

Part Name Speed Gear SR6		Customer Part Number 250.1.3877.36	
Shown on Drawing No. 250.1.3877.36		Organization Part #	
Engineering Change Level a 35670		Dated 11-ago-14	
Additional Engineering Changes		Dated	
Safety and/or Government Regulation <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Purchase Order No.	
		Weight (kg) 0.4480	
Checking Aid No.		Checking Aid Engineering Change Level	
		Dated	

ORGANIZATION MANUFACTURING INFORMATION

GETRAG MODUGNO

Organization Name & Street - Contact Code

VIA DEI CICLAMINI N°4

Street Address

MODUGNO BARI 70026 ITALY

City, State, Postal Code, Country

CUSTOMER SUBMITTAL INFORMATION

RENAULT

Customer Name Division

Buyer/Buyer Code

TYP 250

Part Code

MATERIALS REPORTING

Has customer-required Substances of Concern information been reported? Yes No n/a

Submitted by IMDS or other customer format:

Are polymeric parts identified with appropriate ISO marking codes? Yes No n/a

REASON FOR SUBMISSION (Check all that apply - not one)

<input type="checkbox"/> Initial Submission	<input type="checkbox"/> Change to Optional Construction or Material
<input checked="" type="checkbox"/> Engineering Change(s)	<input type="checkbox"/> Supplier or Material Source Change
<input type="checkbox"/> Tooling: Transfer, Replacement, Refurbishment, or additional	<input type="checkbox"/> Change in Part Processing
<input type="checkbox"/> Correction of Discrepancy	<input type="checkbox"/> Parts Produced at Additional Location
<input type="checkbox"/> Tooling Inactive > than 1 year	<input checked="" type="checkbox"/> Other - please specify below

REQUESTED SUBMISSION LEVEL (Check one)

Level 1 - Warrant only (and for designated appearance items, an Appearance Approval Report) submitted to customer.

Level 2 - Warrant with product samples and limited supporting data submitted to customer.

Level 3 - Warrant with product samples and complete supporting data submitted to customer.

Level 4 - Warrant and other requirements as defined by customer.

Level 5 - Warrant with product samples and complete supporting data reviewed at organization's manufacturing location.

SUBMISSION RESULTS

The results for dimensional measurements material and functional tests appearance criteria statistical process package

These results meet all drawing and specification requirements: Yes NO (If "NO" - Explanation Required)

Mold / Cavity / Production Process

DECLARATION

I hereby affirm that the samples represented by this warrant are representative of our parts which were made by a process that meets all Production Part Approval Process Manual 4th Edition Requirements. I further affirm that these samples were produced at the production rate of / hours.

I also certify that documented evidence of such compliance is on file and available for review. I have noted any deviations from this declaration below.

EXPLANATION / COMMENTS: New documentation for first PPAP lost

Is each Customer Tool properly tagged and numbered? Yes No n/a

Organization Authorized Signature _____ Date **14 Jan 2015**

Print Name **Pennacchia Vincenzo** Phone No. **tel 390805858580** Fax No. _____

Title **GPS Leader** E-mail **vincenzo.pennacchia@getrag.com**

FOR CUSTOMER USE ONLY (IF APPLICABLE)

Part Warrant Disposition: Approved Rejected Other

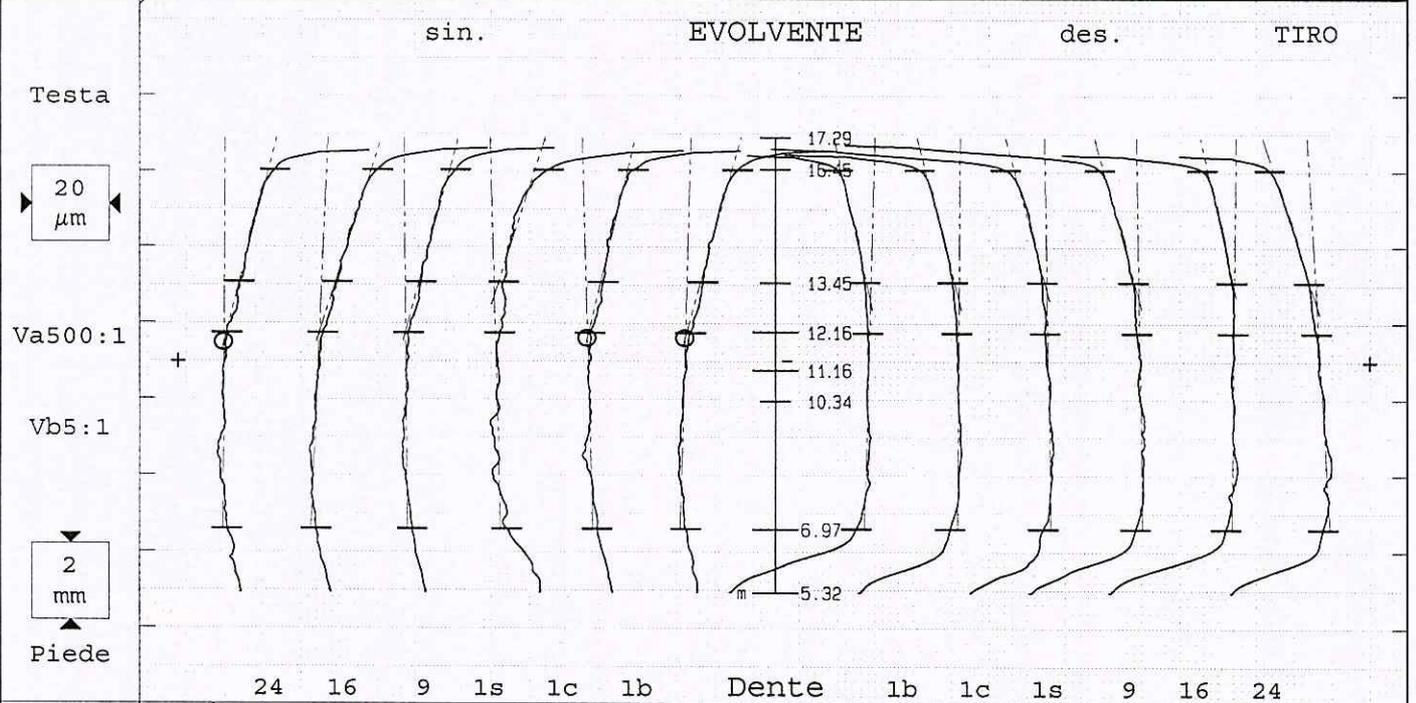
Customer Signature _____ Date **14.01.15**

