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Sharing knowledge with the wastewater professionals PEHD PROFESSIONAL SMALL PUMPING STATION



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PUMPING STATION PEHD

■ PUMPING STATION PEHD

PEHD pits are complete, fully equipped, small pumping stations appropriate for pumping sewage and drainage water. PEHD pits are mainly used in all places, where direct connection to gravity sewage lines is not possible. PEHD pits enable sewage / water transportation from distant:

- single houses
- single buildings estates
- small industrial plants or parts of such plants
- holiday centers
- ... and all places, where maximum inflow to the stations shall not exceed 5 l/s.

Features

- small dimensions, low weight – easy transportation and assembly
- completely equipped – no need for additional arrangements
- spherical bottom – fully protects against sedimentation and enable self-cleaning
- stiffness minimum SN2 – according to ISO 9969 – robustness and reliability

Placement of pit:

PEHD pits are equipped with cast iron **top cover DN600 – class A**, locked by additional bolt-locker. So that PEHD pits can be **directly built-in pedestrian ways**.
In case of eventual placement of the pit on the motor way, customer must use at least class D covers placed on an additional concrete ring and not directly on a pit (those elements are not in a delivery range)

Pit configuration:

- PEHD pits are available in the following configurations:
- **1 or 2 pumps** installed pits
- **800mm or 1000mm** in diameter
- pumps installed **on hook** for diameter 800mm (both 1 or 2 pumps version)
- pump installed **on auto coupling** for diameter 1000mm (2 pumps pit only)

Pumps:

PEHD pits may be equipped with following Grundfos pumps:

- **5EG pumps** (domestic and municipal sewage)
- **Unilift AP35B** pumps (domestic sewage, rain, surface water and drainage)
- **Unilift AP50B** pumps (domestic sewage, rain, surface water and drainage)

Control panels:

Pumps inside pits must be supplied and control by appropriate control panels that enable as well proper pump protection and fully automatic work of the station.
There are example of available controls

- Grundfos **LC 108** controllers for 1 pump and level control by 2 or 3 level switches
- Grundfos **LCD 108** controller for 2 pumps and level control by 3 or 4 level switches
- Grundfos **LC 107** controller for 1 pump and integrated level control by air-bell
- Grundfos **LCD 107** controller for 2 pumps and integrated level control by air-bell

