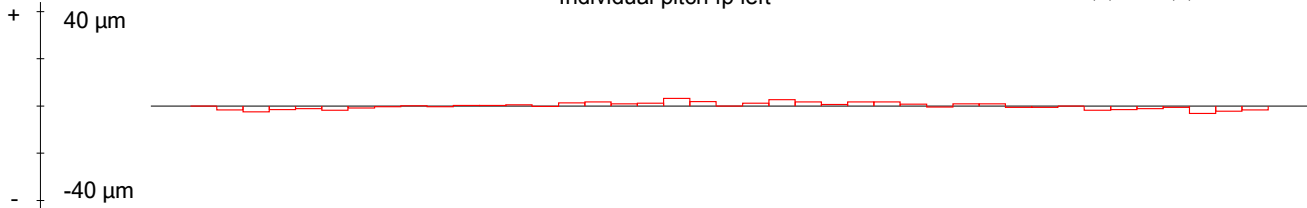


Cylindrical Gear Pitch & Runout

Prog.No. : Ingranaggio pompa acqua mare	No.of teeth : 41	Inspector : Michele Di Marco
Notation :	Norm. Module : 2.750	Date/Time : 04/02/2014 11:56:32
Drawing No. : 5801685071	Pressure angle : 18.00000	Standard : DIN 3962
Serial No. :	Helix angle : 19.00000	Addendum : 0.154
Part/Machine/No. :	Hand of Helix : LH	
Measuring Machine : LEITZ REFERENCE Xi	Face Width : 24.000	

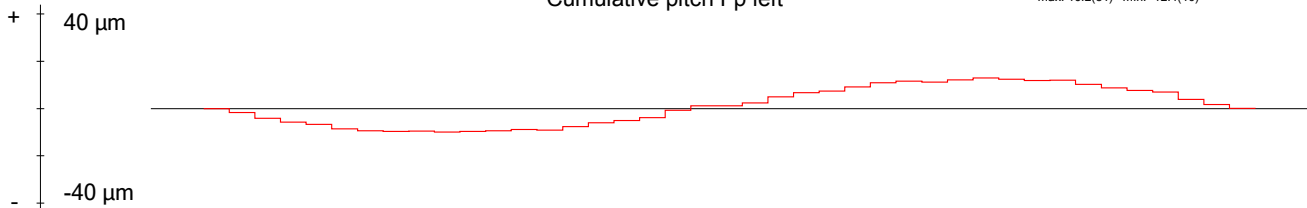
Individual pitch fp left

max: 4.0(19) min: -4.0(39)



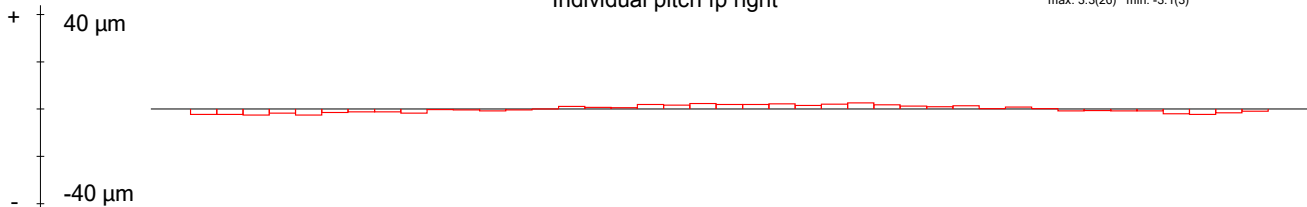
Cumulative pitch Fp left

max: 16.2(31) min: -12.4(10)



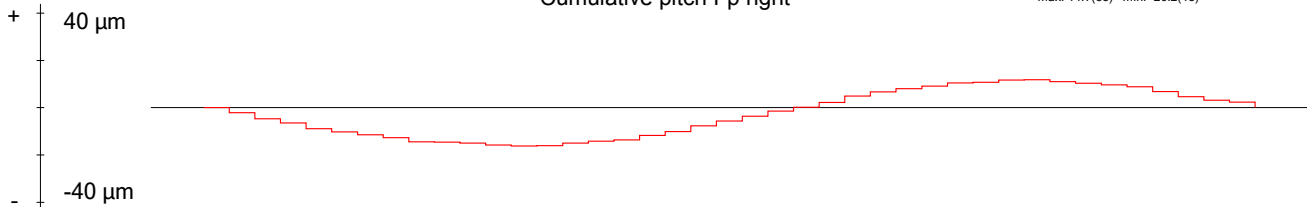
Individual pitch fp right

max: 3.3(26) min: -3.1(3)



