2010 WORLD DIRECT REDUCTION STATISTICS

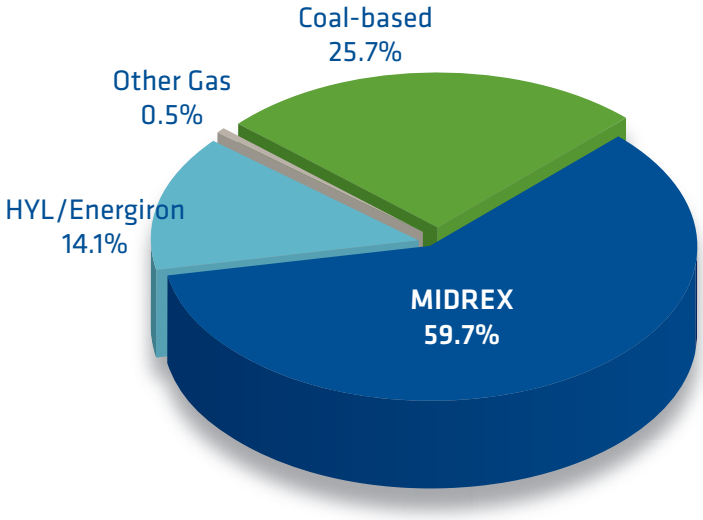
MIDREX

www.midrex.com

CONTENTS

Audited by WORLD STEEL DYNAMICS

2010 World DRI Production by Process



Total World Production: 70.4 Mt

	2008	2009	2010
MIDREX	58.6%	59.9%	59.7%
HYL/Energiron	14.6%	12.4%	14.1%
Other Gas	1.6%	0.8%	0.5%
Coal-based	25.3%	26.9%	25.7%

Source: Midrex Technologies, Inc.

DRI Production sets New Record: Exceeds 70 million tons

Total DRI production in 2010 was 70.4 million tons, a new record, and in light of the recent financial crisis, remarkable. For the last four months of the year, world DRI output averaged 105% of the prior best production rate (summer of 2008). Meanwhile, the non-China blast furnace ironmaking industry continued to languish, operating at 85-90% of its prior best.

In the natural gas fueled sector of the industry, by January 1st of 2011 there were 60 Midrex® Direct Reduction Plants in operation, which had produced over 42 million tons in 2010, 15 Hyl/Energiron modules that produced 9.9 million tons and one Finmet facility which made over three hundred thousand tons.

The coal-based rotary kiln sector operated between 350 and 400 units, almost all of them in India, and with a few in South Africa and in Peru. Their production is estimated to have been about 18.1 million tons. After having averaged over 25% growth year-on-year for seven years (2002-2008, inclusive), this was the second year in a row that the growth of coal-based rotary kilns fell below 5%.

While the advanced economies, and their DR plants, continued to climb out of the recession, the emerging economies and their ironmaking industries were fully recovered and setting new production records. The number one nation for DR ironmaking was again India as it has been every year since 2003. India's DRI production was 23.4 million tons, of which 17.3 million tons were made in rotary kilns. Second place was again taken by Iran (which led all nations in natural gas based DRI production) with 9.4 million tons. The next three were Saudi Arabia, Mexico and Russia with 5.5 million tons, 5.4 million tons and 4.8 million tons respectively. Venezuela, which was in first place as recently as 2002 and which made almost nine million tons in 2005, suffered a decline to less than 3.8 million tons, leaving over five million tons of operable capacity unused.

FORCES AFFECTING THE INDUSTRY

With most of the DR plants being in economies that had already recovered from the Financial Crisis of 2008-2009, the major force on the direct reduction industry was the ever rising cost of its main raw material, iron ore. Fines (63.5% Fe) from India were selling, fob Indian port, at about $80/t in December of 2009, but by April 2010 had risen to $162/t. Including freight to reach their main destination, the ports in eastern China, prices reached $186/t, CIF (delivered). After April, prices slumped slightly, but by December 2010 were back to their highest levels ever. For a long term comparison, these same iron ore fines were selling for $13/t to $16/t (fob) as recently as 1999, only eleven years earlier. The increase has been more than ten-to-one.

Even with these almost over-whelming costs, the prices and values of DRI products were sufficient to inspire continued investment. An overview of new capacity that was commissioned and that was under construction follows.

NEW CAPACITY AND PLANTS UNDER CONSTRUCTION

MIDREX

- **New modules begin operations**
  Midrex Modules at Khorasan Steel in Mashhad, Iran and the second module at Hormozgan Steel near Bandar Abbas, Iran both began operation in 2010.

  The sixth module at Essar Steel in Hazira, India started; it is rated at 1.5 million tons per year.

- **Under Construction**
  Nine modules, comprising 11.74 million tons per year of new MIDREX®Direct Reduction Plant capacity were under construction at the end of the year in Pakistan, Egypt, Iran, Oman, India and Bahrain. (One of them, the Jindal-Shadeed plant in Oman began operation on January 1, 2011.)

  An additional 3.72 million tons of capacity (two modules) were announced after the beginning of 2011 and prior to this writing (May, 2011).

HYL/Energiron

- **New module begins operation**
  The Gulf Sponge Iron plant in the UAE began operation.

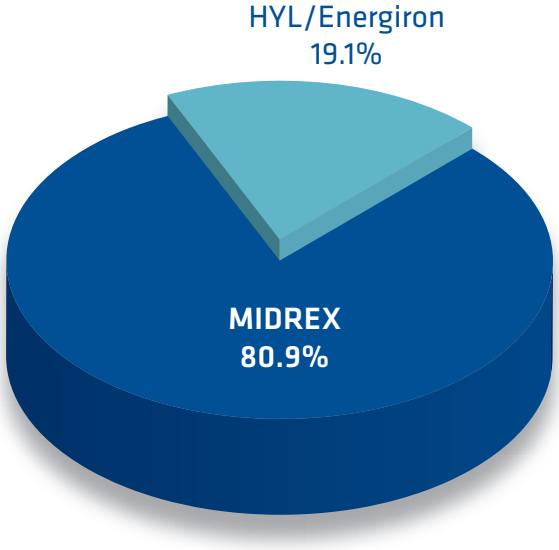
- **Under Construction**
  Four modules, with 6.25 million tons of capacity were under construction in Venezuela, Egypt and the UAE.

  One module of 2.5 million tons per year capacity has been announced thus far in 2011.

Rotary Kiln Coal-based

- The extraordinary growth rate in the rotary kiln, coal-based sector of the industry seems to have slowed. Production increased by less than 800 thousand tons over 2009, less than one-fourth the increase seen three years prior.

