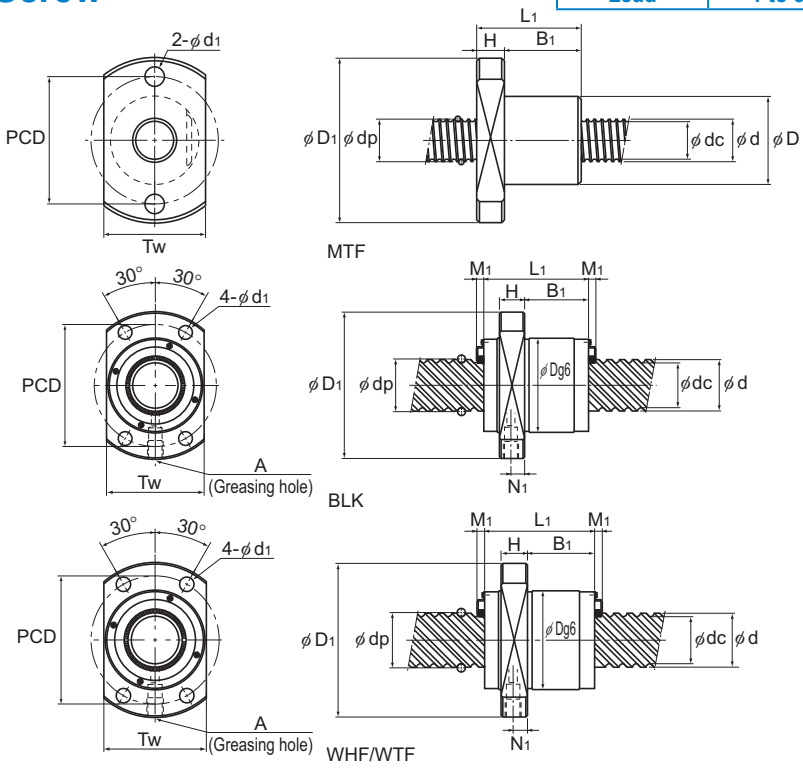
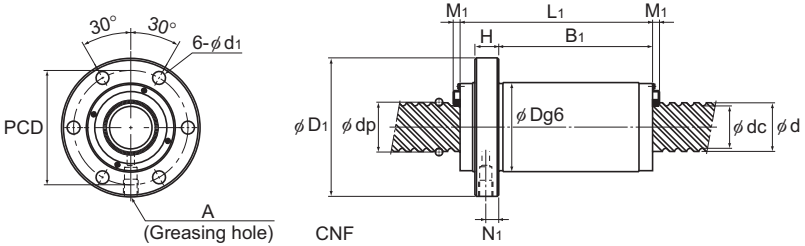
No Preload Type of Rolled Ball Screw

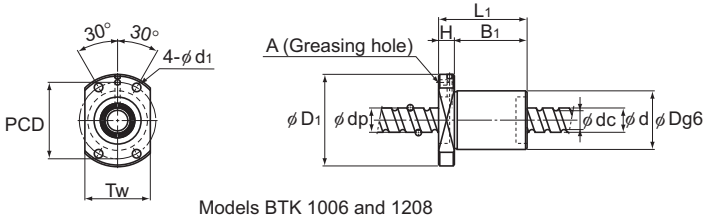
Screw shaft outer diameter	6 to 16
Lead	1 to 30



