Richardson Electronics
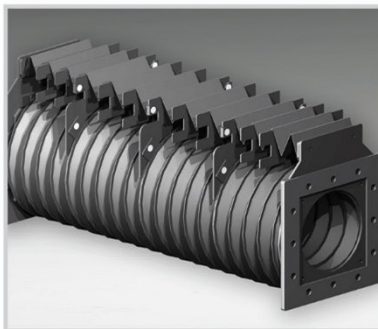## POWER & MICROWAVE TECHNOLOGIES

Laser Parts & Consumables Suitable for TRUMPF® Lasers

rellaser.com | laser@rell.com

Why Richardson Electronics?

Global Headquarters in LaFox, Illinois, U.S.A.

Richardson Electronics is a global distributor of RF tubes (power grid tubes) and consumables used in industrial lasers. With 75 years of experience and sales offices and stocking locations around the world, we provide the highest standard of quality and service. Our commitment to providing the best products to meet our customers' needs is second to none.

We stock critical components for laser systems and provide expert assistance in selecting replacement products and alternatives. Richardson Electronics is a world leading supplier of laser consumables. We have an extensive global supply network which helps us maintain a large inventory of replacement parts for laser machines from the industry's leading manufacturers.

All of Richardson Electronics' laser consumables are manufactured to the highest standards of quality and performance that meet, or exceed the OEM's original specifications. Our replacement parts for TRUMPF®, Bystronic® and other major manufacturers' lasers, deliver the same level of performance as OEM parts, but are a far more cost effective alternative.

Contact Richardson Electronics today for more information, or request a quote for your laser replacement parts.

Rev 11

Index

Nozzles & Accessories

Richardson Electronics offers an extensive selection of nozzle sizes and configurations to cover the full range of laser capabilities. Our nozzles and ceramics offer OEM-quality at competitive prices. With more than 200 different styles and sizes in stock, we can supply the nozzles you need tomorrow and we are always adding new consumables, so please check with us if you do not find the parts you need.

Nozzles

EAA

Trumpf No.	Order No.	Description (Sold in packages of 10)
1324858	RNT060/08	Nozzle EAA ø 0.8 mm
1324860	RNT061/10	Nozzle EAA ø 1.0 mm
1324861	RNT062/12	Nozzle EAA ø 1.2 mm
1324863	RNT063/14	Nozzle EAA ø 1.4 mm
1324864	RNT064/17	Nozzle EAA ø 1.7 mm
1324865	RNT065/20	Nozzle EAA ø 2.0 mm
1324866	RNT066/23	Nozzle EAA ø 2.3 mm
1324867	RNT067/27	Nozzle EAA ø 2.7 mm

EAU

Trumpf No.	Order No.	Description (Sold in packages of 10)
2059462	RNT096/25	Nozzle EAU ø 2.5 mm
2060001	RNT097/30	Nozzle EAU ø 3.0 mm
2060004	RNT098/40	Nozzle EAU ø 4.0 mm
2060025	RNT099/60	Nozzle EAU ø 6.0 mm
2253595	RNT041/100	Nozzle EAU ø 10.0 mm

EBD

Standard Copper Nozzles (Sold in packages of 10)		
(Chromium plated nozzles available upon request)		
Trumpf No.	Order No.	Description
1354230	RNT008/08	Nozzle EBD ø 0.8 mm
0212334	RNT010/10	Nozzle EBD ø 1.0 mm
1479581	RNT037/12	Nozzle EBD ø 1.2 mm
0216199	RNT011/14	Nozzle EBD ø 1.4 mm
0225213	RNT012/17	Nozzle EBD ø 1.7 mm
1487009	RNT038/20	Nozzle EBD ø 2.0 mm
0126156	RNT028/23	Nozzle EBD ø 2.3 mm

EBG & EBF

Slim Copper Nozzles (Sold in packages of 10)		
(Chromium plated nozzles available upon request)		
Trumpf No.	Order No.	Description
0913799	RNT020/08	Nozzle EBG ø 0.8 mm
0913800	RNT021/10	Nozzle EBG ø 1.0 mm
1487034	RNT035/12	Nozzle EBG ø 1.2 mm
0913801	RNT022/14	Nozzle EBG ø 1.4 mm
0937988	RNT023/17	Nozzle EBF ø 1.7 mm
1487036	RNT034/20	Nozzle EBF ø 2.0 mm
0937989	RNT024/23	Nozzle EBF ø 2.3 mm

Nozzles

EAB

Trumpf No.	Order No.	Description (Sold in packages of 10)
1373324	RNT070/08	Nozzle EAB ø 0.8 mm
1373325	RNT071/10	Nozzle EAB ø 1.0 mm
1373326	RNT072/12	Nozzle EAB ø 1.2 mm
1373327	RNT073/14	Nozzle EAB ø 1.4 mm
1373328	RNT074/17	Nozzle EAB ø 1.7 mm
1373329	RNT075/20	Nozzle EAB ø 2.0 mm
1373330	RNT076/23	Nozzle EAB ø 2.3 mm
1373331	RNT077/27	Nozzle EAB ø 2.7 mm

ECE

Standard Copper Nozzles (Sold in packages of 10)		
Trumpf No.	Order No.	Description
0124561, 0237499	RNT150/08	Nozzle ECE ø 0.8 mm
0124562	RNT151/10	Nozzle ECE ø 1.0 mm
0966809	RNT148/12	Nozzle ECE ø 1.2 mm
0237497	RNT152/14	Nozzle ECE ø 1.4 mm With Step
0237497-S	RNT159/14	Nozzle ECE ø 1.4 mm With Straight Taper
0237500	RNT153/15	Nozzle ECE ø 1.5 mm
0237501	RNT154/17	Nozzle ECE ø 1.7 mm
1253211, 0237502 & 0237503	RNT155/20	Nozzle ECE ø 2.0 mm
0126933	RNT158/23	Nozzle ECE ø 2.3 mm
	RNT156/25	Nozzle ECE ø 2.5 mm
0942742	RNT149/27	Nozzle ECE ø 2.7 mm
0237504	RNT157/30	Nozzle ECE ø 3.0 mm
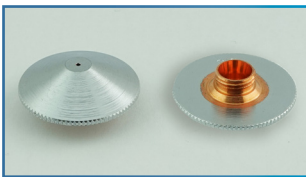
Hard Chromium Plated Nozzles (Sold in packages of 10)		
Trumpf No.	Order No.	Description
0352280	RNT150/08C	Nozzle ECE ø 0.8 mm Hard Chromium Plated
0352281	RNT151/10C	Nozzle ECE ø 1.0 mm Hard Chromium Plated
0352282	RNT148/12C	Nozzle ECE ø 1.2 mm Hard Chromium Plated
0352283	RNT152/14C	Nozzle ECE ø 1.4 mm with Step Hard Chromium Plated
0352283-S	RNT159/14C	Nozzle ECE ø 1.4 mm with Straight Taper Hard Chromium Plated
0352284	RNT154/17C	Nozzle ECE ø 1.7 mm Hard Chromium Plated
1253212	RNT155/20C	Nozzle ECE ø 2.0 mm Hard Chromium Plated
0352285	RNT158/23C	Nozzle ECE ø 2.3 mm Hard Chromium Plated
0352286	RNT149/27C	Nozzle ECE ø 2.7 mm Hard Chromium Plated

BrightLine Nozzles

Trumpf No.	Order No.	Description (Sold Individually)
1579549	RNT120/25	Nozzle EAK ø 2.5mm
1579556	RNT121/30	Nozzle EAK ø 3.0mm
1664569	RNT081/17	Nozzle EAN ø 1.7mm
1664602	RNT082/20	Nozzle EAN ø 2.0mm
1664625	RNT083/25	Nozzle EAN ø 2.5mm
1835747	RNT084/40	Nozzle EAK ø 4.0mm

Trumpf No.	Order No.	Description (Sold Individually)
1633046	RNT085/53	Nozzle EAC ø 5.3mm

Trumpf No.	Order No.	Description (Sold Individually)
1809091	RNT086/60	Nozzle EAQ ø 6.0mm
1809421	RNT087/75	Nozzle EAQ ø 7.5mm
1886199	RNT088/95	Nozzle EAQ ø 9.5mm

CoolLine Nozzles

Trumpf No.	Order No.	Description (Sold Individually)
1774018	RNT089/14	Nozzle EFL ø 1.4mm
1774020	RNT090/20	Nozzle EFL ø 2.0mm
1774092	RNT091/23	Nozzle EFL ø 2.3mm

Trumpf No.	Order No.	Description (Sold Individually)
1879940	RNT093/14	Nozzle EGL ø 1.4mm
1879951	RNT092/17	Nozzle EGL ø 1.7mm
1879952	RNT094/20	Nozzle EGL ø 2.0mm
1879953	RNT095/23	Nozzle EGL ø 2.3mm

Precitec® Nozzles

Precitec No.	Order No.	Description (Sold in packages of 10)
P0578-0412-00012	RNP021/12	Nozzle ø 1,2 mm
P0578-0413-00015	RNP022/15	Nozzle ø 1,5 mm
P0578-0414-00018	RNP023/18	Nozzle ø 1,8 mm
P0578-0415-00020	RNP024/20	Nozzle ø 2,0 mm

Precitec No.	Order No.	Description (Sold in packages of 10)
P0591-571-00010	RNP130/10	Nozzle ø 1,0 mm
P0591-572-00012	RNP131/12	Nozzle ø 1,2 mm
P0591-573-00015	RNP132/15	Nozzle ø 1,5 mm
P0591-574-00018	RNP133/18	Nozzle ø 1,8 mm
P0591-575-00020	RNP134/20	Nozzle ø 2,0 mm
	RNP135/22	Nozzle ø 2,2 mm
P0591-576-00025	RNP136/25	Nozzle ø 2,5 mm
	RNP137/27	Nozzle ø 2,7 mm
P0591-577-00030	RNP138/30	Nozzle ø 3,0 mm

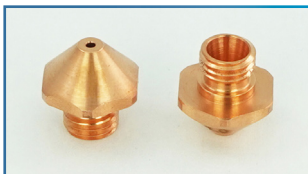| Precitec No.	Order No.	Description (Sold in packages of 10)
P0591-002-00010	RNP300/10D	Double Nozzle ø 1,0 mm
P0591-002-00012	RNP301/12D	Double Nozzle ø 1,2 mm
P0591-002-00015	RNP302/15D	Double Nozzle ø 1,5 mm
P0591-002-00018	RNP303/18D	Double Nozzle ø 1,8 mm
P0591-002-00020	RNP304/20D	Double Nozzle ø 2,0 mm
P0591-002-00023	RNP305/23D	Double Nozzle ø 2,3 mm
P0591-002-00025	RNP306/25D	Double Nozzle ø 2,5 mm
P0591-002-00030	RNP307/30D	Double Nozzle ø 3,0 mm
P0591-002-00035	RNP308/35D	Double Nozzle ø 3,5 mm

