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# APPROVAL REPORT

## PIPE FITTINGS (MODIFICATION)

**SIZES 1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 4, 5, 6, 8, 10 and 12 inch NPS  
SIZES 76, 108, 133, 140, 159 and 165 mm NPS**

### Prepared for:

**Shanghai Vision Mechanical Joint Co., Ltd.  
221 Jinlan Road  
Jiading Industrial Park, Jiading, Shanghai  
Peoples Republic of China**

**Project ID: 3035856**

**Class: 1920**

**Date of Approval: August 6, 2009**

**Authorized by:**

  
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From

**Shanghai Vision Mechanical Joint Co., Ltd.  
221 Jinlan Road  
Jiading Industrial Park, Jiading, Shanghai  
Peoples Republic of China**

**I INTRODUCTION**

- 1.1 Shanghai Vision Mechanical Joint Co., Ltd. requested an Approval examination of their pipe fittings with modification. Shanghai Vision Mechanical Joint Co. Ltd. has made design changes to most of their previously Approved products, as well as added a few sizes and products to their current Approval.
- 1.2 This report may be freely reproduced only in its entirety and without modification.
- 1.3 Standards

Title	Class Number	Date
Pipe Couplings and Fittings for Aboveground Fire Protection Systems	1920	November 2007

- 1.4 Listing:

The fittings discussed in this Report will appear in the Approval Guide, an online resource of FM Approvals under the heading "Pipe Fittings" as follows:

Product Designation	Fitting Description	Nominal Pipe Size, in./ mm	Rated Working Pressure, psi (kPa)	Remarks
002	Short Radius 90° Elbow	2, 2 1/2, 3, 4, 5, 6, 8 76, 108, 133, 140, 159, 165 mm	300 (2070)	
002L	90° Elbow	1, 1 1/4, 1 1/2, 2, 2 1/2, 3, 4, 5, 6, 8, 10, 12 76, 108, 133, 140, 159, 165 mm	300 (2070)	
002D	90° Drain Elbow	1 1/2, 2, 2 1/2, 3, 4, 5, 6, 8 76, 108, 133, 140, 159, 165 mm	300 (2070)	
003	45° Elbow	1, 1 1/4, 1 1/2, 2, 2 1/2, 3, 4, 5, 6, 8, 10, 12 76, 108, 133, 140, 159, 165 mm	300 (2070)	
0031	22.5° Elbow	1 1/4, 1 1/2, 2, 2 1/2, 3, 4, 6, 8 76, 108, 133, 140, 159, 165 mm	300 (2070)	
004	Short Radius Equal Tee	2, 2 1/2, 3, 4, 5, 6, 8 76, 108, 133, 140, 159, 165 mm	300 (2070)	

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Product Designation	Fitting Description	Nominal Pipe Size, in./ mm	Rated Working Pressure, psi (kPa)	Remarks
004L	Long Radius Equal Tee	1, 1 1/4, 1 1/2, 2, 2 1/2, 3, 4, 5, 6, 8, 10, 12 76, 108, 133, 140, 159, 165 mm	300 (2070)	
005	Cap Grooved	1, 1 1/4, 1 1/2, 2, 2 1/2, 3, 4, 5, 6 76, 108, 133, 140, 159, 165 mm	300 (2070)	
005H	Cap 1/2, 3/4 and 1 outlet	2, 2 1/2, 3, 4, 5, 6 76, 108, 133, 140, 159, 165 mm	300 (2070)	
006	90° Reducing Elbow Grooved	2 x 1 1/2 3 x 2 4 x 3 6 x 4	300 (2070)	
006RT	90° Reducing Elbow Grooved x Thread	1 1/4 x 1/2, 3/4, 1 1 1/2 x 1/2, 3/4, 1 2 x 1/2, 3/4, 1 2-1/2 x 1/2, 3/4, 1 76 x 1/2, 3/4, 1	300 (2070)	
008	Concentric Reducer Grooved	1-1/4 x 1 1 1/2 x 1, 1 1/4 2 x 1, 1 1/4, 1 1/2 2 1/2 x 1, 1 1/4, 1 1/2, 2 3 x 1, 1 1/4, 1 1/2, 2, 2 1/2 4 x 1 1/4, 1 1/2, 2, 2 1/2, 3 5 x 1 1/4, 1 1/2, 2, 2 1/2, 3 6 x 1 1/4, 1 1/2, 2, 2 1/2, 3, 4, 5 8 x 2, 2 1/2, 3, 4, 5, 6 10 x 6, 8 12 x 6, 8, 10	300 (2070)	
008	Concentric Reducer Grooved	76 x 42, 48, 60 mm 89 x 76 mm 108 x 42, 48, 60, 76, 89 mm 114 x 76 mm 133 x 42, 48, 60, 76, 89, 108, 114 mm 140 x 42, 48, 60, 76, 89, 108, 114 mm 159 x 42, 48, 60, 76, 89, 108, 114, 133, 140 mm 165 x 42, 48, 60, 76, 89, 108, 114, 133, 140 mm 219 x 76, 108, 133, 140, 159, 165 mm 273 x 165 mm 324 x 165 mm	300 (2070)	
009	Concentric Reducer (Threaded Small End)	1-1/4 x 1 1 1/2 x 1, 1 1/4 2 x 1, 1 1/4, 1 1/2 2 1/2 x 1, 1 1/4, 1 1/2, 2 3 x 1, 1 1/4, 1 1/2, 2, 2 1/2 4 x 1, 1 1/4, 1 1/2, 2, 2 1/2, 3 5 x 1, 1 1/4, 1 1/2, 2, 2 1/2, 3	300 (2070)	a, b

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Product Designation	Fitting Description	Nominal Pipe Size, in./ mm	Rated Working Pressure, psi (kPa)	Remarks
		6 x 1, 1 1/4, 1 1/2, 2, 2 1/2, 3 8 x 1, 1 1/4, 1 1/2, 2, 2 1/2, 3		
009	Concentric Reducer (Threaded Small End)	76 x 42, 48, 60 mm 89 x 76 mm 108 x 33, 42, 48, 60, 76, 89 mm 114 x 76 mm 133 x 33, 42, 48, 60, 76, 89 mm 140 x 33, 42, 48, 60, 76, 89 mm 159 x 33, 42, 48, 60, 76, 89 mm 165 x 33, 42, 48, 60, 76, 89 mm 219 x 76 mm	300 (2070)	a, b
010	Equal Cross Grooved	2, 2 1/2, 3, 4, 5, 6, 8 76, 108, 133, 140, 159, 165 mm	300 (2070)	
010L	Long Radius Cross Grooved	1, 1 1/4, 1 1/2, 2, 2 1/2, 3, 4, 5, 6, 8, 10, 12 76, 108, 133, 140, 159, 165 mm	300 (2070)	
011	Reducing Branch Tee Grooved	2 x 1 1/4, 1 1/2 2 1/2 x 1 1/4, 1 1/2, 2 3 x 1 1/4, 1 1/2, 2, 2 1/2 4 x 1 1/4, 1 1/2, 2, 2 1/2, 3 5 x 1 1/4, 1 1/2, 2, 2 1/2, 3, 4 6 x 1 1/4, 1 1/2, 2, 2 1/2, 3, 4 8 x 1 1/4, 1 1/2, 2, 3, 4, 6 10 x 4, 6, 8 12 x 4, 6, 8, 10	300 (2070)	
011	Reducing Branch Tee Grooved	76 x 42, 48, 60 mm 89 x 76 mm 108 x 42, 48, 60, 76, 89 mm 114 x 76 mm 133 x 42, 48, 60, 76, 89, 108, 114 mm 140 x 42, 48, 60, 76, 89, 108, 114 mm 141 x 76 mm 159 x 42, 48, 60, 76, 89, 108, 114, 133, 140 mm 165 x 42, 48, 60, 76, 89, 108, 114, 133, 140 mm 168 x 140 mm 219 x 76, 108, 133, 140, 159, 165 mm 273 x 133, 140, 159, 165 mm 324 x 133, 140, 159, 165 mm	300 (2070)	
012	Reducing Threaded Outlet Tee	2 x 1, 1 1/4, 1 1/2 2 1/2 x 1, 1 1/4, 1 1/2, 2 3 x 1, 1 1/4, 1 1/2, 2 4 x 1, 1 1/4, 1 1/2, 2, 3 5 x 1, 1 1/4, 1 1/2, 2, 3 6 x 1, 1 1/4, 1 1/2, 2, 3 8 x 1, 1 1/4, 1 1/2, 2, 3	300 (2070)	a, b