Cumulative pitch Fp right

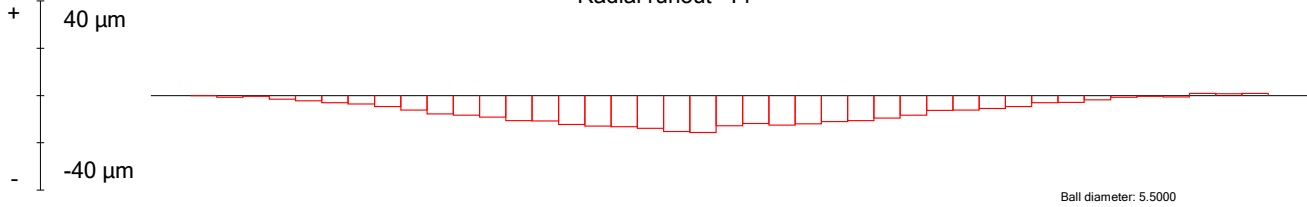
max: 14.7(33) min: -20.2(13)



		Left flank				Right flank			
		Meas. dev.	Qual.	Toler.	Qual.	Meas. dev.	Qual.	Toler.	Qual.
Individual pitch deviation	fp	4.0	D 5	14.0	D 8	3.3	D 4	14.0	D 8
Cumulative pitch deviation	Fp	28.6	D 7	50.0	D 8	35.0	D 7	50.0	D 8
Cumulative k teeth pitch deviation	Fpk	22.0	D 7	32.0	D 8	27.1	D 8	32.0	D 8
Adjacent pitch deviation	fu	3.3	D 4	18.0	D 8	1.9	D 1	18.0	D 8
Individual pitch variation	Rp	8.0				6.4			

Radial runout Fr

Ball diameter: 5.5000



		Meas. dev.	Qual.		Toler.	Qual.	
		Nom	Max-Min	Max	40.0	Min	Average
Radial runout	Fr	20.6	D 7			D 8	
Dimension over balls		(129.1860,129.1130)	0.0041	129.1946	(21.41)	129.1905	(20.41) 129.1927
Span over teeth		(38.5370,38.5070)	0.0128	38.5462	(21,25)	38.5334	(0,4) 38.5395
Tooth/space thickness							
Tip circle diameter		(127.8000,127.6000)	0.0065	127.6334		127.6269	127.6301
Root circle diameter		(110.8000,110.5000)	0.0122	110.7775		110.7653	110.7714

Date/Time: [04/02/2014 11:56:32]

Unit: [mm]

Standard: [DIN 3962]

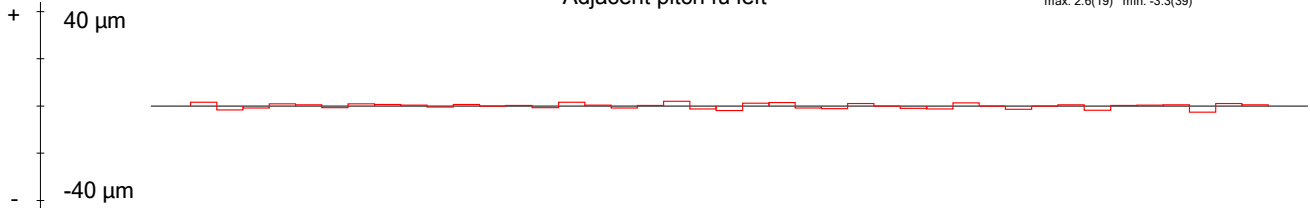
PC-DMIS GEAR v2.5.491.0 (02/06/2013 07:53:34) - HEXAGON METROLOGY

Cylindrical Gear Pitch & Runout

Prog.No. : Ingranaggio pompa acqua mare	No.of teeth : 41	Inspector : Michele Di Marco
Notation :	Norm. Module : 2.750	Date/Time : 04/02/2014 11:56:32
Drawing No. : 5801685071	Pressure angle : 18.00000	Standard : DIN 3962
Serial No. :	Helix angle : 19.00000	Addendum : 0.154
Part/Machine/No. :	Hand of Helix : LH	
Measuring Machine : LEITZ REFERENCE Xi	Face Width : 24.000	

