

PSG-TI
0.5m_n

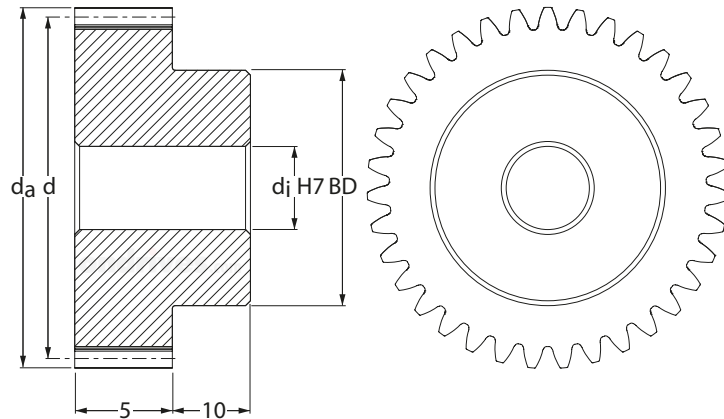
PRECISION GEARS

0.5 Module Titanium Spur Gear α 20° PA

Quality Grade 7e DIN 3961/58405 (AGMA Q10)



DIN 58405 Tooth Thickness tol.



Part Number	No. of Teeth <i>z</i>	Ref. Dia. <i>d</i>	Tip Dia. <i>d_a</i>	Bore H7 <i>d_j</i>	Max. Bore H7 <i>d_j</i>	Hub Dia. <i>BD</i>
PSG0.5-18TI	18	9.0	10.0	3	3	7
PSG0.5-19TI	19	9.5	10.5	4	4	8
PSG0.5-20TI	20	10.0	11.0	4	4	8
PSG0.5-21TI	21	10.5	11.5	4	4	8
PSG0.5-22TI	22	11.0	12.0	4	4	8
PSG0.5-23TI	23	11.5	12.5	4	4	8
PSG0.5-24TI	24	12.0	13.0	5	5	10
PSG0.5-25TI	25	12.5	13.5	5	5	10
PSG0.5-26TI	26	13.0	14.0	5	5	10
PSG0.5-27TI	27	13.5	14.5	5	5	10
PSG0.5-28TI	28	14.0	15.0	5	5	10
PSG0.5-29TI	29	14.5	15.5	6	6	13
PSG0.5-30TI	30	15.0	16.0	6	6	13
PSG0.5-32TI	32	16.0	17.0	6	6	13
PSG0.5-35TI	35	17.5	18.5	6	6	13
PSG0.5-38TI	38	19.0	20.0	6	8	17
PSG0.5-40TI	40	20.0	21.0	6	8	17
PSG0.5-42TI	42	21.0	22.0	6	8	17
PSG0.5-45TI	45	22.5	23.5	6	8	17
PSG0.5-48TI	48	24.0	25.0	6	8	17
PSG0.5-50TI	50	25.0	26.0	6	8	17
PSG0.5-52TI	52	26.0	27.0	6	8	17
PSG0.5-55TI	55	27.5	28.5	6	8	17
PSG0.5-58TI	58	29.0	30.0	6	8	17
PSG0.5-60TI	60	30.0	31.0	6	8	17
PSG0.5-62TI	62	31.0	32.0	8	10	20
PSG0.5-65TI	65	32.5	33.5	8	10	20
PSG0.5-68TI	68	34.0	35.0	8	10	20
PSG0.5-70TI	70	35.0	36.0	8	10	20
PSG0.5-72TI	72	36.0	37.0	8	10	20
PSG0.5-75TI	75	37.5	38.5	8	10	20
PSG0.5-78TI	78	39.0	40.0	8	10	20
PSG0.5-80TI	80	40.0	41.0	8	12	25
PSG0.5-82TI	82	41.0	42.0	8	12	25
PSG0.5-85TI	85	42.5	43.5	8	12	25
PSG0.5-90TI	90	45.0	46.0	8	12	25
PSG0.5-95TI	95	47.5	48.5	8	12	25
PSG0.5-100TI	100	50.0	51.0	10	16	30
PSG0.5-105TI	105	52.5	53.5	10	16	30
PSG0.5-110TI	110	55.0	56.0	10	16	30
PSG0.5-115TI	115	57.5	58.5	10	16	30
PSG0.5-120TI	120	60.0	61.0	10	20	35
PSG0.5-130TI	130	65.0	66.0	10	20	35
PSG0.5-140TI	140	70.0	71.0	10	20	35
PSG0.5-150TI	150	75.0	76.0	10	25	40
PSG0.5-160TI	160	80.0	81.0	10	25	40
PSG0.5-170TI	170	85.0	86.0	10	25	40
PSG0.5-180TI	180	90.0	91.0	14	30	50
PSG0.5-190TI	190	95.0	96.0	14	30	50
PSG0.5-200TI	200	100.0	101.0	14	30	50
PSG0.5-210TI	210	105.0	106.0	14	30	50
PSG0.5-220TI	220	110.0	111.0	16	40	60
PSG0.5-230TI	230	115.0	116.0	16	40	60
PSG0.5-240TI	240	120.0	121.0	16	40	60
PSG0.5-250TI	250	125.0	126.0	16	40	60

PSG-TI
0.5m_n

PRECISION GEARS

0.5 Module Titanium Spur Gear α 20° PA

Quality Grade 7e DIN 3961/58405 (AGMA Q10)

Standard Part **PSG** **0.5** **50** **TI**

Modified Part **PSG** **0.5** **50** **TI** **8** **T**

PSG - Precision Spur Gear
Quality Grade 7e DIN 3961/58405
Other Quality Grades available.
See Technical

m_n Module - Cut with DIN 867 1.25/0.20/1.0
Ref. Tooth Profile Topping WD = 2.25 x m_n

Number of Teeth **z**

T = 1 x Tapped hole **2T** = 2 x Tapped holes
P = 1 x Pin Hole **PT** = 1 x Pin Hole through
All threads metric as standard.
See Technical

To specify different bore enter size required
Example: 8 = 8mm H7 etc
See Technical

Standard Material = Titanium Ti-6Al-4V
(Grade 5)

