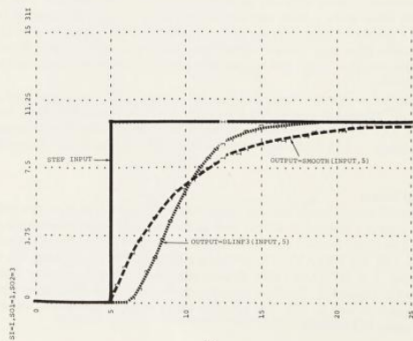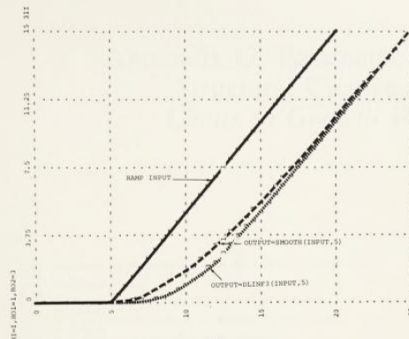A.



B.

C.

**Figure F-3** Response of first- and third-order delays to pulse, step, and ramp inputs

The DYNAMO equations for the delays shown in Figure F-4 are:

A    XD.KL = DELAY1(X.JK,AT)
A    XD.KL = DELAY3(X.JK,AT)

The time response of material delays to different inputs is the same as that for information delays (Figure F-3) when the adjustment time AT is constant. Further details about the internal structure of the macros generated by the DYNAMO compiler to produce these delays can be found in Forrester (1961, 1968) and Pugh (1970).
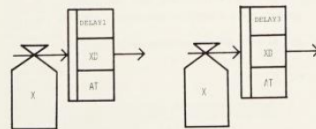


**Figure F-4** DYNAMO flow diagram representation of first- and third-order material delays