

# Softgel Systems

## Product Data







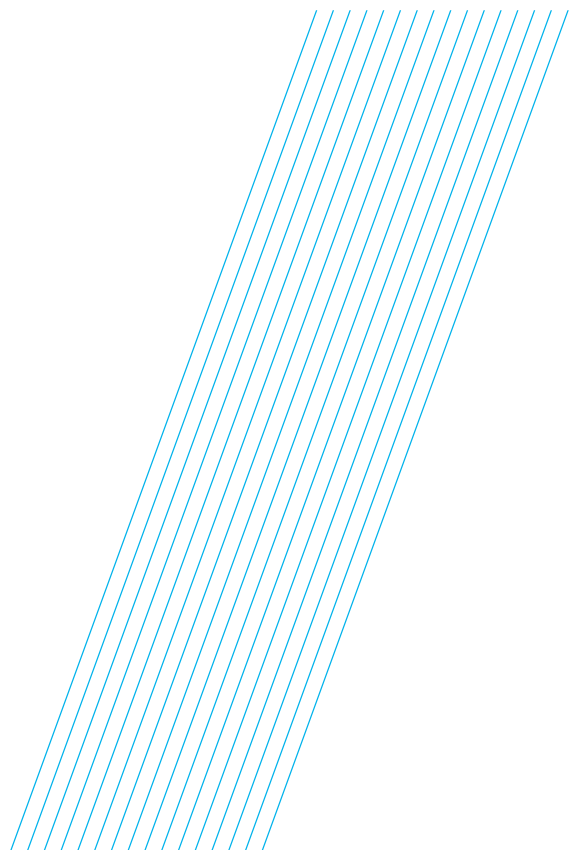
# Softgel Systems Product Data

## Contents

---

ALPHA <b>SG</b>	100
DELTA <b>SG</b>	250
SIGMA <b>SG</b>	250S (Servo)

---



# ALPHASG100

## Softgel System

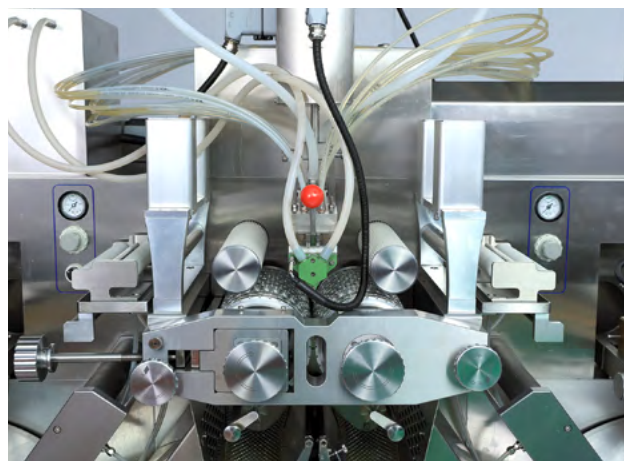
The AVE Technologies ALPHASG100 softgel production system is a space saving, stand alone, all-in-one softgel encapsulation system capable of full production duties.

With speeds up to 5 RPM and production volumes up to 22,800 softgels per hour @ 8 Oval 4 RPM base on oil. This is an attractive system for cost conscious start-ups, smaller production batches, or research and development.



ALPHA**SG100** includes many standard features increasing performance and reliability, these features include:

- Up to 22,800 pcs/hour(8# OVAL 4RPM)
- All-in-one set up includes everything you need to get up and running
- Variable operation speeds up to 5RPM
- Compact size allows for smaller footprint
- Quick and easy replacement of change parts
- Suitable for use in pharmaceutical, food and recreational industries
- Colour touchscreen control provides easy production management
- Tumble dryers have large, high powered centrifugal fan
- Vgel plant based gelatin option



#### Production Estimates:

Size/Shape	Cavities	Output/hr @ 4RPM
6 Oval	100	24,000
8 Oval	95	22,800
10 Oval	72	17,280
8 Oblong	80	19,200
20 Oblong	34	8,160
6 Round	108	25,920
40 Round	24	10,560

Production rates may vary depending on machine speed, fill material viscosity, and operator experience.

