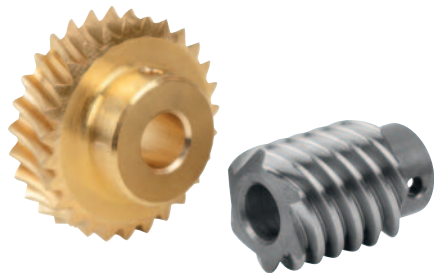


Worm gears, right-hand

centre distance 17 mm



Material:

Worm screw steel.

Worm wheel CuZn37Mn3Al2PbSi-S40.

Version:

Worm screw with right-hand pitch, case-hardened HV 620 – 700, flanks and hole ground.

Sample order:

nIm 22500-171002 Worm screw

nIm 22500-172002 Worm wheel

Note for ordering:

Wheels/screws can only be combined to form a worm gear if they have the same centre distance and transmission ratio.

Note:

A worm gear consists of a worm screw (shaft) and a worm wheel. Suitable for forming worm drives with a 90° shaft angle. A worm drive enables very large speed reduction ratios with a single stage.

The toothing has the flank shape K. The engagement angle is 15°. The worm gears are pre-bored.

The stated T2 output torques are the permissible output torques on the worm wheel. These apply for an input speed of 2800 rpm of the worm screw.

The worm gears are suitable for continuous operation at high speeds and high torques.

Attention:

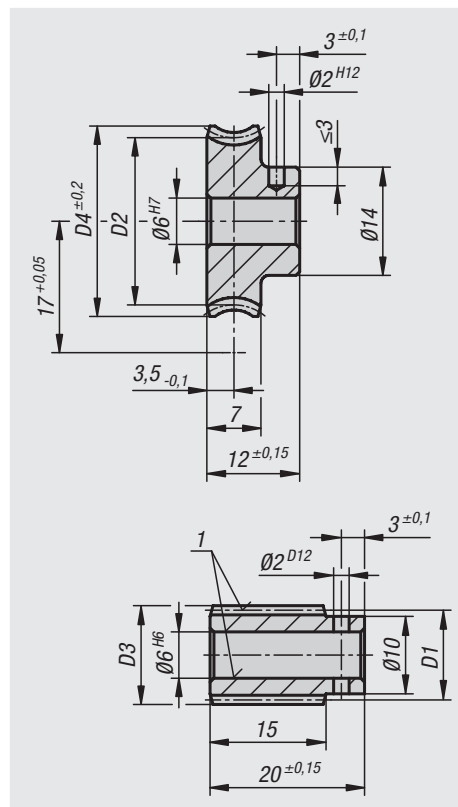
22500-171002: Screw polished only.

22500-172002: Worm wheel with helical gear toothing.

22500-171050: Screw has a $\varnothing 9$ mm hub.

Drawing reference:

1) ground



Worm gears, right-hand

centre distance 17 mm

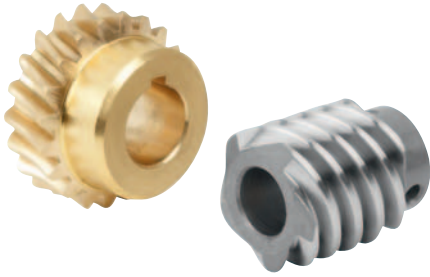


Order No. Worm	Order No. Worm Wheel	Transmission ratio	Pitch angle	Module	Z1	D1	D3	Z2	D2	D4
22500-171002	22500-172002	-/2,25:1	48° 15	0,9	8/-	10,15/-	11,95/-	-/18	-/23,85	-/25,63
22500-171004	22500-172004	-/4,5:1	21° 50	0,75	6/-	12,1/-	13,6/-	-/27	-/21,9	-/24,6
22500-171005	22500-172005	-/5:1	21° 37	0,7	6/-	11,4/-	12,8/-	-/30	-/22,6	-/24,6
22500-171007	22500-172007	-/7:1	14° 4	1	3/-	12,34/-	14,34/-	-/21	-/21,66	-/24,6
22500-171009	22500-172009	-/9:1	9° 40	0,75	3/-	13,4/-	14,9/-	-/27	-/20,6	-/22,7
22500-171010	22500-172010	-/10:1	11° 48	0,75	3/-	11/-	12,5/-	-/30	-/23	-/24,6
22500-171015	22500-172015	-/15:1	7° 38	0,75	2/-	11,3/-	12,8/-	-/30	-/22,7	-/24,6
22500-171025	22500-172025	-/25:1	4° 32	0,9	1/-	11,4/-	13,2/-	-/25	-/22,6	-/24,6
22500-171030	22500-172030	-/30:1	3° 45	0,75	1/-	11,45/-	12,95/-	-/30	-/22,55	-/24,6
22500-171040	22500-172040	-/40:1	2° 3	0,5	1/-	13,98/-	14,98/-	-/40	-/20,02	-/21,6
22500-171050	22500-172050	-/50:1	3° 12	0,5	1/-	8,95/-	9,95/-	-/50	-/25,05	-/27,2
22500-171060	22500-172060	-/60:1	2° 18	0,4	1/-	9,95/-	10,75/-	-/60	-/24,05	-/26
22500-171075	22500-172075	-/75:1	1° 28	0,3	1/-	11,74/-	12,34/-	-/75	-/22,26	-/24
22500-171080	22500-172080	-/80:1	1° 43	0,3	1/-	10/-	10,84/-	-/80	-/24	-/25,1

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Output torque T2 (Nm)		
			mineral grease	mineral oil	synthetic oil
22500-171002	22500-172002	-/2,25:1	1,1	1,3	1,6
22500-171004	22500-172004	-/4,5:1	1,7	2	2,6
22500-171005	22500-172005	-/5:1	1,8	2,2	2,7
22500-171007	22500-172007	-/7:1	1,6	1,9	2,4
22500-171009	22500-172009	-/9:1	1,5	1,8	2,2
22500-171010	22500-172010	-/10:1	1,9	2,3	2,8
22500-171015	22500-172015	-/15:1	1,9	2,3	2,8
22500-171025	22500-172025	-/25:1	1,8	2,2	2,7
22500-171030	22500-172030	-/30:1	1,9	2,3	2,8
22500-171040	22500-172040	-/40:1	1,4	1,7	2,1
22500-171050	22500-172050	-/50:1	1	1,2	1,5
22500-171060	22500-172060	-/60:1	1,6	1,9	2,4
22500-171075	22500-172075	-/75:1	1,5	1,8	2,2
22500-171080	22500-172080	-/80:1	1,5	1,8	2,2

Worm gears, right-hand

centre distance 22.62 mm



Material:

Worm screw steel.

Worm wheel CuZn37Mn3Al2PbSi-S40.

Version:

Worm screw with right-hand pitch, case-hardened HV 620 – 700, flanks and hole ground.

Sample order:

nIm 22500-221003 Worm screw

nIm 22500-222003 Worm wheel

Note for ordering:

Wheels/screws can only be combined to form a worm gear if they have the same centre distance and transmission ratio.

Note:

A worm gear consists of a worm screw (shaft) and a worm wheel. Suitable for forming worm drives with a 90° shaft angle. A worm drive enables very large speed reduction ratios with a single stage.

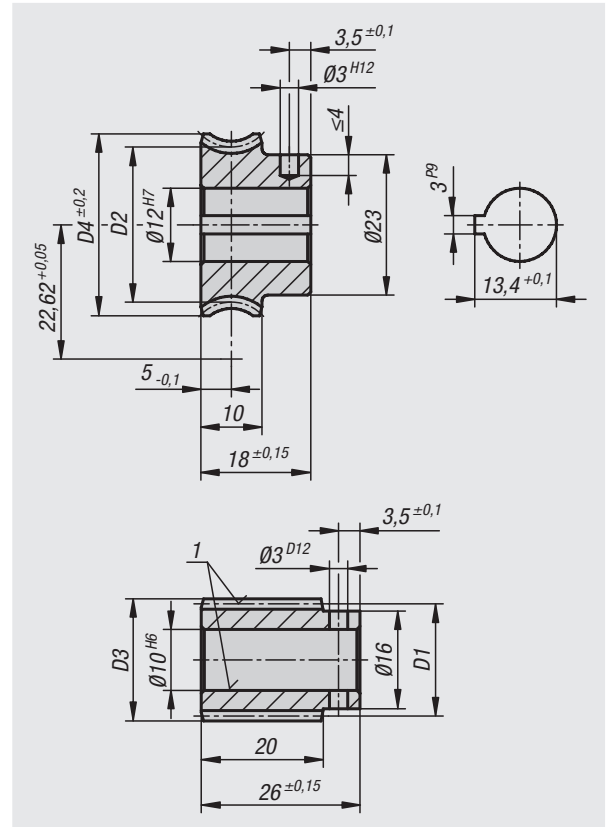
The toothing has the flank shape K. The engagement angle is 15°. The worm gears are pre-bored.

