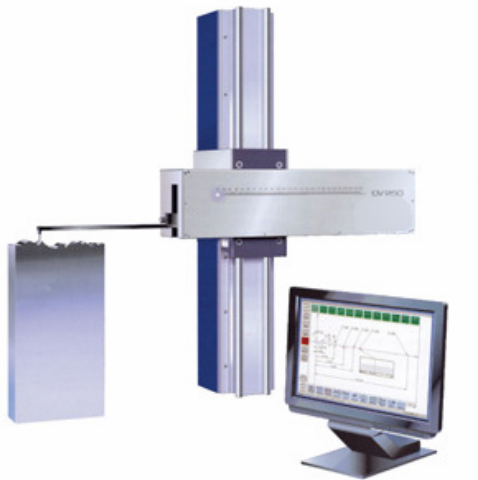
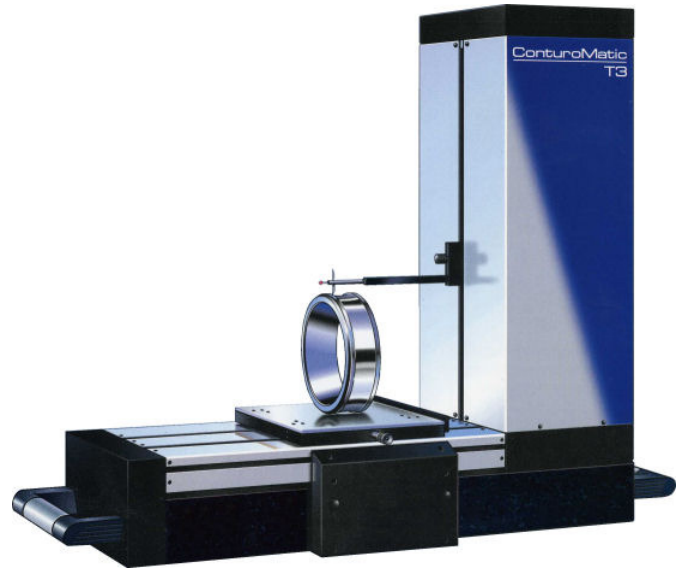


Conturomatic

Contour measurement systems

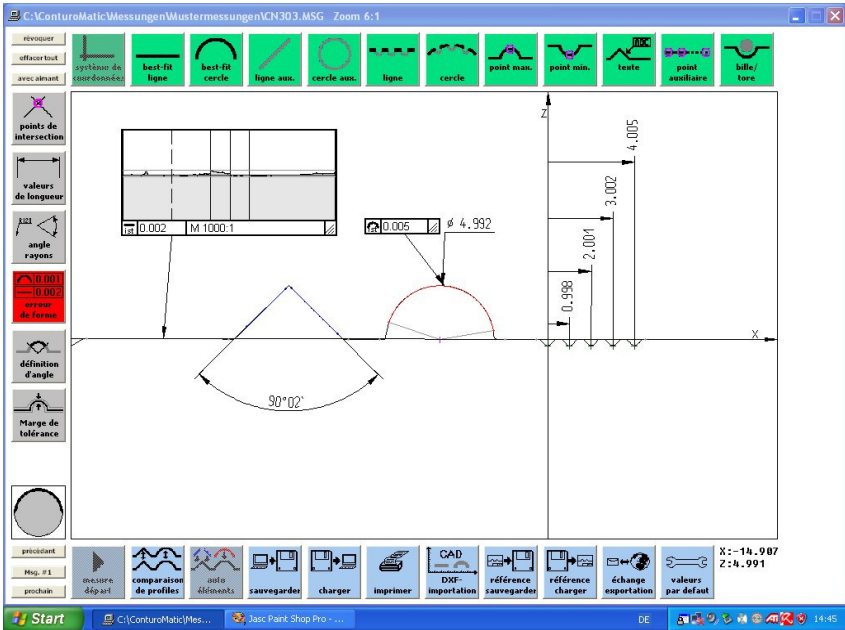


You are looking for a contour measuring system extensible for the future at reasonable prices which solves your measuring tasks ? With the measuring equipment of the Conturomatic series, we propose you a system which combines all these advantages. Not only the possibility to choose between 3 different systems to find out the individual solution but also the exceptionnel measuring range of 250 mm in X and 320 in Z and the possibility to measure in 2 direction (upwards and downwards) are unique on the market. The T1 and T3 are able to measure roughness, even skidless conforming to the actual standards. A lifetime-update of the software for free completes the whole system.

