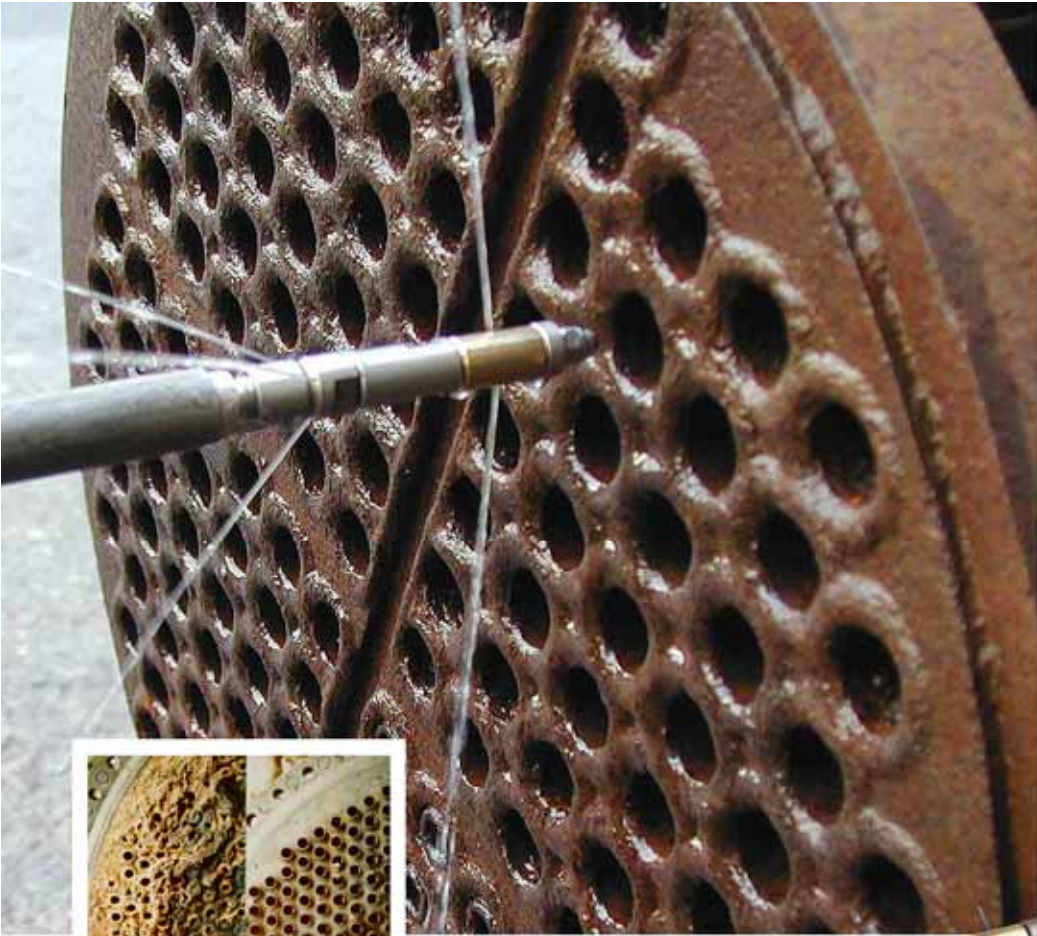


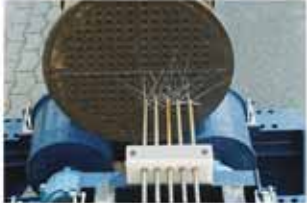
# Product catalogue, tube bundle cleaning



Lances

Nozzles

Cleaning devices



## Lances

Flexible lances

Rigid lances



## Nozzle systems

With pull , push, 90° bores



## Turbojets



## Positioning and safety devices

## Single lance tube cleaner „1-LTC“



## Hydraulically driven hose reels



## X-Y positioning device

## Hammelmann application engineering overview



## High pressure hose DN 4 mm

for an operating pressure of max. 1200 bar.  
Connection thread M 8 male one side,  
M 10 x 1 mm male the other side, to clean  
pipes with bends or where rigid lances  
cannot be used.

Hose diameter: 8 mm  
Fitting diameter: 11 mm

Length	Code no.
2000 mm	04.04595.0853
3000 mm	04.04595.0850
4000 mm	04.04595.0854
6000 mm	04.04595.0855
10000 mm	04.04595.0856
15000 mm	04.04595.0857
20000 mm	04.04595.0858
40000 mm	04.04595.0859

Accessories	Code no.
socket M 8, 1000 bar, to fit the nozzle	01.02785.0023
socket ditto, 500 bar 500 mm long	01.03559.0196
nozzle	upon request
connecting piece to pistol SP 1000, 1000 bar	01.02795.0038
O-ring	04.00730.0064
connecting piece to hose ID 12-DKM, 750 bar	01.05300.0182
hose ID 12-DKO, 1000 bar	01.05300.0472
O-ring	04.00730.0038



## High pressure hose DN 6 mm

for an operating pressure of max. 1000 bar.  
Connection thread M 10 x 1 mm both sides  
to clean pipes with bends or where rigid  
lances cannot be used.

Hose diameter: 12 mm  
Fitting diameter: 15 mm

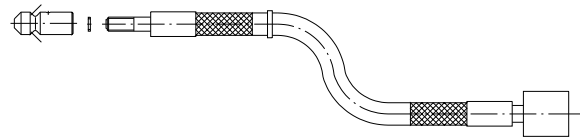
Length	Code no.
2000 mm	04.04596.0853
3000 mm	04.04596.0850
3500 mm	04.04600.0080
4000 mm	04.04596.0854
6000 mm	04.04596.0855
7000 mm	04.04600.0419
8000 mm	04.04600.0072
10000 mm	04.04596.0856
12000 mm	04.04600.0169
15000 mm	04.04596.0857
20000 mm	04.04596.0858
30000 mm	04.04600.0742
50000 mm	04.04600.0902

Accessories	Code no.
socket M 10 x 1, 1000 bar, to fit the nozzle	01.02785.0024
socket ditto, 1000 bar, 500 mm long	01.03559.0149
nozzle	upon request
connecting piece to pistol SP 1000, 1000 bar	01.02795.0038
O ring	04.00730.0064
connecting piece to hose NW 12-DKM, 750 bar	01.05300.0182
hose NW 12-DKO, 1000 bar	01.05300.0472
O ring	04.00730.0038

# Flexible lances

14.B.2 – 11/06

- Inner tube: Polyoxymethylene
- Outer cover: Polyamide
- Colour: blue
- Double wire braid reinforcement
- Highly stretch resistant
- With safety connectors
- Temperature range: -10 °C to +70 °C
- Identification marking 0,5 m from connector



Nominal i/d [mm]	Permissible op. pressure [bar]	Nozzle fitting		Min. bend radius [mm]	Hose length [m]	Weight [kg]	Code no.
		Hose	Connection o/d [mm]				
DN 4	1200	M 8	8	75	2	0,7	<b>04.04595.0823</b>
					3	0,8	<b>04.04595.0820</b>
					4	0,9	<b>04.04595.0824</b>
					6	1,1	<b>04.04595.0825</b>
		10	1,5		<b>04.04595.0826</b>		
		15	2,0		<b>04.04595.0827</b>		
		20	2,5		<b>04.04595.0828</b>		
		40	4,5		<b>04.04595.0829</b>		
DN 6	1000	M 10 x 1	12	110	2	1,0	<b>04.04596.0823</b>
					6	2,0	<b>04.04596.0825</b>
					10	3,1	<b>04.04596.0826</b>
		M 24x1,5 DKO	15		15	4,4	<b>04.04596.0827</b>
					20	5,7	<b>04.04596.0828</b>
					30	8,3	<b>04.04600.1106</b>

Note: Burst pressure = 2,5 x permissible operating pressure  
 Test pressure = 1,5 x permissible operating pressure

Other lance length upon request.

Tube cleaning nozzle with sapphire inserts			Code no.
DN 4	Pull nozzle	4 x 0,8	<b>01.00795.0250*</b>
	Clearing/Pull nozzle		<b>09.00514.1106</b>
DN 6	Pull nozzle	3 x 0,8	<b>09.00514.1107</b>
	Clearing/Pull nozzle		<b>09.00514.1105</b>

