



Since 1964

MIXERS & BLENDERS CATALOG



POWDER-max



SLH Twin Screw Pump



SBI blenders



SHEAR-max

Master Distributor for



www.harcosupply.com





Supply House to the Processing Industries Since 1964

Trusted supply house of sanitary processing equipment, parts and supplies for the dairy and food, brewery, beverage and pharmaceutical industries.

Harco Enterprises offers a diverse line of sanitary and hygienic processing equipment, parts and supplies including pumps, sanitary valves, separators, homogenizers, gaskets and fittings, sanitary hoses, and instrumentation as well as a variety of other products from world leading manufacturers such as Alfa Laval, Ampco, Tetra Pak, Burkert, Tri-Clover, Remco, Vikan, Carlisle, Haynes, Strahman, and more.

These products are distributed to dairy, food, beverage processing facilities as well as the pharmaceutical, brewing, and fisheries industries throughout North America.

Many of our products are customized in design due to strict sanitary and hygienic standards, and all are built to stand up to the demands of high production environments. Resourcefulness and quick delivery are important to you, and Harco always provides both.

Check out our large collection of equipment, parts and supplies, including our line of color-coded products available.

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POWDER-blend

Powder Induction System

POWDER-max by Ampco Applied Products reduces processing time and provides optimal product consistency with no batch size limitations. An innovative design allows POWDER-max to quickly blend wet and dry ingredients in a single, fully portable unit. POWDER-max combines Ampco's SP Series liquid ring pump and High Shear Blender in-line to facilitate limitless production runs. The fully sanitary design is suitable for food, beverage, pharmaceutical and chemical applications.

Five standard models are available and POWDER-max can be customized for a multitude of processing requirements. Options include: hopper covers, hopper screens, pneumatic valves, explosion proof options, bulk bag connectors, table designs and ZP Series circumferential piston pumps for higher viscosities.

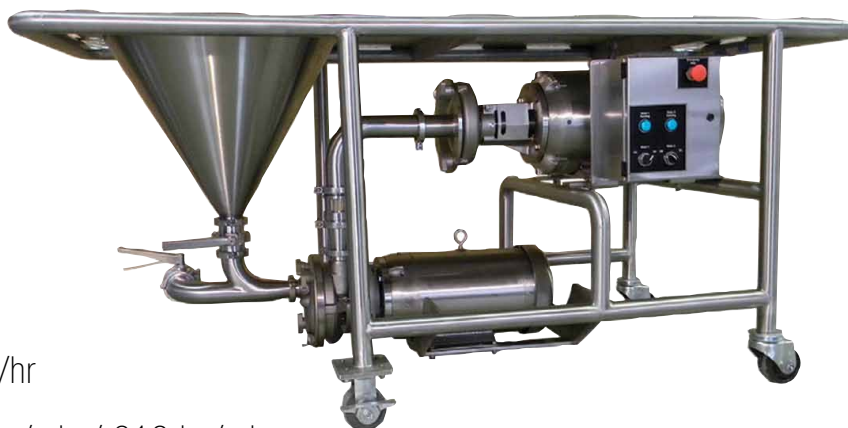


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POWDER-max Delivers Efficient, Precise Mixing

POWDER-max Standard Features

- Model SP liquid ring pump
- Ampco shear blender or mixer
- 304 stainless steel base material
- 316L wetted parts
- Dual motor starter – NEMA 4X
- Stainless steel casters
- Powder control valve
- Fluid control valve



Max Flow Rate: 350 GPM / 79.5 M3/hr

Max Powder Induction Rate: 700 lbs/min / 318 kg/min

| SPECIFICATION | POWDER-max |
|---|------------------------------|
| Ideal operating flow rate (low viscosity) | 30 – 210 GPM 7 – 48 m3/hr |
| Powder feed rates (highly soluble) | Up to 300#/min 136 kg/min |
| Maximum viscosity | 2500 cPs* |
| Dynamic shearing teeth | Yes |

* May require a supply or take-away pump

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675 The Parkway
Peterborough, ON
K9J 7K2

1-800-361-5361
705-743-5361
Fax: 705-743-4312

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SHEAR-blend

Powder Induction System - Portable Single Blender Induction

SHEAR-blend portable tabletop hopper system is designed for ergonomic small batch blending where shear is required but a larger two pump system is unnecessary. The SHEAR-blend system combines powder induction and fluid pumping as an economical solution to moderate powder induction applications. The combination of shear teeth and pumping vanes on the Ampco SBI blender efficiently shear and pump the product. The SBI and elbow are fully CIP-able and come in multiple sizes based on application requirements. The unit comes complete with a stainless steel tabletop and removable 304SS hopper. Custom options are available, including VFD, cart options, lids, powder screens, 316SS hopper and more.

- Model sizes available for powder induction rates of up to 150 lbs/ 68kg per minute*
- Washdown and CIP capability
- Does not require a feed pump for low viscosity fluids
- Not recommended for high shear/high viscosity applications

*Powder induction rates are dependent on pressure, viscosity and temperature of system.



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Portable Precision Blending

SHEAR-blend Features

- Combination integrated impeller and dynamic shear teeth
- Pump and blend in a single stage
- 304 stainless steel adapter
- Dynamically balanced impeller
- 316L wetted parts
- 316L stainless steel shaft

Max Flow Rate: 300 GPM / 68 M³/hr

Max Powder Induction

Rate: 200 lbs/min / 91 kg/min



| SPECIFICATION | SHEAR-blend |
|---|---|
| Ideal operating flow rate (low viscosity) | 50 – 510 GPM 11 – 116 m ³ /hr |
| Powder feed rates (highly soluble) | Up to 150#/min 68 kg/min |
| Maximum viscosity | 1000 cPs |
| Dynamic shearing teeth | Yes |

* May require a supply or take-away pump



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SIMPLE-blend

Powder Induction System

SIMPLE-blend from Ampco is a lower cost option with a simplified design. The system is designed to induce powders at a highly efficient rate with minimal shear. An Ampco SP Series pump powers this unit and the self-priming SP provides the suction for the induction process. A typical application for the SIMPLE-blend unit would require little to no shear and induce easily dissolved products.



These units can be completely customized per application and process layout.

