

NSR series Standardized Rolled Ball Screws compliant to ISO/DIN Standards

This series is the Rolled Ball Screws compliant to ISO/DIN Standards on Ball Nut outer diameter. Rolled Ball Screws with accuracy Ct7 are available in stock. It is suitable for compact and low cost design. Rolled Ball Screws with end-journal machining are available for short delivery.

●Combination of Shaft nominal dia. & Lead

Unit(単位):mm

Lead Shaft dia.	1	2	4	5
4	18			
6	19	20		
8	21	22		23
10		24	25	
12		26	27	

Note 1)The numbers in a table : showing a page in this catalogue.

●Model number notation

NSR **06** **01** **—** **200** **R** **200** **C7**
① ② ③ ④ ⑤ ⑥ ⑦

- ①Rolled Ball Screws Series No.
NSR : Rolled Ball Screws(ISO/DIN compliance)
- ②Screw Shaft nominal diameter(mm)
- ③Lead(mm)
- ④Screw thread length(mm)
- ⑤Thread direction(R=Right-hand)
- ⑥Screw Shaft total length(mm)
- ⑦Accuracy grade(C7)

●Accuracy Grade & Axial play

Accuracy grade of NSR series (Standardized Rolled Ball Screws compliant to ISO/DIN Standards) is based on Ct7(JIS B 1192-3). Axial play 0.020mm or less (Ct7)is in stock.

●Material & Surface hardness

Materials and Surface hardness of NSR series (Standardized Rolled Ball Screws compliant to ISO/DIN Standards) are as follows.

Components	Material	Heat treatment	Surface hardness
Shaft	SCM415 S55C	Carburizing Induction Hardening	HRC58~62
Nut	SCM415	Carburizing and Quenching	

●Lubrication

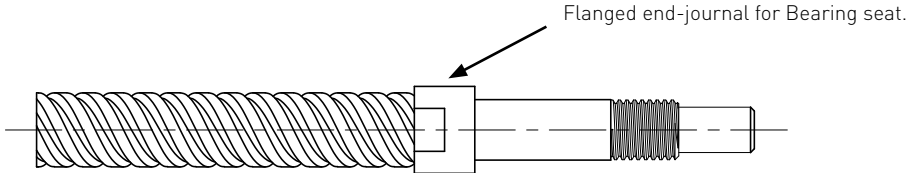
NSR series (Standardized Rolled Ball Screws compliant to ISO/DIN Standard) without end-journal machining are applied with anti-rust oil for rust prevention. Anti-rust oil does not have lubricating function so that please apply the Grease or lubrication oil when using the Ball Screws. If there is no specific instruction, KSS would recommend our original Grease (MSG No.2) as standard lubricant. Please feel free to contact us.

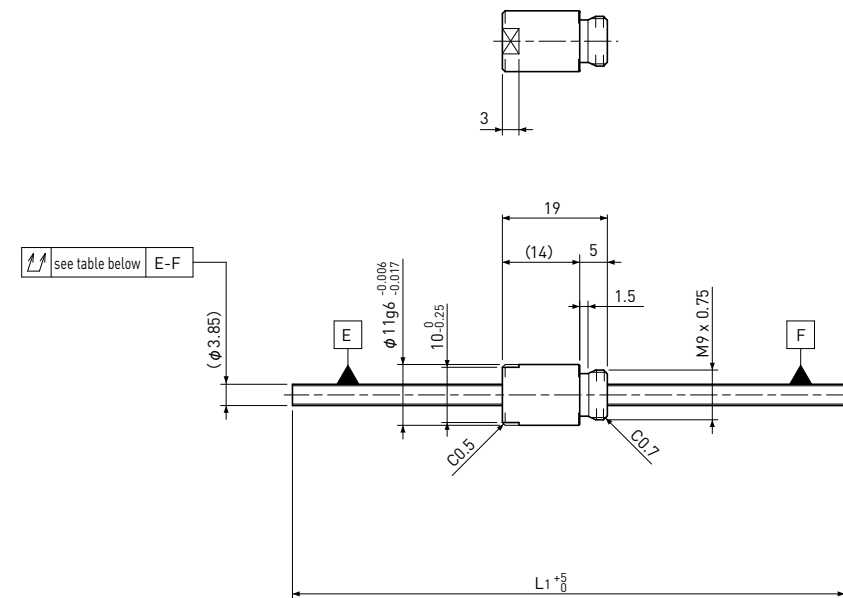
●Ball Nut profile

Ball Nut profile of NSR series(Standardized Rolled Ball Screws compliant to ISO/DIN Standards) is a Metric thread type.Flanged type Ball Nut is also available as a customized product.

