

# Submerged Arc Furnaces Reference List

Location / Works	Current Owner	Furnace	SAF Product	Power (MVA)	UCAR® Refractory Products
<b>AUSTRALIA</b>					
Bell Bay	Tasmania Electro-Metallurgical Co Pty Ltd (TEMCO)	1	FeMn	27	NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick GradeD™ Carbon Graphite
Bell Bay	Tasmania Electro-Metallurgical Co Pty Ltd (TEMCO)	2	FeMn	29	NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick GradeD™ Carbon Graphite
Bell Bay	Tasmania Electro-Metallurgical Co Pty Ltd (TEMCO)	3	FeMn	54	NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick GradeD™ Carbon Graphite
Bell Bay	Tasmania Electro-Metallurgical Co Pty Ltd (TEMCO)	5	SiMn	45	NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick GradeD™ Carbon Graphite
East Rockingham WA	Doral Fused Materials Pty Ltd	2	Fused Al2O3		NMD™ HotPressed™ Semigraphite Brick Graphite
<b>BRAZIL</b>					
Bahia	Cia de Ferro Ligas da Bahia - FERBASA	8	FeCr	5	NMA™ HotPressed™ Carbon Brick
Bahia	Cia de Ferro Ligas da Bahia - FERBASA	8	FeCr	5	NMA™ HotPressed™ Carbon Brick
Bahia	Cia de Ferro Ligas da Bahia - FERBASA	1	FeCr	18.5	NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick GradeD™ Carbon Graphite
Bahia	Cia de Ferro Ligas da Bahia - FERBASA	1	FeMn	18.5	GradeD™ Carbon Graphite
Bahia	Cia de Ferro Ligas da Bahia - FERBASA	3	FeCr	18.5	NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick GradeD™ Carbon Graphite
Bahia	Cia de Ferro Ligas da Bahia - FERBASA	3	FeCr	18.5	GradeD™ Carbon Graphite
Bahia	Cia de Ferro Ligas da Bahia - FERBASA	5	FeCr	15	NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick GradeD™ Carbon Graphite

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<b>BRAZIL</b> (continued)					
Bahia	Cia de Ferro Ligas da Bahia - FERBASA	6	FeCr	15	NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick Graded™ Carbon Graphite
Bahia	Cia de Ferro Ligas da Bahia - FERBASA	14	FeCr		NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick Graded™ Carbon Graphite
<b>CANADA</b>					
Chicoutimi	Elkem Métal Canada Inc	1	FeSi		Graded™ Carbon
<b>CHINA</b>					
Kunming Province	Yunnan Metallurgical Group Import & Export Co., Ltd (CYMCO)	1	FeMn	68	NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick Graded™ Carbon Graphite
Jiaocheng	Jiaocheng Yiwang Ferroalloy Co. Ltd.	1	FeMn	9	NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick Graded™ Carbon Graphite
Yunnan Province	Yunnan Metallurgical Group Co., Ltd. (CYMCO)		FeMn	68	NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick Graded™ Carbon Graphite
<b>FRANCE</b>					
Grande Synthe	Vale Manganese France (RDME)	1	FeMn	102	NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick Graded™ Carbon Graphite
<b>INDIA</b>					
Orissa	JSL Limited (formerly Jindal Stainless Ltd)	1	FeCr	63	NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick Graded™ Carbon Graphite
Orissa	JSL Limited (formerly Jindal Stainless Ltd)	2	FeCr	63	NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick Graded™ Carbon Graphite
<b>MEXICO</b>					
Tampico	Compañía Minera Autlan, S.A.B. de C.V.	9	FeMn	35	NMA™ HotPressed™ Carbon Brick Graphite Shapes
Tampico	Compañía Minera Autlan, S.A.B. de C.V.	10	FeMn	35	NMA™ HotPressed™ Carbon Brick Graphite Shapes
Tampico	Compañía Minera Autlan, S.A.B. de C.V.	11	FeMn	14	NMA™ HotPressed™ Carbon Brick Graphite Shapes
Tampico	Compañía Minera Autlan, S.A.B. de C.V.	12	FeMn	14	NMA™ HotPressed™ Carbon Brick Graphite Shapes
Tampico	Compañía Minera Autlan, S.A.B. de C.V.	13	FeMn	11	NMA™ HotPressed™ Carbon Brick Graphite Shapes

