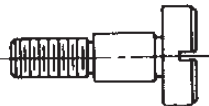
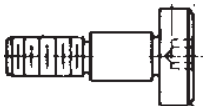
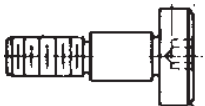
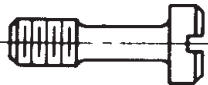




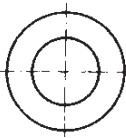


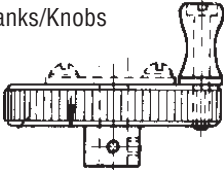

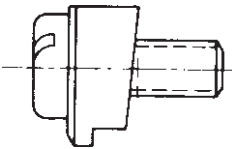
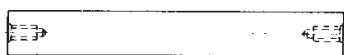
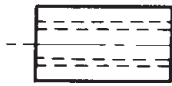
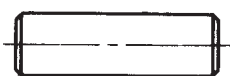

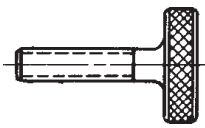
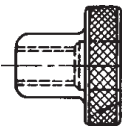
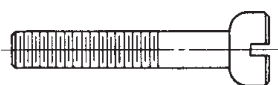

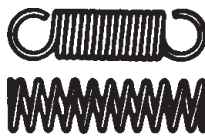
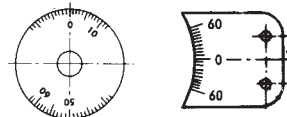


PIC Design offers an extensive line of precision Hardware which contains various items for fastening and/or locating of precision industrial components. The hardware is manufactured from Stainless Steel to the PIC high quality standards, in either inch or metric styles of thread, diameter and length.

The following pages have been included as a technical guide to aid the designer or engineer in selecting the appropriate screw type and size. The drill and tap data in inch for both the UNF and the UNC pieces,

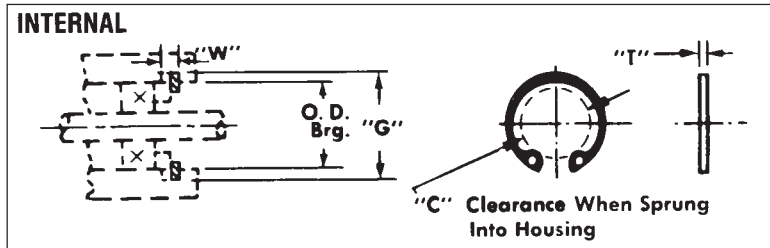
selects the correct drill to be used for the appropriate tap. For the metric ISO thread, the correct drill is recommended for the thread size and pitch.

The screw head detail data for both inch and metric heads enables the designer to select the appropriate type of head required and to allow for the clearance of the heads.

Slotted head shoulder screws. 	Socket head shoulder screws. 	Philips head shoulder screws. 	Captive Screws 
No-Mar set screws 	Silver-Grip set screws 	Cup point set screws 	Brass tip set screws 
Precision washers 	Belleville spring washers 	Curved washers 	Cranks/Knobs 
Retaining rings 	Motor mount cleats 	Spacers 	Standoffs 
Dowel pins 	Woodruff keys 	Knurled thumb screws 	Knurled thumb nuts 
Swivel studs, nuts and washers 	Handles 	Springs 	Dials and verniers 

