# STANDARD NOZZLES

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# Standard cleaning nozzles

Made of wear-resistant, hardened steel, provided with front jet insert and blind plug (interchangeable). Angle of jet backwards, sturdy wall thickness, long service life and a minimum of wear and tear. All nozzles from art.30.038 onward are provided with steelceramic inserts. Because of this, the efficiency is considerably higher compared with those nozzles with drilled holes and the service life is several times longer.

#### Applications

• Appropriate for removal of sludge deposits and cloggings





# Silverline standard cleaning nozzles 1/8" NPT



		Ø	<b>(</b> *)	∌_	$\rightarrow$ $\in$	Ş R	F	0		2	max
30.012NSL10	1/8" NPT	0.8 - 4	2.6	4 x 0.75	-	25°		0.5 x 0.7	0.02	-	5,000
30.012NSL10F	1/8" NPT	0.8 - 4	2.6	4 x 0.75	1 x 0.60	25°	0°	0.5 x 0.7	0.02	-	5,000
30.012NSL15	1/8" NPT	0.8 - 4	4	4 x 0.90	-	25°		0.5 x 0.7	0.02	-	5,000
30.012NSL15F	1/8" NPT	0.8 - 4	4	4 x 0.90	1 x 0.60	25°	0°	0.5 x 0.7	0.02	-	5,000

## Silverline standard cleaning nozzles 1/4" NPT



		Ø	<b>()</b>	<b>&gt;</b>	<b>→</b> €	R	F	9		2	max
30.0253NSL10F	1/4" NPT	1.2 - 4.3	2.6	3 x 0.80	1 x 0.80	25°	0°	0.7 x 0.8	0.04	-	5,000
30.0253NSL15	1/4" NPT	1.2 - 4.3	4	3 x 1.10	-	25°	-	0.7 x 0.8	0.04	-	5,000
30.0253NSL15F	1/4" NPT	1.2 - 4.3	4	3 x 1.10	1 x 0.80	25°	0°	0.7 x 0.8	0.04	-	5,000
30.0253NSL20F	1/4" NPT	1.2 - 4.3	5.3	3 x 1.20	1 x 0.80	25°	0°	0.7 x 0.8	0.04	-	5,000
30.0256NSL30	1/4" NPT	1.2 - 4.3	8	6 x 1.10	-	25°	-	0.7 x 0.8	0.04	-	5,000
30.0256NSL30F	1/4" NPT	1.2 - 4.3	8	6 x 1.00	1 x 0.80	25°	0°	0.7 x 0.8	0.04	-	5,000

## Silverline standard cleaning nozzles 3/8" NPT



		Ø	<b>()</b>	≱	<b>→</b> €	R	F	0			max
30.038NSL40	3/8" NPT	1.6 - 5.9	11	6 x 1.30	-	25°	-	1.0 x 0.9	0.15	-	5,000
30.038NSL60	3/8" NPT	2 - 6	16	6 x 1.50	-	25°	-	1.0 x 0.9	0.13	-	5,000



## Silverline standard cleaning nozzles 1/2"



		Ø	<b>(</b> )	≱	<b>→</b> €	Ş R	F	0			max
30.050SL40	1/2"	2 - 8	11	6 x 1.2	-	25°	-	1.2 x 1.1	0.26	-	5,075
30.050SL40F	1/2"	2 - 8	13	6 x 1.2	1 x 1.1	25°	-	1.2 x 1.1	0.26	-	5,075
30.050SL70	1/2"	2 - 8	18	6 x 1.6	-	25°	-	1.2 x 1.1	0.26	-	5,075
30.050SL70F	1/2"	2 - 8	21	6 x 1.6	1 x 1.4	25°	-	1.2 x 1.1	0.26	-	5,075
35.050SL40	1/2"	2 - 8	11	6 x 1.1	3 x 1.00	25°	15°	1.2 x 1.1	0.26	-	5,075
35.050SL70	1/2"	2 - 8	18	6 x 1.4	4 x 1.1	25°	15°	1.2 x 1.1	0.26	-	5,075

