INVITATION TO BID

№ JOF-0039-29582/2016

August, 2016

Section 1. Letter of Invitation

Brasília, 1 August 2016.

RAC System Components, Equipment, Tools and Consumables for the Implementation of HCFC Containment Demonstration Projects in Brazilian Supermarkets

Dear Sir(s)/Madam(s),

We hereby invite you to submit a Bid to this Invitation to Bid (ITB) for the above-referenced subject.

This ITB includes the following documents:

Section 1 – This Letter of Invitation
Section 2 – Instructions to Bidders (including Data Sheet)
Section 3a – Schedule of Requirements and Technical Specifications
Section 3b – Related Services
Section 4 – Bid Submission Form
Section 5 – Documents Establishing the Eligibility and Qualifications of the Bidder
Section 6 – Technical Bid Form
Section 7 – Price Schedule Form
Section 8 – Form for Bid Security (Not Applicable)
Section 9 – Form for Performance Security (Not Applicable)
Section 10 – Form for Advanced Payment Guarantee (Not Applicable)

Your offer, comprising of a Technical Bid and Price Schedule, together in a sealed envelope, should be submitted in accordance with Section 2.

You are kindly requested to submit an acknowledgment letter to the following address:

UN House Brazil
JOF - Joint Operations Facility
Ref. Bid JOF-0039-29582/2016
Casa das Nações Unidas no Brasil
Setor de Embaixadas Norte, Quadra 802, Conjunto C, Lote 17
Complexo Sergio Vieira de Mello, Módulo I, Prédio Zilda Arns, Salas 117 a 123
CEP 70800-400 – Brasília, DF - Brasil

The letter should be received no later than 15 September 2016 at 3 p.m. (local time). The same letter should advise whether your company intends to submit a Bid. If that is not the case, we would appreciate your information on the reasons of non-participation, for our records.

Should you require any clarification, kindly communicate with the contact identified in the attached Data Sheet for queries on this ITB.

We look forward to receiving your Bid and thanks you in advance for your interest in our procurement opportunities.

Cordially,
JOF - Joint Operations Facility
United Nations in Brazil

Section 2: Instruction to Bidders[1]

Definitions

a) *"Bid"* refers to the Bidder's response to the Invitation to Bid, including the Bid Submission Form, Technical Bid and Price Schedule and all other documentation attached thereto as required by the ITB.

b) *"Bidder"* refers to any legal entity that may submit, or has submitted, a Bid for the supply of goods and provision of related services requested by UNDP.

c) *"Contract"* refers to the legal instrument that will be signed by and between UNDP and the successful Bidder, all the attached documents thereto, including the General Terms and Conditions (GTC) and the Appendices.

d) "*Country"* refers to the country indicated in the Data Sheet.

e) *"Data Sheet"* refers to such part of the Instructions to Bidders used to reflect conditions of the tendering process that are specific for the requirements of the ITB.

f) *"Day"* refers to calendar day.

g) *"Goods"* refer to any tangible product, commodity, article, material, wares, equipment, assets or merchandise that UNDP requires under this ITB.

h) *"Government"* refers to the Government of the country where the goods and related services provided/rendered specified under the Contract will be delivered or undertaken.

i) *"Instructions to Bidders"* refers to the complete set of documents which provides Bidders with all information needed and procedures to be followed in the course of preparing their Bid

j) *"ITB"* refers to the Invitation to Bid consisting of instructions and references prepared by UNDP for purposes of selecting the best supplier or service provider to fulfil the requirement indicated in the Schedule of Requirements and Technical Specifications.

k) *"LOI"* (Section 1 of the ITB) refers to the Letter of Invitation sent by UNDP to Bidders.

l) *"Material Deviation"* refers to any contents or characteristics of the bid that is significantly different from an essential aspect or requirement of the ITB, and (i) substantially alters the scope and quality of the requirements; (ii) limits the rights of UNDP and/or the obligations of the offeror; and (iii) adversely impacts the fairness and principles of the procurement process, such as those that compromise the competitive position of other offerors.

[1] *Note: this Section 2 - Instructions to Bidders shall not be modified in any way.* ***Any necessary changes to address specific country and project information shall be introduced only through the Data Sheet.***

m) *"Schedule of Requirements and Technical Specifications"* refers to the document included in this ITB as Section 3 which lists the goods required by UNDP, their specifications, the related services, activities, tasks to be performed, and other information pertinent to UNDP's receipt and acceptance of the goods.

n) *"Services"* refers to the entire scope of tasks related or ancillary to the completion or delivery of the goods required by UNDP under the ITB.

o) "*Supplemental Information to the ITB"* refers to a written communication issued by UNDP to prospective Bidders containing clarifications, responses to queries received from prospective Bidders, or changes to be made in the ITB, at any time after the release of the ITB but before the deadline for the submission of Bid.

A. GENERAL

1. UNDP hereby solicits Bids as a response to this Invitation to Bid (ITB). Bidders must strictly adhere to all the requirements of this ITB. No changes, substitutions or other alterations to the rules and provisions stipulated in this ITB may be made or assumed unless it is instructed or approved in writing by UNDP in the form of Supplemental Information to the ITB.

2. Submission of a Bid shall be deemed as an acknowledgement by the Bidder that all obligations stipulated by this ITB will be met and, unless specified otherwise, the Bidder has read, understood and agreed to all the instructions in this ITB.

3. Any Bid submitted will be regarded as an offer by the Bidder and does not constitute or imply the acceptance of any Bid by UNDP. UNDP is under no obligation to award a contract to any Bidder as a result of this ITB.

4. UNDP implements a policy of zero tolerance on proscribed practices, including fraud, corruption, collusion, unethical practices, and obstruction. UNDP is committed to preventing, identifying and addressing all acts of fraud and corrupt practices against UNDP as well as third parties involved in UNDP activities. (See http://www.undp.org/about/transparencydocs/UNDP_Anti_Fraud_Policy_English_FINAL_june_2011.pdf and http://www.undp.org/content/undp/en/home/operations/procurement/procurement_protest/ for full description of the policies)

5. In responding to this ITB, UNDP requires all Bidders to conduct themselves in a professional, objective and impartial manner, and they must at all times hold UNDP's interests paramount. Bidders must strictly avoid conflicts with other assignments or their own interests, and act without consideration for future work. All Bidders found to have a conflict of interest shall be disqualified. Without limitation on the generality of the above, Bidders, and any of their affiliates, shall be considered to have a conflict of interest with one or more parties in this solicitation process, if they:

5.1 Are, or have been associated in the past, with a firm or any of its affiliates which have been engaged UNDP to provide services for the preparation of the design, Schedule of Requirements and Technical Specifications, cost analysis/estimation, and other documents to be used for the procurement of the goods and related services in this selection process;
5.2 Were involved in the preparation and/or design of the programme/project related to the goods and related services requested under this ITB; or
5.3 Are found to be in conflict for any other reason, as may be established by, or at the discretion of, UNDP.

In the event of any uncertainty in the interpretation of what is potentially a conflict of interest, Bidders must disclose the condition to UNDP and seek UNDP's confirmation on whether or not such conflict exists.

6. Similarly, the following must be disclosed in the Bid:

6.1 Bidders who are owners, part-owners, officers, directors, controlling shareholders, or key personnel who are family of UNDP staff involved in the procurement functions and/or the Government of the country or any Implementing Partner receiving the goods and related services under this ITB; and
6.4 Others that could potentially lead to actual or perceived conflict of interest, collusion or unfair competition practices.

Failure of such disclosure may result in the rejection of the Bid.

7. The eligibility of Bidders that are wholly or partly owned by the Government shall be subject to UNDP's further evaluation and review of various factors such as being registered as an independent entity, the extent of Government ownership/share, receipt of subsidies, mandate, access to information in relation to this ITB, and others that may lead to undue advantage against other Bidders, and the eventual rejection of the Bid.

8. All Bidders must adhere to the UNDP Supplier Code of Conduct, which may be found at this link: http://web.ng.undp.org/procurement/undp-supplier-code-of-conduct.pdf

B. CONTENTS OF BID

9. Sections of Bid

Bidders are required to complete, sign and submit the following documents:

9.1 Bid Submission Cover Letter Form (see ITB Section 4);
9.2 Documents Establishing the Eligibility and Qualifications of the Bidder (see ITB Section 5);
9.3 Technical Bid (see prescribed form in ITB Section 6);
9.4 Price Schedule (see prescribed form in ITB Section 7);
9.5 Bid Security, if applicable (if required and as stated in the DS nos. 9-11, see prescribed Form in ITB Section 8);

9.6 Any attachments and/or appendices to the Bid (including all those specified under the **Data Sheet**)

10. Clarification of Bid

10.1 Bidders may request clarification of any of the ITB documents no later than the number of days indicated in the **Data Sheet** (DS no. 16) prior to the Bid submission date. Any request for clarification must be sent in writing via courier or through electronic means to the UNDP address indicated in the **Data Sheet** (DS no. 17). UNDP will respond in writing, transmitted by electronic means and will transmit copies of the response (including an explanation of the query but without identifying the source of inquiry) to all Bidders who have provided confirmation of their intention to submit a Bid.

10.2 UNDP shall endeavor to provide such responses to clarifications in an expeditious manner, but any delay in such response shall not cause an obligation on the part of UNDP to extend the submission date of the Bid, unless UNDP deems that such an extension is justified and necessary.

11. Amendment of Bid

11.1 At any time prior to the deadline for submission of Bid, UNDP may for any reason, such as in response to a clarification requested by a Bidder, modify the ITB in the form of a Supplemental Information to the ITB. All prospective Bidders will be notified in writing of all changes/amendments and additional instructions through Supplemental Information to the ITB and through the method specified in the **Data Sheet** (DS No. 18).

11.2 In order to afford prospective Bidders reasonable time to consider the amendments in preparing their Bid, UNDP may, at its discretion, extend the deadline for submission of Bid, if the nature of the amendment to the ITB justifies such an extension.

C. PREPARATION OF BID

12. Cost

The Bidder shall bear any and all costs related to the preparation and/or submission of the Bid, regardless of whether its Bid was selected or not. UNDP shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the procurement process.

13. Language

The Bid, as well as any and all related correspondence exchanged by the Bidder and UNDP, shall be written in the language (s) specified in the **Data Sheet** (DS No. 4). Any printed literature furnished by the Bidder written in a language other than the language indicated in the **Data Sheet**, must be accompanied by a translation in the preferred language indicated in the **Data Sheet**. For purposes of interpretation of the Bid, and in the event of discrepancy or inconsistency in meaning, the version translated into the preferred language shall govern. Upon conclusion of a contract, the language of the contract shall govern the relationship between the contractor and UNDP.

14. Bid Submission Form

The Bidder shall submit the Bid Submission Form using the form provided in Section 4 of this ITB.

15. Technical Bid Format and Content

Unless otherwise stated in the **Data Sheet** (DS no. 28), the Bidder shall structure the Technical Bid as follows:

15.1 Expertise of Firm/Organization – this section should provide details regarding management structure of the organization, organizational capability/resources, and experience of organization/firm, the list of projects/contracts (both completed and on-going, both domestic and international) which are related or similar in nature to the requirements of the ITB, manufacturing capacity of plant if Bidder is a manufacturer, authorization from the manufacturer of the goods if Bidder is not a manufacturer, and proof of financial stability and adequacy of resources to complete the delivery of goods and provision of related services required by the ITB (see ITB Clause 18 and DS No. 26 for further details). The same shall apply to any other entity participating in the ITB as a Joint Venture or Consortium.

15.2 Technical Specifications and Implementation Plan – this section should demonstrate the Bidder's response to the Schedule of Requirements and Technical Specifications by identifying the specific components proposed; how each of the requirements shall be met point by point; providing a detailed specification and description of the goods required, plans and drawings where needed; the essential performance characteristics, identifying the works/portions of the work that will be subcontracted; a list of the major subcontractors, and demonstrating how the bid meets or exceeds the requirements, while ensuring appropriateness of the bid to the local conditions and the rest of the project operating environment during the entire life of the goods provided. Details of technical bid must be laid out and supported by an Implementation Timetable, including Transportation and Delivery Schedule where needed, that is within the duration of the contract as specified in the **Data Sheet** (DS noS. 29 and 30).

Bidders must be fully aware that the goods and related services that UNDP require may be transferred, immediately or eventually, by UNDP to the Government partners, or to an entity nominated by the latter, in accordance with UNDP's policies and procedures. All bidders are therefore required to submit the following in their bids:

a) A statement of whether any import or export licences are required in respect of the goods to be purchased or services to be rendered, including any restrictions in the country of origin, use or dual use nature of the goods or services, including any disposition to end users;
b) Confirmation that the Bidder has obtained license of this nature in the past, and have an expectation of obtaining all the necessary licenses, should their bid be rendered the most responsive; and
c) Complete documentation, information and declaration of any goods classified or may be classified as "Dangerous Goods".

15.3 Management Structure and Key Personnel – This section should include the comprehensive curriculum vitae (CVs) of key personnel that will be assigned to support the implementation of the technical bid, clearly defining their roles and responsibilities. CVs should establish competence and demonstrate qualifications in areas relevant to the requirements of this ITB.

In complying with this section, the Bidder assures and confirms to UNDP that the personnel being nominated are available to fulfil the demands of the Contract during its stated full term. If any of the key personnel later becomes unavailable, except for unavoidable reasons such as death or medical incapacity, among other possibilities, UNDP reserves the right to render the Bid non-responsive. Any deliberate substitution of personnel arising from unavoidable reasons, including delay in the implementation of the project of programme through no fault of the Bidder, shall be made only with UNDP's acceptance of the justification for substitution, and UNDP's approval of the qualification of the replacement who shall be either of equal or superior credentials as the one being replaced.

15.4 Where the **Data Sheet** requires the submission of the Bid Security, the Bid Security shall be included along with the Technical Bid. The Bid Security may be forfeited by UNDP, and reject the Bid, in the event of any or any combination of the following conditions:

a) If the Bidder withdraws its offer during the period of the Bid Validity specified in the **Data Sheet** (DS no. 11), or;
b) If the Bid Security amount is found to be less than what is required by UNDP as indicated in the **Data Sheet** (DS no. 9), or;
c) In the case the successful Bidder fails:

i. to sign the Contract after UNDP has awarded it;
ii. to comply with UNDP's variation of requirement, as per ITB Clause 35; or
iii. to furnish Performance Security, insurances, or other documents that UNDP may require as a condition to rendering effective the contract that may be awarded to the Bidder.

16. Price Schedule

The Price Schedule shall be prepared using the attached standard form (Section 7). It shall list all major cost components associated with the goods and related services, and the detailed breakdown of such costs. All goods and services described in the Technical Bid must be priced separately on a one-to-one correspondence. Any output and activities described in the Technical Bid but not priced in the Price Schedule, shall be assumed to be included in the prices of the items or activities, as well as in the final total price of the bid.

17. Currencies

All prices shall be quoted in the currency indicated in the **Data Sheet** (DS no. 15). However, where Bids are quoted in different currencies, for the purposes of comparison of all Bid:

17.1 UNDP will convert the currency quoted in the Bid into the UNDP preferred currency, in accordance with the prevailing UN operational rate of exchange on the last day of submission of Bid; and

17.2 In the event that the Bid found to be the most responsive to the ITB requirement is quoted in another currency different from the preferred currency as per **Data Sheet** (DS no. 15), then UNDP shall reserve the right to award the contract in the currency of UNDP's preference, using the conversion method specified above.

18. Documents Establishing the Eligibility and Qualifications of the Bidder

18.1 The Bidder shall furnish documentary evidence of its status as an eligible and qualified vendor, using the forms provided under Section 5, Bidder Information Forms. In order to award a contract to a Bidder, its qualifications must be documented to UNDP's satisfactions. These include, but are not limited to the following:

a) That, in the case of a Bidder offering to supply goods under the Contract which the Bidder did not manufacture or otherwise produce, the Bidder has been duly authorized by the goods' manufacturer or producer to supply the goods in the country of final destination;
b) That the Bidder has the financial, technical, and production capability necessary to perform the Contract; and
c) That, to the best of the Bidder's knowledge, it is not included in the UN 1267 List or the UN Ineligibility List, nor in any and all of UNDP's list of suspended and removed vendors.

18.2 Bids submitted by two (2) or more Bidders shall all be rejected by UNDP if they are found to have <u>any</u> of the following:

a) they have at least one controlling partner, director or shareholder in common; or
b) any one of them receive or have received any direct or indirect subsidy from the other/s; or
c) they have the same legal representative for purposes of this ITB; or
d) they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about, or influence on the Bid of, another Bidder regarding this ITB process;
e) they are subcontractors to each other's bid, or a subcontractor to one bid also submits another Bid under its name as lead Bidder; or
f) an expert proposed to be in the bid of one Bidder participates in more than one Bid received for this ITB process. This condition does not apply to subcontractors being included in more than one Bid.

19. Joint Venture, Consortium or Association

If the Bidder is a group of legal entities that will form or have formed a joint venture, consortium or association at the time of the submission of the Bid, they shall confirm in their Bid that : (i) they have designated one party to act as a lead entity, duly vested with authority to legally bind the members of the joint venture jointly and severally, and this shall be duly evidenced by a duly notarized Agreement among the legal entities, which shall be submitted along with the Bid; and

(ii) if they are awarded the contract, the contract shall be entered into, by and between UNDP and the designated lead entity, who shall be acting for and on behalf of all entities that comprise the joint venture.

After the bid has been submitted to UNDP, the lead entity identified to represent the joint venture shall not be altered without the prior written consent of UNDP. Furthermore, neither the lead entity nor the member entities of the joint venture can:

a) Submit another Bid, either in its own capacity; nor
b) As a lead entity or a member entity for another joint venture submitting another Bid.

The description of the organization of the joint venture/consortium/association must clearly define the expected role of each of the entity in the joint venture in delivering the requirements of the ITB, both in the bid and in the Joint Venture Agreement. All entities that comprise the joint venture shall be subject to the eligibility and qualification assessment by UNDP.

Where a joint venture is presenting its track record and experience in a similar undertaking as those required in the ITB, it should present such information in the following manner:

a) Those that were undertaken together by the joint venture; and
b) Those that were undertaken by the individual entities of the joint venture expected to be involved in the performance of the services defined in the ITB.

Previous contracts completed by individual experts working privately but who are permanently or were temporarily associated with any of the member firms cannot be claimed as the experience of the joint venture or those of its members, but should only be claimed by the individual experts themselves in their presentation of their individual credentials.

If the Bid of a joint venture is determined by UNDP as the most responsive Bid that offers the best value for money, UNDP shall award the contract to the joint venture, in the name of its designated lead entity, who shall sign the contract for and on behalf of all the member entities.

20. Alternative Bid

Unless otherwise specified in the **Data Sheet** (DS nos. 5 and 6), alternative bid shall not be considered. Where the conditions for its acceptance are met, or justifications are clearly established, UNDP reserves the right to award a contract based on an alternative bid.

21. Validity Period

21.1 Bid shall remain valid for the period specified in the **Data Sheet** (DS no. 8), commencing on the submission deadline date also indicated in the **Data Sheet** (DS no. 21). A Bid valid for a shorter period shall be immediately rejected by UNDP and rendered non-responsive.

21.2 In exceptional circumstances, prior to the expiration of the Bid validity period, UNDP may request Bidders to extend the period of validity of their Bid. The request and the responses shall be made in writing, and shall be considered integral to the Bid.

22. Bidder's Conference

When appropriate, a Bidder's conference will be conducted at the date, time and location specified in the **Data Sheet** (DS no. 7). All Bidders are encouraged to attend. Non-attendance, however, shall not result in disqualification of an interested Bidder. Minutes of the Bidder's conference will be either posted on the UNDP website, or disseminated to the individual firms who have registered or expressed interest with the contract, whether or not they attended the conference. No verbal statement made during the conference shall modify the terms and conditions of the ITB unless such statement is specifically written in the Minutes of the Conference, or issued/posted as an amendment in the form of a Supplemental Information to the ITB.

D. SUBMISSION AND OPENING OF BID

23. Submission

23.1 The Technical Bid and the Price Schedule **must** be submitted together and sealed together in one and the same envelope, delivered either personally, by courier, or by electronic method of transmission. If submission will not be done by electronic means, the Technical Bid and Price Schedule must be sealed together in an envelope whose external side must:

a) Bear the name of the Bidder;
b) Be addressed to UNDP as specified in the **Data Sheet** (DS no.20); and
c) Bear a warning not to open before the time and date for Bid opening as specified in the **Data Sheet** (DS no. 24)**.**

If the envelope is not sealed nor labeled as required, the Bidder shall assume the responsibility for the misplacement or premature opening of Bid due to improper sealing and labeling by the Bidder.

23.2 Bidders must submit their Bid in the manner specified in the **Data Sheet** (DS nos. 22 and 23). When the Bid is expected to be in transit for more than 24 hours, the Bidder must ensure that sufficient lead time has been provided in order to comply with UNDP's deadline for submission. UNDP shall indicate for its record that the official date and time of receiving the Bid is the actual date and time when the said Bid has physically arrived at the UNDP premises indicated in the **Data Sheet** (DS no. 20).

23.3 Bidders submitting Bid by mail or by hand shall enclose the original and each copy of the Bid, in separate sealed envelopes, duly marking each of the envelopes as "Original Bid" and the others as "Copy of Bid". The two envelopes, consisting of original and copies, shall then be sealed in an outer envelope. The number of copies required shall be as specified in the **Data Sheet** (DS no. 19)**.** In the event of any discrepancy between the contents of the "Original Bid" and the "Copy of Bid", the contents of the original shall govern. The original version of the Bid shall be signed or initialed by the Bidder or person(s) duly authorized to commit the Bidder on every page. The authorization shall be communicated through a document evidencing such authorization issued by the highest official of the firm, or a

Power of Attorney, accompanying the Bid.

23.4 Bidders must be aware that the mere act of submission of a Bid, in and of itself, implies that the Bidder accepts the General Contract Terms and Conditions of UNDP as attached hereto as Section 11.

24. Deadline for Submission of Bid and Late Bids

Bid must be received by UNDP at the address and no later than the date and time specified in the **Data Sheet** (DS no. 20 and 21).

UNDP shall not consider any Bid that arrives after the deadline for submission of Bid. Any Bid received by UNDP after the deadline for submission of Bid shall be declared late, rejected, and returned unopened to the Bidder.

25. Withdrawal, Substitution, and Modification of Bid

25.1 Bidders are expected to have sole responsibility for taking steps to carefully examine in detail the full consistency of its Bid to the requirements of the ITB, keeping in mind that material deficiencies in providing information requested by UNDP, or lack clarity in the description of goods and related services to be provided, may result in the rejection of the Bid. The Bidder shall assume any responsibility regarding erroneous interpretations or conclusions made by the Bidder in the course of understanding the ITB out of the set of information furnished by UNDP.

25.2 A Bidder may withdraw, substitute or modify its Bid after it has been submitted by sending a written notice in accordance with ITB Clause 23, duly signed by an authorized representative, and shall include a copy of the authorization (or a Power of Attorney). The corresponding substitution or modification of the Bid must accompany the respective written notice. All notices must be received by UNDP prior to the deadline for submission and submitted in accordance with ITB Clause 23 (except that withdrawal notices do not require copies). The respective envelopes shall be clearly marked "WITHDRAWAL," "SUBSTITUTION," or MODIFICATION".

