



## Frisch Engineered Products Inc. Users List - Metal Smelting And Refining

<b>AMAX LEAD</b> Boss, MO	1 - 42" CB100 Butterfly Valve
Ft. Madison, IA	1 - PRV104 JUG VALVE 310 SST
<b>AMERICAN NICKLOID</b> Peru, IN	1 - 40" RB102 Refractory Butterfly Valve With A297GRHE Internals
<b>ALUMINIUM CO. OF AMERICA</b> Lafayette, IN	2 - 17 7/8" x 46 1/4" RD300 Louvered Damper, Parallel Blades
<b>AMERICAN SMELTING &amp; REFINING</b> Corpus Christi, Texas	1 - 42" Manual BV for 400 F 1 - 30" Manual BV for 824 F 2 - 30" Cylinder BV for 717 F @ PSI Control Valve 2 - 24" Cylinder BV for 220 F @ PSI Control Valve
<b>ANACONDA COPPER</b> Anaconda, Montana	1 - 72" Manual BV for 684 F and 5.5 PSI 1 - 66" Manual BV for 374 F and 3.2 PSI 1 - 24" Manual BV for 226 F and 5.7 PSI 1 - 16" Manual BV for 903 F and 4.2 PSI 1 - 16" Manual BV for 100 F and .5 PSI Vacuum 1 - 60" Manual BV for 400 F and 3.6 PSI
Animas, New Mexico	1 - 94" Manual BFV for 660°F & 6 Psig 1 - 82" Manual BFV for 600°F & 10 Psig 1 - 63" Manual BFV for 550°F & 7 Psig
<b>ARMCO STEEL</b> Middletown, Ohio	1 - 24" Manual BV for 600 F and 7 PSI Coke Oven Gas 1 - 48" Manual BV for 200 F and 20 PSI Coke Oven Gas
<b>BIG RIVER ZINC</b> Sauget, Il. USA	1-20" Butterfly Damper Flanged Ends All Carbon Steel Construction 2-30" Slide Gate Valve Carbon Steel Body with 304 Stainless Trim 2-36" Butterfly Damper Flanged Ends 2-48" Butterfly Damper Flanged Ends
<b>BRUNSWICK SMELTING</b> Belledune, N.B.	1 - 42" GV105FW Gate Valve



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<p><b>CE ZINC (XSTRATA)</b> Valleyfield, Que. Canada</p>	<p>2 - 53" 15/16" CB100 BFV          1 - 42 1/8" GV105FW Gate Valve          2 - 30" Motorized Gate Preheater Outlet 932F          Double Block &amp; Bleed Design for Zero Leakage          All A387GR11 Chrome Moly steel body &amp; flanges          Gate Hard Chromed Stainless Steel          Seat and shaft 316 Stainless Steel.          With Stellite Seat overlay          1 - 20" Motorized Gate Cold Gas Bypass @ 180 F          1 - 48" Motorized BV with Tadpole Seal @ 850 F          1 - 48" Motorized BV with Tadpole Seal @ 180 F          3 - 36" Motorized BV with Tadpole Seal @ 850 F          1 - 24" Motorized BV with Tadpole Seal @ 100 F          2 - 20" Motorized BV with Tadpole Seal @ 600 F          1 - 18" Motorized BV with Tadpole Seal @ 100 F</p>
<p><b>CANADIAN MAGNESIUM</b> Calgary , AB</p>	<p>48 - 12" CB100 Butterfly Valve          3 - 4" CB100 Butterfly Valve          17 - 6" CB100 Butterfly Valve          8 - 14" CB100 Butterfly Valve          4 - 24" CB100 Butterfly Valve          5 - 36" CB100 Butterfly Valve          Combustion Air to reaction furnace 20" WC @ 200 F</p>
<p><b>COMINCO SMELTER</b> Trail, B.C., Canada</p>	<p>2-30" 20010 Pneumatic Butterfly Valve          With FISHER 1051 Pneumatic Actuator and Positioner          SO2 Gases 932F 8 Psig          1- 36" Same as above</p>
<p><b>CONSOLIDATED ALUMINIUM</b> Jackson, TN.USA</p>	<p>1-58" RB102 Refractory BFV          1-42" &amp; 48" GU105 FW Gate Valve</p>
<p><b>ESSAR STEEL</b> Sault Ste. Marie, On. Canada</p>	<p>3- 42" Butterfly Damper          Top-mount-swing-thru Design          With Pneumatic operator</p>



