# Technical Bulletin 88



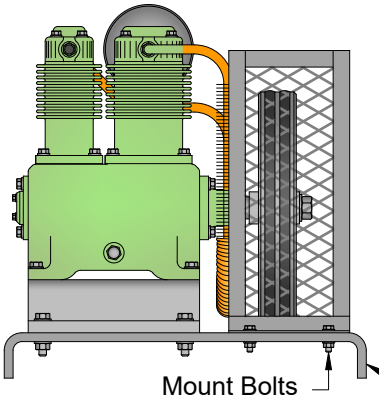
# Fabricating Belt Guards

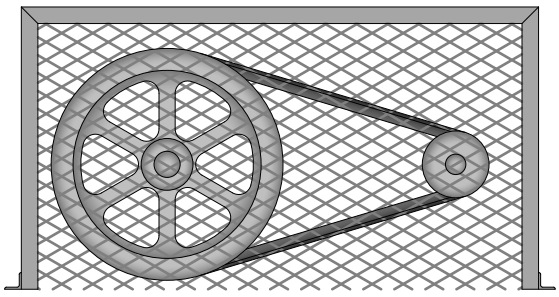
by Brian S. Elliott

Belt guards are oftened disgurded after removal for maintainance. Simerly, when a prevoiusly used compressor is to be installed, it is not at all uncommon to find that its missing the belt guard. Missing belt gaurds on a compressor represents a severe safety harzard. Because of the automatic operation of these machines, personell can approch, what appears to be a completly dorment machine only to have switch on with no warning. If personel are entwined with the drive belt(s) than serious personel injury may occure when the compressor switches on. It is imparitive that belt guards are in place with any air compressor that is in service.

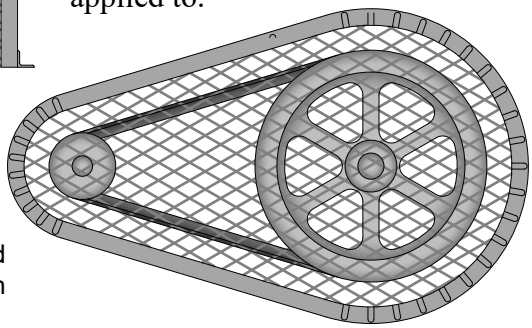
Forturnitally, fabricating a suitable belt guard is a fairly simple matter. The illustrations below show 3 simple-to-fabricate belt guards. The simplest is the box pattern, Top. In this case a frame of angle iron is constructed and expanded metal panels are welded in place. The base is set up with the angle flanges drilled so that the finished guard can be bolted to the base plate. This represents the easiest construction method and is generally used for applications that need not consider appearance.

For applications that who's appearance isn't critical, but still of concern, the semi-conformal pattern, lower bottom left, is a good compromise. The frame is constructed from both angle iron and flat bar, with expanded metal inserts. Its contours are selected to generally follow the belt and pulley arrangement which gives it a more professional appearance. At the same time, it's only slightly more difficult to construct then a box pattern and is mounted in the same fashion.The curved pattern, lower right on the previous page, is made by bending the angle iron into a conformal loop as shown. The angle can be bent with a bender or by cutting and cutting and welding slots, as shown. This design produces a very hansom and rugged belt guard, with a professional appearance. The mounts for a belt guard like this must be designed to fit the facilities of the compressor that it will be applied to.

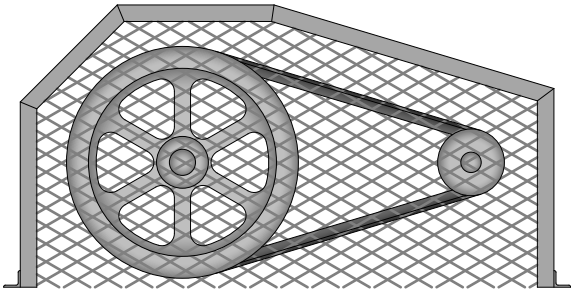


Box Pattern



Curved Pattern



Semi-Conformal Pattern

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