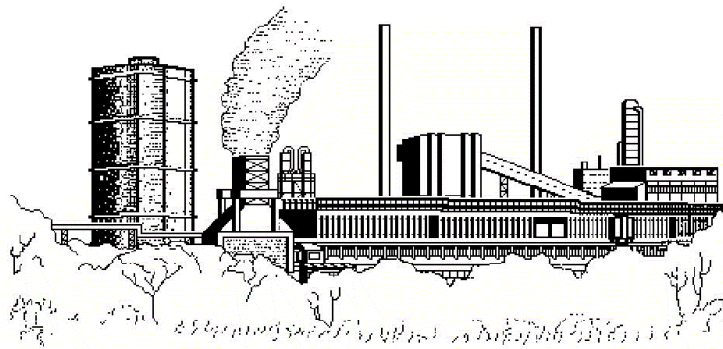




REFERENCE LIST



COKE-MAKING TECHNOLOGY

August 2014

THE VECON STAMP CHARGING TECHNOLOGY

A modern coke-making technology suitable for large coke ovens and for the utilisation of high-volatile and low-caking charge coal blends: this technology is provided by VeCon.

The Stamp Charging Technology, actually developed to industrial maturity, allows the use of a wide variety of charge materials, a decisive factor for economic efficiency. Therefore, this technology is finding increasing interest all over the world.

The Stamp Charging Technology is the key technology to meet the requirements imposed by restricted raw material sources and is characterised by the following advantages:

- operational reliability on industrial scale;
- economic production of high-quality metallurgical, foundry and chemical coke types from a wide range of charge coal blends;
- high productivity at favourable production costs, particularly where high-volatile and low-caking coals are used in combination with leaning materials, such as petroleum coke, coke breeze etc.;
- high level of automation, thus increased economic efficiency by reduced labour cost and improvement of working conditions;
- improvement of environmental protection by a special charging gas transfer system; an ideal solution for emission-free charging is the single oven regulation in combination with the charging gas transfer system;
- capital investment and operating cost comparable to the costs involved in Top Charging, but substantial savings for input materials;
- possibility of converting conventional top charged batteries to the Stamp Charging Technology.

The Stamp Charging Technology is based on the experience and the know-how from many years of Research and Development particularly in the SAARBERG coke plant “Fürsthausen” where Mr. G.Veit , CEO of VeCon, has been Managing Director for a longer period. This technology has been successfully implemented on industrial scale.

- **REFERENCE PLANTS**
"STAMP CHARGING & COMPACTED CHARGING TECHNOLOGY"

Orders carried out by VeCon GmbH

Client	Year Date of Order/ Commissioning	Scope of Services and Supplies
SESA KEMBLA COKE CO.LTD. Panaji, Goa India	2002/3	Engineering/Supervision Manufacturing, Erection, Commissioning for a Coke Breeze Drying &Grinding Plant
BLA INDUSTRIES LTD Mumbai India	2002/3	Engineering/Supervision Manufacturing, Erection, Commissioning for a Coke Breeze Drying &Grinding Plant
ESFAHAN STEEL CORPORA- TION Esfahan Iran	2002/3	Engineering and Supply of 2 stationary hy- draulic coke oven door cleaning devices
SHANXI COKING COAL IM-POR & EXPORT CORP. LTD. Taiyuan, Shanxi Province P. R. of China	2003	Supply of 2 sets of stamping systems and 1 bonding press incl. electrical equipment and machine positioning system For Coke Oven Plant WULIN, Shanxi (near Fenyang)
SHANXI DATUHE INTERNA- TIONAL TRADE CO. LTD. Taiyuan, Shanxi Province P. R. of China	2004	Supply of 2 sets of stamping systems and 1 bonding press incl. electrical equipment and machine positioning systemFor Coke Oven Plant LISHI, Shanxi
JINDAL VIJAYANAGAR STEEL LTD Bellary India	2004	Engineering, Supply, Supervision for the coke oven machines for a 600,000 tpa Heat Recovery Coke Plant (Phase 1)
SHENHUA COKE PLANT Wuhai, Inner Mongolia P.R.China	2005	Supply of 2 sets of stamping systems and 1 bonding press incl. electrical equipment
JINDAL VIJAYANAGAR STEEL LTD Bellary India	2005	Engineering, Supply, Supervision for the coke oven machines for a 600,000 tpa Heat Recovery Coke Plant (Phase 2)
SESA KEMBLA COKE CO.LTD. Panaji, Goa India	2005/6	Engineering, Supply, Supervision for the coke oven machines for a 360,000 tpa Heat Recovery Coke Plant