η_z Meshing Efficiency approx. 98%

Part Number	Backlash (mm)		Inertia kgm ²	Mass kg	Torque T ₂ Nm n ₂ 100 Rpm
	j _{t,e} (max)	j _{t,i} (min)			
PSG0.5-18TI	0.076	0.037	2.47 x 10 ⁻⁸	0.003	0.08
PSG0.5-19TI	0.076	0.037	3.43 x 10 ⁻⁸	0.003	0.08
PSG0.5-20TI	0.076	0.037	3.83 x 10 ⁻⁸	0.003	0.11
PSG0.5-21TI	0.077	0.036	4.30 x 10 ⁻⁸	0.003	0.11
PSG0.5-22TI	0.077	0.036	4.84 x 10 ⁻⁸	0.003	0.12
PSG0.5-23TI	0.077	0.036	5.46 x 10 ⁻⁸	0.004	0.12
PSG0.5-24TI	0.077	0.036	8.48 x 10 ⁻⁸	0.005	0.13
PSG0.5-25TI	0.087	0.042	9.27 x 10 ⁻⁸	0.005	0.13
PSG0.5-26TI	0.087	0.042	1.02 x 10 ⁻⁷	0.005	0.16
PSG0.5-27TI	0.087	0.042	1.12 x 10 ⁻⁷	0.005	0.17
PSG0.5-28TI	0.087	0.042	1.23 x 10 ⁻⁷	0.006	0.18
PSG0.5-29TI	0.087	0.042	2.12 x 10 ⁻⁷	0.008	0.18
PSG0.5-30TI	0.087	0.042	2.25 x 10 ⁻⁷	0.008	0.21
PSG0.5-32TI	0.087	0.042	2.57 x 10 ⁻⁷	0.008	0.22
PSG0.5-35TI	0.087	0.042	3.18 x 10 ⁻⁷	0.009	0.24
PSG0.5-38TI	0.089	0.041	6.35 x 10 ⁻⁷	0.014	0.26
PSG0.5-40TI	0.089	0.041	6.99 x 10 ⁻⁷	0.015	0.35
PSG0.5-42TI	0.089	0.041	7.73 x 10 ⁻⁷	0.016	0.37
PSG0.5-45TI	0.089	0.041	9.06 x 10 ⁻⁷	0.017	0.40
PSG0.5-48TI	0.089	0.041	1.07 x 10 ⁻⁶	0.018	0.42
PSG0.5-50TI	0.089	0.041	1.19 x 10 ⁻⁶	0.019	0.52
PSG0.5-52TI	0.097	0.046	1.34 x 10 ⁻⁶	0.020	0.54
PSG0.5-55TI	0.097	0.046	1.58 x 10 ⁻⁶	0.021	0.58
PSG0.5-58TI	0.097	0.046	1.88 x 10 ⁻⁶	0.023	0.61
PSG0.5-60TI	0.097	0.046	2.10 x 10 ⁻⁶	0.024	0.75
PSG0.5-62TI	0.098	0.044	2.65 x 10 ⁻⁶	0.027	0.77
PSG0.5-65TI	0.098	0.044	3.07 x 10 ⁻⁶	0.029	0.81
PSG0.5-68TI	0.098	0.044	3.54 x 10 ⁻⁶	0.030	0.85
PSG0.5-70TI	0.098	0.044	3.90 x 10 ⁻⁶	0.032	0.87
PSG0.5-72TI	0.098	0.044	4.28 x 10 ⁻⁶	0.033	0.90
PSG0.5-75TI	0.098	0.044	4.92 x 10 ⁻⁶	0.035	0.93
PSG0.5-78TI	0.098	0.044	5.65 x 10 ⁻⁶	0.037	0.97
PSG0.5-80TI	0.098	0.044	7.18 x 10 ⁻⁶	0.046	1.11
PSG0.5-82TI	0.098	0.044	7.75 x 10 ⁻⁶	0.047	1.14
PSG0.5-85TI	0.098	0.044	8.69 x 10 ⁻⁶	0.050	1.18
PSG0.5-90TI	0.098	0.044	1.05 x 10 ⁻⁵	0.053	1.25
PSG0.5-95TI	0.098	0.044	1.26 x 10 ⁻⁵	0.057	1.32
PSG0.5-100TI	0.098	0.044	1.69 x 10 ⁻⁵	0.069	1.42
PSG0.5-105TI	0.111	0.049	1.98 x 10 ⁻⁵	0.074	1.50
PSG0.5-110TI	0.111	0.049	2.32 x 10 ⁻⁵	0.078	1.57
PSG0.5-115TI	0.111	0.049	2.70 x 10 ⁻⁵	0.083	1.64
PSG0.5-120TI	0.111	0.049	3.44 x 10 ⁻⁵	0.100	1.71
PSG0.5-130TI	0.111	0.049	4.49 x 10 ⁻⁵	0.110	1.85
PSG0.5-140TI	0.111	0.049	5.82 x 10 ⁻⁵	0.122	1.99
PSG0.5-150TI	0.111	0.049	7.93 x 10 ⁻⁵	0.148	2.18
PSG0.5-160TI	0.111	0.049	9.95 x 10 ⁻⁵	0.161	2.33
PSG0.5-170TI	0.113	0.047	1.24 x 10 ⁻⁴	0.175	2.47
PSG0.5-180TI	0.113	0.047	1.69 x 10 ⁻⁴	0.217	2.62
PSG0.5-190TI	0.113	0.047	2.03 x 10 ⁻⁴	0.233	2.76
PSG0.5-200TI	0.113	0.047	2.43 x 10 ⁻⁴	0.250	2.94
PSG0.5-210TI	0.138	0.064	2.90 x 10 ⁻⁴	0.268	3.09
PSG0.5-220TI	0.138	0.064	3.72 x 10 ⁻⁴	0.321	3.24
PSG0.5-230TI	0.138	0.064	4.34 x 10 ⁻⁴	0.341	3.38
PSG0.5-240TI	0.138	0.064	5.04 x 10 ⁻⁴	0.361	3.53
PSG0.5-250TI	0.140	0.062	5.84 x 10 ⁻⁴	0.382	3.68

PSG-TI
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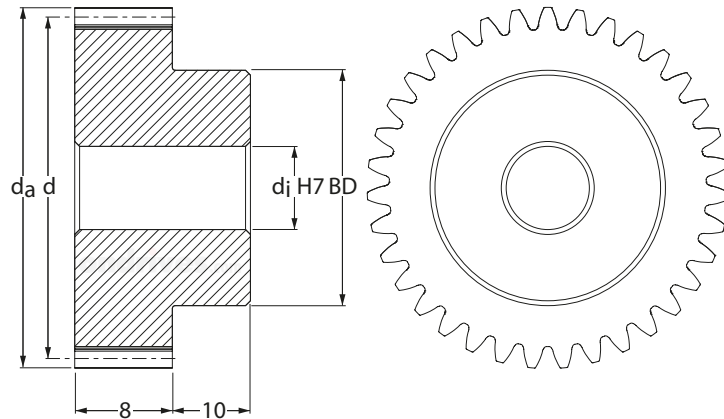
PRECISION GEARS

0.8 Module Titanium Spur Gear α 20° PA

Quality Grade 7e DIN 3961/58405 (AGMA Q10)



DIN 58405 Tooth Thickness tol.