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Product Designation	Fitting Description	Nominal Pipe Size, in./ mm	Rated Working Pressure, psi (kPa)	Remarks
012	Reducing Threaded Outlet Tee	76 x 33, 42, 48, 60 mm 89 x 76 mm 108 x 42, 48, 60, 76, 89 mm 114 x 76 mm 133 x 33, 42, 48, 60, 76, 89 mm 140 x 33, 42, 48, 60, 76, 89 mm 159 x 33, 42, 48, 60, 76, 89 mm 165 x 33, 42, 48, 60, 76, 89 mm 168 x 76 mm 219 x 76 mm	300 (2070)	a, b
013	Eccentric Reducer Grooved	2 1/2 x 2 3 x 2 1/2 4 x 2, 3 6 x 3, 4 8 x 6 10 x 6, 8 12 x 8, 10	300 (2070)	
013	Eccentric Reducer Grooved	76 x 2 89 x 76 mm 114 x 76 mm 159 x 60, 76, 89, 108, 114, 133 mm 165 x 60, 76, 89, 108, 114, 133, 140 mm 219 x 159, 165 mm 273 x 165 mm	300 (2070)	
015	Grooved End Flange	1 1/4, 1 1/2, 2, 2 1/2, 3, 4, 5, 6, 8, 10, 12 76, 108, 133, 140, 159, 165 mm	300 (2070)	

Remarks:

- a. Threads per ANSI/ASME B1.20.1 for tapered pipe threads (NPT).
- b. Threads per Chinese National Standard GB-3289.1-3289.39-82

**II DESCRIPTION**

- 2.1 The majority of the pipe fittings discussed in this Report were previously Approved under projects 3014035, dated April 17, 2003; 3017719, dated September 30, 2004; 3024636, dated March 30, 2006; 3033311, dated August 14, 2008 and 3032590, dated December 11, 2008.
- 2.2 Shanghai Vision Mechanical Joint Co., Ltd. requested an Approval examination for a small number of new pipe fittings.
- 2.3 The rated working pressure for all fittings discussed in this Report is 300 psi (2070 kPa).

### III EXAMINATIONS AND TESTS

3.1 The manufacturer provided samples for examination and testing. These samples were considered to be representative of the product line and were examined, tested, and compared to the manufacturer's drawings. All data is on file at FM Approvals along with other documents and correspondence applicable to this program.

#### 3.2 Hydrostatic Strength

The samples listed in Table 3.2 below were subjected to hydrostatic strength testing and considered to be representative of all products discussed in this Report. These samples were subjected to a hydrostatic pressure of 1200 psi (8275 kPa), four times the rated working pressure, for five minutes. There were no signs of permanent distortion, cracking, or rupture to any fitting as a result of this test. These results are considered satisfactory.

Table 3.2

Product Description	Nominal Pipe Size, in	Rated Working Pressure, psi
002 90° Elbow	4, 6, 8	300
002D 90° Drain Elbow (1/2" Outlet)	2, 4, 6, 8	300
004 Equal Tee	4, 6, 10, 12	300
005 Cap	4, 6	300
005H Cap (1/2" Outlet)	2, 4, 6	300
006RT Reducing Elbow	1-1/4x1/2, 1-1/2x3/4, 2x1	300
008 Concentric Reducer	4x2, 6x4, 8x6, 12x10	300
010 Equal Cross	4, 6, 8	300

3.3 Due to satisfactory results, no additional testing was deemed necessary.

### IV MARKING

The following information appears on the pipe fittings discussed in this Report and meets Standard requirements:

- Manufacturers Name
- Model Designation
- Nominal Size
- Date Code
- Country of Origin
- FM Approval Mark

### V REMARKS

Installations shall comply with the latest edition the manufacturer's instruction manual and be in accordance with applicable FM Global Property Loss Prevention Data Sheets.

## VI FACILITIES AND PROCEDURES AUDIT

The products discussed in this Report are Approved when manufactured at the following facilities

Shanghai Vision Mechanical Joint Co., Ltd.  
No.221 Jinlan Rd, Jiading Industrial Park  
Jiading, Shanghai, P.R.China 201807

Ningbo Vision Pipefitting Co., Ltd.  
Xinquan Villa  
Xiaogang, Beilun District,  
Ningbo City, Zhejiang Province, P.R.China 315821

The facilities and quality control procedures in place at these facilities has been found to be satisfactory to manufacture product identical to that examined and tested as described in this report.

## VII MANUFACTURERS RESPONSIBILITIES

7.1 Documentation considered critical to this Approval is on file at FM Approvals and listed in the Documentation File, Section VIII of this report. No changes of any nature shall be implemented unless notice of the proposed change has been given and written authorization obtained from FM Approvals. The FM Approved Product Revision Report, Form 797, shall be forwarded to FM Approvals as notice of proposed changes.

### 7.2 Test Requirement No. 1 - Visual Inspection

The manufacturer shall perform visual inspections on 100 percent of fitting production. The visual inspection shall look for obvious surface or casting defects that would affect the performance of the part. Samples that have defects as outlined by the manufacturer's criteria shall be scrapped.

### 7.3 Test Requirement No. 2 - Dimensional Inspection

The manufacturer shall perform dimensional inspection on a sampling of the production of each fitting discussed in this Approval Standard. The frequency of dimensional inspection shall be outlined in the manufacturer's quality manual including the dimensions to be checked, and the data records to be maintained. At minimum, dimensional checks shall be recorded once per shift.

### 7.4 Test Requirement No. 3 - Leakage

The manufacturer shall perform leakage testing on a sampling of the production of each fitting discussed in this Approval Standard. The frequency of the leakage testing shall be outlined in the manufacturer's quality manual in addition to the test pressure, test time, and the data records that shall be maintained.

### 7.5 Test Requirement No. 4 - Quality Inspection

Where all or part of the quality control has been subcontracted, the manufacturer shall, at a minimum, conduct sufficient oversight audits to verify continued application of the required controls.

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**VIII DOCUMENTATION**

The following drawings describe the pipe fittings discussed in this Report and are filed under Project 3035856.

Description	Style	Size	Drawing No.	Issue
Elbow 90D Long	002L	1"	EDWG22538	C
Elbow 90D Long	002L	1-1/4"	EDWG20023	C
Elbow 90D Long	002L	1-1/2"	EDWG20024	C
Elbow 90D Long	002L	2"	EDWG20025	C
Elbow 90D Long	002L	2-1/2"	EDWG20455	C
Elbow 90D Long	002L	3OD	EDWG21490	C
Elbow 90D Long	002L	3"	EDWG21320	C
Elbow 90D Long	002L	4-1/4OD	EDWG21322	C
Elbow 90D Long	002L	4"	EDWG20726	C
Elbow 90D Long	002L	5-1/4OD	EDWG21324	C
Elbow 90D Long	002L	5-1/2OD	EDWG21326	C
Elbow 90D Long	002L	5"	EDWG21328	C
Elbow 90D Long	002L	6-1/4OD	EDWG21330	C
Elbow 90D Long	002L	6-1/2OD	EDWG21332	C
Elbow 90D Long	002L	6"	EDWG21334	C
Elbow 90D Long	002L	8"	EDWG21336	C
Elbow 90D Long	002L	10"	EDWG20201	C
Elbow 90D Long	002L	12"	EDWG20203	C
Elbow 90D Short	002	2"	EDWG20021	C
Elbow 90D Short	002	2-1/2"	EDWG20022	C
Elbow 90D Short	002	3OD	EDWG20057	C
Elbow 90D Short	002	3"	EDWG20058	C
Elbow 90D Short	002	4-1/4OD	EDWG20130	C
Elbow 90D Short	002	4"	EDWG20031	C
Elbow 90D Short	002	5-1/4OD	EDWG20255	C
Elbow 90D Short	002	5-1/2OD	EDWG20128	C
Elbow 90D Short	002	5"	EDWG20283	C
Elbow 90D Short	002	6-1/4OD	EDWG20083	C
Elbow 90D Short	002	6-1/2OD	EDWG20032	C
Elbow 90D Short	002	6"	EDWG20259	C
Elbow 90D Short	002	8"	EDWG20119	C
Elbow 45D	003	1"	EDWG22540	C
Elbow 45D	003	1-1/4"	EDWG20026	C
Elbow 45D	003	1-1/2"	EDWG20027	C
Elbow 45D	003	2"	EDWG20028	C
Elbow 45D	003	2-1/2"	EDWG20029	C
Elbow 45D	003	3OD	EDWG20451	C
Elbow 45D	003	3"	EDWG20030	C
Elbow 45D	003	4-1/4OD	EDWG20285	C
Elbow 45D	003	4"	EDWG20066	C
Elbow 45D	003	5-1/4OD	EDWG20271	C
Elbow 45D	003	5-1/2OD	EDWG20273	C
Elbow 45D	003	5"	EDWG20287	C
Elbow 45D	003	6-1/4OD	EDWG20279	C



