

Roof Outlets

Connections and Drainage Areas

Connections – The Caroflow range of roof outlets is extensive and has been designed to allow connection to most proprietary brands of pipework. Each outlet page details the connections that are applicable to it and should be cross referenced with the information below.

PVC – All Caroflow Vertical Spigot, Gulley Spigot and Balcony Spigot outlets (excluding 50mm size) will connect directly to BS 4514:2001 “O” ring socketed PVC pipework. Where connections have to be made to some 45 degree or 90 degree Spigot outlets, use should be made of a proprietary Heat Shrink adaptors or specialist adaptor couplings.

A simpler and more secure alternative is to use a Caroflow Threaded adaptor with any Caroflow Threaded outlet.

Cast Iron – All Caroflow Spigot Outlets are sized for direct connection to leading socketless and socketed cast iron systems to BS416:1990 or BS EN 877:1999. Spigot and socket systems must be jointed according to manufacturers recommendations.

Screw Threaded Steel – All Caroflow threaded connection outlets are manufactured with BS21 female parallel screwed sockets, for direct connection to tube to BS EN 10226:2005.

These tubes are pre-screwed with male taper threads to BS21 and provide total gas tight security.

Aluminium – All Caroflow Spigot outlets will connect directly to aluminium pipes and fittings from leading aluminium pipe manufacturers, using their standard fittings/couplings.

Copper – Only Caroflow Gunmetal outlets should be used for connection to copper pipework. Spigot outlets should be brazed directly to the copper tube. Threaded outlets should make use of a proprietary adaptor, i.e. Yorkshire Imperial Male Iron to Copper adaptor No. 3.

Caroflow Roof Drainage Flow Rates – BS EN 12056-3:2000 (Gravity drainage systems inside buildings – Part 3: Roof drainage, layout and calculation) now specifically limits the drainage capacity that can be used to calculate areas to be drained, so as to prevent siphonic action that may damage internal pipework. Physical testing of all our outlets has shown that the below rates and areas are lower than results that have been seen from this testing.

Type	Description code	Dome Grate		Flat Grate	
		M2	ltrs/sec	M2	ltrs/sec
Vertical Spigots	50/VS	82	1.70	82	1.70
	75/VS	240	5.00	240	5.00
	100/VS	514	10.70	514	10.70
	150/VS	725	15.10	787	16.40
Vertical Threaded	50/VT	82	1.70	82	1.70
	75/VT	240	5.00	240	5.00
	100/VT	514	10.70	514	10.70
	150/VT	730	15.20	736	15.90
45° Spigots	50/45S	82	1.70	82	2.68
	75/45S	240	5.00	240	6.97
	100/45S	422	8.77	497	10.34
45° Threaded	50/45T	82	1.70	82	1.70
	75/45T	240	5.00	240	5.00
	100/45T	417	8.68	484	10.06
90° Spigots	50/90S	82	2.20	82	1.70
	75/90S	184	3.82	192	4.00
	100/90S	348	7.24	398	8.28
90° Threaded	50/90T	82	2.20	82	1.70
	75/90T	181	3.77	196	4.07
	100/90T	343	7.14	391	8.13
	150/90T	507	10.60	624	13.00
Two-Way Outlets (Horizontal)	50/TW	–	–	58	1.20
	75/TW	–	–	96	2.00
	100/TW	–	–	114	2.38
	150/TW	–	–	141	2.95
Two-Way Outlets (Vertical)	50/TW	–	–	82	1.70
	75/TW	–	–	198	4.12
	100/TW	–	–	376	7.83
	150/TW	–	–	395	7.95
Balcony Outlets	50/BO	–	–	82	1.70
	75/BO	–	–	240	5.00
	100/BO	–	–	363	7.55
Kompact Balcony Outlets	50/KBO	–	–	82	1.70
	75/KBO	–	–	240	5.00
Gulley Outlet Spigots	75/GOS	240	5.00	–	–
	100/GOS	514	10.70	–	–

All rates are assuming that the outlet grate is free and clear of any debris/blockages. Results are based on a rainfall intensity of 75mm per hour and a 35mm head of water adjacent to the outlet (45mm head for 160mm outlets as per EN 1253-2:2015).

The above flow rates should be used as a guide only. Each drainage area will have individual features that may influence overall flow characteristics.

Please contact the Technical Services Department on [01763] 244446 for further advice.