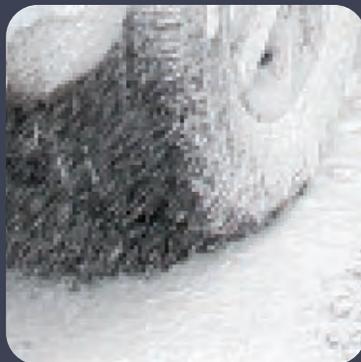


Foaming Solutions



2019



SUTTNER

A M E R I C A C O M P A N Y

German Engineered Technology

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The Sinner's Circle:

Dr. H. Sinner developed the Circle which identifies an economical and ideal cleaning process with a perfect interaction of the four parameters mechanical action, chemical action/detergency, temperature and time to ensure optimum removal of contaminants. If one parameter is reduced, other factors must be increased to compensate.

1st Factor: TEMPERATURE

- **Acceleration of the cleaning process with heat. Nothing over 100 degrees to foam.**

The introduction of heat in the process accelerates the effectiveness of the chemical used. Heat also has a positive effect on wetting power and sequestering.

Example: In dishwashers and washing machines the impact of temperature has a direct influence on detergent and the mechanical action. Hot water promotes the detergency of a product.

2nd Factor: CHEMICAL ACTION

- **Cost of chemicals in relation to time savings.**

The action of an acid or alkaline detergent solution is increased by the introduction of foam which reduces the chemical use. By nature of the foam the process is more effective use and saves in the chemical costs.

Example: Cleaning chemicals combined with foam applied to any surface will remain in contact longer to loosen or kill the contaminate for easy removal in the rinsing process. Chemical application interacts with the other 3 factors to speed the cleaning process.

3rd Factor: TIME

- **Cost of labor expended in the cleaning process.**

The energy or labor time to accomplish the end result during cleaning operations. Time when combined with the chemical action boosts cleaning power. Using foam results in better use of time.

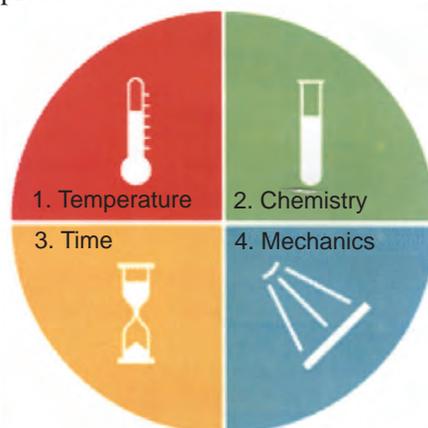
Example: In wet foam cleaning leaving the solution on the surface, somewhat stable, for a period of time makes it easier to soften, dissolve and remove the emulsion layers.

4th Factor: MECHANICAL ACTION

- **Adding power/equipment to the process.**

In foam cleaning the application of the foam and rinsing with water can be considered mechanical action. If no equipment is used, the person doing the cleaning provides the mechanical action.

Example: The action of mechanics (i.e. floor polishers, scrubbers) generate friction and pressure to increase effectiveness of the cleaning process.



Foaming saves time and money

UNIVERSAL FOAM INJECTOR KIT

(adapts to any pressure washer)

Kit includes:



&



ST-75 Foam Nozzle

ST-75 produces thick foam for an easy and safe application and to save on chemical usage by reducing splash and drift of chemicals.

Features:

- PSI: 4000.
- Weight: .31 lb.
- Inlet: 1/4".

ST-160 Stainless Steel injector

Features:

- Durable Stainless Steel housing.
- PSI: 5000.
- Single chemical.
- Weight: .71 lb.
- Inlet & Outlet: 3/8".

5 kits available!

Fits all orifice sizes.

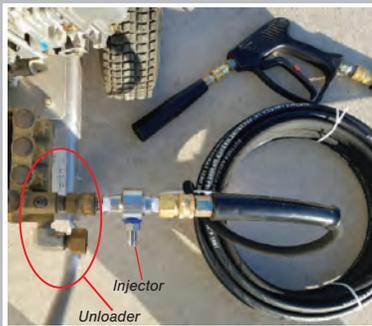
*Optimum foam created 130°F or less.

ORDER #	KIT	ORIFICE
999160751	1	2.0 - 3.5
999160752	2	4.0 - 5.5
999160753	3	6.5 - 7.0
*999160764	4	7.5 - 8.5
*999160765	5	9.0 - 12.0

* with ST-76 Foam Nozzle



ST-76



Foam injector conveniently attaches after the pump/unloader on your pressure washer.