There are also suitable nozzles on pages 14.A.1 and 14.A.2

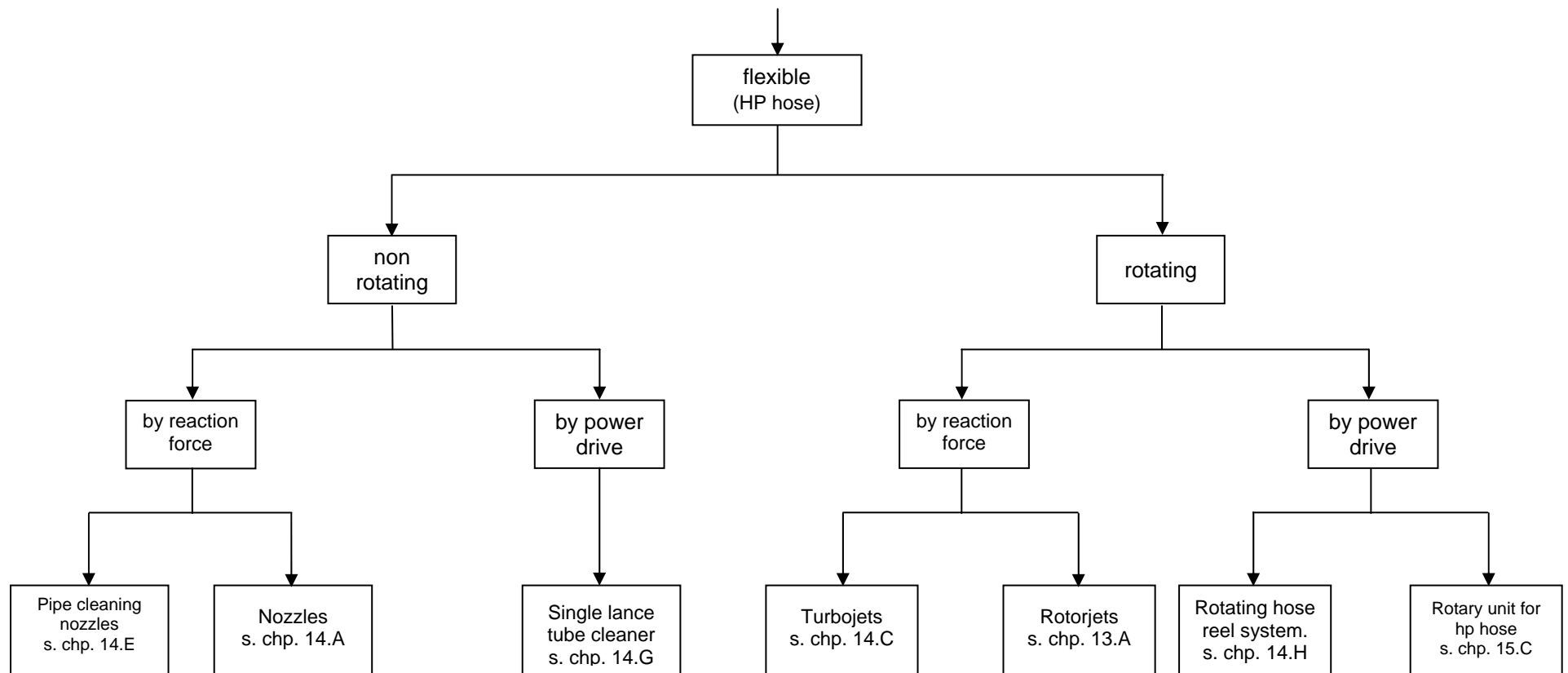
\* Without sapphire insert

Seal ring	Code no.
DN 4	<b>02.01709.0001</b>
DN 6	<b>02.01709.0002</b>

**HAMMELMANN®**

# Tube and pipe cleaning systems (flexible)

14.2 – 07/08



When a hose is manually operated the traction (force) shall not exceed 150 N. (A reaction force is not permissible.)

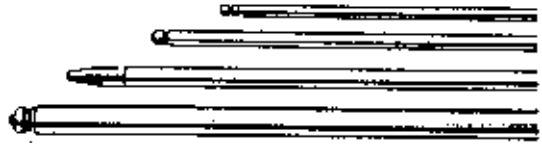
## Further safety notes:

4. When manually operating a safety arrester should be utilised (refer chapter 14.F).
5. When manually operating with a pull nozzle a safety shield should be used (available on request).
6. When, on pulling the hose out of the tube, the marking ring appears the pressure must be turned off immediately.
7. Above a certain pipe diameter the hose must be fitted with an extension lance (see the following pages)

# High pressure rigid lances for pipe cleaning nozzles

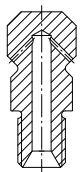
## High pressure rigid lance

extension for blasting gun and for internal pipe cleaning. Suitable for an operating pressure of 750 bar.



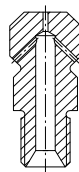
Lances			Adapters for high pressure lances	
Pipe	Length mm	Code no.		Code no.
10 x 3 suitable nozzle M 6	500	<b>00.03559.0048</b>	Blasting gun barrel SP 1000 only	<b>01.02795.0038</b>
	1000	<b>.0049</b>		<b>01.02795.0039</b>
	1500	<b>.0050</b>		
	2000	<b>.0051</b>		
	3000	<b>.0052</b>		<b>01.02795.0040</b>
	4000	<b>.0053</b>		
5000	<b>.0054</b>			
13 x 3,5 suitable nozzle M 8	500	<b>00.03559.0040</b>	Hand grip SP 1000 / 400	<b>01.05300.0437</b>
	1000	<b>.0041</b>		<b>01.05300.0438</b>
	1500	<b>.0042</b>		
	2000	<b>.0043</b>		
	3000	<b>.0044</b>		<b>01.05300.0439</b>
	4000	<b>.0045</b>		
5000	<b>.0046</b>			
6000	<b>.0047</b>			
16 x 4 suitable nozzle M 10 x 1	500	<b>00.03559.0032</b>	High pressure hose to the foot valve DKM/DKO	<b>01.05300.0182</b>
	1000	<b>.0033</b>		<b>01.05300.0183</b> <b>.0454</b>
	1500	<b>.0034</b>		
	2000	<b>.0035</b>		
	3000	<b>.0036</b>		<b>01.05300.0184</b> <b>.0365</b>
	4000	<b>.0037</b>		
5000	<b>.0038</b>			
6000	<b>.0039</b>			
Seal ring for above		<b>04.00730.0000</b>		
Adapter for high-pressure lance 16 x 4 and round or fan jet nozzle		<b>01.05320.0075</b>		

## Various types of pipe cleaning nozzles



pull nozzle

01.06514.

clearing pull  
nozzle

01.06524.

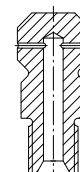


push nozzle

01.06534.

clearing push  
nozzle

01.06544.



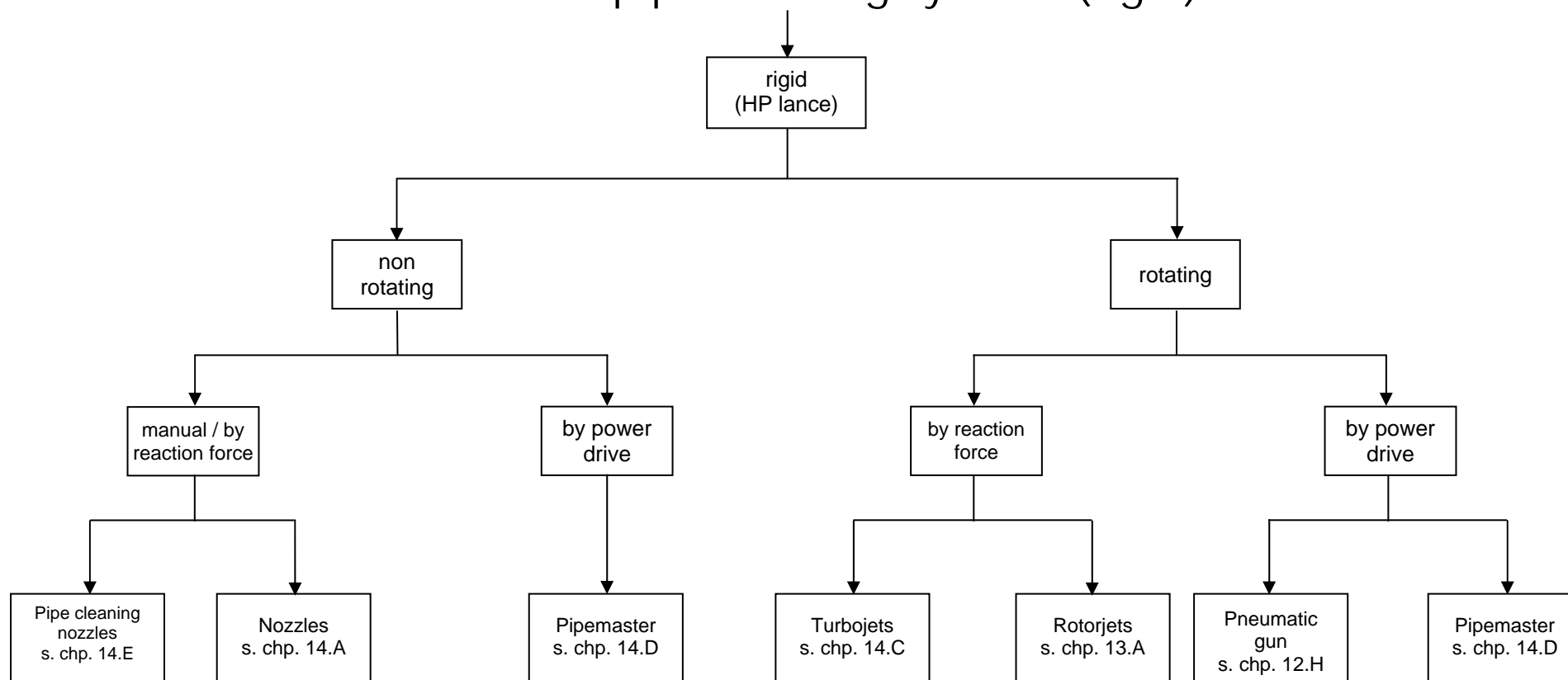
special nozzle

09.00502.

nozzle M 6  
nozzle M 8  
nozzle M 10 x 1  
nozzle M 12 x 1,5  
nozzle M 14 x 1,5  
nozzle M 18 x 1,5  
nozzle M 22 x 1,5  
nozzle M 24 x 1,5

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# Tube and pipe cleaning systems (rigid)

