



Customer: EGO

Job:  
EG 2506 FGZ 11

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Rev. 0


## WI TOWER - VALVE STABILIZATION TRIANGLE TECHNICAL REPORT

REV.	DATE	DESCRIPTION	ORIGINATOR	TECNO CHECK	TECNO APPROVAL
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## 1. INTRODUCTION

### PREFACE


Present relation refers to structural verification performed on stabilization triangle for WI Tower valve.

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**REFERENCE DOCUMENTATION**

Following the reference technical documents:

- /1/ EGO-DWG-VAC-LNK-501-1 STIFFENING VALVE-Gr-5
- /2/ EGO-DWG-VAC-LNK-500-0 STIFFENING VALVE-Gr-5

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## 2. STRUCTURAL CHECK

With reference to Figure 1:

$h = 1100 \text{ mm}$

$a = 1090 \text{ mm}$

$b = 750 \text{ mm}$

load applied on tie stiffener derived from Valve and is supposed to be  $F = 113 \text{ kN}$ .

As a result of equilibrium analysis, pull rod total reaction is  $102.5 \text{ kN}$ .

Assuming a conservative load of  $S = 102.5 * 0.6 = 61.5 \text{ kN}$  on a single rod, the following checks was conducted.

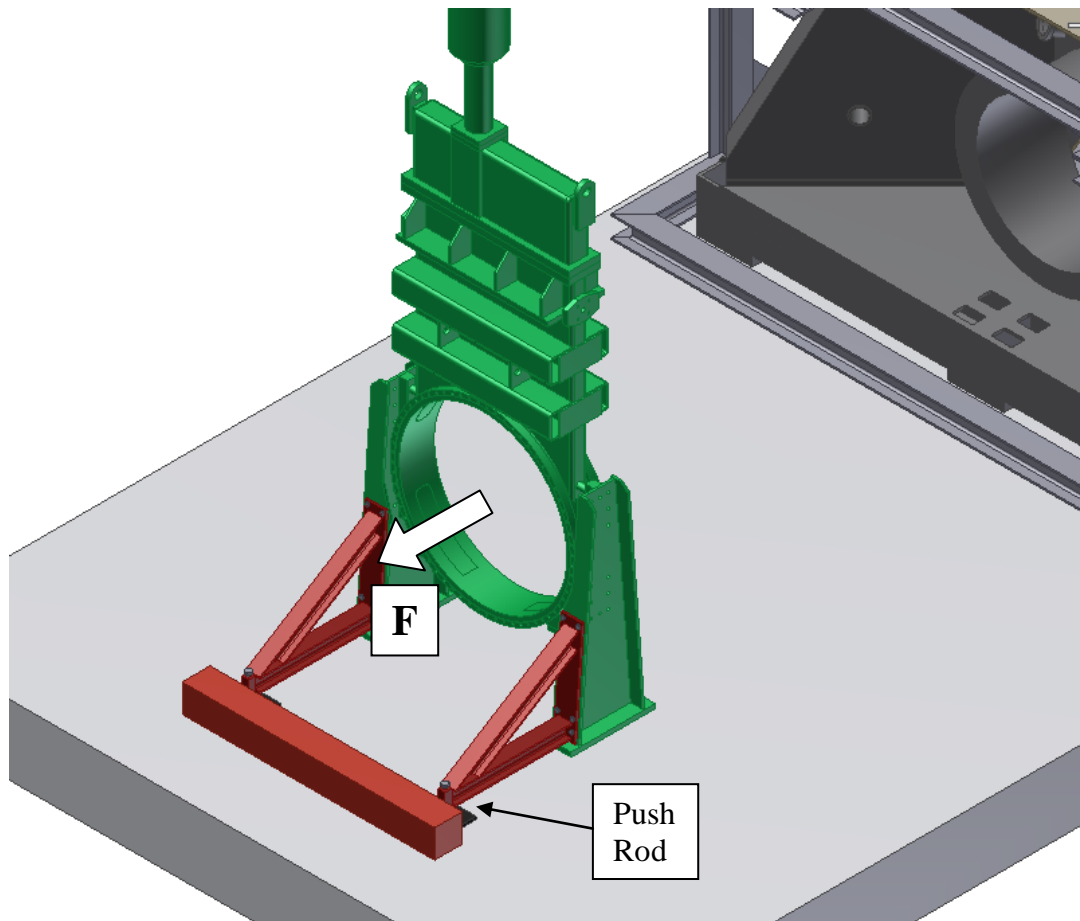

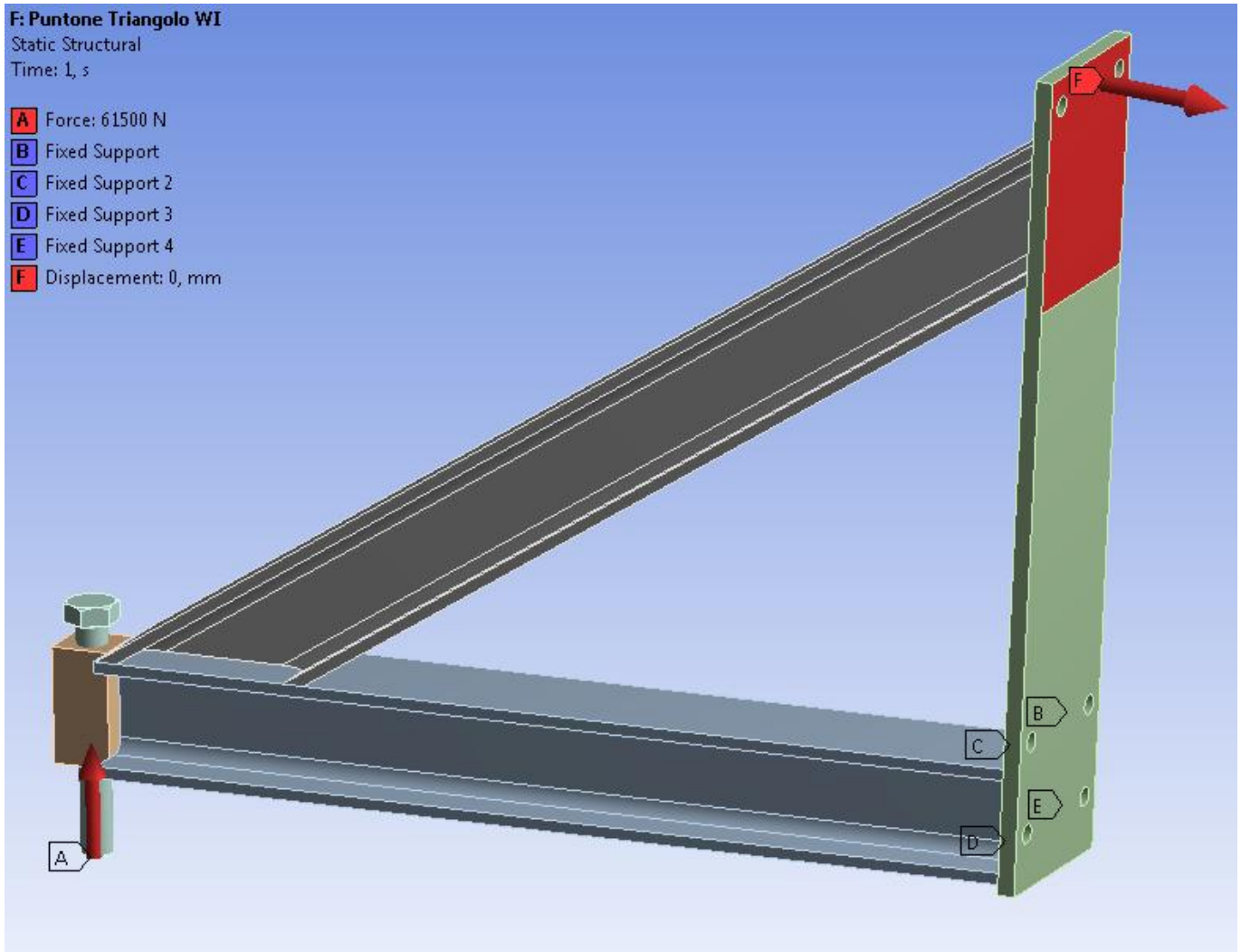


Figure 1: Load Scheme

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## 2.2 Triangle FEM Model Analysis



**Figure 2: load configuration**

Material of this item is S235 J0. As shown by following pictures, no problem occurs in such a load configuration. Zones exceeding admissible stress are negligible.