Scan QR code to watch a short demo

<https://youtu.be/pl-eZl0aRtM>

Also available in

FOOD GRADE



Contact us for more information

ST-164 CHEMICAL BYPASS INJECTOR



PRESSURE	TEMP.	INLET	OUTLET	HOSE BARB	WEIGHT
5076 PSI	212° F	3/8" F	1/2" F	0.35	4.80 lb

- Durable stainless steel construction.
- 20 dosing nozzles included.
- Food grade quality and specifications.
- Integrated lever allows you to apply (2) chemical separately. Lever in the middle allows for rinsing.



<https://youtu.be/OxtQe5LPhas>

ST-166 DUAL CHEMICAL INJECTOR



PRESSURE	TEMP.	INLET	OUTLET	HOSE BARB	WEIGHT
5000 PSI	194° F	3/8" F	3/8" M	0.35	.75 lb

- 20 dosing nozzles to control chemical suction included.
- Designed to inject and mix 2 chemicals simultaneously.
- Durable stainless steel.
- Food grade quality and specifications.

ST-167 DUAL BYPASS INJECTOR



PRESSURE	TEMP.	INLET	OUTLET	HOSE BARB	WEIGHT
5000 PSI	212° F	3/8" F	3/8" F	0.35	2.38 lb

- With integrated lever that allows you to go from chemical to rinse.
- Durable stainless steel construction.
- 10 dosing nozzles included.
- Food grade quality and specifications.

ST-161 METERING VALVE *(stainless steel)*



ORDER #	TEMP.	HOSE BARB	WEIGHT
200161500	212° F	.35"	1.75 lb.

- Fits Injectors ST-160, ST-164, ST-166, ST-167 and ST-168.
- Eliminates need for dosing nozzles.
- Adjustable and easy to read dial.

ST-168M CHEMICAL BYPASS INJECTOR

PRESSURE	TEMP.	INLET	OUTLET	HOSE BARB	WEIGHT
5000 PSI	212° F	3/8" F	3/8" F	0.35	2.7 lb

- With integrated lever that allows you to go from chemical to rinse.
- Durable stainless steel construction.
- 10 dosing nozzles included.
- Compressed air
- Integrated rinsing lever for easy change from cleaning to rinsing.
- Food grade quality and specifications.



ST-160.2 CHEMICAL INJECTOR

PRESSURE	TEMP.	INLET	OUTLET	HOSE BARB	WEIGHT
5000 PSI	194° F	1/2" F	1/2" M	0.35	2.20 lb

- Conserves chemicals.
- Locks in position for accurate metering.
- Multiple metering positions.
- Compressed air.
- Min. PSI: 90.
- Single chemical.
- Food grade quality and specifications.



ST-160M CHEMICAL INJECTOR

PRESSURE	TEMP.	INLET	OUTLET	HOSE BARB	WEIGHT
5000 PSI	194° F	3/8" F	3/8" M	0.35	1.25 lb

- Min/Max Flow Rate: 1/21 GPM.
- Locks in position for accurate metering.
- Multiple metering positions.
- Conserves chemicals.
- Min. PSI: 1000.
- Food grade quality and specifications.



ST-73 FOAMER



ORDER #	PRESSURE	TEMP.	FLOW RATE	INLET	BOTTLE SIZE	WEIGHT
20073907	1000 - 4350 PSI	100° F	1.32 - 5.2 GPM	1/4" F	32 oz	1.10 lb
20073906	1000 - 4350 PSI	100° F	1.32 - 5.2 GPM	1/4" F	64 oz	1.20 lb

- Easy to fill wide mouth bottles with fill markings (2 sizes available).
- Integrated injector (no additional injector required).
- 5 position metering valve for chemical draw.
- Stainless steel non-corrosive injector.

ST-73H FOAMER

ST-73H has a brass injector that makes it more economical than our stainless steel version, and also comes with its own 1/4" brass Quick Connect plug for a quick and easy change from foam to rinse.



ORDER #	PRESSURE	TEMP.	FLOW RATE	INLET	BOTTLE SIZE	WEIGHT
200073916	1000 - 4350 PSI	100° F	4-8.3 GPM	1/4" F	64 oz	1.20 lb

- 5 position metering valve for chemical draw.
- Easy to fill wide mouth bottles with fill markings.
- Brass integrated injector (no additional injector required).
- Stainless steel non-corrosive injector.

