

J A G E N B E R G

**Folding Carton Gluer
Simplex-Universal**



simple · versatile · reliable · economical

JAGENBERG

FOLDING CARTON GLUER

Simplex-Universal

- Simple makeready and attendance
- Universal application
- Reliable operation
- Low investment

these facts account for the popularity of the Simplex-Universal. This versatile machine meets a multitude of demands, representing:

for the start

of a folding box plant: the first step towards economic mass production, thanks to the low investment and the possibility of adding on equipment as the factory grows

for the small and
medium enterprise

the ideal supplement to the other gluers on the floor – due to its outstanding qualities as a truly universal folding box gluer

for the large and
streamlined carton plant

the most economical proposition for lockbottom and four or six corner glued collapsible carton work

3 Simplex-Universal Gluers

The folding carton manufacturer can choose among three different models according to his requirements:

1. SIMPLEX-UNIVERSAL 675

the smallest and lowest-priced gluer for 675 mm = 26½" carton width and 400 fpm belt speed, for 28 carton designs

2. SIMPLEX-UNIVERSAL 875-I

the wider model of the economy version for 875 mm = 34½" carton width and 500 fpm belt speed, for 28 carton designs

3. SIMPLEX-UNIVERSAL 875-II

- the wider of the 2 gluers for higher output – up to 650 fpm – a more refined edition of the Simplex series
- the allround gluer for folding boxes **and**, in combination with the timed "ASE" unit, for processing more than 50 different carton designs, including collapsible boxes and bottle carriers
- the speciality gluer arranged exclusively for timed operation in line with the "ASE" machine.

YOUR NEXT FOLDING CARTON GLUER:

3 SIMPLEX-UNIVERSALS

for more than 50 carton designs

The SIMPLEX-UNIVERSAL is a building block machine, i. e. in accordance with the growing demands of an expanding business, auxiliary units and attachments can be added for manufacturing – in addition to normal folding boxes – a number of speciality cartons such as:

- double sidewall boxes
- compound fold double sidewall boxes
- lockbottom cartons
- four and six corner glued collapsible cartons*
- bottle carriers*
- display cartons
- partition boxes
- tapered cartons
- cigarette shells (sleeves)
- PE-coated cartons
- cartons with a thin wax coat
- record covers

* only for SIMPLEX-UNIVERSAL 875-II

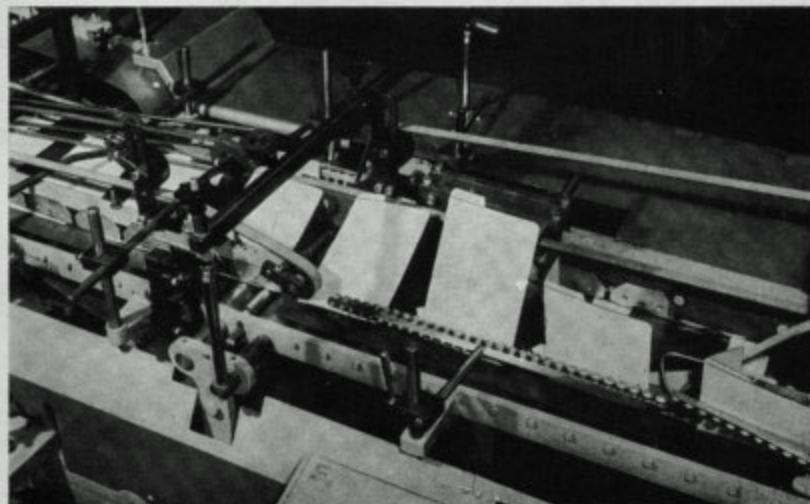
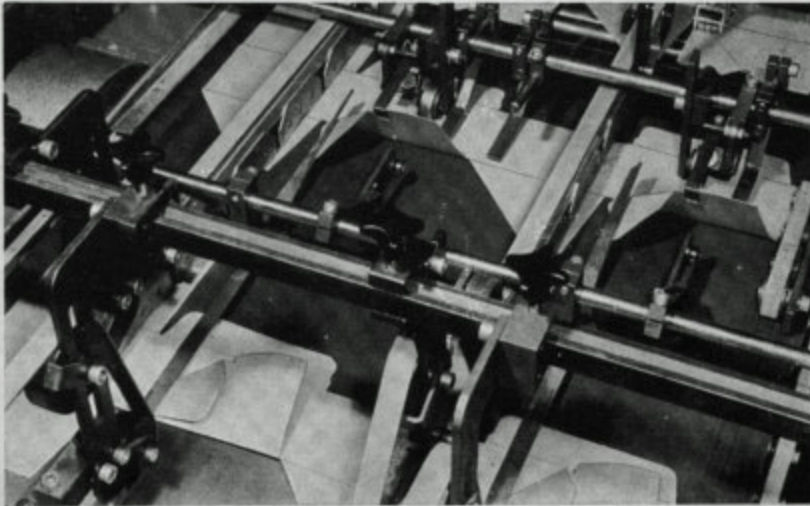
Only **one** double overhead glue unit is required both for gluing lockbottom cartons and for double sidewall boxes. This double overhead glue unit can be installed in the folding section as well as in the prefolder, resulting in four positions for top gluing which can be independently utilized for single work, too.

