

# A practical sprinkler procedure for the fire service



# The perfect picture

(building with a sprinkler system)

- ▶ The use of the building is in accordance with the applicable conditions
- ▶ The sprinkler system is 100% in order and extinguishes or controls the fire.
- ▶ The internal organization knows how to act in the event of a fire.
- ▶ The fire service knows how to act in the event of fire in a sprinklered building.
- ▶ The location of the fire can be reached for the final fire extinguishment.
- ▶ A company expert with knowledge of the sprinkler system is present.
- ▶ The sprinkler system is ready for use again shortly after the fire

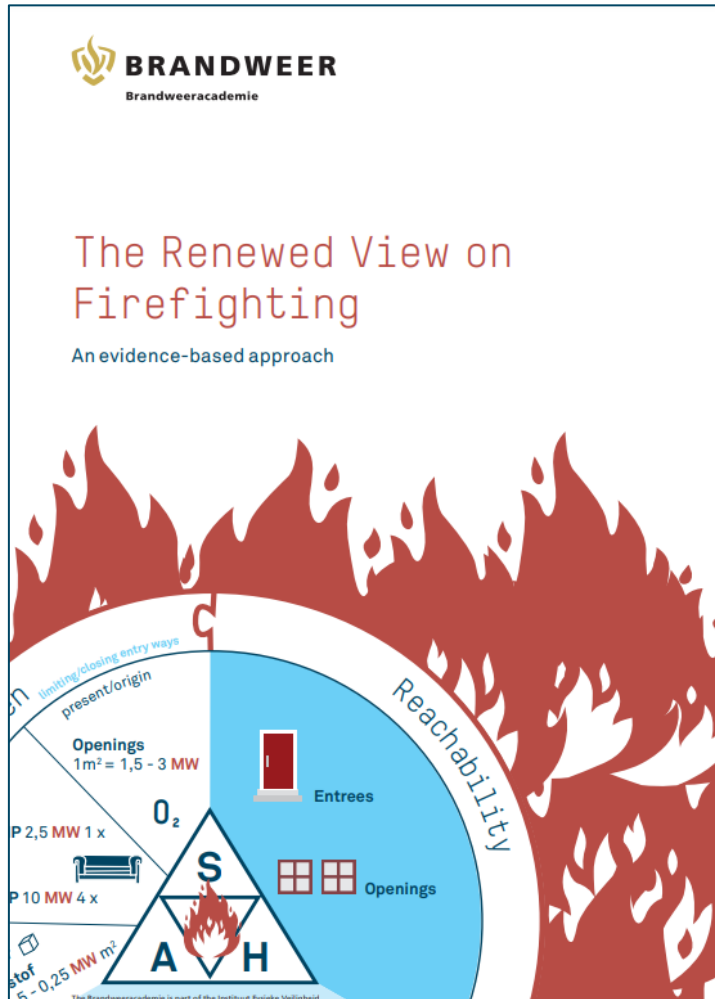
# 'The real picture' of a fire in a sprinkled building



# Not always the perfect picture

- ▶ Lack of knowledge and/or wrong expectations in the fire service response:
  - ▶ Developers and designers;
  - ▶ Owners, -users and internal organization;
  - ▶ Fire service
- ▶ Increasing challenges for the fire service
  - ▶ Large area and big fire compartments.
  - ▶ Complex inventory (autostore systems, high storage)

# The Renewed View on Firefighting



- ▶ Is the location of the fire known?
- ▶ Is the fire accessible (from the outside?)
- ▶ Is there sufficient cooling capacity?

Usually it is safe to carry out an offensive interior attack, under conditions, when dealing with a small building, such as a home or a building consisting of small rooms, and when there is enough cooling capacity available.

# The Renewed View on Firefighting



Is the location of the fire known?

Is the fire accessible? (in a safe way!)

- The location in the building
- The position of the fire

# Is there sufficient cooling capacity?

- ▶ The sprinkler should control the fire
- ▶ Can the fire be reached with a hose line for the final extinguishment ?

## Take more time (stop and think)

- ▶ There is time, (if) the sprinkler controls the fire.
- ▶ Can the fire be extinguished in a safe manner?
  - ▶ Think in terms of the SAHF fire triangle



SAHF fire triangle

# Can the fire be extinguished in a safe manner?

- ▶ Can the location of the fire be reached in a safe manner?
  - ▶ Visibility in the area where the sprinkler is activated.
  - ▶ How far into the building
  - ▶ High in racks or in an automatic system (autostore)
  - ▶ Goods falling from racks
  - ▶ Chance of encountering hazardous substances (toxic / corrosive)



# Deployment protocol for the fire service

- ▶ **What if the fire cannot be extinguished in a safe manner?**
  - ▶ Let the fuel burn out in a controlled manner (sprinkler)  
(Sufficient water supply (and fuel)?)
  - ▶ Predictable outcome → the fire compartment is lost
- ▶ **What if there is no 100% certainty that the fire is out?**
  - ▶ Firefighters permanently monitor the location for at least 60 minutes.
  - ▶ Shut-off valve is permanently monitored (and re-opened if necessary).
  - ▶ Hose lines are ready for immediate use (sufficient cooling power).
  - ▶ Handover with instructions to the internal organization

# How do we get a picture that is perfect enough?

- ▶ When designing a sprinklered building, careful consideration must be given to how to ensure that the conditions are such that the fire service can operate safely and that the location where the fire is burning can be reached in a simple and safe manner.
- ▶ A protocol for the fire service
- ▶ Input for teaching and training material
- ▶ Advice on additional measures that can be taken to facilitate deployment by the fire service.