

THE INNOVATOR OF OUR INDUSTRY®

# Introducing Our New Line of Camdrive<sup>®</sup> Roller Cams





### **READY Roller Cams**

All cams are built with the finest materials and assembled with exact precision for product reliability and long life.

- 14 additional stroke lengths
- Special high production, high wear sliding plates
- Gas spring return

### Six New Models



1. RTRC 2000 (Holder Mount) Max punching force 2000 daN (4496 lbf) ..... page 6



2. RTRC 3000 (Holder Mount) Max punching force 3000 daN (6744 lbf)..... page 7



3. RTRCS 3000 (Slide Mount) Max punching force 3000 daN (6744 lbf) ...... page 8



4. RTRC 5000 (Holder Mount) Max punching force 5000 daN (11240 lbf) ..... page 9



5. RTRCS 5000 (Slide Mount) Max punching force 5000 daN (11240 lbf)..... page 10



6. RTRCS 15000 (Slide Mount) Max punching force 15000 daN (33721 lbf)...... page 11



To satisfy the demand for modern tools, a new sintered steel material has been developed that combines lower rates of wear and tear in sliding plates with a long useful life and less maintenance. This new generation of sliding elements is made of an iron-based porous sintered metal which provides the sliding element with a higher degree of solidity. This material is characterised by its solidity in medium-to-high speeds.



READ

#### **Traditional Bronze and Sintered Metal Comparison Chart**

Characteristics	Bronze	Sintered Metal			
Maximum sliding speed	15 m/min	70 m/min			
Frictional coefficient	0,05 - 0,15	0,05 - 0,15			
Surface pressure normal	35 N/mm <sup>2</sup>	70 N/mm <sup>2</sup>			
Brinell hardness HB 10	190 - 220 HB S10/3000	-			
Hardness of the sliding film	-	HRB60 - HRC20			
Hardness of the base material	-	HRB80 - HRC40			
Operating temperature	< 150 °C	< 250 °C			
Max. unlubricated operating time	1000	3000			
Integrated lubricant	Graphite	Fe + Cu + Graphite + MoS2			
Portion of lubricant	20 - 35%	15 - 20%			

Fe = Iron, Cu = Copper

#### **Cylinder Extraction**

Remove the screws (1) of the front plate and remove the gas spring stopper plate (2). The gas spring (3) is now free and can be removed from the cam.

Once the gas spring has been extracted, the cam slide can be manually operated for adjustment operations. The slide will provide a sliding resistance on the baseplate of 20-40 daN.

NOTE: Dismounting the gas spring allows for easier movement of the cam slide at the adjustement of the Roller cam units.





#### Passive Return Device (PRD)

To certain that the roller cam has returned to its initial position, READY recommends the use of a PRD inductive sensor as a passive return device. Then if the gas spring fails and the cam does not return when the press ram goes back up, an alarm or a press shutdown can be activated.



Reference	Туре	Function	Nominal sensing distance	Supply voltage	Switching capacity	
PRD-1		NO				
PRD-2	PNP	NP			200mA	
PRD-3		NO	2mm	1224VDC		
PRD-4	PRD-4	NC				





#### Active Return Device ARD 1

A gas spring is used to retract the cam. The force is adjusted in such a way that it is sufficient to slide the carriage back to its starting position. Depending on the operation, adding an active return can contribute to a higher degree of safety. For this purpose, the cam slide has a slot to accommodate an extractor hook for the active return, with which the cam slider is pulled backwards with higher separating forces, coming into operation in case of a gas spring failure.

The extractor hook is fitted in its housing and secured with a screw, as shown. The adjacent illustrates one option among a number of possible pusher designs. The customer is responsible for the construction of the pusher support. The extractor hook is available as an accessory at READY.



Reference	Cam Model
ARD-3-1	RTRC3000 / RTRCS3000
ARD-5-1	RTRC5000 / RTRCSS5000
ARD-15-1	RTRCS15000



Part no.	Description	Quantity
1	Baseplate	1
2	Cam slide	1
3	Cover bar	2
4	Prismatic bar	2
5	Rod	1
6	Roll	1
7	Back limit plate	1
8	Limit plate in front	1
9	Insert pressure plate	1
10	Gas spring	1
11	Retainer ring	1
12	Screw ISO 4762	8
13	Screw ISO 7984	2
14	Screw ISO 4762	6
15	Screw ISO 4762	2
16	Dowel pin	2
17	Punch holder	1
18	Screw ISO 4762	4

### **RTRC 2000**









specifi	ications	Max. width	Ka
Velocity	Strokes / min	of driver	Ng
0,5 m/s	35	25 mm	3,95
	specifi Velocity 0,5 m/s	specifications Velocity 0,5 m/s 35	specificationsMax. width of driverVelocityStrokes / minof driver0,5 m/s3525 mm



Maximum force that can be applied to the punch depending on eccentricity, so that the stress in the assembly is the same as it was when the punch was completely centred.



