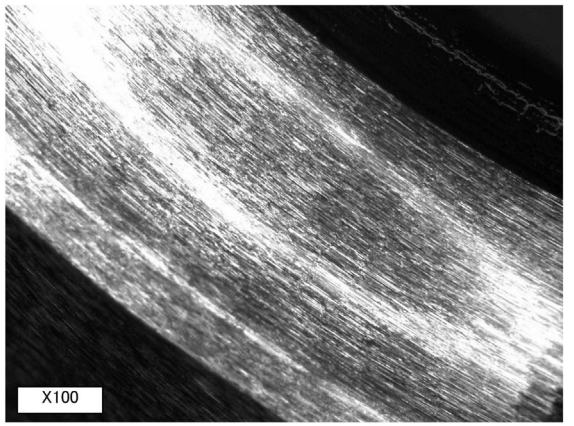
HANSAN
ISSOKU

CONTENTS

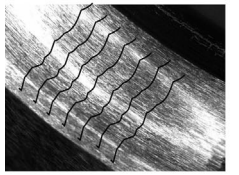
HANSAN Precision Lapping Ball Screw Features and Benefits

HANSAN ,ISSOKU Ball screw a true korea ball screw for korean market,was made with atraditional,50year old gauge manufacturing technology and with the technological of japan's ISSOKU company and it is already recognized by Small F.A,Robotics and semiconductor industries for its outstanding quality.
Also,all the screw and nut products are made with the company's excellent screw processing technologies and lapping method and they are quiet and durable with much smoother rolling motion than any other ground screws

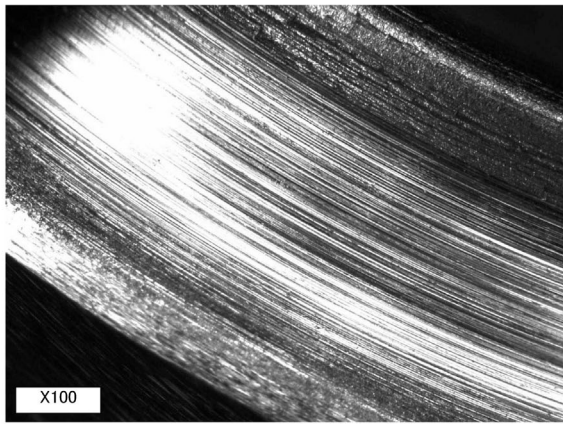
■ General grinding products



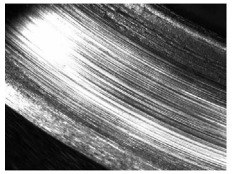
The cause of the vibration and noise generated during machining pattern is unique grinding



■ HANSAN lapping products



When the lapping process with the direction of movement of the ball is to remove the grinding pattern This enables low noise and longer life



C5,C7 Model number of the ball screw & Combinations of dia and lead

- Model Number

GTR 15 20 A C5,C7 S – 500

- GTR: Nut Type
  - GDR, GTR, GIR : HANSAN, ISSOKU C5,C7
  - HDR, HTR, HIR : HANSAN C7
  - GTRS, HTRS : HANSAN .ISSOKU C5,C7 Double Nut
- 15: dia
- 20: lead
- A: Number of Circuits
  - A – Turn1.5×1
  - B – Turn1.5×2
  - E – Turn2.5×1
  - F – Turn2.5×2
  - R – Turn2.75×1
  - T – Turn1.75×1
  - D2 – Turn1×2
  - D3 – Turn1×3
  - D4 – Turn1×4
- C5,C7: Accuracy Grade (C5, C7)
- S: Axial Clearance (mm)
  - T – 0.005
  - S – 0.010
  - N – 0.020
  - Z – 0
- 500: Thread overall length (mm)

- Combinations of dia and lead

(unit : mm)

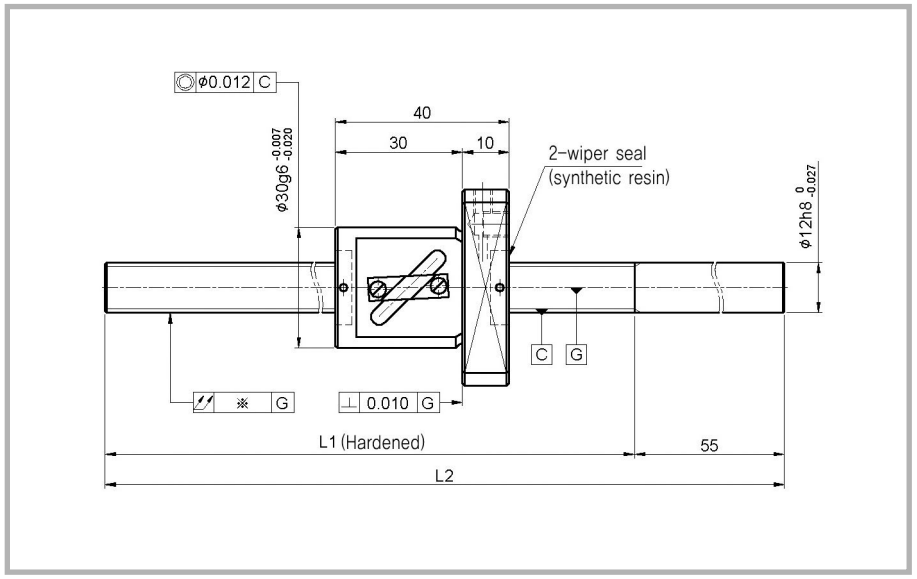
Dia	lead						
	1	2	4	5	8	10	20
4	●						
8	◎	◎					
10						◎	
12		◎		◎		◎	●
15				◎		◎	●
16		◎		◎			●
20				●		●	●
25				●		●	
32				●		●	

◎ : un-worked shaft ends Ring worked 〈inventory〉 C7 standard
● : un-worked shaft ends No ring 〈inventory〉

Precision Ball screw
un−worked shaft ends (C5)

GTR
GIR

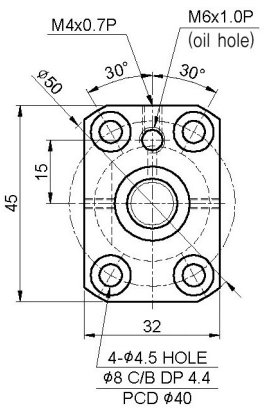
ϕ12×05



Model No	Stroke	Screw thread overall length	
		L1	L2
GTR1205EC5T-300	180	245	300
GTR1205EC5T-450	330	395	450

un-worked shaft ends/Standard Stock(C5)

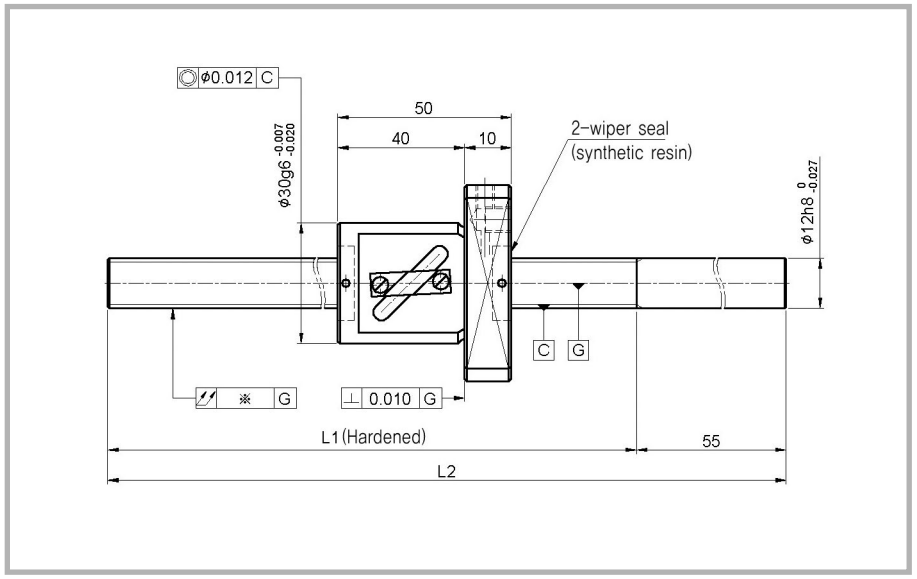
unit : mm



Ball screw Dimensions		
Nut type	GTR 1205 E	
lead	5	
BCD	12.3	
Root dia	9.8	
Ball dia	2.3812	
Number of Circuits	Turn 2.5×1	
Screw direction	right	
Accuracy Grade	C5	
Clearance symbol	T	Z
Axial Clearance	0.005include	0
Basic Dynamic load ratinga : Ca (N)	3770	2380
Basic Static load ratinga : Coa(N)	6320	3160
rotation torque (N · cm)	1.0include	0.6~1.1
rigidity (N/㎛)	103	84

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation			
±0.023	0.018	0.055	0.487	56
±0.025	0.020	0.080	0.620	

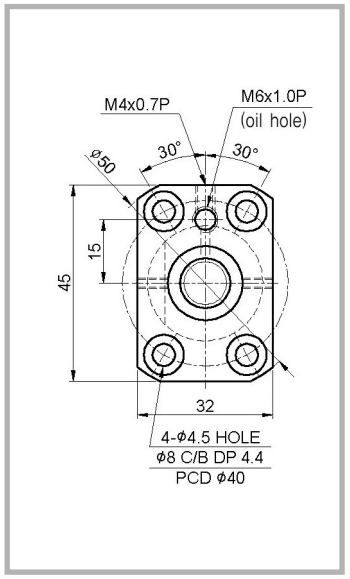
ϕ12×10



Model No	Stroke	Screw thread overall length	
		L1	L2
GTR1210EC5T-300	160	245	300
GTR1210EC5T-450	310	395	450

un-worked shaft ends/Standard Stock(C5)

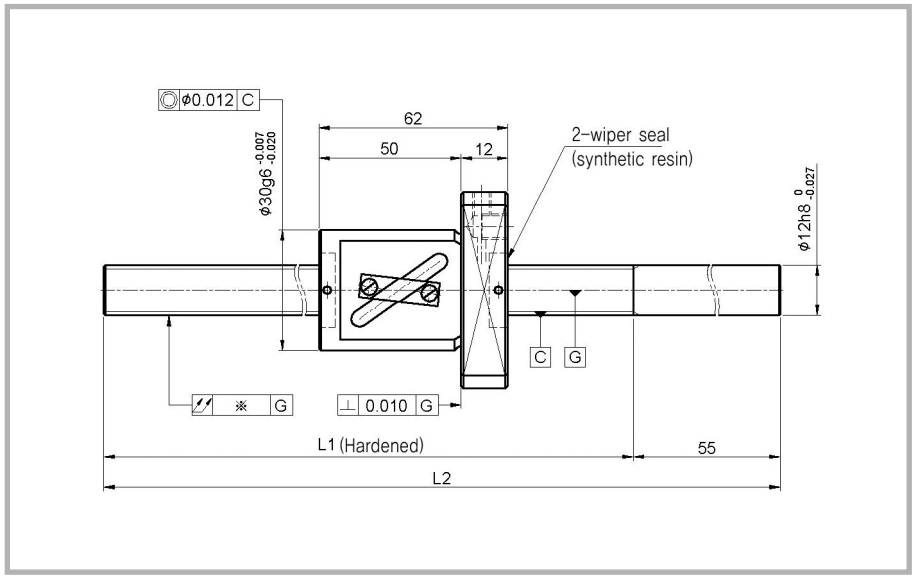
unit : mm



Ball screw Dimensions		
Nut type	GTR 1210 E	
lead	10	
BCD	12.5	
Root dia	10	
Ball dia	2.3812	
Number of Circuits	Turn 2.5×1	
Screw direction	right	
Accuracy Grade	C5	
Clearance symbol	T	Z
Axial Clearance	0.005include	0
Basic Dynamic load ratinga : Ca (N)	3820	2410
Basic Static load ratinga : Coa(N)	6480	3240
rotation torque (N · cm)	1.0include	0.7~1.4
rigidity (N/㎛)	105	86

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation			
±0.023	0.018	0.055	0.527	62
±0.025	0.020	0.080	0.660	

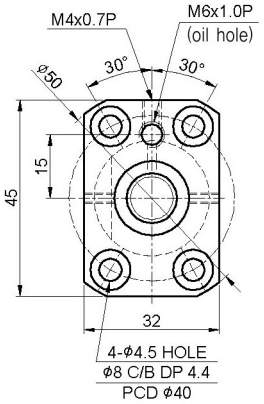
ϕ12×20



Model No	Stroke	Screw thread overall length	
		L1	L2
GTR1220AC5T-450	300	395	450
GTR1220AC5T-600	450	545	600

un-worked shaft ends/Standard Stock(C5)

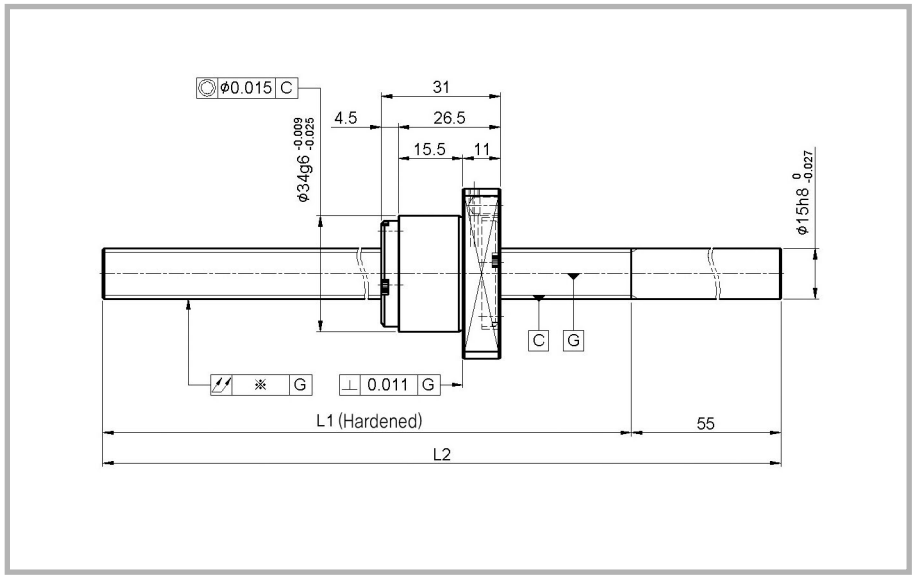
unit : mm



Ball screw Dimensions		
Nut type	GTR 1220 A	
lead	20	
BCD	12.5	
Root dia	10	
Ball dia	2.3812	
Number of Circuits	Turn 1.5×1	
Screw direction	right	
Accuracy Grade	C5	
Clearance symbol	T	Z
Axial Clearance	0.005include	0
Basic Dynamic load ratinga : Ca (N)	2410	1520
Basic Static load ratinga : Coa(N)	3920	1960
rotation torque (N · cm)	1.0include	0.5~1
rigidity (N/㎛)	59	53

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation			
±0.025	0.020	0.080	0.722	48
±0.030	0.023	0.090	0.855	

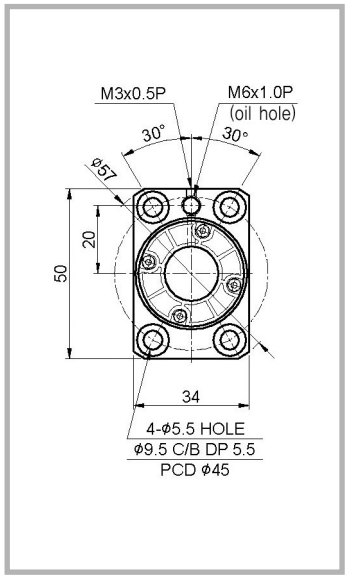
ϕ15×05



Model No	Stroke	Screw thread overall length	
		L1	L2
GIR1505RC5T-300	160	245	300
GIR1505RC5T-450	310	395	450
GIR1505RC5T-600	460	545	600
GIR1505RC5T-750	610	695	750
GIR1505RC5T-900	760	845	900

un-worked shaft ends/Standard Stock(C5)

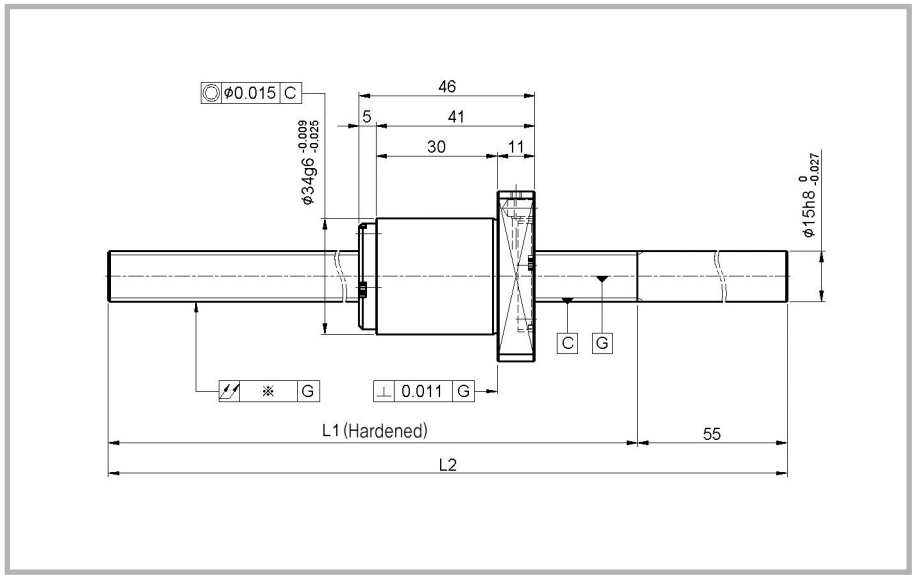
unit : mm



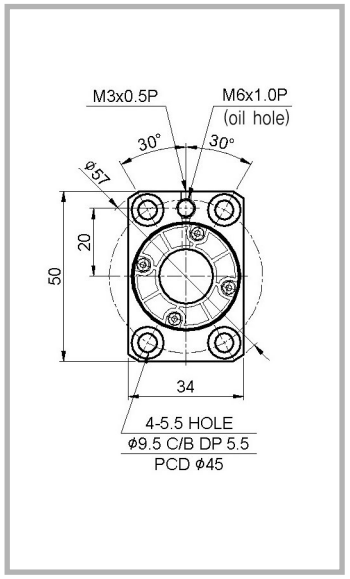
Ball screw Dimensions		
Nut type	GIR 1505 R	
lead	5	
BCD	15.5	
Root dia	12.2	
Ball dia	3.175	
Number of Circuits	Turn 2.5×1	
Screw direction	right	
Accuracy Grade	C5	
Clearance symbol	T	Z
Axial Clearance	0.005include	0
Basic Dynamic load ratinga : Ca (N)	6610	4160
Basic Static load ratinga : Coa(N)	12545	6275
rotation torque (N · cm)	2.0include	1.5~3
rigidity (N/㎛)	139	126

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation			
±0.023	0.018	0.045	0.683	55
±0.023	0.018	0.060	0.891	
±0.027	0.020	0.075	1.099	
±0.030	0.023	0.090	1.307	
±0.035	0.025	0.120	1.515	

ϕ15×10



un-worked shaft ends/Standard Stock(C5)



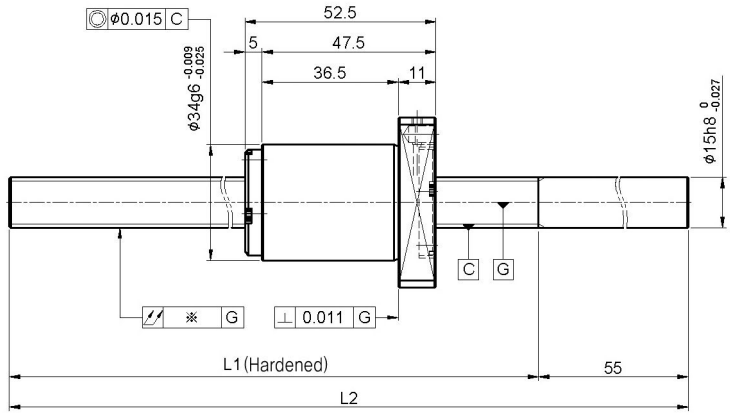
unit : mm

Ball screw Dimensions		
Nut type	GIR 1510 R	
lead	10	
BCD	15.5	
Root dia	12.2	
Ball dia	3.175	
Number of Circuits	Turn 2.75×1	
Screw direction	right	
Accuracy Grade	C5	
Clearance symbol	T	Z
Axial Clearance	0.005include	0
Basic Dynamic load ratinga : Ca (N)	6610	4160
Basic Static load ratinga : Coa(N)	12545	6275
rotation torque (N · cm)	2.0include	1.5~3
rigidity (N/㎛)	139	126

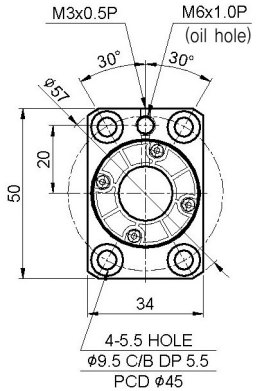
Model No	Stroke	Screw thread overall length	
		L1	L2
GIR1510RC5T-300	150	245	300
GIR1510RC5T-450	300	395	450
GIR1510RC5T-600	450	545	600
GIR1510RC5T-750	600	695	750
GIR1510RC5T-900	750	845	900
GIR1510RC5T-1100	950	1045	1100

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation			
±0.023	0.018	0.045	0.739	54
±0.023	0.018	0.060	0.947	
±0.027	0.020	0.075	1.155	
±0.030	0.023	0.090	1.363	
±0.035	0.025	0.120	1.571	
±0.040	0.027	0.150	1.848	

ϕ15×20



un-worked shaft ends/Standard Stock(C5)



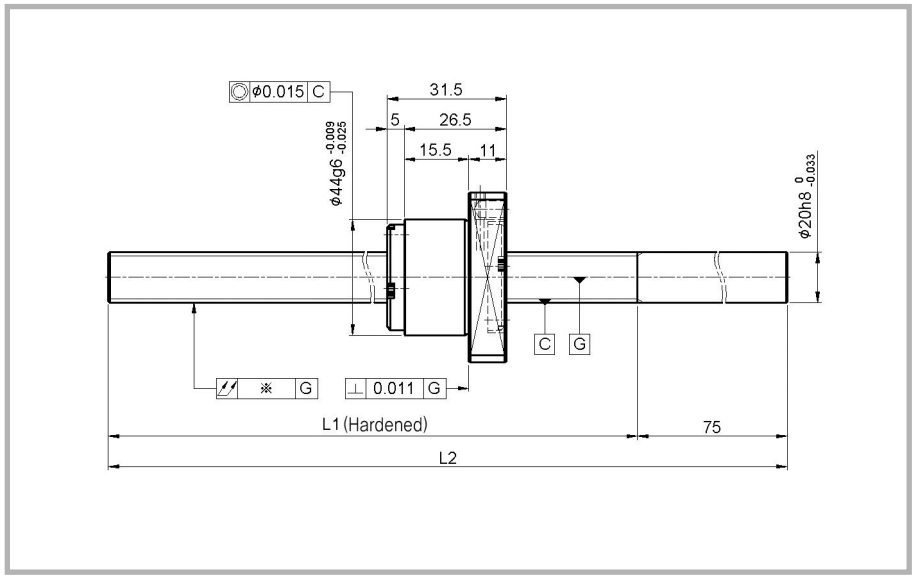
unit : mm

Ball screw Dimensions		
Nut type	GIR 1520 A	
lead	20	
BCD	15.75	
Root dia	12.4	
Ball dia	3.175	
Number of Circuits	Turn 1.75×1	
Screw direction	right	
Accuracy Grade	C5	
Clearance symbol	T	Z
Axial Clearance	0.005include	0
Basic Dynamic load ratinga : Ca (N)	4230	2260
Basic Static load ratinga : Coa(N)	7840	3920
rotation torque (N · cm)	2.0include	1~2
rigidity (N/㎛)	85	77

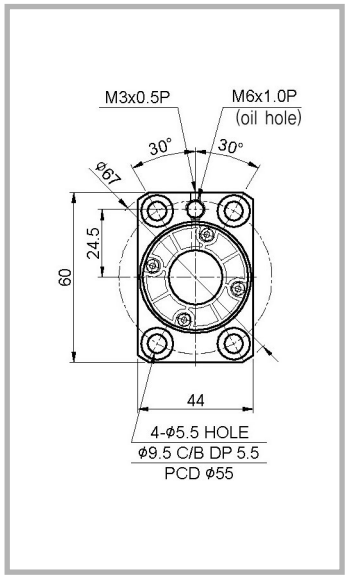
Model No	Stroke	Screw thread overall length	
		L1	L2
GIR1520TC5T-450	270	395	450
GIR1520TC5T-600	420	545	600
GIR1520TC5T-750	570	695	750
GIR1520TC5T-900	720	845	900
GIR1520TC5T-1000	820	945	1000
GIR1520TC5T-1100	920	1045	1100
GIR1520TC5T-1300	1120	1245	1300

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation			
±0.023	0.018	0.060	1.004	42
±0.027	0.020	0.075	1.212	
±0.030	0.023	0.090	1.420	
±0.035	0.025	0.120	1.628	
±0.040	0.027	0.120	1.767	
±0.040	0.027	0.150	1.905	
±0.046	0.030	0.190	2.181	

ϕ20×05



un-worked shaft ends/Standard Stock(C5)



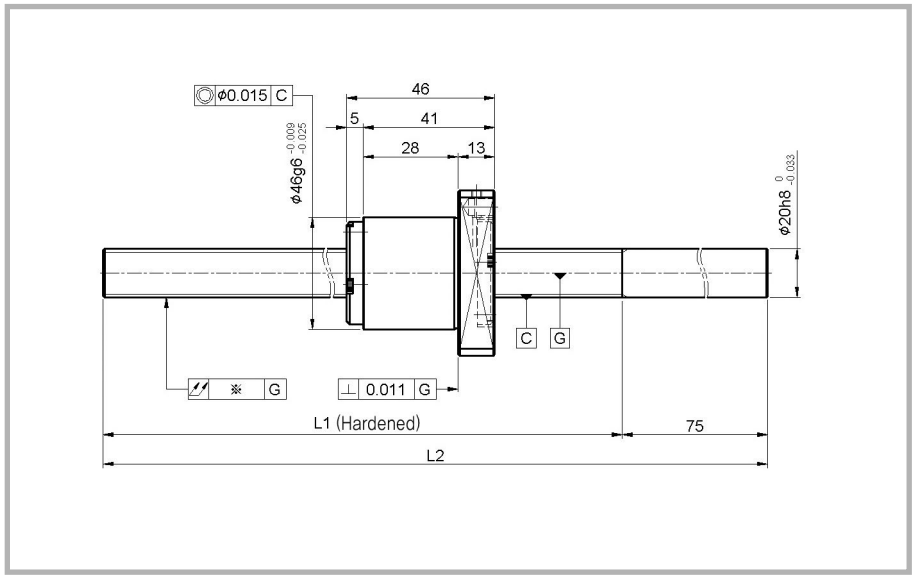
unit : mm

Ball screw Dimensions		
Nut type	GIR 2005 R	
lead	5	
BCD	20.5	
Root dia	17.2	
Ball dia	3.175	
Number of Circuits	Turn 2.75×1	
Screw direction	right	
Accuracy Grade	C5	
Clearance symbol	T	Z
Axial Clearance	0.005include	0
Basic Dynamic load ratinga : Ca (N)	8150	5130
Basic Static load ratinga : Coa(N)	17150	8575
rotation torque (N · cm)	2.0include	2.5~4.5
rigidity (N/㎛)	185	158

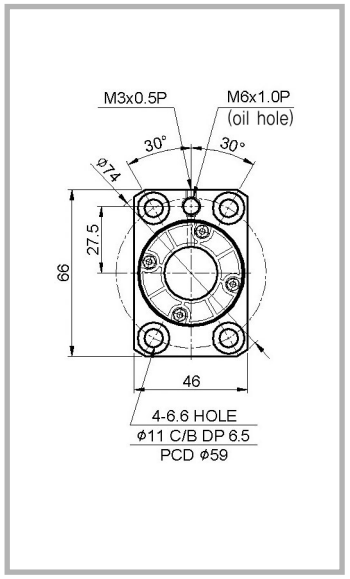
Model No	Stroke	Screw thread overall length	
		L1	L2
GIR2005RC5T-400	240	325	400
GIR2005RC5T-600	440	525	600
GIR2005RC5T-800	640	725	800
GIR2005RC5T-1000	840	925	1000

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation			
±0.023	0.018	0.055	1.412	73
±0.027	0.020	0.075	1.905	
±0.035	0.025	0.090	2.398	
±0.040	0.027	0.120	2.891	

ϕ20×10



un-worked shaft ends/Standard Stock(C5)



unit : mm

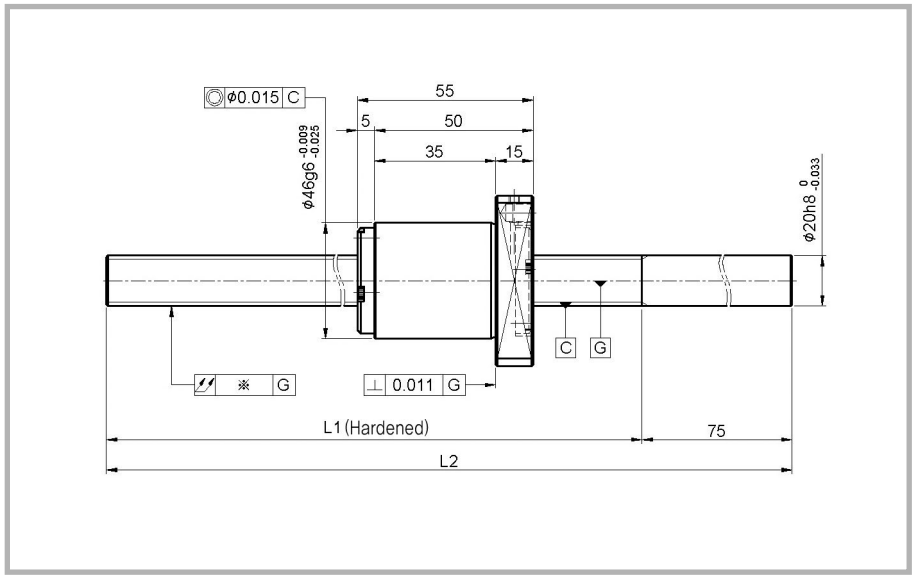
Ball screw Dimensions		
Nut type	GIR 2010 R	
lead	10	
BCD	21.0	
Root dia	16.8	
Ball dia	3.969	
Number of Circuits	Turn 2.75×1	
Screw direction	right	
Accuracy Grade	C5	
Clearance symbol	T	Z
Axial Clearance	0.005include	0
Basic Dynamic load ratinga : Ca (N)	11100	6990
Basic Static load ratinga : Coa(N)	22100	11050
rotation torque (N · cm)	2.0include	3~6
rigidity (N/㎛)	208	179

( ) Is Hansan Model Specifications

Model No	Stroke	Screw thread overall length	
		L1	L2
GIR2010RC5T-600	425	525	600
GIR2010RC5T-800	625	725	800
GIR2010RC5T-1000	825	925	1000
GIR2010RC5T-1300	1125	1225	1300
GIR2010RC5T-1500	1325	1425	1500

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation			
±0.027	0.020	0.075	2.009	58
±0.030	0.023	0.090	2.502	
±0.040	0.027	0.120	2.995	
±0.046	0.030	0.190	3.734	
±0.054	0.035	0.190	4.227	

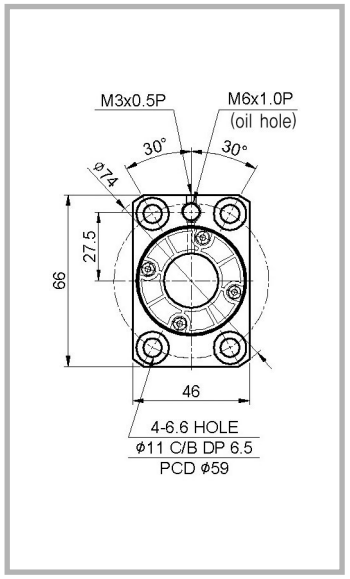
ϕ20×20



Model No	Stroke	Screw thread overall length	
		L1	L2
GIR2020TC5T-800	565	725	800
GIR2020TC5T-1000	765	925	1000
GIR2020TC5T-1300	1065	1225	1300
GIR2020TC5T-1500	1265	1425	1500
GIR2020TC5T-1650	1415	1575	1650
GIR2020TC5T-1800	1565	1725	1800

un-worked shaft ends/Standard Stock(C5)

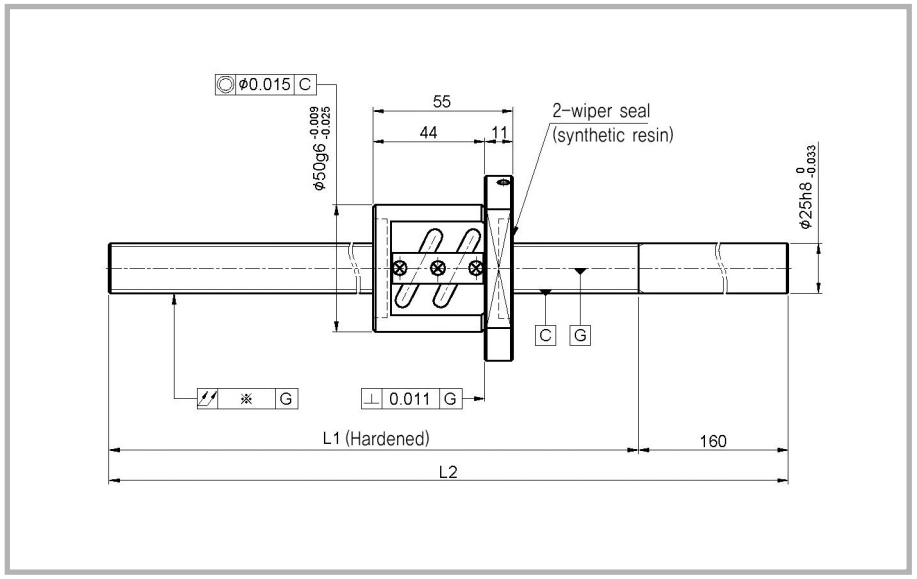
unit : mm



Ball screw Dimensions		
Nut type	GIR 2020 T	
lead	20	
BCD	21	
Root dia	16.8	
Ball dia	3.969	
Number of Circuits	Turn 1.75×1	
Screw direction	right	
Accuracy Grade	C5	
Clearance symbol	T	Z
Axial Clearance	0.005include	0
Basic Dynamic load ratinga : Ca (N)	6710	4230
Basic Static load ratinga : Coa(N)	12640	6320
rotation torque (N · cm)	2.0include	2~4
rigidity (N/㎛)	112	102

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation			
±0.030	0.023	0.090	2.767	42
±0.035	0.025	0.120	3.260	
±0.046	0.030	0.190	3.999	
±0.054	0.035	0.190	4.492	
±0.054	0.035	–	4.862	
±0.054	0.035	–	5.232	

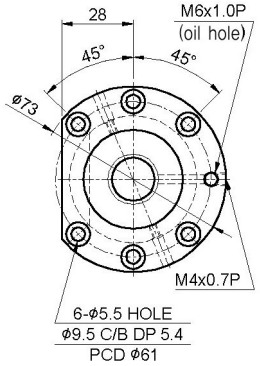
ϕ25×05



Model No	Stroke	Screw thread overall length	
		L1	L2
GTR2505FC5Z-600	350	440	600
GTR2505FC5Z-1000	750	840	1000

un-worked shaft ends/Standard Stock(C5)

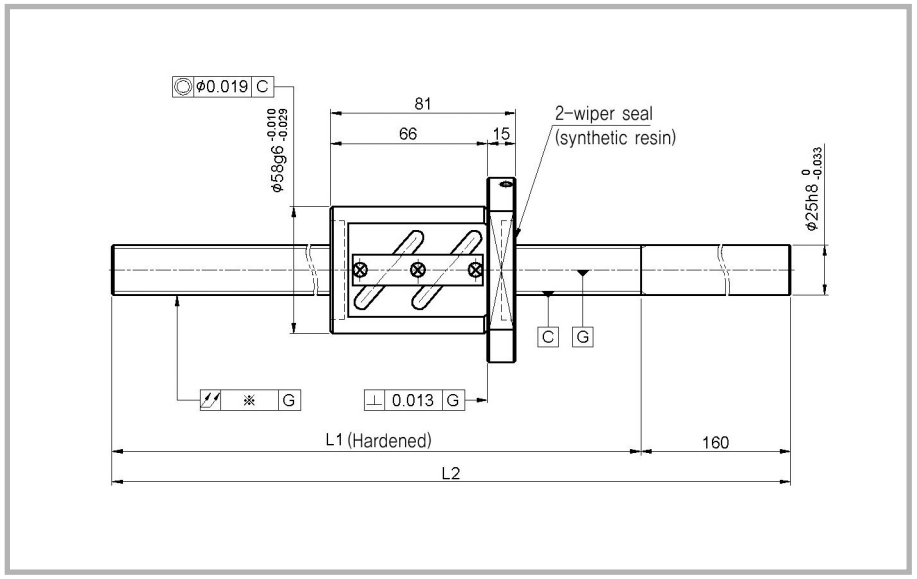
unit : mm



Ball screw Dimensions	
Nut type	GTR 2505 F
lead	5
BCD	25.5
Root dia	22.2
Ball dia	3.175
Number of Circuits	Turn 2.5×2
Screw direction	right
Accuracy Grade	C5
Clearance symbol	Z
Axial Clearance	0
Basic Dynamic load ratinga : Ca (N)	9280
Basic Static load ratinga : Coa(N)	19350
Pre-load (N)	450
Pre-load dynamic torque (N · cm)	5~10
rigidity (N/㎛)	363

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation			
±0.025	0.020	0.060	3.061	168
±0.035	0.025	0.085	4.601	

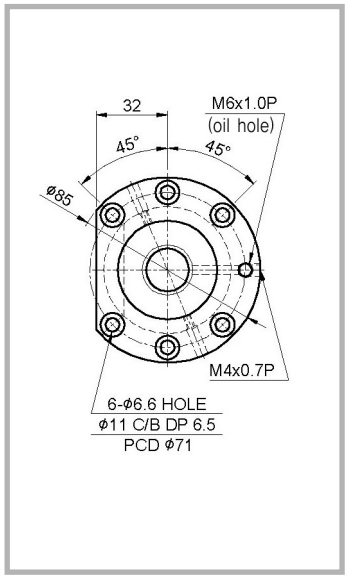
ϕ25×10



Model No	Stroke	Screw thread overall length	
		L1	L2
GTR2510BC5Z-1000	800	840	1000
GTR2510BC5Z-1500	1300	1340	1500

un-worked shaft ends/Standard Stock(C5)

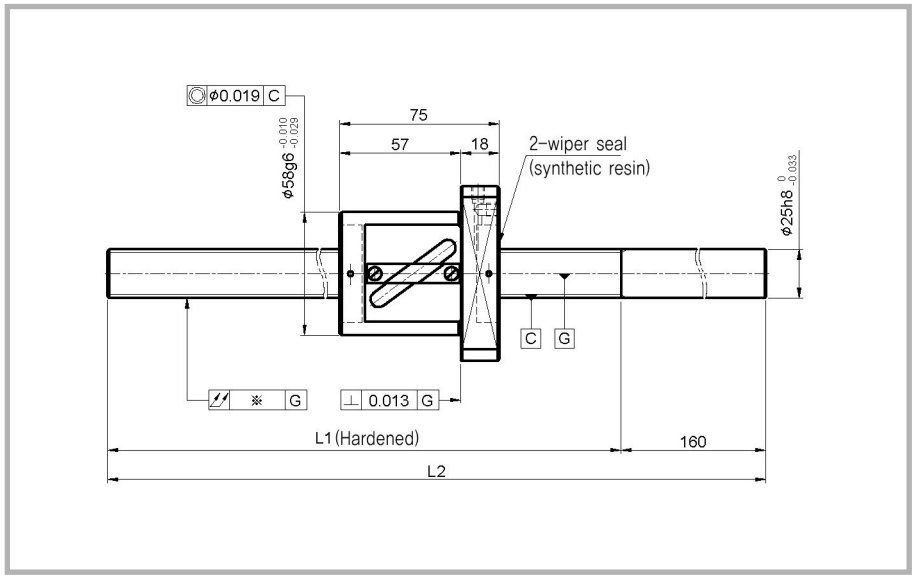
unit : mm



Ball screw Dimensions	
Nut type	GTR 2510 B
lead	10
BCD	25.5
Root dia	20.5
Ball dia	4.7625
Number of Circuits	Turn 1.5×2
Screw direction	right
Accuracy Grade	C5
Clearance symbol	Z
Axial Clearance	0
Basic Dynamic load ratinga : Ca (N)	9680
Basic Static load ratinga : Coa(N)	16200
Pre-load (N)	450
Pre-load dynamic torque (N · cm)	5~10
rigidity (N/㎛)	232

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation			
±0.035	0.025	0.085	5.450	72
±0.054	0.035	0.130	7.370	

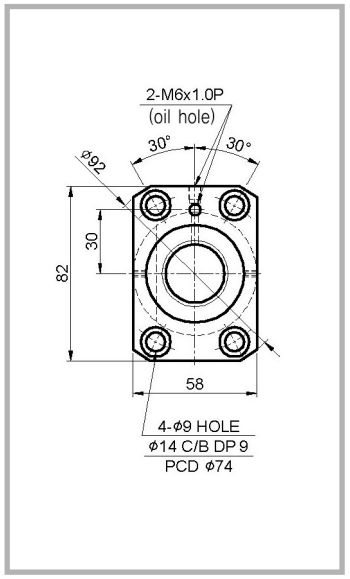
ϕ25×20



Model No	Stroke	Screw thread overall length	
		L1	L2
GTR2520AC5T-1000	740	840	1000
GTR2520AC5T-1500	1240	1340	1500
GTR2520AC5T-2000	1740	1840	2000

un-worked shaft ends/Standard Stock(C5)

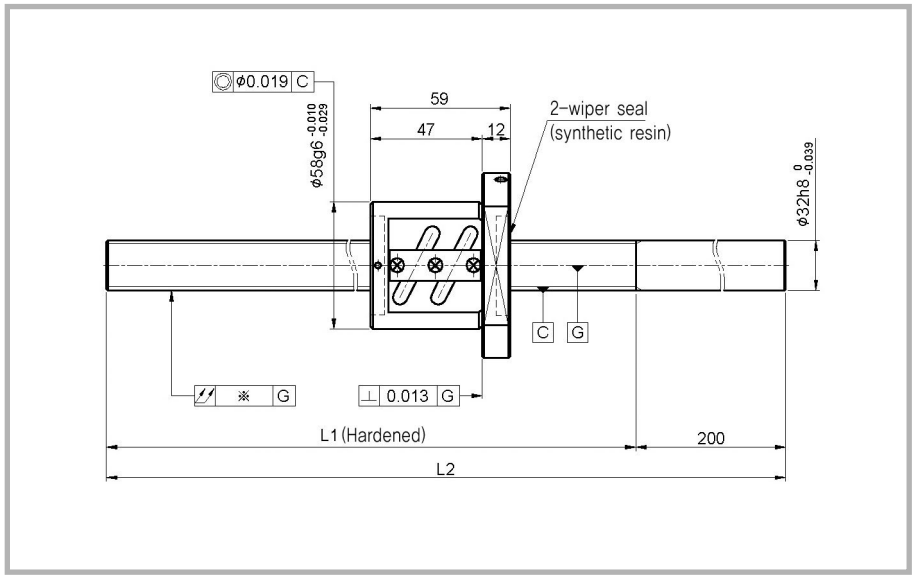
unit : mm



Ball screw Dimensions		
Nut type	GTR 2520 A	
lead	20	
BCD	26.25	
Root dia	21.3	
Ball dia	4.7625	
Number of Circuits	Turn 1.5×1	
Screw direction	right	
Accuracy Grade	C5	
Clearance symbol	T	
Axial Clearance	T	Z
Basic Dynamic load ratinga : Ca (N)	0.005include	0
Basic Static load ratinga : Coa(N)	8540	5380
Pre-load (N)	16900	8450
Pre-load dynamic torque (N · cm)	2.0include	10.0include
rigidity (N/㎛)	136	109

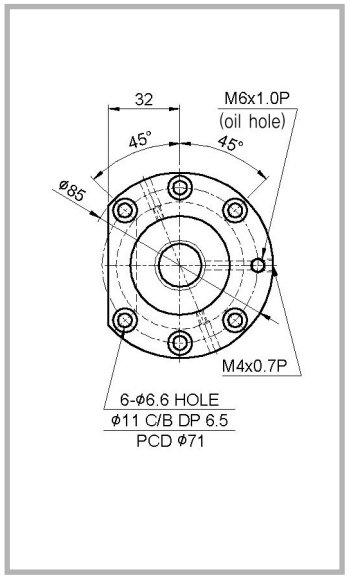
Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation			
±0.035	0.025	0.085	5.150	42
±0.046	0.030	0.130	7.020	
±0.065	0.040	0.170	8.900	

ϕ32×05



Model No	Stroke	Screw thread overall length	
		L1	L2
GTR3205FC5Z-600	300	400	600
GTR3205FC5Z-1000	700	800	1000

un-worked shaft ends/Standard Stock(C5)

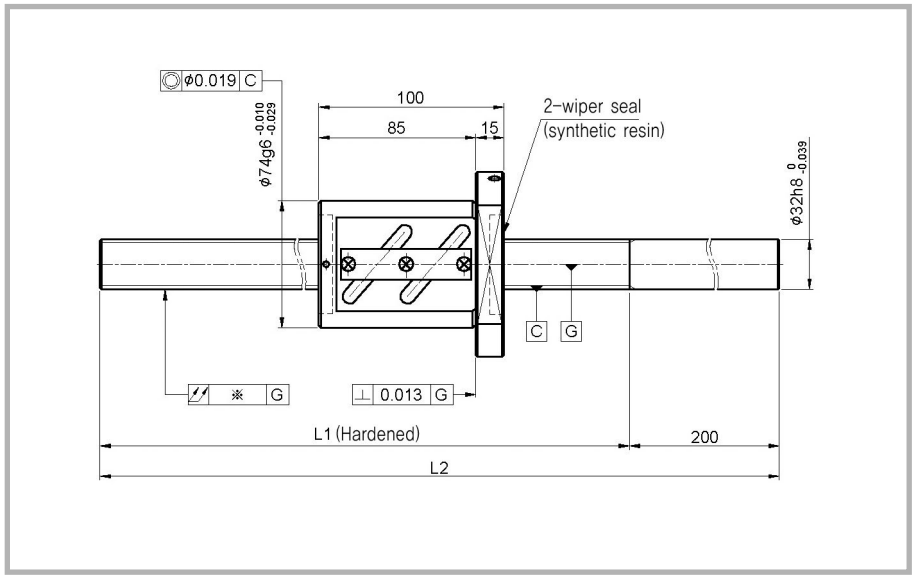


unit : mm

Ball screw Dimensions	
Nut type	GTR 3205 F
lead	5
BCD	32.5
Root dia	29.2
Ball dia	3.175
Number of Circuits	2.5권 2열
Screw direction	오른쪽
Accuracy Grade	C5
Clearance symbol	Z
Axial Clearance	0
Basic Dynamic load ratinga : Ca (N)	10150
Basic Static load ratinga : Coa(N)	25030
Pre-load (N)	500
Pre-load dynamic torque (N · cm)	8~15
rigidity (N/㎛)	439

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation			
±0.023	0.018	0.060	4.818	212
±0.035	0.025	0.085	7.336	

