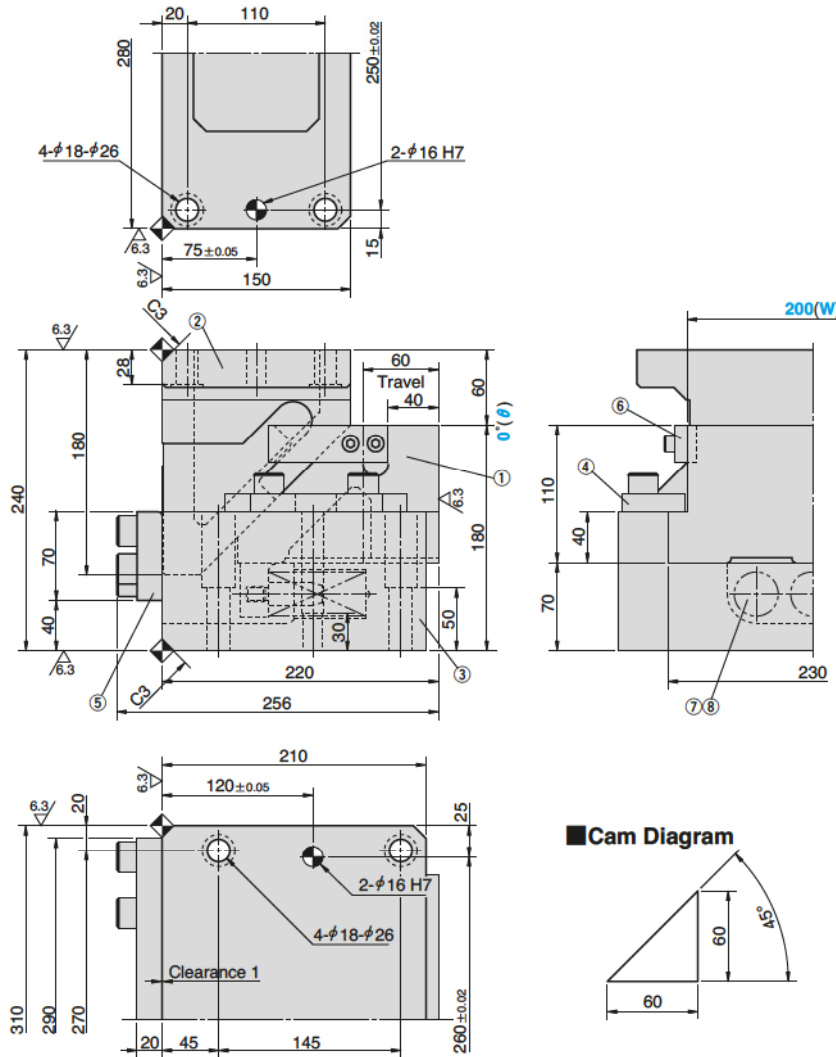


Die Mounted Cam Unit

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SKCA200 - 00 - 60



Cam Diagram

Working Force kN(tonf)		Spring Force N(kgf)		Slider Weight kg	Total Weight kg	Catalog No.	W	θ	Travel S
1,000,000 strokes	300,000 strokes	Initial Load	Final Load						
78.4 (8.0)	117.6 (12.0)	498.8 (50.7)	2801.0 (284.7)	21.0	84.0	SKCA	200	00	60



Order

Catalog No.	W	θ	S
SKCA	200	00	60



Option

See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	S50C
⑥	Positive Return Follower	2	S45C(1045)
⑦	Spring Guide Pin	3	φ18×60
⑧	Coil Spring	3	TF35-150

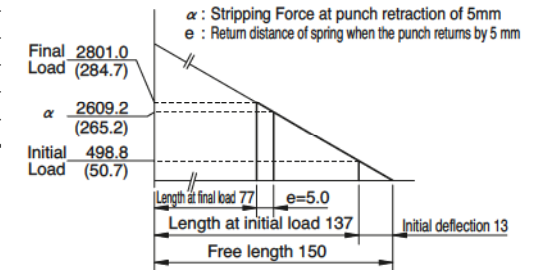


Bolts for assembly are not indicated.

