Toplovodni kotao/ Water heating boiler

SERIJE R
SERIES R

INSTRUKCIJE/ *INSTRUCTION MANUAL*

Montaža,korišćenje i održavanje kotla/ *Assebly,use and maintenance of heating boiler*

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1. OSNOVNE TEHNIČKE KARAKTERISTIKE KOTLA

Kotao je zavarene robusne konstrukcije sa dvostrukim zidom i vodom hlađenom rešetkom, tako da obliva sve površine koje su u dodiru sa plamenom i vrelim gasovima.

Izrađen je od ugljeničnog čelika za kotlovske limove debljine 5 i 6 mm. Vrata za loženje i čišćenje pepela su livene konstrukcije.

Visoka pouzdanost u radu, kao i dug i kvalitetan rad kotla, pored navedenog obezbeđuju i primenjeni postupci zavarivanja i rezanja metala, kao i montaža i ispitivanje kotla na specijalnim napravama i uređajima.

Konstrukcija **SERIJE R**, u proizvodnom programu, u odnosu na druge konstrukcije irna najveći stepen iskorišćenja na čvrsto gorivo.

Konstrukcija kotla omogućava lako loženje i čišćenje kotla. Kotao, takođe, ima ostale potrebne priključke:

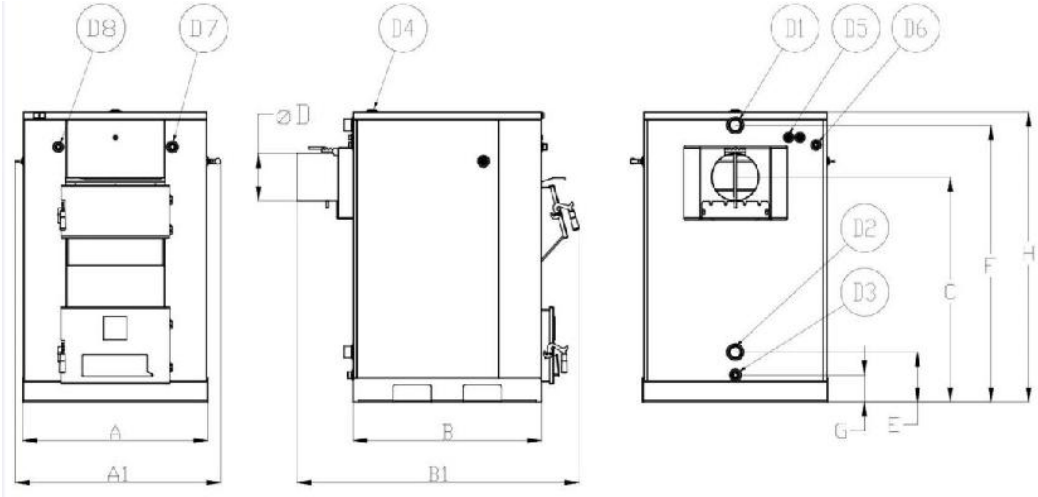
- priključak za punjenje i pražnjenje,
- priključak za regulaciju promaje,
- priključak za termometar,
- priključak sigurnosnog voda.

Kotao je obložen oplatom od plastiflciranog lima debljine 1mm ispod koga je mineralna vuna debljine 50 mm, koja služi kao izolacija.

Na konstrukciju kotla **SERIJE R**, može se nadgraditi bojler od 100 litara i elektro kotao od 18-36kW.

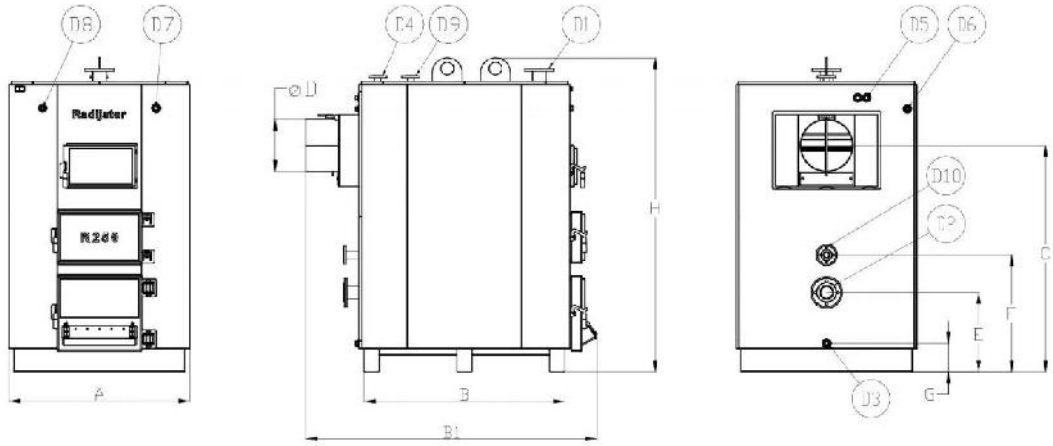
TOPLOVODNI KOTLOVI SERIJE "R"