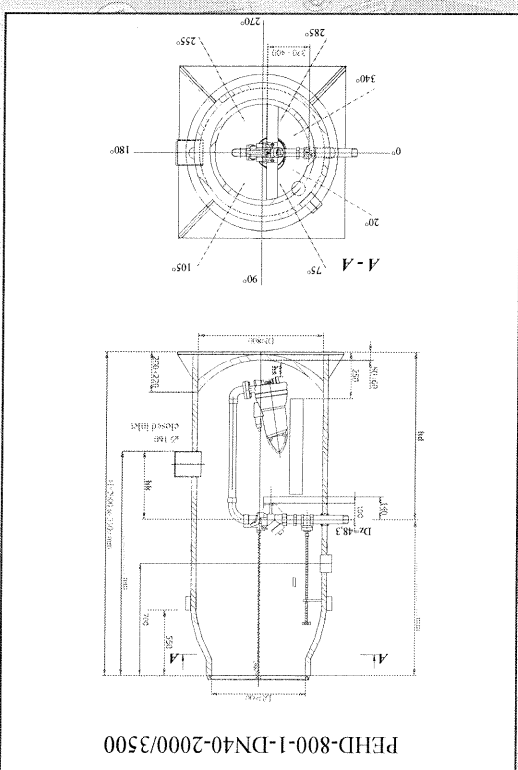
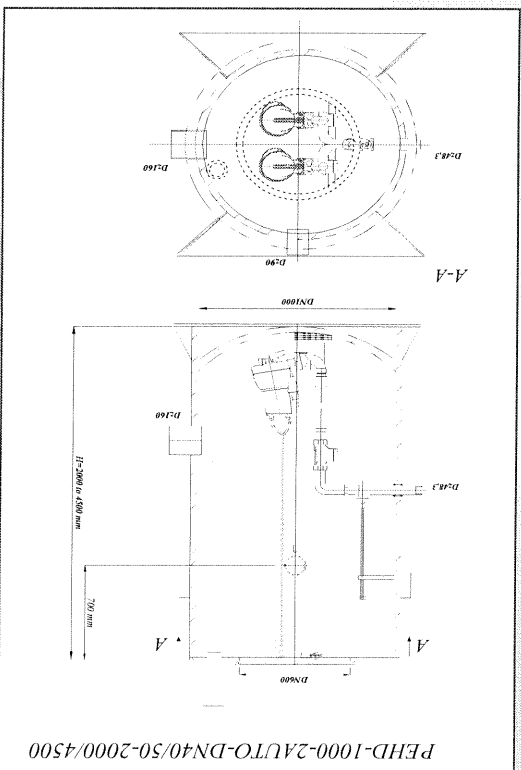
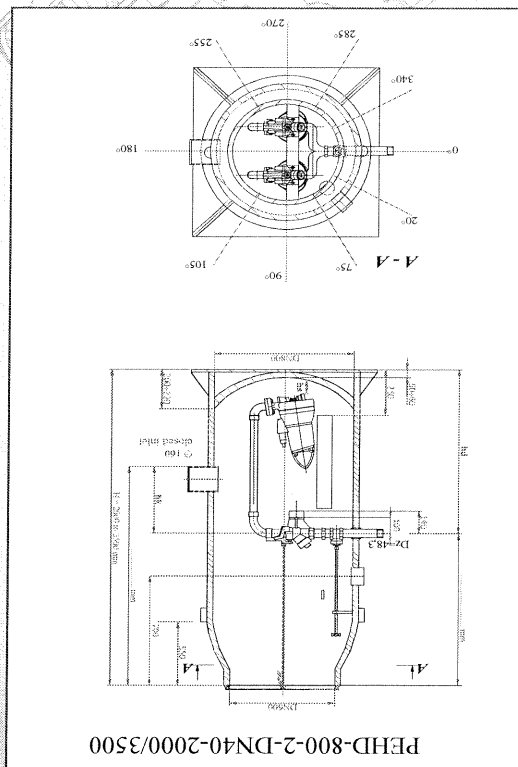
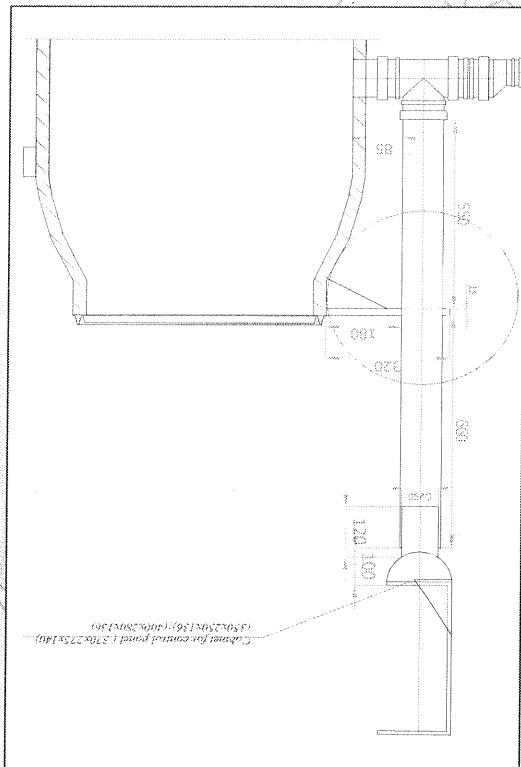
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Control panels should be placed in a smallest possible distance from the pit. 10m of cable length and pressure pipe length is a limit for LC/LCD 107 controller. In case of a longer distance all cable lengths (pumps and controls) must be carefully considered and ordered.
LC/LCD controllers may be placed on a cabinet support stand which may be delivered together with the PEHD pit.