Print Name _____ Customer Tracking Number (optional) _____

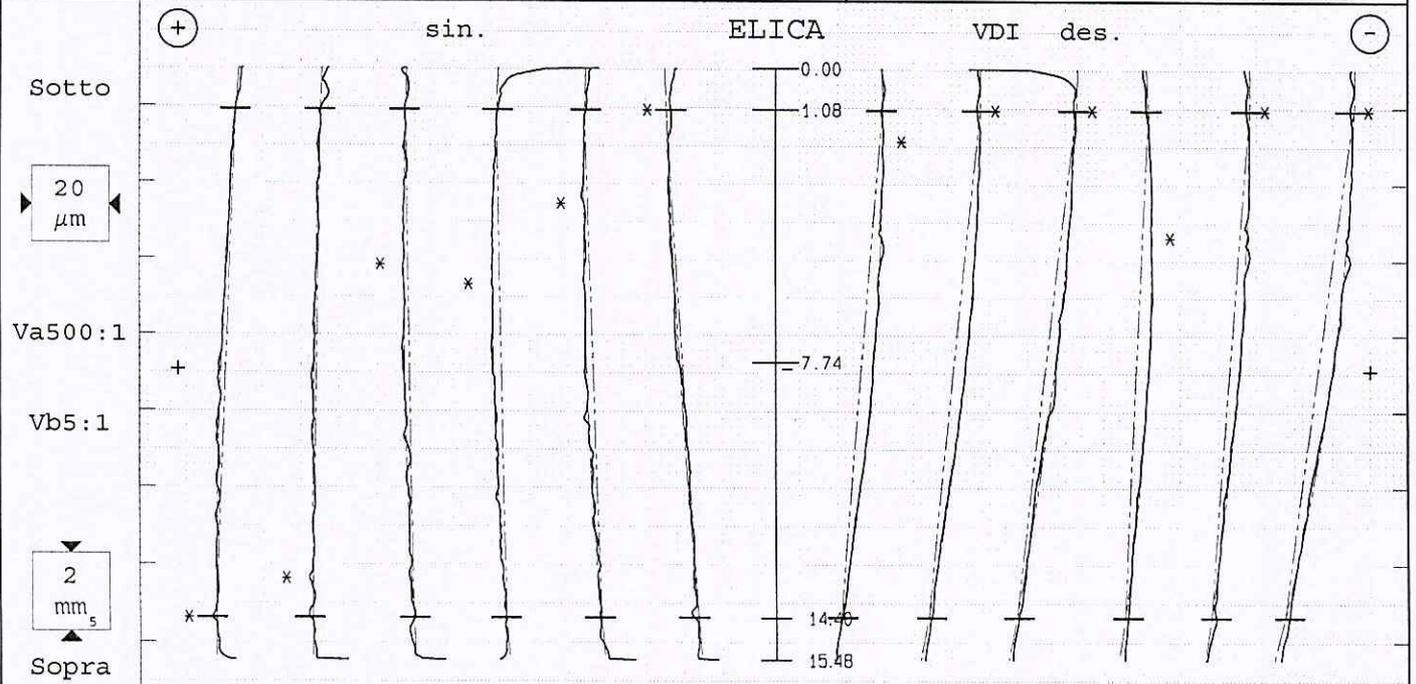
Ruota cilindrica Evolvente/Elica



Nr. prog.: STI0412_06 0	P26 B7681	Controllore: turno A	Data: 14.01.2015 12:27
Denominazione: SR6		Numero denti z 31	Largh.fasc.dent. b 15.48mm
Numero disegno.: 250.1.3878.35-ICA		Modulo m 1.8mm	Tratto evolv. La 5.19mm
Comessa/serie nr.: 1		Angolo pressione 17°30'00"	Tratto elica Ls 13.31mm
Masch.Nr.: M001	spindel: Formel	Angolo elica -24°00'00"	Inizio elab. M1 6.97mm
Untersuchungszweck: Laufende Messung		Ø Base db 57.7385mm	Palpatore Ø (#2C) 1mm
Werkzeug:	Charge:	Ang. Base -22°49'29"	Fat.scor.pr. x .498



Tolerance	Medio	Val.misur [µm]						Qual	Tolerance	Val.misur [µm]						Medio	Qual
fHam ±6	0	Var a 3							±6	Var a 4						-1	
fHa ±7	0	0	-2	0	1	1	-1		±7	1	0	-1	-1	1	-3	-1	
Fa 3	3	3	3	3	5	4	3		4	4	3	3	2	3	4	3	
ffa 4	3	3	3	2	4	3	2		4	3	3	3	3	3	3	3	
fKo -13/-5	-12	-11	-12	-12	-12	-12	-11		-14/-6	-9	-9	-8	-9	-7	-9	-9	
P/T-Ø [mm]	56.891	[56.7/57.05]							67.169	[67.14/67.3]							



N:Z	24	16	9	1t	1c	1p	Dente	1p	1c	1t	9	16	24		
fHSm ±6	0	Var β 11						-15±6	Var β 14						-14
fHS ±13	0	-6	-2	2	3	5	10	-15±13	-13	-16	-18	-7	-12	-21	-14
Fβ 4	4	6	3	3	4	5	7	5	4	4	8	5	7	6	
ffβ 4	2	2	2	2	1	2	3	4	1	2	2	1	2	2	2
Cβ 0/4	1	1	1	1	2	2	1	0/4	3	3	3	3	2	4	3

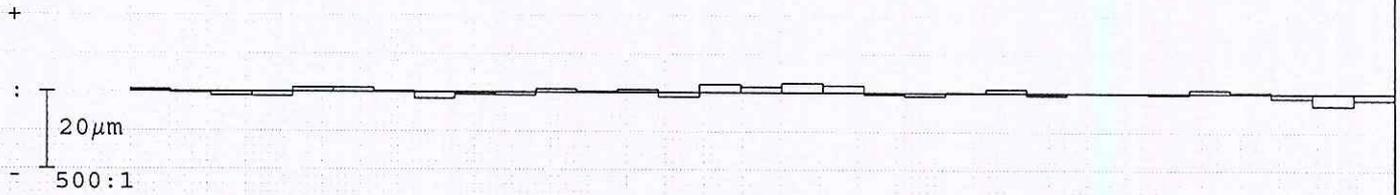


Ruota cilindrica Divisione

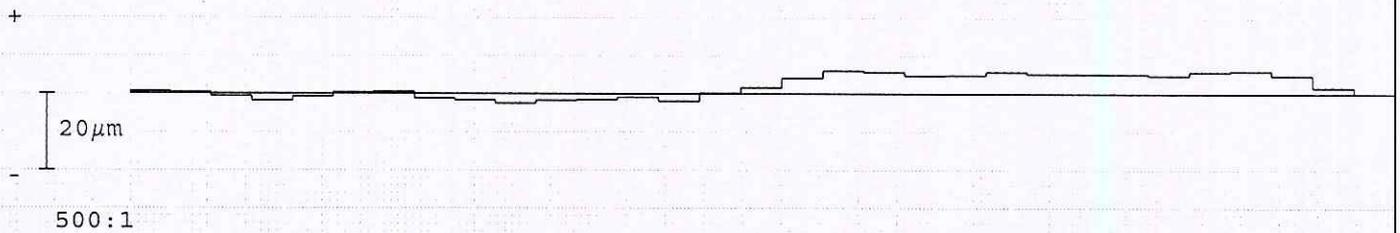


Nr. prog.: STI0412_06_0	P26 B7681	Controllore: turno A	Data: 14.01.2015 12:27
Denominazione: SR6		Numero denti z 31	Angolo pressione 17°30'00"
Numero disegno.: 250.1.3878.35-ICA		Modulo m 1.8mm	Angolo elica -24°00'00"
Commessa/serie nr.: 1		Untersuchungszweck: Laufende Messung	
Masch.Nr.: M001	spindel: Formelwerkzeug	Charge:	

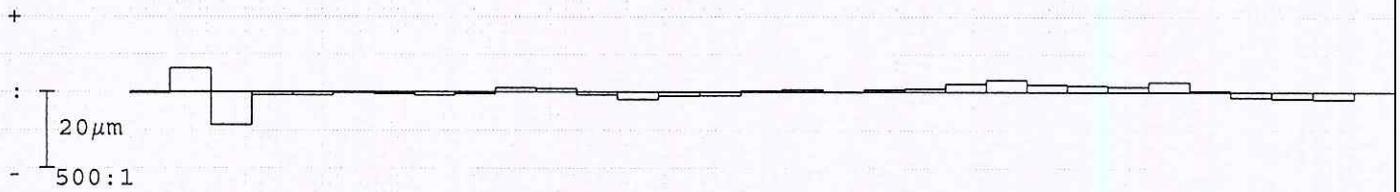
Errori singoli di divisione fp fianco sinistro



