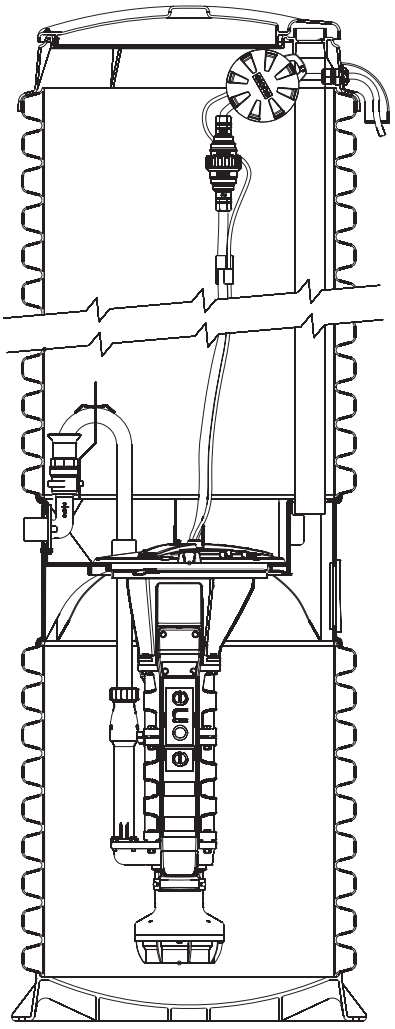
E/ONE EXTREME SERIES

DH071/DR071



Patent Numbers: 5,752,315
5,562,254 5,439,180

* Discharge data includes loss through check valve, which is minimal.

NA0050P01

General Features

The model DH071 or DR071 grinder pump station is a complete unit that includes: the grinder pump, check valve, HDPE (high density polyethylene) tank and controls. The DH071 or DR071 is packaged into a single complete unit, ready for installation.

The DH071 is the "hardwired," or "wired," model where a cable connects the motor controls to the level controls through watertight penetrations.

The DR071 is the "radio frequency identification" (RFID), or "wireless," model that uses wireless technology to communicate between the level controls and the motor controls.

All solids are ground into fine particles, allowing them to pass easily through the pump, check valve and small diameter pipelines. Even objects not normally found in sewage, such as plastic, rubber, fiber, wood, etc., are ground into fine particles.

The 1.25-inch discharge connection is adaptable to any piping materials, thereby allowing us to meet your local code requirements.

The tank is made of tough corrosion-resistant HDPE. The optimum tank capacity of 70 gallons is based on computer studies of water usage patterns. A single DH071 or DR071 is ideal for one, average single-family home and can also be used for up to two average single-family homes where codes allow and with consent of the factory. This model can accommodate flows of 700 GPD.

The internal check valve assembly, located in the grinder pump, is custom-designed for non-clog, trouble-free operation.

The grinder pump is automatically activated and runs infrequently for very short periods. The annual energy consumption is typically that of a 40-watt light bulb.

Units are available for indoor and outdoor installations. Outdoor units are designed to accommodate a wide range of burial depths.

Operational Information

Motor

1 hp, 1,725 rpm, high torque, capacitor start, thermally protected, 120/240V, 60 Hz, 1 phase

Inlet Connections

4-inch inlet grommet standard for DWV pipe. Other inlet configurations available from the factory.

Discharge Connections

Pump discharge terminates in 1.25-inch NPT female thread. Can easily be adapted to 1.25-inch PVC pipe or any other material required by local codes.

*Discharge**

15 gpm at 0 psig

11 gpm at 40 psig

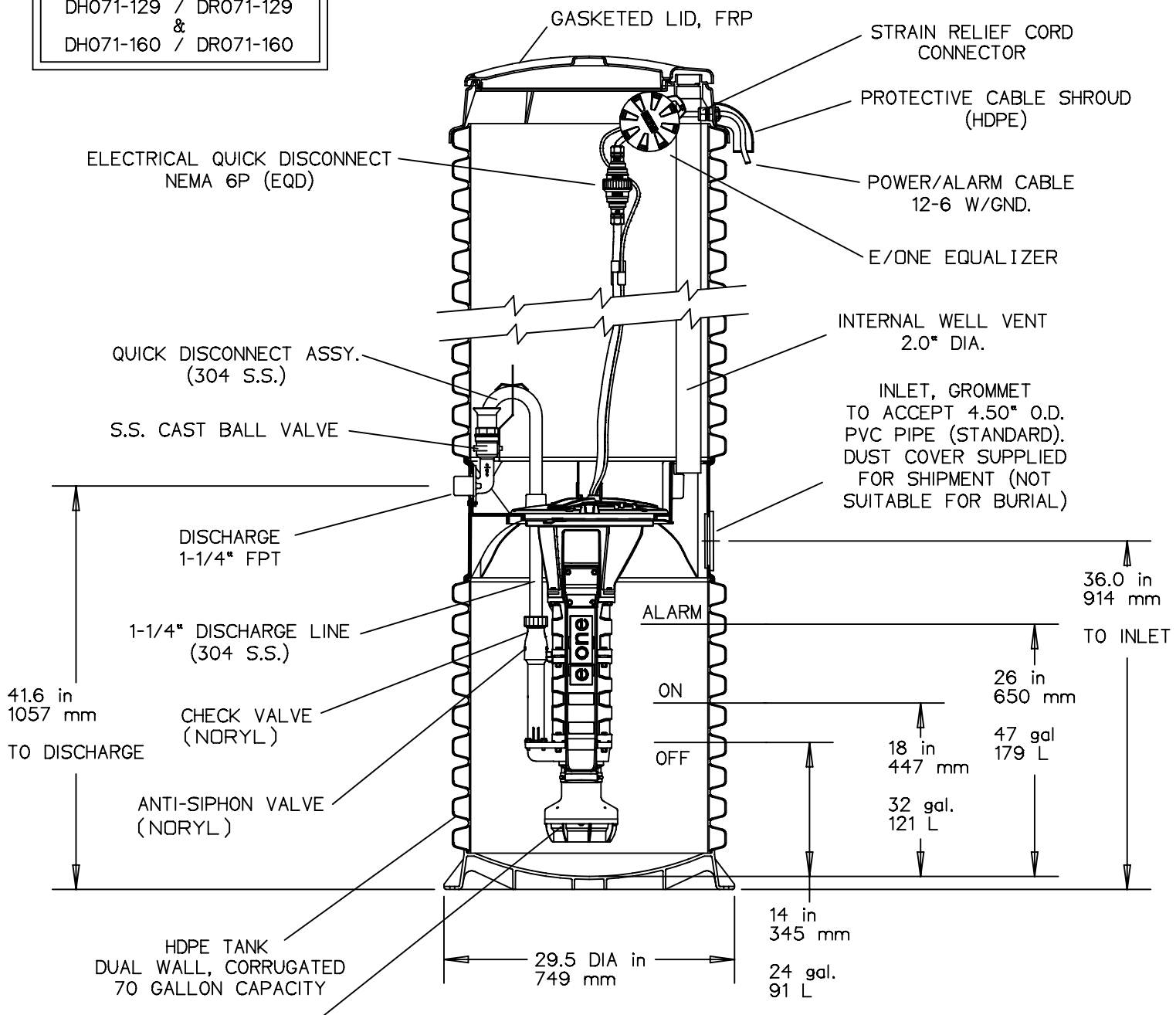
7.8 gpm at 80 psig

Overload Capacity

The maximum pressure that the pump can generate is limited by the motor characteristics. The motor generates a pressure well below the rating of the piping and appurtenances. The automatic reset feature does not require manual operation following overload.

