

EVOLUTIONARY CLEANING SOLUTIONS

The Tech Sonic 8.0 Ultrasonic Cleaning System



WHAT DOES IT CLEAN

Turbine Rotors	Mixers
Piping	Spools
Barrels	Heat Exchangers

FOR MORE INFORMATION

Please visit techsonicint.com or
call (289) 371-3999.

Edmonton, Alberta
Toronto and Sarnia, Ontario
League City, Texas
Denver, Colorado



Shell Side Exchanger
Before and After



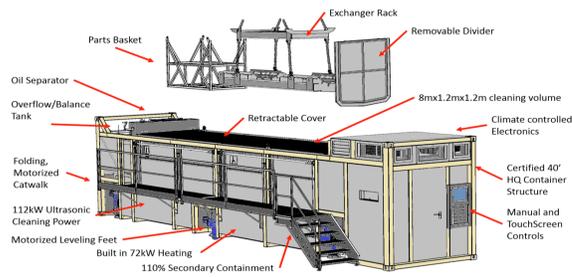
Shell Side Iron Carbonate Fouling
Before and After

HOW DOES IT WORK

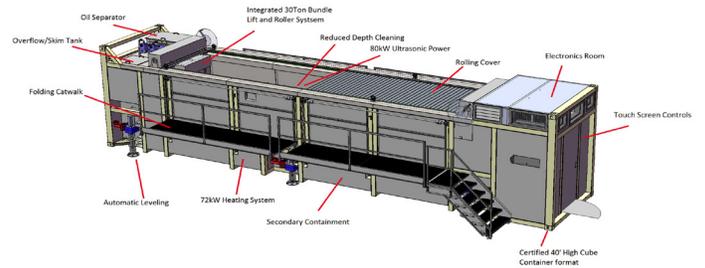
Tech Sonic's proprietary ultrasonic submersion technologies allow critical process equipment to be cleaned like never before. Microscopic sound waves reach into areas that conventional applications can not reach and remove fouling and contamination at the highest level possible. Equipment is returned to operation in "as built" condition, optimizing throughput performance.

Whether it is fouling from a hydrocarbon process, or scale buildup from a water feed, Tech Sonic applications can break down and remove the toughest contamination from critical process equipment ranging from valves and pumps to turbine rotors and heat exchangers. This evolution in cleaning allows both the inside and the outside of the equipment to be cleaned at the same time, greatly enhancing the turnaround of equipment back into operation.

"Tech Sonic's evolutionary applications can complete the cleaning of critical process equipment twice as fast and at a fraction of the cost of conventional methods."



8.0 System with Integrated Lift/Roller System



Features & Specifications

LEGEND:

√= Included

0 = Optional Equipment

N/A = Not Currently Available or Not Applicable

STANDARD FEATURES

Integrated Ultrasonic Transducers and Generators	√
Touch Screen Control	√
Electronics Cooling / Climate Control	√
Emergency Shutoff	√
Electric Fluid Heating System	√
115% secondary containment for inner vessel	√
Cleaning tank Cover System	√
OHSA, Catwalk (and Stairs where applicable)	√
Bottom Support Rails	√
Skimmer	√
Parts Basket	0

OPTIONAL FEATURES

Substitution of SS316L FOR SS304	0
Automatic Leveling Device	0
Lifting Device (for Heat Exchanger Bundles)	0
Basket System	0
Steam-Loop Heating System	0
Oil Separator	0

VESSEL WEIGHTS & DIMENSIONS

Transport Weight (kg)	15,500
Transport Method	Unit is a CSC Container
Shipping Dimensions: (LxWxH) mm	12,912 x 2438 x 2591
Working Dimensions: (LxWxH) mm Catwalks Doors Open	14000 x 4000 x 2750
Volume of Chemistry required (l)	19,700

AVAILABLE INTERIOR VESSEL SPACE

Maximum sized object [slung into bath] (LxWxH) mm	7500x1500x1300
Max. Heat Exchangers: L (Includes tube sheet) x Bundle Diameter	7500 x1200
Max. tube sheet diameter	1500

BASKET & RACK: WEIGHTS/DIMENSIONS

Basket Weight (kg)	1600
Outside Dimensions (LxWxH) mm	3327 x 1422 x 1467
Inside Dimensions (LxWxH) mm	3200 x 1295 x 1403
MAX weight capacity of basket (kg)	4000 (distributed load)
Bottom Loading Exchanger Rack Capacity (kg)	25000

ULTRASONIC

Number of transducers (Kw)	72
Acoustic power of one transducer (Kw)	2
Total acoustic power of transducers (Kw)	144

LIQUID HEATER

Location	Circulation
Total Power Pre-heater (Kw)	72
Steam System	N/A

OPERATION CONDITIONS

Ambient temperature range	-20/+40 Celsius
Operating liquid temperature	65C (MAX 75 Celsius)
MAX sound near liquid surface	100 dB
Soundlevel at 7 mtr	<70dB

CATWALKS

Size mm	8000x863 (each side)
Handrail	√
Stairs	√
Type	folding

MATERIALS OF CONSTRUCTION

Frame	SS304
Vessel	SS304
All Wetted Parts	SS304
Cover	Painted coated steel
Catwalk	SS304
Panels and Electrical	Painted coated steel

CONTROL CENTER

Location	Integrated
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ELECTRICAL SYSTEM SPECIFICATIONS

Requirements	400 VAC 3 Phase (3L+N+PE), 50 Hz, 225A
Recommended Supply	225 kVA
Output Power	170 kW

VESSEL OPTIONS

STANDARD FEATURES:

Integrated Ultrasonic Transducer and Generators	√
Touch Screen Control	√
Electronics Cooling / Climate Control	√
Emergency Shutoff	√
Electric Fluid Heating System	√
115% Secondary Containment for Inner Vessel	√
Cleaning Tank Cover system	√
OHSA, Catwalk and Stairs	√
Bottom Support Rails	√
Skimmer	√

Material Spec's

Frame	Painted coated steel
Vessel	stainless steel 304
All Wet Parts	stainless steel 304
Cover	Painted coated steel
Panels and Electrical	Painted coated steel

OPTIONS:

METAL	
316L SS (all wet parts)	0
LIFTING DEVICE	
Heat Exchanger Lifting System	0
LEVELING SYSTEM	
Automated Leveling Device	0
BASKET	
Single basket (dimensions LxWxH) mm	0
Double basket/two singles connected (dimensions LxWxH) mm	0
LIQUID HEATER	
Additional Electric Heating	0
Steam Heating System	0
OIL SEPARATOR	
Oil separator for recovery of oils	0