Part Number	No. of Teeth <i>z</i>	Ref. Dia. <i>d</i>	Tip Dia. <i>d_a</i>	Bore H7 <i>d_j</i>	Max. Bore H7 <i>d_j</i>	Hub Dia. <i>BD</i>
PSG0.8-18TI	18	14.4	16.0	5	6	11
PSG0.8-19TI	19	15.2	16.8	5	6	11
PSG0.8-20TI	20	16.0	17.6	5	6	11
PSG0.8-21TI	21	16.8	18.4	5	6	12
PSG0.8-22TI	22	17.6	19.2	5	6	12
PSG0.8-23TI	23	18.4	20.0	5	6	12
PSG0.8-24TI	24	19.2	20.8	6	8	14
PSG0.8-25TI	25	20.0	21.6	6	8	14
PSG0.8-26TI	26	20.8	22.4	6	8	14
PSG0.8-27TI	27	21.6	23.2	6	8	14
PSG0.8-28TI	28	22.4	24.0	8	10	18
PSG0.8-29TI	29	23.2	24.8	8	10	18
PSG0.8-30TI	30	24.0	25.6	8	10	18
PSG0.8-32TI	32	25.6	27.2	8	10	18
PSG0.8-35TI	35	28.0	29.6	10	12	20
PSG0.8-38TI	38	30.4	32.0	10	12	20
PSG0.8-40TI	40	32.0	33.6	10	12	20
PSG0.8-42TI	42	33.6	35.2	10	12	20
PSG0.8-45TI	45	36.0	37.6	10	12	20
PSG0.8-48TI	48	38.4	40.0	10	18	30
PSG0.8-50TI	50	40.0	41.6	10	18	30
PSG0.8-52TI	52	41.6	43.2	10	18	30
PSG0.8-55TI	55	44.0	45.6	10	18	30
PSG0.8-58TI	58	46.4	48.0	10	18	30
PSG0.8-60TI	60	48.0	49.6	10	25	40
PSG0.8-62TI	62	49.6	51.2	10	25	40
PSG0.8-65TI	65	52.0	53.6	10	25	40
PSG0.8-68TI	68	54.4	56.0	10	25	40
PSG0.8-70TI	70	56.0	57.6	10	25	40
PSG0.8-72TI	72	57.6	59.2	10	25	40
PSG0.8-75TI	75	60.0	61.6	10	30	50
PSG0.8-78TI	78	62.4	64.0	10	30	50
PSG0.8-80TI	80	64.0	65.6	10	30	50
PSG0.8-82TI	82	65.6	67.2	10	30	50
PSG0.8-85TI	85	68.0	69.6	10	30	50
PSG0.8-90TI	90	72.0	73.6	10	40	65
PSG0.8-95TI	95	76.0	77.6	10	40	65
PSG0.8-100TI	100	80.0	81.6	14	40	65
PSG0.8-110TI	110	88.0	89.6	14	40	70
PSG0.8-120TI	120	96.0	97.6	14	40	70

PSG-TI
0.8m_n

PRECISION GEARS

0.8 Module Titanium Spur Gear α 20° PA

Quality Grade 7e DIN 3961/58405 (AGMA Q10)

Standard Part **PSG** **0.8** **50** **TI**

Modified Part **PSG** **0.8** **50** **TI** **12** **T**

PSG - Precision Spur Gear
Quality Grade 7e DIN 3961/58405
Other Quality Grades available.
See Technical

m_n Module - Cut with DIN 867 1.25/0.20/1.0
Ref. Tooth Profile Topping WD = 2.25 x m_n

Number of Teeth **z**

T = 1 x Tapped hole **2T** = 2 x Tapped holes
P = 1 x Pin Hole **PT** = 1 x Pin Hole through
All threads metric as standard.
See Technical

To specify different bore enter size required
Example: 12 = 12mm H7 etc
See Technical

Standard Material = Titanium Ti-6Al-4V
(Grade 5)

