

The Safety Zone

Although the safety zone may appear to the untrained eye as only a yellow caution line painted on the Fabrication Shop floor it has its unique purpose and extension which becomes evident to the skilled user.

The Safety Zone is basically a three dimensional space that is evident when it is painted on the floor and exists up to the ceiling of the fabrication lab. The zone exists when the machine is “**in use**” and is not to be entered by any person except the operator and or the instructor giving instruction.

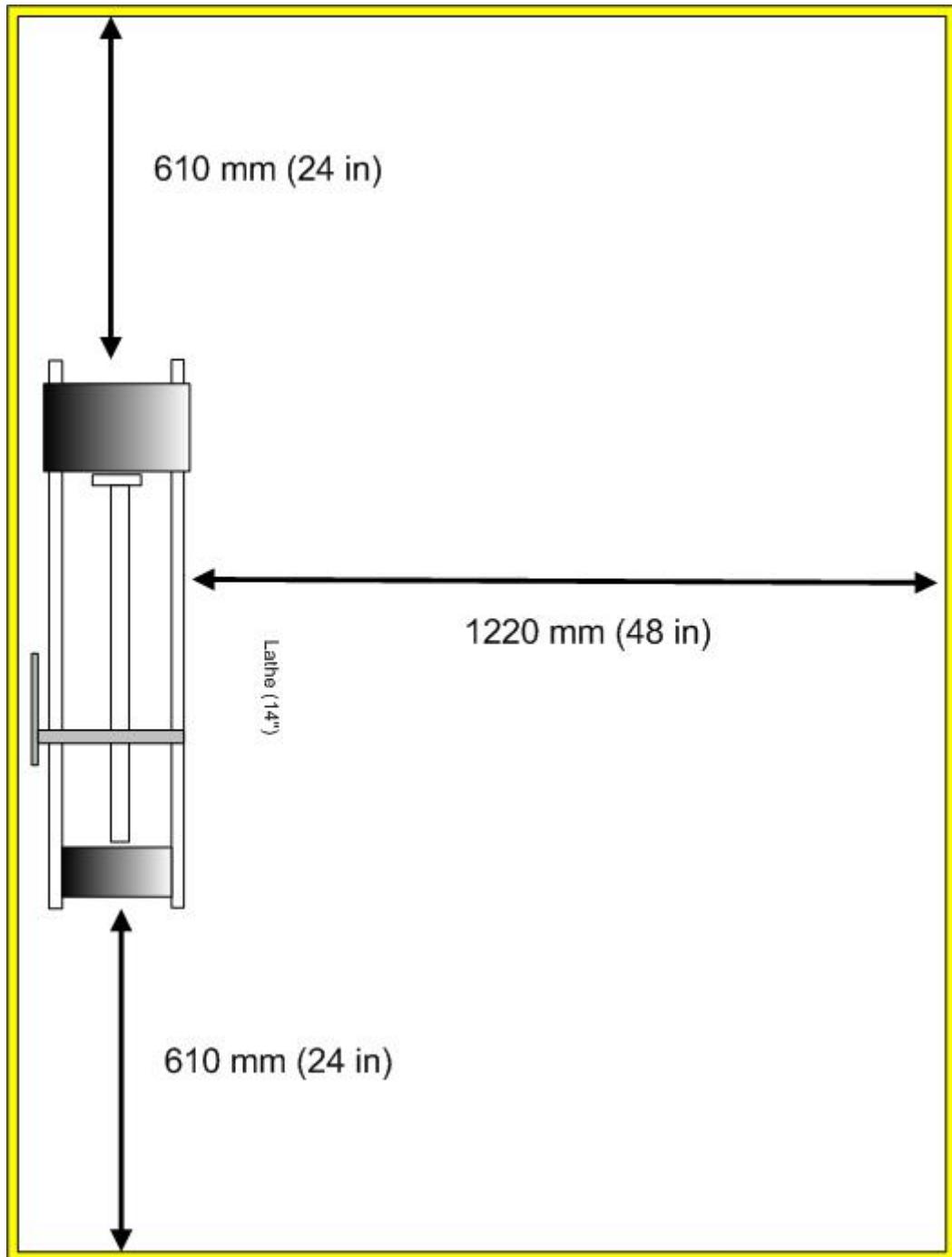
Some considerations for the design of the Safety Zone around each piece of equipment will be some what unique for each machine yet all will have very general guidelines for safe, efficient operation. The colour should be yellow to designate caution against areas which may cause slips, trips, and falls.