●Others

End-journal configuration of NSR series (Standardized Rolled Ball Screws compliant to ISO/DIN Standards) is not standardized. When you request additional machining, please send us a drawing with end-journal profile. Rolled Ball Screws with Integrated end-journal, which is bigger Bearing face than supported seat, are available as shown below.Please ask KSS.

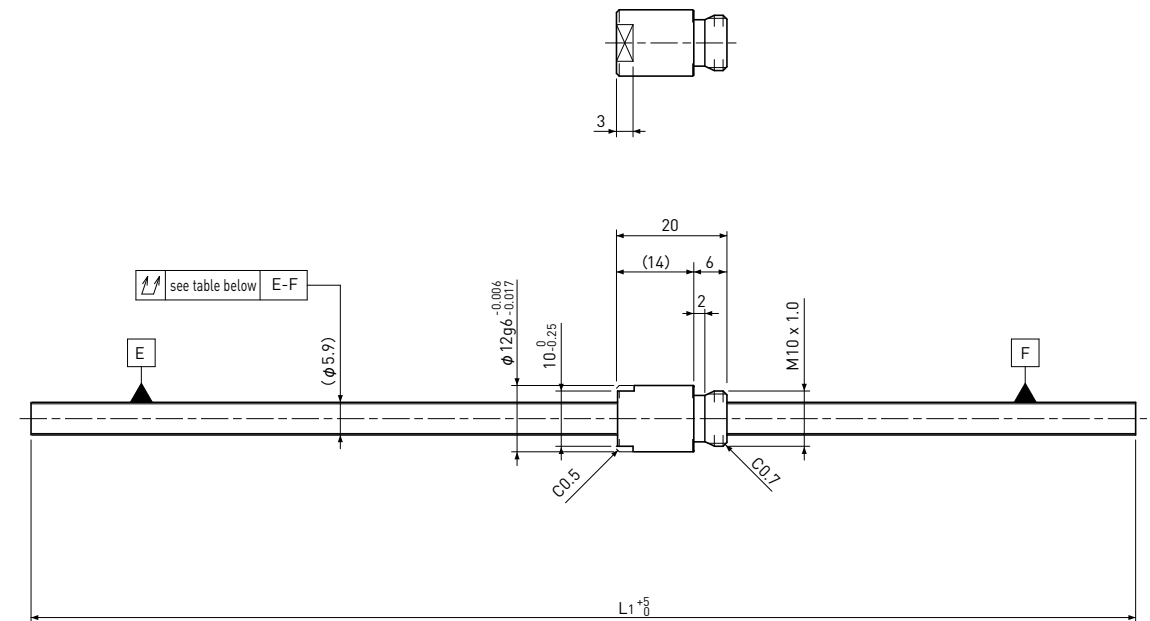




Ball Screw Specifications	
Thread direction	Right
Shaft, Nut material	SCM415H
Surface hardness	HRC58~62 (Thread area)
Anti-rust treatment	Anti-rust oil

Ball Screw Model	Travel	Grade	Shaft length		Lead accuracy		Total Run-out 	Axial play	Preload Torque Nm	Basic Load Rating N	
			L ₁	L ₂	Travel deviation e _p	Variation V ₃₀₀				Dynamic Ca	Static Coa
NSR0401-100R100C7	75	Ct7	100	—	±0.030	—	0.080	~0.020	—	450	600

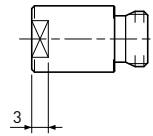
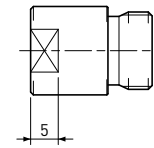
Standard products in stock NSR series



Ball Screw Specifications		
Thread direction		Right
Material	Shaft	S55C
	Nut	SCM415H
Surface hardness		HRC58~62 (Thread area)
Anti-rust treatment		Anti-rust oil

