

morsø

By appointment to The Royal Danish Court

morsø

Morsø 8100 & 8200

- Ⓚ Opstillings- og betjeningsvejledning
- Ⓚ Instructions for installation and use



INDHOLD · CONTENT

DK

1.0	Opstilling af Deres morsø ovn	5
2.0	Fyringsteknik/Brugen af Deres ovn	10
3.0	Regelmæssig vedligeholdelse af ovnen	14
4.0	Tekniske data	18

UK

1.0	Installing your Morsø stove	22
2.0	Firing/using the stove	27
3.0	Routine stove maintenance	31
4.0	Technical data	36
5.0	HETAS admendments	38



By appointment to The Royal Danish Court

morsø

Opstillings- og betjeningsvejledning 8100 & 8200

**8140, 8142, 8143, 8145, 8147, 8148, 8150, 8151,
8153, 8154, 8170, 8190, 8191, 8193, 8243**



EN 16 510 / NS 3058-3059

MORSØ JERNSTØBERI A/S · DK-7900 NYKØBING MORS
E-Mail: info@morsoe.com · Website: www.morsoe.com

Til lykke med Deres nye Morsø ovn!

Morsø, som er den største udbyder på det danske marked, har siden 1853 fremstillet brændeovne af den højeste kvalitet. Hvis De blot følger omstående instruktioner, er vi sikre på, at De også vil få nytte og glæde af Deres nye ovn i mange år.

Indhold	Side nr
1.0 Opstilling af Deres morsø ovn	5
1.1 Udpakning af ovnen	5
1.2 Opstilling af ovnen	5
1.3 Skorstensfejer	5
1.4 Ovnens placering/Afstandskrav	5
1.5 Skorstenen	6
1.6 Rørtilslutning	7
1.7 Tilslutning til muret skorsten	8
1.8 Tilslutning til stålskorsten	8
1.9 Trækforhold	9
2.0 Fyringsteknik/Brugen af Deres ovn	10
2.1 Optænding og fyringsintervaller	11
3.0 Regelmæssig vedligeholdelse af ovnen	14
3.1 Udvendig vedligeholdelse	14
3.2 Indvendig vedligeholdelse	14
3.3 Rensning af ovnen	15
3.4 Bortskaffelse af ovn	15
4.0 Tekniske data	18

Ekstra tilbehør

Til Morsø ovnene tilbydes et omfattende skorstens-, golvplade- og tilbehørsprogram, der kan lette den daglige betjening og vedligeholdelse af Deres Morsø ovn.

Støbejern

Støbejern er et levende materiale. Der er derfor ikke to ovne, der er helt ens. Det skyldes dels tolerancerne på støbejern, dels at ovnene er håndværksmæssigt udført.

I støbejernets overflade kan der ligeledes forekomme mindre ujævnheder.

1.0 Opstilling af Deres Morsø Ovn

1.1 Udpakning af ovnen

Morsø 8100-8200 ovnene vejer mellem 140 og 275 kg. For at undgå skamferinger i forbindelse med udpakning og montering af ovnen anbefales det at være 2 personer til dette arbejde.

Toppladen, der ligger løs, fjernes inden brændkammeret løftes af træpallen. Ovnens sættes omhyggeligt på plads centralt på bundpladen. Emballagen kan bortskaffes efter gældende regler om renovation.

1.2 Opstilling af ovnen

Man skal være opmærksom på nationale og lokale bestemmelser vedrørende opstilling af brændeovne. Samtidig skal man følge de lokale bestemmelser med hensyn til tilslutning til skorsten samt opstilling af skorstene. Spørg evt. Deres skorstensfejer til råds. Det er dog Dem selv, Deres tekniske rådgiver eller håndværker, der er ansvarlig for, at de nationale og lokale bestemmelser overholdes.

1.3 Skorstensfejer

Det kan, som nævnt, være klogt at rådføre sig med den lokale skorstensfejer inden opstilling af ovnen. Under alle omstændigheder skal skorstensfejeren underrettes, når brændeovnen er opstillet. Skorstensfejeren foretager et check af installationen, og der aftales fejningsterminer. Hvis skorstenen ikke har været i brug i nogen tid, bør den undersøges for revnedannelser, fuglereder m.v., inden den igen tages i brug.

1.4 Ovnens placering/Afstandskrav

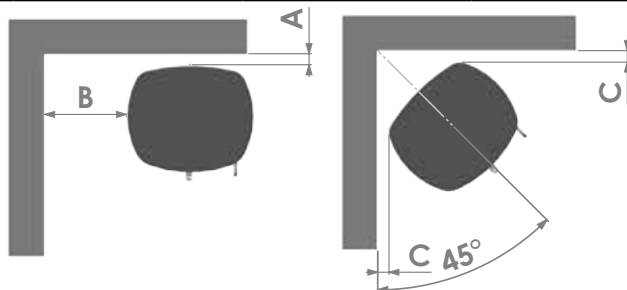
Kun når ovnen placeres op ad brændbart materiale, stilles der krav til afstand.

Ved en brændeovnsinstallation skal kravene til afstande overholdes.

Både for selve brændeovnen og røgrøret vil der være afstandskrav til brændbart materiale. Ofte vil det være røgrøret der har det længste afstandskrav og den samlede installation skal overholde den længste afstand.

Afstandskrav for ovn

Min. afstand til brandbart materiale - Morsø 8100			
Opstilling	Bag ovnen (A)	Ved ovnens sider (B)	45° Hjørne (C)
Normal retvinklet uisoleret røgrør	150 mm	500 mm	-
Normal retvinklet isoleret røgrør	50 mm	350 mm	-
Hjørnemontering isoleret røgrør	-	-	50 mm



Afstandskrav for røgrør

Benyttes der uisoleret røgrør, når ovnen monteres ved brændbart materiale skal afstanden mellem det uisoleret røgrør og den brændbare væg være 3 x røgrørets diameter, dog ikke mindre end 375 mm.

For andre CE godkendte røgrør (isolerede) vil afstandskravet fremgå af røret.

Afstandskrav for den komplette installation (ovn og røgrør)

Længste afstande, hvad enten det er fra røgrøret eller fra ovnen skal overholdes.

Af hensyn til varmecirkulation, rengøring og evt. indvendig rensning af ovn, anbefales afstand til murværk at være 10-15 cm. Et lag tapet bliver normalt, når det er påsat murværk, betragtet som ikke-brændbart materiale.

På gulvet

Sker opstillingen på brændbart gulv, skal de nationale og lokale bestemmelser overholdes med hensyn til størrelsen på et ikke brændbart underlag, der skal dække gulvet under ovnen. Man bør naturligvis sikre sig, at underlaget kan bære ovnens og evt. stålskorstenens vægt.

Loft

Afstand fra toppen af ovnen til loft skal være minimum 400 mm

Møbleringsafstand

Den anbefalede møbleringsafstand er 1100 mm, men man bør dog vurdere, om møbler og andet vil blive udtørret af at stå tæt på ovnen.

Afstand til brændbart materiale foran ovnen er 1100 mm.

En brændeovn bliver varm under fyring. Der skal derfor udvises en fornøden forsigtighed, specielt i.f.m. børns kontakt med ovnen.

1.5 Skorstenen

Hvis lokale bestemmelser tillader det, kan ovnen tilsluttes en skorsten, hvortil der i forvejen er tilsluttet et andet lukket ildsted (f.eks. en anden brændeovn eller oliefy). Men bemærk at en brændeovn ikke må tilsluttes samme skorsten som nye kondenserende oliefy. Er De i tvivl bedes De kontakte Deres skorstensfejer.

Man skal være opmærksom på eventuelle krav til placering af røgrør, hvis to eller flere ildsteder tilsluttes samme skorsten.

Brændeovnen må aldrig tilsluttes en skorsten, hvor et gasfy er tilsluttet.

En moderne effektiv ovn stiller større krav til Deres skorsten. Lad derfor skorstensfejeren vurdere skorstenen.

Skorstenens lysning skal følge de nationale og lokale bestemmelser. Men generelt bør lysningsarealet mindst være 175 cm² (150 mm diameter) for brændeovne.

En for stor skorstenslysning bevirker, at der bruges for meget energi på at få opvarmet skorstenen til et acceptabelt træk. Er der tale om en muret skorsten med større lysning, anbefales det at isætte en isolerende skorstensforing med den rigtige diameter. Herved opnås et forøget træk og tillige en bedre fyringsøkonomi.

Der stilles ingen krav til nogen bestemt skorstenshøjde, men den skal være så høj, at trækforholdene er i orden og røgen ikke generer. Som hovedregel er trækforholdene tilfredsstillende, når skorstenen er 4 meter over ovnen og er ført mindst 80 cm over tagrygningen.

Placeres skorstenen ved husets sider bør toppen af skorstenen aldrig være lavere end husets tagryg eller tagets højeste punkt. Bemærk, at der ofte gælder nationale og lokale bestemmelser med hensyn til placering af skorstene i forbindelse med stråtag. Se afsnittet trækforhold 1.9.

