541 GT40

GETRAG

Part Submission Warrant

Part Name	OUTPUT SHAFT 2	Customer Part Number	250.6.4245.35
Shown on Drawing No.	250.6.4245.35	Organization Part #	
Engineering Change Level	F Index (I)	Dated	30-lug-14
Additional Engineering Changes		Dated	

Safety and/or Government Regulation ☐ Yes ☑ No — Purchase Order No. — Weight (kg) 1,546

Checking Aid No. — Checking Aid Engineering Change Level — Dated

ORGANIZATION MANUFACTURING INFORMATION	CUSTOMER SUBMITTAL INFORMATION
GETRAG MODUGNO	Renault
Organization Name & Supplier/Vendor Code	Customer Name/Division
VIA DEI CICLAMINI N°4	Renault
Street Address	Buyer/Buyer Code
MODUGNO (City) BARI (Region) 70026 (Postal Code) ITALY (Country)	TYP 250 Renault (Application)

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 at least one)

- ☐ Initial Submission
- ☑ Engineering Change(s)
- ☐ Tooling: Transfer, Replacement, Refurbishment, or additional
- ☐ Correction of Discrepancy
- ☐ Tooling Inactive > than 1 year
- ☐ Change to Optional Construction or Material
- ☐ Supplier or Material Source Change
- ☐ Change in Part Processing
- ☐ Parts Produced at Additional Location
- ☑ 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 2000 / 24 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: ripetizione per smarrimento documentazione precedente

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

Organization Authorized Signature — Date 20/01/2015

Print Name Dario Tursi — Phone No. cell +39-393-9814554 — Fax No.

Title GPS 2 Leader — E-mail dario.tursi@getrag.com

FOR CUSTOMER USE ONLY (IF APPLICABLE)

Part Warrant Disposition: ☑ Approved ☐ Rejected ☐ Other

Customer Signature — Date 20/01/2015

Print Name — Customer Tracking Number (optional)

GETRAG Production Part Approval

DIMENSIONAL TEST RESULTS

Organization:	**GETRAG**	Part Number:	**250.6.4245.35**
Supplier/Vendor Coc	**GETRAG Modugno**	Part Name:	**Output Shaft 2**
INSPECTION FACILITY:		Design Record Change Level:	**F Index (I) 30/07/2014**
NA		Engineering Change Documents:	

Item	Dimension/Specification		Specification / Limits		Test Date	Qty. Tested	Organization Measurement Results (Data) 1	2	3	4	5	Test distruttivo	Ok	Not Ok
1	MDK I		53,933	53,992		5	53,950	53,948	53,952	53,950	53,948		ok	
2	Root diameter I		42,400	42,750		5	42,632	42,630	42,609	42,630	42,620		ok	
3	Tip diameter I		55,540	55,800		5	55,563	55,660	55,548	55,629	55,623		ok	
4	Rz 4	dentatura Z18	0	4 µ		5	3,57	3,79	2,81	3,83	3,78		ok	
	Rmax 8	dentatura Z18	0	8 µ		5	4,07	4,34	3,52	4,45	4,39		ok	
5	↗ 0,032 A - B	Z18	0	32 µ		5	14	15	15	6	11		ok	
6	Dettaglio "M"		-	-		5	OK	OK	OK	OK	OK		ok	
	Diametro Ø 55.35 -0,3		55,050	55,350		5	55,183	55,192	55,180	55,165	55,162		ok	

Toothing microgeometry validated by standard measurement report

SIGNATURE	TITLE	DATE
G. Cicirelli	QPE	09/01/2015

Item	Caractheristic	Tolerance	Part 1	Part 2	Part 3	Part 4	Part 5	Device
1	MDK I	53,933÷53,992	53,950	53,948	53,952	53,950	53,948	Calibro a sfere

Misurazioni Manuali

OS2 2506424535 09-gen-15

GETRAG B7590

Ruota cilindrica Evolvente/Elica

Nr. prog.: STI0410o05 0 P26 B7590	Controllore: TURNO c	Data: 09.12.2014 16:06	
Denominazione: Output Shaft 2	Numero denti z 18	Largh.fasc.dent. b 33.98mm	
Numero disegno.: 250.6.4245.35-IF	Modulo m 2.3mm	Tratto evolv. La 6.76mm	
Commessa/serie nr.: pezzo 1	Angolo pressione 20° 00´00"	Tratto elica Lß 27.18mm	
Masch.Nr.: M001 Spindel: Formnest 1	Angolo elica -26° 42´00"	Inizio elab. Ml 6.48mm	
Untersuchungszweck: Laufende Messung	Ø Base db 42.9163mm	Palpatore Ø (#2C)1mm	
Werkzeug: Charge:	Ang. Base -24° 58´30"	Fat.scor.pr. x 1.032	

Testa

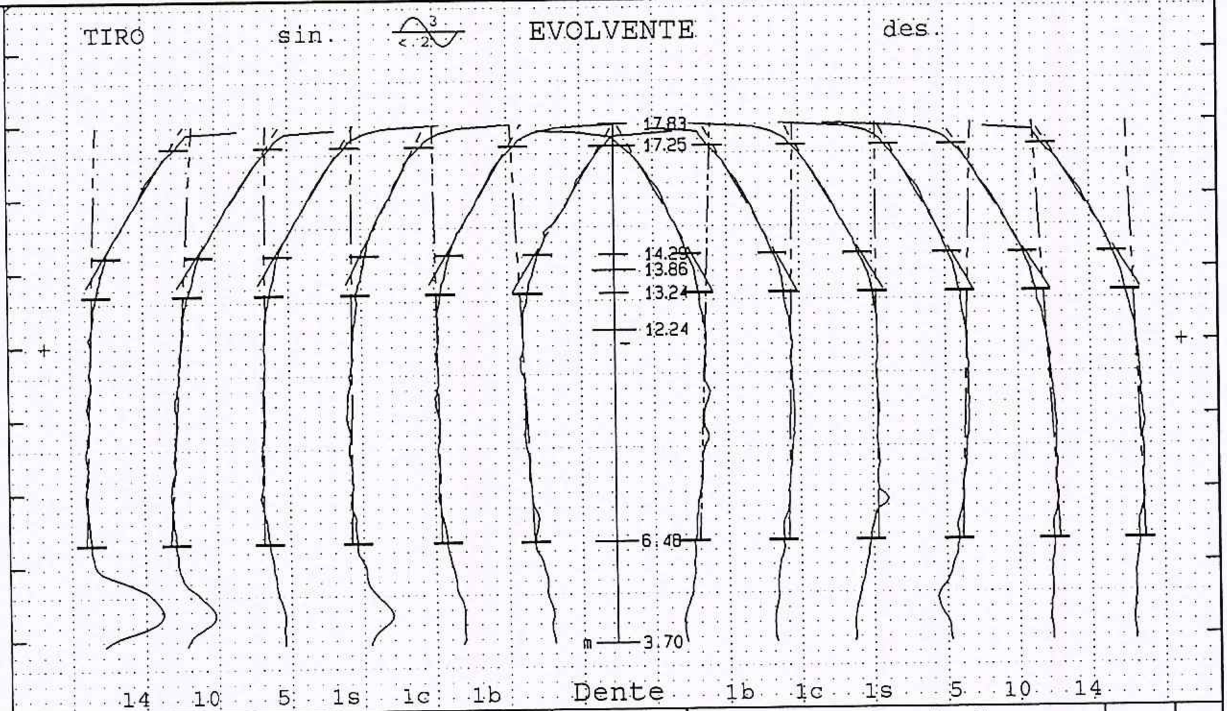
20 µm

Va500:1

Vb5:1

2 mm

Piede



Tolerance		Medio	Val.misur[µm]						Qual	Tolerance	Val.misur[µm]						Medio	Qual
fHαm	±6	-2	Var 5							±6	Var 6						-1	
fHα	±7	-2	-2	-4	-1	0	1	4		±7	2	1	0	2	-4	-3	-1	
Fα		4	4	5	3	3	3	5			5	4	5	4	6	5	5	
ffα	4	2	2	3	2	3	2	3		4	4	3	5	3	3	4	3	
fKo	-22/-14	-21	-20	-21	-21	-17	-20	-24		-22/-14	-22	-22	-22	-22	-21	-22	-22	

Sotto

20 µm

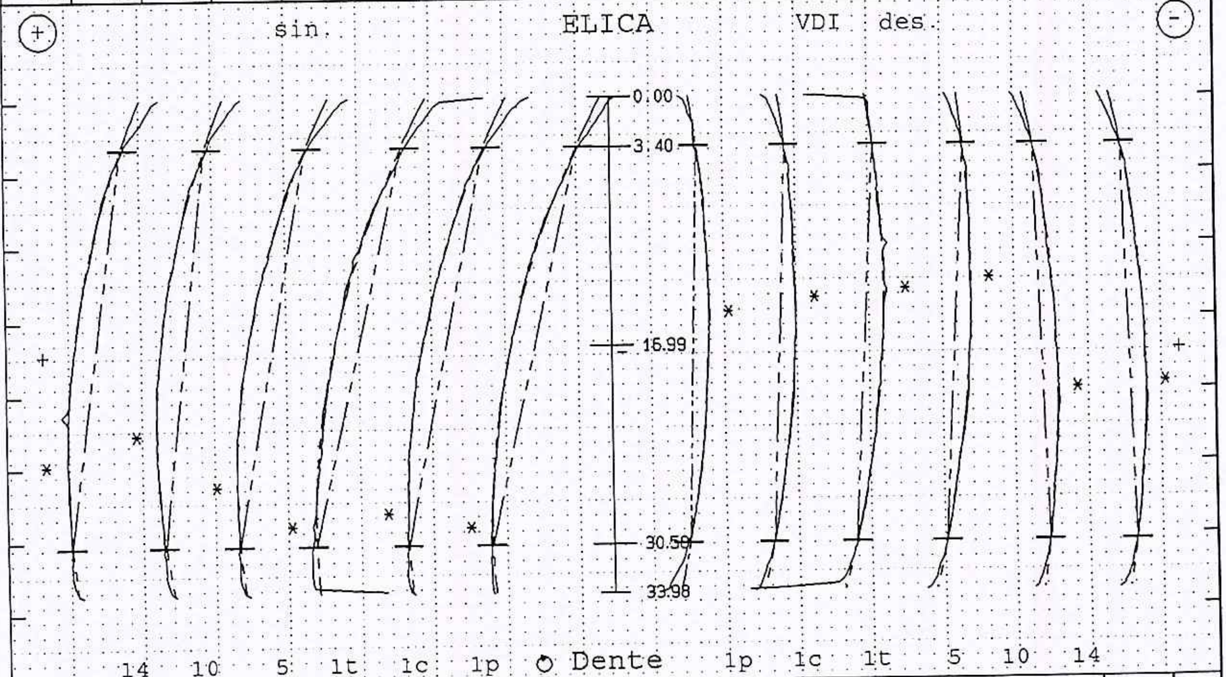
Va500:1

Vb2:1

5 mm

Sopra

N:Z



		Medio								Tolerance							Medio	
fHßm	-25±6	-21	Var 12							±6	Var 12						-1	
fHß	-25±13	-21	-18	-15	-24	-30	-27	-30		±13	-4	-5	-7	-7	5	4	-1	
Fß	16	7	7	9	5	8	6	7		16	5	5	8	6	5	5	5	
ffß	9	2	3	1	1	2	1	1		9	1	1	2	1	1	1	1	
Cß	2/6	6	6	6	6	7	6	6		2/6	4	4	5	4	4	4	4	
Bd	4±4	0								4±4							3	

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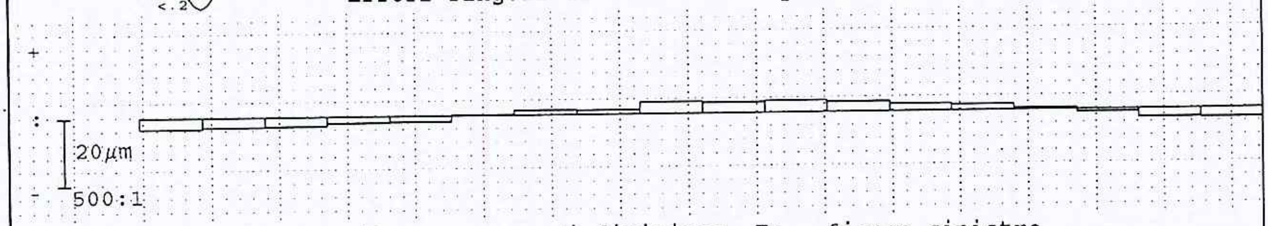
GETRAG B7590

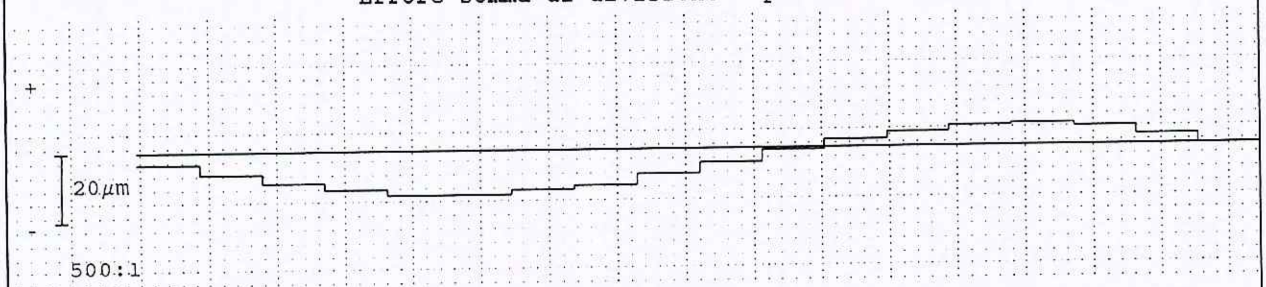
Ruota cilindrica Divisione

Nr. prog.: STI0410o05 0 P26 B7590	Controllore: TURNO c		Data: 09.12.2014 16:06
Denominazione: Output Shaft 2	Numero denti z	18	Angolo pressione 20° 00´00"
Numero disegno.: 250.6.4245.35-IF	Modulo m	2.3mm	Angolo elica -26° 42´00"
Commessa/serie nr.: pezzo 1	Untersuchungszweck: Laufende Messung		
Masch.Nr.: M001 Spindel: Formmeßzeug			Charge:

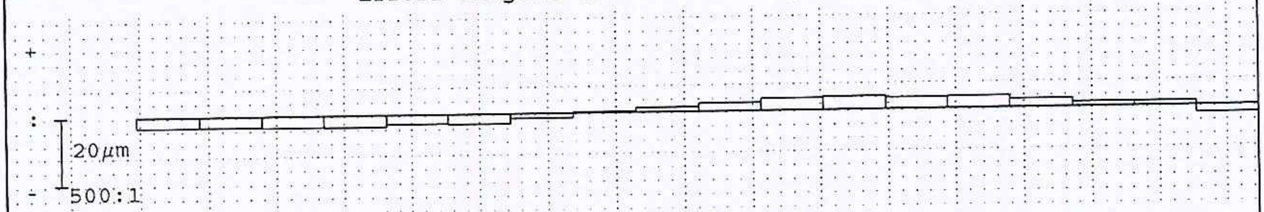
Errori singoli di divisione fp fianco sinistro



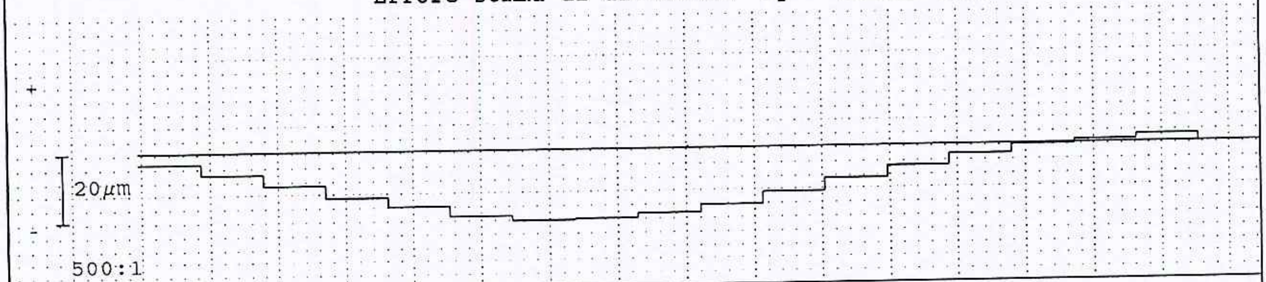
Errore somma di divisione Fp fianco sinistro



Errori singoli di divisione fp fianco destro

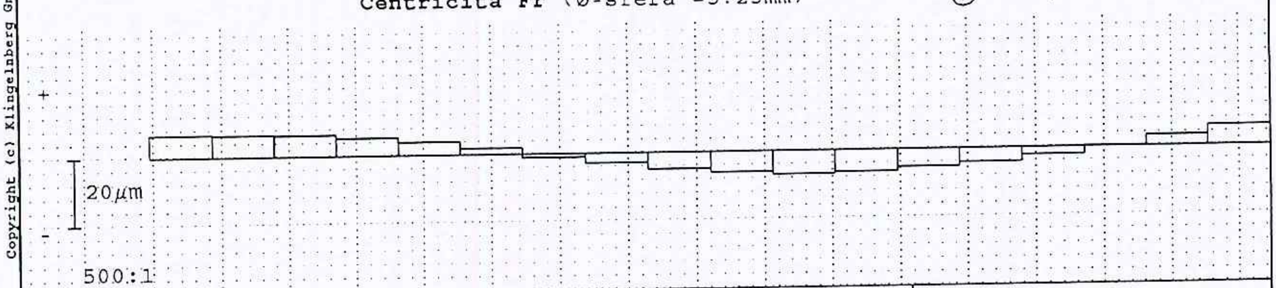


Errore somma di divisione Fp fianco destro



Corsa per misura divis.:51.09 z=17mm		fianco sinistro / TIRO				fianco destro			
		Val.misur	Qual.	Val. amm	Qual.	Val.misur	Qual.	Val. amm	Qual.
Gr. err. singoli divisione	fp max	3		14		4		14	
Gr. salto di passo	fu max	2		18		3		18	
Scarto di divisione	Rp	6				8			
Err. globale di divisione	Fp	19		40		23		40	
Err. cordale di divisione	Fpz/8	6				7			

