



FLEXIBLE HOSES IN CONSTRUCTION

Concrete pumps and concrete placing booms make a significant contribution to the efficient delivery of the construction process. The development of concrete pumps has allowed concrete to be pumped under pressure through pipelines across great distances and in significant volumes. Unfortunately the very versatility that makes them so useful also provides scope for unsafe use, this has led to a significant number of serious accidents, tragically including some fatalities. There were 42 deaths on British building sites in 2013, with 5,000 workers seriously injured.

Not only do these accidents have a terrible cost in terms of human suffering, they also have a significant financial cost for all concerned. Consequently there is a very strong business case for improving safety performance.

As with all construction equipment, the safe operation of concrete pumps depends on a number of factors including the selection and maintenance of the pump and placing boom, the planning and supervision of their use, and the competence of the operator and other personnel. If any of these are deficient, the risk of a serious accident increases significantly, so it is essential that site managers ensure that all concrete pumping operations are planned, supervised and carried out safely.

Managing concrete hoses is critical on construction sites, but there are currently no standards when it comes to proactive testing and maintenance. Operatives need to know details about a hose — **type, size, length, and end fittings** — to quickly test, repair and return equipment to service.

Identifying a hose isn't always easy. The hose might endure years of dirt, abrasion, and weathering that obscure external markings. Or it might be painted or mounted in an inaccessible location that makes the markings difficult to read.

Key2iD has developed the Hose-Track solution for concrete hose assemblies to provide rapid identification. This gives operators and maintenance personnel instant access to hose-assembly



information, allowing for rapid identification, test and repair of damaged hoses.

An ID number is applied to the hose and used as a datum point for information about the assembly. Key2iD maintain a database that stores the hose identity and specs that clients can access without the need to invest in their own database, and clients can access their individually branded portal at any time to view their assets and what maintenance or testing might be required.

Should a hose require service, maintenance personnel can review the specific information directly from the database. Operators can update and add hose information via the handheld device. Data in the smart phone or tablet and main database are synchronized regularly.

Hose testing is managed by Hose-Track through the use of an email alerting system. As hose details are added to the database, the date of the next (or first) test is automatically calculated and added to the record. One month prior to the test date, an email alert is sent to the designated client contact to remind them of the test date, and to allow time for the hose to be sent for testing.

The pressure testing is carried out according to the hose specifications, as designated in the database. Upon completion of the test, if the hose passes, a certificate is automatically created and added to its' record in the database. If it fails the test, depending upon the condition and the cause of the failure, it can be re-ended, split into a number of shorter hoses, or disposed of.

Full details of every hose are maintained in the database, including a full history of the hose from delivery to disposal.

For full details about Hose-Track, contact Key2iD Limited:

Website: www.key2id.com
Telephone: (0118) 380 1646
Email: info@key2id.com