

## PREVENT FIRE AND INJURY DUE TO FLYING SPARKS

*Posted on September 22, 2015 by Alexander Lenfers*



**One of the key reasons for fires during welding operations are invisible smouldering fires. These are initiated by sparks which cannot be avoided during welding. Yet you can protect yourself from the danger of flying sparks.**

During welding, in addition to hot welding beads, sparks are also emitted. This can kindle a fire even at a large distance from the welding station. This is a danger especially at work stations with cracks, chinks or openings. Here sparks can penetrate cavities or adjacent areas.

Depending on the work process, the spark build-up can differ: With gas and arc welding, sparks can fly up to 7.5 metres far and 4 metres high. Spark flight is additionally enhanced by further factors such as wind. However, sparks do not always immediately initiate a fire upon contact with other materials. This can develop many hours after the welding operation from long smouldering. The immediate danger to welders is the danger of burns on the body: Sparks can fly into shoes or eyes and cause injury.

To protect the body from sparks, welders should wear high-necked, low flammability protective clothing, leather protective gloves and a welding helmet. By extracting the welding smoke directly at the source, a large part of the sparks are also extracted. Using extraction devices, large systems or upstream units, the sparks are for example isolated using air deflection or centrifugal forces. This protects operator and machine: because the isolation can prevent the sparks from damaging downstream filter media.