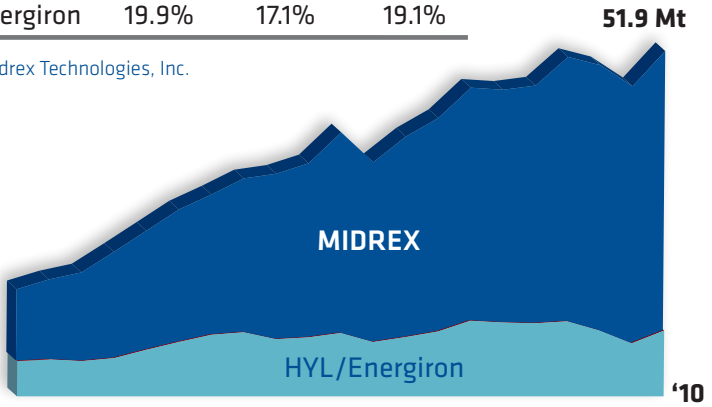
2010 World Shaft Furnace Production by Process



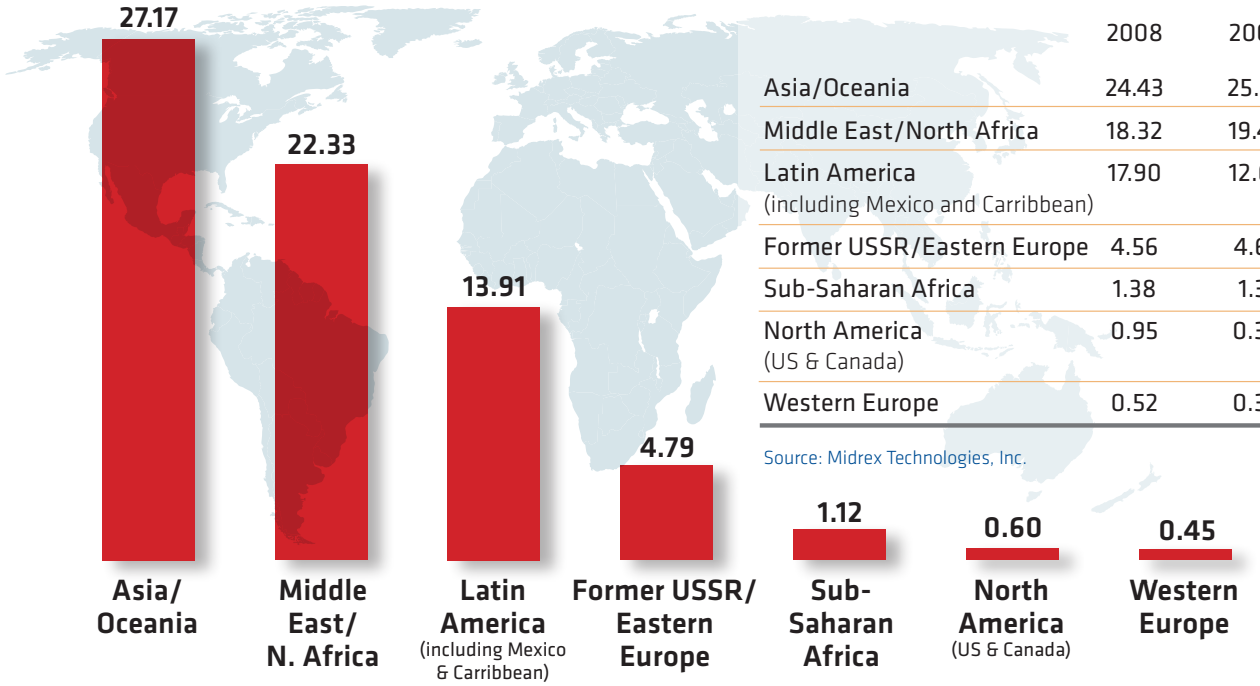
Total World Production: 51.9 Mt

	2008	2009	2010
MIDREX	80.1%	82.9%	80.9%
HYL/Energiron	19.9%	17.1%	19.1%

Source: Midrex Technologies, Inc.



2010 World DRI Production by Region (Mt)



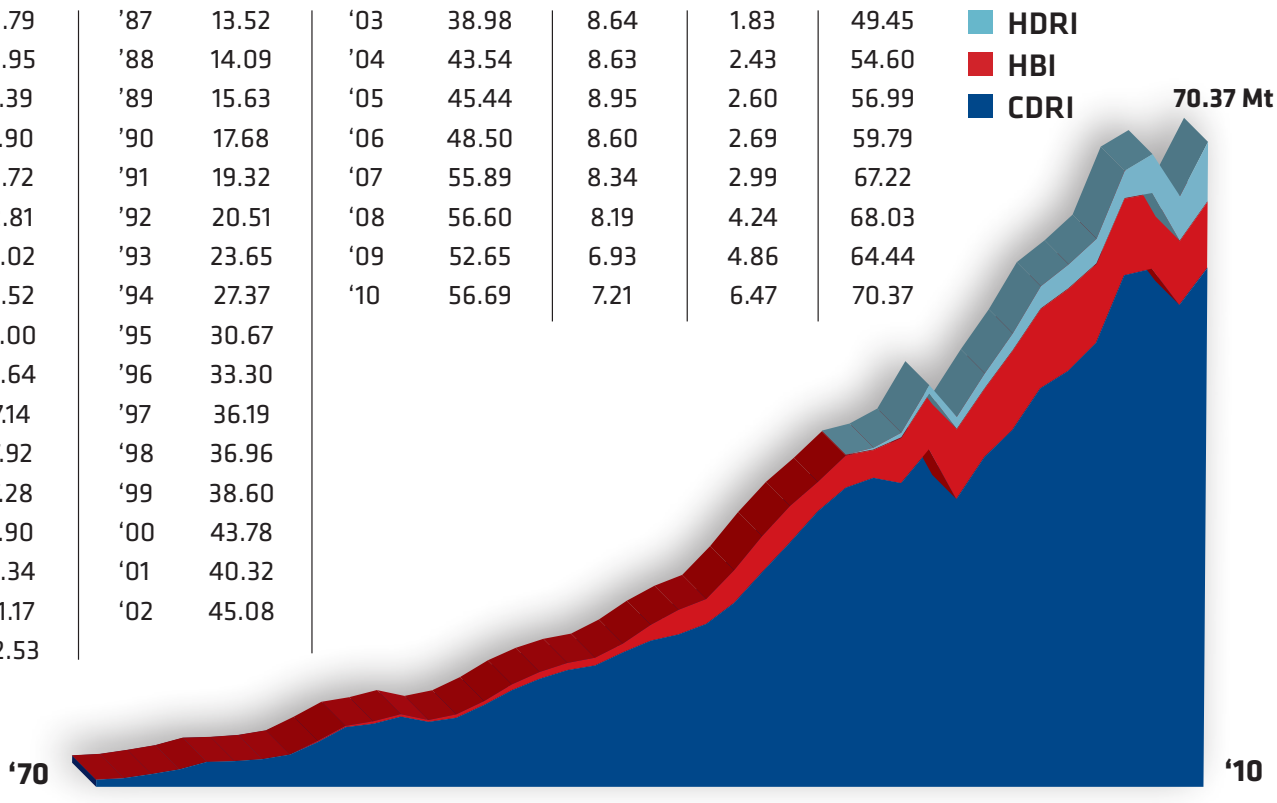
	2008	2009	2010
Asia/Oceania	24.43	25.56	27.17
Middle East/North Africa	18.32	19.44	22.33
Latin America (including Mexico and Carribbean)	17.90	12.66	13.91
Former USSR/Eastern Europe	4.56	4.67	4.79
Sub-Saharan Africa	1.38	1.39	1.12
North America (US & Canada)	0.95	0.34	0.60
Western Europe	0.52	0.38	0.45