Ball Screw Model	Travel	Grade	Shaft length		Lead accuracy		Total Run-out 	Axial play	Preload Torque Nm	Basic Load Rating N	
			L ₁	L ₂	Travel deviation e _p	Variation V ₃₀₀				Dynamic C _a	Static C _{0a}
NSR0601-200R200C7	175	Ct7	200	—	±0.040	—	0.080	~0.020	—	560	950

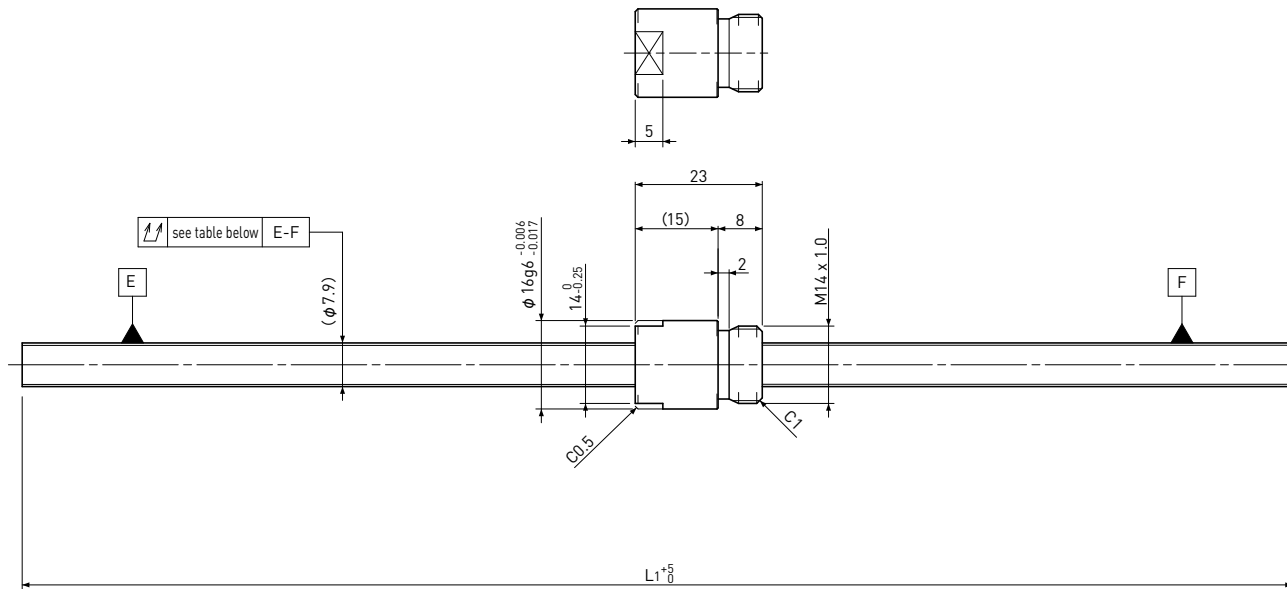
19 |

Unit:mmUnit:mmUnit:mmUnit:mm

21

NSR0802 | Shaft dia. $\phi 8$ Lead 2mm

Ct7



Unit:mm

Ball Screw Specifications		
Thread direction		Right
Material	Shaft	S55C
	Nut	SCM415H
Surface hardness		HRC58~62 (Thread area)
Anti-rust treatment		Anti-rust oil

