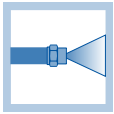




Lances and nozzle headers

- Sanitary Retractable Lances
- Standard Flanged Lances
- Tank Cleaning Lances
- STAMM® Showers
- Pneumatic Atomizing
- Air Blowoff
- Quick Disconnect
- Flat Fan
- Plastic
- Specialty



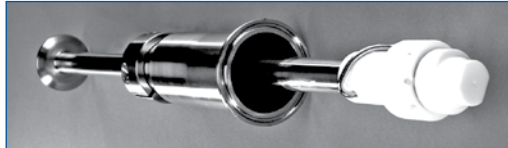
Lances

Custom fabricated for your application

Fabricated Lances

Whereas a header or spray bar is a pipe containing multiple nozzles, a lance is a pipe in which one nozzle is attached to the end of it (see photos). The lance can then be inserted into the target area. This could be a tank, a larger pipe, or a gas or fluid system. The purpose of the lance is to spray at a specific target (such as to clean a tank) or inject fluid into the system (such as gas conditioning). Lechler can fabricate a nozzle lance to perform any spray requirement you may have. Here are some examples:

Sanitary retractable lance



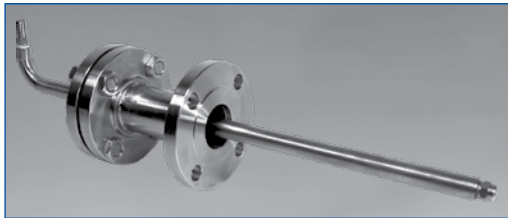
Applications

- Tank cleaning

Features

- Manually inserts and retracts into tank for a non-CIP sanitary application
- Accepts a variety of nozzle types
- Polished finish for sanitary applications

Industrial retractable lance



Applications

- Fluid injection

Features

- Manually inserts; retracts into vessel or pipe
- Flexibility; accepts a variety of nozzles, adjusts to various size flanges; has variable insertion lengths

Standard flanged lance



Applications

- Tank cleaning
- Fluid injection

Features

- Inserts into tank for CIP applications
- Accepts a variety of nozzle types

Standard flanged Sanitary Lance



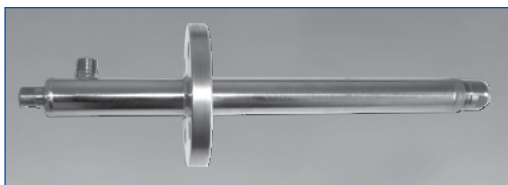
Applications

- Tank cleaning
- Fluid injection

Features

- Inserts into tank for CIP applications
- Accepts a variety of nozzle types
- Materials and connections suitable for sanitary applications

Pneumatic Twin Fluid lance



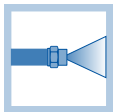
Applications

- Gas treatment
- Spray drying
- Fluidized bed granulation
- Atomizing of liquids to small droplets
- Combustion of liquids

Features

- Two styles: solid jet atomization and pre-atomization
- Solid jet atomization (for higher viscosity fluids)
 - Single atomization of solid fluid jet
 - Maximum free passage (less clogging risk)
 - Suitable for medium to high viscosity fluids
- Pre-atomization (for highest atomization efficiency)
 - Atomization of previously atomized cone spray
 - Finest droplets possible due to double atomization

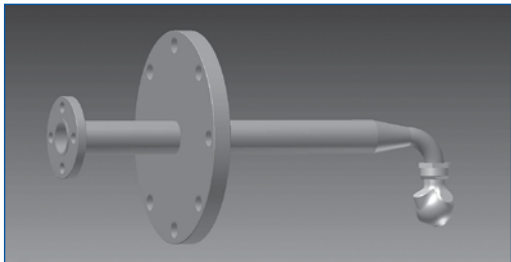
CIP=Clean-in-Place



Lances

Custom fabricated for your application

ANSI flanged lance



Applications

- Tank cleaning
- CIP applications

Features

- Accepts a variety of sizes
- Flanged connection for more permanent installation of nozzle and lance
- 90° elbow allows for side entry

Tri-clamp connection lance



Applications

- Tank cleaning
- Fluid injection

Features

- Accepts a variety of nozzles
- Quick disconnect for easier use in non-CIP applications