η_z Meshing Efficiency approx. 98%

Part Number	Backlash (mm)		Inertia kgm ²	Mass kg	Torque T ₂ Nm n ₂ 100 Rpm
	j _{t,e} (max)	j _{t,i} (min)			
PSG0.8-18TI	0.096	0.047	2.13 x 10 ⁻⁷	0.008	0.28
PSG0.8-19TI	0.096	0.047	2.50 x 10 ⁻⁷	0.009	0.30
PSG0.8-20TI	0.096	0.047	2.92 x 10 ⁻⁷	0.010	0.40
PSG0.8-21TI	0.096	0.047	3.67 x 10 ⁻⁷	0.011	0.42
PSG0.8-22TI	0.096	0.047	4.24 x 10 ⁻⁷	0.012	0.44
PSG0.8-23TI	0.097	0.046	4.88 x 10 ⁻⁷	0.013	0.46
PSG0.8-24TI	0.097	0.046	6.33 x 10 ⁻⁷	0.015	0.48
PSG0.8-25TI	0.097	0.046	7.17 x 10 ⁻⁷	0.016	0.50
PSG0.8-26TI	0.097	0.046	8.10 x 10 ⁻⁷	0.016	0.61
PSG0.8-27TI	0.097	0.046	9.16 x 10 ⁻⁷	0.017	0.63
PSG0.8-28TI	0.097	0.046	1.30 x 10 ⁻⁶	0.021	0.66
PSG0.8-29TI	0.097	0.046	1.43 x 10 ⁻⁶	0.022	0.68
PSG0.8-30TI	0.097	0.046	1.58 x 10 ⁻⁶	0.023	0.77
PSG0.8-32TI	0.108	0.052	1.91 x 10 ⁻⁶	0.025	0.82
PSG0.8-35TI	0.108	0.052	2.74 x 10 ⁻⁶	0.029	0.90
PSG0.8-38TI	0.109	0.050	3.57 x 10 ⁻⁶	0.033	0.98
PSG0.8-40TI	0.109	0.050	4.23 x 10 ⁻⁶	0.036	1.32
PSG0.8-42TI	0.109	0.050	5.01 x 10 ⁻⁶	0.039	1.38
PSG0.8-45TI	0.109	0.050	6.40 x 10 ⁻⁶	0.043	1.48
PSG0.8-48TI	0.109	0.050	1.09 x 10 ⁻⁵	0.066	1.58
PSG0.8-50TI	0.109	0.050	1.23 x 10 ⁻⁵	0.069	1.95
PSG0.8-52TI	0.109	0.050	1.38 x 10 ⁻⁵	0.073	2.03
PSG0.8-55TI	0.109	0.050	1.63 x 10 ⁻⁵	0.078	2.15
PSG0.8-58TI	0.109	0.050	1.94 x 10 ⁻⁵	0.084	2.26
PSG0.8-60TI	0.109	0.050	2.93 x 10 ⁻⁵	0.113	2.79
PSG0.8-62TI	0.109	0.050	3.19 x 10 ⁻⁵	0.117	2.88
PSG0.8-65TI	0.122	0.055	3.62 x 10 ⁻⁵	0.124	3.02
PSG0.8-68TI	0.122	0.055	4.12 x 10 ⁻⁵	0.131	3.16
PSG0.8-70TI	0.122	0.055	4.49 x 10 ⁻⁵	0.136	3.25
PSG0.8-72TI	0.122	0.055	4.89 x 10 ⁻⁵	0.141	3.34
PSG0.8-75TI	0.122	0.055	7.17 x 10 ⁻⁵	0.180	3.48
PSG0.8-78TI	0.122	0.055	7.93 x 10 ⁻⁵	0.188	3.62
PSG0.8-80TI	0.122	0.055	8.48 x 10 ⁻⁵	0.194	4.56
PSG0.8-82TI	0.122	0.055	9.08 x 10 ⁻⁵	0.199	4.68
PSG0.8-85TI	0.122	0.055	1.01 x 10 ⁻⁴	0.208	4.85
PSG0.8-90TI	0.122	0.055	1.70 x 10 ⁻⁴	0.284	5.13
PSG0.8-95TI	0.122	0.055	1.92 x 10 ⁻⁴	0.300	5.42
PSG0.8-100TI	0.122	0.055	2.18 x 10 ⁻⁴	0.311	5.84
PSG0.8-110TI	0.123	0.053	3.11 x 10 ⁻⁴	0.372	6.13
PSG0.8-120TI	0.123	0.053	3.97 x 10 ⁻⁴	0.413	6.42

PSG-TI
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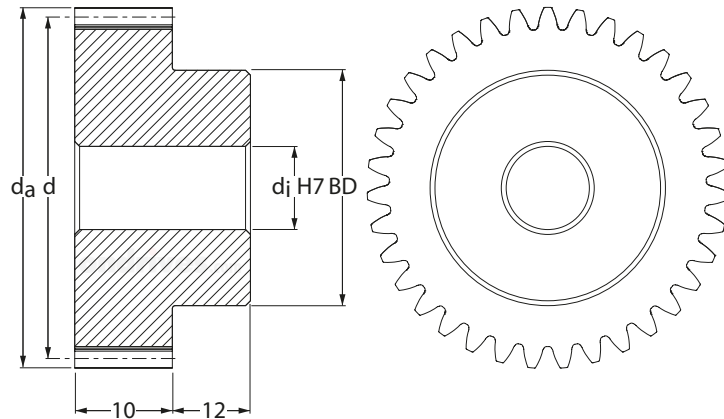
PRECISION GEARS

1.0 Module Titanium Spur Gear α 20° PA

Quality Grade 7e25 DIN 3961/3967 (AGMA Q10)



DIN 3967 Tooth Thickness tol.



Part Number	No. of Teeth <i>z</i>	Ref. Dia. <i>d</i>	Tip Dia. <i>d_a</i>	Bore H7 <i>d_j</i>	Max. Bore H7 <i>d_j</i>	Hub Dia. <i>BD</i>
PSG1.0-15TI	15	15	17	5	5	12
PSG1.0-16TI	16	16	18	5	5	12
PSG1.0-17TI	17	17	19	5	5	12
PSG1.0-18TI	18	18	20	5	8	15
PSG1.0-19TI	19	19	21	5	8	15
PSG1.0-20TI	20	20	22	5	8	15
PSG1.0-21TI	21	21	23	5	8	15
PSG1.0-22TI	22	22	24	5	8	15
PSG1.0-23TI	23	23	25	5	8	15
PSG1.0-24TI	24	24	26	6	10	20
PSG1.0-25TI	25	25	27	6	10	20
PSG1.0-26TI	26	26	28	6	10	20
PSG1.0-27TI	27	27	29	6	10	20
PSG1.0-28TI	28	28	30	6	10	20
PSG1.0-29TI	29	29	31	8	12	25
PSG1.0-30TI	30	30	32	8	12	25
PSG1.0-32TI	32	32	34	8	12	25
PSG1.0-35TI	35	35	37	8	12	25
PSG1.0-38TI	38	38	40	10	18	34
PSG1.0-40TI	40	40	42	10	18	34
PSG1.0-42TI	42	42	44	10	18	34
PSG1.0-45TI	45	45	47	10	18	34
PSG1.0-48TI	48	48	50	10	18	34
PSG1.0-50TI	50	50	52	10	18	34
PSG1.0-52TI	52	52	54	10	22	40
PSG1.0-55TI	55	55	57	10	22	40
PSG1.0-58TI	58	58	60	10	22	40
PSG1.0-60TI	60	60	62	10	22	40
PSG1.0-62TI	62	62	64	10	22	40
PSG1.0-65TI	65	65	67	10	28	50
PSG1.0-68TI	68	68	70	10	28	50
PSG1.0-70TI	70	70	72	10	28	50
PSG1.0-72TI	72	72	74	10	28	50
PSG1.0-75TI	75	75	77	10	28	50
PSG1.0-78TI	78	78	80	10	35	60
PSG1.0-80TI	80	80	82	10	35	60
PSG1.0-82TI	82	82	84	10	35	60
PSG1.0-85TI	85	85	87	10	35	60
PSG1.0-90TI	90	90	92	10	35	60
PSG1.0-95TI	95	95	97	10	35	60
PSG1.0-100TI	100	100	102	14	40	70
PSG1.0-105TI	105	105	107	14	40	70
PSG1.0-110TI	110	110	112	14	40	70
PSG1.0-115TI	115	115	117	14	40	70
PSG1.0-120TI	120	120	122	14	40	70

