



Tucson Water  
Standard Specifications and Details  
2017 Edition

EFFECTIVE DATE: January 1, 2020

SUBJECT: 2020 Approved Material List.

STATEMENT OF PURPOSE: Revise and update Tucson Water Approved Material List annually, as stated in the current Standard Specifications and Details, Appendix A.

**Tucson Water will review approved material list annually and reserves the right to make changes based upon product representation, quality, availability, and based upon the needs of the Department.**

GENERAL PROVISION: Update Approved material list to reflect changes.

PROCEDURAL RESPONSIBILITY: The Engineering Administrator for Tucson Water and/or designated representative(s) are responsible for the enforcement of this Directive and the associated standards.

**RECOMMEND**

Gabriel Hernandez  
Specifications Coordinator  
Planning and Engineering

**CONCUR**

Timothy M. Thomure, PE, ENV SP  
Director of Tucson Water

**2019**  
**APPROVED MATERIALS LIST**

The Approved Materials List contains names of manufacturers whose products and materials are approved for use in the Tucson Water system. There are three sections of Approved Materials contained in this appendix:

1. Distribution System
2. Corrosion/Cathodic
3. Production Facilities

A product is considered approved if it appears on any one of the lists.

Pipe and appurtenances listed are, in general, from 4 to 12 inches. Service materials are from 3/4 inch to 2 inches.

All materials provided for use in the Tucson Water system must be new.

Tucson Water will review approved material list annually and reserves the right to make changes based upon product representation, quality, availability, and based upon the needs of the Department.

Pipelines and appurtenances larger than 12 inches are project specific and—per TW Standard Detail 105, note 34—require submittals to Tucson Water for approval for use in the system.

Submittals are not required for products contained in the Approved Materials List, unless required by contract specifications or the controlling agency.

A product approval application is included at the end of this list.

### DISTRIBUTION SYSTEM

CCP	Ameron
DIP	American McWane US Pipe
DIP, Integral Restraint Systems	American <ul style="list-style-type: none"> <li>• Fastite Flex-Ring</li> <li>• Lok-Ring</li> </ul> McWane <ul style="list-style-type: none"> <li>• Restrained Tyton</li> <li>• Thrust-Lock</li> </ul> US Pipe <ul style="list-style-type: none"> <li>• HP LOK</li> <li>• TR FLEX</li> </ul>
PVC	Diamond JM Eagle North American Vinyl-Tec
PVC Sch 40 & 80	Charlotte Cresline Spears (fittings)
HDPE (Potable/Reclaim), Highline only IPS 2" & larger main line	JM Eagle Performance Pipe WL
Gate Valves	Clow M & H Mueller US Pipe Waterous <ul style="list-style-type: none"> <li>• AFC</li> <li>• AFC Alpha End</li> </ul>
Tapping Sleeves, Epoxy Coated	Ford JCM PowerSeal Romac Smith-Blair

**DISTRIBUTION SYSTEM, cont.**

<p>Tapping Sleeves, Stainless Steel (Flange Branch only)</p>	<p>Ford JCM PowerSeal Romac Smith-Blair</p>
<p>Ductile Iron Fittings</p>	<p>SIGMA SIP Industries Star Pipe Tyler/Union</p>
<p>Ductile Iron Compact Fittings</p>	<p>SIGMA Star Pipe Tyler/Union</p>
<p>Transition Coupling</p>	<p>Hymax 2  Ford – FC2A JCM – 201 PowerSeal – 3501 Romac  <ul style="list-style-type: none"> <li>• 501</li> <li>• Alpha</li> </ul> Smith-Blair – 416</p>
<p>Wide Range Coupling</p>	<p>Romac  <ul style="list-style-type: none"> <li>• Alpha</li> <li>• Macro</li> </ul> Smith Blair – Top Bolt  Hymax, Krausz Co.  <ul style="list-style-type: none"> <li>• HYMAX 2</li> <li>• HYMAX GRIP</li> </ul> </p>
<p>Repair Clamps (Stainless Steel wraparound)</p>	<p>Ford – FS1 JCM – Model 101 PowerSeal – 3121 AS Romac  <ul style="list-style-type: none"> <li>• SS1</li> <li>• SS2</li> <li>• SS3</li> </ul> Smith-Blair – Model 226 Hymax– Versa</p>

