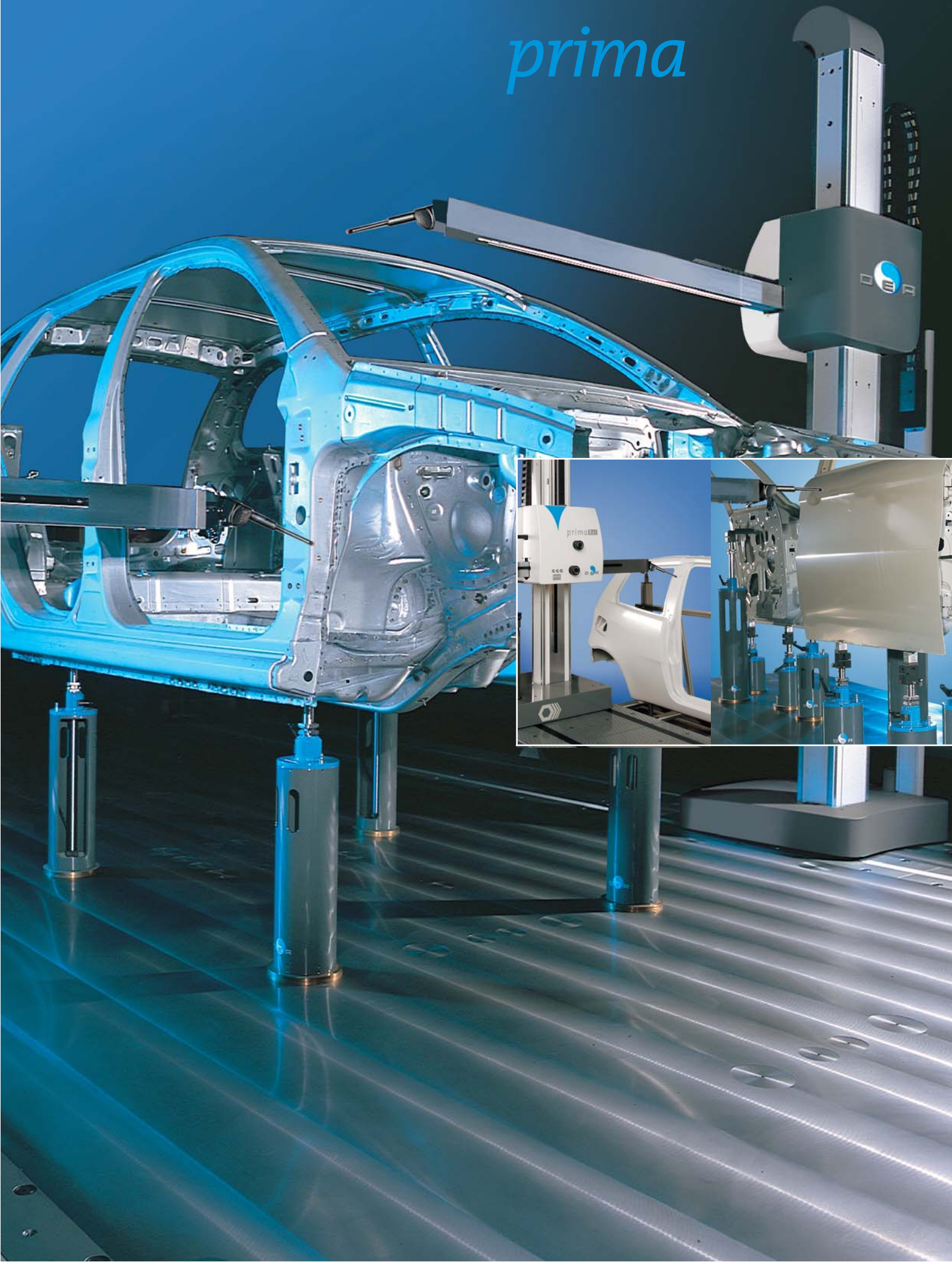


Prima

Prima



prima



Cost Effective, Versatile, Precise, Reliable

PRIMA is a line of horizontal arm coordinate measuring machines featuring a superior mechanical structure and an innovative, optimized design. The CMMs of the PRIMA line have been conceived and engineered in compliance with the most stringent industry standards, so as to ensure premium accuracy, reliability and ease of use under all operating conditions and for maximum operator safety.

All PRIMA models can be equipped with a full range of stationary probe holding heads, manual and motorized index heads, plus DEA exclusive multi-axis continuous servo wrist CW43L.

All heads accept the traditional versatile touch trigger probes as well as analog scanning probes and non-contact measuring heads. Optional accessories include dedicated manual scribing tools and power heads for model milling.

Thanks to the flexibility of their unique design, the CMMs of the PRIMA line can be supplied in either single or dual arm configuration, and can be combined to form a multi-arm system sliding on a common X axis guideway.



