

SAN DIEGO FIRE RESCUE DEPARTMENT
TRAINING AND EDUCATION DIVISION
TRAINING BULLETIN

NO.: 20-01
DATE: April 22, 2020
TO: All Personnel
FROM: Willy Melendez, Battalion Chief, Training & Education Division
SUBJECT: Smooth Bore Nozzle with Stacked Tips
SUBMITTED BY: James Laing, Driver Training Officer, Training & Education Division

Introduction: New Hydraulics for Smooth Bore nozzle with stacked tips

Description: Historically, the San Diego Fire-Rescue Department 1¹/₈" smooth bore tip was considered either a hand line with a nozzle pressure of 50 psi or master stream appliance with a nozzle pressure of 80 psi depending on the application.

Training/Implementation:

To be consistent with State Fire curriculum, surrounding agencies and the current complement of tip sizes carried by SDFD which includes: 2 1/2" handline playpipe nozzle with tip sizes of 1", 1 1/8", and 1 1/4". **New High-Rise Standpipe Kit** that includes a smooth bore nozzle with stacked tips sizes 1", 1 1/8", and 1 1/4".

- 1 1/8" tip will now be considered **only** as a handline with a Nozzle Pressure of 50 psi, GPM= 270. (previously 1 1/8" was considered either a handline or master stream)
- 1 1/4" tip if utilized as a **handline** requires a Nozzle pressure of 50 psi, GPM=330.
- 1 1/4" tip if utilized on a **master stream** appliance requires a Nozzle pressure of 80 psi, GPM=400. (see Diagram 1)
- Note: Stacked tips for SDFD master stream appliances start at 1 3/8" but other agencies may utilize 1 1/4" on their master stream appliances.
- GPM flows for handheld smooth bore tips 1/2" to 1 1/4" are rounded to the nearest 10 gpm. (previously 1/2" to 1 1/8")
- GPM flows for master stream appliance smooth bore tips 1 1/4" to 2" are rounded to the nearest 100 gpm. (previously 1 1/8" to 2")
- These Changes will be updated on the following documents:
 - SDFD Drill Manual- Chapter 12 and 15
 - Hydraulic Quick Reference Sheet

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- Target Solutions-Driver Operator-Session I Hydraulics Power Point, Engineer Exam Study Material.
- Questions may be directed to Captain Jim Laing, Driver Training Officer, jlaing@sandiego.gov or (619) 692-4981.

WM/jl

(Diagram 1)

<i>Tip Size</i>	<i>GPM</i>	<i>Nozzle Pressure</i>
1"	210	50 psi
1 1/8"	270	50 psi
1 1/4"	330/400	50/80 psi
1 3/8"	500	80 psi
1 1/2"	600	80 psi
1 3/4"	800	80 psi
2"	1100	80 psi

