

FOSTER® & WKM®





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FOSTER DUAL SEAL FEATURES

THE FOSTER DUAL SEAL IS UNIQUE

The Foster Dual Seal is a completely different slab gate valve. Instead of using sealant injection to make temporary repairs to damaged seals, the Foster valve has SECONDARY SEAL RINGS on both faces of the gate, that are automatically energized ONLY if the primary seals are damaged.

For critical pipeline service where Full Port, Through Conduit, Double Block and Bleed is required, Foster D-Seal will provide tight shut-off, long after ordinary slab gate valves have failed.

A PAIR OF SEALS IN RESERVE

Through their normal valve lifetime, the primary seals of the Foster D-Seal are all that is needed for zero-leak shut-off.

Erosive forces can concentrate at the "pinch point" of a valve, when almost closed or just opening, to damage the seals.

With the Foster D-Seal design, if erosion causes the primary seals to leak, the back-up secondary seals are automatically energized to take over the sealing function.

The secondary seals are protected from erosion by their position in the seat.

LOW TOROUF

Operating torque of the Foster D-Seal valve is surprisingly LOW.

A combination of unique seal design and special stem packing makes the Foster valve easier to operate than traditional slab gate valves.

With this advantage smaller actuators can be used for power operation.

The challenge for the Foster D-Seal designers was to find the right compromise between seal resilience. for reliable, leak-tight sealing, while retaining the durability that is essential in harsh, pipeline duty.

With Foster D-Seal, strength is never compromised.

NO COIL SPRINGS

There are NO coil springs in the Foster D-Seal.

Gentle compression is applied to the secondary seat seals by a rugged Belleville load ring.

The load is uniform all round the seal surface, unlike coil springs that have variable loading.

The Belleville springs provide more uniform loading, without excessive gate drag.

The light loading reduces the dragging and seal damage experienced by traditional designs of slab gate valves.

DOUBLE BLOCK AND BLEED

Every Foster D-Seal valve has a body bleed vent point. By venting the body cavity in EITHER THE FULLY OPEN OR THE FULLY CLOSED POSITION, positive zero leak sealing can be confirmed.

In the OPEN position, there is positive assurance that no pipeline scale, sand or line contaminants are settling inside the body, that would endanger good operation.

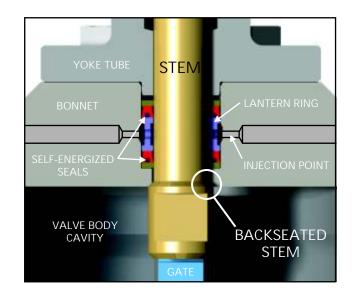
In the CLOSED position, Foster D-Seal can be used for segregation and custody transfer, with complete assurance of leak-tight protection.

STANDARD API FACE TO FACE SIZE

All Foster D-Seal valves conform to API 6D & ASME/ ANSI B16.10 face to face dimensions for gate valves.

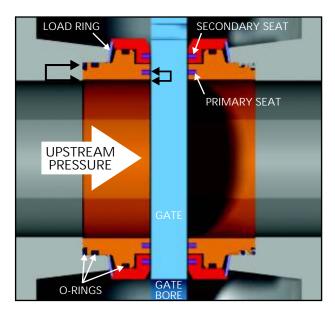
BACKSEATED STEM

Every Foster D-Seal valve has a backseated stem that buffers between the resilient stem packing and the line pressure.





FOSTER DUAL SEAL OPERATION



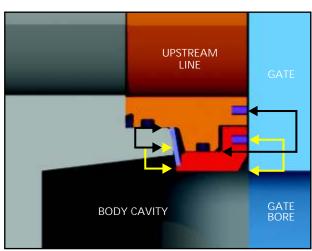
BETWEEN UPSTREAM & DOWNSTREAM CONDUITS, THERE ARE FOUR SEALS

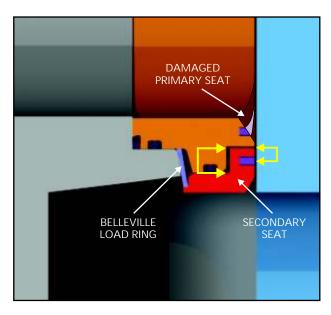
When the gate has moved to the fully closed position, upstream pressure loads the gate firmly against the downstream seat, compressing it tightly into its seat

There are two independent seal rings pressed against the downstream face of the gate and two independent O-ring seals at the back of the seat assembly, assuring drop-tight shut-off!

