

CHEMICAL PLANT & ENGINEERING



Company Profile



AGITATION

FILTRATION

BULK MIXING



OUR COMPANY

Chemical Plant & Engineering (CPE) was formed in 1953 and is a wholly owned Australian company. CPE is a division of CEM International Pty Ltd and specializes in the design, fabrication and supply of quality process equipment to various industries worldwide.

A complete engineering fabrication service is offered starting from laboratory and pilot testing, through to detailed technical design and supervision of installation and commissioning.

CPE has maintained a policy of continuous design development through our in-house engineering facilities and international licensing arrangements. As a result, world leading process technology in Agitation, Filtration and Powder Blending has been introduced to Australia and exported overseas. The Company's extensive installations list testifies to its experience and capabilities to undertake and deliver both large and small projects.

Headquartered in Melbourne, Australia, the company has manufacturing facilities in Australia as well as strategic manufacturing partnerships and licensing agreements with multiple companies throughout the world. CPE's global presence is strengthened via agents and partners in New Zealand, SE Asia, South Africa, Europe, and America.

• INDUSTRY APPLICATIONS

MINERAL PROCESSING . FOOD . CHEMICAL . WINE . PHARMACEUTICAL . DAIRY . ENVIRONMENTAL

WE PROVIDE VALUE ADDING, CUSTOM DESIGNED, PROCESSING SOLUTIONS.

OUR PRODUCTS

• AGITATORS

Each CPE Agitator is custom designed to meet your specific process requirements. CPE has specialist expertise in agitator design for vessels from 200 to over 3000 litres with agitator diameters from 0.15 to 7 m and shaft lengths from 1 to over 15 m. All CPE agitators are available in sanitary and industrial grades.

CPE RTF4 HYDROFOIL

World Leading Agitation Technology

The RTF4 is a high efficiency hydrofoil which delivers high volumetric flow rates whilst drawing half the power compared to other hydrofoil agitators in the market.

CPE medium sized agitator assembly incorporates a pedestal design which reduces excessive stress on drive and motor. This design feature when coupled with the RTF4 impeller can deliver significant financial benefits with reduced power consumption and maintenance costs.



AGITATOR RETROFITS

Due to the high efficiency of the **RTF4**, cost effective solutions can be implemented to retrofit existing under-performing agitators. An RTF4 retrofit improves flow rate, solids suspension and minimises motor overloading whilst retaining, in most instances, the existing drives and motors.

Chemical Plant & Engineering also supply a range of medium shear, high shear, high viscosity agitators as well as static mixers in both food and industrial grades.

• FILTRATION EQUIPMENT

CPE designs and manufactures a range of filters and also has license agreements with international filtration technology companies. CPE specialises in the design and fabrication of vacuum and pressure filters for various industries including food, chemical, mineral processing, water/wastewater treatment and pharmaceutical.



VACUUM FILTERS

CPE can custom design and fabricate a range of rotating vacuum pan and drum filters.

Filters are available as complete filtration stations to undertake filtrate addition and filtration. PLC controls can be included in the package if required.

Our vacuum filters are extensively used in mineral processing applications worldwide.

PRESSURE LEAF FILTERS

CPE can design and supply a range of pressure leaf, cricket, and pulse tube filters.

Our pressure leaf filters lead the food industry in the AUNZ market.

FILTER PRESSES

CPE can design and supply plate filter presses with ancillary equipment.

• POWDER BLENDERS

CPE has a number of equipment configurations for the mixing of powders.

CPE Mixers are available in single and dual rotors which provide fast, accurate, and repeatable mixing, regardless of particle size and density and eliminates segregation during mixing. CPE mixers can be equipped with liquid spray system. Mixer size ranges from 30 to 6000 litre working capacities.

The addition of high shear accessory provides a facility to quickly and efficiently break up agglomerates and totally disperse difficult additives.

CHDV mixer (CPE Hygienic Design Vacuum Mixer) is vacuum rated so provides the flexibility of vacuum feeding. This mixer offers 90s mix time with high repeatability (CV of 5).

CPE mixers are offered in food and non-food grades. CPE mixers are extensively used in milk powder and infant formula manufacture worldwide.

MIXER RETROFITS

CPE offers retrofitting services of existing under-performing mixers to maximise process efficiency and minimise operating cost, only at a fraction of the cost of a new mixer.



OUR SERVICES

PROCESS OPTIMISATION AND PILOT PLANT TESTING

• PILOT PLANT TESTING

CPE has pilot test agitators, powder blenders, and filters for testing on customer site or at our facilities in Melbourne, Australia. Trial results are used to design full scale equipment. Learn more about our retrofitting services here cem-int.com.au/services/pilot-plant/

• LABORATORY TESTING

CPE operates a laboratory for sample analysis, process analysis, and equipment selection.

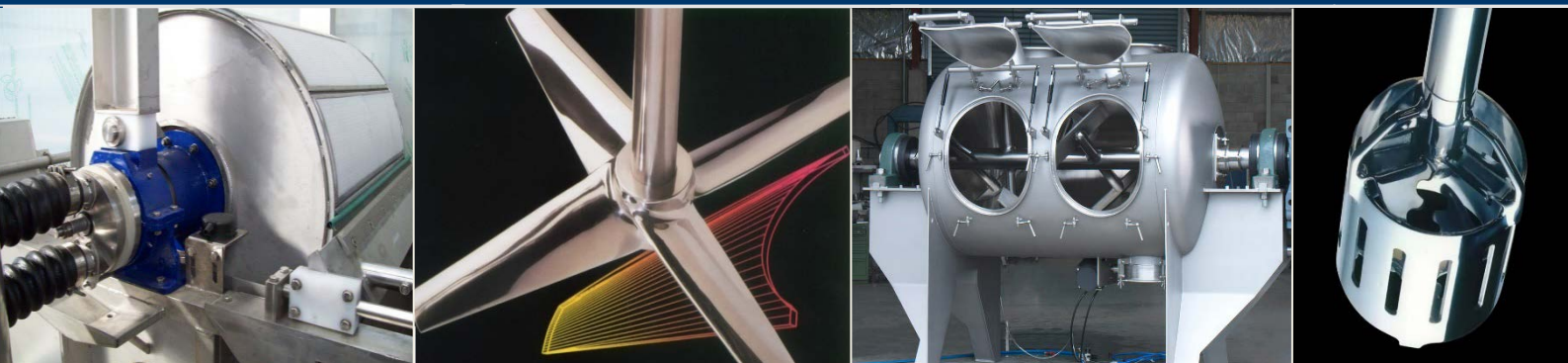
• PROCESS OPTIMISATION

CPE's experienced engineers can employ various tools (CFD, etc.) to study your process and recommend solutions to optimise your process and product quality.

CPE has decades of experience in provides retrofitting services of under-performing agitators, powder mixers, and filters worldwide. Learn more about our retrofitting services here: cem-int.com.au/services/retrofit-aftermarket/

• Custom Design

With decades of experience in design and supply of processing equipment to various industries across the globe, our engineering team can custom design processing solutions to suit your process needs. Learn more about our custom design services here: cem-int.com.au/services/retrofit-aftermarket/



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A.C.N. 006 967 988 (A member of the CEM International Group of Companies)

HEAD OFFICE

63 – 65 Maffra Street Coolaroo Victoria AUSTRALIA 3048 • Postal Address PO Box 160 Dallas Victoria AUSTRALIA 3047

Telephone +61 3 9309 4822

Email cem@cem-int.com.au • Website www.cem-int.com.au/cpe/



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