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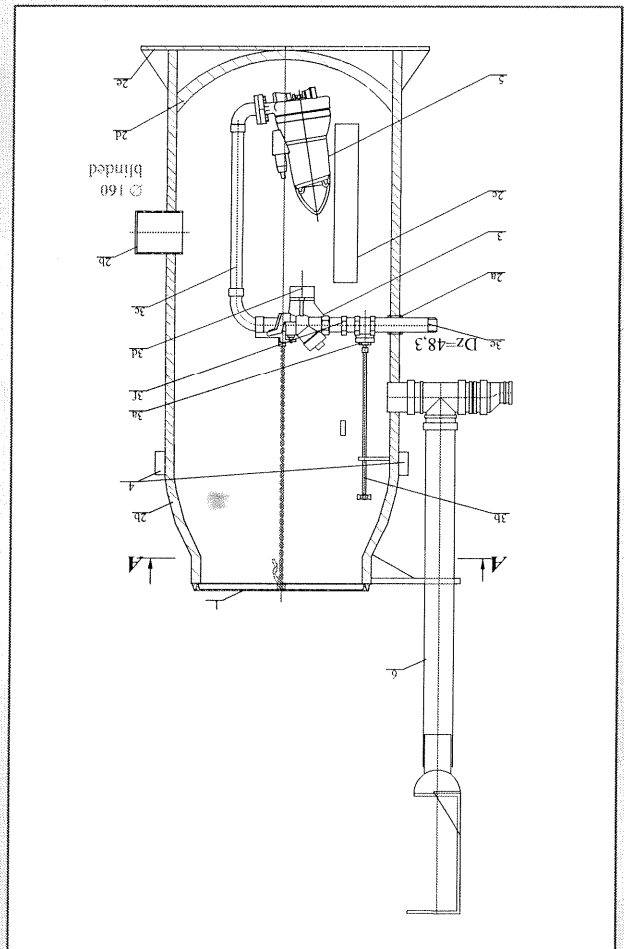
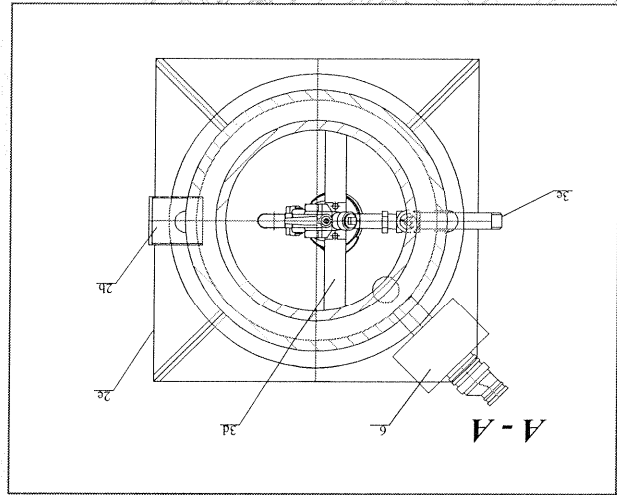
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Nr.	Description of PEHD DN800 pit	Material
1	Cast iron cover A15 DN600mm with lock	Cast iron
2	PEHD tank DN800 H=2,0 ÷ 3,50m	PEHD
2a	Tight passage with double seal	PEHD, EPDM
2b	Connector of gravity inlet \varnothing 160mm on 180° degree – plugged + PVC sleeve with IN-SITU seal	PEHD
2c	Casing of the hydrostatic level sensor	PEHD
2d	Spherical head	PEHD
2e	Counter-displacement flange, 15-mm-thick, 1000x1000mm	PEHD
3	Cast iron coupling detent DN40 with an integrated ball check valve and with a washout hole	Spheroid cast iron and EPDM
3a	Gate valve DN40	Brass
3b	Gate housing with a hand wheel available from ground level	Stainless steel 0H18N9
3c	Pumping riser DN40, screwed connection	Stainless steel 0H18N9
3d	Stiffening bar made of profiles 80x40	Stainless steel 0H18N9
3e	Pressure connector \varnothing 48,3mm with a 1/2" thread end	Stainless steel 0H18N9
3f	Screw-connector 48,3 mm	Stainless steel 0H18N9
4	Transportation handles	PEHD
5	SEG pump	Cast iron
6	Cabinet for control-panel + connection set (1-joint \varnothing 110, reduction \varnothing 110/75, stopper \varnothing 110 and sleeve \varnothing 110)	PEHD (Option)