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Elbow 45D	003	6-1/2OD	EDWG20068	C
Elbow 45D	003	6"	EDWG20281	C
Elbow 45D	003	8"	EDWG20205	C
Elbow 45D	003	10"	EDWG20207	C
Elbow 45D	003	12"	EDWG20209	C
Equal Tee Long	004L	1"	EDWG22542	C
Equal Tee Long	004L	1-1/4"	EDWG20013	C
Equal Tee Long	004L	1-1/2"	EDWG20015	C
Equal Tee Long	004L	2"	EDWG20017	C
Equal Tee Long	004L	2-1/2"	EDWG20019	C
Equal Tee Long	004L	3OD	EDWG20457	C
Equal Tee Long	004L	3"	EDWG21360	C
Equal Tee Long	004L	4-1/4OD	EDWG21362	C
Equal Tee Long	004L	4"	EDWG20774	C
Equal Tee Long	004L	5-1/4OD	EDWG21364	C
Equal Tee Long	004L	5-1/2OD	EDWG21366	C
Equal Tee Long	004L	5"	EDWG21368	C
Equal Tee Long	004L	6-1/4OD	EDWG21370	C
Equal Tee Long	004L	6-1/2OD	EDWG21372	C
Equal Tee Long	004L	6"	EDWG21374	C
Equal Tee Long	004L	8"	EDWG21376	C
Equal Tee Long	004L	10"	EDWG20213	C
Equal Tee Long	004L	12"	EDWG20215	C
Equal Tee Short	004	2"	EDWG20449	C
Equal Tee Short	004	2-1/2"	EDWG20495	C
Equal Tee Short	004	3OD	EDWG20453	C
Equal Tee Short	004	3"	EDWG20347	C
Equal Tee Short	004	4-1/4OD	EDWG20349	C
Equal Tee Short	004	4"	EDWG20070	C
Equal Tee Short	004	5-1/4OD	EDWG20447	C
Equal Tee Short	004	5-1/2OD	EDWG20269	C
Equal Tee Short	004	5"	EDWG20263	C
Equal Tee Short	004	6-1/4OD	EDWG20085	C
Equal Tee Short	004	6-1/2OD	EDWG20072	C
Equal Tee Short	004	6"	EDWG20445	C
Equal Tee Short	004	8"	EDWG20211	C
End Cap	005	1"	EDWG22785	C
End Cap	005	1-1/4"	EDWG20744	C
End Cap	005	1-1/2"	EDWG20746	C
End Cap	005	2"	EDWG20333	C
End Cap	005	2-1/2"	EDWG20734	C
End Cap	005	3OD	EDWG20404	C
End Cap	005	3"	EDWG20365	C

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End Cap	005	4-1/4OD	EDWG20408	C
End Cap	005	4"	EDWG20101	C
End Cap	005	5-1/4OD	EDWG20415	C
End Cap	005	5-1/2OD	EDWG20367	C
End Cap	005	5"	EDWG22255	C
End Cap	005	6-1/4OD	EDWG20417	C
End Cap	005	6-1/2OD	EDWG20406	C
End Cap	005	6"	EDWG22257	C
End Cap	005	8"	EDWG20419	C
End Cap	005	10"	EDWG20421	C
End Cap	005	12"	EDWG20423	C
Equal Cross Long	010L	1"	EDWG22544	C
Equal Cross Long	010L	1-1/4"	EDWG21296	C
Equal Cross Long	010L	1-1/2"	EDWG21298	C
Equal Cross Long	010L	2"	EDWG21458	C
Equal Cross Long	010L	2-1/2"	EDWG21460	C
Equal Cross Long	010L	3OD	EDWG21462	C
Equal Cross Long	010L	3"	EDWG21464	C
Equal Cross Long	010L	4-1/4OD	EDWG21466	C
Equal Cross Long	010L	4"	EDWG20507	C
Equal Cross Long	010L	5-1/4OD	EDWG21468	C
Equal Cross Long	010L	5-1/2OD	EDWG21470	C
Equal Cross Long	010L	5"	EDWG21472	C
Equal Cross Long	010L	6-1/4OD	EDWG21474	C
Equal Cross Long	010L	6-1/2OD	EDWG21476	C
Equal Cross Long	010L	6"	EDWG21478	C
Equal Cross Long	010L	8"	EDWG21480	C
Equal Cross Long	010L	10"	EDWG21300	C
Equal Cross Long	010L	12"	EDWG21302	C
Equal Cross short	010	2"	EDWG20449	C
Equal Cross short	010	2-1/2"	EDWG20800	C
Equal Cross short	010	3OD	EDWG20501	C
Equal Cross short	010	3"	EDWG20503	C
Equal Cross short	010	4-1/4OD	EDWG20505	C
Equal Cross short	010	4"	EDWG20507	C
Equal Cross short	010	5-1/4OD	EDWG20509	C
Equal Cross short	010	5-1/2OD	EDWG20511	C
Equal Cross short	010	5"	EDWG20513	C
Equal Cross short	010	6-1/4OD	EDWG20515	C
Equal Cross short	010	6-1/2OD	EDWG20517	C
Equal Cross short	010	6"	EDWG20519	C
Equal Cross short	010	8"	EDWG20521	C

