



GEA Aquarius

Be Different



Be different

GEA is one of the largest suppliers of process technology for the food industry and a wide range of other industries. As an international technology group, the company focuses on world-leading engineering, equipment and components for sophisticated production processes.

Line Solutions

GEA is widely recognized for its GEA Aquarius lollipop forming, cooling and wrapping machines, but less well-known for its capability to supply complete and upgradable lines. They are categorized according to capacity and lollipop type, and range from simple configurations to full-custom. The lines can also include control, interfacing, transport and monitoring.

Technology Center Weert

The total package includes configuration advice, training at the GEA Campus, global customer support and the opportunity to test and evaluate solutions in the completely renewed GEA Technology Center in Weert, the Netherlands. Here you will not only see the latest lollipop- and vertical form-fill-seal machines in operation, but you can also experience the latest technologies such as label-on-stick, label-on-film as well as state of the art stand-up confectionery pouches. GEA's engineers and applications specialists are at your disposal to talk about your opportunities and requirements. You are most welcome to visit our production site and technology center in Weert.



A miniature park scene where the trees are replaced by giant lollipops on white sticks. The lollipops are in various colors: green, red, orange, yellow, and white. In the center, a gravel path leads into the distance. Several tiny human figures are on the path: two people on horseback in the background, a man and a woman standing with a small black dog in the foreground, and a person carrying a long stick on the right. The background is a soft-focus forest with autumn-colored leaves. The top right corner of the image is cut off by a white diagonal line.

We make it a walk in the park

BENEFITS GEA AQUARIUS BALL LOLLIPOP SOLUTIONS

- Possibility of producing flavorful lollipops with fillings of gum, chewy candy powders or pastes and positioning of colors
- Easy change forming set, within 1 hour
- Upgradability of forming, cooling and wrapping machines
- Possibility to overview line production with PopFormance Tool

GEA Aquarius Line Solutions

Ball Lollipop

GEA Aquarius offers you as a single source, versatility with our standard line solutions, starting from forming to cooling and wrapping of ball, flat and three dimensional lollipop shapes. Starting speeds from 300 up to 2100 lollipops per minute.

These lines include our renowned machines such as the GEA Aquarius FlexFormer machines with best of its class GEA Aquarius PopCooler range for cooling. For highest performance and output our reliable wrapping machines the GEA Aquarius BunchWrapper and / or TwistWrapper machines can be included in this solution. To complete the line solution we can offer our PopFeeder system which automatically feeds the lollipops towards the wrapping machines.

Ball Lollipop lines according to capacity (depending on diameter/width)

Ball Lollipop Start-up line	Up to 550 lollipops per minute (upgradable)
Ball Lollipop Medium capacity line	Up to 950 lollipops per minute
Ball Lollipop Standard capacity line	Up to 1350 lollipops per minute (upgradable)
Ball Lollipop High capacity line	Up to 2100 lollipops per minute

GEA Ball Lollipop Line Solutions



GEA Aquarius Line Solutions

Flat Lollipop

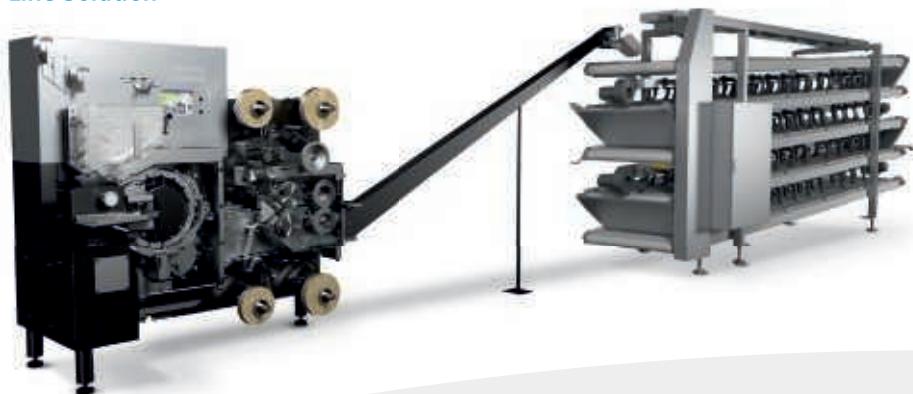
Furthermore GEA Aquarius is offering you for many years a complete solution, starting from forming and immediate wrapping of the lollipop to an inline transporting of the lollipops towards the PopCooler F for flat, fancy and three dimensional lollipops shapes. Starting speeds from 600 up to 1000 lollipops per minute.