Keep in mind such things as:

- Kick back
- Projectile debris
- Waste accumulation
- Noise level
- In feed space
- Out feed space
- User interference – individuals should not be able to reach out and touch machinery while in operation by another individual

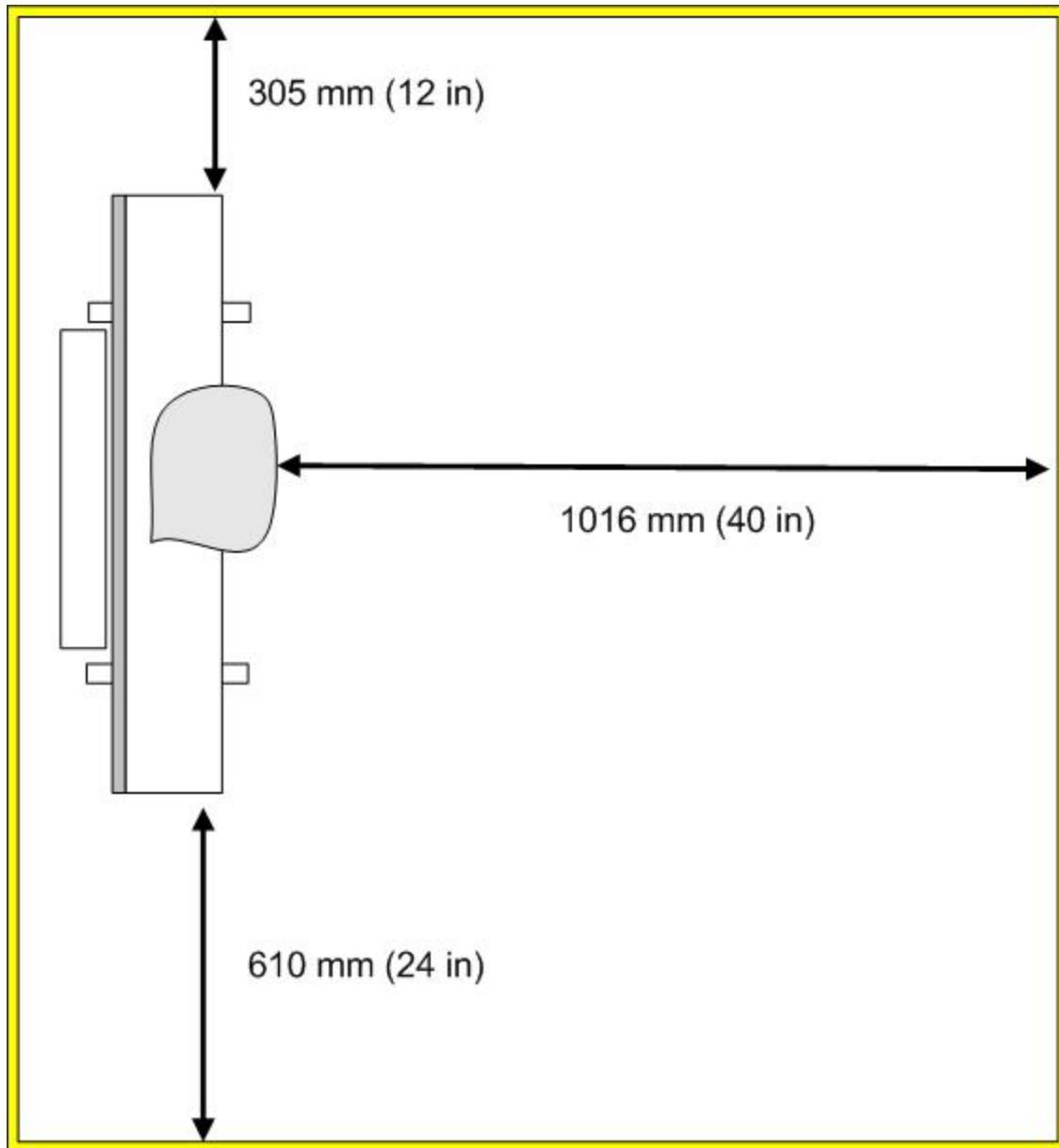
The following dimensions are suggested minimum requirements and may be temporarily extended for some projects if the reason arises.