PSG-TI
1.0m_n

PRECISION GEARS

1.0 Module Titanium Spur Gear α 20° PA

Quality Grade 7e25 DIN 3961/3967 (AGMA Q10)

Standard Part **PSG** **1.0** **50** **TI**

Modified Part **PSG** **1.0** **50** **TI** **12** **T**

PSG - Precision Spur Gear
Quality Grade 7e DIN 3961/3967
Other Quality Grades available.
See Technical

m_n Module - Cut with DIN 867 1.25/0.20/1.0
Ref. Tooth Profile Topping WD = 2.25 x m_n

Number of Teeth **z**

T = 1 x Tapped hole **2T** = 2 x Tapped holes
P = 1 x Pin Hole **PT** = 1 x Pin Hole through
All threads metric as standard.
See Technical

To specify different bore enter size required
Example: 12 = 12mm H7 etc
See Technical

Standard Material = Titanium Ti-6Al-4V
(Grade 5)

η_z Meshing Efficiency approx. 98%

Part Number	Backlash (mm)		Inertia kgm ²	Mass kg	Torque T ₂ Nm n ₂ 100 Rpm
	j _{t,e} (max)	j _{t,i} (min)			
PSG1.0-15TI	0.127	- 0.053	3.36 x 10 ⁻⁷	0.012	0.44
PSG1.0-16TI	0.127	- 0.053	4.02 x 10 ⁻⁷	0.013	0.47
PSG1.0-17TI	0.127	- 0.053	4.81 x 10 ⁻⁷	0.014	0.50
PSG1.0-18TI	0.127	- 0.053	7.30 x 10 ⁻⁷	0.019	0.53
PSG1.0-19TI	0.128	- 0.052	8.40 x 10 ⁻⁷	0.020	0.56
PSG1.0-20TI	0.128	- 0.052	9.69 x 10 ⁻⁷	0.021	0.74
PSG1.0-21TI	0.128	- 0.052	1.12 x 10 ⁻⁶	0.023	0.78
PSG1.0-22TI	0.128	- 0.052	1.29 x 10 ⁻⁶	0.024	0.82
PSG1.0-23TI	0.128	- 0.052	1.49 x 10 ⁻⁶	0.026	0.85
PSG1.0-24TI	0.128	- 0.052	2.28 x 10 ⁻⁶	0.034	0.89
PSG1.0-25TI	0.128	- 0.052	2.53 x 10 ⁻⁶	0.035	0.93
PSG1.0-26TI	0.128	- 0.052	2.82 x 10 ⁻⁶	0.037	1.14
PSG1.0-27TI	0.128	- 0.052	3.14 x 10 ⁻⁶	0.039	1.18
PSG1.0-28TI	0.128	- 0.052	3.50 x 10 ⁻⁶	0.041	1.22
PSG1.0-29TI	0.128	- 0.052	5.07 x 10 ⁻⁶	0.050	1.27
PSG1.0-30TI	0.128	- 0.052	5.51 x 10 ⁻⁶	0.052	1.44
PSG1.0-32TI	0.129	- 0.051	6.54 x 10 ⁻⁶	0.056	1.54
PSG1.0-35TI	0.129	- 0.051	8.48 x 10 ⁻⁶	0.063	1.68
PSG1.0-38TI	0.129	- 0.051	1.59 x 10 ⁻⁵	0.090	1.83
PSG1.0-40TI	0.129	- 0.051	1.79 x 10 ⁻⁵	0.096	2.46
PSG1.0-42TI	0.129	- 0.051	2.03 x 10 ⁻⁵	0.101	2.58
PSG1.0-45TI	0.129	- 0.051	2.45 x 10 ⁻⁵	0.110	2.77
PSG1.0-48TI	0.129	- 0.051	2.97 x 10 ⁻⁵	0.120	2.95
PSG1.0-50TI	0.129	- 0.051	3.38 x 10 ⁻⁵	0.127	3.64
PSG1.0-52TI	0.171	- 0.069	4.47 x 10 ⁻⁵	0.152	3.79
PSG1.0-55TI	0.171	- 0.069	5.26 x 10 ⁻⁵	0.163	4.01
PSG1.0-58TI	0.171	- 0.069	6.19 x 10 ⁻⁵	0.175	4.23
PSG1.0-60TI	0.171	- 0.069	6.90 x 10 ⁻⁵	0.183	5.20
PSG1.0-62TI	0.171	- 0.069	7.68 x 10 ⁻⁵	0.192	5.38
PSG1.0-65TI	0.171	- 0.069	1.09 x 10 ⁻⁴	0.242	5.64
PSG1.0-68TI	0.171	- 0.069	1.24 x 10 ⁻⁴	0.256	5.90
PSG1.0-70TI	0.171	- 0.069	1.36 x 10 ⁻⁴	0.266	6.07
PSG1.0-72TI	0.171	- 0.069	1.48 x 10 ⁻⁴	0.275	6.24
PSG1.0-75TI	0.171	- 0.069	1.69 x 10 ⁻⁴	0.291	6.50
PSG1.0-78TI	0.171	- 0.069	2.27 x 10 ⁻⁴	0.352	6.76
PSG1.0-80TI	0.171	- 0.069	2.44 x 10 ⁻⁴	0.363	8.88
PSG1.0-82TI	0.173	- 0.067	2.62 x 10 ⁻⁴	0.375	9.10
PSG1.0-85TI	0.173	- 0.067	2.92 x 10 ⁻⁴	0.392	9.44
PSG1.0-90TI	0.173	- 0.067	3.50 x 10 ⁻⁴	0.422	9.99
PSG1.0-95TI	0.173	- 0.067	4.18 x 10 ⁻⁴	0.454	10.55
PSG1.0-100TI	0.173	- 0.067	5.56 x 10 ⁻⁴	0.535	11.40
PSG1.0-105TI	0.173	- 0.067	6.49 x 10 ⁻⁴	0.570	11.97
PSG1.0-110TI	0.173	- 0.067	7.56 x 10 ⁻⁴	0.607	12.54
PSG1.0-115TI	0.173	- 0.067	8.79 x 10 ⁻⁴	0.646	13.11
PSG1.0-120TI	0.173	- 0.067	1.02 x 10 ⁻³	0.687	13.68

