COMPARISONS BETWEEN

LASE ONE AND LASER SYSTEMS

	LASE ONE 300 JOULES	LASER SYSTEMS
Welding capabilities	Max diameter of wire 1.2mm	Max diam. 0.6mm
Price	Affordable (max 18 000 euros for the 300 joules model)	3 to 4 times higher
Fusion temperature	**10 000 - 25 000°C**	**10 000°C**
Maintenance costs	**2 solutions :** - We manage to solve the problem at distance (the generator is equipped with a auto-diagnosis system) - We need to bring the machine back to France (The machine is not heavy and can be shipped though UPS/TNT)	A laser system is heavy and need to be shipped by sea-freight to reduce transportation costs. Sending a technician to Kazakhstan is very expensive. In case of failure, you will have to change expensive components (flash lamp, laser rod). You need experience to change this components and align the mirrors.
Experience in microwelding	SST was founded in 1986 (30 years' experience)	For SIGMA, they were founded in 2005 (12 years)
Type of technology	Electrical solution, single phase, medium frequency	Optical solution
Weight	25 kg (only the generator) 110 kg (with the trolley) but you will have the mobility	100-200 kg for the whole system
Portability	YES (only 25kg)	NO (too heavy)
Mobility	YES (with the trolley) / Only 3500 EUR more The LASE ONE can directly weld into large molds or into press machines.	YES (but you have to add 20% more in terms of price)
Practibility	LASE ONE is a user-friendly system. Only 1 parameter to set (Energy level according to level diameter of wire).	Laser systems are not user-friendly because it takes time to understand the menu and the all the possibilities offered.
Time setting	Ready to use machine (just a few minutes and you can start welding)	It takes time until you set all the parameters. It is easy to weld on a flat surface but it is harder to weld on curvy surfaces. You have a 3 axes table that make it not very simple

Welding results	LASE ONE has better results on reflecting materials like copper or aluminium (The machine can deliver up to 300 watts/sec.)	Cheap laser systems (below 70 000 EUR) have cheap laser sources and they don't have sufficient welding power to weld. The best brand are ALPHA LASER, TRUMPF and ROFFIN but their price are too high (more than 100 000 EUR).
Safety	The LASE ONE has a binocular microscope equipped with an automatic darkening cell (shutter) to protect your eyes)	The laser beam can damage the retina and you need to install protective curtains around the laser
Quality of fusion	Plasma welding help the fusion to be optimal reaching up to 25000°C in a very short time of 8ms	Poor laser sources will not weld homogeneously so after grinding some small porosities can appear.