SIMPLEX-UNIVERSAL			
Suitability	675	875-I	875-II
Folding boxes	x	x	x
Lockbottom cartons	x	x	x
Double sidewall boxes	x	x	x
Prefolding of double sidewall boxes	x	x	x
Compound fold double sidewall boxes	x	x	x
Tapered cartons	x	x	x
Partition boxes	x	x	x
Cigarette shells	x	x	x
Record covers	x	x	x
PE-coated cartons	x	x	x
Wax-protected cartons	x	x	x
Collapsible boxes	—	—	x
Bottle carriers	—	—	x
} in combination with ASE unit			
Technical details			
Speed in feet/minute	135 – 400	165 – 500	65 – 650
Drive motor	4 kW	4 kW	8.2 kW
Roller beams spring loaded	x	x	x
Additional spring loading of individual rollers	—	x	x
Top glue units in folding section	x	x	x
Top glue units in prefolder	x	x	x
Second transfer device	x	x	x
Combination possible with ASE unit	—	—	x
Electro-mechanical counter	x	x	—
Electronic counter	—	—	x
Straight-line plus 90° delivery	x	x	x

THE ECONOMICAL SIMPLEX-UNIVERSAL

LOCKBOTTOM CARTONS
 Folding carton gluing — FAST — CLEAN — RELIABLE — that is what the SIMPLEX-UNIVERSAL does all day, every day. So we need not talk about it here.

But the SIMPLEX-UNIVERSAL is more than a reliable folding box gluer; it is an ideal machine for producing lockbottom cartons, too. Larger carton makers employing several gluers often use the SIMPLEX-UNIVERSAL exclusively for lockbottom work, fully utilizing the capacity of this model. Why buy a costly high-speed gluer and then block its capacity by running lockbottom cartons at half speed?



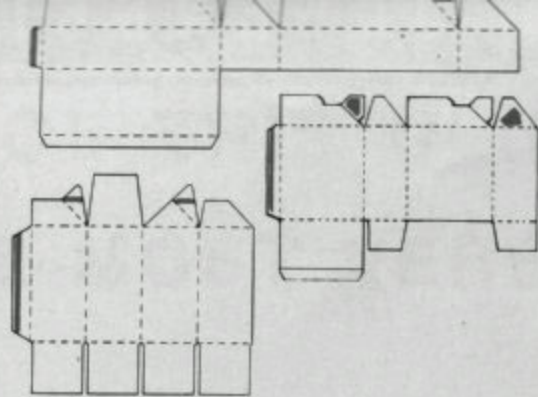
SPECIALITY WORK

There is more money in speciality work. Ask for a gluer which can do more.

Here is a choice of attachments for the SIMPLEX-UNIVERSAL:

Double overhead glue unit for the folding section for double sidewall boxes and lockbottom cartons · **double overhead glue unit for the prefolder** for compound fold double sidewall boxes · **single overhead glue pots** utilizing the left or right hand glue pots of the double overhead glue units, for cigarette shells and speciality work · **lockbottom attachment and tuck-in unit** for lockbottom cartons · **special folders** for prefolding double sidewall boxes and for the first folding operation of compound folded boxes · **special folders** for tapered cartons · special folders for partition boxes · **flame sealing attachment** for removing a thin wax coat and/or for heatsealing PE-coated cartons · **collapsible box auxiliary machine "ASE"** according to detailed description on the following pages* · Extended **compression section** for collapsible and some lockbottom cartons.

