iTool *DVR*

100% Industrial Videoscope System

Zoom: 1.0x Flip: N Integr:Standard   11.9

New!

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Optimale Visualisation
The iTool DVR video recording and documentation unit is the basic unit of the iTool DVR system. It combines software, display and light source.

DVR Digital Video Recording
Record fully digital every single movement of a component in a brilliant video quality and with Zoom-Function. In addition users are now able to document the dripping from a leak, or the rotation of a fan...

HQ Image Capturing
By a push of the capture button, inspection images are stored on SD memory card (up to 32GB)

VGA Display
Remote Visual Inspection just made easy. High resolution, high contrast, and brightness. The 6.8" (17,5cm) display provides razor-sharp images, so that defects can be judged even more safe and easy.

On-Screen-Menu
Clear, intuitive and easy. Keep a constant overview of the current functions, settings and options. The clear structured user interface guides intuitively and accurately.

Functionality
By means of direct action keys and intuitive on-screen menu, even first time users are able to navigate quick and easy through the various settings and options.

Comparative Measurement

100.000 _

Camera Control
The iTool DVR has dynamic and manual camera profiles. The result is optimal balanced high-resolution images, perfectly adapted to the inspection environment.

2,25kg
Compact size, lightweight and nearly limitless modularity, are further outstanding features of the absolut versatile „100%-Multi-Purpose -Videoscope".

Integrated Lightsource
Bright, intense, homogeneous. The integrated 24W Metal Halide gas-discharge light source is one of the most powerful compact light sources. Compared to standard light sources this light source is many times brighter and illuminates the cavity particularly strong in the deep. By means of the variable aperture the user is able to regulate the light intensity for optimized illumination.

Secondary Power Supply
For inspection enviroments without mains supply the battery belt „powerBelt" supplies the system up to 2 hours with power.

Video & Audio Interfaces
By connecting to an external screen, the „participant view" enables colleagues for the joint assessment of the visual inspection. Spoken comments can be recorded and reproduced.

2,25kg

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CCD Videoprobe

The high-resolution CCD image sensor provides the basis for detailed, life like images with realistic colour reproduction. Focussable interchangeable objective lenses with different field of view (FOV), depth of focus (DOF) and aperture value allow individual adjustment to any inspection environment. Thus the iRis DVR 360° provides unsurpassed image quality and contrast.

SmartChange

The modularity of the iTool DVR Imaging Hub makes it a valuable inspection tool for the whole field of Remote Visual Inspection. Thanks to the interchangeable iSeries Video Probes, the system can be adapted within seconds to the particular inspection requirements. More than 20 combinations of different probe diameters and lengths allows to always use the best matching Endoscope for each application.

4-Way Articulation Control

Thanks to the tactile probe control, the distal end tip can easily, quickly and accurately be navigated to any position. The extremely flexible Articulation-Section is particularly advantageous in applications in which the endoscope has to be guided through tight radius. Shear strength, flexibility and protection against damage from sharp edges or crushing is ensured by the robust tungsten braid on PU coating.

