

40th Census of World Casting Production—2005

Twenty-one out of 30 reporting nations indicated that 2005 casting shipments were up from previous years.

A MODERN CASTING Staff Report

Worldwide casting shipments continued to increase in 2005, despite a slight drop in the total number of metalcasting facilities, according to the 36 nations participating in MODERN CASTING's 40th Annual Census of World Casting Production. Total global tonnage showed a 7.5% increase, based on the most recent data available for all participants. Nine of the world's top-ten casting producers improved their totals for the year.

Participants

This year's list of participants shows no changes from 2004, which included the addition of Lithuania and Slovakia, and includes data from 36 countries worldwide.

Several countries (Belgium, Canada, Netherlands, Slovenia and Ukraine) failed to report 2005 tonnage, but they remain listed according to their most recently reported data. Russia, a top-10 producer, provided shipping information for the first time since 2000, returning it to the list of world production leaders.

World Production Leaders

Following is a nation-by-nation summary of the top-10 reporting metalcasting producers' metric tonnage in 2005:



1. China—China continues to make shipping gains on the rest of the world.

Number of Operating Metalcasting Facilities By Nation—2005

COUNTRY	IRON	STEEL	NONFERROUS	TOTAL
Austria	12	4	29	45
Belgium	18	9	9	36
Brazil	467	139	658	1,264
Canada*	60	24	66	150
China	17,000	4,700	4,300	26,000
Croatia	16	5	23	44
Czech Rep.	106	32	56	194
Denmark	10	0	11	21
Finland	16	6	15	37
France	115	38	352	505
Germany	212	53	365	630
Great Britain	218	46	216	480
Hungary	41	27	143	211
India	-	-	-	4,500
Italy	180	27	870	1,077
Japan	457	78	1,173	1,708
Korea	499	140	208	847
Lithuania	8	3	5	16
Mexico	380	10	250	640
Netherlands* ^A	16	0	5	21
Norway	7	3	11	21
Poland	173 ^B	36 ^B	245 ^C	454
Portugal	50	10	38	98
Romania	58	41	65	164
Russia**	-	-	-	1,900
Slovenia**	16	4	33	53
Slovakia	12	7 ^D	32	51
South Africa	95	42	119	256
Spain	67	35	57	159
Sweden	36	15	84	135
Switzerland	19	0	32	51
Taiwan*	520	45	350	915
Thailand	230	26	220	476
Turkey	857	73	361	1,291
Ukraine**	400	233	437	960
U.S.	619	262	1,499	2,380

*2004 data **2002 data (Note: "-" indicates unreported data.)

A) Includes only members of AVNeG

B) Includes about 24 metalcasting facilities making both iron and steel

C) Includes about 40 metalcasting facilities working with both ferrous and nonferrous metals

D) Includes investment casting facilities

40th Census of World Casting Production—2005 (metric tons)

