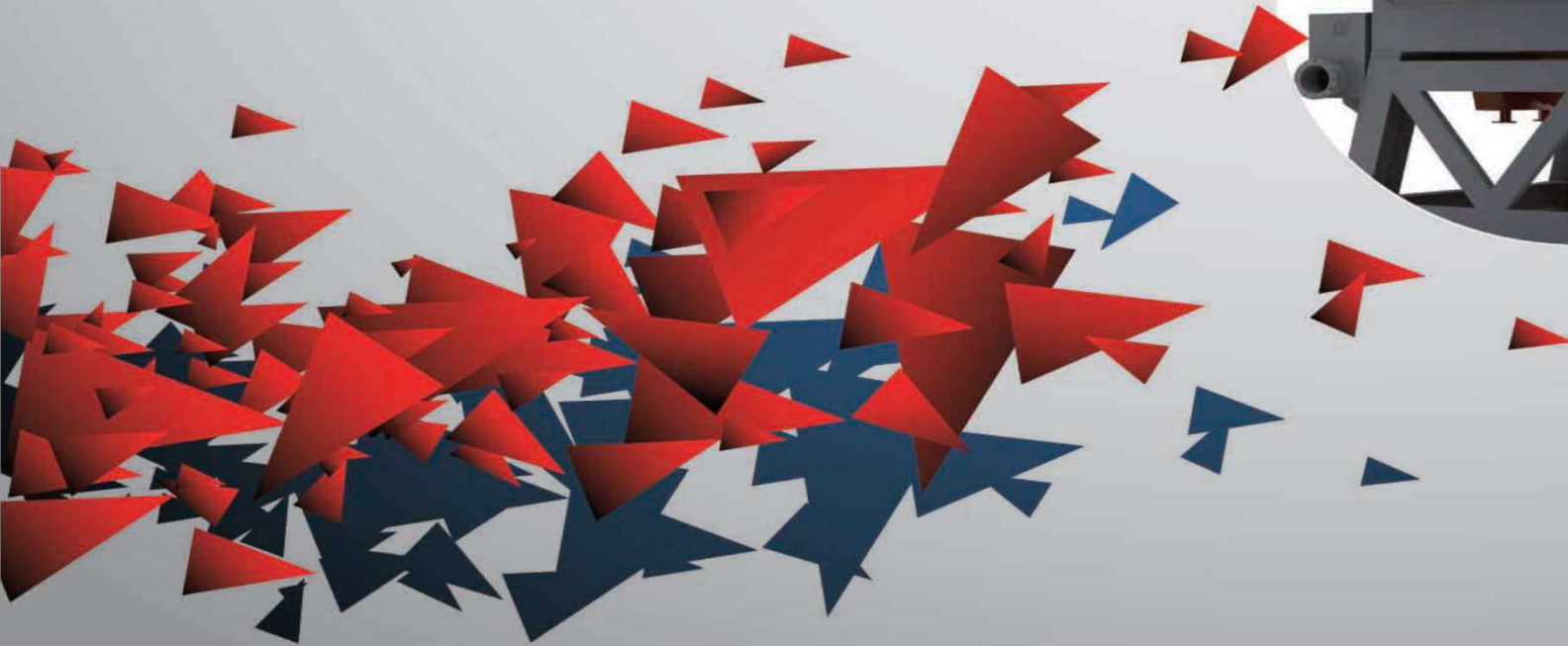


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**Slon** Magnetic Separator Ltd



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SLon Magnetic Separator Ltd





**Slon** About SLon

**SLon**

In Mineral Processing Industry, as the creator of VPHGMS (Vertical Ring and Pulsating High Gradient Magnetic Separator) worldwide, SLon has redefined the processing technology and equipments for Weakly Magnetic Minerals & White Minerals. After 30 years for researching and promotion, SLon has serviced more than 1500 clients in mineral beneficiation industry all over the world.

First SLon Vertical Ring & Pulsating High Gradient Magnetic Separator was created by Dr Xiong Dahe, which solved the world's problem of ore clogging in matrix of traditional WHIMS (Wet High Intensity Magnetic Separator) with improved grade in concentrates and higher recovery.