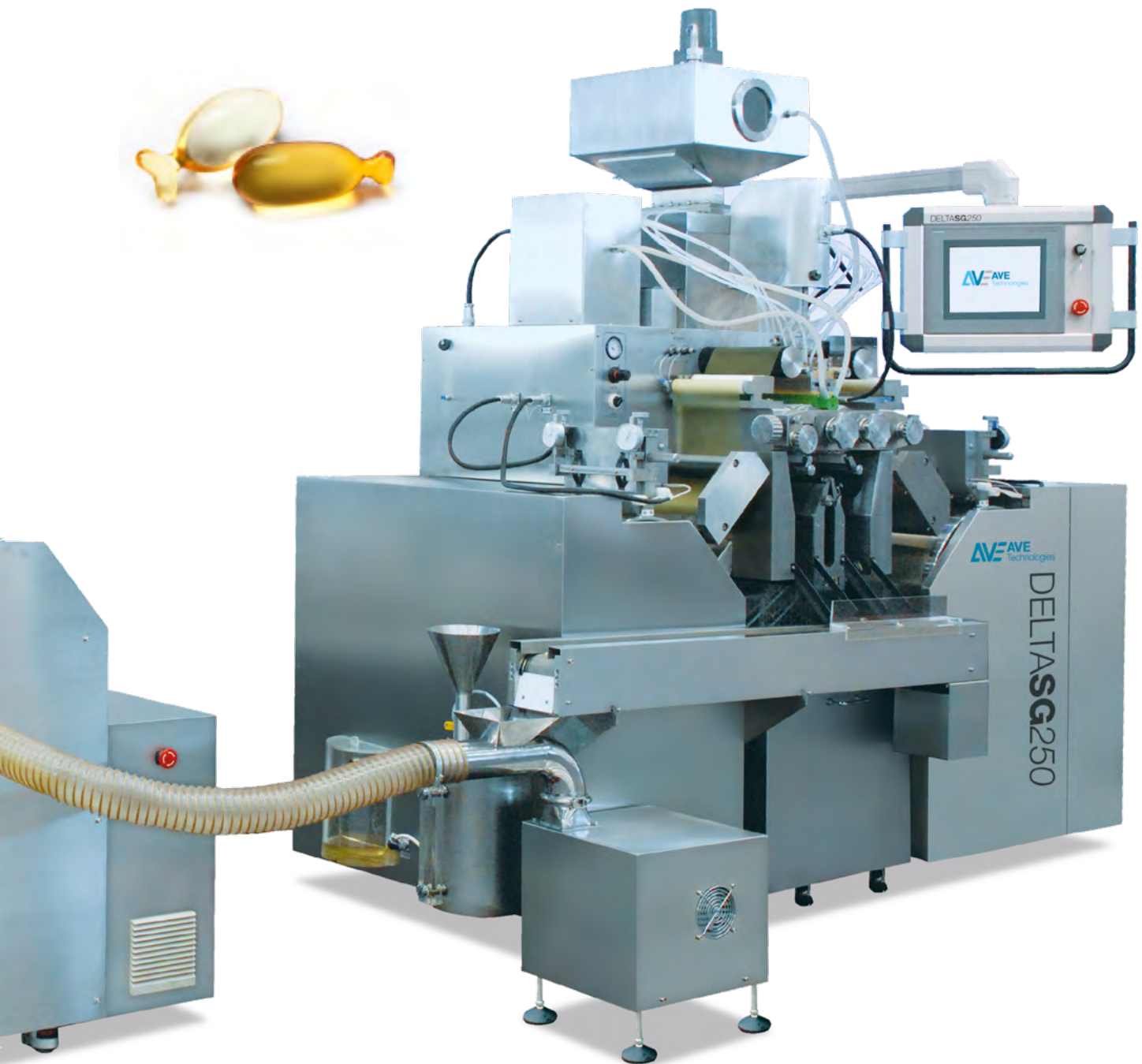
#### Technical Specifications:

ALPHA <b>SG100</b>	
Die Roll (Dia)	Ø 80 x 100 mm
Speed	Up to 5 RPM
Capacity (8# Oval 4RPM)	22,800 pcs/h
Power	220V/380V, 50/60Hz, 3 Phase, 5 Kw
Dimensions	1450 x 660 x 1350 mm
Weight	400 Kg (approx)
Tumble Dryers	2
Tumbler Dryer (Dia)	Ø 415 x 561 mm
Dimensions	1220 x 525 x 715 mm



# DELTA**SG**250

## Softgel System

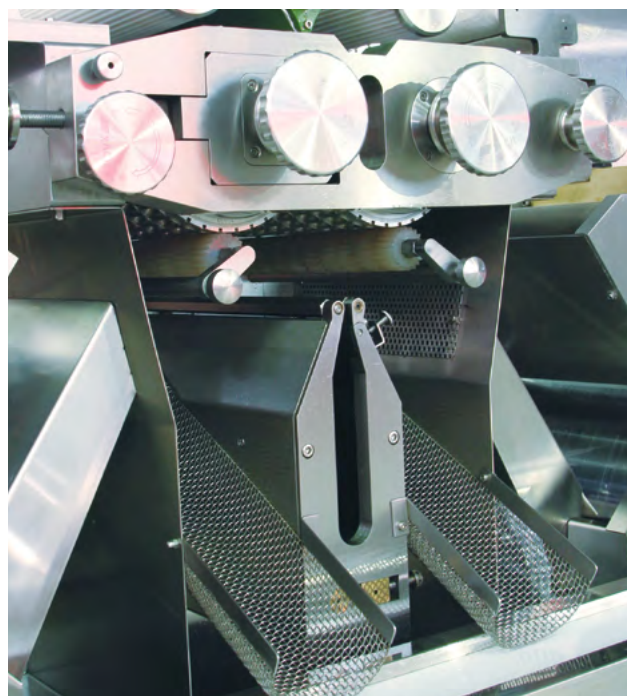


The DELTA**SG**250 softgel production system is ideal for varying output requirements. Ranging from smaller start-up operators to large scale production needing the world's fastest softgel encapsulator.

It offers speeds up to 5 RPM and production volumes up to 112,320 softgels per hour @ 8 Oval at 4 RPM base on oil. The system offers the ability to produce both standard animal gelatin as well as popular Vgel plant based gelatin softgels.

**DELTA SG250 includes many standard features, increasing performance and reliability:**

- Up to 112,320 pcs/hour (8 OVAL at 4PRM)
- All-in-one set up includes everything you need to get up and running
- Operating speed up to 5RPM
- Die roll Ø150×250mm AL7075 Dura Aluminum fabrication
- Quick and easy replacement of change parts
- Teflon coated brass machine injection wedge
- Color touchscreen control provides easy production management
- Suitable for use in pharmaceutical, food and recreational industries
- PLC control with HMI touch screen panel
- Automatic Gelatin Ribbon Control System optional



**Production Estimates:**

Size/Shape	Cavities	Output/hr @ 4RPM
6 Oval	532	127,680
8 Oval	468	112,320
10 Oval	442	106,080
8 Oblong	455	109,200
20 Oblong	238	57,120
6 Round	608	145,920
40 Round	286	68,640

Production rates may vary depending on machine speed, fill material viscosity, and operator experience.

**Technical Specifications:**

<b>DELTA SG250</b>	
Die Roll (Dia)	Ø 150 x 250 mm
Speed	Up to 5 RPM
Capacity (8# Oval 4RPM)	112,320 pcs/h
Power	220V/380V, 50/60Hz, 3 Phase, 12 Kw
Dimensions	2100 x 1100 x 1900 mm
Weight	1500 Kg (approx)
Tumble Dryers	6
Tumble Dryer (Dia)	Ø 600 x 900 mm
Dimensions	6000 x 1000 x 1060 mm

