

## CURRICULUM VITAE

**NAME** : Ferdinando Moretti  
**DATE OF BIRTH** : 28<sup>th</sup> November 1965  
**NATIONALITY** : Italian  
**MOTHER LANGUAGE** : Italian  
**ADDITIONAL LANGUAGES** : English (Sound working knowledge)

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### EDUCATION:

- I. Electronic Engineering College (Industrial Technical Institute "A. Malignani" – Udine) 1985-1990
- II. Faculty of Philosophical studies (University of Trieste) , 3-year attendance 1990-1993

### COMMODITY SPECIALITY:

#### COURSES:

- I. **International Welding Technologist -IWT N°080048A-** (at the Italian Institute of Welding, Genoa 2008).
- II. **International Welding Specialist** (at the Italian Institute of Welding, Genoa 2000).
- III. **NDT Level II** qualification in **MT, PT, RT,VT,UT** as per UNI EN ISO 9712-2012; PED 97-23-CE
- IV. **NDT Level II** qualification in **UT-TOFD** as per UNI EN ISO 9712.2008.
- V. **NDT Level II** qualification in **UT-PA (Phased Array)** as per UNI EN ISO 9712.2008.
- VI. **Coating Inspector Level A** -INAC No. 239-(at the Italian Institute of Anticorrosion, Milan 2010)
- VII. **Saudi Aramco Inspector** for: Pressure Vessels and Heat Exchangers (QM03/04/13/14/15/30/31/34).
- VIII. **FLUOR approved for inspection on:** Pressure Vessels, Heat Exchangers and Valves.

**Training courses: every year I attend professional refresher courses on topics related to metallurgy, welding (process/checks). Recently I attended the following courses at the AIM -(Italian metallurgic Institute):** 1. Heat Treatment on steel works, forging and non ferrous materials; 2. Metallurgy of Forgings; 3. Alloy steel for high temperature Cr, Mo (Creep); 4. Metallurgy and Corrosion on Stainless Steel materials; 5. Casting.

Planned for current year a training course **on Metallurgy/weldability of Ni Alloy**. (For details see "Certification Section" on my website [www.ferdinandomoretti.com](http://www.ferdinandomoretti.com)).

### PROFESSIONAL EXPERIENCE:

#### Fabrication Quality Control Management on the following items:

- I. Pressure Vessels, Columns and Reactors
- II. Heat Exchangers -several typologies-
- III. Urea Reactors/Ammonia Converters
- IV. Non Destructive Examinations on several steel materials
- V. Destructive Examination Tests on several steel materials

VI. NDT and DET on coating/painting  
(For detail see annex "Project Reference List")

## WORKING HISTORY:

My name is **Ferdinando Moretti**. I was born in 1965, I'm married, I have two daughters and I live in Udine, a small town in a region called "Friuli-Venezia Giulia" in the North East of Italy.

I **started working in 1982** and **since 2006** I have been working as a freelance **Welding Inspector** in the Oil & Gas sector covering the North of Italy. I am specialized in the following items: **pressure vessels** -several sizes and materials SS, CS, Steel low temperature (Ni alloy), Steel high temperature (Cr, Mo, V alloy) and cladding -; **reactors/separators** -heavy wall thk in Cr, Mo, V (API 934-A); **Urea Reactors/Ammonia converter** -several sizes-; **Heat Exchangers** -different typologies as per TEMA-R-; and **USC boilers**. I periodically performed checks on **valves** -several sizes and types- (API Standard), **forged and cast products** and in some occasions I monitored the painting activities as a coating inspector. *The list of all projects I worked on, can be seen on annex "Project Reference List*.

**My professional experience** in the pressure vessel construction and inspections started in a world-leading company - Mangiarotti Spa- where I worked as a contract execution manager for inspection and testing. I covered the same role as a consultant, enriching my experience in the workshop, including a specific development in **metallurgy of welding and inspection on weld joints**. Moreover, I'm working as a teacher in secondary schools (ITS Malignani) as a welding/metallurgic specialist.