Simultaneously, the upstream seat is pressed by the load ring and by the resilience of the back O-ring, so that the two upstream seal rings press against the face of the gate.

Venting the body cavity pressure will exert additional closing force on the seats. Differential pressure on the seat assembly applies a "piston" load (see colored arrows) which squeezes the seals even tighter.





DAMAGE TO A PRIMARY SEAL **AUTOMATICALLY ENERGIZES** THE SECONDARY SEAL

The inner resilient seat ring is the PRIMARY SEAL. The outer resilient seat ring is the SECONDARY SEAL.

With the primary seal in good condition and holding tight, compression from the Belleville load ring is the only load that is applied to the secondary seal.

The secondary seal activates only if the primary seal leaks. If pressure leaks across a damaged primary seat face, the secondary seat is energized by line pressure, acting on the back of the secondary seat.

The seat is moved tighter against the gate by the imbalance of pressure.

When "Pinch Point" erosion has damaged the primary seals, Foster Dual Seal secondary seals continue to hold drop tight.

AUTOMATIC VENTING TO UPSTREAM

Pressure rise inside the closed body cavity of a ZERO LEAK valve, which can occur due to increase of temperature, is automatically vented back to the High Pressure (upstream) line.

When body pressure exceeds the seat loading, the Primary and Secondary seats are pushed back, venting the body pressure.

The downstream seat remains firmly in place. THERE IS NO NEED FOR AN EXTERNAL PRESSURE RELIEF SYSTEM.



FOSTER DUAL SEAL SPECIFICATIONS

SERVICE	TRIM CODE	BODY & BONNET	GATE	PRIMARY & SECONDARY SEATS	STEM SEAL	SEAT ELASTOMERS	STEM	BOLTING	FITTINGS
Standard -20° to 250°F (-29° to 121°C)	FT-7	Carbon Steel	Carbon Steel with Electroless Nickel Plate	Carbon Steel with Electroless Nickel Plate & Filled PTFE Insert	Fluoromyte Lip Seals	Viton (Fluoro- carbon)	17-4PH Stainless	Alloy Steel	Carbon Steel
Mild Corrosive & Sour (H_2 S & CO_2) -20° to 250°F (-29° to 121°C)	FT-8	Carbon Steel	Carbon Steel with Electroless Nickel Plate	Carbon Steel with Electroless Nickel Plate & Filled PTFE Insert	Fluoromyte Lip Seals	Viton (Fluoro- carbon)	17-4PH Stainless	Alloy Steel NACE	Stainless Steel
Highly Corrosive Full Stainless -20° to 250°F* (-29° to 121°C)	FT-9	Stainless Steel	Stainless Steel	Stainless Steel with Stellite 6 Hardface & Filled PTFE Insert**	Fluoromyte Lip Seals	Viton (Fluoro- carbon)	17-4PH Stainless	Alloy Steel NACE	Stainless Steel
Corrosive Waterflood -20° to 250°F (-29° to 121°C)	FT-10	Carbon Steel with Internal Nickel Plated	Carbon Steel with Electroless Nickel Plate	Carbon Steel with Electroless Nickel Plate & Filled PTFE Insert	Fluoromyte Lip Seals	Viton (Fluoro- carbon)	17-4PH Stainlesss	Alloy Steel	Stainless Steel
MTBE (less than 40% concentration) -20° to 250°F (-29° to 121°C)	FT-14	Carbon Steel	Carbon Steel with Electroless Nickel Plate	Carbon Steel with Electroless Nickel Plate & Filled PTFE Insert	Filled PTFE	High Fluoride Content Viton	17-4PH Stainless	Alloy Steel	Carbon Steel
MTBE (greater than 40% concentration) -20° to 250°F (-29° to 121°C)	FT-17	Carbon Steel	Carbon Steel with Electroless Nickel Plate	Carbon Steel with Electroless Nickel Plate & Filled PTFE Insert	Filled PTFE	PFA Encapsulated FKM	17-4PH Stainless	Alloy Steel	Carbon Steel
Anhydrous Ammonia -20° to 250°F (-29° to 121°C)	FT-19	Carbon Steel	Carbon Steel with Electroless Nickel Plate	Carbon Steel with Electroless Nickel Plate & Filled PTFE Insert	Filled PTFE	Neoprene	Alloy Steel Molycoat	Alloy Steel NACE	Stainless Steel
Low Temperature Standard -50° to 250°F (-46° to 121°C)	FT-36	Carbon Steel Impact Tested	Carbon Steel with Electroless Nickel Plate	Carbon Steel with Electroless Nickel Plate & Filled PTFE Insert	Fluoromyte Lip Seals	Low Temp Nitrile	17-4 PH Stainless	Alloy Steel Impact Tested	Stainless Steel
Low Temperature Sour (H ₂ S & CO ₂) -50° to 250°F (-46° to 121°C)	FT-37	Carbon Steel Impact Tested NACE	Carbon Steel with Electroless Nickel Plate	Carbon Steel with Electroless Nickel Plate & Filled PTFE Insert	Fluoromyte Lip Seals	Epichloro- hydrin	17-4 PH Stainless	Alloy Steel Impact Tested NACE	Stainless Steel

