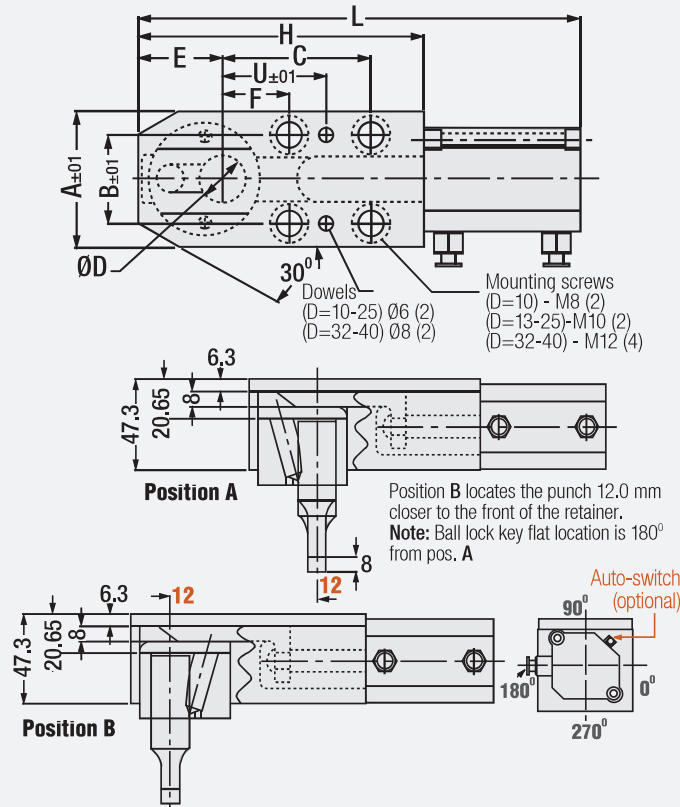




LIGHT DUTY
HEAVY DUTY

Ball Lock Retainer with Air Cylinder Dual-position advantage

Code: **MRA**



Thanks to its powerful block structure, there is no need for extra security. "MRA - Ball Lock Retainer" do not create additional tooling cost and it provides to add or remove hole without interrupting production. It is compatible with NAAMS standards and leading automotive standards. Position B enables the punch to get closer to the front end of the retainer (edge) 12 mm.

D	L	A	B	C		E		F	
				Pos.A	Pos.B	Pos.A	Pos.B	Pos.A	Pos.B
MRA.10	161	46	30	-	-	28	16	21	33
MRA.13	172.5	50	30	-	-	28	16	25	37
MRA.16	177	50	30	-	-	31	19	25	37
MRA.20	191.5	58	38	-	-	32.5	20.5	29	41
MRA.25	206.5	58	38	-	-	35	23	29	41
MRA.32	260	80	56	100	112	38	26	38	50
MRA.40	264	80	56	100	112	42	30	38	50

Air Fitting: 10 -25 M5 x 0.8 (2) 32 - 40 1/8 NPT (2) Min. Pressure : 45 PSI
Recommended Air Pressure: 4,60 - 5,3 Kgf / cm² (65 - 75 PSI) Max. Pressure: 145 PSI

D	H	U		Screw
		Pos.A	Pos.B	
MRA.10	93.5	37	49	M8
MRA.13	100	41	53	M10
MRA.16	104.5	41	53	M10
MRA.20	113.5	45	57	M10
MRA.25	123.5	45	57	M10
MRA.32	152	60	72	M12
MRA.40	156	60	72	M12

Note: Necessary screws, dowel pins and air cylinder are given with the product. Air connection tubes and auto-switch are not given with the product. They should be ordered separately. Ask information for additional accessories.

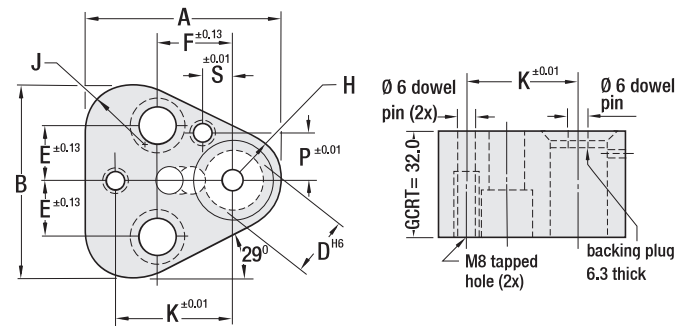


LIGHT DUTY

Ball Lock Punch Retainer - Light Duty

Code: **GCRT**

- Centre of pin holes are reference points for punch hole position.
- Shim and backing plate should be supplied separately.
- Shaped punches use the secondary dowel for precise alignment; round punches need only one.
- The precision-ground ball hole assures perfect alignment of any punch shape – even if you replace the retainer.
- Retainer includes;
2 dowel pins + 2 screws + 1 ball + 1 spring + 1 ball release screw.

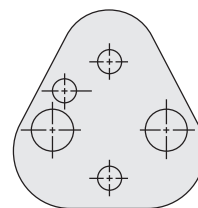


Code: **GCRT**

Order	GCRT. 10	GCRT. 13	GCRT. 16	GCRT. 20	GCRT. 25
D (punch)	10	13	16	20	25
A	44.5	50.8	54.0	60.3	69.9
B	43.7	50.0	53.2	59.5	69.1
E	11.1	14.3	15.9	17.5	19.8
F	19.0	19.0	19.0	19.0	23.8
H	9.5	12.7	14.3	17.5	22.2
J	12.0	15.2	16.8	20.0	24.7
K	26.925	29.970	31.750	33.530	40.640
P	9.0	12.0	13.5	16.5	22.0
S	7.5	6.5	6.0	5.0	7.0
Screw	M8	M8	M8	M10	M12

Shim & Backing Plate for Punch Retainer

Please check "page 184" for shim and backing plates.



Shim Plate t = 1.8 (soft)

Code: **PRSP**

Backing Plate t = 4.8 (55 HRC)

Code: **PRBP**

±0.13

Dies



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