25.3 Bid requested to be withdrawn shall be returned unopened to the Bidders.

25.4 No Bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of Bid and the expiration of the period of Bid validity specified by the Bidder on the Bid Submission Form or any extension thereof.

26. Bid Opening

UNDP will open the Bid in the presence of an ad-hoc committee formed by UNDP of at least two (2) members. If electronic submission is permitted, any specific electronic Bid opening procedures shall be as specified in the **Data Sheet** (DS no. 23).

The Bidders' names, modifications, withdrawals, the condition of the envelope labels/seals, the

number of folders/files and all other such other details as UNDP may consider appropriate, will be announced at the opening. No Bid shall be rejected at the opening stage, except for late submission, for which the Bid shall be returned unopened to the Bidder.

27. Confidentiality

Information relating to the examination, evaluation, and comparison of Bid, and the recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with such process, even after publication of the contract award.

Any effort by a Bidder to influence UNDP in the examination, evaluation and comparison of the Bid or contract award decisions may, at UNDP's decision, result in the rejection of its Bid.

In the event that a Bidder is unsuccessful, the Bidder may seek a meeting with UNDP for a debriefing. The purpose of the debriefing is discussing the strengths and weaknesses of the Bidder's submission, in order to assist the Bidder in improving the bid presented to UNDP. The content of other bid and how they compare to the Bidder's submission shall not be discussed.

E. EVALUATION OF BID

28. Preliminary Examination of Bid

UNDP shall examine the Bid to determine whether they are complete with respect to minimum documentary requirements, whether the documents have been properly signed, whether or not the Bidder is in the UN Security Council 1267/1989 Committee's list of terrorists and terrorist financiers, and in UNDP's list of suspended and removed vendors, and whether the Bid are generally in order, among other indicators that may be used at this stage. UNDP may reject any Bid at this stage.

29. Evaluation of Bid

29.1 UNDP shall examine the Bid to confirm that all terms and conditions under the UNDP General Terms and Conditions and Special Conditions have been accepted by the Bidder without any deviation or reservation.

29.2 The evaluation team shall review and evaluate the Bids on the basis of their responsiveness to the Schedule of Requirements and Technical Specifications and other documentation provided, applying the procedure indicated in the **Data Sheet** (DS No. 25). Absolutely no changes may be made by UNDP in the criteria after all Bids have been received.

29.1 UNDP reserves the right to undertake a post-qualification exercise, aimed at determining, to its satisfaction the validity of the information provided by the Bidder. Such post-qualification shall be fully documented and, among those that may be listed in the **Data Sheet** (DS No.33), may include, but need not be limited to, all or any combination of the following :

a) Verification of accuracy, correctness and authenticity of the information provided by the

bidder on the legal, technical and financial documents submitted;

b) Validation of extent of compliance to the ITB requirements and evaluation criteria based on what has so far been found by the evaluation team;
c) Inquiry and reference checking with Government entities with jurisdiction on the bidder, or any other entity that may have done business with the bidder;
d) Inquiry and reference checking with other previous clients on the quality of performance on on-going or previous contracts completed;
e) Physical inspection of the bidder's plant, factory, branches or other places where business transpires, with or without notice to the bidder;
f) Testing and sampling of completed goods similar to the requirements of UNDP, where available; and
g) Other means that UNDP may deem appropriate, at any stage within the selection process, prior to awarding the contract.

30. Clarification of Bid

To assist in the examination, evaluation and comparison of bids, UNDP may, at its discretion, ask any Bidder to clarify its Bid.

UNDP's request for clarification and the Bidder's response shall be in writing. Notwithstanding the written communication, no change in the prices or substance of the Bid shall be sought, offered, or permitted, except to provide clarification, and confirm the correction of any arithmetic errors discovered by UNDP in the evaluation of the Bid, in accordance with ITB Clause 35.

Any unsolicited clarification submitted by a Bidder in respect to its Bid, which is not a response to a request by UNDP, shall not be considered during the review and evaluation of the Bid.

31. Responsiveness of Bid

UNDP's determination of a Bid's responsiveness will be based on the contents of the Bid itself.

A substantially responsive Bid is one that conforms to all the terms, conditions, and specifications of the ITB without material deviation, reservation, or omission.

If a Bid is not substantially responsive, it shall be rejected by UNDP and may not subsequently be made responsive by the Bidder by correction of the material deviation, reservation, or omission.

32. Nonconformities, Reparable Errors and Omissions

32.3 Provided that a Bid is substantially responsive, UNDP may waive any non-conformities or omissions in the Bid that, in the opinion of UNDP, do not constitute a material deviation.

32.4 Provided that a Bid is substantially responsive, UNDP may request the Bidder to submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities or omissions in the Bid related to documentation requirements. Such omission shall not be related to any aspect of the price of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.

32.5 Provided that the Bid is substantially responsive, UNDP shall correct arithmetical errors as follows:

a) if there is a discrepancy between the unit price and the line item total that is obtained by multiplying the unit price by the quantity, the unit price shall prevail and the line item total shall be corrected, unless in the opinion of UNDP there is an obvious misplacement of the decimal point in the unit price, in which case the line item total as quoted shall govern and the unit price shall be corrected;
b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
c) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to the above.

32.6 If the Bidder does not accept the correction of errors made by UNDP, its Bid shall be rejected.

F. AWARD OF CONTRACT

33. Right to Accept, Reject, or Render Non-Responsive Any or All Bid

33.1 UNDP reserves the right to accept or reject any Bid, to render any or all of the Bids as non-responsive, and to reject all Bids at any time prior to award of contract, without incurring any liability, or obligation to inform the affected Bidder(s) of the grounds for UNDP's action. Furthermore, UNDP is not obligated to award the contract to the lowest price offer.

33.2 UNDP shall also verify, and immediately reject their respective Bid, if the Bidders are found to appear in the UN's Consolidated List of Individuals and Entities with Association to Terrorist Organizations, in the List of Vendors Suspended or Removed from the UN Secretariat Procurement Division Vendor Roster, the UN Ineligibility List, and other such lists that as may be established or recognized by UNDP policy on Vendor Sanctions. (See http://www.undp.org/content/undp/en/home/operations/procurement/procurement_protest/

34. Award Criteria

Prior to expiration of the period of Bid validity, UNDP shall award the contract to the qualified and eligible Bidder that is found to be responsive to the requirements of the Schedule of Requirements and Technical Specification, and has offered the lowest price (See DS No. 32).

35. Right to Vary Requirements at the Time of Award

At the time of award of Contract, UNDP reserves the right to vary the quantity of the goods and/or related services, by up to a maximum twenty five per cent (25%) of the total offer, without any change in the unit price or other terms and conditions.

36. Contract Signature

Within fifteen (15) days from the date of receipt of the Contract, the successful Bidder shall sign and date the Contract and return it to UNDP.

Failure of the successful Bidder to comply with the requirement of ITB Section F.3 and this provision shall constitute sufficient grounds for the annulment of the award, and forfeiture of the Bid Security if any, and on which event, UNDP may award the Contract to the Bidder with the second highest rated Bid, or call for new Bid.

37. Performance Security

A performance security, if required, shall be provided in the amount and form provided in Section 9 and by the deadline indicated in the **Data Sheet** (DS no. 14), as applicable. Where a Performance Security will be required, the submission of the said document, and the confirmation of its acceptance by UNDP, shall be a condition for the effectivity of the Contract that will be signed by and between the successful Bidder and UNDP.

38. Bank Guarantee for Advanced Payment

Except when the interests of UNDP so require, it is the UNDP's preference to make no advanced payment(s) on contracts (i.e., payments without having received any outputs). In the event that the Bidder requires an advanced payment upon contract signature, and if such request is duly accepted by UNDP, and the said advanced payment exceeds 20% of the total Bid price, or exceed the amount of USD 30,000, UNDP shall require the Bidder to submit a Bank Guarantee in the same amount as the advanced payment. A bank guarantee for advanced payment shall be furnished in the form provided in Section 10.

39. Vendor Protest

UNDP's vendor protest procedure provides an opportunity for appeal to those persons or firms not awarded a purchase order or contract through a competitive procurement process. In the event that a Bidder believes that it was not treated fairly, the following link provides further details regarding UNDP vendor protest procedures:
http://www.undp.org/procurement/protest.shtml

Instructions to Bidders

DATA SHEET[2]

The following data for the supply of goods and related services shall complement / supplement the provisions in the Instruction to Bidders. In the case of a conflict between the Instruction to Bidders and the Data Sheet, the provisions in the Data Sheet shall prevail**.**

DS No.	Cross Ref. to Instructions	Data	Specific Instructions / Requirements
1		Project Title:	HCFC Phase Out Management Plan (HPMP) Brazil – Better HCFC-22 Containment Projects in Brazilian Supermarkets
2		Title of Goods/Services/Work Required:	RAC System Components, Equipment, Tools and Consumables for the Implementation of HCFC Containment Demonstration Projects in Brazilian Supermarkets.
3		Country:	Brazil
4	C.13	Language of the Bid:	☒ English ☐ French ☐ Spanish ☒ Others – Portuguese
5	C.20	Conditions for Submitting Bid for Parts or sub-parts of the Total Requirements	☒ Allowed, Bids per item are accepted ☐ Not allowed
6	C.20	Conditions for Submitting Alternative Bid	☒ Shall not be considered ☐ Shall be considered. A Bidder may submit an alternative Bid, <u>but only if it</u> also submits a Bid that meets the base case (i.e., what is originally required by UNDP in this ITB). UNDP shall only consider the alternative bid offered by the Bidder who's Bid for the base case was determined to be a responsive Bid that offers the lowest price.

[2] *All DS number entries in the Data Sheet are cited as references in the Instructions to Bidders. All DS Nos. corresponding to a Data must not be modified. Only information on the 3rd column may be modified by the user. If the information does not apply, the 3rd column must state "n/a" but must not be deleted.*

7	C.22	A pre-Bid conference will be held on:	18 August 2016 at 10 a.m. Venue: Auditória da Associação Brasileira de Refrigeração, Ar Condicionado, Ventilação e Aquecimento (ABRAVA) Address: Av. Rio Branco, 1492 – Campos Elíseos, 01206-001 – São Paulo (SP).
8	C.21.1	Period of Bid Validity commencing on the submission date	☐ 60 days ☐ 90 days ☒ 120 days
9	B.9.5 C.15.4 b)	Bid Security	☐ Required ☒ Not Required
10	B.9.5	Acceptable forms of Bid Security [3]	n/a
11	B.9.5 C.15.4 a)	Validity of Bid Security	n/a
12		Advanced Payment upon signing of contract	☐ Allowed up to a maximum of ____% of contract[4] ☒ Not allowed
13		Liquidated Damages	☐ Will not be imposed ☒ Will be imposed under the following conditions: Percentage of contract price per day of delay:0,5% Max. no. of days of delay :10 days Next course of action : Termination of contract
14	F.37	Performance Security	☐ Required Amount : Form: ☒ Not Required
15	C.17 C.17.2	Preferred Currency of Bid and Method for Currency conversion	☒ United States Dollars (US$) ☐ Euro ☒ Local Currency

[3] *Surety bonds or other instruments issued by non-bank Financial Institutions are least preferred by UNDP. Unless stated otherwise, they shall be considered unacceptable to UNDP.*

[4] *If the advanced payment that the Bidder will submit will exceed 20% of the Price Offer, or will exceed the amount of USD 30,000, the Bidder must submit an Advanced Payment Security in the same amount as the advanced payment, using the form and contents of the document in Section 10*

			Reference date for determining UN Operational Exchange Rate: UN Exchange Rate valid on the Bid Openning Section (August, 2016) http://treasury.un.org/operationalrates/OperationalRates.aspx
16	B.10.1	Deadline for submitting requests for clarifications/ questions	**23 August 2016**
17	B.10.1	Contact Details for submitting clarifications/questions[5]	E-mail: licitacoes.jof.br@undp.org Ref: **JOF-0039-29582/2016** Address: UN House Brazil JOF - Joint Operations Facility Ref. **JOF-0039-29582/2016** Casa das Nações Unidas no Brasil Setor de Embaixadas Norte, Quadra 802, Conjunto C, Lote 17 Complexo Sergio Vieira de Mello, Módulo I, Prédio Zilda Arns, Salas 117 a 123 CEP 70800-400 – Brasília, DF - Brasil
18	B.11.1	Manner of Disseminating Supplemental Information to the ITB and responses/clarifications to queries	☐ Direct communication to prospective Bidders by email or fax ☒ Direct communication to prospective Bidders by email or fax, and Posting on the website[6] : http://www.un.org.br/licitacoes/Home/Licitacoes
19	D.23.3	No. of copies of Bid that must be submitted	Original: 1 Copies : 1 hardcopy and one digital
20	D.23.1 b) D.23.2 D.24	Bid submission address	UN House Brazil JOF - Joint Operations Facility **Ref. JOF-0039-29582/2016** Casa das Nações Unidas no Brasil Setor de Embaixadas Norte, Quadra 802, Conjunto C, Lote 17 Complexo Sergio Vieira de Mello, Módulo I, Prédio

[5] This contact person and address is officially designated by UNDP. If inquiries are sent to other person/s or address/es, even if they are UNDP staff, UNDP shall have no obligation to respond nor can UNDP confirm that the query was officially received.

[6] Posting on the website shall be supplemented by directly transmitting the communication to the prospective offerors.

			Zilda Arns, Salas 117 a 123 CEP 70800-400 – Brasília, DF - Brasil
21	C.21.1 D.24	Deadline of Bid Submission	**15 September 2016 at 03:00 P.M.**
22	D.23.2	Manner of Submitting Bid	☒ Courier/Hand Delivery ☐ Electronic submission of Bid[7]
23	D.23.2 D.26	Conditions and Procedures for electronic submission and opening, if allowed	N/A
24	D.23.1 c)	Date, time and venue for opening of Bid	Date and Time: **16 September 2016, 03:00 P.M.** Venue: UN House Brazil Casa das Nações Unidas no Brasil Setor de Embaixadas Norte, Quadra 802, Conjunto C, Lote 17 Complexo Sergio Vieira de Mello, Módulo I, Prédio Zilda Arns, Salas 117 a 123 CEP 70800-400 – Brasília, DF - Brasil
25		Evaluation method to be used in selecting the most responsive Bid	☒ Non-Discretionary "Pass/Fail" Criteria on the Technical Requirements; and ☒ Lowest price offer of technically qualified/responsive Bid per item
26	C.15.1	Required Documents that must be Submitted to Establish Qualification of Bidders (In "Certified True Copy" form only)	☒ Company Profile, which should not exceed fifteen (15) pages, including printed brochures and product catalogues relevant to the goods/services being procured ☐ Members of the Governing Board and their Designations duly certified by the Corporate Secretary, or its equivalent document if Bidder is not a corporation ☒ List of Shareholders and Other Entities Financially Interested in the Firm owning 5% or more of the stocks and other interests, or its equivalent if Bidder is not a corporation ☒ Tax Registration/Payment Certificate issued by the Internal Revenue Authority evidencing that the Bidder is updated with its tax payment obligations, or

[7] *If this will be allowed, security features (e.g., encryption, authentication, digital signatures, etc.) are strictly required and must be enforced to ensure confidentiality and integrity of contents.*

			Certificate of Tax exemption, if any such privilege is enjoyed by the Bidder ☒ Certificate of Registration of the business, including Articles of Incorporation, or equivalent document if Bidder is not a corporation ☒ Trade name registration papers, if applicable ☒ Local Government permit to locate and operate in the current location of office or factory ☒ Official Letter of Appointment as local representative, if Bidder is submitting a Bid in behalf of an entity located outside the country ☒ Quality Certificate (e.g., ISO, etc.) and/or other similar certificates, accreditations, awards and citations received by the Bidder, if any ☐Environmental Compliance Certificates, Accreditations, Markings/Labels, and other evidences of the Bidder's practices which contributes to the ecological sustainability and reduction of adverse environmental impact (e.g., use of non-toxic substances, recycled raw materials, energy-efficient equipment, reduced carbon emission, etc.), either in its business practices or in the goods it manufactures ☐ Patent Registration Certificates, if any of technologies submitted in the Bid is patented by the Bidder ☐ Plan and details of manufacturing capacity, if Bidder is a manufacturer of the goods to be supplied ☒ Certification or authorization to act as Agent in behalf of the Manufacturer, or Power of Attorney, if bidder is not a manufacturer ☐ Latest Audited Financial Statement (Income Statement and Balance Sheet) including Auditor's Report for the past *[indicate number of years of reference]* ☐ Statement of Satisfactory Performance from the Top *[indicate number]* Clients in terms of Contract Value the past *[indicate number of years of reference]* ☒ List of Bank References (Name of Bank, Location, Contact Person and Contact Details) ☐ All information regarding any past and current litigation during the last five (5) years, in which the bidder is involved, indicating the parties concerned, the subject of the litigation, the amounts involved, and the final resolution if already concluded.

27		Other documents that may be Submitted to Establish Eligibility	In case of Brazilian Offerors, the legal status and registration will be verified based on the presentation of the following documents: a) Organizational Registration Document – Declaration of sole proprietor, By-Laws or Articles of Organization – in force, duly registered or enrolled in the proper organ, and evidencing the acting executive officers. b) Declaration of non-existence of nighttime work, hazardous or unhealthy conditions to minors less than eighteen years of age and, furthermore, that there are no minors less than sixteen years of age employed, except in the condition of apprentice, as from fourteen years of age. c) Debt Clearance Certificate in respect to Federal Taxes and Contributions issued by the Brazilian Federal Revenue Department. d) State or Federal District Tax and Social Contribution Debt Clearance Certificate issued by the relevant authority; e) Municipal Tax and Social Contribution Debt Clearance Certificates issued by the relevant authority; f) Debt Clearance Certificate (CND), issued by the Brazilian Federal Revenue Department. g) Certificate of Good Standing with Employee Severance Fund ("FGTS"), issued by Caixa Econômica Federal (CEF) [Federal Saving Bank];
28	C.15	Structure of the Technical Bid and List of Documents to be Submitted	Detailed product descriptions of each item with pictures incl. drawings, diagrams and tables, if applicable Inform delivery date
29	C.15.2	Latest Expected date for commencement of Contract	Upon contract signature
30	C.15.2	Maximum Expected duration of contract	3 months

31		UNDP will award the contract to:	☐ One Bidder only ☒ One or more Bidders, depending on the following factors: best price offer of technically qualified offers **per item** will be awarded
32	F.34	Criteria for the Award and Evaluation of Bid	<u>Award Criteria</u> ☒ Non-discretionary "Pass" or "Fail" rating on the detailed contents of the Schedule of Requirements and Technical Specifications ☒ Compliance on the following qualification requirements : <u>Bid Evaluation Criteria</u>[8] ☐ Minimum no. of years of experience in similar contracts: *[indicate number];* ☐ Minimum annual turnover of *[indicate amount and currency]* for the past *[indicate number of years of reference];* ☐ Current ratio of not less than 1.0 *[modify if a higher number is required]*; ☐ Net Working Capital of *[indicate amount and currency]* for the past *[indicate number of years of reference];* ☐ Minimum no. of similar projects undertaken over the past 3 years *[indicate number];* ☐ Highest value of contract over the past 5 years *[indicate number];* ☐ Full compliance of Bid to the Technical Requirements; ☒ Quality Inspection and Testing Certificates for the goods to be supplied; ☒ After-sales service of at least 12 month*;* ☐ Lowest Operating Costs Evidenced by a Table of Consumables, Rate of Consumption, and Unit Price; ☒ Warranty on parts and services for a minimum period of 12 month*;* ☐ User's Training for a minimum of *[indicate number of persons]* to be conducted at *[indicate location]* for a period of *[indicate duration];* ☐ Maximum percentage of supply/work that will be sub-contracted *[indicate percentage];* ☒ Acceptability of the Transportation/Delivery Schedule;

[8] *Pls. reconcile and ensure consistency with the contents of the Technical Specifications*

			☐ Appropriateness of the Implementation Timetable to Project Schedule; ☐ Qualification of the Team Leader to directly coordinate with UNDP *[specify details];* ☐ Qualification of all other personnel to be assigned to the contract *[specify details]* ☐ Others *[pls. specify and list further]*
33	E.29	Post qualification Actions	☒ Verification of accuracy, correctness and authenticity of the information provided by the bidder on the legal, technical and financial documents submitted; ☒ Validation of extent of compliance to the ITB requirements and evaluation criteria based on what has so far been found by the evaluation team;
34		Conditions for Determining Contract Effectivity	☒ Signature of contract by UNDP and the selected provider
35		Other Information Related to the ITB[9]	Not Applicable

[9] *Where the information is available in the web, a URL for the information may simply be provided.*

Section 3a: Schedule of Requirements and Technical Specifications

Lot 1 Components for cooling positions

Position Number	Item/s to be Supplied	Quantity	Description/Specifications of Goods	Related Services	Delivery Date	Other Information
Expansion Valves						
1	Thermostatic Expansion Valve (TEV). Refrigerant HCFC R22.	4	Stainless steel TEV body with bimetal (stainless steel/copper) connections for brazing into a refrigeration system, PS 34 bar. Valve for interchangeable orifice assembly and external pressure equalization. Range -40°C / +10°C Size: ¼ x ½ (Ext. ¼) Type: TUAE or equivalent	Transport until final destination	Max. 90 days after signing of contract	
2	Thermostatic Expansion Valve (TEV). Refrigerant HCFC R22.	20	Stainless steel TEV body with bimetal (stainless steel/copper) connections for brazing into a refrigeration system, PS 34 bar. Valve for interchangeable orifice assembly and external pressure equalization. Range -40°C / +10°C Size: ⅜ x ½ (Ext. ¼) Type: TUAE or equivalent	Transport until final destination	Max. 90 days after signing of contract	
3	Thermostatic Expansion Valve	4	Stainless steel TEV body with bimetal (stainless steel/copper)	Transport until final	Max. 90 days after signing of	

	(TEV). Refrigerant HCFC R22.		connections for brazing into a refrigeration system, PS 34 bar. Valve for interchangeable orifice assembly and external pressure equalization. Range -40°C / +10°C Size: ¼ x ½ Type: TUA or equivalent	destination	contract	
4	Thermostatic Expansion Valve (TEV). Refrigerant HCFC R22.	4	Stainless steel TEV body with bimetal (stainless steel/copper) connections for brazing into a refrigeration system, PS 34 bar. Valve for interchangeable orifice assembly and external pressure equalization. Range -40°C / +10°C Size: ⅜ x ½ Type: TUA or equivalent	Transport until final destination	Max. 90 days after signing of contract	
5	Orifice for Thermostatic Expansion Valve with stainless steel body.	7	Orifice assembly with filter and gasket. Nom. Capacity R22 0,6 kW, Size: 0, Type: TUA/TUAE or equivalent	Transport until final destination	Max. 90 days after signing of contract	
6	Orifice for Thermostatic Expansion Valve with stainless steel body.	7	Orifice assembly with filter and gasket. Nom. Capacity R22 0,9 kW, Size: 1, Type: TUA/TUAE or equivalent	Transport until final destination	Max. 90 days after signing of contract	