Intelligent Illumination

Compared to other Videoscopes, the lightsource is not integrated in the distal end of the probe. It is absolutely non-destructively integrated in the housing of the iTool DVR. This intelligent design allows it to use a more powerful lightsource and achieves a much more intense and homogeneous illumination of the cavity by means of fiber optic light guides. In addition this technology concept saves repair costs in case of damage, eg. crushing of the distal end.
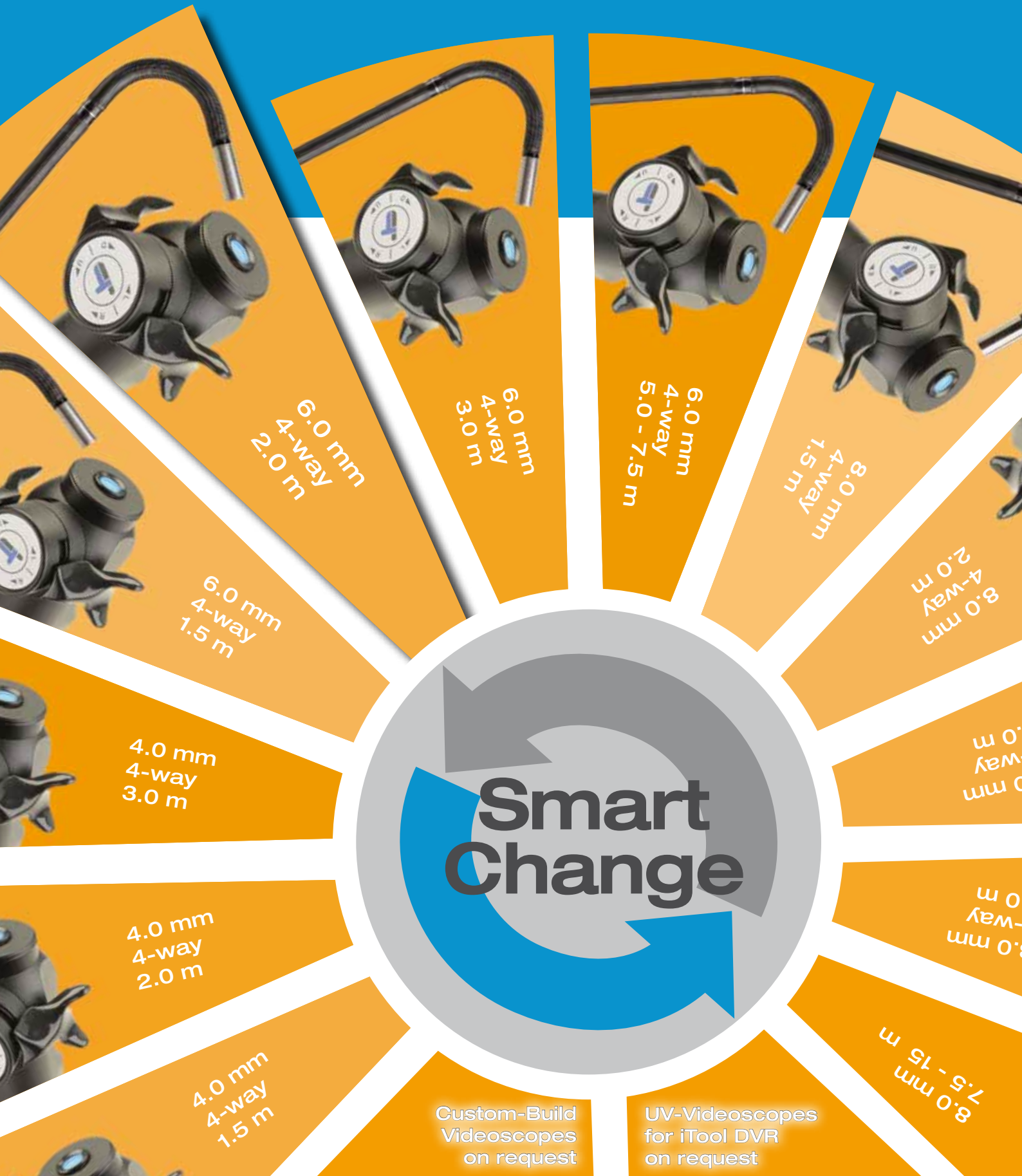
Economy

The SmartChange Technology does not only save time, but also increases productivity and economic efficiency. Compared to other videoscope systems on the market, the videoscope is not firmly attached to the image display unit. Due to the interchangeable videoscopes, there is no need to buy another complete system, even if you need different diameters or lengths for the inspections to be done.

Serviceability

Especially in case of service and repair, the SmartChange-Technology offers key advantages in comparison to fix videoscope systems. If for example you have sent your scope in for service, you may use the iTool DVR Video Imaging Hub for further inspections with an alternative iSeries Videoscope or Endoscope Camera with no downtime. Furthermore the robust mechanical control of the probe effectively reduces the need of repairs, repair costs and repair time compared to other articulation mechanisms.
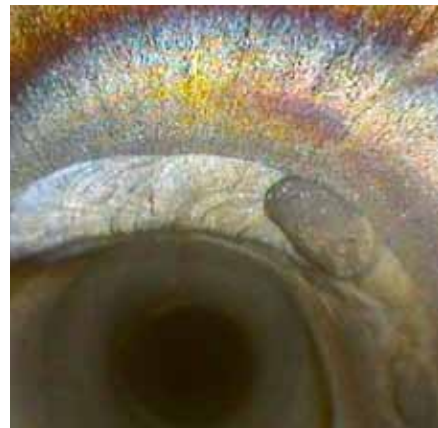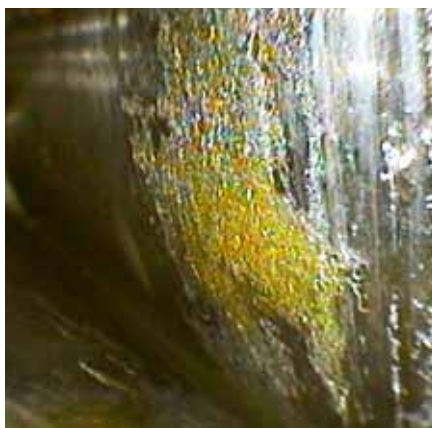
Smart Change