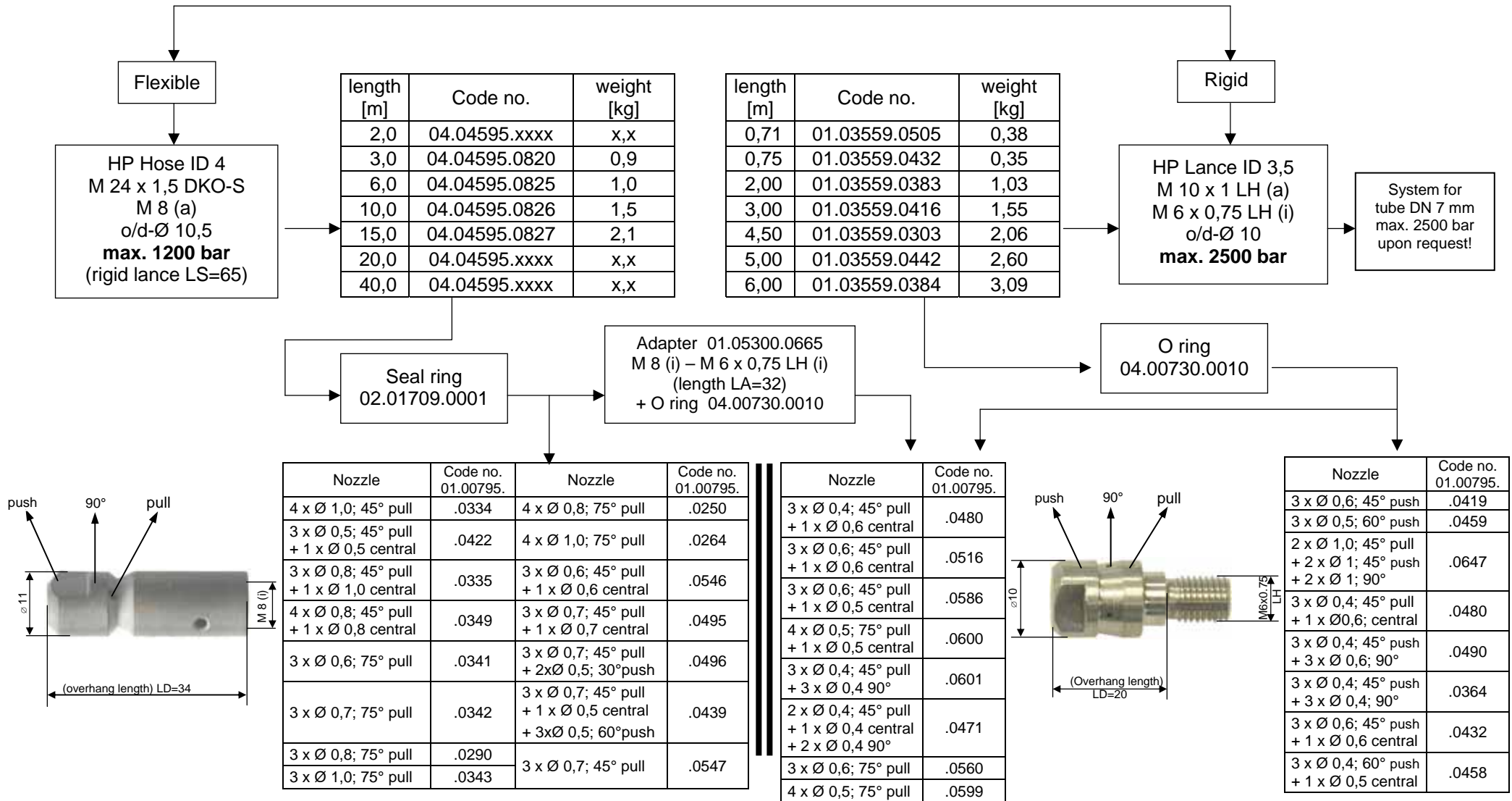


When a lance is manually operated **neither the traction (pulling) nor the reaction force (pushing)** shall exceed **150 N**. The resulting **reaction force** (towards the operator) may be increased to a **max. 250 N** if a body support is used, e.g. shoulder stock.

## Further safety notes:

1. For manual operation a safety arrester should be utilised (refer chapter 14.F).
2. For manual operation with a pull nozzle a safety shield should be used (available on request).
3. The pressure must be turned off well before pulling the lance out of the tube.

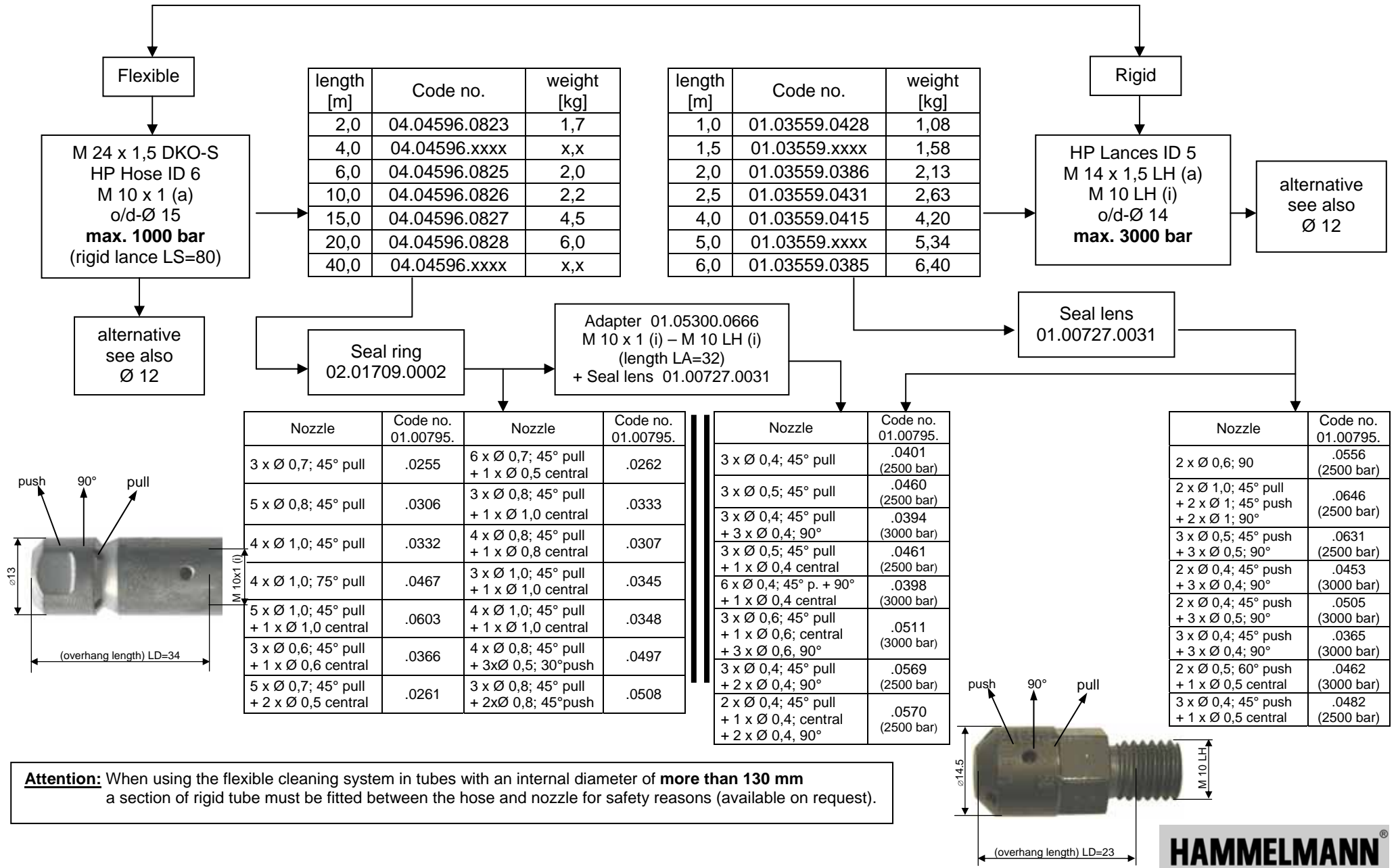
# System for min. DN 12 mm tubes



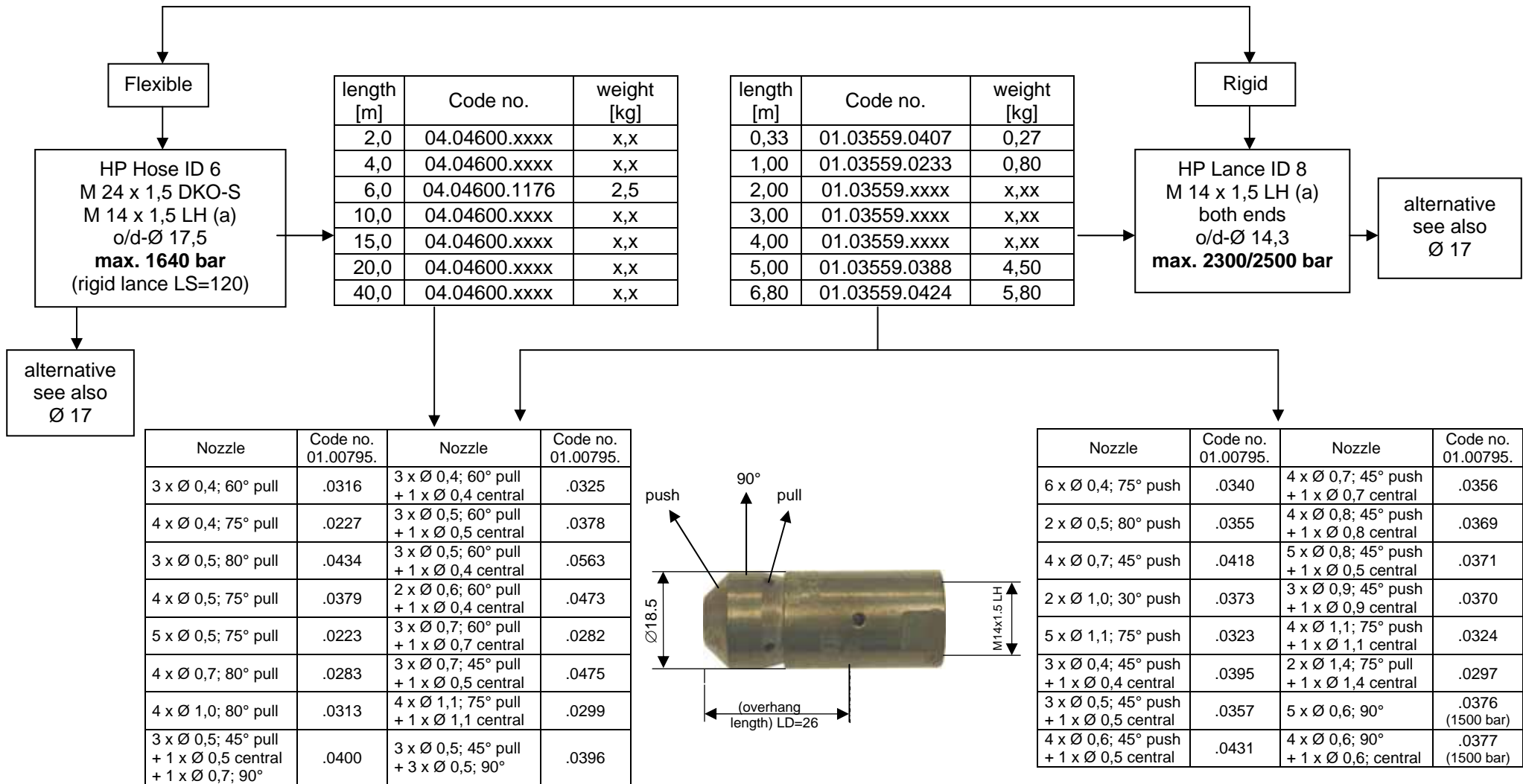
**Attention:** When using the flexible cleaning system in tubes with an internal diameter of more than **100 mm** a section of rigid tube must be fitted between the hose and nozzle for safety reasons (available on request).



