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(57) Abstract :
This invention presents an efficient, inexpensive and eco-friendly minimum quantity lubrication (MQL) system. The available minimum quantity lubrication systems have a constant flow rate which can be changed manually while cutting different materials. However, because of constant flow rate, there is wastage of lubricant. The present invented system tries to minimize this wastage by providing a closed loop feedback to control the usage of lubricant while maintaining the required air/lubricant ratio during cutting different materials. The subsystem in the presented invention provides an effective way of eliminating the existing volumetric continuous flow pump being used in prevailing MQL systems in order to make the Minimum quantity lubrication system economical and energy efficient. Microcontroller ensures the synchronized working of the whole system.

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