SIMPLE-blend Features

- SP liquid ring pump
- 304 stainless steel base material
- 316L wetted parts
- Motor starter – NEMA 4X / VFD upon request
- Stainless steel casters
- Powder control valve
- Fluid control valve

Max Flow Rate:

350 GPM / 79.5 M3/hr

Max Powder Induction

Rate: 700 lbs/min / 318 kg/min

| SPECIFICATION | SIMPLE-blend |
|---|------------------------------|
| Ideal operating flow rate (low viscosity) | 30 – 210 GPM 7 – 48 m3/hr |
| Powder feed rates (highly soluble) | Up to 300#/min 147 kg/min |
| Maximum viscosity | 2500 cPs* |
| Dynamic shearing teeth | No |

* May require a supply or take-away pump



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DRY-blend

Powder Induction System

The Ampco Applied Products DRY-blend system offers efficient and thorough **blending of wet and dry ingredients**. A proven tube within a tube design – powered by an Ampco AC+ centrifugal pump – eliminates foaming, lumping and fisheyes while delivering consistent blending with every batch.

All wetted components are 316L stainless steel. Easy-to-maintain and operate, the DRY-blend system is suitable for food, dairy, beverage, pharmaceutical, personal care, and chemical applications.

DRY-blend Features

- AC+ centrifugal pump
- 316L wetted parts
- Customizable options: carts, tables, belt drive with base controls
- Easily integrated into existing process systems

Max Flow Rate: 150 GPM / 34 M³/hr

Max Powder Induction Rate:

350 lbs/min / 159 kg/min



| SPECIFICATION | DRY-blend |
|---|---|
| Ideal operating flow rate (low viscosity) | 40 – 150 GPM 9 – 34 m ³ /hr |
| Powder feed rates (highly soluble) | Up to 150#/min 159 kg/min |
| Maximum viscosity | 2500 cPs* |
| Dynamic shearing teeth | No |

* May require a supply or take-away pump

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SBH/SBI SERIES BLENDERS

Customizable, Multi-Tasking, Efficient Shear Blending

Mixing is becoming increasingly important in the widest variety of processes. Today's products often comprise a magnitude of ingredients such as stabilizers, thickeners, surfactants, abrasives, foods, preservatives, chemicals and more. This offers a challenge to processors trying to provide a consistent blend quality in the most efficient manner.

To meet this challenge, Ampco has developed three types of shear blenders that are based on our popular LF platform. This means shared wear items for your pumps and easy piping solutions. The wide range of mechanical seal materials (single and double mechanical) and elastomers from the LF line are also available to fine tune the shear blender to the processor's needs.



SBI



SBH



SBH / SBI SHEAR BLENDING ADVANTAGE:

- Uniform and repeatable product batches
- Reduce process times
- Application-specific adjustability for custom fine-tuning of the end of product
- Process improvement by installing in-line blender or replacing a pump
- Familiarity and ease-of-design (front loading seal)
- Applicable for small laboratory or large-scale production
- Front-loading mechanical seals (single and double)



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Performance Personified in SBH/ SBI Shear Blender Series

AMPCO SBH SHEAR BLENDER

The high shear blender

The SBH Shear Blender maximizes shear-area by having several rows of rectangular teeth that mesh with each other at close clearances. This is the best blender for improving process time when the highest shear is desired.



SPECIFICATIONS

Up to 200 GPM / 45.4 m³/hr
Up to 50 psi/116 ft – 3.44 BAR/ 35.4m

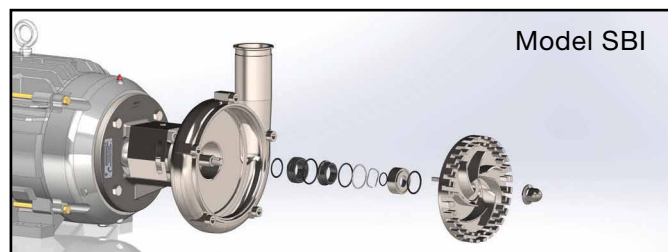


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AMPCO SBI SHEAR PUMP

The ability to pump and blend
in a single stage

The SBI Shear Pump moves the product with considerable capacity and pressure capabilities. This is achieved through a hybrid design of a fine-tuned impeller paired with rectangular shear teeth. Users will be surprised at the performance of this pump as a replacement to a feed pump and blender setup for certain applications.



SPECIFICATIONS

Up to 500 GPM / 45.4 m³/hr
Up to 100 psi/231 ft – 6.9 BAR/ 70.4m

AMPCO 
APPLIED PRODUCTS

SHEAR-max

High Shear Inline Mixer

HIGH SHEAR INLINE MIXING WITH AN EFFICIENT TWIST - The SHEAR-max is the ultimate in high shear mixing and dispersing, meeting the tight tolerances required in high shear applications while maintaining extremely efficient flow. The curved wedge rotor and one piece stator design make it one of the most efficient and hygienic designs on the market. The SHEAR-max will disperse, dissolve, emulsify, de-agglomerate, homogenize, or simply blend. It is designed for single pass or batch style processing of liquids and semi-solids and is extremely effective at hydrating and dispersing powders. The innovative wedge style rotor allows solids into the shear zone while efficiently employing motor horsepower. The one piece stator provides superior clean-ability and tight rotor/stator tolerances.

SHEAR-max Features

- Integrated impeller and dynamic shear teeth
- Washdown and CIP capability, or Chemical Duty Design
- 316L stainless steel construction
- 304 stainless steel adapter
- Dynamically balanced impeller
- Multiple stator designs
- Available in single or multi stage design
- 3 Model Sizes available from 1 – 400 GPM
- Single piece stator for easy inspection and cleaning
- Droplet size as low as 1-10 microns

