



10 February 2014

Project No. 2508118  
Task No.: T1123450/EG

Tyco Fire Protection Products  
1467 Elmwood Ave  
Cranston, RI 02910

Attention: Mr. Robert Heintzelman

Subject: **Type Approval – Product Design Assessment - Revalidation**  
Grooved Fittings  
Model: 200 & 300  
Grooved Couplings  
Model: 705, 707, 716, 722, 71  
Threaded Fittings  
Model: 811, 812, 813, 814, 815, 816, 817, 818, 820, 825, 827, 830  
Ref. PDA Cert# 04-HS455700 B thru D  
Drawings and Documentation as per the Attached List  
Models and Sizes as per the Attached List

Gentlemen:

We have your Application for ABS Type Approval Revalidation dated 11 November 2013 together with the enclosures listed above and are pleased to advise that we have completed the design assessment phase of the type approval process.

The plans have been reviewed for compliance with the applicable requirements of the 2014 ABS Rules for Building and Classing Steel Vessels.

Enclosed is your original copy of the **Certificate of Design Assessment**. Please read the pages attached to the certificate to be sure that you understand the scope and conditions of the validity of the certificate. We recommend that you monitor the ABS Rules and other specifications used in the approval. These Rules and specifications often change on an annual basis, and you must comply with the new Rules and specifications in order for the product to be used on an ABS classed vessel or facility contracted under the new Rules or specifications.

Since the original certificate is multi-colored, we have no objections to unlimited black and white photocopies of the certificate being distributed. As you already know, your details are published on our web site and can also be downloaded there.

One (1) copy of the drawings appropriately stamped to indicate our review is being returned.

An invoice to cover the cost of the type approval revalidation process will follow separately.



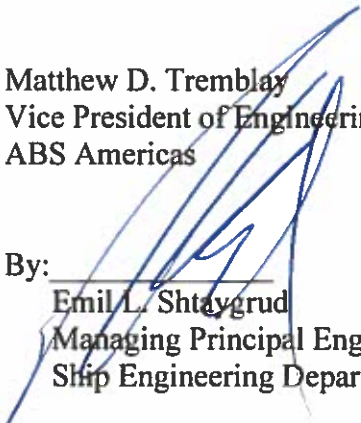
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If you should have any comments relative to the scope and conditions of the assessment of your product, or if we can be of any further assistance, please do not hesitate to contact us. We do appreciate your continued confidence in the services that ABS provides.

Very truly yours,

Matthew D. Tremblay  
Vice President of Engineering  
ABS Americas

By:   
Emil L. Shtaygrud  
Managing Principal Engineer  
Ship Engineering Department

cc.: ABS Erie – w/inv.



# ABS

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Tyco Fire Suppression and Building Products

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## Drawing List

<b>Engineering Office:</b>	Americas Engineering Admin	
<b>Submitter:</b>	TYCO FIRE SUPPRESSION AND BUILDING PRODUCTS	
<b>Drawing No</b>	<b>Rev. No</b>	<b>Drawing Title</b>
ABS Test results Oct 2013	-	TEST RESULTS
Correspondence	-	EMAIL DATED 4 APRIL 2011
Correspondence	-	EMAIL DATED 5 DECEMBER 2013
Correspondence	-	EMAIL DATED 5 NOVEMBER 2013
Model 200 description	-	MODEL DESCRIPTION 200 SERIES
Model 300 description	-	MODEL DESCRIPTION 300 SERIES
Model 700 description	-	MODEL DESCRIPTION 700 SERIES
Model 800 description	-	MODEL DESCRIPTION 800 SERIES
Correspondence	-	TYPE APPROVAL APPLICATION
Updated Product List for Renewal Sheet 2	-	UPDATED PRODUCT LIST FOR RENEWAL
Updated Product List for Renewal Sheet 2	-	UPDATED PRODUCT LIST FOR RENEWAL
300	-	MANUFACTURING LOCATION FOR 300 SERIES
800	-	MANUFACTURING LOCATION FOR 800 SERIES
200 AND 700 ASIA	-	MANUFACTURING LOCATION FOR 200 & 700 SERIES ASIA
200 AND 700 AMERICA	-	MANUFACTURING LOCATION FOR 200 & 700 SERIES AMERICA
Y Strainer	-	Y STRAINER
210 90 DI Cast Elbow	-	210 90 DI CAST ELBOW
210 LR Long Radius 90 Elbow Cast Ductile Iron	-	210 LR LONG RADIUS 90 ELBOW CAST DUCTILE IRON
219 Tee DI Cast	-	219 TEE DI CAST
800 Series	-	800 SERIES
Correspondence	-	EMAIL CORRESPONDENCE
Figure 71 Flange by Groove Adapter	-	FIGURE 71 FLANGE BY GROOVE ADAPTER
Figure 201 45 Elbow Grooved	-	FIGURE 201 45 ELBOW GROOVED
Figure 211 11	-	FIGURE 211 11.5 DI CAST ELBOW
Figure 211 22	-	FIGURE 211 22.5 CAST ELBOW
Figure 221 Reducing Tee Ductile Iron Cast	-	FIGURE 221 REDUCING TEE DUCTILE IRON CAST
Figure 250 Concentric Reducer Cast DI	-	FIGURE 250 CONCENTRIC REDUCER CAST DI
Figure 251 Eccentric Reducer DI Cast	-	FIGURE 251 ECCENTRIC REDUCER DI CAST
Figure 260 Caps Cast DI	-	FIGURE 260 CAPS CAST DI
Figure 705 Coupling	-	FIGURE 705 COUPLING
Figure 707 High Pressure Grooved Coupling	-	FIGURE 707 HIGH PRESSURE GROOVED COUPLING
Figure 716 Reducing Grooved Coupling	-	FIGURE 716 REDUCING GROOVED COUPLING
Figure 772 Rigid Grooved Coupling	-	FIGURE 772 RIGID GROOVED COUPLING
D977553RevC 300 series APAC	-	300 SERIES



