

Laser Weld Monitoring (LWM) Technology

Application questionnaire

To assess the applicability of the HDE Pulsed LWM systems to your application and your laser welding equipment please send HDE some information about your laser welding system and the laser welding applications. Please – send no confidential or classified information!

Contact information

Name: _____ Title: _____

Company: _____ City: _____ State: _____

Phone number: _____ Email: _____

Current laser welding system

- 1. Are you currently using a laser welding system? [yes] [no]
- 2. What type of laser is installed in the system? [YAG] [Fiber] [Disk]
- 3. Is your current laser welding system equipped with a CCTV? [yes] [no]
- 4. Is the current CCTV tied to some image tracking or alignment system? [yes] [no]
- 5. Are you interested to do real time laser weld monitoring on the current laser welding system? [yes] [no]
- 6. Is the welding process on the current system already 'qualified' ? [yes] [no]

7. Are you replacing the laser in the system with another one? [yes] [no]
8. When you replace the current laser, will you need to 're-qualify' the laser equipment (EQ) and the welds (PQ)? [yes] [no]

New laser welding system

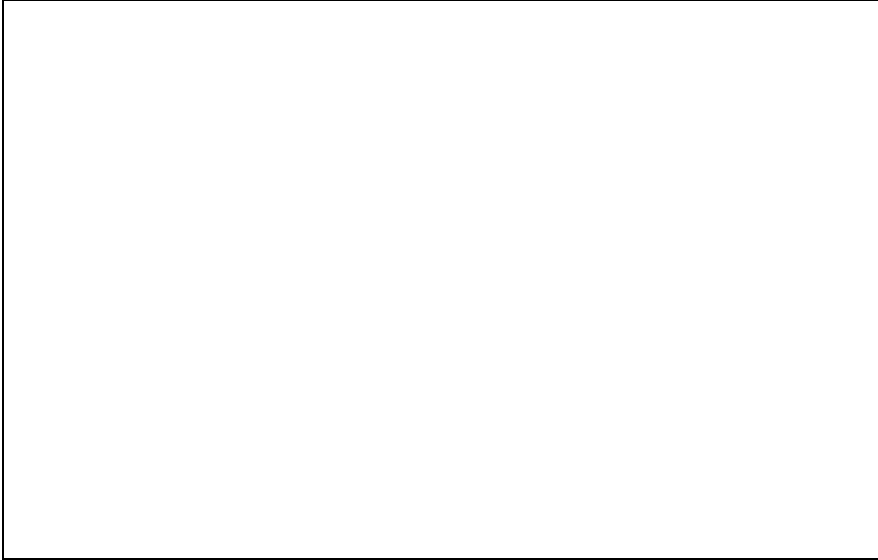
1. Are you planning to buy a new laser welding system (soon)? [yes] [no]
2. Are you interested to have a LWM integrated in the new system? [yes] [no]
3. Have you seen live demos of ANY laser weld monitors? [yes] [no]
4. Have you seen a live demo of the one of the HDE LWM-s? [yes] [no]
5. Would you like HDE to call you regarding the HDE Pulsed LWM? [yes] [no]

Laser weld parameters – please provide some information about the laser parameters for the welds you plan to monitor.

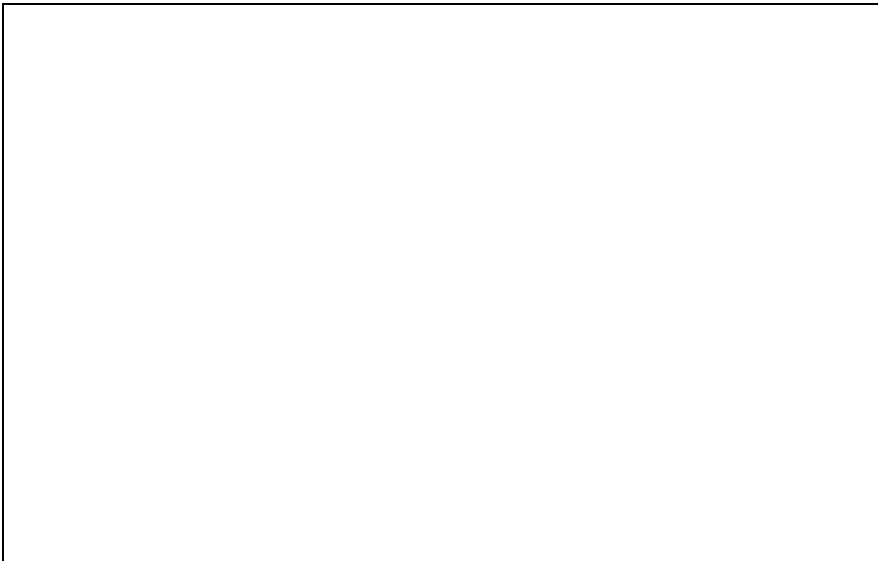
1. Weld penetration (inch): _____
2. Width of the weld nugget (inch): _____
3. Energy per pulse (joules): Minimum: _____ Maximum _____
4. Pulse width (msec): Minimum: _____ Maximum _____
5. Pulse rate (pps): Minimum: _____ Maximum _____
6. Is this a seam weld or is it a spot weld? _____
7. If it is a seam, weld how many tack welds are made prior to the seam weld?

8. If it is a seam weld, what is the length of the weld (inch)?
9. Are the laser settings for the tack welds the same as for the seam weld?
10. How much time lapses between the completion of one weld and the start of the next weld (seconds/minutes)?

Please send a photo of the focusing head in the current laser welding system, showing the current CCTV camera. (This will help us to engineer and estimate the cost of the optical interface between your system and one of the HDE LWM System).



Please send a sketch of the weld geometry of the assembly being welded.



We look forward to hearing from you. Thank you.

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