Long Copper Nozzles (Sold in packages of 10)
(Chromium plated nozzles available upon request)

Trumpf No.	Order No.	Description
1277773	RNT130/08	Nozzle ø 0.8 mm
1277771	RNT131/10	Nozzle ø 1.0 mm
1277774	RNT132/12	Nozzle ø 1.2 mm
1277776	RNT133/14	Nozzle ø 1.4 mm
1277779	RNT134/17	Nozzle ø 1.7 mm
1277780	RNT135/20	Nozzle ø 2.0 mm
1277781	RNT136/23	Nozzle ø 2.3 mm
1277782	RNT137/27	Nozzle ø 2.7 mm
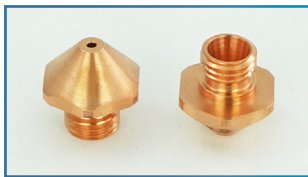
Standard Copper Nozzles (Sold in packages of 10)
(Chromium plated nozzles available upon request)

Trumpf No.	Order No.	Description
0226939	RNT013/10	Nozzle ø 1.0 mm
0226940	RNT014/14	Nozzle ø 1.4 mm
0227144	RNT015/17	Nozzle ø 1.7 mm

Standard Copper Nozzles (Sold in packages of 10)
(Chromium plated nozzles available upon request)

Trumpf No.	Order No.	Description
	RNT016/10	Nozzle ø 1.0 mm
	RNT017/14	Nozzle ø 1.4 mm
	RNT018/17	Nozzle ø 1.7 mm
	RNT030/23	Nozzle ø 2.3 mm

## Standard Rough Edged Copper Nozzles (Sold in packages of 10)
(Chromium plated nozzles available upon request)

Trumpf No.	Order No.	Description
0135320	RNT225/10	Nozzle ø 1.0 mm Rough Edged
	RNT226/12	Nozzle ø 1.2 mm Rough Edged
0135318	RNT220/14	Nozzle ø 1.4 mm Rough Edged
0126157	RNT221/17	Nozzle ø 1.7 mm Rough Edged

Nozzles

Standard Copper Nozzles (Sold in packages of 10) *(Chromium plated nozzles available upon request)*		
Trumpf No.	**Order No.**	**Description**
0958206	RNT006/025	"Teach" Nozzle ø 0.25 mm
0913799	RNT020/08	Nozzle ø 0.8 mm
0913800	RNT021/10	Nozzle ø 1.0 mm
0913801	RNT022/14	Nozzle ø 1.4 mm
0937988	RNT023/17	Nozzle ø 1.7 mm
0937989	RNT024/23	Nozzle ø 2.3 mm

Specialty Nozzles
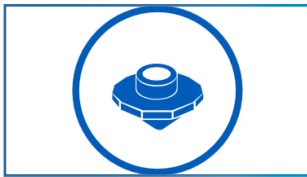
| Specialty Nozzles		
Trumpf No.	**Order No.**	**Description**
932530	RNT200/45C	Nozzle 4.5 mm Hard Chromium Plated (sold individually)
1384753	RNT301/20	Nozzle Crossjet 2.0 mm (sold in packages of 10)
2491660	RNT870/100	Nozzle CAU 10.0 mm - with reflection-free finish (sold in packages of 10)

Ceramic Nozzle Holders
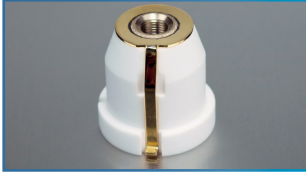
Trumpf No.	Order No.	Description (Sold individually)
0260432	RHT109/H	Ceramic Nozzle Holder

Trumpf No.	Order No.	Description
0936678	RHT110/H	Ceramic Nozzle Holder
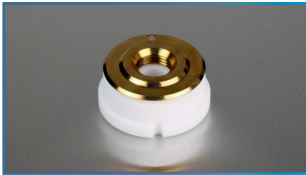
Trumpf No.	Order No.	Description
0258809, 0243839 & 0247894	RHT111/H	Ceramic Nozzle Holder
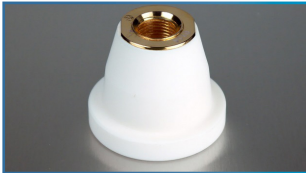
Trumpf No.	Order No.	Description (Sold individually)
1349171, 1591594, 1755673	RHT112/H	Ceramic Nozzle Holder M12

Trumpf No.	Order No.	Description (Sold individually)
1906032	RHT116/H	Ceramic Nozzle Holder M12

Precitec No.	Order No.	Description (Sold individually)
P0571-1051-001	RHP100/H	Nozzle Holder, Conical

OEM No.	Order No.	Description (Sold individually)
P0494-752-00001, 092405	RHP101/H	Nozzle Holder

Accessories

Trumpf No.	Order No.	Description
0225286	RTT160/TC	Teflon Cover, White (Lasermatic)

Trumpf No.	Order No.	Description
0254496	RTT161/TC	Teflon Cover, White

Trumpf No.	Order No.	Description
0256153	RTT162/TC	Teflon Cover DIAS III, White

Trumpf No.	Order No.	Description
0955826	RTT162/TCB	Teflon Cover DIAS III, Black
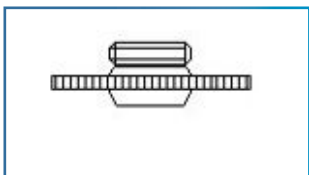
Trumpf No.	Order No.	Description
-	RMT139/NOZZLE-ADAPT	Adapter for Precitec KTB2 Heads to M8 thread, used for ECE nozzles.

Trumpf No.	Order No.	Description
0234485	RMT163/BAB	Break Away Bar

Trumpf No.	Order No.	Description
913965	RMT007/NUT	Locking Nut

# Optics & Cleaning Supplies
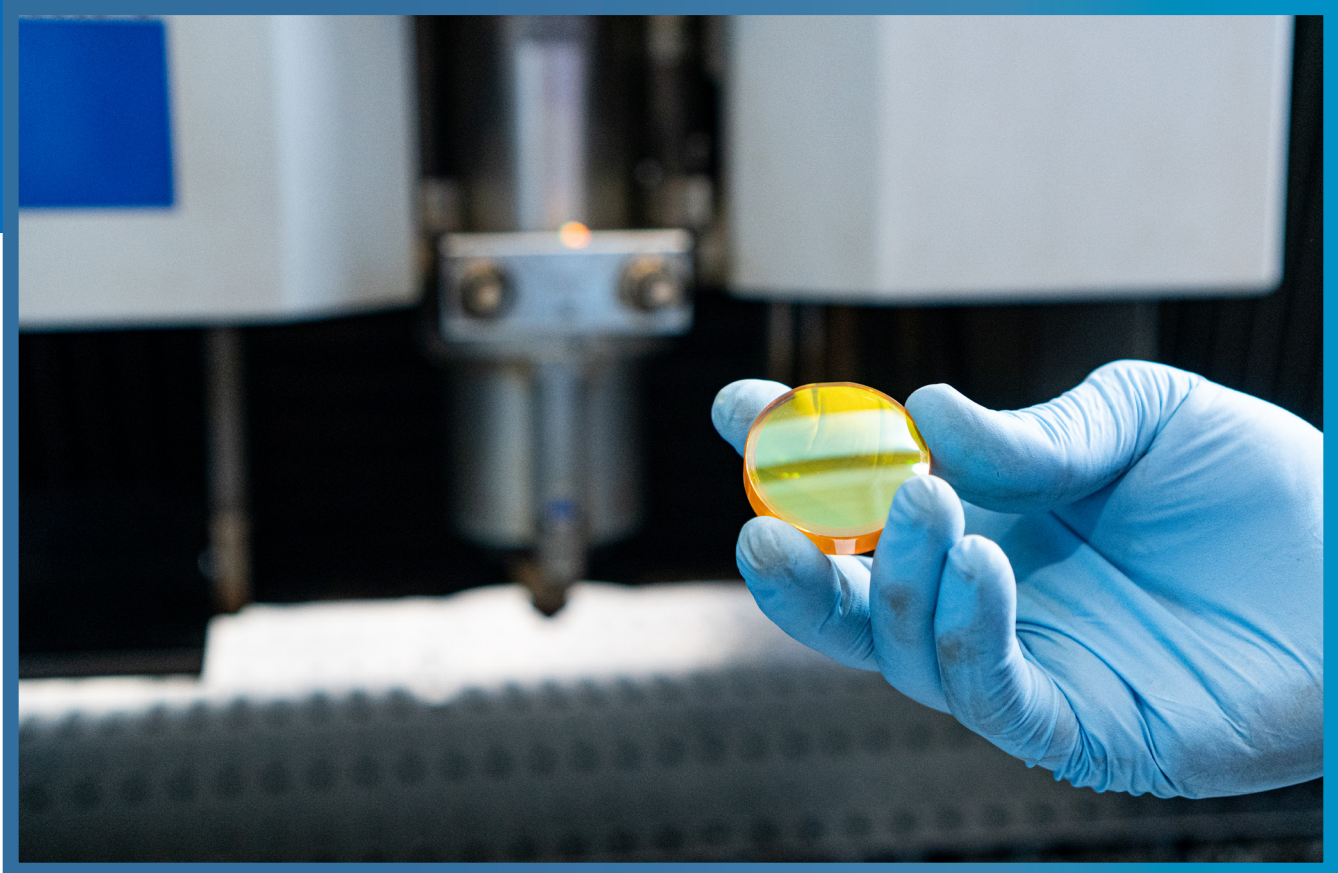
Richardson Electronics lenses and mirrors are manufactured using the highest quality materials and tightest process controls available in the industry. Every optic undergoes thorough quality controls to ensure you will get the best performance in your laser. Our standard lenses meet or exceed OEM specifications. Our low absorption lenses are the best choice for laser powers of 4 KW and up. Our optics can help you reduce the total cost of operation of your laser.

