

CARBON TECH MINING



Carbon fibre products offer the Mining Industry improved safety and attractive ROI

Carbon Fibre products can be manufactured for the Mining Industry with greater:

- Strength than steel at a fraction of its weight (in some cases, just 25 per cent) (delivering improved safety and greater mechanical and fuel efficiencies); and
- Durability (longer life and less maintenance) as they are able to withstand intense heat, corrosive substances (eg salt, water and chemicals which can cause irreparable damage to other traditional materials) and can be moulded into single pieces (fewer joins).

If you require strength without weight - and longevity in hostile environments - carbon fibre's incredible versatility makes possibility a reality!

Carbon Tech Mining's experts will help you develop a tailored solution: from inception, through design, to manufacture.



About Carbon Tech Mining

Carbon Tech Mining is a Joint Venture between Rivers Carbon in New Zealand and Triac Composites (a wholly Australian/ New Zealand owned and managed company) in Vietnam.

Carbon Tech Mining provides innovative carbon fibre and composite solutions for the Mining Industry that deliver positive returns on investment (ROI) and an improvement in safety.

Below are some examples of projects we have been involved in.



Ventilation Tubes

Product: Carbon fibre ventilation tubes, in multiple sizes, to provide fresh air in underground mines.

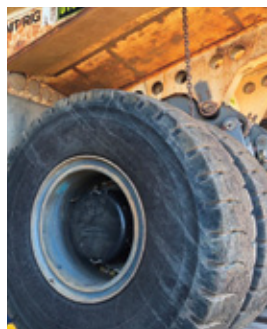
Benefits: Very light (enabling quicker assembly and retrieval by hand as well as reducing number of shoulder injuries). Very tough (minimising maintenance). Very stiff (increasing fan pressure). High chemical and heat resistance.



Backhoe Stick

Product: Carbon fibre sticks for Cat 6060 and Cat 6090 models.

Benefits: Reduced weight of stick without negatively impacting strength. Opportunity to make bigger buckets carrying up to 20t more than OEM buckets. This would reduce number of required "swings" and produce cascade savings.



Mining Dump Trucks

Product: Wheel covers for 3300, 4400 and 6300 electric wheel drive mining trucks.

Benefits: Light, non-conductive, fire resistant and tough compared with OEM covers.



Mono Rail

Product: 150mm carbon mono rail.

Benefits: The carbon rail weighs just 25 per cent of its steel equivalent (9kg Vs 35kg) and a test loading of the carbon fibre rail gave it a higher rating.



Conveyor Belt Rollers

Product: Conveyor belt rollers for BHP Westcliff mine.

Benefits: Reduced weight, elimination of corrosion, longer wearing (especially with the addition of silicon carbide to the surface of the rollers) and high fire resistance (to comply with FRAS requirements).



Relay Bar Extensions

Product: Relay bar extensions for long wall machines.

Benefit: The weight of each relay bar extension was reduced to just 20kg and, under pressure test conditions, was able to withstand 90t. With 20kg being light enough to lift, this equipment could be adapted to use as a tow bar on a truck.



Carbon Wheels

Product: Carbon wheels built to US military standards.

Benefits: Weight savings result in greater fuel efficiency. Also high fire and chemical resistance.



Safety Chocks

Product: Safety chocks.

Benefits: Easy to lift (reduced number of injuries) with weight being reduced from 20kg to 6kg



Belt Roll

Product: Belt rolls available for 5t rolls of belt rubber.

Benefits: Roll centres are light enough to handle by hand.



Continuous Miner Manifold

Product: Miner Manifold.

Benefits: The manifold flows 30 per cent better than the OEM part and is light enough to manually handle.

What issue / opportunity do you have in your Mine? Please share it with us:

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