Centricità Fr (Ø-sfera =5.25mm) ◎ : 14µm



Err. di concentricitá	Fr	14	32	
Variaz. spessore dente	Rs			

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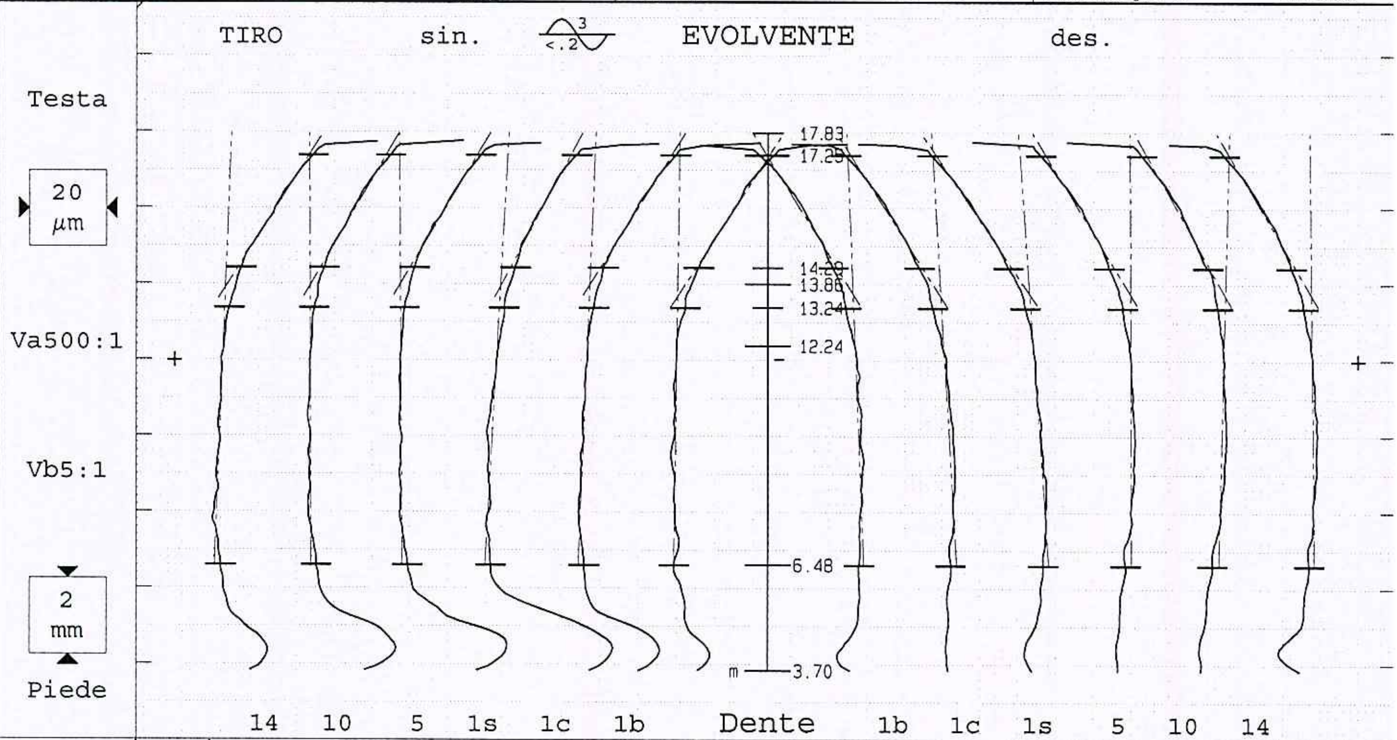
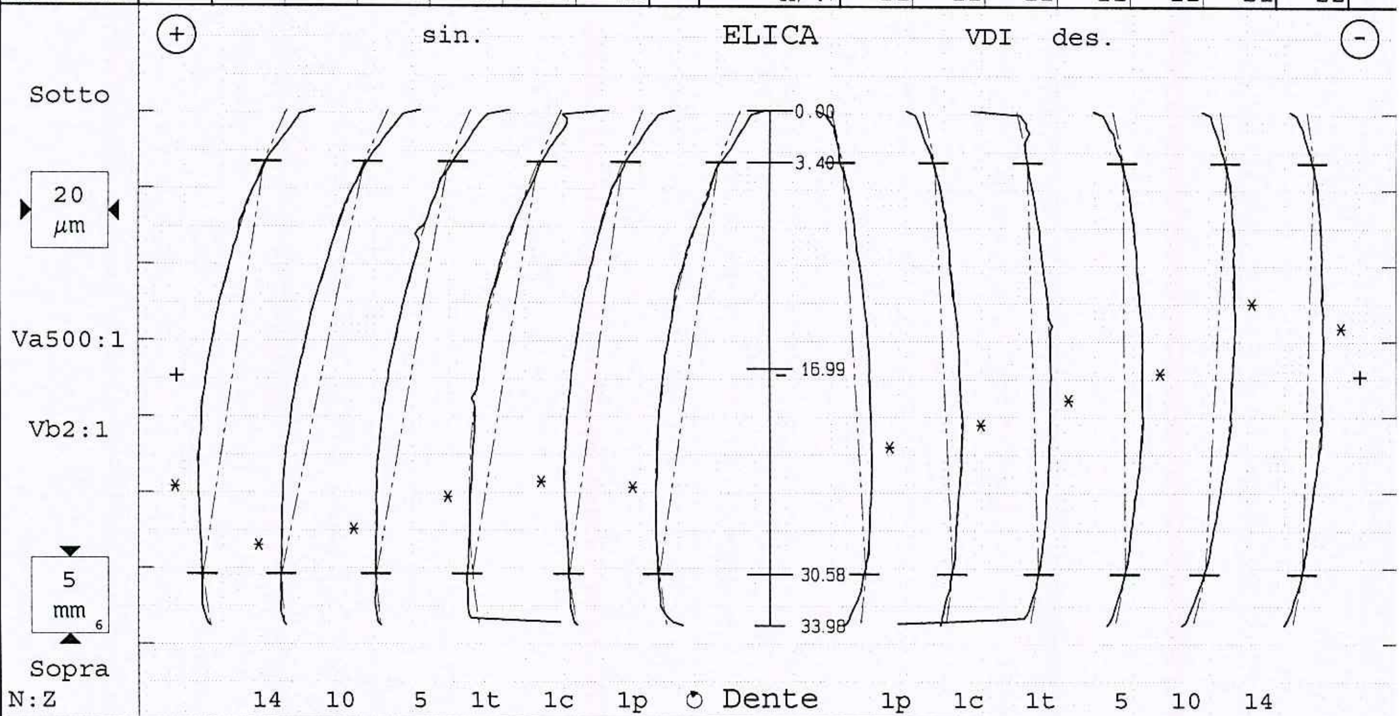
GETRAG B7590 — Ruota cilindrica Evolvente/Elica

Nr. prog.:	STI0410o05 0 P26 B7590	Controllore:	TURNO C	Data:	09.12.2014 16:22
Denominazione:	Output Shaft 2	Numero denti z	18	Largh.fasc.dent. b	33.98mm
Numero disegno.:	250.6.4245.35-IF	Modulo m	2.3mm	Tratto evolv. La	6.76mm
Commessa/serie nr.:	pezzo 2	Angolo pressione	20°00'00"	Tratto elica Lß	27.18mm
Masch.Nr.:	M001 Spindel: Formnest 1	Angolo elica	-26°42'00"	Inizio elab. M1	6.48mm
Untersuchungszweck:	Laufende Messung	Ø Base db	42.9163mm	Palpatore Ø	(#2C)1mm
Werkzeug:	Charge:	Ang. Base	-24°58'30"	Fat.scor.pr. x	1.032



Tolerance		Medio	14	10	5	1s	1c	1b	Qual	Tolerance	1b	1c	1s	5	10	14	Medio	Qual
			Val.misur[µm]								Val.misur[µm]							
fHαm	±6	-2	Var 3							±6	Var 6						-1	
fHα	±7	-2	-3	0	0	-4	-3	-1		±7	-3	-4	-5	0	2	-1	-1	
Fα		3	4	2	2	5	4	4			5	6	6	3	4	4	4	
ffα	4	2	3	2	2	3	2	3		4	3	4	2	3	3	3	3	
fKo	-22/-14	-21	-21	-20	-21	-17	-20	-23		-22/-14	-21	-22	-22	-22	-22	-21	-22	



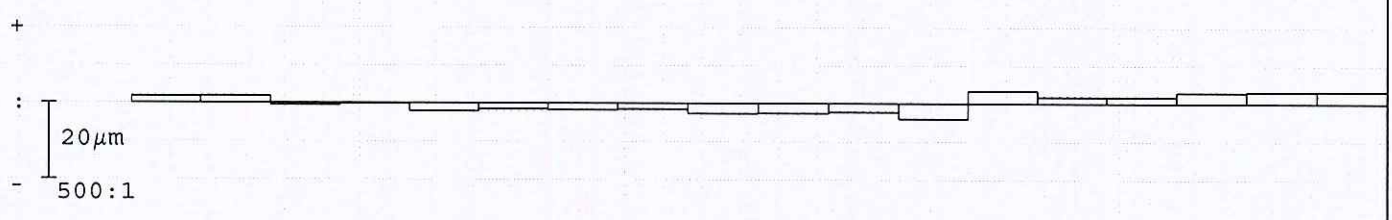
Tolerance		Medio	14	10	5	1t	1c	1p		Tolerance	1p	1c	1t	5	10	14	Medio	Qual
fHßm	-25±6	-22	Var 10							±6	Var 13						-1	
fHß	-25±13	-22	-20	-27	-24	-22	-17	-19		±13	8	6	4	1	-7	-4	-1	
Fß	16	7	7	6	5	6	8	7		16	7	6	5	4	7	4	5	
ffß	9	2	1	1	3	2	1	1		9	1	1	1	1	1	1	1	
Cß	2/6	6	7	6	6	7	6	7		2/6	4	4	5	5	5	4	5	
Bd	4±4	3								4±4							4	

GETRAG B7590

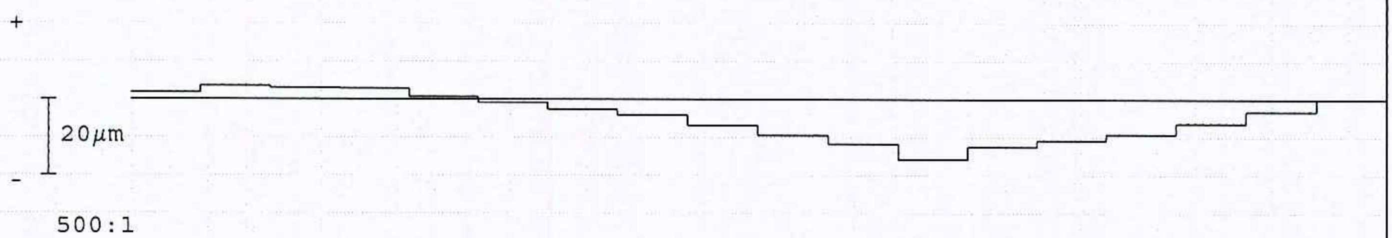
Ruota cilindrica Divisione

Nr. prog.:	STI0410o05 0 P26 B7590	Controllore:	TURNO c	Data:	09.12.2014 16:22
Denominazione:	Output Shaft 2	Numero denti z	18	Angolo pressione	20°00'00"
Numero disegno.:	250.6.4245.35-IF	Modulo m	2.3mm	Angolo elica	-26°42'00"
Commessa/serie nr.:	pezzo 2	Untersuchungszweck:	Laufende Messung		
Masch.Nr.:	M001	Spindel: Formnest 1	Werkzeug:	Charge:	

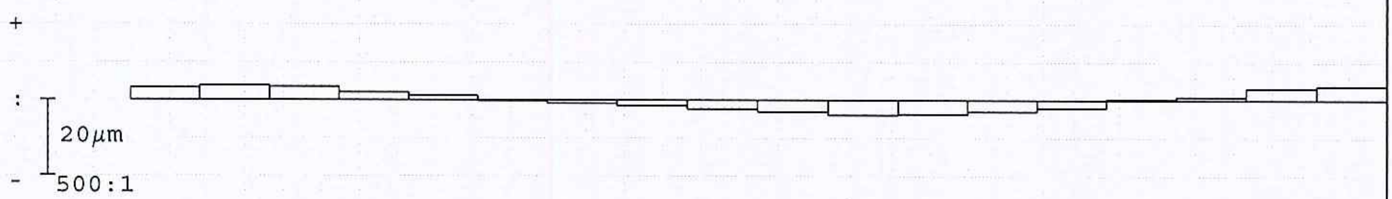
Errori singoli di divisione fp fianco sinistro



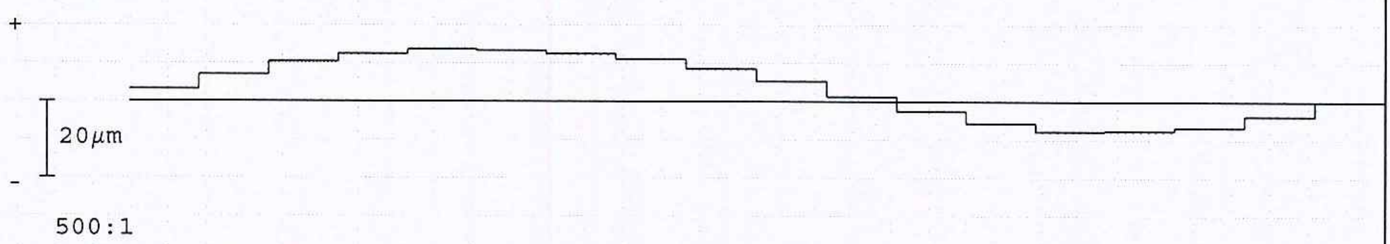
Errore somma di divisione Fp fianco sinistro



Errori singoli di divisione fp fianco destro

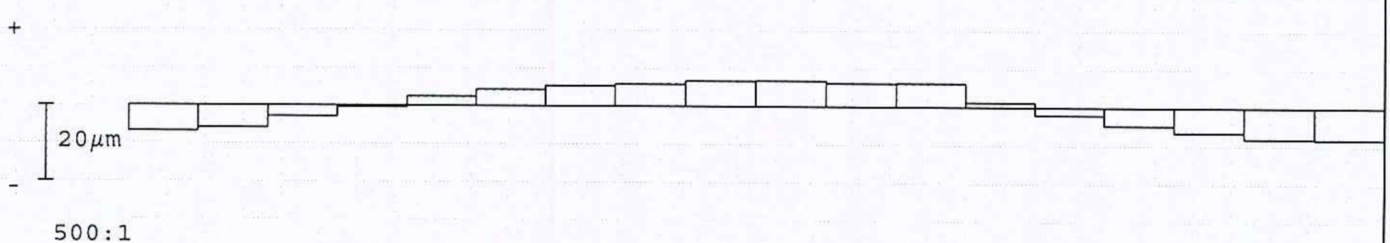


Errore somma di divisione Fp fianco destro



Corsa per misura divis.:51.09 z=17mm		fianco sinistro / TIRO				fianco destro			
		Val.misur	Qual.	Val. amm	Qual.	Val.misur	Qual.	Val. amm	Qual.
Gr. err. singoli divisione	fp max	4		14		4		14	
Gr. salto di passo	fu max	7		18		2		18	
Scarto di divisione	Rp	7				8			
Err. globale di divisione	Fp	19		40		21		40	
Err. cordale di divisione	Fpz/8	6				8			

Centricità Fr (Ø-sfera =5.25mm) ◎ : 15µm



Err. di concentricitá	Fr	15	32	
Variaz. spessore dente	Rs			

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GETRAG B7590 — Ruota cilindrica Evolvente/Elica

Nr. prog.: STI0410o05 0 P26 B7590	Controllore: TURNO C	Data:	09.12.2014 16:27
Denominazione: Output Shaft 2	Numero denti z 18	Largh.fasc.dent. b	33.98mm
Numero disegno.: 250.6.4245.35-IF	Modulo m 2.3mm	Tratto evolv. La	6.76mm
Commessa/serie nr.: pezzo 3	Angolo pressione 20°00'00"	Tratto elica Lß	27.18mm
Masch.Nr.: M001 Spindel: Formnest	Angolo elica -26°42'00"	Inizio elab. M1	6.48mm
Untersuchungszweck: Laufende Messung	Ø Base db 42.9163mm	Palpatore Ø	(#2C)1mm
Werkzeug: Charge:	Ang. Base -24°58'30"	Fat.scor.pr. x	1.032

TIRO sin. EVOLVENTE des.

