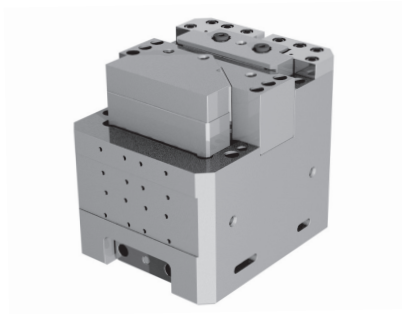


# Counter Cam Unit CTCS·H/CTVS·H [Overview]

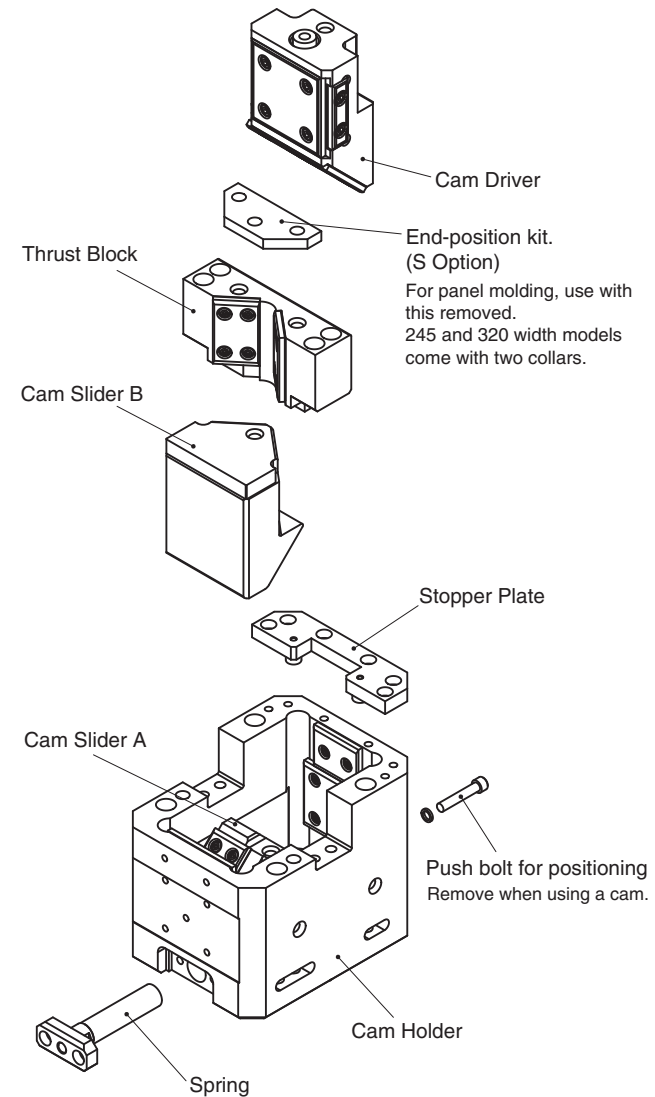
## Product Information

- Mount face widths 120, 145, 245, and 320 mm.
- High rigidity structure.
- V-shaped guide.
- Built-in abnormal ascent stop mechanism.
- Built-in urethane for shock absorption in cam driver stopper.