### **RTRC 3000**











Model m	A Im n	B m	C mm	
RTRC 3000x50 1	90 !	56 8	38	
RTRC 3000x80 2	20 8	36 1	18	

Model	Smax mm force	Max.	Gas spring return force		Gas spring	Max. working specifications		Max. width of	Ka
		force	Initial	Final	model	Velocity	Strokes / min	driver	1.9
RTRC 3000x50-1	50		400 daN	≈ 600 daN	TPK 32x50		40		0.2
RTRC 3000x50-2	50	3000 daN	200 daN	≈ 270 daN	TPS 32x50	0.5 m/s	40	35 mm	9,2
RTRC 3000x80-1	90	5000 dain	400 daN	≈ 600 daN	TPK 32x80	0,5 m/s	35		10.0
RTRC 3000x80-2	00		200 daN	≈ 270 daN	TPS 32x80				10,0





Maximum force that can be applied to the punch depending on eccentricity, so that the stress in the assembly is the same as it was when the punch was completely centered.



# **RTRCS 3000**









B

67

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			C <sup>±0.01</sup>	51
		-	^	
			- H	

Model	A mm	B mm	C mm
RTRCS 3000x50	190	56	88
RTRCS 3000x80	220	86	118

Model	Smax	Max.	Gas spri foi	ng return rce	Gas spring	Max. w specifi	orking cations	Max. width of	Ka
	mm	force	Initial	Final	model	Velocity	Strokes / min	driver	
RTRCS 3000x50-1	50 80		400 daN	≈ 600 daN	TPK 32x50		40		8 60
RTRCS 3000x50-2		2000 4-11	200 daN	≈ 270 daN	TPS 32x50	0.5 m/s	40	25 mm	0,00
RTRCS 3000x80-1		3000 uain	400 daN	≈ 600 daN	TPK 32x80	0,5 m/s 35	35 mm	0.40	
RTRCS 3000x80-2			200 daN	≈ 270 daN	TPS 32x80		35		9,40



Maximum force that can be applied to the punch depending on eccentricity, so that the stress in the assembly is the same as it was when the punch was completely centred.



### **RTRC 5000**









Model	A mm	B mm	C mm	D mm	E mm	F mm
RTRC 5000x50	190	56	88	103	140	20
RTRC 5000x80	220	86	118	103	140	20
RTRC 5000x100	260	126	158	120	157	30

Model	Smax M mm pun fo	Max.	Gas spring	return force	Gas spring	Max. working specifications		Max. width of	Ka
		force	Initial	Final	model	Velocity	Strokes / min	driver	κy
RTRC 5000x50-1	50		400 daN	≈ 600 daN	TPK 32x50		40		15.2
RTRC 5000x50-2	50		200 daN	≈ 270 daN	TPS 32x50		40		10,2
RTRC 5000x80-1	80	5000 doN	400 daN	≈ 600 daN	TPK 32x80	0.5 m/o	25	40 mm	16.0
RTRC 5000x80-2	80	5000 dan	200 daN	≈ 270 daN	TPS 32x80	0,5 m/s	35	40 mm	10,0
RTRC 5000x100-1	100	100	400 daN	≈ 600 daN	TPK 32x100		25		22.5
RTRC 5000x100-2	100		200 daN	≈ 270 daN	TPS 32x100				22,5







Maximum force that can be applied to the punch depending on eccentricity, so that the stress in the assembly is the same as it was when the punch was completely centered.



# **RTRCS 5000**







Model	A mm	B mm	C mm	D mm	E mm
RTRCS 5000x50	190	56	88	103	140
RTRCS 5000x80	220	86	118	103	140
RTRCS 5000x100	260	126	158	120	157





Model	Smax mm	Max. punching force	Gas spring return force		Gas spring	Max. working specifications		Max. width of	Ka
			Initial	Final	model	Velocity	Strokes / min	driver	
RTRCS 5000x50-1	50		400 daN	≈ 600 daN	TPK 32x50	0,5 m/s	40 35	40 mm	14.20
RTRCS 5000x50-2	50		200 daN	≈ 270 daN	TPS 32x50				14,20
RTRCS 5000x80-1	20	5000 daN	400 daN	≈ 600 daN	TPK 32x80				15.00
RTRCS 5000x80-2	00		200 daN	≈ 270 daN	TPS 32x80				15,00
RTRCS 5000x100-1	100		400 daN	≈ 600 daN	TPK 32x100		25		21.00
RTRCS 5000x100-2	100		200 daN	≈ 270 daN	TPS 32x100				21,00

### **Working Force Distribution**







Maximum force that can be applied to the punch depending on eccentricity, so that the stress in the assembly is the same as it was when the punch was completely centred.

#### Maximum Incline





How to order								
RTRCS 5000	x	80	-	2	r			
Model		Stroke	Gas	s spring model	1 - TPK series 2 - TPS series 150			

# **RTRCS 15000**











Model	A mm	B mm	C mm
RTRCS 15000x50	190	56	88
RTRCS 15000x80	220	86	118
RTRCS 15000x100	260	126	158

Model	Smax Max.		Gas spring return force		Gas spring	Max. working specifications		Max. width of	
	mm	force	Initial	Final	model	Velocity	Strokes / min	driver	
RTRCS 15000x50	50	15000 daN	400 daN	≈ 580 daN	2x TPC 25x50	0,5 m/s	35	65 mm	26,3
RTRCS 15000x80	80				2x TPC 25x80		25		27,6
RTRCS 15000x100	100				2x TPC 25x100		20		30,8





Maximum force that can be applied to the punch depending on eccentricity, so that the stress in the assembly is the same as it was when the punch was completely centered.





# The Innovator of Our Industry<sup>s™</sup>

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