Skorsten og røgrør skal forsynes med renselemme. Størrelsen på renselemme i skorsten skal mindst svare til skorstenens lysningsareal. Skorstenen skal være tilgængelig for udvendigt eftersyn, og der skal være mulighed for adgang til renselemme og til skorstenen, hvis den skal renses fra toppen (eks. stålskorstene).

1.6 Rørtilslutning

Den øverste støbte topplade løftes af ovnen.

Bemærk den vedlagte runde støbte dæklade monteres i den øverste topplade, hvis ovnen skal monteres med røgrør bagud.

Montering af røgtud ovenud

Ovnen er fra fabrikken forberedt til montering af den vedlagte ø150 røgtud (1) ovenud med vedlagte kuglefang og skruer. Kuglefanget, der skal forhindre at skorstensfejerens ødelægger ovnensrøgledeplader under rensning, er den 178 mm lange stang, der er vedlagt.

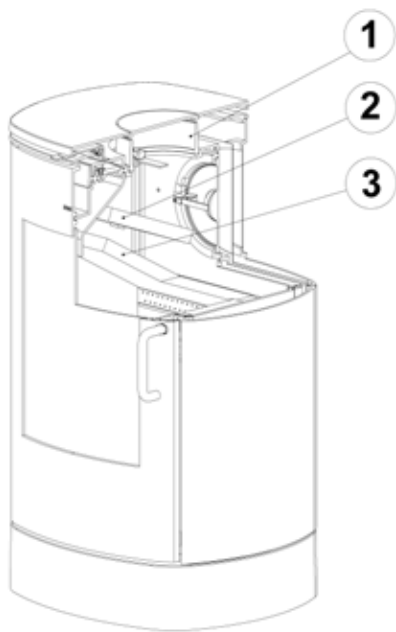
Montering af røgtud bagud

Ønskes ovnen monteret med røgafgang bagud, afmonteres den runde plade, der er fikseret med 2 skruer bag på ovnen. Pladejernsbrikken på den indvendige konvektionsbagplade slås ud med små kontante slag med en hammer ud for de små "broer", der holder brikken på plads. Det støbte dæksel fjernes fra bagpladen, ved at dreje det mod uret og monteres på den indvendige topplade, ved at trykke det ned og dreje det med uret. Dækslet kan fungere som rensedæksel og lette adgangen til den årlige rensning af ovnen. Røgtuden centrerer og skrues fast på ovnens bagside med de vedlagte lus og skruer. Kuglefanget skal ikke anvendes ved montering af røgtud bagud.

Placering af røgledeplader

Røgledepladerne (2) og (3), der er udført i vermiculite, er placeret ved modtagelsen.

Man skal sikre sig, at røgledepladerne er korrekt monteret inden en optænding af ovnen finder sted. (se skitse)



1.7 Tilslutning til muret skorsten

I væggen fastmures en murebøsning, og røgrøret føres ind i denne. Røret må ikke stikkes ind i selve skorstensåbningen, men kun gå til den indvendige side af skorstenslysningen. Samlingerne ved oven/rør og rør/murebøsning skal tættes med den vedlagte glassnor. Normalt behøver man ikke tætte mellem evt. rørsamlinger.

Evt. overgang fra lodret til vandret røgrør kan med fordel monteres med en blød bøjning for at undgå tab af skorstenstræk.

Dimensioneringen af røgrør skal følge de nationale og lokale bestemmelser. Morsø anbefaler dog, at røgrør udføres i 2 mm stålplade, da det vil forlænge røgrørets levetid.

1.8 Tilslutning til stålskorsten

Er der tale om opstilling, hvor skorstenen føres direkte op gennem loftet, skal man følge de nationale og lokale bestemmelser m.h.t. skorstenens afstand til brandbart loft. Skorstenen tættes ved røgtuden med vedlagte glassnor. Det er vigtigt at skorstenen er monteret med tagbæring eller loftkrave med styr. (Se skorstensfabrikantens vejledning). En stor vægt på ovns topplade kan forårsage revnedannelse af denne.

Morsø garanti omfatter ikke toppladen, hvis skorstenen er monteret uden tagbæring, tagstyr eller lignende.

Skulle der opstå skorstensbrand i.f.m. fejlbetjening af ovnen eller længere tids anvendelse af fugtigt brændsel, lukkes lufttilførslen helt, og brandvæsnet kontaktes.

Vær opmærksom på!

Rensningsmuligheder. Tal med skorstensfejer.

Ved for lidt træk i skorstenen kan man med fordel montere røgrøret ovenud, da man derved mindsker røgvandringen i selve brændkammeret.

Undgå flere bøjninger end nødvendigt og begræns røgrørslængden, da trækforholdene ellers nedsættes.

Frisklufttilførsel

En brændeovn kræver luft til forbrændingen. Dette bevirker, at brændeovnsfyring er med til at give et sundt indeklima i et hus. Hvis huset er meget tæt, og især hvis der er emhætte eller ventilationsanlæg i huset, kan det være nødvendigt at anbringe en luftrist i det rum, hvor brændeovnen er opstillet. I modsat fald vil skorstenstrækket blive for svagt, hvilket kan medføre at ovnen ikke vil brænde ordentligt, og der kan komme røg ud af ovnen, når fyrdøren åbnes.

Er det nødvendigt at anbringe luftriste, skal de placeres således, at de ikke kan blokeres.

1.9 Trækforhold

Hvis der kommer røg ud af ovnen, når fyrdøren åbnes, skyldes det dårligt skorstenstræk. Der kræves, for denne ovntype, et skorstenstræk på mindst 12 PA for at afgive tilfredsstillende forbrænding og forhindre røgudslip. Der vil dog være risiko for røgudslip, hvis ovndøren åbnes under meget kraftig fyring, hvilket derfor frarådes.

Røggastemperaturen i røgstudsens ved nominel ydelse er 334°C

Er De i tvivl, kan De eventuelt lade Deres skorstensfejer måle trækket i skorstenen.

Trækforhold

Skorstenens træk skabes på grund af forskellen mellem den høje temperatur i skorstenen og den koldere udetemperatur. Skorstenens længde og isolering, vind og vejrforhold er også afgørende for, at man kan opnå det rette undertryk, så trækket skabes.

Nedsat træk fremkommer når:

- Temperaturforskellen er for lille. Eksempelvis ved for dårlig isoleret skorsten. Hvis skorstenen er kold, kan det inden optænding hjælpe at antænde (afbluse) en sammenkrøllet avis i skorstenens rensedør.
- Udetemperaturen er for høj. Eksempelvis om sommeren.
- Det er vindstille.
- Skorstenen ikke har den rette højde, så den er i læ af tagflade og høje træer. I disse tilfælde er der også størst risiko for røgnedslag.
- Der kommer falsk luft ind i skorstenen. Eksempelvis gennem manglende fuger eller utætheder ved renseløbet eller røgrør.
- Der er utætte ubenyttede ildsteder tilsluttet skorstenen.
- Røgrør og skorsten er tilstoppet af sod p.g.a. manglende rensning.
- Huset er for tæt (se afsnittet: Frisklufttilførsel).
- For lidt lufttilførsel.

Godt træk fremkommer når:

- Temperaturforskellen i skorstenen og udenfor er stor. Altså ved fyring, når behovet er størst.
- Det er klart i vejret og der er en god vind.
- Skorstenen har den rette højde. Min. 4 meter over ovnen og fri af tagryg.

2.0 Fyringsteknik/Brugen af Deres ovn

Deres ovn er konstrueret med lufttilførsel 2 steder.

En forvarmet forbrændingsluft tilføres forbrændingen med stor hastighed over glasset og betjenes ved hjælp af grebet over døren. Forbrændingsluften tilføres, når grebet skydes til højre og lukkes når grebet skydes til venstre. En anden lufttilførsel er en konstant forvarmet lufttilførsel uden reguleringsmulighed, der tilføres forbrændingen lige over bålet, og hjælper med at brænde de sidste gasser af, som træet afgiver under opvarmningen. Rysteristen betjenes med rystestangen, der er placeret bag døren.

Ovnens nominelle varmeydelse er 7,2 kW.

Deres nye Morsø ovn er EN afprøvet til fyring med træ og egnet til intermitterende brug.

VIGTIGT!

Træ er et yderst gasholdigt materiale (ca. 75 %). Disse gasser frigives under opvarmning og antændelse af træet. Det er derfor vigtigt at disse gasser antændes hurtigt efter en påfyldning. Ligger træet kun og ulmer, specielt efter en ny påfyldning, kan det i værste fald forårsage en eksplosionsagtig antændelse af røggasserne med risiko for såvel materielle skader som personskader.

For at kunne antænde disse frigivne gasser fra træet og opretholde klare og blivende flammer i forbrændingsforløbet, er det derfor vigtigt altid at tilføre den nødvendige mængde ilt (luftmængde).

Indstilling af lufttilførsel, optændingsmetode og fyringsintervaller er afhængig af skorstenstræk, vind- og vejrforhold, varmebehov, brændsel m.m. Derfor kan der gå tid, inden De kender ovnens korrekte funktion under de givne forhold.

