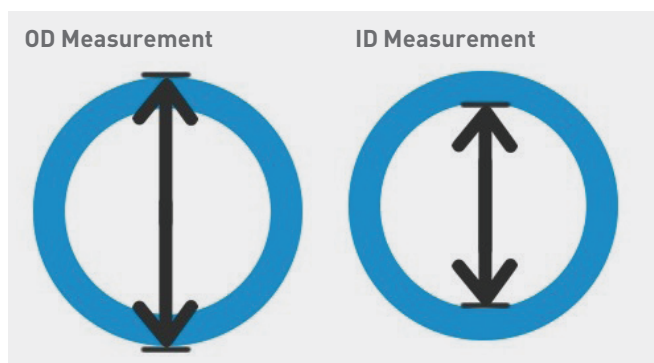


# SIMPLE GUIDE TO PIPE SIZE TERMINOLOGY

It can get a little tricky sometimes when trying to make sure you order the right pipe for the job. Some manufacturers talk in terms of nominal bore, some talk about inside diameters and yet others will send you measurements in outside diameters. So, what is the difference and how do you make sure you are getting the right pipe for the job?

**Outside diameter (OD)** is measured from top to bottom, or left to right from the outside edges of the pipe – not the collar or socket end. The OD is often critical for joining pipes or getting the correct fitting that will fit over the pipe.

**Inside diameter (ID)** is measured from top to bottom, or left to right from the inside hole of the pipe. This measurement is important when calculating the flow of liquid.



**Nominal bore (NB)** is never an exact measurement. By definition, 'nominal' means in-name-only, or a referenced name. The problem with nominal bore measurements is often the part number uses nominal bore not the actual size you are looking for.

The tables below further define these terms with regards to specific stock.

## UPVC – DWV AND STORMWATER PIPE

These are measured by nominal bore (NB) and outside diameter (OD). Inside diameter is not critical with these pipes and varies between manufacturer.

Also shown in the table below are the approximate weight of the pipes when empty and when filled with water.

NB mm	OD mm	Mass kg/m	Mass kg/m Filled with Water
32.00	38.00	0.34	1.14
40.00	43.10	0.50	1.76
50.00	56.20	0.67	2.59
65.00	69.10	1.00	4.14
80.00	82.70	1.17	5.58
100.00	110.40	2.00	9.85
150.00	160.50	3.84	21.51
175.00	200.60	5.96	33.62
225.00	250.70	9.00	48.74
300.00	315.90	14.50	85.15
375.00	400.00	23.34	133.73

## UPVC PRESSURE

These pipes are measured by nominal bore (NB) and outside diameter (OD). Inside diameter (ID) is not critical and varies regarding the pressure rating of the pipe. For example, a low-pressure pipe has a thinner wall.

Also shown in the table below are the approximate weight of the pipes when empty and when filled with water.

NB mm	OD mm	Mass kg/m	Mass kg/m Filled with Water
15	21.2	0.15	0.33
20	26.6	0.25	0.56
25	33.4	0.39	0.88
32	42.2	0.62	1.42
40	48.1	0.8	2.06
50	60.2	1.26	3.22
65	75.2	2.13	5.65
80	88.7	2.31	7.33
100	114.1	4.5	12.35
125	140	7.43	19.7
150	160	9.67	27.33
155	168	10	28.85
200	225	15.83	39.4
226	250	15.66	47.23
250	280	24.83	73.89
300	315	31.6	102.25
375	400	51.66	162

## HDPE – CULVERT AND STORMWATER

There are several measurements for all HDPE pipe in the New Zealand market. Some manufacturers use inside diameter (ID) while others use outside diameter (OD) and/or nominal bore (NB). The table below outlines the relationship between these measurements for the EUROFLO® range of SN4 HDPE culvert pipe.

NB mm	OD mm	Mass kg/m	ID mm
150	160	1.40	136
180	200	1.90	174
220	250	2.59	214
280	315	3.79	273
350	400	6.21	343
430	500	8.97	427
530	630	13.10	533
640	800	23.10	673
850	1000	34.83	849
1030	1200	51.03	1040