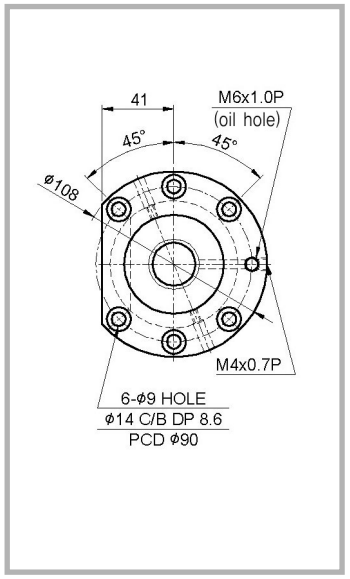
ϕ32×10



Model No	Stroke	Screw thread overall length	
		L1	L2
GTR3210FC5Z-1000	650	800	1000
GTR3210FC5Z-1500	1150	1300	1500

un-worked shaft ends/Standard Stock(C5)

unit : mm



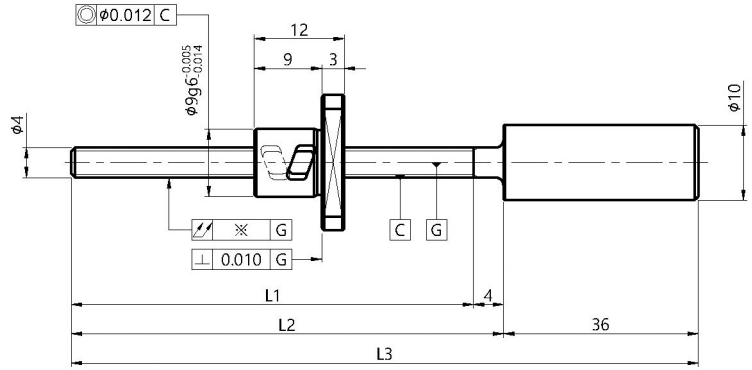
Ball screw Dimensions	
Nut type	GTR 3210 F
lead	10
BCD	33.0
Root dia	26.4
Ball dia	6.350
Number of Circuits	Turn 2.5×2
Screw direction	right
Accuracy Grade	C5
Clearance symbol	Z
Axial Clearance	0
Basic Dynamic load ratinga : Ca (N)	25500
Basic Static load ratinga : Coa(N)	48050
Pre-load (N)	1200
Pre-load dynamic torque (N · cm)	19~35
rigidity (N/μm)	490

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation			
±0.035	0.025	0.085	9.239	108
±0.046	0.030	0.130	12.386	

Precision Ball screw Finished shaft ends / un−worked shaft ends C7 (Tube ,End cap, Deflector type)

GDR/HDR
GIR/HIR
GTR/HTR
GTRS/HTRS

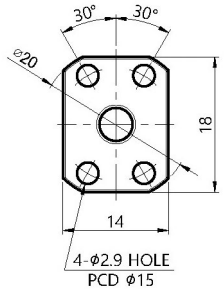
ϕ04×01



Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
GDR0401D2C7S-100	37	60	64
GDR0401D2C7S-150	87	110	114

Finished shaft ends/un-worked shaft ends Standard Stock (C7)

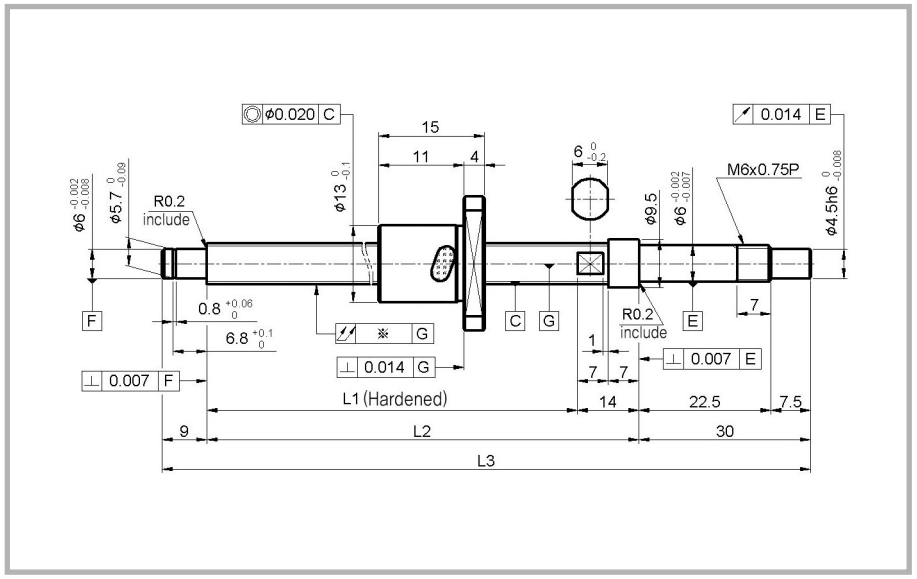
unit : mm



Ball screw Dimensions	
Nut type	GDR 0401 D2
lead	1
BCD	4.15
Root dia	3.15
Ball dia	0.800
Number of Circuits	Turn 1×2
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S
Axial Clearance	0.01include
Basic Dynamic load ratinga : Ca (N)	321
Basic Static load ratinga : Coa(N)	375
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	30

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.035	0.02	34
–	0.052	0.048	0.025	

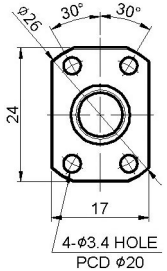
ϕ 08×01



Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
GDR/HDR0801D3C7S/N-150	72	97	111
GDR/HDR0801D3C7S/N-200	122	147	161
GDR/HDR0801D3C7S/N-250	172	197	211
GDR/HDR0801D3C7S/N-300	222	247	261

Finished shaft ends/un-worked shaft ends Standard Stock (C7)

unit : mm

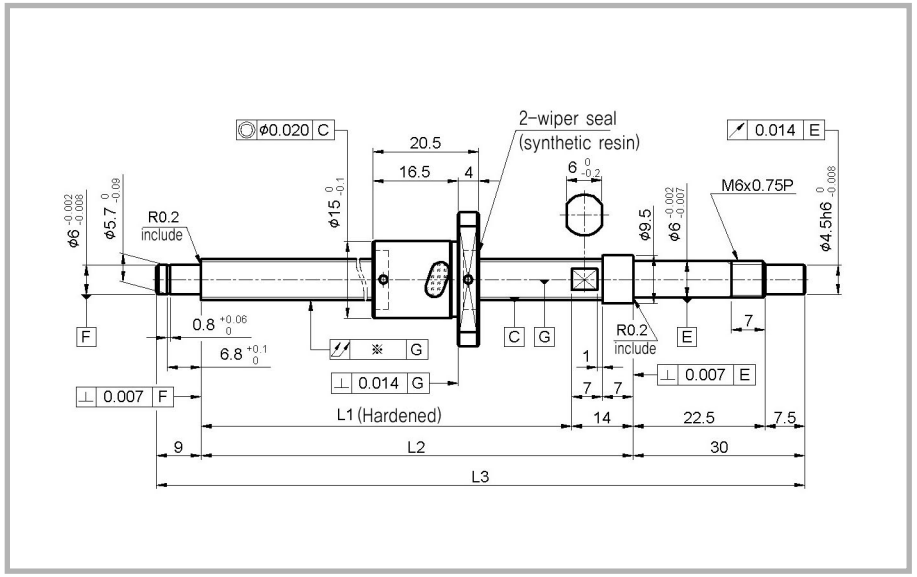


Ball screw Dimensions	
Nut type	GDR/HDR 0801 D3
lead	1
BCD	8.15
Root dia	7.4
Ball dia	0.800
Number of Circuits	Turn 1×3
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca (N)	730
Basic Static load ratinga : Coa(N)	1480
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	60

( ) Is Hansan Model Specifications

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.048	0.084	96
–	0.052	0.061	0.104	
–	0.052	0.075	0.124	
–	0.052	–	0.144	

ϕ08×02

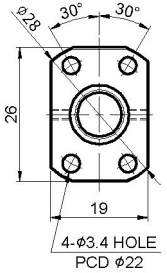


Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
GDR/HDR0802D3C7S/N-150	67	97	111
GDR/HDR0802D3C7S/N-200	117	147	161
GDR/HDR0802D3C7S/N-250	167	197	211
GDR/HDR0802D3C7S/N-300	217	247	261

Finished shaft ends/un-worked shaft ends Standard Stock (C7)

HANSAN ISSOKU

unit : mm

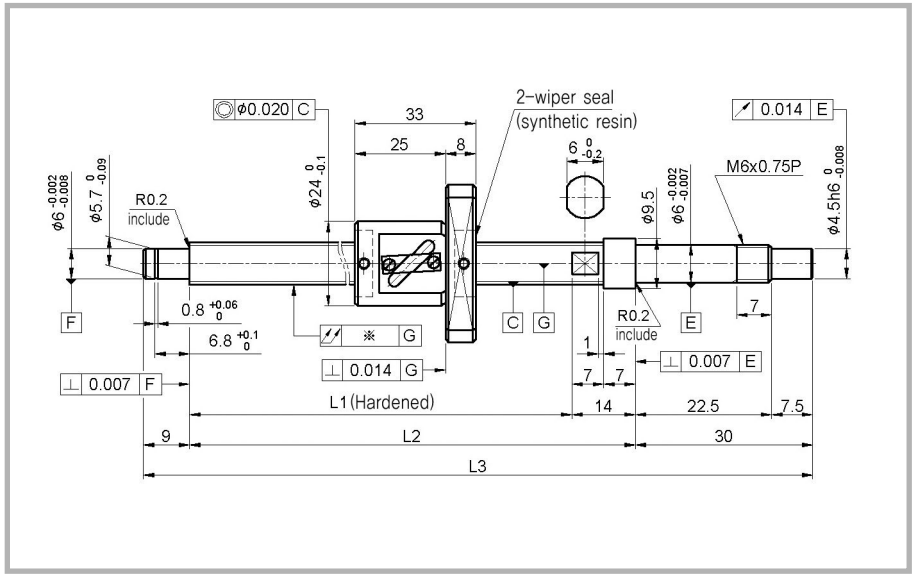


Ball screw Dimensions	
Nut type	GDR/HDR 0802 D3
lead	2
BCD	8.3
Root dia	7.1
Ball dia	1.2000
Number of Circuits	Turn 1×3
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca (N)	1420
Basic Static load ratinga : Coa(N)	2290
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	60

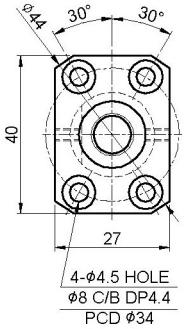
( ) Is Hansan Model Specifications

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.048	0.094	66
–	0.052	0.061	0.114	
–	0.052	0.075	0.134	
–	0.052	–	0.154	

ϕ 08×04



Finished shaft ends/un-worked shaft ends Standard Stock (C7)



unit : mm

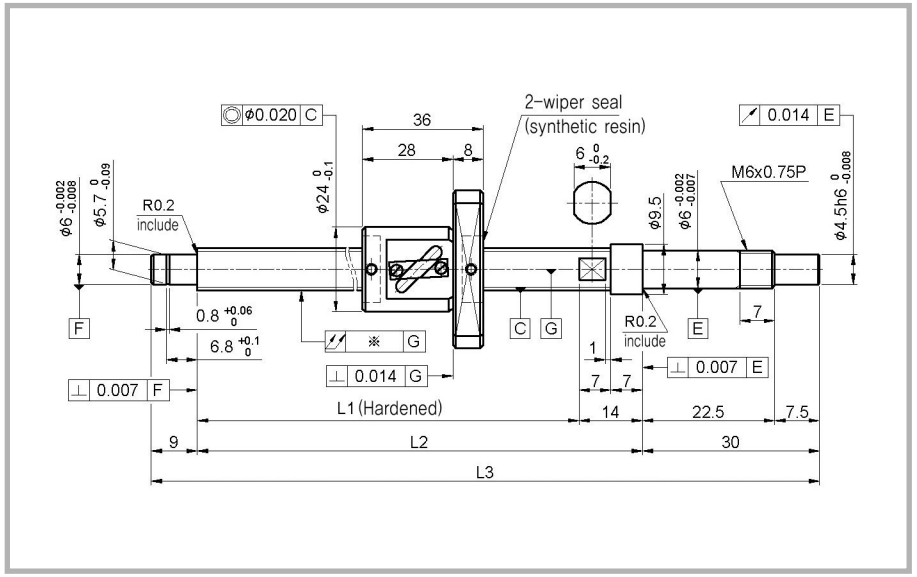
Ball screw Dimensions	
Nut type	GTR/HTR 0804 E
lead	4
BCD	8.3
Root dia	6.2
Ball dia	2.000
Number of Circuits	Turn 2.5×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca (N)	2420
Basic Static load ratinga : Coa(N)	3620
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	60

( ) Is Hansan Model Specifications

Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
GTR/HTR0804EC7S/N-200	90	147	161
GTR/HTR0804EC7S/N-400	290	347	361
GTR/HTR0804EC7S/N-600	490	547	561

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.075	0.220	54
–	0.052	–	0.290	
–	0.052	–	0.360	

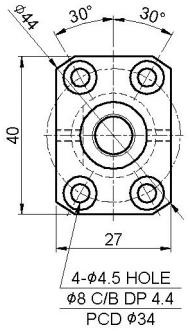
ϕ 08×08



Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
GTR/HTR0808AC7S/N-200	110	147	161
GTR/HTR0808AC7S/N-400	270	347	361
GTR/HTR0808AC7S/N-600	470	547	561

Finished shaft ends/un-worked shaft ends Standard Stock (C7)

unit : mm

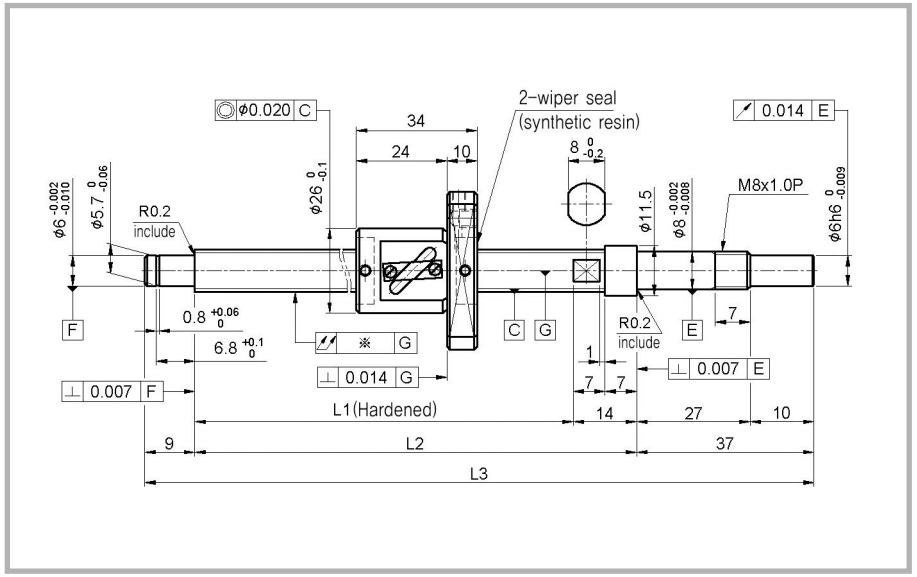


Ball screw Dimensions	
Nut type	GTR(HTR) 0808 A
lead	8
BCD	8.3
Root dia	6.2
Ball dia	2.000
Number of Circuits	Turn 1.5×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01nclude(0.02nclude)
Basic Dynamic load ratinga : Ca (N)	1450
Basic Static load ratinga : Coa(N)	2155
rotation torque (N · cm)	1.0nclude
rigidity (N/㎛)	34

( ) Is Hansan Model Specifications

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.075	0.210	34
–	0.052	–	0.300	
–	0.052	–	0.390	

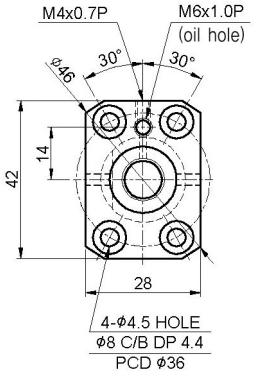
ϕ10×04



Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
GTR/HTR1004EC7S/N-300	180	240	254
GTR/HTR1004EC7S/N-500	380	440	454
GTR/HTR1004EC7S/N-700	580	640	654

Finished shaft ends/un-worked shaft ends Standard Stock (C7)

unit : mm

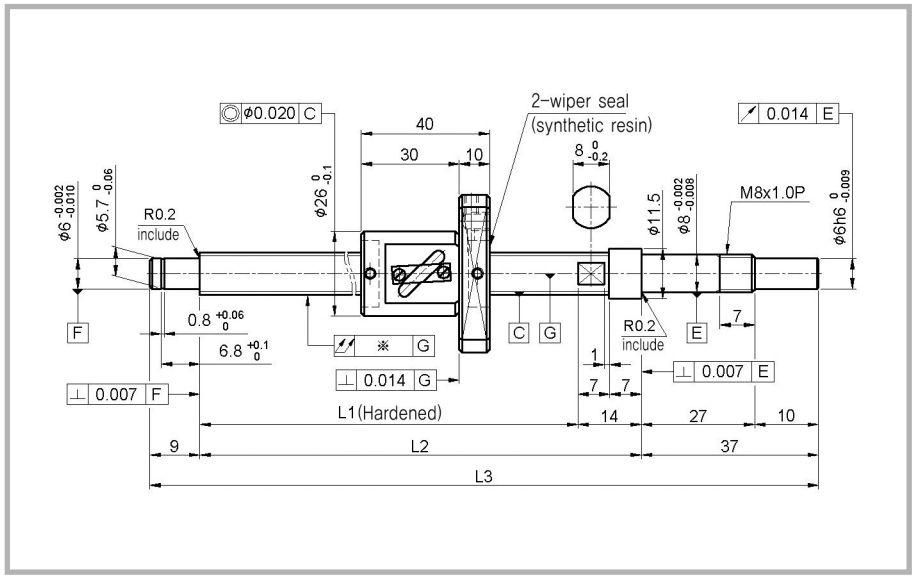


Ball screw Dimensions	
Nut type	GTR/HTR 1004 E
lead	4
BCD	10.3
Root dia	8.2
Ball dia	2.000
Number of Circuits	Turn 2.5×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca (N)	2730
Basic Static load ratinga : Coa(N)	4410
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	79

( ) Is Hansan Model Specifications

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.080	0.310	54
–	0.052	0.120	0.420	
–	0.052	–	0.530	

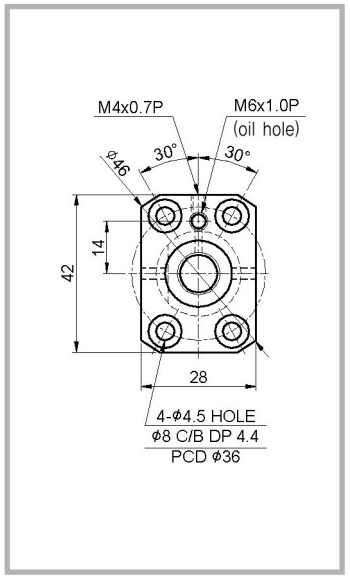
ϕ10×10



Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
GTR/HTR1010AC7S/N-300	165	240	254
GTR/HTR1010AC7S/N-500	365	440	454
GTR/HTR1010AC7S/N-700	565	640	654

Finished shaft ends/un-worked shaft ends Standard Stock (C7)

unit : mm

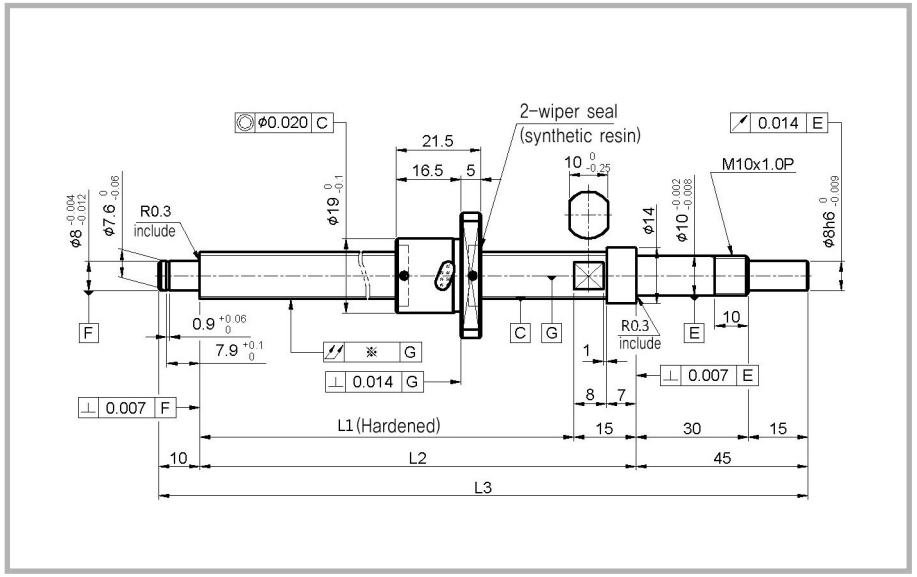


Ball screw Dimensions	
Nut type	GTR/HTR 1010 A
lead	10
BCD	10.3
Root dia	8.2
Ball dia	2.000
Number of Circuits	Turn 1.5×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca (N)	1720
Basic Static load ratinga : Coa(N)	2745
rotation torque (N · cm)	1.0include
rigidity (N/μm)	40

( ) Is Hansan Model Specifications

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.080	0.350	40
–	0.052	0.120	0.460	
–	0.052	–	0.570	

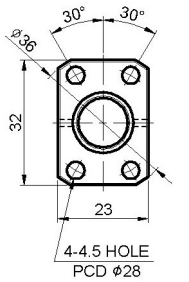
ϕ12×02



Finished shaft ends/un-worked shaft ends Standard Stock (C7)

HANSAN ISSOKU

unit : mm

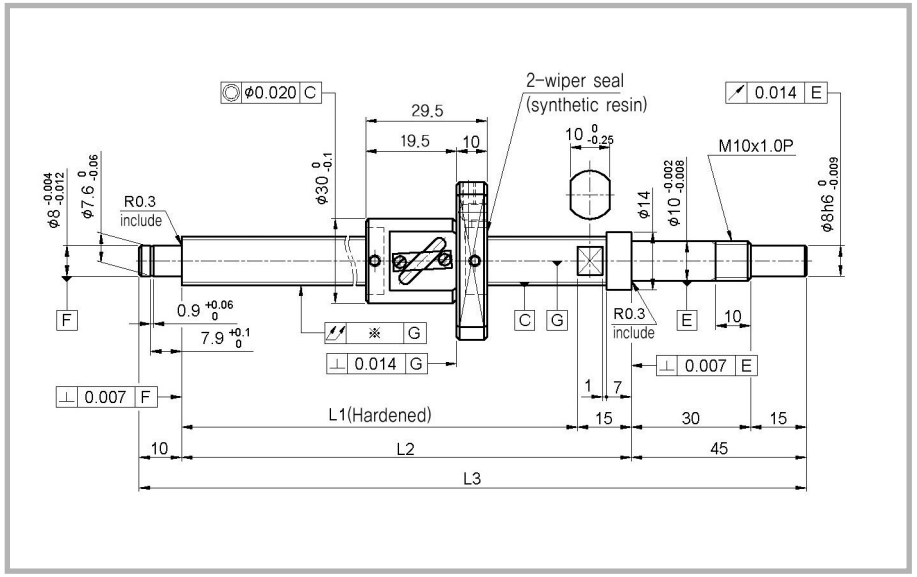


Ball screw Dimensions	
Nut type	GDR/HDR 1202 D3
lead	2
BCD	12.3
Root dia	11.1
Ball dia	1.2000
Number of Circuits	Turn 1×3
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca(N)	1670
Basic Static load ratinga : Coa(N)	3640
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	110

Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
GDR/HDR1202D3C7S/N-150	50	80	95
GDR/HDR1202D3C7S/N-200	100	130	145
GDR/HDR1202D3C7S/N-250	150	180	195
GDR/HDR1202D3C7S/N-300	200	230	245
GDR/HDR1202D3C7S/N-350	250	280	295

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.041	0.155	96
–	0.052	0.052	0.190	
–	0.052	0.052	0.225	
–	0.052	0.052	0.260	
–	0.052	0.063	0.295	

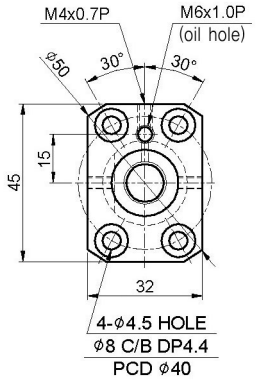
ϕ12×05



Finished shaft ends/un-worked shaft ends Standard Stock (C7)

HANSAN ISSOKU

unit : mm



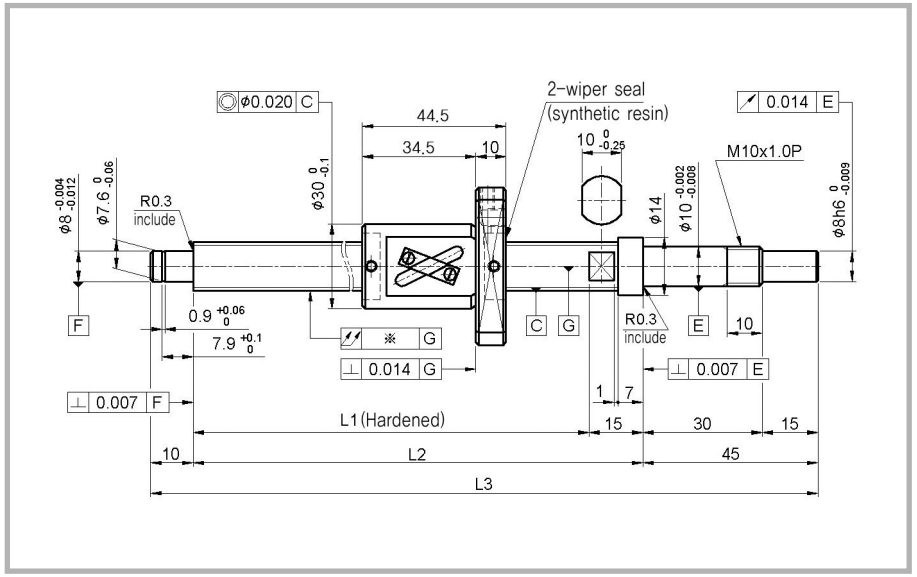
Ball screw Dimensions	
Nut type	GTR/HTR 1205 E
lead	5
BCD	12.3
Root dia	9.8
Ball dia	2.3812
Number of Circuits	Turn 2.5×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca(N)	3770
Basic Static load ratinga : Coa(N)	6320
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	103

( ) Is Hansan Model Specifications

Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
GTR/HTR1205EC7S/N-300	160	230	245
GTR/HTR1205EC7S/N-500	360	430	445
GTR/HTR1205EC7S/N-700	560	630	645
GTR/HTR1205EC7S/N-1000	860	930	945

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.080	0.500	56
–	0.052	0.120	0.660	
–	0.052	–	0.820	
–	0.052	–	0.980	

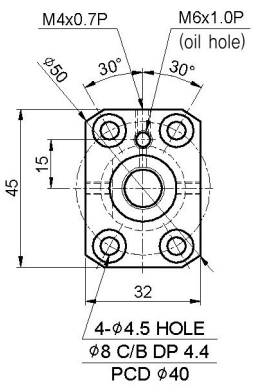
ϕ12×10



Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
GTR/HTR1210EC7S/N-300	150	230	245
GTR/HTR1210EC7S/N-500	350	430	445
GTR/HTR1210EC7S/N-700	550	630	645
GTR/HTR1210EC7S/N-1000	850	930	945

Finished shaft ends/un-worked shaft ends Standard Stock (C7)

unit : mm

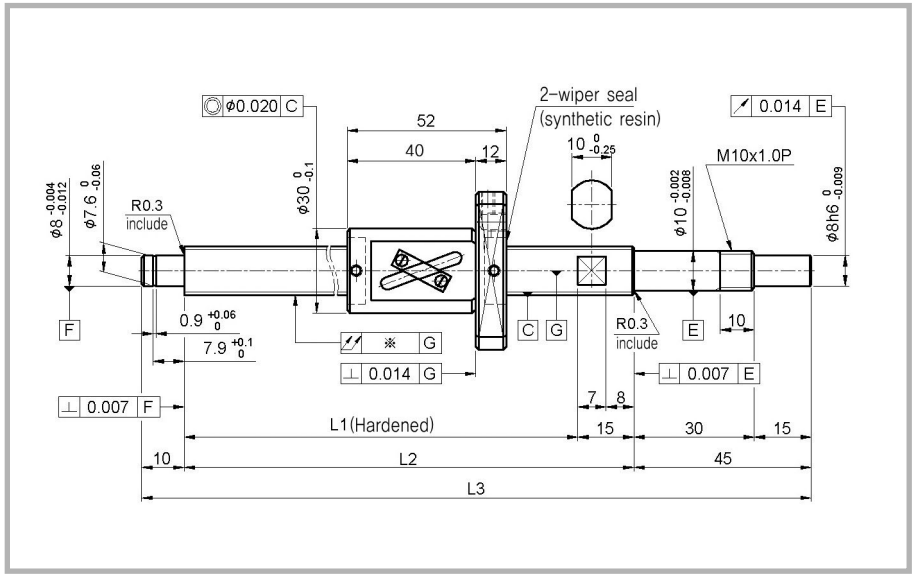


Ball screw Dimensions	
Nut type	GTR/HTR 1210 E
lead	10
BCD	12.5
Root dia	10
Ball dia	2.3812
Number of Circuits	Turn 2.5×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca(N)	3820
Basic Static load ratinga : Coa(N)	6480
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	105

( ) Is Hansan Model Specifications

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.080	0.550	62
–	0.052	0.120	0.710	
–	0.052	–	0.880	
–	0.052	–	1.040	

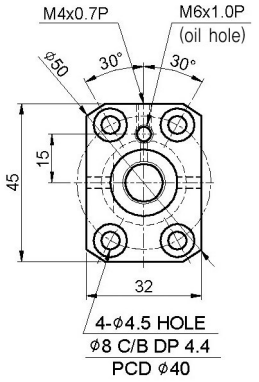
ϕ12×20



Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
GTR/HTR1220AC7S/N-300	160	230	245
GTR/HTR1220AC7S/N-500	360	430	445
GTR/HTR1220AC7S/N-700	560	630	645
GTR/HTR1220AC7S/N-1000	860	930	945

Finished shaft ends/un-worked shaft ends Standard Stock (C7)

unit : mm

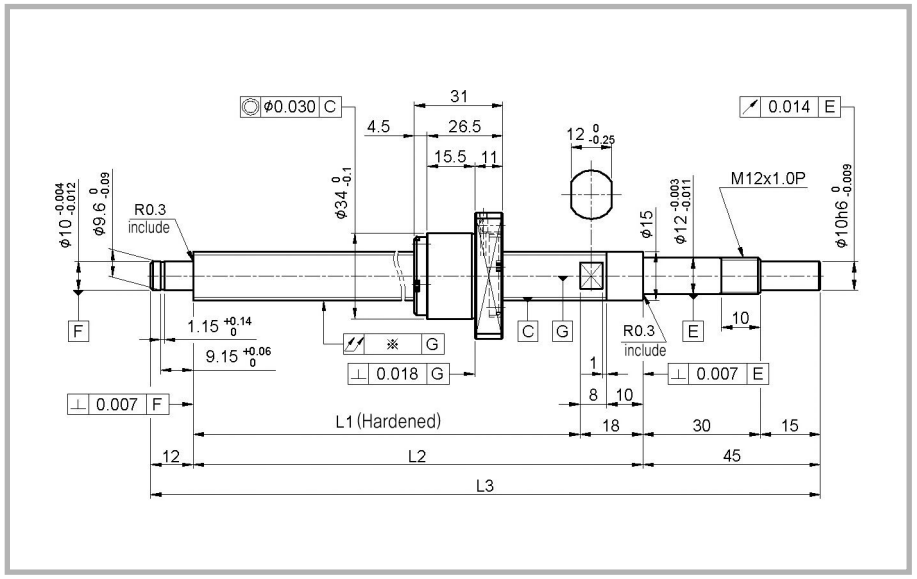


Ball screw Dimensions	
Nut type	GIR/HIR 1220 A
lead	20
BCD	12.5
Root dia	10
Ball dia	2.3812
Number of Circuits	Turn 1.75×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca(N)	2410
Basic Static load ratinga : Coa(N)	3920
rotation torque (N · cm)	1.0include
rigidity (N/μm)	59

( ) Is Hansan Model Specifications

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.080	0.660	48
–	0.052	0.120	0.820	
–	0.052	–	0.990	
–	0.052	–	1.150	

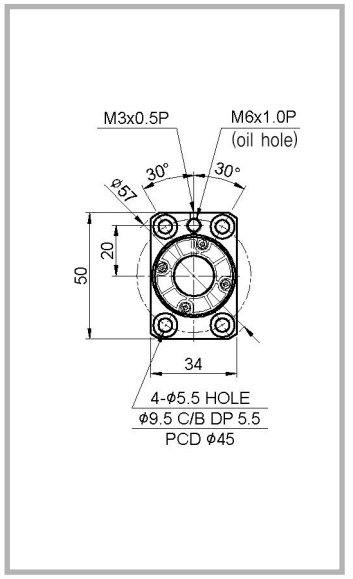
ϕ15×05



Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
GIR/HIR1505RC7S/N-300	140	225	243
GIR/HIR1505RC7S/N-500	340	425	443
GIR/HIR1505RC7S/N-700	540	625	643
GIR/HIR1505RC7S/N-900	740	825	843
GIR/HIR1505RC7S/N-1100	940	1025	1043
GIR/HIR1505RC7S/N-1300	1140	1225	1243
GIR/HIR1505RC7S/N-1500	1340	1425	1443

Finished shaft ends/un-worked shaft ends Standard Stock (C7)

unit : mm

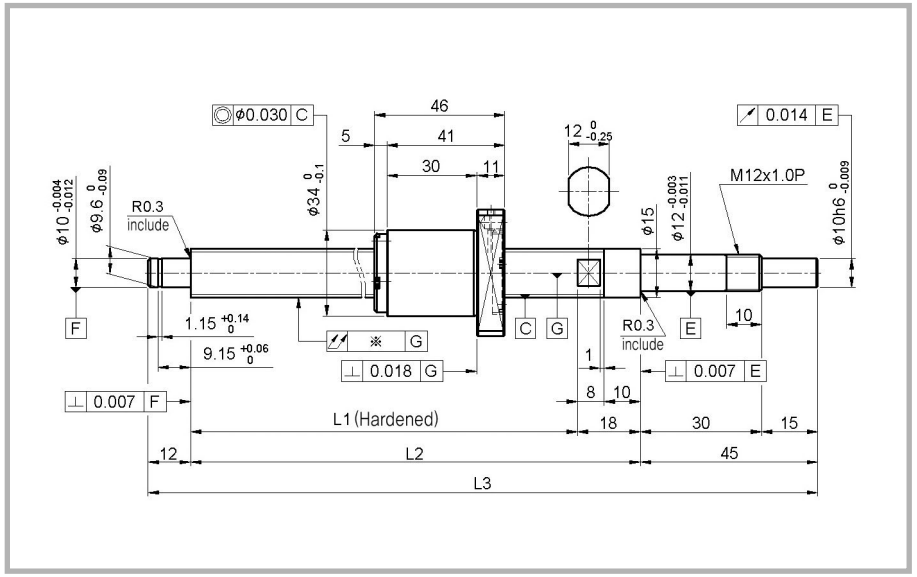


Ball screw Dimensions	
Nut type	GIR/HIR 1505 R
lead	5
BCD	15.5
Root dia	12.2
Ball dia	3.175
Number of Circuits	Turn 2.75×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca(N)	6610
Basic Static load ratinga : Coa(N)	12545
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	139

( ) Is Hansan Model Specifications

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.070	0.915	50
–	0.052	0.095	1.115	
–	0.052	0.140	1.315	
–	0.052	0.170	1.515	
–	0.052	0.210	1.715	
–	0.052	0.270	1.915	
–	0.052	0.270	2.115	

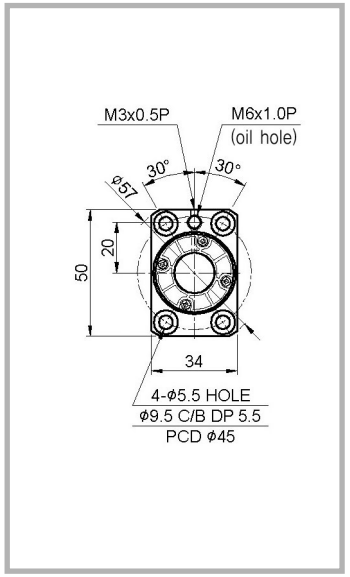
ϕ15×10



Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
GIR/HIR1510RC7S/N-300	155	225	243
GIR/HIR1510RC7S/N-500	355	425	443
GIR/HIR1510RC7S/N-700	555	625	643
GIR/HIR1510RC7S/N-900	755	825	843
GIR/HIR1510RC7S/N-1100	955	1025	1043
GIR/HIR1510RC7S/N-1300	1155	1225	1243
GIR/HIR1510RC7S/N-1500	1355	1425	1443

Finished shaft ends/un-worked shaft ends Standard Stock (C7)

unit : mm

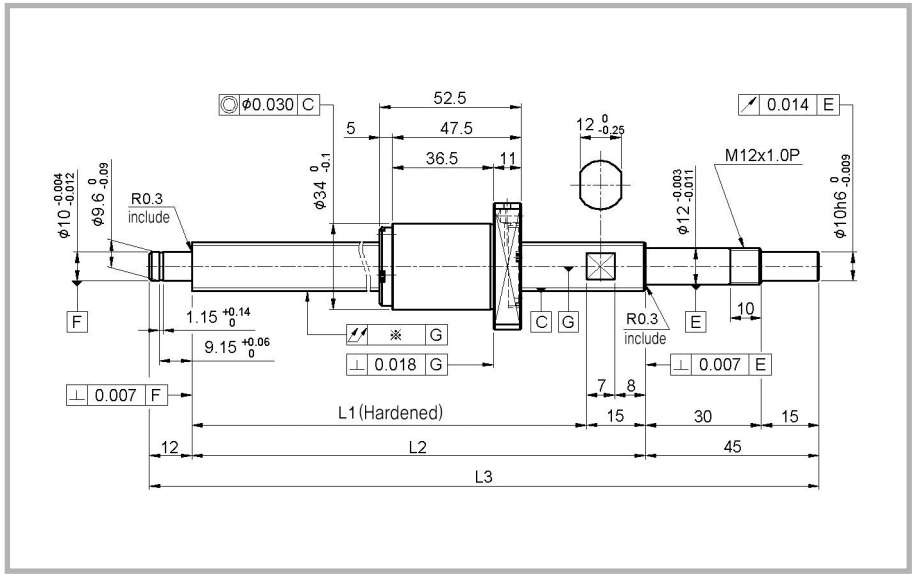


Ball screw Dimensions	
Nut type	GIR/HIR 1510 R
lead	10
BCD	15.5
Root dia	12.2
Ball dia	3.175
Number of Circuits	Turn 2.75×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca(N)	6630
Basic Static load ratinga : Coa(N)	11930
rotation torque (N · cm)	2.0include
rigidity (N/μm)	139

( ) Is Hansan Model Specifications

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.070	0.715	57
–	0.052	0.095	1.017	
–	0.052	0.140	1.294	
–	0.052	0.170	1.571	
–	0.052	0.210	1.848	
–	0.052	0.270	2.125	
–	0.052	–	2.402	

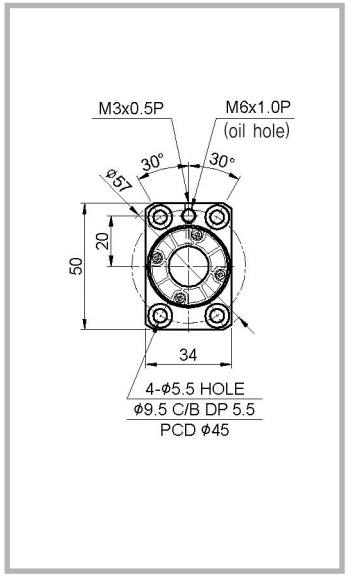
ϕ15×20



Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
GIR/HIR1520TC7S/N-300	140	225	243
GIR/HIR1520TC7S/N-500	340	425	443
GIR/HIR1520TC7S/N-700	540	625	643
GIR/HIR1520TC7S/N-900	740	825	843
GIR/HIR1520TC7S/N-1100	940	1025	1043
GIR/HIR1520TC7S/N-1300	1140	1225	1243
GIR/HIR1520TC7S/N-1500	1340	1425	1443
GIR/HIR1520TC7S/N-2000	1840	1925	1943

Finished shaft ends/un-worked shaft ends Standard Stock (C7)

unit : mm

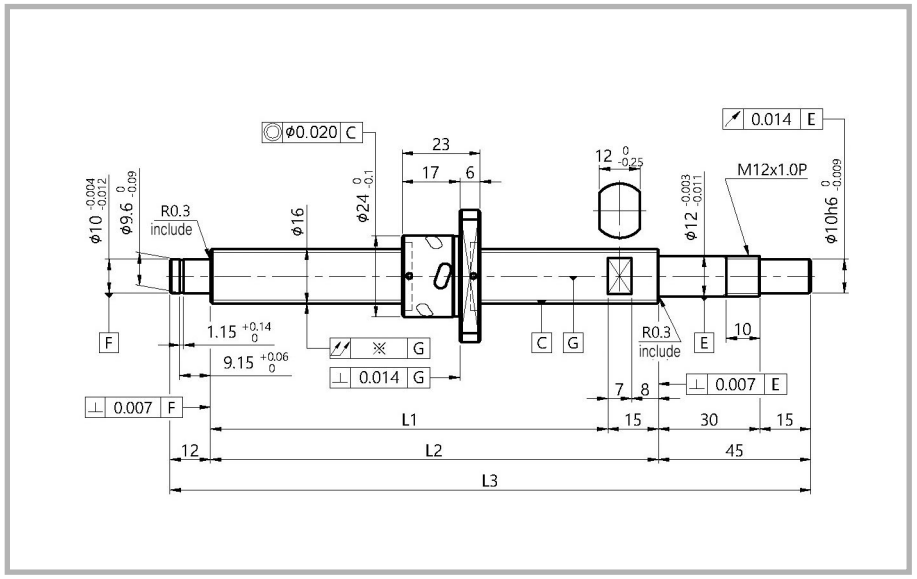


Ball screw Dimensions	
Nut type	GIR/HIR 1520 T
lead	20
BCD	15.75
Root dia	12.4
Ball dia	3.175
Number of Circuits	Turn 1.75×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca(N)	4360
Basic Static load ratinga : Coa(N)	7670
rotation torque (N · cm)	
rigidity (N/㎛)	85

( ) Is Hansan Model Specifications

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.070	1.028	46
–	0.052	0.095	1.228	
–	0.052	0.140	1.428	
–	0.052	0.170	1.628	
–	0.052	0.210	1.828	
–	0.052	0.270	2.028	
–	0.052	0.270	2.228	
–	0.052	–	2.728	

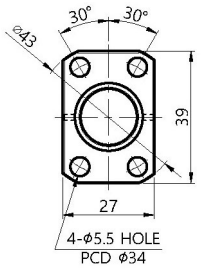
ϕ16×02



Finished shaft ends/un-worked shaft ends Standard Stock (C7)

HANSAN ISSOKU

unit : mm



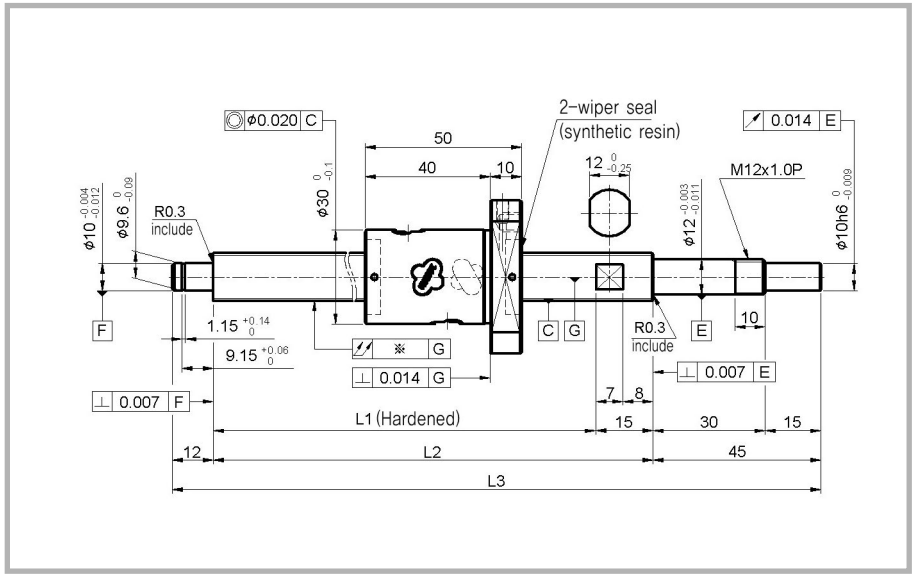
Ball screw Dimensions	
Nut type	GDR/HDR 1602 D3
lead	2
BCD	16.3
Root dia	15.0
Ball dia	1.2000
Number of Circuits	Turn 1×3
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca(N)	1820
Basic Static load ratinga : Coa(N)	4850
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	138

( ) Is Hansan Model Specifications

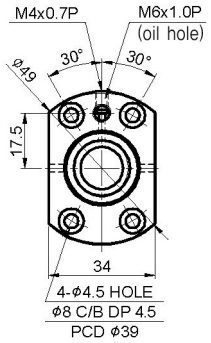
Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
GDR/HDR1602DC7S/N-150	32	78	93
GDR/HDR1602DC7S/N-200	82	128	143
GDR/HDR1602DC7S/N-250	132	178	193
GDR/HDR1602DC7S/N-300	182	228	243
GDR/HDR1602DC7S/N-400	282	328	343

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.048	0.460	129
–	0.052	0.061	0.520	
–	0.052	0.075	0.580	
–	0.052	–	0.630	
–	0.052	–	0.730	

ϕ16×05



Finished shaft ends/un-worked shaft ends Standard Stock (C7)



unit : mm

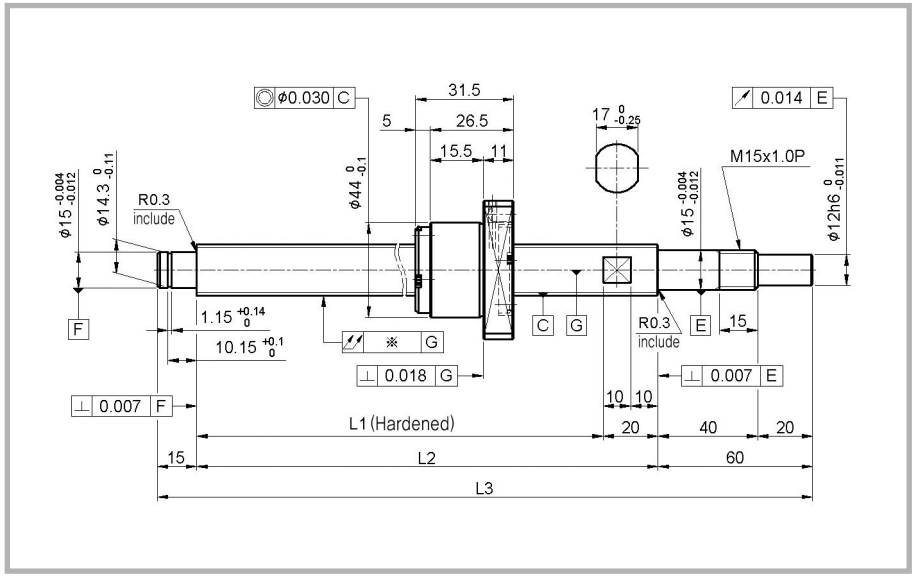
Ball screw Dimensions	
Nut type	GDR/HDR 1605 D4
lead	5
BCD	16.5
Root dia	13.2
Ball dia	3.175
Number of Circuits	Turn 1×4
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca(N)	11680
Basic Static load ratinga : Coa(N)	18278
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	167

( ) Is Hansan Model Specifications

Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
GDR/HDR1605D4C7S/N-300	120	228	243
GDR/HDR1605D4C7S/N-500	320	428	443
GDR/HDR1605D4C7S/N-700	520	628	643
GDR/HDR1605D4C7S/N-900	720	828	843
GDR/HDR1605D4C7S/N-1100	920	1028	1043
GDR/HDR1605D4C7S/N-1300	1120	1228	1243
GDR/HDR1605D4C7S/N-1500	1320	1428	1443

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.070	0.934	68
–	0.052	0.095	1.134	
–	0.052	0.140	1.334	
–	0.052	0.170	1.534	
–	0.052	0.210	1.734	
–	0.052	0.270	1.934	
–	0.052	0.270	2.134	