Lathe



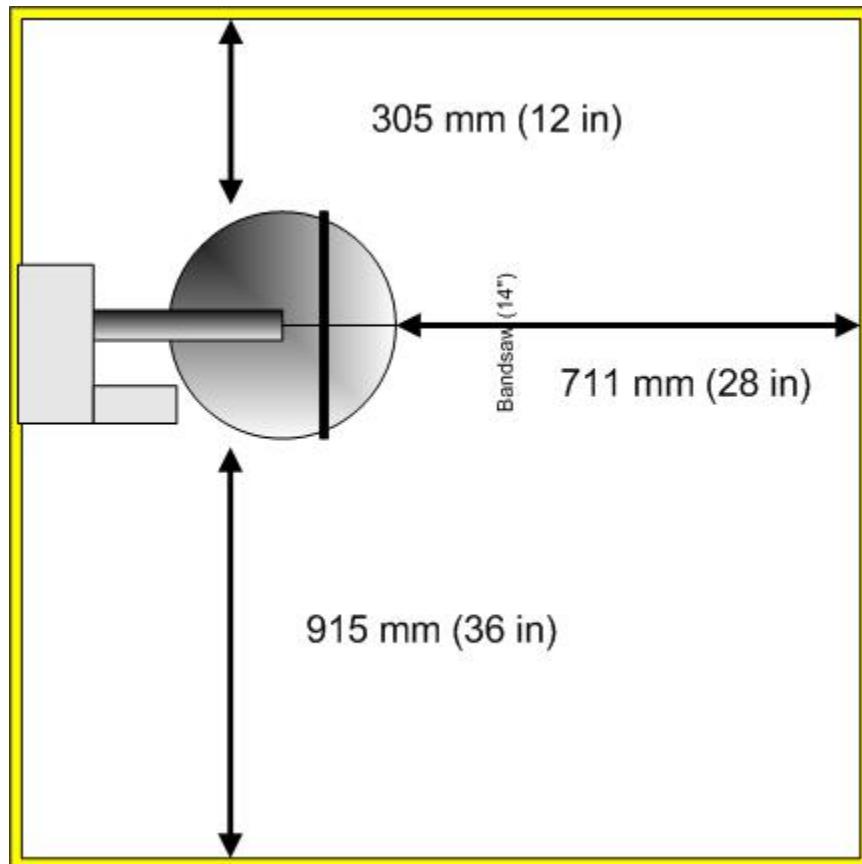
Lathes should only be used when properly fastened to a bench. Users must always be conscious of flying debris. In all cases only one person operating inside the safety zone.