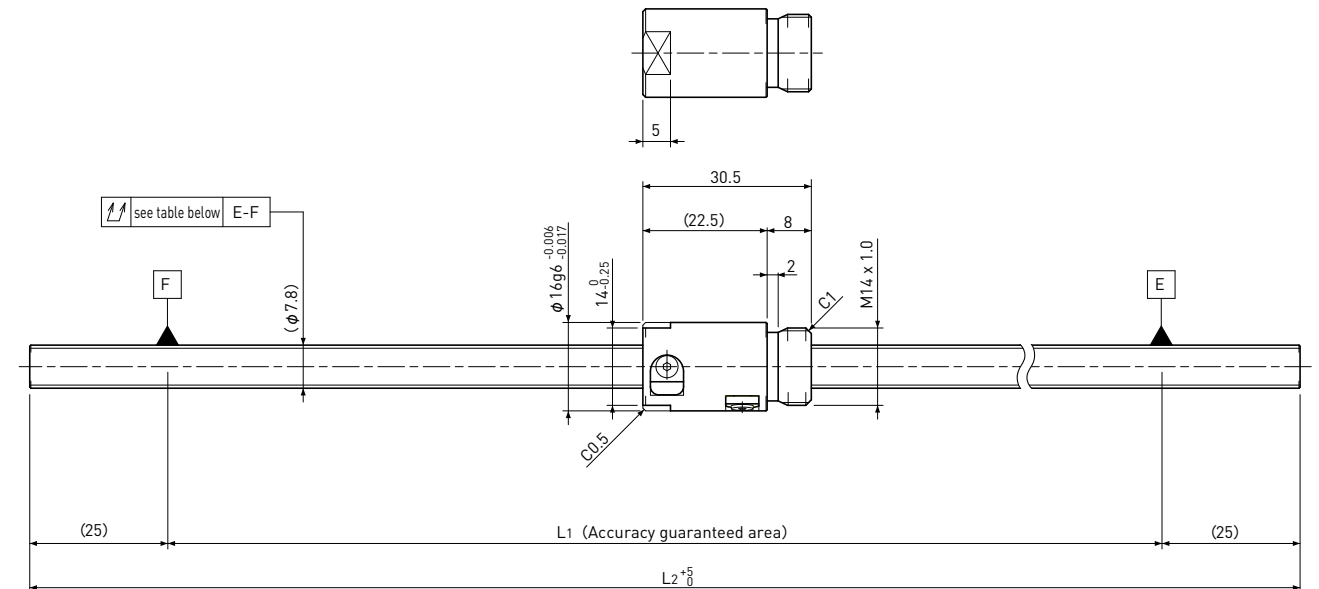
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Ball Screw Model	Travel	Grade	Shaft length		Lead accuracy		Total Run-out 	Axial play	Preload Torque Nm	Basic Load Rating N	
			L ₁	L ₂	Travel deviation e _p	Variation V ₃₀₀				Dynamic C _a	Static C _{0a}
NSR0802-230R230C7	205	Ct7	230	—	±0.052	—	0.080	~0.020	—	1300	2300

Note) Please designate end-journal profile with your sketch.

NSR0805 | Shaft dia. $\phi 8$ Lead 5mm

Ct7



Unit:mm

Ball Screw Specifications	
Thread direction	Right
Shaft, Nut material	SCM415H
Surface hardness	HRC58~62 (Thread area)
Anti-rust treatment	Anti-rust oil

Unit:mm

Ball Screw Model	Travel	Grade	Shaft length		Lead accuracy		Total Run-out 	Axial play	Preload Torque Nm	Basic Load Rating N	
			L ₁	L ₂	Travel deviation e _p	Variation V ₃₀₀				Dynamic Ca	Static Coa
NSR0805-400R400C7	315	Ct7	350	400	±0.060	0.052	0.120	~0.020	—	1850	3000

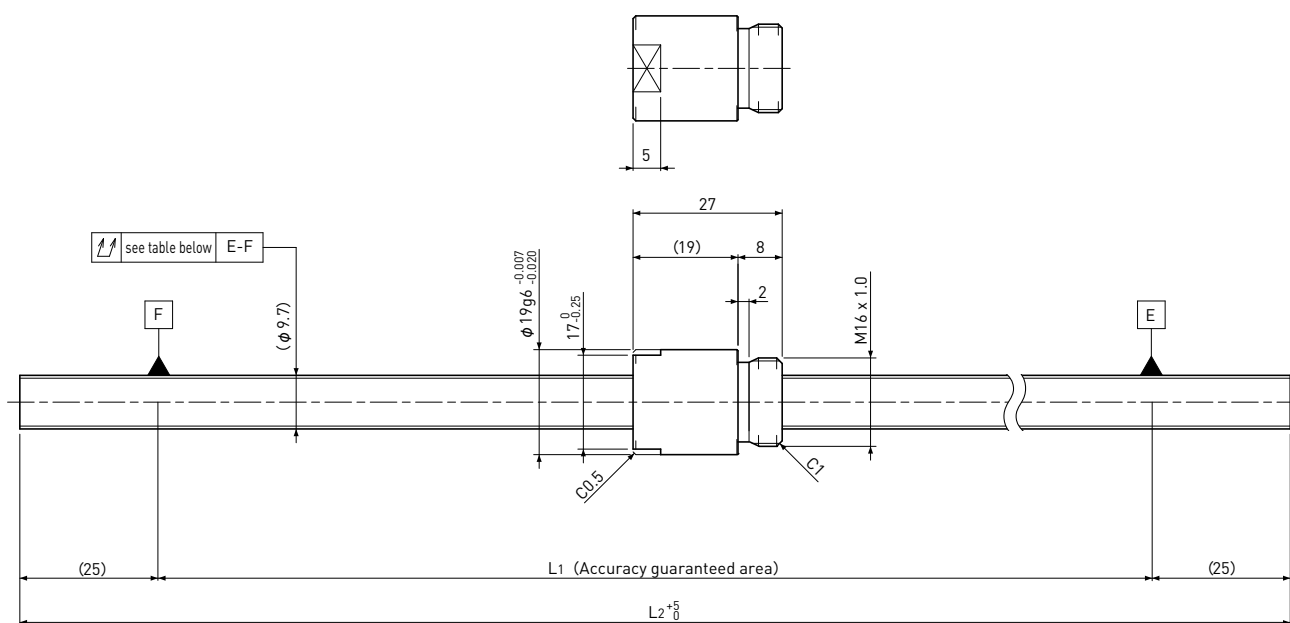
Note) Please designate end-journal profile with your sketch.