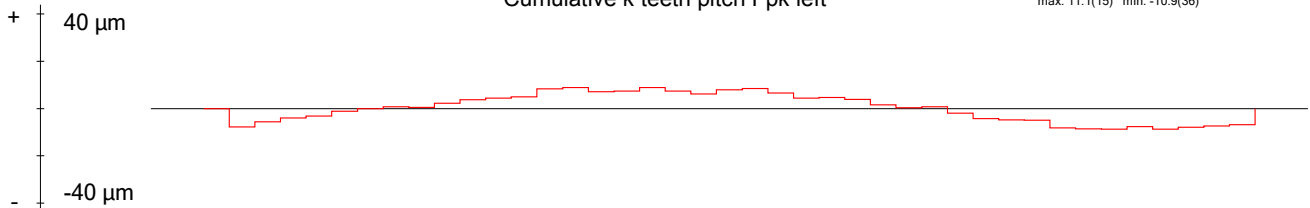
Adjacent pitch fu left

max: 2.6(19) min: -3.3(39)



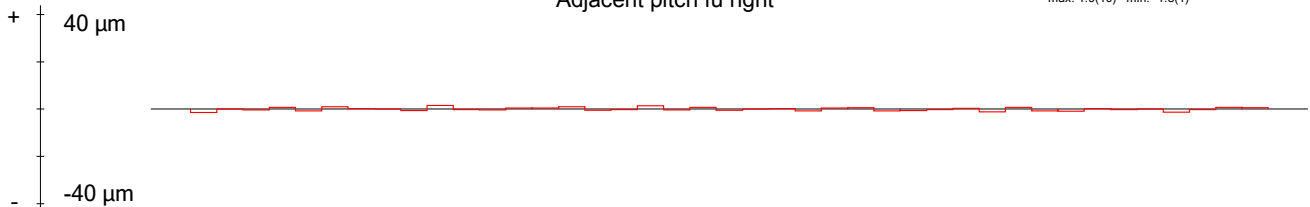
Cumulative k teeth pitch Fpk left

max: 11.1(15) min: -10.9(36)



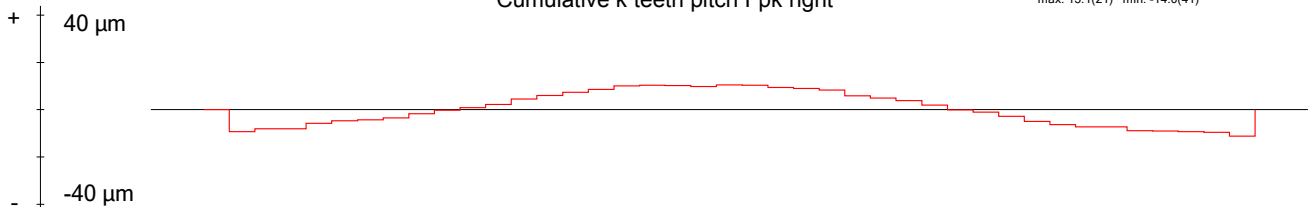
Adjacent pitch fu right

max: 1.9(10) min: -1.8(1)



Cumulative k teeth pitch Fpk right

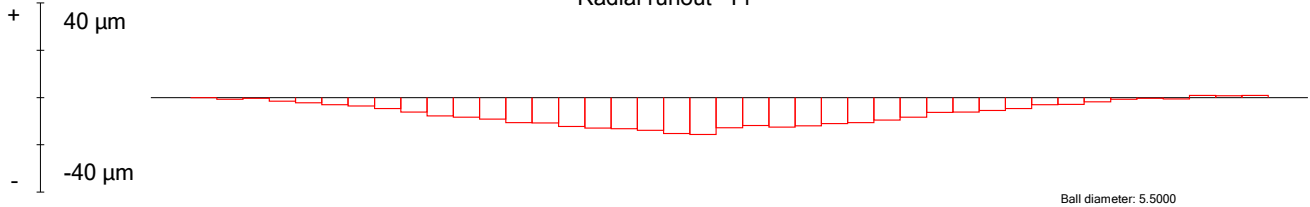
max: 13.1(21) min: -14.0(41)



		Left flank				Right flank			
		Meas. dev.	Qual.	Toler.	Qual.	Meas. dev.	Qual.	Toler.	Qual.
Individual pitch deviation	fp	4.0	D 5	14.0	D 8	3.3	D 4	14.0	D 8
Cumulative pitch deviation	Fp	28.6	D 7	50.0	D 8	35.0	D 7	50.0	D 8
Cumulative k teeth pitch deviation	Fpk	22.0	D 7	32.0	D 8	27.1	D 8	32.0	D 8
Adjacent pitch deviation	fu	3.3	D 4	18.0	D 8	1.9	D 1	18.0	D 8
Individual pitch variation	Rp	8.0				6.4			