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Concentric reducer (G)	008	1-1/4"X1"	EDWG22485	C
Concentric reducer (G)	008	1-1/2"X1"	EDWG22475	C
Concentric reducer (G)	008	1-1/2"X1-1/4"	EDWG22351	C
Concentric reducer (G)	008	2"X1"	EDWG22477	C
Concentric reducer (G)	008	2"X1-1/4"	EDWG22353	C
Concentric reducer (G)	008	2"X1-1/2"	EDWG22355	C
Concentric reducer (G)	008	2-1/2"X1"	EDWG22479	C
Concentric reducer (G)	008	2-1/2"X1-1/4"	EDWG22357	C
Concentric reducer (G)	008	2-1/2"X1-1/2"	EDWG22359	C
Concentric reducer (G)	008	2-1/2"X2"	EDWG22361	C
Concentric reducer (G)	008	3ODX1"	EDWG22481	C
Concentric reducer (G)	008	3ODX1-1/4"	EDWG22241	C
Concentric reducer (G)	008	3ODX1-1/2"	EDWG22243	C
Concentric reducer (G)	008	3ODX2"	EDWG20305	C
Concentric reducer (G)	008	3"X1"	EDWG22483	C
Concentric reducer (G)	008	3"X1-1/4"	EDWG22245	C
Concentric reducer (G)	008	3"X1-1/2"	EDWG22247	C
Concentric reducer (G)	008	3"X2"	EDWG20317	C
Concentric reducer (G)	008	3"X2-1/2"	EDWG22249	C
Concentric reducer (G)	008	3"X3OD	EDWG20319	C
Concentric reducer (G)	008	4-1/4ODX1-1/4"	EDWG22251	C
Concentric reducer (G)	008	4-1/4ODX1-1/2"	EDWG22253	C
Concentric reducer (G)	008	4-1/4ODX2"	EDWG20321	C
Concentric reducer (G)	008	4-1/4ODX3OD	EDWG20323	C
Concentric reducer (G)	008	4-1/4ODX3"	EDWG20325	C
Concentric reducer (G)	008	4"X1-1/4"	EDWG22259	C
Concentric reducer (G)	008	4"X1-1/2"	EDWG22261	C
Concentric reducer (G)	008	4"X2"	EDWG20341	C
Concentric reducer (G)	008	4"X2-1/2"	EDWG22263	C
Concentric reducer (G)	008	4"X3OD	EDWG20343	C
Concentric reducer (G)	008	4"X3"	EDWG20345	C
Concentric reducer (G)	008	5-1/4ODX1-1/4"	EDWG22265	C
Concentric reducer (G)	008	5-1/4ODX1-1/2"	EDWG22267	C
Concentric reducer (G)	008	5-1/4ODX2"	EDWG20355	C
Concentric reducer (G)	008	5-1/4ODX3OD	EDWG20357	C
Concentric reducer (G)	008	5-1/4ODX3"	EDWG20359	C
Concentric reducer (G)	008	5-1/4ODX4-1/4OD	EDWG20361	C
Concentric reducer (G)	008	5-1/4ODX4"	EDWG20363	C
Concentric reducer (G)	008	5-1/2ODX1-1/4"	EDWG22269	C
Concentric reducer (G)	008	5-1/2ODX1-1/2"	EDWG22271	C
Concentric reducer (G)	008	5-1/2ODX2"	EDWG20369	C
Concentric reducer (G)	008	5-1/2ODX3OD	EDWG20371	C

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Concentric reducer (G)	008	5-1/2ODX3"	EDWG20373	C
Concentric reducer (G)	008	5-1/2ODX4-1/4OD	EDWG20375	C
Concentric reducer (G)	008	5-1/2ODX4"	EDWG20377	C
Concentric reducer (G)	008	5"X1-1/4"	EDWG22273	C
Concentric reducer (G)	008	5"X1-1/2"	EDWG22275	C
Concentric reducer (G)	008	5"X2"	EDWG22277	C
Concentric reducer (G)	008	5"X2-1/2"	EDWG22279	C
Concentric reducer (G)	008	5"X3"	EDWG22281	C
Concentric reducer (G)	008	5"X4"	EDWG22283	C
Concentric reducer (G)	008	6-1/4ODX1-1/4"	EDWG22289	C
Concentric reducer (G)	008	6-1/4ODX1-1/2"	EDWG22291	C
Concentric reducer (G)	008	6-1/4ODX2"	EDWG20425	C
Concentric reducer (G)	008	6-1/4ODX3OD	EDWG20427	C
Concentric reducer (G)	008	6-1/4ODX3"	EDWG20429	C
Concentric reducer (G)	008	6-1/4ODX4-1/4OD	EDWG20431	C
Concentric reducer (G)	008	6-1/4ODX4"	EDWG20091	C
Concentric reducer (G)	008	6-1/4ODX5-1/4OD	EDWG20433	C
Concentric reducer (G)	008	6-1/4ODX5-1/2OD	EDWG22293	C
Concentric reducer (G)	008	6-1/2ODX1-1/4"	EDWG22295	C
Concentric reducer (G)	008	6-1/2ODX1-1/2"	EDWG22297	C
Concentric reducer (G)	008	6-1/2ODX2"	EDWG20481	C
Concentric reducer (G)	008	6-1/2ODX3OD	EDWG20483	C
Concentric reducer (G)	008	6-1/2ODX3"	EDWG20485	C
Concentric reducer (G)	008	6-1/2ODX4-1/4OD	EDWG20487	C
Concentric reducer (G)	008	6-1/2ODX4"	EDWG20089	C
Concentric reducer (G)	008	6-1/2ODX5-1/4OD	EDWG20491	C
Concentric reducer (G)	008	6-1/2ODX5-1/2OD	EDWG20493	C
Concentric reducer (G)	008	6"X1-1/4"	EDWG22299	C
Concentric reducer (G)	008	6"X1-1/2"	EDWG22301	C
Concentric reducer (G)	008	6"X2"	EDWG22303	C
Concentric reducer (G)	008	6"X2-1/2"	EDWG22305	C
Concentric reducer (G)	008	6"X3"	EDWG22307	C
Concentric reducer (G)	008	6"X4"	EDWG22309	C
Concentric reducer (G)	008	6"X5"	EDWG22311	C
Concentric reducer (G)	008	8"X2"	EDWG20489	C
Concentric reducer (G)	008	8"X2-1/2"	EDWG22317	C
Concentric reducer (G)	008	8"X3OD	EDWG20547	C
Concentric reducer (G)	008	8"X3"	EDWG20549	C
Concentric reducer (G)	008	8"X4-1/4OD	EDWG20551	C
Concentric reducer (G)	008	8"X4"	EDWG20553	C
Concentric reducer (G)	008	8"X5-1/4OD	EDWG20555	C
Concentric reducer (G)	008	8"X5-1/2OD	EDWG20557	C

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Concentric reducer (G)	008	8"X5"	EDWG22319	C
Concentric reducer (G)	008	8"X6-1/4OD	EDWG20559	C
Concentric reducer (G)	008	8"X6-1/2OD	EDWG20561	C
Concentric reducer (G)	008	8"X6"	EDWG22321	C
Concentric reducer (G)	008	10"X6-1/2OD	EDWG20960	C
Concentric reducer (G)	008	10"X6"	EDWG22323	C
Concentric reducer (G)	008	10"X8"	EDWG20962	C
Concentric reducer (G)	008	12"X6-1/2OD	EDWG20964	C
Concentric reducer (G)	008	12"X6"	EDWG22325	C
Concentric reducer (G)	008	12"X8"	EDWG20966	C
Concentric reducer (G)	008	12"X10"	EDWG20968	C
Concentric reducer (T)	009	1-1/4"X1"	EDWG22393	C
Concentric reducer (T)	009	1-1/2"X1"	EDWG22395	C
Concentric reducer (T)	009	1-1/2"X1-1/4"	EDWG22397	C
Concentric reducer (T)	009	2"X1"	EDWG21034	C
Concentric reducer (T)	009	2"X1-1/4"	EDWG21270	C
Concentric reducer (T)	009	2"X1-1/2"	EDWG21272	C
Concentric reducer (T)	009	2-1/2"X1"	EDWG22399	C
Concentric reducer (T)	009	2-1/2"X1-1/4"	EDWG22401	C
Concentric reducer (T)	009	2-1/2"X1-1/2"	EDWG22403	C
Concentric reducer (T)	009	2-1/2"X2"	EDWG22405	C
Concentric reducer (T)	009	3ODX1"	EDWG21274	C
Concentric reducer (T)	009	3ODX1-1/4"	EDWG21276	C
Concentric reducer (T)	009	3ODX1-1/2"	EDWG21278	C
Concentric reducer (T)	009	3ODX2"	EDWG21280	C
Concentric reducer (T)	009	3"X1"	EDWG21340	C
Concentric reducer (T)	009	3"X1-1/4"	EDWG21342	C
Concentric reducer (T)	009	3"X1-1/2"	EDWG21344	C
Concentric reducer (T)	009	3"X2"	EDWG21346	C
Concentric reducer (T)	009	3"X2-1/2"	EDWG22329	C
Concentric reducer (T)	009	3"X3OD	EDWG21348	C
Concentric reducer (T)	009	4-1/4ODX1"	EDWG22471	C
Concentric reducer (T)	009	4-1/4ODX1-1/4"	EDWG22331	C
Concentric reducer (T)	009	4-1/4ODX1-1/2"	EDWG22333	C
Concentric reducer (T)	009	4-1/4ODX2"	EDWG22335	C
Concentric reducer (T)	009	4-1/4ODX3OD	EDWG22337	C
Concentric reducer (T)	009	4-1/4ODX3"	EDWG22130	C
Concentric reducer (T)	009	4"X1"	EDWG21024	C
Concentric reducer (T)	009	4"X1-1/4"	EDWG21026	C
Concentric reducer (T)	009	4"X1-1/2"	EDWG21028	C
Concentric reducer (T)	009	4"X2"	EDWG21030	C
Concentric reducer (T)	009	4"X3OD	EDWG21032	C

