Workpiece number	**worm_example**		CMM		ZEISS
Drawing number			Operator		GEAR® PRO worm
Order number			Company		
Part number incr.			Department		
z 3	α_0 20.000°		d_f/d_a 14.117/23.117 mm		OK
m_x 2.106 mm	p_z 19.8527 mm R				
x 0.000	b 26.000 mm		d_{m1} 19.117 mm	wormtype: ZI	

date: 23.05.2014 13:45:06

DIN 3974:1995-11/DIN 3962:1978-08 - (user def.)

profile

λ_c: 0.80 | 2.00 | v: 2 mm/s

+ left - | - right +

scale: diameter

1.50 mm

20:3

20.0 µm

500:1

-13.00 -13.00 -13.00 -13.00 -13.00 -13.00

23.117 / 22.500 / 16.000 / 15.800

reference height $f_{H\alpha}$: 16.000-22.500

deviation in normal section

DIN		Q_N	[...]	3	2	1	Q_a	Q_a	1	2	3	Q_N	[...]
F_α	µm		58.0	4.5	3.3	3.7	4	4	2.7	4.6	4.2		58.0
$f_{f\alpha}$	µm	10	28.0	4.5	2.7	3.3	5	6	2.7	4.7	4.0	10	28.0
$f_{H\alpha}$	µm	10	±22.0	0.1	-0.9	-1.3	2	1	0.7	-0.6	-0.3	10	±22.0
ø		F_α 3.8		$f_{H\alpha}$ -0.7		$f_{f\alpha}$ 3.5			F_α 3.8		$f_{H\alpha}$ -0.1		$f_{f\alpha}$ 3.8

data file: worm_example

DIN 3962:1978-08

lead

λ_c: 4.00 | 2.00 | v: 6 mm/s

bottom | top

deviation in normal section

-26.000 -23.400 -2.600 0.000

left / right

19.12 19.12 19.12 19.12 19.12 19.12

2.50 mm

4:1

20.0 µm

500:1

reference width $f_{H\beta}$: 20.800 DIN 3960:1987-03

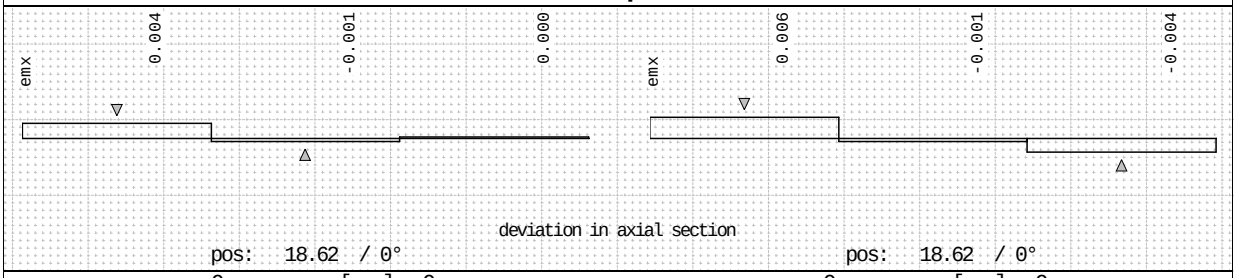
		Q_N	[...]	3	2	1	Q_a	Q_a	1	2	3	Q_N	[...]
F_β	µm	10	50.0	3.1	4.0	3.7	3	3	3.2	3.5	4.2	10	50.0
$f_{f\beta}$	µm	10	28.0	3.1	3.6	3.6	3	4	3.2	3.4	4.2	10	28.0
$f_{H\beta}$	µm	10	±40.0	-0.5	-0.9	1.5	1	1	0.3	0.3	-0.1	10	±40.0
ø		F_β 3.6		$f_{H\beta}$ 0.1		$f_{f\beta}$ 3.4			F_β 3.7		$f_{H\beta}$ 0.2		$f_{f\beta}$ 3.6

Workpiece number	**worm_example**		CMM		ZEISS GEAR® PRO worm
Drawing number			Operator		
Order number			Company		
Part number incr.			Department		
z 3	α_0 20.000°		d_f/d_a 14.117/23.117 mm		OK
m_x 2.106 mm	p_z 19.8527 mm R				
x 0.000	b 26.000 mm		d_{m1} 19.117 mm	wormtype: ZI	

DIN 3974:1995-11 - (user def.)

