

Mineral Industry Surveys

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VANADIUM IN SEPTEMBER 2007

Reported domestic consumption of vanadium in September 2007 was about 4% less than that of the previous month, and was about 10% more than that of September 2006, according to the U.S. Geological Survey. Consumer stocks of vanadium, in all forms, were 296 metric tons (t) at the beginning of 2007 and 294 t at the end of September.

According to Ryan's Notes (2007b), U.S. ferrovanadium (FeV) prices ranged from \$19.300 to \$19.600 per pound of vanadium content in September, the same as that of the previous month. European FeV prices ranged from \$37.563 to \$38.375 per kilogram in September, as compared \$36.722 to \$37.500 in August. Vanadium pentoxide (V₂O₅) prices ranged from \$7.469 to \$7.675 per pound in September, as compared with \$7.444 to \$7.683 in August.

Strategic Minerals Corp. Inc. (Stratcor) announced that an explosion and fire had temporarily halted production of vanadium and non-vanadium master alloys at its International Specialty Alloys plant in New Castle, PA. Stratcor arranged for alternate vanadium-aluminum master alloy supply to meet customer demand until production could be restored. Stratcor's subsidiary, Vametco Minerals Corp. (South Africa), made alternate arrangements for vanadium-bearing, pig iron slag owing to production problems at its normal supplier, Highveld Steel and Vanadium Corp. Ltd. (Ryan's Notes, 2007a).

References Cited

Ryan's Notes, 2007a, Ferroalloy notes: Ryan's Notes, v. 13, no. 37, September 17, p. 5.
Ryan's Notes, 2007b, [untitled]: Ryan's Notes, v. 13, no. 39, October 1, p. 10.

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

(Kilograms, contained vanadium)

	2006 ^P		2007					
	Consumption	Stocks	August		September		Year to date	
			Consumption	Stocks	Consumption	Stocks	Consumption	Stocks
Ferrovandium ²	3,350,000	247,000	279,000	282,000	817,000	247,000	3,100,000	247,000
Vanadium-aluminum alloy	W	W	W	W	W	W	W	W
Other ³	298,000	48,100	68,400	44,600	73,600	46,000	592,000	46,000
Total	3,650,000	296,000	347,000	327,000	891,000	293,000	3,690,000	293,000

^PPreliminary. 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)

	2006 ^P	2007		
		August	September	Year to date
Steel:				
Carbon	931,000	77,600	619,000	1,280,000
High-strength low-alloy	1,020,000	106,000	106,000	924,000
Stainless and heat-resisting	60,700	5,120	5,120	46,000
Full alloy	1,020,000	105,000	95,600	870,000
Tool	322,000	29,600	36,100	332,000
Total steel	3,350,000	324,000	862,000	3,450,000
Superalloys	4,130	758	721	5,730
Miscellaneous and unspecified ²	296,000	22,600	27,800	234,000
Total consumption	3,650,000	347,000	891,000	3,690,000

^PPreliminary.

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:				
2006	102,000	\$312,000	121,000	\$5,270,000
2007:				
July	--	--	--	--
August:	--	--	--	--
Year to date	797,000	1,130,000	--	--
Exports:				
2006	17,000,000	54,500,000	491,000	13,200,000
2007:				
July	2,050,000	6,330,000	--	--
August:				
Belgium	18,000	380,000	--	--
Canada	915,000	2,750,000	--	--
France	717	9,320	--	--
Japan	13,900	181,000	--	--
Korea, Republic of	177	5,230	--	--
Mexico	907,000	2,650,000	--	--
Peru	620	8,060	--	--
Venezuela	924	12,000	--	--
Total	1,860,000	6,000,000	--	--
Year to date	15,000,000	52,200,000	--	--

-- 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:						
2006	2,140,000	\$90,500,000	1,920,000	\$45,200,000	129,000	\$3,370,000
2007:						
July	165,000	5,100,000	240,000	4,780,000	--	--
August:						
Austria	--	--	--	--	8,400	258,000
Brazil	900	34,000	--	--	--	--
Canada	25,700	682,000	--	--	--	--
China	--	--	53,500	1,260,000	--	--
Czech Republic	80,000	2,750,000	--	--	--	--
Germany	454	24,200	1,000	47,700	--	--
Israel	--	--	--	--	1,300	76,600
Korea, Republic of	99,900	2,990,000	--	--	--	--
Netherlands	--	--	204	4,950	--	--
Russia	--	--	94,400	1,400,000	--	--
South Africa	--	--	103,000	2,310,000	--	--
United Kingdom	--	--	--	--	7	17900
Total	207,000	6,480,000	252,000	5,020,000	9,700	352,000
Year to date	1,920,000	54,200,000	1,630,000	32,000,000	18,100	602,000
Exports:						
2006	515,000	11,400,000	341,000	7,150,000	832,000	7,780,000
2007:						
July	14,600	692,000	46,300	1,070,000	4,240	60,200
August:						
Belgium	--	--	--	--	9,230	155,000
Canada	8,920	415,000	--	--	--	--
China	--	--	--	--	9,530	139,000
Germany	--	--	--	--	21,000	218,000
Japan	4,680	34,900	--	--	--	--
Russia	--	--	--	--	109,000	1,460,000
Trinidad and Tobago	--	--	1,090	23,900	--	--
Total	13,600	450,000	1,090	23,900	149,000	1,970,000
Year to date	108,000	4,000,000	249,000	3,920,000	363,000	4,400,000

-- 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
2006	637,000	\$7,320,000	1,140,000	\$1,130,000
2007:				
July	59,100	689,000	85,300	193,000
August:				
Canada	--	--	45,800	67,100
Mexico	114,000	1,210,000	--	--
Total	114,000	1,210,000	45,800	67,100
Year to date	679,000	6,500,000	471,000	667,000

-- 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
2006	16	\$26,700	115,000	\$3,330,000
2007:				
July	--	--	11,100	204,000
August:				
China	--	--	6,360	191,000
Germany	--	--	291	34,100
South Africa	--	--	11,000	175,000
Total	--	--	17,600	400,000
Year to date	80,200	772,000	127,000	2,580,000

-- Zero.

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

Source: U.S. Census Bureau.