Branched flanged lance



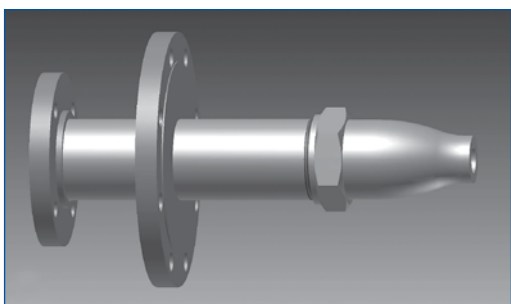
Applications

- Tank cleaning
- Chemical processing

Features

- Accepts a variety of nozzles
- Dual arms allow spraying in multiple directions

CenterJet full cone lance



Applications

- Surface spraying
- Quench cooling
- Fire suppression
- Chemical processing
- CIP applications

Features

- Accepts a variety of nozzle types
- Available in various materials for maximum chemical resistance

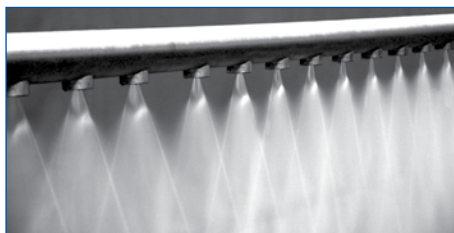


Fabricated Headers — Our Specialty

In addition to single nozzles and accessories, Lechler can make fabricated headers in any size or shape for any application you may have in mind. With our knowledge of nozzles and applications, we can design and build a header specifically to perform the task you need for your process. Here are some examples of systems we have designed over the years:

STAMM® Headers

(without a self-cleaning device)



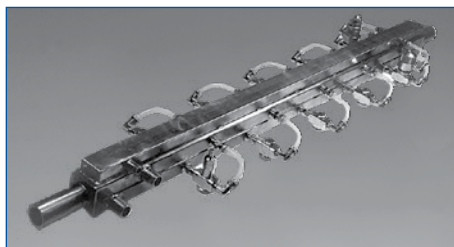
Applications

- Cleaning
- Coating

Features

- Renowned STAMM® quality
- Self-aligning nozzles
- Easy nozzle replacement

AirMist Atomizing Headers



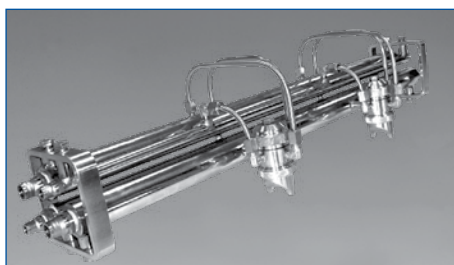
Applications

- Coating
- Lubricating
- Humidification

Features

- AirMist atomizing nozzles
- Optional pneumatic valves for operational control
- Sprays water-like fluids
- Simplifies installation

ViscoMist Atomizing Headers



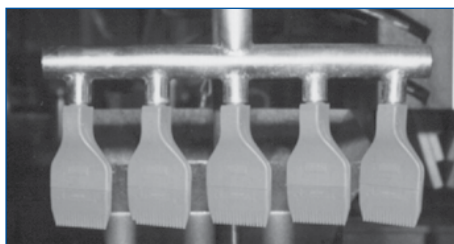
Applications

- Coating
- Lubricating

Features

- ViscoMist atomizing nozzles
- Standard pneumatic valves for operational control
- Sprays more viscous fluids (e.g. oils, syrups)
- Simplifies installation

Air Blowoff Headers



Applications

- Air blowoff
- Cooling
- Drying

Features

- WhisperBlast air nozzles
- ABS Plastic header pipe



Spray headers

Custom fabricated for your application

Flat Fan Nozzle Headers



Applications

- Cleaning
- Coating
- Cooling
- Lubricating

Features

- Any style of flat fan nozzles
- Threaded tip (with base and cap)
- Split eyelet (with base and cap)

Full Cone Nozzle Headers



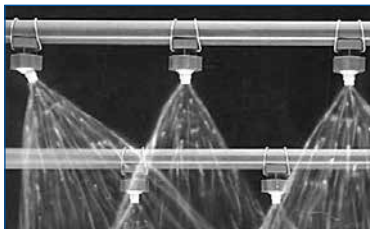
Applications

- Cleaning
- Dust suppression
- Surface spraying

Features

- Axial or tangential full cones
- Nozzles cover an area; target does not need to move through spray to get covered