OPTIONS : ☐ DH071 (HARD WIRED LEVEL CONTROLS)
☐ DR071 (WIRELESS LEVEL CONTROLS)

FIELD JOINT REQUIRED
FOR MODELS
DH071-129 / DR071-129
&
DH071-160 / DR071-160



CONCRETE BALLAST MAY BE REQUIRED
SEE INSTALLATION INSTRUCTIONS
FOR DETAILS

AD	CH	07/12/07	A	
DR BY	CHK'D	DATE	ISSUE	SCALE

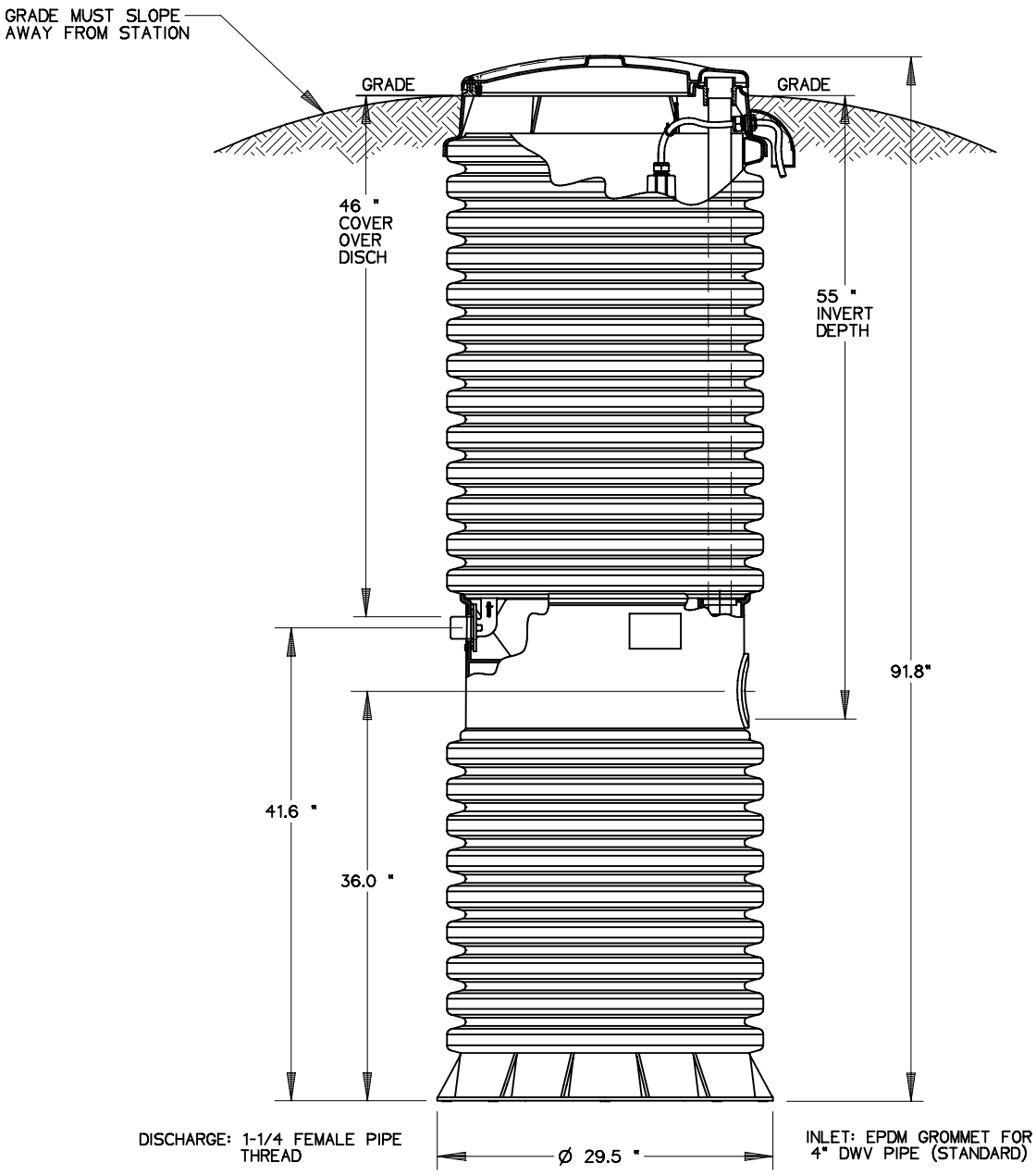
SEWER SYSTEMS

MODEL DH071 / DR071
DETAIL SHEET

NA0050P02

OPTIONS : ☐ DH071-93 (HARD WIRED LEVEL CONTROLS)

☐ DR071-93 (WIRELESS LEVEL CONTROLS)



CONCRETE BALLAST MAY BE REQUIRED
SEE INSTALLATION INSTRUCTIONS
FOR DETAILS

AD	CAH	07/12/07	A	1/16
DR BY	CHK'D	DATE	ISSUE	SCALE

SEWER SYSTEMS

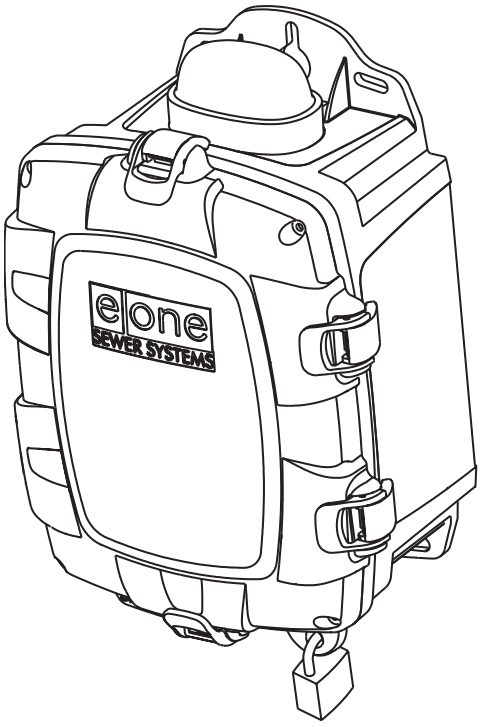
MODEL DH071-93 / DR071-93

NA0050P06

E/ONE EXTREME SERIES

E/One Sentry™

Alarm Panel — Protect Plus Package



Description

The E/One Sentry panels are custom designed for use with Environment One grinder pump stations. They can be configured to meet the needs of your application, from basic alarm indication to advanced warning of pending service requirements.

E/One Sentry panels are supplied with audible and visual high level alarms. They are easily installed in accordance with relevant national and local codes. Standard panels are approved by UL, CSA, CE and NSF to ensure high quality and safety.

The panel features a corrosion-proof, NEMA 4X-rated, thermoplastic enclosure. A padlock is provided to prevent unauthorized entry (safety front).

Standard Features

Includes all features of the basic configuration of the E/One Sentry panel, including circuit breakers, 240 or 120 VAC service, terminal blocks and ground lugs, audible alarm with manual silence, manual run feature and run indicator, redundant “Start” function with high level alarm, safety front, conformal-coated board and overload protection.

Includes all of the features of the E/One Sentry Protect package, including a Trouble indication that shuts down the pump temporarily in the event of an unacceptable operating condition (brownout, system overpressure, run dry), as well as:

Predictive status display module

Pre-alarm indication for major operating parameters

Alarm indications for major operating parameters

Hour meter, cycle counter and alarm delay

LCD display and user-friendly interface

Inner cover (dead front)

Contact group — dry and Remote Sentry

Optional Features

Generator receptacle with auto transfer

GFCI

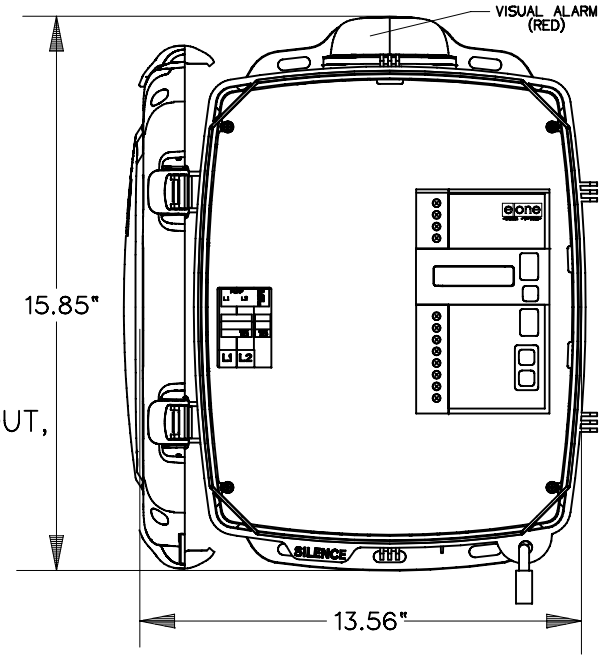
Main service disconnect

Please consult factory for special applications.