These lines include our well known reliable range GEA Aquarius FlatformWrap machines and GEA Aquarius PopCooler F machines. Furthermore we can provide a system to stripwrap the sandwichwrapped lollipops up to 10 - 12 pieces in one string with our latest option a perforation unit. An automatic rejection system for faulty lollipops for instance in start and stop situations of the line can be included.

Flat Lollipop lines according to capacity (depending on shape and weight)

Flat Lollipop Standard capacity line	Up to 600 lollipops per minute
Flat Lollipop High capacity line	Up to 1000 lollipops per minute

GEA Flat Lollipop Line Solution



We make it easy going



BENEFITS GEA AQUARIUS FLAT LOLLIPOP SOLUTIONS

- Forming and wrapping in one single machine
- Easy format change within 20-25 minutes
- Possibility to stripwrap together with perforation unit
- Compact footprint

Have 3D pops,
shaped your way



GEA Aquarius Line Solutions

3D PopLine

This line is inspired by the demand from the market to diversify lollipops. To enable you to present a unique shape, which automatically is linked to your brand, we made it possible for you to produce a beautiful 3D shaped lollipop on this PopLine.

This full automatic line, including fully integrated forming machine, cooling system and sandwichwrapper includes overall line controls. The total line is servo controlled, to ensure the correct positions of the lollipops throughout the total process. Suitable for a large range of 3D and flat lollipops. Possibility to stripwrap the sandwichwrapped lollipops together with a perforation unit. An automatic rejection unit for faulty lollipops can also be included in this line.

3D PopLine capacity

3D PopLine Standard capacity

Up to 600 lollipops per minute (Pitch 76.2 mm)
(Depending on pitch distance)

GEA 3D PopLine



BENEFITS GEA AQUARIUS 3D POPLINE

- Add instant value and distinguish your product with a high quality 3D shaped lollipops
- Possibility of producing flavorful lollipops with fillings such as gum, chewy candy powders or pastes
- Positioning of colors
- Easy change forming set in approximately 1 hour
- Fully automatic line for production of high quality 3D lollipop shapes
- Various quality checks and automatic reject points to assure efficient continuous operation and product quality

GEA Aquarius Line Solutions

Coating Line

To give you the possibility to create more added value to your lollipops, we have developed the GEA Aquarius Coating Line. Next to the wish to diversify your lollipop shapes there is also the need to differentiate in tastes and appearance of the lollipop. With this modular coating line we give you the opportunity to do both and to add value by coating your lollipops.

This full automatic line, including forming machine, cooling system, liquid and powder application systems, drying system and wrapping machine for the lollipops. Included are the overall line controls. Suitable for a large range of 3D and flat lollipops. This line can include an automatic rejection system for faulty lollipops for instance in start and stop situations of the line. A perforation unit can be added to this line to enable to wrap the lollipops in a beautiful stripwrapped sandwichwrap.

Coating Line capacity	
Coating Line Standard capacity	Up to 600 lollipops per minute (Pitch 76.2 mm)