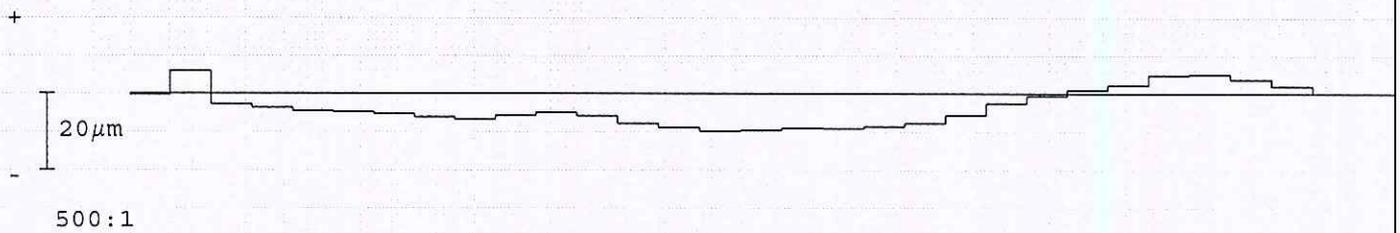
Errore somma di divisione Fp fianco sinistro



Errori singoli di divisione fp fianco destro



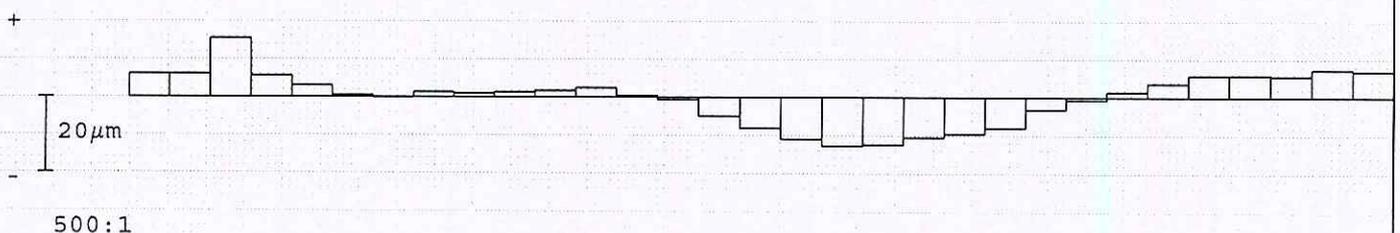
Errore somma di divisione Fp fianco destro



Corsa per misura divis.: 61.331 z=7.7mm	fianco sinistro				fianco destro / TIRO			
	Val. misur	Qual.	Val. amm	Qual.	Val. misur	Qual.	Val. amm	Qual.
Gr. err. singoli divisione fp max	3		14		9		14	
Gr. salto di passo fu max	3		18		15		18	
Scarto di divisione Rp	5				15			
Err. globale di divisione Fp	8		50		16		50	
Err. cordale di divisione Fpz/8	8				11			

Centricità Fr (Ø-sfera =2.5mm)

⊙ : 16µm



Err. di concentricità Fr	28	32	
Variáz. spessore dente Rs			

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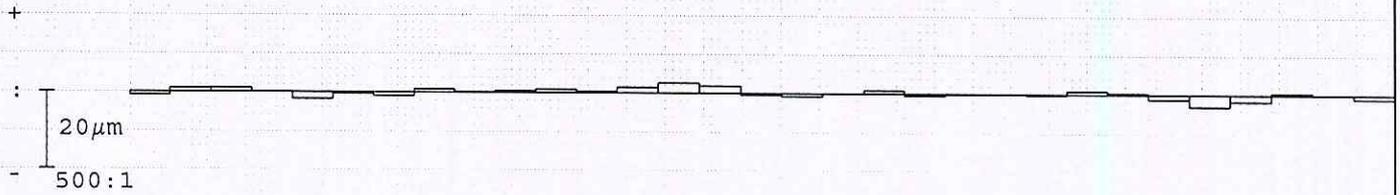


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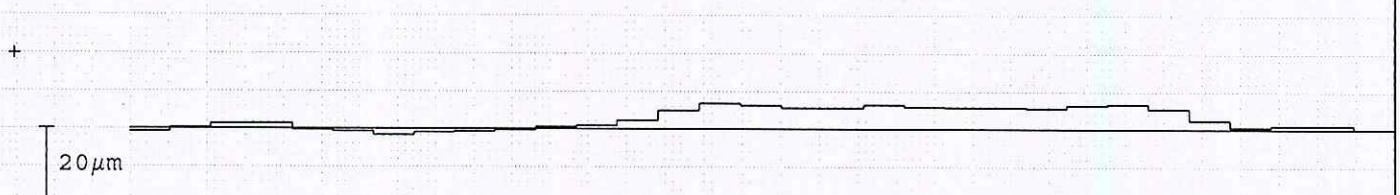


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Denominazione: SR6		Numero denti z 31	Angolo pressione 17°30'00"
Numero disegno.: 250.1.3878.35-ICA		Modulo m 1.8mm	Angolo elica -24°00'00"
Commessa/serie nr.: 2		Untersuchungszweck: Laufende Messung	
Masch.Nr.: M001	Spindel: Formelwerkzeug	Charge:	

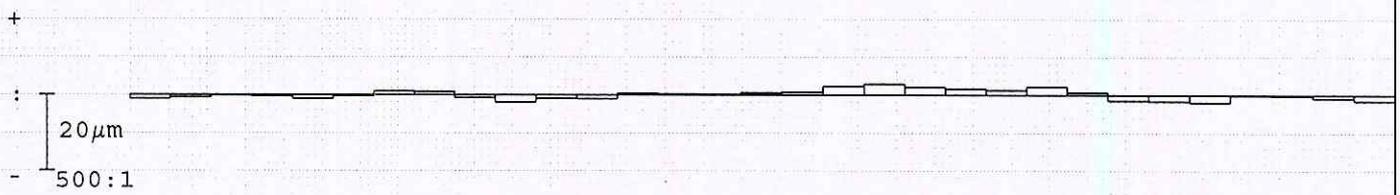
Errori singoli di divisione fp fianco sinistro



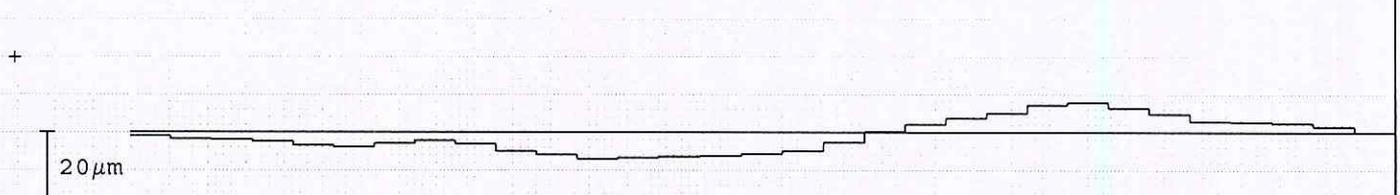
Errore somma di divisione Fp fianco sinistro