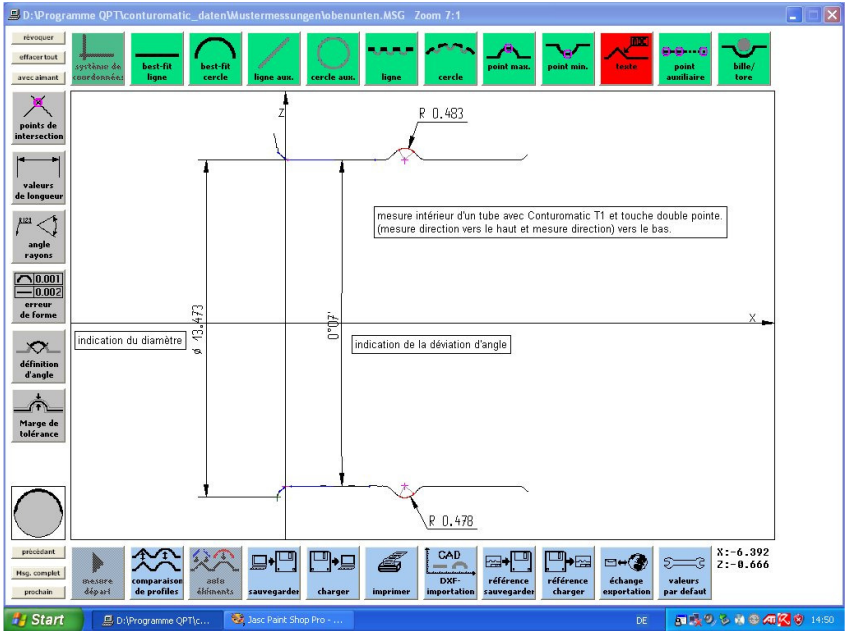
In combination with our software existing systems e.g. Contourograph, Conturoscope, can be upgraded easily at low costs.

The Conturomatic Software

The comprehensive software package was designed with the user in mind. Although the software is both powerful and flexible, it retains its 'user friendly' appeal. Where measurements are repeated and repetitive, within the software there is the facility to programme an automatic measuring and evaluation cycle. Using tolerance bands, the measuring process can be performed and analyzed without operator interpretation. Allowing use by less highly skilled personnel. The software uses a single click technology to each function without the need to go through menus or sub menus. The Multi Contour facility will measure two areas on the same component and also evaluate the relationship between the two areas. (Internal and External features for example).

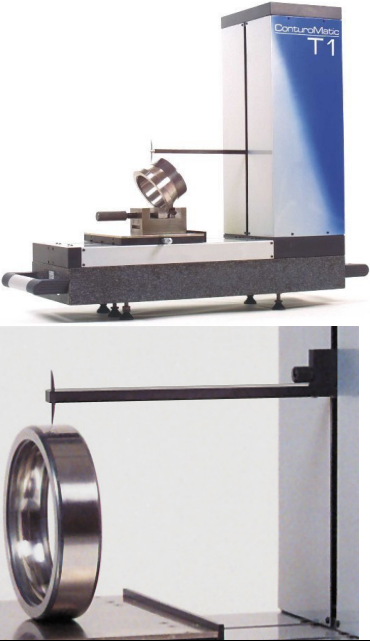

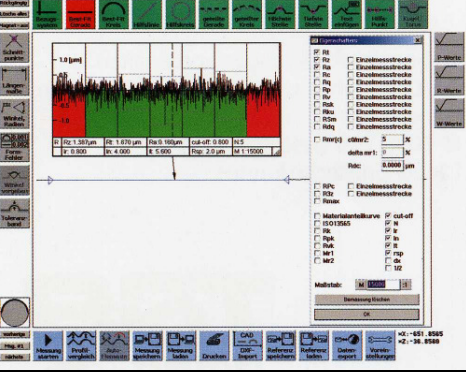
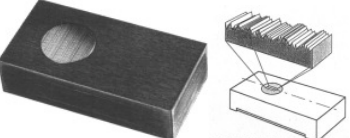



