

# Be beam pipe at SuperKEKB

K. Oide

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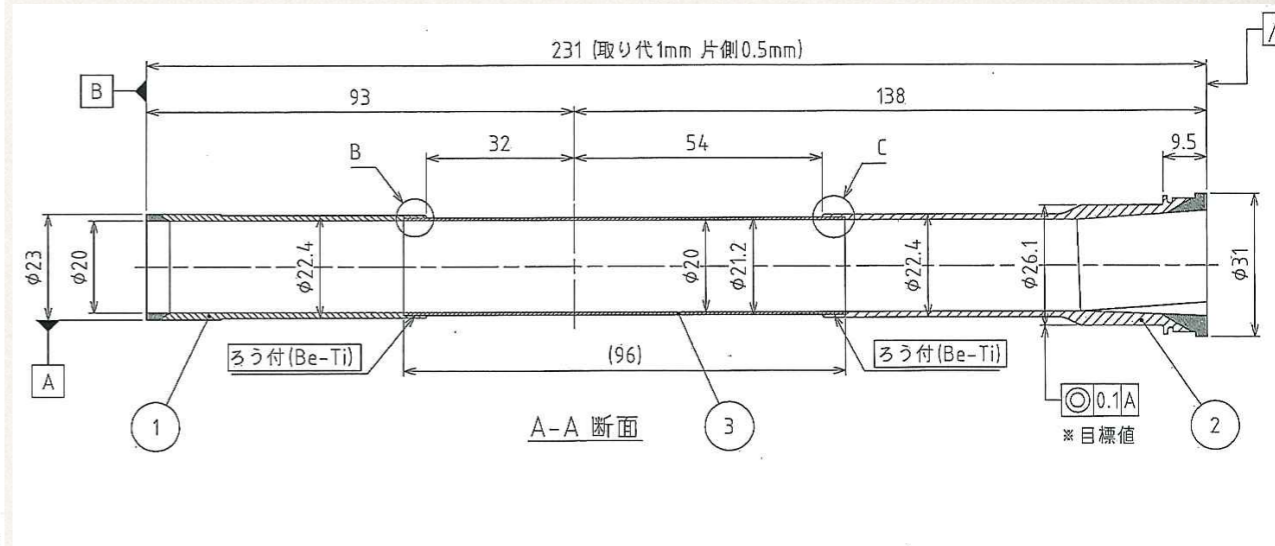
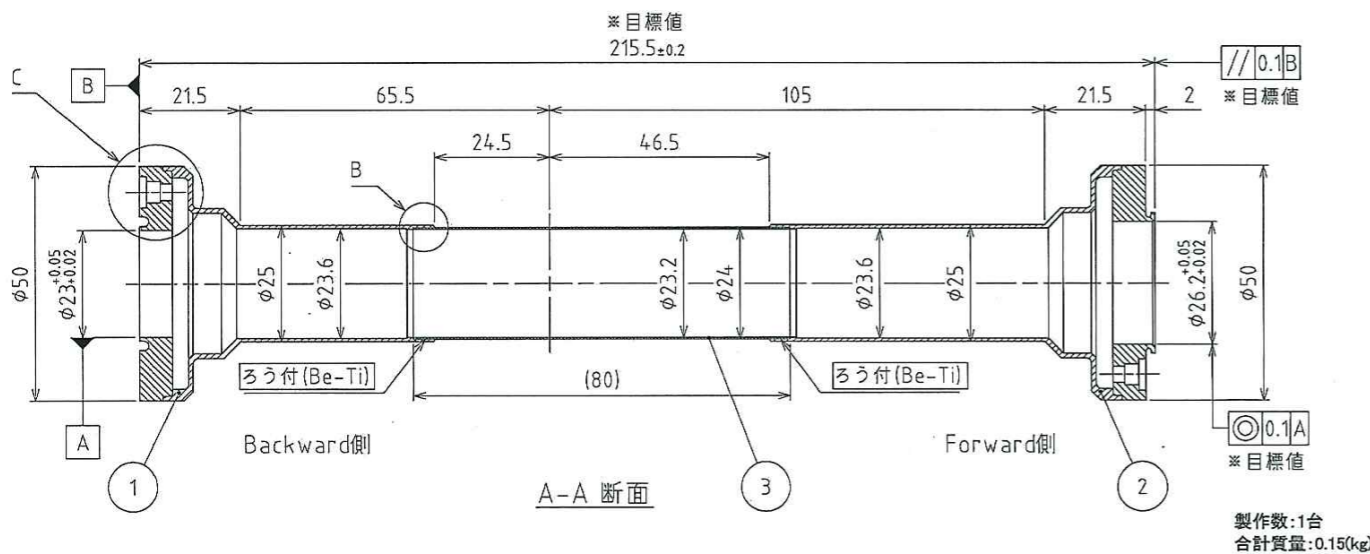
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*Thank to K. Kanazawa, H. Nakayama*

# Be beam pipe at IP for SuperKEKB

Outer pipe

Inner pipe



- ❖ The beam pipe at the IP of SuperKEKB is a double pipe, each consists of middle (Be) and side (Ti) parts, brazed to each other.

	Outer	Inner
Thickness (Be) [mm]	0.4	0.6
Thickness (Ti) [mm]	0.7	1.2

- ❖ The inside of inner pipe is Au coated (10 μm thick via 0.3 μm Ti), by magnetron-sputtering.

# Paraffin for the cooling media

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- ❖ Normal 10-decan ( $C_{10}H_{22}$ ).
- ❖  $N=10$  is chosen to avoid freezing due to an additional He-gas cooling.
- ❖ Higher  $N$  is usable otherwise for higher flash point.

N	10	11	12
Melting point (°C)	-30	-25	-7.5
Flash point(°C)	46	68	85