

DIN 1988-300:2012-05 (E)

Codes of practice for drinking water installations - Part 300: Pipe sizing; DVGW code of practice

Contents		Page
Foreword		3
1	Scope	5
2	Normative references	5
3	Terms, symbols and units	6
4	Sizing principles	11
4.1	General	11
4.2	Pipe friction	11
4.3	Individual head losses	13
5	Sizing of cold and hot water pipes	14
5.1	General	14
5.2	Design and total flow rates	14
5.2.1	Design flow rate	14
5.2.2	Determining the total flow rate	17
5.3	Determining the peak flow rate	18
5.4	Determining the available friction loss	20
5.4.1	General	20
5.4.2	Percentage head loss due to individual head losses a	20
5.4.3	Total pipe length lges	21
5.4.4	Minimum supply pressure	21
5.4.5	Head loss due to difference in elevation pgeo	21
5.4.6	Sum of head losses in appliances	21
5.5	Pipe sizing for the hydraulically most unfavourable flow path	23
5.6	Flow balancing to obtain the hydraulically more favourable flow path	24
5.7	Special considerations concerning circulation main branch pipe of usage units	24
6	Design of circulation systems	24
6.1	General	24
6.2	Downfeed systems	25
6.2.1	Heat losses and flow rates	25
6.2.2	Diameter of circulation pipes and pump pressure	27
6.3	Upfeed systems	28
6.4	Smart loop systems	29
6.5	Balancing the system	29
7	Documentation	29
7.1	General	29
7.2	Hot and cold water pipes	29
7.3	Circulation systems	30
Annex A (informative)	Comparable pipe nominal sizes and resistance coefficients for fittings and valves of dissimilar materials	32
Annex B (informative)	Presentation of design assumptions	43
Bibliography		44