

NITROGAS Roller Cams are compact and cost effective. Designed for a long service life, since the wear surfaces are mounted with Aluminium-Bronze alloy with graphite against steel surfaces hardened to 55-60 HRC.

As the movement of the press is transformed by a roller, the roller cams are applicable for longer strokes (50-100 mm) and for loads up to 20000 daN. Nominal forces of 2000 daN, 3000 daN, 5000 daN, 15000 daN and 20000 daN are available.

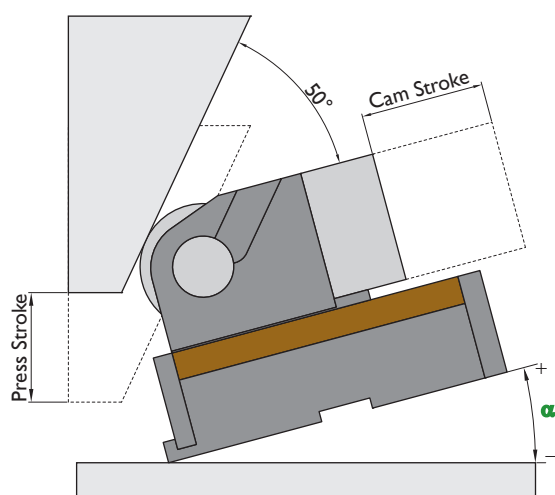
Roller Cams are recommended in case of long strokes and little space. Due to the guiding type they are not recommended for heavy asymmetric loads (see Working Force Distribution on the side page).

The cam units are fitted with gas springs to provide the return force and ensure the return of the body. All models has an easy access to the return spring (see Gas Spring extraction below).

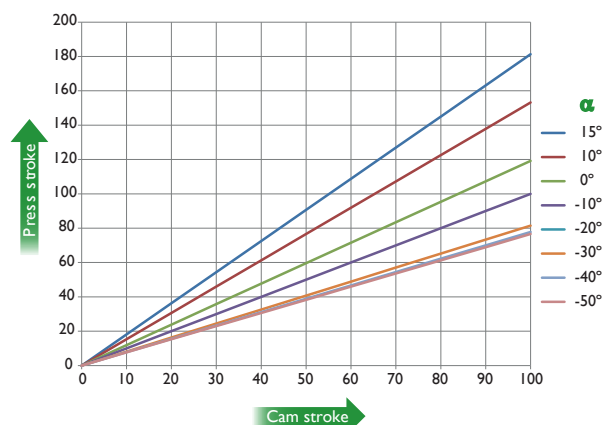
NITROGAS offers engineering support referring to cam applications for die designers and builders.

CAD files of Roller Cams can be downloaded for FREE from our website: www.nitrogas.com

Cam Diagram

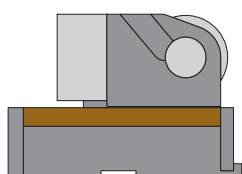


The press stroke depends on the assembly angle (α) of the Roller Cam Unit.



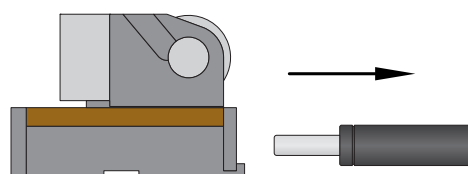
Gas spring extraction

The dismounting of the gas spring allows an easier movement of the cam slide at the adjustment of the Roller Cam Unit.