7	Orifice for Thermostatic Expansion Valve with stainless steel body.	7	Orifice assembly with filter and gasket. Nom. Capacity R22 1,3 kW, Size: 2, Type: TUA/TUAE or equivalent	Transport until final destination	Max. 90 days after signing of contract	
8	Orifice for Thermostatic Expansion Valve with stainless steel body.	7	Orifice assembly with filter and gasket. Nom. Capacity R22 1,8 kW, Size: 3, Type: TUA/TUAE or equivalent	Transport until final destination	Max. 90 days after signing of contract	
9	Orifice for Thermostatic Expansion Valve with stainless steel body.	10	Orifice assembly with filter and gasket. Nom. Capacity R22 2,6 kW, Size: 4, Type: TUA/TUAE or equivalent	Transport until final destination	Max. 90 days after signing of contract	
10	Orifice for Thermostatic Expansion Valve with stainless steel body.	10	Orifice assembly with filter and gasket. Nom. Capacity R22 3,5 kW, Size: 5, Type: TUA/TUAE or equivalent	Transport until final destination	Max. 90 days after signing of contract	
11	Orifice for Thermostatic Expansion Valve	5	Orifice assembly with filter and gasket.	Transport until final destination	Max. 90 days after signing of contract	

	with stainless steel body.		Nom. Capacity R22 5,3 kW, Size: 6, Type: TUA/TUAE or equivalent			
12	Orifice for Thermostatic Expansion Valve with stainless steel body.	3	Orifice assembly with filter and gasket. Nom. Capacity R22 7,0 kW, Size: 7, Type: TUA/TUAE or equivalent	Transport until final destination	Max. 90 days after signing of contract	
13	Spare gasket	25	Orifice assembly. Type: TUA/TUAE or equivalent	Transport until final destination	Max. 90 days after signing of contract	
14	Spare filter	25	Orifice assembly. Type: TUA/TUAE or equivalent	Transport until final destination	Max. 90 days after signing of contract	
15	Bulb Strap	1	Sensor bulb fixation for max. 28mm tube diameter. Bulb strap with nut lock, strap and screw. Size: 0,4 - max 28 mm Tube Type: TUA/TUAE or equivalent	Transport until final destination	Max. 90 days after signing of contract	
16	Bulb Strap	1	Sensor bulb fixation for max. 50mm tube diameter. Bulb strap with nut lock, strap and screw. Size: 0,4 - max 50 mm Tube Type: TUA/TUAE or equivalent	Transport until final destination	Max. 90 days after signing of contract	
Strainer						
17	Y- Filter Strainer with flanges for	2	Removal of debris from refrigerant and oil, PS = 34,5 bar	Transport until final	Max. 90 days after signing of	

	brazing connections		and for temperatures -29°C to 93°C. The strainer assembly is made from brass with a stainless steel mesh screen. The O-ring is made from neoprene. Area 2030 mm² Mesh 100 Size: ½ ODS	destination	contract	
18	Y- Filter Strainer with flanges for brazing connections	2	Removal of debris from refrigerant and oil, PS = 34,5 bar and for temperatures -29°C to 93°C. The strainer assembly is made from brass with a stainless steel mesh screen. The O-ring is made from neoprene. Area 4520 mm² Mesh 100 Size: ⅝ ODS	Transport until final destination	Max. 90 days after signing of contract	
19	Permanent copper Strainer, hermetically, for brazing connections, PS = 30 bar	22	Permanent copper strainers are used for filtering particles and contaminants with a stainless steel screen in the filter body. Brazed-in connections at in- and outlet side. Size: 3/8"	Transport until final destination	Max. 90 days after signing of contract	
20	Permanent copper Strainer, hermetically, for brazing connections , PS = 30 bar	5	Permanent copper strainers are used for filtering particles and contaminants with a stainless steel screen in the filter body. Brazed-in connections at in- and outlet side. Size: 1/2"	Transport until final destination	Max. 90 days after signing of contract	

	Solenoid Valves					
21	Solenoid Valve, without Coil, with flanges for brazing connections.	3	Normally closed, direct operated solenoid valve for liquid, suction and hot gas lines with fluorinated refrigerants, PS 42,5 bar. Kv value 0,270 m^3/h Size: ¼ Type: EVR 3 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
22	Solenoid Valve, without Coil, with flanges for brazing connections.	12	Normally closed, direct operated solenoid valve for liquid, suction and hot gas lines with fluorinated refrigerants, PS 42,5 bar. Kv value 0,270 m^3/h Size: ⅜ Type: EVR 3 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
23	Solenoid Valve, without Coil, with flanges for brazing connections.	2	Normally closed, servo operated solenoid valve for liquid, suction and hot gas lines with fluorinated refrigerants, PS 42,5 bar. Kv value 0,800 m^3/h Size: ½ Type: EVR 6 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
24	Coil for solenoid valve.	10	Coil for clip-on fastening without tools, supplied with a minimum of 1 metre 3-core cable, coil enclosure IP 67. 10 Watt, 220 Volts, 60 Hz	Transport until final destination	Max. 90 days after signing of contract	

			Type: BF or equivalent			
25	Service Kit for solenoid valve (Kv 0,160 - 0,270 m^3/h)	5	The service kit is consisting of the O-ring, screw, armature assembly, rubber gasket, and compress spring. Type: EVR 2&3 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
26	Seal Kit for solenoid valve (Kv 0,160 - 0,270 m^3/h)	5	The seal kit is consisting of the O-ring and the rubber gasket. Type: EVR 2&3 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
Brazing Adapters						
27	Flare - Brazing adapter, size ¼"/¼"	40	Industrial manufactured flare/brazing adapter containing a copper seal which protects the flare collar against wear and fatigue. The copper seal ensures a tightness similar to that of brazed joints, PS 46 bar. Size: ¼ / ¼ Type: FSA 22 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
28	Flare - Brazing adapter, size ⅜"/¼"	40	Industrial manufactured flare/brazing adapter containing a copper seal which protects the flare collar against wear and fatigue. The copper seal ensures a tightness similar to that of brazed joints, PS 46 bar. Size: ⅜ / ¼ Type: FSA 32 or equivalent	Transport until final destination	Max. 90 days after signing of contract	

29	Flare - Brazing adapter, size ⅜" / ⅜"	40	Industrial manufactured flare/brazing adapter containing a copper seal which protects the flare collar against wear and fatigue. The copper seal ensures a tightness similar to that of brazed joints, PS 46 bar. Size: ⅜ / ⅜ Type: FSA 33 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
30	Flare - Brazing adapter, size ½" / ½"	20	Industrial manufactured flare/brazing adapter containing a copper seal which protects the flare collar against wear and fatigue. The copper seal ensures a tightness similar to that of brazed joints, PS 46 bar. Size: ½" / ½" Type: FSA 44 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
31	Flare - Brazing adapter, size ⅝" / ⅝"	15	Industrial manufactured flare/brazing adapter containing a copper seal which protects the flare collar against wear and fatigue. The copper seal ensures a tightness similar to that of brazed joints, PS 46 bar. Size: ⅝" / ⅝" Type: FSA 516m or equivalent	Transport until final destination	Max. 90 days after signing of contract	

32	Flare - Brazing adapter, size ¾" / ¾"	15	Industrial manufactured flare/brazing adapter containing a copper seal which protects the flare collar against wear and fatigue. The copper seal ensures a tightness similar to that of brazed joints, PS 46 bar. Size: ¾" / ¾" Type: FSA 66 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
33	Solder Adaptor Copper Gasket Replacement 1/4"	1	Packaging unit of 300 pieces 1/4" Type: B2-4 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
34	Solder Adaptor Copper Gasket Replacement ⅜"	1	Packaging unit of 300 pieces ⅜" Type: B2-6 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
35	Solder Adaptor Copper Gasket Replacement ½"	1	Packaging unit of 200 pieces ½" Type: B2-8 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
36	Solder Adaptor Copper Gasket Replacement ⅝"	2	Packaging unit of 100 pieces ⅝" Type: B2-10 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
37	Solder Adaptor Copper Gasket Replacement ¾"	2	Packaging unit of 50 pieces ¾" Type: B2-12 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
Ball Valves						
38	Ball-Valve size ⅜" without access port for the cooling positions.	15	Manual operated shut-off valve suitable for bi-directional flow of all fluorinated refrigerants and with brazing connections. Valve	Transport until final destination	Max. 90 days after signing of contract	

			with one-piece wire seal cap to prevent unintentional cap removal or tampering between services, 1/4 turn for fully open to fully closed, full flow with a minimum pressure loss and PS of 45 bar. Size: ⅜" Type: GBC 10 s or equivalent			
39	Ball-Valve size ⅜" without access port for the oil return line at the oil separator.	2	Manual operated shut-off valve suitable for bi-directional flow of all fluorinated refrigerants and with brazing connections. Valve with one-piece wire seal cap to prevent unintentional cap removal or tampering between services, 1/4 turn for fully open to fully closed, full flow with a minimum pressure loss and PS of 45 bar. Size: ⅜" Type: GBC 10 s or equivalent	Transport until final destination	Max. 90 days after signing of contract	
40	Ball-Valve size ¾" without access port for the cooling positions and machinery room.	16	Manual operated shut-off valve suitable for bi-directional flow of all fluorinated refrigerants and with brazing connections. Valve with one-piece wire seal cap to prevent unintentional cap removal or tampering between services, 1/4 turn for fully open to	Transport until final destination	Max. 90 days after signing of contract	

			fully closed, full flow with a minimum pressure loss and PS of 45 bar. Size: ¾" Type: GBC 18 s or equivalent			
41	Ball-Valve size ⅞" without access port.	5	Manual operated shut-off valve suitable for bi-directional flow of all fluorinated refrigerants and with brazing connections. Valve with one-piece wire seal cap to prevent unintentional cap removal or tampering between services, 1/4 turn for fully open to fully closed, full flow with a minimum pressure loss and PS of 45 bar. Size: ⅞" Type: GBC 22 s or equivalent	Transport until final destination	Max. 90 days after signing of contract	
42	Ball-Valve size 1⅛" without access port.	6	Manual operated shut-off valve suitable for bi-directional flow of all fluorinated refrigerants and with brazing connections. Valve with one-piece wire seal cap to prevent unintentional cap removal or tampering between services, 1/4 turn for fully open to fully closed, full flow with a minimum pressure loss and PS of 45 bar. Size: 1⅛	Transport until final destination	Max. 90 days after signing of contract	

			Type: GBC 28 s or equivalent			
43	Ball-Valve size 1⅜" without access port.	5	Manual operated shut-off valve suitable for bi-directional flow of all fluorinated refrigerants and with brazing connections. Valve with one-piece wire seal cap to prevent unintentional cap removal or tampering between services, 1/4 turn for fully open to fully closed, full flow with a minimum pressure loss and PS of 45 bar. Size: 1⅜" Type: GBC 35 s or equivalent	Transport until final destination	Max. 90 days after signing of contract	
44	Ball-Valve size 1⅝" without access port.	6	Manual operated shut-off valve suitable for bi-directional flow of all fluorinated refrigerants and with brazing connections. Valve with one-piece wire seal cap to prevent unintentional cap removal or tampering between services, 1/4 turn for fully open to fully closed, full flow with a minimum pressure loss and PS of 45 bar. Size: 1⅝" Type: GBC 42 s or equivalent	Transport until final destination	Max. 90 days after signing of contract	
45	Ball -Valve Spare Service Kit	1	Valves from 1/4" to 7/8" - 21mm Multi-Pack Type: GBC 6s to 22s or equivalent	Transport until final destination	Max. 90 days after signing of contract	
46	Ball -Valve Spare Service Kit	1	Valves from 1⅛" to 1⅜" - 31mm Multi-Pack, Type: GBC 25s to 35s	Transport until final	Max. 90 days after signing of	

			or equivalent	destination	contract	
47	Ball -Valve Spare Service Kit	1	Valves from 1⅝" to 3⅛"- 42mm, Multi-Pack Type: GBC 38s to 79s or equivalent	Transport until final destination	Max. 90 days after signing of contract	
48	Ball-Valve Spare Cap	1	Valves from 1/4" to 7/8" - 21mm, Multi-Pack Type: GBC 6s to 22s or equivalent	Transport until final destination	Max. 90 days after signing of contract	
49	Ball-Valve Spare Cap	1	Valves from 1⅛" to 1⅜" - 31mm, Multi-Pack Type: GBC 25s to 35s or equivalent	Transport until final destination	Max. 90 days after signing of contract	
50	Ball-Valve Spare Cap	1	Valves from 1⅝" to 3⅛"- 42mm, Multi-Pack Type: GBC 38s to 79s or equivalent	Transport until final destination	Max. 90 days after signing of contract	
Sight Glasses						
51	Sight glass for HCFC R22 with brazing adapters and humidity indicator.	3	The sight glass will be used to indicate the condition of the refrigerant (including moisture content) and/or the flow in the oil return line from the oil separator. The maximum working pressure PS is 35 bar. Size: 3/8" x 3/8" Type: SGI 10s or equivalent	Transport until final destination	Max. 90 days after signing of contract	
52	Sight glass for HCFC R22 with flaring connections and humidity indicator.	3	The sight glass will be used to indicate the condition of the refrigerant (including moisture content) and/or the flow in the oil return line from the oil separator. The maximum working pressure PS is 35 bar. Size: 3/8" x 3/8"	Transport until final destination	Max. 90 days after signing of contract	

			Type: SGI 10 or equivalent			
Tubing Components						
53	Flare Nut	75	Flare Nut ¼" / 7/16" UNF Type: DIN8912 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
54	Copper Cap (Gasket)	100	Copper Cap (Gasket) ¼" / 7/16" UNF Type: DIN8912 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
55	Shutoff Valve with flare/solder and T-connection	6	Shutoff Valve with flare/solder and T-connection ¼ - Charging Type: HBLK6 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
56	Shutoff Valve with flare/solder and T-connection	4	Shutoff Valve with flare/solder and T-connection ⅜ - Evacuation Type: HBLK10 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
57	Copper Gasket	100	Copper Gasket 7/16"	Transport until final destination	Max. 90 days after signing of contract	
58	Copper Gasket	100	Copper Gasket 5/8"	Transport until final destination	Max. 90 days after signing of contract	
59	Copper Seal	100	Copper Seal 1/4" Type: CUD-06 or equivalent	Transport until final destination	Max. 90 days after signing of contract	

Lot 2 General Refrigeration Circuit Components

Position Number	Item/s to be Supplied[10]	Quantity	Description/Specifications of Goods	Related Services	Delivery Date	Other Information
Flexible Process Control Lines and Adapter						
60	Flexible process line with inner diameter of 4 mm, color orange.	2	Flexible refrigerant transfer line for connection of pressure limiter and controller. Maximum operational pressure PS is 60 bar, operation range is -45°C to 130°C. Diffusion tight and oil resistant. Length of 10 meter	Transport until final destination	Max. 90 days after signing of contract	
61	Pressing connector without core depressor, straight, in set of ten pieces.	2	Flexible refrigerant transfer line accessories for connection of pressure limiter and controller. Maximum operational pressure PS is 60 bar, operation range is -45°C to 130°C. 7/16", 4mm	Transport until final destination	Max. 90 days after signing of contract	
62	Pressing connector without core depressor, elbow 90°, in set of ten pieces.	2	Flexible refrigerant transfer line accessories for connection of pressure limiter and controller. Maximum operational pressure PS is 60 bar, operation range is -45°C to 130°C. 7/16", 4mm	Transport until final destination	Max. 90 days after signing of contract	

[10] *Clustering items by lots, if any, is recommended, especially if partial bids will be allowed.*

63	Pressing connector without core depressor, straight, in set of ten pieces.	2	Flexible refrigerant transfer line accessories for connection of pressure limiter and controller. Maximum operational pressure PS is 60 bar, operation range is -45°C to 130°C. 5/8", 4mm	Transport until final destination	Max. 90 days after signing of contract	
64	Pressing connector without core depressor, elbow 90°, in set of ten pieces.	2	Flexible refrigerant transfer line accessories for connection of pressure limiter and controller. Maximum operational pressure PS is 60 bar, operation range is -45°C to 130°C. 5/8", 4mm	Transport until final destination	Max. 90 days after signing of contract	
65	Pressing connector T-fitting, in set of ten pieces.	1	Flexible refrigerant transfer line accessories for connection of pressure limiter and controller. Maximum operational pressure PS is 60 bar, operation range is -45°C to 130°C. 4mm	Transport until final destination	Max. 90 days after signing of contract	
66	Hydraulic pressing pliers for DN 4mm pressing operation	1	Flexible refrigerant transfer line accessories for connection of pressure limiter and controller. Maximum operational pressure PS is 60 bar, operation range is -45°C to 130°C. 4mm	Transport until final destination	Max. 90 days after signing of contract	

67	Core depressor opener in set of 50 pieces	1	Flexible refrigerant transfer line accessories for connection of pressure limiter and controller. Maximum operational pressure PS is 60 bar, operation range is -45°C to 130°C.	Transport until final destination	Max. 90 days after signing of contract	
68	Tube cutter	1	Flexible refrigerant transfer line connection tool	Transport until final destination	Max. 90 days after signing of contract	
69	Spare blade for tube cutter in set of two pieces	1	Flexible refrigerant transfer line accessories	Transport until final destination	Max. 90 days after signing of contract	
70	Copper gaskets in set of 50 pieces	2	Flexible refrigerant transfer line accessories for connection of pressure limiter and controller. Maximum operational pressure PS is 60 bar, operation range is -45°C to 130°C. 7/16" UNF	Transport until final destination	Max. 90 days after signing of contract	
Safety and Control Devices						
71	Overflow Safety Valve	2	Counter pressure independent overflow safety valve to avoid emission of refrigerant to the environment. In case of activation, the refrigerant is leaded into the low-pressure side of the refrigeration system. Safety valve is led sealed and with acceptance test certificate (TUV / DEKRA or equivalent). Permissible temperature range is -30°C to +120°C and the valve is	Transport until final destination	Max. 90 days after signing of contract	

			suitable for all halogenated refrigerants. Set pressure 28 bar Type: ÜSV Hansa or equivalent			
72	Overflow safety valve discharge tube, complete assembly set.	2	Assembly set consists of: Gauge, double nut, connection tube, brazing adapter Type: ÜSV Hansa or equivalent	Transport until final destination	Max. 90 days after signing of contract	
Suction Accumulator						
73	Suction line accumulator for Minus Cooling to = -33°C / tc 45°C and for Bitzer compressor 4J-13.2 (frequency controlled), refrigeration capacity Qo = 9,6 kW refrigerant HCFC R22	1	Accumulator with integrated oil injection technology. Even if the accumulator is full of liquid refrigerant, it is not possible for liquid to enter the compressor suction. Maximum allowable operating pressure (PS max) is 20 bar (-10°C to -50 °C). Volume 7,5 litre, brazing connections 1⅜" (35mm) ODS, vessel diameter 200mm, weight 5,6 kg. Type: FA 35 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
74	Suction line accumulator for Plus Cooling to = -17°C / tc 45°C and for Bitzer compressor 6J-22.2 (frequency controlled), refrigeration	1	Accumulator with integrated oil injection technology. Even if the accumulator is full of liquid refrigerant, it is not possible for liquid to enter the compressor suction. Maximum allowable operating pressure (PS max) is 20 bar (-10°C to -50 °C).	Transport until final destination	Max. 90 days after signing of contract	

	capacity Qo = 16 kW refrigerant HCFC R22 (part load).		Volume 7,5 litre, brazing connections 1⅜" (35mm) ODS, vessel diameter 200mm, weight 5,6 kg Type: FA 35 or equivalent			
75	Heater Band for suction line accumulator plus and minus cooling system	2	Heater band for vessels with diameter from 190mm to 270mm. Heating capacity 55 Watt for power supply 220V, 1Ph, 60Hz. 55 Watt for 220V-1Ph-60Hz; Size: 190 > 270mm Type: HB-55/195 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
Oil Separator						
76	Oil separator with brazing connections for Minus Cooling to = -33°C / tc 45°C and for Bitzer compressor 4J-13.2 (frequency controlled), refrigeration capacity Qo = 9,6 kW refrigerant HCFC R22. Maximum compressor displacement 76,64 m³/h (60 Hz).	1	Separator for effectively removal of oil from discharge gas in strainer elements and return trough a high precision float valve to an oil control system. The oil separator is accessible through the flanged bottom plate for ease of maintenance. Maximum working pressure PS = 31 bar (140°C to -10°C). Up to 175 m³/h compressor displacement. Brazing connections 42mm (1⅝"), volume 11 dm³. Type: OS-42FH or equivalent	Transport until final destination	Max. 90 days after signing of contract	

77	Oil separator with brazing connections for Plus Cooling to = -17°C / tc 45°C and for Bitzer compressor 6J-22.2 (frequency controlled), refrigeration capacity Qo = 9,6 kW refrigerant HCFC R22 (part load). Maximum compressor displacement 115,02 m³/h (60 Hz).	1	Separator for effectively removal of oil from discharge gas in strainer elements and return trough a high precision float valve to an oil control system. The oil separator is accessible through the flanged bottom plate for ease of maintenance. Maximum working pressure PS = 31 bar (140°C to -10°C). Up to 205 m³/h compressor displacement. Brazing connections 42mm (1⅝"), volume 18,5 dm³ Type: OS-42FY or equivalent	Transport until final destination	Max. 90 days after signing of contract	
78	Check Valve for oil separator return line	2	Check valve with 0,1 bar opening pressure difference. Maximum allowable working pressure PS = 53 bar. 10mm - 3/8" flare, length 60mm Type: RV-10B-0,1 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
79	Y- Filter Strainer with flanges for brazing connections for the oil return line at the oil-separator.	2	Removal of debris from refrigerant and oil, PS = 34,5 bar and for temperatures -29°C to 93°C. The strainer assembly is made from brass with a stainless steel mesh screen. The O-ring is made from neoprene. Area 4520 mm² Mesh 100. ⅝ ODS.	Transport until final destination	Max. 90 days after signing of contract	

80	Flat gaskets (spare part) for oil separators flange	2	Flat gaskets (spare part) for oil separators flange Size: 129mm Type: FD-108/95x1,5 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
Oil reservoir						
81	Oil reservoir with two Rotalock valves (inlet/outlet) and with brazing connections for Minus Cooling Bitzer compressor 4J-13.2 (frequency controlled), maximum compressor displacement 76,64 m^3/h (60 Hz), oil charge of 4 litres. Reservoir equipped with two sight-glasses and float ball level indicators.	1	In the oil reservoir, any refrigerant trapped within the oil is boiled-off and the oil is cooled and kept available. The maximum allowable operating pressure PS = 31 bar with temperature levels of 100°C to -10°C. Oil line 10mm (3/8") for brazing connection at Rotalock valves. Volume 10,5 m^3/h, weight 7,8 kg. High 439 mm, diameter 200 mm. Type: OSA-11 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
82	Oil reservoir with two Rotalock valves (inlet/outlet) and with brazing connections for Plus Cooling Bitzer	1	In the oil reservoir, any refrigerant trapped within the oil is boiled-off and the oil is cooled and kept available. The maximum allowable operating pressure PS = 31 bar with temperature levels of 100°C to -10°C. Oil line 10mm	Transport until final destination	Max. 90 days after signing of contract	

	compressor 6J-22.2 (frequency controlled), maximum compressor displacement 115,02 m³/h (60 Hz) oil charge of 4,75 litres. Reservoir equipped with two sight-glasses and float ball level indicators.		(3/8") for brazing connection at Rotalock valves. Volume 10,5 m³/h, weight 7,8 kg. High 439 mm, diameter 200 mm. Type: OSA-11 or equivalent			
83	Oil level control device for high and low level control.	5	Electronic oil level controller to be used with the oil reservoir as maximum and minimum level indicator with alarm function. Maximal admissible ambient temperature -30°C to +85°C, maximal admissible working pressure PS 60 bar. The maximal medium temperature is 120°C. Device supplied with one set of spare gaskets for each unit. Power supply 220V - 60Hz Size: ENC2-M20-1.⅛" Type: ENC2 or equivalent	Transport until final destination	Max. 90 days after signing of contract	

