

PRESS TOOL DESIGN FOR BLANKING
AND PIERCING OPERATIONS

by

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- BACKGROUND

1.1 Intruduction

The most common group of metal working operations is that which includes blanking and piercing. More and more industrial sectors today look to blanking and piercing for production of the components they need, from small accurate parts to massively rigid ones. To deal with such a broad range of requirements a considerable knowhow in the technology of both tool-design and of pressing should be received.

The blanking and piercing technology has been widely used within the automobile manufacturing industry. The car market is characterized by its rapidly changing requirements which cause a constant increase in the diversity of mechanical components. Also the demand on the process to be able to produce parts of greater and greater complexity is continuously increasing. This wide variety of demands created a number of problems in the blanking and piercing technology.

Fine blanking is considered much better, than the normal presswork at tackling these problems, due to certain process specific factors (such as the low punch die clearance and the controlled cutting speed).

Even though the conventional manufacturing methods and the normal blanking and piercing are rapidly replaced, as a result of the above problems and the intensive and continuous search for better economy, here in Cyprus they are extensively used throughtout the manufacturing industry.

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