STEP 1

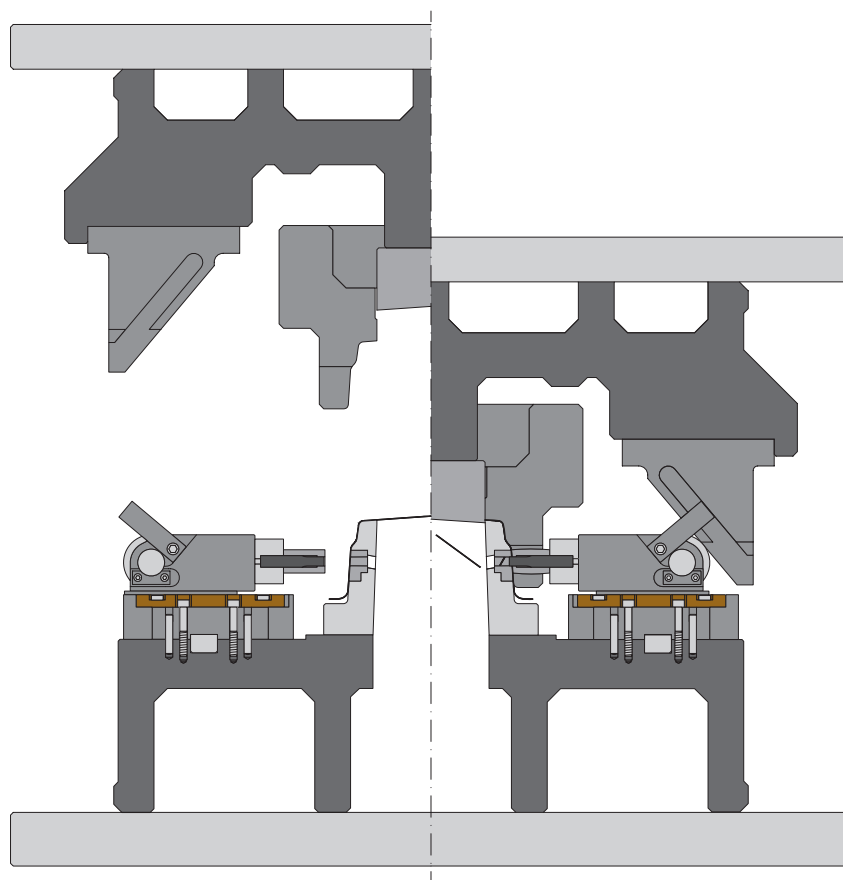
Remove the screws.



STEP 2

Remove the gas spring.

Example of work



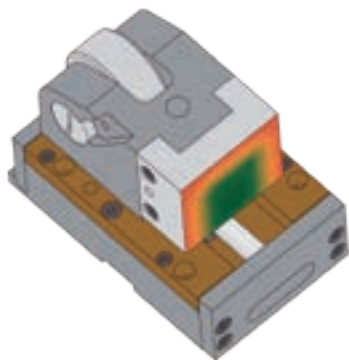
Spare parts available for all the Roller Cams.



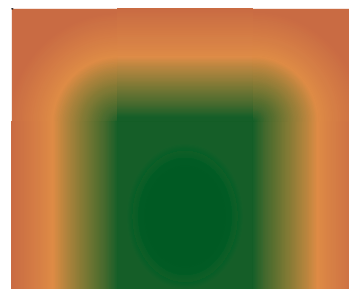
Maximum press speed 1.6 m/s

Maximum cadence (at 20°C) 40 strokes/min

Working force distribution



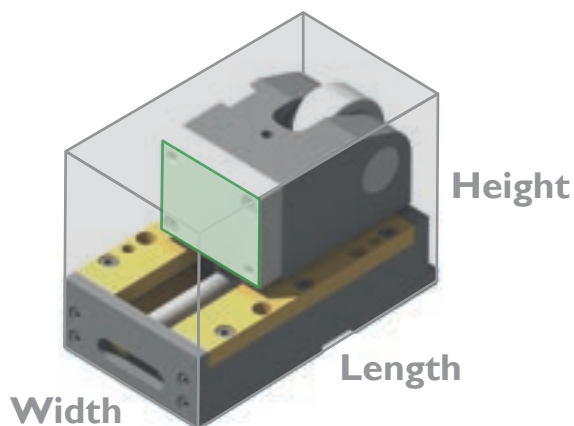
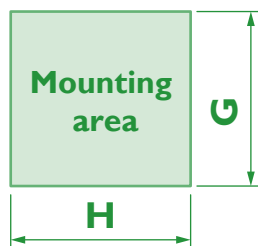
The center of the load must be located as much centered as possible.



