

Università degli Studi di Padova – Dipartimento di Ingegneria Industriale

Corso di Laurea in Ingegneria Meccanica

***Relazione per la prova finale***  
***ANALISI E MODELLAZIONE DELLA VASCA DI***  
***ALIMENTAZIONE DI IMPIANTI DI COLLAUDO DI***  
***MACCHINE IDRAULICHE***

Tutor universitario:

Prof.ssa Giovanna Cavazzini

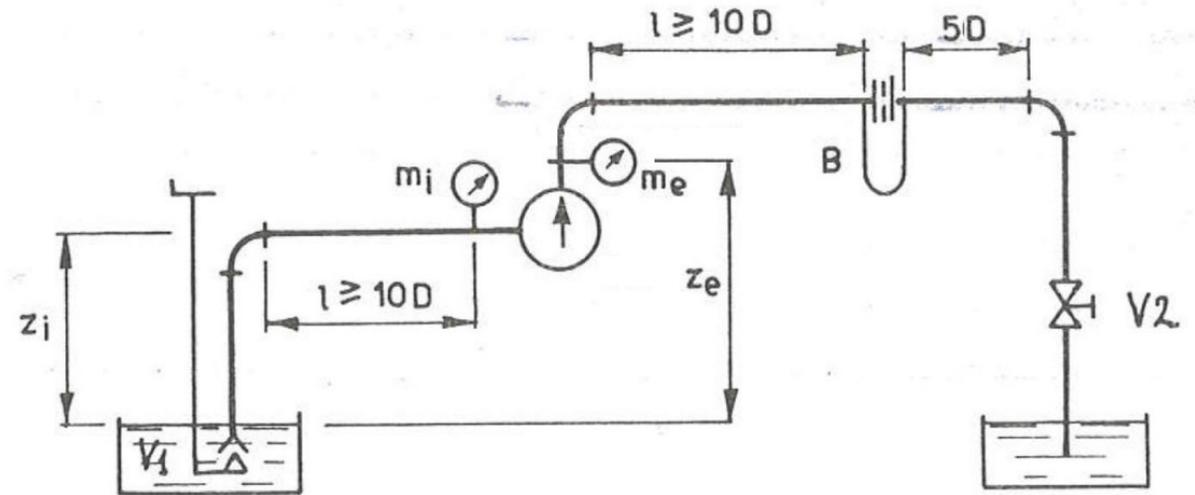
Ing. Giacomo Zanetti

Laureando: *Maddalena Vestidello*

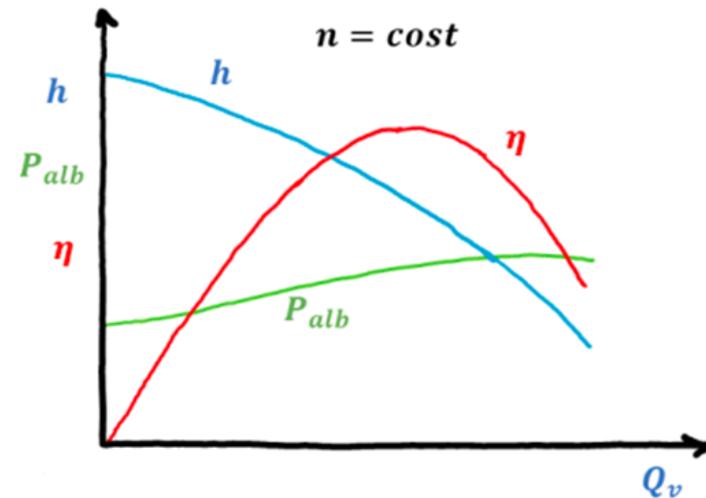
Padova, 24/11/2023

Regole generali:

- Lunghezza tubi
- Pelo libero serbatoi
- 2 valvole
- Misuratori di pressione e portata



