

$P(J) = p_j$   
 $TLIMA(J) =$  value of  $\Delta t_j$  for next time step  
 $CSP(J) =$  sound speed in cell J  
 $E(J) = E_j$   
 $ENT(J) = s_j$   
 $TMP(J) = T_j$   
 $NSA(J) =$  switching index  
           = 1, phase I  
           = 2, mixed phase  
           = 3, phase II

MAIN

$X(J) = x_j$  (Fig. 5.2)  
 $MASS(J) =$  mass of cell J  
 $JSTAR =$  cell label just ahead of shock front at which  
           computation stops for each time cycle  
 $TIMES = t$   
 $CYCLE =$  number of times  $t$  has been incremented  
 $JCRIT =$  value of J for which  $TLIMA$  is minimum  
 $LAST =$  switching index for halting program after  
           writing last output.  
 $PPEAK =$  maximum computed pressure in each cycle  
 $TLIMB = TLIMA(JCRIT)$   
 $PLEFT =$  pressure applied to left boundary  
 $DFNU =$  mass in cell J+1  
 $XA = x(t + \Delta t)$   
 $VN = v(t + \Delta t)$   
 $QA = Q(t + \Delta t)$   
 $JPMAX =$  value of J at which  $p$  is maximum

ZMIX

FRACT(J) =  $\alpha_j$

XEQ(J) =  $\alpha_j^{eq}$

V1(J) =  $v_{1j}(p,T)$

LEAR = value of  $\alpha_j$  for each time step  
 CAP(J) = sound speed in cell J  
 E(L) =  $E$   
 ENT(L) =  $\epsilon$   
 T(L) =  $T$   
 REAR(L) = switching index  
 I = phase I  
 A = mixed phase  
 II = phase II  
 NAVE  
 M(J) =  $M$   
 MASS(I) = mass of cell J  
 LSTAR = cell label just ahead of shock front at which  
 computation stops for each time cycle  
 TIMES =  $t$   
 CYCLE = number of times E has been averaged  
 LIMIT = value of  $L$  for which  $LIMA$  is minimum  
 LAST = switching index for labeling program after  
 writing last output  
 PEAK = maximum output pressure in each cycle  
 TIME = ELIM(LIMIT)  
 ELEFT = pressure at left boundary  
 GRU = mass in cell J  
 KA =  $k_1 c$   
 VE =  $v_1 c$   
 VA =  $v_1 c + \alpha c$   
 LEAR = value of  $\alpha_j$  for each time step