Selv om der kan fyres med næsten alle former for træ i Deres Morsø ovn, skal man ikke fyre med vådt eller ulagret træ. Træ bør under tag lagres mindst 1 år og helst 2 år med fri adgang for vind. Træ skal kløves hurtigst muligt efter fældningen, hvis det skal tørre hurtigt. Træet kan anvendes, når fugtigheden er under 20%. Under EN afprøvningen testes alle brændeovne med træ med et fugtindhold på $(16 \pm 4)\%$.

Brug aldrig drivtømmer, da det som regel er meget saltholdigt, og ødelægger dermed både ovnen og skorsten. Imprægneret og malet træ samt spånplader uden-der giftig røg og dampe og må derfor heller ikke anvendes som brænde.

Bemærk, der må ikke anvendes flydende brændsel i ovnen.

Brændestykker med en diameter større end 10 cm bør altid kløves.

Brændestykkerne må ikke være længere, end de kan ligge plant over glødelaget med luft til begge ender.

Maximal brændelængde i ovnen er 30 cm.

Maximal brændemængde er 2,5 kg./time (max 3 stykker træ pr. påfyldning).

De første optændinger skal være moderate, således at den varmebestandige maling kan hærdes, inden der fyres kraftigere. Malingen kan i hærdningsfasen udvikle røg og lugtgener under den første optænding, hvilket er ganske normalt. Sørg derfor for udluftning i denne periode.

Under opvarmning og nedkøling kan ovnen afgive nogle knirkelyde, hvilket er helt normalt, og skyldes den store temperaturforskel materialet udsættes for.

2.1 Optænding og fyringsintervaller

Brug altid den medfølgende varmebestandige handske ved betjening af ovnen under drift.

Under optænding er der behov for en stor luftmængde. Når man starter op med en kold ovn, skal døren stå på klem de første minutter og samtidig åbnes forbrændingslufttilførslen på max. Behold altid ca. 1 cm aske i bunden af brændkammeret. Dette virker isolerende og fremmer en god forbrænding.

1. Det anbefales, at man benytter „Top-Down“-optænding, når man tænder op i brændeovnen. Det er den mest miljøvenlige optændingsmetode. Glødelaget dannes hurtigt ved optænding med 2 optændingsposer samt ca. 1.5 kg tørt pindebrænde. Optændingsposerne anbringes lige under det øverste lag pindebrænde. Fyld ikke mere træ i ovnen, end at det ligger under den tertiære lufttilførsel, som sidder øverst i brændkammeret.



2. Der åbnes helt for lufttilførslen, der betjenes med grebet over døren.



3. Efter antænding af papiret/sprittabletterne lukkes døren på klem i det første hak i låsebeslaget på fronten, så man sikre sig, at der er godt med træk i startfasen.



4. Når man kan se (efter 5-10 min.), at skorstenen er så varm, at der er træk igennem den, lukkes døren helt. Hvis alle forudsætninger er opfyldt, vil der efter yderligere ca. 15-20 min. være dannet et tykt glødelag i brandkammeret og der vil være en høj temperatur i brændkammeret, som er nødvendig for at kunne fortsætte forbrændingsfasen.



5. Er forudsætningen under pkt. 4 opfyldt, lægges der max. 3 stykker brænde med en samlet vægt på 1,5-2,5 kg og en længde på 25-30 cm ind over gløderne i ét lag med en afstand på ca. 1 cm mellem træstykkerne.



6. Lufttilførslen åbnes på max. og døren lukkes. Under normale forhold vil den friske træ mængde være antændt på 2-3 minutter.

Vigtigt!

Det er vigtigt, at den friske træmængde hurtigt begynder at brænde. En hurtig antændelse af brændet opnås ved at åbne forbrændingsluften på max. eller ved at lade døren stå på klem for at tilføre den mængde luft, der skal til for at antænde træet.

Hvis brændet derimod kun ulmer, giver det en kraftig røgudvikling, som i værste fald kan forårsage en eksplosionsagtig antændelse af røggasserne med risiko for såvel materielle skader som personskader.



Døren lukkes helt igen når træet er antændt.

7. Herefter justeres forbrændingsluften ned til den ønskede position, og den optimale forbrænding vil fortsætte.

Man skal sikre sig, at der altid er luft (ilt) nok til at opretholde klare og blivende flammer under og efter nedjustering af forbrændingsluften.

Under den officielle afprøvning lå påfyldningsintervallet på 70-80 minutter.



8. Når forbrændingen når ned til et tykt glødelag kan en ny portion træ påfyres på samme måde som angivet i pkt. 5 & 7.

Advarsel – brug aldrig brændbare væsker

Brug aldrig benzin, petroleum, lampeolie, optændingsvæske, ætylalkohol eller lignende brændbare væsker til at tænde eller genantænde ild i ovnen. Opbevar aldrig sådanne væsker i nærheden af ovnen, mens den er i brug, da dette udgør en alvorlig brand- og eksplosionsfare.



Normalt skal ovndøren altid åbnes roligt de første 2-3 centimeter, og man skal vente til trykket er udlignet inden døren åbnes helt. På denne måde undgås eventuelle røggener specielt i forbindelse med dårlige trækforhold.

Åbn aldrig ovndøren under voldsom fyring.

Når træet er brændt ud, er det omdannet til glødende trækul. Hvis der så forinden er dannet et godt glødelag oven på et tilstrækkeligt lag aske, kan ovnen holde sig varm meget længe ikke mindst i kraft af støbejernets gode egenskaber.

Ved skorstensbrand

Hvis der opstår skorstensbrand: Luk straks alle lufttilførsler til ovnen for at kvæle ilden. Forlad bygningen og kontakt brandvæsnet (ring 112). Brug ikke ovnen igen, før skorstenen er blevet inspiceret og godkendt af en fagperson, f.eks. en skorstensfejer.

Natfyring frarådes på det kraftigste. Det sviner miljøet og giver en ringe udnyttelse af brændet, da træets gasser med den lave temperatur ikke antændes. Istedet sætter det sig som sod (uforbrændte gasser) i skorstenen og i ovnen. Under ekstreme forhold såsom dårligt skorstenstræk, stor mængde træ eller vådt træ kan en eksplosionsagtig antændelse i værste fald forekomme.

Ved fyring om sommeren, når behovet for varme er minimal, bliver forbrændingen dårlig. Ovnens varmer for meget og man skruer ned for forbrændingen. Men husk altid at sørge for at der er blivende flammer, så længe træet ikke er omdannet til trækul. Ønsker De at fyre svagere gøres dette ved at påfylde mindre mængde træ.

Hvis man fyrer med vådt brænde, vil en stor del af brændets varmeenergi medgå til at fortrænge vandet fra brændet, uden at afgive varme til ovnen. Denne ufuldstændige forbrænding medfører sodaflejring i ovn, rør og skorsten.

Sammenligning træfyring og olie:

Træart (vandindhold på 20%)	Antal rummeter pr. 1000 l. olie
Eg	7,0
Bøg	7,0
Ask	7,2
Ær	7,5
Birk	8,0
Elm	8,9
Rødgran	10,4
Ædelgran	10,9

3.0 Regelmæssig vedligeholdelse af ovnen

3.1 Udvendig vedligeholdelse

Ovnens overflade er malet med en varmebestandig senotherm maling. Den holder sig pænest, hvis den blot støvsuges med et blødt mundstykke eller aftørres med en tør fnugfri klud.

Den malede overflade kan med tiden, ved for kraftig fyring, få et gråligt skær; men ovnen kan let opfriskes med en Morsø spraymaling, der kan købes hos Deres lokale forhandler. Morsø ovnene er malet med Morsø original sort (tidligere kaldet Morsø koks) eller Morsø grå. Malingen kan købes i spray eller dåse.

3.2 Indvendig vedligeholdelse

Glas

Ved korrekt fyring med træ afsættes der ingen, eller kun lidt sod, på det keramiske glas. Er der under optændelsen sket soddannelse på glasset, vil soden brænde væk, når der fyres normalt i ovnen. Bliver glasset sodet grundigt til ved fejlbetjening, kan det let fjernes med f.eks. Morsø Glasrens. Glasset skal være koldt, når denne rengøring finder sted. Man skal undgå at fylde ovnen med så lange stykker brænde, at det presser på glasset, når lågen lukkes.

Årsager til sodet glas:

- For vådt brænde.
- For store stykker brænde/ukløvet træ.
- For lav forbrændingstemperatur.
- For lidt luft.

Udskiftning af glas

Keramisk glas kan ikke genanvendes, fordi det har en højere smeltetemperatur. Blandes keramisk glas med almindelig glas, ødelægges råvaren og genvindingsprocessen af glas kan stoppe. Sørg for at det ildfaste glas ikke havner som almindelig genbrug. Det er til stor hjælp for miljøet.

OBS: Glas fra en brændeovn skal afleveres som keramisk glas på en genbrugsstation.