# SIGMA**SG**250S (Servo)

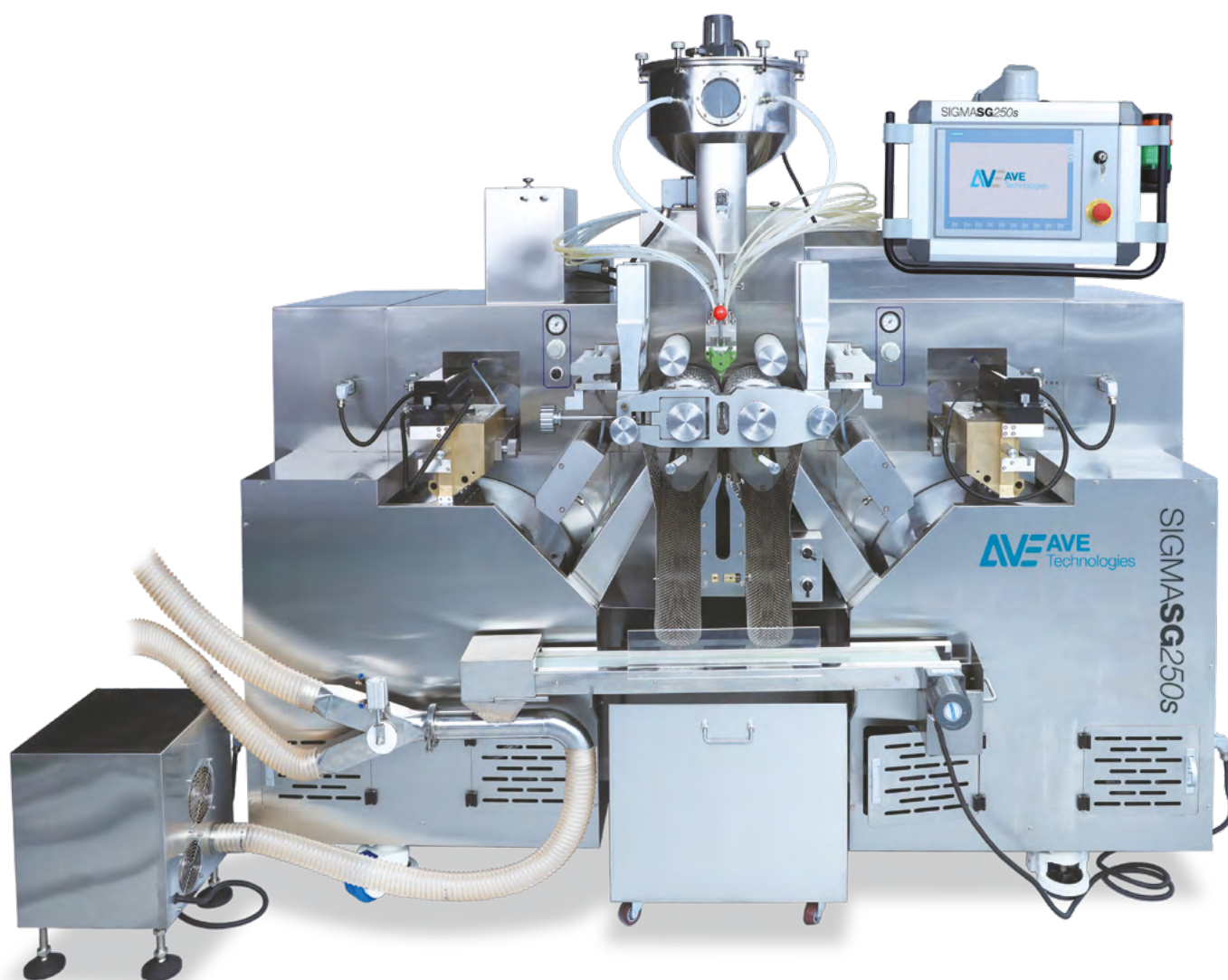
---

## Softgel System

The SIGMA**SG**250S softgel production system from AVE Technologies is ideal for varying output requirements. Ranging from smaller start-up operators to large scale production needing the world's fastest softgel encapsulator.

With speeds up to 8 RPM and production volumes up to 168,480 softgels per hour @ 8 Oval at 6 RPM base on oil.

Also suitable for use with standard animal gelatin as well as popular Vgel plant based gelatin softgels.