Benefits GEA Aquarius Coating Line

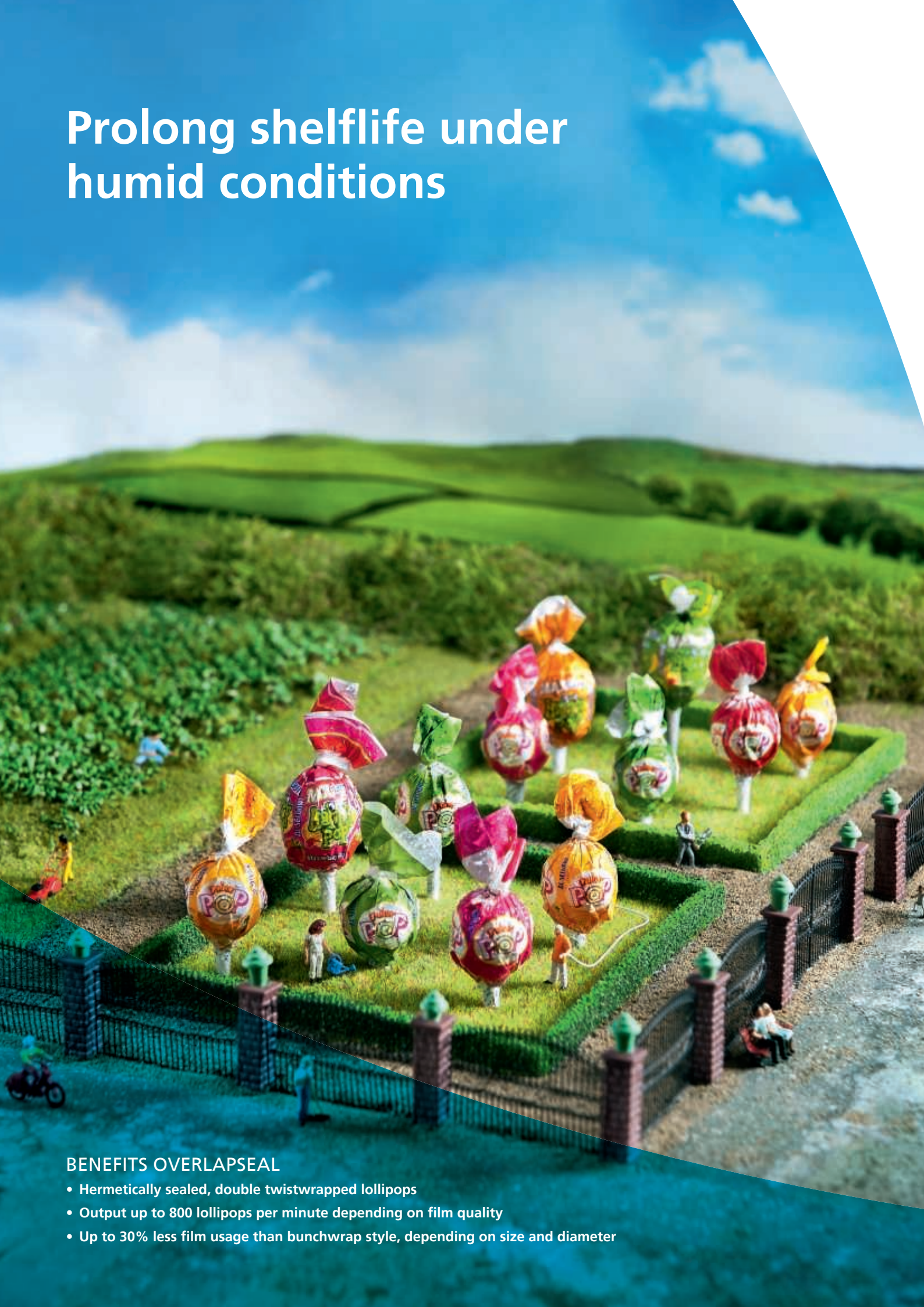
- Distinguish your lollipop by adding taste, color, texture or shine through coating with powder, syrups or granulates
- Possibility of producing flavorful lollipops with fillings of gum, chewy candy powders or pastes
- Positioning of colors
- Easy change forming set in approximately 1 hour
- Fully automatic line for production of high quality 3D coated lollipop shapes
- Various quality checks and automatic reject points to assure efficient continuous operation and product quality

GEA Coating Line

A miniature city street scene with people walking, a person on a bicycle, and a graffiti-covered wall, with a large lollipop on the left.

**Double the pleasure,
add a coating**

Prolong shelflife under humid conditions



BENEFITS OVERLAPSEAL

- Hermetically sealed, double twistwrapped lollipops
- Output up to 800 lollipops per minute depending on film quality
- Up to 30% less film usage than bunchwrap style, depending on size and diameter

GEA Aquarius inspiring options

OverlapSeal

The regular double-twist wrapper has an open longitudinal fold. OverlapSeal option available on the GEA Aquarius TwistWrapper machines the wrapper is hermetically sealed. In areas where the atmospheric humidity is high the lollipops shelf life can be significantly extended because the moisture cannot reach the lollipop. With the tearslit, the OverlapSeal double twist is extremely easy to open.

