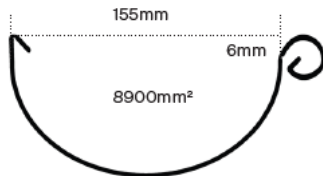


Technical Details

Lindab Rainline™

150mm Half-Round Gutter

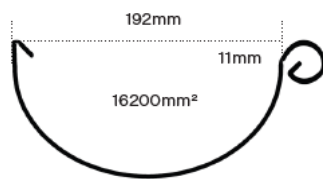


Type:	Residential and commercial
Material:	0.6-gauge zinc-coated steel
Measurements:	8900mm ² / 87mm downpipe
Flow capacity:	142.9L per minute
Overflow:	Front 6mm lower than back

Lindab Gutter Dimensions (r150)

Diameter:	D =	150	mm =	0.15	m
Front edge is lower by l_edge mm:	l_edge =	6	mm =	0.006	m
Radius:	r = D/2 =	75	mm =	0.075	m
Height:	h = r-lower_edge =	69	mm =	0.069	m
Angle:	$\Theta = 2 \cdot \arccos((r-h)/r) =$	2.98	rad =	170.8	deg
Cross-sectional flow area:	$A = r^2 \cdot (\Theta - \sin(\Theta)) / 2 =$	8867	mm ² =	0.0089	m ²
Wetted perimeter	P = r * Θ =	223.6	mm =	0.224	m
Hydraulic radius	Rh = A/P =	35.5	mm =	0.035	m
Bottom Slope:	S =	2.5	mm/m =	0.0025	m/m
Manning Roughness Coefficient:	n =	0.018			
Volumetric Flow Rate:	$Q = (1/n) \cdot A \cdot Rh^{2/3} \cdot S^{1/2} =$	0.002381077	m ³ /s =	2.38	l/sec = 142.9 l/min

190mm Half-Round Gutter



Type:	Commercial and larger buildings
Material:	0.6-gauge zinc-coated steel
Measurements:	16200mm ² / 100mm downpipe
Flow capacity:	250.2L per minute
Overflow:	Front 11mm lower than back

Lindab Gutter Dimensions (r190)

Diameter:	D =	190	mm =	0.19	m
Front edge is lower by l_edge mm:	l_edge =	11	mm =	0.011	m
Radius:	r = D/2 =	95	mm =	0.095	m
Height:	h = r-lower_edge =	84	mm =	0.084	m
Angle:	$\Theta = 2 \cdot \arccos((r-h)/r) =$	2.91	rad =	166.7	deg
Cross-sectional flow area:	$A = r^2 \cdot (\Theta - \sin(\Theta)) / 2 =$	16200	mm ² =	0.0162	m ²
Wetted perimeter	P = r * Θ =	276.4	mm =	0.276	m
Hydraulic radius	Rh = A/P =	43.7	mm =	0.044	m
Bottom Slope:	S =	2.5	mm/m =	0.0025	m/m
Manning Roughness Coefficient:	n =	0.018			
Volumetric Flow Rate:	$Q = (1/n) \cdot A \cdot Rh^{2/3} \cdot S^{1/2} =$	0.002381077	m ³ /s =	4.17	l/sec = 250.2 l/min