

**Request for Information  
Steel Founding**



**Company name:** \_\_\_\_\_

**Contact Person** (Surname, name, patronymic, and job position): \_\_\_\_\_

**Tel./Fax:** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

**Country:** \_\_\_\_\_ **City:** \_\_\_\_\_

**1) Tasks to be tackled To be completed!**

- |  |   |
|--|---|
| <input type="checkbox"/> to increase melt fluidity   | <input type="checkbox"/> to improve the wear resistance of castings |
| <input type="checkbox"/> to decrease the probability of crack formation                                      | <input type="checkbox"/> to enhance the impermeability of castings  |
| <input type="checkbox"/> to improve casting surface quality  | <input type="checkbox"/> to improve the machinability of castings   |
| <input type="checkbox"/> to enhance mechanical properties  | <input type="checkbox"/> other (to be indicated)                    |
| <input type="checkbox"/> to increase the hardness and impact strength of castings<br>at subzero temperatures |   |

**2) Steel grades (Please indicate one or more grades of steel; indicate production volume of steel per month):**

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Low-alloy steel<br>_____ t | <input type="checkbox"/> Medium-alloy steel<br>_____ t | <input type="checkbox"/> High-alloy steel<br>_____ t |
| <input type="checkbox"/> Carbon steel<br>_____ t    | <input type="checkbox"/> Other<br>_____ t              |  |

**3) Smelting vessel:**

- |   |  |
|---|--|
| <input type="checkbox"/> Induction furnace<br>Capacity: _____<br>Lining:<br><input type="checkbox"/> Acid <input type="checkbox"/> Basic <input type="checkbox"/> Neutral | <input type="checkbox"/> Electric arc furnace<br>Capacity: _____<br>Lining:<br><input type="checkbox"/> Acid <input type="checkbox"/> Basic <input type="checkbox"/> Neutral |
|---|--|

**4) Casting/molding method:**

- |   |   |
|---|---|
| <input type="checkbox"/> green sand casting                   | <input type="checkbox"/> no-bake casting    |
| <input type="checkbox"/> die casting                          | <input type="checkbox"/> pressure casting   |
| <input type="checkbox"/> centrifugal casting                  | <input type="checkbox"/> shell mold casting |
| <input type="checkbox"/> investment casting                   | <input type="checkbox"/> lost foam casting  |
| <input type="checkbox"/> other technologies (to be indicated) |   |

**5) Molding equipment** (describe its components indicating their make and model, clear dimensions of the mold boxes, production rate; if there are several sets of equipment available, information to be provided for each separately):

**make and model:** \_\_\_\_\_ **capacity:** \_\_\_\_\_ **mold box dimensions:** \_\_\_\_\_

**6) Capacity and types of available ladles:**

tea pot ladle \_\_\_\_\_ t       stopper ladle \_\_\_\_\_ t       two-stopper ladle \_\_\_\_\_ t       ladle with sliding gate valve \_\_\_\_\_ t       cylindrical cylindrical \_\_\_\_\_ t

tilting ladle \_\_\_\_\_ t

**6.1) Capacity and type of ladle to be used for inoculation (to be indicated):** \_\_\_\_\_ t, \_\_\_\_\_ type

**7) Wire feeder:**

Single strand wire feeder       Twin strand wire feeder       None

**8) Argon treatment equipment:**

Stationary       Portable

**9) Casting(s) requiring inoculation (process parameters for making irons):**

- alloy grade to be inoculated \_\_\_\_\_;

- foundry returns as part of charge materials, % \_\_\_\_\_;

- residual calcium content:

0.002% and less       0.002% and more

- residual aluminum content:

0.02% and less       between 0.02 and 0,05%       0.05% and more

- phosphorus and sulfur content in molten metal prior to inoculation (to be indicated): S \_\_\_\_\_ %, P \_\_\_\_\_ %;

- temperature of molten metal being tapped (to be indicated): \_\_\_\_\_ °C;

- temperature of molten metal being poured into molds (to be indicated): \_\_\_\_\_ °C;

- weight of casting(s) produced \_\_\_\_\_ kg;

- castings per mold \_\_\_\_\_ pcs.;

- minimum wall thickness of casting(s) produced \_\_\_\_\_;

- maximum wall thickness of casting(s) produced \_\_\_\_\_;

- casting/molding method \_\_\_\_\_;

**11) Inoculation practice (if any):**

**11.1) Inoculant being used (manufacturer's name, grade to be indicated):**

**11.2) Duration of pouring of the molten steel following its inoculation:**

10 min. and less       between 10 and 15 min.       15 min. and more

**19) QA/QC:**

Laboratory for testing molding materials       Metallography laboratory

Mechanical laboratory       NDE laboratory

Chemical laboratory