**DISTRIBUTION SYSTEM, cont.**

<p>Combination Air Release Valves, 3/4 to 6"</p>	<p>APCO Crispin DeZURIK GA Industries Val-Matic ARI</p>
<p>Lightweight Air Release Valves, 1 to 2" (Aboveground installation)</p>	<p>ARI</p>
<p>Pressure Reducing Valves, 3/4 to 2"</p>	<p>Ames Bermad Cla-Val Watts Wilkins</p>
<p>Pipe Restraints, Ductile Iron and PVC</p>	<p>EBAA Iron Megalug</p> <ul style="list-style-type: none"> <li>• MEGAFLANGE</li> <li>• Restrained Coupling</li> <li>• Series 1100</li> <li>• Series 1600</li> <li>• Series 1700</li> <li>• Series 2000</li> </ul> <p>Ford Uni-Flange Section U Romac</p> <ul style="list-style-type: none"> <li>• Alpha</li> <li>• 600 Series</li> </ul> <p>RomaGrip SIGMA</p> <ul style="list-style-type: none"> <li>• ONE-LOK</li> <li>• PV-LOK</li> </ul> <p>Smith-Blair</p> <ul style="list-style-type: none"> <li>• Bell-Lock</li> <li>• Cam-</li> </ul> <p>Lock Star Pipe</p> <ul style="list-style-type: none"> <li>• Series 1100</li> <li>• Series 3000</li> <li>• Series 4000</li> </ul> <p>Tyler TUF Grip SIP EZ Grip</p>
<p>DIP Restraints, Gaskets 4 to 12"</p>	<p>American – Fast-Grip Gaskets Romac Piranha Gaskets Talon Restrained Joint Gasket US Pipe – FIELD LOK 350 Gasket</p>

**DISTRIBUTION SYSTEM, cont.**

Fire Hydrants	Clow Medallion Mueller Centurion Waterous <ul style="list-style-type: none"> <li>• WB67 Pacer</li> <li>• WB67 Pacer Alpha End</li> </ul>
Fire Hydrant Locks	Location/Fire Dept. Specific: Contact TW New Area Services for installation, (520) 791-5164
Meter Boxes	DFW
Cast Iron Meter Boxes	Contractor to pick up at Tucson Water Stores, 1445 S. 11 <sup>th</sup> Ave., (520) 791-4194
Valve Boxes	East Jordan Iron Works Proselect SIGMA SIP Industries Star
Magnetic Detector and Marking Tape	Christy's Presco Harris North Town
Service Line Materials, Copper CTS 3/4 to 2"	Type "K", American Made
Corporation Stops, Unions, Angle Meter Stops DVA Blow off Valves (All Ball Valve Style)	Ford Jones McDonald Mueller

**DISTRIBUTION SYSTEM, cont.**

Service Saddles	<p>Cambridge</p> <ul style="list-style-type: none"> <li>• Series 812</li> <li>• Series 822</li> </ul> <p>Ford</p> <ul style="list-style-type: none"> <li>• 101BS</li> <li>• 202BS</li> </ul> <p>McDonald</p> <ul style="list-style-type: none"> <li>• 3846 Series</li> <li>• 3856 Series</li> </ul> <p>Mueller</p> <ul style="list-style-type: none"> <li>• BR1S</li> <li>• BR2S</li> </ul> <p>Romac</p> <ul style="list-style-type: none"> <li>• 101BS</li> <li>• 202BS</li> </ul>
Flange Insulating Kits	<p>Advance Products and Systems Inc.  CALPICO  Central  Copper State Bolt  HMS  Pikotek  PSI</p>
Tracer Wire	<p>Service Wire  Copperhead</p> <ul style="list-style-type: none"> <li>• High Strength Tracer Wire</li> </ul>
Tracer Wire Connections (must be silicon filled)	<p>DryConn (Direct Bury only)  Copperhead Snake Bite</p>
Tracer Wire Access Box (Fire Hydrants)	<p>Copperhead</p> <ul style="list-style-type: none"> <li>• Cobra T Series (Blue) w/3/4 conduit</li> <li>• Cobra Hydrant Flange</li> </ul>
Magnesium Anode	<p>Copperhead – ANO-12</p>
Backflow Material	<p>Contact TW Backflow Prevention,  (520) 791-2650</p>