PSG-TI
1.25m_n

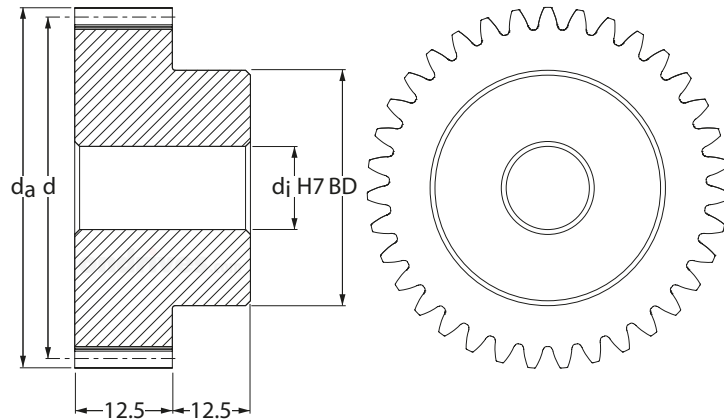
PRECISION GEARS

1.25 Module Titanium Spur Gear α 20° PA

Quality Grade 7e25 DIN 3961/3967 (AGMA Q10)



DIN 3967 Tooth Thickness tol.



Part Number	No. of Teeth <i>z</i>	Ref. Dia. <i>d</i>	Tip Dia. <i>d_a</i>	Bore H7 <i>d_j</i>	Max. Bore H7 <i>d_j</i>	Hub Dia. <i>BD</i>
PSG1.25-18TI	18	22.50	25.00	6	8	15
PSG1.25-19TI	19	23.75	26.25	6	8	15
PSG1.25-20TI	20	25.00	27.50	6	8	15
PSG1.25-21TI	21	26.25	28.75	8	12	20
PSG1.25-22TI	22	27.50	30.00	8	12	20
PSG1.25-23TI	23	28.75	31.25	8	12	20
PSG1.25-24TI	24	30.00	32.50	8	12	22
PSG1.25-25TI	25	31.25	33.75	8	12	22
PSG1.25-26TI	26	32.50	35.00	8	12	22
PSG1.25-27TI	27	33.75	36.25	8	12	22
PSG1.25-28TI	28	35.00	37.50	8	15	25
PSG1.25-29TI	29	36.25	38.75	8	15	25
PSG1.25-30TI	30	37.50	40.00	8	15	25
PSG1.25-32TI	32	40.00	42.50	8	15	25
PSG1.25-35TI	35	43.75	46.25	10	18	30
PSG1.25-38TI	38	47.50	50.00	10	18	30
PSG1.25-40TI	40	50.00	52.50	10	18	30
PSG1.25-42TI	42	52.50	55.00	10	18	30
PSG1.25-45TI	45	56.25	58.75	10	18	30
PSG1.25-48TI	48	60.00	62.50	10	25	40
PSG1.25-50TI	50	62.50	65.00	10	25	40
PSG1.25-52TI	52	65.00	67.50	10	25	40
PSG1.25-55TI	55	68.75	71.25	10	25	40
PSG1.25-58TI	58	72.50	75.00	10	25	40
PSG1.25-60TI	60	75.00	77.50	10	30	50
PSG1.25-62TI	62	77.50	80.00	10	30	50
PSG1.25-65TI	65	81.25	83.75	10	30	50
PSG1.25-68TI	68	85.00	87.50	10	30	50
PSG1.25-70TI	70	87.50	90.00	10	30	50
PSG1.25-72TI	72	90.00	92.50	10	30	50
PSG1.25-75TI	75	93.75	96.25	10	35	60
PSG1.25-78TI	78	97.50	100.00	10	35	60
PSG1.25-80TI	80	100.00	102.50	10	35	60
PSG1.25-82TI	82	102.50	105.00	10	35	60
PSG1.25-85TI	85	106.25	108.75	10	35	60
PSG1.25-90TI	90	112.50	115.00	10	40	65
PSG1.25-95TI	95	118.75	121.25	10	40	65
PSG1.25-100TI	100	125.00	127.50	14	40	65
PSG1.25-110TI	110	137.50	140.00	14	40	70
PSG1.25-120TI	120	150.00	152.50	14	40	70

PSG-TI
1.25m_n

PRECISION GEARS

1.25 Module Titanium Spur Gear α 20° PA

Quality Grade 7e25 DIN 3961/3967 (AGMA Q10)

Standard Part **PSG** **1.25** **50** **TI**

Modified Part **PSG** **1.25** **50** **TI** **12** **T**

PSG - Precision Spur Gear
Quality Grade 7e DIN 3961/3967
Other Quality Grades available.
See Technical

m_n Module - Cut with DIN 867 1.25/0.20/1.0
Ref. Tooth Profile Topping WD = 2.25 x m_n

Number of Teeth **z**

T = 1 x Tapped hole **2T** = 2 x Tapped holes
P = 1 x Pin Hole **PT** = 1 x Pin Hole through
All threads metric as standard.
See Technical

To specify different bore enter size required
Example: 12 = 12mm H7 etc
See Technical

Standard Material = Titanium Ti-6Al-4V
(Grade 5)