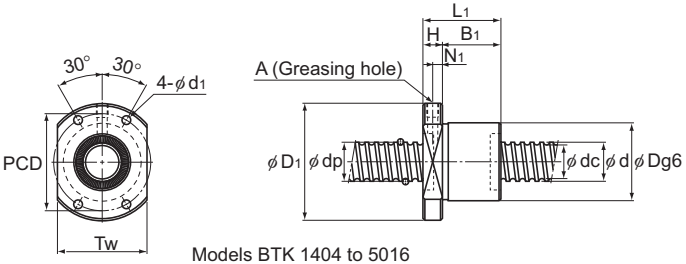
Screw shaft outer diameter d	Lead Ph	Model No.	Ball center-to-center diameter dp	Thread minor diameter dc	No. of loaded circuits Rows × turns	Basic load rating Ca kN	Basic load rating C₀a kN	Rigidity K N/μm	Outer diameter D	Flange diameter D₁
6	1	MTF 0601-3.7	6.15	5.3	1×3.7	0.7	1.2	70	13	30
8	2	MTF 0802-3.7	8.3	6.6	1×3.7	2.1	3.8	90	20	40
10	2	MTF 1002-3.7	10.3	8.6	1×3.7	2.3	4.8	110	23	43
	6	BTK 1006-2.6	10.5	7.8	1×2.65	2.8	4.9	88	26	42
12	2	MTF 1202-3.7	12.3	10.6	1×3.7	2.5	5.8	130	25	47
	8	BTK 1208-2.6	12.65	9.7	1×2.65	3.8	6.8	108	29	45
14	4	BTK 1404-3.6	14.4	11.5	1×3.65	5.5	11.5	150	31	50
	5	BTK 1405-2.6	14.5	11.2	1×2.65	5	11.4	116	32	50
15	10	BLK 1510-5.6	15.75	12.5	2×2.8	9.8	25.2	260	34	57
	20	WTF 1520-3	15.75	12.5	2×1.5	5.5	14.2	140	32	53
		WTF 1520-6	15.75	12.5	4×1.5	10.1	28.5	280	32	53
	30	WTF 1530-2	15.75	12.5	4×0.6	4.3	9.3	120	32	53
		WTF 1530-3	15.75	12.5	2×1.6	5.6	12.4	160	32	53
		WHF 1530-3.4	15.75	12.5	2×1.7	5.5	12.2	195	32	53
		CNF 1530-6	15.75	12.5	4×1.6	10.1	24.7	310	32	53
16	5	BTK 1605-2.6	16.75	13.5	1×2.65	5.4	13.3	130	34	54
	16	BLK 1616-3.6	16.65	13.7	2×1.8	5.8	12.9	170	32	53
		BLK 1616-7.2	16.65	13.7	4×1.8	10.5	25.9	340	32	53

Note) Model MTF cannot be attached with seal.
Model MTF is only sold as sets (ball screw nut and screw shaft).
Model MTF is applied only with anti-rust oil.
WHF is available on a made-to-order basis. If planning to use this model, contact THK.





Models BTK 1006 and 1208



Models BTK 1404 to 5016

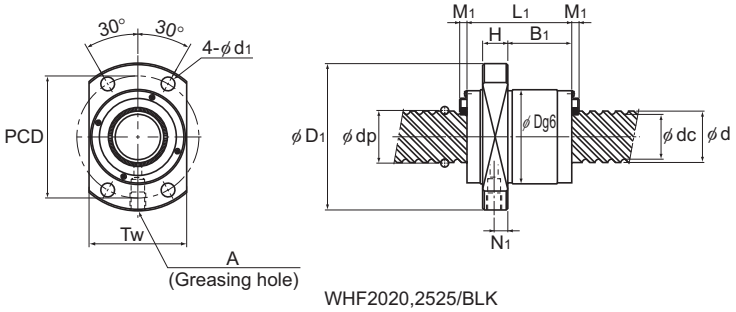
Unit: mm

Nut dimensions									Axial clearance	Standard shaft length	Screw shaft inertial moment/mm	Nut mass	Shaft mass
	Overall length						Greasing hole		Seal					
	L_1	H	B_1	PCD	d_1	T_w	N_1	A	M_1			kg•cm²/mm	kg	kg/m
	21	5	16	21.5	3.4	17	—	—	—	0.05	150, 250	9.99×10^{-6}	0.03	0.19
	28	6	22	30	4.5	24	—	—	—	0.05		3.16×10^{-5}	0.08	0.31
	28	6	22	33	4.5	27	—	—	—	0.05	200, 300	7.71×10^{-5}	0.1	0.52
	36	8	28	34	4.5	29	—	3	—	0.05		7.71×10^{-5}	0.19	0.48
	30	8	22	36	5.5	29	—	—	—	0.05		1.6×10^{-4}	0.13	0.77
	44	8	36	37	4.5	32	—	3	—	0.05		1.6×10^{-4}	0.20	0.72
	40	10	30	40	4.5	37	5	M6	—	0.1	500, 1000	2.96×10^{-4}	0.23	1.0
	40	10	30	40	4.5	38	5	M6	—	0.1		2.96×10^{-4}	0.24	0.99
	44	10	24	45	5.5	40	5	M6	3.5	0.1		3.9×10^{-4}	0.26	1.16
	45	10	28	43	5.5	33	5	M6	3.5	0.1		3.9×10^{-4}	0.20	1.17
	45	10	28	43	5.5	33	5	M6	3.5	0.1		3.9×10^{-4}	0.20	1.17
	33	10	17	43	5.5	33	5	M6	3.5	0.1		3.9×10^{-4}	0.22	1.19
	63	10	47	43	5.5	33	5	M6	3.5	0.1		3.9×10^{-4}	0.4	1.19
	64.5	10	47.5	43	5.5	33	5	M6	3.5	0.1		3.9×10^{-4}	0.38	1.26
	63	10	47	43	5.5	—	5	M6	3.5	0.1		3.9×10^{-4}	0.42	1.19
	40	10	30	44	4.5	40	5	M6	—	0.1		5.05×10^{-4}	0.27	1.34
	38	10	21.5	42	4.5	38	5	M6	3.5	0.1		5.05×10^{-4}	0.21	1.35
	38	10	21.5	42	4.5	38	5	M6	3.5	0.1		5.05×10^{-4}	0.25	1.35