R65-140



Priključci:
D1 - Priključak za toplu vodu iz kotla
D2 - Priključak za hladnu vodu kotla
D3 - Priključak za punjenje i pražnjenje
D4 - Priključak za sigurnosnu grupu
D5 - Priključak za ventil termičkog osiguranja oticanjem
D6 - Priključak za sondu ventila termičkog osiguranja
D7 - Priključak za regulator promaje
D8 - Priključak za manometar ili za sondu gorionika

R170-250



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D7 - Priključak za regulator promaje
D8 - Priključak za manometar ili za sondu gorionika
D9 - Priključak za potisni sigurnosni vod ka otvorenoj posudi
D10 - Priključak za povratni sigurnosni vod ka otvorenoj posudi

Tip kotla	Snaga	Radni pritisak	Probni pritisak	Zapremina vode u kotlu	Masa kotla	Potrebna promaja
	kW	kPa	kPa	L-cca	kg	Pa
R65	65	300	450	128	397	23
R80	80	300	450	160	491	26
R100	100	300	450	190	538	29
R120	120	300	450	220	607	34
R140	140	300	450	300	687	36
R170	170	300	450	395	988	47
R200	200	300	450	507	1140	50
R250	250	300	450	550	1620	54

Tip kotla	DIMENZIJE									
	A	A1	B	B1	C	ØD	E	F	G	H
	mm									
R65	690	/	825	1280	1080	180	735	1290	140	1370
R80	770	850	885	1330	1130	200	510	1335	140	1425
R100	810	850	875	1370	1175	200	560	1425	140	1500
R120	880	1000	925	1415	1155	200	460	1415	140	1485
R140	980	1080	995	1485	1175	250	260	1450	140	1520
R170	960	/	1090	1670	1345	250	365	645	200	1845
R200	1070	/	1195	1810	1350	300	345	590	200	1910
R250	1200	/	1335	1935	1510	350	530	780	190	2100

Tip kotla	DIMENZIJE									
	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10
	col									
R65	5/4	5/4	3/4	3/4	1/2	1/2	3/4	3/4	/	/
R80	6/4	6/4	3/4	3/4	1/2	1/2	3/4	3/4	/	/
R100	2	2	3/4	1	1/2	1/2	3/4	3/4	/	/
R120	2	2	3/4	1	1/2	1/2	3/4	3/4	/	/
R140	2	2	3/4	1	1/2	1/2	3/4	3/4	/	/
R170	DN80 NP6	DN80 NP6	1/2	DN32 NP16	1/2	1/2	3/4	3/4	DN32 NP16	DN32 NP16
R200	DN80 NP6	DN80 NP6	1/2	DN32 NP16	1/2	1/2	3/4	3/4	DN32 NP16	DN32 NP16
R250	DN80 NP6	DN80 NP6	1/2	DN32 NP16	1/2	1/2	3/4	3/4	DN32 NP16	DN32 NP16

2. MONTAŽA KOTLA

Kotao mora biti postavljen na betonsko postolje visine oko 100 mm u odnosu na pod prostorije. Kotao mora biti tako postavljen da bude omogućen pristup kotlu sa svih strana radi čišćenja i održavanja.

Za normalan rad kotla potrebno je dovođenje svežeg vazduha u kotlarnicu. Veličina otvora na kotlarnici mora biti minimalnih dimenzija 200mm x 200 mm.

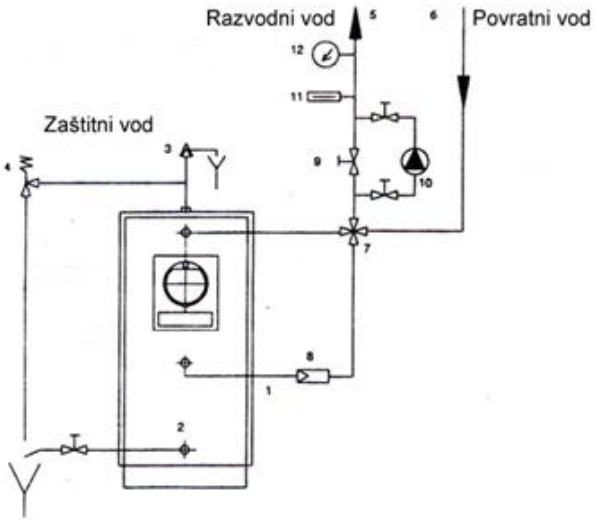
Za normalan rad kotla potrebno je da dimnjak bude propisanih karakteristika i izrađen od samotnih cevi propisanog prečnika.

