

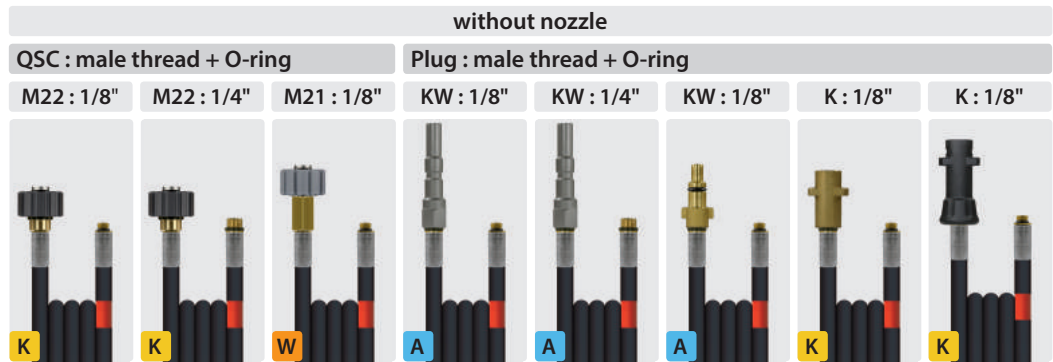


Everything for sewer cleaning applications



Everything for sewer cleaning applications

Sewer cleaning hose assemblies

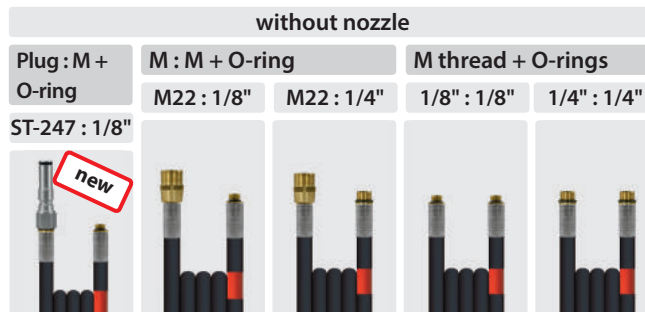


Hoses with single wire braid and smooth cover

| TYP | DN | P | °C | ↔ | R+M Nr. | R+M Nr. | R+M Nr. | R+M Nr. | R+M Nr. | R+M Nr. | R+M Nr. | R+M Nr. | |
|-------|----|---------|--------|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|
| Flexy | 6 | 300 bar | 100 °C | 10 m | 420 300 010 | 420 301 010 | 420 315 010 | 420 335 010 | 420 336 010 | 420 330 010 | 420 345 010 | | |
| | | | | | 15 m | 420 300 015 | 420 301 015 | 420 315 015 | 420 335 015 | 420 336 015 | 420 330 015 | 420 345 015 | |
| | | | | | 20 m | 420 300 020 | 420 301 020 | 420 315 020 | 420 335 020 | 420 336 020 | 420 330 020 | 420 345 020 | |
| | | | | | 25 m | 420 300 025 | 420 301 025 | 420 315 025 | 420 335 025 | 420 336 025 | 420 330 025 | 420 345 025 | |
| | | | | | 30 m | 420 300 030 | 420 301 030 | 420 315 030 | 420 335 030 | 420 336 030 | 420 330 030 | 420 345 030 | |

Plastic hoses with single fabric braid

| TYP | DN | P | °C | ↔ | R+M Nr. | R+M Nr. | R+M Nr. | R+M Nr. | R+M Nr. | R+M Nr. | R+M Nr. | R+M Nr. | |
|-------|----|---------|-------|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Polya | 5 | 200 bar | 20 °C | 10 m | 410 000 010 | | 410 015 010 | 410 035 010 | | 410 030 010 | | 410 045 010 | |
| | | | | | 15 m | 410 000 015 | | 410 015 015 | 410 035 015 | | 410 030 015 | | 410 045 015 |
| | | | | | 20 m | 410 000 020 | | 410 015 020 | 410 035 020 | | 410 030 020 | | 410 045 020 |
| | | | | | 25 m | 410 000 025 | | 410 015 025 | 410 035 025 | | 410 030 025 | | 410 045 025 |
| | | | | | 30 m | 410 000 030 | | 410 015 030 | 410 035 030 | | 410 030 030 | | 410 045 030 |
| Polya | 5 | 120 bar | 20 °C | 10 m | 400 000 010 | | 400 015 010 | 400 035 010 | | 400 030 010 | | 400 045 010 | |
| | | | | | 15 m | 400 000 015 | | 400 015 015 | 400 035 015 | | 400 030 015 | | 400 045 015 |
| | | | | | 20 m | 400 000 020 | | 400 015 020 | 400 035 020 | | 400 030 020 | | 400 045 020 |
| | | | | | 25 m | 400 000 025 | | 400 015 025 | 400 035 025 | | 400 030 025 | | 400 045 025 |
| | | | | | 30 m | 400 000 030 | | 400 015 030 | 400 035 030 | | 400 030 030 | | 400 045 030 |



As required our sewer cleaning hoses have a safety clearance marking directly on the hose which is placed 0.5 m of the nozzle.



Hoses with single wire braid and smooth cover

| TYP | DN | P | °C | ↔ | R+M Nr. | R+M Nr. | R+M Nr. | R+M Nr. | R+M Nr. | |
|-------|----|---------|--------|------|-------------|-------------|-------------|-------------|-------------|-------------|
| Flexy | 6 | 300 bar | 100 °C | 10 m | 420 361 010 | 420 310 010 | 420 311 010 | 420 340 010 | 420 342 010 | |
| | | | | | 15 m | 420 361 015 | 420 310 015 | 420 311 015 | 420 340 015 | 420 342 015 |
| | | | | | 20 m | 420 361 020 | 420 310 020 | 420 311 020 | 420 340 020 | 420 342 020 |
| | | | | | 25 m | 420 361 025 | 420 310 025 | 420 311 025 | 420 340 025 | 420 342 025 |
| | | | | | 30 m | 420 361 030 | 420 310 030 | 420 311 030 | 420 340 030 | 420 342 030 |

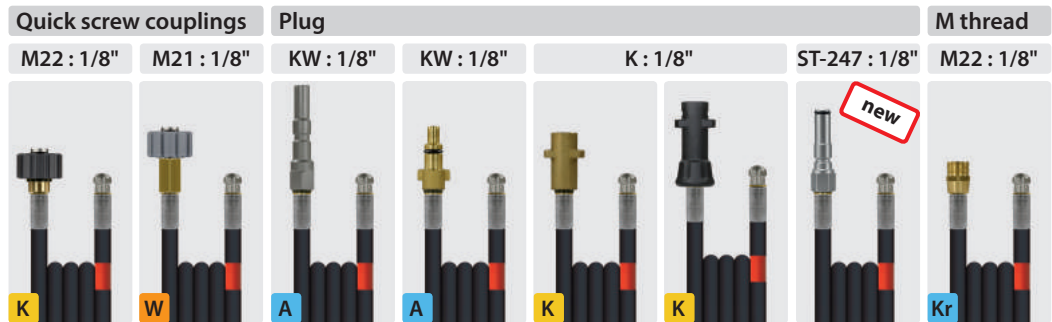
Plastic hoses with single fabric braid

| TYP | DN | P | °C | ↔ | R+M Nr. | R+M Nr. | R+M Nr. | R+M Nr. | R+M Nr. | |
|-------|----|---------|-------|------|---------|-------------|-------------|-------------|-------------|--|
| Polya | 5 | 200 bar | 20 °C | 10 m | | 410 010 010 | | 410 040 010 | | |
| | | | | | 15 m | | 410 010 015 | | 410 040 015 | |
| | | | | | 20 m | | 410 010 020 | | 410 040 020 | |
| | | | | | 25 m | | 410 010 025 | | 410 040 025 | |
| | | | | | 30 m | | 410 010 030 | | 410 040 030 | |
| Polya | 5 | 120 bar | 20 °C | 10 m | | 400 010 010 | | 400 040 010 | | |
| | | | | | 15 m | | 400 010 015 | | 400 040 015 | |
| | | | | | 20 m | | 400 010 020 | | 400 040 020 | |
| | | | | | 25 m | | 400 010 025 | | 400 040 025 | |
| | | | | | 30 m | | 400 010 030 | | 400 040 030 | |

Everything for sewer cleaning applications

Sewer cleaning hose assemblies

with nozzle



Hoses with single wire braid and smooth cover

| TYP | DN | P | °C | ↔ | R+M Nr. | R+M Nr. | R+M Nr. | R+M Nr. | R+M Nr. | R+M Nr. | R+M Nr. | R+M Nr. | |
|-------|----|---------|--------|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Flexy | 6 | 300 bar | 100 °C | 10 m | 420 302 010 | 420 317 010 | 420 337 010 | 420 332 010 | 420 347 010 | | 420 363 010 | 420 312 010 | |
| | | | | | 15 m | 420 302 015 | 420 317 015 | 420 337 015 | 420 332 015 | 420 347 015 | | 420 363 010 | 420 312 015 |
| | | | | | 20 m | 420 302 020 | 420 317 020 | 420 337 020 | 420 332 020 | 420 347 020 | | 420 363 010 | 420 312 020 |
| | | | | | 25 m | 420 302 025 | 420 317 025 | 420 337 025 | 420 332 025 | 420 347 025 | | 420 363 010 | 420 312 025 |
| | | | | | 30 m | 420 302 030 | 420 317 030 | 420 337 030 | 420 332 030 | 420 347 030 | | 420 363 010 | 420 312 030 |

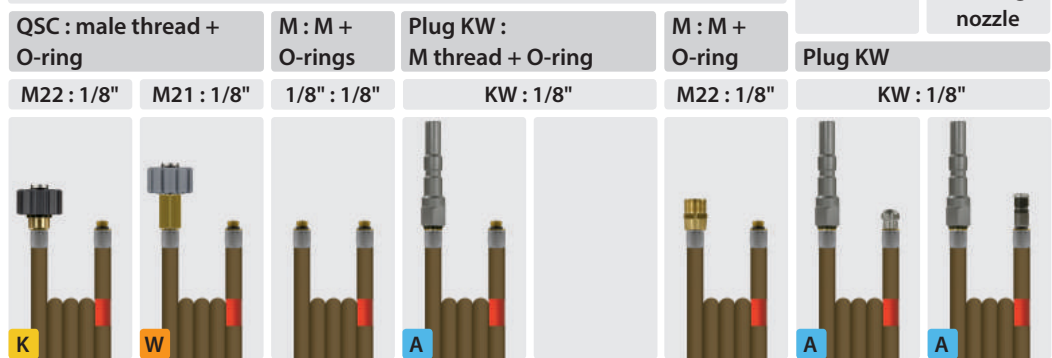
Plastic hoses with single fabric braid

| TYP | DN | P | °C | ↔ | R+M Nr. | R+M Nr. | R+M Nr. | R+M Nr. | R+M Nr. | R+M Nr. | R+M Nr. | R+M Nr. | |
|-------|----|---------|-------|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Polya | 5 | 200 bar | 20 °C | 8 m | 410 002 008 | 410 017 008 | 410 037 008 | 410 032 008 | | 410 047 008 | | 410 012 008 | |
| | | | | | 10 m | 410 002 010 | 410 017 010 | 410 037 010 | 410 032 010 | | 410 047 010 | | 410 012 010 |
| | | | | | 15 m | 410 002 015 | 410 017 015 | 410 037 015 | 410 032 015 | | 410 047 015 | | 410 012 015 |
| | | | | | 20 m | 410 002 020 | 410 017 020 | 410 037 020 | 410 032 020 | | 410 047 020 | | 410 012 020 |
| | | | | | 25 m | 410 002 025 | 410 017 025 | 410 037 025 | 410 032 025 | | 410 047 025 | | 410 012 025 |
| Polya | 5 | 120 bar | 20 °C | 10 m | 400 002 010 | 400 017 010 | 400 037 010 | 400 032 010 | | 400 047 010 | | 400 012 010 | |
| | | | | | 15 m | 400 002 015 | 400 017 015 | 400 037 015 | 400 032 015 | | 400 047 015 | | 400 012 015 |
| | | | | | 20 m | 400 002 020 | 400 017 020 | 400 037 020 | 400 032 020 | | 400 047 020 | | 400 012 020 |
| | | | | | 25 m | 400 002 025 | 400 017 025 | 400 037 025 | 400 032 025 | | 400 047 025 | | 400 012 025 |
| | | | | | 30 m | 400 002 030 | 400 017 030 | 400 037 030 | 400 032 030 | | 400 047 030 | | 400 012 030 |