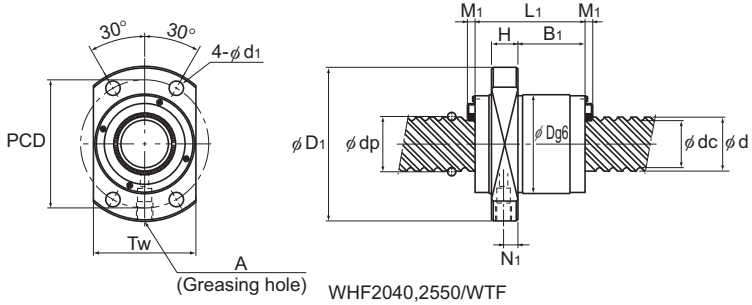
Options⇒A15-351

No Preload Type of Rolled Ball Screw

Screw shaft outer diameter	18 to 30
Lead	5 to 60



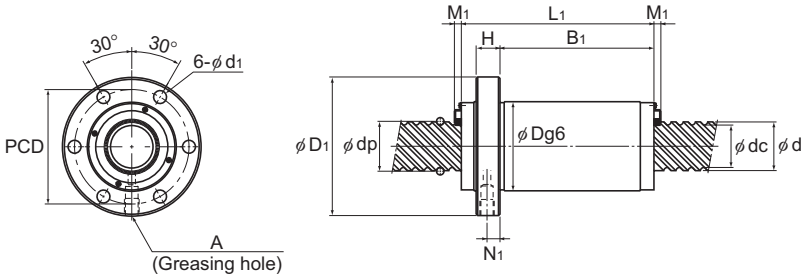
WHF2020,2525/BLK



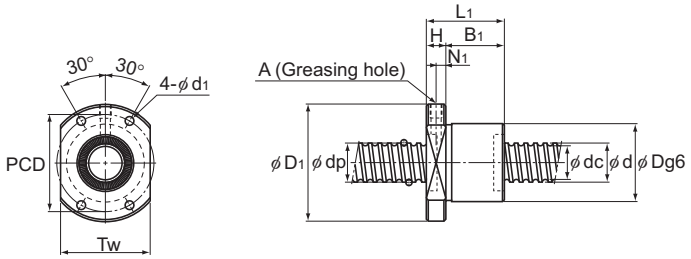
WHF2040,2550/WTF

Screw shaft outer diameter d	Lead Ph	Model No.	Ball center-to-center diameter dp	Thread minor diameter dc	No. of loaded circuits Rows × turns	Basic load rating Ca kN	Basic load rating C₀a kN	Rigidity K N/μm	Outer diameter D	Flange diameter D₁
18	8	BTK 1808-3.6	19.3	14.4	1×3.65	13.1	31	210	50	80
20	5	BTK 2005-2.6	20.5	17.2	1×2.65	6	16.5	150	40	60
	10	BTK 2010-2.6	21.25	16.4	1×2.65	10.6	25.1	160	52	82
	20	WHF 2020-3.4	20.75	17.5	2×1.7	6.6	18.9	225	42	64
		BLK 2020-3.6	20.75	17.5	2×1.8	7.7	22.3	210	39	62
		BLK 2020-7.2	20.75	17.5	4×1.8	13.9	44.6	410	39	62
	40	WTF 2040-2	20.75	17.5	4×0.65	5.4	13.6	160	37	57
		WTF 2040-3	20.75	17.5	2×1.65	6.6	17.2	200	37	57
		WHF 2040-3.4	20.75	17.5	2×1.7	6.6	17.2	256	37	62
		CNF 2040-6	20.75	17.5	4×1.65	12	34.4	400	37	57
25	5	BTK 2505-2.6	25.5	22.2	1×2.65	6.7	20.8	180	43	67
	10	BTK 2510-5.3	26.8	20.2	2×2.65	31.2	83.7	400	60	96
	25	WHF 2525-3.4	26	21.9	2×1.7	10.5	29.9	285	50	77
		BLK 2525-3.6	26	21.9	2×1.8	12.1	35	270	47	74
		BLK 2525-7.2	26	21.9	4×1.8	21.9	69.9	520	47	74
	50	WTF 2550-2	26	21.9	4×0.65	8.5	21.2	200	45	69
		WTF 2550-3	26	21.9	2×1.65	10.4	26.9	260	45	69
		WHF 2550-3.4	26	21.9	2×1.7	10.4	27.1	323	45	69
		CNF 2550-6	26	21.9	4×1.65	18.9	53.9	460	45	69
28	6	BTK 2806-2.6	28.5	25.2	1×2.65	7	23.4	200	50	80
		BTK 2806-5.3	28.5	25.2	2×2.65	12.8	46.8	390	50	80
30	60	WTF 3060-2	31.25	26.4	4×0.65	11.8	30.6	240	55	89
		WTF 3060-3	31.25	26.4	2×1.65	14.5	38.9	310	55	89
		CNF 3060-6	31.25	26.4	4×1.65	26.2	77.7	600	55	89

Note) WHF is available on a made-to-order basis. If planning to use this model, contact THK.



