Revision History

Chapter 9.00

Microlab's Süss Toolset Process Capabilities wrt Substrate Sizes

KSALIGNER	Process Compatible Substrate Size			
	6-inch	4-inch	2-inch	die level
Vacuum contact lithography	yes	yes	yes ☼	yes
Contact lithography	yes	yes	yes ☼	yes
Proximity lithography	yes	yes	yes ☼	yes

☼ Please contact Matthew Wasilik for details on process set-up.

Figure 1

KSBA6	Process Compatible Substrate(s) Size(s)				
	6-inch	4-inch	die-die	die-6-inch	die-4-inch
Si-Si alignment & pre-bond (* on fusionbonding post alignment)	yes	yes	no	no	no
Pre-anodic bond alignment & clamp	yes	yes	no	no	no
Si-Si fusion bond	no	no	no	no	no

Figure 2

KSBONDER	Process Compatible Substrate(s) size(s)				
	6-inch	4-inch	die-die	die-6-inch	die-4-inch
Si-Si fusion bonding (* high temp prc)	no	no	no	no	no
Thermo compression bonding	yes	yes	no	no	no
Anodic bonding❅	yes	yes	no	no	no

❅ Implies Pyrex 7740® (or similar) bond to silicon substrate.

Figure 3

FLIPCHIP	Process Compatible Substrate(s) size(s)				
	6-inch	4-inch	die-die	die-6-inch	die-4-inch
Si-Si fusion bonding	no	no	no	no	no
Thermo compression bonding with alignment	no	no	yes	NC❖	NC❖
Anodic bonding❅	no	no	no	no	no
Solder reflow bonding with alignment	no	no	yes	NC❖	NC❖
UV curing & thermocompression with alignment	no	no	NC❖	NC❖	NC❖
Precision epoxy dispenser	no	no	NC❖	NC❖	NC❖

❅ Implies Pyrex 7740® (or similar) bond to silicon substrate.

❖ NC = Either not configured currently, or new tooling required.

Figure 4