# System for min. DN 17 mm tubes

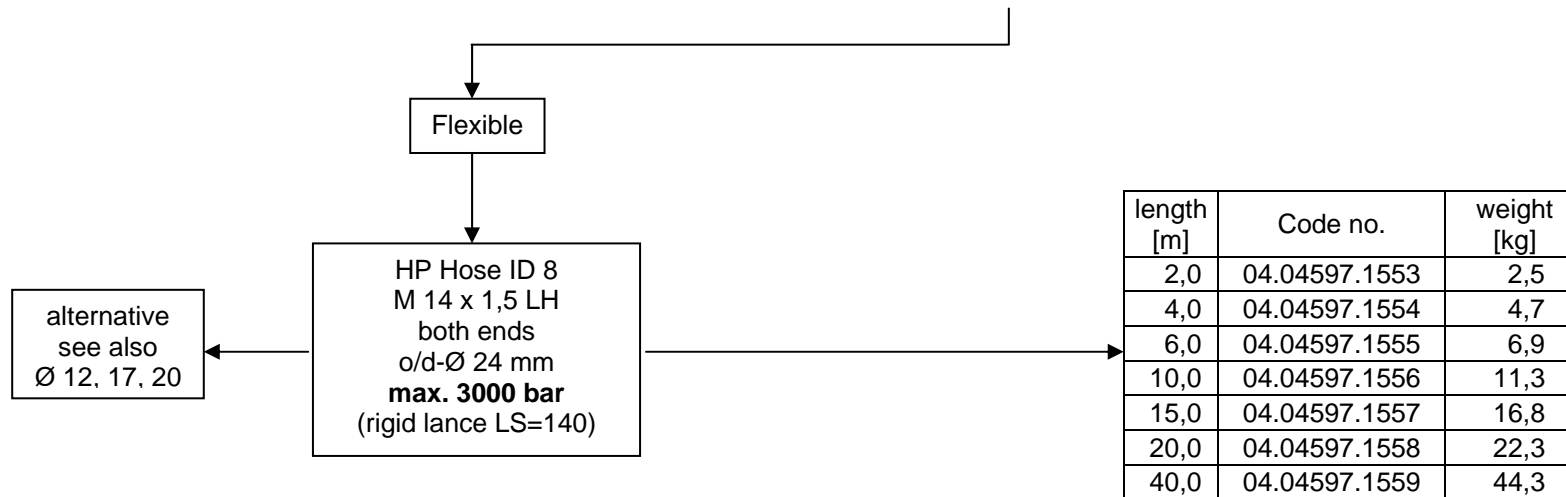


# System for min. DN 20 mm tubes

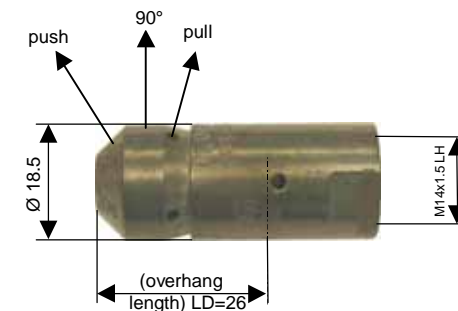


**Attention:** When using the flexible cleaning system in tubes with an internal diameter of more than 160 mm a section of rigid tube must be fitted between the hose and nozzle for safety reasons (available on request).

# System for min. DN 26 mm tubes

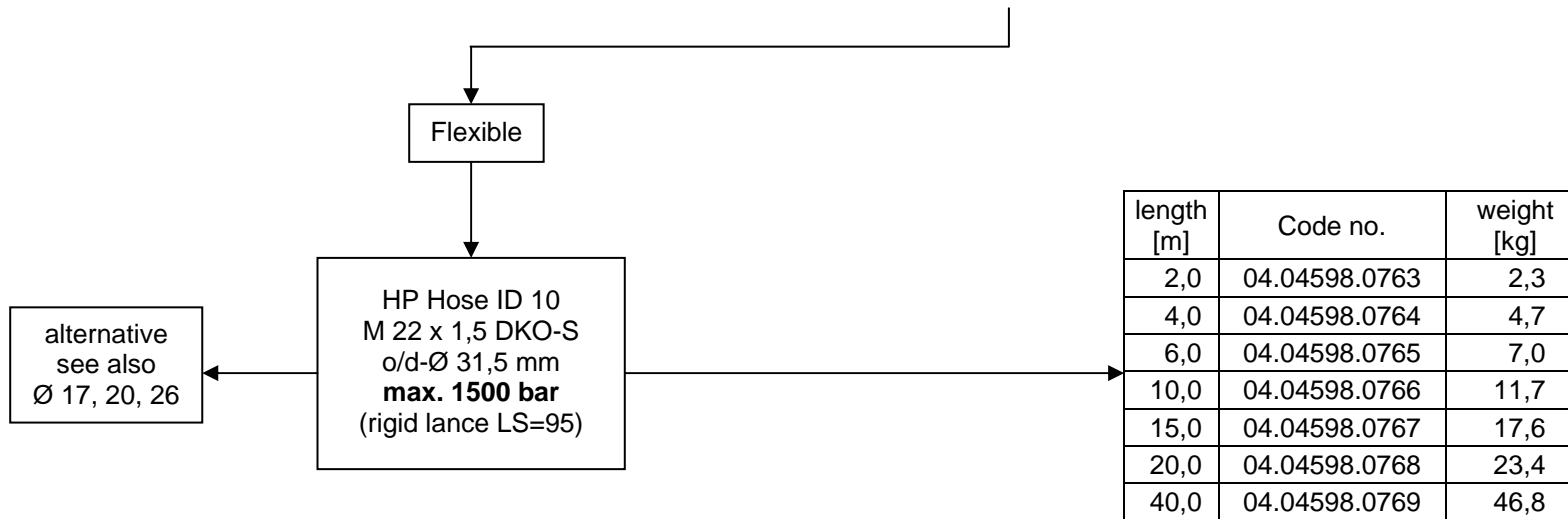


Nozzle	Code no. 01.00795.	Nozzle	Code no. 01.00795.
3 x Ø 0,4; 60° pull	.0316 <b>(2500 bar)</b>	3 x Ø 0,5; 60° pull + 1 x Ø 0,5 central	.0378 <b>(2500 bar)</b>
4 x Ø 0,4; 75° pull	.0227 <b>(2500 bar)</b>	4 x Ø 0,5; 75° pull + 1 x Ø 0,5 central	.0231 <b>(2500 bar)</b>
4 x Ø 0,5; 75° pull	.0379 <b>(2500 bar)</b>	4 x Ø 0,6; 75° pull + 1 x Ø 0,6 central	.0338 <b>(2500 bar)</b>
5 x Ø 0,5; 75° pull	.0223 <b>(2500 bar)</b>	3 x Ø 0,7; 60° pull + 1 x Ø 0,7 central	.0282 <b>(2500 bar)</b>
4 x Ø 0,7; 80° pull	.0283 <b>(2500 bar)</b>	4 x Ø 0,8; 75° pull + 1 x Ø 0,8 central	.0380 <b>(2500 bar)</b>
4 x Ø 1,0; 80° pull	.0313 <b>(2500 bar)</b>	4 x Ø 1,1; 75° pull + 1 x Ø 1,1 central	.0299 <b>(2500 bar)</b>
3 x Ø 0,5; 45° pull + 1 x Ø 0,5 central + 1 x Ø 0,7; 90°	.0400 <b>(3000 bar)</b>	3 x Ø 0,5; 45° pull + 3 x Ø 0,5; 90°	.0396 <b>(3000 bar)</b>
3 x Ø 0,4; 60° pull + 1 x Ø 0,4 central	.0325 <b>(2500 bar)</b>	N x Ø xx; xx° pull + N x Ø xx central	.0xxx

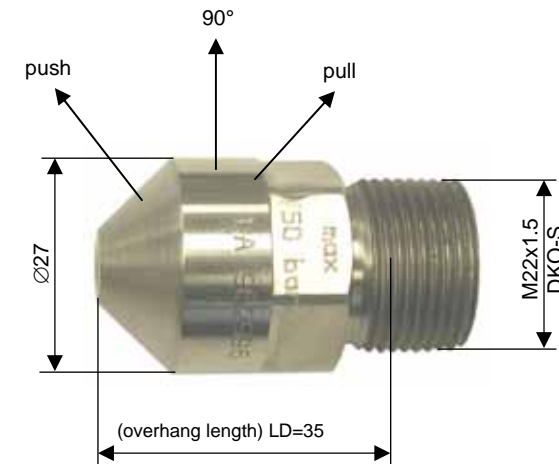


**Attention:** When using the flexible cleaning system in tubes with an internal diameter of more than 160 mm a section of rigid tube must be fitted between the hose and nozzle for safety reasons (available on request).