Max Flow Rate: 400 GPM / 91 M3/hr

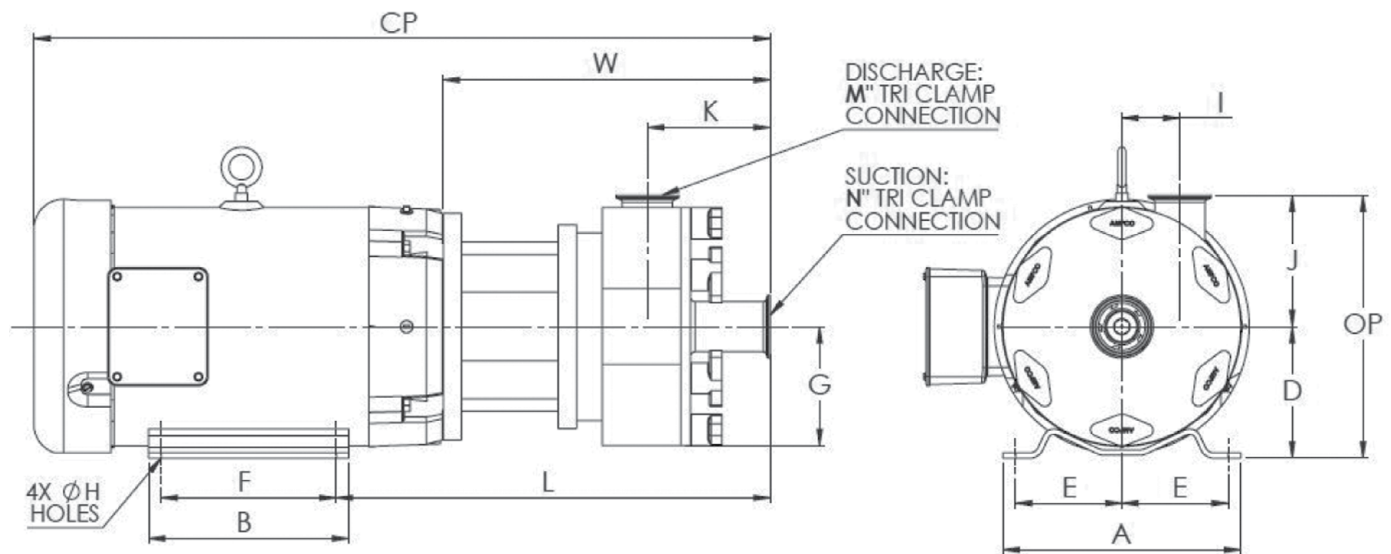


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High Shear Inline Mixing with a Twist

PRODUCT SPECIFICATIONS

| MODEL | Flowrate (GPM) | Motor HP | Motor Speed | Rotor Tip Speed |
|---------|----------------|----------|-------------|-----------------|
| SM-1300 | 1 – 40 | 1 – 5 | 3,600 | 47 FPS |
| SM-1437 | 30 – 150 | 5 – 10 | 3,600 | 69 FPS |
| SM-1575 | 100 – 400 | 20 – 40 | 3,600 | 90 FPS |



| MODEL | TEFC MOTOR | | | DIMENSIONS IN INCHES (For Reference Only) | | | | | | | | | | | | | | | | Approx Weight (lbs) |
|---------|------------|------|-------|---|---------|----|----|----|----|-------|------|------|------|-------|-------|-------|-------|----|----|---------------------|
| | HP | RPM | FRAME | A (typ) | B (typ) | D | E | F | G | ØH | I | J | K | L | W | CP | OP | M | N | |
| SM-1300 | 3 | 3500 | 145TC | 6½ | 6 | 3½ | 2¾ | 5 | 3¾ | 11/32 | 1.57 | 4.35 | 4.51 | 13.51 | 10.63 | 22.67 | 7.85 | 1½ | 1½ | 127.8 |
| SM-1437 | 7.5 | 3500 | 213TC | 9½ | 8 | 5¼ | 4¼ | 5½ | 4¾ | 13/32 | 2.32 | 5-¼ | 4.91 | 17.35 | 13.08 | 29.44 | 10-½ | 2 | 2 | 215 |
| SM-1575 | 30 | 3500 | 286TC | 12¾ | 12.84 | 7 | 5½ | 11 | 6 | 17/32 | 2.81 | 7.20 | 6.18 | 18.5 | 14¾ | 37.89 | 14.20 | 3 | 3 | 565 |

** Weights represent fluid end + motors with SS enclosure



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JET-mix

High Efficiency Mixing in Sanitary Stainless Design

Ampco's in-tank JET-mixers will rapidly mix, disperse, and suspend solids in liquids covering a wide range of applications in food, personal care, clean chemical, and pharmaceutical industries. The modular construction of the JET-mix makes it ideal for a wide viscosity range and batch sizes up to 6,000 gallons in open or closed tanks, drums, and tote processing.

JET-MIX FEATURES

- 25 – 6,000 Gallon Batches
- ½ – 3 HP motor on standard model
- Up to 20 HP motor on custom models
- 316 stainless steel removable shaft
- 316 stainless steel bearing frame
- High efficiency impellers 4" – 20" (welded or adjustable)
- Designed to 3A standards
- CIP-able
- Multiple mounting configurations
- Shaft lengths up to 84" on standard design
- Custom options available

JM125RG

JM125RD

JM200D



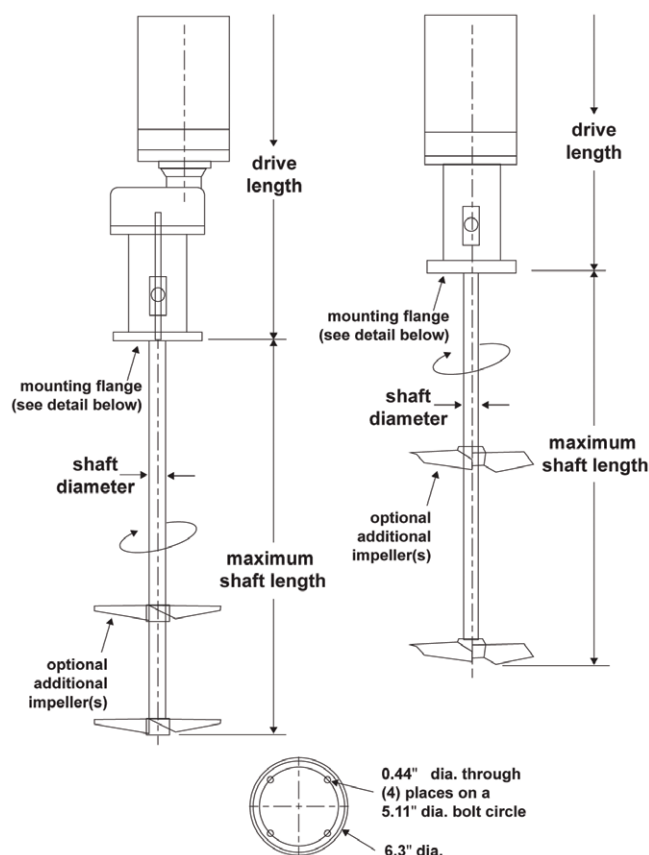
**For more information,
call 1-800-361-5361
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The **JET-mix** is great for rapid blending, hold tanks, suspension tanks and general storage tanks. The high-efficiency impeller design offers superior tank circulation with low HP requirements over a large range of viscosities.

