



METROLOGY SERVICES AND MACROGRAPH ANALYSIS

Technical Manager.

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Our faro arm its a portable arm with 6 axis with easy instalation and transport.

The tridimensional information given icludes XYZ position of each point, these data is analysed by a digital sygnal processor (DSP) and then its translated by an interface and used by tridimensional CAD software becoming a complete solution for inverse engineering for drawings-samples.

EQUIPMENT

B08-01

RANGE

2,4 m (8')*

WEIGHT

5 Kg. (12 lb.)

PRECISION (SIGMA 2)

+/-0.3 mm (0,12 in)

*The range is without moving the arm. Range can be amplified using "leap frog" method



FARO Arm™



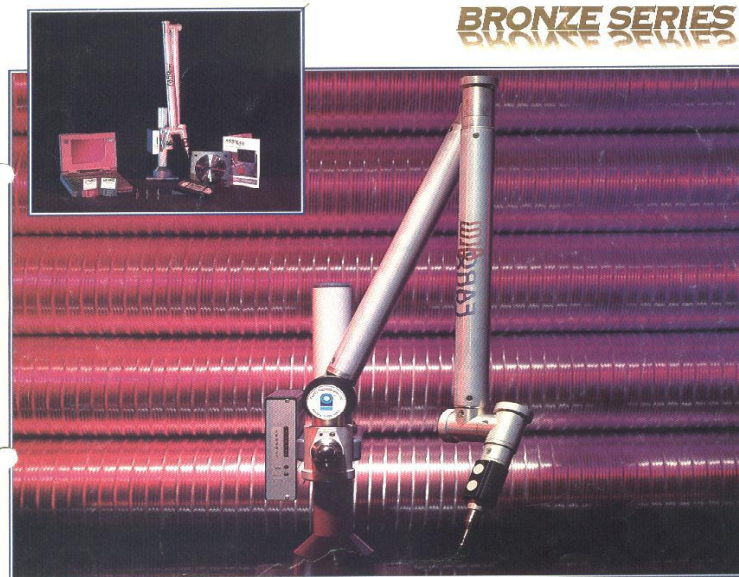
UMO

FARO Arm™

FARO Arm™

"CMM...Liberado"

BRONZE SERIES
BUCKLE SERIES



**DIGITALIZADORES PORTATILES
TRIDIMENSIONALES/HEXADIMENSIONALES Y
MAQUINAS DE MEDICION DE COORDENADAS**

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FAROArm™

**AEROSPACE/DEFENCE
CUSTOMERS.**

INGE  ECAL

 **INDUSTRIAL**
AERONAUTICA

 **UMO**

Matriz de Pylon (Timón de Cola)

COLOMBIAN AIR FORCE HELICOPTER



Contact: Andres Palacio Engineer Director

Medición Matriz de Pylon (Timón de Cola)

COLOMBIAN AIR FORCE HELICOPTER.



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Regleta de ajuste de Alerones.

(Ingeniería Inversa para fabricación.)