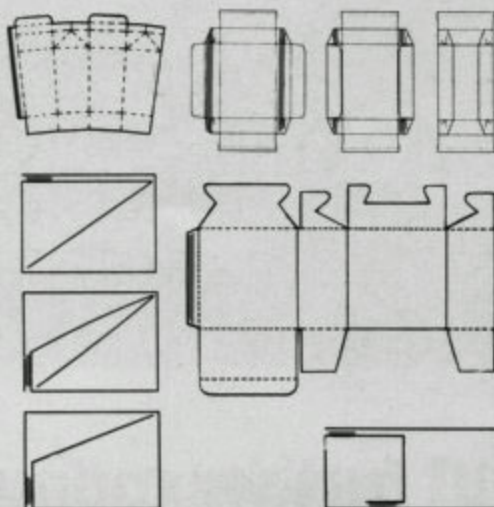
* only for SIMPLEX-UNIVERSAL 875-II



Lockbottom attachment

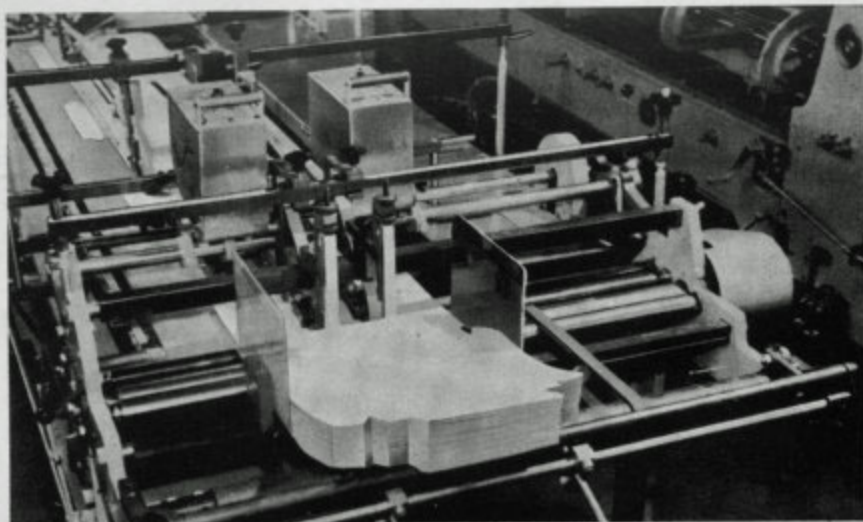
This attachment, consisting of folding hooks for crossfolding the bottom flaps and diagonals, is fitted into the prefolder. Even intricate carton shapes are well supported by a wide carrier belt so that they cannot twist. Short auxiliary top roller bars with belts control the blanks on both sides of the folding hooks. Safe operation at high speeds — up to 25 000 lockbottom cartons per hour — is made possible by stabilizing the folding hooks with magnets (patented).

The patented tuck-in procedure has been designed to permit gluing lockbottom cartons of an extreme width - to - height ratio up to 1 : 6/1 : 8; it is based on a so-called "tuck-in unit" fitted into the folding section, and on a special design of the blanks. Many orders — normally declined or lost for lack of facilities, can now be accepted and will make economical production runs on the SIMPLEX-UNIVERSAL with tuck-in unit. And in spite of their difficult side ratio, these cartons will be glued straight. Another advantage: The glue seam almost touches the bottom of the carton.



FEEDER

The SIMPLEX-UNIVERSAL is equipped with a bottom friction belt feeder. An efficient back vibrator and the micro-adjustment for the feed gate ensure troublefree operation and a constant flow of carton blanks. Feed belt speed is infinitely variable within a 1 : 3 ratio. A moistening device keeps the feed belts clean and maintains the friction. An auxiliary feed gate facilitates feeding of large and odd-shaped blanks. (The photograph also shows the double overhead glue unit fitted in the prefolder section - Simplex-Universal 675/875-I).

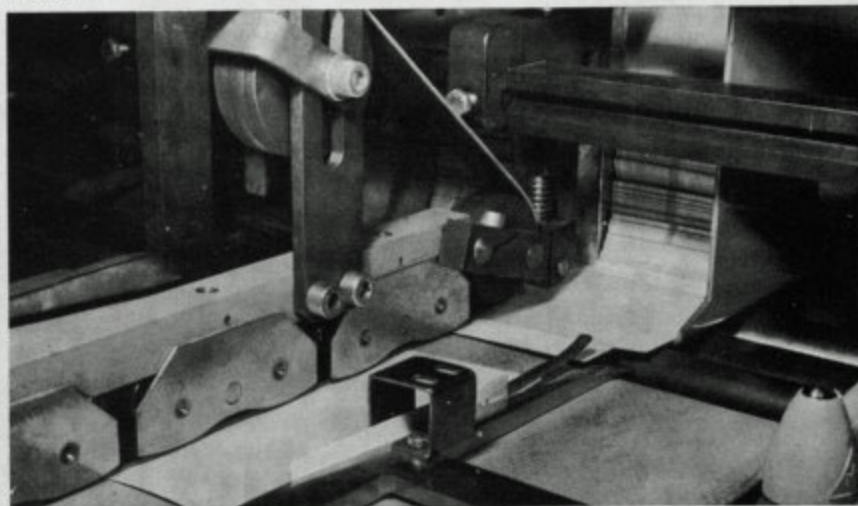


Feeder

PREFOLDER

In this section the blanks are 180° pre-folded in creases 1 and 3, and opened up again. Prefolded blanks are easily opened and squared up by automatic packaging machines.