The stated T2 output torques are the permissible output torques on the worm wheel. These apply for an input speed of 2800 rpm of the worm screw.

The worm gears are suitable for continuous operation at high speeds and high torques.

Drawing reference:

1) ground



Worm gears, right-hand

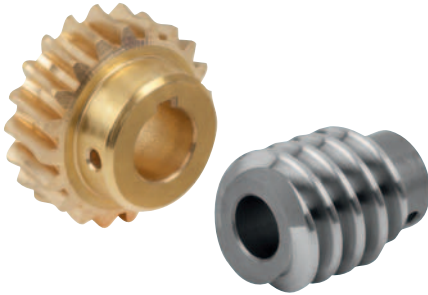
centre distance 22.62 mm

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Pitch angle	Module	Z1	D1	D3	Z2	D2	D4
22500-221003	22500-222003	-/3:1	17° 36	1	7/-	23,15/-	25,15/-	-/21	-/22,09	-/24,8
22500-221004	22500-222004	-/4:1	19° 32	1,25	5/-	18,7/-	21,2/-	-/20	-/26,54	-/29,8
22500-221007	22500-222007	-/7:1	11° 46	1,25	3/-	18,4/-	20,9/-	-/21	-/26,84	-/29,8
22500-221010	22500-222010	-/10,5:1	7° 41	1,25	2/-	18,7/-	21,2/-	-/21	-/26,54	-/29,8
22500-221021	22500-222021	-/21:1	3° 48	1,25	1/-	18,9/-	21,4/-	-/21	-/26,34	-/29,8
22500-221030	22500-222030	-/30:1	2° 50	0,9	1/-	18,2/-	20/-	-/30	-/27,04	-/29,8
22500-221040	22500-222040	-/40:1	2° 20	0,7	1/-	17,2/-	18,6/-	-/40	-/28,04	-/29,8

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Output torque T2 (Nm) mineral grease	Output torque T2 (Nm) mineral oil	Output torque T2 (Nm) synthetic oil
22500-221003	22500-222003	/3:1	2,2	2,6	3,3
22500-221004	22500-222004	/4:1	3,6	4,3	5,4
22500-221007	22500-222007	/7:1	3,6	4,3	5,4
22500-221010	22500-222010	/10,5:1	3,4	4,1	5,1
22500-221021	22500-222021	/21:1	3,4	4,1	5,1
22500-221030	22500-222030	/30:1	3,6	4,3	5,4
22500-221040	22500-222040	/40:1	3,9	4,7	5,8

Worm gears, right-hand

centre distance 25 mm



Material:

Worm screw steel.

Worm wheel CuZn37Mn3Al2PbSi-S40.

Version:

Worm screw with right-hand pitch, case-hardened HV 620 – 700, flanks and hole ground.

Sample order:

nIm 22500-251004 Worm screw

nIm 22500-252004 Worm wheel

Note for ordering:

Wheels/screws can only be combined to form a worm gear if they have the same centre distance and transmission ratio.

Note:

A worm gear consists of a worm screw (shaft) and a worm wheel. Suitable for forming worm drives with a 90° shaft angle. A worm drive enables very large speed reduction ratios with a single stage.

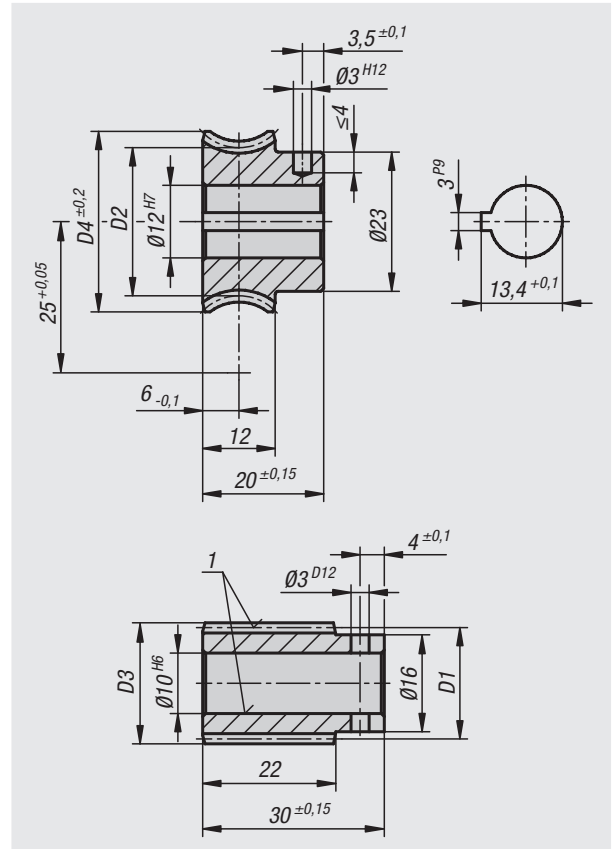
The toothing has the flank shape K. The engagement angle is 15°. The worm gears are pre-bored.

The stated T2 output torques are the permissible output torques on the worm wheel. These apply for an input speed of 2800 rpm of the worm screw.

The worm gears are suitable for continuous operation at high speeds and high torques.

Drawing reference:

1) ground



Worm gears, right-hand

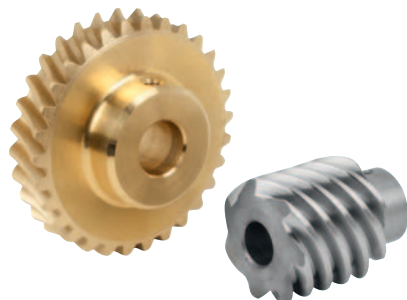
centre distance 25 mm

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Pitch angle	Module	Z1	D1	D3	Z2	D2	D4
22500-251004	22500-252004	-/4:1	20° 29	1,4	5/-	20/-	22,8/-	-/20	-/30	-/33,5
22500-251005	22500-252005	-/5:1	19° 15	1,5	4/-	18,2/-	21,2/-	-/20	-/31,8	-/34,8
22500-251006	22500-252006	-/6,5:1	13° 52	1,15	4/-	19,2/-	21,5/-	-/26	-/30,8	-/34,8
22500-251010	22500-252010	-/10:1	8° 48	1,5	2/-	19,6/-	22,6/-	-/20	-/30,4	-/34,8
22500-251015	22500-252015	-/15:1	6° 29	1	2/-	17,7/-	19,7/-	-/30	-/32,3	-/34,8
22500-251020	22500-252020	-/20:1	4° 19	1,5	1/-	19,9/-	22,9/-	-/20	-/30,1	-/34,8
22500-251025	22500-252025	-/25:1	2° 18	1	1/-	24,96/-	26,96/-	-/25	-/25,04	-/27,8
22500-251030	22500-252030	-/30:1	2° 53	1	1/-	19,9/-	21,9/-	-/30	-/30,1	-/33,5
22500-251040	22500-252040	-/40:1	2° 33	0,8	1/-	17,96/-	19,56/-	-/40	-/32,04	-/34,8
22500-251050	22500-252050	-/50:1	1° 43	0,6	1/-	19,96/-	21,16/-	-/50	-/30,04	-/33,5

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Output torque T2 (Nm)		
			mineral grease	mineral oil	synthetic oil
22500-251004	22500-252004	-/4:1	5,1	6,1	7,6
22500-251005	22500-252005	-/5:1	6,5	7,8	9,7
22500-251006	22500-252006	-/6,5:1	6	7,2	9
22500-251010	22500-252010	-/10:1	5,9	7,1	8,8
22500-251015	22500-252015	-/15:1	5,7	6,8	8,5
22500-251020	22500-252020	-/20:1	5,8	7	8,7
22500-251025	22500-252025	-/25:1	4,1	4,9	6,1
22500-251030	22500-252030	-/30:1	5,9	7,1	8,8
22500-251040	22500-252040	-/40:1	6,2	7,4	9,3
22500-251050	22500-252050	-/50:1	5,1	6,1	7,6

Worm gears, right-hand

centre distance 31 mm



Material:

Worm screw steel.

Worm wheel CuZn37Mn3Al2PbSi-S40.