η_z Meshing Efficiency approx. 98%

Part Number	Backlash (mm) <i>jt.e (max) jt.i (min)</i>	Inertia <i>kgm²</i>	Mass <i>kg</i>	Torque <i>T₂ Nm</i> <i>n₂ 100 Rpm</i>
PSG1.25-18TI	0.128 - 0.052	1.70 x 10 ⁻⁶	0.028	0.99
PSG1.25-19TI	0.128 - 0.052	2.04 x 10 ⁻⁶	0.031	1.04
PSG1.25-20TI	0.128 - 0.052	2.43 x 10 ⁻⁶	0.033	1.39
PSG1.25-21TI	0.128 - 0.052	3.45 x 10 ⁻⁶	0.041	1.46
PSG1.25-22TI	0.128 - 0.052	3.98 x 10 ⁻⁶	0.044	1.53
PSG1.25-23TI	0.128 - 0.052	4.58 x 10 ⁻⁶	0.047	1.60
PSG1.25-24TI	0.128 - 0.052	5.67 x 10 ⁻⁶	0.054	1.67
PSG1.25-25TI	0.129 - 0.051	6.44 x 10 ⁻⁶	0.057	1.74
PSG1.25-26TI	0.129 - 0.051	7.32 x 10 ⁻⁶	0.061	2.12
PSG1.25-27TI	0.129 - 0.051	8.29 x 10 ⁻⁶	0.064	2.21
PSG1.25-28TI	0.129 - 0.051	1.02 x 10 ⁻⁵	0.074	2.29
PSG1.25-29TI	0.129 - 0.051	1.15 x 10 ⁻⁵	0.078	2.37
PSG1.25-30TI	0.129 - 0.051	1.28 x 10 ⁻⁵	0.082	2.70
PSG1.25-32TI	0.129 - 0.051	1.59 x 10 ⁻⁵	0.090	2.88
PSG1.25-35TI	0.129 - 0.051	2.41 x 10 ⁻⁵	0.113	3.14
PSG1.25-38TI	0.129 - 0.051	3.18 x 10 ⁻⁵	0.127	3.41
PSG1.25-40TI	0.129 - 0.051	3.80 x 10 ⁻⁵	0.138	4.59
PSG1.25-42TI	0.171 - 0.069	4.52 x 10 ⁻⁵	0.149	4.82
PSG1.25-45TI	0.171 - 0.069	5.82 x 10 ⁻⁵	0.166	5.17
PSG1.25-48TI	0.171 - 0.069	8.35 x 10 ⁻⁵	0.216	5.51
PSG1.25-50TI	0.171 - 0.069	9.59 x 10 ⁻⁵	0.229	6.81
PSG1.25-52TI	0.171 - 0.069	1.10 x 10 ⁻⁴	0.243	7.08
PSG1.25-55TI	0.171 - 0.069	1.34 x 10 ⁻⁴	0.264	7.49
PSG1.25-58TI	0.171 - 0.069	1.62 x 10 ⁻⁴	0.287	7.90
PSG1.25-60TI	0.171 - 0.069	2.04 x 10 ⁻⁴	0.342	9.72
PSG1.25-62TI	0.171 - 0.069	2.28 x 10 ⁻⁴	0.359	10.04
PSG1.25-65TI	0.173 - 0.067	2.68 x 10 ⁻⁴	0.384	10.53
PSG1.25-68TI	0.173 - 0.067	3.15 x 10 ⁻⁴	0.411	11.02
PSG1.25-70TI	0.173 - 0.067	3.49 x 10 ⁻⁴	0.430	11.34
PSG1.25-72TI	0.173 - 0.067	3.87 x 10 ⁻⁴	0.449	11.66
PSG1.25-75TI	0.173 - 0.067	4.86 x 10 ⁻⁴	0.527	12.15
PSG1.25-78TI	0.173 - 0.067	5.57 x 10 ⁻⁴	0.558	12.64
PSG1.25-80TI	0.173 - 0.067	6.08 x 10 ⁻⁴	0.579	16.59
PSG1.25-82TI	0.173 - 0.067	6.64 x 10 ⁻⁴	0.601	17.00
PSG1.25-85TI	0.173 - 0.067	7.56 x 10 ⁻⁴	0.635	17.63
PSG1.25-90TI	0.173 - 0.067	9.59 x 10 ⁻⁴	0.721	18.66
PSG1.25-95TI	0.173 - 0.067	1.17 x 10 ⁻³	0.784	19.70
PSG1.25-100TI	0.175 - 0.065	1.41 x 10 ⁻³	0.841	22.26
PSG1.25-110TI	0.227 - 0.097	2.06 x 10 ⁻³	1.013	23.37
PSG1.25-120TI	0.227 - 0.097	2.86 x 10 ⁻³	1.168	24.49

PSG-TI
1.5m_n

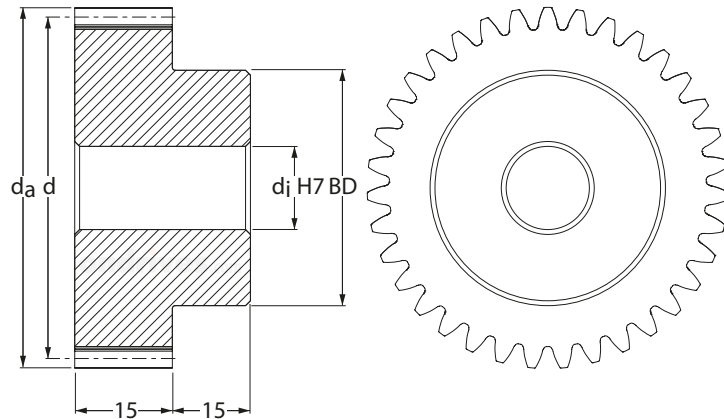
PRECISION GEARS

1.5 Module Titanium Spur Gear α 20° PA

Quality Grade 7e DIN 3961/3967 (AGMA Q10)



DIN 3967 Tooth Thickness tol.



Part Number	No. of Teeth <i>z</i>	Ref. Dia. <i>d</i>	Tip Dia. <i>d_a</i>	Bore H7 <i>d_j</i>	Max. Bore H7 <i>d_j</i>	Hub Dia. <i>BD</i>
PSG1.5-18TI	18	27.0	30.0	6	12	22
PSG1.5-19TI	19	28.5	31.5	6	12	22
PSG1.5-20TI	20	30.0	33.0	6	12	22
PSG1.5-21TI	21	31.5	34.5	8	14	25
PSG1.5-22TI	22	33.0	36.0	8	14	25
PSG1.5-23TI	23	34.5	37.5	8	14	25
PSG1.5-24TI	24	36.0	39.0	8	14	25
PSG1.5-25TI	25	37.5	40.5	8	14	25
PSG1.5-26TI	26	39.0	42.0	8	14	25
PSG1.5-27TI	27	40.5	43.5	8	14	25
PSG1.5-28TI	28	42.0	45.0	8	14	25
PSG1.5-29TI	29	43.5	46.5	10	20	35
PSG1.5-30TI	30	45.0	48.0	10	20	35
PSG1.5-32TI	32	48.0	51.0	10	20	35
PSG1.5-35TI	35	52.5	55.5	10	20	35
PSG1.5-38TI	38	57.0	60.0	12	25	45
PSG1.5-40TI	40	60.0	63.0	12	25	45
PSG1.5-42TI	42	63.0	66.0	12	25	45
PSG1.5-45TI	45	67.5	70.5	12	25	45
PSG1.5-48TI	48	72.0	75.0	12	25	45
PSG1.5-50TI	50	75.0	78.0	14	30	55
PSG1.5-52TI	52	78.0	81.0	14	30	55
PSG1.5-55TI	55	82.5	85.5	14	30	55
PSG1.5-58TI	58	87.0	90.0	14	30	55
PSG1.5-60TI	60	90.0	93.0	14	30	55
PSG1.5-62TI	62	93.0	96.0	14	30	55
PSG1.5-65TI	65	97.5	100.5	14	30	55
PSG1.5-68TI	68	102.0	105.0	16	40	65
PSG1.5-70TI	70	105.0	108.0	16	40	65
PSG1.5-72TI	72	108.0	111.0	16	40	65
PSG1.5-75TI	75	112.5	115.5	16	40	65
PSG1.5-78TI	78	117.0	120.0	16	40	65
PSG1.5-80TI	80	120.0	123.0	16	40	65
PSG1.5-82TI	82	123.0	126.0	16	40	65
PSG1.5-85TI	85	127.5	130.5	16	40	65
PSG1.5-88TI	88	132.0	135.0	16	40	65
PSG1.5-90TI	90	135.0	138.0	16	40	65
PSG1.5-92TI	92	138.0	141.0	16	40	65
PSG1.5-95TI	95	142.5	145.5	16	40	65
PSG1.5-98TI	98	147.0	150.0	16	40	65