The heating system with contactless transfer of energy, seals the film around the stick with consistent sealing quality. The film type is polypropylene for which you need a film with a double sealing layer (inner + outer side).

OverlapSeal capacity

OverlapSeal Standard capacity

Up to 800 lollipops per minute



GEA TwistWrapper



GEA Aquarius inspiring options

Label on stick / Label on film

Next to beautiful wrapping options GEA Aquarius latest novelties label on stick and label on film applications offer even more opportunities for product distinction and added value.

The label on stick applies a label around the stick which looks like a flag. On the label you can include product information, branding, themed actions and other promotional information.

The label on film applies a sticker or a tattoo on the inner site of the wrapping.

Label on film / Label on stick capacity	
Label on film	Wraps at speeds up to 600 lollipops per minute
Label on stick	Wraps at speeds up to 800 lollipops per minute

GEA Label on film / Label on stick



BENEFITS LABEL ON STICK

- Instant added value
- Offers extra exposure to your branding
- Promotions can be supported by the label through themed actions

Diversify your lollipops



BENEFITS LABEL ON FILM

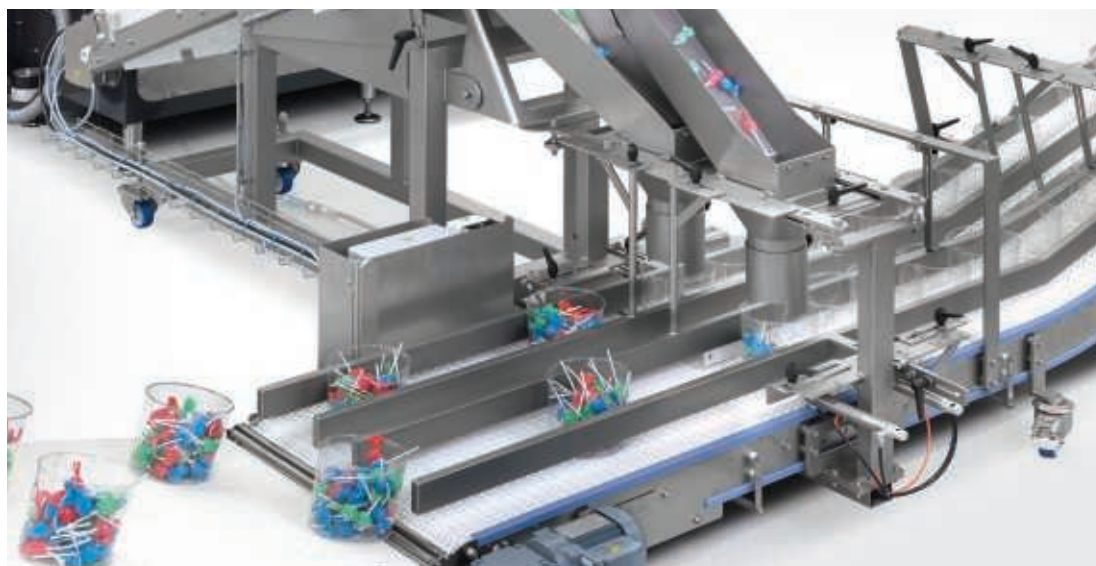
- Instant added value
- Stickers as collector's items, promotional actions
- Insert a variety of tattoos, i.e. related to yearly celebrations, like Halloween, Valentine's day, Easter etc

Let's fill it up



GEA Aquarius inspiring options

Container filling system



GEA Container filling system

There is a clear trend for presenting lollipops on the counter or on the shelf in highly attractive displays. GEA developed several state of the art displaying concepts such as a container filling system for attractive counter display.

Therefore GEA developed a unit for filling lollipops into a container box which is directly linked to the wrapping machine. The container filling system is designed to run with one flavor and one type of container at a time. On request there is also a possibility to fill the lollipops in boxes instead of containers.

