ZURN®

ZURN CHEMICAL DRAINAGE SYSTEMS

Zurn·CDS Product Catalog

FUSION LOCK® · MECHANICAL SEAL · STAB-LOCK® SEAL

TABLE OF CONTENTS

INTRODUCTION

The Zurn Plumbing Products Group offers a century-old tradition of high-quality products and customer service. Zurn Industries was founded in 1900 in Erie, Pennsylvania. Created initially to manufacture a patented backwater valve, Zurn has worked faithfully throughout the past century to expand its product offering. Today, Zurn now manufactures the largest breadth of plumbing products in the industry. This commitment to the plumbing industry has made Zurn the leader in its field. To spur this growth, Zurn Industries has consistently followed a mandate of making strategic acquisitions and, more importantly, of internally developing synergistic products that serve the plumbing industry. With Chemical Drainage Systems, Zurn continues to expand to meet the needs of the twenty-first century!

The Zurn Specification Drainage Operation, previously known as the Hydromechanics Division, manufactures a variety of drainage and water control products that conform to A.N.S.I. standards. Zurn products are frequently specified by architects, mechanical engineers and plumbing contractors, and are sold into the non-residential commercial, industrial, and institutional construction markets. Consistent with its commitment to the plumbing industry, it was a natural progression for Zurn to enter the chemical drainage market.

Zurn Chemical Drainage Systems were developed with contributions from all segments of the plumbing and plastic industries. Zurn drew upon the vast expertise of professional industry consultants, Zurn engineers, contractors, distributors, and sales personnel. In addition, Zurn partnered with a leading academic and research institution in the field of plastic technology. This facility has been operating in the plastics industry for three decades and is Standard-61 compliant.

SYSTEM BENEFITS and FEATURES

"Zurn Chemical Drainage Systems offer reliability and quality for the design engineer; simplicity for the distributor; low cost, easy installation for the contractor; and peace of mind for the building owner/operator."

Who it benefits and how:

Design Engineer – Reliability and Quality

- *Superior joining methods: Fusion Lock®, nut with seal mechanical joint, and Stab•Lock®.*
- *Ease of installation reduces chance for faulty installations – industry's best fusion machine, grooving tool, and the industry's only push-together joining method with Stab•Lock®.*
- *Meets applicable ASTM, NSF, IAPMO/UPC, and CSA standards.*
- *Unequaled manufacturing Quality Control Procedures – manufacturing facility is NSF-61 compliant.*
- *Uniformity of material specifications.*
- *Zurn technical support staff.*

Contractor – Low Cost and Easy

- *Easy installation for mechanical joint. Grooving tool is easy to use and carries replacement cutting blade at no extra charge for easy instant blade replacement.*
- *Fast installation using new Stab•Lock® fittings. Eliminates the need to groove the pipe before assembly.*
- *No ratchet needed to join mechanical joint coupling.*
- *Patented single fitting for both fusion and mechanical joint – reduces number of different parts to deal with and offers job site flexibility – reduces installation time and costly delays.*
- *Easy installation for Fusion Lock® – no time-wasting clamps are necessary.*
- *Don't have to go back and tighten joints after fusing – reduces operator error.*
- *Ability to fuse multiple joints of different sizes at same time and to dry fit system before fusing.*
- *Very simple and reliable fusion machine: reduces installation time, can fuse multiple joints of multiple sizes at the same time, reduces installation costs. Built-in features reduce operator error and saves installation time (see machine features, page 4).*
- *Fusion Lock® coil can be adjusted and moved into optimum position for fusing.*

Distributor – Simplicity

- *One fitting for Fusion, Mechanical systems, and Stab•Lock® – no multiple inventory of fittings necessary. Saves inventory dollars.*
- *Simplifies material handling – lowers shipping and receiving costs.*
- *Can combine with other Zurn family products for freight and promotional advantages.*
- *Supported by Zurn sales personnel in every major market area in North America.*

Building Owner – Peace of Mind

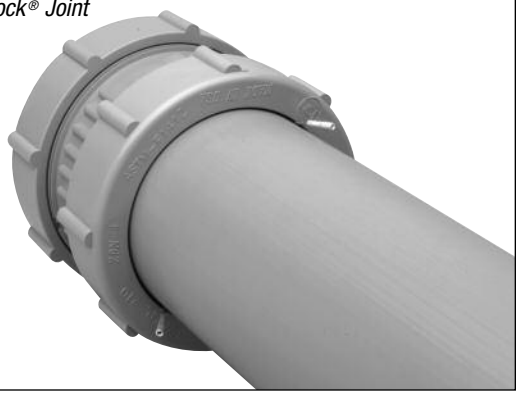
- *Reliability and performance – unequalled quality.*
- *Approvals: ASTM, IAPMO/UPC, CSA B181.3.*
- *Modular mechanical joint system: easy to work with during remodeling – keeps remodeling costs in check.*
- *Backed by strong, long-term company, Zurn Industries – in business since 1900.*
- *Manufactured at an NSF-61 compliant facility.*
- *See our installation training video online.*

PATENTED FUSION LOCK® JOINING SYSTEM

Features

- *Chemical and acid-resistant (FRPP-210) polypropylene meets ASTM F1412, UPC, and CSA standards – peace-of-mind.*
- *Single fittings for Stab•Lock®, mechanical and fusion joints – The Zurn system, utilizing a combination fitting for both Fusion Lock® and mechanical joining methods, is a patented system – reduces handling costs, avoids job site delays, simplifies inventory.*
- *The unique Zurn Fusion Lock® system eliminates the need for additional clamping during installation – no clamps are necessary so you don't have to go back and tighten clamps after fusing – simplifies installation, decreases errors, saves money!*
- *Machine semi-automatically senses the connection size(s) and delivers the corresponding power to fuse a quality joint – installer selects 1-1/2"-4" or 6" size groups.*
- *Multiple joints may be connected in a series, up to the specified maximum – shortens installation time and saves money.*
- *Multiple joints, of different sizes within the same size group, can be fused simultaneously without resetting the fusion machine – reduces installation time and saves money!*
- *The Zurn fusion unit will automatically compensate, incrementally, for job site temperature conditions (hot or cold) to reach ideal fusing temperature – ensures joint integrity! (See page 4 for additional Fusion Lock® Machine features.)*
- *The Zurn manufacturing facility is NSF Standard-61 compliant.*

Fusion Lock® Joint



Zurn Fusion Lock® Installation and Operating Instructions

Power input requirements: 115 Volts AC, 12 amps, 60 Hz. The unit will be ready to operate after turning on and short 'self-test' is completed.

Making the Zurn Fusion Lock® Joint Connection

A Fusion Lock® joint connection is simply and quickly accomplished by doing the following:

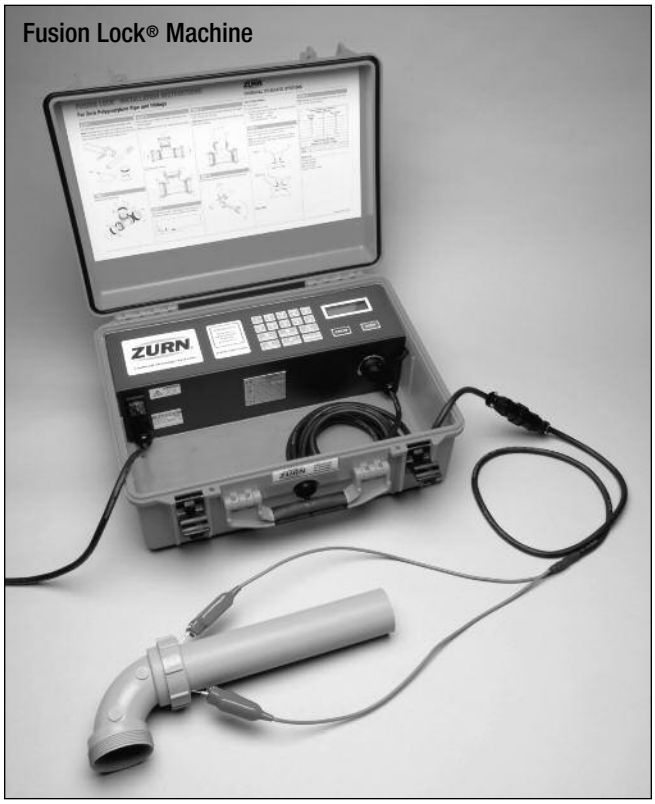
1. *Cut pipe square and de-burr ends. Clean pipe, fitting, and seal.*
2. *Insert Fusion Lock® seal into fitting and rotate leads to desired easy access position. Push leads inward and hand tighten locking nut onto fitting. Then push leads outward to make sufficient room for pipe.* ***Remember:*** *There is no need for an additional band clamp.*
3. *Using Zurn Joint Depth Gauge, mark pipe accordingly to ensure pipe is inserted completely.*
4. *Insert pipe into joint assembly completely and finish tightening the nut an additional 1/4 to 1/2 turn using spanner wrench.*
5. *Turn on the welder box and follow instructions on the screen.*
6. *Connect the fusion unit clips to the seal leads, select size group, and press start.* ***Note:*** *After starting, the unit will perform a brief system check to ensure that the leads are connected properly, that sufficient power is present, and that the maximum number of simultaneous joints has not been exceeded. Be certain that there is no undue stress on joint lead wires.*
7. *Wait while joint is fusing – the unit display will count down remaining weld time. The Zurn fusion unit will automatically compensate, incrementally, for job site temperature conditions (hot or cold) to reach ideal fusing temperature.*
8. *Upon completion, an alarm will sound. Remove the leads and move on to the next joint.* ***Remember:*** *There is no need to go back and further tighten the nuts.*

PATENTED FUSION LOCK® JOINING SYSTEM

Features of the Fusion Lock® Machine

- *Simple operation – semi-automatic control and timing.*
- *Multiple joints may be connected **in-series up to the specified maximum. Joints of different sizes may also be fused simultaneously.** Any combination of pipe sizes within the same size group can be welded in series. Versatile and fast! Saves time and money.*
- *All joints use the same current.*
- *Even heat is applied to all sizes of joints, and any number of joints up to stipulated maximum ensures joint integrity and reduces errors.*
- *Automatic compensation for ambient temperature.*
- *SAFETY! Lighter weight, longer cord for user.*
- *Transformer and solid state relay run cool – no "resting" is necessary – saves installation time and money.*
- *Unit is protected by circuit breaker – equipment protection!*
- *Unit contains 16 amp fuse to protect unit if wired to 230 VAC instead of 115 VAC.*
- *Backlit LCD display.*
- *Semi-automatic joint integrity detection before starting – saves time and money.*
- *Operator can stop welding if desired.*
- *16-foot long lead cord makes installation easy.*
- *Electronics are shock mounted and fully contained – protection!*
- *Reinforced power cords and link cables (jumper wires) – durable!*
- *Data logging ability to track fusion information.*

Fusion Lock® Machine



Caution

Although we have added shock mounts to the electronics and enclosed the components in a durable box, the fusion control unit is a sophisticated electronic device that should be handled with care. Do not open device! The unit contains no field serviceable parts. If damaged, please return to Zurn Industries factory for repair.

Do not disturb the joint for 5 minutes after the fusing cycle. Joint should cool for 1/2 hour prior to testing.

Do not test with air. Test only with water.

After testing, if a leak is detected completely drain the system and re-fuse the joint per the above instructions.

Warning

*Because of Zurn's unique patent pending system, only Zurn sealing components (nuts and seals) are compatible with our fittings. Only the Zurn fusion unit will provide proper welding of Fusion Lock® joints, **i.e. do not use other manufacturer's machines** – you must use the Zurn Fusion Lock® machine during installation.*

Zurn fittings and pipe conform to the highest industry quality standards and meet all applicable specifications and tolerances. Zurn Industries can only guarantee that Zurn parts are manufactured to the above standards and recommend that you do not mix parts with other manufacturer's products.

The Zurn combination fitting for both mechanical and fusion joining methods is a patented system that offers superior performance.

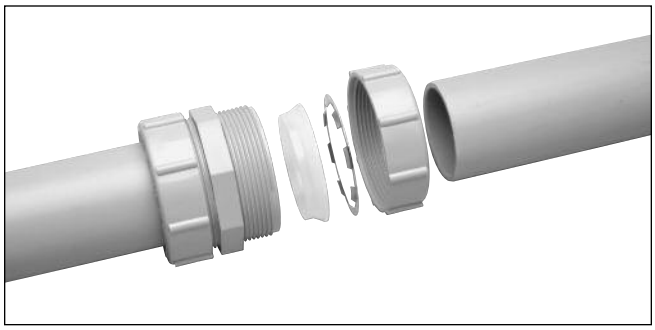
STAB·LOCK® JOINING SYSTEM

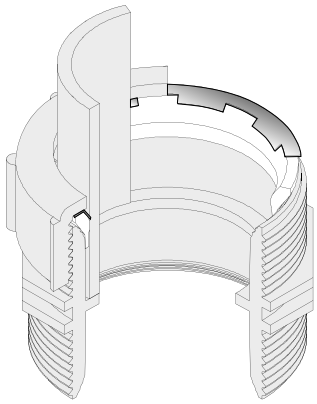
Features

- *Single fitting(s) for Stab•Lock®, grooved mechanical, and fusion – the Zurn system, utilizing a combination fitting for Stab•Lock®, grooved mechanical and/or Fusion Lock® joining methods, is a patented system – eases handling costs.*
- *Stab•Lock® features a polyethylene seal and stainless steel grab ring for rotation strength.*
- *May be used with polypropylene and PVDF pipe and fittings.*
- *Eliminates the need to groove pipe and/or fittings.*
- *Flame retardant pipe provided in standard 10-foot lengths. Can order non-flame retardant pipe in 10-foot or 20-foot lengths.*
- *Results in faster installation and maximum labor savings.*
- *Easy to clean and maintain.*

Making the Zurn Stab•Lock® Joint Connection

1. *Cut pipe square to desired length and de-burr ends.*
2. *Remove nuts from fittings.*
3. *Lubricate inside and outside of seal and threads of fitting with petroleum jelly.*
4. *Insert seal and rings into the fitting and reapply the nuts until they touch the rings.*
5. *Insert pipe into the assembly completely.*
6. *Tighten nuts with Zurn spanner wrench.*





Warnings

Zurn fittings and pipe conform to the highest industry quality standards and meet all applicable specifications and tolerances. Zurn can only guarantee that Zurn parts are manufactured to the above standards and recommend that you do not mix parts with other manufacturer's products.

Because of Zurn's unique patented system, only Zurn components (our nuts and seals) are compatible with our fittings. Only the Zurn grooving tool will provide the proper pipe groove depth for the Zurn system, i.e. you must use Zurn installation tools (groovers and fusion machines) with Zurn products.

MECHANICAL JOINING SYSTEM

Features

- *Single fitting(s) for Stab•Lock®, grooved mechanical, and fusion – the Zurn system, utilizing a combination fitting for both mechanical and/or Fusion Lock® joining methods, is a patented system – eases handling costs.*
- *No metal bands! Nut and seal system is proven superior to metal band-coupling systems.*
- *No ratchet is needed.*
- *Fittings are pre-grooved – don't have to groove the fittings in the field.*
- *No soaking the Olive! No heat or hot water seal treatment necessary. Heat treatment may facilitate the installation of 3" and 4" seals.*
- *Flame retardant pipe provided in standard 10-foot lengths. Can order non-flame retardant pipe in 10-foot or 20-foot lengths.*
- *Pipe grooving tool is the best in the industry (see features to right).*
- *Modular system makes it easy to remodel.*
- *Easy to clean and maintain.*

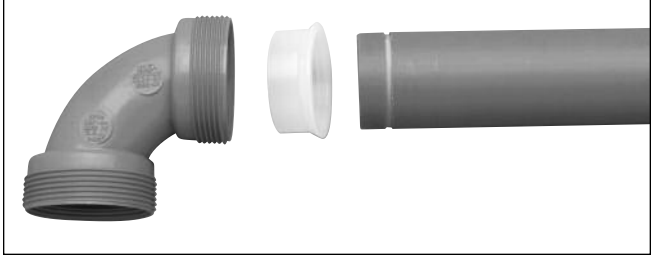
Making the Zurn Mechanical Joint Connection

A mechanical joint connection is simply and quickly accomplished by doing the following:

1. *Cut pipe square and de-burr ends.*
2. *Secure pipe and position grooving tool onto the end of the pipe.*
3. *Groove the pipe according to instructions provided.*
4. *Insert locking nut onto pipe or fitting before putting the seal on.*
5. *Place seal on pipe and/or fitting per instructions – no pre-heating is required. Heat treatment may facilitate the installation of 3" and 4" seals.*
6. *Insert pipe assembly into the fitting, lubricate nut with petroleum jelly, and hand tighten.*
7. *Use the spanner wrench to further tighten the nut to complete the joint.*

Mechanical Joint

Mechanical Joint Components



Features of the Zurn Grooving Tool

- *Lock-in-place, hardened-steel double-ended blade – ensures high quality cuts with sharp cutting edges that save installation time. Blades are less costly to replace than single edged blades.*
- *Marked cutting edge(s) indicates if cutting blade has been used – reduces installation errors.*
- *Spare blades are contained in storage compartments on all tools – reduces job site hassles and eliminates costly delays.*
- *Blade housings are molded in clear polymer to help installer visually align the blades when changing.*
- *All metal tool housing provides for durability.*
- *Tool also doubles as a seal installation aide (3" and 4" only).*

Z9-GRVR

Warnings

Zurn fittings and pipe conform to the highest industry quality standards and meet all applicable specifications and tolerances. Zurn can only guarantee that Zurn parts are manufactured to the above standards and recommend that you do not mix parts with other manufacturer's products.

Because of Zurn's unique patented system, only Zurn components (our nuts and seals) are compatible with our fittings. Only the Zurn grooving tool will provide the proper pipe groove depth for the Zurn system, i.e. you must use Zurn installation tools (groovers and fusion machines) with Zurn products.

POLYPROPYLENE PIPE and FITTINGS

General Product Information

Polypropylene (PP) has become the material of choice of specifying engineers when designing chemical drainage systems. Polypropylene has the widest range and highest use temperature (up to 212°F) of any polyolefin commercially available. Its excellent physical and chemical properties make polypropylene the ideal thermoplastic for handling chemical waste solutions found in laboratory and industrial DWV applications.

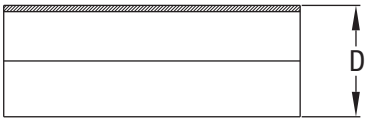
As a result of its heterophasic molecular distribution, polypropylene offers excellent resistance to most common organic and mineral acids, alkalis, alcohols and salt solutions. In short, polypropylene is the most cost-efficient way to handle the mixtures of acids, bases and solvents that are being discarded in laboratory and industrial piping systems.

Applications

- *School laboratories*
- *University laboratories*
- *Hospitals*
- *Research facilities*
- *Wineries*
- *Food process facilities*
- *Dairy facilities*
- *Industrial facilities*
- *Pharmaceutical*
- *Photo labs*

Z9-PP40-FR PIPE SCHEDULE 40

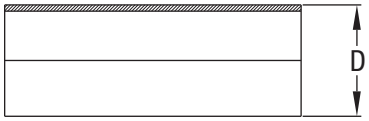
Engineering Specification:
ASTM-F1412, F.R.P.P. - 210
ZURN Z9-PP40-FR – Schedule 40 flame-retardant polypropylene pipe.



Model No.	Dimensions in Inches [mm]	
	Nom. Pipe Size	D
Z9-PP40-FR-112	1-1/2 [38]	1-29/32 [48]
Z9-PP40-FR-2	2 [51]	2-3/8 [60]
Z9-PP40-FR-3	3 [76]	3-1/2 [89]
Z9-PP40-FR-4	4 [102]	4-1/2 [114]
Z9-PP40-FR-6	6 [152]	6-5/8 [168]

Z9-PP80-FR PIPE SCHEDULE 80

Engineering Specification:
ASTM-F1412, F.R.P.P. - 210
ZURN Z9-PP80-FR – Schedule 80 flame-retardant polypropylene pipe.

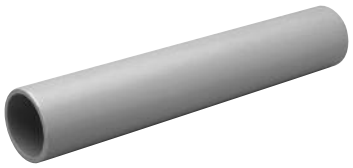


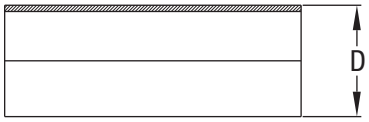
Model No.	Dimensions in Inches [mm]	
	Nom. Pipe Size	D
Z9-PP80-FR-112	1-1/2 [38]	1-29/32 [48]
Z9-PP80-FR-2	2 [51]	2-3/8 [60]
Z9-PP80-FR-3	3 [76]	3-1/2 [89]
Z9-PP80-FR-4	4 [102]	4-1/2 [114]
Z9-PP80-FR-6	6 [152]	6-5/8 [168]

Z9-PP40-NFR PIPE SCHEDULE 40

Engineering Specification: ASTM-F1412
ZURN Z9-PP40-NFR – Schedule 40 non-flame retardant polypropylene pipe.

Note: Specify 10' or 20' lengths.



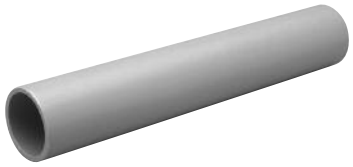


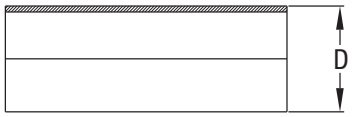
Model No.	Dimensions in Inches [mm]	
	Nom. Pipe Size	D
Z9-PP40-NFR-112	1-1/2 [38]	1-29/32 [48]
Z9-PP40-NFR-2	2 [51]	2-3/8 [60]
Z9-PP40-NFR-3	3 [76]	3-1/2 [89]
Z9-PP40-NFR-4	4 [102]	4-1/2 [114]
Z9-PP40-NFR-6	6 [152]	6-5/8 [168]

Z9-PP80-NFR PIPE SCHEDULE 80

Engineering Specification:
ASTM-F1412
ZURN Z9-PP80-NFR – Schedule 80 non-flame retardant polypropylene pipe.

Note: Specify 10' or 20' lengths.



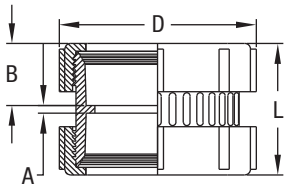


Model No.	Dimensions in Inches [mm]	
	Nom. Pipe Size	D
Z9-PP80-NFR-112	1-1/2 [38]	1-29/32 [48]
Z9-PP80-NFR-2	2 [51]	2-3/8 [60]
Z9-PP80-NFR-3	3 [76]	3-1/2 [89]
Z9-PP80-NFR-4	4 [102]	4-1/2 [114]
Z9-PP80-NFR-6	6 [152]	6-5/8 [168]

Z9A-C COUPLING

Engineering Specification:
ASTM-F1412, F.R.P.P. - 210
ZURN Z9A-C COUPLING – Flame-retardant polypropylene coupling assembly.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

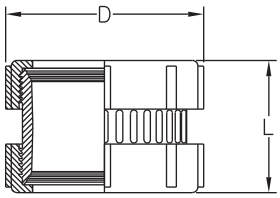


Model No.	Dimensions in Inches [mm]				
	Nom. Pipe Size	A	B	D	L
Z9A-C-112	1-1/2 [38]	5/32 [4]	1-1/16 [27]	3-1/32 [77]	2-1/4 [57]
Z9A-C-2	2 [51]	1/8 [3]	1-9/32 [33]	3-17/32 [90]	2-5/8 [67]
Z9A-C-3	3 [76]	3/16 [5]	2-3/32 [53]	5-21/64 [135]	4-3/8 [111]
Z9A-C-4	4 [102]	1/4 [6]	2-1/8 [54]	6-3/8 [162]	4-1/2 [114]
Z9A-C-6	6 [152]	9/32 [7]	2-5/32 [55]	8-19/32 [218]	4-19/32 [117]

Z9A-SC SLIP COUPLING

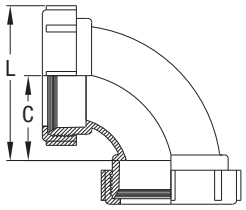
Engineering Specification:
ASTM-F1412, F.R.P.P. - 210
ZURN Z9A-SC SLIP COUPLING –
Flame-retardant polypropylene fitting.
For use with existing polypropylene stack.

