

42nd Census of World Casting Production—2007

Global production on the whole grew by 4%, but some countries saw gains of 10% or more.

A MODERN CASTING Staff Report

Global casting production increased moderately to 95 million tons in 2007—a 4% increase from 2006, according to this year's MODERN CASTING Census of World Casting Production. It's not the gain typically seen over the last five years; 2006 was a 7.5% increase over 2005. Still, some countries continued their momentum of casting growth. China saw an 11.3% jump and now makes a third of the global casting tonnage. India grew 8%, capping a five-year period in which the nation more than doubled its casting production. Russia has increased production by 13% since 2005, when it last reported census data. Eight of the top 10 casting nations reported growth in 2007. The two countries with losses included the U.S. and Japan. It is the second year in a row the U.S. has reported a loss in production.

Productivity-wise, Germany continues to be at the head of the class, this year producing close to 10,000 tons of castings per metalcasting facility. Austria, with 357,000 tons produced, makes 7,000 tons per metalcasting facility. U.S. productivity continues to be one of the highest of all the nations at 5,434 tons per plant.

The data reported in the 42nd Annual Census of Casting Production are production numbers supplied by each nation's metalcasting association. New numbers from 28 countries are included in this year's census. Countries that did not participate this year include Ukraine,

Number of Operating Metalcasting Plants By Nation—2008

COUNTRY	IRON	STEEL	NONFERROUS	TOTAL
Austria	12	4	35	51
Belgium	16	9	10	35
Brazil	589	184	621	1,394
Canada ^A	55	28	83	166
China ^A				26,000
Croatia	13	4	21	38
Czech Republic	89	28	59	176
Denmark ^A	8		10	18
Finland	14	6	12	32
France	108	37	337	482
Germany	201	53	342	596
Great Britain	197	46	240	483
Hungary ^A	42	27	143	212
India				4,550
Italy	183	27	966	1,176
Japan	456	77	1169	1,702
Korea	510	145	220	875
Lithuania ^A	8	3	5	16
Mexico ^A				1,500
Netherlands ^B	16		5	21
Norway	7	3	15	25
Poland	185		245	430
Portugal	49	10	40	99
Romania	76	57	87	220
Russia				1,650
Slovenia	15	5	58	78
Slovakia ^A	12	7	32	51
South Africa ^A	87	51	117	255
Spain	62	32	55	149
Sweden	36	13	83	132
Switzerland ^A	17	3	32	51
Taiwan	478	40	330	848
Thailand ^A	230	26	220	476
Turkey	752	71	443	1,266
Ukraine ^C	400	233	437	960
U.S.	554	234	1342	2130

A) 2006 data B) 2004 data C) 2002 data

Skovokia, South Africa, Denmark and the Netherlands, as well as Mexico and Canada, which skews North American

production numbers. These countries remain listed according to the last year they participated.

Census of World Casting Production—2007 (metric tons)