Version:

Worm screw with right-hand pitch, case-hardened HV 620 – 700, flanks and hole ground.

Sample order:

nIm 22500-311002 Worm

nIm 22500-312002 Worm wheel

Note for ordering:

Wheels/screws can only be combined to form a worm gear if they have the same centre distance and transmission ratio.

Note:

A worm gear consists of a worm screw (shaft) and a worm wheel. Suitable for forming worm drives with a 90° shaft angle. A worm drive enables very large speed reduction ratios with a single stage.

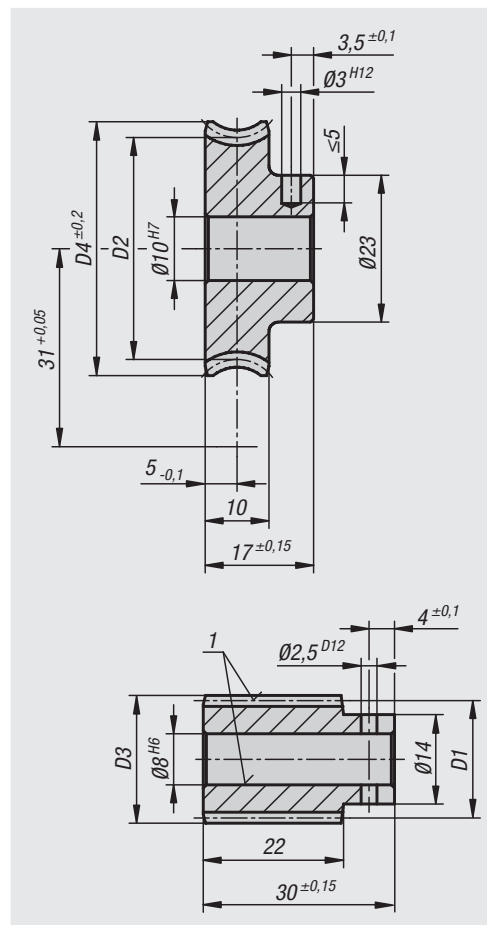
The toothing has the flank shape K. The engagement angle is 15°. The worm gears are pre-bored.

The stated T2 output torques are the permissible output torques on the worm wheel. These apply for an input speed of 2800 rpm of the worm screw.

The worm gears are suitable for continuous operation at high speeds and high torques.

Drawing reference:

1) ground



Order No. Worm	Order No. Worm Wheel	Transmission ratio	Pitch angle	Module	Z1	D1	D3	Z2	D2	D4
22500-311002	22500-312002	-/2,5:1	45° 15	1,25	10/-	17,6/-	20,1/-	-/25	-/44,4	-/46,9
22500-311003	22500-312003	-/3:1	35° 10	1,15	10/-	19,97/-	22,27/-	-/30	-/42,03	-/44,5
22500-311004	22500-312004	-/4,28:1	25° 24	1,25	7/-	20,4/-	22,9/-	-/30	-/41,6	-/45
22500-311005	22500-312005	-/5:1	23° 46	1,3	6/-	19,35/-	21,95/-	-/30	-/42,65	-/46,5
22500-311006	22500-312006	-/6:1	18° 13	1,3	5/-	20,8/-	23,4/-	-/30	-/41,2	-/45
22500-311007	22500-312007	-/7:1	20° 32	1,5	4/-	17,1/-	20,1/-	-/28	-/44,9	-/48,8
22500-311008	22500-312008	-/8,33:1	19° 49	1,75	3/-	15,5/-	19/-	-/25	-/46,5	-/51
22500-311010	22500-312010	-/10:1	12° 50	1,4	3/-	18,9/-	21,7/-	-/30	-/43,1	-/47
22500-311012	22500-312012	-/12:1	13° 55	1,25	3/-	15,6/-	18,1/-	-/36	-/46,4	-/50
22500-311015	22500-312015	-/15:1	10° 40	1,5	2/-	16,2/-	19,2/-	-/30	-/45,8	-/50
22500-311018	22500-312018	-/18:1	8° 44	1,25	2/-	16,46/-	18,96/-	-/36	-/45,54	-/48,8
22500-311020	22500-312020	-/20:1	7° 49	0,75	3/-	16,54/-	18,04/-	-/60	-/45,46	-/48
22500-311022	22500-312022	-/22:1	6° 29	1	2/-	17,7/-	19,7/-	-/44	-/44,3	-/48

Worm gears, right-hand

centre distance 31 mm

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Pitch angle	Module	Z1	D1	D3	Z2	D2	D4
22500-311023	22500-312023	-/23:1	7° 29	2	1/-	15,35/-	19,35/-	-/23	-/46,65	-/52
22500-311024	22500-312024	-/24:1	5° 4	1,75	1/-	19,8/-	23,3/-	-/24	-/42,2	-/47
22500-311025	22500-312025	-/25:1	5° 35	1,75	1/-	18/-	21,5/-	-/25	-/44	-/48,5
22500-311028	22500-312028	-/28:1	4° 20	1,5	1/-	19,85/-	22,85/-	-/28	-/42,15	-/46,5
22500-311030	22500-312030	-/30:1	5° 7	1,5	1/-	16,8/-	19,8/-	-/30	-/45,2	-/48,8
22500-311032	22500-312032	-/32:1	4° 45	1,4	1/-	16,9/-	19,7/-	-/32	-/45,1	-/48,8
22500-311038	22500-312038	-/38:1	5° 1	1,25	1/-	14,3/-	16,8/-	-/38	-/47,7	-/51,2
22500-311045	22500-312045	-/45:1	3° 23	1	1/-	16,93/-	18,93/-	-/45	-/45,07	-/48
22500-311050	22500-312050	-/50:1	3° 3	0,9	1/-	16,9/-	18,7/-	-/50	-/45,1	-/48
22500-311055	22500-312055	-/55:1	4° 12	0,9	1/-	12,3/-	14,1/-	-/55	-/49,7	-/52
22500-311060	22500-312060	-/60:1	2° 33	0,75	1/-	16,9/-	18,4/-	-/60	-/45,1	-/48
22500-311070	22500-312070	-/70:1	3° 7	0,7	1/-	12,9/-	14,3/-	-/70	-/49,1	-/52
22500-311075	22500-312075	-/75:1	2° 2	0,6	1/-	16,9/-	18,1/-	-/75	-/45,1	-/47
22500-311090	22500-312090	-/90:1	1° 41	0,5	1/-	17/-	18/-	-/90	-/45	-/48
22500-311100	22500-312100	-/100:1	2° 24	0,5	1/-	11,96/-	12,96/-	-/100	-/50,04	-/52,7

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Output torque T2 (Nm)		
			mineral grease	mineral oil	synthetic oil
22500-311002	22500-312002	-/2,5:1	4,4	5,3	6,6
22500-311003	22500-312003	-/3:1	4,5	5,4	6,7
22500-311004	22500-312004	-/4,28:1	9	10,8	13,5
22500-311005	22500-312005	-/5:1	9,5	11,4	14,2
22500-311006	22500-312006	-/6:1	7,6	9,1	11,4
22500-311007	22500-312007	-/7:1	9,7	11,6	14,5
22500-311008	22500-312008	-/8,33:1	10	12	15
22500-311010	22500-312010	-/10:1	9,5	11,4	14,2
22500-311012	22500-312012	-/12:1	12,1	14,5	18,1
22500-311015	22500-312015	-/15:1	10,7	12,8	16
22500-311018	22500-312018	-/18:1	10,3	12,4	15,4
22500-311020	22500-312020	-/20:1	8,3	10	12,4
22500-311022	22500-312022	-/22:1	9,6	11,5	14,4
22500-311023	22500-312023	-/23:1	10,5	12,6	15,7
22500-311024	22500-312024	-/24:1	9,2	11	13,8
22500-311025	22500-312025	-/25:1	9,6	11,5	14,4
22500-311028	22500-312028	-/28:1	9,1	10,9	13,6
22500-311030	22500-312030	-/30:1	10,3	12,4	15,4
22500-311032	22500-312032	-/32:1	10,2	12,2	15,3
22500-311038	22500-312038	-/38:1	11,4	13,7	17,1
22500-311045	22500-312045	-/45:1	9,5	11,4	14,2
22500-311050	22500-312050	-/50:1	9	10,8	13,5
22500-311055	22500-312055	-/55:1	10,4	12,5	15,6
22500-311060	22500-312060	-/60:1	8,2	9,8	12,3
22500-311070	22500-312070	-/70:1	9	10,8	13,5
22500-311075	22500-312075	-/75:1	7,3	8,8	10,9
22500-311090	22500-312090	-/90:1	6,4	7,7	9,6
22500-311100	22500-312100	-/100:1	7,4	8,9	11,1

Worm gears, right-hand

centre distance 33 mm



Material:

Worm screw steel.

