

# CO<sub>2</sub> and fiber laser nozzles

## Nozzle options

All Centricut nozzles are engineered and manufactured to the highest standards. Select the OEM quality nozzle best suited for your application needs

### Copper

Most commonly used nozzle offering good durability and nozzle life. Primary nozzle type for fiber lasers.

### Chrome plated

Shiny, mirror-like finish provides increased spatter resistance, improved durability and longer life than copper nozzles. Not recommended for use on fiber lasers.

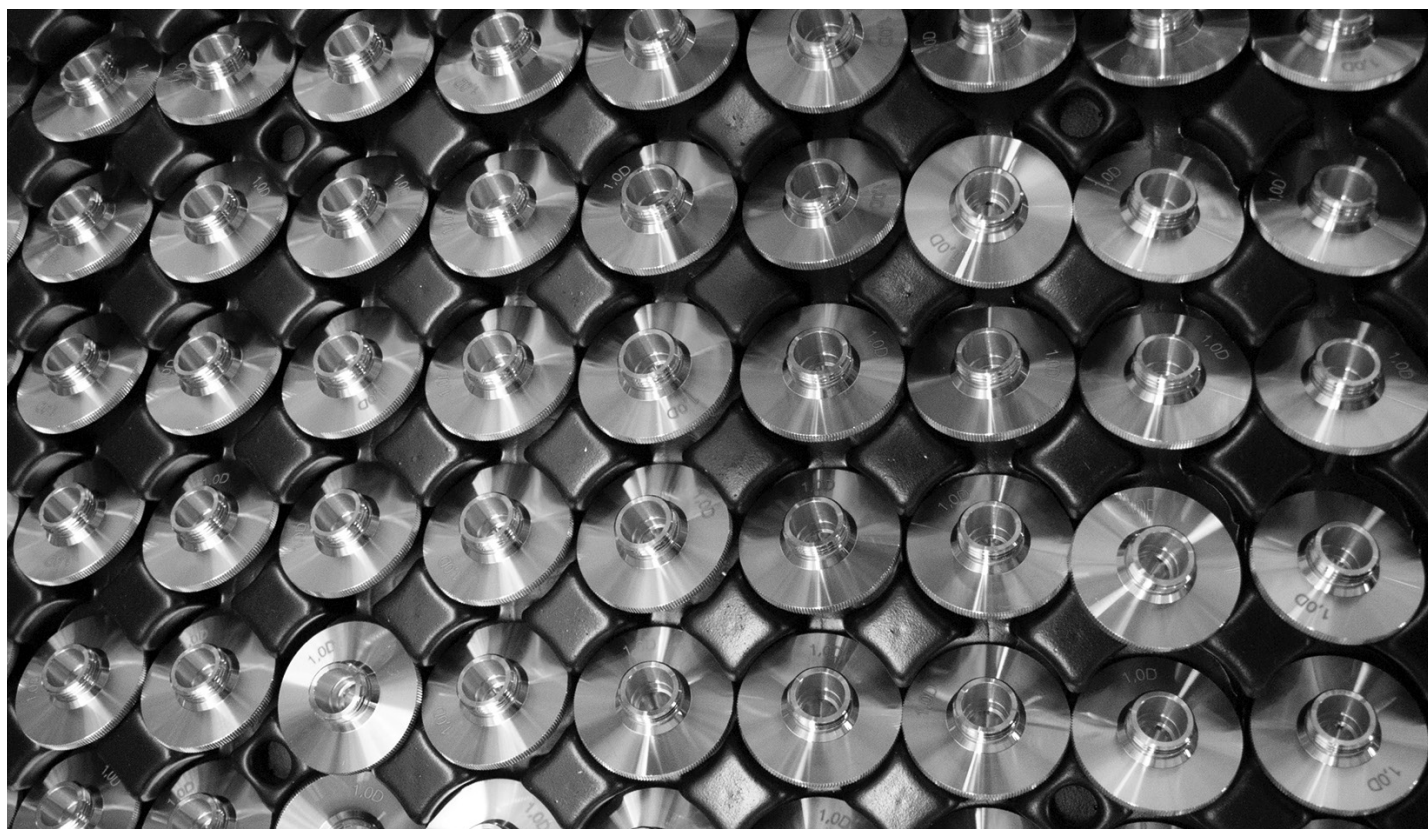
Look for CP in the part number to identify a chrome plated nozzle

### Hard chrome plated

Premium nozzles offering the highest level of durability and longest nozzle life. These nozzles are not as shiny as chrome plated and have a dull appearance. Not recommended for use on fiber lasers.

Look for HCP in the part number to identify a hard chrome nozzle.

CP (chrome plated)	Nozzles plated with chrome for increased durability. These nozzles are easier to clean, resist damage due to 'tip-ups' and have better spatter resistance over non-plated nozzles. For use in all laser cutting applications.
Conical	Conical internal geometry for high pressure, non-ferrous cutting applications using nitrogen, air or argon.
Cylindrical	Cylindrical internal geometry for low pressure, mild steel cutting applications using oxygen.
Double	Insert pressed into a standard cylindrical nozzle for improved edge quality, laminar gas flow and spatter resistance. Primarily used in mild steel applications.
HCP (hard chrome plated)	Enhanced durability chrome plated nozzles. These nozzles are easier to clean, resist damage due to 'tip-ups' and have better spatter resistance over non-plated nozzles. For use in all laser cutting applications.
HP (high pressure) HD (high density)	Conical style nozzle for high pressure, non-ferrous cutting applications using nitrogen, air or argon.
Inner	Also referred to as a 'nozzle insert'. Works in conjunction with an outer nozzle to create a double nozzle. Primarily used in mild steel applications.
Low pressure	Cylindrical style nozzle for low pressure, mild steel cutting applications using oxygen.
Outer	Works in conjunction with an inner nozzle to create a double nozzle. Primarily used in mild steel applications.
Shower	Nozzles with a center orifice surrounded by smaller jets. The smaller jets focus the assist gas into the kerf, creating improved edge quality and the ability to cut thicker material. Primarily used in mild steel applications.