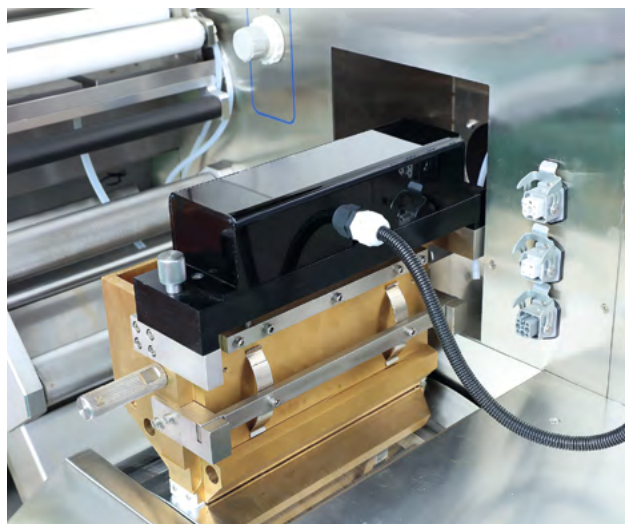
**SIGMA<sup>SG</sup>250S includes many standard features, increasing performance and reliability:**

- Automatic Adjusting Die Alignment System
- Automatic Gelatin Ribbon Control System
- Automatic Filling Volume Adjustment System
- Servo-drive filling pump
- Servo-drive left and right spindle separately
- High speed 8RPM(Maximum)
- PLC control with HMI touch screen panel
- Suitable for use in pharmaceutical, nutraceutical and food industries

#### Production Estimates:

Size/Shape	Cavities	Output/hr @ 6RPM
6 Oval	532	191,520
8 Oval	468	168,480
10 Oval	442	159,120
8 Oblong	455	163,800
20 Oblong	238	85,680
6 Round	608	218,880
40 Round	286	102,960

Production rates may vary depending on machine speed, fill material viscosity, and operator experience.



#### Technical Specifications:

SIGMA <sup>SG</sup> 250S	
Die Roll (Dia)	Ø 150 x 250 mm
Speed	Up to 8 RPM
Capacity (8# Oval 4RPM)	168,480 pcs/h
Power	220V/380V, 50/60Hz, 3 Phase, 12 Kw
Dimensions	2350 x 1200 x 2000 mm
Weight	1500 Kg (approx)
Tumble Dryers	36
Tumbler Dryer (Dia)	Ø 600 x 900 mm
Tumbler Dimensions	18000 x 1000 x 2260 mm

# ANCILLARY EQUIPMENT

---



## CHILLER

---

The chilling unit is modular to fit your available floor space.

- Refrigeration capacity: 7.91Kw
- Power: 220 V 50 Hz 1P 3.33Kw
- Dimensions: 930 x 520 x 975 mm
- Weight: 135Kg



## TUMBLE DRYERS

---

Each tumble dryer has been designed to provide fast and easy drying of a softgel capsule, stability of machine operation, user convenience, and safety.

- Drum size: ø 600 x 900 mm
- Mix speed: 0-29rpm
- Power supply: 380 V 50 Hz 3P, 5Kw
- Dimensions: 2000 x 1000 x 2260 mm (one unit with 4 tumblers)
- Weight: 1000 Kg



## DRYING TRAYS

---

The softgels come out of the tumble dryers and are placed on paper lined drying trays. The trays are then stacked on dollies and pushed into drying tunnels.

- Dimensions: 750 x 475 x 55mm



## GEL MELTER

---

600 litre capacity gelatin melting and mixing tank is made from all stainless steel construction with sanitary stainless steel valves and clamps, a triple wall jacket with breather.

- Volume: 600L
- Temperature: <100°C
- Power: 5.5Kw
- Mix speed: 35rpm
- Dimensions: ø1200 x 1900 mm
- Weight: 650Kg













































## TOOLING

---

The softgel tooling is custom made to your specific requirements. It features hardened aircraft grade aluminum, coloured timing marks, and "bead blasting" to minimize gel adhesion.