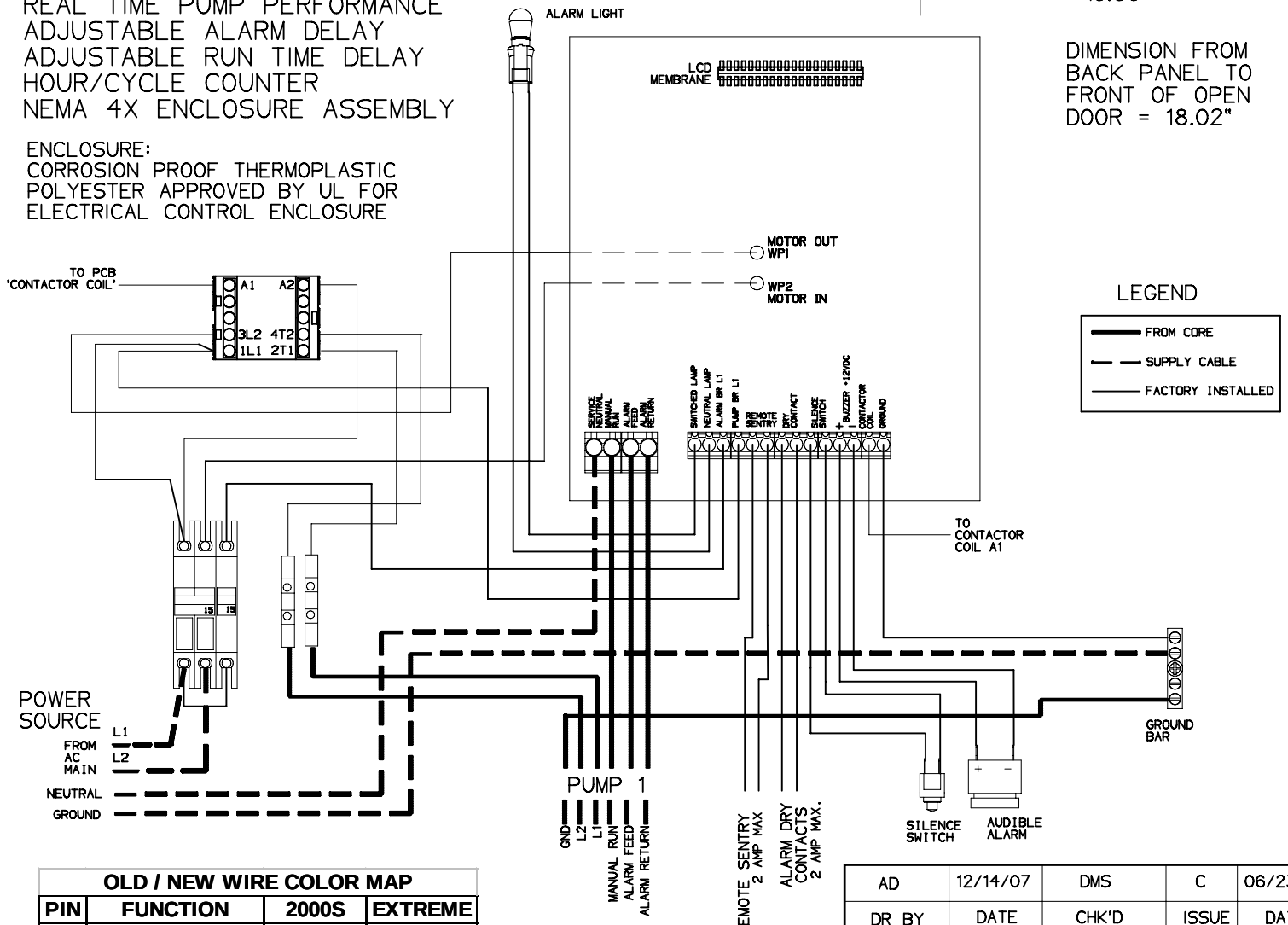
SENTRY PROTECT PLUS
SIMPLEX

REDUNDANT RUN (HIGH LEVEL)
EXTERNAL VISUAL & AUDIBLE ALARM
REMOTE SENTRY DRY CONTACTS FOR
OPTIONAL POWER LOSS HIGH LEVEL
ALARM (POWER LOSS ALARM FOR WIRELESS)
MANUAL ALARM SILENCE
MANUAL RUN
STATUS LED'S: NORMAL, PUMP RUNNING, HIGH LEVEL
TROUBLE INDICATIONS: RUN DRY, OVERPRESSURE, BROWNOUT,
VOLTAGE, EXTENDED RUN TIME
DRY CONTACTS
CONFORMAL COATED CIRCUIT BOARD (BOTH SIDES)
PADLOCK
DEAD FRONT
PREDICTIVE ALARMS
REAL TIME PUMP PERFORMANCE
ADJUSTABLE ALARM DELAY
ADJUSTABLE RUN TIME DELAY
HOUR/CYCLE COUNTER
NEMA 4X ENCLOSURE ASSEMBLY

ENCLOSURE:
CORROSION PROOF THERMOPLASTIC
POLYESTER APPROVED BY UL FOR
ELECTRICAL CONTROL ENCLOSURE



DIMENSION FROM
BACK PANEL TO
FRONT OF OPEN
DOOR = 18.02"



OLD / NEW WIRE COLOR MAP			
PIN	FUNCTION	2000S	EXTREME
1	MANUAL RUN	RED	BROWN
2	L1	BLACK	RED
3	L2	WHITE	BLACK
4	GND	GREEN	GRN/YEL
5	ALARM FEED	ORANGE	YELLOW
6	ALARM RETURN	BLUE	BLUE

CONTROL CABLE:
TYPE TC: DIRECT BURIAL,
SIX CONDUCTOR

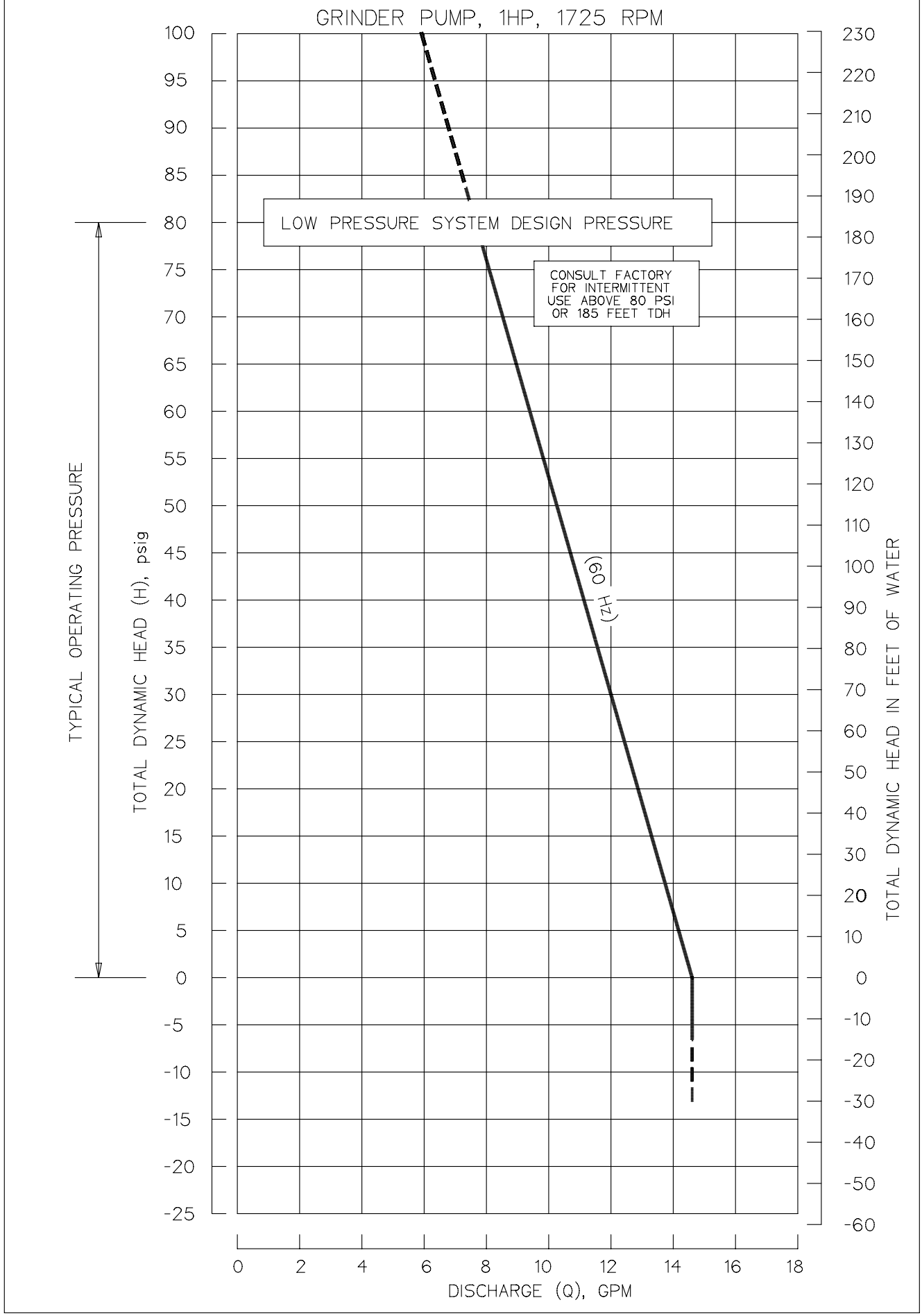
AD	12/14/07	DMS	C	06/23/11
DR BY	DATE	CHK'D	ISSUE	DATE