Izlaz na dimnjaci mora se uspinjali prema dimnjaku, a eventualne krivine ne smeju biti oštrih uglova. U suprotnom dolazi do nepotpunog sagorevanja i vraćanja dima u kotlarnicu.

Kotao i instalacija moraju biti opremljeni odgovarajućim sigurnosnim uređajima.

NAPOMENA:
ZA OVU KONSTRUKCIJU KOTLA OBAVEZNA JE UGRADNJA MEŠAJUĆEG VENTILA I NAJNIŽA RADNA TEMPERATURA 70°C. OVIM SE POSTIŽE NAJVIŠI MOGUĆI STEPEN ISKORIŠĆE-NJA IZ OVE KONSTRUKCIJE, NAJBOLJE SA-GOREVANJE I ELIMINIŠE SE LOŠ UTICAJ KONDENZACIJE, ČIME SE POVEĆAVA VEK TRAJANJA KOTLA.

Šema priključenja kotla na sistem centralnog grejanja



LEGENDA:

1. Kotao
2. Priključak za punjenje i pražnjenje
3. Cevni odzračivač sa prelivom za vodu
4. Ventil sigurnosti
5. Razvodni vod
6. Povratni vod
7. Ventil za mešanje
8. Skupljač nečistoće
9. Ventil
10. Cirkulaciona pumpa
11. Termometar
12. Manometar

Napomena:

OBAVEZNA JE UGRADNJA VENTILA SIGURNOSTI NA ODVOJENOM PRIKLJUČKU ZAŠTITNOG VODA. U SUPROTNOM NE PRIZNAJEMO GARANCIJU, NITI PRIHVATAMO DA SNOSIMO BILO KAKVE NEŽELJENE POSLEDICE NEPRAVILNOG PRIKLJUČENJA KOTLA.

Tip kotla	Snaga	POTREBAN DIMNJAK	
		PREČNIK	VISINA
R 18	18 kW	0 180 mm	H = 6m
R 25	25 kW	0 200 mm	H = 7m
R33	33 kW	0 200 mm	H = 8m
R 40	40 kW	0 200 mm	H = 9m
R 50	50 kW	0 200 mm	H=1O m
R 65	65 kW	0 220 mm	H = 12 m'
R 80	80 kW	0 250 mm	H = 14m
R 100	100 kW	0 250 mm	H= 15 m
R 120	120 kW	0 250 mm	H = 17 m
R 140	140 kW	0 300 mm	H = 16 m
R 170	170 kW	0 300 mm	H = 17 m
R 200	200 kW	0 350 mm	H = 18 m
R 250	250 kW	0 400 mm	H = 20 m

3. LOŽENJE KOTLA

Kod prvog loženja moraju se ispuniti sledeći uslovi:

- dimnjak i njegov odvod moraju biti čisti i u dobrom stanju,
- klapna za regulisanje promaje u dimnom priključku mora biti otvorena,
- klapna za regulisanje promaje u kotlu prilikom prvog loženja mora biti u položaju - otvorena, a kada se vatra razgori i kada se zagreje dimnjak (posle 30-60 min) u položaju - zatvorena,
- kotao mora imati instalirane sve sigurnosne uređaje za sistem centralnog rejanja.

Prilikom potpale kotla koristiti donja vrata, a kada se vatra razgori kotao ložiti kroz gornja ložišna vrata.

Prilikom rada kotla sva vrata moraju biti zatvorena.

Za loženje kotla upotrebljavati strogo suvo drvo da bi se izbeglo rošenjeukotlu.

Iz bezbednosnih razloga, zbog eventualnih požara i dužeg veka trajanja kotla zabranjeno je kotao podlagati gumom, plastičnom masom, organskim otpacima, tekstilnim krpama.

Pri prelasku rada kotla na lož ulje na donjim vratima, koja služe za potpalu, moguće je namontirati gorionik i na kotlu odgovarajuću automatiku.