PRODUCT SPECIFICATIONS

| JET-mix Model | JM-100RD | JM-100RG | JM-125RD | JM-125RG |
|---------------------------|----------|-----------------------|----------|-----------------------|
| Drive Type | Direct | Bevel Gear/ Reduction | Direct | Bevel Gear/ Reduction |
| Output Speed | 1750 | 350 | 1750 | 350 |
| Shaft Diameter | 1" | 1" | 1.25" | 1.25" |
| Maximum Shaft Length | 48" | 60" | 72" | 84" |
| Maximum Motor Frame | 145 | 145 | 145 | 145 |
| Maximum Diameter Impeller | 9" | 16" | 9" | 20" |
| Drive Length (Typical) | 20" | 24" | 20" | 24" |

PRODUCT DIMENSIONS



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JET-shear

High Shear In-tank Mixing & Blending

Ampco's in-tank mixer is used to hydrate, dissolve, disperse and emulsify products consistently and efficiently. It covers a wide range of applications in the food, chemical and pharmaceutical industries. The JET-shear is used in open or closed tanks and totes, creating smooth consistent blends in tanks as large as 1,000 gallons. The JET-shear is much more than an in-tank agitator, capable of creating emulsions under 10 microns.

JET-shear Features

- Emulsion to less than 10 microns
- Max volumes up to 1000 gallons
- 316 stainless steel shaft
- 304 stainless steel bearing frame
- Multiple 316 stainless work head styles available
- Work heads can be interchanged
- Designed to 3A standards
- CIP-able
- Multiple mounting configurations
- Multiple shaft lengths
- Custom options available



| Standard Bearing Frame Sizes | Max Shaft Length | Standard Shaft Diameter | Workhead Diameter |
|------------------------------|------------------|-------------------------|-------------------|
| JS125 | 48" / 122cm | 1.25" / 31.75mm | 2.5" / 63.5mm |
| JS150 | 48" / 122cm | 1.5" / 38.1mm | 4.0" / 101.6mm |
| JS225 | 96" / 244cm | 2.25" / 57.15mm | 5.0" / 127mm |

* Custom options are available; contact Ampco Pumps for additional information



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SLH TWIN SCREW PUMP

TWIN SCREW PUMP TECHNOLOGY A Winning Combination

As the first worldwide twin screw pump supplier, Bornemann introduced the hygienic SLH design of twin screw pumps in 2004 to the Food & Pharma industries. The design is based on 150 years of proven technology from Bornemann's industrial twin screw pumps. This experience aligned with the hygienic requirements of EHEDG and 3A Sanitary make the SLH the world leader in sanitary twin screw pump technology. Ampco's partnership with Bornemann makes this leading technology available in the United States and beyond with full distributor support and fast deliveries.



TWO STANDARD MODELS AVAILABLE: SLH-4G & SLH-4U

Materials:

- Product-contact materials: 316L / 1.4404
- Product-contact elastomers: HNBR / EPDM / FKM
- Silicon Carbide, Tungsten Carbide, and knife edge seals or other materials available on request

Connections:

- Tri-Clamp (DIN 32676)
- DIN 11851
- DIN 11864-2
- SMS 1145
- Other connections available

Features & Options:

SLH-4G

- Aseptic application (EHEDG EL type Aseptic certified)
- Customized flanges
- Heating / cooling jacket on pump casing
- Wear protection options
- Higher surface finishes available
- Three part design (Cover, Pump Casing, Intermediate Flange)
- Variable port types and sizes available

- Hygienic elastomers
- Cartridge mechanical seals
- Single & double mechanical seals

SLH-4U

- Cover and pump casing have been designed as a single component
- Standard port diameter
- Hygienic elastomers
- Single & double mechanical seals

| MAX VISCOSITY | MAX PSI | MAX FLOW | MAX TEMP | MAX PORT SIZE | MAX PARTICAL SIZE |
|---------------|------------|-----------------------------------|---------------|---------------|-------------------|
| 1,000,000 CP | 362/25 BAR | 1321 GPM / 300 m ³ /hr | 392°F / 200°C | 6" / 152 mm | 2.3" / 58 mm |

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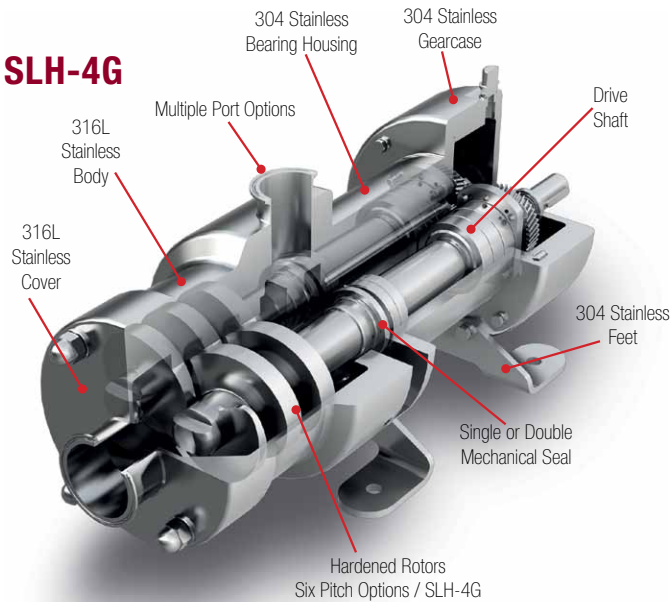
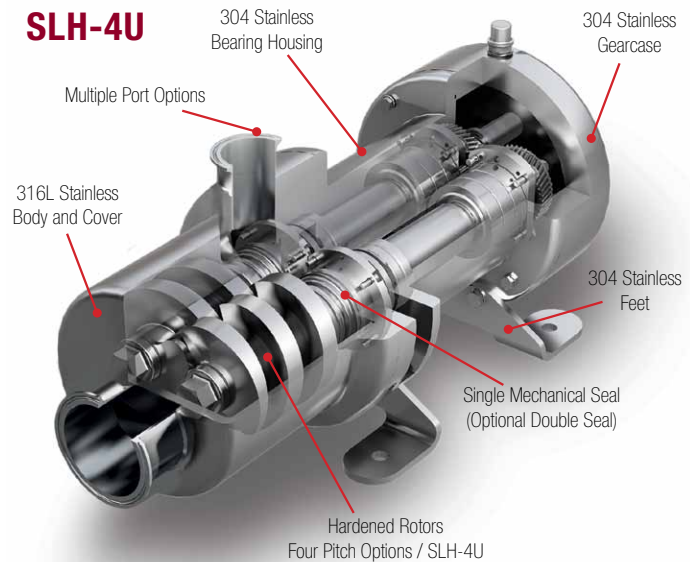
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SLH-4G**SLH-4U****Advantages**

The SLH twin screw is a dual duty pump, capable of both processing and CIP.

Product Integrity

The axial conveyance protects products maintaining size, surface and visual integrity.