Dimensions container / jar

Standard height for container	From 140 mm up to 230 mm
Standard diameter for container	From 120 mm up to 230 mm
Standard jar	Round / cylindrical containers

BENEFITS GEA CONTAINER FILLING SYSTEM

- Automatic filling system for display packs
- Further branding possibilities

GEA Aquarius inspiring packaging options

We also offer you the opportunity to present your lollipops on the counter or shelf with highly attractive packaging. GEA has developed outstanding packaging options such as a Quatro seal bags with supreme stand up capacity that make an appealing shelf presentation. Next to this bag we also offer the EasyDoy packed lollipops or the Pillow packed lollipops.

Pillow bag:

- Most common bag style
- Simple to produce
- High speeds possible



Quatro seal bag:

- Flat bottom
- Stand up pouch with four corner seals
- Attractive on the shelf
- Maximum promotional effect



EasyDoy bag with re-closable tape:

- Two full sides of printing for maximum exposure
- Flat bottom for stand-up presentation
- Re-closable tape
- Excellent filling level which saves film
- Easy machine set up – within 10 minutes



GEA SmartPacker



Let's bag
it up

THE GEA SMARTPACKER INCLUDES:

- Very high capacity
- Able to handle fragile products

GEA Aquarius FlexFormer / FlatFormWr

Technical data sheet	GEA Aquarius FlexFormer Start Up (SU)	GEA Aquarius FlexFormer Medium Capacity (MC)	GEA Aquarius FlexFormer Standard Capacity (SC)
Output (min)	300 lollipops / min	500 lollipops / min	700 lollipops / min
Output (max)	550 lollipops / min	950 lollipops / min	1350 lollipops / min
Dimensions H x W x D	1900 x 1350 x 1100 mm	1900 x 1350 x 1100 mm	2050 x 2320 x 1655 mm
Average machine efficiency (hard candy)	98%	98%	98%
Diameter/width lollipop (min to max)	18 - 35 mm	18 - 35 mm	18 - 35 mm
Lollipop length	16 - 41 mm	16 - 41 mm	16 - 45 mm
Thickness lollipop	12 - 35 mm	12 - 35 mm	12 - 35 mm
Filling inside lollipop	up to 22%	up to 22%	up to 22%
Type filling	non fluid filling	non fluid filling	non fluid filling
Lollipop width 3D	only round 3D	only round 3D	22 - 35 mm
Minimum rim, ball lollipops	4 mm	4 mm	4 mm
Minimum rim 3D lollipops	2 mm	2 mm	2 mm
Diameter stick (min to max)	3.2 - 5.5 mm	3.2 - 5.5 mm	3.2 - 5.5 mm
Stick length (min to max)	75 - 102 mm	75 - 102 mm	75 - 102 mm
Stick material	PVC, PP, Paper, Wood	PVC, PP, Paper, Wood	PVC, PP, Paper, Wood
Power supply	1.5 kW	1.5 kW	3 kW
Wrapping material	not applicable	not applicable	not applicable
Weight wrapping material (max)	not applicable	not applicable	not applicable
Diameter wrapping material (max)	not applicable	not applicable	not applicable
Advised thickness wrapping material	not applicable	not applicable	not applicable
Min spot dimension	not applicable	not applicable	not applicable