84	Pressure difference valve	3	Maintaining the required and secured oil return to the compressor crank-case. Maximum allowable operating pressure PS = 53 bar, maximal allowable operating pressure 100°C. Range/Capacity: 1,5 bar Connection oil reservoir 5/8" - 18 UNF, connection to suction line 10mm / 32/8" flare Type: RV2-10B/1,5 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
85	Refrigeration Oil Bitzer provided in 1 litre container	30	For compressor 4J-13.2 and 46J-22.2	Transport until final destination	Max. 90 days after signing of contract	
86	Rotalock valve spare gasket	8	Oil reservoir connection Type: DR-19-1,6 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
87	Heater elements for oil reservoir	2	Heater elements for oil reservoir 55 Watt for 220V-1Ph-60Hz. Size: 190 > 270mm Type: HB-55/195 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
Mechanical oil level control						
88	Oil level regulator, mechanical type with 3-/4- bolt flange and for	1	Regulator with precision float valve controls the oil level into the compressors crankcase. Regulator complete with two	Transport until final destination	Max. 90 days after signing of contract	

	compact installation with a thread-fitting. For the installation with Minus Cooling Bitzer compressor 4J-13.2 (sight glass).		sight-glasses and with all necessary mounting accessories. Factory oil level setting is center of sight glass. Allowable operating temperature is 100°C to -10°C, the maximum allowable working pressure PS = 40 bar. Recommended working pressure diff. is 1,5 bar, max. allowable working pressure diff. is 6,5 bar. Inner volume is 0,5 dm^3. Type: ORE2-0-BC or equivalent.			
89	Oil level regulator, mechanical type with 3-/4- bolt flange and for compact installation with a thread-fitting. For the installation with Plus Cooling Bitzer compressor 6J-22.2 (sight glass).	1	Regulator with precision float valve controls the oil level into the compressors crankcase. Regulator complete with two sight-glasses and with all necessary mounting accessories. Factory oil level setting is center of sight glass. Allowable operating temperature is 100°C to -10°C, the maximum allowable working pressure PS = 40 bar. Recommended working pressure diff. is 1,5 bar, max. allowable working pressure diff. is 6,5 bar. Inner volume is 0,5 dm^3. Type: ORE2-0-BC or equivalent.	Transport until final destination	Max. 90 days after signing of contract	

90	Oil strainer for installation with oil level regulator and Minus Cooling compressor Bitzer 4J-13.2. Strainer equipped with brazing connections.	1	Installation in front of the oil level regulator to strain particles larger than 0,05 mm. Allowable operation temperature 70°C to -10°C and the maximum allowable operation pressure PS is 53 bar. Volume 0,1 dm³. 3/8" brazing connections. Type: F-10L or equivalent	Transport until final destination	Max. 90 days after signing of contract	
91	Oil strainer for installation with oil level regulator and Plus Cooling compressor Bitzer 6J-22.2. Strainer equipped with brazing connections.	1	Installation in front of the oil level regulator to strain particles larger than 0,05 mm. Allowable operation temperature 70°C to -10°C and the maximum allowable operation pressure PS is 53 bar. Volume 0,1 dm³. 3/8" brazing connections. Type: F-10L or equivalent	Transport until final destination	Max. 90 days after signing of contract	
92	Adapter kit for oil regulator installation	2	Complete with all necessary assembly parts Type: BI-BI or equivalent	Transport until final destination	Max. 90 days after signing of contract	
93	Spare gaskets for oil level regulator	4	Regulator and compressor connection Type: OR-33x2,62 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
Vibration Eliminator						
94	Vibration eliminator for installation at the compressor and between the	2	The body of the eliminator is made of stainless steel while the brazing connectors are made of copper. The allowable operating temperature is 140°C to -50°C	Transport until final destination	Max. 90 days after signing of contract	

	compressor and the suction/discharge line.		and the maximum admissible operating pressure PS = 45bar. Size: 42mm / 1-5/8" Type: VAFS-11 or equivalent			
95	Vibration eliminator for installation at the compressor and between the compressor and the suction/discharge line.	2	The body of the eliminator is made of stainless steel while the brazing connectors are made of copper. The allowable operating temperature is 140°C to -50°C and the maximum admissible operating pressure PS = 60bar. Size: 35mm / 1-3/8" Type: VAFS-101 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
96	Vibration eliminator for installation at the compressor and between the compressor and the suction/discharge line.	2	The body of the eliminator is made of stainless steel while the brazing connectors are made of copper. The allowable operating temperature is 140°C to -50°C and the maximum admissible operating pressure PS = 60bar. Size: 28mm / 1-1/8" Type: VAFS-91 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
97	Vibration eliminator for installation at the Oil-return line	2	The body of the eliminator is made of stainless steel while the brazing connectors are made of copper. The allowable operating temperature is 140°C to -50°C and the maximum admissible operating pressure PS = 60bar. Size: 3/8", Type: VAFS-31 or equivalent	Transport until final destination	Max. 90 days after signing of contract	

Suction Filters						
98	Filter-Drier Element (housing) for two (2) replaceable solid cores with top cover. Element for installation at the compressors suction line.	2	Housing is made entirely of steel and compatible with HCFC R22 refrigerants. Housing has undergone phosphate pre-treatment and have corrosion resistant power paint finish. Zinc-chromate steel top covers without external access connection. The maximum allowable working pressure is 46 bar. Size: 42mm / 1-5/8" Type: DCR 09613s or equivalent	Transport until final destination	Max. 90 days after signing of contract	
99	Caps, core block holders, gaskets and cover springs for the filter drier element.	2	Caps, core block holders, gaskets and cover springs for the filter drier element. Type: DCR or equivalent	Transport until final destination	Max. 90 days after signing of contract	
100	Solid core with gasket	8	Solid core with 30% molecular sieve and 70% activated alumina. High acid adsorption and standard water adsorption. Type: 48-DA or equivalent	Transport until final destination	Max. 90 days after signing of contract	
101	Strainer for mounting in suction line	2	Strainer for mounting in suction line Type: 48-F or equivalent	Transport until final destination	Max. 90 days after signing of contract	
102	Cartridge filter element solid for liquid line filter housing, Danfoss filter core fitted	1	Cartridge filter element solid for liquid line filter housing, Danfoss filter core fitted Type: 48-DM or equivalent	Transport until final destination	Max. 90 days after signing of contract	

Compressors						
103	CIC System for BITZER Minus cooling compressor 4J-13.2 refrigerant HCFC R22	1	Electronically controlled refrigerant injection for single stage accessible hermetic reciprocating compressors. Control system as complete kit comprising of all functional parts and installation material.	Transport until final destination	Max. 90 days after signing of contract	
104	Differential oil pressure sensor for BITZER compressors with oil pump.	2	Electronic monitoring device to control the differential pressure of refrigeration compressors. Permitted medium temperature -30°C to 90°C, maximum operational pressure PS is 30 bar. Device supplied with one set of spare gaskets. Supply voltage is AC 50/60Hz, 115-230V. Connection thread M20x1,5mm. Type: Delta-P II or equivalent	Transport until final destination	Max. 90 days after signing of contract	
105	Set of gaskets for BITZER Minus cooling compressor 4J-13.2 refrigerant HCFC R22	1	including part number: 24, 33, 35, 45, 60, 67, 70, 74, 77, 83, 88, 94, 94, 105, 108, 112, 114, 115, 120, 121, 212, 135, 163	Transport until final destination	Max. 90 days after signing of contract	
106	Spare gasket for compressor 4J-13.2	1	Spare gasket for compressor 4J-13.2	Transport until final destination	Max. 90 days after signing of contract	
107	Set of gaskets for BITZER Plus cooling	1	including part number: 24, 33, 35, 45, 60, 67, 70, 74, 77, 83, 88, 94, 94, 105, 108, 112, 114, 115, 120,	Transport until final destination	Max. 90 days after signing of contract	

	compressor 6J-22.2 refrigerant HCFC R22		121, 212, 135, 163			
108	Spare gasket for compressor 6J-22.2	1	Spare gasket for compressor 6J-22.2	Transport until final destination	Max. 90 days after signing of contract	
109	Brass Block Service Fittings	10	Brass Block Service Fittings 14" SAE x 1/8" NPTF	Transport until final destination	Max. 90 days after signing of contract	
	Refrigerant Receiver					
110	Vertical liquid refrigerant receiver (for HCFC R22) with approval according to the EC pressure equipment directive 97/23/EC	2	Minimum/maximum allowable temperature -10°C to 120°C. Maximum allowable pressure PS = 33 bar. Receiver volume is 89 dm^3 for maximum HCFC R22 refrigerant charge of 96,9 kg. Receiver weight empty of 60 kg (without refrigerant charge). Receiver equipped with three sight glasses. Refrigerant inlet connection 45mm (1-5/8") and outlet connection 35mm (1-3/8") wit brazing adapters and spare gasket for Rotalock valve. Size: 89 dm^3 Type: FS902 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
111	Opto electronical liquid level monitoring device consisting of an opto-electronic unit and a prism unit. Monitoring of	5	The prism unit is mounted to a Rotalock T- joint with sideward viewing sight-glass. The Rotalock T-joint is than mounted into the receiver instead of the upper and lower sight-glass. The opto-electronic unit is not in direct	Transport until final destination	Max. 90 days after signing of contract	

	the minimum and maximum refrigerant charge level within the refrigerant receiver.		contact with the refrigerant. It is screwed into the prism unit and integrated into the control circuit of the plant. Maximum allowable pressure is 33 bar for temperatures -10°C to 120°C. Allowable ambient temperature -30°C to 60°C. Maximum medium temperature is 100°C. Supply voltage 220V AV ± 10%, supply frequency 60 Hz. Enclosure class IP54 Type: OLC-D1 or equivalent			
112	Adapter (Rotalock T-joint) for Opto electronical liquid level monitoring device in combination with a sight glass. Device supplied with a set of spare gaskets.	5	The Rotalock T-joint is than mounted into the receiver instead of the upper and lower sight-glass.	Transport until final destination	Max. 90 days after signing of contract	
113	Adapter for pressure relief valve connection	2	Adapter for connection of the Counter pressure independent overflow safety valve to the refrigerant receiver. Size: G1/2 > SW 22 > 1-1/4" -12 UNF	Transport until final destination	Max. 90 days after signing of contract	

Lot 3 Supermarket Gas Detection System

Position Number	Item/s to be Supplied	Quantity	Description/Specifications of Goods	Related Services	Delivery Date	Other Information
Supermarket Gas Detection System						
114	Fixed gas detection system for leakages monitoring in cooling positions and within the machinery room.	1	The Monitoring system is comprising of a Refrigerant Leak Detection device utilizing infrared absorption sensors to analyze air samples. The monitor has 8 individual sampling Channels (SAMMs), each having their own pump and filter. Each SAMM is connected to the area to be sampled by 6mm semi-rigid nylon pipework. The specific area can then be further subdivided into small regions using a manifold with up to 4 sampling pipes, known as spur kits. This multi sampling technique ensures that likely sources of refrigerant leakage can be specifically targeted. Each spur is 5 meters in length. Alarms can be generated at three different levels described as 'Alert', 'Alarm' and 'Critical', these alarms can be signaled to other devices using the 16 configurable relays. The current alarm status is indicated on a TFT LCD display and a Traffic Light Display provides the user with an instant visual status of the system. Details of System Alarms, Events and Faults are stored within the internal PC and can be accessed using the Operators Keypad. The monitor is IP addressable and can be linked to a local area network (LAN) for	Transport until final destination	Max. 90 days after signing of contract	

			remote access to alarm details if required. Type: GRM2-104D-108 or equivalent			
115	Pipe package for the fixed gas monitoring system.	1	The pipe package for the fixed gas monitoring system is consisting of: Eight channel pipe package, including all necessary freeway pipe and spur kit, sample points, user manual, pipe cutters, ties, etc.. Type: 08SP-PIPE or equivalent	Transport until final destination	Max. 90 days after signing of contract	
116	Service kit	1	Service kit for annually planned preventive maintenance of the fixed 8 channel gas monitoring system.	Transport until final destination	Max. 90 days after signing of contract	
117	Red beacon for visible leakage alarm	1	The beacon will be installed within the market operators office to indicate that the gas monitoring system noticed a potential HCFC R22 leakage within a specific area.	Transport until final destination	Max. 90 days after signing of contract	
118	Red beacon and sounder for visible and acoustic leakage alarm	1	The beacon and sounder will be installed within the market machinery room to indicate that the gas monitoring system noticed a potential HCFC R22 leakage within a specific area.	Transport until final destination	Max. 90 days after signing of contract	

Lot 4 Tools and Consumables

Position Number	Item/s to be Supplied	Quantity	Description/Specifications of Goods	Related Services	Delivery Date	Other Information
Brazing Torch						
119	Flexible twin-flame fork torch, size 2 with thickness of 1-2mm, inlet M15x1 RH for the use with acetylene / oxygen	2	Flexible twin-flame fork torch, size 2 with thickness of 1-2mm, inlet M15x1 RH for the use with acetylene / oxygen Type: Klein Rista or equivalent	Transport until final destination	Max. 90 days after signing of contract	
120	Shower-burner set of three. Universal use shower-burner for welding and brazing processes for the use with acetylene and oxygen.	1	Set consisting of three shower-burner Type: Perplex Klein Rista or equivalent	Transport until final destination	Max. 90 days after signing of contract	
121	Welding and brazing torch set for the use with acetylene - oxygen gases, consisting of handle, insert nozzles sizes 1 to 5 / 0,5 to 9mm, nozzles cleaning needles, 10-spanner tool, steal sheet case.	1	Complete welding and brazing set Type: Klein Rista or equivalent	Transport until final destination	Max. 90 days after signing of contract	

Refrigerant and oil contamination detection equipment						
122	Refrigerant and compressor oil contamination detector kit consisting of a brass body, recessed viewing track, stainless steel needles and extension hose. Detection tubes designed as heavy wall Pyrex glass, packed under dry nitrogen charge.	2	RAC industries valid field test for a quick and accurate determination of contaminant levels in oil and refrigerant. Complete set with detection tubes and a set of three acid, moisture and oil test. Detector kit supplied with rugged carrying box. Type: RT700K or equivalent	Transport until final destination	Max. 90 days after signing of contract	
123	Replacement set of three Acid detector tubes	2	For refrigerant detector kit Type: RT750A or equivalent	Transport until final destination	Max. 90 days after signing of contract	
124	Replacement set of three Acid detector tubes	2	For refrigerant detector kit Type: RT751M or equivalent	Transport until final destination	Max. 90 days after signing of contract	
125	Replacement set of three Acid detector tubes	2	For refrigerant detector kit Type: RT752C or equivalent	Transport until final destination	Max. 90 days after signing of contract	
126	Acid test kit for the use with Mineral and Alkyl Benzene oil	8	Test for contamination in the compressors crankcase which can be indicative of lubricant decomposition. Type: TKO or equivalent	Transport until final destination	Max. 90 days after signing of contract	
Brazing and tubing equipment and consumables						
127	Nitrogen pressure regulator for steel cylinders. Regulator from sturdy solid brass design, equipped with	1	Cylinder pressure 0-315/200 bar, 0-60/40 bar working pressure and about 130 Nm^3/h maximum. Connection at cylinder, hex nut male for nitrogen bottle norm	Transport until final destination	Max. 90 days after signing of contract	

	protective caps for gauges.		UNI 4409 (W21.7x1-1/4" anti-clockwise)			
128	Nitrogen test control unit, Nitrogen pressure regulator for steel cylinders. Set consisting of: Pressure regulator max. 220 bar primary and 5 to 50 bar secondary, Pressure control valve adjusted for 55 bar secured, marking gauge including marking indicator, charging hose 900mm with 1/4" connector SAE. Adapter piece with valve deadener 1/4" SAE x 1/2" -20 UNF	1	Nitrogen regulator for the use with pressure and tightness tests for medium and large refrigeration cycles. Washing and blowing out of refrigeration cycles. Cylinder connection UNI 4409 (W21.7x1-1/4" anti-clockwise) Cylinder pressure 220 bar, working pressure 5 to 50 bar. Type: PRV 1000 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
129	Nitrogen hoses for pressures up to 60 bar and a length of 5m	1	Hose with textile reinforcement and temperature range from -20°C up to +50/70°C. Hoses with pressure regulator connection and at the end 1/4" SAE. Hose inner diameter 10 mm.	Transport until final destination	Max. 90 days after signing of contract	
130	Heat Protection paste, bucket of 0,9 kg	2	Manually moldable paste designed to divert heat and protect all heat-sensitive materials while brazing and welding with temperatures of up to 3000°C – used paste is reusable.	Transport until final destination	Max. 90 days after signing of contract	

131	Brazing Paste for Silver-Brazing Alloys	4	Brazing paste acc. DIN EN 1045 for silver-bearing brazing alloys – especially suited for brazing copper (Cu) to brass (Ms) and copper (Cu) to red brass. The flux residue is soluble in cold water and can be removed by rinsing – in tins.	Transport until final destination	Max. 90 days after signing of contract	
132	Cleaning Fleeces	10	Cleaning fleece for quick cleaning of soldering spots without scratching – metal-free – 10 units per package.	Transport until final destination	Max. 90 days after signing of contract	
133	Torch lighter	3	Gun-shaped gas lighter – refill pack: 12 x 5 mm replacement flints in small holder	Transport until final destination	Max. 90 days after signing of contract	
134	Torch lighter	2	Set of 12 replacement flints	Transport until final destination	Max. 90 days after signing of contract	
135	Safety Goggles	2	Flexible flip-front safety goggles – suitable for spectacle wearers – inner lenses clear and shatter-proof – flip-up lenses protection class DIN 5 green	Transport until final destination	Max. 90 days after signing of contract	
136	Universal deburrer	5	Durable universal deburrer with non-slip soft plastic handle and exchangeable blade designed for easy and quick deburring of tubes, sheet metal and edges. The case can hold up to 4 replacement blades.	Transport until final destination	Max. 90 days after signing of contract	

137	Spare blades for universal deburrer	20		Transport until final destination	Max. 90 days after signing of contract	
138	Leak detection spray	4	Quick and reliable detection of leaks in refrigeration and air conditioning systems as well as gas lines using a foaming spray. Non-flammable, non-corrosive, CFC-free and non-toxic. Temperature range -6°C to 97°C.	Transport until final destination	Max. 90 days after signing of contract	
139	LED work light	2	Battery-operated robust work light with extremely bright light based on LED technology. With 160 installed LEDs the flash lights feature high light efficiency with low power consumption. Lighting duration: 5 h, charging duration: 5-6 h, shock-proof case with suspending hook, on/off switch on non-slip handle, rechargeable via 230 V power supply or 12 V cigarette lighter, splash-proof and oil-resistant. Incl. power supply and car charger.	Transport until final destination	Max. 90 days after signing of contract	
140	Torque wrenches set	1	Durable torque wrenches set designed especially for refrigeration and air conditioning systems, featuring 6 different wrenches sizes and adjustable torque lever (10 – 75 newton meter) in sturdy plastic case.	Transport until final destination	Max. 90 days after signing of contract	

141	Mini telescopic mirror	2	Round pocket mirror in pen format with a diameter of 32 mm. Extendable to a length of 465 mm, the mirror is adjustable in all directions by means of a double ball-and-socket joint.	Transport until final destination	Max. 90 days after signing of contract	
142	Heat protection mat, 4-layer, up to 3000°C	6	High quality asbestos-free protection mat for protection against flames and heat, flexible and long-life.	Transport until final destination	Max. 90 days after signing of contract	
143	Heat protection mat, 2-layer, up to 3000°C	6	High quality asbestos-free protection mat for protection against flames and heat, flexible and long-life.	Transport until final destination	Max. 90 days after signing of contract	
144	Copper Brazing Alloy With 6% Phosphorus and 15% silver According to DIN EN 1044, ISO 3677 and DIN 8513	6	Copper brazing alloy for brazing copper to copper without the use of flux – permissible for refrigeration and air-conditioning technology with pipe dimensions > 28 x 1.5 mm, flux is used for brazing copper to brass and copper to red brass – creep-resistant up to 200°C – capillary active and good, square bars in 2.0 x 500 mm lengths. 1 kg/packing unit. Working temperature 710°C, melting range 650°C-800°C, 2,0mm diameter. Type: B-Cu80PAg or equivalent	Transport until final destination	Max. 90 days after signing of contract	

145	Silver Brazing Alloys, Cadmium-Free, Acc. to DIN EN 1044, ISO 3677 and DIN 8513, Bare, 1,5mm² Acc. to DIN EN 1045 FH 10, 34% silver content	4	Cadmium-free silver brazing alloys (bare) with 34% silver, brazing paste have to be employed with bare rods, permissible for refrigeration and air-conditioning technology down to -200°C, very good flow properties, capillary active and highly fluid creep-resistant up to 200°C – round rods, length 500 mm. 0,10 kg/packing unit. Working temperature 710°C, melting range 630°C-730°C, 1,5mm diameter. Type: B-Cu36AgZnSn-630/730 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
146	Silver Brazing Alloys, Cadmium-Free, Acc. to DIN EN 1044, ISO 3677 and DIN 8513, ´Bare, 2 mm² Acc. to DIN EN 1045 FH 10	2	Cadmium-free silver brazing alloys (bare) with 34% silver, brazing paste have to be employed with bare rods, permissible for refrigeration and air-conditioning technology down to -200°C, very good flow properties, capillary active and highly fluid creep-resistant up to 200°C – round rods, length 500 mm. 0,10 kg/packing unit.	Transport until final destination	Max. 90 days after signing of contract	