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## Models and Sizes

Items to be listed		All Items are Ductile Iron	
Product Model or Figure #	size range	Description	Notes
Model 811	½" - 2½"	Threaded 90° Elbow	DI threaded Fittings
Model 812	¾" x ½" - 2½" x 2"	Threaded 90° Reducing Elbow	DI threaded Fittings
Model 813	½" - 2½"	Threaded 45° Elbow	DI threaded Fittings
Model 814	½" - 2½"	Threaded Tee	DI threaded Fittings
Model 815	¾" x ½" x ½" - 2½" x 2" x ¾"	Threaded Reducing Tee	DI threaded Fittings
Model 816	¾" x ½" - 1" x ¾"	Threaded Reducing Coupling	DI threaded Fittings
Model 817	1" - 2"	Threaded Cross	DI threaded Fittings
Model 818	½" - 2½"	Threaded Coupling	DI threaded Fittings
Model 820	½" - 2½"	Threaded Caps	DI threaded Fittings
Model 825	¾" x 1½" - ¾" x 2"	Extension Pieces	DI threaded Fittings
Model 827	1" x ½" - 2" x 1½"	Hex Bushing	DI threaded Fittings
Model 830	½" - 2"	Union	DI threaded Fittings

Items to be listed			
Product Model or Figure #	size range	Description	Notes
201	1½" - 12"	45° Elbow (Grvd. X Grvd.)	Offered in cast Ductile Iron
301LR	1½" - 12"	Long Radius 45° Elbow (Grvd. X Grvd.)	Offered in Fabricated Steel
212 / 312	1½" - 12"	22½° Elbow (Grvd. X Grvd.)	1½" - 8" Offered in cast Ductile Iron 10" & 12" in Fabricated Steel
210	1½" - 12"	90° Elbow (Grvd. X Grvd.)	Offered in cast Ductile Iron
210LR / 310LR	1½" - 12"	90° long Radius Elbow (Grvd. X Grvd.)	2" - 8" Offered in cast Ductile Iron 1½", 1½", 10" & 12" Offered in Fabricated Steel
315	1½" - 6"	90° Elbow (Grvd. X Thd.)	Offered in Fabricated Steel
211 / 311	1½" - 12"	11½° Elbow (Grvd. X Grvd.)	1½" - 8" Offered in cast Ductile Iron 10" & 12" in Fabricated Steel
314	2" - 12"	45° Lateral Tee	Offered in Fabricated Steel
325	3" x 3" x 2" - 12" x 12" x 8"	45° Reducing Lateral Tee	Offered in Fabricated Steel
331	4" x 3" x 3" - 8" x 6" x 8"	Reducing Tee Wye	Offered in Fabricated Steel
219	1½" - 12"	Tee	Offered in cast Ductile Iron
320	1½" - 12"	Tee (Grvd. X Grvd. X Thd.)	Offered in Fabricated Steel
221	1½" x 1½" x 1½" - 12" x 12" x 10"	Reducing Tee	Offered in both Cast DI and Fabricated Steel (221 cast) (321 fabricated)
323	1½" x 1½" x 1½" - 12" x 12" x 10"	Tee (Grvd. X Grvd. X Thd.)	Offered in Fabricated Steel
330	2x2x2 - 12x12x12	Tee WYE (grvd all ends)	Offered in Fabricated Steel
341	2" - 12"	Flange Addapter 150 # Class	Offered in Fabricated Steel
342	2" - 12"	Flange Addapter 300 # Class	Offered in Fabricated Steel
250 / 350	1½" x 1" - 12" x 10"	Concentric Reducer	Offered in both Cast DI and Fabricated Steel (250 cast) (350 fabricated)
251 / 351	1½" x 1" - 12" x 10"	Eccentric Reducer	Offered in both Cast DI and Fabricated Steel (251 cast) (351 fabricated)
372	1½" x 1" - 6" x 5"	Reducer (Grvd. X Thd. small end)	Offered in Fabricated Steel
260	1½" - 12"	End Caps (Grvd.)	Offered in cast Ductile Iron
5853	2" - 12"	"Y" strainer	Offered in cast Ductile Iron

Items to be listed			
Product Model or Figure #	size range	Description	
705	1½" - 6"	Standard Flexible Coupling	
772	8" - 12"	Standard Rigid Coupling	
707	1½" - 12"	High Pressure Flexible Coupling	
716	2½" x 1½" - 6" x 8"	Reducing Coupling	
71	2" - 12"	Flange Addapter	