4. PAŽNJA!

Preniska temperatura polazne i povratne vode utiče na pojavu kondenzacije, što direktno utiče na vek trajanja kotla. U ekstremnim slučajevima može doći do stvaranja kondenza koji se može meriti litri-ma, pa kad kondenz iscuri posumnja se da kotao curi. Kondenz u sebi ima i sumpornu kiselinu koja se stvara tako što se sumpor izdvoji iz produkata sagorevanja. Sumporna kiselina prouzrokuje koroziju lima. Tačka rošenja zavisi od vrste goriva, atmosverskog pritiska i vlažnosti vazduha i kreće se u intervalu od 45°C - 50°C. Zbog toga moramo paziti da kod rada kotla povratna voda nikada ne padne ispod 65°C. **Kotao nije konstruisan za nisko - temperaturni rad.** Posebno treba obratiti pažnju da kotao nije ugrađen na sistem neodgovarajućeg kapaciteta, jer će doći do podhlađivanja i kondenza. Ako je kotao obložen katranom i čađi slab je prenos toplote pa će, takode, doći do podhlađivanja i kondenza.

Kondenzaciju u kotlu moguće je izbeći:

1. propisno izabranim dimnjakom,
2. propisnim načinom loženja i propisnom vrstom goriva,
3. pravilnim održavanjem kotla i dimnajaka, a naročito,
4. upotrebom četvorokrakog mešajućeg ventila.

5. ODRŽAVANJE KOTLA

Prilikom korišćenja čvrstog goriva u kotlu se nataloži, relativno brzo, sloj čađi i katrana. Zato se preporučuje svakodnevno čišćenje pepela i ložišta. Kod čišćenja moramo dovesti veću količinu svežeg vazduha u kotlarnicu da ne bi došlo do ugušivanja ložača. Obavezno je temeljno čišćenje jednom u sedam dana. Kotao je takve konstrukcije da je moguće izmenjivačke površine očistiti kroz gornja ložišna vrata. Takođe, očistiti između cevi rosta u ložištu zadržani pepeo. Kad se kotao detaljno očisti treba jedan sat ložiti jače da temperatura u kotlu dostigne 85°C što doprinosi sagorevanju čađi i štetnih materija u ložištu kotla. Na taj način kotao će imati bolji stepen iskorišćenja. Preporučujemo redovni nadzor dimničara. Posle čišćenja poklopce na spoljnjoj oplati pažljivo vratiti da pravilno dihtuju, da ne bi poremetili rad kotla. Po prestanku grejne sezone kotao treba detaljno očistiti, a zatim zatvoriti sva vrata uključujući i vratanca regulacije promaje. Na ovaj način sprečava se da i u letnjem periodu dimnjak ne pravi strujanje vazduha kroz kotao, odnosno eliminiše se mogućnost podhlađivanja krajeva izmenjivačnih kutija i efekat rošenja. Eventualno rošenje kotla i u letnjem periodu negativno utiče na vek trajanja.

Garancija

1. **Radijator Inženjering d.o.o pokriva garancijski period od 60 MESECI samo ako su ispunjeni sledeći uslovi garancije:**

   1.1. Kotao mora biti priključen po navedenim hidrauličkim šemama iz tehničkog uputstva,naročito obratiti pažnju na sigurnosne ventile,termičko osiguranje oticanjem, mešajući ventil za zaštitu hladnog kraja kotla odnosno protiv kondenzacije, opseg radnog pritiska kotla, opseg radne temperature kotla,uslove u kotlarnici itd**.**

   1.2. Kotao mora biti priključen na dimnjak propisanog poprečnog preseka, karakteristika izolacije i visine.

   1.3. Dimovod od kotla do dimnjaka mora mora biti izveden po tehničkom uputstvu.

   1.4. Korisnik mora da se pridržava navedenih uputstava o korišćenju i održavanju.

2. **Garancijska izjava**

Izjavljujemo:

- da proizvod ima propisana i deklarisana kvalitetna svojstva.
  Obavezujemo se, da ćemo na zahtev kupca ako pravovremeno u garancijskom roku podnese zahtev za popravku, o svakom trošku izvršiti sve popravke kvarova, tako da će proizvod raditi u skladu sa deklarisanim svojstvima,
- da će proizvod u garancijskom roku raditi besprekorno ako se budu poštovala uputstva za upotrebu, rad i montažu,
- da ćemo u garancijskom roku biti spremni da otklonimo sve kvarove na proizvodu i držati na zalihama sve potrebne rezervne delove,
- **garancijski rok počinje od DANA KUPOVINE I TRAJE 60 MESECI ILI 72MESECA OD DATUMA PROIZVODNJE (datum proizvodnje nalazi se na nalepnici sa zadnje strane kotla)**
- **garancija važi ako je garantni list overen od strane prodavca i ako je upisan datum kupovine i priložen račun.**

3. **Garancijski period od godinu dana važi za sledeće delove:**

- opeka u ložištu,
- livena rešetkasta vratanca.