Radial runout Fr

Ball diameter: 5.5000



		Meas. dev.	Qual.		Toler.	Qual.	
		Nom	Max-Min	Max	40.0	Min	Average
Radial runout	Fr	20.6	D 7			D 8	
Dimension over balls		(129.1860,129.1130)	0.0041	129.1946	(21,41)	129.1905	(20,41) 129.1927
Span over teeth		(38.5370,38.5070)	0.0128	38.5462	(21,25)	38.5334	(0,4) 38.5395
Tooth/space thickness							
Tip circle diameter		(127.8000,127.6000)	0.0065	127.6334		127.6269	127.6301
Root circle diameter		(110.8000,110.5000)	0.0122	110.7775		110.7653	110.7714

Date/Time: [04/02/2014 11:56:32]

Unit: [mm]

Standard: [DIN 3962]

PC-DMIS GEAR v2.5.491.0 (02/06/2013 07:53:34) - HEXAGON METROLOGY

Cylindrical Gear Profile & Helix

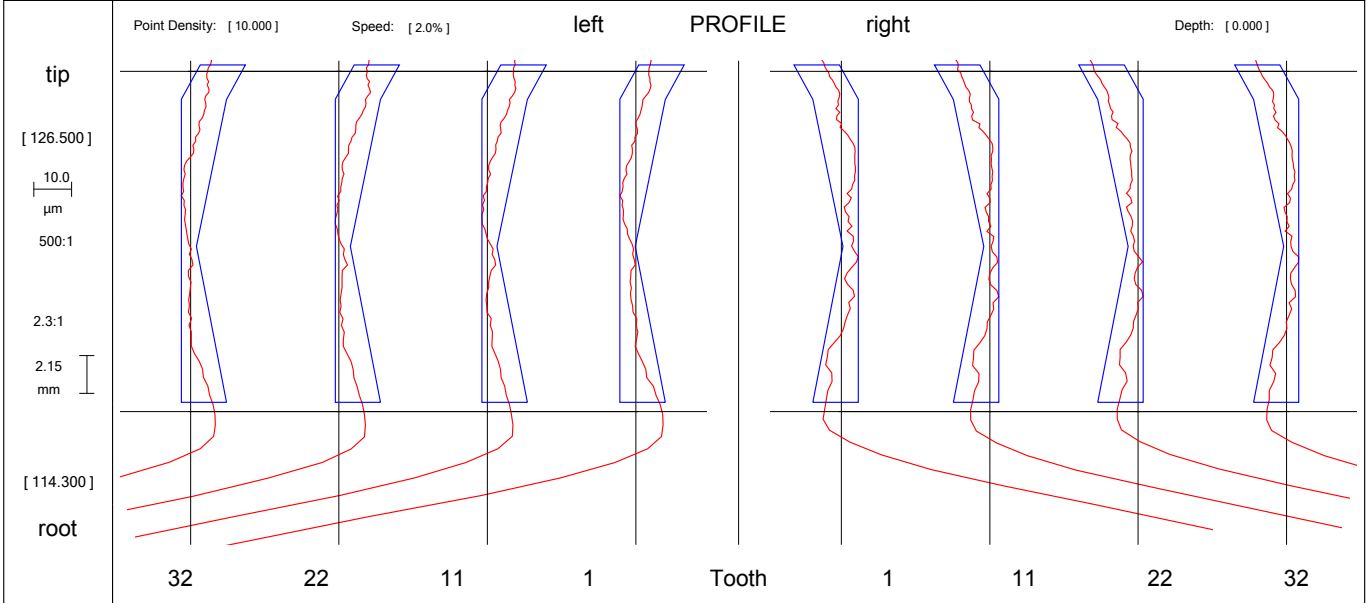
Date/Time: [04/02/2014 11:56:32]

Unit: [mm]

Standard: [DIN 3962]

