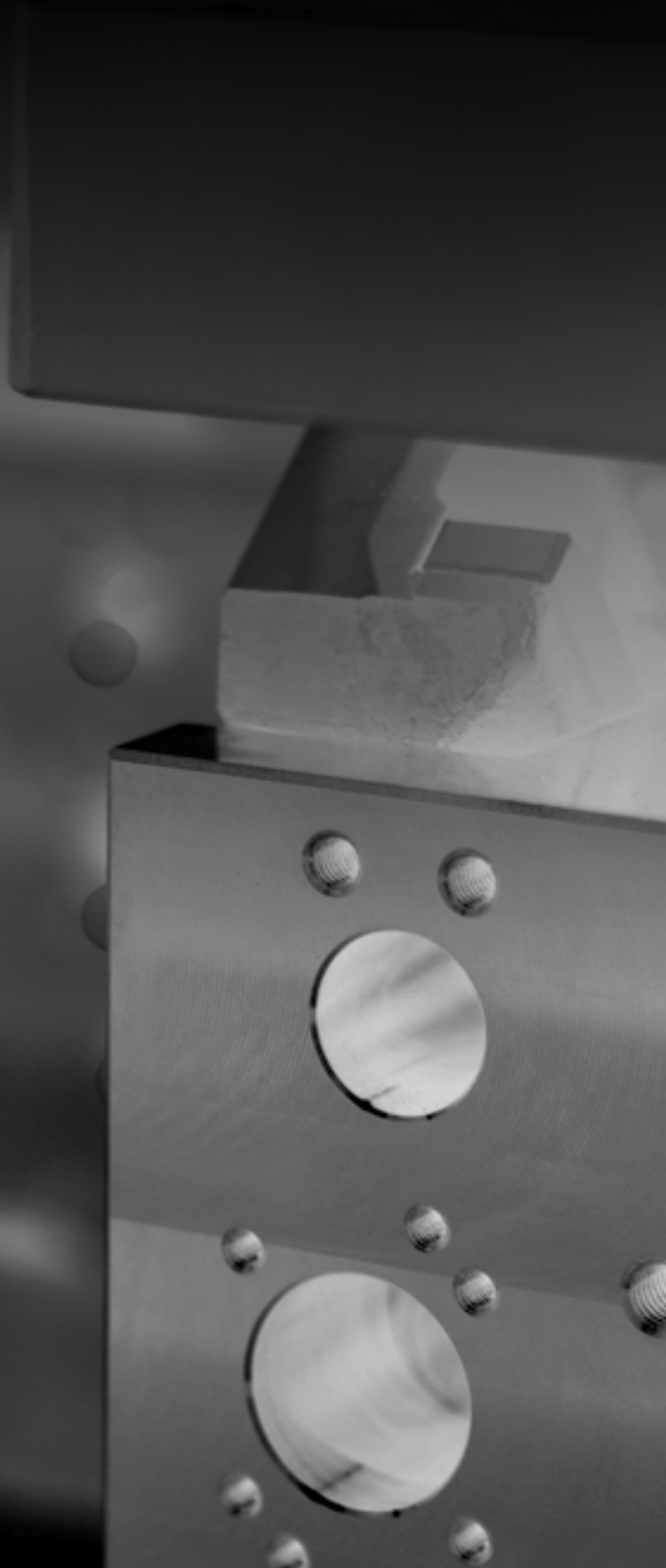














Ht1

CARROS / CAMS

# CARROS CAMS



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**CARROS AÉREOS**  
AERIAL CAM UNITS

CSDM



CSCM



CSFM



CSSM



CSGM / CSGC



CSKM



CSRM/CSRC



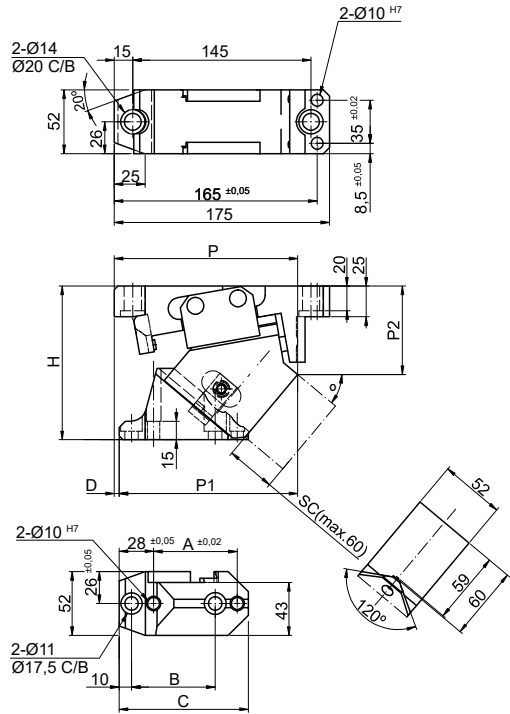
CSVC



CSBM/CSBC



## CARROS AÉREOS CSDM AERIAL CAM UNITS CSDM



### CSDM 52

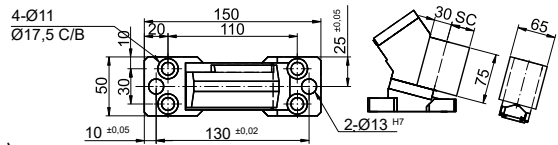
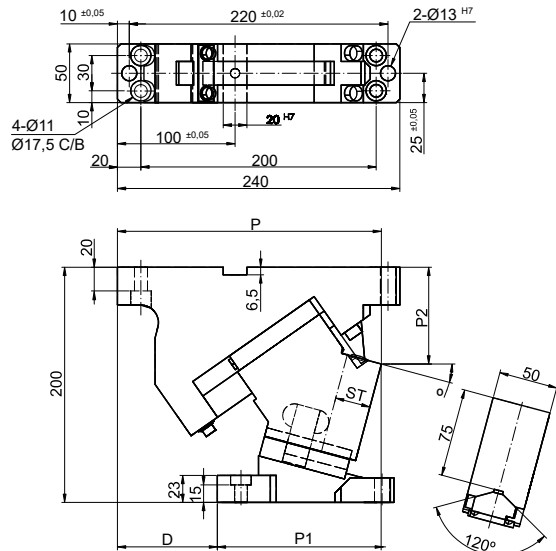
#### Working Face (option)

SC: The mount surface is extended for ward in the rang of 1 to 60 mm (in increments of 1 mm).

Code	W Working Force	ST Stroke	θ Angle	P	P1	P2	D	H	A	B	C	Spring	
												Max. Work Force	Extraction Force
	kN	mm	°	mm	mm	mm	mm	mm	mm	mm	mm	kN	kN
CSDM.52x0	52	19,3	0	150	105	43	45	125	68	68	105	31	0,66
CSDM.52x5	52	21,3	5	153,1	111,1	45,21	42	125	68	68	105	31	0,66
CSDM.52x10	52	23,3	10	153,55	116,55	47,83	37	125	68	68	105	31	0,66
CSDM.52x15	52	25,4	15	153,32	121,32	50,82	32	125	68	68	105	31	0,66
CSDM.52x20	52	27,6	20	153,38	126,38	55,1	27	125	68	68	105	31	0,66
CSDM.52x25	52	30	25	154,71	134,71	58,62	20	125	68	68	105	31	0,66
CSDM.52x30	52	32,6	30	153,28	136,28	63,31	17	125	68	68	105	31	0,66
CSDM.52x35	52	35,4	35	152,09	142,09	67,1	10	125	68	68	105	31	0,66
CSDM.52x40	52	38,6	40	149,14	145,14	71,93	4	125	68	68	105	31	0,66
CSDM.52x45	52	42,3	45	145,41	149,41	75,73	-4	125	68	68	105	31	0,66
CSDM.52x50	52	46,7	50	143,92	152,92	79,43	-9	125	68	68	105	31	0,66
CSDM.52x55	52	52,3	55	144,67	154,67	82,97	-10	125	68	68	105	31	0,59
CSDM.52x60	52	60	60	150,69	159,69	90,28	-9	125	68	68	105	31	0,52
CSDM.52x65	52	47,3	65	130,16	175,16	99,54	-45	125	68	68	105	31	0,43
CSDM.52x70	52	58,5	70	133,62	173,62	106,97	-40	125	68	68	105	31	0,35
CSDM.52x75	52	46,3	75	148,74	178,74	124,59	-30	150	55	55	111	31	0,27
CSDM.52x80	52	57,3	80	148,74	178,74	124,59	-30	150	55	55	110	31	0,18

How to order: Code + W x θ

## CARROS AÉREOS CSCM AERIAL CAM UNITS CSCM



### CSCM 50

#### Mounting Method

Blank: Drawin Shape.

K: Key width 20 mm assemble.

#### Working Face (option)

Blank: as drawing.

SC: The mount surface is extended forward in the range of from 10 to 60 mm (at increments of 10 mm).

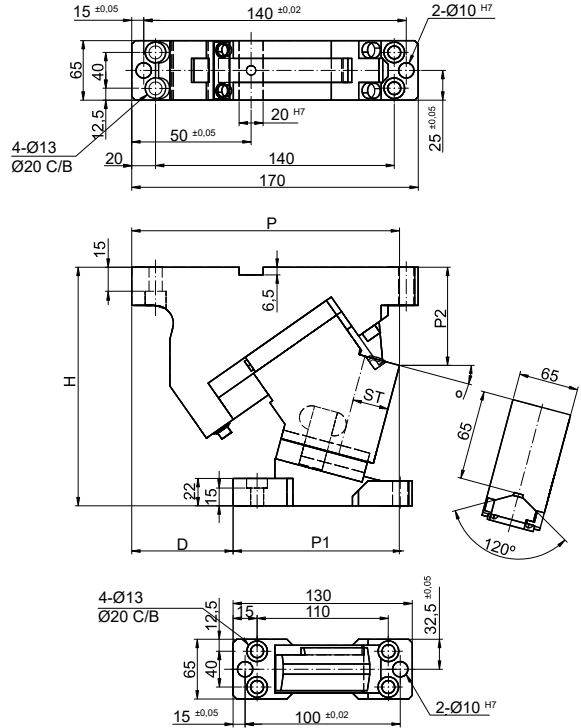
WC: The mount width is changed to 65 mm.

Code	W Working Face	ST Stroke	θ Angle	P	P1	P2	D	H	K	Max. Work Force	Spring		
											mm	°	mm
CSCM.50x0	50	30,2	0	225	118	77,5	107	200	-	41	0,66		
CSCM.50x5	50	30,5	5	226,91	126,91	78,33	100	200	-	41	0,61		
CSCM.50x10	50	30,3	10	223,72	133,72	79,93	90	200	-	41	0,56		
CSCM.50x15	50	30,5	15	224,36	139,36	82,29	85	200	-	41	0,71		
CSCM.50x20	50	30,4	20	220,76	150,76	85,39	70	200	-	41	0,66		
CSCM.50x25	50	30	25	215,85	157,85	89,22	58	200	-	41	0,66		
CSCM.50x30	50	32,6	30	213,58	158,58	94,73	55	200	-	41	0,66		
CSCM.50x35	50	35,4	35	204,89	169,89	96,9	35	200	-	41	0,66		
CSCM.50x40	50	38,6	40	206,72	176,72	102,69	30	200	-	41	0,66		
CSCM.50x45	50	42,3	45	202,01	182,01	103,06	20	200	-	41	0,66		
CSCM.50x50	50	46,7	50	195,73	185,73	105,94	10	200	-	41	0,66		
CSCM.50x55	50	52,1	55	189,83	189,83	116,3	0	200	-	41	0,59		
CSCM.50x60	50	59,1	60	179,27	194,27	125,08	-15	200	-	41	0,52		
CSCM.50x65	50	58,3	65	176,6	208,6	126,87	-32	200	-	41	0,38		
CSCM.50x70	50	57,6	70	177	215	135,83	-38	200	-	41	0,35		
CSCM.65x0	65	15	0	170	110	53	60	180	-	42	0,94		

Continue next page...

How to order: Code + W x θ

## CARROS AÉREOS CSCM AERIAL CAM UNITS CSCM



### CSCM 65

#### Mounting Method

Blank: Drawin Shape.

K: Key width 20 mm assemble.

#### Working Face (option)

Blank: as drawing.

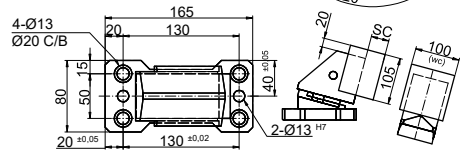
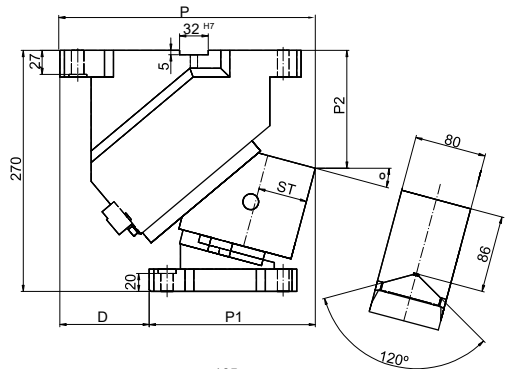
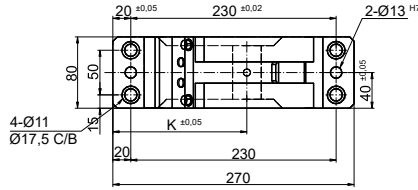
SC: The mount surface is extended forward in the range of from 10 to 60 mm (at increments of 10 mm).

Code	W Working Face	ST Stroke	° Angle	P	P1	P2	D	H	K	Max. Work Force	Spring	
											kN	mm
CSCM.65x5	65	15,1	5	171,41	116,41	60,27	55	180	-	42	0,89	
CSCM.65x10	65	15,2	10	177,16	177,16	63,06	55	180	-	42	0,91	
CSCM.65x15	65	15,5	15	177,2	177,2	66,33	50	180	-	42	0,87	
CSCM.65x20	65	16,5	20	176,51	176,51	70,01	40	180	-	42	0,87	
CSCM.65x25	65	17,1	25	172,94	172,94	75,64	35	180	-	42	0,79	
CSCM.65x30	65	18,5	30	177,78	177,78	78,32	30	180	-	42	0,85	
CSCM.65x35	65	19,6	35	173,29	173,29	83,25	20	180	-	42	0,77	
CSCM.65x40	65	21,5	40	170,78	170,78	82,44	10	180	-	42	0,85	
CSCM.65x45	65	23,3	45	165,5	165,5	86,51	2,5	180	-	42	0,77	
CSCM.65x50	65	26,5	50	165,41	165,41	96,79	-5	190	-	42	0,79	
CSCM.65x55	65	29,7	55	159,51	159,51	99,89	-10	190	-	42	0,07	
CSCM.65x60	65	35	60	156,68	156,68	120,78	-20	210	-	42	0,64	
CSCM.65x65	65	41,4	65	150,33	150,33	122,8	-25	210	-	42	0,54	
CSCM.65x70	65	51,1	70	146,45	146,45	131,68	-32	210	-	42	0,44	
CSCM.80x0	80	32,1	0	260	160	99	100	-	130	83	1,09	

Continue next page...

How to order: Code + W x Ø

CARROS AÉREOS CSCM  
AERIAL CAM UNITS CSCM



CSCM 80

**Mounting Method**

Blank: Drawin Shape.

K: Key width 32 mm assemble.

**Working Face (option)**

Blank: as drawing.

SC: The mount surface is extended forward in the range of from 10 to 60 mm (at increments of 10 mm).

WC: The mount width is changed to 100 mm.

Code	W Working Face	ST Stroke	° Angle	P	P1	P2	D	H	K	Max. Work Force	Spring
											Extraction Force
	kN	mm	°	mm	mm	mm	mm	mm	mm	kN	kN
CSCM.80x5	80	38,4	5	272,93	172,93	109,39	100	-	150	83	1,2
CSCM.80x10	80	38,9	10	279,92	179,92	120,43	100	-	150	83	1,09
CSCM.80x15	80	39,7	15	285,93	185,93	132,04	100	-	150	83	0,97
CSCM.80x20	80	46,1	20	285,9	195,9	129,12	90	-	170	83	1,09
CSCM.80x25	80	17,8	25	289,8	199,8	141,6	90	-	170	83	0,97
CSCM.80x30	80	54,3	30	282,59	207,59	134,36	75	-	170	83	1,09
CSCM.80x35	80	57,4	35	284,27	209,27	147,32	75	-	170	83	0,97
CSCM.80x40	80	64,3	40	274,8	214,8	140,38	60	-	170	83	1,09
CSCM.80x45	80	69,6	45	274,2	214,2	153,44	60	-	170	83	0,97
CSCM.80x50	80	77,8	50	262,46	227,46	151,39	35	-	170	83	1,09
CSCM.80x55	80	87,2	55	259,6	224,6	164,14	35	-	170	83	0,97
CSCM.80x60	80	98,5	60	240,64	240,64	176,59	0	-	170	83	0,85
CSCM.80x65	80	81,6	65	235,61	240,61	188,65	-5	-	170	83	0,65
CSCM.80x70	80	86,4	70	227,83	237,83	195,53	-10	-	170	83	0,58
CSCM.150x0	150	32,1	0	280	160	85	120	-	100	140	4,18
CSCM.150x5	150	32,3	5	288,26	173,26	95,84	115	-	100	140	3,73

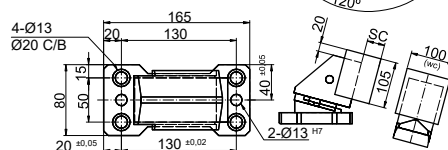
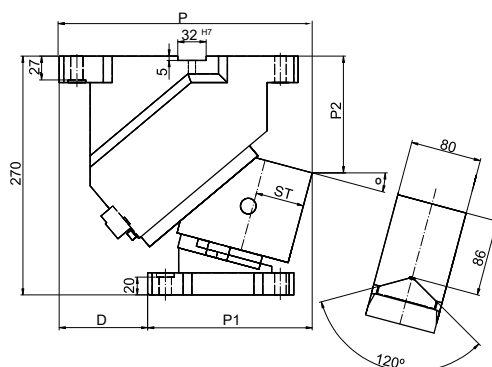
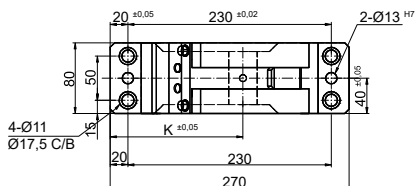
Continue next page...

How to order: Code + W x Ø





## CARROS AÉREOS CSFM AERIAL CAM UNITS CSFM



### CSFM 80

#### Mounting Method

Blank: Drawin Shape

K: Key width 32mm assemble

#### Working Face (option)

Blank: as drawing

SC: The mount surface is extended forward in the range of from 10 to 60 mm (at increments of 10 mm)

WC: The mount width is changed to 100 mm.

Code	W Working Face	ST Stroke	ø Angle	P	P1	P2	D	H	Max. Work Force	Spring	
										KN	mm
CSFM.80x0	80	32,1	0	260	160	99	100	-	116	2,47	
CSFM.80x5	80	38,4	5	272,93	172,93	109,39	100	-	116	2,72	
CSFM.80x10	80	38,9	10	279,92	179,92	120,43	100	-	116	2,47	
CSFM.80x15	80	39,7	15	285,93	185,93	132,04	100	-	116	2,21	
CSFM.80x20	80	46,1	20	285,9	195,9	129,12	90	-	116	2,47	
CSFM.80x25	80	17,8	25	289,8	199,8	141,6	90	-	116	2,21	
CSFM.80x30	80	54,3	30	282,59	207,59	134,36	75	-	116	2,47	
CSFM.80x35	80	57,4	35	284,27	209,27	147,32	75	-	116	2,21	
CSFM.80x40	80	64,3	40	274,8	214,8	140,38	60	-	116	2,47	
CSFM.80x45	80	69,6	45	274,2	214,2	153,44	60	-	116	2,21	
CSFM.80x50	80	77,8	50	262,46	227,46	151,39	35	-	116	2,47	
CSFM.80x55	80	87,2	55	259,6	224,6	164,14	35	-	116	2,21	
CSFM.80x60	80	98,5	60	240,64	240,64	176,59	0	-	116	1,92	
CSFM.80x65	80	81,6	65	235,61	240,61	188,65	-5	-	116	1,59	
CSFM.80x70	80	86,4	70	227,83	237,83	195,53	-10	-	116	1,26	

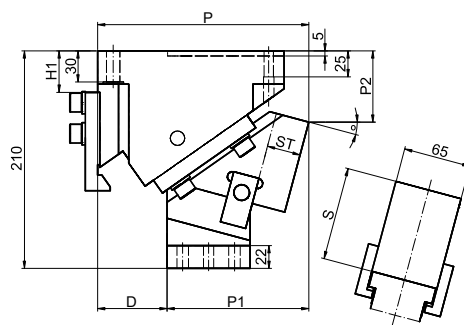
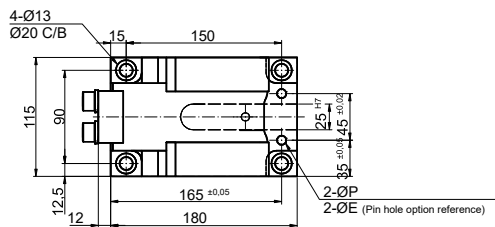
Continue next page...

How to order: Code + W x Ø



## CARROS AÉREOS CSSM

### AERIAL CAM UNITS CSSM



### CSSM 65

#### Mounting Method

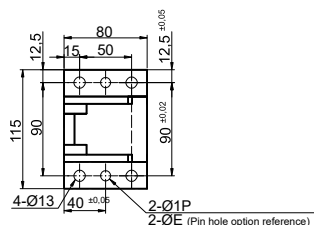
Blank: Prepared pin hole.

K: Positioned by the dedicated hey for the 25 mm.

DK: Refer to below chart for pin hole.

HK: Refer to below chart for pin table.

HDK: Refer to below chart for pin table.

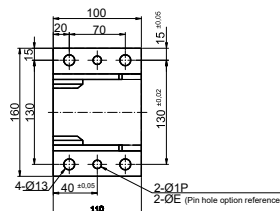
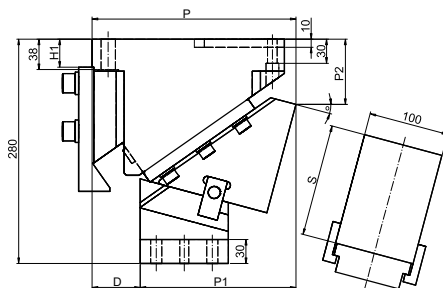
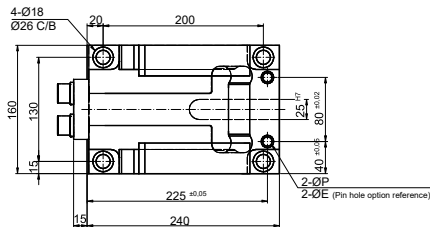


Code	W Working Face	ST Stroke	ø Angle	P	P1	P2	D	H1	S	ØP	ØE	Spring	
												Max. Work Force	Extraction Force
	KN	mm	°	mm	mm	mm	mm	mm	mm	mm	mm	kN	kN
CSSM.65x0	65	26,9	0	185,94	110,94	56,57	75	55	80	9	10/11/12	39	0,79
CSSM.65x5	65	27	5	193,01	123,01	56,57	70	55	90	9	10/11/12	39	0,77
CSSM.65x10	65	31,6	10	196,8	126,8	67,58	70	40	80	9	10/11/12	39	0,85
CSSM.65x15	65	32,2	15	203,77	136,77	68,81	67	40	90	9	10/11/12	39	0,77
CSSM.65x20	65	33,8	20	198,1	138,1	74,31	60	10	80	9	10/11/12	39	0,85
CSSM.65x25	65	35	25	204,75	149,75	6,73	55	10	90	9	10/11/12	39	0,77
CSSM.65x30	65	33,5	30	193,63	143,63	89,52	50	10	80	9	10/11/12	46	0,85
CSSM.65x35	65	35,4	35	199,76	154,76	93,06	45	10	90	9	10/11/12	46	0,77
CSSM.65x40	65	42,9	40	188,72	148,72	99,62	40	15	80	9	10/11/12	46	0,85
CSSM.65x45	65	46,5	45	194,12	160,13	104,16	34	15	90	9	10/11/12	46	0,77
CSSM.65x50	65	54,5	50	190	160	110	30	10	90	9	10/11/12	58	0,77
CSSM.65x55	65	43,6	55	190	170	115	20	10	100	9	10/11/12	58	0,62
CSSM.65x60	65	50	60	190	170	115	20	10	100	9	10/11/12	58	0,54
CSSM.65x65	65	47,3	65	190	190	130	0	10	110	9	10/11/12	58	0,39
CSSM.65x70	65	58,5	70	190	190	130	0	10	110	9	10/11/12	58	0,32

Continue next page...

