Table 9.8.: Automatic Dry Sprinkler System Requirements

ITEMS	REQUIREMENTS
8. SIZE OF THE DRY SPRINKLER SYSTEM	i. The system size shall be such that the initial water is discharged from the system test connection in not more than 60 seconds, starting at the normal air pressure on the system and at the time of the fully opened inspection test connection.
9. GRIDDED SYSTEM	i. The dry pipe sprinkler system shall not be Gridded.
10. LOCATION OF DRY PIPE VALVE	i. The dry Sprinkler Valve shall not be located inside area where the temperature is below 4^0C. ii. An indicating-type control valve for the operational testing of the system shall be provided on each sprinkler riser outside of the refrigerated space
3. AIR	i. Each dry pipe system shall have a dedicated and automatic air maintenance device. ii. Air or nitrogen or other approved gas pressure shall be maintained on dry pipe systems throughout the year. iii. The compressed air supply shall be from a source available at all times. iv. Air or nitrogen supply for systems shall be one of the following. a. Air from the room with lowest temperature to reduce the moisture content. b. Air compressor/dryer package listed for the application utilizing an ambient air. c. Compressed nitrogen gas from cylinders used in lieu of compressed air v. The air supply shall have a capacity capable of restoring normal air pressure in the system within 60 minutes. vi. Each supply line shall be equipped with control valves located in the warm area. vii. A check valve shall be installed in the air filling connection, and a listed or approved shutoff valve of either the renewable disc or ball valve type shall be installed on the supply side of this check valve and shall remain closed unless filling the system. viii. An approved relief valve shall be provided between the air supply and the shutoff valve and shall be set to relieve pressure no less than 10 psi (0.7 bar) in excess of system air pressure and shall not exceed the manufacturer's limitations. ix. The system air pressure shall be maintained in accordance with the instruction sheet furnished with the dry pipe valve, or shall be 20 psi (1.4 bar) in excess of the calculated trip pressure of the dry pipe valve, based on the highest normal water pressure of the system supply. x. A check valve or other positive backflow prevention device shall be installed in the air supply to each system to prevent airflow or waterflow from one system to another. xi. A low air pressure alarm to a constantly attended location shall be in stalled.
9. WATER DELIVERY	i. Calculations for the dry pipe system water delivery shall be based on the hazard and shall comply with **Table 9.8.B.**

Table 9.8.B.: Dry Pipe System Water Delivery

HAZARD	NUMBER OF MOST REMOTE SPRINKLERS OPEN INITIALLY	MAXIMUM TIME OF WATER DELIVERY
1. Light Hazard	1	60 Seconds
2. Ordinary 1 Hazard	2	50 Seconds
3. Ordinary 2 Hazard	2	50 Seconds
4. Extra Hazard Group 1	4	45 Seconds
5. Extra Hazard Group 2	4	40 Seconds