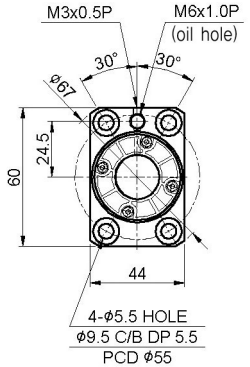
ϕ20×05



Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
GIR/HIR2005RC7S/N-500	340	405	425
GIR/HIR2005RC7S/N-700	540	605	625
GIR/HIR2005RC7S/N-1000	840	905	925
GIR/HIR2005RC7S/N-1500	1340	1405	1425
GIR/HIR2005RC7S/N-2000	1840	1905	1925

Finished shaft ends/un-worked shaft ends Standard Stock (C7)

unit : mm

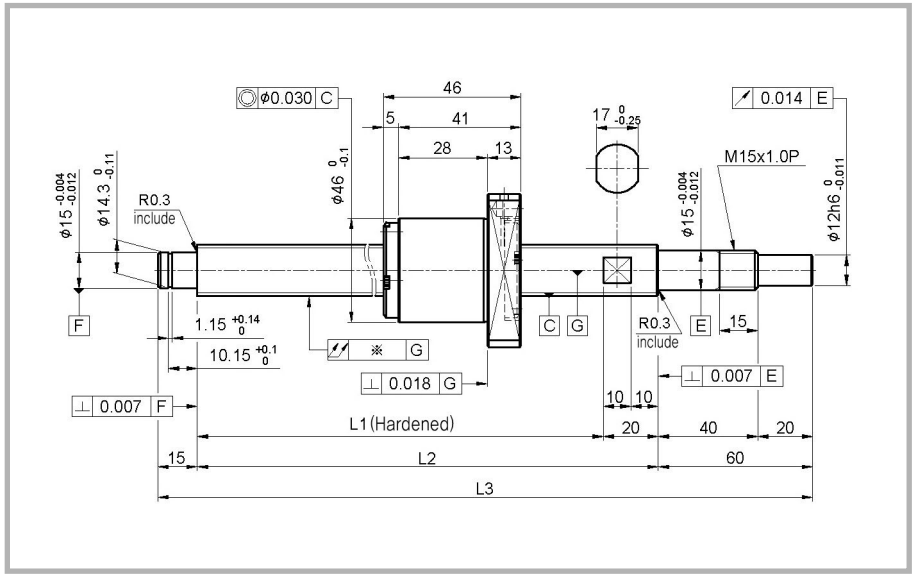


Ball screw Dimensions	
Nut type	GIR/HIR 2005 R
lead	5
BCD	20.5
Root dia	17.2
Ball dia	3.175
Number of Circuits	Turn 2.75×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca(N)	8150
Basic Static load ratinga : Coa(N)	17150
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	185

( ) Is Hansan Model Specifications

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.110	1.905	68
–	0.052	0.140	2.305	
–	0.052	0.170	2.905	
–	0.052	0.270	3.905	
–	0.052	–	4.905	

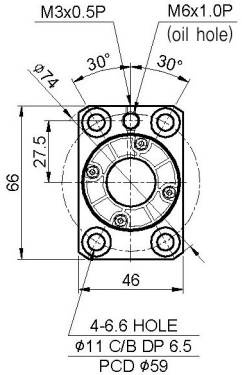
ϕ 20×10



Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
GIR/HIR2010RC7S/N-700	529	605	625
GIR/HIR2010RC7S/N-1000	829	905	925
GIR/HIR2010RC7S/N-1500	1329	1405	1425
GIR/HIR2010RC7S/N-2000	1829	1905	1925

Finished shaft ends/un-worked shaft ends Standard Stock (C7)

unit : mm

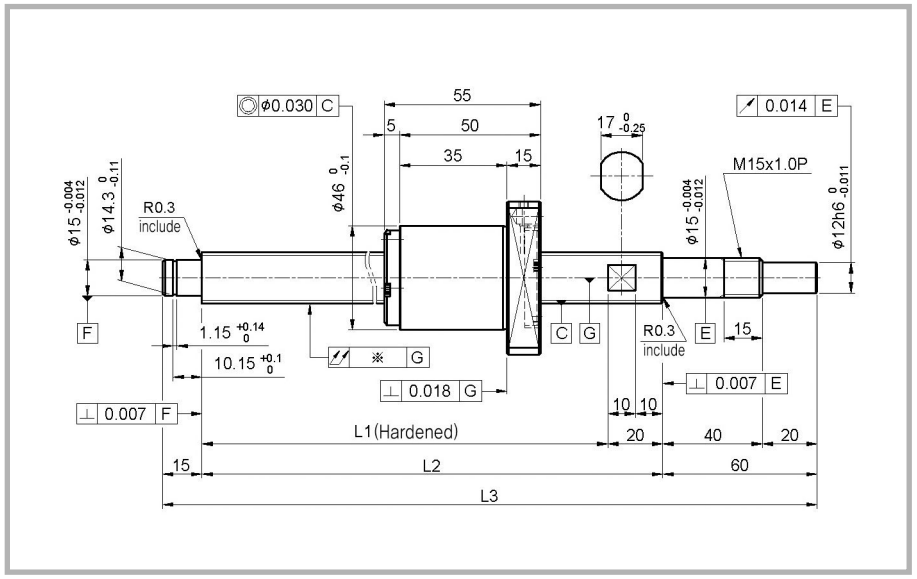


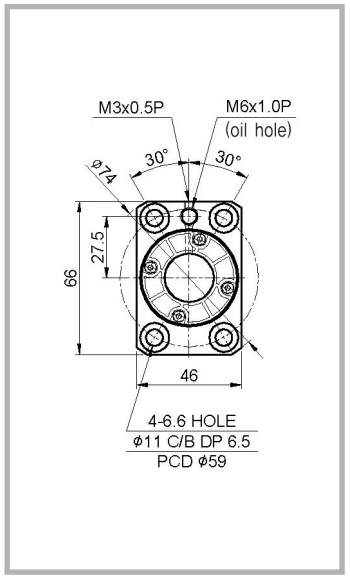
Ball screw Dimensions	
Nut type	GIR/HIR 2010 R
lead	10
BCD	21.0
Root dia	17.2
Ball dia	3.969
Number of Circuits	Turn 2.75×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca(N)	11100
Basic Static load ratinga : Coa(N)	22100
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	208

( ) Is Hansan Model Specifications

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.140	2.341	54
–	0.052	0.170	3.095	
–	0.052	0.270	4.327	
–	0.052	–	5.559	

ϕ 20×20





Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
GIR/HIR2020TC7S/N-700	480	605	625
GIR/HIR2020TC7S/N-1000	780	905	925
GIR/HIR2020TC7S/N-1500	1280	1405	1425
GIR/HIR2020TC7S/N-2000	1780	1905	1925
GIR/HIR2020TC7S/N-2500	2280	2405	2425

Finished shaft ends/un-worked shaft ends Standard Stock (C7)

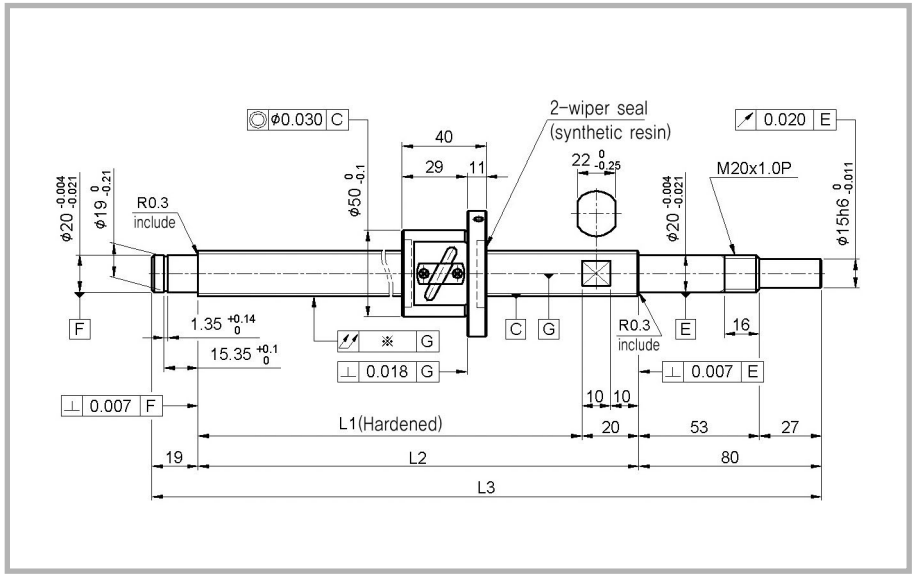
unit : mm

Ball screw Dimensions	
Nut type	GIR/HIR 2020 T
lead	20
BCD	21.0
Root dia	16.8
Ball dia	3.969
Number of Circuits	Turn 1.75×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca(N)	6950
Basic Static load ratinga : Coa(N)	13090
rotation torque (N · cm)	2.0include
rigidity (N/μm)	112

( ) Is Hansan Model Specifications

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.140	2.320	45
–	0.052	0.170	3.070	
–	0.052	0.270	4.320	
–	0.052	–	5.570	
–	0.052	–	6.820	

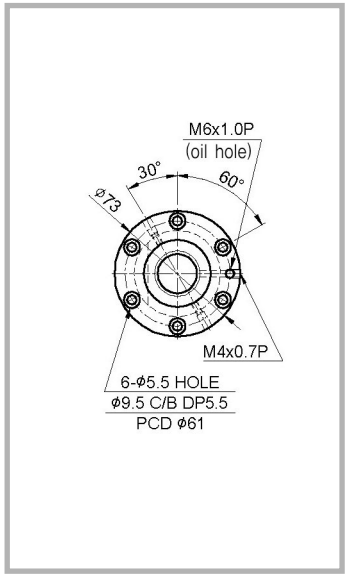
ϕ 25×05



Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
GTR/HTR2505EC7S/N-700	480	581	601
GTR/HTR2505EC7S/N-1000	780	881	901
GTR/HTR2505EC7S/N-1500	1280	1381	1401
GTR/HTR2505EC7S/N-2000	1780	1881	1901

Finished shaft ends/un-worked shaft ends Standard Stock (C7)

unit : mm

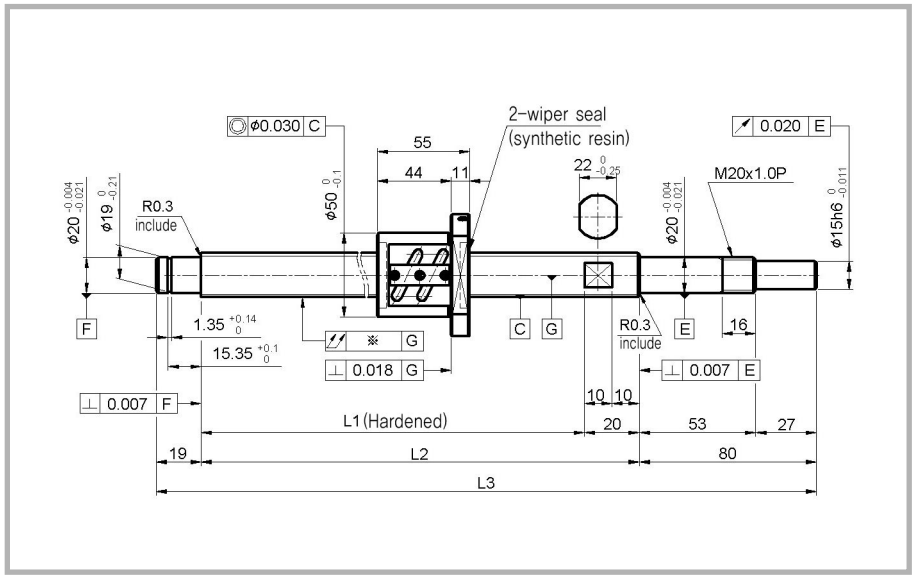


Ball screw Dimensions	
Nut type	GTR/HTR 2505 E
lead	5
BCD	25.5
Root dia	22.2
Ball dia	3.175
Number of Circuits	Turn 2.5×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca(N)	7970
Basic Static load ratinga : Coa(N)	19340
rotation torque (N · cm)	2.0include
rigidity (N/μm)	213

( ) Is Hansan Model Specifications

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.100	3.126	84
–	0.052	0.130	4.226	
–	0.052	0.190	6.079	
–	0.052	–	7.932	

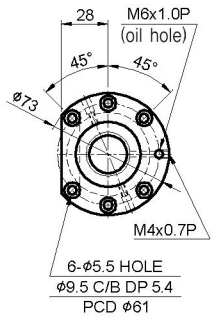
ϕ 25×05



Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
GTR/HTR2505FC7S/N-700	460	581	601
GTR/HTR2505FC7S/N-1000	760	881	901
GTR/HTR2505FC7S/N-1500	1260	1381	1401
GTR/HTR2505FC7S/N-2000	1760	1881	1901

Finished shaft ends/un-worked shaft ends Standard Stock (C7)

unit : mm

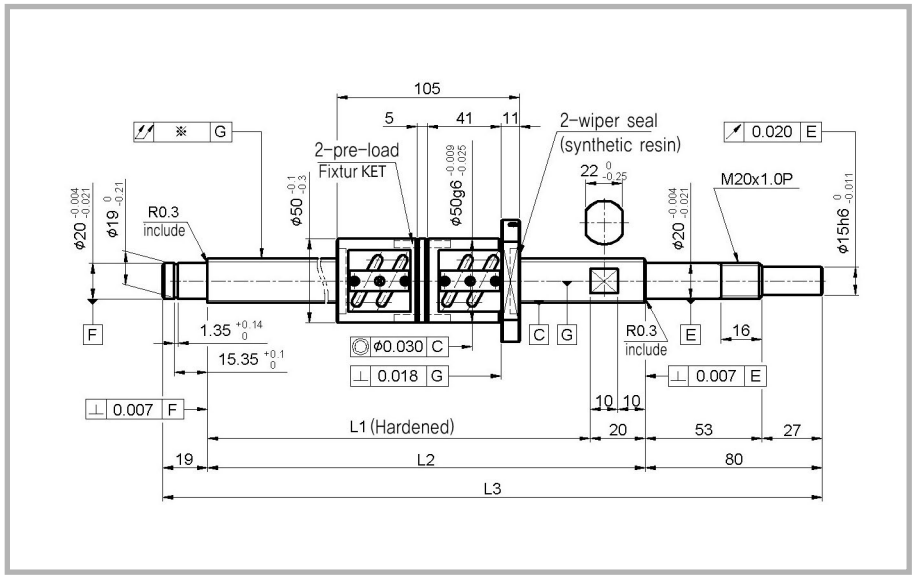


Ball screw Dimensions	
Nut type	GTR/HTR 2505 F
lead	5
BCD	25.5
Root dia	22.2
Ball dia	3.175
Number of Circuits	Turn 2.5×2
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca(N)	14660
Basic Static load ratinga : Coa(N)	38670
rotation torque (N · cm)	2.0include
rigidity (N/μm)	420

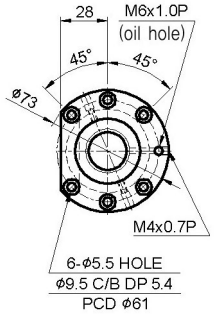
( ) Is Hansan Model Specifications

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.100	3.264	168
–	0.052	0.130	4.600	
–	0.052	0.190	6.660	
–	0.052	0.250	8.660	

ϕ25×05(Doubble Nut)



Finished shaft ends/un-worked shaft ends Standard Stock (C7)



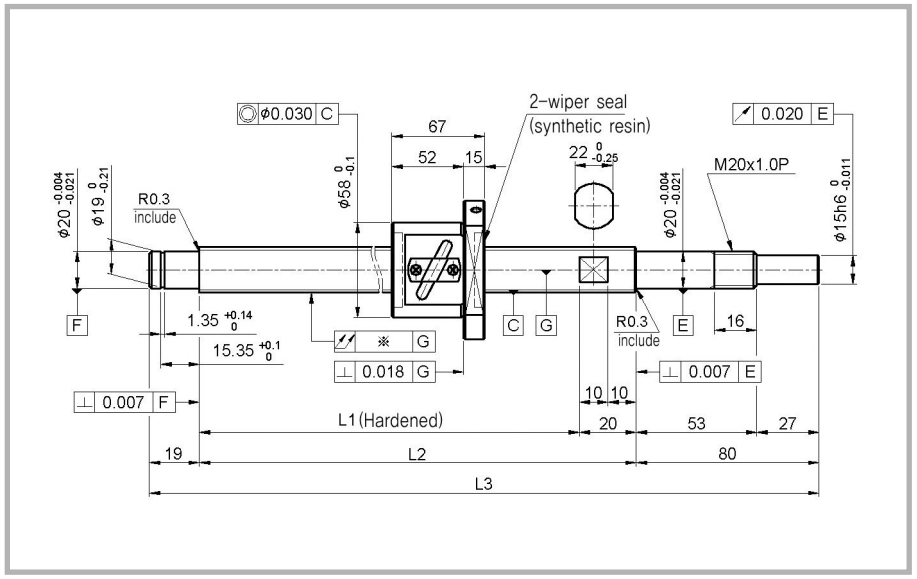
unit : mm

Ball screw Dimensions	
Nut type	GTRS/HTRS 2505 F
lead	5
BCD	25.5
Root dia	22.2
Ball dia	3.175
Number of Circuits	Turn 2.5×2×2
Screw direction	right
Accuracy Grade	C7
Clearance symbol	Z
Axial Clearance	0
Basic Dynamic load ratinga : Ca(N)	14660
Basic Static load ratinga : Coa(N)	38670
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	840

Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
GTRS/HTRS2505FC7Z-700	405	581	601
GTRS/HTRS2505FC7Z-1000	705	881	901
GTRS/HTRS2505FC7Z-1500	1205	1381	1401
GTRS/HTRS2505FC7Z-2000	1705	1881	1901

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.100	3.565	336
–	0.052	0.130	4.750	
–	0.052	0.190	6.950	
–	0.052	0.250	8.950	

ϕ 25×10

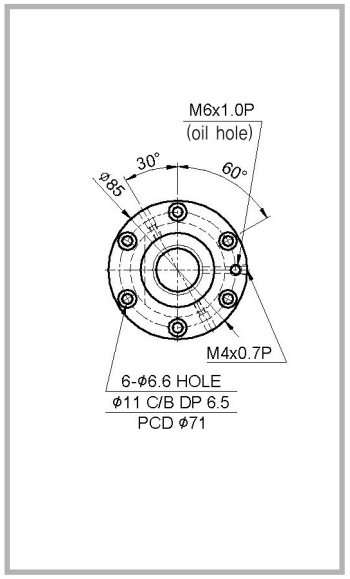


Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
GTR/HTR2510EC7S/N-700	400	581	601
GTR/HTR2510EC7S/N-1000	700	881	901
GTR/HTR2510EC7S/N-1500	1200	1381	1401
GTR/HTR2510EC7S/N-2000	1700	1881	1901

Finished shaft ends/un-worked shaft ends Standard Stock (C7)

HANSAN ISSOKU

unit : mm

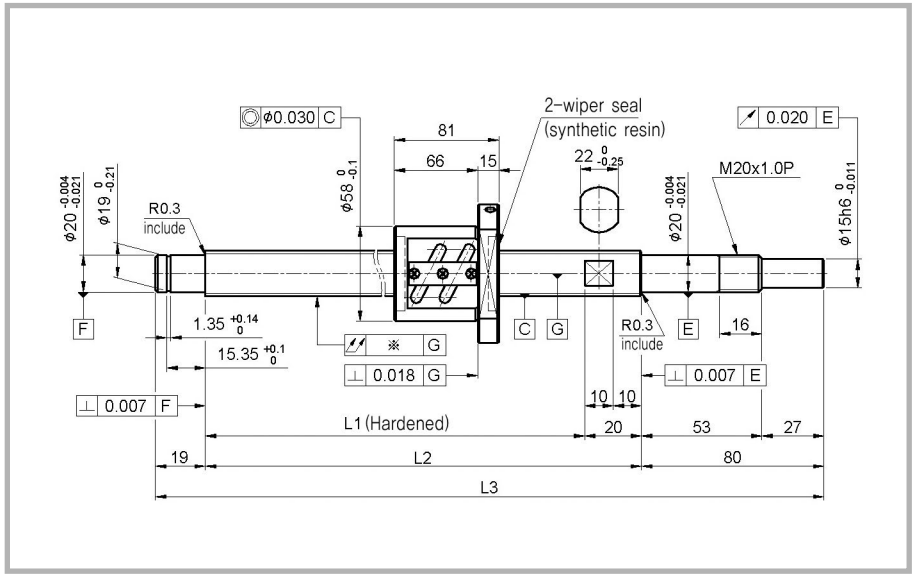


Ball screw Dimensions	
Nut type	GTR/HTR 2510 E
lead	10
BCD	25.5
Root dia	20.5
Ball dia	4.7625
Number of Circuits	Turn 2.5×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca(N)	13120
Basic Static load ratinga : Coa(N)	27000
rotation torque (N · cm)	2.0include
rigidity (N/μm)	230

( ) Is Hansan Model Specifications

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.100	3.666	54
–	0.052	0.130	4.766	
–	0.052	0.190	6.600	
–	0.052	0.250	8.433	

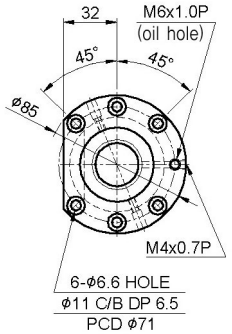
ϕ 25×10



Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
GTR/HTR2510BC7S/N-700	360	581	601
GTR/HTR2510BC7S/N-1000	660	881	901
GTR/HTR2510BC7S/N-1500	1160	1381	1401
GTR/HTR2510BC7S/N-2000	1660	1881	1901

Finished shaft ends/un-worked shaft ends Standard Stock (C7)

unit : mm

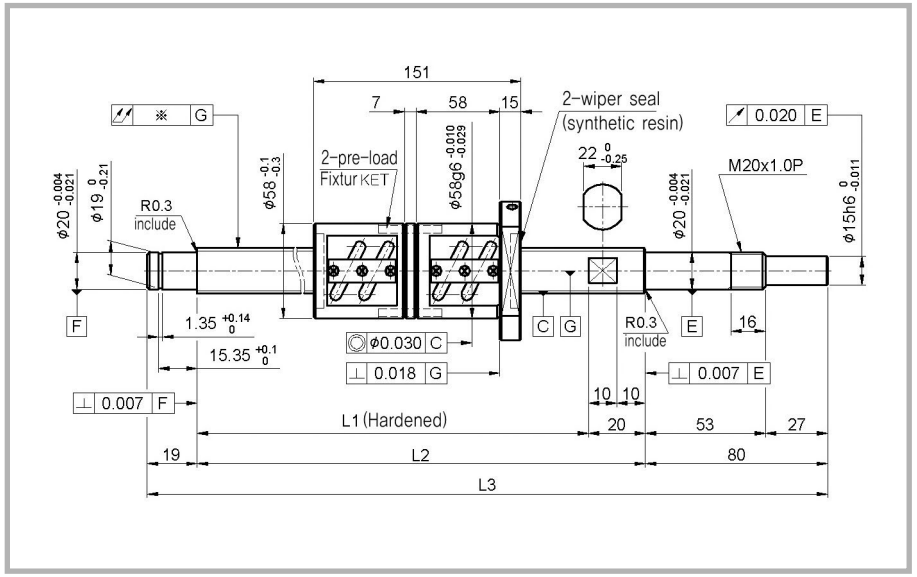


Ball screw Dimensions	
Nut type	GTR/HTR 2510 B
lead	10
BCD	25.5
Root dia	20.5
Ball dia	4.7625
Number of Circuits	Turn 1.5×2
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca(N)	15350
Basic Static load ratinga : Coa(N)	32400
rotation torque (N · cm)	2.0include
rigidity (N/μm)	266

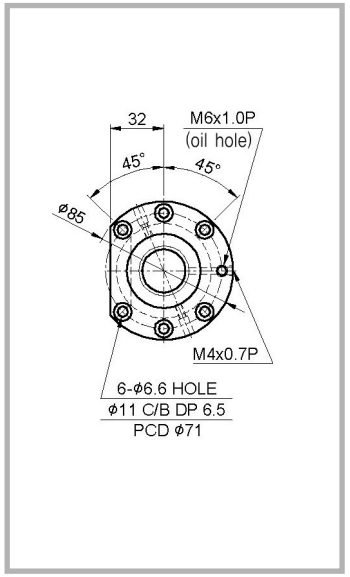
( ) Is Hansan Model Specifications

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.100	3.880	72
–	0.052	0.130	5.020	
–	0.052	0.190	6.920	
–	0.052	0.250	8.820	

ϕ25×10(Doubble Nut)



Finished shaft ends/un-worked shaft ends Standard Stock (C7)



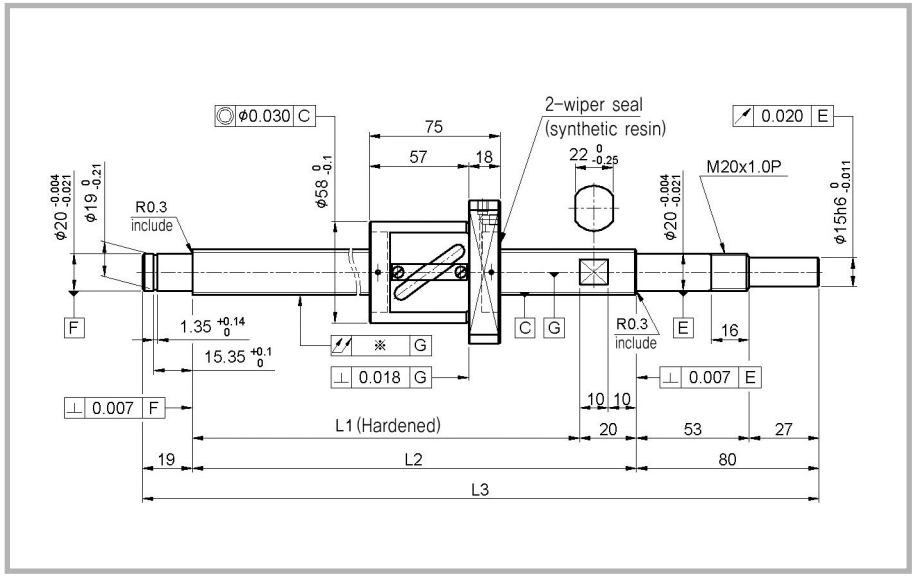
unit : mm

Ball screw Dimensions	
Nut type	GTRS/HTRS 2510 B
lead	10
BCD	25.5
Root dia	20.5
Ball dia	4.7625
Number of Circuits	Turn 1.5×2×2
Screw direction	right
Accuracy Grade	C7
Clearance symbol	Z
Axial Clearance	0
Basic Dynamic load ratinga : Ca(N)	15350
Basic Static load ratinga : Coa(N)	32400
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	532

Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
GTRS/HTRS2510BC7Z-700	290	581	601
GTRS/HTRS2510BC7Z-1000	590	881	901
GTRS/HTRS2510BC7Z-1500	1090	1381	1401
GTRS/HTRS2510BC7Z-2000	1590	1881	1901

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.100	4.150	144
–	0.052	0.130	5.290	
–	0.052	0.190	7.190	
–	0.052	0.250	9.090	

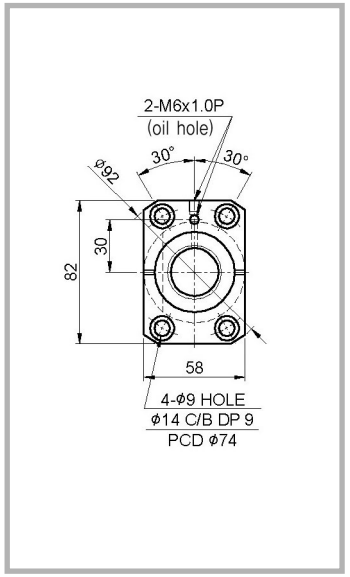
ϕ25×20



Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
GTR/HTR2520AC7S/N-700	420	581	601
GTR/HTR2520AC7S/N-1000	720	881	901
GTR/HTR2520AC7S/N-1500	1220	1381	1401
GTR/HTR2520AC7S/N-2000	1720	1881	1901
GTR/HTR2520AC7S/N-2800	2520	2681	2701

Finished shaft ends/un-worked shaft ends Standard Stock (C7)

unit : mm

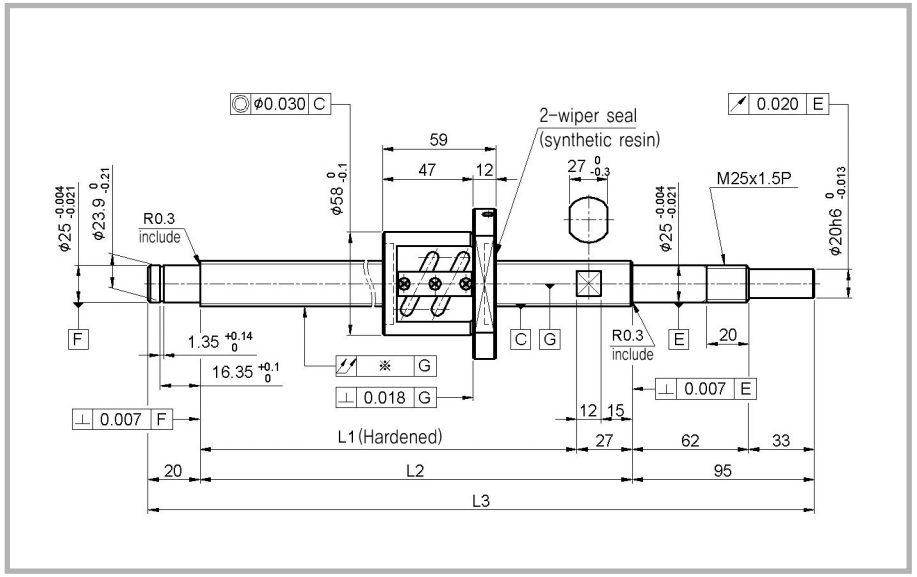


Ball screw Dimensions	
Nut type	GTR/HTR 2520 A
lead	20
BCD	26.25
Root dia	21.3
Ball dia	4.7625
Number of Circuits	Turn 1.5×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca(N)	8540
Basic Static load ratinga : Coa(N)	16900
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	136

( ) Is Hansan Model Specifications

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.100	3.768	42
–	0.052	0.130	4.908	
–	0.052	0.190	6.808	
–	0.052	0.250	8.708	
–	0.052	–	11.748	

ϕ32×05

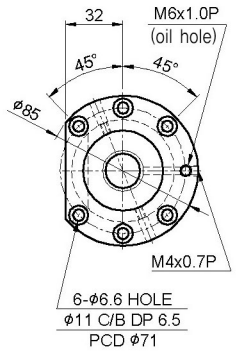


Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
GTR/HTR3205FC7S/N-700	455	558	585
GTR/HTR3205FC7S/N-1000	655	858	885
GTR/HTR3205FC7S/N-1500	1155	1358	1385
GTR/HTR3205FC7S/N-2000	1655	1858	1885

Finished shaft ends/un-worked shaft ends Standard Stock (C7)

HANSAN ISSOKU

unit : mm

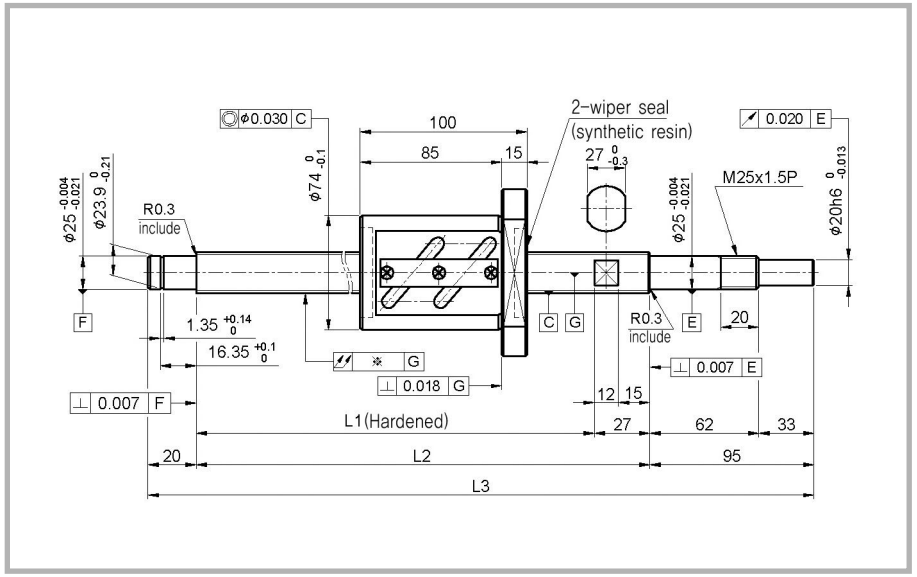


Ball screw Dimensions	
Nut type	GTR/HTR 3205 F
lead	5
BCD	32.5
Root dia	29.2
Ball dia	3.175
Number of Circuits	Turn 2.5×2
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca(N)	16/20
Basic Static load ratinga : Coa(N)	50050
rotation torque (N · cm)	2.0include
rigidity (N/μm)	514

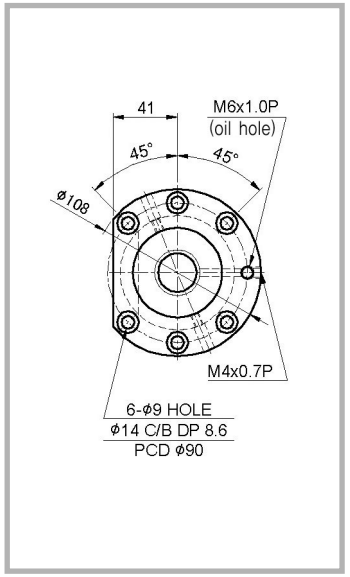
( ) Is Hansan Model Specifications

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.100	5.447	212
–	0.052	0.130	7.336	
–	0.052	0.190	10.479	
–	0.052	0.250	13.624	

ϕ32×10



Finished shaft ends/un-worked shaft ends Standard Stock (C7)



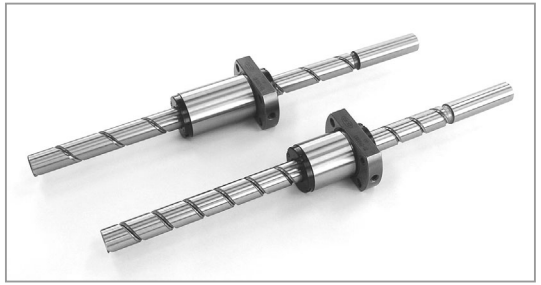
unit : mm

Ball screw Dimensions	
Nut type	GTR/HTR 3210 F
lead	10
BCD	33.0
Root dia	26.4
Ball dia	6.350
Number of Circuits	Turn 2.5×2
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca(N)	40290
Basic Static load ratinga : Coa(N)	96100
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	570

( ) Is Hansan Model Specifications

Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
GTR/HTR3210FC7S/N-700	410	558	585
GTR/HTR3210FC7S/N-1000	710	858	885
GTR/HTR3210FC7S/N-1500	1210	1358	1385
GTR/HTR3210FC7S/N-2000	1710	1858	1885
GTR/HTR3210FC7S/N-2700	2410	2558	2585

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.100	7.825	108
–	0.052	0.130	9.325	
–	0.052	0.190	12.385	
–	0.052	0.250	15.345	
–	0.052	–	19.685	

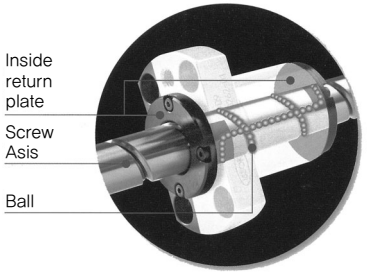


High speed type Ball screw
Finished shaft ends/ un−worked shaft ends (C5)

SGIR

High speed Type Ball screw 〈IN -SIDE RE-TURN STYLE Ball Screw 〉

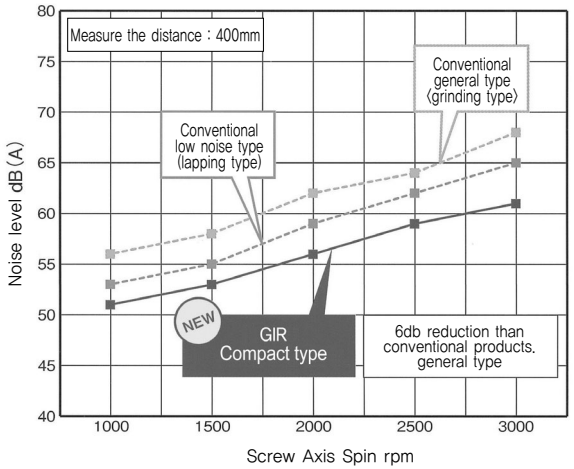
-Nut inner -



Features

1. High Speed : It is faster than conventional products with high lead quiet internal circulation system
2. Quiet Is greatly reduced compared to the conventional product with the actual audible reduction in 6db (Screw Axis Rotation -Noise level)
3. Compactification

Conventional equipment can save space and cost-saving design with an outside dia of more than 20% reduction nut products



SGIR Number of the ball screw & Combinations of dia and lead

HANSAN ISSOKU

- Model Number

GIR 15 20 T L C5,C7 S - 500

- GIR : Nut Type 〈End cap Internal circulation type〉 SGIR - HANSAN,ISSOKU Model / SHIR - HANSANModel
- 15 : Dia
- 20 : lead
- T : Number of Circuits T - Trun 1.75×1 / R - Trun 2.75×1
- L : No mark : Right - screw / L : Left-screw / LR : Left, Right-screw
- C5,C7 : Accuracy Grade(C5, C7)
- S : Axial clearance(mm) T - 0.005 / S - 0.010 / N - 0.020
- 500 : Thread overall length(mm)

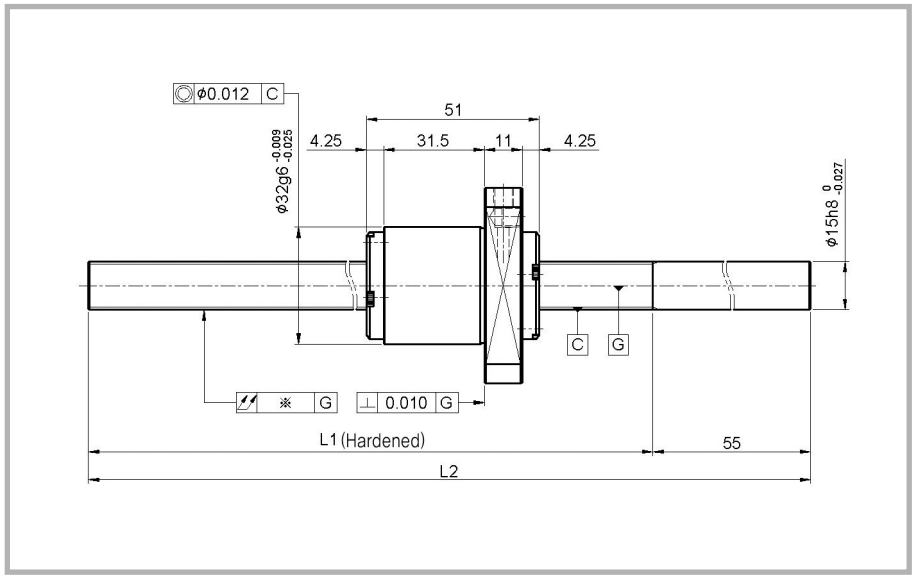
- Combinations of dia and lead

(unit : mm)

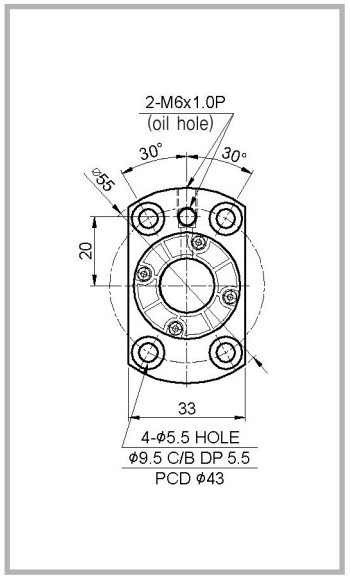
Dia	lead							
	5	10	12	20	25	30	40	50
8			○					
10		○						
12	●	●		●				
15				●		●		
20				●		●	●	
25					●			○

● : un-worked shaft end Products C7,C5
○ : Release schedule

ϕ15×20



un-worked shaft ends Standard Stock (C5)



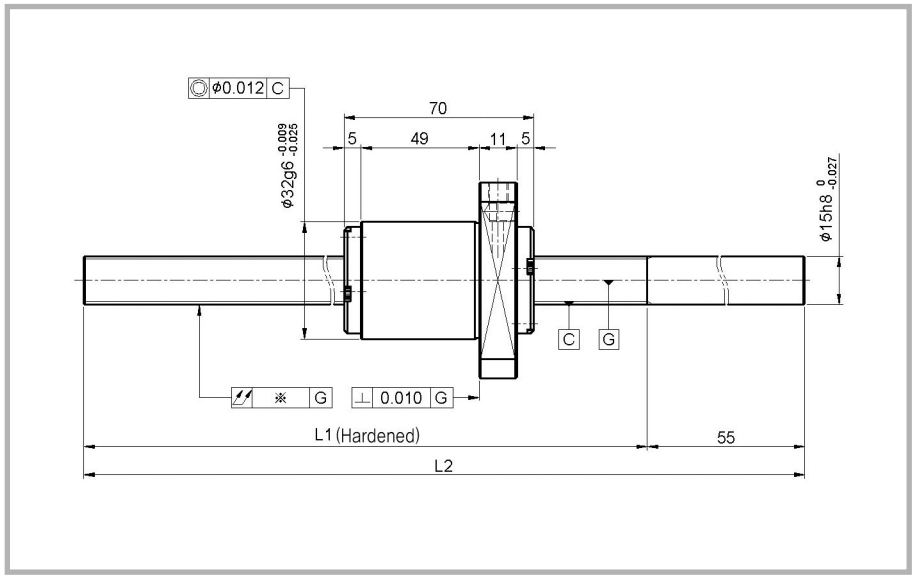
unit : mm

Ball screw Dimensions	
Nut type	SGIR 1520 T
lead	20
BCD	15.75
Root dia	12.4
Ball dia	3.175
Number of Circuits	Turn 1.75×1
Screw direction	right
Accuracy Grade	C5
Clearance symbol	T
Axial Clearance	0.005include
Basic Dynamic load ratinga : Ca(N)	4360
Basic Static load ratinga : Coa(N)	7670
rotation torque (N · cm)	–
rigidity (N/㎛)	92

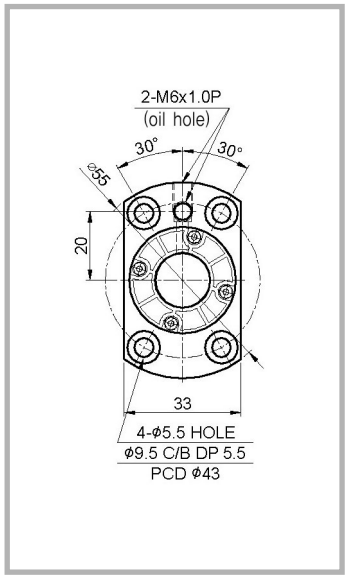
Model No	Stroke	Screw thread overall length	
		L1	L2
SGIR1520TC5T-0650	500	595	650
SGIR1520TC5T-0850	700	795	850
SGIR1520TC5T-1050	900	995	1050
SGIR1520TC5T-1250	1100	1195	1250
SGIR1520TC5T-1450	1300	1395	1450

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation			
±0.027	0.020	0.090	1.200	46
±0.035	0.025	0.120	1.500	
±0.040	0.027	0.150	1.800	
±0.046	0.030	0.150	2.000	
±0.054	0.035	0.190	2.300	

ϕ15×30



un-worked shaft ends Standard Stock (C5)



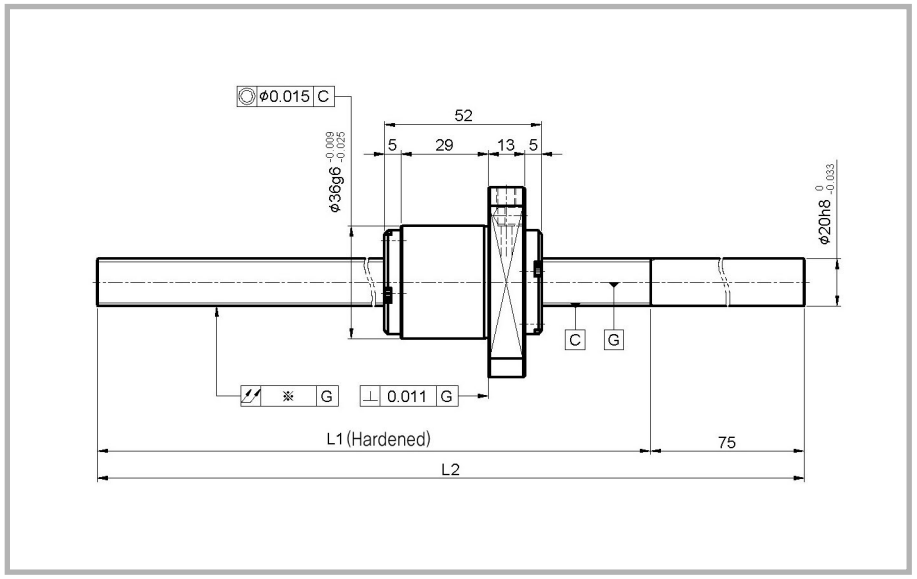
unit : mm

Ball screw Dimensions	
Nut type	SGIR 1530 T
lead	30
BCD	15.75
Root dia	12.4
Ball dia	3.175
Number of Circuits	Turn 1.75×1
Screw direction	right
Accuracy Grade	C5
Clearance symbol	T
Axial Clearance	0.005include
Basic Dynamic load ratinga : Ca(N)	4260
Basic Static load ratinga : Coa(N)	7960
rotation torque (N · cm)	–
rigidity (N/㎛)	92

Model No	Stroke	Screw thread overall length	
		L1	L2
SGIR1530TC5T-0650	470	595	650
SGIR1530TC5T-0950	770	895	950
SGIR1530TC5T-1250	1070	1195	1250
SGIR1530TC5T-1550	1370	1495	1550

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation			
±0.027	0.020	0.090	1.300	54
±0.035	0.025	0.120	1.700	
±0.046	0.030	0.150	2.100	
±0.054	0.035	0.190	2.500	

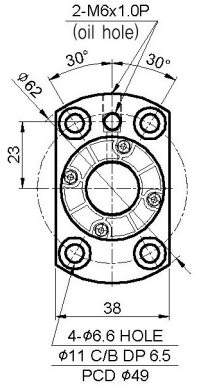
ϕ 20×20



Model No	Stroke	Screw thread overall length	
		L1	L2
SGIR2020TC5T-900	750	825	900
SGIR2020TC5T-1300	1150	1125	1300
SGIR2020TC5T-1700	1550	1625	1700
SGIR2020TC5T-2100	1950	2025	2100

un-worked shaft ends Standard Stock (C5)

