

# II-VI INFRARED

www.iiviinfrared.com

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



HANKWANG®



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



## About II-VI INFRARED

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.

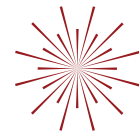
As II-VI Incorporated continues to grow, II-VI Infrared focuses on the company's original, industry-leading products: infrared and CO<sub>2</sub> laser optics and materials. And thanks to decades of innovation in zinc selenide (ZnSe) and zinc sulfide (ZnS) materials processing, thin-film coating, precision 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.

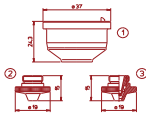
Our quality assurance program includes comprehensive testing, documentation, and statistical analysis to ensure that each optic and component performs to customer requirements.



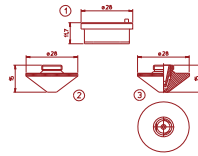
HANKWANG®  
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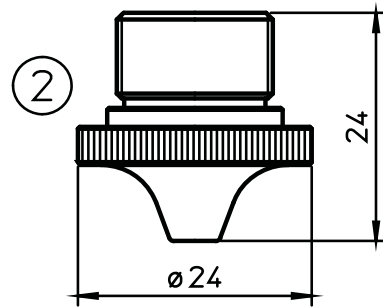
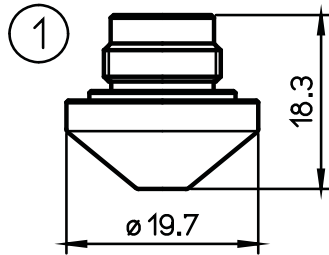


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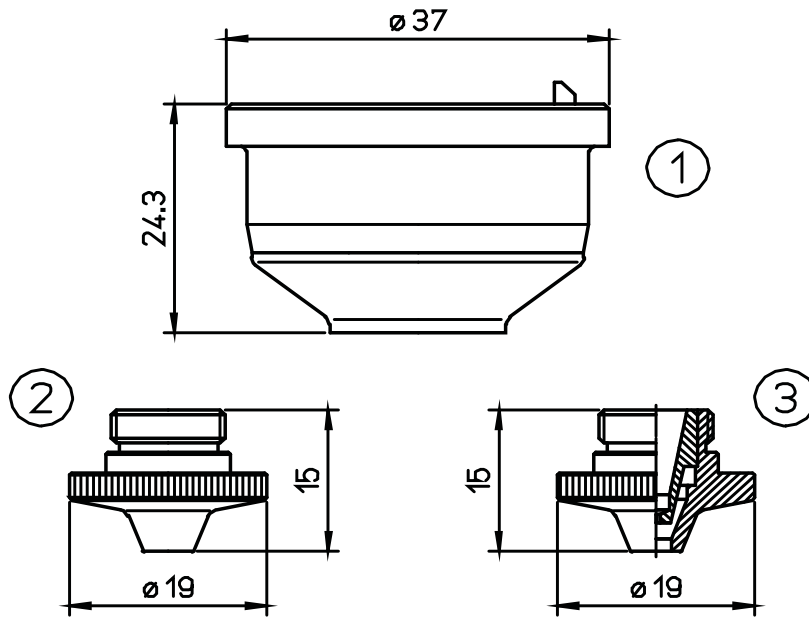




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POS	II-VI P/N	OEM P/N	DESCRIPTION
1	L1070	NP10	HANKWANG® NOZZLE Ø 1.0
	L1071	NP12	HANKWANG® NOZZLE Ø 1.2
	L1072	NP15	HANKWANG® NOZZLE Ø 1.5
	L1073	NP17	HANKWANG® NOZZLE Ø 1.7
	L1074	NP20	HANKWANG® NOZZLE Ø 2.0
	L1075	NP25	HANKWANG® NOZZLE Ø 2.5
	L1076	NP30	HANKWANG® NOZZLE Ø 3.0
2	L1490	NP10	HANKWANG® NOZZLE NP Ø 1.0
	L1491	NP12	HANKWANG® NOZZLE NP Ø 1.2
	L1492	NP15	HANKWANG® NOZZLE NP Ø 1.5
	L1493		HANKWANG® NOZZLE NP Ø 2.0
	L1494	NP25	HANKWANG® NOZZLE NP Ø 2.5