Lenses and Protective Lens Covers

Lenses for CO_2 Lasers

Trumpf No.	Order No.	Description
088114	RLT100/50S	5" F/L, 1.5" Dia., 0.291 ET, AR ≤ 0.20%
088114	RLT200/50LA	5" F/L, 1.5" Dia., 0.291 ET, AR ≤ 0.15% (Low Absorption)
097517	RLT101/75S	7.5" F/L, 1.5" Dia., 0.291 ET, AR ≤ 0.20%
097517	RLT201/75LA	7.5" F/L, 1.5" Dia., 0.291 ET, AR ≤ 0.15% (Low Absorption)
0141972	RLT103/90S	9" F/L, 1.5" Dia., 0.291 ET, AR ≤ 0.20%
0346104	RLT102/375S	3.75" F/L, 1.5" Dia., 0.291 ET, AR ≤ 0.20%
0350163	RLT104/100S	10" F/L, 1.5" Dia., 0.291 ET, AR ≤ 0.20%
0380117	RLT106/50S	130mm F/L, D40, 7.5mm ET, Cut Lens (Without RFID Chip)
1330414	RLT109/45S	115mm F/L, D50, 8.9mm ET, Cut Lens (Without RFID Chip)
1330448	RLT108/70S	175mm F/L, D50, 8.9mm ET, Cut Lens (Without RFID Chip)
1383925	RLT125/60S	155mm F/L, D40, 7.5mm ET, AR/AR
380115	RLT105/100S	250mm F/L, 40mm Dia, 7.5mm ET cut lens (Without RFID chip
1383926	RLT126/90S	240mm F/L, D40, 7.5mm ET, AR/AR
1330443	RLT107/100S	250mm F/L, 50mm Dia, 8.9mm ET, Cut Lens (Without RFID chip)
1525872	RLT112/70S	170mm F/L, D50, 8.9mm ET, Cut Lens (Without RFID Chip)
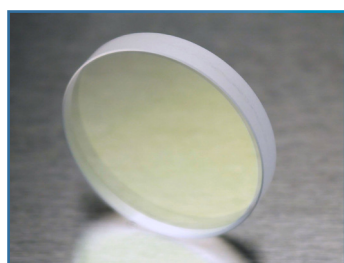
Protective Lens Covers and Lenses for Fiber Lasers

Trumpf No.	Order No.	Description
1792250	RLT131/24D5T	24 Dia. x 5mm Thick, Fused Silica Protective Window
0766719	RLT128/30D5T	30 Dia. x 5mm Thick, Fused Silica Protective Window
0766719	RLT130/30D5THP	30 Dia. x 5mm Thick, Fused Silica Protective Window for +8kW Fiber Lasers
1614767	RLT120/PLC-FIBR	34 Dia. x 5mm Thick, Fused Silica Window
1887343	RLT343/38D7T	38 Dia. ×7.0 mm Thick, Fused Silica Window
1603107	RLT135/40D8.1T150FL	40 Dia. x 8.1mm Thick, Fused Silica Lens
2627294, 1869799	RLT136/30D8.1T150FL	30 Dia. x 8.1mm Thick, Fused Silica Lens
0759720, '0798142	RLT122/55D1.5T	55 Dia. x 1.5mm Thick, Fused Silica Protective Window
1584792	RLT132/55D1.5TBB	55 Dia. x 1.5mm Thick, Fused Silica Broad Band Protective Window 900-1090nm
1615516	RLT516/55D1.5TSW	55 Dia x 1.5mm Thick, Fused Silica Protective Window
1254813	RLT813/134D3T	134 Dia. ×3.0 mm Thick, Fused Silica Window

Mirrors		
Trumpf No.	**Order No.**	**Description**
0129880	RRT103/90PS	Si 90 Phase Shift 68mm x 20mm
0129881	RRT102/0PS	Si 0 Phase Shift 68mm x 20mm
0365640	RRT114/90PS	Cu 90 Phase Shift 68mm x 20.32mm
0920689	RRT104/CUWC	Cu W/C Mirror 68mm x 34mm
0977219	RRT219/U	U Mirror set, includes seven MMR mirrors, one PLM mirror and mounting o-rings
1331867	RRT867/PLM	Polarize Lock Mirror, includes mounting o-rings
1492304	RRT304/MMR	MMR Mirror includes mounting o-rings

Optics Cleaning Supplies		
Trumpf No.	**Order No.**	**Description**
0240568	RLT568/TOPOL80	Topol Lens Cleaner (80ml Bottle)
1687226	RLT226/LRGPAPER	Large Lens Cleaning Paper - 50 Pack - Sheet size 4 x 7.75" (102 x 197mm)
086452, 13082010	EK1546027T	Lens Cleaning Paper - 50 Pack - Sheet size 2.75 x 4.75" (70 x 121mm)
	EK1463728T	Lens Cleaning Solution - 16 oz.
0122024	RLT024/LNSTICK	Knit Polyester Cleaning Swabs (100/pack)
	MIRR-POL/390050	Mirror Polishing Compound

Power Grid Tubes

Richardson Electronics is the number one supplier of replacement RF power tubes for TRUMPF® lasers. We supply Thales RF power tubes that are manufactured to the same high standards of quality as the original OEM tubes. Our aftermarket CO_2 laser RF power tubes represent a cost-effective alternative to lower your overall cost of ownership and maintenance for your TRUMPF® laser system.

CO_2 laser tubes from Richardson Electronics deliver the same level of performance and dependability as OEM tubes. Our replacement RF power tubes function exactly the same as TRUMPF® OEM tubes, but at lower prices.

Trumpf No.	Order No.	Description
0120730, 1290700, 1347276, 1582540, 1800928 1800961, 1800985, 1801047, 1803428	RS3021CJ	for lasers up to 4kW

Trumpf No.	Order No.	Description
0932468, 1237260, 1237228, 1237398, 1296799, 1582457, 1800986, 1811787, 1812660	RS2048CJC	for lasers 5kW and higher and TruCoax 3.2kW

Trumpf No.	Order No.	Description
1201187, 1548071	ROEKG321G	Socket for End Stage tube type RS3021CJ
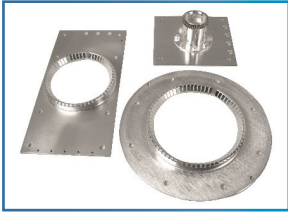
Trumpf No.	Order No.	Description
911332	ROEKG248K	Socket for End Stage tube type RS2048CJC

Trumpf No.	Order No.	Description
1601003	AX2048CJ-KIT	Sacrificial Anode Water Connection Kit
This is an add-on item sold only in conjunction with our RS2048CJC tube		

Trumpf No.	Order No.	Description
087596	AX3021CJ-KIT	Sacrificial Anode Water Connection Kit
This is an add-on item sold only in conjunction with our RS3021CJ tube		

Trumpf No.	Order No.	Description
0925091, 1520715	TUBE-EXTRACTOR	End Stage tube extraction tube
Works on the RS2048CJC and RS3021CJ		

Driver Stages

Trumpf CO_2 lasers are highly complex machines, with thousands of parts and many major components. The failure of any one of them will stop your production, and some cost tens of thousands of dollars to replace.

As part of our program of providing engineered solutions, the engineers at Richardson Electronics have developed a complete rebuilding process for several of these major components, including driver stages, frequency converters, and power supplies. The rebuilding process is done through a series of more than 30 individual diagnostic and repair steps, calibration, and a real-world test cycle, ensuring that it will operate at original factory specifications. And we back our rebuild process with a 12-month warranty.

To minimize your down time, we keep the rebuilt units in stock. To maximize the value, we offer core credits for your old units. If you have any of these old components lying around your shop, contact us to learn how you can turn it into a working spare or a into the laser parts and consumables you need.

Trumpf No.	Power Output	Frequency	Order No.
0087597, 0102687	600W	13.56 Mhz	Discontinued - Alternative type = RDS1KW13-R
0954356, 0990818, 1286829, 1288251, 1544591, 1544595	650W	13.56 Mhz	RDS650W13-R
1313254, 1392849, 1726682, 1760569, 1829407	650W Class "E"	13.56 Mhz	RDS650W13E-R
0131606, 0149214, 1286827, 1288252, 1597793, 1633973	1000W	13.56 Mhz	RDS1KW13-R
1258223, 1368226, 1726681, 1746606	1000W Class "E"	13.56 Mhz	RDS1KW13E-R
0102130, 0102654	1200W	13.56 Mhz	Discontinued - Alternative type = RDS1KW13-R
0139823, 0342740, 1286828, 1288256, 1597794,1633972	2000W	13.56 Mhz	RDS2KW13-R
1303885, 1383930, 1726678, 1746609, 1829431	2000W Class "E"	13.56 Mhz	RDS2KW13E-R
0920105, 0921405, 1293759, 1323934	1000W	27.12 Mhz	RDS1KW27-R
0180759, 1391564, 1726679,	1200W Class "E"	27.12 Mhz	RDS1.2KW27E-R

Trumpf No.	Order No.	Description
0359329, 0368126, 1645226	IMC15-R	MECOS IMC15 Frequency Converter

Trumpf No.	Order No.	Description
148428	VF1424L-R	LUST Frequency Inverter, Rebuilt

Trumpf No.	Order No.	Description
1245211, 1805871, 1377992	RPST211/TETRODE-AUX-R	Tetrode Auxiliary Power Supply

We are offering replacement Hyco vacuum pumps for Trumpf® CO_2 laser systems. These are direct drop in replacements.

We offer both the original hardwire version and the newer plug version; the only aftermarket options that provide the exact OEM specifications.
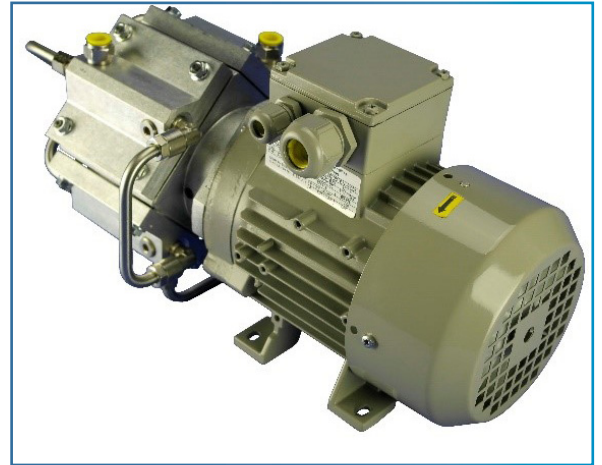
Trumpf No.	Order No.	Description
0149023, 0352561, 0941996, 0946052	RPT203/PUMP	Hyco Vacuum Pump (Hard Wired)
0367905, 0385475, 1363752, 1363753, 2237816, 2237817	RPT752/PUMP	Hyco Vacuum Pump (With 4 Pole Receptacle Connector)

