

Global Casting Production Stagnant



Worldwide casting production grew by half a percent in 2015, making it three years in a row where annual growth was less than 4%. A MODERN CASTING STAFF REPORT

In 2015, worldwide casting production reached 104.1 million metric tons, a shade over the 103.7 million metric tons produced in 2014, according to this year's *MODERN CASTING* Census of World Casting Production. Casting growth from 2013 to 2014 was 2.37% and from 2014 to 2015 it was 0.4%. It is the sixth year in a row the market has expanded after the global recession of 2008-2009.

This year's census includes 37 nations from four continents. Of the 30 countries with data for the last two years, fewer than half (14) reported an uptick in production. Of the top 10 casting producing countries, four showed an increase in production. Mexico reported a 55% increase, indicating casting production might have been underreported there in recent years.

The world's two top producing nations in 2014 both reported small decreases in production. China's

total decreased by 1.3% from 46.2 million to 45.6 million metric tons, while the U.S. dropped 0.8% to 10.39 million metric tons from 10.47 million metric tons.

The Institute of Indian Foundrymen reported a 7.5% increase in production in India, to 10.77 million metric tons. However, with the Indian government's move to demonetize by pulling high value currencies out of the market, growth forecasts for 2016 have been revised lower by ratings agencies. The U.S. is expected to make comebacks in the hard-hit oil and gas, agriculture and construction markets in the next year.

China accounts for 44% of the globe's casting production, according to the Census. Combined, the U.S. and India account for 20%.

Brazil, last year's seventh-largest casting producing nation, has experienced two straight years of double-digit percentage decreases in

production. It now sits at the nine spot of the world's top 10.

The remaining 2015 top 10 casting nations by tonnage are Japan at 5.4 million, Germany at 5.3 million, Russia at 4.2 million (2014 data), Republic of Korea at 2.6 million, Mexico at 2.56 million, Brazil at 2.32 million, and Italy at 2.03 million.

Of the countries that reported growth, India's and Mexico's were the most significant in terms of tonnage, but several smaller nations reported double digit percentage increases, including Bosnia & Herzegovina, Portugal, Romania, South Africa, and Sweden.

The total number of casting facilities in the world is about 47,000, down from 48,164 in 2010. As global casting production has increased in the last five years, the decrease in plants indicates metalcasting businesses are consolidating and becoming more efficient. MC

World Totals (metric tons)

Gray Iron	Ductile Iron	Malleable Iron	Steel	Copper Base	Aluminum	Magnesium	Zinc	Other Nonferrous	Total
46,738,654	25,575,894	884,581	10,887,948	1,761,182	16,053,014	198,121	675,022	1,354,841	104,129,257*

Individual Countries (metric tons)

