

1.1 System description

The system consists of a common vacuum loadlock and substrate handler with an ICP (inductively coupled plasma) processing chamber. The loadlock, substrate handler and processing chambers can be configured for single 150 mm (6 inch), 200 mm (8 inch) or rectangular substrates.

1.1.1 Aspect etch machine

The main component of the system is the Aspect etch machine. A typical footprint layout of the installation is shown in Figure 1.1.

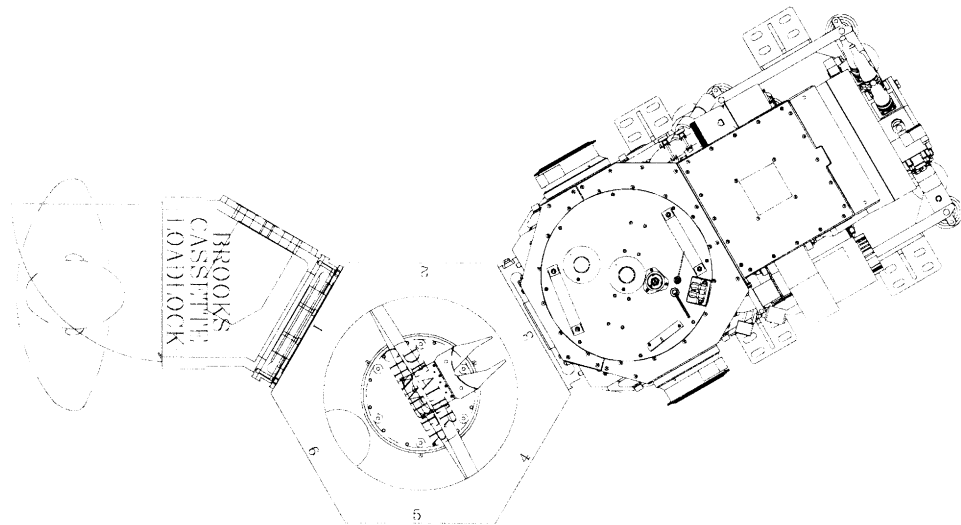


Figure 1.1 Installation plan view

1.1.2 Remote gas boxes

Figure 1.2 shows the arrangement of the remote gas boxes. The outlet panel for the unit is at the outside end.

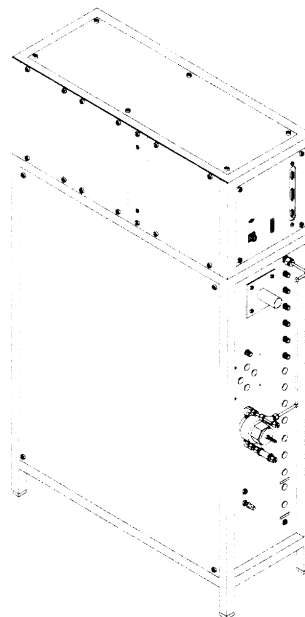


Figure 1.2 Arrangement of remote gas boxes



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1.1.3 System configuration

The complete system comprises:

- Aspect machine.
- Rotary pumps for the loadlock, dealer and the process chamber.
- Remote gas box.
- Electronics cabinet for the process chamber.
- Heater/chiller for the ICP process chamber.
- Prime power distribution cabinet.
- Compressed air booster.
- Operator station computer monitor and keyboard.

For the purposes of describing the equipment, the installation can be considered to consist of the following sub-systems:

- Common equipment.
- Substrate handling system.
- ICP process system.

Subsequent sections describe the equipment for each of the sub-systems.