```
model SolidJunction
  extends Icons.Tee;
  //Variables
  Types.MassFlowRate m_dot_s_in_1 "stream one inlet mass flow
rate";
  Types.MassFlowRate m_dot_s_in_2 "stream two inlet mass flow
rate";
  Types.Temperature T_s_in_1 "stream one inlet temperature";
  Types.Temperature T_s_in_2 "stream two inlet temperature";
  Types.Enthalpy h_s_in_1 "stream one inlet enthalpy";
  Types.Enthalpy h_s_in_2 "stream two inlet enthalpy";
  Types.MassFlowRate m_dot_s_out "outlet mass flow rate";
  Types.Temperature T_s_out "outlet temperature";
  Types.Enthalpy h_s_out "outlet enthalpy";
  FallingParticleReceiverSystem.Interfaces.ParticleFlow
ParticleInlet1 annotation(
    Placement(visible = true, transformation(origin = {-80, 40},
extent = {{-10, -10}, {10, 10}}, rotation = 0),
iconTransformation(origin = {-100, 0}, extent = {{-10, -10},
{10, 10}}, rotation = 0)));
  FallingParticleReceiverSystem.Interfaces.ParticleFlow
ParticleInlet2 annotation(
    Placement(visible = true, transformation(origin = {-80, -
40}, extent = {{-10, -10}, {10, 10}}, rotation = 0),
iconTransformation(origin = {0, -100}, extent = {{-10, -10},
{10, 10}}, rotation = 0)));
  FallingParticleReceiverSystem.Interfaces.ParticleFlow
ParticleOutlet annotation(
    Placement(visible = true, transformation(origin = {78, 0},
extent = {{-10, -10}, {10, 10}}, rotation = 0),
iconTransformation(origin = {100, 0}, extent = {{-10, -10}, {10,
10}}, rotation = 0)));
equation
//Connections
  m_dot_s_in_1 = ParticleInlet1.m_dot;
  m_dot_s_in_2 = ParticleInlet2.m_dot;
  m_dot_s_out = -ParticleOutlet.m_dot;
  T_s_in_1 = ParticleInlet1.T;
  T_s_in_2 = ParticleInlet2.T;
  T_s_out = ParticleOutlet.T;
//Mass Balance
  m_dot_s_in_1 + m_dot_s_in_2 = m_dot_s_out;
//Energy Balance
  m_dot_s_in_1 * h_s_in_1 + m_dot_s_in_2 * h_s_in_2 =
m_dot_s_out * h_s_out;
//Properties
  h_s_in_1 = Media.Particle.Enthalpy(T_s_in_1);
```

```
  h_s_in_2 = Media.Particle.Enthalpy(T_s_in_2);
  h_s_out = Media.Particle.Enthalpy(T_s_out);
end SolidJunction;
```