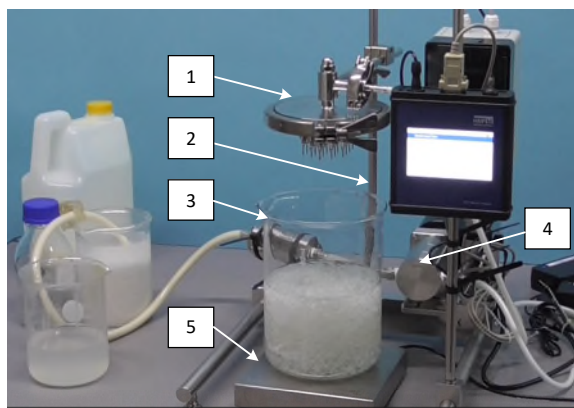


Encapsulation Unit VARGravity2Go with a maximum of 30 nozzles

Nisco Engineering AG

Wehntalerstrasse 562
CH-8046 Zurich, Switzerland
Tel: +41 44 380 06 30
Fax: +41 44 380 06 31
e-mail: mailbox@nisco.ch
<http://www.nisco.ch>



1. Head with a maximum of 30 nozzles with stainless steel Luer-Lock adapters
2. Laboratory support
3. Beaker with hardening solution and micro-capsules
4. Gear pump
5. Laboratory agitator

Laboratory support consists of:

1. Stainless steel base frame
2. Stainless steel bar diameter 12mm to adjust the head's height

Multi-nozzle head

Material:

- Stainless steel 1.4435 (in contact with product) with ferrite content <1%
- Gaskets for the nozzles PTFE
- O-Rings EPDM

For all materials which are in direct contact with product the material certificates are available (for pharmaceutical production). For the nozzles the certificates are only available if stainless steel nozzles are ordered.

Nozzles and blind caps available:

A wide range of Luer-Lock nozzles are available from OD 0.2 up to OD 2.6mm

There are also blind caps available, which can be mounted instead of a nozzle.

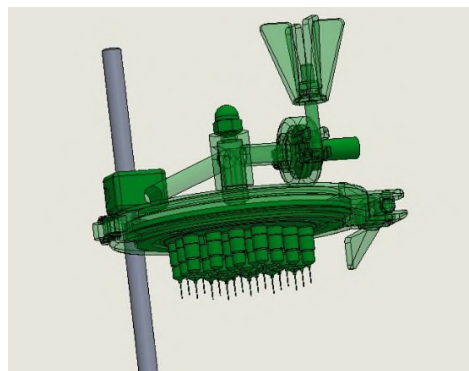
Customised nozzles are available to be mounted directly on the nozzle plate without the Luer-Lock adapters.

Design of the Unit:

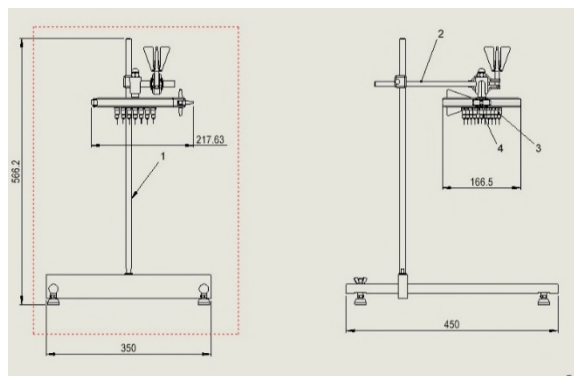
The unit is available in three versions: with 10, 24 and 30 nozzle plate.

Addition system can be pressurised flask (or stainless steel vessel) or peristaltic (or gear) pump

Head with 30 nozzles



Dimensions in mm:



Advantages of unit:

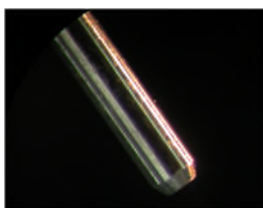
- The head can easily be opened for cleaning and inspection without a tool by means of a clamp connection.
- The Luer-Lock connectors for the nozzles are standardised. So standard nozzles can be used, and they are easy to be exchanged.
- There is an upper clamp flange with a tri-clamp connection for feeding your matrix.
- Lower flange can be integrated on a sterile closed system in future.

