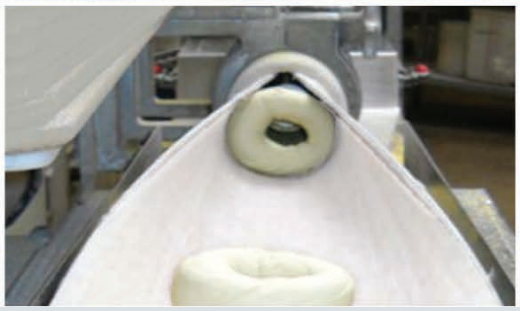
MIPR
CORPORATION

BELTS FOR BAGEL PRODUCTION



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QUESTIONS + ORDERS

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BAGEL PRODUCTION LINE

Standard layout of a bagel production line.

Loader/Divider - Mixed dough gets cut into smaller pieces of equal shape and weight.

Spreader Belts - Long spreader belts make space for the next step.

Packaging - Different vertical fillers and wrapping machines package the bagels.

Cooling - A series of long conveyors allow the bagels to cool down before packaging.

Slicer - A machine slices the bagels.

BAGEL PRODUCTION LINE

Standard layout of a bagel production line.

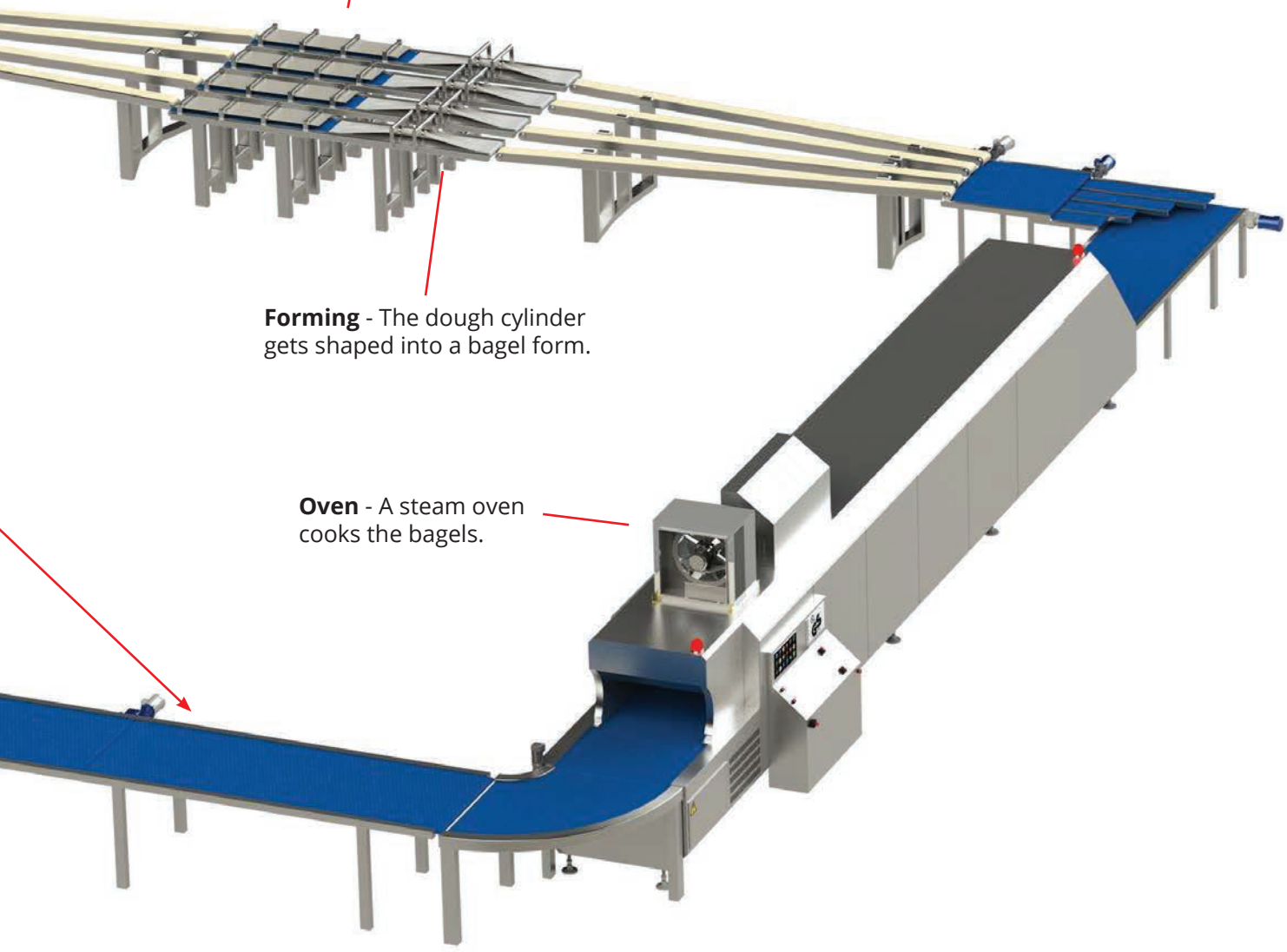
The below drawing is an example of the bagel making process. The drawing is only a representation of the process and is not a complete one. The belt recommendations found here and throughout the brochure are only general suggestions. Due to the complex nature of the various bagel making processes, technical requirements and external influences*, there are a variety of possible solutions.

