

FEATURES

- Can support up to six probes for TOFD, phased array, or pulse-echo inspections
- Constant scanning speed control for smooth data acquisition at any speeds
- Compact motion controller allowing 10 different scan speeds from 5 mm/s to 50 mm/s
- Simple two-button remote control for jog or constant encoded motion either in backwards or forward direction
- Data acquisition using OmniScan or TomoScan FOCUS LT instrumentation with less than 5 minutes configuration time
- The four industrial-strength magnetic wheels are driven for use on ferromagnetic surface
- Integrated water manifold for simple and efficient couplant delivery
- Emergency-stop button located on the scanner
- Laser guide indicator helps the operator to follow the weld centerline or any other inspection reference
- Room to integrate a remote pulser/preamplifier for improved TOFD-P/E inspections
- Divisible cable conduit umbilical offers cable protection and configuration flexibility. Minimal time needed for probe reconfiguration.
- Waterproof (IP65)

Fully Automated UT Weld Inspection

The WeldROVER™ is a perfect addition to the Olympus family of scanners for customers that require a more stable inspection than is provided by manual scanners, and in a more economical package than the high-production zone-discrimination systems typically used in offshore pipeline construction.

The WeldROVER is a simple, industrial-strength, one-axis encoded scanner that provides the customer with a fully mechanized automated data acquisition. It is designed to make fast and efficient phased array inspections on ferromagnetic piping or vessel girth welds and long seams with minimum training and setup time. The scanner can be configured with up to six probes for phased array, TOFD, and conventional UT inspection.

The WeldROVER could not be easier to use. It is operated by a simple two-button remote control with variable speeds. The scanner interfaces with the OmniScan® MX or TomoScan FOCUS LT¹ directly without the need for complex software, motion controller electronics, or configuration. Use of the laser-guide indicator helps the operator to manually adjust the scanner direction using the steering lever. This allows acquiring precision data without the need for guide bands, complex tracking systems, or motorized steering capability. It is the perfect fit for the company offering fully mechanized, automated phased array (AUT) inspection services. Less than one hour of training is required for any customer that has completed the basic OmniScan® course.

CONFIGURATIONS

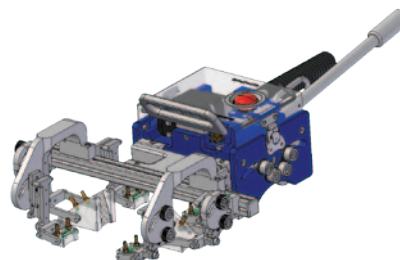
A typical configuration is two PA probes and one or two pairs of TOFD probes to comply with the ASME codes.

Circumferential scan:

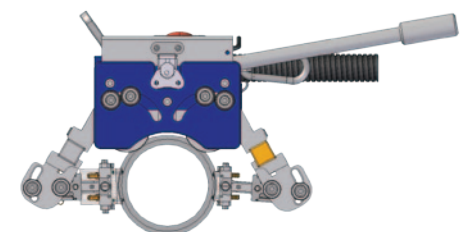
- Supports two probes at the back and two at the front of the scanner on pipes from 4 in. OD and up
- Supports up to four probes at the front of the scanner on pipes from 12 in. OD and up
- Supports up to six probes at the front of the scanner on pipes from 16 in. OD and up

Longitudinal scan:

- Supports up to six probes at the front of the scanner on pipes from 30 in. OD and up



Supports up to 6 probes at the front of the scanner on pipes from 16 in. OD and up for circumferential scans and from 30 in. OD and up for longitudinal scans.



Supports two probes at the back and two probes at the front of the scanner on pipes from 4 in. OD and up.

¹ Interface with TomoScan FOCUS LT™ can be made using the optional encoder cable adaptor

Options

- Electrical water pump (P/N: CFU03)
- Manual water pump (P/N: WTR-SPRAYER-8L)
- TomoScan Focus LT encoder cable adaptor (P/N: C1-DE15F-BXM-0.30M)
- Extra 5 m divisible cable conduit (P/N: OPTX0719)
- Extra spring-loaded probe holder (P/N: WELDROVER-A-SLA)
- Extra laser guide (P/N: WELDROVER-A-LASER)
- Modular instrument and accessories hard-carrying case. The modules can be used to transform the scanner case into a workstation. (P/N: WELDROVER-A-ICASE)
- Spare parts kit (P/N: WELDROVER-A-SPKIT)

FOR TOFD INSPECTION:

- TRPP-5810 2-channel pulser/preamplifier (P/N: TRPP-5810)
- 5682 1-channel preamplifier (P/N: 5682)
- TOFD probes and wedges (see ordering information table)
- Extra TOFD/PE 31.75 mm yokes (P/N: ADIX689)
- UT probe cables
 - 5 m UT RG174 coaxial cable with LEMO-00 to LEMO-00 connectors (P/N: C174-LM-LM-5M)
 - 5 m UT RG174 coaxial cable with LEMO-00 to Microdot connectors (P/N: C174-LM-UDOT-5M)
 - 0.45 m UT RG174 coaxial cable with LEMO-00 to Microdot connectors (P/N: C174-LM-UDOT-0.45M)