Worm wheel CuZn37Mn3Al2PbSi-S40.

Version:

Worm screw with right-hand pitch, case-hardened HV 620 – 700, flanks and hole ground.

Sample order:

nIm 22500-331003 Worm

nIm 22500-332003 Worm wheel

Note for ordering:

Wheels/screws can only be combined to form a worm gear if they have the same centre distance and transmission ratio.

Note:

A worm gear consists of a worm screw (shaft) and a worm wheel. Suitable for forming worm drives with a 90° shaft angle. A worm drive enables very large speed reduction ratios with a single stage.

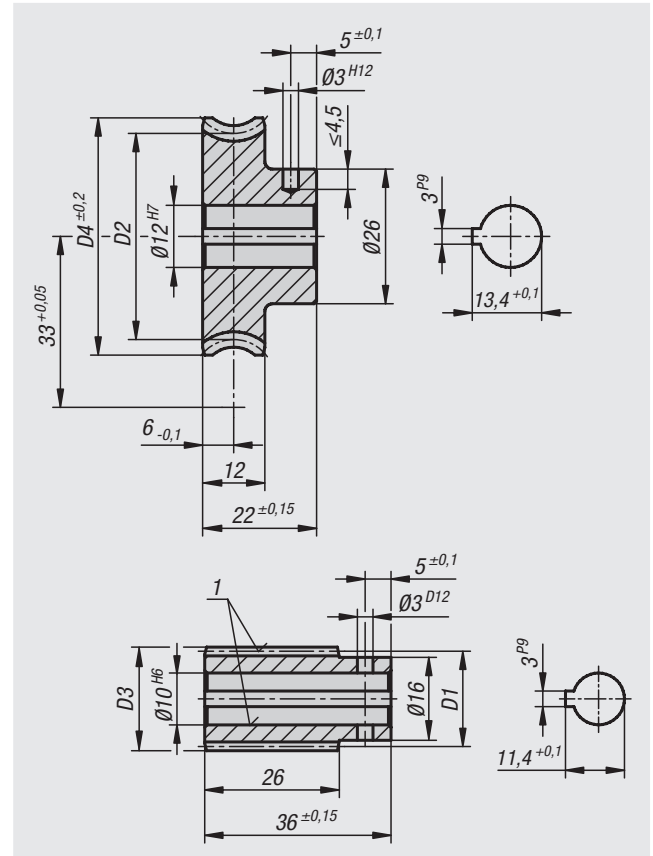
The toothing has the flank shape K. The engagement angle is 15°. The worm gears are pre-bored.

The stated T2 output torques are the permissible output torques on the worm wheel. These apply for an input speed of 2800 rpm of the worm screw.

The worm gears are suitable for continuous operation at high speeds and high torques.

Drawing reference:

1) ground



Worm gears, right-hand

centre distance 33 mm

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Pitch angle	Module	Z1	D1	D3	Z2	D2	D4
22500-331003	22500-332003	-/3,5:1	25° 57	1,75	6/-	24/-	27,5/-	-/21	-/42	-/47
22500-331005	22500-332005	-/5:1	20° 50	2	4/-	22,5/-	26,5/-	-/20	-/43,5	-/49
22500-331007	22500-332007	-/7:1	15° 32	1,5	4/-	22,4/-	25,4/-	-/28	-/43,6	-/48
22500-331010	22500-332010	-/10:1	13° 10	1,5	3/-	19,75/-	22,75/-	-/30	-/46,25	-/51
22500-331011	22500-332011	-/11,33:1	10° 42	1,3	3/-	21/-	23,6/-	-/34	-/45	-/49,2
22500-331012	22500-332012	-/12:1	11° 14	1,9	2/-	19,5/-	23,3/-	-/24	-/46,5	-/52
22500-331015	22500-332015	-/15:1	8° 25	1,5	2/-	20,5/-	23,5/-	-/30	-/45,5	-/50
22500-331016	22500-332016	-/16:1	10° 1	1,5	2/-	17,24/-	20,24/-	-/32	-/48,76	-/53
22500-331017	22500-332017	-/17:1	9° 3	1,4	2/-	17,8/-	20,6/-	-/34	-/48,2	-/52,5
22500-331018	22500-332018	-/18:1	6° 57	1,25	2/-	20,65/-	23,15/-	-/36	-/45,35	-/49,2
22500-331020	22500-332020	-/20:1	6° 43	1,15	2/-	19,66/-	21,96/-	-/40	-/46,34	-/50,5
22500-331024	22500-332024	-/24:1	5° 27	1,9	1/-	20/-	23,8/-	-/24	-/46	-/51
22500-331028	22500-332028	-/28:1	3° 36	1,5	1/-	23,9/-	26,9/-	-/28	-/42,1	-/46,6
22500-331030	22500-332030	-/30:1	4° 8	1,5	1/-	20,85/-	23,85/-	-/30	-/45,15	-/50
22500-331032	22500-332032	-/32:1	4° 50	1,5	1/-	17,8/-	20,8/-	-/32	-/48,2	-/52,5
22500-331038	22500-332038	-/38:1	3° 55	1,25	1/-	18,28/-	20,76/-	-/38	-/47,74	-/51,6
22500-331050	22500-332050	-/50:1	2° 27	0,9	1/-	21/-	22,8/-	-/50	-/45	-/48
22500-331056	22500-332056	-/56:1	2° 10	0,8	1/-	21,15/-	22,75/-	-/56	-/44,85	-/48
22500-331060	22500-332060	-/60:1	2° 33	0,8	1/-	17,96/-	19,56/-	-/60	-/48,04	-/51,5
22500-331072	22500-332072	-/72:1	1° 30	0,6	1/-	22,8/-	24/-	-/72	-/43,2	-/46
22500-331075	22500-332075	-/75:1	1° 41	0,6	1/-	20,5/-	21,7/-	-/75	-/45,5	-/48

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Output torque T2 (Nm)	
			mineral grease	mineral oil synthetic oil
22500-331003	22500-332003	-/3,5:1	10,1	12,1
22500-331005	22500-332005	-/5:1	10,6	12,7
22500-331007	22500-332007	-/7:1	12,2	14,6
22500-331010	22500-332010	-/10:1	13,3	16
22500-331011	22500-332011	-/11,33:1	13,3	16
22500-331012	22500-332012	-/12:1	13,5	16,2
22500-331015	22500-332015	-/15:1	13	15,6
22500-331016	22500-332016	-/16:1	14	16,8
22500-331017	22500-332017	-/17:1	14,2	17
22500-331018	22500-332018	-/18:1	12,6	15,1
22500-331020	22500-332020	-/20:1	12,7	15,2
22500-331024	22500-332024	-/24:1	13,2	15,8
22500-331028	22500-332028	-/28:1	11,2	13,4
22500-331030	22500-332030	-/30:1	12,7	15,2
22500-331032	22500-332032	-/32:1	13,5	16,2
22500-331038	22500-332038	-/38:1	13,9	16,7
22500-331050	22500-332050	-/50:1	10	12
22500-331056	22500-332056	-/56:1	10,1	12,1
22500-331060	22500-332060	-/60:1	11,4	13,7
22500-331072	22500-332072	-/72:1	8,4	10,01
22500-331075	22500-332075	-/75:1	9	10,8

Worm gears, right-hand

centre distance 35 mm



Material:

Worm screw steel.

Worm wheel CuZn37Mn3Al2PbSi-S40.

Version:

Worm screw with right-hand pitch, case-hardened HV 620 – 700, flanks and hole ground.

Sample order:

nIm 22500-351002 Worm screw

nIm 22500-352002 Worm wheel

Note for ordering:

Wheels/screws can only be combined to form a worm gear if they have the same centre distance and transmission ratio.

Note:

A worm gear consists of a worm screw (shaft) and a worm wheel. Suitable for forming worm drives with a 90° shaft angle. A worm drive enables very large speed reduction ratios with a single stage.

