



Ansti Test Systems Ltd

Prism2 Rebreather WOB Performance Review 12/04/12
Presented by Hollis.



Rebreather Performance

Ansti	Ansti	Ansti
Certificate Reference	LSTF-0916-20120412_094942	
Date : 12/04/2012		Time : 09:49:42

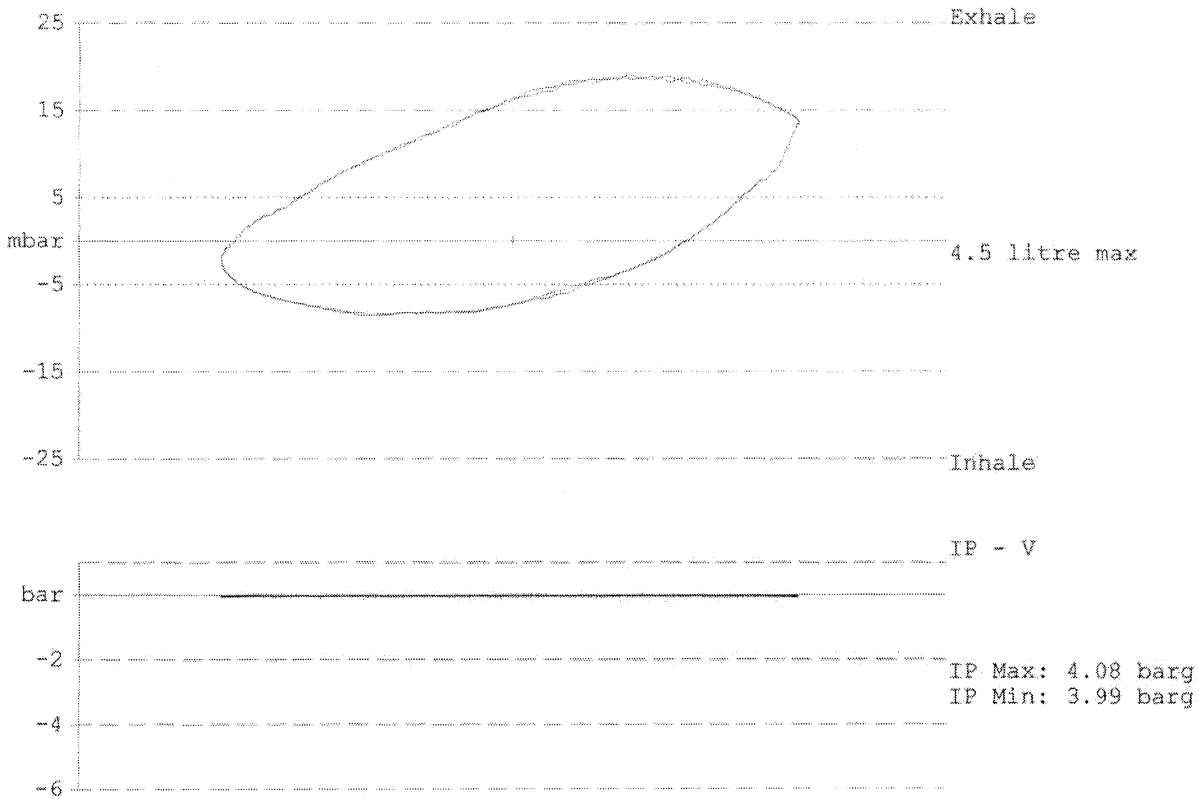
Equipment

Rebreather Type	- PRISM MKII
Serial Number	U1
Gas Mixture	AIR

Conditions of Test	Mean	Min	Max
Room Temperature (C)	19.0		
Exhale Temp (C)	16.6	16.5	16.6
Water Temp (C)	3.7	3.7	3.7
HP Supply Pressure (barg)	3.9	3.8	4.0
Tidal Volume (litre)	3.00	3.00	3.00
Breath Rate (bpm)	25.04	25.03	25.05
Ventilation Rate (lpm)	75.15	75.12	75.17

Results (2 Loops, SA: 100)	Mean	Min	Max
Pressure @ Start Inhale (mbar)	13.56	13.48	13.64
Inhale Ref Pressure (mbar)	-8.45	-8.51	-8.39
Inhale Pressure (mbar)	22.00	21.98	22.03
Pressure @ Start Exhale (mbar)	-2.05	-2.11	-1.99
Exhale Ref Pressure (mbar)	18.96	18.82	19.10
Exhale Pressure (mbar)	21.01	20.93	21.10
Peak to Peak Pressure (mbar)	27.41	27.32	27.49
Ext Work of Breathing (J/l)	1.82	1.81	1.82
Pos Ref Work (J/l)	0.11	0.11	0.11
Neg Ref Work (J/l)	0.00	0.00	0.00

Pressure - Volume Diagrams at Mean Depth of : 40.0 msw (131.4 fsw)



