

Mineral Industry Surveys

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VANADIUM IN JUNE 2012

Reported domestic consumption of vanadium in June 2012 was 3% more than that of the previous month, and was slightly more than that of June 2011, according to the U.S. Geological Survey. Consumer stocks of vanadium, in all forms, were 163 metric tons (t) at the beginning of 2012 and 252 t at the end of June.

According to Ryan's Notes, U.S. ferrovanadium (FeV) prices ranged from \$15.078 to \$16.500 per pound of vanadium content in June, as compared with \$15.500 to \$17.000 in May. European FeV prices ranged from \$25.500 to \$26.000 per kilogram in June, as compared with \$25.306 to \$25.806 in May. Vanadium pentoxide (V₂O₅) prices ranged from \$6.500 to \$7.000 per pound in both May and June.

China's January to May 2012 FeV (80% grade) exports decreased 51% to 1,648t, compared with 3,369 t in the same period in 2011. Some experts have attributed the decrease to higher operating costs in China compared with prices on the European market (Metal-Pages, 2012).

Reference Cited

Metal-Pages, 2012, China's exports of ferro-vanadium 80% halved on European woes: Metal-Pages, July 3. (Accessed September 7, 2012, via [http://www.metal-pages.com/.](http://www.metal-pages.com/))

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

(Kilograms, contained vanadium)

	2011 ^P		2012					
	Consumption	Stocks	May		June		January–June	
			Consumption	Stocks	Consumption	Stocks	Consumption	Stocks
Ferrovandium ²	4,240,000	127,000	334,000 ^r	183,000	348,000	184,000	2,040,000	184,000
Vanadium-aluminum alloy and other forms ³	879,000	63,300	73,100	52,300	71,900	69,400	425,000	69,400
Total	5,120,000	190,000	407,000 ^r	236,000	420,000	254,000	2,470,000	254,000

^PPreliminary. ^rRevised.

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 vanadium-aluminum alloy, other vanadium alloys, vanadium metal, vanadium pentoxide, vanadates, chlorides, and other specialty chemicals.

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

(Kilograms, contained vanadium)

	2011 ^P	2012		
		May	June	January–June
Steel:				
Carbon	677,000	52,900 ^r	69,700	360,000
High-strength low-alloy	W	W	W	W
Stainless and heat-resisting	61,500	5,120	5,120	30,700
Full alloy	2,120,000	173,000 ^r	170,000	1,030,000
Tool	W	W	W	W
Total steel	2,860,000	379,000 ^r	393,000	2,320,000
Superalloys	15,300	576	677	3,260
Miscellaneous and unspecified ²	2,240,000	W	W	W
Total	5,120,000	407,000 ^r	420,000	2,470,000

^PPreliminary. ^rRevised. W Withheld to avoid disclosing company proprietary data; included in "Total."

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:				
2011	278,000	\$1,210,000	43,900	\$1,930,000
2012:				
May	4,050	28,400	11,100	387,000
June:				
China	19,100	106,000	--	--
Germany	--	--	18,500	532,000
Netherlands	5,620	33,500	--	--
Total	24,700	140,000	18,500	532,000
January-June	90,300	611,000	63,000	2,020,000
Exports:				
2011	920,000	6,930,000	102,000	3,340,000
2012:				
May	2,480,000	6,720,000	2	3,120
June:				
Canada	231,000	618,000	--	--
Germany	--	--	3	2,630
Japan	4,190	96,200	--	--
Mexico	1,780,000	4,610,000	--	--
Total	2,020,000	5,330,000	3	2,630
January-June	11,300,000	32,200,000	569	27,500

-- 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:						
2011	2,220,000	\$64,600,000	2,800,000	\$45,800,000	886,000	\$17,400,000
2012:						
May	398,000	10,800,000	146,000	2,450,000	83,200	1,470,000
June:						
Austria	28,100	775,000	--	--	8,320	201,000
Canada	65,000	1,770,000	--	--	--	--
China	--	--	100,000	1,380,000	--	--
Czech Republic	114,000	3,040,000	65,300	745,000	--	--
India	1,180	50,700	--	--	--	--
Korea, Republic of	32,900	910,000	--	--	--	--
South Africa	--	--	54,400	1,290,000	79,600	1,060,000
Taiwan	--	--	10,000	243,000	--	--
Total	241,000	6,540,000	230,000	3,660,000	87,900	1,260,000
January–June	2,170,000	56,800,000	786,000	13,900,000	605,000	8,350,000
Exports:						
2011	314,000	9,970,000	88,700	1,410,000	254,000	2,390,000
2012:						
May	75,400	1,570,000	399	12,700	15,800	216,000
June:						
Brazil	--	--	--	--	3,590	53,900
Canada	15,100	429,000	--	--	300	8,220
Germany	--	--	417	13,400	11,200	155,000
Mexico	--	--	198	6,550	--	--
Russia	--	--	--	--	14,000	248,000
Saudi Arabia	--	--	2,770	122,000	--	--
Spain	--	--	8,700	134,000	--	--
Trinidad and Tobago	--	--	2,610	40,000	--	--
Total	15,100	429,000	14,700	316,000	29,000	465,000
January–June	265,000	6,310,000	20,200	403,000	94,400	1,260,000

-- 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, unless otherwise specified)

	Ash and residues		Ash and residues (not from the manufacture of iron and steel)		Slag, from the manufacture of iron and steel	
	Quantity	Value	Quantity	Value	Quantity (gross weight)	Value
2011	1,420,000	\$1,570,000	89,600	\$479,000	189,000,000	\$5,170,000
2012:						
May	129,000	355,000	--	--	772,000	777,000
June:						
Austria	--	--	--	--	37,800	222,000
Belgium	2,440	9,020	--	--	62,200	65,700
Canada	186,000	334,000	--	--	46,300,000	4,030,000
Germany	--	--	--	--	16,200	4,030
Mexico	--	--	--	--	3,070	3,070
Total	188,000	343,000	--	--	46,400,000	4,330,000
January–June	758,000	1,820,000	49,600	126,000	55,800,000	7,050,000

-- 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
2011	42,200	\$738,000	303,000	\$7,400,000
2012:				
May	4,780	4,600	48,800	974,000
June:				
Belgium	6,000	53,900	--	--
China	1,040	40,000	6,620	211,000
South Africa	--	--	49,500	983,000
Total	7,040	93,900	56,100	1,190,000
January–June	19,100	231,000	182,000	4,000,000

-- Zero.

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

Source: U.S. Census Bureau.