

EBEX® 422 GC

Metal detector for humanitarian
mine and battle area clearance

- Enhanced detection performance on minimum amounts of metal
- Reduced sensitivity to small metal fragments in BAC
- High productivity - minimised operation cost



Well proven

EBINGER detection equipment has proven its worth during many years of field use under adverse working conditions. Demining and bomb disposal technicians appreciate the extremely robust design and the good detection performance of the locators on minimum amount of metal mines or shallow buried UXO.

The secret of success of the 420 series is based on the constant exchange of information with experienced bomb disposal and munitions clearance personnel. Their advice was applied for the evolution of the technical tools. These have proven good performance and high equipment availability in the humanitarian clearance programmes in Asia, Africa and Middle America.



UXO locating in Laos

By evolution to the top of the range

The EBEX® 422 GC represents the top of the range version of the 420 series providing enhanced detection sensitivity and extended detection range. It offers a dynamic and a static operation mode to match different working conditions.

The innovative EBINGER PI – technology allows for an audible distinction of the object character and precise pin-pointing of targets. Objects such as an A/P 72a, M14 or SB33 and iron fragments or mortars will cause audio alarms of a different frequency (rising/dropping). This allows a high resolution of the targets even if buried at close distance to each other.

The new sensor shape causes a detection footprint of the search head which is similar to an electromagnetic curtain. This assists to avoid missing minimum amount of metal targets which may be buried at critical depth and with an offset to the search head centre. It also improves productivity as it reduces the usual overlap of the detector head scan zones previously necessary to meet IMAS.



UXO clearance with EBINGER locators in Laos

Versatility on Mines and UXO

When used with its standard halo search head of Ø 230 mm the locator is highly sensitive to minimum amounts of metal.

In contrary to before said the detector will suppress small metal scrap in preference to UXO when fitted with the larger UXO head (420 x 280 mm) and internally switched to the BAC mode. This improves productivity in BAC and cuts equipment procurement cost substantially as the same tool can be used for different purposes.

EBEX® 422 GC and its accessories provide a solution to several types of operation, it simplifies the training and cuts cost for logistics and equipment support substantially.



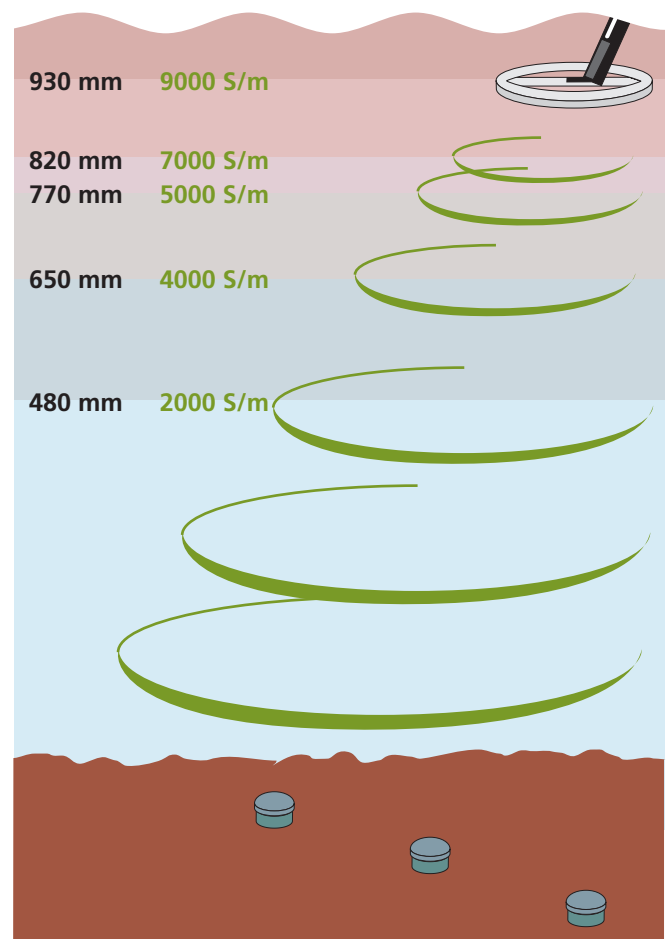
72 Alpha in angolan laterite

Reliable performance on most non-cooperative soil

Some of the equipment manufacturers reacted to the problem from so-called non-cooperative soil. They offer detectors with a ground compensation feature to eliminate or reduce the number of unwanted detection alarms caused by the magnetic or mineral content of the ground frequently found in tropic countries. This type of interference can be quite different by origin and by intensity. The excellent wide-band compensation technology of EBEX® 422 GC prevails its exceptional advantages on most adverse soils when soil decomposition, high magnetic susceptibility and a strong soil conductivity of < 8000 S/m combine.