Errori singoli di divisione fp fianco destro



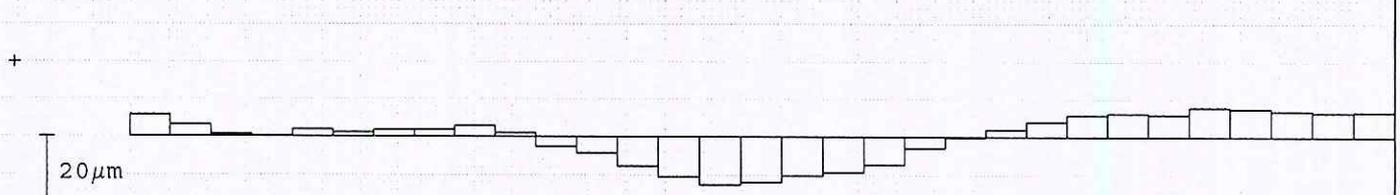
Errore somma di divisione Fp fianco destro



Corsa per misura divis.: 61.331 z=7.7mm	fianco sinistro				fianco destro / TIRO			
	Val. misur	Qual.	Val. amm	Qual.	Val. misur	Qual.	Val. amm	Qual.
Gr. err. singoli divisione fp max	3		14		3		14	
Gr. salto di passo fu max	2		18		2		18	
Scarto di divisione Rp	6				5			
Err. globale di divisione Fp	8		50		15		50	
Err. cordale di divisione Fpz/8	6				9			

Centricità Fr (Ø-sfera =2.5mm)

⊙ : 15µm



Err. di concentricità Fr	20	32	
Variáz. spessore dente Rs			

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Ruota cilindrica Divisione

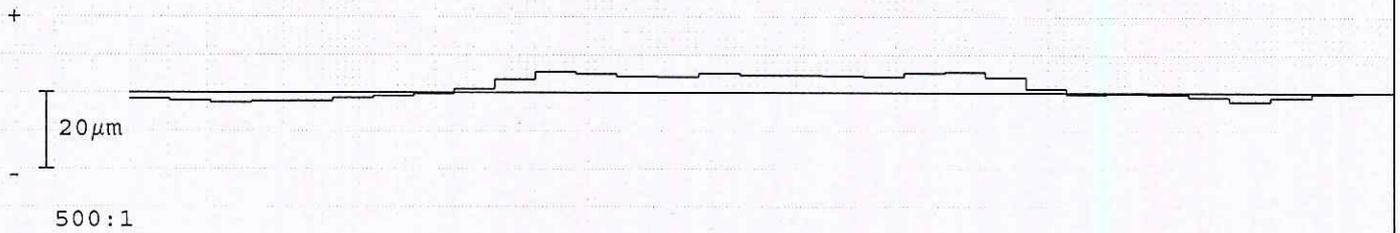


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Denominazione: SR6		Numero denti z 31	Angolo pressione 17°30'00"
Numero disegno.: 250.1.3878.35-ICA		Modulo m 1.8mm	Angolo elica -24°00'00"
Commessa/serie nr.: 2		Untersuchungszweck: Laufende Messung	
Masch.Nr.: M001	spindel: Formelwerkzeug	Charge:	

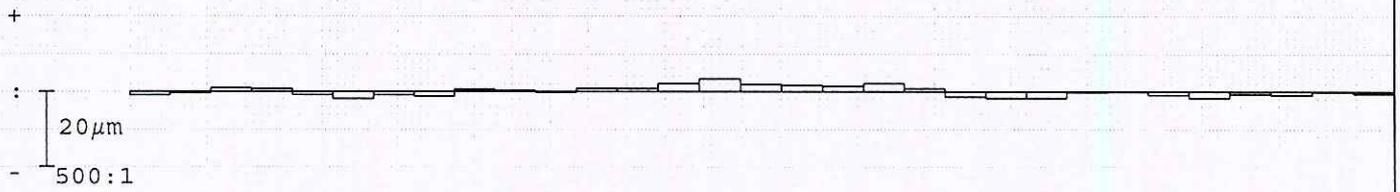
Errori singoli di divisione fp fianco sinistro



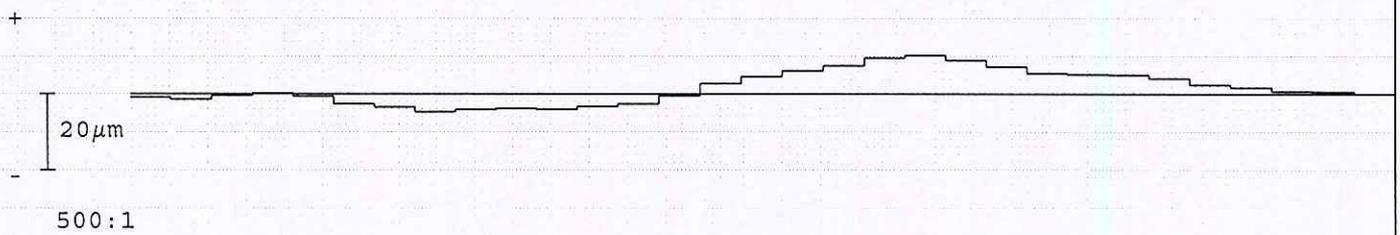
Errore somma di divisione Fp fianco sinistro



Errori singoli di divisione fp fianco destro

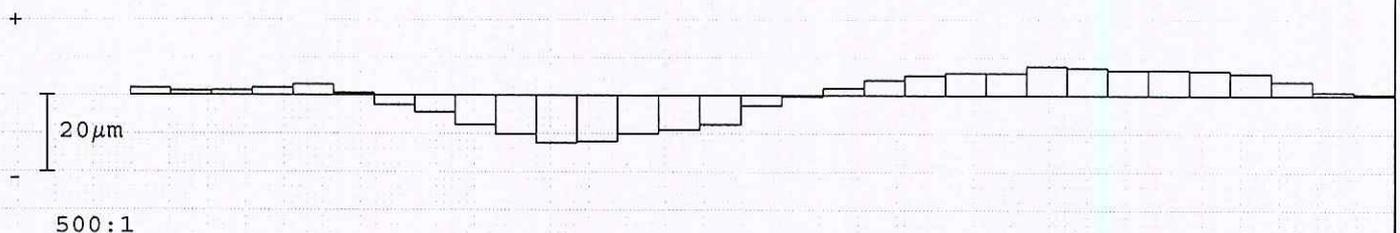


Errore somma di divisione Fp fianco destro



Corsa per misura divis.: 61.331 z=7.7mm	fianco sinistro				fianco destro / TIRO			
	Val. misur	Qual.	Val. amm	Qual.	Val. misur	Qual.	Val. amm	Qual.
Gr. err. singoli divisione fp max	3		14		3		14	
Gr. salto di passo fu max	2		18		2		18	
Scarto di divisione Rp	6				5			
Err. globale di divisione Fp	8		50		15		50	
Err. cordale di divisione Fpz/8	6				9			