The blanks are forwarded through prefolder and gluing/folding section between a wide bottom carrier belt and spring-loaded top roller bars with rotating guide belts. Leading rollers take over blanks directly from feeder; no nip rollers. Roller bars overlap at points of transfer: No gaps to jump - no twisting. The glue flap is prefolded by means of a folding rail, the third crease with the help of non-friction roller folders.

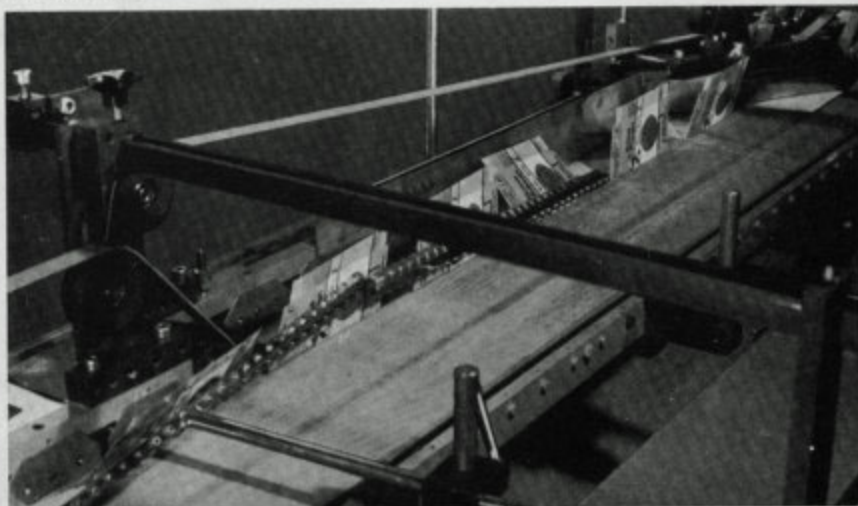


LH prefolder

GLUING SECTION

Standard equipment:

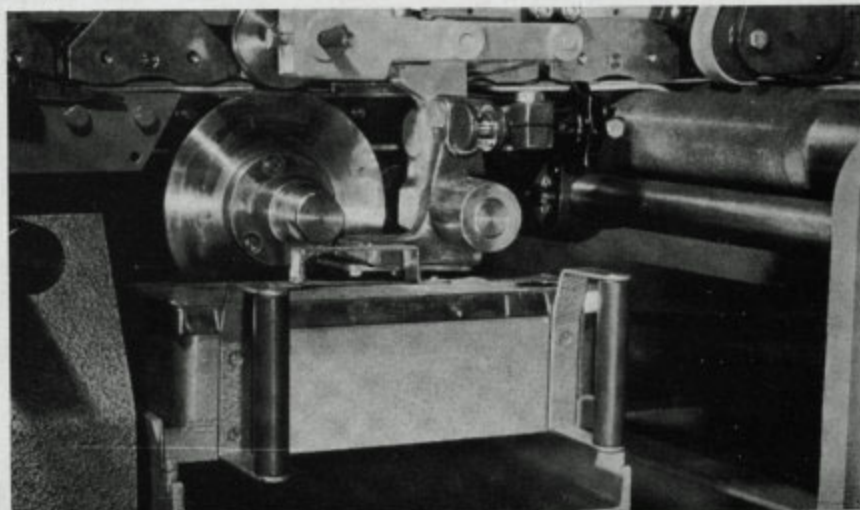
Left-hand bottom glue unit, arranged for cold glue. The glue unit can be laterally adjusted by handwheel and spindle. The pressure roller above the glue wheel as well as the glue flaps of the carton blanks are lifted off the rotating glue wheel during temporary stops (on Simplex-Universal 675 and 875-I. On the Simplex-Universal 875-II, the glue wheel stops rotating when the machine stops).



RH prefolder

FOLDING SECTION

In the folding section, the carton blanks are folded around crease lines No. 2 and 4 to form folding boxes. Very long pre-folding and folding sections ensure careful handling of carton blanks and square folding.

