



Foster Wheeler & Methanol Casale
setting an
industry standard
for
methanol production

www.fwc.com
methanol@fwc.com

www.casale.ch
methanol@casale.ch

Methanol Solutions

A strategic alliance for methanol technology

Foster Wheeler

China
Unit 01-05, 4th Floor, POS Plaza, 1600 Century Avenue,
Pudong New Area, Shanghai 200122
T +86 21 5820 0123 **F** +86 21 5820 4567

France
97 Quai de Bercy, 75597 Paris Cedex 12
T +33 1 43 46 40 00 **F** +33 1 43 46 47 00

Italy
Via Sebastiano Caboto 1, 20094 Corsico, Milan
T +39 02 44861 **F** +39 02 4486 3131

Singapore
32 Maxwell Road #02-01, Singapore 069115
T +65 6890 0900 **F** +65 6221 9152

South Africa
(Location) 2nd Road, Halfway House, Midrand 1685
(Correspondence) PO Box 76, Halfway House, Midrand 1685
T +27 11 690 0400 **F** +27 11 315 0243

Spain
Edificio Foster Wheeler, Calle Gabriel Garcia Marquez, 2, 28230
Las Rozas, Madrid
T +34 91 336 2500 **F** +34 91 336 2555

Thailand
217 Moo 12, Sukhapiban 8 Road, Tungskhla, Sriracha,
Cholburi 20230
T +66 38 352 200/6, 768 400/3 **F** +66 38 352 226/444

Turkey
Kozyatagi-Sari Kanarya Sokak 22, Yolbulan Plaza, B-Blok,
34742, Istanbul
T +90 216 445 1335 **F** +90 216 445 1336

UK
Shinfield Park, Reading, Berkshire, RG2 9FW
T +44 (0)118 913 1234 **F** +44 (0)118 913 2333

USA
2020 Dairy Ashford, Houston, Texas 77077
T +1 281 597 3000 **F** +1 281 597 3050

Methanol Casale

Switzerland
Via Giulio Pocobelli 6, 6900 Lugano
T +41 91 9607200 **F** +41 91 9607291/2