In the last years I focused my working experience as a lead welding inspector on several projects regarding **heavy wall Thk in Cr, Mo, V material** Reactors and Separators on behalf of **FLUOR; KBR; JGC; Conoco-Phillips; FW-CHS; Hargrove-Chevron**. On behalf of **CF Industries (US)** I worked on several Items like **Urea Reactors, Ammonia Reactors, BFW Preheater** (Exchanger).

In addition, I have been involved on behalf of **Fluor in PJV Project** for the construction of **No. 25 Pressure Vessels** several materials/dimensions, on behalf of **PETROFAC in TurkStream Project** for the construction of **No. 6 Gas Separation** and on behalf of **DuPont (US)** for the construction of the **Finisher Agitator Cage**.

*The latest years were very important for my activity and my professional knowledge, with several projects successfully completed. Here below some recent comments on my performance received from clients. (For detail see annex "Client references")*

**Da: Birdzell, Jeffrey** JBirdzell@cfindustries.com

**Oggetto:** RE: CF Industries - Woodward Nitrogen Complex - Upgrade No. 1 - Casale V-101 Secondary Urea

**Data:** 14 October 2019 13:12

**A:** Ferdinando info@ferdinandomoretti.com

Dear Ferdinando,

I completely understand the need to keep your word with your client. It was a great relief to know that our interests were being looked after by someone of your expertise. I look forward to the next project we have where we can utilize your talents.

Kindest Regards,

**Jeff Birdzell** | **CF Industries**  
Senior Process/Project Engineer

**Stephen Juden**

A: Ferdinando Moretti April 9th 2019

Re: Report PJV F. Moretti

Hi Ferdi,

I would like to take this opportunity to thank you for all your hard work during the manufacture and

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Inspection of the FB-4-0218 Mangiarotti Heavy Wall  
Pressure Vessel scope.

I wish you best of luck for the future and would have  
no hesitation in recommending you for any future inspection  
assignments.

Regards,

Steve Juden | **KAZAKH PROJECTS JOINT VENTURE LIMITED (PJV)** | SQS Coordinator

**Kundannuru, Subhash**

A: Ferdinando Moretti Camilla Pagani [ACES GQS] Cc: Nair, Balagopal Rane, Pradeep  
(QA/QC) Puttur, Rajesh 10th Oct. 2018

RE: PPFM002 (Italy) IR41 F. Moretti

Dear Ferdi,

It was indeed a great pleasure to have an inspector like you for our job even though it was not a  
complex one in terms of material, design but to keep in mind of the heavy thickness involved (212mm  
Thk) during fabrication. This is where your expertise and experience had helped us along with your  
knowledge in PAUT & TOFD to sail through without any hiccups.

Really we commend you for the excellent performance and timely approach shown through out the job.

We would like to have an inspector like you for our upcoming jobs and special thanks to ACES for  
referring his CV.

With Regards,

Subhash.K

**PETROFAC TurkStream Project**

I have the Welding Specialist and **International Welding Technologist** qualifications, obtained from the Istituto Italiano  
della Saldatura (Italian Welding Institute). I also obtained **Level II for NDT checks (VT, MT, PT, UT, RT)**, **Level II for UT-TOFD**  
and **Level II for Phased Array (PA)**. I obtained the qualification of **Coating Inspector Level A** from the Italian Anti-Corrosion  
Institute and **ARAMCO** qualify for Pressure Vessels and Exchangers.

The experience gained during both the KBR project (2013/2014) and the JGC (2010) project with new generation  
Reactors/Separators enabled me to build a significant knowledge of **refractory lining**, internal shroud and internal  
appurtenance in SS materials fabrication.