Indvendige støbejernsdele/og andre sliddele

Røgledeplader og andre dele, som er i direkte berøring med ild og glødende brændsel, er sliddele. De vil derfor være særlig udsat for gennembrænding. Ved korrekt brug vil disse dele holde i mange år. Ved for kraftig fyring vil gennembrændingen selvfølgelig fremskyndes. De nævnte dele kan udskiftes. Hvis røgledepladerne beskadiges og ikke skiftes i tide, vil toppladen herefter være udsat for så høj temperatur, at den kan tage skade.

Bemærk, at konstruktionen ikke må ændres, og dele, der udskiftes skal være originale MORSØ dele.

Årsager til for hurtig slitage af indvendige dele

- For kraftig fyring Brug af for meget tørt træ (møbelaffaldstræ).
- For meget sod ovenpå røgledepladerne (se afsnit Rensning).
- For meget aske i skuffen (se afsnit Aske).

Pakninger

Med tiden vil pakningerne i lågerne blive slidte og bør, for at undgå løbsk forbrænding, udskiftes efter behov. Brug Morsø pakningssæt

Bemærk: Normale sliddele er ikke omfattet af Morsøs udvidede garantiordning.

Vedligeholdelsessortiment (Reserve dele, Glasrens, Maling, Pakningssæt m.m.) findes hos Deres Morsø forhandler.

3.3 Rensning af ovn

Specielt på oversiden af den øverste røgledeplade vil der, som følge af træk i skorstenen og efter en fejning, komme et aske- og sodlag. Asken vil have en isolerende virkning, hvilket kan fremskynde en gennembrænding af røgledepladerne.

Under normal rensning kan røgledeplader tages ud af ovnen. Når disse er fjernet, giver det adgang til rensning af røgkammeret over røgledepladerne.

Røgledeplader rengøres inden genmonteringen, hvor man skal sikre sig, at disse bliver korrekt monteret.

I dag skal skorstensfejeren, udover fejning af skorsten og rensning af røgrør, sørge for tømning af sod i ovnen. Antallet af fejninger/rensning af ovnen vurderes af skorstensfejeren efter samråd med Dem.

Aske

Som tidligere beskrevet bør der være ca. 1 cm isolerende askelag i bunden af brandkammeret, for at opnå en høj forbrændingstemperatur. Når askelaget er for tykt, fejes asken ned i askeskuffen.

Tøm skuffen før den er helt fyldt, så asken ikke isolerer omkring risten, da det kan fremskynde en gennembrænding.

Asken må i de fleste tilfælde bortskaffes med dagrenovationen. Da der kan ligge gløder gemt i askeskuffen i flere døgn, kan det være nødvendigt at opbevare asken i en beholder af ubrændbart materiale, inden asken hældes i affaldssækken.

Aske fra en brændeovn kan ikke gavne haven som gødning. Hvis der har været afbrændt farvelagte brochurer, malet eller imprægneret træ og lignende i ovnen, må asken ikke hældes ud på jord, da den kan indeholde tungmetaller.

3.4 Bortskaffelse af ovn

Når ovnen ikke længere er i brug, skal den bortskaffes på miljømæssigt forsvarlig vis. Aflever ovnen og dens komponenter på din lokale genbrugsstation i henhold til deres gældende anvisninger for sortering og affaldshåndtering.

1. Nederste røgledeplade løftes en smule og holdes i den position. Derved løsnes sidestene.



2. Første sidesten vippes og tages ud.



3. Anden sidesten vippes og tages ud.



4. Efter at sidestenen er fjernet sænkes nederste røgledeplade og løftes ud.



5. Øverste røgledeplade løftes ud af sin holder og vippes ud.



6. Man skal sikre sig, at røgledeplader og sten igen er korrekt monteret inden optænding efter en rensning.



Vedligeholdelsesdele til 8100-8200 serien

Beskrivelse

Støbt rist
Tertiær boks
Glas
Vermiculite set

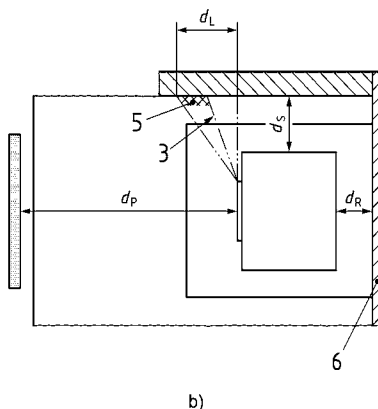
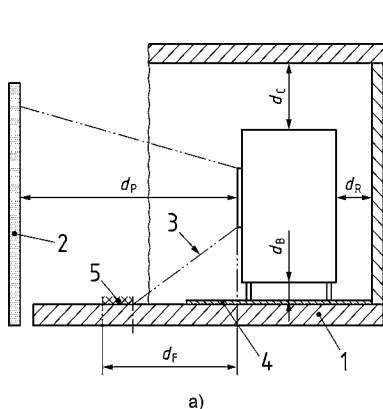
Produktnr.

44182800
71810861
79810100
79811700

4.0 Tekniske Data

Ovn model	Morsø 8100 serien
Ovnstype (iht. standard EN 16 510)	BF
Ovnens bæreevene (f.eks skorsten)(kg)	120
Røggastemperatur (°C) i røgstuds	334
Røggasmasseflow (g/s)	6
Skorstensklasse T_{class} , minimum	T400 G
CO emission (ved 13% O ₂) (mg/m ³ _n)	327
OGC (tjære o.l.) emission (ved 13% O ₂) (mg/m ³ _n)	24
NO _x emission (mg/m ³ _n)	87
PM (ved 13% O ₂) (mg/m ³ _n)	21
Partikel emission, vægtet gennemsnit (g/kg)	3.41
Partikel emission, maks. i enkel prøvning (g/kg)	3.51
Virkningsgrad (%)	82
Energi Effektivitets Index (EEI)	109
Energi Klasse	A+
Nominel drifteffekt (kW) (testet)	7.9
Nominel drifteffekt (kW) deklareret af producent	7.2
Røgtræk, minimum (Pa)	12
Ovnens lækage (prøve eksemplar) (m ³ /h)	11.00 (at 25 pa) 7.95 (at 15 pa) 5.06 (at 10pa) 1.71 (at 5 pa)
Forbrændingsluftforbrug (maks. indstilling) (m ³ /h)	13
Brændsel (type iht. EN 16 510 tabel B.2)	Trækævlér (I), Træbriketter (K)
Nominelle brændemængde pr. indfyring (kg)	1.7
Brændelængde, maksimal (cm)	30
Testinstitut, Notified Body	1235
Alle måledata i henhold til prøvestandarder EN 16 510-1-2022 / EN 16 510-2-2022 samt NS 3058-3059. Prøvninger er foretaget hos et akkrediteret prøvningsinstitut.	

For en akkrediteret prøvning udgør grundglødelaget udgør ca. 1/3 af den nominelle brændemængde og prøveperioden er fra isættelse af prøvemængden til omtrentlig flammeophør. Prøveperioden er ca 40 minutter og glødelaget varierer ±100 gr fra forrige indfyring.



Billede forklaring

1	Prøvestand gulv
2	Prøvestand front
3	Strålingsområde
4	Gulvplade
5	Kritisk område (65 K varmegrænse overskredet pga. varmestråling)
6	Prøvestand vægge

Sikkerhedsafstande ved brug af isoleret rørør

Loft d_c	400 mm
Front d_p	1100 mm
Gulv foran d_F	0 mm
Gulv under ovn d_B	0 mm
Strålingsområde, side d_L	0 mm
Sidevæg d_s	350 mm
Bagvæg d_R	50 mm

Ovnens fysiske dimensioner:

H x B x D (mindste model):

777 mm x 530 mm x 447 mm

H x B x D (største model):

1409 mm x 530 mm x 447 mm

Garanti Produkt Registrering

MORSØ'S 10 ÅRS PRODUKTGARANTI

Bag hver MORSØ brændeovn ligger mere end 160 års erfaring i udviklingsarbejdet samt en grundig kvalitetskontrol foretaget af vore medarbejdere gennem hele produktionsprocessen. Derfor giver MORSØ 10 ÅRS GARANTI med hensyn til materiale- og fabrikationsfejl. Garantiperioden regnes fra salgsdato. For at sikre bedst mulig garantibehandling anbefales det at udfylde garantikortet og registrere det med det samme.

Læs mere om "Morsø's 10 års produktgaranti og -registrering" og
REGISTER din nye Morsø ovn online:
<http://denmark.morsoe.com/garantiregistrering>



By appointment to The Royal Danish Court

morsø

Instructions for installation and use

8100 & 8200

**8140, 8142, 8143, 8145, 8147, 8148, 8150, 8151,
8153, 8154, 8170, 8190, 8191, 8193, 8243**



EN 16 510/ N5 3058-3059

MORSØ JERNSTØBERI A/S · DK-7900 NYKØBING MORS
E-Mail: info@morsoe.com · Website: www.morsoe.com

Enjoy your new Morsø stove!

Morsø, the biggest stove company in the Danish market, has been making wood-burning stoves of the highest quality since 1853. Just follow the instructions below, and we are certain that you will be able to use and enjoy your new stove for many years to come.

