




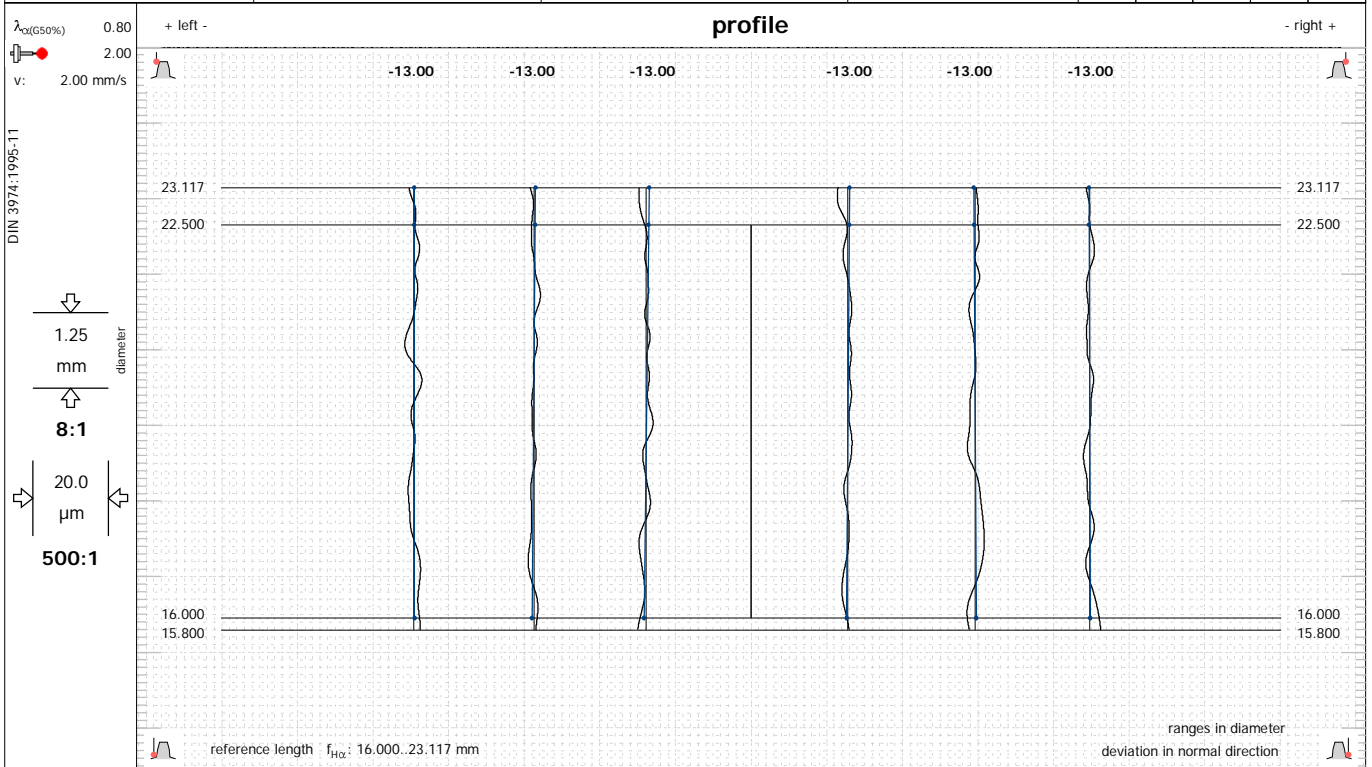
