

 DOK-ING	TENDER DOCUMENTATION (TD)	FRM-PCH-04
		Rev.01
		22.10.2019.

Zagreb, 7.2.2020.

Project Number	KK.01.2.1.01.0045
No. of the Procurement	18

TENDER DOCUMENTATION (TD)

Procuring a cooling system designed for cooling the diesel engine, hydraulic oil and electronics, No. of the procurement 18

1. INFORMATION ON THE CLIENT

Name of the customer: DOK-ING d.o.o.
 Address: Kanalski put 1, 10 000 Zagreb, Croatia
 PIN: 39982657045
 Internet address: <http://www.dok-ing.hr/>
 E-mail: eunabava@dok-ing.hr
 Telephone: +385 1 2481-300
 Fax: +385 1 2481-303

2. INFORMATION ON THE CONTACT PERSON FOR COMMUNICATION WITH THE SUPPLIERS

Communication and any other exchange of information between the Customer and the Bidder shall be effected exclusively via e-mail. All questions and clarification requests can be sent via e-mail to: eunabava@dok-ing.hr

The Customer shall respond to the request for additional information and clarifications only if sent by e-mail to the above address. For the purpose of equal treatment of all bidders, the response to the requests shall be sent to all bidders regardless of who sent the initial application or question.

 DOK-ING	TENDER DOCUMENTATION (TD)	FRM-PCH-04
		Rev.01
		22.10.2019.

3. COMMENCEMENT OF THE PUBLIC PROCUREMENT PROCEDURE

The date of commencement of the public tender procedure is the date of publication of the Contract Notice on the website www.strukturnifondovi.hr

4. TYPE OF PROCUREMENT PROCEDURE

An open public procurement procedure with a public Procurement Notice is applied.

5. DESCRIPTION OF PROCUREMENT SUBJECT

The Customer is procuring a cooling system designed for cooling the diesel engine, hydraulic oil and electronics with the total cooling power of 211,5 kW. The equipment offered must comply with the technical characteristics set out in Item 6. The external dimensions of the system, mounting points, positioning of the heat exchangers (coolers) and fans, placement of input and output points must be in accordance with the sketch shown in Item 6. On request, a more detailed 3D model can be provided during the public procurement procedure.

The system must contain two separate groups:

1. cooling for the diesel engine
2. cooling for the hydraulic oil and electronics

There must be an option to control both of the fans separately. Fans must be powered with hydraulic motors.

All bidders shall respect the technical specifications referred to in Item 6 of the Procurement Documents.

The procurement is not divided into groups and all bidders must submit a bid for the entire system.

Call for project proposals is published in Croatian and English, and in accordance with the above-mentioned, technical specifications shall be in Croatian and English for the purpose of achieving equal treatment of all potential bidders and a clear understanding of all points of the technical specifications.

 DOK-ING	TENDER DOCUMENTATION (TD)	FRM-PCH-04
		Rev.01
		22.10.2019.