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Concentric reducer (T)	009	4"X3"	EDWG20093	C
Concentric reducer (T)	009	5-1/4ODX1"	EDWG22339	C
Concentric reducer (T)	009	5-1/4ODX1-1/4"	EDWG22341	C
Concentric reducer (T)	009	5-1/4ODX1-1/2"	EDWG22343	C
Concentric reducer (T)	009	5-1/4ODX2"	EDWG22345	C
Concentric reducer (T)	009	5-1/4ODX3OD	EDWG22347	C
Concentric reducer (T)	009	5-1/4ODX3"	EDWG22349	C
Concentric reducer (T)	009	5-1/2ODX1"	EDWG22419	C
Concentric reducer (T)	009	5-1/2ODX1-1/4"	EDWG22421	C
Concentric reducer (T)	009	5-1/2ODX1-1/2"	EDWG22423	C
Concentric reducer (T)	009	5-1/2ODX2"	EDWG22425	C
Concentric reducer (T)	009	5-1/2ODX3OD	EDWG22427	C
Concentric reducer (T)	009	5-1/2ODX3"	EDWG22429	C
Concentric reducer (T)	009	5"X1"	EDWG22431	C
Concentric reducer (T)	009	5"X1-1/4"	EDWG22433	C
Concentric reducer (T)	009	5"X1-1/2"	EDWG22435	C
Concentric reducer (T)	009	5"X2"	EDWG22437	C
Concentric reducer (T)	009	5"X2-1/2"	EDWG22439	C
Concentric reducer (T)	009	5"X3"	EDWG22441	C
Concentric reducer (T)	009	6-1/4ODX1"	EDWG22407	C
Concentric reducer (T)	009	6-1/4ODX1-1/4"	EDWG22409	C
Concentric reducer (T)	009	6-1/4ODX1-1/2"	EDWG22411	C
Concentric reducer (T)	009	6-1/4ODX2"	EDWG22413	C
Concentric reducer (T)	009	6-1/4ODX3OD	EDWG22415	C
Concentric reducer (T)	009	6-1/4ODX3"	EDWG22417	C
Concentric reducer (T)	009	6-1/2ODX1"	EDWG22116	C
Concentric reducer (T)	009	6-1/2ODX1-1/4"	EDWG22118	C
Concentric reducer (T)	009	6-1/2ODX1-1/2"	EDWG22120	C
Concentric reducer (T)	009	6-1/2ODX2"	EDWG22122	C
Concentric reducer (T)	009	6-1/2ODX3OD	EDWG22124	C
Concentric reducer (T)	009	6-1/2ODX3"	EDWG22126	C
Concentric reducer (T)	009	6"X1"	EDWG22363	C
Concentric reducer (T)	009	6"X1-1/4"	EDWG22365	C
Concentric reducer (T)	009	6"X1-1/2"	EDWG22367	C
Concentric reducer (T)	009	6"X2"	EDWG22369	C
Concentric reducer (T)	009	6"X2-1/2"	EDWG22371	C
Concentric reducer (T)	009	6"X3"	EDWG22373	C
Concentric reducer (T)	009	8"X1"	EDWG22375	C
Concentric reducer (T)	009	8"X1-1/4"	EDWG22377	C
Concentric reducer (T)	009	8"X1-1/2"	EDWG22379	C
Concentric reducer (T)	009	8"X2"	EDWG22381	C
Concentric reducer (T)	009	8"X2-1/2"	EDWG22383	C

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Concentric reducer (T)	009	8"X3OD	EDWG22385	C
Concentric reducer (T)	009	8"X3"	EDWG22387	C
Reducing Tee (G)	011	2"X1-1/4"	EDWG21934	C
Reducing Tee (G)	011	2"X1-1/2"	EDWG21936	C
Reducing Tee (G)	011	2-1/2"X1-1/4"	EDWG21938	C
Reducing Tee (G)	011	2-1/2"X1-1/2"	EDWG21940	C
Reducing Tee (G)	011	2-1/2"X2"	EDWG21942	C
Reducing Tee (G)	011	3ODX1-1/4"	EDWG21944	C
Reducing Tee (G)	011	3ODX1-1/2"	EDWG21946	C
Reducing Tee (G)	011	3ODX2"	EDWG20862	C
Reducing Tee (G)	011	3"X1-1/4"	EDWG21948	C
Reducing Tee (G)	011	3"X1-1/2"	EDWG21950	C
Reducing Tee (G)	011	3"X2"	EDWG20864	C
Reducing Tee (G)	011	3"X2-1/2"	EDWG21952	C
Reducing Tee (G)	011	3"X3OD	EDWG20866	C
Reducing Tee (G)	011	4-1/4ODX1-1/4"	EDWG21962	C
Reducing Tee (G)	011	4-1/4ODX1-1/2"	EDWG21964	C
Reducing Tee (G)	011	4-1/4ODX2"	EDWG20868	C
Reducing Tee (G)	011	4-1/4ODX3OD	EDWG20870	C
Reducing Tee (G)	011	4-1/4ODX3"	EDWG20872	C
Reducing Tee (G)	011	4"X1-1/4"	EDWG21966	C
Reducing Tee (G)	011	4"X1-1/2"	EDWG21968	C
Reducing Tee (G)	011	4"X2"	EDWG20874	C
Reducing Tee (G)	011	4"X2-1/2"	EDWG21970	C
Reducing Tee (G)	011	4"X3OD	EDWG20876	C
Reducing Tee (G)	011	4"X3"	EDWG20878	C
Reducing Tee (G)	011	5-1/4ODX1-1/4"	EDWG21972	C
Reducing Tee (G)	011	5-1/4ODX1-1/2"	EDWG21974	C
Reducing Tee (G)	011	5-1/4ODX2"	EDWG20886	C
Reducing Tee (G)	011	5-1/4ODX3OD	EDWG20888	C
Reducing Tee (G)	011	5-1/4ODX3"	EDWG20890	C
Reducing Tee (G)	011	5-1/4ODX4-1/4OD	EDWG20892	C
Reducing Tee (G)	011	5-1/4ODX4"	EDWG20894	C
Reducing Tee (G)	011	5-1/2ODX1-1/4"	EDWG21976	C
Reducing Tee (G)	011	5-1/2ODX1-1/2"	EDWG21978	C
Reducing Tee (G)	011	5-1/2ODX2"	EDWG20896	C
Reducing Tee (G)	011	5-1/2ODX3OD	EDWG20898	C
Reducing Tee (G)	011	5-1/2ODX3"	EDWG20900	C
Reducing Tee (G)	011	5-1/2ODX4-1/4OD	EDWG20902	C
Reducing Tee (G)	011	5-1/2ODX4"	EDWG20904	C
Reducing Tee (G)	011	5"X1-1/4"	EDWG21994	C
Reducing Tee (G)	011	5"X1-1/2"	EDWG21996	C

