

MADE
IN
GERMANY

viZaar®
industrial imaging AG



REVOLVING DUAL PANORAMA SCAN CAMERA

REVOLVER 80

REMOTE VISUAL INSPECTIONS OF PIPE AND TUBE WALL
AND ORBITAL WELDING



FAST INSPECTION RESULTS

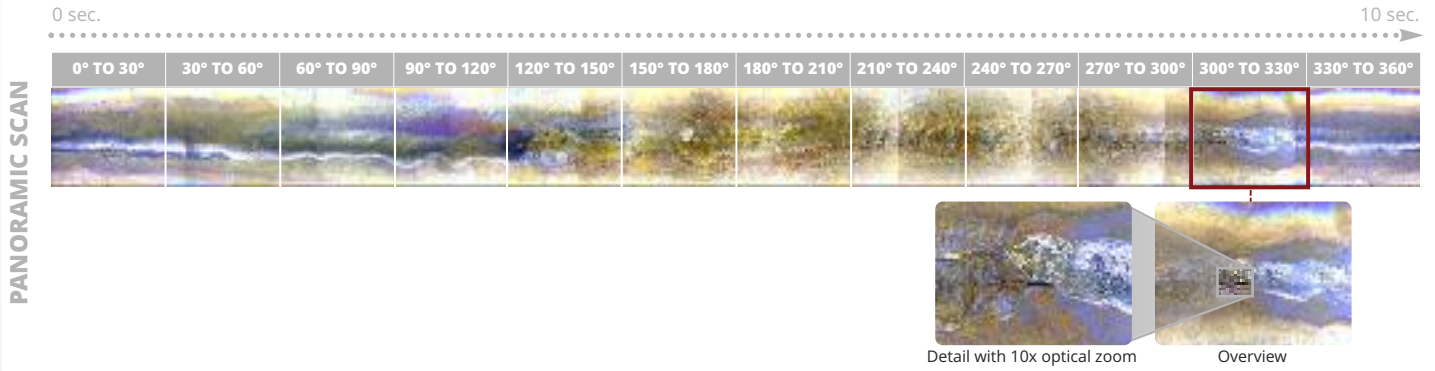
Benefit from information of 360° panorama panning shots with endless rotation.

EXCELLENT REPRODUCIBLE IMAGING

Search and focus always from the tube centre. Survey quickly your whole orbital weld with a wide angle view. Find and secure relevant deviations. Get maximum details even from a greater distance with the 10x optical zoom function.

REDUCE INSPECTION TIME & COSTS

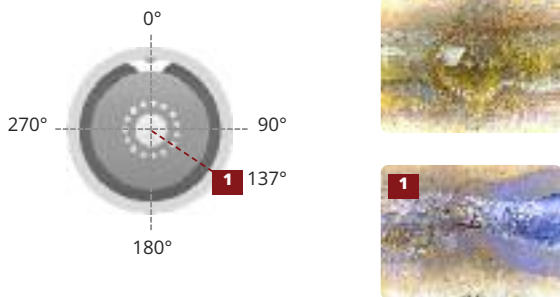
Using the forward viewing camera, the inspection target is easy to locate and reach. The centring device with a connected push rod is keeping the camera in the center of the tube. Focus at any time during a panoramic scan. Precise camera control with the motorised scan and stop functionality. Save search and inspection time, reduce equipment maintenance costs while improving inspection results.



FAST OVERVIEW WITH PANORAMIC SCAN OF ENDLESS 360° ROTATION

- Controlled by the joystick or following a predefined software scan mode, the side view camera is revolving 360° endlessly, ensuring 100% orbital weld or tube wall panorama inspections.
- No detail is missed. On the tip of your finger you zoom onto the smallest detail from the remotest areas with the impressive 10x optical and additional electronically zoom.
- A high resolution forward view camera is offering excellent sight and orientation within your application.
- The powerful dual illumination technology is delivering homogenous automatic or manual illumination, even in big dark cavities. A user defined left/right level functionality maximizes the potential failure contrast also on shiny and reflective surfaces such as coated or electro polished food grade tubes.

POSITION SAVE & AUTO RETURN



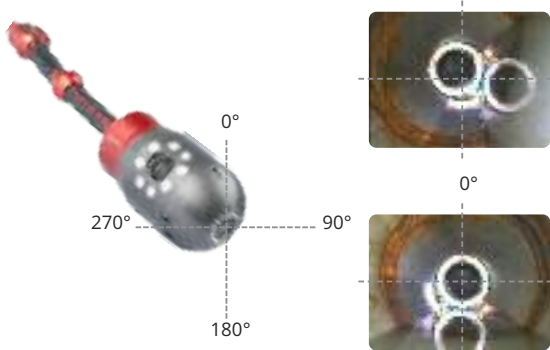
POSITION SAVE SCAN & AUTO RETURN

- Specific camera positions can be saved and recalled. If used, the camera automatically returns precisely to positions of interest. The auto Run & Scan function is ensuring the systematic outright containment wall inspection. Camera positions can be displayed and recorded.