## Egg nozzle 1/2"



		Ø	<b>(</b> )	∌	<b>→</b> €	Ş R	₽ F	8		2	max
30.050EI	1/2"	2 - 8	8	6 x M6	1 x M6	25°	-	1.6 x 1.9	0.55	ok	5,075
35.050EI	1/2"	2 - 8	13	6 x M6	4 x M4	25°	15°	1.6 x 1.9	0.55	ok	5,075

# Standard cleaning nozzles 3/8" NPT - 1 1/4"



		Ø	<b>(</b> *)	<b>≱</b>	<b>→</b> €	R	Ş	0		Z.3	max
30.038N	3/8" NPT	2 - 6	3	6 x M4	1 x M4	30°	-	1.0 x 1.5	0.15	ok	5,000
30.050	1/2"	2 - 8	8	6 x M6	1 x M6	30°	-	1.2 x 1.9	0.26	ok	5,075
30.075	3/4"	2 - 10	13	6 x M6	1 x M6	30°	-	1.5 x 2.4	0.53	ok	5,075
30.100	1"	6 - 14	32	8 x M8	1 x M8	30°	-	2.4 x 3.3	1.55	ok	3,625
30.100SP20	1"	6 - 14	32	8 x M8	1 x M8	20°	-	2.4 x 3.3	1.55	ok	3,625
30.125	1 1/4"	8 - 16	53	8 x M8	1 x M8	30°	-	2.7 x 4.1	3.02	ok	3,625
35.038N	3/8" NPT	2 - 6	3	6 x M4	4 x M4	30°	15°	1.0 x 1.6	0.15	ok	5,000
35.050	1/2"	2 - 8	13	6 x M6	3 x M4, 1 x M6	30°	15°	1.2 x 1.9	0.26	ok	5,075
35.100	1"	6 - 14	32	8 x M8	4 x M8	30°	15°	2.4 x 3.3	1.55	ok	3,625

# Grenade-bomb

This enz® jet nozzle is made of wear-resistant hardened steel. The "grenade" and the "bomb" are joined in the same nozzles. Different jet angles perform together strong traction and effective cleaning. The high efficiency is reached by appropriate water guidance.

Applications

- For removal of loose rubble stone, gravel and soft deposits
- For a previous cleaning before the use of chain flail head or cutter





#### Grenade-bombs 1/4" NPT



		Ø	<b>()</b>	∌	-	R	9		2	max
40.025N-10	1/4" NPT	1 - 4	3	4 x 0.80	1 x M4	20°	1.0 x 1.6	0.22	-	5,075
40.025N-30	1/4" NPT	1 - 4	8	4 x 0.80	1 x M4	20°	1.0 x 1.6	0.22	-	5,075
40.025N-40	1/4" NPT	1 - 4	10	4 x 0.80	1 x M4	20°	1.0 x 1.6	0.22	-	5,075

#### Grenade-bombs 3/8" NPT - 3/4"



		Ø	<b>()</b>	<b>&gt;</b>	<b>-</b> *	Ş R	8			max
40.038N	3/8" NPT	2 - 4	3	6 x M6	1 x M6	25°	1.5 x 3.2	1.15	ok	5,075
40.050	1/2"	2 - 6	8	6 x M8	1 x M8	25°	1.9 x 3.5	1.89	ok	5,075
40.075A	1/2"	3 - 8	26	8 x M8	1 x M8	10° + 30°	2.3 x 4.6	3.37	ok	5,000
40.075A-SP30	1/2"	3 - 8	26	8 x M8	1 x M8	30°	2.3 x 4.6	3.37	ok	5,075
40.075B	3/4"	3 - 8	26	8 x M8	1 x M8	10° + 30°	2.3 x 4.6	3.37	ok	5,000
40.075B-SP30	3/4"	3 - 8	26	8 x M8	1 x M8	30°	2.3 x 4.6	3.37	ok	5,075

