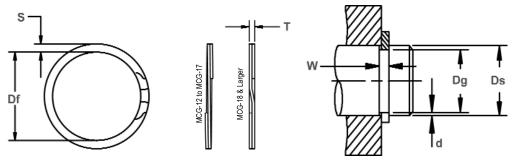


## **External, Heavy Duty, Metric**The rigors of the toughest applications are easily

The rigors of the toughest applications are easily handled by this external series. Its large size, and ease of application and removal, transfers into an assurance of quality for demanding uses.

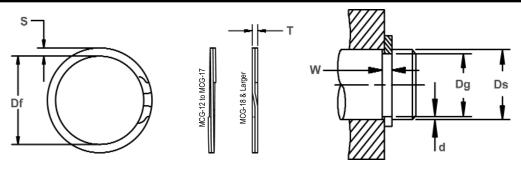


Free Diameter & Ring Measurements

Shaft Diameter & Groove Dimensions

RING	SHAFT						RING SIZE						
NO.	DIAMETER	DIAMETER		WIDTH		FREE DIAMETER		THICKNESS		SECTION			
	(mm)	Dg	Tol.	W	Tol.	Df	Tol.	T	Tol.	S	Tol.		
MCG-12	12	11.29		0.70		11.18		0.60		1.14			
MCG-13	13	12.24	+0.05	1.00		12.13		0.89		1.27			
MCG-14	14	13.19	-0.05	1.00		13.06		0.89		1.27			
MCG-15	15	14.09		1.00		13.98		0.89		1.27			
MCG-16	16	15.03		1.00		14.90		0.89		1.40			
MCG-17	17	16.03		1.00		15.82		0.89		1.40			
MCG-18	18	16.93		1.00		16.80		1.07		1.65			
MCG-19	19	17.88		1.20	+0.08	17.73		1.07		1.65			
MCG-20	20	18.78	+0.08	1.20	-0.00	18.62		1.07		1.65			
MCG-21	21	19.73	-0.08	1.20		19.57		1.07		1.65			
MCG-22	22	20.63		1.20		20.45	$\pm 0.33$	1.07	+0.05	1.91	+0.08		
MCG-23	23	21.58		1.20		21.39		1.07	-0.05	1.91	-0.13		
MCG-24	24	22.53		1.20		22.35		1.07		1.91			
MCG-25	25	23.43	]	1.20		23.25		1.07		2.16			
MCG-26	26	24.43		1.20		24.21		1.07		2.16			
MCG-27	27	25.35		1.40		25.04		1.27		2.62			
MCG-28	28	26.30		1.40		26.00		1.27		2.62			
MCG-29	29	27.27		1.40		26.95		1.27		2.62			
MCG-30	30	28.25	+0.10	1.40	+0.10	27.92		1.27		2.62			
MCG-31	31	29.17	-0.10	1.40	-0.00	28.84		1.27		2.62			
MCG-32	32	30.10	]	1.40		29.77		1.27		2.62			
MCG-34	34	31.90	]	1.40		31.54	]	1.27		3.00			
MCG-35	35	32.80	]	1.40		32.44		1.27		3.00			
MCG-36	36	33.75	]	1.40		33.40		1.27		3.00			
MCG-37	37	34.67	+0.15 -0.15	1.40		34.24	1	1.27		3.00			





Free Diameter & Ring Measurements

Shaft Diameter & Groove Dimensions

RING	SHAFT	GROOVE SIZE				RING SIZE						
NO.	DIAMETER	DIAMETER		WIDTH		FREE DIAMETER		THICKNESS		SECTION		
ĺ	(mm)	Dg	Tol.	W	Tol.	Df	Tol.	T	Tol.	S	Tol.	
MCG-38	38	35.65		1.40		35.18	± 0.33	1.27	+0.05 -0.05	3.00		
MCG-40	40	37.55		1.75		37.15		1.57		3.25		
MCG-42	42	39.45		1.75		39.02		1.57		3.25		
MCG-45	45	42.25		1.75	+0.10	41.77		1.57		3.25	+0.08	
MCG-46	46	43.15	+0.15	1.75	-0.00	42.67	± 0.50	1.57		3.25	-0.13	
MCG-47	47	44.31	-0.15	1.75		43.81		1.57		4.01		
MCG-48	48	45.05		1.75		44.48		1.57		4.01		
MCG-50	50	47.05		1.75		46.69		1.57		4.01		
MCG-52	52	48.95		2.15		48.60		1.98		4.27		
MCG-54	54	50.85		2.15		50.52		1.98		4.27		
MCG-55	55	51.65		2.15		51.26		1.98		4.27		
MCG-57	57	53.60		2.15		53.17		1.98		4.27		
MCG-58	58	54.50		2.15		54.08	± 0.63	1.98	+0.08	4.27		
MCG-60	60	56.50		2.15		56.05		1.98	-0.08	5.08		
MCG-62	62	58.40		2.15		57.99		1.98		5.08		
MCG-65	65	61.40		2.15	+ 0.13	60.92		1.98		5.08	+0.10	
MCG-68	68	64.30		2.15	-0.00	63.80		1.98		5.08	-0.15	
MCG-70	70	66.20	+0.20	2.55		65.70		2.29		5.72		
MCG-72	72	68.10	-0.20	2.55		67.57		2.29		5.72		
MCG-75	75	71.00		2.55		70.47		2.29		5.72		
MCG-78	78	73.80		2.55		73.25	± 0.76	2.29		5.72		
MCG-80	80	75.70		2.55		75.12		2.29		5.72		
MCG-82	82	77.60		2.55		77.00		2.29		5.72		
MCG-85	85	80.40		2.55		79.79		2.29		5.72		
MCG-88	88	83.30	]	2.95		82.67	± 0.89	2.72	]	6.86		