

Approved Manufacturers; Critical Components

Authority:	SemCAMS Engineering	Custodian:	SemCAMS Chief Inspector
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1. Purpose

Provide consistent component quality and compliance for new materials in critical installations.

2. Scope

Effective at all SemCAMS pipeline and surface facilities.

This document deals with the technical qualification and compliance of materials only. All commercial requirements will satisfy SemCAMS purchasing policies and are not part of this specification.

3. Responsibility

All purchasers of materials ensure purchases of critical components are from approved manufacturers.

Materials Control and purchasing personnel help ensure materials are purchased from approved vendors unless approved otherwise.

Quality Control Coordinators and personnel monitor installed materials for compliance to Approved manufacturers list.

4. Definitions

Critical components as referenced in this document include all pressure retaining parts and assemblies listed. An item not being listed in this document does not preclude the responsible engineer from designating a component as critical and requiring purchase from a specific manufacturer.

5. Procedure

1. Materials shall be sourced from approved vendors and manufactures. When materials can not be procured from SemCAMS' approved list, a variance shall be generated and measures taken to ensure the integrity and compliance of the alternative materials or components.
2. Within this document SemCAMS maintains a list of approved vendors and manufacturers for critical components (i.e. Valves).
3. If a company is not pre-approved, the responsible engineer may request an alternate. It will be the responsibility of the engineer to evaluate the proposed alternate. SemCAMS' Procedure ENG-WP-12 is a basic minimum example for the review of a proposed manufacturer.
4. Assessments shall be reviewed and accepted by SemCAMS engineering, prior to final acceptance.

Cement Mortor Lining Companies

- SHAW PIPE PROTECTION (ALBERTA) LIMITED

- SHAWNIGAN ENTERPRISES LTD.

Forged Fittings

ASME B16.11 Fittings - ASTM A105N, A350-LF2 - Threaded and Socketweld		
<u>BONNEY FORGE</u> (INCLUDES WFI)	ULMA (ENARA)	MEGA
<u>CANVIL</u>	IML	<u>OMC</u>
<u>CAPPRODUCTS</u> (<i>CAPITAL</i>)	ALBERTA OIL TOOL (AOT)	KEDDCO
Approved Distributors are:		
<ul style="list-style-type: none"> • WFF Fittings and Flanges (Canada) Ltd., <u>CCTE</u>, and <u>Trans-Am Piping Product Ltd.</u> 		

Cast Fittings

ASME B16.9 Cast Steel Fittings - ASTM A234-WPB, A420-WPL6 - Butt Weld		
AWAJI	CANADOIL	RIGID
<u>BENKAN</u>	<u>ERNE FITTINGS</u>	<u>HACKNEY LADISH</u> (<i>TRINITY</i>)
BKL	SUNKWANG	<u>WILHELM GELDBACH</u>
TECTUBI		
Approved Distributors are:		
<ul style="list-style-type: none"> • WFF Fittings and Flanges (Canada) Ltd., <u>CCTE</u>, and <u>Trans-Am Piping Product Ltd.</u> 		
<p><i>Note: Cold formed and stress relieved fittings are not permitted in sour service; manufacturers that supply cold formed and stress relieved fittings include but may not be limited to Rigid and Awaji. MTR's should be reviewed to identify the method of manufacture and heat treatment.</i></p>		

Forged Flanges

ASME B16.5 Flanges - ASTM A105N, A350-LF2 - Forged		
<u>BOLTEX</u>	METALFAR (<u>FRIEDRICH GELDBACH</u>)	<u>TRI-LAD</u> (<i>TRINITY, LADISH</i>)
PROMAT DB (BURTON DELINGPOLE LTD.)	<u>KOREA FLANGE LTD.</u> (KOFKO)	<u>WILHELM GELDBACH</u>
<u>COFFER</u>	SANENG	TECHNOFORGE
ULMA (ENARA)	MGI	
Approved Distributors are:		
<ul style="list-style-type: none"> • WFF Fittings and Flanges (Canada) Ltd., <u>CCTE</u>, and <u>Trans-Am Piping Product Ltd.</u> 		

Approved Hub and Clamp Connector Manufacturers List

Hub and Clamp Connectors (manufacturers standard)		
<u>TECHLOC</u> (VECTOR INT'L)	<u>REFLANGE</u>	<u>GRAYLOC</u> (ABB VETCO GRAY)
Approved Distributors are: WFF Fittings and Flanges (Canada) Ltd., <u>CCTE</u> , and <u>Trans-Am Piping Product Ltd.</u>		

Approved Spiral Wound Gasket Manufacturers List

ASME B16.20 Spiral Wound Gaskets *		
<u>FLEXITALLIC</u> (CG OR CGI)	<u>LAMONS</u> (WR OR WRI)	<u>GARLOCK</u> (RW OR RWI)
* Flexible graphite shall be used for the majority of general services. However, for specialized services such as oxidizing acids or for water service alternate filler material shall be used. Vendor to propose filler subject to Company approval.		