6. TECHNICAL SPECIFICATIONS

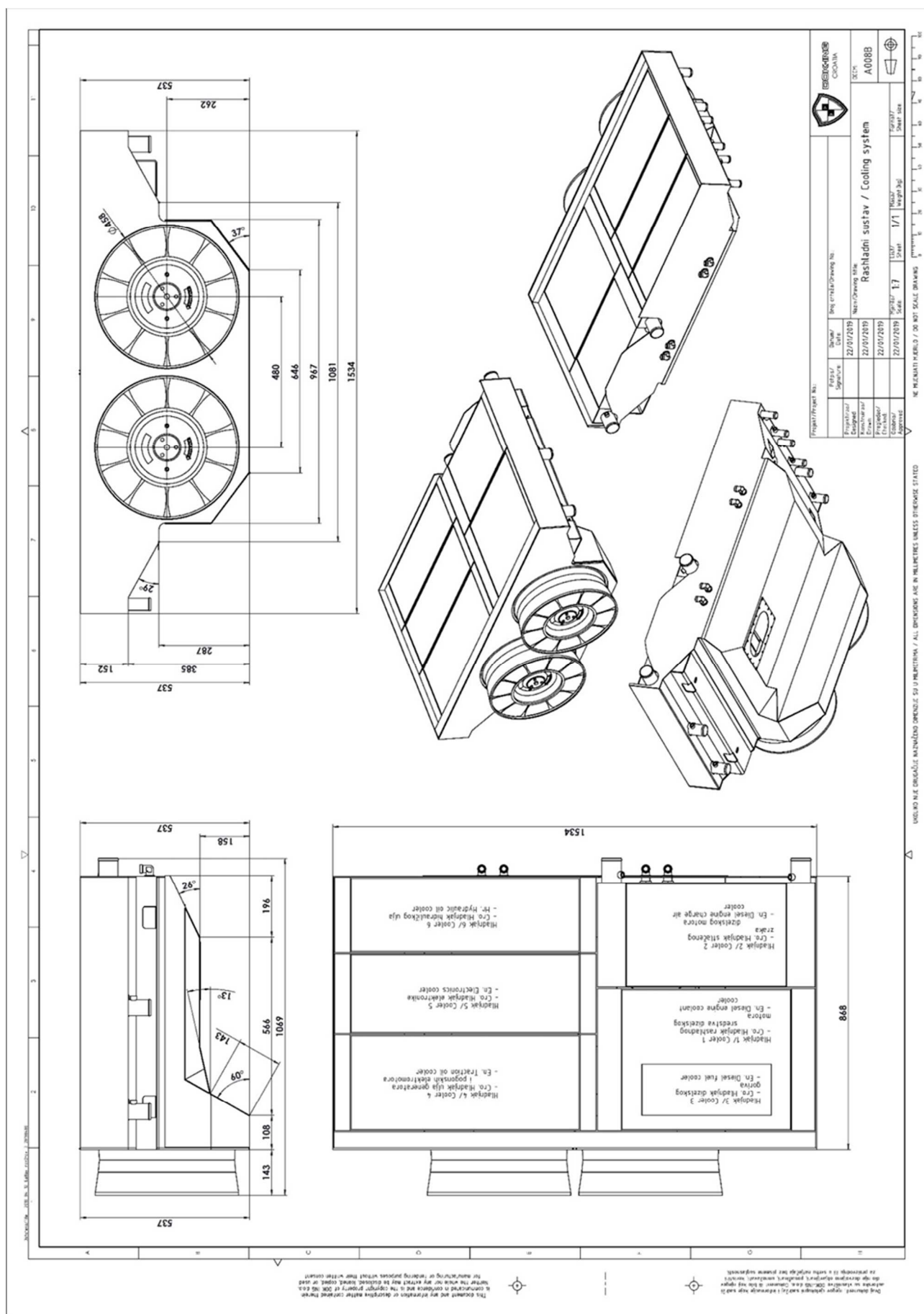
The supplier is expected to complete and deliver the following:

- Cooling system intended for diesel engine, hydraulic oil and electronics

- Support structure, air flow dividers, framework etc.
- All coolers listed in Item 6
- Two fans
- Hydraulic drive motors for fans with installed speed sensors
- Expansion tanks for coolers: “Diesel engine coolant cooler” and “Electronics cooler”
- Sensor connecting points
- A detailed 3D model
- Technical Description document containing:
 - o information about the assembly (eg. Dimensions of the assembly, connecting and fixing points, working conditions, mass...)
 - o the installation guidelines with the procedures and actions before commissioning the assembly (procedure for filling/refilling of the system, venting of the systems...)
 - o technical documentation/description of the purchased/standard components (fans, hydraulic fan drive)
 - o relevant calculations about cooler dimension, flow rates for liquids, air...
 - o spare parts catalogue
- Supplier support during the initial system installation and prototype testing