Source: Midrex Technologies, Inc.

World DRI Production by Year (Mt)

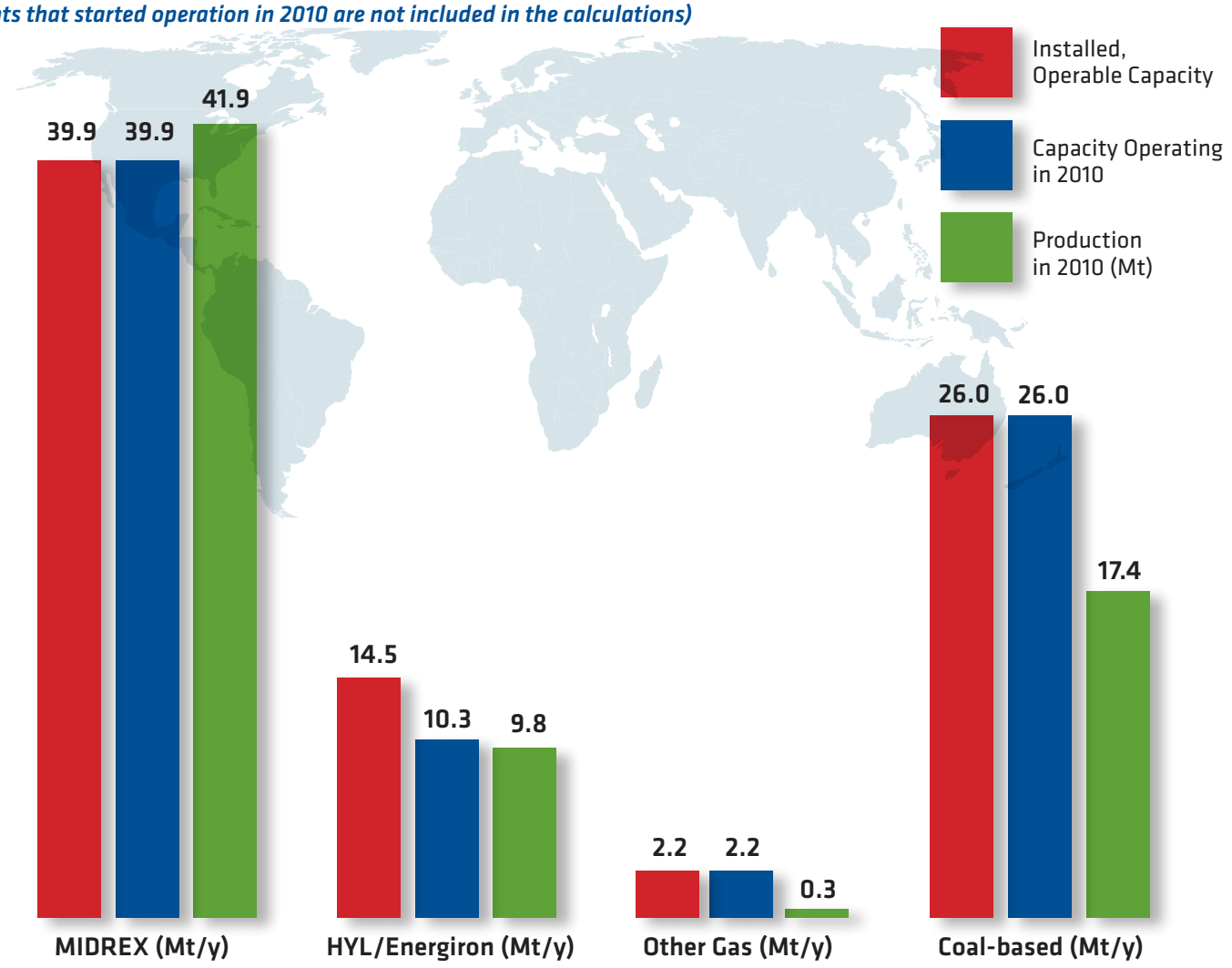
Source: Midrex Technologies, Inc.

Year	Total	Year	Total	Year	CDRI	HBI	HDRI	Total
1970	0.79	'87	13.52	'03	38.98	8.64	1.83	49.45
'71	0.95	'88	14.09	'04	43.54	8.63	2.43	54.60
'72	1.39	'89	15.63	'05	45.44	8.95	2.60	56.99
'73	1.90	'90	17.68	'06	48.50	8.60	2.69	59.79
'74	2.72	'91	19.32	'07	55.89	8.34	2.99	67.22
'75	2.81	'92	20.51	'08	56.60	8.19	4.24	68.03
'76	3.02	'93	23.65	'09	52.65	6.93	4.86	64.44
'77	3.52	'94	27.37	'10	56.69	7.21	6.47	70.37
'78	5.00	'95	30.67					
'79	6.64	'96	33.30					
'80	7.14	'97	36.19					
'81	7.92	'98	36.96					
'82	7.28	'99	38.60					
'83	7.90	'00	43.78					
'84	9.34	'01	40.32					
'85	11.17	'02	45.08					
'86	12.53							



2010 World Direct Reduction Capacity Utilization by Process

(Plants that started operation in 2010 are not included in the calculations)



	Midrex (Mt/y)	# of Midrex modules	HYL/Energiron (Mt/y)	# of HYL/Energiron modules	Other Gas (Mt/y)	Coal-based* (Mt/y)
Installed, Operable Capacity	39.9	57	14.5	22	2.2	26.0
Operable, but not Operated	0.0	0	4.2	8	0.0	0.0
Operated in 2010	39.9	57	10.3	14	2.2	26.0
Production in 2010 (Mt)	41.9		9.8		0.3	17.4
Capacity Utilization (%)... Production divided by Capacity						
as % of 2010 Operated Capacity	105.2%		95.5%		15.4%	~70%
as % of 2010 Operable Capacity	105.2%		67.8%		15.4%	~70%

**the capacity of Coal-based Rotary Kiln Plants is estimated*

NOTE: Installed, Operable Capacity is that which was installed as of January 1, 2010 and has been operated within the prior three calendar years and has not been incapacitated by natural causes, sabotage, war or major equipment that has been removed or repurposed for another installation.