Working Force



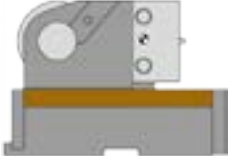
Roller cams overview



Mounting area

Overall Dimensions

Model	Working Force daN	S mm	H mm	G mm	Spring Force daN	Width mm	Height mm	Length mm	Weight kg
CRCN 	03000	50	63	63	390	94	117	190	9.2
		80			540			220	10.3
	05000	50	90	74	390	120	140	190	14.7
		80			540			220	15.7
		100			157		260	22.2	
	15000	50	135	90	910	170	165	190	26.7
		80			710			220	28.5
		100			260			32.5	

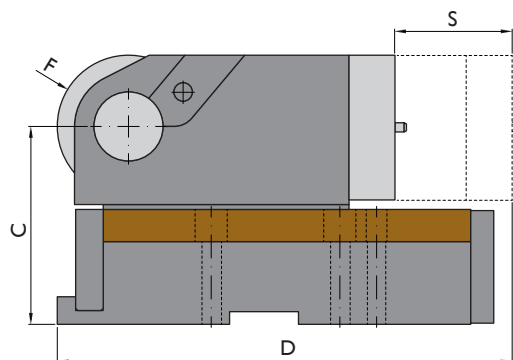
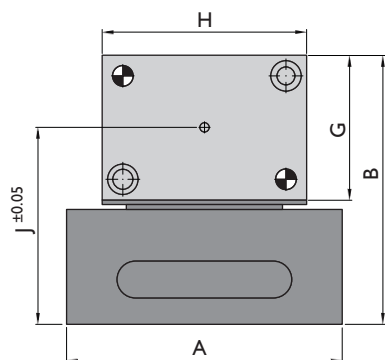
CRCS 	02000	22	50	50	180	75	85	115	3
		35			190			136	3.7
	03000	50	68	63	450	100	117	200	10.7
		80			540			230	11.1
		100			260			16.9	
	05000	50	88	74	450	120	140	200	15.4
		80			540			230	17
		100			260			18.3	
	15000	50	132	92	910	170	165	220	28.8
		80			710			250	29
		100			270			29.8	
	20000	50	196	110	1200	240	205	250	61.8
		80						280	62.1
		100						300	65.4



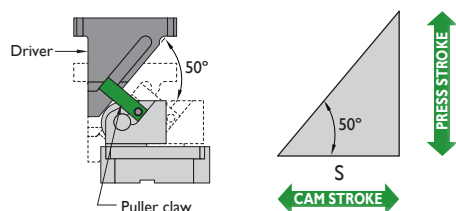
WEB



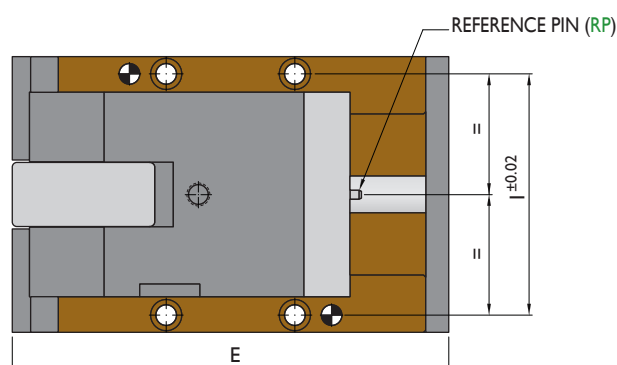
CAD



CAM DIAGRAM



If placed in horizontal position:
1 mm. press stroke = 0.85. cam stroke

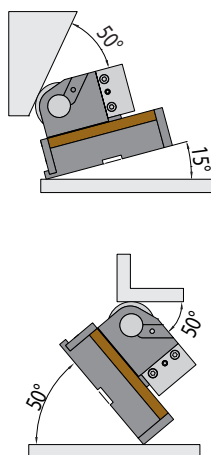


Ordering example: 4 x CRCN-03000-50 - RP (with reference pin)
4 x CRCN-03000-50 (without reference pin)



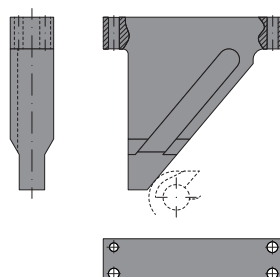
If a reference pin is required, mark it in the order as it is shown in the ordering example.