# System for min. DN 33 mm tubes



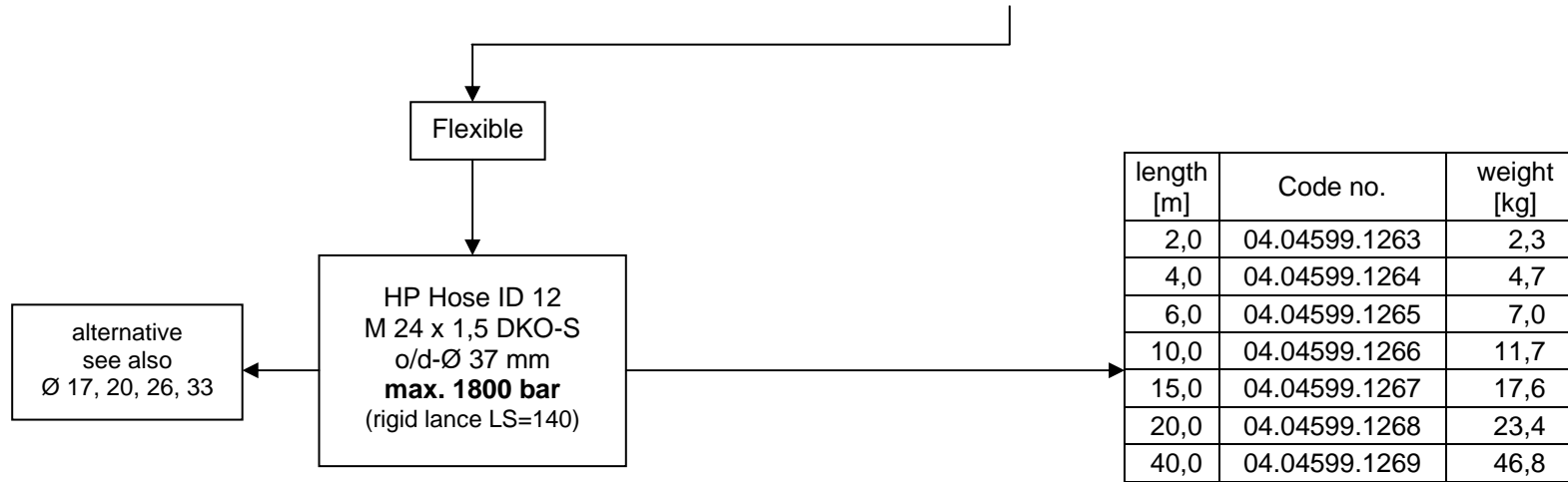
Nozzle	Code no. 01.00795.	Nozzle	Code no. 01.00795.
4 x Ø 0,9; 45° pull	.0304 (750 bar)	N x Ø xx; xx° pull + N x Ø xx central	.0xxx
5 x Ø 1,1; 45° pull	.0353	N x Ø xx; xx° pull + N x Ø xx central	.0xxx
5 x Ø 1,1; 75° pull	.0354	N x Ø xx; xx° pull + N x Ø xx central	.0xxx
4 x Ø 0,8; 45° pull + 1 x Ø 1,0 central	.0344 (750 bar)	N x Ø xx; xx° pull + N x Ø xx central	.0xxx
4 x Ø 0,9; 90°	.0305 (750 bar)	N x Ø xx; xx° pull + N x Ø xx central	.0xxx
3 x Ø 0,7; 45° pull + 2 x Ø 0,4; 15° push	.0476	N x Ø xx; xx° pull + N x Ø xx central	.0xxx
5 x Ø 0,6; 45° pull + 2 x Ø 0,4; 15° push	.0477	N x Ø xx; xx° pull + N x Ø xx central	.0xxx
5 x Ø 1,2; 45° pull	.0645	N x Ø xx; xx° pull + N x Ø xx central	.0xxx



**Attention:** When using the flexible cleaning system in tubes with an internal diameter of more than 130 mm a section of rigid tube must be fitted between the hose and nozzle for safety reasons (available on request).

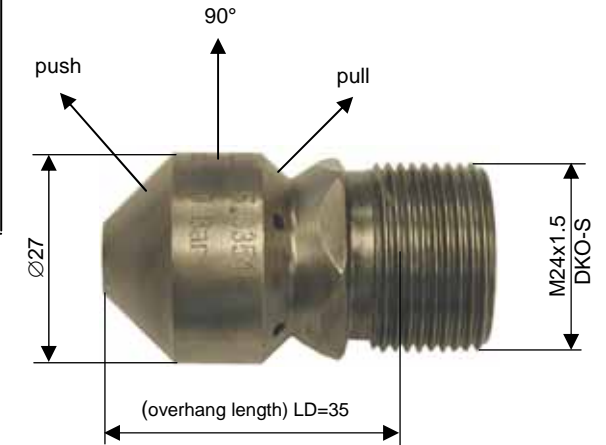


# System for min. DN 40 mm tubes



  
All nozzles up to **1500 bar!!**

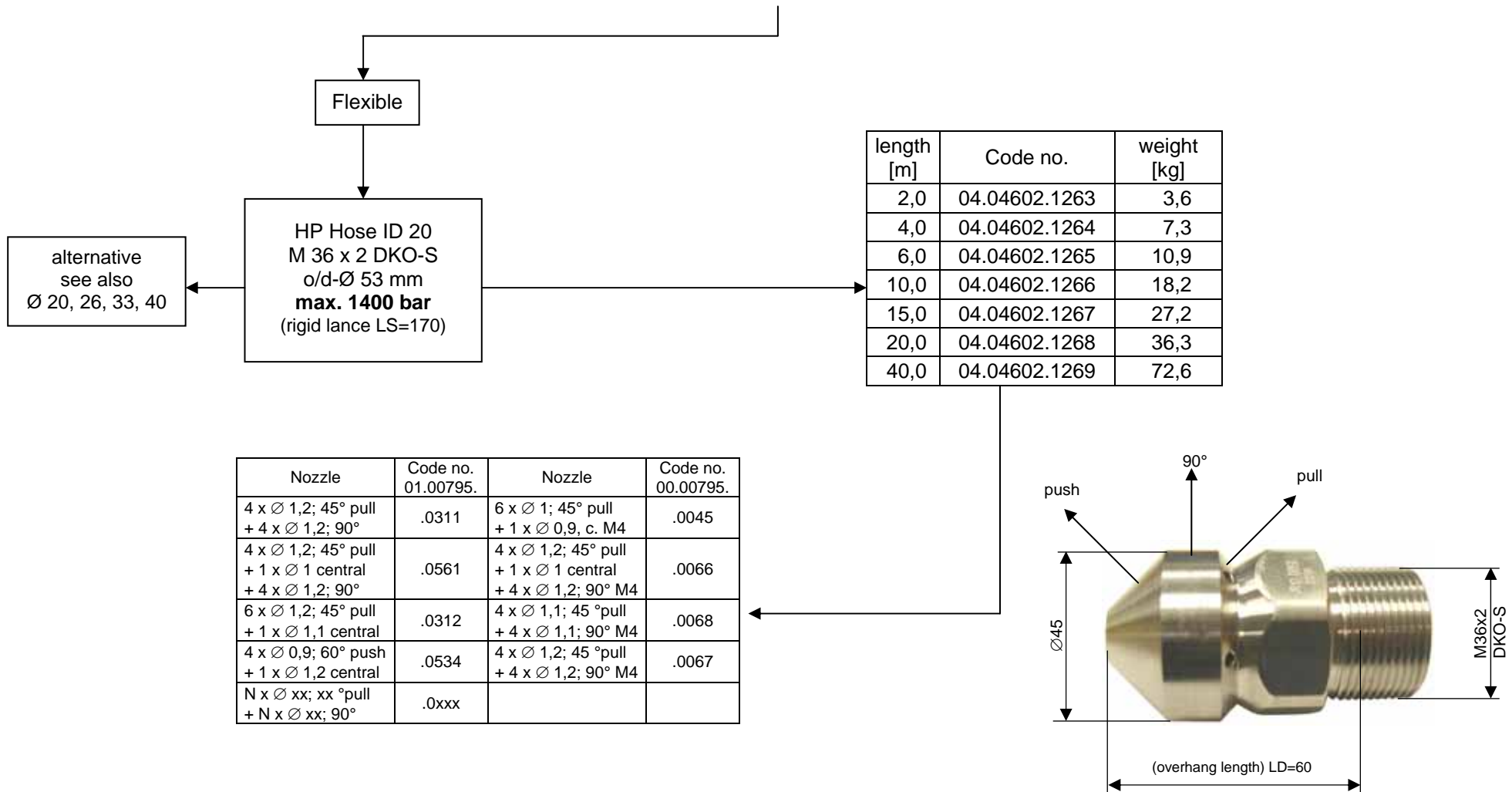
Nozzle	Code no. 01.00795.	Nozzle	Code no. 01.00795.	Nozzle	Code no. 01.00795.
5 x Ø 0,6; 45° pull	.0228	3 x Ø 0,7; 60° pull + 1 x Ø 0,7 central	.0402	3 x Ø 1,0; 60° pull + 3 x Ø 0,5 ; 90°	.0456
4 x Ø 0,7; 75° pull	.0405	5 x Ø 0,7; 45° pull + 1x Ø 0,7 central	.0351	3 x Ø 1,0; 60° pull + 3 x Ø 0,9; 90°	.0392
4 x Ø 0,8; 75° pull	.0501	3 x Ø 0,8; 45° pull + 1 x Ø 1,0 central	.0362	3 x Ø 1,2; 45° pull + 2 x Ø 1,2; 90°	.0221
5 x Ø 0,8; 60° pull	.0308	4 x Ø 0,9; 45° pull + 1 x Ø 0,9 central	.0502	3 x Ø 0,8; 45° pull + 3 x Ø 0,9; 90°	.0498
4 x Ø 1,1; 45° pull	.0214	6 x Ø 0,9; 60° pull + 1 x Ø 0,9 central	.0391	4 x Ø 1,2; 45° pull + 2 x Ø 1,2 central + 2 x Ø 0,8; 90°	.0454
4 x Ø 1,3; 45° pull	.0286	5 x Ø 1,0; 45° pull + 1 x Ø 1,0 central	.0253	3 x Ø 1,4; 45° pull + 1 x Ø 1,7 central + 3 x Ø 0,6; 90°	.0455
3 x Ø 0,7; 45° pull + 1 x Ø 0,6 central	.0437	3 x Ø 0,6; 45° pull + 2 x Ø 0,6 ; 90°	.0289	4 x Ø 1,3; 45° pull + 2xØ 0,9; 5°push	.0350
3 x Ø 0,7; 45° pull + 1 x Ø 0,9 central	.0226	3 x Ø 0,9; 45° pull + 2 x Ø 0,9 ; 90°	.0220	3 x Ø 0,9; 45° pull + 3xØ 0,7; 45°push	.0469



**Attention:** When using the flexible cleaning system in tubes with an internal diameter of more than 180 mm a section of rigid tube must be fitted between the hose and nozzle for safety reasons (available on request).