without nozzle

with nozzle

rotating nozzle



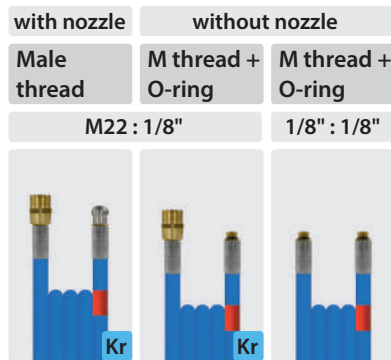
Plastic hoses with single wire braid

| TYP | DN | P | °C | ↔ | R+M Nr. | R+M Nr. | R+M Nr. | R+M Nr. | R+M Nr. | R+M Nr. | R+M Nr. | R+M Nr. | |
|-------|----|---------|-------|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| R+M 1 | 4 | 300 bar | 99 °C | 10 m | 411 000 010 | 411 015 010 | 411 040 010 | 411 035 010 | | 411 010 010 | 411 037 010 | 411 038 010 | |
| | | | | | 15 m | 411 000 015 | 411 015 015 | 411 040 015 | 411 035 015 | | 411 010 015 | 411 037 015 | 411 038 015 |
| | | | | | 20 m | 411 000 020 | 411 015 020 | 411 040 020 | 411 035 020 | | 411 010 020 | 411 037 020 | 411 038 020 |
| | | | | | 25 m | 411 000 025 | 411 015 025 | 411 040 025 | 411 035 025 | | 411 010 025 | 411 037 025 | 411 038 025 |
| | | | | | 30 m | 411 000 030 | 411 015 030 | 411 040 030 | 411 035 030 | | 411 010 030 | 411 037 030 | 411 038 030 |

Symbols DN nominal diameter P pressure °C temperature ↔ length TYP type

Everything for sewer cleaning applications

Sewer cleaning hose assemblies



Plastic hoses with single fabric braid

| TYP | DN | P | °C | ↔ | R+M Nr. | R+M Nr. | R+M Nr. |
|-------|------|-------------|-------------|-------------|-------------|-------------|-------------|
| Polya | 5 | 200 bar | 20 °C | 8 m | 412 012 008 | 412 010 008 | 412 040 008 |
| | | | | 10 m | 412 012 010 | 412 010 010 | 412 040 010 |
| | | | | 15 m | 412 012 015 | 412 010 015 | 412 040 015 |
| | | | | 20 m | 412 012 020 | 412 010 020 | 412 040 020 |
| | | | | 25 m | 412 012 025 | 412 010 025 | 412 040 025 |
| | | | | 30 m | 412 012 030 | 412 010 030 | 412 040 030 |
| | 40 m | 412 012 040 | 412 010 040 | 412 040 040 | | | |

Hoses with single wire braid and smooth cover

| TYP | DN | P | °C | ↔ | R+M Nr. | R+M Nr. |
|-------|----|---------|--------|------|---------------|---------------|
| Flexy | 6 | 300 bar | 100 °C | 10 m | 420 302 321 0 | 420 300 321 0 |
| | | | | 15 m | 420 302 321 5 | 420 300 321 5 |
| | | | | 20 m | 420 302 322 0 | 420 300 322 0 |
| | | | | 25 m | 420 302 322 5 | 420 300 322 5 |
| | | | | 30 m | 420 302 323 0 | 420 300 323 0 |

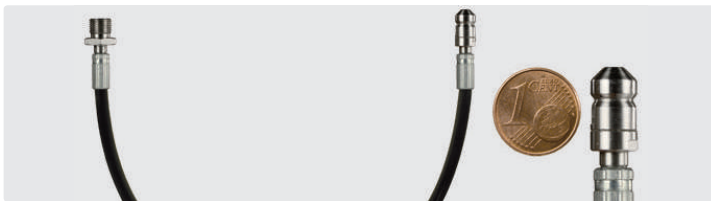
High pressure hoses with smooth cover - 500 bar



Hoses with double wire braid and smooth cover

| TYP | DN | P | °C | ↔ | R+M Nr. | R+M Nr. | R+M Nr. |
|-------|----|---------|--------|------|---------------|---------------|---------------|
| Flexy | 6 | 500 bar | 150 °C | 10 m | 424 300 010 9 | 424 301 010 9 | 424 344 010 9 |
| | | | | 15 m | 424 300 015 9 | 424 301 015 9 | 424 344 015 9 |
| | | | | 20 m | 424 300 020 9 | 424 301 020 9 | 424 344 020 9 |

Sewer cleaning hose assemblies with mini-nozzle



Heat exchangers in thermal power stations or conveyor pipes in the food industry are often sewers of 10 to 12 mm in diameter. In order to clean them effectively from the inside a device for sewer cleaning with small diameters and high pressures is required.

We have also in this case the best possible solution for you!

"small" as desired and "powerful" with great performance.

We are talking about the new mini-device for sewer cleaning. Being only 9 mm in diameter the nozzle withstands the working pressure of up to 500 bar. Completely sensational or what do you think? The nozzle for sewer cleaning is made out of stainless steel and equipped with three jet outlets to the back and one forward.

The mini-nozzle for sewer cleaning is supplied with a black plastic hose with a nominal diameter of 2 and assembled with 1/8" M. The device is so suitable for all common high pressure cleaner.

| R+M Nr. | DN | D | P | °C | ↔ |
|---------------|----|----|---------------|-------|--------|
| 495 334 000 5 | 2 | 03 | 350 - 500 bar | 60 °C | 0.5 m |
| 495 334 002 0 | 2 | 03 | 350 - 500 bar | 60 °C | 2.0 m |
| 495 334 005 0 | 2 | 03 | 350 - 500 bar | 60 °C | 5.0 m |
| 495 334 008 0 | 2 | 03 | 350 - 500 bar | 60 °C | 8.0 m |
| 495 334 010 0 | 2 | 03 | 350 - 500 bar | 60 °C | 10.0 m |
| 495 334 015 5 | 2 | 03 | 350 - 500 bar | 60 °C | 15.5 m |
| 495 334 020 | 2 | 03 | 350 - 500 bar | 60 °C | 20.0 m |
| 495 334 025 | 2 | 03 | 350 - 500 bar | 60 °C | 25.0 m |

Everything for sewer cleaning applications

Sewer cleaning hose assemblies

sewerclean365+ PU-sewer cleaning hose

- » cut- and abrasion-resistant
- » extremely long operating life
- » highly tearproof by two-fold braid of aramid fibres and polyurethane surface
- » good swimming features
- » ageing resistant and weather-resistant surface
- » -40 °C - +60 °C, -40 °F - +140 °F



DKR : M

1/2" : 1/2"



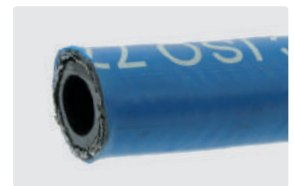
All hoses are supplied together with a test certificate according to EN 10204.3.1.1.

| DN | P | ⊘ | ⊘ | BP | ↔ |
|----|---------|---------|---------|---------|-------|
| 12 | 275 bar | 12.7 mm | 23.4 mm | 840 bar | 40 m |
| | | | | | 60 m |
| | | | | | 80 m |
| | | | | | 100 m |
| | | | | | 120 m |

| R+M Nr. |
|-----------------|
| 432 457 120 040 |
| 432 457 120 060 |
| 432 457 120 080 |
| 432 457 120 100 |
| 432 457 120 120 |

sewerstar365+ Gummi-Kanalspülschläuche

- » highly abrasion-resistant with an extremely long operating life
- » high flexibility by especially developed rubber compound
- » extremely abrasion-resistant, ageing resistant and weather-resistant surface
- » easy handling by low weight
- » excellent pressure resistance and tensile strength
- » very low bending radius
- » wire braid for high stability
- » interior and surface are made out of NR/SBR
- » -40 °C - +150 °C, -40 °F - +302 °F



DKR : M

1/2" : 1/2"

3/8" : 3/8"

3/8" : 1/4"



| DN | P | ⊘ | ⊘ | BP | ↔ |
|----|---------|---------|---------|-----------|-------|
| 08 | 500 bar | 7.9 mm | 15.0 mm | 1,260 bar | 40 m |
| | | | | | 80 m |
| 10 | 280 bar | 9.8 mm | 16.9 mm | 740 bar | 40 m |
| | | | | | 60 m |
| | | | | | 80 m |
| | | | | | 100 m |
| | | | | | 120 m |
| 12 | 250 bar | 12.7 mm | 22.6 mm | 640 bar | 40 m |
| | | | | | 60 m |
| | | | | | 80 m |
| | | | | | 100 m |
| | | | | | 120 m |

| R+M Nr. |
|-----------------|
| 432 557 100 040 |
| 432 557 100 060 |
| 432 557 100 080 |
| 432 557 100 100 |
| 432 557 100 120 |
| 432 557 120 040 |
| 432 557 120 060 |
| 432 557 120 080 |
| 432 557 120 100 |
| 432 557 120 120 |

| R+M Nr. |
|-----------------|
| 432 558 080 040 |
| 432 558 080 080 |
| 432 558 100 040 |
| 432 558 100 060 |
| 432 558 100 080 |
| 432 558 100 100 |
| 432 558 100 120 |

| R+M Nr. |
|-----------------|
| 432 556 080 040 |
| 432 556 080 080 |

Symbols DN nominal diameter ⊘ internal diameter ⊘ diameter P pressure BP burst pressure °C temperature shipment by truck D nozzle

Everything for sewer cleaning applications

ST-71 hose reel with sewer cleaning hose



The ST-71 hose reel is equipped with a 15 m Flexy sewer cleaning hose DN 6. The frame of the reel is made out of stainless steel and the reel is made out of plastic.

The space-saving and orderly solution can either be hung up at the wall or refitted in high pressure cleaner.

The hose can be used as extension of high pressure hoses or as sewer cleaning hose.

Max. 300 bar / 100 °C

| R+M Nr. | ⊖ | ⊕ |
|-------------|------------|-------|
| 200 071 615 | 1/4" M | M22 M |
| 200 071 620 | 1/8" M | M22 M |
| 200 071 625 | M22 F | M22 M |
| 200 071 630 | plug ⊗ 8.8 | M22 M |

ST-550 foot valves



Housing stainless steel.
Valve stainless steel.
Rubber feet.
Max. 500 bar / 80 l/min / 150 °C



Housing stainless steel.
Valve stainless steel.
Rubber feet.
Max. 500 bar / 80 l/min / 150 °C

| R+M Nr. | ⊖ | ⊕ |
|-------------|--------|--------|
| 200 550 600 | 1/4" F | 1/4" F |

| R+M Nr. | ⊖ | ⊕ |
|-------------|-------|-------|
| 200 550 620 | M22 F | M22 M |

ST-540 foot valves



Incl. HP-gun ST-2605. Material housing powdercoated steel.
Rubber feet.
Max. 350 bar / 45 l/min / 150 °C



Incl. HP-gun ST-2750. Material housing powdercoated steel.
Rubber feet.
Max. 500 bar / 30 l/min / 150 °C

| R+M Nr. | ⊖ | ⊕ |
|-------------|--------|--------|
| 200 540 500 | 1/4" M | 3/8" F |

| R+M Nr. | ⊖ | ⊕ |
|-------------|--------|--------|
| 200 540 550 | 1/4" M | 3/8" F |

Safety spectacles, safety goggles and face shields

Safety spectacles



- » Anti-fog, scratch-proof and antistatic polycarbonate lens
- » Integrated side protection. Including neck cord
- » 100 % UV-protection
- » Protected against shock, splinters and solid particle
- » Weight 25 g

R+M Nr.
956 002 817

Flip-up face shields



- » Anti-fog, scratch-proof and antistatic polycarbonate lens
- » Adjustable headgear
- » 100 % UV-protection
- » Protected against shock, splinters, solid particle and chemical danger (dangerous drops)
- » Weight 200 g

R+M Nr.
956 003 487

The accident prevention regulations of the Employer's Liability Insurance Association regarding "the use of high pressure cleaner" (BGV D15) and "tasks with liquid jets" (BGV D26) prescribe that adequate eye and face protection have to be worn in case of an operating pressure of 25 bar and more.