Distinctive Elements of the PRIMA Line:

- superior measuring accuracy
- standard linear temperature compensation on all models ensuring high measuring accuracy in a wider temperature range
- mechanical guideways on all axes thus eliminating the need for compressed air
- system operation in manual and motorized mode using the specific option including the manual motion knobs, the release and the stand-by brakes, independent for each axis.



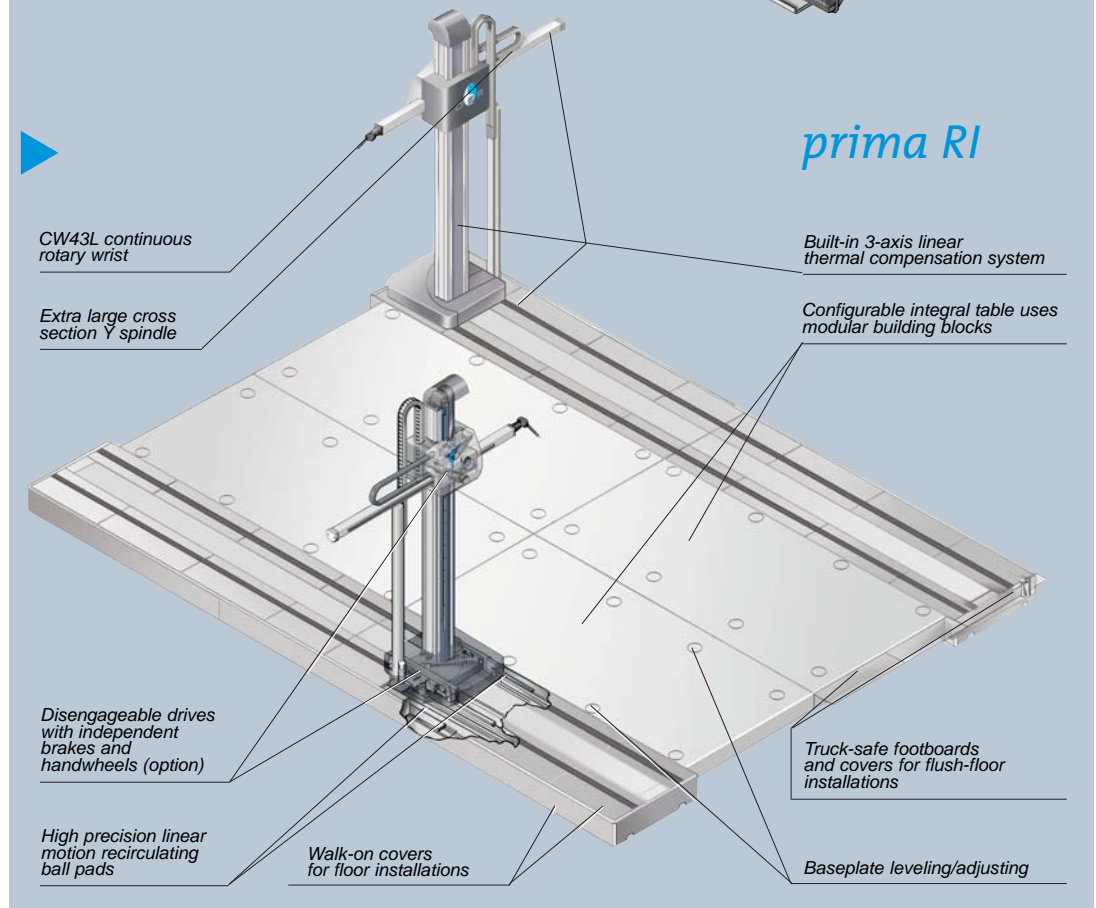
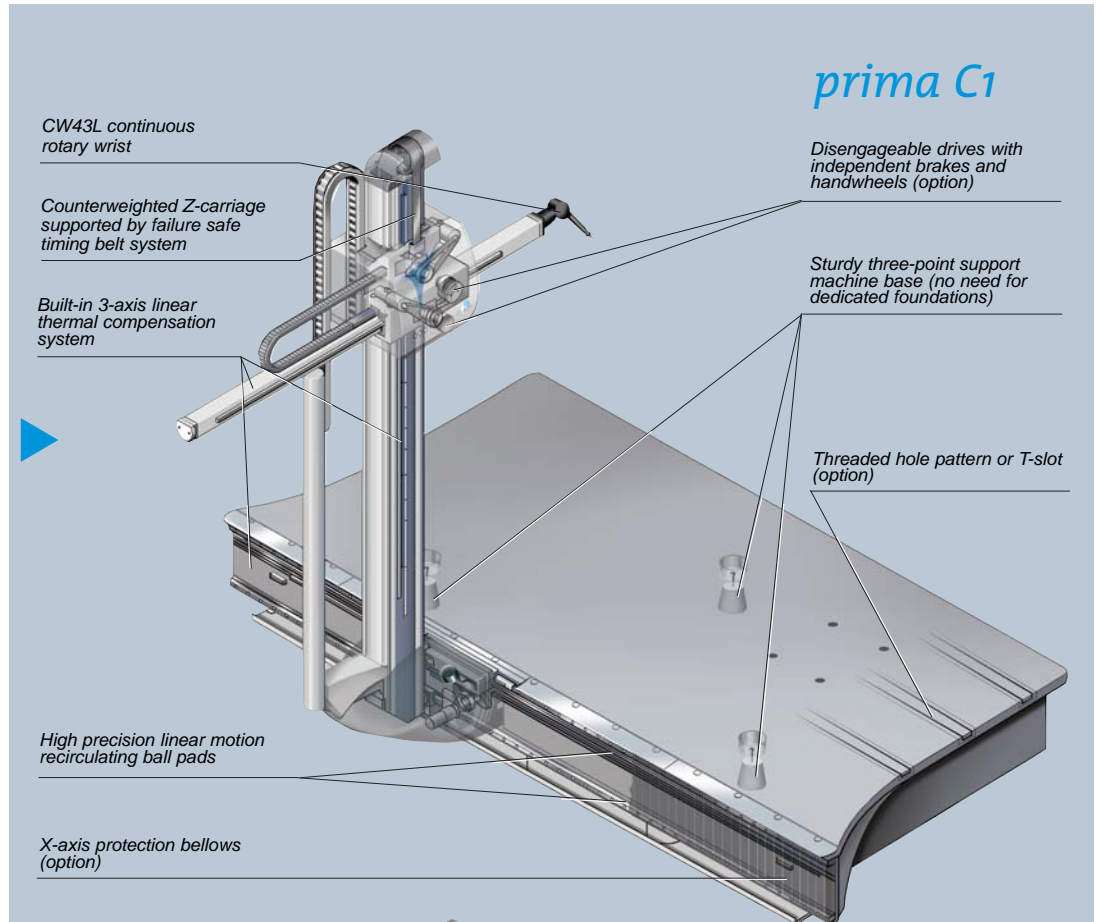
prima The CMM With No Limits