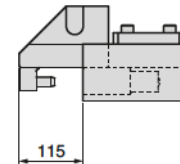
Spring Diagram

(Stripping Force at punch retraction of 5mm)

- Spring used TF35-150 (3 pieces)
- Spring constant 12.79N/mm (1.30kgf/mm)
- Spring life expectancy 300,000 strokes



Space for removing



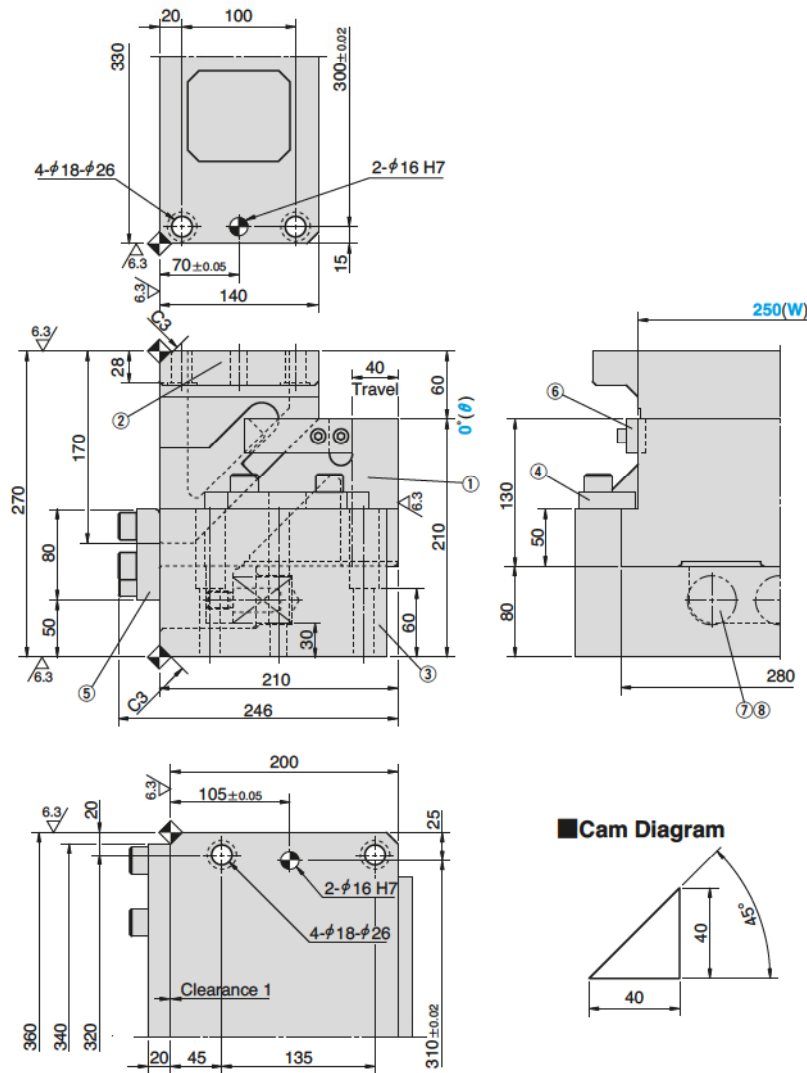
SKCA
200

Die Mounted Cam Unit

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SKCA250 - 00 - 40



Working Force kN(tonf)	Spring Force N(kgf)	Slider		Total Weight kg	Catalog No.	W	θ	Travel S
		1,000,000 strokes	300,000 strokes					
98.0 (10.0)	147.0 (15.0)	601.7 (61.4)	3610.1 (368.6)	33.4 97.0	SKCA	250	00	40



Order

Catalog No.	W	θ	S
SKCA	250	00	40



Option

See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	S50C
⑥	Positive Return Follower	2	S45C(1045)
⑦	Spring Guide Pin	3	φ21×65
⑧	Coil Spring	3	TF40-100

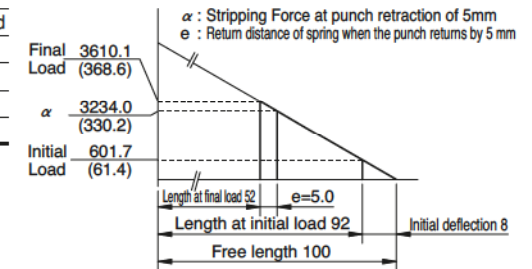


Bolts for assembly are not indicated.