**CORROSION/CATHODIC**

<b>Vendor/Manufacturer</b>	<b>Material</b>
ERICO/CADWELD	Exothermic Welding Materials <ul style="list-style-type: none"> <li>• Sleeves</li> <li>• Weld Cartridges</li> <li>• Welders</li> </ul>
Continental/thermOweld	Exothermic Welding Materials <ul style="list-style-type: none"> <li>• Sleeves</li> <li>• Weld Cartridges</li> <li>• Welders</li> </ul>
Calpico	Exothermic Materials <ul style="list-style-type: none"> <li>• "T" Caps</li> <li>• #10 Mastic</li> <li>• #22 Primer</li> </ul> Flange Insulation Kits Non-Conductive Tapes <ul style="list-style-type: none"> <li>• 2" (V1-10, Vinyl Identified)</li> <li>• 4" (V1-20, Vinyl Identified)</li> </ul>
Royston Mfg Continental	Exothermic Materials <ul style="list-style-type: none"> <li>• Bitumastic</li> <li>• Primer</li> <li>• Resin-Filled Caps</li> </ul>
Generic (Non-Vendor Specific)	#1 Cast Iron Meter Boxes Colored PVC Marking Tapes Flat Washers Locking Washers Machine Screws Nuts Phenolic Resin Boards – Micarta

**CORROSION/CATHODIC, cont.**

<p>Thomas &amp; Betts</p>	<p>Aluminum Compression Connectors</p> <ul style="list-style-type: none"> <li>• 60097</li> <li>• 60102</li> <li>• 60107</li> <li>• 60500</li> <li>• 60501</li> <li>• 60507</li> </ul> <p>Heavy Wall Heat Shrink Insulator</p> <ul style="list-style-type: none"> <li>• HS12-6</li> <li>• HS12-61</li> <li>• HS12-6-4</li> </ul>
<p>Seymour Paint</p>	<p>Precaution Blue Safety Purple</p>
<p>Sprayon Paint</p>	<p>APWA Blue</p>
<p>Cott Mfg ProMark</p>	<p>Big Fink Cathodic Protection Test Stations</p> <ul style="list-style-type: none"> <li>• Dark Blue</li> <li>• Purple</li> </ul>
<p>Casing Spacers</p>	<p>Advanced Products and Systems (APS) Cascade Smith-Blair Uni-Flange (Restrained)</p>

### PRODUCTION FACILITIES

Standard Steel	Kelly
CCP	Ameron
DIP	American Pacific States US Pipe
DIP Integral Restraint Systems	American <ul style="list-style-type: none"> <li>• Fastite Flex-Ring</li> <li>• Lok-Ring</li> </ul> US Pipe <ul style="list-style-type: none"> <li>• FIELD LOK</li> <li>• TR FLEX</li> </ul>
PVC	Diamond JM North American PW (Pacific Western) Vinyltech
PVC Sch 40 & 80	Spears
Copper Pipe	Type "K" Made in USA Type "K" Rigid Copper (2" PRV Bypass)
Butterfly Valves	Clow DeZURIK K-Flo/Crispin M & H Mueller/Pratt Val-Matic
Gate Valves	AFC Clow M & H Mueller

**PRODUCTION FACILITIES, cont.**

Epoxy Coated	<p>Ford JCM PowerSeal Romac Smith-Blair</p>
Pipe Restraints, Ductile Iron and PVC	<p>EBAA Iron Megalug</p> <ul style="list-style-type: none"> <li>• MEGAFLANGE</li> <li>• Restrained Coupling</li> <li>• Series 1100</li> <li>• Series 1600</li> <li>• Series 1700</li> <li>• Series 2000</li> </ul> <p>Ford Uni-Flange Section U Romac</p> <ul style="list-style-type: none"> <li>• Alpha</li> <li>• 600 Series</li> </ul> <p>RomaGrip SIGMA</p> <ul style="list-style-type: none"> <li>• ONE-LOK</li> <li>• PV-LOK</li> </ul> <p>Smith-Blair (Cam-Lok) Star Pipe</p> <ul style="list-style-type: none"> <li>• Series 1100</li> <li>• Series 3000</li> <li>• Series 4000</li> </ul> <p>Tyler TUF Grip</p>
Combination Air Release Valves, 3/4 to 4"	<p>GA Industries Val-Matic ARI</p>
Pressure Reducing Valves, 4 to 12"	<p>Crispin Watts (Ames)</p>
Check Valves, 4 to 16"	<p>Crispin GA Industries Val-Matic</p>