**1987**



SLon VP HGMS was installed in Red River Project in RSA. SLon technologies become world renowned and approved since then.

**1996**



SLon-4000 was developed and launched into market with excellent performance and outstanding capacity.

**2012**



**1994**

SLon-2000 HGMS was developed and installed at Gongchangling hematite project of Ansteel to do a contrast test versus Horizontal Ring WHIMS. After a four-month comparison, we concluded that SLon HGMS could achieve 7.19% higher concentrate grade, 5.70% lower tails grade with 8.06% higher recovery than traditional WHIMS. By make this sharp difference, SLon is widely acclaimed and owns more than 85% market share in China.



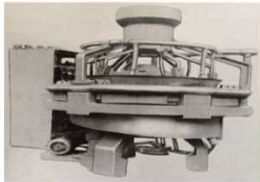
**2005**

SLon started water-saving eco-program by inventing Dry Vibrating High Gradient Magnetic Separator after long-term experience in wet processing. SLon Dry HGMS technologies had been approved successfully for Kaolin purification projects



**2015**

new generation of SLon VP HGMS was released into global market with improved appearance and state of the art designing and manufacturing technologies. It can provide much more flexible service and complete solutions in the area of High Intensity Magnetic Separation as per clients' request.



1982



1987



1989



2006



2010



2013

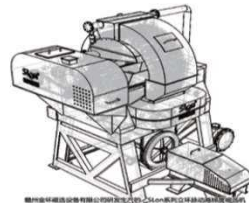
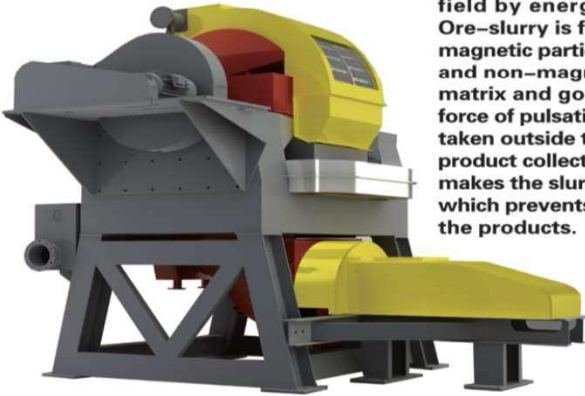
# HGMS



**Slon** SLon-HGMS

## The working principle of SLon VP HGMS

Separating ring equipped with matrix, which can be induced high gradient magnetic field by energizing coils, rotates vertically. Ore-slurry is fed into the separating zone and magnetic particles would be captured by matrix and non-magnetic particles pass through the matrix and go into discharging box under the force of pulsation. Magnetic particles would be taken outside the filed and then flushed out into product collect launder by water. Pulsation force makes the slurry in the machine in a loose state which prevents the matrix clogging and purifying the products.



SLon VP HGMS

Energizing coil is made of pure copper and equipped with temperature-protective system. By using most-advanced and eco-friendly water-direct-cooling for high-efficient heat dissipation, coils can produce stably magnetic intensity.



Energizing coil



## About SLon HGMS



Matrix boxes



Smart design and scientific array for matrix with no clogging and long lifespan. SLon strives to optimize matrix performance and provides customized matrix design and supply service.



Separating ring drive



World's famous brands support for SLon's drive parts.



Diaphragm



Unique design for pulsation mechanism which pushes and pulls the diaphragm and transfers pulse force to separating ores. By this motion, magnetic products can be purified by solving the problem of matrix clogging.



**Ston** Industrial Application

### SLon—Metallic minerals

More than 2000 units of SLon VP HGMS have been installed for metallic minerals' beneficiation projects globally including typical countries like China, India, South Africa, USA, Russia, Australia, Brazil, Iran, Turkey, and etc. SLon VP GHMS technology for ultra-fine weakly magnetic metallic ores' beneficiation has been applied and approved by more than 1000 clients all over the world, which showcases excellent and reliable performance.