6.0 mm
4-way
2.0 m

6.0 mm
4-way
3.0 m

6.0 mm
4-way
5.0 - 7.5 m

8.0 mm
4-way
1.5 m

6.0 mm
4-way
1.5 m

8.0 mm
4-way
2.0 m

4.0 mm
4-way
3.0 m

4.0 mm
4-way
2.0 m

4.0 mm
4-way
1.5 m

8.0 mm
7.5 - 15 m

**Custom-Build
Videoscopes
on request**

**UV-Videoscopes
for iTool DVR
on request**

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![iT CONCEPTS — Inspection Technology Concepts]
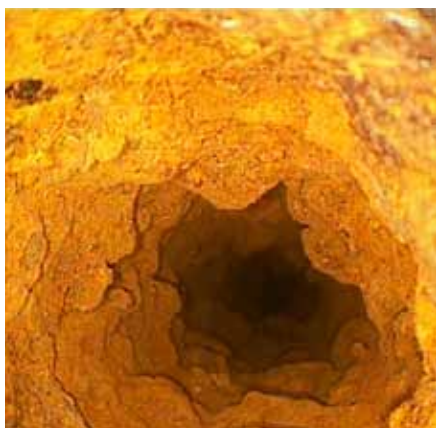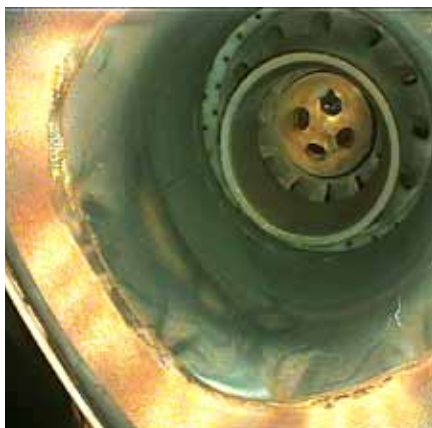
Delivery Set and Accessories

As varied as the applications of endoscopy, so extensive is the range of interchangeable objective lenses. Depending on the inspection environment a different field of view (FOV), direction of view (DOV), depth of field (DOF) and f-stop are required. The iTool DVR always has the right lens for sharp, clear images and videos.

Simplify inspections in your field of application and increase work efficiency. Optimize or expand the capabilities of the iTool DVR Industrial Videoscope with useful accessories.

4GB
Memory Card [1]

Memory Card Reader [1]
with USB Interface

System-Case [1]
(Carry-on-luggage)

ObjectiveLens-Box [2]

Lockable Holding
Device [4]

powerBelt
2h Operating time [4]

FOV 28°
Focussable int.
Objective Lens [3]

FOV 60°
Focussable int.
Objective Lens [3]

FOV 60°
Focussable int.
Objective Lens [3]

FOV 90°
Focussable int.
Objective Lens [3]

FOV 90°
Focussable int.
Objective Lens [3]

90° Side View Tip
Adapter [4]

Rigid
Shaft Extension [4]

Rigid
Scope Grip [4]

Flexible
Guide Tube [4]

Dentering Device
for Pipe Inspection [4]

Head-Set [4]
for Audio Comments

Harness [4]

[1] Standard-Delivery Set (SDS)
[2] 1m iTool DVR (SDS) 6,0mm + 8,0mm
[3] Free Choice of Objective Lens
[4] Optional Accessories

Objective Lens turned out = Close Focus

Objective Lens turned in = Far Focus

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Operating Unit

Display Size:	17cm (6.8") TFT VGA Farbdisplay
Display Resolution:	VGA (640x480 Pixel)
Operating System:	Realtime operating System, with On-Screen-Menu
User Interface:	Direct Action Keys, Function-Keys, Arrow-Keys
Languages:	Englisch, French, Spanish, Italian, German
Video interface:	Composite Video-out, Composite Video-in, S-Video-in
Audioanschluss:	3,5mm jack Audio-in / 3,5mm jack Audio-out
Power Supply, primary:	12V via AC-Adapter
Power Supply, secondary:	12V via Battery Belt