### ■ Features

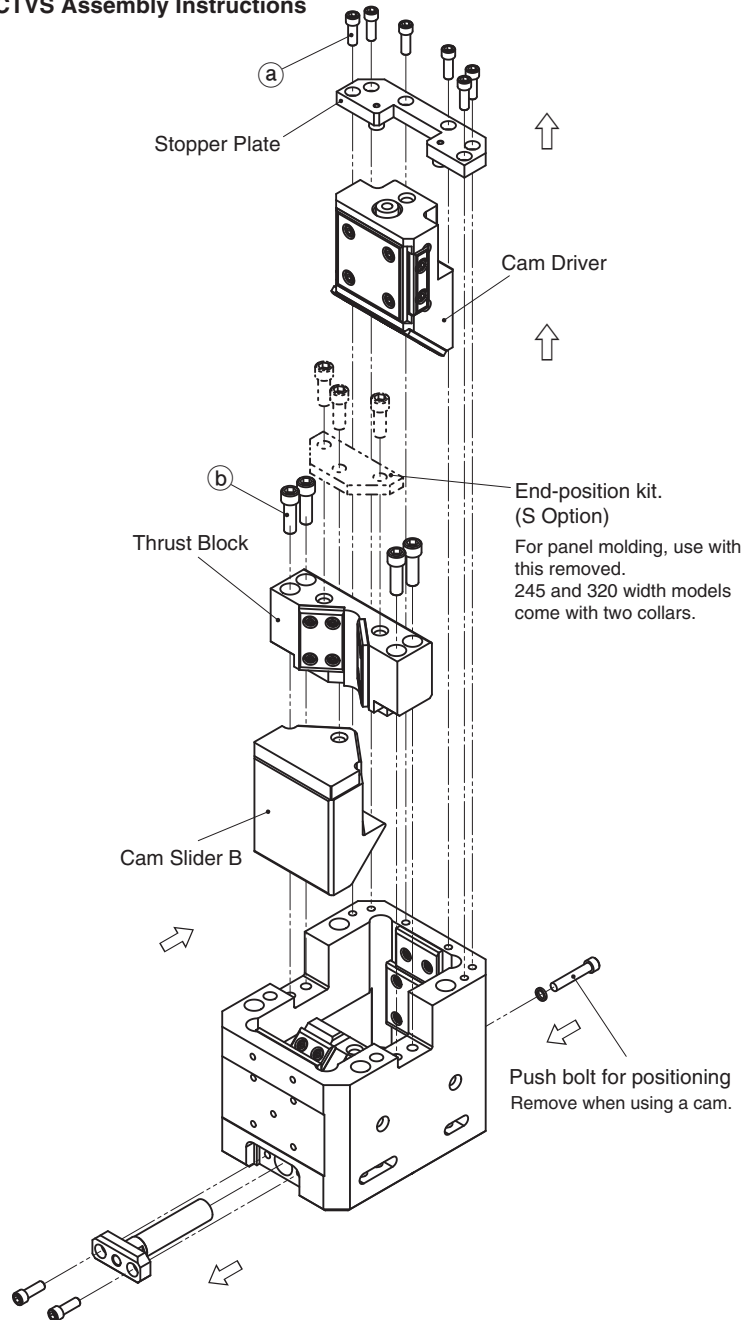
- Robust structure integrated into the casting is applied.
- The highly rigid type is reinforcing the backup wall of Cam Slider B. It is not necessary to machine the die for backup.
- V-shaped Cam Slider B is highly resistant to the reaction force on the side. (145 / 245 / 320 mm wide only)
- Urethane Stopper for shock absorption are provided on the Stopper Plate to prevent direct force on the screws.
- The Thrust Block is installed as the Stopper of Cam Slider B. This Stopper Block could prevent the Cam Slider B from lifting up over the specified stroke.
- A thread hole is drilled so that a Pushing Bolt for the end-position kit could be installed.



# Counter Cam Unit CTCS·H/CTVS·H [Overview]

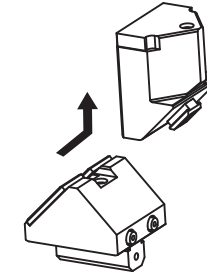
## Product Information

### ■CTCS CTVS Assembly Instructions



### ●Disassembly

- 1) Remove Hexagon Socket Head Bolts (a), to pull out Stopper Plate.
- 2) Pull and remove Cam Driver upward.
- 3) Remove Hexagon Socket Head Bolts (b), and remove Thrust Block.
- 4) Slide Cam Slider B with Positive Return obliquely upward and remove it. (See the figure below.)  
In the same way, slide Cam Slider B diagonally from above to assemble.



### ●Assembly

Assembly is the reverse procedure of disassembly.