Testa

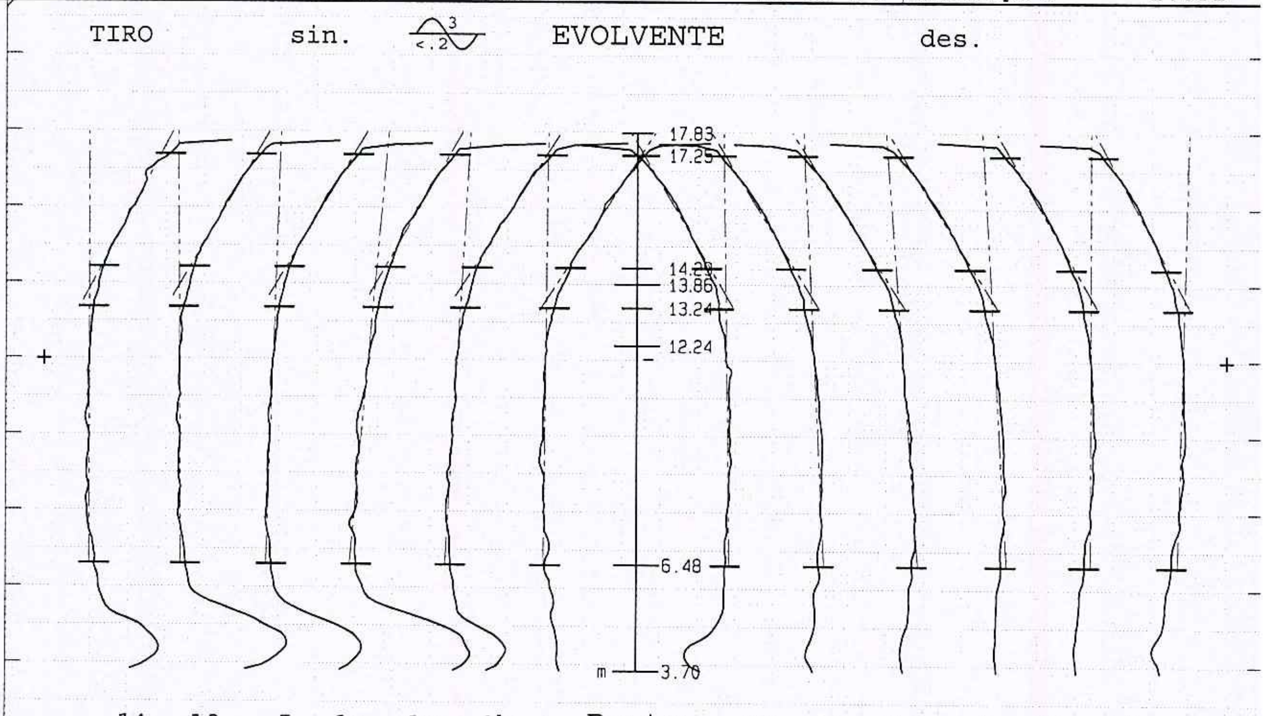
20 µm

Va500:1

Vb5:1

2 mm

Piede



14 10 5 1s 1c 1b Dente 1b 1c 1s 5 10 14

Tolerance		Medio	Val.misur[µm]						Qual	Tolerance	Val.misur[µm]						Medio	Qual
fHαm	±6	-2	Var 4							±6	Var 6						-1	
fHα	±7	-2	0	0	-2	-6	-4	-1		±7	-1	-3	-5	-4	0	2	-1	
Fα		4	3	3	4	8	5	4			4	5	6	6	3	4	5	
ffα	4	2	3	2	2	3	2	3		4	3	3	2	3	3	3	3	
fKo	-22/-14	-20	-19	-21	-19	-17	-20	-24		-22/-14	-21	-21	-22	-21	-21	-21	-21	

(+) sin. ELICA VDI des. (-)

Sotto

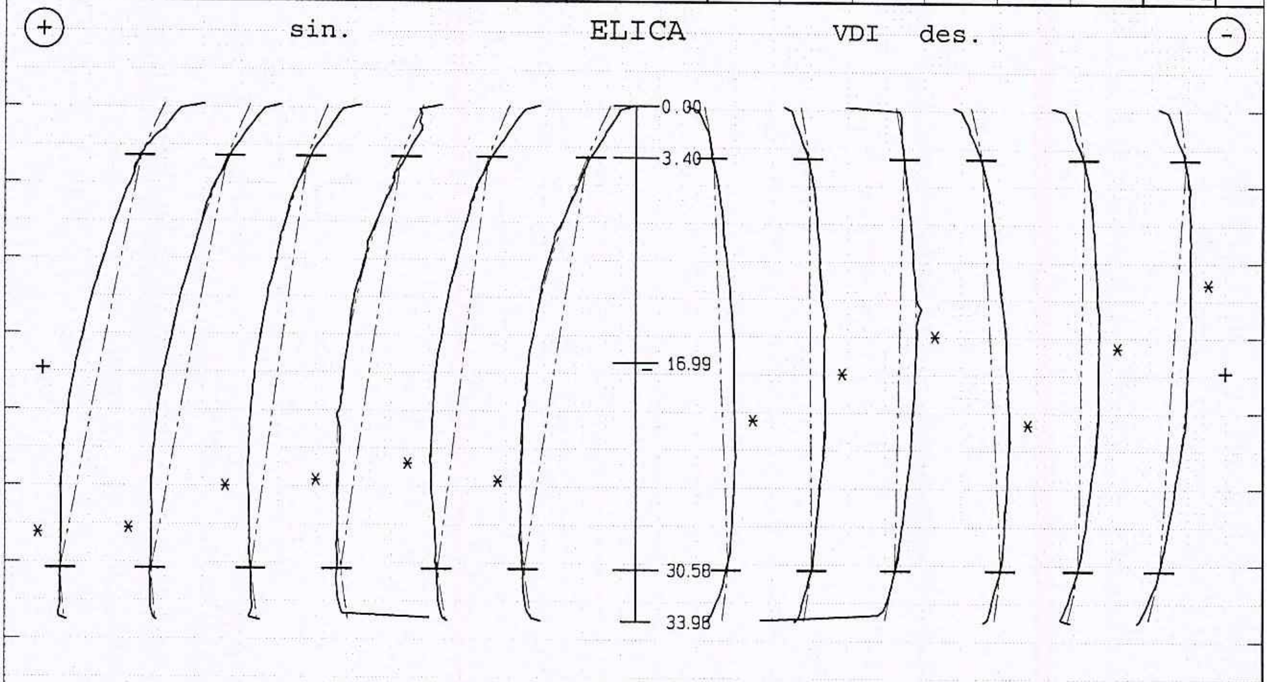
20 µm

Va500:1

Vb2:1

5 mm

Sopra



N:Z 14 10 5 1t 1c 1p Dente 1p 1c 1t 5 10 14

Tolerance		Medio	Val.misur[µm]						Qual	Tolerance	Val.misur[µm]						Medio	Qual
fHßm	-25±6	-22	Var 9							±6	Var 15						-1	
fHß	-25±13	-22	-26	-25	-18	-20	-17	-20		±13	5	1	-3	6	-2	-9	-1	
Fß	16	6	5	5	7	7	8	7		16	5	3	5	6	4	8	5	
ffß	9	1	1	1	1	2	1	2		9	1	1	2	1	1	1	1	
Cß	2/6	6	6	6	6	7	7	7		2/6	4	4	4	4	5	4	4	
Bd	4±4	0								4±4							8	

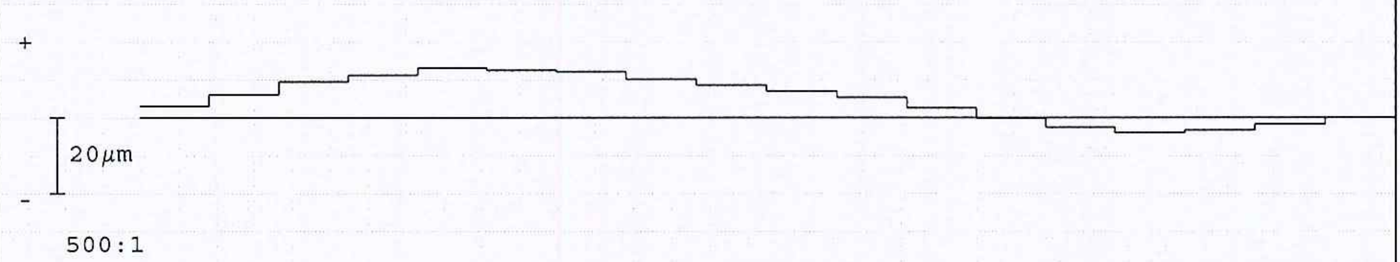
GETRAG B7590

Ruota cilindrica Divisione

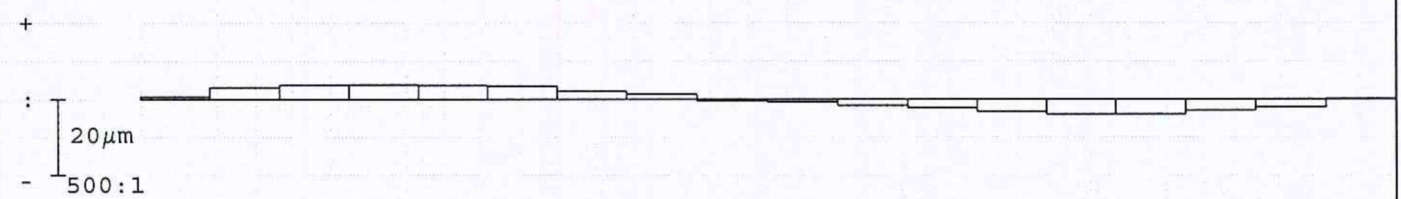
Nr. prog.: STI0410o05 0 P26 B7590	Controllore: TURNO C		Data: 09.12.2014 16:27
Denominazione: Output Shaft 2	Numero denti z	18	Angolo pressione 20°00'00"
Numero disegno.: 250.6.4245.35-IF	Modulo m	2.3mm	Angolo elica -26°42'00"
Commessa/serie nr.: pezzo 3	Untersuchungszweck: Laufende Messung		
Masch.Nr.: M001 Spindel: Formnest 1	Werkzeug:		Charge:

Errori singoli di divisione fp fianco sinistro

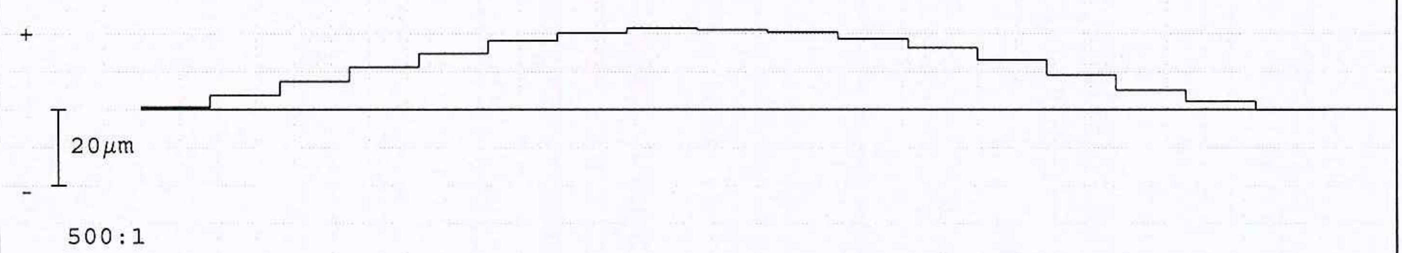
Errore somma di divisione Fp fianco sinistro



Errori singoli di divisione fp fianco destro

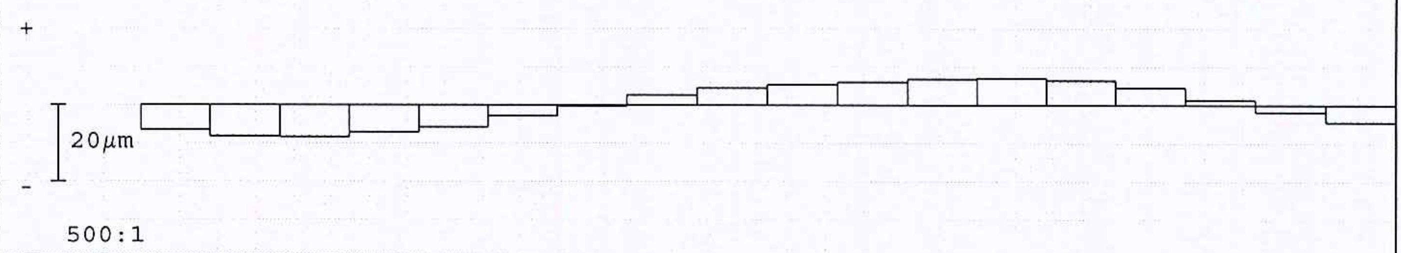


Errore somma di divisione Fp fianco destro



Corsa per misura divis.:51.09 z=17mm		fianco sinistro / TIRO				fianco destro			
		Val.misur	Qual.	Val. amm	Qual.	Val.misur	Qual.	Val. amm	Qual.
Gr. err. singoli divisione	fp max	3		14		4		14	
Gr. salto di passo	fu max	2		18		2		18	
Scarto di divisione	Rp	6				8			
Err. globale di divisione	Fp	17		40		21		40	
Err. cordale di divisione	Fpz/8	6				8			

Centricità Fr (Ø-sfera =5.25mm) ◎ : 15µm

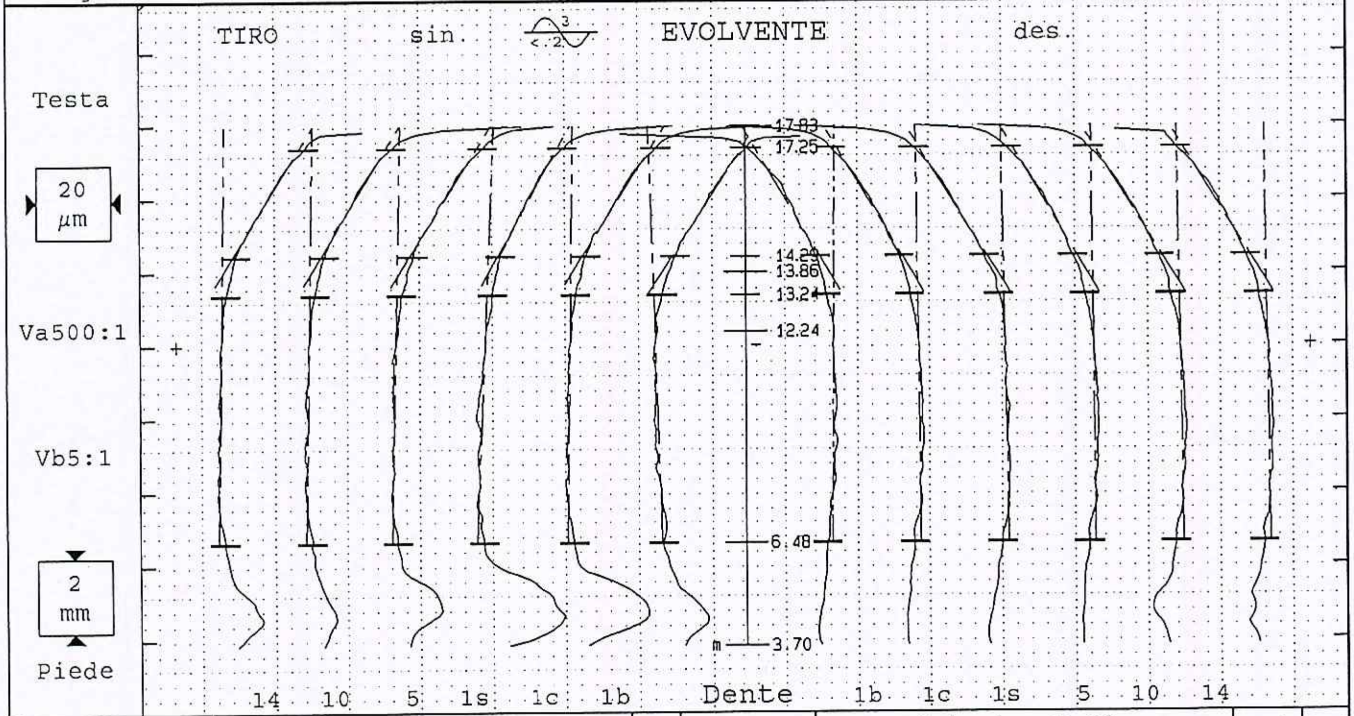


Err. di concentricitá	Fr	15	32	
Variaz. spessore dente	Rs			

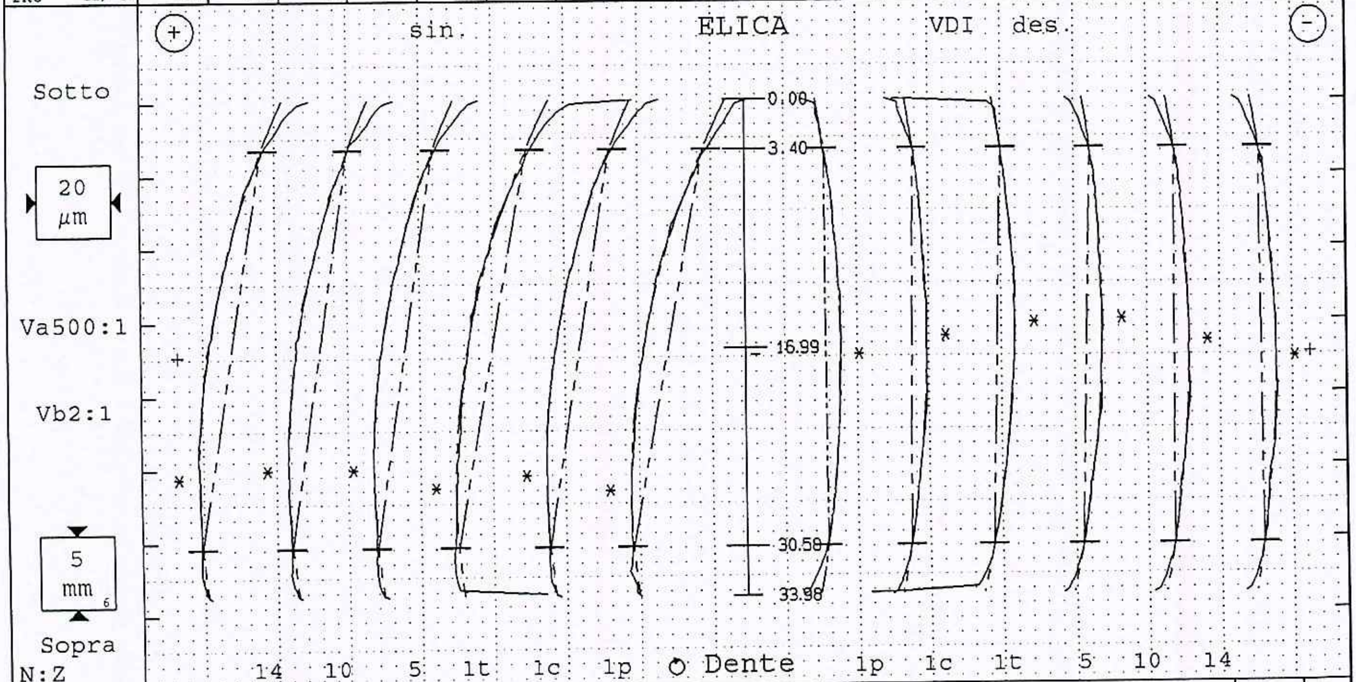
KLINGELNBERG

GETRAG B7590 — Ruota cilindrica Evolvente/Elica

Nr. prog.:	STI0410o05 0 P26 B7590	Controllore:	TURNO c	Data:	09.12.2014 16:41
Denominazione:	Output Shaft 2	Numero denti z	18	Largh.fasc.dent. b	33.98mm
Numero disegno.:	250.6.4245.35-IF	Modulo m	2.3mm	Tratto evolv. La	6.76mm
Commessa/serie nr.:	pezzo 4	Angolo pressione	20° 00´ 00"	Tratto elica Lß	27.18mm
Masch.Nr.:	M001 Spindel: Formmest 1	Angolo elica	-26° 42´ 00"	Inizio elab. M1	6.48mm
Untersuchungszweck:	Laufende Messung	Ø Base db	42.9163mm	Palpatore Ø	(#2C)1mm
Werkzeug:	Charge:	Ang. Base	-24° 58´ 30"	Fat.scor.pr. x	1.032