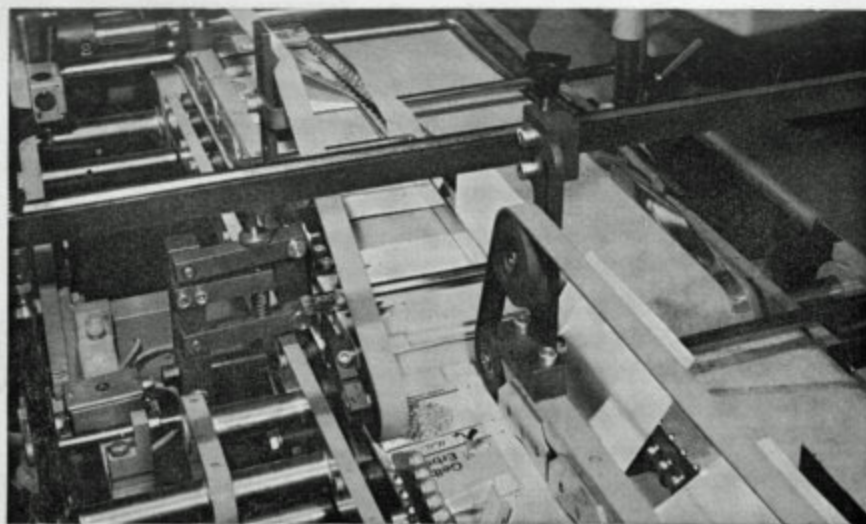


Glue unit

The first (left-hand) fold is made by roller folding bars consisting of a series of ball races protected by dustproof Perspex caps. Whilst left-hand fold is made, blank is controlled by right-hand roller bar. Final left-hand roller bar takes over where right-hand roller bar ends and right-hand rotating folding belt commences the last fold.

True "left-before-right" folding action eliminates all blank twisting and prevents skew folding.

Folded cartons can be subjected to a variable degree of pressure in the transfer section.

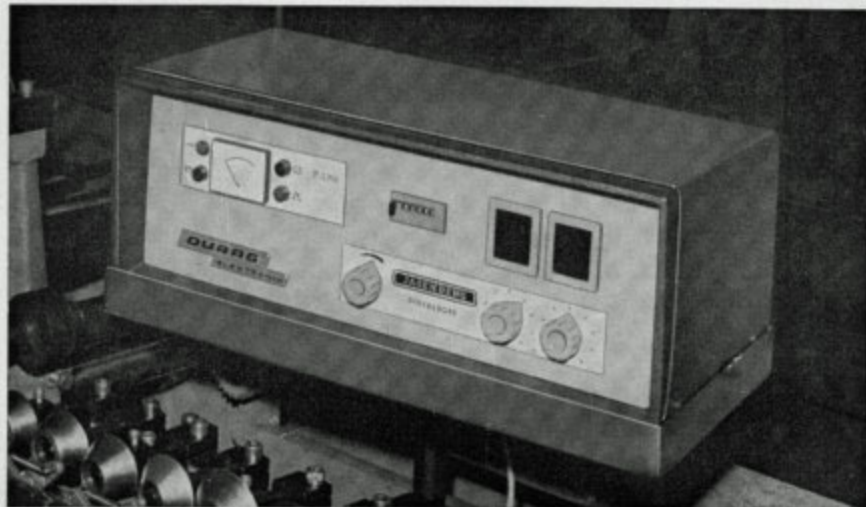


Folding section

COUNTER AND MARKER

The SIMPLEX-UNIVERSAL 675 and 875-I models are equipped with an electro-mechanical counter and marker, kicking out every 50th carton.

Electronic equipment is supplied for the faster SIMPLEX-UNIVERSAL 875-I, counting and marking batches of any size up to 100 cartons. The stroke of the kicker is adjustable to suit different carton sizes.



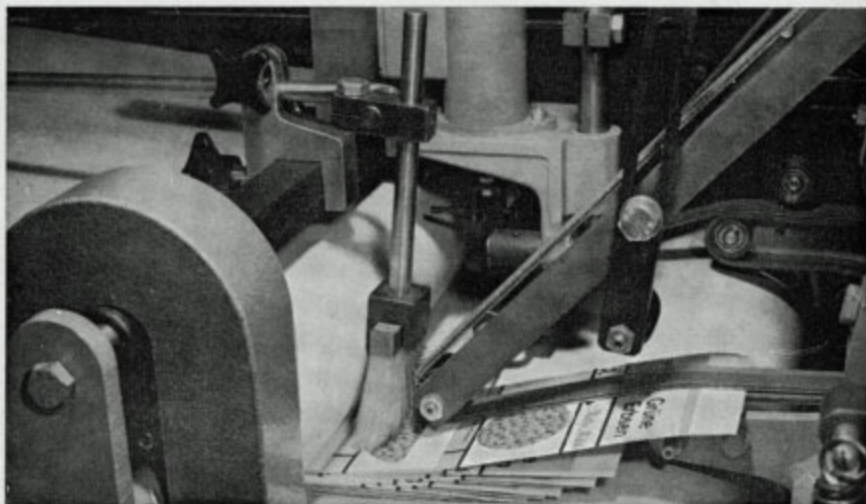
Counter

TRANSFER SECTION

A trombone delivery forwards the glued and folded cartons to the compression and delivery conveyor. A second trombone is provided for double sidewall cartons, lockbottom boxes etc.

