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Intelligent guides for a  
brand is ready  
guides for a  
to make the  
Bearing Mod  
roller holder  
process. Th

**KEYWORDS:** ROLLX, WSG, INTELLIGENT GUIDES, BMS, INDUSTRY 4.0, HMI

**Roller guide too tight** Increasing forces on both the body with possible bushing deformation and the bearing with possible breakage;

**Roller guide too loose** The bar is neither correctly guided nor free to move without homogeneous roller wear and roll wear. This wrong setting can affect the final bar quality and tolerance.

**Roller guide misaligned with the groove** This can happen on the rolling mill finishing stands, especially on vertical ones where the alignment is made in an horizontal configuration before tilting. In operation on the blocks due



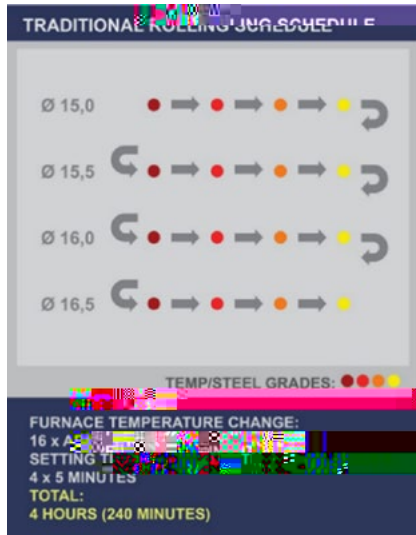


Fig.9 - Traditional rolling schedule.

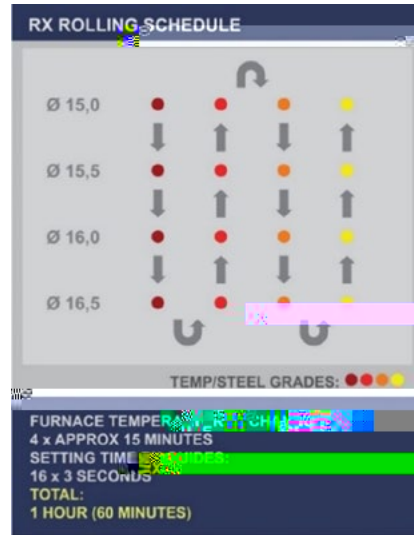


Fig.10 - RX rolling schedule.

**WSG – Intelligent guide for the FFB**

As per the RX on the rolling mill, the setting can be set up automatically also in the WSG thanks to two servo motors. Due to the maximum precision requested in the FFB we

decided to use two motors in order to control and move independently the position of the left or right roller holders.

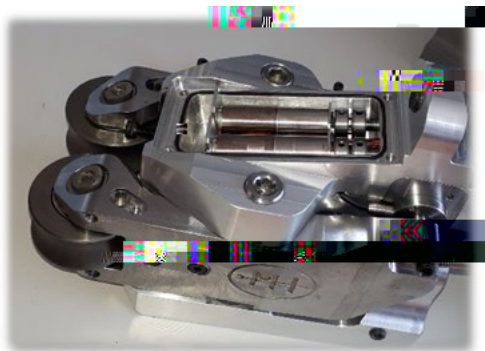


Fig.11 - Motors and sensors on WSG.

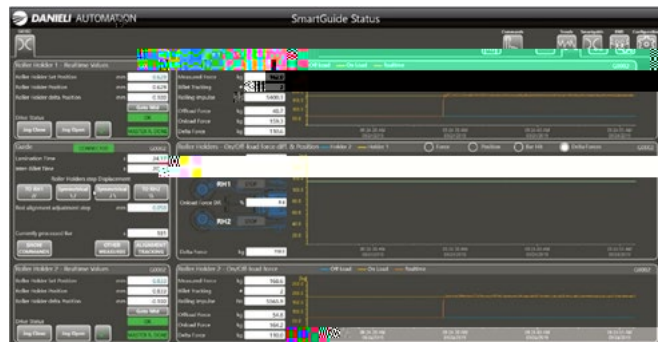


Fig.12 - HMI control.

Two force sensors measure the value of pressure from the bar and the possible misalignment with respect to the groove (detecting the force each side).

We can define different bar's pressure according to steel grade, and control the forces in order to avoid problems on the roller guide.

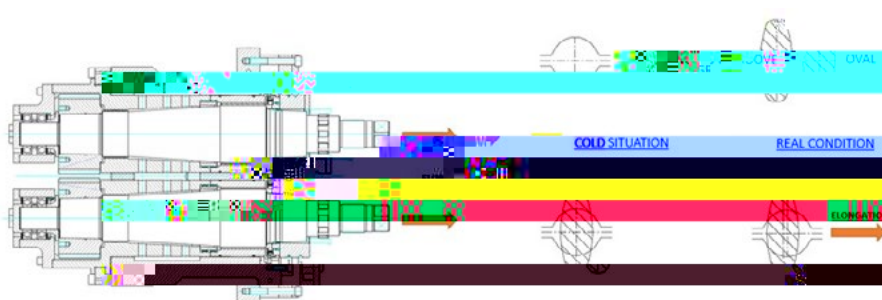


Fig.13 - Block elongation.

Moreover, the FB, during this means while the ri detect also and adjust it correctly.

Now we're This isn't of process.

### NEW BMS

Another to the BMS. We applied holder), and the slot on (rpm). If the rpm



All the Int equipped v all standard

[TORNA ALL'INDICE >](#)