

Manufacturer: **FABER INDUSTRIE SPA - CIVIDALE DEL FRIULI - UDINE- ITALY**Inspection: **LLOYD'S REGISTER**Specification: **EN 1964-1:1999 (PED)**Customer: **SCUBAPRO UWATEC**

Manufacturer serial No. :

From **09/0848/001** to **09/0848/104**Gas: **1002 AIR**Total cylinders: **100**Type of cylinder: **Seamless steel gas cylinders**Material: **34CRMO4**Working pressure at 15° C: **232 bar**Working temperature: **-50° ÷ +65° C****Nominal data**

Drawing no.	Test Pressure (bar)	Minimum Thickness		Nominal Diameter (mm)	Nominal Length without valve (mm)	Nominal Water Capacity (l)	Nominal Weight (Kg)
		wall (mm)	base (mm)				
EN-140-372-890 REV.0	372	3.7	3.7	140	530	6	7.6

We hereby certify that the cylinders of the batch no. **09/0848** comply with the following requirementsManufacturing process: cylinders manufactured from **plate**Neck thread : **M25X2 EN 144-1 2000**Identification marks stamped on cylinders shoulder according to drawing: **PPED004 2****Minimum cylindrical shell thickness:**The wall thickness of all cylinders has been measured and found to be not less than : **3.7 mm****Hardness range:**All cylinders have been controlled within the following hardness values: **Min 306 HB, Max 333 HB****Heat treatment:**

All cylinders have been heat treated at the following temperatures:

Liquid quench: **900 °C ± 20 °C**Temper at: **570 °C ± 30 °C****Chemical analysis:**Material: **34CRMO4**The cylinders of the batch no. **09/0848** have been manufactured from the following cast(s) of steel:

Cast Numb.	Code (*)	C (%)	Si (%)	Mn (%)	P (%)	S (%)	Cr (%)	Mo (%)	S+P (%)
14324	BUB	0.33	0.24	0.64	0.012	0.005	1.01	0.22	0.017
14325	BUC	0.36	0.23	0.62	0.010	0.008	1.02	0.22	0.018

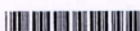
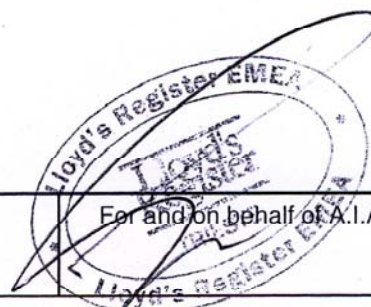
(*)marked on outer bottom surface

Date: **18/03/2009**

For and on behalf of the manufacturer:


Faber
INDUSTRIE S.p.A.

For and on behalf of A.I.A.



MEASUREMENTS OF SAMPLE CYLINDERS:

Cylinder Serial no.	Water Capacity (L)	Empty Weight (Kg)	Minimum measured thickness	
			of the wall (mm)	of the base (mm)
09/0848/101	6	7.74	3.9	5.8
09/0848/102	6	7.66	3.9	5.8
09/0848/103	6	7.68	3.9	6.0
09/0848/104	6	7.66	3.9	6.0

MECHANICAL TESTS CARRIED OUT ON SAMPLE CYLINDERS:

Cylinder Serial no.	Code (*)	Test piece dimension (mm)	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact test -50°C			Bend test 180° without cracking
						Direction	Individual (J/cm²)	Mean (J/cm²)	
09/0848/101	BUB	10.0 x 4.1	918	1028	15.4	LONG	86 89 89	88	SATISF.
09/0848/103	BUC	10.0 x 4.0	936	1046	15.7	TRASV	74 84 91	83	SATISF.
Minimum values specified			890	990	14		48	60	

BURST TESTS CARRIED OUT ON SAMPLE CYLINDERS:

Cylinder Serial no.	Code (*)	Hydraulic burst test bar	Description of the fracture
09/0848/102	BUB	635	LONGITUDINAL
09/0848/104	BUC	650	LONGITUDINAL
Minimum values specified		596	

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