Everything for sewer cleaning applications

Safety spectacles, safety goggles and face shields

Safety goggles with temples



- » Anti-fog, scratch-proof and antistatic polycarbonate lens
- » Straight temples with adjustable strap. Integrated side protection. Exchangeable plastic foam rim with indirect ventilation
- » Including microfibre cloth
- » 100 % UV-protection
- » Shockproof in case of extreme temperatures
- » Protected against shock, splinters, solid particle and liquids
- » Weight 52 g

| |
|-------------|
| R+M Nr. |
| 956 004 828 |

Safety goggles with adjustable strap



- » Anti-fog, scratch-proof and antistatic polycarbonate lens
- » Fits over prescription spectacles. Ball-pivot. Fits with respiratory half mask
- » 100 % UV-protection
- » Shockproof in case of extreme temperatures. Resistant to chemical drops, toxic gases, small and big toxic particle, melting metals and hot solids
- » Weight 113 g

| |
|-------------|
| R+M Nr. |
| 956 003 067 |

Visor



- » Anti-fog, scratch-proof and antistatic polycarbonate lens
- » Visor in connection with safety goggle 956 003 067
- » Shockproof in case of extreme temperatures. Resistant to chemical drops, toxic gases, small and big toxic particle, melting metals and hot solids
- » Weight 73 g

| |
|-------------|
| R+M Nr. |
| 956 003 128 |

easyprotect365+ protection for high pressure cleaning

Special gloves



- » Special gloves with CE certification
- » Security for blasting work up to 500 bar
- » Sand-rubber coating for maximum grip
- » Extra inner glove made of nylon
- » Protection class 5 cut 4 abrasion, tear and cut resistance
- » In two sizes 8/11
- » Protection class 5/5/2

| R+M Nr. | size |
|-------------|------|
| 956 100 501 | 8 |
| 956 100 502 | 11 |
| | |
| | |
| | |

Protective boots



- » Protective boots with CE Certification
- » Security for blasting work up to 500 bar
- » Designed for long working in rough conditions
- » Textile lining for maximum comfort
- » Waterproof and anti-slip sole
- » Weight 2.8 kg
- » Sizes 42 - 48
- » Protection class 5/5/3

| R+M Nr. | size |
|-------------|------|
| 956 152 501 | 42 |
| 956 152 502 | 43 |
| 956 152 503 | 44 |
| 956 152 504 | 45 |
| 956 152 505 | 46 |
| 956 152 506 | 47 |
| 956 152 507 | 48 |

Conversion chart

Chart for boots

| EUR | US | UK |
|-----|------|------|
| 42 | 9 | 8 |
| 43 | 9.5 | 9 |
| 44 | 10.5 | 10 |
| 45 | 11.5 | 11 |
| 46 | 12 | 11.5 |
| 47 | 13 | 12.5 |
| 48 | 13.5 | 13.5 |

Protection class 5/5/3

- rotating nozzle 500 bar/7500 psi
- flat jet 500 bar/7500 psi
- point jet 300 bar/4350 psi

CE 89/686/EEC

Note - load capacity for point jet:
300 bar / 4350 psi

Protection class 5/5/2

- rotating nozzle 500 bar/7500 psi
- flat jet 500 bar/7500 psi
- point jet 200 bar/3000 psi

CE 89/686/EEC

Symbols inlet outlet

Everything for sewer cleaning applications

Suttner nozzles for sewer cleaning ST-49

Nozzles without centric hole

With 3 or 4 rear jets (30°) for maximum thrust and simultaneously, a flushing away of the waste material. Stainless steel.



1/8" F. Ø 15 mm. Stainless steel



1/4" F. Ø 19 mm. Stainless steel



3/8" F. Ø 24 mm. Stainless steel

| D |
|-----|
| 035 |
| 04 |
| 045 |
| 05 |
| 055 |
| 06 |
| 07 |
| 090 |
| 12 |

| R+M Nr. |
|---------|
| 650 01 |
| 650 05 |
| 650 00 |
| 650 09 |
| 650 10 |
| 650 40 |

| R+M Nr. |
|---------|
| 651 05 |
| 651 04 |
| 651 00 |
| 651 08 |
| 651 16 |
| 651 10 |
| 651 40 |
| 651 48 |

| R+M Nr. |
|---------|
| 651 84 |

Nozzles with centric hole

Cleaning of clogged pipes. With centric front jet and 3 or 4 rear jets (30°).

Front jet for penetrating of completely clogged pipes and frozen pipelines, rear jets for flushing away of the waste material. Stainless steel.



1/8" F. Ø 15 mm. Stainless steel



1/4" F. Ø 19 mm. Stainless steel



3/8" F. Ø 24 mm. Stainless steel

| D |
|-----|
| 035 |
| 04 |
| 045 |
| 05 |
| 055 |
| 06 |
| 065 |
| 075 |
| 08 |
| 090 |
| 10 |
| 11 |
| 12 |
| 15 |
| 20 |

| R+M Nr. |
|-------------|
| 122 370 170 |
| 650 60 |
| 650 50 |
| 650 55 |
| 650 56 |
| 650 20 |
| 650 30 |

| R+M Nr. |
|---------|
| 651 14 |
| 651 12 |
| 651 13 |
| 651 15 |
| 651 18 |
| 651 20 |
| 651 25 |
| 651 30 |
| 651 46 |

| R+M Nr. |
|---------|
| 651 88 |
| 651 87 |
| 651 89 |
| 651 86 |
| 651 85 |
| 651 83 |
| 651 82 |
| 651 81 |

Everything for sewer cleaning applications

ST-49 nozzles for sewer cleaning

Sewer cleaning nozzles with male thread



Due to its conical front design this is the ideal solution to make its way through tight bends and traps. Ideal for hobby and semi-professional use. 3 rear jets for maximum thrust. Nozzle drillings as stepped bore for protection against mechanical impact.

Outside \varnothing 15 mm.

Brass.

Max. 210 bar / 16 l/min

| R+M Nr. | C | D |
|-------------|--------|-----|
| 121 000 360 | 1/4" M | 035 |



Due to its conical front design this is the ideal solution to make its way through tight bends and traps. 3 rear jets for maximum thrust and high cleaning impact. Front jet to blast through roots and scale or de-icing. Nozzle drillings as stepped bore for best protection against mechanical impact.

Outside \varnothing 15 mm.

Stainless steel.

Max. 350 bar / 17 l/min

| R+M Nr. | C | D |
|-------------|--------|-----|
| 121 160 360 | 1/4" M | 040 |



Due to its conical front design this is the ideal solution to make its way through tight bends and traps. 8 rear jets for maximum thrust and best wall coverage. Front jet to blast through roots and scale or de-icing. Nozzle drillings as stepped bore for best protection against mechanical impact. 3 rear jets for maximum thrust and best wall coverage.

Outside \varnothing 17 mm.

Stainless steel.

Max. 350 bar / 25 l/min

| R+M Nr. | C | D |
|-------------|--------|-----|
| 123 160 860 | 3/8" M | 060 |



Compact and heavy construction with 3 rear jets.

For standard cleaning and desilting applications.

Outside \varnothing 25 mm. Stainless steel.

Max. 500 bar / 40 l/min

| R+M Nr. | C | D |
|-------------|--------|-----|
| 120 000 312 | 1/2" M | 080 |



Drain cleaning nozzle suitable for use on most van and trailer mounted cleaning machines. 4 rear jets (30°) for higher thrust. Conical head for tight bends and offsets. Outside \varnothing 24.2 mm. Stainless steel.

Max. 500 bar / 45 l/min

| R+M Nr. | C | D |
|-------------|--------|-----|
| 120 110 410 | 1/2" M | 090 |

Sewer cleaning nozzles with female thread



Due to its very compact design this is the ideal solution for tight elbows. 3 rear jets for maximum thrust and powerful cleaning impact.

Front jet to blast through roots and scale or de-icing.

Outside \varnothing 15 mm.

Hardened stainless steel.

Max. 500 bar / 17 l/min

| R+M Nr. | C | D |
|-------------|--------|-----|
| 120 155 375 | 1/8" F | 035 |



Due to its very compact design this is the ideal solution for tight elbows. 3 rear jets for maximum thrust and powerful cleaning impact.

Front jet to blast through roots and scale or de-icing.

Outside \varnothing 22 mm.

Hardened stainless steel.

Max. 500 bar / 30 l/min.

| R+M Nr. | C | D |
|-------------|--------|-----|
| 120 163 391 | 1/4" F | 050 |



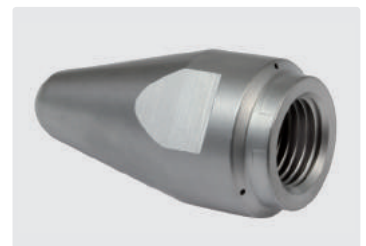
Due to its very compact design this is the ideal solution for tight elbows. 6 rear jets for maximum thrust and best wall coverage.

Outside \varnothing 22 mm.

Hardened stainless steel.

Max. 500 bar / 30 l/min

| R+M Nr. | C | D |
|-------------|--------|-----|
| 120 000 675 | 1/4" F | 060 |



Due to its conical front design this is the ideal solution to make its way through tight bends and traps.

3 rear jets for maximum thrust and powerful cleaning impact.

Front jet to blast through roots and scale or de-icing.

Outside \varnothing 22 mm.

Hardened stainless steel.

Max. 500 bar / 25 l/min

| R+M Nr. | C | D |
|-------------|--------|-----|
| 120 163 390 | 1/4" F | 045 |

Everything for sewer cleaning applications

ST-49 nozzles for sewer cleaning

Sewer cleaning nozzles with female thread



Outside \varnothing 22 mm.
Hardened stainless steel.
Max. 500 bar / 35 l/min.

| R+M Nr. | | |
|-------------|--------|-----|
| 120 460 385 | 1/4" F | 070 |



Outside \varnothing 22 mm.
Hardened stainless steel.
Max. 500 bar / 32 l/min.

| R+M Nr. | | |
|-------------|--------|-----|
| 120 163 392 | 1/4" F | 065 |



Outside \varnothing 25 mm.
Hardened stainless steel.
Max. 500 bar / 32 l/min.

| R+M Nr. | | |
|-------------|--------|-----|
| 120 163 393 | 3/8" F | 065 |

Grease ball



8 rear jets 0.6 mm for extreme thrust and highest wall coverage of the pipe. Designed for the ability to clean grease off the sidewall of pipes but has proven to be great on root chokes, too. Completely spherical shape. Nozzle drilling as stepped bore for best protection against mechanical impact.
Hardened stainless steel.
Max. 500 bar

| R+M Nr. | | |
|-------------|--------|-----|
| 120 000 860 | 1/4" F | 080 |

Root rat



Equipped with 3 rear jets (30°) for maximum thrust and 3 additional nozzles (45°) right behind its nose for better cleaning results and wall coverage the nozzle has proven to be ideal on root chokes.
Hardened stainless steel.
Max. 500 bar / 30 l/min

| R+M Nr. | | |
|-------------|--------|-----|
| 120 155 672 | 1/4" F | 060 |

Mini-nozzles for sewer cleaning

Heat exchangers in thermal power stations or conveyor pipes in the food industry are often sewers of 10 to 12 mm in diameter. In order to clean them effectively from the inside a device for sewer cleaning with small diameters and high pressures is required.



