

art.CCA

STEEL CYLINDRICAL NUT TR10/80 in 11SMnPb37 W.NR:1.0737 - R500 N/mm², (HB 120/200)

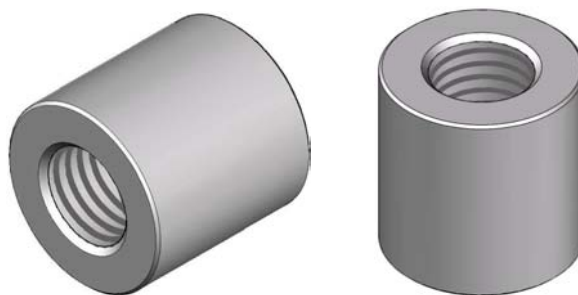
Material characteristics: The steel cylindrical nuts are made by us from drawn bars h9/h11 in certificated R50 steel.

A much cheaper item than the bronze cylindrical nut but with a more specific and limited field of use.

Usable for manual movements with good lubrication as the steel does not have anti-friction properties, but with excellent characteristics for supporting loads especially with manual positioning. The lubrication is a determining factor in achieving the best efficiency of this flange nut and hence we recommend viewing the lubricants in our *Technical Catalogue GDM* (www.bimeccanica.it). It is possible to mechanically fix this type of nut by welding using *Castolin 4080* electrodes. The remaining characteristics are similar to the "CFA" nuts described on page 64.

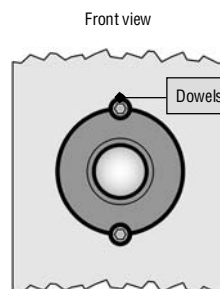
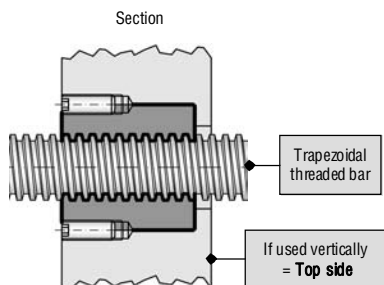
Warning: Our "CCA" cylindrical steel nuts normally have a larger external diameter than the similar "CCB" model in bronze.

To be interchangeable with "CCB" normally the external diameter of the "CCA" should be reduced; excluding TR12x3 which have to be specially made.



• HORIZONTAL AND VERTICAL APPLICATION:

FITTING IN
CYLINDRICAL SEAT
USING DOWELS



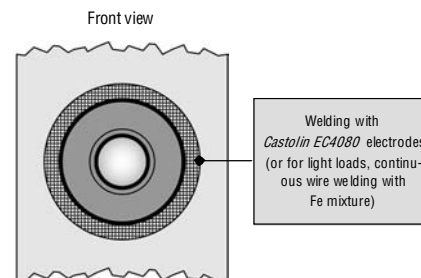
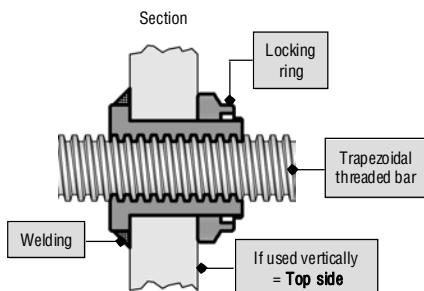
To use the cylindrical nuts a hole has to be made in the base support to **K6 tolerance (or H7)** keying the nut and securing it with dowels as shown in the diagram below. To choose the dowel diameter we recommend the following formula which has an accuracy of +/- 10%:

External diameter of nut "d" less thread diameter "TR" divided by 2: $\frac{(d - \phi_{TR})}{2} = M$ Diameter of dowels

When replacing the nut the new nut should be keyed and fitted in a new position being shifted by about 45° or 90° from the original position. By mounting the dowels of the said dimensions the nut is able to support the load in both directions (push and pull).

For heavy loads we recommend using 4 dowels and if the movement is for lifting it would be appropriate to mount the nut as shown in the diagram.