## Grenade-bombs 1"



		Ø	<b>(</b> )	<b>∌</b>	<b>-</b> )<	R	0			max
40.100A	1"	5 - 12	40	10 x M10	1 x M10	10° + 30°	3.1 x 6.9	10.80	ok	3,625
40.100A-SP10	1"	5 - 12	40	10 x M10	1 x M10	10°	3.1 x 6.9	10.80	ok	3,625
40.100B	1"	6 - 16	40	10 x M10	1 x M10	10° + 30°	3.9 x 8.1	17.64	ok	3,625

#### Grenade-bombs 1 1/4"



		Ø	<b>*</b>	∌	$\rightarrow$	R	0		2	max max
40.100C	1 1/4"	6 - 16	53	10 x M10	1 x M10	10° + 30°	3.9 x 7.7	17.64	ok	3,625
40.125A	1 1/4"	12 - 24	79	10 x M10	1 x M10	10° + 30°	4.3 x 8.7	23.15	ok	3,625



## Accessory and wearing parts grenade-bombs



			Ø	
40.1004A	2	Cage with skids (for grenade-bombs up to 10.3 lbs)	7 - 12	2.91
40.1004B	2	Cage with skids (for grenade-bombs up to 17.8 lbs)	8 - 16	3.35

# 360° Grenade-bombs

This enz® jet nozzle is made of wear-resistant hardened steel. The "grenade" and the "bomb" are joined in the same nozzles. Different jet angles perform together strong traction and effective cleaning. The high efficiency is reached by appropriate water guidance.

For optimal all-around cleaning all nozzles are equipped with fan-jet ceramic-steel inserts.

#### Applications

- For removal of loose rubble stone, gravel and soft deposits
- For a previous cleaning before the use of chain flail head or cutter
- For an all-around cleaning





#### 360° Grenade-bombs 1/2" - 3/4"



		Ø	<b>*</b>	<b>&gt;</b>	<b>-</b> )=	Ş? R	0			max
42.050	1/2"	2 - 6	8	3 x M8, 3 x FanJet M8	1 x M8	25°	1.9 x 3.5	1.89	ok	5,075
42.075A	1/2"	3 - 8	26	4 x M8, 4 x FanJet M8	1 x M8	10° + 30°	2.3 x 4.6	3.37	ok	5,075
42.075B	3/4"	3 - 8	26	4 x M8, 4 x FanJet M8	1 x M8	10° + 30°	2.3 x 4.6	3.37	ok	5,075

## 360° Grenade-bombs 1" - 1 1/4"



		Ø	<b>(</b> *)	<b>∌</b>	<b>=</b>	Ş R	0		23	max
42.100A	1"	5 - 12	50	12 x M10	1 x M10	10° + 45°	3.1 x 6.9	10.2	ok	3600
42.100B-12	1"	6 - 16	50	12 x M10	1 x M10	10° + 45°	3.9 x 7.2	17	ok	3,600
42.100B-18	1"	6 - 16	80	18 x M10	1 x M10	10° + 45°	3.9 x 7.7	17	ok	3,600
42.100C-12	1 1/4"	6 - 16	50	12 x M10	1 x M10	10° + 45°	3.9 x 8.1	17	ok	3,600
42.100C-18	1 1/4"	6 - 16	80	18 x M10	1 x M10	10° + 45°	3.9 x 8.1	17	ok	3,600
42.125A	1 1/4"	12 - 24	80	10 x M10	1 x M10	10° + 30°	4.3 x 8.7	23.15	ok	3,625

# Drainage channel nozzles

The enz® drainage channel nozzle is suited for cleaning drainage gutters and systems, for example along motorways, in pedestrian zones or parkings. The 0° jets deploy all the cleaning power to the rear, thus preventing contamination of the environment or passing vehicles.

