TESS 3.2

20-LITER SPHERE APPARATUS
FOR DETERMINATION OF EXPLOSION CHARACTERISTICS
OF GASES & VAPOURS: LEL ◦ UEL ◦ P_{max} ◦ $(dp/dt)_{max}$ ◦ K_G

Model: TESS 3.2

ver. 3.2, 2016

STANDARD REFERENCES:

- EN 1839 (method B) – Determination of explosion limits of gases and vapours.
- EN 15967 - Determination of maximum explosion pressure and the maximum rate of pressure rise of gases and vapours.

SPECIFICATION:

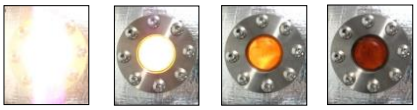
Explosion test vessel	20-liter sphere stainless steel	
Working pressure	$P_{max} \geq 30$ bar	
Software ANKO Gas Explosion Plotter® (enhanced test procedure applied)	P_{max}, $(dp/dt)_{max}$, K_G LEL, UEL noise reduction test report printing	
Measurement range		
explosion pressure	P_{max}	0-25 [bar abs]
explosion pressure rise rate	$(dp/dt)_{max}$	>4000 [bar/s]
normalised explosion pressure rise	K_G	>1000 [bar/s]
lower explosion level	LEL	0% - 100%
upper explosion level	UEL	0% - 100%
Built-in gas stirrer	800 rpm	
Ignition block	fusing wire method spark ignition (optional)	
Partial pressure gas mixture composition	range: 0-1 bar abs accuracy: 1 mbar	
Initial vacuum pressure	basic: 5 mbar abs max. 0,1 mbar abs (optional)	
Vessel temperature range:	20-150°C , PID control	
Gas temperature probe	type K thermocouple installed inside vessel	
Sight glass	single glass window diameter 42mm	
Vacuum evaporator	separate heating system vacuum value	
Smoke extractor outlet	ø100-150 ◦ 4”-6”	
Dimensions:	750 x 600 x 2200 mm	
Weight:	180kg	
Power supply:	110 or 230 VAC	

OPTIONAL BLOCKS :

- MIE – Minimum Ignition Energy
- Laminar Burning Velocity

BUILT-IN UNIQUE DEVICES SUPPLIED WITH THE 20-L APPARATUS:

- turn-key project
- vacuum pump & control unit
- smoke extractor & speed control
- sensor cooling unit
- user control panel
- gold plated electrical connectors
- top head lift
- fast DAQ system, rate: 10-100kHz



The specifications given in this document represents the state of engineering at the time of publishing. We reserve the right to make modifications to above specifications.

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