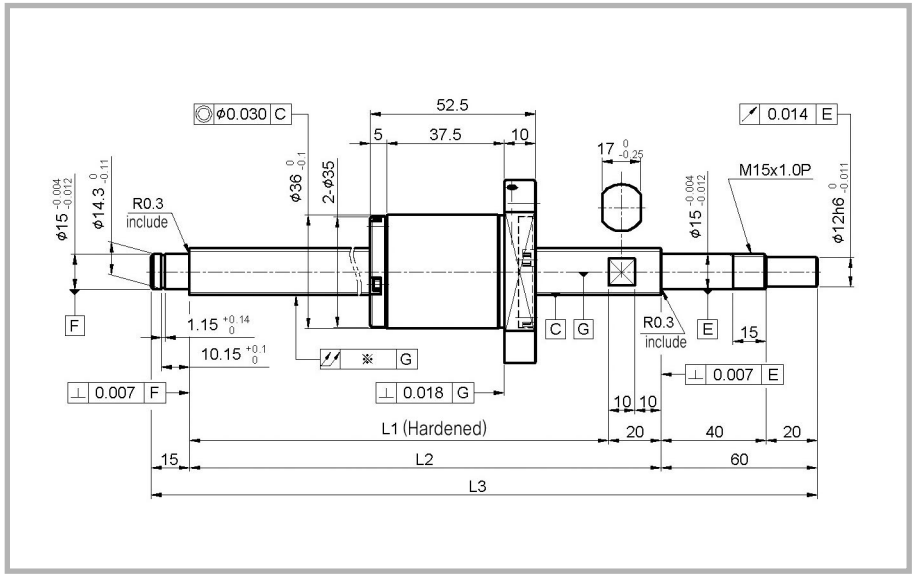
unit : mm

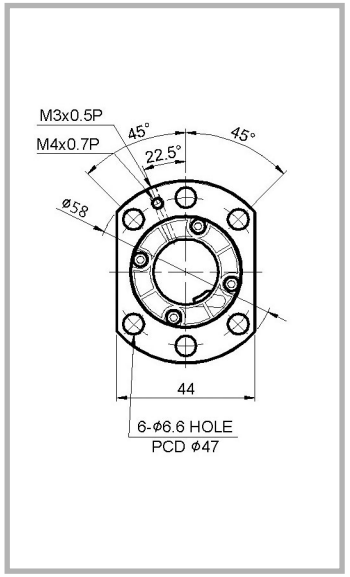


Ball screw Dimensions	
Nut type	SGIR 2020 T
lead	20
BCD	20.5
Root dia	17.2
Ball dia	3.175
Number of Circuits	Turn 1.75×1
Screw direction	right
Accuracy Grade	C5
Clearance symbol	T
Axial Clearance	0.005include
Basic Dynamic load ratinga : Ca(N)	5770
Basic Static load ratinga : Coa(N)	12280
rotation torque (N · cm)	–
rigidity (N/㎛)	132

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation			
±0.035	0.025	0.120	2.400	43
±0.046	0.030	0.190	3.400	
±0.054	0.035	–	4.400	
±0.065	0.040	–	5.400	

ϕ20×20





Model No	Stroke	Screw thread overall length	
		L1	L2
SGIR2020TC5T-900/D	750	825	900
SGIR2020TC5T-1300/D	1150	1125	1300
SGIR2020TC5T-1700/D	1550	1625	1700
SGIR2020TC5T-2100/D	1950	2025	2100

un-worked shaft ends Standard Stock (C5)

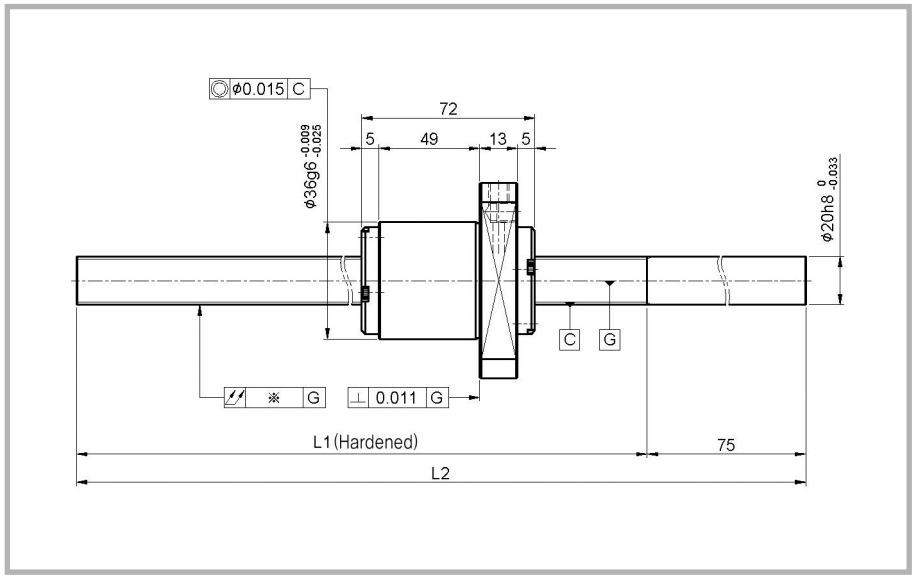
HANSAN ISSOKU

unit : mm

Ball screw Dimensions	
Nut type	SGIR 2020 T
lead	20
BCD	20.5
Root dia	17.2
Ball dia	3.175
Number of Circuits	Turn 1.75×1
Screw direction	right
Accuracy Grade	C5
Clearance symbol	T
Axial Clearance	0.005include
Basic Dynamic load ratinga : Ca(N)	5770
Basic Static load ratinga : Coa(N)	12280
rotation torque (N · cm)	–
rigidity (N/㎛)	132

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation			
±0.035	0.025	0.120	2.600	43
±0.046	0.030	0.190	3.700	
±0.054	0.035	–	4.800	
±0.065	0.040	–	5.900	

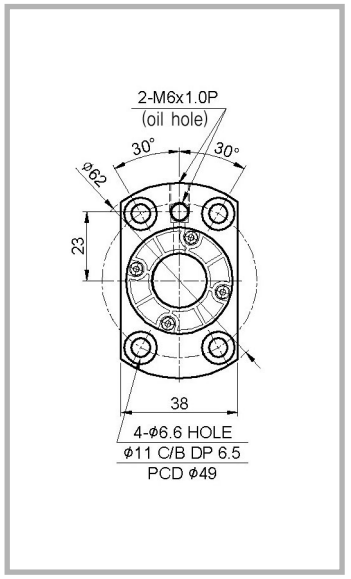
ϕ20×30



Model No	Stroke	Screw thread overall length	
		L1	L2
SGIR2030TC5T-0900	730	825	900
SGIR2030TC5T-1300	1130	1125	1300
SGIR2030TC5T-1700	1530	1625	1700
SGIR2030TC5T-2100	1930	2025	2100

un-worked shaft ends Standard Stock (C5)

HANSAN ISSOKU

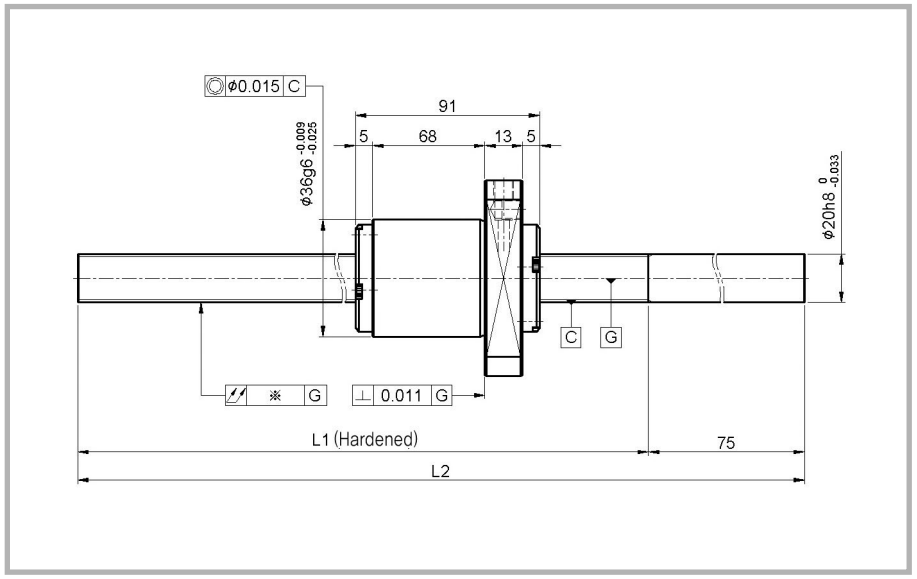


unit : mm

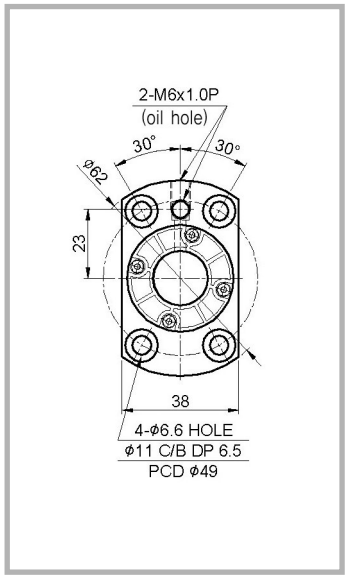
Ball screw Dimensions	
Nut type	SGIR 2020 T
lead	20
BCD	20.5
Root dia	17.2
Ball dia	3.175
Number of Circuits	Turn 1.75×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S
Axial Clearance	0.01include
Basic Dynamic load ratinga : Ca(N)	5770
Basic Static load ratinga : Coa(N)	12280
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	132

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation			
±0.035	0.025	0.120	2.600	62
±0.046	0.030	0.190	3.600	
±0.054	0.035	-	4.600	
±0.065	0.040	-	5.600	

ϕ20×40



un-worked shaft ends Standard Stock (C5)



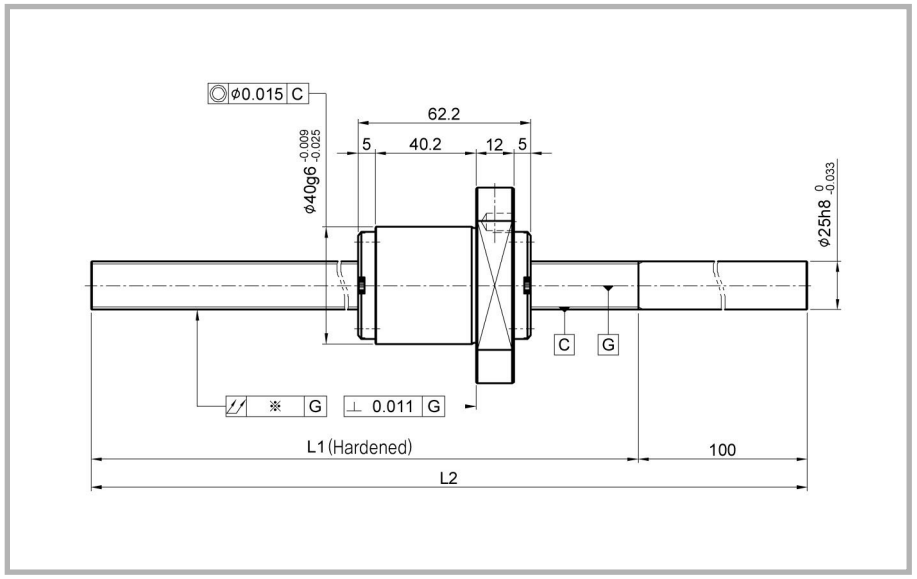
unit : mm

Ball screw Dimensions	
Nut type	SGIR 2040 T
lead	40
BCD	20.75
Root dia	17.4
Ball dia	3.175
Number of Circuits	Turn 1.75×1
Screw direction	right
Accuracy Grade	C5
Clearance symbol	T
Axial Clearance	0.005include
Basic Dynamic load ratinga : Ca(N)	5440
Basic Static load ratinga : Coa(N)	12500
rotation torque (N · cm)	–
rigidity (N/㎛)	130

Model No	Stroke	Screw thread overall length	
		L1	L2
SGIR2040TC5T-1100	870	1025	1010
SGIR2040TC5T-1500	1270	1425	1410
SGIR2040TC5T-1900	1670	1825	1810
SGIR2040TC5T-2100	1870	2025	2010

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation			
±0.040	0.027	0.150	3.300	43
±0.054	0.035	0.190	4.300	
±0.065	0.040	–	5.300	
±0.065	0.040	–	5.800	

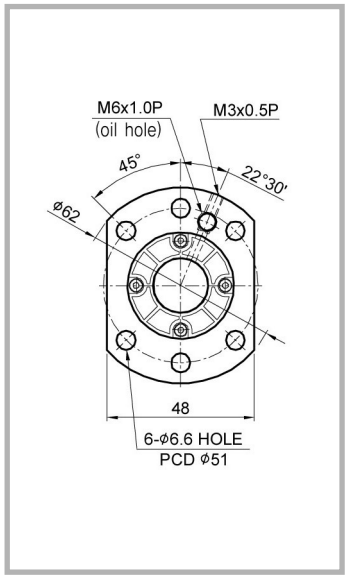
ϕ25×25



Model No	Stroke	Screw thread overall length	
		L1	L2
SGIR2525TC5T-1100	810	881	901
SGIR2525TC5T-1600	1310	1381	1401
SGIR2525TC5T-2100	1810	1881	1901

un-worked shaft ends Standard Stock (C5)

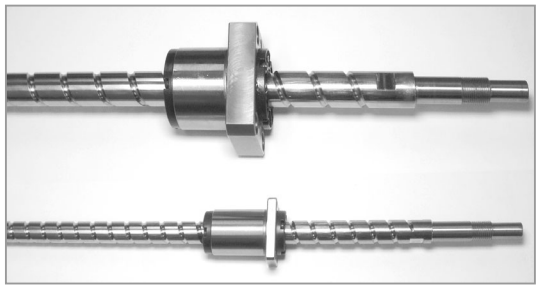
unit : mm



Ball screw Dimensions	
Nut type	SGIR 2525 T
lead	25
BCD	25.5
Root dia	22.2
Ball dia	3.175
Number of Circuits	Turn 1.75×1
Screw direction	right
Accuracy Grade	C5
Clearance symbol	T
Axial Clearance	0.005include
Basic Dynamic load ratinga : Ca(N)	6720
Basic Static load ratinga : Coa(N)	14900
rotation torque (N · cm)	–
rigidity (N/㎛)	151

( ) Is Hansan Model Specifications

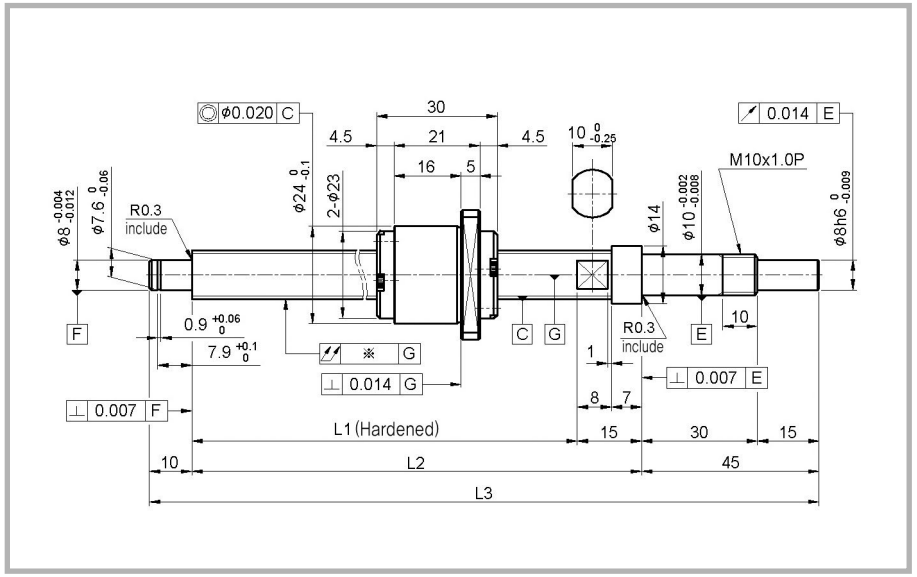
Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation			
±0.040	0.027	0.100	4.800	55
±0.054	0.035	0.130	6.700	
±0.065	0.040	0.170	8.600	

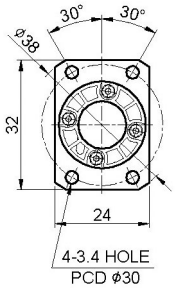


Precision Ball screw
Finished shaft ends / un-worked shaft ends(C7)

SGIR(High speed type)

ϕ12×05





Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
SGIR/SHIR1205RC7S/N-300	170	230	245
SGIR/SHIR1205RC7S/N-500	370	430	445
SGIR/SHIR1205RC7S/N-700	570	630	645
SGIR/SHIR1205RC7S/N-1000	870	930	945

Finished shaft ends/un-worked shaft ends Standard Stock (C7)

HANSAN ISSOKU

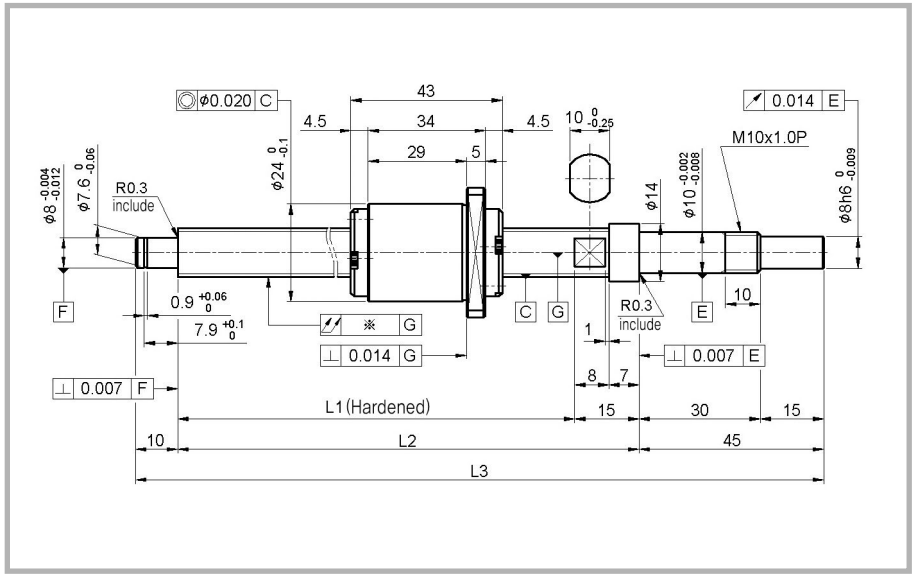
unit : mm

Ball screw Dimensions	
Nut type	SGIR(SHIR) 1205 R
lead	5
BCD	12.3
Root dia	10.2
Ball dia	2.0000
Number of Circuits	Turn 2.75×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca(N)	3250
Basic Static load ratinga : Coa(N)	6030
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	103

( ) Is Hansan Model Specifications

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.080	0.380	69
–	0.052	0.120	0.580	
–	0.052	–	0.780	
–	0.052	–	1.080	

ϕ12×10

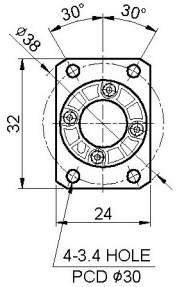


Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
SGIR/SHIR1210RC7S/N-300	160	230	245
SGIR/SHIR1210RC7S/N-500	360	430	445
SGIR/SHIR1210RC7S/N-700	560	630	645
SGIR/SHIR1210RC7S/N-1000	860	930	945

Finished shaft ends/un-worked shaft ends Standard Stock (C7)

HANSAN ISSOKU

unit : mm

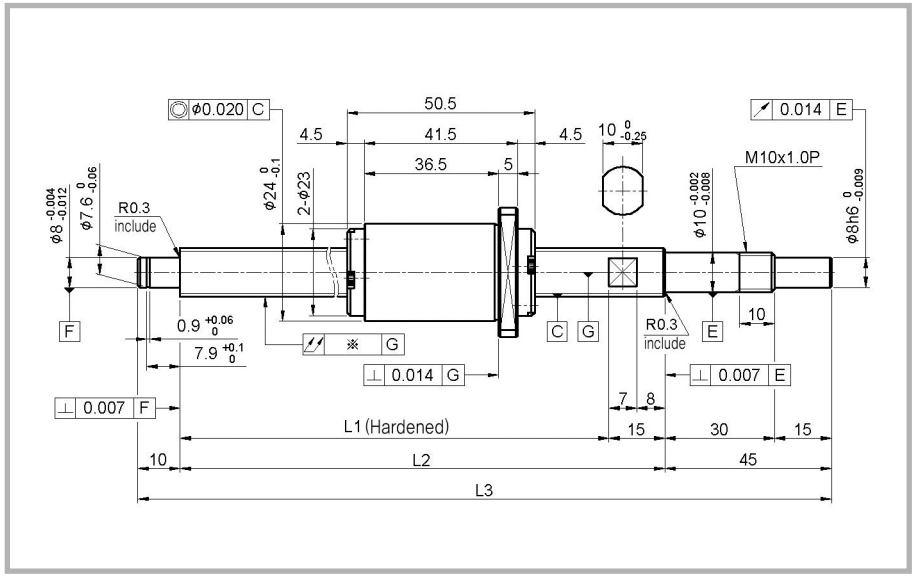


Ball screw Dimensions	
Nut type	SGIR(SHIR) 1210 R
lead	10
BCD	12.3
Root dia	10.2
Ball dia	2.0000
Number of Circuits	Turn 2.75×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca(N)	3150
Basic Static load ratinga : Coa(N)	5880
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	105

( ) Is Hansan Model Specifications

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.080	0.400	73
–	0.052	0.120	0.600	
–	0.052	–	0.800	
–	0.052	–	1.100	

ϕ12×20

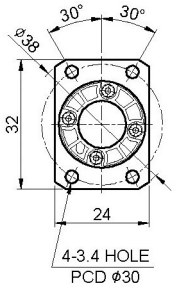


Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
SGIR/SHIR1220TC7S/N-300	150	230	245
SGIR/SHIR1220TC7S/N-500	350	430	445
SGIR/SHIR1220TC7S/N-700	550	630	645
SGIR/SHIR1220TC7S/N-1000	850	930	945

Finished shaft ends/un-worked shaft ends Standard Stock (C7)

HANSAN ISSOKU

unit : mm

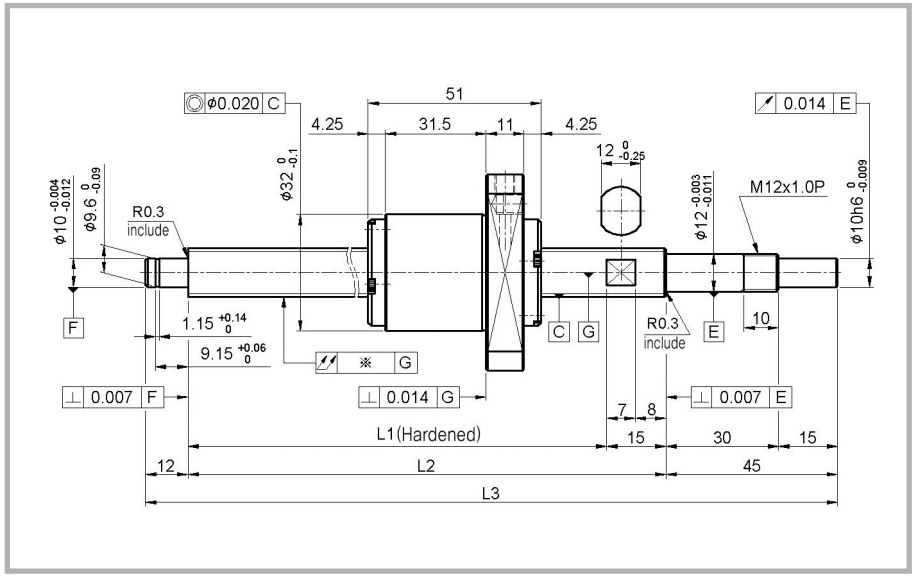


Ball screw Dimensions	
Nut type	SGIR(SHIR) 1220 T
lead	20
BCD	12.3
Root dia	10.2
Ball dia	2.0000
Number of Circuits	Turn 1.75×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca(N)	2040
Basic Static load ratinga : Coa(N)	3800
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	59

( ) Is Hansan Model Specifications

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.080	0.420	61
–	0.052	0.120	0.620	
–	0.052	–	0.820	
–	0.052	–	1.120	

ϕ15×20

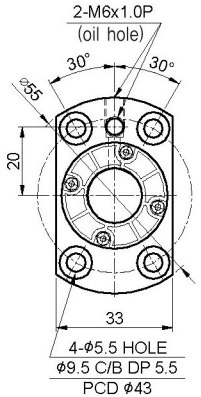


Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
SGIR1520TC7S-300	140	228	243
SGIR1520TC7S-500	340	428	443
SGIR1520TC7S-700	540	628	643
SGIR1520TC7S-900	740	828	843
SGIR1520TC7S/-1100	940	1028	1043
SGIR/1520TC7S-1300	1140	1228	1243
SGIR1520TC7S-1500	1340	1428	1443
SGIR1520TC7S-2000	1840	1928	1943

Finished shaft ends/un-worked shaft ends Standard Stock (C7)

HANSAN ISSOKU

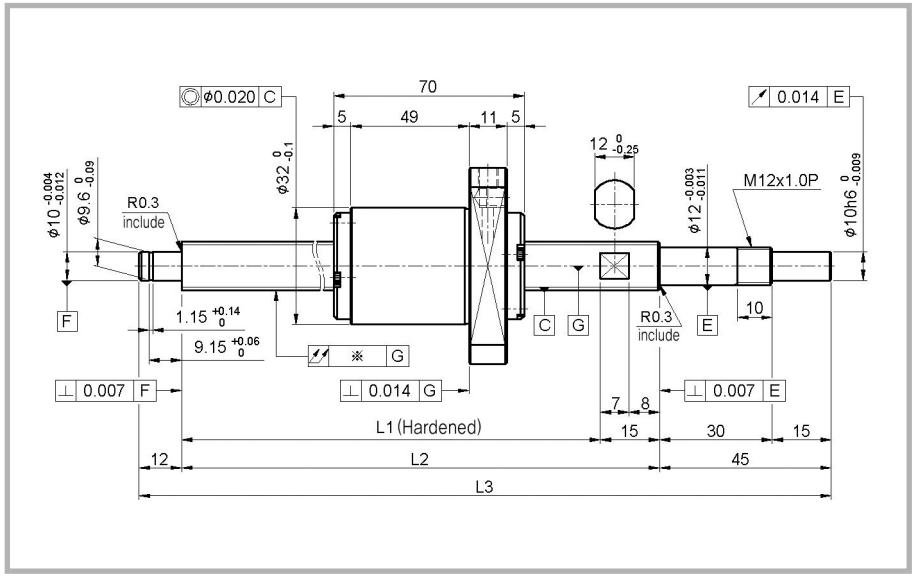
unit : mm

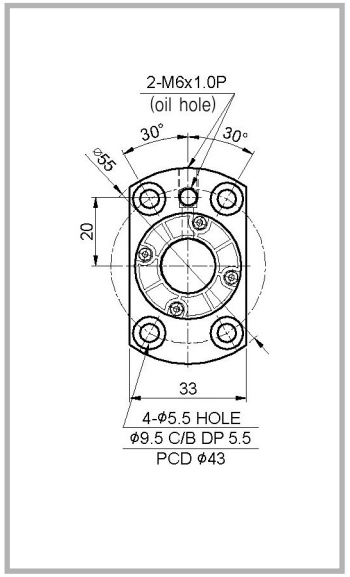


Ball screw Dimensions	
Nut type	SGIR 1520 T
lead	20
BCD	15.75
Root dia	12.4
Ball dia	3.175
Number of Circuits	Turn 1.75×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S
Axial Clearance	0.01include
Basic Dynamic load ratinga : Ca(N)	4360
Basic Static load ratinga : Coa(N)	7670
rotation torque (N · cm)	
rigidity (N/㎛)	85

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.070	0.420	46
–	0.052	0.095	0.570	
–	0.052	0.140	0.720	
–	0.052	0.170	0.870	
–	0.052	0.210	1.020	
–	0.052	0.270	1.170	
–	0.052	0.270	1.320	
–	0.052	–	1.470	

ϕ15×30





Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
SGIR1530TC7S-300	120	228	243
SGIR1530TC7S-500	320	428	443
SGIR1530TC7S-700	520	628	643
SGIR1530TC7S-900	720	828	843
SGIR1530TC7S-1100	920	1028	1043
SGIR1530TC7S-1300	1120	1228	1243
SGIR1530TC7S-1500	1320	1428	1443
SGIR1530TC7S-2000	1820	1928	1943

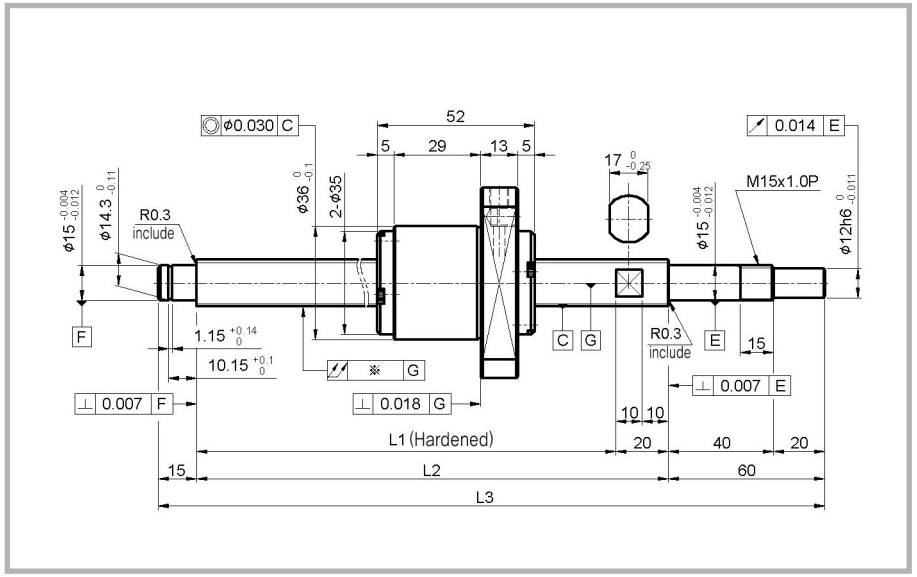
Finished shaft ends/un-worked shaft ends Standard Stock (C7)

unit : mm

Ball screw Dimensions	
Nut type	SGIR 1530 T
lead	30
BCD	15.75
Root dia	12.4
Ball dia	3.175
Number of Circuits	Turn 1.75×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S
Axial Clearance	0.01include
Basic Dynamic load ratinga : Ca(N)	4260
Basic Static load ratinga : Coa(N)	7960
rotation torque (N · cm)	
rigidity (N/㎛)	92

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.070	0.750	54
–	0.052	0.095	1.050	
–	0.052	0.140	1.350	
–	0.052	0.170	1.650	
–	0.052	0.210	1.950	
–	0.052	0.270	2.250	
–	0.052	0.270	2.550	
–	0.052	–	2.850	

ϕ 20×20

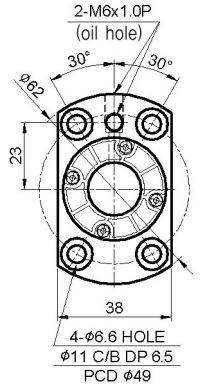


Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
SGIR2020TC7S-1000	810	905	925
SGIR2020TC7S-1500	1310	1405	1425
SGIR2020TC7S-2000	1810	1905	1925
SGIR2020TC7S-2500	2310	2405	2425

Finished shaft ends/un-worked shaft ends Standard Stock (C7)

HANSAN ISSOKU

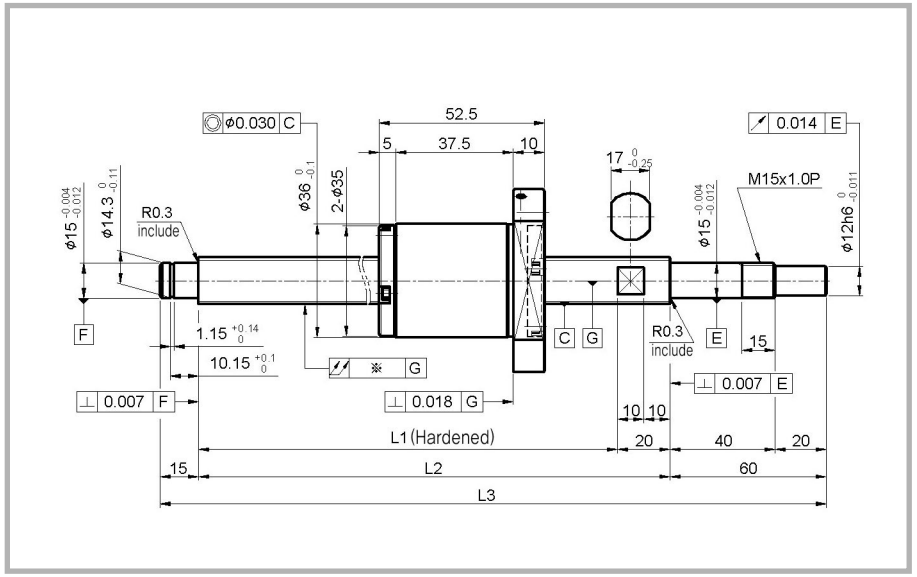
unit : mm

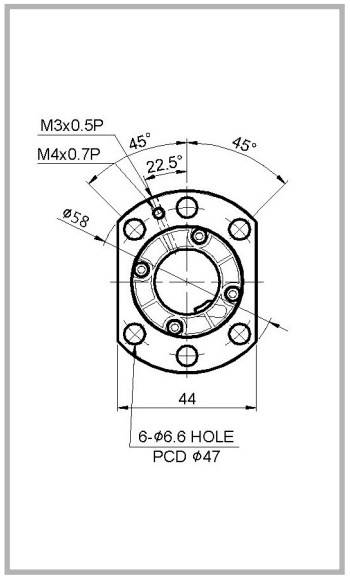


Ball screw Dimensions	
Nut type	SGIR 2020 T
lead	20
BCD	20.5
Root dia	17.4
Ball dia	3.175
Number of Circuits	Turn 1.75×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S
Axial Clearance	0.01include
Basic Dynamic load ratinga : Ca(N)	5770
Basic Static load ratinga : Coa(N)	12280
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	132

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.170	2.600	43
–	0.052	0.270	3.700	
–	0.052	–	4.800	
–	0.052	–	5.900	

ϕ 20×20





Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
SGIR2020TC7S-1000/D	810	905	925
SGIR2020TC7S-1500/D	1310	1405	1425
SGIR2020TC7S-2000/D	1810	1905	1925
SGIR2020TC7S-2500/D	2310	2405	2425

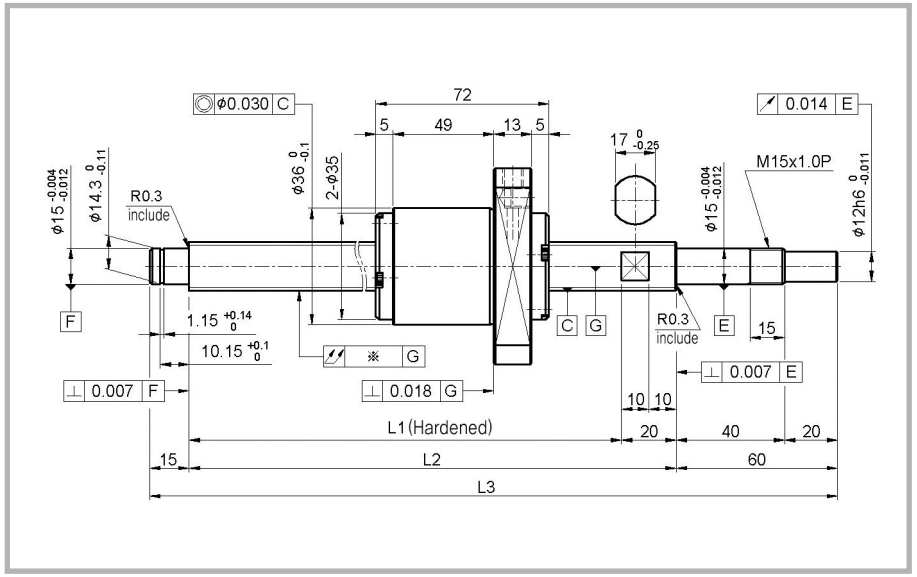
Finished shaft ends/un-worked shaft ends Standard Stock (C7)

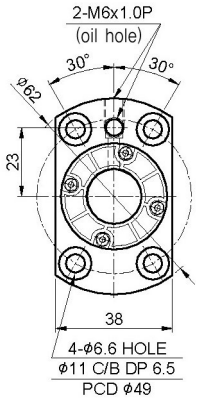
unit : mm

Ball screw Dimensions	
Nut type	SGIR 2020 T
lead	20
BCD	20.5
Root dia	17.2
Ball dia	3.175
Number of Circuits	Turn 1.75×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S
Axial Clearance	0.01include
Basic Dynamic load ratinga : Ca(N)	5770
Basic Static load ratinga : Coa(N)	12280
rotation torque (N · cm)	2.0include
rigidity (N/μm)	132

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.170	2.600	43
–	0.052	0.270	3.700	
–	0.052	–	4.800	
–	0.052	–	5.900	

ϕ 20×30





Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
SGIR2030TC7S-1000	830	905	925
SGIR2030TC7S-1500	1330	1405	1425
SGIR2030TC7S-2000	1830	1905	1925
SGIR2030TC7S-2500	2330	2405	2425

Finished shaft ends/un-worked shaft ends Standard Stock (C7)

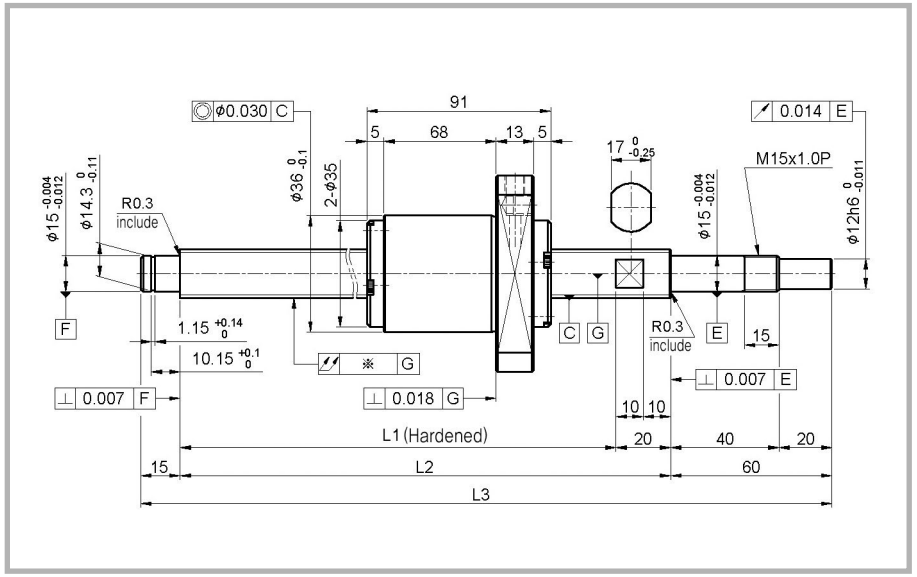
HANSAN ISSOKU

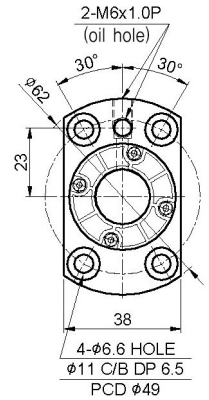
unit : mm

Ball screw Dimensions	
Nut type	SGIR 2030 T
lead	30
BCD	20.75
Root dia	17.4
Ball dia	3.175
Number of Circuits	Turn 1.75×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S
Axial Clearance	0.01include
Basic Dynamic load ratinga : Ca(N)	5040
Basic Static load ratinga : Coa(N)	10550
rotation torque (N · cm)	2.0include
rigidity (N/μm)	125

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.170	2.060	62
–	0.052	0.270	2.900	
–	0.052	–	3.740	
–	0.052	–	4.580	

ϕ20×40





Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
SGIR2040TC7S-1000	810	905	925
SGIR2040TC7S-1500	1210	1405	1425
SGIR2040TC7S-2000	1810	1905	1925
SGIR2040TC7S-2500	2210	2405	2425

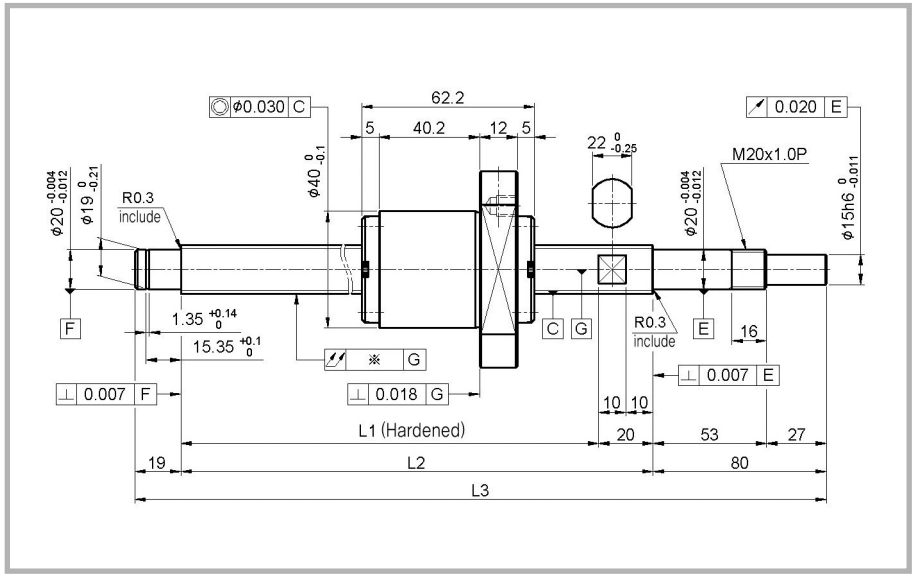
Finished shaft ends/un-worked shaft ends Standard Stock (C7)

unit : mm

Ball screw Dimensions	
Nut type	SGIR 2040 T
lead	40
BCD	20.5
Root dia	17.2
Ball dia	3.175
Number of Circuits	Turn 1.75×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S
Axial Clearance	0.01include
Basic Dynamic load ratinga : Ca(N)	5440
Basic Static load ratinga : Coa(N)	12500
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	130

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.170	2.160	71
–	0.052	0.270	3.000	
–	0.052	–	3.840	
–	0.052	–	4.680	

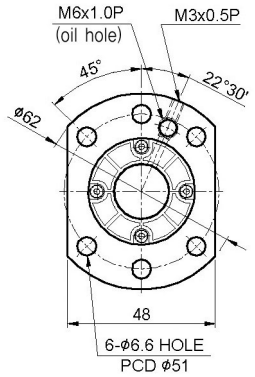
ϕ 25×25



Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
SGIR2525TC7S-1000	810	881	901
SGIR2525TC7S-1500	1310	1381	1401
SGIR2525TC7S-2000	1810	1881	1901
SGIR2525TC7S-2500	2310	2381	2401

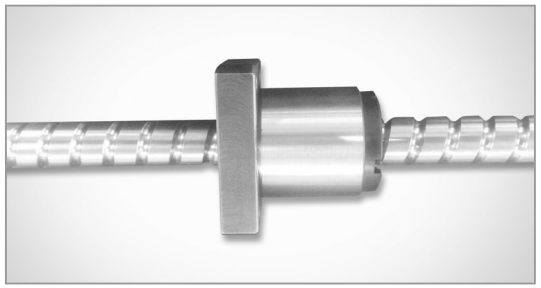
Finished shaft ends/un-worked shaft ends Standard Stock (C7)

unit : mm



Ball screw Dimensions	
Nut type	SGIR 2525 T
lead	25
BCD	25.2
Root dia	22.2
Ball dia	3.175
Number of Circuits	Turn 1.75×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	S
Axial Clearance	0.010include
Basic Dynamic load ratinga : Ca(N)	6720
Basic Static load ratinga : Coa(N)	14900
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	151

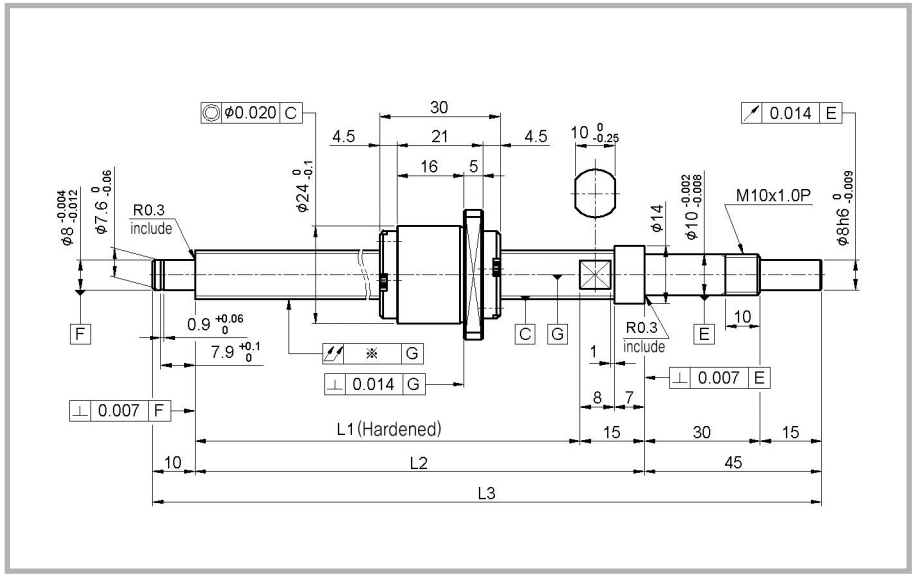
Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.130	4.500	55
–	0.052	0.190	6.500	
–	0.052	0.250	8.400	
–	0.052	0.320	10.300	



Precision Ball screw
Finished shaft ends / un−worked shaft ends (left−screw C7)

GIR / HIR / SGIR / SHIR

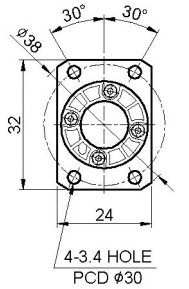
ϕ12×05



Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
SGIR/SHIR1205RLC7S/N-300	160	230	245
SGIR/SHIR1205RLC7S/N-500	360	430	445
SGIR/SHIR1205RLC7S/N-700	560	630	645
SGIR/SHIR1205RLC7S/N-1000	860	930	945

Finished shaft ends /un-worked shaft ends Standard Stock C7)

unit : mm

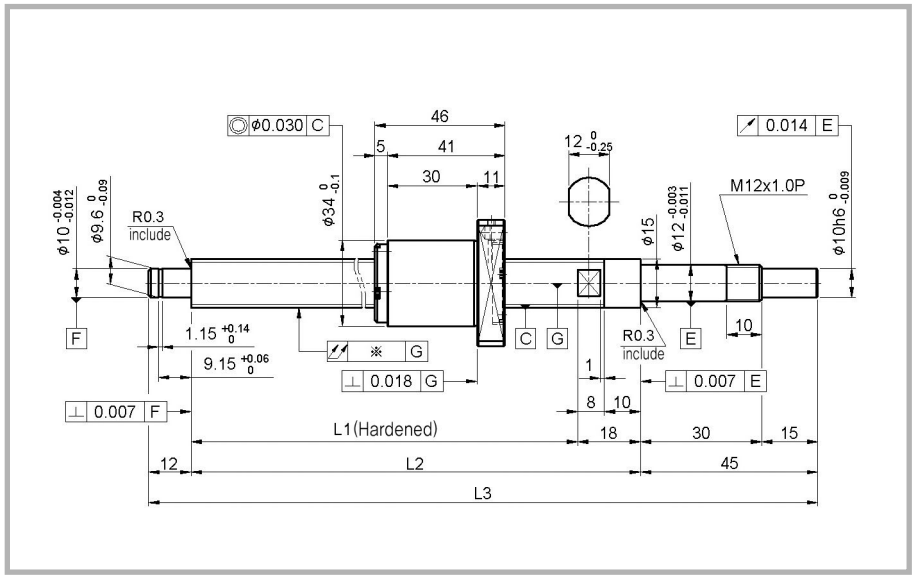


Ball screw Dimensions	
Nut type	SGIR(SHIR) 1205 R
lead	5
BCD	12.3
Root dia	10.2
Ball dia	2.0000
Number of Circuits	Turn 2.75×1
Screw direction	left
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca(N)	3150
Basic Static load ratinga : Coa(N)	5880
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	105

( ) Is Hansan Model Specifications

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.080	0.400	73
–	0.052	0.120	0.600	
–	0.052	–	0.800	
–	0.052	–	1.100	