# System for min. DN 55 mm tubes



**Attention:** When using the flexible cleaning system in tubes with an internal diameter of more than 200 mm a section of rigid tube must be fitted between the hose and nozzle for safety reasons (available on request).

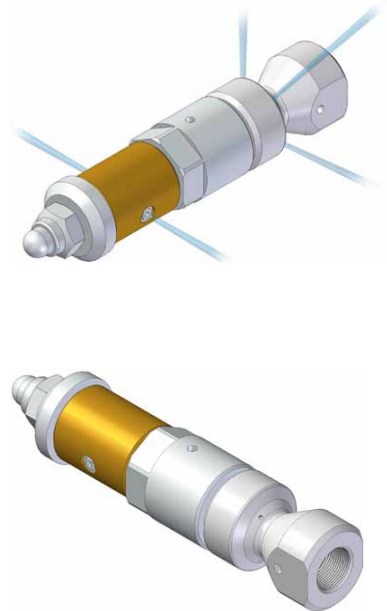


# Turbo jets

Turbo jets have a high speed rotating nozzle body which prevents "striping" inside the tube. The rotation at up to 2000 r.p.m. is effected by the reaction force of the water jets. For economic reasons the layout of the turbojets complete with "drive" nozzle set is such that, based on a 6 metre long high pressure hose, the pressure loss is max. 25 % of the available operating pressure. Further turbo jets are available on request.

## Turbo jets complete with "drive" nozzle set, max. 1000 bar

Nozzle type	Connection thread Hose i/d	Tube diameter		Nozzles	Output l/min at 1000 bar (incl. leakage) approx.	Code no.
		min.	max.			
TDTR 12	M 8 (i) DN 4	15	30	2 x Ø 1,0 radial	39	09.00540.0155
				3 x Ø 0,4 pull		
	M 10 x 1 (i) DN6	15	30	2 x Ø 1,0 radial	35	09.00540.0147*
				3 x Ø 0,4 pull		
		16	30	2 x Ø 1,0 radial	33	00.00788.0001*
				3 x Ø 0,5 pull		
		16	30	2 x Ø 1,0 radial	42	00.00788.0002
				3 x Ø 0,5 pull		
		16	30	2 x Ø 1,0 radial	60	09.00540.0124
				3 x Ø 0,8 pull		
16	30	2 x Ø 1,0 radial	60	09.00540.0144*		
		3 x Ø 0,8 pull				
16	30	2 x Ø 1,0 radial	74	09.00540.0125		
		3 x Ø 1,0 pull				
TDTR 18	M 8 (i) DN4	20	40	2 x Ø 1,0 radial	51	09.00540.0156
				3 x Ø 0,4 pull		
	M 10 x 1 (i) DN 6	20	40	2 x Ø 0,9 radial	40	09.00540.0146*
				3 x Ø 0,6 pull		
		20	40	2 x Ø 0,8 radial	49	00.00788.0005
				3 x Ø 0,6 pull		
		20	40	2 x Ø 1,0 radial	60	09.00540.0136
				3 x Ø 0,6 pull		
		20	40	2 x Ø 1,0 radial	71	09.00540.0106
				3 x Ø 0,8 pull		
20	40	2 x Ø 1,0 radial	71	09.00540.0142*		
		3 x Ø 0,8 pull				
20	40	2 x Ø 1,0 radial	86	09.00540.0107		
		3 x Ø 1,0 pull				
20	40	2 x Ø 1,0 radial	104	09.00540.0108		
		3 x Ø 1,2 pull				
TDTR 22	M 10 x 1 (i) DN6	25	50	2 x Ø 0,9 radial	40	09.00540.0145*
				3 x Ø 0,6 pull		
		25	50	2 x Ø 0,8 radial	49	00.00788.0004
				3 x Ø 0,6 pull		
		25	50	2 x Ø 1,0 radial	60	09.00540.0133
				3 x Ø 0,6 pull		
		25	50	2 x Ø 1,2 radial	77	09.00540.0134
				3 x Ø 0,6 pull		
	25	50	2 x Ø 1,2 radial	88	09.00540.0118	
			3 x Ø 0,8 pull			
25	50	2 x Ø 1,2 radial	88	09.00540.0143*		
		3 x Ø 0,8 pull				
25	50	2 x Ø 1,2 radial	103	09.00540.0119		
		3 x Ø 1,0 pull				
25	50	2 x Ø 1,2 radial	112	09.00540.0157		
		3 x Ø 1,1 pull				

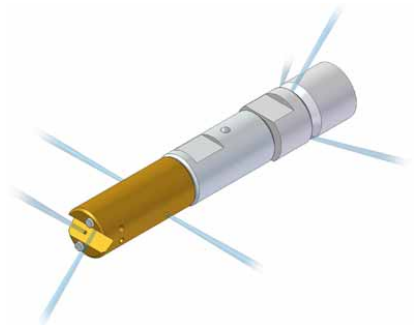


\* reduced r.p.m. models

# Turbo jets

## Turbo jets complete with "drive" nozzle set, front radial, max. 1000 bar

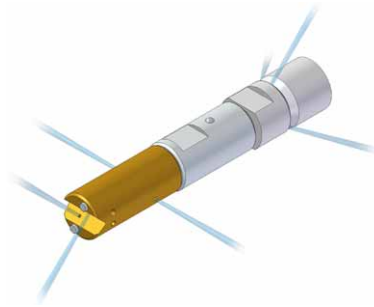
Nozzle type	Connection thread Hose i/d	Tube diameter		Nozzles	Output l/min at 1000 bar (incl. leakage) approx.	Code no.	
		min.	max.				
TDTRA 12	M 8 (i)	15	30	2 x Ø 0,8 axial	62	09.00540.0130	
				2 x Ø 0,8 radial			
				3 x Ø 0,8 pull			
	DN 4	15	30	2 x Ø 0,8 axial	74	09.00540.0131	
				2 x Ø 0,8 radial			
				3 x Ø 1,0 pull			
	M 10 x 1 (i)	16	30	2 x Ø 0,5 axial	32	09.00540.0158	
				2 x Ø 0,5 radial			
				3 x Ø 0,5 pull			
		DN6	16	30	2 x Ø 0,8 axial	48	09.00540.0138
					2 x Ø 0,8 radial		
					3 x Ø 0,5 pull		
DN6	16	30	2 x Ø 0,8 axial	52	09.00540.0139		
			2 x Ø 0,8 radial				
	16	30	2 x Ø 0,8 axial	62	09.00540.0128		
			2 x Ø 0,8 radial				
16	30	30	2 x Ø 0,8 axial	74	09.00540.0129		
			2 x Ø 0,8 radial				
			3 x Ø 1,0 pull				
TDTRA 18	M 8 (i)	20	40	2 x Ø 0,8 axial	73	09.00540.0115	
				2 x Ø 0,8 radial			
				3 x Ø 0,8 pull			
	DN4	20	40	2 x Ø 0,8 axial	85	09.00540.0116	
				2 x Ø 0,8 radial			
				3 x Ø 1,0 pull			
	20	40	40	2 x Ø 0,8 axial	101	09.00540.0117	
				2 x Ø 0,8 radial			
				3 x Ø 1,2 pull			
	M 10 x 1 (i)	20	40	2 x Ø 0,8 axial	63	09.00540.0137	
				2 x Ø 0,8 radial			
				3 x Ø 0,6 pull			
DN 6		20	40	2 x Ø 0,8 axial	73	09.00540.0109	
				2 x Ø 0,8 radial			
				3 x Ø 0,8 pull			
20	40	40	2 x Ø 0,8 axial	85	09.00540.0110		
			2 x Ø 0,8 radial				
			3 x Ø 1,0 pull				
20	40	40	2 x Ø 0,8 axial	101	09.00540.0111		
			2 x Ø 0,8 radial				
			3 x Ø 1,2 pull				



# Turbo jets

**Turbo jets complete with “drive” nozzle set, front radial, max. 1000 bar**

Nozzle type	Connection thread Hose i/d	Tube diameter		Nozzles	Output l/min at 1000 bar (incl. leakage) approx.	Code no.
		min.	max.			
TDTRA 22	M 10 x 1 (i)	16	30	2 x Ø 0,6 axial	60	09.00540.0132
				2 x Ø 0,6 radial		
				3 x Ø 0,6 pull		
		16	30	2 x Ø 1,0 axial	95	09.00540.0121
				2 x Ø 1,0 radial		
				3 x Ø 0,8 pull		
	16	30	2 x Ø 1,0 axial	107	09.00540.0122	
			2 x Ø 1,0 radial			
			3 x Ø 1,0 pull			
	16	30	2 x Ø 1,0 axial	123	09.00540.0123	
			2 x Ø 1,0 radial			
			3 x Ø 1,2 pull			