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<p><b>FREEPORT McMORAN (Phelps Dodge) MINERALS Miami Smelter Claypool, Az. USA</b></p>	<p>2- 30" Rolling Slide Gate Valve, Flanged Ends, 304 Stainless Steel Body &amp; Flanges , Gate is hard chromed 316 stainless steel. With 316 Seat overlaid with Stellite 21. With Hypower Hydraulic Cylinder operator &amp; Limit Switches 1-30in Frisch Butterfly Valve Flanged ends All 316 Stainless construction Tadpole Seat for FCI 70-2 Class II Shutoff Jamesbury VPVL600SR4/5 pneumatic spring-return Actuator c/w Stonel QG2VP02SDM Snap Acting 250V limit switch unit and Burkert 6519, 120V solenoid 2- 46" Butterfly Valves Flanged ends drilling on mill finish flanges to match existing valves All 316 Stainless construction, Pneumatic operated 4-46" Rolling Slide Gate, Pneumatic operated SO<sub>2</sub> Gas to Converter @ 1000 F 4-46" BV Cooling Loop Bypass @ 860 F 1-30" Manual BV Heat Exchanger Bypass @ 560 F 1-66" x 48" Manual Single Louver @ 560 F 2-54" Manual BV Cooling Loop Bypass @ 860 F 6-72" Manual BV with 0.125" FRP Coating</p>
<p><b>GASPE COPPER MINES LTD. Que., Canada</b></p>	<p>1-42" Manual Gate Valve Preheat Inlet @ 220 F 1-42" Manual Gate Valve Preheater Outlet @ 900 F 1-24" Motor Gate Valve Main Blower @ 200 F 1-24" Motor Gate Valve Gas Bypass @ 220 F 2-60" Motor BV with Tadpole Seal @ 220 F 2-42" Motor BV with Tadpole Seal @ 800 F 1-36" Motor BV with Tadpole Seal @ 900 F 1-30" Motor BV with Tadpole Seal @ 600 F 2-24" Motor BV with Tadpole Seal @ 400 F</p>
<p><b>GENERAL MOTOR CORP. MODULAR CASTING PLANT Saginaw, Mi.</b></p>	<p>2-24" CB100 Butterfly Valve 1-18" CB100 Butterfly Valve 2-30" CB100 Butterfly Valve</p>
<p><b>INLAND STEEL (Arcelor Mittal) East Chicago, In. USA</b></p>	<p>2-30" Cylinder Plug Valve with 16" Refractory @ 1400 F Peaks to 2300 F 2-32" Cylinder Plug Valve with 16" Refractory @ 1400 F Peaks to 2300 F</p>



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<b>INSPIRATION COPPER</b> <b>(Freeport McMoran – Miami)</b> Inspiration, AZ (Valves installed in 1985)	1-56" CB100 Pneumatic BFV 1-78" CB100 Pneumatic BFV 4-68" x 30" GV105 1000F 1-74" CB100 Manual Butterfly 1-74" Motorized Slide Gate Valve with 4" Refractory and 316 SS Internals for 1600 F 4-68" x 30" Slide Gate Corten-316 SS for 1000 F
<b>INCO MINERALS</b> Port Maitland , ONT Dunville , ONT	1-30" RB102 Refractory BFV 1-48" RB102 Refractory BFV
<b>KAISER ALUMINIUM</b> Bedford , IN	2-44" , 30" & 22" CB100 BFV 2-30" , 40" CB100 BFV
<b>KENNECOTT COPPER</b> Garfield , Utah	1-42" Manual BV Blower Discharge 1-72" Cylinder BV Control Gas to humidifying Tower @ 600 F and 1.1 PSI 2-48" Cylinder BV Control SO <sub>2</sub> to Blower @ 118 F and 1.1 PSI
Hayden , Utah	1-24" Cylinder BV Cold Gas to Converter @ 800 F and 2.5 PSI 1-72" x 72" Cylinder Single Louver Inlet Heat Exchanger @ 625 F and 5.0 PSI 2-36" x 114" Cylinder Single Louver Outlet Heat Exchanger @ 815 F and 1.0 PSI
Hayden , Utah	2-54" Motor Operated Rolling Slide Gate 2-42" Motor BV Heat Exchanger Inlet @ 300F to 670C 1-72" Manual BV Compressor to Heat Exchanger @ 230 F and 6.0 PSI 1-72" Manual BV Heat Exchanger to Absorption Tower @ 450 F and 6.0 PSI 1-42" Manual BV SO <sub>2</sub> Blower Bypass