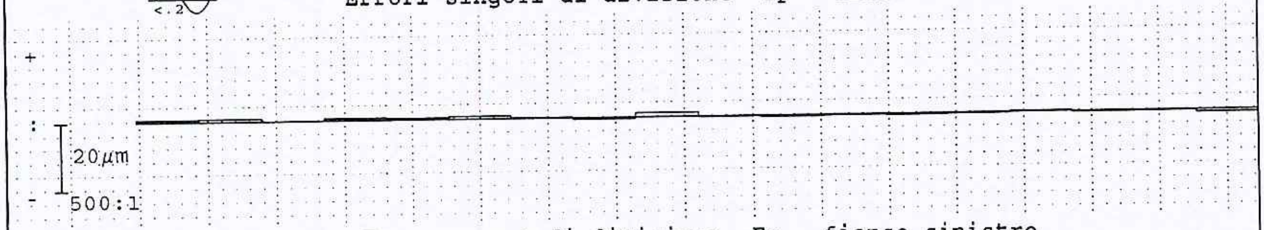
	Tolerance	Medio	Val.misur[µm]						Qual	Tolerance	Val.misur[µm]						Medio	Qual
fHαm	±6	-1	Var 0							±6	Var 0						-1	
fHα	±7	-1	-1	-1	-1	-3	-1	2		±7	0	-1	-1	-1	-1	-1	-1	
Fα		3	3	3	3	5	3	4			3	4	3	4	4	4	4	
ffα	4	3	2	3	2	4	3	3		4	3	3	3	3	4	3	3	
fKo	-22/-14	-21	-21	-21	-21	-18	-21	-26		-22/-14	-22	-22	-23	-22	-22	-22	-22	



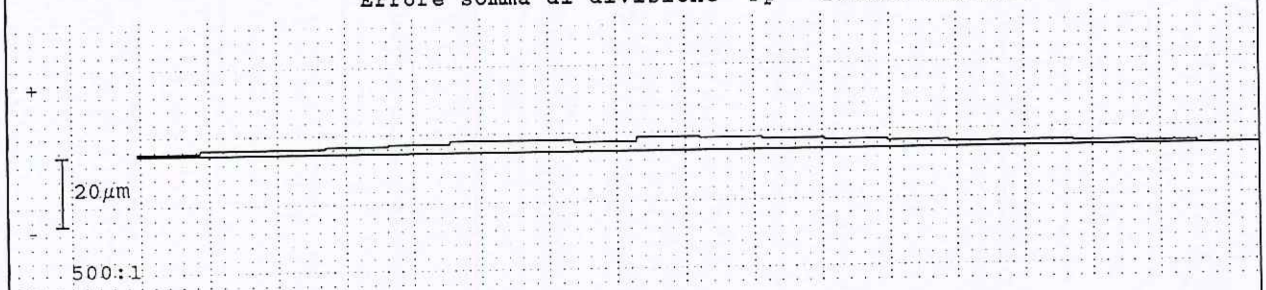
	Tolerance	Medio	Val.misur[µm]						Qual	Tolerance	Val.misur[µm]						Medio	Qual
fHßm	-25±6	-21	Var 1							±6	Var 4						-1	
fHß	-25±13	-21	-21	-20	-20	-24	-21	-24		±13	1	-1	-3	-3	-1	1	-1	
Fß	16	6	6	7	6	6	6	5		16	3	3	4	4	3	3	3	
ffß	9	1	1	1	1	2	1	2		9	1	1	1	1	1	1	1	
Cß	2/6	6	6	6	6	7	6	7		2/6	4	4	5	4	4	4	4	
Bd	4±4	0								4±4							4	

GETRAG B7590	Ruota cilindrica Divisione		
Nr. prog.: STI0410o05 0 P26 B7590	Controllore: TURNO c	Data:	09.12.2014 16:41
Denominazione: Output Shaft 2	Numero denti z 18	Angolo pressione	20° 00´00"
Numero disegno.: 250.6.4245.35-IF	Modulo m 2.3mm	Angolo elica	-26° 42´00"
Commessa/serie nr.: pezzo 4	Untersuchungszweck: Laufende Messung		
Masch.Nr.: M001 Spindel: Formmeßt.	Werkzeug:	Charge:	

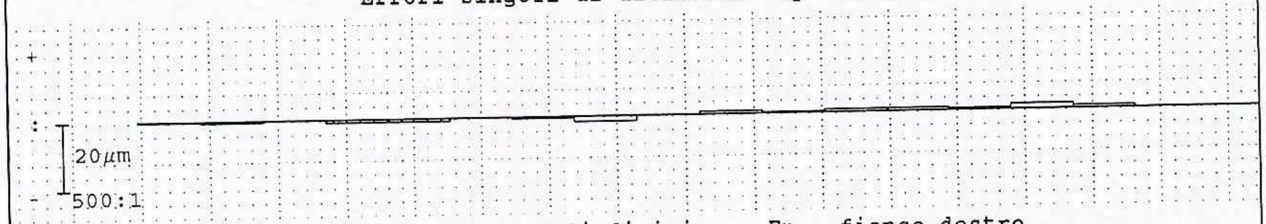
Errori singoli di divisione fp fianco sinistro



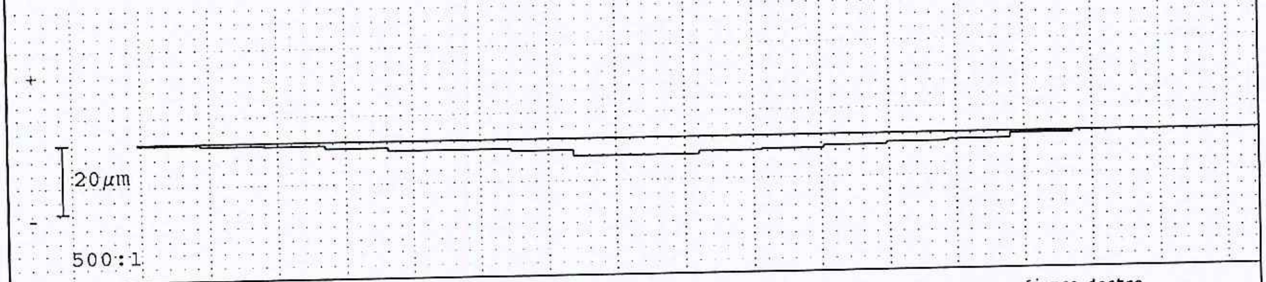
Errore somma di divisione Fp fianco sinistro



Errori singoli di divisione fp fianco destro



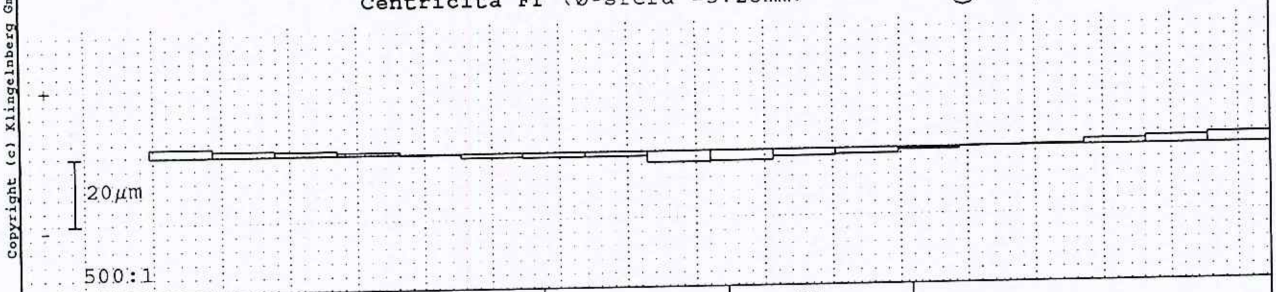
Errore somma di divisione Fp fianco destro



Corsa per misura divis.:51.09 z=17mm

		fianco sinistro / TIRO				fianco destro			
		Val.misur	Qual.	Val. amm	Qual.	Val.misur	Qual.	Val. amm	Qual.
Gr. err. singoli divisione	fp max	1		14		2		14	
Gr. salto di passo	fu max	2		18		2		18	
Scarto di divisione	Rp	2				3			
Err. globale di divisione	Fp	4		40		5		40	
Err. cordale di divisione	Fpz/8	2				2			

Centricità Fr (ø-sfera =5.25mm) ◎ : 5µm



Err. di concentricità	Fr	6	32	
Variaz. spessore dente	Rs			

KLINGELNBERG

GETRAG B7590 — Ruota cilindrica Evolvente/Elica

Nr. prog.:	STI0410o005 0 P26 B7590	Controllore:	TURNO C	Data:	09.12.2014 16:51
Denominazione:	Output Shaft 2	Numero denti z	18	Largh.fasc.dent. b	33.98mm
Numero disegno.:	250.6.4245.35-IF	Modulo m	2.3mm	Tratto evolv. Lα	6.76mm
Commessa/serie nr.:	pezzo 5	Angolo pressione	20°00'00"	Tratto elica Lß	27.18mm
Masch.Nr.:	M001 Spindel: Formnest 1	Angolo elica	-26°42'00"	Inizio elab. M1	6.48mm
Untersuchungszweck:	Laufende Messung	Ø Base db	42.9163mm	Palpatore Ø	(#2C)1mm
Werkzeug:	Charge:	Ang. Base	-24°58'30"	Fat.scor.pr. x	1.032

TIRO sin. EVOLVENTE des.

Testa

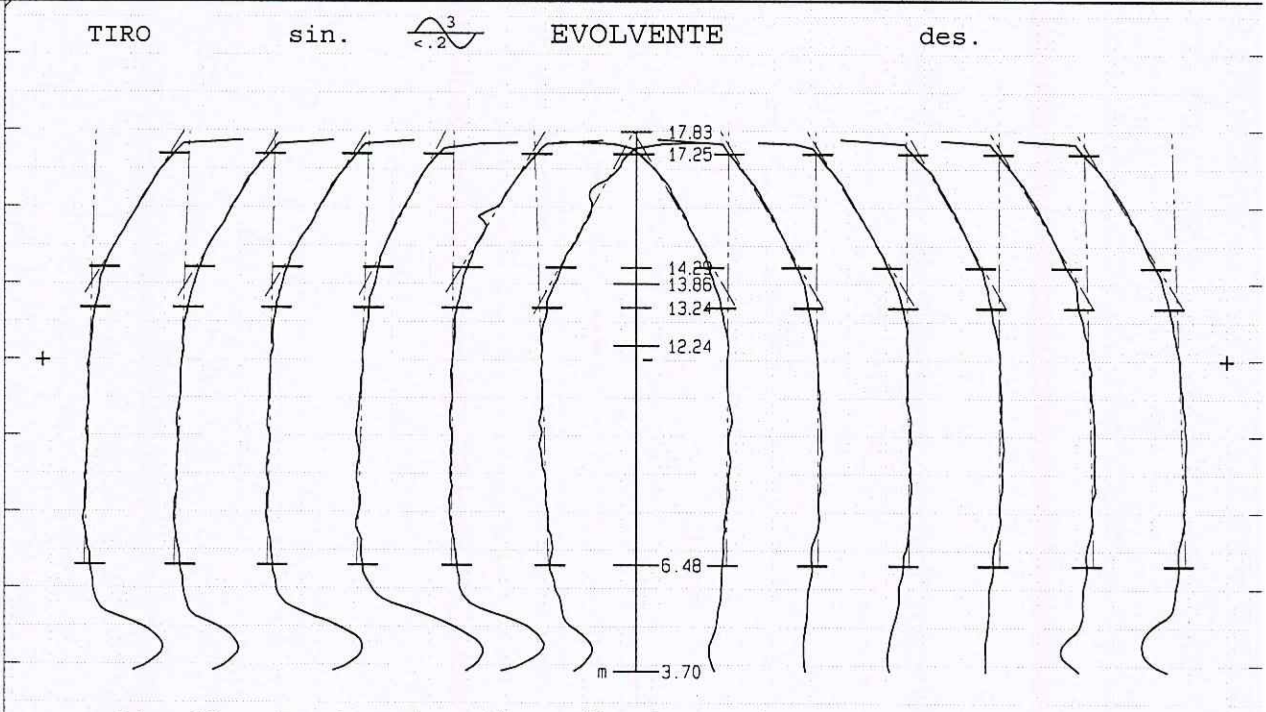
20 µm

Va500:1

Vb5:1

2 mm

Piede



14 10 5 1s 1c 1b Dente 1b 1c 1s 5 10 14

Tolerance		Medio	Val.misur[µm]						Qual	Tolerance	Val.misur[µm]						Medio	Qual
fHαm	±6	-1	Var 2							±6	Var 2						-1	
fHα	±7	-1	-2	-2	-1	-2	0	2		±7	0	-1	-1	0	-2	-2	-1	
Fα		3	3	4	3	4	2	4			3	4	2	3	4	4	4	
ffα	4	2	2	2	2	3	2	3		4	3	3	2	3	4	3	3	
fKo	-22/-14	-20	-20	-20	-21	-17	-20	-23		-22/-14	-22	-22	-23	-21	-22	-22	-22	

(+) sin. ELICA VDI des. (−)

Sotto

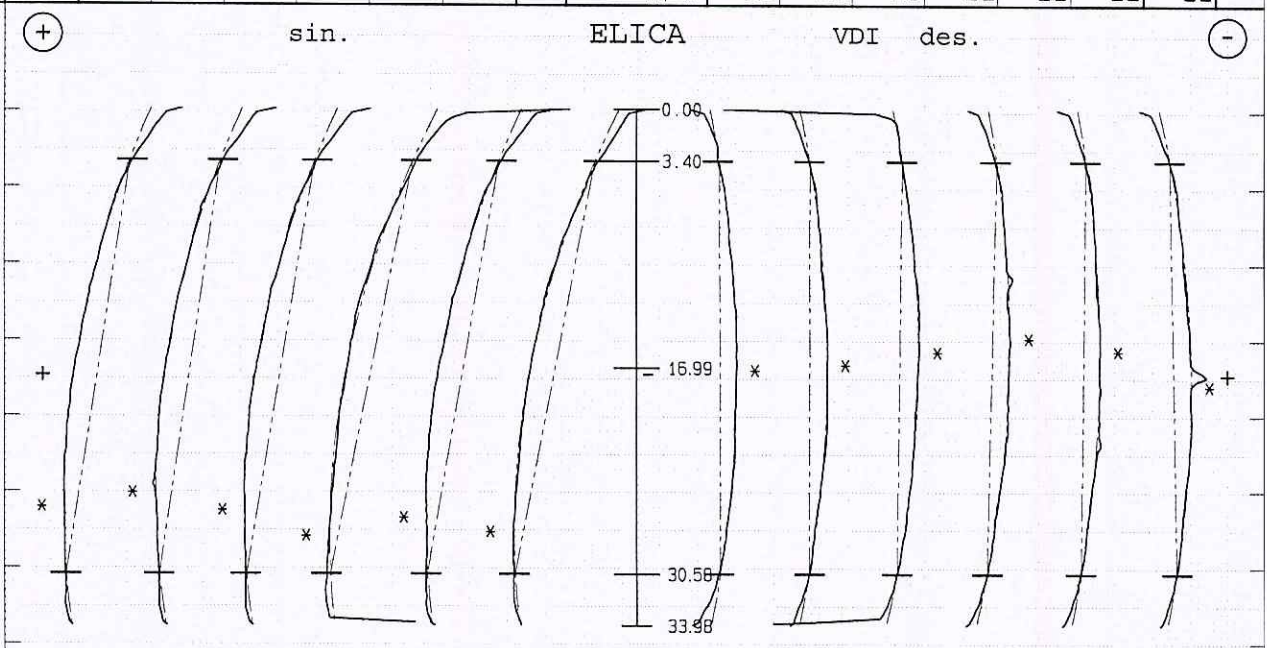
20 µm

Va500:1

Vb2:1

5 mm

Sopra



N:Z 14 10 5 1t 1c 1p Dente 1p 1c 1t 5 10 14

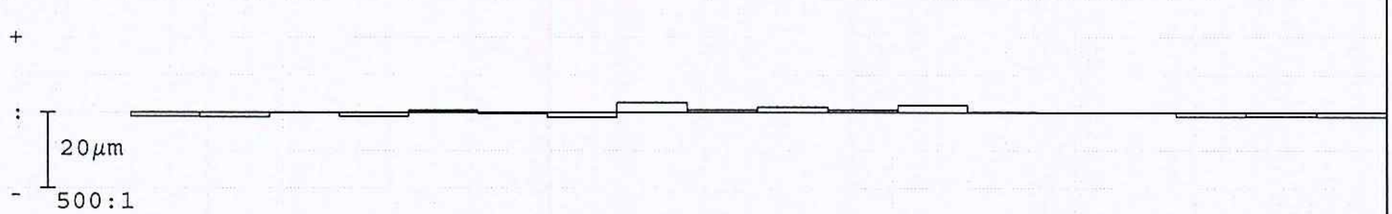
Tolerance		Medio							Qual	Tolerance							Medio	Qual
fHßm	-25±6	-22	Var 3							±6	Var 5						-1	
fHß	-25±13	-22	-21	-20	-23	-27	-23	-26		±13	0	0	-2	-3	-2	2	-1	
Fß	16	6	6	7	5	7	5	6		16	3	3	4	6	4	8	5	
ffß	9	1	1	2	1	2	1	2		9	1	1	1	2	2	5	3	
Cß	2/6	6	6	7	6	7	6	6		2/6	4	5	5	5	4	5	5	
Bd	4±4	1								4±4							2	