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Location / Works	Current Owner	Furnace	SAF Product	Power (MVA)	UCAR® Refractory Products
<b>NORWAY</b>					
Sauda	Eramet Norway As	12	FeMn	40 MW	NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick GradeD™ Carbon
Porsgrunn	Eramet Norway As	11	FeMn	30 MW	NMA™ HotPressed™ Carbon Brick
<b>SOUTH AFRICA</b>					
Dilokong	ASA Metals (Pty) Ltd	1	FeCr	35	CBY™ Graphite GradeD™ Carbon
Dilokong	ASA Metals (Pty) Ltd	1	FeCr	35	CBY™ Graphite GradeD™ Carbon
Dilokong	ASA Metals (Pty) Ltd	New No. 2	FeCr	30	NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick GradeD™ Carbon Graphite
Dilokong	ASA Metals (Pty) Ltd	2	FeCr	30	NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick GradeD™ Carbon Graphite
Dilokong	ASA Metals (Pty) Ltd	New No. 3	FeCr	66	NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick GradeD™ Carbon Graphite
Dilokong	ASA Metals (Pty) Ltd	New No. 4	FeCr	66	NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick GradeD™ Carbon
Machadodorp	Assmang Chrome	1	FeCr	54	NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick GradeD™ Carbon Graphite
Machadodorp	Assmang Chrome	1	FeCr	54	NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick GradeD™ Carbon Graphite
Machadodorp	Assmang Chrome	1	FeCr	54	NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick GradeD™ Carbon Graphite
Machadodorp	Assmang Chrome	2	FeCr		NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick GradeD™ Carbon Graphite
Machadodorp	Assmang Chrome	3	FeCr		NMA™ HotPressed™ Carbon Brick GradeD™ Carbon Graphite
Machadodorp	Assmang Chrome	5	FeCr		NMA™ HotPressed™ Carbon Brick GradeD™ Carbon Graphite
Cato Ridge	Assmang Manganese	Spare Lining	N/A	N/A	NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick GradeD™ Carbon Graphite

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<b>SOUTH AFRICA</b> <i>(continued)</i>						
Cato Ridge	Assmang Manganese	1	FeMn	22	NMA™ NMD™ GradeD™	HotPressed™ HotPressed™ Carbon Carbon Brick Semigraphite Brick
Cato Ridge	Assmang Manganese	6	FeMn	48	NMA™ NMD™ GradeD™	HotPressed™ HotPressed™ Carbon Carbon Brick Semigraphite Brick Graphite
Cato Ridge	Assmang Manganese	2	FeMn	22	NMA™ NMD™ GradeD™	HotPressed™ HotPressed™ Carbon Carbon Brick Semigraphite Brick
Cato Ridge	Assmang Manganese	2	FeMn	22	NMA™ NMD™ GradeD™	HotPressed™ HotPressed™ Carbon Carbon Brick Semigraphite Brick Graphite
Cato Ridge	Assmang Manganese	2	FeMn	22	NMA™ NMD™ GradeD™	HotPressed™ HotPressed™ Carbon Carbon Brick Semigraphite Brick Graphite
Cato Ridge	Assmang Manganese	3	FeMn	22	NMA™ NMD™ GradeD™	HotPressed™ HotPressed™ Carbon Carbon Brick Semigraphite Brick Graphite
Cato Ridge	Assmang Manganese	5	FeMn	38	NMA™ NMD™ GradeD™	HotPressed™ HotPressed™ Carbon Carbon Brick Semigraphite Brick Graphite
Cato Ridge	Assmang Manganese	6	FeMn	38	NMA™ NMD™ GradeD™	HotPressed™ HotPressed™ Carbon Carbon Brick Semigraphite Brick Graphite
Rustenburg	Chrome Resources	7	FeCr		GradeD™	Carbon
Empangeni	Exxaro Sands	N/A	TiO2		NMA™ NMD™ GradeD™	HotPressed™ HotPressed™ Carbon Carbon Brick Semigraphite Brick
Brits	Hernic Ferrochrome	4	FeCr	75	NMA™ NMD™ GradeD™	HotPressed™ HotPressed™ Carbon Carbon Brick Semigraphite Brick Graphite
Brits	Hernic Ferrochrome	4	FeCr	75	NMA™ NMD™ GradeD™	HotPressed™ HotPressed™ Carbon Carbon Brick Semigraphite Brick Graphite
Meyerton	Metalloys Meyerton	M3	SiMn	25	NMA™ NMD™ GradeD™	HotPressed™ HotPressed™ Carbon Carbon Brick Semigraphite Brick Graphite
Meyerton	Metalloys Meyerton	M5	SiMn	10	GradeD™	Carbon
Meyerton	Metalloys Meyerton	M6	SiMn	10	NMA™ NMD™ GradeD™	HotPressed™ HotPressed™ Carbon Carbon Brick Semigraphite Brick Graphite
Meyerton	Metalloys Meyerton	M10	SiMn	75	NMA™ NMD™ GradeD™	HotPressed™ HotPressed™ Carbon Carbon Brick Semigraphite Brick Graphite