To better meet the most diverse measuring applications, the PRIMA line is available in three different architectures: PRIMA C1, PRIMA RI and PRIMA Rxt.

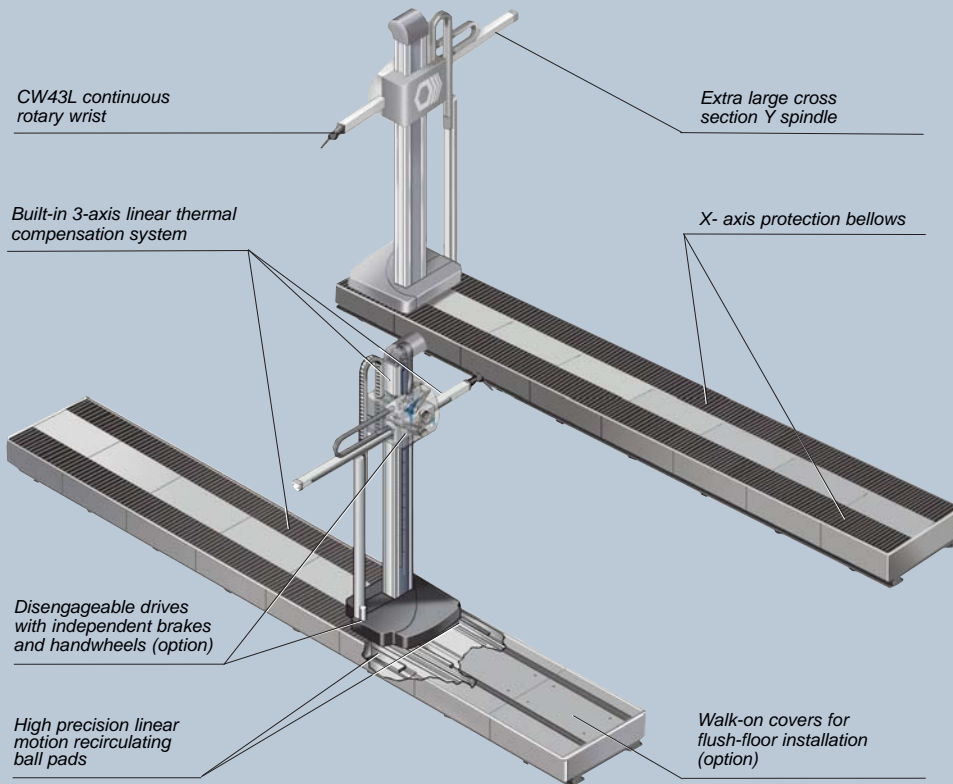
The **PRIMA C1** series features the guideway of the mobile carriage located on the side of the machine base ("Console" architecture) and represents the state of the art for the dimensional inspection of mid-size parts in industrial environment.