# CO<sub>2</sub> and fiber laser optics

## Optics key

Lens	
MEN	Meniscus
PLX	Plano-convex
MTD	Mounted
Not MTD	Not mounted
PO	Plano
MP5 or ULA	Ultra low absorption
AR	Anti-reflection
ZNSE	Zinc selenide
FS	Fused silica
DIA	Diameter
FL	Focal length
ET	Edge thickness
WD	Working distance

## How to handle optics

Follow these easy steps, when cleaning or changing your optic, to help maximize the life and performance of your lens

- Avoid touching coated surfaces of the lens and hold the optic by its sides
- Wear powder-free finger cots or latex gloves when handling
- Do not use any tools or sharp objects when handling the optic or when removing it from its packaging
- Ensure the work surface is clean and free of oils, grease and dirt
- Do not place the optic on hard surfaces as they scratch easily
- Once the optic has been unpacked, carefully place it on the lens tissue in which it was originally wrapped

## Optics disposal

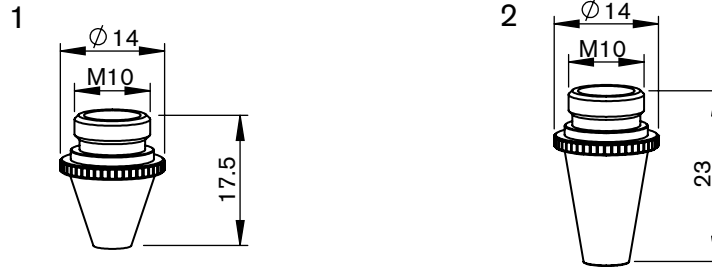
It is important to dispose of used laser optics at a licensed industrial waste facility which is in compliance with all local, state, and federal regulations. If you don't have access to a licensed industrial waste facility, and purchased your laser optics through Centricut, you may return them to Centricut for proper disposal. This service is only available to Centricut customers.

### All optics returned to Centricut must:

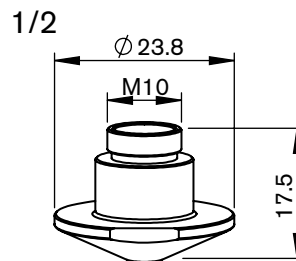
- Include return authorization and invoice numbers
- Be sealed in a plastic bag to minimize any hazards
- Remove excess ZnSe powder prior to sealing

\*Acceptance of goods will be refused if not packaged correctly or if the return authorization number isn't included




**Consumables**

	Centricut part number	Esse A part number	Reference number	Description	Pkg qty
1	MZ322-0523	L492	46603350523	MZ-Nozzle shower, 1.0 mm	1
	MZ322-0523-1.5	L493		MZ-Nozzle shower, 1.5 mm	1
	MZ322-0523-2.0	L497		MZ-Nozzle shower, 2.0 mm	1
2	MZ322-0001	L284		MZ-Nozzle long, 2.0 mm	1


**Consumables**

	Centricut part number	Esse A part number	Reference number	Description	Pkg qty
1	MZ335-0004	L428		MZ-Nozzle, 1.0 mm	1
	MZ335-0011	L423		MZ-Nozzle, 1.2 mm	1
	MZ335-1950	L429	46683301950	MZ-Nozzle, 1.5 mm	1
	MZ335-1821	L430	46683301821	MZ-Nozzle, 2.0 mm	1
	MZ335-1960	L431	46683301960	MZ-Nozzle, 2.5 mm	1
	MZ335-1970	L432	46683301970	MZ-Nozzle, 3.0 mm	1
	MZ335-0006	L472		MZ-Nozzle, 3.5 mm	1
	MZ335-0013	L473		MZ-Nozzle, 4.0 mm	1
	MZ335-1950CP	L429X	46683301950	MZ-Nozzle, 1.5 mm CP	1
	MZ335-1821CP	L430X	46683301821	MZ-Nozzle, 2.0 mm CP	1
	MZ335-1960CP	L431X	46683301960	MZ-Nozzle, 2.5 mm CP	1
	MZ335-1970CP	L432X	46683301970	MZ-Nozzle, 3.0 mm CP	1
	2	MZ360-0002	L851		MZ-Nozzle double, 1.2 mm
MZ360-0003		L852	46683302420	MZ-Nozzle double, 1.5 mm	1
MZ360-0005		L853	46683302430	MZ-Nozzle double, 2.0 mm	1
MZ360-0007		L854		MZ-Nozzle double, 2.5 mm	1
MZ360-0008		L855	46683302450	MZ-Nozzle double, 3.0 mm	1
MZ360-0003CP		L852X	46683302420	MZ-Nozzle double, 1.5 mm CP	1
MZ360-0005CP		L853X	46683302430	MZ-Nozzle double, 2.0 mm CP	1
MZ360-0008CP		L855X		MZ-Nozzle double, 3.0 mm CP	1