**Between 2011-2012**, I had a special training that lasted about 6 months, with **Mr. Yoshimizu Y. (Refractory Specialist -  
API 936- JGC Japan)** regarding refractory application. This training was carried out on a building yard during the fabrication  
of 4 Reactors and 2 Separators (Project: Puerto La Cruz -PDVSA-Venezuela). The **training included**: qualification of process,  
material and personnel, monitoring of the application of refractory lining, checking of the refractory after curing and dry-  
out and witnessing at test on refractory samples at Thermal Ceramics Laboratory.

Regarding the KBR project (2014) I worked together with **Mr. David Smith** Refractory Specialist of Quartis Limited. My  
activity involved the surveillance of refractory application by casting and NDE checks.

In my **free time** I work in the **artistic workshop** of my wife, where she creates objects in ceramic and I make small  
objects in steel. Finally **I like running in the mountains** (with my beautiful dog Axel) and participating in several  
competitions of Sky-race in Italy and abroad.

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More details on Projects and several pictures are available on my website [www.ferdinandomoretti.com](http://www.ferdinandomoretti.com)

Since 2006

**Freelance Welding Inspector**

*The list of the main Projects for which I worked as lead Inspector is reported here above while the list of all Projects for which I worked as welding/NDT Inspector is reported here below.*

1996 – 2005

**Mangiarotti S.p.A Sedegliano -UDINE-**

*A major Italian manufacturer of large-size/heavy-wall pressure vessel equipment including reactors, columns, drums and heat transfer equipment for the Chemical, Petrochemical and Oil & Gas Industries. Shop QC inspector. QC Job Coordinator. Deputy QA Manager. Material suppliers and subcontractors Quality System evaluation. See below project list for details.*

1995 – 2002

**Daily newspapers “Il Gazzettino” and “Il Messaggero Veneto”**

*Part-Time Freelance Journalist. Articles and reports concerning the regional industrial reality and development. General technical subjects.*

1990 – 1996

**ITI “A. Malignani” Secondary School and Professional School “Bearzi” -Udine-**

*Electronics Laboratory Assistant Teacher*

1985 – 1996

**Danieli Gestione Impianti -UDINE-**

*Industrial plants electrician (as student-worker)*

1982 – 1985

**Missana Car Electrical Workshop -UDINE-**

*Electrician (as student-worker)*

**As Welding Inspector I co-operate with:**

- I. Udine Courthouse as Welding Technical Consultant (since 2006)
- II. Technical Institute ITS Malignani (Udine) as Part Time Teacher (since 2017)

**Some of the main projects I followed as Welding Inspector in recent years were:**

1. **Project:** PJV Project, construction Qty. No. 25 Pressure Vessels several materials/dimensions. I worked on behalf of **Fluor (UK)**
2. **Project:** TurkStream Project, construction of No. 6 Gas Separation. I worked on behalf of **PETROFAC**.
3. **Project:** Ammonia Converters Qty, No.4 (SA 336 F11 Cl3; 154mm Thk). I worked on behalf of **CF Industries -US-**
4. **Project:** Urea Reactors Qty, No.3 (SA 765 IV + SA240 310 MoLN 118mm Thk). I worked on behalf of **CF Industries -US-**
5. **Project:** Jazan -Saudi Arabian- Qty No.10 Gasification Reactor (SA387 Gr.22 C.2; 95mm Thk). I worked on behalf of **Saipem**.
6. **Project:** Pascagoula Chevron Refinery -US- No.1 Reactor (SA 336 F22 V + wo tp 347; (176mm Thk). I worked on behalf of **Hargrove Engineers/Chevron**.
7. **Project:** CHS Laurel Montana -US- No.4 Reactors-Hydrotreaters. (SA 336 F22 V + wo tp 347; (121mm Thk). I worked on behalf of **CHS -U.S.-**
8. **Project:** TAIF HRCC-VCC Republic of Tatarstan - No. 2 PPH Hot High Pressure Separator. (SA 336 F22 V + wo tp 347; (263mm Thk) + 100mm Refractory + Shroud SS. I worked on behalf of **KBR -U.S.-**
9. **Project:** RPLC DEEP CONVERSION PJ PHASE Puerto La Cruz (PDVSA-Venezuela)- No. 4 Hydroconversion Reactors and No. 2 HPHT Separator. I worked on behalf of **JGC -Japan-**.
10. **Project:** Kuwait New Refinery; No. 4 Reactors and 6 Separators (SA 336 F22 V + wo tp 347; (290mm Thk). I