SEWER SYSTEMS

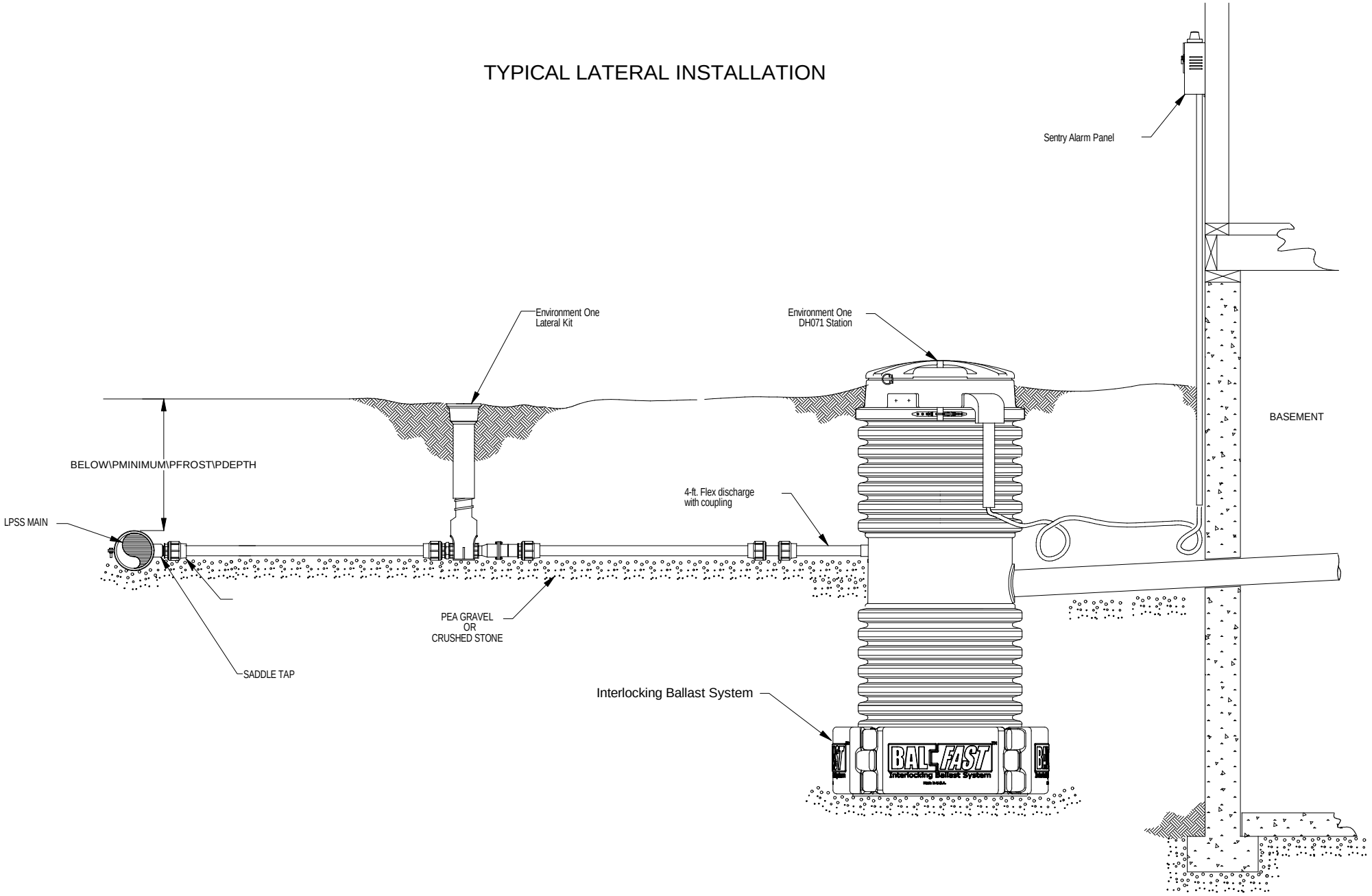
SENTRY PROTECT PLUS PANEL, SIMPLEX
240V 60Hz DOUBLE POLE POWER

NA0079P03

E|ONE SPD PUMP PERFORMANCE CURVE



TYPICAL LATERAL INSTALLATION



frma L114C

BAL-FAST™

Interlocking Ballast System

www.bal-fastsystems.com

Patent Pending

INTRODUCING

We are very pleased to introduce the original **Bal-Fast™** interlocking ballast block system. **Bal-Fast™** provides the manufacturer's required ballast without all of the time, effort and expense of field constructed forms. With **Bal-Fast™** systems your clients can install your grinder pump product much more quickly and easily, usually in less than one day.

Bal-Fast™ interlocking blocks may be installed:

- At the factory or warehouse prior to shipment
- At the job site staging area
- At the job site prior to placement
- At the job site in the excavated trench
- Blocks are maneuverable as separate pieces weighing 96# +/-
- Blocks can be set and moved if the location changes
- Work can be done on top of the trench to set and remove blocks

The Interlocking Bal-Fast™ block system comes with locking pins and removable lifting rings. Four point lifting harness (optional) makes setting complete station and ballast simple and *Fast.*

The Bal-Fast™ Interlocking Ballast System is the result of extensive research and experience working with installers who handle Environment One® pump installations daily. Installers and their Environment One® Dealers have long sought a convenient and affordable solution to the time consuming and wasteful methods used in the past.

The **Bal-Fast™** system eliminates the forming and pouring or pre-casting of concrete. Let's face it the concrete truck rarely comes on time. Why waste billable time waiting for the concrete to arrive? Further more, why waste valuable time waiting for concrete to cure before you backfill?

Bal-Fast™ systems vastly improve the maneuverability of the pump and ballast greatly reducing the potential for damage. Tough locations are not a problem with **Bal-Fast™.**

Dealers can now offer complete solutions to their customers to include everything they need to successfully complete an Environment One ® pump installation. Take your pump and **Bal-Fast™** system delivery the same day.

The Bal-Fast™ Interlocking Ballast System is highly specifiable and is manufactured to provide the required ballast needs with a smooth, uniform contoured block designed specifically to work with the Environment One® tanks. The custom designed block securely engages the outer pipe ribs to provide uniform support with no sharp points of contact. The smooth outer shell makes backfilling easier and more uniform. The high strength HDPE form provides the installer with the same size block to work with every time. Blocks simply interlock together and are secured with a galvanized locking pin. The high strength concrete material provides for a durable product made for rough handling.

The top surface provides the required surface area to capture compacted backfill material to provide the additional ballast needs. **Bal-Fast™** is designed to provide the full ballast needs with proper backfill in fully saturated soil conditions.

Bal-Fast™ provides (4) four point lifting hardware to allow for even lifting support for installers to maneuver and install their grinder pump.

Use Bal-Fast™ Ballast Solutions for your next grinder pump project and you will see the added value and savings.

The **Bal-Fast™** interlocking ballast block system is specially designed with the installer in mind. The blocks are made to be easy to maneuver and to install. The special interlocking design makes for a continuous ballast ring to secure your pump station.
Safety and efficiency will be greatly improved with the **Bal-Fast™** ballast block system.

You no longer need to spend time forming and preparing a ballast ring or mixing and pouring concrete. No more waiting for concrete set time to backfill.

With **Bal-Fast™** there is no more handling of bulky pre-cast rings. Schedule delivery of your pump and ballast block at the same time and there is no need for advanced preparation.
This makes scheduling easier and greatly improves cash flow!
Block weight 96# for Net ballast of 384# in air.

For a better installation in half the time - There is no better answer than **Bal-Fast™**.

Need additional ballast or structural support in difficult soils?
Add an additional course of **Bal-Fast™** interlocking riser blocks. Made of the same rugged mold and concrete ballast material, the **Bal-Fast** riser block adds 220 # of ballast per ring. Additional courses may be added up to a total of 3 rows.

Bal-Fast™ ***even has a solution for cold climate installations!***
With the **Bal-Fast™** interlocking insulation block system, you can install courses of insulator blocks to protect your pump from frost damage. The insulator block is to be used with other internal frost protection from the OEM.

The Full HDPE shell completely encases the pump and provides a fully enclosed foam filled ring around the entire pump. Insulator blocks are stackable and may be installed along the entire ribbed surface from the top transition all the way to the pipe inlet.

The **Bal-Fast™ Interlocking Ballast System** was invented to solve common ballast issues of grinder pump installations. Based on over 25 years of experience installing and servicing Environment One® pump systems we have heard the customer's comments. The marketplace has long awaited such a product to make these installations easier, more cost effective and ***Bal-Fast™***. We are ready to provide full support with product specifications and demonstrations. **The Bal-Fast™** system was designed for convenience. A well stocked distributor, ready to supply installers with the **Bal-Fast™** solution is your best answer.