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<input type="text"/>		Other important information
<input type="text"/>	Type of cabinet	Cabinet type if YES
<input type="checkbox"/> SAP code	<input type="checkbox"/> Yes	Cabinet stand for control panel
<input type="checkbox"/> No cabinet		
<input type="text"/>	Type	Level switches (if needed)
<input type="text"/>	Type	Control panel (only Grundfos type)
<input type="text"/>	Type	
<input type="text"/>	[l/s]	Duty point of the pump
<input type="text"/>	[m]	
<input type="text"/>	Type	Selected pump type
<input type="text"/>	SAP code	
<input type="checkbox"/> 400-415	<input type="checkbox"/> 220	Power supply
	<input type="checkbox"/> DN50	
<input type="checkbox"/> (standard for diameter 800mm)	<input type="checkbox"/> DN40	Internal piping diameter
	<input type="checkbox"/> (standard)	Required inlet connection if different than DN160
<input type="text"/>	DN160	Pumping station inlet connection
	<input type="checkbox"/> (standard)	Preferred tank height (in an available range)
<input type="text"/>	<input type="text"/>	
<input type="checkbox"/> 4,5	<input type="checkbox"/> 3,5	Tank height [m] - standard
<input type="checkbox"/> 4	<input type="checkbox"/> 3	
<input type="checkbox"/> 3,5	<input type="checkbox"/> 2,5	Tank diameter [m]
<input type="checkbox"/> 3	<input type="checkbox"/> 2	
<input type="checkbox"/> 2,5	<input type="checkbox"/> 800	Installation of pump
<input type="checkbox"/> 2	<input type="checkbox"/> hook	
<input type="checkbox"/> 1000	<input type="checkbox"/> autocoupling	Pumps in a tank and tank diameter and height
<input type="checkbox"/>	<input type="checkbox"/> 1	
<input type="checkbox"/>	<input type="checkbox"/> 2	

Here you can check if your pumping station selection is complete. Please fill in data:

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Select a GRUNDFOS PUMPING STATION PEHD

Grundfos pump	Pump article number	Decide how many pumps	Select your control box	Article number	Level switch	Article number	Select cabinet stand if needed (dimension)	Article number	Select your tanks	Article number
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Voltage 3 x 400-415 V

SEC 40.09.2.50B	96075897	4 pump	LCD 108.400.35	96434139	3 switches 62500014	62500014	400*350*136	96285287	PEHD-800-2-DN40...	take number from the product table
SEC 40.12.2.50B	96075905	2 pump	LCD 108.400.35	96434139	4 switches 62500015	62500015	250*350*136	96285287	PEHD-800-2-DN40...	take number from the product table
SEC 40.15.2.50B	96075909								PEHD-1000-2-DN40/DNS0...	
Unilift AP35B.50.06.3	96468193	2 pump	LCD 108.400.35	96434139	4 switches 62500015	62500015	250*350*136	96285287	PEHD-800-2-DN40...	take number from the product table
Unilift AP35B.50.08.3	96468193								PEHD-1000-2-DN40/DNS0...	
Unilift AP50B.50.08.3	96468194									
Unilift AP50B.50.11.3	96468195									
Unilift AP50B.50.15.3	96468196									

