

Dispensing Disk Set

The small dispensing head comes with a sampler of 10 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 12-16 of SDH-1 user manual and pages 20-23 of the SDB-1 user manual).

Disk		1	2	3	4	5	6	7	8	9	10
Volume		2.5mm ³	7.5mm ³	15mm ³	25mm ³	50mm ³	75mm ³	100mm ³	150mm ³	200mm ³	300mm ³
Example Material A Bulk density 0.3g/ml	1x dose:	0.75mg	2.25mg	4.3mg	7.5mg	15mg	22.5mg	30.0mg	45.0mg	60.0mg	90.0mg
	2x dose:	1.5mg	4.5mg	8.6mg	15mg	30mg	45.0mg	60.0mg	90.0mg	120.0mg	180.0mg
	3x dose:	2.25mg	6.75mg	12.9mg	30mg	45mg	67.5mg	90.0mg	135.0mg	180.0mg	270.0mg
Example Material B Bulk density 0.7g/ml	1x dose:	1.75mg	5.25mg	10.5mg	17.5mg	35mg	52.5mg	60.0mg	90.0mg	120.0mg	180.0mg
	2x dose:	3.5mg	10.5mg	21.0mg	35.0mg	70mg	105.0mg	120.0mg	180.0mg	240.0mg	360.0mg
	3x dose:	1.75mg	15.75mg	31.5mg	52.5mg	105mg	157.5mg	180.0mg	270.0mg	360.0mg	540.0mg
Example Material C Bulk density 1.0g/ml	1x dose:	2.5mg	7.5mg	15mg	25mg	50mg	75mg	100mg	150mg	200mg	300mg
	2x dose:	5mg	15mg	30mg	50mg	100mg	150mg	200mg	300mg	400mg	600mg
	3x dose:	7.5mg	22.5mg	45mg	75mg	150mg	225mg	300mg	450mg	600mg	900mg
Example Material D Bulk density 1.9g/ml	1x dose:	4.75mg	14.25mg	28.5mg	47.5mg	95mg	142.5mg	190.0mg	285mg	380mg	570mg
	2x dose:	9.5mg	28.5mg	57.0mg	95mg	190mg	285mg	380.0mg	570mg	760mg	1.14g
	3x dose:	14.25mg	42.75mg	85.5mg	142.5mg	285mg	427.5mg	570.0mg	855mg	1.14g	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.