Standard products in stock NSR series

NSR1002

Shaft dia. $\phi 10$ Lead 2mm

Ct7



Unit:mm

Ball Screw Specifications	
Thread direction	Right
Shaft, Nut material	SCM415H
Surface hardness	HRC58~62 (Thread area)
Anti-rust treatment	Anti-rust oil

Unit:mm

Ball Screw Model	Travel	Grade	Shaft length		Lead accuracy		Total Run-out	Axial play	Preload Torque Nm	Basic Load Rating N	
			L1	L2	Travel deviation e_p	Variation V_{300}				Dynamic Ca	Static Coa
NSR1002-400R400C7	320	Ct7	350	400	± 0.060	0.052	0.080	~ 0.020	—	2050	3650

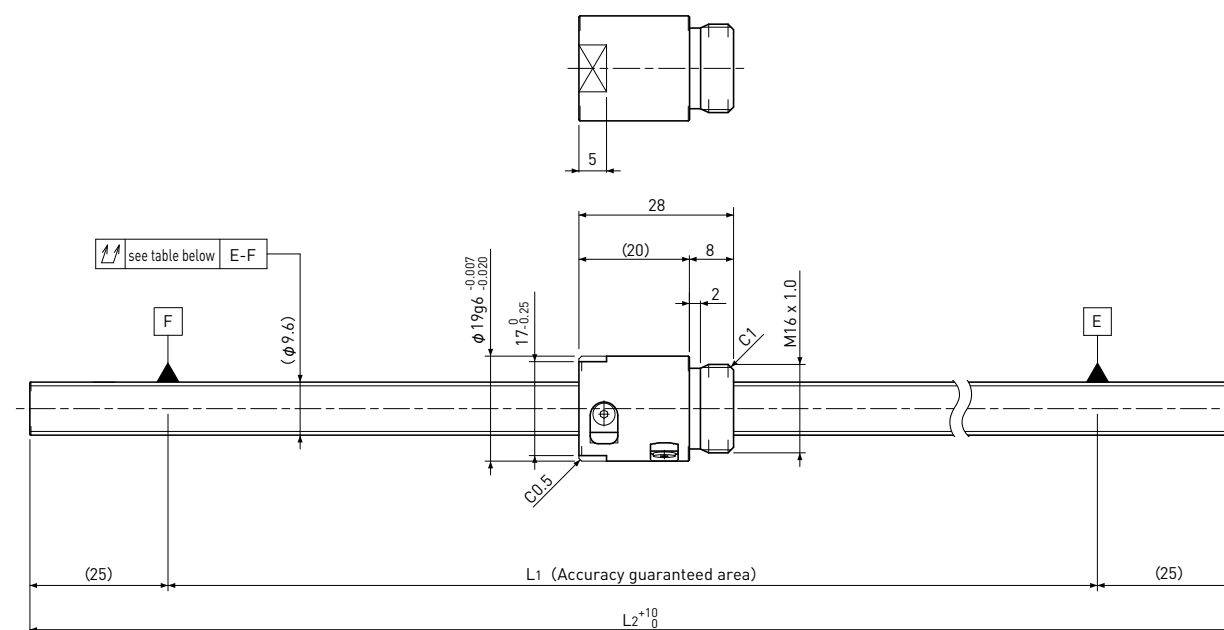
Note) Please designate end-journal profile with your sketch.