CNF



Models BTK 1404 to 5016

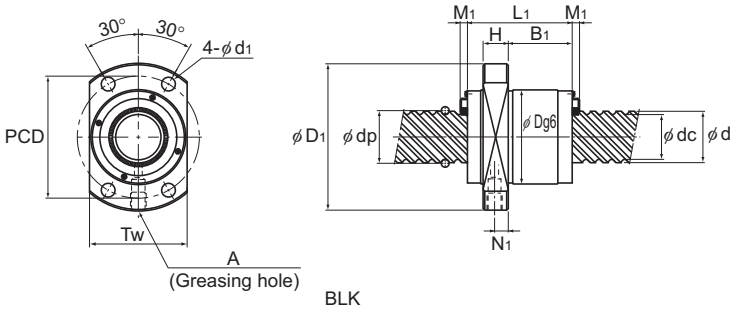
Unit: mm

Nut dimensions									Axial clearance	Standard shaft length	Screw shaft inertial moment/mm	Nut mass	Shaft mass
Overall length						Greasing hole		Seal					
L_1	H	B_1	PCD	d_1	T_W	N_1	A	M_1			kg•cm²/mm	kg	kg/m
61	12	49	65	6.6	60	5	M6	—	0.1	500, 1000	8.09×10^{-4}	0.98	1.71
40	10	30	50	4.5	46	5	M6	—	0.1	500, 1000, 1500	1.23×10^{-3}	0.35	2.15
61	12	49	67	6.6	64	5	M6	—	0.1		1.23×10^{-3}	1.08	2.16
47.1	10	24.1	53	5.5	46	5	M6	3.5	0.1		1.23×10^{-3}	0.49	2.25
45	10	27.5	50	5.5	46	5	M6	3.5	0.1		1.23×10^{-3}	0.35	2.18
45	10	27.5	50	5.5	46	5	M6	3.5	0.1		1.23×10^{-3}	0.35	2.18
41.5	10	25.5	47	5.5	38	5.5	M6	3.5	0.1		1.23×10^{-3}	0.25	2.12
81.5	10	65.5	47	5.5	38	5.5	M6	3.5	0.1		1.23×10^{-3}	0.5	2.12
82.7	10	65.7	50	5.5	46	5	M6	3.5	0.1		1.23×10^{-3}	0.58	2.34
81	10	65	47	5.5	—	5.5	M6	3.5	0.1		1.23×10^{-3}	0.5	2.12
40	10	30	55	5.5	50	5	M6	—	0.1		3.01×10^{-3}	0.37	3.45
98	15	83	78	9	72	5	M6	—	0.1		3.01×10^{-3}	2.06	3.26
58.8	12	31.3	63	6.6	56	6	M6	3.5	0.1	1000, 1500, 2000	3.01×10^{-3}	0.65	3.52
55	12	35	60	6.6	56	6	M6	3.5	0.1		3.01×10^{-3}	0.64	3.41
55	12	35	60	6.6	56	6	M6	3.5	0.1		3.01×10^{-3}	0.64	3.41
52	12	31.5	57	6.6	46	7	M6	3.5	0.1		3.01×10^{-3}	0.45	3.34
102	12	81.5	57	6.6	46	7	M6	3.5	0.1		3.01×10^{-3}	0.85	3.34
103.3	12	79.3	57	6.6	46	6	M6	3.5	0.1		3.01×10^{-3}	0.72	3.66
102	12	81.5	57	6.6	—	7	M6	3.5	0.1		3.01×10^{-3}	0.85	3.34
47	12	35	65	6.6	60	6	M6	—	0.1	500, 1000, 2000, 2500	4.74×10^{-3}	0.66	4.44
65	12	53	65	6.6	60	6	M6	—	0.1		4.74×10^{-3}	0.84	4.44
62.5	15	37.5	71	9	56	9	M6	3.8	0.14	1000, 2000, 3000, 4000	6.24×10^{-3}	0.8	4.84
122.5	15	97.5	71	9	56	9	M6	3.8	0.14		6.24×10^{-3}	1.7	4.84
122	15	97	71	9	—	9	M6	3.8	0.14		6.24×10^{-3}	1.7	4.84