The exclusive three-point support of the machine base eliminates the need for costly dedicated foundations and makes the installation on vibration dampers easier.

The **PRIMA RI** features the integration of the guideway of the mobile carriage in the modular machine sturdy base structure ("Runway Integral" architecture). PRIMA RI has been designed to combine the advantages of the traditional "Console" type configuration generally not requiring dedicated foundations, with the full part accessibility typical of the "Runway" structure.

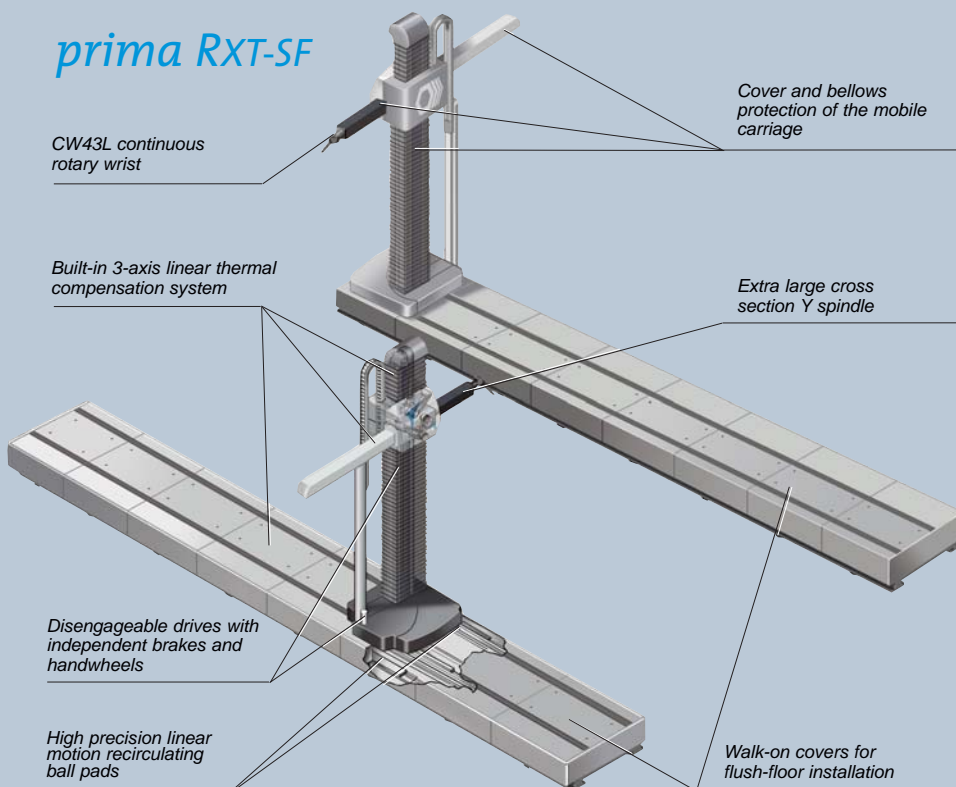


prima RXT



The **PRIMA RXT** series features the guideway of the mobile carriage on the main beam directly fixed to the floor ("Runway" architecture). Thanks to its structure, PRIMA RXT offers the advantage of an unobstructed workpiece accessibility. The "Runway" configuration does not include the part holding machine plate, that can be supplied separately.

prima RXT-SF



For applications in the harsher environment conditions, PRIMA RXT can be supplied in shop floor configuration (RXT-SF). The **PRIMA RXT-SF** is equipped with a complete protection of the mobile carriage and it can be used in a still wider temperature range.

Big Benefits for All Shops

The machines of the PRIMA series have been expressly conceived to be easily configured to suit specific customer needs. The advanced modularity and the extreme sturdiness of the machines permit to configure the PRIMA systems to efficiently approach a number of dimensional metrology applications, such as:

Flexible Gaging for Manufacturing Support

- Dimensional inspection of thin walled components: car bodies and frames, chassis, car panels, doors, glass panels, dashboards, etc.
- Dimensional inspection of mechanical parts: engine blocks, gearboxes, castings, automotive and aerospace components.

