Subject: Clarifications regarding the tender «for the supply and commissioning of two (2) four-rope orange peel mechanical grabs for ThPA S.A.»

Request for clarification:

The grab would have a **dead weight of 12,5 t.** Therefore, we would like to ask if the crane capacity of 30t is fixed, or if we can assume a lower piled density of the material to fulfil the tender to the most.

Our options would be:

1. Material density = 1,4 t/m³
   Volume of grab = 14 m³
   In this case we would need a **crane capacity of 32,0 t (instead of 30t)**
2. Volume of grab = 14,0 m³
   Crane capacity = 30,0 t
   In this case we assume a **piled density of the material of 1,25 t/m³ instead of 1,4 t/m³**
3. Crane capacity = 30,0 t
   Material density = 1,4 t/m³
   In this case we assume a **grab volume of 12,5 m³**

In all options we cannot comply completely to the tender specification. Which option is the most suitable for your operation and to which we could agree?

Answer on the request:

Clarifications are provided below in blue font color, according to tender requirements.

1.4 → Density of product: Scrap Iron **up to 1,4 ton/m3 (compressed)**, usually scrap density is less than 1,4t/m^3, around 1,0 to 1,2t/m^3 or even less.

1.6 →Crane Lifting Capacity: 30ton, the scrap grabs will be used by a wide variety of cranes, the smaller of which with a 30t lifting capacity.

2.1 → Scrap Grab Min Water Volume, 100% closed: **14,0m^3**, this is the min water volume required.

2.2 → Scrap Grab approximate Dead Weight: **12,0 ton** (**+/-1,0t**), 12,5t < 13,0t (12+1)

Considering the above, a scrap grab of 14,0m^3 water volume and 12,5t dead weight, complies fully with the above specifications.