



EPCM Services

Capability and Experience



Introduction to MaisonWorleyParsons

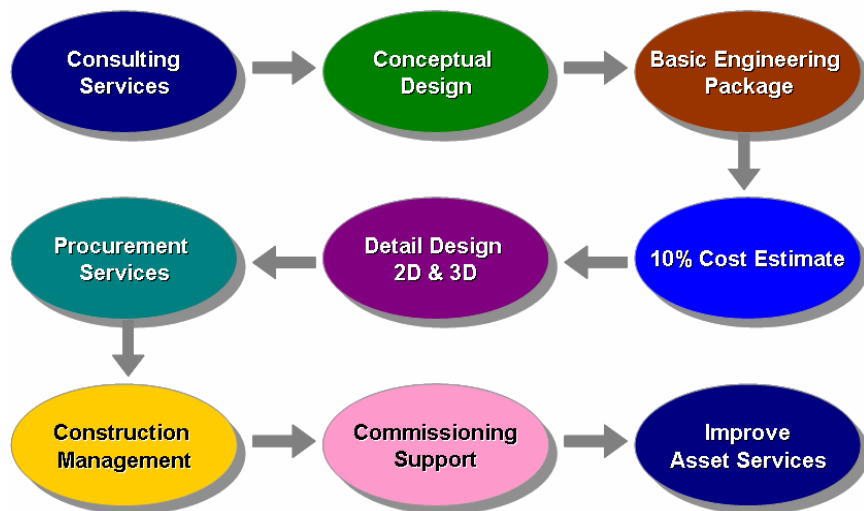
**Leading
EPC & EPCM
Contractor**

MaisonWorleyParsons (MPW) is the largest international engineering and project management contracting organisation in China, successfully delivering major projects for its Clients across the breadth of the Resources and Energy sector. The company is built on its ability to provide domestic and global Customers with project support from the earliest feasibility phases through to delivery of major process plant projects and on into engineering and asset management support for the operating plant. Long-term Client relationships developed through material contributions to value enhancement in each project we deliver is the foundation of our business success.

MaisonWorleyParsons focuses on the business sectors of Chemical, Pharmaceutical, Industrial/Manufacturing, M&M and Oil/Gas. As the leading Lump Sum EPC & EPCM Contractor on the China Mainland, we provide engineering, procurement and construction management services as well as execute Lump-Sum Turnkey projects. In addition, we have rich experience of supporting foreign Clients in their early project stages, such as Feasibility Study Reports (FSR), Environmental Impact Assessments (EIA), Project Cost Estimates, and Preliminary Design Packages for government approval.

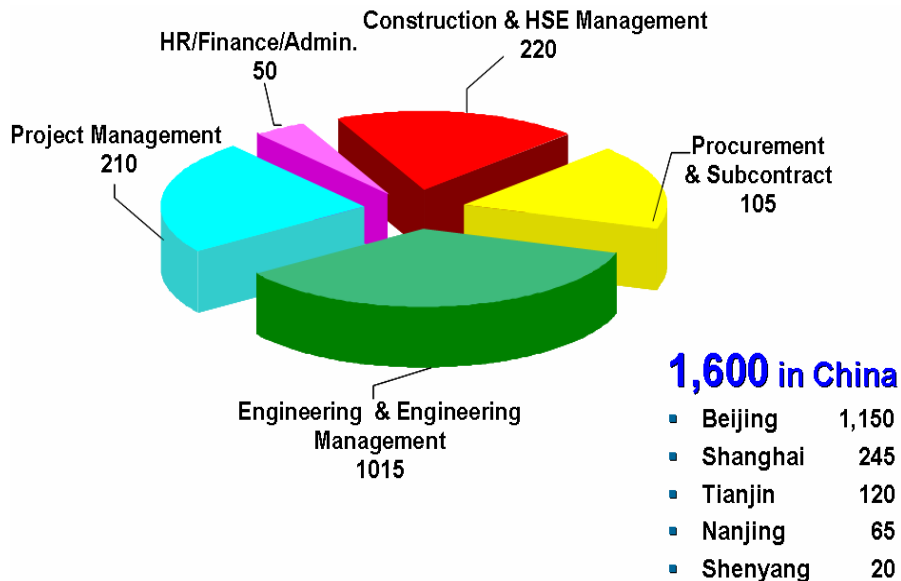
150+
EPCM & PMC/IPMT
projects in 10 years

Total EPCM Solution



Our headquarters is located in Beijing and we also have offices in Shanghai, Tianjin, Nanjing, and Shenyang to serve our Clients. Presently we have a staff of over 1,600 with most being technical and management professionals. The following is a breakdown of MaisonWorleyParsons human resources.