Hardwire Connection

RPT203/PUMP

4 Pole Electrical Connector
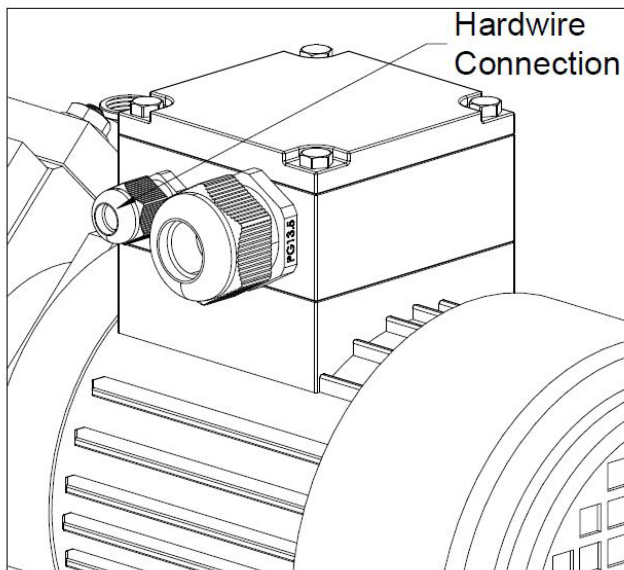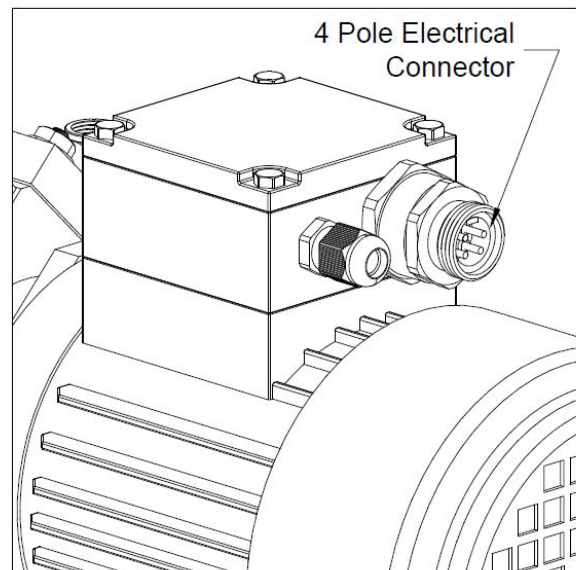
RPT752/PUMP

Fan and Battery Assemblies
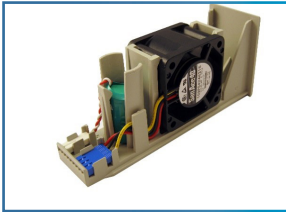
Trumpf No.	Order No.	Description
0146881	RST881/FAN/BATT	Used in Siemens NCU 840D (control module)

Trumpf No.	Order No.	Description
0385837	RST837/FAN/BATT	Used in Siemens NCU 7X0 and D445-1 (control module)
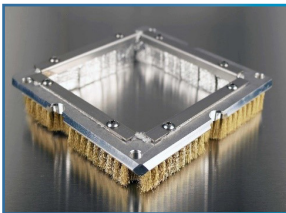
Trumpf No.	Order No.	Description
0353202	RUT202/BRUSH	Protection Brush for laser/punch combo machines

⬡ Bellows
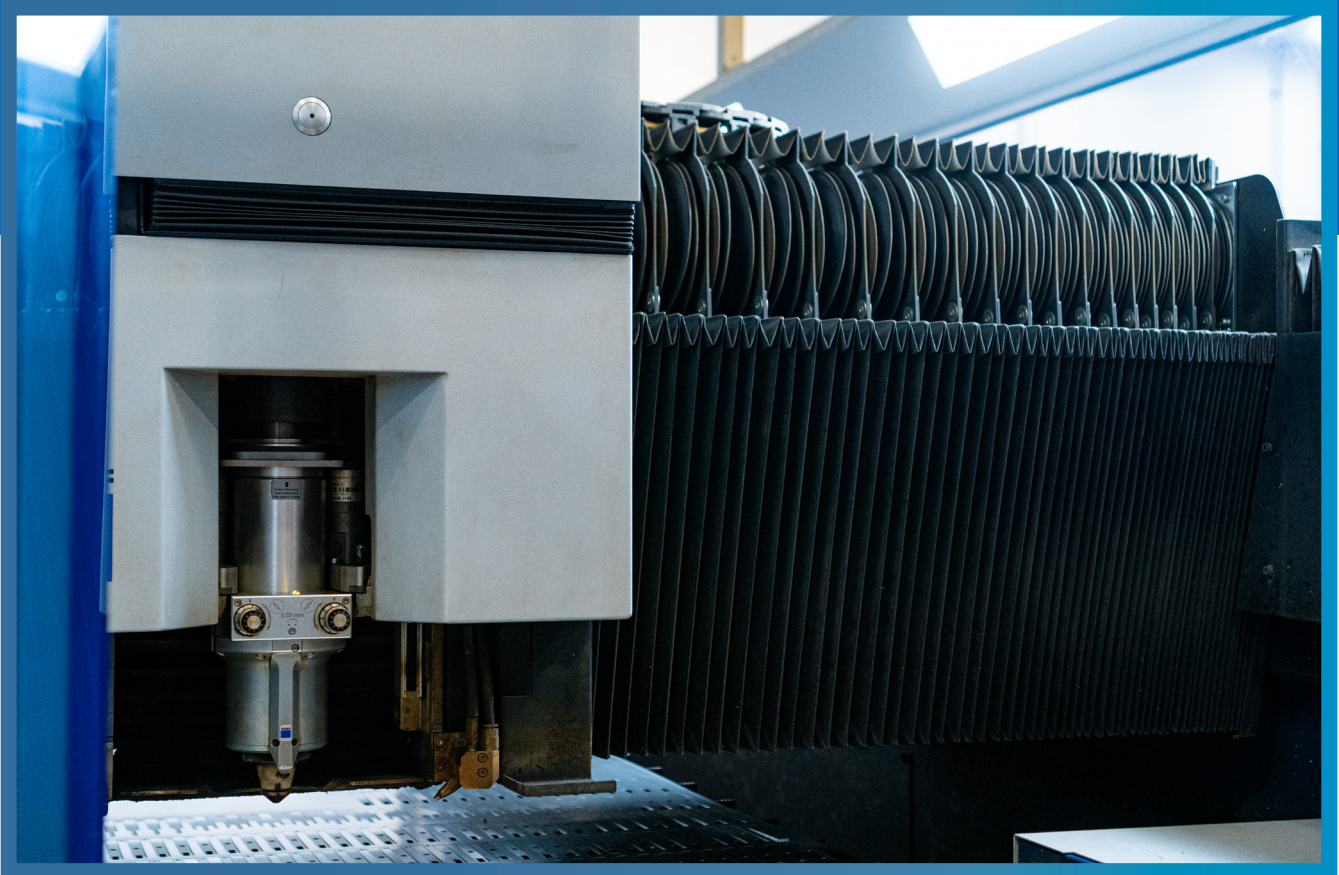
Richardson Electronics is a worldwide distributor of laser bellows for machines from most major manufacturers. We offer bellows made specifically for your laser machine. Designed and manufactured in Europe, our laser bellows are made with heat resistant, flame retardant materials and are able to withstand high operating temperatures while providing years of service.

In addition, tight fitting laser bellows keep unwanted particles out of the laser beam and protect machine rails, racks and bearings, to keep your laser machine running smoothly. Visit rellaser.com for detailed technical drawings of our bellows.

Did you know that delaying the replacement of your worn, hole filled, beam & beam path bellows can increase your monthly usage (and cost) of the nitrogen used in the beam purge? It pays to replace your worn bellows!

For L3030 & TruLaser 3030
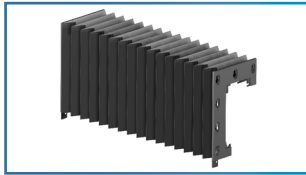
Trumpf No.	Order No.	Description
0921742	RBT100/30RX	X Axis Rail Bellow (each)
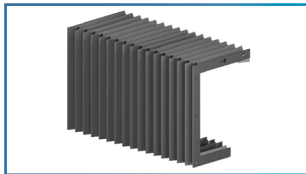
Trumpf No.	Order No.	Description
0141394	RBT101/30RX	Y Axis Rail Bellow (each)

Trumpf No.	Order No.	Description
0910354	RBT102/30BPZ	Z Axis Beam Path Bellow
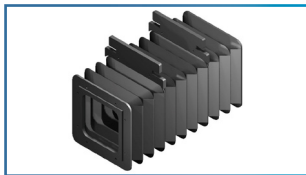
Trumpf No.	Order No.	Description
0939015, 1667803, 2356581, 1306468	RBT103L/30BPX *#	X Axis Beam Path Bellow (Rear)

Trumpf No.	Order No.	Description
'0939016, 1667805, 2356591, 1306466	RBT104L/30BPY #	Y Axis Beam Bellow (Left)

Trumpf No.	Order No.	Description
0124393, 0908032, 0920715, 1667790, 2356539, 1306469	RBT105L/30BX #	X Axis Beam Bellow (Front)

Trumpf No.	Order No.	Description
0124394, 0908033, 0920716, 1667801, 1306467, 2356537	RBT106L/30BY #	Y Axis Beam Bellow (Right)

*If your laser has the long beam clipper (typically found on machines built prior to 2000) it will need to be changed to the newer shorter version before using this replacement bellow.

These bellows are used in older/ Classic model 3030 machines (not 3030 L20). These machines had originally square beam bellows and have either been retrofitted to disk bellows or have been built with disk bellows in newer models. Our square bellows have the same attachment to the frame as both the square and disk bellows and being made of polyurethane with rounded corners, share the benefits of the disk bellows.

TRUMPF® machine models are for reference only, please check your machine manual for the actual part number needed. Our technical drawings can be found at www.rellaser.com. Please contact us if you do not find the item you need.

Richardson Electronics, Ltd. | rellaser.com | laser@rell.com | Find our Local Sales Offices at rell.com/contact-us
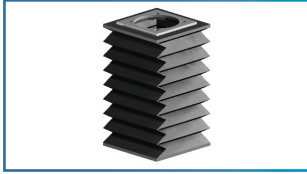
Bellows

Trumpf No.	Order No.	Description
0910354	RBT102/30BPZ	Z Axis Beam Path Bellow

Trumpf No.	Order No.	Description
1667803	RBT103L/30BPX	X Axis Beam Path Bellow (Rear)

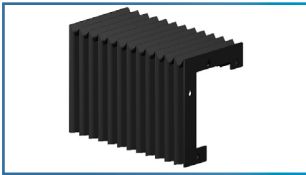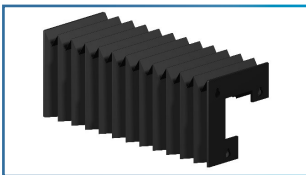| Trumpf No.	Order No.	Description
1667790	RBT105L/30BX	X Axis Beam Bellow (Front)
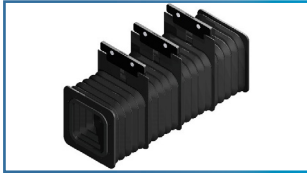
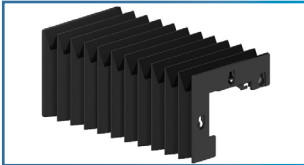| Trumpf No.	Order No.	Description
0362270	RBT250/353BPY	Y Axis Beam Path Bellow (Left)

Trumpf No.	Order No.	Description
0362271	RBT251/353BY	Y Axis Beam Bellow (Right)
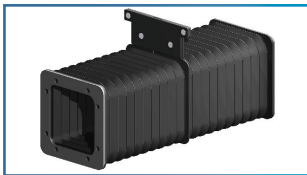
Trumpf No.	Order No.	Description
0362272	RBT252/353BPX2	X Axis Beam Bellow (Front)

Trumpf No.	Order No.	Description
0362273	RBT253/353BX2	X Axis Beam Path Bellow (Rear)

