

# DEUTROFLUX UWS

Universal Stationary MPE Crack Detectors



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DEUTROmobil - Coil: Specialised for Long Parts



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# The New Flaw Reference Detector for Workpieces up to 3000 mm Length

This flaw detector uses the skin effect of an AC for uniform magnetisation and demagnetisation without problems, even in case of complicated workpieces.

Two phase-shifted AC currents generate a rotating magnetic field; thus, cracks of any direction are indicated in a single process.

Operating errors are impossible by automatic cycle sequence (clamping, spraying, magnetising, re- and demagnetising).

Electronic and pneumatic moduls from world-wide well-known manufacturers guarantee highest operational reliability and service, even after many years.

A stable construction by use of ISO profiles enables a later mounting of tubs, holding devices, etc.

FLUXA bath containers with sloping bottom, circulation pump and without corners in the pump range; no sedimentation in the container.

Braided wire contacts are rotatable and vertically adjustable for long tool-life and low contact losses.

Adapted inspection and UV irradiation resp. illumination.

Separate switch cabinet, well-accessible for operation and maintenance.

Sophisticated spraying system, even complicated workpieces are sprayed from all sides.

Spraying showers on both coil sides, magnetising without idle running in both directions.

Stainless steel in the wet area, powder coating outside. No scaling lacquer.

Easy length adjustment by handwheel, no sticking at few, and no wear at often needed change of clamping length.

## Multi-Step Magnetisation

(Patent DE 19508020 A1)

It is the task of an ideal magnetisation unit to test the entire surface of a workpiece with the same strength resp. sensitivity.

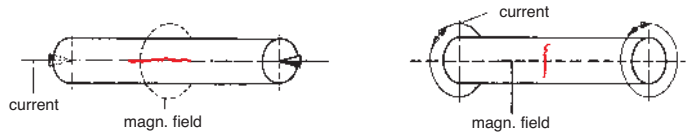
The UWS offers a unique option:  
The DEUTROmobil-coil can match the strength of magnetising to different cross sections.

# DEUTROFLUX



# for Magnetic Particle Examination

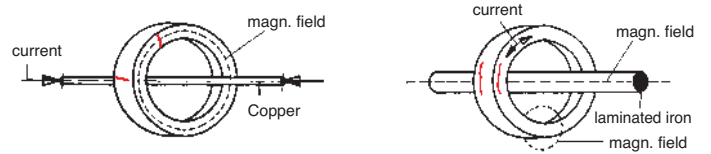
As you know, with magnetic particle examination those cracks are optimally indicated which are perpendicularly directed to the magnetic flux. With the UWS system, this is guaranteed for any direction of cracks.



AC current flow

AC field flow

can be combined  
(normal application)



AC auxiliary current flow  
with center conductor

AC transformer method

can be combined  
(principally possible)

## UWS

With the movable DEUTROmobil-coil:  
Testing on button pressure,  
with (automated) running in both directions.



Three times economical:  
Optimum price/performance relation,  
high life time,  
easy maintenance.



# Technical Data / Ordering Numbers

## Workpiece Data

Maximum length	1000 mm	1500 mm	2000 mm	2500 mm	3000 mm
Maximum diameter	390 mm	390 mm	390 mm	390 mm	390 mm
Maximum weight	500 kgs	500 kgs	500 kgs	500 kgs	500 kgs

## DEUTROFLUX Type

Dimensions (l / w / h)	<b>UWS 1000</b>	<b>UWS 1500</b>	<b>UWS 2000</b>	<b>UWS 2500</b>	<b>UWS 3000</b>
Total weight	4 / 2 / 2 m	4.5 / 2 / 2 m	5 / 2 / 2 m	5.5 / 2 / 2 m	6 / 2 / 2 m
	1200 kgs	1400 kgs	1500 kgs	1600 kgs	1750 kgs

## Ordering Numbers

Basic machine	3061.0010	3071.0010	3081.0010	3091.0010	3096.0010
Darkening cabin, for crane charging	3880.002	3880.002	3880.002	3880.003	3880.003

## Current Flow

Maximum current (standard)	50 / 60 cps
Open-circuit voltage	2000 A <sub>RMS</sub>
Setting facilities	8 V
Indication	stepless
Current flow supervision	kA, analogue
	1 limit value, settable

## Field Flow

Ampere turns	50 / 60 cps
Maximum flux density	8500 AT
Setting facilities	> 1 T
Indication	stepless
Coil dimensions (inside)	per cent AT, analogue
Coil movement	400 mm by 400 mm
	motor-driven, adjustable from 0 to approx. 300 mm/s; 100 mm recommended

## Demagnetisation

Switchable start	serially, both directions can be switched off
Demagnetising frequency	manual / automatic
Demagnetising time	50 / 60 cps
	approx. 1 s

## Cycle Switching

	single cycle, times separately settable
	(clamping / magnetising + spraying / remagnetising / demagnetising / unclamping)

## Spraying

automatic, in both coil running directions (ring showers)

## Inspection Medium Container

Content	80 l
Pump, electrical power	0.78 kW
Pump, discharge capacity	228 l/min
Height of delivery	approx. 1 m

## Machine Data

Power connection	400 V, 50 / 60 cps 3-phase current
Maximum power consumption	32 kVA
Maximum current consumption	80 A
Control voltage	24 V =
Control system	SIMATIC SPS
Relative operation factor	30 per cent
Compressed air	4 - 6 bar
Air consumption per cycle	approx. 1 NI
Clamping stroke	40 mm on each side, two-hand operation
Paint (cabinet / machine)	RAL 7032 / RAL 7016

## Ordering Nos. for Options

Coil current supervision	3000.0250
Spare contact plates	7236.0121
Maximum testing current 3000 A <sub>RMS</sub>	3000.044
Maximum testing current 4000 A <sub>RMS</sub>	3000.045
Maximum testing current 5000 A <sub>RMS</sub>	3000.046
Other mains voltage	3000.0185
Multi-step magnetisation (DBP)	upon request

## Accessories

leaflet P 38 E  
leaflet P 90 E

## Inspection Media

## Machine Alternatives

Machines with stationary DEUTRO-coil	leaflet P 31 E
Machines with DEUTRO-yoke	leaflet P 33 E
Portable equipment	leaflet P 34 E
Technical and Training Literature	list P-SD