LEAKAGE TESTING

FOSTER Dual Seal and W-K-M Pow-R-Seal

	ALLOWED LEAKAGE						
TEST	API 598 7th Edition 1996 Metal Seat	API 6D/ISO 5208 Metal Seat	Pow-R-Seal & D-Seal Factory Test Limit, Resilient Seat				
	6 in. (150 mm) and smaller 12 drops/minute (24 bubbles/minute)						
High Pressure	8 in 12 in. (200 mm - 300 mm)	3					
Closure Test	20 drops/minute (40 bubbles/minute)	0.1 mm³/second x DN (Liquid)	0				
	14 in. (350 mm) and larger 28 drops/minute (56 bubbles/minute)						

16 drops = 1 cc

 ^{* -75°}F (-60°C) available on request.
 ** Secondary Seat is without Hard Facing.
 Materials Shown are for reference purposes only and are subject to change.
 Cooper Cameron Valves reserves the right to substitute equivalent materials if necessary.



W-K-M POW-R-SEAL OPERATION

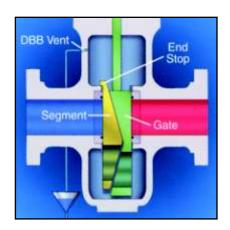
WKM Pow-R-Seal is the ultimate choice for Full Port, Through Conduit, Positive Shut-Off gate valves.

60 years of Worldwide service in oil, gas, chemicals, water, slurry and multi-products has confirmed the Pow-R-Seal as the most trusted gate valve, where safety and reliability of sealing are critical.

The parallel expanding gate design provides a tight mechanical seal which is normally unaffected by vibrations or pressure variations. The rigid, cast steel body resists pipeline bending moments, which could affect seat sealing in other valves.

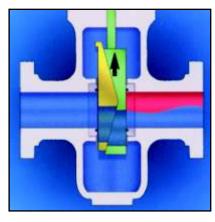
PTFE seals on both faces of the valve assure drop tight sealing, even at low differential pressure, while metal-metal contact between the seals and gate mechanism provides FIRE SAFE shut-off to API 6FA and BS6755.

All-metal seals are also available for service to 1000°F (538°C), where leakage rates comply with API 6D/ISO 5208.



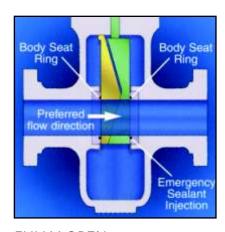
SEALED CLOSED

In the fully closed position the Segment has engaged with an end-stop and the Gate is wedged downward, expanding the Segment and Gate so that they form a tight mechanical closure against the upstream and downstream seats. Venting the body cavity will prove total, zero-leak shut off.



MID-TRAVEL

During travel towards Open, the Gate slides across the wedge angle of the Segment, collapsing the assembly so that it travels freely between the seal faces. The patented Leverlock gate centralizer holds the mechanism in the neutral position until seal expansion is required.

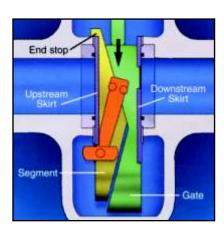


FULLY OPEN

When the aperture in the Segment is aligned with the conduit bore, an end-stop prevents further travel and the Gate slides across the wedge angle, expanding the Gate and the Segment, isolating the flow from the body.

The preferred flow direction

The preferred flow direction assures easier operation.



LEVERLOCK MECHANISM

The lever arm is held parallel to the gate faces by the skirt plates, while the assembly is moving through its stroke.

Near end-of-travel, the skirt allows the lever to tilt.

The gate and segment slide against their angled faces, creating the expanding seal action.

In their final position, the gate and segment are mechanically secured in place.

The skirt plates are guide rails, at the sides of the gate. They do not cover the sealing faces.