Options:
-F Fusion Lock



Model No.	Dimensions in Inches [mm]		
	Nom. Pipe Size	D	L
Z9A-SC-112	1-1/2 [38]	3-1/32 [77]	2-1/4 [57]
Z9A-SC-2	2 [51]	3-17/32 [90]	2-5/8 [67]
Z9A-SC-3	3 [76]	5-21/64 [135]	4-3/8 [111]
Z9A-SC-4	4 [102]	6-3/8 [162]	4-1/2 [114]
Z9A-SC-6	6 [152]	8-19/32 [218]	4-19/32 [117]

Z9A-E90 90° ELBOW – 1/4 Bend

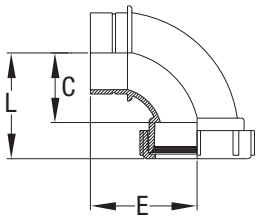


Engineering Specification:
ASTM-F1412, F.R.P.P. - 210
ZURN Z9A-E90 90° ELBOW – Threaded x threaded flame-retardant polypropylene 90° elbow fitting.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

Model No.	Dimensions in Inches [mm]		
	Nom. Pipe Size	C	L
Z9A-E90-112	1-1/2 [38]	1-3/4 [44]	3-9/32 [83]
Z9A-E90-2	2 [51]	2-5/16 [59]	4-3/32 [104]
Z9A-E90-3	3 [76]	3 [76]	5-21/32 [144]
Z9A-E90-4	4 [102]	3-7/8 [98]	7-1/16 [179]
Z9A-E90-6	6 [152]	5 [127]	9-9/32 [236]

Z9A-E90S 90° ELBOW – Street

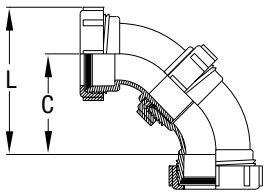


Engineering Specification:
ASTM-F1412, F.R.P.P. - 210
ZURN Z9A-E90S 90° ELBOW – Threaded spigot flame-retardant polypropylene 90° elbow fitting.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

Model No.	Dimensions in Inches [mm]			
	Nom. Pipe Size	C	E	L
Z9A-E90S-112	1-1/2 [38]	1-3/4 [44]	2-27/32 [72]	2-13/16 [71]
Z9A-E90S-2	2 [51]	2-5/16 [59]	3-19/32 [91]	3-19/32 [91]
Z9A-E90S-3	3 [76]	3 [76]	5-1/16 [129]	5-15/16 [151]
Z9A-E90S-4	4 [102]	3-7/8 [98]	5-15/16 [151]	5-31/32 [152]
Z9A-E90S-6	6 [152]	5 [127]	5 [127]	7-5/32 [182]

Z9A-LS90 90° ELBOW – Long Sweep



Engineering Specification:
ASTM-F1412, F.R.P.P. - 210
ZURN Z9A-LS90 LONG SWEEP ELBOW – Threaded x threaded flame-retardant polypropylene 90° elbow fitting.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

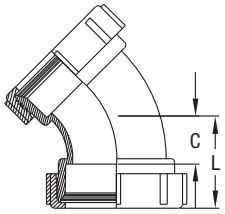
Model No.	Dimensions in Inches [mm]		
	Nom. Pipe Size	C	L
Z9A-LS90-112*	1-1/2 [38]	3-3/16 [81]	4-23/32 [120]
Z9A-LS90-2*	2 [51]	3-27/32 [98]	5-5/8 [143]
Z9A-LS90-3	3 [76]	5-3/4 [146]	8-13/32 [214]
Z9A-LS90-4	4 [102]	6-13/16 [173]	10 [254]
Z9A-LS90-6	6 [152]	6-11/32 [161]	10-5/8 [270]

*One-piece molded.

Z9A-E45 45° ELBOW – 1/8 Bend

Engineering Specification:
ASTM-F1412, F.R.P.P. - 210
ZURN Z9A-E45 45° ELBOW – Threaded x threaded flame-retardant polypropylene 45° elbow fitting assembly.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

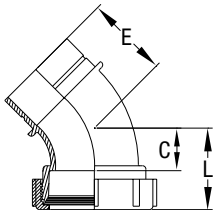


Model No.	Dimensions in Inches [mm]		
	Nom. Pipe Size	C	L
Z9A-E45-112	1-1/2 [38]	11/16 [17]	1-3/4 [44]
Z9A-E45-2	2 [51]	25/32 [20]	1-27/32 [47]
Z9A-E45-3	3 [76]	1-3/4 [44]	2-1/32 [52]
Z9A-E45-4	4 [102]	2-13/16 [56]	4-5/16 [110]
Z9A-E45-6	6 [152]	2 [51]	4-5/32 [106]

Z9A-E45S 45° ELBOW – Street

Engineering Specification:
ASTM-F1412, F.R.P.P. - 210
ZURN Z9A-E45S 45° ELBOW – Threaded x spigot flame-retardant polypropylene 45° elbow fitting assembly.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal



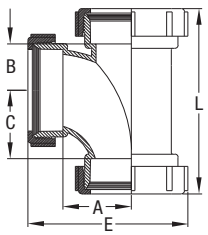
Model No.	Dimensions in Inches [mm]			
	Nom. Pipe Size	C	E	L
Z9A-E45S-112	1-1/2 [38]	11/16 [17]	1-15/16 [49]	1-3/4 [44]
Z9A-E45S-2	2 [51]	25/32 [20]	2-1/4 [57]	2-1/32 [52]
Z9A-E45S-3	3 [76]	1-3/4 [44]	4-5/32 [106]	1-27/32 [47]
Z9A-E45S-4	4 [102]	2-3/16 [56]	4-13/32 [112]	4-5/16 [110]
Z9A-E45S-6	6 [152]	2 [51]	4-5/32 [106]	4-5/32 [106]

Z9A-T SANITARY TEE

Engineering Specification:
ASTM-F1412, F.R.P.P. - 210
ZURN Z9A-T SANITARY TEE – Flame-retardant polypropylene sanitary tee fitting assembly.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

Z9A-TT



Model No.	Dimensions in Inches [mm]					
	Nom. Pipe Size	A	B	C	E	L
Z9A-T-112	1-1/2 [38]	1-3/4 [44]	1-3/8 [35]	1-3/4 [44]	4-1/16 [103]	5-1/4 [133]
Z9A-TT-112	1-1/2 [38]	2-3/16 [56]	2-3/4 [70]	3-1/2 [89]	4-15/16 [125]	8-11/32 [212]
Z9A-T-2	2 [51]	1-5/16 [33]	1-3/8 [35]	2-5/16 [59]	5-3/32 [129]	6-1/4 [159]
Z9A-T-3	3 [76]	3-1/16 [78]	2-3/16 [56]	3-1/16 [78]	7-13/32 [188]	9-7/16 [240]
Z9A-T-4	4 [102]	3-7/8 [98]	2-5/8 [67]	3-5/8 [92]	8-3/4 [222]	10-3/4 [273]
Z9A-T-6	6 [152]	5 [127]	5-3/8 [137]	5 [127]	11-1/2 [292]	14-11/16 [373]

Z9A-TR REDUCING SANITARY TEE

Engineering Specification:

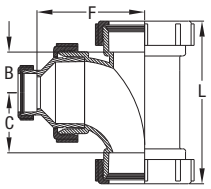
ASTM-F1412, F.R.P.P. - 210
ZURN Z9A-TR REDUCING SANITARY TEE – Flame-retardant polypropylene reducing sanitary tee fitting assembly.

Z9A-TTR-2 x 112 DOUBLE REDUCING SANITARY TEE

Options:

-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

Z9A-TTR



Z9A-TR

Model No.	Dimensions in Inches [mm]					
	Nom. Pipe Size	Reducer Size	B	C	F	L
Z9A-TR-2 x 112*	2 [51]	2 x 1-1/2 [51 x 38]	1-3/16 [30]	1-15/16 [49]	4-15/16 [125]	6-1/4 [159]
Z9A-TTR-2 x 112*	2 [51]	2 x 1-1/2 [51 x 38]	1-3/16 [30]	1-15/16 [49]	4-15/16 [125]	6-1/4 [159]
Z9A-TR-3 x 112	3 [76]	3 x 1-1/2 [76 x 38]	2-3/16 [56]	3-1/16 [78]	5-7/32 [133]	9-7/16 [240]
Z9A-TR-3 x 2	3 [76]	3 x 2 [76 x 51]	2-3/16 [56]	3-1/16 [78]	5-11/32 [136]	9-7/16 [240]
Z9A-TR-4 x 112	4 [102]	4 x 1-1/2 [102 x 38]	2-5/8 [67]	3-5/8 [92]	6-31/32 [177]	10-1/4 [260]
Z9A-TR-4 x 2	4 [102]	4 x 2 [102 x 51]	2-5/8 [67]	3-5/8 [92]	6-31/32 [177]	10-3/4 [273]
Z9A-TR-4 x 3	4 [102]	4 x 3 [102 x 76]	2-5/8 [67]	3-5/8 [92]	6 [152]	10-3/4 [273]
Z9A-TR-6 x 2	6 [152]	6 x 2 [152 x 51]	5 [127]	5 [127]	10-9/16 [268]	14-11/16 [373]
Z9A-TR-6 x 3	6 [152]	6 x 3 [152 x 76]	5 [127]	5 [127]	9-19/32 [244]	14-11/16 [373]
Z9A-TR-6 x 4	6 [152]	6 x 4 [152 x 102]	5 [127]	5 [127]	7-1/2 [191]	14-11/16 [373]

*One-piece molded.

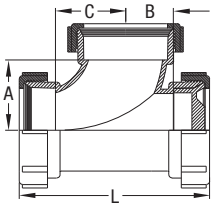
Z9A-TC CLEANOUT TEE

Engineering Specification:

ASTM-F1412, F.R.P.P. - 210
ZURN Z9A-TC CLEANOUT TEE – Flame-retardant polypropylene cleanout tee fitting assembly.

Options:

-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

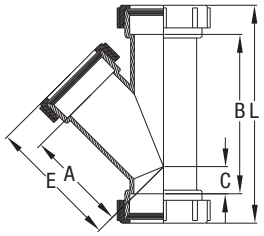


Model No.	Dimensions in Inches [mm]				
	Nom. Pipe Size	A	B	C	L
Z9A-TC-112	1-1/2 [38]	1-3/4 [44]	1-3/8 [35]	1-3/4 [44]	5-1/4 [133]
Z9A-TC-2	2 [51]	1-5/16 [33]	1-3/8 [35]	2-5/16 [59]	6-1/4 [159]
Z9A-TC-3	3 [76]	3-1/16 [78]	2-3/16 [56]	3-1/16 [78]	9-7/16 [240]
Z9A-TC-4	4 [102]	3-7/8 [98]	2-5/8 [67]	3-5/8 [92]	10-3/4 [273]
Z9A-TC-6	6 [152]	5 [127]	5-3/8 [137]	5 [127]	14-11/16 [373]

Z9A-Y 45° WYE

Engineering Specification:
ASTM-F1412, F.R.P.P. - 210
ZURN Z9A-Y 45° WYE – Flame-retardant polypropylene 45° wye fitting assembly.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

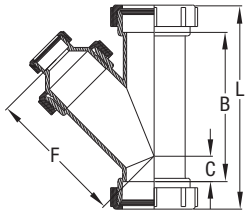


Model No.	Dimensions in Inches [mm]					
	Nom. Pipe Size	A	B	C	E	L
Z9A-Y-112	1-1/2 [38]	3-1/8 [79]	3-13/16 [97]	21/32 [17]	4-3/16 [106]	6-9/16 [167]
Z9A-Y-2	2 [51]	4-1/16 [103]	4-1/2 [114]	13/16 [21]	5-11/32 [136]	7-7/8 [200]
Z9A-Y-3	3 [76]	6 [152]	7-1/4 [184]	1-5/8 [41]	7-3/4 [197]	12-9/16 [319]
Z9A-Y-4	4 [102]	7 [178]	9-1/16 [230]	1-5/8 [41]	8-3/4 [222]	14-11/16 [373]
Z9A-Y-6	6 [152]	11-1/8 [283]	11-1/8 [283]	1-3/4 [44]	13-1/4 [337]	17-3/16 [437]

Z9A-YR REDUCING WYE

Engineering Specification:
ASTM-F1412, F.R.P.P. - 210
ZURN Z9A-YR REDUCING WYE – Flame-retardant polypropylene reducing 45° wye fitting assembly.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal



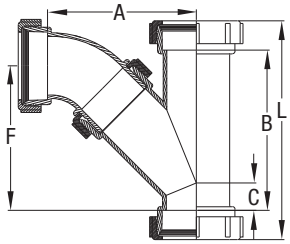
Model No.	Dimensions in Inches [mm]					
	Nom. Pipe Size	Reducer Size	B	C	F	L
Z9A-YR-2 x 112	2 [51]	2 x 1-1/2 [51 x 38]	4-1/2 [114]	13/16 [21]	5-5/8 [143]	7-7/8 [200]
Z9A-YR-3 x 112*	3 [76]	3 x 1-1/2 [76 x 38]	7-1/4 [184]	1-5/8 [41]	8-5/32 [207]	12-9/16 [319]
Z9A-YR-3 x 2*	3 [76]	3 x 2 [76 x 51]	7-1/4 [184]	1-5/8 [41]	8-9/32 [210]	12-9/16 [319]
Z9A-YR-4 x 112	4 [102]	4 x 1-1/2 [102 x 38]	9-1/16 [230]	1-5/8 [41]	10-3/32 [256]	14-11/16 [373]
Z9A-YR-4 x 2	4 [102]	4 x 2 [102 x 51]	9-1/16 [230]	1-5/8 [41]	10-3/32 [256]	14-11/16 [373]
Z9A-YR-4 x 3	4 [102]	4 x 3 [102 x 76]	9-1/16 [230]	1-5/8 [41]	9-1/8 [232]	14-11/16 [373]
Z9A-YR-6 x 2	6 [152]	6 x 2 [152 x 51]	11-1/8 [283]	1-3/4 [44]	15-25/32 [401]	17-3/16 [437]
Z9A-YR-6 x 3	6 [152]	6 x 3 [152 x 76]	11-1/8 [283]	1-3/4 [44]	16-3/4 [425]	17-3/16 [437]
Z9A-YR-6 x 4	6 [152]	6 x 4 [152 x 102]	11-1/8 [283]	1-3/4 [44]	13-11/16 [348]	17-3/16 [437]

*One-piece molded.

Z9A-YB COMBINATION WYE and 45° ELBOW

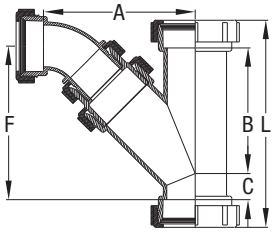
Engineering Specification:
ASTM-F1412, F.R.P.P. - 210
ZURN Z9A-YB COMBINATION WYE and 45° ELBOW – Flame-retardant polypropylene combination wye and 1/8 bend fitting assembly.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal



Model No.	Dimensions in Inches [mm]					
	Nom. Pipe Size	A	B	C	F	L
Z9A-YB-112	1-1/2 [38]	4-5/32 [106]	3-13/16 [97]	21/32 [17]	4-1/8 [105]	6-9/16 [167]
Z9A-YB-2	2 [51]	5-3/32 [129]	4-1/2 [114]	13/16 [21]	5-1/8 [130]	7-7/8 [200]
Z9A-YB-3	3 [76]	8-23/32 [221]	7-1/4 [184]	1-5/8 [41]	8-19/32 [218]	12-9/16 [319]
Z9A-YB-4	4 [102]	10-5/32 [258]	9-1/16 [230]	1-5/8 [41]	9-7/8 [251]	14-11/16 [373]
Z9A-YB-6	6 [152]	12-13/16 [325]	11-1/8 [283]	1-3/4 [44]	12-9/16 [319]	17-3/16 [437]

Z9A-YRB REDUCING COMBINATION WYE and 45° ELBOW

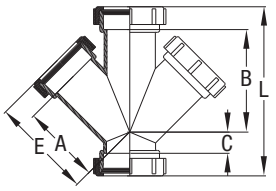


Engineering Specification:
ASTM-F1412, F.R.P.P. - 210
ZURN Z9A-YRB REDUCING COMBINATION WYE and 45° ELBOW – Flame-retardant polypropylene reducing combination wye and 1/8 bend fitting assembly.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

Model No.	Dimensions in Inches [mm]						
	Nom. Pipe Size	Reducer Size	A	B	C	F	L
Z9A-YRB-2 x 112	2 [51]	2 x 1-1/2 [51 x 38]	5-15/16 [135]	4-1/2 [114]	13/16 [21]	8-15/16 [227]	7-25/32 [198]
Z9A-YRB-3 x 112	3 [76]	3 x 1-1/2 [76 x 38]	7-23/32 [196]	7-1/4 [184]	1-5/8 [41]	8-11/16 [221]	12-27/32 [326]
Z9A-YRB-3 x 2	3 [76]	3 x 2 [76 x 51]	8-3/32 [206]	7-1/4 [184]	1-5/8 [41]	8-15/16 [227]	12-27/32 [326]
Z9A-YRB-4 x 112	4 [102]	4 x 1-1/2 [102 x 38]	9-1/16 [230]	9-1/16 [230]	1-7/8 [48]	10-9/32 [261]	14-15/16 [379]
Z9A-YRB-4 x 2	4 [102]	4 x 2 [102 x 51]	9-11/32 [237]	9-1/16 [230]	1-7/8 [48]	10-1/2 [267]	14-15/16 [379]
Z9A-YRB-4 x 3	4 [102]	4 x 3 [102 x 76]	10-15/16 [278]	9-1/16 [230]	1-7/8 [48]	11-1/16 [281]	14-15/16 [379]
Z9A-YRB-6 x 2	6 [152]	6 x 2 [152 x 51]	16-3/8 [416]	11-1/8 [283]	1-3/4 [44]	15-7/8 [403]	17-3/16 [437]
Z9A-YRB-6 x 3	6 [152]	6 x 3 [152 x 76]	17-1/32 [433]	11-1/8 [283]	1-3/4 [44]	16-17/32 [419]	17-3/16 [437]
Z9A-YRB-6 x 4	6 [152]	6 x 4 [152 x 102]	14-7/8 [378]	11-1/8 [283]	1-3/4 [44]	14-3/8 [365]	17-3/16 [437]

Z9A-YY 45° DOUBLE WYE



Engineering Specification:
ASTM-F1412, F.R.P.P. - 210
ZURN Z9A-YY 45° DOUBLE WYE – Flame-retardant polypropylene double wye fitting assembly.

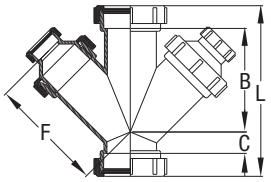
Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

Model No.	Dimensions in Inches [mm]					
	Nom. Pipe Size	A	B	C	E	L
Z9A-YY-112	1-1/2 [38]	3-1/8 [79]	3-3/16 [81]	21/32 [17]	4-3/13 [106]	6-9/16 [167]
Z9A-YY-2	2 [51]	4-1/16 [103]	4-1/2 [114]	13/16 [21]	5-11/32 [136]	7-7/8 [200]
Z9A-YY-3	3 [76]	6 [152]	7-1/4 [184]	1-5/8 [41]	7-3/4 [197]	12-9/16 [319]
Z9A-YY-4	4 [102]	7 [178]	9-1/16 [230]	1-5/8 [41]	8-3/4 [222]	14-11/16 [373]
Z9A-YY-6	6 [152]	11-1/8 [283]	11-1/8 [283]	1-3/4 [44]	13-1/4 [337]	17-3/16 [437]

Z9A-YYR REDUCING DOUBLE WYE

Engineering Specification:
ASTM-F1412, F.R.P.P. - 210
ZURN Z9A-YYR REDUCING DOUBLE WYE –
Flame-retardant polypropylene fitting assembly.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal



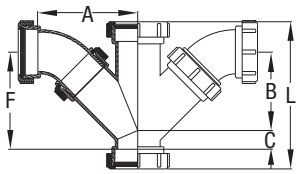
Model No.	Dimensions in Inches [mm]					
	Nom. Pipe Size	Reducer Size	B	C	F	L
Z9A-YYR-2 x 112	2 [51]	2 x 1-1/2 [51 x 38]	4-1/2 [114]	13/16 [21]	5-5/8 [143]	7-7/8 [200]
Z9A-YYR-3 x 112*	3 [76]	3 x 1-1/2 [76 x 38]	7-1/4 [184]	1-5/8 [41]	8-5/32 [207]	12-9/16 [319]
Z9A-YYR-3 x 2*	3 [76]	3 x 2 [76 x 51]	7-1/4 [184]	1-5/8 [41]	8-9/32 [210]	12-9/16 [319]
Z9A-YYR-4 x 112	4 [102]	4 x 1-1/2 [102 x 38]	9-1/16 [230]	1-5/8 [41]	10-3/32 [256]	14-11/16 [373]
Z9A-YYR-4 x 2	4 [102]	4 x 2 [102 x 51]	9-1/16 [230]	1-5/8 [41]	10-3/32 [256]	14-11/16 [373]
Z9A-YYR-4 x 3	4 [102]	4 x 3 [102 x 76]	9-1/16 [230]	1-5/8 [41]	9-1/8 [232]	14-11/16 [373]
Z9A-YYR-6 x 2	6 [152]	6 x 2 [152 x 51]	11-1/8 [283]	1-3/4 [44]	15-25/32 [401]	17-3/16 [436]
Z9A-YYR-6 x 3	6 [152]	6 x 3 [152 x 76]	11-1/8 [283]	1-3/4 [44]	16-3/4 [425]	17-3/16 [436]
Z9A-YYR-6 x 4	6 [152]	6 x 4 [152 x 102]	11-1/8 [283]	1-3/4 [44]	13-11/16 [348]	17-3/16 [437]

*One-piece molded.

Z9A-YYB COMBINATION DOUBLE WYE and 45° ELBOW

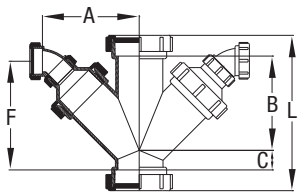
Engineering Specification:
ASTM-F1412, F.R.P.P. - 210
ZURN Z9A-YYB COMBINATION DOUBLE WYE and 45° ELBOW – Flame-retardant polypropylene fitting assembly.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal



Model No.	Dimensions in Inches [mm]					
	Nom. Pipe Size	A	B	C	F	L
Z9A-YYB-112	1-1/2 [38]	4-5/32 [106]	3-13/16 [97]	21/32 [17]	4-1/8 [105]	6-9/16 [167]
Z9A-YYB-2	2 [51]	5-3/32 [129]	4-1/2 [114]	13/16 [21]	5-1/8 [130]	7-7/8 [200]
Z9A-YYB-3	3 [76]	8-23/32 [221]	7-1/4 [184]	1-5/8 [41]	8-19/32 [218]	12-9/16 [319]
Z9A-YYB-4	4 [102]	10-5/32 [258]	9-1/16 [230]	1-5/8 [41]	9-7/8 [251]	14-11/16 [373]
Z9A-YYB-6	6 [152]	12-13/16 [325]	11-1/8 [283]	1-3/4 [44]	12-9/16 [319]	17-3/16 [437]

Z9A-YYRB COMBINATION REDUCING DOUBLE WYE and 45° ELBOW



Engineering Specification:

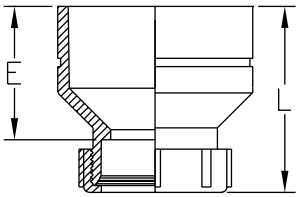
ZURN Z9A-YYRB COMBINATION REDUCING DOUBLE WYE and 45° ELBOW – Flame-retardant polypropylene fitting assembly.

Options:

-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

Model No.	Dimensions in Inches [mm]					
	Nom. Pipe Size	A	B	C	F	L
Z9A-YYRB-2 x 112	2 [51]	5-15/16 [135]	4-1/2 [114]	13/16 [21]	8-15/16 [227]	7-25/32 [198]
Z9A-YYRB-3 x 112	3 [76]	7-23/32 [196]	7-1/4 [184]	1-5/8 [41]	8-11/16 [221]	12-27/32 [326]
Z9A-YYRB-3 x 2	3 [76]	8-3/32 [206]	7-1/4 [184]	1-5/8 [41]	8-15/16 [227]	12-27/32 [326]
Z9A-YYRB-4 x 112	4 [102]	9-1/16 [230]	9-1/16 [230]	1-7/8 [48]	10-9/32 [261]	14-15/16 [379]
Z9A-YYRB-4 x 2	4 [102]	9-11/32 [237]	9-1/16 [230]	1-7/8 [48]	10-1/2 [267]	14-15/16 [379]
Z9A-YYRB-4 x 3	4 [102]	10-15/16 [278]	9-1/16 [230]	1-7/8 [48]	11-1/16 [281]	14-15/16 [379]
Z9A-YYRB-6 x 2	6 [152]	16-3/8 [416]	11-1/8 [283]	1-3/4 [44]	15-7/8 [403]	17-3/16 [437]
Z9A-YYRB-6 x 3	6 [152]	17-1/32 [433]	11-1/8 [283]	1-3/4 [44]	16-17/32 [419]	17-3/16 [437]
Z9A-YYRB-6 x 4	6 [152]	14-7/8 [378]	11-1/8 [283]	1-3/4 [44]	14-3/8 [365]	17-3/16 [437]

Z9A-RED REDUCING BUSHING



Engineering Specification:

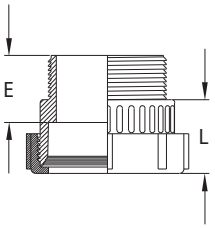
ASTM-F1412, UPC®, F.R.P.P. - 210
ZURN Z9A-RED REDUCING COUPLING – Flame-retardant polypropylene reducing fitting assembly.