2010 World DRI Production by Region (Mt)

Source: Midrex Technologies, Inc.

NAME	'70-'90	'91	'92	'93	'94	'95	'96	'97	'98	'99
Latin America										
ARGENTINA	12.18	0.91	0.98	1.16	1.27	1.33	1.42	1.50	1.54	0.99
BRAZIL	4.33	0.29	0.29	0.25	0.22	0.30	0.34	0.32	0.34	0.40
MEXICO	31.29	2.47	2.44	2.73	3.24	3.70	3.90	4.54	5.68	6.24
PERU	0.53	0.03	0.03	–	0.02	0.003	0.02	0.12	0.11	0.05
TRINIDAD & TOBAGO	4.05	0.70	0.68	0.73	0.94	1.05	1.07	1.24	1.14	1.30
VENEZUELA	25.88	4.02	4.23	4.51	4.71	4.72	5.34	5.36	5.06	5.05
Middle East/N. Africa										
EGYPT	2.78	0.62	0.85	0.85	0.78	0.85	0.83	1.19	1.61	1.67
IRAN	0.59	0.70	0.83	1.65	2.63	3.23	3.81	4.38	3.69	4.12
IRAQ	0.36	–	–	–	–	–	–	–	–	–
LIBYA	0.59	0.78	0.85	0.94	0.85	0.97	0.83	0.99	1.01	1.33
QATAR	5.68	0.55	0.62	0.56	0.60	0.63	0.64	0.57	0.71	0.67
SAUDI ARABIA	7.66	1.12	1.61	2.01	2.11	2.13	2.30	2.11	2.27	2.36
UAE	–	–	–	–	–	–	–	–	–	–
Asia/Oceania										
AUSTRALIA	–	–	–	–	–	–	–	–	–	0.32
CHINA	–	–	–	–	–	–	–	–	–	0.11
INDIA	1.69	1.15	1.44	2.21	3.12	4.28	4.84	5.26	5.26	5.22
INDONESIA	10.00	1.43	1.37	1.50	1.62	1.86	1.80	1.60	1.64	1.74
JAPAN	0.05	–	–	–	–	–	–	–	–	–
MALAYSIA	3.49	0.62	0.55	0.71	0.99	1.09	1.48	1.72	0.91	0.96
MYANMAR	0.17	0.01	0.01	0.02	0.01	0.02	0.04	0.04	0.04	0.03
North America										
CANADA	10.93	0.56	0.63	0.74	0.77	1.01	1.42	1.39	1.24	0.92
US	7.54	0.41	0.39	0.44	0.48	0.46	0.45	0.51	1.60	1.67
Former USSR/Eastern Europe										
RUSSIA	7.81	11.70	1.58	1.54	1.71	1.68	1.50	1.73	1.55	1.88
Sub-Saharan Africa										
NIGERIA	1.24	0.12	0.05	0.04	0.04	0.02	0.02	–	–	–
SOUTH AFRICA	5.67	0.90	0.91	0.87	0.98	0.95	0.90	1.09	1.05	1.16
Western Europe										
GERMANY	5.54	0.26	0.17	0.18	0.28	0.41	0.37	0.47	0.45	0.40
ITALY	0.02	–	–	–	–	–	–	–	–	–
SWEDEN	0.04	–	–	–	–	–	–	–	–	–
WORLD TOTAL	152.94	17.68	19.32	20.51	23.65	27.37	30.67	33.30	36.19	38.59

2010 World DRI Production by Process (Mt)

NAME	'70-'90	'91	'92	'93	'94	'95	'96	'97	'98	'99
MIDREX	81.85	11.96	13.26	15.91	17.83	19.86	21.03	23.08	24.82	26.12
HYL/Energiron	53.85	5.40	5.29	5.73	7.01	8.15	9.12	9.55	8.52	8.81
Other Shaft Furnace/Retort Processes	0.59	0.16	0.02	0.02	0.01	0.04	0.15	0.10	0.09	0.07
Fluidized Bed Processes	3.88	0.37	0.36	0.39	0.42	0.45	0.44	0.48	0.40	0.66
Rotary Kiln, Coal-based	12.77	1.43	1.57	1.61	2.13	2.17	2.56	3.01	2.94	2.94
Rotary Hearth, Coal-based	–	–	–	–	–	–	–	–	–	–
WORLD TOTAL	152.94	17.68	19.32	20.51	23.65	27.37	30.67	33.30	36.19	38.59

2010 World DRI Production by Region (Mt)

Source: Midrex Technologies, Inc.