W-K-M POW-R-SEAL SPECIFICATIONS

SERVICE	TRIM CODE		GATE & SEGMENT	SEAT	STEM SEAL	STEM	BOLTING	FITTINGS
Standard -20° to 250°F (-29° to 121°C)	T-11 2" - 4" only	Carbon Steel	Carbon Steel (300-600) Low Alloy Steel (900+) Nickel Plated	Carbon Steel, Nickel Plated, PTFE Insert	FKM	Low Alloy Steel Nickel Plated	Alloy Steel	Carbon Steel
100% MTBE -20° to 250°F (-29° to 121°C)	T-102	Carbon Steel	Carbon Steel (300-600) Low Alloy Steel (900+) Nickel Plated	Carbon Steel, Nickel Plated, PTFE Insert	PTFE	Low Alloy Steel Nickel Plated	Alloy Steel	Carbon Steel
Sour, Mildly Corrosive -20° to 250°F (-29° to 121°C)	T-24	Carbon Steel	Carbon Steel (300-600) Low Alloy Steel (900+) Nickel Plated	Carbon Steel, Nickel Plated, PTFE Insert	PTFE	Low Alloy Steel Nickel Plated NACE	Alloy Steel NACE	Stainless Steel
Corrosive Waterflood -20° to 250°F (-29° to 121°C)	T-10	Carbon Steel Nickel Plated	Carbon Steel (300-600) Low Alloy Steel (900+) Nickel Plated	Carbon Steel, Nickel Plated, PTFE Insert	PTFE	Low Alloy Steel Nickel Plated NACE	Alloy Steel NACE	Stainless Steel
High Temperature -20° to 1000°F (-29° to 538°C)	T-31	Low Alloy Steel	400 Series Stainless Steel HF-6 hard face	Low Alloy Steel, HF-6 hard face	Flexible Graphite*	400 Series Stainless Steel	Alloy Steel	Stainless Steel
Low Temperature -50° to 250°F (-46° to 121°C)	T-36	Carbon Steel Charpy Impact Tested	Carbon Steel (300-600) Low Alloy Steel (900+) Nickel Plated	Carbon Steel, Nickel Plated, PTFE Insert	PTFE	Low Alloy Steel, Charpy Impact Tested, Nickel Plated	Alloy Steel Impact Tested	Stainless Steel
Low Temperature Sour, MTBE -50° to 250°F (-46° to 121°C)	T-37	Carbon Steel Charpy Impact Tested NACE	Carbon Steel (300-600) Low Alloy Steel (900+) Nickel Plated	Carbon Steel, Nickel Plated PTFE Insert	PTFE	Low Alloy Steel, Charpy Impact Tested, Nickel Plated	Alloy Steel Impact Tested, NACE	Stainless Steel

O.S.&Y. design.

MTBE trims are suitable for MTBE in concentration up to 100%.

Sour denotes trims which conform to NACE MR0175.

Materials shown are for reference purposes only and are subject to change.

Cooper Cameron Valves reserves the right to substitute equivalent materials if necessary.

DOUBLE BLOCK AND BLEED

Pow-R-Seal gate valves shut with an upstream seal that is mechanically compressed and locked in place and a downstream seal that is similarly compressed and locked tight. Soft seat Pow-R-Seal valves achieve zero leakage. Metal seat Pow-R-Seal valves have a permitted through leakage rate according to API 6D/ISO 5208. Soft seat Pow-R-Seal valves can be checked for tight shut-off by venting the body cavity at the bleed port, located near the top of the body. When the body cavity is vented, body pressure can be monitored to show that it is holding at a pressure below line pressure, proving that neither soft seal is leaking.

REPAIRS

Should foreign material in the flowing medium cause damage to the seal faces or the stem packing, sealant can be injected in to these areas until repairs can be made. Replacement of damaged seats, gates or internal parts can be performed with the valve still in-line, but with the line drained and the valve isolated.

CAUTION:

Because of the split gate design, it is possible for excess body pressure to develop in the valve body cavity. This usually results from fluid expansion due to heat in liquid service. A body cavity thermal relief system is provided to relieve this excess body pressure. Thermal relief systems that direct excess body pressure to the upstream conduit are standard. This system consists of two (2) needle valves, a check valve, tubing and two (2) fittings. Body pressure greater than the segment conduit pressure causes the check valve to unseat and relieve excess pressure to the upstream conduit. The needle valves must be kept open while the valve is in service. The needle valves can be used to isolate the line pressure to service the relief system, as needed. A typical thermal relief is shown in included drawings. Custom body relief systems may have been provided. A relief valve, which relieves excess body pressure to the atmosphere or a customer supplies tank or sump is also available. Pow-R-Seal valves are repairable in-line.