4. **Garancijski rok ne važi:**

- kod kvarova koje je načinio kupac zbog nestručnog rukovanja proizvodom,
- kod mehaničkih kvarova načinjenih prilikom transporta i prilikom korišćenja(čvrsti predmeti),
- ako je proizvod instaliran nestručno, suprotno važećim propisima iz tog područija,
- ako je kupac koristio proizvod iznad deklarisanih svojstava i u normalnim okolnostima,
- ukoliko se utvrdi da hidraulička šema nije urađena po preporukama firme „Radijator inžinjering",
- ukoliko se utvrdi da kotao u toku korišćenja nije redovno održavan i čišćen,

5. **Garancijski rok prestaje da važi:**

- ako se ustanovi da je kvarove otklanjala neovlašćena osoba ili neovlašćeni servis,
- ako kod popravke nisu bili upotrebljeni i ugrađeni originalni delovi,
- kad ističe garancijski rok.

6. **Kod prijave kvarova obavezno je dati sledeće podatke:**

- naziv i tip proizvoda,
- datum kupovine,
- fabrički ili radionički broj kamina,
- kratak opis kvara, odnosno nedostatka,
- tačnu adresu i kontakt telefon, mejl.

1. BASIC TECHNICAL CHARACTERISTICS OF BOILER

The boiler is welded heavy-duty construction with double wall and water cooled grate, so that it flashes all surfaces in contact with flame or hot gases.

It is made of carbon steel from boiler plates 5 mm thick. Door for firing and cleaning the ash are of cast iron construction.

High reliability and long and high quality operation of the boiler, in addition to the above said, are provided by the applied welding and cutting of metal, as well as the assembly and testing of boiler in special devices and equipment.

The construction of the Series *R, has a good level of* utilization of solid fuel , and an exceptional adaptability when transferring to the liquid fuel.
The construction allows an easy firing and cleaning of boiler.

The boiler, also has other necessary connections:

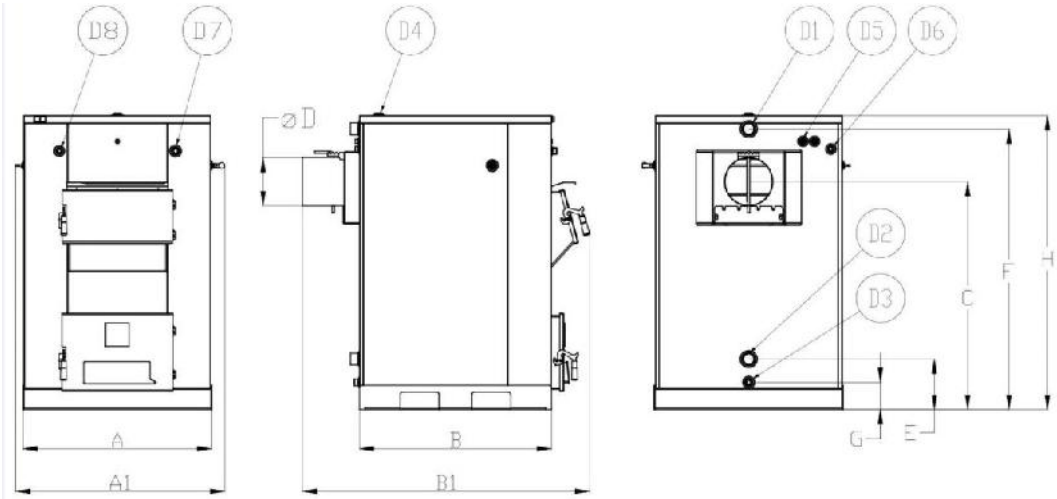
- Connctor for charging and discharging
- Control for access airflow/draft
- Connection for thermometer,
- Connection of safety line.

The boiler is covered with plastic coated sheet of the thickness of 1mm under which there is the mineral wool 50 mm thick, which serves as insulation.

The R Series Boiler construction, can be upgraded with 100 liters and electric boiler of 18- 36kW.

