



PROSYS LASER:

"INTELLIGENT PERSONAL PROTECTIVE CLOTHING

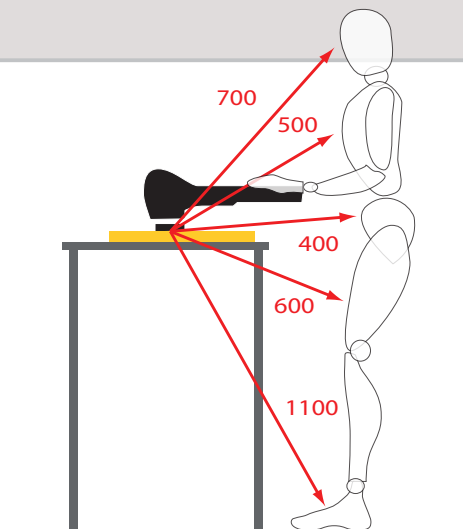
FOR THE USE WITH HIGH-POWER HAND-HELD LASER PROCESSING DEVICES"

Grant Agreement n°: NMP2-SE-2009-229165 • Call Identifier: FP7-NMP-2008-SME-2 • Project Start Date: 01/12/2009 • Project Duration: 36 Months

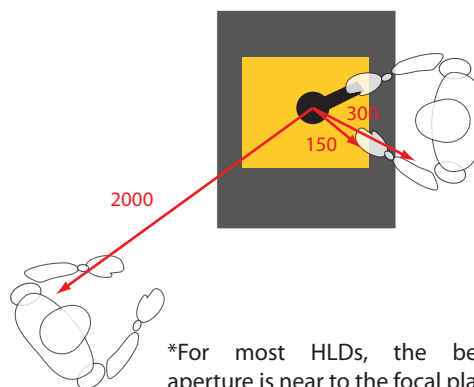
PROSYS LASER is dedicated to developing highly innovative "passive" and "active" laser protective clothing for use with hand-held laser processing devices (HLD) and curtains for use with automated laser machines, which are not available on the market today.

The major project objectives are:

- to open new markets for high performance PPE and its testing, especially encouraging participating SMEs to widen their product range and directly benefit from project developments and prototypes
- to sustain the growth of laser technology by providing means for the safe use of innovative developments such as hand-held laser devices for material processing and high-power lasers with high brightness
- to minimize health risks for the operators of HLD and automated laser machines, and consequently to reduce the number of related accidents
- to contribute to the standardization process regarding laser PPE and PPE testing procedures



Typical distances of body parts from beam aperture*



*For most HLDs, the beam aperture is near to the focal plane; exception: e.g. cleaning

PARTNER

Laser Zentrum
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Trans-Textil GmbH



Sächsisches
Textilforschungsinstitut e.V.



CIM-mes Projekt sp.z.o.o.



CIM-mes
projekt

TTI Technische Textilien
International GmbH



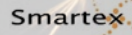
Centre Suisse d'Electronique et de
Microtechnique SA



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Smartex S.r.l.



TDV Industries



Promat n.v.



Grado Zero Espace S.r.l.

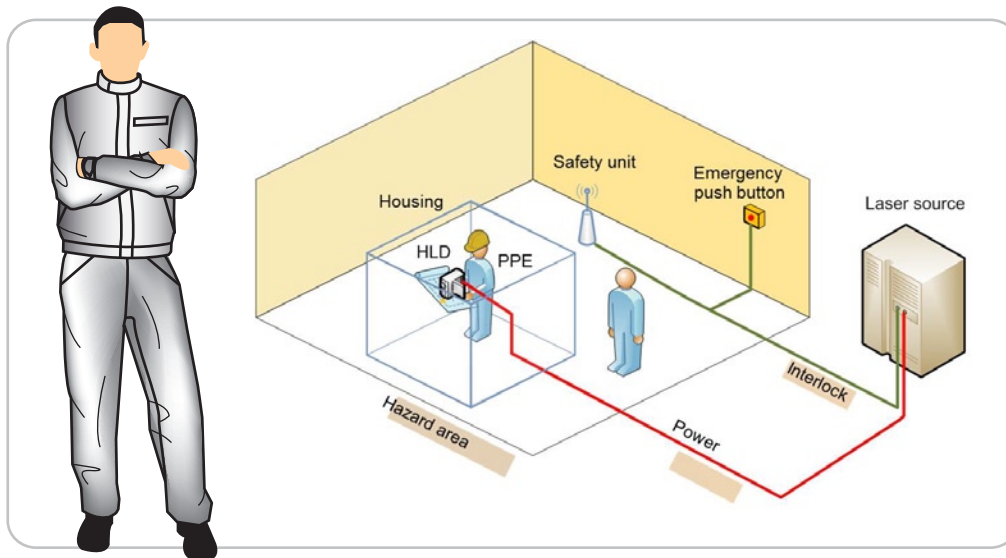


Laser On Demand GmbH



The approach to reach these objectives is to combine innovative laser technology with high performance textile technology. Key developments are:

- passive functional multi-layer technical textiles, providing a high level of passive laser resistance and active functional multi-layer textiles incorporating sensors which detect laser exposure and, by means of safety control, deactivate the laser beam automatically



- test methods and testing set-ups to qualify passive and active functional technical textiles and tailored PPE (e.g. gloves), respectively and a standardisation process able to promote the results of the project to standardising committees

Standards and directives which are important for PPE development for PROSYS-Laser:

EU Directive **"PPE"** No. 89/686/EEC

EU Directive **"Medical devices"** No. 93/42/EEC

EN ISO 11611 **"Protective clothing for use in welding and allied processes"**

EN ISO 11612 **"Protective clothing – Clothing to protect against heat and flame"**

EN 11810 **"Lasers and laser-related equipment –Test method and classification for the laser resistance of surgical drapes and/or patient protective covers"**



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