Reverse Engineering and Verification

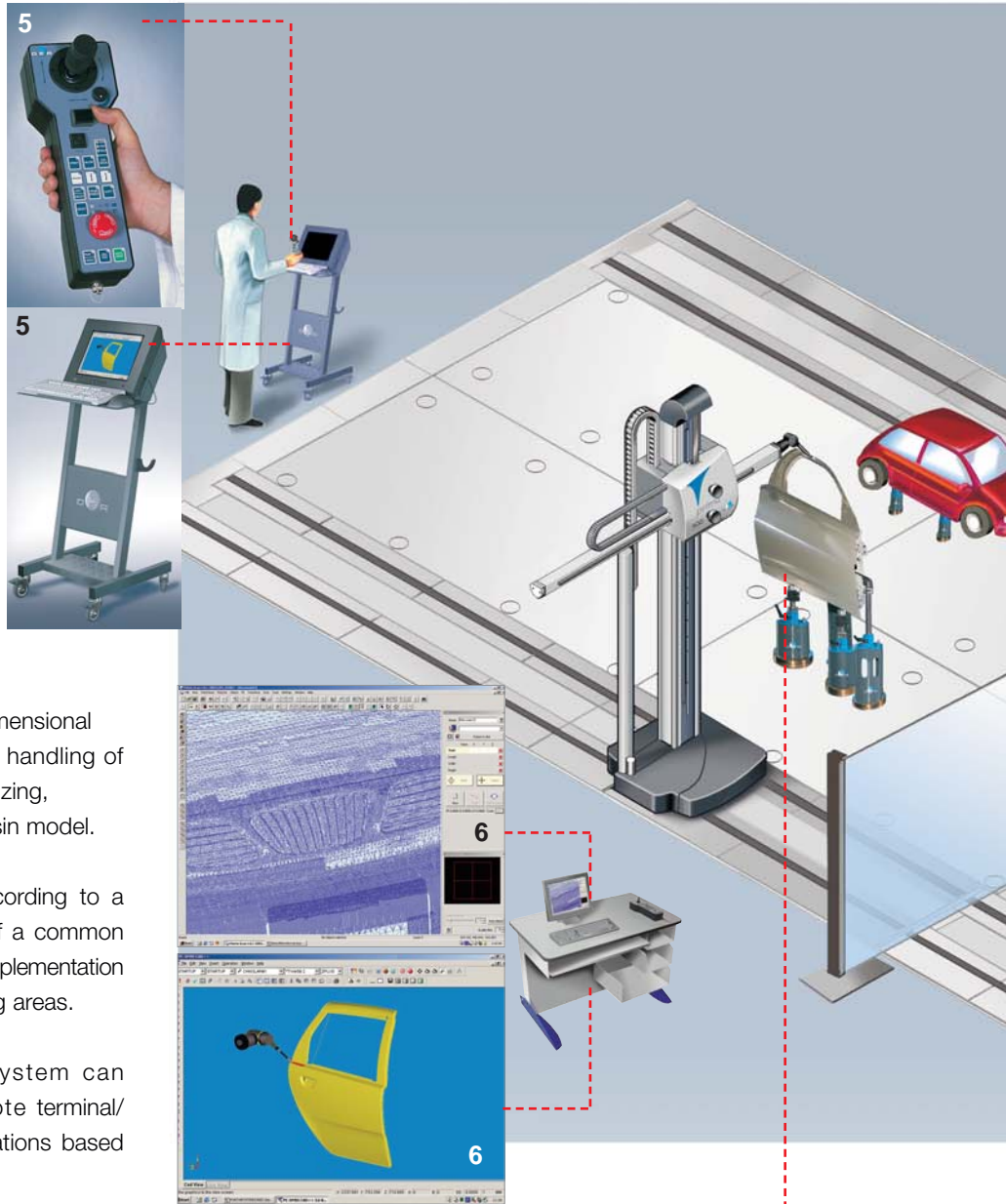
- Dimensional verification of dies and models
- Rapid automatic digitizing of complex shapes for the production of dies and molds and the generation of machining tool paths.

Styling/Research Center Application

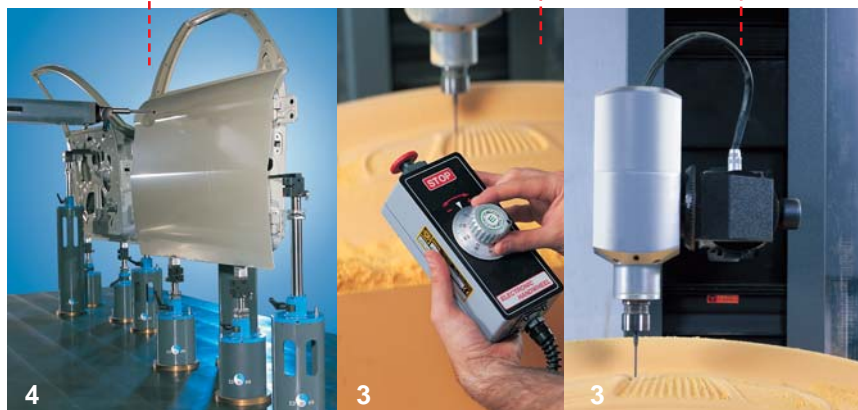
- Multi-purpose systems for conventional dimensional metrology tasks as well as the automatic handling of such activities as reverse engineering, digitizing, drilling and milling operations on clay or resin model.