How to order: Code + W x Ø

CARROS AÉREOS CSSM  
AERIAL CAM UNITS CSSM



CSSM 100

Mounting Method

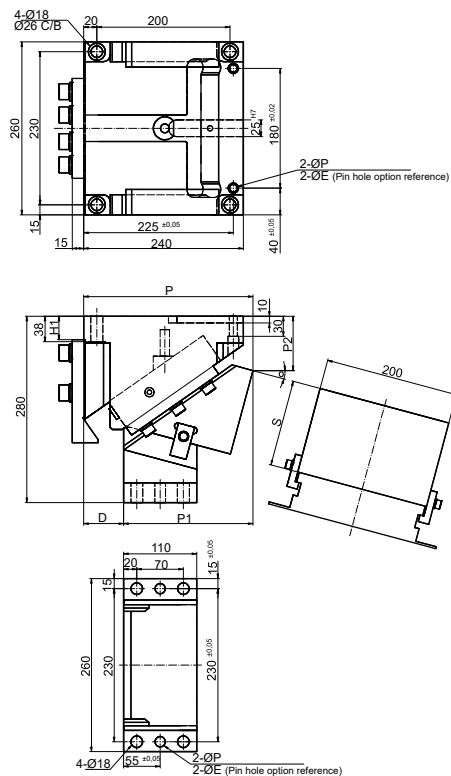
- Blank: Prepared pin hole.
- K: Positioned by the dedicated hey for the 25 mm.
- DK: Refer to below chart for pin hole.
- HK: Refer to below chart for pin table.
- HDK: Refer to below chart for pin table.

Code	W Working Face	ST Stroke	θ Angle	P	P1	P2	D	H1	S	ØP	ØE	Max. Work Force	Spring	
													KN	mm
CSSM.100x0	100	28,3	0	240	180	85	60	55	100	11	12/13	87	2,1	
CSSM.100x5	100	28,4	5	236,89	176,89	73,82	60	55	140	11	12/13	87	2,09	
CSSM.100x10	100	33,3	10	240	180	90	60	35	100	11	12/13	87	0,29	
CSSM.100x15	100	33,9	15	254,35	194,35	81,51	60	35	140	11	12/13	87	2,09	
CSSM.100x20	100	30,9	20	240	190	110	50	15	11	11	12/13	87	2,23	
CSSM.100x25	100	32	25	253,26	203,26	102,6	50	15	140	11	12/13	87	2,03	
CSSM.100x30	100	33,5	30	240	210	110	30	10	120	11	12/13	87	2,1	
CSSM.100x35	100	35,4	35	252,34	222,34	109,69	30	10	140	11	12/13	87	1,91	
CSSM.100x40	100	39	40	240	210	115	30	10	120	11	12/13	87	2,1	
CSSM.100x45	100	42,3	45	247,41	217,41	114,68	30	10	140	11	12/13	87	1,91	
CSSM.100x50	100	46,7	50	240	230	120	10	10	140	11	12/13	96	1,91	
CSSM.100x55	100	52,3	55	240	240	145	0	10	140	11	12/13	96	1,7	
CSSM.100x60	100	60	60	240	240	145	0	10	140	11	12/13	96	1,48	
CSSM.100x65	100	47,3	65	240	240	145	0	10	140	11	12/13	96	122	
CSSM.100x70	100	58,5	70	240	240	145	0	10	140	11	12/13	96	1	

Continue next page...

How to order: Code + W x θ

## CARROS AÉREOS CSSM AERIAL CAM UNITS CSSM



### CSSM 200

#### Mounting Method

Blank: Prepared pin hole.

K: Positioned by the dedicated hey for the 25 mm.

DK: Refer to below chart for pin hole.

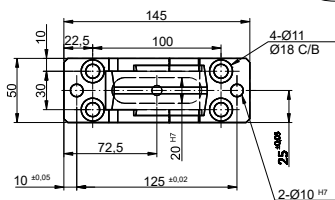
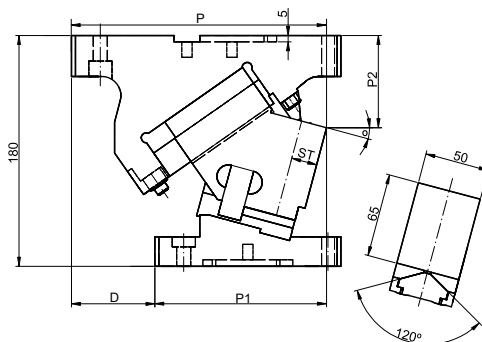
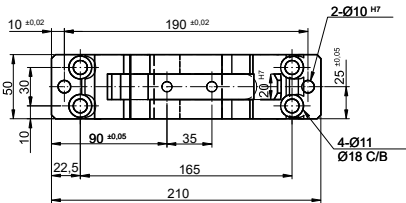
HK: Refer to below chart for pin table.

HDK: Refer to below chart for pin table.

Code	W Working Face	ST Stroke	$\theta$ Angle	P	P1	P2	D	H1	S	ØP	ØE	Spring	
												Max. Work Force	Extraction Force
	KN	mm	°	mm	mm	mm	mm	mm	mm	mm	mm	kN	kN
CSSM.200x0	200	28,3	0	240	180	90	60	60	100	11	12/13	193	4,21
CSSM.200x5	200	28,4	5	236,82	176,82	78,84	60	60	130	11	12/13	193	4,17
CSSM.200x10	200	33,3	10	240	180	90	60	35	100	11	12/13	193	4,59
CSSM.200x15	200	33,9	15	254,35	194,35	81,51	60	35	130	11	12/13	193	4,17
CSSM.200x20	200	30,9	20	240	190	110	50	15	100	11	12/13	193	4,46
CSSM.200x25	200	32	25	253,27	203,27	102,6	50	15	130	11	12/13	193	4,05
CSSM.200x30	200	33,5	30	240	210	110	30	10	120	11	12/13	193	4,2
CSSM.200x35	200	35,4	35	252,34	222,34	109,69	30	10	140	11	12/13	193	3,81
CSSM.200x40	200	39	40	240	240	115	30	10	120	11	12/13	193	4,2
CSSM.200x45	200	42,3	45	247,41	217,41	114,68	30	10	140	11	12/13	193	3,81
CSSM.200x50	200	46,7	50	240	230	120	10	10	140	11	12/13	231	3,81
CSSM.200x55	200	52,3	55	240	240	145	0	10	140	11	12/13	231	3,4
CSSM.200x60	200	60	60	240	240	145	0	10	140	11	12/13	231	2,97
CSSM.200x65	200	47,3	65	240	240	145	0	10	140	11	12/13	231	2,45
CSSM.200x70	200	58,5	70	240	240	145	0	10	140	11	12/13	231	1,98

How to order: Code + W x Ø

**CARROS AÉREOS CSGM**  
**AERIAL CAM UNITS CSGM**



**CSGM 50**

**Mounting Method**

Blank: Drawing shape

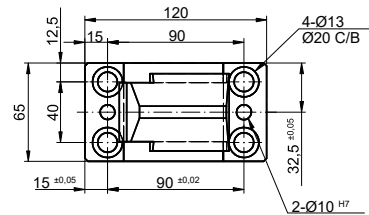
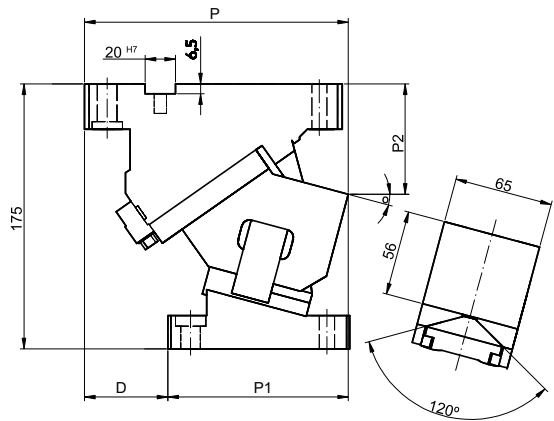
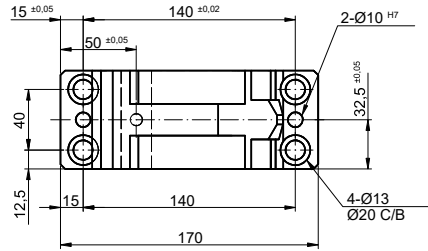
K: Key with 20 mm assemble

Code	W Working Face	ST Stroke	ø Angle	P	P1	P2	P3	D	K	Max. Work Force	Spring
											Extraction Force
	KN	mm	°	mm	mm	mm	mm	mm	mm	kN	N
CSGM.50x0	50	15	0	195	115	67,5	112,5	80	-	60	1,31
CSGM.50x5	50	15,6	5	198,04	123,04	68,29	111,71	75	-	60	1,3
CSGM.50x10	50	15,6	10	195,99	130,99	69,77	110,23	65	-	60	1,14
CSGM.50x15	50	17	15	198,77	133,77	71,95	108,05	65	-	60	1,14
CSGM.50x20	50	18,4	20	196,34	141,34	74,79	105,31	55	-	60	1,14
CSGM.50x25	50	18	25	191,62	150,62	80,28	99,72	41	-	60	1,29
CSGM.50x30	50	17,4	30	190,58	150,58	85,39	97,61	40	-	60	1,17
CSGM.50x35	50	18,9	35	187,15	162,15	90,1	89,9	25	-	60	1,17
CSGM.50x40	50	20,6	40	183,29	160,79	95,35	84,65	22,5	-	60	1,17
CSGM.50x45	50	22,5	45	179,94	169,94	98,13	81,87	10	-	60	1,17
CSGM.50x50	50	23,3	50	174,07	169,07	99,37	80,63	5	-	60	1,17
CSGM.50x55	50	26,1	55	168,64	183,64	111,04	68,96	-15	-	60	1,17
CSGM.50x60	50	31,5	60	162,61	187,61	118,08	61,92	-25	-	60	1,17
CSGM.50x65	50	36,6	65	155,95	190,95	125,44	54,56	-35	-	60	1,17
CSGM.50x70	50	39,5	70	153,63	193,63	133,06	46,94	-40	-	60	1,17

Continue next page...

How to order: Code + W x ø

CARROS AÉREOS CSGM  
AERIAL CAM UNITS CSGM



CSGM 65

**Mounting Method**  
Blank: Drawing shape  
K: Key with 20 mm assemble

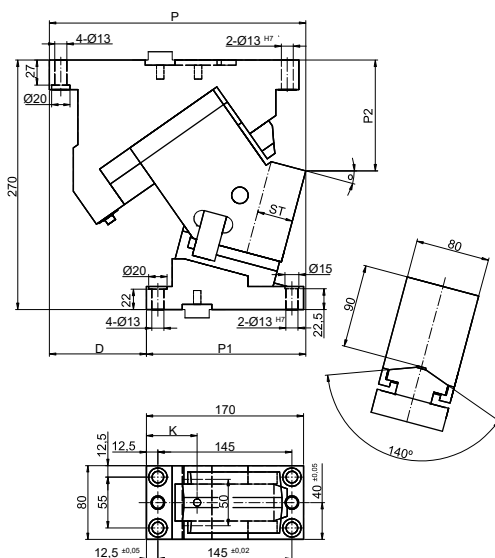
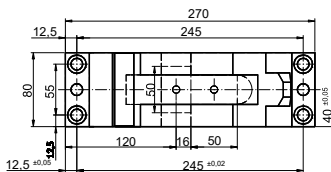
Code	W Working Face	ST Stroke	θ Angle	P	P1	P2	P3	D	K	Max. Work Force	Spring	
											KN	mm
				mm	mm	mm	mm	mm	mm			N
CSGM.65x0	65	15	0	170	100	60	115	70	-	60		1,31
CSGM.65x5	65	15,6	5	170,36	105,36	67,22	107,78	65	-	60		1,3
CSGM.65x10	65	15,6	10	175,07	112,57	69,88	105,12	62,5	-	60		1,14
CSGM.65x15	65	17	15	174,09	119,09	72,92	102,08	55	-	60		1,14
CSGM.65x20	65	18,4	20	172,4	127,4	76,28	98,72	45	-	60		1,14
CSGM.65x30	65	19,5	30	171,78	135,78	83,71	91,29	35	-	60		1,17
CSGM.65x40	65	23,1	40	163,07	143,07	91,63	83,37	20	-	60		1,17
CSGM.65x50	65	24,9	50	156,22	151,22	104,5	70,5	5	-	60		1,17
CSGM.65x60	65	32	60	146,29	161,29	116,78	58,22	-15	-	60		1,17

Continue next page...

How to order: Code + W x θ



CARROS AÉREOS CSGM  
AERIAL CAM UNITS CSGM



CSGM 80

Mounting Method

Blank: Drawing shape

K: Key wisth 20 mm assemble

N12: Dowel pin hole of cam holder and cam driver

ea changed Ø12

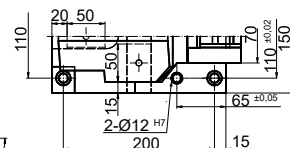
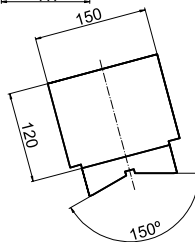
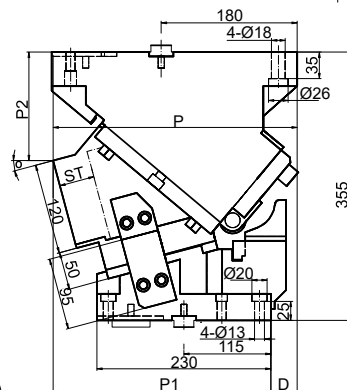
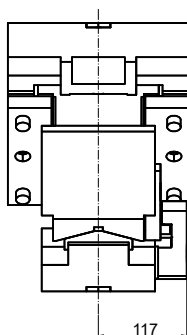
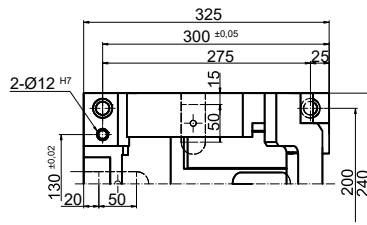
Code	W Working Face	ST Stroke	ø Angle	P	P1	P2	P3	D	K	Max. Work Force	Spring
											Extraction Force
	KN	mm	°	mm	mm	mm	mm	mm	mm	kN	N
CSGM.80x0	80	30,2	0	277	142	110	160	135	65	149	1,37
CSGM.80x5	80	30,5	5	278,32	153,32	115,67	154,33	125	65	149	1,37
CSGM.80x10	80	31,1	10	274,54	164,54	117,32	152,68	110	65	149	1,37
CSGM.80x15	80	33,9	15	277,58	172,58	119,95	150,05	105	55	149	1,37
CSGM.80x20	80	32,3	20	273,34	178,34	123,52	146,48	95	55	149	1,25
CSGM.80x25	80	35	25	268,75	188,75	128,03	141,97	80	55	149	1,25
CSGM.80x30	80	34,7	30	261,73	196,73	133,42	136,58	65	60	149	1,25
CSGM.80x35	80	37,7	35	258,2	203,2	139,66	130,34	55	60	149	1,25
CSGM.80x40	80	39,9	40	245,09	210,09	146,7	123,3	35	50	149	1,25
CSGM.80x45	80	43,7	45	245,34	215,034	154,49	115,51	30	50	149	1,25
CSGM.80x50	80	46,7	50	255,87	220,87	162,97	107,03	5	50	149	1,13
CSGM.80x55	80	53,8	55	229,64	229,64	172,07	97,93	0	60	149	1,25
CSGM.80x60	80	64,1	60	228,58	228,58	171,73	88,27	-20	50	149	1,25
CSGM.80x65	80	70,9	65	233,67	233,67	191,87	78,13	-30	50	149	1,25

Continue next page...

How to order: Code + W x ø

## CARROS AÉREOS CSGM

### AERIAL CAM UNITS CSGM



#### CSGM 150

#### Mounting Method

Blank: Drawing shape

K: Key with 20 mm assemble

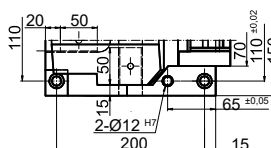
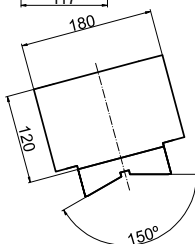
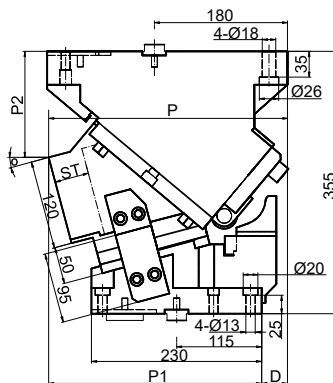
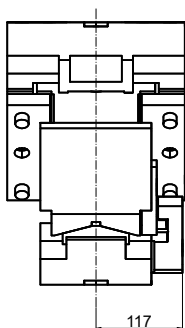
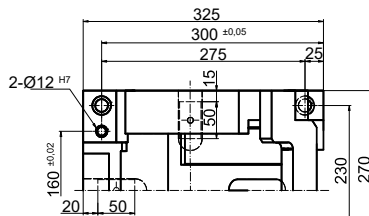
N12: Dowel pin hole of cam holder and cam driver ea changed Ø13

Code	W Working Face	ST Stroke	θ Angle	P	P1	P2	P3	D	K	Max. Work Force	Spring	
											mm	N
CSGM.150x0	150	28,7	0	325	245	130	225	80	-	391	2,29	
CSGM.150x5	150	32,3	5	319,7	249,7	133,26	221,74	60	-	391	2,29	
CSGM.150x10	150	35,9	10	319,06	274,06	137,79	217,21	45	-	391	2,29	
CSGM.150x15	150	39,7	15	322,98	287,98	143,56	211,44	35	-	391	2,29	
CSGM.150x20	150	43,6	20	326,33	301,33	150,51	204,49	25	-	391	2,29	
CSGM.150x25	150	47,8	25	329,03	314,03	158,61	196,39	15	-	391	2,29	
CSGM.150x30	150	52,3	30	325,98	325,98	167,78	187,22	0	-	391	2,29	
CSGM.150x35	150	57,4	35	322,08	337,08	192,95	162,05	-15	-	391	2,29	
CSGM.150x40	150	63	40	312,26	347,26	204,06	150,94	-35	-	391	2,29	
CSGM.150x45	150	69,6	45	306,42	356,42	216,01	138,99	-50	-	391	2,29	
CSGM.150x50	150	77,5	50	249,51	364,51	228,71	126,29	-70	-	391	2,29	
CSGM.150x55	150	87,2	55	281,46	371,46	242,07	112,93	-90	-	391	2,29	
CSGM.150x60	150	99,6	60	272,22	377,22	255,98	99,02	-105	-	391	2,29	
CSGM.150x65	150	116,5	65	261,75	381,75	270,34	84,66	-120	-	391	2,29	

Continue next page...

How to order: Code + W x θ

CARROS AÉREOS CSGM  
AERIAL CAM UNITS CSGM



CSGM 200

Working Face (option)

Mounting Method

Blank: Drawing shape

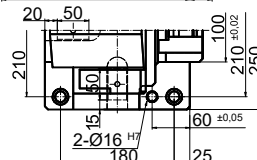
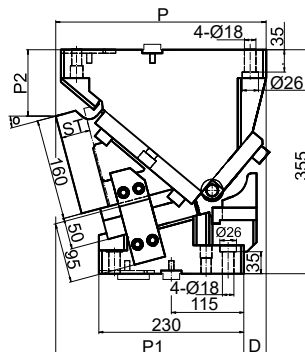
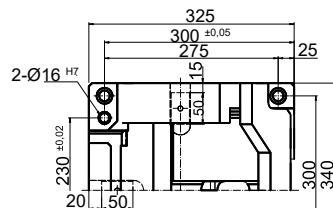
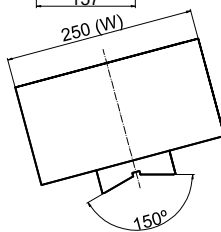
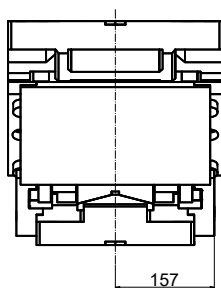
K: Key with 20 mm assemble

Code	W Working Face	ST Stroke	ø Angle	P	P1	P2	P3	D	K	Max. Work Force	Spring
											Extraction Force
	KN	mm	°	mm	mm	mm	mm	mm	mm	kN	N
CSGM.200x0	200	28,7	0	325	245	130	225	80	-	396	2,29
CSGM.200x5	200	32,3	5	319,7	259,7	133,26	221,74	60	-	396	2,29
CSGM.200x10	200	35,9	10	319,06	274,06	137,79	217,21	45	-	396	2,29
CSGM.200x15	200	39,7	15	322,98	287,98	143,56	211,44	35	-	396	2,29
CSGM.200x20	200	43,6	20	326,33	301,33	150,57	204,49	25	-	396	2,29
CSGM.200x25	200	47,8	25	329,03	314,03	158,61	196,39	15	-	396	2,29
CSGM.200x30	200	52,3	30	325,98	325,98	167,78	187,22	0	-	396	2,29
CSGM.200x35	200	57,4	35	322,08	337,08	192,95	162,05	-15	-	396	2,29
CSGM.200x40	200	63	40	312,26	347,26	204,06	150,94	-35	-	396	2,29
CSGM.200x45	200	69,6	45	306,42	356,42	216,01	138,99	-50	-	396	2,29
CSGM.200x50	200	77,5	50	294,51	364,51	228,71	126,29	-70	-	396	2,29
CSGM.200x55	200	87,2	55	287,56	371,46	242,07	112,93	-90	-	396	2,29
CSGM.200x60	200	99,6	60	272,22	377,22	255,98	99,02	-105	-	396	2,29
CSGM.200x65	200	116,5	65	261,75	381,75	270,34	84,66	-120	-	396	2,29

Continue next page...

How to order: Code + W x ø

## CARROS AÉREOS CSGM AERIAL CAM UNITS CSGM



### CSGM 300

**Working Face (option)**

Mounting Method

Blank: Drawing shape

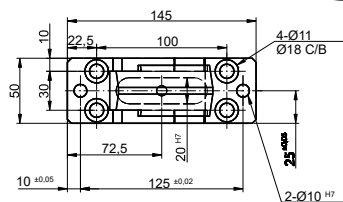
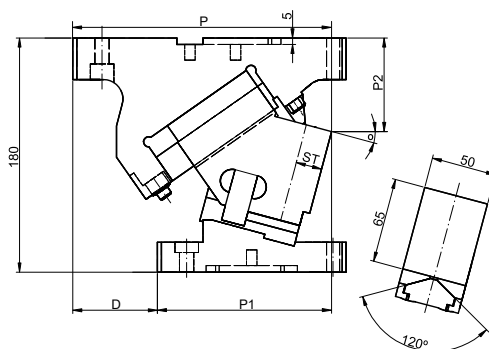
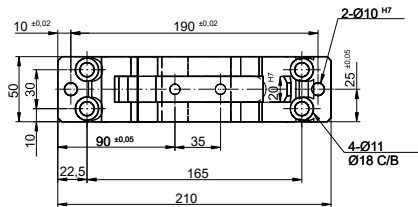
K: Key with 20 mm assemble

Code	W Working Face	ST Stroke	θ Angle	P	P1	P2	P3	D	K	Max. Work Force	Spring	
											KN	mm
CSGM.300x0	300	28,7	0	325	245	90	265	80	-	645	4,58	
CSGM.300x5	300	32,3	5	323,19	263,19	93,41	261,59	60	-	645	4,58	
CSGM.300x10	300	35,9	10	326,01	281,01	98,4	256,6	45	-	645	4,58	
CSGM.300x15	300	39,7	15	333,33	298,33	104,92	250,08	35	-	645	4,58	
CSGM.300x20	300	43,6	20	340,02	315,02	112,93	242,08	25	-	645	4,58	
CSGM.300x25	300	47,8	25	345,94	330,94	122,35	232,65	15	-	645	4,58	
CSGM.300x30	300	52,3	30	345,98	345,98	133,13	221,87	0	-	645	4,58	
CSGM.300x35	300	57,4	35	345,03	360,03	160,19	194,81	-15	-	645	4,58	
CSGM.300x40	300	63	40	337,97	372,97	173,41	181,59	-35	-	645	4,58	
CSGM.300x45	300	69,6	45	334,71	384,71	187,72	167,28	-50	-	645	4,58	
CSGM.300x50	300	77,5	50	325,15	395,15	203	152	-70	-	645	4,58	
CSGM.300x55	300	87,2	55	314,23	404,23	219,12	135,88	-90	-	645	4,58	
CSGM.300x60	300	99,6	60	306,87	411,87	235,98	119,02	-105	-	645	4,58	
CSGM.300x65	300	116,5	65	298	418	253,44	101,56	-120	-	645	4,58	

How to order: Code + W x θ

## CARROS AÉREOS CSGC

### AERIAL CAM UNITS CSGC



#### CSGC 50

#### Mounting Method

Blank: Drawing shape

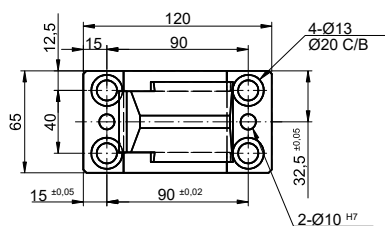
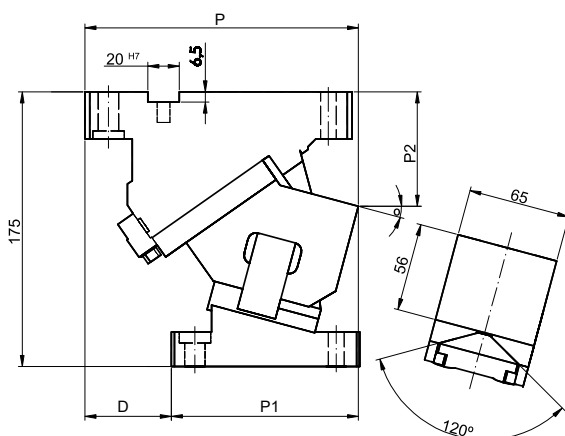
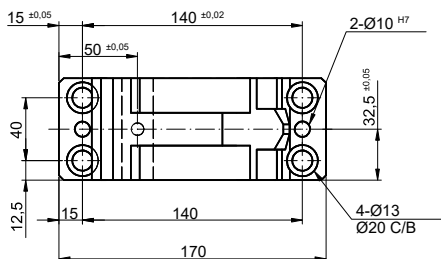
K: Key with 20 mm assemble

Code	W Working Face	ST Stroke	θ Angle	P	P1	P2	P3	D	K	Gas Spring	
										Max. Work Force	Extraction Force
	KN	mm	°	mm	mm	mm	mm	mm	mm	kN	N
CSGC.50x0	50	15	0	195	115	67,5	80	-	29,4	60	1,72
CSGC.50x5	50	15,6	5	198,04	123,04	68,29	75	-	29,4	60	1,67
CSGC.50x10	50	15,6	10	195,99	130,99	69,77	65	-	29,4	60	1,6
CSGC.50x15	50	17	15	198,77	133,77	71,95	65	-	29,4	60	1,6
CSGC.50x20	50	18,4	20	196,34	141,34	74,79	55	-	29,4	60	1,6
CSGC.50x25	50	18	25	191,62	150,62	80,28	41	-	29,4	60	1,53
CSGC.50x30	50	17,4	30	190,58	150,58	85,39	40	-	29,4	60	1,47
CSGC.50x35	50	18,9	35	187,15	162,15	90,1	25	-	29,4	60	1,47
CSGC.50x40	50	20,6	40	183,29	160,79	95,35	22,5	-	29,4	60	1,47
CSGC.50x45	50	22,5	45	179,94	169,94	98,13	10	-	29,4	60	1,47
CSGC.50x50	50	23,3	50	174,07	169,07	99,37	5	-	29,4	60	1,44
CSGC.50x55	50	26,1	55	168,64	183,64	111,04	-15	-	29,4	60	1,44
CSGC.50x60	50	31,5	60	162,61	187,61	118,08	-25	-	29,4	60	1,47
CSGC.50x65	50	36,6	65	155,95	190,95	125,44	-35	-	29,4	60	1,47
CSGC.50x70	50	39,5	70	153,63	193,63	133,06	-40	-	29,4	60	-

Continue next page...