Contents

1.0	Installing your Morsø stove	22
1.1	Unpacking the stove	22
1.2	Installing the stove	22
1.3	Chimney sweep	22
1.4	Location of the stove/distance requirements	22
1.5	The chimney	23
1.6	Pipe connections	24
1.7	Connecting to a brick chimney	25
1.8	Connecting to a steel chimney	25
1.9	Draught	26
2.0	Firing/using the stove	27
2.1	Lighting instructions and fuelling intervals	28
3.0	Routine stove maintenance	31
3.1	External maintenance	31
3.2	Internal maintenance	31
3.3	Cleaning the stove	32
3.4	Disposal of the stove at end of life	32
4.0	Technical data	36
5.0	HETAS admendments	38

Additional accessories

We offer a comprehensive line of chimney, floor plate and accessory products that can facilitate the daily operation and maintenance of your Morsø stove.

Cast iron

Cast iron is a live material. There are no two ovens that are identical. This is partly due to the tolerances of the casting process, partly because the ovens are a work of craftsmanship. Minor unevennesses may also occur in the cast iron surface.

1.0 Installing your Morsø stove

1.1 Unpacking the stove

The Morsø 8100-8200 stoves weigh between 150 and 275 kg. In order to avoid damage when unpacking and assembling the stove, we recommend that this job be undertaken by 2 people. Remove the top cover, which is lying loose, before lifting the combustion chamber off the wooden pallet. Place the stove carefully in position, centrally on the base plate.

1.2 Installing the stove

National and local regulations regarding the installation of wood-burning stoves must be observed, as must local regulations regarding chimney connections and chimney installation. You may want to ask your chimney sweep for advice. However, it is you, your technical adviser or workman, who is responsible for compliance with the applicable national and local regulations.

1.3 Chimney sweep

As stated, it may be wise to consult your local chimney sweep before installing the stove. In any event, the chimney sweep must be notified once the wood-burning stove has been installed. The chimney sweep will inspect the installation, and reach an agreement with you regarding sweeping intervals. If your chimney has not been used for some time, it should be inspected for cracks, bird nests, etc., before it is used.

1.4 Location of the stove/distance requirements

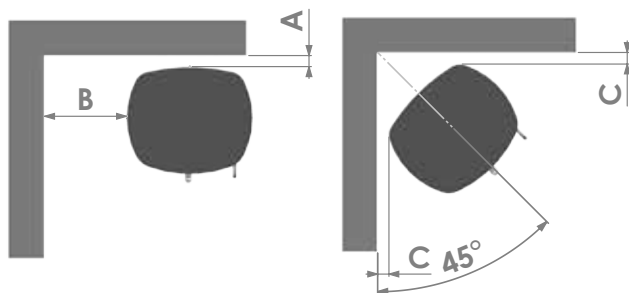
Distance requirements apply only if the stove is placed near flammable materials.

If the walls are made of flammable material, there will be distance requirements concerning both the flue pipe and the stove.

Most often it will be the smoke pipe that will have the longest distance requirement and the total installation must comply with the longest distance..

Distance requirements for the stove

Minimum distance to combustible material - Morsø 8100			
Installation	Behind the stove (A)	To the sides of the stove (B)	45° corner (C)
Normal parallel un-insulated flue pipe	150 mm	500 mm	-
Normal parallel insulated flue pipe	50 mm	350 mm	-
Corner insulated flue pipe	-	-	50 mm



Distance requirements for flue pipe

If using un-insulated flue pipe in a combustible environment then the distance between combustibles and the flue pipe must be 3 times the diameter of the pipe but never less than 375 mm.

For other CE approved smoke pipes (insulated) the distance requirement will be indicated on the pipe.

Distance requirements for the complete installation (stove and flue pipe)

Longest distances, regardless of whether it is from the flue pipe or from the stove must be observed.

We recommend that the stove be installed at least 10-15 cm from masonry in order to allow heat to circulate and to facilitate the cleaning of the inside and outside of the stove. A layer of wallpaper on a brick wall is normally regarded as non-flammable material.

The floor

If the stove is installed on a flammable floor, national and local regulations must be observed with regard to the size of the non-flammable underlying surface that must cover the floor beneath the stove.

The underlying surface must naturally be able to bear the weight of the stove and, if applicable, the steel chimney.

Ceiling

The distance between the top surface of the stove to the ceiling must be at least 400 mm

Distance to furniture

We recommend that the stove be installed 1100 mm from furniture, but consideration should also be given to whether furniture, etc., will dry out as a result of its proximity to the stove.

The distance to flammable material in front of the stove is 1100 mm.

A wood-burning stove gets hot when it is fired. Caution must therefore be observed, particularly with regard to children touching the stove.

1.5 The chimney

If local regulations permit, the stove may be connected to a chimney already serving another fireplace (such as an oil-burning stove or another wood-burning stove). Attention should be paid to any requirements concerning the location of flue pipes if two or more fireplaces are connected to the same chimney.

The wood-burning stove must never be connected to a chimney to which a gas-burning stove is already connected.

An efficient, modern stove places great demands on the chimney, so you should get the chimney swept to evaluate chimney.

The aperture of the chimney must comply with national and local regulations. In general, the aperture area should measure at least 175 cm² (150 mm diameter) for wood-burning stoves. An overly large chimney aperture will mean that too much energy will be required to heat the chimney sufficiently to achieve an acceptable draught in the chimney. If you have a brick chimney with a large aperture, we recommend that you install an insulating chimney liner of the proper diameter. This will increase the draught, and improve the fuel economy. There are no requirements with respect to specific chimney heights, but a chimney must be tall enough to provide a good draught, and to ensure that the smoke does not cause any problems.

As a general rule, there will be a satisfactory draught if the chimney extends 4 metres above the stove and at least 80 cm above the spine of the roof. If the chimney is located along the side of the house, the top of the chimney should never be lower than the spine of the roof or the highest point on the roof. Please note that there are often national and local regulations concerning the location of chimneys in houses with thatched roofs. Please see section 1.9 on Draught.

The chimney and the flue pipe must be fitted with cleaning doors, which must be at least the same size as the chimney's aperture area.

The chimney must be accessible for external inspection, and it must be possible to access the cleaning doors and the chimney if it is to be cleaned from the top (e.g. steel chimneys).

1.6 Connecting the flue pipe

Lift the upper cast iron top plate off the stove.

Note: The included round cast iron cover plate must be mounted on the upper cast iron top plate if the stove is being installed with the flue pipe to the rear.

Mounting the flue collar pointing upwards

From the factory, the stove is prepared for installation with the included $\varnothing 150$ flue collar (1) pointing upwards with included ball stop and screws. The ball stop, which prevents the chimney sweep from damaging the stove's baffle plates while sweeping, is the 178 mm long rod that is provided.

Mounting the flue collar to the rear

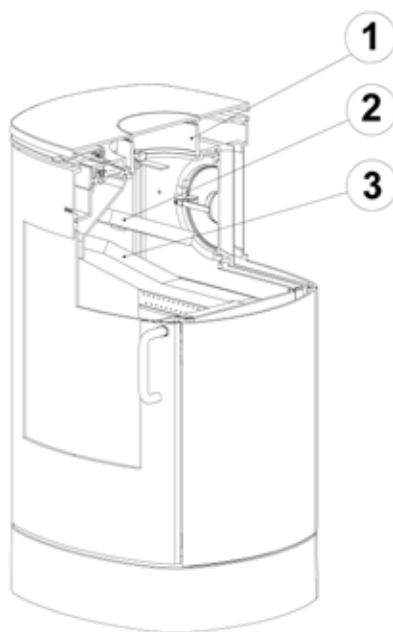
If the stove is being installed with the flue pipe to the rear, the round plate fixed with two screws on the back of the stove is dismantled. The iron piece on the inside convection back panel is knocked out with light, firm taps with a hammer next to the small "bridges" holding the piece.

The cast iron cover is removed from the back panel by turning it anticlockwise and mounted on the inside top plate by pressing it down and turning it clockwise. The lid can act as a cleaning cover, and facilitate access for the annual cleaning of the stove. The flue collar is centred and screwed onto the back of the stove with the clamps and screws provided. The ball stop is not used when installing the flue collar to the rear.

The location of the baffles

The baffles (2) and (3), which are made from vermiculite, are mounted at the factory.

Make sure that the baffles are correctly assembled before lighting the stove (please see the sketch.)



Optional fresh air connection

The stove is factory prepared for installation of an optional fresh air connection independent of the room in which the stove is installed. The box for this fresh air connection, which can be purchased separately, enables a Ø100mm pipe to be connected either to the rear or below.

1.7 Connecting to a brick chimney

Brick a flue bushing securely into the wall, and insert the flue pipe into it. The pipe must not extend into the actual chimney opening, but only to the inside of the chimney aperture. The joints between the stove/pipe and pipe/wall bushing must be sealed with the glass tape provided. It is not normally necessary to seal between any pipe joints.

If the flue pipe transitions from horizontal to vertical, it is a good idea to install it with a gentle bend so as to avoid any loss of draught.

The flue pipe must be dimensioned in accordance with national and local regulations. Morsø recommends, however, that flue pipes be made of 2 mm sheet steel, as this will extend the service life.