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Reducing Tee (G)	011	5"X2"	EDWG21998	C
Reducing Tee (G)	011	5"X2-1/2"	EDWG22000	C
Reducing Tee (G)	011	5"X3OD	EDWG22002	C
Reducing Tee (G)	011	5"X3"	EDWG22004	C
Reducing Tee (G)	011	5"X4"	EDWG22006	C
Reducing Tee (G)	011	6-1/4ODX1-1/4"	EDWG22008	C
Reducing Tee (G)	011	6-1/4ODX1-1/2"	EDWG22010	C
Reducing Tee (G)	011	6-1/4ODX2"	EDWG20918	C
Reducing Tee (G)	011	6-1/4ODX3OD	EDWG20920	C
Reducing Tee (G)	011	6-1/4ODX3"	EDWG20922	C
Reducing Tee (G)	011	6-1/4ODX4-1/4OD	EDWG20924	C
Reducing Tee (G)	011	6-1/4ODX4"	EDWG20926	C
Reducing Tee (G)	011	6-1/4ODX5-1/4OD	EDWG20928	C
Reducing Tee (G)	011	6-1/4ODX5-1/2OD	EDWG20930	C
Reducing Tee (G)	011	6-1/2ODX1-1/4"	EDWG22012	C
Reducing Tee (G)	011	6-1/2ODX1-1/2"	EDWG22014	C
Reducing Tee (G)	011	6-1/2ODX2"	EDWG20932	C
Reducing Tee (G)	011	6-1/2ODX3OD	EDWG20934	C
Reducing Tee (G)	011	6-1/2ODX3"	EDWG20936	C
Reducing Tee (G)	011	6-1/2ODX4-1/4OD	EDWG20938	C
Reducing Tee (G)	011	6-1/2ODX4"	EDWG20940	C
Reducing Tee (G)	011	6-1/2ODX5-1/4OD	EDWG20942	C
Reducing Tee (G)	011	6-1/2ODX5-1/2OD	EDWG20944	C
Reducing Tee (G)	011	6"X1-1/4"	EDWG22016	C
Reducing Tee (G)	011	6"X1-1/2"	EDWG22018	C
Reducing Tee (G)	011	6"X2"	EDWG22020	C
Reducing Tee (G)	011	6"X2-1/2"	EDWG22022	C
Reducing Tee (G)	011	6"X3"	EDWG22024	C
Reducing Tee (G)	011	6"X4"	EDWG22026	C
Reducing Tee (G)	011	6"X5-1/2OD	EDWG22028	C
Reducing Tee (G)	011	8"X1-1/4"	EDWG22030	C
Reducing Tee (G)	011	8"X1-1/2"	EDWG22032	C
Reducing Tee (G)	011	8"X2"	EDWG21002	C
Reducing Tee (G)	011	8"X3OD	EDWG21004	C
Reducing Tee (G)	011	8"X3"	EDWG21006	C
Reducing Tee (G)	011	8"X4-1/4OD	EDWG21008	C
Reducing Tee (G)	011	8"X4"	EDWG21010	C
Reducing Tee (G)	011	8"X5-1/4OD	EDWG21012	C
Reducing Tee (G)	011	8"X5-1/2OD	EDWG21014	C
Reducing Tee (G)	011	8"X6-1/4OD	EDWG21016	C
Reducing Tee (G)	011	8"X6-1/2OD	EDWG21018	C
Reducing Tee (G)	011	8"X6"	EDWG21020	C



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Reducing Tee (G)	011	10"X4"	EDWG21218	C
Reducing Tee (G)	011	10"X5-1/4OD	EDWG21220	C
Reducing Tee (G)	011	10"X5-1/2OD	EDWG21222	C
Reducing Tee (G)	011	10"X6-1/4OD	EDWG21224	C
Reducing Tee (G)	011	10"X6-1/2OD	EDWG21226	C
Reducing Tee (G)	011	10"X6"	EDWG21228	C
Reducing Tee (G)	011	10"X8"	EDWG21230	C
Reducing Tee (G)	011	12"X4"	EDWG21232	C
Reducing Tee (G)	011	12"X5-1/4OD	EDWG21234	C
Reducing Tee (G)	011	12"X5-1/2OD	EDWG21236	C
Reducing Tee (G)	011	12"X6-1/4OD	EDWG21238	C
Reducing Tee (G)	011	12"X6-1/2OD	EDWG21240	C
Reducing Tee (G)	011	12"X6"	EDWG21242	C
Reducing Tee (G)	011	12"X8"	EDWG21244	C
Reducing Tee (G)	011	12"X10"	EDWG21246	C
Reducing Tee (T)	012	2"X1"	EDWG21096	C
Reducing Tee (T)	012	2"X1-1/4"	EDWG21098	C
Reducing Tee (T)	012	2"X1-1/2"	EDWG21100	C
Reducing Tee (T)	012	2-1/2"X1"	EDWG22066	C
Reducing Tee (T)	012	2-1/2"X1-1/4"	EDWG22068	C
Reducing Tee (T)	012	2-1/2"X1-1/2"	EDWG22070	C
Reducing Tee (T)	012	2-1/2"X2"	EDWG22072	C
Reducing Tee (T)	012	3ODX1"	EDWG21102	C
Reducing Tee (T)	012	3ODX1-1/4"	EDWG21104	C
Reducing Tee (T)	012	3ODX1-1/2"	EDWG21106	C
Reducing Tee (T)	012	3ODX2"	EDWG21108	C
Reducing Tee (T)	012	3"X1"	EDWG21110	C
Reducing Tee (T)	012	3"X1-1/4"	EDWG21112	C
Reducing Tee (T)	012	3"X1-1/2"	EDWG21114	C
Reducing Tee (T)	012	3"X2"	EDWG21116	C
Reducing Tee (T)	012	3"X3OD	EDWG21118	C
Reducing Tee (T)	012	4-1/4ODX1-1/4"	EDWG21146	C
Reducing Tee (T)	012	4-1/4ODX1-1/2"	EDWG21148	C
Reducing Tee (T)	012	4-1/4ODX2"	EDWG21150	C
Reducing Tee (T)	012	4-1/4ODX3OD	EDWG21152	C
Reducing Tee (T)	012	4-1/4ODX3"	EDWG21154	C
Reducing Tee (T)	012	4"X1"	EDWG21038	C
Reducing Tee (T)	012	4"X1-1/4"	EDWG21040	C
Reducing Tee (T)	012	4"X1-1/2"	EDWG21042	C
Reducing Tee (T)	012	4"X2"	EDWG21044	C
Reducing Tee (T)	012	4"X3OD	EDWG21046	C
Reducing Tee (T)	012	4"X3"	EDWG21048	C

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Reducing Tee (T)	012	5-1/4ODX1"	EDWG21156	C
Reducing Tee (T)	012	5-1/4ODX1-1/4"	EDWG21158	C
Reducing Tee (T)	012	5-1/4ODX1-1/2"	EDWG21160	C
Reducing Tee (T)	012	5-1/4ODX2"	EDWG21162	C
Reducing Tee (T)	012	5-1/4ODX3OD	EDWG21164	C
Reducing Tee (T)	012	5-1/4ODX3"	EDWG21166	C
Reducing Tee (T)	012	5-1/2ODX1"	EDWG21416	C
Reducing Tee (T)	012	5-1/2ODX1-1/4"	EDWG21418	C
Reducing Tee (T)	012	5-1/2ODX1-1/2"	EDWG21420	C
Reducing Tee (T)	012	5-1/2ODX2"	EDWG21176	C
Reducing Tee (T)	012	5-1/2ODX3OD	EDWG21178	C
Reducing Tee (T)	012	5-1/2ODX3"	EDWG21180	C
Reducing Tee (T)	012	5"X1"	EDWG22074	C
Reducing Tee (T)	012	5"X1-1/4"	EDWG22076	C
Reducing Tee (T)	012	5"X1-1/2"	EDWG22078	C
Reducing Tee (T)	012	5"X2"	EDWG22080	C
Reducing Tee (T)	012	5"X3OD	EDWG22082	C
Reducing Tee (T)	012	5"X3"	EDWG22084	C
Reducing Tee (T)	012	6-1/4ODX1"	EDWG21394	C
Reducing Tee (T)	012	6-1/4ODX1-1/4"	EDWG21396	C
Reducing Tee (T)	012	6-1/4ODX1-1/2"	EDWG21398	C
Reducing Tee (T)	012	6-1/4ODX2"	EDWG21400	C
Reducing Tee (T)	012	6-1/4ODX3OD	EDWG21182	C
Reducing Tee (T)	012	6-1/4ODX3"	EDWG21184	C
Reducing Tee (T)	012	6-1/2ODX1"	EDWG21402	C
Reducing Tee (T)	012	6-1/2ODX1-1/4"	EDWG21404	C
Reducing Tee (T)	012	6-1/2ODX1-1/2"	EDWG21406	C
Reducing Tee (T)	012	6-1/2ODX2"	EDWG21408	C
Reducing Tee (T)	012	6-1/2ODX3OD	EDWG21186	C
Reducing Tee (T)	012	6-1/2ODX3"	EDWG21188	C
Reducing Tee (T)	012	6"X1"	EDWG22086	C
Reducing Tee (T)	012	6"X1-1/4"	EDWG22088	C
Reducing Tee (T)	012	6"X1-1/2"	EDWG22090	C
Reducing Tee (T)	012	6"X2"	EDWG22092	C
Reducing Tee (T)	012	6"X3OD	EDWG22094	C
Reducing Tee (T)	012	6"X3"	EDWG22096	C
Reducing Tee (T)	012	8"X1"	EDWG21410	C
Reducing Tee (T)	012	8"X1-1/4"	EDWG21412	C
Reducing Tee (T)	012	8"X1-1/2"	EDWG21414	C
Reducing Tee (T)	012	8"X2"	EDWG21190	C
Reducing Tee (T)	012	8"X3OD	EDWG21192	C
Reducing Tee (T)	012	8"X3"	EDWG21194	C