Standard products in stock NSR series

NSR1004

Shaft dia. $\phi 10$ Lead 4mm

Ct7



Unit:mm

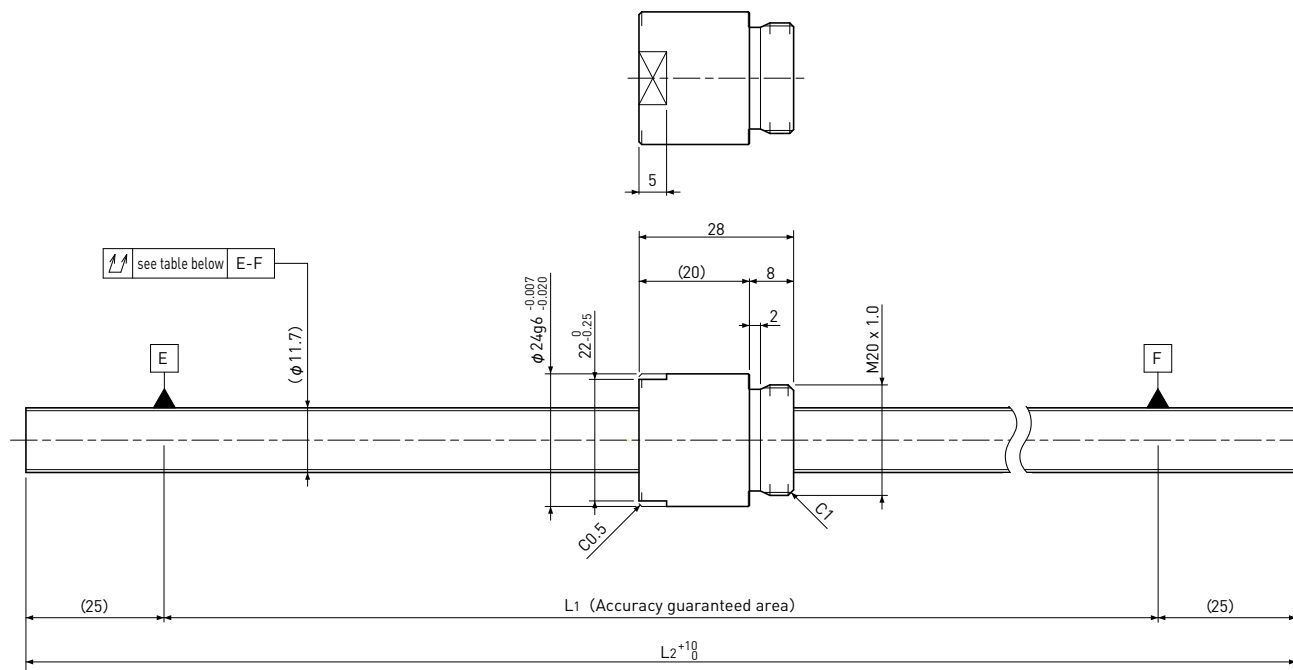
Ball Screw Specifications	
Thread direction	Right
Shaft, Nut material	SCM415H
Surface hardness	HRC58~62 (Thread area)
Anti-rust treatment	Anti-rust oil

Unit:mm

Ball Screw Model	Travel	Grade	Shaft length		Lead accuracy		Total Run-out	Axial play	Preload Torque Nm	Basic Load Rating N	
			L1	L2	Travel deviation e_p	Variation V_{300}				Dynamic Ca	Static Coa
NSR1004-450R450C7	370	Ct7	400	450	± 0.069	0.052	0.120	~ 0.020	—	3000	5200

Note) Please designate end-journal profile with your sketch.