Flexibility

Fifty different combinations of screw diameters and pitches ensures the best fit for your application. The pump operates at a wide range of speeds, providing flexibility for different operating points.

Long Service Life

SLH Pumps feature no metal-to-metal contact between screws and housing. This provides trouble-free conveyance even for abrasive media and minimal downtime.

Pump Characteristics

- Self-priming
- Safe operation at high viscosities
- Low pulsation
- Low noise level
- Dry running potential
- Constant flow at varying pressures and volumes
- Suction lift up to 25 feet (8.5 m)



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SLH-4G TWIN SCREW PUMP

Premium Customizable SLH-4G SERIES

Ampco Pumps has decades of experience working with customers and understanding the food processing industry. The SLH-4G offers all the advantages of a hygienic twin-screw pump with a number of customized features and options. This provides the best solution for a wide range of applications.



The SLH-4G design features include

- Three part design (cover, pump casing, intermediate flange)
- Different flange diameters
- Hygienic elastomers
- Cartridge mechanical seals

Connections

- Tri-Clamp (DIN 32676)
- SMS 1145
- DIN 11851
- DIN 11864-2
- Other connections available

Materials

- Product-contact materials: 316L / 1.4404
- Product-contact elastomers: HNBR / EPDM / FKM
- Other materials on request

Seals

- Cartridge style
- Single and double mechanical

SLH-4G features and options

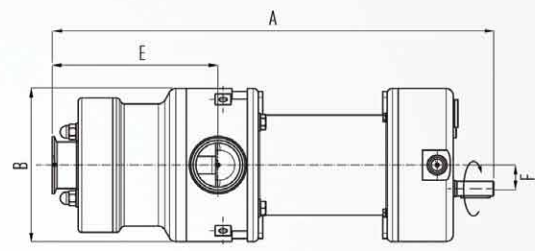
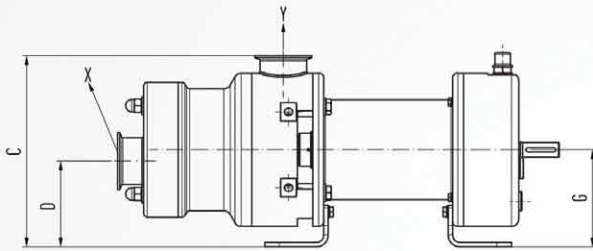
- Aseptic application (EHEDG EL type Aseptic certified)
- Customized flanges
- Heating / cooling jacket on pump casing
- Wear protection options
- Higher surface finishes available

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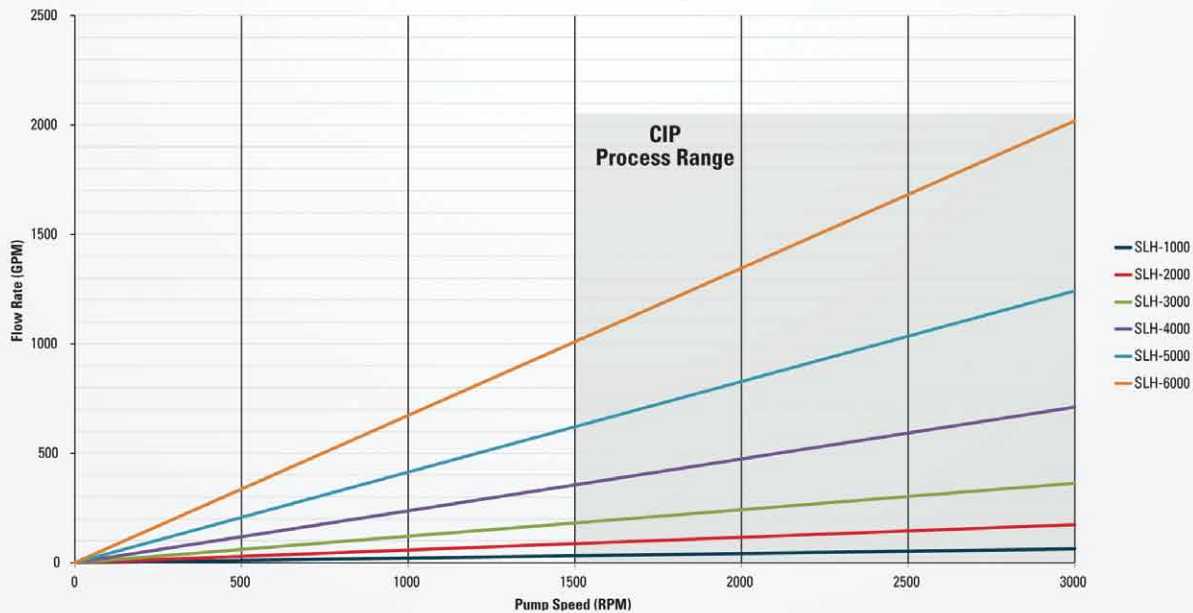
SLH-4G TWIN SCREW PUMP (cont'd)

| Operating Data | Application | Unit | Size | | | | | |
|-----------------------|--------------|-------------------------|-----------|----------|-----------|-----------|------------|------------|
| | | | 1000 | 2000 | 3000 | 4000 | 5000 | 6000 |
| Capacity | Medium | gpm m ³ /h | 35 8 | 110 25 | 220 50 | 440 100 | 880 200 | 1321 300 |
| | CIP | | 53 12 | 176 40 | 440 100 | 880 200 | 1321 300 | 2200 500 |
| Differential Pressure | Medium CIP | psi bar | 232 16 | 362 25 | | | | |
| Rotation Speed | Medium CIP | RPM | 3600 | | | | 2600 | 2200 |
| Viscosity | Medium | cp cst | 1,000,000 | | | | | |
| | CIP | | 1 | | | | | |
| Temperature | Medium | °F °C | 392 200 | | | | | |
| | CIP | | 203 95 | | | | | |
| | SIP | | 302 150 | | | | | |