Bellows

Trumpf No.	Order No.	Description
1443233	Order separately	This is a kit that contains 1 each 1496435 (RBT121/30L20RBT) & 1496436 RBT120/30L20RBPY)
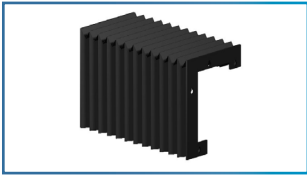
Trumpf No.	Order No.	Description
1458866, 1865268	RBT116/30RRX	X Axis Rail Bellow (Right)
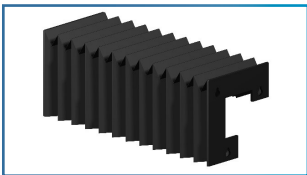
Trumpf No.	Order No.	Description
1458867, 1865269	RBT117/30LRX	X Axis Rail Bellow (Left)
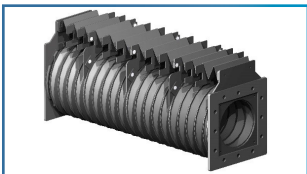
Trumpf No.	Order No.	Description
1458861, 1854032	RBT118/30L20BPX	X Axis Beam Path Bellow (Round) (Rear)
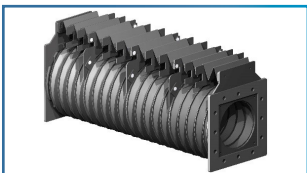
Trumpf No.	Order No.	Description
1458860	RBT119/30L20BX	X Axis Beam Bellow (Round) (Front)
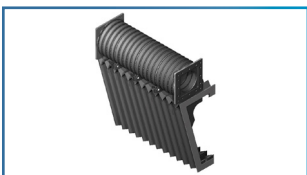
Trumpf No.	Order No.	Description
1496436	RBT120/30L20RBPY	Y Beam Path/Rail Combo Bellow (Round) (Left)

TRUMPF® machine models are for reference only, please check your machine manual for the actual part number needed. Our technical drawings can be found at www.rellaser.com. Please contact us if you do not find the item you need.

For L3020 (L20) & L3040 (L32)
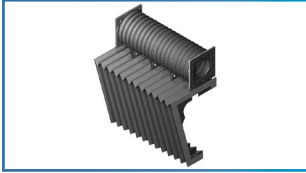
Trumpf No.	Order No.	Description
1496435	RBT121/30L20RBY	Y Beam/Rail Combo Bellow (Round) (Right)

Trumpf No.	Order No.	Description
1561554	RBT122/30L20CZ	Z Axis Chest Bellow

Trumpf No.	Order No.	Description
1570975, 1865321	RBT340/4030L32RRX	X Axis Rail Bellow (Right)

Trumpf No.	Order No.	Description
1570976, 2012183	RBT341/4030L32LRX	X Axis Rail Bellow (Left)

Trumpf No.	Order No.	Description
1559392	RBT342/4030L32RBY	Y Beam/Rail Combo Bellow (Round) (Right)

Trumpf No.	Order No.	Description
1802766	RBT766/30L20RBY	Y-Axis Beam/Rail Combo Bellow (Round) (Right)

TRUMPF® machine models are for reference only, please check your machine manual for the actual part number needed. Our technical drawings can be found at www.rellaser.com. Please contact us if you do not find the item you need.
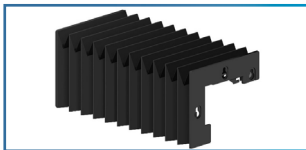
For L3050 (Prior to Mid-2005)
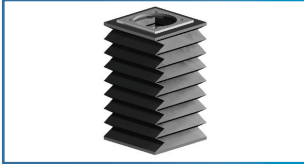
Trumpf No.	Order No.	Description
0910354	RBT102/30BPZ	Z Axis Beam Path Bellow

Trumpf No.	Order No.	Description
0981757, 1302020, 1596087	RBT131/50RX	X Axis Rail Bellow (Left/Front & Middle)

Trumpf No.	Order No.	Description
0986703, 1226192	RBT132/50RBY	Y Axis Beam/Rail Combo Bellow (Left)
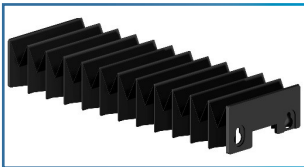
Trumpf No.	Order No.	Description
0981753, 1302386	RBT133/50RU	U Axis Rail Bellow (Front & Rear)
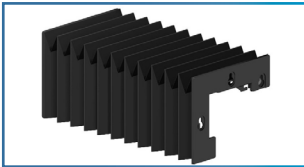
Trumpf No.	Order No.	Description
0981756, 1302018, 1596088, 1873857	RBT135/50RX	X Axis Rail Bellow (Left/Rear)
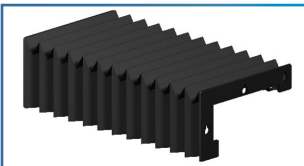
Trumpf No.	Order No.	Description
0981710	RBT136/50RX	X Axis Rail Bellow (Right/Front & Rear)
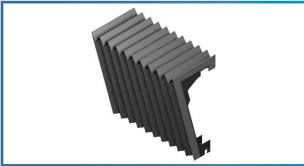
Trumpf No.	Order No.	Description
0993338, 1226193	RBT137/50RY	Y Axis Rail Bellow (Right)
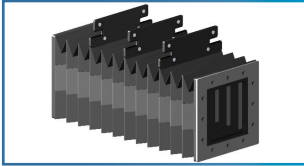
Trumpf No.	Order No.	Description
0978079	RBT138/50UXBP	U & X Axis Beam Path Bellow

For L3050 (Mid-2005 & After) & TruLaser 5030
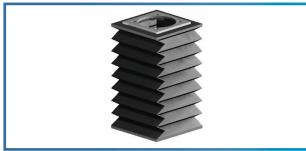
Trumpf No.	Order No.	Description
0910354	RBT102/30BPZ	Z Axis Beam Path Bellow

Trumpf No.	Order No.	Description
1873856	RBT129/50RX	X-Axis Rail Bellow
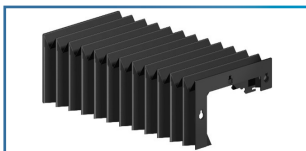
Trumpf No.	Order No.	Description
1307207, 1596086, 1873855	RBT130/50RX	X Axis Rail Bellow (Right/Front & Rear)

Trumpf No.	Order No.	Description
1302020, 1596087	RBT131/50RX	X Axis Rail Bellow (Left/Front & Middle)
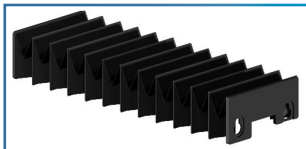
Trumpf No.	Order No.	Description
1302386	RBT133/50RU	U Axis Rail Bellow (Front & Rear)
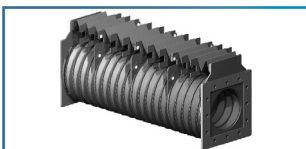
Trumpf No.	Order No.	Description
1271514	RBT134/50UXBP	U & X Axis Round Beam Path Bellow
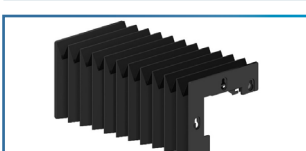
Trumpf No.	Order No.	Description
1302018, 1596088	RBT135/50RX	X Axis Rail Bellow (Left/Rear)
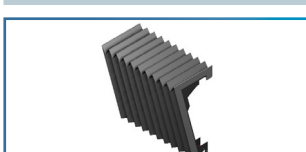
Trumpf No.	Order No.	Description
1226193	RBT137/50RY	Y Axis Rail Bellow (Right)

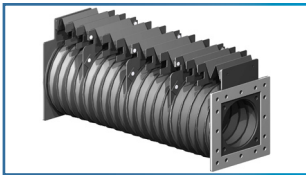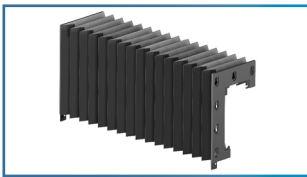| Trumpf No.	Order No.	Description
1353514	RBT139/50RBY	Y Axis Round Beam/Rail Combo Bellow (Left)

TRUMPF® machine models are for reference only, please check your machine manual for the actual part number needed. Our technical drawings can be found at www.rellaser.com. Please contact us if you do not find the item you need.

For TruLaser 3040 (L32)
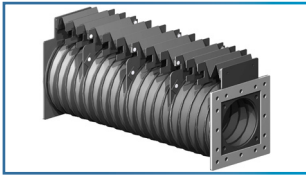
Trumpf No.	Order No.	Description
1354090	RBT321/3040/L32BX	X Axis Beam Bellow (Front)

Trumpf No.	Order No.	Description
1354091	RBT320/3040/L32BPX	X Axis Beam Path Bellow (Rear)

Trumpf No.	Order No.	Description
1354092	RBT323/3040/L32BY	Y Axis Beam Bellow (Right)

Trumpf No.	Order No.	Description
1354093	RBT322/3040/L32BPY	Y Axis Beam Path Bellow (Left)

Trumpf No.	Order No.	Description
1802795	RBT343/3040L32RBY	Y-Axis Beam/Rail Combo Bellow

TRUMPF® machine models are for reference only, please check your machine manual for the actual part number needed. Our technical drawings can be found at www.rellaser.com. Please contact us if you do not find the item you need.

For L4030 & TruLaser 3040
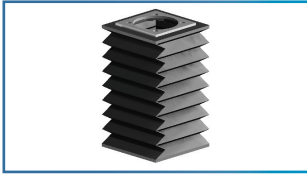
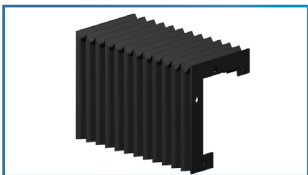| Trumpf No.	Order No.	Description
0910354	RBT102/30BPZ	Z Axis Beam Path Bellow

Trumpf No.	Order No.	Description
0921870, '1883139	RBT107/40RX	X Axis Rail Bellow (each)
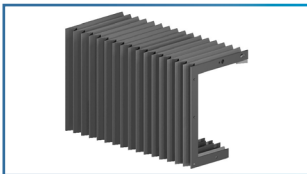
Trumpf No.	Order No.	Description
144949	RBT108/40RY	Y Axis Rail Bellow (each)

Trumpf No.	Order No.	Description
0342573, 0939017, 2335182	RBT110/40BPX *	X Axis Beam Path Bellow (Rear)
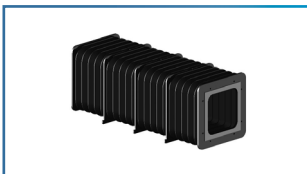
Trumpf No.	Order No.	Description
0938000, 2335183	RBT111/40BPY	Y Axis Beam Path Bellow (Left)

Trumpf No.	Order No.	Description
0920718, 0975011, 0976624, 2335292	RBT112/40BX *	X Axis Beam Bellow (Front)

*If your laser has the long beam clipper (typically found on machines built prior to 2000) it will need to be changed to the newer shorter version before using this replacement bellow.