			Working temperature 710°C, melting range 650°C-800°C, 2,0mm diameter. Type: B-Cu36AgZnSn-630/730 or equivalent			
147	Tube expander set in steel storage case	1	Durable forged steel tube expander designed to expand copper, aluminum and soft metal tubes for the efficient manufacture of standardized tube fittings, complete set incl. 1 tube expander as well as 6 expander head replacements in a steel storage case. Size: 3/8“ -1/2“ - 5/8“ - 3/4“ - 7/8“ - 1“	Transport until final destination	Max. 90 days after signing of contract	
148	Set of expander heads	1	Durable forged steel tube expander designed to expand copper, aluminum and soft metal tubes. Size: 1-1/8" - 1-3/8" - 1-5/8"	Transport until final destination	Max. 90 days after signing of contract	
149	Tube cutter	2	Spring-guided telescopic tube cutter for the precise cutting of copper, brass, aluminum and soft steel tubes. The integrated spring ensures automatic application, no manual readjustment is necessary. Once applied for cutting, the	Transport until final destination	Max. 90 days after signing of contract	

			integrated spring continues to press the cutting wheel against the tube to be cut until it is fully separated. Material hardness adjustable from soft to hard. Size: 4-32mm / 1/8" to 1-1/4"			
150	Tee-Extractor set 1/2 - 5/8 - 7/8 - 1.1/8“, 1.3/8", 1.5/8"	1	Tee-Extractor sets include: special ratchet, cam pincer, special conical drill, UNIDRILL® Automatic, in steel carrying case Size: 1/2 - 5/8 - 7/8 - 1.1/8“, 1.3/8", 1.5/8"	Transport until final destination	Max. 90 days after signing of contract	
151	Tube cutter steel spare cutting wheel	2	Tube cutter steel spare cutting wheel Size: 4-32mm / 1/8" to 1-1/4"	Transport until final destination	Max. 90 days after signing of contract	
152	Flaring tool set	1	Flaring tool with eccentric cone and sliding clutch designed for the controlled manufacture of 45° flares without fractures. Suitable for copper, brass, aluminum and soft metal tubes. Size: 3/16“ - 1/4“ - 5/16“ - 3/8“ - 1/2“ - 5/8“ - 3/4“	Transport until final destination	Max. 90 days after signing of contract	
153	Lead Sealing pliers Set	1	Set consisting of one lead sealing pliers, seal wire, nylon nirosta, and lead seals. The lead sealing tool is manufactured from cast carbon steel and chrome plated for protection. The tools are	Transport until final destination	Max. 90 days after signing of contract	

			supplied with round dies, plain or corrugated for effective crimping of all Acme Lead Seals, the plastic YP10 and Crimp Seals. Standard non engraved dies to be supplied. The sealing tools may also be used to mark other materials such as aluminum plate or laminated card. Including 100m seal wire, 500 lead seals 10mm diameter. Set with led seals.			
154	Grip- Pliers with curved jaws	3	Pliers made from chrome-molybdenum-steel construction - sturdiness and rust prevention. Anti-Skid surface with safe grip for difficult situations. 10CR 220mm	Transport until final destination	Max. 90 days after signing of contract	
155	Sealant for threaded fitting in refrigeration systems, provided in 10 ml bottle.	6	The sealant is recommended for refrigeration systems and service with strong chemicals. The sealant is used in place of specialty non-hardening compounds, litharge, glycerin, and sealing tape. This product is typically used in applications up to 149 °C. Typical applications include metal and fiber plants, chemical industries. 10 ml bottle. Type: Loctite 554 or equivalent	Transport until final destination	Max. 90 days after signing of contract	

Lot 5 Insulation

Position number	Item/s to be Supplied	Quantity	Description/Specifications of Goods	Related Services	Delivery Date	Other Information
Insulation						
156	Insulation tube Closed cell, elastomeric, nitrile rubber insulation material with a Class O fire rating and excellent thermal properties. Self-sealed tube in length of 2 meter each. Thickness 25mm, for copper tube outer diameter up to 76mm	20	Insulation used on cold lines must effectively prevent condensation. Typically, in order to achieve this an insulation material should, in addition to excellent technical values, exhibit the following: An effective water vapor barrier, a closed cell structure not prone to “wicking”, no obvious potential for thermal bridging, long term stability of thermal values. Type: AF-CO-25X076-A or equivalent	Transport until final destination	Max. 90 days after signing of contract	
157	Insulation tube Closed cell, elastomeric, nitrile rubber insulation material with a Class O fire rating and excellent thermal properties. Self-sealed tube in length of 2 meter	20	Insulation used on cold lines must effectively prevent condensation. Typically, in order to achieve this an insulation material should, in addition to excellent technical values, exhibit the following: An effective water vapor barrier, a closed cell structure not prone to “wicking”, no obvious potential for thermal bridging, long term stability of	Transport until final destination	Max. 90 days after signing of contract	

	each. Thickness 25mm, for copper tube outer diameter up to 48mm		thermal values. Type: AF-CO-25X048-A or equivalent			
158	Insulation tube Closed cell, elastomeric, nitrile rubber insulation material with a Class O fire rating and excellent thermal properties. Self-sealed tube in length of 2 meter each. Thickness 25mm, for copper tube outer diameter up to 22mm	20	Insulation used on cold lines must effectively prevent condensation. Typically, in order to achieve this an insulation material should, in addition to excellent technical values, exhibit the following: An effective water vapor barrier, a closed cell structure not prone to “wicking”, no obvious potential for thermal bridging, long term stability of thermal values. Type: AF-CO-25X022-A or equivalent	Transport until final destination	Max. 90 days after signing of contract	
159	Insulation tube Closed cell, elastomeric, nitrile rubber insulation material with a Class O fire rating and excellent thermal properties. Self-sealed tube in length of 2 meter each. Thickness 25mm, for copper	20	Insulation used on cold lines must effectively prevent condensation. Typically, in order to achieve this an insulation material should, in addition to excellent technical values, exhibit the following: An effective water vapor barrier, a closed cell structure not prone to “wicking”, no obvious potential for thermal bridging, long term stability of thermal values.	Transport until final destination	Max. 90 days after signing of contract	

	tube outer diameter up to 35mm		Type: AF-CO-25X035-A or equivalent			
160	Insulation Sheet endless, Closed cell, elastomeric, nitrile rubber insulation material with a Class O fire rating and excellent thermal properties. Sheet in length of 3 meter each. Thickness 32mm	20	Insulation used on cold lines must effectively prevent condensation. Typically, in order to achieve this an insulation material should, in addition to excellent technical values, exhibit the following: An effective water vapor barrier, a closed cell structure not prone to "wicking", no obvious potential for thermal bridging, long term stability of thermal values. Type: XG-32-99/E or equivalent	Transport until final destination	Max. 90 days after signing of contract	
161	Insulation Sheet endless, Closed cell, elastomeric, nitrile rubber insulation material with a Class O fire rating and excellent thermal properties. Sheet in length of 7 meter each. Thickness 40mm	4	Insulation used on cold lines must effectively prevent condensation. Typically, in order to achieve this an insulation material should, in addition to excellent technical values, exhibit the following: An effective water vapor barrier, a closed cell structure not prone to "wicking", no obvious potential for thermal bridging, long term stability of thermal values. Type: XG-40-99/E or equivalent	Transport until final destination	Max. 90 days after signing of contract	
162	Tape for insulation (roll) each 15m length with thickness of 3mm.	6	Insulation used on cold lines must effectively prevent condensation. Typically, in order to achieve this an insulation	Transport until final destination	Max. 90 days after signing of contract	

	Color black.		material should, in addition to excellent technical values, exhibit the following: An effective water vapor barrier, a closed cell structure not prone to “wicking”, no obvious potential for thermal bridging, long term stability of thermal values. Type: AF-Tape-MC or equivalent			
163	One - Component adhesive for insulation.	3	Adhesive provided in 1 Liter cans Type: ADH-HT625/1,0 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
164	Protective coat for insulation material color silver grey	2	Protective coat provided in 2,5 Liter bucket Type: FINISH/GY-2,5 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
165	Special cleaner for one-component adhesive	2	Cleaner provided in 1 Liter bucket Type: CLEANER/1,0 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
166	Cutting set consisting of 3 knives and one sharpening stone	1	Complete set	Transport until final destination	Max. 90 days after signing of contract	
167	Brushes for the application of one-component adhesive	5	Brush diameter 25mm Type: GLUEM-BRUSH25MM or equivalent	Transport until final destination	Max. 90 days after signing of contract	
168	Tape for insulation (roll) each 15m length with thickness of 3mm. Color black.	5	Insulation used on cold lines must effectively prevent condensation. Typically, in order to achieve this an insulation material should, in addition to excellent technical values, exhibit the following: An effective water	Transport until final destination	Max. 90 days after signing of contract	

			vapor barrier, a closed cell structure not prone to “wicking”, no obvious potential for thermal bridging, long term stability of thermal values. Type: AF-Tape-MC or equivalent			

Lot 6 Pipe Support and Fixation

Position Number	Item/s to be Supplied	Quantity	Description/Specifications of Goods	Related Services	Delivery Date	Other Information
Pipe Support and Fixation						
169	Pipe rings, galvanized, with EPDM rubber insulation and for clamping screw MS and for connection thread M8/M10	30	Clamping range area 8 to 11 mm Type: MPN-RC 8/11 A or equivalent	Transport until final destination	Max. 90 days after signing of contract	
170	Pipe rings, galvanized, with EPDM rubber insulation and with clamping screw M6 and for connection thread M8/M10	30	Clamping range area 1/4" Temperature range -40°C to 110°C Type: MPN-RC 1/4" A or equivalent	Transport until final destination	Max. 90 days after signing of contract	
171	Pipe rings, galvanized, with EPDM rubber insulation and with clamping screw M6 and for connection thread M8/M10	30	Clamping range area 3/8" Temperature range -40°C to 110°C Type: MPN-RC 3/8" A or equivalent	Transport until final destination	Max. 90 days after signing of contract	
172	Pipe rings, galvanized, with EPDM rubber	30	Clamping range area 1/2" Temperature range -40°C to	Transport until final destination	Max. 90 days after signing of contract	

	insulation and with clamping screw M6 and for connection thread M8/M10		110°C Type: MPN-RC 1/2" A or equivalent			
173	Pipe rings, galvanized, with EPDM rubber insulation and with clamping screw M6 and for connection thread M8/M10	30	Clamping range area 3/4" Temperature range -40°C to 110°C Type: MPN-RC 3/4" A or equivalent	Transport until final destination	Max. 90 days after signing of contract	
174	Pipe rings, galvanized, with EPDM rubber insulation and with clamping screw M6 and for connection thread M8/M10	40	Clamping range area 29 to 32 mm Temperature range -40°C to 110°C Type: MPN-RC 29/32 A or equivalent	Transport until final destination	Max. 90 days after signing of contract	
175	Pipe rings, galvanized, with EPDM rubber insulation and with clamping screw M6 and for connection thread M8/M10	60	Clamping range area 1-1/4" Temperature range -40°C to 110°C Type: MPN-RC 1 1/4" A or equivalent	Transport until final destination	Max. 90 days after signing of contract	
176	Pipe rings, galvanized, with EPDM rubber insulation and with clamping	50	Clamping range area 2-1/2" Temperature range -40°C to 110°C	Transport until final destination	Max. 90 days after signing of contract	

	screw M6 and for connection thread M8/M10		Type: MPN-RC 2 1/2" B or equivalent			
177	Pipe rings, galvanized, and with clamping screw MS and for connection thread M8/M10	35	Clamping range area 3/8" Type: MPN-S 3/8" A or equivalent	Transport until final destination	Max. 90 days after signing of contract	
178	Pipe rings, galvanized, and with clamping screw MS and for connection thread M8/M10	25	Clamping range area 1/2" Type: MPN-S 1/2" or equivalent	Transport until final destination	Max. 90 days after signing of contract	
179	Pipe rings, galvanized, and with clamping screw MS and for connection thread M8/M10	35	Clamping range area 3/4" Type: MPN-S 3/4" A or equivalent	Transport until final destination	Max. 90 days after signing of contract	
180	Pipe rings, galvanized, and with clamping screw MS and for connection thread M8/M10	30	Clamping range area 1" Type: MPN-S 1" A or equivalent	Transport until final destination	Max. 90 days after signing of contract	
181	Pipe rings, galvanized, and with clamping screw MS and for connection thread M8/M10	30	Clamping range area 35 to 39 mm Type: MPN-S 35/39 A or equivalent	Transport until final destination	Max. 90 days after signing of contract	

182	Pipe rings, galvanized, and with clamping screw MS and for connection thread M8/M10	40	Clamping range area 1-1/4" Type: MPN-S 1 1/4" A or equivalent	Transport until final destination	Max. 90 days after signing of contract	
183	Pipe rings, galvanized, and with clamping screw MS and for connection thread M8/M10	35	Clamping range area 2" Type: MPN-S 2" A or equivalent	Transport until final destination	Max. 90 days after signing of contract	
184	Pipe rings, galvanized, with SILICON rubber insulation and with clamping screw M6 and for connection thread M8/M10	10	Clamping range area 29 to 32 mm Temperature range -60°C to 200°C Type: MP-MIS or equivalent	Transport until final destination	Max. 90 days after signing of contract	
185	Pipe rings, galvanized, with EPDM rubber insulation and with clamping screw M6 and for connection thread M8/M10	50	Clamping range area 8-12mm Temperature range -40°C to 110°C Type: MP-LHI or equivalent	Transport until final destination	Max. 90 days after signing of contract	
186	Pipe rings with rubber insulation EPDM and with clamping screw M8 / M11. For application at	50	Clamping range area 45-50mm Temperature range -45°C to 105°C. Type: MP-LHI or equivalent	Transport until final destination	Max. 90 days after signing of contract	

	insulated refrigeration tubes.					
187	Pipe rings, galvanized, with rubber insulation EPDM and with clamping screw M8 / M11. For application at insulated refrigeration tubes.	50	Clamping range area 55-60mm Temperature range -45°C to 105°C. Type: MP-LHI or equivalent	Transport until final destination	Max. 90 days after signing of contract	
188	Pipe rings, galvanized, with rubber insulation EPDM and with clamping screw. For application at insulated refrigeration tubes.	50	Clamping range area 65-70mm Temperature range -45°C to 105°C. Type: MP-LHI or equivalent	Transport until final destination	Max. 90 days after signing of contract	
189	Pipe rings, galvanized, with rubber insulation EPDM and with clamping screw M8 / M11. For application at insulated refrigeration tubes.	50	Clamping range area 75-80mm Temperature range -45°C to 105°C. Type: MP-LHI or equivalent	Transport until final destination	Max. 90 days after signing of contract	

190	Pipe retaining clips in accordance with DIN 3016. Clamping range 1/4" (6mm)	100	Pipe retaining clip for all suitable kinds of retaining applications such as cables, cable protection pipes, hoses and other lines. Clip with 15mm band width, M6 bolt, rubber band (polychloropren) and steel galvanized adjustable band. Temperature range -35°C to 100°C. Resistant against oil, alcohol, acids and fat.	Transport until final destination	Max. 90 days after signing of contract	
191	Pipe retaining clips in accordance with DIN 3016. Clamping range 3/8" (10mm)	100	Pipe retaining clip for all suitable kinds of retaining applications such as cables, cable protection pipes, hoses and other lines. Clip with 15mm band width, M6 bolt, rubber band (polychloropren) and steel galvanized adjustable band. Temperature range -35°C to 100°C. Resistant against oil, alcohol, acids and fat.	Transport until final destination	Max. 90 days after signing of contract	

Lot 7 Compression Fitting and accessories

Position Number	Item/s to be Supplied	Quantity	Description/Specifications of Goods	Related Services	Delivery Date	Other Information
Compression Fitting and accessories						
192	Gaugeable brass tube adapter fittings with nut-ferrule attachments. Reducer fitting 1/4" nut-ferrule to 1/4" AN - (1/4" SAE)	40	Leak-tight design of the tube fitting for use in process instrumentation for refrigerant and oil applications. Design criteria for critical issues such as: Leakage proved, highly vibration (tube grip) resistant, thermal shock resistant, compliance with industry standards, ease of installation and corrosion resistant. Type: Swagelok B-400-A-4ANF or equivalent	Transport until final destination	Max. 90 days after signing of contract	
193	Gaugeable brass tube female connector fittings with nut-ferrule attachments. Connector fitting 1/4" nut-ferrule to 1/4" pipe OD	50	Leak-tight design of the tube fitting for use in process instrumentation for refrigerant and oil applications. Design criteria for critical issues such as: Leakage proved, highly vibration (tube grip) resistant, thermal shock resistant, compliance with industry standards, ease of installation and corrosion resistant. Type: Swagelok B-400-7-4ST or equivalent	Transport until final destination	Max. 90 days after signing of contract	

194	Gaugeable brass tube adapter fittings with nut-ferrule attachments. Reducer fitting 3/8" nut-ferrule to 3/8" AN - (3/8"" SAE)	20	Leak-tight design of the tube fitting for use in process instrumentation for refrigerant and oil applications. Design criteria for critical issues such as: Leakage proved, highly vibration (tube grip) resistant, thermal shock resistant, compliance with industry standards, ease of installation and corrosion resistant. Type: Swagelok B-600-A-6ANF or equivalent	Transport until final destination	Max. 90 days after signing of contract	
195	Gaugeable brass tube straight fittings union with 1/4" nut-ferrule attachments.	15	Leak-tight design of the tube fitting for use in process instrumentation for refrigerant and oil applications. Design criteria for critical issues such as: Leakage proved, highly vibration (tube grip) resistant, thermal shock resistant, compliance with industry standards, ease of installation and corrosion resistant. Type: Swagelok B-400-6 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
196	Gaugeable brass tube straight fittings union with 3/8" nut-ferrule attachments.	15	Leak-tight design of the tube fitting for use in process instrumentation for refrigerant and oil applications. Design criteria for critical issues such as: Leakage proved, highly vibration	Transport until final destination	Max. 90 days after signing of contract	

			(tube grip) resistant, thermal shock resistant, compliance with industry standards, ease of installation and corrosion resistant. Type: Swagelok B-600-6 or equivalent			
197	Gaugeable brass tube fittings T union with 1/4"" nut-ferrule attachments.	10	Leak-tight design of the tube fitting for use in process instrumentation for refrigerant and oil applications. Design criteria for critical issues such as: Leakage proved, highly vibration (tube grip) resistant, thermal shock resistant, compliance with industry standards, ease of installation and corrosion resistant. Type: Swagelok B-400-3 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
198	Gaugeable brass tube fittings T union with 3/8" nut-ferrule attachments.	10	Leak-tight design of the tube fitting for use in process instrumentation for refrigerant and oil applications. Design criteria for critical issues such as: Leakage proved, highly vibration (tube grip) resistant, thermal shock resistant, compliance with industry standards, ease of installation and corrosion resistant. Type: Swagelok B-600-3 or equivalent	Transport until final destination	Max. 90 days after signing of contract	

199	Gaugeable brass tube fittings Cross union with 1/4" nut-ferrule attachments.	5	Leak-tight design of the tube fitting for use in process instrumentation for refrigerant and oil applications. Design criteria for critical issues such as: Leakage proved, highly vibration (tube grip) resistant, thermal shock resistant, compliance with industry standards, ease of installation and corrosion resistant. Type: Swagelok B-400-4 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
200	Gaugeable brass tube fittings Cross union with 3/8" nut-ferrule attachments.	5	Leak-tight design of the tube fitting for use in process instrumentation for refrigerant and oil applications. Design criteria for critical issues such as: Leakage proved, highly vibration (tube grip) resistant, thermal shock resistant, compliance with industry standards, ease of installation and corrosion resistant. Type: Swagelok B-600-4 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
201	Gaugeable Nut-ferrule replacement set 1/4"	1	Leak-tight design of the tube fitting for use in process instrumentation for refrigerant and oil applications. Design criteria for critical issues such as: Leakage proved, highly vibration	Transport until final destination	Max. 90 days after signing of contract	

			(tube grip) resistant, thermal shock resistant, compliance with industry standards, ease of installation and corrosion resistant. Type: Swagelok B-400-NFSET or equivalent			
202	Gaugeable Nut-ferrule replacement set 3/8"	1	Leak-tight design of the tube fitting for use in process instrumentation for refrigerant and oil applications. Design criteria for critical issues such as: Leakage proved, highly vibration (tube grip) resistant, thermal shock resistant, compliance with industry standards, ease of installation and corrosion resistant. Type: Swagelok B-600-NFSET or equivalent	Transport until final destination	Max. 90 days after signing of contract	
203	RAC Tubing Copper Tubes in straight lengths (rigid) 1/4" in length of 4m	10	Copper tubes according EN 12735-1. Diameter 1/4", 4m length, wall with 1mm thickness Type: ITE or equivalent	Transport until final destination	Max. 90 days after signing of contract	
204	RAC Tubing Copper Tubes in straight lengths (rigid) 3/8" in length of 4m	10	Copper tubes according EN 12735-1. Diameter 3/8", 4m length, wall with 1mm thickness Type: ITE or equivalent	Transport until final destination	Max. 90 days after signing of contract	

205	RAC Tubing Copper Tubes in straight lengths (rigid) 1/2" in length of 4m	10	Copper tubes according EN 12735-1. Diameter 1/4", 4m length, wall with 1mm thickness Type: ITE or equivalent	Transport until final destination	Max. 90 days after signing of contract	
206	Assembly Carrying Case - Bending Machines	1	Rugged carrying case with a set of four bending machines, heavy duty tube reamer tube cutter and tube fixation rubber. Set of bending machines in 1/4", 5/16", 3/8", 12". Transport case with wheels and telescope handle. The case is air-tight, dust-tight, water-tight and with air-compensating valve. Maximum ambient temperature for the carrying case is -40°C to 80°C, weight including tools is 20 kg. Type: ASK Bending Machines Carrying Case -Z or equivalent	Transport until final destination	Max. 90 days after signing of contract	
207	Assembly Carrying Case - Tool Box	1	Rugged carrying case with a set of tools for Gaugeable Tube Fittings and Adapter Fittings, consisting of four ratchet wrenches 1/4", 5/16", 3/8", and 1/2". Further one check-gauge, tube-cutting support, tube reamer, tube cutter, Snoop Leak Detection Fluid and SWAK thread tightening paste. The case is air-tight, dust-tight, water-tight and with air-compensating valve. Maximum ambient temperature	Transport until final destination	Max. 90 days after signing of contract	

			for the carrying case is -40°C to 80°C, weight including tools is 8.2 kg. Type: ASK Tool-Box Carrying Case -Z or equivalent			
208	Leak Check Fluid for application on tubes and fitting at temperatures -54°C to 93°C	1	Consisting of tenside, etylene glycol, and deionized water. Type: Swagelok MS-CR-SNOOP-GAL or equivalent	Transport until final destination	Max. 90 days after signing of contract	
209	PTTFE Thread Sealant Tape	10	Thread Sealant Tape for thread fittings 1/8", 1/4" and 3/8" Type: Swagelok MS-STR-4 or equivalent	Transport until final destination	Max. 90 days after signing of contract	

Lot 8 Components for cooling positions

Position Number	Item/s to be Supplied	Quantity	Description/Specifications of Goods	Related Services	Delivery Date	Other Information
Expansion Valves						
210	Thermostatic Expansion Valve (TEV). Refrigerant HCFC R22.	120	Stainless steel TEV body with bimetal (stainless steel/copper) connections for brazing into a refrigeration system, PS 34 bar. Valve for interchangeable orifice assembly and external pressure equalization. Range -40°C / +10°C Size: ⅜ x ½ (Ext. ¼) Type: TUAE or equivalent	Transport until final destination	Max. 90 days after signing of contract	
211	Thermostatic Expansion Valve (TEV). Refrigerant HCFC R22.	10	Stainless steel TEV body with bimetal (stainless steel/copper) connections for brazing into a refrigeration system, PS 50 bar. Valve for interchangeable orifice assembly and internal pressure equalization. Range -40°C / +10°C Size: 1/2" x 5/8" (Ext. ¼) Type: TCAE or equivalent	Transport until final destination	Max. 90 days after signing of contract	