Quick Disconnect Nozzle Headers



Applications

- Surface treatment
- Parts washing
- Phosphating lines

Features

- Easy Clips clamp to pipe
- Split eyelets tighten around pipe
- Twistloc nozzles apply with a hand twist

Custom Specialty Headers

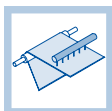


Applications

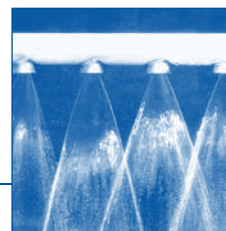
- Foam control (circular header)
- Surface spraying (inverted U header)
- Poultry processing (custom-shaped header)

Features

- Custom-made for application
- Nozzles aimed only at target regardless of header shape



STAMM® shower headers with built-in cleaning device



Engineered and manufactured by Lechler Inc. in the USA under license by the STAMM® Company in Germany, these shower headers with built-in cleaning device are recognized worldwide as the original “brush and flush” shower system.

Shower pipe and nozzles remain clog-free due to the unique flush system design. A simple turn of the handwheel sweeps contaminants away from the nozzle orifices and directs the debris down the flush-out valve. Since these showers eliminate costly down time for cleaning, they are especially cost-effective in applications subject to high fluid contamination. Some features of the self-

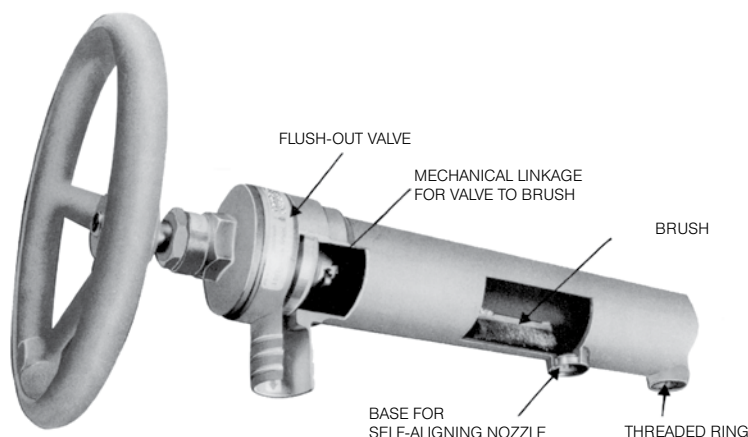
cleaning shower system are:

- Header pipe available in sizes from 1½" to 6" in diameter.
- Contaminants flushed via special valve, preventing them from clogging orifices or reaching showered surface.
- System accommodates wide range of flow rates.
- Stainless steel construction throughout.
- Highly efficient, interchangeable nozzles are self-aligning.
- Systems are tailored to your specific application.