How to order: Code + W x θ

## CARROS AÉREOS CSGC AERIAL CAM UNITS CSGC



### CSGC 65

#### Mounting Method

Blank: Drawing shape

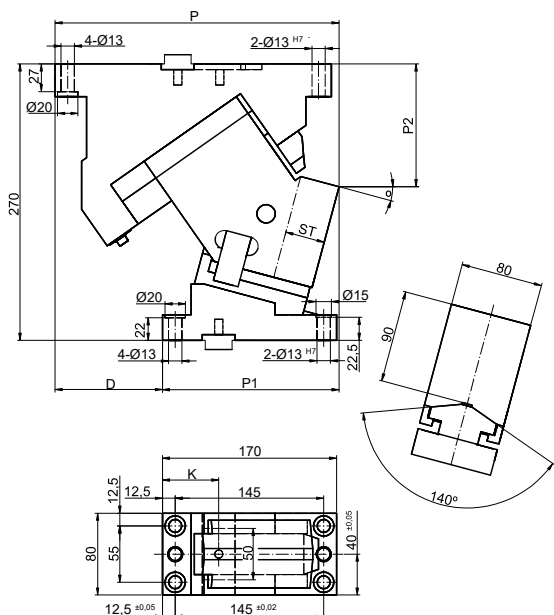
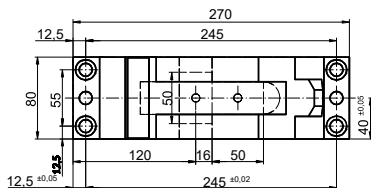
K: Key with 20 mm assemble

Code	W Working Face	ST Stroke	ø Angle	P	P1	P2	P3	D	K	Gas Spring	
										Max. Work Force	Extraction Force
	KN	mm	°	mm	mm	mm	mm	mm	mm	kN	N
CSGC.65x0	65	15	0	170	100	60	70	-	29,4	60	1,72
CSGC.65x5	65	15,6	5	170,36	105,36	67,22	65	-	29,4	60	1,67
CSGC.65x10	65	15,6	10	175,07	112,57	69,88	62,5	-	29,4	60	1,6
CSGC.65x15	65	17	15	174,09	119,09	72,92	55	-	29,4	60	1,6
CSGC.65x20	65	18,4	20	172,4	127,4	76,28	45	-	29,4	60	1,6
CSGC.65x30	65	19,5	30	171,78	135,78	83,71	35	-	29,4	60	1,47
CSGC.65x40	65	23,1	40	163,07	143,07	91,63	20	-	29,4	60	1,47
CSGC.65x50	65	24,9	50	156,22	151,22	104,5	5	-	29,4	60	1,44

Continue next page...

How to order: Code + W x Ø

CARROS AÉREOS CSGC  
AERIAL CAM UNITS CSGC



CSGC 80

Mounting Method

Blank: Drawing shape

K: Key wisth 20 mm assemble

N12: Dowel pin hole of cam holder and cam driver

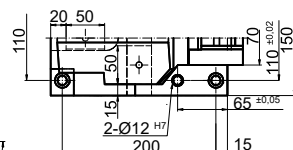
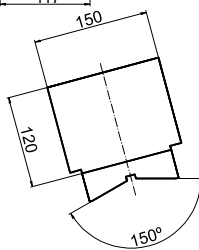
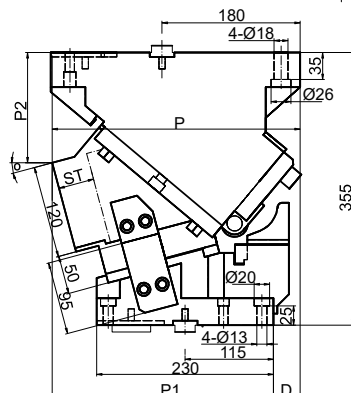
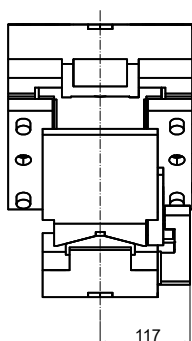
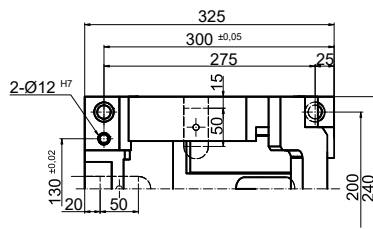
ea changed Ø12

Code	W Working Face	ST Stroke	Ø Angle	P	P1	P2	P3	D	K	Gas Spring	
										Max. Work Force	Extraction Force
	KN	mm	°	mm	mm	mm	mm	mm	mm	kN	N
CSGC.65x60	65	32	60	146,29	161,29	116,78	-15	-	29,4	60	1,47
CSGC.80x0	80	30,2	0	277	142	110	135	65	49	149	1,85
CSGC.80x5	80	30,5	5	278,32	153,32	115,67	125	65	49	149	1,76
CSGC.80x10	80	31,1	10	274,54	164,54	117,32	110	65	49	149	1,69
CSGC.80x15	80	33,9	15	277,58	172,58	119,95	105	55	49	149	1,69
CSGC.80x20	80	32,3	20	273,34	178,34	123,52	95	55	49	149	1,59
CSGC.80x25	80	35	25	268,75	188,75	128,03	80	55	49	149	1,59
CSGC.80x30	80	34,7	30	261,73	196,73	133,42	65	60	49	149	1,54
CSGC.80x35	80	37,7	35	258,2	203,2	139,66	55	60	49	149	1,54
CSGC.80x40	80	39,9	40	245,09	210,09	146,7	35	50	49	149	1,52
CSGC.80x45	80	43,7	45	245,34	215,034	154,49	30	50	49	149	1,52
CSGC.80x50	80	46,7	50	255,87	220,87	162,97	5	50	49	149	1,5
CSGC.80x55	80	53,8	55	229,64	229,64	172,07	0	60	49	149	1,52

Continue next page...

How to order: Code + W x Ø

## CARROS AÉREOS CSGC AERIAL CAM UNITS CSGC



### CSGC 150

#### Mounting Method

Blank: Drawing shape

K: Key with 20 mm assemble

N12: Dowel pin hole of cam holder and  
cam driver ea changed Ø13

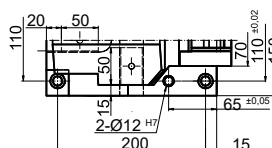
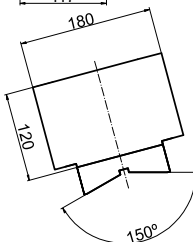
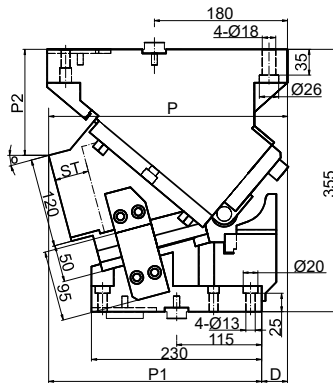
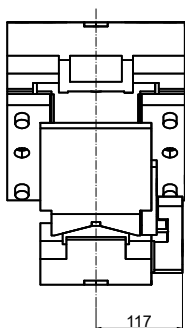
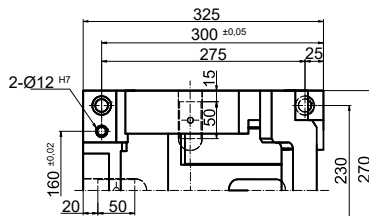
Code	W Working Face	ST Stroke	ø Angle	P	P1	P2	P3	D	K	Gas Spring	
										Max. Work Force	Extraction Force
	KN	mm	°	mm	mm	mm	mm	mm	mm	kN	N
CSGC.80x60	80	64,1	60	228,58	228,58	171,73	-20	50	49	149	1,52
CSGC.80x65	80	70,9	65	233,67	233,67	191,87	-30	50	49	149	1,52
CSGC.150x0	150	28,7	0	325	245	130	80	-	147	391	7,15
CSGC.150x5	150	32,3	5	319,7	249,7	133,26	60	-	147	391	7,15
CSGC.150x10	150	35,9	10	319,06	274,06	137,79	45	-	147	391	7,15
CSGC.150x15	150	39,7	15	322,98	287,98	143,56	35	-	147	391	7,15
CSGC.150x20	150	43,6	20	326,33	301,33	150,51	25	-	147	391	7,15
CSGC.150x25	150	47,8	25	329,03	214,03	158,61	15	-	147	391	7,15
CSGC.150x30	150	52,3	30	325,98	325,98	167,78	0	-	147	391	7,15
CSGC.150x35	150	57,4	35	322,08	337,08	192,95	-15	-	147	391	7,15
CSGC.150x40	150	63	40	312,26	347,26	204,06	-35	-	147	391	7,15
CSGC.150x45	150	69,6	45	306,42	356,42	216,01	-50	-	147	391	7,15
CSGC.150x50	150	77,5	50	249,51	364,51	228,71	-70	-	147	391	7,15

Continue next page...

How to order: Code + W x Ø



CARROS AÉREOS CSGC  
AERIAL CAM UNITS CSGC



CSGC 200

Working Face (option)

Mounting Method

Blank: Drawing shape

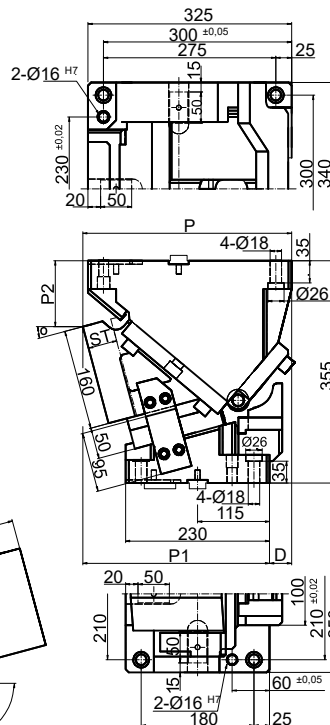
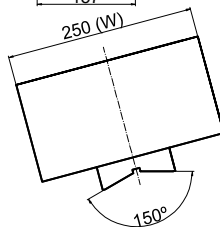
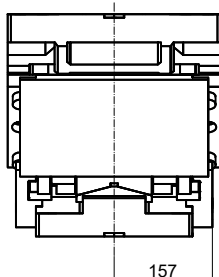
K: Key with 20 mm assemble

Code	W Working Face	ST Stroke	θ Angle	P	P1	P2	P3	D	K	Max. Work Force	Gas Spring
											Extraction Force
	KN	mm	°	mm	mm	mm	mm	mm	mm	kN	N
CSGC.150x55	150	87,2	55	281,46	371,46	242,07	-90	-	147	391	7,15
CSGC.150x60	150	99,6	60	272,22	377,22	255,98	-105	-	147	391	7,15
CSGC.150x65	150	116,5	65	261,75	381,75	270,34	-120	-	147	391	7,15
CSGC.200x0	200	28,7	0	325	245	130	80	-	147	396	7,15
CSGC.200x5	200	32,3	5	319,7	259,7	133,26	60	-	147	396	7,15
CSGC.200x10	200	35,9	10	319,06	274,06	137,79	45	-	147	396	7,15
CSGC.200x15	200	39,7	15	322,98	287,98	143,56	35	-	147	396	7,15
CSGC.200x20	200	43,6	20	326,33	301,33	150,57	25	-	147	396	7,15
CSGC.200x25	200	47,8	25	329,03	214,03	158,61	15	-	147	396	7,15
CSGC.200x30	200	52,3	30	325,98	325,98	167,78	0	-	147	396	7,15
CSGC.200x35	200	57,4	35	322,08	337,08	192,95	-15	-	147	396	7,15
CSGC.200x40	200	63	40	312,26	347,26	204,06	-35	-	147	396	7,15
CSGC.200x45	200	69,6	45	306,42	356,42	216,01	-50	-	147	396	7,15

Continue next page...

How to order: Code + W x θ

## CARROS AÉREOS CSGC AERIAL CAM UNITS CSGC



### CSGC 300

#### Working Face (option)

Mounting Method

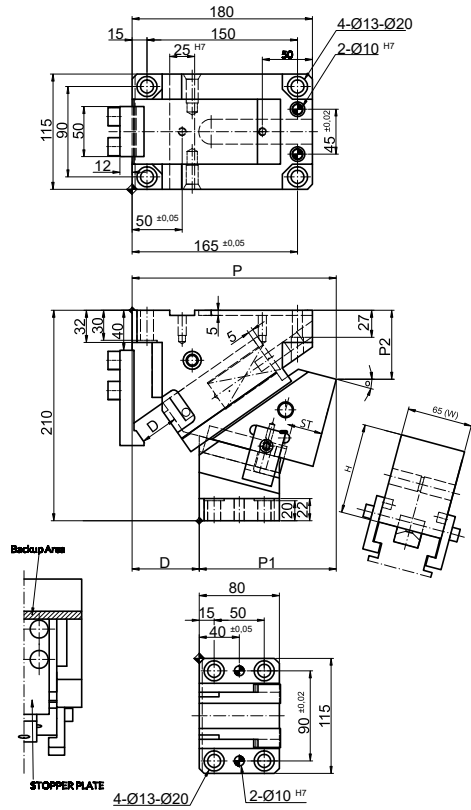
Blank: Drawing shape

K: Key with 20 mm assemble

Code	W Working Face	ST Stroke	° Angle	P	P1	P2	P3	D	K	Gas Spring	
										Max. Work Force	Extraction Force
	KN	mm	°	mm	mm	mm	mm	mm	mm	kN	N
CSGC.200x50	200	77,5	50	294,51	364,51	228,71	-70	-	147	396	7,15
CSGC.200x55	200	87,2	55	287,56	371,46	242,07	-90	-	147	396	7,15
CSGC.200x60	200	99,6	60	272,22	377,22	255,98	-105	-	147	396	7,15
CSGC.200x65	200	116,5	65	261,75	381,75	270,34	-120	-	147	396	7,15
CSGC.300x0	300	28,7	0	325	245	90	80	-	294	645	14,3
CSGC.300x5	300	32,3	5	323,19	263,19	93,41	60	-	294	645	14,3
CSGC.300x10	300	35,9	10	326,01	281,01	98,4	45	-	294	645	14,3
CSGC.300x15	300	39,7	15	333,33	298,33	104,92	35	-	294	645	14,3
CSGC.300x20	300	43,6	20	340,02	315,02	112,93	25	-	294	645	14,3
CSGC.300x25	300	47,8	25	345,94	330,94	122,35	15	-	294	645	14,3
CSGC.300x30	300	52,3	30	345,98	345,98	133,13	0	-	294	645	14,3
CSGC.300x35	300	57,4	35	345,03	360,03	160,19	-15	-	294	645	14,3
CSGC.300x40	300	63	40	337,97	372,97	173,41	-35	-	294	645	14,3
CSGC.300x45	300	69,6	45	334,71	384,71	187,72	-50	-	294	645	14,3
CSGC.300x50	300	77,5	50	325,15	395,15	203	-70	-	294	645	14,3
CSGC.300x55	300	87,2	55	314,23	404,23	219,12	-90	-	294	645	14,3
CSGC.300x60	300	99,6	60	306,87	411,87	235,98	-105	-	294	645	14,3
CSGC.300x65	300	116,5	65	298	418	253,44	-120	-	294	645	14,3

How to order: Code + W x Ø

**CARROS AÉREOS CSKM**  
**AERIAL CAM UNITS CSKM**



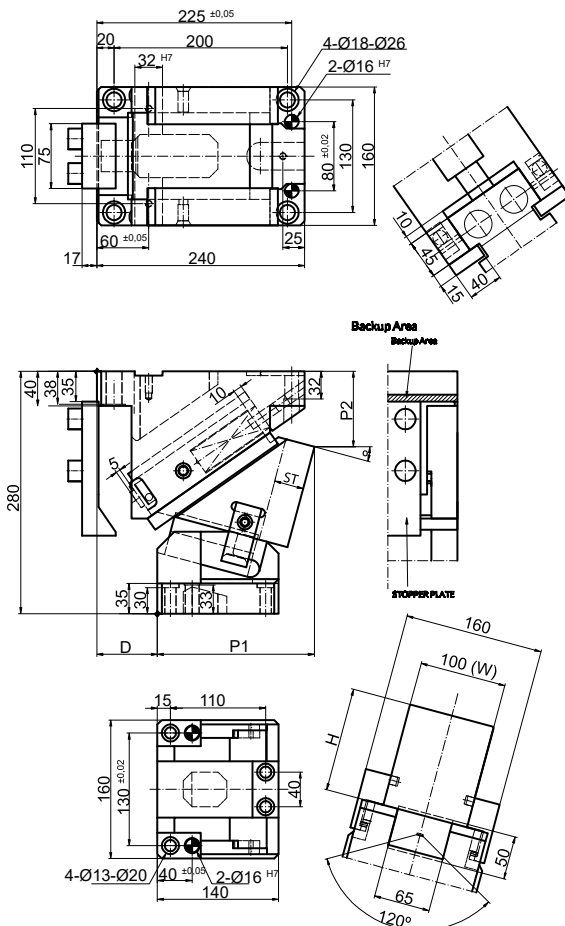
**CSKM 65**

Code	W Mounting width	θ Working Angle	ST Stroke	P	D	P1	P2	H	Max. Work Force	Spring	
										mm	°
CSKM.65x0	65	0	26,9	185,94	75	110,94	56,57	80	58	0,79	
CSKM.65x5	65	5	27	193,01	70	123,01	56,57	90	58	0,77	
CSKM.65x10	65	10	31,6	196,8	70	126,8	67,58	80	58	0,85	
CSKM.65x15	65	15	32,2	203,77	67	113,47	68,81	90	58	0,77	
CSKM.65x20	65	20	33,8	198,1	60	138,1	74,31	80	58	0,85	
CSKM.65x25	65	25	35	204,75	55	149,75	76,73	90	58	0,77	
CSKM.65x30	65	30	33,5	193,63	50	143,63	89,52	80	58	0,85	
CSKM.65x35	65	35	35,4	199,76	45	154,76	93,06	90	58	0,77	
CSKM.65x40	65	40	42,9	188,72	40	148,72	99,62	80	58	0,85	
CSKM.65x45	65	45	46,5	194,12	34	160,13	104,16	90	58	0,77	
CSKM.65x50	65	50	54,5	190	30	160	110	90	58	0,77	
CSKM.65x55	65	55	43,6	190	20	170	115	100	58	0,62	
CSKM.65x60	65	60	50	190	20	170	115	100	58	0,54	
CSKM.65x65	65	65	47,3	190	0	190	130	110	58	0,39	
CSKM.65x70	65	70	58,5	190	0	190	130	110	58	0,32	

Continue next page...

How to order: Code + W x θ

## CARROS AÉREOS CSKM AERIAL CAM UNITS CSKM



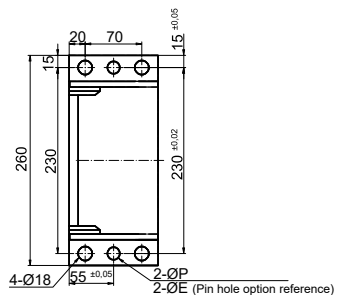
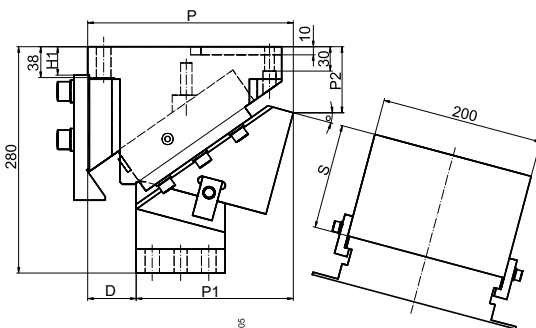
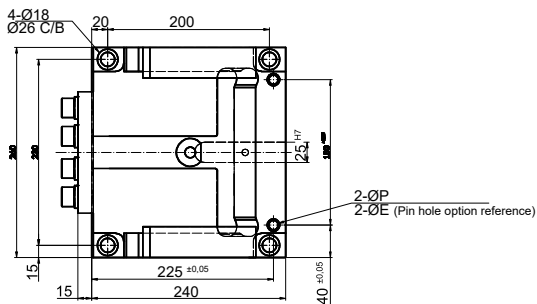
### CSKM 100

Code	W Mounting width	$\theta$ Working Angle	ST Stroke	P	D	P1	P2	H	Max. Work Force	Spring
										Extraction Force
	mm	°	mm	mm	mm	mm	mm	mm	kN	N
CSKM.100x0	100	0	28,3	-	80	160	85	195	96	2,1
CSKM.100x10	100	10	33,3	-	60	180	90	190	96	2,1
CSKM.100x20	100	20	30,9	-	50	190	110	170	96	1,86
CSKM.100x30	100	30	33,5	-	30	210	110	170	96	2,1
CSKM.100x40	100	40	39	-	30	210	115	165	96	2,1
CSKM.100x50	100	50	46,7	-	10	230	120	160	96	1,91
CSKM.100x60	100	60	60	-	0	240	145	135	96	1,48
CSKM.100x70	100	70	58,5	-	0	240	145	135	96	0,99

Continue next page...