Magnetic Ground Susceptibility in S/m = Ground Clearance*

* Ground clearance means the distance between the ground surface and the search head at which a good quality standard pulse induction detector gives a strong, unwanted reading



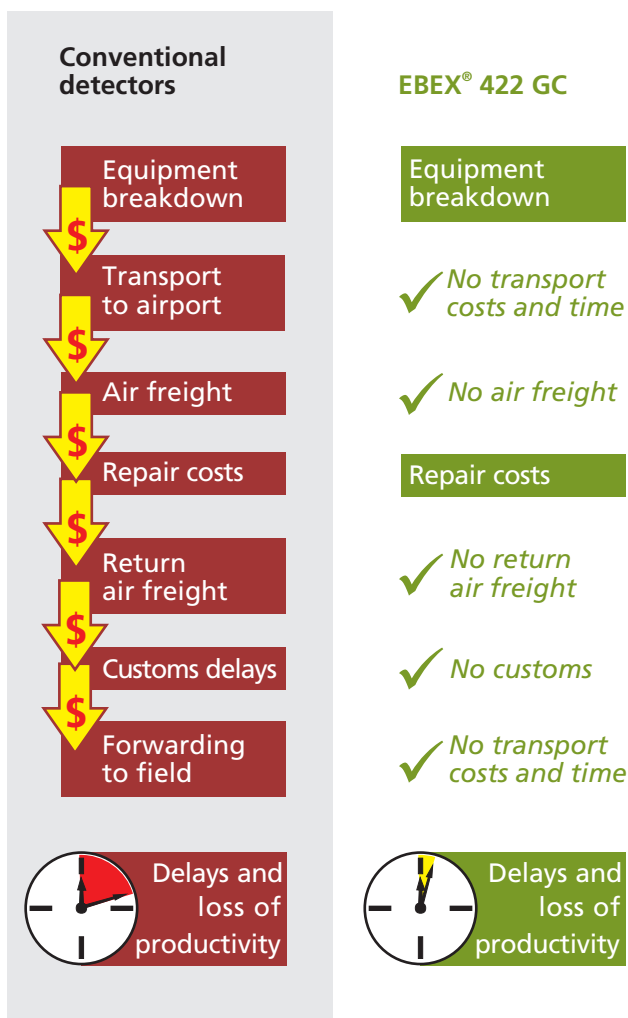
Productivity

The productivity of the equipment depends mainly on three characteristics:

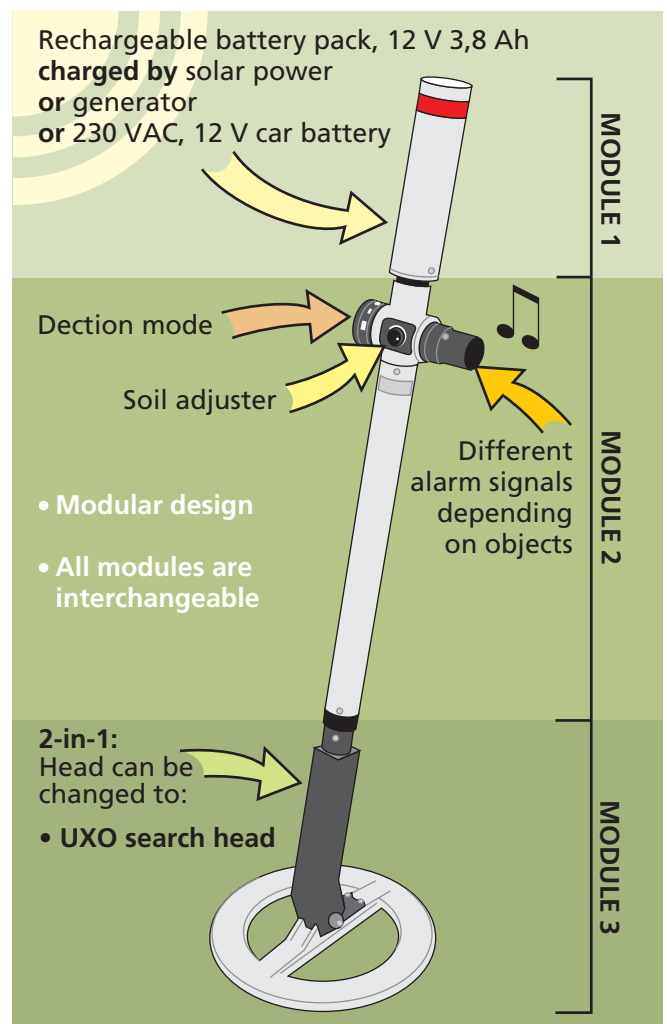
- detection performance
- procurement & operation cost
- field availability