**External influences can be the property of transported goods, process speed, steps of treatment/handling, environment/process temperature, humidity, additives, ingredients, recipes, and more.*

Moulding - Dough gets shaped into the desired cylindrical form.

Forming - The dough cylinder gets shaped into a bagel form.

Oven - A steam oven cooks the bagels.



EQUIPMENT & CONVEYOR BELTS

Most common machines and conveyor belts.

DOUGH LOADER & DIVIDER

The dough gets loaded into the hopper and using knives or rotary discs it gets cut into individual round pieces of the same weight that fall onto one or more conveyors. We recommend **R14 BF**, but also **wool felts**, **solid woven cotton**, **F** or **R** series could be used.

DOUGH MOULDER

The dough moulder is a machine that has a belt running on the bottom and a fixed piece of plastic on the top. This way, the piece of dough rolls onto itself to form a cylinder. We recommend **R19**, **R14 BF**, **solid woven cotton** or **wool felts** because they have great release properties.

DOUGH FORMING

The dough forming machine has a very flexible belt going into a tube shaped conveyor, which forces the cylindrical dough into a ring. We recommend **P19/B**, a belt specifically designed for bagel forming machines, but **R19** could also be used.

EQUIPMENT & CONVEYOR BELTS

Most common machines and conveyor belts.

SWM

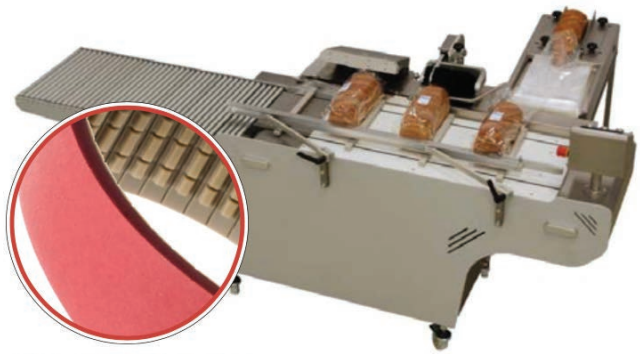
OVEN

The in-feed and out-feed belts need to withstand the high heat coming from the oven. We recommend **SWM/S** with silicone coatings up to 4mm thick, and high temperature resistance thermoplastics like **P9/A PX** and **HY6/A**.

BAGEL SLICER

After the bread is cooled down it goes into the slicer. These machines normally have an **F10/M** or a **F20/T** on the bottom and depending on the type of machine, they can have the same belt on the sides to hold and compress the bagel. Other machines use timing belts.

F20/T



LINATEX COVERED TIMING BELT

PACKAGING

There are a lot of different kinds of machines, depending on if the bagels are going to be wrapped in plastic or put into a box to be frozen. Megadyne offers **timing belts** with special covers for vertical fillers and wrapping machines. Any **P** or **F** series conveyor belt can be used for the in and out-feed of the machine.

TECHNICAL INFORMATION

PRODUCT CODE	COVER MATERIAL	COVER FINISH	PLIES	INTERPLY MATERIAL	FABRIC MATERIAL	BOTTOM FINISH
P21/A TR	PU	Smooth Matte	2	PU	Polyester	PU Impregnation
P22/A TR	PU	Smooth Matte	2	PU	Polyester	PU Impregnation
P6/A	PU	Smooth Matte	1	PU	Polyester	PU Impregnation
P7/Z	PU	Inverted Pyramid	1	PU	Polyester	PU Impregnation
P8/A	PU	Smooth Matte	2	PU	Polyester	PU Impregnation
P8/Z	PU	Inverted Pyramid	2	PU	Polyester	PU Impregnation
P9/A	PU	Smooth Matte	2	PU	Polyester	PU Impregnation
P9/A PX	PU	Smooth Matte	2	PU	Polyester	PU Impregnation
P9/Z	PU	Inverted Pyramid	2	PU	Polyester	PU Impregnation
P20/A	PU	Smooth Matte	2	PU	Polyester	PU Impregnation
P19/B	PU	Mini Rough Top	2	PU	Polyester	PU Impregnation
HY6/A	Hytrel	Smooth Matte	1	Hytrel	Polyester	PU Impregnation
R13	Bare Fabric	PU Impregnated	2	PU	Polyester	PU Impregnation
R14	Bare Fabric	PU Impregnated	2	PU	Polyester	PU Skim
R14 BF	Bare Fabric	PU Impregnated	2	PU	Spun Polyester	PU Skim
R19	Bare Fabric	Cotton/Polyester	2	PVC	Cotton/Polyester	Bare
SAM210	Polyester Felt	Felt	2	PVC	Polyester	Bare
F10	PVC	Smooth Glossy	2	PVC	Polyester	PU Impregnation
F10/M	PVC	Rough Top	2	PVC	Polyester	PU Impregnation
F20/T	PVC	Saw Tooth	2	PVC	Polyester	PU Impregnation
WOOL 503	No Cover	Felt	1	N/A	Wool	Felt
WOOL 2400	No Cover	Felt	1	N/A	Wool	Bare
WOOL 1500	No Cover	Felt	1	N/A	Polyester	Bare
SWC 2PLY	No Cover	Cotton Fabric	2	N/A	Cotton	Cotton Fabric
SWC 4PLY	No Cover	Cotton Fabric	4	N/A	Cotton	Cotton Fabric
SWM	No Cover	Woven Polyester	1	N/A	Polyester	Monofilament Polyester
SWM/S	No Cover	Silicone Impregnated	1	N/A	Polyester	Monofilament Polyester