How to order: Code + W x  $\theta$

CARROS AÉREOS CSKM  
AERIAL CAM UNITS CSKM

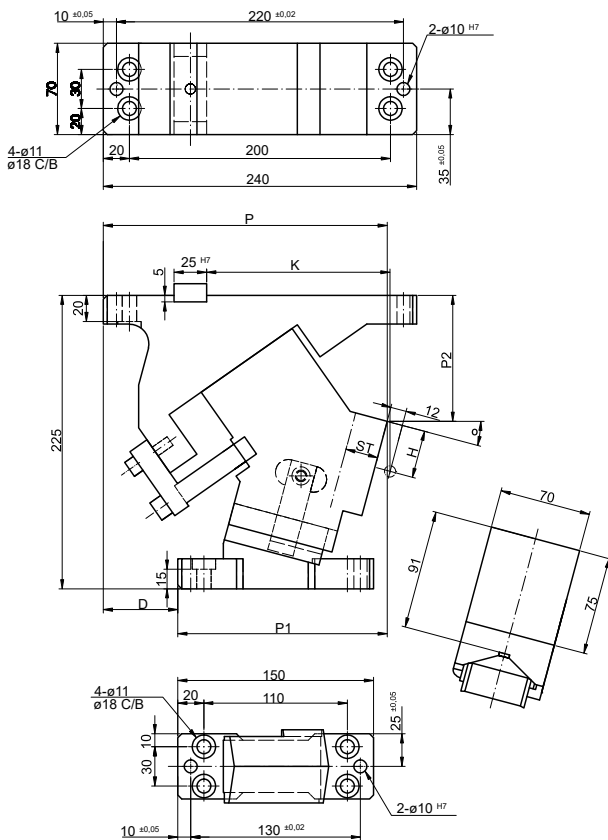


CSKM 200

Code	W Mounting width	θ Working Angle	ST Stroke	P	D	P1	P2	H	Max. Work Force	Spring	
										kN	Extraction Force N
CSKM.200x0	200	0	28,3	-	80	160	85	195	231	4,21	
CSKM.200x10	200	10	33,3	-	60	180	90	190	231	4,21	
CSKM.200x20	200	20	30,9	-	50	190	110	170	231	3,71	
CSKM.200x30	200	30	33,5	-	30	210	110	170	231	4,2	
CSKM.200x40	200	40	39	-	30	210	115	165	231	4,2	
CSKM.200x50	200	50	46,7	-	10	230	120	160	231	3,81	
CSKM.200x60	200	60	60	-	0	240	145	135	231	2,97	
CSKM.200x70	200	70	58,5	-	0	240	145	135	231	1,98	

How to order: Code + W x θ

## CARROS AÉREOS CSRM AERIAL CAM UNITS CSRM



### CSRM 70

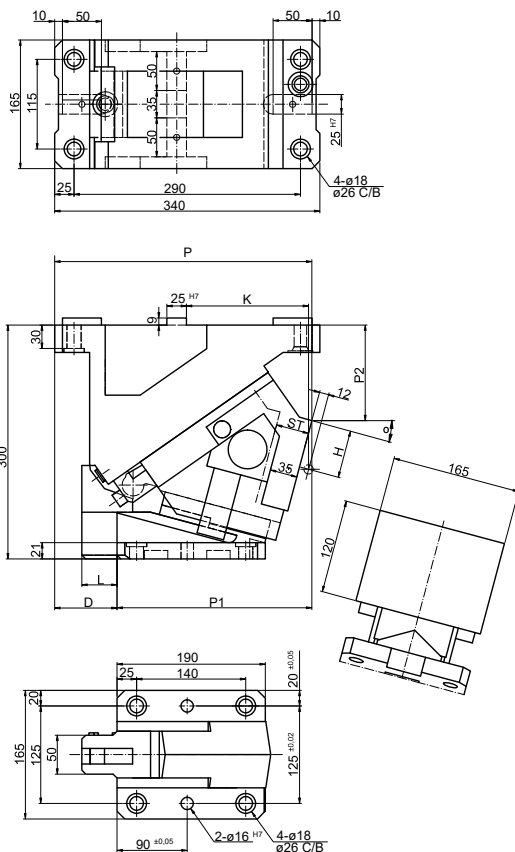
Code	W Working Face	$\theta$ Working Angle	ST Stroke	P	P1	P2	D	K	H	L	Max Work Force	Spring
												Extraction Force
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kN	kN
CSRM.70x0	70	0	19,3	237,37	135,37	85	102	155,5	35	-	90	0,38
CSRM.70x5	70	5	21,3	234,87	142,87	86,28	92	149,5	37,84	-	90	0,38
CSRM.70x10	70	10	23,3	232,82	151,82	88,76	81	145	39,76	-	90	0,38
CSRM.70x15	70	15	25,4	217,54	160,54	96,59	57	140,5	36,55	-	90	0,38
CSRM.70x20	70	20	27,6	224,52	172,52	99,67	52	134,5	38,55	-	90	0,38
CSRM.70x25	70	25	30	223,46	181,46	105,45	42	130	38,04	-	90	0,38
CSRM.70x30	70	30	32,6	211,54	181,54	112,99	30	125,5	35,81	-	90	0,38
CSRM.70x35	70	35	35,4	210,68	193,68	117,2	17	119,5	37,74	-	90	0,38
CSRM.70x40	70	40	38,6	204,84	200,84	125,07	4	115	35,53	-	90	0,38
CSRM.70x45	70	45	42,3	498,15	200,15	131,28	-2	110,5	35,68	-	90	0,38
CSRM.70x50	70	50	46,8	190,95	211,95	135,15	-21	106	39,92	-	90	0,38
CSRM.70x55	70	55	52,3	190,51	213,51	146,01	-23	101,5	33,41	-	90	0,28
CSRM.70x60	70	60	60	185,81	220,81	155,86	-35	98,5	27,5	-	90	0,38
CSRM.80x0	80	0	32,1	280	145	110	135	180	45	-	153	0,87

Continue next page...

How to order: Code + W x  $\theta$



## CARROS AÉREOS CSRM AERIAL CAM UNITS CSRM



### CSRM 165

N: Ø16H7 Dowel hole is drilled on the cam holder.

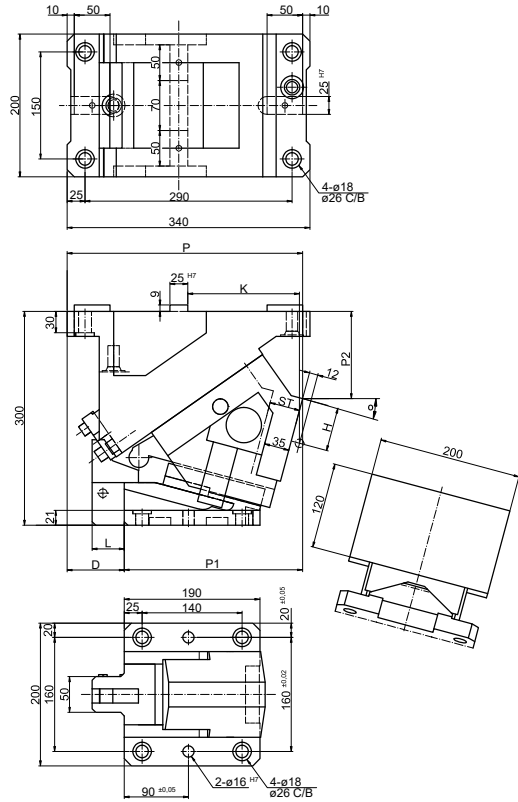
Code	W Working Face	θ Working Angle	ST Stroke	P	P1	P2	D	K	H	L	Max Work Force	Spring
												Extraction Force
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kN	kN
CSRM.165x0	165	0	32,1	335,84	207,84	96,98	128	180,5	73,02	55	340	1,49
CSRM.165x5	165	5	35,5	355,25	222,25	100,91	113	173	73,32	55	340	1,49
CSRM.165x10	165	10	38,9	337,27	236,27	111,09	101	165,5	67,86	50	340	1,49
CSRM.165x15	165	15	42,4	329,78	249,78	122,47	80	156,5	61,53	45	340	1,49
CSRM.165x20	165	20	46,1	332,68	262,386	129,99	70	149	59,49	42	340	1,49
CSRM.165x25	165	25	50	332,88	274,88	138,62	58	140	56,61	37	340	1,49
CSRM.165x30	165	30	54,3	334,28	286,28	148,28	48	132,5	58,57	30	340	1,49
CSRM.165x35	165	35	59	329,8	296,8	158,89	33	125	60,1	25	340	1,49
CSRM.165x40	165	40	64,3	321,35	306,35	170,38	15	117,55	61,23	25	340	1,49
CSRM.165x45	165	45	70,45	314,86	314,86	182,66	0	111,5	62,2	25	340	1,49
CSRM.165x50	165	50	77,8	307,27	322,27	195,63	-15	105,5	62,51	-	340	1,49
CSRM.165x55	165	55	87,2	296,59	328,59	210,3	-32	120	60,97	-	340	1,33
CSRM.165x60	165	60	100	288,56	333,56	222,26	-45	113	64,69	-	340	1,16

Continue next page...

How to order: Code + W x θ



CARROS AÉREOS CSRM  
AERIAL CAM UNITS CSRM



CSRM 200

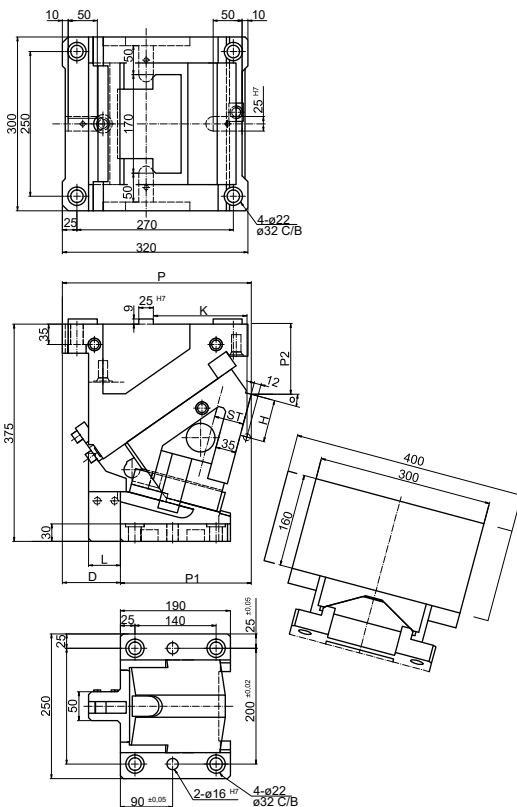
Ø16H7 Dowel hole is drilled on the cam holder.

Code	W Working Face mm	θ Working Angle mm	ST Stroke mm	P mm	P1 mm	P2 mm	D mm	K mm	H mm	L mm	Max Work Force kN	Spring
												Extraction Force kN
CSRM.200x0	200	0	32,1	335,84	207,84	96,98	128	180,5	73,02	55	408	2,35
CSRM.200x5	200	5	35,5	355,25	222,25	100,91	113	173	73,32	55	408	2,35
CSRM.200x10	200	10	38,9	337,27	236,27	111,09	101	165,5	67,86	50	408	2,35
CSRM.200x15	200	15	42,4	329,78	249,78	122,47	80	156,5	61,53	45	408	2,35
CSRM.200x20	200	20	46,1	332,68	262386	129,99	70	149	59,49	42	408	2,35
CSRM.200x25	200	25	50	332,88	274,88	138,62	58	140	56,61	37	408	2,35
CSRM.200x30	200	30	54,3	334,28	286,28	148,28	48	132,5	58,57	30	408	2,35
CSRM.200x35	200	35	59	329,8	296,8	158,89	33	125	60,1	25	408	2,35
CSRM.200x40	200	40	64,3	321,35	306,35	170,38	15	117,55	61,23	25	408	2,35
CSRM.200x45	200	45	70,45	314,86	314,86	182,66	0	111,5	62,2	25	408	2,35
CSRM.200x50	200	50	77,8	307,27	322,27	195,63	-15	105,5	62,51	-	408	2,35
CSRM.200x55	200	55	87,2	296,59	328,59	210,3	-32	120	60,97	-	408	2,09
CSRM.200x60	200	60	100	288,56	333,56	222,26	-45	113	64,69	-	408	1,82

Continue next page...

How to order: Code + W x θ

## CARROS AÉREOS CSRM AERIAL CAM UNITS CSRM



### CSRM 300

N: Ø16H7 Dowel hole is drilled on the cam holder.

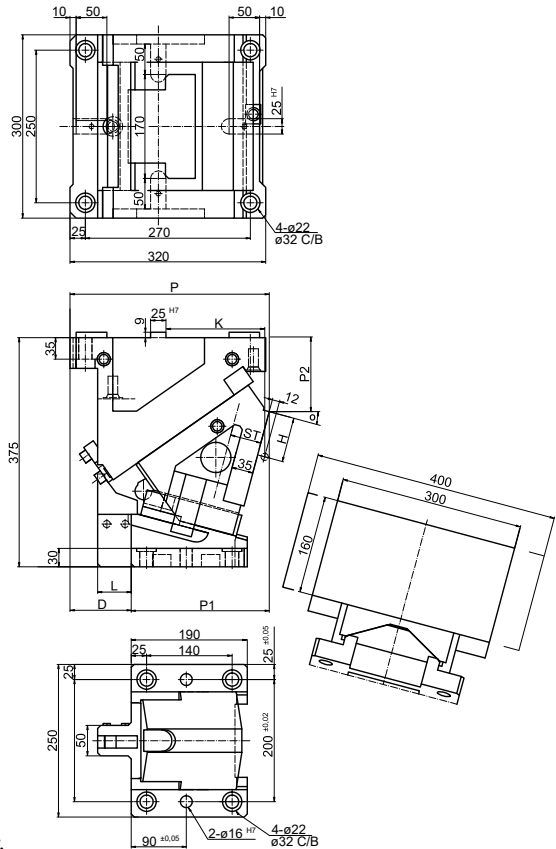
N20: Dowel pin holes of cam hold are changed to Ø20

Code	W Working Face	θ Working Angle	ST Stroke	P	P1	P2	D	K	H	L	Max Work Force	Spring
												Extraction Force
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kN	kN
CSRM.300x0	300	0	38,6	313	175	98	139	193	82	55	521	509
CSRM.300x5	300	5	42,6	317,15	192,15	104,19	125	182,5	80,07	55	521	509
CSRM.300x10	300	10	46,7	324,13	209,13	111,86	115	172	77,23	55	521	509
CSRM.300x15	300	15	50,9	325,82	225,82	121,01	100	161,5	73,39	55	521	509
CSRM.300x20	300	20	55,3	327,08	242,08	131,59	85	151	68,43	55	521	509
CSRM.300x25	300	25	60	334,71	259,71	138,65	75	140,5	67,61	50	521	509
CSRM.300x30	300	30	65,1	327,83	272,83	146,89	55	130	71,71	45	521	509
CSRM.300x35	300	35	70,8	334,51	289,51	159,17	45	121	71,96	35	521	509
CSRM.300x40	300	40	77,1	325,46	300,46	167,3	25	112	78,3	30	521	509
CSRM.300x45	300	45	84,5	324,84	317,84	179,24	9	103	81,01	30	521	509
CSRM.300x50	300	50	79,3	306,63	341,63	196,84	-35	94	91,73	-	521	4,36
CSRM.300x55	300	55	88,9	277,93	362,93	229,29	-85	86,5	79,99	-	521	3,89
CSRM.300x60	300	60	102	286,45	371,45	245,64	-85	79	87,94	-	521	3,89

Continue next page...

How to order: Code + W x θ

## CARROS AÉREOS CSRM AERIAL CAM UNITS CSRM



### CSRM 400

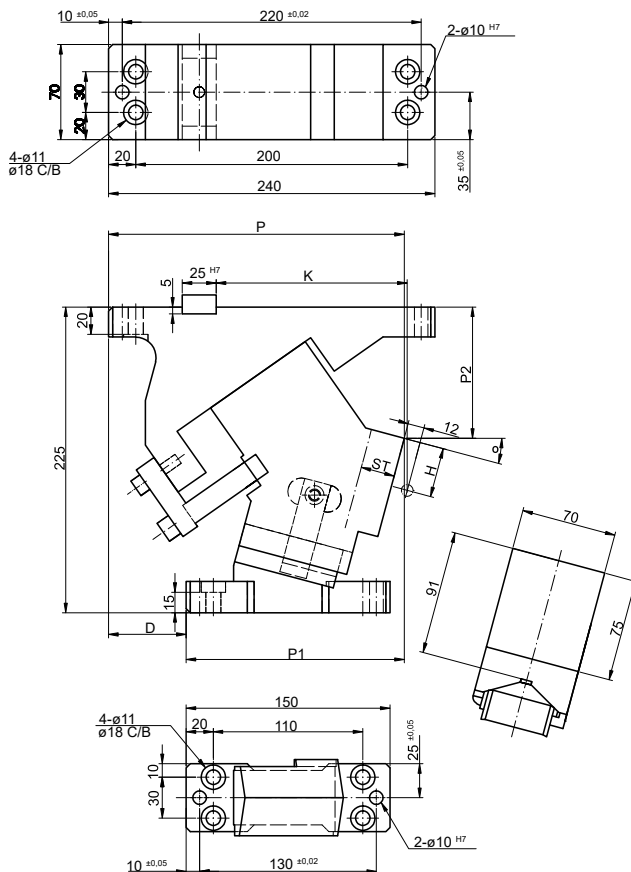
N: Ø16H7 Dowel hole is drilled on the cam holder.  
N20: Dowel pin holes of cam hold are changed to Ø20

Code	W Working Face	θ Working Angle	ST Stroke	P	P1	P2	D	K	H	L	Max Work Force	Spring
												Extraction Force
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kN	kN
CSRM.400x0	400	0	38,6	313	175	98	139	193	82	55	521	5,09
CSRM.400x5	400	5	42,6	317,15	192,15	104,19	125	182,5	80,07	55	521	5,09
CSRM.400x10	400	10	46,7	324,13	209,13	111,86	115	172	77,23	55	521	5,09
CSRM.400x15	400	15	50,9	325,82	225,82	121,01	100	161,5	73,39	55	521	5,09
CSRM.400x20	400	20	55,3	327,08	242,08	131,59	85	151	68,43	55	521	5,09
CSRM.400x25	400	25	60	334,71	259,71	138,65	75	140,5	67,61	50	521	5,09
CSRM.400x30	400	30	65,1	327,83	272,83	146,89	55	130	71,71	45	521	5,09
CSRM.400x35	400	35	70,8	334,51	289,51	159,17	45	121	71,96	35	521	5,09
CSRM.400x40	400	40	77,1	325,46	300,46	167,3	25	112	78,3	30	521	5,09
CSRM.400x45	400	45	84,5	324,84	317,84	179,24	9	103	81,01	30	521	5,09
CSRM.400x50	400	50	79,3	306,63	341,63	196,84	-35	94	91,73	-	521	4,36
CSRM.400x55	400	55	88,9	277,93	362,93	229,29	-85	86,5	79,99	-	521	3,89
CSRM.400x60	400	60	102	286,45	371,45	245,64	-85	79	87,94	-	521	3,39

Continue next page...

How to order: Code + W x θ

## CARROS AÉREOS CSRC AERIAL CAM UNITS CSRC



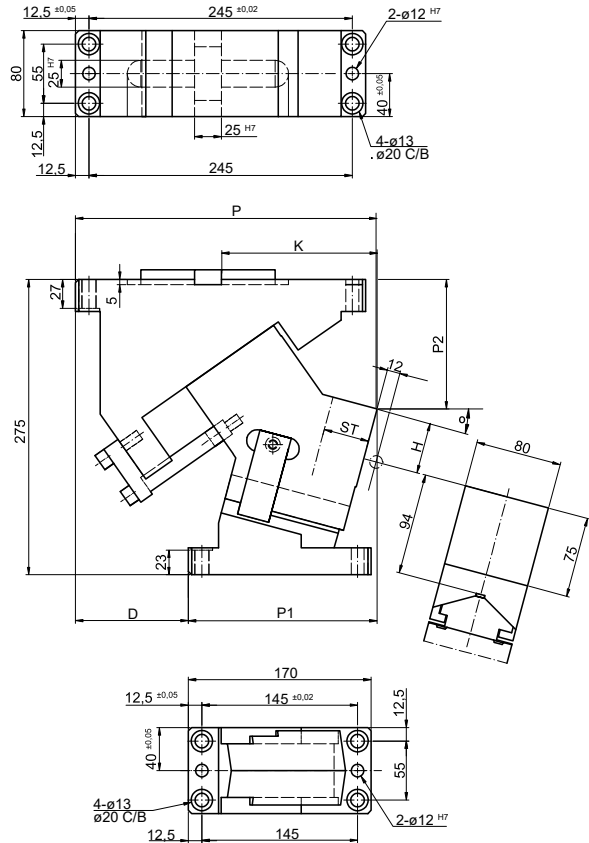
### CSRC 70

Code	W Working Face	θ Working Angle	ST Stroke	P	P1	P2	D	K	H	L	Max Work Force	Gas Spring
												Extraction Force
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kN	kN
CSRC.70x0	70	0	19,3	237,37	135,37	85	102	155,5	35	-	90	1,74
CSRC.70x5	70	5	21,3	234,87	142,87	86,28	92	149,5	37,84	-	90	1,74
CSRC.70x10	70	10	23,3	232,82	151,82	88,76	81	145	39,76	-	90	1,74
CSRC.70x15	70	15	25,4	217,54	160,54	96,59	57	140,5	36,55	-	90	1,74
CSRC.70x20	70	20	27,6	224,52	172,52	99,67	52	134,5	38,55	-	90	1,74
CSRC.70x25	70	25	30	223,46	181,46	105,45	42	130	38,04	-	90	1,74
CSRC.70x30	70	30	32,6	211,54	181,54	112,99	30	125,5	35,81	-	90	1,74
CSRC.70x35	70	35	35,4	210,68	193,68	117,2	17	119,5	37,74	-	90	1,74
CSRC.70x40	70	40	38,6	204,84	200,84	125,07	4	115	35,53	-	90	1,74
CSRC.70x45	70	45	42,3	498,15	200,15	131,28	-2	110,5	35,68	-	90	1,74
CSRC.70x50	70	50	46,8	190,95	211,95	135,15	-21	106	39,92	-	90	1,74
CSRC.70x55	70	55	52,3	190,51	213,51	146,01	-23	101,5	33,41	-	90	1,49
CSRC.70x60	70	60	60	185,81	220,81	155,86	-35	98,5	27,5	-	90	1,3

Continue next page...

How to order: Code + W x θ

## CARROS AÉREOS CSRC AERIAL CAM UNITS CSRC



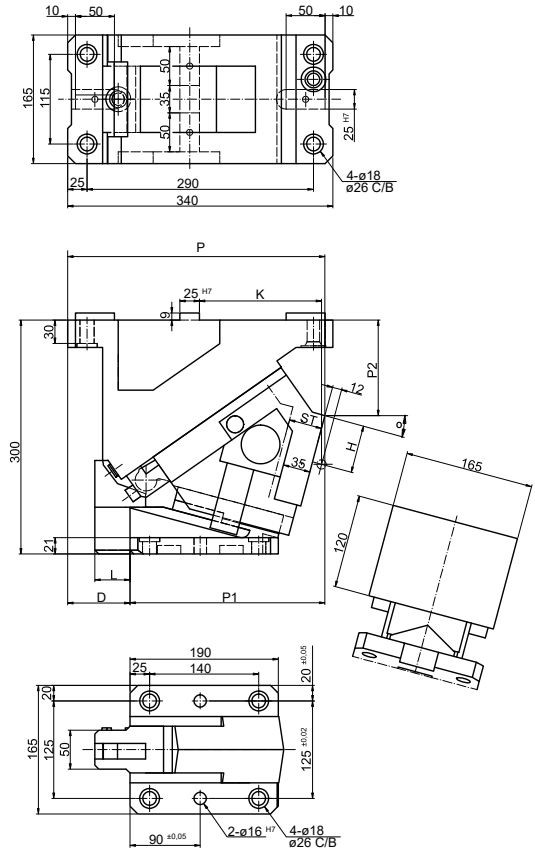
### CSRC 80

Code	W Working Face	θ Working Angle	ST Stroke	P	P1	P2	D	K	H	L	Max Work Force	Gas Spring
												Extraction Force
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kN	kN
CSRC.80x0	80	0	32,1	280	145	110	135	180	45	-	153	2,08
CSRC.80x5	80	5	35,5	281,31	156,31	115,93	125	160	43,19	-	153	2,08
CSRC.80x10	80	10	38,9	277,5	167,5	117,84	110	153	45,77	-	153	2,08
CSRC.80x15	80	15	42,4	280,48	175,48	120,72	105	144	47,8	-	153	2,08
CSRC.80x20	80	20	46,1	249,16	171,16	124,55	95	136,5	49,32	-	153	2,08
CSRC.80x25	80	25	50	274,48	191,48	129,29	80	127,5	50,35	-	153	2,08
CSRC.80x30	80	30	54,3	264,33	199,33	134,92	65	120	50,9	-	153	2,08
CSRC.80x35	80	35	59	260,66	205,66	141,38	55	112,5	50,95	-	153	2,08
CSRC.80x40	80	40	64,3	252,32	217,32	147,76	35	105	51,6	-	153	2,08
CSRC.80x45	80	45	70,45	247,46	217,46	156,61	30	99	49,36	-	153	2,08
CSRC.80x50	80	50	77,8	237,8	222,8	165,27	15	93	47,51	-	153	2,08
CSRC.80x55	80	55	87,2	231,36	231,36	174,53	0	72	44,7	-	153	1,77
CSRC.80x60	80	60	100	233,95	233,95	185,89	0	49	37,43	-	153	1,48

Continue next page...