Advantages of the drainage channel nozzle

- No discharge of water from drainage channels
- Optimal flushing performance
- No cleaning of the area after the fact
- The nozzle functions in any position





# Drainage channel nozzles 1/2" - 1 1/4"



		Ø	<b>(</b> *)	<b>∌</b>	<b>-</b> )<	R	0		2	max
40.050-SP0	1/2"	3 - 8	13	6 x M8	1 x M8	0°	1.9 x 3.5	1.75	ok	5,075
40.075A-SP0	1/2"	3 - 8	26	8 x M8	1 x M8	0°	2.3 x 4.6	3.3	ok	5,075
40.075B-SP0	3/4"	3 - 8	26	8 x M8	1 x M8	0°	2.3 x 4.6	3.3	ok	5,075
40.100A-SP0	1"	6 - 12	40	10 x M10	1 x M10	0°	3.1 x 6.9	10.4	ok	3,625
40.125A-SP0	1 1/4"	12 - 34	73	10 x M10	1 x M10	0°	4.3 x 8.7	23.15	ok	3,625

# Chisel point nozzles

Concentrated powerful advance by means of 4 front jet nozzles. The sharp edges cut, break and penetrate through every kind of blockage. Made of wear-resistant, hardened steel. All nozzles from art. 60.038 onward are provided with ceramic inserts. Because of this, the efficiency is considerably higher compared with those nozzles with drilled holes and the service life is several times longer.

#### Applications

- Penetrating of completely clogged pipes
- Opening of interlaced roots
- Opening of frozen pipelines
- Flushing out at hydraulic thrust boring





#### Silverline chisel point nozzles 1/8" NPT - 3/4"



		Ø	<b>()</b>	<b>≱</b>	-	R	F	0			max
60.012NSL15	1/8" NPT	1 - 2	4	3 x 0.95	4 x 0.50	25°	15°	0.6 x 1.0	0.04	-	5,075
60.025NSL15	1/4" NPT	1 - 2	4	3 x 0.90	4 x 0.60	25°	15°	0.8 x 1.3	0.06	-	5,075
60.025NSL30	1/4" NPT	1 - 2	8	3 x 1.35	4 x 0.70	25°	15°	0.7 x 1.3	0.06	-	5,075
60.038NSL40	3/8" NPT	1 - 4	11	3 x 1.45	4 x 0.70	20°	15°	1.0 x 1.7	0.15	-	5,075
60.038NSL60	3/8" NPT	1 - 4	16	3 x 1.70	4 x 0.80	20°	15°	1.0 x 1.6	0.15	-	5,075
60.050SL100	1/2"	2 - 6	26	3 x 2.40	4 x 1.10	25°	15°	1.3 x 2.2	0.31	-	5,075
60.050SL40	1/2"	2 - 6	11	3 x 1.50	4 x 0.80	25°	15°	1.3 x 2.2	0.31	-	5,075
60.050SL70	1/2"	2 - 6	18	3 x1.80	4 x 0.90	25°	15°	1.3 x 2.2	0.31	-	5,075

#### Chisel point nozzles 3/8" NPT - 1 1/4"



		Ø	<b>(</b> )	<b>≱</b>	<b>-</b> )(	Ş R	F	8			max
60.038N	3/8" NPT	1.1 - 3.9	8	3 x M4	4 x M4	20°	15°	1 x 1.7	0.18	ok	5,000
60.050	1/2"	2 - 6	13	3 x M6	4 x M4	25°	15°	1.3 x 2.2	0.31	ok	5,000
60.075	3/4"	2 - 10	26	3 x M6	4 x M4	25°	15°	1.5 x 3.2	0.71	ok	5,075
60.100	1"	4 - 12	40	6 x M6	4 x M6	25°	15°	1.9 x 3.5	1.21	ok	3,625
60.100L	1"	6 - 16	53	6 x M10	4 x M8	25°	15°	2.7 x 7.4	5.95	ok	3,625
60.100L80	1"	6 - 20	53	6 x M10	4 x M8	10°	15°	3.1 x 8.6	10.32	ok	3,625
60.125	1 1/4"	6 - 16	53	6 x M6	4 x M6	20°	15°	2.3 x 3.9	2.12	ok	3,600
60.125L	1 1/4"	8 - 32	79	6 x M10	4 x M8	10°	15°	3.9 x 10.2	18.52	ok	3,625