*Impianto di collaudo*



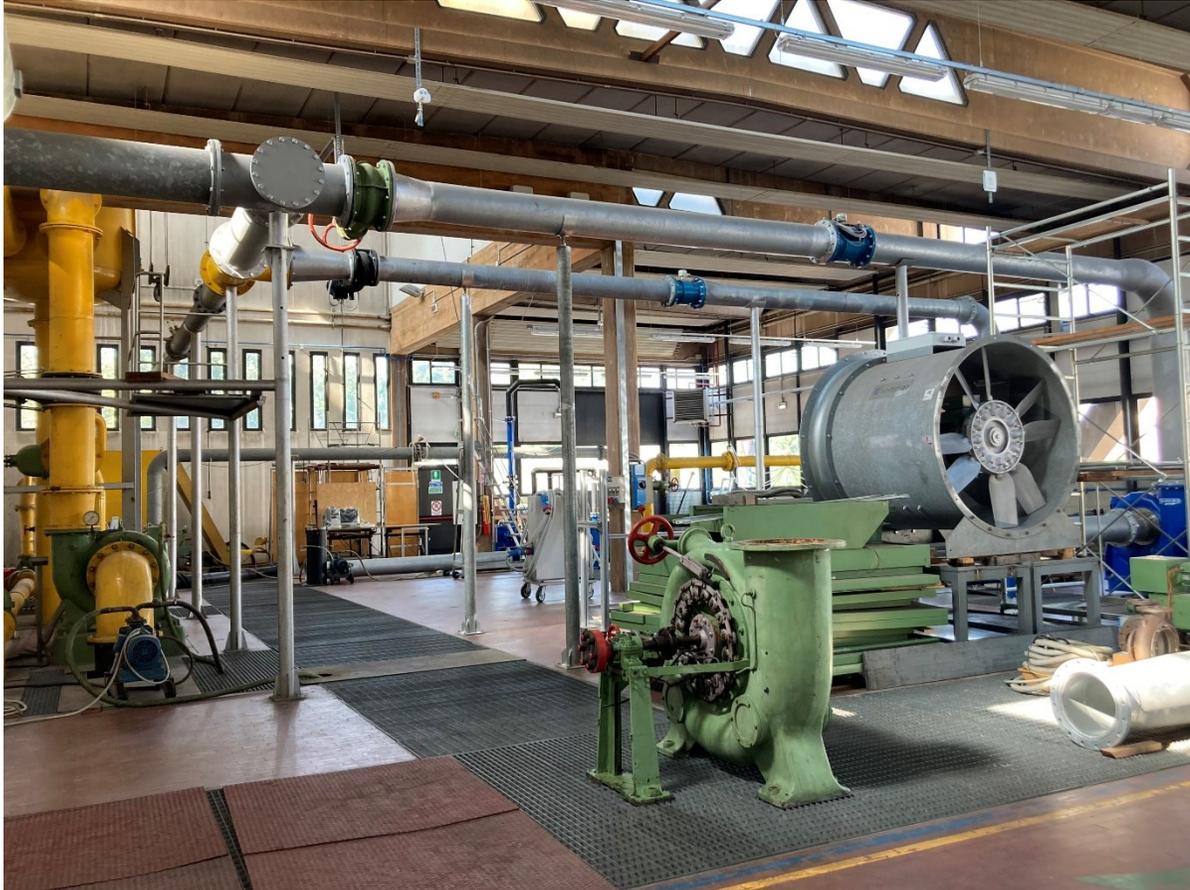
*Curve caratteristiche*

### **Obiettivo:**

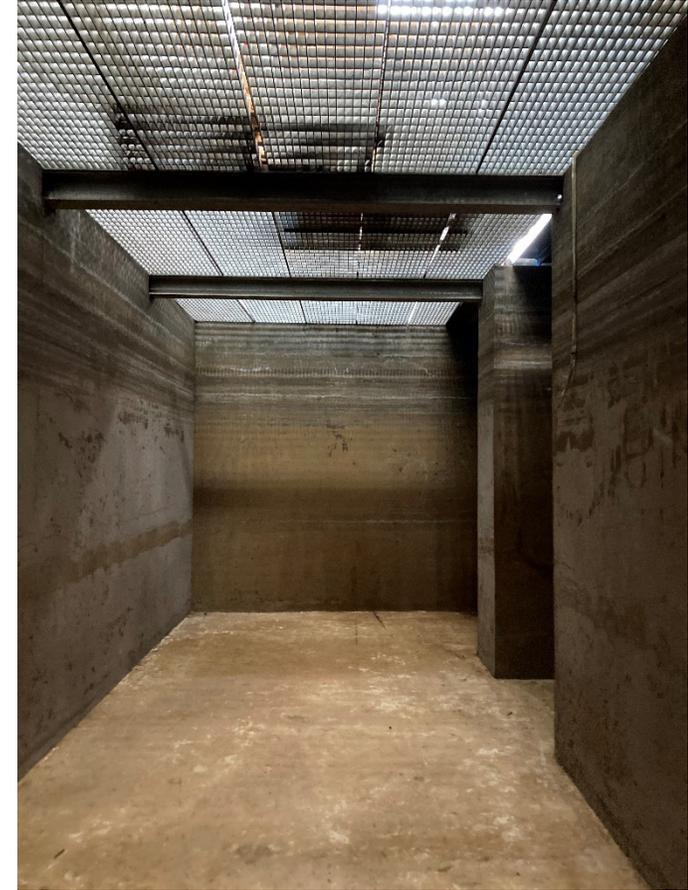
- Aggiornamento della planimetria della vasca del laboratorio di collaudo di macchine idrauliche.