Options:

-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

Model No.	Dimensions in Inches [mm]		
	Reducer Size	E	L
Z9A-RED-2 x 112	2 x 1-1/2 [51 x 38]	1-1/2 [38]	2-5/8 [67]
Z9A-RED-3 x 112	3 x 1-1/2 [76 x 38]	2-1/32 [52]	3-7/32 [82]
Z9A-RED-3 x 2	3 x 2 [76 x 51]	2-1/16 [52]	3-9/16 [90]
Z9A-RED-4 x 112	4 x 1-1/2 [102 x 38]	2-7/8 [73]	4-5/32 [106]
Z9A-RED-4 x 2	4 x 2 [102 x 51]	2-27/32 [72]	4-3/8 [111]
Z9A-RED-4 x 3	4 x 3 [102 x 76]	1-29/32 [48]	4-7/32 [107]
Z9A-RED-6 x 2	6 x 2 [152 x 51]	4-1/4 [108]	6-19/64 [160]
Z9A-RED-6 x 3	6 x 3 [152 x 76]	5-7/32 [133]	6-1/32 [153]
Z9A-RED-6 x 4	6 x 4 [152 x 102]	2-5/32 [55]	4-11/32 [110]

Z9A-MA MALE THREAD ADAPTER

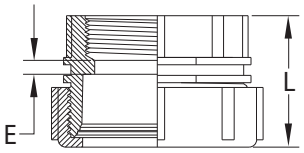


Engineering Specification:
ASTM-F1412, F.R.P.P. - 210
ZURN Z9A-MA MALE ADAPTER – Flame-retardant polypropylene male adapter fitting assembly.
Use Teflon tape on threads.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

Model No.	Dimensions in Inches [mm]		
	Nom. Pipe Size	E	L
Z9A-MA-112	1-1/2 [38]	1-5/16 [33]	1-5/16 [33]
Z9A-MA-2	2 [51]	1-11/32 [34]	1-9/16 [40]
Z9A-MA-3	3 [76]	2-5/32 [55]	2-13/16 [71]
Z9A-MA-4	4 [102]	2-1/16 [52]	3-1/32 [77]

Z9A-FA FEMALE THREAD ADAPTER (NPT)



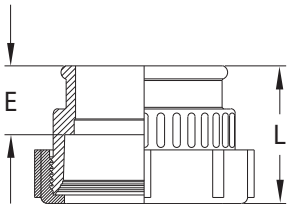
Engineering Specification:
ASTM-F1412, F.R.P.P. - 210
ZURN Z9A-FA FEMALE ADAPTER – Flame-retardant polypropylene female thread adapter fitting assembly.
Use Teflon tape on threads.

Note: All sizes also available in straight thread. Designate Z9A-FAS when ordering.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

Model No.	Dimensions in Inches [mm]		
	Nom. Pipe Size	E	L
Z9A-FA-112	1-1/2 [38]	7/32 [6]	2 [51]
Z9A-FA-2	2 [51]	5/32 [4]	2-7/32 [56]
Z9A-FA-3	3 [76]	5/16 [8]	3-9/16 [90]
Z9A-FA-4	4 [102]	11/32 [9]	3-21/32 [93]

Z9A-GA GLASS PIPE ADAPTER

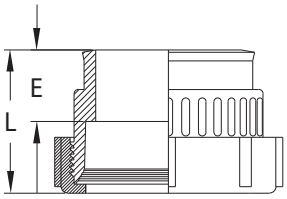


Engineering Specification:
ASTM-F1412, F.R.P.P. - 210
ZURN Z9A-GA GLASS PIPE ADAPTER – Flame-retardant polypropylene glass adapter fitting assembly.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

Model No.	Dimensions in Inches [mm]		
	Nom. Pipe Size	E	L
Z9A-GA-112	1-1/2 [38]	31/32 [25]	2-3/32 [53]
Z9A-GA-2	2 [51]	1-3/16 [30]	2-1/2 [64]
Z9A-GA-3	3 [76]	1-31/32 [50]	3-3/32 [79]
Z9A-GA-4	4 [102]	2 [51]	4-1/8 [105]

Z9A-IA IRON PIPE ADAPTER

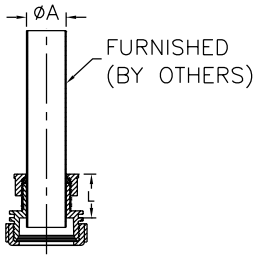


Engineering Specification:
ASTM-F1412, F.R.P.P. - 210
ZURN Z9A-IA IRON PIPE ADAPTER – Flame-retardant polypropylene iron pipe adapter fitting assembly.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

Model No.	Dimensions in Inches [mm]		
	Nom. Pipe Size	E	L
Z9A-IA-112	1-1/2 [38]	1-9/32 [33]	2-5/32 [55]
Z9A-IA-2	2 [51]	1-9/32 [33]	2-11/32 [60]
Z9A-IA-3	3 [76]	2-5/32 [55]	3-15/16 [100]
Z9A-IA-4	4 [102]	2 [51]	3-3/4 [95]

Z9A-SJA SLIP JOINT ADAPTER

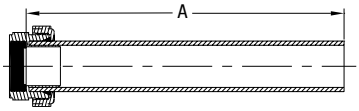


Engineering Specification:
ASTM-F1412, F.R.P.P
ZURN Z9A-SJA SLIP JOINT ADAPTER – Flame-retardant polypropylene fitting with chrome-plated brass nut.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

Model No.	Dimensions in Inches [mm]	
	øA	L
Z9A-SJA-114 x 112	1-1/4 [32]	1-5/8 [41]
Z9A-SJA-112 x 112	1-1/2 [38]	1-5/8 [41]

Z9A-TP TAIL PIECE ASSEMBLY

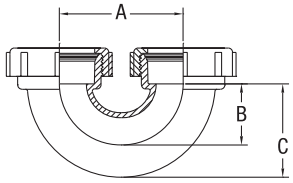


Engineering Specification:
ASTM-F1412, F.R.P.P. - 210
ZURN Z9A-TP STRAIGHT THREAD ADAPTER – Flame-retardant polypropylene tail piece assembly. Use Teflon tape on threads.

Model No.	Dimensions in Inches [mm]	
	Nom. Pipe Size	A
Z9A-TP-112	1-1/2 [38]	12 [305]
Z9A-TP-2	2 [51]	12 [305]

Z9A-ULOOP U-LOOP

Engineering Specification:
ASTM-F1412, F.R.P.P. - 210
ZURN Z9A-ULOOP – Flame-retardant polypropylene fitting assembly.

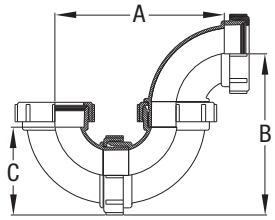


Model No.	Dimensions in Inches [mm]			
	Nom. Pipe Size	A	B	C
Z9A-ULOOP-112	1-1/2 [38]	3-5/16 [90]	1-3/4 [44]	2-11/16 [68]
Z9A-ULOOP-2	2 [51]	5 [127]	2-13/64 [57]	3-13/32 [87]

Z9A-PTRAP P-TRAP

Engineering Specification:
ASTM-F1412, F.R.P.P. - 210
ZURN Z9A-PTRAP P-TRAP – Flame-retardant polypropylene fitting assembly.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal



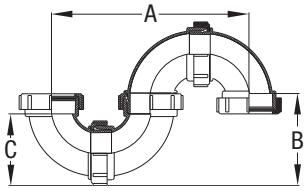
Model No.	Dimensions in Inches [mm]			
	Nom. Pipe Size	A	B	C
Z9A-PTRAP-112*	1-1/2 [38]	5-5/16 [134]	5-1/2 [140]	2-11/16 [68]
Z9A-PTRAP-2*	2 [51]	8-1/4 [210]	7-11/16 [195]	4-1/16 [103]
Z9A-PTRAP-3	3 [76]	11-3/32 [282]	10-3/4 [273]	5-21/32 [144]
Z9A-PTRAP-4	4 [102]	13-21/32 [347]	13 [330]	7-1/16 [179]
Z9A-PTRAP-6	6 [152]	17-5/32 [436]	16-7/16 [418]	9-1/4 [235]

*One-piece molded U-loop.

Z9A-STRAP S-TRAP

Engineering Specification:
ASTM-F1412, F.R.P.P. - 210
ZURN Z9A-STRAP S-TRAP – Flame-retardant polypropylene fitting assembly.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal



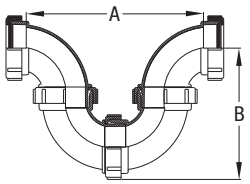
Model No.	Dimensions in Inches [mm]			
	Nom. Pipe Size	A	B	C
Z9A-STRAP-112*	1-1/2 [38]	8-1/8 [206]	3-3/4 [95]	2-11/16 [68]
Z9A-STRAP-2*	2 [51]	11-27/32 [301]	5-3/8 [137]	4-1/16 [103]
Z9A-STRAP-3	3 [76]	16-5/32 [410]	7-3/4 [197]	5-21/32 [144]
Z9A-STRAP-4	4 [102]	19-19/32 [498]	9-1/8 [232]	7-1/16 [179]
Z9A-STRAP-6	6 [152]	24-9/32 [617]	11-7/16 [290]	9-1/4 [235]

*One-piece molded U-loop.

Z9A-RUNTRAP RUNNING TRAP

Engineering Specification:
ASTM-F1412, F.R.P.P. - 210
ZURN Z9A-RUNTRAP RUNNING TRAP –
Flame-retardant polypropylene fitting assembly.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

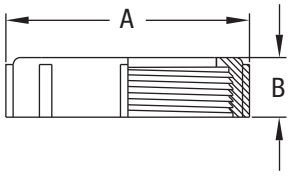


Model No.	Dimensions in Inches [mm]		
	Nom. Pipe Size	A	B
Z9A-RUNTRAP-112*	1-1/2 [38]	7-1/16 [179]	5-1/2 [140]
Z9A-RUNTRAP-2*	2 [51]	16-1/2 [419]	7-11/16 [195]
Z9A-RUNTRAP-3	3 [76]	22-3/16 [564]	10-3/4 [273]
Z9A-RUNTRAP-4	4 [102]	27-5/16 [694]	13 [330]
Z9A-RUNTRAP-6	6 [152]	22-5/32 [563]	16-7/16 [418]

*One-piece molded U-loop.

Z9-NUT LOCKING NUT

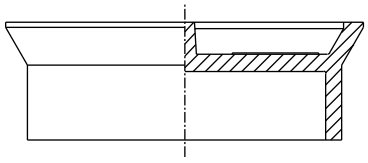
Engineering Specification:
ASTM-F1412, F.R.P.P. - 210
ZURN Z9-NUT LOCKING NUT – Flame-retardant polypropylene locking nut used in both fusion lock and mechanical joint installations.



Model No.	Dimensions in Inches [mm]		
	Nom. Pipe Size	A	B
Z9-NUT-112	1-1/2 [38]	3-1/32 [77]	13/16 [21]
Z9-NUT-2	2 [51]	3-15/32 [88]	1 [25]
Z9-NUT-3	3 [76]	5-21/64 [135]	1-21/64 [34]
Z9-NUT-4	4 [102]	6-3/8 [162]	1-9/16 [40]
Z9-NUT-6	6 [152]	8-19/32 [218]	1-25/32 [45]

Z9-PLUG CLEANOUT PLUG

Engineering Specification:
ASTM-F1412, F.R.P.P. - 210
ZURN Z9-PLUG CLEANOUT PLUG –
Flame-retardant polypropylene plug used with fitting. No seal required.

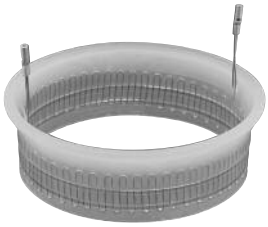


Model No.	Dimensions in Inches [mm]
	Nom. Pipe Size
Z9-PLUG-112	1-1/2 [38]
Z9-PLUG-2	2 [51]
Z9-PLUG-3	3 [76]
Z9-PLUG-4	4 [102]
Z9-PLUG-6*	6 [152]

*Fabricated

Z9-FS REPLACEMENT FUSION LOCK SEAL

Engineering Specification:
ASTM-F1412
ZURN Z9-FS FUSION SEAL –
Polypropylene electrofusion seal.



Model No.	Dimensions in Inches [mm] Nom. Pipe Size
Z9-FS-112	1-1/2 [38]
Z9-FS-2	2 [51]
Z9-FS-3	3 [76]
Z9-FS-4	4 [102]
Z9-FS-6	6 [152]

Z9-MS REPLACEMENT MECHANICAL SEAL

Engineering Specification:
ASTM-F1412
ZURN Z9-MS MECHANICAL SEAL –
LDPE mechanical joint seal.

Model No.	Dimensions in Inches [mm] Nom. Pipe Size
Z9-MS-112	1-1/2 [38]
Z9-MS-2	2 [51]
Z9-MS-3	3 [76]
Z9-MS-4	4 [102]

Z9A-S REPLACEMENT STAB•LOCK™ SEAL and RING

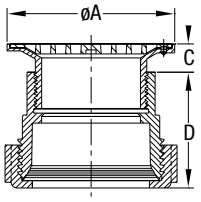
Engineering Specification:
ASTM-F1412
ZURN Z9A-S STAB•LOCK SEAL –
LDPE mechanical joint seal.

Model No.	Dimensions in Inches [mm] Nom. Pipe Size
Z9A-S-112	1-1/2 [38]
Z9A-S-2	2 [51]
Z9A-S-3	3 [76]
Z9A-S-4	4 [102]

Z9A-FD1 ADJUSTABLE FLOOR DRAIN

Engineering Specification:
ZURN Z9A-FD1 ADJUSTABLE FLOOR DRAIN – Polypropylene body with bottom outlet and adjustable stainless steel strainer.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

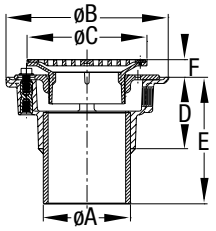


Model No.	Dimensions in Inches [mm]				
	Nom. Pipe Size	øA	D	C	
				Min.	Max.
Z9A-FD1-3	3 [76]	5-3/16 [132]	3-19/32 [91]	1 [25]	1-1/2 [38]
Z9A-FD1-4	4 [102]	5-3/16 [132]	3-11/16 [94]	1 [25]	1-1/2 [38]

Options	Description
-FN	4" [102] Round Stainless Steel Funnel
-VP	Vandal Proof

Z9A-FD2 ADJUSTABLE FLOOR DRAIN

Engineering Specification:
ZURN Z9A-FD2 ADJUSTABLE FLOOR DRAIN – Polypropylene body with plain end bottom outlet, polypropylene combination invertible membrane clamp with adjustable polypropylene head and stainless steel frame and grate.

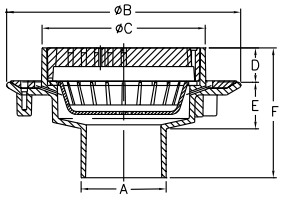


Model No.	Dimensions in Inches [mm]						
	Nom. Pipe Size øA	øB	øC	D	E	F	
						Min.	Max.
Z9A-FD2-3	3 [76]	8-3/8 [213]	6 [152]	3-11/16 [94]	6-3/16 [157]	3/4 [19]	2-1/2 [64]
Z9A-FD2-4	4 [102]	8-3/8 [213]	6 [152]	3-13/16 [97]	6-5/16 [160]	3/4 [19]	2-1/2 [64]

Options	Description
-FN	4" [102] Round Stainless Steel Funnel
-P	1/2" [13] Trap Primer Connection
-R5	5" [127] Diameter Stainless Steel Top Assembly
-R7	7" [178] Diameter Stainless Steel Top Assembly
-R8	8" [203] Diameter Stainless Steel Top Assembly
-R10	10" [254] Diameter Stainless Steel Top Assembly
-SQ5	5" [127] Square Stainless Steel Top Assembly
-SQ6	6" [152] Square Stainless Steel Top Assembly
-SQ8	8" [203] Square Stainless Steel Top Assembly
-VP	Vandal Proof
-W	Winter Closure Plug
-Y	Stainless Steel Sediment Bucket

Z9A-FD4 HEAVY DUTY FLOOR DRAIN

Engineering Specification:
ZURN Z9A-FD4 HEAVY DUTY FLOOR DRAIN – Polypropylene body with plain end bottom outlet, polypropylene sediment bucket, polypropylene frame and heavy-duty slotted grate.

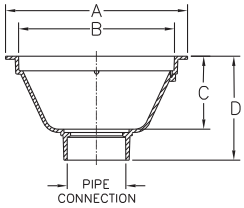


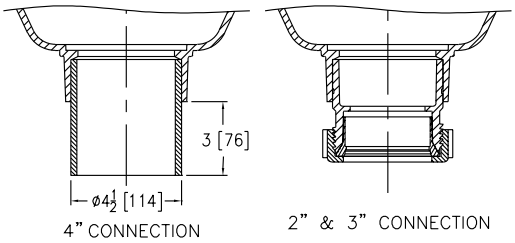
Model No.	Dimensions in Inches [mm]					
	Nom. Pipe Size A	øB	øC	D	E	F
Z9A-FD4-3	3 [76]	12-3/8 [314]	8-5/8 [219]	1-13/16 [46]	2-9/16 [65]	6-55/64 [174]
Z9A-FD4-4	4 [102]	12-3/8 [314]	8-5/8 [219]	1-13/16 [46]	2-9/16 [65]	6-55/64 [174]
Z9A-FD4-6	6 [152]	12-3/8 [314]	8-5/8 [219]	1-13/16 [46]	2-9/16 [65]	6-55/64 [174]

Options	Description
-FN	Polypropylene 3" x 6" [76 x 152] Oval Funnel
-P	1/2" [13] Trap Primer Connection

Z9A-FSINK POLYPROPYLENE FLOOR SINK

Engineering Specification:
F.R.P.P.-210
ZURN Z9A-FSINK POLYPROPYLENE FLOOR SINK – Flame-retardant polypropylene body with bottom outlet and full grate.





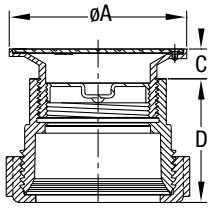
Model No.	Dimensions in Inches [mm]			
	'A' Connection	A	B	D
Z9A-FSINK-2	2 [51] Socket Connection	13-3/4 Sq. [349]	11-25/32 Sq. [299]	7-7/8 [200]
Z9A-FSINK-3	3 [76] Socket Connection	13-3/4 Sq. [349]	11-25/32 Sq. [299]	7-7/8 [200]
Z9A-FSINK-4	4 [102] Pipe Stub	13-3/4 Sq. [349]	11-25/32 Sq. [299]	7-7/8 [200]

Options	Description
-DS	Dome Strainer
-Y	Sediment Bucket

Z9A-C01 ADJUSTABLE FLOOR CLEANOUT

Engineering Specification:
ZURN Z9A-C01 ADJUSTABLE FLOOR CLEANOUT – Polypropylene body with gas and water-tight taper plug complete with stainless steel top assembly with scoriated cover.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

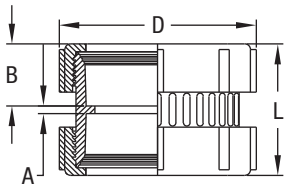


Model No.	Dimensions in Inches [mm]				
	Nom. Pipe Size	øA	D	C	
				Min.	Max.
Z9A-C01-3	3 [76]	5-3/16 [132]	3-19/32 [91]	1 [25]	1-1/2 [38]
Z9A-C01-4	4 [102]	5-3/16 [132]	3-11/16 [94]	1 [25]	1-1/2 [38]

Z9A-C04 CLEANOUT BODY WITH PLUG

Engineering Specification:
ASTM-F1412, F.R.P.P. - 210
ZURN Z9A-C04 CLEANOUT BODY WITH PLUG – Flame-retardant polypropylene coupling assembly with gas and water-tight polypropylene plug.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

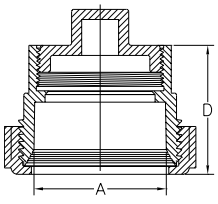


Model No.	Dimensions in Inches [mm]			
	A	B	D	L
Z9A-C04-112	5/32 [4]	1-1/16 [27]	3-1/32 [77]	2-1/4 [57]
Z9A-C04-2	1/8 [3]	1-9/32 [33]	3-17/32 [90]	2-5/8 [67]
Z9A-C04-3	3/16 [5]	2-3/32 [53]	5-21/64 [135]	4-3/8 [111]
Z9A-C04-4	1/4 [6]	2-1/8 [54]	6-3/8 [162]	4-1/2 [114]
Z9A-C04-6	1 [25]	2-5/32 [55]	8-19/32 [218]	4-19/32 [117]

Z9A-C06 CLEANOUT

Engineering Specification: ASTM-F1412
ZURN Z9A-C06 CLEANOUT – Flame-retardant polypropylene body with gas and water-tight tapered polypropylene plug.

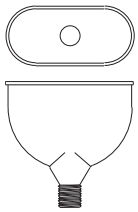
Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal



Model No.	Dimensions in Inches [mm]	
	A	D
Z9A-C06-112	1-1/2 [38]	2 [51]
Z9A-C06-2	2 [51]	2-7/32 [56]
Z9A-C06-3	3 [76]	3-19/32 [91]
Z9A-C06-4	4 [102]	3-11/16 [94]

Z9-CS OVAL CUP SINK

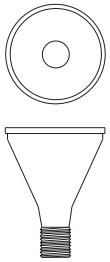
Engineering Specification:
ZURN Z9-CS OVAL CUP SINK – Constructed of a corrosion-resistant polyolefin that conforms to ASTM-F1412. Complete with integrally molded 1-1/2" NPS threads.



Model No.	Dimensions in Inches [mm]			
	Outlet	Bowl Size	Rim Size	Rim Thickness
Z9-CS-63	1-1/2 [38]	6 x 3 [152 x 76]	7 x 3-7/8 [178 x 98]	1/4 [6]
Z9-CS-93	1-1/2 [38]	9 x 3 [229 x 76]	10-1/2 x 4-3/8 [267 x 111]	1/4 [6]

Z9-CS ROUND CUP SINK

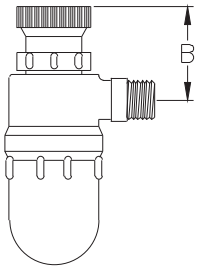
Engineering Specification:
ZURN Z9-CS ROUND CUP SINK – Constructed of a corrosion-resistant polyolefin that conforms to ASTM-F1412. Complete with integrally molded 1-1/2" NPS threads.



Model No.	Dimensions in Inches [mm]			
	Outlet	Bowl Size	Rim Size	Rim Thickness
Z9-CS-44	1-1/2 [38]	3-1/4 [83]	4 [102]	1/4 [6]
Z9-CS-64	1-1/2 [38]	5-1/2 [140]	6-1/2 [165]	1/4 [6]

Z9A-BT BOTTLE TRAP

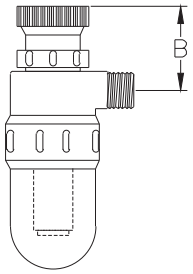
Engineering Specification:
ZURN Z9A-BT BOTTLE TRAP – Constructed of a corrosion-resistant polyolefin conforming to ASTM-F1412. The 3" deep seal trap is complete with a 1-1/2" loose nut inlet and adjustable tailpiece.



Model No.	Dimensions in Inches [mm]			
	Inlet	Outlet	B	
			Min.	Max.
Z9A-BT-112	1-1/2 [38]	1-1/2 [38]	3 [76]	7-1/4 [184]

Z9A-BTGB TRANSLUCENT BASE BOTTLE TRAP

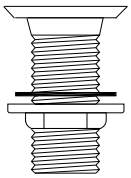
Engineering Specification: ZURN Z9A-BTGB TRANSLUCENT BASE BOTTLE TRAP – Constructed of a corrosion-resistant polyolefin that conforms to ASTM-F1412. The 3" deep seal trap is complete with a 1-1/2" loose nut inlet and adjustable tailpiece and 1-1/2" MPT outlet.