GETRAG B7590

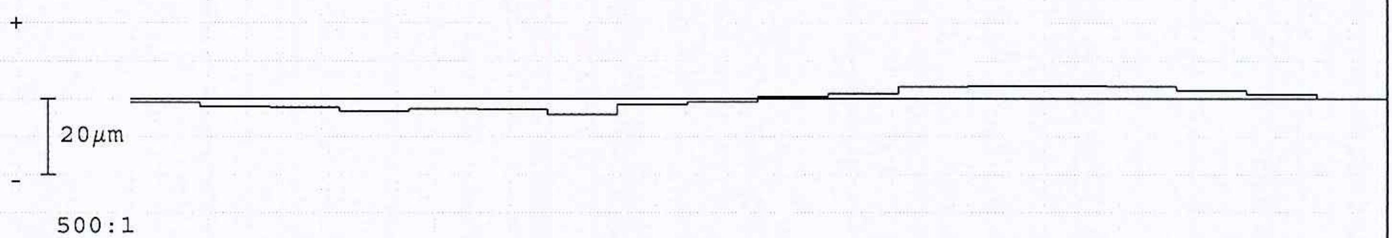
Ruota cilindrica Divisione

Nr. prog.:	STI0410o05 0 P26 B7590	Controllore:	TURNO c	Data:	09.12.2014 16:51
Denominazione:	Output Shaft 2	Numero denti z	18	Angolo pressione	20°00'00"
Numero disegno.:	250.6.4245.35-IF	Modulo m	2.3mm	Angolo elica	-26°42'00"
Commessa/serie nr.:	pezzo 5	Untersuchungszweck:	Laufende Messung		
Masch.Nr.:	M001	Spindel: Formnest 1	Werkzeug:	Charge:	

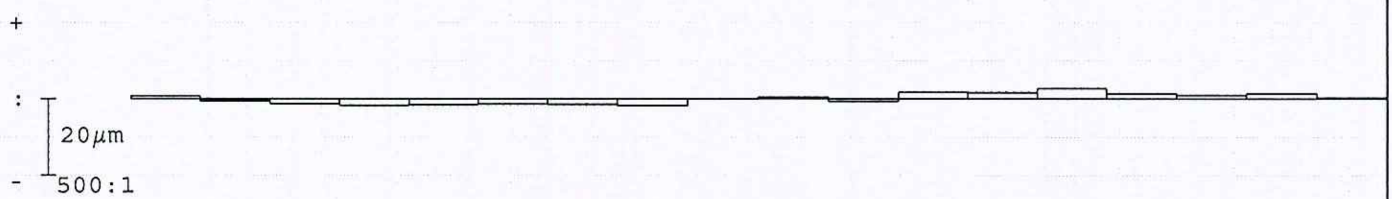
Errori singoli di divisione fp fianco sinistro



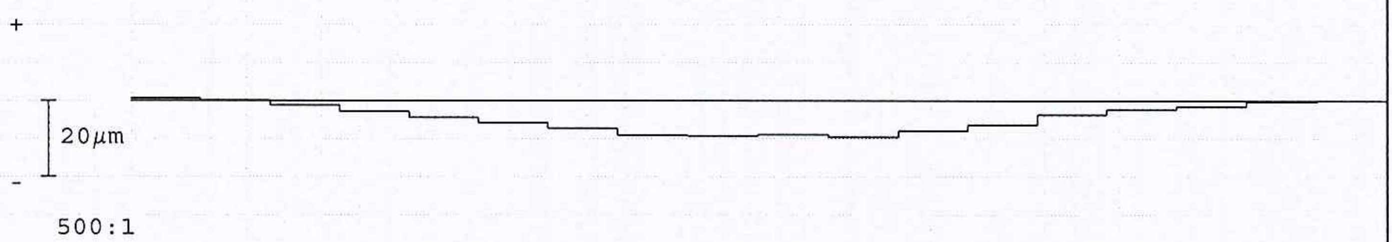
Errore somma di divisione Fp fianco sinistro



Errori singoli di divisione fp fianco destro

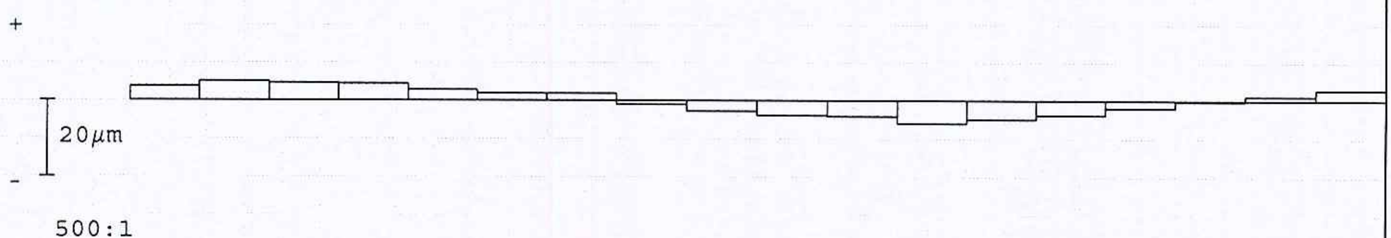


Errore somma di divisione Fp fianco destro



Corsa per misura divis.:51.09 z=17mm		fianco sinistro / TIRO				fianco destro			
		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	4		18		2		18	
Scarto di divisione	Rp	4				5			
Err. globale di divisione	Fp	8		40		10		40	
Err. cordale di divisione	Fpz/8	3				4			

Centricità Fr (Ø-sfera =5.25mm) ◎ : 10μm



Err. di concentricitá	Fr	11	32	
Variaz. spessore dente	Rs			

KLINGELNBERG

GETRAG B7590 | Ruota cilindrica Evolvente/Elica

Nr. prog.:	STI0410o05 0 P26 B7590	Controllore:	TURNO C	Data:	09.12.2014 17:01
Denominazione:	Output Shaft 2	Numero denti z	18	Largh.fasc.dent. b	33.98mm
Numero disegno.:	250.6.4245.35-IF	Modulo m	2.3mm	Tratto evolv. La	6.76mm
Commessa/serie nr.:	pezzo 5	Angolo pressione	20°00'00"	Tratto elica Lß	27.18mm
Masch.Nr.:	M001 Spindel: Formnest 1	Angolo elica	-26°42'00"	Inizio elab. M1	6.48mm
Untersuchungszweck:	Laufende Messung	Ø Base db	42.9163mm	Palpatore Ø	(#2C)1mm
Werkzeug:	Charge:	Ang. Base	-24°58'30"	Fat.scor.pr. x	1.032

TIRO

Testa-Ø: 55.563mm [55.54/55.8]

VDI

GETRAG B7590

Ruota cilindrica Evolvente/Elica

Nr. prog.:	STI0410o05 0 P26 B7590	Controllore:	TURNO C	Data:	09.12.2014 17:03
Denominazione:	Output Shaft 2	Numero denti z	18	Largh.fasc.dent. b	33.98mm
Numero disegno.:	250.6.4245.35-IF	Modulo m	2.3mm	Tratto evolv. La	6.76mm
Commessa/serie nr.:	pezzo 4	Angolo pressione	20°00'00"	Tratto elica Lß	27.18mm
Masch.Nr.:	M001 Spindel: Formnest 1	Angolo elica	-26°42'00"	Inizio elab. M1	6.48mm
Untersuchungszweck:	Laufende Messung	Ø Base db	42.9163mm	Palpatore Ø	(#2C)1mm
Werkzeug:	Charge:	Ang. Base	-24°58'30"	Fat.scor.pr. x	1.032

TIRO

Testa-Ø: 55.66mm [55.54/55.8]

VDI

KLINGELNBERG

GETRAG B7590	Ruota cilindrica Evolvente/Elica

Nr. prog.:	STI0410o05 0 P26 B7590	Controllore:	TURNO C	Data:	09.12.2014 17:05
Denominazione:	Output Shaft 2	Numero denti z	18	Largh.fasc.dent. b	33.98mm
Numero disegno.:	250.6.4245.35-IF	Modulo m	2.3mm	Tratto evolv. La	6.76mm
Commessa/serie nr.:	pezzo 3	Angolo pressione	20°00'00"	Tratto elica Lß	27.18mm
Masch.Nr.:	M001 Spindel: Formnest 1	Angolo elica	-26°42'00"	Inizio elab. M1	6.48mm
Untersuchungszweck:	Laufende Messung	Ø Base db	42.9163mm	Palpatore Ø	(#2C)1mm
Werkzeug:	Charge:	Ang. Base	-24°58'30"	Fat.scor.pr. x	1.032

TIRO

Testa-Ø: 55.548mm [55.54/55.8]

VDI

KLINGELNBERG

GETRAG B7590

Ruota cilindrica Evolvente/Elica

Nr. prog.:	STI0410o05 0 P26 B7590	Controllore:	TURNO C	Data:	09.12.2014 17:06
Denominazione:	Output Shaft 2	Numero denti z	18	Largh.fasc.dent. b	33.98mm
Numero disegno.:	250.6.4245.35-IF	Modulo m	2.3mm	Tratto evolv. La	6.76mm
Commessa/serie nr.:	pezzo 2	Angolo pressione	20°00'00"	Tratto elica Lß	27.18mm
Masch.Nr.:	M001 Spindel: Formnest 1	Angolo elica	-26°42'00"	Inizio elab. M1	6.48mm
Untersuchungszweck:	Laufende Messung	Ø Base db	42.9163mm	Palpatore Ø	(#2C)1mm
Werkzeug:	Charge:	Ang. Base	-24°58'30"	Fat.scor.pr. x	1.032

TIRO

Testa-Ø: 55.629mm [55.54/55.8]

VDI

KLINGELNBERG

GETRAG B7590

Ruota cilindrica Evolvente/Elica

Nr. prog.:	STI0410o05 0 P26 B7590	Controllore:	TURNO C	Data:	09.12.2014 17:07
Denominazione:	Output Shaft 2	Numero denti z	18	Largh.fasc.dent. b	33.98mm
Numero disegno.:	250.6.4245.35-IF	Modulo m	2.3mm	Tratto evolv. La	6.76mm
Commessa/serie nr.:	pezzo 1	Angolo pressione	20°00'00"	Tratto elica Lß	27.18mm
Masch.Nr.:	M001 Spindel: Formnest 1	Angolo elica	-26°42'00"	Inizio elab. M1	6.48mm
Untersuchungszweck:	Laufende Messung	Ø Base db	42.9163mm	Palpatore Ø	(#2C)1mm
Werkzeug:	Charge:	Ang. Base	-24°58'30"	Fat.scor.pr. x	1.032

TIRO

Testa-Ø: 55.623mm [55.54/55.8]

VDI

GETRAG B7590	Ruota cilindrica Evolvente/Elica

Nr. prog.:	STI0410o05 0 P26 B7590	Controllore:	TURNO C	Data:	09.12.2014 17:10
Denominazione:	Output Shaft 2	Numero denti z	18	Largh.fasc.dent. b	33.98mm
Numero disegno.:	250.6.4245.35-IF	Modulo m	2.3mm	Tratto evolv. La	6.76mm
Commessa/serie nr.:	pezzo 1	Angolo pressione	20°00'00"	Tratto elica Lß	27.18mm
Masch.Nr.:	M001 Spindel: Formmestol	Angolo elica	-26°42'00"	Inizio elab. M1	6.48mm
Untersuchungszweck:	Laufende Messung	ø Base db	42.9163mm	Palpatore ø	(#2C)1mm
Werkzeug:	Charge:	Ang. Base	-24°58'30"	Fat.scor.pr. x	1.032

TIRO

Piede-Ø: 42.632mm [42.4/42.75]

VDI

GETRAG B7590	Ruota cilindrica Evolvente/Elica

Nr. prog.:	STI0410o05 0 P26 B7590	Controllore:	TURNO C	Data:	09.12.2014 17:12
Denominazione:	Output Shaft 2	Numero denti z	18	Largh.fasc.dent. b	33.98mm
Numero disegno.:	250.6.4245.35-IF	Modulo m	2.3mm	Tratto evolv. La	6.76mm
Commessa/serie nr.:	pezzo 2	Angolo pressione	20°00'00"	Tratto elica Lß	27.18mm
Masch.Nr.:	M001 Spindel: Formnest 1	Angolo elica	-26°42'00"	Inizio elab. M1	6.48mm
Untersuchungszweck:	Laufende Messung	Ø Base db	42.9163mm	Palpatore Ø	(#2C)1mm
Werkzeug:	Charge:	Ang. Base	-24°58'30"	Fat.scor.pr. x	1.032

TIRO

Piede-Ø: 42.63mm [42.4/42.75]

VDI

GETRAG B7590

Ruota cilindrica Evolvente/Elica

Nr. prog.:	STI0410o05 0 P26 B7590	Controllore:	TURNO C	Data:	09.12.2014 17:13
Denominazione:	Output Shaft 2	Numero denti z	18	Largh.fasc.dent. b	33.98mm
Numero disegno.:	250.6.4245.35-IF	Modulo m	2.3mm	Tratto evolv. La	6.76mm
Commessa/serie nr.:	pezzo 3	Angolo pressione	20°00'00"	Tratto elica Lß	27.18mm
Masch.Nr.:	M001 Spindel: Formnest 1	Angolo elica	-26°42'00"	Inizio elab. M1	6.48mm
Untersuchungszweck:	Laufende Messung	Ø Base db	42.9163mm	Palpatore Ø	(#2C)1mm
Werkzeug:	Charge:	Ang. Base	-24°58'30"	Fat.scor.pr. x	1.032

TIRO

Piede-Ø: 42.609mm [42.4/42.75]

VDI

GETRAG B7590

Ruota cilindrica Evolvente/Elica

Nr. prog.:	STI0410o05 0 P26 B7590	Controllore:	TURNO C	Data:	09.12.2014 17:16
Denominazione:	Output Shaft 2	Numero denti z	18	Largh.fasc.dent. b	33.98mm
Numero disegno.:	250.6.4245.35-IF	Modulo m	2.3mm	Tratto evolv. La	6.76mm
Commessa/serie nr.:	pezzo 4	Angolo pressione	20°00'00"	Tratto elica Lß	27.18mm
Masch.Nr.:	M001 Spindel: Formnest 1	Angolo elica	-26°42'00"	Inizio elab. M1	6.48mm
Untersuchungszweck:	Laufende Messung	Ø Base db	42.9163mm	Palpatore Ø	(#2C)1mm
Werkzeug:	Charge:	Ang. Base	-24°58'30"	Fat.scor.pr. x	1.032

TIRO

Piede-Ø: 42.63mm [42.4/42.75]

VDI

KLINGELNBERG

GETRAG B7590

Ruota cilindrica Evolvente/Elica

Nr. prog.:	STI0410o05 0 P26 B7590	Controllore:	TURNO C	Data:	09.12.2014 17:17
Denominazione:	Output Shaft 2	Numero denti z	18	Largh.fasc.dent. b	33.98mm
Numero disegno.:	250.6.4245.35-IF	Modulo m	2.3mm	Tratto evolv. La	6.76mm
Commessa/serie nr.:	pezzo 5	Angolo pressione	20°00'00"	Tratto elica Lß	27.18mm
Masch.Nr.:	M001 Spindel: Formnest 1	Angolo elica	-26°42'00"	Inizio elab. M1	6.48mm
Untersuchungszweck:	Laufende Messung	Ø Base db	42.9163mm	Palpatore Ø	(#2C)1mm
Werkzeug:	Charge:	Ang. Base	-24°58'30"	Fat.scor.pr. x	1.032

TIRO

Piede-Ø: 42.62mm [42.4/42.75]