FITTING IN CYLINDRICAL
SEAT BY MEANS OF
WELDING AND
LOCKING RING



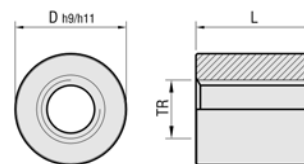
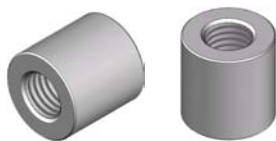
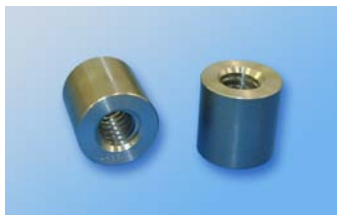
For lubricating we suggest a transversal hole on the support/threaded nut to take a grease nipple or a tube.

BEFORE DECIDING ON THE TYPE OF NUT TO USE, SEE DRIVE TRANSMISSION GROUPS = TECHNICAL CATALOGUE GDM (www.bimeccanica.it)

NUTS/LEAD NUTS



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	TRAPEZOIDAL THREAD 7H	CODE	ARTICLE	D h9/h11	L	NUMBER OF THREADS	Dm min. Ø MEDIO mm	Dm max Ø MEDIO mm	WEIGHT Kg	TURNS & LOADS max
RIGHT THREAD (7H)	* TR 10x2	MD102R	CCA TR 10x2 Dx	20	20	10	9,00	9,25	0,040	SEE GENERAL PRODUCT GUIDE WITH BASIC THEORETICAL TABLE WITH REFERENCE TO BRONZE PAGES. 14-17 (STATIC LOAD SUPERIOR TO BRONZE - DYNAMIC LOAD & SPEED INFERIOR TO BRONZE)
	TR 10x3	MD103R	CCA TR 10x3 Dx	20	20	6,7	8,50	8,78	0,040	
	TR 12x3	MD123R	CCA TR 12x3 Dx	22	22	7,3	10,50	10,80	0,050	
	* TR 14x3	MD143R	CCA TR 14x3 Dx	25	25	8,3	12,50	12,80	0,070	
	TR 14x4	MD144R	CCA TR 14x4 Dx	25	25	6,3	12,00	12,35	0,070	
	TR 16x4	MD164R	CCA TR 16x4 Dx	30	30	7,5	14,00	14,35	0,125	
	TR 18x4	MD184R	CCA TR 18x4 Dx	35	35	8,7	16,00	16,35	0,200	
	TR 20x4	MD204R	CCA TR 20x4 Dx	40	40	10	18,00	18,35	0,310	
	* TR 22x5	MD225R	CCA TR 22x5 Dx	40	40	8	19,50	19,87	0,290	
	* TR 24x5	MD245R	CCA TR 24x5 Dx	45	45	9	21,50	21,90	0,420	
	TR 25x5	MD255R	CCA TR 25x5 Dx	45	45	9	22,50	22,90	0,410	
	* TR 26x5	MD265R	CCA TR 26x5 Dx	45	45	9	23,50	23,90	0,400	
	* TR 28x5	MD285R	CCA TR 28x5 Dx	50	50	10	25,50	25,90	0,550	
	TR 30x6	MD306R	CCA TR 30x6 Dx	50	50	8,3	27,00	27,45	0,530	
	* TR 32x6	MD326R	CCA TR 32x6 Dx	50	50	8,3	29,00	29,45	0,490	
	TR 35x6	MD356R	CCA TR 35x6 Dx	60	60	10	32,00	32,45	0,920	
	TR 36x6	MD366R	CCA TR 36x6 Dx	60	60	10	33,00	33,45	0,910	
	TR 40x7	MD407R	CCA TR 40x7 Dx	65	65	9,3	36,50	36,97	1,120	
	TR 45x8	MD458R	CCA TR 45x8 Dx	70	80	10	41,00	41,50	1,550	
	* TR 46x8	MD468R	CCA TR 46x8 Dx	70	80	10	42,00	42,53	1,500	
	TR 50x8	MD508R	CCA TR 50x8 Dx	75	80	10	46,00	46,53	1,660	
	TR 55x9	MD559R	CCA TR 55x9 Dx	80	95	10,6	50,50	51,06	2,180	
	TR 60x9	MD609R	CCA TR 60x9 Dx	85	95	10,6	55,50	56,06	2,320	
	TR 70x10	MD7010R	CCA TR 70x10 Dx	100	120	12	65,00	65,56	4,130	