ϕ15×10

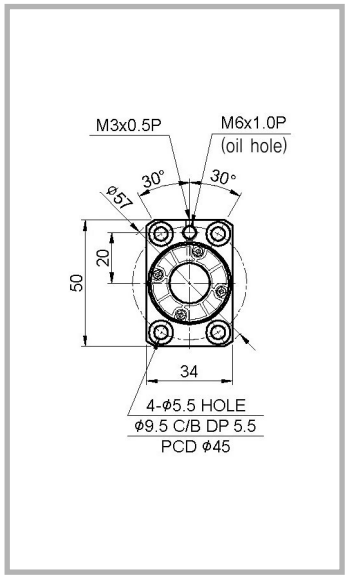


Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
GIR/HIR1510RLC7S/N-300	145	225	243
GIR/HIR1510RLC7S/N-500	345	425	443
GIR/HIR1510RLC7S/N-700	545	625	643
GIR/HIR1510RLC7S/N-900	745	825	843
GIR/HIR1510RLC7S/N-1100	945	1025	1043
GIR/HIR1510RLC7S/N-1300	1145	1225	1243
GIR/HIR1510RLC7S/N-1500	1345	1425	1443

Finished shaft ends /un-worked shaft ends Standard Stock C7)

HANSAN ISSOKU

unit : mm

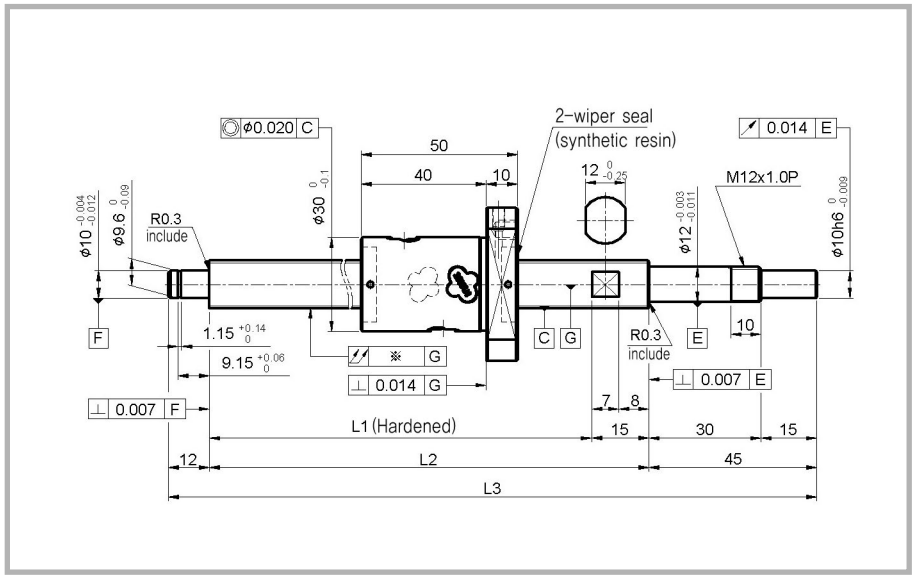


Ball screw Dimensions	
Nut type	GIR/HIR 1510 R
lead	10
BCD	15.5
Root dia	12.2
Ball dia	3.175
Number of Circuits	Turn 2.75×1
Screw direction	left
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca(N)	6630
Basic Static load ratinga : Coa(N)	11930
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	139

( ) Is Hansan Model Specifications

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.070	0.450	57
–	0.052	0.095	0.600	
–	0.052	0.140	0.750	
–	0.052	0.170	0.900	
–	0.052	0.210	1.050	
–	0.052	0.270	1.200	
–	0.052	0.270	1.350	

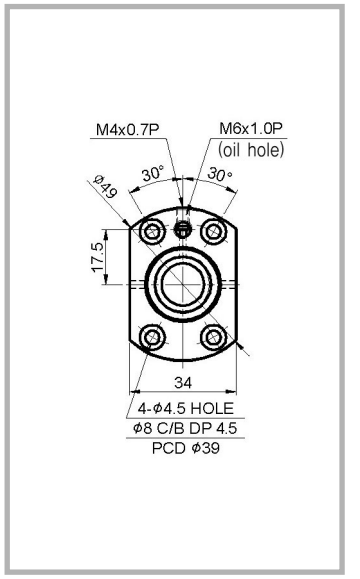
ϕ16×05



Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
GDR/HDR1605D4LC7S/N-300	120	228	243
GDR/HDR1605D4LC7S/N-500	320	428	443
GDR/HDR1605D4LC7S/N-700	520	628	643
GDR/HDR1605D4LC7S/N-900	720	828	843
GDR/HDR1605D4LC7S/N-1100	920	1028	1043
GDR/HDR1605D4LC7S/N-1300	1120	1228	1243
GDR/HDR1605D4LC7S/N-1500	1320	1428	1443

Finished shaft ends /un-worked shaft ends Standard Stock C7)

unit : mm

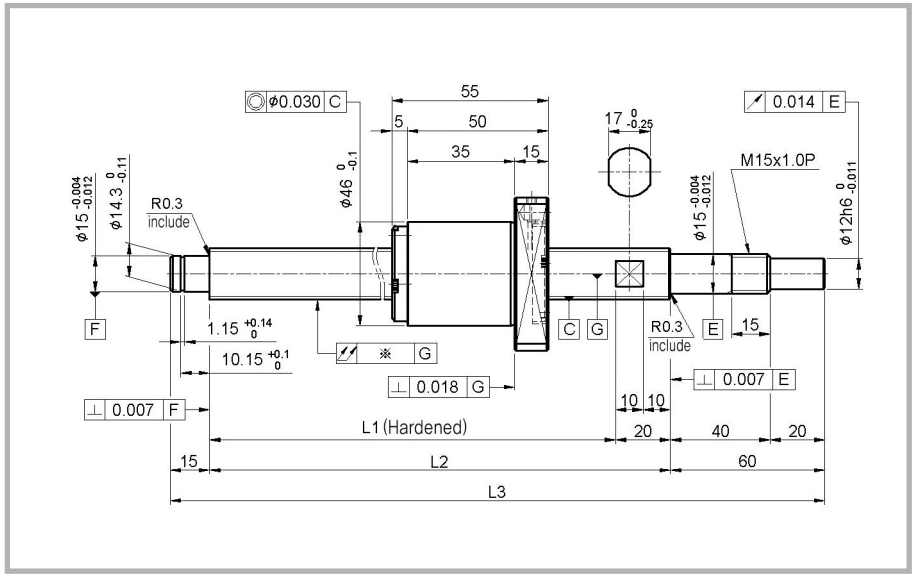


Ball screw Dimensions	
Nut type	GDR/HDR 1605 D4
lead	5
BCD	16.5
Root dia	13.2
Ball dia	3.175
Number of Circuits	Turn 1×4
Screw direction	left
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca(N)	11680
Basic Static load ratinga : Coa(N)	18278
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	167

( ) Is Hansan Model Specifications

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.070	0.934	68
–	0.052	0.095	1.134	
–	0.052	0.140	1.334	
–	0.052	0.170	1.534	
–	0.052	0.210	1.734	
–	0.052	0.270	1.934	
–	0.052	0.270	2.134	

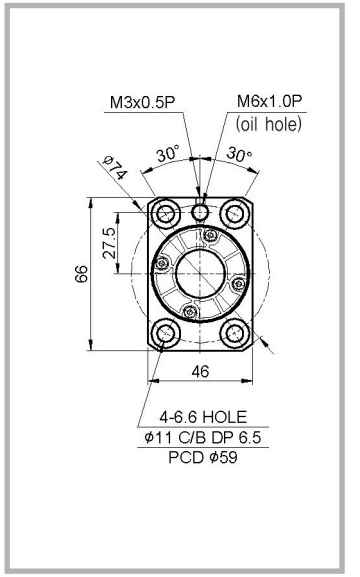
ϕ 20×20



Model No(L3)	Stroke	Screw thread overall length	
		L1	L2
GIR/HIR2020TLC7S/N-700	515	605	625
GIR/HIR2020TLC7S/N-1000	815	905	925
GIR/HIR2020TLC7S/N-1500	1315	1405	1425
GIR/HIR2020TLC7S/N-2000	1815	1905	1925

Finished shaft ends /un-worked shaft ends Standard Stock C7)

unit : mm



Ball screw Dimensions	
Nut type	GIR/HIR 2020 T
lead	10
BCD	21.0
Root dia	17.2
Ball dia	3.969
Number of Circuits	Turn 1.75×1
Screw direction	left
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca(N)	11100
Basic Static load ratinga : Coa(N)	22100
rotation torque (N · cm)	2.0include
rigidity (N/μm)	208

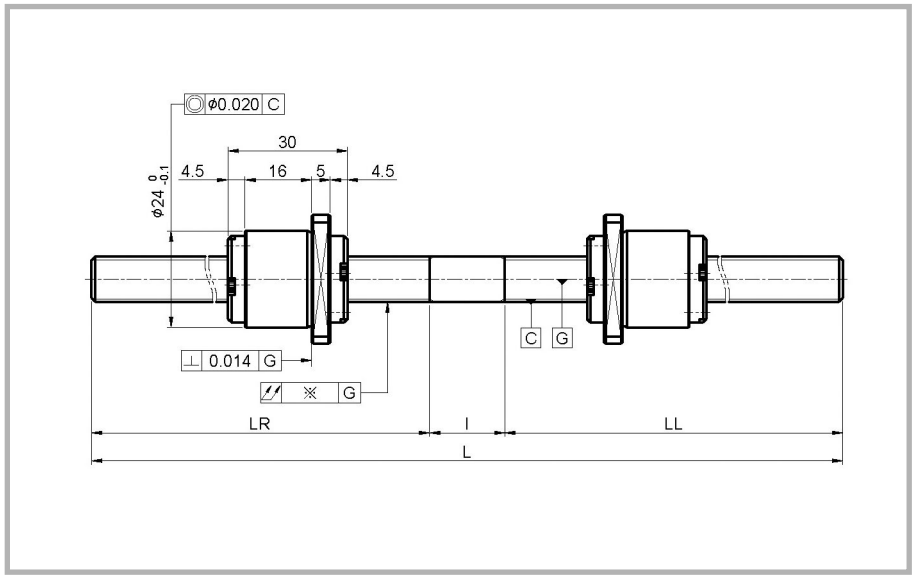
( ) Is Hansan Model Specifications

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.140	2.341	54
–	0.052	0.170	3.095	
–	0.052	0.270	4.327	
–	0.052	–	5.559	

Precision Ball screw
Finished shaft ends / un−worked shaft ends (left,right−screw C7)

GIR / HIR / SGIR / SHIR

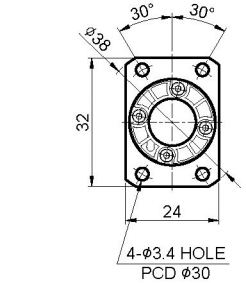
ϕ12×05



Model No(L)	Stroke(MAX)	Screw thread overall length	
	LL, LR Share	LR	LL
SGIR/SHIR1205RRLC7S/N-530	190	250	250
SGIR/SHIR1205RRLC7S/N-730	290	350	350
SGIR/SHIR1205RRLC7S/N-1030	440	500	500

Finished shaft ends/un-worked shaft ends Standard Stock C7)

unit : mm

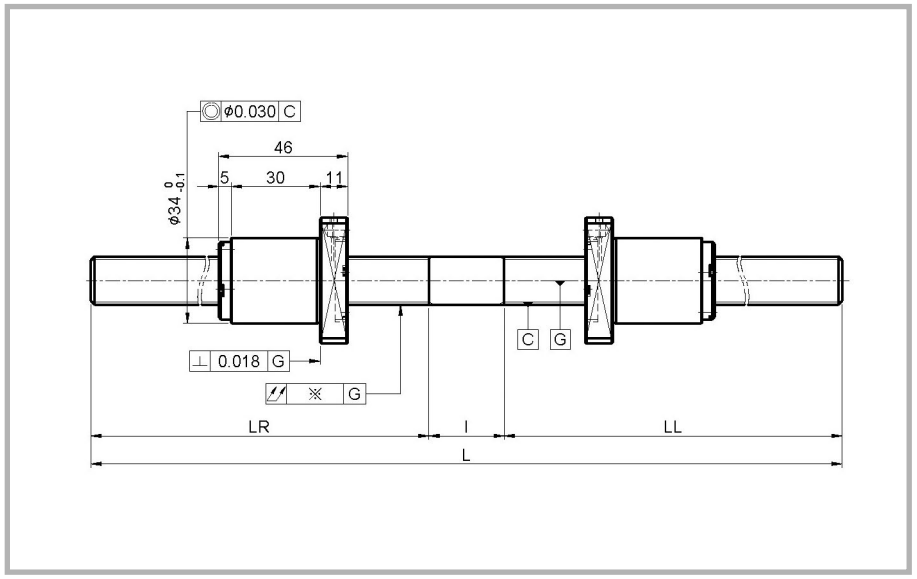


Ball screw Dimensions	
Nut type	SGIR/SHIR 1205 R
lead	5
BCD	12.3
Root dia	10.2
Ball dia	2.0000
Number of Circuits	Turn 2.75×1
Screw direction	right/left
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca(N)	3150
Basic Static load ratinga : Coa(N)	5880
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	105

( ) Is Hansan Model Specifications

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.070	0.550	73/1NUT
–	0.052	0.095	0.710	
–	0.052	0.140	0.880	

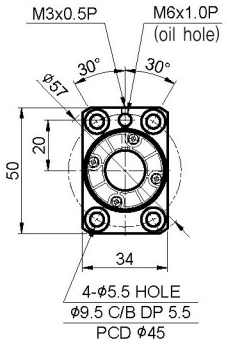
ϕ15×10



Model No(L)	Stroke(MAX)	Screw thread overall length		
	LL, LR Share	LR	I	LL
GIR/HIR1510RRLC7S/N-730	290	350	30	350
GIR/HIR1510RRLC7S/N-930	390	450	30	450
GIR/HIR1510RRLC7S/N-1130	490	550	30	550
GIR/HIR1510RRLC7S/N-1330	590	650	30	650
GIR/HIR1510RRLC7S/N-1530	690	750	30	750

Finished shaft ends/un-worked shaft ends Standard Stock C7)

unit : mm

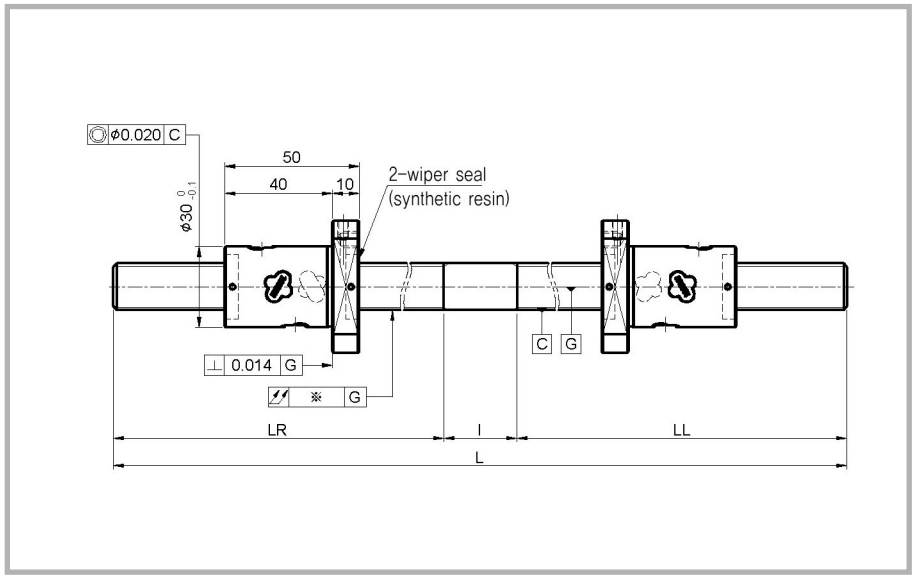


Ball screw Dimensions	
Nut type	GIR/HIR 1510 R
lead	10
BCD	15.5
Root dia	12.2
Ball dia	3.175
Number of Circuits	Turn 2.75×1
Screw direction	right/left
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca(N)	6630
Basic Static load ratinga : Coa(N)	11930
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	139

( ) Is Hansan Model Specifications

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.070	1.025	
–	0.052	0.095	1.150	
–	0.052	0.140	1.300	57/1NUT
–	0.052	0.170	1.450	
–	0.052	0.210	1.600	

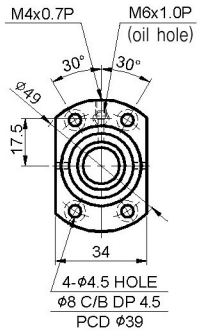
ϕ16×05



Model No(L3)	Stroke(MAX)	Screw thread overall length		
	LL, LR Share	LR	l	LL
GDR/HDR1605D4RLC7S/N-730	285	350	30	350
GDR/HDR1605D4RLC7S/N-930	385	450	30	450
GDR/HDR1605D4RLC7S/N-1130	485	550	30	550
GDR/HDR1605D4RLC7S/N-1330	585	650	30	650
GDR/HDR1605D4RLC7S/N-1530	685	750	30	750

Finished shaft ends/un-worked shaft ends Standard Stock C7)

unit : mm

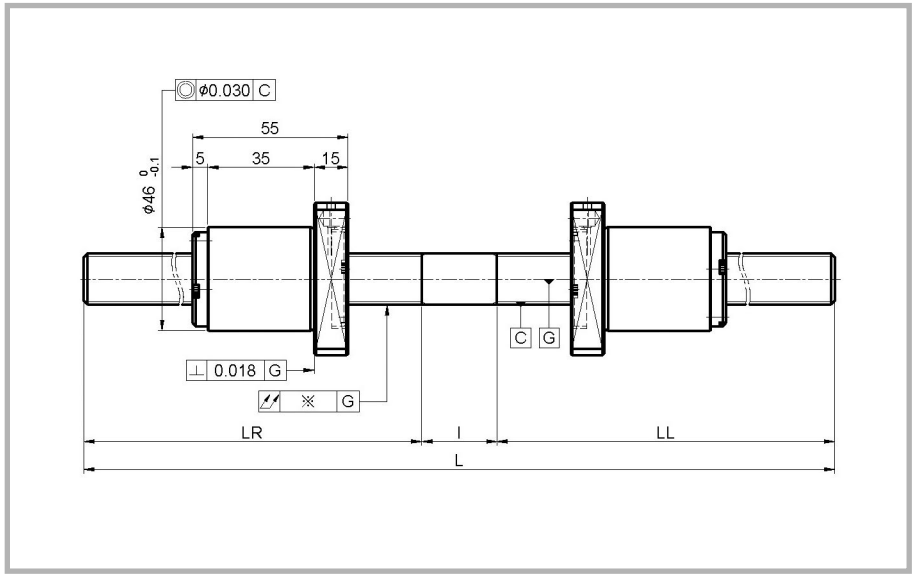


Ball screw Dimensions	
Nut type	GDR/HDR 1605 D4
lead	5
BCD	16.5
Root dia	13.2
Ball dia	3.175
Number of Circuits	Turn 1×4
Screw direction	right/left
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca(N)	11680
Basic Static load ratinga : Coa(N)	18278
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	167

( ) Is Hansan Model Specifications

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.52	0.070	1.650	68/1NUT
–	0.52	0.095	1.850	
–	0.52	0.140	2.050	
–	0.52	0.170	2.250	
–	0.52	0.210	2.450	

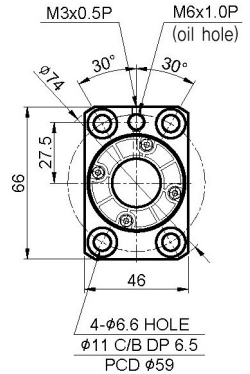
ϕ 20×20



Model No(L)	Stroke(MAX)	Screw thread overall length		
	LL, LR Share	LR	I	LL
GIR/HIR2020TRLC7S/N-730	290	350	30	350
GIR/HIR2020TRLC7S/N-1030	440	500	30	500
GIR/HIR2020TRLC7S/N-1530	690	750	30	750
GIR/HIR2020TRLC7S/N-2030	940	1000	30	1000

Finished shaft ends/un-worked shaft ends Standard Stock C7)

unit : mm



Ball screw Dimensions	
Nut type	GIR/HIR 2020 T
lead	20
BCD	21.0
Root dia	17.2
Ball dia	3.969
Number of Circuits	Turn 1.75×1
Screw direction	right/left
Accuracy Grade	C7
Clearance symbol	S(N)
Axial Clearance	0.01include(0.02include)
Basic Dynamic load ratinga : Ca(N)	11100
Basic Static load ratinga : Coa(N)	22100
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	208

( ) Is Hansan Model Specifications

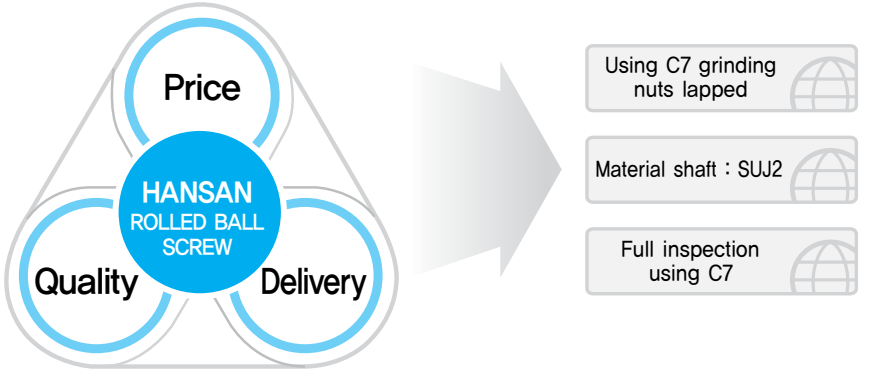
Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.095	3.001	54/1NUT
–	0.052	0.170	3.755	
–	0.052	0.210	4.987	
–	0.052	0.270	6.219	

End cap,Tube , Deflector type C7 Precision Ball screw / un-worked shaft ends

HOR, HORT

HANSAN Precision Rolled Ball Screw Features and Benefits

SUJ2 is produced by the 70-year history of the company in Japan OGISON material shaft through total inspection Use only the C7 axis selected
In addition, by using the C7 grinding nuts lapping in HANSAN nuts
Precision Rolled C7 screw axis aligned to within 50/4m the Axial clearance



Features

1. Accuracy Grade
- HANSAN Rolled Ball screw is a high-accuracy C7grade<JIS-B1192> rolled ball screw produced after aprecise roll processing with the CNC form rolling machine and a detailed parts inspection

2. Products overall length up to 3000mm

3. B.C.D dimensional precision 0.01mm
- Using as a parent material for processing in the long-axis precision grinding shaft OGISON Company Assurance throughout the entire length of 0.01mm within the dimensions of the active threads about B.C.D

4. Low noise
- Use of Hansan C7 grinding nuts lapped recognized for excellence

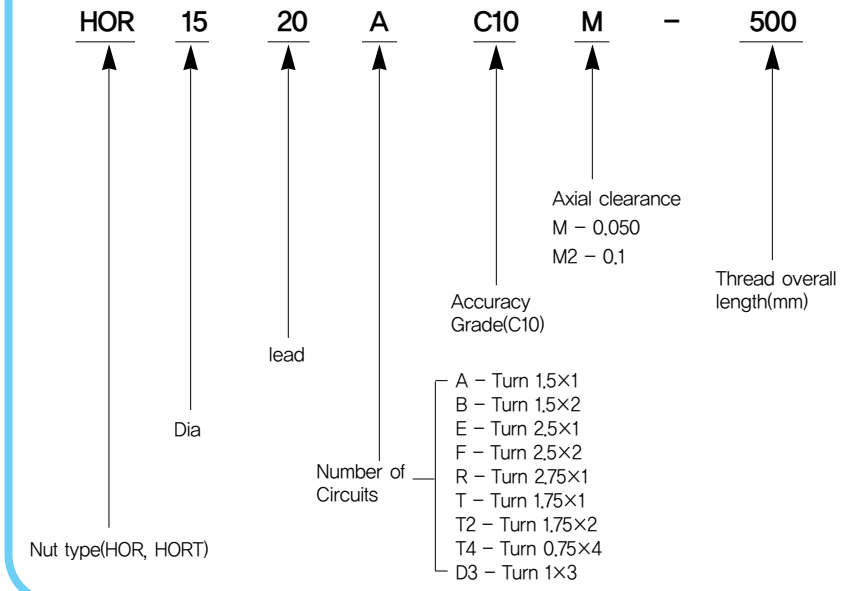
5. Wear resistance
- The excellent wear resistance compared to conventional S55C than double ball bearing steel screw with <SUJ2>

6. Heat treatment quality assurance
- Excellent accuracy and durability established by an outstanding heat treatment technology og japan's shaft and spindle manufacture

Rolled C7, C10 Model number of the Ball screw & Combinations of dia and lead

HANSAN ISSOKU

— Model number



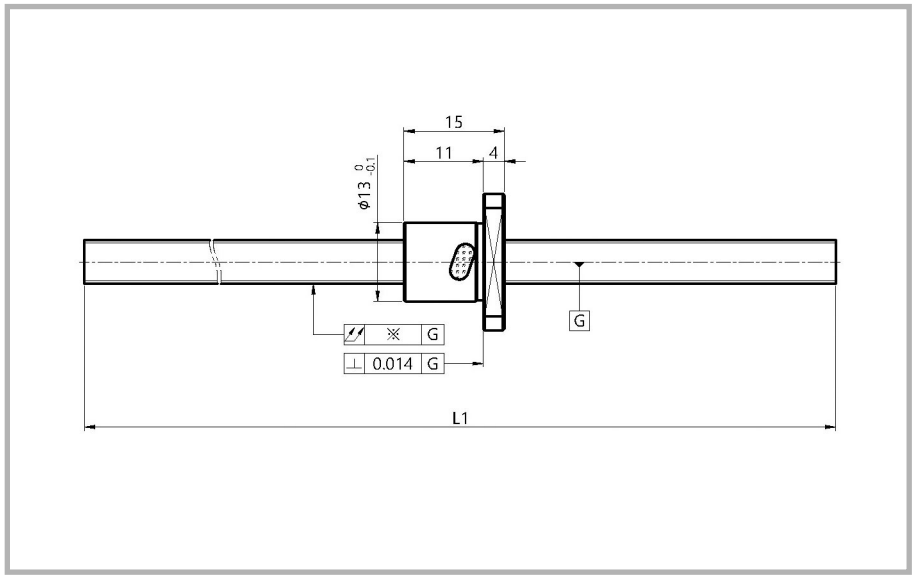
— Combinations of dia and lead

(unit : mm)

Dia	lead												
	1	2	5	4	6	8	10	12	16	20	25	30	32
8	●	●											
10					●					●			
12		●	●			●	●			○			
14													
15			●				●			●			
16			●						●				●
20			●				●			●		○	
25			●				●				●		
32			○				○						○

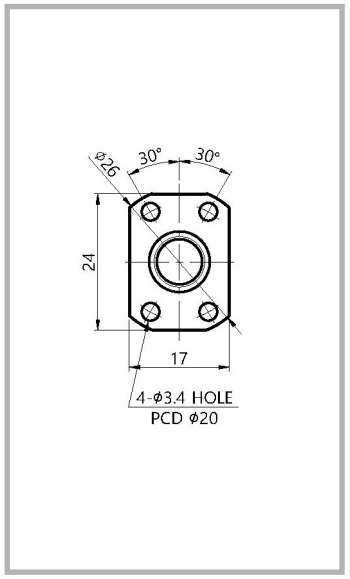
● : un-worked shaft ends <Standard stock>
○ : Release schedule

ϕ08×01



Un-worked shaft ends Standard Stock(C7- Rolled Ball screw)

unit : mm

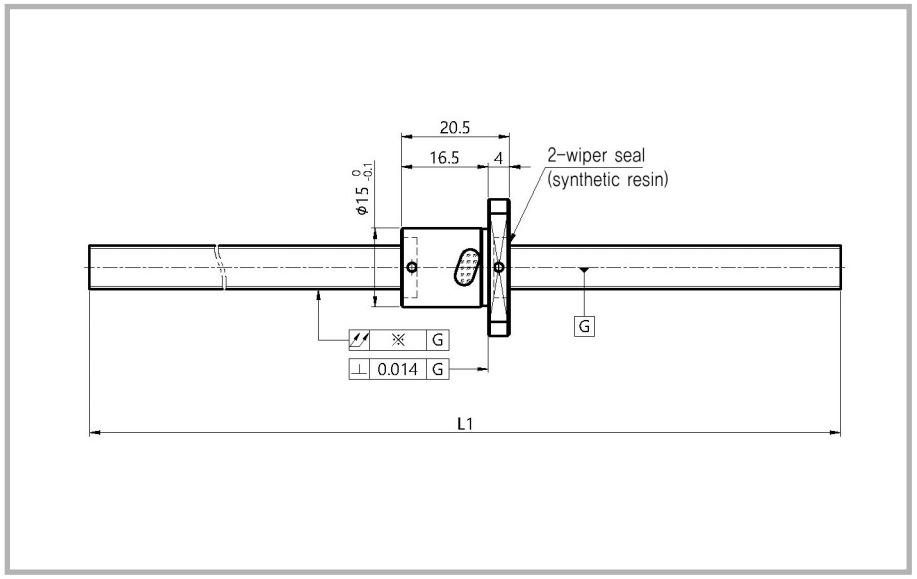


Ball screw Dimensions	
Nut type	HOR 0801 D3
lead	1
BCD	8.2
Root dia	7.4
Ball dia	0.800
Number of Circuits	Turn 1×3
Screw direction	right
Accuracy Grade	C7
Clearance symbol	M
Axial Clearance	0.05include
Basic Dynamic load ratinga : Ca(N)	730
Basic Static load ratinga : Coa(N)	1480
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	60

Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR0801D3C7M-150	110	150
HOR0801D3C7M-250	210	250
HOR0801D3C7M-350	310	350
HOR0801D3C7M-450	410	450

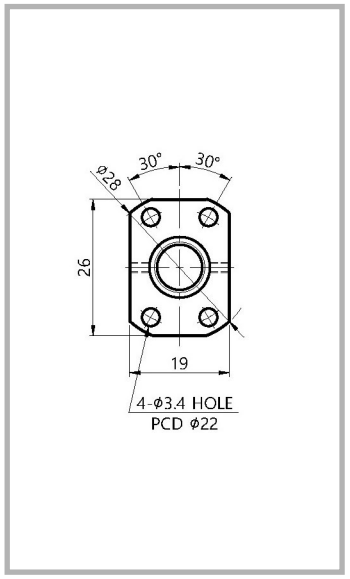
Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.048	0.084	96
–	0.052	0.075	0.124	
–	0.052	–	0.164	
–	0.052	–	0.204	

ϕ 08×02



Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR0802D3C7M-150	100	150
HOR0802D3C7M-250	200	250
HOR0802D3C7M-350	300	350
HOR0802D3C7M-450	400	450

Un-worked shaft ends Standard Stock(C7- Rolled Ball screw)

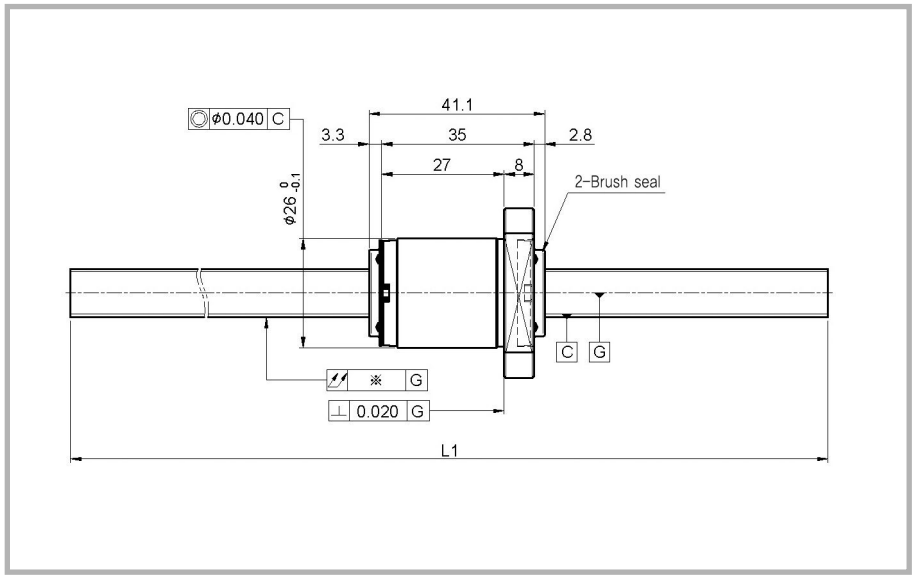


unit : mm

Ball screw Dimensions	
Nut type	HOR 0802 D3
lead	2
BCD	8.3
Root dia	7.1
Ball dia	1.2000
Number of Circuits	Turn 1×3
Screw direction	right
Accuracy Grade	C7
Clearance symbol	M
Axial Clearance	0.05include
Basic Dynamic load ratinga : Ca(N)	1420
Basic Static load ratinga : Coa(N)	2290
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	60

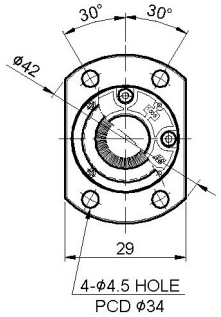
Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.048	0.094	66
–	0.052	0.075	0.134	
–	0.052	–	0.174	
–	0.052	–	0.214	

ϕ10×06



Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR1006RC7M-300	200	300
HOR1006RC7M-500	400	500
HOR1006RC7M-700	600	700
HOR1006RC7M-1000	900	1000

Un-worked shaft ends Standard Stock(C7- Rolled Ball screw)

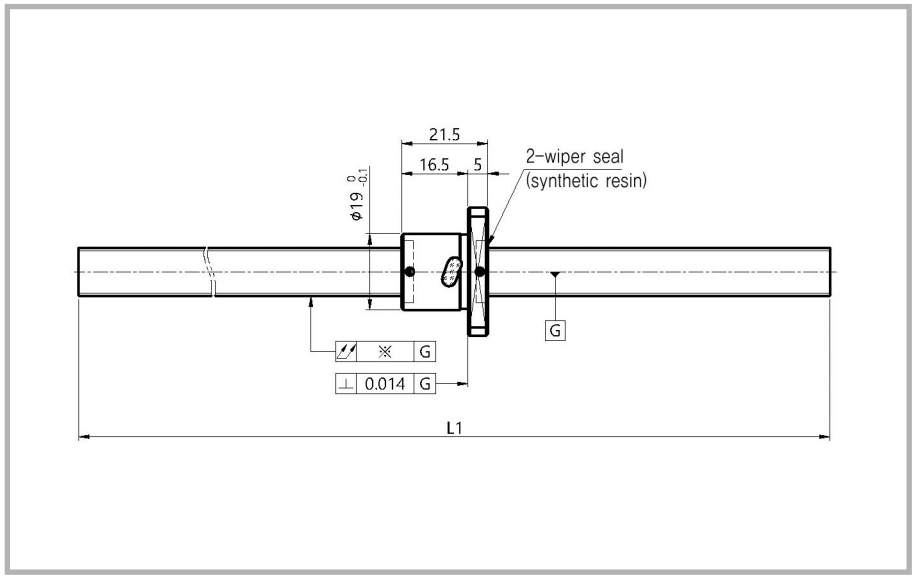


unit : mm

Ball screw Dimensions	
Nut type	HOR 1006 R
lead	6
BCD	10.5
Root dia	7.8
Ball dia	2.3812
Number of Circuits	Turn 2.75×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	M
Axial Clearance	0.05include
Basic Dynamic load ratinga : Ca(N)	2640
Basic Static load ratinga : Coa(N)	4750
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	86

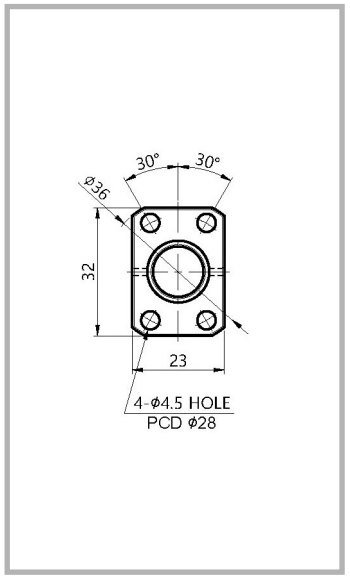
Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.080	0.360	49
–	0.052	0.120	0.430	
–	0.052	–	0.500	
–	0.052	–	0.670	

ϕ12×02



Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR1202D3C7M-200	150	200
HOR1202D3C7M-400	350	400
HOR1202D3C7M-600	550	600
HOR1202D3C7M-800	750	800
HOR1202D3C7M-1000	950	1000

Un-worked shaft ends Standard Stock(C7- Rolled Ball screw)

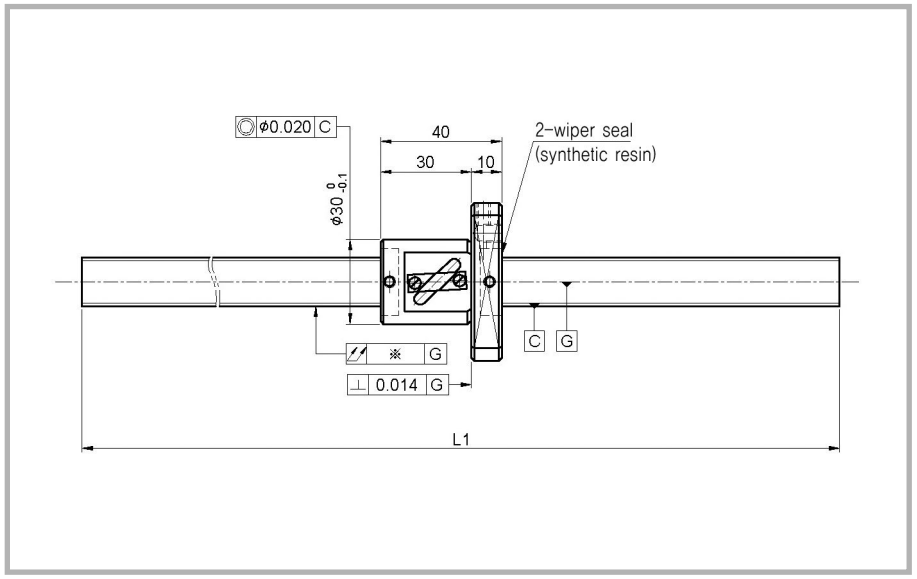


unit : mm

Ball screw Dimensions	
Nut type	HOR 1202 D3
lead	2
BCD	12.3
Root dia	11.1
Ball dia	1.2000
Number of Circuits	Turn 1×3
Screw direction	right
Accuracy Grade	C7
Clearance symbol	M
Axial Clearance	0.05include
Basic Dynamic load ratinga : Ca(N)	1670
Basic Static load ratinga : Coa(N)	3640
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	110

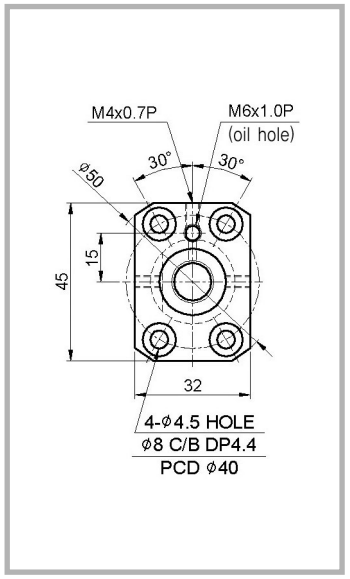
Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.052	0.190	96
–	0.052	0.080	0.330	
–	0.052	–	0.470	
–	0.052	–	0.610	
–	0.052	–	0.750	

ϕ12×05



Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR1205EC7M-300	220	300
HOR1205EC7M-600	520	600
HOR1205EC7M-900	820	900
HOR1205EC7M-1200	1120	1200
HOR1205EC7M-1600	1520	1600
HOR1205EC7M-2000	1920	2000

Un-worked shaft ends Standard Stock(C7- Rolled Ball screw)

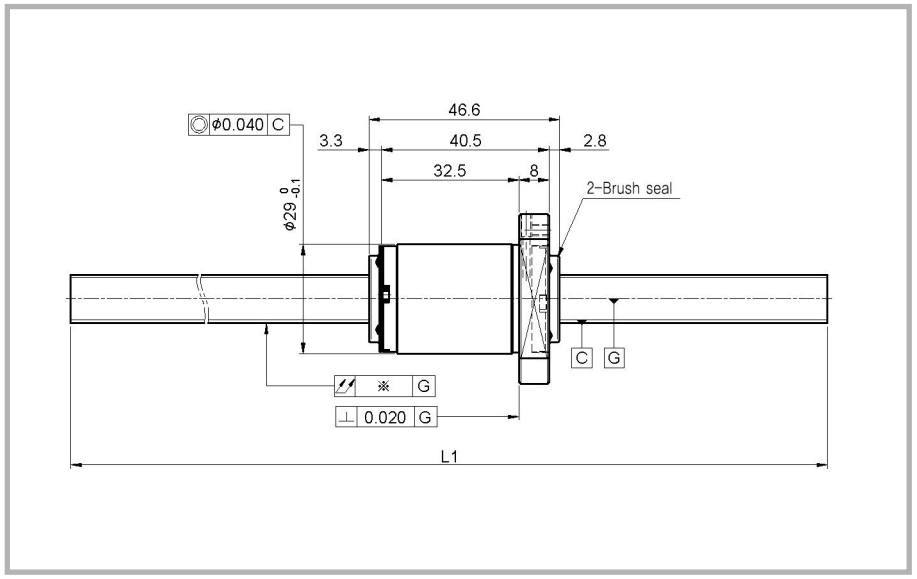


unit : mm

Ball screw Dimensions	
Nut type	HOR 1205 E
lead	5
BCD	12.3
Root dia	9.8
Ball dia	2.3812
Number of Circuits	Turn 2.5×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	M
Axial Clearance	0.05include
Basic Dynamic load ratinga : Ca(N)	3770
Basic Static load ratinga : Coa(N)	6320
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	103

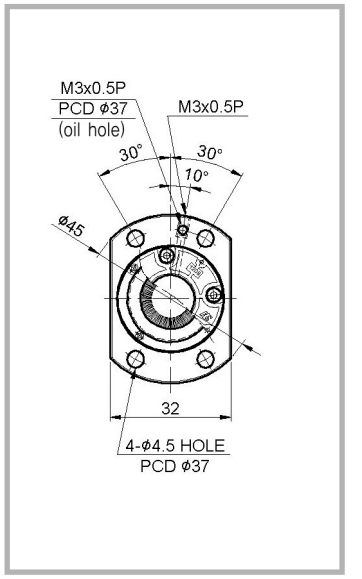
Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.080	0.500	56
–	0.052	0.150	0.660	
–	0.052	–	0.820	
–	0.052	–	0.980	
–	0.052	–	1.120	
–	0.052	–	1.280	

ϕ12×08



Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR1208RC7M-300	195	300
HOR1208RC7M-600	495	600
HOR1208RC7M-900	795	900
HOR1208RC7M-1200	1095	1200
HOR1208RC7M-1600	1495	1600
HOR1208RC7M-2000	1895	2000

Un-worked shaft ends Standard Stock(C7- Rolled Ball screw)

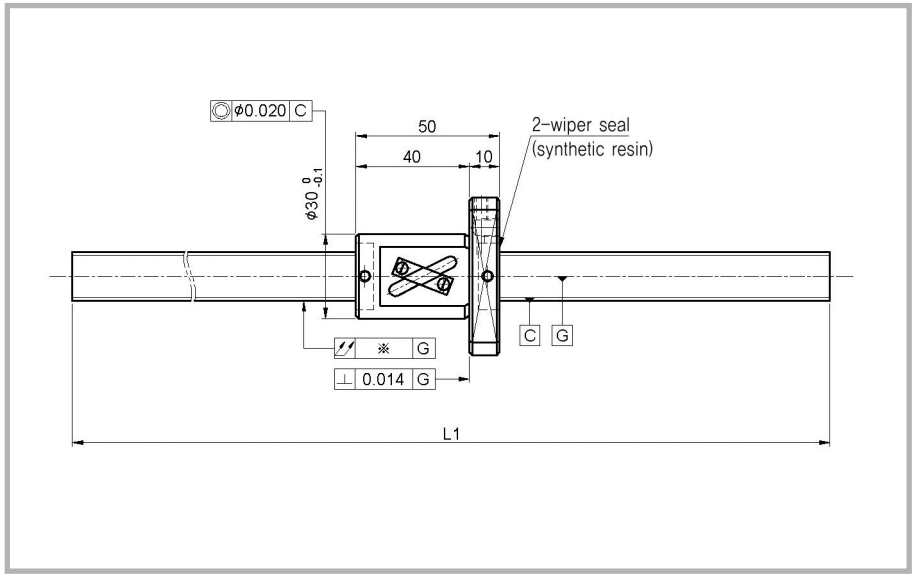


unit : mm

Ball screw Dimensions	
Nut type	HOR 1208 R
lead	8
BCD	12.65
Root dia	9.7
Ball dia	2.778
Number of Circuits	Turn 2.75×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	M
Axial Clearance	0.05include
Basic Dynamic load ratinga : Ca(N)	3770
Basic Static load ratinga : Coa(N)	6740
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	110

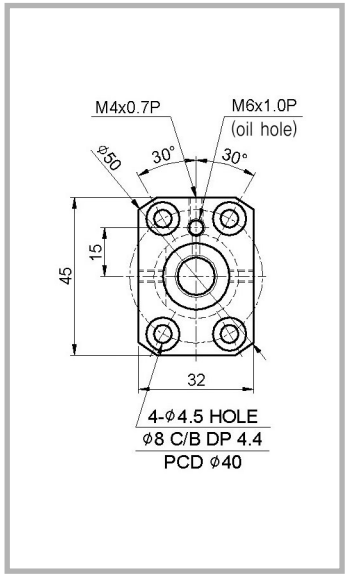
Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.080	0.420	49
–	0.052	0.120	0.640	
–	0.052	0.150	0.860	
–	0.052	–	1.080	
–	0.052	–	1.350	
–	0.052	–	1.600	

ϕ12×10



Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR1210EC7M-300	200	300
HOR1210EC7M-600	500	600
HOR1210EC7M-900	800	900
HOR1210EC7M-1200	1100	1200
HOR1210EC7M-1600	1500	1600
HOR1210EC7M-2000	1900	2000

Un-worked shaft ends Standard Stock(C7- Rolled Ball screw)

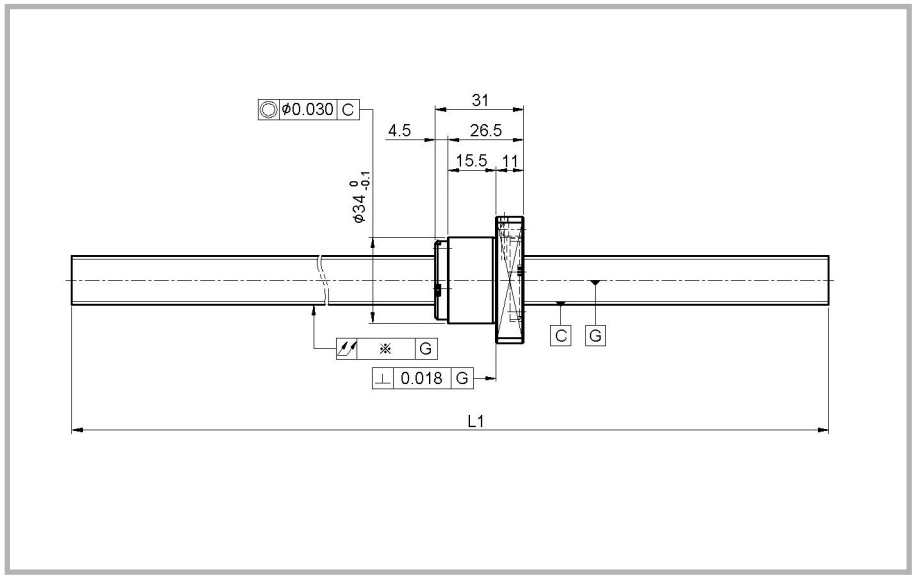


unit : mm

Ball screw Dimensions	
Nut type	HOR 1210 E
lead	10
BCD	12.5
Root dia	10
Ball dia	2.3812
Number of Circuits	Turn 2.5×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	M
Axial Clearance	0.05include
Basic Dynamic load ratinga : Ca(N)	3820
Basic Static load ratinga : Coa(N)	6480
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	105

