



Mysteries of Conching Revealed

Carly Meck

Blommer Chocolate



10 Summer Emojis That Should Definitely Exist

These will be essential to your summer texting game. Get up ‘n’ get goin’, beca

HEALTH

The Only 12 Exercises You Need To Get In Shape

Learn these moves and you’ll never need to pay for a gym membership again.

posted on Jan. 1, 2015, at 11:40 p.m.

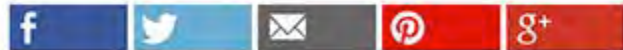


18 Dogs Who Have A Serious Case Of The Mondays

Mondays are truly THE WORST.

posted on July 7, 2014, at 8:05 a.m.

Tasmal Uppin
BuzzFeed Staff



39 Signs You Grew Up In The '90s

From Britpop to Billie Piper, the '90s were awesome.

posted on March 24, 2013 at 6:20pm EDT

Ailbhe Malone
BuzzFeed Staff



s wild as your weekend got



16 Things Americans Say That Seriously Confuse The Rest Of The World

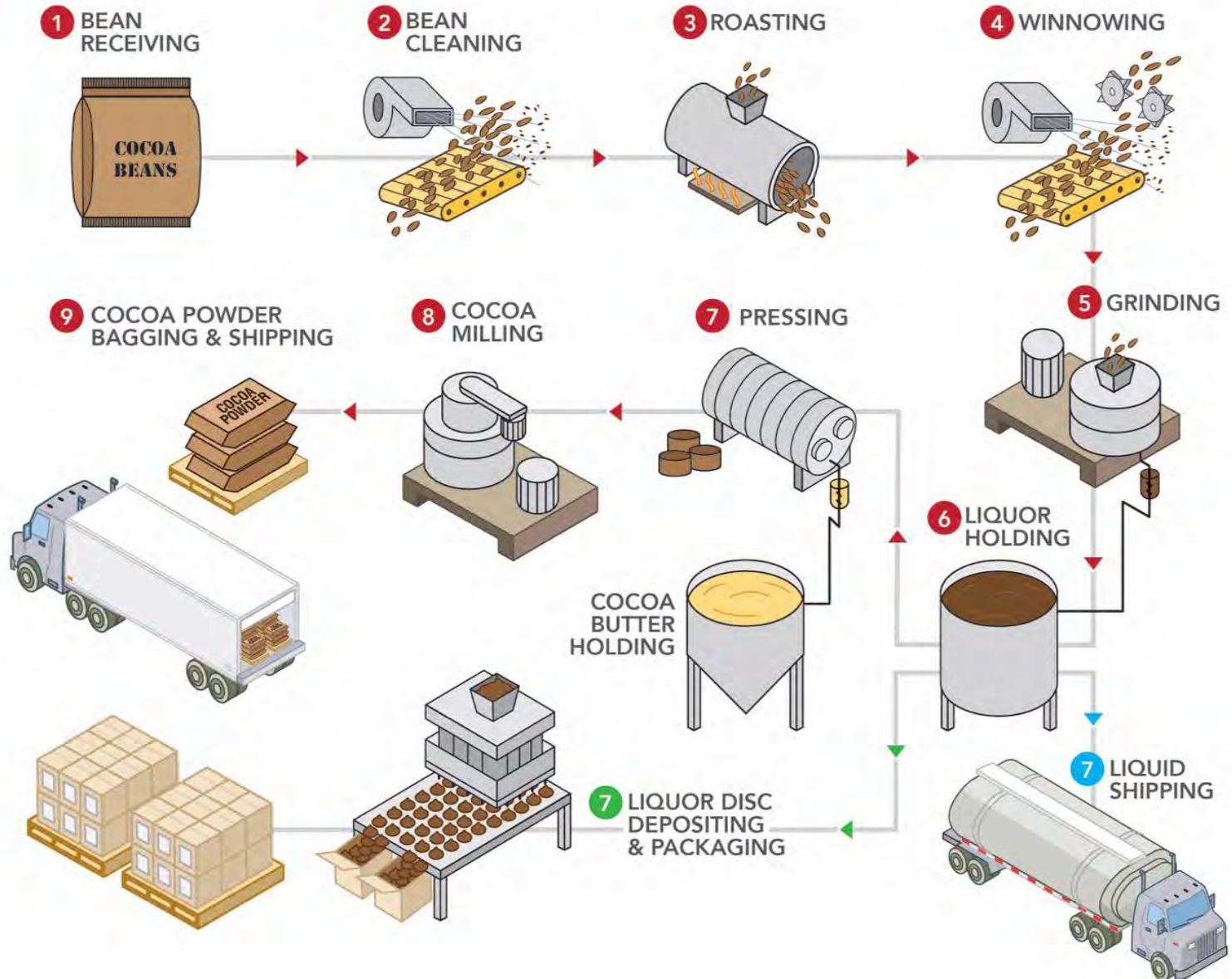
19 Pictures That Are Way Too Real For College Students

