

# Water supply and fire protection hydraulics



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Discuss your understanding of an attack pumper to help solve unusual and complex hydraulic problems on the fire ground. Attack pumpers are hydraulic devices designed specifically to solve complex problems in hydraulics during firefighting and are constructed to apply water to control fire. Attack pumpers are also used earlier as mini pumpers and required limited staffing to handle fire fighting . It is ideal for attack pumpers to possess fire hose and desired pre-connected lines in order to support the attacks at the fire scene at a faster pace and maneuver the fire.

Attack pumpers have a minimum pump rating of 250 gpm at 150 psi and also a minimum tank capacity of 200 gallons. Other features of the attack pumper include either 300 feet of 2 inch or 400 feet of 1 inch or larger hose and one 12-foot ground ladder. Attack pumpers have an eight inches ground clearance with 8 angle of approach for firefighting operations.

In case of complex hydraulic problems like emergency and rescue incidents involving limited staffing, the attack pumper is considered as first response apparatus due to its quick application. When there is limited staffing in the fire ground , attack pumpers are best application providing adequate compartment space necessary for gear and expected operational fire fighting capabilities. It facilitates the first personnel in contact with the fire ground to respond immediately and start the rescue process before the arrival of other staff and emergency vehicles.

Another unusual situation where the attack pumper can be deployed effectively is any emergency situation where there is limited access, for instance buildings having limitations in height, width or parking structures with low overhead clearances or on steep hills having narrow passages. In case of private bridges or isolated residential locations involving weight

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limitations, attack pumpers are regarded as first step apparatus in fire ground. Attack pumpers are also used to deliver water from pumper in to the street in order to respond to fire in a restricted place and most of the departments use this apparatus for initial attacks.

Attack pumpers are economic and effective solutions for solving complex problems in fire ground with minimum weight and limited access.

#### References

Richma, H. (1986). Engine company fireground operations (2nd Edition ed.). Juvenile Nonfiction.

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