Jointer



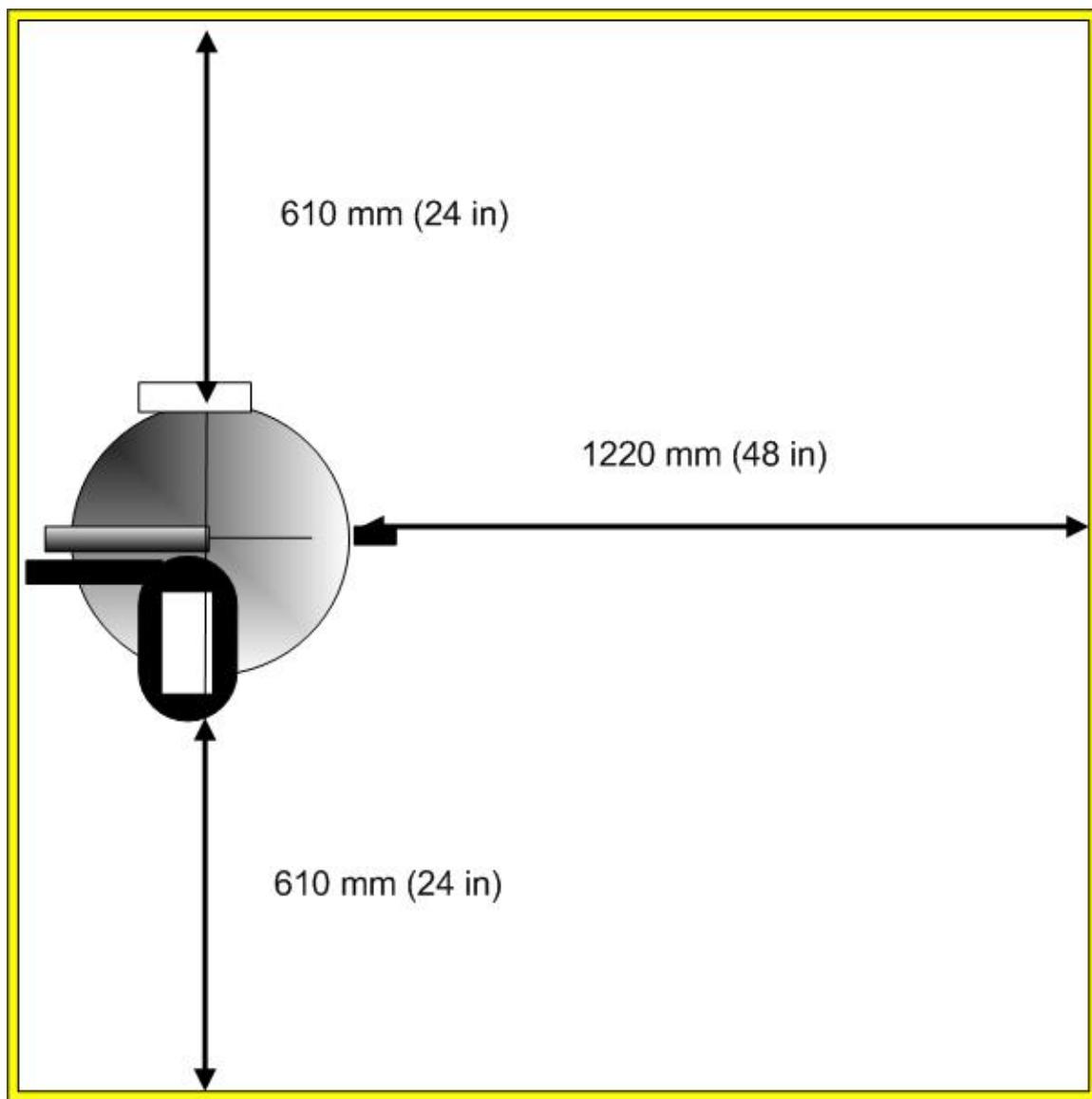
Things to remember when using the jointer include insuring that no one should be standing in line with the feed platform and that long and wide workpieces should be properly supported with the help of another person or persons if required.