Crimp nipple.
DN 4.
M7 M.
Stainless steel.
Max. 500 bar

| R+M Nr. | |
|-------------|----|
| 040 001 946 | 22 |



M7 F. 3 rear jets for maximum thrust and powerful cleaning impact.
Outside \varnothing 9.8 mm.
Stainless steel.
Max. 500 bar

| R+M Nr. | |
|-------------|-----|
| 120 000 380 | 030 |
| 120 001 380 | 065 |



M7 F. 3 rear jets for maximum thrust. Additional 3 side jets (90°) for powerful cleaning impact and optimal wall coverage.
Outside \varnothing 9.8 mm. Stainless steel.
Max. 500 bar

| R+M Nr. | |
|-------------|-----|
| 120 373 373 | 065 |

Symbols nozzle diameter outlet length mm inlet

Everything for sewer cleaning applications

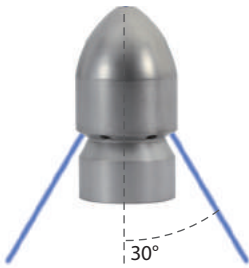
ST-49 Ball type nozzle, 30°

Made out of wear-resistant, hardened stainless steel provided with front jet insert or blind plug (interchangeable). Angle of jet is 30°, sturdy wall thickness, long service life and a minimum of wear and tear. All nozzles are provided with hardened stainless steel inserts. Due to this feature the

efficiency is considerably higher compared with those nozzles with drilled holes and the service life is several times longer.
Max. 500 bar

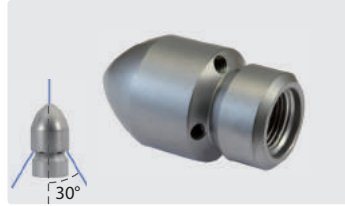
Applications:

- » Suitable for removal of sludge deposits
- » Desilting of pipes
- » Opening of frozen pipelines



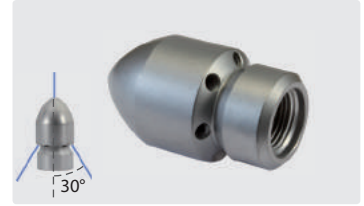
1/4" F.
Outside \varnothing 25 mm.
6 rear jets, with front jet

| R+M Nr. | D |
|-----------------|-----|
| 649 030 216 060 | 060 |
| 649 030 216 080 | 080 |
| 649 030 216 100 | 100 |
| 649 030 216 120 | 120 |
| 649 030 216 150 | 150 |
| 649 030 216 200 | 200 |



3/8" F.
Outside \varnothing 30 mm.
4 rear jets, with front jet

| R+M Nr. | D |
|-----------------|-----|
| 649 030 314 060 | 060 |
| 649 030 314 080 | 080 |
| 649 030 314 100 | 100 |
| 649 030 314 120 | 120 |
| 649 030 314 150 | 150 |
| 649 030 314 200 | 200 |



3/8" F.
Outside \varnothing 30 mm.
6 rear jets, with front jet

| R+M Nr. | D |
|-----------------|-----|
| 649 030 316 060 | 060 |
| 649 030 316 080 | 080 |
| 649 030 316 100 | 100 |
| 649 030 316 120 | 120 |
| 649 030 316 150 | 150 |
| 649 030 316 200 | 200 |



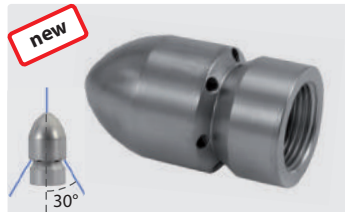
1/2" M. MR cone.
Outside \varnothing 30 mm.
6 rear jets, with front jet

| R+M Nr. | D |
|-----------------|-----|
| 649 040 416 060 | 060 |
| 649 040 416 080 | 080 |
| 649 040 416 100 | 100 |
| 649 040 416 120 | 120 |
| 649 040 416 150 | 150 |
| 649 040 416 200 | 200 |



1/2" F.
Outside \varnothing 30 mm.
6 rear jets, with front jet

| R+M Nr. | D |
|-----------------|-----|
| 649 030 416 060 | 060 |
| 649 030 416 080 | 080 |
| 649 030 416 100 | 100 |
| 649 030 416 120 | 120 |
| 649 030 416 150 | 150 |
| 649 030 416 200 | 200 |
| 649 030 416 315 | 315 |



3/4" F.
Outside \varnothing 38 mm.
6 rear jets, with front jet

| R+M Nr. | D |
|-----------------|-----|
| 649 030 516 100 | 100 |
| 649 030 516 120 | 120 |
| 649 030 516 150 | 150 |
| 649 030 516 170 | 170 |
| 649 030 516 200 | 200 |
| 649 030 516 250 | 250 |

Jet angle INFO

30° = more efficient wall cleaning

20° = better traction

Symbols \square nozzle \ominus outlet \oplus inlet \varnothing diameter --- length mm

Everything for sewer cleaning applications

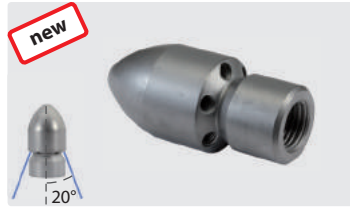
ST-49 Ball type nozzle, 20°

Made out of wear-resistant, hardened stainless steel provided with front jet insert or blind plug (interchangeable). Angle of jet is 20°, sturdy wall thickness, long service life and a minimum of wear and tear. All nozzles are provided with hardened stainless steel inserts. Due to this feature the

efficiency is considerably higher compared with those nozzles with drilled holes and the service life is several times longer. Max. 500 bar

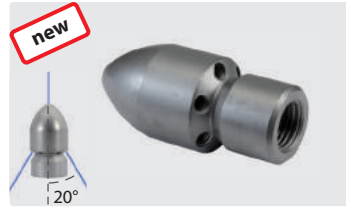
Applications:

- » Suitable for removal of sludge deposits
- » Desilting of pipes
- » Opening of frozen pipelines



1/4" F.
Outside \varnothing 25 mm.
6 rear jets

| R+M Nr. | D |
|-----------------|-----|
| 649 090 206 060 | 060 |
| 649 090 206 080 | 080 |
| 649 090 206 100 | 105 |
| 649 090 206 120 | 120 |
| 649 090 206 150 | 160 |
| 649 090 206 200 | 200 |



1/4" F.
Outside \varnothing 25 mm.
6 rear jets, with front jet

| R+M Nr. | D |
|-----------------|-----|
| 649 090 216 060 | 060 |
| 649 090 216 080 | 080 |
| 649 090 216 100 | 100 |
| 649 090 216 120 | 120 |
| 649 090 216 150 | 150 |
| 649 090 216 200 | 200 |



3/8" F.
Outside \varnothing 30 mm.
6 rear jets

| R+M Nr. | D |
|-----------------|-----|
| 649 090 306 060 | 060 |
| 649 090 306 080 | 080 |
| 649 090 306 100 | 105 |
| 649 090 306 120 | 120 |
| 649 090 306 150 | 160 |
| 649 090 306 200 | 200 |



3/8" F.
Outside \varnothing 30 mm.
6 rear jets, with front jet

| R+M Nr. | D |
|-----------------|-----|
| 649 090 316 060 | 060 |
| 649 090 316 080 | 080 |
| 649 090 316 100 | 100 |
| 649 090 316 120 | 120 |
| 649 090 316 150 | 150 |
| 649 090 316 200 | 200 |

Coupling-system ST-245

Nipple ST-245



\varnothing 1/4" M.
Stainless steel.
Max. 350 bar

| R+M Nr. | D |
|-------------|------|
| 040 005 447 | 27.5 |



\varnothing 1/4" M.
Stainless steel.
Max. 350 bar

| R+M Nr. | D |
|-------------|------|
| 040 005 446 | 33.5 |



\varnothing 1/4" M. Stainless steel. Max. 350 bar.
For wear cone

| R+M Nr. | D |
|-------------|------|
| 040 005 445 | 42.0 |

ST-245 Coupling / wear cone ST-245

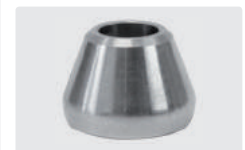


| R+M Nr. | D |
|-------------|----------|
| 200 245 500 | 1 1/4" F |



| R+M Nr. | D |
|-------------|----------|
| 200 245 510 | 1 3/8" M |

For 040 005 445



| R+M Nr. | D |
|-------------|---|
| 040 005 431 | 2 |

4

Suitable for all 1/4" F nozzles for sewer cleaning.

4

3

2

1



Everything for sewer cleaning applications

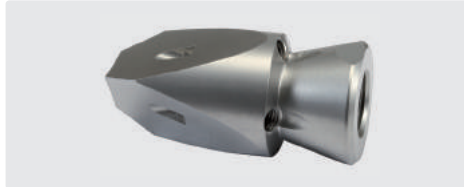
Milling Type Nozzles ST-49

With its 3 to 4 very strong concentrated forward jets and the sharp cutting edges the milling type nozzles will tear through almost any kind of blockage. The sharp edges cut, break and penetrate through every kind of blockage. Made out of wear-resistant, hardened stainless steel. All nozzles are equipped with replaceable hardened stainless steel rear and

centric front jets. Due to this feature the efficiency is considerably higher compared to those nozzles with drilled holes and the service life is several times longer. Max. 300 / 350 bar

Applications:

- » Penetration of completely clogged pipes
- » Opening of root masses
- » Opening of frozen pipelines
- » Hydraulic thrust boring flushing operations



350 bar. 1/4" F. For tubes > 30 mm.
Lateral front jets 0.5 mm drilled

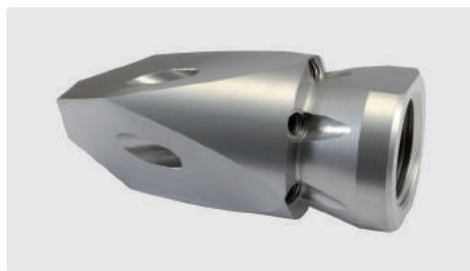


350 bar. 3/8" F. For tubes > 50 mm.
Lateral front jets with hardened stainless steel nozzle inserts

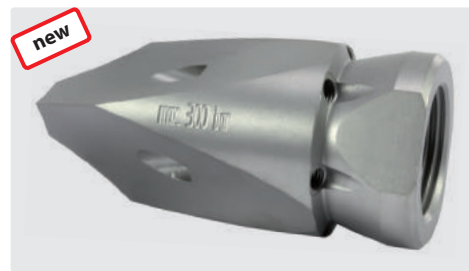


| R+M Nr. | ⌀ | Front | Rear |
|-----------------|-----|-------|------|
| 649 010 234 045 | 045 | 3 | 4 |
| 649 010 234 050 | 050 | 3 | 4 |
| 649 010 234 055 | 055 | 3 | 4 |
| 649 010 244 060 | 060 | 4 | 4 |
| 649 010 244 070 | 070 | 4 | 4 |
| 649 010 244 080 | 080 | 4 | 4 |
| 649 010 244 085 | 085 | 4 | 4 |
| 649 010 244 100 | 100 | 4 | 4 |
| 649 010 244 120 | 120 | 4 | 4 |
| 649 010 244 150 | 150 | 4 | 4 |
| 649 010 244 200 | 200 | 4 | 4 |

| R+M Nr. | ⌀ | Front | Rear |
|-----------------|-----|-------|------|
| 649 010 336 055 | 055 | 3 | 6 |
| 649 010 346 070 | 070 | 4 | 6 |
| 649 010 346 080 | 080 | 4 | 6 |
| 649 010 346 100 | 100 | 4 | 6 |
| 649 010 346 120 | 120 | 4 | 6 |
| 649 010 346 150 | 150 | 4 | 6 |
| 649 010 346 200 | 200 | 4 | 6 |
| 649 010 346 250 | 250 | 4 | 6 |
| 649 010 346 270 | 270 | 4 | 6 |



350 bar. 1/2" F. For tubes > 60 mm
Lateral front jets with hardened stainless steel nozzle inserts



300 bar. 3/4" F. For tubes > 60 mm
Lateral front jets with hardened stainless steel nozzle inserts

| R+M Nr. | ⌀ | Front | Rear |
|-----------------|-----|-------|------|
| 649 010 446 100 | 100 | 4 | 6 |
| 649 010 446 120 | 120 | 4 | 6 |
| 649 010 446 150 | 150 | 4 | 6 |
| 649 010 446 200 | 200 | 4 | 6 |
| 649 010 446 250 | 250 | 4 | 6 |
| 649 010 446 270 | 270 | 4 | 6 |
| 649 010 446 310 | 310 | 4 | 6 |
| 649 010 446 495 | 495 | 4 | 6 |
| 649 010 446 580 | 580 | 4 | 6 |

| R+M Nr. | ⌀ | Front | Rear |
|-----------------|-----|-------|------|
| 649 010 546 120 | 120 | 4 | 6 |
| 649 010 546 150 | 150 | 4 | 6 |
| 649 010 546 180 | 180 | 4 | 6 |
| 649 010 546 200 | 200 | 4 | 6 |
| 649 010 546 250 | 250 | 4 | 6 |
| 649 010 546 270 | 270 | 4 | 6 |
| 649 010 546 310 | 310 | 4 | 6 |
| 649 010 546 450 | 450 | 4 | 6 |
| 649 010 546 495 | 495 | 4 | 6 |

Symbols ⌀ nozzle ⊖ outlet ⊕ inlet

Everything for sewer cleaning applications

Small plough jet nozzle

For 2 fan jets 1/4" M NPT



Fitted with two rear facing fan jets the small plough jet nozzle is great for desilting drains and sewers. The heavy forged brass construction keeps the jet firmly planted in the base of the pipe where the silt deposits collect and blasts them back towards the manhole.