1.8 Connecting to a steel chimney

If your installation involves taking the chimney straight up and through the ceiling, you must comply with National, Local Building Regulations or flue manufacturers instructions concerning clearances to combustible materials such as walls, floor joists and ceilings. The joint between the stove flue collar and the stovepipe must also be sealed using the glass fibre rope provided. It is important that the insulated flue system is properly supported both at ceiling level and at roof level.

Be aware of the following:

Discuss the cleaning options with your chimney sweep.

If there is insufficient draught in the chimney, it may be a good idea to install the flue pipe straight up, so as to minimise smoke migration in the actual combustion chamber.

Avoid having any more bends than necessary, and limit the length of the flue pipe so as not to reduce the draught.

Fresh air supply

A wood-burning stove requires air for combustion. As a result, firing a wood-burning stove will help to create a healthy climate in your house. If the house is very tightly sealed, and particularly if there is a cooker hood or ventilation system in the house, it may be necessary to install an air grate in the room in which the wood-burning stove is installed. Otherwise there may not be enough draught in the chimney, which may result in the stove not being able to burn properly, and smoke may come out of the stove when the fire door is opened. If it is necessary to install air grates, they must be positioned so that they cannot be obstructed.

THE STOVE MUST NOT BEAR THE WEIGHT OF THE CHIMNEY SYSTEM (See chimney manufacturer's instructions). Excessive weight on the stove will inhibit expansion and could lead to damage of the stove top. Damage caused to the stove in this way would not be covered by the manufacturers guarantee.

If a chimney fire should occur as a result of incorrect operation of the stove or prolonged use of wet fuel, close the vents completely and contact the fire brigade.

1.9 Draught

If smoke comes out of the stove when the fire door is opened, it will be due to the poor draught in the chimney. This type of stove requires at least 12 pa of chimney draught to achieve satisfactory combustion, and to prevent smoke from escaping. Smoke may, however, escape in any event, if the stove door is opened during very vigorous burning, so this should be avoided.

The flue gas temperature at the rated output is 334°C

If in doubt, you may want to get your chimney sweep to measure the draught in the chimney.

Draught

The draught in the chimney is the result of the difference between the high temperature in the chimney and the cooler temperature outside. Other factors that determine whether enough negative pressure can be produced to create a draught include the length and insulation of the chimney, and wind and weather conditions.

The draught will be reduced when:

- The temperature difference is too low, e.g. in connection with a poorly insulated chimney. If the chimney is cold, it may help to light (burn up) a rolled-up newspaper in the chimney's cleaning door.
- The outside temperature is too high, for example during the summer.
- There is no wind.
- The chimney is not tall enough, with the result that it sits in the lee of the roof surface or tall trees. These conditions are also associated with the greatest risk of smoke coming back down the chimney.
- Air is entering the chimney in undesired places, e.g. through cracked joints or leaks in the cleaning door or the flue pipe.
- Unsealed, unused fireplaces are connected to the chimney.
- The flue pipe and chimney are clogged up with soot, due to inadequate cleaning.
- The house is too tightly sealed (please see the section on Fresh air supply).
- Too little air is getting in.

A good draught is achieved when:

- There is a big difference between the temperature in the chimney and outside during firing, i.e. when the need for heating is greatest.
- The weather is clear and there is a good wind.
- The chimney is of the proper height, i.e. at least 4 metres above the stove, and clear of the spine of the roof.

2.0 Firing/using the stove

Your stove is constructed with air inlets in two places.

Pre-heated, fast-moving combustion air is added to the fire above the glass window, and is regulated using the handle above the door. The combustion air is let in when the handle is pushed to the right, and shut off when the handle is pushed to the left.

Another air inlet provides a constant, pre-heated air supply which cannot be adjusted, and which comes into the combustion chamber just above the fire. This helps to burn off the last few gasses emitted by the wood whilst it is being heated up.

The riddling grate is operated using the riddle bar, which is located behind the door.

The stove's rated heat output is 7.2 kW. Your new Morsø stove is EN-tested for firing with wood, and is suitable for intermittent use.

N.B!

Wood is a material that contains a great deal of gas (approximately 75 %). The gases are released when the wood is lit and heated up. For this reason, it is important that the gases are ignited quickly after stoking. If the wood just lies smouldering, especially after re-stoking, a lot of smoke is created, which, in the worst case, may cause an explosive ignition of the gasses, resulting in damage to the stove.

In order to ignite the gases that are released from the wood, and to keep clear, lasting flames during the combustion process, it is important to let in the required quantity of oxygen (air supply) at all times.

The setting of the air supply, the method of ignition and the lighting intervals depend on the draught in the chimney, the wind and weather, the amount of heat required, the fuel, etc. This means that it may take some time before you get to know the correct functioning of the stove under any given circumstances.

Although you can fire your Morsø stove with almost all kinds of wood, you should not fire with wet wood, or unseasoned wood. Wood ought to be stored under a roof for at least 1 year, and preferably 2 years, with free access to wind. Wood should be chopped as soon as possible after felling if it is to dry quickly. The wood can be used once the moisture content is less than 20%. During the EN test, all stoves are tested with wood with a moisture content of $(16 \pm 4)\%$.

Never use driftwood, as it usually has a high salt content, which damages both the stove and the chimney. Impregnated and painted wood and chipboard emit poisonous smoke and fumes, so they should not be used as fuel either.

Please note that liquid fuel may not be used in the stove.

Pieces of wood with a diameter greater than 10 cm should always be chopped.

The pieces of wood should be short enough to be able to lie flat over the layer of embers, with air at both ends. The maximum length of fuel in the stove is 30 cm. The maximum quantity of fuel is 2.5 kg/hour (max. 3 pieces of wood each time you re-stoke).

The first few times you light the stove, the fire should be moderate, so that the heat-resistant paint can harden before firing more vigorously. During the hardening phase, the paint may develop obnoxious smoke and smell the first time it is lit, which is very normal. Make sure that the room is well ventilated during this period.

When heating up or cooling down, the material is exposed to major temperature differences that may cause the stove to give off creaking sounds.

2.1 Lighting and fuelling intervals

Always use the supplied heat-resistant glove when operating the stove during use.

A lot of air is needed when lighting the stove. If you are starting with a cold stove, the door should be left ajar for the first few minutes, and the combustion air supply opened to maximum. Always keep approximately 1 cm of ash in the bottom of the combustion chamber. This will have an insulating effect, and ensures good combustion.

1. We recommend using the “top-down” method to light your wood-burning stove. It is the most environmentally-friendly method of lighting. Use two firelighters and approx. 1.5 kg of dry kindling sticks to quickly create a glowing layer of wood. Place the firelighters directly under the top layer of kindling sticks. Do not load more wood into the stove than to just below the tertiary air supply located at the top of the combustion chamber.



2. Open the air supply as much as possible. This is done using the handle above the door.



3. After having lighted up the paper/fire lighters, leave the door ajar in the first “notch” of the front lock fittings ensuring a good draught right from the start.



4. When you can see that the chimney is hot enough to draw (after 5 - 10 minutes), close the door. If all the necessary conditions are met, a thick layer of embers will have been formed in the combustion chamber after another 15 - 20 minutes, and there will be a high temperature in the combustion chamber, which is necessary in order to be able to continue the combustion.



5. If the condition in step 4 is met, place max. 3 pieces of wood with a total weight of 1.5-2.5 kg and a length of 25-30 cm over the embers in a single layer, with a distance of approximately 1 cm.



6. Open the air supply to maximum, and close the door.
The fresh wood will be lit within 2-3 minutes.

If it does not light, open the door slightly to allow in enough air to ignite the wood.



Important!

It is important that the fresh quantity of wood starts to burn quickly. To ensure the fuel lights quickly, open the combustion air to max. or leave the door ajar to allow in the amount of air needed to light the wood.

If, however, the wood only smoulders, there will be a strong build-up of smoke, which at worst can cause an explosive ignition of the flue gases with the risk of material damage and personal injury.

Close the door again once the wood has caught.

7. Reduce the amount of combustion air to the desired position, and the optimal combustion will continue.

Make sure that there is always enough air (oxygen) to maintain clear, lasting flames when, and after, reducing the amount of combustion air.

During the official test, the stoking interval was 70-80 minutes.

8. Once the fire has been reduced to a thick layer of embers, a new portion of wood can be added by repeating steps 5 & 7.

Warning – never use flammable liquids

Never use gasoline, kerosene, lamp oil, lighter fluid, ethanol, or similar flammable liquids to start or rekindle a fire in the stove. Do not store any such liquids near the stove while it is in use, as this poses a serious risk of fire and explosion.



The stove door should normally be opened gently the first 2 - 3 centimetres, then you should wait until the pressure has equalised before opening the door all the way. This technique will prevent smoke from getting out, particularly when there is a poor draught.

The stove door should never be opened when the stove is being fired vigorously.

Once the wood has burned out, it becomes glowing charcoal. If a good layer of embers has already formed on top of a sufficient layer of ash, the stove can keep warm for a very long time, not least due to the favourable qualities of the cast iron.