Country	Gray Iron	Ductile Iron	Malleable Iron	Steel	Copper-Base	Aluminum	Mag.	Zinc	Other Nonferrous	TOTAL
Austria	47,500	131,000	17,500	18,000	5,459	103,347	6,580	12,997	-	342,383
Belgium	70,700*	15,600 ^{A*}	-	42,100	-	19,428 ^C	-	-	-	124,507*
Brazil	2,460,000 ^{AB}	-	-	293,891	-	240,457 ^E	-	-	-	2,968,600
Canada	483,000 ^{*AB}	-	-	117,600*	18,585*	324,973	-	-	-	863,373*
China	12,303,963	5,838,753	514,129	3,224,374	416,097	1,886,000 ^C	-	237,889	-	24,421,205
Croatia	25,306	16,252	50	2,219	1,120	15,038	0	502	1,300	61,787
Czech Republic	269,493	49,524	5,435	109,680	1,724	80,252 ^C	-	2,656	279	519,043
Denmark	46,932	40,333	0	0	1,126	4,000	0	1	5,022	97,414
Finland	47,817	60,123	0	18,532	3,999	6,565	0	434	0	137,470
France	896,500	957,700	1,400	113,700	26,264	318,445 ^C	-	25,066	3,461	2,342,536
Germany	2,469,058	1,487,234	52,713	200,409	84,386	727,139	27,283	56,439	3,346	5,108,007
Great Britain	531,000	362,000	12,000	112,000	15,000	206,000 ^C	-	21,000	2,000	1,261,000
Hungary	35,307	32,200	10	5,385	2,110	75,720	3,050	3,050	0	156,832
India	4,116,000	618,000	56,000	805,000	0	516,000	0	0	0	6,111,000
Italy	923,700	512,200	8,400	73,324	16,800	857,500	12,000	70,000	67,600	2,541,524
Japan	2,782,509	1,919,435	57,851	276,589	97,794	1,477,349 ^C	-	36,216	8,102	6,655,845
Korea	960,100	565,200	46,500	149,600	23,200	144,300	10,300 ^D	-	0	1,899,200
Lithuania	14,300	200	-	30	5	56	-	-	-	14,591
Mexico	600,000	270,000	2,000	75,000	180,000	660,000	500	350	-	1,787,850
Netherlands*	63,100	78,241	6,209	438	-	-	-	-	-	147,988 ^F
Norway	16,348	49,207	0	3,723	4,667	22,926	0	0	-	96,871
Poland	420,700	112,500	21,740	59,560	6,300	174,300	30	8,600	770	804,500
Portugal	27,285	69,792	0	12,096	8,700	20,250	150	900	120	139,293
Romania	81,578	10,500	926	37,900	2,700	20,000	10	700	5	154,319
Russia	3,480,000	720,000	280,000	1,200,000	160,000	920,000	70,000	20,000	50,000	7,620,000 ^G
Slovenia*	75,900	27,800 ^A	-	22,700	6,727 ^D	30,183	-	-	-	163,310
Slovakia	41,520	8,760	-	4,300	2,160	26,260	-	1,800	5	84,805
South Africa	160,000	65,000	10,000	136,000	14,900	56,000	0	2,600	0	444,500
Spain	491,600	551,600	17,400	83,200	7,886	139,312 ^C	-	16,051	433	1,307,482
Sweden	171,700 ^A	83,300	-	23,400	11,200	44,400	1,700	5,900	-	341,600
Switzerland	26,400	40,400	-	-	2,689	17,785	-	1,616	-	88,890
Taiwan	827,932	220,413	-	73,619	41,959	250,366	6,427	69,316	4,418	1,494,450
Thailand	170,000	70,000	30,000	30,000	28,600	100,000	-	16,900	-	445,500
Turkey	567,000	327,000	8,000	125,000	16,000	66,500	500	12,700	-	1,122,700
Ukraine**	626,610	40,000	10,000	266,060	11,000	20,500	-	-	-	974,170
U.S.	4,457,905	4,241,088	75,296	1,287,295	292,113	2,080,174	100,697	312,978	48,987	12,896,533
Totals	40,788,763	19,591,355	1,233,559	9,002,724	1,511,270	11,718,025	239,227	936,661	195,848	85,741,078

*2004 tonnage **2002 tonnage (Note: "-" indicates unreported data.)

A) Includes malleable iron
B) Includes ductile iron
C) Includes magnesium

D) Includes zinc
E) Includes all nonferrous

F) Includes only ferrous
G) Includes 720,000 tons of special iron

However, as the country showed an improvement of 8.9%, its rate of advancement has slowed considerably; China boosted its shipments by 23.6% in 2004. Nevertheless, the world's strongest casting power has more than doubled its shipments since 2000.



2. **U.S.**—The U.S. has rebounded from lean times and fattened its shipping totals for three consecutive years, showing a 4.7% gain in 2005. The country is on pace to regain the near-peak levels of 2000 in the coming year, as it is now within 250,000 tons of those heights.



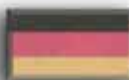
3. **Russia**—Russia has been long absent from the annual census, but burst back into the top ten with a 23% shipment boost since 2000.



4. **Japan**—Japan fell one spot in 2005 despite a 4.2% gain, owing to the reemergence of Russia.