● Raw ore



● Crushing



● Concentrate



Typical Minerals' Processing by SLon Technology: Oxidized Iron Ore, Ilmenite, Manganese Ore, Wolframite, Tantalum-niobium, Chromite, Gold, Rare Earth, Spodumene and so on.

### SLon for Metallic Ores



- 1 Dry Low Intensity Magnetic Separator
- 2 Low Intensity Magnetic Separator
- 3 SLon VP HGMS
- 4 Centrifugal



# SLon 立环脉动高梯度中磁选机主要技术参数一览表

The technical data of SLon Vertical Ring Pulsating High Gradient Magnetic Separator

(1.0T-1.8T)

参数 parameter	机型 Type	SLon-500	SLon-750(I)	SLon-750(II)	SLon-1000	SLon-1250	SLon-1500	SLon-1750	SLon-2000	SLon-2250	SLon-2500	SLon-3000	SLon-3500	SLon-4000
矿浆通过能力 Slurry put through (m <sup>3</sup> /h)		0.25~0.5	0.5~1.0	5~10	12.5~20	20~50	50~100	75~150	100~200	160~300	200~400	350~650	550~1000	750~1400
干矿处理量 Capacity (t/h)		0.03~0.125	0.06~0.25	2~4	4~7	10~18	20~30	30~50	50~80	75~115	100~150	150~250	250~400	350~550
额定背景场强 Background Field (T)		1.0-1.8	1.0-1.8	1.0-1.8	1.0-1.8	1.0-1.8	1.0-1.8	1.0-1.8	1.0-1.8	1.0-1.8	1.0-1.8	1.0-1.8	1.0-1.8	1.0-1.8
额定能耗 Rated energy consumption (Kw)		15.7	17.2	12.2	17.4	23.8	28.6	38	42.4	61	72	76.7	108	114
额定水耗 Rated water consumption (m <sup>3</sup> /h)		0.75~1.5	0.75~1.5	5~8	8~14	20~36	40~60	60~100	80~120	120~160	160~220	240~400	400~600	560~800
主机重量 Machine Weight (t)		1.5	3	4	7.2	14	20	35	41	54	76	150	200	305
外形尺寸 (长×宽×高,mm)Dimension (L×W×H)		1800×1400×1350	2100×1400×1700	2300×1800×1750	2700×2100×2300	3250×2400×2700	3700×2900×3200	4100×3400×3800	4250×3400×4200	4500×3700×4500	5600×4350×5200	6400×5150×6300	7300×5400×7300	8500×6850×8300

(0.4T)

参数 parameter	机型 Type	SLon-1500	SLon-2000	SLon-2250
矿浆通过能力 Slurry put through (m <sup>3</sup> /h)		50~100	100~200	160~300
干矿处理量 Capacity (t/h)		30~50	50~80	80~120
额定背景场强 Background Field (T)		0.4	0.4	0.4
额定能耗 Rated energy consumption (Kw)		16	15.2	19
额定水耗 Rated water consumption (m <sup>3</sup> /h)		40~60	80~120	120~160
主机重量 Machine Weight (t)		16	27	35
外形尺寸				

(0.6T)

参数 parameter	机型 Type	SLon-1250	SLon-1750	SLon-2500	SLon-2000	SLon-3000
矿浆通过能力 Slurry put through (m <sup>3</sup> /h)		20~25	75~150	200~400	100~200	450~750
干矿处理量 Capacity (t/h)		10~18	30~50	100~150	50~80	150~250
额定背景场强 Background Field (T)		0.6	0.6	0.6	0.6	0.6
额定能耗 Rated energy consumption (Kw)		15	24	37.4	45	52
额定水耗 Rated water consumption (m <sup>3</sup> /h)		20~36	60~100	160~220	80~120	240~400
主机重量 Machine Weight (t)		11.5	28	60	33	115
外形尺寸						

### SLon — Nonmetallic minerals

More than 500 units of SLon VP HGMS have been installed for removing impurities from non-metallic ores' projects and purifying the products dramatically. Typical Non-Metallic Ores which SLon functions: Feldspar, Quartz, Fluorite, Nepheline, Kaolin, Andalusite and so on.