Bandsaw



The bandsaw, having one sided operation, should be mounted against a wall or two may be mounted back to back. The wheel diameter of the tool limits the width of the stock but not the length, therefore, attention must be paid to the stock length. Longer stock items will require an extension of the safety zone at the infeed and outfeed locations. Also, longer stock will require a helper or a tool aid (such as a roller stand).

Compound Miter Saw



The compound miter saw is most often used in our lab mounted on a mobile stand. Keep in mind that the safety zone may be constantly changing as the stand is moved throughout the lab. The areas to sides will also have to be modified to accompany the changing lengths of stock to be crosscut.

Table Saw

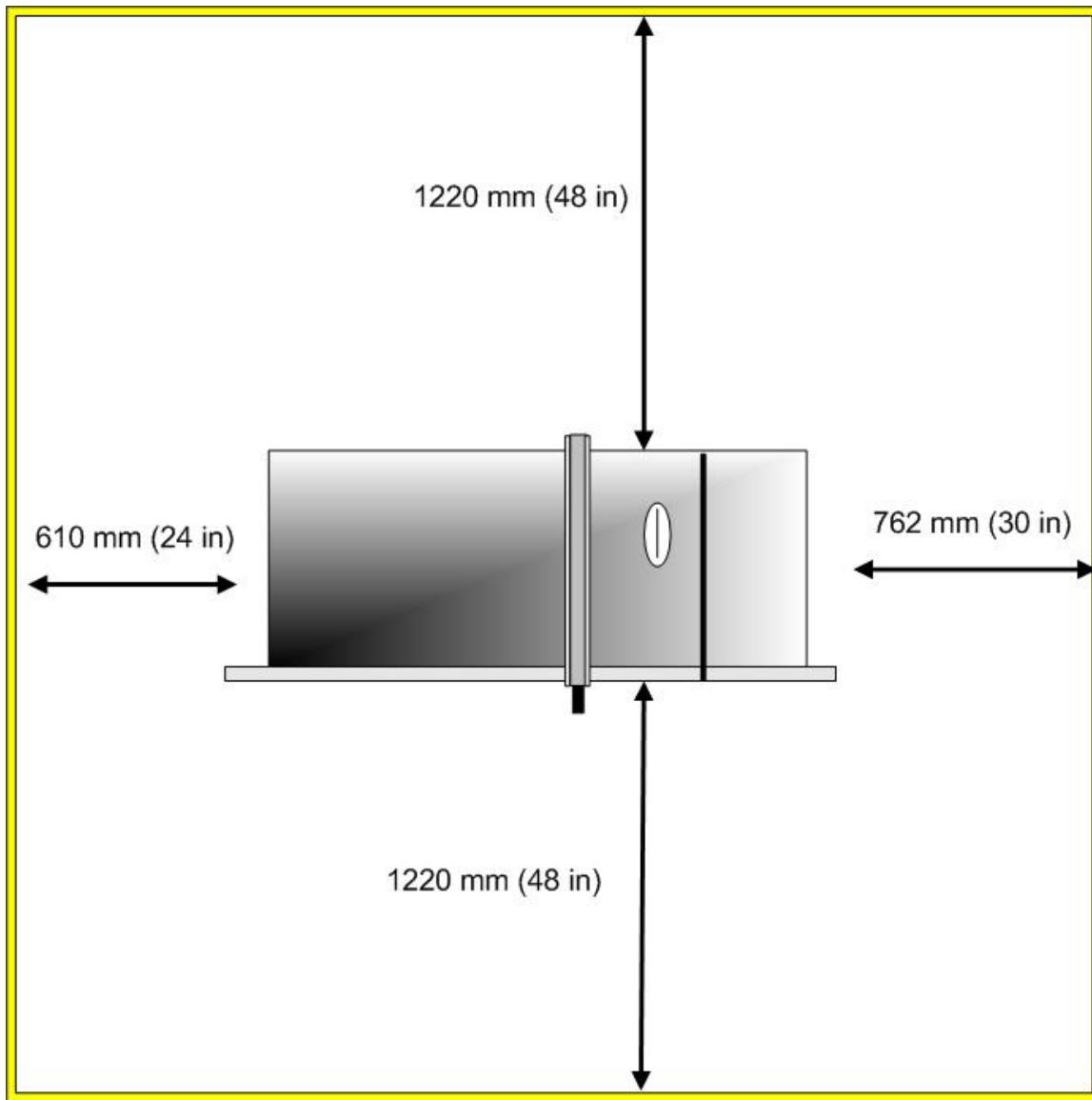
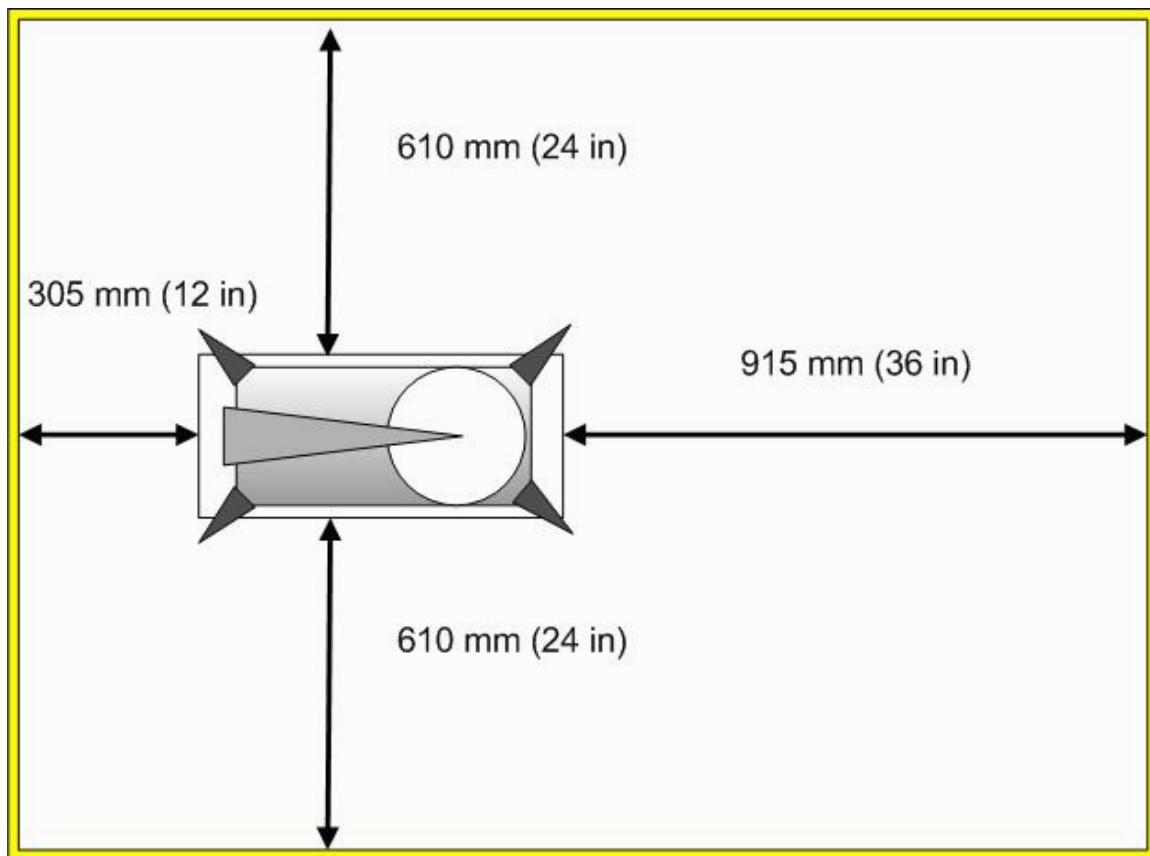


Table saw placement should be such that kick-back hazard is accounted for. Dimensions include spacing for large stock, but when stock in excess to the dimensions is used then safety zone should be expanded accordingly.

