

Innovative Technology

ConMICO's latest development project is a hydro-rock fracturing machine to meet the high production mining requirement for block caving pre-conditioning applications.

ConMICO develops and manufactures high pressure water jet systems up to 50,000 psi and up to 1200 H.P. for jet boring, underground hydraulic power units, coating removal, de-scaling and cutting.

ConMICO also specializes in custom-made durable, lightweight grouting and cement injection plants for use in soil consolidation, jet-grouting to 10,000 psi, pile formation, tunnel forming and repairs, forming water curtains, back filling and grouting of cracks in tunnels and mine shafts.

For grouting systems, ConMICO manufactures high speed colloidal mixers, double drum mixers, agitators, as well as accessories including packers, valves and high pressure fittings.

Shotcrete and concrete pumps are also available.



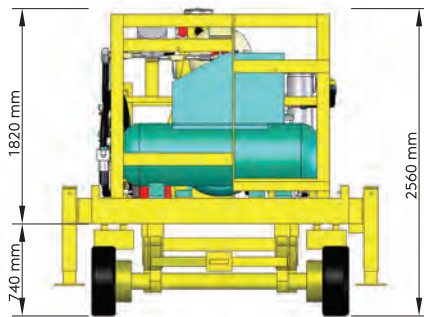
400 H.P. Rock Fracturing Rig Codelco,
El Teniente Division, Chile



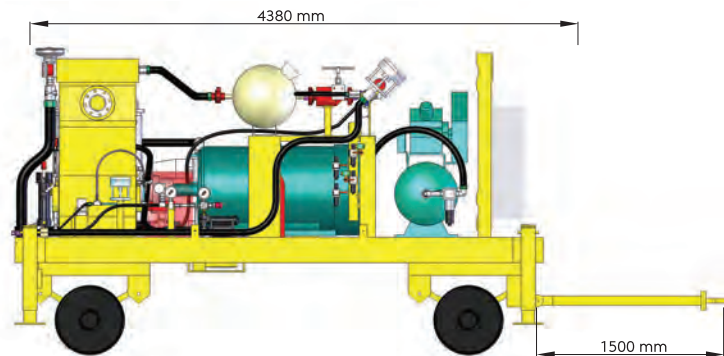
Hydro Fracturing Machine

Our 400 H.P. Portable Hydro-fracturing rig with its low profile is suitable for use in small tunnel applications. With all the electrical hardware and computer systems on board, it is a self-contained system and only requires the operator to supply electrical power.

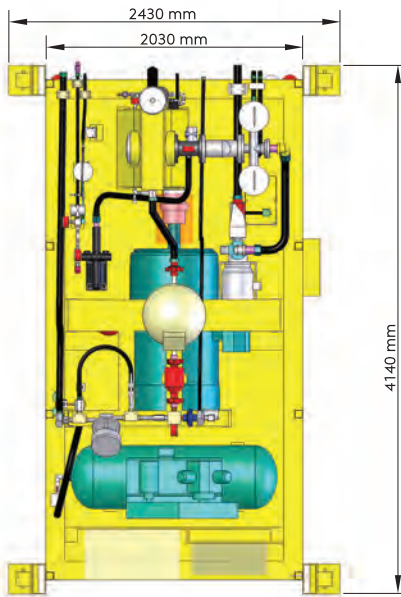
Front View



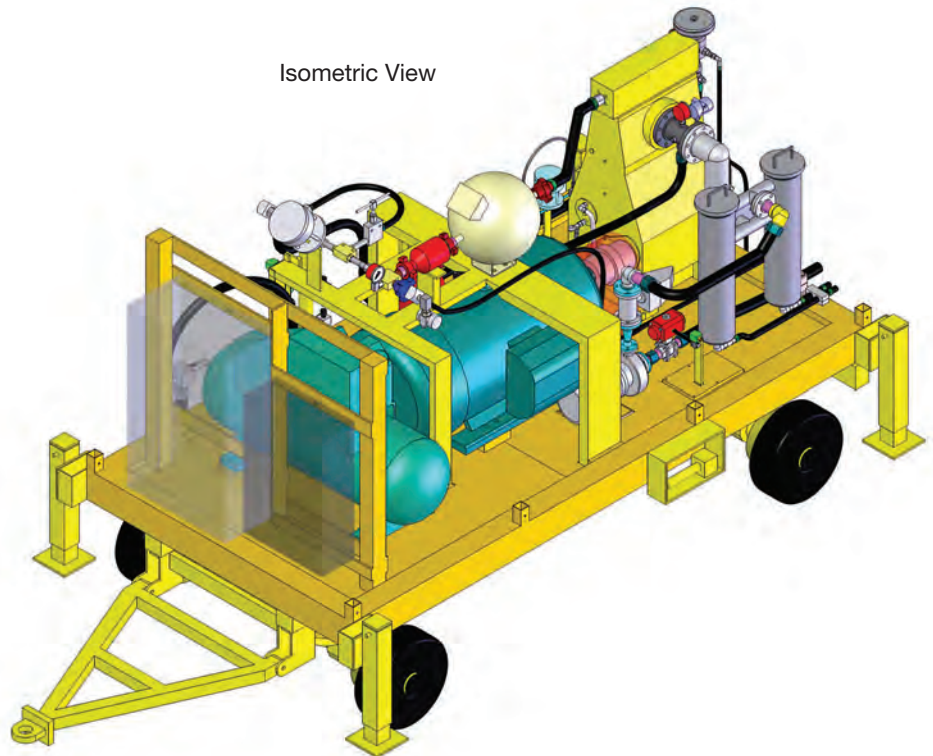
Side View



Top View



Isometric View



Hydro Fracture Systems

Hydro-fracturing is a method of improving the yield of various types of wells by opening and flushing out previously closed fractures with high pressure water. We have available a range of high pressure inflatable packers suitable for this and similar applications such as stress testing, de-gassing coal bed methane and block caving. Standard sizes are available for bores from 30 mm (1.2") to 200 mm (8") diameter with pressure ratings up to 700 bar (70MPa or 10,000 psi)

Fracturing or Stress Testing is a method employed in geotechnical investigations to assist in the determination of in-situ rock strength. The basic method is to use inflatable packers to isolate the section of interest, then generate a fracture in this section by water pressurization and measure the orientation of this fracture using an impression packer. (An impression packer has a cover made of a semi-cured rubber that retains an impression of the borehole wall when deflated. On packer removal this impression can be examined to determine its orientation.) This information allows determination of the principal in-situ stress of the rock mass. There are packer systems and associated hardware to suit such testing in all hole sizes from 30 mm to 150 mm in diameter.

APPLICATIONS

- Hydraulic pre-conditioning block caving

FEATURES

- 70 mm (for NQ) and 89 mm (for HQ) diameters are standard
- Pressures up to 12,000 psi (850 bar)
- Choice of injection sub formats
- Replacement element service
- "Top Wiper" to minimize rock particle puncture
- Choice of packer lengths and injection (test) zone lengths
- Operations Manual
- Stainless steel internal composition