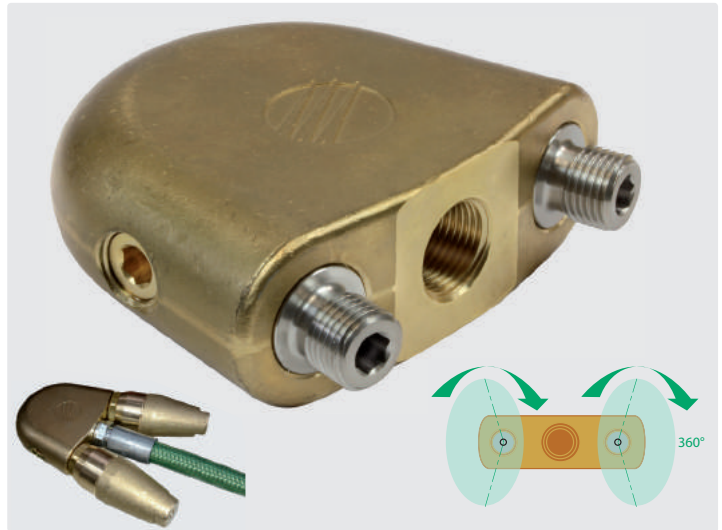
Width approx. 72 mm. Weight 1.5 kg.

Max. 420 bar / 150° C / 80 l/min.

1/4"-nozzles need to be assembled under 45° to achieve best cleaning results. Select nozzle size according to pressure and flow rate of the machine.

| | | |
|-------------|--------|----------------|
| R+M Nr. | Ⓒ | Ⓢ |
| 010 000 399 | 1/2" F | 2 x 1/4" F NPT |

For 2 ST-357 rotating nozzles



Fitted with two rear facing ST-357 rotating nozzles the small plough jet nozzle is the ideal solution for desilting drains and sewers.

The heavy forged brass construction keeps the jet firmly planted in the base of the pipe where the silt deposits collect and blasts them back towards the manhole.

Width approx. 88 mm. Weight 2.5 kg.

Max. 350 bar / 90° C / 80 l/min.

Select rotor nozzle size symmetric according to pressure and flow rate of the machine.

| | | |
|-------------|--------|------------|
| R+M Nr. | Ⓒ | Ⓢ |
| 200 049 410 | 3/8" F | 2 x 1/4" M |

Our rotating nozzles are on page 269, catalog.

Rotating nozzle adaptor

Designed for connecting the ST-357 rotating nozzle to a sewer cleaning hose. Hardened stainless steel body with extra sharp edges.

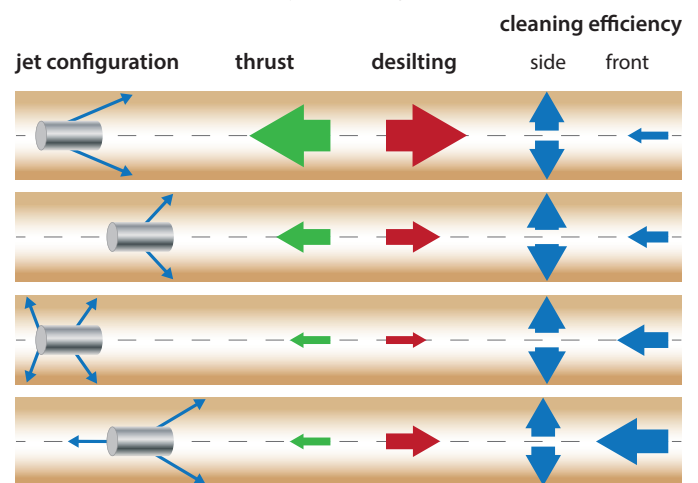
Max. 400 bar

For ST-357 rotating nozzle



| | | |
|-------------|--------|--------|
| R+M Nr. | Ⓒ | Ⓢ |
| 200 049 400 | 1/4" F | 1/4" M |

Possible jet configurations



Everything for sewer cleaning applications

Drain jet extension

Lance with female thread

1/4" M : 1/4" F BSP. Drain jet extension for cleaning pipes and shafts of large diameter to prevent reversal in direction of travel.

Max. 400 bar



| R+M Nr. | ↔ | Ⓜ |
|-------------|--------|-----------------|
| 070 000 097 | 100 mm | stainless steel |
| 070 000 098 | 150 mm | stainless steel |
| 070 000 099 | 200 mm | stainless steel |
| 070 000 095 | 250 mm | stainless steel |
| 070 000 101 | 350 mm | stainless steel |

Tip cleaner



High speed steel (HSS) with aluminium shaft.

↔ 42 mm

| R+M Nr. | ∅ |
|-------------|-----|
| 200 049 042 | 0.5 |

Sting extension



Hardened stainless steel.

For M5 nozzle bodies

| R+M Nr. | ⊙ |
|-------------|------|
| 040 075 090 | M5 M |

Functional principle



Everything for sewer cleaning applications

ST-49.2 Rotating nozzles

Stainless steel. Brazen rotating body. Excellent cleaning by rotating nozzle jets. Exchangeable inserts included.

Excellent pulling power by min. 4 return beams specially placed. Pressure max. 350 bar.



1/4" F. 4 rear jets. 3 side jets.
Outside \varnothing 30 mm.
☒ 317 g.

| R+M Nr. | D | ↔ |
|-----------------|-----|-------|
| 649 050 234 060 | 060 | 69 mm |
| 649 050 234 080 | 080 | 69 mm |
| 649 050 234 105 | 105 | 69 mm |
| 649 050 234 130 | 130 | 69 mm |
| 649 050 234 150 | 150 | 69 mm |
| 649 050 234 200 | 200 | 69 mm |



3/8" F. 4 rear jets. 3 side jets.
Outside \varnothing 30 mm.
☒ 307 g.

| R+M Nr. | D | ↔ |
|-----------------|-----|-------|
| 649 050 334 080 | 080 | 69 mm |
| 649 050 334 105 | 105 | 69 mm |
| 649 050 334 130 | 130 | 69 mm |
| 649 050 334 150 | 150 | 69 mm |
| 649 050 334 200 | 200 | 69 mm |
| 649 050 334 250 | 250 | 69 mm |



1/2" F. 5 rear jets. 3 side jets.
Outside \varnothing 38 mm. ☒
585 g.

| R+M Nr. | D | ↔ |
|-----------------|-----|-------|
| 649 050 435 100 | 100 | 84 mm |
| 649 050 435 120 | 120 | 84 mm |
| 649 050 435 150 | 150 | 84 mm |
| 649 050 435 200 | 200 | 84 mm |
| 649 050 435 250 | 250 | 84 mm |
| 649 050 435 300 | 300 | 84 mm |



3/4" F. 6 rear jets. 3 side jets.
Outside \varnothing 38 mm.
☒ 554 g.

| R+M Nr. | D | ↔ |
|-----------------|-----|-------|
| 649 050 536 130 | 130 | 84 mm |
| 649 050 536 150 | 150 | 84 mm |
| 649 050 536 200 | 200 | 84 mm |
| 649 050 536 250 | 250 | 84 mm |
| 649 050 536 300 | 300 | 84 mm |
| 649 050 536 375 | 375 | 84 mm |

ST-49.2 VIBRA Rotating nozzles

Stainless steel. Brazen rotating body. Excellent cleaning by rotating nozzle jets and vibration for the reduction of the friction between hose and pipe wall. Exchangeable inserts included.

Excellent pulling power by min. 4 return beams specially placed. Pressure max. 350 bar.



1/4" F. 4 rear jets. 3 side jets.
Outside \varnothing 30 mm.
☒ 314 g.

| R+M Nr. | D | ↔ |
|-----------------|-----|-------|
| 649 070 234 060 | 060 | 69 mm |
| 649 070 234 080 | 080 | 69 mm |
| 649 070 234 105 | 105 | 69 mm |
| 649 070 234 130 | 130 | 69 mm |
| 649 070 234 150 | 150 | 69 mm |
| 649 070 234 200 | 200 | 69 mm |



3/8" F. 4 rear jets. 3 side jets.
Outside \varnothing 30 mm.
☒ 305 g.

| R+M Nr. | D | ↔ |
|-----------------|-----|-------|
| 649 070 334 080 | 080 | 69 mm |
| 649 070 334 105 | 105 | 69 mm |
| 649 070 334 130 | 130 | 69 mm |
| 649 070 334 150 | 150 | 69 mm |
| 649 070 334 200 | 200 | 69 mm |
| 649 070 334 250 | 250 | 69 mm |



1/2" F. 5 rear jets. 3 side jets.
Outside \varnothing 38 mm.
☒ 580 g.

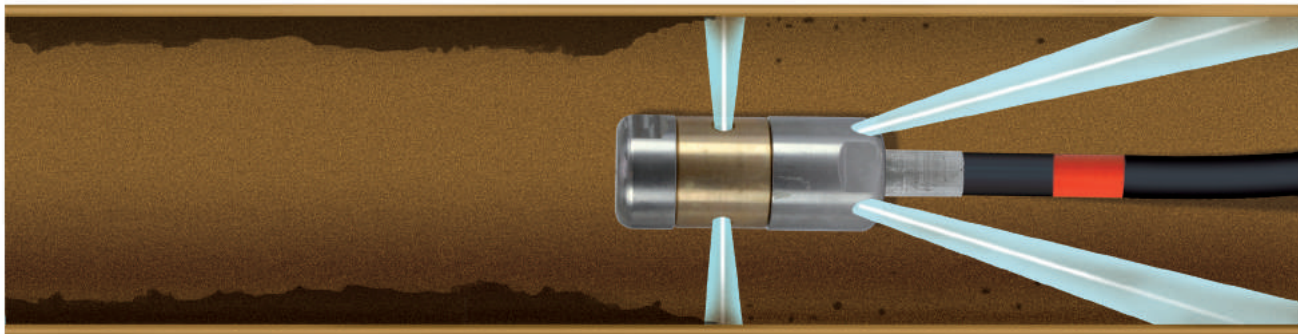
| R+M Nr. | D | ↔ |
|-----------------|-----|-------|
| 649 070 435 100 | 100 | 84 mm |
| 649 070 435 130 | 130 | 84 mm |
| 649 070 435 150 | 150 | 84 mm |
| 649 070 435 200 | 200 | 84 mm |
| 649 070 435 250 | 250 | 84 mm |
| 649 070 435 300 | 300 | 84 mm |



3/4" F. 6 rear jets. 3 side jets.
Outside \varnothing 38 mm.
☒ 550 g.

| R+M Nr. | D | ↔ |
|-----------------|-----|-------|
| 649 070 536 130 | 130 | 84 mm |
| 649 070 536 150 | 150 | 84 mm |
| 649 070 536 200 | 200 | 84 mm |
| 649 070 536 250 | 250 | 84 mm |
| 649 070 536 300 | 300 | 84 mm |
| 649 070 536 375 | 375 | 84 mm |

Functional principle



Symbols ☒ weight \varnothing diameter ↔ length D nozzle M material

Everything for sewer cleaning applications

Driver for rotating nozzles

Rotor nozzle driver and rotor nozzles are the perfect combination for drilling through blockages with its rotary forward facing jet. Driven up to the blockage by 6 powerful rear facing hardened stainless steel nozzles the high speed forward facing spinning jet creates a cone shape that has

enough cutting force to blast through roots and scale. It is also ideal for cutting up and shredding tissue and fat deposits



For ST-357/ST-456 rotating nozzles. Hardened stainless steel. Max. 350 bar. \ominus 1/4" M and 6 M5 threads for nozzle inserts (see table below).