Country	Gray Iron	Ductile Iron	Malleable Iron	Steel	Copper-Base	Aluminum	Mag.	Zinc	Other Nonferrous	TOTAL
Austria	51,196	150,893		21,109		109,973	8,242	13,188	2,502	357,013
Belgium	66,200	8,600		48,000		23,783		776		147,359
Brazil	2,690,000			303,200		204,900			29,000	3,227,100
Canada ^A	483,000			117,600	18,585	282,200				901,385
China	15,460,176	7,698,396	535,316	4,047,505	571,279	2,740,075		216,883		31,269,630
Croatia	31,853	20,026	27	2,286	748	18,919		486	920	75,265
Czech Republic	270,022	52,789	3,721	111,053		103,927				541,512
Denmark ^B	36,500	42,100			813				5,301	84,714
Finland	47,800	77,400		19,900	3,473	7,123		485		156,181
France	940,900	1,060,900		114,600	25,400	301,400		23,700	4,800	2,471,700
Germany	2,717,100	1,796,300	58,900	211,200	96,575	853,756	31,659	72,320	2,212	5,840,022
Great Britain	190,000	280,000	4,000	78,000	13,000	136,000	4,000	12,000	1,000	718,000
Hungary	49,230	20,472	33	5,940	1,816	97,276		3,566	551	178,884
India	5,332,000	802,000	65,100	964,000		608,000				7,771,100
Italy	966,014	600,200		89,600	86,700	912,500	12,500	74,000	1,400	2,742,914
Japan	2,856,064	2,044,055	53,294	292,908	106,932	1,549,604	9,749	40,738	7,421	6,960,765
Korea	1,002,500	586,900	46,500	151,200	23,900	202,200	10,700			2,023,900
Lithuania	12,970	260		54	5	66		1		13,356
Mexico ^B	899,712			79,200		696,300				1,675,212
Netherlands ^C	78,241	6,209	438							84,888
Norway	18,700	58,400		3,600	5,046	22,771				108,517
Poland	453,000	148,600	20,000	64,700	7,000	216,000	100	10,900	1,600	921,900
Portugal	29,922	77,300		14,700	11,100	21,900		600	120	155,642
Romania	57,521	7,403	793	35,447	3,841	34,811	2,805	244	33	142,898
Russia	3,320,000	1,800,000	180,000	1,300,000	200,000	840,000	80,000	30,000	50,000	7,800,000
Slovenia	83,872	31,897		38,073	7,783	33,871		2,000		197,496
Slovakia ^A	8,760		4,300	2,160	2,160	26,260		1,800	5	45,445
Spain	423,700	747,600	15,300	89,200	9,252	132,492		14,309	1,143	1,432,996
South Africa ^B	14,700	86,000		184,000	3,000	77,000		4,000		368,700
Sweden	208,900	58,500		22,200	12,500	50,800	2,500	5,900		361,300
Switzerland	29,922	41,886		2,161	3,130	23,228		1,837		102,164
Taiwan	878,080	218,115		83,129	41,196	320,321	6,241	76,761	3,286	1,627,129
Thailand ^A	70,000	30,000	30,000	28,600	28,600	100,000		16,900		304,100
Turkey	623,000	394,000	6,500	144,000	19,000	112,150		18,000		1,316,650
United States	3,889,000	3,890,000	67,000	1,248,000	283,000	1,847,000	110,000	298,000	54,000	11,819,000 ^D
Ukraine ^E	626,610	40,000	10,000	266,060	11,000	20,500				974,140
TOTALS	44,917,143	22,877,201	1,101,222	10,183,295	1,596,834	12,727,106	278,496	939,394	165,294	94,919,007