Model No.	Dimensions in Inches [mm]			
	Inlet	Outlet	B	
			Min.	Max.
Z9A-BTGB-112	1-1/2 [38]	1-1/2 [38]	3 [76]	7-1/4 [184]

Z9A-WA WASTE ASSEMBLIES

Engineering Specification:
ZURN Z9A-WA WASTE ASSEMBLIES – Constructed of a corrosion-resistant polyolefin that conforms to ASTM-F1412. Complete with backing nut and polyethylene gasket and plug. Use Teflon tape on threads.



Model No.	Dimensions in Inches [mm]		
	Nom. Pipe Size	A	B
Z9A-WA-112-W	White	2-57/64 [86]	3-3/4 [95]
Z9A-WA-112-B	Black	3-3/8 [86]	3-3/4 [95]

Material Specification for Polypropylene

Zurn non-flame-retardant polypropylene pipe and fittings meet the requirements for ASTM-4101 of PP0210 B55042. Our flame-retardant polypropylene meets ASTM-4101 specification for PP0210 B56562 FL012. The compound also meets NSF standard 14 and ASTM-F1412 chemical resistance testing requirements.

Zurn Corrosive Flame-Retardant Polypropylene Flame and Physical Properties

FLAME TESTING:

Property	UL or ASTM Test No.	Zurn Value
Flammability	UL-94 (Vertical Burn)	Pass V-2
Flammability	ASTM-D635	Pass HB
Oxygen Index %	ASTM D2863	24-25-26

MECHANICAL TESTING:

Property	ASTM Test No.	Zurn Value
Chemical Resistance	F1412	Pass
Specific Gravity (g./cm^3)	D792	0.978
Tensile Yield Strength @ 2" min.	D638	4,000 psi
Flexure Modulus	D790	218,000 psi
Hardness, Rockwell	D1706	73-76 R
Izod Impact, Notched	D256	7.20 ft.-lb./in.
Un-notched Izod Impact (10# Hammer/ -18°C)	D256	33.4 ft.-lb./in.
Coefficient of Linear Expansion (-22°F to 86°F)	D696	6.4 x 10 -5 in/in–F°
Linear Thermal Expansion (31°C to 85°C)	E228	32.1 μm
Heat Deflection Temp @ 66 PSI Load	D648	217°F
Water Absorption, 24 hrs.	D570	+0.003
Low Temp Brittle Point	D746	+10°F
Vicat Softening	D1525	249°F

Pro-fax® Polypropylene

Chemical Resistance

Pro-fax polypropylene, like most of the polyolefins, is highly resistant to solvents and chemicals. The results of extensive laboratory and actual field installation tests of polypropylene's chemical resistance are reported in this catalog, which is updated at intervals.

The corrosion resistance data presented here are based on unstressed specimens of Pro-fax, 3 in. long by 0.025 in. thick, in the shape of dumbbells. Results are reported after 1 month immersion. As it is difficult to create actual service conditions in the laboratory, the results of many of the environments should be taken only as an indication of behavior in service.

Pro-fax polypropylene has outstanding resistance to water and other inorganic environments. In most aqueous environments, its weight increase is less than 0.2% when it has been stored for 6 months at ambient temperatures. When the temperature is increased to 60°C (140°F), the weight increase is less than 0.5% for a similar period. According to ASTM D 570-63T, its 24-hour water absorption rate is 0.03%. It resists most strong mineral acids and bases, but, like the other polyolefins, it is subject to attack by oxidizing agents.

Pro-fax polypropylene is appreciably affected by chlorosulfonic acid and oleum at room temperature, 98% sulfuric acid, 30% hydrochloric acid, and 30% hydrogen peroxide at 100°C (212°F). It is also affected by 98% sulfuric acid at 60°C (140°F) and fuming nitric acid and liquid bromine at room temperatures. Under strain, failure could occur with strong oxidizing acids at temperatures lower than those mentioned. With few exceptions, however, inorganic chemicals produce little or no effect on Pro-fax over a period of 6 months at temperatures up to 120°C (248°F).

The permeation resistance of Pro-fax polypropylene to organic chemicals depends on the rate and extent to which absorption occurs. This, in turn, will govern the suitability of the resin to serve in a particular environment. When the plastic is removed from the environment, evaporation will take place and cause it to return almost to its original dimensions. Property changes resulting from the absorption will be reversed if evaporation is complete.

Temperature and polarity of the organic medium are the foremost factors determining the extent of absorption by polypropylene. Absorption becomes greater as temperatures are increased and polarity of the medium is decreased. Copolymers swell more than homopolymers, indicating greater absorption. Such nonpolar liquids as benzene, carbon tetrachloride, and petroleum either have a higher absorption rate by polypropylene than polar media such as ethanol and acetone. Some reduction in tensile strength and an increase in flexibility and elongation to break in tension can be expected, depending on the nature and amount of the organic medium absorbed.

Pro-fax polypropylene has excellent resistance to environmental stress-cracking. When it is tested according to ASTM D 1693-60T, the brittle fractures that occur with certain polyethylenes in contact with polar organic liquids, detergents, and silicone fluids are not observed. Failure of this type with polypropylene is rare. Those environments known to cause such cracking to polypropylene are 98% sulfuric acid, concentrated chromic/sulfuric acid mixtures, and concentrated hydrochloric acid/chlorine mixtures.

The useful life of Pro-fax polypropylene at elevated temperatures is limited by oxidative degradation. The expected life of polypropylene at any given temperature is also determined by the nature of the environment, and by the extraction of some of the antioxidant system. Any environment that tends to extract the antioxidants may lead to more rapid breakdown of the polypropylene, especially at elevated temperatures.

CHEMICAL RESISTANCE GUIDE

Rating System

This chart rates the chemical resistance of Pro-fax polypropylene according to the following codes:

A = Negligible Effect – Should be suitable for all applications where these environmental conditions exist.

B = Limited Absorption or Attack – Should be suitable for most applications, but the user is advised to make his own tests to determine the suitability of polypropylene in the particular environment.

C = Extensive Absorption And/Or Rapid Permeation – Should be suitable for applications where only intermittent service is involved, or where the swelling produced has no detrimental effect on the part. The user should make his own tests to determine the suitability of polypropylene in the particular environment.

D = Extensive Attack – The specimen dissolves or disintegrates. Polypropylene is not recommended.

Environment	Conc. %	Temp., °C 20	60	100
Acetic acid (glacial)	97	A	B (80°C)	–
Acetic acid	50	A	A (80°C)	–
Acetic acid	40	A	–	–
Acetic acid	10	A	A	–
Acetone	100	A	A	–
Acetophenone	100	B	B	–
Acriflavine (2% solution in H_2O)	2	A	A (80°C)	–
Acrylic emulsions		A	A	–
Aluminum chloride		A	A	–
Aluminum fluoride		A	A	–
Aluminum sulfate		A	A	–
Alums (all types)		A	A	–
Ammonia (aqueous)	30	A	–	–
Ammonia gas (dry)		A	A	–
Ammonium carbonate	Satd.	A	A	–
Ammonium chloride	Satd.	A	A	–
Ammonium fluoride	20	A	A	–
Ammonium hydroxide	10	A	A	–
Ammonium metaphosphate	Satd.	A	A	–
Ammonium nitrate	Satd.	A	A	–
Ammonium persulfate	Satd.	A	A	–
Ammonium sulfate	Satd.	A	A	–
Ammonium sulfide	Satd.	A	A	–
Ammonium thiocyanate	Satd.	A	A	–
Amyl acetate	100	B	C	–
Amyl alcohol	100	A	B	–
Amyl chloride	100	C	C	–
Aniline	100	A	A	–
Anisole	100	B	B	–
Antimony chloride		A	A	–
Aqua regia	(a)	B	B	–
Aviation fuel (115/145 octane)	100	B	C	–
Aviation turbine fuel	100	B	C	–
Barium carbonate	Satd.	A	A	–
Barium chloride	Satd.	A	A	–
Barium hydroxide		A	A	–
Barium sulfate	Satd.	A	A	–
Barium sulfide	Satd.	A	A	–
Beer		A	A	–
Benzene	100	B	C	C
Benzoic acid		A	A	–
Benzyl alcohol		A	A (80°C)	–
Bismuth carbonate	Satd.	A	A	–
Borax		A	A	–
Boric acid		A	A	–
Brine	Satd.	A	A	–
Bromine liquid	100	D	–	–
Bromine water	(a)	C	–	–
Butyl acetate	100	C	C	–
Butyl alcohol	100	A	A	–

Environment	Conc. %	Temp., °C 20	60	100
Calcium carbonate	Satd.	A	A	–
Calcium chlorate	Satd.	A	A	–
Calcium chloride	50	A	A	–
Calcium hydroxide		A	A	–
Calcium hypochlorite bleach	20[(a)]	A	B	–
Calcium nitrate		A	A	–
Calcium phosphate	50	A	–	–
Calcium sulfate		A	A	–
Calcium sulfite		A	A	–
Carbon dioxide (dry)		A	A	–
Carbon dioxide (wet)		A	A	–
Carbon disulfide	100	B	C	–
Carbon monoxide		A	A	–
Carbon tetrachloride	100	C	C	C
Carbonic acid		A	A	–
Castor oil		A	–	–
Cetyl alcohol	100	A	–	–
Chlorine (gas)	100	D	D	–
Chlorobenzene	100	C	C	–
Chloroform	100	C	D	D
Chlorosulfonic acid	100	D	D	D
Chrome alum		A	A	–
Chromic acid	80[(a)]	A	–	–
Chromic acid	50[(a)]	A	A	–
Chromic acid	10[(a)]	A	A	–
Chromic/sulfuric acid		D	D	–
Cider		A	A	–
Citric acid	10	A	A	–
Copper chloride	Satd.	A	A	–
Copper cyanide	Satd.	A	A	–
Copper fluoride	Satd.	A	A	–
Copper nitrate	Satd.	A	A	–
Copper sulfate	Satd.	A	A	–
Cottonseed oil		A	A	–
Cuprous chloride	Satd.	A	A	–
Cyclohexanol	100	A	B	–
Cyclohexanone	100	B	C	–
Decalin	100	C	C	C
Detergents	2	A	A	A
Developers (photographic)		A	A	–
Dibutyl phthalate	100	A	B	D
Dichloroethylene	100	A	–	–
Diethanolamine	100	A	A	–
Diisooctyl phthalate	100	A	A	–
Emulsifiers		A	A	–
Ethanolamine	100	A	A	–
Ethyl acetate	100	B	B	–
Ethyl alcohol	96	A	A	A (80°C)
Ethyl chloride	100	C	C	–
Ethylene dichloride	100	B	–	–
Ethylene glycol		A	A	–
Ethylene oxide	100	B (10°C)	–	–

CHEMICAL RESISTANCE GUIDE, *continued*

Environment	Conc. %	Temp., °C 20	60	100
Ethyl ether	100	B	–	–
Fatty acids (C_6)	100	A	A	–
Ferric chloride	Satd.	A	A	–
Ferric nitrate	Satd.	A	A	–
Ferric sulfate	Satd.	A	A	–
Ferrous chloride	Satd.	A	A	–
Ferrous sulfate	Satd.	A	A	–
Fluosilicic acid		A	A	–
Formaldehyde	40	A	A	–
Formic acid	100	A	–	–
Formic acid	10	A	A	–
Fructose		A	A	–
Fruit juices		A	A	–
Furfural	100	C	C	–
Gas liquor		C	–	–
Gasoline	100	B	C	C
Gearbox oil	100	A	B	–
Gelatin		A	A	–
Glucose	20	A	A	–
Glycerin	100	A	A	A
Glycol		A	A	–
Hexane	100	A	B	–
Hydrobromic acid	50[(a)]	A	A	–
Hydrochloric acid	30[(a)]	A	B	D
Hydrochloric acid	20	A	A (80°C)	–
Hydrochloric acid	10	A	A (80°C)	B
Hydrochloric acid	2	A	A	A
50-50 HCl-HNO_3	(a)	B	D (80°C)	–
Hydrofluoric acid	40	A	–	–
Hydrofluoric acid	60[(a)]	A	A (40°C)	–
Hydrogen chloride gas (dry)	100	A	A	–
Hydrogen peroxide	30	A	–	D
Hydrogen peroxide	10	A	B	–
Hydrogen peroxide	3	A	–	–
Hydrogen sulfide		A	A	–
Hydroquinone		A	A	–
Inks		A	A	–
Iodine tincture		A	–	–
Isooctane	100	C	C	–
Isopropyl alcohol	100	A	A	–
Ketones		A	–	–
Lactic acid	20	A	A	–
Lanolin	100	A	A	–
Lead acetate	Satd.	A	A	–
Linseed oil	100	A	A	–
Lubricating oil	100	A	B	–
Magenta dye (aqueous solution)	2	A	A Some staining	–
Magnesium carbonate	Satd.	A	A	–
Magnesium chloride	Satd.	A	A	–
Magnesium hydroxide	Satd.	A	A	–
Magnesium nitrate	Satd.	A	A	–
Magnesium sulfate	Satd.	A	A	–
Magnesium sulfite	Satd.	A	A	–
Meat juices		A	A	–
Mercuric chloride	40	A	A	–
Mercuric cyanide	Satd.	A	A	–
Mercurous nitrate	Satd.	A	A	–
Mercury	100	A	A	–
Methyl alcohol	100	A	A	–
Methylene chloride	100	A	–	–
Methyl ethyl ketone	100	A	B	–
Milk and its products		A	A	A
Mineral oil	100	A	B	–

Environment	Conc. %	Temp., °C 20	60	100
Molasses		A	A	–
Motor oil	100	A	B	–
Naphthalene	100	A	A	A
Nickel chloride	Satd.	A	A	–
Nickel nitrate	Satd.	A	A	–
Nickel sulfate	Satd.	A	A	–
Nitric acid	fuming	D	D	D
Nitric acid	70[(a)]	C	D	–
Nitric acid	60	A	D (80°C)	–
Nitric acid	10	A	A	A
50-50 HNO_3-HCl	(a)	A	D (80°C)	–
50-50 HNO_3-H_2SO_4	(a)	C	D (80°C)	–
Nitrobenzene	100	A	A	–
Oleic acid		A	B	–
Oleum		–	–	D
Olive oil	100	A	A	–
Oxalic acid (aqueous)	50	A	B	–
Paraffin	100	A	B	–
Paraffin wax	100	A	A	–
Petrol	100	B	C	–
Petroleum ether (boiling point 100°-140°C)	100	C	C	–
Phenol	100	A	A	–
Phosphoric acid	95	A	A	–
Plating solutions, brass		A	A	–
Plating solutions, cadmium		A	A	–
Plating solutions, chromium		A	A	–
Plating solutions, copper		A	A	–
Plating solutions, gold		A	A	–
Plating solutions, indium		A	A	–
Plating solutions, lead		A	A	–
Plating solutions, nickel		A	A	–
Plating solutions, rhodium		A	A	–
Plating solutions, silver		A	A	–
Plating solutions, tin		A	A	–
Plating solutions, zinc		A	A	–
Potassium bicarbonate	Satd.	A	A	–
Potassium borate	1	A	A	–
Potassium bromate	10	A	A	–
Potassium bromide	Satd.	A	A	–
Potassium carbonate	Satd.	A	A	–
Potassium chlorate	Satd.	A	A	–
Potassium chloride	Satd.	A	A	–
Potassium chromate	40	A	A	–
Potassium cyanide	Satd.	A	A	–
Potassium dichromate	40	A	A	–
Potassium ferri-/ferrocyanide		A	A	–
Potassium fluoride		A	A	–
Potassium hydroxide	50	A	A	–
Potassium hydroxide	10	A	A	A
Potassium nitrate	Satd.	A	A	–
Potassium perborate	Satd.	A	A	–
Potassium perchlorate	10	A	A	–
Potassium permanganate	20	A	A	–
Potassium sulfate		A	A	–
Potassium sulfide		A	A	–
Potassium sulfite		A	A	–
Propyl alcohol	100	A	A	–
Pyridine	100	A	–	–
Silicone oil	100	A	A	–
Soap solution (concentrated)		A	A	–
Sodium acetate		A	A	–
Sodium bicarbonate	Satd.	A	A	–
Sodium bisulfate	Satd.	A	A	–
Sodium bisulfite	Satd.	A	A	–
Sodium borate		A	A	–

CHEMICAL RESISTANCE GUIDE, *continued*

Environment	Conc. %	Temp., °C 20	60	100
Sodium bromide oil solution		A	A	–
Sodium carbonate	Satd.	A	A	–
Sodium chlorate	Satd.	A	A	–
Sodium chloride	Satd.	A	A	A
Sodium chlorite	2	A	A (80°C)	–
Sodium chlorite	5	A	A (80°C)	–
Sodium chlorite	10	A	A (80°C)	–
Sodium chlorite	20	A	A (80°C)	–
Sodium cyanide	Satd.	A	A	–
Sodium dichromate	Satd.	A	A	–
Sodium ferricyanide	Satd.	A	A	–
Sodium ferrocyanide	Satd.	A	A	–
Sodium fluoride	Satd.	A	A	–
Sodium hydroxide	50	A	A	–
Sodium hydroxide	10	A	A	A
Sodium hypochlorite	20	A	B	B
Sodium nitrate		A	A	–
Sodium silicate		A	A	–
Sodium sulfate	Satd.	A	A	–
Sodium sulfide	25	A	A	–
Sodium sulfite	Satd.	A	A	–
Stannic chloride	Satd.	A	A	–
Stannous chloride	Satd.	A	A	–
Starch		A	A	–
Sugars and syrups		A	A	–
Sulfamic acid		A	A (80°C)	–
Sulfates of Calcium and magnesium	Satd.	A	A	–
Sulfates of potassium and sodium		A	A	–
Sulfur		A	A	–
Sulfuric acid	98[a]	C	–	D
Sulfuric acid	60	A	B (80°C)	–
Sulfuric acid	50	A	B	–
Sulfuric acid	10	A	A	A
50-50 H_2SO_4/HNO_3	(a)	C	D (80°C)	–
Tallow		A	A	–
Tannic acid	10	A	A	–
Tartaric acid		A	A	–
Tetrahydrofuran	100	C	C	C
Tetralin	100	C	C	C
Toluene	100	C	C	–
Transformer oil	100	A	C	–
Trichloroacetic acid	10	A	A	–
Trichloroethylene	100	A	A (80°C)	–
Turpentine	100	C	C	C
Urea		A	A	–
Urine		A	A	–
Vaseline[b]		A	A	–
Vinegar		A	A	–
Water (distilled, soft, hard, and vapor)		A	A	A
Wet chlorine gas		–	D (70°C)	–
Whisky		A	A	A
White paraffin	100	A	B (80°C)	–
White spirit	100	B	C	–
Wines		A	A	–
Xylene	100	C	C	C
Yeast		A	A	–
Zinc chloride	Satd.	A	A	–
Zinc oxide		A	A	–
Zinc sulfate	Satd.	A	A	–

[a] May produce cracking in material under stress.
[b] Registered trademark of Chesebrough-Ponds, Inc.

Reprinted with permission of Montell USA Inc.

Printed in the U.S.A.

ID#: TL-010

SUPPLEMENTAL CHEMICAL RESISTANCE GUIDE

Chemical	Acceptable	Not Acceptable	Acceptable w/Dilution	Accept To Temp	Rating
Acetaldehyde*	X				
Alcohol, Methyl, 6% Aqueous	X				A
Ammonia Bicarbonate*	X				
Ammonium Hydrosulphide*	X				
Ammonium Phosphate*	X				
Aniline Hydrochloride*	X				
Aniline Sulphate*	X				
Animal Oils	X				
Antimony Trichloride	X			60°C	A
Benzaldehyde*	X		X		
Benzene-Sulphonic Acid*	X				
Bleach, Liquid	X			20°C/60°C	A/B
Bleach, Powder*	X				
Boron Trifluoride					
Calcium Bisulphite*	X				
Caustic Soda	X				A
Chlorine Water, 2% Aqueous*	X				
Chlorine Water, Sat. Solution*			X		
Creosote*	X				
Cresols*	X				
Cresylic Acids (Crude)*	X				
Cupric Chloride	X				A
Cupric Nitrate	X				A
Cupric Sulphate	X				A
Dextrose*	X				
Diethyl Ether	X			20°C	B
Diethylene Glycol	X			100°C	A
Disodium Phospate*	X				
Emulsifiers, Photographic*	X			60°C	A
Ether	X		X	20°C	B
Ethyl Butyrate*	X				B
Fish Oils*	X				
Fixing Solutions, Photographic	X			70°F	S
Fluorine	X			70°F	M
Formic Acid, 25%	X			60°C	A
Formic Acid, 3% Aqueous	X			60°C	A
Formic Acid, 50%	X			60°C	A
Fuel Oil	X			70°F	M
Grape Sugar	X			60°C	A
Hydrobromic Acid, 100%	X			70°F	S
Hydrochloric Acid, Conc.	X			20°C/60°C	A/B
Hydrofluoric Acid, 4% Aqueous	X			60°C	A
Hydrofluoric Acid, Conc.	X			60°C	A
Hydrogen	X				
Hydrogen Peroxide, 12%	X			20°C	A
Hydrogen Peroxide, 90% and Above		X	X		
Hypochlorous Acid*	X				
Iodine, Conc. In KI Solution*	X		X		
Lactic Acid, 10% Aqueous	X			60°C	A
Lactic Acid, 100%*	X				
Lead Arsenate*	X				
Lead, Tetra-Ethyl*	X				
Maleic Acid, 25% Aqueous*	X				
Maleic Acid, Conc.*	X				
Manganese Sulphate*	X				
Metallic Soaps*	X				
Methyl Acetate*	X			60°C	B
Methyl Bromide*	X				
Methyl Chloride*	X			20°C	A
Monochlorbenzene		X		60°C	C
Nitric Acid 30%	X			20°C/60°C	A/D
Nitric Acid, 5% Aqueous	X			60°C	A
Octyl Cresol*	X			20°C	B
Orange Extract*		X			
Oxygen*	X				
Ozone*			X		
Perchloric Acid*		X	X		
Phosphorus Oxychloride*			X		
Phosphorus Pentoxide*	X				
Phosphorus Trichloride*			X		
Photographic Developers	X			60°C	A
Photographic Emulsions	X				
Photographic Solutions*	X				
Picric Acid, 1% Aqueous*	X				
Potassium Acid Sulphate*	X				
Potassium Bichromate	X			60°C	A
Potassium Bisulphite*	X				
Potassium Cuprocyanide*	X				
Potassium Hydroxide, 1% Aqueous	X			100°C	A
Potassium Hydroxide, Conc.	X			60°C	A
Potassium Persulphate*	X				
Potassium Phosphate*	X				
Potassium Thiosulphate*	X				
Propylene Glycol	X			60°C	A
Salicylic Acid*	X				
Sea Water*	X				
Silicic Acid*	X				

*Indicates chemical not tested, but the response would be expected to be similar to one that was tested.

SUPPLEMENTAL CHEMICAL RESISTANCE GUIDE, *continued*

Chemical	Acceptable	Not Acceptable	Acceptable w/Dilution	Accept To Temp	Rating
Silicone Fluids	X			60°C	A
Silver Cyanide*	X				
Silver Nitrate*	X				
Sodium Aluminate*	X				
Sodium Benzoate*	X				
Sodium Chlorite 2%	X			80°C	A
Sodium Hydroxide, 1% Aqueous	X			100°C	A
Sodium Hydroxide, Conc.	X			60°C	A
Sodium Hypochlorite, 15% Chlorine	X			20°C/100°C	A/B
Sodium Hyposulphate*	X				
Sodium Metaphosphate*	X				
Sodium Peroxide*		X	X		
Sodium Sulphide, 25% Aqueous	X			60°C	A
Sodium Thiosulphate*	X				
Soft Soap*	X				
Stearic Acid*	X				
Sucrose	X				

Chemical	Acceptable	Not Acceptable	Acceptable w/Dilution	Accept To Temp	Rating
Sulphamic Acid	X			80°C	A
Sulphur Dioxide, Dry*		X			
Sulphur Dioxide, Moist*		X			
Sulphur, Colloidal	X			60°C	A
Sulphuric Acid, 20%			X	60°C	A
Sulphuric Acid, 30%			X	60°C	A/B
Sulphuric Acid, 40%			X	60°C	B
Sulphuric Acid, 70%			X	60°C	B
Sulphurous Acid*		X			
Tanning Extracts*	X			60°C	A
Tricresyl Phosphate*	X				
Triethanolamine	X			80°C	A
Trisodium Phospate*	X				
Trisodium Phosphate	X				
Tritolyl Phosphate*	X				
Vegetable Oils	X			60°C	A
Wetting Agents*	X				
Whey*	X				

*Indicates chemical not tested, but the response would be expected to be similar to one that was tested.