AUTO LEVELING FUNCTION

- Orientation and image interpretation are easy now. Orientation during remote visual inspection after a view twists and turns is difficult. If there is no specific geometry or water level, up/down left or right orientation will be lost. Manoeuvring the instrument, interpretation of the image and securing full inspection can become a nightmare. The Revolver 80 auto level function solves these problems by keeping your camera in an upright 0° position. This resets the orientation and ensures a precise inspection starting point. Equipment handling and image interpretation are easy. Reduced inspection time leads to lesser user and equipment fatigue and hence to lower costs. Longitudinal weld seam inspections are seamless.

AUTO LEVELING



THE MATRIX INSPECTION & DOCUMENTATION PLATFORM

Simply connect the camera head cable to the MATRIX SNK/Revolver 80 docking bay interface. The MATRIX software will automatically recognize your Revolver 80 and offer a fantastic portfolio of features and capabilities setting new standards in the industry. The camera image is shown in unique quality and high resolution. System operation is controlled by the integrated joystick and easy touch screen interface. The image and video documentation quality of the MATRIX system will elevate your work to the highest standard.

The MATRIX platform is offering many additional useful capabilities and time advantages while just using one remote visual inspection solution.










MATRIX RVI AND DOCUMENTATION PLATFORM



REVOLVER 80

CAMERA HEAD	
Dimensions in mm (inch)	(W) 409 (16.10) x Ø 79 (3.11)
Weight in kg (lbs)	1.2 kg (2.6)
Material	Anodized aluminium
Resolution	Side view camera: 530 lines Front view camera: (H) 752 x (V) 582 pixel, light sensitive, FOV: 70° Camera moduls toggle
Zoom	Side view camera: 10x optical / 12x digital zoom (FOV range: 4.6° to 46°)
Iris & Shutter	Manual and automatic
Illumination	2 x 4 ultra-bright LED illumination for side module (manual / auto) 15 x ultra-bright LED illumination for front module (auto)
Panoramic Scan	Endless 360° rotation Digital control Rotation speed: 0.1° to 90° / sec. Self-levelling automatic keeps the camera head in upright position (positioning dependent to earth-gravitation)
Working length in m (ft.)	3 m (9.8) to 50 m (164), optional up to 200 m (640)

OPERATING ENVIRONMENT	
Temperature	-10°C (15°F) to 50°C (120°F), recommended range
Watertight	Up to 1.5 m (5 ft.) depth of water

OPTIONAL ACCESSORY																																					
Camera head transport case	The robust, mobile storage and transportation case fitting one Revolver 80 and one SNK camera head. Dimensions in mm (inch): (W) 415 (16.34) x (H) 465 (18.31) x (D) 190 (7.48) Weight in kg (lbs): 3.25 (7.16).																																				
MATRIX E3 power pack with battery interface	MATRIX E3 power pack with battery interface. Work independently from the mains for up to 5 h in battery mode.																																				
Accessory soft pouch	The soft pouch has defined interior to hold loose camera cable up to 50 m (164 ft.). There is space for accessories such as centering device and tools needed. The practical shoulder strap makes transportation easy. Accessory soft pouch including: Standard main cable soft bag (up to 50 m / 164 ft.).																																				
Slip ring cable reel	The practical reel is to be used if the camera cable length exceeds 50 m. Just unwind as much cable as needed while operating. The cable on the reel helps cable handling and the workspace clear of tripping hazards. The drum integrated electronics amplify and drive the camera and power up to 200 m (640 ft.) cable length.																																				
Centering ring small (included in scope of delivery)	The material (POM) and shape of the centering ring are creating minimal friction when pushing the camera inside a pipe. The camera head is held in central position allowing fast orbital inspection without resetting image and focus settings. The recommended min. pipe dimensions are 100 mm (3.94") to max. 200 mm (7.87").																																				
Centering fixture medium	This centering tool is used inside medium size pipes. The adjustment range of the tool is 140 mm (5.51") to 210 mm (8.27"). It keeps the camera off the ground and eases inspection when centered. Six plastic wheels ensure low operation friction when pushing the system inside the pipe. Construction: aluminium. The recommended min. pipe dimensions are 145 mm (5.70"), to max. 400 mm (15.74").																																				
Centering fixture large	This tool is to be used with the Revolver 80 camera head inside big size pipes. Its adjustment range is 225 mm (8.86") to 540 mm (21.25"). It positions the revolving camera in the centre of the pipe. Six strong plastic wheels ease the operation and friction. The recommended min. pipe dimensions are 230 mm (9.05"), to max. 1.000 mm (39.37"). Construction: aluminium.																																				
Connectable push rods	These push rods are available in different length and flexibility. Standard length is 1.5 m (4.92 ft.). They connect with 10 mm fast connectors. Soft, medium and stiff flexibility grade rods help pushing the camera over greates working distances and around tight radiuses. Up to twenty-five rods fit in the practical quivers style soft bag.																																				
Glass fiber pushing aid	The fibre rod connects with the fast mount end to the camera head or alternatively to the centering trolley. The following sets of working length and stiffness are available.																																				
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All specifications are subject to change without notice due to technical progress.



Connect, control



Visualize



Edit, record, communicate



Archive

REVOLVER 80

XPANDING YOUR VU®



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