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<b>KENNECOTT COPPER</b> <b>Magna , Utah</b>	1-54" Rolling Slide Gate Valve 125 ANSI Flanged Ends With A516 Gr70 Body & 316L Internals, Motor Operated 1-54" Rolling Slide Gate Valve Buttweld Ends With A516 Gr70 Body & 316L Internals, Motor Operated 1- 42" Rolling Slide Gate Valve 125 ANSI Flanged Ends 304 Stainless Body 316L Internals, Motor Operated 1-54" Manual BV Tail Gas from Acid Plant with Tadpole @ 480 F
	2-78" Manual BV Tail Gas from Acid Plant with Tadpole @ 480 F 1-84" Manual BV Tail Gas from Acid Plant with Tadpole @ 480 F 1-84" Motor BV Humidifying Tower @ 650 F 1-78" Cylinder BV Heat Exchanger @ 790 F and 5.0PSI 1-72" Cylinder BV Tail Gas Re-heater @ 460 F 1-72" Cylinder BV Final Tower @ 175 F 1-48" Cylinder BV Heat Exchanger @1000F 2-48" Cylinder BV Compressor Inlet @ Ambient 1-36" Cylinder BV Converter @ 1170 F and 2.8 PSI 2-30" Motor BV Heat Exchanger @ 200 F and 5.9 PSI 1-48" Manual BV Compressor Inlet at Ambient 1-51" x 117" Obround Motor Heat Exchange @950 F
	1-60" Cylinder BV Temp. Control Valve from Absorption Tower @ 175 F 1-60" Cylinder BV Temp. Control Valve Tail Gas Heat Exchanger @ 450 F 1-48" Cylinder BV Temp. Control Valve to SO3 Cooler @ 750 F 1-48" Cylinder BV Temp. Control Valve to Heat Exchanger @ 950 F 2-84" Relief Valves 480 F and 10" W.G.
<b>MISSOURI LEAD</b> <b>Boss , Missouri</b>	1-48" Cylinder BV SO2 Gas
<b>NATIONAL LEAD</b> <b>St. Louis , Missouri</b>	2-72" Manual BV @ 800 F and 4.7 PSI 1-60" Manual BV @ 460 F and 3.2 PSI 3-48" Manual BV @ 449 F and 3.2 PSI 1-30" Manual BV @ 1130 F and 4.1 PSI 1-30" Manual BV with 13" Refractory and Thermalloy Internals @ 1740 F and 54 PSI 1-16" Manual BV @ 980 F and 3.6 PSI



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<b>NORANDA ALUMINUM</b> New Madrid, Mo, USA	1- 35" Butterfly Valve, Flanged Ends Aluminum Construction
<b>NORANDA MINERALS</b> Rouyn-Noranda , Que	1-12" , 24" , 36" , 42" , 54" , 66" CB100BW Pneumatic BFV 2-84" CB100BW Pneumatic BFV 4-90" CB100BW Pneumatic BFV 1-60" GV105 Motorized Gate Valve
<b>NUCOR STEEL</b> Plymouth , UT	24-36" CB100LD Manual BFV 24-54" CB100LD Manual BFV 1-8' x 11' RD300LD Pneumatic Louvered Damper
Norfolk , NE	1-7' x 7' RD300LD Pneumatic Louvered Damper 1-10' x 10' RD300LD Pneumatic Louvered Damper
<b>ROANOKE STEEL</b> Roanoke , VA	1-63" x 63" FB101 Rectangular BFV 1-96" x 96" RD300LD Louvered Damper 1-48" x 48" RD300LD Louvered Damper
<b>SHARON STEEL CORP.</b> Parreli , Pa. USA	1-8'6" GV105FW Gate Valve
<b>TATA STEEL (Corus Metals)</b> Wales, UK	2-60" RFF Motor Operated Water Seal Double Disc Gate Vales, Blast Furnace Gases Isolation 2- 42" Same as above
<b>TENKE FUNGURUME MINING</b> <b>FREEPOR MCMORAN</b> Congo Democratic Republic	1020mm OD Frisch Jug Valve, Includes the following: Disc Assembly, shaft, Top works with stiffening ring and stiffening cone, RA 333 Stainless Disc & Disc Stiffening cone with Diffused Aluminide coating, A479T310S Shaft and A312T310S Shaft sleeve, 310 Stainless Anchors welded to top plate 304H Stainless Steel Top plate and Carbon Steel Actuation brackets, with Rotork Electric Motor Operator. Model IQM35MZ WT Epoxy coated with IP68 enclosure, 690/3/50 power supply, Profibus Interface, local/off/remote selector switch wired for modulating service.



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<b>US STEEL</b> <b>EDGAR THOMPSON WORKS</b> Fairfield , AL	4-70" CB100 BFV 2-64" CB100 BFV 2-111" CB100 BFV
<b>US STEEL CORP.</b> Clairton , PA	14-48" CB100LD BFV
<b>US STEEL</b> <b>Ontario, Canada</b>	2 -24" Butterfly Control Valve Pneumatically operated. "Red Mixer Valves" 2- 44" Butterfly Control Dampers Pneumatically operated. Blast Furnace #1 LED
<b>XSTRATA COPPER</b> <b>KIDDMET SITE</b> Timmins, Ont. Canada	2 – 42" Rolling Slide Gate Valve, Buttweld Ends Carbon Steel Body 316L Trim, Motor Operated 1- 42" Butterfly Damper, Buttweld Ends 2- 30" Same as Above 1- 36" Same as above 1-54" Same as above 2- 16" Rolling Slide Gate Valve, Flanged Ends Motor Operated