Mesurement

Method	Comparative Mesurement

Documentation

Video Format:	AVI (.avi)
Image Format:	BMP (.bmp)
Storage:	SD-HC-Memory Card up to 32GB (FAT32)

Camera Control

Image Sensor:	High-Resolution Color SUPER HADTM CCD
Camera Control / Exposure:	Integration modes: Automatic, Short, Long, Manuell
White Balance:	yes, factory default or user defined
AGC-Level:	yes, adjustable
Gamma:	yes, adjustable

Image Control

Zoom:	x3.5 (Digital)
Invert:	horizontal and vertical Image Inversion
Brightness, Contrast, Colour:	yes, adjustable
Text Annotation:	Built-in full screen text overlay generator

Illumination

Type:	24Watt Metal Halide gas discharge lamp
Illumination Control:	ja, stepless manual aperture
Colour Temperature:	ca. 6000k
Average Lamp Lifetime:	ca. 500h

Interchangable Videoprobes

Diameter:	4,0mm	6,0mm	8,0mm
Working Length:	1,5m - 3,0m	1,5m - 7,5m	1,5m - 15m
Articulation:	4-way	4-way	0-way, 2-way, 4-way
Articulation Angle* L/R | U/D:	100°/100° | 100°/100°	100°/100° | 160°/130°	100°/100° | 160°/130°
Integrated Objective Lens:	x	-	-
Interchangeable Objective Lens:	-	x	x
Side View Tip Adapter:	O (**only with 60° FOV)	x	x
Braid:	Tungsten Braid on PU-Jacket		

Construction

System Weight:	2,25kg (4,96lb) Operating Unit iTool / 9,2kg (20lb) inkl. Sonde & Koffer
Dimensions:	290mm x 190mm x 70mm
Housing:	rugged PU
Frame:	Alloy
Protection Class:	IP53

Operating Environment

Tip Operating Temperature:	+14°F to 176°F (-10°C to +80°C)
System Operating Temperature:	-13°F to 115°F (-25°C to +45°C)
Storage Temperature:	-13°F to 115°F (-25°C to +45°C)
Relative Humidity:	95% max. - non condensing
Waterproof:	Probe and distal end up to 14,7 psi (1 bar- 10,2 m H_2O)(not 6mmSVTA)
Hazardous Environments:	Not rated for use in hazardous environments

Interchangeable Objective Lenses & SVTA

PROBE	DOV	FOV	DOF	CODE	ART. NR.
4.0mm	0°	60°	7-50mm		-
4.0mm	0°	60°	4-10mm	CF	-
4.0mm	0°	90°	15mm-∞		-
4.0mm	0°	90°	10-30mm	CF	-
4.0mm**	90°	60°	5-45mm	SVTA	930-00100-0005
6.0mm	0°	60°	5mm-∞	BLACK	930-00100-0002
6,0mm	0°	60°	5mm-∞	GOLD-B	930-00200-0014
6.0mm	0°	90°	5mm-∞	RED	930-00200-0006
6.0mm**	90°	60°	5-15mm	SVTA-CF	930-00100-0002
6.0mm**	90°	60°	15-50mm	SVTA-FF	930-00100-0003
8.0mm	0°	28°	25mm-∞	BLUE	930-00200-0004
8.0mm	0°	60°	8mm-∞	GOLD-B	930-00200-0009
8.0mm	0°	60°	10mm-∞	BLACK	930-00200-0003
8.0mm	0°	90°	5mm-∞	SILVER-B	930-00200-0002
8.0mm	0°	90°	5mm-∞	RED	930-00200-0001
8.0mm**	90°	60°	5mm-∞	SVTA	930-00100-0001

DOV = Direction of View	CF = Close Focus
FOV = Field of View	FF = Far Focus
DOF = Depth of Focus	B = Bright objective lens
SVTA = 90° Side View Tip Adapter	** Compatible to FOV60 °

* Note: The articulation angle of the video probe may vary due to the length-diameter-combination. Custom build versions and special endoscopes on request.

IP53
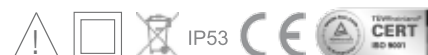
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