Standard products in stock NSR series

NSR1202 | Shaft dia. $\phi 12$ Lead 2mm**Ct7**

Unit:mm

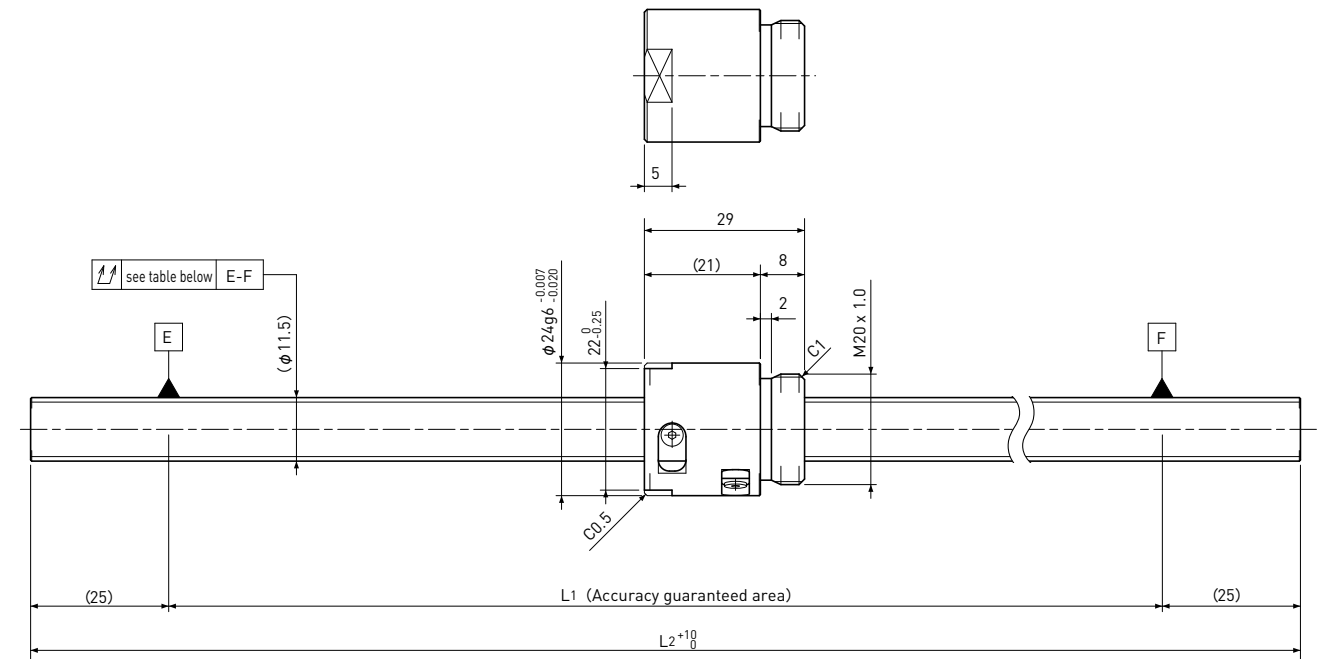
Ball Screw Specifications	
Thread direction	Right
Shaft, Nut material	SCM415H
Surface hardness	HRC58~62 (Thread area)
Anti-rust treatment	Anti-rust oil

Unit:mm

Ball Screw Model	Travel	Grade	Shaft length		Lead accuracy		Total Run-out	Axial play	Preload Torque Nm	Basic Load Rating N	
			L1	L2	Travel deviation e_p	Variation V_{300}				Dynamic Ca	Static Coa
NSR1202-450R450C7	370	Ct7	400	450	± 0.069	0.052	0.080	~ 0.020	—	2250	4550

Note) Please designate end-journal profile with your sketch.

Standard products in stock NSR series

NSR1204 | Shaft dia. $\phi 12$ Lead 4mm**Ct7**

Unit:mm

Ball Screw Specifications	
Thread direction	Right
Shaft, Nut material	SCM415H
Surface hardness	HRC58~62 (Thread area)
Anti-rust treatment	Anti-rust oil

Unit:mm

Ball Screw Model	Travel	Grade	Shaft length		Lead accuracy		Total Run-out	Axial play	Preload Torque Nm	Basic Load Rating N	
			L1	L2	Travel deviation e_p	Variation V_{300}				Dynamic Ca	Static Coa
NSR1204-450R450C7	370	Ct7	400	450	± 0.069	0.052	0.080	~ 0.020	—	4100	7400

Note) Please designate end-journal profile with your sketch.