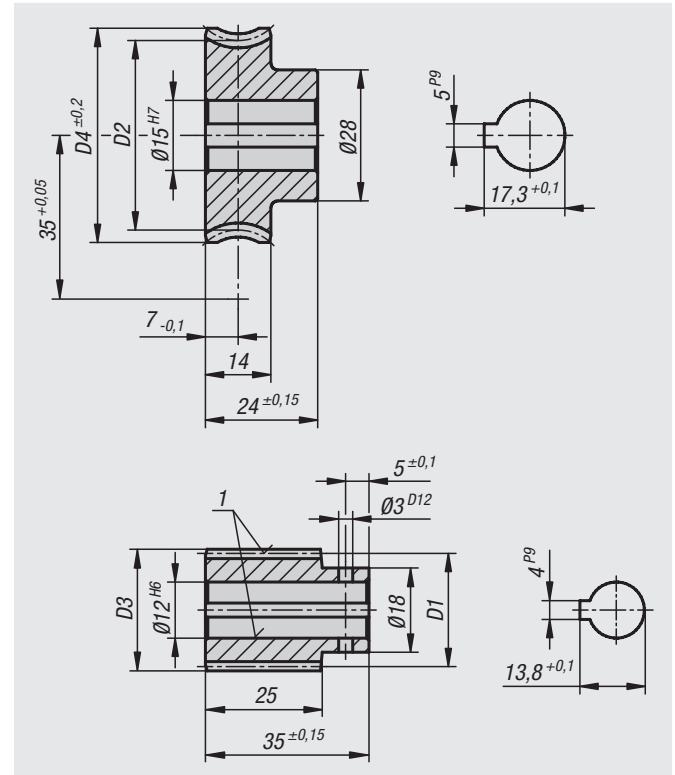
The toothing has the flank shape K. The engagement angle is 15°. The worm gears are pre-bored.

The stated T2 output torques are the permissible output torques on the worm wheel. These apply for an input speed of 2800 rpm of the worm screw.

The worm gears are suitable for continuous operation at high speeds and high torques.

Drawing reference:

1) ground



Worm gears, right-hand

centre distance 35 mm

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Pitch angle	Module	Z1	D1	D3	Z2	D2	D4
22500-351002	22500-352002	-/2,78:1	31° 01	1,5	9/-	26,2/-	29,2/-	-/25	-/43,8	-/46,76
22500-351005	22500-352005	-/5:1	22° 52	1,75	5/-	22,52/-	26,02/-	-/25	-/47,48	-/53
22500-351007	22500-352007	-/7,25:1	13° 47	1,5	4/-	25,18/-	28,18/-	-/29	-/44,82	-/50
22500-351008	22500-352008	-/8:1	14° 25	1,9	3/-	22,89/-	26,69/-	-/24	-/47,11	-/53
22500-351010	22500-352010	-/10:1	10° 43	1,5	3/-	24,2/-	27,2/-	-/30	-/45,8	-/51
22500-351011	22500-352011	-/11:1	10° 32	1,4	3/-	22,98/-	25,78/-	-/33	-/47,02	-/52
22500-351012	22500-352012	-/12:1	9° 11	1,9	2/-	23,8/-	27,6/-	-/24	-/46,2	-/52
22500-351015	22500-352015	-/15:1	7°	1,5	2/-	24,62/-	27,62/-	-/30	-/45,38	-/50
22500-351020	22500-352020	-/20:1	5° 33	1,15	2/-	23,78/-	26,08/-	-/40	-/46,22	-/50,5
22500-351025	22500-352025	-/25:1	4° 9	0,9	2/-	24,87/-	26,67/-	-/50	-/45,13	-/49
22500-351030	22500-352030	-/30:1	3° 27	1,5	1/-	24,92/-	27,92/-	-/30	-/45,08	-/50
22500-351035	22500-352035	-/35:1	3° 51	1,4	1/-	20,85/-	23,65/-	-/35	-/49,15	-/53
22500-351040	22500-352040	-/40:1	2° 45	1,15	1/-	23,91/-	26,21/-	-/40	-/46,09	-/50,5
22500-351050	22500-352050	-/50:1	2° 4	0,9	1/-	24,93/-	26,73/-	-/50	-/45,07	-/49
22500-351058	22500-352058	-/58:1	2° 21	0,85	1/-	20,65/-	22,35/-	-/58	-/49,35	-/53
22500-351090	22500-352090	-/90:1	1° 9	0,5	1/-	25/-	26/-	-/90	-/45	-/49

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Output torque T2 (Nm)		
			mineral grease	mineral oil	synthetic oil
22500-351002	22500-352002	-/2,78:1	6,6	8,2	10,2
22500-351005	22500-352005	-/5:1	15,3	18,4	22,9
22500-351007	22500-352007	-/7,25:1	14,7	17,6	22
22500-351008	22500-352008	-/8:1	16,7	20	25
22500-351010	22500-352010	-/10:1	16	19,2	24
22500-351011	22500-352011	-/11:1	16,7	20	25
22500-351012	22500-352012	-/12:1	16,1	19,3	24
22500-351015	22500-352015	-/15:1	15,3	18,4	22,9
22500-351020	22500-352020	-/20:1	14,8	17,8	22,2
22500-351025	22500-352025	-/25:1	12,9	15,5	19,3
22500-351030	22500-352030	-/30:1	15	18	22,5
22500-351035	22500-352035	-/35:1	17,1	20,5	25,6
22500-351040	22500-352040	-/40:1	14,7	17,6	22
22500-351050	22500-352050	-/50:1	12,9	15,5	19,3
22500-351058	22500-352058	-/58:1	14,5	17,4	21,7
22500-351090	22500-352090	-/90:1	9,1	10,9	13,6

Worm gears, right-hand

centre distance 40 mm



Material:

Worm screw steel.

Worm wheel CuZn37Mn3Al2PbSi-S40.

Version:

Worm screw with right-hand pitch, case-hardened HV 620 – 700, flanks and hole ground.

Sample order:

nIm 22500-401006 Worm screw

nIm 22500-402006 Worm wheel

Note for ordering:

Wheels/screws can only be combined to form a worm gear if they have the same centre distance and transmission ratio.

Note:

A worm gear consists of a worm screw (shaft) and a worm wheel. Suitable for forming worm drives with a 90° shaft angle. A worm drive enables very large speed reduction ratios with a single stage.

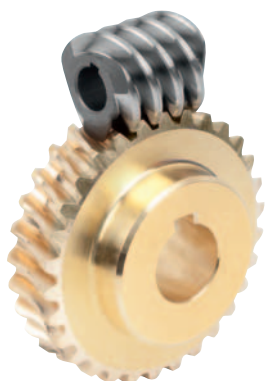
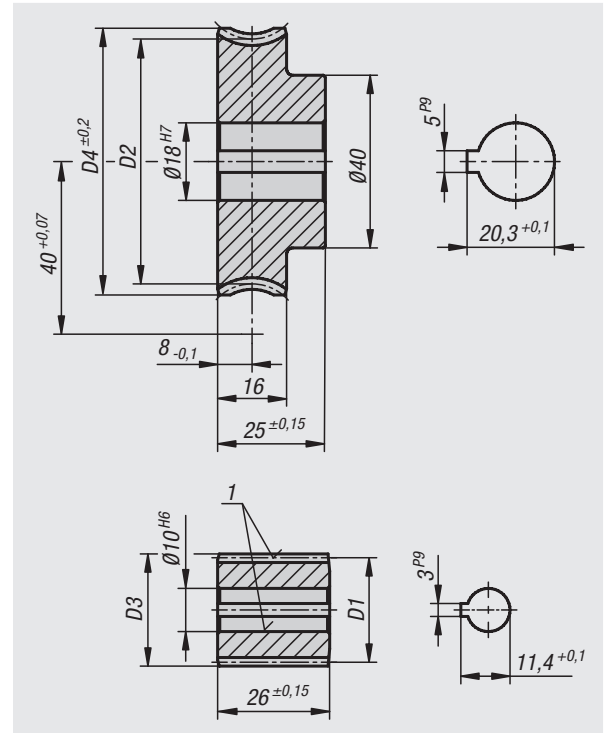
The toothing has the flank shape K. The engagement angle is 15°. The worm gears are pre-bored.

The stated T2 output torques are the permissible output torques on the worm wheel. These apply for an input speed of 2800 rpm of the worm screw.

The worm gears are suitable for continuous operation at high speeds and high torques.