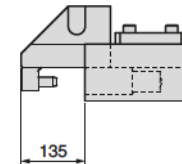
Spring Diagram

(Stripping Force at punch retraction of 5mm)

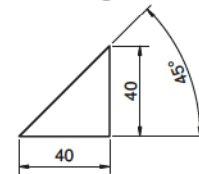
- Spring used TF40-100 (3 pieces)
- Spring constant 25.07N/mm (2.56kgf/mm)
- Spring life expectancy 300,000 strokes



Space for removing



Cam Diagram

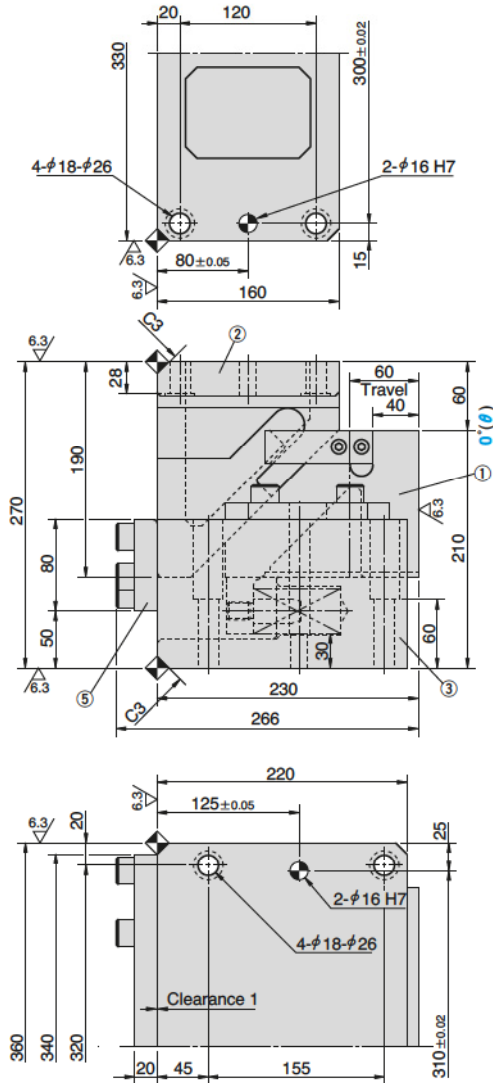


Die Mounted Cam Unit

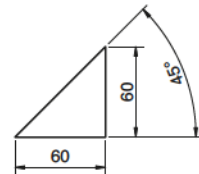
FOR PIERCE AND FLANGE

CAD
FILE

SKCA250 - 00 - 60



Cam Diagram



Working Force kN(tonf)		Spring Force N(kgf)		Slider Weight kg	Total Weight kg	Catalog No.	W	θ	Travel S
1,000,000 strokes	300,000 strokes	Initial Load	Final Load						
98.0 (10.0)	147.0 (15.0)	651.7 (66.3)	3659.4 (372.3)	33.4	105.3	SKCA	250	00	60



Order

Catalog No.	W	θ	S
SKCA	250	00	60



Option

See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	S50C
⑥	Positive Return Follower	2	S45C(1045)
⑦	Spring Guide Pin	3	φ21×65
⑧	Coil Spring	3	TF40-150

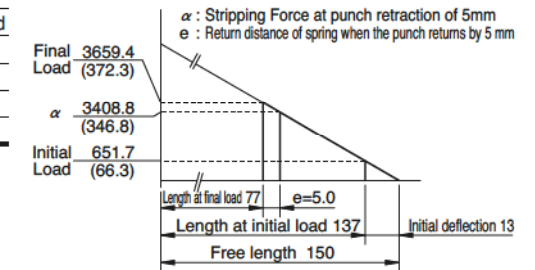


Bolts for assembly are not indicated.

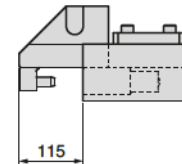
Spring Diagram

(Stripping Force at punch retraction of 5mm)

- Spring used TF40-150 (3 pieces)
- Spring constant 16.71N/mm (1.70kgf/mm)
- Spring life expectancy 300,000 strokes



