

# Effective SAFETY Solutions

## WHERE

Company: Alcoa Fastening Systems

Location: Toulouse

Business: Aerospace

Contact person: Sylvain Caillat

## THE ISSUE

Ergonomic problems and safety risks during grinding wheel change of our grinders. In workplaces with several mechanical cutting machines space in-between equipment is a basic problem, specially when no overhead cranes are available. Older standard grinding machines are not equipped with devices to easily change out the grinding wheels weighing up to more than 50 kg, resulting in ergonomic risks in the muscular system due to the weight uncontrolled and the awkward movements, with potential for finger and hand injuries. Similar problems occur with other equipment like the chucks of lathes/NC machines, bending dies and punch-units, etc

## THE SOLUTION (additional level of protection put in place)

Type: (Technical X ☐ ☐

After research under local suppliers a solution was found in a combination of a toolbox carriage with a mounted small lift on top (see attached pictures) The lift can be swung out and can lift the heavy object from the worktable of the carriage and help easy and controlled (de-)mounting of the grinding wheel (or similar tools like dies, punch-units etc.) The own weight of the carriage (eventually with extra supports) works as counterbalance during the wheel or tool changes, while specific tools can be stored in the carriage.

## PICTURES (if applicable) or ADDITIONAL INFO



GRUE PIVOTANTE SUR DESSERTE MOBILE

Chargement sur un centre d'usinage avec appui : 250 kg.

La "GRUDEMOb" lève et dépose dans les endroits difficilement accessibles ( $\sim 1m^2$ ), sous carénages et s'approche à proximité des machines.

Elle stocke aussi et peut ainsi desservir plusieurs postes de travail à la fois.



GRUDEMOb  
Modèle GD250EF

Avec élargisseur  
lève 150 kg sans

## SAFETY BENEFITS – pros/cons

- Easy and controlled changing of bigger tools where no crane available
- Flexible to use for multiple equipment
- Reduction of injury potential on hands, back and fingers
- Ergonomic improvements in reducing weight and movements under tension
- Compact and easy movable unit

**IMPLEMENTATION COST : about 2400 €**