



Beam dump test

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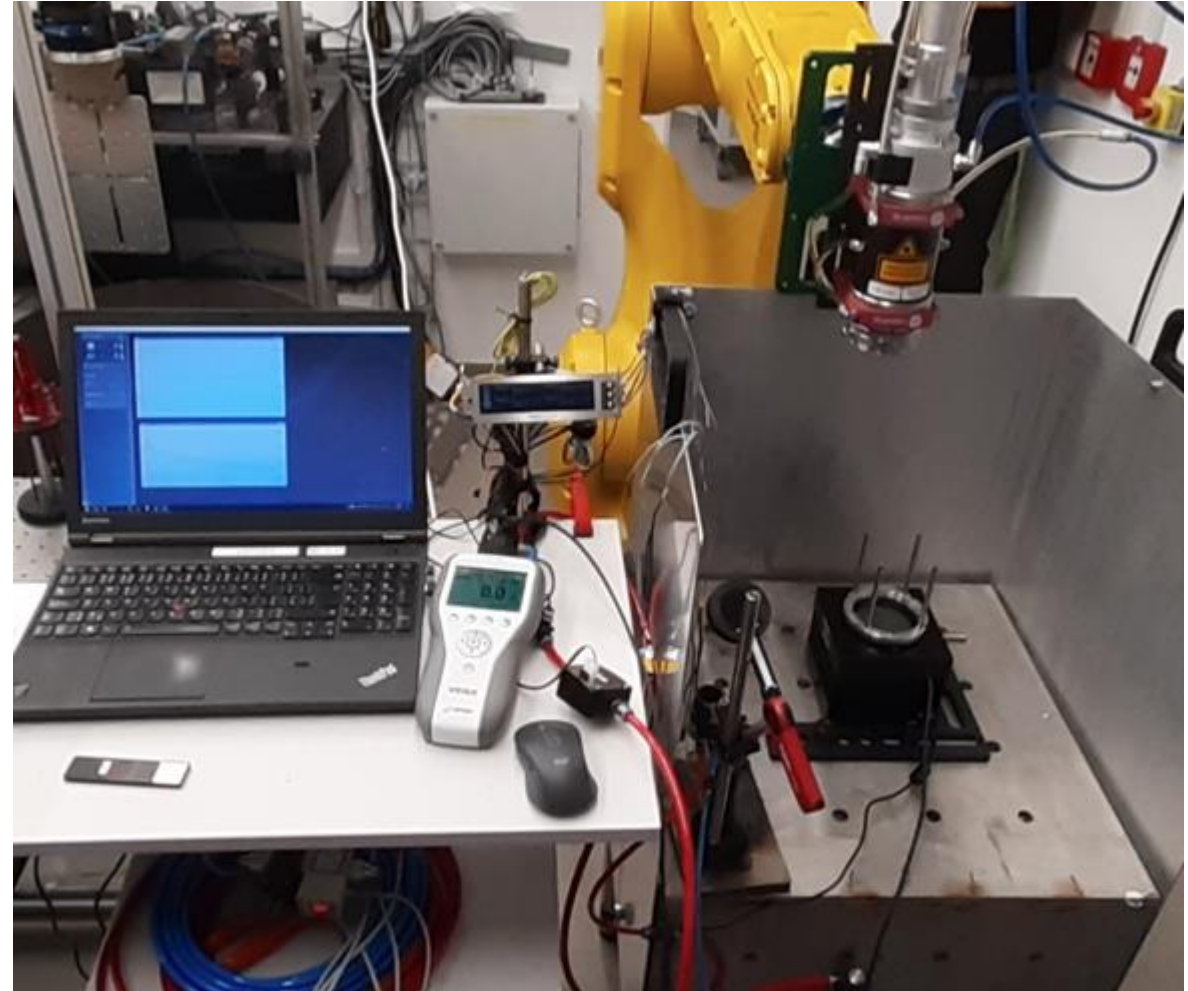
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Measurement conditions

- Reference output
(measured by FL600A-BB-65)

laserline [W]	real power [W]
50	2
70	3
100	6
150	40
200	120
250	230
300	306
350	360
400	410
450	460
500	520



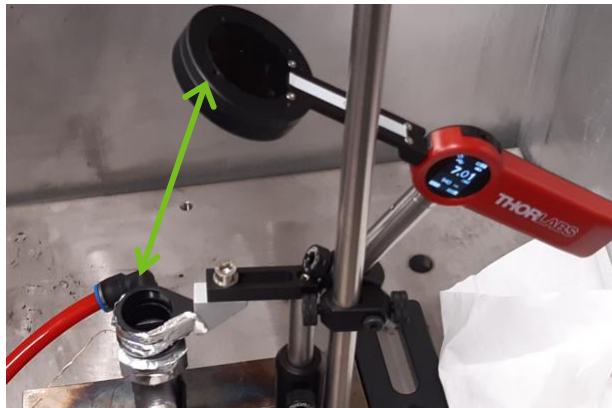
Laserline LDs integrated power meter shows correct values from 300 W power level.
For lower power levels (<300W) calibration was required.