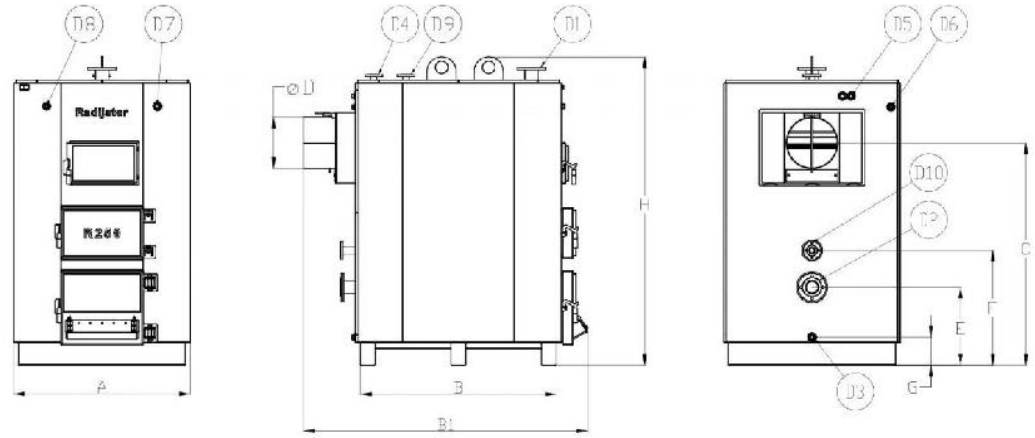
HOT WATER BOILERS OF SERIES "R"

R 65-140



Connections:
D1 - Connection for hot water from boiler
D2 - Connection for cold water of boiler
D3 - Connection for filling and emptying boiler
D4 - Connection for safety group
D5 - Connection for thermal valve insurance swelling
D6 - Connection for probe for thermal valve insurance swelling
D7 - Connection for draft regulator
D8 - Connection for manometer or for probe for burner

R 170-250



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D7 - Connection for draft regulator
D8 - Connection for manometer or for probe for burner
D9 - Connection for pressure for safety line to an open vessel
D10 - Connection for return safety line to an open vessel

Type of boiler	Power	Working pressure	Test pressure	Volume of water in the boiler	Mass of boiler	Requirement air flue
	kW	kPa	kPa	L-cca	kg	Pa
R65	65	300	450	128	397	23
R80	80	300	450	160	491	26
R100	100	300	450	190	538	29
R120	120	300	450	220	607	34
R140	140	300	450	300	687	36
R170	170	300	450	395	988	47
R200	200	300	450	507	1140	50
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Type of boiler	DIMENSIONS									
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R120	880	1000	925	1415	1155	200	460	1415	140	1485
R140	980	1080	995	1485	1175	250	260	1450	140	1520
R170	960	/	1090	1670	1345	250	365	645	200	1845
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Type of boiler	DIMENSIONS									
	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10
	col									
R65	5/4	5/4	3/4	3/4	1/2	1/2	3/4	3/4	/	/
R80	6/4	6/4	3/4	3/4	1/2	1/2	3/4	3/4	/	/
R100	2	2	3/4	1	1/2	1/2	3/4	3/4	/	/
R120	2	2	3/4	1	1/2	1/2	3/4	3/4	/	/
R140	2	2	3/4	1	1/2	1/2	3/4	3/4	/	/
R170	DN80 NP6	DN80 NP6	1/2	DN32 NP16	1/2	1/2	3/4	3/4	DN32 NP16	DN32 NP16
R200	DN80 NP6	DN80 NP6	1/2	DN32 NP16	1/2	1/2	3/4	3/4	DN32 NP16	DN32 NP16
R250	DN80 NP6	DN80 NP6	1/2	DN32 NP16	1/2	1/2	3/4	3/4	DN32 NP16	DN32 NP16

2. BOILER ASSEMBLY

The boiler must be installed on a concrete base about 100 mm in height from the floor of the room. The boiler must be positioned so that the boiler is easily accessed from all sides for cleaning and maintenance.

For normal operation of the boiler it is necessary to bring fresh air into the boiler room. Air slot size of the boiler room must be of minimum dimensions of 200 mm x 200 mm.

For normal operation of the boiler it is necessary for the chimney to be of the prescribed characteristics and made of coils of the secluded prescribed diameter pipes.

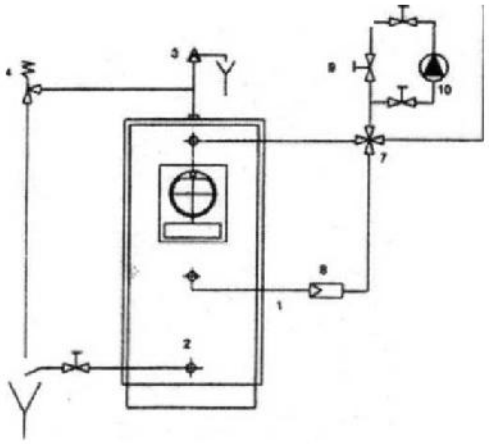
Outlet into the chimney must go up the chimney, and any bend should not be with sharp corners. Otherwise there is incomplete combustion and smoke is going backwards into the boiler room.