212	Orifice for Thermostatic Expansion Valve with stainless steel body.	10	Orifice assembly with filter and gasket. Nom. Capacity R22 0,9 kW, Size: 1, Type: TUA/TUAE or equivalent	Transport until final destination	Max. 90 days after signing of contract	
213	Orifice for Thermostatic Expansion Valve with stainless steel body.	15	Orifice assembly with filter and gasket. Nom. Capacity R22 1,3 kW, Size: 2, Type: TUA/TUAE or equivalent	Transport until final destination	Max. 90 days after signing of contract	
214	Orifice for Thermostatic Expansion Valve with stainless steel body.	10	Orifice assembly with filter and gasket. Nom. Capacity R22 1,8 kW, Size: 3, Type: TUA/TUAE or equivalent	Transport until final destination	Max. 90 days after signing of contract	
215	Orifice for Thermostatic Expansion Valve with stainless steel body.	25	Orifice assembly with filter and gasket. Nom. Capacity R22 2,6 kW, Size: 4, Type: TUA/TUAE or equivalent	Transport until final destination	Max. 90 days after signing of contract	
216	Orifice for Thermostatic Expansion Valve with stainless steel body.	25	Orifice assembly with filter and gasket. Nom. Capacity R22 3,5 kW, Size: 5, Type: TUA/TUAE or equivalent	Transport until final destination	Max. 90 days after signing of contract	

217	Orifice for Thermostatic Expansion Valve with stainless steel body.	25	Orifice assembly with filter and gasket. Nom. Capacity R22 5,3 kW, Size: 6, Type: TUA/TUAE or equivalent	Transport until final destination	Max. 90 days after signing of contract	
218	Orifice for Thermostatic Expansion Valve with stainless steel body.	25	Orifice assembly with filter and gasket. Nom. Capacity R22 7,0 kW, Size: 7, Type: TUA/TUAE or equivalent	Transport until final destination	Max. 90 days after signing of contract	
219	Orifice for Thermostatic Expansion Valve with stainless steel body.	25	Orifice assembly with filter and gasket. Nom. Capacity R22 11,0 kW, Size: 8, Type: TUA/TUAE or equivalent	Transport until final destination	Max. 90 days after signing of contract	
220	Orifice for Thermostatic Expansion Valve with stainless steel body.	15	Orifice assembly with filter and gasket. Nom. Capacity R22 16,0 kW, Size: 9, Type: TUA/TUAE or equivalent	Transport until final destination	Max. 90 days after signing of contract	
221	Orifice for Thermostatic Expansion Valve with stainless steel body.	5	Orifice assembly with filter and gasket. Nom. Capacity R22 18,0 kW, Size: 1, Type: TCAE or equivalent	Transport until final destination	Max. 90 days after signing of contract	

222	Orifice for Thermostatic Expansion Valve with stainless steel body.	5	Orifice assembly with filter and gasket. Nom. Capacity R22 21,0 kW, Size: 2, Type: TCAE or equivalent	Transport until final destination	Max. 90 days after signing of contract	
223	Orifice for Thermostatic Expansion Valve with stainless steel body.	5	Orifice assembly with filter and gasket. Nom. Capacity R22 21,0 kW, Size: 3, Type: TCAE or equivalent	Transport until final destination	Max. 90 days after signing of contract	
224	Spare gasket	100	Orifice assembly. Type: TUA/TUAE or equivalent	Transport until final destination	Max. 90 days after signing of contract	
225	Spare filter	100	Orifice assembly. Type: TUA/TUAE or equivalent	Transport until final destination	Max. 90 days after signing of contract	
226	Bulb Strap	100	Sensor bulb fixation for max. 28mm tube diameter. Bulb strap with nut lock, strap and screw. Size: 0,4 - max 28 mm Tube Type: TUA/TUAE or equivalent	Transport until final destination	Max. 90 days after signing of contract	
227	Bulb Strap	5	Sensor bulb fixation for max. 50mm tube diameter. Bulb strap with nut lock, strap and screw. Size: 0,4 - max 50 mm Tube Type: TUA/TUAE or equivalent	Transport until final destination	Max. 90 days after signing of contract	

Strainer						
228	Y- Filter Strainer with flanges for brazing connections for cooling positions	10	Removal of debris from refrigerant and oil, PS = 34,5 bar and for temperatures -29°C to 93°C. The strainer assembly is made from brass with a stainless steel mesh screen. The O-ring is made from neoprene. Area 2030 mm² Mesh 100 Size: 3/8 ODS	Transport until final destination	Max. 90 days after signing of contract	
229	Y- Filter Strainer with flanges for brazing connections	2	Removal of debris from refrigerant and oil, PS = 34,5 bar and for temperatures -29°C to 93°C. The strainer assembly is made from brass with a stainless steel mesh screen. The O-ring is made from neoprene. Area 2030 mm² Mesh 100 Size: ½ ODS	Transport until final destination	Max. 90 days after signing of contract	
230	Permanent copper Strainer, hermetically, for brazing connections, PS = 30 bar	60	Permanent copper strainers are used for filtering particles and contaminants with a stainless steel screen in the filter body. Brazed-in connections at in- and outlet side. Size: 1/4"	Transport until final destination	Max. 90 days after signing of contract	
231	Permanent copper Strainer, hermetically, for brazing connections, PS = 30 bar	130	Permanent copper strainers are used for filtering particles and contaminants with a stainless steel screen in the filter body. Brazed-in connections at in- and	Transport until final destination	Max. 90 days after signing of contract	

			outlet side. Size: 3/8"			
232	Permanent copper Strainer, hermetically, for brazing connections , PS = 30 bar	15	Permanent copper strainers are used for filtering particles and contaminants with a stainless steel screen in the filter body. Brazed-in connections at in- and outlet side. Size: 1/2"	Transport until final destination	Max. 90 days after signing of contract	
Solenoid Valves						
233	Solenoid Valve, without Coil, with flanges for brazing connections.	25	Normally closed, direct operated solenoid valve for liquid, suction and hot gas lines with fluorinated refrigerants, PS 42,5 bar. Kv value 0,270 m^3/h Size: ¼ Type: EVR 3 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
234	Solenoid Valve, without Coil, with flanges for brazing connections.	25	Normally closed, direct operated solenoid valve for liquid, suction and hot gas lines with fluorinated refrigerants, PS 42,5 bar. Kv value 0,270 m^3/h Size: ⅜ Type: EVR 3 or equivalent	Transport until final destination	Max. 90 days after signing of contract	

235	Solenoid Valve, without Coil, with flanges for brazing connections.	10	Normally closed, servo operated solenoid valve for liquid, suction and hot gas lines with fluorinated refrigerants, PS 42,5 bar. Kv value 0,800 m^3/h Size: ½ Type: EVR 6 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
236	Solenoid Valve, without Coil, with flanges for brazing connections.	10	Normally closed, servo operated solenoid valve for liquid, suction and hot gas lines with fluorinated refrigerants, PS 42,5 bar. Kv value 0,800 m^3/h Size: 3/8 Type: EVR 6 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
237	Coil for solenoid valve.	25	Coil for clip-on fastening without tools. Leads are connected to terminal screws in the terminal box. The box is fitted with Pg. 13.5 screwed entry for 6 to 14 mm cable, coil enclosure IP 67. 10 Watt, 220-230 Volts, 60 Hz Type: BF or equivalent	Transport until final destination	Max. 90 days after signing of contract	
238	Service Kit for solenoid valve (Kv 0,160 - 0,270 m^3/h)	50	The service kit is consisting of the O-ring, screw, armature assembly, rubber gasket, and compress spring. Type: EVR 2&3 or equivalent	Transport until final destination	Max. 90 days after signing of contract	

239	Service Kit for solenoid valve (Kv 0,800 m^3/h)	10	The service kit is consisting of the diaphragm assembly, the O-ring for armature tube, screw T20, Screw T15, armature assembly, rubber gasket, O-ring for steal cover, support ring, compress ring. Type: EVR 6 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
Brazing Adapters						
240	Flare - Brazing adapter, size ¼"/¼"	50	Industrial manufactured flare/brazing adapter containing a copper seal which protects the flare collar against wear and fatigue. The copper seal ensures a tightness similar to that of brazed joints, PS 46 bar. Size: ¼ / ¼ Type: FSA 22 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
241	Flare - Brazing adapter, size ⅜"/¼"	50	Industrial manufactured flare/brazing adapter containing a copper seal which protects the flare collar against wear and fatigue. The copper seal ensures a tightness similar to that of brazed joints, PS 46 bar. Size: ⅜ / ¼ Type: FSA 32 or equivalent	Transport until final destination	Max. 90 days after signing of contract	

242	Flare - Brazing adapter, size ⅜" / ⅜"	50	Industrial manufactured flare/brazing adapter containing a copper seal which protects the flare collar against wear and fatigue. The copper seal ensures a tightness similar to that of brazed joints, PS 46 bar. Size: ⅜ / ⅜ Type: FSA 33 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
243	Flare - Brazing adapter, size ½" / ½"	25	Industrial manufactured flare/brazing adapter containing a copper seal which protects the flare collar against wear and fatigue. The copper seal ensures a tightness similar to that of brazed joints, PS 46 bar. Size: ½" / ½" Type: FSA 44 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
244	Flare - Brazing adapter, size ⅝" / ⅝"	20	Industrial manufactured flare/brazing adapter containing a copper seal which protects the flare collar against wear and fatigue. The copper seal ensures a tightness similar to that of brazed joints, PS 46 bar. Size: ⅝" / ⅝" Type: FSA 516m or equivalent	Transport until final destination	Max. 90 days after signing of contract	

245	Flare - Brazing adapter, size ¾" / ¾"	20	Industrial manufactured flare/brazing adapter containing a copper seal which protects the flare collar against wear and fatigue. The copper seal ensures a tightness similar to that of brazed joints, PS 46 bar. Size: ¾" / ¾" Type: FSA 66 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
246	Solder Adaptor Copper Gasket Replacement 1/4"	1	Packaging unit of 300 pieces 1/4" Type: B2-4 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
247	Solder Adaptor Copper Gasket Replacement ⅜"	1	Packaging unit of 300 pieces ⅜" Type: B2-6 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
248	Solder Adaptor Copper Gasket Replacement ½"	1	Packaging unit of 200 pieces ½" Type: B2-8 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
249	Solder Adaptor Copper Gasket Replacement ⅝"	2	Packaging unit of 100 pieces ⅝" Type: B2-10 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
250	Solder Adaptor Copper Gasket Replacement ¾"	2	Packaging unit of 50 pieces ¾" Type: B2-12 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
Ball Valves						
251	Ball -Valve Spare Service Kit	1	Valves from 1/4" to 7/8" - 21mm Multi Pack Type: GBC 6s to 22s or equivalent	Transport until final destination	Max. 90 days after signing of contract	

252	Ball -Valve Spare Service Kit	1	Valves from 1⅛" to 1⅜" - 31mm Multi Pack Type: GBC 25s to 35s or equivalent	Transport until final destination	Max. 90 days after signing of contract	
253	Ball -Valve Spare Service Kit	1	Valves from 1⅝" to 3⅛"- 42mm, Multi Pack Type: GBC 38s to 79s or equivalent	Transport until final destination	Max. 90 days after signing of contract	
254	Ball-Valve Spare Cap	1	Valves from 1/4" to 7/8" - 21mm, Multi Pack Type: GBC 6s to 22s or equivalent	Transport until final destination	Max. 90 days after signing of contract	
255	Ball-Valve Spare Cap	1	Valves from 1⅛" to 1⅜" - 31mm, Multi Pack Type: GBC 25s to 35s or equivalent	Transport until final destination	Max. 90 days after signing of contract	
256	Ball-Valve Spare Cap	1	Valves from 1⅝" to 3⅛"- 42mm, Multi Pack Type: GBC 38s to 79s or equivalent	Transport until final destination	Max. 90 days after signing of contract	
Sight Glasses						
257	Sight glass for HCFC R22 with brazing adapters and humidity indicator.	5	The sight glass will be used to indicate the condition of the refrigerant (including moisture content) and/or the flow in the oil return line from the oil separator. The maximum working pressure PS is 35 bar. Size: 3/8" x 3/8" Type: SGI 10s or equivalent	Transport until final destination	Max. 90 days after signing of contract	
258	Sight glass for HCFC R22 with flaring connections and humidity indicator.	5	The sight glass will be used to indicate the condition of the refrigerant (including moisture content) and/or the flow in the	Transport until final destination	Max. 90 days after signing of contract	

			oil return line from the oil separator. The maximum working pressure PS is 35 bar. Size: 3/8" x 3/8" Type: SGI 10 or equivalent			
Tubing Components						
259	Flare Nut	100	Flare Nut ¼" / 7/16" UNF Type: DIN8912 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
260	Copper Cap (Gasket)	100	Copper Cap (Gasket) ¼" / 7/16" UNF Type: DIN8912 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
261	Shutoff Valve with flare/solder and T-connection	10	Shutoff Valve with flare/solder and T-connection ¼ - Charging Type: HBLK6 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
262	Shutoff Valve with flare/solder and T-connection	5	Shutoff Valve with flare/solder and T-connection ⅜ - Evacuation Type: HBLK10 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
263	Copper Gasket	100	Copper Gasket 7/16"	Transport until final destination	Max. 90 days after signing of contract	
264	Copper Gasket	100	Copper Gasket 5/8"	Transport until final destination	Max. 90 days after signing of contract	
265	Copper Seal	300	Copper Seal 1/4" Type: CUD-06 or equivalent	Transport until final destination	Max. 90 days after signing of contract	

Lot 9 General Refrigeration Circuit Components

Position Number	Item/s to be Supplied[11]	Quantity	Description/Specifications of Goods	Related Services	Delivery Date	Other Information
Flexible Process Control Lines and Adapter						
266	Flexible process line with inner diameter of 4 mm, color orange.	15	Flexible refrigerant transfer line for connection of pressure limiter and controller. Maximum operational pressure PS is 60 bar, operation range is -45°C to 130°C. Diffusion tight and oil resistant. Length of 10 meter	Transport until final destination	Max. 90 days after signing of contract	
267	Pressing connector without core depressor, straight, in set of ten pieces.	15	Flexible refrigerant transfer line accessories for connection of pressure limiter and controller. Maximum operational pressure PS is 60 bar, operation range is -45°C to 130°C. 7/16", 4mm	Transport until final destination	Max. 90 days after signing of contract	
268	Pressing connector without core depressor, elbow 90°, in set of ten pieces.	15	Flexible refrigerant transfer line accessories for connection of pressure limiter and controller. Maximum operational pressure PS is 60 bar, operation range is -45°C to 130°C. 7/16", 4mm	Transport until final destination	Max. 90 days after signing of contract	

[11] *Clustering items by lots, if any, is recommended, especially if partial bids will be allowed.*

269	Pressing connector without core depressor, straight, in set of ten pieces.	15	Flexible refrigerant transfer line accessories for connection of pressure limiter and controller. Maximum operational pressure PS is 60 bar, operation range is -45°C to 130°C. 5/8", 4mm	Transport until final destination	Max. 90 days after signing of contract	
270	Pressing connector without core depressor, elbow 90°, in set of ten pieces.	15	Flexible refrigerant transfer line accessories for connection of pressure limiter and controller. Maximum operational pressure PS is 60 bar, operation range is -45°C to 130°C. 5/8", 4mm	Transport until final destination	Max. 90 days after signing of contract	
271	Pressing connector T-fitting, in set of ten pieces.	6	Flexible refrigerant transfer line accessories for connection of pressure limiter and controller. Maximum operational pressure PS is 60 bar, operation range is -45°C to 130°C. 4mm	Transport until final destination	Max. 90 days after signing of contract	
272	Hydraulic pressing pliers for DN 4mm pressing operation	3	Flexible refrigerant transfer line accessories for connection of pressure limiter and controller. Maximum operational pressure PS is 60 bar, operation range is -45°C to 130°C. 4mm	Transport until final destination	Max. 90 days after signing of contract	

273	Core depressor opener in set of 50 pieces	3	Flexible refrigerant transfer line accessories for connection of pressure limiter and controller. Maximum operational pressure PS is 60 bar, operation range is -45°C to 130°C.	Transport until final destination	Max. 90 days after signing of contract	
274	Tube cutter	3	Flexible refrigerant transfer line connection tool	Transport until final destination	Max. 90 days after signing of contract	
275	Spare blade for tube cutter in set of two pieces	6	Flexible refrigerant transfer line accessories	Transport until final destination	Max. 90 days after signing of contract	
276	Copper gaskets in set of 50 pieces	6	Flexible refrigerant transfer line accessories for connection of pressure limiter and controller. Maximum operational pressure PS is 60 bar, operation range is -45°C to 130°C. 7/16" UNF	Transport until final destination	Max. 90 days after signing of contract	
Safety and Control Devices						
277	Overflow Safety Valve, Set pressure 28 bar	2	Counter pressure independent overflow safety valve to avoid emission of refrigerant to the environment. In case of activation, the refrigerant is leaded into the low-pressure side of the refrigeration system. Safety valve is led sealed and with acceptance test certificate (TUV / DEKRA or equivalent). Permissible temperature range is -30°C to +120°C and the valve is suitable for all halogenated refrigerants.	Transport until final destination	Max. 90 days after signing of contract	

			Set pressure 28 bar Type: Hansa ÜSV or equivalent			
278	Overflow safety valve discharge tube, complete assembly set.	2	Assembly set consists of: Gauge, double nut, connection tube, brazing adapter Type: Hansa ÜSV or equivalent	Transport until final destination	Max. 90 days after signing of contract	
Vibration Eliminator						
279	Vibration eliminator for installation at the compressor and between the compressor and the suction/discharge line.	4	The body of the eliminator is made of stainless steel while the brazing connectors are made of copper. The allowable operating temperature is 140°C to -50°C and the maximum admissible operating pressure PS = 60bar. Size: 28mm / 1-1/8" Type: VAFS-91 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
280	Vibration eliminator for installation at the oil-return line	8	The body of the eliminator is made of stainless steel while the brazing connectors are made of copper. The allowable operating temperature is 140°C to -50°C and the maximum admissible operating pressure PS = 60bar. Size: 2-1/8" Type: VAFS-12 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
Suction Filters						
281	Cartridge strainer for mounting in suction line	12	Diameter of suction line: 2 1/8" Type: F-48P or equivalent	Transport until final destination	Max. 90 days after signing of contract	
282	Cartridge strainer for mounting in suction line	12	Diameter of suction line: 1 1/8" Type: F-48P or equivalent	Transport until final destination	Max. 90 days after signing of contract	

Liquid Line Filter						
283	Solid core filter with gasket	24	Solid core with 30% molecular sieve and 70% activated alumina. High acid adsorption and standard water adsorption. Size: diameter liquid line 2 1/8" Type: W-48HH or equivalent	Transport until final destination	Max. 90 days after signing of contract	
284	Solid core filter with gasket	24	Solid core with 30% molecular sieve and 70% activated alumina. High acid adsorption and standard water adsorption. Size: diameter liquid line 1 3/8" Type: W-48HH or equivalent	Transport until final destination	Max. 90 days after signing of contract	
Compressors						
285	Spare gasket for Bitzer compressor 6G-30.2	2	Spare gasket for Bitzer compressor 6G-30.2	Transport until final destination	Max. 90 days after signing of contract	
286	Spare gasket for Bitzer compressor 6H-25.2	2	Spare gasket for Bitzer compressor 6H-25.2	Transport until final destination	Max. 90 days after signing of contract	
287	Spare gasket for Bitzer compressor 4VCS-6.2	4	Spare gasket for Bitzer compressor 4VCS-6.2	Transport until final destination	Max. 90 days after signing of contract	
288	Spare gasket for Bitzer compressor 6H-35.2	4	Spare gasket for Bitzer compressor 6H-35.2	Transport until final destination	Max. 90 days after signing of contract	
289	Spare gasket for Bitzer compressor 6J-33.2	4	Spare gasket for Bitzer compressor 6J-33.2	Transport until final destination	Max. 90 days after signing of contract	

Lot 10 Supermarket Gas Detection System

Position Number	Item/s to be Supplied	Quantity	Description/Specifications of Goods	Related Services	Delivery Date	Other Information
Supermarket Gas Detection System						
290	Fixed gas detection system for leakages monitoring in cooling positions and within the machinery room.	1	The Infrared Monitoring system is comprising of a Refrigerant Leak Detection device utilizing infrared absorption sensors to analyze air samples. The monitor has 12 individual sampling Channels (SAMMs), each having their own pump and filter. Each SAMM is connected to the area to be sampled by 6mm semi-rigid nylon pipework. The specific area can then be further subdivided into small regions using a manifold with up to 4 sampling pipes, known as spur kits. This multi sampling technique ensures that likely sources of refrigerant leakage can be specifically targeted. Each spur is 5 meters in length. Alarms can be generated at three different levels described as 'Alert', 'Alarm' and 'Critical', these alarms can be signaled to other devices using the 16 configurable relays. The current alarm status is indicated on a TFT LCD display and a Traffic Light Display provides the user with an	Transport until final destination	Max. 90 days after signing of contract	

			instant visual status of the system. Details of System Alarms, Events and Faults are stored within the internal PC and can be accessed using the Operators Keypad. The monitor is IP addressable and can be linked to a local area network (LAN) for remote access to alarm details if required. Type: GRM2-104D2-112 or equivalent			
291	Fixed gas detection system for leakages monitoring in cooling positions and within the machinery room.	1	The Infrared Monitoring system is comprising of a Refrigerant Leak Detection device utilizing infrared absorption sensors to analyze air samples. The monitor has 16 individual sampling Channels (SAMMs), each having their own pump and filter. Each SAMM is connected to the area to be sampled by 6mm semi-rigid nylon pipework. The specific area can then be further subdivided into small regions using a manifold with up to 4 sampling pipes, known as spur kits. This multi sampling technique ensures that likely sources of refrigerant leakage can be specifically targeted. Each spur is 5 meters in length. Alarms can be generated			

			at three different levels described as ‘Alert’, ‘Alarm’ and ‘Critical’, these alarms can be signaled to other devices using the 16 configurable relays. The current alarm status is indicated on a TFT LCD display and a Traffic Light Display provides the user with an instant visual status of the system. Details of System Alarms, Events and Faults are stored within the internal PC and can be accessed using the Operators Keypad. The monitor is IP addressable and can be linked to a local area network (LAN) for remote access to alarm details if required. Type: GRM2-104D2-116 or equivalent			
292	Pipe package for the fixed gas monitoring system.	1	The pipe package for the fixed gas monitoring system is consisting of: Twelve channel pipe package, including all necessary freeway pipe and spur kit, sample points, user manual, pipe cutters, ties, etc. Type: 12SP-PIPE or equivalent			

293	Pipe package for the fixed gas monitoring system.	1	The pipe package for the fixed gas monitoring system is consisting of: Sixteen channel pipe package, including all necessary freeway pipe and spur kit, sample points, user manual, pipe cutters, ties, etc. Type: 16SP-PIPE or equivalent	Transport until final destination	Max. 90 days after signing of contract	
294	Service kit	1	Service kit for annually planned preventive maintenance of the fixed 28 channel gas monitoring system.	Transport until final destination	Max. 90 days after signing of contract	
295	Red beacon for visible leakage alarm	1	The beacon will be installed within the market operators office to indicate that the gas monitoring system noticed a potential HCFC R22 leakage within a specific area.	Transport until final destination	Max. 90 days after signing of contract	
296	Red beacon and sounder for visible and acoustic leakage alarm	1	The beacon and sounder will be installed within the market machinery room to indicate that the gas monitoring system noticed a potential HCFC R22 leakage within a specific area.	Transport until final destination	Max. 90 days after signing of contract	