| Model | A (inch / mm) | B (inch / mm) | C (inch / mm) | D (inch / mm) | E (inch / mm) | F (inch / mm) | G (inch / mm) | X | Y | Weight in lbs / kg |
|-------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------------------------------|--------------------------------|--------------------|
| 1000 | 18.50 470 | 7.00 178 | 9.06 230 | 4 101.5 | 6.89 175 | 4.41 112 | 4.41 112 | DN50-DIN 11851, 2"-Tri-Clamp | DN50-DIN 11851, 2"-Tri-Clamp | 40 / 88 |
| 2000 | 23.82 605 | 8.19 208 | 10.43 265 | 4.75 120 | 9.06 230 | 5.20 132 | 5.20 132 | DN65-DIN 11851, 2.5"-Tri-Clamp | DN65-DIN 11851, 2.5"-Tri-Clamp | 61 / 134 |
| 3000 | 27.76 705 | 10.16 258 | 12.80 325 | 5.56 142 | 10.83 275 | 6.30 160 | 6.30 160 | DN80-DIN 11851, 3"-Tri-Clamp | DN80-DIN 11851, 3"-Tri-Clamp | 116 / 255 |
| 4000 | 33.82 859 | 12.50 318 | 16.34 415 | 6.19 157 | 13.19 335 | 7.09 180 | 7.09 180 | DN100-DIN 11851, 4"-Tri-Clamp | DN100-DIN 11851, 4"-Tri-Clamp | 230 / 506 |
| 5000 | 40.28 1023 | 15.67 398 | 19.50 495 | 8.31 211.5 | 15.25 390 | 9.84 250 | 9.84 250 | DN125-DIN 11851, 4"-Tri-Clamp | DN125-DIN 11851, 4"-Tri-Clamp | 420 / 924 |
| 6000 | 45.87 1165 | 17.64 448 | 21.25 540 | 8.88 225 | 17.72 450 | 11.00 280 | 11.00 280 | DN150-DIN 11851, 6"-Tri-Clamp | DN150-DIN 11851, 6"-Tri-Clamp | 700 / 1540 |

SLH Twin Screw Pump Capacity Curves



SLH-4U TWIN SCREW PUMP

Cost-Effective SLH-4U SERIES

Looking for a more affordable option with many of the benefits provided with twin screw pump technology? The SLH-4U was developed as a cost effective alternative to the SLH-4G. The SLH-4U is a very similar alternative to the SLH-4G with less optional features.



The SLH-4U standard features include

- Cover and pump casing have been designed as one component
- Standard port diameters
- Hygienic elastomers
- Single mechanical seal standard (double seal available)
- Connections
- The connections are integrated in the pump casing

Standard connections

- Tri-Clamp

Nominal connection sizes

- SLH-4U 1000 – DN 50 / 2" Tri-Clamp
- SLH-4U 2000 – DN 65 / 2½" Tri-Clamp
- SLH-4U 3000 – DN 80 / 3" Tri-Clamp

**For more information,
call 1-800-361-5361
or e-mail sales@harco.on.ca.**

Materials

- Product-contact materials: 316L / 1.4404
- Product-contact elastomers:
HNBR / EPDM / FKM

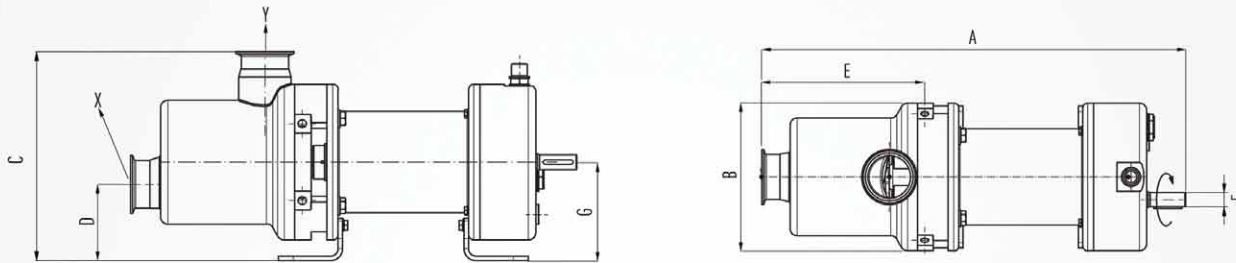
Seals

- Single mechanical seal (component)
(double seal available)

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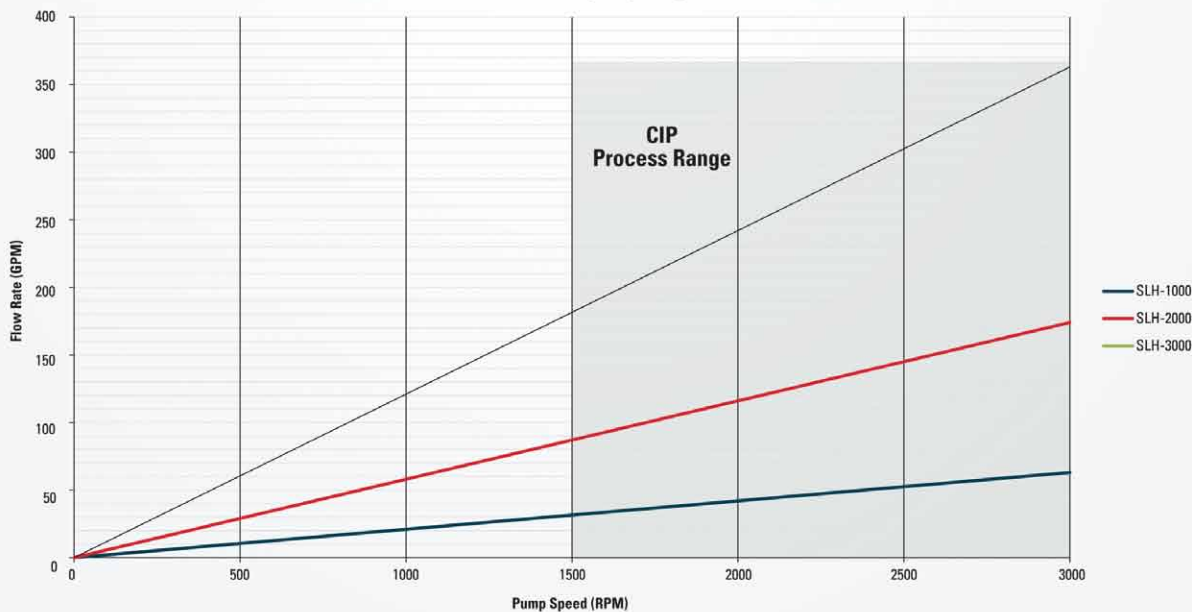
SLH-4U TWIN SCREW PUMP (cont'd)

| Operating Data | Application | Unit | Size | | |
|-----------------------|--------------|-------------------------|-------------|-------------|-------------|
| | | | SLH-4U 1000 | SLH-4U 2000 | SLH-4U 3000 |
| Capacity | Medium | gpm m ³ /h | 35 8 | 110 25 | 220 50 |
| | CIP | | 53 12 | 176 40 | 440 100 |
| Differential Pressure | Medium CIP | psi bar | 232 16 | | |
| Rotation Speed | Medium CIP | RPM | 2500 | | |
| Viscosity | Medium | cp cst | 1,000,000 | | |
| | CIP | | 1 | | |
| Temperature | Medium | °F °C | 302 150 | | |
| | CIP | | 203 95 | | |
| | SIP | | 302 150 | | |



