



Unit 15 Non-cutting operations in detail

Solution: see Audioscript

Task 07. Fill in the missing words from the box.

bending – pipe cross section – outer fibres – expands – folding machine –
sheet metal – easy – compressed – non-cutting – bending zone – inner fibres –
unchanged zone – cracks – sharp edge – tubes

Announcer: Listen to Lilly and David and their supervisor Mr Kaup, talking about bending.

Mr Kaup: Ok, today we are going to speak about _____, the most common technique of _____ metal forming operations. Do you know why bending is used so often?

Lilly: Yes, because coverings, construction parts and many other parts are made of _____, tubes and profiles. These are _____ to bend.

Mr Kaup: Right, and do you know why?

Lilly: Yes, I do ... because only one part of the work piece is changed, the _____. The outer side of the material _____ without ripping, while the inner side is _____.

Mr Kaup: Excellent, that's right. The _____ of the material are extended, while the _____ are shortened. In between, there is an _____, the "neutral fibres". David, could you tell me which materials are suitable for bending?

David: Certainly. Soft steel, copper, zinc, aluminium and their alloys.

Mr Kaup: Great! And what happens if sheet metal is bent over a _____?

David: Tiny _____ may develop at the outer bending line.

Mr Kaup: You're right, of course ... and I'm sure you also know what is important to know when bending _____, Lilly?

Lilly: Yes, I do. For bending tubes you need special techniques to avoid deforming the _____. Therefore, pipes are bent by filling them with sand or by special tube benders or hydraulic tube-bending machines.

Mr Kaup: Excellent, Lilly. And what about parts of sheet metal?

Lilly: They can be bent using a _____.

Mr Kaup: Well done! I see you've been paying attention in your lessons ...