### **Svolgimento:**

- Misurazioni diretta della vasca
- Realizzazione modello 3D
- Messa in tavola del modello



Laboratorio con le grate della vasca



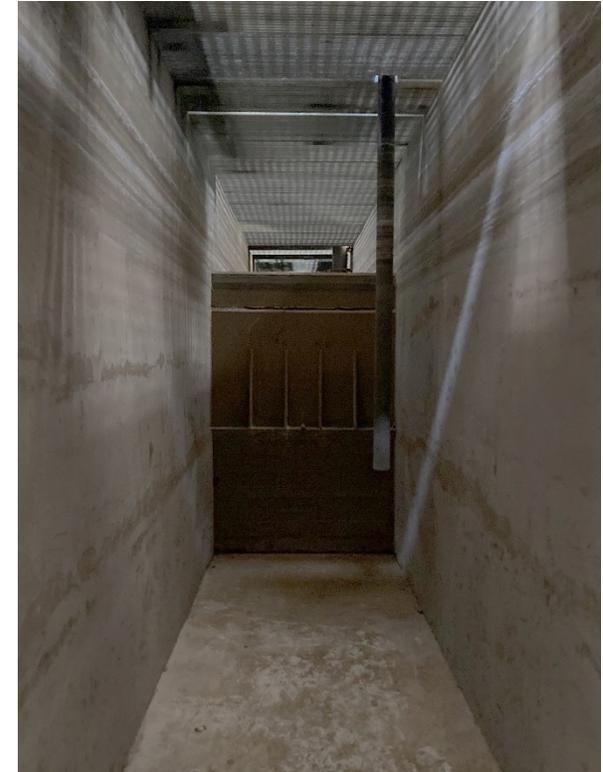
Interno vasca



Punto di accesso alla vasca



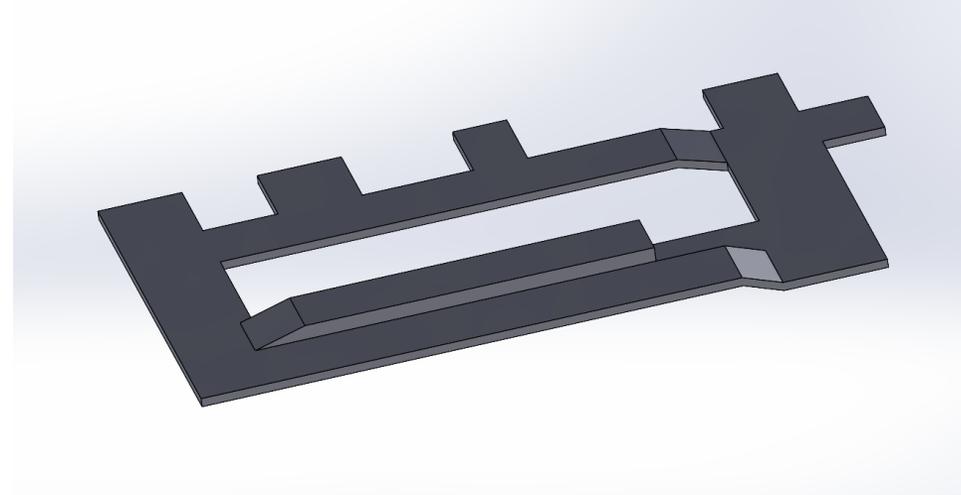
Paratia



Smorzatore

## Prima parte del modello

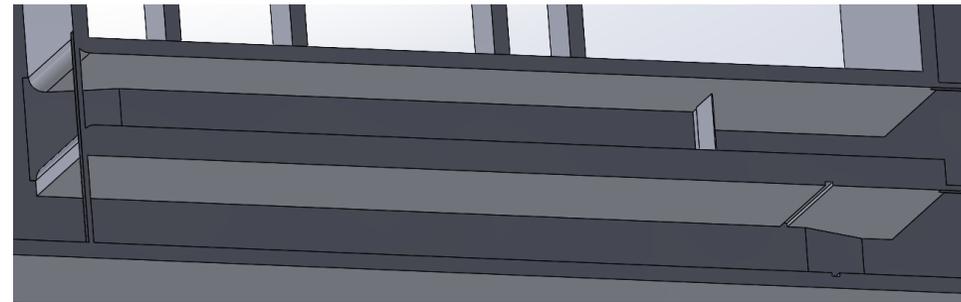
- Base
- Rampe
- Muri
- Divisorio
- Smorzatore