Reliable high detection performance relates to equipment which achieves a safe, pinpoint detection of targets under adverse conditions and which produces a large number of screened square metres. EBEX® 422 GC meets these requirements.

Procurement cost is low when seen in conjunction with the exceptionally long service life cycle of the equipment and its versatility in Demining and BAC. Operation cost is particularly low due to the option of using fast charge NiMH batteries (5 h) and solar charging systems. The modular design supports a cost saving logistics and self sustained service with shortest turn around time and exceptionally high equipment availability on the work site.



Cost benefits from field service of the EBEX® 422 GC in comparison to the breakdown costs of conventional detectors



Modular design of EBEX® 422 GC

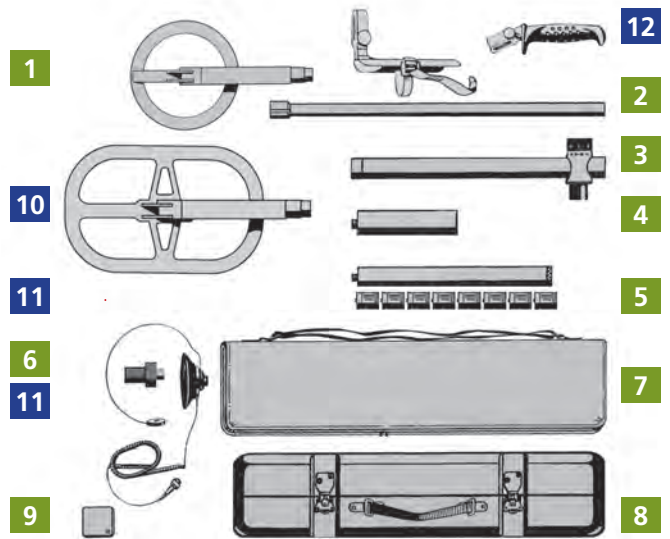
The EBEX® 422 GC consists of the following **standard components**

- 1 search head 230 mm
- 2 extension rod
- 3 electronic cylinder with controls
- 4 battery pack 9,6 V /3,8 Ah
- 5 battery container for: 8 C-cell dry batteries 1,5 V or 8 rechargeable NiMH batteries 1,2 V/4,5A or
- 6 piezo loudspeaker
- 7 transport bag
- 8 transport case
- 9 test plate

- Meantime Between Failure > 3 years operation
- Most sensitive to minimum amounts of metal
- Suppression of small fragments in BAC mode

Accessories

- 10 UXO search head, oval, 420 x 280 mm
- 11 headset
- 12 handgrip and armrest
- 13 single charger or 10 bay charger operating from 12V DC, 230 V AC or from a solar system



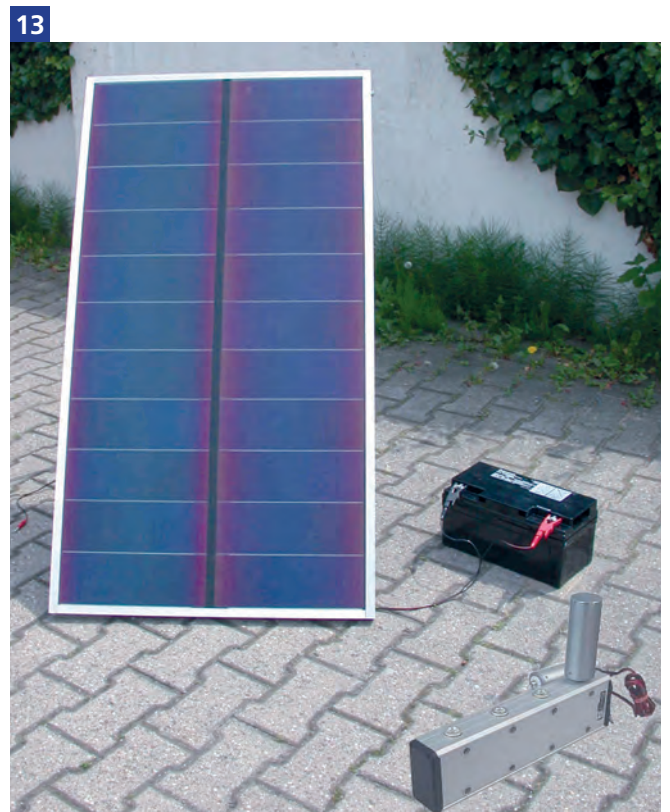
	Mine	UXO
230 mm search head	●	
420 x 280 mm UXO search head		●