TRUMPF® machine models are for reference only, please check your machine manual for the actual part number needed. Our technical drawings can be found at www.rellaser.com. Please contact us if you do not find the item you need.

Bellows

Trumpf No.	Order No.	Description
0920719, 2335130	RBT113/40BY	Y Axis Beam Bellow (Right)

Trumpf No.	Order No.	Description
1504308, 1559318	RBT280/34RBPY	Y Axis Beam Path/Rail Combo Round Bellow (Left)

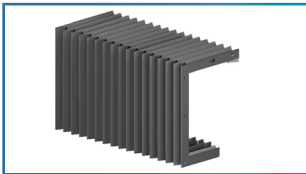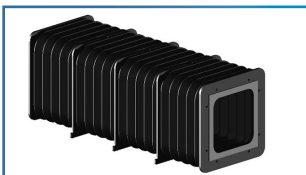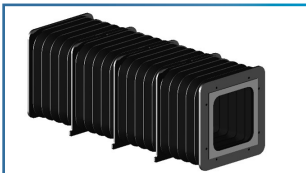| Trumpf No.	Order No.	Description
1570975, 1865321	RBT340/4030L32RRX	X Axis Rail Bellow (Right)

Trumpf No.	Order No.	Description
1559392	RBT342/4030L32RBY	Y Axis Beam/Rail Combo Round Bellow (Right)

TRUMPF® machine models are for reference only, please check your machine manual for the actual part number needed. Our technical drawings can be found at www.rellaser.com. Please contact us if you do not find the item you need.
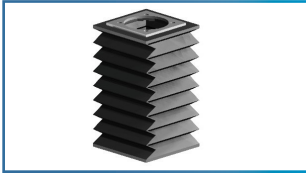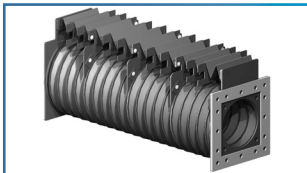
Bellows

Trumpf No.	Order No.	Description
0910354	RBT102/30BPZ	Z Axis Beam Path Bellow

Trumpf No.	Order No.	Description
0144949	RBT108/40RY	Y Axis Rail Bellow

Trumpf No.	Order No.	Description
0938000	RBT111/40BPY	Y Axis Beam Path Bellow (Left)

Trumpf No.	Order No.	Description
0920719	RBT113/40BY	Y Axis Beam Bellow (Right)

Trumpf No.	Order No.	Description
0921871	RBT140/60RX	X Axis Rail Bellow

Trumpf No.	Order No.	Description
0920730	RBT141/60BX	X Axis Beam Bellow (Front)

Trumpf No.	Order No.	Description
0937999	RBT142/60BPX	X Axis Beam Path Bellow (Rear)

TRUMPF® machine models are for reference only, please check your machine manual for the actual part number needed. Our technical drawings can be found at www.rellaser.com. Please contact us if you do not find the item you need.

For L5030 (L16)
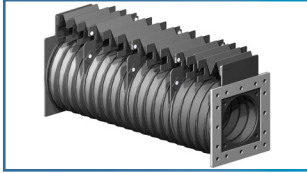
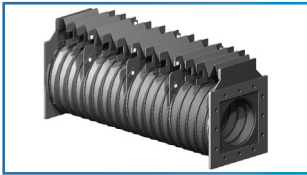| Trumpf No.	Order No.	Description
1323286	RBT350/5030L16UXBP	U & X Axis Beam Path Bellow

For L5040

Trumpf No.	Order No.	Description
1306471, 1370070	RBT210/45BPU	U Axis Beam Path Bellow

Trumpf No.	Order No.	Description
1946658	RBT360/5040RY	Y Axis Rail Bellow
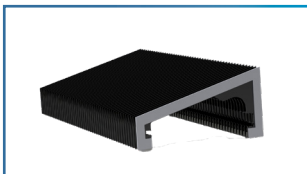
Trumpf No.	Order No.	Description
1485231	RBT380/5040L18RY	Y Axis Rail Bellow

For L4050 & TruLaser 5040

Trumpf No.	Order No.	Description
0910354	RBT102/30BPZ	Z Axis Beam Path Bellow

Trumpf No.	Order No.	Description
1306474	RBT154/2030BPX	X Axis Beam Path Bellow

Trumpf No.	Order No.	Description
1222110	RBT200/45RBPY	Y Axis Beam Path/Rail Combo Bellow

Trumpf No.	Order No.	Description
1222111	RBT201/45RY	Y Axis Rail Bellow

Trumpf No.	Order No.	Description
1222576	RBT202L/45BPX	X Axis Beam Path Bellow
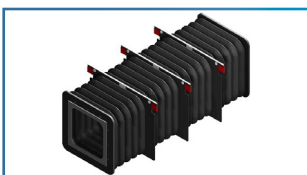
Trumpf No.	Order No.	Description
1222575, 2334587	RBT203L/45BPU	U Axis Beam Path Bellow
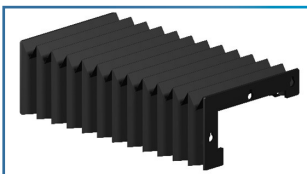
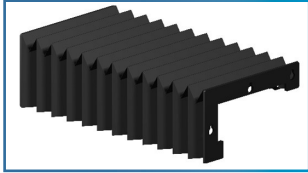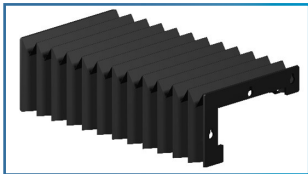| Trumpf No.	Order No.	Description
1222573	RBT204/45RXR	X Axis Rail Bellow (Right Front & Rear)

TRUMPF® machine models are for reference only, please check your machine manual for the actual part number needed. Our technical drawings can be found at www.rellaser.com. Please contact us if you do not find the item you need.
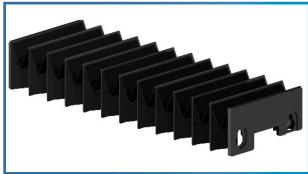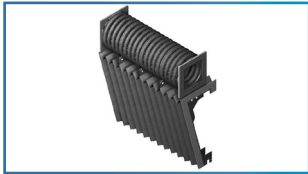
Bellows

Trumpf No.	Order No.	Description
1222529	RBT205/45RXLF *	X Axis Rail Bellow (Left Middle & Front)

Trumpf No.	Order No.	Description
1222571	RBT206/45RXLB *	X Axis Rail Bellow (Left/Rear)

Trumpf No.	Order No.	Description
1222528	RBT207/45RU	U Axis Rail Bellow

Trumpf No.	Order No.	Description
1353516	RBT208/45RBPY	Y Axis Beam Path/Rail Combo Bellow
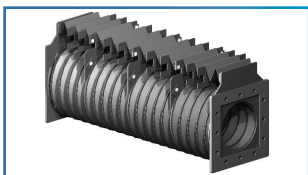
Trumpf No.	Order No.	Description
1306471, 1370070	RBT210/45BPU	U Axis Beam Path Bellow

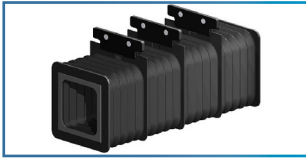| Trumpf No.	Order No.	Description
1306470	RBT470/45BXL	X-Axis Left Beam Path Disk Bellow

*Please confirm the open & closed lengths of your machine, as some Trumpf manuals call out the bellows incorrectly.
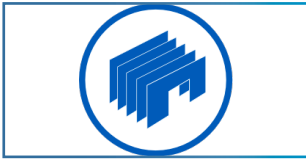
TRUMPF® machine models are for reference only, please check your machine manual for the actual part number needed. Our technical drawings can be found at www.rellaser.com. Please contact us if you do not find the item you need.
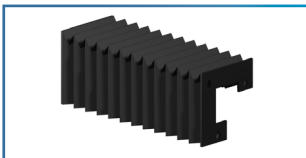
Bellows

For L6050

Trumpf No.	Order No.	Description
1262706, 2335000	RBT152/25BY	Y Axis Beam Bellow

Trumpf No.	Order No.	Description
1251452, 1987171	RBT220/6050RXR	X Axis Right Rail Bellow

Trumpf No.	Order No.	Description
1251454, 1987172	RBT221/6050RXLB	X Axis Left Back Rail Bellow

Trumpf No.	Order No.	Description
1251453, 1987173	RBT222/6050RXLF	X Axis Left Front Rail Bellow
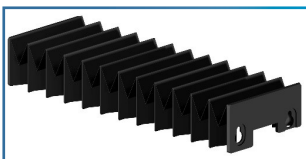
Trumpf No.	Order No.	Description
1251455, 1987174	RBT223/6050RU	U Axis Rail Bellow

For 2503

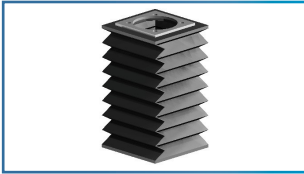| Trumpf No.	Order No.	Description
128165	RBT150/25RX	X Axis Rail Bellow
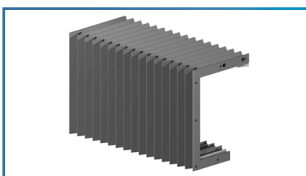
Trumpf No.	Order No.	Description
105757	RBT151/25RY	Y Axis Rail Bellow

TRUMPF® machine models are for reference only, please check your machine manual for the actual part number needed. Our technical drawings can be found at www.rellaser.com. Please contact us if you do not find the item you need.
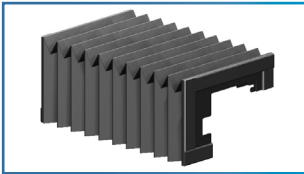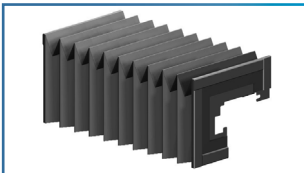
For L2530 & TruLaser 2525

Trumpf No.	Order No.	Description
0910354	RBT102/30BPZ	Z Axis Beam Path Bellow

Trumpf No.	Order No.	Description
0135401, 135402	RBT160/25RX	X Axis Rail Bellow (Front)

Trumpf No.	Order No.	Description
0135401	RBT161/25RX	X Axis Rail Bellow (Rear)

Trumpf No.	Order No.	Description
0135399	RBT162/25RY	Y Axis Rail Bellow (Right & Left)
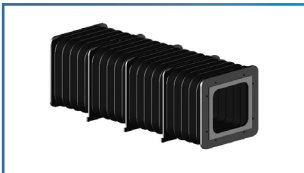
Trumpf No.	Order No.	Description
0925803, 2335181	RBT163/25BX	X Axis Beam Bellow (Right)
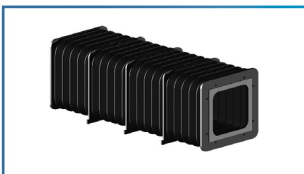
Trumpf No.	Order No.	Description
0939013	RBT164/25BPX	X Axis Beam Path Bellow (Left)

For L2530 & TruLaser 2525

Trumpf No.	Order No.	Description
0354501, 0939014	RBT165/25BPY	Y Axis Beam Path Bellow (Rear)

Trumpf No.	Order No.	Description
0925802	RBT166/25BY	Y Beam Bellow (Front)

Trumpf No.	Order No.	Description
0939012	RBT167/25BPY	Y Axis Beam Path Bellow (Middle)
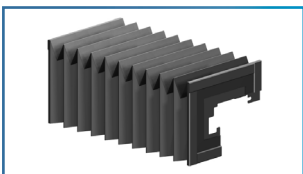
Trumpf No.	Order No.	Description
0980133	RBT168/25RY	Y Axis Rail Bellow (Right & Left)
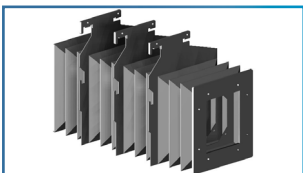
Trumpf No.	Order No.	Description
0352336, 2334809	RBT330/2525BPY	Y Axis Beam Path Bellow for the TruLaser 2525
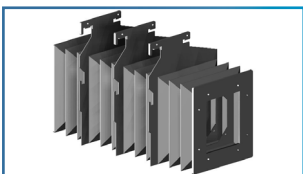
Trumpf No.	Order No.	Description
0352335, 2334585	RBT331/2525BY	Y Axis Beam Bellow for the TruLaser 2525

TRUMPF® machine models are for reference only, please check your machine manual for the actual part number needed. Our technical drawings can be found at www.rellaser.com. Please contact us if you do not find the item you need.