The trombones will not lose control over the glued cartons regardless of their size, as the illustration shows.

A jam-stop halts the machine in case of accidental double feeding.

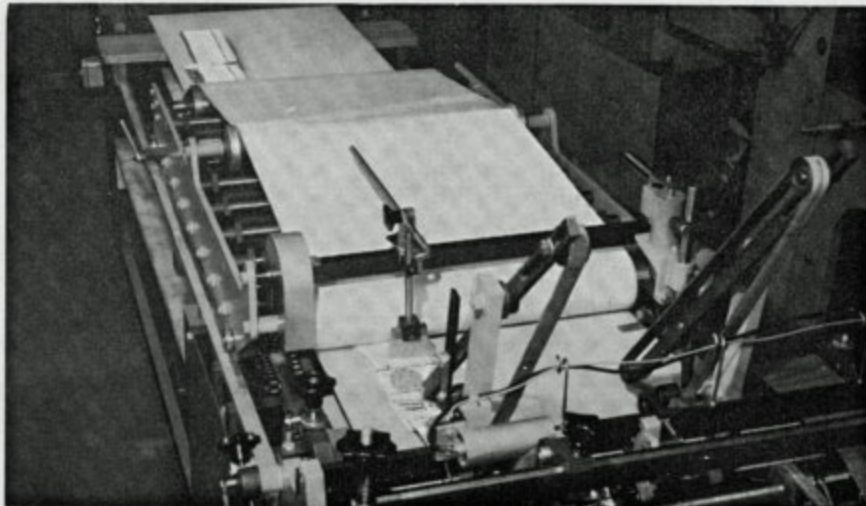


Transfer section

COMPRESSION AND DELIVERY CONVEYOR

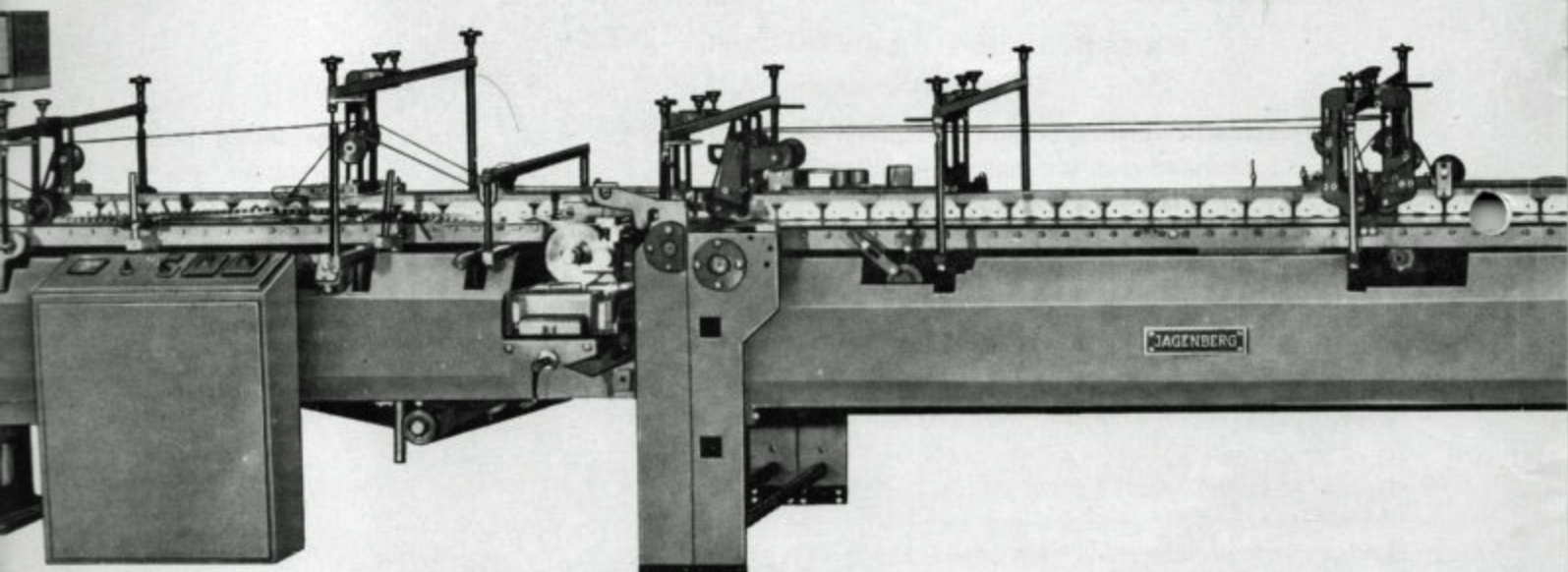
The delivery can be set up for straight-line or right-angle operation, whichever suits best any particular size or shape of carton. For a change-over, the delivery can be shunted (no need for pivoting, in order to save space).