Lot 11 Tools and Consumables

Position Number	Item/s to be Supplied	Quantity	Description/Specifications of Goods	Related Services	Delivery Date	Other Information
Brazing Torch						
297	Flexible twin-flame fork torch, size 2 with thickness of 1-2mm, inlet M15x1 RH for the use with acetylene / oxygen	4	Flexible twin-flame fork torch, size 2 with thickness of 1-2mm, inlet M15x1 RH for the use with acetylene / oxygen Type: Klein Rista or equivalent	Transport until final destination	Max. 90 days after signing of contract	
298	Shower-burner set of three. Universal use shower-burner for welding and brazing processes for the use with acetylene and oxygen.	2	Set consisting of three shower-burner Type: Perplex Klein Rista or equivalent	Transport until final destination	Max. 90 days after signing of contract	
299	Welding and brazing torch set for the use with acetylene - oxygen gases, consisting of handle, insert nozzles sizes 1 to 5 / 0,5 to 9mm, nozzles cleaning needles, 10-spanner tool, steal sheet case.	2	Complete welding and brazing set Type: Klein Rista or equivalent	Transport until final destination	Max. 90 days after signing of contract	

Refrigerant and oil contamination detection equipment						
300	Refrigerant and compressor oil contamination detector kit consisting of a brass body, recessed viewing track, stainless steel needles and extension hose. Detection tubes designed as heavy wall Pyrex glass, packed under dry nitrogen charge.	4	RAC industries valid field test for a quick and accurate determination of contaminant levels in oil and refrigerant. Complete set with detection tubes and a set of three acid, moisture and oil test. Detector kit supplied with rugged carrying box. Type: RT700K or equivalent	Transport until final destination	Max. 90 days after signing of contract	
301	Replacement set of three Acid detector tubes	6	For refrigerant detector kit Type: RT750A or equivalent	Transport until final destination	Max. 90 days after signing of contract	
302	Replacement set of three Acid detector tubes	6	For refrigerant detector kit Type: RT751M or equivalent	Transport until final destination	Max. 90 days after signing of contract	
303	Replacement set of three Acid detector tubes	6	For refrigerant detector kit Type: RT752C or equivalent	Transport until final destination	Max. 90 days after signing of contract	
304	Acid test kit for the use with Mineral and Alkyl Benzene oil	30	Test for contamination in the compressors crankcase which can be indicative of lubricant decomposition. Type: TKO or equivalent	Transport until final destination	Max. 90 days after signing of contract	

Brazing and tubing equipment and consumables						
305	Nitrogen pressure regulator for steel cylinders. Regulator from sturdy solid brass design, equipped with protective caps for gauges.	1	Cylinder pressure 0-315/200 bar, 0-60/40 bar working pressure and about 130 Nm^3/h maximum. Connection at cylinder, hex nut male for nitrogen bottle norm UNI 4409 (W21.7x1-1/4" anti-clockwise)	Transport until final destination	Max. 90 days after signing of contract	
306	Nitrogen test control unit, Nitrogen pressure regulator for steel cylinders. Set consisting of: Pressure regulator max. 220 bar primary and 5 to 50 bar secondary, Pressure control valve adjusted for 55 bar secured, marking gauge including marking indicator, charging hose 900mm with 1/4" connector SAE. Adapter piece with valve deadener 1/4" SAE x 1/2" -20 UNF	1	Nitrogen regulator for the use with pressure and tightness tests for medium and large refrigeration cycles. Washing and blowing out of refrigeration cycles. Cylinder connection UNI 4409 (W21.7x1-1/4" anti-clockwise) Cylinder pressure 220 bar, working pressure 5 to 50 bar. Type: PRV 1000 or equivalent	Transport until final destination	Max. 90 days after signing of contract	

307	Nitrogen hoses for pressures up to 60 bar and a length of 5m	1	Hose with textile reinforcement and temperature range from -20°C up to +50/70°C. Hoses with pressure regulator connection and at the end 1/4" SAE. Hose inner diameter 10 mm.	Transport until final destination	Max. 90 days after signing of contract	
308	Heat Protection paste, bucket of 0,9 kg	2	Manually moldable paste designed to divert heat and protect all heat-sensitive materials while brazing and welding with temperatures of up to 3000°C – used paste is reusable.	Transport until final destination	Max. 90 days after signing of contract	
309	Brazing Paste for Silver- Brazing Alloys	4	Brazing paste acc. DIN EN 1045 for silver-bearing brazing alloys – especially suited for brazing copper (Cu) to brass (Ms) and copper (Cu) to red brass. The flux residue is soluble in cold water and can be removed by rinsing – in tins.	Transport until final destination	Max. 90 days after signing of contract	
310	Cleaning Fleeces	20	Cleaning fleece for quick cleaning of soldering spots without scratching – metal-free – 10 units per package.	Transport until final destination	Max. 90 days after signing of contract	
311	Torch lighter	5	Gun-shaped gas lighter – refill pack: 12 x 5 mm replacement flints in small holder	Transport until final destination	Max. 90 days after signing of contract	
312	Torch lighter	52	Set of 12 replacement flints	Transport until final destination	Max. 90 days after signing of contract	

313	Safety Goggles	2	Flexible flip-front safety goggles – suitable for spectacle wearers – inner lenses clear and shatter-proof – flip-up lenses protection class DIN 5 green	Transport until final destination	Max. 90 days after signing of contract	
314	Universal deburrer	10	Durable universal deburrer with non-slip soft plastic handle and exchangeable blade designed for easy and quick deburring of tubes, sheet metal and edges. The case can hold up to 4 replacement blades.	Transport until final destination	Max. 90 days after signing of contract	
315	Spare blades for universal deburrer	50		Transport until final destination	Max. 90 days after signing of contract	
316	Leak detection spray	10	Quick and reliable detection of leaks in refrigeration and air conditioning systems as well as gas lines using a foaming spray. Non-flammable, non-corrosive, CFC-free and non-toxic. Temperature range -6°C to 97°C.	Transport until final destination	Max. 90 days after signing of contract	
317	LED work light	2	Battery-operated robust work light with extremely bright light based on LED technology. With 160 installed LEDs the flash lights feature high light efficiency with low power consumption. Lighting duration: 5 h, charging duration: 5-6 h, shock-proof case with suspending hook, on/off switch on non-slip handle, rechargeable	Transport until final destination	Max. 90 days after signing of contract	

			via 230 V power supply or 12 V cigarette lighter, splash-proof and oil-resistant. Incl. power supply and car charger.			
318	Torque wrenches set	2	Durable torque wrenches set designed especially for refrigeration and air conditioning systems, featuring 6 different wrenches sizes and adjustable torque lever (10 – 75 newton meter) in sturdy plastic case.	Transport until final destination	Max. 90 days after signing of contract	
319	Mini telescopic mirror	2	Round pocket mirror in pen format with a diameter of 32 mm. Extendable to a length of 465 mm, the mirror is adjustable in all directions by means of a double ball-and-socket joint.	Transport until final destination	Max. 90 days after signing of contract	
320	Heat protection mat, 4-layer, up to 3000°C	10	High quality asbestos-free protection mat for protection against flames and heat, flexible and long-life.	Transport until final destination	Max. 90 days after signing of contract	
321	Heat protection mat, 2-layer, up to 3000°C	10	High quality asbestos-free protection mat for protection against flames and heat, flexible and long-life.	Transport until final destination	Max. 90 days after signing of contract	
322	Copper Brazing Alloy With 6% Phosphorus and 15% silver According to DIN EN 1044, ISO 3677 and DIN 8513	6	Copper brazing alloy for brazing copper to copper without the use of flux – permissible for refrigeration and air-conditioning technology with pipe dimensions > 28 x 1.5 mm, flux is used for brazing copper to	Transport until final destination	Max. 90 days after signing of contract	

			brass and copper to red brass – creep-resistant up to 200°C – capillary active and good, square bars in 2.0 x 500 mm lengths. 1 kg/packing unit. Working temperature 710°C, melting range 650°C-800°C, 2,0mm diameter. Type: B-Cu80PAg or equivalent			
323	Silver Brazing Alloys, Cadmium-Free, Acc. to DIN EN 1044, ISO 3677 and DIN 8513, Bare, 1,5mm² Acc. to DIN EN 1045 FH 10, 34% silver content	4	Cadmium-free silver brazing alloys (bare) with 34% silver, brazing paste have to be employed with bare rods, permissible for refrigeration and air-conditioning technology down to -200°C, very good flow properties, capillary active and highly fluid creep-resistant up to 200°C – round rods, length 500 mm. 0,10 kg/packing unit. Working temperature 710°C, melting range 630°C-730°C, 1,5mm diameter. Type: B-Cu36AgZnSn-630/730 or equivalent	Transport until final destination	Max. 90 days after signing of contract	

324	Silver Brazing Alloys, Cadmium-Free, Acc. to DIN EN 1044, ISO 3677 and DIN 8513, ´Bare, 2 mm² Acc. to DIN EN 1045 FH 10	2	Cadmium-free silver brazing alloys (bare) with 34% silver, brazing paste have to be employed with bare rods, permissible for refrigeration and air-conditioning technology down to -200°C, very good flow properties, capillary active and highly fluid creep-resistant up to 200°C – round rods, length 500 mm. 0,10 kg/packing unit. Working temperature 710°C, melting range 650°C-800°C, 2,0mm diameter. Type: B-Cu36AgZnSn-630/730 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
325	Tube expander set in steel storage case	1	Durable forged steel tube expander designed to expand copper, aluminium and soft metal tubes for the efficient manufacture of standardized tube fittings, complete set incl. 1 tube expander as well as 6 expander head replacements in a steel storage case. Size: 3/8“ -1/2“ - 5/8“ - 3/4“ - 7/8“ - 1“	Transport until final destination	Max. 90 days after signing of contract	

326	Set of expander heads	1	Durable forged steel tube expander designed to expand copper, aluminium and soft metal tubes. Size: 1-1/8" - 1-3/8" - 1-5/8"	Transport until final destination	Max. 90 days after signing of contract	
327	Tube cutter	2	Spring-guided telescopic tube cutter for the precise cutting of copper, brass, aluminium and soft steel tubes. The integrated spring ensures automatic application, no manual readjustment is necessary. Once applied for cutting, the integrated spring continues to press the cutting wheel against the tube to be cut until it is fully separated. Material hardness adjustable from soft to hard. Size: 4-32mm / 1/8" to 1-1/4"	Transport until final destination	Max. 90 days after signing of contract	
328	Tee-Extractor set 1/2 - 5/8 - 7/8 - 1.1/8“, 1.3/8", 1.5/8"	1	Tee-Extractor sets include: special ratchet, cam pincer, special conical drill, UNIDRILL® Automatic, in steel carrying case Size: 1/2 - 5/8 - 7/8 - 1.1/8“, 1.3/8", 1.5/8"	Transport until final destination	Max. 90 days after signing of contract	
329	Tube cutter steel spare cutting wheel	2	Tube cutter steel spare cutting wheel Size: 4-32mm / 1/8" to 1-1/4"	Transport until final destination	Max. 90 days after signing of contract	

330	Flaring tool set	1	Flaring tool with eccentric cone and sliding clutch designed for the controlled manufacture of 45° flares without fractures. Suitable for copper, brass, aluminum and soft metal tubes. Size: 3/16“ - 1/4“ - 5/16“ - 3/8“ - 1/2“ - 5/8“ - 3/4“	Transport until final destination	Max. 90 days after signing of contract	
331	Lead Sealing pliers Set	1	Set consisting of one lead sealing pliers, seal wire, nylon nirosta, and lead seals. The lead sealing tool is manufactured from cast carbon steel and chrome plated for protection. The tools are supplied with round dies, plain or corrugated for effective crimping of all Acme Lead Seals, the plastic YP10 and Crimp Seals. Standard non engraved dies to be supplied. The sealing tools may also be used to mark other materials such as aluminum plate or laminated card. Including 100m seal wire, 500 lead seals 10mm diameter. Set with led seals.	Transport until final destination	Max. 90 days after signing of contract	
332	Grip- Pliers with curved jaws	3	Pliers made from chrome-molybdenum-steel construction - sturdiness and rust prevention. Anti-Skid surface with safe grip for difficult situations. 10CR 220mm	Transport until final destination	Max. 90 days after signing of contract	

333	Sealant for threaded fitting in refrigeration systems, provided in 10 ml bottle.	20	The sealant is recommended for refrigeration systems and service with strong chemicals. The sealant is used in place of specialty non-hardening compounds, litharge, glycerin, and sealing tape. This product is typically used in applications up to 149 °C. Typical applications include metal and fiber plants, chemical industries. 10 ml bottle. Type: Loctite 554 or equivalent	Transport until final destination	Max. 90 days after signing of contract	

Lot 12 Pipe Support and Fixation

Position Number	Item/s to be Supplied	Quantity	Description/Specifications of Goods	Related Services	Delivery Date	Other Information
Pipe Support and Fixation						
334	Pipe rings, galvanized, with EPDM rubber insulation and for clamping screw MS and for connection thread M8/M10	30	Clamping range area 8 to 11 mm Type: MPN-RC 8/11 A or equivalent	Transport until final destination	Max. 90 days after signing of contract	
335	Pipe rings, galvanized, with EPDM rubber insulation and with clamping screw M6 and for connection thread M8/M10	30	Clamping range area 1/4" Temperature range -40°C to 110°C Type: MPN-RC 1/4" A or equivalent	Transport until final destination	Max. 90 days after signing of contract	
336	Pipe rings, galvanized, with EPDM rubber insulation and with clamping screw M6 and for connection thread M8/M10	30	Clamping range area 3/8" Temperature range -40°C to 110°C Type: MPN-RC 3/8" A or equivalent	Transport until final destination	Max. 90 days after signing of contract	
337	Pipe rings, galvanized, with EPDM rubber insulation and	30	Clamping range area 1/2" Temperature range -40°C to 110°C	Transport until final destination	Max. 90 days after signing of contract	

	with clamping screw M6 and for connection thread M8/M10		Type: MPN-RC 1/2" A or equivalent			
338	Pipe rings, galvanized, with EPDM rubber insulation and with clamping screw M6 and for connection thread M8/M10	40	Clamping range area 3/4" Temperature range -40°C to 110°C Type: MPN-RC 3/4" A or equivalent	Transport until final destination	Max. 90 days after signing of contract	
339	Pipe rings, galvanized, with EPDM rubber insulation and with clamping screw M6 and for connection thread M8/M10	40	Clamping range area 29 to 32 mm Temperature range -40°C to 110°C Type: MPN-RC 29/32 A or equivalent	Transport until final destination	Max. 90 days after signing of contract	
340	Pipe rings, galvanized, with EPDM rubber insulation and with clamping screw M6 and for connection thread M8/M10	30	Clamping range area 1-1/4" Temperature range -40°C to 110°C Type: MPN-RC 1 1/4" A or equivalent	Transport until final destination	Max. 90 days after signing of contract	

341	Pipe rings, galvanized, with EPDM rubber insulation and with clamping screw M6 and for connection thread M8/M10	50	Clamping range area 2-1/2" Temperature range -40°C to 110°C Type: MPN-RC 2 1/2" B or equivalent	Transport until final destination	Max. 90 days after signing of contract	
342	Pipe rings, galvanized, and with clamping screw MS and for connection thread M8/M10	35	Clamping range area 3/8" Type: MPN-S 3/8" A or equivalent	Transport until final destination	Max. 90 days after signing of contract	
343	Pipe rings, galvanized, and with clamping screw MS and for connection thread M8/M10	25	Clamping range area 1/2" Type: MPN-S 1/2" or equivalent	Transport until final destination	Max. 90 days after signing of contract	
344	Pipe rings, galvanized, and with clamping screw MS and for connection thread M8/M10	35	Clamping range area 3/4" Type: MPN-S 3/4" A or equivalent	Transport until final destination	Max. 90 days after signing of contract	
345	Pipe rings, galvanized, and with clamping screw MS and for connection thread M8/M10	30	Clamping range area 1" Type: MPN-S 1" A or equivalent	Transport until final destination	Max. 90 days after signing of contract	

346	Pipe rings, galvanized, and with clamping screw MS and for connection thread M8/M10	30	Clamping range area 35 to 39 mm Type: MPN-S 35/39 A or equivalent	Transport until final destination	Max. 90 days after signing of contract	
347	Pipe rings, galvanized, and with clamping screw MS and for connection thread M8/M10	30	Clamping range area 1-1/4" Type: MPN-S 1 1/4" A or equivalent	Transport until final destination	Max. 90 days after signing of contract	
348	Pipe rings, galvanized, and with clamping screw MS and for connection thread M8/M10	35	Clamping range area 2" Type: MPN-S 2" A or equivalent	Transport until final destination	Max. 90 days after signing of contract	
349	Pipe rings, galvanized, with SILICON rubber insulation and with clamping screw M6 and for connection thread M8/M10	10	Clamping range area 29 to 32 mm Temperature range -60°C to 200°C Type: MP-MIS or equivalent	Transport until final destination	Max. 90 days after signing of contract	
350	Pipe rings, galvanized, with EPDM rubber insulation and with clamping screw M6 and for connection thread M8/M10	50	Clamping range area 8-12mm Temperature range -40°C to 110°C Type: MP-LHI or equivalent	Transport until final destination	Max. 90 days after signing of contract	

351	Pipe retaining clips in accordance with DIN 3016. Clamping range 1/4" (6mm)	200	Pipe retaining clip for all suitable kinds of retaining applications such as cables, cable protection pipes, hoses and other lines. Clip with 15mm band width, M6 bolt, rubber band (polychloropren) and steel galvanized adjustable band. Temperature range -35°C to 100°C. Resistant against oil, alcohol, acids and fat.	Transport until final destination	Max. 90 days after signing of contract	
352	Pipe retaining clips in accordance with DIN 3016. Clamping range 3/8" (10mm)	200	Pipe retaining clip for all suitable kinds of retaining applications such as cables, cable protection pipes, hoses and other lines. Clip with 15mm band width, M6 bolt, rubber band (polychloropren) and steel galvanized adjustable band. Temperature range -35°C to 100°C. Resistant against oil, alcohol, acids and fat.	Transport until final destination	Max. 90 days after signing of contract	

Lot 13 Compression Fitting and accessories

Position Number	Item/s to be Supplied	Quantity	Description/Specifications of Goods	Related Services	Delivery Date	Other Information
Compression Fitting and accessories						
354	Gaugeable brass tube adapter fittings with nut-ferrule attachments. Reducer fitting 1/4" nut-ferrule to 1/4" AN - (1/4" SAE)	100	Leak-tight design of the tube fitting for use in process instrumentation for refrigerant and oil applications. Design criteria for critical issues such as: Leakage proved, highly vibration (tube grip) resistant, thermal shock resistant, compliance with industry standards, ease of installation and corrosion resistant. Type: Swagelok B-400-A-4ANF or equivalent	Transport until final destination	Max. 90 days after signing of contract	
355	Gaugeable brass tube female connector fittings with nut-ferrule attachments. Connector fitting 1/4" nut-ferrule to 1/4" pipe OD	100	Leak-tight design of the tube fitting for use in process instrumentation for refrigerant and oil applications. Design criteria for critical issues such as: Leakage proved, highly vibration (tube grip) resistant, thermal shock resistant, compliance with industry standards, ease of installation and corrosion resistant. Type: Swagelok B-400-7-4ST or equivalent	Transport until final destination	Max. 90 days after signing of contract	

356	Gaugeable brass tube adapter fittings with nut-ferrule attachments. Reducer fitting 3/8" nut-ferrule to 3/8" AN - (3/8"" SAE)	50	Leak-tight design of the tube fitting for use in process instrumentation for refrigerant and oil applications. Design criteria for critical issues such as: Leakage proved, highly vibration (tube grip) resistant, thermal shock resistant, compliance with industry standards, ease of installation and corrosion resistant. Type: Swagelok B-600-A-6ANF or equivalent	Transport until final destination	Max. 90 days after signing of contract	
357	Gaugeable brass tube straight fittings union with 1/4" nut-ferrule attachments.	40	Leak-tight design of the tube fitting for use in process instrumentation for refrigerant and oil applications. Design criteria for critical issues such as: Leakage proved, highly vibration (tube grip) resistant, thermal shock resistant, compliance with industry standards, ease of installation and corrosion resistant. Type: Swagelok B-400-6 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
358	Gaugeable brass tube straight fittings union with 3/8" nut-ferrule attachments.	40	Leak-tight design of the tube fitting for use in process instrumentation for refrigerant and oil applications. Design criteria for critical issues such as: Leakage proved, highly vibration	Transport until final destination	Max. 90 days after signing of contract	

			(tube grip) resistant, thermal shock resistant, compliance with industry standards, ease of installation and corrosion resistant. Type: Swagelok B-600-6 or equivalent			
359	Gaugeable brass tube fittings T union with 1/4"" nut-ferrule attachments.	30	Leak-tight design of the tube fitting for use in process instrumentation for refrigerant and oil applications. Design criteria for critical issues such as: Leakage proved, highly vibration (tube grip) resistant, thermal shock resistant, compliance with industry standards, ease of installation and corrosion resistant. Type: Swagelok B-400-3 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
360	Gaugeable brass tube fittings T union with 3/8" nut-ferrule attachments.	30	Leak-tight design of the tube fitting for use in process instrumentation for refrigerant and oil applications. Design criteria for critical issues such as: Leakage proved, highly vibration (tube grip) resistant, thermal shock resistant, compliance with industry standards, ease of installation and corrosion resistant. Type: Swagelok B-600-3 or equivalent	Transport until final destination	Max. 90 days after signing of contract	

361	Gaugeable brass tube fittings Cross union with 1/4" nut-ferrule attachments.	20	Leak-tight design of the tube fitting for use in process instrumentation for refrigerant and oil applications. Design criteria for critical issues such as: Leakage proved, highly vibration (tube grip) resistant, thermal shock resistant, compliance with industry standards, ease of installation and corrosion resistant. Type: Swagelok B-400-4 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
362	Gaugeable brass tube fittings Cross union with 3/8" nut-ferrule attachments.	20	Leak-tight design of the tube fitting for use in process instrumentation for refrigerant and oil applications. Design criteria for critical issues such as: Leakage proved, highly vibration (tube grip) resistant, thermal shock resistant, compliance with industry standards, ease of installation and corrosion resistant. Type: Swagelok B-600-4 or equivalent	Transport until final destination	Max. 90 days after signing of contract	
363	Gaugeable Nut-ferrule replacement set 1/4"	5	Leak-tight design of the tube fitting for use in process instrumentation for refrigerant and oil applications. Design criteria for critical issues such as: Leakage proved, highly vibration	Transport until final destination	Max. 90 days after signing of contract	

			(tube grip) resistant, thermal shock resistant, compliance with industry standards, ease of installation and corrosion resistant. Type: Swagelok B-400-NFSET or equivalent			
364	Gaugeable Nut-ferrule replacement set 3/8"	5	Leak-tight design of the tube fitting for use in process instrumentation for refrigerant and oil applications. Design criteria for critical issues such as: Leakage proved, highly vibration (tube grip) resistant, thermal shock resistant, compliance with industry standards, ease of installation and corrosion resistant. Type: Swagelok B-600-NFSET or equivalent	Transport until final destination	Max. 90 days after signing of contract	
365	RAC Tubing Copper Tubes in straight lengths (rigid) 1/4" in length of 4m	15	Copper tubes according EN 12735-1. Diameter 1/4", 4m length, wall with 1mm thickness Type: ITE or equivalent	Transport until final destination	Max. 90 days after signing of contract	
366	RAC Tubing Copper Tubes in straight lengths (rigid) 3/8" in length of 4m	15	Copper tubes according EN 12735-1. Diameter 3/8", 4m length, wall with 1mm thickness Type: ITE or equivalent	Transport until final destination	Max. 90 days after signing of contract	