## Chisel point nozzles with centre spire 1/2" - 1 1/4"



		Ø	<b>*</b>	≱→	<b>→</b> ⊭	Ş R	F	8		2	max max
61.050	1/2"	2 - 6	13	3 x M6	3 x M4	25°	15°	1.3 x 3.2	0.32	ok	5,075
61.075	3/4"	2 - 10	26	3 x M6	3 x M4	25°	15°	1.5 x 4.1	0.72	ok	5,075
61.100	1"	4 - 12	40	6 x M6	3 x M6	25°	15°	1.9 x 4.9	1.24	ok	3,625
61.100L	1"	6 - 16	53	6 x M10	3 x M8	25°	15°	2.7 x 8.7	5.96	ok	3,625
61.100L80	1"	6 - 20	53	6 x M10	3 x M8	10°	15°	3.1 x 10.2	10.37	ok	3,625
61.125	1 1/4"	6 - 16	53	6 x M6	3 x M6	20°	15°	2.3 x 5.2	2.07	ok	3,625
61.125L	1 1/4"	8 - 32	79	6 x M10	3 x M8	10°	15°	3.9 x 11.8	18.57	ok	3,625



# Accessory and wearing parts chisel point nozzles



				Ä
0061.1004	Centre spire for Pointed Nozzle 60.100	M6	0.4 x 1.3	0.22
0061.0504	Centre spire for Pointed Nozzle 60.050, 60.075	M4	0.2 x 1.0	0.22
0061.1254	Centre spire for Pointed Nozzle 60.100L80,	M8	0.4 x 2.0	0.22

# Guiding nozzles standard

The enz® guiding nozzles standard were developed specifically for targeted cleaning of pipe inlets. They are used in searching for connections in ground lines and can thus prevent the need for cleaning via a household connection, for example. Entrance into the connection is made using a head nozzle on a flexible hose.

#### Applications

• For removal of loose rubble stone, gravel and soft deposits





#### Guiding nozzles standard 1/2"



		Ø	<b>()</b>	∌—	<b>-</b> )=	8		2	max
17.050-001	1/2"	2.4 - 5.9	13	6 x M8	-	1.89 x 10.51	2.09	-	5,075

## Guiding nozzle rotative 1/2"



		Ø	<b>(</b> *)	T.	<b>}</b>		0		2	max
17.044AE-001	1/2"	3 - 6	11	4 x M4	3 x M6	-	1.7 x 11.5	1.54	-	5,075

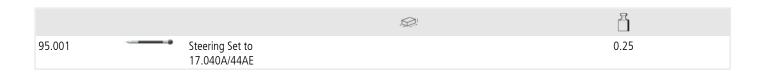
#### Vibration guiding nozzle 1/2"



		Ø	<b>()</b>	T.	∌	<b>-</b> )E	0		2	max
17.040A-001	1/2"	3 - 6	11	4 x M6	3 x M6	-	1.7 x 10.4	1.46	-	5,075

## Accessory and wearing parts guiding nozzles standard





# Flounder

This enz® tool is especially suited to clean flat pipes and channels. The flat design combined with the rounded corners and edges provides the tool with ideal gliding properties. Ceramic inserts and an optimized flow reversal create compact and aggressive water jets. The low and compact design facilitates access to a wide variety of pipes and channels.