Cooper Cameron Valves (W-K-M brand) gate valves meet the requirements of API 6D.

The valve stroke is established by manufacturing tolerances and requires no adjustment.

Pow-R-Seal gate valves are available with the Lubrication/Packing/Drain extensions, Stem/Yoke tube extensions, as well as a variety of coatings.



TRADEMARK INFORMATION

FOSTER® & WKM® are registered trademarks which are owned by Cameron.

This document contains references to registered trademarks or product designations, which are not owned by Cameron.

Trademark	Owner	Common Name	Comparable CCV Abbreviated Name (in Trim Charts)
Aflas	Asahi Glass Company	TFE Propylene	FXM
Celcon	Hoechst Celanese Corporation		
Delrin	E.I. DuPont De Nemours & Company		
PEEK	Victrex PLC Corp United Kingdom	Polyetheretherketone	PK
Stellite	Stoody Deloro Stellite, Inc.		
Teflon	E.I. DuPont De Nemours & Company	Poly Tetra Fluoro Ethylene	PTFE
Viton	DuPont Dow Elastomers L.L.C.	Fluoroelastomer	FKM
17-4PH	Armco Advanced Materials Corp.	17-4PH Stainless Steel	Type 630
		Electroless Nickel Plating	ENP

CAMERON, VALVES & MEASUREMENT TERMS AND CONDITIONS OF SALE

Any written or oral purchase order received from Buyer by Seller shall be construed as a written acceptance of Seller's offer to sell and shall be filled in accordance with the terms and conditions of sale set forth herein. SELLER'S ACCEPTANCE OF THIS ORDER IS EXPRESSLY CONDITIONED ON BUYER'S ASSENT TO THE TERMS CONTAINED HEREIN. The terms and conditions of Seller's proposal (if any) and acknowledgement shall prevail over any conflicting or different terms in Buyer's order unless Buyer notifies Seller in writing of its objections thereto within fifteen (15) days from receipt of Seller's acknowledgement. Buyer's standard terms of purchase will not be considered a counteroffer to Seller's terms and conditions of sale. The failure of Seller to object to any provision in conflict herewith whether contained on Buyer's purchase order or otherwise shall not be construed as a waiver of the provisions hereof nor as an acceptance thereof.

2. QUOTATIONS AND PRICES:

Any product, service capability or manufacturing capability which may be available at the time a quotation is made is subject to prior sale. Prices quoted are subject to change without notice. The price in effect at the time of shipment including any escalation formula will apply, unless a valid quotation or written agreement to the contrary exists between Buyer and Seller. All prices shown are in U.S. dollars and are F.O.B. Seller's shipping point. Seller reserves the right to place a service charge on past due accounts at the highest rate permitted by law. Any documentation pertaining to traceability requirements for raw materials or products or documentation required for any routine or special processes must be identified by the Buyer at the time of quotation (if any) or at the time of order placement

Any tax or other charge imposed by law on the sale or production of goods or the performance of services shall be paid by the Buyer, unless the law specifically provides that such payment must be made by Seller, in which case Buyer shall reimburse Seller for such payment as part of the purchase price. Custom duties, consular fees, insurance charges and other comparable charges will be borne by Buyer. 4. SHIPPING SCHEDULE AND DELIVERY:

Shipment schedules are given as accurately as conditions permit and every effort will be made to make shipments as scheduled. Seller will not be responsible for deviations in meeting shipping schedules nor for any losses or damages to Buyer (or any third party) occasioned by deviations in the shipping saleules flor for any losses or damages to Buyer (or any third party) occasioned by deviations in the shipping schedule, whether due to Acts of God, orders bearing priority ratings established pursuant to law, differences with workmen, local labor shortages, fire, flood, shortages or failure of raw materials, supplies, fuel, power or transportation, breakdown of equipment or any other causes beyond Seller's reasonable control, whether of similar or dissimilar nature than those enumerated. Seller shall have additional time within which to perform as may be reasonably necessary under the circumstances and shall have the right to apportion its production among its customers in such a manner as it may consider to be equitable. Seller reserves the right to furnish commercially equivalent or better substitutes for materials or to subcontract the Buyer's order or portions thereof as Seller deems necessary. In no event shall Seller be liable for any consequential damages resulting from failure or delay in shipment. If Buyer requires drawings, procedures, standards or similar material for approval, shipping schedules will be calculated from the time such approvals are received by Seller, since shipping schedules are based on Seller having all required information and a firm order from Buyer which is enterable into production. Any hold points, witness points or the need for inspection by Buyer's representatives must be identified by Buyer at the time of quotation (if any) and/or order placement in order that the effect on the prices or shipping schedules (if any) can be taken into account. Additional inspection or testing required by Buyer which affects normal production sequence will be considered as extending the shipping dates accordingly 5. TERMS OF PAYMENT:

Terms of payment are 30 days from date of invoice unless otherwise stated in the quotation or Seller's order acknowledgment.