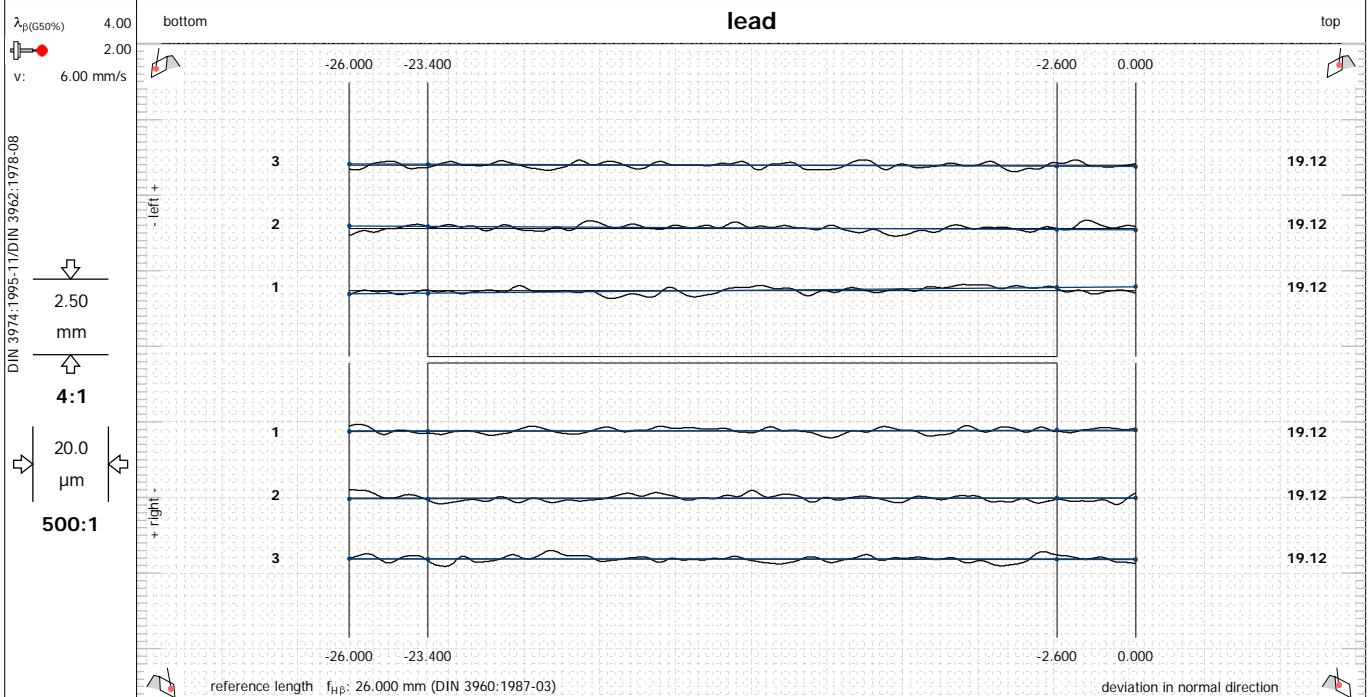


