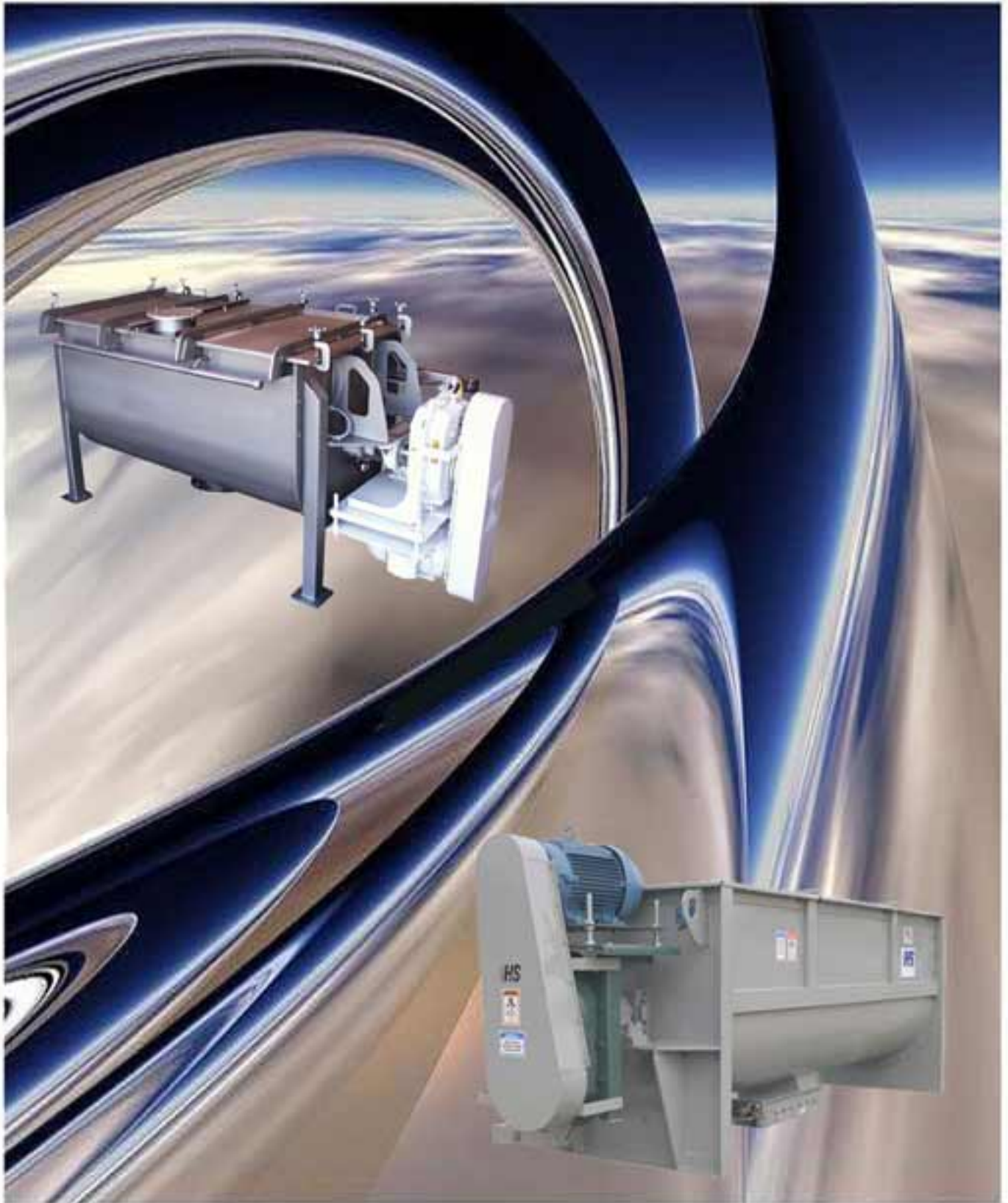


Hayes & Stolz



Industrial Mixers

Hayes & Stolz Ind. Mfg. Co., Ltd. uses a combination of creativity, state-of-the-art technology, and expertise to design and produce a line of mixing equipment that is unsurpassed in **efficiency, fast mix times, and durability.**

With over 50 years of experience as a mixer manufacturer, Hayes & Stolz has invested countless hours in the development and testing of various ribbon and paddle mixer configurations in an ongoing effort to deliver the most efficient mixers possible. The performance of mixers currently provided by H&S has been thoroughly verified through rigorous testing using the latest testing equipment and methods.