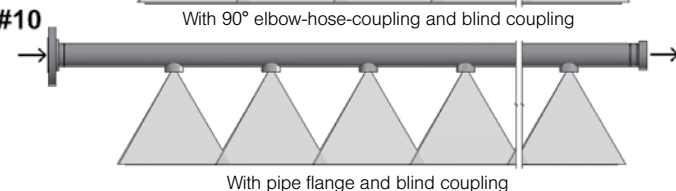
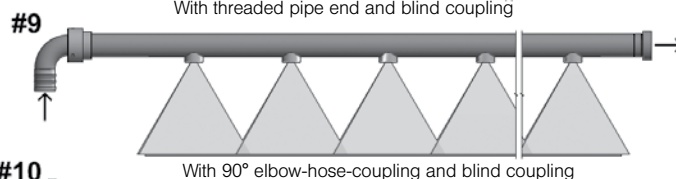
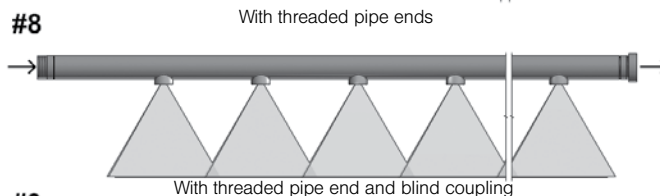
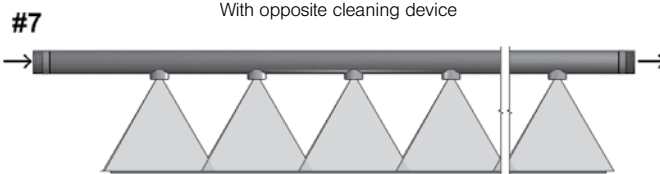
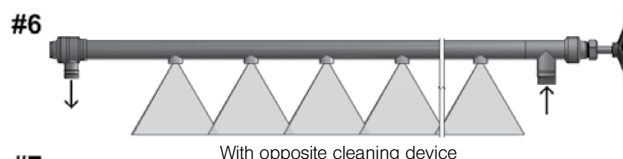
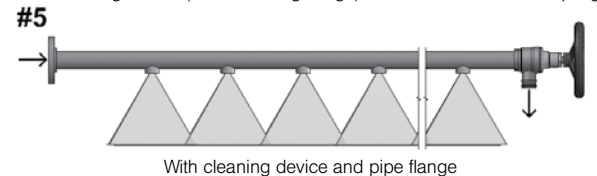
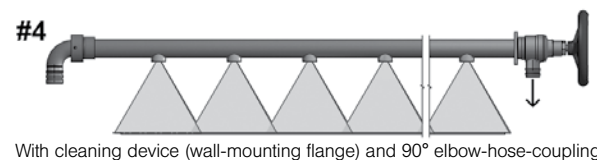
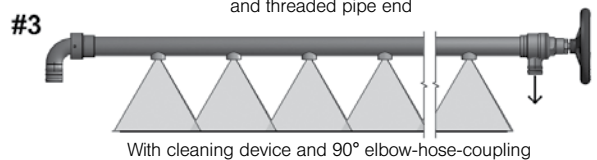
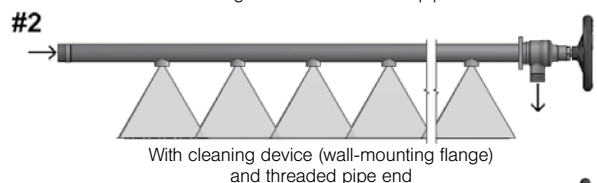
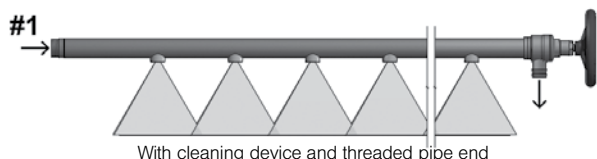
Refer to the next page for a selection of nozzles specifically designed for use in STAMM® showers.

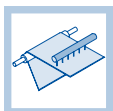
Typical applications:

- Cleaning of wires and felts
- Humidification
- Knock-off
- Lubrication

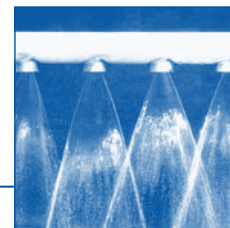


Standard shower models (Other configurations also available; note that models #7–10 have no cleaning device)





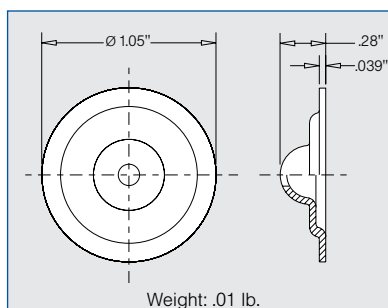
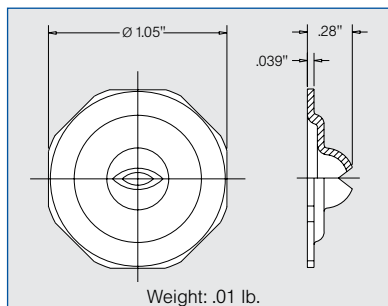
Nozzles for STAMM® shower headers Series 626 / 5SW



Designed specifically for STAMM® shower headers, these nozzles can serve as replacements or to change the flow rate of an existing unit. Self aligning when used with STAMM® or Lechler bases. 317 LN stainless steel construction for long service life. Available in 60°, 30°, and 15° flat fans or 0° solid stream ("needle jet") versions.

Applications:

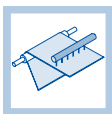
- For use on STAMM® showers
- Paper production
- Belt filter press cleaning in wastewater treatment



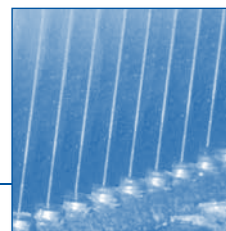
Notes: Also available upon request are: (1) nozzles with other flow rates and (2) solid stream nozzles (0°) with a ruby tip orifice. The number in the Equiv. Orifice Diam. column represents the Nozzle # and spray angle stamped on each nozzle; e.g., the nozzle stamped 1.0 / 60 refers to 626.364.1F.37. Lechler has blank shower nozzles with no orifices which can be used on STAMM® showers when a particular nozzle opening needs to be blocked. The part number for this blank nozzle is **006.261.1F.00**.