NOTES

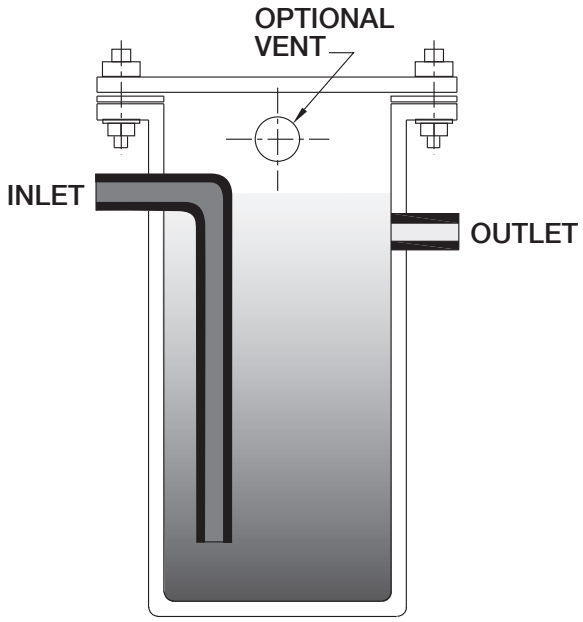
NEUTRALIZATION TANKS

General Product Information

The Zurn Neutralization Tank is designed to intercept harmful chemicals; dilute and neutralize these wastes and release them to the public sanitation system.

How It Works

The Zurn inlet immediately channels the incoming fluids directly to the bottom of our tank. As the fluids work their way to the outlet, they must first pass through limestone chips filling the tank. Calcium carbonate (the effective ingredient in limestone chips) reacts with acids to form harmless neutral salts, carbon dioxide and water. The neutral salts are transformed into sludge and fall to the bottom of the tank. Carbon dioxide gas mixes with water to form carbonic acid, which helps to neutralize alkaline wastes. The water helps to dilute the acidic, alkaline and solvent wastes. Once neutralized, wastes are discharged to the sewer systems.



Sizing

American Society of Plumbing Engineers, as well as some national and local codes, have recognized different ways of sizing a neutralization tank. It is advisable to check with local authorities for sizing requirements in your particular locality. Sizing the proper tank for your project is determined by the number of lab sinks discharging through the system. Table A1 illustrates the most widely used sizing method.

Table A1: Acidic Waste Neutralization Tank Sizing Table

Number of Lab Sinks	2	4	8	16	22	27	30	40	50	60	75	110	150	175	200	300	500	600
Tank Size in Gallons [Liters]	5 [18.9]	15 [56.8]	30 [113.6]	55 [208.2]	75 [283.9]	90 [340.7]	108 [408.8]	150 [567.8]	175 [662.4]	200 [757.0]	275 [1040.9]	360 [1362.6]	500 [1898.5]	550 [2081.8]	650 [2460.3]	1200 [4542]	2000 [7570]	3000 [11355]

NOTE: For commercial and industrial laboratories, the number of lab sinks should be multiplied by .5 use factor.

Limestone Chips

The limestone chips used in conjunction with neutralization tanks must be in the one to three inch (1"-3") diameter size range and must contain a high calcium carbonate content in excess of 90%. Table B1 is a useful reference tool in determining the proper amount of limestone needed for the respected tank size. ***Note:*** *This guide provides the approximate amount needed for a charge (one filling). Replacement chips will be required as determined by the use of the tank.*

Dolomitic limestone should be used for battery acid (sulfuric acid) applications. Consult factory for more information.

Tank Maintenance

A proper maintenance schedule must be adhered to. If adequate maintenance is not performed, the efficiency of the tank drops off dramatically. A regular maintenance program of one to three months should be observed, more frequent maintenance may be required depending upon volume of waste through the tank.

Table B1: Amount Pounds

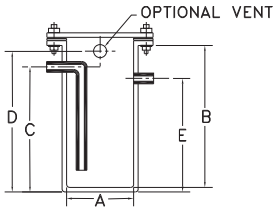
Tank Model No.	Approximate Amount Pounds
Z9A-NT-5	50
Z9A-NT-15	100
Z9A-NT-30	200
Z9A-NT-55	500
Z9A-NT-100	1,000
Z9A-NT-150	1,750
Z9A-NT-200	2,500
Z9A-NT-275	3,200
Z9A-NT-350	4,000
Z9A-NT-500	5,000
Z9A-NT-1200	11,000

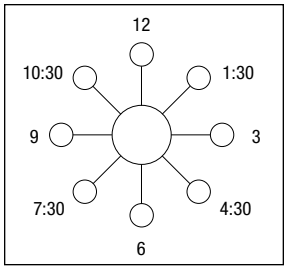
Z9A-NT NEUTRALIZATION TANK

Engineering Specification:

ZURN Z9A-NT NEUTRALIZATION TANK – _____ gallon capacity, having ____ inlet, outlet and _____ inch vent connections with seamless construction is manufactured from a high-density polyethylene. The top is complete with gasketed, bolt-down cover.

Important: Tank connection must be mechanical joint or threaded connection; **cannot be fusion**.





Tanks are non-cancelable and non-returnable, NFA.

Specify Inlet (I), Outlet (O), and Vent (V) if applicable.

Model No.	Dimensions in Inches [mm]							
	Std. Inlet/Outlet	Outlet Type	Vent	A	B	C	D	E
Z9A-NT-05	1-1/2 or 2 [51]	Plain End	1-1/2 or 2 [51]	11 [279]	14 [356]	11 [279]	12 [305]	8 [203]
Z9A-NT-15	1-1/2 or 2 [51]	Plain End	1-1/2 or 2 [51]	18 [457]	15 [381]	11 [279]	12 [305]	8 [203]
Z9A-NT-30	3 [76]	Plain End	2 [51]	18 [457]	29 [737]	23 [584]	25 [635]	19 [483]
Z9A-NT-55	4 [102]	Plain End	3 [76]	22 [559]	36 [914]	27 [686]	31 [787]	23 [584]
Z9A-NT-100	4 [102]	Plain End	3 [76]	28 [711]	42 [1067]	35 [889]	37 [940]	31 [787]
Z9A-NT-150	4 [102]	Plain End	3 [76]	31 [787]	48 [1219]	38 [965]	42 [1067]	34 [864]
Z9A-NT-175	4 [102]	Plain End	3 [76]	30 [762]	57 [1448]	49-1/2 [1257]	53-1/2 [1359]	46-1/2 [1181]
Z9A-NT-200	4 [102]	Plain End	3 [76]	36 [914]	48 [1219]	38 [965]	42 [1067]	34 [864]
Z9A-NT-275	4 [102]	Plain End	3 [76]	42 [1067]	48 [1219]	38 [965]	42 [1067]	34 [864]
Z9A-NT-350	4 [102]	Plain End	3 [76]	48 [1219]	48 [1219]	38 [965]	42 [1067]	34 [864]
Z9A-NT-500	4 [102]	Plain End	3 [76]	52 [1321]	60 [1524]	52 [1321]	54 [1372]	46 [1168]
Z9A-NT-1200	4 [102]	Plain End	3 [76]	69 [1753]	84 [2134]	74 [1880]	78 [1981]	68 [1727]

Note: Unless otherwise specified, all tanks will be supplied with above sized inlet, outlet and vent. If your installation requires a variation in size, contact your Representative for pricing. Please specify the location of your inlet, outlet and vent connections.

Options	Description
Z9-MAC-24	24" x 24" [610 x 610] Manhole Access Cover – Use with NT-05
Z9-MAC-30	30" x 30" [762 x 762] Manhole Access Cover – Use with NT-15 to NT-30
Z9-MAC-36	36" x 36" [914 x 914] Manhole Access Cover – Use with NT-55
Z9-MAC-42	42" x 42" [1067 x 1067] Manhole Access Cover – Use with NT-100 to NT-175
Z9-MAC-48	48" x 48" [1219 x 1219] Manhole Access Cover – Use with NT-200 & NT-300
Z9-MAC-54	54" x 54" [1372 x 1372] Manhole Access Cover – Use with NT-275
Z9-MAC-60	60" x 60" [1524 x 1524] Manhole Access Cover – Use with NT-350, NT-550, NT-650
Z9-LIME-CHIPS	50 lb. [23 kg] bag Standard Limestone Chips (See previous page for proper quantity.)

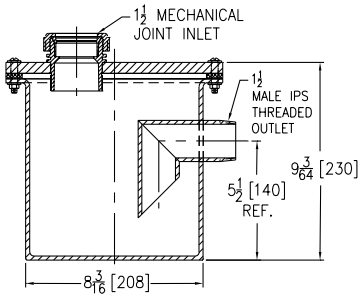
Note: pH monitoring system is available upon request. Contact local Zurn representative for further information.

Z9A-DT 1.5 GALLON DILUTION TANK

Engineering Specification:

ZURN Z9A-DT 1.5 GALLON DILUTION TANK – Removable, bolted gasket cover. Tank is constructed of high-density polyethylene.

Note: Neutralization tanks and dilution traps are non-cancelable and non-returnable.



Model No.	Dimensions in Inches [mm]	
	Inlet	Outlet
Z9A-DT-1	1-1/2 [38]	1-1/2 [38]
Z9A-DT-2	2 [51]	2 [51]

General Product Information

As a result of changing design practices, specifically the use of open spaces between the floor and the ceiling beneath for return-air applications (in lieu of traditional duct work), there has become a great need for a thermoplastic that could offer the chemical resistance of polypropylene while conforming to the stringent smoke and flame spread requirements of ASTM E84 and UL 723. The thermoplastic that has become widely accepted for this application is polyvinylidene fluoride (PVDF).

PVDF, a fluoropolymer material, is chemically resistant to most acids, bases, organic solvents and halogens. Maintaining most of its strength from -40°F to 280°F, no other thermoplastic can approach the combination of strength, chemical resistance and working temperature of PVDF.

Joined together utilizing Zurn's patented dual-purpose fitting (either mechanical or electro fusion), our system offers an easy-to-install, trouble-free alternative to high silicon iron, glass, and fiberglass wrap that have been used in the past!

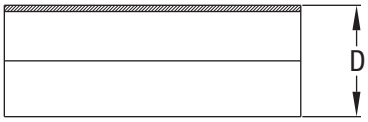
Applications

- *Plenum use*
- *High-temperature corrosive waste drainage*

Z9-PVDF40 PVDF PIPE SCHEDULE 40

Engineering Specification:

ASTM-F1673, UL Classified
ZURN Z9-PVDF40 – Schedule 40 polyvinylidene fluoride pipe.



Model No.	Dimensions in Inches [mm]	
	Nom. Pipe Size	D
Z9-PVDF40-112	1-1/2 [38]	1-29/32 [48]
Z9-PVDF40-2	2 [51]	2-3/8 [60]
Z9-PVDF40-3	3 [76]	3-1/2 [89]
Z9-PVDF40-4	4 [102]	4-1/2 [114]

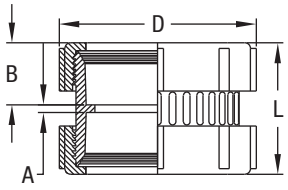
Z9A-PC PVDF COUPLING

Engineering Specification:

ASTM-F1673, UL Classified
ZURN Z9A-PC COUPLING – Polyvinylidene fluoride coupling assembly.

Options:

-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal



Model No.	Dimensions in Inches [mm]				
	Nom. Pipe Size	A	B	D	L
Z9A-PC-112	1-1/2 [38]	5/32 [4]	1-1/16 [27]	3-1/32 [77]	2-1/4 [57]
Z9A-PC-2	2 [51]	1/8 [3]	1-9/32 [33]	3-17/32 [90]	2-5/8 [67]
Z9A-PC-3	3 [76]	3/16 [5]	2-3/32 [53]	5-21/64 [135]	4-3/8 [111]
Z9A-PC-4	4 [102]	1/4 [6]	2-1/8 [54]	6-3/8 [162]	4-1/2 [114]

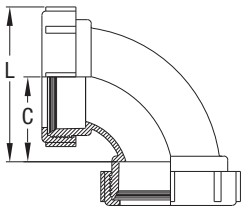
Z9A-PE90 PVDF 90° ELBOW

Engineering Specification:

ASTM-F1673, UL Classified
ZURN Z9A-PE90 90° ELBOW – Threaded x threaded polyvinylidene fluoride 90° elbow fitting.

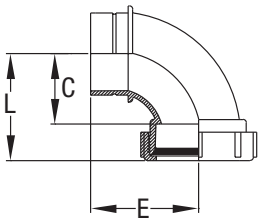
Options:

-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal



Model No.	Dimensions in Inches [mm]		
	Nom. Pipe Size	C	L
Z9A-PE90-112	1-1/2 [38]	1-3/4 [44]	3-9/32 [83]
Z9A-PE90-2	2 [51]	2-5/16 [75]	4-3/32 [104]
Z9A-PE90-3	3 [76]	3 [76]	5-21/32 [144]
Z9A-PE90-4	4 [102]	3-7/8 [98]	7-1/16 [179]

Z9A-PE90S 90° STREET ELBOW – Socket x Spigot

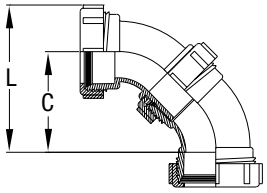


Engineering Specification:
ASTM-F1673, UL Classified
ZURN Z9A-PE90S 90° STREET ELBOW – Socket x spigot polyvinylidene fluoride 90° elbow fitting.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

Model No.	Dimensions in Inches [mm]			
	Nom. Pipe Size	C	E	L
Z9A-PE90S-112	1-1/2 [38]	1-3/4 [44]	2-27/32 [72]	2-13/16 [71]
Z9A-PE90S-2	2 [51]	2-5/16 [59]	3-19/32 [91]	3-19/32 [91]
Z9A-PE90S-3	3 [76]	3 [76]	5-1/16 [129]	5-15/16 [151]
Z9A-PE90S-4	4 [102]	3-7/8 [98]	5-15/16 [151]	5-31/32 [152]

Z9A-PLS90 PVDF LONG SWEEP 90° ELBOW



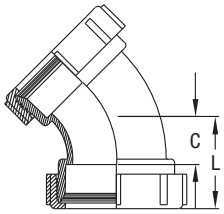
Engineering Specification:
ASTM-F1673, UL Classified
ZURN Z9A-PLS90 LONG SWEEP ELBOW – Threaded x threaded polyvinylidene fluoride 90° elbow fitting.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

Model No.	Dimensions in Inches [mm]		
	Nom. Pipe Size	C	L
Z9A-PLS90-112*	1-1/2 [38]	3-13/16 [81]	4-23/32 [120]
Z9A-PLS90-2*	2 [51]	3-27/32 [98]	5-5/8 [143]
Z9A-PLS90-3	3 [76]	5-3/4 [146]	8-13/32 [214]
Z9A-PLS90-4	4 [102]	6-13/16 [173]	10 [254]

*One-piece molded.

Z9A-PE45 PVDF 45° ELBOW – Thread x Thread

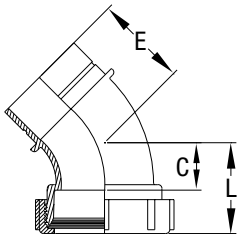


Engineering Specification: ASTM-F1673, UL Classified
ZURN Z9A-PE45 45° ELBOW – Threaded x threaded polyvinylidene fluoride 45° elbow fitting assembly.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

Model No.	Dimensions in Inches [mm]		
	Nom. Pipe Size	C	L
Z9A-PE45-112	1-1/2 [38]	11/16 [17]	1-3/4 [44]
Z9A-PE45-2	2 [51]	25/32 [20]	1-27/32 [47]
Z9A-PE45-3	3 [76]	1-3/4 [44]	2-1/32 [52]
Z9A-PE45-4	4 [102]	2-13/16 [56]	4-5/16 [110]

Z9A-PE45S PVDF STREET 45° ELBOW – Socket x Spigot



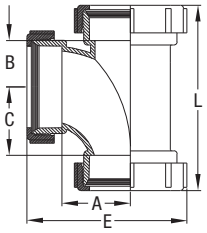
Engineering Specification:
ASTM-F1673, UL Classified
ZURN Z9A-PE45S STREET 45° ELBOW – Socket x spigot polyvinylidene fluoride 45° elbow fitting assembly.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

Model No.	Dimensions in Inches [mm]			
	Nom. Pipe Size	C	E	L
Z9A-PE45S-112	1-1/2 [38]	11/16 [17]	1-15/16 [49]	1-3/4 [44]
Z9A-PE45S-2	2 [51]	25/32 [20]	2-1/4 [57]	2-1/32 [52]
Z9A-PE45S-3	3 [76]	1-3/4 [44]	4-5/32 [106]	1-27/32 [47]
Z9A-PE45S-4	4 [102]	2-3/16 [56]	4-13/32 [112]	4-5/16 [110]

Z9A-PT PVDF SANITARY TEE

Z9A-PTT



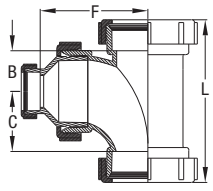
Engineering Specification:
ASTM-F1673, UL Classified
ZURN Z9A-PT SANITARY TEE – Polyvinylidene fluoride sanitary tee fitting assembly.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

Model No.	Dimensions in Inches [mm]					
	Nom. Pipe Size	A	B	C	E	L
Z9A-PT-112	1-1/2 [38]	1-3/4 [44]	1-3/8 [35]	1-3/4 [44]	4-1/16 [103]	5-1/4 [133]
Z9A-PTT-112	1-1/2 [38]	2-3/16 [56]	2-3/4 [70]	3-1/2 [89]	4-15/16 [125]	8-11/32 [212]
Z9A-PT-2	2 [51]	1-5/16 [33]	1-3/8 [35]	2-5/16 [59]	5-3/32 [129]	6-1/4 [159]
Z9A-PT-3	3 [76]	3-1/16 [78]	2-3/16 [56]	3-1/16 [78]	7-13/32 [188]	9-7/16 [240]
Z9A-PT-4	4 [102]	3-7/8 [98]	2-5/8 [67]	3-5/8 [92]	8-3/4 [222]	10-3/4 [273]

Z9A-PTR PVDF REDUCING SANITARY TEE

Z9A-PTTR



Z9A-PTR

Engineering Specification:
ASTM-F1673, UL Classified
ZURN Z9A-PTR REDUCING SANITARY TEE – Polyvinylidene fluoride reducing sanitary tee fitting assembly.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

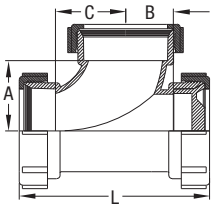
Model No.	Dimensions in Inches [mm]					
	Nom. Pipe Size	Reducer Size	B	C	F	L
Z9A-PTR-2 x 112*	2 [51]	2 x 1-1/2 [51 x 38]	1-3/16 [30]	1-15/16 [49]	4-15/16 [125]	6-1/4 [159]
Z9A-PTTR-2 x 112*	2 [51]	2 x 1-1/2 [51 x 38]	1-3/16 [30]	1-15/16 [49]	4-15/16 [125]	6-1/4 [159]
Z9A-PTR-3 x 112	3 [76]	3 x 1-1/2 [76 x 38]	2-3/16 [56]	3-1/16 [78]	5-7/32 [133]	9-7/16 [240]
Z9A-PTR-3 x 2	3 [76]	3 x 2 [76 x 51]	2-3/16 [56]	3-1/16 [78]	5-11/32 [136]	9-7/16 [240]
Z9A-PTR-4 x 112	4 [102]	4 x 1-1/2 [102 x 38]	2-5/8 [67]	3-5/8 [92]	6-31/32 [177]	10-3/4 [273]
Z9A-PTR-4 x 2	4 [102]	4 x 2 [102 x 51]	2-5/8 [67]	3-5/8 [92]	6-31/32 [177]	10-3/4 [273]
Z9A-PTR-4 x 3	4 [102]	4 x 3 [102 x 76]	2-5/8 [67]	3-5/8 [92]	6 [152]	10-3/4 [273]

*One-piece molded.

Z9A-PTC PVDF CLEANOUT TEE

Engineering Specification:
ASTM-F1673, UL Classified
ZURN Z9A-PTC CLEANOUT SANITARY TEE – Polyvinylidene fluoride cleanout tee fitting assembly.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

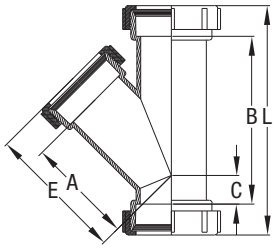


Model No.	Dimensions in Inches [mm]				
	Nom. Pipe Size	A	B	C	L
Z9A-PTC-112	1-1/2 [38]	1-3/4 [44]	1-3/8 [35]	1-3/4 [44]	5-1/4 [133]
Z9A-PTC-2	2 [51]	1-5/16 [33]	1-3/8 [35]	2-5/16 [59]	6-1/4 [159]
Z9A-PTC-3	3 [76]	3-1/16 [78]	2-3/16 [56]	3-1/16 [78]	9-7/16 [240]
Z9A-PTC-4	4 [102]	3-7/8 [98]	2-5/8 [67]	3-5/8 [92]	10-3/4 [273]

Z9A-PY PVDF 45° WYE

Engineering Specification:
ASTM-F1673, UL Classified
ZURN Z9A-PY 45° WYE – Polyvinylidene fluoride 45° wye fitting assembly.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

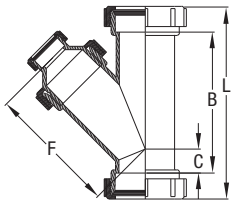


Model No.	Dimensions in Inches [mm]					
	Nom. Pipe Size	A	B	C	E	L
Z9A-PY-112	1-1/2 [38]	3-1/8 [79]	3-13/16 [97]	21/32 [17]	4-3/16 [106]	6-9/16 [167]
Z9A-PY-2	2 [51]	4-1/16 [103]	4-1/2 [114]	13/16 [21]	5-11/32 [136]	7-7/8 [200]
Z9A-PY-3	3 [76]	6 [152]	7-1/4 [184]	1-5/8 [41]	7-3/4 [197]	12-9/16 [319]
Z9A-PY-4	4 [102]	7 [178]	9-1/16 [230]	1-5/8 [41]	8-3/4 [222]	14-11/16 [373]

Z9A-PYR PVDF REDUCING WYE

Engineering Specification:
ASTM-F1673, UL Classified
ZURN Z9A-PYR REDUCING WYE – Polyvinylidene fluoride reducing 45° wye fitting assembly.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal



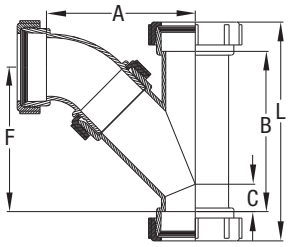
Model No.	Dimensions in Inches [mm]					
	Nom. Pipe Size	Reducer Size	B	C	F	L
Z9A-PYR-2 x 112	2 [51]	2 x 1-1/2 [51 x 38]	4-1/2 [114]	13/16 [21]	5-5/8 [143]	7-7/8 [200]
Z9A-PYR-3 x 112*	3 [76]	3 x 1-1/2 [76 x 38]	7-1/4 [184]	1-5/8 [41]	8-5/32 [207]	12-9/16 [319]
Z9A-PYR-3 x 2*	3 [76]	3 x 2 [76 x 51]	7-1/4 [184]	1-5/8 [41]	8-9/32 [210]	12-9/16 [319]
Z9A-PYR-4 x 112	4 [102]	4 x 1-1/2 [102 x 38]	9-1/16 [230]	1-5/8 [41]	10-3/32 [256]	14-11/16 [373]
Z9A-PYR-4 x 2	4 [102]	4 x 2 [102 x 51]	9-1/16 [230]	1-5/8 [41]	10-3/32 [256]	14-11/16 [373]
Z9A-PYR-4 x 3	4 [102]	4 x 3 [102 x 76]	9-1/16 [230]	1-5/8 [41]	9-1/8 [232]	14-11/16 [373]

*One-piece molded.