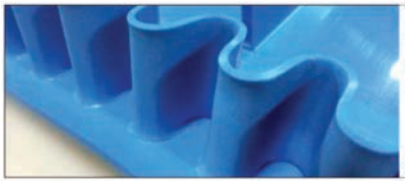
ROLLER COVERS

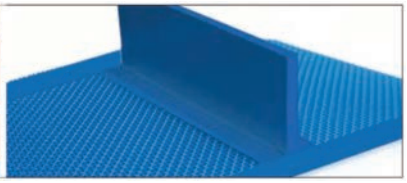
Some equipment uses rollers to compress the dough. In order to avoid the dough sticking to the roller, a wool felt cover is used. MIPR offers wool felt roller covers in both **solid** and **shrinking jacket**. Different thicknesses and diameters can be made per your specifications.

TECHNICAL INFORMATION

OVERALL THICKNESS mm	OVERALL THICKNESS in	TOP COVER THICKNESS mm	TOP COVER THICKNESS in	MAX TEMP C°	MAX TEMP F°	MINIMUM PULLEY mm	MINIMUM PULLEY in	PULL PER 1% N/mm	PULL PER 1% Lbf/in	COLOR	LOADER	SPREADER	MOULDER	FORMING	OVEN IN/OUT-FEED	SLICER	PACKAGING	GENERAL CONVEYING
1.90	0.075	0.50	0.020	90	194	40	1.575	8	45	○	•	•						•
2.30	0.091	0.90	0.035	90	194	50	1.969	8	45	○	•	•						•
0.80	0.031	0.29	0.011	80	176	5	0.197	5	28	○ ●	•	•						•
1.30	0.051	0.50	0.020	80	176	10	0.394	8	45	○			•					•
1.30	0.051	0.29	0.011	80	176	20	0.787	8	45	○ ●	•	•						•
1.50	0.059	0.29	0.011	80	176	20	0.787	8	45	○ ●			•					•
1.30	0.051	0.29	0.011	80	176	10	0.394	6	34	○ ●	•	•						•
1.30	0.051	0.29	0.011	110	230	10	0.394	6	34	○	•	•			•			•
1.50	0.059	0.29	0.011	80	176	10	0.394	6	34	○ ●			•					•
2.39	0.094	0.50	0.020	80	176	80	3.150	13	74	○ ●	•	•						
2.30	0.091	0.90	0.035	90	194	30	1.181	6	34	○				•				
1.00	0.039	0.29	0.011	120	248	10	0.394	5	28	○					•			
1.00	0.039	N/A	N/A	90	194	30	1.181	6	34	○ ●	•	•					•	•
1.39	0.055	N/A	N/A	80	176	30	1.181	8	45	○ ●	•	•					•	•
1.30	0.051	N/A	N/A	80	176	25	0.984	10	57	○	•	•	•					•
2.39	0.094	N/A	N/A	90	194	50	1.969	5	28	○	•	•	•	•				
3.20	0.126	1.80	0.071	90	194	40	1.575	6	34	○	•	•						•
2.00	0.079	0.50	0.020	80	176	30	1.181	8	45	○ ●							•	•
5.20	0.205	3.70	0.145	80	176	40	1.575	8	45	○						•	•	•
5.00	0.197	3.00	0.120	80	176	60	2.362	18	103	○ ●						•	•	•
3.30	0.130	N/A	N/A	110	230	5	0.197	2	12	○	•							•
6.00	0.236	N/A	N/A	110	230	10	0.394	2	12	○	•							•
3.00	0.118	N/A	N/A	110	230	5	0.197	32	183	○		•						•
2.50	0.098	N/A	N/A	107	225	25	0.984	9	51	○								•
4.70	0.185	N/A	N/A	107	225	76	2.992	18	103	○								•
2.20	0.087	N/A	N/A	140*	284*	6	0.236	50	285	○					•			
2.20	0.087	N/A	N/A	155**	311**	6	0.236	50	285	○					•			

*220 C°/428 F° Peak **230 C°/446 F° Peak





FABRICATION

MIPR has full fabrication capabilities to make your belt the way you need it. **V-guides**, **sidewall** and **cleats** can be vulcanized directly onto the belt, creating a strong and sanitary (no use of glues) bond. **Perforations** and **special covers** are also available.

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