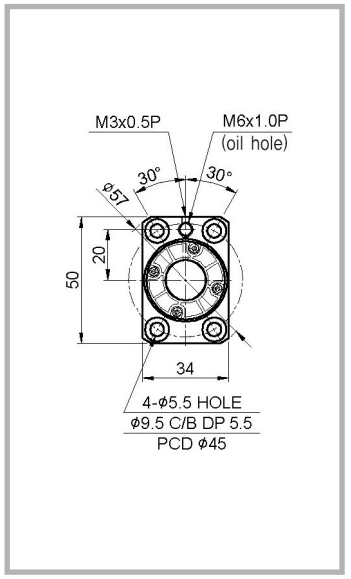
Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.080	0.550	62
–	0.052	0.150	0.710	
–	0.052	–	0.880	
–	0.052	–	1.050	
–	0.052	–	1.220	
–	0.052	–	1.390	

ϕ15×05



Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR1505RC7M-300	220	300
HOR1505RC7M-600	520	600
HOR1505RC7M-900	820	900
HOR1505RC7M-1200	1120	1200
HOR1505RC7M-1600	1520	1600
HOR1505RC7M-2000	1920	2000

Un-worked shaft ends Standard Stock(C7- Rolled Ball screw)

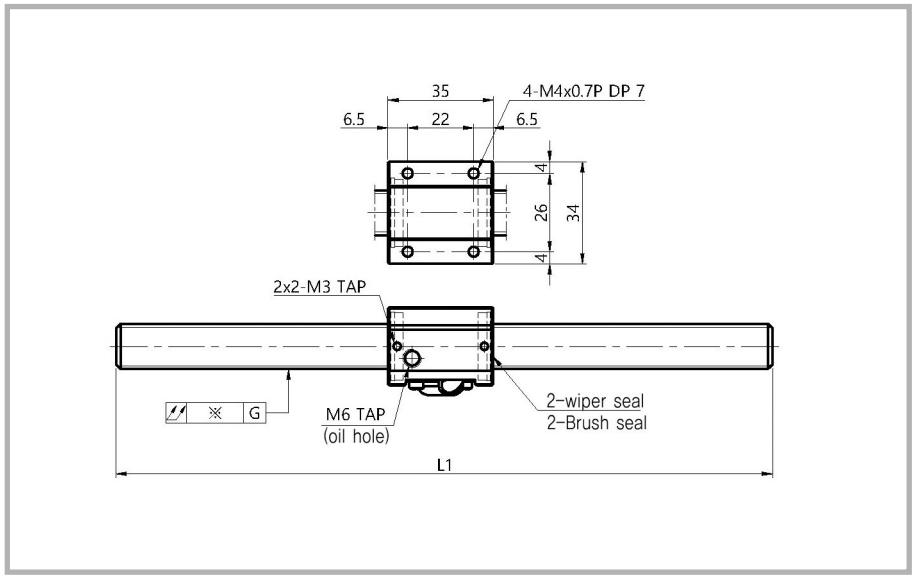


unit : mm

Ball screw Dimensions	
Nut type	HOR 1505 R
lead	5
BCD	15.5
Root dia	12.2
Ball dia	3.175
Number of Circuits	Turn 2.75×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	M
Axial Clearance	0.05include
Basic Dynamic load ratinga : Ca(N)	6610
Basic Static load ratinga : Coa(N)	12545
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	139

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.070	0.915	50
–	0.052	0.110	1.115	
–	0.052	0.170	1.315	
–	0.052	0.210	1.515	
–	0.052	0.270	1.750	
–	0.052	–	1.950	

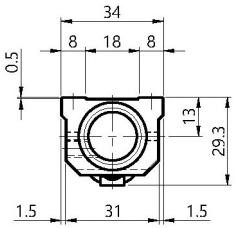
ϕ15×05



Model No	Stroke(MAX)	Screw thread overall length
		L1
HORT1505EC7M-300	210	300
HORT1505EC7M-600	510	600
HORT1505EC7M-900	810	900
HORT1505EC7M-1200	1110	1200
HORT1505EC7M-1600	1510	1600
HORT1505EC7M-2000	1910	2000

Un-worked shaft ends Standard Stock(C7- Rolled Ball screw)

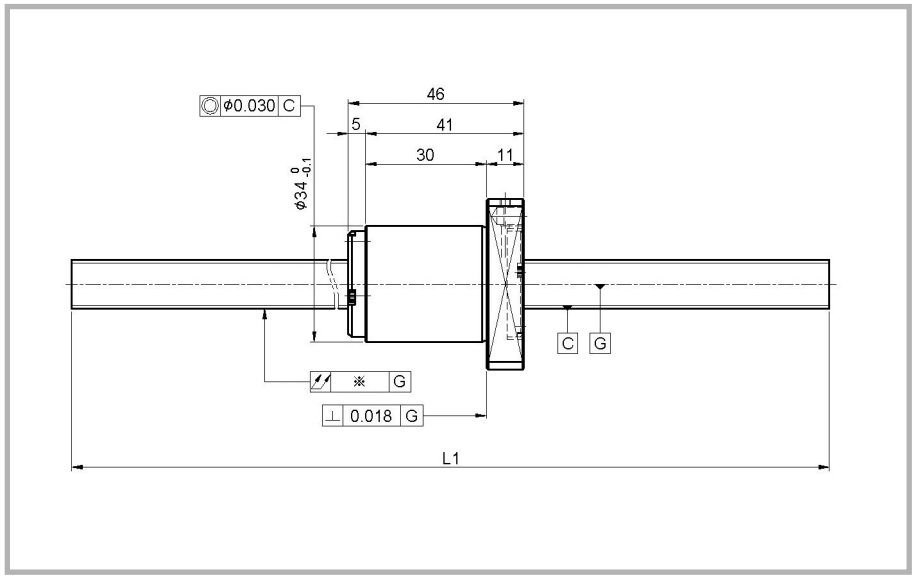
unit : mm



Ball screw Dimensions	
Nut type	HORT 1505 E
lead	5
BCD	15.5
Root dia	12.2
Ball dia	3.1750
Number of Circuits	Turn 2.5×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	M
Axial Clearance	0.05include
Basic Dynamic load ratinga : Ca(N)	6610
Basic Static load ratinga : Coa(N)	12545
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	139

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.070	1.115	50
–	0.052	0.110	1.315	
–	0.052	0.170	1.515	
–	0.052	0.210	1.715	
–	0.052	0.270	1.915	
–	0.052	–	2.115	

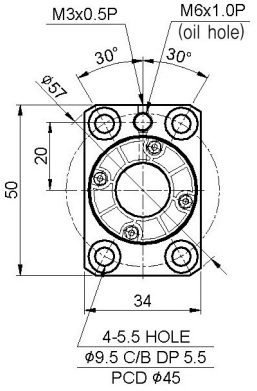
ϕ15×10



Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR1510RC7M-300	200	300
HOR1510RC7M-600	500	600
HOR1510RC7M-900	800	900
HOR1510RC7M-1200	1100	1200
HOR1510RC7M-1600	1500	1600
HOR1510RC7M-2000	1900	2000

Un-worked shaft ends Standard Stock(C7- Rolled Ball screw)

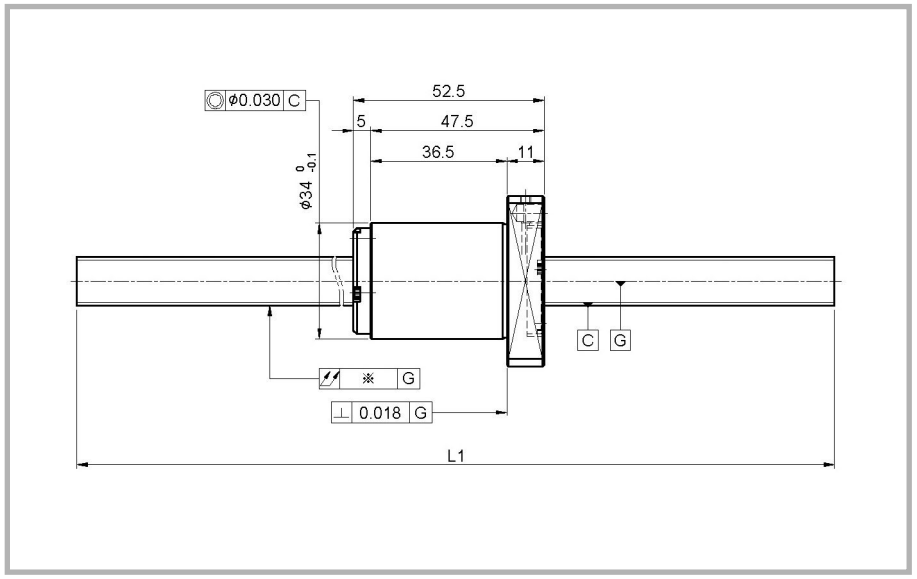
unit : mm



Ball screw Dimensions	
Nut type	HOR 1510 R
lead	10
BCD	15.5
Root dia	12.2
Ball dia	3.175
Number of Circuits	Turn 2.75×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	M
Axial Clearance	0.05include
Basic Dynamic load ratinga : Ca(N)	6610
Basic Static load ratinga : Coa(N)	12545
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	139

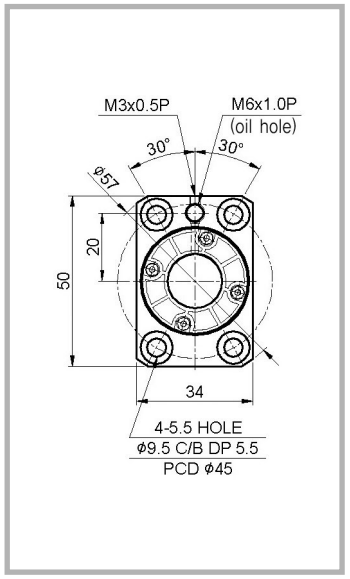
Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.070	0.715	54
–	0.052	0.110	1.017	
–	0.052	0.170	1.294	
–	0.052	0.210	1.571	
–	0.052	0.270	1.848	
–	0.052	–	2.125	

ϕ15×20



Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR1520TC7M-300	190	300
HOR1520TC7M-600	490	600
HOR1520TC7M-900	790	900
HOR1520TC7M-1200	1090	1200
HOR1520TC7M-1600	1490	1600
HOR1520TC7M-2000	1890	2000

Un-worked shaft ends Standard Stock(C7- Rolled Ball screw)

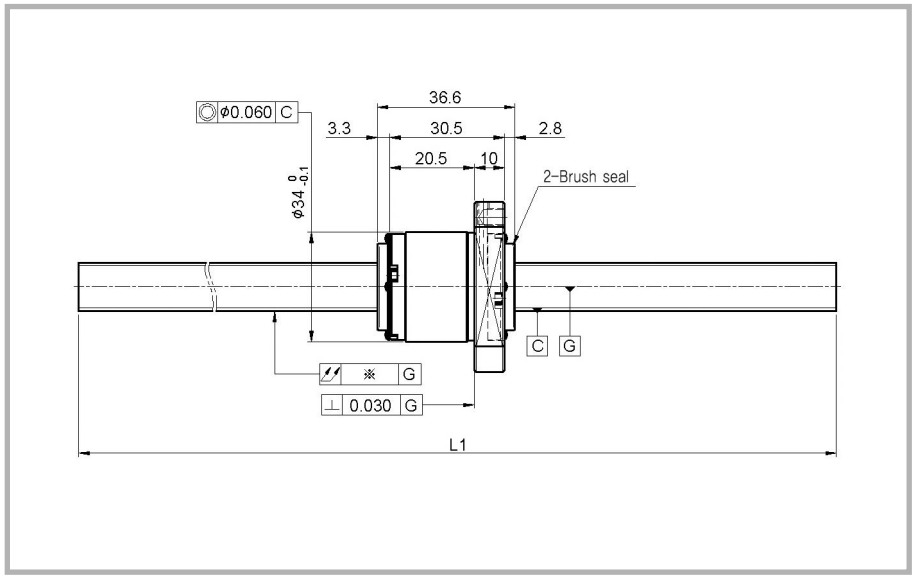


unit : mm

Ball screw Dimensions	
Nut type	HOR 1520 T
lead	20
BCD	15.75
Root dia	12.4
Ball dia	3.175
Number of Circuits	Turn 1.75×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	M
Axial Clearance	0.05include
Basic Dynamic load ratinga : Ca(N)	4320
Basic Static load ratinga : Coa(N)	7840
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	85

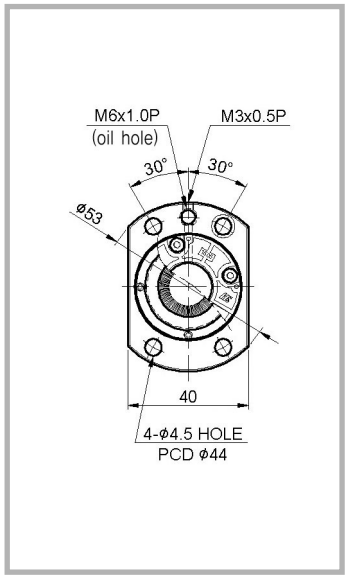
Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.070	1.028	42
–	0.052	0.110	1.228	
–	0.052	0.170	1.428	
–	0.052	0.210	1.628	
–	0.052	0.270	1.995	
–	0.052	–	2.242	

ϕ16×05



Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR1605RC7M-300	205	300
HOR1605RC7M-600	505	600
HOR1605RC7M-900	805	900
HOR1605RC7M-1200	1105	1200
HOR1605RC7M-1600	1505	1600
HOR1605RC7M-2000	1905	2000

Un-worked shaft ends Standard Stock(C7- Rolled Ball screw)

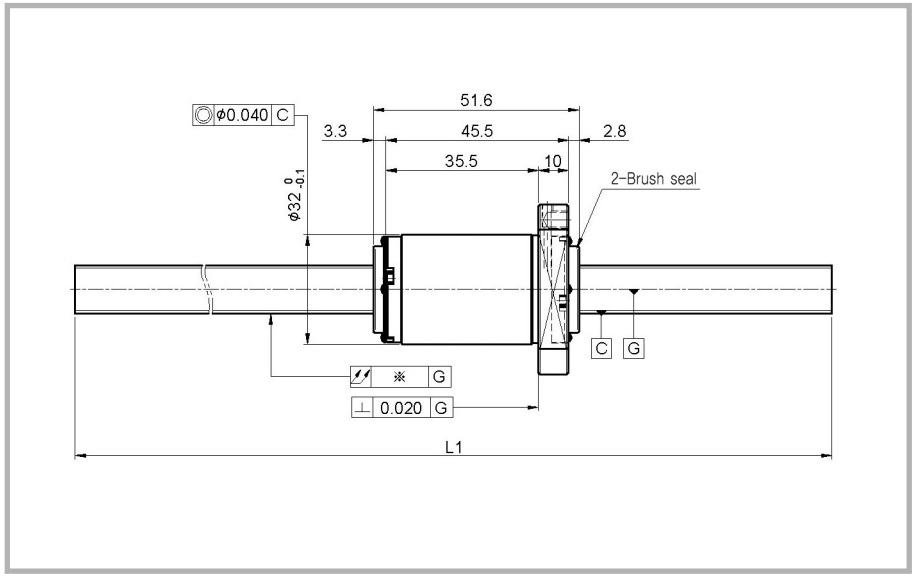


unit : mm

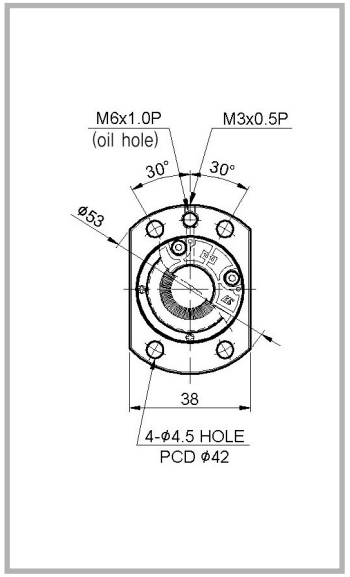
Ball screw Dimensions	
Nut type	HOR 1605 R
lead	5
BCD	16.5
Root dia	13.2
Ball dia	3.175
Number of Circuits	Turn 2.75×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	M
Axial Clearance	0.05include
Basic Dynamic load ratinga : Ca(N)	5340
Basic Static load ratinga : Coa(N)	13490
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	128

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.070	0.690	50
–	0.052	0.110	1.100	
–	0.052	0.170	1.410	
–	0.052	0.210	1.900	
–	0.052	0.270	2.400	
–	0.052	–	2.900	

ϕ16×16



Un-worked shaft ends Standard Stock(C7- Rolled Ball screw)



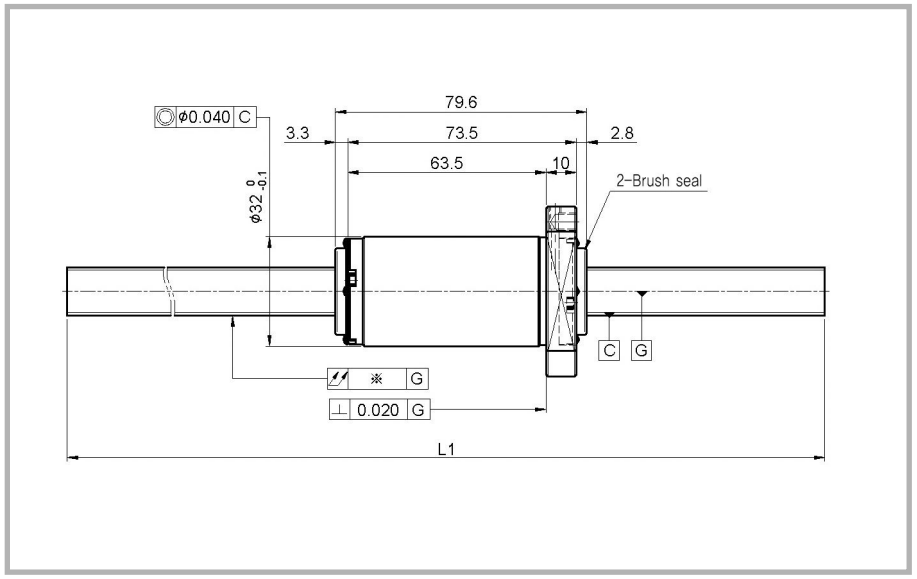
unit : mm

Ball screw Dimensions	
Nut type	HOR 1616 T2
lead	16
BCD	16.65
Root dia	13.7
Ball dia	2.778
Number of Circuits	Turn 1.75×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	M
Axial Clearance	0.05include
Basic Dynamic load ratinga : Ca(N)	5920
Basic Static load ratinga : Coa(N)	13150
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	165

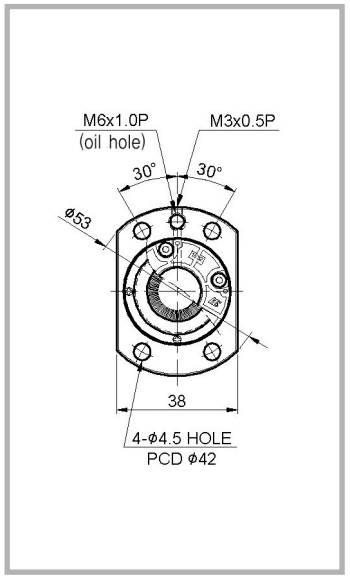
Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR1616T2C7M-300	190	300
HOR1616T2C7M-600	490	600
HOR1616T2C7M-900	790	900
HOR1616T2C7M-1200	1090	1200
HOR1616T2C7M-1600	1490	1600
HOR1616T2C7M-2000	1890	2000

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.070	0.690	84
–	0.052	0.110	1.095	
–	0.052	0.170	1.405	
–	0.052	0.210	1.895	
–	0.052	0.270	2.395	
–	0.052	–	2.895	

ϕ16×32



Un-worked shaft ends Standard Stock(C7- Rolled Ball screw)



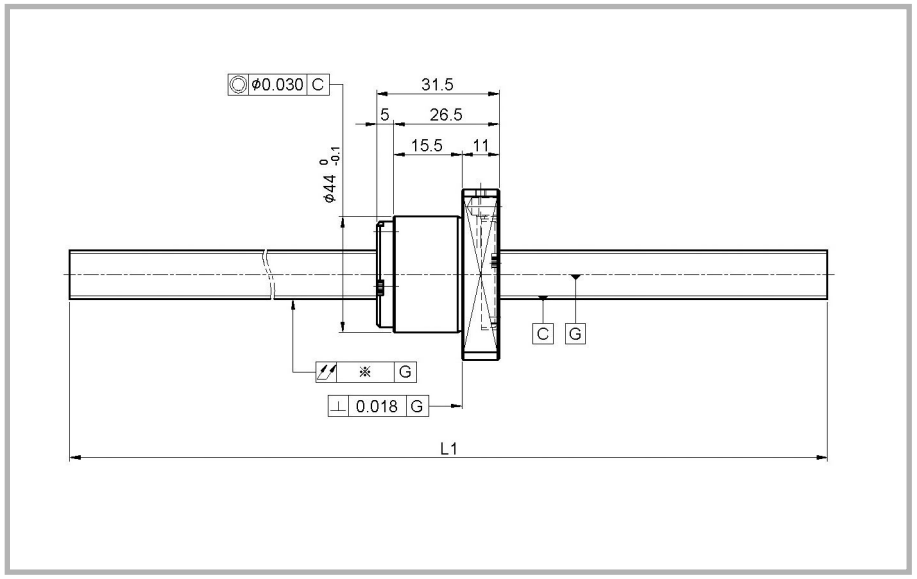
unit : mm

Ball screw Dimensions	
Nut type	HOR 1632 T2
lead	32
BCD	16.65
Root dia	13.7
Ball dia	2.778
Number of Circuits	Turn 1.75×2
Screw direction	right
Accuracy Grade	C7
Clearance symbol	M
Axial Clearance	0.05include
Basic Dynamic load ratinga : Ca(N)	5520
Basic Static load ratinga : Coa(N)	10550
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	165

Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR1632T2C7M-300	140	300
HOR1632T2C7M-600	440	600
HOR1632T2C7M-900	740	900
HOR1632T2C7M-1200	1040	1200
HOR1632T2C7M-1600	1440	1600
HOR1632T2C7M-2000	1840	2000

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.070	0.780	104
–	0.052	0.110	1.200	
–	0.052	0.170	1.620	
–	0.052	0.210	2.040	
–	0.052	0.270	2.550	
–	0.052	–	2.960	

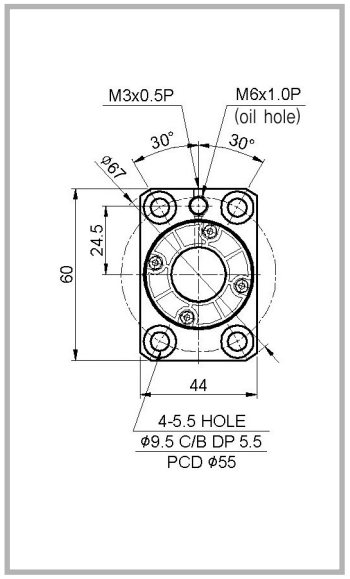
ϕ 20×05



Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR2005RC7M-500	420	500
HOR2005RC7M-1000	920	1000
HOR2005RC7M-1500	1420	1500
HOR2005RC7M-2000	1920	2000
HOR2005RC7M-2500	2420	2500
HOR2005RC7M-3000	2920	3000

Un-worked shaft ends Standard Stock(C7- Rolled Ball screw)

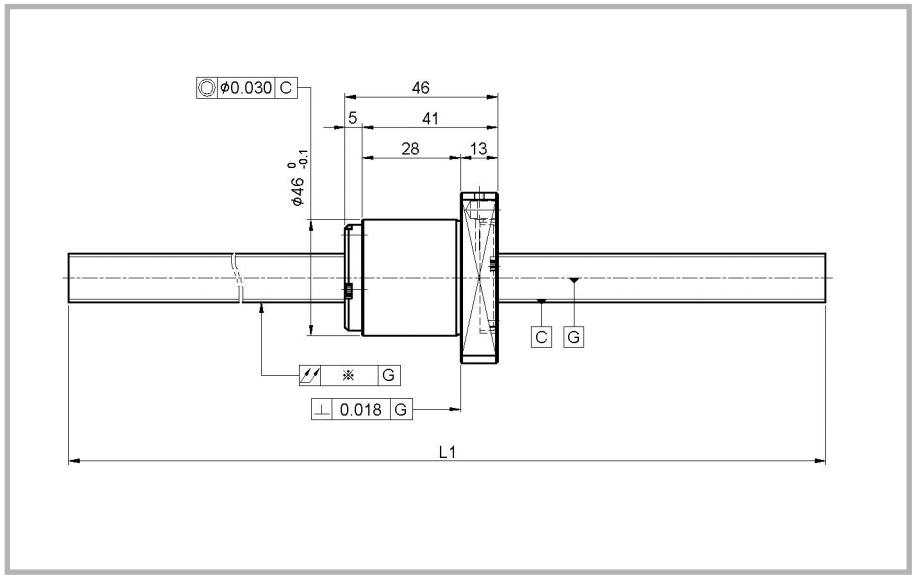
unit : mm



Ball screw Dimensions	
Nut type	HOR 2005 R
lead	5
BCD	20.5
Root dia	17.2
Ball dia	3.175
Number of Circuits	Turn 2.75×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	M
Axial Clearance	0.05include
Basic Dynamic load ratinga : Ca(N)	8150
Basic Static load ratinga : Coa(N)	17150
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	185

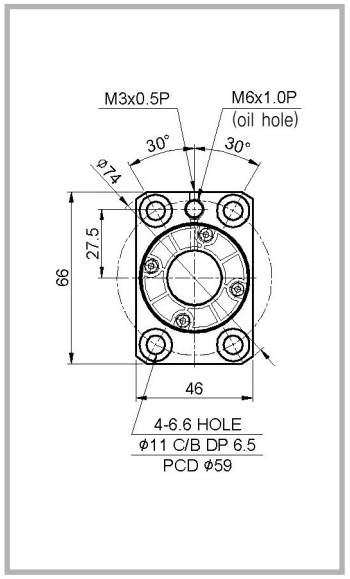
Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.095	1.905	68
–	0.052	0.170	2.305	
–	0.052	0.270	2.905	
–	0.052	–	3.405	
–	0.052	–	3.905	
–	0.052	–	4.405	

ϕ 20×10



Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR2010RC7M-500	390	500
HOR2010RC7M-1000	890	1000
HOR2010RC7M-1500	1390	1500
HOR2010RC7M-2000	1890	2000
HOR2010RC7M-2500	2390	2500
HOR2010RC7M-3000	2890	3000

Un-worked shaft ends Standard Stock(C7- Rolled Ball screw)

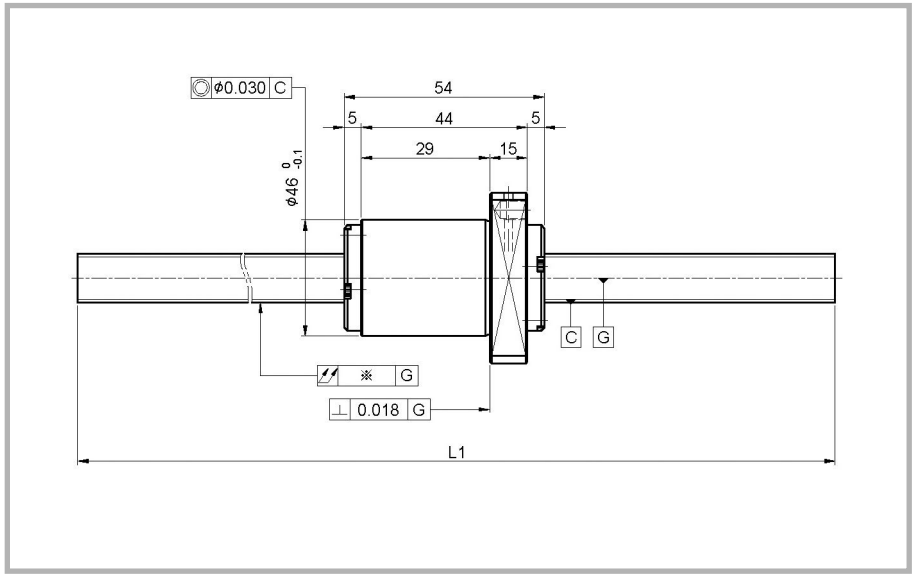


unit : mm

Ball screw Dimensions	
Nut type	HOR 2010 R
lead	10
BCD	21.0
Root dia	17.2
Ball dia	3.969
Number of Circuits	Turn 2.75×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	M
Axial Clearance	0.05include
Basic Dynamic load ratinga : Ca(N)	11100
Basic Static load ratinga : Coa(N)	22100
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	208

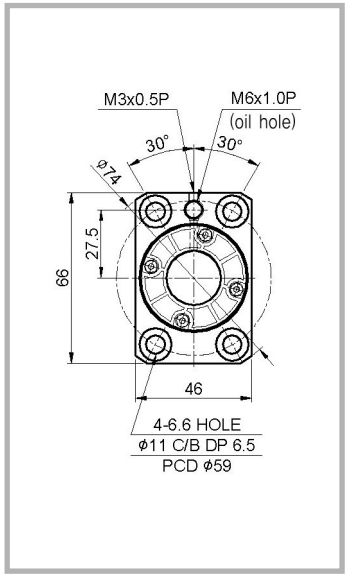
Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.095	2.341	54
–	0.052	0.170	3.095	
–	0.052	0.270	4.327	
–	0.052	–	5.559	
–	0.052	–	6.827	
–	0.052	–	8.159	

ϕ 20×20



Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR2020TC7M-500	360	500
HOR2020TC7M-1000	860	1000
HOR2020TC7M-1500	1360	1500
HOR2020TC7M-2000	1860	2000
HOR2020TC7M-2500	2360	2500
HOR2020TC7M-3000	2860	3000

Un-worked shaft ends Standard Stock(C7- Rolled Ball screw)

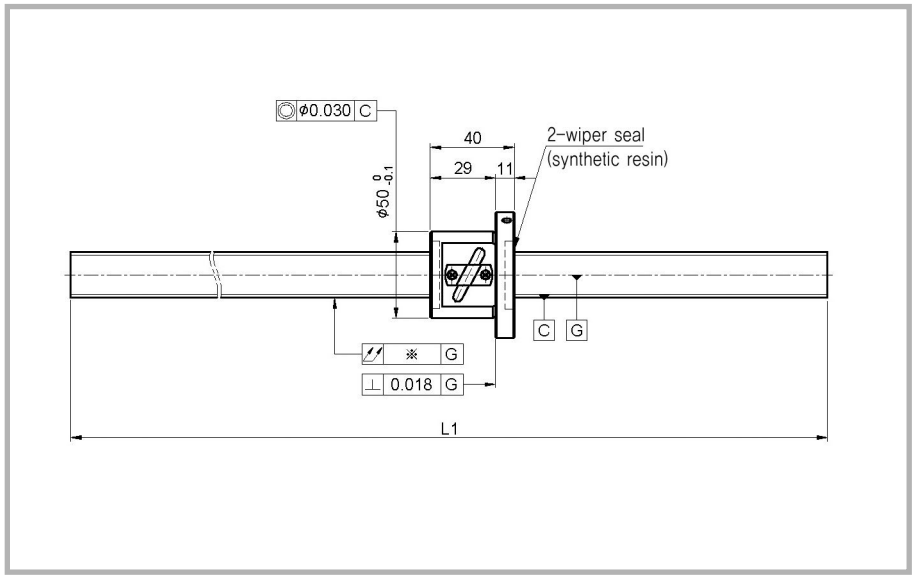


unit : mm

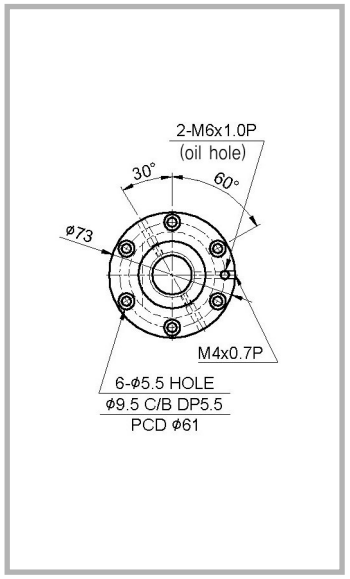
Ball screw Dimensions	
Nut type	HOR 2020 T
lead	20
BCD	21.0
Root dia	16.8
Ball dia	3.969
Number of Circuits	Turn 1.75×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	M
Axial Clearance	0.05include
Basic Dynamic load ratinga : Ca(N)	6710
Basic Static load ratinga : Coa(N)	12640
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	112

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.095	2.028	42
–	0.052	0.170	3.260	
–	0.052	0.270	4.492	
–	0.052	–	5.725	
–	0.052	–	6.956	
–	0.052	–	8.188	

ϕ25×05



Un-worked shaft ends Standard Stock(C7- Rolled Ball screw)



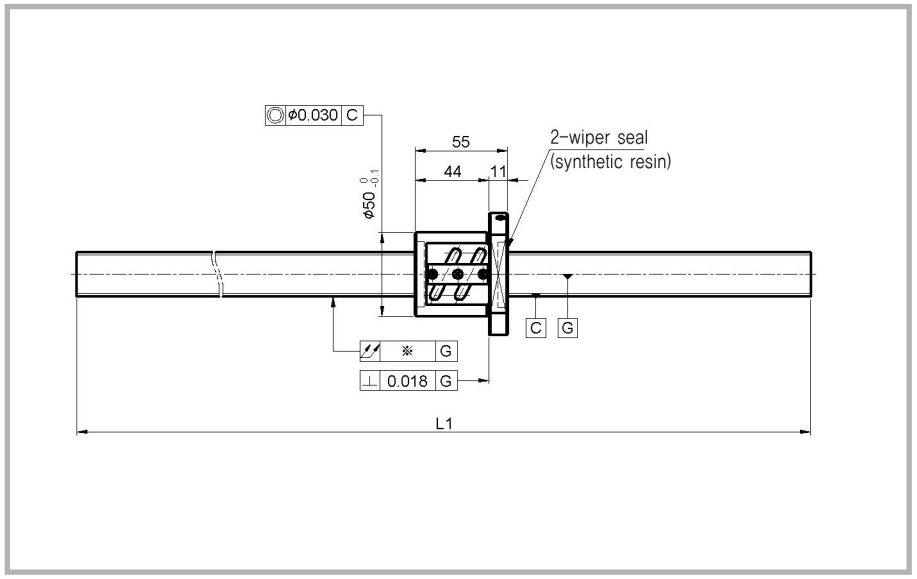
unit : mm

Ball screw Dimensions	
Nut type	HOR 2505 E
lead	5
BCD	25.5
Root dia	22.2
Ball dia	3.175
Number of Circuits	Turn 2.75×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	M
Axial Clearance	0.05include
Basic Dynamic load ratinga : Ca(N)	7970
Basic Static load ratinga : Coa(N)	19340
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	420

Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR2505EC7M-500	360	500
HOR2505EC7M-1000	860	1000
HOR2505EC7M-1500	1360	1500
HOR2505EC7M-2000	1860	2000
HOR2505EC7M-2500	2360	2500
HOR2505EC7M-3000	2860	3000

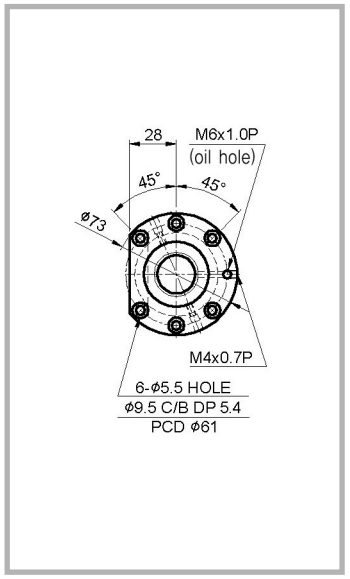
Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.080	3.064	84
–	0.052	0.130	4.400	
–	0.052	0.190	6.460	
–	0.052	0.250	8.460	
–	0.052	0.320	10.460	
–	0.052	–	12.460	

ϕ25×05



Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR2505FC7M-500	360	500
HOR2505FC7M-1000	860	1000
HOR2505FC7M-1500	1360	1500
HOR2505FC7M-2000	1860	2000
HOR2505FC7M-2500	2360	2500
HOR2505FC7M-3000	2860	3000

Un-worked shaft ends Standard Stock(C7- Rolled Ball screw)

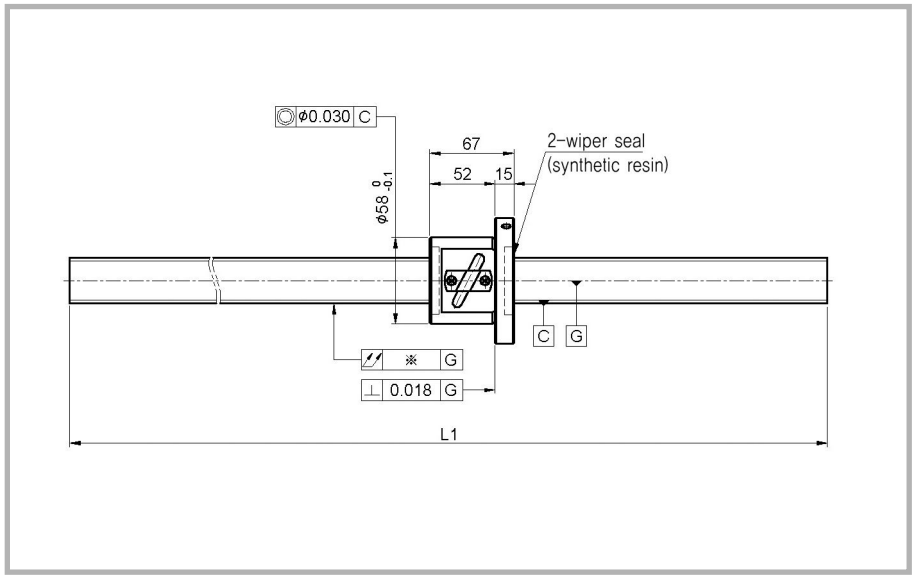


unit : mm

Ball screw Dimensions	
Nut type	HOR 2505 F
lead	5
BCD	25.5
Root dia	22.2
Ball dia	3.175
Number of Circuits	Turn 2.5×2
Screw direction	right
Accuracy Grade	C7
Clearance symbol	M
Axial Clearance	0.05include
Basic Dynamic load ratinga : Ca(N)	14660
Basic Static load ratinga : Coa(N)	38670
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	420

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.080	3.264	168
–	0.052	0.130	4.600	
–	0.052	0.190	6.660	
–	0.052	0.250	8.660	
–	0.052	0.320	10.660	
–	0.052	–	12.660	

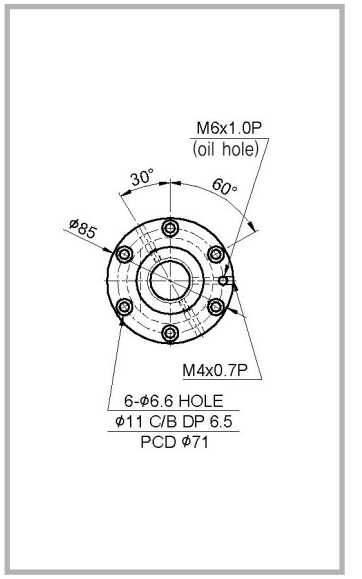
ϕ25×10



Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR2510EC7M-500	340	500
HOR2510EC7M-1000	840	1000
HOR2510EC7M-1500	1340	1500
HOR2510EC7M-2000	1840	2000
HOR2510EC7M-2500	2340	2500
HOR2510EC7M-3000	2840	3000

Un-worked shaft ends Standard Stock(C7- Rolled Ball screw)

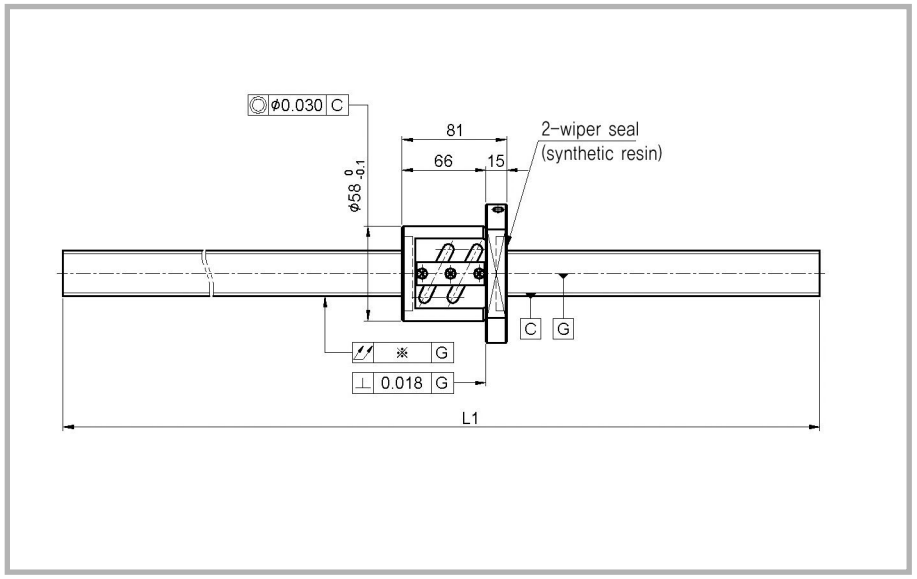
unit : mm



Ball screw Dimensions	
Nut type	HOR 2510 E
lead	10
BCD	25.5
Root dia	20.5
Ball dia	4.7625
Number of Circuits	Turn 2.5×1
Screw direction	right
Accuracy Grade	C7
Clearance symbol	M
Axial Clearance	0.05include
Basic Dynamic load ratinga : Ca(N)	13120
Basic Static load ratinga : Coa(N)	27000
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	266

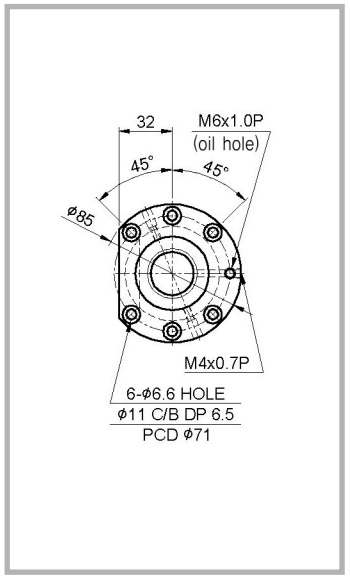
Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.080	3.580	54
–	0.052	0.130	4.720	
–	0.052	0.190	6.620	
–	0.052	0.250	8.520	
–	0.052	0.320	10.420	
–	0.052	–	12.320	

ϕ25×10



Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR2510BC7M-500	340	500
HOR2510BC7M-1000	840	1000
HOR2510BC7M-1500	1340	1500
HOR2510BC7M-2000	1840	2000
HOR2510BC7M-2500	2340	2500
HOR2510BC7M-3000	2840	3000

Un-worked shaft ends Standard Stock(C7- Rolled Ball screw)

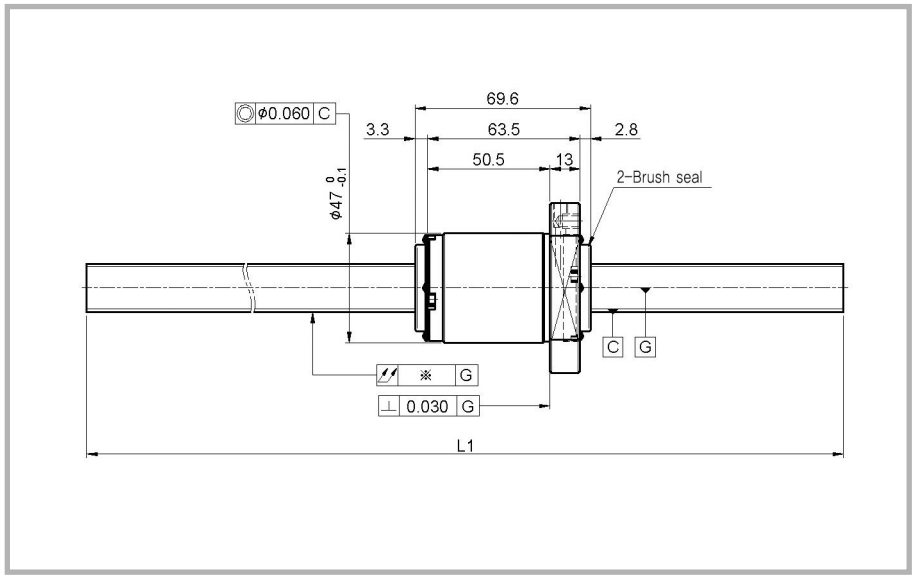


unit : mm

Ball screw Dimensions	
Nut type	HOR 2510 B
lead	10
BCD	25.5
Root dia	20.5
Ball dia	4.7625
Number of Circuits	Turn 1.5×2
Screw direction	right
Accuracy Grade	C7
Clearance symbol	M
Axial Clearance	0.05include
Basic Dynamic load ratinga : Ca(N)	15350
Basic Static load ratinga : Coa(N)	32400
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	266

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	0.052	0.080	3.880	72
–	0.052	0.130	5.020	
–	0.052	0.190	6.920	
–	0.052	0.250	8.820	
–	0.052	0.320	10.720	
–	0.052	–	12.620	

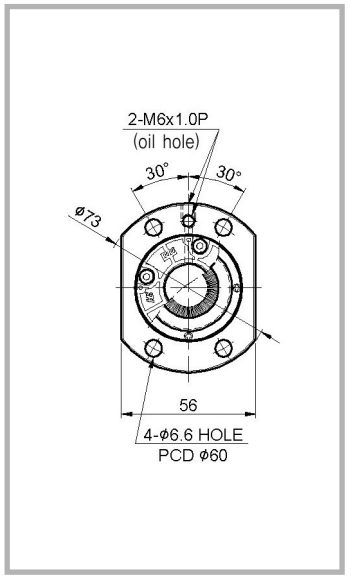
ϕ25×25



Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR2525T2C7M-500	325	500
HOR2525T2C7M-1000	825	1000
HOR2525T2C7M-1500	1325	1500
HOR2525T2C7M-2000	1825	2000
HOR2525T2C7M-2500	2325	2500

Un-worked shaft ends Standard Stock(C7- Rolled Ball screw)

unit : mm



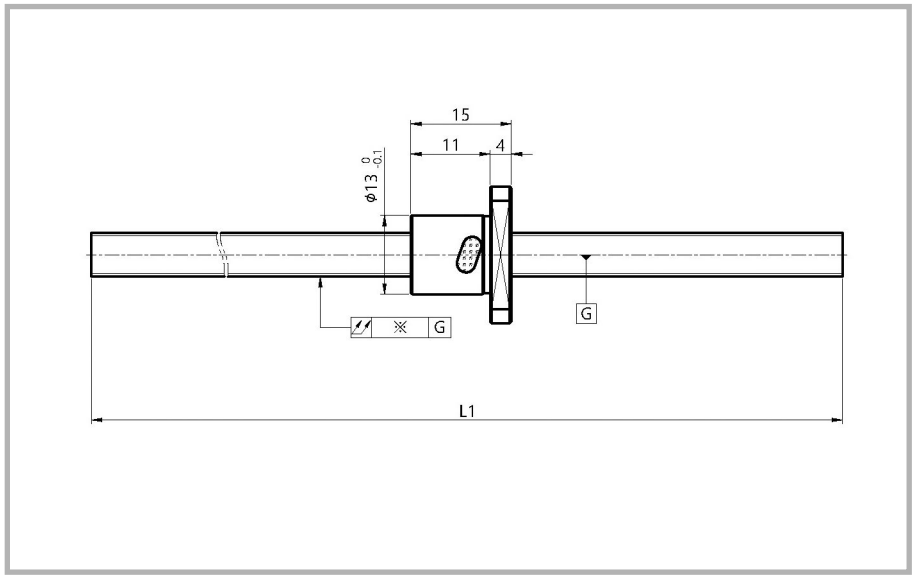
Ball screw Dimensions	
Nut type	HOR 2525 T2
lead	25
BCD	26
Root dia	22
Ball dia	3.969
Number of Circuits	Turn 1.75×2
Screw direction	right
Accuracy Grade	C7
Clearance symbol	M
Axial Clearance	0.05include
Basic Dynamic load ratinga : Ca(N)	14100
Basic Static load ratinga : Coa(N)	37800
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	278

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	–	–	2.800	92
–	–	–	4.550	
–	–	–	6.350	
–	–	–	8.450	
–	–	–	9.850	