5. **India**—India posted the fastest growing shipping rate of the top-10 reporting nations, increasing their production by more than 32%.



6. **Germany**—Germany showed only modest gains in 2005 (2.5%), but the country maintains the most highly productive

facilities in the top-10, churning out 8,108 tons per plant last year.



7. **Brazil**—After jumping more than 25% in 2004, Brazil saw another increase of 4.9% in 2005. Market share is focused primarily on automobiles, trucks and agricultural machine parts.



8. **Italy**—While the country increased total shipments 4.1% in 2005, Russia's



Who's Hot, Who's Not

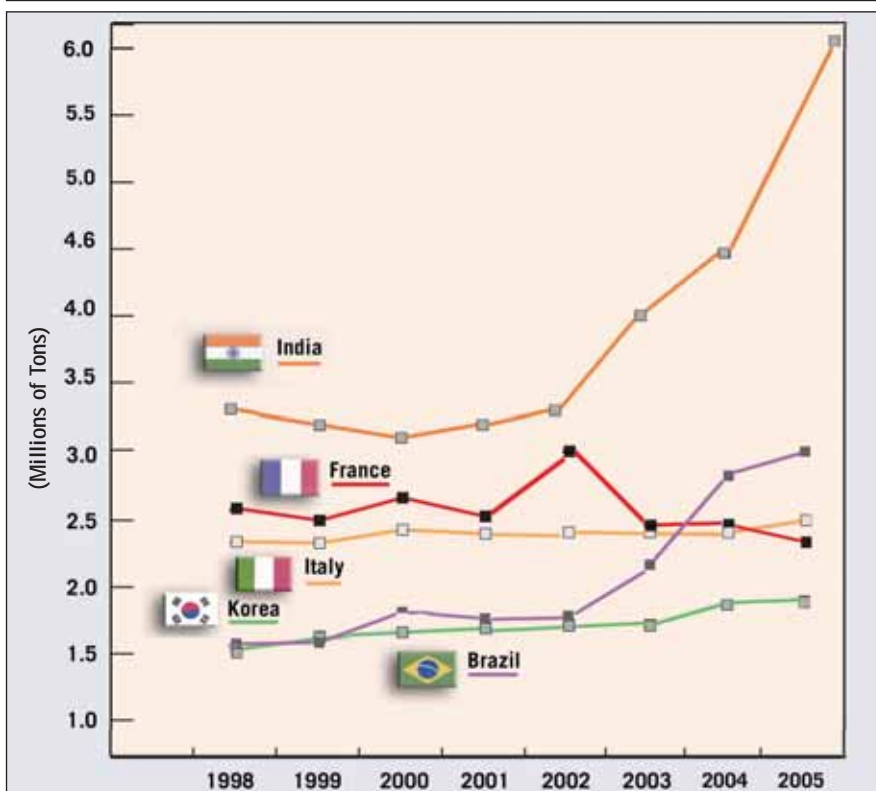
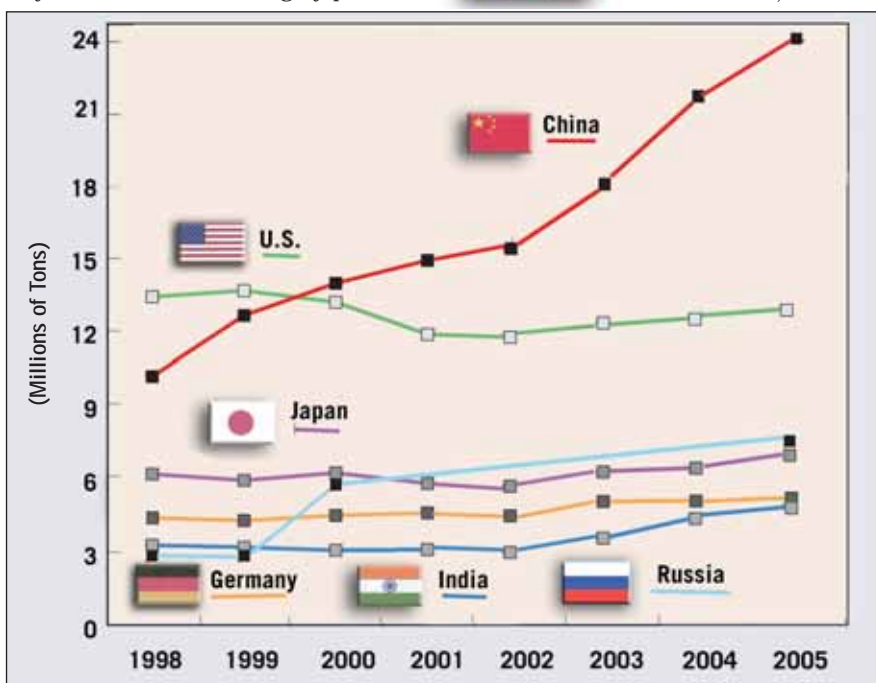
Every year, there are notable winners and losers outside of the world's top-10 casting producers. For those who are pouring a lot of metal, things are hot, for those who aren't, they are not.

