

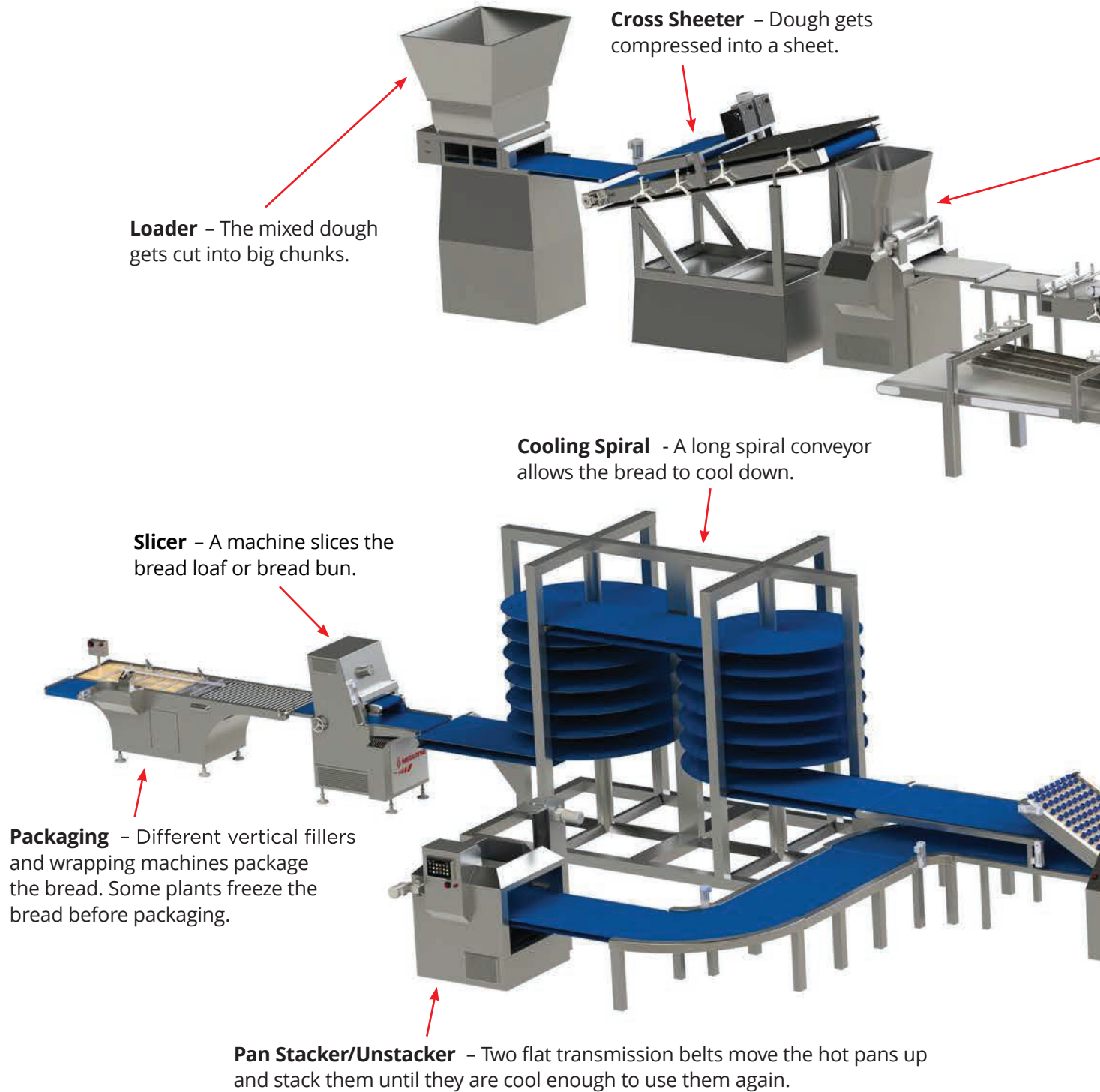


**BELTS FOR  
BREAD AND BUN  
PRODUCTION**



# BREAD & BUN PRODUCTION LINE

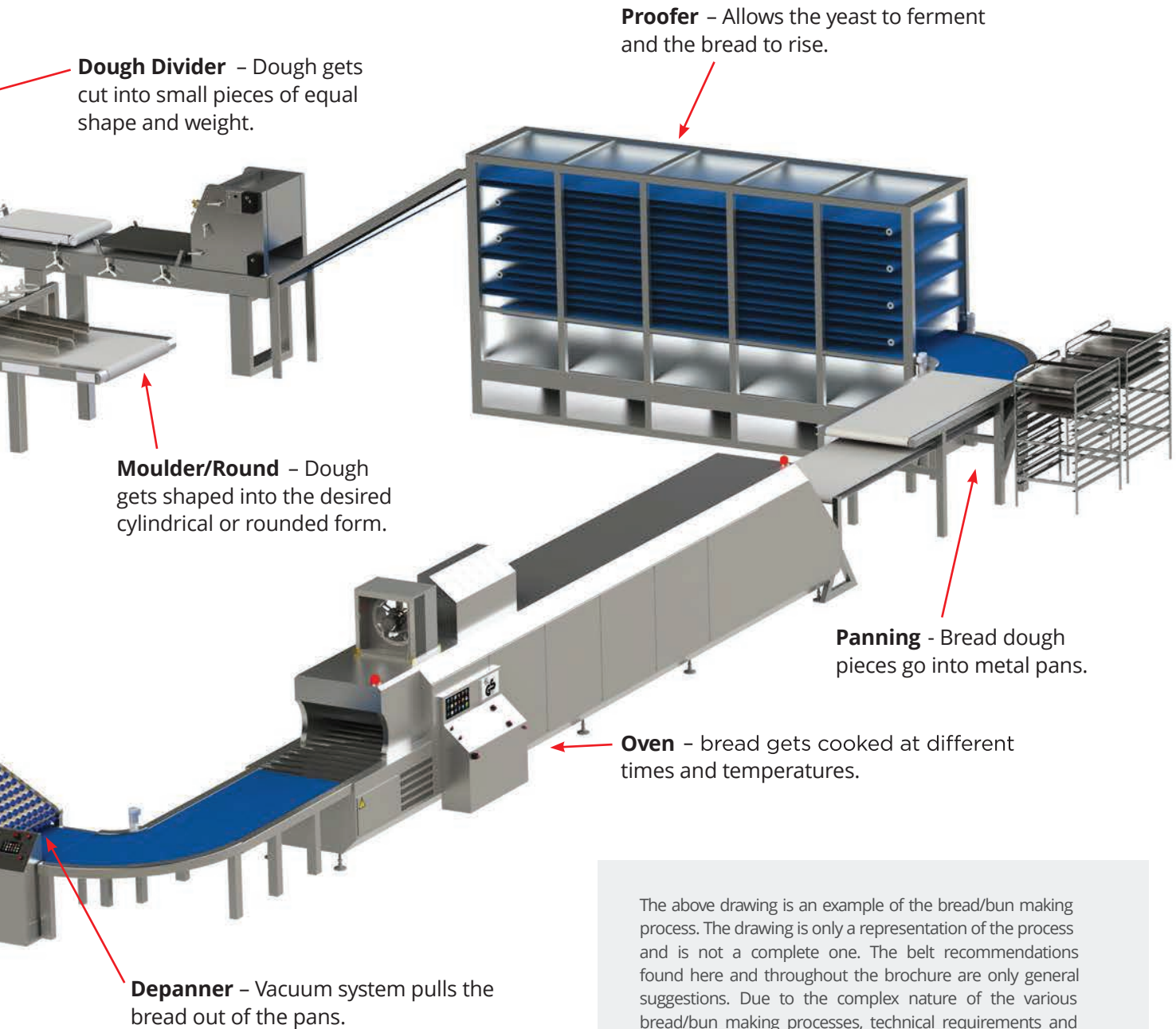
Standard layout of a bread or bun production line.





# BREAD & BUN PRODUCTION LINE

Standard layout of a bread or bun production line.