Voltage 3 x 400-415 V

SEC 40.26.2.50B	96075913	1 pump	LCD 108.400.312	96434143	2 switches 62500015	62500015	400*350*136	96285287	PEHD-800-2-DN40...	take number from the product table
SEC 40.31.2.50B	96075915	2 pump	LCD 108.400.312	96434143	4 switches 62500015	62500015	250*350*136	96285287	PEHD-800-2-DN40...	take number from the product table
SEC 40.40.2.50B	96075917								PEHD-1000-2-DN40/DNS0...	

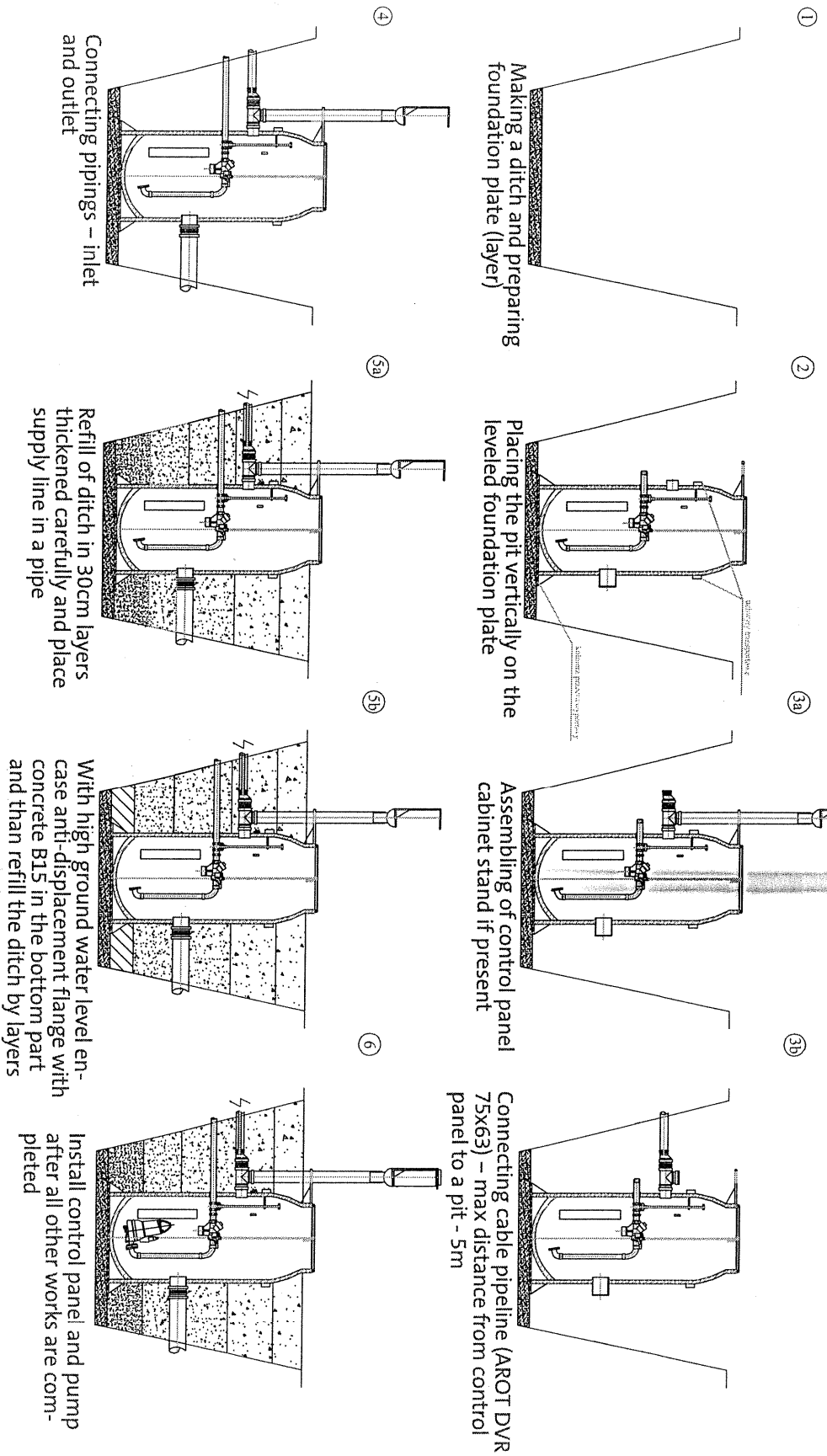
Voltage 1 x 230 V

SEC 40.09.2.502	96075893	1 pump	LCD 107.230	96002476	level control by air-bell included to a controller		400*280*136	96285289	PEHD-800-2-DN40...	take number from the product table
SEC 40.12.2.502	96075901	2 pump	LCD 107.230	96002476			400*280*136	96285289	PEHD-800-2-DN40...	take number from the product table
Unilift AP35B.50.06.1	96468193								PEHD-1000-2-DN40/DNS0...	
Unilift AP35B.50.08.1	96468193									
Unilift AP50B.50.08.1	96468193									
Unilift AP50B.50.11.1	96468193									

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Schema of mounting the PEHD pit in a ground



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Being responsible is our foundation
Thinking ahead makes it possible
Innovation is the essence

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Available PEHD pit configurations:

Product name	Height [m]	Product code (SAP)
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1 pump, diameter 800mm, hook installation

PEHD-800-1-DN40-2000/2150 hook	2	96285273
PEHD-800-1-DN40-2200/2500 hook	2,5	96285274
PEHD-800-1-DN40-2550/3000 hook	3	96285275