With the knowledge gained from this extensive testing, Hayes & Stolz has developed a proprietary computer program to assist in the design of its mixers. Each type of mixer has numerous variables that must be brought into balance to achieve homogenous mixing. Using the computer program, Hayes & Stolz is able to design both ribbon and paddle type mixers with the precise balance of shaft speeds, agitator component pitch, component widths and spacing, along with width-to-length body ratios in order to deliver maximized performance.



Homogeneous mixing, measured as coefficient of variation (Cv) of less than 10, can be achieved in as little as two minutes in the **Hayes & Stolz SINGLE SHAFT HORIZONTAL MIXERS.**

Hayes & Stolz TWIN SHAFT "TR" AND "TP" COUNTERPOISE HORIZONTAL MIXERS can achieve Cv's of less than 10 in thirty seconds.



Note: "Coefficient of variation" (Cv) is the measurement of variability of a trace ingredient in relation to the mean (or average) and is used to compare relative dispersion. For most applications, a Cv of 10 or less denotes homogenous mixing has been achieved.

Ribbon and paddle type mixers, both single and twin shaft designs, are available for testing of specific products and/or applications. Tests can be conducted at the Hayes & Stolz test lab or a mixer can be shipped to the customer's facility. Contact Hayes & Stolz for more information, or to arrange for testing of your application.

SINGLE SHAFT RIBBON & PADDLE MIXERS

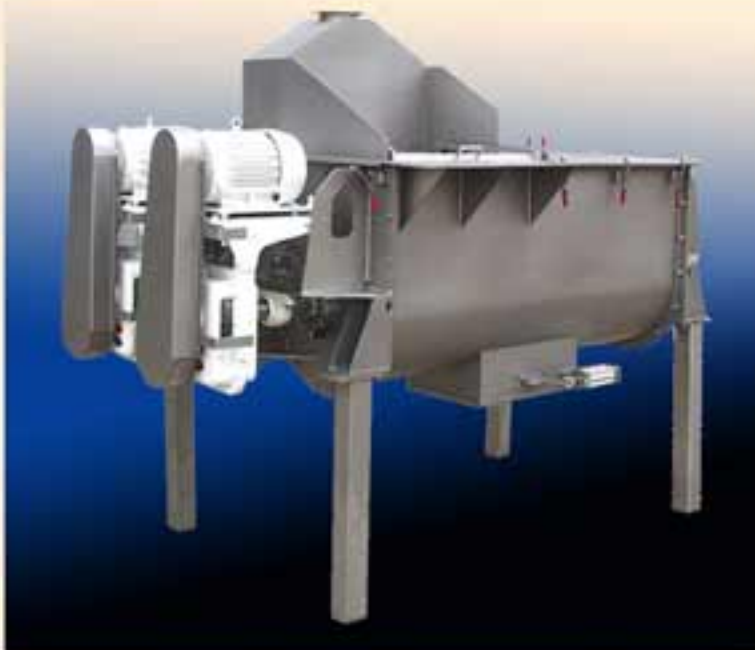
Capacity Cubic Feet	Width I.D.	Length I.D.
2	13"	26"
5	22"	22"
10	22"	44"
15	26"	50"
30	32"	64"
42	36"	72"
58	40"	80"
86	46"	92"
114	50"	100"
128	52"	114"
196	60"	120"
238	64"	128"
286	68"	136"
339	72"	144"
398	78"	144"
464	78"	168"
571	86"	172"
662	90"	180"

Larger sizes are
available upon request



"COUNTERPOISE" TWIN SHAFT RIBBON & PADDLE MIXERS

"Counterpoise" by definition is the result of equal power or forces acting in opposition; a state of balance. This is what the counter-rotating shafts provide: a unique, smooth, continual, multi-directional flow of particles in the mixing zone. The result is a quick, gentle mixing that is unsurpassed in mixing efficiency.