Space for removing



Cam Unit

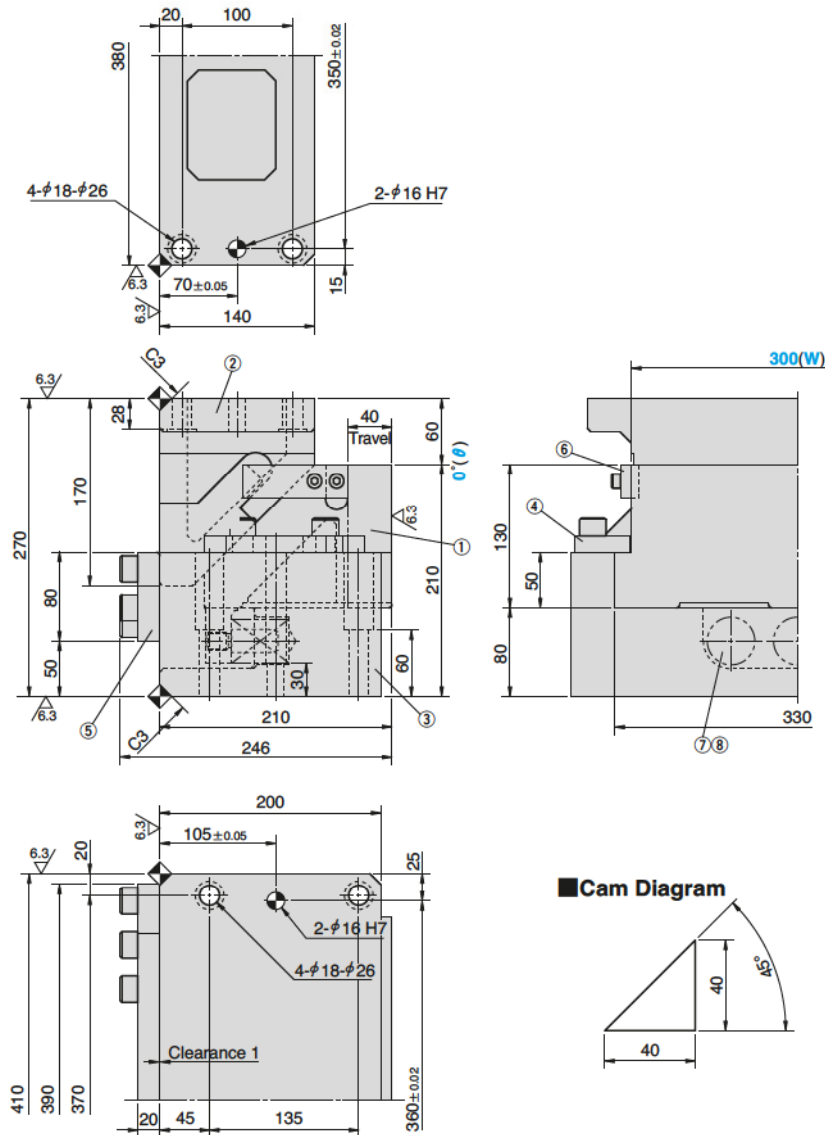
SKCA
250

Die Mounted Cam Unit

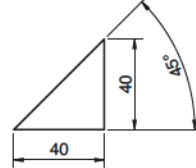
FOR PIERCE AND FLANGE

CAD
FILE

SKCA300 - 00 - 40



Cam Diagram



Working Force kN(tonf)		Spring Force N(kgf)		Slider Weight kg	Total Weight kg	Catalog No.	W	θ	Travel S
1,000,000 strokes	300,000 strokes	Initial Load	Final Load						
117.6 (12.0)	176.4 (18.0)	601.7 (61.4)	3610.1 (368.6)	38.0	113.1	SKCA	300	00	40



Order

Catalog No.	W	θ	S
SKCA	300	00	40



Option

See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	S50C
⑥	Positive Return Follower	2	S45C(1045)
⑦	Spring Guide Pin	3	φ21×65
⑧	Coil Spring	3	TF40-100

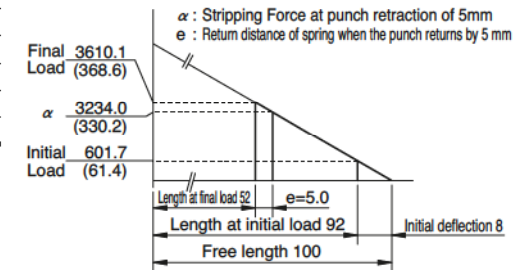


Bolts for assembly are not indicated.

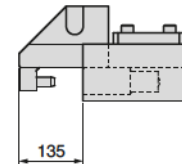
Spring Diagram

(Stripping Force at punch retraction of 5mm)

- Spring used TF40-100 (3 pieces)
- Spring constant 25.07N/mm (2.56kgf/mm)
- Spring life expectancy 300,000 strokes