The speed of the compression and delivery conveyor is infinitely variable in a 1:3 ratio. The cartons are kept under pressure for a long distance to ensure a good bond.

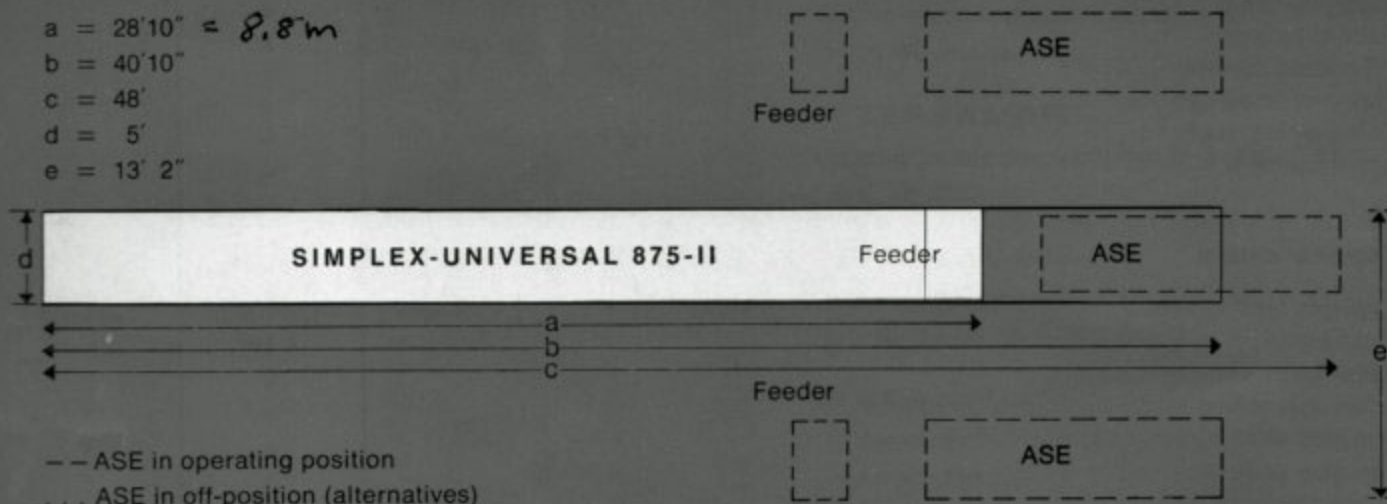


Compression and delivery section

ON GLUERS SUPPLIED ITY IS THE KEYNOTE OF THIS GLUER SAL-STANDS FOR THE MOST VERSATI



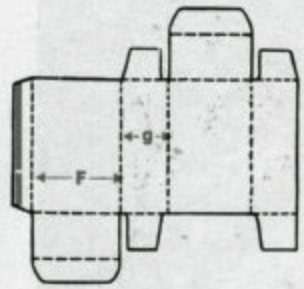
- a = 28'10" = 8.8m
- b = 40'10"
- c = 48'
- d = 5'
- e = 13' 2"



Weights net/gross (case)

SU-675	1.9/3.1 tons with prefolder
SU-675	1.3/2.0 tons without prefolder
SU-875-I	2.5/3.7 tons with prefolder
SU-875-I	1.7/2.5 tons without prefolder
SU-875-II	2.8/4.1 tons with prefolder
SU-875-II	1.8/2.6 tons without prefolder
ASE	3.5/4.5 tons

onmakers: High speed folding box gluers DIANA 3



Folding boxes

Output: steplessly adjustable (fpm)

Size range:

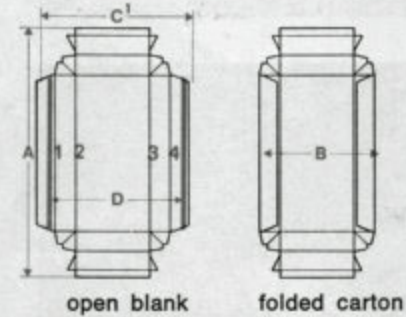
Folded width
Open blank width up to
Length

Prefolding:

1st crease always 180°
3rd crease 180° if distance
between 1st and 2nd crease
does not exceed
and folded width
does not exceed

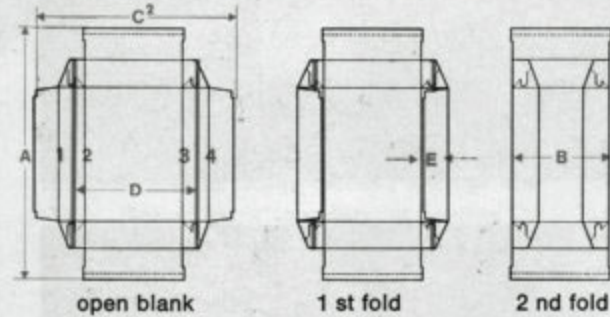
	675	875-I	875-II
	135-400	165-500	65-650
	1"-13" 26 1/2" 2 3/4"-24"	1"-16 3/4" 34 1/2" 2 3/4"-24"	1"-16 3/4" 34 1/2" 2 3/4"-24"
	6 1/4"	10 1/4"	10 1/4"
	9 1/4"	13 1/8"	13 1/8"

Double side wall cartons



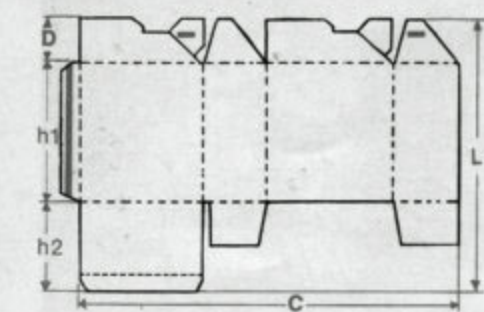
A =	2 3/4"-24"	2 3/4"-24"	2 3/4"-24"
B =	-13"	-16 3/4"	-16 3/4"
C1 =	-15"	-26 1/2"	-26 1/2"
D =	3 1/8"-13 3/4"	3 1/8"-25 1/2"	3 1/8"-25 1/2"

Compound fold double side wall cartons



A =	2 3/4"-24"	2 3/4"-24"	2 3/4"-24"
B =	-16 3/4"	-16 3/4"	-16 3/4"
C2 =	-24 1/2"	32 1/2"	32 1/2"
D =	3 1/8"-21 5/8"	3 1/8"-25 1/2"	3 1/8"-25 1/2"

Lockbottom cartons

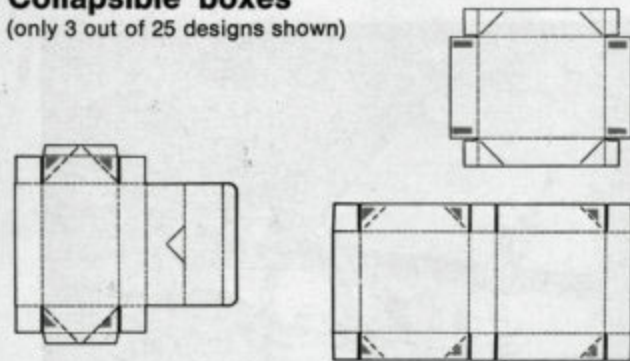


a)	D =	1 1/4"-5"	1 1/4"-5"	1 1/4"-5"
	h1 =	min. 2 3/4"	min. 2 3/4"	min. 2 3/4"
	h2 =	max. h1 + D	max. h1 + D	max. h1 + D
	C =	8 1/4"-24"	8 1/4"-31 1/2"	8 1/4"-31 1/2"
	L =	max. 24"	max. 24"	max. 24"
b)	D =	-	-	1 1/4"-6"
	h1/h3 =	-	-	min. 2 3/4"
	C =	-	-	7 1/8"-34"
	L =	-	-	max. 29 1/2"

side ratio h1 : C up to 1 : 6
or 1 : 8, depending on caliper

Collapsible boxes

(only 3 out of 25 designs shown)



Blank width	-	-	max. 32 7/8"
Blank length about	-	-	5 1/8"-35 3/8"
Base width about	-	-	3 5/8"-16 3/4"
Base length about	-	-	2 3/4"-23 5/8"
Side height about	-	-	2 1/4"-5 7/8"

Please ask for detailed data sheets.