Tube ,End cap, Deflector type C10 Rolled Ball screw / un–worked shaft ends

HOR, HORT

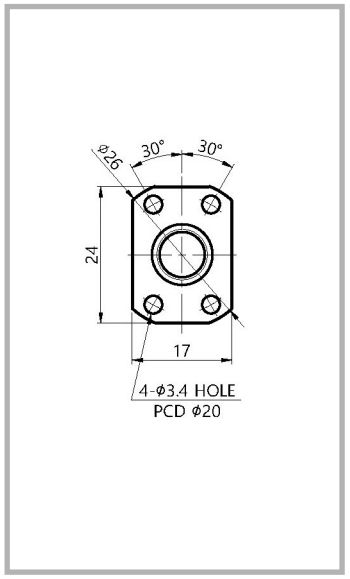
ϕ08×01



Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR0801D3C10M2-150	110	150
HOR0801D3C10M2-250	210	250
HOR0801D3C10M2-350	310	350
HOR0801D3C10M2-450	410	450

un-worked shaft ends Standard Stock (C10 - Rolled Ball screw)

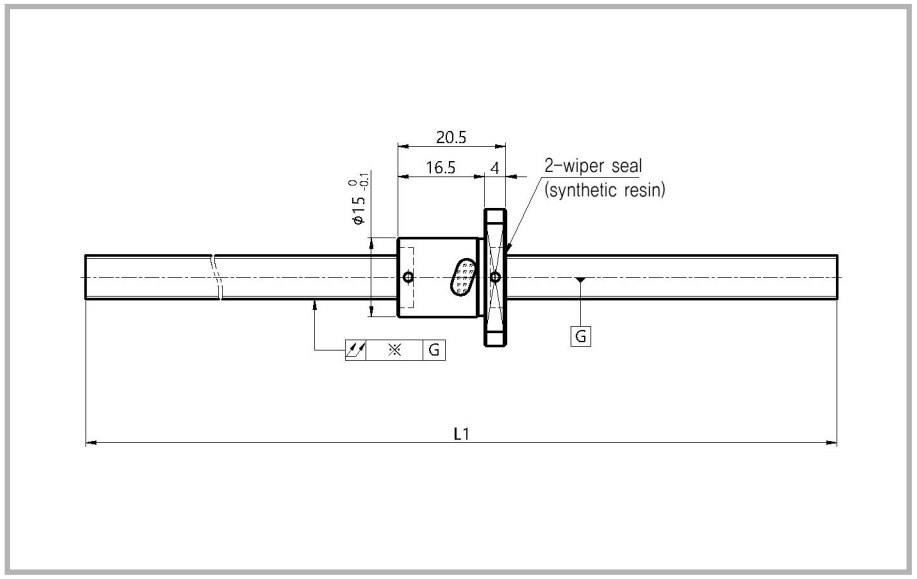
unit : mm



Ball screw Dimensions	
Nut type	HOR 0801 D3
lead	1
BCD	8.2
Root dia	7.4
Ball dia	0.800
Number of Circuits	Turn 1×3
Screw direction	right
Accuracy Grade	C10
Clearance symbol	M2
Axial Clearance	0.1include
Basic Dynamic load ratinga : Ca(N)	730
Basic Static load ratinga : Coa(N)	1480
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	60

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	–	–	0.084	96
–	–	–	0.124	
–	–	–	0.164	
–	–	–	0.204	

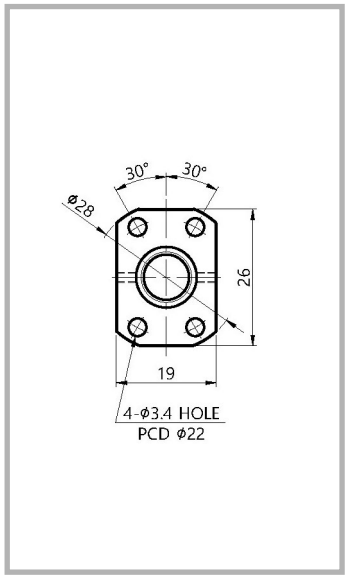
ϕ 08×02



Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR0802D3C10M2-150	100	150
HOR0802D3C10M2-250	200	250
HOR0802D3C10M2-350	300	350
HOR0802D3C10M2-450	400	450

un-worked shaft ends Standard Stock (C10 - Rolled Ball screw)

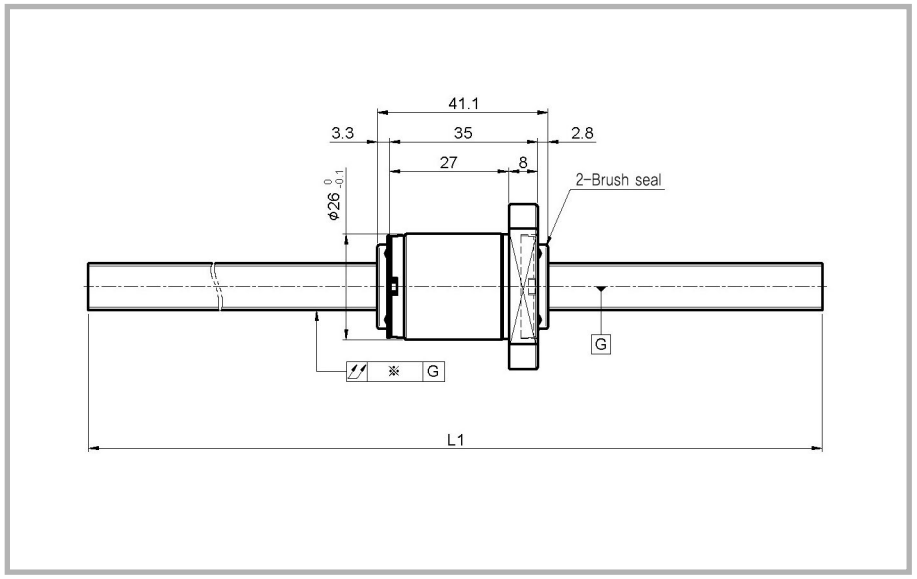
단위 : mm



Ball screw Dimensions	
Nut type	HOR 0802 D3
lead	2
BCD	8.3
Root dia	7.1
Ball dia	1.2000
Number of Circuits	Turn 1×3
Screw direction	right
Accuracy Grade	C10
Clearance symbol	M2
Axial Clearance	0.1include
Basic Dynamic load ratinga : Ca(N)	1420
Basic Static load ratinga : Coa(N)	2290
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	60

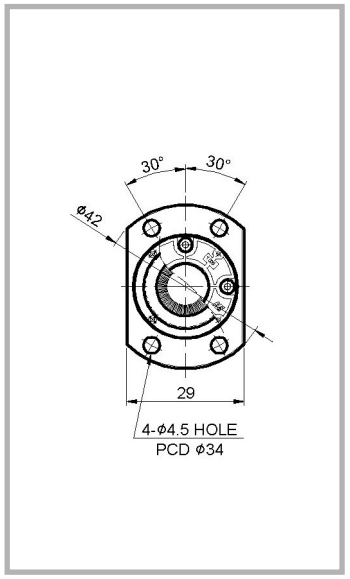
Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	–	–	0.094	66
–	–	–	0.134	
–	–	–	0.174	
–	–	–	0.214	

ϕ10×06



Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR1006RC10M2-300	230	300
HOR1006RC10M2-500	430	500
HOR1006RC10M2-700	630	700
HOR1006RC10M2-1000	930	1000

un-worked shaft ends Standard Stock (C10 - Rolled Ball screw)

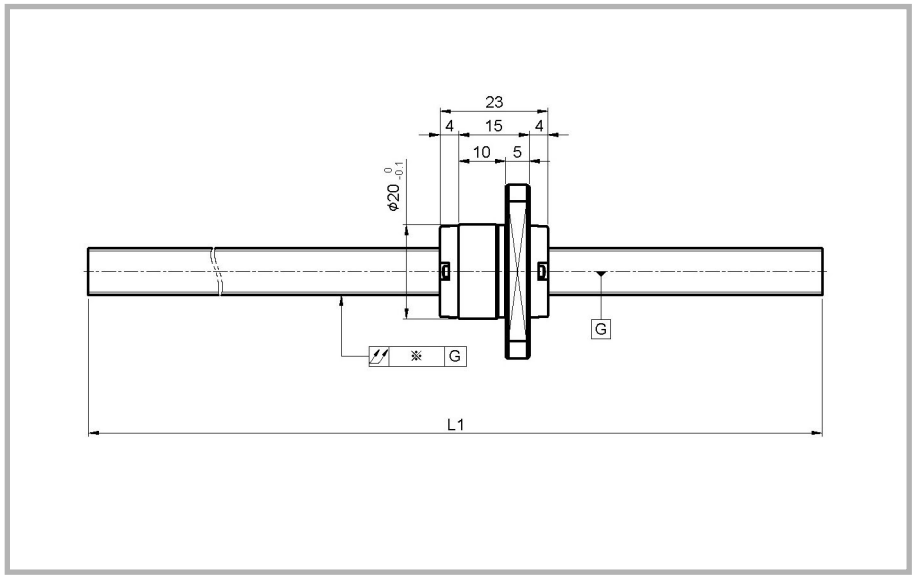


unit : mm

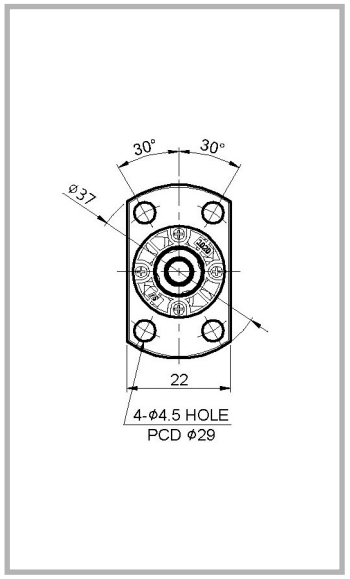
Ball screw Dimensions	
Nut type	HOR1006 TR
lead	6
BCD	10.5
Root dia	7.8
Ball dia	2.3812
Number of Circuits	Turn 2.75×1
Screw direction	right
Accuracy Grade	C10
Clearance symbol	M2
Axial Clearance	0.1include
Basic Dynamic load ratinga : Ca(N)	2640
Basic Static load ratinga : Coa(N)	4750
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	86

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
-	-	-	0.360	49
-	-	-	0.430	
-	-	-	0.500	
-	-	-	0.670	

ϕ10×20



un-worked shaft ends Standard Stock (C10 - Rolled Ball screw)



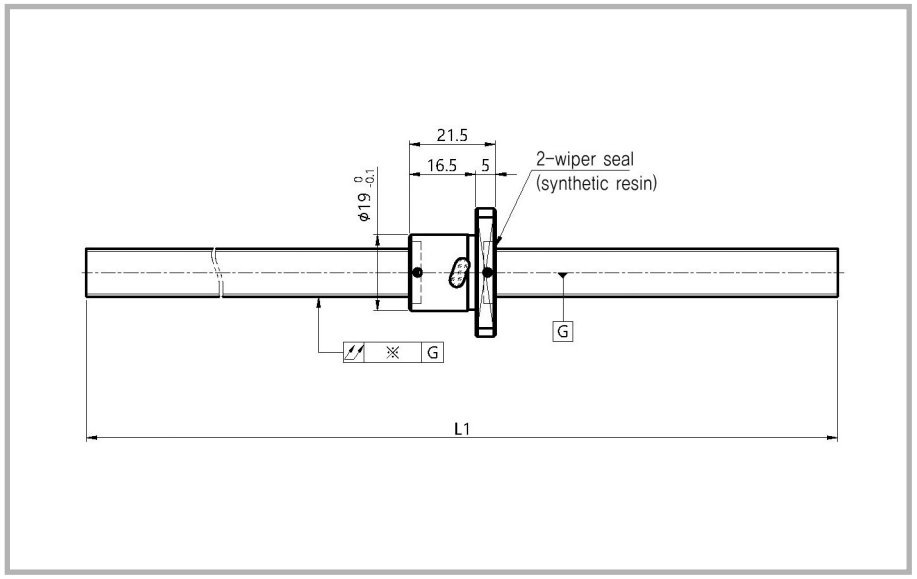
unit : mm

Ball screw Dimensions	
Nut type	HOR 1020 T4
lead	20
BCD	10.4
Root dia	8.8
Ball dia	1.5875
Number of Circuits	Turn 0.75×4
Screw direction	right
Accuracy Grade	C10
Clearance symbol	M2
Axial Clearance	0.1include
Basic Dynamic load ratinga : Ca(N)	2210
Basic Static load ratinga : Coa(N)	4150
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	94

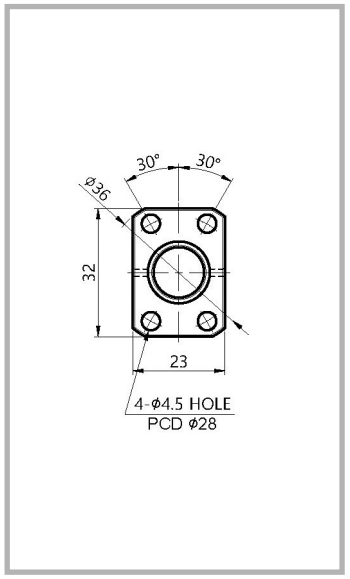
Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR1020T4C10M2-300	230	300
HOR1020T4C10M2-500	430	500
HOR1020T4C10M2-700	630	700
HOR1020T4C10M2-1000	930	1000

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
-	-	-	0.155	136
-	-	-	0.190	
-	-	-	0.225	
-	-	-	0.260	

ϕ12×02



un-worked shaft ends Standard Stock (C10 - Rolled Ball screw)



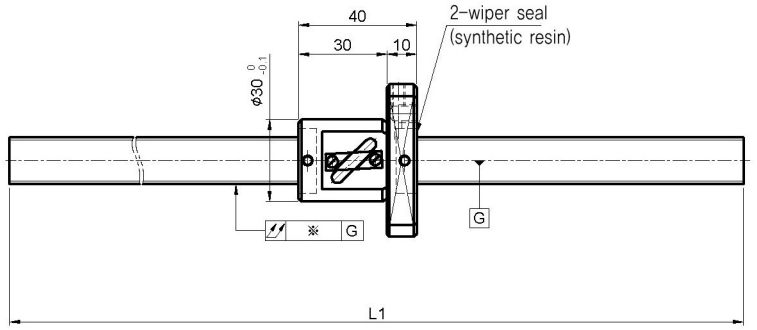
unit : mm

Ball screw Dimensions	
Nut type	HOR 1202 D3
lead	2
BCD	12.3
Root dia	11.1
Ball dia	1.2000
Number of Circuits	Turn 1×3
Screw direction	right
Accuracy Grade	C10
Clearance symbol	M2
Axial Clearance	0.1include
Basic Dynamic load ratinga : Ca(N)	1670
Basic Static load ratinga : Coa(N)	3640
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	110

Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR1202D3C10M2-200	150	200
HOR1202D3C10M2-400	350	400
HOR1202D3C10M2-600	550	600
HOR1202D3C10M2-800	750	800
HOR1202D3C10M2-1000	950	1000

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
-	-	-	0.190	96
-	-	-	0.225	
-	-	-	0.26	
-	-	-	0.290	
-	-	-	0.33	

ϕ12×05

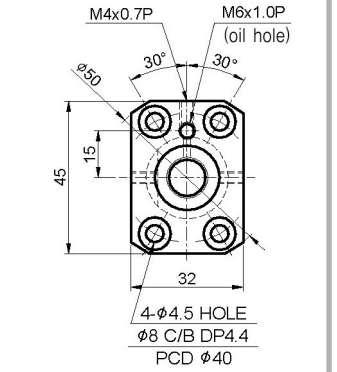


Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR1205EC10M2-300	220	300
HOR1205EC10M2-600	520	600
HOR1205EC10M2-900	820	900
HOR1205EC10M2-1200	1120	1200
HOR1205EC10M2-1600	1520	1600
HOR1205EC10M2-2000	1920	2000

un-worked shaft ends Standard Stock (C10 - Rolled Ball screw)

HANSAN ISSOKU

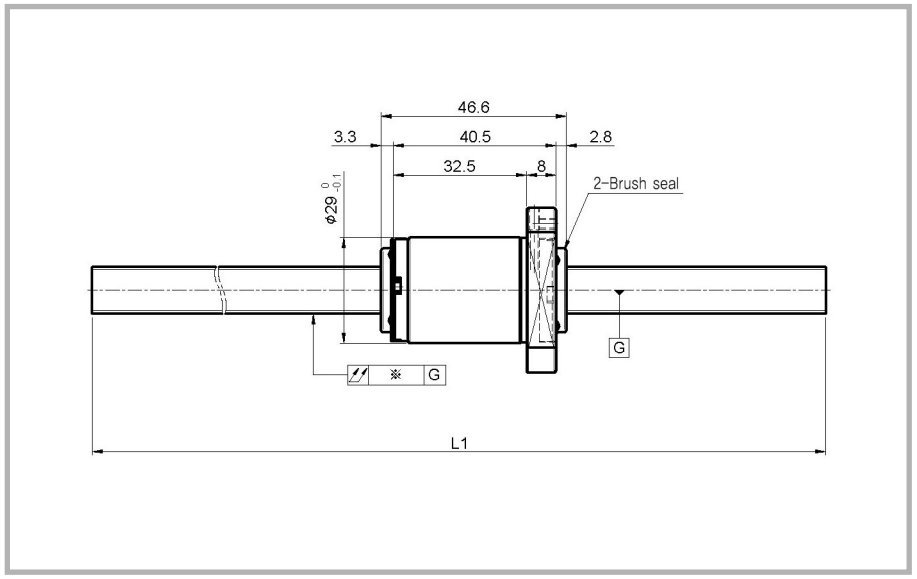
unit : mm



Ball screw Dimensions	
Nut type	HOR 1205 E
lead	5
BCD	12.3
Root dia	9.8
Ball dia	2.3812
Number of Circuits	Turn 2.5×1
Screw direction	right
Accuracy Grade	C10
Clearance symbol	M2
Axial Clearance	0.1include
Basic Dynamic load ratinga : Ca(N)	3770
Basic Static load ratinga : Coa(N)	6320
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	103

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	–	–	0.500	56
–	–	–	0.660	
–	–	–	0.820	
–	–	–	0.980	
–	–	–	1.120	
–	–	–	1.280	

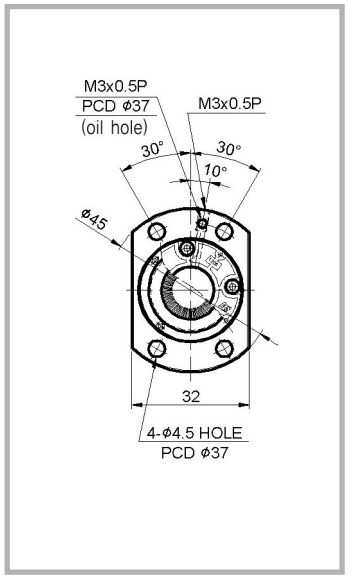
ϕ12×08



Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR1208RC10M2-300	195	300
HOR1208RC10M2-600	495	600
HOR1208RC10M2-900	795	900
HOR1208RC10M2-1200	1095	1200
HOR1208RC10M2-1600	1495	1600
HOR1208RC10M2-2000	1895	2000

un-worked shaft ends Standard Stock (C10 - Rolled Ball screw)

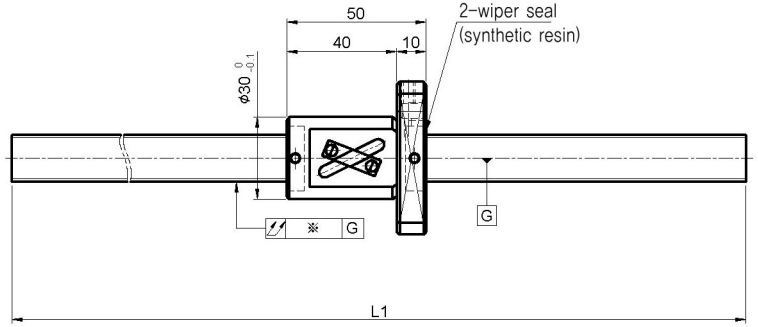
unit : mm



Ball screw Dimensions	
Nut type	HOR 1208 R
lead	8
BCD	12.65
Root dia	9.7
Ball dia	2.778
Number of Circuits	Turn 2.75×1
Screw direction	right
Accuracy Grade	C10
Clearance symbol	M2
Axial Clearance	0.1include
Basic Dynamic load ratinga : Ca(N)	3770
Basic Static load ratinga : Coa(N)	6740
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	110

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	–	–	0.420	49
–	–	–	0.640	
–	–	–	0.860	
–	–	–	1.080	
–	–	–	1.350	
–	–	–	1.600	

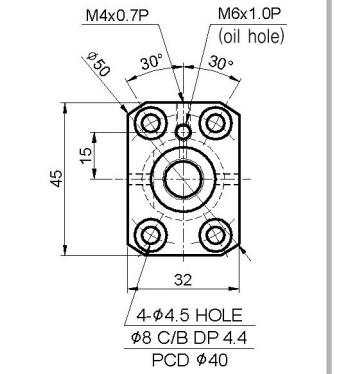
ϕ12×10



Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR1210EC10M2-300	200	300
HOR1210EC10M2-600	500	600
HOR1210EC10M2-900	800	900
HOR1210EC10M2-1200	1100	1200
HOR1210EC10M2-1600	1500	1600
HOR1210EC10M2-2000	1900	2000

un-worked shaft ends Standard Stock (C10 - Rolled Ball screw)

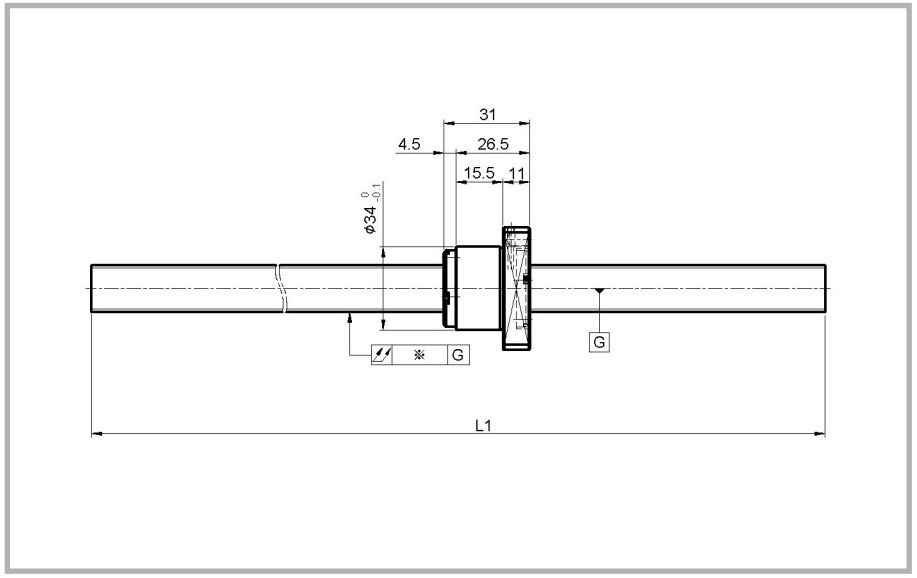
unit : mm



Ball screw Dimensions	
Nut type	HOR 1210 E
lead	10
BCD	12.5
Root dia	10
Ball dia	2.3812
Number of Circuits	Turn 2.5×1
Screw direction	right
Accuracy Grade	C10
Clearance symbol	M2
Axial Clearance	0.1include
Basic Dynamic load ratinga : Ca(N)	3820
Basic Static load ratinga : Coa(N)	6480
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	105

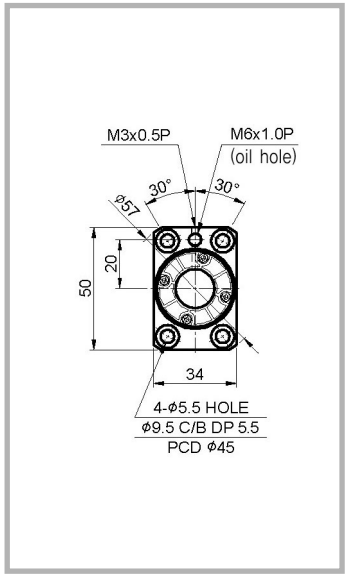
Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	–	–	0.550	62
–	–	–	0.710	
–	–	–	0.880	
–	–	–	1.050	
–	–	–	1.220	
–	–	–	1.390	

ϕ15×05



un-worked shaft ends Standard Stock (C10 - Rolled Ball screw)

unit : mm

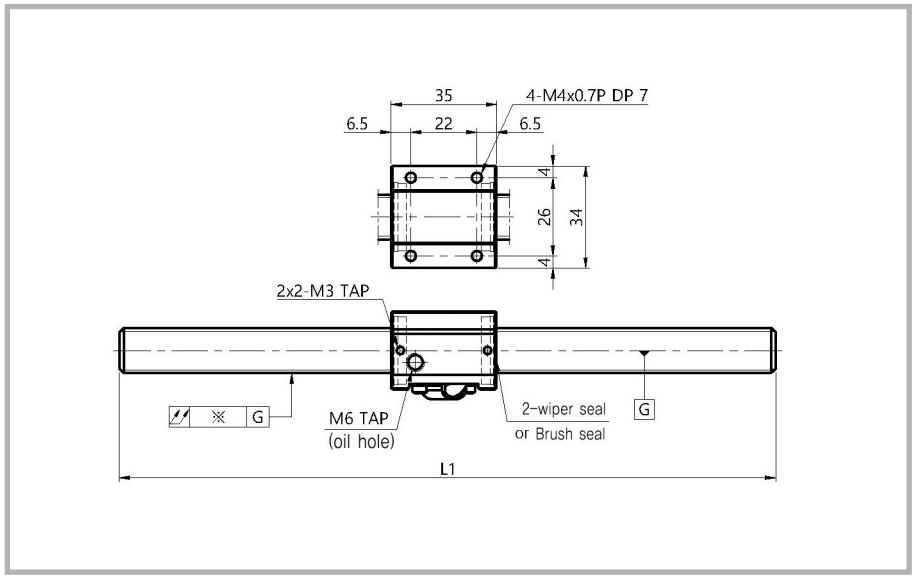


Ball screw Dimensions	
Nut type	HOR 1505 R
lead	5
BCD	15.5
Root dia	12.2
Ball dia	3.175
Number of Circuits	Turn 2.75×1
Screw direction	right
Accuracy Grade	C10
Clearance symbol	M2
Axial Clearance	0.1include
Basic Dynamic load ratinga : Ca(N)	6610
Basic Static load ratinga : Coa(N)	12545
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	139

Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR1505RC10M2-300	220	300
HOR1505RC10M2-600	520	600
HOR1505RC10M2-900	820	900
HOR1505RC10M2-1200	1120	1200
HOR1505RC10M2-1600	1520	1600
HOR1505RC10M2-2000	1920	2000

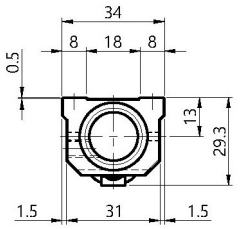
Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
-	-	-	0.915	50
-	-	-	1.115	
-	-	-	1.315	
-	-	-	1.515	
-	-	-	1.750	
-	-	-	1.950	

ϕ15×05



Model No	Stroke(MAX)	Screw thread overall length
		L1
HORT1505EC10M2-300	210	300
HORT1505EC10M2-600	510	600
HORT1505EC10M2-900	810	900
HORT1505EC10M2-1200	1110	1200
HORT1505EC10M2-1600	1510	1600
HORT1505EC10M2-2000	1910	2000

un-worked shaft ends Standard Stock (C10 - Rolled Ball screw)

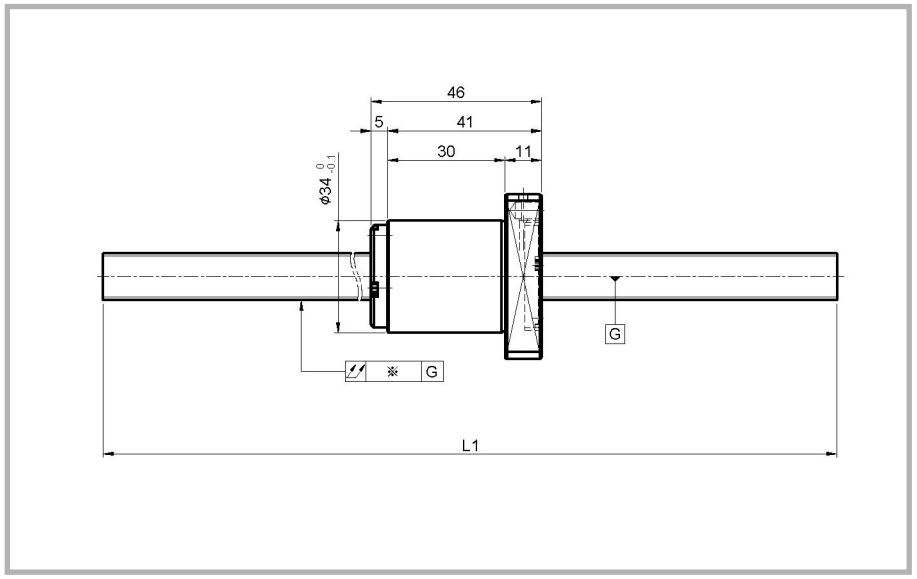


unit : mm

Ball screw Dimensions	
Nut type	HORT 1505 E
lead	5
BCD	15.5
Root dia	12.2
Ball dia	3.175
Number of Circuits	Turn 2.5×1
Screw direction	right
Accuracy Grade	C10
Clearance symbol	M2
Axial Clearance	0.1include
Basic Dynamic load ratinga : Ca(N)	6610
Basic Static load ratinga : Coa(N)	12545
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	139

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
-	-	-	1.115	50
-	-	-	1.315	
-	-	-	1.515	
-	-	-	1.715	
-	-	-	1.915	
-	-	-	2.115	

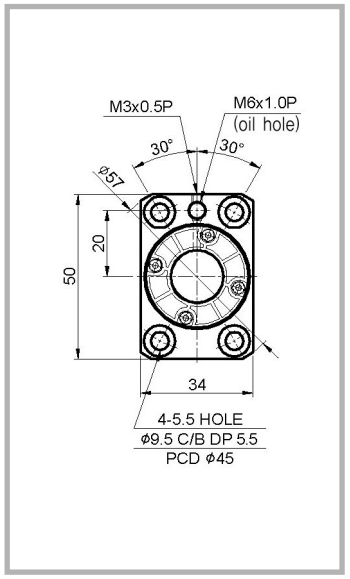
ϕ15×10



Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR1510RC10M2-300	200	300
HOR1510RC10M2-600	500	600
HOR1510RC10M2-900	800	900
HOR1510RC10M2-1200	1100	1200
HOR1510RC10M2-1600	1500	1600
HOR1510RC10M2-2000	1900	2000

un-worked shaft ends Standard Stock (C10 - Rolled Ball screw)

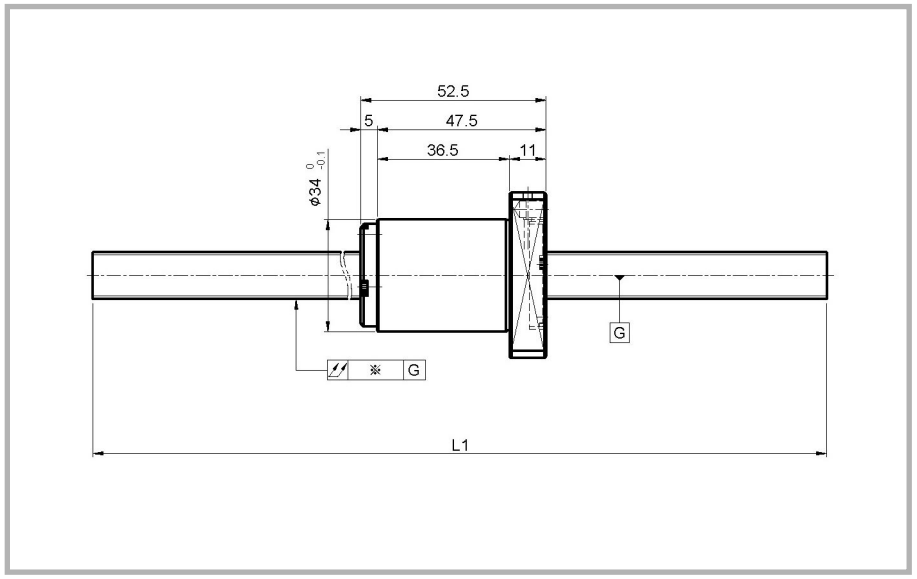
unit : mm



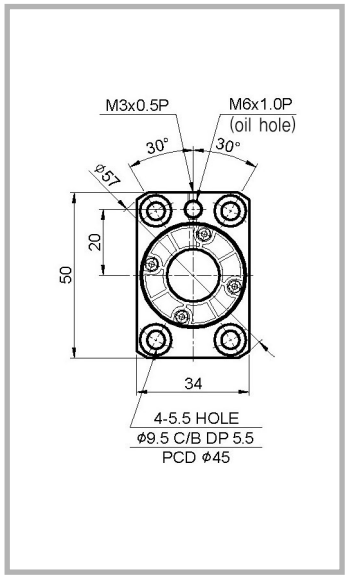
Ball screw Dimensions	
Nut type	HOR 1510 R
lead	10
BCD	15.5
Root dia	12.2
Ball dia	3.175
Number of Circuits	Turn 2.75×1
Screw direction	right
Accuracy Grade	C10
Clearance symbol	M2
Axial Clearance	0.1include
Basic Dynamic load ratinga : Ca(N)	6610
Basic Static load ratinga : Coa(N)	12545
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	139

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	–	–	0.715	54
–	–	–	1.017	
–	–	–	1.294	
–	–	–	1.571	
–	–	–	1.848	
–	–	–	2.125	

ϕ15×20



un-worked shaft ends Standard Stock (C10 - Rolled Ball screw)



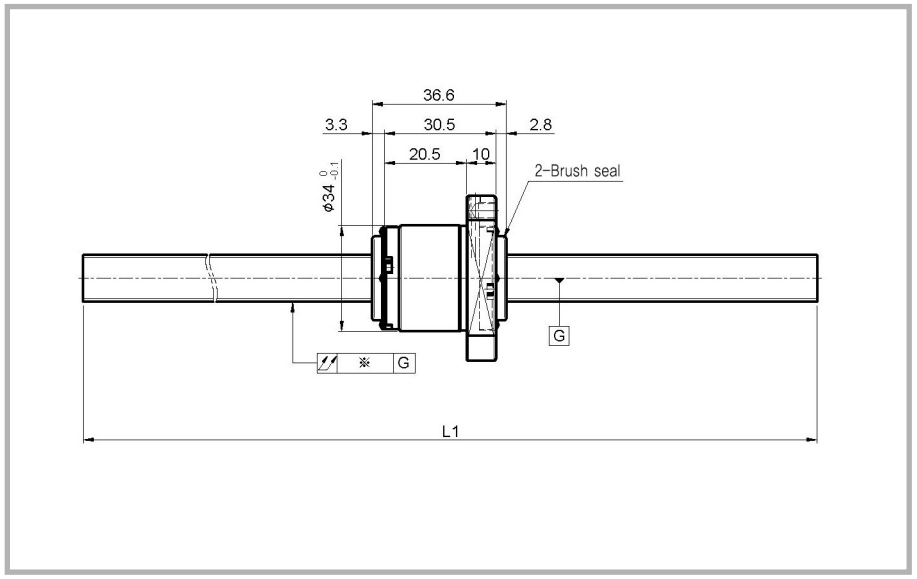
unit : mm

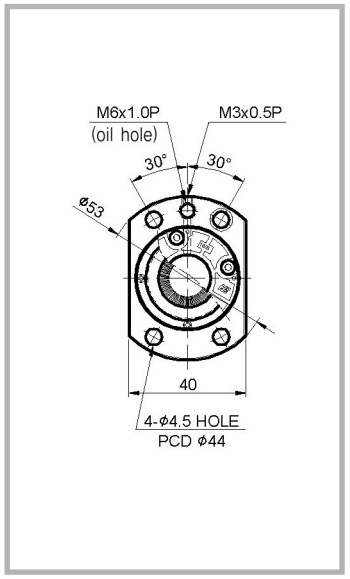
Ball screw Dimensions	
Nut type	HOR 1520 T
lead	20
BCD	15.75
Root dia	12.4
Ball dia	3.175
Number of Circuits	Turn 1.75×1
Screw direction	right
Accuracy Grade	C10
Clearance symbol	M2
Axial Clearance	0.1include
Basic Dynamic load ratinga : Ca(N)	4320
Basic Static load ratinga : Coa(N)	7840
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	85

Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR1520TC10M2-300	190	300
HOR1520TC10M2-600	490	600
HOR1520TC10M2-900	790	900
HOR1520TC10M2-1200	1090	1200
HOR1520TC10M2-1600	1490	1600
HOR1520TC10M2-2000	1890	2000

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	–	–	1.028	42
–	–	–	1.228	
–	–	–	1.428	
–	–	–	1.628	
–	–	–	1.995	
–	–	–	2.242	

ϕ16×05





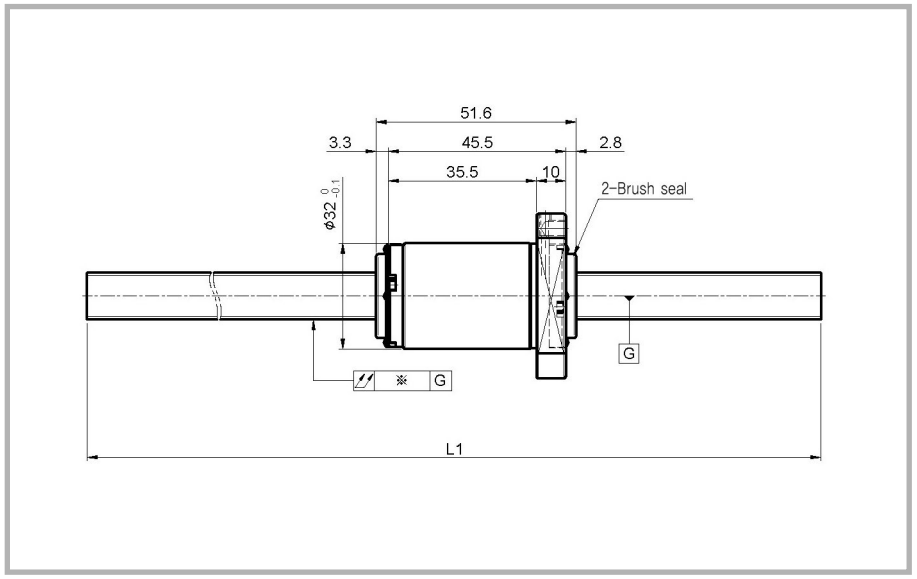
unit : mm

Ball screw Dimensions	
Nut type	HOR 1605 R
lead	5
BCD	16.5
Root dia	13.2
Ball dia	3.175
Number of Circuits	Turn 2.75×1
Screw direction	right
Accuracy Grade	C10
Clearance symbol	M2
Axial Clearance	0.1include
Basic Dynamic load ratinga : Ca(N)	5340
Basic Static load ratinga : Coa(N)	13490
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	128

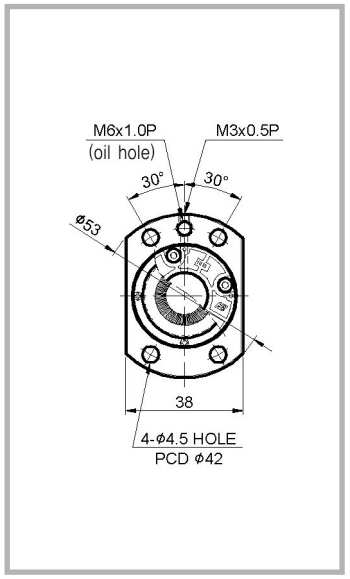
Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR1605RC10M2-300	205	300
HOR1605RC10M2-600	505	600
HOR1605RC10M2-900	805	900
HOR1605RC10M2-1200	1105	1200
HOR1605RC10M2-1600	1505	1600
HOR1605RC10M2-2000	1905	2000

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
-	-	-	0.690	50
-	-	-	1.100	
-	-	-	1.410	
-	-	-	1.900	
-	-	-	2.400	
-	-	-	2.900	

ϕ16×16



un-worked shaft ends Standard Stock (C10 - Rolled Ball screw)



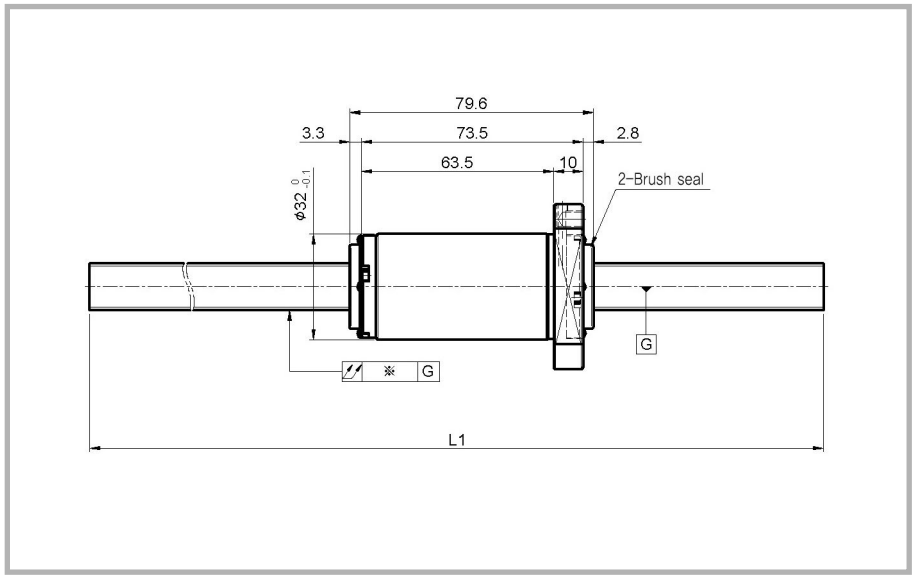
unit : mm

Ball screw Dimensions	
Nut type	HOR 1616 T2
lead	16
BCD	16.65
Root dia	13.7
Ball dia	2.778
Number of Circuits	Turn 1.75×2
Screw direction	right
Accuracy Grade	C10
Clearance symbol	M2
Axial Clearance	0.1include
Basic Dynamic load ratinga : Ca(N)	5920
Basic Static load ratinga : Coa(N)	13150
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	165

Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR1616T2C10M2-300	190	300
HOR1616T2C10M2-600	490	600
HOR1616T2C10M2-900	790	900
HOR1616T2C10M2-1200	1090	1200
HOR1616T2C10M2-1600	1490	1600
HOR1616T2C10M2-2000	1890	2000

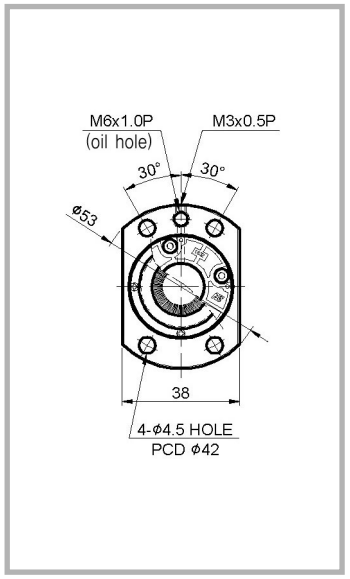
Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	–	–	0.690	84
–	–	–	1.095	
–	–	–	1.405	
–	–	–	1.895	
–	–	–	2.395	
–	–	–	2.895	

ϕ16×32



Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR1632T2C10M2-300	218	300
HOR1632T2C10M2-600	518	600
HOR1632T2C10M2-900	818	900
HOR1632T2C10M2-1200	1118	1200
HOR1632T2C10M2-1600	1518	1600
HOR1632T2C10M2-2000	1918	2000

un-worked shaft ends Standard Stock (C10 - Rolled Ball screw)

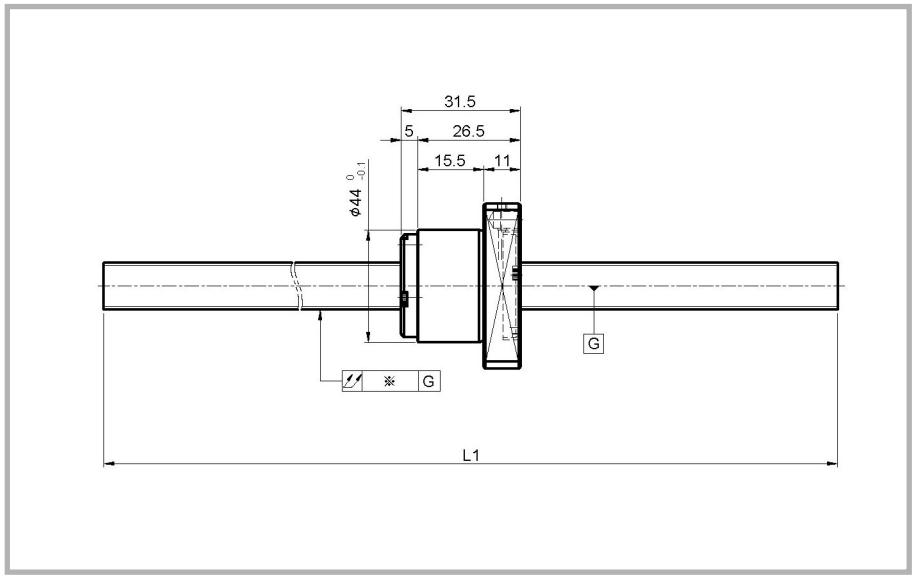


unit : mm

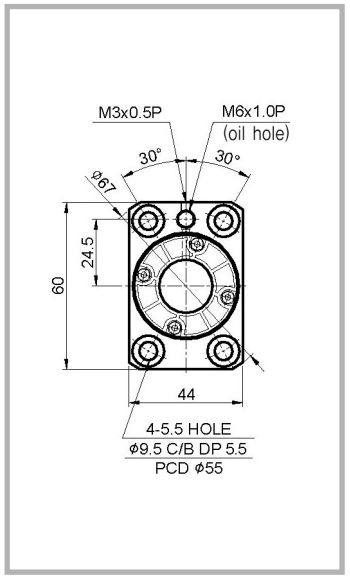
Ball screw Dimensions	
Nut type	HOR 1632 T2
lead	32
BCD	16.65
Root dia	13.7
Ball dia	2.778
Number of Circuits	Turn 1.75×2
Screw direction	right
Accuracy Grade	C10
Clearance symbol	M2
Axial Clearance	0.1include
Basic Dynamic load ratinga : Ca(N)	5520
Basic Static load ratinga : Coa(N)	10550
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	165

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
-	-	-	0.780	104
-	-	-	1.200	
-	-	-	1.620	
-	-	-	2.040	
-	-	-	2.550	
-	-	-	2.960	

ϕ 20×05



un-worked shaft ends Standard Stock (C10 - Rolled Ball screw)



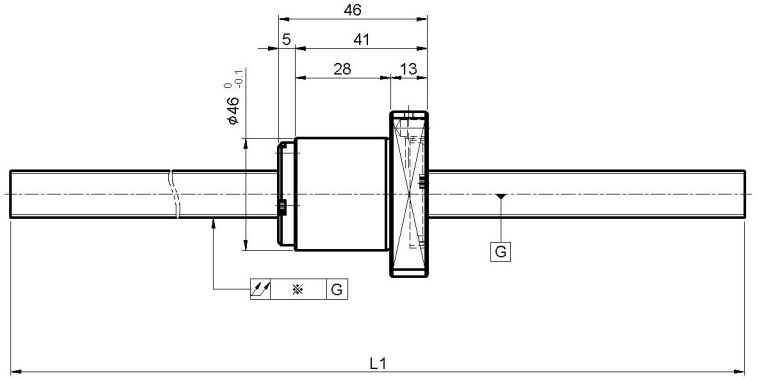
unit : mm

Ball screw Dimensions	
Nut type	HOR 2005 R
lead	5
BCD	20.5
Root dia	17.2
Ball dia	3.175
Number of Circuits	Turn 2.75×1
Screw direction	right
Accuracy Grade	C10
Clearance symbol	M2
Axial Clearance	0.1include
Basic Dynamic load ratinga : Ca(N)	8150
Basic Static load ratinga : Coa(N)	17150
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	185

