

## SPECIALIST SOLUTIONS FOR DE-PLANTING & DEMOLITION PROJECTS

MARR CONTRACTING ARE WORLD LEADERS IN THE DESIGN AND DELIVERY OF HEAVY LIFT CRANES AND COMPLEX CRANAGE SOLUTIONS.

Not just a crew and cranes for hire, we're big thinkers and problem solvers who love a challenge with a string of 'world firsts' to our name – including the design of the world's largest capacity tower crane, the 330-tonne capacity M2480D heavy lift luffing (HLL) crane.



# OUR UNIQUE APPROACH

DELIVERING VALUE THROUGH THE UNIQUE COMBINATION OF OUR KNOWLEDGE, EXPERIENCE, PROVEN SERVICE DELIVERY AND PEOPLE, WE WORK WITH YOU TO FIND AN ENGINEERING SOLUTION THAT WORKS – NO MATTER HOW BIG OR COMPLEX THE JOB IS.

Through early engagement we can work with you to develop innovative solutions that are specific to your project and deliver the best outcome for your preferred methodology.

And with a belief that anything is possible, we push the boundaries to deliver solutions that:

- de-risk deplanting & demolition projects
- reduce complexity, time & cost
- improve safety.



THE KEY TO ACHIEVING MAXIMUM EFFICIENCY IS EARLY ENGAGEMENT WITH US – AND THE EARLIER THE BETTER.

SIMON MARR, MANAGING DIRECTOR, MARR CONTRACTING



## SPECIALIST SOLUTIONS FOR DE-PLANTING & DEMOLITION PROJECTS

WITH ALMOST 100 YEARS' EXPERIENCE WORKING ON COMPLEX LARGE-SCALE PROJECTS AROUND THE WORLD, WE KNOW THAT THE GREATEST BENEFITS ARE ACHIEVED THROUGH EARLY ENGAGEMENT TO OPTIMISE THE SITE STRATEGY BY USING UNIQUE CRANAGE SOLUTIONS.

Our specialist solutions for de-planting and demolition projects help to:

- reduce disruption & risk to plant operations
- reduce temporary/enabling works
- remove larger, heavier & higher risk components
- shorten site activity programs, and
- improve safety performance.



### UNIQUE FEATURES & BENEFITS:

- Small crane footprint ideal for congested site or built up urban environments.
- Improved site safety by limited construction plant movements.
- Long reach and high capacity enables solutions with fewer cranes thereby reducing congestion and complexity whilst simultaneously increasing storage & laydown options.
- Larger redundant components lowered to grade for:
  further size reduction in safer environment.
  - direct shipping offsites.
- Acceleration of debris removal with the ability to lift skips direct to removal transport.
- Modular deconstruction reversing MMC/DfMA construction techniques.
- Capability to operate at 20m/s wind speed increases availability.
- Potential for a single crane scheme for demolition and construction.



# OUR FLEET

OUR FLEET OF THE WORLD'S LARGEST CAPACITY TOWER CRANES – RANGING FROM THE WORLD'S SMALLEST CRANE, THE TINY M40R, TO THE WORLD'S LARGEST CAPACITY TOWER CRANE, THE M2480D – COMBINES THE LIFTING CAPACITY OF MOBILE AND CRAWLER CRANES WITH THE HIGH PERFORMANCE OF TOWER CRANES.

As part of our commitment to sustainability, all Marr cranes are compatible with renewable diesel (HVO100).

### OUR SERVICES INCLUDE:

- resourced program & project crane solutions
- heavy lift crane solutions & design
- heavy lifting mobile & luffing tower cranes hire
- crane asset management
- recovery crane systems
- complete rigging services with highly qualified & experienced personnel
- engineered lift studies & job site lift planning
- a full range of towers, static & travel bases, internal & external climbing frames, grillages & other accessories.



WE DON'T JUST HIRE CRANES – WE DESIGN THEM. SO, IF THE RIGHT CRANE FOR YOUR JOB DOESN'T ALREADY EXIST, WE'LL BUILD ONE.



SIMON MARR, MANAGING DIRECTOR, MARR CONTRACTING



### MIRVAC TX TOWER DECONSTRUCTION

### A COLLABORATIVE APPROACH TO DISMANTLING A SYDNEY LANDMARK

### AT A GLANCE

CLIENT	MIRVAC
PROJECT	TX TOWER DISMANTLE
LOCATION	SYDNEY AUSTRALIA
SECTOR	DEMOLITION & DEPLANTING
DATE	2017-2021
CRANES	1 X M1280D & M310D

#### FULL CASE STUDY AT: MARR.COM.AU/PROJECTS/TX TOWER

### PROJECT OVERVIEW

Built in 1965, the former TCN-9 TX transmission tower at Willoughby was one of Sydney's most recognisable landmarks for more than 50 years. When our client, Mirvac, acquired approval to redevelop the site into a new residential community, they knew they needed to remove the tower – they just didn't know how.

After assembling a team of leading engineers and contractors, Mirvac explored a number of more traditional methods of deconstruction and approached Marr to come up with a solution using our tower cranes and bespoke equipment.

The result was a unique approach that allowed the tower to be dismantled in larger sections – reducing the number of lifts required from 90 to just 36, eliminated the need for temporary works and associated engineering, and saw the tower safely dismantled, three months ahead of schedule and without incident.



MIRVAC HAS AN INDUSTRY-LEADING REPUTATION FOR UPHOLDING THE HIGHEST STANDARDS OF SAFETY AND OUR DESIGN TEAM IS COMPRISED OF EXPERTS IN THEIR FI ELD. PARTNERING WITH MARR AS OUR CRANAGE EXPERTS MEANT WE WERE IN SAFE HANDS.