	TR 80x10	MD8010R	CCA TR 80x10 Dx	110	120	12	75,00	75,56	4,600	
LEFT THREAD (7H)	* TR 10x2 Sx	MD102L	CCA TR 10x2 Sx	20	20	10	9,00	9,25	0,040	
	TR 10x3 Sx	MD103L	CCA TR 10x3 Sx	20	20	6,7	8,50	8,78	0,040	
	TR 12x3 Sx	MD123L	CCA TR 12x3 Sx	22	22	7,3	10,50	10,80	0,050	
	* TR 14x3 Sx	MD143L	CCA TR 14x3 Sx	25	25	8,3	12,50	12,80	0,070	
	TR 14x4 Sx	MD144L	CCA TR 14x4 Sx	25	25	6,3	12,00	12,35	0,070	
	TR 16x4 Sx	MD164L	CCA TR 16x4 Sx	30	30	7,5	14,00	14,35	0,125	
	TR 18x4 Sx	MD184L	CCA TR 18x4 Sx	35	35	8,7	16,00	16,35	0,200	
	TR 20x4 Sx	MD204L	CCA TR 20x4 Sx	40	40	10	18,00	18,35	0,310	
	* TR 22x5 Sx	MD225L	CCA TR 22x5 Sx	40	40	8	19,50	19,87	0,290	
	* TR 24x5 Sx	MD245L	CCA TR 24x5 Sx	45	45	9	21,50	21,90	0,420	
	TR 25x5 Sx	MD255L	CCA TR 25x5 Sx	45	45	9	22,50	22,90	0,410	
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	* TR 28x5 Sx	MD285L	CCA TR 28x5 Sx	50	50	10	25,50	25,90	0,550	
	TR 30x6 Sx	MD306L	CCA TR 30x6 Sx	50	50	8,3	27,00	27,45	0,530	
	* TR 32x6 Sx	MD326L	CCA TR 32x6 Sx	50	50	8,3	29,00	29,45	0,490	
	TR 35x6 Sx	MD356L	CCA TR 35x6 Sx	60	60	10	32,00	32,45	0,920	
	TR 36x6 Sx	MD366L	CCA TR 36x6 Sx	60	60	10	33,00	33,45	0,910	
	TR 40x7 Sx	MD407L	CCA TR 40x7 Sx	65	65	9,3	36,50	36,97	1,120	
	TR 45x8 Sx	MD458L	CCA TR 45x8 Sx	70	80	10	41,00	41,50	1,550	
	* TR 46x8 Sx	MD468L	CCA TR 46x8 Sx	70	80	10	42,00	42,53	1,500	
	TR 50x8 Sx	MD508L	CCA TR 50x8 Sx	75	80	10	46,00	46,53	1,660	
	TR 55x9 Sx	MD559L	CCA TR 55x9 Sx	80	95	10,6	50,50	51,06	2,180	
	TR 60x9 Sx	MD609L	CCA TR 60x9 Sx	85	95	10,6	55,50	56,06	2,320	
	TR 70x10 Sx	MD7010L	CCA TR 70x10 Sx	100	120	12	65,00	65,56	4,130	
	TR 80x10 Sx	MD8010L	CCA TR 80x10 Sx	110	120	12	75,00	75,56	4,600	

● **WARNING: WITHOUT SPECIFYING "R" or "L" AT THE END OF THE CODE AND "Dx" or "Sx" AT THE END OF THE ARTICLE THE NUT IS ALWAYS CONSIDERED TO BE RIGHT THREAD.**

* The items marked with an asterisk are less used, we suggest contacting our offices to check availability.

> **ON REQUEST:** Steel cylindrical nuts TR90x12 and TR100x12 with dimensions to be defined with the client considering the merits of every single application.

> **ON REQUEST:** Steel cylindrical nuts TR65x10 and TR75x10.

> **ON REQUEST:** Steel cylindrical nuts with pitch, and external dimensions different to those listed above.