

Mineral Industry Surveys

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VANADIUM IN FEBRUARY 2008

Reported domestic consumption of vanadium in February 2008 was slightly more than that of the previous month, and was about 28% more than that of February 2007, according to the U.S. Geological Survey. Consumer stocks of vanadium, in all forms, were 295 metric tons (t) at the beginning of 2008 and 255 t at the end of February.

According to Ryan's Notes (2008), U.S. ferrovanadium (FeV) prices ranged from \$33.889 to \$36.278 per pound of vanadium content in February, as compared with \$19.625 to \$20.375 in January. European FeV prices ranged from \$78.667 to \$82.444 per kilogram in February, as compared with \$39.688 to \$41.125 in January. Vanadium pentoxide (V₂O₅) prices ranged from \$12.944 to \$13.889 per pound in February, as compared with \$8.013 to \$8.288 in January.

Ferrovanadium prices continued to rise owing to supply disruptions in South Africa and China. Supply problems in China continued following weeks of bad weather and the Lunar

New Year holiday. Supply concerns in South Africa were compounded by confusion, as neither Xstrata Alloys nor Highveld Steel and Vanadium Corp. Ltd., have commented on the effect that power shortfalls would have on specific deliveries. Russian producer JSC Vanady Tulachermet, bought by SGMK Engineering in January 2008, will not be offering material to the market until previous contract obligations are met and new marketing arrangements are finalized. Ferrovanadium was trading at its highest level since June 2005 (Metal Bulletin, 2008).

References Cited

Metal Bulletin, 2008, Ferrovanadium pushes higher as supply concerns persist:
Metal Bulletin, no. 9034, February 18, p. 10.
Ryan's Notes, 2008, [untitled]: Ryan's Notes, v. 14, no. 9, March 3, p. 10.

TABLE 1
U.S. CONSUMPTION AND CONSUMER STOCKS OF VANADIUM, BY FORM¹

(Kilograms, contained vanadium)

	2007		2008					
			January		February		January-February	
	Consumption	Stocks	Consumption	Stocks	Consumption	Stocks	Consumption	Stocks
Ferrovandium ²	3,320,000	253,000	348,000	235,000	346,000	215,000	694,000	215,000
Vanadium-aluminum alloy	W	W	W	W	W	W	W	W
Other ³	809,000	42,400	63,600	36,800	71,000	40,900	135,000	40,900
Total	4,130,000	295,000	412,000	272,000	417,000	255,000	829,000	255,000

W Withheld to avoid disclosing company proprietary data; included with "Other."

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes other vanadium-iron-carbon alloys as well as vanadium oxides added directly to steel.

³Includes other vanadium alloys, vanadium metal, vanadium pentoxide, vanadates, chlorides, other specialty chemicals, and items indicated by symbol W.

TABLE 2
U.S. CONSUMPTION OF VANADIUM, BY END USE¹

(Kilograms, contained vanadium)

	2007	2008		
		January	February	January-February
Steel:				
Carbon	882,000	54,100	59,300	113,000
High-strength low-alloy	1,270,000	132,000	132,000	264,000
Stainless and heat-resisting	61,400	5,110	5,110	10,200
Full alloy	1,180,000	181,000	174,000	354,000
Tool	420,000	21,400	21,400	42,800
Total steel	3,810,000	393,000	391,000	785,000
Superalloys	7,180	406	445	851
Miscellaneous and unspecified ²	314,000	18,000	25,400	43,300
Total consumption	4,130,000	412,000	417,000	829,000

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes cast irons, alloys excluding steel and superalloys, chemical and ceramic uses, and other miscellaneous and unspecified uses.

TABLE 3
U.S. IMPORTS AND EXPORTS OF ALUMINUM-VANADIUM MASTER ALLOY AND VANADIUM
METAL, INCLUDING WASTE AND SCRAP¹

(Kilograms, gross weight)

	Aluminum-vanadium master alloy		Vanadium metal, including waste and scrap	
	Quantity	Value	Quantity	Value
Imports for consumption:				
2007	1,110,000	\$2,110,000	3,620	198,000
2008, January	--	--	--	--
Exports:				
2007	21,100,000	72,700,000	49,400	2,690,000
2008, January				
Australia	1,430	38,000	--	--
Canada	842,000	2,450,000	432	13,900
Germany	13,000	384,000	--	--
Japan	11,700	342,000	--	--
Korea, Republic of	658	6,980	--	--
Mexico	824,000	2,510,000	--	--
Portugal	454	4,040	--	--
Saudi Arabia	--	--	6,740	260,000
Total	1,690,000	5,730,000	7,170	274,000

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 4
U.S. IMPORTS AND EXPORTS OF FERROVANADIUM, VANADIUM PENTOXIDE (ANHYDRIDE) AND
OTHER OXIDES AND HYDROXIDES OF VANADIUM¹

(Kilograms, contained vanadium)

	Ferrovanadium		Vanadium pentoxide (anhydride) ²		Other oxides and hydroxides of vanadium	
	Quantity	Value	Quantity	Value	Quantity	Value
Imports for consumption:						
2007	2,220,000	\$81,300,000	2,390,000	\$46,800,000	41,900	\$1,400,000
2008, January:						
Austria	46,000	1,700,000	50	2,790	4,160	114,000
Canada	38,700	1,400,000	--	--	--	--
China	--	--	199,000	3,590,000	--	--
Czech Republic	32,600	1,320,000	--	--	--	--
Germany	668	60,900	--	--	--	--
Korea, Republic of	145,000	5,290,000	--	--	--	--
Netherlands	--	--	--	--	5,480	262,000
Russia	--	--	170,000	2,450,000	--	--
South Africa	--	--	117,000	2,490,000	8,090	100,000
Switzerland	21,400	1,300,000	--	--	--	--
United Kingdom	--	--	--	--	11,300	159,000
Total	284,000	11,100,000	487,000	8,530,000	29,000	635,000
Exports:						
2007	154,000	5,810,000	327,000	5,460,000	626,000	7,530,000
2008, January:						
Argentina	--	--	500	20,900	--	--
Brazil	--	--	--	--	2,730	39,100
Canada	6,440	300,000	--	--	--	--
Germany	--	--	320	6,950	10,500	163,000
Italy	--	--	28,800	530,000	--	--
Mexico	113	8,360	1,000	26,200	--	--
Russia	--	--	--	--	75,600	928,000
Saudi Arabia	--	--	28,800	273,000	--	--
Trinidad and Tobago	--	--	907	20,000	--	--
Total	6,550	309,000	60,300	878,000	88,900	1,130,000

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include catalysts containing vanadium pentoxide.

Source: U.S. Census Bureau.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF VANADIUM-BEARING ASH, SLAG¹

(Kilograms, contained vanadium pentoxide)

	Ash and residues		Ash and residues (not from the manufacture of iron and steel)	
	Quantity	Value	Quantity	Value
2007	1,000,000	\$9,960,000	641,000	\$913,000
2008, January:				
Canada	--	--	37,500	46,900
Mexico	22,700	170,000	--	--
Year to date	22,700	170,000	37,500	46,900

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF MISCELLANEOUS VANADIUM CHEMICALS¹

(Kilograms, contained vanadium)

	Sulfates		Vanadates	
	Quantity	Value	Quantity	Value
2007	80,200	\$783,000	211,000	\$3,550,000
2008, January:				
China	1	11,000	--	--
South Africa	--	--	23,100	384,000
Total	1	11,000	23,100	384,000

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.