Maximum inclination angle



Optional accessories

DRIVER*



PULLER CLAW



See dimensions on page 28.

Ordering example: CRCN-03000-51

Ordering example: CRCN-03000-C1

* Driver for installation angle 0°. For any other installation angle, contact with NITROGAS engineering.

Order No.					 General Dimensions										Accessories ⁽¹⁾	
Model	Working Force daN	S mm	Weight kg	Spring Force daN	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	J mm	Driver	Puller Claw
CRCN	03000	50	9.2	390	94	117	86	198	190	31	63	63	79	86	CRCN-03000-51	CRCN-03000-C1
CRCN	03000	80	10.3	540	94	117	86	228	220	31	63	63	79	86	CRCN-03000-52	CRCN-03000-C2
CRCN	05000	50	14.7	390	120	140	103	198	190	36	74	90	105	103	CRCN-05000-51	CRCN-05000-C1
CRCN	05000	80	15.7	540	120	140	103	228	220	36	74	90	105	103	CRCN-05000-52	CRCN-05000-C2
CRCN	05000	100	22.2	540	120	157	120	268	260	36	74	90	105	120	CRCN-05000-53	CRCN-05000-C3
CRCN	15000	50	26.7	910	170	165	120	198	190	45	90	135	155	120	CRCN-15000-51	CRCN-15000-C1
CRCN	15000	80	28.5	710	170	165	120	228	220	45	90	135	155	120	CRCN-15000-52	CRCN-15000-C2
CRCN	15000	100	32.5	710	170	165	120	268	260	45	90	135	155	120	CRCN-15000-53	CRCN-15000-C3

⁽¹⁾ For more information about accessories contact with NITROGAS engineering at engineering@nitrogas.com



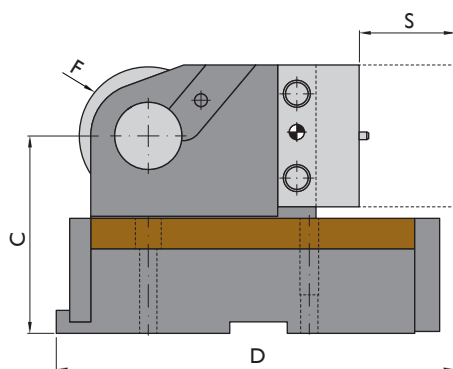
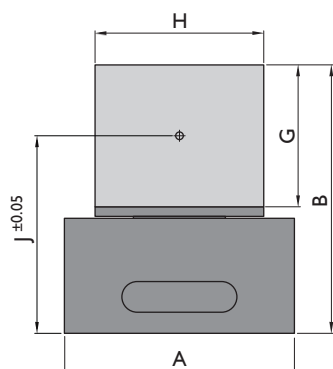
More details about Roller Cam Units and spare parts on our website:

<http://www.nitrogas.com/es/CRCN.aspx>

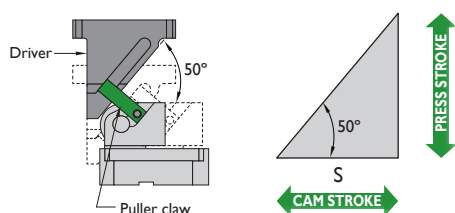
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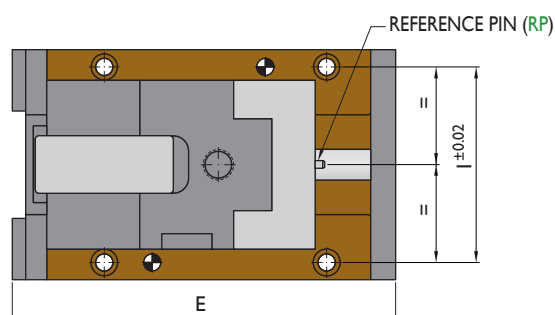
CAD