Centricità Fr (Ø-sfera =2.5mm) ⊙ : 15µm



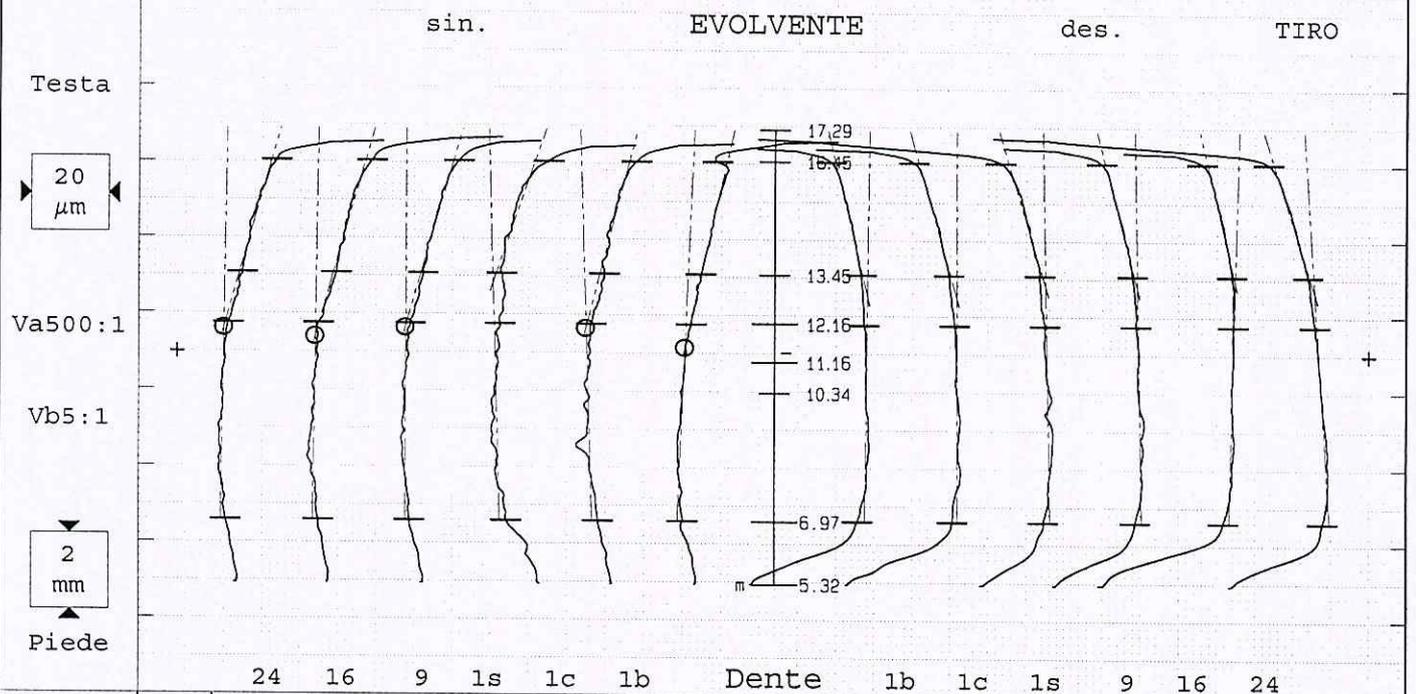
Err. di concentricità Fr	20	32	
Variab. spessore dente Rs			

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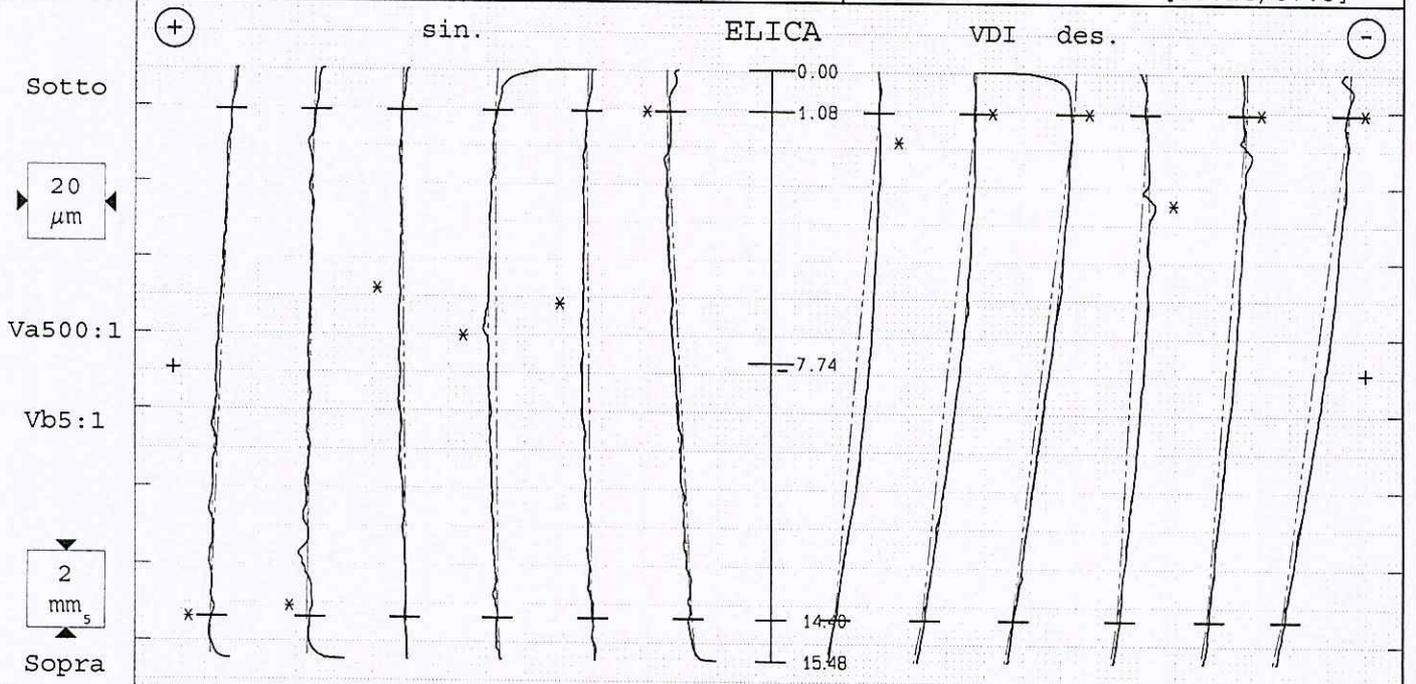
Ruota cilindrica Evolvente/Elica



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Denominazione: SR6		Numero denti z 31	Largh.fasc.dent. b 15.48mm
Numero disegno.: 250.1.3878.35-ICA		Modulo m 1.8mm	Tratto evolv. La 5.19mm
Commessa/serie nr.: 4		Angolo pressione 17°30'00"	Tratto elica L& 13.31mm
Masch.Nr.: M001	Spindel: Forme	Angolo elica -24°00'00"	Inizio elab. M1 6.97mm
Untersuchungszweck: Laufende Messung		Ø Base db 57.7385mm	Palpatore Ø (#2C) 1mm
Werkzeug:	Charge:	Ang. Base -22°49'29"	Fat.scor.pr. x .498



Tolerance	Medio	Val.misur [µm]							Qual	Tolerance	Val.misur [µm]							Medio	Qual
fH _{am} ±6	0	Var a 3								±6	Var a 4							-1	
fH _a ±7	0	-1	-1	0	1	2	-2		±7	1	0	-1	-1	1	-3	-1			
F _a	4	3	3	2	4	6	4			3	2	2	2	3	4	3			
ffa	4	3	2	3	2	3	5	2		4	3	2	3	3	2	3	3		
fK _o -13/-5	-12	-12	-13	-12	-12	-12	-9		-14/-6	-9	-10	-9	-8	-8	-9	-9			
P/T-Ø [mm]	56.888	[56.7/57.05]									67.164	[67.14/67.3]							