- 2 die rolls with stainless steel inserts
  - Teflon ceramic coated brass wedge
  - Solid Teflon distribution plate
  - Industrial, compact storage case
  - Timing gear
-

# CAPSULE SHAPES & SIZES

 3 Oblong minims : 2.3 - 3.0 cc : 0.142 - 0.185	 4 Oblong minims : 3.0 - 4.0 cc : 0.185 - 0.246	 5 Oblong minims : 4.0 - 5.0 cc : 0.246 - 0.308	 6 Oblong(2) minims : 5.0 - 6.0 cc : 0.308 - 0.370	 8 Oblong minims : 6.5 - 8.0 cc : 0.400 - 0.493
 9½ Oblong minims : 7.5 - 9.5 cc : 0.462 - 0.585	 11 Oblong(1) minims : 8.5 - 11.0 cc : 0.524 - 0.678	 11 Oblong(3) minims : 8.5 - 11.0 cc : 0.524 - 0.672	 14 Oblong minims : 12.5 - 14.0 cc : 0.770 - 0.862	
 16 Oblong minims : 14.5 - 16.0 cc : 0.862 - 0.986	 20 Oblong minims : 16.0 - 20.0 cc : 0.986 - 1.232	 22 Oblong minims : 18.0 - 22.0 cc : 1.109 - 1.355	 24 Oblong minims : 20.0 - 24.0 cc : 1.232 - 1.478	
 1 Round minims : 0.75 - 1.0 cc : 0.046 - 0.062	 2 Round minims : 1.2 - 2.0 cc : 0.074 - 0.124	 3 Round minims : 2.2 - 3.0 cc : 0.136 - 0.185	 4 Round minims : 2.8 - 4.0 cc : 0.172 - 0.246	 5 Round minims : 3.2 - 5.0 cc : 0.197 - 0.308
 6 Round minims : 4.6 - 6.0 cc : 0.283 - 0.370	 7 Round minims : 5.0 - 7.0 cc : 0.308 - 0.431	 9 Round minims : 7.0 - 9.0 cc : 0.431 - 0.554	 15 Round minims : 12.0 - 15.0 cc : 0.740 - 0.925	 20 Round minims : 15.0 - 20.0 cc : 0.925 - 1.230
 2 Oval minims : 1.5 - 2.3 cc : 0.092 - 0.142	 3 Oval minims : 2.4 - 3.0 cc : 0.148 - 0.185	 4 Oval minims : 3.1 - 4.0 cc : 0.191 - 0.246	 4 Oval(2) minims : 3.1 - 4.0 cc : 0.191 - 0.246	 5 Oval minims : 4.3 - 5.0 cc : 0.265 - 0.308
 6 Oval minims : 5.2 - 6.0 cc : 0.320 - 0.370	 7½ Oval minims : 6.2 - 7.5 cc : 0.382 - 0.642	 8½ Oval minims : 7.0 - 8.5 cc : 0.431 - 0.524	 10 Oval minims : 7.5 - 10.0 cc : 0.462 - 0.616	 12 Oval minims : 8.3 - 12.0 cc : 0.511 - 0.739
 16 Oval minims : 12.4 - 16.0 cc : 0.764 - 0.986	 20 Oval minims : 17.0 - 20.0 cc : 1.047 - 1.232			
 8 Tubs minims : 6.0 - 8.0 cc : 0.370 - 0.493	 17½ Tubs minims : 15.0 - 17.0 cc : 0.924 - 1.047	 6 Suppository minims : 5.0 - 6.0 cc : 0.308 - 0.370	 10 Suppository minims : 7.0 - 10.0 cc : 0.430 - 0.620	 17 Suppository(1) minims : 15.0 - 20.0 cc : 0.924 - 1.232
 30 Tubs(1) minims : 27.0 - 32.0 cc : 1.663 - 1.971				 8 Twist-off 493ml



---

**AVE Technologies also offer:**

Tablet Compression Solutions

Encapsulation Solutions

Coating Systems

Cartoning Systems

All images are for illustrative purposes.  
Specifications are subject to regular  
updating. Please contact AVE Technologies  
for latest product details.

**AVE Technologies Ltd.**  
**T:** +44(0)1342 458 248 **E:** [info@avetechnologies.co.uk](mailto:info@avetechnologies.co.uk)  
[www.avetechnologies.co.uk](http://www.avetechnologies.co.uk)