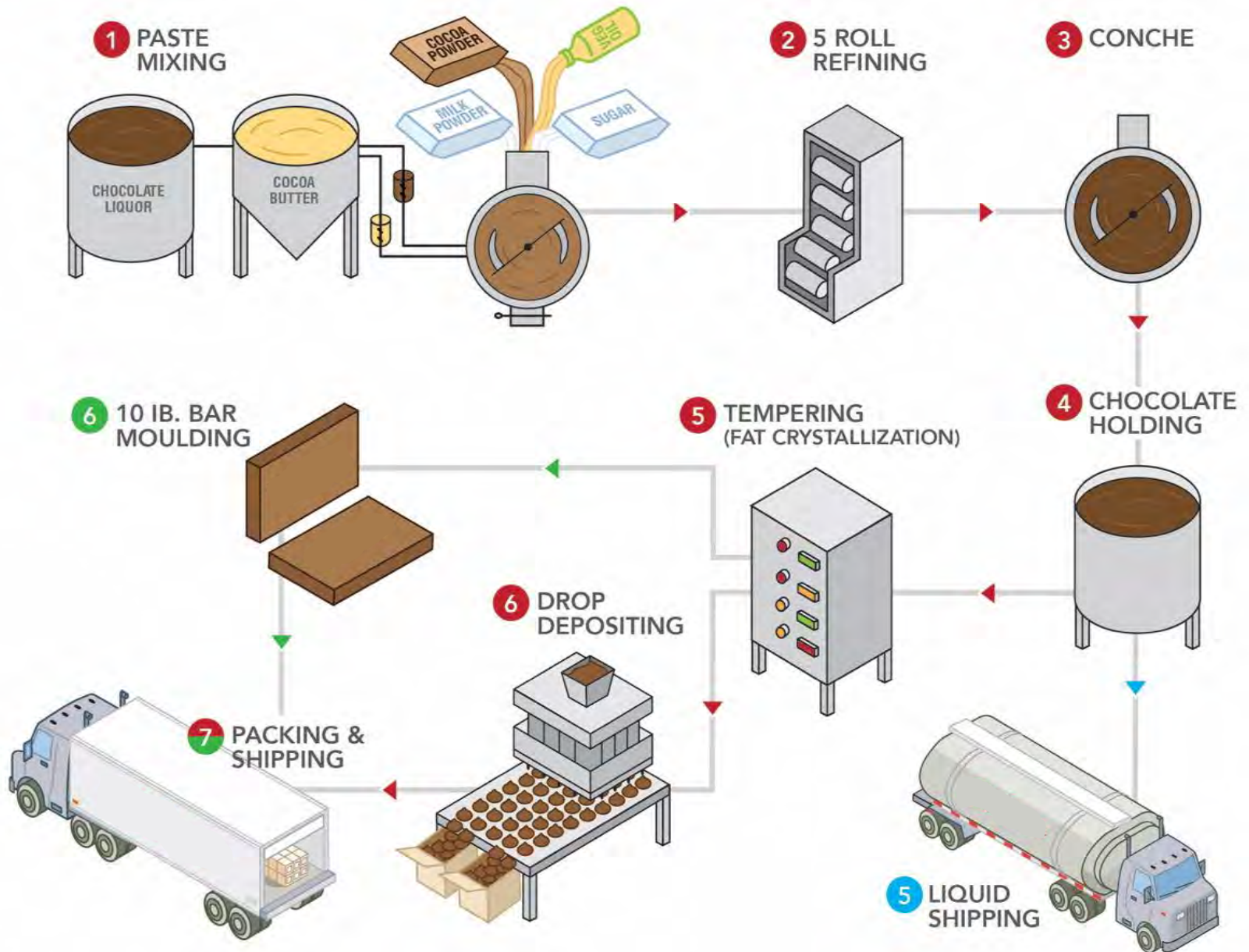
A close-up, artistic photograph of a thick, glossy chocolate swirl on a light-colored, possibly white, surface. The chocolate is being poured or drizzled, creating a dynamic, flowing shape with various shades of brown and white. A bright red rectangular button is centered over the middle of the swirl. The button has a slight shadow, giving it a three-dimensional appearance.

START SLIDESHOW >

1

Conching is a Vital
Step in the Chocolate
Making Process





A large, rusted metal safe with a yellow border and a handle. The safe is made of dark, weathered metal and features a prominent yellow-painted border around its edges. A thick, cylindrical metal handle is attached to the left side of the door. The safe is situated in a workshop or storage area, with wooden planks visible at its base and various mechanical parts in the background.

NEXT >

2

Conching has a Long
and Accidental History

• Ancient Mesoamerica

- Cocoa beans used as currency
- Royals drank a bitter frothy cocoa beverage

• 1800's

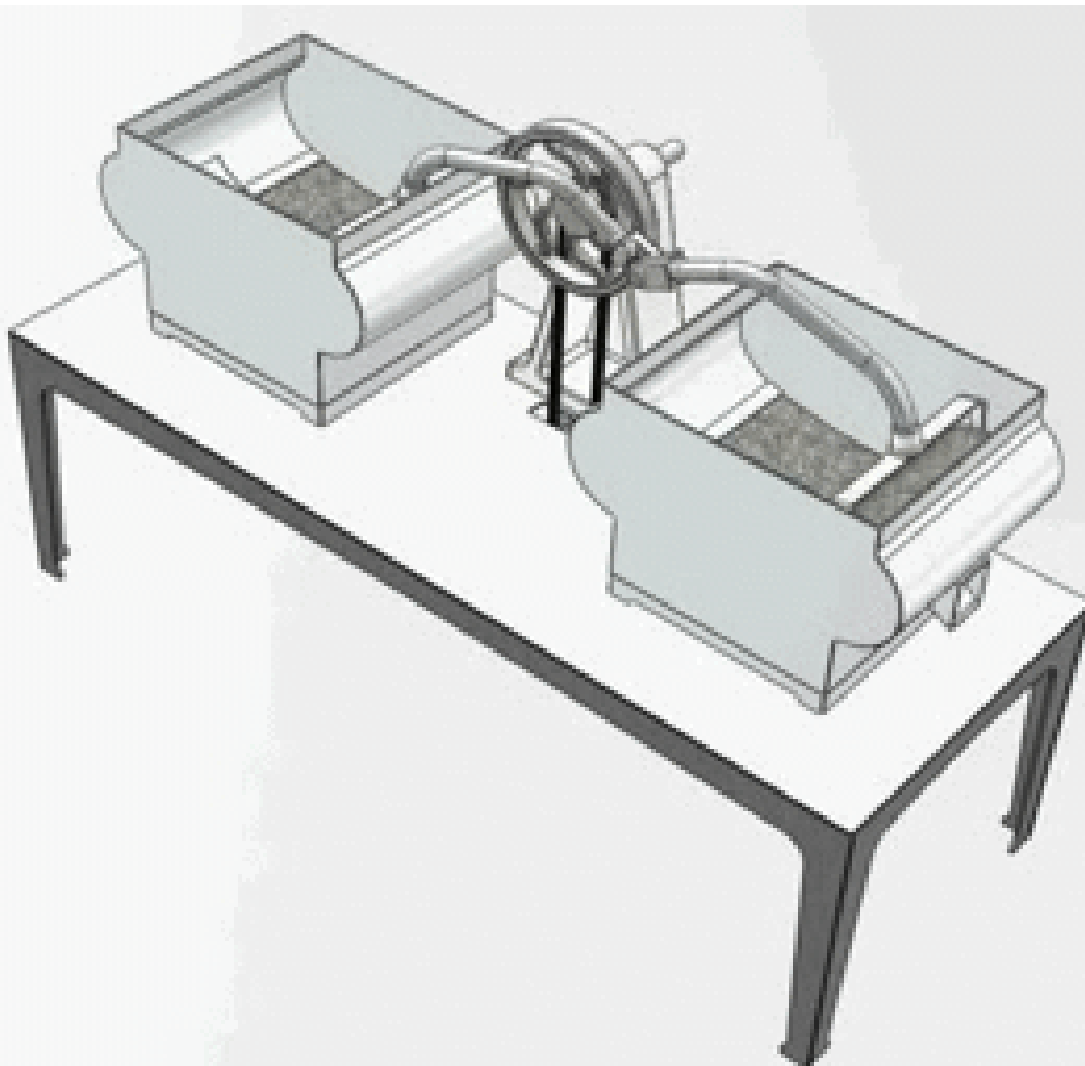
First solid eating chocolate appeared – not desirable due to texture

