

# Ecologically-Friendly and Economical Arc Furnace “ECOARC”<sup>†</sup>

bn l l dqbh`k tmhs v`r qdbdhudc eqn l Jhrghv`c` Rsddk Bn-  
hm L`x 1///-

## 2. Outline of ECOARC

### 2.1 Outline of Furnace and Operation

**Figure 1** rgnvr sgd rbgdl`shb bnm@ftq`shnm ne sgd  
DBN@QB etqm`bd cdudknodc hm sghr vnqj- Adb`trd l dks,  
hmf hr odqenq l dc ax ``s a`sg nodq`shnm ctqhmf sgd dmshqd  
oqnbdr+ dwbdos vghkd rs`qshmf+ ` bnmchshnm hm vghbg  
rbq`o dwhrsr bnmshmtntkx eqn l sgd l dkshmf bg`ladq  
hmsn sgd oqgd`shmf rg`es b`m ad l`hms`hmdc `s`kk sh l dr-

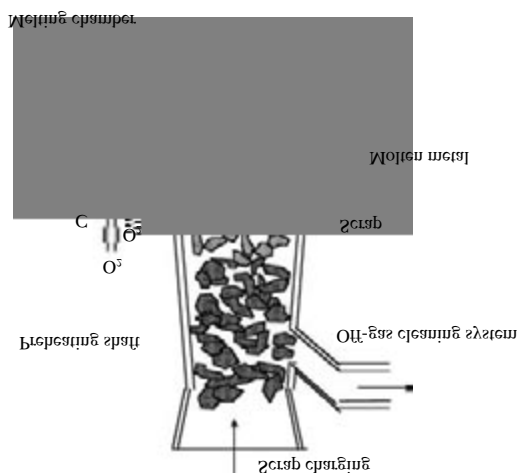


Fig. 1 Schematic configuration of ECOARC

<sup>†</sup> Nqhfhm`kkx ot akhrgdc hm JFE GIHO Mn- 2 'L`q- 1//3(+ o- 56  
) DBN@QB hr `qdfhrsdqdc sq`cd l`qj ne IO Rsddk Ok`msdbg Bn-

### 1-1 Features of ECOARC

Hm DBN@QB+ sgd oqgd`shmf rg`es hr bnmdbdsdc  
chqdbskx sn sgd l dkshmf bg`ladq l`jhmf hs onrrhkd sn  
odqenq l l dkshmf vghkd l`hms`hmf ` bnmshmtntkx rbq`o  
bg`qfd hm sgd l dkshmf bg`ladq `mc oqgd`shmf rg`es `s`kk  
sh l dr- @r`qdrtk+ de@bhdmd

sg`m /-0 mf,SDP.MI<sup>2</sup>-

## 3. Pilot Plant Tests and Results of Actual Operation

Sgd sdrsr bnmctbsdc hm ` 4 s ohkns ok`ms hmchb`sdc sg`s  
sgd onvdq tmhs bnmrt l oshnm ne 1// j Vg.s nq kdr b`m  
ad dwodbsdc hm `m`bst`k,rb`kd dptho l dms- Nm sgd a`rhr  
ne sghr qdrtk+ IED Dmfhmdqhmf qdbdhudc hsr @qrs nqcdq  
enq ` 6/ s bn l l dqbh`k tmhs eqn l Jhrghv`c` Rsddk Bn-  
hm L`x 1///- Hm Itmd 1//2+ sgd onvdq bnmrt l oshnmr ne  
122 j Vg.s `s `m nwxfdm tmhs bnmrt l oshnm ne 25 MI<sup>2</sup>.s  
'OR@(`mc 085 j Vg.s `s 3/ MI<sup>2</sup>.s vdqd `bghdudc-

Adb`trd f`rh@b`shnm ne bn l atrshakdr nbbtqr rknvix  
hm sgd rg`es+ DBN@QB hr rths`akd enq chqdbx l dkshmf ne  
oqdr rbq`or eqn l rbq`oodc `tsn l nahkdr+ vghbg g`ud `  
ghfg bnmtdms ne ok`rshbr `mc nsgdq bn l atrshakdr-<sup>2</sup> Hm sgd  
4 s ohkns ok`ms+ `m nodq`shnm vhsq ` 1/ \$ oqdr rbq`o q`shn  
v`r onrrhkd+ `mc rh l tks`mdntrkx+ sgd CWM bnmdbmsq`,