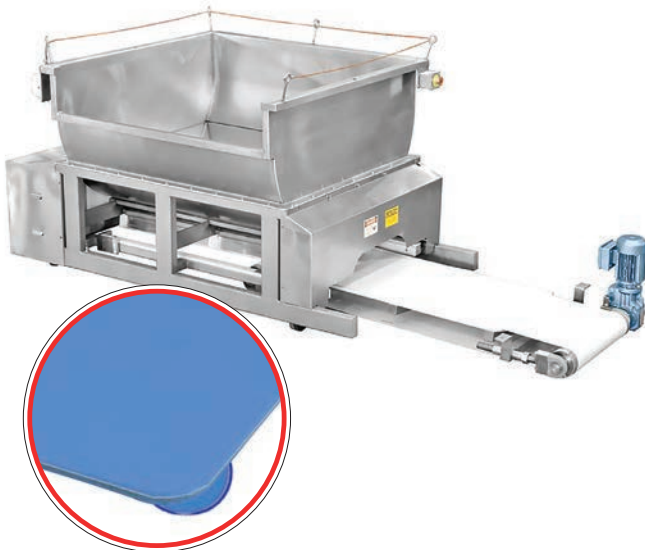


The above drawing is an example of the bread/bun making process. The drawing is only a representation of the process and is not a complete one. The belt recommendations found here and throughout the brochure are only general suggestions. Due to the complex nature of the various bread/bun making processes, 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.*

# EQUIPMENT & CONVEYOR BELTS

Most common machines and conveyor belts



P20/A BLUE

## DOUGH LOADER/FEEDER

The dough feeder is a metal hopper with a rotary blade system underneath that maintains a constant level of dough downstream. These dough feeders drop big and heavy pieces of dough (chunks) to what is called the **“Chunker Belt”**, a conveyor belt below the feeder. Due to the high presence of oil we recommend a polyurethane belt that, depending on the weight of the dough, could be **P20/A** or **P8/A**, both available in white and blue.



POLYURETHANE  
SERIES



SOLID WOVEN  
MONOFILAMENT

## CROSS SHEETER

The cross sheeter is a machine that takes big pieces of dough and compresses them into a thinner, flat piece (like a sheet). There is a belt on the bottom that conveys the dough into the machine, and once inside, a roller or another belt on top is used to flatten the dough. We recommend **P20/A** or **P8/A** for both belts. However, if the sheeter is on an incline, **P19/B**, **F20/T**, **F10/Z** or **P8/Z**, would also be recommended. Most are available in white and blue. Other options are **solid woven cotton** and **R series** (no covers) belts.



P19/B



POLYURETHANE  
SERIES



PVC  
SERIES



RAW COVERS  
SERIES



WOOL  
SERIES



SOLID WOVEN  
COTTON



SOLID WOVEN  
MONOFILAMENT



# EQUIPMENT & CONVEYOR BELTS

Most common machines and conveyor belts



R14/BF

## DOUGH DIVIDER

The dough divider gets the dough sheet through its hopper and using knives or rotary discs, cuts the dough into individual pieces of the same weight that fall onto a conveyor. Sometimes there could be two levels of conveyors at different speeds to create more space between the cut pieces of dough. We recommend **R14 BF**, but **wool felts, solid woven cotton, F or R series** could also be used.



## DOUGH MOULDER

The dough moulder is a machine with a belt running on the bottom and a fixed piece of plastic or a conveyor belt running slowly in the opposite direction on the top. This way the piece of dough rolls onto itself and is formed into the desired shape. We recommend **R19** or **solid woven cotton** on the bottom because it retains the flour from the duster giving it great release properties. **R14 BF** could also be used. For the top belt we recommend **P9/Z** or **P19/B** because it has grip to form the dough and great release properties as well.



R19



# EQUIPMENT & CONVEYOR BELTS

Most common machines and conveyor belts



R19

## DOUGH ROUNDER

For bread rolls, the moulder has to give the dough a rounded shape. In order to do that there's a plastic scraper (sometimes with textured belting adhered to it) positioned across the belt making the dough roll onto itself when moving forward. We recommend **R19** or **solid woven cotton** on the bottom because it retains the flour from the duster giving it great release properties. **R14 BF** could also be used. For the fixed piece across if belting is attached to it we recommend **P19/B** or **P9/Z** because of their texture and release properties.