Remarks : IM/+90P/OR

LSTF-0916

Rebreather Performance

Ansti	Ansti	Ansti
Certificate Reference	LSTF-0916-20120413_102014	
Date : 13/04/2012		Time : 10:20:14

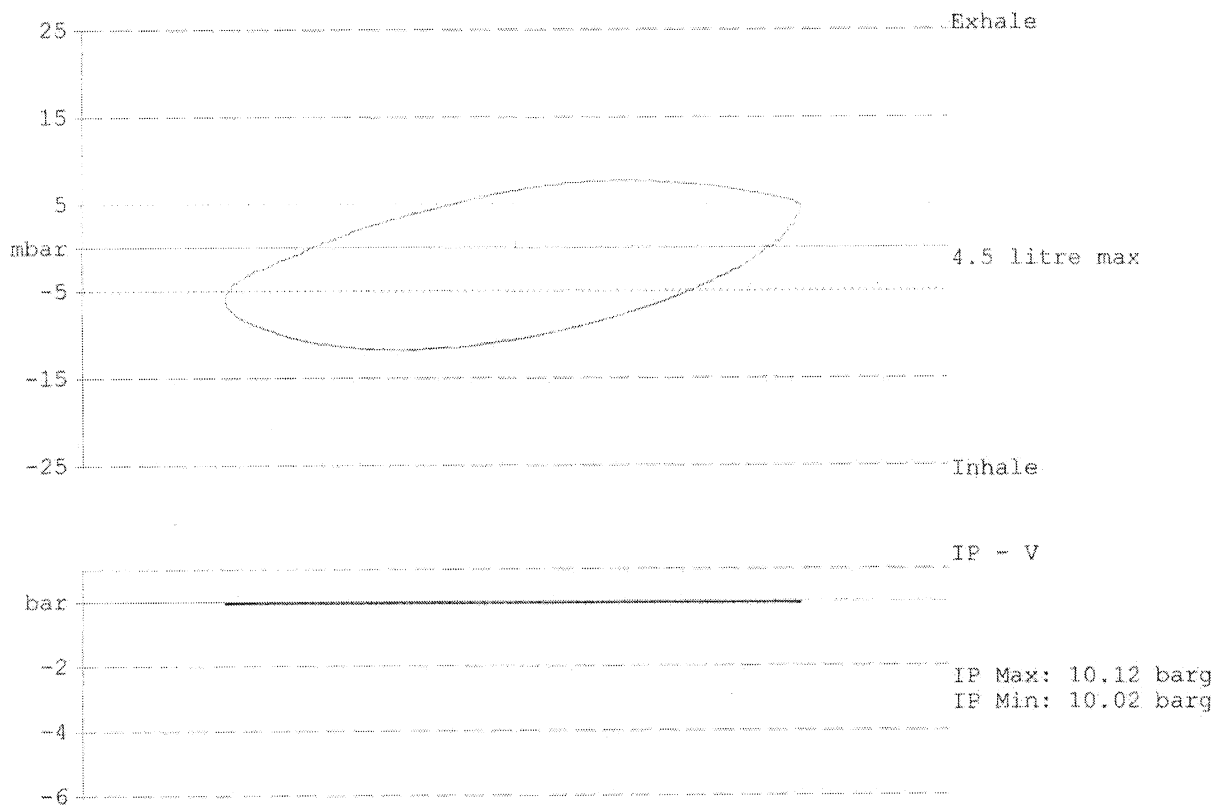
Equipment

Rebreather Type - **PRISM MKII**
 Serial Number 01
 Gas Mixture **O2 /He**

Conditions of Test	Mean	Min	Max
Room Temperature (C)	19.0		
Exhale Temp (C)	17.0	17.0	17.1
Water Temp (C)	3.9	3.9	3.9
HP Supply Pressure (barg)	9.9	9.8	10.0
Tidal Volume (litre)	3.00	3.00	3.00
Breath Rate (bpm)	25.05	24.97	25.14
Ventilation Rate (lpm)	75.19	74.94	75.45

Results (2 Loops, SA: 100)	Mean	Min	Max
Pressure @ Start Inhale (mbar)	-4.41	4.40	4.42
Inhale Ref Pressure (mbar)	-11.81	-11.82	-11.81
Inhale Pressure (mbar)	16.22	16.22	16.22
Pressure @ Start Exhale (mbar)	-5.83	-5.88	-5.78
Exhale Ref Pressure (mbar)	7.74	7.68	7.81
Exhale Pressure (mbar)	13.57	13.45	13.69
Peak to Peak Pressure (mbar)	19.56	19.48	19.63
Ext Work of Breathing (J/l)	1.31	1.31	1.31
Pos Ref Work (J/l)	0.01	0.01	0.01
Neg Ref Work (J/l)	0.03	0.03	0.03