367	RAC Tubing Copper Tubes in straight lengths (rigid) 1/2" in length of 4m	15	Copper tubes according EN 12735-1. Diameter 1/4", 4m length, wall with 1mm thickness Type: ITE or equivalent	Transport until final destination	Max. 90 days after signing of contract	
368	Assembly Carrying Case - Bending Machines	1	Rugged carrying case with a set of four bending machines, heavy duty tube reamer tube cutter and tube fixation rubber. Set of bending machines in 1/4", 5/16", 3/8", 12". Transport case with wheels and telescope handle. The case is air-tight, dust-tight, water-tight and with air-compensating valve. Maximum ambient temperature for the carrying case is -40°C to 80°C, weight including tools is 20 kg. Type: ASK Bending Machines Carrying Case -Z or equivalent	Transport until final destination	Max. 90 days after signing of contract	
369	Assembly Carrying Case - Tool Box	1	Rugged carrying case with a set of tools for Gaugeable Tube Fittings and Adapter Fittings, consisting of four ratchet wrenches 1/4", 5/16", 3/8", and 1/2". Further one check-gauge, tube-cutting support, tube reamer, tube cutter, Snoop Leak Detection Fluid and SWAK thread tightening paste. The case is air-tight, dust-tight, water-tight and with air-compensating valve. Maximum ambient temperature	Transport until final destination	Max. 90 days after signing of contract	

			for the carrying case is -40°C to 80°C, weight including tools is 8.2 kg. Type: ASK Tool-Box Carrying Case -Z or equivalent			
370	Leak Check Fluid for application on tubes and fitting at temperatures -54°C to 93°C	1	Consisting of tenside, etylene glycol, and deionized water. Type: Swagelok MS-CR-SNOOP-GAL or equivalent	Transport until final destination	Max. 90 days after signing of contract	
371	PTTFE Thread Sealant Tape	20	Thread Sealant Tape for thread fittings 1/8", 1/4" and 3/8" Type: Swagelok MS-STR-4 or equivalent	Transport until final destination	Max. 90 days after signing of contract	

Section 3b: Related Services

Further to the Schedule of Requirements in the preceding Table, Bidders are requested to take note of the following additional requirements, conditions, and related services pertaining to the fulfillment of the requirements:

Delivery Term [INCOTERMS 2010] *(Pls. link this to price schedule)*	☐ FCA ☐ CPT ☐ CIP ☒ DAP ☐ Other *Click here to specify*	
Exact Address of Delivery/Installation Location	Lots 1-7: Y.Yamada Express A/C Rafael Yamada Av. Nazaré, 140 Belém-PA – Brazil CEP: 66.035-170 Lots 8-13: Supermercado São Vicente A/C Thiago Pietrobon Rua Orestes Denadai, 5 Jardim das Palmeiras, Hortolândia-SP – Brazil CEP: 13.184-270	
Mode of Transport Preferred	☒ AIR	☒ LAND
	☒ SEA	☐ OTHER *[pls. specify]*
UNDP Preferred Freight Forwarder, if any[12]	N/A	
Distribution of shipping documents *(if using freight forwarder)*	N/A	
Delivery Date	Maximum of 90 days after the signing of the contract	
Customs, if needed, clearing shall be done by:	☒ UNDP ☐ Supplier ☐ Freight Forwarder	
Inspection upon delivery	UNDP shall have a reasonable time after delivery of the goods to inspect them and to reject and refuse acceptance of goods not	

[12] *A factor of the Incoterms stipulated in the ITB. The use of a UNDP preferred courier may be considered for purposes of ensuring forwarder's familiarity with procedures and processing of documentary requirements applicable to UNDP when clearing with customs authority of the country of destination.*

	conforming to this Purchase Order. Payment for goods pursuant to this Purchase Order shall not be deemed an acceptance of the goods.
Technical Support Requirements	Technical Support and assistance
Payment Terms *(max. advanced payment is 20% of total price as per UNDP policy)*	☒ 100% within 30 days upon UNDP's acceptance of the goods delivered as specified and receipt of invoice ☐ Max of 20% upon issuance of PO and the rest within 30 days from UNDP's acceptance of goods as specified and receipt of invoice ☐ Others *[pls. specify]*
Conditions for Release of Payment	☐ Pre-shipment inspection *[pls. provide details]* ☒ Inspection upon arrival at destination. UNDP shall have a reasonable time after delivery of the goods to inspect them and to reject and refuse acceptance of goods not conforming to this Purchase Order. Payment for goods pursuant to this Purchase Order shall not be deemed an acceptance of the goods. ☐ Installation *[pls. provide details]* ☐ Testing *[pls. provide details]* ☐ Training on Operation and Maintenance *[pls. provide details]* ☐ Written Acceptance of Goods based on full compliance with RFQ requirements ☐ Others *[pls. specify]*
After-sale services required	☒ Warranty on Parts and Labor for minimum period of 12 months ☒ Technical Support and Assistance
All documentations, including catalogs, instructions and operating manuals, shall be in this language	☐ English ☐ French ☐ Spanish ☒ Others English or Portuguese

Section 4: Bid Submission Form[13]

(This should be written in the Letterhead of the Bidder. Except for indicated fields, no changes may be made in this template.)

Insert: Location
Insert: Date

To
JOF - Joint Operations Facility
Ref. **JOF-0039-29582/2016**
Casa das Nações Unidas no Brasil
Setor de Embaixadas Norte, Quadra 802, Conjunto C, Lote 17
Complexo Sergio Vieira de Mello, Módulo I, Prédio Zilda Arns, Salas 117 a 123
CEP 70800-400 – Brasília, DF - Brasil

Dear Sir(s)/Madam(s),

We, the undersigned, hereby offer to supply the goods and related services required for [*insert: title of goods and services required as per ITB*]in accordance with your Invitation to Bid dated [insert date]. We are hereby submitting our Bid, which includes the Technical Bid and Price Schedule.

We hereby declare that:

a) All the information and statements made in this Bid are true and we accept that any misrepresentation contained in it may lead to our disqualification;
b) We are currently not on the removed or suspended vendor list of the UN or other such lists of other UN agencies, nor are we associated with, any company or individual appearing on the 1267/1989 list of the UN Security Council;
c) We have no outstanding bankruptcy or pending litigation or any legal action that could impair our operation as a going concern; and
d) We do not employ, nor anticipate employing, any person who is or was recently employed by the UN or UNDP.

We confirm that we have read, understood and hereby fully accept the Schedule of Requirements and Technical Specifications describing the duties and responsibilities required of us in this ITB, and the General Terms and Conditions of UNDP's Standard Contract for this ITB.

We agree to abide by this Bid for *[insert: period of validity as indicated in Data Sheet].*

We undertake, if our Bid is accepted, to initiate the supply of goods and provision of related services not later than the date indicated in the Data Sheet.

[13] *No deletion or modification may be made in this form. Any such deletion or modification may lead to the rejection of the Bid.*

We fully understand and recognize that UNDP is not bound to accept this Bid, that we shall bear all costs associated with its preparation and submission, and that UNDP will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the evaluation.

Yours sincerely,

Authorized Signature [*In full and initials*]: _____
Name and Title of Signatory: _____
Name of Firm: _____
Contact Details: _____

[Please mark this letter with your corporate seal, if available]

Section 5: Documents Establishing the Eligibility and Qualifications of the Bidder

Bidder Information Form[14]

Date: *[insert date (as day, month and year] of Bid Submission*]
ITB No.: *[insert number of bidding process]*

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1. Bidder's Legal Name *[insert Bidder's legal name]*		
2. In case of Joint Venture (JV), legal name of each party: *[insert legal name of each party in JV]*		
3. Actual or intended Country/ies of Registration/Operation: *[insert actual or intended Country of Registration]*		
4. Year of Registration in its Location: *[insert Bidder's year of registration]*		
5. Countries of Operation	6. No. of staff in each Country	7.Years of Operation in each Country
8. Legal Address/es in Country/ies of Registration/Operation:*[insert Bidder's legal address in country of registration]*		
9. Value and Description of Top three (3) Biggest Contract for the past five (5) years		
10. Latest Credit Rating (Score and Source, if any)		
11. Brief description of litigation history (disputes, arbitration, claims, etc.), indicating current status and outcomes, if already resolved.		
12. Bidder's Authorized Representative Information Name: *[insert Authorized Representative's name]* Address: *[insert Authorized Representative's Address]* Telephone/Fax numbers: *[insert Authorized Representative's telephone/fax numbers]* Email Address: *[insert Authorized Representative's email address]*		
13. Are you in the UNPD List 1267.1989 or UN Ineligibility List? ☐ YES or ☐ NO		
14. Attached are copies of original documents of: ☐ All eligibility document requirements listed in the Data Sheet ☐ If Joint Venture/Consortium – copy of the Memorandum of Understanding/Agreement or Letter of Intent to form a JV/Consortium, or Registration of JV/Consortium, if registered ☐ If case of Government corporation or Government-owned/controlled entity, documents establishing legal and financial autonomy and compliance with commercial law.		

[14] *The Bidder shall fill in this Form in accordance with the instructions. Apart from providing additional information, no alterations to its format shall be permitted and no substitutions shall be accepted.*

Joint Venture Partner Information Form (if Registered)[15]

Date: *[insert date (as day, month and year) of Bid Submission*]
ITB No.: *[insert number of bidding process]*

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1. Bidder's Legal Name: *[insert Bidder's legal name]*		
2. JV's Party legal name: *[insert JV's Party legal name]*		
3. JV's Party Country of Registration: *[insert JV's Party country of registration]*		
4. Year of Registration: *[insert Party's year of registration]*		
5. Countries of Operation	6. No. of staff in each Country	7.Years of Operation in each Country
8. Legal Address/es in Country/ies of Registration/Operation: *[insert Party's legal address in country of registration]*		
9. Value and Description of Top three (3) Biggest Contract for the past five (5) years		
10. Latest Credit Rating (if any): Click here to enter text.		
1. Brief description of litigation history (disputes, arbitration, claims, etc.), indicating current status and outcomes, if already resolved. Click here to enter text.		
13. JV's Party Authorized Representative Information Name: *[insert name of JV's Party authorized representative]* Address: *[insert address of JV's Party authorized representative]* Telephone/Fax numbers: *[insert telephone/fax numbers of JV's Party authorized representative]* Email Address: *[insert email address of JV's Party authorized representative]*		
14. Attached are copies of original documents of: *[check the box(es) of the attached original documents]* ☐ All eligibility document requirements listed in the Data Sheet ☐ Articles of Incorporation or Registration of firm named in 2. ☐ In case of government owned entity, documents establishing legal and financial autonomy and compliance with commercial law.		

[15] *The Bidder shall fill in this Form in accordance with the instructions. Apart from providing additional information, no alterations to its format shall be permitted and no substitutions shall be accepted.*

Section 6: Technical Bid Form[16]

JOF-0039-29582/2016

Name of Bidding Organization / Firm:	
Country of Registration:	
Name of Contact Person for this Bid:	
Address:	
Phone / Fax:	
Email:	

SECTION 1: EXPERTISE OF FIRM/ ORGANISATION

This section should fully explain the Bidder's resources in terms of personnel and facilities necessary for the performance of this requirement.

1.1 Brief Description of Bidder as an Entity: Provide a brief description of the organization / firm submitting the Bid, its legal mandates/authorized business activities, the year and country of incorporation, and approximate annual budget, etc. Include reference to reputation, or any history of litigation and arbitration in which the organisation / firm has been involved that could adversely affect or impact the delivery of goods and/or performance of related services, indicating the status/result of such litigation/arbitration.

1.2. Financial Capacity: Based on the latest Audited Financial Statement (Income Statement and Balance Sheet) describe the financial capacity (liquidity, stand-by credit lines, etc.) of the bidder to engage into the contract. Include any indication of credit rating, industry rating, etc.

1.3. Track Record and Experiences: Provide the following information regarding corporate experience within at least the last five (5) years which are related or relevant to those required for this Contract.

Name of project	Client	Contract Value	Period of activity	Types of activities undertaken	Status or Date Completed	References Contact Details (Name, Phone, Email)

[16] *Technical Bids not submitted in this format may be rejected.*

SECTION 2 - SCOPE OF SUPPLY, TECHNICAL SPECIFICATIONS, AND RELATED SERVICES

This section should demonstrate the Bidder's responsiveness to the specification by identifying the specific components proposed, addressing the requirements, as specified, point by point; providing a detailed description of the essential performance characteristics proposed; and demonstrating how the proposed bid meets or exceeds the specifications.

2.1. Scope of Supply: Please provide a detailed description of the goods to be supplied, indicating clearly how they comply with the technical specifications required by the ITB (see below table); describe how the organisation/firm will supply the goods and any related services, keeping in mind the appropriateness to local conditions and project environment.

Item No.	Description/ Specification of Goods	Source/ Manufacturer	Country of Origin	Qty	Quality Certificate/ Export Licences, etc. (indicate all that applies and if attached)

A supporting document with full details may be annexed to this section

2.2. Technical Quality Assurance Mechanisms: The bid shall also include details of the Bidder's internal technical and quality assurance review mechanisms, all the appropriate quality certificates, export licenses and other documents attesting to the superiority of the quality of the goods and technologies to be supplied.

2.3. Reporting and Monitoring: Please provide a brief description of the mechanisms proposed for this project for reporting to the UNDP and partners, including a reporting schedule.

2.4. Subcontracting: Explain whether any work would be subcontracted, to whom, how much percentage of the work, the rationale for such, and the roles of the proposed sub-contractors. Special attention should be given to providing a clear picture of the role of each entity and how everyone will function as a team.

2.5. Risks / Mitigation Measures: Please describe the potential risks for the implementation of this project that may impact achievement and timely completion of expected results as well as their quality. Describe measures that will be put in place to mitigate these risks.

2.6 Implementation Timelines: The Bidder shall submit a Gantt Chart or Project Schedule indicating the detailed sequence of activities that will be undertaken and their corresponding timing.

2.7. Partnerships (Optional): Explain any partnerships with local, international or other organizations that are planned for the implementation of the project. Special attention should be given to providing a clear picture of the role of each entity and how everyone will function as a team. Letters of commitment from partners and an indication of whether some or all have successfully worked together on other previous projects is encouraged.

2.8. Anti-Corruption Strategy (Optional): Define the anti-corruption strategy that will be applied in this project to prevent the misuse of funds. Describe the financial controls that will be put in place.

2.9 Statement of Full Disclosure: This is intended to disclose any potential conflict in accordance with the definition of "conflict" under Section 4 of this document, if any.

2.10 Other: Any other comments or information regarding the bid and its implementation.

SECTION 3: PERSONNEL

3.1 Management Structure: Describe the overall management approach toward planning and implementing the contract. Include an organization chart for the management of the contract, if awarded.

3.2 Staff Time Allocation: Provide a spreadsheet will be included to show the activities of each personnel involved in the implementation of the contract. Where the expertise of the personnel is critical to the success of the contract, UNDP will not allow substitution of personnel whose qualifications had been reviewed and accepted during the bid evaluation. (If substitution of such a personnel is unavoidable, substitution or replacement will be subject to the approval of UNDP. No increase in costs will be considered as a result of any substitution).

3.3 Qualifications of Key Personnel. Provide the CVs for key personnel (Team Leader, Managerial and general staff) that will be provided to support the implementation of this project. CVs should demonstrate qualifications in area of expertise relevant to the Contract. Please use the format below:

Name:		
Role in Contract Implementation:		
Nationality:		
Contact information:		
Countries of Relevant Work Experience:		
Language Skills:		
Education and other Qualifications:		
Summary of Experience: *Highlight experience in the region and on similar projects.*		
Relevant Experience (From most recent):		
Period: From – To	**Name of activity/ Project/ funding organisation, if applicable:**	**Job Title and Activities undertaken/Description of actual role performed:**
e.g. June 2010-January 2011		
Etc.		
Etc.		
References (minimum of 3):	*Name* *Designation* *Organization* *Contact Information – Address; Phone; Email; etc.*	

Declaration:

I confirm my intention to serve in the stated position and present availability to serve for the term of the proposed contract. I also understand that any wilful misstatement described above may lead to my disqualification, before or during my engagement.

_____

_____

Signature of the Nominated Team Leader/Member Date Signed

Section 7: Price Schedule Form[17]

The Bidder is required to prepare the Price Schedule as indicated in the Instruction to Bidders.

The Price Schedule must provide a detailed cost breakdown of all goods and related services to be provided, from unit price to lot prices. Separate figures must be provided for each functional grouping or category, if any.

Any estimates for cost-reimbursable items, such as travel of experts and out-of-pocket expenses, should be listed separately.

The format shown on the following pages is suggested for use as a guide in preparing the Price Schedule. The format includes specific expenditures, which may or may not be required or applicable but are indicated to serve as examples.

A. **Cost Breakdown per Deliverable Items***

No.	Deliverables *[list them as referred to in the ITB]*	Expected Date of Delivery/Completion	Percentage of Total Price	Price (Lump Sum, All Inclusive)
1	Deliverable 1		[Percentage (weight) of each deliverable over the total price for the payment purposes, as per ITB)	
2	Deliverable 2			
3	….			
	Total		100%	

** This shall be the basis of payment tranches*

B. **Cost Breakdown by Cost Component:**

The Bidders are requested to provide the cost breakdown for the above given prices for each deliverable based on the following format. UNDP shall use the cost breakdown for the price reasonability assessment purposes as well as the calculation of price in the event that both parties have agreed for additional set of goods and/or related services.

Deliverables and Sub-Components	(a) Quantity	Country	(b) Unit	(c)=(a)x(b) Total Cost of	Brief Description	(d) Cost of	(c) + (d) Total

[17] *No deletion or modification may be made in this form. Any such deletion or modification may lead to the rejection of the Bid.*

		of Origin	Price	Goods	of Related Services	Related Services	Price
I. Deliverable 1							
Sub-Component 1							
Sub-Component 2							
Sub-Component 3							
II. Deliverable 2							
Sub-Component 1							
Sub-Component 2							
Sub-Component 3							
III. Other Related Costs							
GRAND TOTAL PRICE							

Section 8: FORM FOR BID SECURITY

(This must be finalized using the official letterhead of the Issuing Bank. Except for indicated fields, no changes may be made in this template.)

To
JOF - Joint Operations Facility
Ref. JOF-0039-29582/2016
Casa das Nações Unidas no Brasil
Setor de Embaixadas Norte, Quadra 802, Conjunto C, Lote 17
Complexo Sergio Vieira de Mello, Módulo I, Prédio Zilda Arns, Salas 117 a 123
CEP 70800-400 – Brasília, DF - Brasil

WHEREAS [*name and address of Contractor*] (hereinafter called "the Bidder") has submitted a Bid to UNDP dated Click here to enter a date. , to deliver goods and execute related services for *[indicate ITB title]* (hereinafter called "the Bid"):

AND WHEREAS it has been stipulated by you that the Bidder shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security in the event that the Bidder:

a) Fails to sign the Contract after UNDP has awarded it;
b) Withdraws its Bid after the date of the opening of the Bid;
c) Fails to comply with UNDP's variation of requirement, as per ITB Section F.3; or
d) Fails to furnish Performance Security, insurances, or other documents that UNDP may require as a condition to rendering the contract effective.

AND WHEREAS we have agreed to give the Bidder such this Bank Guarantee:

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Bidder, up to a total of [*amount of guarantee*] [*in words and numbers*], such sum being payable in the types and proportions of currencies in which the Price Bid is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of *[amount of guarantee as aforesaid*] without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

This guarantee shall be valid until [insert number] days after the date of validity of the bids.

SIGNATURE AND SEAL OF THE GUARANTOR BANK

Date .....

Name of Bank .....

Address .....

Section 9: FORM FOR PERFORMANCE SECURITY[18]

(This must be finalized using the official letterhead of the Issuing Bank. Except for indicated fields, no changes may be made in this template.)

To
JOF - Joint Operations Facility
Ref. JOF-0039-29582/2016
Casa das Nações Unidas no Brasil
Setor de Embaixadas Norte, Quadra 802, Conjunto C, Lote 17
Complexo Sergio Vieira de Mello, Módulo I, Prédio Zilda Arns, Salas 117 a 123
CEP 70800-400 – Brasília, DF - Brasil

WHEREAS [*name and address of Contractor*] (hereinafter called "the Contractor") has undertaken, in pursuance of Contract No. Click to enter dated Click to enter , to deliver the goods and execute related services Click here to enter text. (hereinafter called "the Contract"):

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract:

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee:

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of [*amount of guarantee*] [*in words and numbers*], such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of *[amount of guarantee as aforesaid*] without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

This guarantee shall be valid until a date 30 days from the date of issue by UNDP of a certificate of satisfactory performance and full completion of services by the Contractor.

SIGNATURE AND SEAL OF THE GUARANTOR BANK

Date .....

Name of Bank .....

Address .....

[18] *If the RFP requires the submission of a Performance Security, which shall be made a condition to the signing and effectivity of the contract, the Performance Security that the Bidder's Bank will issue shall use the contents of this template*

Section 10: Form for Advanced Payment Guarantee[19]

(This must be finalized using the official letterhead of the Issuing Bank. Except for indicated fields, no changes may be made in this template.)

_____ *[Bank's Name, and Address of Issuing Branch or Office]*
Beneficiary: _____ *[Name and Address of UNDP]*
Date: _____ ++++++++++++++
ADVANCE PAYMENT GUARANTEE No.: _____

We have been informed that *[name of Company]* (hereinafter called "the Contractor") has entered into Contract No. *[reference number of the contract]* dated *[insert: date]* with you, for the provision of *[brief description of ITB requirements]* (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, an advance payment in the sum of *[amount in words]* (*[amount in figures]*) is to be made against an advance payment guarantee.

At the request of the Contractor, we *[name of Bank]* hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of *[amount in words]* (*[amount in figures]*)[20] upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation under the Contract because the Contractor has used the advance payment for purposes other than toward providing the goods and related services under the Contract.

It is a condition for any claim and payment under this guarantee to be made that the advance payment referred to above must have been received by the Contractor on its account number _____ at *[name and address of Bank]*.

The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Contractor as indicated in copies of certified monthly statements which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of the monthly payment certificate indicating that the Consultants have made full repayment of the amount of the advance payment, or on the __ day of _____, 2___, 20__ whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 458.

_____
[signature(s)]

Note: All italicized text is for indicative purposes only to assist in preparing this form and shall be deleted from the final product.

[19] *This Guarantee shall be required if the Contractor will require advanced payment of more than 20% of the contract amount, or if the absolute amount of the advanced payment required will exceed the amount of USD 30,000, or its equivalent if the price offer is not in USD, using the exchange rate stated in the Data Sheet. The Contractor's Bank must issue the Guarantee using the contents of this template.*

[20] *The Guarantor Bank shall insert an amount representing the amount of the advanced payment and denominated either in the currency/ies of the advanced payment as specified in the Contract.*