



**Applied Resolution Technologies**

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**Your leading source of laser application technologies :  
Mining, Oil & Gas, Agriculture, Industrial, Medical, Veterinary.**

## **LASER SAFETY CLASSIFICATION**

### **MINING AND GENERAL APPLICATIONS**

All ART lasers conform with IEC 60825:1 and IEC 60825:2 laser safety standards.

Class 2 : < 1mW lasers in either red or green.

Class 2M : < 5mW lasers with expanded apertures, in either red or green that meet Class 2 requirements.

Class 3R : < 5mW lasers with small beams. AS2397 (2015) (Guide for use of lasers in Building and Construction) also permits.

Hazard Level 2M : A new classification for fiber-optic based systems. In this case, < 5mW visible laser.

**\*\* 3mW visible lasers with 10mm apertures as supplied by other companies are NOT CLASS 2M.**

**\*\* Lasers sold by other companies that do not meet the basic criteria above are NOT CLASS 2M lasers. Ask us for calculations and references to Standards if you doubt whether your lasers are correctly classified.**

Your Laser Safety Officer should be able to advise on what is permitted on your site. If there is any doubt, please discuss with us for further clarification.

The fundamental basis of laser safety classification for the types of lasers used in mining and the building and construction industry is that there should never be the opportunity for more than 25 Watts per square metre of laser power to enter the human eye. This is violated in the Class 3R lasers and therefore there are certain precautions that users need to be aware of, being that the lasers should never be used where there is an opportunity for the laser to be viewed (ie enter anyone's eye) directly or indirectly.

### **ART VETERINARY THERAPY LASERS**

Veterinary laser therapy systems manufactured by ART include high power infrared (808nm) lasers (< 500 mW), and Class 3R visible lasers (< 5mW). The high power infrared lasers are Class 3B. Adequate precautions, including the use of protective laser goggles, are required. However, ART has increased the safety in the use of the high power lasers in that they need to be in contact with the patient for the laser to emit any radiation. Nevertheless, protective laser goggles are recommended because there are circumstances where the laser may be over-ridden for non-contact treatments.

Classification of lasers manufactured by ART is ART's responsibility. **SAFE USE IS YOUR RESPONSIBILITY !!!!!**