^A2005 tonnage

^B2006 tonnage

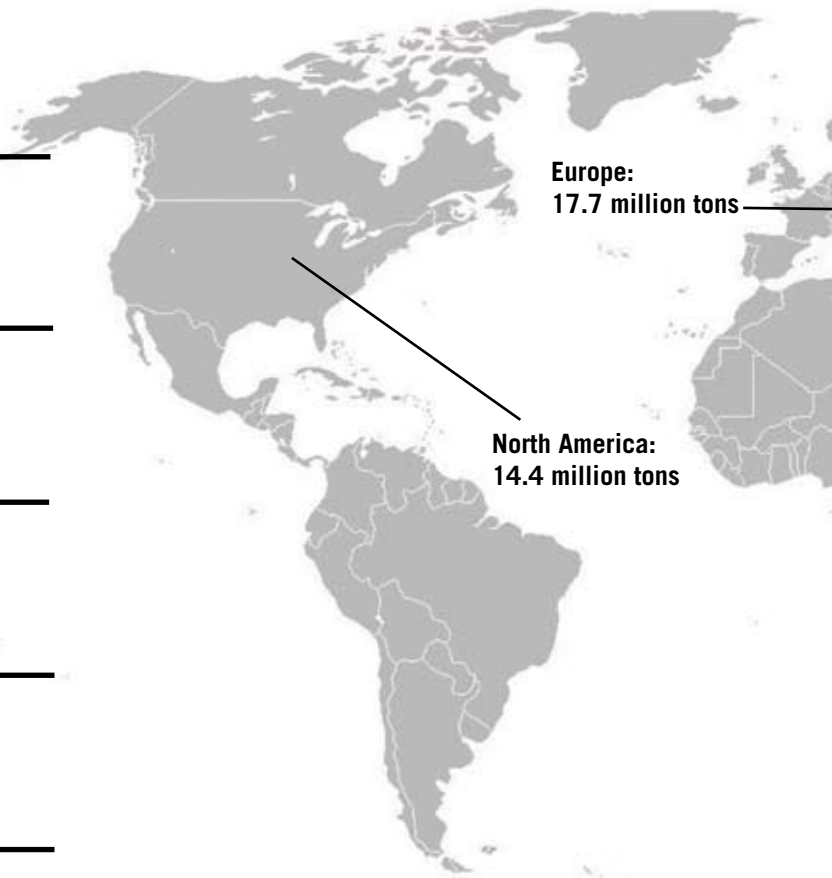
^C2004 tonnage

^DIncludes 133,000 tons of investment castings

^E2002 tonnage

Top 10 Casting Producers

1. China	31.3 million tons
Gray iron	15.5 million tons
Ductile iron	7.7 million tons
Steel	4 million tons
Nonferrous	3.5 million tons
2. U.S.	11.8 million tons
Gray iron	3.9 million tons
Ductile iron	3.9 million tons
Steel	1.2 million tons
Nonferrous	2.6 million tons
3. Russia	7.8 million tons
Gray iron	3.3 million tons
Ductile iron	1.8 million tons
Steel	1.3 million tons
Nonferrous	1.2 million tons
4. India	7.8 million tons
Gray iron	5.3 million tons
Ductile iron	800,000 tons
Steel	1 million tons
Nonferrous	610,000 tons
5. Japan	7 million tons
Gray iron	2.9 million tons
Ductile iron	2 million tons
Steel	300,000 tons
Nonferrous	1.7 million tons
6. Germany	5.8 million tons
Gray iron	2.7 million tons
Ductile iron	1.8 million tons
Steel	210,000 tons
Nonferrous	1.1 million tons
7. Brazil	3.2 million tons
Gray iron	2.7 million tons
Ductile iron	<i>Included with gray iron</i>
Steel	300,000 tons
Nonferrous	230,000 tons
8. Italy	2.7 million tons
Gray iron	1 million tons
Ductile iron	670,000 tons
Steel	90,000 tons
Nonferrous	1.1 million tons
9. France	2.4 million tons
Gray iron	940,000 tons
Ductile iron	1 million tons
Steel	110,000 tons
Nonferrous	350,000 tons
10. Korea	2 million tons
Gray iron	1 million tons
Ductile iron	590,000 tons
Steel	150,000 tons
Nonferrous	240,000 tons



Europe:
17.7 million tons

North America:
14.4 million tons

Shakeups

While total global casting production increased a mild 4%, a few individual countries saw drastic gains and losses in 2007.



Chart image by Andrea Presazzi, Dreamstime.com

Moving Up

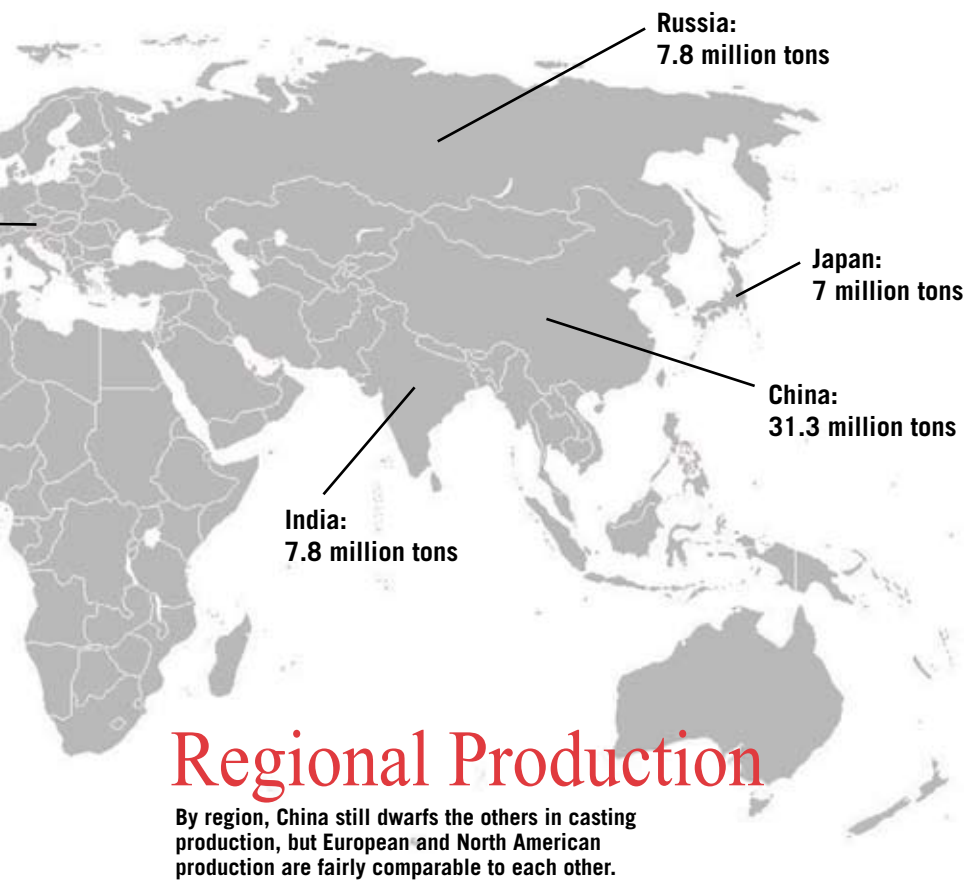
Countries with production of close to 1 million metric tons or more are included in this roundup.