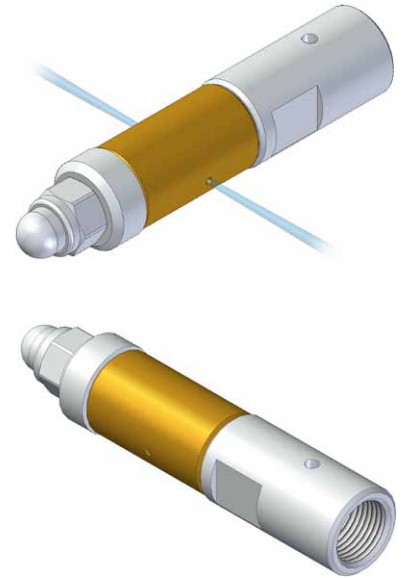


# Turbo jets

## Turbo jets without “drive” nozzle set, max. 1000 bar

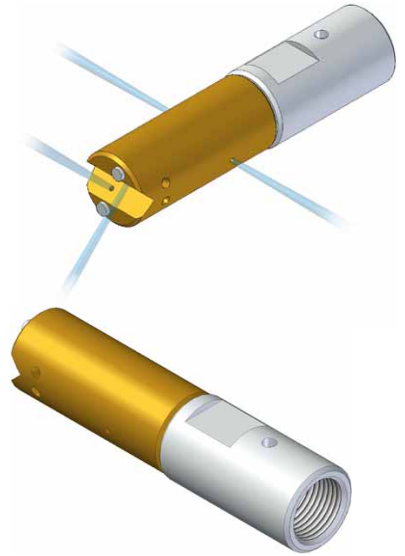
Nozzle type	Connection thread	Tube diameter		Nozzles	Output l/min at 1000 bar (incl. leakage) approx.	Code no.
		min.	max.			
TDR 12	G 1/8" (i)	15	30	2 x Ø 0,8 radial	23	<b>04.00786.0044</b>
		15	30	2 x Ø 1,0 radial	33	<b>04.00786.0015</b>
		15	30	2 x Ø 1,0 radial	33	<b>04.00786.0030*</b>
TDR 18	G 1/4" (i)	20	40	2 x Ø 0,8 radial	36	<b>04.00786.0039*</b>
		20	40	2 x Ø 0,9 radial	40	<b>04.00786.0034*</b>
		20	40	2 x Ø 1,0 radial	44	<b>04.00786.0010</b>
		20	40	2 x Ø 1,0 radial	44	<b>04.00786.0032*</b>
TDR 22	G 1/4" (i)	25	50	2 x Ø 0,8 radial	36	<b>04.00786.0038*</b>
		25	50	2 x Ø 0,9 radial	40	<b>04.00786.0033*</b>
		25	50	2 x Ø 1,0 radial	44	<b>04.00786.0026</b>
		25	50	2 x Ø 1,2 radial	61	<b>04.00786.0013</b>
		25	50	2 x Ø 1,2 radial	ca. 61	<b>04.00786.0031*</b>

\* reduced r.p.m. models



## Turbo jets without “drive” nozzle set, front radial, max. 1000 bar

Nozzle type	Connection thread	Tube diameter		Nozzles	Output l/min at 1000 bar (incl. leakage) approx.	Code no.
		min.	max.			
TDFR 12	G 1/8" (i)	15	30	2 x Ø 0,5 axial	23	<b>04.00786.0047</b>
				2 x Ø 0,5 radial		
TDFR 18	G 1/4" (i)	20	40	2 x Ø 0,8 axial	39	<b>04.00786.0014</b>
				2 x Ø 0,8 radial		
TDFR 22	G 1/4" (i)	25	50	2 x Ø 0,45 axial	39	<b>04.00786.0048</b>
				2 x Ø 0,45 radial		
TDFR 22	G 1/4" (i)	25	50	2 x Ø 0,6 axial	47	<b>04.00786.0025</b>
				2 x Ø 0,6 radial		
TDFR 22	G 1/4" (i)	25	50	2 x Ø 1,0 axial	72	<b>04.00786.0012</b>
				2 x Ø 1,0 radial		



## Turbo jets without “drive” nozzle set, max. 2500 bar

Nozzle type	Connection thread	Tube diameter		Nozzles	Output l/min at 2500 bar (incl. leakage) approx.	Code no.
	Hose i/d	min.	max.			
TDR 19	M14 x 1,5 LH (i) DN5	25	45	2 x Ø 0,5 radial	17	<b>04.00786.0053</b>
		25	45	2 x Ø 0,6 radial	20	<b>04.00786.0051</b>
		25	45	2 x Ø 0,7 radial	24	<b>04.00786.0052</b>

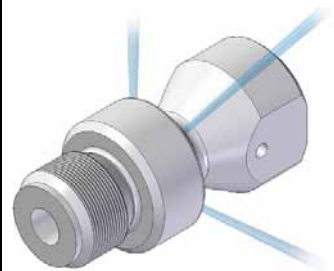


# Drive nozzles and accessories

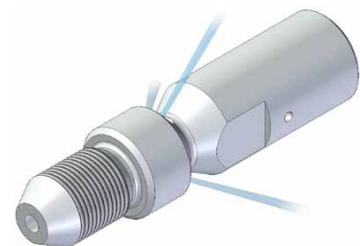
Drive nozzles are fitted as an adapter between the lance/hose and the turbo jet. They have three rear facing bores so that the reaction force of the water jets effects the movement through the tube.

The suitable drive nozzle diameter has to be selected in accordance with the requested application. Further drive nozzles are available on request.

Max. diameter drive nozzle [mm]	Connection thread Hose i/d	Op. pressure [bar]	Nozzles	Output l/min at 1000 bar (incl. leakage) approx.	Code no.
13	G 1/8" (a) M8 (i) DN4	1000	3 x Ø 0,4 pull	6	<b>01.00797.0089</b>
			3 x Ø 0,6 pull	13	<b>01.00797.0077</b>
			3 x Ø 0,8 pull	23	<b>01.00797.0072</b>
			3 x Ø 1,0 pull	35	<b>01.00797.0073</b>
13	G 1/8" (a) M10 x 1 (i) DN6	1000	3 x Ø 0,5 pull	9	<b>01.00797.0076</b>
			3 x Ø 0,6 pull	13	<b>01.00797.0075</b>
			3 x Ø 0,8 pull	23	<b>01.00797.0070</b>
			3 x Ø 1,0 pull	35	<b>01.00797.0071</b>
18	G 1/4" (a) M8 (i) DN4	1000	3 x Ø 0,4 pull	6	<b>01.00797.0090</b>
			3 x Ø 0,8 pull	23	<b>01.00797.0065</b>
			3 x Ø 1,0 pull	35	<b>01.00797.0066</b>
			3 x Ø 1,2 pull	51	<b>01.00797.0067</b>
18	G 1/4" (a) M10 x 1 (i) DN6	1000	3 x Ø 0,6 pull	13	<b>01.00797.0074</b>
			3 x Ø 0,8 pull	23	<b>01.00797.0062</b>
			3 x Ø 1,0 pull	35	<b>01.00797.0063</b>
			3 x Ø 1,1 pull	43	<b>01.00797.0091</b>
			3 x Ø 1,2 pull	51	<b>01.00797.0064</b>



Max. diameter drive nozzle [mm]	Connection thread Hose i/d	Op. pressure [bar]	Nozzles	Nozzle type	Code no.
19	M14 x 1,5 LH (i/a) DN5	3000	3 x pull	S	<b>01.00797.0093</b>



## Seal ring for turbo jet and drive nozzle, max. 1000 bar

for M8	<b>02.01709.0001</b>
for M10 x 1 or G 1/8"	<b>02.01709.0002</b>
for G 1/4"	<b>04.00706.0022</b>



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**HAMMELMANN®**

# Flexible lance deployment unit for heat exchanger cleaning

Unit to enable safe flexible lancing on heat exchangers up to 2 m dia. for use with 4 mm i/d flexibles but can be adapted for 6 and 8 mm i/d's with optional accessories. It is both a positioning and a safety device and is certified as such (certificate BG No. 99071).



Flexible lance  
deployment unit

Code no.

04.06025.0001

## Flexible lance deployment unit comprises:

**Connection clamp** to attach to the heat exchanger flange. Max. flange thickness 140 mm.  
(see a)

**Swivel joint pivot** with square tube  
(see b)


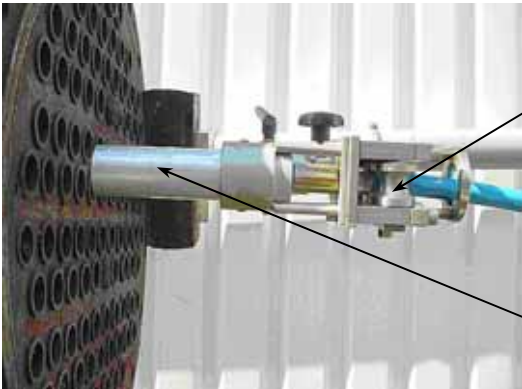
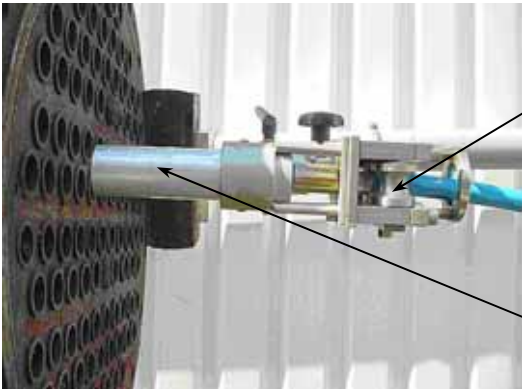

**Swivel joint bush** with square tube  
(see c)

**„Brake bolt“** for swivel joint  
(see e)



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# Flexible lance deployment unit for heat exchanger cleaning