1,600
Employees



1,015
Engineering Design
Centre Staff

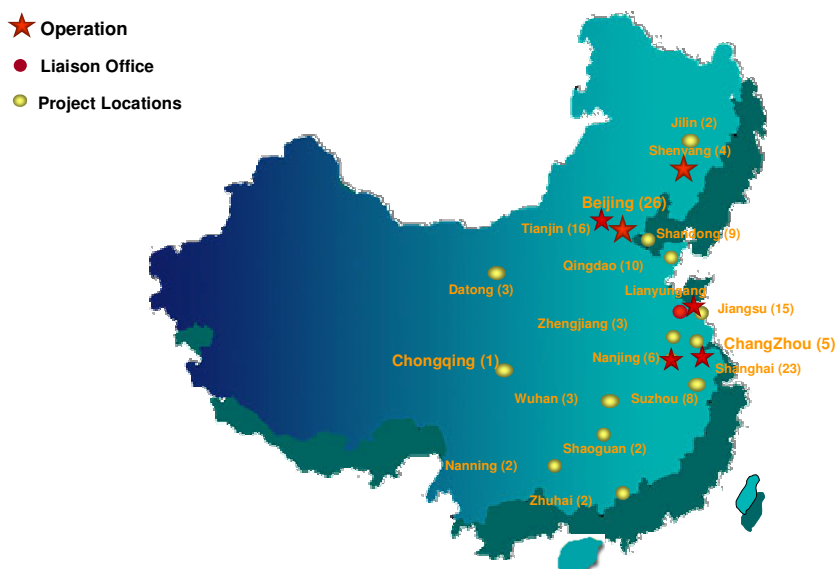
MaisonWorleyParsons provides Clients with full service engineering design capabilities. A total staff of 1,015 engineering personnel covers engineering management, process, piping & layout, mechanical, civil/structural/architecture, instrument, electrical and CAE & 3D design.

In China we are the leader in 3D and Intelligent Design Systems applications. Full set of engineering and design software are in place and being widely used on projects.

Our engineers and designers have rich experience in actual applications of intelligent design. For example, over 15,000 sheets of SmartPlant PIDs have been developed including delivery of 600 P&IDs in one single project. About 90% of our projects are executed with 3D PDS.

420+
Projects in 10 years

Over the last ten (10) years, MaisonWorleyParsons has been involved in over four hundred twenty (420+) projects and has developed over one hundred fifty (150+) Basic Engineering Packages and more than one hundred eighty (180+) Cost Estimates for many foreign Clients in China such as Evonik (Degussa), Dow, BOC, Motorola, GE, Eastman Chemical, Ashland Chemical and DuPont to name a few. Seventy-five percent (75%) of new projects awarded to us annually have been from repeat Clients. Our Customers return to us because of our competitiveness, quality performance, proactive project management and attention to their specific needs.



49+ MM
Safe work hours at site

Attention to Health, Safety, and the Environment has been of overriding importance to MaisonWorleyParsons since our beginning in 1999. We have established a policy of Zero Harm and have achieved a total of 49+ million safe work hours to date without a single Lost Time Incident. This materially contributes to the company's target of zero injuries and no negative impact to the environment.



USD2.86B

Purchase value over
last 10 years

Our procurement purchase value has increased annually over the last ten (10) years. As of now, the company's cumulative value of purchased process equipment and bulk materials is in excess of USD \$2.86 billion. The countries MWP has purchased equipment from in the last two years include but are not limited to China, USA, Germany, Holland, France, UK, Italy, Israel, Japan, Malaysia and Taiwan. A reliable in-house procurement database of 3,700+ vendors is available, including 1,100+ Joint Venture and WOFE vendors and 1,600+ vendors with whom orders have been placed.