6. CANCELLATIONS AND RETURNS:

Purchase orders once placed by Buyer and accepted by Seller can be canceled only with Seller's written consent and upon terms which will save Seller from loss. No products may be returned for credit or adjustment without written permission from Seller's office authorized to issue such permission. 7. WARRANTIES:

All products of Seller's manufacture except for its Orbit product are warranted against defects of material and workmanship for a period of twelve (12) months from the date of installation or eighteen (18) months from date of shipment, whichever period first expires while its Orbit product is warranted for thirty six (36) months from date of shipment, when all such products are used in the service and within the pressure range for which they were manufactured. In the case of products or parts not wholly of Seller's manufacture, Seller's liability shall be limited to the extent of its recovery from the manufacturer of such products or parts under its liability to Seller. Any repair work performed by Seller is warranted for one year from completion of such repairs and applies only to work performed. If, within these specified periods, Seller receives notice from Buyer of any alleged defect in or nonconformance of any product or repair and if in the Seller's sole judgment the product or repair does not conform or is found to be defective in material or workmanship, then, Buyer shall, at Seller's request, return the part or product F.O.B. to Seller's designated plant or service location. Seller has no liability for removal or reinstallation of products or equipment. Seller, at its option and expense, shall repair or replace the defective part or product, or repay to Buyer the full price paid by Buyer for such defective part, repair or product. Any repayment of purchase price shall be without interest. Seller's warranty liability, including defects caused by Seller's negligence, shall be limited to such repair, replacement or refund, and shall not include claims for labor costs, expenses of Buyer resulting from such defects, recovery under general tort law or strict liability or for damages resulting from delays, loss of use, or other direct, indirect, incidental or consequential damages of any kind. Seller will not be responsible for failures of products which have been in any way tampered with or altered by anyone other than an authorized representative of Seller, failures due to lack of compliance with recommended maintenance procedures or products which have been repaired or altered in such a way (in Seller's judgment) as to affect the products adversely. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, STATUTORY OR IMPLIED, INCLUDING THE WARRANTY OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE WHICH EXCEED THE FOREGOING WARRANTY.

8.ENGINEERING AND SERVICE:

Upon request, Seller will provide engineering and/or technical information regarding its products and their uses and, if feasible, will provide personnel to assist Buyer in effecting field installations and/or field service. Any such information, service or assistance so provided, whether with or without charge, shall be advisory only

9. LABOR STANDARDS:

Seller hereby certifies that these products were produced in accordance with all applicable requirements of Section 6, 7 and 12 of the Fair Labor Standards Act as amended and of regulations and orders of the United States Department of Labor issued under Section 14 thereof

10. INSPECTION:

Unless otherwise agreed in writing, final inspection and acceptance of products must be made at Seller's plant or other shipping or receiving point designated by Seller and shall be conclusive except as regards latent defects. Buyer's representatives may inspect at the Seller's plant or shipping point during working hours prior to shipment in such manner as will not interfere with operations

11. DELIVERY AND ACCEPTANCE:

Delivery shall be in accordance with the requirements in the Purchase Contract, provided, in the event Buyer is unable to accept delivery upon completion of the manufacture of the Goods in accordance with such requirements, Buyer agrees that (i) title and risk of ownership shall pass to Buyer on date of Seller's invoice, and (ii) Buyer will make payments within thirty days after date of such invoice. Seller shall retain custodial risk of loss until delivery is made in accordance with such requirements.

12 EXPORT COMPLIANCE:

The Buyer shall provide the Seller with relevant end-use, end-user and country of end-use information with respect to the goods, services, software or technology to be supplied hereunder (collectively, "Items"). Based on and in reliance on such information, the Seller will supply such Items in compliance with applicable trade and customs laws including that of the United States of America. The Seller cautions and the Buyer acknowledges that any change in end-use, end-user or country of end-use (including a

shipment between countries other than the U.S.) may be restricted or prohibited by applicable trade and customs law, whether it be of the U.S. or other country. The Parties shall comply with all trade and customs laws (including U.S. Export Controls) except for any such laws which conflict with or are otherwise penalized under the laws of the U.S., which in the event of such conflict, Seller shall notify Buyer. The Buyer agrees in particular that it shall not use and shall not permit any third party to use such items in connection with the design, production, use, or storage of chemical, biological or nuclear weapons or missiles of any kind.