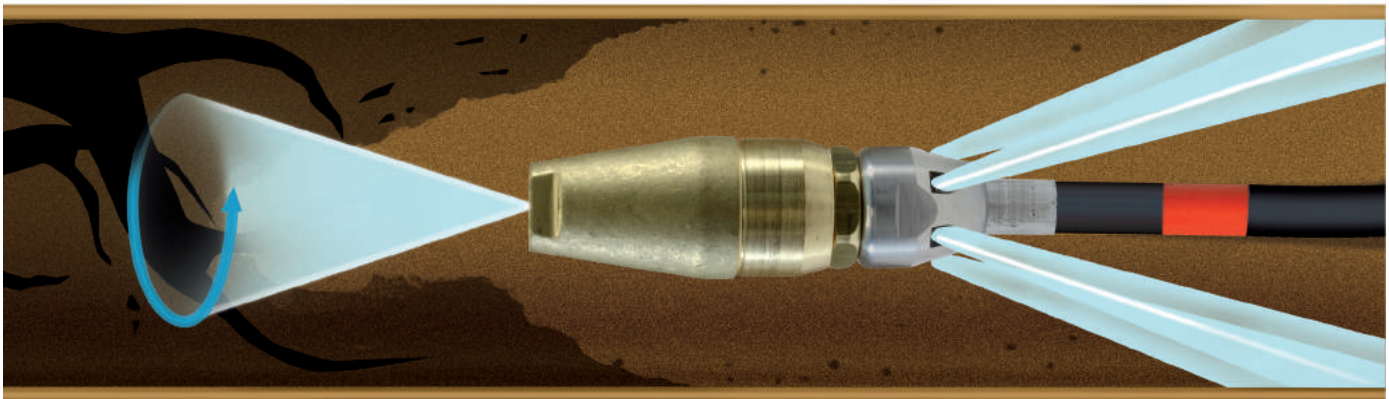
| R+M Nr. | \ominus |
|-------------|-----------|
| 040 075 200 | 1/4" F |
| 040 075 205 | 3/8" F |



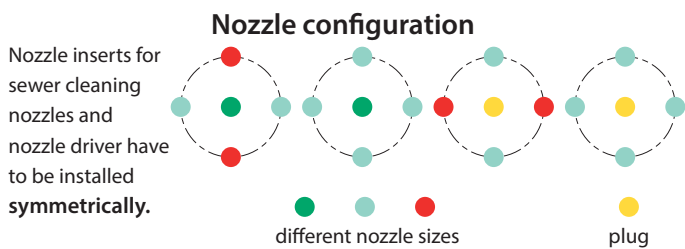
For ST-458/ST-559 rotating nozzles. Hardened stainless steel. Max. 500 bar. \ominus 1/4" M and 6 M5 threads for nozzle inserts (see table below).

| R+M Nr. | \ominus |
|-------------|-----------|
| 040 075 210 | 3/8" F |
| 040 075 215 | 1/2" F |

Functional principle



Nozzle Inserts



Full jet. 500 bar.
Hex for allen key 2.5 mm.
Hardened stainless steel

| R+M Nr. | TYP | hole- \ominus | nozzle size |
|-------------|-----|-----------------|-------------|
| 040 075 000 | M5 | plug | 0 |
| 040 075 005 | M5 | 0.5 mm | 0066 |
| 040 075 006 | M5 | 0.6 mm | 0085 |
| 040 075 007 | M5 | 0.7 mm | 0117 |
| 040 075 008 | M5 | 0.8 mm | 0133 |
| 040 075 009 | M5 | 0.9 mm | 0161 |
| 040 075 010 | M5 | 1.0 mm | 0237 |
| 040 075 012 | M5 | 1.2 mm | 0293 |
| 040 075 015 | M5 | 1.5 mm | 0458 |
| 040 075 020 | M5 | 2.0 mm | 0885 |

Symbols TYP type R lance \boxtimes weight \ominus diameter $\omin�$ inlet \leftrightarrow length

Everything for sewer cleaning applications

Egg-type Radial-Nozzles

Best performing and most durable design for higher efficiency. These are light and agile used as a great all around nozzle with replaceable inserts. They include a forward jet.

The egg-type radial nozzle is wear resistant and cost competitive. Great for sanitary applications. With unrivaled cleaning power on heavy encrusted grease and sludge, hardened stainless steel body and replaceable nozzle inserts for longer life.

The ideal tool for the toughest applications of hard grease and scale that may be encrusted on the interior wall of the pipe.

Material: Hardened stainless steel.
Max. 500 bar / 150 °C



1/4" F. 6x 75° 3x 30° +1x 0°. 25-70 l/min. For (R) Ø 75-150 mm. Outside Ø 30 mm. Ⓢ 223 g.

| R+M Nr. | D | ↔ |
|-----------------|-----|----|
| 649 110 219 065 | 065 | 50 |
| 649 110 219 080 | 080 | 50 |
| 649 110 219 100 | 100 | 50 |
| 649 110 219 120 | 120 | 50 |
| 649 110 219 150 | 150 | 50 |
| 649 110 219 200 | 200 | 50 |



3/8" F. 6x 75° 3x 30° +1x 0°. 30-100 l/min. For (R) Ø 100-200 mm. Outside Ø 35 mm. Ⓢ 314 g.

| R+M Nr. | D | ↔ |
|-----------------|-----|----|
| 649 110 319 065 | 065 | 55 |
| 649 110 319 080 | 080 | 55 |
| 649 110 319 100 | 100 | 55 |
| 649 110 319 120 | 120 | 55 |
| 649 110 319 150 | 150 | 55 |
| 649 110 319 200 | 200 | 55 |



1/2" F. 6x 75° 3x 30° +1x 0°. 80-140 l/min. For (R) Ø 120-250 mm. Outside Ø 40 mm. Ⓢ 630 g.

| R+M Nr. | D | ↔ |
|-----------------|-----|----|
| 649 110 419 080 | 080 | 70 |
| 649 110 419 100 | 100 | 70 |
| 649 110 419 120 | 120 | 70 |
| 649 110 419 150 | 150 | 70 |
| 649 110 419 200 | 200 | 70 |
| 649 110 419 250 | 250 | 70 |



3/4" F. 6x 75° 3x 30° +1x 0°. 100-250 l/min. For (R) Ø 150-300 mm. Outside Ø 50 mm. Ⓢ 1,367 g.

| R+M Nr. | D | ↔ |
|-----------------|-----|-----|
| 649 110 519 100 | 100 | 100 |
| 649 110 519 120 | 120 | 100 |
| 649 110 519 150 | 150 | 100 |
| 649 110 519 200 | 200 | 100 |
| 649 110 519 250 | 250 | 100 |
| 649 110 519 300 | 300 | 100 |

Egg-type Nozzles

Best performing and most durable design for higher efficiency. These are light and agile used as a great all around nozzle with replaceable inserts. They include a forward jet. The egg-type nozzle is wear resistant and cost competitive. Great for sanitary applications.

Threaded inserts can easily be serviced/replaced for longer life span. Material: Hardened stainless steel. Max. 500 bar / 150 °C



1/4" F. 6x 75° +1x 0°. 20-50 l/min. For (R) Ø 50-100 mm. Outside Ø 30 mm. Ⓢ 127 g.

| R+M Nr. | D | ↔ |
|-----------------|-----|----|
| 649 120 216 065 | 065 | 40 |
| 649 120 216 080 | 080 | 40 |
| 649 120 216 100 | 100 | 40 |
| 649 120 216 120 | 120 | 40 |
| 649 120 216 150 | 150 | 40 |
| 649 120 216 200 | 200 | 40 |



3/8" F. 6x 75° +1x 0°. 25-70 l/min. For (R) Ø 75-150 mm. Outside Ø 35 mm. Ⓢ 207 g.

| R+M Nr. | D | ↔ |
|-----------------|-----|----|
| 649 120 316 065 | 065 | 50 |
| 649 120 316 080 | 080 | 50 |
| 649 120 316 100 | 100 | 50 |
| 649 120 316 120 | 120 | 50 |
| 649 120 316 150 | 150 | 50 |
| 649 120 316 200 | 200 | 50 |



1/2" F. 6x 75° +1x 0°. 30-100 l/min. For (R) Ø 100-200 mm. Outside Ø 40 mm. Ⓢ 281 g.

| R+M Nr. | D | ↔ |
|-----------------|-----|----|
| 649 120 416 080 | 080 | 55 |
| 649 120 416 100 | 100 | 55 |
| 649 120 416 120 | 120 | 55 |
| 649 120 416 150 | 150 | 55 |
| 649 120 416 200 | 200 | 55 |
| 649 120 416 250 | 250 | 55 |



3/4" F. 6x 75° +1x 0°. 30-100 l/min. For (R) Ø 120-250 mm. Outside Ø 50 mm. Ⓢ 567 g.

| R+M Nr. | D | ↔ |
|-----------------|-----|----|
| 649 120 516 100 | 100 | 70 |
| 649 120 516 120 | 120 | 70 |
| 649 120 516 150 | 150 | 70 |
| 649 120 516 200 | 200 | 70 |
| 649 120 516 250 | 250 | 70 |
| 649 120 516 310 | 310 | 70 |



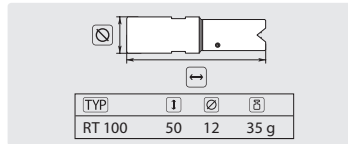
1" F. 8x 75° +1x 0°. 100-250 l/min. For (R) Ø 150-300 mm. Outside Ø 62 mm. Ⓢ 1,265 g.

| R+M Nr. | D | ↔ |
|-----------------|-----|-----|
| 649 120 618 100 | 100 | 100 |
| 649 120 618 120 | 120 | 100 |
| 649 120 618 150 | 150 | 100 |
| 649 120 618 210 | 210 | 100 |
| 649 120 618 260 | 260 | 100 |
| 649 120 618 320 | 320 | 100 |

Everything for sewer cleaning applications

Sewer cleaning nozzles

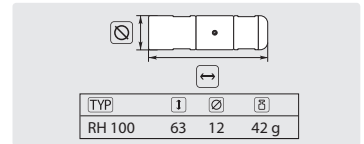
Rotating nozzles RT . 1,000 bar



Stainless steel. Rotating body hp-bronze. Compact model, universally applicable. Extreme cleaning performance, removes hard deposits. Pressure max. 1,000 bar

| R+M Nr. | TYP | ⊖ | ⊙ | side jet | front jet |
|-------------|--------|--------------|--------|----------|-----------|
| 652 710 006 | RT 100 | 6 l/100 bar | 1/8" F | 2 | 2 |
| 652 710 014 | RT 100 | 14 l/100 bar | 1/8" F | 2 | 2 |

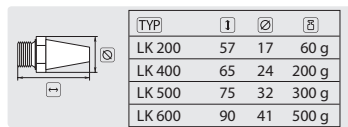
Rotating nozzles RH . 1,000 bar



Stainless steel. Rotating body hp-bronze. Compact model, universally applicable. Extreme cleaning performance, removes hard deposits. Pressure max. 1,000 bar

| R+M Nr. | TYP | ⊖ | ⊙ | side jet |
|-------------|--------|--------------|--------|----------|
| 652 810 006 | RH 100 | 6 l/100 bar | 1/8" F | 2 |
| 652 810 010 | RH 100 | 10 l/100 bar | 1/8" F | 2 |
| 652 810 014 | RH 100 | 14 l/100 bar | 1/8" F | 2 |

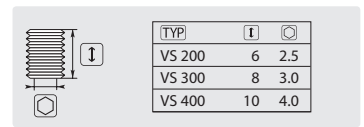
Cone shape nozzles LK . 500 bar *



Stainless steel. Extremely high impact force. Long reach. Pressure max. 500 bar. Applications: cleaning of shafts. Delivery time of approx. 3 - 4 weeks

| R+M Nr. | TYP | orifice Ø | ⊙ |
|------------|--------|-----------|--------|
| 652 400 01 | LK 200 | 2 - 5 mm | 1/4" M |
| 652 400 02 | LK 400 | 3 - 6 mm | 1/2" M |
| 652 400 03 | LK 500 | 3 - 7 mm | 3/4" M |
| 652 400 04 | LK 600 | 4 - 8 mm | 1" M |

Nozzle inserts solid stream VS . 500 bar



Stainless steel. Pressure max. 500 bar

| R+M Nr. | TYP | orifice Ø | ⊙ |
|------------|--------|--------------|-----|
| 652 600 02 | VS 200 | 0.6 - 2.0 mm | M6 |
| 652 600 03 | VS 300 | 0.6 - 2.5 mm | M8 |
| 652 600 04 | VS 400 | 0.6 - 3.8 mm | M10 |

*** When placing an order, please state flow rate + pressure!**

Longcast lances



1/4" M. Stainless steel. Longcast lance 300 mm with vented handle ST-29 Cool & Compact 330 mm, grip aside and nozzle protector made out of plastic without nozzle. Max. 280 bar / 130 l/min / 100 °C

| R+M Nr. | ⊖ | ⊙ |
|-------------|---------------------------------|--------|
| 200 078 500 | nozzle protector without nozzle | 1/4" M |



1/2" F. Stainless steel. Longcast lance 300 mm with vented handle ST-29 Cool & Compact 330 mm, gun ST-2320, grip aside and nozzle protector made out of plastic without nozzle. Max. 150 bar / 80 l/min / 100 °C

| R+M Nr. | ⊖ | ⊙ |
|-------------|---------------------------------|--------|
| 200 078 520 | nozzle protector without nozzle | 1/2" F |

The longcast lance can be connected to a low pressure pump, to a high pressure pump, to the public water system or to the extinguishing water network.