Z9A-PYB PVDF COMBINATION WYE and 45° ELBOW

Engineering Specification:
ASTM-F1673, UL Classified
ZURN Z9A-PYB COMBINATION WYE and 45° ELBOW – Polyvinylidene fluoride combination wye and 1/8 bend fitting assembly.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

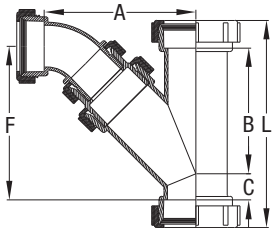


Model No.	Dimensions in Inches [mm]					
	Nom. Pipe Size	A	B	C	F	L
Z9A-PYB-112	1-1/2 [38]	4-5/32 [106]	3-13/16 [97]	21/32 [17]	4-1/8 [105]	6-9/16 [167]
Z9A-PYB-2	2 [51]	5-3/32 [129]	4-1/2 [114]	13/16 [21]	5-1/8 [130]	7-7/8 [200]
Z9A-PYB-3	3 [76]	8-23/32 [221]	7-1/4 [184]	1-5/8 [41]	8-19/32 [218]	12-9/16 [319]
Z9A-PYB-4	4 [102]	10-5/32 [258]	9-1/16 [230]	1-5/8 [41]	9-7/8 [251]	14-11/16 [373]

Z9A-PYRB PVDF REDUCING COMBINATION WYE and 45° ELBOW

Engineering Specification:
ASTM-F1673, UL Classified
ZURN Z9A-PYRB REDUCING COMBINATION WYE and 45° ELBOW – Polyvinylidene fluoride reducing combination wye and 1/8 bend fitting assembly.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

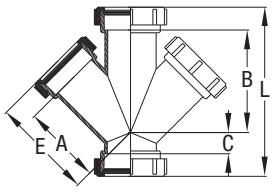


Model No.	Dimensions in Inches [mm]						
	Nom. Pipe Size	Reducer Size	A	B	C	F	L
Z9A-PYRB-2 x 112	2 [51]	2 x 1-1/2 [51 x 38]	5-15/16 [135]	4-1/2 [114]	13/16 [21]	8-15/16 [227]	7-25/32 [198]
Z9A-PYRB-3 x 112	3 [76]	3 x 1-1/2 [76 x 38]	7-23/32 [196]	7-1/4 [184]	1-5/8 [41]	8-11/16 [221]	12-27/32 [326]
Z9A-PYRB-3 x 2	3 [76]	3 x 2 [76 x 51]	8-3/32 [206]	7-1/4 [184]	1-5/8 [41]	8-15/16 [227]	12-27/32 [326]
Z9A-PYRB-4 x 112	4 [102]	4 x 1-1/2 [102 x 38]	9-1/16 [230]	9-1/16 [230]	1-7/8 [48]	10-9/32 [261]	14-15/16 [379]
Z9A-PYRB-4 x 2	4 [102]	4 x 2 [102 x 51]	9-11/32 [237]	9-1/16 [230]	1-7/8 [48]	10-1/2 [267]	14-15/16 [379]
Z9A-PYRB-4 x 3	4 [102]	4 x 3 [102 x 76]	10-15/16 [278]	9-1/16 [230]	1-7/8 [48]	11-1/16 [281]	14-15/16 [379]

Z9A-PYY PVDF 45° DOUBLE WYE

Engineering Specification:
ASTM-F1673, UL Classified
ZURN Z9A-PYY 45° DOUBLE WYE – Polyvinylidene fluoride double wye fitting assembly.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

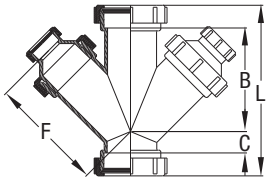


Model No.	Dimensions in Inches [mm]					
	Nom. Pipe Size	A	B	C	E	L
Z9A-PYY-112	1-1/2 [38]	3-1/8 [79]	3-3/16 [81]	21/32 [17]	4-3/13 [106]	6-9/16 [167]
Z9A-PYY-2	2 [51]	4-1/16 [103]	4-1/2 [114]	13/16 [21]	5-11/32 [136]	7-7/8 [200]
Z9A-PYY-3	3 [76]	6 [152]	7-1/4 [184]	1-5/8 [41]	7-3/4 [197]	12-9/16 [319]
Z9A-PYY-4	4 [102]	7 [178]	9-1/16 [230]	1-5/8 [41]	8-3/4 [222]	14-11/16 [373]

Z9A-PYYR PVDF REDUCING DOUBLE WYE

Engineering Specification:
ASTM-F1673, UL Classified
ZURN Z9A-PYYR REDUCING DOUBLE WYE – Polyvinylidene fluoride fitting assembly.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal



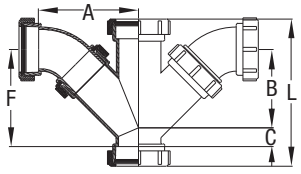
Model No.	Dimensions in Inches [mm]					
	Nom. Pipe Size	Reducer Size	B	C	F	L
Z9A-PYYR-2 x 112	2 [51]	2 x 1-1/2 [51 x 38]	4-1/2 [114]	13/16 [21]	5-5/8 [143]	7-7/8 [200]
Z9A-PYYR-3 x 112*	3 [76]	3 x 1-1/2 [76 x 38]	7-1/4 [184]	1-5/8 [41]	8-5/32 [207]	12-9/16 [319]
Z9A-PYYR-3 x 2*	3 [76]	3 x 2 [76 x 51]	7-1/4 [184]	1-5/8 [41]	8-9/32 [210]	12-9/16 [319]
Z9A-PYYR-4 x 112	4 [102]	4 x 1-1/2 [102 x 38]	9-1/16 [230]	1-5/8 [41]	10-3/32 [256]	14-11/16 [373]
Z9A-PYYR-4 x 2	4 [102]	4 x 2 [102 x 51]	9-1/16 [230]	1-5/8 [41]	10-3/32 [256]	14-11/16 [373]
Z9A-PYYR-4 x 3	4 [102]	4 x 3 [102 x 76]	9-1/16 [230]	1-5/8 [41]	9-1/8 [232]	14-11/16 [373]

*One-piece molded.

Z9A-PYYB PVDF COMBINATION DOUBLE WYE and 45° ELBOW

Engineering Specification:
ASTM-F1673, UL Classified
ZURN Z9A-PYYB COMBINATION DOUBLE WYE and 45° ELBOW – Polyvinylidene fluoride fitting assembly.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

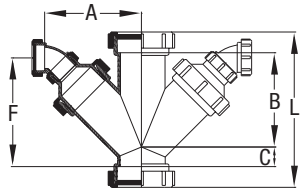


Model No.	Dimensions in Inches [mm]					
	Nom. Pipe Size	A	B	C	F	L
Z9A-PYYB-112	1-1/2 [38]	4-5/32 [106]	3-13/16 [97]	21/32 [17]	4-1/8 [105]	6-9/16 [167]
Z9A-PYYB-2	2 [51]	5-3/32 [129]	4-1/2 [114]	13/16 [21]	5-1/8 [130]	7-7/8 [200]
Z9A-PYYB-3	3 [76]	8-23/32 [221]	7-1/4 [184]	1-5/8 [41]	8-19/32 [218]	12-9/16 [319]
Z9A-PYYB-4	4 [102]	10-5/32 [258]	9-1/16 [230]	1-5/8 [41]	9-7/8 [251]	14-11/16 [373]

Z9A-PYYRB PVDF COMBINATION REDUCING DOUBLE WYE and 45° ELBOW

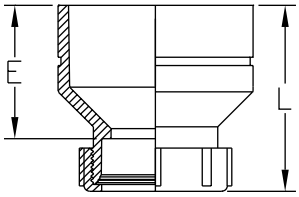
Engineering Specification:
ASTM-F1673, UL Classified
ZURN Z9A-PYYRB COMBINATION REDUCING DOUBLE WYE and 45° ELBOW – Polyvinylidene fluoride fitting assembly.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal



Model No.	Dimensions in Inches [mm]					
	Nom. Pipe Size	A	B	C	F	L
Z9A-PYYRB-2 x 112	2 [51]	2 x 1-1/2	4-1/2 [114]	13/16 [21]	8-15/16 [227]	7-25/32 [198]
Z9A-PYYRB-3 x 112	3 [76]	3 x 1-1/2	7-1/4 [184]	1-5/8 [41]	8-11/16 [221]	12-27/32 [326]
Z9A-PYYRB-3 x 2	3 [76]	3 x 2	7-1/4 [184]	1-5/8 [41]	8-15/16 [227]	12-27/32 [326]
Z9A-PYYRB-4 x 112	4 [102]	4 x 1-1/2	9-1/16 [230]	1-7/8 [48]	10-9/32 [261]	14-15/16 [379]
Z9A-PYYRB-4 x 2	4 [102]	4 x 2	9-1/16 [230]	1-7/8 [48]	10-1/2 [267]	14-15/16 [379]
Z9A-PYYRB-4 x 3	4 [102]	4 x 3	9-1/16 [230]	1-7/8 [48]	11-1/16 [281]	14-15/16 [379]

Z9A-PRED PVDF REDUCING BUSHING

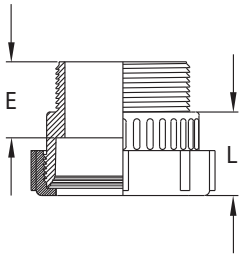


Engineering Specification:
ASTM-F1673, UL Classified
ZURN Z9A-PRED REDUCING COUPLING – Polyvinylidene fluoride reducing fitting assembly.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

Model No.	Dimensions in Inches [mm]		
	Reducer Size	E	L
Z9A-PRED-2 x112	2 x 1-1/2 [51 x 38]	1-1/2 [38]	2-5/8 [67]
Z9A-PRED-3 x 112	3 x 1-1/2 [76 x 38]	2-1/32 [52]	3-7/32 [82]
Z9A-PRED-3 x 2	3 x 2 [76 x 51]	2-1/16 [52]	3-9/16 [90]
Z9A-PRED-4 x 112	4 x 1-1/2 [102 x 38]	2-7/8 [73]	4-5/32 [106]
Z9A-PRED-4 x 2	4 x 2 [102 x 51]	2-27/32 [72]	4-3/8 [111]
Z9A-PRED-4 x 3	4 x 3 [102 x 76]	1-29/32 [48]	4-7/32 [107]

Z9A-PMA PVDF MALE THREAD ADAPTER

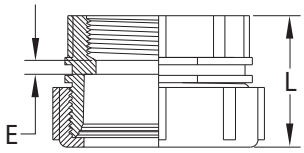


Engineering Specification:
ASTM-F1673, UL Classified
ZURN Z9A-PMA MALE ADADPTER – Polyvinylidene fluoride male adapter fitting assembly. Use Teflon tape on threads.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

Model No.	Dimensions in Inches [mm]		
	Nom. Pipe Size	E	L
Z9A-PMA-112	1-1/2 [38]	1-5/16 [33]	1-5/16 [33]
Z9A-PMA-2	2 [51]	1-11/32 [34]	1-9/16 [40]
Z9A-PMA-3	3 [76]	2-5/32 [55]	2-13/16 [71]
Z9A-PMA-4	4 [102]	2-1/16 [52]	3-1/32 [77]

Z9A-PFA PVDF FEMALE THREAD ADAPTER – NPT



Engineering Specification:
ASTM-F1673, UL Classified
ZURN Z9A-PFA FEMALE THREAD ADAPTER – Polyvinylidene fluoride female thread adapter fitting assembly. Use Teflon tape on threads.

Note: All sizes also available in straight thread. Designate Z9A-PFAS when ordering.

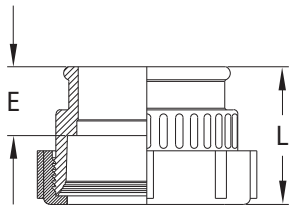
Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

Model No.	Dimensions in Inches [mm]		
	Nom. Pipe Size	E	L
Z9A-PFA-112	1-1/2 [38]	7/32 [6]	2 [51]
Z9A-PFA-2	2 [51]	5/32 [4]	2-7/32 [56]
Z9A-PFA-3	3 [76]	5/16 [8]	3-9/16 [90]
Z9A-PFA-4	4 [102]	11/32 [9]	3-21/32 [93]

Z9A-PGA PVDF GLASS PIPE ADAPTER

Engineering Specification:
ASTM-F1673, UL Classified
ZURN Z9A-PGA GLASS PIPE ADAPTER –
Polyvinylidene fluoride glass adapter fitting assembly.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

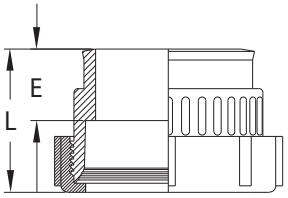


Model No.	Dimensions in Inches [mm]		
	Nom. Pipe Size	E	L
Z9A-PGA-112	1-1/2 [38]	31/32 [25]	2-3/32 [53]
Z9A-PGA-2	2 [51]	1-3/16 [30]	2-1/2 [64]
Z9A-PGA-3	3 [76]	1-31/32 [50]	3-3/32 [79]
Z9A-PGA-4	4 [102]	2 [51]	4-1/8 [105]

Z9A-PIA PVDF IRON PIPE ADAPTER – (MJ)

Engineering Specification:
ASTM-F1673, UL Classified
ZURN Z9A-PIA IRON PIPE ADAPTER – Polyvinylidene fluoride iron pipe mechanical joint adapter fitting assembly.

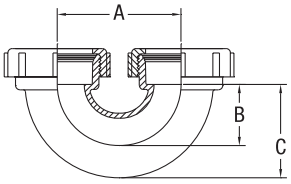
Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal



Model No.	Dimensions in Inches [mm]		
	Nom. Pipe Size	E	L
Z9A-PIA-112	1-1/2 [38]	1-9/32 [33]	2-5/32 [55]
Z9A-PIA-2	2 [51]	1-9/32 [33]	2-11/32 [60]
Z9A-PIA-3	3 [76]	2-5/32 [55]	3-15/16 [100]
Z9A-PIA-4	4 [102]	2 [51]	3-3/4 [95]

Z9A-PULOOP U-LOOP

Engineering Specification:
ASTM-F1412, F.R.P.P. - 210
ZURN Z9A-PULOOP – Flame-retardant polypropylene fitting assembly.

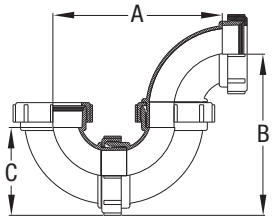


Model No.	Dimensions in Inches [mm]			
	Nom. Pipe Size	A	B	C
Z9A-PULOOP-112	1-1/2 [38]	3-5/16 [90]	1-3/4 [44]	2-11/16 [68]
Z9A-PULOOP-2	2 [51]	5 [127]	2-13/64 [57]	3-13/32 [87]

Z9A-PPTRAP PVDF P-TRAP

Engineering Specification:
ASTM-F1673, UL Classified
ZURN Z9A-PPTRAP P-TRAP – Polyvinylidene fluoride fitting assembly.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal



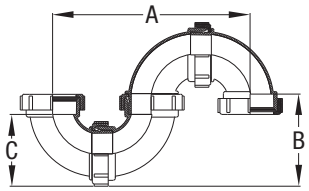
Model No.	Dimensions in Inches [mm]			
	Nom. Pipe Size	A	B	C
Z9A-PPTRAP-112*	1-1/2 [38]	5-5/16 [135]	5-1/2 [140]	2-11/16 [68]
Z9A-PPTRAP-2*	2 [51]	8-1/4 [210]	7-11/16 [195]	4-1/16 [103]
Z9A-PPTRAP-3	3 [76]	11-3/32 [282]	10-3/4 [273]	5-21/32 [144]
Z9A-PPTRAP-4	4 [102]	13-21/32 [347]	13 [330]	7-1/16 [179]

*One-piece molded U-loop.

Z9A-PSTRAP PVDF S-TRAP

Engineering Specification:
ASTM-F1673, UL Classified
ZURN Z9A-PSTRAP S-TRAP – Polyvinylidene fluoride fitting assembly.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal



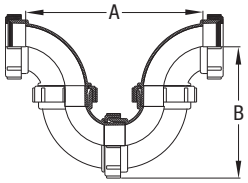
Model No.	Dimensions in Inches [mm]			
	Nom. Pipe Size	A	B	C
Z9A-PSTRAP-112*	1-1/2 [38]	8-1/8 [206]	3-3/4 [95]	2-11/16 [68]
Z9A-PSTRAP-2*	2 [51]	11-27/32 [301]	5-3/8 [137]	4-1/16 [103]
Z9A-PSTRAP-3	3 [76]	16-5/32 [410]	7-3/4 [197]	5-21/32 [144]
Z9A-PSTRAP-4	4 [102]	19-19/32 [498]	9-1/8 [232]	7-1/16 [179]

*One-piece molded U-loop.

Z9A-PRUNTRAP PVDF RUNNING TRAP

Engineering Specification:
ASTM-F1673, UL Classified
ZURN Z9A-PRUNTRAP RUNNING TRAP – Polyvinylidene fluoride fitting assembly.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

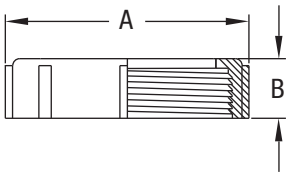


Model No.	Dimensions in Inches [mm]		
	Nom. Pipe Size	A	B
Z9A-PRUNTRAP-112*	1-1/2 [38]	7-1/16 [179]	5-1/2 [140]
Z9A-PRUNTRAP-2*	2 [51]	16-1/2 [419]	7-11/16 [195]
Z9A-PRUNTRAP-3	3 [76]	22-3/16 [564]	10-3/4 [273]
Z9A-PRUNTRAP-4	4 [102]	27-5/16 [694]	13 [330]

*One-piece molded U-loop.

Z9-PNUT PVDF LOCKING NUT

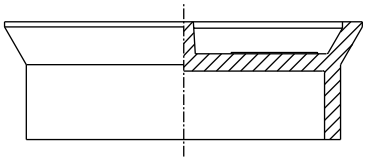
Engineering Specification:
ASTM-F1673, UL Classified
ZURN Z9-PNUT LOCKING NUT – Polyvinylidene fluoride locking nut used in both fusion lock and mechanical joint installations.



Model No.	Dimensions in Inches [mm]		
	Nom. Pipe Size	A	B
Z9-PNUT-112	1-1/2 [38]	3-1/32 [77]	13/16 [21]
Z9-PNUT-2	2 [51]	3-15/32 [88]	1 [25]
Z9-PNUT-3	3 [76]	5-21/64 [135]	1-21/64 [34]
Z9-PNUT-4	4 [102]	6-3/8 [162]	1-9/16 [40]

Z9-PPLUG PVDF CLEANOUT PLUG

Engineering Specification:
ASTM-F1673, UL Classified
ZURN Z9-PPLUG CLEANOUT PLUG – Polyvinylidene fluoride plug used with fitting. No seal required.

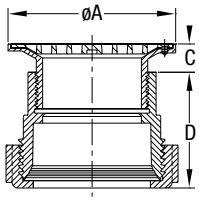


Model No.	Dimensions in Inches [mm]
	Nom. Pipe Size
Z9-PPLUG-112	1-1/2 [38]
Z9-PPLUG-2	2 [51]
Z9-PPLUG-3	3 [76]
Z9-PPLUG-4	4 [102]

Z9A-PFD1 PVDF ADJUSTABLE FLOOR DRAIN

Engineering Specification: ZURN Z9A-PFD1 ADJUSTABLE FLOOR DRAIN – Polyvinylidene fluoride body with bottom outlet and adjustable stainless steel strainer.

Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal

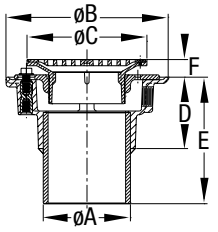


Model No.	Dimensions in Inches [mm]				
	Nom. Pipe Size	øA	D	C	
				Min.	Max.
Z9A-PFD1-3	3 [76]	5-3/16 [132]	3-19/32 [91]	1 [25]	1-1/2 [38]
Z9A-PFD1-4	4 [102]	5-3/16 [132]	3-11/16 [94]	1 [25]	1-1/2 [38]

Options	Description
-FN	4" [102] Round Stainless Steel Funnel
-VP	Vandal Proof

Z9A-PFD2 ADJUSTABLE FLOOR DRAIN

Engineering Specification:
ZURN Z9A-PFD2 ADJUSTABLE FLOOR DRAIN – Polypropylene body with plain end bottom outlet, polypropylene combination invertible membrane clamp with adjustable polypropylene head and stainless steel frame and grate.

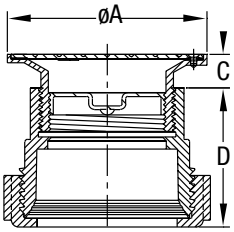


Model No.	Dimensions in Inches [mm]						
	Nom. Pipe Size øA	øB	øC	D	E	F Min.	F Max.
Z9A-PFD2-3	3 [76]	8-3/8 [213]	6 [152]	3-11/16 [94]	6-3/16 [157]	3/4 [19]	2-1/2 [64]
Z9A-PFD2-4	4 [102]	8-3/8 [213]	6 [152]	3-13/16 [97]	6-5/16 [160]	3/4 [19]	2-1/2 [64]

Options	Description	Options	Description
-FN	4" [102] Round Stainless Steel Funnel	-SQ5	5" [127] Square Stainless Steel Top Assembly
-P	1/2" [13] Trap Primer Connection	-SQ6	6" [152] Square Stainless Steel Top Assembly
-R5	5" [127] Diameter Stainless Steel Top Assembly	-SQ8	8" [203] Square Stainless Steel Top Assembly
-R7	7" [178] Diameter Stainless Steel Top Assembly	-VP	Vandal Proof
-R8	8" [203] Diameter Stainless Steel Top Assembly	-W	Winter Closure Plug
-R10	10" [254] Diameter Stainless Steel Top Assembly	-Y	Stainless Steel Sediment Bucket

Z9A-PC01 PVDF ADJUSTABLE CLEANOUT

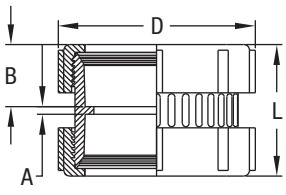
Engineering Specification: ASTM-F1673, UL Listed
ZURN Z9A-PC01 PVDF ADJUSTABLE CLEANOUT – Polyvinylidene fluoride body with gas and water-tight taper plug complete with stainless steel top assembly with scoriated cover.
Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal



Model No.	Dimensions in Inches [mm]				
	Nom. Pipe Size	øA	D	C Min.	C Max.
Z9A-PC01-3	3 [76]	5-3/16 [132]	3-19/32 [91]	1 [25]	1-1/2 [38]
Z9A-PC01-4	4 [102]	5-3/16 [132]	3-11/16 [94]	1 [25]	1-1/2 [38]

Z9A-PC04 PVDF CLEANOUT BODY WITH PLUG

Engineering Specification: ASTM-F1673, UL Listed
ZURN Z9A-PC04 CLEANOUT BODY WITH PLUG – Polyvinylidene fluoride coupling assembly with gas and water-tight PVDF plug.
Options:
-F Fusion Lock; -M Mechanical Seal; -S Stab•Lock Seal



Model No.	Dimensions in Inches [mm]			
	A	B	D	L
Z9A-PC04-112	5/32 [4]	1-1/16 [29]	3-1/32 [77]	2-1/4 [57]
Z9A-PC04-2	1/8 [3]	1-9/32 [34]	3-17/32 [90]	2-5/8 [67]
Z9A-PC04-3	3/16 [5]	2-3/32 [53]	5-21/64 [135]	4-3/8 [111]
Z9A-PC04-4	1/4 [6]	2-1/8 [54]	6-3/8 [162]	4-1/2 [114]

CHEMICAL RESISTANCE GUIDE

Signs Used and Evaluation Criteria for Solid PVDF (thickness ≥ 1 mm)

+ = PVDF Is Resistant

1) Its weight increases by not more than 2%

2) Its tensile yield strength does not change by more than 15%

3) Weight reduction is less than 0.3%

o = Use Of PVDF Is Limited

The response to at least one of the first two criteria above was negative. For instance, the weight changes between 2% and 5%. However, SOLEF PVDF can be used in the medium, provided that it is not subjected to undue stress, e.g. for linings, reinforced parts, etc. In this case, it is recommended to contact Zurn for more advice.

- = PVDF Is Not Resistant

There is considerable deterioration of the material: dissolution, chemical or physical attack, permeability, etc. For Instance, the weight changes by more than 5%.