Drawing reference:

1) ground



Worm gears, right-hand

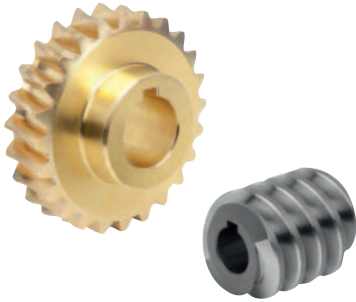
centre distance 40 mm

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Pitch angle	Module	Z1	D1	D3	Z2	D2	D4
22500-401006	22500-402006	-/6,75:1	21° 19	2	4/-	22/-	26/-	-/27	-/58	-/64
22500-401008	22500-402008	-/8:1	16° 35	2,25	3/-	23,64/-	28,14/-	-/24	-/56,36	-/62,5
22500-401010	22500-402010	-/10:1	16° 1	1,9	3/-	20,66/-	24,46/-	-/30	-/59,34	-/65
22500-401012	22500-402012	-/12:1	10° 21	1,5	3/-	25,05/-	28,05/-	-/36	-/54,95	-/60
22500-401015	22500-402015	-/15:1	9° 53	1,9	2/-	22,14/-	25,94/-	-/30	-/57,86	-/64
22500-401020	22500-402020	-/20:1	8° 59	1,5	2/-	19,2/-	22,2/-	-/40	-/60,8	-/66
22500-401025	22500-402025	-/25:1	5° 58	1,15	2/-	22,15/-	24,45/-	-/50	-/57,85	-/62
22500-401028	22500-402028	-/28:1	4° 47	2	1/-	24/-	28/-	-/28	-/56	-/61,5
22500-401030	22500-402030	-/30:1	5° 50	2	1/-	19,68/-	23,68/-	-/30	-/60,32	-/66
22500-401035	22500-402035	-/35:1	5° 26	1,75	1/-	18,48/-	21,98/-	-/35	-/61,52	-/67
22500-401036	22500-402036	-/36:1	3° 19	1,5	1/-	25,91/-	28,91/-	-/36	-/54,09	-/59
22500-401040	22500-402040	-/40:1	4° 20	1,5	1/-	19,83/-	22,83/-	-/40	-/60,17	-/65
22500-401050	22500-402050	-/50:1	4° 8	1,25	1/-	17,3/-	19,8/-	-/50	-/62,7	-/68
22500-401056	22500-402056	-/56:1	2° 23	1	1/-	24/-	26/-	-/56	-/56	-/59
22500-401060	22500-402060	-/60:1	1° 59	0,9	1/-	25,92/-	27,72/-	-/60	-/54,08	-/57,5
22500-401070	22500-402070	-/70:1	3° 3	0,9	1/-	16,91/-	18,71/-	-/70	-/63,09	-/67
22500-401075	22500-402075	-/75:1	1° 48	0,75	1/-	23,75/-	25,25/-	-/75	-/56,26	-/60
22500-401080	22500-402080	-/80:1	2° 10	0,75	1/-	19,9/-	21,4/-	-/80	-/60,1	-/64
22500-401090	22500-402090	-/90:1	2° 22	0,7	1/-	16,95/-	18,35/-	-/90	-/63,05	-/67

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Output torque T2 (Nm)	
			mineral grease	mineral oil synthetic oil
22500-401006	22500-402006	-/6,75:1	29,5	35,4
22500-401008	22500-402008	-/8:1	27,5	33
22500-401010	22500-402010	-/10:1	29,5	35,4
22500-401012	22500-402012	-/12:1	25,2	30,2
22500-401015	22500-402015	-/15:1	28	33,6
22500-401020	22500-402020	-/20:1	28,9	34,6
22500-401025	22500-402025	-/25:1	24,4	29,2
22500-401028	22500-402028	-/28:1	28,4	34
22500-401030	22500-402030	-/30:1	30,1	36,1
22500-401035	22500-402035	-/35:1	31	37,2
22500-401036	22500-402036	-/36:1	23,9	28,6
22500-401040	22500-402040	-/40:1	28,3	33,9
22500-401050	22500-402050	-/50:1	27	32,4
22500-401056	22500-402056	-/56:1	21,9	26,2
22500-401060	22500-402060	-/60:1	19,3	23,1
22500-401070	22500-402070	-/70:1	24,1	28,9
22500-401075	22500-402075	-/75:1	18,8	22,5
22500-401080	22500-402080	-/80:1	20,1	24,1
22500-401090	22500-402090	-/90:1	19,1	22,9

Worm gears, right-hand

centre distance 50 mm



Material:

Worm screw steel.

Worm wheel CuZn37Mn3Al2PbSi-S40.

Version:

Worm screw with right-hand pitch, case-hardened HV 620 – 700, flanks and hole ground.

Sample order:

nIm 22500-531004 Worm screw

nIm 22500-502004 Worm wheel

Note for ordering:

Wheels/screws can only be combined to form a worm gear if they have the same centre distance and transmission ratio.

Note:

A worm gear consists of a worm screw (shaft) and a worm wheel. Suitable for forming worm drives with a 90° shaft angle. A worm drive enables very large speed reduction ratios with a single stage.

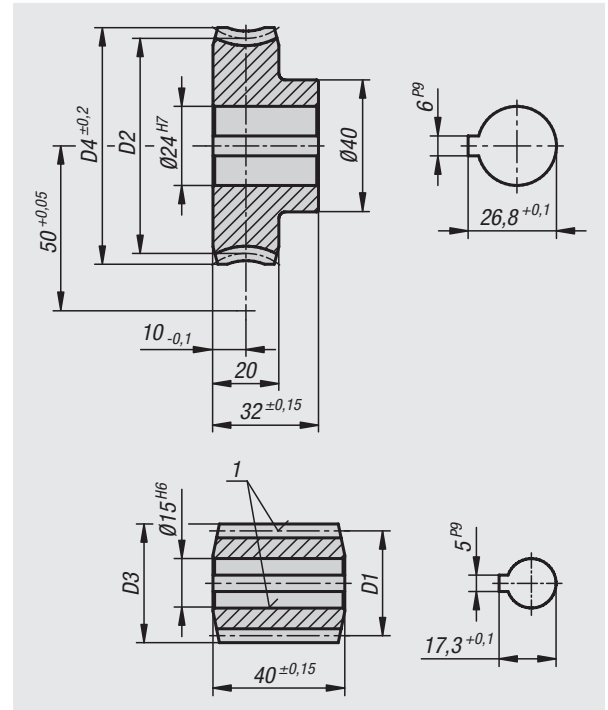
The toothing has the flank shape K. The engagement angle is 15°. The worm gears are pre-bored.

The stated T2 output torques are the permissible output torques on the worm wheel. These apply for an input speed of 2800 rpm of the worm screw.

The worm gears are suitable for continuous operation at high speeds and high torques.

Drawing reference:

1) ground



Worm gears, right-hand

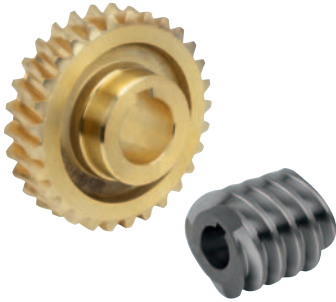
centre distance 50 mm

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Pitch angle	Module	Z1	D1	D3	Z2	D2	D4
22500-531004	22500-502004	-/4,25:1	25° 51	3,5	4/-	32,1/-	39,1/-	-/17	-/67,9	-/77
22500-531006	22500-502006	-/6:1	19° 17	3,5	3/-	31,8/-	38,8/-	-/18	-/68,2	-/77
22500-531008	22500-502008	-/8,66:1	13° 52	2,5	3/-	31,29/-	36,29/-	-/26	-/68,71	-/77
22500-531012	22500-502012	-/12:1	10° 23	2,75	2/-	30,5/-	36/-	-/24	-/69,5	-/77
22500-531013	22500-502014	-/13,5:1	9° 38	2,5	2/-	29,9/-	34,9/-	-/27	-/70,1	-/77
22500-531019	22500-502019	-/19:1	6° 17	3,5	1/-	32/-	39/-	-/19	-/68	-/77
22500-531023	22500-502023	-/23:1	5° 38	3	1/-	30,58/-	36,58/-	-/23	-/69,42	-/77
22500-531027	22500-502027	-/27:1	4° 40	2,5	1/-	30,73/-	35,73/-	-/27	-/69,27	-/77
22500-531035	22500-502035	-/35:1	3° 51	2	1/-	29,78/-	33,78/-	-/35	-/70,22	-/77
22500-531046	22500-502046	-/46:1	2° 47	1,5	1/-	30,85/-	33,85/-	-/46	-/69,15	-/74
22500-531055	22500-502055	-/55:1	2° 19	1,25	1/-	30,9/-	33,4/-	-/55	-/69,1	-/74
22500-531075	22500-502069	-/69:1	1° 51	1	1/-	30,9/-	32,9/-	-/69	-/69,1	-/74