The boiler and the installation must be equipped with adequate safety devices.

NOTE:

FOR THIS CONSTRUCTION OF BOILER THE INSTALLATION OF MIXING VALVE IS REQUIRED OPERATING AND THE LOWEST TEMPERATURE OF 70 ° C., THIS RESULTS IN THE HIGHEST POSSIBLE LEVEL OF UTILIZATION IN THIS DESIGN, THE BEST COMBUSTION ELIMINATING THE BAD EFFECT OF CONDENSATION, SO, THE OPERATING LIFE OF BOILER IS INCREASED.

Connection Diagram of Boiler to the Central Heating System



1. *Boiler*
2. *Connection for for charging and discharging*
3. *Vent Pipe with water overflow*
4. *Safety valve*
5. *Distribution line*
6. *Return line*
7. *Mixing Valve*
8. *Collector of impurity*
9. *Valve*
10. *Circulation pump*
11. *Thermometer*
12. *Manometer*

NOTE:
INSTALLATION OF SAFETY VALVE IS OBLIGATORY NA SEPARATE - CONNECTION OF PROTECTION LINE. OTHERWISE WE DISCLAIM ANY WARRANTY NOR DO WE ACCEPT ANY LIABILITY FOR ADVERSE CONSEQUENCES FOR WRONG CONNECTING OF BOILER.

Type of Boiler	Power	Necessary Chimney	
		Diameter	Height
R 18	18 kW	0 180 mm	H = 6m
R 25	25 kW	0 200 mm	H = 7m
R33	33 kW	0 200 mm	H = 8m
R 40	40 kW	0 200 mm	H = 9m
R 50	50 kW	0 200 mm	H=1O m
R 65	65 kW	0 220 mm	H = 12 m'
R 80	80 kW	0 250 mm	H = 14m
R 100	100 kW	0 250 mm	H=15 m
R 120	120 kW	0 250 mm	H = 17 m
R 140	140 kW	0 300 mm	H = 16 m
R 170	170 kW	0 300 mm	H = 17 m
R 200	200 kW	0 350 mm	H = 18 m
R 250	250 kW	0 400 mm	H = 20 m

3. FIRING THE BOILER

When firing the boiler for the firts time the following conditions must be met:

- Chimney and its outlet must be kept clean and in good condition
- Flap for regulating the draft in the the flue connection must be open
- Flap for regulating the draft in the boiler during the first firing must be in the position - open, and when the fire is at its height and when the chimney is warmed up (after 30-60 min) it is in the position – closed
- The boiler must have all the security devices installed for the system of central heating.

When initiating the fire in the boiler use the lower door, and when the fire is developed put the fuel through the upper door.

When the boiler is in operation all doors must be closed.
For heating boilers use strictly dry wood, as to avoid condensation in the boiler.
When switching the boiler to operate with fuel oil, it is possible to assemble the burner on the lower door, but it is also possible to fit the suitable automation system on the boiler itself.

4. NOTE !

Too low temperature of starting and return water affects the formation of condensation, which directly affects the life of the boiler. In extreme cases, there may lead to condensation which can be measured by liters, so when the condensed matter leaks it is suspected that the tank is leaking. Condensed matter in itself has the sulfuric acid which is formed by the sulfur removed from the products of combustion. Sulfuric acid causes the corrosion of metal. Dew point depends on the type of fuel, air pressure and humidity and varies in the range of 45°C-50°C. Therefore, we must be careful when the boiler is in operation the return water should never fall below 65°C. The boiler is not useful for low - temperature operation. It should be specially noted that the boiler is installed on the system of adequate capacity, because there will come the cooling and condensation. If the boiler is covered with tar and soot the heat transfer is weak and it will, also, cause the cooling of boiler and condensation.

It is possible to avoid the condensation in the Boiler:

- by properly choosing the chimney,
- by prescribed way of firing and prescribed type of combustion fuel,
- by regular maintenance of boiler and chimney, and in particular,
- by using the four-branch mixing valve.