PEHD-800-1-DN40-3050/3500 hook	3,5	96285276

2 pumps, diameter 800mm, hook installation

PEHD-800-2-DN40-2000/2150 hook	2	96285277
PEHD-800-2-DN40-2200/2500 hook	2,5	96285278
PEHD-800-2-DN40-2550/3000 hook	3	96285279
PEHD-800-2-DN40-3050/3500 hook	3,5	96285280

2 pumps, diameter 1000mm, auto coupling installation

PEHD-1000-2-AUTO-DN40/DN50-2000/2150 autocoupling	2	96285281
PEHD-1000-2-AUTO-DN40/DN50-2200/2500 autocoupling	2,5	96285282
PEHD-1000-2-AUTO-DN40/DN50-2550/3000 autocoupling	3	96285283
PEHD-1000-2-AUTO-DN40/DN50-3050/3500 autocoupling	3,5	96285284
PEHD-1000-2-AUTO-DN40/DN50-4000 autocoupling	4	96285285
PEHD-1000-2-AUTO-DN40/DN50-4050/4500 autocoupling	4,5	96285286

Available Cabinet support for control panel:

Product name	Additional information	Product code (SAP)
Cabinet for control panel LC 107/108 400 (250x350x136)	LC108 400V	96285287
Cabinet for control panel LC 107/230 (400x280x136)	LC108 220V LC107 400V	96285288
Cabinet for control panel (370x275x140)	LC107 220V	96285289
Cabinet for control panel (530x430x200)		96285290

Material key	example: PEHD	Material	Diameter of	Pump inside	Diameter of	Available heights of tanks (range)
PEHD	PEHD	PEHD - polyethylene high density	800-800mm	1 or 2 on hook or 2 on autocoupling (2 AUTO)	DN40/DN50	2000/2150 - standard 2m 2200/2500 - standard 2,5m 2550/3000 - standard 3m 3050/3500 - standard 3,5m 3550/4000 - standard 4m 4050/4500 - standard 4,5m
800	800		1000-1000mm			
-2-	-2-					
DN40-	DN40-					
2000/2150	2000/2150					
hook	hook					

9002/PE CH/P

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