

## CO<sub>2</sub> & FIBER LASER NOZZLES AND ACCESSORIES

### K HACO-TECNOLOGY ITALIANA®





TOLL FREE 888.558.1504 (USA and Canada) TEL. 724.352.1504 FAX. 724.352.4980





In 1971, II-VI Incorporated began by exclusively producing the highest-quality cadmium telluride (CdTe) material available for manufacturing high-power industrial CO<sub>2</sub> laser optics. Today, we have diversified into producing zinc selenide (ZnSe) material, as well as into numerous business units including laser tools for materials processing (HIGHYAG); near-infrared optics, YAG components, and telecommunications components (VLOC); fiber optics, projection and display optics, DPSS laser, crystal materials, and other photonics products (Photop); defense and aerospace optics (Exotic Electro-Optics); tellurium and selenium products (PRM); thermoelectric cooling devices (Marlow Industries); silicon carbide (II-VI WBG); and advanced materials development (II-VI AMDC). Given this diversity of II-VI Incorporated's business units, we have thus christened our original IR materials and optics business unit II-VI Infrared.

As II-VI Incorporated continues to grow, II-VI Infrared focuses on the company's original, industry-leading products: infrared and CO<sub>2</sub> laser optics and materials. And thanks to decades of innovation in zinc selenide(ZnSe) and zinc sulfide (ZnS) materials processing, thin-film coating, precision diamond turning, and finished optics fabrication, II-VI Infrared is the world leader in CO<sub>2</sub> laser optics, delivering an unbeatable combination of innovation, quality, and expertise. II-VI Infrared also delivers the largest vertically integrated CO<sub>2</sub> laser optics manufacturing process -- from raw materials to finished coated products -- in the world.

An optics foundry to CO<sub>2</sub> laser original equipment manufacturers (OEMs) the world over, consistently building optics to spec with consistent performance and quality, II-VI Infrared's products range from replacement CO<sub>2</sub> laser optics and nozzles to lenses, partial reflectors, windows, beamsplitters, mirrors, beam expanders, reflective phase retarders, scanning-laser system optics, diamond-turned custom optics, IR optical materials (ZnSe, ZnS, CVD Diamond), and more. Our products and reputation make us the number-one supplier to OEMs of CO<sub>2</sub> laser systems worldwide, while our capabilities are without rival in the industry.

Our diamond-turning facility is among the largest and most advanced in the world, offering services such as flycutting and multiple-axis turning, as well as fast and slow tool servos for custom optics. Single-point diamond-turning is used in finishing transmissive optics and mirrors in a variety of metals and IR materials.

Major investments in computer design programs, thin film evaporation equipment, clean rooms, and QA testing facilities enable us to offer a broad range of IR thin-film coatings. II-VI Infrared is known for designing and producing consistently low-absorption coatings for high-power CO<sub>2</sub> laser optics. Additionally, our talented and experienced engineering team using optical design software and CAD systems, designs and builds standard and custom optics as well as specialized mounts, components, and electro-optic assemblies.

Our quality assurance program includes comprehensive testing, documentation, and statistical analysis to ensure that each optic and component performs to customer requirements.

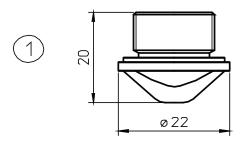


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POS	II-VI P/N	OEM P/N	DESCRIPTION
1	L526		HACO® NOZZLE Ø 1.0
	L533		HACO® NOZZLE Ø 1.2
	L527		HACO® NOZZLE Ø 1.5
	L528		HACO® NOZZLE Ø 1.7
	L529		HACO® NOZZLE Ø 2.0
	L530		HACO® NOZZLE Ø 2.5
	L531		HACO® NOZZLE Ø 3.0



### FOR ALL OF YOUR REPLACEMENT OPTIC NEEDS

CO2 LASER OPTICS/CONSUMABLE PRODUCTS

CO<sub>2</sub> LASER CONSUMABLES

NOZZLES & ACCESSORIES

TRUMPF CUT LENSES

MP-5 ULTRA-LOW ABSORPTION LENSES

ASPHERIC LENSES

MENISCUS LENSES

PLANO-CONVEX LENSES

CYLINDER LENSES

**MIRRORS** 

SCANNING LASER SYSTEM OPTICS

**BEAM COMBINERS** 

**BEAM EXPANDERS** 

**BEAMSPLITTERS** 

**COLLIMATING OPTICS** 

DIAMOND-TURNED SPECIALTY OPTICS

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PRISMS & RHOMBS

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**RESONATOR OPTICS** 

**OUTPUT COUPLERS** 

**REAR MIRRORS** 

BAND-SELECTIVE OPTICS

AR-COATED WINDOWS

**BREWSTER WINDOWS** 

PROTECTIVE WINDOWS

LENS STRESS ANALYZER(LSA)

1 MICRON OPTICS

1 MICRON OPTICAL COMPONENTS

1 MICRON DEBRIS SHIELDS

1 MICRON HPDDL BEAM INTEGRATORS

1 MICRON OPTICAL COATINGS

1 MICRON MATERIALS

OPTICAL MATERIALS

ZINC SELENIDE (ZNSE)

ZINC SULFIDE (ZNS)

ZINC SULFIDE MULTISPECTRAL (ZNS MS)

**GERMANIUM (GE)** 

GALLIUM ARSENÍDE (GAAS)

MATERIAL BLANKS

CVD DIAMOND SUBSTRATES IR THERMAL IMAGING OPTICS



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### WORLDWIDE SALES OFFICES

To place an order, contact a II-VI sales representative at any of the following locations, or visit www.iiviinfrared.com/contact for our most complete and up-to-date contact information.



### **II-VI INFRARED**

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### II-VI SINGAPORE PTE. LTD.

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