#### Applications

• Appropriate for removing mud and loose rubble in flat pipes and channels, e.g. run-off gutters





#### Flounder 1/2" - 1 1/4"



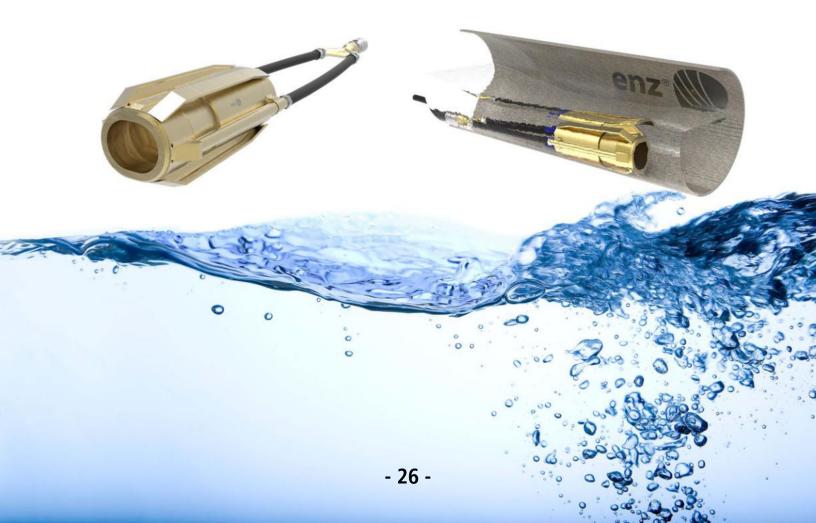
		Ø	$\diamond$	∌_	R	0		23	max
70.050	1/2"	6 - 10	16	S1: 2 x M8, S2: 2 x M8	S1: 15°, S2: 7.5°	7.7 x 3.5 x 1.4	5.73	ok	3,625
70.075	3/4"	8 - 16	26	S1: 2 x M8, S2: 4 x M8	S1: 15°, S2: 0°	7.7 x 3.9 x 2.0	7.06	ok	3,625
70.100	1"	12 - 24	43	S1: 2 x M10, S2: 2 x M10, S3: 4 x M10	•	13.4 x 6.3 x 2.2	27.12	ok	3,625
70.125	1 1/4"	16 - 32	66	S1: 2 x M10, S2: 4 x M10, S3: 4 x M10	\$1: 15°, \$2: 7.5°, \$3: 0°	15.0 x 7.4 x 2.8	41.89	ok	3,625

# Ejector nozzles

These enz® tools are outstanding in their enormous flushing capacity. Their main application is cleaning large fully surcharged pipes and drains bigger than  $\emptyset$  19 inch. The specific arrangement of the nozzle inserts ensures that cleaning is done carefully because the nozzle jets do not work directly against the pipe wall. As a result, this tool is also appropriate for cleaning older channel systems. It integrates the heavy water flow in pipes and channels into the flushing and cleaning process. In this way the water volume usable for cleaning is enhanced to five times the actual pump capacity. A pump of 80 gpm increase the flushing capacity of the nozzle to 400 gpm. As a result enormous quantities of sand and gravel can be removed fast and efficiently.

#### **Applications**

• For enormous flushing capacity





## Ejector nozzles 1" - 1 1/4"



		Ø	<b>(</b> *	⋛			2	max
80.100	1"	8 - 20	53	6 x M6	11.8 x 6.3 x 4.7	16.31	ok	2,900
80.100A	1"	16 - 59	79	6 x M10	16.0 x 10.2 x 9.8	49.6	ok	2,900
80.125B	1 1/4"	24 - 79	79	10 x M10	18.9 x 11.8 x 9.8	68.34	ok	2,900
80.125D	1 1/4"	39 - 118	160	10 x M10	22.8 x 14.2 x 12.2	100.31	ok	2,900