• 1600's

Chocolate was solely consumed as a beverage

• 1879

- Rudolphe Lindt discovered conching. The results were smooth, less bitter chocolate



imgflip.com

Image from [Brooklyncacao.com](https://brooklyncacao.com)

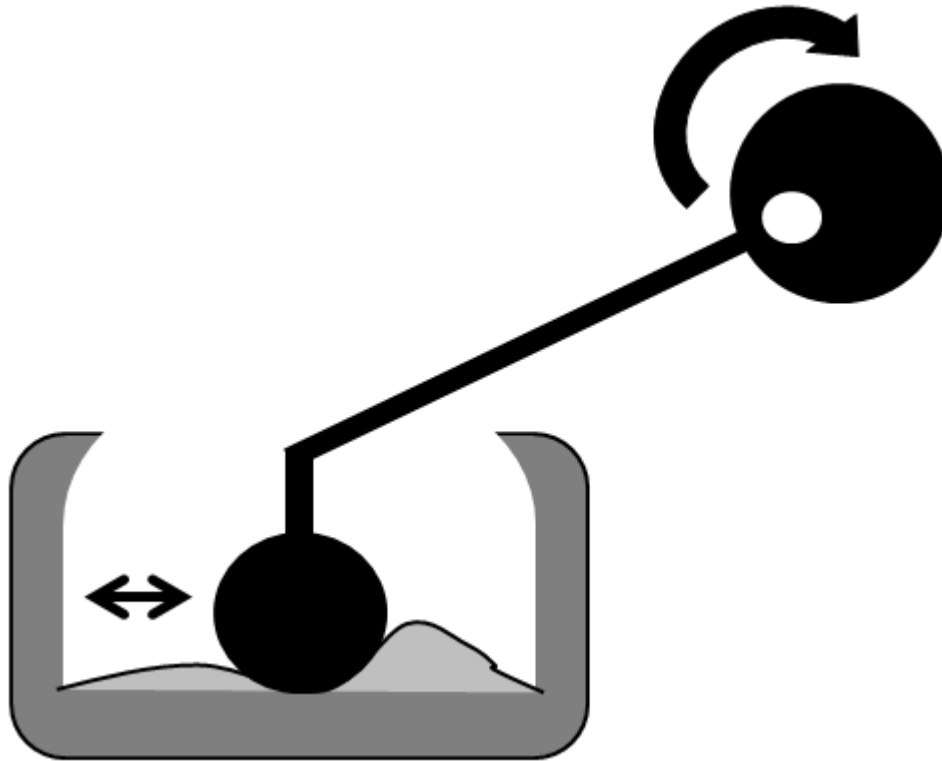
A close-up photograph of a chocolate mold. The mold is made of a dark, polished material, likely metal, and is filled with a thick, glossy, brown liquid chocolate. The chocolate is being poured or spread, creating smooth, curved surfaces and some air bubbles. A red rectangular overlay is positioned in the center of the image, containing the text "NEXT >" in white, sans-serif font.