*Base con rampe*

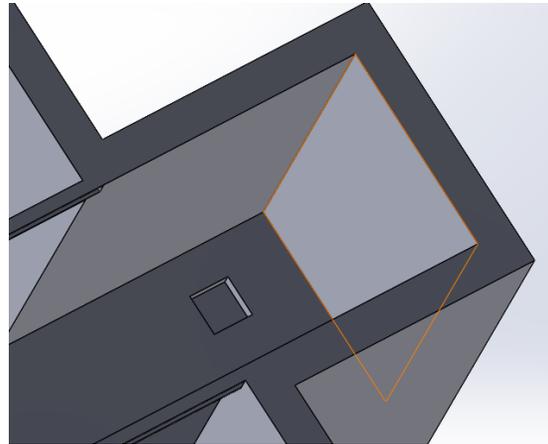


*Smorzatore*

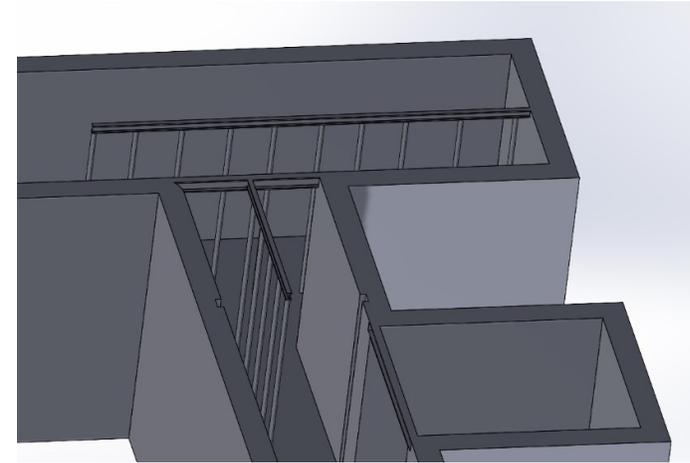


*Divisorio*

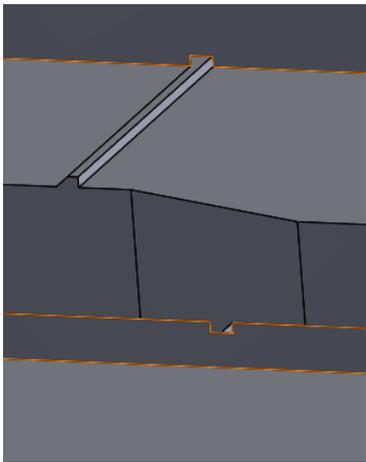
- Dettagli



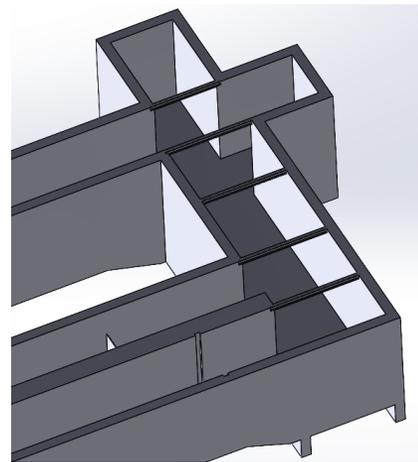
*Pozzetto*



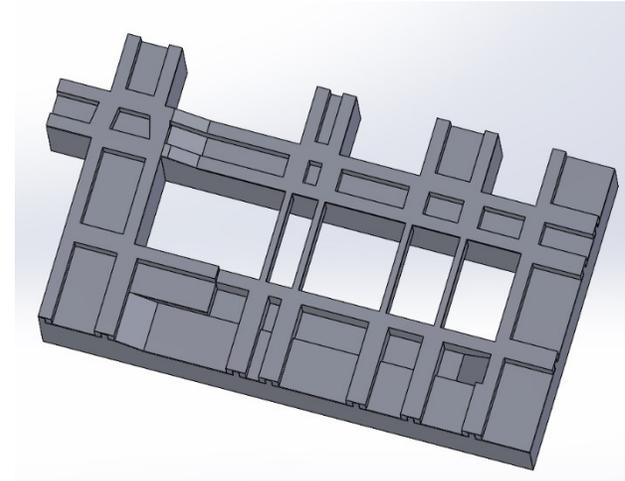