## Accessory and wearing parts Ejector nozzles



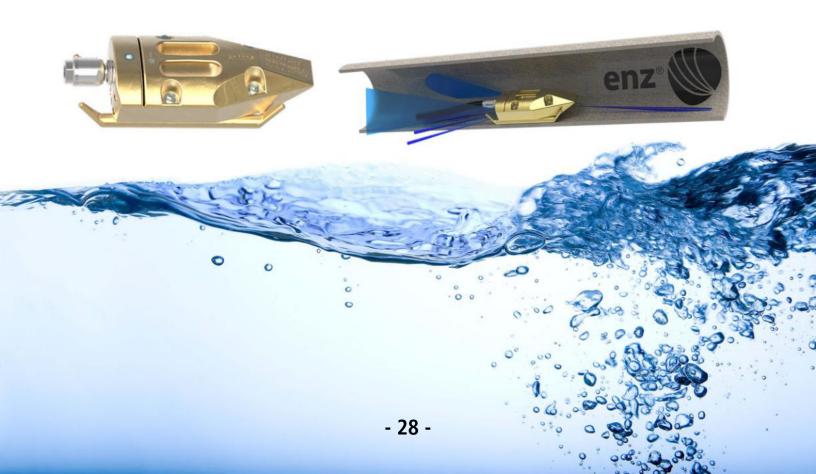
			A C
0080.100A02	Y - Connection 1" - 2 x 3/4"	1" - 2 x 3/4"	1.01
0080.125B02	Y - Connection 1 1/4" - 2 x 1"	1 1/4" - 2 x 1"	3.00
0080.10002	Y - Connection 1" - 2 x 1/2"	1" - 2 x 1/2"	0.99
0080.12501	Swivel Joint for 80.125B/ D	1 1/4"	3.40
0080.10001	Swivel Joint for 80.100/A	1"	2.09
0080.10003	HP hose 1/2" - for 80.100	1/2"	4.19
0080.100A03	HP hose 3/4" - for 80.100A	3/4"	4.19
0080.125B03	HP hose 1" - for 80.100B/D	1"	4.19

# enz®-Bulldozer

The Enz Bulldozer is a nozzle that cleans the bottom of a pipe. On the one hand the Bulldozer is very heavy so that it does not fly around in the pipe. On the other hand, all of the water jets are directed downwards in order not to waste any water (e.g. bomb) or to use the power of the water downwards to 100%. The flat jet helps to cover the wall of the pipe better. Moreover, the Bulldozer also has an optional front jet to loosen solid deposits. The adjustable skids and the roller cage that does not twist the Bulldozer or turns it back. The Bulldozer can also be used as Twin Bullzozer.

#### Area of application:

- Pipe diameter of 200 mm-2 500 mm
- Cleaning large quantities of deposits
- Cleaning the bottom of a channel





#### enz®-Bulldozer 3/4" - 1 1/4"



		Ø	<b>(</b> )	∌	<b>→</b> €	0		2	max max
50.075G	3/4"	8 - 20	26	4 x M10, 2 x FanJet M10	1 x M10	15.8 x 5.9 x 4.3	26.46	ok	3,625
50.100G	1"	12 - 59	40	6 x M10, 2 x FanJet M10	1 x M10	19.1 x 7.9 x 5.1	56.22	ok	3,625
50.125G	1 1/4"	16 - 98	79	6 x M10, 2 x FanJet M10	1 x M10	23.8 x 9.8 x 6.5	82.67	ok	3,625

#### enz®-Bulldozer 1 1/2"



		Ø	<b>(</b> )	<b>≱</b>	<b>→</b> €	0	ä	2	max
50.150	1 1/2"	20 - 177	106	8 x M10, 2 x FanJet M10	1 x M10	27.8 x 11.8 x 6.7	119.05	ok	3,625

## Accessory and wearing parts enz®-Bulldozer



			Ø		
0050.15032	~	Skid for Scraper 1 1/2"			11.60
0050.1003G	-	Skid for Scraper 1"			5.95
0050.1253G	-	Skid for Scraper 1 1/4"			9.68
0050.0753G	-	Skid for Scraper 3/4"			2.59
50.10012G		Enlargement plate with screws for 50.100G			14.55
0050.07510		Bulldozer flat skid 3/4''			13.01
0050.10010G		Bulldozer flat skid 1"			14.33
0050.12510G		Bulldozer flat skid 1 1/4''			29.98
0050.1005G	PP	Roll bar		11.7 x 10.8 x 9.1	6.20



		Ø		
0050.1255G	Roll bar	16 - 100	14.3 x 12.6 x 9.3	7.7
0050.0755G	Roll bar	8 - 20	9.1 x 8.7 x 7.7	5.3