

Dispensing Disk Set

The SDM-1 comes with a sampler of 5 pre-calibrated dispensing disks (its dosing element) covering the volumetric dose range of 2.5mm³ - 300mm³. This range corresponds to single dose sizes of about 2mg – 300mg (depending on material; for a nominal bulk density of around 1,0 g/ml).

The disks can be swapped readily in the dispensing head (see user manual pages 8-12 of SDM-1 user manual and pages 20-23 of the SDB-1 user manual).

Disk		1	2	3	4	5
Volume		2.5mm ³	15mm ³	50mm ³	150mm ³	300mm ³
Example Material A Bulk density 0.3g/ml	1x dose:	0.75mg	4.3mg	7.5mg	45.0mg	90.0mg
	2x dose:	1.5mg	8.6mg	15mg	90.0mg	180.0mg
	3x dose:	2.25mg	12.9mg	22.5mg	135.0mg	270.0mg
Example Material B Bulk density 0.7g/ml	1x dose:	1.75mg	10.5mg	35mg	90.0mg	180.0mg
	2x dose:	3.5mg	21.0mg	70mg	180.0mg	360.0mg
	3x dose:	1.75mg	31.5mg	105mg	270.0mg	540.0mg
Example Material C Bulk density 1.0g/ml	1x dose:	2.5mg	15mg	50mg	150mg	300mg
	2x dose:	5mg	30mg	100mg	300mg	600mg
	3x dose:	7.5mg	45mg	150mg	450mg	900mg
Example Material D Bulk density 1.9g/ml	1x dose:	4.75mg	28.5mg	95mg	285mg	570mg
	2x dose:	9.5mg	57.0mg	190mg	570mg	1.14g
	3x dose:	14.25mg	85.5mg	285mg	855mg	1.74g

With this array of swappable dispensing disks, a multitude different dose sizes becomes available by switching disks in the dispensing head as well as selecting multiple shots of the single dose value.

More detailed information (including calculators to convert to dose sizes in mass) can be found here:

<https://xqinstruments.com/dispensing-solutions/#methods-applications>

The dispensing disk sampler allows experimenting with different dose volumes and multiple dose shots to obtain the desired results. This can help if the bulk density of the material is not established and samples cannot be made available to XQ Instruments for calibration.

For specific dose volumes which are not falling exactly onto one of these dispensing disk sizes, we continue to offer custom calibration of dispensing disks to any specific volume in the range, and these disks come with testing and calibration certificate.