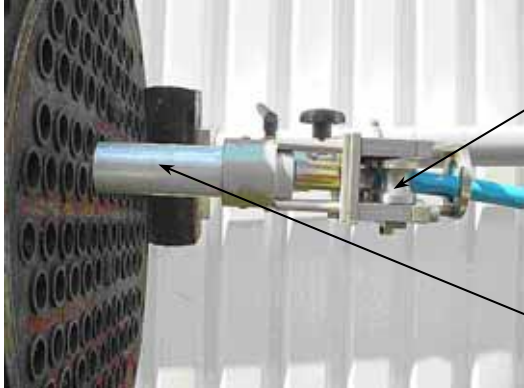
Flexible lance deployment unit comprises:	
<p><b>Telescope arm</b> (see d)</p>	
<p><b>Guide rollers for 4 mm i/d</b> (see f)</p>	
<p><b>Protection piece to thread the flexible</b> (see g)</p>	
<p><b>Guide frame</b> (see h)</p>	

# Flexible lance deployment unit for heat exchanger cleaning

14.F.3 – 02/06

## Optional accessories

(not included in the unit)

Description	Code no.	
<b>Bolt on plate</b> for fixing to heat exchanger flanges above 140 mm thickness.	<b>04.01630.0010</b>	
<b>Protection piece</b> 1 m long (see <b>g</b> )	<b>04.03578.0002</b>	
<b>Guide rollers</b> for 6 mm i/d lance (see <b>f</b> )	<b>04.03595.0018</b>	
<b>Guide rollers</b> for 8 mm i/d lance (see <b>f</b> )	<b>04.03595.0019</b>	

**HAMMELMANN**®

# Single lance tube cleaner „1-LTC“

14.G.1 – 07/08

- Pneumatically powered lance deployment/retraction unit for cleaning heat exchanger tubes.
- Operating pressure depends upon the high pressure lance used.
- Only the three types of lance shown can be used with this unit:

Polyflex Type	Code no.
<b>2440 D-025</b> (4 mm i/d; 2200 bar)	04.04600.1186
	04.04600.1238
	04.04600.1344
<b>2240 D-025</b> (4 mm i/d; 1200 bar)	04.04595.0820
	04.04595.0823
	04.04595.0824
	04.04595.0825
	04.04595.0826
	04.04595.0827
	04.04595.0828
	04.04595.0829
	04.04595.0850
	04.04595.0853
	04.04595.0854
	04.04595.0855
	04.04595.0856
	04.04595.0857
	04.04595.0858
04.04595.0859	
<b>2240 D-04</b> (6 mm i/d; 1000 bar)	04.04600.1225
	04.04600.1241
	04.04600.1272
	04.04596.0823
	04.04596.0825
	04.04596.0826
	04.04596.0827
	04.04596.0828
	04.04596.0850
	04.04596.0853
	04.04596.0854
	04.04596.0855
04.04596.0856	
04.04596.0857	
04.04596.0858	
04.04600.0169	
04.04600.0419	
04.04600.0580	
04.04600.0902	
04.04600.1106	



### Important!

Any ring fitted to the flexible lance to indicate the remaining length to the nozzle must be removed before use with this unit.

Basic unit for lance type 2440 D-025	Code no.
fitted with a straight rigid extension lance, 700 mm long	<b>04.01330.0026</b>

Complete unit for all 3 lance types	Code no.
supplied in an aluminium transport case, incl. all the following accessories.	<b>04.01330.0027</b>




**HAMMELMANN**®

# Single lance tube cleaner „1-LTC“

14.G.2 – 07/08

## Accessories

Description	Code no.	
Set for flexible lance type <b>2240 D-025</b>	<b>04.06375.0021</b>	
Set for flexible lance type <b>2240 D-04</b>	<b>04.06375.0022</b>	
<p> <b>To use other flexible lance sizes the 3 items of the above mentioned accessory sets must be exchanged as shown:-</b></p> <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>End stop</p> </div> <div style="text-align: center;">  <p>Lance clamp</p> </div> <div style="text-align: center;">  <p>Mouthpiece</p> </div> </div>		
<b>Extension lance,</b> 400 mm straight	<b>04.06375.0018</b>	
<b>Extension lance,</b> 700 mm curved	<b>04.06375.0019</b>	
Aluminium <b>transport case</b>	<b>04.06375.0020</b>	 <p style="text-align: center;">without content</p>

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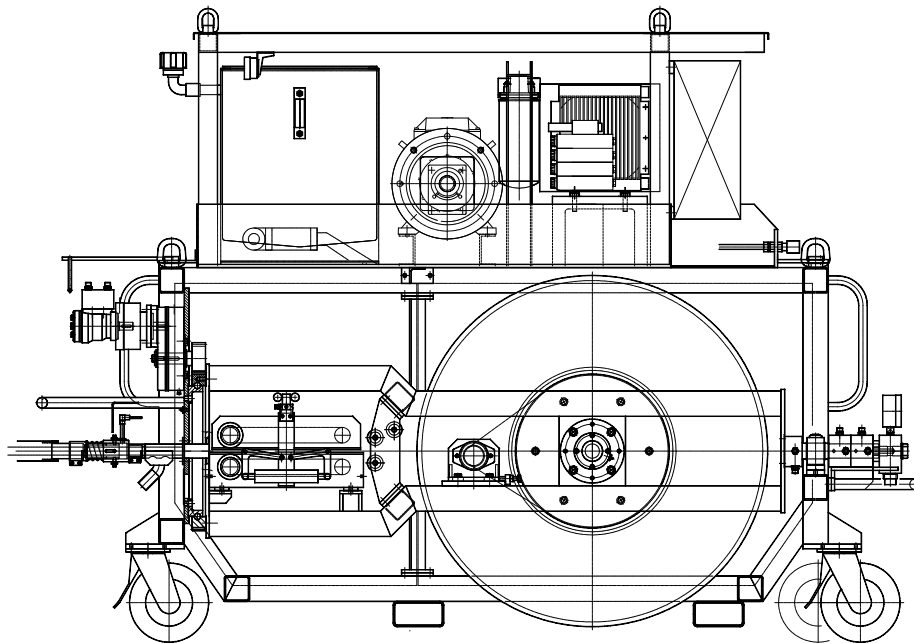
# Mobile rotating and swivelling hose reel (for pipe cleaning)

14.H.1 – 11/06

## Description

- for **10 – 30 mm o/d** hose,
- operating pressure **3000 bar**,
- complete with mobile frame, hydraulically driven hose reel, hose advancing unit with dual hydraulic drive. Rotating unit, longitudinal axis, hydraulic drive with gear and brake, hydraulic power pack, electronic control unit with portable control panel. 8 metres of guide hose with positioning tube.
- swivel water connection to enable unwinding and rewinding of pressurised HP hose,
- suitable for horizontal and vertical (to bottom) operation,
- winding speed approx. 25 m/min,
- rotational speed approx. 50 rpm,
- the hose lengths depend on the outer diameter of the hose,
- operation via portable control panel,
- the advance and rotational speeds are controlled by proportional valves adjusted with master switches and potentiometers.

Op. pressure	Code no.
up to 1500 bar	<b>00.06035.0384</b>
up to 2000 bar	<b>00.06035.0389</b>
up to 3000 bar	<b>00.06035.0400</b>



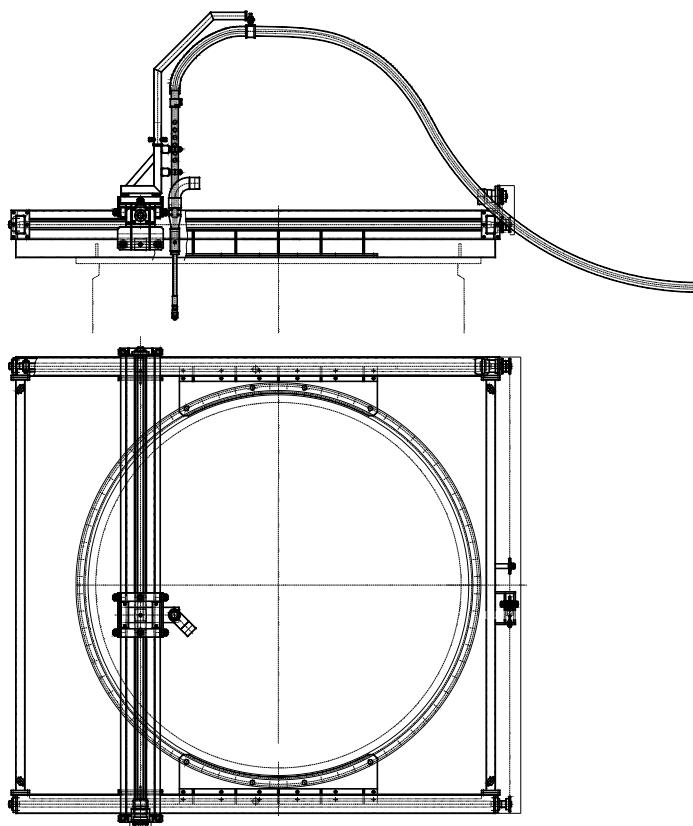
**HAMMELMANN**<sup>®</sup>

# X-Y deployment unit for rotating and swivelling hose reel, heat exchanger cleaning

## Description

- for attaching to the heat exchanger flange,
- complete with guide frame, hydraulically driven traverse bars, hydraulically driven carriage with connection for positioning tube,
- the controls and hydraulic supply are provided by the hydraulic power pack and the hose reel's portable control panel.

Deployment Unit	Code no.
for 700 – 700 stroke	00.03371.0021
for 1700 – 1700 stroke	00.03371.0022
for 2500 – 2500 stroke	00.03371.0023



# Application engineering

## Standard



## Surface blasting



## Tank cleaning



## Tube bundle cleaning



## Pipe and sewer cleaning



## Water hydraulic



## Abrasive cutting