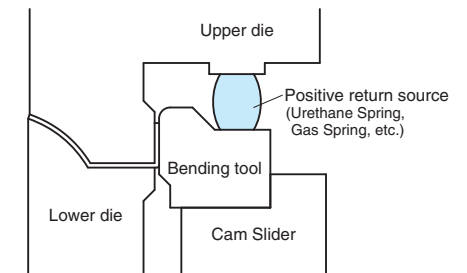
- Ensure that all parts are clean, particularly the sliding components to which a small amount of lubricant is applied and is then placed in position.
- Take care that the respective tolerances are observed when assembling Cam Slider and Cam Holder, which also should be identified by the same serial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

### ■For Operation

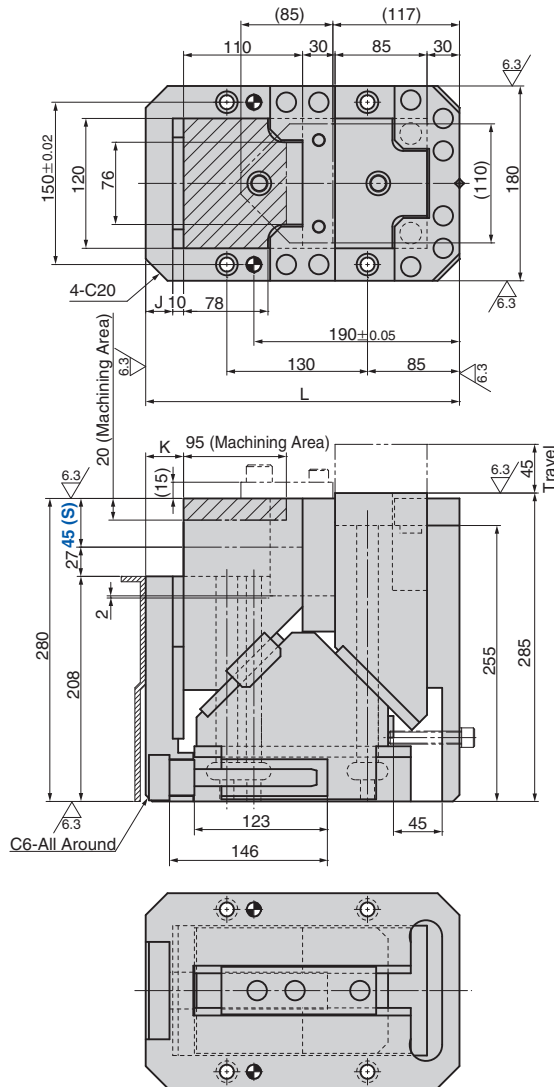
In order to make the Counter Cam Unit correctly track the up-down motion of the press, use a return assist pressure source (Urethane Spring, Gas Spring, etc.) (See the figure below.)



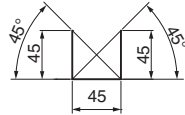
# CTCS · CTCH

## Counter Cam Unit

CTCS120-45 (Regular Type)  
CTCH120-45 (Highly Rigid Type)



● Cam Diagram



Working Force kN (tonf) 1,000,000 strokes	Spring Force N (kgf)		Total Weight kg	Catalog No.	W	Travel S	Spring Type PS
	Initial Load	Final Load					
29.4 (3.0)	—	2072 (211.3)	88.0	CTCS CTCH	120	45	ISO NISO
	330 (33.7)	1815 (185.1)					GK NGK

ISO: Coil Spring GK: Gas Spring (KALLER)  
NGK: Without Gas Spring NISO: Without Coil Spring Parts for spring assembly are included.



Catalog No.	W	S	PS	Option
CTCS	120	—	—	ISO
CTCH	120	—	—	GK — NF



Option Code	Specification
NF	Nitrogen gas not charged.
N12	φ12mm dowel holes provided on holder.
S	End-position kit is included.

Catalog No.	J	K	L
CTCS	25	35	290
CTCH	35	45	300

### Spring Specification

No.	PS	Spring Model	Qty	Remark
25	GK	X350-80-7.0.MPa	1	Gas Spring (KALLER)
	ISO	TJM32-178	1	Coil Spring 33 N/mm (3.37 kgf/mm) Life expectancy of Coil Spring is approximately 1,000,000 strokes.