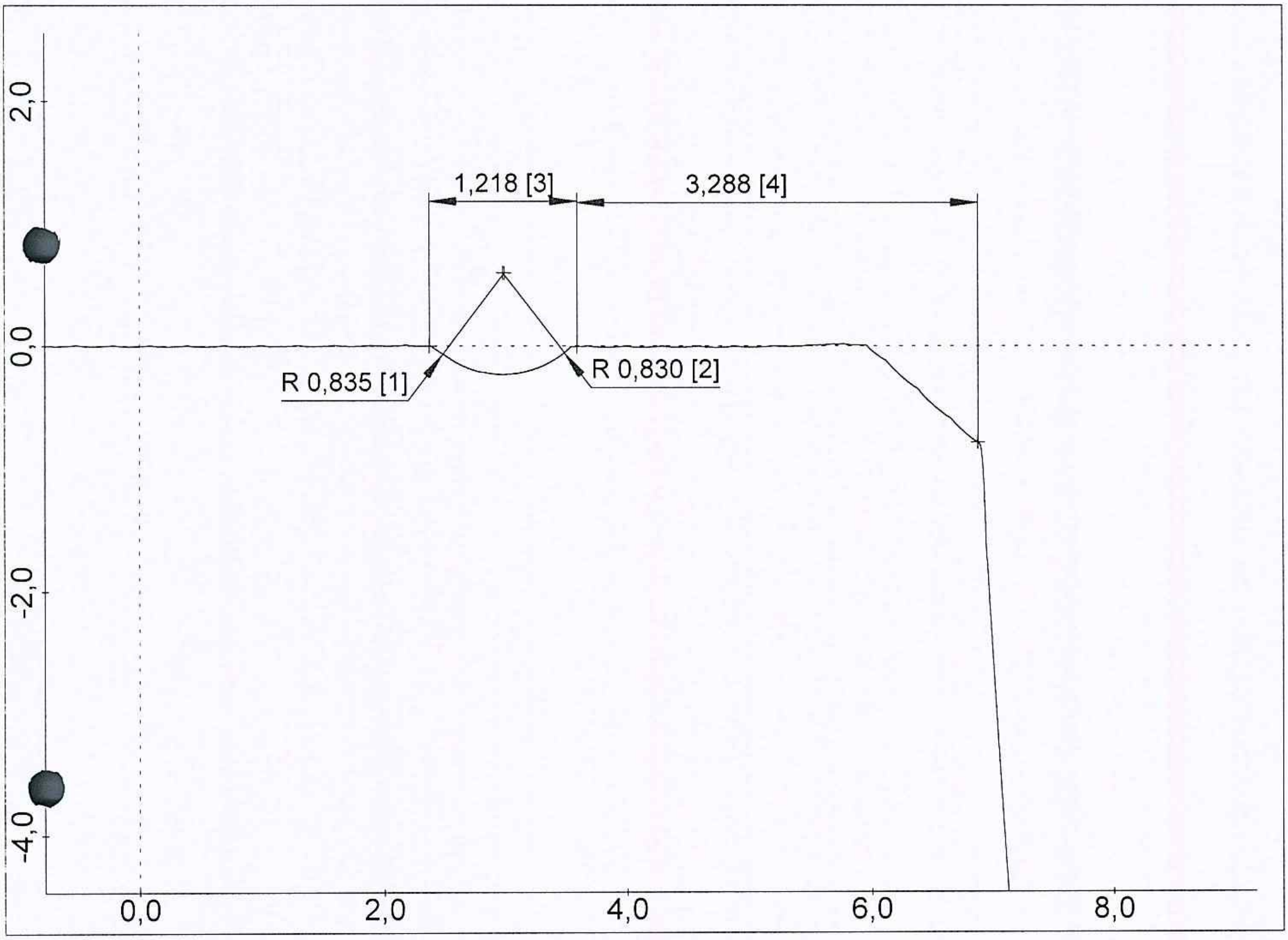
VDI

KLINGELNBERG

GETRAG

Via dei Ciclamini 4, Modugno (BA)

Oggetto:	OS 2
Numero:	4245 PPAP PZ.1
Operatore:	TURNO C
Data, ora:	16.12.2014, 08:28
Nota:	PROFILO M
Tastatore:	PCV 350 / 21 mm
Macchina:	MOA 416120 001

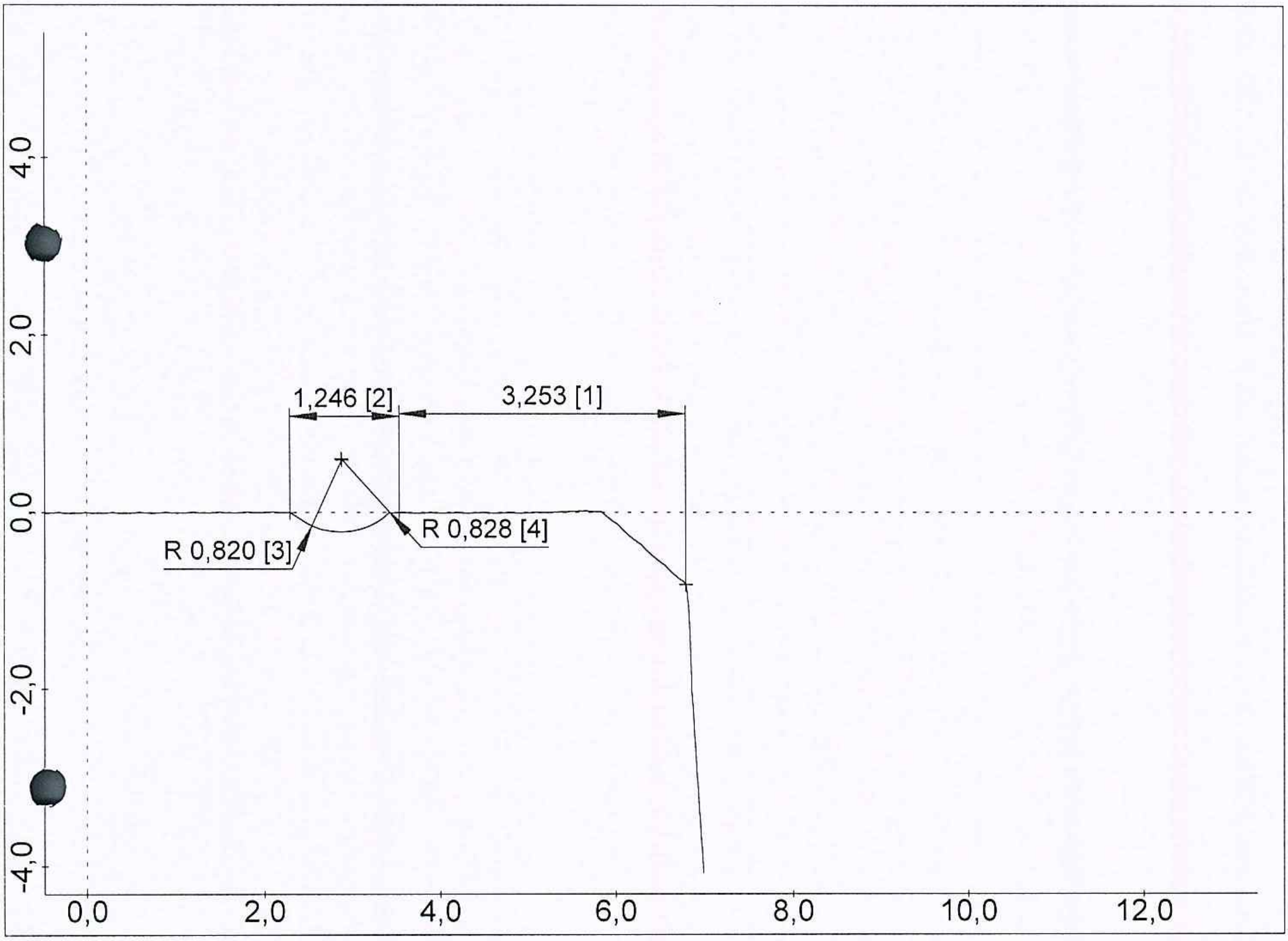


PERTHOMETER CONCEPT

GETRAG

Via dei Ciclamini 4, Modugno (BA)

Oggetto:	OS 2
Numero:	4245 PPAP PZ.2
Operatore:	TURNO C
Data, ora:	16.12.2014, 08:25
Nota:	PROFILO M
Tastatore:	PCV 350 / 21 mm
Macchina:	MOA 416120 001

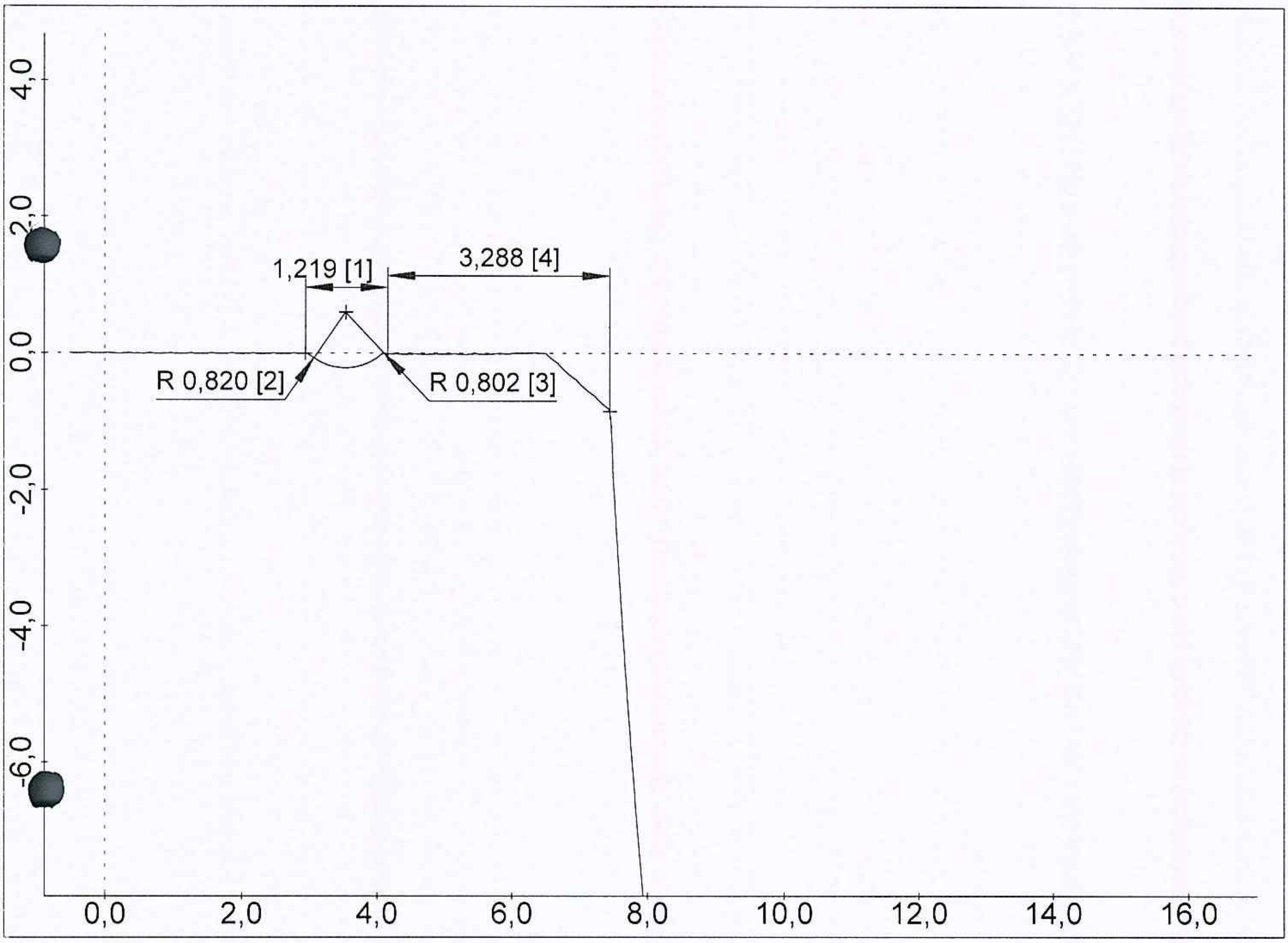


PERTHOMETER CONCEPT

GETRAG

Via dei Ciclamini 4, Modugno (BA)

Oggetto:	OS 2
Numero:	4245 PPAP PZ.5
Operatore:	TURNO C
Data, ora:	16.12.2014, 08:04
Nota:	PROFILO M
Tastatore:	PCV 350 / 21 mm
Macchina:	MOA 416120 001

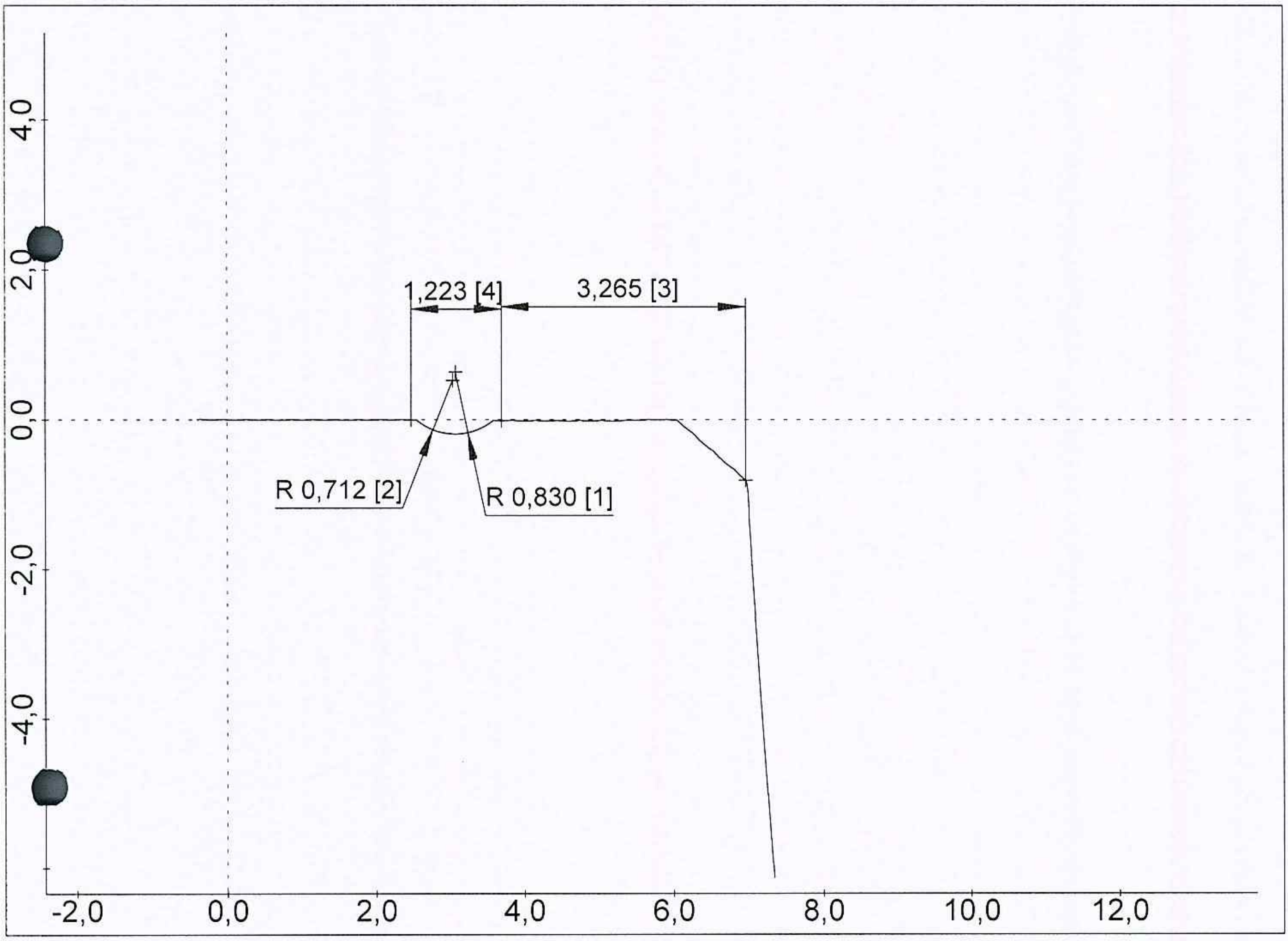


PERTHOMETER CONCEPT

GETRAG

Via dei Ciclamini 4, Modugno (BA)

Oggetto:	OS 2
Numero:	4245 PPAP PZ.54
Operatore:	TURNO C
Data, ora:	16.12.2014, 07:55
Nota:	PROFILO M
Tastatore:	PCV 350 / 21 mm
Macchina:	MOA 416120 001

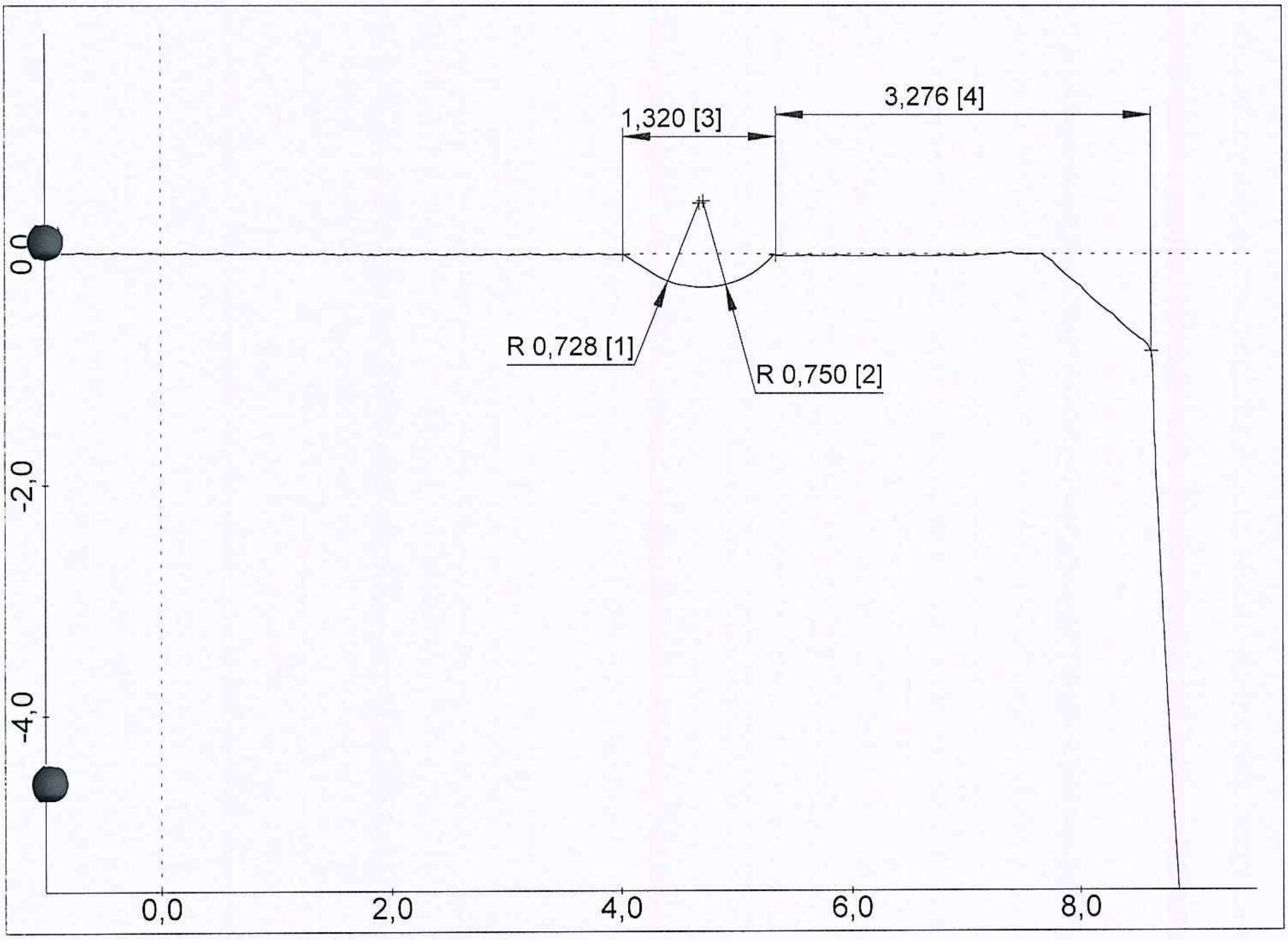


PERTHOMETER CONCEPT

GETRAG

Via dei Ciclamini 4, Modugno (BA)