| Model | Size | A (inch / mm) | B (inch / mm) | C (inch / mm) | D (inch / mm) | E (inch / mm) | F (inch / mm) | G (inch / mm) | X | Y | Weight in lbs / kg |
|-------|-------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|-----------|--------------------|
| 1000 | DN 50 / 2" | 18.6 468 | 7.0 180 | 9.9 246 | 3.10 96 | 5.7 140 | 1.1 29 | 5.4 132 | Tri-Clamp | Tri-Clamp | 79.5 36 |
| 2000 | DN 65 / 2½" | 23.7 598 | 8.4 208 | 11.2 280 | 4.3 105 | 7.3 180 | 1.5 32 | 5.20 132 | Tri-Clamp | Tri-Clamp | 134.6 61 |
| 3000 | DN 80 / 3" | 27.6 695 | 10.4 258 | 13.8 345 | 4.11 125 | 8.5 210 | 1.8 41 | 6.5 160 | Tri-Clamp | Tri-Clamp | 255.9 116 |

SLH Twin Screw Pump Capacity Curves



ROLEC DH for Brewing Industry

The simplicity of the ROLEC DH means dry hopping just got safer and easier.

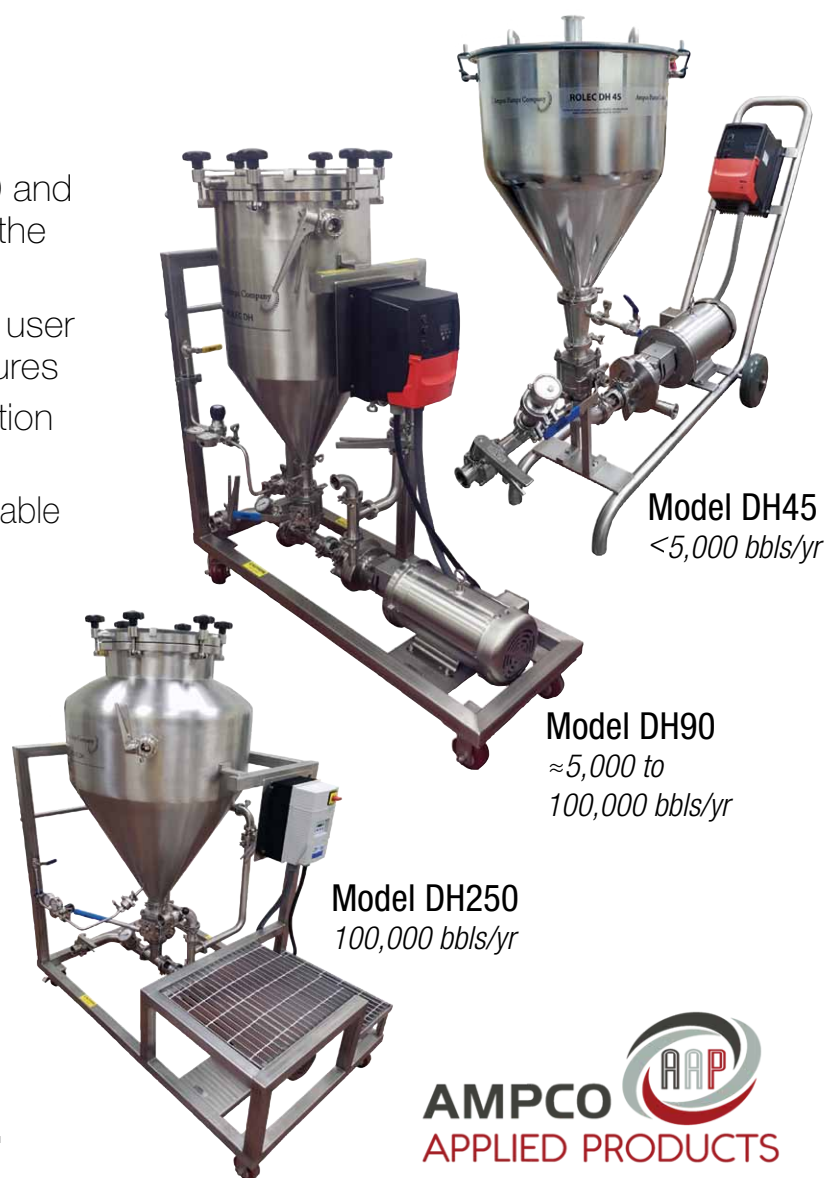
The **ROLEC DH units** utilize the Ampco SBI pump to safely induce dry hop pellets, fruit, spices coffee and more directly into the stream of beer while recirculating the fermenter.

The systems use carbon dioxide (CO²) to purge oxygen from the hop chamber.

Pellets can be induced into fermenting, finished, or crashed beer. The chopper pump creates a differential pressure for induction from the vessel. The pellets and other media is chopped to maximize the surface area, flavor and aroma.

FEATURES:

- 3 Models DH45/DH90/DH250
- A glass-top manway on the DH90 and DH250 allows the user to ensure the pellets are moving
- Gauges and sight glasses aid the user in monitoring induction and pressures
- Everything needed for pellet induction is contained on the ROLEC DH
- All components are sanitary and CIP-able (no additional CIP pump is required)
- The fully portable DH can be used on many fermenters and fits well in cramped cellars
- Recirculation can be done as long as desired (Ampco recommends 3-4 fermenter turnovers)
- Improved aroma and flavor profile



Model DH45
<5,000 bbls/yr

Model DH90
≈5,000 to
100,000 bbls/yr

Model DH250
100,000 bbls/yr

**For more information,
call 1-800-361-5361
or e-mail sales@harco.on.ca.**

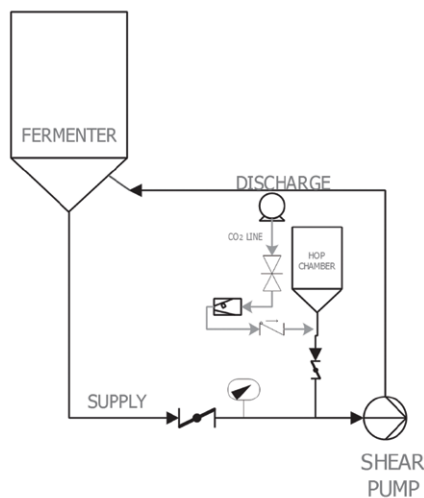
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The ROLEC DH Provides Safe, Efficient Hop Induction