BLA INDUSTRIES LTD Mumbai India	2005/6	Engineering, Supply, Supervision for the coke oven machines for their 360,000 tpa Recovery Coke Plant in Mithapur
HUBEI XIN YEGANG Huangshi, Hubei Province P. R. China	2006	Supply of 2 sets of stamping systems and 1 bonding press incl. electrical equipment and machine positioning & identification system
HUBEI XIN YEGANG Huangshi, Hubei Province P. R. China	2007	Modification of electric system of charging machine and integration of automatic positioning & identification system
Koksoprojekt Spolka z o.o. Zabrze POLAND	2007/8	Supply of 2 sets of stamping systems and 1 bonding press incl. electrical equipment and machine positioning & identification system for RADLIN coke plant, Poland
Koksoprojekt Spolka z o.o. Zabrze POLAND	2007/8	Supply of coal tower equipment and 20 coal feeders for new stamp charged batteries of RADLIN coke plant, Poland
ZARMEN Spolka z o.o. Chorzow POLAND	2007/8	Supply of a combined Charging-Pushing machine with automation system for the new RADLIN coke plant, Poland
Dalian Heavy Industries Dalian CHINA	2007/8	Engineering & Supply of charging plate with driving equipment for the charging machine for Pangang, Panzhihua, China
Shanxi Yuwang Coal & Gas Co., Ltd., Xinzhou, Shanxi Province, P. R. China	2008/9	Supply of 2 sets of stamping systems incl. electrical equipment
FFE Minerals, Chennai, India for BENGAL ENERGY, Bengal, India	2008/9	Engineering of the Charging Machines and supply of 2 Charging Plate Drives for a Non Recovery coke plant
SHENHUA MENGXI Coal Mining Co.,Ltd., Mengxi, Inner Mongolia, P. R. China	2008/9	Engineering, supply and commissioning of 2 Charging Gas Transfer machines
DILLINGER HÜTTE / ZEN- TRALKOKEREI SAAR GMBH Dillingen, Germany	2008/9	Engineering, supply and commissioning of 2 Charging Gas Transfer machines with stand pipe, gooseneck and ministandpipe cleaners
HEBEI XINJING Coke Co.,Ltd. Shijiazhuang, Hebei Province, P. R. China	2008/9	Supply of 2 sets of stamping systems incl. electrical equipment
MADENCILIK Zonguldak Turkey	2007/8	Basic & Detail Engineering for a 300 tpa Geen Field Heat Recovery Coke Plant

DILLINGER HÜTTE / ZENTRALKOKEREI SAAR GMBH Dillingen, Germany	2009	Engineering and supply of stationary and tilting oven door stands
DILLINGER HÜTTE / ZENTRALKOKEREI SAAR GMBH Dillingen, Germany	2009/10	Supply and implementation of a wireless data and video transfer system for the oven machines
DILLINGER HÜTTE / ZENTRALKOKEREI SAAR GMBH Dillingen, Germany	2009/10	Modernisation of the 6m-SCP-Machines: <ul style="list-style-type: none"> – Sealing frames – Door Cleaners – Stamping boxes – Charging trestles – Automation Systems
SESAGOA LTD. Panaji, Goa India	2010	Engineering, Supply, Supervision for 1 pusher machine, 1 charging machine, 1 hot coke machine, 1 compacting station, 1 hot coke pusher their 250,000 tpa Heat Recovery Coke Plant at Navelim, Goa
Tangshan Huifeng Coking & Gas Co. Ltd Guye District Tangshan Hebei Province, China	2010	Supply of 2 sets of stamping systems and 1 bonding press incl. electrical equipment (5.5 m ovens)
Tengzhou ShengLong Coal & Coking Co. Ltd Tengzhou City Shandong Province, China	2010/11	Supply of 2 sets of stamping systems and 1 bonding press incl. electrical equipment (5.5 m ovens)
Taiyuan Kai Te Jia Machinery Co. Ltd Liujiabaoxiang Xiaodian Distr., Taiyuan City, Shan Province, China	2010/11	Supply of 2 sets of stamping systems and 1 bonding press incl. electrical equipment (4.3 m ovens) for Zouping Coke Plant, Shandong Province
Dalian Huarui Heavy Industry International Co., Ltd Xiang District, Dalian City, Liaoning Province, China	2010/11	Supply of 2 sets of 34-hammer stamping systems and 1 bonding press incl. electrical equipment (6.3 m ovens, SCP Machine)) for Risun Coke Plant, Hebei Province
Shanxi Yongxin Coal Coking Co., Ltd Anze County, Linfen Shanxi Province, China	2010/11	Supply of 2 sets of 32-hammer stamping systems and 1 bonding press incl. electrical equipment (5.5 m ovens)
Taiyuan Kai Te Jia Machinery Co. Ltd., Liujiabaoxiang Xiaodian Distr., Taiyuan City, Shanxi Province, China	2011	Supply of 2 sets of 34-hammer stamping systems and 1 bonding press incl. electrical equipment (5.5 m ovens) for Quwo Coke Plant, Shanxi Province