10

Modules of IP
Protection

To fully protect our Client's Intellectual Property (IP) during project execution, MWP has established a procedure entitled "Ten (10) Principles for IP Protection". These modules include:

- 1) Establish a Project Specific Procedure/Culture;
- 2) Assign a Designated IP Coordinator;
- 3) Awareness Training;
- 4) Employee Control;
- 5) Visitor Control;
- 6) Information Control;
- 7) Drawings/Documents;
- 8) Document Control;
- 9) Facilities Setup and Control;
- 10) Monitoring & Improvements.

WorleyParsons Global Operations and Capability

MWP is a subsidiary of WorleyParsons, an Australian publicly listed company (ASX:WOR) headquartered in Sydney servicing the Resources and Energy sectors worldwide. WorleyParsons' business is structured globally around a number of Customer Sector Groups (CSGs):

- Upstream Hydrocarbons
- Downstream Hydrocarbons
- Minerals & Metals and Chemicals
- Power
- Infrastructure



**Upstream
Hydrocarbons**



**Downstream
Hydrocarbons**



Infrastructure



Power



**Chemicals and
Minerals & Metals**

Projects executed within the five CSGs range from small to multi-billion dollar capital investments. Our track record includes:

- Projects in harsh and remote environments from jungles and deserts to the Arctic
- In the past 5 years we have executed projects with a total installed cost of over USD 20 billion and we are currently executing a number of multi-billion dollar projects
- Mega-project execution and field developments worldwide
- Large projects in oil & gas, refining, chemicals, petrochemicals and sulphur management
- Complex project logistics
- Overall Program Management (PMC)
- Full EPCM execution
- Over thirty (30) Alliances and Long-term Services Contracts worldwide, each involving hundreds of small projects per year

Our consistent delivery of value-enhanced project outcomes is driven significantly by the quality of people that we assign to project teams and the use of our comprehensive global project management

system including proven project management processes and project execution procedures and methodologies. This electronically delivered project management resource is accessed directly by the project teams and tailored to meet the specific requirements of the project. The WorleyParsons Project Management Process (WPMP) provides a consistent framework under which a range of projects and project complexities can be successfully and rigorously managed.



The company operates 120 offices in over 37 countries and employs over 28,800 personnel worldwide. Project resources are drawn from our local and worldwide engineering and project management staff to fill positions on projects, ensuring the most appropriate expertise available within WorleyParsons is deployed. An increasing number of Workshare projects are being executed from multiple offices or utilising our High Value Engineering (HVE) Centres, underpinned by extensive, secure communications systems such as comprehensive project websites and document management applications.

28,800
Staff worldwide

MaisonWorleyParsons Advantages

MaisonWorleyParsons is the largest international engineering company in China, with rich experience executing a wide range of international and domestic projects with both foreign and Chinese Clients. The benefits offered by MWP are:

- Best construction safety record in China - over 49 million safe man-hours at site without a single Lost Time Injury.
- Largest International EPC & EPCM Contractor in China, with 98% of our staff being bilingual.
- Proven Intellectual Protection Procedure & Systems on over 30+ projects within the last (3) years.
- Class “A” Detail Design Certificate for chemical and pharmaceutical projects, which allows us to perform totally in-house EPCM, EPC, PDP and DED project scope. This will help to protect Client intellectual property.



- WorleyParsons Enterprise Management System (EMS) and Global Project Management Systems (WPMP) are fully applied.
- Executed 420+ projects with 80+ projects overseas; performed BEP localization for 150+ projects.
- Familiar with Western business style of project execution.
- Over 95% of our Clients are foreign companies and 75% of our projects are from repeat Customers.
- MWP's Procurement Group has robust vendor databases for China sourcing or project execution.
- MWP Management committed to executing a successful project.

Industry leadership in health, safety & environmental performance

Worldwide geographic presence with direct access to global front end engineering & specialist capabilities

Competent bilingual professionals with unsurpassed customer focus, balanced international & Chinese culture

Integrated high value project delivery to satisfy domestic & international standards

Successful & flexible delivery of large & small projects across multiple industries

Global enterprise management (EMS), project delivery (WPMP) & intellectual property protection (IP) systems



Largest & leading international EPCM company in China,



Project Profile: **EPCM**

Project:

Degussa Match Project

Client:

Degussa

Location:

Shanghai, China

Scope:

MaisonWorleyParsons was the EPCM contractor. Our services include:

- PDP
- Government Approval Support
- Development of Basic Engineering Package
- Detailed Design + Management
- Procurement Services (including inspection)
- Construction Management
- Commissioning Support