**Technical specifications of the separate coolers**

1.	Diesel engine coolant cooler, heat is transferred to the ambient air	
	P=94 kW	Maximum cooling power
	Q=250 l/min	Coolant flow for maximum cooling power
	T _{amb.nom} =49 °C	Ambient air temperature for the maximum cooling power of 94 kW
	T _{in.nom} =100 °C	Cooler inlet temperature for the cooling power of 94 kW
	T _{diff.max} =10 °C	Maximum difference between cooler inlet and outlet temperature
	p _{drop.max} =400 mbar	Maximum pressure drop between cooler inlet and diesel engine inlet
	50/50 - Glycol/water	Cooled medium
2.	Diesel engine charge air cooler	
	P=30 kW	Charge air cooling power
	m=702 kg/h	Air mass flow at 25 °C
	T _{amb.nom} =25 °C	Ambient air temperature for the cooling power of 30 kW
	T _{amb} =49 °C	Maximum air ambient temperature
	T _{in.nom} =192 °C	Charge air cooler inlet temperature for the cooling power of 30 kW
	T _{out.nom} =40 °C	Charge air cooler outlet temperature for the cooling power of 30 kW
	p _{drop.max} =135 mbar	Maximum pressure drop between cooler inlet and diesel engine inlet
	p _{max} =2380 mbar	Maximum charge air cooling system pressure
	Air	Cooled medium
3.	Diesel fuel cooler	
	P=3,5 kW	Cooling power
	Q=240 l/hr	Diesel fuel flow
	T _{amb.nom} =49 °C	Ambient air temperature for the cooling power of 3,5 kW
	T _{in.nom} =105 °C	Cooler inlet temperature for the cooling power of 3,5 kW
	Diesel fuel DIN EN 590	Cooled medium
4.	Traction oil cooler	
	P=29 kW	Cooling power
	Q=100 l/min	Oil flow
	T _{amb.nom} =49 °C	Ambient air temperature for the cooling power 29 kW
	T _{out.} =90 °C	Cooler outlet temperature for the cooling power of 29 kW
	Dexron VI	Cooled medium
5.	Electronics cooler	
	P=43,5 kW	Cooling power
	Q=160 l/min	Coolant flow
	T _{amb.nom} =40 °C	Ambient air temperature for the cooling power 43,5 kW
	T _{out.} =70 °C	Cooler outlet temperature for the cooling power of 43,5 kW
	50/50- Glycol/Water	Cooled medium
6.	Hydraulic oil cooler	
	P=11,5 kW	Cooling power
	Q=70 l/min	Coolant flow
	T _{amb.nom} =40 °C	Ambient air temperature for the cooling power 11,5 kW
	T _{out.} =70 °C	Cooler outlet temperature for the cooling power of 11,5 kW
	Shell Tellus 68	Cooled medium

**DOK-ING****TENDER DOCUMENTATION (TD)****FRM-PCH-04****Rev.01****22.10.2019.**

 DOK-ING	TENDER DOCUMENTATION (TD)	FRM-PCH-04
		Rev.01
		22.10.2019.

7. EVALUATION CRITERION

The successful Bidder selection criteria shall be the most economically advantageous bid (best value for money).

Selection criteria for the cooling system intended for diesel engine, hydraulic oil and electronics:

- Failure to fulfil the conditions of maximum dimensions by the potential supplier leads to direct exclusion from the tender

Evaluation criteria: Description	Score
Meeting the cooling power requirements	40
Dimensional requirements	50
Price	10
Total	100

The calculation of the scores of the price is done according to the following formula:

- $X_c = C_n / C_x \times 20$
- X_c – score number of the evaluated bid
- C_n – lowest tender price
- C_x – tender price

8. DELIVERY LOCATION

DOK-ING d.o.o., Kanalski put 1, 10000 Zagreb

9. PREPARATION AND SUBMISSION OF BIDS

The bid shall be submitted in Croatian (for Croatian bidder) or English (for non Croatian bidder) and in Latin script. When preparing the bid, the Bidder shall adhere to requests and requirements from the subject Tender Documents.

The bid must contain the following as a minimum:

1. Full name of Bidder, address and contact person
2. Detailed description of the equipment, according to the technical specifications referred to in Item 6. All points included in the technical specifications must be stated as indicated in Item 6.
3. Financial bid in HRK
4. Date and signature of the person authorized to represent the Bidder.

The proposal shall be submitted electronically, by e-mail to the address given in Item 1 of this call for bids.

 DOK-ING	TENDER DOCUMENTATION (TD)	FRM-PCH-04
		Rev.01
		22.10.2019.

10. DEADLINE FOR SUBMISSION OF BIDS

The deadline for submission of bids is 8 calendar days from the date of publication of this Notice at www.strukturnifondovi.hr

11. DELIVERY PERIOD OF THE PROCUREMENT SUBJECT

The delivery period shall commence immediately after signing the issuing the Purchase Order or signing the contract. The selected Bidder shall deliver and install the equipment and provide all of the services within the deadline of a maximum of 15 working weeks from the date of Purchase Order / signing the contract.

12. MODIFICATION OR WITHDRAWAL OF SUBMITTED BIDS

The Bidder may change or withdraw their bid before the deadline for submission. If a modification or amendment to the bid is submitted, it must be submitted in the same way as the original proposal, indicating that this is a change / addendum to the proposal.

13. VALIDITY OF BIDS

The validity of bids must be at least 120 days after the deadline for submission.

14. SELECTION OF THE MOST ADVANTAGEOUS BID

The deadline for the evaluation of bids and the decision on a successful bidder is 10 working days after the deadline for submitting the proposal. The bidders shall be informed on the decision within that deadline.

Public procurement: Ivan Kralj