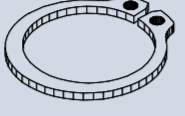
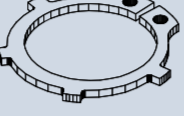
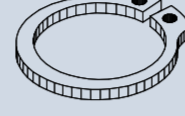
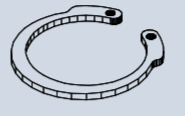
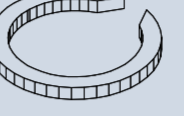

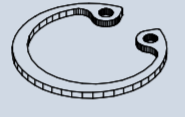
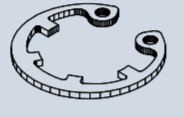


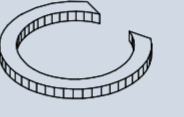


**Anelli a montaggio assiale | Axial assembly rings**



**PER ALBERI | FOR SHAFT**

<b>Tipologia   Type</b>	DIN 471 (A) 2100 - 5100 	DIN 983 (AK) 	AS (DIN 471 Heavy duty) 2160 - 5160 	AV 2108 - 5108 	SW (WR) 	DIN 5417 (SP) 
<b>Dimensioni   Dimensions (mm   inch)</b>	3-600 / 0,125 - 23,5	16-140	10-100 / 0,395 - 4	12-100 / 0,5 - 4	4-290 / 0,16 - 11,5	30-400/1,18-15,75

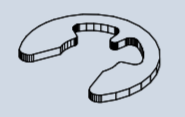



**PER FORI | FOR BORES**

<b>Tipologia   Type</b>	DIN 472 (J) 2000 - 5000 	DIN 984 (JK) 	JS (DIN 472 Heavy duty) 	JV 2008 - 5008 	SB (BR) 
<b>Dimensioni   Dimensions (mm   inch)</b>	8-600 / 0,125 - 23,5	16-170	14-150 / 0,625 - 6	12-100 / 0,5 - 4	7-440/0,275 - 17




**DI RASAMENTO PS/SS DIN 988 | SUPPORT WASHERS TYPE PS/SS DIN 988**

PS 	SS 
3-400	3-170





**RADIALI PER ALBERI | RADIAL ASSEMBLY FOR SHAFT**

<b>Tipologia   Type</b>	DIN 6799 (RA) 2133 - 5133 	CRESCENT C-H 2103 - 5103 	AAS - APS 	ST 
<b>Dimensioni   Dimensions (mm   inch)</b>	0,8-30 / 0,051 - 1,213	3-35 / 0,102 - 0,721	3-35 / 0,125 - 1,375	3-10 / 0,125 - 0,395

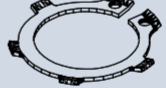


**ELASTICI DA FILO | ELASTIC ROUND**

DIN 7993 (RW) 	DIN 7993 (RB) 	DIN 9045 (SPR) 
4-125 / 0,157 - 5	4-125 / 0,157 - 5	4-50 / 0,125 - 2

**AUTOBLOCCANTI | SELF LOCKING**

<b>Tipologia   Type</b>	G 	KS 	ZA 	ZJ 
<b>Dimensioni   Dimensions (mm   inch)</b>	1,5-30 / 0,0625 - 1,375	1,5-10 / 0,0625 - 0,395	1,5-45 / 0,0625 - 1,75	8-50 / 0,325 - 2

**ELASTICI PER COMPENSAZIONE ASSIALE DEL GIOCO | ELASTIC FOR COMPENSATION OF AXIAL PLAY**

AL 	JL 	JB 
16-100 / 0,625 - 4	16-100 / 0,625 - 4	16-100 / 0,625 - 4

\*Altre dimensioni disponibili su richiesta | Others size available on request

Sono disponibili a richiesta pinze ed attrezzi per il montaggio rapido | Available on request pliers and tools for fast assembly

Materiali   Material	Durezza   Hardness (HRC)
C60S / C75S	38 - 54
X39CrMo17	29 - 30
AISI 420	44 - 51
AISI 304L	34 - 38
AISI 316L	30 - 32
15-5 PH	36 - 46
17-7 PH	43 - 48

**Trattamenti superficiali \*\* | Surface treatment**

	EN ISO	Resistenza in nebbia salina   Salt spray resistant (ISO 9227)	Colore   Color
BRUNITURA OLIATA   Self finished and oiled		PROTEZIONE DI BASE   Base protection	NERO/BLU   Black/Blue
FOSFATAZIONE E OLIATURA   Phosphated and oiled	12476	8 ORE   hours	NERO/GRIGIO   Black/Grey
ZINCATURA ELETTROLITICA   Electrolytic zinc plating	4042	160 ORE   hours	BIANCO   White
ZINCATURA MECCANICA   Mechanical zinc plating	12683	160 ORE   hours	BIANCO   White
ZINCO LAMELLARE   Lamellar Zinc	10683	→ 720-1200   hours	GRIGIO   Grey

\*\* Altri su richiesta | Others on demand



**Molle a tazza**  
*Disc Springs*



**Molle**  
*Springs*



**Rondelle Lock Rite**  
*Lock Rite washers*



**Rondelle zigrinate**  
*Serrated washers*



**Rondelle ondulate**  
*Wave washers*

# FASTENERS

MOLLE A TAZZA DISC SPRINGS

MOLLE SPRINGS

RONDELLE DI SICUREZZA LOCK RITE WASHERS

**ANELLI D'ARRESTO** RETAINING RINGS

GHIERE E ROSETTE LOCK NUTS

SPINE CILINDRICHE-CONICHE-ELASTICHE

CYLINDRICAL AND CONICAL PINS, ELASTIC PINS

LINGUETTE BARRE TRAFILATE SNODI SFERICI FORCELLE

PARALLEL KEY DRAWN BARS SPHERICAL BEARING AND FORKS



## Anelli d'arresto | Retaining rings

Gli anelli elastici di arresto sono i sistemi più utilizzati per il bloccaggio assiale di componenti a forma cilindrica. A seconda delle condizioni richieste dall'installazione possono esserci diverse tipologie:

- anelli a montaggio assiale per alberi e per fori
- anelli a montaggio radiale per alberi
- anelli autobloccanti
- anelli elastici per compensazione assiale del gioco
- anelli elastici da filo
- anelli di rasamento

La scelta della soluzione più idonea è principalmente funzione di aspetti quali:

- ingombro dimensionale
- forza radiale richiesta dall'applicazione
- tipologia di montaggio assiale o radiale

*The retaining rings are the most used systems for the axial locking of cylindrical shape components.*

*Can be different types, depending on the conditions required by the installation:*

- axial-mounting for shafts and holes
- elastic rings for radial assembly
- self locking rings
- elastic for compensation of axial play
- elastic round rings
- support washers type

*The choice of the most suitable solution depends on the following aspects such as:*

- dimensions of the parts
- radial force required by the application
- type of axial or radial mounting



FASTENERS

ANELLI D'ARRESTO  
RETAINING RINGS



info@ram-mi.com | www.ram-mi.com

RAM S.R.L. Via Isacco Newton 12 | 20016 PERO (MI)