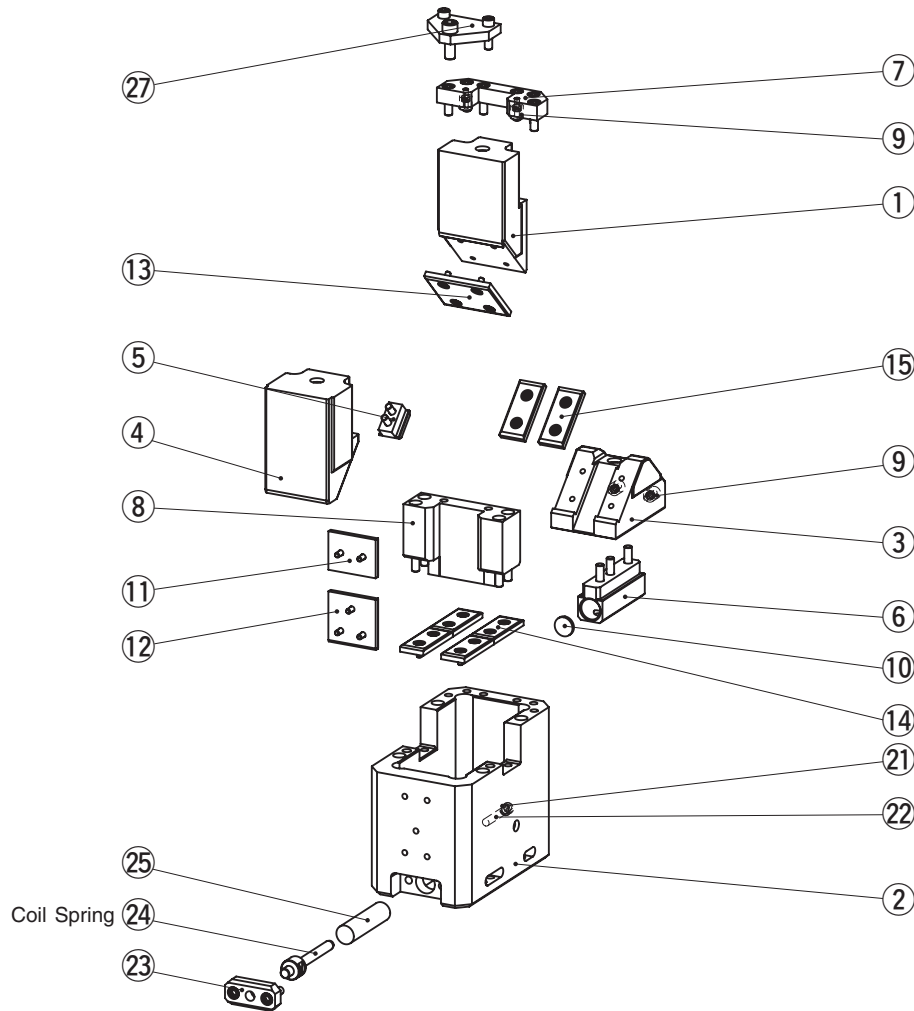
Gas filling pressure: 7.0 MPa

Refer to page 635 for Table of Components.

# CTCS·CTCH [Table of Components]

## Counter Cam Unit

CTCS120/CTCH120



No.	Description	Qty		Material and Remark
		Coil Spring	Gas Spring	
1	Cam Driver	1		Cast Iron with Graphite
2	Cam Holder	1		Cast Iron
3	Cam Slider A	1		Cast Iron with Graphite
4	Cam Slider B	1		Cast Iron with Graphite
5	Cam Positive Return	1		Bronze
6	Spring Guide Block	1		Bronze with Graphite
7	Stopper Plate	1		Steel
8	Thrust Block	1		Bronze with Graphite
9	Stopper	4		—
10	Spring Stopper	1		Steel
11	Wear Plate	1		Copper Powder Sintered
12	Wear Plate	1		Copper Powder Sintered
13	Wear Plate	1		Bronze with Graphite
14	Wear Plate	4		Copper Powder Sintered
15	Wear Plate	2		Copper Powder Sintered
21	Spacer	1		Steel
22	Locate Cap Bolt	1		M12x68
23	Spring Stopper A	1	—	Steel
	Spring Stopper B	—	1	Steel
24	Spring Guide Pin	1	—	Steel
25	Coil Spring	1	—	TJM32-178
	Gas Spring	—	1	X350-80-7.0MPa
27	Locking Plate (S Option)	1		Steel

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