

DETACLAD® MANUFACTURED AT DMC MT. BRADDOCK FACTORY

DMC Mt. Braddock Plant manufactures Detaclad® explosion welded clad from virtually any combination of commercially available metals or alloys. The product can be provided as high quality clad plates, heads and tubesheets for pressure vessels, heat exchangers, condensers, autoclaves and tanks. Sizes are limited only by availability of materials and transportation restrictions.

RELIABILITY IN QUALITY AND DELIVERY

STEP 1: PURCHASING & RECEIVING INSPECTION



Component metals purchased for clad manufacture by DMC must comply with explicit specification and customer requirements. All metals require written certification of specification compliance and matching positive identification markings. Plates are inspected upon receipt and given unique DMC tracing numbers upon acceptance.

STEP 3: PRE-WELDING



Large cladder sheets may be fabricated from multiple sheets by edge butt welding. Welding is automated and complies with ASME Code requirements.

STEP 5: BLASTING CHAMBER



The explosive detonation is performed in an underground chamber, providing noise and environmental control. Operations are not limited by weather.

STEP 2: SURFACE PREPARATION



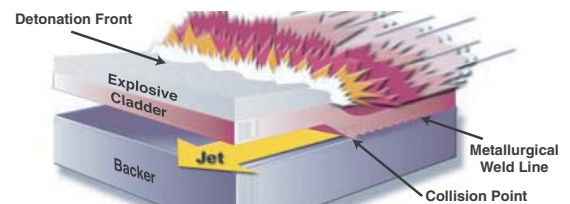
Automated grinding process assures correct surface preparation at lowest cost.

STEP 4: CLAD ASSEMBLY



Cladding and base metal plates are assembled together in the precise configuration to assure correct conditions for explosion welding.

STEP 6: EXPLOSION CLADDING



The controlled detonation of an explosive layer on the cladder plate results in a high pressure collision of the metals. The collision conditions create a metallurgical weld between the cladding and base metal plates.

STEP 7: FURNACE



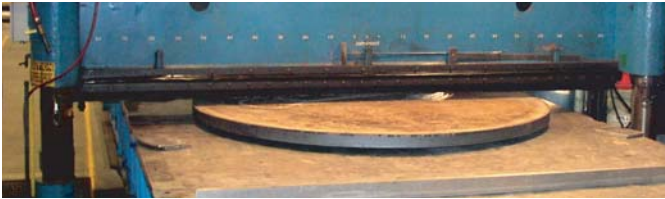
Some cladding metals, including titanium and zirconium, require a stress relief heat treatment after cladding. Furnace size: 14 ft. x 40 ft. x 6 ft. high.

STEP 8: LEVELER



Plates up to 3 inches thick and 160 inches wide are flattened on a multi-roll leveler.

STEP 9: PRESS



Thicker or wider plates are flattened using a 1500 ton press.

STEP 10: CUTTING



Plates are cut to final size. Flame cut, waterjet and machining are available options.

STEP 11: TEST LAB



Mechanical tests and metallography are performed by the in-house test laboratory.

STEP 12: INSPECTION



Automated ultrasonic inspection verifies bond quality and provides a permanent record. Flatness and dimensional compliance are confirmed. Code certification is provided for every plate.

DETA CLAD® PLATE



Finished Detaclad® Plate ready for shipment.

MANUFACTURING PROCEDURES AND QUALITY SYSTEM

All DMC's clad manufacturing procedures are well documented to assure highest possible quality and consistency. Written manufacturing instructions for each clad plate clearly define operation sequence, applicable procedures and production traceability. DMC's Quality System is ISO 9001-2000 approved and complies with the requirements of ASME.

