

WM. A. SCHMIDT & SONS, INC.

Making Big Round Things
in Metal for over Fifty Years

About Us

Tanks & Vessels

Chocolate Equipment

- overview
- chocolate melters
- chocolate mixers
- holding tanks

Emergency Maintenance

Rolling & Forming

What's New

Power Generator Components

Contact Us

HOME

overview | horizontal mixers | dry conche batch mixer

Chocolate Making Equipment - Chocolate Mixers

Chocolate liquor is blended with the butter in varying quantities to make different types of chocolate or couverture. The basic blends of ingredients, in order of highest quantity of cocoa liquor first, are as follows. (Note that since U.S. chocolates have a lower percentage requirement of cocoa liquor for dark chocolate, some dark chocolate may have sugar as the top ingredient.)

1. **Plain dark chocolate:** sugar, cocoa butter, cocoa liquor, and (sometimes) vanilla
2. **Milk chocolate:** sugar, cocoa butter, cocoa liquor, milk or milk powder, and vanilla
3. **White chocolate:** sugar, cocoa butter, milk or milk powder, and vanilla

Usually, an emulsifying agent such as soya, lecithin is added, though a few manufacturers prefer to exclude this ingredient for purity reasons and to remain GMO-free (soya is a heavily genetically modified crop), sometimes at the cost of a perfectly smooth texture. Some manufacturers are now using PGPR, an artificial emulsifier derived from castor oil that allows them to reduce the amount of cocoa butter while maintaining the same mouthfeel.

The texture is also heavily influenced by processing, specifically conching. The more expensive chocolates tend to be processed longer and thus have a smoother texture and "feel" on the tongue, regardless of whether emulsifying agents are added.

Different manufacturers develop their own "signature" blends based on the above formulas but varying proportions of the different constituents are used.

The finest plain dark chocolate couvertures contain at least 70% cocoa (solids + butter), whereas milk chocolate usually contains up to 50%. High-quality white chocolate couvertures contain only about 33% cocoa. Inferior and mass-produced chocolate contains much less cocoa (as low as 7% in many cases) and fats other than cocoa butter. Some chocolate makers opine that these "brand name" milk chocolate products can not be classed as couverture, or even as chocolate, because of the low or virtually non-existent cocoa content.

TANK CAPACITY	600 GAL.	1,000 GAL.	2,000 GAL.	3,000 GAL.	4,000 GAL.	5,000 GAL.
Overall Length	9'-1 1/2"	11'-4"	14'-3"	15'-6"	20'-1 1/2"	20'-1 1/2"
Inside Length	5'-10 1/2"	7'-10 1/2"	10'-8"	11'-9"	15'-9"	15'-9"
Overall Width	4'-0"	4'-8"	5'-10"	6'-8"	6'-8"	7'-6"
Overall Height	4'-6"	5'-5"	6'-5"	7'-5"	7'-5"	8'-5"
H.P. & Frame Size	3HP-182T	3HP-213T	5HP-184T	7.5HP-213T	10HP-215T	10HP-215T
Approx. Ship Wt.	3,300 lbs.	5,200 lbs.	7,600 lbs.	10,500 lbs.	13,000 lbs.	14,500 lbs.

TANK CAPACITY	6,500 GAL.	8,000 GAL.	10,000 GAL.	12,500 GAL.	15,000 GAL.	20,000 GAL.
Overall Length	25'-2"	24'-4 1/2"	28'-3"	28'-6"	33'-4 1/2"	28'-6"
Inside Length	20'-7 1/2"	19'-9"	23'-7 1/2"	23'-7 1/2"	28'-6"	23'-7 1/2"
Overall Width	7'-6"	8'-4"	8'-4"	9'-4"	9'-4"	11'-6"
Overall Height	8'-6"	9'-0"	9'-4"	10'-2"	10'-2"	12'-9"
H.P. & Frame Size	15HP-254T	15HP-254T	15HP-254T	20HP-256T	20HP-256T	20HP-286T
Approx. Ship Wt.	18,250 lbs.	19,750 lbs.	22,750 lbs.	25,000 lbs.	31,750 lbs.	34,750 lbs.

Manufacturers can produce three types of chocolate by blending a mix of basic ingredients: cocoa pastes, cocoa butter, sugar and milk. Plain chocolate is made by mixing the cocoa paste with cocoa butter and sugar. Milk chocolate has milk added to this mixture, usually as a dry powder. White chocolate contains only cocoa butter, sugar and milk. The quantities of the ingredients are based on secret recipes. Each recipe is developed according to how the chocolate will be used, the quality required and the food regulations that apply in some countries.

WM. A. SCHMIDT & SONS, INC.

Making Big Round Things
in Metal for over Fifty Years

About Us

Tanks & Vessels

Chocolate Equipment

- overview
- chocolate melters
- chocolate mixers
- holding tanks

Emergency Maintenance

Rolling & Forming

What's New

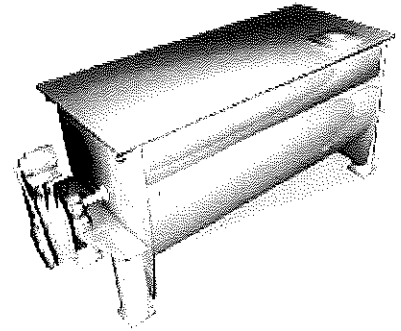
Power Generator Components

Contact Us

HOME

[overview](#) | [horizontal mixers](#) | [dry conche batch mixer](#)

Chocolate Making Equipment - Horizontal "U" Shaped Mixers



Horizontal "U" Shaped Mixing
and Storage Vessels

McCarter vessels are designed & built by WM. A. Schmidt and Sons under the jurisdiction of ASME guidelines using medium gauge materials & welded-reinforced construction.

Standard unit material is carbon steel ASTM A36. Optional materials are stainless steel, ASTM A240-304/316