BP = Boiling Point Of The Medium Concerned

CHEMICAL RESISTANCE GUIDE – INORGANIC MEDIA

	Medium	Formula	Conc.	Temperature of Medium °F						BP of Medium °F	Remarks
				77	122	212	257	302	BP		
	ALUMINUM										
	ammonium sulfate	$AlNH_4(SO_4)_2 \cdot 12H_2O$	50%	+	+	+			+		
	chloride	$AlCl_3 \cdot 6H_2O$	sat.	+	+	+			+	289	
	fluoride, anhydrous	AlF_3	50%	+	+	+				212	
	hydroxide	Al(OH)3	sat.	+	+	+				212	
	nitrate	$Al(NO_3)_3 \cdot 9H_2O$	50%	+	+	+				224	
	potassium sulfate	$Al_2(SO_4)_3 \cdot K_2SO_4 \cdot 24H_2O$	50%	+	+	+				215	
	AMMONIA	NH_3,gas	100%	+	+	o	+		+	-27	Destruction
		liquid	100%	-							
	AMMONIUM										
•	bromide	NH_4Br	45%	+	+	+					
	carbonate	$(NH_4)_2CO_3 \cdot H_2O$	50%	+	+	+	+				
	chloride	NH_4Cl	sat.	+	+	+				239	
	fluoroborate	NH_4BF_4	sat.	+			+		+		
	hydrofluoride	$NH_4F \cdot HF$	50%	+							See note #1
•	hydroxide	NH_4OH	30%	-					+		See note #2
							+				
	nitrate	NH_4NO_3	50%	+	++	+	+			228	
	orthophosphate	$(NH_4)_3PO_4 \cdot 3H_2O$	50%	+	+		o		+		See note #3
	sulfate	$(NH_4)_2SO_4$	50%	+	+	+	+			228	
	sulfide	$(NH_4)_2S$	20%	+			+		+	229	See note #1
	ANTIMONY	$SbCl_3$		+		+					
•	trichloride		50%		+					219	
	BARIUM			+		+			+	216	See note #2
	chloride	$BaCl_2 \cdot 2H_2O$	sat.	-					+		
	hydroxide, octahydrate	$Ba(OH)_2 \cdot 8H_2O$	sat.		+	+			o	216	
	BORIC			+		+			+		
	acid, ortho-		sat.		+				+	-180	Slight color
	BORON	H_3BO_3		+	+	+				136	
	trifluoride		100%	+		+				212	
•	**BROMINE**	BF_3	100%	+	+	o					
	water	Br_2, liquid	2%		+	+				215	

CHEMICAL RESISTANCE GUIDE – INORGANIC MEDIA

	Medium	Formula	Conc.	Temperature of Medium °F 77	122	212	257	302	BP	BP of Medium °F	Remarks
	CALCIUM			+	o	+				256	
	carbonate	$CaCO_3$	sat.	+	+					213	
	chloride	$CaCl_2$	sat.	o	+					239	
•	hydroxide	$Ca(OH)_2$	sat.	+						213	
	nitrate	$Ca(NO_3)_2•4H_2O$	50%	+							
	sulfate	$CaSO_4)•2H_2O$	sat.								
	CARBON										
	dioxide	CO_2		+	+	+	+			-109	
•	disulfide	CS_2	100%	+						115	
•	tetrachloride	CCl_4	100%	+	+				+	170	
	CHLORINE	Cl_2, dry gas	100%	+	+	+			+	-31	
		wet gas	100%	o	o	o	o			-31	Cl*
		liquid	100%	+	+					-31	
	atomic chlorine	Cl*		o	o	o					Cl*
	chlorine dioxide	ClO_2, gas	100%							50	Cl*
	CHLOROSULFONIC										
•	acid	$ClSO_2OH$	15%	+	+	+					
•			25%	+	+	+					
•			50%	+	+	+					
			100%	o	-					316	
	CHROMIUM										
	trioxide	CrO_3	30%	+	+	o	o				See note #3
•			40%	+	+	o	o				See note #3
			50%	+	+	+	+				See note #3
	COPPER										
	chloride (II)	$CuCl_2•2H_2O$	50%	+	+	+			+	236	
	nitrate (II)	$Cu(NO_3)_2•3H_2O$	50%	+	+	+			+	232	
	sulfate (II)	$CuSO_4•5H_2O$	sat.	+	+	+			+	219	
	FLUORINE	F_2,gas or liquid	100%	-						-306	Is destroyed
	FLUOROBORIC										
	acid	HBF_4	100%	+	+	+	+			266	See note #3
	FLUOROSILICIC										
	acid	H_2SiF_6	50%	+	+	+					
	HYDRAZINE										
	hydrated	$N_2H_4•H_2O$	100%	o	o	-				245	Swelling
	HYDROGEN										
	bromide	HBr	10%	+	+	+			+		
			25%	+	+	++			+		
			40%	+	+	+			+		
•			50%	+	+				+	256	See note #3
			63%	+		++					
	chloride	HCl	5%	+	+	+	+		+	214	
			10%	+	+	+	+		+	217	
			20%	+	+	+	+		+	225	
			28%	+	+	+	+		+	207	
•			36%	+	+	+	+		+	135	
			42%	+	+	+	+		+	64	
		HCl, gas	100%	+	+	+	+			-121	
	fluoride	HF	8%	+	+	+				216	
			35%	+	+	+				234	
			50%	+	+	+				216	
			70%	+	+	-				142	See note #3
	iodide	HI	57%	+	+		+				See note #3
	peroxide	H_2O_2O	30%	+	+						See note #3
	IODINE	I2, dry or moist	100%	+	+						
	IRON										
	chloride (II)	$FeCl_2•4H_2O$	sat.	+	+	+			+	247	
	chloride hydrate (III)	$FeCl_3•6H_2O$	50%	+	+	+			+	243	
	nitrate (III)	$Fe(NO_3)_3•9H_2O$	sat.	+	+	+			+	239	
	sulfate (III)	$Fe(SO_4)_3$	sat.	+	+	+			+	222	

CHEMICAL RESISTANCE GUIDE – INORGANIC MEDIA

	Medium	Formula	Conc.	Temperature of Medium °F 77	122	212	257	302	BP	BP of Medium °F	Remarks
	LEAD										
	acetate	$(CH_3COO)_2Pb•3H_2O$	sat.	+	+	+	+		+	216	
	LITHIUM										
	bromide	LiBr	sat.	+	+	+					
	MAGNESIUM										
	carbonate, basic	$MgCO_3•Mg(OH)_2•3H_2O$	sat.	+	+	+	+		+	216	
	chloride	$MgCl_2•6H_2O$	50%	+	+	+				230	
	hydroxide	$Mg(OH)_2$	sat.	+	+	+			+	214	
	nitrate	$Mg(NO_3)_2•6H_2O$	sat.	+	+	+			+	246	
	sulfate	$MgSO_4•7H_2O$	50%	+	+	+	+		+	217	
•	**MERCURY**										
	chloride (II)	Hg	100%	+	+	+	o				
	nitrate (II)	$HgCl_2$	sat.	+	+	+			+	216	
	sodium amalgam	$Mg(NO_3)_2•H_2O$	sat.	+	+	+			+	217	
		HgNa	100%	-							
	NICKEL										
	chloride	$NiCl_2•6H_2O$	sat.	+	+	+	+		+	248	
	nitrate	$Ni(NO_3)_2•6H_2O$	50%	+	+	+	+		+	247	
	sulfate	$NiSO_4•6H_2O$	sat.	+	+	+	+		+	236	
	NITRIC										
	acid	HNO_3	6%	+	+	+				214	
			20%	+	+	+				216	
•			30%	+	+	+				225	
•			40%	+	+	+				234	Swelling
•			50%	+	+	+				241	Swelling
•			65%	+	+	o	o			252	See note #4
•			85%	+	+	o					See note #4
•			98%	o	-						
	OXYGEN	O_2, gas	100%	+	+	+	+				
•	**PERCHLORIC**										
•	acid	$HClO_4$	10%	+	+	+			+	215	
	PHOSPHORIC										
•	acid, ortho-	H_3PO_4	30%	+	+	+			+	215	
••			50%	+	+	+			+		
	PHOSPHORUS										
	oxychloride	$POCl_3$	98%	+	+	-				222	
•	trichloride	PCl_3	100%	+						168	
	POTASSIUM	K	100%	-							
	aluminum sulfate	$Al_2(SO_4)_3•K_2SO_4•24H_2O$	sat.	+	++	++			+	215	
	bromide	KBr	50%	+			+		+	235	
	carbonate	K_2CO_3	50%	-	o	o				246	See note #3
	chlorate	$KClO_3$	sat.	o	+	+	o		+	218	
	chloride	KCl	sat.	+	+	+	+		+	227	
	dichromate	$K_2Cr_2O_7$	sat.	+	+	+	+		+	225	
	ferrocyanide	$K_4Fe(CN)_6•3H_2O$	sat.	+	+	+			+	224	See note #3
•	fluoride	KF	sat.	+							
	hydroxide	KOH	50%	-	+	+			-	268	See note #2
	nitrate	KNO_3	50%	+	+	+			+	223	
	permanganate	$KMnO_4$	sat.	+	+	+			+	215	Discolaration
•	sulfate	K_2SO_4	sat.	+	o	o	+		+	215	
	sulfide	K_2S	50%	o			o				
	SILICON										
	tetrachloride	$SiCl_4$	100%	+	+					135	
	SILVER										
	cyanide	AgCN	sat.	+	+	+	+			212	
	nitrate	$AgNO_3$	50%	+	+	+	+		+	224	
	SODIUM	Na	100%	-						232	
	acetate	CH_3COONa	sat.	+	+	+			+	223	
	benzoate	C_6H_5COONa	50%	+	+	+			+	244	
	bromide	NaBr	50%	+	+	+			+	217	
•	carbonate	$Na_2CO_3•10H_2O$	sat.	+	+	+	+		+	230	
	chlorate	$NaClO_3$	50%	o	o	o			o	229	

CHEMICAL RESISTANCE GUIDE – INORGANIC MEDIA

	Medium	Formula	Conc.	Temperature of Medium °F 77	122	212	257	302	BP	BP of Medium °F	Remarks
	SODIUM, contd.										
	chloride	NaCl	sat.	+	+	+	+		+		
	cyanide	NaCN	sat.	+	+	+	+			213	
•	fluoride	NaF	sat.	+	+	+			+	216	
•	hydrogen carbonate	$NaHCO_3$	sat.	+	+	+	+		+	229	
	hydrogen sulfate	$NaHSO_4$	50%	+	+	+	+		+		
	hydrogen sulfite	$NaHSO_3$	50%	+	+	+	+		+	212	See note #2
•	hydroxide	NaOH	0.15%	-						212	See note #2
•			0.50%	-						212	See note #2
•			1.50%	-						214	See note #2
•			5%	-						223	See note #2
•			15%	-						241	See note #2
•			30%	-						261	See note #2
•			40%	-						288	See note #2
•			50%	-						318	See note #2
			60%	-						356	See note #2
			70%	-						419	See note #2
			80%	-							Cl*
•	hypochlorite	NaClO	5%	o	o						Cl*
			28%	o	o						
	nitrate	$NaNO_3$	50%	+	+	+			+	230	
	nitrite	$NaNO_2$	50%	+	+	+			+	238	
	orthophosphate	$Na_3PO_4 \cdot 12H_2O$	50%	+	+	+	+		+	218	
	silcate	Na_2SiO_3	sat.	+	+	+	+		+	237	
	sulfate	Na_2SO_4	sat.	+	+	+			+	217	
•	sulfide	Na_2S	5%	o	o	o	o				
•			10%	o	o	o	o				
	sulfite	Na_2SO_3	sat.	+	+	+	+		+	217	
	tetraborate	$Na_2B4O_7 \cdot 10H_2O$	50%	+	+	+	+		+	217	
•	thiosulfate	$Na_2S_2O_3 \cdot 5H_2O$	50%	+	+	+	+		+	219	
	SULFAMIC										
	acid	NH_2SO_3H	45%	+	+	+					
	SULFOCHROMIC										
	acid	50% CrO_3/15% H_2SO_4/ 35% H_2O	40%	+	+	o					See note #3
			90%	+	+	o					See note #1
	SULFONITRIC	65% H_2SO_4/20%									
	acid	HNO_3/15% H_2O		+	+	+					
•	**SULFUR**	S_8, solid	100%	+	+	+	+				
	dioxide	SO_2, gas	100%	+	+	+	+			14	
		liquid	100%	-						14	See note #4
	trioxide	SO_3	100%	-							See note #1
	SULFURIC										
•	acid	H_2SO_4	50%	+	+	+	+			253	
			60%	+	+	+	+			288	
•			70%	+	+	+	+			329	
••			80%	+	+	+	+			396	
•			90%	+	+	+	o			491	
•			93%	+	+	-	-			527	
			97%	+	+	-	-			586	
	+ chlorine water		60%	+	+	+	+			288	
	oleum		+10% SO3	o	-						
			+30% SO3	-							
			+65% SO3	-							
	SULFURYL										
•	chloride	SO_2Cl_2	100%	o	o	-				156	See note #4
	THIONYL										
•	chloride	$SOCl_2$	100%	o	o	-				174	See note #4
	TIN										
	chloride (II)	$SnCl_2$	50%	+	+	+	+				
	chloride (IV)	$SnCl_4$	50%	+	+	+					
•	**WATER**	H_2O	100%	+	+	+	+	+	+	212	
	ZINC										
	chloride	$ZnCl_2$	50%	+	+	+	+		+	231	
	nitrate	$Zn(NO_3)_2 \cdot 6H_2O$	59%	+	+	+	+		+	243	
	sulfate	$ZnSO_4 \cdot 7H_2O$	sat.	+	+	+	+		+	220	

CHEMICAL RESISTANCE GUIDE – ORGANIC MEDIA

	Medium	Conc.	Temperature of Medium °F 77	122	212	257	302	BP	BP of Medium °F	Remarks
	ACETALDEHYDE	40%	-							See note #4
	trichloro-, syn. chloral	100%	o						70	See note #4
		100%		o					205	C*
•	**ACETIC ACID**	100%	+	o	-				244	
•		50%	+	+	--+				216	
•	monochloro-	100%	+	+	+				372	
		75%	+	+	o					
		50%	+	+	o					
	dichloro-	50%	+	+	o					
	trichloro-	100%	+	+	o				388	
		50%	+	+	+					
	trifluoro-	100%	+	o	+				162	
		50%	+	+	+					
	hydroxy-,syn. glycolic	sat.	+	+						
	methylchlorophenoxy-	100%	+	+						
•	-, amyl ester, syn. amyl acetate	100%				-			288	
	-, anhydride	100%	-		-				279	See note #3
	-, chloride	100%	-		+					
	-, butyl ester	100%	+	o					257	See note #4
	-, cyclohexyl ester	100%	+	+	+				343	
•	-, ethyl ester	100%	o	-	o				171	
	-, 2-ethoxyethyl ester, syn. Cellosolve acetate	100%	+	+					313	
	-, 1-pentyl ester	100%	+	+		-			300	
	-, nitrile, syn. acetonitrile	100%	-						176	See note #4
	ACETONE	100%	-						133	See note #4
	syn. 2-propanone	50%	o	-						
		10%	+	+				o	221	
		5%	+	+	+			+	244	
	ACETONITRILE									
	syn. acetic acid, nitrile	100%	-						176	See note #4
	ACETOPHENONE		+	-					396	
	ACRYLIC ACID									
	syn. propenoic acid	100%	+	+					288	
	-, ethyl ester	100%	o						212	
	-, methyl ester	100%	+						176	
	ACRYLONITRILE									
	syn. propenoic acid nitrile	100%	o						171	
	ALLYL CHLORIDE									
	syn. 3-chloropropene	100%	+						113	
	AMINE									
	diethyl-	100%							133	
•	diethyl-2,2'dihydroxy-,syn. diethanolamine	100%							518	
	dimethyl-	100%							45	See note #3
	triethyl-	100%							192	
•	2.2'2"-trihydroxyethyl-, syn. triethanolamine	100%							531	Under 150mm Hg
	AMYL ACETATE	100%							288	
	AMYL ALCOHOL									Destroyed at
	syn., 1-pentanol	100%							279	212°F, diffusion
	syn., 2-pentanol	100%							246	
•	**ANILINE**	100%							363	
•	n, n-dimethyl-	100%							381	
	BENZALDEHYDE	100%							352	
•	**BENZENE**	100%							176	
	chloro-	100%							270	
•	p-dibomo-	100%							424	
	1,2-dichloro-	100%							356	
•	ethyl-	100%							277	See note #1
	1,2,4-trichloro-	100%							415	
	1,2,3-trihydroxy-, syn. pyrogallol	50%								
	nitro-	100%							410	

CHEMICAL RESISTANCE GUIDE – ORGANIC MEDIA

	Medium	Conc.	Temperature of Medium °F 77	122	212	257	302	BP	BP of Medium °F	Remarks
•	**BENZENESULFONIC ACID**	sat.								
	2-chloro-	80%								
	BENZOIC ACID	sat.							214	
	2-hydroxy-, syn. salicylic acid	sat.								
	3,4,5-trihydroxy-, syn. gallic acid	sat.							401	
	-, chloride	sat.							351-358	
	BENZYL ALCOHOL								419	
	syn, alpha-hydroxytoluene	100%								
	BENZYL CHLORIDE								172	
	syn. alpha-chlorotulene	100%								
	1,3-BUTADIENE HEXACHLORO-	100%								
	BUTANE									
	1-chloro	100%	+	+				+	172	
	BUTANEDIOIC ACID									
	2,3-dihydroxy-, syn. tartaric acid	sat.	+	+	+			+	233	
	BUTANOIC ACID,									
	syn. butyric acid	100%			o				325	
	1-BUTANOL	100%	+	+	o			o	243	
	2-BUTANOL	100%	+	+	+			+	212	
	t-BUTANOL									
•	syn. 2-methyl-2-propanol	100%	+	+					180	
	2-BUTANONE									
	syn. methyl ethyl ketone	100%	-						174	Swelling
	2-BUTENAL									
	syn. crotonaldehyde	100%	+	o					219	
	CIS-BUTENEDIOIC ACID									
	syn. maleic acid	50%	+	+	+	+				
	TRANS-BUTENEDIOIC ACID									
	syn. fumaric acid	sat.	+	+	+	-				
	i-BUTYLAMINE									
	syn. 1-amino-2-methylpropane	100%	o							See note #3
	t-BUTYLAMINE									
	syn. 2-amino-2-methylpropane	100%	o						113	See note #3
	CELLOSOLVE ACETATE									
	syn, acetic acid, 2-ethoxyethyl ester	100%	+	+	+				313	
	CHLOROFORM									
	syn. trichloromethane	100%	+	+					142	
	CHLOROFORMIC ACID									
	-, p-t-butyl cyclohexyl ester	100%	+	+						
	-, ethyl ester	100%	+	+					203	
	-, methyl ester	100%	o	o					158	
	CITRIC ACID	50%	+	+	+	+			219	
	CYCLOHEXANE	100%	+	+				+	178	
	CYCLOHEXANOL	100%	+	+	+				322	
	CYCLOHEXANONE	100%	+	o	-				313	
	DIACETONE ALCOHOL									Under
	syn. 4-hydroxy-4-metyl-2-pentanone	100%	o						329	11mm Hg
	DIISOBUTYLENE									
	syn. 2,5 dimethyl-1,5 hexadiene	100%	+	+	+	+			273	
	DIISOBUTYL KETONE									
	syn. 2,6-diemethy 1-4-heptanone	100%	+	+	o				343	Swelling

CHEMICAL RESISTANCE GUIDE – ORGANIC MEDIA

	Medium	Conc.	Temperature of Medium °F 77	122	212	257	302	BP	BP of Medium °F	Remarks
	DIMETHYLACETAMIDE	100%	-						329	Dissolution
	DIMETHYLFORMAMIDE	100%	-						307	Dissolution
•	**DIMETHYLSULFATE**	100%		-					370	
•	**DIMETHYLSULFOXIDE**	100%	-						372	Dissolution
	1,4-DIOXANE	100%	o	-					214	
	DODECANETHIOL									
	syn. lauryl chloride	100%	+	+	+				288	Under 15mm Hg
	DODECANOIC ACID, CHLORIDE									
	syn. lauryl chloride	100%	+	+	+	+		o	293	See note #1
	EPICHLOROHYDRIN									
	syn. 1-chloro-2,3-epoxypropane	100%	o	-					241	Swelling
	ETHANE									See note #3 at
	1,2-diamine-	100%	o	o	-			-	241	25°C
•	1,2-dichloro-	100%	+	+	+	+		+	268	
••	1,1,2,2-tetrachloro-	100%	+	+				+	183	
•	1,1,1-tricholoro-	100%		o	o				297	
	1,1,2-trifluoro-1,2,2-trichloro-, syn. Freon 113	100%	+	+	o			o	165	
		100%	+	+	o			+	118	
•	**1,2 ETHANEDIOL**									
	syn. ethylene glycol	100%	+	+	+	+	+		208	
	ETHANETHIOL	100%	+					+	99	
•	**ETHANOL**	100%	+	o				o	172	
•		50%		o						
•	2-amino	100%	+	-					338	
•	2-chloro-, syn. ethylene chlorohydrin	100%	+	+					262	
	2-mercapto-, syn. thioglycol	100%	+						315	
	ETHENE									
	syn. ethylene									
	tetrachloro-, syn. perchlorethylene	100%	+	+	o			o	250	See note #1
	trichloro-	100%	+	+					189	See note #1
	ETHER									
	chloromethyl-	100%		-					138	
	dibutyl-	100%	+	+	+	+			288	
	diethyl-	100%	+					+	95	
	diisopropyl-	100%	+	+	+	+			154	
	diphenyl-	100%	+	+	+	+			496	
	isoamyl-, syn. dibutyl ether, 3,3 dimethyl	100%	+	+	+	+			342	
	ETHYLENE									
	syn. ethene									
	-chlorohydrin, syn. 2-chlorethanol	100%	+	+					262	
	-diamine, syn. 1,2 diaminoethane	100%	o	o	-				241	See note #1
	-gylcol, syn. 1,2-ethanediol	100%	+	+	+				388	
	ETHYL MERCAPTAN									
	syn. ethanethiol	100%	+						99	
•	**FORMALDEHYDE**	37%	+	+	+	+				
	FORMIC ACID	99%	+	+	+			+	214	
		80%	+	+	+					
		60%	+	+	+					
•		50%	+	+	+					
•	-ethyl ester	100%	+						129	
	-methyl ester	100%	o	o					88	
•	**FREON 12**	100%		o					-22	Diffusion
•	**FREON 113**	100%	+	+	o				118	
•	**FREON 502**	100%		o					-50	Diffusion
	FUMARIC ACID									
	syn. trans-butenedioic acid	sat.	+	+	o	-				

CHEMICAL RESISTANCE GUIDE – ORGANIC MEDIA

	Medium	Conc.	Temperature of Medium °F 77	122	212	257	302	BP	BP of Medium °F	Remarks
	FURAN	100%	+					o	90	
	tetrahydro-	100%	o	o				o	149	Swelling
	FURFURAL	100%	+	o	-				324	
	GALLIC ACID									
	syn. 3,4,5-trihydroxybenzoic acid	sat.	+							
	d-GLUCOSE	sat.	+	+	+	+				
	GLUTAMIC ACID	sat.	+	+	+					
•	**GLYCERIN**									
	syn. Glycerol	100%	+	+	+	+			360	Under 20mm Hg
	monochlorohydrin of-	100%	+	+	+	+			415	
	GLYCOLIC ACID									
	syn. hydroxyacetic acid	sat.	+	+	+					
•	**HEPTANE**	100%	+	+	+			+	208	
	HEPTANOL									
	2,6-dimethyl-4-	100%+	+	+	+			+	349	
	HEPTANONE									
	2,6-dimethyl-4-, syn. isovalerone	100%	+	+	o	o	o	o	334	Swelling
•	**HEXADIENE**									
	2,5-dimethyl, 5-	100%	+	+	+	+		+	273	
	1,1,1,3,3,3-HEXAMETHYLDISILAZANE	100%	+	o					257	See note #3
	HEXAMETHYLPHOSPHORAMIDE	100%	-						210	Dissolution
	HEXANE	100%	+	+				+	154	
	1-HEXANOL, 6-CHLORO-	100%	+	+					225	Under 15mm Hg
	ISOPHORONE	100%	+	o					417	
	ISOVALERONE									
	syn. 2,6-dimethyl-4-heptanone	100%	+	+	o	o			334	Swelling
	LACTIC ACID	100%	+	+	+				217	Under 2mm Hg
	syn. 2-hydroxypropanoic acid	75%	+	+	+					
		50%	+							
	LAURYL CHLORIDE									
	syn. dodecanethiol	100%	+	+	+	+		o	293	See note #1
	LAURYL MERCAPTAN									Under 25mm Hg
	syn. dodecanethiol	100%	+	+	+				288	
	MALEIC ACID									
	syn. cis-butenedioic acid	50%	+	+	+	+				
	METHANE									
•	bromochloro-	100%		-				-	154	
•	dibromo-, syn. methylene bromide	100%		-					207	
•	dichloro-, syn. methylene chloride	100%	+					-	104	Swelling
••	nitro-	100%	+	o					214	
	tetrachloro-	100%	+	+				+	171	
	trichloro-, syn. chloroform	100%	+	+				+	142	
	triiodo- (50% solution in alcohol)	50%	+	+				+	187	
	METHANOL	100%	+	o				o	153	
•		50%		o						
•	**METHYLENE CHLORIDE**									
	syn. dichloromethane	100%	+						104	
•	**METHYL ETHYL KETONE**									
	syn. 2-butanone	100%	-						176	Swelling