PRIMA RI systems can be configured according to a multi-cell approach, in which the sharing of a common baseplate and X guideway, allows the easy implementation of different multi-role or task-specific working areas.

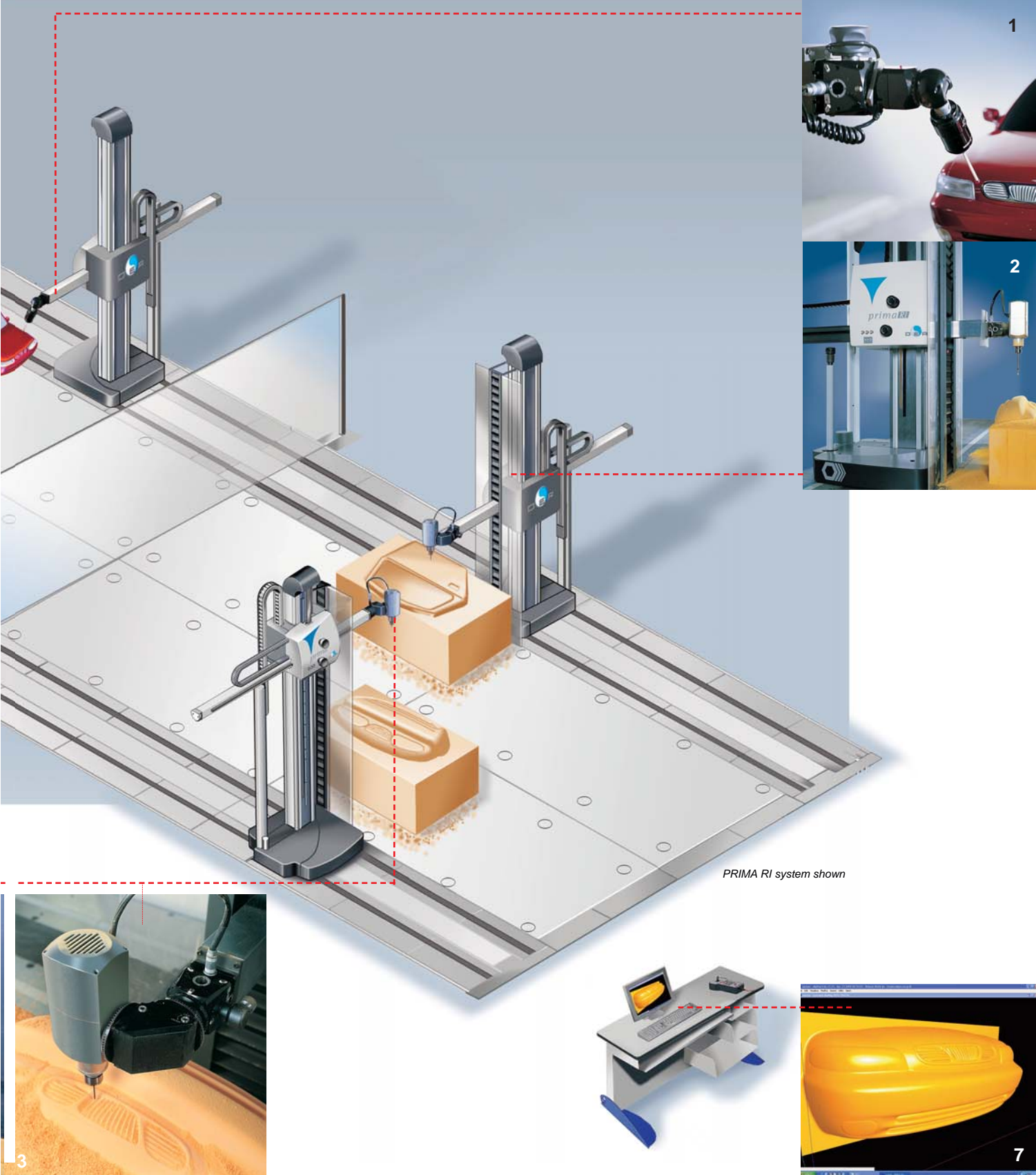
The application flexibility of the metrology system can be further enhanced by adopting remote terminal/ keyboard and/or control handbox configurations based on certified wireless technology.