5. MAINTENANCE OF BOILER

When using solid fuel, in boiler, can accumulate, relatively quickly, a layer of soot and tar. Therefore, it is recommended to daily clean the ash from the fireplace. When cleaning we have to bring a greater amount of fresh air into the boiler room to avoid the suffocating of stoker. Be sure to thoroughly clean it once every seven days. The boiler is of such construction that it is possible to clean the exchanger surface through upper firing door. Flap for cleaning is moved out from its furnace and is completely removed from the boiler. When the boiler is thoroughly cleaned, firing fuel to a higher extent is necessary for one hour so that the temperature reaches 85 ° C, which contributes to the combustion of soot and harmful substances in the firebox of the boiler. In this way, the boiler will have a better efficiency. We recommend a regular monitoring by the chimney sweeper. After cleaning the flaps on the outer liningshould be carefully returned to be sealed properly in order not to disturb the operation of the boiler. Upon termination of the heating season the boiler should be thoroughly cleaned, and then all doors should be closed including the door for draft regulation. This prevents, in summer season, the air flow through the boiler, i.e. it eliminates the possibility of cooling of ends heat exchanger's boxes and the the effect of dew creating. Possible dew creating boiler even in summer affects the life of boiler negatively.

Guarantee

1. **Radijator Inženjering d.o.o covers the warranty period of 60 MONTHS only if following warranty conditions are fulfilled:**

1.1. The boiler must be connected according to the technical diagrams given in technical instructions; special attention should be paid to safety valves, thermal insurance by draining, mixing valve for protection of cold end of the boiler, i.e. for protection against condensation, boiler operating pressure range, boiler operating temperature range, conditions in the boiler room etc.

1.2. The boiler must be connected to the chimney with prescribed cross-section, particulars of insulation and height.

1.3. The uptake from boiler to the chimney must be done according to the technical instructions.

1.4. The owner must follow stated instructions about use and maintenance.

2. **Warranty declaration**

We declare:

- that the product has prescribed and declared quality characteristics. We are obliged, at the request of the buyer if such request for repair is submitted in due time and in the warranty period, at our expense, to carry out all repairs of damages, in such way that the product will operate in accordance with declared charcteristics,

- that the product will operate without fault during the warranty period if all the instructions for use, operation and installation are followed, that in the warranty period we will be ready to eliminate all damages on the product and keep in stock all necessary spare parts,
- **the warranty period starts from the DAY OF PURCHASE AND LASTS 60 MONTHS OR 72 MONTHS FROM THE DATE OF MANUFACTURE (date of manufacture is specified on the label on the back side of the boiler)**
- **the warranty is valid if the warranty sheet is stamped by the seller and if date of purchase is written on it and the bill is enclosed.**

3. **Warranty period of one year is valid for the following parts:**

- bricks in the burning unit,
- cast iron grill doors.

4. **Warranty period is not valid:**

- for damages caused by the buyer due to poor handling of the product,
- for mechanical damages made during transport and in use (solid objects),
- if the product is unprofessionally installed, contrary to the valid regulations in that area,
- if the buyer has used the product above the declared characteristics and in normal conditions,
- if it is determined that the technical diagram was not done according to the recommendations of the company "Radijator Inženjering d.o.o",
- if it is determined that the boiler was not regularly maintained and cleaned during the use,

5. **Warranty period becomes invalid:**

- if it is determined that damage has been repaired by unauthorized person or unauthorized service shop,
- if original parts were not used and installed during the repair,
- if warranty period expires.

6. **When reporting damages, the following details must be provided:**

- name and type of the product,
- date of purchase,
- factory or workshop number of the boiler,
- brief description of malfunction, i.e. the shortcoming,
- exact address and contact phone number, e-mail.

GARANTNI LIST / GUARANTEE LIST

Tip kotla / Boiler type	
Fabrički broj / Factory	
Garantni rok / Guarantee period	60 MESECI/ 60 MONTHS
Datum proizvodnje / Date of manufacture	

Potpis ovlašćenog lica / Signature of Authorized _____ pečat / stamp

Prodato u firmi / Company of Sale	
Adresa / Address	Telefon / Phone
Datum prodaje / Date of Sale	

Potpis / Signature _____ pečat/stamp

**Potrosač ima sva prava na osnovu Zakona o zaštiti potrošača ("Sl.glasnik RS", br. erbia62/2014). Garancija ne isključuje niti utiče na prava potrošača koja proizilaze iz zakonske odgovornosti prodavca za nesaobzirnost robe u ugovoru./ The consumer shall exercise all rights under the Consumer Protection Law ("OJ of RS" No 62/2014). The guarantee does not exclude nor affect the consumer's rights derived from the legal liability of the seller for any lack of conformity of the goods under a Contract.*
**Gore navedeno važi za kupce na prostoru Republike Srbije./ The aforementioned applies to purchasers of the Republic of Serbia.*