Unit-Operation $u_{up}$ — $s$ → Unit-Operation $u_{do}$

**(a) Unit-stream-unit**

**Sets**
$OU(u, s)$ — Outlet stream $s$ of unit $u$
$U^{up}(u, u')$ — Upstream unit $u'$ of unit $u$
$U^{do}(u, u')$ — Downstream unit $u'$ of unit $u$

**Variable**
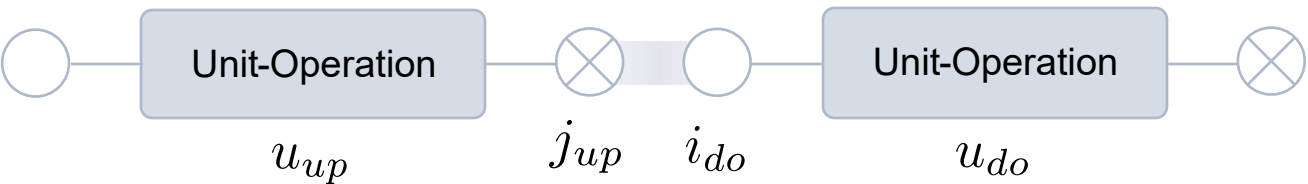$FV_{u,s,u'}$ — Mass flow of stream $s$ from unit $u$ heading for unit $u'$

**(b) Stream-based**

**Sets**
$OU(u, s)$ — Outlet stream $s$ of unit $u$
$IU(u, s)$ — Inlet stream $s$ of unit $u$

**Variable**
$FV_s$ — Mass flow of stream $s$

Unit-Operation $u_{up}$ — $j_{up}$ $i_{do}$ — Unit-Operation $u_{do}$

**(c) Unit-port**

**Sets**
$OU(u, j)$ — Outlet port $j$ of unit $u$
$IU(u, i)$ — Inlet port $i$ of unit $u$
$CN(j, i)$ — Port connection pairs

**Variable**
$FV_{j,i}$ — Mass flow of stream from port $j$ to port $i$