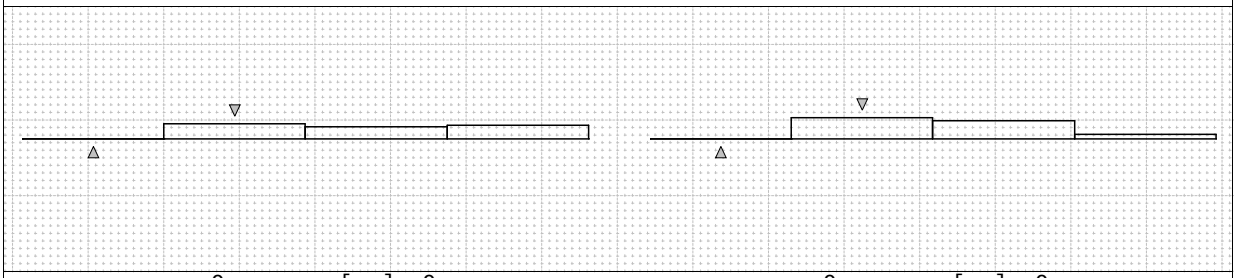
left — **axial pitch** — right

20.00 µm / 500:1



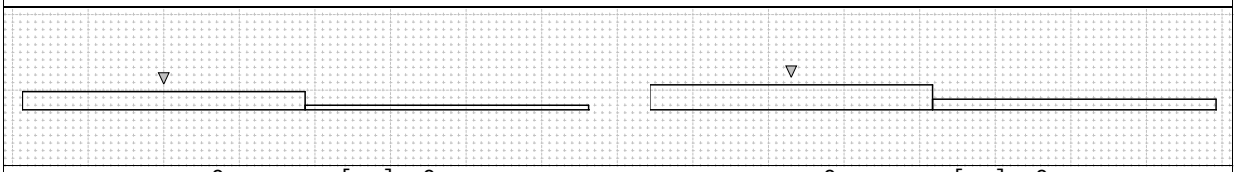
	Qa	[...]	QN		Qa	[...]	QN
f_{px}	4.0	5	47.0	f_{px}	5.7	6	47.0

20.0 µm / 500:1



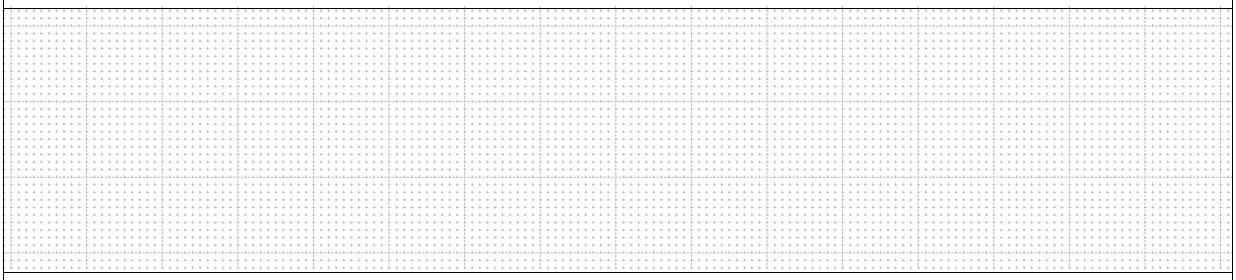
	Qa	[...]	QN		Qa	[...]	QN
F_{px}	4.0	1	136.0	F_{px}	5.7	2	136.0

20.0 µm / 500:1



	Qa	[...]	QN		Qa	[...]	QN
f_{ux}	4.7	5	63.0	f_{ux}	6.6	6	63.0

20.0 µm / 500:1



A_S			[...]
	A_S	-0.050	
	max	-0.049	0.000
	min	-0.053	-0.100

$!AE_S$			[...]
	$!AE_S$	0.051	
	max	0.054	0.100
	min	0.048	0.000

M_{rK} Ø 3.000			[...]
	M_{rK}	11.059	11.128
	max	11.062	11.228
	min	11.054	11.028

S_S			
	S_S	3.091	3.142
	max	3.093	3.142
	min	3.089	3.042

E_S			
	E_S	3.192	3.142
	max	3.196	3.242
	min	3.190	3.142

M_{dK} Ø			[...]
	M_{dK}		
	max		
	min		

W_k			[...]
	W_k		
	max		
	min		
	R_w		

circle-measuring			[...]
	$D_{a,max}$	23.120	23.140
	$D_{a,min}$	23.117	23.094
	$D_{f,max}$	14.119	14.131
	$D_{f,min}$	14.114	14.103