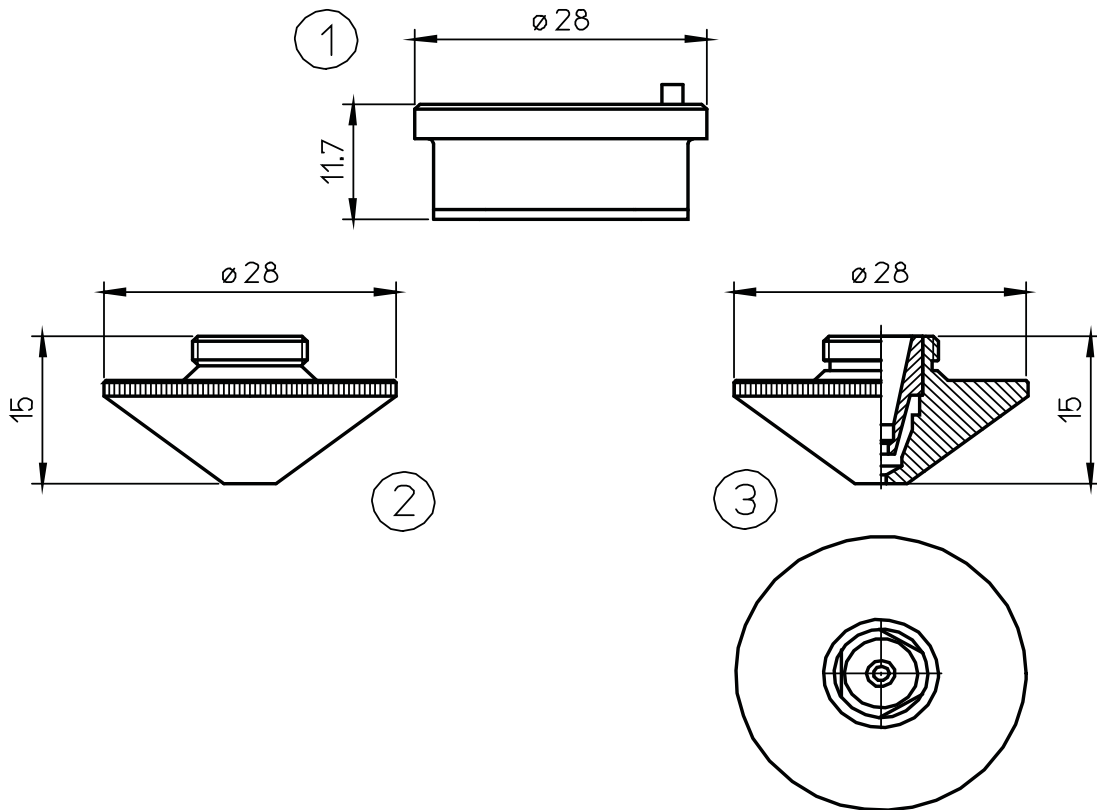


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POS	II-VI P/N	OEM P/N	DESCRIPTION
1	AL420	HCH-S01201	HANKWANG® CERAMIC NOZZLE HOLDER
2	L1482		HANKWANG® NOZZLE N Ø 0.8
	L1483	MX-0989	HANKWANG® NOZZLE N Ø 1.0
	L1484	MX-0990	HANKWANG® NOZZLE N Ø 1.2
	L1485	MX-0991	HANKWANG® NOZZLE N Ø 1.5
	L1487	MX-0992	HANKWANG® NOZZLE N Ø 1.8
	L1486	MX-0993	HANKWANG® NOZZLE N Ø 2.0
	L1488	MX-0994	HANKWANG® NOZZLE N Ø 2.5
	L1489		HANKWANG® NOZZLE N Ø 3.0
3	L1521		HANKWANG® DOUBLE NOZZLE N Ø 1.0
	L1522		HANKWANG® DOUBLE NOZZLE N Ø 1.5
	L1523		HANKWANG® DOUBLE NOZZLE N Ø 2.0
	L1524		HANKWANG® DOUBLE NOZZLE N Ø 2.5
	L1526		HANKWANG® DOUBLE NOZZLE N Ø 3.0
	L1525		HANKWANG® DOUBLE NOZZLE N Ø 4.0



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POS	II-VI P/N	OEM P/N	DESCRIPTION
1	AL408		HANKWANG® CERAMIC NOZZLE HOLDER
2			Please refer to the Precitec nozzle section
3			Please refer to the Precitec nozzle section



FOR ALL OF YOUR REPLACEMENT OPTIC NEEDS

CO<sub>2</sub> 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  
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 MIRRORS  
 SCANNING LASER SYSTEM OPTICS  
 BEAM COMBINERS  
 BEAM EXPANDERS  
 BEAMSPLITTERS  
 COLLIMATING OPTICS  
 DIAMOND-TURNED SPECIALTY OPTICS  
 REFLECTIVE PHASE RETARDERS  
 PRISMS & RHOMBS  
 MODULATORS  
 WAVEPLATES  
 THIN-FILM POLARIZERS  
 POLARIZER-ANALYZER-ATTENUATOR

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 ARSENIDE (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.iiviiinfrared.com/contact](http://www.iiviiinfrared.com/contact) for our most complete and up-to-date contact information.

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