Heraeus

Flash lamps and CW lamps for lasers, IPL and industrial processes

Welcome to Heraeus Noblelight!

Heraeus Noblelight Ltd. is recognized internationally as the technology leader for flash and CW lamps. Constant and ongoing investments in lamp technology and production equipment as well as customer service mean that Heraeus is the first choice for customers looking to improve the performance of their products by using better lamps.

Founded in 1978, the company employs more than 100 highly skilled people in Cambridge, United Kingdom, where all lamps are developed and manufactured. Heraeus Noblelight is the only company in its industry with automated manufacturing lines that ensure highest repeatability and process stability. Qualified sales engineers and customer service staff are based close to our customers in Heraeus subsidiaries in most major markets around the world.

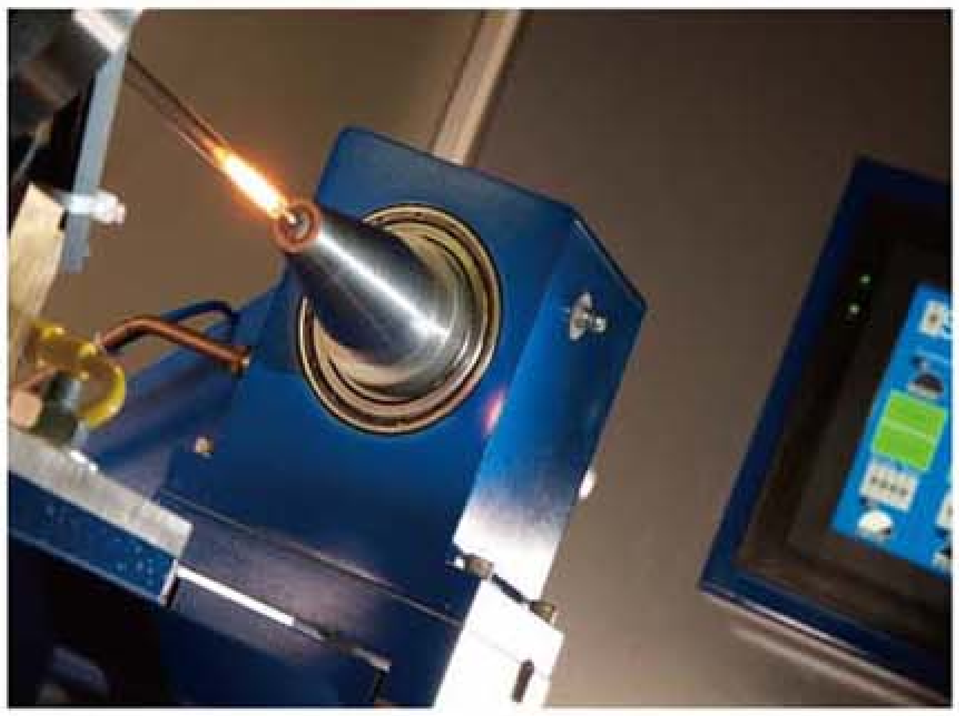
Heraeus Noblelight Ltd. has been part of the Heraeus group since 1986. The German-based and family-owned Heraeus group with more than 12000 employees worldwide is a leading producer of quartz glass and precious metals, giving Heraeus Noblelight Ltd. direct access to these technologies.

Working with Heraeus Noblelight

Choosing Heraeus as your partner for CW and flash lamps means

- qualified and responsive engineering support to give you the lamp best suited to your needs
- highest standards for repeatable lamp quality – lamp-to-lamp and batch-to-batch
- quick and reliable delivery times
- friendly and competent customer service in Cambridge and our subsidiaries around the world
- full ISO 9001 certification

Products and Service



Quality features of Heraeus Noblelight CW and flash lamps:

- Strong seal: Automated manufacturing makes mechanically stronger seals possible which improve lifetime even under harsh operating conditions
- Repeatable shrinkdown gap: Computer-controlled shrinkdown manufacturing ensures tightest tolerances
- Optimum gas fill: Every lamp is checked for gas purity directly after pumping. Different gas fills (xenon, krypton and mixes) and a wide range of fill pressures make it possible to optimise lamp efficiency.
- Quality quartz: Heraeus is the only laser lamp manufacturer with its own quartz production
- Cathode technology: Heraeus uses special cathode materials for low work function and long life. Depending on lamp operating conditions, different cathode geometries are available.
- Consistent light output: An optimised combination of gas fill, electrode technology and lamp geometry reduces quartz blackening, a common cause of reduced output and premature failures