Contacto: Juan Guillermo Arboleda
Engineering Division
Industrial Aeronáutica SA



RESULTS REPORT

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AAAAA NN NN TTTTTT HH HH RRRRRR OOOOO CCCCC AAAAA MM MM
AA AA NNN NN TT HH HH RR RR OO OO CC AA AA MMMMMMMM
AAAAAA NN N NN TT HHHHHH RRRRRR OO OO CC AAAAAA MM MM MM
AA AA NN NNN TT HH HH RR RR OO OO CC AA AA MM MM
AA AA NN NN TT HH HH RR RR OOOOO CCCCC AA AA MM MM
  
```

FaroArm Serial Number : B08-02-97-01044
 Controller Version : 4.50
 Calibration Date : 04-23-98
 Time & Date : Thu Feb 05 16:14:31 2009
 Temperature : 29.250°C
 Units : Millimeters
 Operator : LIFARE SANTANA
 Part Name : BWS
 Part Serial Number : 07.
 Material :
 Material Temperature :
 General scale : 1.000000

LABEL: C_POINTD

Points Taken: 0

	Actual	Nominal	+To1	-To1	Dev	Out/To1
X:	+0000.2508	+0000.0000	+003.0000	-003.0000	+0000.2508	*****
Y:	+0000.2562	+0000.0000	+003.0000	-003.0000	+0000.2562	*****
Z:	+0000.4341	+0000.0000	+003.0000	-003.0000	+0000.4341	*****
RFS:	+0000.7171					
ERR MAX:	+000.0000					

LABEL: C_POINTR

Points Taken: 0

	Actual	Nominal	+To1	-To1	Dev	Out/To1
X:	+0360.7455	+0360.0000	+003.0000	-003.0000	+0000.7455	*****
Y:	-0113.8391	-0114.0000	+003.0000	-003.0000	+0000.1609	*****
Z:	-0152.1987	-0151.3000	+003.0000	-003.0000	-0000.8987	*****
RFS:	+0001.5253					
ERR MAX:	+000.0000					

LABEL: C_POINTQ

Points Taken: 0

	Actual	Nominal	+To1	-To1	Dev	Out/To1
X:	+0301.8613	+0302.9000	+003.0000	-003.0000	-0001.0387	*****
Y:	+0080.5220	+0080.6000	+003.0000	-003.0000	-0000.0780	*****
Z:	-0133.9974	-0133.8000	+003.0000	-003.0000	-0000.1974	*****
RFS:	+0002.0833					
ERR MAX:	+000.0000					

LABEL: C_POINTS

Points Taken: 0

MACROGRAPH ANALYSIS.

(Welding joints bigger than 0.5mm.)



Polishing.



Microscope analysis.

MACROGRAPH ANALYSIS.

(Welding joints bigger than 0.5mm.)



Photo analysis

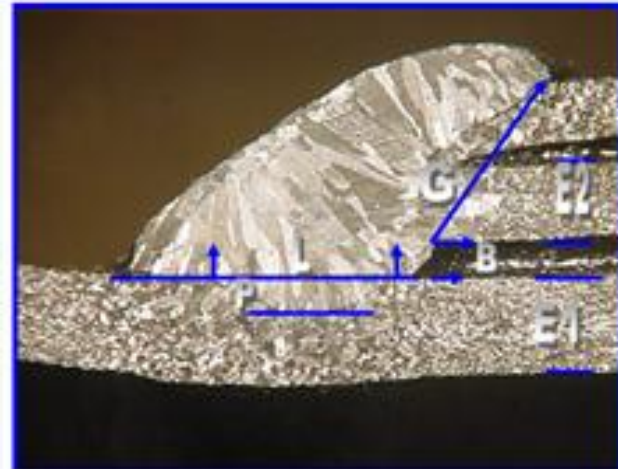


Results Analysis

MACROGRAPH ANALYSIS.

(Welding joints bigger than 0.5mm.)

Report Results



Zona analizada: volumen 3 salida Clase B

Fecha: 2009-02-13

Material e1: inox. 409

Material e2: inox. 409

Pieza No.	Config. Type	- e - mm nominal	- e - mm actual	L1 mm	L2 mm	P1 Mm	P2 mm	B mm	G mm	Amplificación 23.31X	Judge
01		e1=1.5 e2=1.2	e1=1.42 e2=1.10	2.83		0.57		0.53	3.00		O

Standard de Juergamento:

Norma RENAULT No. 34-05-012/-C "Exhaust lines quality of mig and mag weld seams"

Identificación Probeta: V351

Incertidumbre de la medición: 50um

CUMPLE	ALERTA	NO CUMPLE
$L1, L2 > e$	$0.7 \leq L1, L2 \leq e$	$L1, L2 < 0.7e$
$0.28 \text{ mm} < P1, P2 < 1.6(e1, e2)$	$0.1 \leq P1, P2 \leq 0.28$ $1.6(e1, e2) \leq P1, P2 \leq 1.6(e1, e2)$	$P1, P2 < 0.1$ $P1, P2 > 1.6(e1, e2)$
$b < 0.7 \text{ mm}$	$0.7 \text{ mm} \leq b \leq 1.1 \text{ mm}$	$b > 1.1 \text{ mm}$
$G > e$	$0.7e \leq G \leq e$	$G < 0.7e$

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Other Customers

**INCOLMOTOS-YAMAHA.
INDUSTRIAS ESTRA.
INDUSTRIAS FAACA.
FANALCA S.A.**