NEXT >

3

Design Matters

Longitudinal Conche



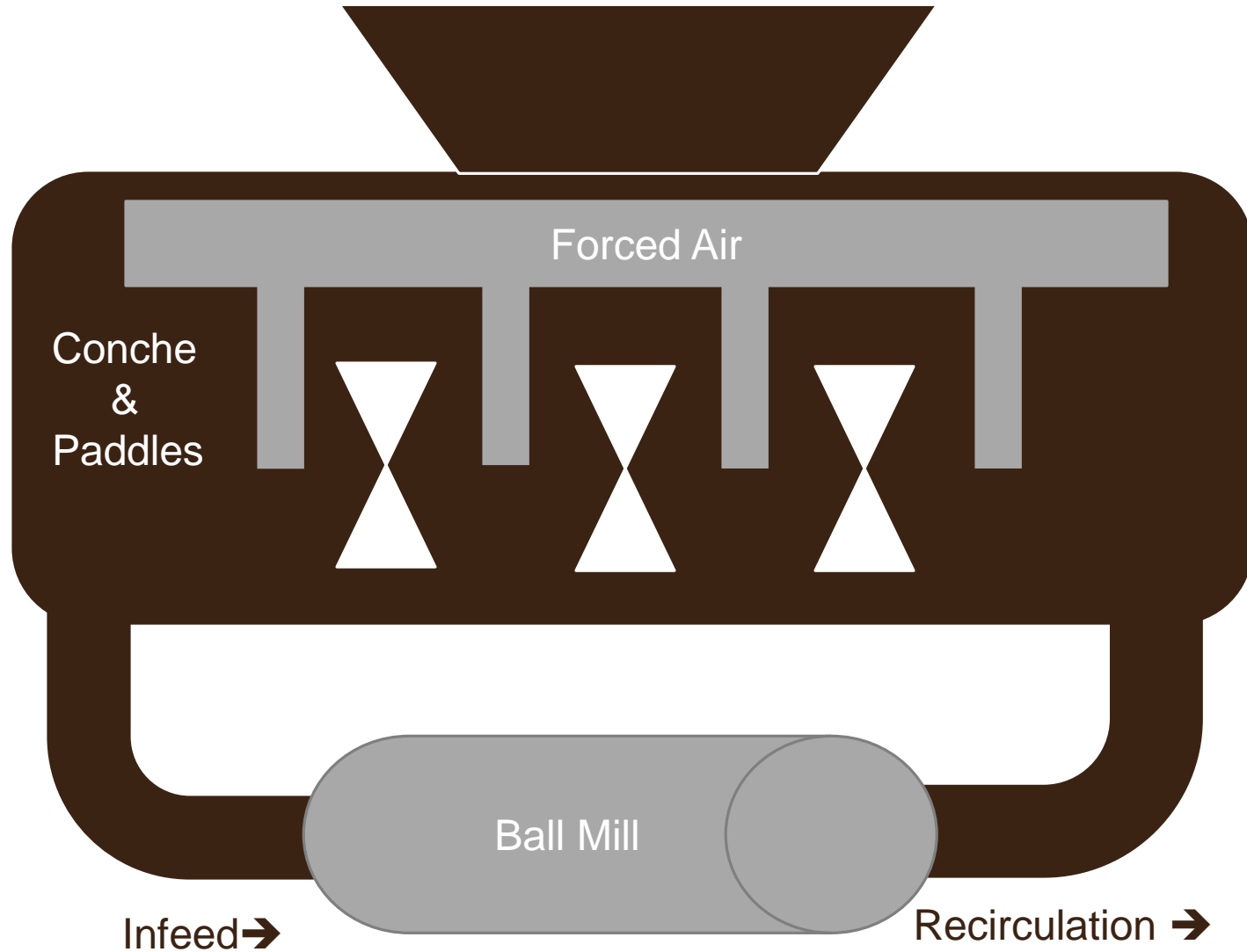
Melanger



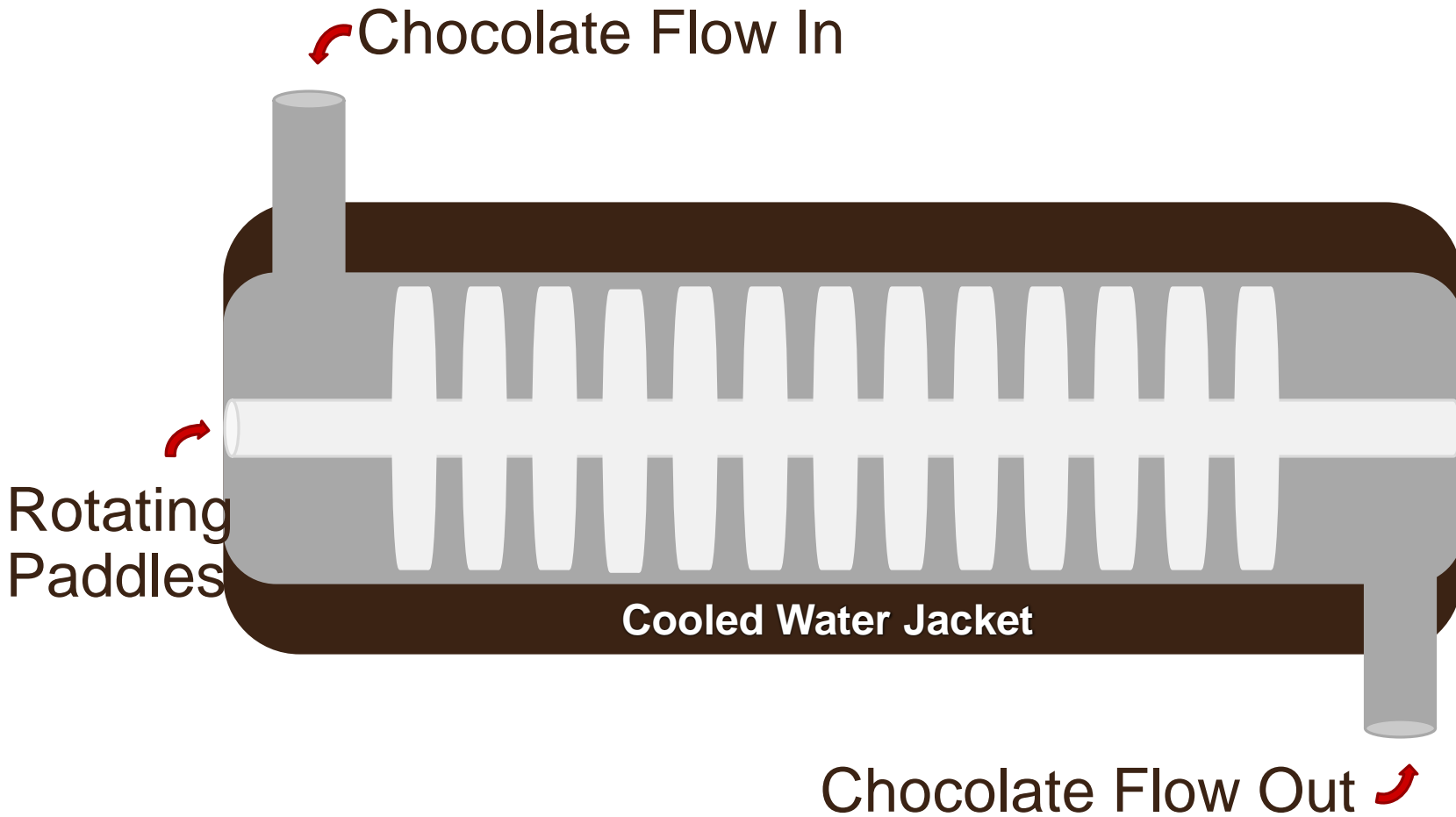
Refiner Conche



Refiner Conche



Continuous Conche



High Shear Conche

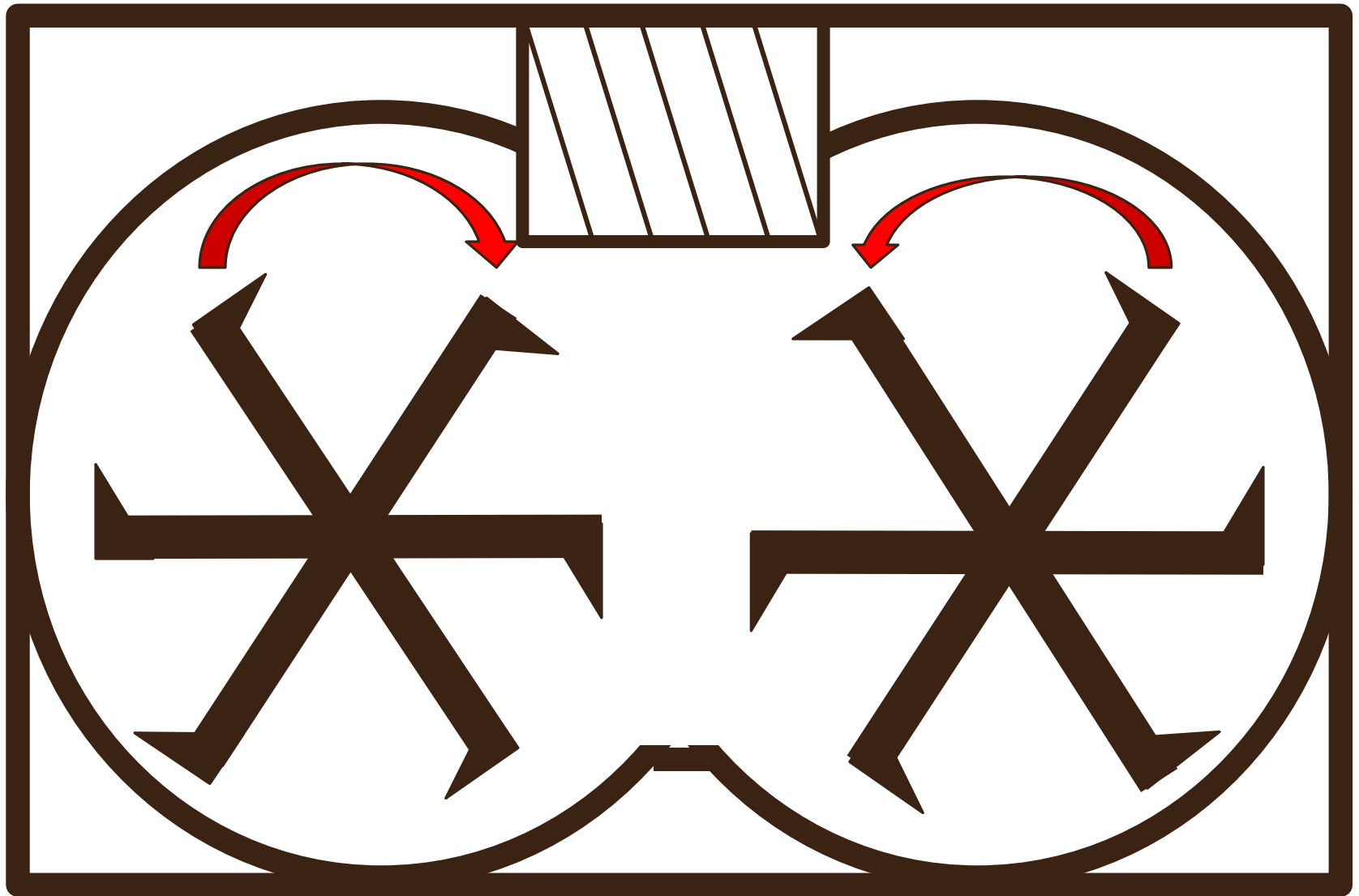


Mixing and Cutting

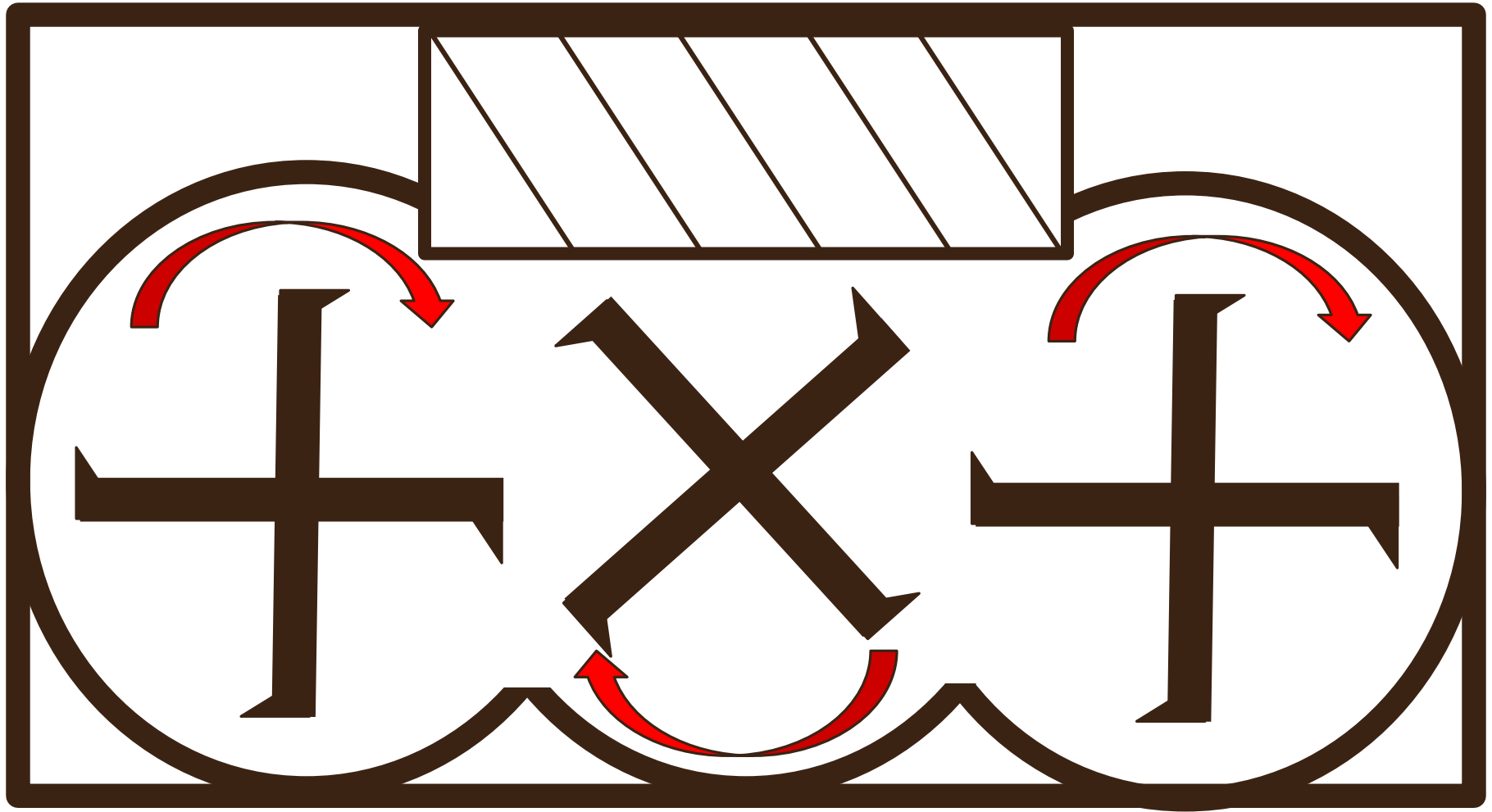


Shearing

Two Shaft High Sheer



Three Shaft High Sheer





