



CO₂ laser consumables – Laser Lab[®]

Our value proposition

- **Product breadth** – with over 2,800 part numbers
- **OEM quality/consistency** for nozzles, ceramics and optics
- **Technical/application support** from OEM-trained technicians
- **100% satisfaction guarantee**

Optics key

Lens

PFL	Pre-focus
MEN	Meniscus
PLX	Plano-convex
MTD	Mounted
Not MTD	Not mounted
LA	Low absorption
PO	Plano

Mirrors

CU	Copper
GAAS	Gallium arsenide
SI	Silicon
GE	Germanium
ZNSE	Zinc-selenide
PS	Phase shift
MMR	Maximum metal reflector
ATFR	Absorbing thin film reflector
TRZ	Total reflector – zero phase shift
ZPS	Zero phase shift
OC	Output coupler
RM	Rear mirror
COL-I	Collimator input
COL-O	Collimator output
AO	Adaptive optic
MO	Molybdenum
UC	Uncoated
MCX	Convex
MCC	Concave

Measurements

DIA	Diameter
FL	Focal length
ET	Edge thickness

Contents – Laser

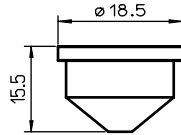
Page OEM

1	Amada®
14	Amada – Optics
16	Behrens®
17	Bystronic®
26	Bystronic – Optics
28	Cincinnati®
29	Cincinnati – Optics
31	Finn-Power®
36	GHT-SHT®
40	Haas®
41	Haco®
42	Hankwang®
45	Laserdyne®
46	Laser Lab®
46	Laser Lab – Optics
47	LVD®
50	LVD – Optics
51	Mazak®
74	Mazak – Optics
76	Mitsubishi®
80	Mitsubishi – Optics
82	Murata Wiedemann® – Fanuc®
83	Niigata®
84	NTC® – Beyeler®
85	NTC – Beyeler – Optics
86	Precitec®
102	Precitec – Optics
104	Prima Industrie®
110	Prima Industrie – Optics
111	Raskin®
112	Rouchaud®
113	Salvagnini®
117	Strippit®
118	Tanaka®
118	Tanaka – Optics
120	Thyssen®
121	Trumpf®
137	Trumpf – Optics
139	Valfiv®

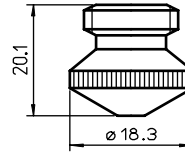
New items are shown in bold.

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Guide for nozzle selection on inside back cover.



1



2

Consumables

Centricut part number	Reference number	Alternate reference	Description	Pkg qty
LL340-210T	03-210T	L510	Nozzle – 1.0 mm	1
LL340-212T	03-212T	L511	Nozzle – 1.2 mm	1
LL340-214T	03-214T	L512	Nozzle – 1.4 mm	1
1 LL340-217T	03-217T	L513	Nozzle – 1.7 mm	1
LL340-220T	03-220T	L514	Nozzle – 2.0 mm	1
LL340-224T	03-224T	L515	Nozzle – 2.4 mm	1
LL340-230T	03-230T	L516	Nozzle – 3.0 mm	1
LL341-2293-0.5	01-2293	L518	Nozzle – 0.5 mm	1
LL341-2293-1.0	00-2293-1.0	L519	Nozzle – 1.0 mm	1
LL341-2293-1.2	00-2293	L520	Nozzle – 1.2 mm	1
2 LL341-2293-1.5	03-2293	L521	Nozzle – 1.5 mm	1
LL341-2293-1.8	03-2293-1.8	L522	Nozzle – 1.8 mm	1
LL341-2293-2.0	02-2293	L523	Nozzle – 2.0 mm	1
LL341-2293-2.8	02-2293	L524	Nozzle – 2.8 mm	1

Optics

Centricut part number	Reference number	Type	Diameter	Focal length	Edge thickness
Lenses					
LL342-1819	166634, 61819	MEN	1.1"	5.0"	.236"
LL342-1014	61014, 406294, 658108	MEN	1.5"	5.0"	.290"
LL342-1171	61171	MEN	1.5"	7.5"	.300"