**Nozzles with Flat Cut Nozzle Tip
(body chromium plated)**



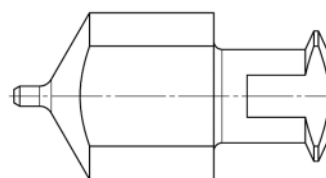
OD [mm]	ID [mm]	Material	Nisco Part No.
0.20	0.09	Cr/1.4301	PE-00574
0.25	0.12	Cr/1.4301	PE-01281
0.35	0.17	Cr/1.4301	PE-00515
0.50	0.25	Cr/1.4301	PE-00575
0.70	0.40	Cr/1.4301	PE-00516
0.80	0.50	Cr/1.4301	PE-01035
0.90	0.60	Cr/1.4301	PE-00576
1.10	0.70	Cr/1.4301	PE-00577
1.20	0.80	Cr/1.4301	PE-00968
1.30	0.90	Cr/1.4301	PE-01269
1.50	1.00	Cr/1.4301	PE-01414
1.60	1.10	Cr/1.4301	PE-01415
1.70	1.20	Cr/1.4301	PE-01416
1.80	1.30	Cr/1.4301	PE-01417
2.00	1.50	Cr/1.4301	PE-00966
2.40	1.80	Cr/1.4301	PE-01790
2.60	2.00	Cr/1.4301	PE-01791

**Nozzles with Conical Polished Nozzle Tip
(body brass chromium plated, needle 14301)**

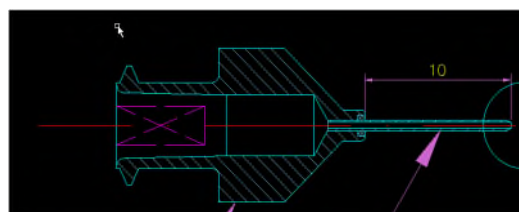


OD [mm]	ID [mm]	Material	Nisco Part No.
0.20	0.09	Cr/1.4301	PE-00913
0.35	0.17	Cr/1.4301	PE-00940
0.50	0.25	Cr/1.4301	PE-00950
0.50	0.30	Cr/1.4301	PE-00920
0.70	0.40	Cr/1.4301	PE-00947
0.80	0.50	Cr/1.4301	PE-00952
0.90	0.60	Cr/1.4301	PE-00948
1.10	0.70	Cr/1.4301	PE-00949

Stainless Steel Nozzle with Conical Polished Nozzle Tip



Form A



Form B

ID [mm], OD[mm]	Material	Nisco Part No.
ID 0.80mm, OD 1.20mm	1.4435/Form A	D-02936
ID 0.70mm, OD 1.10mm	1.4435/Form A	D-00921
ID 0.60mm, OD 0.90mm	1.4435/Form A	D-00970
ID 0.50mm, OD 0.80mm	1.4435/Form A	D-00971
ID 0.40mm, OD 0.70mm	1.4435/Form A	D-00972
ID 0.30mm, OD 0.50mm	1.4435/Form A	D-00973
ID 0.25mm, OD 0.50mm	1.4435/Form A	D-00974
ID 0.17mm, OD 0.35mm	(body 1.4435, needle 1.4301)/ Form B	A-00334
ID 0.12mm, OD 0.25mm	(body 1.4435, needle 1.4301)/ Form B	A-00547
ID 0.09mm, OD 0.20mm	(body 1.4435, needle 1.4301)/ Form B	A-00333

Conversion Table (Gauge / mm)

Gauge	Ø mm	Gauge	Ø mm
6G	5.0000	30G	0.3150
7G	4.5000	31G	0.2946
8G	4.0000	32G	0.2743
10G	3.5000	33G	0.2540
11G	3.0000	34G	0.2337
12G	2.8000	35G	0.2134
13G	2.4000	36G	0.1930
14G	2.00/2.10	37G	0.1727
15G	1.8000	38G	0.1524
16G	1.6000	39G	0.1321
17G	1.40/1.50	40G	0.1219
18G	1.20/1.30	41G	0.1118
19G	1.00/1.10	42G	0.1016
20G	0.9000	43G	0.0914
21G	0.8000	44G	0.0813
22G	0.7000	45G	0.0711
23G	0.6000	46G	0.0610
24G	0.5500	47G	0.0508
25G	0.5000	48G	0.0406
26G	0.4500	49G	0.0305
27G	0.4000	50G	0.0254
28G	0.3500		