CAM DIAGRAM



If placed in horizontal position:
1 mm. press stroke = 0.85. cam stroke

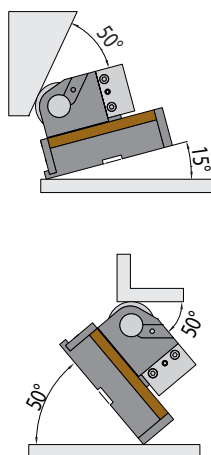


Ordering example: 4 x CRCS-03000-80 - RP (with reference pin)
4 x CRCS-03000-80 (without reference pin)



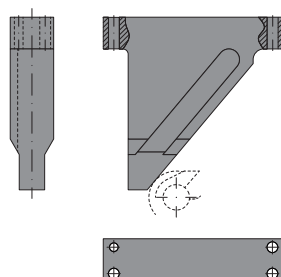
If a reference pin is required, mark it in the order as it is shown in the ordering example.

Maximum inclination angle



Optional accessories

DRIVER*



PULLER CLAW



See dimensions on page 28.

Ordering example: CRCS-03000-52

Ordering example: CRCS-03000-C2

* Driver for installation angle 0°. For any other installation angle, contact with NITROGAS engineering.

Order No.				General Dimensions											Accessories ⁽¹⁾	
Model	Working Force daN	S mm	Weight kg	Spring Force daN	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	J mm	Driver	Puller Claw
CRCS	02000	22	3	180	75	85	63	103	115	23	50	50	63	63	CRCS-02000-51	CRCS-02000-C1
CRCS	02000	35	3.7	190	75	85	63	137	136	23	50	50	63	63	CRCS-02000-52	CRCS-02000-C2
CRCS	03000	50	10.7	450	100	117	86	208	200	31	63	68	82	86	CRCS-03000-51	CRCS-03000-C1
CRCS	03000	80	11.1	450	100	117	86	238	230	31	63	68	82	86	CRCS-03000-52	CRCS-03000-C2
CRCS	03000	100	16.9	540	100	117	110	258	260	31	63	68	82	86	CRCS-03000-53	CRCS-03000-C3
CRCS	05000	50	15.4	450	120	140	103	208	200	36	74	88	102	103	CRCS-05000-51	CRCS-05000-C1
CRCS	05000	80	17	450	120	140	103	238	230	36	74	88	102	103	CRCS-05000-52	CRCS-05000-C2
CRCS	05000	100	18.3	540	120	140	103	258	260	36	74	88	102	103	CRCS-05000-53	CRCS-05000-C3
CRCS	15000	50	28.8	910	170	165	120	216	220	45	92	132	150	120	CRCS-15000-51	CRCS-15000-C1
CRCS	15000	80	29	910	170	165	120	246	250	45	92	132	150	120	CRCS-15000-52	CRCS-15000-C2
CRCS	15000	100	29.8	710	170	165	120	266	270	45	92	132	150	120	CRCS-15000-53	CRCS-15000-C3
CRCS	20000	50	61.8	1200	240	205	150	258	250	55	110	196	222	150	CRCS-20000-51	CRCS-20000-C1
CRCS	20000	80	62.1	1200	240	205	150	288	280	55	110	196	222	150	CRCS-20000-52	CRCS-20000-C2
CRCS	20000	100	65.4	1200	240	205	150	308	300	55	110	196	222	150	CRCS-20000-53	CRCS-20000-C3

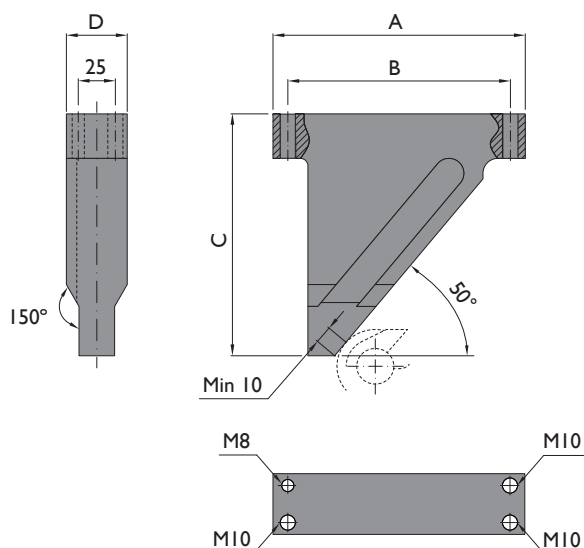
⁽¹⁾ For more information about accessories contact with NITROGAS engineering at engineering@nitrogas.com