N:Z		Dente								Dente								
fH _{Sm} ±6	-1	Var β 8								-15±6	Var β 12							-15
fH _S ±13	-1	-6	-2	1	1	2	8		-15±13	-14	-16	-19	-9	-12	-21	-15		
F _β	4	6	5	2	4	3	7			4	4	4	7	5	5	5		
ff _β	4	2	2	4	1	2	1	2		4	1	1	2	3	3	2	2	
C _β 0/4	1	1	0	1	2	2	1		0/4	3	3	2	3	2	3	3		

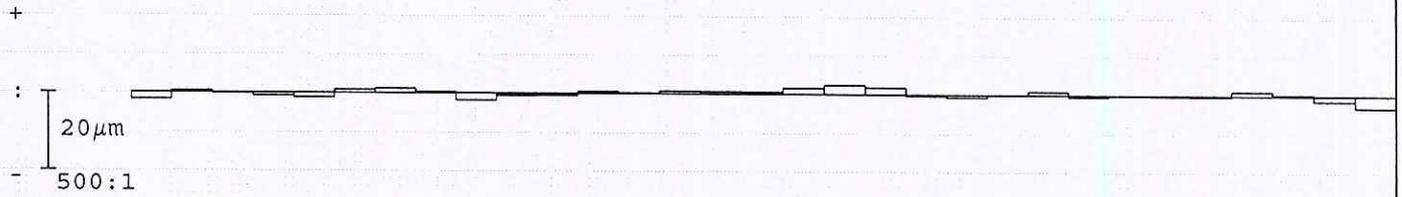


Ruota cilindrica Divisione

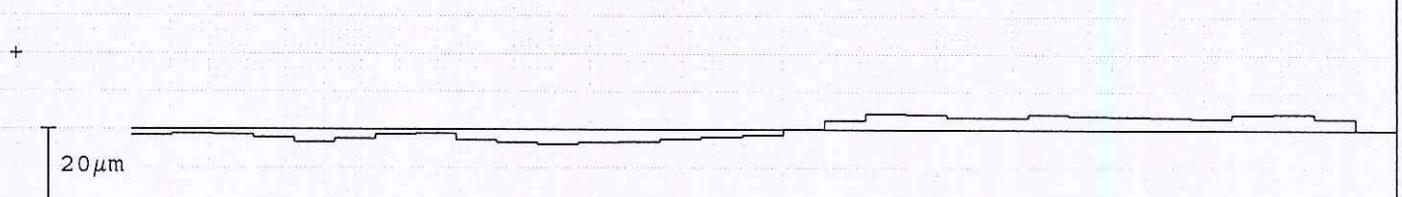


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Denominazione: SR6		Numero denti z 31	Angolo pressione 17°30'00"
Numero disegno.: 250.1.3878.35-ICA		Modulo m 1.8mm	Angolo elica -24°00'00"
Commessa/serie nr.: 4		Untersuchungszweck: Laufende Messung	
Masch.Nr.: M001	Spindel: Formelwerkzeug	Charge:	

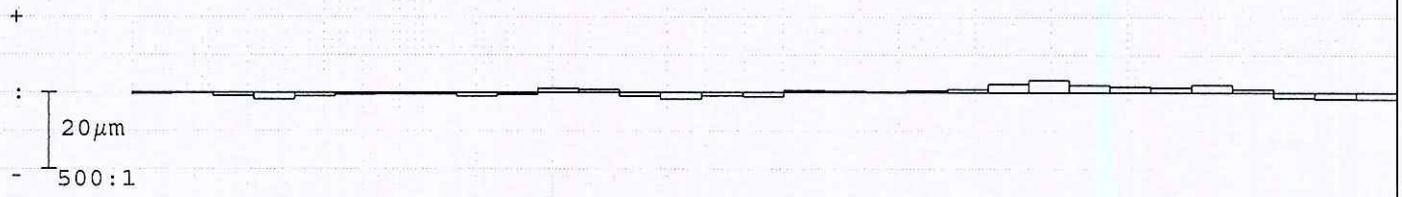
Errori singoli di divisione fp fianco sinistro



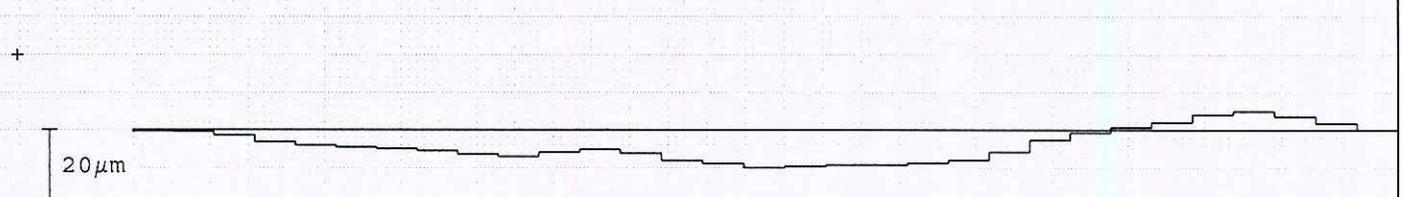
Errore somma di divisione Fp fianco sinistro



Errori singoli di divisione fp fianco destro

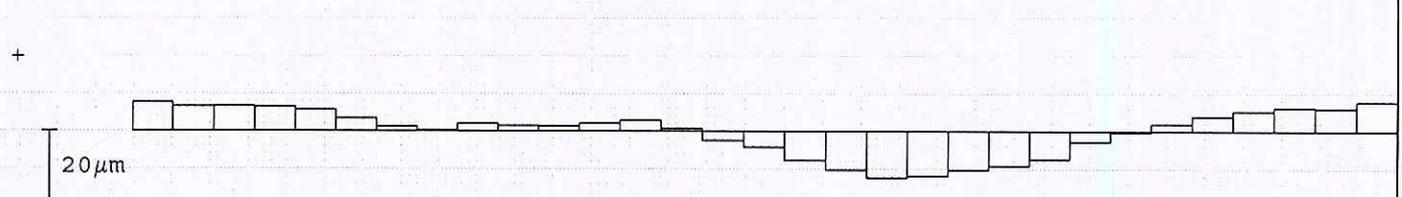


Errore somma di divisione Fp fianco destro



Corsa per misura divis.: 61.331 z=7.7mm	fianco sinistro				fianco destro / TIRO			
	Val. misur	Qual.	Val. amm	Qual.	Val. misur	Qual.	Val. amm	Qual.
Gr. err. singoli divisione fp max	3		14		3		14	
Gr. salto di passo fu max	2		18		2		18	
Scarto di divisione Rp	5				5			
Err. globale di divisione Fp	8		50		15		50	
Err. cordale di divisione Fpz/8	6				9			