How to order: Code + W x θ

CARROS AÉREOS CSRC  
AERIAL CAM UNITS CSRC



**CSRC 165**

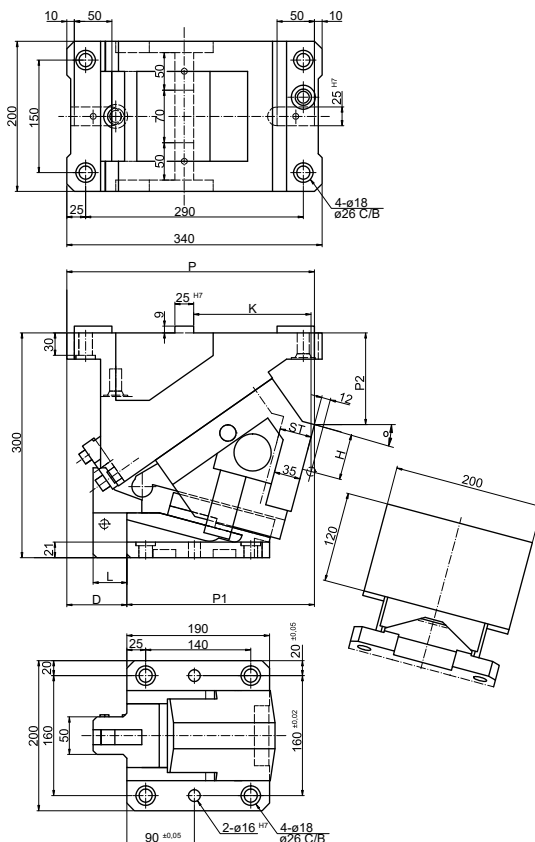
N: Ø16H7 Dowel hole is drilled on the cam holder.

Code	W Working Face	θ Working Angle	ST Stroke	P	P1	P2	D	K	H	L	Max Work Force	Gas Spring
												Extraction Force
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kN	kN
CSRC.165x0	165	0	32,1	335,84	207,84	96,98	128	180,5	73,02	55	340	2,46
CSRC.165x5	165	5	35,5	355,25	222,25	100,91	113	173	73,32	55	340	2,46
CSRC.165x10	165	10	38,9	337,27	236,27	111,09	101	165,5	67,86	50	340	2,46
CSRC.165x15	165	15	42,4	329,78	249,78	122,47	80	156,5	61,53	45	340	2,46
CSRC.165x20	165	20	46,1	332,68	262386	129,99	70	149	59,49	42	340	2,46
CSRC.165x25	165	25	50	332,88	274,88	138,62	58	140	56,61	37	340	2,46
CSRC.165x30	165	30	54,3	334,28	286,28	148,28	48	132,5	58,57	30	340	2,46
CSRC.165x35	165	35	59	329,8	296,8	158,89	33	125	60,1	25	340	2,46
CSRC.165x40	165	40	64,3	321,35	306,35	170,38	15	117,55	61,23	25	340	2,46
CSRC.165x45	165	45	70,45	314,86	314,86	182,66	0	111,5	62,2	25	340	2,46
CSRC.165x50	165	50	77,8	307,27	322,27	195,63	-15	105,5	62,51	-	340	2,46
CSRC.165x55	165	55	87,2	296,59	328,59	210,3	-32	120	60,97	-	340	2,2
CSRC.165x60	165	60	100	288,56	333,56	222,26	-45	113	64,69	-	340	1,91

Continue next page...

How to order: Code + W x θ

CARROS AÉREOS CSRC  
AERIAL CAM UNITS CSRC



**CSRC 200**

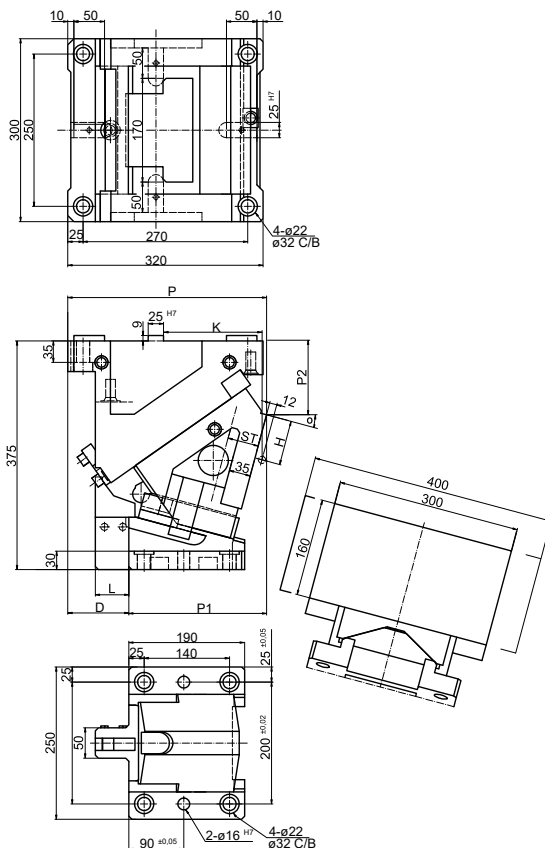
N: Ø16H7 Dowel hole is drilled on the cam holder.

Code	W Working Face	θ Working Angle	ST Stroke	P	P1	P2	D	K	H	L	Max Work Force	Gas Spring
												Extraction Force
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kN	kN
CSRC.200x0	200	0	32,1	335,84	207,84	96,98	128	180,5	73,02	55	408	4,82
CSRC.200x5	200	5	35,5	355,25	222,25	100,91	113	173	73,32	55	408	4,82
CSRC.200x10	200	10	38,9	337,27	236,27	111,09	101	165,5	67,86	50	408	4,82
CSRC.200x15	200	15	42,4	329,78	249,78	122,47	80	156,5	61,53	45	408	4,82
CSRC.200x20	200	20	46,1	332,68	262386	129,99	70	149	59,49	42	408	4,82
CSRC.200x25	200	25	50	332,88	274,88	138,62	58	140	56,61	37	408	4,82
CSRC.200x30	200	30	54,3	334,28	286,28	148,28	48	132,5	58,57	30	408	4,82
CSRC.200x35	200	35	59	329,8	296,8	158,89	33	125	60,1	25	408	4,82
CSRC.200x40	200	40	64,3	321,35	306,35	170,38	15	117,55	61,23	25	408	4,82
CSRC.200x45	200	45	70,45	314,86	314,86	182,66	0	111,5	62,2	25	408	4,82
CSRC.200x50	200	50	77,8	307,27	322,27	195,63	-15	105,5	62,51	-	408	4,82
CSRC.200x55	200	55	87,2	296,59	328,59	210,3	-32	120	60,97	-	408	4,3
CSRC.200x60	200	60	100	288,56	333,56	222,26	-45	113	64,69	-	408	3,75

Continue next page...

How to order: Code + W x θ

## CARROS AÉREOS CSRC AERIAL CAM UNITS CSRC



### CSRC 300

N: Ø16H7 Dowel hole is drilled on the cam holder.

N20: Dowel pin holes of cam hold are changed to Ø20

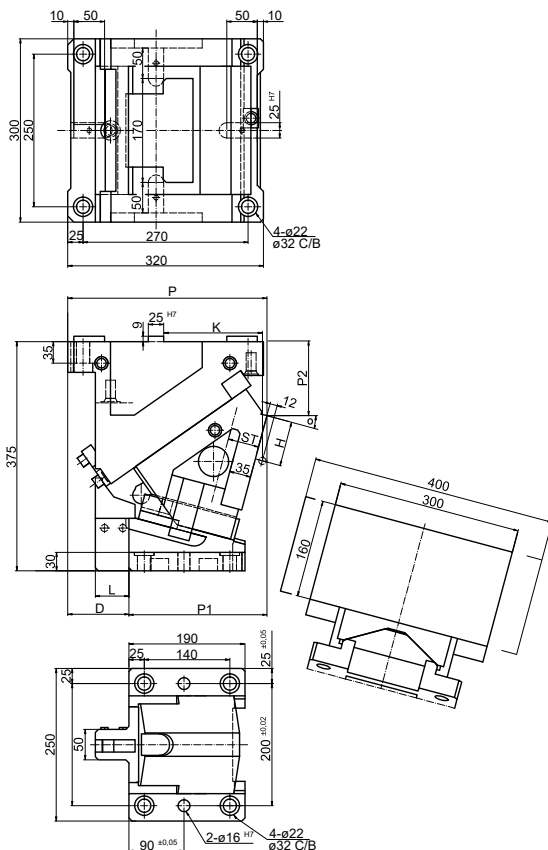
Code	W Working Face	θ Working Angle	ST Stroke	P	P1	P2	D	K	H	L	Max Work Force	Gas Spring
												Extraction Force
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kN	kN
CSRC.300x0	300	0	38,6	313	175	98	139	193	82	55	521	9,4
CSRC.300x5	300	5	42,6	317,15	192,15	104,19	125	182,5	80,07	55	521	9,4
CSRC.300x10	300	10	46,7	324,13	209,13	111,86	115	172	77,23	55	521	9,4
CSRC.300x15	300	15	50,9	325,82	225,82	121,01	100	161,5	73,39	55	521	9,4
CSRC.300x20	300	20	55,3	327,08	242,08	131,59	85	151	68,43	55	521	9,4
CSRC.300x25	300	25	60	334,71	259,71	138,65	75	140,5	67,61	50	521	9,4
CSRC.300x30	300	30	65,1	327,83	272,83	146,89	55	130	71,71	45	521	9,4
CSRC.300x35	300	35	70,8	334,51	289,51	159,17	45	121	71,96	35	521	9,4
CSRC.300x40	300	40	77,1	325,46	300,46	167,3	25	112	78,3	30	521	9,4
CSRC.300x45	300	45	84,5	324,84	317,84	179,24	9	103	81,01	30	521	9,4
CSRC.300x50	300	50	79,3	306,63	341,63	196,84	-35	94	91,73	-	521	8,8
CSRC.300x55	300	55	88,9	277,93	362,93	229,29	-85	86,5	79,99	-	521	7,85
CSRC.300x60	300	60	102	286,45	371,45	245,64	-85	79	87,94	-	521	6,85

Continue next page...

How to order: Code + W x θ



CARROS AÉREOS CSRC  
AERIAL CAM UNITS CSRC



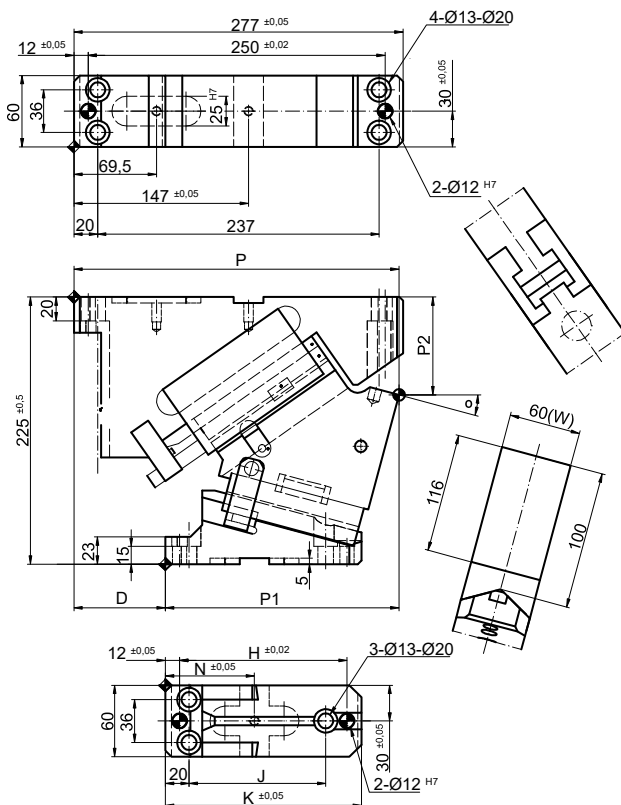
CSRC 400

N: Ø16H7 Dowel hole is drilled on the cam holder.  
N20: Dowel pin holes of cam hold are changed to Ø20

Code	W Working Face mm	θ Working Angle mm	ST Stroke mm	P mm	P1 mm	P2 mm	D mm	K mm	H mm	L mm	Gas Spring	
											Max Work Force kN	Extraction Force kN
CSRC.400x0	400	0	38,6	313	175	98	139	193	82	55	521	9,4
CSRC.400x5	400	5	42,6	317,15	192,15	104,19	125	182,5	80,07	55	521	9,4
CSRC.400x10	400	10	46,7	324,13	209,13	111,86	115	172	77,23	55	521	9,4
CSRC.400x15	400	15	50,9	325,82	225,82	121,01	100	161,5	73,39	55	521	9,4
CSRC.400x20	400	20	55,3	327,08	242,08	131,59	85	151	68,43	55	521	9,4
CSRC.400x25	400	25	60	334,71	259,71	138,65	75	140,5	67,61	50	521	9,4
CSRC.400x30	400	30	65,1	327,83	272,83	146,89	55	130	71,71	45	521	9,4
CSRC.400x35	400	35	70,8	334,51	289,51	159,17	45	121	71,96	35	521	9,4
CSRC.400x40	400	40	77,1	325,46	300,46	167,3	25	112	78,3	30	521	9,4
CSRC.400x45	400	45	84,5	324,84	317,84	179,24	9	103	81,01	30	521	9,4
CSRC.400x50	400	50	79,3	306,63	341,63	196,84	-35	94	91,73	-	521	8,8
CSRC.400x55	400	55	88,9	277,93	362,93	229,29	-85	86,5	79,99	-	521	7,85
CSRC.400x60	400	60	102	286,45	371,45	245,64	-85	79	87,94	-	521	6,85

How to order: Code + W x θ

## CARROS AÉREOS CSVC AERIAL CAM UNITS CSVC



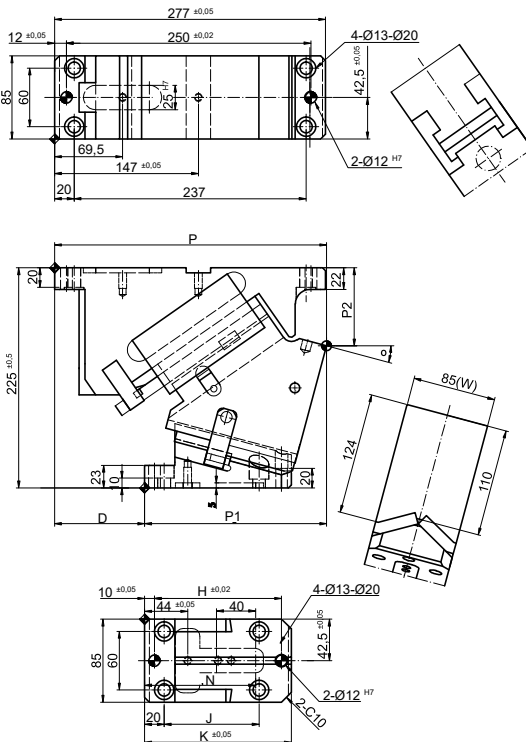
### CSVC 60

Code	W Mounting Width	$\theta$ Working Angle	T Travel	P	P1	P2	D	H	J	K	N	R	Q	Max Work Force	Gas Spring
															Extraction Force
	mm	°	mm	N	N	mm	N	mm	mm	mm	mm	mm	mm	kN	kN
CSVC.60x0	60	0	19,3	267	167	69	100	141	115	165	75	-	-	79	1,61
CSVC.60x5	60	5	21,3	274,45	179,45	73,08	95	141	115	165	75	-	-	79	1,61
CSVC.60x10	60	10	23,3	272,04	186,04	77,56	86	141	115	165	75	-	-	79	1,61
CSVC.60x15	60	15	25,4	273,74	196,74	82,44	77	141	115	165	75	-	-	79	1,61
CSVC.60x20	60	20	27,6	273,5	204,5	88,73	69	141	115	165	75	-	-	79	1,61
CSVC.60x25	60	25	30	271,28	215,28	93,53	56	141	115	165	75	-	-	79	1,61
CSVC.60x30	60	30	32,6	270,02	222,02	98,57	48	141	115	165	75	-	-	79	1,61
CSVC.60x35	60	35	35,4	266,76	217,76	105,15	49	121	95	145	65	-	-	79	1,61
CSVC.60x40	60	40	38,6	262,47	223,47	112,1	39	121	95	145	65	-	-	79	1,61
CSVC.60x45	60	45	42,3	256,13	225,13	126,5	31	121	95	145	65	-	-	79	1,61
CSVC.60x50	60	50	46,7	249,8	226,8	134,78	23	106	80	130	58	-	-	79	1,61
CSVC.60x55	60	55	52,3	247,39	231,39	141,94	16	106	80	130	58	-	-	79	1,44
CSVC.60x60	60	60	60	237,95	232,95	149,36	5	106	80	130	58	-	-	79	1,26
CSVC.60x65	60	65	71	235	240	163,68	-5	106	80	130	58	-	-	79	1,06
CSVC.60x70	60	70	58,5	230	245	177,95	-15	106	80	130	58	-	-	79	85

Continue next page...

How to order: Code + W x  $\theta$

CARROS AÉREOS CSVC  
AERIAL CAM UNITS CSVC



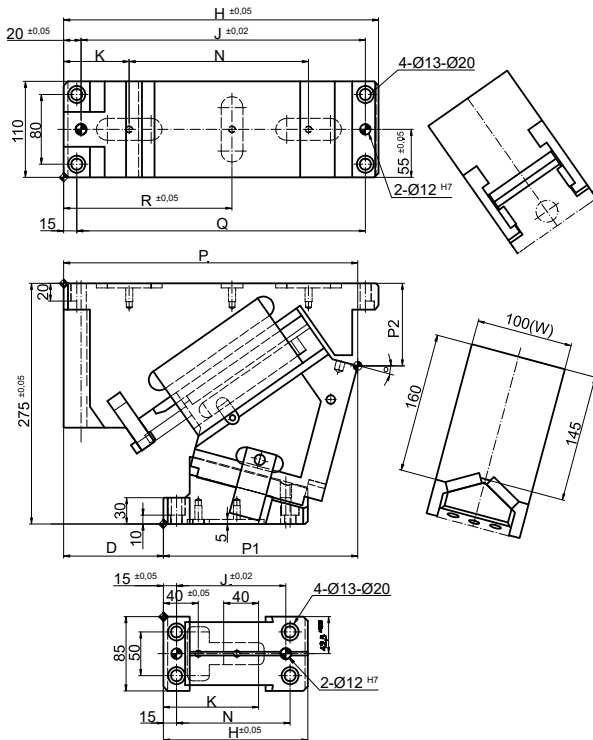
CSVC 85

Code	W Mounting Width	θ Working Angle	T Travel	P	P1	P2	D	H	J	K	N	R	Q	Gas Spring	
														Max Work Force	Extraction Force
	mm	°	mm	N	N	mm	N	mm	mm	mm	mm	mm	mm	kN	kN
CSVC.60x75	60	75	77.3	222	247	187.73	-25	106	80	130	58	-	-	79	0,64
CSVC.85x0	85	0	19.3	267	152	63	115	130	97	150	113,5	-	-	106	3,47
CSVC.85x5	85	5	21.3	272	162,39	67.16	110	130	97	150	113,5	-	-	106	3,47
CSVC.85x10	85	10	23.3	275,07	174,07	71.77	101	130	97	150	113,5	-	-	106	3,47
CSVC.85x15	85	15	25.4	277,99	185,99	19.72	92	130	97	150	113,5	-	-	106	3,47
CSVC.85x20	85	20	27.6	273,08	204,08	88,43	69	130	97	150	113,5	-	-	106	3,47
CSVC.85x25	85	25	30	271,3	211,3	94,15	60	130	97	150	113,5	-	-	106	3,47
CSVC.85x30	85	30	32,6	269,61	217361	100,26	52	130	97	150	113,5	-	-	106	3,47
CSVC.85x35	85	35	35,4	265,99	218,99	103,46	47	130	97	150	113,5	-	-	106	3,47
CSVC.85x40	85	40	38,6	262,39	225339	110,53	37	120	87	140	107	-	-	106	3,47
CSVC.85x45	85	45	42,3	256,82	233,82	117,97	23	120	87	140	107	-	-	106	3,47
CSVC.85x50	85	50	46,7	46,7	249,24	20	229,24	115	77	130	96,5	-	-	106	3,47
CSVC.85x55	85	55	52,3	52,3	250,67	19	231,67	110	77	130	96,5	-	-	106	3,1
CSVC.85x60	85	60	60	60	240,1	4	236,1	115	77	130	96,5	-	-	106	2,7
CSVC.85x65	85	65	71	71	235	-5	240	120	77	130	96,5	-	-	106	2,28
CSVC.85x70	85	70	58,5	58,5	230	-15	245	120	80	130	96,5	-	-	106	1,83
CSVC.85x75	85	75	77,3	77,3	228	-25	253	135	90	130	96,5	-	-	106	1,38

Continue next page...

How to order: Code + W x θ

CARROS AÉREOS CSVC  
AERIAL CAM UNITS CSVC



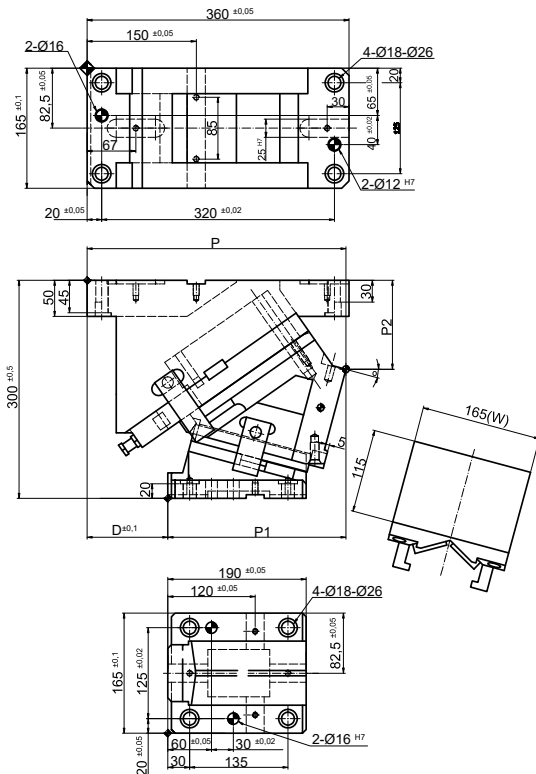
CSVC 110

Code	W Mounting Width	$\theta$ Working Angle	T Travel	P	P1	P2	D	H	J	K	N	R	Q	Max Work Force	Gas Spring
															Extraction Force
	mm	°	mm	N	N	mm	N	mm	mm	mm	mm	mm	mm	kN	kN
CSVC.110x0	110	0	32,1	318	180	70	138	330	295	70	185	137,5	300	160	3,53
CSVC.110x5	110	5	35,5	324,46	194,46	79,26	130	330	295	70	185	137,5	300	160	3,53
CSVC.110x10	110	10	38,9	330,22	209,22	84,13	121	360	325	70	185	137,5	330	160	3,53
CSVC.110x15	110	15	42,4	336,2	222,2	95,45	114	360	325	75	205	192,5	330	160	3,53
CSVC.110x20	110	20	46,1	339,32	234,32	100,42	105	360	325	75	205	192,5	330	160	3,53
CSVC.110x25	110	25	50	340,51	246,51	109,67	94	360	325	75	205	192,5	330	160	3,53
CSVC.110x30	110	30	54,3	348,36	278,36	120,54	70	360	325	75	205	192,5	330	160	3,53
CSVC.110x35	110	35	59	343,62	289,52	127,82	54	360	325	75	205	192,5	330	160	3,53
CSVC.110x40	110	40	64,3	332,59	268,59	139,41	64	360	325	75	205	192,5	330	160	3,53
CSVC.110x45	110	45	70,4	322,52	277,52	149,44	45	360	325	75	205	192,5	330	160	3,53
CSVC.110x50	110	50	77,8	309,47	284,47	156,17	25	150	105	95	110	-	-	160	3,53
CSVC.110x55	110	55	87,2	311,07	293,07	169,79	18	150	105	95	110	-	-	160	3,15
CSVC.110x60	110	60	100	327,93	320,93	168,85	7	150	105	95	110	-	-	160	2,75
CSVC.110x65	110	65	94,6	317,17	327,17	185	-10	150	105	95	110	-	-	160	2,32
CSVC.110x70	110	70	81,9	313,12	333,12	205	-20	150	105	95	110	-	-	160	1,77
CSVC.110x75	110	75	108,2	306,76	366,76	225	-30	150	105	95	110	-	-	160	1,34

Continue next page...