Workpiece number			worm_example			CMM			 GEAR® PRO worm		
Drawing number						Operator					
Order number						Company					
Part number incr.						Department					
z	3	α_n	20.000 °	d_f/d_a	14.117/23.117 mm				OK		
m_x	2.106 mm	p_z	R 19.853 mm	d_b	12.484 mm	external/tooth			   		
x	0.000	b	26.000 mm	d_m	19.117 mm	wormtype: Z1					



	Q_n	[...]	\emptyset	3	2	1	Q_a	Q_a	1	2	3	\emptyset	Q_n	[...]
F_α μm	6	11.0	3.8	4.5	3.3	3.7	4	4	2.7	4.6	4.2	3.8	6	11.0
$f_{f\alpha}$ μm	6	9.0	3.5	4.5	2.7	3.3	4	5	2.7	4.7	4.0	3.8	6	9.0
$f_{H\alpha}$ μm	6	± 7.0	-0.8	0.1	-1.0	-1.4	2	1	0.8	-0.6	-0.4	-0.1	6	± 7.0





	Q_n	[...]	\emptyset	3	2	1	Q_a	Q_a	1	2	3	\emptyset	Q_n	[...]
F_{pz} μm	6	$\frac{10.0}{0.0}$	3.6	3.1	4.0	3.7	4	4	3.2	3.5	4.2	3.7	6	$\frac{10.0}{0.0}$
f_{fp} μm	6	7.0	3.4	3.1	3.6	3.6	3	4	3.2	3.4	4.2	3.6	6	7.0
f_{HB} μm	6	± 9.0	0.1	-0.7	-1.1	1.9	1	1	0.4	0.3	-0.2	0.2	6	± 9.0
f_{pz} μm		± 10.0	-0.1	0.6	0.9	-1.7			-0.4	-0.2	0.2	-0.1		± 10.0
P_z mm		$\frac{19.863}{19.843}$	19.853	19.853	19.854	19.851			19.852	19.853	19.853	19.853		$\frac{19.863}{19.843}$


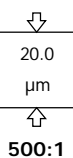
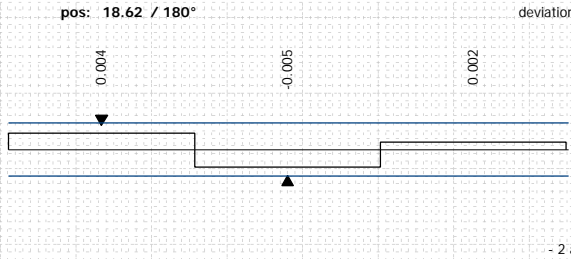
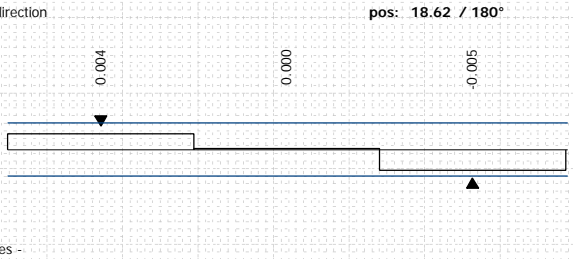


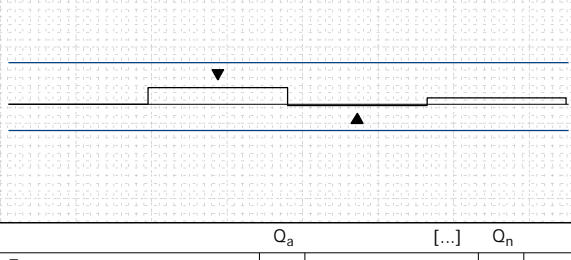
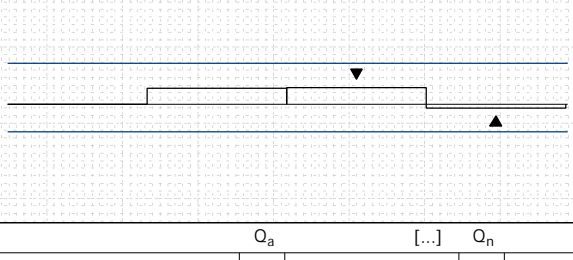

