

Trapezoidal screw drives

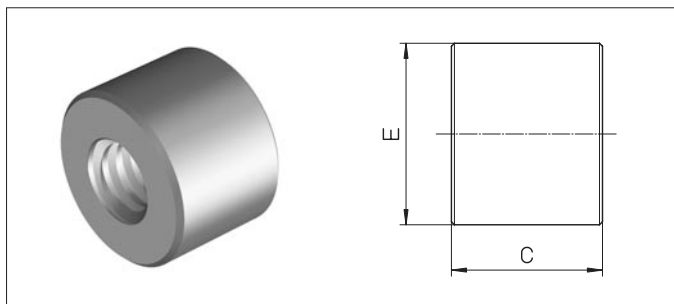
Trapezoidal nuts

Short steel nut blank, cylindrical KSM

Suitable for clamping operations, manual positioning and mounting. Not suitable for motion drives because the steel/steel friction tends to seizure.

Further processing: the thread serves as reference for precise machining and assembly.

Material:
free-cutting steel
1.0718 (9 SMn 28K)



Type	E [mm]	C [mm]	Weight [kg]
KSM Tr 10x2	22	15	0.037
KSM Tr 10x3	22	15	0.036
KSM Tr 12-3	26	18	0.064
KSM Tr 14x3	30	21	0.96
KSM Tr 14x4	30	21	0.96
KSM Tr 16x4	36	24	0.16
KSM Tr 18x4	40	27	0.22
KSM Tr 20x4	45	30	0.31
KSM Tr 22x5	45	33	0.33
KSM Tr 24x5	50	36	0.45
KSM Tr 26x5	50	39	0.47

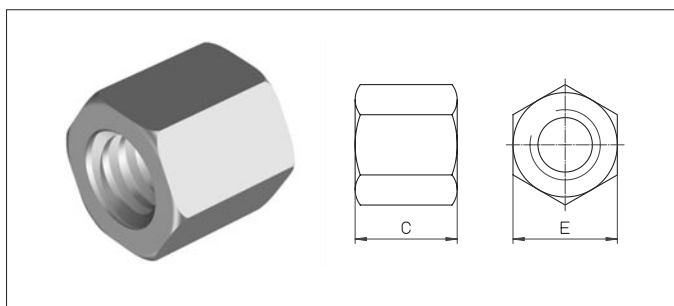
Type	E [mm]	C [mm]	Weight [kg]
KSM Tr 28x5	60	42	0.76
KSM Tr 30x6	60	45	0.79
KSM Tr 32x6	60	48	0.81
KSM Tr 36x6	75	54	1.5
KSM Tr 40x7	80	60	1.9
KSM Tr 44x7	80	66	2.7
KSM Tr 48x8	90	72	2.9
KSM Tr 50x8	90	75	2.7
KSM Tr 60x9	100	90	3.7
KSM Tr 70x10	110	105	4.9
KSM Tr 80x10	120	120	6.4

Hexagonal steel nut blank SKM

For clamping operations, manual positioning and mounting. Not suitable for motion drives because the steel/steel friction tends to seizure.

Further processing: the thread serves as reference for precise machining and assembly.

Material:
free-cutting steel
1.0718 (9 SMn 28K)



Type	E [mm]	C [mm]	Weight [kg]
SKM Tr 10x2	17	15	0.022
SKM Tr 10x3	17	15	0.022
SKM Tr 12x3	19	18	0.028
SKM Tr 14x3	22	21	0.044
SKM Tr 14x4	22	21	0.044
SKM Tr 16x4	27	24	0.084
SKM Tr 18x4	27	27	0.086
SKM Tr 20x4	30	30	0.17
SKM Tr 22x5	30	33	0.17
SKM Tr 24x5	36	36	0.20
SKM Tr 26x5	36	39	0.20

Type	E [mm]	C [mm]	Weight [kg]
SKM Tr 28x5	41	42	0.30
SKM Tr 30x6	46	45	0.43
SKM Tr 32x6	46	48	0.42
SKM Tr 36x6	55	54	0.73
SKM Tr 40x7	65	60	1.3
SKM Tr 44x7	65	66	1.2
SKM Tr 48x8	75	72	1.8
SKM Tr 50x8	75	75	1.8
SKM Tr 60x9	90	90	2.8
SKM Tr 70x10	90	105	3.1

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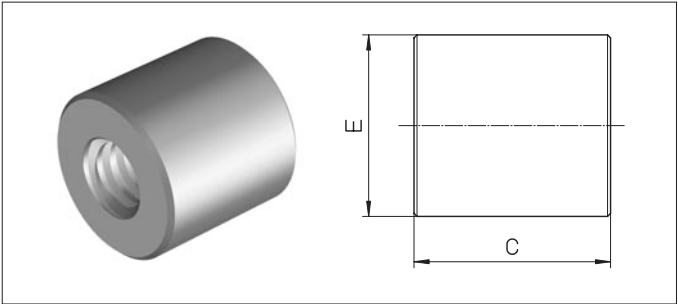
Trapezoidal nuts

Long gunmetal nut blank, cylindrical LRM

For slow and moderate speed motion drives with duty cycles below 20%.