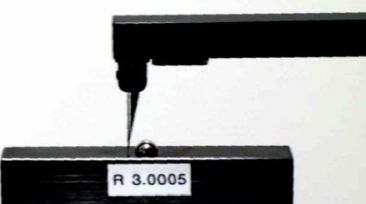
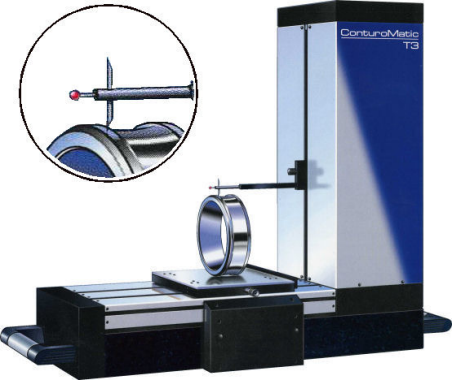
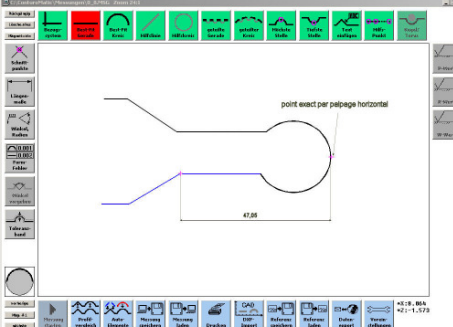
- Evaluation of all geometries like radius, angles, distances with one mouseclick
- evaluation of the form deviation
- automatique profile comparison with tolerances
- Lines and circles can be used to create helping geometries
- The measurement with all parameters like tracing length, safety position of the arm and the whole evaluation of the geometry can be saved with one click (save reference)
- Possibility to export all X/Z values or the results in ASCII or as a *.bmp image.
- Import *.DXF files
- Import files from othe systems like Mahr, Taylor Hobson, Hommel



The T1 has the possibility to measure in two directions : upward and downward. This means this system has additional evaluation possibilities :

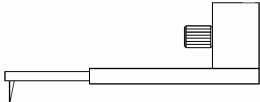
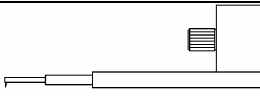
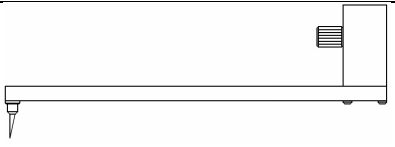


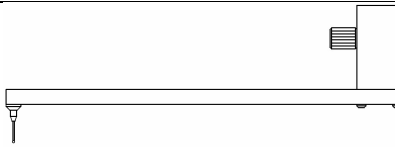
- Evaluation of internal and external diameters
- Determination of conicities
- Determination of parallelity

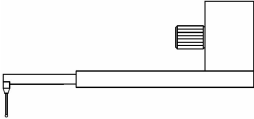
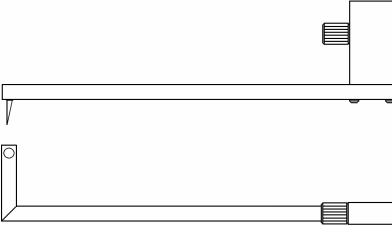
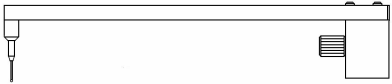
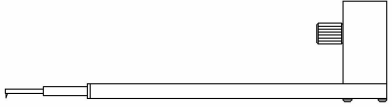
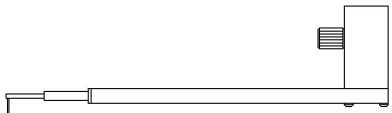
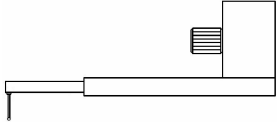
Order-no.	Description	Price in €
<p>103.020</p> 	<p>Conturomatic T1 System for measuring in two directions upward and downward. Allows to determine not only distances, angles and radius but also diameter, conicity and parallelity. Software, PC with TFT-screen and printer included</p> <p>Specifications : Measuring range (XxZ): 250x320 mm Resolution (internal) : 0,033 µm Measuring speed: 0,1 to 3 mm/s Positioning speed : Up to 40mm/s Measuring force : 40mN / 4g Precision : ±(1,5+L/100)µm L=length in mm</p>	
<p>103.020-KN</p> 	<p>Calibration master for Conturomatic T1 For calibration of tracing arms</p>	
<p>103.050</p> 	<p>Option roughness (not for ConturomaticT2 / CV250 / N1)</p> <p>Delivered with :</p> <ul style="list-style-type: none"> - Tracing arm for roughness - Calibration standard 	
<p>100.002</p> 	<p>Roughness Standard RN 201</p>	