13. TRANSPORTATION CHARGES, ALLOWANCES, CLAIMS:

All prices are F.O.B. Seller's plant or other designated shipping point. No freight is allowed unless stated in Seller's quotation (if any) or in a written contract which may exist between Seller and Buyer at the time of shipment. If Seller's quotation or a written contract states that all or a portion of freight is allowed, all prices are F.O.B. Seller's plant or other designated shipping point, with most economical surface transportation allowed. If the quoted or contractual price includes transportation, Seller reserves the right to designate the common carrier and to ship in the manner it deems most economical. Added costs due to special routing requested by the Buyer are chargeable to the Buyer. Under no circumstances is any freight allowance which is absorbed by Seller to be deducted from the selling price. If the quoted price or contract includes transportation, no deduction will be made in lieu thereof whether Buyer accepts shipment at plant, warehouse, freight station, or otherwise supplies its own transportation. When sales are made from the Seller's warehouse, Seller reserves the right to charge either actual or pro-rated freight from Seller's principle point of manufacture to Seller's warehouse. Buyer assumes risk of loss upon delivery to the carrier, regardless of who pays shipping costs. Seller endeavors to pack or prepare all shipments so that they will not break, rust or deteriorate in transit, but does not guarantee against such damage. Unless requested in writing by the Buyer, no shipments are insured by Seller against damage or loss in transit. Seller will place insurance as nearly as possible in accordance with Buyer's written instructions but in such case Seller acts only as agent between the insurance company and the Buyer and assumes no liability whatsoever. Any claims for shipping loss, breakage or damage (obvious or concealed) are Buyer's responsibility and should be made to the carrier. All claims regarding shortages must be made within thirty (30) days from receipt of shipment and must be accompanied by the packing list(s) covering the

14. INDEMNIFICATION AND LIMITATION OF LIABILITY:

A. INDEMNIFICATION:

"Buyer Group" means: Buyer, its parent (if any), subsidiaries, affiliates, co-owners, co-venturers, partners and any entity with whom Buyer has an economic interest with respect to the Work including Buyer's customer and its and their respective employees, personnel, directors, officers, borrowed servants, representatives, agents, contractors and subcontractors (respectively and of any tier or level and who are not included within the Seller Group), "Seller Group" means: Seller, its parent (if any), subsidiaries, affiliates, co-owners and its and their respective employees, personnel, directors, officers, borrowed servants, representatives, agents, contractors and subcontractors (respectively and of any tier or level and who are not included within the Buyer Group), "Negligence" means: sole, joint or concurrent, active, passive, gross or willful misconduct.

(1) Seller shall release, defend, save, indemnify (collectively "Indemnify") and hold Buyer Group harmless from and against all claims, demands, losses, damages and causes of action of whatever kind or nature (collectively "Claims"), for loss of or damage to the property of the members of the Seller Group even if such Claims arise from or attributable to the Negligence of the members of Buyer Group. (2) Seller shall indemnify and hold Buyer Group harmless from and against all Claims for the death(s) of or personal injury(ies) to members of the Seller Group even if such Claims arise from or attributable to the Negligence of the members of Buyer Group.

(3) Buyer shall indemnify and hold Seller Group harmless from and against all Claims for loss of or damage to the property (including the Work) of the members of the Buyer Group even if such Claims arise from or attributable to the Negligence of the members of Seller Group.

(4) Buyer shall Indemnify and hold Seller Group harmless from and against all Claims for the death(s) of or personal injury(ies) to members of the Buyer Group even if such Claims arise from or

(5) Buyer (on its own behalf and on behalf of Buyer Group) and Seller Group shall Indemnify and hold each other harmless from and against any and all Claims asserted against them by or on behalf of any third party for the death(s) of or personal injury (les) to such a third party, as well as loss (es) of or damage(s) to the property of such a third party, a third party is a person or entity not included in Buyer Group or Seller Group. It is agreed by Buyer and Seller that their respective duty of indemnity to each other with respect to Claims asserted against them by a third party pursuant to this Article 14 (A) (5) shall be limited to their respective degree of Negligence.