For L2030 & TruLaser 2030

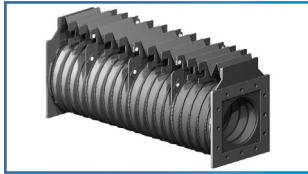| Trumpf No.	Order No.	Description
1306474	RBT154/2030BPX	X Axis Beam Path Bellow

Trumpf No.	Order No.	Description
1264021	RBT157/25RX	X Axis Rail Bellow

Trumpf No.	Order No.	Description
1830943	RBT410/2030RX	X Axis Rail Bellow

For L2510

Trumpf No.	Order No.	Description
1262706, 2335000	RBT152/25BY	Y Axis Beam Bellow

Trumpf No.	Order No.	Description
1262704, 2334588	RBT153/25BPY	Y Axis Beam Path Bellow
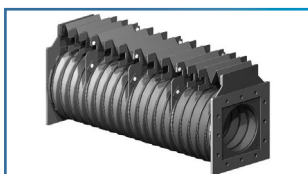
Trumpf No.	Order No.	Description
1306474	RBT154/2030BPX	X Axis Beam Path Bellow

Trumpf No.	Order No.	Description
1264021	RBT157/25RX	X Axis Rail Bellow

TRUMPF® machine models are for reference only, please check your machine manual for the actual part number needed. Our technical drawings can be found at www.rellaser.com. Please contact us if you do not find the item you need.

For L1005 (3 Meter Bed)

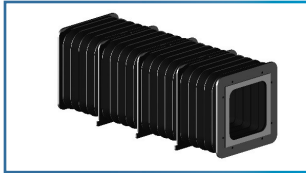| Trumpf No.	Order No.	Description
0139851	RBT180/10BPX3M	X Axis Beam Path Bellow (Right)

Trumpf No.	Order No.	Description
0139850	RBT181/10BX3M	X Axis Beam Bellow (Left)

Trumpf No.	Order No.	Description
0139852	RBT182/10BBY	Y Axis Beam & Beam Path Bellow (Front & Rear)

Trumpf No.	Order No.	Description
0140805	RBT183/10BPZ	Z Axis Beam Path Bellow
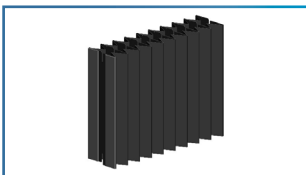
Trumpf No.	Order No.	Description
0139853	RBT184/10URX3M	U Axis Rail Bellow (Left & Right)
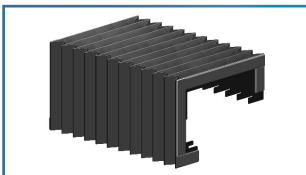
Trumpf No.	Order No.	Description
0139854	RBT185/10RX3M	X Axis Rail Bellow (Left)
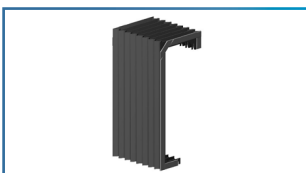
Trumpf No.	Order No.	Description
0140160	RBT187/10RY	Y Axis Rail Bellow (Front & Rear)

TRUMPF® machine models are for reference only, please check your machine manual for the actual part number needed. Our technical drawings can be found at www.rellaser.com. Please contact us if you do not find the item you need.
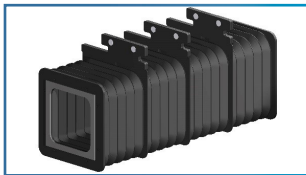
Bellows

For 1030

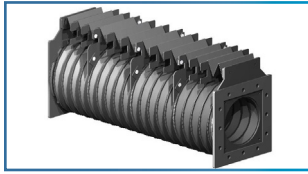| Trumpf No.	Order No.	Description
1306474	RBT154/2030BPX	X Axis Beam Path Bellow

For L7040

Trumpf No.	Order No.	Description
1761999	RBT300/74RX	X-Axis Rail Bellow

Trumpf No.	Order No.	Description
1761995	RBT370/7040RXLL	X-Axis Lower Left Rail Bellow

For L8030 (L60)

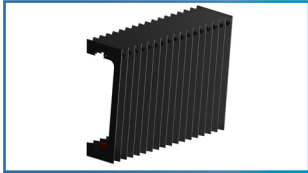| Trumpf No.	Order No.	Description
1761999	RBT300/74RX	X-Axis Rail Bellow

TRUMPF® machine models are for reference only, please check your machine manual for the actual part number needed. Our technical drawings can be found at www.rellaser.com. Please contact us if you do not find the item you need.

For Fiber Lasers

Trumpf No.	Order No.	Description
1595381, 2280265	RBT215/5030FIBER-RY	Y Axis Rail Bellow, 5030 L41 Fiber

Trumpf No.	Order No.	Description
1722672, 1865270	RBT216/5030FIBER-LXR	X Axis Rail Bellow (Left), 5030 Fiber

Trumpf No.	Order No.	Description
2072783	RBT415/3060FIBER-RY	Y-Axis Rail Bellow, 3060 Fiber

Trumpf No.	Order No.	Description
2072781	RBT170/30RY	Y-Axis Rail Bellow, 5030 (L76) Fiber

| Trumpf No.	Order No.	Description
2072781	RBT170/30RY	Y-Axis Rail Bellow, 3030 (L81) Fiber

Trumpf No.	Order No.	Description
1931838	RBT213/5040F-RY	Y-Axis Rail Bellow, 5040 Fiber

TRUMPF® machine models are for reference only, please check your machine manual for the actual part number needed. Our technical drawings can be found at www.rellaser.com. Please contact us if you do not find the item you need.

Dust Collection Filters
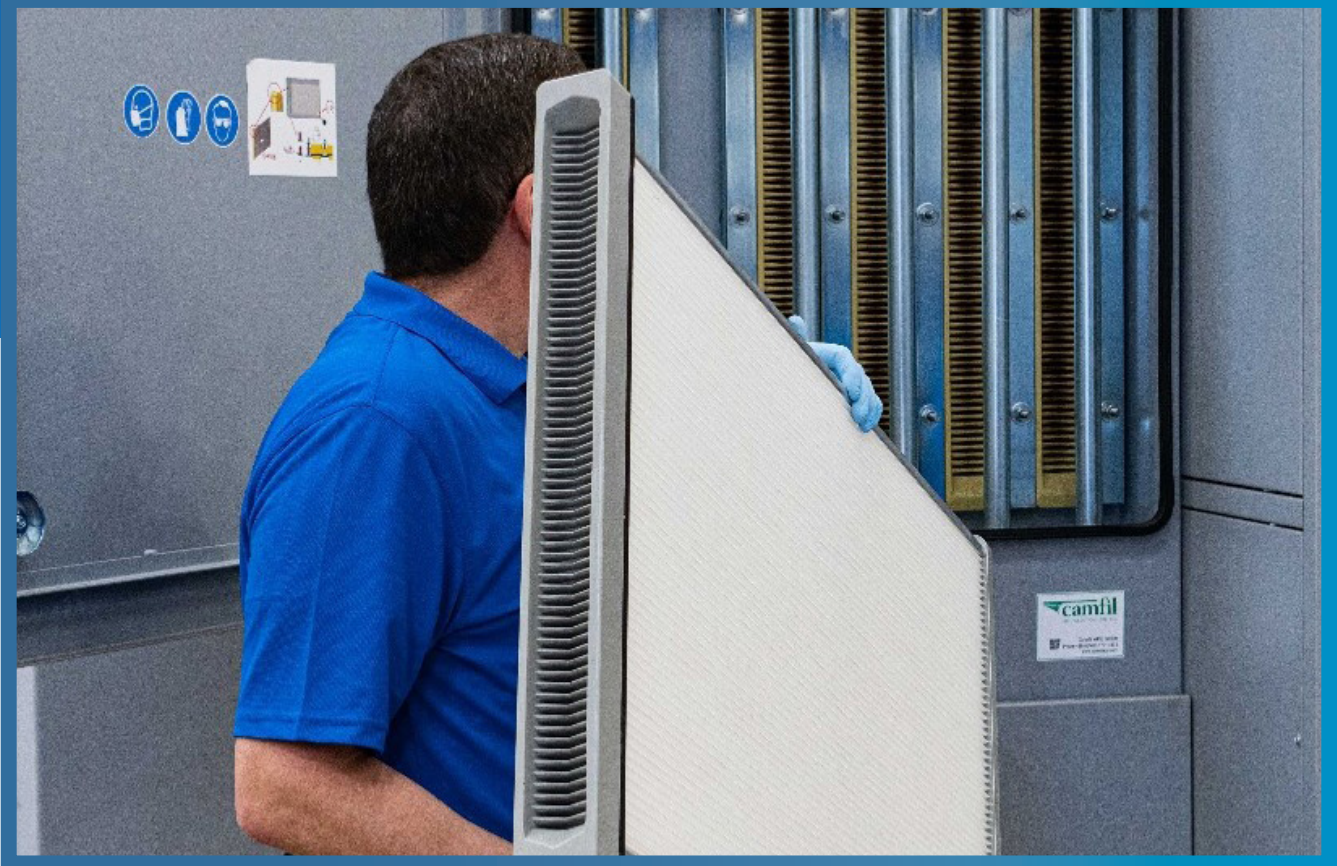
Richardson Electronics is one of the largest aftermarket suppliers of highest quality German-made filters. High quality filtration is directly related to the health and safety of your technicians and staff, it is important that they be replaced as needed to ensure maximum efficiency and a healthy work environment.