* For 3D lollipops

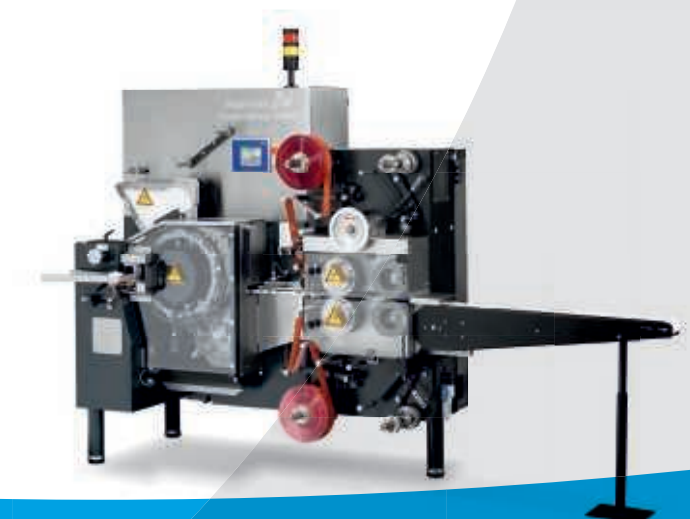


GEA FlexFormer



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GEA Aquarius FlexFormer High Capacity (HC)	GEA Aquarius Flexformwrap Standard Capacity (SC)	GEA Aquarius FlatFormwrap Standard Capacity (SC)	GEA Aquarius FlatFormWrap High Capacity (HC)
1100 lollipops / min			600 lollipops / min
2100 lollipops / min	600 lollipops / min	600 lollipops / min	1000 lollipops / min
2050 x 2320 x 1655 mm	2200 x 2100 x 1800 mm	1995 x 2171 x 1200 mm	1995 x 2171 x 1200 mm
98%	95%*	97%	97%
18 - 35 mm	18 - 32 mm*	18 - 42 mm (depending on pitch)	18 - 42 mm (depending on pitch)
16 - 45 mm	16 - 40 mm*	25.5 - 60 mm	25.5 - 60 mm
12 - 35 mm	12 - 32 mm*	4 - 15.5 mm	4 - 15.5 mm
up to 22%	15 - 20%*	not applicable	not applicable
non fluid filling	non fluid filling	not applicable	not applicable
22 - 35 mm	22 - 32 mm*		
4 mm	4 mm	not applicable	not applicable
2 mm	2 mm	3.5 mm	3.5 mm
3.2 - 5.5 mm	3.2 - 5.5 mm*	3.0 - 4.0 mm	3.0 - 4.0 mm
75 - 102 mm	75 - 102 mm*	76 - 102 mm	76 - 102 mm
PVC, PP, Paper, Wood	PVC, PP, Paper, Wood	PVC, PP, Paper	PVC, PP, Paper, Wood
3 kW	8.2 kW	4.5 kW	5.2 kW
not applicable	Cellophane, Polypropylene PVC	Cellophane, Polypropylene PVC	Cellophane, Polypropylene PVC
not applicable	35 - 45 gr / m ²	35 - 45 gr / m ²	35 - 45 gr / m ²
not applicable	400 mm	400 mm	400 mm
not applicable	25 - 40 mu	25 - 40 mu	25 - 40 mu
not applicable	4 x 8 mm	4 x 8 mm	4 x 8 mm



GEA FlatFormWrapper

GEA Aquarius PopCooler

Technical data sheet	GEA Aquarius PopCooler B Standard Capacity (SC)	GEA Aquarius PopCooler B High Capacity (HC)	GEA Aquarius PopCooler B airco + insulated cabinet
Output (max)	up to 1000 kg / hour	up to 1850 kg / hour	up to 1850 kg / hour
Dimensions (L x W x H)	3980 x 2940 x 2400 mm	3980 x 2940 x 2400 mm	3980 x 2940 x 2400 mm
Dimensions enclosure with airco (L x W x H)	not applicable	not applicable	5260 x 4880 x 4765 mm
Enclosure panel thickness	not applicable	not applicable	80 mm
Number of tiers	3	5	3 or 5
Cooling capacity	ambient air	ambient air	ambient air
Power consumption	2.6 kW	2.6 kW	up to 30 kW / airco glycol based
Air quantity	not applicable	not applicable	up to 15,000 m ³ / hour
Average cooling time	4 to 5 min	6 to 8 min	4 to 8 min
Floor levelness	level 2.5 mm / per m ²	level 2.5 mm / per m ²	level 2.5 mm / per m ²
Floor space	2790 x 3645 mm	2790 x 3645 mm	5260 x 4880 mm