#### The variation of whiteness with SLon Whitech



SLon Vertical Ring & Pulsating High Gradient Magnetic Separator Technologies have already been widely credited by Indian Hematite Processing clients. And more than 100 industrial units are installed presently, which makes SLon the market leader in India.

### SLon for Non-Metallic Ores' Purifications



# SLon 立环脉动高梯度磁选机主要技术参数一览表

The technical data of SLon Vertical Ring Pulsating High Gradient Magnetic Separator (1.0T)

参数 parameter	机型 Type	SLon-500	SLon-750(I)	SLon-750(II)	SLon-1000	SLon-1250	SLon-1500	SLon-1750	SLon-2000	SLon-2250	SLon-2500	SLon-3000	SLon-3500	SLon-4000
矿浆通过能力 Slurry put through (m <sup>3</sup> /h)		0.25 ~ 0.5	0.5 ~ 1.0	5 ~ 10	12.5 ~ 20	20 ~ 50	50 ~ 100	75 ~ 150	100 ~ 200	160 ~ 300	200 ~ 400	350 ~ 650	550 ~ 1000	750 ~ 1400
干矿处理量 Capacity (t/h)		0.01~0.07	0.03~0.13	1~2	2~3.5	5~9	10~15	15~25	25~40	37~58	50~75	75~125	125~200	175~275
额定背景场强 Background Field (T)		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
额定能耗 Rated energy consumption (Kw)		16.25	18.5	14.45	20.7	27.5	35.6	46	55.4	76	94	113.7	168	188
额定水耗 Rated water consumption (m <sup>3</sup> /h)		1.5~3	1.5~3	6~10	10~17	22~38.5	42~63	63~100	83~124	124~165	164~225	246~400	407~600	569~800
主机重量 Machine Weight (t)		2.1	3.4	4.7	7.8	14	20	35	42	54	75	135	200	372
外形尺寸 (长×宽×高,mm)Dimension (L×W×H)		1800×1400×1350	2100×1400×1700	2300×1800×1750	2700×2100×2300	3250×2400×2700	3700×2900×3200	4100×3400×3800	4250×3400×4200	4500×3700×4500	5600×4350×5200	6400×5150×6300	7300×5400×7300	8500×6850×8300

(1.3T)

参数 parameter	机型 Type	SLon-500	SLon-1250	SLon-1500	SLon-1750	SLon-2000	SLon-2500	SLon-3000
矿浆通过能力 Slurry put through (m <sup>3</sup> /h)		0.2 ~ 0.5	20 ~ 50	50 ~ 100	75 ~ 150	100 ~ 200	200 ~ 400	350 ~ 650
干矿处理量 Capacity (t/h)		0.01~0.07	5~9	10~15	15~25	25~40	50~75	75~125
额定背景场强 Background Field (T)		1.3	1.3	1.3	1.3	1.3	1.3	1.3
额定能耗 Rated energy consumption (Kw)		36.55	44.7	60	61	92	118	172
额定水耗 Rated water consumption (m <sup>3</sup> /h)		1.75~3	22~39	42~63	63~100	84~125	166~277	246~400
主机重量 Machine Weight (t)		2.1	16	25	41	53	108.5	173
外形尺寸 (长×宽×高,mm)Dimension (L×W×H)		1850×1450×1350	3150×2450×2800	3700×2950×3350	4050×3350×3960	4300×3900×4450	5600×4950×5550	6400×5500×6700

(1.8T)

参数 parameter	机型 Type	SLon-2000	SLon-2500
矿浆通过能力 Slurry put through (m <sup>3</sup> /h)		100 ~ 200	150 ~ 300
干矿处理量 Capacity (t/h)		20~33	23~50
额定背景场强 Background Field (T)		1.8	1.8
额定能耗 Rated energy consumption (Kw)		146.5	147.5
额定水耗 Rated water consumption (m <sup>3</sup> /h)		87~128	100~220
主机重量 Machine Weight (t)		61	110
外形尺寸 (长×宽×高,mm)Dimension (L×W×H)		4300×3700×4500	4820×4920×5160



**Hematite**

SLon Vertical Ring & Pulsating High Gradient Magnetic Separator Technologies have already been widely credited by Indian Hematite Processing clients. And more than 100 industrial units are installed presently, which makes SLon the market leader in India.