The Heraeus Noblelight service promise

- Latest lamp technology through systematic R&D work with Kaiserslautern University of Applied Science, Germany
- Individual and exclusive lamp designs possible, optimised for lifetime and efficiency
- Customised lamp designs within 5 working days
- Samples for new designs within 4 weeks after sign-off of the drawing
- Responsive technical after-sales service

The product range

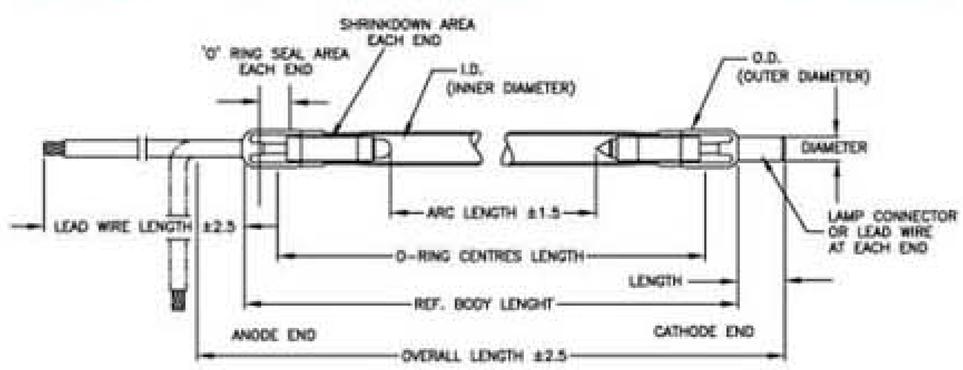
1. Customised lamp designs

Heraeus can design the optimum lamp for your cavity and operating conditions and has the ability to manufacture almost any possible lamp design. To do so, we need some information about mechanical and electrical properties. Please contact your local sales engineer who will take you through the lamp design questionnaire and advise on options.

2. Standard lamp types

We have listed some of our most commonly used lamp types below. To order samples, please contact your local sales engineer.

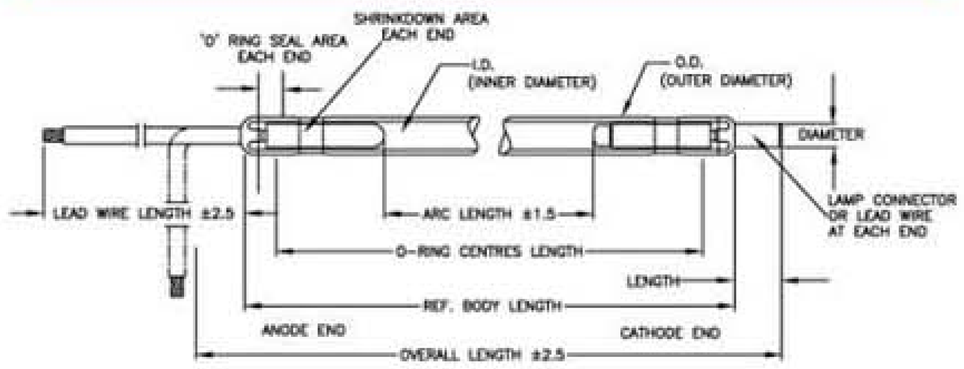
CW lamps (KFC series: Krypton gas fill, water cooled) – e.g. for laser marking



KFC SERIES: STANDARD CATALOGUE RANGE

Lamp Type	Bore Diameter mm	Arc Length mm	Maximum Input Power W	Typical Arc Voltage at Maximum Current V	Maximum Current A
4 x 50 KFC	4	50	2030	79	24
4 x 75 KFC	4	75	3050	119	24
4 x 100 KFC	4	100	4060	159	24
5 x 50 KFC	5	50	2640	77	33
5 x 75 KFC	5	75	3960	114	33
5 x 100 KFC	5	100	5280	151	33
6 x 50 KFC	6	50	3560	71	46
6 x 75 KFC	6	75	5330	107	46
6 x 100 KFC	6	100	7110	142	46
7 x 50 KFC	7	50	4060	66	56
7 x 75 KFC	7	75	6100	99	56
7 x 100 KFC	7	100	8130	132	56