* airco system to be provided by customer



GEA PopCooler B

GEA Aquarius PopCooler F Standard Capacity (SC)	GEA Aquarius PopCooler F High Capacity (HC)	GEA Aquarius PopCooler C	GEA Aquarius PopDryer
600 lollipops / min	1000 lollipops / min	600 lollipops / min	600 lollipops / min
6700 x 1600 x 1700 mm	6700 x 1600 x 2600 mm	not applicable	not applicable
not applicable	not applicable	2600 x 4650 x 2200 mm*	2600 x 4650 x 2200 mm*
not applicable	not applicable	not applicable	not applicable
3	5	chain cooler	chain dryer
ambient air	ambient air	conditioned cold air	conditioned dry air
4 kW	7 kW	9 kW	9 kW
not applicable	not applicable	up to 2100 m ³ / hour	up to 2100 m ³ / hour
7 min	7 min	3.5 min	4.5 min
level 2.5 mm / per m ²	level 2.5 mm / per m ²	level 2.5 mm / per m ²	level 2.5 mm / per m ²
1315 x 6500 mm	1400 x 6500 mm	4650 x 2200 mm	4650 x 2200 mm

* Airco system to be provided by customer



GEA Aquarius BunchWrapper

Technical data sheet	GEA Aquarius BunchWrapper 600	GEA Aquarius BunchWrapper 800
Output	600 lollipops / min	800 lollipops / min
Dimensions H X W x D	2100 x 2355 x 1925 mm	2100 x 2355 x 1925 mm
Average efficiency (hard candy)	92 - 94%	92 - 94%
Diameter of ball candy Max	18 - 35 mm	18 - 35 mm
Diameter of ball with overlapseal	not applicable	not applicable
Minimum rim	not applicable	not applicable
Lollipop length	15 - 45 mm	15 - 45 mm
Diameter stick (min to max)	3.2 - 5.5 mm	3.2 - 5.5 mm
Length stick (min to max)	75 - 102 mm	75 - 102 mm
Wrapping material	Cellophane, Polypropylene PVC wax paper	Cellophane, Polypropylene PVC wax paper
Weight wrapping material (max)	35 - 45 gr / m ²	35 - 45 gr / m ²
Length of wrapping material (max)	82 - 140 mm	82 - 140 mm
Diameter wrapping material (max)	420 mm	420 mm
Advised thickness wrapping material	25 - 40 mu	25 - 40 mu
Minimum spot dimension	5 x 8 mm	5 x 8 mm
Power supply	5.3 kW	5.3 kW
Label on film output	600 p / m	not applicable
Label on stick output	600 p / m	800 p / m
Label on film label dimension	diameter/ width lollipop minus 3 mm	not applicable
Label on stick dimension	standard 60 x 20 mm	standard 60 x 20 mm
Max diameter label reel	400 mm	400 mm
Container filling system container height	140 - 230 mm	140 - 230 mm
Container filling system container diameter	120 - 230 mm	120 - 230 mm
Standard jar	round / cylindrical	round / cylindrical
Maximum speed	20 jars per minute**	20 jars per minute**

* Depending on actual lollipop shape

** Depending on number of lollipops in container and speed wrapping machine



GEA BunchWrapper



GEA Aquarius TwistWrapper

Technical data sheet	GEA Aquarius TwistWrapper 600	GEA Aquarius TwistWrapper 800	GEA Aquarius TwistWrapper 1000
Output	600 lollipops / min	800 lollipops / min	1000 lollipops / min
Dimensions H X W x D	2000 x 2700 x 2420 mm	2000 x 2700 x 2420 mm	2000 x 2700 x 2420 mm
Machine efficiency (hard candy)	90 - 94%	90 - 94%	90 - 94%
Diameter of ball candy Max	16 - 35 mm	16 - 35 mm	16 - 35 mm
Diameter of ball with overlapseal	16 - 30 mm*	16 - 30 mm*	16 - 30 mm*
Minimum rim	5 mm	5 mm	5 mm
Lollipop length	17 - 40 mm*	17 - 40 mm*	17 - 40 mm*
Diameter stick (min and max)	3.2 - 5.5 mm	3.2 - 5.5 mm	3.2 - 5.5 mm
Length stick (min to max)	76 - 102 mm	76 - 102 mm	76 - 102 mm
Wrapping material	Cellophane, Polypropylene PVC	Cellophane, Polypropylene PVC	Cellophane, Polypropylene PVC
Weight wrapping material (max)	35 - 45 gr / m ²	35 - 45 gr / m ²	35 - 45 gr / m ²
Length of wrapping material (max)	63 - 140 mm	63 - 140 mm	63 - 140 mm
Diameter wrapping material (max)	420 mm	420 mm	420 mm
Advised thickness wrapping material	25 - 35 mu	25 - 35 mu	25 - 35 mu
Min. spot dimension	5 x 8 mm	5 x 8 mm	5 x 8 mm
Power supply	14 kW	14 kW	14 kW
Label on film output	not applicable	not applicable	not applicable
Label on stick output	not applicable	not applicable	not applicable
Label on film label dimension	not applicable	not applicable	not applicable
Label on stick dimension	not applicable	not applicable	not applicable
Max diameter label reel	not applicable	not applicable	not applicable
Container filling system container height	140 - 230 mm	140 - 230 mm	140 - 230 mm
Container filling system container diameter	120 - 230 mm	120 - 230 mm	120 - 230 mm
Standard jar	round / cylindrical	round / cylindrical	round / cylindrical
Maximum speed	20 jars per minute**	20 jars per minute**	20 jars per minute**