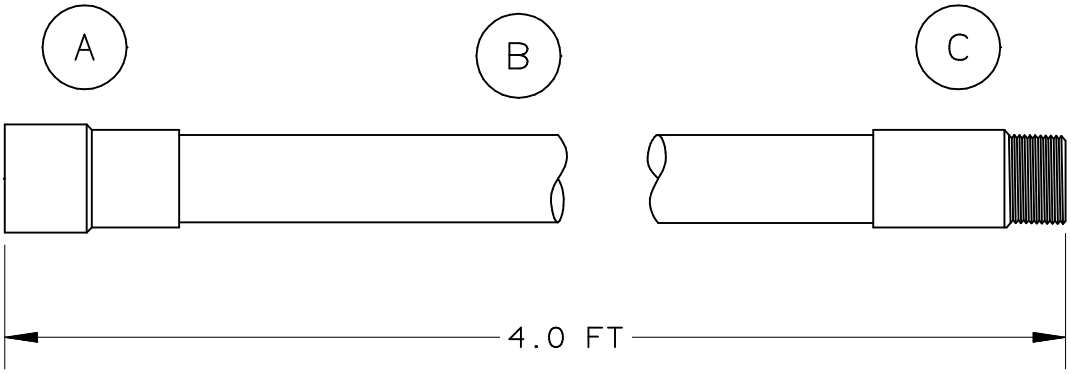
Please feel free to contact us with questions or needs. We look forward to working with you to help increase your business offering and to provide tools to help you sell more Environment One® products as well.

Best regards,

Gail M. Albro,
President /CFO
Gail M. Albro
978-808-4981

Henry S. Albro,
North American Sales Manager- Inventor
Henry S. Albro.
978-808-4986

REV SYM	REVISION DESCRIPTION	DATE	APPD
-	INITIAL RELEASE PER ECN 03-0335	3-14-03	SGS

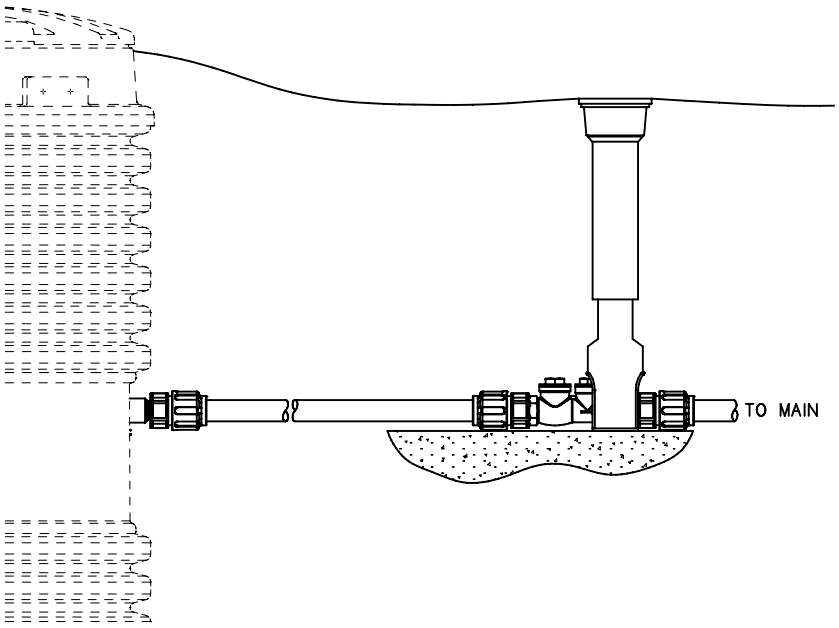


	FITTING "A"	PIPE "B"	FITTING "C"
P01	1-1/4 FEMALE NPT 304 SS	HDPE PEP SDR11	1-1/4 MALE NPT 304 SS
P02	1-1/4 MALE NPT 304 SS	HDPE PEP SDR11	1-1/4 MALE NPT 304 SS
P03	1-1/2 FEMALE NPT 304 SS	HDPE PEP SDR11	1-1/4 MALE NPT 304 SS
P04	1-1/2 MALE NPT 304 SS	HDPE PEP SDR11	1-1/4 MALE NPT 304 SS
P05	1-1/4 WELD TRANSITION (PUP)	HDPE SDR9	1-1/4 MALE NPT 304 SS

MANUFACTURER: POLY-CAM, INC.

UNLESS OTHERWISE SPECIFIED THE FOLLOWING APPLIES	DR BY: S.SALVI	environment one CORPORATION
SHOP PRACTICE PER E-5000-01	CHK'D	
GEOMETRIC TOLERANCES PER ASA STD Y14.5	ENG	
√ MACHINE FINISH	PROJ ENG	
TOLERANCE ON DIMENSIONS	SCALE	DISCHARGE FITTING, SS X HDPE
2 PLACES: ± 0.02 / 3 PLACES: ± 0.005 / ANGLES: ± 30'	WT	FIRST MADE FOR -
	APPD	PA1836PXX -
	ISSUED	DRAWING NUMBER SH 1 OF 1 REV
	CODE IDENT	

Forced Sewer Main Service Lateral Kits
SDR 11 HDPE Pipe featuring
SS Valves and Engineered Thermoplastic Fittings



Description

These kits feature all components commonly needed to connect an Environment One grinder pump station to the corporation stop/saddle tap on a sewer main. The kit is designed to be used with SDR 11 HDPE pipe, high density polyethylene pipe (provided by others) and includes compression fittings for fast, easy field installation. The curb stop assembly integrates a robust stainless steel ball valve curb stop and a stainless steel flapper type check valve. Adjustable height, curb boxes are supplied in Arch pattern.

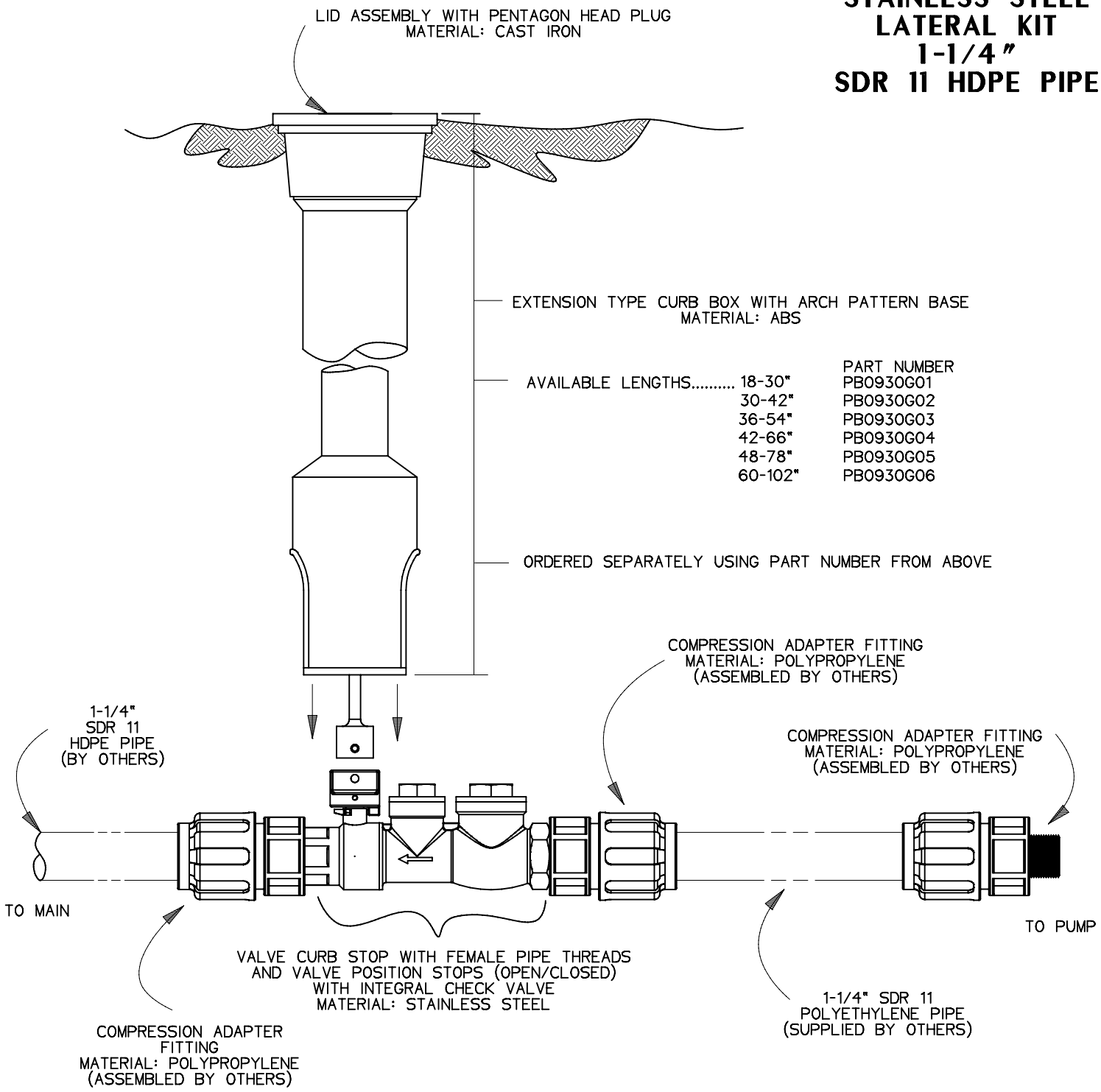
Standard Features

- Compression couplings for 1-1/4” SDR 11 HDPE pipe
- All fittings rated for 150 psi service pressure, minimum
- Provided unassembled, for field assembly
- Integrated stainless steel ball valve curb stop and stainless steel check valve assembly
- Arch pattern curb boxes in heights from 1-1/2 feet to 8-1/2 feet
- Curb boxes are ABS with a cast iron cover
- Curb Stop/Check Valve component rated for 235 psi

