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A Novel Approach for Disc Shaped Sheet Metal Cutting by Semi Automated Rig

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Abstract : Now a day's cutting of circular profile shape is done by many methods like gas circular profile cutting, plasma arc circular profile cutting, CNC type circular profile cutting and is done by both manual and automatic process. In our project, circular profile cutting machine setup was fabricated for small scale industries like duct fabrication in which angle grinding wheel (cut off wheel) is used to cut the circular shape on the sheet metal and also it is semi automatic process. When compared too many automatic and conventional types, Semi Automatic operation leads to reduce fatigue of human operator, lead time reduction and also getting proper profile geometry like circularity with less investment. This satisfies both operators and fabricators inside and outside of the workshop. Setup has simple mechanism of bevel gear arrangement with cut off wheel which is used to cut the circular profile shape with high accuracy on the sheet metal.
Keywords : Circular Profile, Cut off Wheel, Circularity, Bevel gear Arrangement.

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