Approved Metal Jacketed Gasket Manufacturers List

ASME B16.20 Metal Jacketed Gaskets *		
<u>FLEXITALLIC</u> Style: 123	<u>LAMONS</u> Style: 300	<u>GARLOCK</u> Style: 623
* Flexible graphite filler shall be used for the majority of general services. However, for specialized services such as oxidizing acids or for water service alternate filler material shall be used. Vendor to propose filler subject to Company approval.		

Approved Non-Metallic Gasket Manufacturers List

ASME B16.21 Non-Metallic Gaskets *		
<u>FLEXITALLIC</u> Style: Grafoil GHR	<u>LAMONS</u> Style: Grafoil GHR	<u>J.M. CLIPPER</u> Style: AF-14 GHR
<u>CHESTERTON</u> Style: 199	<u>SEPCO</u> Style: Grafoil GHR, Calgraph BSSC	<u>JOHN CRANE</u> Style: 264
<u>THERMOSEAL</u> Style: SLS	<u>DURABLA</u> Style: Grafoil FGL 316	<u>GARLOCK</u> Style: 3125 SS, Grafoil GHR
* Flexible graphite shall be used for the majority of general services. However, for specialized services such as oxidizing acids or for water service alternate filler material shall be used. Vendor to propose filler subject to Company approval.		

Ball Valves

Trunnion Mounted, Flanged End, Bolted Body, Ball Valves - Cast Steel		
<u>GROVE</u> Series: All Distributor: CVM	<u>KITZ</u> Series: SCTCS, SCTCRS Distributor: MA Stewart & Sons	<u>TK</u> Series: N/A Distributor: CVM.
<u>KF</u> Series: FA, P, P2, P3, T Distributor: Telford Valve	<u>ORBIT</u> Series: N/A Distributor: CVM	<u>WKM</u> Series: Dynaseal 370 Distributor: CVM
<u>NUTRON</u> Series: N/A Distributor: CVM	Nuovo Pignone (Pending)	

Floating, Flanged End, Bolted Body, Ball Valves - Cast Steel		
<u>BALON</u> Series: F (Carbon Steel) Distributor: Midfield Supply / CE F	<u>MARPAC (IFC)</u> Series: E & F Distributor: Inland Valve Corp.	<u>ORBIT</u> Series: N/A Distributor: CVM
<u>KF</u> Series: F Distributor: Telford Valve	<u>MCCANNA (IFC)</u> Series: McCannaseal, McCannaflo FP McCannaflo RP ($\geq 6''$) Distributor: Inland Valve Corp.	<u>TK (DFC)</u> Series: FP Distributor: Dresser Oilfield Op.
<u>KITZ</u> Series: SCTB Distributor: MA Stewart & Sons	<u>NELES JAMESBURY</u> Series: MBV, 5000 ($\geq 6''$), 7000 ($\geq 8''$) Distributor: Horizon Valve Corp.	<u>VELAN</u> Series: SB Distributor: Velan Inc.
<u>KTM</u> Series: Distributor: DPH Industrial	<u>NUTRON</u> Series: B2, B3 Distributor: CVM	<u>WKM (CVM)</u> Series: Dynaseal 310 ($\geq 6''$) Distributor: CVM
Fusion Pending Series: Distributor: CE Franklin		

Threaded End (not back welded), Ball Valves - Forged Steel		
<u>BALON</u>	<u>NUTRON</u>	<u>WATTS</u>
<u>KITZ</u>	<u>OMB</u>	<u>WKM (CVM)</u>
<u>MARWIN</u>	<u>TRUELINE</u>	<u>WORCHESTER (IFC)</u>
<u>NELES JAMESBURY</u>	<u>VELAN</u>	Fusion Pending Series: Distributor: CE Franklin

Threaded End (for welding) or Socket weld, Top Entry or 3 Piece 4 Bolt, Ball Valves - Forged Steel		
Top Entry Body Design	3 Piece 4 Bolt Body Design	
<u>MCCANNA (IFC)</u> (series: McCannaseal)	<u>MARWIN</u> (series: Master & Super Star)	WHITEY
<u>VELAN</u> (series: TE-600)	<u>OMB</u>	<u>WORCHESTER (IFC)</u>