NEXT >

4

Chocolate Transforms
at Different Stages of
the Conching Process

Phases of Conching

Dry Phase



Phases of Conching

Plastic Phase



Phases of Conching

Liquid Phase



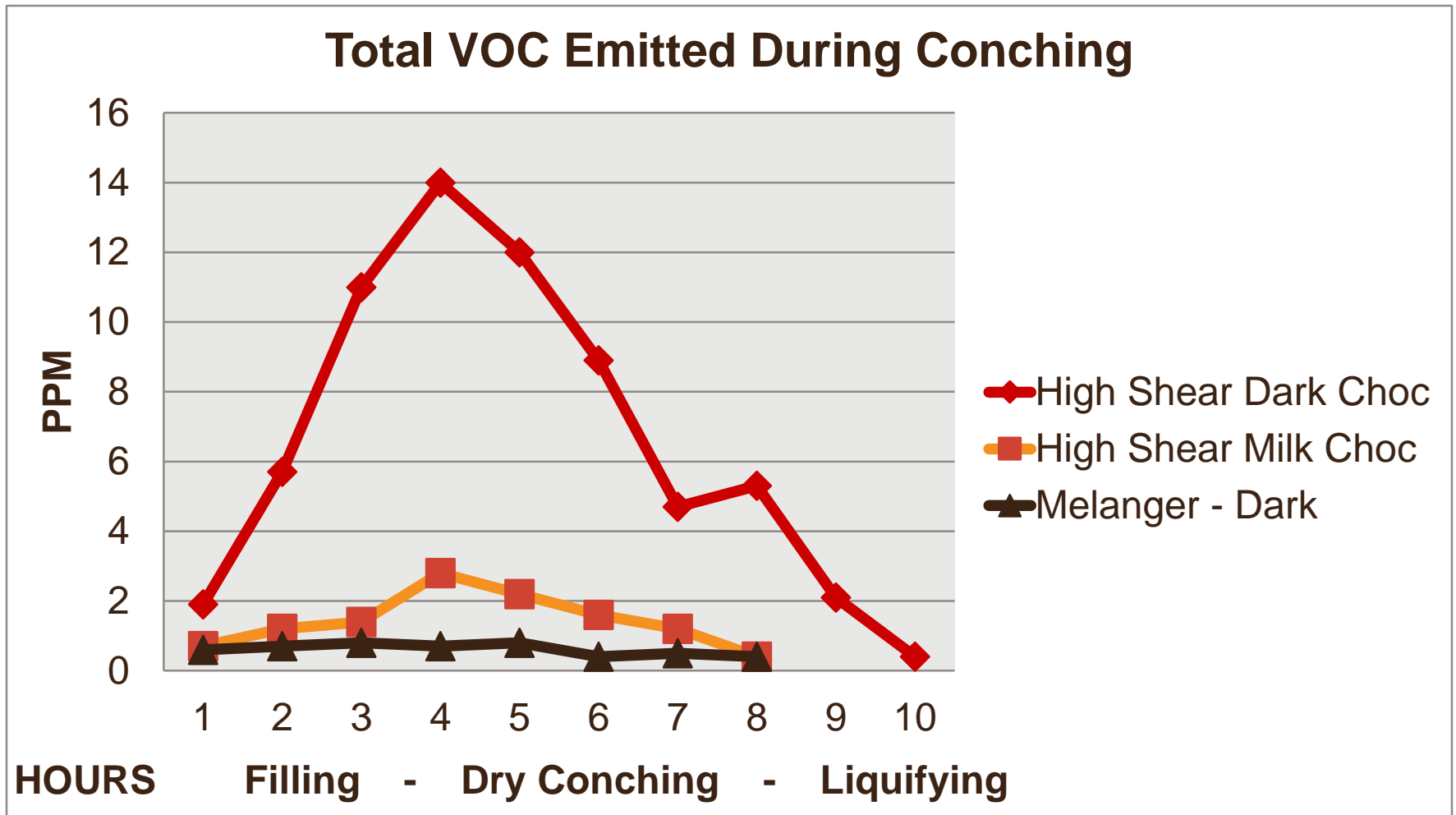


NEXT >

5

Volatile Molecules
are Reduced

Volatile Reduction



A close-up photograph of a chocolate tempering machine. The machine features a large, polished metal drum that is rotating, as evidenced by the blurred motion of the chocolate coating it. The drum is set within a light-colored wooden frame. A metal arm with two black adjustment knobs is positioned over the drum. The chocolate is a rich, dark brown color and is being spread evenly across the drum's surface. The background is slightly out of focus, showing more of the machine's structure.