Country	Gray Iron	Ductile Iron	Malleable Iron	Steel	Copper Base	Aluminum	Magnesium	Zinc	Other Nonferrous	Total
Austria	40,600	95,500	-	9,500	-	140,700 ^A	-	-	-	286,300
Belgium	28,700	6,900	-	36,000	-	878 ^A	-	-	-	72,478
Bosnia & Herzegovina	20,950	11,510	-	3,700	-	12,265 ^A	-	-	-	48,425
Brazil	1,342,103	548,829	-	243,085	21,749	153,949	4,916	1,266	-	2,315,897
Canada*	330,841	-	-	90,091	14,237	216,189	-	-	-	651,358
China	20,200,000	12,600,000	600,000	5,100,000	750,000	6,100,000	-	-	250,000	45,600,000
Croatia*	33,400	10,000	100	100	183	22,075	-	30	20	65,908
Czech Republic	170,000	55,000	4,000	60,000	21,000	95,000	-	-	-	405,000
Denmark	30,800	47,100	-	-	1,055	3,086	-	-	207	82,248
Finland	14,500	32,100	-	12,500	3,903	2,240	-	86	-	65,329
France	504,400	761,200	-	62,800	18,344	316,931	-	18,083	2,533	1,684,291
Germany	2,337,600	1,520,600	30,400	196,800	79,403	1,071,975	15,235	54,661	2	5,306,676
Hungary	23,400	63,000	10	5,700	1,796	106,495	378	3,543	169	204,491
India	7,410,000	1,180,000	50,000	880,000	-	1,250,000 ^A	-	-	-	10,770,000
Italy	694,100	374,600	-	62,000	63,752	760,521	7,294	68,254	630	2,031,151
Japan	2,022,900	1,703,800	43,100	157,000	78,000	418,500	-	-	981,600 ^B	5,404,900
Korea	1,082,900	708,300	4,000	164,000	26,800	623,600	-	-	13,400	2,623,000
Mexico	815,500	375,800	-	330,790	217,200	735,300	-	85,600	-	2,560,190
Norway	11,300	21,200	-	1,200	-	7,221 ^A	-	-	-	40,921
Pakistan	100,000	10,300	-	30,700	10,200	10,300	-	-	-	161,500
Poland	485,300	162,200	11,700	49,900	6,950	334,600	-	7,540	3,860	1,062,050
Portugal	39,800	90,000	-	8,100	14,152	29,150	-	2,135	-	183,337
Romania	24,186	3,925	690	12,012	2,600	80,470	5,000	100	70	129,053
Russia*	2,982,000	-	-	756,000	-	462,000 ^A	-	-	-	4,200,000
Serbia*	24,368	10,140	-	8,991	2,092	9,760	1	96	9	55,457
Slovenia*	80,496	34,234	6,107	32,188	754	37,244	441	6,889	-	198,353
South Africa	145,000	163,200	0	90,600	7,000	24,000	-	500	-	430,300
Spain	348,200	637,400	7,500	72,600	10,876	125,652	-	8,771	711	1,211,710
Sweden	242,000	-	-	19,200	-	62,600 ^A	-	-	-	323,800
Switzerland	12,200	24,700	-	1,200	2,068	14,922	-	1,094	-	56,184
Taiwan	523,086	213,438	-	85,548	36,782	335,992	-	-	-	1,194,846
Thailand**	72,400	28,800	29,500	29,800	26,100	105,400	-	24,400	-	316,400
Turkey	675,000	630,000	15,000	150,000	20,000	325,000	-	35,000	-	1,850,000
Ukraine**	400,000	120,000	30,000	580,000	60,000	280,000	15,000	25,000	50,000	1,560,000
U.K.	139,800	198,500	1,100	48,000	8,832	110,000	3,400	7,800	1,000	518,432
U.S. Metric	3,328,124	3,115,418	51,374	1,493,743	255,354	1,622,999	146,456	324,174	50,630	10,388,272

