Roof Support Reconfiguration
Powered Roof Supports

At Komatsu we understand the challenges mines experience in tough times. Facing little or no capital, you still need to operate on a day to day basis, maintain reliability, and improve productivity, all the time pushing the life of your core assets. This understanding has allowed Komatsu to develop an aftermarket service with cost effective solutions tailored to your individual needs and budgets.

Throughout the life of a mine the operational parameters for the powered roof supports (PRS) can change. For example, the working height may reduce or the density may need to increase. This could be the result of moving to a new area of the mine, a new seam development, or even transferring the PRS to another site. In a better economic climate, such events would quite often be the trigger for a new set of PRS. In tough economic times, Komatsu can provide options that eliminate the need for purchasing entirely new PRS.

As the original equipment manufacturer for our PRS we are in a unique position to assist you. Because Komatsu designed the Joy PRS, we have the expertise and technical data to understand how the PRS were configured originally, as well as access to all the historical information from the original validation of individual components through to the testing of the PRS as a whole.

Working with our customers, Komatsu can provide cost effective alternatives such as PRS reconfiguration to suit your mine’s new parameters which reconfiguration is backed up with an original equipment manufacturer’s warranty.

Our reconfiguration philosophy of:
• Reuse  • Rework  • Replace

is based on the right solution at the best possible cost to the customer.
Case study
The mine was having issues at the gate ends, due to the friable nature of a weak immediate roof. The condition of the roof often resulted in the gate end supports being fully extended but still not providing any load into the roof.

The solution was a redesigned gate end support with a higher working range. This higher working range allowed the supports to comfortably reach the required height and provide adequate load into the roof, thereby addressing the issue. To reduce the cost to the mine, Komatsu devised a novel way of reconfiguring two of the existing run of face PRS and two of the original gate end supports into new transitional PRS to suit these new higher working range Gate End units.

Original layout
Includes 9 x original gate end supports and the problem areas (red).

New layout
Includes 7 x new gate end supports (red), and two of each reconfigured support (blue).