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6

Moisture is Reduced

Moisture Reduction



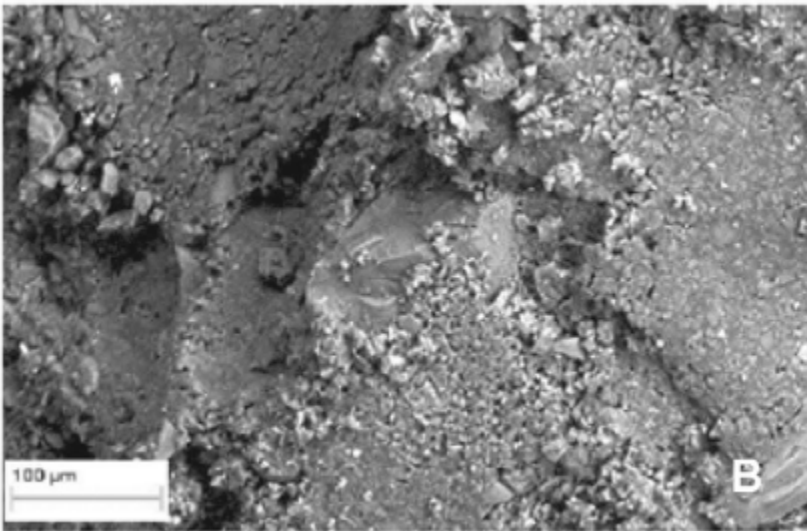


NEXT >

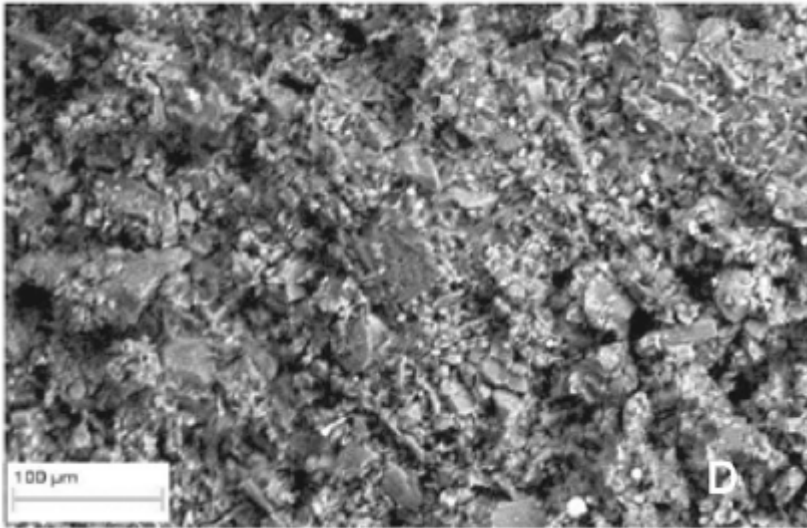
7

Texture and Mouthfeel
are Improved

Crystalline Network PreRefining



Crystalline Network Conching



Images Glicerina, Virginia, et al. "The Influence of Different Processing Stages on Particle Size, Microstructure, and Appearance of Dark Chocolate." Journal of Food Science

A close-up photograph of a chocolate extrusion machine. Multiple vertical tubes are extruding a thick, glossy, brown chocolate. The chocolate forms a series of overlapping, wavy ridges that create a textured surface. A red rectangular box is superimposed over the center of the image, containing the text 'NEXT >'.

NEXT >

8

Flow Characteristics
are Improved



A close-up photograph of various chocolate candies. In the foreground, a chocolate candy shaped like a parrot is prominent on the right. Other candies include one with a diamond grid pattern, one with a wavy, scale-like texture, and several others with smooth or slightly textured surfaces. A red rectangular overlay is centered in the image, containing the text "NEXT >" in white, sans-serif font.