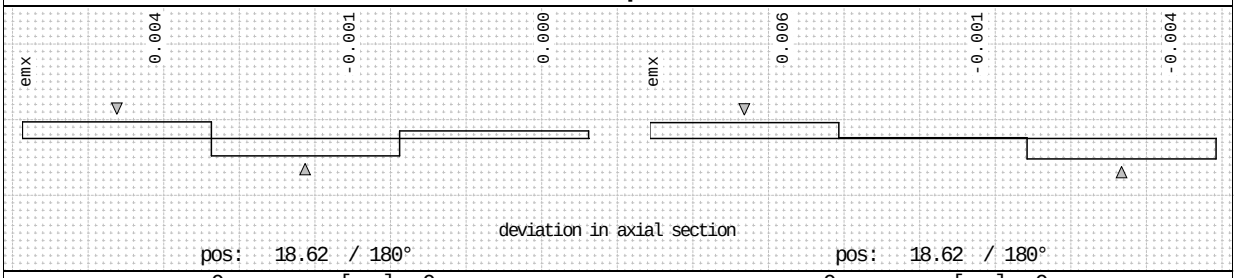
M_{3R} Ø 3.000			[...]
	M_{3R}	22.121	22.100
	max	22.126	0.100
	min	22.116	-0.100
	calculated from axial pitch		

Workpiece number	**worm_example**		CMM		ZEISS GEAR® PRO worm
Drawing number			Operator		
Order number			Company		
Part number incr.			Department		
z 3	α_0 20.000°		d_f/d_a 14.117/23.117 mm		OK
m_x 2.106 mm	p_z 19.8527 mm R				
x 0.000	b 26.000 mm		d_{m1} 19.117 mm	wormtype: ZI	

left **axial pitch** right

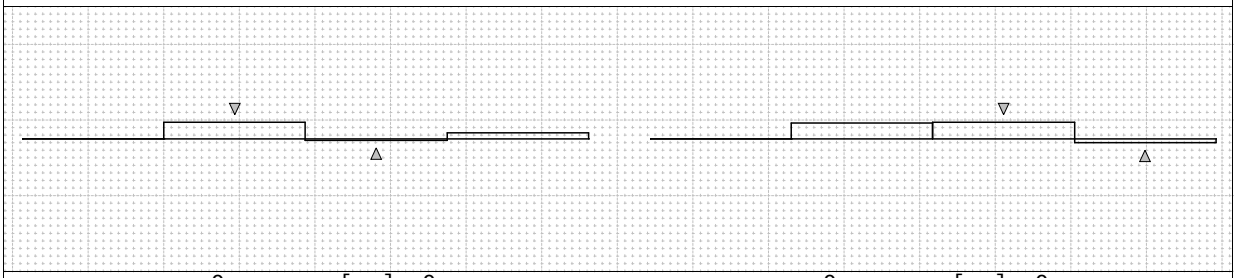
DIN 3974:1995-11 - (user def.)

20.00 µm 500:1



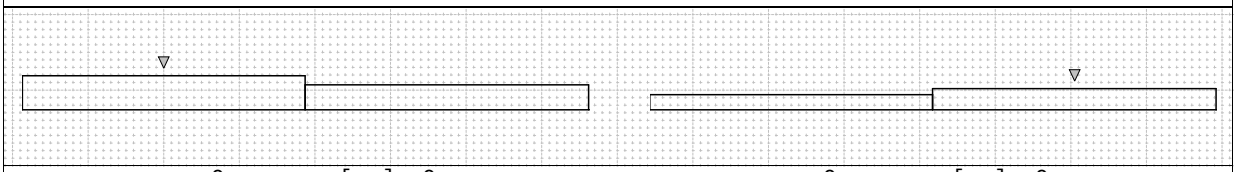
		Q_a	[...]	Q_N			Q_a	[...]	Q_N
f_{px}	4.7	5	47.0		f_{px}	5.4	6	47.0	