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worked on behalf of **Fluor U.S.**

**11. Project:** Conoco/Phillips, Rodeo California; No. 3 Hydrocracker Reactors (Material: SA 542M Tp D Cl 4a + wo tp 347; (210mm Thk). I worked on behalf of **Fluor U.S.**

**12. Project:** TOTAL, Port Arthur Refinery, Texas; No. 1 HDS Reactor (Material: SA 542M Tp D Cl 4a + wo tp 347; (145mm Thk). I worked on behalf of **Fluor U.S.**

## EXPERIENCE LIST DETAILS

### Welding Standards:

**Knowledge of the following Technical Regulation and Standards about *Welding Process and Welding Operators Qualification*:**

- UNI EN 287 "welder qualification"
- UNI EN 15614 "welding process qualification"
- UNI EN 729 "quality assurance for welding process"
- ASME IX "welding and brazing qualifications"

### Technical Regulations, Specifications & Standards

**Knowledge of the following Technical Regulations, Specifications & Standards regarding sections for: materials, non-destructive examinations, rules for inspection of pressure vessels, welder and welding qualification:**

- CODE: ASME I,II,V,VIII /I-II,IX
- CODE : ASME B31.1 ;B31.3
- CODE : British Standards PD 5500 :2003
- CODE : UNI-EN (material section)
- Graphical symbols for welding according to AWS
- Specification Norsok code
- CODE: AD-Merkblätter
- CODE: AWS D1.1/M 2002
- CODE: API 598-600; API 600/1/2/7/8 ; API6A
- CODE: API 934 + App. A/B/C
- Technical Regulation: ISPESL
- Technical Regulation: PED 97/23/CE

### Non-Destructive-Tests

**Knowledge of the following Non-Destructive-Tests applied on steel materials, weld joints, coating and refractory materials:**

- M.T.: Magnetic Particle Test
- P.T.: Liquid Penetrant Test
- R.T.: Radiographic Test
- U.T.: Ultrasonic Test
- Ferrite check
- NDT on Coating and Refractory lining
- Holiday test
- Visual, Dimensional and Thickness check
- Pressure test: Air, water, helium
- PMI, Positive Material Identification
- UT-TOFD (Time of Flight Diffraction Technique)
- UT-PA (Phased Array)

### Destructive Mechanical Testing

**Knowledge of the following Destructive Mechanical Tests:**

- Tensile Testing
- Bend test
- Micrography and Macrography
- Destructive tests on coating and Refractory lining
- Hardness test
- Charpy V Impact Test
- Corrosion test
- Step cooling test

### Welding Techniques

**Knowledge of the following welding processes:**

- S.A.W.: Submerged-Arc Welding
- S.M.A.W.: Shielded Metal-Arc Welding
- G.M.A.W.: Gas Metal-Arc Welding
- F.C.A.V.: Flux Cored-Arc Welding
- G.T.A.W. (automatic): Gas Tungsten-Arc Welding
- G.T.A.W. (manual): Gas Tungsten-Arc Welding
- E.S.W.: Electroslag welding
- Brazing/Soldering

### Materials

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***Knowledge of the mechanical, chemical and metallurgical properties and issues related to the welding of the following materials:***

- Carbon steel
- Low-Alloy Cr, Mo, V
- Nickel and Nickel Alloy
- Stainless steel
- Duplex steel
- Cladding
- Low-Alloy Nickel steel
- Steel cladding
- Structural steel

*Ferdinando Moretti*



"autorizzo il trattamento dei dati personali contenuti nel mio C.V. ai sensi dell'art. 13 del D.Lgs. 196/2003 e del GDPR 679/16"