How to order: Code + W x  $\theta$

CARROS AÉREOS CSVC  
AERIAL CAM UNITS CSVC



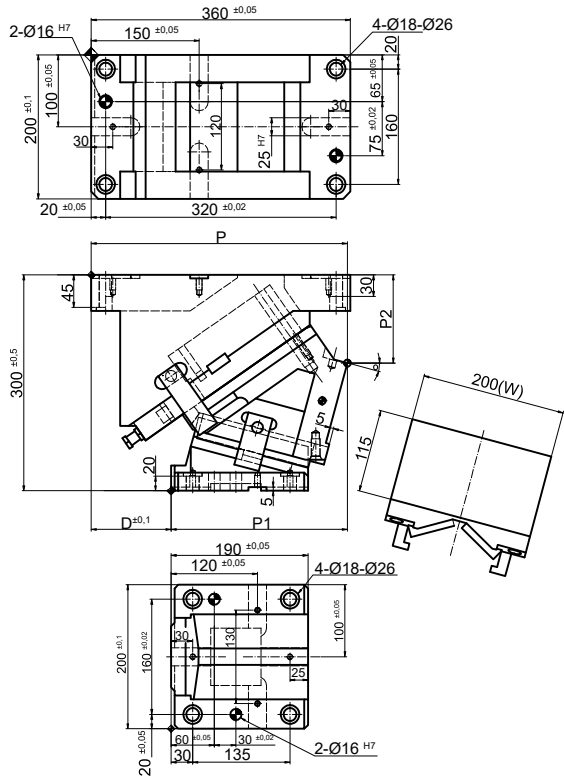
CSVC 165

Code	W Mounting Width	θ Working Angle	T Travel	P	P1	P2	D	H	J	K	N	R	Q	Gas Spring	
														Max Work Force	Extraction Force
	mm	°	mm	N	N	mm	N	mm	mm	mm	mm	mm	mm	kN	kN
CSVC.165x0	165	0	32,1	360	210	95	150	-	-	-	-	-	-	183	8,06
CSVC.165x5	165	5	35,5	356,25	222,25	100,91	134	-	-	-	-	-	-	183	8,06
CSVC.165x10	165	10	38,9	359,27	241,27	111,09	118	-	-	-	-	-	-	183	8,06
CSVC.165x15	165	15	42,4	355,78	244,78	122,47	111	-	-	-	-	-	-	183	8,06
CSVC.165x20	165	20	46,1	355,68	262,68	130	93	-	-	-	-	-	-	183	8,06
CSVC.165x25	165	25	50	354,25	274,25	138,92	80	-	-	-	-	-	-	183	8,06
CSVC.165x30	165	30	54,3	357,28	287,28	148,28	70	-	-	-	-	-	-	183	8,06
CSVC.165x35	165	35	59	345,8	281,8	158,89	64	-	-	-	-	-	-	183	8,06
CSVC.165x40	165	40	64,3	344,27	286,27	170,38	58	-	-	-	-	-	-	183	8,06
CSVC.165x45	165	45	70,4	344,86	304,86	182,66	40	-	-	-	-	-	-	183	8,06
CSVC.165x50	165	50	77,8	327,27	317,27	195,63	10	-	-	-	-	-	-	183	8,06
CSVC.165x55	165	55	61	324,39	324,39	210,2	0	-	-	-	-	-	-	183	6,65
CSVC.165x60	165	60	40	319,59	324,59	215,63	-7	-	-	-	-	-	-	183	5,08
CSVC.165x65	165	65	47,3	314,23	329,23	231,4	-15	-	-	-	-	-	-	183	4,29
CSVC.165x70	165	70	58,5	309,07	333,07	245,67	-25	-	-	-	-	-	-	183	3,47
CSVC.165x75	165	75	58	301,08	336,08	260,24	-35	-	-	-	-	-	-	183	2,41

Continue next page...

How to order: Code + W x θ

CARROS AÉREOS CSVC  
AERIAL CAM UNITS CSVC



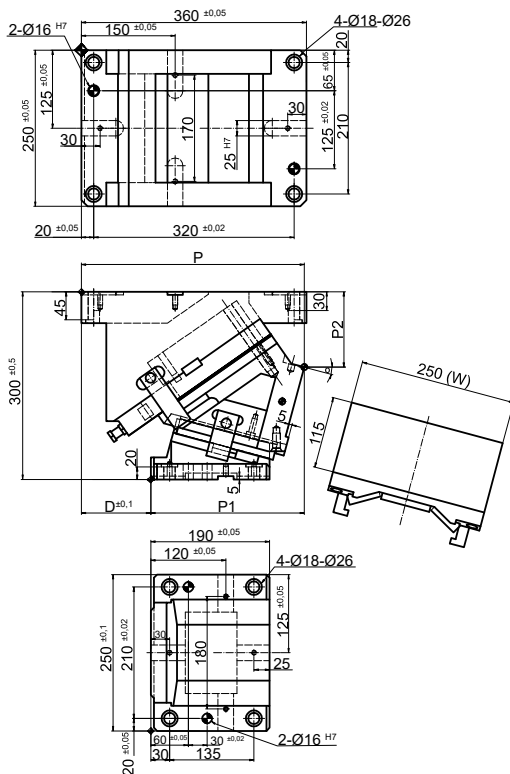
CSVC 200

Code	W Mounting Width	θ Working Angle	T Travel	P	P1	P2	D	H	J	K	N	R	Q	Max Work Force	Gas Spring
															Extraction Force
	mm	°	mm	N	N	mm	N	mm	mm	mm	mm	mm	mm	kN	kN
CSVC.200x0	200	0	32,1	360	210	95	150	-	-	-	-	-	-	230	8,06
CSVC.200x5	200	5	35,5	356,25	222,25	100,91	134	-	-	-	-	-	-	230	8,06
CSVC.200x10	200	10	38,9	359,27	241,27	111,09	118	-	-	-	-	-	-	230	8,06
CSVC.200x15	200	15	42,4	355,78	244,78	122,47	111	-	-	-	-	-	-	230	8,06
CSVC.200x20	200	20	46,1	355,68	262,68	130	93	-	-	-	-	-	-	230	8,06
CSVC.200x25	200	25	50	354,25	274,25	138,92	80	-	-	-	-	-	-	230	8,06
CSVC.200x30	200	30	54,3	357,28	287,28	148,28	70	-	-	-	-	-	-	230	8,06
CSVC.200x35	200	35	59	345,8	281,8	158,89	64	-	-	-	-	-	-	230	8,06
CSVC.200x40	200	40	64,3	344,27	286,27	170,38	58	-	-	-	-	-	-	230	8,06
CSVC.200x45	200	45	70,4	344,86	304,86	182,66	40	-	-	-	-	-	-	230	8,06
CSVC.200x50	200	50	77,8	327,27	317,27	195,63	10	-	-	-	-	-	-	230	8,06
CSVC.200x55	200	55	61	324,39	324,39	210,2	0	-	-	-	-	-	-	230	6,18
CSVC.200x60	200	60	40	319,59	324,59	215,63	-7	-	-	-	-	-	-	230	5,38
CSVC.200x65	200	65	47,3	314,23	329,23	231,4	-15	-	-	-	-	-	-	230	4,55
CSVC.200x70	200	70	58,5	309,07	333,07	245,67	-25	-	-	-	-	-	-	230	3,47
CSVC.200x75	200	75	58	301,08	336,08	260,24	-35	-	-	-	-	-	-	230	2,63

Continue next page...

How to order: Code + W x θ

CARROS AÉREOS CSVC  
AERIAL CAM UNITS CSVC



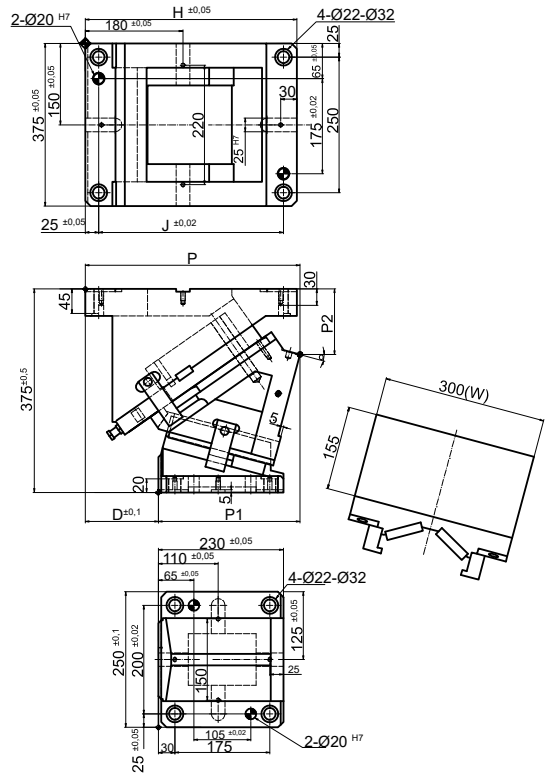
CSVC 250

Code	W Mounting Width mm	θ Working Angle °	T Travel mm	P	P1	P2	D	H	J	K	N	R	Q	Gas Spring	
														Max Work Force kN	Extraction Force kN
CSVC.250x0	250	0	32,1	360	210	95	150	-	-	-	-	-	-	302	16,12
CSVC.250x5	250	5	35,5	356,43	222,43	98,92	134	-	-	-	-	-	-	302	16,12
CSVC.250x10	250	10	38,9	359,62	241,62	109,12	118	-	-	-	-	-	-	302	16,12
CSVC.250x15	250	15	42,4	356,3	245,3	120,53	111	-	-	-	-	-	-	302	16,12
CSVC.250x20	250	20	46,1	356,37	263,37	128,12	93	-	-	-	-	-	-	302	16,12
CSVC.250x25	250	25	50	355,73	275,73	136,81	80	-	-	-	-	-	-	302	16,12
CSVC.250x30	250	30	54,3	358,28	288,28	146,55	70	-	-	-	-	-	-	302	16,12
CSVC.250x35	250	35	59	346,94	282,94	157,25	64	-	-	-	-	-	-	302	16,12
CSVC.250x40	250	40	64,3	345,56	287,56	168,85	58	-	-	-	-	-	-	302	16,12
CSVC.250x45	250	45	70,4	346,27	309,24	181,24	40	-	-	-	-	-	-	302	16,12
CSVC.250x50	250	50	77,8	328,8	318,8	194,34	10	-	-	-	-	-	-	302	16,12
CSVC.250x55	250	55	52,3	326,84	326,84	208,48	0	-	-	-	-	-	-	302	12,35
CSVC.250x60	250	60	60	320,19	327,19	214,13	-7	-	-	-	-	-	-	302	10,77
CSVC.250x65	250	65	71	319,23	334,23	231,4	-15	-	-	-	-	-	-	302	9,1
CSVC.250x70	250	70	58,5	313,07	338,07	245,67	-25	-	-	-	-	-	-	302	6,94
CSVC.250x75	250	75	77,3	306,08	341,08	260,24	-35	-	-	-	-	-	-	302	5,26

Continue next page...

How to order: Code + W x θ

CARROS AÉREOS CSVC  
AERIAL CAM UNITS CSVC



CSVC 300

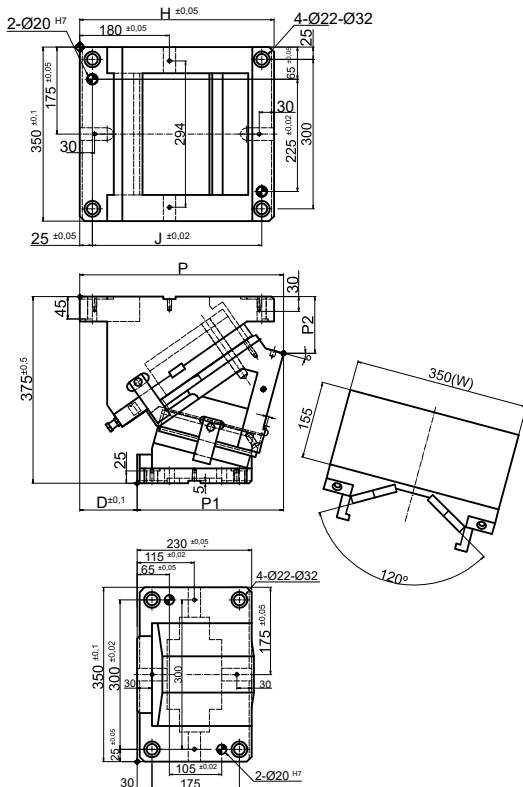
Code	W Mounting Width mm	θ Working Angle °	T Travel mm	P N	P1 N	P2 mm	D N	H mm	J mm	K mm	N mm	R mm	Q mm	Max Work Force kN	Gas Spring
															Extraction Force kN
CSVC.300x0	300	0	38,6	395	232	98	163	390	340	-	-	-	-	389	15,58
CSVC.300x5	300	5	42,6	387,15	232,15	104,19	155	390	340	-	-	-	-	389	15,58
CSVC.300x10	300	10	46,7	394,13	249,13	111,86	145	390	340	-	-	-	-	389	15,58
CSVC.300x15	300	15	50,9	395,82	260,82	121,01	135	390	340	-	-	-	-	389	15,58
CSVC.300x20	300	20	55,3	397,08	277,08	131,59	120	390	340	-	-	-	-	389	15,58
CSVC.300x25	300	25	60	404,71	294,71	138,65	110	400	350	-	-	-	-	389	15,58
CSVC.300x30	300	30	65,1	408,22	323,22	146,89	85	400	350	-	-	-	-	389	15,58
CSVC.300x35	300	35	70,8	404,52	334,52	159,17	70	400	350	-	-	-	-	389	15,58
CSVC.300x40	300	40	77,1	100,46	345,46	167,3	55	400	350	-	-	-	-	389	15,58
CSVC.300x45	300	45	84,5	394,84	345,84	179,24	40	400	350	-	-	-	-	389	15,58
CSVC.300x50	300	50	93,3	393,35	376,36	196,04	17	-	-	-	-	-	-	389	15,58
CSVC.300x55	300	55	104	393,35	393,35	222,75	0	-	-	-	-	-	-	389	13,9
CSVC.300x60	300	60	120	393,3	403,35	149,61	-10	-	-	-	-	-	-	389	12,12
CSVC.300x65	300	65	94,6	387,48	415,48	166,49	-28	-	-	-	-	-	-	389	9,38
CSVC.300x70	300	70	73,1	78,65	423,65	281,99	-45	-	-	-	-	-	-	389	6,87
CSVC.300x75	300	75	96,6	364,72	429,72	296,88	-65	-	-	-	-	-	-	389	5,2

Continue next page...

How to order: Code + W x θ



CARROS AÉREOS CSVC  
AERIAL CAM UNITS CSVC



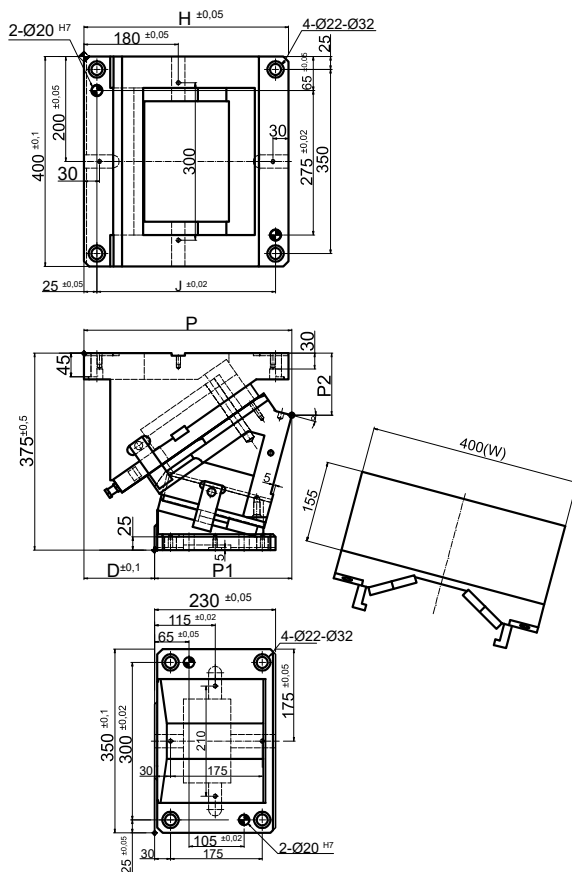
CSVC 350

Code	W Mounting Width mm	θ Working Angle °	T Travel mm	P	P1	P2	D	H	J	K	N	R	Q	Gas Spring	
														Max Work Force kN	Extraction Force kN
CSVC.350x0	350	0	38,6	395	235	85	160	390	340	-	-	-	-	428	29,31
CSVC.350x5	350	5	43,6	409,62	254,62	95,02	155	390	340	-	-	-	-	428	29,31
CSVC.350x10	350	10	46,7	414,52	247,52	104,67	140	390	340	-	-	-	-	428	29,31
CSVC.350x15	350	15	50,9	408,6	293,6	113,76	115	390	340	-	-	-	-	428	29,31
CSVC.350x20	350	20	55,3	433,92	312,92	122,21	110	390	340	-	-	-	-	428	29,31
CSVC.350x25	350	25	60	421,53	331,53	129,96	90	410	360	-	-	-	-	428	29,31
CSVC.350x30	350	30	65,1	418,5	348,5	136,94	70	410	360	-	-	-	-	428	29,31
CSVC.350x35	350	35	70,8	415,89	365,89	153,12	50	410	360	-	-	-	-	428	29,31
CSVC.350x40	350	40	77,1	410,78	380,78	168,43	30	410	360	-	-	-	-	428	29,31
CSVC.350x45	350	45	84,5	405,25	395,25	182,84	10	410	360	-	-	-	-	428	29,31
CSVC.350x50	350	50	93,3	397,37	407,37	201,32	-10	-	-	-	-	-	-	428	29,31
CSVC.350x55	350	55	87,2	398,61	418,61	214,69	-20	-	-	-	-	-	-	428	24,49
CSVC.350x60	350	60	90	392,76	427,76	235,67	-35	-	-	-	-	-	-	428	21,99
CSVC.350x65	350	65	94,6	393,83	438,83	255,31	-40	-	-	-	-	-	-	428	17,53
CSVC.350x70	350	70	87,7	394,78	444,78	274,53	-50	-	-	-	-	-	-	428	13,9
CSVC.350x75	350	75	96,6	394,55	449,55	295,21	-55	-	-	-	-	-	-	428	9,8

Continue next page...

How to order: Code + W x θ

## CARROS AÉREOS CSVC AERIAL CAM UNITS CSVC

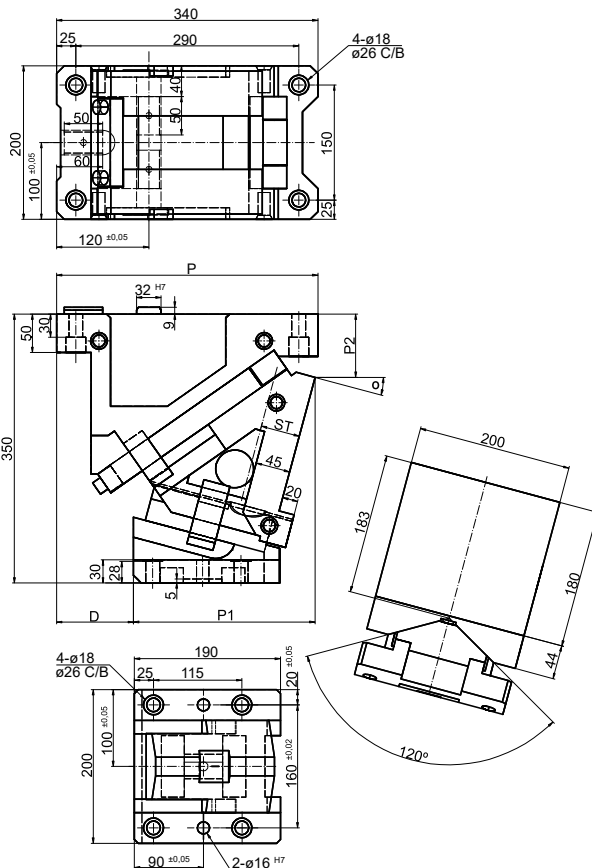


CSVC 400

Code	W Mounting Width	$\theta$ Working Angle	T Travel	P	P1	P2	D	H	J	K	N	R	Q	Max Work Force	Gas Spring
															mm
CSVC.400x0	400	0	38,6	395	237	88	158	390	340	-	-	-	-	473	23,37
CSVC.400x5	400	5	42,6	387,15	232,15	94,19	155	390	340	-	-	-	-	473	23,37
CSVC.400x10	400	10	46,7	394,13	249,13	106,86	145	390	340	-	-	-	-	473	23,37
CSVC.400x15	400	15	50,9	395,82	260,82	118,01	135	390	340	-	-	-	-	473	23,37
CSVC.400x20	400	20	55,3	397,08	297,08	131,59	100	390	340	-	-	-	-	473	23,37
CSVC.400x25	400	25	60	404,71	319,71	138,65	85	400	350	-	-	-	-	473	23,37
CSVC.400x30	400	30	65,1	408,22	343,22	146,89	65	400	350	-	-	-	-	473	23,37
CSVC.400x35	400	35	70,8	404,52	354,52	159,17	50	400	350	-	-	-	-	473	23,37
CSVC.400x40	400	40	77,1	400,46	360,46	167,3	40	400	350	-	-	-	-	473	23,37
CSVC.400x45	400	45	84,5	394,84	374,84	179,24	20	400	350	-	-	-	-	473	23,37

How to order: Code + W x  $\theta$

**CARROS AÉREOS CSBM**  
**AERIAL CAM UNITS CSBM**



**CSBM 200**

**Mounting Method**

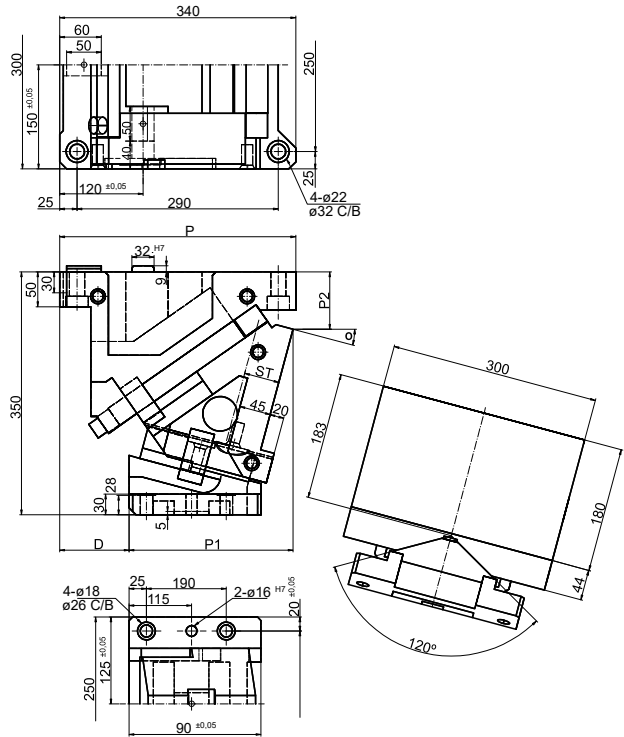
K: Key width 32 mm assemble

Code	W Working Face mm	θ Working Angle °	ST Stroke mm	P mm	P1 mm	P2 mm	D mm	Spring	
								Max Work Force kN	Extraction Force kN
CSBM.200x0	200	0	38,6	313	175	58	138	302	2,73
CSBM.200x5	200	5	42,6	320,64	195,64	64,34	125	302	2,73
CSBM.200x10	200	10	46,7	331,08	216,08	72,47	115	302	2,73
CSBM.200x15	200	15	50,9	336,17	236,17	83,37	100	302	2,73
CSBM.200x20	200	20	55,3	340,76	255,76	94	85	302	2,73
CSBM.200x25	200	25	60	344,69	274,69	102,32	70	302	2,73
CSBM.200x30	200	30	65,1	347,83	292,83	112,25	55	302	2,73
CSBM.200x35	200	35	70,8	355,03	310,03	123,73	45	302	2,73
CSBM.200x40	200	40	77,1	351,17	326,17	136,66	25	302	2,73
CSBM.200x45	200	45	84,5	356,12	341,12	150,95	15	302	2,73
CSBM.200x50	200	50	93,3	348,77	354,77	161,49	-6	302	2,73
CSBM.200x55	200	55	104,6	352,01	367,01	178,84	-15	302	2,12
CSBM.200x60	200	60	120	332,75	377,75	195,83	-45	302	2,12

Continue next page...