PSG-TI
1.5m_n

PRECISION GEARS

1.5 Module Titanium Spur Gear α 20° PA

Quality Grade 7e DIN 3961/3967 (AGMA Q10)

Standard Part **PSG** **1.5** **50** **TI**

Modified Part **PSG** **1.5** **50** **TI** **16** **T**

PSG - Precision Spur Gear
Quality Grade 7e DIN 3961/3967
Other Quality Grades available.
See Technical

m_n Module - Cut with DIN 867 1.25/0.20/1.0
Ref. Tooth Profile Topping WD = 2.25 x m_n

Number of Teeth **z**

T = 1 x Tapped hole **2T** = 2 x Tapped holes
P = 1 x Pin Hole **PT** = 1 x Pin Hole through
All threads metric as standard.
See Technical

To specify different bore enter size required
Example: 16 = 16mm H7 etc
See Technical

Standard Material = Titanium Ti-6Al-4V
(Grade 5)

η_z Meshing Efficiency approx. 98%

Part Number	Backlash (mm)		Inertia kgm ²	Mass kg	Torque T ₂ Nm n ₂ 100 Rpm
	j _{t,e} (max)	j _{t,i} (min)			
PSG1.5-18TI	0.128	0.052	5.10 x 10 ⁻⁶	0.059	1.65
PSG1.5-19TI	0.128	0.052	5.93 x 10 ⁻⁶	0.063	1.74
PSG1.5-20TI	0.128	0.052	6.91 x 10 ⁻⁶	0.068	2.31
PSG1.5-21TI	0.129	0.051	9.03 x 10 ⁻⁶	0.077	2.43
PSG1.5-22TI	0.129	0.051	1.03 x 10 ⁻⁵	0.082	2.54
PSG1.5-23TI	0.129	0.051	1.18 x 10 ⁻⁵	0.087	2.66
PSG1.5-24TI	0.129	0.051	1.35 x 10 ⁻⁵	0.093	2.78
PSG1.5-25TI	0.129	0.051	1.55 x 10 ⁻⁵	0.098	2.89
PSG1.5-26TI	0.129	0.051	1.76 x 10 ⁻⁵	0.104	3.54
PSG1.5-27TI	0.129	0.051	2.01 x 10 ⁻⁵	0.110	3.67
PSG1.5-28TI	0.129	0.051	2.28 x 10 ⁻⁵	0.117	3.81
PSG1.5-29TI	0.129	0.051	3.30 x 10 ⁻⁵	0.151	3.95
PSG1.5-30TI	0.129	0.051	3.63 x 10 ⁻⁵	0.158	4.49
PSG1.5-32TI	0.129	0.051	4.41 x 10 ⁻⁵	0.172	4.79
PSG1.5-35TI	0.171	0.069	5.89 x 10 ⁻⁵	0.195	5.24
PSG1.5-38TI	0.171	0.069	9.48 x 10 ⁻⁵	0.258	5.69
PSG1.5-40TI	0.171	0.069	1.10 x 10 ⁻⁴	0.276	7.65
PSG1.5-42TI	0.171	0.069	1.28 x 10 ⁻⁴	0.295	8.03
PSG1.5-45TI	0.171	0.069	1.61 x 10 ⁻⁴	0.326	8.61
PSG1.5-48TI	0.171	0.069	2.00 x 10 ⁻⁴	0.358	9.18
PSG1.5-50TI	0.171	0.069	2.63 x 10 ⁻⁴	0.428	11.34
PSG1.5-52TI	0.171	0.069	2.98 x 10 ⁻⁴	0.451	11.79
PSG1.5-55TI	0.173	0.067	3.58 x 10 ⁻⁴	0.489	12.47
PSG1.5-58TI	0.173	0.067	4.29 x 10 ⁻⁴	0.528	13.15
PSG1.5-60TI	0.173	0.067	4.83 x 10 ⁻⁴	0.556	16.19
PSG1.5-62TI	0.173	0.067	5.42 x 10 ⁻⁴	0.584	16.73
PSG1.5-65TI	0.173	0.067	6.42 x 10 ⁻⁴	0.629	17.54
PSG1.5-68TI	0.173	0.067	8.14 x 10 ⁻⁴	0.732	18.35
PSG1.5-70TI	0.173	0.067	9.00 x 10 ⁻⁴	0.764	18.89
PSG1.5-72TI	0.173	0.067	9.94 x 10 ⁻⁴	0.797	19.43
PSG1.5-75TI	0.173	0.067	1.15 x 10 ⁻³	0.849	20.24
PSG1.5-78TI	0.173	0.067	1.33 x 10 ⁻³	0.902	21.05
PSG1.5-80TI	0.173	0.067	1.45 x 10 ⁻³	0.939	27.64
PSG1.5-82TI	0.175	0.065	1.59 x 10 ⁻³	0.977	28.33
PSG1.5-85TI	0.227	0.097	1.82 x 10 ⁻³	1.035	29.37
PSG1.5-88TI	0.227	0.097	2.08 x 10 ⁻³	1.096	30.40
PSG1.5-90TI	0.227	0.097	2.26 x 10 ⁻³	1.138	31.10
PSG1.5-92TI	0.227	0.097	2.46 x 10 ⁻³	1.180	31.79
PSG1.5-95TI	0.227	0.097	2.78 x 10 ⁻³	1.246	32.82
PSG1.5-98TI	0.227	0.097	3.13 x 10 ⁻³	1.313	33.86