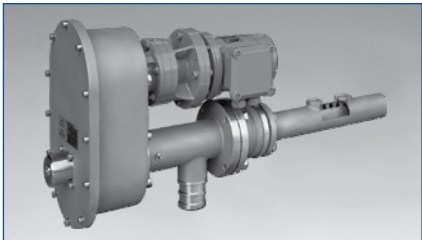
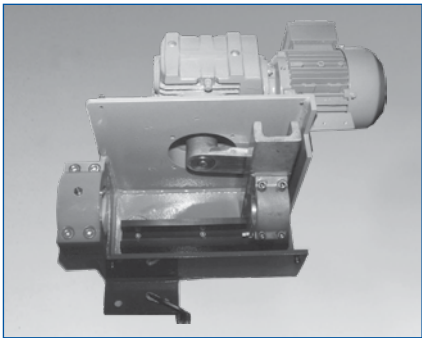
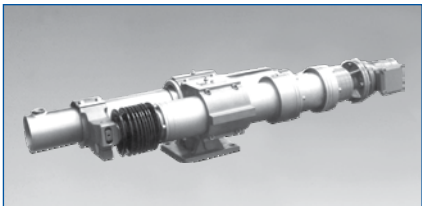
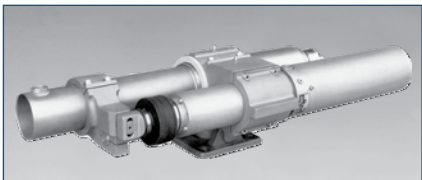
Spray angle	Ordering no.	Equiv. Orifice Diam. (mm)	Flow Rate (Gallons Per Minute)						
			40 psi	60 psi	100 psi	150 psi	250 psi	500 psi	1000 psi
60°	626. 364. 1F. 37	1.0	.20	.24	.31	.38	.49	.69	.98
	626. 404. 1F. 37	1.2	.31	.38	.49	.60	.77	1.1	1.6
	626. 464. 1F. 37	1.5	.50	.61	.79	.96	1.2	1.8	2.5
	626. 564. 1F. 37	2.0	.77	.95	1.2	1.5	1.9	2.7	3.9
	626. 644. 1F. 37	2.5	1.2	1.5	2.0	2.4	3.1	4.4	6.2
	626. 724. 1F. 37	3.0	2.0	2.4	3.1	3.8	4.9	6.9	9.8
	626. 804. 1F. 37	4.0	3.1	3.8	4.9	6.0	7.8	11.0	15.5
	626. 884. 1F. 37	5.0	4.9	6.0	7.8	9.6	12.3	17.4	25
	626. 964. 1F. 37	6.0	7.8	9.5	12.3	15.0	19.4	27	39
	627. 004. 1F. 37	7.0	9.8	12.0	15.5	18.9	24	35	49
30°	627. 044. 1F. 37	8.0	12.4	15.2	19.6	24	31	44	62
	626. 362. 1F. 37	1.0	.20	.24	.31	.38	.49	.69	.98
	626. 482. 1F. 37	1.5	.50	.61	.79	.96	1.2	1.8	2.5
	626. 562. 1F. 37	2.0	.77	.95	1.2	1.5	1.9	2.7	3.9
	626. 642. 1F. 37	2.5	1.2	1.5	2.0	2.4	3.1	4.4	6.2
	626. 722. 1F. 37	3.0	2.0	2.4	3.1	3.8	4.9	6.9	9.8
	626. 802. 1F. 37	4.0	3.1	3.8	4.9	6.0	7.8	11.0	15.5
15°	626. 882. 1F. 37	5.0	4.9	6.0	7.8	9.6	12.3	17.4	25
	626. 361. 1F. 37	1.0	.20	.24	.31	.38	.49	.69	.98
	626. 561. 1F. 37	2.0	.77	.95	1.2	1.5	1.9	2.7	3.9
0°	626. 721. 1F. 37	3.0	2.0	2.4	3.1	3.8	4.9	6.9	9.8
	5SW. 300. 1F. 00	0.7	.09	.11	.14	.17	.22	.31	.44
	5SW. 320. 1F. 00	0.8	.13	.15	.20	.24	.32	.45	.63
	5SW. 340. 1F. 00	0.9	.15	.19	.25	.30	.39	.55	.77
	5SW. 360. 1F. 00	1.0	.20	.24	.31	.38	.49	.69	.98
	5SW. 390. 1F. 00	1.2	.31	.38	.49	.60	.77	1.1	1.6
	5SW. 460. 1F. 00	1.5	.50	.61	.79	.96	1.2	1.8	2.5
	5SW. 540. 1F. 00	2.0	.77	.95	1.2	1.5	1.9	2.7	3.9
	5SW. 620. 1F. 00	2.5	1.2	1.5	2.0	2.4	3.1	4.4	6.2
	5SW. 680. 1F. 00	3.0	2.0	2.4	3.1	3.8	4.9	6.9	9.8
	5SW. 780. 1F. 00	4.0	3.1	3.8	4.9	6.0	7.8	11.0	15.5
	5SW. 860. 1F. 00	5.0	4.9	6.0	7.8	9.6	12.3	17.4	25