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Output torque T2 (Nm)	
			mineral grease	mineral oil synthetic oil
22500-531004	22500-502004	-/4,25:1	-/34	-/40,8 -/51
22500-531006	22500-502006	-/6:1	-/52	-/62,4 -/78
22500-531008	22500-502008	-/8,66:1	-/64,3	-/77,1 -/96,4
22500-531012	22500-502012	-/12:1	-/66,4	-/79,6 -/99,6
22500-531013	22500-502014	-/13,5:1	-/62,8	-/75,4 -/94,2
22500-531019	22500-502019	-/19:1	-/78,2	-/93,8 -/117,3
22500-531023	22500-502023	-/23:1	-/71,1	-/85,3 -/106,6
22500-531027	22500-502027	-/27:1	-/64,5	-/77,4 -/96,7
22500-531035	22500-502035	-/35:1	-/56,7	-/68 -/85
22500-531046	22500-502046	-/46:1	-/50,6	-/60,7 -/75,9
22500-531055	22500-502055	-/55:1	-/46,2	-/55,4 -/69,3
22500-531075	22500-502069	-/69:1	-/41,4	-/49,6 -/62,8

Worm gears, right-hand

centre distance 53 mm



Material:

Worm screw steel.

Worm wheel CuZn37Mn3Al2PbSi-S40.

Version:

Worm screw with right-hand pitch, case-hardened HV 620 – 700, flanks and hole ground.

Sample order:

nIm 22500-531004 Worm screw

nIm 22500-532004 Worm wheel

Note for ordering:

Wheels/screws can only be combined to form a worm gear if they have the same centre distance and transmission ratio.

Note:

A worm gear consists of a worm screw (shaft) and a worm wheel. Suitable for forming worm drives with a 90° shaft angle. A worm drive enables very large speed reduction ratios with a single stage.

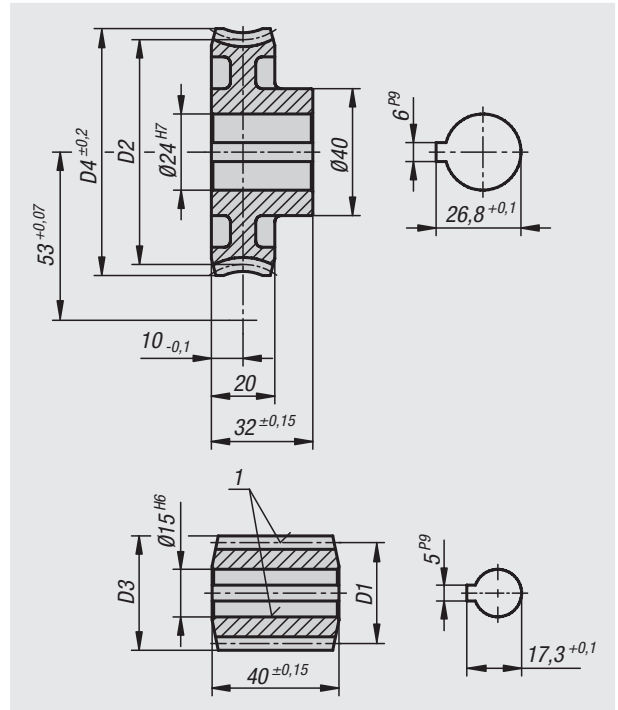
The toothing has the flank shape K. The engagement angle is 15°. The worm gears are pre-bored.

The stated T2 output torques are the permissible output torques on the worm wheel. These apply for an input speed of 2800 rpm of the worm screw.

The worm gears are suitable for continuous operation at high speeds and high torques.

Drawing reference:

1) ground



Worm gears, right-hand

centre distance 53 mm

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Pitch angle	Module	Z1	D1	D3	Z2	D2	D4
22500-531004	22500-532004	-/4,75:1	25° 51	3,5	4/-	32,1/-	39,1/-	-/19	-/73,9	-/83
22500-531006	22500-532006	-/6,67:1	19° 17	3,5	3/-	31,8/-	38,8/-	-/20	-/74,2	-/84
22500-531008	22500-532009	-/9,67:1	13° 52	2,5	3/-	31,29/-	36,29/-	-/29	-/74,71	-/82
22500-531012	22500-532013	-/13,5:1	10° 23	2,75	2/-	30,5/-	36/-	-/27	-/75,5	-/84
22500-531013	22500-532015	-/15:1	9° 38	2,5	2/-	29,9/-	34,9/-	-/30	-/76,1	-/83
22500-531019	22500-532021	-/21:1	6° 17	3,5	1/-	32/-	39/-	-/21	-/74	-/83
22500-531023	22500-532025	-/25:1	5° 38	3	1/-	30,58/-	36,58/-	-/25	-/75,42	-/84
22500-531028	22500-532028	-/28:1	3° 59	2,5	1/-	36/-	41/-	-/28	-/70	-/77,5
22500-531027	22500-532030	-/30:1	4° 40	2,5	1/-	30,73/-	35,73/-	-/30	-/75,27	-/83
22500-531035	22500-532038	-/38:1	3° 51	2	1/-	29,78/-	33,78/-	-/38	-/76,21	-/83
22500-531046	22500-532050	-/50:1	2° 47	1,5	1/-	30,85/-	33,85/-	-/50	-/75,15	-/81
22500-531055	22500-532060	-/60:1	2° 19	1,25	1/-	30,9/-	33,4/-	-/60	-/75,1	-/80
22500-531075	22500-532075	-/75:1	1° 51	1	1/-	30,9/-	32,9/-	-/75	-/75,1	-/78

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Output torque T2 (Nm)	
			mineral grease	mineral oil synthetic oil
22500-531004	22500-532004	-/4,75:1	-/45	-/54
22500-531006	22500-532006	-/6,67:1	-/67	-/81
22500-531008	22500-532009	-/9,67:1	-/77	-/93
22500-531012	22500-532013	-/13,5:1	-/80	-/96
22500-531013	22500-532015	-/15:1	-/75	-/90
22500-531019	22500-532021	-/21:1	-/94	-/113
22500-531023	22500-532025	-/25:1	-/84	-/101
22500-531028	22500-532028	-/28:1	-/87	-/104
22500-531027	22500-532030	-/30:1	-/77	-/93
22500-531035	22500-532038	-/38:1	-/68	-/81
22500-531046	22500-532050	-/50:1	-/60	-/72
22500-531055	22500-532060	-/60:1	-/55	-/66
22500-531075	22500-532075	-/75:1	-/49	-/59

Worm gears, right-hand

centre distance 63 mm

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Pitch angle	Module	Z1	D1	D3	Z2	D2	D4
22500-531004	22500-632006	-/6:1	25° 51	3,5	4/-	32,1/-	39,1/-	-/24	-/93,9	-/104
22500-531008	22500-632012	-/12:1	13° 52	2,5	3/-	31,29/-	36,29/-	-/36	-/94,71	-/104
22500-631019	22500-632019	-/19:1	10° 8	2,5	2/-	28,4/-	33,4/-	-/38	-/97,6	-/104
22500-531019	22500-632026	-/26:1	6° 17	3,5	1/-	32/-	39/-	-/26	-/94	-/104
22500-631034	22500-632034	-/34:1	5° 9	2,75	1/-	30,6/-	36,1/-	-/34	-/95,4	-/104
22500-531035	22500-632048	-/48:1	3° 51	2	1/-	29,78/-	33,78/-	-/48	-/96,22	-/104
22500-531046	22500-632063	-/63:1	2° 47	1,5	1/-	30,85/-	33,85/-	-/63	-/95,15	-/101
22500-651075	22500-632070	-/70:1	1° 59	1,25	1/-	36,1/-	38,6/-	-/70	-/89,9	-/97

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Output torque T2 (Nm) mineral grease	Output torque T2 (Nm) mineral oil	Output torque T2 (Nm) synthetic oil
22500-531004	22500-632006	-/6:1	-/89	-/107	-/134
22500-531008	22500-632012	-/12:1	-/141	-/170	-/212
22500-631019	22500-632019	-/19:1	-/133	-/159	-/199
22500-531019	22500-632026	-/26:1	-/172	-/206	-/258
22500-631034	22500-632034	-/34:1	-/148	-/178	-/222
22500-531035	22500-632048	-/48:1	-/125	-/150	-/187
22500-531046	22500-632063	-/63:1	-/111	-/133	-/166
22500-651075	22500-632070	-/70:1	-/112	-/135	-/169

Worm gears, right-hand

centre distance 65 mm



Material:

Worm screw steel.