ST-75 LONG RANGE FOAM NOZZLE



ORDER #	PRESSURE	TEMP.	FLOW RATE	INLET	WEIGHT
200075800xxx	2175 PSI	100° F	up to 7 GPM	1/4" FPT	.75 lb
200075810xxx	2175 PSI	100° F	up to 12 GPM	1/4" FPT	.75 lb

- Throws foam 40 feet.
- Adjustable airflow.
- 1/4" Stainless steel inlet.



https://www.youtube.com/watch?v=9z0tikW2_wg

ST-76 FOAM BLASTER

PRESSURE	TEMP.	FLOW RATE	INLET	WEIGHT
3625 PSI	100° F	5.3 - 16 GPM	1/2" F	1.15 lb

- Stainless steel injector nozzle.
- Wider spray angle.
- Foam injector required.
- For applications 6 GPM or higher.
- Throws foam 40 feet.
- Cover large areas.
- High volume.



ST-75 FOAM NOZZLE

PRESSURE	TEMP.	FLOW RATE	INLET
4000 PSI	100° F	1-6 GPM	1/4" F

Produces thick foam for an easy and safe application and to save on chemical usage by reducing splash and drift of chemicals in conjunction with Suttner injectors.

- Foam injector required.
- Saves time and money.

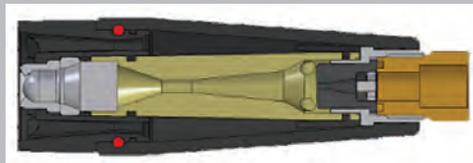


ST-75S FOAM NOZZLE (stainless steel)

ST- 75S produces thick foam for an easy and safe application and to save on chemical usage by reducing splash and drift of chemicals.

PRESSURE	TEMP.	FLOW RATE	INLET	ORIFICE	WEIGHT
4000 PSI	100° F	1-6 GPM	1/4" F	8.0	.31 lb
4000 PSI	100° F	1-6 GPM	1/4" F	10.0	.31 lb
4000 PSI	100° F	1-6 GPM	1/4" F	5.0	.31 lb
4000 PSI	100° F	1-6 GPM	1/4" F	13.0	.31 lb
4000 PSI	100° F	1-6 GPM	1/4" F	15.0	.31 lb
4000 PSI	100° F	1-6 GPM	1/4" F	20.0	.31 lb

- With stainless steel "wool" like foam pad.
- Foam injector required



Scan QR code to watch a short demo

www.youtube.com/watch?v=DhR3RI28GCY



ST-72 FOAM LANCE

PRESSURE	TEMP.	INLET
3625 PSI	100° F	1/4" M

- Stainless steel with vented handle grip.
- Available in food grade (ST-72F)

ST-175 FOAM LANCE *(nozzle not included)*

ORDER #	PRESSURE	TEMP.	FLOW RATE	INLET	LENGTH	WEIGHT
200175420	5000 PSI	200° F	1-6 GPM	1/4" F	24 in.	2.7 lb

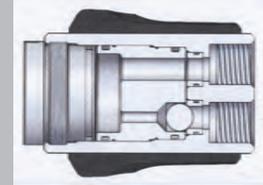
- Switch from foam to rinse by turning the valve that's conveniently within hands reach.
- Stainless components.
- Vented grip lance.
- 1/4 turn for foam to rinse.



www.youtube.com/watch?v=GfizrUtnAdQ



Twist for foam or rinse



Internal view



ST-3225 SPRAY GUN

ORDER #	PRESSURE	TEMP.	FLOW RATE	INLET	OUTLET	WEIGHT
203225545	870 PSI	212° F	31.5 GPM	1/2" F Swivel	1/2" F	1.64 lb

- Design reduces pulling force by 40% and holding force by 90%.
- Constructed with food grade plastic (regulation).
- Damping system for delayed closing.
- Stainless steel and chemical resistant.
- Ideal for the food industry for foam and rinse applications.



<https://youtu.be/OxtQe5LPhas>



ST-2620F SPRAY GUN

ORDER #	PRESSURE	TEMP.	FLOW RATE	INLET	OUTLET	WEIGHT
202620511	4000 PSI	100° F	18 GPM	3/8" FPT	1/4" FPT	1.30 lb

- Relax-Action™ trigger, German Engineered Technology reduces trigger pulling force up to 40% and holding force up to 90%.
- High volume.
- Proper spray angle for optimal positioning of pressure points.
- Orange trigger lock identifies foam spray gun.