NAME	'00	'01	'02	'03	'04	'05	'06	'07	'08	'09	'10
Latin America											
ARGENTINA	1.42	1.28	1.46	1.74	1.74	1.83	1.95	1.81	1.86	0.81	1.57
BRAZIL	0.42	0.43	0.36	0.41	0.44	0.43	0.38	0.36	0.30	0.01	–
MEXICO	5.83	3.67	4.90	5.62	6.54	5.98	6.17	6.26	6.01	4.15	5.37
PERU	0.08	0.07	0.03	0.08	0.08	0.09	0.14	0.09	0.07	0.10	0.10
TRINIDAD & TOBAGO	1.53	2.31	2.32	2.28	2.36	2.25	2.08	3.47	2.78	1.99	3.08
VENEZUELA	6.69	6.38	6.89	6.90	7.83	8.95	8.61	7.71	6.87	5.61	3.79
Middle East/N. Africa											
EGYPT	2.11	2.37	2.53	2.87	3.02	2.90	3.10	2.79	2.64	2.91	2.86
IRAN	4.74	5.00	5.28	5.62	6.41	6.85	6.85	7.44	7.46	8.20	9.35
IRAQ	–	–	–	–	–	–	–	–	–	–	–
LIBYA	1.50	1.09	1.17	1.34	1.58	1.65	1.63	1.64	1.57	1.11	1.27
QATAR	0.62	0.73	0.75	0.78	0.83	0.82	0.88	1.30	1.68	2.10	2.16
SAUDI ARABIA	3.09	2.88	3.29	3.29	3.41	3.63	3.58	4.34	4.97	5.03	5.51
UAE	–	–	–	–	–	–	–	–	–	–	1.18
Asia/Oceania											
AUSTRALIA	0.56	1.37	1.02	1.95	0.69	–	–	–	–	–	-
CHINA	0.05	0.11	0.22	0.31	0.43	0.41	0.41	0.60	0.18	0.00	-
INDIA	5.44	5.59	6.59	7.67	9.37	12.04	14.74	19.06	21.20	22.03	23.42
INDONESIA	1.82	1.48	1.50	1.23	1.47	1.39	1.29	1.42	1.29	1.23	1.36
JAPAN	–	–	–	–	–	–	–	–	–	–	–
MALAYSIA	1.26	1.12	1.08	1.60	1.68	1.38	1.54	1.84	1.94	2.30	2.39
MYANMAR	0.04	0.04	0.04	0.04	0.04	–	–	–	–	–	–
North America											
CANADA	1.13	–	0.18	0.50	1.09	0.59	0.45	0.91	0.69	0.34	0.60
US	1.56	0.12	0.47	0.21	0.18	0.22	0.24	0.25	0.26	–	–
Former USSR/Eastern Europe											
RUSSIA	1.92	2.51	2.91	2.91	3.14	3.34	3.28	3.41	4.56	4.67	
Sub-Saharan Africa											
NIGERIA	–	–	–	–	–	–	–	–	0.15	0.20	–
SOUTH AFRICA	1.53	1.56	1.55	1.54	1.63	1.78	1.75	1.74	1.18	1.39	1.12
Western Europe											
GERMANY	0.46	0.21	0.54	0.59	0.61	0.44	0.58	0.59	0.52	0.38	0.45
ITALY	–	–	–	–	–	–	–	–	–	–	–
SWEDEN	–	–	–	–	–	–	–	–	–	–	–
WORLD TOTAL	43.78	40.32	45.08	49.45	54.60	56.99	59.79	67.22	68.03	64.44	70.37

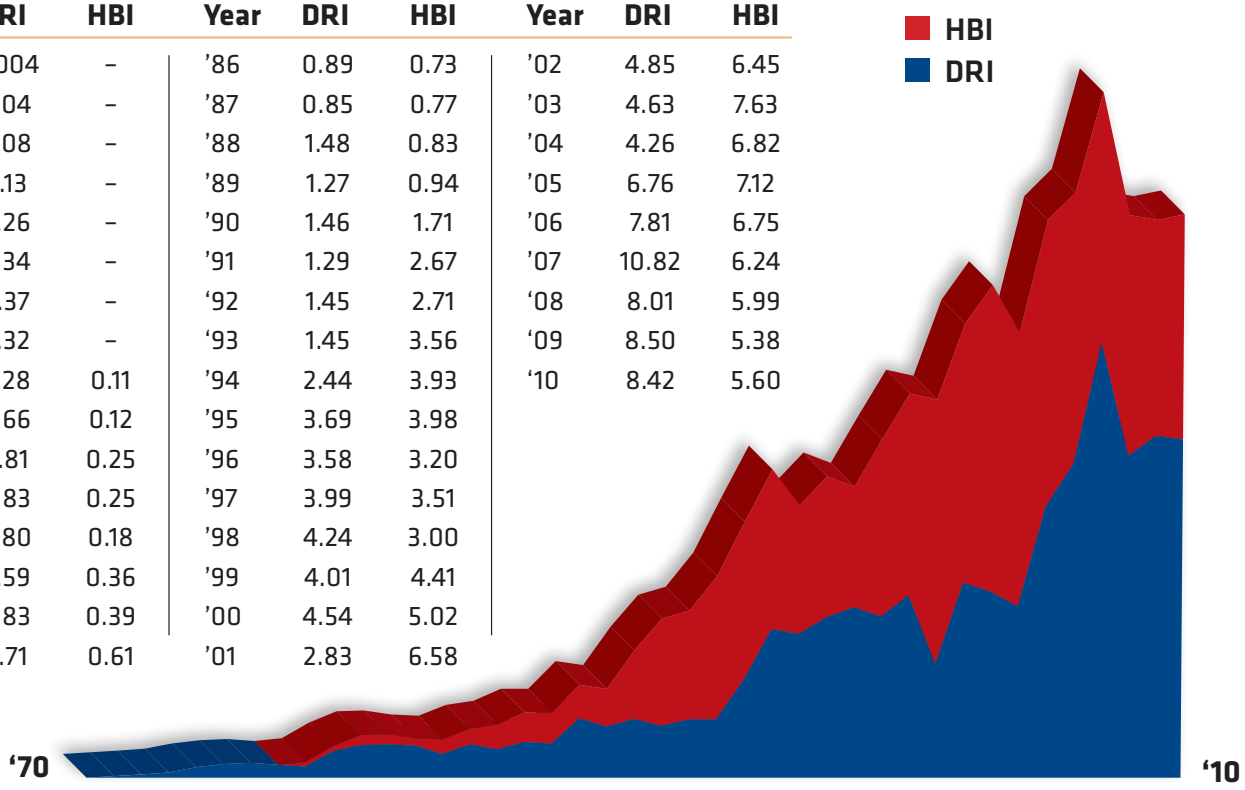
2010 World DRI Production by Process (Mt)

NAME	'00	'01	'02	'03	'04	'05	'06	'07	'08	'09	'10
MIDREX	30.12	26.99	30.11	32.06	35.01	34.96	35.71	39.72	39.85	38.62	42.01
HYL/Energiron	9.39	8.04	8.88	9.72	11.34	11.12	11.00	11.30	9.92	7.99	9.90
Other Shaft Furnace/Retort Processes	0.15	0.14	0.04	0.04	0.04	–	–	–	–	–	–
Fluidized Bed Processes	0.96	1.93	1.63	2.57	1.62	1.52	1.31	1.05	1.08	0.50	0.34
Rotary Kiln, Coal-based	3.14	3.18	4.43	5.04	6.41	9.17	11.53	14.90	16.84	17.33	18.12
Rotary Hearth, Coal-based	–	–	–	–	–	–	–	–	–	–	–
WORLD TOTAL	43.78	40.32	45.08	49.45	54.60	56.99	59.79	67.22	68.03	64.44	70.37

World DRI Shipments (Mt)

