

OUR SERVICE CATEGORIES:

Mobile Emission Treatment

Nitrogen & Safety Services

Emission Measurement Services

Impact Calculation & Documentation

Our remote-controlled KOKS ESOT System with an ATEX Zone 0-certified ADEX Robot is designed for No-Man-Entry applications in the oil, gas, chemical and petrochemical industries. The system supports the initial cleaning of tanks containing liquid, pasty and selected solid residues and reduces the need for personnel entry during this cleaning stage. Camera-based operation is performed from a control cabin certified for ATEX Zone 1. Project-specific configurations are available upon request.



ATEX Zone 0 Robot

No-Man-Entry Tank Cleaning

Flexible Container System

Can be combined with other ETS Service Categories:

- + Mobile Emission Treatment (MET)
- + Emission Measurement Services (EMS)
- + Impact Calculation & Documentation (ICD)

ROBOT	DESCRIPTION
Type	ATEX Zone 0 Robot
Material	Stainless steel 1.4404 in accordance with EN 10027-2, AISI 316
Suction airflow	200 Nm³/h - 1,200 Nm³/h
Certifications	ATEX Zone 0, 1G IIB T4
Standards	EN 13463-1:2009, EN 13463-3:2005, EN 13463-5:2011, EN 13463-6:2005, EN 13463-8:2003
Max. reach	100 m
Additional pulling capacity	350 kg, measured on a 10 mm thick, oil-wetted steel plate
Driving speed in ATEX Zone 0	1 - 10 m/min
Max. sludge height	250 mm
Ambient temperature	-10°C to +50°C
Track links	Magnetic stainless-steel track links, standard configuration
Arm movement	35° in each direction
Arm torque	2,000 Nm

CAMERAS	
Type	Camera-based image transmission system
Certifications	ATEX Zone 0, ATEX Directive 2014/34/EU, EMC Directive 2014/30/EU
Standards	EN 50303:2000, EN 60079-0:2012, EN 60079-11:2012, EN 60079-26:2007
Resolution	520 TV lines, analogue
Lighting	Integrated LED lighting, max. 235 lx

OPTIONALLY AVAILABLE
Suction attachments with high-pressure water jet for tank floor and wall cleaning up to approximately 1.5 m, NON-ATEX
Rubberised or abrasive magnetic track links
Two-day operator training at Client site

CONTROL CABIN	DESCRIPTION
Certifications	ATEX Zone 1 Premium, II 2G Ex v2 IIB T3 Gb
Type	Premium TVC, ventilated control cabin
Ambient/Storage temperature	-20°C to +40°C / -20°C to +50°C
Max. wind force	6 Beaufort, equivalent to 10.8 - <13.9 m/s
Dimensions in transport condition	L x W x H: 6,058 x 2,438 x 2,591 mm, without ventilation pipe
Dimensions in operating condition	L x W x H: 6,058 x 2,438 x 6,910 mm, with ventilation pipe
Total weight	Approx. 7,500 kg including robot and accessories
Ventilated/cooled rooms	3/2
Power connection	3 ~ 400 V, TN-S, 50 Hz, 40 A without fine fuse
Max./average power demand	11.5 kW / 7.5 kW
Standards	EN 60079-0:2012+A11:2013, EN 50381:2004
Video recording system	Up to 4 camera connections, 1 TB storage capacity
Control system	Industrial computer

HYDRAULIC CONTROL	
Type	HAH120-2x1, 6-2x9-2x100/a
Operating pressure	70 - 100 bar
Standard	Machinery Directive 2006/42/EC, EN ISO 12100, EN ISO 614-1+A1, EN ISO 4413, EN 60204-1 ED.2.
Noise level	max. 80 dB(A)

ROBOT DIMENSIONS	
Length/width	Approx. 1,800 mm / 545 mm
Height/height with extended camera	Approx. 400 mm / 900 mm
Min. tank access	DN600 / 24"
Weight	420 kg

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