*Tubi di sostegno*



*Scanalature*



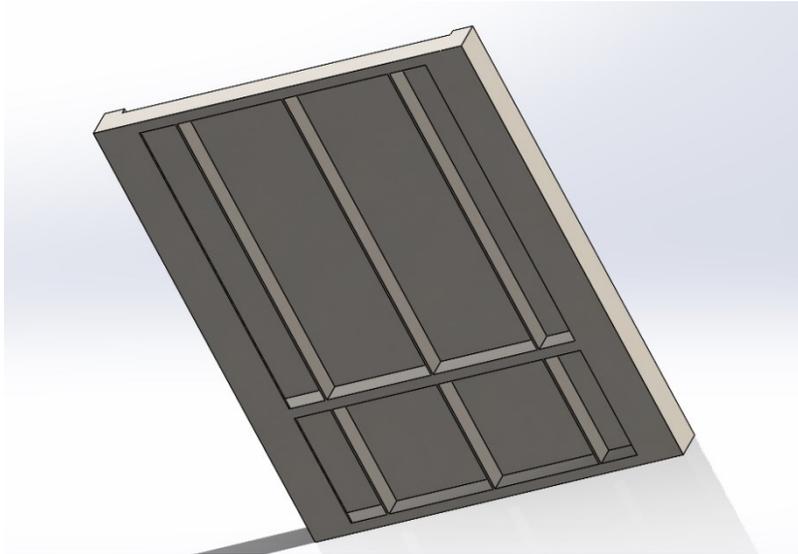
*Travi di sostegno*



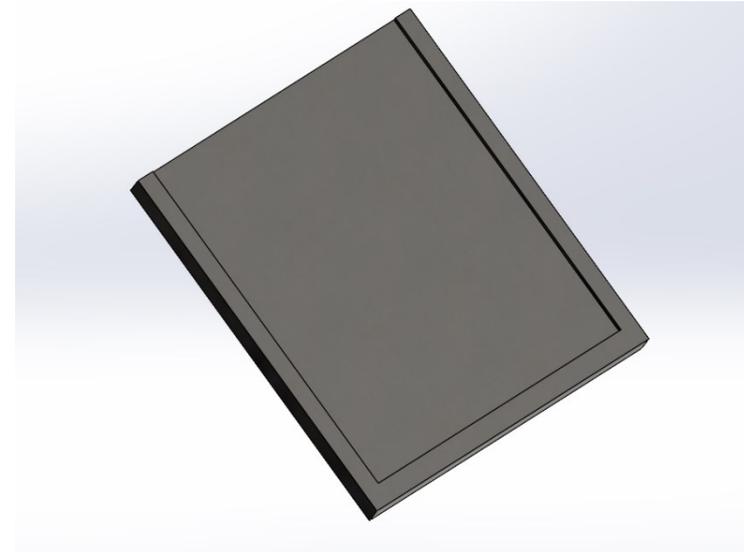
*Nervature*

## Seconda parte del modello

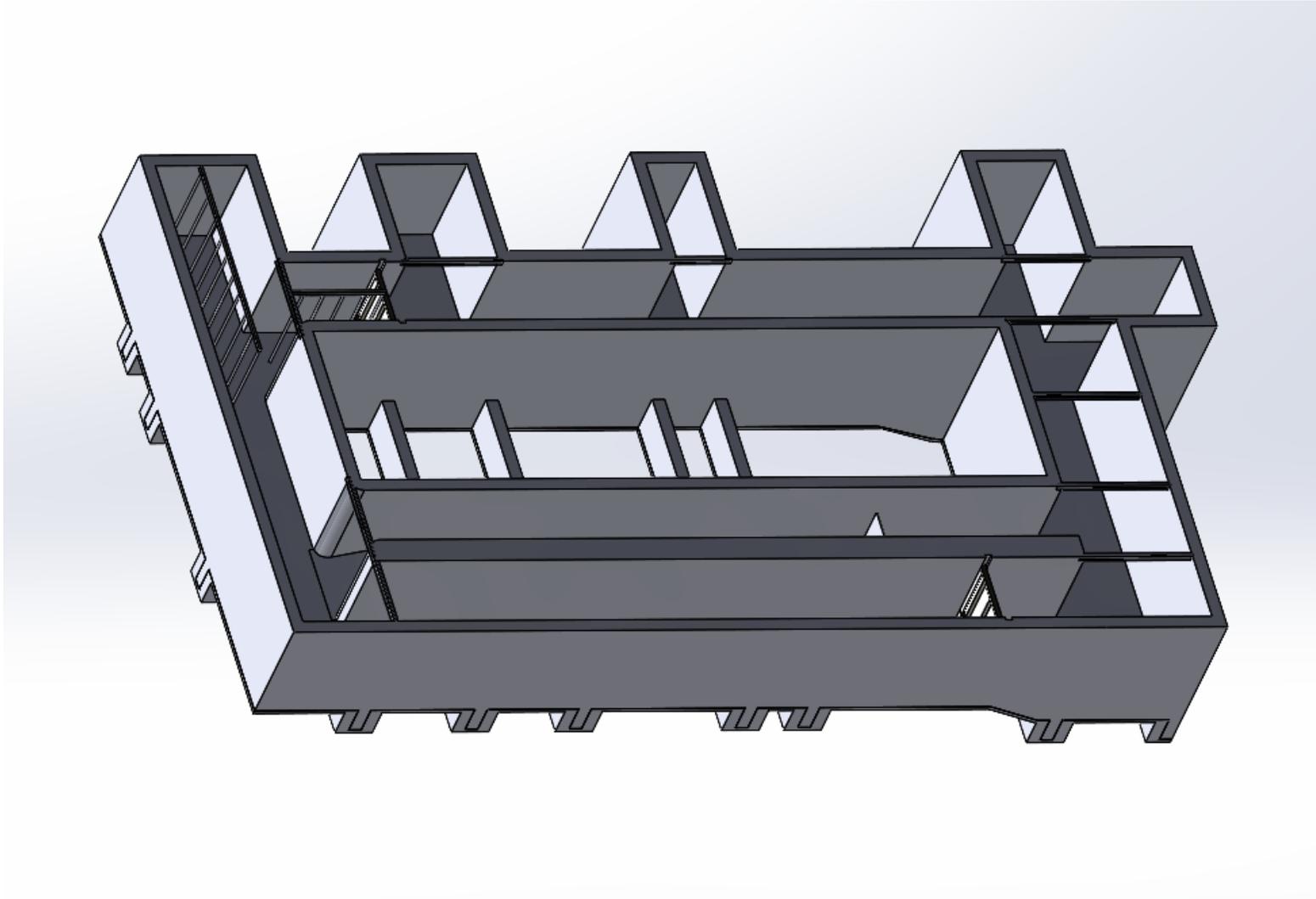
- Parte anteriore paratia
- Parte posteriore paratia