**Ilmenite**

Two units of SLon-4000 VP HGMS work for ilmenite project of Panzhihua Iron & Steel Group in China to process over 10,000 tons ores per day.



**Wolframite**

SLon VP HGMS applied for processing S.C Mining Wolframite Project in Thailand .



**Rare Earth**

In 2000, SLon VP HGMS had been applied for processing rare earth in Sichuan Province, China. Since then, SLon into the field of rare earth.



**Tantalum-niobium**

SLon VP HGMS had been applied for processing tantalum-niobium in Fujian Province, China. At present, more than 50 units of SLon HGMS have been applied in the field of tantalum-niobium.



**Chromite**

SLon VP HGMS had been applied for processing chromite in Inner Mongolia, China.



**Manganese Ore**

SLon VP HGMS used for processing Yongdeng Manganese Project in China.



**Gold**

SLon VP HGMS had been applied for processing the tailings of gold in Yunnan Province, China.



**Spodumene**

In 2009, SLon VP HGMS had been applied for processing spodumene in Jiangxi Province, China. Since then, SLon into the field of Spodumene.



**Andalusite**

**SLon VP HGMS had been applied for andalusite in Shanxi Province, China.**



**Kaolin**

**SLon VP HGMS had been applied for processing kaolin in Anhui Province, China.**



**Quartz**

**SLon VP HGMS had been applied for processing quartz in Shandong Province, China.**



**Nepheline**

**SLon VP HGMS had been applied for processing nepheline in Sichuan Province, China.**



**Feldspar**

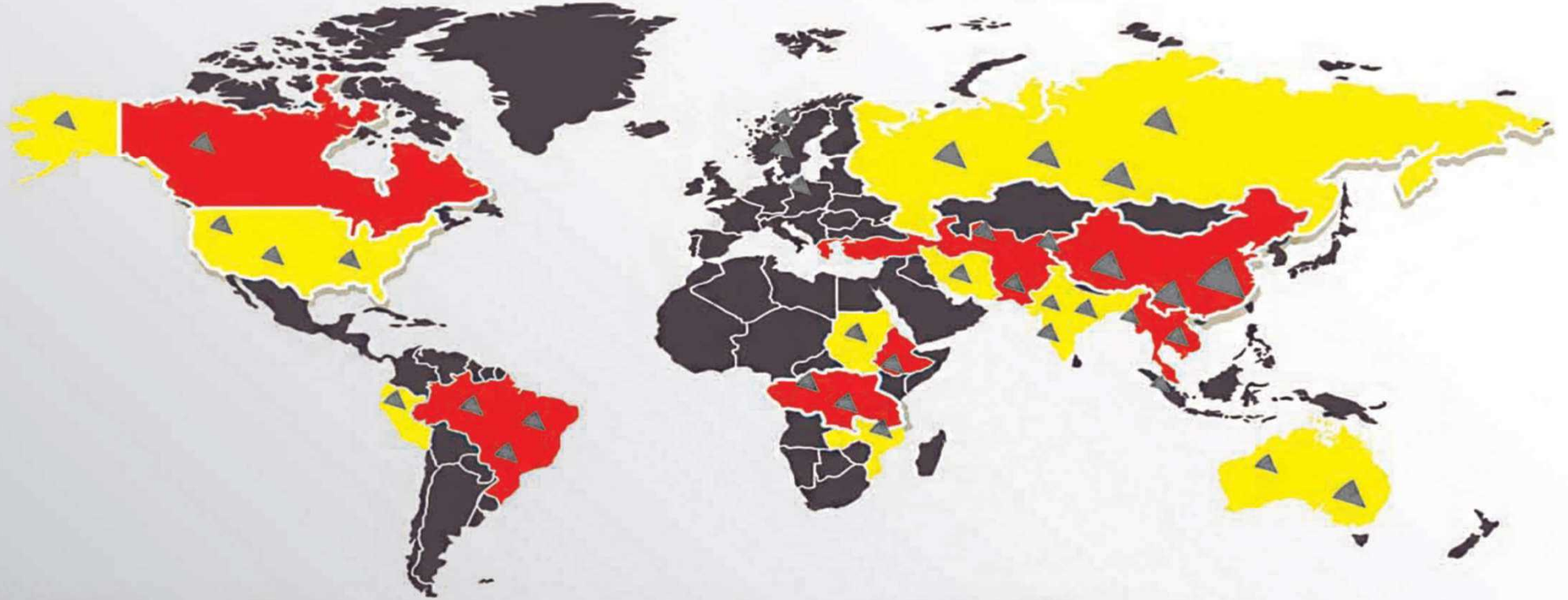
**SLon VP HGMS had been applied for processing feldspar in Anhui Province, China.**