Further processing: The thread serves as a reference for precise machining and assembly.

Material:
2.1090 (G-CuSn 7Zn Pb (Rg7)),
Characteristics ➔ page 40



Type	E [mm]	C [mm]	Weight [kg]	Bearing surface [mm ²]
LRM Tr 10x2	22	20	0.056	200
LRM Tr 10x3	22	20	0.056	190
LRM Tr 12x3	26	24	0.092	280
LRM Tr 12x6 P3 ¹⁾	26	24	0.092	280
LRM Tr 14x3	30	28	0.14	380
LRM Tr 14x4	30	28	0.14	370
LRM Tr 16x2 ¹⁾	36	32	0.25	490
LRM Tr 16x4	36	32	0.25	490
LRM Tr 16x8 P4 ¹⁾	36	32	0.25	490
LRM Tr 18x4	40	36	0.34	630
LRM Tr 20x4	45	40	0.48	790
LRM Tr 20x8 P4 ¹⁾	45	40	0.45	790
LRM Tr 22x5	45	40	0.46	850
LRM Tr 22x24 P4 ^{1) 2)}	45	40	0.46	880
LRM Tr 24x5	50	48	0.69	1130

Type	E [mm]	C [mm]	Weight [kg]	Bearing surface [mm ²]
LRM Tr 24x10 PS ¹⁾	50	48	0.65	1130
LRM Tr 26x5	50	48	0.58	1240
LRM Tr 28x5	60	60	1.2	1680
LRM Tr 30x6	60	60	1.2	1780
LRM Tr 30x12 P6 ¹⁾	60	60	1.2	1780
LRM Tr 32x6	60	60	1.2	1910
LRM Tr 36x6	75	72	2.2	2610
LRM Tr 40x7	80	80	2.8	3210
LRM Tr 40x14 P7 ¹⁾	80	80	2.8	3210
LRM Tr 44x7	80	80	2.6	3560
LRM Tr 48x8	90	100	4.3	4840
LRM Tr 50x8	90	100	4.2	5060
LRM Tr 60x9	100	120	5.7	7320
LRM Tr 70x10	110	140	7.6	10000
LRM Tr 80x10	120	160	9.7	13200

¹⁾ Not available in left hand thread
²⁾ Special profile; nominal diameter 21,5

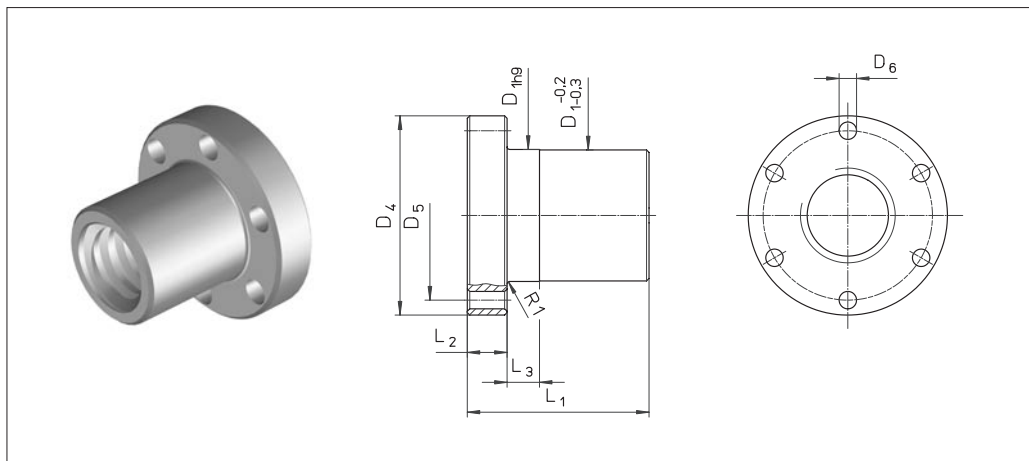
Trapezoidal screw drives

Trapezoidal nuts

Complete bronze nut EFM

For motion drives in continuous operation, with particularly good wear characteristics. Suitable for use as a safety nut. EFM nuts can be installed with the KON an KAR adapters (➔ page 41 – 42).