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Eccentric reducer (G)	013	2-1/2"X2"	EDWG22443	C
Eccentric reducer (G)	013	3ODX2"	EDWG22445	C
Eccentric reducer (G)	013	3"X2-1/2"	EDWG22447	C
Eccentric reducer (G)	013	3"X3OD	EDWG22449	C
Eccentric reducer (G)	013	4"X2"	EDWG21422	C
Eccentric reducer (G)	013	4"X3OD	EDWG21424	C
Eccentric reducer (G)	013	4"X3"	EDWG21426	C
Eccentric reducer (G)	013	6-1/4ODX2"	EDWG21428	C
Eccentric reducer (G)	013	6-1/4ODX3OD	EDWG21430	C
Eccentric reducer (G)	013	6-1/4ODX3"	EDWG21432	C
Eccentric reducer (G)	013	6-1/4ODX4-1/4OD	EDWG21434	C
Eccentric reducer (G)	013	6-1/4ODX4"	EDWG21436	C
Eccentric reducer (G)	013	6-1/4ODX5-1/4OD	EDWG21438	C
Eccentric reducer (G)	013	6-1/2ODX2"	EDWG21440	C
Eccentric reducer (G)	013	6-1/2ODX3OD	EDWG21442	C
Eccentric reducer (G)	013	6-1/2ODX3"	EDWG21444	C
Eccentric reducer (G)	013	6-1/2ODX4-1/4OD	EDWG21446	C
Eccentric reducer (G)	013	6-1/2ODX4"	EDWG21448	C
Eccentric reducer (G)	013	6-1/2ODX5-1/4OD	EDWG21450	C
Eccentric reducer (G)	013	6-1/2ODX5-1/2OD	EDWG21452	C
Eccentric reducer (G)	013	6"X3"	EDWG22451	C
Eccentric reducer (G)	013	6"X4"	EDWG22453	C
Eccentric reducer (G)	013	8"X6-1/4OD	EDWG22461	C
Eccentric reducer (G)	013	8"X6-1/2OD	EDWG22463	C
Eccentric reducer (G)	013	8"X6"	EDWG22465	C
Eccentric reducer (G)	013	10"X6-1/2OD	EDWG22455	C
Eccentric reducer (G)	013	10"X6"	EDWG22457	C
Eccentric reducer (G)	013	10"X8"	EDWG22459	C
Eccentric reducer (G)	013	12"X8"	EDWG22467	C
Eccentric reducer (G)	013	12"X10"	EDWG22469	C
Flange adaptor nipple, D1/2/3	015	1-1/4"	EDWG23068	C
Flange adaptor nipple, D1/2/3	015	1-1/2"	EDWG23070	C
Flange adaptor nipple, D1/2/3	015	2"	EDWG20986	C
Flange adaptor nipple, A1	015	2-1/2"	EDWG23219	C
Flange adaptor nipple, D1/2/3	015	3OD	EDWG23066	C
Flange adaptor nipple, D1/2/3	015	3"	EDWG21054	C
Flange adaptor nipple, D3	015	4-1/4OD	EDWG21496	C
Flange adaptor nipple, D3	015	4"	EDWG21498	C
Flange adaptor nipple, D3	015	5-1/4OD	EDWG21500	C
Flange adaptor nipple, D3	015	5-1/2OD	EDWG21502	C
Flange adaptor nipple, D3	015	5"	EDWG21504	C
Flange adaptor nipple, D3	015	6-1/4OD	EDWG21506	C
Flange adaptor nipple, D3	015	6-1/2OD	EDWG21508	C

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Flange adaptor nipple, D3	015	6"	EDWG21510	C
Flange adaptor nipple, D3	015	8"	EDWG21512	C
Flange adaptor nipple, D1/2	015	4-1/4OD	EDWG21128	C
Flange adaptor nipple, D1/2	015	4"	EDWG20074	C
Flange adaptor nipple, D1/2	015	5-1/4OD	EDWG21138	C
Flange adaptor nipple, D1/2	015	5-1/2OD	EDWG20988	C
Flange adaptor nipple, D1/2	015	6-1/4OD	EDWG20087	C
Flange adaptor nipple, D1/2	015	6-1/2OD	EDWG20076	C
Flange adaptor nipple, D1/2	015	6"	EDWG21172	C
Flange adaptor nipple, D1	015	8"	EDWG23072	C
Flange adaptor nipple, D2	015	8"	EDWG21056	C
Flange adaptor nipple, D2	015	5"	EDWG21140	C
Flange adaptor nipple, A1	015	1-1/4"	EDWG21198	C
Flange adaptor nipple, A1	015	1-1/2"	EDWG23215	C
Flange adaptor nipple, A1	015	2"	EDWG23217	C
Flange adaptor nipple, A1	015	3"	EDWG23221	C
Flange adaptor nipple, A1	015	4"	EDWG21200	C
Flange adaptor nipple, A1	015	5"	EDWG23223	C
Flange adaptor nipple, A1	015	6"	EDWG21202	C
Flange adaptor nipple, A1	015	8"	EDWG23225	C
Flange adaptor nipple, D1	015	10"	EDWG22104	C
Flange adaptor nipple, D1	015	12"	EDWG22532	C
Flange adaptor nipple, D2	015	10"	EDWG22106	C
Flange adaptor nipple, D2	015	12"	EDWG22534	C
Flange adaptor nipple, D2	015	10"	EDWG22108	C
Flange adaptor nipple, D3	015	12"	EDWG22536	C
Flange adaptor nipple, A1	015	10"	EDWG21204	C
Flange adaptor nipple, A1	015	12"	EDWG21206	C
Elbow 90D Drain	002D	2"	EDWG20047	C
Elbow 90D Drain	002D	2-1/2"	EDWG23373	C
Elbow 90D Drain	002D	3"	EDWG23377	C
Elbow 90D Drain	002D	4-1/4OD	EDWG23546	C
Elbow 90D Drain	002D	4"	EDWG23379	C
Elbow 90D Drain	002D	5-1/2OD	EDWG23548	C
Elbow 90D Drain	002D	6-1/4OD	EDWG23552	C
Elbow 90D Drain	002D	6-1/2OD	EDWG 23381	C
Elbow 90D Drain	002D	6"	EDWG23383	C
Elbow 90D Drain	002D	8"	EDWG23580	C
Elbow 90D Drain, Logo	002D	2"	BDWG20048	C
Elbow 90D Drain, Logo	002D	2-1/2"	BDWG23374	C
Elbow 90D Drain, Logo	002D	3"	BDWG23378	C
Elbow 90D Drain, Logo	002D	4-1/4OD	BDWG23547	C
Elbow 90D Drain, Logo	002D	4"	BDWG23380	C
Elbow 90D Drain, Logo	002D	5-1/2OD	BDWG23549	C
Elbow 90D Drain, Logo	002D	6-1/4OD	BDWG23553	C
Elbow 90D Drain, Logo	002D	6-1/2OD	BDWG23382	C
Elbow 90D Drain, Logo	002D	6"	BDWG23384	C
Elbow 90D Drain, Logo	002D	8"	BDWG23581	C
Elbow 22.5D	0031	1-1/4"	EDWG23642	C