CHEMICAL RESISTANCE GUIDE – ORGANIC MEDIA

	Medium	Conc.	Temperature of Medium °F 77	122	212	257	302	BP	BP of Medium °F	Remarks
	METHYL ISOBUTYL KETONE									
	syn. 4-methyl-2-pentanone	100%	+						243	
	METHYL METHACRYLATE									
	syn. 2-methyl propenoic acid-methyl ester	100%	+						212	
	1-METHYL-2-PYRROLIDONE	100%	-						396	
	METHYLSULFURIC ACID									
	trichloro-, syn. perchloromethyl mercaptan	100%	+	+					297	
•	**MORPHOLINE**	100%	o	-					262	See note #5
•	**NAPHTHALENE**	100%			o	o	o		412	Softens
	NICOTINIC ACID									
	syn. pyridine 3-carboxylic acid	sat.	+	+	+					
	OLEIC ACID									
	syn. cis-9-octadecenoic acid	100%	+	+	+	+			546	Under 100mm Hg
	OXALIC ACID	sat.	+	+						
		50%	+	+	+				228	
	1-PENTANOL									
	syn.amyl alcohol	100%	+	+	+	o		o	279	
	2-PENTANOL									
	syn.secamyl alcohol	100%	+	+					246	
	PENTANONE									
	4-hydroxy-4-methyl-2-, syn. diacetone alcohol	100%	o						329	Under 11mm Hg
	4-methyl-2-, syn. methyl isobutyl ketone	100%	+						243	
•	**PHENOL**	100%	+	+	o				360	
		5%	+	+	+	+				
	2,4,6-trinitro-, syn. picric acid	50%	+	+	+	+	o			
		10%	+	+	+					
•	**PHOSPHORIC ACID**									
	-tributyl ester	100%	+		-				552	
	PHTHALIC ACID									
•	-butyl benzylic ester	100%			o	-				
•	-dibutyl ester	100%			o	-			644	
	-dimethyl ester	100%	+	+	-				541	
•	-dioctyl ester	100%			o	-			723	
	PICRIC ACID									
	syn. 2,4,6-trinitrophenol	50%	+	+	+					
		10%	+	+	+					
	PIPERAZINE									
	syn. diethylendiamine	50%	o	o	o	o			293	Becomes dark
	PIVALOYLE CHLORIDE	100%	o						221	
	PROPANE									
	1-amino-2-methyl-, syn. i-butylamine	100%	o							See note #3
	2-amino-2-methyl-, syn. i-butylamine	100%	o						113	See note #3
	1-chloro-2,3-epoxy-, syn. epichlorohydrin	100%	o	-					241	Swelling
•	1,2-dichloro-	100%			o				205	
	1,2 epoxy-, syn. propylene oxide	100%	+					o	93	
•	1,2,3-trichloro-	100%			o	o			313	
	1,2 PROPANEDIOL									
	syn. propylene glycol	100%	+	+					372	
	-carbonate, syn. proplylene carbonate	100%	+	+					464	

CHEMICAL RESISTANCE GUIDE – ORGANIC MEDIA

	Medium	Conc.	Temperature of Medium °F 77	122	212	257	302	BP	BP of Medium °F	Remarks
	PROPANOIC ACID									
	syn. propionic acid									
	2-hydroxy-, syn. lactic acid	100%	+	+	+				217	Under 2mm Hg
		75%	+	+	+					
		50%	+							
	2-methyl-(4-chlorophenoxy-2)	100%	+	+	+					
•	**1-PROPANOL**	100%	+	+					207	
	2-methyl-2-propanol, syn. t-butyl alcohol	100%	+	+					180	
•	**2-PROPANONE**	100%	-						133	Swelling
	syn. acetone	50%	o	-						
		10%	+	+					221	
		5%	+	+	+				244	
	2-METHYL PROPENOIC ACID									
	methyl ester, syn. methyl methacrylate	100%	+						212	
	PROPYLENE									
	syn. propene									
	-carbonate, syn. 1,2-propanediol carbonate	100%	+	+					464	
	-glycol, syn. 1,2-propanediol	100%	+	+					372	
	-oxide, syn. 1,2-epoxypropane	100%	+						93	
	PYRIDINE									
		sat.	+	+	+					
	-3-carboxylic acid, syn. nicotinic acid	100%	+	-					239	See note #5
	PYROGALLOL									
	syn. 1,2,3-trihydroxybenzene	50%	+	+						
	SALICYLIC ACID									
	syn. 2-hydroxybenzoic acid	sat.	+	+	+				214	
	SEXTATE									
	syn. 2-cyclohexyl acetate	100%	+	+	+				343	
	SILANE									
	dimethyldichloroo-	100%	+	+				+	158	
	trimethylchloro-	100%	+	+				+	135	
	STILBENE	6%	+	+						
•	**STYRENE**	100%	+			-	o	o	293	
	TANNIC ACID	sat.	+	+	+			+		
	TARTARIC ACID									
	syn. 2,3-dihydroxybutanedioic acid	sat.	+	+	+				223	
	THIOGYLCOLIC									
	syn. 2-mercaptoethanol	100%	+						315	
	THIOGLYCOLIC ACID									
	syn. mercaptoacetic acid	100%	+	+					298	Under 20mm Hg
••	**TOLUENE**	100%	+	+	o			o	232	
	alpha-chloro-, syn. benzyl chloride	100%	+	o	-				354	
	alpha, alpha-dichloro-, syn. benzyl dichloride	100%	+	+	o	o			401	
••	alpha-hydroxy-, syn. benzylacohol	100%	+	+	o				401	
	2-hydroxy-, syn. ortho-cresol	100%			o				376	
	p-toluenesulfonic acid	100%								Fusion point 216-219°F under 36mm Hg
	p-toluensulfonyl chloride	100%	+	+					309	
	TRIETHANOLAMINE									Under 150mm Hg
	syn. 2,2'2"-trihydroxytriethylamine	100%	+	+		-			531	
•	**TRIMETHYLACERTYL, CHLORIDE**									
	syn. PIVALOYLE CHLORIDE	100%		-					221	
	UREA	sat.	+	+						
	tetramethyl-	100%	-						351	
	XYLOL	100%	+	+	o				284	

SUPPLEMENTAL CHEMICAL RESISTANCE GUIDE – MISCELLANEOUS MEDIA

	Medium	Conc.	Temperature of Medium °F 77	122	212	257	302	BP	BP of Medium °F	Remarks
	AQUA REGIA		o							Cl*
	BOURGUIGNONNE SAUCE		+	+	+	+				
	BRANDY		+	+	+	+		+		
	BROMINE WATER		+	+	+					
	BURETTE OIL	100%	+	+	+	+	+			
	CALTEX URSA 50 OIL		+	+	+	+	+			See note #3
	CLOVE OIL		+							
	COOKING FAT		+	+	+	+				
•	CRUDE OIL		+	+	+	+				
	DENSOL G OIL		+	+	+	+	+			See note #3
	DIESEL FUEL		+	+				+		See note #1
•	ESSO ZERICE S100	100%	+	+						
	FLUSHING OIL		+	+	+	+	+			See note #3
	GASOLINE		+	+	+	+				See note #1
•	H_2SO_4 : HNO_3(1:1)		+	+						
•	ILEXAN HT (HULS)	100%				o				
	KEROSENE		+	+				+		
	KETCHUP		+	+	+	+	+			
	LARD		+	+	+	+				
	LIGHT OIL		+	+				+		See note #1
	LINSEED OIL		+	+	+	+				
•	LOCKHEED SUPER 105	100%				-				
•	MARLOTHERM S	100%	+	+	+	o				
•	MARLOTHERM SGB	100%			o	-				
	MILK		+	+	+			+		
	MINERAL OIL		+	+	+	+				See note #1
	MOBIL COMPOUNDS, BB		+	+	+	+	+			See note #3
	light		+	+	+	+	+			See note #3
	MOBIL PYROGARD D	100%	+	+						
	MUSTARD		+	+	+	+	+			
	NAPHTHA		+	+						
	SEAWATER		+	+	+			+		
	SHELL 20/20 OIL		+	+	+	+	+			
	SHELL ATF DEXRON OIL		+	+	+	+	+			
	SHELL MACONA 82 OIL		+	+	+	+	+			
	SHELL MACONA 72 OIL		+	+	+	+	+			
	SHELL MACONA 69 OIL		+	+	+	+	+			
	SHELL TALPA 60 OIL		+	+	+	+	+			See note #3
	SHELL TALPA 30 OIL		+	+	+	+	+			See note #3
	SHELL TELLUS 72 OIL		+	+	+	+	+			See note #3
	SHELL TELLUS 29 OIL		+	+	+	+	+			See note #3
	SHELL TELLUS 27 OIL		+	+	+	+	+			See note #3
	SHELL TELLUS 15 OIL		+	+	+	+	+			See note #3
	SHELL VITREA 75 OIL		+	+	+	+	+			See note #3
	SHELL VITREA 41 OIL		+	+	+	+	+			See note #3
	SHELL VITREA 30 OIL		+	+	+	+	+			See note #3
	SHELL VOLUTA 270 OIL		+	+	+	+	+			See note #3
	SHELL VOLUTA 45 OIL		+	+	+	+	+			See note #3
	SKYDROL 500 B		+	+	+	+				
•	TAP WATER		+	+	+	+		+		
	TEA		+	+	+			+		
•	TOTAL LHM	100%	+	+	+					
	UCB SPELNA OIL		+	+	+	+	+			See note #3
•	Ucon Breox HTF14	100%				o				
	YACCO Y OIL		+	+	+	+	+			See note #3
	XYLOL TECHNICAL		+	+	o					

Z9-GRVR GROOVING TOOL
For Mechanical Joint Installations

Engineering Specification:
ZURN Z9-GRVR GROOVING TOOL –
Pipe grooving tool for mechanical joint system.

Model No.	Dimensions in Inches [mm] Nom. Pipe Size
Z9-GRVR-112	1-1/2 [38]
Z9-GRVR-2	2 [51]
Z9-GRVR-3	3 [76]
Z9-GRVR-4	4 [102]

Options	Description
-RKRB-1122	Replacement Blade for 1-1/2" [38] and 2" [51] Unit
-RKRB-34	Replacement Blade for 3" [76] and 4" [102] Unit

Z9-SPAN SPANNER WRENCH

Engineering Specification:
ZURN Z9-SPAN SPANNER WRENCH –
Nut wrench for Fusion Lock™, Stab•Lock™,
and mechanical joint systems.

Model No.	Dimensions in Inches [mm] Nom. Pipe Size
Z9-SPAN-112 x 2	1-1/2 [38] and 2 [51]

Z9-SPAN SPANNER WRENCH

Engineering Specification:
ZURN Z9-SPAN SPANNER WRENCH –
Zinc plated steel with vinyl grip for installation
and removal of fitting nuts.

Model No.	Dimensions in Inches [mm]	
	A	B
Z9-SPAN-3	15 [381]	2-1/2 [64]
Z9-SPAN-4	15 [381]	3 [76]
Z9-SPAN-6	17 [432]	4.1 [104]

Z9-CLAW-346

Engineering Specification:
ZURN Z9-CLAW-346 –
Large capacity wrench for octagonal shape.

Model No.	Dimensions in Inches [mm] Nom. Pipe Size
Z9-CLAW-346	3 [76], 4 [102], 6 [102]

QUICK-RELEASE CUTTERS

Engineering Specification:
ZURN QUICK-RELEASE CUTTERS –
For small, medium, and large-diameter plastic pipe.

Model No.	Dimensions in Inches [mm] Nom. Pipe Size	
PCT-112 x 2 x 3	112 to 3	1-7/8 [48] to 4-1/2 [114]
PCT-4	4	1-7/8 [48] to 4-1/2 [114]
PCT-6	6	1-7/8 [48] to 4-1/2 [114]

CHAMFER TOOL

Engineering Specification:
ZURN DEBURRING TOOLS – For deburring inner and outer edges of plastic pipe.

Model No.	Type	Dimensions in Inches [mm] Nom. Pipe Size
DEB4	3/32" 15° Chamfer	1-1/4 [32], 1-1/2 [38], 2 [51] 2-1/2 [64], 3 [76], 4 [102]

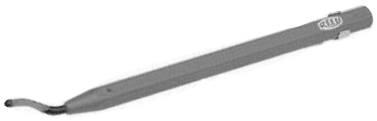
CHAMFER/DEBURR TOOL

Engineering Specification:
ZURN DEBURRING TOOLS –
For deburring and chamfering outer edges of plastic pipe.

Model No.	Type	Dimensions in Inches [mm] Nom. Pipe Size
DEB2	Inner and Outer Edges	Up to 2 [51]

DEBURR TOOL

Engineering Specification:
ZURN DEBURRING TOOLS –
For deburring inner and outer edges of plastic pipe.



Model No.	Type	Dimensions in Inches [mm] Nom. Pipe Size
DEB0	Internal Pipe	Unlimited

Z9-WELDER

Engineering Specification:
ZURN POLYPROPYLENE ELECTRO FUSION MACHINE –
Complete with three jumper cables and case.

Z9-PWELDER

Engineering Specification:
ZURN POLYVINYLIDENE FLUORIDE FUSION MACHINE –
Complete with case.

SUPPORT SPACING – POLYPROPYLENE/PVDF

Hangers and straps should not compress, distort, cut, or abrade the piping and should allow free movement of pipe. Supports should allow free movement. Maintain vertical piping in straight alignment with supports at each floor or at 10-foot intervals, whichever is less. Horizontal should be installed in uniform alignment with a uniform slope in accordance with local plumbing codes. PVDF weighs more and extra supports should be added at combination fittings.

Size	Horizontal Pipe	Vertical Pipe
1-1/2"	4'	10'
2"	4-1/2'	10'
3"	5'	10'
4"	6'	10'
6"	6'	10'

THERMAL EXPANSION INFORMATION

Allow for thermal expansion and movement in all piping installations by use of approved methods. Support, but do not rigidly restrain piping at branches or changes of direction. Do not anchor pipe rigidly in walls. Polypropylene pipe will change length by .076" in 10 feet for a 10°F temperature increase or decrease change. PVDF will change length by .079" per 10-foot length for each 10°F temperature increase or decrease.

UNDERGROUND INSTALLATION

Underground installation of pipe shall be in accordance with Practice ASTM D 2311 "Standard Practice for Underground Installation of Thermoplastic Pipe for Sewer and Other Gravity-Flow Applications," except aggregate size shall be limited to 1/2" for angular and 3/4" for rounded particles. Non-flame-retardant pipe is generally used in underground applications.

RETURN AIR PLENUM INSTALLATION

Return Air Plenum installations require that piping systems meet ASTM E84 25/50 for flame spread and smoke development and UL723 for flame propagation and smoke density in environmental spaces.

For these installations, Zurn will provide a pipe and fitting system made of PVDF (polyvinylidene fluoride). This will make for an easy transition from Zurn polypropylene pipe and fittings to Zurn PVDF for use in return air plenum areas.

PIPE and FITTING STORAGE

Pipe, fittings, and seals cannot be stored outdoors or in presence of UV light unless material is shielded as change will occur and inhibit proper installation.

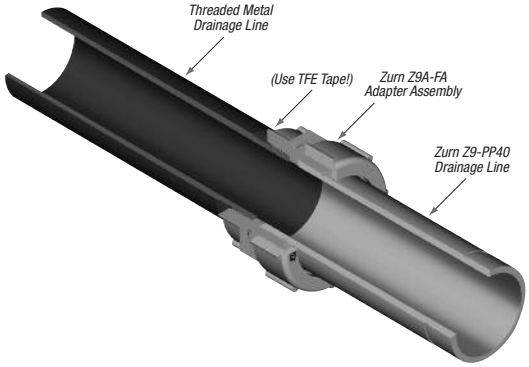
COLD WEATHER INSTALLATION

At temperatures below 40°F, it is recommended to heat the installation area and allow pipe, fittings, and welder to come to ambient temperature before fusing.

ADAPTING TO OTHER SYSTEMS – POLYPROPYLENE

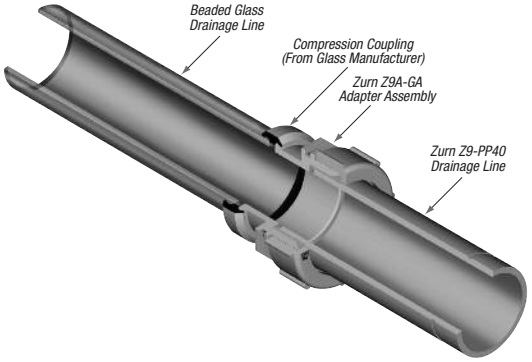
Female Thread Adapter

To adapt to threaded metal drainage pipe, use a ZURN Z9A-FA screw-on adapter assembly. Use PTFE tape on threaded metal pipe.



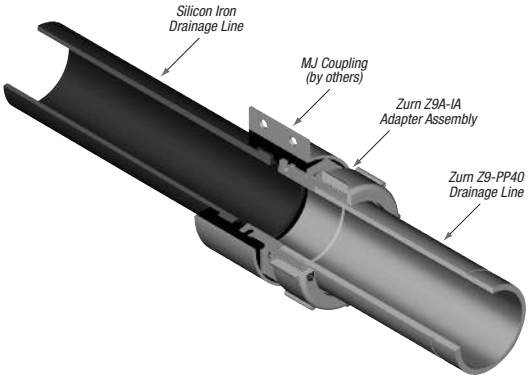
Glass Adapter

To adapt to glass systems, use a ZURN Z9A-GA adapter assembly with a compression coupling available from glass system manufacturer/vendor.



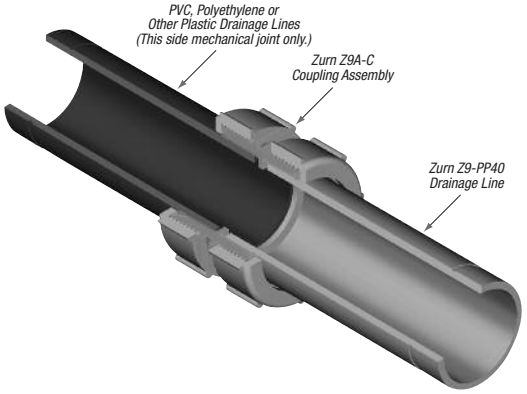
Iron Pipe Adapter

To adapt to iron pipe systems, use a ZURN Z9A-IA adapter assembly with an MJ coupling available from silicon iron pipe manufacturer.



PVDF or Other Plastic Adapter

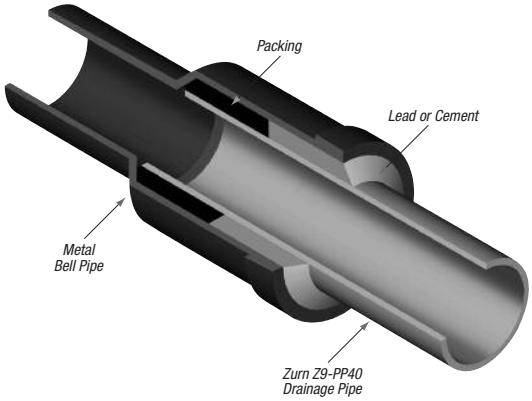
To adapt to other plastic drain pipes. Groove "others" plastic pipe using ZURN Z9-GRVR grooving tool and use with a ZURN coupling assembly.



Caulk Joint

To adapt to metal bell pipe, follow these directions:

1. *Score pipe end (use coarse file or emory cloth).*
2. *Insert ZURN Z9-PP40 pipe to stop.*
3. *Pack hub half full. Use acid resistant oakum.*
4. *Caulk with acid proof cement, lead wool, or hot lead.*



TERMS and CONDITIONS

PRICE AND TERMS OF PAYMENT
Prices are F.O.B. Seller's plant, Erie, Pennsylvania, or Service Center, 2% Cash Discount payable 30 days from date of invoice, net 31 days. Interest chargeable at the maximum Legal Rate on past due items still unpaid after 31 days from date of invoice. In addition to the prices and freight specified, Buyer shall pay all sales, consumers, or other applicable taxes. Minimum Invoice $25.00. All prices subject to change at any time without notice.

SHIPMENT AND DELIVERY
Unless otherwise specifically stated, materials will be shipped freight collect, and all freight is to be paid by the Buyer, but Seller reserves the option to prepay the freight. Buyer agrees to make all complaints for damage in transit or "short count" directly to the carrier; before the contents are unloaded to have the carrier agent's acknowledgement of such damage noted on the bill of lading; and to present to the carrier its agent's acknowledgement of such damaged material with formal claim covering said damage. Shipping dates are estimates and time of delivery is not the essence of this sale of the contract therefor. Under no circumstances will the Seller have any responsibility on account of any delays in manufacture, transportation, or otherwise.

LIMITED WARRANTY
All goods sold hereunder are warranted to be free from defects in material and factory workmanship for a period of one year from the date of purchase. We will replace at no cost goods that prove defective provided we are notified in writing of such defect and the goods are returned to us prepaid at Erie, Pennsylvania, with evidence that they have been properly maintained and used in accordance with instructions. WE SHALL NOT BE RESPONSIBLE FOR ANY LABOR CHARGES OR ANY LOSS, INJURY OR DAMAGES WHATSOEVER, INCLUDING INCIDENTAL OR CONSEQUENTIAL DAMAGES. The sole and exclusive remedy shall be limited to the replacement of the defective goods. Before installation and use, the purchaser shall determine the suitability of the product for his intended use and the purchaser assumes all risk and liability whatever in connection therewith. Where permitted by law, THE IMPLIED WARRANTY OF MERCHANTABILITY IS EXPRESSLY EXCLUDED. If the products sold hereunder are "consumer products." THE IMPLIED WARRANTY OF MERCHANTABILITY IS LIMITED TO A PERIOD OF ONE YEAR AND SHALL BE LIMITED SOLELY TO THE REPLACEMENT OF THE DEFECTIVE GOODS. All weights stated in our catalogs and lists are approximate and are not guaranteed.

RETURNED GOODS
Standard cataloged material may be returned only with written permission of Seller. Returned goods are subject to a 25% restocking charge plus cost of reconditioning, if necessary, to make material salable. Pipe, seals, tanks, and PVDF are non-returnable. Transportation charges must be prepaid by the Buyer. Credit allowance will be in the form of merchandise credit only – not cash credit. The value of a return must total at least $100.00 to qualify for credit allowance. Galvanized material will be credited at value of Dura-Coated cast iron, and chrome plated at value of bronze. No credit will be allowed for parts unless originally ordered and invoiced as parts. No credit will be allowed for auxiliary tappings, discontinued, or made-to-order items. The letter B in parentheses (B) following an item on the acknowledgement of a purchase order indicates that the item has been made especially for the job and is not subject to return or cancellation except by special negotiation. Goods must be returned within one year after purchase in order to receive credit.

ILLUSTRATIONS OF TYPICAL INSTALLATIONS
The typical installations for various products found in each product section are intended to illustrate the products and their options. Under no circumstances are they to be construed as recommended installation procedures. Consult local codes and project specifications for proper installation instructions.

GENERAL
Possession of this Manual or other Sales Literature is not to be construed as an offer to sell. All orders are subject to acceptance by the general office of Seller in Erie, Pennsylvania. Manual printed in U.S.A.

ZURN SPECIFICATION DRAINAGE
1801 PITTSBURGH AVENUE
ERIE, PA 16502-1916
PHONE: 814-455-0921
FAX: 814-454-7929

ZURN WILKINS
1747 COMMERCE WAY
PASO ROBLES, CA 93446-3696
PHONE: 805-226-6297
FAX: 805-238-5766

ZURN COMMERCIAL BRASS
5900 ELWIN BUCHANAN DRIVE
SANFORD, NC 27330-9541
PHONE: 919-775-2255
FAX: 919-775-3541

ZURN PEX®, INC
HIGHWAY 11 EAST
COMMERCE, TX 75428-3638
PHONE: 800-872-7277
FAX: 903-886-2583

ZURN INDUSTRIES LIMITED
3544 NASHUA DRIVE
MISSISSAUGA, CANADA L4V 1L2
PHONE: 905-405-8272
FAX: 905-405-1292

ZURN CAST METALS
1301 RASPBERRY STREET
ERIE, PA 16502-1543
PHONE: 814-875-1223
FAX: 814-456-2754

WWW.ZURN.COM

NOTES

NOTES

About the cover …

This brochure's cover shows a background of resins used to make Zurn Chemical Drainage Systems products. The dark blue resin is used to produce polyvinylidene fluoride (PVDF) pipe and fittings used in air plenum applications. The teal resin is used for flame-retardant polypropylene applications. The black resin is used in non flame-retardant applications, primarily underground.

ZURN INDUSTRIES, LLC · *CHEMICAL DRAINAGE SYSTEMS OPERATION*
1801 PITTSBURGH AVENUE · ERIE, PA 16502 · PHONE: 814/898-1731 · FAX: 814/898-2573 · www.zurn.com
ZURN INDUSTRIES LIMITED
3544 NASHUA DRIVE · MISSISSAUGA, ON L4V 1L2 · PHONE: 905/405-8272 · FAX: 905/405-1292

Form No. ZMKTG270-01, Rev. 2/12