Measurement conditions

- Beam spot size : ~ 10 mm



- Powermeter distance : 150 mm
(scattering power measured by PM160T-HP)



Beam dump #4 (LaserPro)

3D printed aluminum



holder(#7)

adapter(#1)

front side(#8)

another side_middle(#3)

bottom side (#5)

back plate (#4)



Beam dump #4

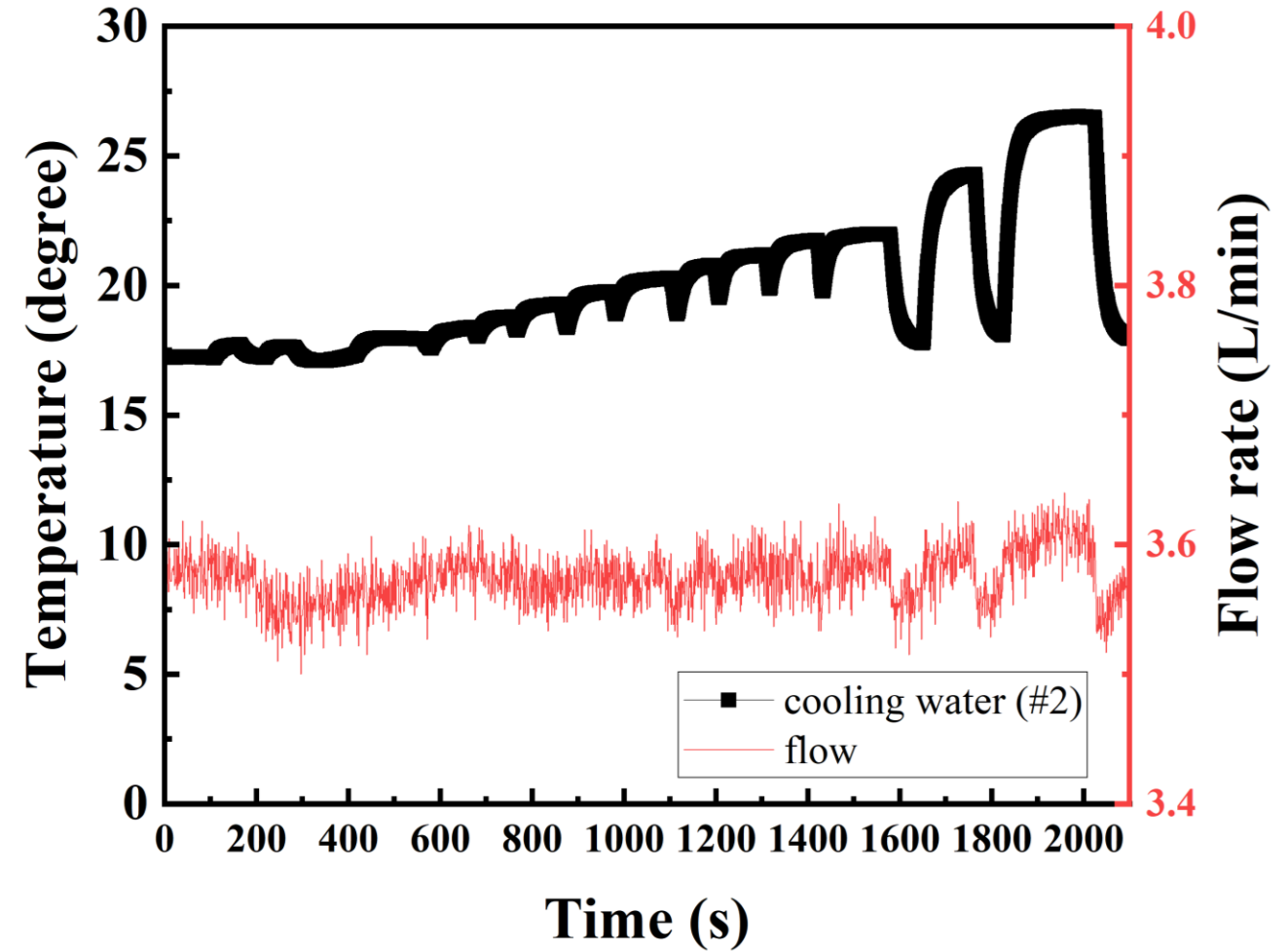
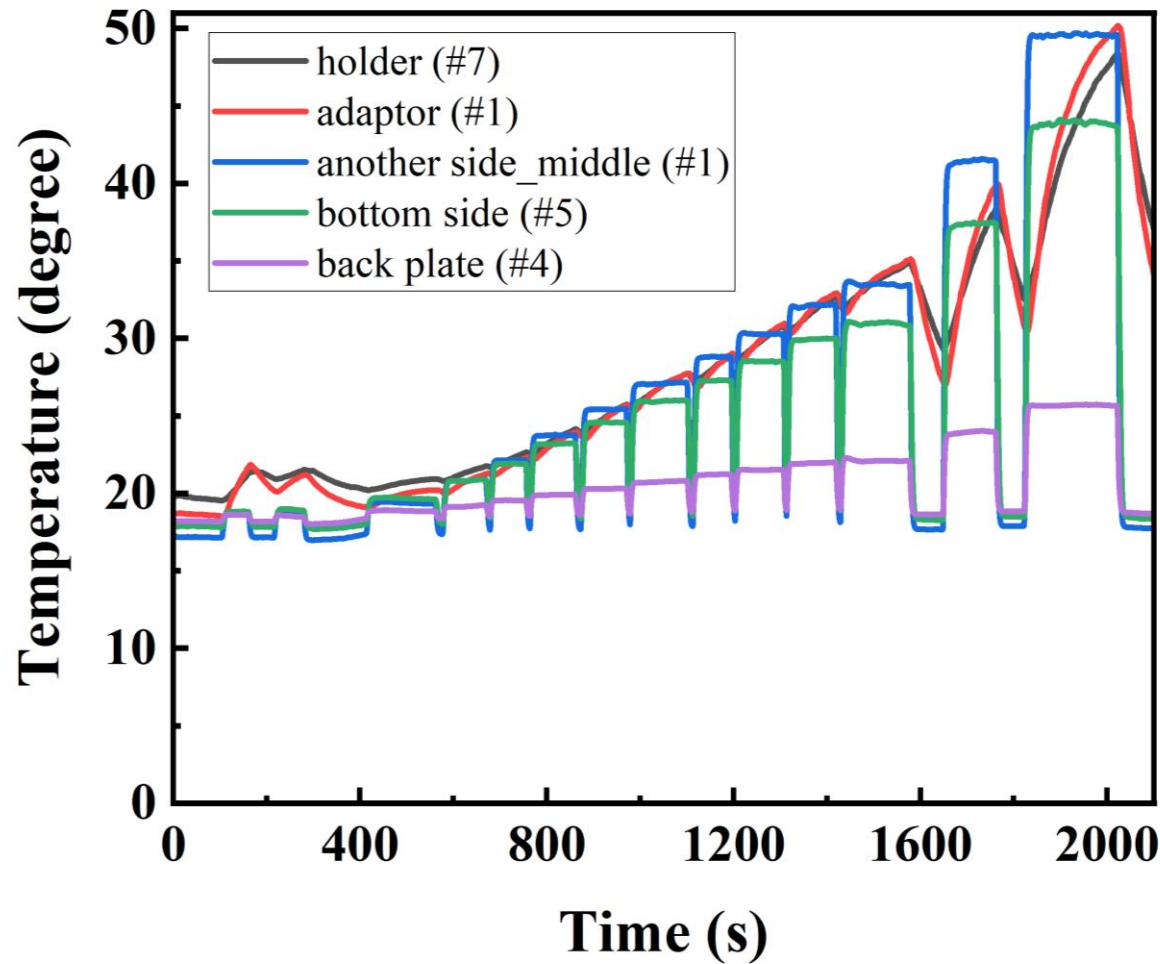
- Initial condition

