HOW AN EFFECTIVE EXTRACTION SYSTEM WORKS

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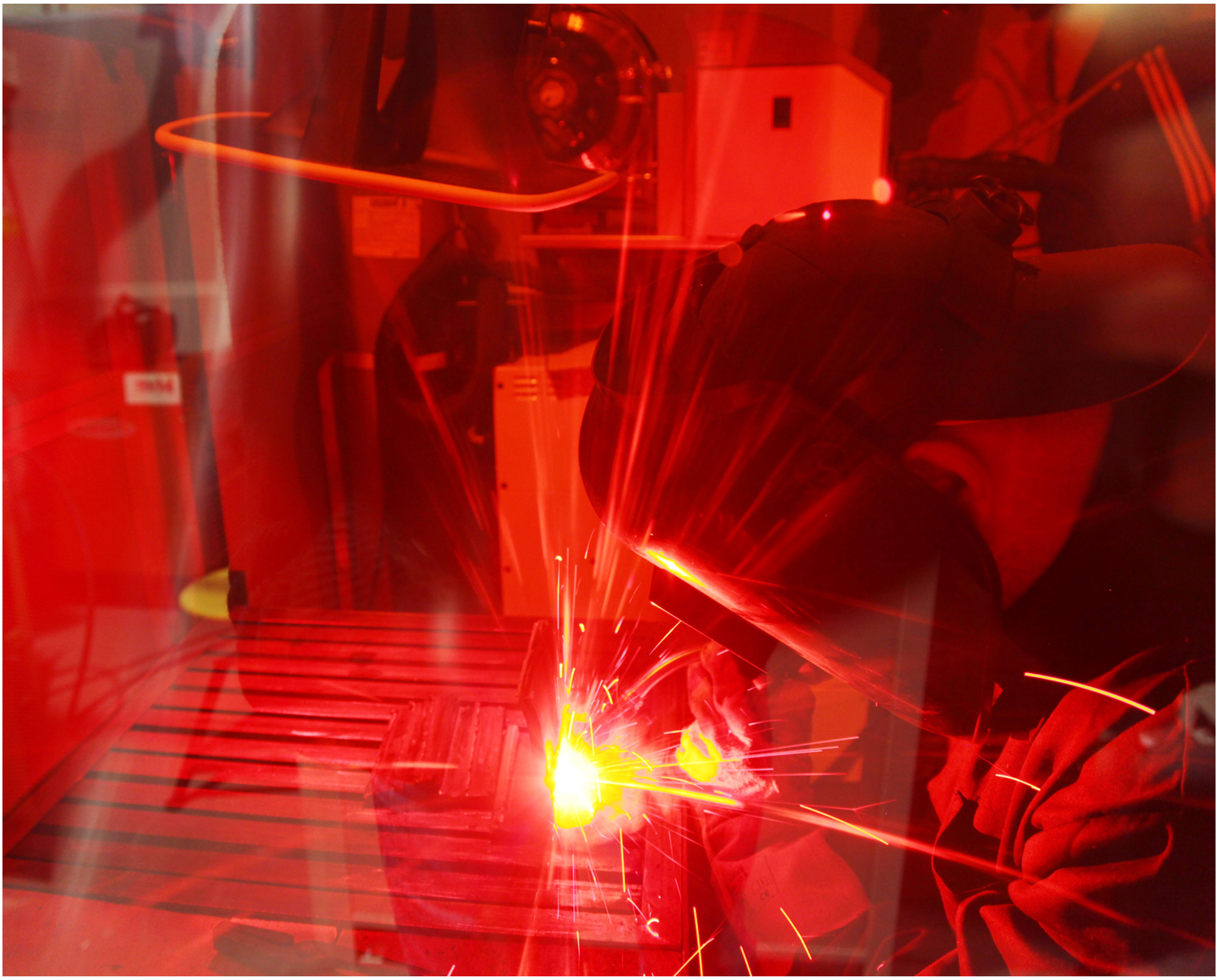

Extraction and filter technology for an effective occupational safety requires foundational planning. This checklist for welding fume extraction indicates which factors play a role.

Plug it in, place the suction arm on the welding seam, and *voila*, done with occupational safety for welding?! Surely not! Several factors must be observed during welding fume extraction in order to guarantee occupational safety. Both the size of the work area as well as the position of the welder’s body play a role.

- **First priority:** Collect hazardous material at the point of origin by extracting with suction arms (placed approximately 30 centimeters from the point of origin) or directly at the pistol.
- **Size of work area:** The correct length and arrangement of the suction arms are critical for covering the entire work area without hindering other work and the transport of materials.
- **Free movement of the extraction arms:** This promotes acceptance by the welder and can be further improved with a work light in the exhaust hood.
- **Position of the welder‘s head and body** to the source of emissions: exhaust hoods must be arranged so that the breathing area never reaches into the fume cone.
- **Design of the face shield:** Automatically darkening helmets free up a hand and make it easier to readjust the exhaust hood.
- **Materials and processes used:** The relationship of the two factors yields the selection of the right filter and other components.
- **Frequency and duration of work** are critical for the selection and sizing of the filtering device or a central filter system.