The lance works in the medium pressure range. By means of its very good solidity, good handling and compactness the lance is especially suitable for the intensive use.

The lateral hand grip makes a stepless adjustment of the water jet during the operation possible.

A long casting point jet or a progressive, conical spray jet can be set.

In order to realize ideal cleaning results the nozzle size needs to be adapted to the pump performance (pressure and water quantity).

Nozzles for longcast lances

M15x1 M. Stainless steel



| R+M Nr. | D |
|-------------|--------|
| 200 078 412 | 1.2 mm |
| 200 078 415 | 1.5 mm |
| 200 078 420 | 2.0 mm |
| 200 078 423 | 2.3 mm |
| 200 078 425 | 2.5 mm |
| 200 078 430 | 3.0 mm |
| 200 078 435 | 3.5 mm |

Everything for sewer cleaning applications

Longcast lances

functioning of longcast lance



long casting full jet



progressive, conical spray jet

foamblaster ST-76

The foamblaster ST-76 is designed for applications in agriculture, industry, municipal cleaning and fire fighting technology.

There are injector nozzles with diameters of up to 2.8 mm for high flow rates available for all easyfoam365+ stainless steel injectors ST-160, ST-164, ST-166 and ST-167.

Material: stainless steel / plastic.

Min. 70 bar for use in combination with an easyfoam365+ injector unit. Min. 30 bar for use with water / foamagent premix.

Max. 250 bar / 20 - 60 l/min / 100 °C



| R+M Nr. | D | Ⓞ |
|-------------|--------|--------|
| 200 076 615 | 2.3 mm | 1/2" F |
| 200 076 618 | 2.6 mm | 1/2" F |
| 200 076 621 | 2.8 mm | 1/2" F |
| 200 076 600 | 2.9 mm | 1/2" F |
| 200 076 624 | 3.0 mm | 1/2" F |
| 200 076 630 | 3.3 mm | 1/2" F |
| 200 076 633 | 3.5 mm | 1/2" F |

ST-3500 high-flow spray guns



Professional high-flow gun. Stainless steel. Industrial high pressure cleaning and jetting gun for municipal cleaning and other industrial cleaning tasks.

Valve piston hardened stainless steel.

Max. 350 bar / 200 l/min / 150 °C

| R+M Nr. | Ⓞ | Ⓞ |
|-------------|--------|--------|
| 203 500 500 | 1/2" F | 1/2" F |



Professional high-flow gun. Stainless steel. Industrial high pressure cleaning and jetting gun for municipal cleaning and other industrial cleaning tasks.

Valve piston hardened stainless steel.

Swivel stainless steel.

Max. 350 bar / 200 l/min / 150 °C

| R+M Nr. | Ⓞ | Ⓞ |
|-------------|--------|---------------|
| 203 500 550 | 1/2" F | 1/2" F swivel |

Suttner rotating nozzles ST-458.1 with ceramic insert

ST-458.1



1/4" F. Spray angle 20°. 120 - 250 bar. Max. 100 °C

Kit ST-458.1

| R+M Nr. | D | R+M Nr. |
|-------------|----|-------------|
| 200 458 811 | 11 | 200 458 311 |
| 200 458 812 | 12 | 200 458 312 |
| 200 458 815 | 15 | 200 458 315 |
| 200 458 820 | 20 | 200 458 320 |
| 200 458 825 | 25 | 200 458 325 |
| 200 458 830 | 30 | 200 458 330 |

Symbols Ⓞ outlet Ⓞ inlet D nozzle ⇄ length I height ⇄ flow TYP type Ⓞ thread Ⓞ diameter

Everything for sewer cleaning applications

kommunal365+ high pressure spray guns ST-2320



Professional gun.
Max. 150 bar / 80 l/min / 150 °C

| R+M Nr. | | |
|-------------|--------|--------|
| 202 320 500 | 1/4" F | 1/2" F |



Professional gun.
Max. 150 bar / 80 l/min / 150 °C

| R+M Nr. | | |
|-------------|--------|--------|
| 202 320 510 | 1/2" F | 1/2" F |



Professional gun.
Max. 150 bar / 80 l/min / 150 °C

| R+M Nr. | | |
|-------------|--------|---------------|
| 202 320 520 | 1/2" F | 1/2" F swivel |

Suttner ultra high pressure lances

Ultra high pressure lances ST-3600 - 600 bar



1/2" M. Lance with grip. Max. 600 bar / 150 °C

| R+M Nr. | | | | |
|-------------|--------|---------|--------|-----------------|
| 203 600 416 | 1/2" M | 1500 mm | 1/2" M | stainless steel |
| 203 600 415 | 1/2" M | 2000 mm | 1/2" M | stainless steel |



1/2" M. Lance with grip and sleeve 1/4" F NPT stainless steel without high pressure nozzle. Max. 600 bar / 150 °C

| R+M Nr. | | | | |
|-------------|------------|---------|--------|-----------------|
| 203 600 400 | 1/4" F NPT | 500 mm | 1/2" M | stainless steel |
| 203 600 401 | 1/4" F NPT | 800 mm | 1/2" M | stainless steel |
| 203 600 402 | 1/4" F NPT | 1000 mm | 1/2" M | stainless steel |



1/2" M. Lance with grip for rotating nozzles with 1/4" F (without rotating nozzle). Max. 600 bar / 150 °C

| R+M Nr. | | | | |
|-------------|--------|---------|--------|-----------------|
| 203 600 411 | 1/4" M | 500 mm | 1/2" M | stainless steel |
| 203 600 410 | 1/4" M | 800 mm | 1/2" M | stainless steel |
| 203 600 412 | 1/4" M | 1000 mm | 1/2" M | stainless steel |

Shoulder supports



New European Union guidelines imperatively prescribe the use of shoulder supports for cleaning applications exceeding an operating reaction force of 150 N.

| R+M Nr. |
|-------------|
| 202 705 590 |

Suttner high pressure quick couplings ST-3100

Couplings and plug ST-3100



Coupling : F. Stainless steel.
Max. 250 bar / 150 °C



Coupling : M. Stainless steel.
60° cone.
Max. 250 bar / 150 °C



Plug : F. Stainless steel.
Max. 250 bar / 150 °C



Plug : M. Stainless steel.
60° cone.
Max. 250 bar / 150 °C

| | DN |
|------|----|
| 1/4" | 10 |
| 3/8" | 12 |
| 1/2" | 12 |

| R+M Nr. | |
|-------------|-------|
| 203 100 466 | 44 mm |
| 203 100 461 | 44 mm |
| 203 100 460 | 44 mm |

| R+M Nr. | |
|-------------|-------|
| 203 100 655 | 45 mm |

| R+M Nr. | |
|-------------|-------|
| 040 005 665 | 35 mm |
| 040 005 667 | 41 mm |
| 040 005 661 | 47 mm |

| R+M Nr. | |
|-------------|-------|
| 040 005 668 | 47 mm |
| 040 005 662 | 47 mm |

Everything for sewer cleaning applications

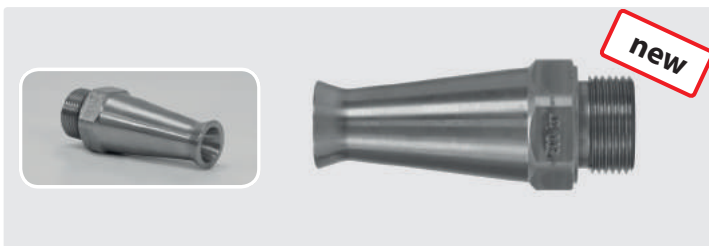
ST-85 Push & Pull lances



Plug ST-3100. Lance stainless steel, vented handle ST-9 380 mm and nozzle protector ST-10 with nozzle. Variable adjustment of spraying angle from 20 to 140°. Especially designed for cleaning of places which are difficult to access. Max. 210 bar / 150 °C

| R+M Nr. | ☉ | ↔ | ☒ |
|-------------|------------|---------|--------------|
| 200 085 251 | 1/4" F NPT | 600 mm | plug ST-3100 |
| 200 085 611 | 1/4" F NPT | 850 mm | plug ST-3100 |
| 200 085 601 | 1/4" F NPT | 1000 mm | plug ST-3100 |
| 200 085 651 | 1/4" F NPT | 1500 mm | plug ST-3100 |

Long Cast Nozzle



- » Stainless steel
- » Applications: cleaning of shafts
- » Extremely high impact force
- » Long reach
- » Nozzle protection
- » Max. 500 bar / 150 °C

| R+M Nr. | ⌀ | ☒ |
|-------------|------|--------|
| 040 001 963 | 5 mm | 3/4" M |

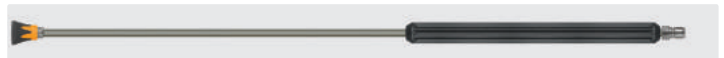
Industrial high-flow gun ST-3500, lance 500 mm with side handle. Long Cast Nozzle.
Max. 350 bar / 200 l/min / 150 °C

Application:

- » Man hole cleaning
- » Paper Industry. Removal of snow balls during fibre jetting
- » Cleaning Tasks in Off-Shore or Marine Applications

| R+M Nr. | ↔ | ☒ |
|-------------|--------|---------------|
| 203 500 560 | 750 mm | 1/2" F swivel |

Lances



Plug ST-3100. Lance stainless steel, moulded handle 400 mm and nozzle protector ST-10 with nozzle. Max. 400 bar / 150 °C

| R+M Nr. | ISO | ☉ | ↔ | ☒ |
|-------------|--------|------------|---------|--------------|
| 200 000 520 | 400 mm | 1/4" F NPT | 1000 mm | plug ST-3100 |



Plug ST-3100. Lance stainless steel, moulded handle 300 mm, valve ST-54 aside and nozzle protector ST-10 with low pressure nozzle & thread 1/4" F. Max. 310 bar / 150 °C

| R+M Nr. | ISO | ☉ | ↔ | ☒ |
|-------------|--------|------------|--------|--------------|
| 200 054 506 | 300 mm | 1/4" F NPT | 980 mm | plug ST-3100 |



Plug ST-3100. Lance stainless steel, moulded handle 400 mm and 1/4" M thread for rotating nozzles. Lance without rotating nozzle. Max. 400 bar / 150 °C

| R+M Nr. | ISO | ☉ | ↔ | ☒ |
|-------------|--------|--------|---------|--------------|
| 200 000 523 | 400 mm | 1/4" M | 1000 mm | plug ST-3100 |



Plug ST-3100. Lance stainless steel, moulded handle 300 mm, valve ST-53 on top, nozzle protector ST-10 with low pressure nozzle and 1/4" M thread for rotating nozzles. Lance without rotating nozzle. Max. 250 bar / 150 °C

| R+M Nr. | ISO | ☉ | ↔ | ☒ |
|-------------|--------|--------|--------|--------------|
| 200 053 537 | 300 mm | 1/4" M | 980 mm | plug ST-3100 |



Symbols ☉ outlet ☒ inlet ↔ length ISO insulation ⌀ thread I height DN nominal diameter

Everything for sewer cleaning applications

Suttner tank cleaner

ST-82 h16/40 self rotating tank cleaner



- » Inlet: 1/2" F
- » Pressure: 40 - 160 bar
- » Flow: 20 - 30 l / min
- » Temperature: 0 - 90 °C
- » Turns: 29 - 36 r.p.m
- » Beam coverage 244°
- » Weight: 3.6 kg
- » 3 nozzles needed 1/8" M NPT
- » Other versions on request 20-50 l/min

| R+M Nr. | D | ☰ | P |
|-------------|------------------------------|----------|---------|
| 200 082 600 | basic version without nozzle | | |
| 200 082 601 | 3 x 060 | 40 l/min | 100 bar |
| 200 082 602 | 3 x 030 | 21 l/min | 110 bar |
| 200 082 603 | 3 x 040 | 30 l/min | 140 bar |

Barrel cleaner

M 28 E power-operated barrel cleaner with exhaust + CE



- » Inlet: M22 M
- » Pressure: max. 140 bar
- » Flow: 10 - 25 l/min
- » Temperature: 0 - 90 °C
- » Electric motor: 12 V =
- » Power supply: 230 V / 50 Hz
- » 10 m cable with plug
- » Beam coverage 360°
- » Weight: 6.2 kg
- » Nozzles are included in the scope of delivery

| R+M Nr. |
|-------------|
| 276 284 380 |

* with protection cage

Please specify pressure & flow rate with your order.
The tank cleaner are individually assembled to your needs.