Worm wheel CuZn37Mn3Al2PbSi-S40.

Version:

Worm screw with right-hand pitch, case-hardened HV 620 – 700, flanks and hole ground.

Sample order:

nIm 22500-531004 Worm screw

nIm 22500-652006 Worm wheel

Note for ordering:

Wheels/screws can only be combined to form a worm gear if they have the same centre distance and transmission ratio.

Note:

A worm gear consists of a worm screw (shaft) and a worm wheel. Suitable for forming worm drives with a 90° shaft angle. A worm drive enables very large speed reduction ratios with a single stage.

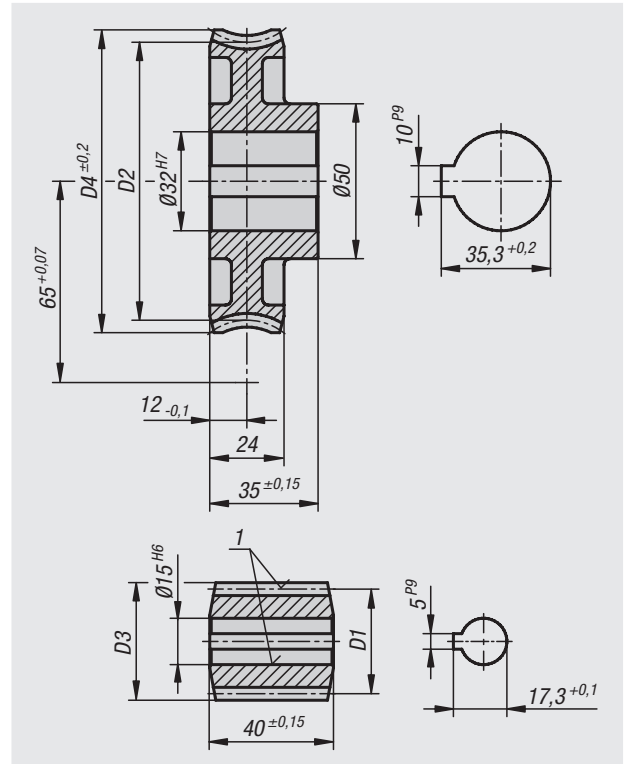
The toothing has the flank shape K. The engagement angle is 15°. The worm gears are pre-bored.

The stated T2 output torques are the permissible output torques on the worm wheel. These apply for an input speed of 2800 rpm of the worm screw.

The worm gears are suitable for continuous operation at high speeds and high torques.

Drawing reference:

1) ground



Worm gears, right-hand

centre distance 65 mm

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Pitch angle	Module	Z1	D1	D3	Z2	D2	D4
22500-531004	22500-652006	-/6,25:1	25° 51	3,5	4/-	32,1/-	39,1/-	-/25	-/97,9	-/108
22500-531008	22500-652012	-/12,66:1	13° 52	2,5	3/-	31,29/-	36,29/-	-/38	-/98,71	-/108
22500-631019	22500-652020	-/20:1	10° 8	2,5	2/-	28,4/-	33,4/-	-/40	-/101,6	-/108
22500-531019	22500-652028	-/28:1	6° 17	3,5	1/-	32/-	39/-	-/28	-/98	-/108
22500-631034	22500-652036	-/36:1	5° 9	2,75	1/-	30,6/-	36,1/-	-/36	-/99,4	-/108
22500-531035	22500-652050	-/50:1	3° 51	2	1/-	29,78/-	33,78/-	-/50	-/100,22	-/108
22500-531046	22500-652066	-/66:1	2° 47	1,5	1/-	30,85/-	33,85/-	-/66	-/99,15	-/107
22500-651075	22500-652075	-/75:1	1° 59	1,25	1/-	36,1/-	38,6/-	-/75	-/93,9	-/100

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Output torque T2 (Nm)		
			mineral grease	mineral oil	synthetic oil
22500-531004	22500-652006	-/6,25:1	-/101	-/121	-/151
22500-531008	22500-652012	-/12,66:1	-/156	-/187	-/234
22500-631019	22500-652020	-/20:1	-/146	-/176	-/220
22500-531019	22500-652028	-/28:1	-/192	-/230	-/288
22500-631034	22500-652036	-/36:1	-/164	-/197	-/246
22500-531035	22500-652050	-/50:1	-/137	-/164	-/205
22500-531046	22500-652066	-/66:1	-/122	-/146	-/183
22500-651075	22500-652075	-/75:1	-/125	-/150	-/188

Worm gears, right-hand

centre distance 80 mm



Material:

Worm screw steel.

Worm wheel CuZn37Mn3Al2PbSi-S40.

Version:

Worm screw with right-hand pitch, case-hardened HV 620 – 700, flanks and hole ground.

Sample order:

nIm 22500-801006 Worm screw

nIm 22500-802006 Worm wheel

Note for ordering:

Wheels/screws can only be combined to form a worm gear if they have the same centre distance and transmission ratio.

Note:

A worm gear consists of a worm screw (shaft) and a worm wheel. Suitable for forming worm drives with a 90° shaft angle. A worm drive enables very large speed reduction ratios with a single stage.

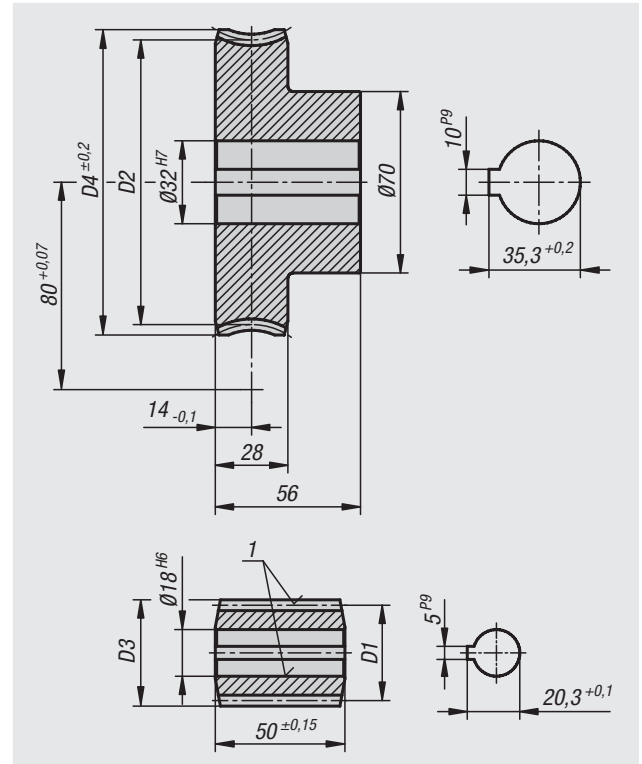
The toothing has the flank shape K. The engagement angle is 15°. The worm gears are pre-bored.

The stated T2 output torques are the permissible output torques on the worm wheel. These apply for an input speed of 2800 rpm of the worm screw.

The worm gears are suitable for continuous operation at high speeds and high torques.

Drawing reference:

1) ground



Worm gears, right-hand

centre distance 80 mm

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Pitch angle	Module	Z1	D1	D3	Z2	D2	D4
22500-801006	22500-802006	-/6,75:1	23° 35	4	4/-	40/-	48/-	-/27	-/120	-/132
22500-801012	22500-802012	-/12:1	16° 36	2,5	4/-	35/-	40/-	-/48	-/125	-/132,5
22500-801020	22500-802020	-/20:1	8° 58	3	2/-	38,5/-	44,5/-	-/40	-/121,5	-/130,5
22500-801030	22500-802030	-/30:1	5° 44	4	1/-	40/-	48/-	-/30	-/120	-/132,5
22500-801050	22500-802050	-/50:1	4° 6	2,5	1/-	35/-	40/-	-/50	-/125	-/132,5
22500-801080	22500-802080	-/80:1	2° 9	1,5	1/-	40/-	43/-	-/80	-/120	-/124,5

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Output torque T2 (Nm)		
			mineral grease	mineral oil	synthetic oil
22500-801006	22500-802006	-/6,75:1	150	180	225
22500-801012	22500-802012	-/12:1	243	290	365
22500-801020	22500-802020	-/20:1	290	348	435
22500-801030	22500-802030	-/30:1	348	417	522
22500-801050	22500-802050	-/50:1	248	297	372
22500-801080	22500-802080	-/80:1	213	255	320