*Parte anteriore paratia*

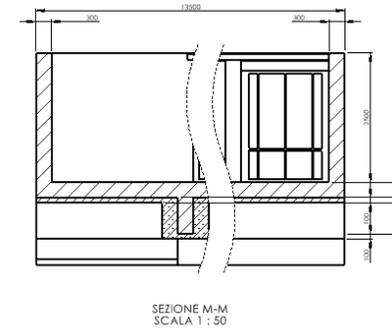
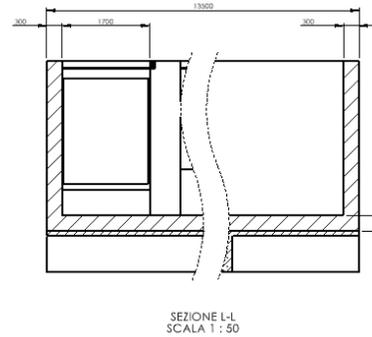
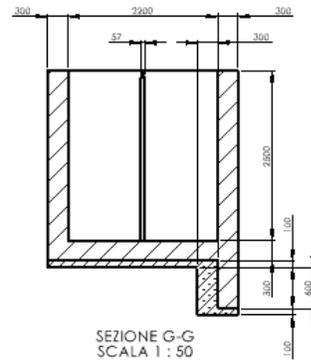
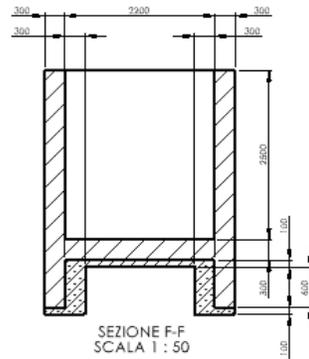
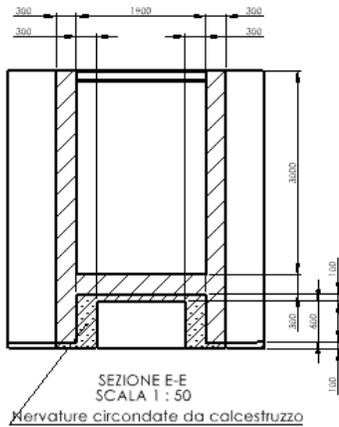
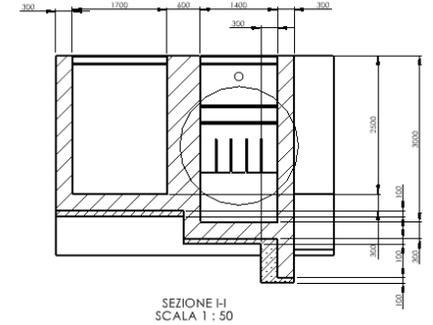
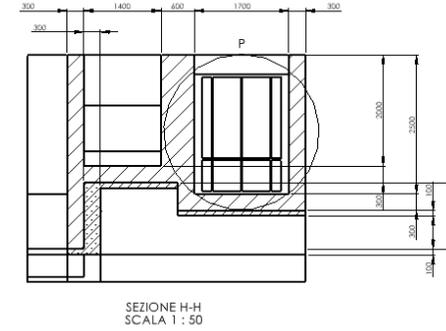
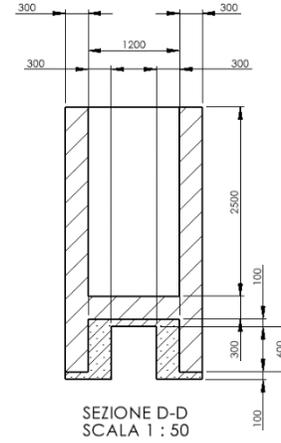
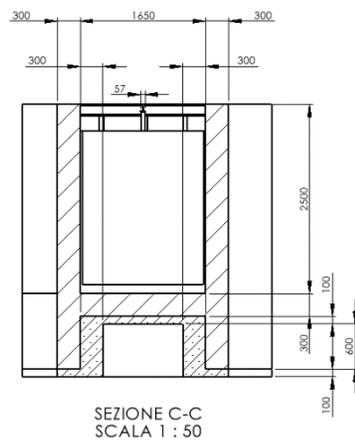
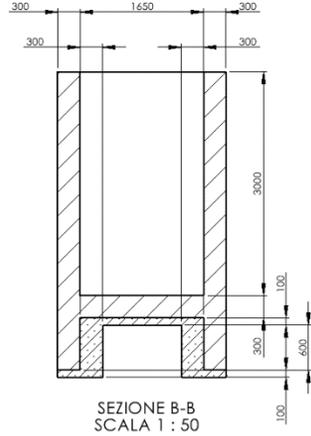
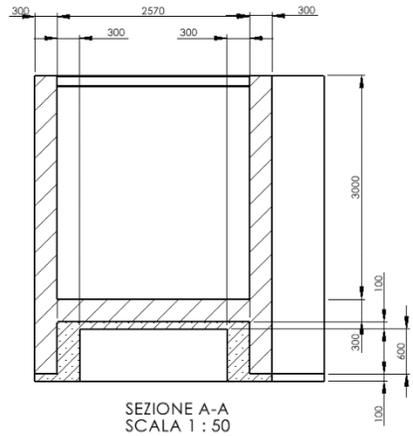