FOR PHASED ARRAY INSPECTION:

- PA probes and wedges (see ordering information table)
- 0.5 m PA extension cable with four UT connections (P/N: E128P0-0202-OM)
- PA probe splitter (P/N: OMNI-A-ADP05)
- Extra PA 40 mm x 55 mm yoke (P/N: ADIX655)
- Extra PA 40 mm x 65 mm yoke for PWZ1 probes (P/N: ADIX1082)

Specifications

Scanner speed: 5 mm to 50 mm per second

Encoder resolution: 2100 steps/mm (typical)

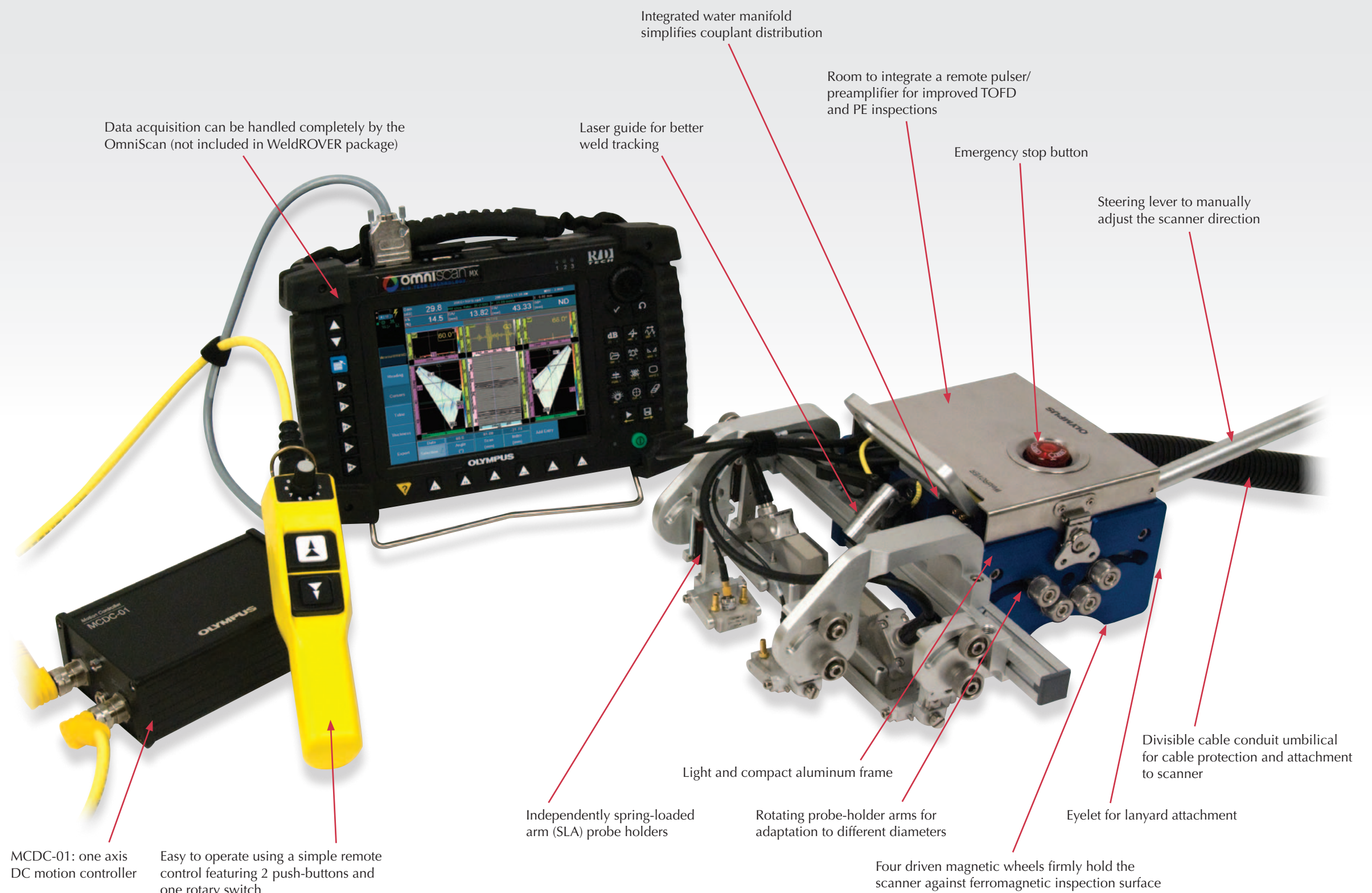
Power consumption: 90 W

Maximum input current: 4 A

Voltage: 24 VDC

Power supply input voltage: 100 VAC or 240 VAC, autoswitching

Component	Length (mm)	Width (mm)	Height (mm)	Weight (kg)
Scanner with long bar and 6 probes	430	340	175	12.0
Scanner with small bars and 4 probes	380	200	175	11.0
MCDC-01 motion controller	175	110	60	1.5
Power supply	200	85	50	1.0
Remote control	230	50	90	0.8