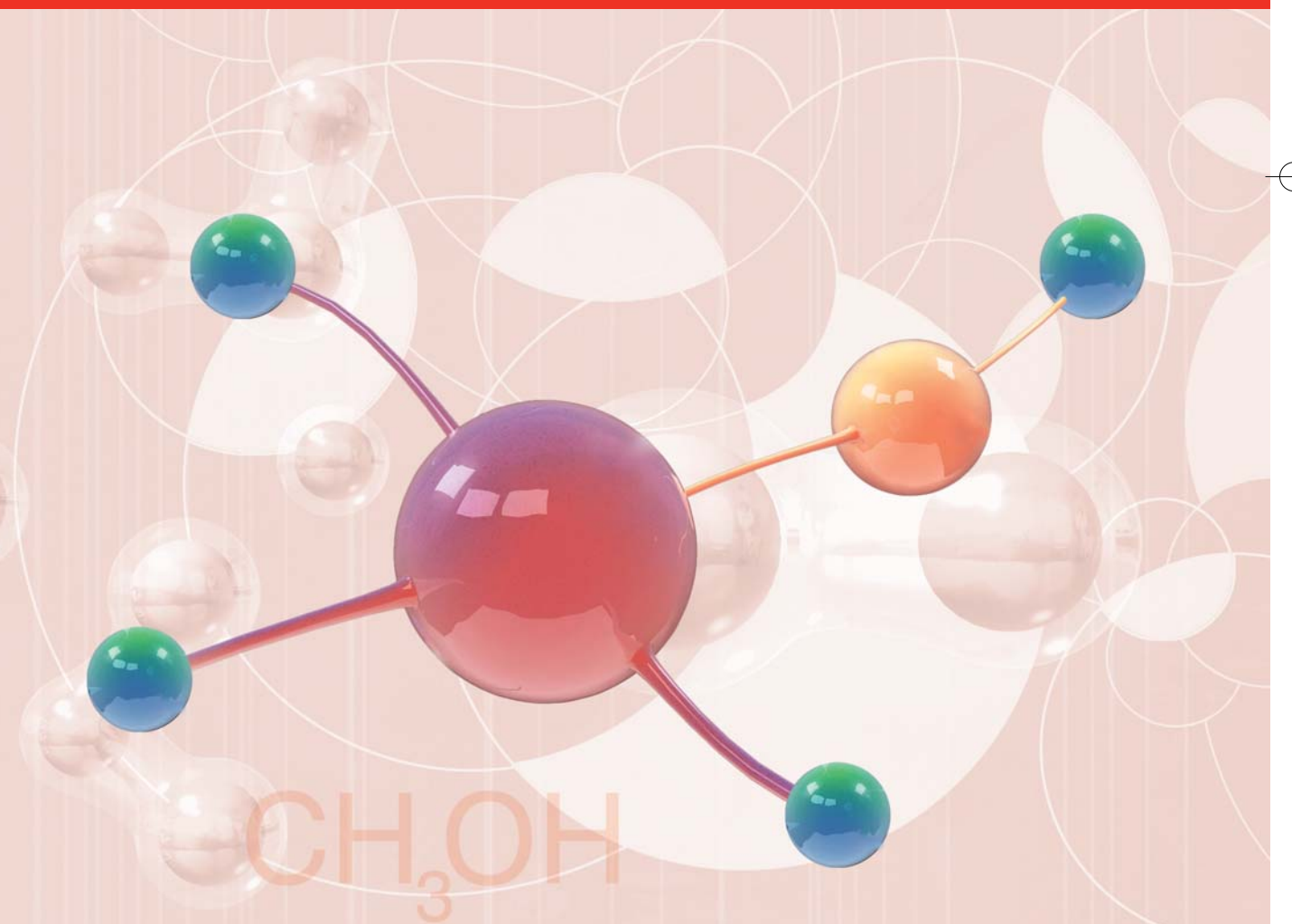
Geographical strengths

Foster Wheeler and Methanol Casale are truly global companies with full capability offices across Europe, Asia and USA.

We have been involved in projects all around the world, ranging from the more mature Western markets to the rapidly developing Asian and Middle Eastern markets.

Whatever the location, our global procurement ensures cost-effective purchasing.

Wherever you are in the world, we can help.





Meeting your methanol needs



The Methanol Casale-Foster Wheeler alliance can provide a fully designed and built methanol plant

Did you know.....?

- At present more than 10 million tons per year of methanol are produced worldwide with Methanol Casale technologies
- Methanol Casale's synthesis converter technology allows substantial and cost-effective capacity increases in conventional methanol plants
- Methanol Casale is currently licensing, providing basic design and supplying critical equipment for a 7,000 t/d methanol plant
- A 7,000 t/d plant can be built based on a single methanol converter. We are the only contractors able to build real single train, efficient plants with this capacity
- Foster Wheeler has supplied over 100 steam reformers all over the world



Foster Wheeler and Methanol Casale have formed a groundbreaking strategic alliance under which the two companies will cooperate to serve the methanol production market world-wide.

This alliance builds on the strengths of our two companies: Casale is a leading supplier of methanol technology and has extensive plant experience, and Foster Wheeler has a long and successful track record in the engineering, procurement and construction of process plants and catalytic reforming furnaces.

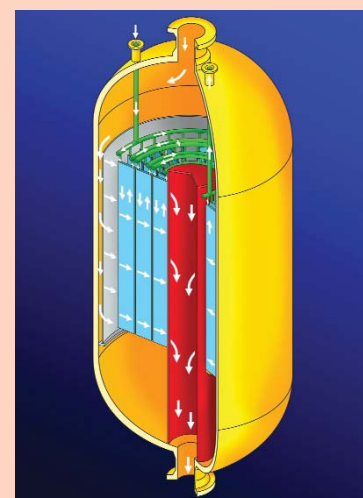
The Methanol Casale-Foster Wheeler design for large, gas-fed methanol plants is based on Foster Wheeler's Banquy™ combined reformer process and advanced equipment design from Methanol Casale and Foster Wheeler.

The pre-reformer is Casale proprietary equipment, designed with an axial-radial catalyst bed, and the auto thermal reformer results from syngas generation burner design.

The synthesis loop designed by Methanol Casale uses a proprietary plate-cooled converter, a pseudo isothermal design, where gas reacting on the catalyst is cooled by plates immersed in the catalyst.

The steam reformer, in both Terrace Wall™ and Top Fired™ designs is Foster Wheeler proprietary equipment.

The plant is generally designed to be self-sufficient, including the air separation unit, with no import/export of steam. Total energy consumption is less than 7 Gcal/Mt MeOH. Innovative reactor design means higher conversion rate with less recycle, giving more product for the same size reactor loop.



EPC services

Working with a wide variety of contract types from fully reimbursable to LSTK, Foster Wheeler engineering experts design with a focus on safety, cost, time, constructability and operability. Flexibility and project-specific solutions are key.

Construction & commissioning

Our construction management personnel are highly experienced professionals, who expect the same world-class standards on each construction site. With significant modularization experience, we have the expertise to develop the optimum construction strategy.

Project management

Excellence underpins our project management track record and contributes significantly to our high level of repeat business. We have a reputation for providing world-class project management, either as an integral part of our EPC project execution, or working with our clients as project management consultant.

World-class services

At Foster Wheeler and Methanol Casale, we work hard to ensure we maintain our global reputation for world-class project execution by completing projects on schedule, within budget and with no compromise on safety or quality.

Our broad skills base and global resources ensure we can provide the best and most appropriate service.

- Engineering, procurement and construction
- Feasibility studies
- Technology reviews
- Master planning
- Strategic studies
- Project development
- HSE consultancy
- Process design packages
- Project management
- Licensing

Plant & term services

We have built successful long-term relationships with many clients world-wide.

Turnarounds

- Excellent track record
- Manage entire turnarounds or work as an integrated team
- Deliver well-planned, short, safe turnarounds

Term services

- Flexible and responsive teams either locally or on-site
- Global major engineering locations provide appropriate support
- Term services cover projects ranging from routine work to small, medium and large investment programs
- Deliver long-term benefits and continuous improvement, measured against agreed KPIs

Local relationships

- We work with small companies local to site, building on existing relationships and delivering high value solutions