**R** RAW COVERS SERIES

**P** POLYURETHANE SERIES

**SWC** SOLID WOVEN COTTON

**SWM** SOLID WOVEN MONOFILAMENT

## PROOFER

The proofer is a chamber used to increase fermentation of the dough with warm temperatures and controlled humidity (the dough has to have yeast on it). Essentially it is the raising of the dough. Instead of having the dough waiting on trays and the whole line stopped, the dough keeps moving around inside the proofer so the whole line can keep moving. We recommend, **R10**, **R11**, **R13/LB**, **R14** or **SAM210**. **Solid woven cotton** could also be used.

**R** RAW COVERS SERIES

**SAM** NEEDLE FABRIC SERIES

**P** POLYURETHANE SERIES

**SWC** SOLID WOVEN COTTON

**SWM** SOLID WOVEN MONOFILAMENT



R10

# EQUIPMENT & CONVEYOR BELTS

Most common machines and conveyor belts



SAM210

## PANNING SYSTEM

After the dough moulder, the pieces go onto a belt that drops them into pans. We recommend any **R series** belt, **SAM210**, **P8/A** or **solid woven cotton**. The pans then are conveyed by a metal conveyor into the oven or by metal rollers.



## DEPANNER

The depanner consists of a belt on the bottom carrying the bread pans, normally this belt is a modular or polyspiral belt because the pans are still hot. On top, there is a top belt with a suction cup vacuum that sucks the bread out of the pan and puts it in another conveyor. We recommend **F35**, our depanner belt.

The loaves of bread are then dropped onto a different modular or polyspiral belt heading one direction with the pans continuing to move on another belt in a different direction.

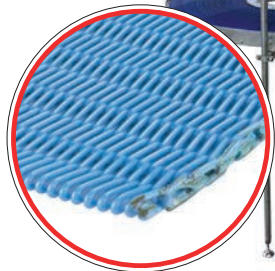


F35



# EQUIPMENT & CONVEYOR BELTS

Most common machines and conveyor belts



MEDIUM BLUE  
POLYSPIRAL

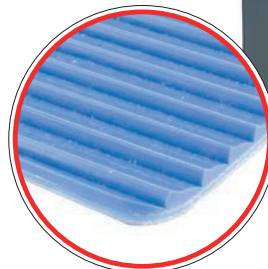
## COOLING SPIRAL

After the bread gets out of the pan, it normally goes into a cooling spiral to cool down. Modular belts are normally used for this step of the process. Although polyspiral belts could be used for in-feed and out-feed of the spiral.



## BREAD SLICER

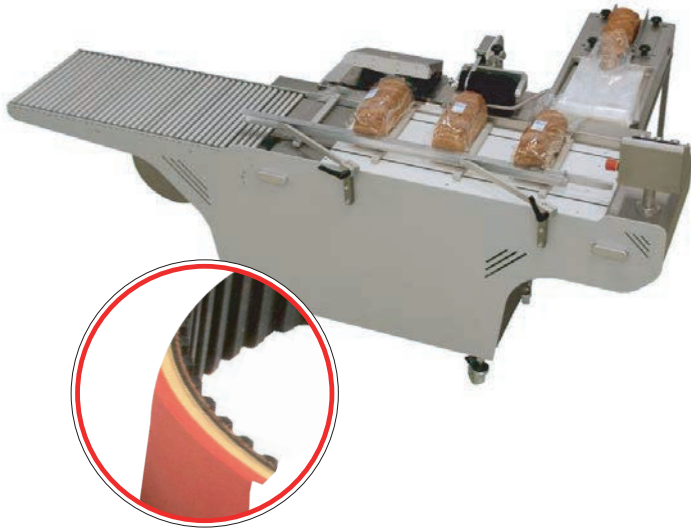
After the bread is cooled down it goes into the slicer. These machines normally have a textured belt like **F10/M** or **F20/T** on the bottom. Depending on the type of machine, the slicer can have the same belt on the sides or some have 20-30 small, 1" wide belts on top as dividers in between the knives, used to hold and compress the loaf. Some machines use timing belts as the knife dividers.