Gate Valves

Gate Valves - API 600 Cast & API 602 Forged Steel		
ALCO	<u>VOGT (IFC)</u>	<u>WKM (CVM)</u>
<u>BONNEY FORGE</u>	<u>KITZ</u>	WOOD (FORMERLY BARTON)
<u>CAMERON/McEVOY</u>	<u>NEWCO</u> (ASME 150/300 ONLY)	WM. POWELL
<u>CRANE</u>	<u>OMB</u>	UFR
DSI	<u>VELAN</u>	XANIK (SUNBELT USA)
<u>GENERAL (TWIN SEAL®) (CVM)</u>	<u>WALWORTH</u>	

Double Block and Bleed Gate Valves - API 6D Cast Steel		
<u>FOSTER (CVM)</u>	<u>GROVE (CVM)</u>	WOOD (FORMERLY BARTON)
<u>GENERAL (TWIN SEAL®) (CVM)</u>	<u>WKM (CVM)</u>	

Globe Valves

Globe Valves - API 600 Cast & API 602 Forged Steel		
ALCO	<u>KITZ</u>	<u>VELAN</u>
<u>BONNEY FORGE</u>	<u>NEWCO</u> (ASME 150/300 ONLY)	<u>WALWORTH</u>
DSI	<u>OMB</u>	
<u>VOGT (IFC)</u>	UFR	

Check Valves

Non-Piggable, API 600 and API 602 - Check Valves				
PISTON, (FULL BODY & WAFER)	SWING, (FULL BODY)		WAFER	WAFER, (PANCAKE TYPE)
<u>DANIEL (EMERSON)</u>	<u>WHEATLEY (CVM)</u>	<u>KF (EAGLE®)</u>	CHECK-RITE	<u>WHEATLEY (CVM)</u>
<u>DURABLA</u> (Liquids)	<u>CROWN</u> (STREAM-FLO)	<u>NEWCO</u>	GM	<u>CROWN</u> (STREAM-FLO)
VALTEK	<u>BALON</u>	<u>VELAN</u>	<u>DURABLA</u>	<u>BALON</u>
<u>CROWN</u> (Liquids)	<u>KITZ</u>	<u>VOGT (IFC)</u>	<u>BALON</u>	GM

Piggable, API 6D - Swing Check Valves		
<u>WHEATLEY (DFC)</u>	<u>CROWN</u> (STREAM-FLO)	<u>KF (EAGLE®)</u>

Misc Other Valves

High Performance Butterfly Valves		
HILLS McCANNS	<u>KEYSTONE</u> (TYCO)	POSISEAL
<u>VANESSA</u> (TYCO)	<u>NELES JAMESBURY</u>	FLOSEAL
<u>SCORE</u> (TRICENTRIC®)	WKM (CVM)	

Aluminum Bronze Gate Valves		
BAKER	<u>DEMCO</u> (CVM)	<u>WHEATLEY</u> (DFC)

Needle Valves		
<u>ANDERSON GREENWOOD</u> (TYCO)	<u>CENTURY</u> (TYCO)	GENERAL (TYCO / CVM)
MAGNUM (HUBER)		

Pressure Relief Devices		
RUPTURE DISKS	PRESSURE SAFETY VALVES	
<u>FIKE</u>	FARRIS (SPARTAN CONTROLS)	<u>CROSBY</u> (TYCO)
<u>ANDERSON GREENWOOD</u> (TYCO)	<u>CONSOLIDATED</u> (DFC)	<u>ANDERSON GREENWOOD</u> (TYCO)

Control Valves		
<u>FISHER</u> (EMERSON / SPARTAN)	VALTEK	WILLIS
<u>MASTERFLO</u>	<u>NUTRON</u>	CVS CONTROLS

Valve Actuators		
BARBER INDUSTRIES	ERICHSEN	<u>BETTIS</u> (EMERSON)
<u>ROTORK</u>	AXELSON	<u>WORCHESTER</u> (IFC)

NOTES:

IFC	- Ivensys Flow Control
DFC	- Dresser Flow Control
CVM	- Cameron Valve and Measurement (Previously Cooper Cameron Valve)
Emerson-	- Emerson Process Management
Tyco	- Tyco Valves and Controls

Revision History:

- Rev. 0 Removed from Piping Specification SSP-60 to stand as an independent document ENG-WP-11.
- Rev. 1 Interim revision to add select fitting manufacturers and reflect company consolidations etc.