**Pure Gym Ltd**

**Typical Gym Drainage Flow Rates - Maximum**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Sanitaryware** | **Total Number:** | **Max flow rate per min’** | **BREEAM Base**  |
| WC’s | 2 male3 female1 disabled | 6 | 6.67 – based on 2 flushes per person per hour (cistern volume = 4.5 litres) | 6 litres flush volume per WC  |
| Urinals | 2 male | 2 | 0.134 – based on 4 litres per hour | 7.5 litres per hour |
| Wash Basins | 2 male2 female1 disabled | 5 | 50 – based on 6.67 uses per min in line with WC usage | 12 litres per min per basin |
| Sinks | 1 Staff Room1 Cleaners | 2 | 15 – based on both being in use at same time | 12 litres per min per basin |
| Showers | 7 male7 female1 disabled | 15 | 135 – based on 9 litres per minute per shower | 14 litres per min per shower  |
|  |  | **Maximum flow rate per min’** | **206.804 litres/min’** |  |

**Flow Rate Calculated as m3 per day:**

Assuming peak hours to be 7 hrs/day and maximum usage of all fittings during this time, therefore 100% usage; 206.804 litres/m = 12,408 litres per hour = 12.408 m3 per hour.

12.408m3 x 7 hours peak operation = 86.86m3

Assuming daytime moderate use to be 10 hrs/day and 50% of maximum use is applied to all fittings during this time, therefore 50% usage; 6.204m3 per hour.

6.204m3 x 10 hours = 62.04m3

Assuming night time off-peak usage is 7 hours (11pm – 6am) and only 10% usage during this time, therefore 10% usage; 1.24m3 per hour.

1.24m3 x 7 hours = 8.69m3

**Total drainage for 24 hours = 157.59m3**