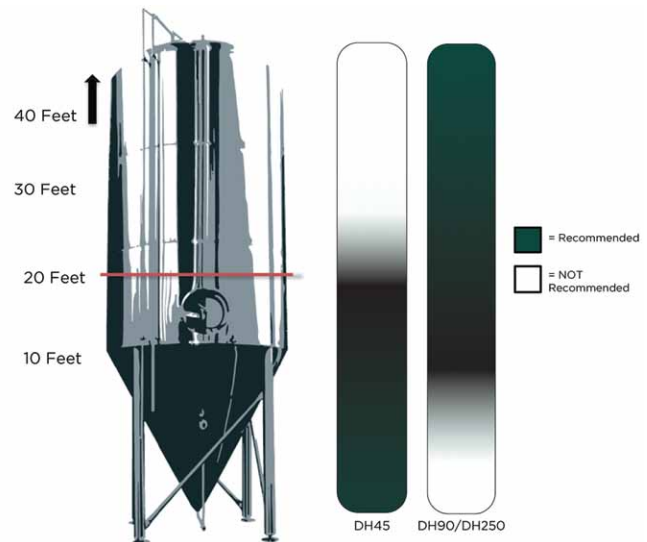
SPECIFICATIONS

| | PELLET CAPACITY | PUMP | RECIRCULATION /MIN | PORT SIZE | MOTOR |
|--------------|-----------------|---------|--------------------------|-------------|--------------|
| DH45 | 44 lbs/20 kg | SBI-R10 | 2.0 bbls/2.4 hectoliters | 1.5"/DIN 40 | 5 hp/4 kW |
| DH90 | 88 lbs/40 kg | SBI-R10 | 2.9 bbls/3.4 hectoliters | 1.5"/DIN 40 | 5 hp/4 kW |
| DH250 | 264 lbs/120 kg | SBI-R20 | 3.7 bbls/4.3 hectoliters | 2"/DIN 50 | 10 hp/7.5 kW |

- Base material 304 stainless steel, wetted parts 316L stainless steel
- Stainless steel casters
- The DH90 and DH250 can CIP with or without a sprayball due to its internal whirlpool system. (Sprayball for the hop chamber is optional)
- The DH45 requires a sprayball for CIP.
- Standard 50'/15m cord
- All models include VFD or motor starter.



Functional design under
license of ROLEC PROZ-
ESS- UND
BRAUTECHNIK GMBH,
GERMANY, United States
Patent no. 8,875,616



Recommended fermenter heights

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**For more information,
call 1-800-361-5361
or e-mail sales@harco.on.ca.**

ROLEC DH45 Induction System

The simplicity of the ROLEC DH means dry hopping just got safer and easier.

The **ROLEC DH units** utilize the Ampco SBI pump to safely induce dry hop pellets, fruit, spices coffee and more directly into the stream of beer while recirculating the fermenter.

The systems use carbon dioxide (CO₂) to purge oxygen from the hop chamber.

Pellets can be induced into fermenting, finished, or crashed beer. The chopper pump creates a differential pressure for induction from the vessel. The pellets and other media is chopped to maximize the surface area, flavor and aroma.



Model DH45
<5,000 bbls/yr

FEATURES:

- The DH45 is a smaller scale version offering a non-pressurized vessel utilizing a “blanket” of CO₂ to protect the product from oxygen intrusion.
- The DH45 is capable of induction on fermenters with a maximum height of 20 feet and can be used additionally as transfer and CIP pumps.
- Gauges and sight glasses aid the user in monitoring induction and pressures
- Everything needed for pellet induction is contained on the ROLEC DH
- All components are sanitary and CIP-able (no additional CIP pump is required)
- The fully portable DH can be used on many fermenters and fits well in cramped cellars
- Recirculation can be done as long as desired (Ampco recommends 3-4 fermenter turnovers)
- Improved aroma and flavor profile

**For more information,
call 1-800-361-5361
or e-mail sales@harco.on.ca.**

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ROLEC DH90 Induction System

The ROLEC DH Provides Safe, Efficient Hop Induction

The **ROLEC DH units** utilize the Ampco SBI pump to recirculate a fermenter and simultaneously induce hop pellets dry into the stream of beer. The pellets are held in a pressurized chamber, which is purged of air using carbon dioxide (CO₂). Pellets can be induced into fermenting, finished, or crashed beer. The shear pump creates a differential pressure for induction of the pellets from the hop vessel. The pellets are chopped to just the right size so they can settle during the dry hop holding period.

FEATURES:

- A glass-top manway on the DH90 and DH180 allows the user to ensure the pellets are moving
- Gauges and sight glasses aid the user in monitoring induction and pressures
- Everything needed for pellet induction is contained on the ROLEC DH90/DH180
- All components are sanitary and CIP-able (no additional CIP pump is required)
- The fully portable DH90/DH180 can be used on many fermenters and fits well in cramped cellars
- Recirculation can be done as long as desired (Ampco recommends 3-4 fermenter turnovers)
- Improved aroma and flavor profile



Model DH90 ≈5,000 to
100,000 bbls/yr

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**For more information,
call 1-800-361-5361
or e-mail sales@harco.on.ca.**

ROLEC DH250 Induction System

The simplicity of the ROLEC DH means dry hopping just got safer and easier.

The **ROLEC DH units** utilize the Ampco SBI pump to safely induce dry hop pellets, fruit, spices coffee and more directly into the stream of beer while recirculating the fermenter.

The systems use carbon dioxide (CO₂) to purge oxygen from the hop chamber.

Pellets can be induced into fermenting, finished, or crashed beer. The chopper pump creates a differential pressure for induction from the vessel. The pellets and other media is chopped to maximize the surface area, flavor and aroma.



Model DH250
100,000 bbls/yr

FEATURES:

- A glass-top manway on the DH250 allows the user to ensure the pellets are moving
- Gauges and sight glasses aid the user in monitoring induction and pressures
- Everything needed for pellet induction is contained on the ROLEC DH
- All components are sanitary and CIP-able (no additional CIP pump is required)
- The fully portable DH can be used on many fermenters and fits well in cramped cellars
- Recirculation can be done as long as desired (Ampco recommends 3-4 fermenter turnovers)
- Improved aroma and flavor profile

For more information,
call 1-800-361-5361
or e-mail sales@harco.on.ca.

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Product Line Card

Supply House to the Processing Industries Since 1964

Harco partners with leading manufacturers in the industry to bring you an innovative range of sanitary and hygienic processing equipment and supplies. With experience in design, manufacturing and support, our partners are selected for their quality, reliability, and advanced products.



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