Options⇒A15-351

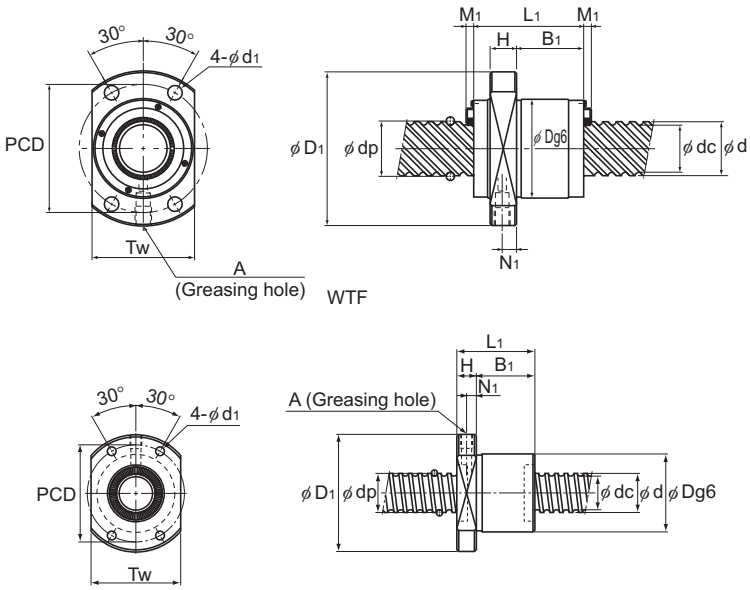
No Preload Type of Rolled Ball Screw

Screw shaft outer diameter	32 to 50
Lead	10 to 100



BLK

Screw shaft outer diameter	Lead	Model No.	Ball center-to-center diameter	Thread minor diameter	No. of loaded circuits	Basic load rating		Rigidity		
						Ca	C_0a	K	Outer diameter	Flange diameter
d	Ph		dp	dc	Rows × turns	kN	kN	N/μm	D	D_1
32	10	BTK 3210-2.6	33.75	27.2	1×2.65	19.8	53.8	250	67	103
		BTK 3210-5.3	33.75	27.2	2×2.65	36	107.5	490	67	103
	32	BLK 3232-3.6	33.25	28.3	2×1.8	17.3	53.9	330	58	92
		BLK 3232-7.2	33.25	28.3	4×1.8	31.3	107.8	650	58	92
36	10	BTK 3610-2.6	37	30.5	1×2.65	20.8	59.8	270	70	110
		BTK 3610-5.3	37	30.5	2×2.65	37.8	118.7	530	70	110
	20	BLK 3620-5.6	37.75	31.2	2×2.8	39.8	121.7	570	70	110
	24	BLK 3624-5.6	38	30.7	2×2.8	46.2	137.4	590	75	115
	36	BLK 3636-3.6	37.4	31.7	2×1.8	22.4	70.5	370	66	106
		BLK 3636-7.2	37.4	31.7	4×1.8	40.6	141.1	730	66	106
40	10	BTK 4010-5.3	41.75	35.2	2×2.65	40.3	134.9	590	76	116
	40	BLK 4040-3.6	41.75	35.2	2×1.8	28.1	89.8	420	73	114
		BLK 4040-7.2	41.75	35.2	4×1.8	51.1	179.6	810	73	114
	80	WTF 4080-2	41.75	35.2	4×0.65	19.8	54.5	320	73	114
		WTF 4080-3	41.75	35.2	2×1.65	24.3	69.2	400	73	114
45	12	BTK 4512-5.3	46.5	39.2	2×2.65	49.5	169	650	82	128
50	16	BTK 5016-5.3	52.7	42.9	2×2.65	93.8	315.2	930	102	162
	50	BLK 5050-3.6	52.2	44.1	2×1.8	42.1	140.4	510	90	135
		BLK 5050-7.2	52.2	44.1	4×1.8	76.3	280.7	1000	90	135
	100	WTF 50100-2	52.2	44.1	4×0.65	29.6	85.2	390	90	135
		WTF 50100-3	52.2	44.1	2×1.65	36.3	108.1	500	90	135



Models BTK 1404 to 5016

Unit: mm