Pressure - Volume Diagrams at Mean Depth of : **99.8 msw (327.5 fsw)**



Remarks : **IM/OP/OR/**

LSTF-0916

Rebreather Performance

Ansti Certificate Reference LSTF-0916-20120412_155307 Ansti
 Date : 12/04/2012 Time : 15:53:07

Equipment

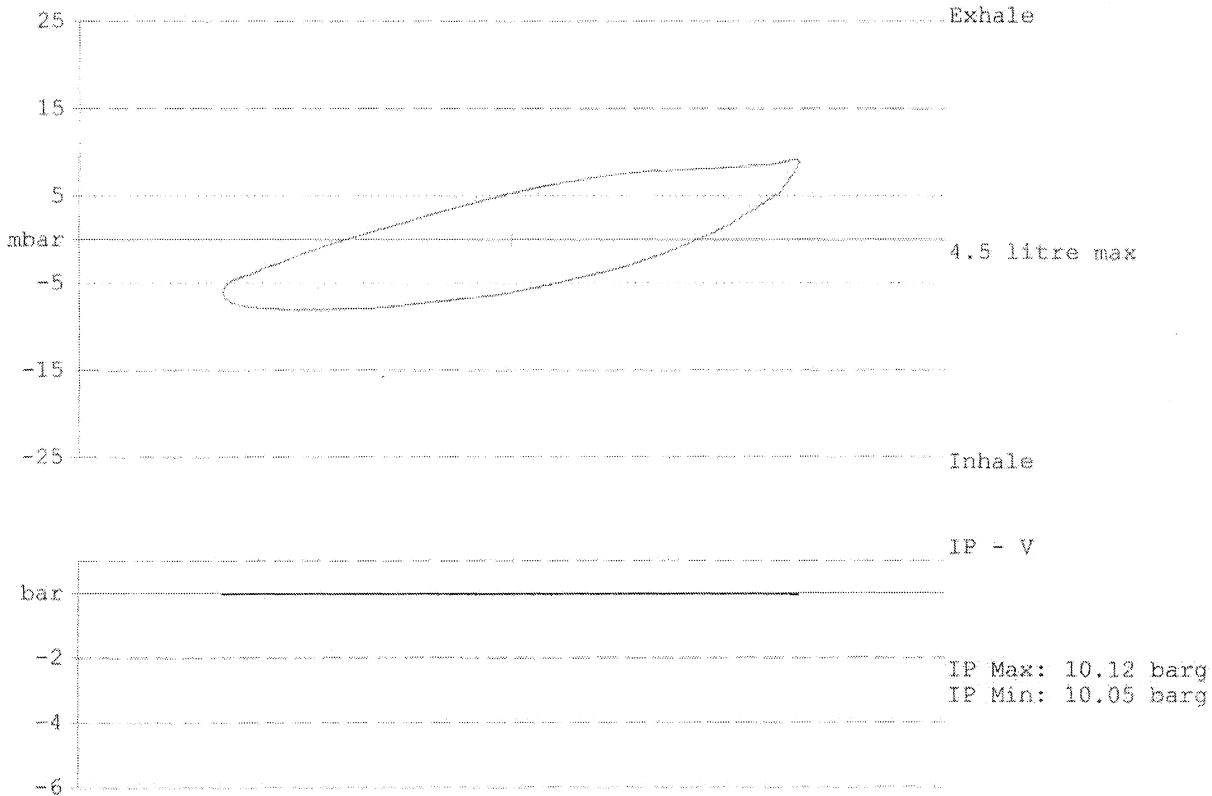
Rebreather Type - PRISM MKII
 Serial Number 01
 Gas Mixture 2% O2 / 98% He

Conditions of Test	Mean	Min	Max
Room Temperature (C)	19.0		
Exhale Temp (C)	30.4	30.0	30.7
Water Temp (C)	4.0	3.9	4.0
HP Supply Pressure (barg)	9.9	9.8	9.9
Tidal Volume (litre)	3.00	3.00	3.00
Breath Rate (bpm)	24.96	24.88	25.04
Ventilation Rate (lpm)	74.87	74.62	75.11

Results (2 Loops, SA: 100)

	Mean	Min	Max
Pressure @ Start Inhale (mbar)	8.94	8.92	8.96
Inhale Ref Pressure (mbar)	-8.13	-8.13	-8.13
Inhale Pressure (mbar)	17.07	17.05	17.09
Pressure @ Start Exhale (mbar)	-6.23	-6.26	-6.20
Exhale Ref Pressure (mbar)	9.21	9.18	9.24
Exhale Pressure (mbar)	15.44	15.39	15.50
Peak to Peak Pressure (mbar)	17.34	17.31	17.37
Ext Work of Breathing (J/l)	0.94	0.94	0.94
Pos Ref Work (J/l)	0.06	0.06	0.06
Neg Ref Work (J/l)	0.05	0.05	0.05

Pressure - Volume Diagrams at Mean Depth of : 100.0 msw (328.1 fsw)



Remarks : IM/+90P/OR

LSTF-0916