Order-no.	description	Price in €
<p>103.000</p> 	<p>Conturomatic T2 System for measuring in one direction downwards Software, Pc, TFT-screen and printer included</p> <p>Specifications :</p> <p>Measuring range (XxZ): 250x320 mm Resolution (internal) : 0,033 µm Measuring speed : 0,5 to 3 mm/s Positioning speed : Up to 40mm/s Measuring force : 40mN / 4g Precision : ±(1,5+L/100)µm L=length in mm</p>	
<p>103.000-KN1</p> 	<p>Calibration master for Conturomatic T2 For calibration of tracing arms</p>	
<p>103.070</p>  	<p>Conturomatic T3 system able to measure in three directions : downward, upward and in horizontal direction. Option roughness already included! with air bearings</p> <p>Specifications :</p> <p>Measuring range (XxZ): 300x320 mm Resolution (internal) : 0,001 µm Measuring speed : 0,1 à 3 mm/s Positioning speed : Jusqu'à 40mm/s Measuring force : 40mN / 4g Precision : ±(1,0+L/100)µm L=longueur en mm</p> <p>max. load : 30 kg</p> <p>Delivered with: 2 tracing arms for contour 1 tracing arm for roughness air pressure unit option roughness</p>	

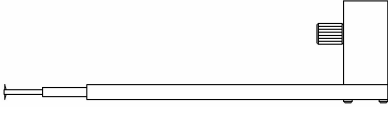
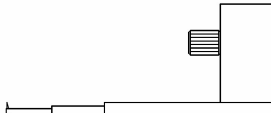
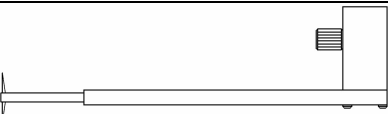



Order-no.	Description	Price in €
103.040 	Conturomatic CV 250 System with oscillating tracing arm for measurement in one direction , downwards. Software, PC, TFT-screen and printer included. Specifications : Measuring range (XxZ): 250x50 mm Resolution (internal) : 0,05 µm Measuring speed : 0,25 to 1,75 mm/s Positioning speed : Up to 15mm/s Measuring force : 40mN / 4g Precision : ±(3,5+ 10H /25)µm H=height in mm	
103.040-KT 	Crosstable for CV 250, range 250x25 mm	
103.010 	ConturoMatic N1 , upgrading kit for retrofitting Mahr systems Conturograph / Conturoscop C4P with drive unit CV 200 or CV 50. Components: control unit, PC with Windows XP, Software in english, german, french, italian and others	
103.040-KN 	Calibration master for CV 250 and ConturoMatic N1 For calibration of tracing arms	
100.040	Initial training, one day (without travelling costs)	

Tracing arms for Conturomatic

	Description / order-no.	Price in €
	103.000-A1 tracing arm for Conturomatic T1/T2 L=150 mm / tip 20,5 mm ; bore Ø 23 mm / depth 75 mm bore Ø 26 mm / depth 100 mm 100.402 tip : L=20,5mm/ Ø 3.5 mm(screwed)	
	103.000-A2 tracing arm for Conturomatic T1/T2 L=150 mm / tip 6 mm Bore Ø 8 mm / depth 25 mm Bore Ø 10 mm / depth 70 mm 100.403 Tip: L=6 mm/ Ø 1mm (glued)	
	103.000-A3 tracing arm for Conturomatic T1/T2/CV250 L=260 mm / tip 33 mm bore Ø 40 mm 100.401 Tip: L=33 mm/ Ø3,5mm (screwed)	
	103.000-A4 tracing arm for Conturomatic T1/T2/CV250 L=260 mm / tip 6 mm bore Ø 8 mm / depth 25 mm bore Ø 10 mm / depth 50 mm 100.403 Tip: L=6 mm/ Ø 1mm (glued)	
	103.000-A5 tracing arm for Conturomatic T1/T2/CV250 L=260 mm / tip 59 mm for groves 100.400 Tip: L=59 mm/ Ø 3,5 mm (screwed)	
	103.000-A6 tracing arm for Conturomatic T1/T2 L=260 mm / ruby ball 21x1,5 mm for sensible surfaces TM3-1521 Tip : L=21mm/ ruby ball Ø1,5 mm (screwed)	