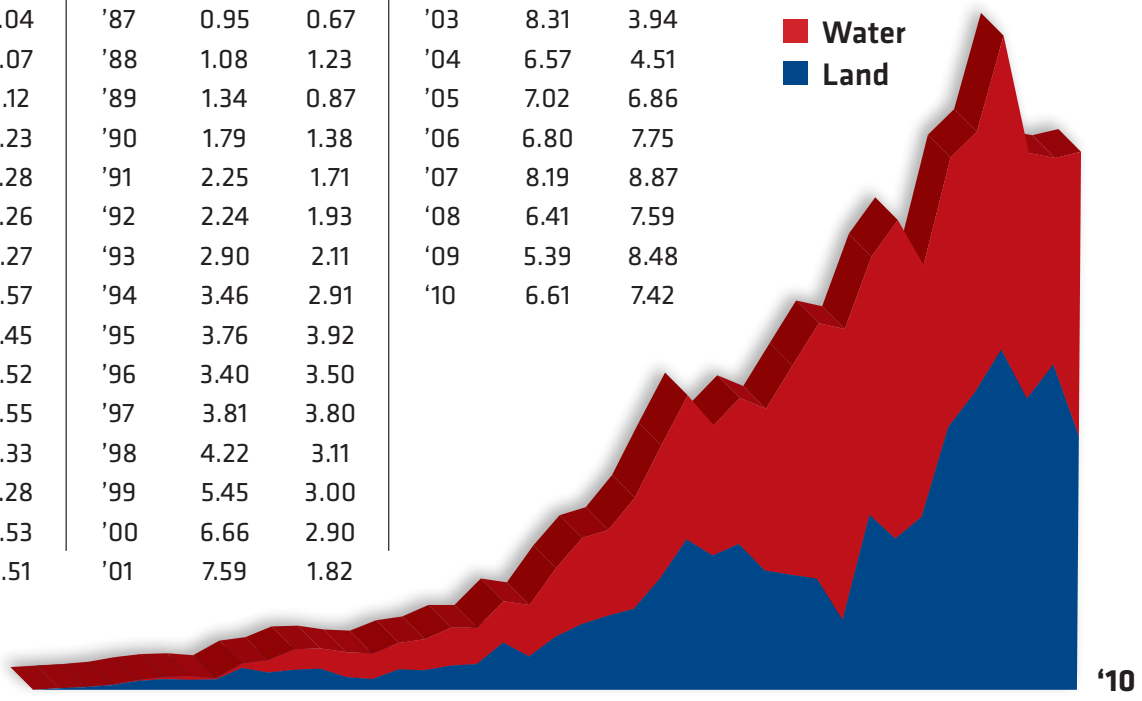
Source: Midrex Technologies, Inc.

Year	DRI	HBI	Year	DRI	HBI	Year	DRI	HBI
1970	0.004	–	'86	0.89	0.73	'02	4.85	6.45
'71	0.04	–	'87	0.85	0.77	'03	4.63	7.63
'72	0.08	–	'88	1.48	0.83	'04	4.26	6.82
'73	0.13	–	'89	1.27	0.94	'05	6.76	7.12
'74	0.26	–	'90	1.46	1.71	'06	7.81	6.75
'75	0.34	–	'91	1.29	2.67	'07	10.82	6.24
'76	0.37	–	'92	1.45	2.71	'08	8.01	5.99
'77	0.32	–	'93	1.45	3.56	'09	8.50	5.38
'78	0.28	0.11	'94	2.44	3.93	'10	8.42	5.60
'79	0.66	0.12	'95	3.69	3.98			
'80	0.81	0.25	'96	3.58	3.20			
'81	0.83	0.25	'97	3.99	3.51			
'82	0.80	0.18	'98	4.24	3.00			
'83	0.59	0.36	'99	4.01	4.41			
'84	0.83	0.39	'00	4.54	5.02			
'85	0.71	0.61	'01	2.83	6.58			



Source: Midrex Technologies, Inc.

Year	Water	Land	Year	Water	Land	Year	Water	Land
1970	–	0.004	'86	0.99	0.63	'02	6.74	4.56
'71	–	0.04	'87	0.95	0.67	'03	8.31	3.94
'72	0.01	0.07	'88	1.08	1.23	'04	6.57	4.51
'73	0.02	0.12	'89	1.34	0.87	'05	7.02	6.86
'74	0.03	0.23	'90	1.79	1.38	'06	6.80	7.75
'75	0.06	0.28	'91	2.25	1.71	'07	8.19	8.87
'76	0.10	0.26	'92	2.24	1.93	'08	6.41	7.59
'77	0.04	0.27	'93	2.90	2.11	'09	5.39	8.48
'78	0.12	0.57	'94	3.46	2.91	'10	6.61	7.42
'79	0.33	0.45	'95	3.76	3.92			
'80	0.54	0.52	'96	3.40	3.50			
'81	0.53	0.55	'97	3.81	3.80			
'82	0.65	0.33	'98	4.22	3.11			
'83	0.67	0.28	'99	5.45	3.00			
'84	0.69	0.53	'00	6.66	2.90			
'85	0.81	0.51	'01	7.59	1.82			



World Direct Reduction Plants

Status as of 12/31/10 Source: Midrex Technologies, Inc.