ST-2620F SPRAY GUN W/ FOAMER SYSTEM

ORDER #	PRESSURE	TEMP.	FLOW RATE	INLET	WEIGHT
202620915	4000 PSI	100° F	18 GPM	1/2" FPT	2.5 lb

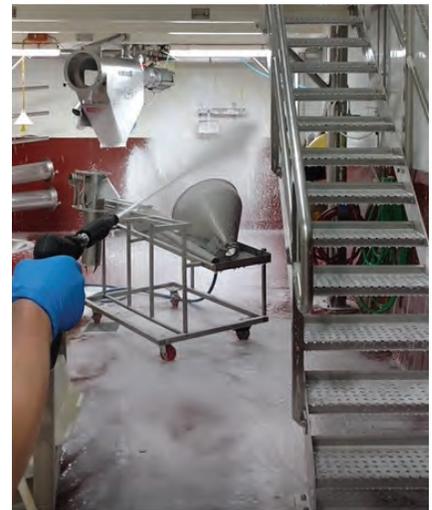
- Forged brass housing for maximum strength.
- High volume.
- For injectors using compressed air.
- Relax-Action™ designed for operators and applications with longer periods of cleaning time.
- Orange trigger lock identifies foam spray gun.



ST-2725F SPRAY GUN *(foam lance sold seperately)*

ORDER #	PRESSURE	TEMP.	FLOW RATE	INLET	WEIGHT
202725557	1200 PSI	100° F	21 GPM	1/2" F Swivel	1.8 lb

- Food grade construction.
- For injectors using compressed air.
- Integrated live inlet swivel & ST-3100 quick coupler outlet.
- Relax-Action trigger technology.
- Stainless steel housing.
- Orange trigger lock identifies foam spray gun.



CHEMICAL RESISTANT & CERAMIC BALL SPRAY GUN (ST-1500C)

ORDER #	PRESSURE	TEMP.	FLOW RATE	INLET	OUTLET	WEIGHT
201500572	4000 PSI	302° F	12 GPM	3/8" FPT	1/4" FPT	1.24 lb

Repair Kit: #202000054

- Chemical resistant valve
- Stainless steel inlet and outlet
- LFT (low friction trigger)
- Designed from the "industry standard" ST-1500 Spray Gun

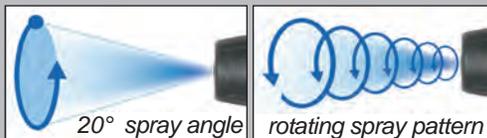


ST-358 STAINLESS STEEL TURBO NOZZLE

NEW!

ORDER #	PRESSURE	TEMP.	INLET	WEIGHT
200358560	4000 PSI	300° F	1/2" FPT	.61 lb

- Tungsten carbide nozzle and seat for increased performance and extended life.
- Ideal for precision hydro-excavating.



Tungsten Carbide



ALWAYS START TURBO NOZZLES IN A DOWNWARD POSITION
THE USE OF A TURBO STRAINER IS RECOMMENDED FOR ALL TURBO NOZZLES

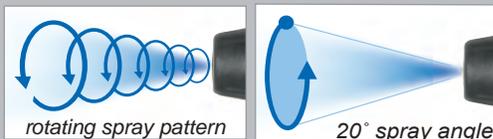
ST-559 TURBO NOZZLES

(tungsten carbide nozzle & seat)

The increased tearing action of the rotating spray is ideal for hard surface applications, such as concrete graffiti cleaning or caked on mud on heavy equipment.

ORDER #	PRESSURE	TEMP.	ORIFICE	INLET	WEIGHT	REPAIR KIT
200559620	8700 PSI	190° F	2.0	1/4" FPT	1.32 lb	200559120
200559630	8700 PSI	190° F	3.0	1/4" FPT	1.32 lb	200559130
200559640	8700 PSI	190° F	4.0	1/4" FPT	1.32 lb	200559140
200559650	8700 PSI	190° F	5.0	1/4" FPT	1.32 lb	200559150
200559655	8700 PSI	190° F	5.5	1/4" FPT	1.32 lb	200559155
200559660	8700 PSI	190° F	6.0	1/4" FPT	1.32 lb	200559160

- Increases cleaning efficiency as much as 200%.
- The 0° rotation creates a cleaning and tearing action.
- Ideal for hard surfaces.
- Tungsten Carbide Nozzle and Sealing Seat.
- Improved materials for longer life.



ALSO AVAILABLE:
1/2" inlet (minimum quantities)



ALWAYS START TURBO NOZZLES IN A DOWNWARD POSITION
THE USE OF A TURBO STRAINER IS RECOMMENDED FOR ALL TURBO NOZZLES



ST-559 repair kit



SUTTNER

A M E R I C A C O M P A N Y

With over **50** years of experience, Suttner America is one of the worldwide leading manufacturers of high quality products for the cleaning industry.

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