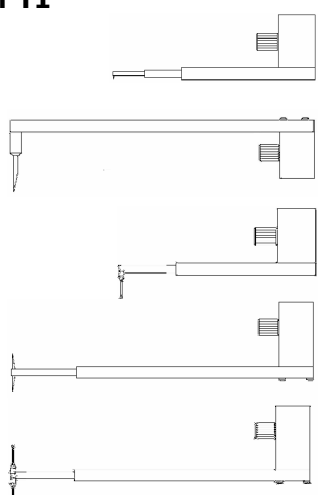
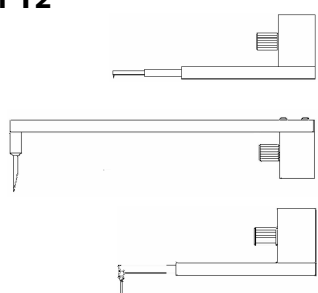
	Description / Order-no.	Price in €
	<p>103.000-A7 bras pour Conturomatic T1/T2 L=150 mm / pointe en rubis 21x1,5 mm Pour mesurer sur surfaces sensibles</p> <p>TM3-1521 Pointe: L=21 mm/ bille Ø1,5 mm (vissée)</p>	
	<p>103.000-A8 bras pour Conturomatic T1/T2 L= 200 mm / angle 90° /pointe 20,5 mm</p> <p>100.402 Pointe: L=20,5 mm/ Ø 3,5 mm (vissée)</p>	
	<p>103.000-A9 bras pour Conturomatic T1/T2 L= 260 mm / pointe en rubis 47x1,5 mm Pour mesurer sur surfaces sensibles</p> <p>TM3-1547 Pointe: L= 47 mm/ bille Ø1,5mm (vissée)</p>	
	<p>103.000-A10 bras pour Conturomatic T1/T2 L= 260 mm / pointe 2,5 mm Perçage à partir de Ø 5 mm / profondeur 25 mm Perçag à partir de Ø 10 mm / profondeur 50 mm</p> <p>100.934 pointe L= 2,5 mm/ Ø 0,5 mm (collée) sur bras</p>	
	<p>103.000-A11 bras pour Conturomatic T1/T2 L= 260 mm / pointe en rubis 15x0,3 mm</p> <p>TM3-0315 Pointe L= 15 mm/ Ø 0,3 mm (vissée)</p>	
	<p>103.000-A12 bras pour Conturomatic T1/T2 L= 150 mm /pointe en rubis 15x0,3 mm</p> <p>TM3-0315 Pointe L= 15 mm/ Ø 0,3 mm (vissée)</p>	

*les pointes doivent être commandées séparément

	Description / Order-no.	Price in €
	<p>103.020-A1 tracing arm for Conturomatic T1 L= 260mm / double-tip L=2x 5mm for measurement in 2 directions bore Ø 12 mm ; depth 50 mm</p> <p>100.913D double tip L= 2x5 mm (glued)</p>	
	<p>103.020-A2 tracing arm for Conturomatic T1 L= 150mm / double-tip L=2x 5mm for measurement in 2 directions for bore Ø 12 mm ; depth 50 mm</p> <p>100.913D double tip L= 2x5 mm / Ø 1mm (glued)</p>	
	<p>103.020-A3 tracing arm for Conturomatic T1 L=260 mm / double tip L= 2x 16,5 mm for measuring in 2 directions</p> <p>100.911D double tip L=2x16,5 mm / Ø 3,5 mm (screwed)</p>	
	<p>103.020-A4 tracing arm for Conturomatic T1 L=260 mm/ double tip with ruby ball 2x 21 x Ø1,5 mm</p> <p>TM3-1521 Tip: L=21 mm/ ruby ball Ø1,5 mm (screwed) ***Attention ! 2 pieces needed ***</p>	
	<p>103.020-A7 tracing arm for Conturomatic T1 L= 200 mm / angle 90° / double tip 2x 5mm</p> <p>100.913D double tip L= 2x5 mm / Ø 1mm (glued)</p>	
	<p>103.020-ADISC tracing arm for Conturomatic T1 L=190 mm with disk typed tip for measuring rotative parts Disk Ø 1 – 10mm (to be indicated at the order)</p>	

*the tips have to be ordered separately

Tracing arm sets for Conturomatic T1 / T2

	Description / Order-no.	Price in €
Set for T1 	103.020-ASET1 Tracing arm 103.000-A2 length L= 150 mm tip 100.403 / 6 mm tracing arm 103.000-A5 length L= 260 mm tip 100.400 / 59,5 mm tracing arm 103.000-A7 lengthtip à L = 150 mm tip with ruby ball TM3-1521 / 21 mm x Ø1,5 mm Double tracing arm 103.020-A3 length L= 260 mm Double tip 100.911D / 2 x 16,5 mm Double tracing arm 103.020-A4 length L= 260 mm Double tip with balls TM3-1521/ 2x21 mm x Ø1,5 mm	
Set for T2 	103.000-ASET1 Tracing arm 103.000-A2 length L= 150 mm tip 100.403 / 6 mm tracing arm 103.000-A5 length L= 260 mm tip 100.400 / 59,5 mm tracing arm 103.000-A7 lengthtip à L = 150 mm tip with ruby ball TM3-1521 / 21 mm x Ø1,5 mm	