Equipment to locate mines and UXO

Components needed for different tasks

	Standard Components									Accessories			
	1	2	3	4	5	6	7	8	9	10	11	12	13
BAC		●	●	●	●	●	●	●	●	●	●	●	●
Demining 1 man drill	●		●		●	●	●	●	●				●
Demining 2 men drill	●	●	●		●	●	●	●	●				●

- Scope of delivery
- Recommended accessories
- Expedient accessories



Power management by rechargeable batteries, multi-bay chargers and solar panels

Technical Data

power supply	battery	8 dry batteries C-cell 1,5 V (IEC no. LR14)
	rechargeable batteries	8 NiMH C-cells 1,2 V / 4500 mA
	rechargeable battery pack	NiMH 9,6 V / 3,8 Ah
operation time		dry batteries LR14 approx. 20 h
		NiMH C-cells, rechargeable approx. 15 h
		battery pack, rechargeable approx. 12 h
temperature range	(operation)	-25° to +55° C
dimensions	search head	approx. Ø 230 mm
	UXO search head, oval	approx. 420 x 280 mm
	battery container	approx. Ø 36 x 300 mm
	extension rod	approx. Ø 25 x 600 mm
	rechargeable NiMH battery pack	approx. Ø 45 x 190 mm
	electronic cylinder	approx. Ø 35 x 460 mm
length and weight	short detector version	approx. 1.000 mm
	long detector version	approx. 1.700 mm
	weight operational	approx. 2,2 kg
	equipment schedule in transit case	approx. 8,5 kg



EBINGER supports customers to establish own local service facilities: No equipment airfreight cost, shortest equipment turn around time



Complete tool set for field service

35 years of expertise

The massive threat from acts of terror, unexploded ordnance (UXO) and landmines is a global problem. EBINGER metal detectors are since more than 35 years internationally renown and widespread.

Search and locate is our motto, task and endeavour. The safety and security of people and the protection of the environment are the focus of our activities and R&D.

EBINGER devices are produced in a DIN EN ISO 9001:2000 environment, which reflects the company's philosophy and which supports the quality and long-term reliability of our products.

We develop and produce a wide portfolio of detectors for metal detection, munitions and battle area clearance, pipe and cable locating, security, law enforcement, commercial application in industry, civil engineering, timber industry and scientific use. All equipment components are Made in Germany! Even complex demands can be met at short notice.

The EBINGER head office is based at Cologne. The company maintains a most modern production and training facility at Wiesbaum/Eifel and is represented worldwide.



EBINGER production facility in Wiesbaum

Training facilities and test field



EBINGER training facilities

The area consists of 4000 m² magnetically undisturbed ground with

- **UXO test area**
with a wide range of FFE bombs, mortars, shells, small munitions and several mine lanes
- **Calibration cabin**
for EBINGER magnetic anomaly locators and metal detectors with worldwide soil samples
- **Training facilities**
Equipped with modern training aids



EBINGER test fields



EBINGER Prüf- und Ortungstechnik GmbH

Headquarter:

Hansestraße 13
51149 Cologne
Germany
Tel. +49 2203 977-100
Fax +49 2203 36062
E-Mail: info@ebinger.org

EBINGER Prüf- und Ortungstechnik GmbH

Sales International:

Hansestraße 19
51149 Cologne
Germany
Tel. +49 2203 95900-0
Fax +49 2203 95900-20
E-Mail: info@ebinger.org

EBINGER Prüf- und Ortungstechnik GmbH

Technology centre

Sales Germany/BeNeLux:

Vulkanstraße 14
54578 Wiesbaum
Germany
Tel. +49 6593 99894-0
Fax +49 6593 9984-50
E-Mail: eifel@ebingerbmbh.de

www.ebinger.org