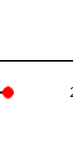
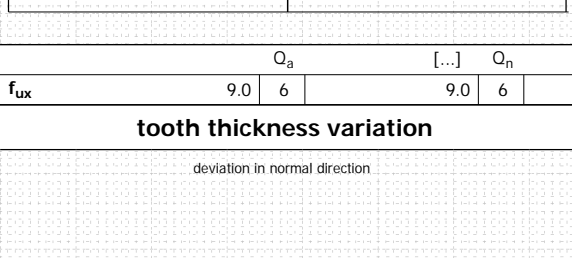
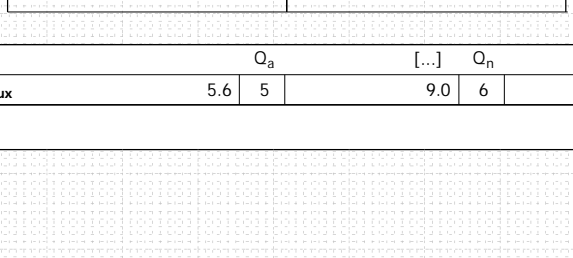
Workpiece number				worm_example		CMM		 GEAR® PRO worm	
Drawing number						Operator			
Order number						Company			
Part number incr.						Department			
z	3	α_n	20.000 °	d_f/d_a	14.117/23.117 mm			OK	
m_x	2.106 mm	p_z	R 19.853 mm	d_b	12.484 mm	external/tooth			
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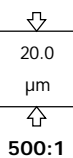
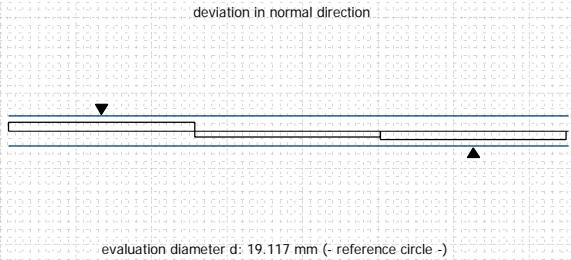
2.00		left		axial pitch		right																															
		deviation in axial direction																																			
		pos: 18.62 / 0°				pos: 18.62 / 0°																															
		- 2 axial pitches -																																			
		<table border="1"> <tr> <td>f_{px}</td> <td>4.0</td> <td>Q_a</td> <td>5</td> <td>[...]</td> <td>Q_n</td> <td>±7.0</td> <td>6</td> </tr> </table>		f_{px}	4.0	Q_a	5	[...]	Q_n	±7.0	6	<table border="1"> <tr> <td>f_{px}</td> <td>5.7</td> <td>Q_a</td> <td>6</td> <td>[...]</td> <td>Q_n</td> <td>±7.0</td> <td>6</td> </tr> </table>		f_{px}	5.7	Q_a	6	[...]	Q_n	±7.0	6																
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		<table border="1"> <tr> <td>f_{ux}</td> <td>4.7</td> <td>Q_a</td> <td>5</td> <td>[...]</td> <td>Q_n</td> <td>9.0</td> <td>6</td> </tr> </table>		f_{ux}	4.7	Q_a	5	[...]	Q_n	9.0	6	<table border="1"> <tr> <td>f_{ux}</td> <td>6.6</td> <td>Q_a</td> <td>6</td> <td>[...]</td> <td>Q_n</td> <td>9.0</td> <td>6</td> </tr> </table>		f_{ux}	6.6	Q_a	6	[...]	Q_n	9.0	6																
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





2.00		left		tooth thickness variation		right							
		deviation in normal direction											
		pos: 18.62 / 0°				pos: 18.62 / 0°							
		evaluation diameter d: 19.117 mm (- reference circle -)											
		<table border="1"> <tr> <td>R_s</td> <td>4.0</td> <td>Q_a</td> <td>4</td> <td>[...]</td> <td>Q_n</td> <td>8.0</td> <td>6</td> </tr> </table>		R_s	4.0	Q_a	4	[...]	Q_n	8.0	6		
R_s	4.0	Q_a	4	[...]	Q_n	8.0	6						