Optional Features

- Compression couplings for 1-1/2” SDR 11 HDPE pipe
- PVC solvent weld fittings for 1-1/4” Schedule 40 pipe
- Curb boxes available in several sizes

STAINLESS STEEL LATERAL KIT 1-1/4" SDR 11 HDPE PIPE



KIT PARTS ARE NOT ASSEMBLED

NOTES:

1. SS CURB STOP/CHECK VALVE AND FITTINGS ARE PROVIDED SEPARATELY, TO BE ASSEMBLED BY OTHERS
2. TO ASSEMBLE, APPLY A DOUBLE LAYER OF TEFLON TAPE, AND A LAYER OF PIPE DOPE (SUPPLIED BY OTHERS) TO THE THREADS ON THE PLASTIC FITTINGS AND INSTALL PER THE MANUFACTURER'S INSTRUCTIONS
3. ASSEMBLY IS TO BE PRESSURE TESTED (BY OTHERS)
4. ASSEMBLY IS TO BE USED WITH SDR11 HDPE PIPE
5. TO ORDER SS LATERAL KIT, USE PART NUMBER NC0193G01
6. CURB BOX IS TO BE ORDERED SEPARATELY, SEE ABOVE

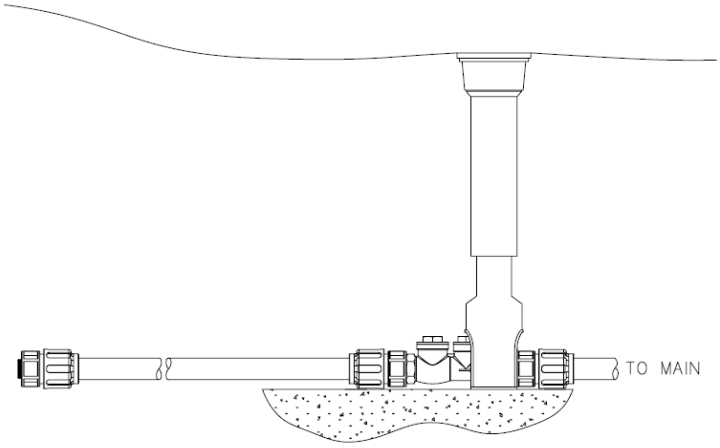
SGS	DN	11/02/11	A	3/16
DR BY	CHK'D	DATE	ISSUE	SCALE

SEWER SYSTEMS

STAINLESS STEEL LATERAL KIT
1-1/4" SDR 11 HDPE PIPE

NA0330P02

E/ONE EXTREME SERIES



Stainless Steel & Engineered Thermoplastics

Typical Specifications

Stainless Steel Forced Sewer Main Service Lateral Kits SDR HDPE Pipe

(Compression Fitting)

SPECIFICATION:
SERVICE LATERAL KIT WITH STAINLESS STEEL VALVES AND ENGINEERED THERMOPLASTIC COMPRESSION FITTINGS

General

Description: The **MANUFACTURER** shall furnish service lateral kits (exclusive of piping); each consisting of three (3) compression fittings, one (1) combination curb stop/check valve assembly and one (1) curb box. The curb stop/check valve assembly shall be 304 stainless steel and have a two-piece cast 304 stainless steel housing. All plastic compression fittings are to be molded from polypropylene and shall be tested for resistance to aging, pressure rating, tensile strength, and flexural strength. All components shall incorporate compression fitting connections for easy, reliable installation of piping. The lateral kit shall be rated for 150 psi service. Lateral kits with pressure-tested combination curb stop/ check valve assembly shall be provided by Environment One Corporation, Niskayuna, New York, or approved equal.

Shop Drawings: After receipt of notice to proceed, the **MANUFACTURER** shall furnish a minimum of six (6) sets of shop drawings detailing the equipment to be furnished, including dimensional data and materials of construction. The **SPECIFYING ENGINEER** shall promptly review this data and return two (2) copies as accepted, or with requested modifications. Upon receipt of accepted shop drawings, the **MANUFACTURER** shall proceed immediately with fabrication of the equipment.

Warranty: All merchandise is warranted to be free from defects in materials and factory workmanship. Environment One shall provide, free of charge, new products in equal quantities for any that prove defective within two (2) years from date of shipment from our factory. **MANUFACTURER** shall not be liable for any loss, damage, or injury, direct or consequential, arising out of the use of or the inability to use the product. Before using, the user shall determine the suitability of the product for his intended use and user assumes all risk and liability whatever in connection therewith. No claims for labor or consequential damage will be allowed. The foregoing may not be changed except by agreement signed by an officer of the **MANUFACTURER**.

Product

Engineered Thermoplastic Fittings: All plastic fitting components are to be in compliance with applicable ASTM standards.

All pipe connections shall be made using compression fitting connections including a Buna-N o-ring for sealing to the outside diameter of the pipe. A split-collet locking device shall be integrated into all pipe connection fittings to securely restrain the pipe from hydraulic pressure and external loading caused by shifting and settling.

Stainless Steel Curb Stop/Check Valve Assembly: The curb stop shall be pressure-tight in both directions. The ball valve actuator shall include position stop features at the fully opened and closed positions. The curb stop/check valve assembly shall be designed to withstand a working pressure of 235 psi.

The stainless steel check valve shall be integral with the curb stop valve. The check valve will provide a full-ported 1-1/4” passageway and shall introduce minimal friction loss at maximum rated flow. The flapper hinge design shall provide a maximum degree of freedom and ensure seating at low back pressure.

Curb Boxes: Curb boxes shall be constructed of ABS, conforming to ASTM-D 1788. Lid top casting shall be cast iron, conforming to ASTM A-48 Class 25, providing magnetic detectability, and be painted black. All components shall be inherently corrosion-resistant to ensure durability in the ground. Curb boxes shall provide height adjustment downward (shorter) from their nominal height.

High Density Polyethylene Pipe (Supplied by others)

Pipe shall be have a working pressure of 160 psi minimum and shall be classified SDR per ASTM D 3035.

Deviations: If a supplier chooses to submit a bid that does not meet all the requirements of this specification, the bid shall include a written description of the deviation with data that shows the magnitude of the deviation and the justification for the deviation from this specification. The decision to accept material deviating from this specification shall be the responsibility of the **SPECIFYING ENGINEER**.

Certification: The owner or the **SPECIFYING ENGINEER** may request certified lab data to verify the physical properties of the pipe materials supplied under this specification or may take random samples and have them tested by an independent laboratory.

Rejection: Polyethylene pipe may be rejected for failure to meet any of the requirements of this specification.

Pipe Dimensions: The SDR (Standard Dimension Ratio) of the pipe supplied shall be as specified by the **SPECIFYING ENGINEER**. SDR 7, 9 and 11 fittings are available from the **MANUFACTURER**. SIDR 7 fittings will not work with SDR pipe.

Execution

Factory Test: The stainless steel, combination curb stop/check valve component shall be 100 percent hydrostatically tested to 150 psi in the factory.

Construction Practices

Pipe shall be stored on clean, level ground to prevent undue scratching or gouging of the pipe. If the pipe must be stacked for storage, such stacking should be in accordance with the pipe manufacturer's recommendations. The pipe should be handled in such a manner that it is not damaged by being dragged over sharp objects or cut by chokers or lifting equipment.

Segments of pipe having cuts or gouges in excess of 10 percent of the wall thickness of the pipe shall be cut out and removed. The undamaged portions of the pipe shall be rejoined using the butt fusion joining method. Sections of polyethylene pipe should be joined into continuous lengths on the job site above ground. The joining method shall be the butt-fusion method and shall be performed in strict accordance with the pipe manufacturer's recommendations. The butt-fusion equipment used in the joining procedure shall be capable of meeting all conditions recommended by the pipe manufacturer, including, but not limited to, fusion temperature, alignment, and fusion pressure.

Fused segments of pipe shall be handled so as to avoid damage to the pipe. When lifting fused sections of pipe, chains or cable-type chokers should be avoided. Nylon slings are preferred. Spreader bars should be used when lifting long, fused sections. Care should be exercised to avoid cutting or gouging the pipe.

Installation

Assemble the compression fittings according to the fitting manufacturer's recommendations.

The trench and trench bottom should be constructed in accordance with ASTM D 2321. Embedment materials should be Class I, Class II or Class III materials as defined in ASTM D 2321. The use of Class IV and/or Class V materials for embedment is not recommended and should be allowed only with the approval of the **SPECIFYING ENGINEER**. Bedding of the pipe should be performed in accordance with ASTM D

2321. Compaction should be as specified in ASTM D 2321. Deviations from the specified compaction shall be approved by the **SPECIFYING ENGINEER**.

