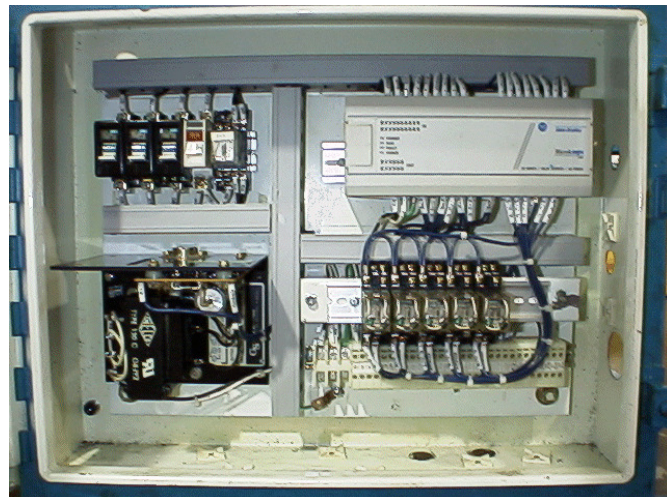


The Armature plate press is used to insert rubber grommets into armature plates used on automotive air conditioner compressors.



This was an existing machine that had relay logic control. I used a Allen Bradley Micrologics 1000 to control the automation of the machine. The machine had a pneumatic table indexer with 6 positions. Positions 1-3 were loading stations. Position 4 was a pneumatic press cylinder that pushed the grommets into the armature plate. Position 5 was a paint pad printer that put the part number and date code on the part. Position 6 was the off load position. All functions including the printer were automated by the PLC. The controls included manual and automatic selections and by using the start button with some of the Manual buttons I was able to create a programmable timer that could be adjusted while the machine was in Auto. Pushing and holding the cycle start button and then pushing the Manual Ram up and down buttons would increase or decrease the cycle delay counter. This allowed adjustment of the machine while running to accommodate faster or slower personnel.

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