# Hydraulic Calculation

Pump.c : mdlOutputs

dpcon: constant pressure drop term of pipes (and add. Pumps)

dplin: linear pressure drop term of pipes

dpqua: quadratic pressure drop term of pipes

a0 : constant pressure of the pump („pump head“)

a1 : linear slope of the pumps characteristic

a2 : quadratic part of the pumps characteristic

If THB ID is negative, than branch is closed: mdot is set to 0.0

Otherwise solve:

a2\*mdot² + a1\*mdot + a0 = dpqua\*mdot² + dplin\*mdot +dpcon

a = a2 – dpqua

b = a1 – dplin

c = a0 – dpcon

mdot = solve\_massflow\_equation(a, b, c) function in carlib