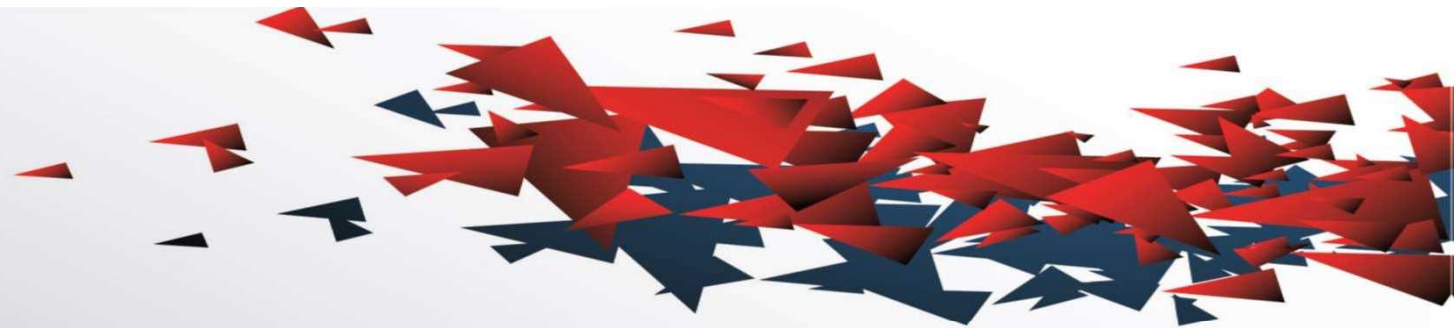


**Fluorite**

**SLon VP HGMS had been applied for processing fluorite in Hunan Province, China.**

# SLon in the Global





## Global Technical Service

1. To respond the customer's enquiries and questions within 24 hours.
2. To provide trial test and consultants on mineral process researching and technological optimization.
3. To design and manufacture machine according to customers' requirements.
4. SLon has been certified by CE and ISO9001
5. SLon will provide technical service on site like supervision of installation, commissioning and site training service.
6. SLon will start visa applying procedure within 24 hours for global service requirements and reach the site in the shortest time.

## International users

Creative · Effective  
**REXON.**  
REXON INDUSTRIAL CORP. LTD

**MSP**  
MINERAL PROCESSING

**RASHMI**  
GROUP

**MEL**

**INDUSTRIAL**

**amdel**

**KCC**

**TEC**

**SP**

**HÒA PHÁT**  
GROUP

**JSW**  
Steel Ltd, Toranagalu

**SARDA**  
SARDA ENERGY & MINERALS LTD

**EURO**

**CHOWGULE**  
GROUP

**BMM**

**DEMPO**

**ANSTEEL**

**सेल SAIL**

**IMT**  
INDUSTRIAL METALS TECH. PVT. LTD.

**mpe**

**ESSAR**  
STEEL

**Outotec**

**ARYA**

**DORR-OLIVER**  
INDUSTRIAL DORR-OLIVER LIMITED

**KISC**