Water-cooled flash lamps (XFP series: Xenon gas fill) – e.g. for welding, cutting and IPL



XFP Series

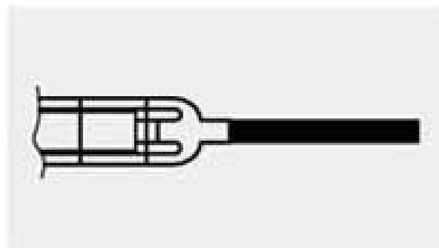
Lamp Type	Bore Diameter mm	Arc Length mm	Maximum Average Power W
3 x 25 XFP	3	25	479
3 x 50 XFP	3	50	957
3 x 75 XFP	3	75	1436
3 x 100 XFP	3	100	1914
3 x 150 XFP	3	150	2871
4 x 25 XFP	4	25	638
4 x 50 XFP	4	50	1276
4 x 75 XFP	4	75	1914
4 x 100 XFP	4	100	2552
4 x 150 XFP	4	150	3828
5 x 50 XFP	5	50	1595
5 x 75 XFP	5	75	2393
5 x 100 XFP	5	100	3190
5 x 150 XFP	5	150	4785
6 x 50 XFP	6	50	1914
6 x 75 XFP	6	75	2871
6 x 100 XFP	6	100	3828
6 x 150 XFP	6	150	5742
7 x 75 XFP	7	75	3351
7 x 100 XFP	7	100	4467
7 x 150 XFP	7	150	6701
8 x 75 XFP	8	75	3820
8 x 100 XFP	8	100	5406
8 x 150 XFP	8	150	7660
10 x 75 XFP	10	75	4788
10 x 100 XFP	10	100	6384
10 x 150 XFP	10	150	9575
13 x 100 XFP	13	100	8299
13 x 150 XFP	13	150	12448

Air-cooled flash lamps (XAP series: Xenon gas fill)

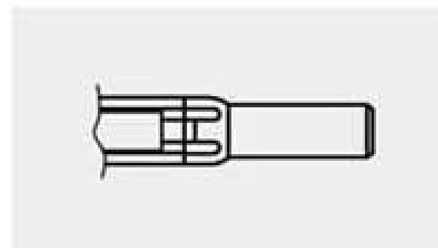
XAP Series

Lamp Type	Bore Diameter mm	Arc Length mm	Maximum Average Power	
			Convection Air cooled W	Forced Air cooled W
3 x 25 XAP	3	25	36	72
3 x 50 XAP	3	50	71	142
3 x 75 XAP	3	75	107	214
3 x 100 XAP	3	100	142	284
3 x 150 XAP	3	150	213	426
4 x 25 XAP	4	25	48	96
4 x 50 XAP	4	50	96	192
4 x 75 XAP	4	75	143	286
4 x 100 XAP	4	100	191	382
4 x 150 XAP	4	150	287	574
5 x 50 XAP	5	50	119	238
5 x 75 XAP	5	75	179	358
5 x 100 XAP	5	100	239	478
5 x 150 XAP	5	150	358	716
6 x 50 XAP	6	50	143	286
6 x 75 XAP	6	75	215	430
6 x 100 XAP	6	100	287	574
6 x 150 XAP	6	150	430	860
7 x 75 XAP	7	75	251	502
7 x 100 XAP	7	100	334	668
7 x 150 XAP	7	150	501	1002
8 x 75 XAP	8	75	287	574
8 x 100 XAP	8	100	382	764
8 x 150 XAP	8	150	573	1146
10 x 75 XAP	10	75	359	708
10 x 100 XAP	10	100	479	958
10 x 150 XAP	10	150	718	1436
13 x 100 XAP	13	100	622	1244
13 x 150 XAP	13	150	933	1866

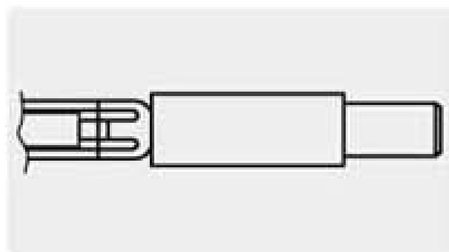
Finishing: Heraeus offers all finishing options. The drawings below show the most commonly used finishings.