Haunching and initial backfill should be as specified in ASTM D 2321 using Class I, Class II or Class III materials. Materials used and compaction shall be as specified by the **SPECIFYING ENGINEER**. In cases where a compaction of 85 percent Standard Proctor Density is not attainable, the **SPECIFYING ENGINEER** may wish to increase the SDR of the pipe to provide adequate stiffness. ASTM D 2321 sections titled "Minimum Cover for Load Application," "Use of Compaction Equipment" and "Removal of Trench Protection" should apply unless directed otherwise by the **SPECIFYING ENGINEER**.

END OF SECTION

Environment One
2773 Balltown Road
Niskayuna, New York 12309

FLYING "W" PLASTICS, Inc.

P.O. BOX 759
GLENVILLE, WV 26351
304-462-5779

PRODUCT SPECIFICATION

Description: 1 1/4" IPS SDR 11 PE3608 (PE3408), AWWA /NSF

O.D. 1660" Average I.D 1.340" Minimum Wall .151" lbs./ft : 0.31

Flying "W" Plastics certifies the above product of be manufactured from select PE3608 (PE3408) high density polyethylene copolymers (see typical properties below) and meet specifications set forth in ASTM F-714. This material meets all of the requirements of ASTM 1248-81A for type PE34 Class C Product. It has outstanding properties of a high hoop stress and a high level of environmental stress crack resistance. These copolymers have NSF 14 and AWWA C901/C906 certification for potable water applications, comply with ANSI/NSF Standard 61 health effects requirement, and are recognized by the Plastics Pipe Institute as having a pipe material designation code of PE3608, PE3408 and PE80.

Property	ASTM Test Method	Typical Values English	Typical Values SI Units
Density (Black)	D 792	___	0.945 g/cm
Melt Index (1)	D 1238	___	8.5g/10min
Tensile Strength @ Yield (2 in/min)	D 638	3250 psi	22.5 MPa
Elongation @ Break (2 in/min)	D 638	>850%	>850%
Flexural Modulus (2)	D 790	125000psi	850 Mpa
Hardness (Shore D)	D 2240	60	60
Vicat Softening Point	D1525	255*F	124*C
Notched Izod Impact Strength	D 256	7 ft-lfb/in	3.7 j/m
Brittleness Temperature	D 746	<-150*F	<-100*C
Hydrostatic Design Basis @ 23*C	D2837	1600 psi	11.0 Mpa
@ 60*C	D2837	800 psi	5.5 MPa
Environmental Stress Crack Resistance (3)	D1693	>5000 hrs	>5000 hrs
Notch Tensile (PENT)	F1473	>100 hrs	>100 hrs
Carbon Black Concentration	D1603	2.5% +-5	2.5%+-5steve
Cell Classification	D3350	345464C	345464C

(1) 190* c/21600 g
(2) Tangent Method 1
(3) Condition C
(4) Two inch, SIDR 19

FLYING "W" PLASTICS, Inc.

P.O. BOX 759
GLENVILLE, WV 26351
304-462-5779

PRODUCT SPECIFICATION

Description: 1 1/2" IPS SDR 11 PE3608 (PE3408), AWWA /NSF

O.D. 1.900" Average I.D 1.53" Minimum Wall .173" lbs./ft : 0.41

Flying "W" Plastics certifies the above product of be manufactured from select PE3608 (PE3408) high density polyethylene copolymers (see typical properties below) and meet specifications set forth in ASTM F-714. This material meets all of the requirements of ASTM 1248-81A for type PE34 Class C Product. It has outstanding properties of a high hoop stress and a high level of environmental stress crack resistance. These copolymers have NSF 14 and AWWA C901/C906 certification for potable water applications, comply with ANSI/NSF Standard 61 health effects requirement, and are recognized by the Plastics Pipe Institute as having a pipe material designation code of PE3608, PE3408 and PE80.

Property	ASTM Test Method	Typical Values English	Typical Values SI Units
Density (Black)	D 792	___	0.945 g/cm
Melt Index (1)	D 1238	___	8.5g/10min
Tensile Strength @ Yield (2 in/min)	D 638	3250 psi	22.5 MPa
Elongation @ Break (2 in/min)	D 638	>850%	>850%
Flexural Modulus (2)	D 790	125000psi	850 Mpa
Hardness (Shore D)	D 2240	60	60
Vicat Softening Point	D1525	255*F	124*C
Notched Izod Impact Strength	D 256	7 ft-lfb/in	3.7 j/m
Brittleness Temperature	D 746	<-150*F	<-100*C
Hydrostatic Design Basis @ 23*C	D2837	1600 psi	11.0 Mpa
@ 60*C	D2837	800 psi	5.5 MPa
Environmental Stress Crack Resistance (3)	D1693	>5000 hrs	>5000 hrs
Notch Tensile (PENT)	F1473	>100 hrs	>100 hrs
Carbon Black Concentration	D1603	2.5% +-5	2.5%+-5steve
Cell Classification	D3350	345464C	345464C

(1) 190* c/21600 g
(2) Tangent Method 1
(3) Condition C
(4) Two inch, SIDR 19

Compression Fittings

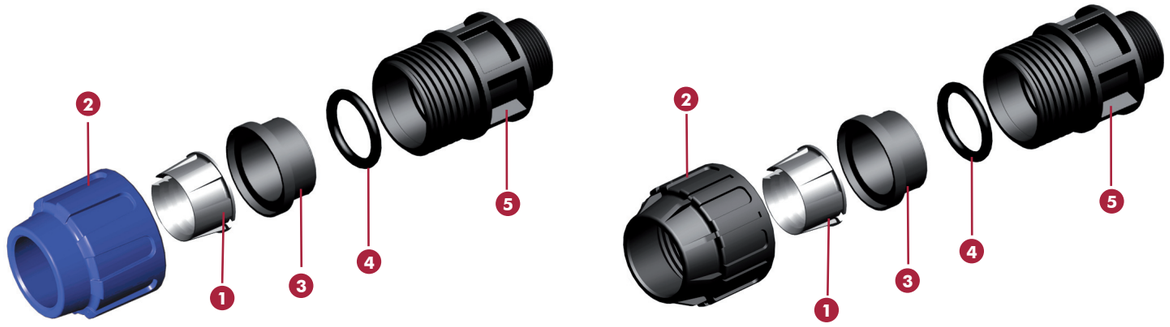
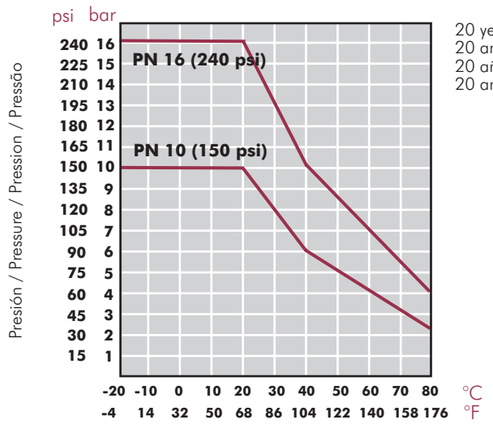


FIG.	Parts	Pièces	Despiece	Peças	Material
1	Split ring	Bague de serrage	Cono de fijación	Cone de fixação	POM
2	Nut	Ecrou	Tuerca	Porca	PP
3	Insert	Bague de compression	Casquillo prensa	Casquilho de pressão	PP
4	O-ring	Joint torique	Junta tórica	Junta torica	NBR 70 (*)
5	Body	Corps	Cuerpo	Corpo	PP

(*) Performance Series NBR: potable water rubber
NBR: joint eau potable
NBR: junta agua potable
NBR: junta água potável

Pressure/temperature graph
Diagramme pression/température
Diagrama presión/temperatura
Diagrama de pressão/temperatura



20 years / water flow
20 années / fluide de l'eau
20 años / fluido de agua
20 anos / caudal de água

Performance of plastic materials in contact with non-dangerous fluids.
The durability of those parts exposed to fluids will depend on the working conditions

Valeurs indicatives pour matières plastiques en contact avec des fluides non dangereux.
La longévité des pièces exposées aux fluides dépendra des conditions de travail.

Valores indicativos para materiales en contacto con fluidos no peligrosos.
La vida en las partes expuestas a los fluidos dependerá de las condiciones de trabajo.

Valores indicativos para materiais em contacto com fluídos não agressivos.
A durabilidade das partes expostas aos fluidos depende das condições de trabalho.

