

doucette industries, inc.



## Suction Line Heat Exchangers

1/2 to 150 Hp

*Enhanced Evaporator Capacity and  
Compression Protection*

# Increased Performance and System Protection for Minimal Cost

Suction Line Heat Exchangers (SLHE) improve refrigeration system performance and are a proven refrigeration system component for greater efficiency. These heat exchangers protect the compressor and are highly recommended by equipment manufacturers of medium and low temperature refrigeration systems. Doucette Suction Line Heat Exchangers are recommended for all refrigeration systems ranging from 1/2 to 150 HP.

## Improves Evaporator Capacity Up To 10%!

By subcooling the hot refrigerant liquid, evaporator coil capacity is increased and overall refrigeration system reliability improved. As a rule, 1°F refrigerant subcooling results in .5% capacity improvement. A nominal SLHE selection will provide 4% to 10% coil capacity improvement along with improved system pull-down time.



## Protects Compressor From Premature Failure

Refrigerant droplets can cause serious compressor damage. Doucette Suction Line Heat Exchangers protect the compressor by “vaporizing” droplets as they pass through the heat exchanger, greatly reducing the chance for premature compressor failure.

## Improves Expansion Valve Operation

Fluctuating in operating conditions such as low-ambient and low-load can cause a refrigeration system to experience expansion valve “hunting” and liquid line bubbles. Doucette’s Suction Line Heat Exchangers help eliminate this problem and provide improved expansion valve operation and proper capillary performance.

## Eliminates Undesirable Moisture Collection

The Doucette SLHE reduces pipe sweating and frost by raising the suction temperature in the suction line piping. By eliminating condensate formation, you dispose of messy water puddles and diminish water damage to other equipment.



# Refrigeration Engineers Rely on the Leader in Heat Transfer Technology

Nobody builds refrigeration heat exchangers like Doucette with high-performance, rigid design, low-pressure drops and reliable application for -40°F to +40°F refrigeration systems. Refrigeration engineers rely on Doucette for suction-to-liquid heat exchangers - both standard and custom designs.

## Standard and Custom Models

The SLHE Series is available in standard models for use with every brand of refrigeration system. For custom applications and OEM, we offer our HE Series for exacting performance, special fittings and more.

### Improved Heat Transfer

Fluted design controls pressure drop and gas velocity for quiet operation

### Rigid Design for Reliability

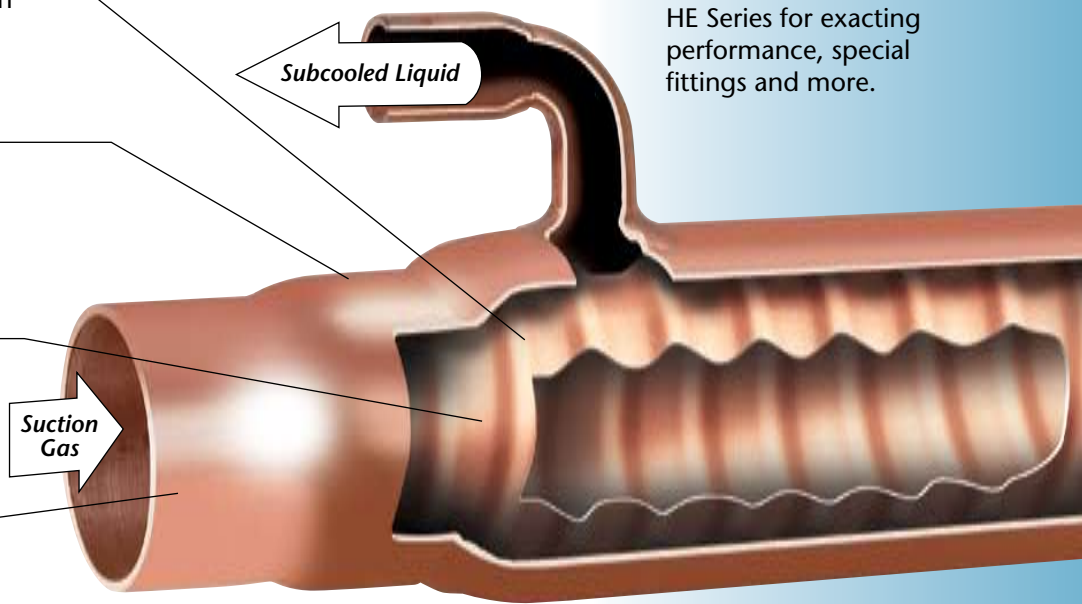
Less susceptible to fatigue and premature failure