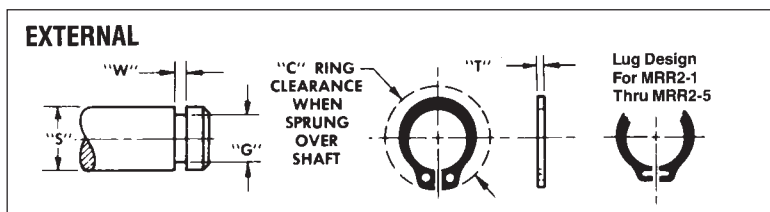
METRIC RETAINING RINGS

All Dimensions In Millimeters ■ Internal, External, External-E Ring Series



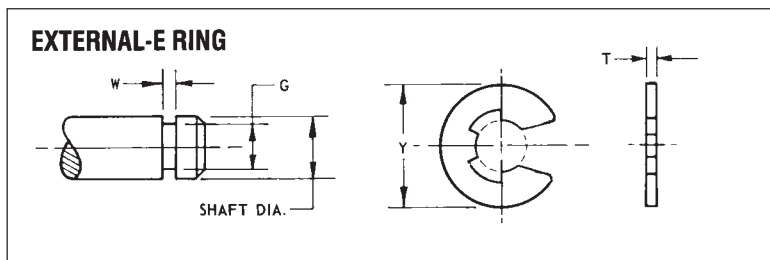
Material: Spring Steel

O.D. BRG.	Groove Dims.			T	C	Part No.
	G	tol	W (min.)			
10	10.4	+0.11	1.1	1.0	4.0	MRR1-2
11	11.4	+0.11	1.1	1.0	4.8	MRR1-3
13	13.6	+0.11	1.1	1.0	6.4	MRR1-4
15	15.7	+0.11	1.1	1.0	8.3	MRR1-5
16	16.8	+0.11	1.1	1.0	9.2	MRR1-6
19	20.0	+0.15	1.1	1.0	11.8	MRR1-7
22	23.0	+0.15	1.1	1.0	14.6	MRR1-8
26	27.2	+0.21	1.3	1.2	17.8	MRR1-9



Material: Spring Steel

Shaft Dia. (S)	Groove Dims.			T	C	Part No.
	G	tol	W (min.)			
4	3.8	-0.04	0.5	0.4	8.2	MRR2-2
5	4.8	-0.04	0.7	0.6	9.8	MRR2-3
6	5.7	-0.04	0.8	0.7	11.1	MRR2-4
8	7.6	-0.06	0.9	0.8	14.0	MRR2-5
10	9.6	-0.11	1.1	1.0	16.2	MRR2-6
12	11.5	-0.11	1.1	1.0	18.1	MRR2-7



Material: Spring Steel

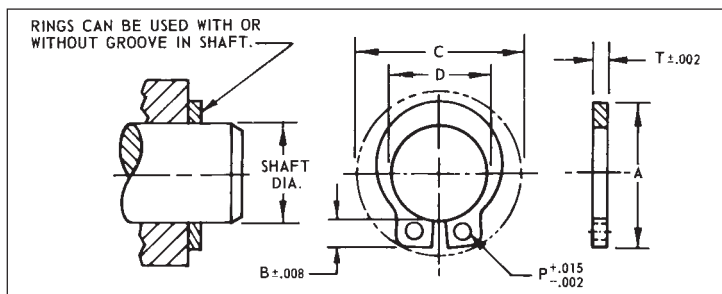
Shaft Dia.	Groove Dims.			Y (Fitted)	T (max.)	Part No.
	G	tol	W (min.)			
2	1.2	-0.06	0.34	3.0	0.32	MRR3-1
3	1.9	-0.06	0.54	4.5	0.52	MRR3-2
4	2.3	-0.06	0.64	6.0	0.62	MRR3-3
5	3.2	-0.07	0.64	7.0	0.62	MRR3-4
6	4.0	-0.07	0.74	9.0	0.72	MRR3-5
8	5.0	-0.07	0.74	11.0	0.72	MRR3-6
10	7.0	-0.09	0.94	14.0	0.92	MRR3-7
12	8.0	-0.09	1.05	16.0	1.03	MRR3-8

METRIC RETAINING RINGS KIT

Description of Contents	Number of Parts	Part No.
Retaining Rings, spring steel, zinc plated. Bearing, shaft and snap type for shaft sizes 3 to 5mm.	400	MAK8

RETAINING RINGS

Gripping External Series



Material: PH 15-7 MO Stainless Steel

Shaft Dia.	A (Ref.)	B	C	D	T	P Dia.	Part No.
.125	.268	.078	.33	.120	.025	.042	Z5-1
.187	.364	.097	.44	.181	.035	.051	Z5-2
.250	.437	.097	.49	.238	.035	.051	Z5-3
.375	.620	.141	.74	.354	.042	.078	Z5-4
.500	.768	.158	.90	.470	.050	.078	Z5-5