Capacity Cubic Feet	Width I.D.	Length I.D.
10	34"	48"
16	40"	58"
32	50"	73"
63	63"	91"
126	80"	115"
189	91"	131"
252	100"	144"
315	108"	155"
383	116"	167"
542	136"	172"

For additional information please visit our website: www.hayes-stolz.com



RIBBON ASSEMBLY FEATURES

- Solid Steel Mainshaft
- Solid Steel Ribbon Support Arms
- Stainless or Carbon Steel Construction
- Ribbon / Paddle Combinations Available
- Ribbons with Intensifier Bars



• Carbon Steel Ribbon Assembly



• Stainless Steel Ribbon Assembly

PADDLE ASSEMBLY FEATURES

- Solid Steel Mainshaft
- Carbon Steel Paddles With Hard Facing, and / or Abrasion Resistant Steel
- Inner and Outer Paddle Arrangement Provide Mixing Balance & Efficiency



• Carbon Steel Paddle Assembly



• Stainless Steel Paddle Assembly



• Paddle Assembly for Dense Abrasive Products

TYPES OF STAINLESS STEEL FINISHES



- **USSS** – Ultra Sanitary Stainless Steel
- Interior Welds Are Continuous Ground Smooth and Blended
- Interior Polished to 120 Grit Finish
- Exterior is Glass Bead Blast
- 4A Dairy Finish Available

- **SSS** – Sanitary Stainless Steel
- Interior Welds Are Continuous Weld Splatter & Discoloration Removed
- Interior Polished to 80 Grit Finish
- Exterior is Glass Bead Blast



- **SSCII** – Stainless Steel Commercial Finish Type II Construction
- Interior Welds Are Not Continuous Unless Requested Weld Splatter Removed but no Polishing
- Stainless Exterior is Commercial Finish, Unpainted
- Carbon Steel Structural Components Are Painted
- Structural Support Legs

- **SSCI** – Stainless Steel Commercial Finish Type I Construction
- Interior Welds Are Not Continuous Unless Requested Weld Splatter Removed But no Polishing
- Exterior of Mixer is Painted
- Mixer is Supported by End Plates



Cover Options



- Counter Weighted Sections For Easier Opening

- Safety Switches Will be on all Non-Grated Hinged and Clamped Openings.
- Bolted Cover Sections Will Not Have Switches.



- Ingredient Bag Stations



- Air Operated Cover Sections



- Product Inlets & Dust Ports
- Hinged Sections With or Without Grates
- Hinged & Grated Inspection Points

For additional information please visit our website: www.hayes-stolz.com

MIXER DISCHARGE LOCATIONS & OPTIONS

DISCHARGE LOCATIONS

- Bottom End
- Bottom Center
- End Plate Discharge
- Weir Plate



• Paddle Knife Gate



• Salina Vortex Orifice Gate

DISCHARGE GATES & VALVES

- Air, Manual, & Electric Actuated
- Paddle Type Knife Gate
- Roller Slide Gate
- Butterfly Valve
- Salina Vortex ® Gates
- Gemco ® Valves
- Roto Disc ® Valves
- Ball Valves
- Full Drop Bottom
- Other Gates Per Customer Request



• Full Drop Bottom Discharge



• Roller Slide Knife Gate

SHAFT SEALS



• Packing Gland With UHMW Housing & Air Purge

- Packing Gland With Teflon Packing, With or Without Air Purge UHMW or Stainless Housing
- Split UHMW Block Seals With Teflon Rope
- Flanged Gland Seals With Teflon Rope
- Inpro ® Seals
- Meco ® Seals
- Interior Shroud Plates For Abrasive Products
- Other Seals Per Customer Request



• Split Block Seal With Teflon Rope

For additional information please visit our website: www.hayes-stolz.com

MIXER DRIVE ARRANGEMENTS

- Shaft Mounted Gearbox With Belt Drive
- Fluid Couplings & Variable Frequency Drive Controllers Are Available



- Shaft Mounted Gearbox With C-Face Motor



- Foot Mounted Gearbox With Roller Chain Drive
- Optional Oilbath Type Chain Guard



MIXER OPTIONS

- Mixer With Hi-Speed Chopper With Air Purge Seals For De-Agglomeration of Ingredients



- Mixer With Plate Coils For Heating or Cooling



- Mixer Support Stands, Mezzanines and Discharge Hoppers With Ladders or Stairways Are Available, Built to Customer Requirements.



H & S CONTINUOUS BLENDERS

H & S High - Medium - & Low Intensity Continuous Blenders
Stainless Steel, Stainless Steel Food Grade, and Carbon Steel Construction



• Single Shaft Paddle Blender With Tubular Housing

- Single Shaft Paddle Blenders For Dry Blending, Liquid Addition, and Slurries
- Adjustable Paddles For Varying Retention Time
- Hi - Medium - & Low Intensity



• Single Shaft Paddle Blender With U-trough Housing



• Dual Shaft Pugmills



- Paddles of Abrasion Resistant Steel & Paddles With Weld on Hard Facing For Abrasive Application

- Ribbon Blenders With Back Pitch Paddles For Gentle Blending & Coating
- Trough Liners Available



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