How to order: Code + W x θ

## CARROS AÉREOS CSBM AERIAL CAM UNITS CSBM



### CSBM 300

#### Mounting Method

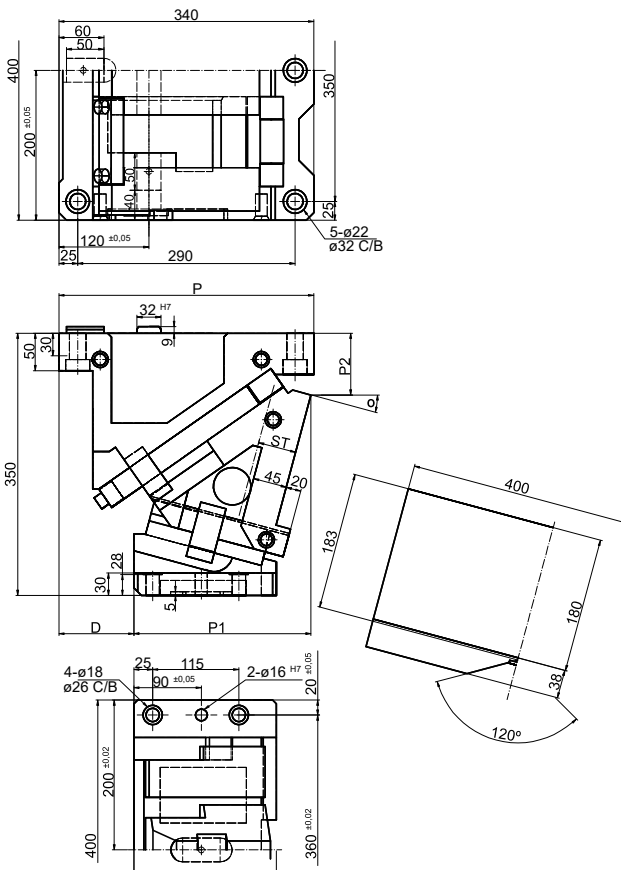
K: Key width 32 mm assemble

Code	W Working Face mm	θ Working Angle °	ST Stroke mm	P mm	P1 mm	P2 mm	D mm	Max Work Force kN	Spring
									Max Work Force Extraction Force kN
CSBM.300x0	300	0	38,6	313	175	58	138	411	5,46
CSBM.300x5	300	5	42,6	320,64	195,64	64,34	125	411	5,46
CSBM.300x10	300	10	46,7	331,08	216,08	72,47	115	411	5,46
CSBM.300x15	300	15	50,9	336,17	236,17	83,37	100	411	5,46
CSBM.300x20	300	20	55,3	340,76	255,76	94	85	411	5,46
CSBM.300x25	300	25	60	344,69	274,69	102,32	70	411	5,46
CSBM.300x30	300	30	65,1	347,83	292,83	112,25	55	411	5,46
CSBM.300x35	300	35	70,8	355,03	310,03	123,73	45	411	5,46
CSBM.300x40	300	40	77,1	351,17	326,17	136,66	25	411	5,46
CSBM.300x45	300	45	84,5	356,12	341,12	150,95	15	411	5,46
CSBM.300x50	300	50	93,3	348,77	354,77	161,49	-6	411	5,46
CSBM.300x55	300	55	104,6	352,01	367,01	178,84	-15	411	4,25
CSBM.300x60	300	60	120	332,75	377,75	195,83	-45	411	4,25

Continue next page...

How to order: Code + W x θ

CARROS AÉREOS CSBM  
AERIAL CAM UNITS CSBM



CSBM 400

Mounting Method

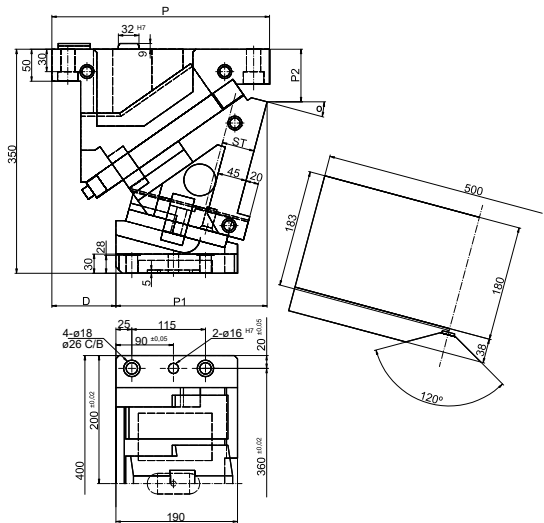
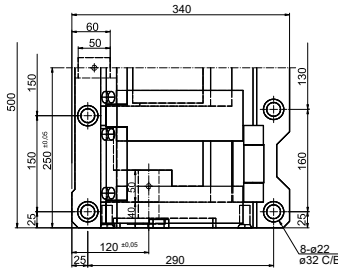
K: Key width 32 mm assemble

Code	W Working Face mm	$\theta$ Working Angle °	ST Stroke mm	P mm	P1 mm	P2 mm	D mm	Spring	
								Max Work Force kN	Extraction Force kN
CSBM.400x0	400	0	38,6	313	175	58	138	526	5,46
CSBM.400x5	400	5	42,6	320,64	195,64	64,34	125	526	5,46
CSBM.400x10	400	10	46,7	331,08	216,08	72,47	115	526	5,46
CSBM.400x15	400	15	50,9	336,17	236,17	83,37	100	526	5,46
CSBM.400x20	400	20	55,3	340,76	255,76	94	85	526	5,46
CSBM.400x25	400	25	60	344,69	274,69	102,32	70	526	5,46
CSBM.400x30	400	30	65,1	347,83	292,83	112,25	55	526	5,46
CSBM.400x35	400	35	70,8	355,03	310,03	123,73	45	526	5,46
CSBM.400x40	400	40	77,1	351,17	326,17	136,66	25	526	5,46
CSBM.400x45	400	45	84,5	356,12	341,12	150,95	15	526	5,46
CSBM.400x50	400	50	93,3	348,77	354,77	161,49	-6	526	5,46
CSBM.400x55	400	55	104,6	352,01	367,01	178,84	-15	526	4,25
CSBM.400x60	400	60	120	332,75	377,75	195,83	-45	526	4,25

Continue next page...

How to order: Code + W x  $\theta$

CARROS AÉREOS CSBM  
AERIAL CAM UNITS CSBM



CSBM 500

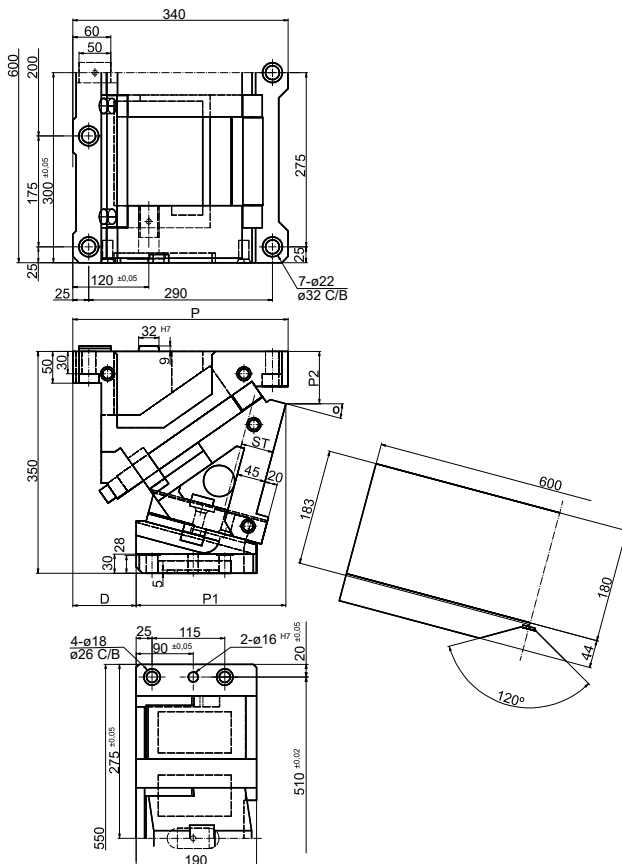
Mounting Method  
K: Key width 32 mm assemble

Code	W Working Face mm	θ Working Angle °	ST Stroke mm	P mm	P1 mm	P2 mm	D mm	Spring	
								Max Work Force kN	Extraction Force kN
CSBM.500x0	500	0	38,6	313	175	58	138	743	8,19
CSBM.500x5	500	5	42,6	320,64	195,64	64,34	125	743	8,19
CSBM.500x10	500	10	46,7	331,08	216,08	72,47	115	743	8,19
CSBM.500x15	500	15	50,9	336,17	236,17	83,37	100	743	8,19
CSBM.500x20	500	20	55,3	340,76	255,76	94	85	743	8,19
CSBM.500x25	500	25	60	344,69	274,69	102,32	70	743	8,19
CSBM.500x30	500	30	65,1	347,83	292,83	112,25	55	743	8,19
CSBM.500x35	500	35	70,8	355,03	310,03	123,73	45	743	8,19
CSBM.500x40	500	40	77,1	351,17	326,17	136,66	25	743	8,19
CSBM.500x45	500	45	84,5	356,12	341,12	150,95	15	743	8,19
CSBM.500x50	500	50	93,3	348,77	354,77	161,49	-6	743	8,19
CSBM.500x55	500	55	104,6	352,01	367,01	178,84	-15	743	6,37
CSBM.500x60	500	60	120	332,75	377,75	195,83	-45	743	6,37

Continue next page...

How to order: Code + W x θ

CARROS AÉREOS CSBM  
AERIAL CAM UNITS CSBM



CSBM 600

Mounting Method

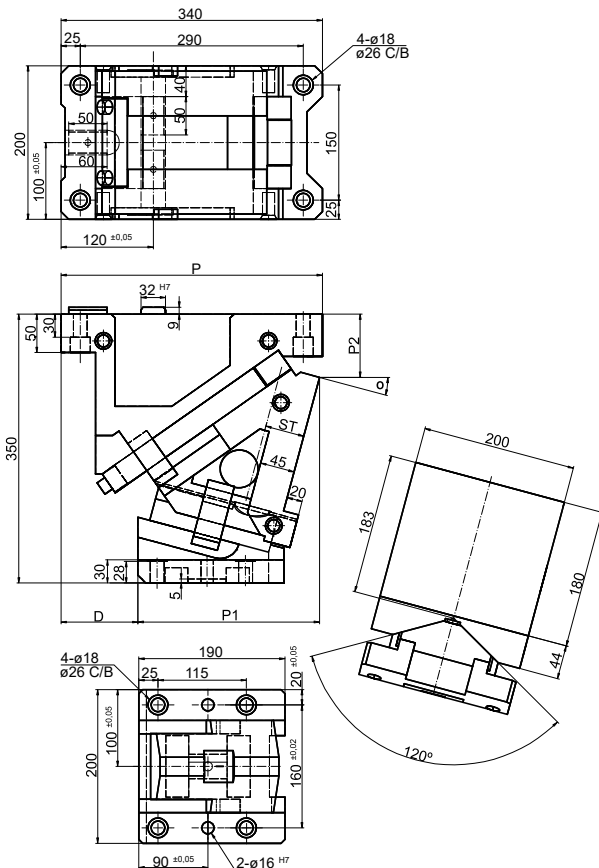
K: Key width 32 mm assemble

Code	W Working Face mm	θ Working Angle °	ST Stroke mm	P mm	P1 mm	P2 mm	D mm	Spring	
								Max Work Force kN	Extraction Force kN
CSBM.600x0	600	0	38,6	313	175	58	138	865	10,92
CSBM.600x5	600	5	42,6	320,64	195,64	64,34	125	865	10,92
CSBM.600x10	600	10	46,7	331,08	216,08	72,47	115	865	10,92
CSBM.600x15	600	15	50,9	336,17	236,17	83,37	100	865	10,92
CSBM.600x20	600	20	55,3	340,76	255,76	94	85	865	10,92
CSBM.600x25	600	25	60	344,69	274,69	102,32	70	865	10,92
CSBM.600x30	600	30	65,1	347,83	292,83	112,25	55	865	10,92
CSBM.600x35	600	35	70,8	355,03	310,03	123,73	45	865	10,92
CSBM.600x40	600	40	77,1	351,17	326,17	136,66	25	865	10,92
CSBM.600x45	600	45	84,5	356,12	341,12	150,95	15	865	10,92
CSBM.600x50	600	50	93,3	348,77	354,77	161,49	-6	865	10,92
CSBM.600x55	600	55	104,6	352,01	367,01	178,84	-15	865	8,5
CSBM.600x60	600	60	120	332,75	377,75	195,83	-45	865	8,5

Continue next page...

How to order: Code + W x θ

**CARROS AÉREOS CSBC**  
**AERIAL CAM UNITS CSBC**



**CSBC 200**

**Mounting Method**  
 K: Key width 32 mm assemble

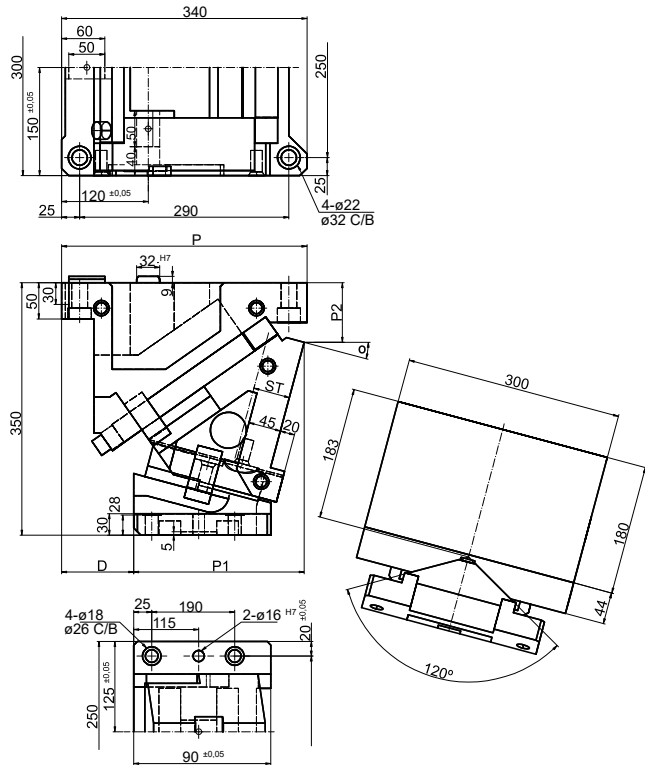
Code	W Working Face mm	θ Working Angle °	ST Stroke mm	P mm	P1 mm	P2 mm	D mm	Gas Spring	
								Max Work Force kN	Extraction Force kN
CSBC.200x0	200	0	38,6	313	175	58	138	302	11,42
CSBC.200x5	200	5	42,6	320,64	195,64	64,34	125	302	11,42
CSBC.200x10	200	10	46,7	331,08	216,08	72,47	115	302	11,42
CSBC.200x15	200	15	50,9	336,17	236,17	83,37	100	302	11,42
CSBC.200x20	200	20	55,3	340,76	255,76	94	85	302	11,42
CSBC.200x25	200	25	60	344,69	274,69	102,32	70	302	11,42
CSBC.200x30	200	30	65,1	347,83	292,83	112,25	55	302	11,42
CSBC.200x35	200	35	70,8	355,03	310,03	123,73	45	302	11,42
CSBC.200x40	200	40	77,1	351,17	326,17	136,66	25	302	11,42
CSBC.200x45	200	45	84,5	356,12	341,12	150,95	15	302	11,42
CSBC.200x50	200	50	93,3	348,77	354,77	161,49	-6	302	11,42
CSBC.200x55	200	55	104,6	352,01	367,01	178,84	-15	302	8,88
CSBC.200x60	200	60	120	332,75	377,75	195,83	-45	302	8,88

Continue next page...

How to order: Code + W x θ



## CARROS AÉREOS CSBC AERIAL CAM UNITS CSBC



### CSBC 300

#### Mounting Method

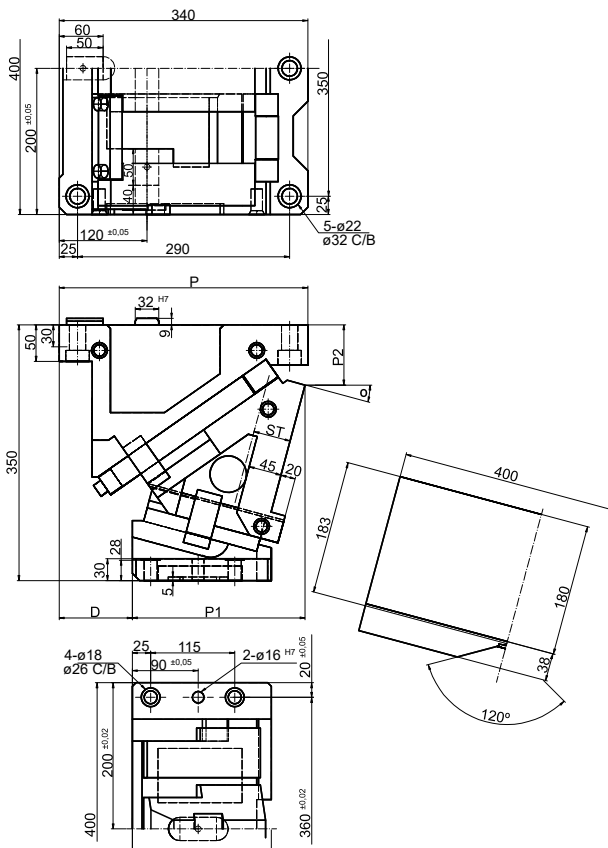
K: Key width 32 mm assemble

Code	W Working Face mm	$\theta$ Working Angle °	ST Stroke mm	P mm	P1 mm	P2 mm	D mm	Gas Spring	
								Max Work Force kN	Extraction Force kN
CSBC.300x0	300	0	38,6	313	175	58	138	411	22,83
CSBC.300x5	300	5	42,6	320,64	195,64	64,34	125	411	22,83
CSBC.300x10	300	10	46,7	331,08	216,08	72,47	115	411	22,83
CSBC.300x15	300	15	50,9	336,17	236,17	83,37	100	411	22,83
CSBC.300x20	300	20	55,3	340,76	255,76	94	85	411	22,83
CSBC.300x25	300	25	60	344,69	274,69	102,32	70	411	22,83
CSBC.300x30	300	30	65,1	347,83	292,83	112,25	55	411	22,83
CSBC.300x35	300	35	70,8	355,03	310,03	123,73	45	411	22,83
CSBC.300x40	300	40	77,1	351,17	326,17	136,66	25	411	22,83
CSBC.300x45	300	45	84,5	356,12	341,12	150,95	15	411	22,83
CSBC.300x50	300	50	93,3	348,77	354,77	161,49	-6	411	22,83
CSBC.300x55	300	55	104,6	352,01	367,01	178,84	-15	411	17,76
CSBC.300x60	300	60	120	332,75	377,75	195,83	-45	411	17,76

Continue next page...

How to order: Code + W x  $\theta$

## CARROS AÉREOS CSBC AERIAL CAM UNITS CSBC



### CSBC 400

#### Mounting Method

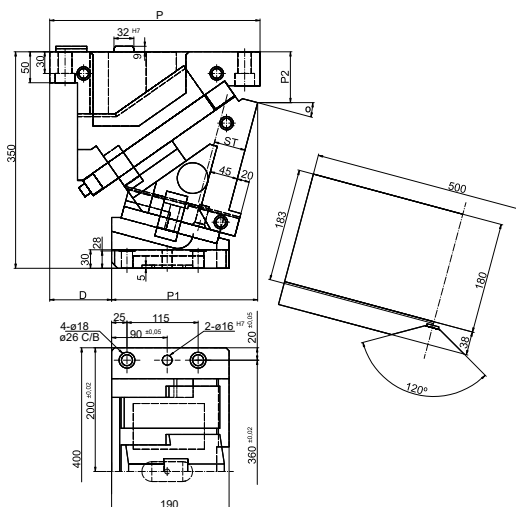
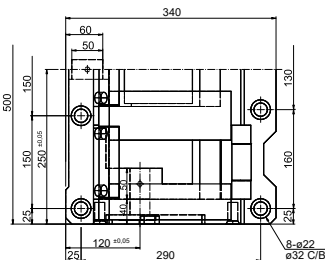
K: Key width 32 mm assemble

Code	W Working Face mm	$\theta$ Working Angle °	ST Stroke mm	P mm	P1 mm	P2 mm	D mm	Max Work Force kN	Gas Spring	
									Extraction Force kN	
CSBC.400x0	400	0	38,6	313	175	58	138	526	22,83	
CSBC.400x5	400	5	42,6	320,64	195,64	64,34	125	526	22,83	
CSBC.400x10	400	10	46,7	331,08	216,08	72,47	115	526	22,83	
CSBC.400x15	400	15	50,9	336,17	236,17	83,37	100	526	22,83	
CSBC.400x20	400	20	55,3	340,76	255,76	94	85	526	22,83	
CSBC.400x25	400	25	60	344,69	274,69	102,32	70	526	22,83	
CSBC.400x30	400	30	65,1	347,83	292,83	112,25	55	526	22,83	
CSBC.400x35	400	35	70,8	355,03	310,03	123,73	45	526	22,83	
CSBC.400x40	400	40	77,1	351,17	326,17	136,66	25	526	22,83	
CSBC.400x45	400	45	84,5	356,12	341,12	150,95	15	526	22,83	
CSBC.400x50	400	50	93,3	348,77	354,77	161,49	-6	526	22,83	
CSBC.400x55	400	55	104,6	352,01	367,01	178,84	-15	526	17,76	
CSBC.400x60	400	60	120	332,75	377,75	195,83	-45	526	17,76	

Continue next page...

How to order: Code + W x  $\theta$

CARROS AÉREOS CSBC  
AERIAL CAM UNITS CSBC



CSBC 500

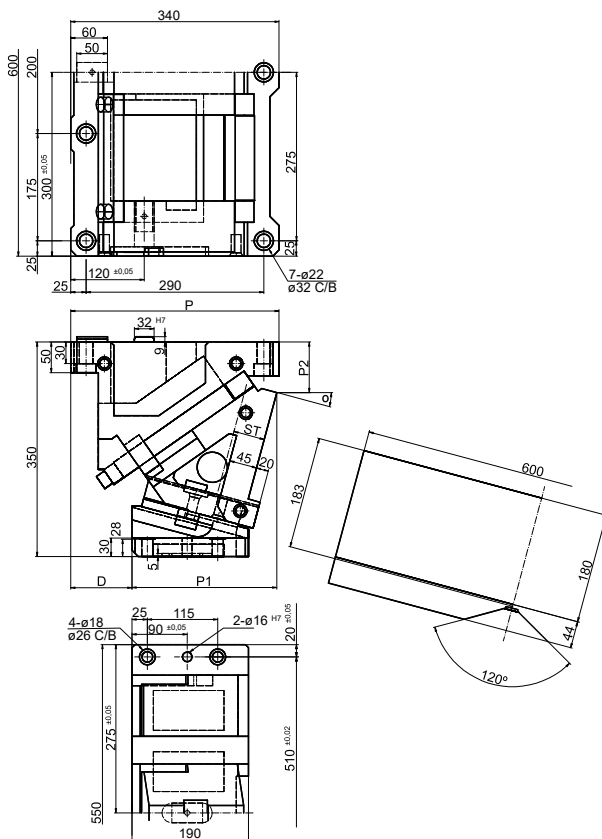
Mounting Method  
K: Key width 32 mm assemble

Code	W Working Face mm	θ Working Angle °	ST Stroke mm	P mm	P1 mm	P2 mm	D mm	Gas Spring	
								Max Work Force kN	Extraction Force kN
CSBC.500x0	500	0	38,6	313	175	58	138	743	34,25
CSBC.500x5	500	5	42,6	320,64	195,64	64,34	125	743	34,25
CSBC.500x10	500	10	46,7	331,08	216,08	72,47	115	743	34,25
CSBC.500x15	500	15	50,9	336,17	236,17	83,37	100	743	34,25
CSBC.500x20	500	20	55,3	340,76	255,76	94	85	743	34,25
CSBC.500x25	500	25	60	344,69	274,69	102,32	70	743	34,25
CSBC.500x30	500	30	65,1	347,83	292,83	112,25	55	743	34,25
CSBC.500x35	500	35	70,8	355,03	310,03	123,73	45	743	34,25
CSBC.500x40	500	40	77,1	351,17	326,17	136,66	25	743	34,25
CSBC.500x45	500	45	84,5	356,12	341,12	150,95	15	743	34,25
CSBC.500x50	500	50	93,3	348,77	354,77	161,49	-6	743	34,25
CSBC.500x55	500	55	104,6	352,01	367,01	178,84	-15	743	26,64
CSBC.500x60	500	60	120	332,75	377,75	195,83	-45	743	26,64

Continue next page...