CLANCY SPROUSTER, SENIOR DEVELOPMENT MANAGER - RESIDENTIAL DEVELOPMENT NSW, MIRVAC







### HEAT EXCHANGE VESSEL DECONSTRUCTION

### AN INNOVATIVE CRANEAGE SOLUTION FOR A LEADING COPPER SMELTING PLANT

### AT A GLANCE

CLIENT	UNDISCLOSED
PROJECT	HEAT EXCHANGE VESSEL DECONSTRUCTION
LOCATION	SOUTHEAST ASIA
SECTOR	MINING
DATE	JULY – OCTOBER 2019
CRANES	1 X M2480D

FULL CASE STUDY AT: MARR.COM.AU/PROJECTS/HEAT-EXCHANGE

### PROJECT OVERVIEW

When our client – a leading processor and exporter of refined copper and precious metal by-products – decided to replace the plant's decommissioned heat exchange vessels, they contacted Marr for a heavy lift craneage solution that could be completed safely within a scheduled shutdown and without disruption to operations.

The project proposed a number of challenges including working to a scheduled shutdown program in a congested site with restricted space and significant underground services. The original crane methodology proposed using a 600-tonne crawler crane with a super lift attachment which would have required demolishing part of the plant and shutting down critical production.

With less lifting and a quicker deconstruction program, Marr's solution reduced the overall risk on the project and to plant operations, and allowed the refinery to return to production earlier than originally planned.



THIS PROJECT REQUIRED LIFTING SOME VERY HEAVY VESSELS IN A CONFINED SPACE WITH A FOOTPRINT OF ONLY APPROXIMATELY 10 METRES. THERE WAS NO WAY TO FIT A CRAWLER CRANE IN SUCH A CONFINED SPACE, SO OUR SOLUTION WAS TO PUT A 10-METRE STATIC BASE AND ONE OF OUR HEAVY LIFT TOWER CRANES IN TO DO THE JOB.



GORDON MARR, TECHNICAL & PRODUCT DEVELOPMENT DIRECTOR, MARR CONTRACTING







THERMOFOR CATALYTIC CRACKING (TCC) TOWER DECONSTRUCTION

A 'CRACKER' OF A CRANAGE CHALLENGE FOR A MAJOR OPERATIONAL OIL REFINERY

### AT A GLANCE

CLIENT	UNDISCLOSED
PROJECT	THERMOFOR CATALYTIC CRACKING (TCC) TOWER DECONSTRUCTION
LOCATION	AUSTRALIA
SECTOR	OIL & GAS
DATE	JULY 2017-JANUARY 2018
CRANES	1 X M2480D

FULL CASE STUDY AT: MARR.COM.AU/PROJECTS/TCC-DECONSTRUCTION

### PROJECT OVERVIEW

The deconstruction and removal of a Thermofor Catalytic Cracking (TCC) tower in one of Australia's largest working oil refineries was a cracker of an engineering challenge for Marr. The new system we developed could be a game changer for other refineries around the world where safety and productivity are critical to successful ongoing operations.

Given the height of the TCC (at 100-metres), as well as the fact that the structure was located in a high-wind area with tight access, the project posed a number of challenges. However, using one of our Marr 2480Ds to dismantle the tower elements in large manageable pieces, our client was able to safely dismantle the TCC without having to shut any part of the refinery operations down during the deconstruction works.

Our approach meant less lifting and a quicker deconstruction program, which effectively reduced overall risk on the project and to refinery operations.

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THE NEW SYSTEM WE DEVELOPED FOR THIS PROJECT IS A GAME CHANGER FOR REFINERIES AROUND THE WORLD WHERE SAFETY AND PRODUCTIVITY ARE CRITICAL TO SUCCESSFUL ONGOING OPERATIONS.

SIMON MARR, MANAGING DIRECTOR, MARR CONTRACTING





### GARDEN ISLAND

### DISMANTLING A PIECE OF SYDNEY'S NAVAL HISTORY

### AT A GLANCE

CLIENT	LIBERTY INDUSTRIAL
PROJECT	GARDEN ISLAND DISMANTLING
	AND SALVAGE OPERATION
LOCATION	GARDEN ISLAND NAVAL BASE
	SYDNEY, AUSTRALIA
SECTOR	DEFENCE
DATE	APRIL – OCTOBER 2014
CRANES	1 X M2480D, 1 X M120RX

VIEW FULL CASE STUDY: MARR.COM.AU/PROJECTS/GARDEN-ISLAND



#### PROJECT OVERVIEW

Marr was approached by Brookfield Multiplex Services and their client, the Australian Government's Department of Defence, for support in developing a craneage methodology for dismantling an historic crane on Sydney Harbour.

Working in a confined space on an operational naval base that needed to be accessible to naval ships added to the challenges of dismantling the heritagelisted crane components on a wharf with limited load capacity and a site prone to difficult weather.

Working with our partner on the project, Liberty Industrial, we designed a solution that saw the project successfully completed within six months with all heritage items safely recovered and removed from the site and no disruptions to the operation of the Australian Navy fleet.

# 11

WE WERE ABLE TO REDUCE THE PROPOSED NUMBER OF LIFTS FROM THE PLANNED 250 TO 70 ... AND MINIMISED THE SAFETY RISKS INVOLVED



TODD SOLOMON, PROJECT MANAGER, LIBERTY INDUSTRIAL





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