Centricità Fr (\emptyset -sfera =2.5mm) \odot : 15 μ m



Err. di concentricità Fr	20	32	
Variab. spessore dente Rs			

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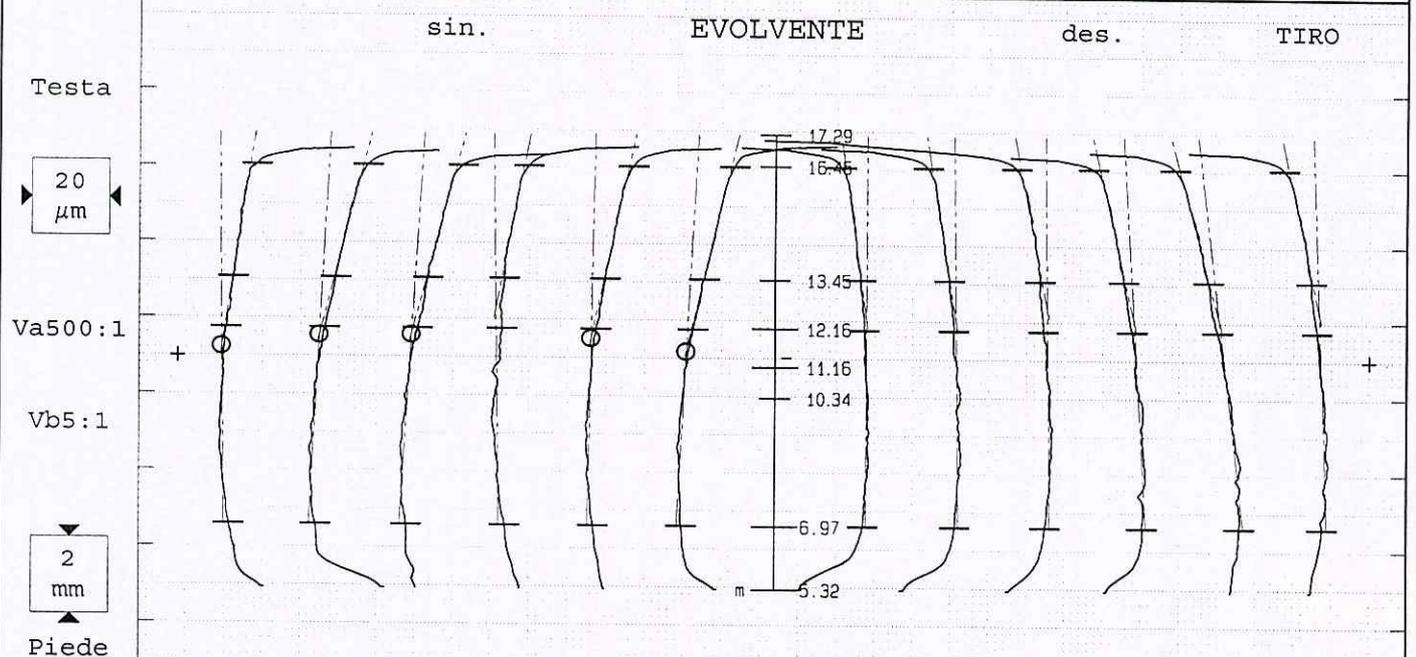
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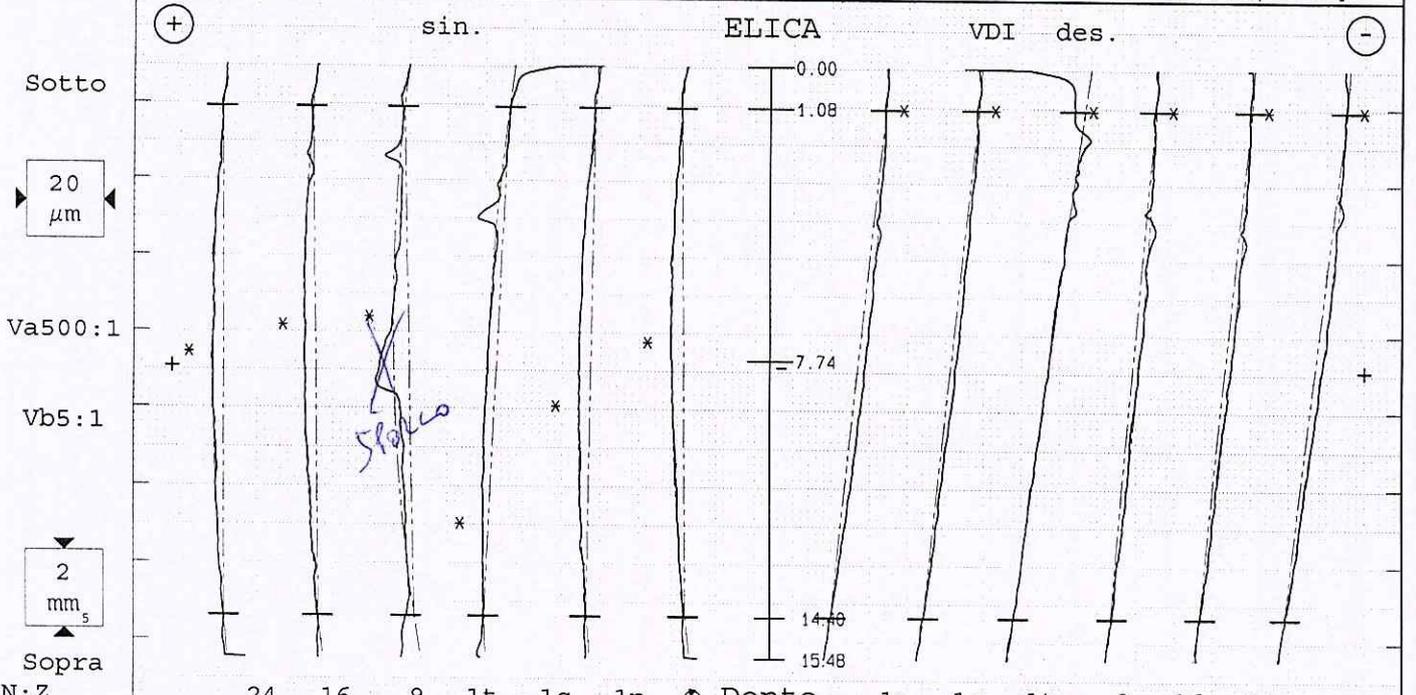
Ruota cilindrica Evolvente/Elica



Nr. prog.: STI0412_06 0	P26 B7681	Controllore: turno A	Data: 14.01.2015 12:45
Denominazione: SR6		Numero denti z 31	Largh.fasc.dent. b 15.48mm
Numero disegno.: 250.1.3878.35-ICA		Modulo m 1.8mm	Tratto evolv. La 5.19mm
Comessa/serie nr.: 5		Angolo pressione 17°30'00"	Tratto elica Ls 13.31mm
Masch.Nr.: M001	Spindel: Forme	Angolo elica -24°00'00"	Inizio elab. M1 6.97mm
Untersuchungszweck: Laufende Messung		Ø Base db 57.7385mm	Palpatore Ø (#2C) 1mm
Werkzeug:	Charge:	Ang. Base -22°49'29"	Fat.scor.pr. x .498



Tolerance	Medio	Val.misur [µm]						Qual	Tolerance	Val.misur [µm]						Medio	Qual	
fHm	±6	-2	Var a 4							±6	Var a 5						-3	
fHa	±7	-2	1	-3	-3	1	-1	-3		±7	0	-1	-1	-3	-6	-2	-3	
fα	4	4	3	4	4	3	3	4			1	2	3	4	6	3	4	
ffa	4	3	2	3	3	3	2	2		4	1	2	2	3	2	3	3	
fKα	-13/-5	-9	-8	-9	-9	-8	-9	-9		-14/-6	-6	-6	-7	-7	-6	-7	-7	
P/T-Ø [mm]		56.882	[56.7/57.05]								67.165	[67.14/67.3]						