GEA TwistWrapper

GEA SmartPacker

Technical data sheet	SmartPacker SX400	SmartPacker CX400	SmartPacker CX250
Output pillow	up to 50 BPM	up to 90 BPM	110 BPM
Dimensions H X W x D	2020 x 1280 x 2185 mm	2020 x 1280 x 2185 mm	2020 x 1130 x 2185 mm
Average machine efficiency	98%	98%	98%
Pillow bag width minimum	400 mm	400 mm	250 mm
Pillow bag length	550 mm	550 mm	450 mm
Pillow zip possibility	transdirectional zip inline zip	transdirectional zip	no
Block Bottom bag	yes	yes	yes
Block Bottom zip possibility	transdirectional zip	transdirectional zip	no
Quatro seal bag	yes	yes	yes
Quatro seal zip possibility	transdirectional zip	transdirectional zip	no
Easy doo bag width reclosable tape	yes	yes	yes
Wrapping material	polyethylen laminates	polyethylen laminates	polyethylen laminates

SmartPacker CX250 low drop

130 BPM

2460 x 2085 x 1920 mm

98%

250 mm

450 mm

no

no

no

no

no

no

laminates



GEA FlexFormer Medium Capacity

Diameter (mm) Lollipop	Minimum speed (p/m) Flexformer SU	Minimum speed (p/m) Flexformer MC	Minimum weight (g) Lollipop	Maximum weight (g) Lollipop
18	550	950	3.3	6.3
20	500	875	4.8	8.5
22	450	800	6.5	12.1
24	425	750	8.6	15.2
25	400	700	9.8	17
26	375	675	11.1	19
28	350	625	14.1	23.2
30	325	600	18.6	28
32	300	550	22.7	33.2
34	300	525	27.3	38
35	300	500	29.8	39.4



GEA FlexFormer High Capacity

Diameter (mm) Lollipop	Minimum speed (p/m) FlexFormer SC	Minimum speed (p/m) FlexFormer HC	Minimum weight (g) Lollipop	Maximum weight (g) Lollipop
18	1350	2100	3.3	6.3
20	1200	1900	4.8	8.9
22	1125	1800	6.5	12.3
24	1050	1650	8.6	16.2
25	1000	1600	9.8	18.5
26	950	1500	11.1	21
28	875	1400	14.1	26.7
30	825	1300	18.6	33.3
32	800	1250	22.7	39.4
34	750	1200	27.3	43.4
35	700	1100	29.8	45.5



GEA FlexFormer

A series of horizontal lines for writing, spanning the width of the page. The lines are evenly spaced and extend from the left margin to the right margin. On the left side, there is a blue curved shape that partially obscures the lines. At the bottom of the page, there is a light gray curved shape that also partially obscures the lines.

We live our values.

Excellence • Passion • Integrity • Responsibility • GEA-versity

GEA Group is a global engineering company with multi-billion euro sales and operations in more than 50 countries. Founded in 1881, the company is one of the largest providers of innovative equipment and process technology. GEA Group is listed in the STOXX® Europe 600 Index.

GEA The Netherlands

P.O. Box 296
6000 AG Weert, The Netherlands

Tel +31 (0)495 457 777
Fax +31(0)495 524 125

info@gea.com
gea.com