*Parte posteriore paratia*



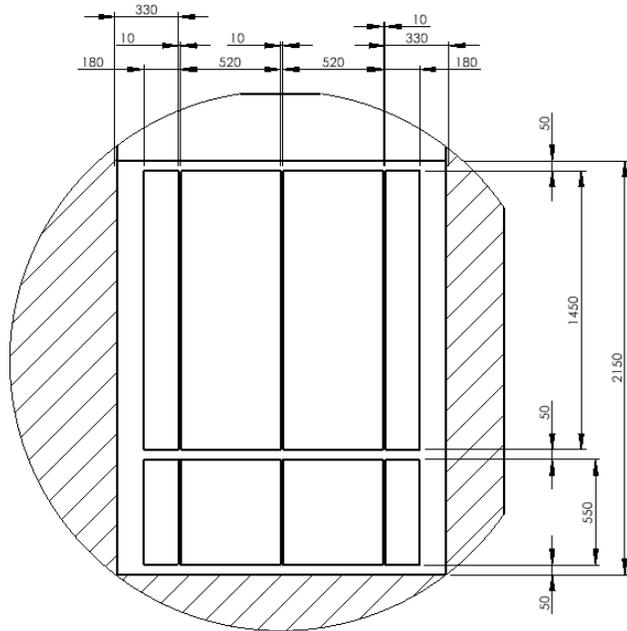
*Assieme*



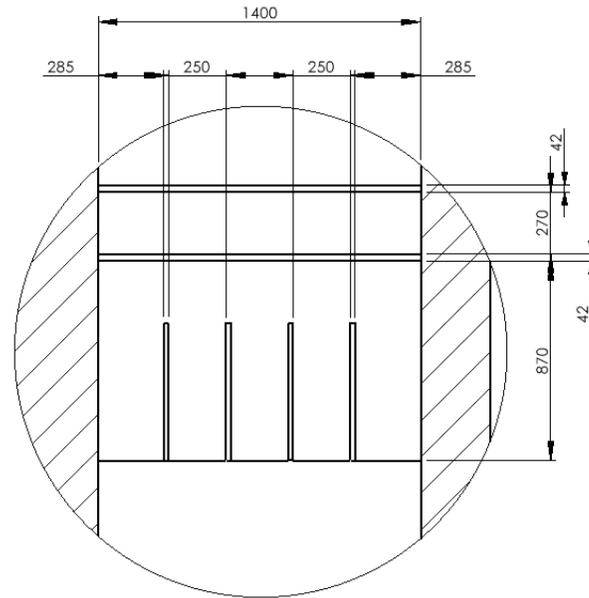


*Sezioni*

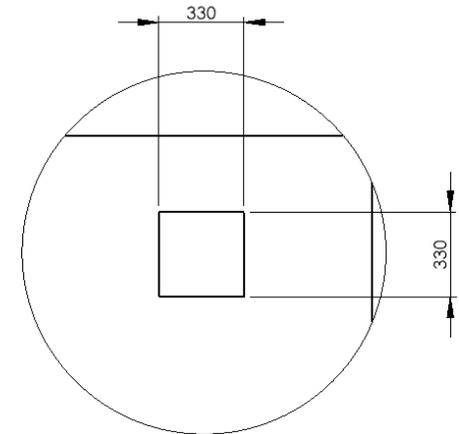
## Dettagli della tavola



DETTAGLIO P  
PARATIA  
SCALA 1 : 25



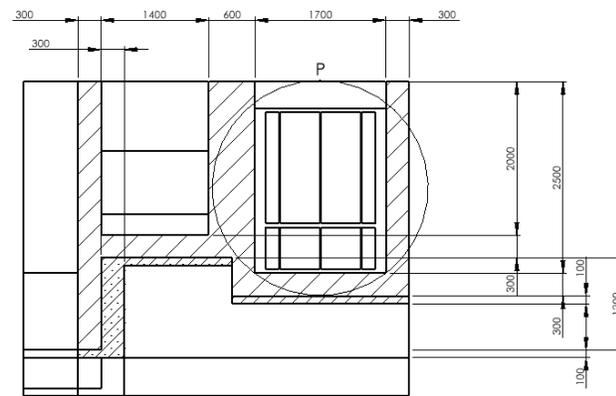