NEXT >

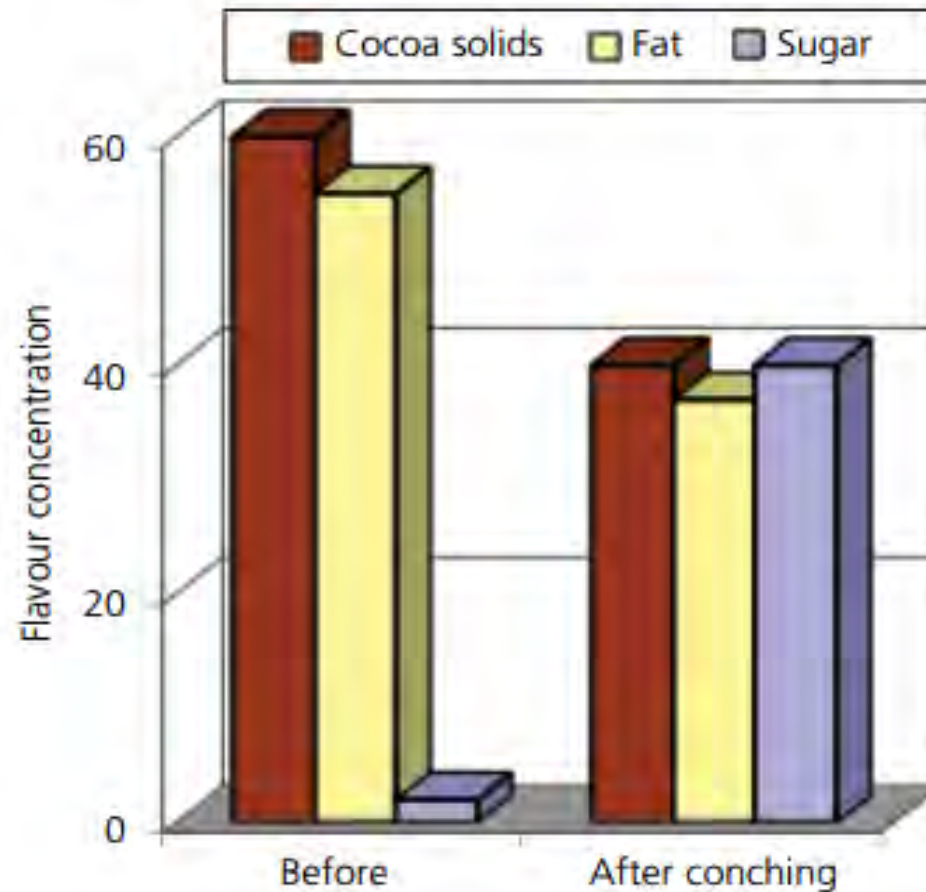
9

Overall Flavor
Enhancement

Flavor Enhancement



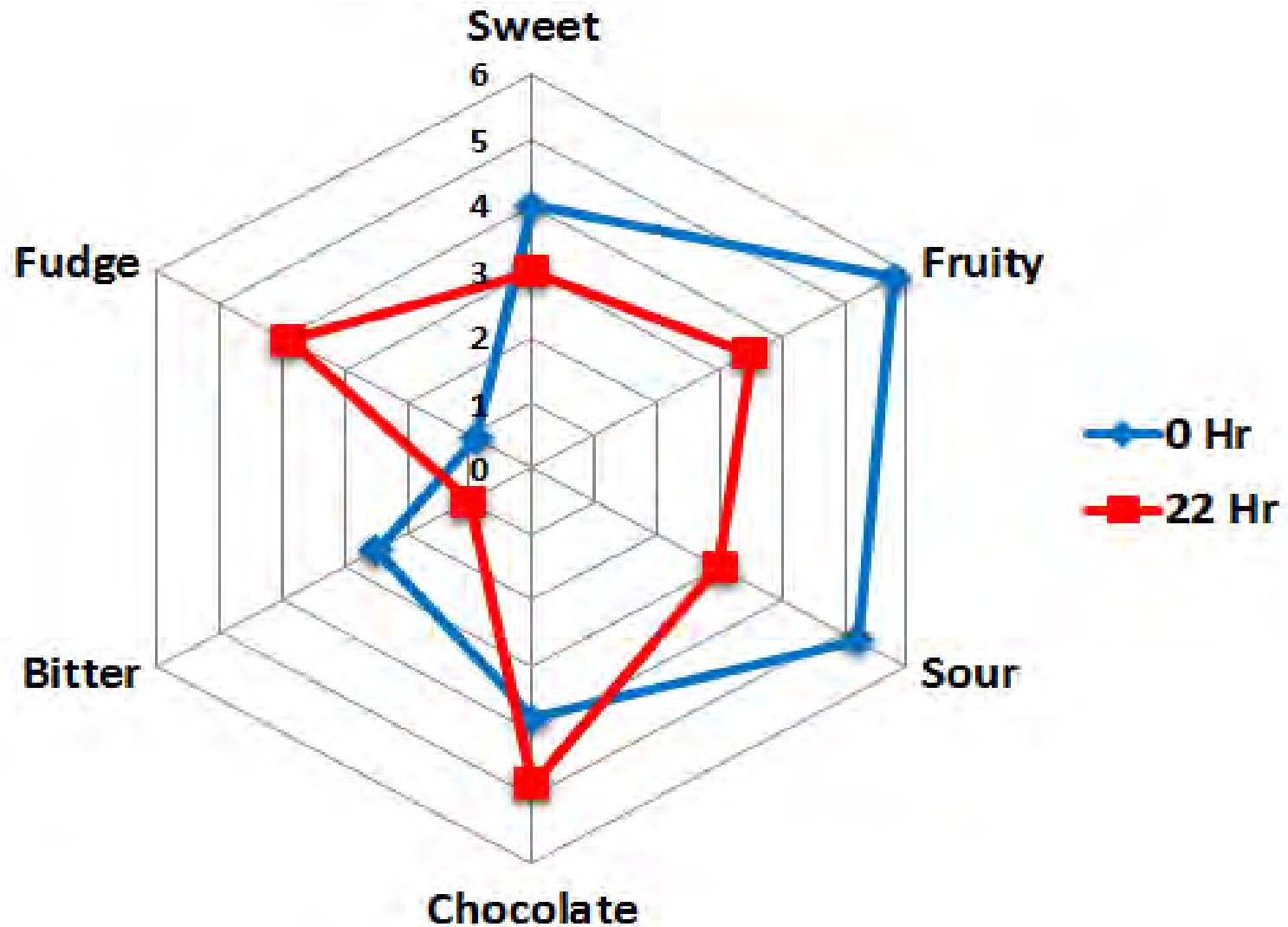
Flavor Enhancement



Flavor Enhancement



Flavor Enhancement



Flavor Enhancement

UNCONCHED DARK CHOCOLATE

| | |
|------------------|--------|
| Sugar | 40.17% |
| Chocolate Liquor | 44.48% |
| Cocoa Butter | 15.06% |
| Lecithin | 0.25% |
| Vanilla Extract | 0.04% |

Overall fat %: 39.33%

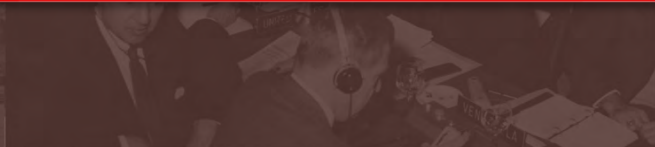
22 HR CONCHED DARK CHOCOLATE

| | |
|------------------|--------|
| Sugar | 44.80% |
| Chocolate Liquor | 49.46% |
| Cocoa Butter | 5.46% |
| Lecithin | 0.25% |
| Vanilla Extract | 0.04% |

Overall fat %: 32.42%



NEXT >



10

Harness the
Knowledge of
Your Suppliers

Conclusion



Thanks!

R Potts

S Ganter

J Derhammer

S Luchansky

A Moser

M Loewen

