

PVC PRESSURE PIPE: DEFINING “LARGE-DIAMETER”

Some engineers consider PVC pressure pipe greater than 12 inches to be “large-diameter.” For the PVC Pipe Association, however, large diameter is defined as 30 inches and larger. PVC pipe up to 48 inches has been part of the AWWA standard for PVC pressure pipe for more than 25 years and now 54- and 60-inch sizes are being manufactured.

TWO STANDARDS FOR ONE PRODUCT: AN ARTIFICIAL BARRIER

One reason for engineers’ perception was the format of AWWA standards before 2016: AWWA C900 topped out at 12 inches and AWWA C905 began at 14 inches. This artificial barrier sometimes caused only part of the full size range of PVC pressure pipe to be included in municipal specifications. In 2016, C900 and C905 were harmonized and combined into a single standard - AWWA C900 - covering all sizes from 4 to 60 inches.

A LONGSTANDING PROGRESSION OF LARGER SIZES

- 1988 – 24” was the largest size in original C905 standard
- 1997 – maximum size for C905 increased to 48”
- 2010 – C905 revised but larger sizes not added
- 2016 – C900 and C905 consolidated, 54” and 60” sizes added

Product Overview: AWWA C900 CIOD PVC Pressure Pipe (30-inch and Larger)					
Pipe Size (in)	DR	Pressure Class	Pipe Size (in)	DR	Pressure Class
30	51	80	36	51	80
	41	100		41	100
	32.5	125		32.5	125
	27.5	150		27.5	150
	25	165		25	165
	21	200		21	200
	18	235		18	235
	17	250			
42	51	80	48	51	80
	41	100		41	100
	32.5	125		32.5	125
	27.5	150		27.5	150
	25	165		25	165
	21	200			
54	51	80	60	51	80
	41	100		41	100
	32.5	125		32.5	125
	27.5	150		27.5	150
	25	165		25	165

TIME TO REDEFINE “LARGE DIAMETER”

- Some still consider 12” as large-diameter, but 24” has been in the AWWA standards for more than 35 years
- The 48” size has been in the standards for more than 25 years
- Artificial transition point between small and large diameter removed by combining C900 and C905 into C900 standard
- Maximum size increased to 60” in revised C900 standard

References: AWWA C900 “Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings, 4 In. Through 60 In.”; AWWA C905 “Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings,” 1988, 1997, 2010