Altos Hornos de Mexico S.A.B. de CV(AHMSA), Monclova, Coahuila, Mexico	2011/12	Automation, Positioning & interlocking of the existing coke oven machines in Co-quizadora 2
SL Heavy Machinery Co. Ltd., Taiyuan City, Shanxi Province, China	2011	Supply of 1 set of 32-hammer stamping systems and 1 bonding press incl. electrical equipment +option for 2 nd unit (5.5 m ovens) for Linyi Coke Plant, Shanding Province
Dalian Huarui Heavy Industry International Co., Ltd Xiang District, Dalian City, Liaoning Province, China	2011/12	Supply of 2 sets of 34-hammer stamping systems and 1 bonding press incl. electrical equipment (6.3 m ovens) for Lubao Coke Plant, Shandong Province
SL Heavy Machinery Co. Ltd., Taiyuan City, Shanxi Province, China	2011/12	Supply of 2 sets of 32-hammer stamping systems and 1 bonding press incl. electrical equipment (5.5 m ovens) for Tiexiong Coke Plant, Shandong Province
Dalian Huarui Heavy Industry International Co., Ltd Xiang District, Dalian City, Liaoning Province, China	2011/12	Supply of 2 sets of 34-hammer stamping systems and 1 bonding press incl. electrical equipment (6.3 m ovens) for Pengfei Coke Plant, Shandong Province
Taiyuan Heavy Machinery Co., Ltd. Taiyuan City, Shanxi Province, China	2012	Supply of 2 sets of 34-hammer stamping systems and 1 bonding press incl. electrical equipment (6 m ovens, SCP Machine) for Golden Rock Coke Plant, Shanxi Province
Dalian Huarui Heavy Industry International Co., Ltd Xiang District, Dalian City, Liaoning Province, China	2012	Supply of 2 sets of 34-hammer stamping systems and 1 bonding press incl. electrical equipment (6.3 m ovens) for Shenhua Coke Plant, Inner Mongolia
Dalian Huarui Heavy Industry International Co., Ltd Xiang District, Dalian City, Liaoning Province, China	2012	Supply of 1 set of 37-hammer stamping systems and 1 bonding press incl. electrical equipment (7.4 m ovens) Change-over from TOP to STAMP charging for Shoushan Coke Plant, Shandong Province. World record of the highest coal cake 7.2m high.
ThyssenKrupp Uhde Dortmund, Germany	2012	Development and supply of Engineering for a Stamping System for Heat Recovery Coke Ovens
SL Heavy Machinery Co. Ltd., Taiyuan City, Shanxi Province,	2013	Supply of 1 set of 32-hammer stamping systems (5.5 m ovens) for Linyi Coke Plant,

China		Shandong Province
Dalian Huarui Heavy Industry International Co., Ltd Xiang District, Dalian City, Liaoning Province, China	2013	Supply of additional 2 sets of 34-hammer stamping systems incl. electrical equipment (6.3 m ovens) for Lubao Coke Plant, Shandong Province
Dalian Huarui Heavy Industry International Co., Ltd Xiang District, Dalian City, Liaoning Province, China	2013	Supply of 3 sets of 34-hammer stamping systems and 1 bonding press incl. electrical equipment (6.3 m ovens, SCP Machine)) for Lianfeng Coke Plant, Jiangsu Province
SL Heavy Machinery Co. Ltd., Taiyuan City, Shanxi Province, China	2013	Supply of 2 sets of stamping systems and 1 bonding press incl. electrical equipment (4.3 m ovens) for Xiayi Jinhui Coke Plant, Shanxi Province
SL Heavy Machinery Co. Ltd., Taiyuan City, Shanxi Province, China	2014	Supply of additional 2 sets of 34-hammer stamping systems incl. electrical equipment (5.5 m ovens) for Hong Da Coke Plant, Shandong Province
SL Heavy Machinery Co. Ltd., Taiyuan City, Shanxi Province, China	2014	Supply of additional 2 sets of 32-hammer stamping systems incl. electrical equipment (5.5 m ovens) for Mei Fang Coal & Coking Co. Ltd., Inner Mongolia