### Exclusive Design

Rigid Type L fluted tube rather than flexible hose

### Quality Construction

High-temperature brass brazing throughout



### Performance Checked

Leak tested for trouble-free operation

### Choice of Models

Available in all-copper or steel construction

## Special Applications

The Doucette SLHE and HE Series are the most cost effective heat exchangers available for a wide variety of refrigeration and special applications. They can be designed for DX Subcooler Applications, Marine/Military and miniature shell/tube heat exchangers.



All models are U.L. Listed, File SA 5925



# Specifications

dii Model Number	Nominal HP	Packless Equivalent Model	Suction Line (ID)	Liquid Line (ID)	Length (inches)	Shipping Weight (lbs.)
<i>Copper Construction</i>						
SLHE 1/2	1/2	HXR-25	1/2	1/4	11-1/2	1
SLHE 3/4	3/4		5/8	3/8	11-3/4	1
SLHE 1	1	HXR-50	5/8	3/8	13-3/4	2
SLHE 1-1/2	1-1/2	HXR-75	7/8	3/8	14-1/2	2
SLHE 2	2	HXR-100	1-1/8	3/8	15	3
SLHE 3	3	HXR-150	1-1/8	1/2	15	3
SLHE 5	5	HXR-250	1-3/8	5/8	14-1/4	4
SLHE 7-1/2	7-1/2	HXR-350	1-5/8	5/8	17	4
SLHE 10	10	HXR-500	2-1/8	7/8	18	7
SLHE 15	15	LHXR-15	2-1/8	7/8	25	10
SLHE 20	20	LHXR-20	2-1/8	1-1/8	27	11
<i>Steel Construction</i>						
SLHE 25	25	LHXR-25	2-5/8	1-1/8	28-7/8	17
SLHE 30/35	35	LHXR-30	2-5/8	1-3/8	28-7/8	17
SLHE 40	40	LHXR-40	3-1/8	1-3/8	28-7/8	20
SLHE 50	50	LHXR-50	3-1/8	1-5/8	28-7/8	20
SLHE 60	60	LHXR-60	4-1/8	1-5/8	29-7/8	32
SLHE 75/80	80		4-1/8	2-1/8	29-7/8	32
SLHE 100/125	125		5-1/8	2-1/8	30-7/8	43
SLHE 150	150		6-1/8	2-5/8	30-7/8	51

Nominal SLHE selections should be based on system horsepower, which will provide a nominal 10°F subcooling and a nominal 20°F suction superheat for R-22 and R-502 at 110°F condensing and 25°F suction. For example, for a 1-1/2 HP system, select an SLHE 1-1/2. Do not select undersized models to avoid high suction pressure drops and gas whistling.

Selections based on suction and liquid line sizes are appropriate for standard low, medium and high temperature refrigeration systems provided the system HP rating closely matches the SLHE selection.

Selection of oversized models will provide additional liquid subcooling and suction superheat. Oversized models are acceptable only if the suction gas temperature to the compressor is not raised above 65°F for proper compressor performance.

Standard and custom models can be selected by Doucette to meet any performance criteria, up to 60°F subcooling. For exacting subcooling and superheat performance please contact the factory.

## Engineering Support

Performance information and application assistance is just a phone call away. Doucette provides engineering and application support for standard and custom models from 1/2 to 150 HP.

## Fast Delivery

Doucette Delivers the SLHE Series from stock. And if you need a special HE Series Design, we can build it FAST.



20 Leigh Drive, York, Pennsylvania 17406-8474  
 Toll Free: (800)445-7511  
 Phone: (717) 845-8746  
 Fax: (717) 845-2864  
[www.doucetteindustries.com](http://www.doucetteindustries.com)  
 e-mail: [info@doucetteindustries.com](mailto:info@doucetteindustries.com)