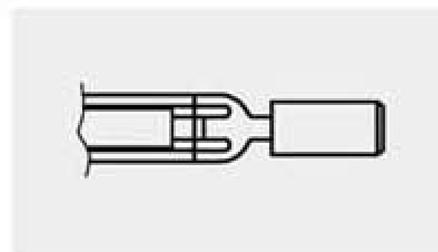
NICKEL PLATED TUNGSTEN WIRE



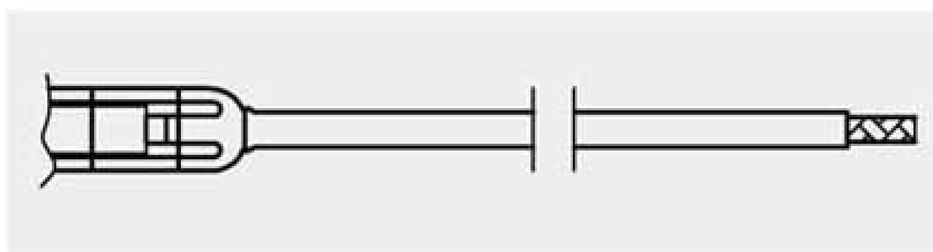
CONNECTOR ONTO THE DOME



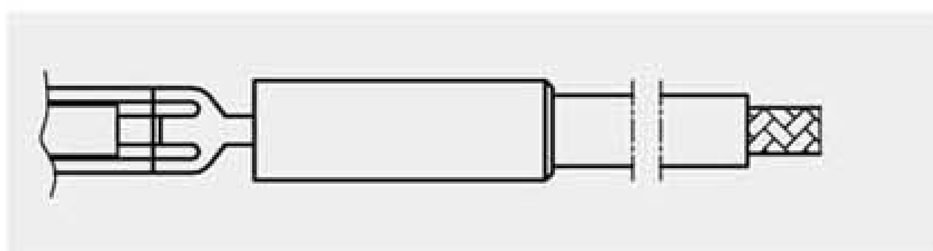
PEI SLEEVE + CONNECTOR



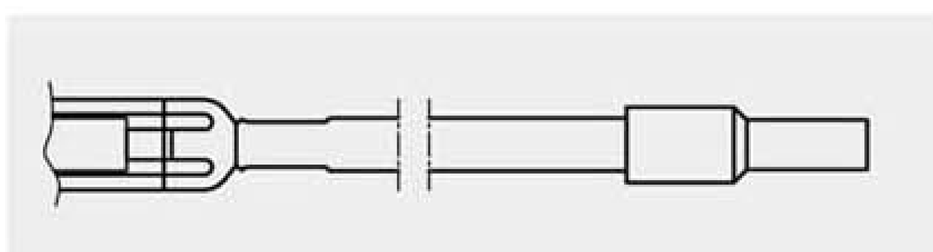
OFFSET CONNECTOR



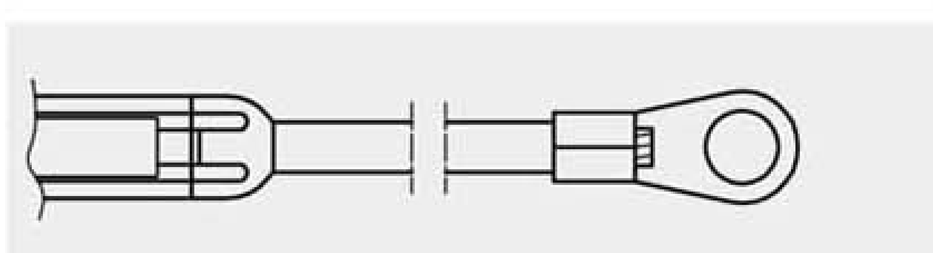
LEAD WIRE



PEI SLEEVE + LEAD WIRE



LEAD WIRE TERMINATED WITH BOOT LACE TERMINAL OR CONNECTOR PIN



LEAD WIRE TERMINATED WITH RING TAG

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