Plant	Location	Capacity (Mt/y)	Modules	Product	Start-up	Status*
MIDREX® PROCESS						
ArcelorMittal Steel Hamburg	Hamburg, Germany	0.40	1	DRI	'71	O
ArcelorMittal Canada 1	Contrecoeur, Quebec, Canada	0.40	1	DRI	'73	O
TenarisSiderca	Campana, Argentina	0.40	1	DRI	'76	O
ArcelorMittal Canada 2	Contrecoeur, Quebec, Canada	0.60	1	DRI	'77	I
SIDOR I	Matanzas, Venezuela	0.35	1	DRI	'77	O
Acindar	Villa Constitucion, Argentina	0.60	1	DRI	'78	O
Qatar Steel I	Mesaieed, Qatar	0.40	1	DRI	'78	O
SIDOR II	Matanzas, Venezuela	1.29	3	DRI	'79	O
ArcelorMittal Steel Point Lisas I & II	Point Lisas, Trinidad & Tobago	0.84	2	DRI	'80/'82	O
Global Steel Holdings	Warri, Nigeria	1.02	2	DRI	'82	I
Hadeed A & B	Al-Jubail, Saudi Arabia	0.80	2	DRI	'82/'83	O
OEMK I - IV	Stary Oskol, Russia	1.67	4	DRI	'83/'85/'85/'87	O
Antara Steel Mills	Labuan Island, Malaysia	0.65	1	HBI	'84	O
Khouzestan Steel Co. I - IV	Ahwaz, Iran	1.84	4	DRI	'89/'90/'92/'01	O
EZDK I	El Dikheila, Egypt	0.72	1	DRI	'86	O
LISCO 1 & 2	Misurata, Libya	1.10	2	DRI	'89/'90	O
Essar Steel I & II	Hazira, India	0.88	2	HBI/HDRI	'90	O
FMO	Puerto Ordaz, Venezuela	1.00	1	HBI	'90	O
VENPRECAR	Matanzas, Venezuela	0.82	1	HBI	'90	O
Essar Steel III	Hazira, India	0.44	1	HBI/HDRI	'92	O
Hadeed C	Al-Jubail, Saudi Arabia	0.65	1	DRI	'92	O
Mobarakeh Steel A - E	Mobarakeh, Iran	3.20	5	DRI	'92/'93/'94	O
JSW Ispat, Ltd.	Raigad, India	1.00	1	DRI	'94	O
EZDK II	El Dikheila, Egypt	0.80	1	DRI	'97	O
LISCO 3	Misurata, Libya	0.65	1	HBI	'97	O
ArcelorMittal Steel Lázaro Cárdenas	Lázaro Cárdenas, Mexico	1.20	1	DRI	'97	O
COMSIGUA	Matanzas, Venezuela	1.00	1	HBI	'98	O
ArcelorMittal Steel Point Lisas III	Point Lisas, Trinidad & Tobago	1.36	1	DRI	'99	O
ArcelorMittal Steel South Africa	Saldanha Bay, South Africa	0.80	1	DRI	'99	O
EZDK III	El Dikheila, Egypt	0.80	1	DRI	'00	O
Essar Steel IV	Hazira, India	1.00	1	HBI/HDRI	'04	O
Nu-Iron	Point Lisas, Trinidad & Tobago	1.60	1	DRI	'06	O
Essar Steel V	Hazira, India	1.50	1	HBI/HDRI	'06	O
Mobarakeh Steel F	Mobarakeh, Iran	0.80	1	DRI	'06	O
DRIC I & II	Dammam, Saudi Arabia	1.00	2	DRI	'07	O
Hadeed E	Al-Jubail, Saudi Arabia	1.76	1	HDRI/DRI	'07	O
LGOK II	Gubkin, Russia	1.40	1	HBI	'07	O
Qatar Steel II	Mesaieed, Qatar	1.50	1	HDRI/HBI	'07	O
Khouzestan Steel V	Ahwaz, Iran	0.80	1	DRI	'08	O
Lion DRI	Banting, Malaysia	1.54	1	HDRI/HBI	'08	O
HOSCO I & II	Bandar Abbas, Iran	1.65	2	DRI	'09/'10	O
Essar Steel VI	Hazira, India	1.50	1	DRI	'10	O
Khorasan Steel I	Khorasan (Mashad), Iran	0.80	1	DRI	'10	O
Tuwairqi Steel Mills	Karachi, Pakistan	1.28	1	HDRI/DRI	'11	C
IMPADCO	Khorasan (Mashad), Iran	0.80	1	DRI	'11	C
ESISCO	Sadat City, Egypt	1.76	1	HDRI/DRI	'11	C
IGISCO	Ardakan (Yazd), Iran	0.80	1	DRI	'11	C
Jindal Shadeed	Sohar, Oman	1.50	1	HDRI/HBI	'11	C
Arfa Steel	Ardakan (Yazd), Iran	0.80	1	DRI	'11	C
Khorasan Steel II	Khorasan (Mashad), Iran	0.80	1	DRI	'11	C
Jindal Steel & Power	Angul, India	1.80	1	HDRI/DRI	'12	C

(Continued next page)

*** Status Codes: O – Operating I – Idle C– Construction**

World Direct Reduction Plants

Status as of 12/31/10 Source: Midrex Technologies, Inc.

Plant	Location	Capacity (Mt/y)	Modules	Product	Start-up**	Status*
MIDREX® PROCESS *(Continued)*						
Saba	Bandar Abbas, Iran	1.50	1	DRI	'13	C
SULB	Hidd, Bahrain	1.50	1	HDRI/DRI	'13	C
		57.07	72			
HYL/ENERGIRON PROCESS						
PT Krakatau Steel 1	Cilegon, Indonesia	0.56	1	DRI	'78	I
PT Krakatau Steel 2	Cilegon, Indonesia	0.56	1	DRI	'78	I
Sidor H2	Matanzas, Venezuela	1.40	3	DRI	'81	i
Ternium 3M5	Monterrey, Mexico	0.50	1	DRI	'83	O
ArcelorMittal Lázaro Cárdenas I	Lázaro Cárdenas, Mexico	1.00	2	DRI	'88	O
ArcelorMittal Lázaro Cárdenas II	Lázaro Cárdenas, Mexico	1.00	2	DRI	'91	I
Welspun Maxsteel Ltd.	Raigad, India	0.75	1	HBI/DRI	'93	O
PT Krakatau Steel	Cilegon, Indonesia	1.35	2	DRI	'93	O
Khouzestan Steel (ASCO)	Ahwaz, Iran	1.03	3	DRI	'93	I
Perwaja Steel	Kemaman, Malaysia	1.20	2	DRI	'93	O
Usiba	Salvador Bahia, Brazil	0.31	1	DRI	'94	I
Ternium 2P5	Puebla, Mexico	0.61	1	DRI	'95	O
Ternium 4M	Monterrey, Mexico	0.68	1	HDRI	'98	O
Lebedinsky GOK	Gubkin, Russia	0.90	1	HBI	'99	O
Hadeed D	Al-Jubail, Saudi Arabia	1.10	1	DRI	'99	O
Briqven	Matanzas, Venezuela	1.50	2	HBI	'00	I
Welspun Maxsteel Ltd. 2	Raigad, India	0.60	1	DRI	'07	O
Emirates Steel I (GHC)	Abu Dhabi, UAE	1.60	1	HDRI	'09	O
Gulf Sponge Iron	Abu Dhabi, UAE	0.20	1	DRI	'10	O
Sidor	Matanzas, Venezuela	0.80	1	DRI	'11	C
Emirates Steel II (GHC)	Abu Dhabi, UAE	1.60	1	HDRI	'11	C
Ezz Rolling Mills	Egypt	1.90	1	DRI	'11	C
Suez Steel	Egypt	1.95	1	DRI	'12	C
		23.10	32			
FINMET PROCESS						
Orinoco Iron	Matanzas, Venezuela	2.20	4	HBI	'00	O
		2.20	4			
SL/RN PROCESS						
Piratini	Charquedas, Brazil	0.06	1	DRI	'73	I
SIIL	Paloncha, India	0.06	2	DRI	'80/'85	O
Siderperu	Chimbote, Peru	0.10	3	DRI	'80	I
ISCOR	Vanderbijlpark, South Africa	0.72	4	DRI	'84	O
Bihar Sponge Iron, Ltd.	Chandil, India	0.15	1	DRI	'89	O
Prakash Industries	Champa, India	0.40	2	DRI	'93/'96	O
Nova Iron & Steel	Bilaspur, India	0.15	1	DRI	'94	O
Sree Metallics	Keonjhar, India	0.06	3	DRI	'99/'00	O
Ashirwad	Jamshedpur, India	0.05	2	DRI	'00	O
Vandana Global	Siltara, Raigarh, India	0.05	1	DRI		O
		1.80	20			
JINDAL PROCESS						
Jindal Steel & Power	Raigarh, India	0.90	6	DRI	'93/'94/'95/'96/'00	O
Monnet Ispat	Raipur, India	0.30	2	DRI	'93/'98	O
Rexon Strips Ltd.	Via Lathikata, India	0.06	2	DRI	'93/'00	O
		1.26	10			