Timeframe:

Started: Apr 2007

Finished: Jul 2009

Project Description

Degussa set-up a new multi-facility site to support different production facilities located in this area, which consists of the following:

- Warehouse
- Substation
- Utility Building
- Cooling Tower
- Pipe Rack
- Tank Farm
- Drainage System
- Steam
- Firefighting System
- Power Supply and Distribution
- Administration Building





Project Profile: **EPCM**

Project:

Degussa Colorant and Polyester Project

Client:

Degussa

Location:

Shanghai, China

Scope:

Our services included the total project execution and EPCM management of ISBL package, including the whole process:

- Cost estimate
- PDP
- Government approval support
- Development of Basic Engineering Package
- Detail Design + Management
- Project Management
- Procurement Services (including inspection)
- Construction Management

Timeframe:

Started: Nov 2003

Finished: Nov 2005



Project Description

Degussa Specialty Chemicals (Shanghai) Co. Ltd., established a Polyester & Colorants Project in the Shanghai Chemical Industry Park (SCIP), Caojing.

• This project is for building a new plant to produce polyester resins and colorants:

- Polyester building, hot oil shelter, polyester drumming facility, colorants production building, warehouse, dock area, control room and MCC room, tank farm, early rain water sump, pump pad, loading and unloading station, office area, pipe rack, foam house, general plot plan, underground piping, outside storage area.



Project Profile: **EPCM**

Project:

Degussa QDCC Carbon Black 3rd Line Project

Client:

Degussa

Location:

Qingdao, China

Scope:

The EPCM services include overall project management, engineering services, procurement services & construction management:

- Development of Detail Engineering Package
- Provide the procurement services for all equipment / materials
- Subcontracting service
- Construction management

Timeframe:

Started: Sep 2004

Finished: Dec 2005



Project Description

This project is located at Degussa's existing plant in Qindao, Shandong, China. The 3rd Line increased 100% of the plant's production capacity.

The project includes:

- Carbon black production line
- Revamping of existing utilities supply
- Tail gas boiler system



Project Profile: **EPCM**

Project: Celanese Specialty Chemical Nanjing VAE Project
(Confidential project, only limited information disclosed)

Client: Celanese

Location: Southeast, China

Scope: MaisonWorleyParsons service is LS EPCM.

Included:

- Basic Engineering Package (BEP)
- +10% Cost Estimate
- Detail Design
- Procurement
- Construction
- Local Authority Coordinator
- Commissioning Support

Timeframe: **Started: 2004**

Finished: 2006



Project Description

Celanese invested in a world class specialty chemical facility in this Southeast China facility.

This facility consist of all the core units needed to operate independently:

- Process Unit
- Tank Farm
- Warehouse
- Fire Fighting System
- Administration Building
- Control Room



Project Profile: **EPCM**

Project: Dow Chemical EPIC III Project
Client: Dow Chemical
Location: Jiangsu, China
Scope: MaisonWorleyParsons service is LS EPCM.

Included:

- Engineering and design
- Procurement service
- Construction management services

Timeframe: **Started:** Oct 2006
Finished: Oct 2007



Project Description

This project is the expansion of Dow S/B Latex (Zhangjiagang) Co. Ltd after Phase 1 and 2. The expansion will increase 50,000 ton/year latex production capacity. The project includes: build third reactor and related instrumental and electrical equipment, one new refrigeration unit, to expand the existing chilled water tank and one new cooling tower, a new air compressor unit, two product tanks, to add new reactor frame and an expanded MCC room.

Project Profile: **EPCM**

Project: Eastman Chemical Qilu Project

Client: Eastman Chemical

Location: Qilu, China

Scope: Our services included the total project execution and EPCM management of ISBL package, including the whole process.

- Development of Basic Engineering Package
- Detail Design + Management
- Project Management
- Procurement Services (including inspection)
- Construction Management

Timeframe: **Started:** Sep 2002

Finished: Dec 2004



Project Description

Eastman Chemical Company and Sinopec Qilu Petrochemical Company formed a joint venture to produce Texanol Ester Alcohol and TXIB Plasticizer in the 2nd Fertilizer Plant of Qilu Petrochemical Company.

The production capacity is as follows:

- TXIB: 15,000 ton/year
- Texanol: 12,200 ton/year