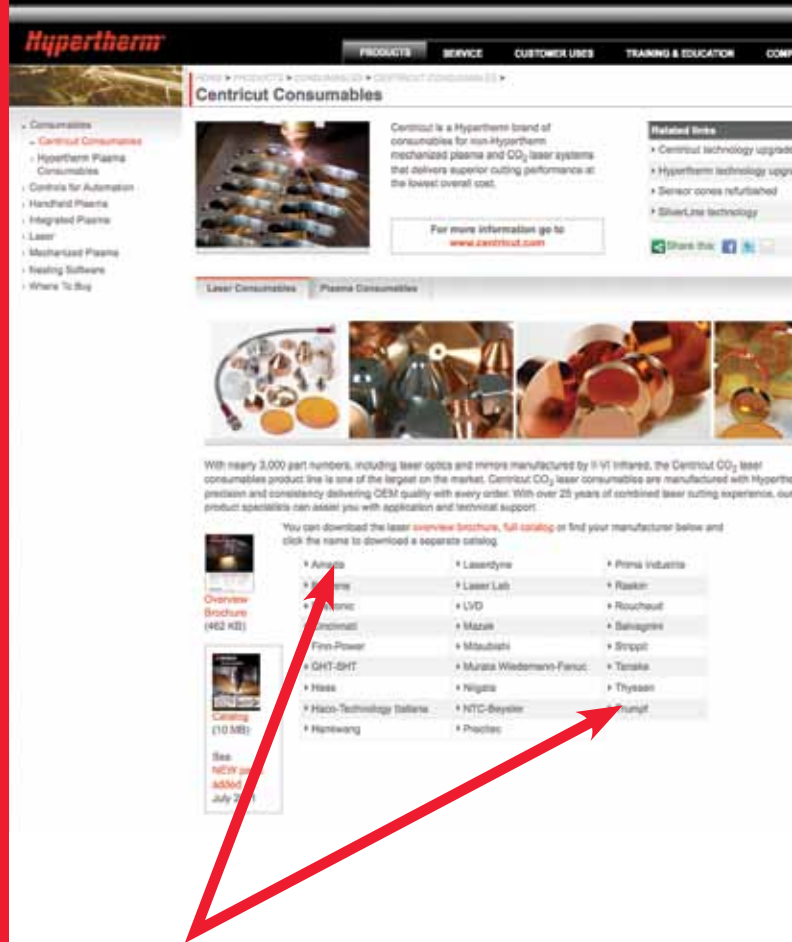
Optics care

Centricut part number	Reference number	Description	Pkg qty
TR300-6452	N/A	CO ₂ Lens paper (50 sheets)	1
TR300-SC20		Cotton swab – 20 piece	1
TR300-1115		Lens cleaning pre-cut cotton –100 piece	1
TR300-1010	AL1010	Dropper, lens cleaning fluid	1
TR300-255	AL255	Loupe, magnifying	1
TR300-271	AL271	Base, lens maintenance	1
TR300-7388	787388	Mirror polish (250 ml)	1

New items shown in bold

Type of nozzle	Reasons for selecting
Adapter	This means that it is possible to use a different type of nozzle as long as the nozzle adaptor is purchased. It adapts from a big nozzle to a smaller nozzle and this can save the end-user money in the long run.
CP (chrome plated)	CP nozzles are plated with chrome for increased durability. Chrome plated nozzles are much easier to clean and can withstand contact with material better than non-plated nozzles.
Conical	This refers to the internal geometry of the nozzle. Due to the internal geometry the gas swirls and spirals down towards the material causing a coaxial flow, this flow prevents plugging of the orifice.
Cylindrical	This refers to the internal geometry of the nozzle. Mainly used for gauge steel to 6,4 mm low pressure oxygen cutting.
Double	Just as it sounds, this is a nozzle within a nozzle. Sometimes referred to as a "jacketed nozzle". Double nozzles are better for cutting thicker materials. "Better" refers to cut quality more than speed. Double nozzles have a high aspect ratio at the exit helping protect lens from back spatter.
Double with holes or double nozzle insert	Used with the outer nozzle; the double nozzle insert inserts into the outer nozzle to form a double.
Double hard	This is a double nozzle with the hard chrome plating (this type of chrome plating is only available in North America).
Hard	Hard chrome plating (only available in North America), is harder than standard chrome therefore it is more durable.
Hex	Hex refers to the machined edge of the nozzle, with the hex machined in it makes it possible to get an open end wrench on the nozzle for tightening and loosening.
High pressure (HP) High density (HD)	Used in applications where the gas pressures are really high, used on thicker material and stainless steel and aluminum.
Low pressure	Used for low pressure oxygen cutting applications such as gauge material up to 3,2 mm.
Nozzle holder	The nozzle holder sometimes also known as the ceramic is the mating partner for the nozzle; the two are combined by threading the nozzle into the holder.
Nozzle, long	Refers to the length of the nozzle.
Nozzle, short	Refers to the length of the nozzle.
Nozzle, w/step	This refers to the internal geometry of the nozzle. Mainly used in higher pressure cutting.
Outer nozzle	See double nozzle. This is the mating partner of the double nozzle insert, the two combined make a double nozzle.
Shower	Used to cut thick mild steel (>6,4 mm) w/O ₂ assist gas. Shower nozzles have a center nozzle orifice, surrounded by several other holes. This design ensures more effective assist gas volume, without significantly increasing real volume.
Straight taper	This refers to the internal geometry of the nozzle, mainly used in higher pressure cutting.
WACS	Water-assist cutting system.

You can download the laser brochure, full catalog or individual catalogs by brand easily from the web!



Go to the Centricut product page at www.hypertherm.com

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Trumpf



Mazak



Mitsubishi



Bystronic



Amada



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