Nº 02 LATIN - EDITION: 08/2010 - xxxxxxxxxxxxxxxxxxxxxxxxxxxx

CEPEX®
Av. Ramon Ciurans, 40 - Pol. Ind. Congost - Parcel·la 6
E-08530 La Garriga (Barcelona) Spain
Tel. +34 93 861 27 43 - Fax +34 93 870 98 11
E-mail: cepex@cepex.com
Website: www.cepex.com

FOR MORE INFORMATION VISIT
www.cepex.com

PP Compression Fittings
Raccords à compression en PP
Accesorios de compresión en PP
Acessórios de junta rápida em PP

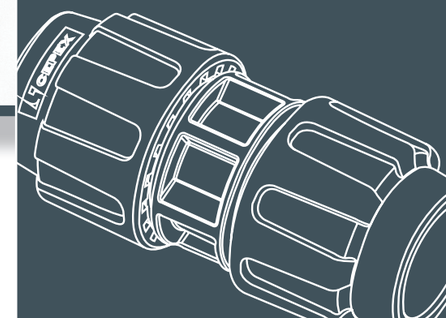
Performance & Standard Series
02

- Quality and reliability
- Peformance & Standard Series
- Size range from D16 up to D110
- Tested & approved by the main testing institutes worldwide

- Qualité et fiabilité
- Séries Peformance et Standard
- Dimensions du D16 au D110
- Testés et analysés par les organismes les plus importants dans le monde

- Calidad y fiabilidad
- Series Peformance y Standard
- Rango de medidas desde D16 hasta D110
- Analizados y aprovados por los más importantes institutos a nivel mundial

- Qualidade e fiabilidade
- Séries Peformance e Standard
- Medidas desde D16 até D110
- Testado e analizado pelos mais importantes institutos a nível mundial.



Compression Fittings

Performance Series

Elbows
Coudes
Codos
Joelhos

Tees
Tés
Tés
Tes

Couplings
Manchons
Manguitos
União

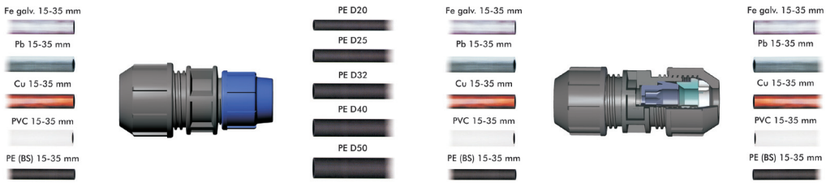
Standard Series

Elbows
Coudes
Codos
Joelhos

Tees
Tés
Tés
Tes

Couplings
Manchons
Manguitos
União

Universal fitting
Accessoire universel
Accesorio universal
Acessório universal



Accesorios con **fácil inserción** de tubo y **perfecta sujeción** del mismo
Accesorios con **fácil inserción** de tubo y **perfecta sujeción** del mismo
Accesorios con **fácil inserción** de tubo y **perfecta sujeción** del mismo
Accesorios con **fácil inserción** de tubo y **perfecta sujeción** del mismo

Tuercas con **nervios más gruesos** para mayor resistencia y facilidad de apriete
Tuercas con **nervios más gruesos** para mayor resistencia y facilidad de apriete
Tuercas con **nervios más gruesos** para mayor resistencia y facilidad de apriete
Tuercas con **nervios más gruesos** para mayor resistencia y facilidad de apriete

Tested and approved by the main testing institutes worldwide
Approuvés par les principaux organismes de certification internationnaux
Aprovado por los principales organismos certificadores mundiales
Aprovados pelos principais institutos certificadores internacionais

The entire production process, from product conception to delivery to the customer, is developed using the most advanced technologies to guarantee the highest quality

Le processus de production, depuis la conception du produit jusqu'à sa livraison chez le client, se déroule en utilisant les technologies les plus avancées afin de garantir une qualité maximale

El proceso productivo, desde la concepción del producto hasta la entrega al cliente se desarrolla usando la tecnología más avanzada para asegurar la mayor calidad

No processo produtivo desde a concepção do produto até à entrega ao cliente, utiliza-se a tecnologia mais avançada para garantir a máxima qualidade

Description
• PP Compression Fittings for PE pressure piping applications.
• Fast & reliable connections. Split ring opening has been optimized to make pipe insertion even easier. Inner nerves prevent the pipe from turning during installation.
• Perfect sealing in all conditions. When tightened and due to seat inclination, o-ring makes pressure against the pipe, providing superior watertightness.
• Extensively used worldwide.
• Approved for use with potable water.
Range
• From D16 up to D110 - Performance Series.
• From D16 up to D63 - Standard Series.
Standards
• Dimensions and characteristics according to EN 712/713/715/911; ISO 3501/3503/3458/3459.
• To be installed on PE pipes conforming to ISO 11922; DIN 8072/8074; UNE 53131.
• Also approved for use with PVC flexible hose (contact us for available sizes).
• Threads (BSP) manufactured according to standard ISO 7; DIN 2999.
Working pressure
• At 20ºC D16 - D63: PN 16 (threaded fittings and Standard Series: PN 10)
D75 - D110: PN 10
Applications
• Water distribution, industry, irrigation, etc. - Performance Series
• Irrigation, swimming pools, cable ducts, etc. - Standard Series

Description
• Raccords en PP pour canalisations de PE sous pression.
• Connexion rapide et fiable. Le tube est encore plus facile à insérer grâce aux modifications apportées à la bague de serrage. La conception de la bague de serrage évite au tube de tourner durant le serrage de l'écrou.
• Parfaite étancheité dans toutes les conditions de travail. Encore plus étanche grâce à l'inclinaison de siège recevant le joint.
• De nombreuses références dans le monde entier.
• Adapté à une utilisation "eau potable" (Série Performance).
Dimensions
• Du D16 au D110 - Série Performance.
• Du D16 au D63 - Série Standard.
Standards
• Dimensions et caractéristiques selon les normes EN 712/713/715/911; ISO 3501/3503/3458/3459.
• Pour installer sur du tube PE conforme aux normes ISO 11922; DIN 8072/8074; UNE 53131.
• Compatible avec le tube PVC souple.
• Filetages (BSP) fabriqués selon les standards ISO 7; DIN 2999.
Pression de service
• A 20ºC D16 - D63: PN 16 (accessoires filetés et Série Standard: PN 10)
D75 - D110: PN 10
Domaines d'application
• Adduction d'eau, industrie, irrigation, etc. - Série Performance
• Irrigation, piscines, câblages, etc. - Série Standard

Descripción
• Accesorios en PP para canalizaciones de PE a presión.
• Conexiones rápidas y fiables. Se ha optimizado la apertura del cono de fijación para que la inserción del tubo resulte aún más fácil. Los nervios interiores previenen que el tubo gire durante la instalación.
• Estanqueidad perfecta en todas las condiciones de trabajo. La inclinación del asiento permite a la junta ejercer presión contra el tubo.
• Usados extensamente a nivel mundial.
• Aprobados para uso con agua potable (Serie Performance).
Medidas
• Desde D16 hasta D110 - Serie Performance.
• Desde D16 hasta D63 - Serie Standard.
Standards
• Dimensiones y características según las normas EN 712/713/715/911; ISO 3501/3503/3458/3459.
• Para instalar en tubería de PE conforme a las normas ISO 11922; DIN 8072/ 8074; UNE 53131. Posibilidad de instalación con tubo flexible PVC (consultar).
• Roscas (BSP) fabricados según el standard ISO 7; DIN 2999.
Presión de servicio
• A 20ºC D16 - D63: PN 16 (accesorios roscados y Serie Standard: PN 10)
D75 - D110: PN 10
Aplicaciones
• Distribución de agua, industria, riego, etc. - Serie Performance
• Riego, piscinas, conducciones de cable, etc. - Serie Standard

Descrição
• Acessórios junta rápida para aplicação em tubagem PE pressão.
• Ligações rápidas e fiáveis. Cone de fixação foi optimizado para que a instalação seja ainda mais fácil. Aneis internos que não deixam que o tubo se mova durante a instalação.
• Vedação perfeita em todas as condições. Quando apertado devidamente na tubagem, o O-Ring faz pressão contra O tubo, gerando uma superior estanquidade e impermeabilidade.
• Utilizado extensivamente a nível mundial. Aprovado para o uso com água potável (Série Performance).
Medidas
• Desde D16 até D110 - Série Performance.
• Desde D16 até D63 - Série Standard.
Standards
• Dimensões e características de acordo com EN 712/713/715/911; ISO 3501/3503/3458/3459.
• Para ser instalado com tubos PE conformes com ISO 11922; DIN 8072/8074; UNE 53131. Possibilidade de instalação com tubo flexível de PVC (consultar).
• Ligações (BSP) fabricadas de acordo com os standard ISO 7; DIN 2999.
Pressão de serviço
• A 20ºC D16 - D63: PN 16 (peças roscadas e Série Standard: PN 10)
D75 - D110: PN 10
Applicações
• Distribução de água, indústria, rega, etc. - Série Performance
• Rega, piscinas, conduções de cabo, etc. - Série Standard