Hot

Slovakia made the greatest gains of any participating country, reporting more than 80,000 tons in 2005 that were unaccounted for in 2004. The country also gained 49 primarily nonferrous metalcasting facilities. Just more than 50% of Slovakia's production last year was in gray iron, and aluminum castings made up another 25%. **Thailand, Turkey, Portugal** and **Norway** also reported shipment gains of more than 10%.

Not

Losing more than one fifth of their casting shipments were **Romania** (-25.5%) and **Lithuania** (-22.0%). A cut-back of 104 metalcasting facilities might account for that downgrade in Romania, but Lithuania reported a new iron, steel and nonferrous facility on the year. **Switzerland** also reported a significant decline in shipments (-14.6%).

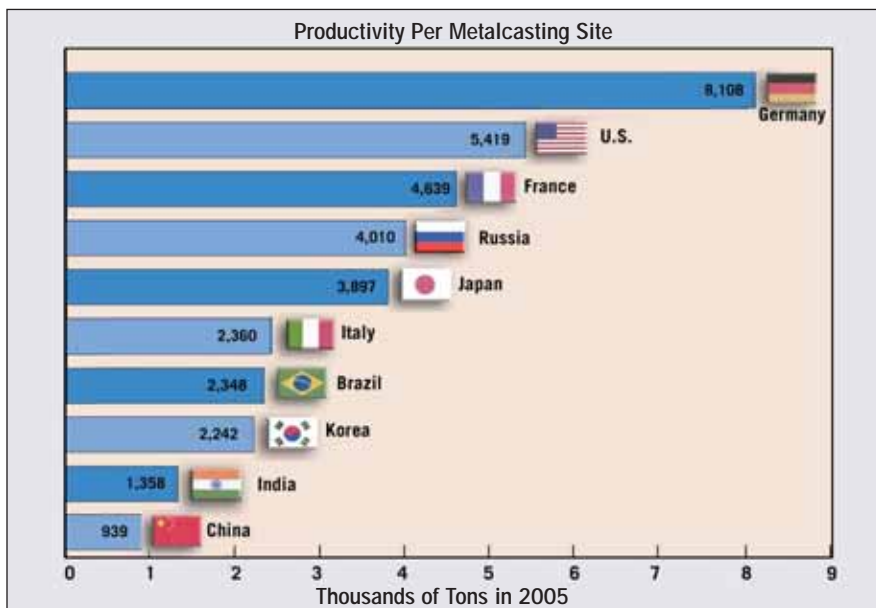


Pictured are the casting tonnage trends for each of the "Top 10" casting-producing nations over the last six years.

reported aluminum figures supplanted Italy as the fourth greatest producer of cast aluminum parts in the world.

9. France—Reflecting the loss of 16 metalcasting facilities, as well as a per plant decrease of nearly 100 tons, France saw its productivity drop 5%.

10. Korea—Predominately producing gray and ductile iron cast components, Korea stayed the course in 2005 with a slight increase of 2.3%. *MC*



Illustrated at right are the "Top 10" nation's average productivity per metalcasting plant in 2005. Illustrated below are the four leading nations in the production of each of the four main cast metals.