Material:
2.1090 (G-CuSn 7Zn Pb (Rg7))
Characteristics ➔ page 40



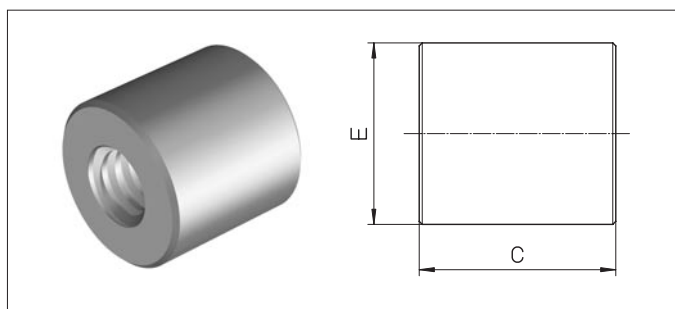
Type	Dimensions [mm]							Weight [kg]	Bearing surface [mm²]
	D ₁	D ₄	D ₅	6 x D ₆	L ₁	L ₂	L ₃		
EFM Tr 16x4	28	48	38	6	44	12	8	0.25	670
EFM Tr 18x4	28	48	38	6	44	12	8	0.25	770
EFM Tr 20x4	32	55	45	7	44	12	8	0.30	870
EFM Tr 24x5	32	55	45	7	44	12	8	0.30	1040
EFM Tr 30x6	38	62	50	7	46	14	8	0.40	1370
EFM Tr 36x6	45	70	58	7	59	16	10	0.60	2140
EFM Tr 40x7	63	95	78	9	73	16	10	1.7	2930
EFM Tr 50x8	72	110	90	11	97	18	10	2.6	4900
EFM Tr 60x9	85	125	105	11	99	20	10	3.7	6040

Long plastic nut blank, cylindrical LKM

For low-noise motion drives with higher speeds and longer operation time. Especially recommended in combination with rolled trapezoidal screws. Good emergency running characteristics.

Material:
PEPT, Characteristics ➔ page 40

Lubrication: synthetic oil-based gear grease
FUCHS LUBRITEC, URETHYN EM 1



Type	E [mm]	C [mm]	Weight [kg]	Bearing surface [mm²]
LKM Tr 12x3	26	24	0.012	280
LKM Tr 12x6 P3	26	24	0.012	280
LKM Tr 16x4	36	32	0.032	490
LKM Tr 16x8 P4	36	32	0.032	490
LKM Tr 20x4	45	40	0.06	790
LKM Tr 20x8 P4	45	40	0.06	790

LKM with left hand thread on request.

Type	E [mm]	C [mm]	Weight [kg]	Bearing surface [mm²]
LKM Tr 24x5	50	48	0.088	1130
LKM Tr 30x6	60	60	0.15	1780
LKM Tr 30x12 P6	60	60	0.15	1780
LKM Tr 36x6	75	72	0.30	2610
LKM Tr 40x7	80	80	0.37	3210
LKM Tr 50x8	90	100	0.55	5060

Order code see page 62

Trapezoidal screw drives

Trapezoidal nuts

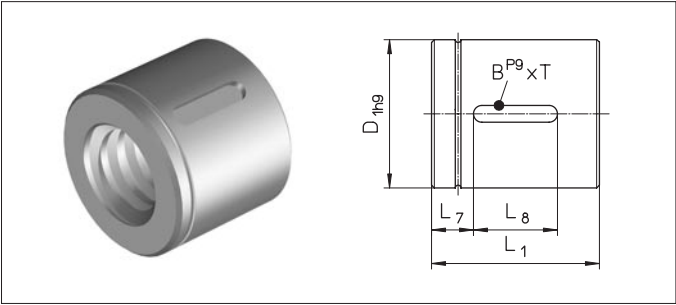
Complete plastic nut EKM

For low-noise motion drives with higher speeds and longer operation time under moderate load.

Good emergency running characteristics.

Especially recommended in combination with rolled trapezoidal screws.

Material:
PETP, Characteristics see below.



Type	Dimensions [mm]					Weight [kg]	Bearing surface [mm²]
	$\varnothing D_1$	L_1	L_7	L_8	BxT		
EKM Tr 16x4	28	34	7	20	5x2.9	0.02	520
EKM Tr 20x4	32	34	7	20	5x2.9	0.03	670
EKM Tr 20x8 P4	32	34	7	20	5x2.9	0.03	670
EKM Tr 20x16 P4	32	34	7	20	5x2.9	0.03	670

EKM with left hand thread on request.

Material Characteristics

Material 2.1090

0,2% yield strength R_p 0.2:	120 N/mm²
Tensile strength R_m (δ_B):	240 N/mm²
Min. strain ar break A5 min.:	15%
Brinell hardness 10/1000:	65
Density:	8.8 kg/dm³
Modulus of elasticity:	90000 N/mm²
pv factor:	300 N/mm² · m/min

Material PETP

Tensile strength:	80 N/mm²
Modulus of elasticity:	2800 – 3000 N/mm²
Impact strength:	40 kJm²
Notch impact strength:	4 kJm²
Thermal expansion:	$8.5 \cdot 10^{-5}/^{\circ}\text{C}$
Water absorption:	0.25%
Water saturation:	0.6%
Density:	1.38 kg/dm³
Friction against steel:	0.05 – 0.08
Ball pressure H 358/30:	150 N/mm²
Strain with a yield stress of 80 N/mm²:	4 – 5%
pv factor:	100 N/mm² · m/min
Max. pressure per unit area:	10 N/mm²
Max. rubbing speed:	120 m/min