**PRODUCTION FACILITIES, cont.**

Ductile Iron Fittings	SIGMA SIP Industries Star Pipe Trinity Valley Tyler
Flexible Couplings	Ford JCM PowerSeal Romac Hymac Smith-Blair Hymax, Krausz
Corporation Stops, Unions, Angle Meter Stops (Ball Valve Style only)	Ford Jones McDonald Mueller
Pressure Gauges	Ashcroft Perma-Cal Wika



CITY OF  
TUCSON

## TUCSON WATER DEPARTMENT PRODUCT APPROVAL APPLICATION

### Instructions

All information requested below must be submitted in full. Please label each section with the item number conforming to the list below. No application will be reviewed by the Committee until the submittal is complete. Failure to provide full disclosure may be grounds for disapproval of product.

Three copies of the application should be sent to:

Mr. Gabriel Hernandez  
Specification Committee Coordinator  
City of Tucson Water Department  
P.O. Box 27210  
Tucson, AZ 85726-2710

### Item Numbers

1. **General Information.** Provide all information requested on attached form (Item 1).
2. **Existing Installations of Product.** The following data is requested on representative installations of your product:
  - Installation date
  - Quantity (size, diameter, length)
  - Location (include city and county)
  - Client/contact person (name, address, and phone number)
  - Total construction cost
  - Years in service

A sample form (Item 2) is attached or you may use your own tabular format. Failure to disclose representative installations can be grounds for disapproval of product.

3. **Materials of Construction.** Describe materials of construction (including relevant industry standards — e.g. ASTM, ANSI, AWWA, etc.), special manufacturing processes and quality control measures used in the manufacture and installation of your product. Include copies of relevant referenced specifications or standards. Include Material Safety Data Sheets (MSDS) and National Sanitary Foundation (NSF) testing results in all

products in contact with potable water or otherwise providing an exposure to operations or maintenance personnel.

4. **Special Conditions.** Indicate if there are any special conditions (such as pipe size or pressure rating) for optimal performance of the product. Specify conditions or requirements for optimal performance. Where appropriate, include the engineering data required for proper application of the product. Indicate relevant safety factors, and pressure, temperature, or environmental limits.
5. **Specifications.** Are current Tucson Water technical specifications adequate for inclusion of the product? Are exceptions to the City specifications being requested?
6. **Certifications.** Provide Certifications of Compliance to the applicable Tucson Water standard specification.
7. **Engineering Design Guide.** Attach a copy of the Engineering Design Guide or Installation Guide for the proposed product. This document should indicate that it was prepared under the supervision of a Registered Professional Engineer in the state of the manufacturer. Should engineering certification not be part of the standard printed documents, a letter should be provided from the manufacturer stating that the Engineering Design Guide was prepared under the supervision of a Registered Professional Engineer. The supervising engineer's name, seal, registration number, and expiration date should be included in either the design guide or accompanying letter.
8. **Client References.** Provide names, addresses, phone numbers, and job identification of current and past clients. Tucson Water will contact selected references concerning product performance.
9. **Testing.** Copies of tests conducted by independent testing companies showing conformance with industry standard and Tucson Water specification established for the product.
10. **Patents and Licenses.** Provide information relating to patents, licenses and/or franchises held on the product. Include specific descriptions and relevant data such as patent (license) number and date issued.
11. **Any Other Related Information.** Although not required, the application submittal may include other data to assist the Committee in evaluating the product for use on Tucson Water projects. This information could include brochures, videos, product samples, and/or photographs. The Committee cannot be responsible for returning these materials. (One copy of video files and product samples is sufficient for committee review.)



# TUCSON WATER DEPARTMENT PRODUCT APPROVAL APPLICATION

CITY OF  
TUCSON

Application Number

Date Received

Submittal Complete

(Do not write above this line. For City use only.)

## ITEM 1. General Information

PRODUCT  
INFORMATION

Product Name

Product Application(s)

REPRESENTATIVE  
INFORMATION

Representative Company Name

Individual Contact(s)

Street Address

City

State

Zip Code

Telephone

Email

MANUFACTURER  
INFORMATION

Manufacturer Company Name

Individual Contact(s)

Street Address

City

State

Zip Code

Telephone

Email