E_{sn} DIN 3962:1978-08 [...]		E_{en} DIN 3962:1978-08 [...]		$M_{rk} \text{ } \varnothing 3.000$ DIN 3962:1978-08 [...]																												
<table border="1"> <tr> <td>E_{sn}</td> <td>-0.050</td> <td>0.000</td> </tr> <tr> <td>max</td> <td>-0.049</td> <td>0.100</td> </tr> <tr> <td>min</td> <td>-0.053</td> <td>-0.100</td> </tr> </table>		E_{sn}	-0.050	0.000	max	-0.049	0.100	min	-0.053	-0.100	<table border="1"> <tr> <td>E_{en}</td> <td>0.051</td> <td>0.000</td> </tr> <tr> <td>max</td> <td>0.054</td> <td>0.100</td> </tr> <tr> <td>min</td> <td>0.048</td> <td>-0.100</td> </tr> </table>		E_{en}	0.051	0.000	max	0.054	0.100	min	0.048	-0.100	<table border="1"> <tr> <td>M_{rk}</td> <td>11.059</td> <td>11.128</td> </tr> <tr> <td>max</td> <td>11.062</td> <td>11.228</td> </tr> <tr> <td>min</td> <td>11.054</td> <td>11.028</td> </tr> </table>		M_{rk}	11.059	11.128	max	11.062	11.228	min	11.054	11.028
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<table border="1"> <tr> <td>s_n</td> <td>3.091</td> <td>3.142</td> </tr> <tr> <td>max</td> <td>3.093</td> <td>3.242</td> </tr> <tr> <td>min</td> <td>3.089</td> <td>3.042</td> </tr> </table>		s_n	3.091	3.142	max	3.093	3.242	min	3.089	3.042	<table border="1"> <tr> <td>e_n</td> <td>3.192</td> <td>3.142</td> </tr> <tr> <td>max</td> <td>3.196</td> <td>3.242</td> </tr> <tr> <td>min</td> <td>3.190</td> <td>3.042</td> </tr> </table>		e_n	3.192	3.142	max	3.196	3.242	min	3.190	3.042											
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W_k [...]				$M_{3R} \text{ } \varnothing 3.000$ [...]																												
				<table border="1"> <tr> <td>M_{3R}</td> <td>22.118</td> <td>22.100</td> </tr> <tr> <td>max</td> <td>22.123</td> <td>22.200</td> </tr> <tr> <td>min</td> <td>22.112</td> <td>22.000</td> </tr> </table>		M_{3R}	22.118	22.100	max	22.123	22.200	min	22.112	22.000																		
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				calculated from axial pitch																												

Workpiece number				worm_example		CMM		 GEAR® PRO worm	
Drawing number						Operator			
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z	3	α_n	20.000 °	d_f/d_a	14.117/23.117 mm			OK	
m_x	2.106 mm	p_z	R 19.853 mm	d_b	12.484 mm	external/tooth			
x	0.000	b	26.000 mm	d_m	19.117 mm	wormtype: Z1			

2.00		left	axial pitch						right				
 2.00  20.0 μm 500:1		deviation in axial direction pos: 18.62 / 180°											
													
		- 2 axial pitches -											
		f_{px}				Q_a [...] Q_n		f_{px}				Q_a [...] Q_n	
		4.7 5 ±7.0 6				5.4 6 ±7.0 6							
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		f_{ux}				Q_a [...] Q_n		f_{ux}				Q_a [...] Q_n	
		9.0 6 9.0 6				5.6 5 9.0 6							

2.00		tooth thickness variation											
 2.00  20.0 μm 500:1		deviation in normal direction evaluation diameter d: 19.117 mm (- reference circle -)											
													
		R_s				Q_a [...] Q_n							
		4.6 4 8.0 6											

E_{sn}				E_{en}				$M_{rk} \text{ } \varnothing 3.000$						
DIN 3962:1978-08				DIN 3962:1978-08				DIN 3962:1978-08						
		E_{sn}	-0.050	0.000			E_{en}	0.050	0.000			M_{rk}	11.059	11.128
		max	-0.047	0.100			max	0.053	0.100			max	11.065	11.228
		min	-0.052	-0.100			min	0.046	-0.100			min	11.055	11.028
s_n				e_n				M_{dk}						
DIN 3962:1978-08				DIN 3962:1978-08				DIN 3962:1978-08						
		s_n	3.092	3.142			e_n	3.192	3.142					
		max	3.095	3.242			max	3.195	3.242					
		min	3.090	3.042			min	3.188	3.042					
W_k				M_{3R}										
														

Workpiece number		worm_example		CMM		 GEAR® PRO worm			
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