- 1- Digitizing
- 2- Screen shield to protect machine carriage
- 3- Power milling head, indexable tool holder and control unit
- 4- Inspection and fixturing of final part
- 5- Wireless joystick and remote terminal on mobile trolley
- 6- Measurement and reverse engineering
- 7- Milling path generation



A Multi-Arm, Multi-Role Cell of New Design

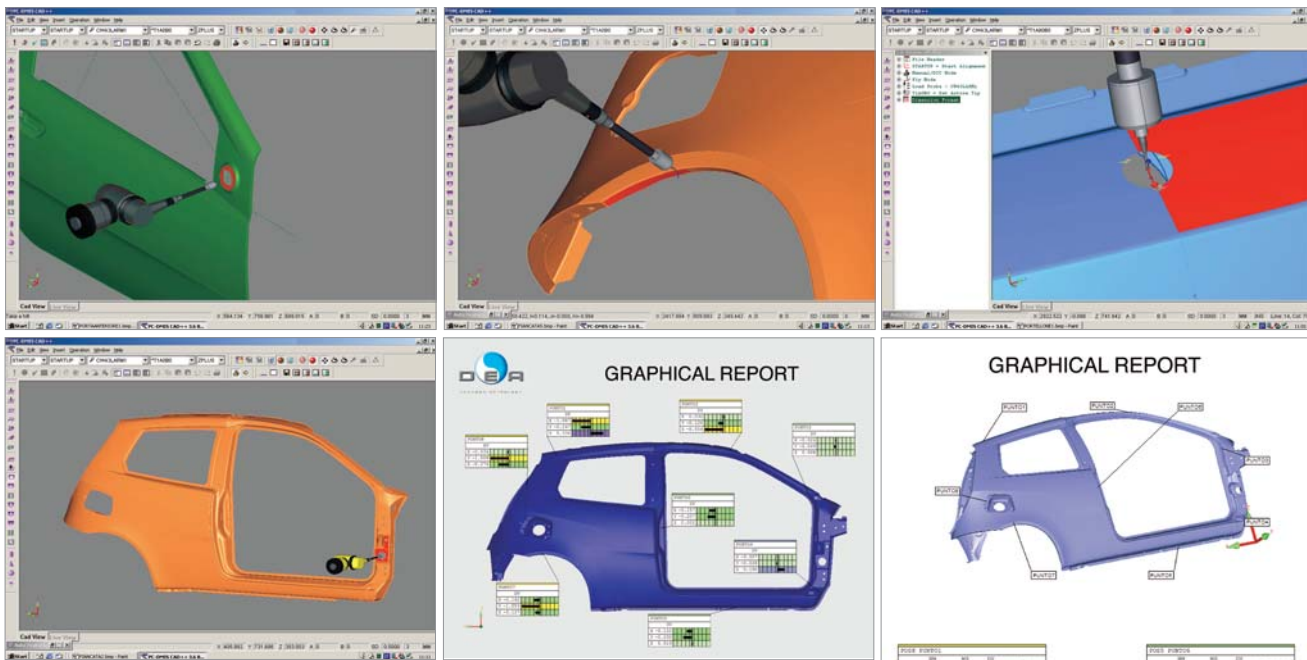


pcdmis The Intelligent Software for All CMMs

PRIMA is equipped with PC-DMIS, the industrial grade measuring software that provides a multi-tasking multi-user environment to inspection operations.

Main Features

- User-friendly windows operating system
- Customizable 3D graphics-based operator interface
- Direct CAD Interface (DCI)
- IN/OUT DMIS
- Direct part measurement using original CAD data
- Direct measurement without the help of a CAD model, with automatic recognition of part shapes and features
- Management of non-contact measuring probes
- DCC program-driven measurement
- Reverse engineering functionality
- Management of continuous scanning probes
- Off-line part programming supported by original CAD design data and graphical simulations
- On-line part programming (Self-Teach)
- Advanced tools for program proofing, fine tuning, and debugging
- Flexible graphical and analytical reporting
- Advanced SPC and process monitoring options
- Management of multi-arm measuring systems
- Management of FIVE and FIVE U-nique flexible fixturing system options

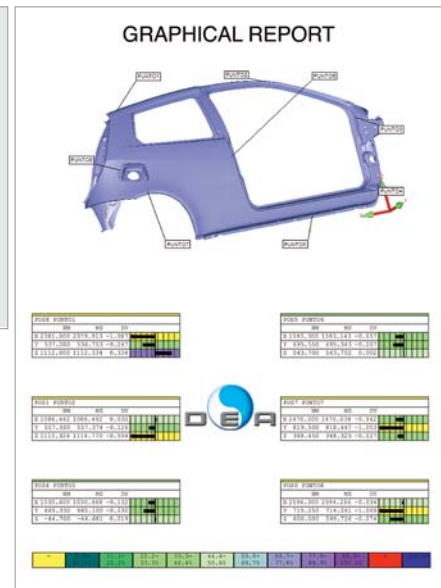


Power Sheet Metal Routines Optimize System Performance

PC-DMIS includes powerful point-and-click sheet metal measuring routines for the automatic inspection of thin-walled components, and the presentation of results for intuitive interpretation. The sheet metal routines are efficient software tools that simplify and speed up part programming. They only need the operator to enter data.

The system automatically generates the part program containing the necessary positioning and probing instructions.