Oggetto:	OS 2
Numero:	4245 PPAP PZ.3
Operatore:	TURNO C
Data, ora:	16.12.2014, 07:45
Nota:	PROFILO M
Tastatore:	PCV 350 / 21 mm
Macchina:	MOA 416120 001



PERTHOMETER CONCEPT

GETRAG SPA - MTL Measure report

Operatore:	Data:	Numero seriale di lotto: Nr: 0	Config. file: C:\Start\Archive\Z_PPAP\OS2_4245_EDISON\2506424535_Part M.mtl
Amministratore: super	16-12-2014 11:03	Pz1	Tipo: Z_PPAP\OS2_4245_EDISON
		Unità di misura: [mm , °]	Modello: 2506424535_Part M

Nota di programm

Nota:

GRAP.	Descrizione	Nominale	Misura	Scostamento	FUORI TOL.	TOL. INF.	TOL. SUP.
	Part_M_ D55.35	55.350	55.183	-0.167		-0.300	0.000

VICIVISION

GETRAG SPA - MTL Measure report

Operatore:	Data:	Numero seriale di lotto: Nr: 0	Config. file: C:\Start\Archive\Z_PPAP\OS2_4245_EDISON\2506424535_Part M.mtl
Amministratore: super	16-12-2014 11:04	Pz2	Tipo: Z_PPAP\OS2_4245_EDISON
		Unità di misura: [mm , °]	Modello: 2506424535_Part M

Nota di programm

Nota:

GRAP.	Descrizione	Nominale	Misura	Scostamento	FUORI TOL.	TOL. INF.	TOL. SUP.
	Part_M_ D55.35	55.350	55.192	-0.158		-0.300	0.000

GETRAG SPA - MTL Measure report

Operatore:	Data:	Numero seriale di lotto: Nr: 0	Config. file: C:\Start\Archive\Z_PPAP\OS2_4245_EDISON\2506424535_Part M.mtl
Amministratore: super	16-12-2014 11:04	Pz3	Tipo: Z_PPAP\OS2_4245_EDISON
		Unità di misura: [mm , °]	Modello: 2506424535_Part M

Nota di programn	Nota:

GRAP.	Descrizione	Nominale	Misura	Scostamento	FUORI TOL.	TOL. INF.	TOL. SUP.
	Part_M_ D55.35	55.350	55.180	-0.170		-0.300	0.000

GETRAG SPA - MTL Measure report

Operatore:	Data:	Numero seriale di lotto: Nr: 0	Config. file: C:\Start\Archive\Z_PPAP\OS2_4245_EDISON\2506424535_Part M.mtl
Amministratore: super	16-12-2014 11:05	Pz4	Tipo: Z_PPAP\OS2_4245_EDISON
		Unità di misura: [mm , °]	Modello: 2506424535_Part M

Nota di programm	Nota:

GRAP.	Descrizione	Nominale	Misura	Scostamento	FUORI TOL.	TOL. INF.	TOL. SUP.
	Part_M_ D55.35	55.350	55.165	-0.185		-0.300	0.000

VICIVISION

GETRAG SPA - MTL Measure report

Operatore:	Data:	Numero seriale di lotto: Nr: 0	Config. file: C:\Start\Archive\Z_PPAP\OS2_4245_EDISON\2506424535_Part M.mtl
Amministratore: super	16-12-2014 11:06	Pz5	Tipo: Z_PPAP\OS2_4245_EDISON
		Unità di misura: [mm , °]	Modello: 2506424535_Part M

Nota di programm	Nota:

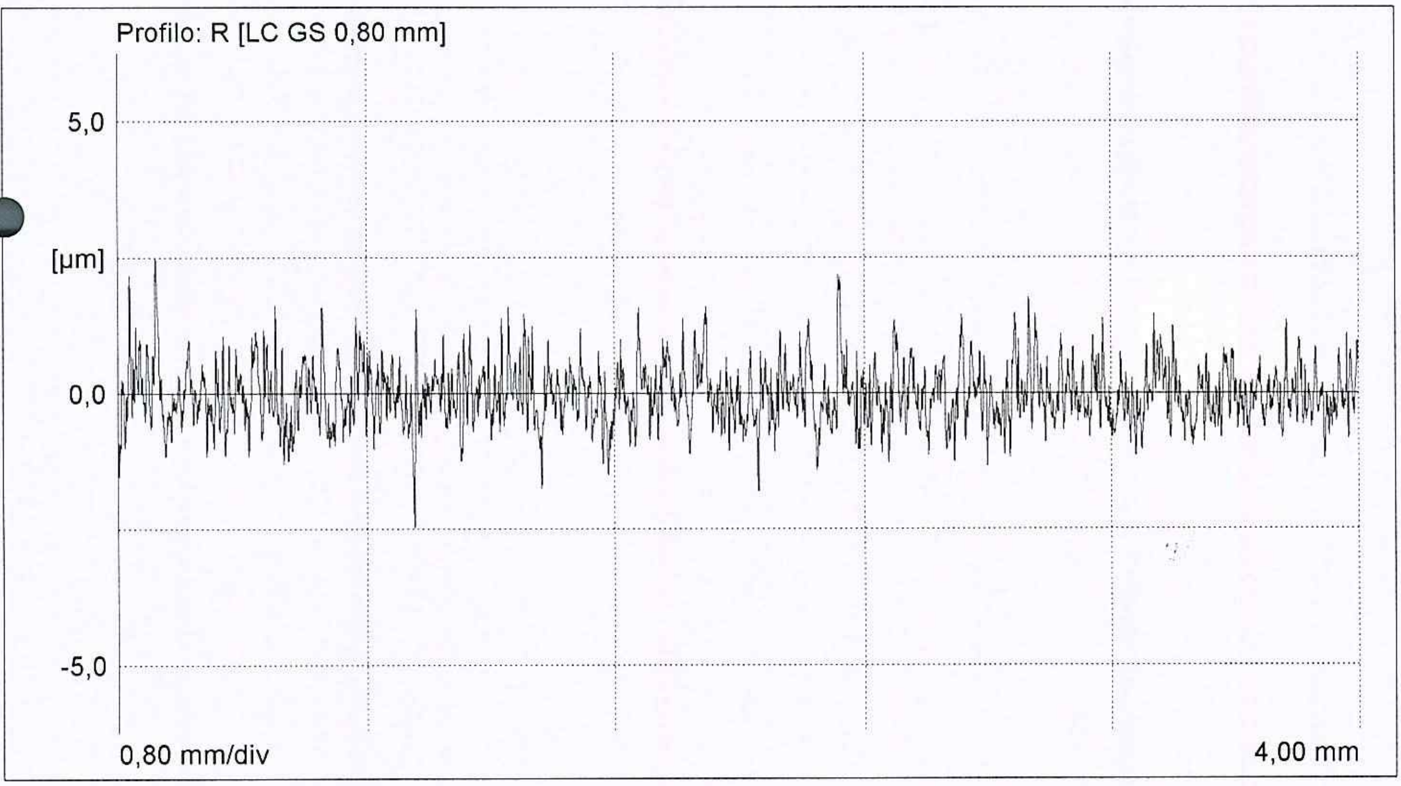
GRAP.	Descrizione	Nominale	Misura	Scostamento	FUORI TOL.	TOL. INF.	TOL. SUP.
	Part_M_ D55.35	55.350	55.162	-0.188		-0.300	0.000

GETRAG

Via dei Ciclamini 4 Modugno Bari

Sala Metrologica GPS5

Oggetto:	OS 2
Numero:	4245 PPAP PZ.1
Operatore:	LINO MAGRONE
Data, ora:	18/12/2014, 07:58
Nota:	RZ DENTE
Tastatore:	MFW-250 -20
MACCHINA:	MOA 416121 002



LC (GS)	0,80	mm
LT	5,60	mm
LM	4,00	mm
Z	5	
VB	±250	µm
Ra	0,44	µm
Rmax	4,07	µm
Rz	3,57	µm

PERTHOMETER CONCEPT

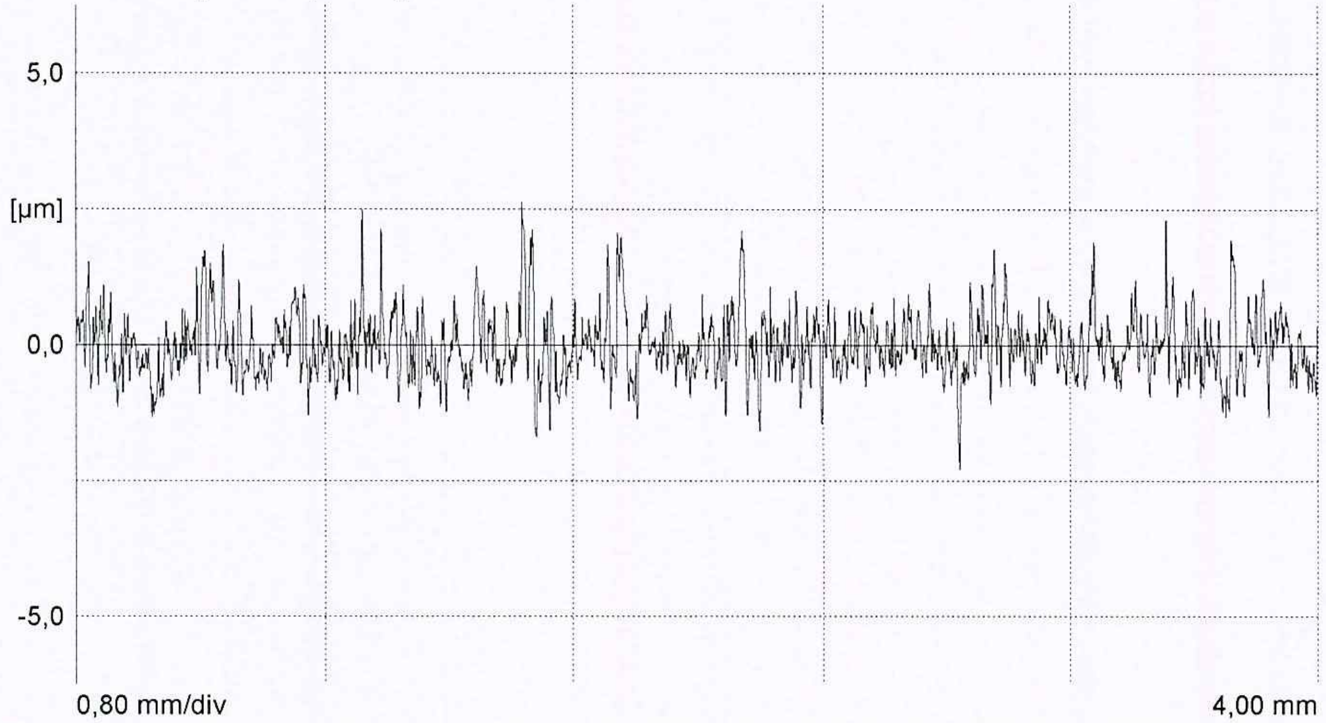
GETRAG

Via dei Ciclamini 4 Modugno Bari

Sala Metrologica GPS5

Oggetto:	OS 2
Numero:	4245 PPAP PZ.2
Operatore:	LINO MAGRONE
Data, ora:	18/12/2014, 08:01
Nota:	RZ DENTE
Tastatore:	MFW-250 -20
MACCHINA:	MOA 416121 002

Profilo: R [LC GS 0,80 mm]



LC (GS)	0,80	mm
LT	5,60	mm
LM	4,00	mm
Z	5	
VB	±250	µm
Ra	0,46	µm
Rmax	4,34	µm
Rz	3,79	µm

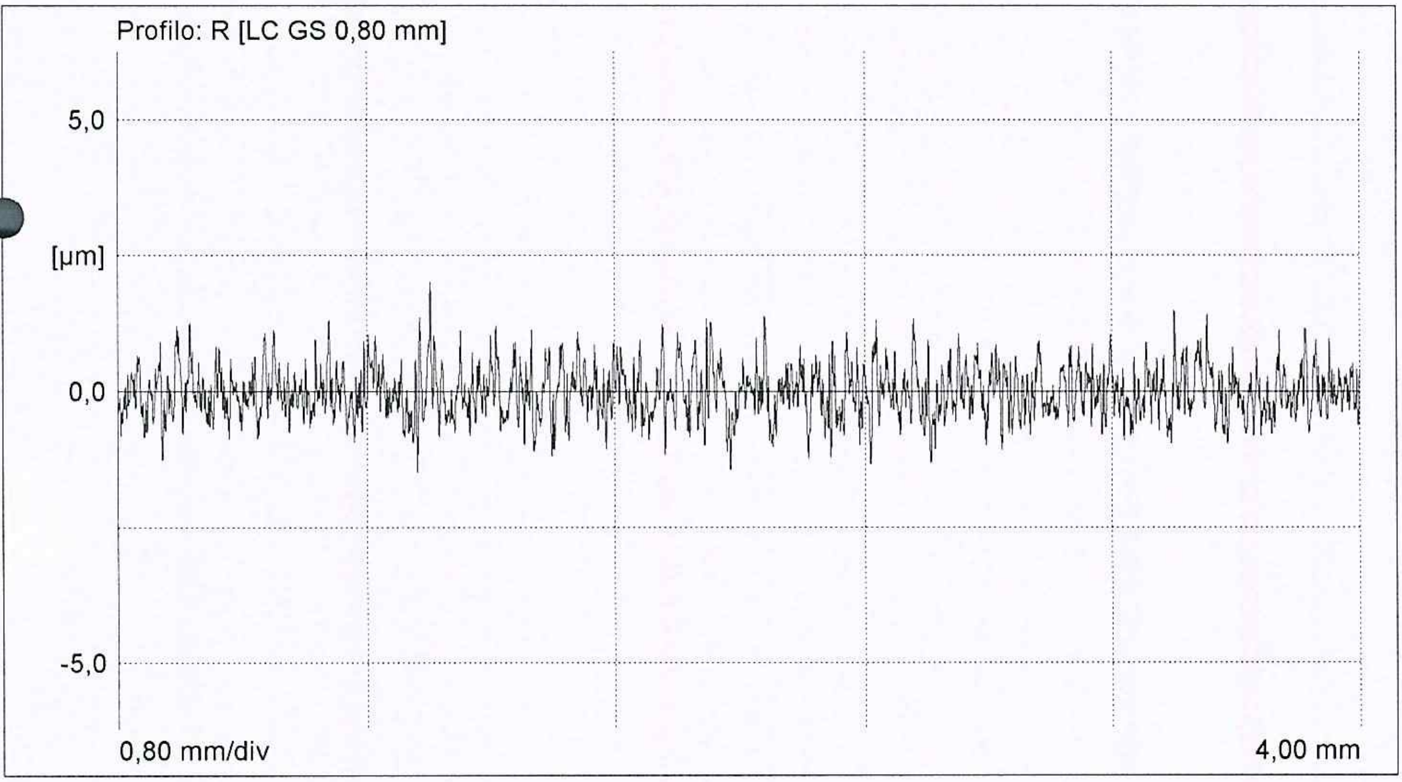
PERTHOMETER CONCEPT

GETRAG

Via dei Ciclamini 4 Modugno Bari

Sala Metrologica GPS5

Oggetto:	OS 2
Numero:	4245 PPAP PZ.3
Operatore:	LINO MAGRONE
Data, ora:	18/12/2014, 08:03
Nota:	RZ DENTE
Tastatore:	MFW-250 -20
MACCHINA:	MOA 416121 002



LC (GS)	0,80	mm
LT	5,60	mm
LM	4,00	mm
Z	5	
VB	±250	µm
Ra	0,38	µm
Rmax	3,52	µm
Rz	2,81	µm