We would strongly recommend that you do not leave your stove alit at night. It harms the environment, and constitutes very poor use of the wood, as the gases in the wood do not ignite at the low temperature, but settle as soot (unburned gases) in the chimney and stove. Extreme conditions, such as poor draught in the chimney, large quantities of wood or wet wood, may, in the worst-case scenario, cause an explosive ignition.

When firing in the summer period, when there is minimal need for heat, the combustion will be poor. The stove provides too much heat, so the combustion should be reduced. But always remember to make sure that there are lasting flames until the wood becomes charcoal. If you want a weaker fire, stoke up using less wood.

If you fire the stove using wet wood, a lot of the fuel's thermal energy will be spent forcing the water out of the wood, without releasing any heat to the stove. This incomplete combustion results in a layer of soot being left in the stove, pipe and chimney.

Comparison between firing with wood and oil

Type of wood (moisture content 20%)	No. of cubic metres per 1000 l oil
Oak	7.0
Beech	7.0
Ash	7.2
Sycamore	7.5
Birch	8.0
Elm	8.9
Common spruce	10.4
Silver fir	10.9

3.0 Routine stove maintenance

3.1 External maintenance

The cast surface of the stove is painted with heat-resistant Senotherm paint. It is best maintained by simply vacuuming it with a soft brush attachment or wiping it down with a dry, dust-free cloth.

If the stove is used too vigorously, the painted surface may assume a greyish tinge over time, but the stove can easily be freshened up with Morsø spray paint, which is available from your local retailer.

Morsø stoves are painted using a Morsø Original Black (previously called Morsø dark grey) or Morsø grey. The paint can be bought in a spray or a can.

3.2 Internal maintenance

Glass window

If the stove is used correctly, very little or no soot will be deposited on the ceramic glass window. If soot does form on the glass as the stove is being lit, it will burn away once normal combustion begins in the stove. If the glass window becomes thoroughly covered in soot due to incorrect operation, the soot can be easily removed using a cleaning agent such as Morsø Glass Cleaner. The glass must be cold when you clean it. Avoid stoking the stove with pieces of wood that are so long that they press against the glass window when the door is closed.

Reasons for sooty glass window:

- The fuel is too wet
- The pieces of fuel are too big/uncut wood
- The combustion temperature is too low
- There is not enough air

Ceramic glass replacement

Ceramic glass cannot be recycled because it has a higher melting point than ordinary glass. If ceramic glass is mixed with ordinary glass, the raw material is spoiled, and the reclaiming process may be halted. Take care that the ovenproof glass does not end up among ordinary recycled waste. That will be a great benefit to the environment.

Note: Should be handed in to a recycling station as ceramic glass.

Internal cast-iron parts and/or wearing parts

The baffles and other components that come in direct contact with the fire and glowing fuel are all wearing parts. As a result, they will be particularly susceptible to burn-through. When used correctly, these parts will last for many years, but overly vigorous use will naturally accelerate the burn-through. Such parts are all easily replaced.

If the baffles are damaged and are not replaced in time, the top plate will be exposed to such high temperatures that it may be damaged as well.

Please note that no unauthorised alterations of the design may be undertaken, and that any parts that are replaced must be replaced with original Morsø parts.

Reasons for overly rapid wear of internal parts

- Stove fired too vigorously
- Use of very dry wood (wood from old furniture)
- Too much soot on top of the baffles (please see the section on Cleaning)
- Too much ash in the ash pan (please see the section on Ash)

Gaskets

The gaskets in the door will wear out over time, and should be replaced as required in order to prevent runaway combustion. Use the original Morsø gasket kit.

NOTE: Normal wearing parts are not covered by Morsø's extended warranty.

A selection of maintenance products (spare parts, glass cleaner, paint, gasket kit, etc.) is available from your Morsø dealer.

3.3 Cleaning the stove

A layer of ash and soot will form as a result of the draught in the chimney and after sweeping, particularly on the top of the upper baffle. This ash will have an insulating effect, which may speed up the burn-through of the baffles.

During normal cleaning, the baffles can be removed from the stove. Once the baffles have been taken out, you can access the flue chamber above the baffles and clean it.

Clean the baffles before reassembling them, and make sure that they are correctly assembled.

Nowadays the chimney sweep must remove the soot in the stove, in addition to sweeping the chimney and cleaning the flue pipe.

The number of annual sweepings/cleanings of the stove should be determined in consultation with your chimney sweep.

Ash

As noted above, there should be a layer of approximately 1 cm insulating ash in the bottom of the combustion chamber in order to achieve a high combustion temperature. If the layer of ash is too thick, it can be brushed down into the ash pan.

Empty the ash pan before it gets completely full, so that the ash does not insulate around the grate, and thereby speed up the burn-through.

In most cases, the ash will need to be taken away by the waste disposal company. Because embers may be concealed in the ash pan for several days, it may be necessary to store the ash in a container made of non-flammable material before pouring it into a rubbish bag.

Ash from a wood-burning stove will not be of any benefit to your garden as fertiliser. If you have burned colour brochures, or painted or treated wood, etc., in the stove, the resulting ash must not be poured onto soil, as it may contain heavy metals.

We highly recommend lubrication of hinges and closing mechanisms once per year or as needed, not only to ensure smooth functioning and longevity, but also to mitigate wear and tear.

We recommend copper grease as a lubricant or another equally heat-resistant grease.

3.4 Disposal of the stove at end of life

When the stove is no longer in use, it must be disposed of in an environmentally responsible manner. Deliver the stove and its components to your local recycling centre in accordance with their current guidelines for sorting and waste management.

1. Raise the bottom baffle slightly, and hold it in that position. This loosens the brick panels in the side.



2. Tilt one of the side brick panels and remove it.



3. Tilt the other side brick panel and remove it.



4. Once the side brick panels have been removed, lower the bottom baffle and lift it out.



5. Lift the upper baffle out of its holder and tilt it out.



6. Make sure that the baffles and bricks are correctly reassembled before lighting the stove after cleaning.



Spare parts for the 8100-8200 series

Description

Cast grate
Tertiary box
Glass window
Vermiculite set

Product no.

44182800
71810861
79810100
79811700

4.0 Technical Data

Appliance model	Morsø 8100 serien
The type of appliance (iht. standard EN 16 510)	BF
The Maximum load on the appliance (eg. chimney)(kg)	120
The flue gas temperature (°C)	334
The flue gas mass flow (g/s)	6
The chimney temperature class T _{class} minimum	T400 G
CO emission (at 13% O ₂) (mg/m ³ _n)	327
OGC (hydrocarbons) emission (at 13% O ₂) (mg/m ³ _n)	24
NO _x emission (mg/m ³ _n)	87
PM (at 13% O ₂) (mg/m ³ _n)	21
Particle emission, weighted average(g/kg)	3.41
Particle emission, max. in a single test (g/kg)	3.51
Efficiency (%)	82
Energy Efficiency Index (EEI)	109
Energy class	A+
Nominal heat output (kW) (tested)	7.9
Nominal heat output (kW) (declared by manufacturer)	7.2
Chimney draft, required (Pa)	12
Leakage of appliance (tested sample) (m ³ /h)	11.00 (at 25 pa) 7.95 (at 15 pa) 5.06 (at 10 pa) 1.71 (at 5 pa)
Air supply requirement (at max air setting) (m ³ /h)	20
Fuels accepted (type acc.to EN 16 510 tabel B.2)	Woodlogs(l), Wood briquettes (K)
Nominal fuel load per firing (kg)	1.7
wood log length, max. (cm)	30
Test institute, Notified Body	1235
All measurement data are in accordance with test standards EN 16510-1:2022 / EN 16510-2:2022 and NS 3058–3059. Testing has been carried out by an accredited testing institute.	

For accredited testing, the base ember layer represents approximately one third of the nominal fuel load, and the test period runs from the insertion of the test load until the approximate extinction of visible flames. The test period is approximately 40 minutes, and the ember bed amount may vary by ±100 g from the previous firing.

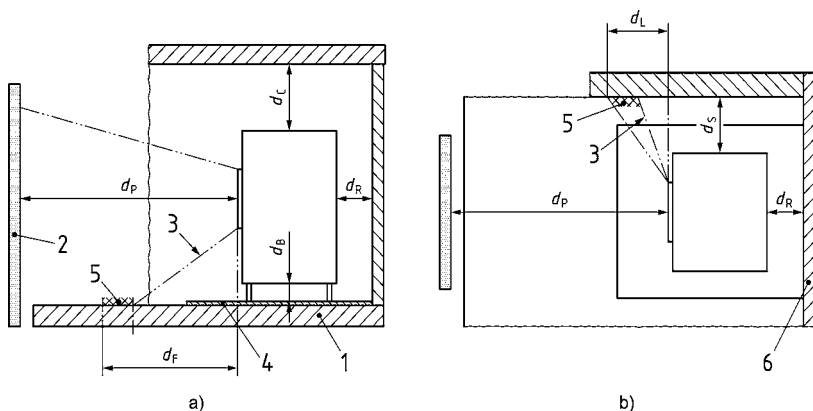


Diagram key

1	Trihedron floor
2	Trihedron - like front plate
3	Radiation area
4	Floor protection plate
5	Critical area (65K superseded due to radiation)
6	Trihedron walls

Clearances when using an insulated flue pipe:

Ceiling d_c	400 mm
Front d_p	1100 mm
Floor in front d_f	0 mm
Bottom d_b	0 mm
Side radiation area d_L	0 mm
Side d_s	350 mm
Rear d_r	50 mm

Overall dimension of the appliance:

H x W x D (smallest model):

777 mm x 530 mm x 447 mm

H x W x D (Largest model):

1409 mm x 530 mm x 447 mm

Guarantee Product Registration

MORSØ 10 YEAR GUARANTEE CERTIFICATE

Behind every Morsø stove is more than 160 years of dedicated stove design and manufacturing experience. Quality control has always been at the heart of the production process and detailed measures have been put into place at all key stages of the build. Accordingly, provided that the stove has been supplied by an authorised Morsø dealer, Morsø will offer a 10-Year Manufacturers Guarantee against manufacturing defect to any of the main exterior body parts of its stoves.