cooling water	flow rate [L/min]	temperature [°C]
	3.5	17.2

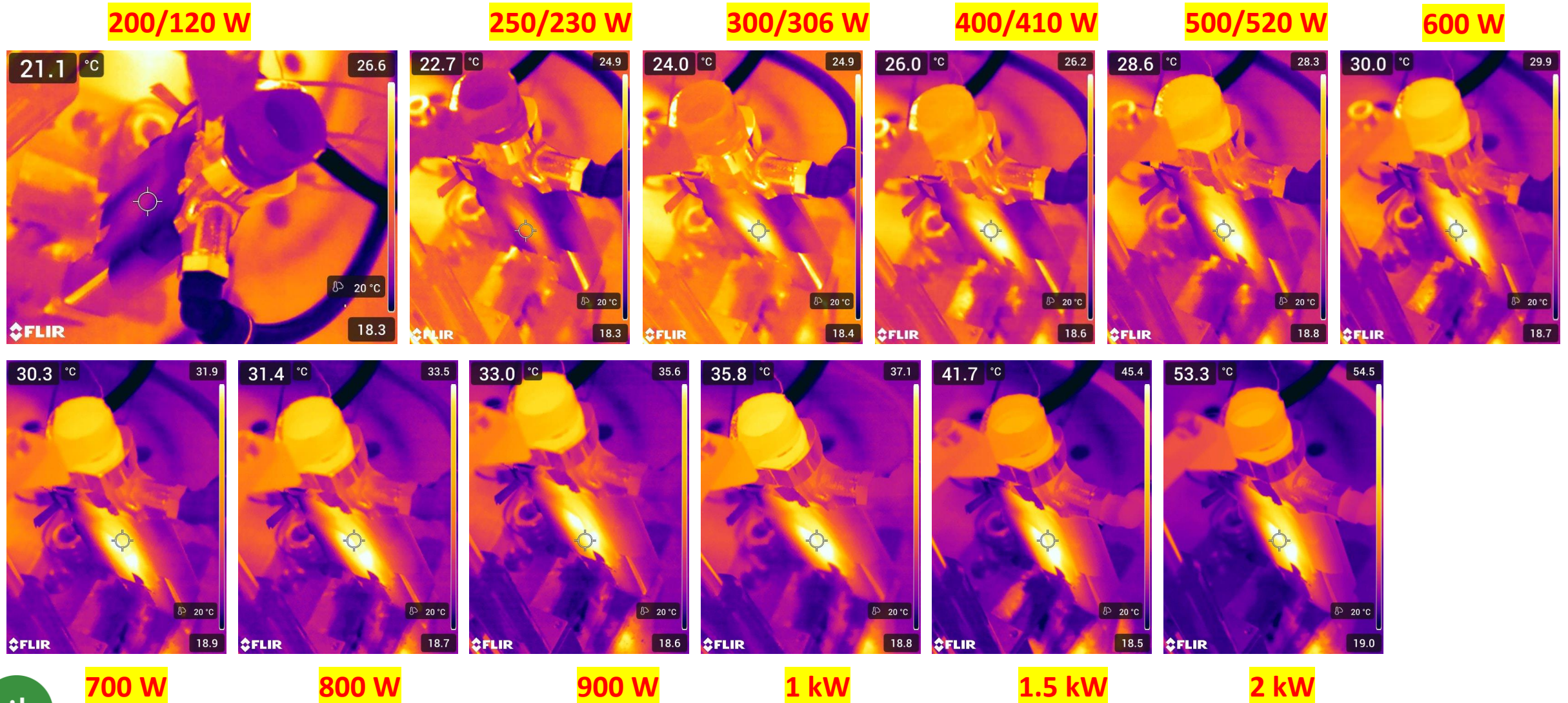
- Measurement

Laserline/real power [W]	temperature [°C]							Scattering power [mW]
	Beam dump						cooling water	
	holder	adaptor	front side	another side (middle)	bottom side	back plate		
200/120	20.9	20.2	19.8	19.3	19.6	18.8	17.9	4
250/230	21.6	21.1	21.1	20.8	20.8	19.2	18.4	7
300/306	22.5	22.1	22.3	22.1	21.9	19.5	18.8	10
400/410	23.9	23.9	23.8	23.8	23.2	19.9	19.3	13
500/520	25.5	25.4	25.4	25.4	24.6	20.3	19.8	17
600	27.6	27.5	26.9	27.1	26	20.8	20.3	19
700	28.7	28.7	28.4	28.8	27.3	21.2	20.8	22
800	30.6	30.7	29.8	30.3	28.5	21.5	21.2	26
900	32.5	32.7	31.3	32.2	30	22	21.7	31
1000	34.5	34.7	32.8	33.4	31	22.1	22	33
1500	37.7	38.7	40.2	41.6	37.4	24	24.3	50
2000	49.9	49.6	47	49.6	43.9	25.7	26.5	70

Beam dump #4



Beam dump #4



Beam dump #4

- Longterm water corrosion test started in L2CLD-C...