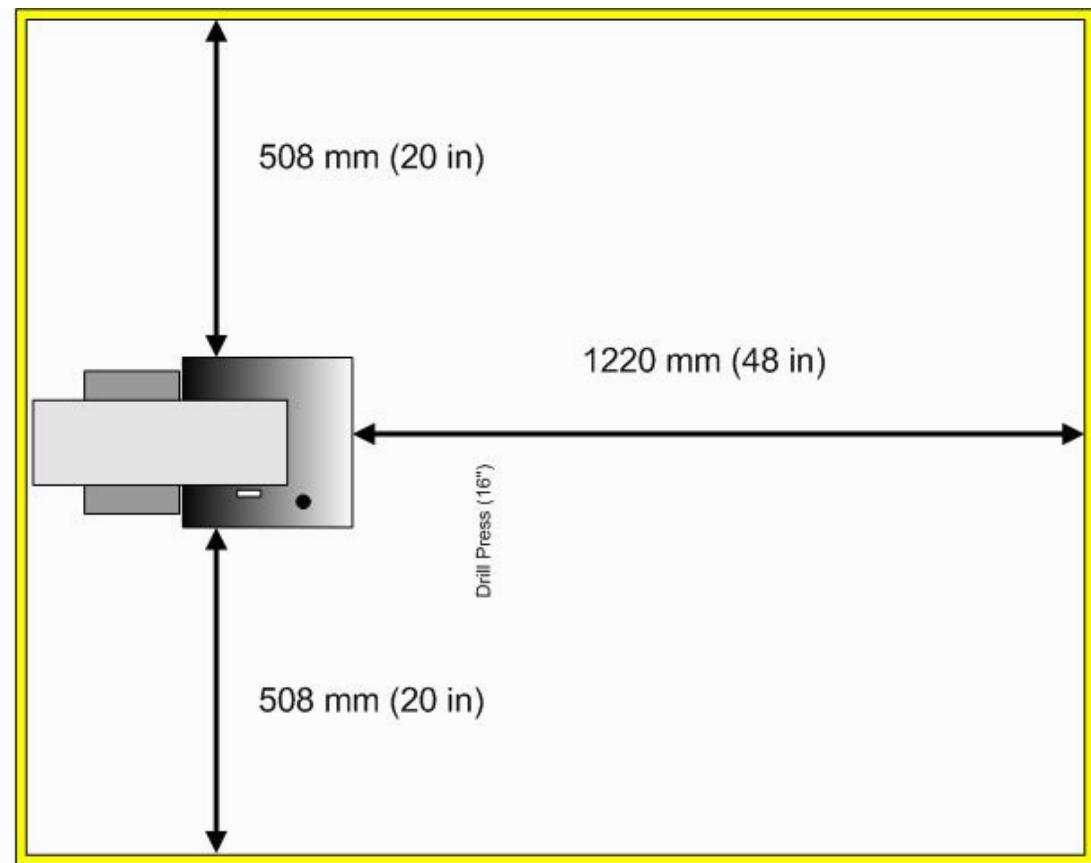
Note: Large stock should not be cut with students present. Also when a dimension is expanded to allow for larger stock, be sure that an expansion beyond the size of the stock is included.

Scroll Saw



The scrollsaw can be mounted in a fixed location or on a mobile base. If on a mobile base, the area around the saw may change regularly – minimum safety area must be maintained. Because stock may be rotated around the saw blade, requiring the operator to shift positions, is it imperative that appropriate attention be paid to floor area to avoid safety concerns such as fixed-floor outlets, sawdust on floor, cord drops, etc.

Drill Press



Keep in mind when drilling or boring longer than average stock that it may extend well beyond the suggested safety zone, especially to the left. For some operations a stand may have to be used to support long stock; this of course will be placed inside the safety zone.