At run time, automatic and self-adaptive search routines overcome element mispositioning. If the element is not present, automatic skip cycles allow the machine to continue the part program.



Accessories to Enhance CMM Flexibility


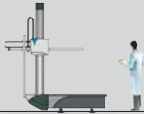

- The reliable multi-axis servo wrist CW43L allows quickly reaching any probing attitude in space. Full accessibility to all part features is ensured by the availability of up to 570 mm long probe extensions and by the compatibility with non-contact probing techniques.

In addition to the CW43L wrist, PRIMA is also compatible and configurable with a broad range of point-to-point probes, analog scanning heads, non-contact sensors for surface reconstruction and inspection.

- Manual scribing tools, and a comprehensive light milling system which includes a manually indexable tool holder head and a power milling head. A screen shield to protect the machine carriage is optionally available with the milling kit.
- FIVE U-Nique, DEA fully programmable flexible fixturing option allows accurate fixtures to be rapidly built for an unlimited number of part configurations to provide support and reference to the workpiece.






- 1- Extra-long carbon fiber extensions
- 2- Non-contact probe for features inspection
- 3- Manual scribing kit
- 4- Light milling system
- 5- Tactile digitizing sensor
- 6- CW43L continuous servo wrist
- 7- Disengageable drives

	Series	STROKES						OVERALL SIZES						WEIGHT	
		X		Y		Z		Length		Width		Height			
		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	kg	lbs
	C1 20.12.16	2000	78,7	1200	47,2	1600	63,0	2750	108,3	3240	127,6	2830	111,4	3600	7920
	C1 20.14.16	2000	78,7	1400	55,1	1600	63,0	2750	108,3	3440	135,4	2830	111,4	3600	7920
	C1 30.14.16	3000	118,1	1400	55,1	1600	63,0	3750	147,6	3440	135,4	2830	111,4	4800	10560
	C1 30.16.21	3000	118,1	1600	63,0	2100	82,7	3750	147,6	3840	151,2	3330	131,1	5200	11440
	C1 40.16.21	4000	157,5	1600	63,0	2100	82,7	4750	187,0	3840	151,2	3330	131,1	6600	14520
	RI 60.16.21	6000	236,2	1600	63,0	2100	82,7	7034	276,9	3850	151,6	3250	128,0	9000	19800
	RI 60.16.25	6000	236,2	1600	63,0	2500	98,4	7034	276,9	3850	151,6	3650	143,7	9000	19800
	RI 60.16.30	6000	236,2	1600	63,0	3000	118,1	7034	276,9	3850	151,6	4150	163,4	9000	19800

- Prima RI standard X axis measuring strokes mm: 3600, 5000, 6000, 7000, 8000, 10375, 12375. Longer X strokes available on request.

- All RI models are available in both single and double arm configuration.

- Displayed strokes, dimensions and weights are related to the single arm configuration

	Series	STROKES						OVERALL SIZES						WEIGHT	
		X		Y		Z		Length		Width		Height			
		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	kg	lbs
	RXT 60.16.21	6000	236,2	1600	63,0	2100	82,7	7400	291,3	3831	150,8	3465	136,4	3500	7700
	RXT 60.16.25	6000	236,2	1600	63,0	2500	98,4	7400	291,3	3831	150,8	3865	152,2	3550	7810
	RXT 60.16.30	6000	236,2	1600	63,0	3000	118,1	7400	291,3	3831	150,8	4365	171,9	3600	7920
	RXT 60.20.25	6000	236,2	2000	78,7	2500	98,4	7400	291,3	4631	182,3	3865	152,2	3550	7810
	RXT 60.20.30	6000	236,2	2000	78,7	3000	118,1	7400	291,3	4631	182,3	4365	171,9	3600	7920
	RXT-SF 60.15.21	6000	236,2	1500	59,1	2100	82,7	7000	275,6	3892	153,2	3676	144,7	3550	7810
	RXT-SF 60.15.25	6000	236,2	1500	59,1	2500	98,4	7000	275,6	3892	153,2	4076	160,5	3600	7920
	RXT-SF 60.15.28	6000	236,2	1500	59,1	2800	110,2	7000	275,6	3892	153,2	4376	172,3	3650	8030
	RXT-SF 60.18.25	6000	236,2	1850	72,8	2500	98,4	7000	275,6	4642	182,8	4076	160,5	3600	7920
	RXT-SF 60.18.28	6000	236,2	1850	72,8	2800	110,2	7000	275,6	4642	182,8	4376	172,3	3650	8030

- Prima RXT and RXT-SF standard X axis measuring strokes mm: 4000, 5000, 6000, 7000, 12000. Longer X strokes available on request.

- All models are available in both single and double arm configuration.

- Displayed strokes, dimensions and weights are related to the single arm configuration



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All specifications listed in this brochure are subject to change without notice.