N:Z		Var β 6								Var β 5							
fHβm	±6	1								-15±6							-17
fHβ	±13	1	0	2	3	-8	-3	1		-15±13	-17	-17	-22	-14	-16	-19	-17
Fβ		5	3	4	9	8	4	3			3	3	8	3	3	5	4
ffβ	4	3	1	2	7	6	1	1		4	1	1	5	3	2	2	2
CB	0/4	3	3	3	4	3	3	3		0/4	2	1	0	2	2	2	2

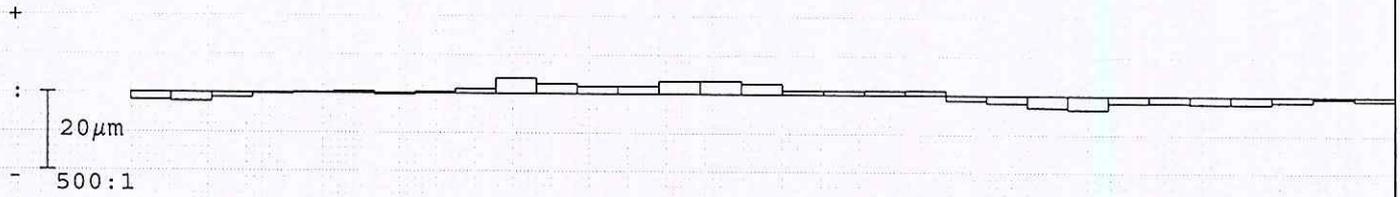


Ruota cilindrica Divisione

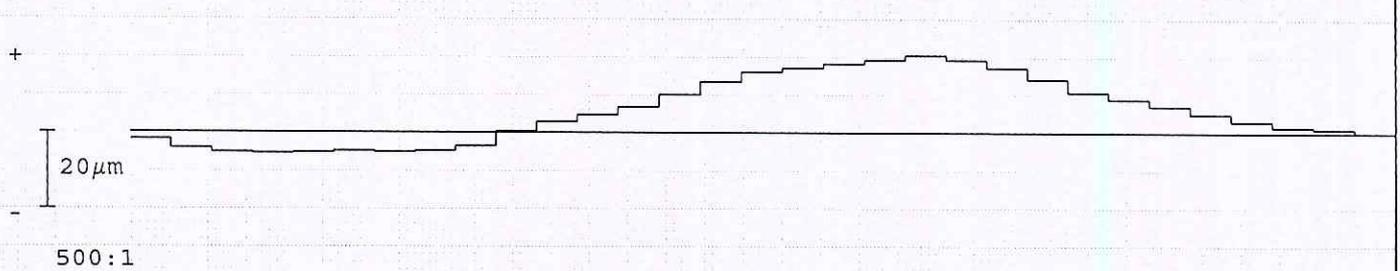


Nr. prog.: STI0412 06 0	P26 B7681	Controllore: turno A	Data: 14.01.2015 12:45
Denominazione: SR6		Numero denti z 31	Angolo pressione 17°30'00"
Numero disegno.: 250.1.3878.35-ICA		Modulo m 1.8mm	Angolo elica -24°00'00"
Commessa/serie nr.: 5		Untersuchungszweck: Laufende Messung	
Masch.Nr.: M001	Spindel: Formelwerkzeug	Charge:	

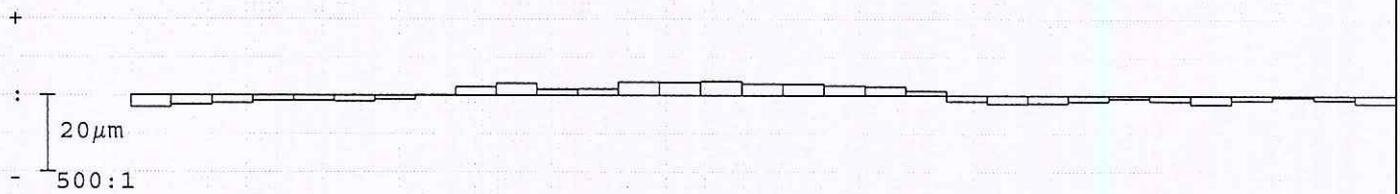
Errori singoli di divisione fp fianco sinistro



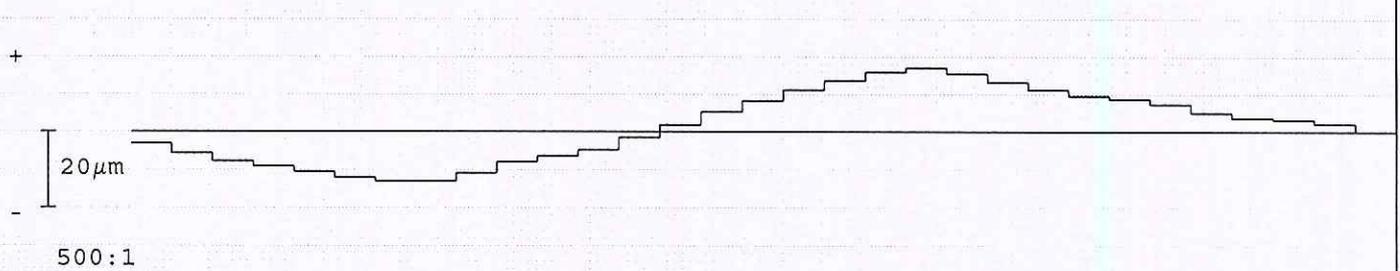
Errore somma di divisione Fp fianco sinistro



Errori singoli di divisione fp fianco destro



Errore somma di divisione Fp fianco destro

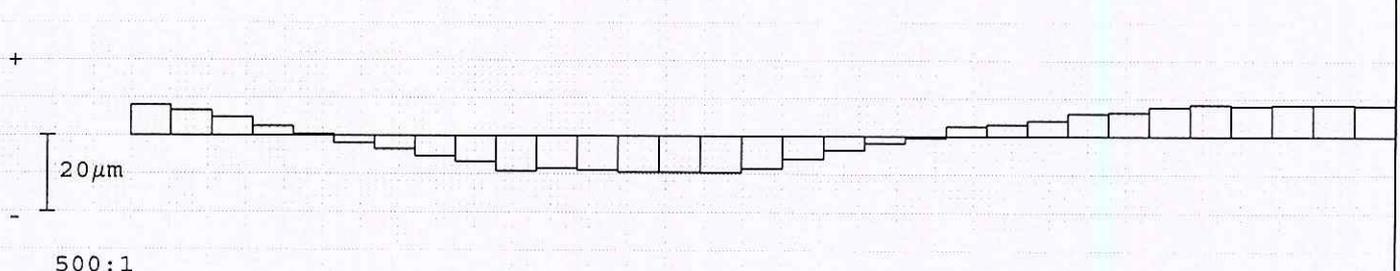


Corsa per misura divis.: 61.331 z=7.7mm

		fianco sinistro		fianco destro / TIRO	
		Val. misur	Qual.	Val. amm	Qual.
Gr. err. singoli divisione	fp max	4		14	
Gr. salto di passo	fu max	3		18	
Scarto di divisione	Rp	7		7	
Err. globale di divisione	Fp	26		50	
Err. cordale di divisione	Fpz/8	11		13	

Centricità Fr (Ø-sfera =2.5mm)

⊙ : 19µm



Err. di concentricità	Fr	18	32	
Variab. spessore dente	Rs			

Point	Caracteristic	Tolerance	Part 1	Part 2	Part 3	Part 4	Part 5
4	MDK	64.348 / 64.276	64.320	34.318	64.314	64.320	64.313

Manual measures

SR6 250 1 3877 36

14 Jan 2015

Marposs