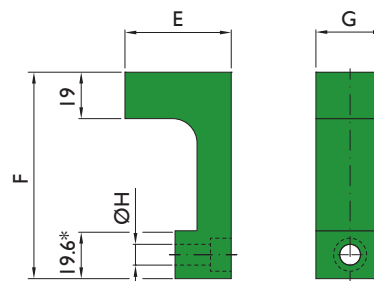
More details about Roller Cam Units and spare parts on our website:

<http://www.nitrogas.com/es/CRCS.aspx>

DRIVER



PULLER CLAW



* For CRCS-02000-22 and CRCS-02000-35 12.1mm

Note: Driver for installation angle 0°. For any other installation angle contact with NITROGAS engineering.

CRCN

ROLLER CAM	DRIVER Order No.	PULLER CLAW Order No.	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm
CRCN-03000-50	CRCN-03000-51	CRCN-03000-C1	170	150	163	41	33	79.1	23	8.5
CRCN-03000-80	CRCN-03000-52	CRCN-03000-C2	200	180	199	41	33	79.1	23	8.5
CRCN-05000-50	CRCN-05000-51	CRCN-05000-C1	170	150	163	45	44	84.5	28	8.5
CRCN-05000-80	CRCN-05000-52	CRCN-05000-C2	200	180	199	45	44	84.5	28	8.5
CRCN-05000-100	CRCN-05000-53	CRCN-05000-C3	220	200	223	45	44	84.5	28	8.5
CRCN-15000-50	CRCN-15000-51	CRCN-15000-C1	170	150	163	51	66	89.5	30	10.5
CRCN-15000-80	CRCN-15000-52	CRCN-15000-C2	200	180	199	51	66	89.5	30	10.5
CRCN-15000-100	CRCN-15000-53	CRCN-15000-C3	220	200	223	51	66	89.5	30	10.5

CRCS

CRCS-02000-22	CRCS-02000-51	CRCS-02000-C1	105	87	98	32	25.5	61.4	15	6.5
CRCS-02000-35	CRCS-02000-52	CRCS-02000-C2	115	97	109	32	25.5	61.4	15	6.5
CRCS-03000-50	CRCS-03000-51	CRCS-03000-C1	170	150	163	41	35.5	80.3	23	8.5
CRCS-03000-80	CRCS-03000-52	CRCS-03000-C2	200	180	199	41	35.5	80.3	23	8.5
CRCS-03000-100	CRCS-03000-53	CRCS-03000-C3	220	200	223	41	35.5	80.3	23	8.5
CRCS-05000-50	CRCS-05000-51	CRCS-05000-C1	170	150	163	45	43	84.4	28	8.5
CRCS-05000-80	CRCS-05000-52	CRCS-05000-C2	200	180	199	45	43	84.4	28	8.5
CRCS-05000-100	CRCS-05000-53*	CRCS-05000-C3	-	-	-	-	43	84.4	28	8.5
CRCS-15000-50	CRCS-15000-51	CRCS-15000-C1	170	150	163	51	64.5	86.8	30	10.5
CRCS-15000-80	CRCS-15000-52	CRCS-15000-C2	200	180	199	51	64.5	86.8	30	10.5
CRCS-15000-100	CRCS-15000-53	CRCS-15000-C3	220	200	223	51	64.5	86.8	30	10.5
CRCS-20000-50	CRCS-20000-51	CRCS-20000-C1	170	150	163	65	98.1	96	35	10.5
CRCS-20000-80	CRCS-20000-52	CRCS-20000-C2	200	180	199	65	98.1	96	35	10.5
CRCS-20000-100	CRCS-20000-53	CRCS-20000-C3	220	200	223	65	98.1	96	35	10.5

* CRCS-05000-53 special driver. For CRCS-05000-100 cam accessories contact with NITROGAS engineering.

Driver ordering example: CRCN-03000-51

Puller Claw ordering example: CRCN-03000-C1