ST-82 h16/120 self rotating tank cleaner



- » Inlet: 3/4" F
- » Pressure: 30 - 160 bar
- » Flow: 20 - 120 l/min
- » Temperature: 0 - 90 °C
- » Turns: 10 - 16 r.p.m
- » Beam coverage 360°
- » Weight: 5.9 kg
- » 2 nozzles and 2 caps needed, max. 4 nozzles 1/4 " M NPT



| R+M Nr. | D | ☰ | P |
|-------------|------------------------------|-------------|---------|
| 200 082 700 | basic version without nozzle | | |
| 200 082 717 | 2 x 110 | 42 l/min | 70 bar |
| 200 082 713 | 2 x 120 | 50 l/min | 80 bar |
| 200 082 701 | 2 x 075 | 34 l/min | 100 bar |
| 200 082 709 | 4 x 050 | 45 l/min | 100 bar |
| 200 082 708 | 2 x 110 * | 48 l/min | 100 bar |
| 200 082 705 | 4 x 055 * | 50 l/min | 100 bar |
| 200 082 702 | 2 x 060 | 27 l/min | 100 bar |
| 200 082 703 | 2 x 045 | 22 l/min | 120 bar |
| 200 082 710 | 4 x 045 | 42 l/min | 120 bar |
| 200 082 716 | 4 x 070 | 67 l/min | 120 bar |
| 200 082 712 | 2 x 050 | 25 l/min | 130 bar |
| 200 082 704 | 2 x 040 | 21 l/min | 140 bar |
| 200 082 706 | 2 x 060 | 32 l/min | 140 bar |
| 200 082 711 | 4 x 040 * | 40 l/min | 140 bar |
| 200 082 714 | - | 50-60 l/min | 140 bar |
| 200 082 715 | 2 x 055 | 28 l/min | 140 bar |
| 200 082 718 | 2 x 065* | 35 l/min | 140 bar |
| 200 082 707 | 4 x 040 | 45 l/min | 160 bar |

Suttner barrel cleaner

ST-82 e25 / 21 power-operated barrel cleaner CE



- » Inlet: M22 M
- » Pressure: max. 220 bar
- » Flow: max. 21 l/min
- » Temperature: 0 - 90 °C
- » Electric motor: 12 V =
- » Power supply: 230 V / 50 Hz
- » 10 m cable with plug
- » Beam coverage 360°
- » Weight: 3.2 kg
- » Nozzles are included in the scope of delivery

| R+M Nr. |
|-------------|
| 200 082 500 |

Everything for sewer cleaning applications

Mosmatic manhole cleaner

Manhole cleaner TXS-2f



Inlet 1/2" F. Max. 170 bar / 120 °C

| R+M Nr. | ∅ | ⊞ |
|------------|--------|--------|
| 108 810 33 | 300 mm | 3.7 kg |
| 108 810 43 | 400 mm | 4.4 kg |
| 108 810 53 | 500 mm | 5.3 kg |

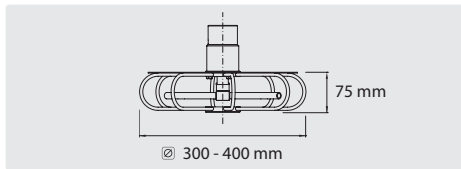
Mosmatic manhole cleaner TXS-2f with protective plate

Cleans ducts and manholes and realizes cleaning results like never before. The cleaner is self-rotating and very easy in its handling. By means of a protective plate the manhole cleaner and the user profit from extra protection.

Completely made of stainless steel.

Nozzles are excluded. 2 nozzles 1/8" M are required.

Further versions are available on request.



Mosmatic duct cleaner

Cleans ducts, tanks and every kind of container and realizes results like never before. Even the strongest dirt will be removed.

Depending on the kind of application you can either choose the fixed version having fixed horizontal rotor arms or the adjustable version. The angle of the rotor arms at the adjustable model can be changed thus varying the cleaning power.

The duct cleaner is equipped with a standard stainless steel cage protecting and prolonging the life of the rotor arm inside.

The field of application is almost unlimited. Mobile lavatories, drains, chimneys, rubbish chutes, ducts, tanks, container etc.

Further versions are available on request.

TYR 2s



TYR-2s adjustable. Duct cleaner with adjustable rotor arms for a variable spraying angle.

Completely rust-free. Inlet 3/8" F. Nozzles are excluded.

2 nozzles 1/8" M are required.

Max. 275 bar / 120 °C

| R+M Nr. | ∅ | ⊞ |
|------------|--------|--------|
| 108 815 02 | 75 mm | 0.5 kg |
| 108 815 22 | 150 mm | 0.8 kg |
| 108 815 52 | 300 mm | 1.1 kg |

TYR 2f



TYR-2f fixed. Duct cleaner with straight rotor arms for a horizontal spraying angle. Ideal for the cleaning of vertical chutes. Completely rust-free.

Inlet 3/8" F. Nozzles are excluded.

2 nozzles 1/8" M are required.

Max. 275 bar / 120 °C

| R+M Nr. | ∅ | ⊞ |
|------------|--------|--------|
| 108 814 02 | 75 mm | 0.5 kg |
| 108 814 22 | 150 mm | 1.0 kg |
| 108 814 52 | 300 mm | 1.3 kg |



Adapter



3/8" M : M18 F. Stainless steel

| R+M Nr. |
|-------------|
| 040 001 125 |

Symbols ∅ diameter ⊞ weight □ nozzle ⇐ flow P pressure

Everything for sewer cleaning applications

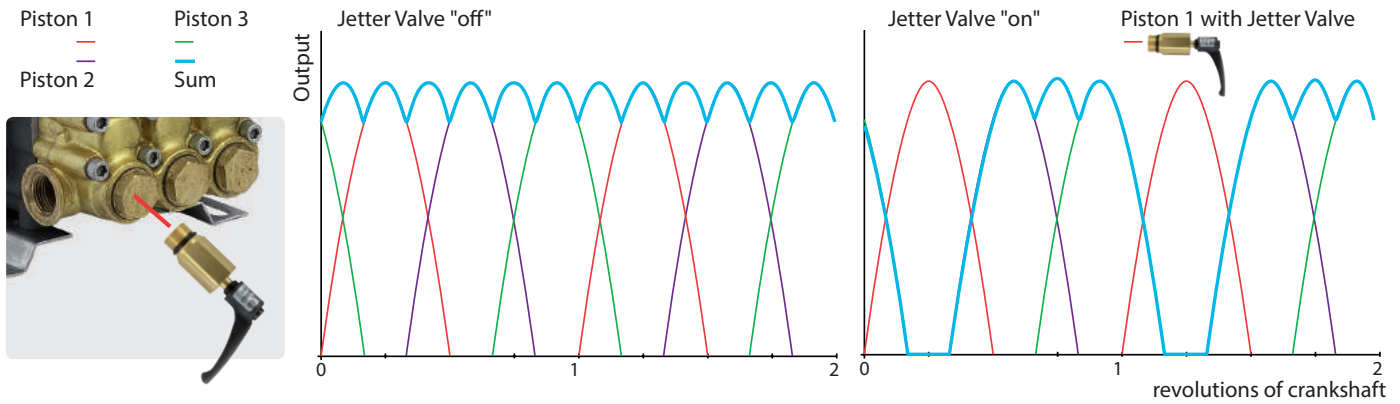
Jetter Valves



Jetter valves are special valve assemblies which allow to shut off one particular intake valve. The jetter valve cuts off the flow of one of the three pistons of the jetter pump. Due to this the pump starts pulsating which causes significant vibrations at the nozzle and an increased cleaning effect at a reduced flow rate (approx. -1/3 of the full flow rate of the pump). Jetter valves create vibrations to help the hose sliding around tight bends in small lines. Jetter valves should not be combined with pulsation dampers in one jetter unit. Pulsation can be started or stopped by a lever or hand wheel at the jetter valve.

| R+M Nr. | TYP |
|------------|--------|
| 170 402 35 | XT, XM |
| 170 401 61 | RK |
| 170 402 36 | XW |

Functional principle of a Jetter Valve



ST-33 high Pressure Filter



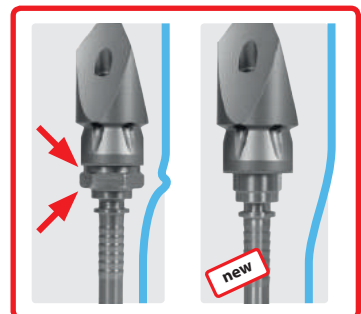
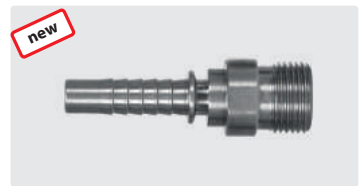
Brass with stainless steel filter. Bidirectional.
Max. 400 bar / 40 l/min. / 150 °C

| R+M Nr. | ⌀ | ⌀ | ⌀ |
|-------------|---------|--------|--------|
| 200 033 855 | 45.6 mm | 1/4" M | 1/4" F |

Crimp nipples

Stainless steel. Flat sealing

| R+M Nr. | DN | ⌀ |
|---------|----|------|
| 315 393 | 8 | 1/4" |
| 315 593 | 8 | 3/8" |
| 315 693 | 10 | 3/8" |
| 315 663 | 12 | 1/2" |



Everything for sewer cleaning applications

Mud suckers

The high-performance mud sucker for all standard pressure washers

extracts stones (up to 20 mm), mud, dirt, sand, algae & sediment.
 Operating pressure min. 80 bar at 7 l/min. Suction power of approx. 8,000 to 18,000 l/h. Spiral hose: DN 38 mm, length 5 m



M22 M

M21 M

1/2" M

M18 M

Plug KW

| [D] | R+M Nr. | R+M Nr. | R+M Nr. | R+M Nr. |
|-----|-----------|-----------|-----------|-----------|
| 04 | 545 504 0 | 545 514 0 | 545 524 0 | 545 534 0 |
| 045 | 545 504 5 | 545 514 5 | 545 524 5 | 545 534 5 |
| 05 | 545 505 0 | 545 515 0 | 545 525 0 | 545 535 0 |
| 055 | 545 505 5 | 545 515 5 | 545 525 5 | 545 535 5 |
| 06 | 545 506 0 | 545 516 0 | 545 526 0 | 545 536 0 |
| 065 | 545 506 5 | 545 516 5 | 545 526 5 | 545 536 5 |
| 07 | 545 507 0 | 545 517 0 | 545 527 0 | 545 537 0 |
| 08 | 545 508 0 | 545 518 0 | 545 528 0 | 545 538 0 |

| R+M Nr. | [D] | HP hose [↔] |
|-----------|-----|-------------|
| 545 545 5 | 055 | 5 m |
| 545 546 0 | 06 | 5 m |

Performance chart

| high pressure cleaner | | capacity of mud sucker | |
|-----------------------|----------|------------------------|----------------|
| [P] | [↔] | capacity | capacity |
| 100 bar | 10 l/min | ca. 170 l/min | ca. 10,000 l/h |
| 150 bar | 12 l/min | ca. 220 l/min | ca. 13,000 l/h |
| 200 bar | 15 l/min | ca. 300 l/min | ca. 18,000 l/h |

Symbols [P] pressure [↔] flow [D] nozzle [⊗] diameter [⊞] weight [↔] length [DN] nominal diameter [I] height [TYP] type



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