How to order: Code + W x θ

## CARROS AÉREOS CSBC AERIAL CAM UNITS CSBC



### CSBC 600

#### Mounting Method

K: Key width 32 mm assemble

Code	W Working Face mm	$\theta$ Working Angle °	ST Stroke mm	P mm	P1 mm	P2 mm	D mm	Max Work Force kN	Gas Spring
									Extraction Force kN
CSBC.600x0	600	0	38,6	313	175	58	138	865	45,67
CSBC.600x5	600	5	42,6	320,64	195,64	64,34	125	865	45,67
CSBC.600x10	600	10	46,7	331,08	216,08	72,47	115	865	45,67
CSBC.600x15	600	15	50,9	336,17	236,17	83,37	100	865	45,67
CSBC.600x20	600	20	55,3	340,76	255,76	94	85	865	45,67
CSBC.600x25	600	25	60	344,69	274,69	102,32	70	865	45,67
CSBC.600x30	600	30	65,1	347,83	292,83	112,25	55	865	45,67
CSBC.600x35	600	35	70,8	355,03	310,03	123,73	45	865	45,67
CSBC.600x40	600	40	77,1	351,17	326,17	136,66	25	865	45,67
CSBC.600x45	600	45	84,5	356,12	341,12	150,95	15	865	45,67
CSBC.600x50	600	50	93,3	348,77	354,77	161,49	-6	865	45,67
CSBC.600x55	600	55	104,6	352,01	367,01	178,84	-15	865	35,52
CSBC.600x60	600	60	120	332,75	377,75	195,83	-45	865	35,52

How to order: Code + W x  $\theta$

**CARROS DE BASE**  
DIE MOUNTED CAM UNITS

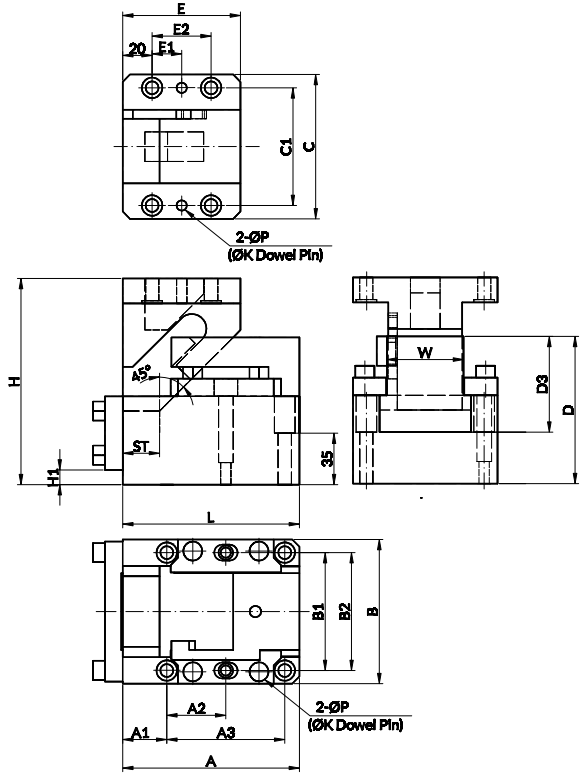
CIDM



CIOM/CIOC



**CARROS DE BASE CIDM**  
DIE MOUNTED CAM UNITS CIDM



**CIDM 52 - 300**

**Mounting Method**  
N: Pin hole (ØK H7)

CODE	W Working Face Width	ST Stroke	B	L	H	D	D3	H1	A	A1	A2	A3	B1	B2	E	C	C1	E1	E2	P	K	Spring	
																						Max Work Force	Extraction Force
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kN	kN
CIDM.52x25	52	25	98	120	140	100	65	15	120	30	40	80	80	80	80	98	80	20	40	7	8	30	0,62
CIDM.52x40	52	40	98	135	140	100	65	15	135	30	50	95	80	80	90	98	80	25	50	7	8	30	0,63
CIDM.52x60	52	60	98	180	140	100	65	15	180	30	25	140	80	80	110	98	80	35	70	7	8	30	0,65
CIDM.65x40	65	40	130	140	160	115	70	25	145	30	50	100	105	105	100	130	105	30	60	9	10	39	0,79
CIDM.65x50	65	50	130	190	160	115	70	25	180	40	65	125	105	105	110	130	105	35	70	9	10	39	0,8
CIDM.100x40	100	40	175	190	200	150	100	30	190	45	60	130	140	150	120	165	140	40	80	11	13	59	1,19
CIDM.100x60	100	60	175	210	200	150	100	30	190	45	60	130	140	150	140	165	140	50	100	11	13	59	1,2
CIDM.100x80	100	80	175	250	200	150	100	10	220	45	90	160	140	150	150	165	140	55	110	11	13	59	1,36
CIDM.150x40	150	40	260	190	220	170	100	45	190	45	60	125	210	220	130	230	200	40	80	15	16	89	1,94
CIDM.150x60	150	60	260	210	220	170	100	45	200	45	65	135	210	220	140	230	200	50	100	15	16	89	1,96
CIDM.200x40	200	40	310	200	240	180	110	40	200	45	65	135	260	270	130	280	250	45	90	15	16	126	2,91
CIDM.200x60	200	60	310	220	240	180	110	40	210	45	75	145	260	270	150	280	250	55	110	15	16	126	2,93
CIDM.250x40	250	40	360	210	270	210	130	50	200	45	60	135	310	320	140	330	300	50	100	15	16	158	3,8
CIDM.250x60	250	60	360	230	270	210	130	50	220	45	80	155	310	320	160	330	300	60	120	15	16	158	3,83
CIDM.300x40	300	40	410	210	270	210	130	50	200	45	60	135	360	370	140	380	350	50	100	15	16	189	3,8
CIDM.300x60	300	60	410	230	270	210	130	50	220	45	80	155	360	370	160	380	350	60	120	15	16	189	3,83

How to order: Code + W x Ø x ST

## CARROS DE BASE CIDM DIE MOUNTED CAM UNITS CIDM



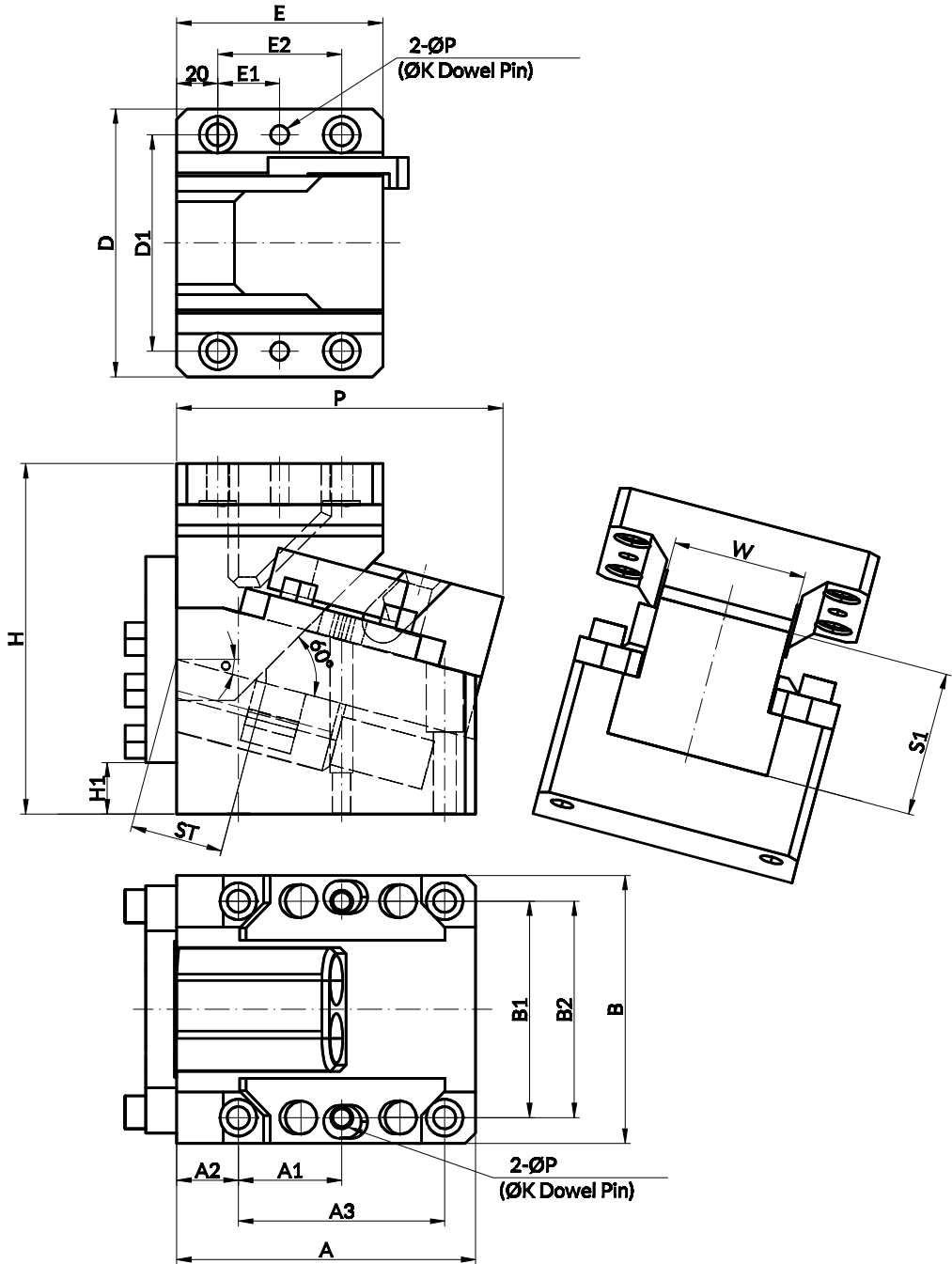
### CIDM 65 - 150

#### Mounting Method N: Pin hole (ØK H7)

CODE	W Working Face Width	ST Stroke	θ Grades	B	H	D	D1	S1	H1	B1	B2	A	A1	A2	A3	E	E1	E1	Max Work Force	Spring	
																				Extraction Force	
	mm	mm	°	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kN	kN
CIDM.65x5x45	65	45	5	150,55	130	160	130	105	70	12,5	105	105	145	50	30	100	100	30	39	0,78	
CIDM.65x10x45	65	45	10	154,95	130	160	130	105	70	20	105	105	145	49	30	100	100	30	39	1,02	
CIDM.65x15x45	65	45	15	158,18	130	170	130	105	70	25	105	105	145	50	30	100	100	30	39	0,78	
CIDM.65x20x45	65	45	20	160,2	130	170	130	105	70	30	105	105	145	50	30	100	100	30	39	1,02	
CIDM.65x5x70	65	70	5	195,38	130	170	130	105	70	25	105	105	180	25	40	125	95	28	39	0,78	
CIDM.65x10x70	65	70	10	199,27	130	170	130	105	70	25	105	105	180	25	40	125	100	30	39	1,02	
CIDM.65x15x70	65	70	15	201,65	130	170	130	105	70	40	105	105	180	25	40	125	105	33	39	0,78	
CIDM.65x20x70	65	70	20	202,48	130	170	130	105	70	40	105	105	180	25	40	125	110	35	39	1,02	
CIDM.100x5x45	100	45	5	172,22	175	200	165	140	90	27,5	140	150	160	50	40	105	95	28	79	1,17	
CIDM.100x10x45	100	45	10	178,12	175	200	165	140	90	30	140	150	160	50	40	105	100	30	79	1,2	
CIDM.100x15x45	100	45	15	182,67	175	200	165	140	90	32,5	140	150	160	50	40	105	105	33	79	1,17	
CIDM.100x20x45	100	45	20	185,83	175	200	165	140	90	35	140	150	160	50	40	105	110	35	79	1,2	
CIDM.100x5x70	100	70	5	207,08	175	200	165	140	90	30	150	150	190	25	45	130	115	38	79	1,17	
CIDM.100x10x70	100	70	10	212,59	175	200	165	140	90	30	150	150	190	25	45	130	120	40	79	1,2	
CIDM.100x15x70	100	70	15	216,48	175	200	165	140	90	35	150	150	190	25	45	130	125	43	79	1,17	
CIDM.100x20x70	100	70	20	208,05	175	200	165	140	90	45	150	150	190	25	45	130	130	45	79	1,2	
CIDM.150x5x45	150	45	5	193,01	260	220	230	200	100	30	210	220	160	60	45	125	105	33	98	1,91	
CIDM.150x10x45	150	45	10	199,5	260	220	230	200	100	40	210	220	160	60	45	125	110	35	98	1,94	
CIDM.150x15x45	150	45	15	204,58	260	220	230	200	100	40	210	220	160	60	45	125	115	38	98	1,91	
CIDM.150x20x45	150	45	20	208	260	220	230	200	100	40	210	220	160	60	45	125	120	40	98	1,94	
CIDM.150x5x70	150	70	5	217,92	260	220	230	200	100	40	210	220	200	75	45	135	125	43	98	1,91	
CIDM.150x10x70	150	70	10	224,17	260	220	230	200	100	40	210	220	200	75	45	135	130	45	98	1,94	
CIDM.150x15x70	150	70	15	228,73	260	230	230	200	100	55	210	220	200	75	45	135	135	48	98	1,91	
CIDM.150x20x70	150	70	20	231,54	260	230	230	200	100	55	210	220	200	75	45	135	140	50	98	1,94	

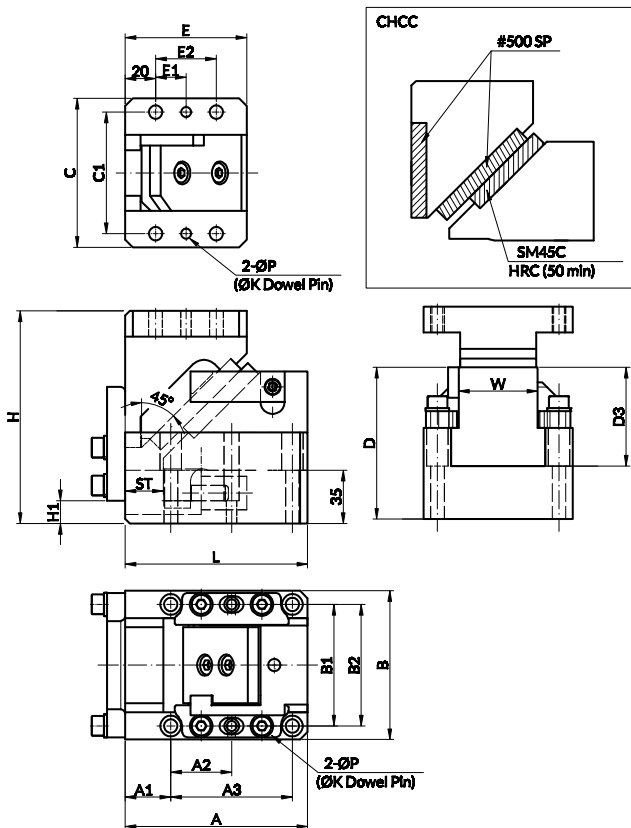
How to order: Code + W x θ x ST

CARROS DE BASE CIDM  
DIE MOUNTED CAM UNITS CIDM





**CARROS DE BASE CIOM**  
DIE MOUNTED CAM UNITS CIOM



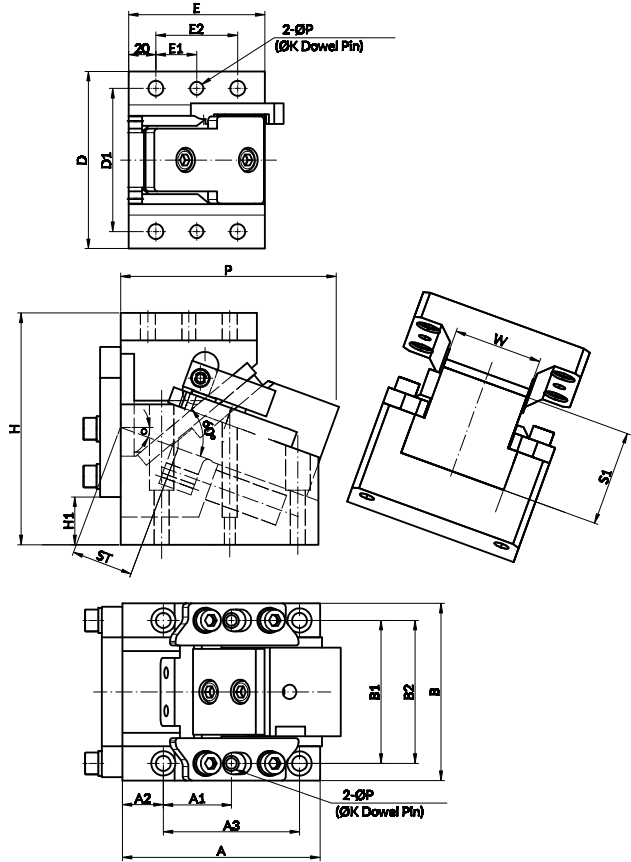
**CIOM 52 - 65**

**Mounting Method**  
N: Pin hole (ØK H7)

CODE	W Working Face Width mm	ST Stroke mm	B mm	L mm	H mm	D mm	D3 mm	H1 mm	A mm	A1 mm	A2 mm	A3 mm	B1 mm	B2 mm	E mm	C mm	C1 mm	E1 mm	E2 mm	P mm	K mm	Max Work Force kN	Spring
																							Extraction Force kN
CIOM.52x25	52	25	98	120	140	100	65	15	120	300	40	80	80	80	80	98	80	20	40	7	8	38	0,62
CIOM.52x40	52	40	98	135	140	100	65	15	135	300	50	95	80	80	90	98	80	25	50	7	8	38	0,63
CIOM.52x60	52	60	98	180	140	100	65	15	180	300	25	140	80	80	110	98	80	35	70	7	8	38	0,65
CIOM.65x40	65	40	130	140	160	115	70	30	145	30	50	100	105	105	100	130	105	30	60	9	10	44	0,79
CIOM.65x60	65	60	130	190	160	115	70	30	180	40	65	125	105	105	110	130	105	35	70	9	10	44	0,8

How to order: Code + W x ST

CARROS DE BASE CIOM  
DIE MOUNTED CAM UNITS CIOM



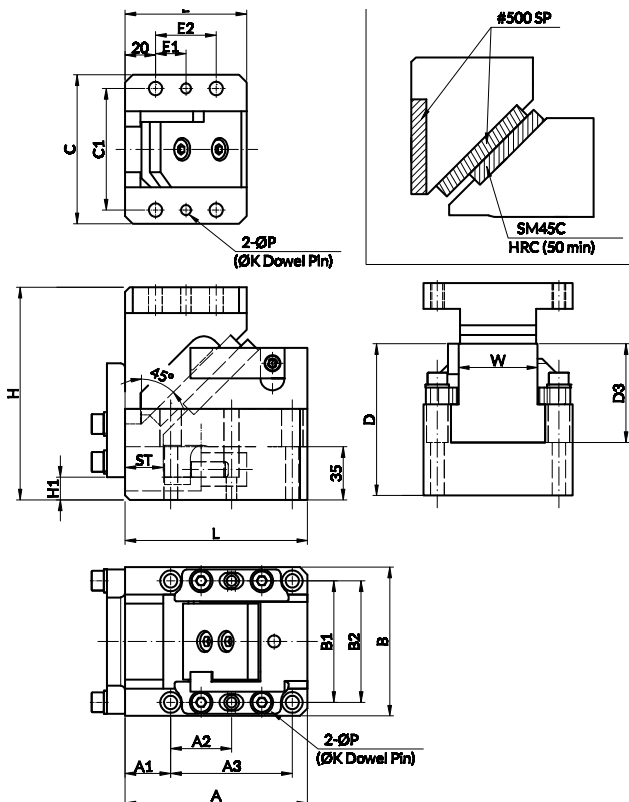
CIOM 65

Mounting Method  
N: Pin hole (ØK H7)

CODE	W Working Face Width	ST Stroke	θ Grades	P	B	H	D	S1	H1	B1	B2	A	A1	A2	A3	D1	E	E1	Max Work Force	Spring	
																				Extraction Force	
	mm	mm	°	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kN	kN
CIOM.65x5x45	65	5	45	150,5	130	155	130	70	20	105	105	145	50	30	100	105	100	30	48	0,78	
CIOM.65x10x45	65	10	45	155	130	160	130	70	25	105	105	145	49	30	100	105	100	30	48	0,78	
CIOM.65x15x45	65	15	45	158,2	130	165	130	70	30	105	105	145	50	30	100	105	100	30	48	0,78	
CIOM.65x20x45	65	20	45	160,2	130	170	130	70	35	105	105	145	50	30	100	105	100	30	48	0,78	
CIOM.65x30x45	65	30	45	160,6	130	180	130	70	55	105	105	145	50	30	100	105	100	30	48	-	
CIOM.65x5x70	65	5	70	195,5	130	170	130	70	30	105	105	180	25	40	125	105	95	27,5	48	1,02	
CIOM.65x10x70	65	10	70	199,4	130	170	130	70	30	105	105	180	25	40	125	105	100	30	48	1,02	
CIOM.65x15x70	65	15	70	201,8	130	170	130	70	35	105	105	180	25	40	125	105	105	32,5	48	1,02	
CIOM.65x20x70	65	20	70	202,5	130	170	130	70	45	105	105	180	25	40	125	105	110	35	48	0,02	
CIOM.65x30x70	65	30	70	199,7	130	170	130	70	55	105	105	180	25	40	125	105	120	40	48	-	

How to order: Code + W x ST

**CARROS DE BASE CIOC**  
DIE MOUNTED CAM UNITS CIOC



**CIOC 100 - 600**

**Mounting Method**  
N: Pin hole (ØK H7)

CODE	W Working Face Width	ST Stroke	B	L	H	D	D3	H1	A	A1	A2	A3	B1	B2	E	C	C1	E1	E2	P	K	Gas Spring				
																						Max Work Force	Extraction Force			
																							mm	mm	kN	kN
CIOC.100x40	100	40	175	190	200	150	100	20	190	45	60	130	140	150	120	165	140	40	80	11	13	75	4,6			
CIOC.100x60	100	60	175	210	200	150	100	20	190	45	60	130	140	150	140	165	140	50	100	11	13	75	5,9			
CIOC.100x80	100	80	175	250	200	150	100	10	220	45	90	160	140	150	150	165	140	55	110	11	13	75	6,8			
CIOC.150x40	150	40	260	190	220	170	100	45	190	45	60	125	210	220	120	230	200	40	80	15	16	120	5,7			
CIOC.150x60	150	60	260	210	220	170	100	45	200	45	65	135	210	220	140	230	200	50	100	15	16	127	5,9			
CIOC.200x40	200	40	310	200	240	180	110	40	200	45	65	135	260	270	130	280	250	45	90	15	16	176	8,6			
CIOC.200x60	200	60	310	220	240	180	110	40	210	45	75	145	260	270	150	280	250	55	110	15	16	176	10,1			
CIOC.250x40	250	40	360	210	270	210	130	50	200	45	60	135	310	320	140	330	300	50	100	15	16	232	8,6			
CIOC.250x60	250	60	360	230	270	210	130	50	220	45	80	155	310	320	160	330	300	60	120	15	16	232	9,4			
CIOC.300x40	300	40	410	210	270	210	130	50	200	45	60	135	360	370	140	380	350	50	100	15	16	272	8,6			
CIOC.300x60	300	60	410	230	270	210	130	50	220	45	80	155	360	370	160	380	350	60	120	15	16	272	9,4			

How to order: Code + W x ST

## CARROS DE BASE CIOC

### DIE MOUNTED CAM UNITS CIOC



See the drawing in the next page...

#### CIOC 100 - 150

#### Mounting Method

N: Pin hole (ØK H7)

CODE	W Working Face Width	ST Stroke	θ Grades	P	B	H	D	S1	H1	B1	B2	A	A1	A2	A3	D1	E	E1	Gas Spring	
																			Max Work Force	Extraction Force
	mm	mm	°	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Kn	Kn
CIOC.100x5x45	100	45	5	172,2	175	200	165	90	35	140	150	160	50	40	105	140	95	27,5	82	4,6
CIOC.100x10x45	100	45	10	178,1	175	200	165	90	35	140	150	160	50	40	105	140	100	30	82	5,9
CIOC.100x15x45	100	45	15	182,7	175	200	165	90	40	140	150	160	50	40	105	140	105	32,5	82	6,8
CIOC.100x20x45	100	45	20	185,8	175	200	165	90	40	140	150	160	50	40	105	140	110	35	82	4,6
CIOC.100x30x45	100	45	30	187,9	175	200	165	90	60	140	150	160	50	40	105	140	120	40	82	6,1
CIOC.100x5x70	100	70	5	207,1	175	200	165	90	35	150	150	190	25	45	130	140	115	37,5	82	4,6
CIOC.100x10x70	100	70	10	212,6	175	200	165	90	35	150	150	190	25	45	130	140	120	40	82	6,1
CIOC.100x25x70	100	70	25	216,5	175	200	165	90	50	150	150	190	25	45	130	140	125	42,5	82	4,6
CIOC.100x20x70	100	70	20	218,7	175	200	165	90	50	150	150	190	25	45	130	140	130	45	82	6,1
CIOC.100x30x70	100	70	30	218,2	175	200	165	90	80	150	150	190	25	45	130	140	140	50	82	4,6
CIOC.150x5x45	150	45	5	193	260	110	230	100	25	210	220	190	60	45	125	200	105	32,5	127	4,6
CIOC.150x10x45	150	45	10	199,6	260	110	230	100	30	210	220	190	60	45	125	200	110	35	127	6,6
CIOC.150x15x45	150	45	15	204,6	260	110	230	100	35	210	220	190	60	45	125	200	115	37,5	127	4,6
CIOC.150x20x45	150	45	20	208	260	110	230	100	30	210	220	190	60	45	125	200	120	40	127	6,6
CIOC.150x30x45	150	45	30	210,2	260	110	230	100	50	210	220	190	60	45	125	200	130	45	127	4,6
CIOC.150x5x70	150	70	5	217,9	260	215	230	100	20	210	220	200	75	45	135	200	125	42,5	127	6,6
CIOC.150x10x70	150	70	10	224,4	260	220	230	100	30	210	220	200	75	45	135	200	130	45	127	4,6
CIOC.150x15x70	150	70	15	228,7	260	225	230	100	40	210	220	200	75	45	135	200	135	47,5	127	6,6
CIOC.150x20x70	150	70	20	231,5	260	230	230	100	45	210	220	200	75	45	135	200	140	50	127	4,6
CIOC.150x30x70	150	70	30	231,8	260	240	230	100	70	210	220	200	75	45	135	200	150	55	127	6,6

How to order: Code + W x ST

CARROS DE BASE CIOC  
DIE MOUNTED CAM UNITS CIOC