MCDC-01: one axis DC motion controller
Easy to operate using a simple remote control featuring 2 push-buttons and one rotary switch

Data acquisition can be handled completely by the OmniScan (not included in WeldROVER package)

Integrated water manifold simplifies couplant distribution

Laser guide for better weld tracking

Room to integrate a remote pulser/preamplifier for improved TOFD and PE inspections

Emergency stop button

Steering lever to manually adjust the scanner direction

Light and compact aluminum frame

Independently spring-loaded arm (SLA) probe holders

Rotating probe-holder arms for adaptation to different diameters

Four driven magnetic wheels firmly hold the scanner against ferromagnetic inspection surface

Divisible cable conduit umbilical for cable protection and attachment to scanner

Eyelet for lanyard attachment

Standard inclusions

- Motorized scanner with rotating probe-holder arms at the front and back of the scanner
- 2 frame bars of 200 mm (8 in.) and one of 377 mm (14,8 in.) for probe-holder fixation
- Remote control with 5 m cable
- MCDC-01: one-axis DC motion controller
- Encoder cables linking MCDC-01 to the OmniScan®
- 6 spring-loaded arms (SLA) pivoting probe holders and all brackets needed for the different configurations
- 4 TOFD-P/E 31.75 mm yokes
- 2 PA 40 mm x 55 mm yokes
- 2 PA 40 mm x 65 mm yokes for PWZ1 and A14 probes
- 2 PA 40 mm x 46 mm yokes
- Irrigation tubing and fittings
- Laser guide and holder
- Two steering levers
- 5 m divisible conduit for cable protection and attachment to the scanner.
- Power supply
- Scanner and accessories hard carrying case

Note: All cables for scanner operation are 5 m. Probes and wedges are not included with the scanner.

Probe and Wedge Ordering Information

PHASED ARRAY PROBES

Part number	Frequency (MHz)	Number of elements	Pitch (mm)	Elevation (mm)	Corresponding wedge	Cable length (m)	Connector type
5L16-A10-P5-OM	5,0	16	0,6	10	SA10	5	OmniScan
10L32-A10-P5-OM	10,0	32	0,3	7	SA10	5	OmniScan
5L32-A11-P5-OM	5,0	32	0,6	10	SA11	5	OmniScan
5L64-A12-P5-OM	5,0	64	0,6	10	SA12	5	OmniScan
5L60-A14-P5-OM	5,0	60	1,0	10	SA14	5	OmniScan
7.5L60-A14-P5-OM	7,5	60	1,0	10	SA14	5	OmniScan
5L60-PWZ1-P5-OM	5,0	60	1,0	10	SPWZ1	5	OmniScan
7.5L60-PWZ1-P5-OM	7,5	60	1,0	10	SPWZ1	5	OmniScan

PHASED ARRAY WEDGES

Part number	Type of beam	Refracted angle (°)	Wave type	Wedge option group	Probe type
SA10-N55S-IHC	Normal	55	Shear	IHC	A10
SA11-N55S-IHC	Normal	55	Shear	IHC	A11
SA12-N55S-IHC	Normal	55	Shear	IHC	A12
SA14-N55S-IHC	Normal	55	Shear	IHC	A14
SPWZ1-N55S-IHC	Normal	55	Shear	IHC	PWZ1

TOFD PROBES

Part number	Frequency (MHz)	Element diameter (mm)	Corresponding wedge	Connector type
C540-SM	2,25	12,5	ST2	Microdot
C542-SM	2,25	6,0	ST1	Microdot
C543-SM	5,0	6,0	ST1	Microdot
C563-SM	10,0	3,0	ST1	Microdot
C544-SM	10,0	6,0	ST1	Microdot
C566-SM	2,25	9,5	ST2	Microdot
C567-SM	5,0	3,0	ST1	Microdot
C568-SM	5,0	9,5	ST2	Microdot

TOFD WEDGES

Part number	Refracted angle (°)	Wedge option group
ST1-45L-IHC	45	IHC
ST1-60L-IHC	60	IHC
ST1-70L-IHC	70	IHC
ST2-45L-IHC	45	IHC
ST2-60L-IHC	60	IHC
ST2-70L-IHC	70	IHC

Pulse-echo conventional UT probes are also compatible with the WeldROVER scanner.



New removable IHC ring for SA10, SA11, and SA12 wedges offers great flexibility.

OLYMPUS NDT INC. is ISO 9001 certified.

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