**F: Puntone Triangolo WI**

Equivalent Stress

Type: Equivalent (von-Mises) Stress

Unit: MPa

Time: 1

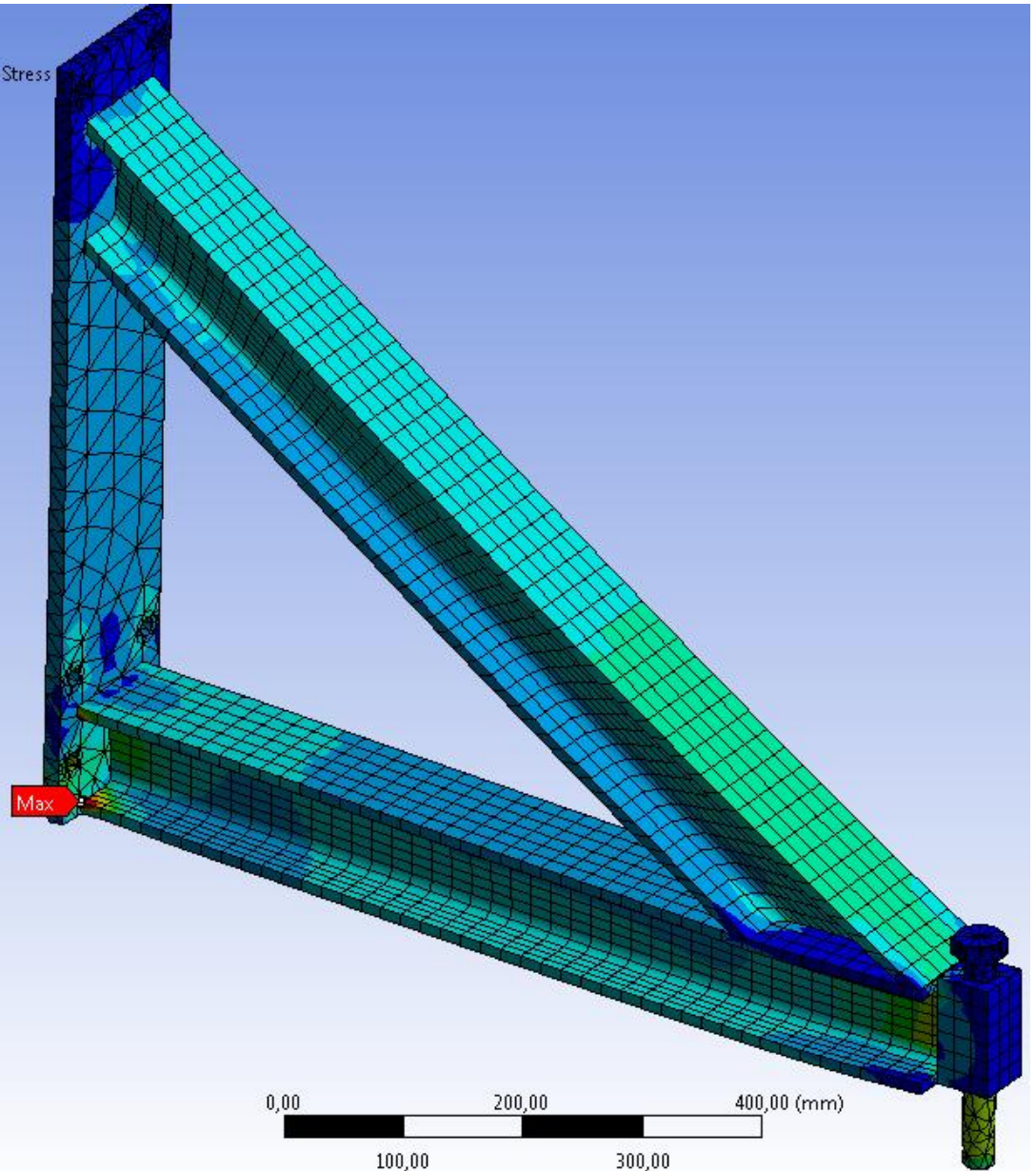
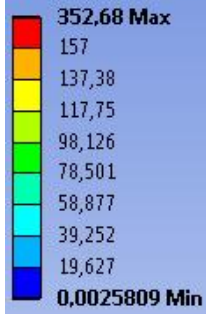


Figure 3: Fixing Tie Von Mises stress

### 3. CONCLUSIONS

As shown by previous checks, verifications are completely satisfied.