20.0 µm 500:1



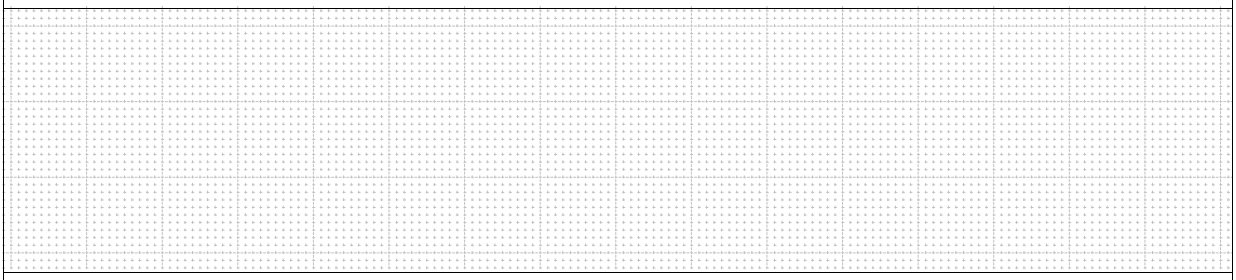
		Q_a	[...]	Q_N			Q_a	[...]	Q_N
F_{px}	4.7	2	136.0		F_{px}	5.4	2	136.0	

20.0 µm 500:1



		Q_a	[...]	Q_N			Q_a	[...]	Q_N
f_{ux}	9.0	6	63.0		f_{ux}	5.6	5	63.0	

20.0 µm 500:1



A_s			[...]	**!AE_s**			[...]	**M_{rK}** Ø 3.000			[...]
	A_s	-0.050			!AE_s	0.050			M_{rK}	11.059	11.128
	max	-0.047	0.000		max	0.053	0.100		max	11.065	11.228
	min	-0.052	-0.100		min	0.046	0.000		min	11.055	11.028
S_s				**E_s**				**M_{dK}** Ø			[...]
	S_s	3.092	3.142		E_s	3.192	3.142		M_{dK}		
	max	3.095	3.142		max	3.195	3.242		max		
	min	3.090	3.042		min	3.188	3.142		min		
W_k			[...]	**circle-measuring**			[...]	**M_{3R}** Ø			[...]
	W_k				$D_{a,max}$	23.120	23.140		M_{3R}		
	max				$D_{a,min}$	23.117	23.094		max		
	min				$D_{f,max}$	14.119	14.131		min		
	R_w				$D_{f,min}$	14.114	14.103				

Workpiece number	**worm_example**		CMM		GEAR® PRO worm
Drawing number			Operator		
Order number			Company		
Part number incr.			Department		
z 3	α_0 20.000°		d_f/d_a 14.117/23.117 mm		OK
m_x 2.106 mm	p_z 19.8527 mm R				
x 0.000	b 26.000 mm		d_{m1} 19.117 mm	wormtype: ZI	

tip

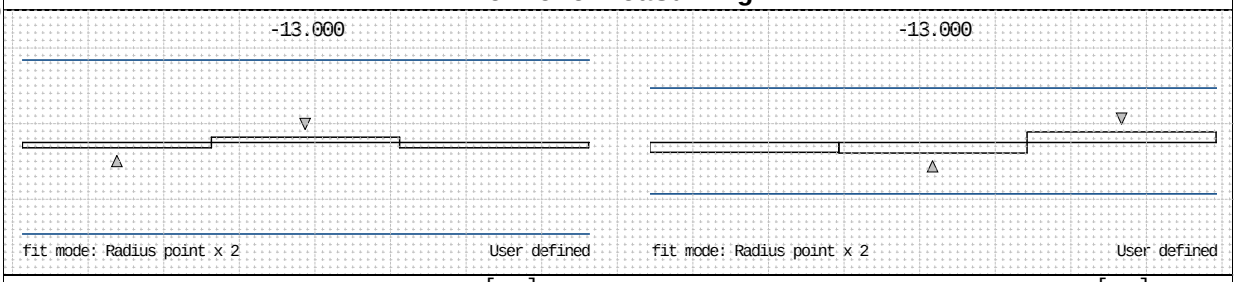
circle-measuring

root

2.00

20.0 µm

500:1



		[...]			[...]
$D_{a,max}$	23.120	23.094/23.140	$D_{f,max}$	14.119	14.103/14.131
$D_{a,min}$	23.117	23.094/23.140	$D_{f,min}$	14.114	14.103/14.131
$D_{a,mean}$	23.118	23.094/23.140	$D_{f,mean}$	14.116	14.103/14.131
R_D	0.003		R_D	0.006	