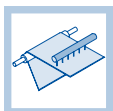
Conversion formula for the above series: $V_2 = V_1 \sqrt{\frac{P_2}{P_1}}$
(See page 12 for symbol definitions.)



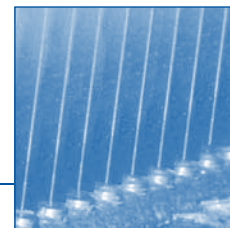
Automatic cleaning device and oscillators for STAMM® headers

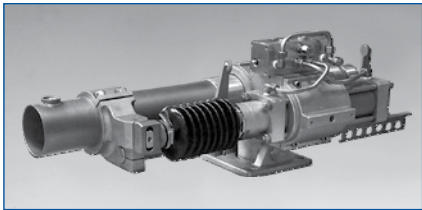
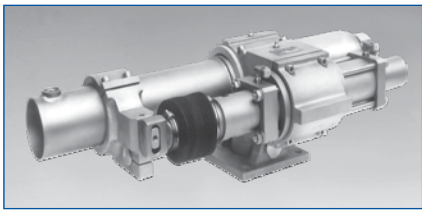
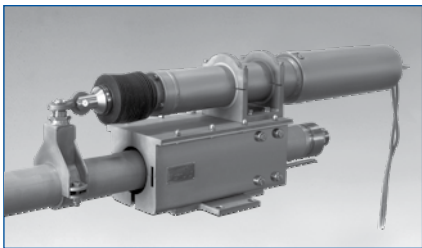


Part Number	Description	Stroke length	Shower size
10.900 Automatic Cleaning Device	Automatic regular cleaning of nozzles at programmable intervals; existing showers can be retrofitted with this device.	N/A	All sizes
			
10.200 E Oscillator	Oscillator with electro-mechanical crank drive for side-to-side movement by a sliding block and axial guide rail.	200 mm Non-adjustable	2" to 4"
			
10.510 LSE-R Oscillator	Oscillator with electro-mechanical gear motor that rotates a double ball screw spindle which converts rotation into linear stroke movement.	2" to 3": 206.4 mm or 301.4 mm 4" to 6": 203.2 mm or 304.2 mm	One size for 2" to 3" diameter One size for 4" to 6" diameter
			
10.510 EC Oscillator	Oscillator with electro-mechanical step motor with a planetary gear reducer to drive a ball screw spindle.	1–200 mm Infinitely adjustable	2" to 6"
			



Automatic cleaning device and oscillators for STAMM® headers



Part Number	Description	Stroke length	Shower size
10.591 S Oscillator	Oscillator with oil-hydraulic drive with infinitely adjustable stroke speed provided by micro-flow control valve.	50–200 mm Infinitely adjustable 50–300 mm Infinitely adjustable	2" to 6"
			
10.691 S Oscillator	Oscillator with oil-hydraulic drive with electronic oil flow control for automatic adjustment of stroke speed.	1–200 mm Infinitely adjustable 1–300 mm Infinitely adjustable	2" to 6"
			
10.700 Oscillator bearing	Wear-resistant bearing made of stainless steel; installs in any position and fits all drive alternatives.	N/A	All sizes
			

STAMM