* Includes 2011 Slovenia totals, not listed in Individual Countries Chart

* 2014 Results

** 2013 Results

^A All Nonferrous

^B All Diecasting

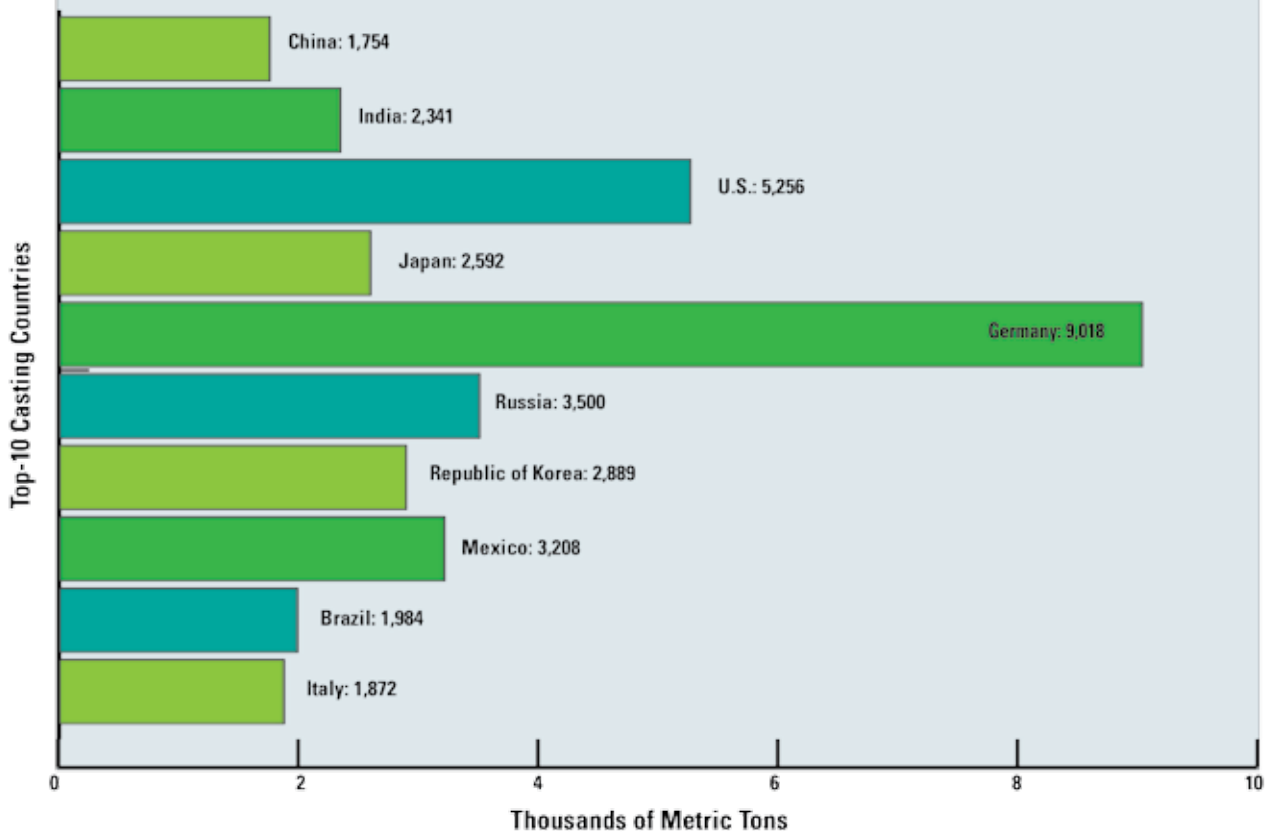


Metalcasting Plants by Nation & Trends

Country	Iron	Steel	Nonferrous	2015 Total	2005 Total	2010 Total
Austria	23	4	35	62	45	46
Belgium	11	5	6	22	36	29
Bosnia and Herzegovina	6	4	4	14	-	13
Brazil	449	169	549	1,167	1,264	1,354
Canada*	42	30	111	183	150	175
China	14,000	4,000	8,000	26,000	26,000	26,000
Croatia*	27	5	27	59	44	42
Czech Republic	63	27	41	131	194	184
Denmark	8		7	15	21	17
Finland	12	7	14	33	37	36
France	86	35	292	413	505	454
Germany	199	49	340	588	630	614
Hungary	16	11	87	114	211	133
India	-	-	-	4,600	4,500	4,500
Italy	149	25	911	1,085	1,077	1,100
Japan	817	75	1,193	2,085	1,708	1,612
Korea	525	144	239	908	847	881
Mexico	-	-	-	798	640	681
Norway	5	3	6	14	21	19
Pakistan	1,400	30	100	1,530		2,050
Poland	180	36	240	456	454	461
Portugal	23	8	57	88	98	81
Romania	38	31	60	120	168	157
Russia	-	-	-	1,200	1,900	1,350
Serbia*	12	8	18	38	-	42
Slovakia**	12	7	32	51	51	
Slovenia	11	3	50	64	53	58
South Africa	41	44	85	170	256	199
Spain	45	30	53	128	159	139
Sweden	30	10	60	100	135	117
Switzerland	14	2	29	45	51	72
Taiwan*	-	-	-	-	915	848
Thailand*	280	40	260	580	476	-
Turkey	481	66	350	897	1,291	1,126
Ukraine*	270	280	290	840	1,070	1,070
United Kingdom	217	-	205	422	480	444
United States	634	355	989	1,978	2,380	2,060
TOTAL	20,126	5,543	14,740	46,986	47,867	48,164

*2014 Data **2011 Data

Production Per Plant



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Casting Shipments (value in U.S. dollars)