Space for removing



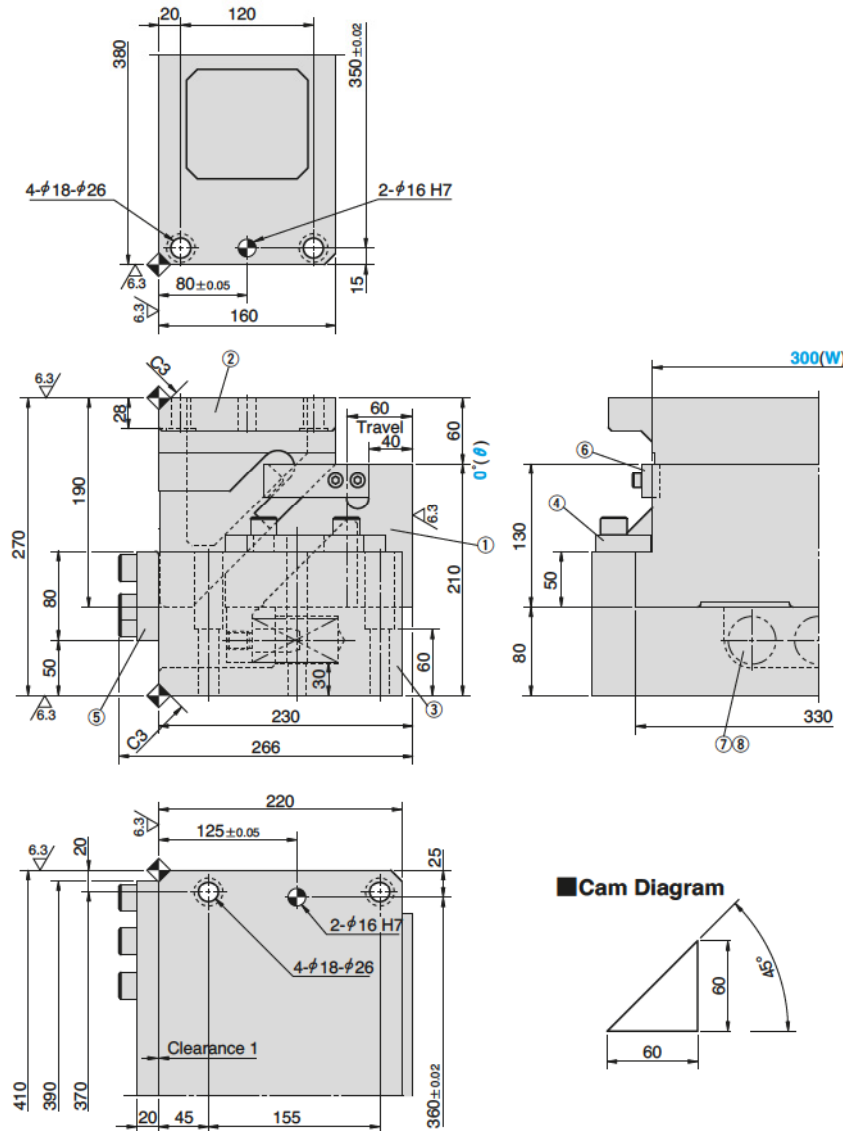
SKCA
300

Die Mounted Cam Unit

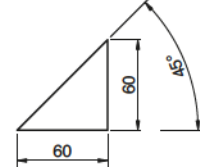
FOR PIERCE AND FLANGE

CAD
FILE

SKCA300 - 00 - 60



Cam Diagram



Working Force kN(tonf)		Spring Force N(kgf)		Slider Weight kg	Total Weight kg	Catalog No.	W	θ	Travel S
1,000,000 strokes	300,000 strokes	Initial Load	Final Load						
117.6 (12.0)	176.4 (18.0)	651.7 (66.3)	3659.4 (372.3)	38.0	120.4	SKCA	300	00	60



Order

Catalog No.	W	θ	S
SKCA	300	00	60



Option

See page 389 for specifications of tapped and dowel pin holes for mounting a retainer.

Table of Components

No.	Description	Qty	Material and Remark
①	Cam Slider	1	FC250 with Graphite
②	Cam Driver	1	FC250 with Graphite
③	Cam Holder	1	FC250
④	Upper Plate	2	S45C Copper Powder Sintered
⑤	Stopper Plate	1	S50C
⑥	Positive Return Follower	2	S45C(1045)
⑦	Spring Guide Pin	3	φ21×65
⑧	Coil Spring	3	TF40-150

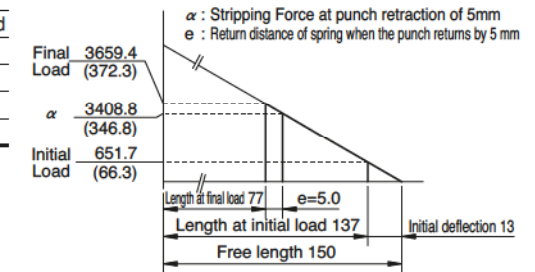


Bolts for assembly are not indicated.

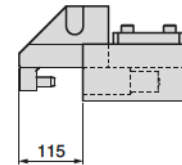
Spring Diagram

(Stripping Force at punch retraction of 5mm)

- Spring used TF40-150 (3 pieces)
- Spring constant 16.71N/mm (1.70kgf/mm)
- Spring life expectancy 300,000 strokes



Space for removing



SKCA
300

Cam Unit