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Elbow 22.5D	0031	1-1/2"	EDWG23642	C
Elbow 22.5D	0031	2"	EDWG23642	C
Elbow 22.5D	0031	2-1/2"	EDWG23642	C
Elbow 22.5D	0031	3OD	EDWG23642	C
Elbow 22.5D	0031	3"	EDWG23642	C
Elbow 22.5D	0031	4-1/4OD	EDWG23642	C
Elbow 22.5D	0031	4"	EDWG23642	C
Elbow 22.5D	0031	5-1/4OD	EDWG23642	C
Elbow 22.5D	0031	5-1/2OD	EDWG23642	C
Elbow 22.5D	0031	5"	EDWG23642	C
Elbow 22.5D	0031	6-1/4OD	EDWG23642	C
Elbow 22.5D	0031	6-1/2OD	EDWG23642	C
Elbow 22.5D	0031	6"	EDWG23642	C
Elbow 22.5D	0031	8"	EDWG23642	C
Elbow 22.5D, Logo	0031	1-1/4"	BDWG23643	C
Elbow 22.5D, Logo	0031	1-1/2"	BDWG23643	C
Elbow 22.5D, Logo	0031	2"	BDWG23643	C
Elbow 22.5D, Logo	0031	2-1/2"	BDWG23643	C
Elbow 22.5D, Logo	0031	3OD	BDWG23643	C
Elbow 22.5D, Logo	0031	3"	BDWG23643	C
Elbow 22.5D, Logo	0031	4-1/4OD	BDWG23643	C
Elbow 22.5D, Logo	0031	4"	BDWG23643	C
Elbow 22.5D, Logo	0031	5-1/4OD	BDWG23643	C
Elbow 22.5D, Logo	0031	5-1/2OD	BDWG23643	C
Elbow 22.5D, Logo	0031	5"	BDWG23643	C
Elbow 22.5D, Logo	0031	6-1/4OD	BDWG23643	C
Elbow 22.5D, Logo	0031	6-1/2OD	BDWG23643	C
Elbow 22.5D, Logo	0031	6"	BDWG23643	C
Elbow 22.5D, Logo	0031	8"	BDWG23643	C
Heavy End Cap	005H	2"	EDWG23586	C
Heavy End Cap	005H	2-1/2"	EDWG22557	C
Heavy End Cap	005H	3OD	EDWG23646	C
Heavy End Cap	005H	3"	EDWG22559	C
Heavy End Cap	005H	4-1/4OD	EDWG23648	C
Heavy End Cap	005H	4"	EDWG22561	C
Heavy End Cap	005H	5-1/4OD	EDWG23650	C
Heavy End Cap	005H	5-1/2OD	EDWG23652	C
Heavy End Cap	005H	5"	EDWG23654	C
Heavy End Cap	005H	6-1/4OD	EDWG23656	C
Heavy End Cap	005H	6-1/2OD	EDWG223658	C
Heavy End Cap	005H	6"	EDWG23590	C
Heavy End Cap, Logo	005H	2"	BDWG23587	C
Heavy End Cap, Logo	005H	2-1/2"	BDWG22558	C
Heavy End Cap, Logo	005H	3OD	BDWG23647	C
Heavy End Cap, Logo	005H	3"	BDWG22560	C
Heavy End Cap, Logo	005H	4-1/4OD	BDWG23649	C
Heavy End Cap, Logo	005H	4"	BDWG22562	C
Heavy End Cap, Logo	005H	5-1/4OD	BDWG23651	C
Heavy End Cap, Logo	005H	5-1/2OD	BDWG23653	C
Heavy End Cap, Logo	005H	5"	BDWG23655	C

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Heavy End Cap, Logo	005H	6-1/4OD	BDWG23657	C
Heavy End Cap, Logo	005H	6-1/2OD	BDWG23659	C
Heavy End Cap, Logo	005H	6"	BDWG23591	C
Elbow 90D Reducing	006RT	1-1/4" x 1/2"	EDWG23584	C
Elbow 90D Reducing	006RT	1-1/4" x 3/4"	EDWG23618	C
Elbow 90D Reducing	006RT	1-1/4" x 1"	EDWG23620	C
Elbow 90D Reducing	006RT	1-1/2" x 1/2"	EDWG23622	C
Elbow 90D Reducing	006RT	1-1/2" x 3/4"	EDWG23582	C
Elbow 90D Reducing	006RT	1-1/2" x 1"	EDWG23624	C
Elbow 90D Reducing	006RT	2" x 1/2"	EDWG23626	C
Elbow 90D Reducing	006RT	2" x 3/4"	EDWG23628	C
Elbow 90D Reducing	006RT	2" x 1"	EDWG20103	C
Elbow 90D Reducing	006RT	2-1/2" x 1/2"	EDWG23630	C
Elbow 90D Reducing	006RT	2-1/2" x 3/4"	EDWG23632	C
Elbow 90D Reducing	006RT	2-1/2" x 1"	EDWG23634	C
Elbow 90D Reducing	006RT	3OD x 1/2"	EDWG23636	C
Elbow 90D Reducing	006RT	3OD x 3/4"	EDWG23638	C
Elbow 90D Reducing	006RT	3OD x 1"	EDWG23640	C
Elbow 90D Reducing	006RT	1-1/4" x 1/2"	BDWG23585	C
Elbow 90D Reducing	006RT	1-1/4" x 3/4"	BDWG23619	C
Elbow 90D Reducing	006RT	1-1/4" x 1"	BDWG23621	C
Elbow 90D Reducing	006RT	1-1/2" x 1/2"	BDWG23623	C
Elbow 90D Reducing	006RT	1-1/2" x 3/4"	BDWG23683	C
Elbow 90D Reducing	006RT	1-1/2" x 1"	BDWG23625	C
Elbow 90D Reducing	006RT	2" x 1/2"	BDWG23627	C
Elbow 90D Reducing	006RT	2" x 3/4"	BDWG23629	C
Elbow 90D Reducing	006RT	2" x 1"	BDWG20104	C
Elbow 90D Reducing	006RT	2-1/2" x 1/2"	BDWG23631	C
Elbow 90D Reducing	006RT	2-1/2" x 3/4"	BDWG23633	C
Elbow 90D Reducing	006RT	2-1/2" x 1"	BDWG23635	C
Elbow 90D Reducing	006RT	3OD x 1/2"	BDWG23637	C
Elbow 90D Reducing	006RT	3OD x 3/4"	BDWG23639	C
Elbow 90D Reducing	006RT	3OD x 1"	BDWG23641	C
Elbow 90D Reducing	006	2"x1-1/2"	EDWG23584	C
Elbow 90D Reducing	006	3"x2"	EDWG23618	C
Elbow 90D Reducing	006	4"x3"	EDWG23620	C
Elbow 90D Reducing	006	6"x4"	EDWG23622	C
Elbow 90D Reducing	006	2"x1-1/2"	BDWG23582	C
Elbow 90D Reducing	006	3"x2"	BDWG23624	C
Elbow 90D Reducing	006	4"x3"	BDWG23626	C
Elbow 90D Reducing	006	6"x4"	BDWG23628	C

**IX CONCLUSION**

The pipe fittings discussed in this Report meet FM Approvals requirements when manufactured at the facilities listed in Section VI. Since a duly signed Master Agreement is on file for this manufacturer, Approval is effective the date of this report.

**EXAMINATION BY:**

**Christopher Tolentino**

**EXTERNAL TESTING BY:**

**Shanghai Vision Mech. Joint Personnel**

**EXTERNAL TESTING WITNESSED BY:**

**Christopher Tolentino**

**PROJECT DATA RECORD:**

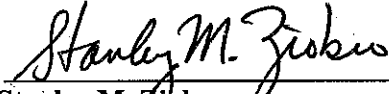
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