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<b>SOUTH AFRICA</b> <i>(continued)</i>					
Meyerton	Metalloys Meyerton	M11	SiMn		NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick GradeD™ Carbon Graphite
Meyerton	Metalloys Meyerton	M11	SiMn		NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick GradeD™ Carbon Graphite
Meyerton	Metalloys Meyerton	M11	SiMn		NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick GradeD™ Carbon Graphite
Meyerton	Metalloys Meyerton	M13			NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick GradeD™ Carbon Graphite
Meyerton	Metalloys Meyerton	M14			NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick GradeD™ Carbon Graphite
Emalahleni (formerly Witbank)	Samancor Chrome Ferrometals	5	FeCr	25	NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick GradeD™ Carbon Graphite
Emalahleni (formerly Witbank)	Samancor Chrome Ferrometals	5	FeCr	25	NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick
Emalahleni (formerly Witbank)	Samancor Chrome Ferrometals	4	FeCr		NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick GradeD™ Carbon Graphite
Middelburg	Samancor Chrome Middelburg Ferrochrome	1	FeCr	48	NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick GradeD™ Carbon Graphite
Steelpoort	Samancor Chrome Tubatse	2	FeCr	30	NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick GradeD™ Carbon Graphite
Steelpoort	Samancor Chrome Tubatse	3	FeCr	37	NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick GradeD™ Carbon Graphite
Steelpoort	Samancor Chrome Tubatse	1	FeCr	30	NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick
Steelpoort	Samancor Chrome Tubatse	5	FeCr	37	NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick GradeD™ Carbon Graphite
Richards Bay	Tata Steel Ltd	1	FeCr	38	NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick Graphite
Richards Bay	Tata Steel Ltd	2	FeCr	38	NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick Graphite

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<b>SOUTH KOREA</b>					
Pohang	POSCO CHEMTECH	1	SiMn	30	NMA™ HotPressed™ Carbon Brick NMD™ HotPressed™ Semigraphite Brick GradeD™ Carbon Graphite
<b>UNITED STATES</b>					
Alloy, WV	West Virginia Alloy Mfg.	7	Si		NMD™ HotPressed™ Semigraphite Brick
Alloy, WV	West Virginia Alloy Mfg.	6	Si		GradeD™ Carbon
Alloy, WV	West Virginia Alloy Mfg.	3	Si		NMA™ HotPressed™ Carbon Brick
Alloy, WV	West Virginia Alloy Mfg.	14	Si		GradeD™ Carbon
Alloy, WV	West Virginia Alloy Mfg.	15	Si		GradeD™ Carbon
Beverly, OH	Globe Metallurgical	1	Si		GradeD™ Carbon
Beverly, OH	Globe Metallurgical	2	Si		GradeD™ Carbon
Beverly, OH	Globe Metallurgical	3	Si		GradeD™ Carbon
Beverly, OH	Globe Metallurgical	5	FeSi		GradeD™ Carbon
Beverly, OH	Globe Metallurgical	7	Si		GradeD™ Carbon
Freeport, TX	Gulf Chemical & Metallurgical Corp	1	NiCo		NMD™ HotPressed™ Semigraphite Brick Graphite Shapes
Louisville, KY	Carbide Industries	1	CaC2	50	Grade D Carbon
Marietta, OH	Marietta Eramet Inc.	1	SiMn	57	NMA™ HotPressed™ Carbon Brick
Marietta, OH	Marietta Eramet Inc.	12	FeMn		NMA™ HotPressed™ Carbon Brick GradeD™ Carbon
Marietta, OH	Marietta Eramet Inc.	18	FeMn		GradeD™ Carbon
Selma, AL	Globe Metallurgical	DMAG	Si		GradeD™ Carbon
Selma, AL	Globe Metallurgical	Electromelt	Si		GradeD™ Carbon
Soda Springs, ID	Monsanto Company	7	P4		GradeD™ Carbon Graphite
Soda Springs, ID	Monsanto Company	8	P4		GradeD™ Carbon Graphite
Soda Springs, ID	Monsanto Company	9	P4		GradeD™ Carbon Graphite
Mt. Meigs, AL	Simcala	1	Si	20	GradeD™ Carbon
Mt. Meigs, AL	Simcala	2	Si	20	GradeD™ Carbon
Mt. Meigs, AL	Simcala	3	Si	20	GradeD™ Carbon
Niagara Falls, NY	Globe Metallurgical	9	Si		GradeD™ Carbon
Niagara Falls, NY	Globe Metallurgical	11	Si		GradeD™ Carbon

**REDEFINING LIMITS**