(6) Notwithstanding any other provision contained in this Agreement, Buyer shall Indemnify and hold the members of Seller Group harmless from and against all Claims (including clean-up costs and loss (es) of oil, gas or hydrocarbons) arising from pollution, contamination, dumping or spilling of any substance and even if arising out of or attributable to the Negligence of the members of the Seller Group.

B. INDEMNITY FOR CONSEQUENTIAL DAMAGES: UNDER NO CIRCUMSTANCES SHALL SELLER BE LIABLE FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, EXEMPLARY OR PUNITIVE DAMAGES (collectively "CONSEQUENTIAL"), AS DEFINED BY THE LAWS GOVERNING THIS PURCHASE ORDER, NOR FOR ANY LOSS OF ANTICIPATED PROFITS, LOSS OF BUSINESS OPPORTUNITY, LOSS OF USE OF EQUIPMENT OR ANTICIPATED PROFITS, LOSS OF BUSINESS OPPORTUNITY, LOSS OF USE OF EQUIPMENT MAY BE LOCATED OR AT WHICH MEMBERS OF THE SELLER GROUP MAY BE PERFORMING WORK AND BUYER AGREES TO "INDEMNIFY" AND HOLD SELLER GROUP HARMLESS FROM AND AGAINST ANY "CLAIMS" FOR SUCH "CONSEQUENTIAL" DAMAGES EVEN IF ARISING OUT OF OR ATTRIBUTABLE TO THE "NEGLIGENCE" OF THE MEMBERS OF THE SELLER GROUP. C. LIMITATION OF LIABILITY:

EXCEPT AS OTHERWISE EXPRESSLY LIMITED IN THIS AGREEMENT IT IS THE EXPRESS INTENTION OF THE PARTIES HERETO THAT ALL INDEMNITY OBLIGATIONS AND/OR LIABILITIES HEREBY ASSUMED BY THE PARTIES SHALL BE: (1) SUPPORTED BY INSURANCE; (11) WITHOUT LIMIT; (111) AND WITHOUT REGARD TO THE CAUSE OR CAUSES THEREOF, INCLUDING, BUT NOT LIMITED TO, PREEXISTING CONDITIONS (WHETHER SUCH CONDITIONS BE PATENT OR LATENT); THE UNSEAWORTHINESS OF ANY VESSEL OR VESSELS (WHETHER OR NOT PREEXISTING); THE UNAIRWORTHINESS OF ANY AIRCRAFT; BREACH OF REPRESENTATION OR WARRANTY (EXPRESS OR IMPLIED); BREACH OF CONTRACT; BREACH OF DUTY (STATUTORY, CONTRACTUAL, COMMON LAW OR OTHERWISE): STRICT LIABILITY: CONDITION OF RUIN OR DEFECTIVE PREMISES, EQUIPMENT, FACILITIES, OR APPURTENANCES OF ANY PARTY UNDER ANY CODE, LAW OR (WHETHER OR NOT SAID CONDITION IS PREEXISTING AND/OR LATENT, PATENT OR OTHERWISE); THE LOADING OR UNLOADING OF PERSONS OR CARGO; TORT; OR THE NEGLIGENCE OR FAULT OF ANY PARTY (AS DEFINED AT THE BEGINNING OF THIS ARTICLE 14; OR ANY OTHER THEORY OF LEGAL LIABILITY.

Seller's total responsibility for any claims, damages, losses or liability arising out of or related to its performance of this contract or the products or services covered hereunder shall not

exceed the purchase price. 15. MODIFICATION, RESCISSION & WAIVER:

The terms herein may not be modified or rescinded nor any of its provisions waived unless such modification, rescission or waiver is in writing and signed by an authorized employee of Seller at its office in Houston, Texas. Failure of Seller to insist in any one or more instances upon the performance of any of the terms and conditions of the contract or the failure of Selfer to exercise any of its rights hereunder shall not be construed as a waiver or relinquishment of any such term, condition, or right hereunder shall not affect Selfer's right to insist upon strict performance and compliance with regard to any unexecuted portions of this contract or future performance of these terms and

All orders must be accepted by an authorized employee of Seller. The rights and duties of the parties and construction and effect of all provisions hereof shall be governed by and construed according to the internal laws of the State of Texas. Any disputes which arise under this agreement shall be venued in the District Court of Harris County, Texas or in the Southern District of Texas.







VALVES & MEASUREMENT

3250 Briarpark Drive, Suite 300 Houston, Texas 77042 USA Toll Free 800 323 9160

For the most current contact and location information go to: www.c-a-m.com