OVM ENGINEERING SOLUTIONS

Realize your ideas, support your solutions!

Solutions for bridges, highways, railways, buildings, containments etc.

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OVM tops the Chinese prestressing industry

Thanks to 40 years of experience, OVM is now a leading product supplier and specialist contractor in China in the field of prestressing and other special construction techniques. With a strong reputation for reliability, professionalism and innovation, OVM systems have successfully worked on numerous projects, including bridges, highways, high-speed railways, buildings, dams, nuclear power plants, and in doing so have achieved worldwide acknowledgement.

Sufficient R&D

As a basic company strategy, more than 5% annual turnover would be invested in the R&D. OVM has a national technology center and a postdoctoral research workstation in cooperation with renowned universities and institutions etc. OVM owns 390 technical patents by 2010, which guarantee the multiple efficient solutions to the clients.

Full range of products

OVM focuses on developing outstanding prestressing technology and building up renowned brand in civil engineering field. As the biggest supplier in China, OVM provides full range of prestressing system including 5 categories, 30 series and more than 420 types of products:

I. OVM Post-tensioning Systems
II. OVM Cable Systems
III. OVM Construction Solutions (Incremental Launching, turning and heavy lifting)
IV. OVM Bearings & Expansion Joints
V. OVM Monitoring Systems

Certified management and products

The lasting and reliable OVM products are guaranteed by outstanding management. OVM is certified with ISO9001:2008 Quality Management System by BSI and CQC. Each process of production from raw material purchasing to delivery is strictly under the control of management system. OVM products meet the requirements of major standards: AASHTO/LASTM, BS, EN, ETA, FIP, GB, JIS, PTI etc. Meanwhile, OVM works closely with external, independent institutions for testing and improvement of all products.

Yours truly dependable partner

With worldwide network, OVM strives continually to provide high quality services to clients and is seeking partnerships in areas of prestressing design for structural engineering projects, provision of prestressing systems, and contracting of special structures.
As one of the earliest Chinese post-tensioning systems, OVM has sufficient experiences in prestressing technology, the reliability of OVM system is extensively acknowledged in the industry.

- Conforms to world-class standards such as AASHTO, BS, ETA, FIB and GB etc.
- Compact anchorage for 1~55 strands
- Adapted for strands with various diameters and strengths
- Easy installation, full series of equipments
- Widely applied to highway, railway, bridge, dam, tunnel, silo and skyscraper etc.
OVM provides durable bearings, expansion joints and dampers to various structures:

- Complying with the specifications of JT, AASHTO, BS, JIS etc.
- Natural rubber and neoprene type of bearings and expansion joints are available.
- Spherical bearings and pot bearings feature high performance.
- Damping bearing with lead core is introduced to projects especially in seismic zone.
- Shaped steel type and finger type expansion joints provide larger movement and more excellent drive-over comfort.
- Simple, compact, tailor-made Visco Damper is capable of sufficiently absorbing the shock of structure.
- MR Damper provides a continuously controllable, economical solution to wind-rain-induced cable.
OVM stay cable system solution is based on the applications of multi-strand cable, parallel steel wire cable and strand cable with integral swaging anchorage. OVM has been providing systems and erection services in more than 160 cable-stayed bridges worldwide, all these projects benefit from the excellent performance of OVM solution:

- Various cable options: bare/galvanized/epoxy-coated strand or wire
- High fatigue performance at 250MPa stress range
- Excellent anchoring property of multi-strand anchorage at the low stress condition
- Higher anti-corrosion performance by applying epoxy-coated strand or wire
- Multi-barrier corrosion protection, satisfying CIP, Fib and PTI specifications
- Cable force monitor enables real-time monitoring of stay cables
- Simple structure, easy installation and specialized erection service
The system is developed especially for extradosed bridge, which has been applied to more than 50 bridges worldwide.

- Outstanding anti-fatigue performance, complying with CIP, FIB and PTI standards
- Multi-barrier corrosion protection
- Innovative saddle simplifies the structure and reduces the cost
- Saddle distributes the load and solves the stress concentration
- Easy adjustment and replacement of single strand
- Cable force monitor enables real-time monitoring of cable systems
- Providing complete erection service

OVM has been developed arch bridge solution which is of high durability and adaptability, based on the hanger and tied cable using steel wire or strand.

- New prefabricated PE(PE) hanger improves the property of durability
- Higher anti-corrosion performance by applying epoxy-coated strand or wire
- Newly developed strand cable with integral swaging anchorage has excellent anti-fatigue property
- Cable force monitor enables real-time monitoring of cable systems
- Providing complete erection service
- Customized design for special requirements of structure and safety
As the main bearing element, cable system for suspension bridge is the lifeline of the bridge. OVM cable system solution for suspension bridge contains complete cable products, which is developed via rigorous scientific research.

- Full range of cable products for suspension bridge ensuring perfect match
- Advanced replaceable anchor block system with excellent anti-fatigue and anchoring performance
- PPWS main cable and hanger with outstanding anti-corrosion property
- Offering optimization to cable saddle and band etc.

- Providing 3 major equipments for construction of suspension bridge: cable crane, wrapping machine and main cable compressor, capable of contracting the special construction process
- Cable force monitor enables real-time monitoring of cable systems if necessary

OVM has sufficient experience and numerous job references on external prestressing system.

- New design and application of new materials solve the difficulty of anti-corrosion
- Cable force is measurable and adjustable according to requirement even during bridge operation
- Replaceable system extends the service life of bridge
- Lighter structure, simpler erection and lower cost
- Providing efficient and economical solution for repairing and strengthening of old structures
OVM hydraulic sync lifting technology features innovative design, special construction method, advanced automatic control and high reliability, which has been involved in several great projects. It is an excellent solution to move the extra large, ultrahigh, superheavy structures in horizontal and vertical direction, which is also widely applied to bridge turning.

- Easy and rapid installation
- No limit to operating surface and mass of the structure being lifted (incrementally launched or turned)
- Highly automatic, the deviation of pose, velocity, lifting or traction force of the structure could be controlled accurately
- Simple operation, visualized parameters, high reliability
- Decrease working amount at height, shorten construction period, improve erection quality, lower the cost