Russia (since 2005)	+13%—7 million tons
China	+11%—31.3 million tons
Poland	+11%—900,000 tons
Turkey	+9%—1.3 million tons
India	+8%—7.8 million tons
Spain	+8%—1.4 million tons

On the Slide

Fewer countries saw significant losses, but the ones who did are well known.

Great Britain	-34%—700,000 tons
Japan	-12%—7 million tons
U.S.	-5%—11.8 million tons



Keep an Eye On:

These countries are not in the top 10 casting producers, but their growth in the last year—and in the last five years—should make you take notice.

Taiwan—With a 4.5% gain in 2007 to 1.6 million tons produced, Taiwan was close to making it into the top 10 this year. It's five-year growth of 13% may seem mild, but it's making ground on Mexico (last year's 10th most productive country), which has seen an overall decline since 2002.

Turkey—In the last five years, Turkey's casting production has increased 43%, capped off by a 9% increase in 2007 to 1.3 million tons. The increase has kept the country's metalcasting facilities busy—with more than 90% capacity being utilized. Officials in Turkey expect another 8% growth for 2008.

Poland—This small country is about to reach the 1 million-ton milestone. An 11% increase in 2007 brought its production total to 942,000, following the country's GDP growth of 6% in 2006. Since 2002, casting production in Poland has increased by 43%, heightening its importance to Europe's casting industry.

Sticking Around (For Good)

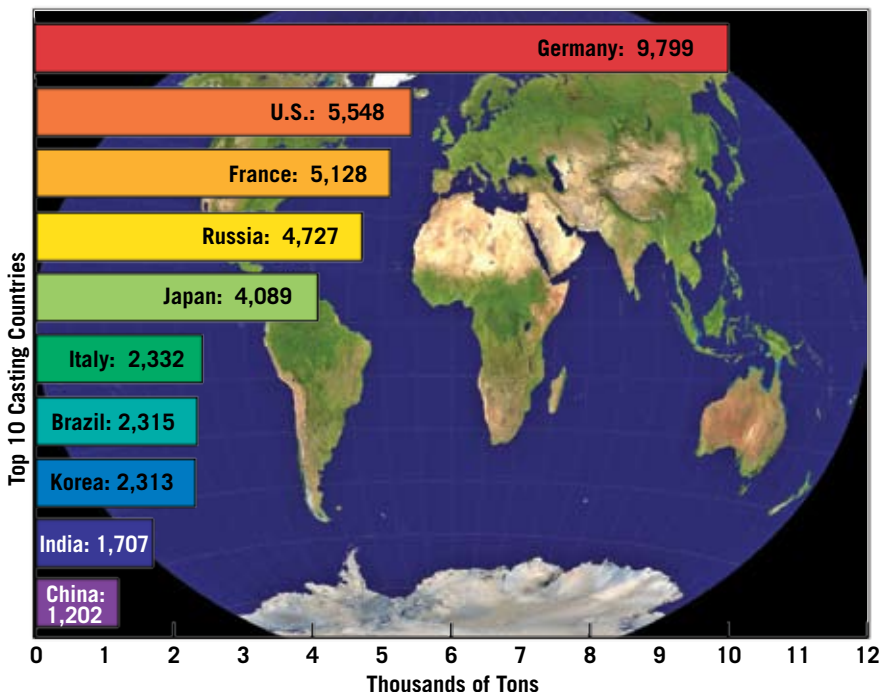
Some years ago, these countries were either missing from the list of top 10 casting producers or stuck in the middle of the pack. But their production has skyrocketed in the last five years, with no signs of relinquishing their new positions.

China—Like it is today, five years ago China was the top producer of castings in the world. But back then, it only had 4 million tons more than the number 2 country, the U.S. Today, China's production doubles that of the U.S. With 31.3 million tons produced, it makes up a third of total global production. The Asian giant saw an 11% gain in 2007, capping a 92% growth in the last five years.

India—The U.S. may have a comfortable lead for the second spot on the top 10 list for now, but India has been showing increases at such a rate that it could surpass the U.S. in a few years. India's production grew to 7.8 million tons in 2007—an 8% gain. Since 2002, the country has increased casting production by 136%. No other large casting producer can match that type of growth.

Brazil—Brazil's casting production grew 4.5% in 2007 to 3.2 million tons—not close to this year's most drastic increases. But, over the last five years, casting production has grown by 64%. Growth might have slowed in 2007, but this South American country is now firmly in place as a top tier casting producer. **MC**

Productivity



Illustrated above are the top 10 nations' average productivity per metalcasting plant in 2007. Germany continues to be the most efficient country according to this formula. In 2007, its production came close to the 10,000 tons per plant mark.