**Read more about "Morsø 10 years guarantee/product registration card" and
REGISTER your new Morsø stove online:
<http://international.morsoe.com/warranty-registration>**

5.0 HETAS amendments

Health and safety precautions

Special care must be taken when installing the stove such that the requirements of the Health and Safety at Work Act are met.

Handling

Adequate facilities must be available for loading, unloading and site handling.

Fire Cement

Some types of fire cement are caustic and should not be allowed to come into contact with the skin. In case of contact wash immediately with plenty of water.

Asbestos

This stove contains no asbestos. If there is a possibility of disturbing any asbestos in the course of installation then please seek specialist guidance and use appropriate protective equipment.

Metal Parts

When installing or servicing this stove care should be taken to avoid the possibility of personal injury.

Note of references to the current UK regulations

In all cases the installation must comply with current Building Regulations, Local Authority Byelaws and other specifications or regulations as they affect the installation of the stove. It should be noted that the Building Regulations requirements may be met by adopting the relevant recommendations given in British Standards BS 8303, BS EN 15287-1:2007 as an alternative means to achieve an equivalent level of performance to that obtained following the guidance given in Approved Document J.

Please note that it is a legal requirement under England and Wales Building Regulations that the installation of the stove is either carried out under Local Authority Building Control approval or is installed by a Competent Person registered with a Government approved Competent Persons Scheme. HETAS Ltd operate such a Scheme and a listing of their Registered Competent Persons can be found on their website at www.hetas.co.uk.

This stove must not be installed into a chimney that serves any other heating appliance.

More detailed advice about existing chimney usage

NOTE: A chimney height of not less than 4.5 metres measured vertically from the outlet of the stove to the top of the chimney should be satisfactory. Alternatively the calculation procedure given in EN 13384-1 may be used as the basis for deciding whether a particular chimney design will provide sufficient draught.

The outlet from the chimney should be above the roof of the building in accordance with the provisions of Building Regulations Approved Document J.

If installation is into an existing chimney then it must be sound and have no cracks or other faults which might allow fumes into the house. Older properties, especially, may have chimney faults or the cross section may be too large i.e. more than 230 mm x 230 mm. Remedial action should be taken, if required, seeking expert advice, if necessary.

If it is found necessary to line the chimney then a flue liner suitable for solid fuel must be used in accordance with Building Regulations Approved Document J.

Any existing chimney must be clear of obstruction and have been swept clean immediately before installation of the stove. If the stove is fitted in place of an open fire then the chimney should be swept one month after installation to clear any soot falls which may have occurred due to the difference in combustion between the stove and the open fire.

If there is no existing chimney then any new system must be to the designation described above and in accordance with Building Regulations Approved Document J.

A single wall metal fluepipe is suitable for connecting the stove to the chimney but is not suitable for use as the complete chimney. The chimney and connecting fluepipe must have a minimum diameter of 150 mm and its dimension should be not less than the size of the outlet socket of the stove.

Any bend in the chimney or connecting fluepipe should not exceed 45°. 90° bends should not be used.

Combustible material should not be located where the heat dissipating through the walls of fireplaces or flues could ignite it. Therefore when installing the stove in the presence of combustible materials due account must be taken of the guidance on the separation of combustible material given in Building Regulations Approved Document J and also in these stove instructions.

If it is found that there is excessive draught in the chimney then a draught stabiliser should be fitted. Fitting of a draught stabiliser will affect the requirement for the permanent air supply into the room in which the stove is fitted in accordance with Approved Document J (see also combustion air supply).

Commissioning and handover

Ensure all parts are fitted in accordance with the instructions.

On completion of the installation allow a suitable period of time for any fire cement and mortar to dry out, before lighting the stove. Once the stove is under fire check all seals for soundness and check that the flue is functioning correctly and that all products of combustion are vented safely to atmosphere via the chimney terminal.

On completion of the installation and commissioning ensure that the operating instructions for the stove are left with the customer. Ensure to advise the customer on the correct use of the appliance and warn them to use only the recommended fuel for the stove.

Advise the user what to do should smoke or fumes be emitted from the stove. The customer should be warned to use a fireguard to BS 8423:2002 (Replaces BS 6539) in the presence of children, aged and/or infirm persons.

Warning note on fume emission

Properly installed, operated and maintained this appliance will not emit fumes into the dwelling. Occasional fumes from de-ashing and re-fuelling may occur. However, persistent fume emission is potentially dangerous and must not be tolerated. If fume emission does persist, the following immediate actions should be taken:-

- a) Open doors and windows to ventilate room.
- b) Let the fire out or eject and safely dispose of fuel from the appliance.
- c) Check for flue or chimney blockage, and clean if required.

Do not attempt to relight the fire until the cause of the fume emission has been identified and corrected. If necessary seek expert advice.

Permanent air vent

The stove requires a permanent and adequate air supply in order for it to operate safely and efficiently.

In accordance with current Building Regulations the installer may have fitted a permanent air supply vent into the room in which the stove is installed to provide combustion air. This air vent should not under any circumstances be shut off or sealed.

Chimney cleaning

The chimney should be swept at least twice a year. It is important that the flue connection and chimney are swept prior to lighting up after a prolonged shutdown period.

If the stove is fitted in place of an open fire then the chimney will require sweeping after a month of continuous operation. This is a precaution to ensure that any “softer” deposits left from the open fire usage have not been loosened by the higher flue temperatures generated by the closed stove.

Periods of Prolonged Non-Use

If the stove is to be left unused for a prolonged period of time then it should be given a thorough clean to remove ash and unburned fuel residues. To enable a good flow of air through the appliance to reduce condensation and subsequent damage, leave the air controls fully open.

Use of fireguard

When using the stove in situations where children, aged and/or infirm persons are present a fireguard must be used to prevent accidental contact with the stove. The fireguard should be manufactured in accordance with BS 8423:2002 (Replaces BS 6539).

Use of operating tools

Always use the operating tools provided when handling parts likely to be hot when the stove is in use.

Aerosol sprays

Do not use an aerosol spray on or near the stove when it is alight.

VIGTIGT!

Sådan fyrer du sikkert for miljøet og dig selv!

- **Brug kun tørt træ**

Brug kun tørt (maks. 20% fugt) og ubehandlet træ. Brændet skal være kløvet og 8 - 12 cm tykt.

- **Tænd op**

Tænd op med tørt pindebrænde (brug 1 - 2 kg). Stil lågen på klem og bliv i nærheden af ovnen i optændingsfasen.

- **Godt glødelag**

Sørg for at have et godt glødelag inden ny påfyldning. Træet skal antænde indenfor 2 min. Hvis træet ikke tænder, kan det i værste fald forårsage en eksplosionsagtig antændelse af røggasserne med risiko for såvel materielle skader som personskafer.

- **Indfyring**

Ved ny indfyring: brug 2 - 3 stk. brænde - maks. 2 - 2,5 kg.

- **Sørg for rigelig luft**

Dvs. klare og gule flammer.

- **Fyr aldrig over om natten**

IMPORTANT!

How to heat safely for the environment and yourself!

- **Use only dry wood**

Use only dry (max. 20% moisture content) and untreated wood. The fuel must be split and 8 - 12 cm thick.

- **Light**

Light with dry kindling (use 1 - 2 kg). Leave the door ajar and stay close to the stove during the lighting phase.

- **Good layer of embers**

Be certain to have a good layer of embers before refilling. The wood should light within 2 minutes. If the logs do not ignite it may, in an extreme case, cause the flue gases to ignite which may pose a risk to material damage or personal injury.

- **Refuelling**

When refuelling use 2 - 3 pieces of wood - no more than 2 - 2.5 kg.

- **Ensure adequate air**

I.e. clear and yellow flames.

- **Never burn overnight**



By appointment to The Royal Danish Court

morsø

Morsø Jernstøberi A/S -29.10 2025 - 72810000

MORSØ JERNSTØBERI A/S . DK-7900 NYKØBING MORS

E-Mail: info@morsoe.com · Website: www.morsoe.com