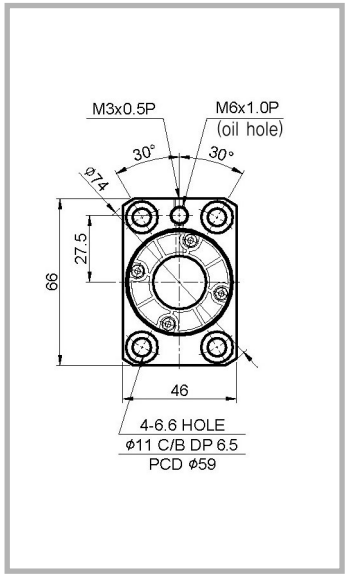
Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR2005RC10M2-500	420	500
HOR2005RC10M2-1000	920	1000
HOR2005RC10M2-1500	1420	1500
HOR2005RC10M2-2000	1920	2000
HOR2005RC10M2-2500	2420	2500
HOR2005RC10M2-3000	2920	3000

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	–	–	1.905	68
–	–	–	2.305	
–	–	–	2.905	
–	–	–	3.405	
–	–	–	3.905	
–	–	–	4.405	

ϕ 20×10



un-worked shaft ends Standard Stock (C10 - Rolled Ball screw)



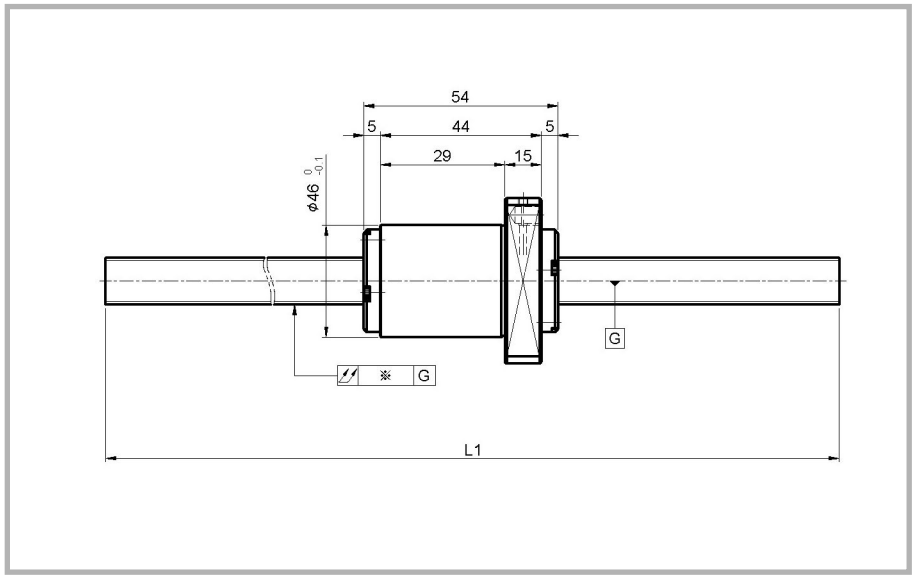
unit : mm

Ball screw Dimensions	
Nut type	HOR 2010 R
lead	10
BCD	21.0
Root dia	17.2
Ball dia	3.969
Number of Circuits	Turn 2.75×1
Screw direction	right
Accuracy Grade	C10
Clearance symbol	M2
Axial Clearance	0.1include
Basic Dynamic load ratinga : Ca(N)	11100
Basic Static load ratinga : Coa(N)	22100
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	208

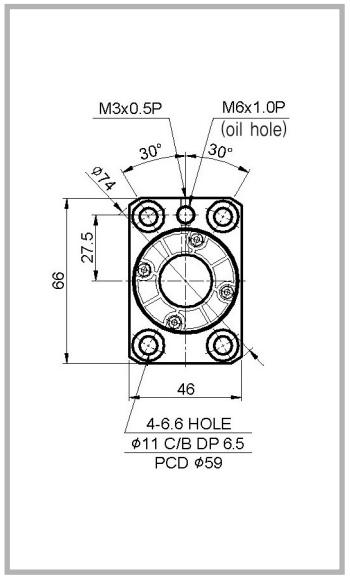
Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR2010RC10M2-500	390	500
HOR2010RC10M2-1000	890	1000
HOR2010RC10M2-1500	1390	1500
HOR2010RC10M2-2000	1890	2000
HOR2010RC10M2-2500	2390	2500
HOR2010RC10M2-3000	2890	3000

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
-	-	-	2.341	54
-	-	-	3.095	
-	-	-	4.327	
-	-	-	5.559	
-	-	-	6.827	
-	-	-	8.159	

ϕ 20×20



un-worked shaft ends Standard Stock (C10 - Rolled Ball screw)



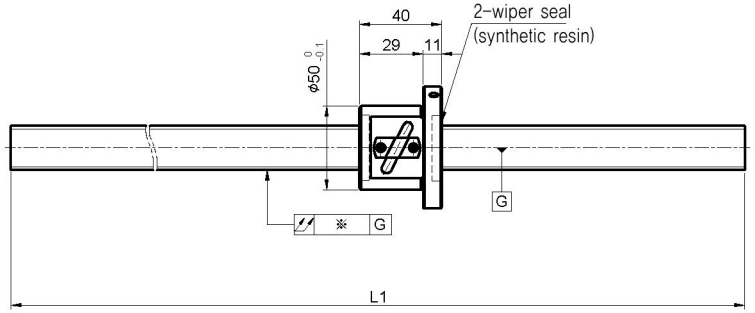
unit : mm

Ball screw Dimensions	
Nut type	HOR 2020 T
lead	20
BCD	21.0
Root dia	16.8
Ball dia	3.969
Number of Circuits	Turn 1.75×1
Screw direction	right
Accuracy Grade	C10
Clearance symbol	M2
Axial Clearance	0.1include
Basic Dynamic load ratinga : Ca(N)	6710
Basic Static load ratinga : Coa(N)	12640
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	112

Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR2020TC10M2-500	360	500
HOR2020TC10M2-1000	860	1000
HOR2020TC10M2-1500	1360	1500
HOR2020TC10M2-2000	1860	2000
HOR2020TC10M2-2500	2360	2500
HOR2020TC10M2-3000	2860	3000

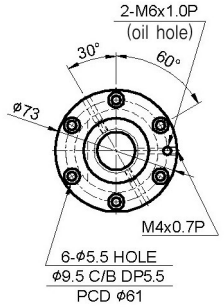
Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	–	–	2.028	42
–	–	–	3.260	
–	–	–	4.492	
–	–	–	5.725	
–	–	–	6.956	
–	–	–	8.188	

ϕ25×05



Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR2505EC10M2-500	360	500
HOR2505EC10M2-1000	860	1000
HOR2505EC10M2-1500	1360	1500
HOR2505EC10M2-2000	1860	2000
HOR2505EC10M2-2500	2360	2500
HOR2505EC10M2-3000	2860	3000

un-worked shaft ends Standard Stock (C10 - Rolled Ball screw)

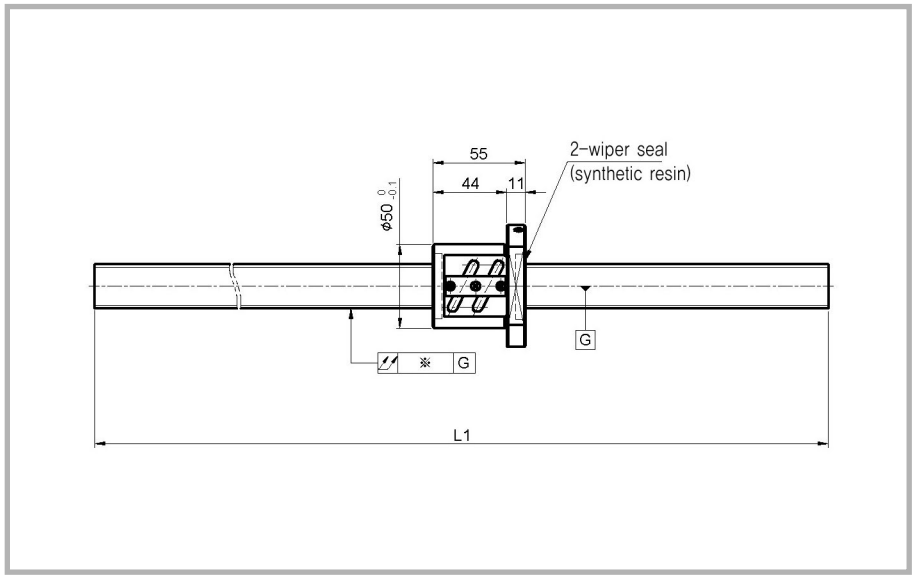


unit : mm

Ball screw Dimensions	
Nut type	HOR 2505 E
lead	5
BCD	25.5
Root dia	22.2
Ball dia	3.175
Number of Circuits	Turn 2.5×1
Screw direction	right
Accuracy Grade	C10
Clearance symbol	M2
Axial Clearance	0.1include
Basic Dynamic load ratinga : Ca(N)	7970
Basic Static load ratinga : Coa(N)	19340
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	420

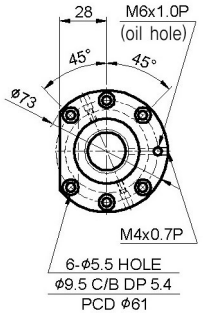
Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	–	–	3.064	84
–	–	–	4.400	
–	–	–	6.460	
–	–	–	8.460	
–	–	–	10.460	
–	–	–	12.460	

ϕ25×05



Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR2505FC10M2-500	360	500
HOR2505FC10M2-1000	860	1000
HOR2505FC10M2-1500	1360	1500
HOR2505FC10M2-2000	1860	2000
HOR2505FC10M2-2500	2360	2500
HOR2505FC10M2-3000	2860	3000

un-worked shaft ends Standard Stock (C10 - Rolled Ball screw)

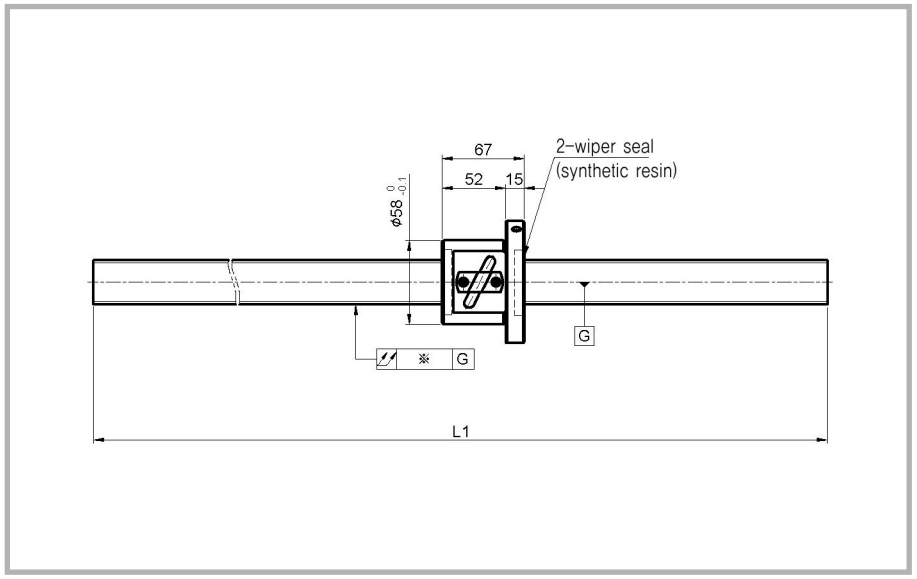


unit : mm

Ball screw Dimensions	
Nut type	HOR 2505 F
lead	5
BCD	25.5
Root dia	22.2
Ball dia	3.175
Number of Circuits	Turn 2.5×2
Screw direction	right
Accuracy Grade	C10
Clearance symbol	M2
Axial Clearance	0.1include
Basic Dynamic load ratinga : Ca(N)	14660
Basic Static load ratinga : Coa(N)	38670
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	420

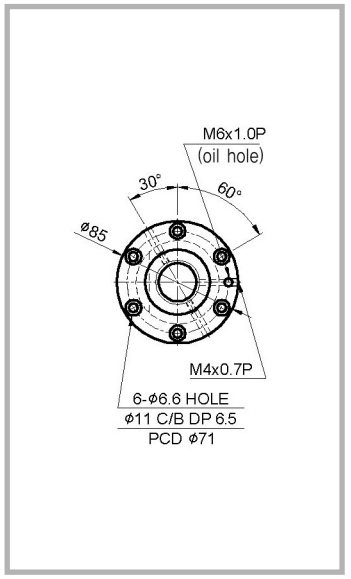
Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	–	–	3.264	168
–	–	–	4.600	
–	–	–	6.660	
–	–	–	8.660	
–	–	–	10.660	
–	–	–	12.660	

ϕ25×10



Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR2510EC10M2-500	340	500
HOR2510EC10M2-1000	840	1000
HOR2510EC10M2-1500	1340	1500
HOR2510EC10M2-2000	1840	2000
HOR2510EC10M2-2500	2340	2500
HOR2510EC10M2-3000	2840	3000

un-worked shaft ends Standard Stock (C10 - Rolled Ball screw)

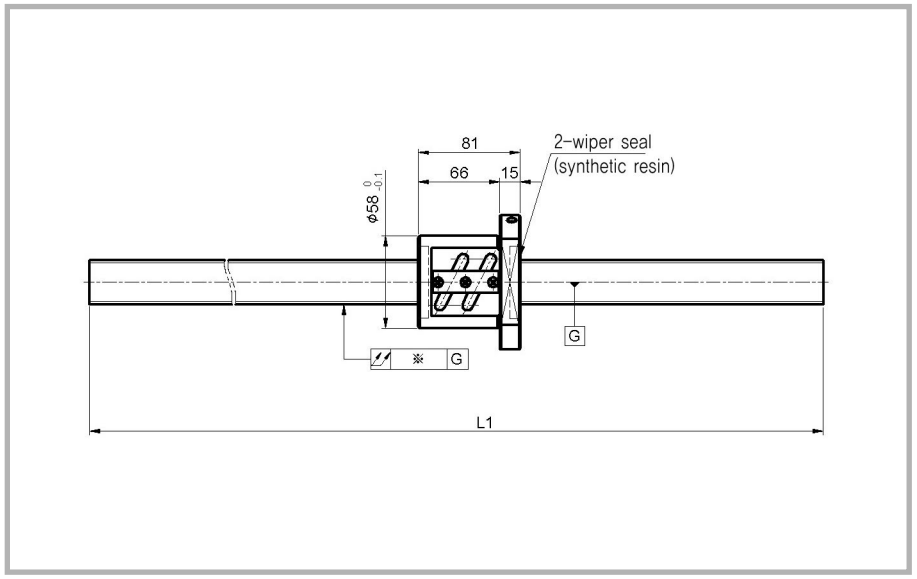


unit : mm

Ball screw Dimensions	
Nut type	HOR 2510 E
lead	10
BCD	25.5
Root dia	20.5
Ball dia	4.7625
Number of Circuits	Turn 2.5×1
Screw direction	right
Accuracy Grade	C10
Clearance symbol	M2
Axial Clearance	0.1include
Basic Dynamic load ratinga : Ca(N)	13120
Basic Static load ratinga : Coa(N)	27000
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	266

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	–	–	3.580	54
–	–	–	4.720	
–	–	–	6.620	
–	–	–	8.520	
–	–	–	10.420	
–	–	–	12.320	

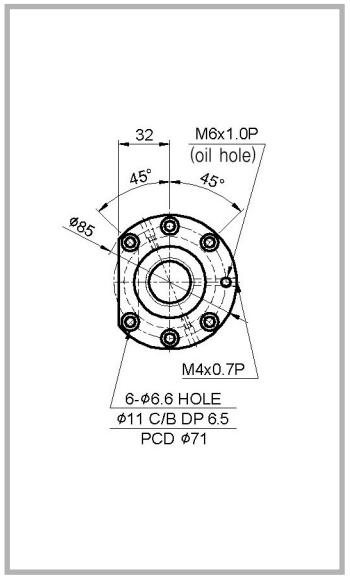
ϕ25×10



Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR2510BC10M2-500	340	500
HOR2510BC10M2-1000	840	1000
HOR2510BC10M2-1500	1340	1500
HOR2510BC10M2-2000	1840	2000
HOR2510BC10M2-2500	2340	2500
HOR2510BC10M2-3000	2840	3000

un-worked shaft ends Standard Stock (C10 - Rolled Ball screw)

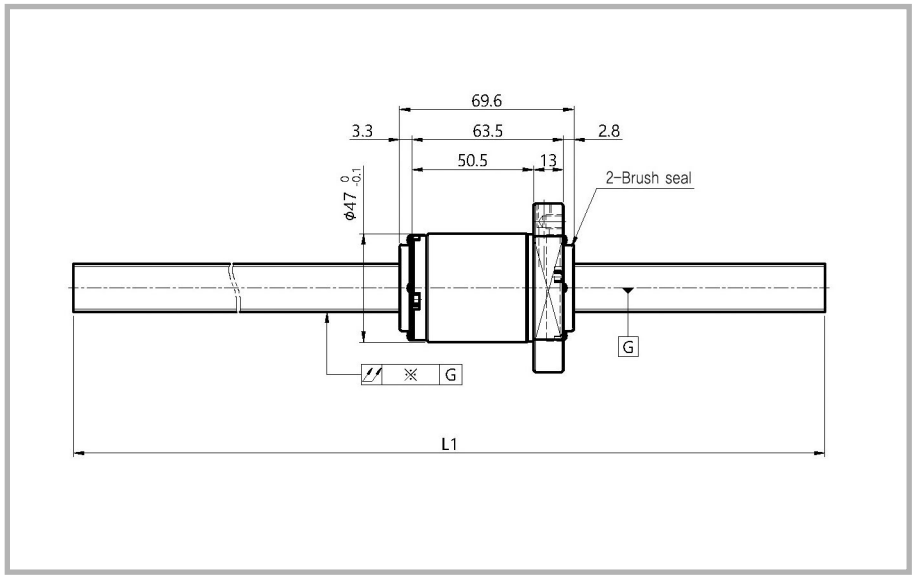
unit : mm



Ball screw Dimensions	
Nut type	HOR 2510 B
lead	10
BCD	25.5
Root dia	20.5
Ball dia	4.7625
Number of Circuits	Turn 1.5×2
Screw direction	right
Accuracy Grade	C10
Clearance symbol	M2
Axial Clearance	0.1include
Basic Dynamic load ratinga : Ca(N)	15350
Basic Static load ratinga : Coa(N)	32400
rotation torque (N · cm)	2.0include
rigidity (N/㎛)	266

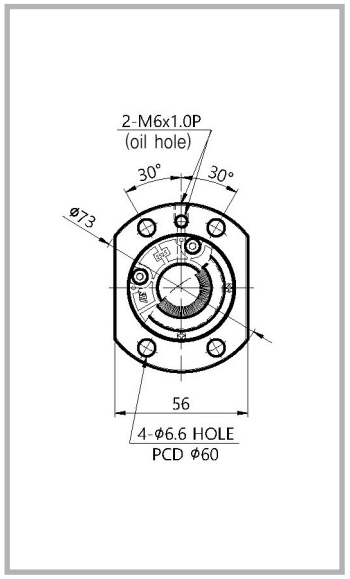
Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
–	–	–	3.880	72
–	–	–	5.020	
–	–	–	6.920	
–	–	–	8.820	
–	–	–	10.720	
–	–	–	12.620	

ϕ 25×25



Model No	Stroke(MAX)	Screw thread overall length
		L1
HOR2525T2C10M2-500	325	500
HOR2525T2C10M2-1000	825	1000
HOR2525T2C10M2-1500	1325	1500
HOR2525T2C10M2-2000	1825	2000
HOR2525T2C10M2-2500	2325	2500

un-worked shaft ends Standard Stock (C10 - Rolled Ball screw)

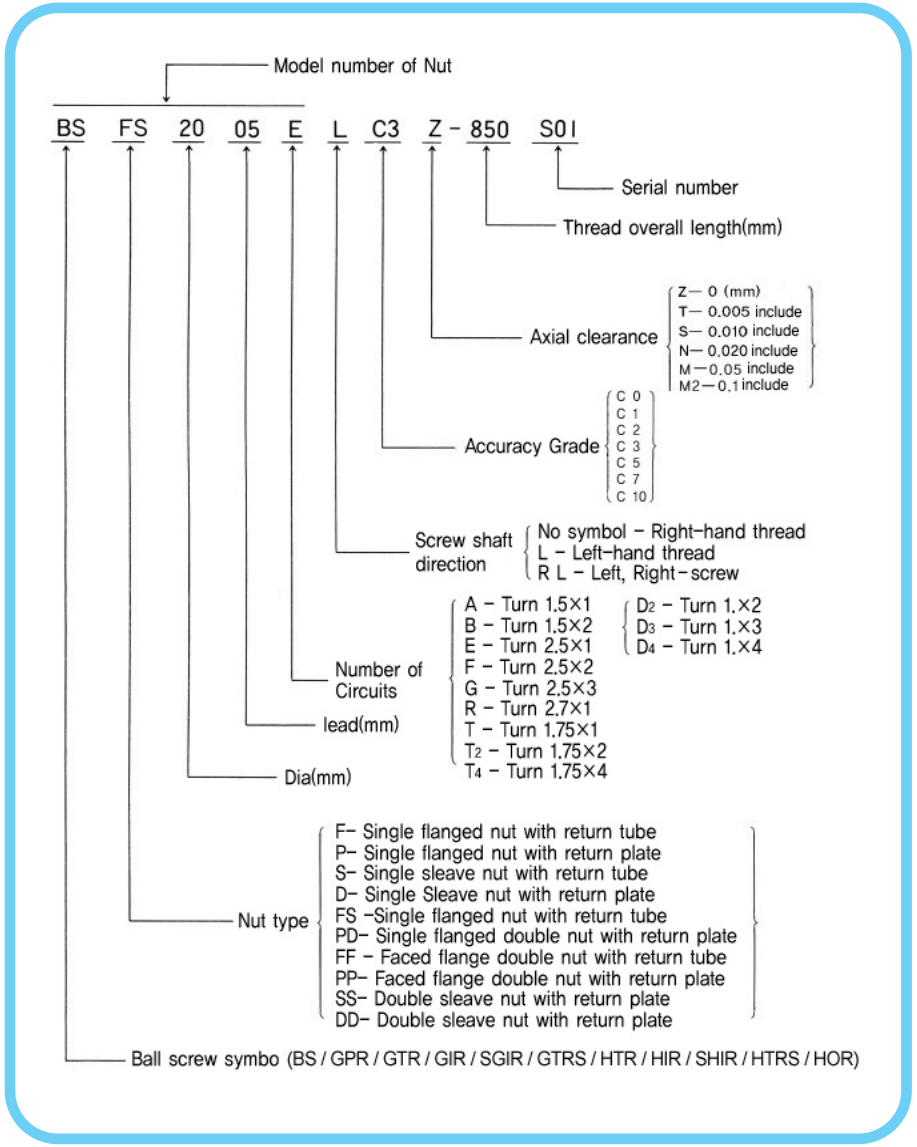


unit : mm

Ball screw Dimensions	
Nut type	HOR 2525 T2
lead	25
BCD	26
Root dia	22
Ball dia	3.969
Number of Circuits	Turn 1.75×2
Screw direction	right
Accuracy Grade	C10
Clearance symbol	M2
Axial Clearance	0.1include
Basic Dynamic load ratinga : Ca(N)	14100
Basic Static load ratinga : Coa(N)	37800
rotation torque (N · cm)	1.0include
rigidity (N/㎛)	278

Lead Accuracy		*Radial Runout of the Screw Shaft Axis	Mass(kg)	Number of ball
Representative Travel Distance Error	Fluctuation(V300)			
-	-	-	2.800	92
-	-	-	4.550	
-	-	-	6.350	
-	-	-	8.450	
-	-	-	9.850	

Ball screw Accessories



– Combinations of dia and lead

(unit : mm)

Dia	lead																			
	0.5	1	1.5	2	2.5	3	4	5	6	8	10	12	15	16	20	25	30	32	40	50
2	※																			
3	※																			
4		●																		
5		※																		
6		●	※	●			※			※										
8		●	※	●		※	●	●○	※	●	※	○								
10		※	※	●	※	※	●	●	※●	※	●									
12		※		●○	※	※	●	●	※	※●	●			※	●					
14		※		●	※	※	●	●	※	※				※						
15				※			●	●			●		●		●		●			
16				●	※	※	●	●※	※	※	※			●	※			●		
18				※			※		※											
20				※		※	※	●	※	※	●	※		※	●		●		●	
25				※		※	※	●	※	※	●	※		※	●○	※●				●
28								※	※	※										
32							※	●	※	※	●							○		
36								※	※	※	※									
40							※	※	※	※	※									

○ : Release schedule(C7,Rolled)
● : Rolling Standard stock C3,C5,C7 included
※Order products(C3,C5)

– Configuring the identification number

Fixture Part

AK 10 P5 S

- AK : Model No (AK : Square type, BK : Square type, EK : Square type, FK : Roung type)
- 10 : Fixture Part fixing dia(mm)
- P5 : Precision grade
- S : Accuracy (Average grade)

Support Part

AF 10 P5 S

- AF : Model No (AF : Square type, BF : Square type, EF : Square type, FF : Roung type)
- 10 : Support Part fixing dia(mm)
- P5 : Precision grade
- S : Accuracy (Average grade)

Features

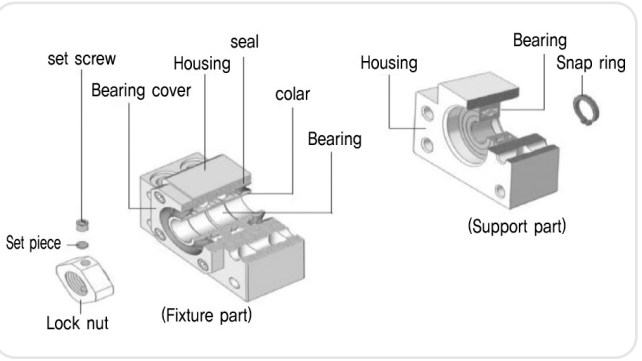
1. Compact and easy to install
Comes in compact size for installation in a small space and the angular contact ball bearing added unit has an optimal pre-load setting and can be assembled as it is same assembly time and improve assembly accuracy

2. High precision
When installed in combination with DF structure combining a contact angle of 30 angular contact ball bearings Is designed to be absorbing the parallel error is possible to maintain the precision

3. High anti-rust effect
Built-in at both ends of the bearing friction of the seal and the seal is very small, resulting Bush This prevents dirt from entering the fine powder

4. Compatibility
Recommended as the standard series is compatible

Structure of the Support Unit



Shape / Standard product series

HANSAN
ISSOKU

CONTENTS

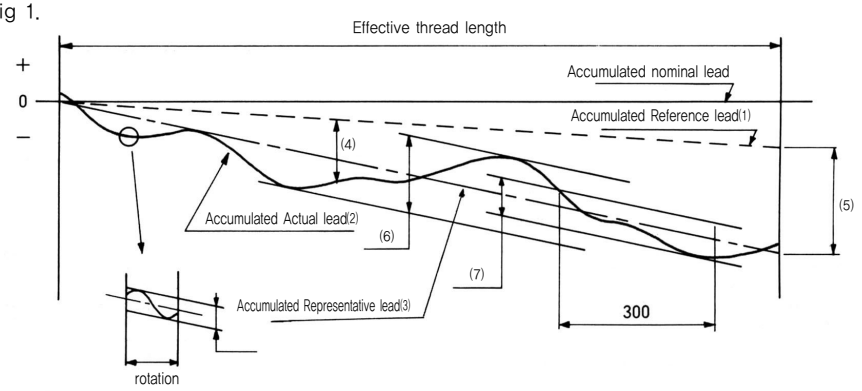
Precision ball screw Accuracy

Precision ball screw Accuracy is prescribed according to JIS Standard (B 1192 ~ 1987)

1. Lead Accuracy

Ball screw lead accuracy nut of the effective travel distance and the screw shaft Effective thread length of Representative lead error and variation, screw axis Effective thread length between specified any 300mm to about Fluctuation and Effective thread length between specified any one rotation interval It means for Fluctuation

Fig 1.



2. Meaning of the terms

(1) Ball screw : Machine parts screw nut shaft operated by a sliding ball

(2) Ball screw lead : When the screw shaft 1 rotates, the nut moves in the axial lead

(3) Reference lead : Usually it works the same as Nominal lead according to the purpose to obtain the value of intentionally modify the Nominal lead 〈Example: Nominal lead 10mm– Reference lead 9.9995mm〉

(4) Actual lead : Lead obtained by measuring the actual ball screw

(5) Accumulated nominal lead : When rotating Accumulated lead to any number of revolutions in accordance with the Nominal lead 〈Fig1–1〉

(6) Accumulated Actual lead : The average value obtained from a tendency to accumulate in accordance with the continuous measurement of lead Or obtained by measuring at any cross section including the screw shaft axis Accumulated Reference lead Fig1–(2)

(7) Accumulated Representative lead : By straight lines representing the trend of the effective travel distance Actual lead of the nut and the screw shaft Values obtained by at least two squares or a similar approximation of the curve showing the Actual tlead for Effective thread length〈Fig1–3〉

(8) lead error : Actual lead and the difference between the Nominal lead . Nominal lead If you have a larger +, smaller case –

(9) Accumulated Actual lead error : Subtracted Accumulated reference lead from Accumulated Actual lead Fig1–(4)

(10) Accumulated representative lead error : Subtracted Accumulated nominal lead from Accumulated Representative lead Fig1–(5)

(11) Fluctuation : A maximum width of Actual lead between two straight lines drawn in parallel to the Accumulated representative lead forth in the following three items

a) Effective travel distance of the nut and the screw shaft to the corresponding Effective thread length〈Fig1–6〉

b) Effective thread length in the screw shaft will set arbitrarily corresponding to 300mm 〈Fig1–7〉

c) Effective thread length in the screw shaft to correspond to anyone rotation〈Fig1–8〉

Table1 : Accumulated representative lead error & Fluctuation 〈permissible value〉

unit : ㎛

Effective thread length(mm) / Accuracy grades / item		C0		C1		C2		C3		C5	
Above	Or less	Accumulated representative lead error	Fluctuation (1)	Accumulated representative lead error	Fluctuation (1)	Accumulated representative lead error	Fluctuation (1)	Accumulated representative lead error	Fluctuation (1)	Accumulated representative lead error	Fluctuation (1)
–	125	3	3	3.5	5	5	7	8	8	18	18
125	200	3.5	3	4.5	5	7	7	10	8	20	18
200	315	4	3.5	6	5	8	7	12	8	23	18
315	400	5	3.5	7	5	9	7	13	10	25	20
400	500	6	4	8	5	10	7	15	10	27	20
500	630	6	4	9	6	11	8	16	12	30	23
630	800	7	5	10	7	13	9	18	13	35	25
800	1,000	8	6	11	8	15	10	21	15	40	27
1,000	1,250	9	6	13	9	18	11	24	16	46	30
1,250	1,600	11	7	15	10	21	13	29	18	54	35

〈Note1〉 Effective travel length of the nut or the length of the screw shaft Effective thread length Fluctuation

Table 2 : Fluctuation 〈permissible value〉

unit : ㎛

Accuracy grades / item	C0		C1		C2		C3		C5	
	Fluctuation $(300)^{(2)}$	Fluctuation $(2\pi)^{(3)}$	Fluctuation $(300)^{(2)}$	Fluctuation $(2\pi)^{(3)}$	Fluctuation $(300)^{(2)}$	Fluctuation $(2\pi)^{(3)}$	Fluctuation $(300)^{(2)}$	Fluctuation $(2\pi)^{(3)}$	Fluctuation $(300)^{(2)}$	Fluctuation $(2\pi)^{(3)}$
permissible value	3.5	3	5	4	6	5	8	6	18	8

〈Note2〉 Fluctuation for 300mm set optionally between the screw shaft Effective thread length
〈Note3〉 Fluctuation for 1 rotations arbitrarily set between the screw shaft Effective thread length (2π rad)

3. Screw axis accuracy of the parts

Fig 2. Ball screw Accuracy of the Mounting Surface (Ex)

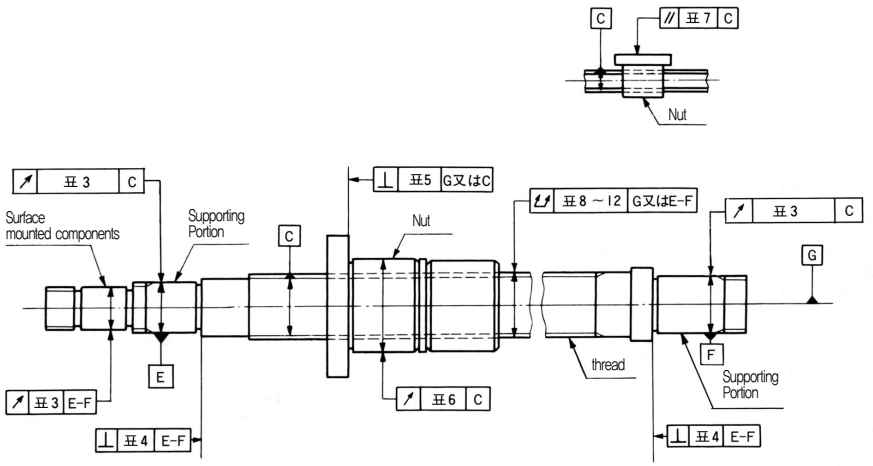


Table3 : Radial Runout of the Circumference of the Thread Root in Relation to the Supporting Portion Axis of the Screw Shaft

unit : ㎛

Screw shaft outer dia		Runout tolerance (Max)				
Above	Or less	C0	C1	C2	C3	C5
–	8	3	5	7	8	10
8	12	4	5	7	8	11
12	20	4	6	8	9	12
20	32	5	7	9	10	13
32	50	6	8	10	12	15

Note4)
Impact on the topic of measurements of the screw shaft axis Runout also included this correction is necessary.
Correction method is by comparing the distance of the screw shaft and the entire length between the measuring points (L_1, L_2) (Figure 4) in Table 8, Table 9, Table 10, Table 11, Table 12 In screw shaft axis full Runout tolerance In addition to obtaining a correction to compensate tolerances of Table 3

Table4 : Perpendicularity of the Supporting Portion End of the Screw Shaft to the Supporting Portion Axis

unit : ㎛

Screw shaft outer dia(mm)		Perpendicularity tolerance				
Above	Or less	C0	C1	C2	C3	C5
–	8	2	3	3	4	5
8	12	2	3	3	4	5
12	20	2	3	3	4	5
20	32	2	3	3	4	5
32	50	2	3	3	4	5

4.Nut Accuracy of the Mounting Surface 〈Fig 2〉

Table5 : Perpendicularity of the Flange Mounting Surface of the Screw Shaft to the Screw Shaft Axis

unit : ㎛

Nut out dia(mm)		Perpendicularity tolerance				
Above	Or less	C0	C1	C2	C3	C5
–	20	5	6	7	8	10
20	32	5	6	7	8	10
32	50	6	7	8	8	11
50	80	7	8	9	10	13
80	125	7	9	10	12	15

Table6 : Radial Runout of the Nut Circumference in Relation to the Screw Shaft Axis

unit : ㎛

Nut out dia(mm)		Runout tolerance (max)				
Above	Or less	C0	C1	C2	C3	C5
–	20	5	6	7	9	12
20	32	6	7	8	10	12
32	50	7	8	10	12	15
50	80	8	10	12	15	19
80	125	9	12	16	20	27

Table7 : Parallelism of the Nut Circumference (Flat Mounting Surface) to the Screw Shaft Axis

unit : ㎛

Mounting reference length(mm)		Parallelism tolerance (max)				
Above	Or less	C0	C1	C2	C3	C5
–	50	5	6	7	8	10
50	100	7	8	9	10	13
100	200	–	10	11	13	17

5. Radial Runout of the Nut Circumference in Relation to the Screw Shaft Axis〈Fig2〉

screw shaft axis full Runout tolerance is measured in accordance with (Fig10), depending on the grade Table 8, 9, 10, should match the accord specified in Table 11 and Table 12

Table 8 : Radial Runout of the Nut Circumference in Relation to the Screw Shaft Axis(C0)

unit : mm

Thread overall length / Screw shaft outer diameter			Runout tolerance (Max)				
		Above	–	8	12	20	32
		Or less	8	12	20	32	50
Above	Or less						
–	125		0.015	0.015	0.015		
125	200		0.025	0.020	0.020	0.015	
200	315		0.035	0.025	0.020	0.020	
315	400			0.035	0.025	0.020	0.015
400	500			0.045	0.035	0.025	0.020
500	630			0.050	0.040	0.030	0.020
630	800				0.050	0.035	0.025
800	1,000				0.065	0.045	0.030
1,000	1,250				0.085	0.055	0.040
1,250	1,600				0.110	0.070	0.050

Table 9 : Radial Runout of the Nut Circumference in Relation to the Screw Shaft Axis(C1)

unit : mm

Thread overall length / Screw shaft outer diameter			Runout tolerance (Max)				
		Above	–	8	12	20	32
		Or less	8	12	20	32	50
Above	Or less						
–	125		0.020	0.020	0.015		
125	200		0.030	0.025	0.020	0.015	
200	315		0.040	0.030	0.025	0.020	
315	400		0.045	0.040	0.030	0.025	0.020
400	500			0.050	0.040	0.030	0.025
500	630			0.060	0.045	0.035	0.025
630	800				0.060	0.040	0.030
800	1000				0.075	0.055	0.040
1000	1250				0.095	0.065	0.045
1250	1600				0.130	0.085	0.060

Table10 : Radial Runout of the Nut Circumference in Relation to the Screw Shaft Axis(C2)

unit : mm

Thread overall length / Screw shaft outer diameter			Runout tolerance (Max)				
		Above	–	8	12	20	32
		Or less	8	12	20	32	50
Above	Or less						
–	125		0.025	0.025	0.020		
125	200		0.035	0.030	0.025	0.020	
200	315		0.045	0.035	0.030	0.025	
315	400		0.050	0.045	0.035	0.030	0.025
400	500			0.055	0.045	0.035	0.025
500	630			0.065	0.050	0.040	0.030
630	800				0.065	0.045	0.035
800	1000				0.080	0.060	0.045
1000	1250				0.105	0.070	0.050
1.250	1600				0.140	0.095	0.065

Table11 : Radial Runout of the Nut Circumference in Relation to the Screw Shaft Axis (C3)

unit : mm

Thread overall length		Screw shaft outer diameter	Runout tolerance (Max)				
		Above	–	8	12	20	32
		Or less	8	12	20	32	50
Above	Or less						
–	125		0.025	0.025	0.020		
125	200		0.035	0.035	0.025	0.020	
200	315		0.050	0.040	0.030	0.030	
315	400		0.060	0.050	0.040	0.035	0.025
400	500			0.065	0.050	0.040	0.030
500	630			0.070	0.055	0.045	0.035
630	800				0.070	0.055	0.040
800	1000				0.095	0.065	0.050
1000	1250				0.120	0.085	0.060
1,250	1600				0.160	0.110	0.075

Table12 : Radial Runout of the Nut Circumference in Relation to the Screw Shaft Axis (C5)

unit : mm

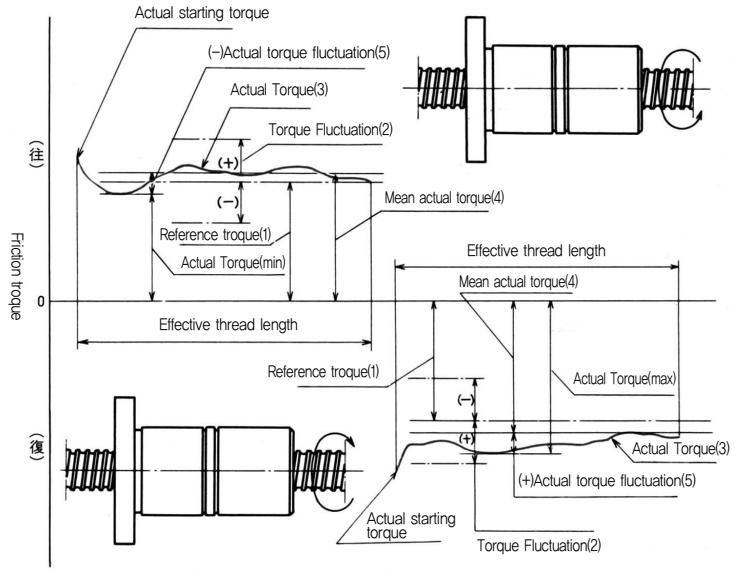
Thread overall length		Screw shaft outer diameter	Runout tolerance (Max)				
		Above	–	8	12	20	32
		Or less	8	12	20	32	50
Above	Or less						
–	125		0.035	0.035	0.035		
125	200		0.050	0.040	0.040	0.035	
200	315		0.065	0.055	0.045	0.040	
315	400		0.075	0.065	0.055	0.045	0.035
400	500			0.080	0.060	0.050	0.045
500	630			0.090	0.075	0.060	0.050
630	800				0.090	0.070	0.055
800	1,000				0.120	0.085	0.065
1,000	1,250				0.150	0.100	0.075
1,250	1,600				0.190	0.130	0.095
1,600	2,000					0.170	0.120

〈Reference 〉 Ball Screw Accuracy Grade-specific classification

Type	C3	C5	C7	C10
Lead accuracy	12㎛	25㎛	50㎛	200㎛
Back rash	5㎛	5㎛	20㎛	100㎛
Single pre-load	Possible	Possible	Impropriety	Impropriety

6. Preload Torque

Fig 3.



(1) Preload : A preload is provided in order to eliminate the axial clearance and minimize the displacement under an axial load. When performing a highly accurate positioning, a preload is generally provided.

(2) Dynamic Preload Torque :A torque required to continuously rotate the screw shaft of a Ball Screw under a given preload without an external load applied

(3) Reference troque : A dynamic preload torque set as a target(Figure 3 (1)

(4) Torque Fluctuation : Variation in a dynamic preload torque set at a target value. It can be positive or negative in relation to the reference torque ,For (+) or the Reference torque (–) shown in (Fig3-(2)

(5) Coefficient of Torque Fluctuation : Ratio of torque fluctuation to the reference torque

(6) Actual Torque : A dynamic preload torque measured with an actual Ball Screw Fig 3-(3)

(7) Mean actual torque : The arithmetic average of the maximum and minimum values of the actual torque as measured by the reciprocating motion of the nut thread Effective length Fig 3-(4)

(8) Actual torque fluctuation : Fluctuation Maximum Effective thread of the nut, as measured by the reciprocating motion for the length, as compared with the actual torque Mean (+) or (–) denoted by Fig 3-(5)

(9) Actual Coefficient of Torque Fluctuation : Ratio of actual torque fluctuation to the Mean actual reference torque (Fig-3)

Table 13 : Coefficient of Torque Fluctuation of allowable range

unit : %

Reference troque				40(or less)					60(or less)				
N·cm		kgf·cm		Grade					Grade				
Above	Or less	Above	Or less	C0	C1	C2	C3	C5	C0	C1	C2	C3	C5
–	20	–	2.0	±45	±50	±55	±55	±65	±50	±50	±65	±65	±80
20	40	2.0	4.1	±35	±40	±45	±45	±55	±45	±45	±55	±55	±65
40	60	4.1	6.1	±25	±30	±35	±35	±45	±38	±38	±45	±45	±50
60	100	6.1	10.2	±20	±25	±30	±30	±35	±30	±30	±35	±35	±40
100	250	10.2	25.5	±15	±20	±25	±25	±30	±25	±25	±30	±30	±35

Axial clearance

Table14

clearance symbol	Z	T	S	N
Axial clearance(mm)	0	0.005 or less	0.010 or less	0.020 or less

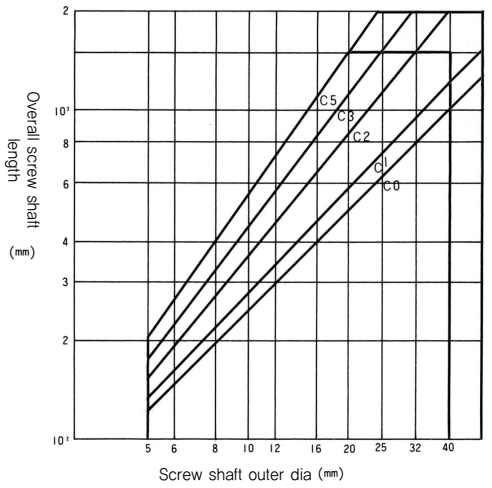
● Accuracy Grade & Axial clearance

Table15

clearance symbol		Z	T	S	N
Accuracy Grade	C0	C0Z	C0T		
	C1	C1Z	C1T		
	C2	C2Z	C2T		
	C3	C3Z	C3T		
	C5	C5Z	C5T		
	C7			C7S	C7N

Production range of the threaded portion

Maximum length with standard precedure is shown in Table16.
Please ask for out of this range



Lubrication & Dustproof

1. Lubrication

There are lubrication of the ball screw grease and oil lubrication For grease lubrication, use a product that corresponds to the intensity of the Lithium soap based NLGI NO.1-3 In the case of oil lubrication, use turbine oil or spindle oil of ISO GRADE32-100 In general, high speed, use low viscosity lubricant is cool. Light Duty Low speed. The viscosity at high temperature. Heavy-duty lubricants, use a high When used to specify or special conditions of use, if the lubricant has Please contact Hansan In the case Hansan standard grease is ALvania grease NO 1 or NO2 In the case of oil lubrication and coating the turbine oil No68

Table 17. The contents of lubricant maintenance and inspection

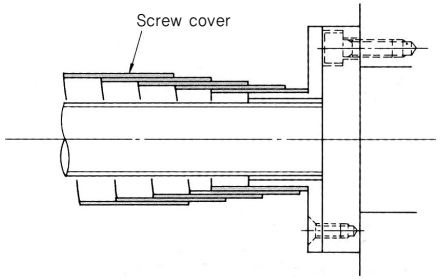
Method	Periodic inspection	check item	replenish interval
Grease	Initially 1~2months	Dirt particles Contamination entry of chip	Replensh normally with the interval of 6~12 months or after 1000-2000hours usage Exchange if there is the incorporation of foreign material
Oil 〈automatic lubrication〉	Every week	Quantity of oil	Quantity of oil /Never be short of oil

2. Dustproof

Ball screw is debris on all parts of the shaft and the bearing, requiring extreme care to the incorporation of water If the debris mixed in the interior of the nut, and the wear is increased, breakage of the screw groove surface In circulation causing a difficulty may lead to malfunction Hansan, only the ball screw is equipped with a standard plastic seals Please use a more complete if the dust screw cover is required

For more information about the screw cover , please contact the Hansan

Fig 21. Screw cover



The hardness of the material

material	material	Treatment method	Hardness
Nut Screw shaft	SCM415H SCM415H/AISI4150H	Carburizing High Frequency	HRC 58~63

For special custom made to produce a ball screw of a material such as stainless material 〈SUS440C〉

- Hardness factor

Prescribed hardness when using a material other than the standard material in the tables 18 to 〈HRC58 ~ 63〉 If not reach, the basic dynamic load rating, is a necessary correction and calculation of the basic static load rating As follows

$Ca' = f_H \cdot Ca$

$Coa' = f_H' \cdot Ca$

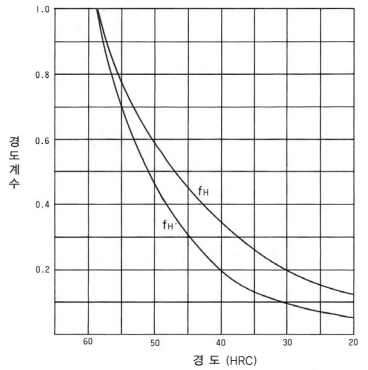
Ca' : Correlation Criteria dynamic load rating(kgf)

Coa' : Correlation Criteria static load rating(kgf)

f_H : hardness factor

f_H' : hardness factor

Fig 19.



Service Life Time

If you hold the selected time during the life of the ball screw more than necessary only increases the dimensions of the ball screw does not economical

Generally selecting a service life time shown below as standard

Machine tool ····· 20,000 hours

Industry hours ····· 10,000hours

Automatic control system ····· 15,000hours

measuring device ····· 15,000hours

Formula for determining the dynamic load rating of the criteria established to Service life Time is as follows

$$Ca = \left(\frac{60 \cdot Lh \cdot Nm}{10^6}\right)^{\frac{1}{3}} \cdot Pm \cdot fw$$

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