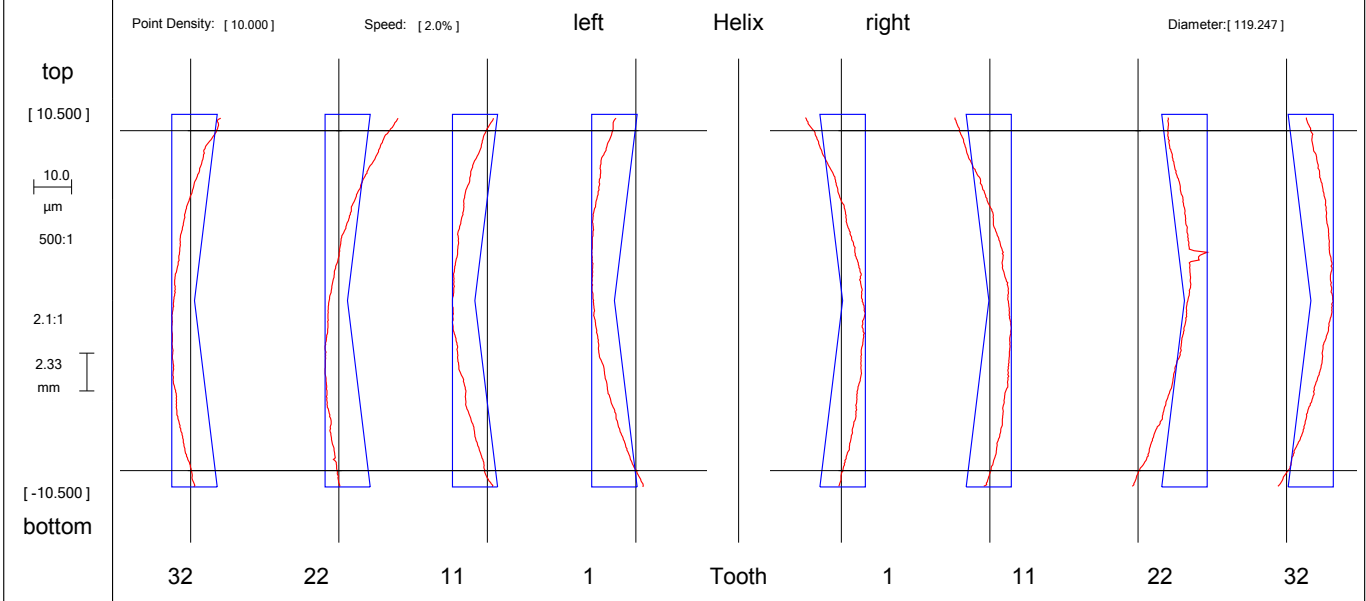
PC-DIMS GEAR v2.5.481.0 (02/06/2013 07:53:34) - HEXAGON METROLOGY

Prog.No. : Ingranaggio pompa acqua mare	No. of teeth : 41	Inspector : Michele Di Marco
Notation :	Norm. Module : 2.750	Date/Time : 04/02/2014 11:56:32
Drawing No. : 5801685071	Pressure angle : 18.00000	Standard : DIN 3962
Serial No. :	Helix angle : 19.00000	Addendum : 0.154
Part/Machine No. :	Hand of Helix : LH	dNf / dNa : 112.776 / 127.600
Measuring Machine : LEITZ REFERENCE Xi	Face Width : 24.000	bu / bo : -11.500 / 11.500



	left				right				Toler.	Qual.		
fHa	-1.7	-4.6	-3.8	0.3	6	±12.0	D 8	1.4	-2.8	-5.9	-1.4	6
Fa	8.4	9.4	9.0	10.6	7	20.0	D 8	8.8	10.1	12.7	10.0	7
ffa	9.4	9.7	9.4	10.5	7	16.0	D 8	8.5	8.3	9.2	9.3	7
Cα												
Vφ												

Average Fa: 9.3 fHa: -2.5 ffa: 9.7 Fa: 10.4 fHa: -2.2 ffa: 8.8



	left				right				Toler.	Qual.		
fHβ	6.0	12.9	-0.4	-6.7	7	±18.0	D 8	-7.4	-8.4	7.1	5.8	6
Fβ	8.5	13.8	4.3	8.2	7	20.0	D 8	8.7	9.4	8.6	8.3	6
ffβ	1.4	1.2	1.3	1.1	1	12.0	D 8	1.3	1.1	5.4	1.4	5
Cβ	7.6	8.9	8.7	7.9		20.0/5.0		9.1	9.1	9.7	8.6	
Vψ												

Average Fβ: 8.7 fHβ: 3.0 ffβ: 1.3 Fβ: 8.8 fHβ: -0.7 ffβ: 2.3