Nut dimensions									Axial clearance	Standard shaft length	Screw shaft inertial moment/mm	Nut mass	Shaft mass
	Overall length						Greasing hole	Seal					
	L_1	H	B_1	PCD	d_1	T_w	N_1	A	M_1				
	68	15	53	85	9	78	5	M6	—	0.14	500, 1000, 2000, 2500	8.08×10^{-3}	1.77	5.49
	98	15	83	85	9	78	5	M6	—	0.14		8.08×10^{-3}	2.35	5.49
	70	15	45	74	9	68	7.5	M6	3.8	0.14	1000, 1500, 2000, 2500	8.08×10^{-3}	1.14	5.69
	70	15	45	74	9	68	7.5	M6	3.8	0.14		8.08×10^{-3}	1.14	5.69
	70	17	53	90	11	82	7	M6	—	0.17	500, 1000, 2000, 2500, 3000	1.29×10^{-2}	1.94	6.91
	100	17	83	90	11	82	7	M6	—	0.17		1.29×10^{-2}	2.55	6.91
	78	17	45	90	11	80	8.5	M6	5	0.17	1000, 1500, 2000, 3000	1.29×10^{-2}	1.74	7.09
	94	18	59	94	11	86	9	M6	5	0.17		1.29×10^{-2}	2.42	7.02
	77	17	50	85	11	76	8.5	M6	5	0.17		1.29×10^{-2}	1.74	7.12
	77	17	50	85	11	76	8.5	M6	5	0.17		1.29×10^{-2}	1.74	7.12
	100	17	83	96	11	88	7	M6	—	0.17	1000, 1500, 2000, 3000, 3500	1.97×10^{-2}	2.91	8.81
	85	17	56.5	93	11	84	8.5	M6	5.4	0.17	1000, 1500, 2000, 3000	1.97×10^{-2}	2.16	8.76
	85	17	56.5	93	11	84	8.5	M6	5.4	0.17		1.97×10^{-2}	2.16	8.76
	79	17	50.5	93	11	74	8.5	M6	5.4	0.17		1.97×10^{-2}	2.1	8.66
	159	17	130.5	93	11	74	8.5	M6	5.4	0.17		1.97×10^{-2}	3.67	8.66
	118	20	98	104	14	94	8	M6	—	0.17	1000, 1500, 2000, 3000, 3500	3.16×10^{-2}	3.9	11.08
	145	25	120	132	18	104	12.5	PT 1/8	—	0.2		4.82×10^{-2}	7.8	13.66
	106	20	72	112	14	104	10	M6	5.4	0.2	1000, 1500, 2000, 3000	4.82×10^{-2}	3.89	13.79
	106	20	72	112	14	104	10	M6	5.4	0.2		4.82×10^{-2}	3.86	13.79
	98	20	64	112	14	92	10	M6	5.4	0.2		4.82×10^{-2}	3.5	13.86
	198	20	164	112	14	92	10	M6	5.4	0.2		4.82×10^{-2}	6.4	13.86

Options⇒A15-351