*** Status Codes: O – Operating I – Idle C– Construction**

World Direct Reduction Plants

Status as of 12/31/10 Source: Midrex Technologies, Inc.

Plant	Location	Capacity (Mt/y)	Modules	Product	Start-up**	Status*
DRC PROCESS						
Scaw Metals I	Germiston, South Africa	0.18	2	DRI	'83/'89	O
Scaw Metals II	Germiston, South Africa	0.15	1	DRI	'97	O
Tianjin Iron & Steel	Tianjin, China	0.30	2	DRI	'97	O
		0.63	5			
CODIR PROCESS						
Dunswart	Benoni, South Africa	0.15	1	DRI	'73	O
Sunflag	Bhandara, India	0.15	1	DRI	'89	O
Goldstar	Mallividu, India	0.22	2	DRI	'92	I
		0.52	4			
CIRCORED PROCESS						
Mittal - ISG Trinidad	Point Lisas, Trinidad & Tobago	0.50	1	HBI	'99	I
IRON DYNAMICS PROCESS						
Iron Dynamics	Butler, IN, USA	0.50	1	DRI	'98	O
SHENWU RHF PROCESS						
Tianjin Rockcheck	Tianjin, China	0.50	1	DRI	'10	C
FIOR PROCESS						
Operaciones rDI	Matanzas, Venezuela	0.40	1	HBI	'76	I
TISCO PROCESS						
Tata Sponge Iron, Ltd.	Keonjhar, Orissa, India	0.24	2	DRI	'86/'98	O
Vallabh Steels	Ludhiana, Punjab, India	0.12	1	DRI		O
		0.36	3			
SIIL PROCESS						
Bellary Steel & Alloys	Bellary, Karnetaka, India	0.06	2	DRI	'92/'93	O
HEG	Borai, India	0.09	2	DRI	'92	O
Kumar Met.	Nalgonda, India	0.06	2	DRI	'93	O
Raipur Alloys & Steel	Raipur, India	0.06	2	DRI	'93	O
Aceros Arequipa	Pisco, Peru	0.08	2	DRI	'96	O
		0.35	10			
PUROFER PROCESS						
ASCO	Ahwaz, Iran	0.33	1	DRI	'77	I
OSIL PROCESS						
OSIL	Keonjhar, Orissa, India	0.10	1	DRI	'83	O
Lloyd's Metals & Eng.	Ghugus, India	0.15	1	DRI	'95	O
		0.25	2			
DAV PROCESS						
Davsteel	Cullinan, South Africa	0.04	1	DRI	'85	O
BGRIMM PROCESS						
ArcelorMittal South Africa	Vanderbijlpark, South Africa	0.30	2	DRI	'09	O
OTHER						
Mahalaxmi TMT Bars	Wardha, Maharashtra India	0.24	1	DRI	'11	C

Note 1: This list does not include plants that are inoperable or that have been dismantled.
Note 2: This list only includes plants processing feed materials with total iron content of 60% or higher and producing DRI with metallization of 85% or higher.
Note 3: There are hundreds of small rotary kilns in India with annual capacities of 10,000-30,000 tons per year that are not included on this list. The total capacity of all rotary kilns in India is estimated to be 19.5 Mt/y.
Note 4: Only a representative sample of rotary kiln facilities larger than 50,000 tons per year are shown.

*** Status Codes: O – Operating I – Idle C– Construction**
**** Blanks indicate insufficient information**

2010 WORLD DIRECT REDUCTION STATISTICS is compiled by Midrex Technologies, Inc., Charlotte, North Carolina, USA. The publication is distributed annually with the first quarter issue of Direct From Midrex, and upon request to other persons interested in direct reduction.

Midrex Technologies, Inc. compiles world DRI production data on an annual basis as a service to industry.

Direct reduced iron (DRI) is a high quality metallic product produced from iron ore that is used as a feedstock in electric arc furnaces, blast furnaces and other iron and steelmaking applications. Hot briquetted iron (HBI) is a compacted form of DRI designed for ease of shipping, handling, and storage.

Midrex Technologies, Inc. is an international process engineering and technology company that provides global process technology solutions to various industries and is principally known for the MIDREX® Direct Reduction Process that converts iron ore into a high-purity DRI or HBI for use in steelmaking, ironmaking, and foundry applications. Midrex continues to develop new technologies relating to its traditional iron and steel roots including eco-friendly technologies such as FASTMET®/FASTMELT® steel waste recycling processes and ITmk3®, a breakthrough process for producing a pig iron substitute material.

The following organizations supplied or assisted in collecting data for this issue of 2010 WORLD DIRECT REDUCTION STATISTICS:

Sponge Iron Manufacturers Association – India
Tenova HYL – Mexico
World Steel Association – Belgium
All Individual MIDREX® Direct Reduction Plants

For updates check **www.midrex.com**
For more information or general comments,
please e-mail: **info@midrex.com**

World Steel Dynamics has audited Midrex's collection and preparation process of the "2010 World Direct reduction Statistics" i.e. "The Booklet". it is our observation that at the present, Midrex receives inputs from all over the world from virtually every known direct reduction producer. We have reviewed the data collection and preparation procedures and can confirm the documentation substantiates the accuracy of the data to be published in The Booklet. Based on the above, we are confident that The Booklet accurately reflects the world direct reduction industry in 2010.

Audit approved by:

WORLD STEEL DYNAMICS

Englewood Cliffs,
New Jersey, U.S.A.
June, 2011