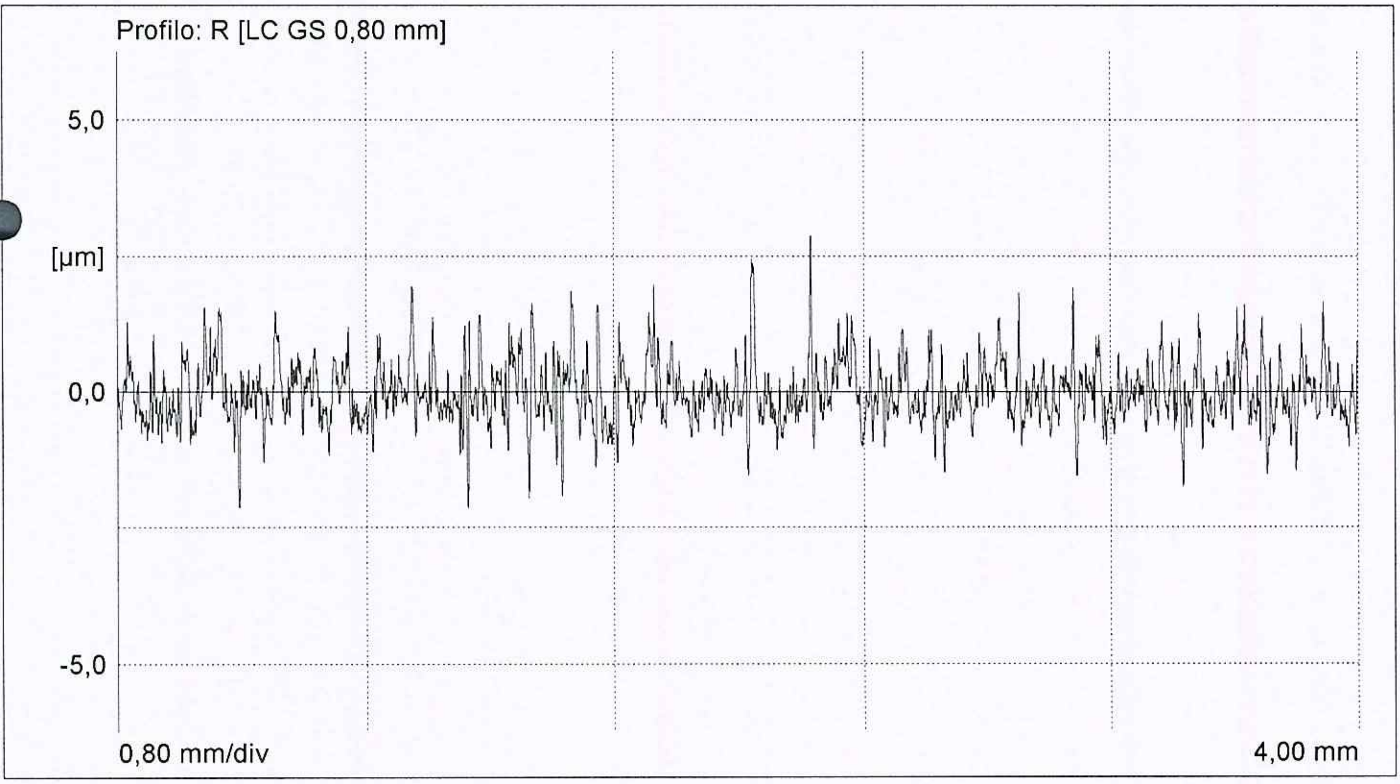
PERTHOMETER CONCEPT

GETRAG

Via dei Ciclamini 4 Modugno Bari

Sala Metrologica GPS5

Oggetto:	OS 2
Numero:	4245 PPAP PZ.4
Operatore:	LINO MAGRONE
Data, ora:	18/12/2014, 08:04
Nota:	RZ DENTE
Tastatore:	MFW-250 -20
MACCHINA:	MOA 416121 002



LC (GS)	0,80	mm
LT	5,60	mm
LM	4,00	mm
Z	5	
VB	±250	µm
Ra	0,44	µm
Rmax	4,45	µm
Rz	3,83	µm

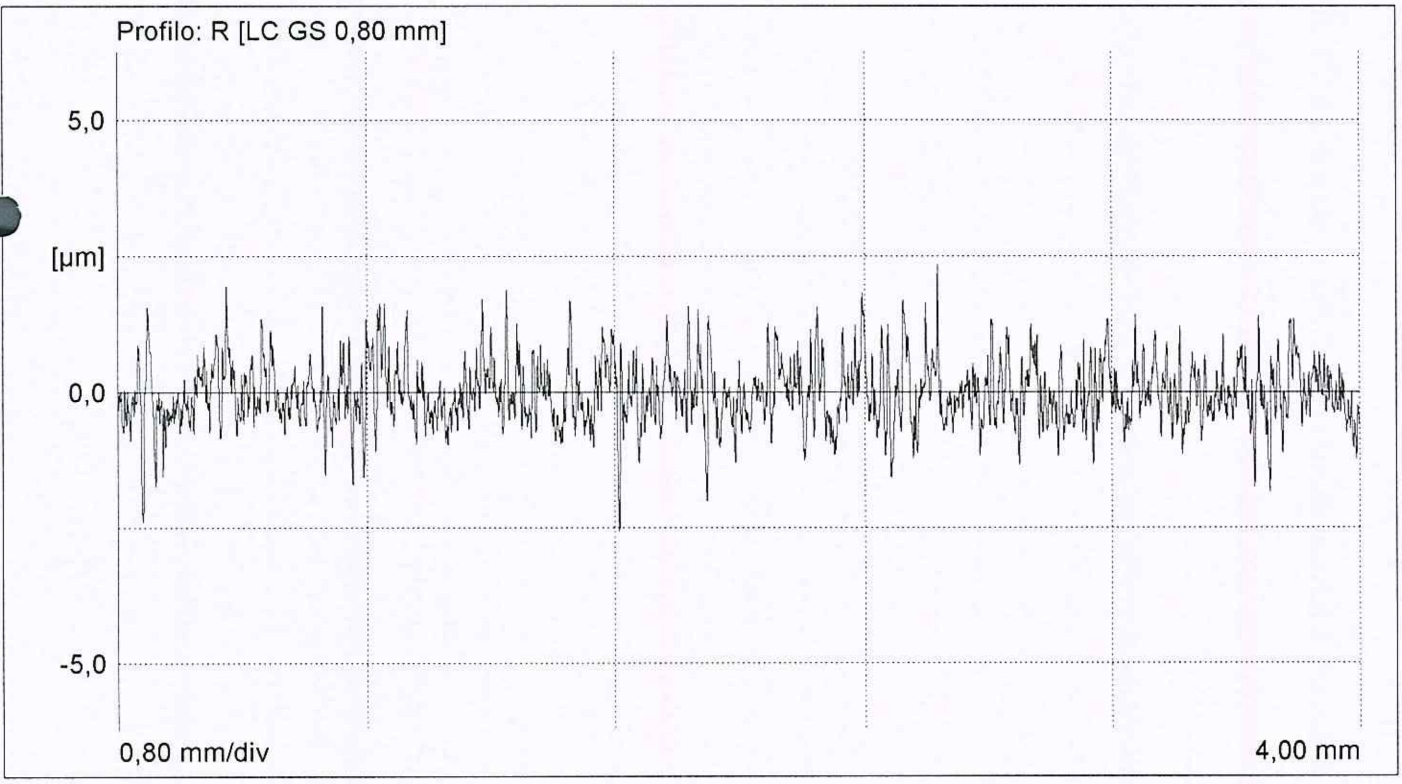
PERTHOMETER CONCEPT

GETRAG

Via dei Ciclamini 4 Modugno Bari

Sala Metrologica GPS5

Oggetto:	OS 2
Numero:	4245 PPAP PZ.5
Operatore:	LINO MAGRONE
Data, ora:	18/12/2014, 08:06
Nota:	RZ DENTE
Tastatore:	MFW-250 -20
MACCHINA:	MOA 416121 002



LC (GS)	0,80	mm
LT	5,60	mm
LM	4,00	mm
Z	5	
VB	±250	µm
Ra	0,46	µm
Rmax	4,39	µm
Rz	3,78	µm

PERTHOMETER CONCEPT

circuiti di controllo: 1 / 2 / sala di misura

Istruzioni di controllo

GETRAG

PP Produzione GPS

Materiale: 2506424535 | Indice del disegno finito: E

Descrizione: Albero di uscita 2 | Stato:Rilasciato Produzione + Calcolo costi | Data emissione: 21.12.2011 / Stefano Billi

Operazione: **0200 Levigatura di potenza Z= 18** | Data aggiornamento: 05.12.2014 / Emiliano Zella

Centro di lavoro: HNW15340 LEVIGATURA OS2

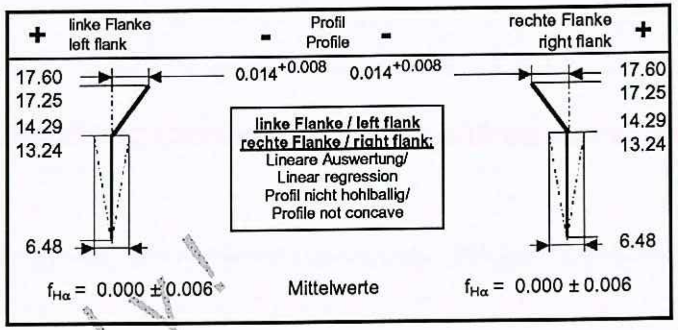
n.SAP ID interno	GN 3010	Caratteristica	Misura nomin.	LTI	LTS	Strumento di controllo	Quantità	Frequenza RK1:	Quantità	Frequenza RK2:	Quantità	Frequenza Sala di misura	Cambio ut.	Metodi di gestione / Documentazione
0002		Controllo 1° pz sec. 450_802992				MVZ-400249 EVOLVENTIMETRO					1	1° pz 2.3.1.1-R 2		Misu: controllo primo pezzo
						MOA-416121 RUGOSIMETRO TIPO PRK					1	1° pz 2.3.1.1-R 2		
0004		aspetto, privo di bava, senza danno					3	pz per rack						CR1: no documentazione
0012	M	DIAMETRO Mdk DA G. T. sfere da 3.5	53,962 mm	53,933	53,992	MZA-450311 Calcolatore di misura E9066 Marposs	3	pz ogni 100 per macchina						CR1: no documentazione
0016	M	DIAGRAMMA COMPLETO CON SVERGOLAMENTO	mm			MVZ-400249 EVOLVENTIMETRO					1	1 pezzo ogni cambio parametri macchina		Misu: diagramma di dentatura
0020	M	DIAGRAMMA COMPLETO CON SVERGOLAMENTO	mm			MVZ-400249 EVOLVENTIMETRO					1	Ultimo PZ. prima ravvivatu ra		Misu: diagramma di dentatura
0025	M	Oscillazione Fr			0,032	MVZ-400249 EVOLVENTIMETRO					1	pz a turno/mac .		Misu: diagramma di dentatura
0030		Somma Passo Fp			0,040	MVZ-400249 EVOLVENTIMETRO					1	pz a turno/mac .		Misu: diagramma di dentatura
0060		Controllo visivo per pulizia denti					8	pz per rack						

Geardata-Release: 2014-05-26 Fabrizio.Cricenti

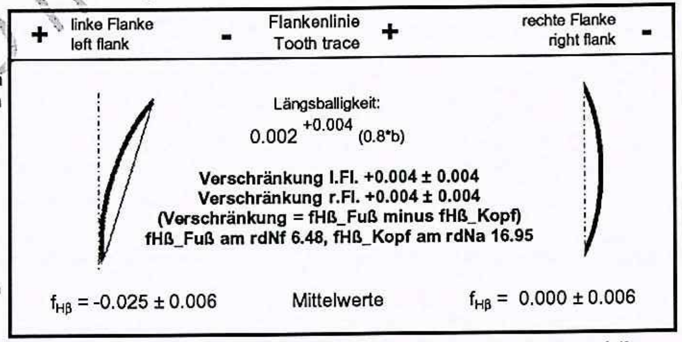
STIRNRAD / GEAR		außenverzahnt / external
Zähnezahl / Number of teeth	z	18
Modul / Normal module	m_n	2.300000
Eingriffswinkel / Normal pressure angle	α_n	20° 0' 0"
Schrägungswinkel / Helix angle	β	26° 42' 0"
Steigungsrichtung / Hand of helix		LINKS
Profilverschiebungsfaktor / Addendum modification coeff.	x	1.032
Teilkreisdurchmesser / Pitch diameter	d	46.341
Kopfkreisdurchmesser / Outside diameter	g d_a	55.80 $_{-0.26}$
Kopfnutzkreisd. theo. max. / Tip diam. usable theo.	d_{Na}	55.50
Kopfnutzkreisd. theo. min. / Tip diam. usable theo.	d_{Na}	55.07
Fußkreisdurchmesser / Root diameter	d_f	42.75 $_{-0.35}$
Fußnutzkreisdurchmesser / Root diameter usable	d_{Nf}	44.83
Grundkreisradius / Base circle radius	r_b	21.458
Grundkreisdurchmesser / Base diameter	d_b	42.916
Normalzahndicke / Normal tooth thickness	max. s_n	5.341
Normalzahndicke / Normal tooth thickness	min. s_n	5.311
Meßzähnezahl / Number of teeth spanned	k	5
Zahnweite / Base tangent length	max. W_k	32.977
Zahnweite / Base tangent length	min. W_k	32.949
Meßkugeldurchmesser / Ball diameter	D_M	3.5000
Diam. Zweikugelmaß / Measurement o. balls	max. M_{dK}	53.992
Diam. Zweikugelmaß / Measurement o. balls	min. M_{dK}	53.933
Verdrehflankenspiel / Circumferential backlash	theo.	0.066 0.174

Toleranzen der Verzahnung (DIN 3961 vom Aug. 1978) gültig für Werte am Einzelzahn
Tolerances of gearing (DIN 3961 of Aug. 1978) valid for values at individual tooth (8)

	linke Fl. / left flank	rechte Fl. / right flank		
Profil-Formabweichung / Profile form error $f_{f\alpha}$	0.009		Eingriffsteilungs-Abweich. / Normal pitch error f_{pe}	0.014
Profil-Gesamtabweichung / Total profile error F_α			Teilungs-Einzelabweichung / Adjacent pitch error f_p	0.014
Profil-Winkelabweichung / Profile angle error $f_{H\alpha}$	0.000 ± 0.007	0.000 ± 0.007	Teilungssprung / Diff. bet. adjacent pitches f_u	0.018
Flankenl.-Winkelabweich. / Tooth alignment error $f_{H\beta}$	-0.025 ± 0.013	0.000 ± 0.013	Teilungs-Summenabweich. / Cumulative circ. pitch error F_{pk}	
Flankenl.-Gesamtabweich. / Total alignment error F_β	0.016	0.016	Rundlaufabweichung / Radial run-out F_r	0.032
Flankenl.-Formabweich. / Longitudinal alignment err. $f_{f\beta}$	0.009		Zahndickenschwankung / Range of tooth thickn. error R_s	
Teilungs-Gesamtabweich. / Cumulative pitch error F_p	0.040			
Einf.-Wälzabweichung / Tangential composite error F_i'			Zweifl.-Wälzabweichung / Radial composite error F_i''	0.036
Einflanken-Wälzsprung / Tang. tooth to tooth comp. err. f_i'			Zweifl.-Wälzsprung / Radial tooth to tooth comp. err. f_i''	0.014
Radbreite im Meßkreis d_M / Facewidth in meas. diam. b	33.98		Meßkreis Krümmungsradius / Radius of curvature meas. diam. ρ_{dM}	12.24



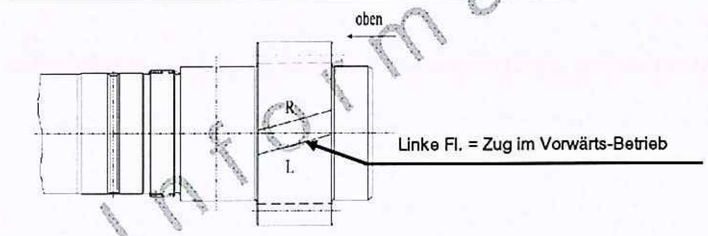
* Schreibbeginn
* Start of checking $\varnothing$ = 43.55 $_{-0.30}$ ≡ 3.70



* Plusabweichung des bis zum Schreibbeginn verlängerten vermittelnden Ist-Profiles max $f_{f\alpha}/2$
* Plusdeviation of the average profile, extended to the start of checking, max $f_{f\alpha}/2$

Profil- und Flankenlinienprüfung nach VDI/VDE 2612
Tabellenwerte für F_β und $f_{H\beta}$ sind auf die gesamte Radbreite im Meßkreis d_M bezogen
Flankenlinienprüfbereich Lβ = 0.8*b hochgerechnet auf 1.0*b
Begriffe für Stirnräder nach DIN 868, 3960, 3998

Profile and helix checking according to VDI/VDE 2612
Listed tolerance data for F_β and $f_{H\beta}$ refers to the total face width in the meas. dia. d_M
Tooth trace testing area Lβ = 0.8*b calculated to 1.0*b
Terms of the tooth system according to DIN (German Industrial Standards) No. 868, 3960, 3998



Hondurchmesser = 43.55 $_{-0.30}$ ≡ 3.70
honing diameter

\# Der Verlauf der Profil- und Flankenlinie muss über den Messbereich stetig sein (ein- oder mehrfache Richtungsänderungen sind nicht zulässig)
\# The form of the profile and helix has to be continuous (one or more changes of directions are not allowed)
Für fp max. zwei Wellen zulässig
For fp max. two waves allowed

Vorbearbeitungsdaten siehe Verzahnungsblatt Vorbearbeitung gleicher Nr.
For pre-machining dimensions, see gear data sheet same number

Wkz-Profil siehe Werkzeugdatenblatt Nr.
For Tooth profile, see tool data sheet number 250.6.4245.35

g	1	36042	see CR	20140526	Cricenti
Buch.	Anz.	Änd.Nr.		Datum	Name

Verteiler:

GETRAG
GETRAG Getriebe- und Zahnradfabrik Hermann Hagenmeyer GmbH & Cie KG

Abbildungen sind unmaßstäblich.
Diagrams not to scale.

Ersatz für:
Erstverwendung bei Getriebetype: 250.0.0004.17

Remark:

	Datum	Name
gez.	2008-02-04	Paaßen, Holger
gepr.		

Verzahnungsblatt Endkontrolle
Final Check Gear Data
Benennung:
Naming:
Abtriebswelle K2

Zeichnungsnummer:
Drawing number:
250.6.4245.35