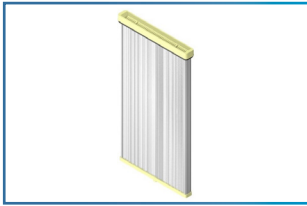Key features and benefits of Richardson Electronics Dust Collection Filters:
- Designed to fit most Handte®, Camfil®, and Keller® dust extractors, found on most Trumpf lasers
- Our dust collection filters for laser machines are made of filter media from spun polyester with a thermal bonded PTFE membrane.
- Constructed using tip-to-tip gluing, providing longer life
- They are of the highest tier of HEPA air filtration standards of H13 – H14, capable of removing up to 99.995% of the finest laser grade dust.
- Meets OEM quality standards
- Made in Europe by experts with more than 30 years of experience in filtration technology
- Competitively priced

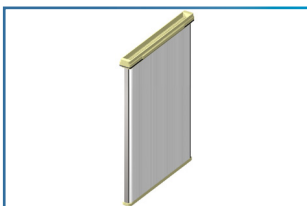| Trumpf No.	Order No.	Description
0344014, 0345064, 0346113, 0346118, 0359584, 0359585, 0359586, 1533834, 2625632	RFT064/10	For Handte systems MF-L-30/6/1, MF-L-40/8/1 & MF-L-50/10/1, includes gasket

Trumpf No.	Order No.	Description
0384514, 0386275	RFT275/600	For Handte MF-L-17/8/1-L20/20 (L1030), includes gasket
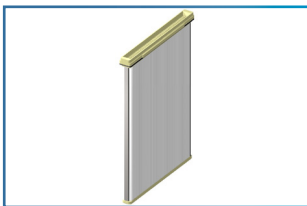
Trumpf No.	Order No.	Description
2050706, 2061618, 2260691	RFT691/1100	For Camfil systems MF-8.4, MF-8.5 & MF-8.6, includes gasket (for Europe)

Trumpf No.	Order No.	Description
2050706, 2061618, 2260691	RFT691/1100A	For Camfil systems MF-8.4, MF-8.5 & MF-8.6, includes gasket (for North America)
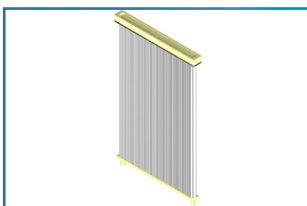
Trumpf No.	Order No.	Description
0380757, 1577250, 1740803, 1938301, 2042139, 59113119	RFT757/10	For Handte systems MF-L-2000, MF-L-2500 & MF-L-3000, includes gasket

Did you know that cleaning and replacing filters as needed ensures your dust collection system is operating at peak efficiency and thereby keeping your staff safe from the harmful dust generated during the cutting process? **Have you replaced your filters.**

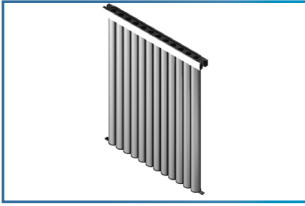| Trumpf No.	Order No.	Description
0139809, 0148491	RFT809/600	For Handte systems MF-B-17/8/1, includes gasket
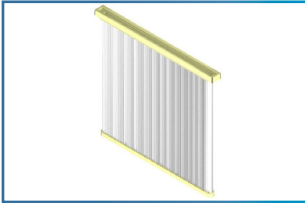
Trumpf No.	Order No.	Description
0146122, 0342682, 0342812	RFT122/10A	For KellerVario T1.5 (L2530, L3030, L4030, L6030 & TLC1005), includes gasket
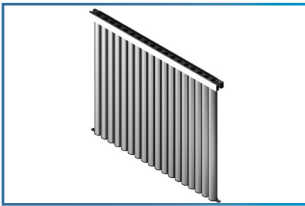
Trumpf No.	Order No.	Description
0340484	RFT484/125	For Keller Vario T2.5 & T3.0 systems, includes gasket
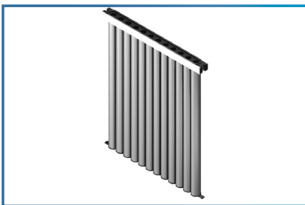
Trumpf No.	Order No.	Description
0141759	RFT759/10	For Keller Vario T1.0 systems (L2530), includes gasket
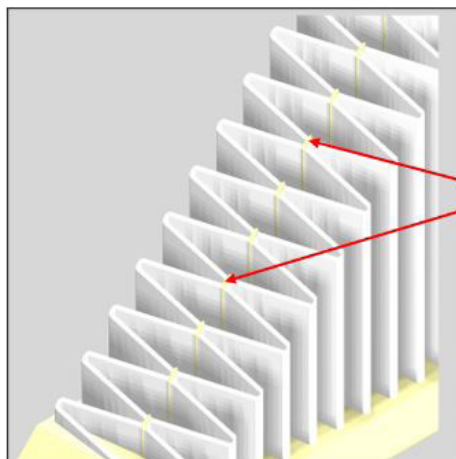
Tip to Tip Construction, for maximum strength, providing longer life

Donaldson Air Filters

Trumpf No.	Order No.	Description
0123674, 0377006	1C125116	Ultrair FF 03/10 .01µm Silicon Free Fine Filter Element
0147240	1C125432	Ultrair MFP05/20 Silicon Free Air Filter
0123675, 0377005	1C125716	Ultrair SMF 03/10 .01µm Silicon Free Sub-Micro Filter Element
0147241	1C125732	Ultrair SMFP05/20 Silicon Free Air Filter
0123676, 0377004	1C125824	Ultrac AK 04/20 Silicon Free Activated Carbon Absorption
0147239	1C170032-25	Ultrair PEP 05/20 Silicon Free Air Filter

Chiller System

The Chiller Systems on Trumpf lasers require annual changes to the water and chemicals to ensure proper cooling of the laser systems. Our Copper (Cu) and Aluminum (Al) Water Treatment Kits are equivalent to the OEM Easy Kits. Each kit contains the exact amount of biocide and either copper or aluminum inhibitor for each size of tank.

Proper precautions should always be taken when handling these, or any other, chemicals. The use of gloves and safety glasses (included with each kit) is highly recommended.

Water Treatment Kits

Water Treatment Kits are not available in Europe at this time.

Aluminum Circuit

Trumpf No.	Order No.	Tank Size, Liters	Description
1652091, 1652606, 1652623	RWK623/EZAL1NA	30-79	Aluminum Water Treatment Kit 1
1652607, 1652630, 1652631	RWK631/EZAL2NA	80-199	Aluminum Water Treatment Kit 2
1652605, 1652608, 1652609	RWK608/EZAL3NA	200-599	Aluminum Water Treatment Kit 3
1652964, 1652965, 1652968	RWK965/EZAL4NA	600-1199	Aluminum Water Treatment Kit 4

Copper Circuit

Trumpf No.	Order No.	Tank Size, Liters	Description
1652981, 1652991, 1652992	RWK991/EZCU1NA	5-14	Copper Water Treatment Kit 1
1652995, 1653088, 1653089	RWK088/EZCU2NA	15-49	Copper Water Treatment Kit 2
1653112, 1653113, 1653114	RWK113/EZCU3NA	50-119	Copper Water Treatment Kit 3
1653107, 1653108, 1653109	RWK108/EZCU4NA	120-359	Copper Water Treatment Kit 4
1653124, 1653125, 1653132	RWK124/EZCU5NA	360-999	Copper Water Treatment Kit 5

The vents on the doors of the chiller cabinet gather a lot of dust and dirt, which can prevent proper ventilation of the cabinet. Regularly replacing the filter material makes certain the components inside the cabinet stay clean with the required airflow. The filter material has a MERV6 rating.
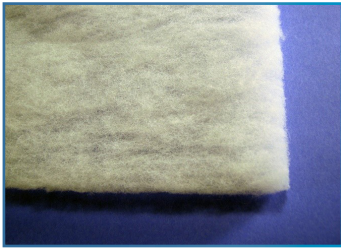
Chiller Filter Material

Trumpf No.	Order No.	Description
0343298	RFT100/1X20	Sold in rolls - 1/2" x 39.4" x 65.6' (13mm x 1M x 20M)
	RFT101/25X65	Sold in rolls - 1/2" x 25" x 65' (13mm x 0.64M x 20M)

When doing the periodic water change, it is important to also replace the water filters.

Use the genuine Chisso filters that have the specific filtration required for Trumpf lasers.

Filters

Trumpf No.	Order No.	Description
0143106, 0146152	CP102480	Chisso 10 µm Water Filter, 10" (250mm)
1888631	RFT102/20-50UM	Chisso 50 µm Water Filter, 20" (508mm) (Used on newer fiber lasers)

Keeping the water clean is the #1 maintenance tip you should follow. You want to keep the purity of the water within the manufacturers recommended conductivity levels, measured in micro-Siemens (µS), to prevent corrosion of the valuable copper and aluminum components in your laser. Measuring the conductivity of your chiller water is quick and easy. Simply turn on the meter, insert the probe end into the water and view the reading on the LCD display. It's that simple! The lower the conductivity reading, the better your water quality is!

Conductivity Meter

Trumpf No.	Order No.	Description
	HI98311	Hanna Water Conductivity Meter

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SIKA Flow Meters

The flow meters are an essential component in making sure that the right amount of coolant is flowing to a CO_2 laser's key components (such as the RF power tubes), keeping them cooled properly so that they provide optimal performance and provide long life. These are the exact same high quality flow meters from SIKA as used in the Trumpf® laser systems.

Over time flow meters can get clogged and or malfunction, which can lead to costly repairs. Checking the flow meters should be part of your normal preventive maintenance and replaced as required. An ounce of prevention can be worth thousands of dollars in savings in repairs!

Trumpf No.	Order No.	Description
1264721 & 1934478	VT1541KHUTTI20	Flow Meter VTH15K5-41
0362183	VT25110TRUMP13	Flow Meter VTH25-180AL
1362184	VT1540TRUMP12	Flow Meter VTH15-41AL
1352460	VT2511KHUTTI31	Flow Meter VTH25K6-180NTSP
1270402 & 2043439	VT1541KHUTTI22	Flow Meter VTH 15 K5-41, SP-T1870
1264725	VT1541KHUTTI21	Flow Meter VTH 15 K5-41 NT, SP-T3261

As an alternative to replacing the entire flow meter, it is possible to replace the Hall Sensor and the Turbine on some of the meters. After releasing the pressure in the system, remove and disassemble the flow meter. Inspect the turbine for obstructions. If it does not spin, then replace the turbine. If the turbine does spin freely, then the Hall Sensor needs to be replaced.

Order No.	Description
VTH15-AD2079	Hall Sensor for VT1541KHUTTI21
VTH15-AD2048	Hall Sensor for VT1541KHUTTI22
VTH15-AD2007	Hall Sensor for VT1541KHUTTI20

Order No.	Description
VTH15-AD3004	Turbine for VT1541KHUTTI20, VT1541KHUTTI21, VT1541KHUTTI22

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