F20/T

# EQUIPMENT & CONVEYOR BELTS

Most common machines and conveyor belts



LINATEX COVERED  
TIMING BELT

## PACKAGING MACHINE

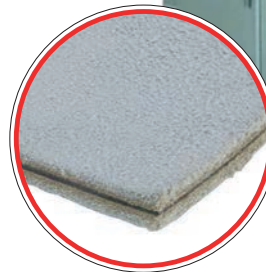
There are a lot of different types of these machines, depending on if the bread is going to be wrapped in plastic, or if it's going into a box to be frozen. MIPR offers **timing belts with special covers** for vertical fillers and wrapping machines. Any **polyurethane** or **FDA PVC** conveyor belt can be used for the in-feed and out-feed of the machine. For more information, please check out our packaging brochure.

**P** POLYURETHANE SERIES   **F** PVC SERIES   **SB** SPECIALTY SERIES

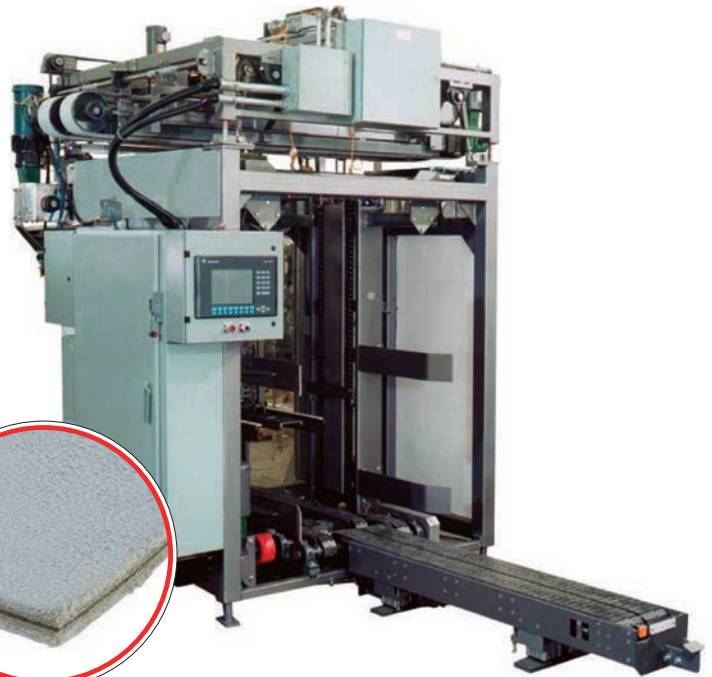
## PAN STACKER/UNSTACKER

An automatic machine pulls the empty pans out of the conveyor and stacks them together. MIPR offers **nylon core belts** with leather covers and **timing belts** to operate this machine.

**T** TRANSMISSION SERIES   **TB** TIMING BELT SERIES



F200/44



# 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
R10	Bare Fabric	PU Impregnated	2	PVC	Polyester	Bare
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 Skimmed	2	PU	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
F35	PVC	Smooth Shiny	3	PVC	Polyester	PU Impregnation
NEO4/10B	PU	Slight Fabric Texture	N/A	PU	None	Bare

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
1014 DUCK	No Cover	Cotton Fabric	1	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		Top Cover Thickness		Max Temp		Minimum Pulley		Pull per 1%		Color	Loader	Sheeter	Divider	Moulder	Rounder	Proofer	Panner	Depanner	Slicer	Packaging	General						
mm	in	mm	in	C°	F°	mm	in	N/mm	Lbf/in																		
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	○		•		•	•								•	•			
1.20	0.047	N/A	N/A	90	194	30	1.181	8	45	○			•			•	•							•			
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	○●		•	•											•	•		
3.80	0.149	0.80	0.031	80	176	120	4.716	20	114	○								•							•		
1.30	0.051	N/A	N/A	90	194	10	0.394	0.5	2.85	○●			•												•	•	
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	○	•	•	•	•	•	•										•	•
1.75	0.069	N/A	N/A	107	225	5	0.197	5	28	○		•	•	•	•											•	•
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.

# MIPR

CORPORATION

## QUESTIONS + ORDERS



800-540-1846



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