Country	Gray Iron	Ductile Iron	Malleable Iron	Steel	All Nonferrous	2015 Total	2014 Total	% Change
Austria	417,816,000 ^A	-	-	-	1,059,830,000	1,477,646,000	1,417,911,000	4.2
Brazil	3,241,179,000	1,581,176,000	-	887,262,000	1,187,681,000	6,897,298,000	8,390,707,000	-17.8
China	-	-	-	-	-	67,670,400,000	82,924,000,000	-18.4
Finland	29,828,700	75,867,500	-	91,410,600	65,003,100	262,109,900	300,951,000	-13
France	2,762,630,000 ^A	-	-	-	2,998,910,000	5,761,540,000	5,911,260,000	-2.5
Germany	6,185,770,000 ^B	-	-	1,282,610,000	6,140,550,000	13,608,930,000	9,955,294,000	36.7
Hungary	235,209,000 ^A	-	-	-	395,578,000	630,787,000	630,000,000	0.1
Italy	2,715,590,000 ^A	-	-	-	4,768,320,000	7,483,910,000	7,123,600,000	5.1
Korea	920,400,000	892,500,000	6,480,000	396,000,000	6,402,400,000	8,617,780,000	-	-
Norway	13,898,700	56,663,900	-	10,691,300	67,355,200	148,609,100	243,300,000	-38.9
Portugal	66,179,100	157,804,000	-	57,198,500	311,651,000	592,832,600	494,289,000	19.9
Spain	1,598,350,000 ^B	-	-	392,371,000	911,968,000	2,902,689,000	2,749,920,000	5.6
Turkey	771,912,000	919,452,000	62,544,100	368,850,000	1,849,590,000	3,972,348,100	4,880,000,000	-18.6
United States	4,215,990,000	4,987,260,000	102,320,000	7,228,320,000	12,488,140,000	29,022,030,000	30,946,280,000	-6.2

^A All Ferrous ^B All Iron

Production Shipment Trends (metric tons)

Country	2015 Total	2014 Total	+/-% 2015 vs. 2014	2010 Total	+/-% 2015 vs. 2010
Austria	286,300	317,954	-10	305,857	-6.4
Belgium	72,478	77,242	-6.2	96,999	-25.3
Bosnia & Herzegovina	48,425	32,310	49.9	18,818	157.3
Brazil	2,315,897	2,737,200	-15.4	3,240,978	-28.5
Canada*	651,358	724,757	-10.1	588,474	10.7
China	45,600,000	46,200,000	-1.3	39,600,000	15.2
Croatia*	65,908	65,908	-	53,797	22.5
Czech Republic	405,000	416,206	-2.7	344,377	17.6
Denmark	82,248	82,857	-0.7	87,604	-6.1
Finland	65,329	70,320	-7.1	97,536	-33
France	1,684,291	1,729,405	-2.6	1,956,966	-13.9
Germany	5,306,676	5,246,557	1.1	4,794,179	10.7
Hungary	204,491	194,516	5.1	154,688	32.2
India	10,770,000	10,021,000	7.5	9,053,200	19
Italy	2,031,151	2,024,851	0.3	1,970,662	3.1
Japan	5,404,900	5,538,037	-2.4	4,757,999	13.6
Korea	2,623,000	2,630,900	-0.3	2,233,600	17.4
Mexico	2,560,190	1,651,679	55	1,651,679	55
Norway	40,921	46,630	-12.2	64,703	-36.8
Pakistan	161,500	232,500	-30.5	360,000	-55.1
Poland	1,062,050	1,058,300	0.4	928,150	14.4
Portugal	183,337	156,455	17.2	144,908	26.5
Romania	129,053	108,368	19.1	101,427	27.2
Russia*	4,200,000	4,200,000	-	4,200,000	-
Serbia*	55,457	55,457	-	70,388	-21.2
Slovenia**	198,353	198,353	-	141,391	40.3
South Africa	430,300	380,300	13.1	538,944	-20.2
Spain	1,211,710	1,141,741	6.1	1,143,038	6
Sweden	323,800	261,078	24	266,600	21.5
Switzerland*	56,184	65,617	-14.4	78,595	-28.5
Taiwan	1,194,846	1,319,221	-9.4	1,300,769	-8.1
Thailand**	316,400	316,400	-	-	-
Turkey	1,850,000	1,750,000	5.7	1,291,700	43.2
Ukraine**	1,560,000	1,560,000	-	1,000,000	56
U.K.	518,432	502,332	3.2	501,400	3.4
U.S. Metric	10,388,272	10,470,939	-0.8	8,238,233	26.1
TOTAL	104,074,164	103,656,390	0.4	80,343,266	29.5

* 2014 Results

** 2013 Results