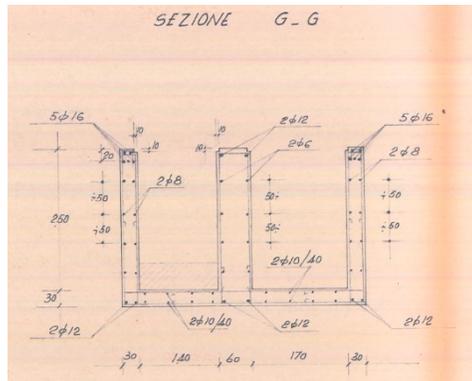
DETTAGLIO O  
SMORZATORE  
SCALA 1 : 25



DETTAGLIO N  
POZZETTO  
SCALA 1 : 25

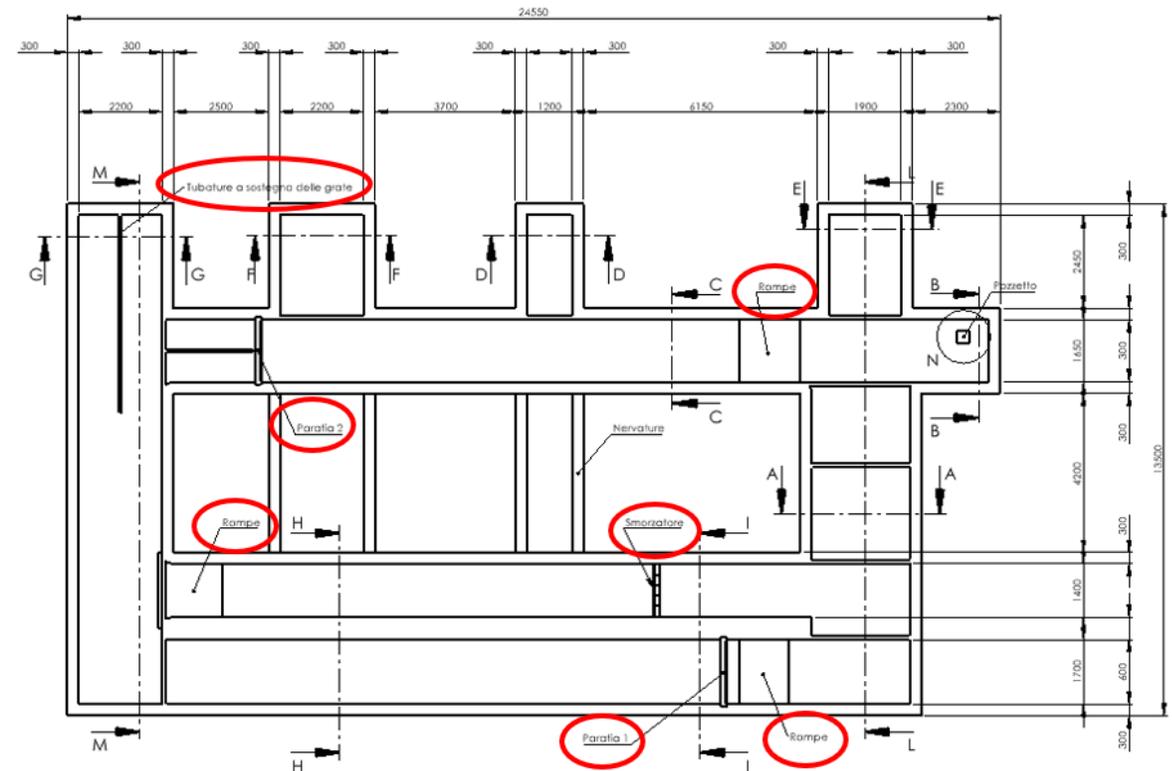
## Differenze tra vecchia e nuova planimetria:

- Rampe e dettagli aggiuntivi
- Posizione pozzetto
- Discordanze tra quote

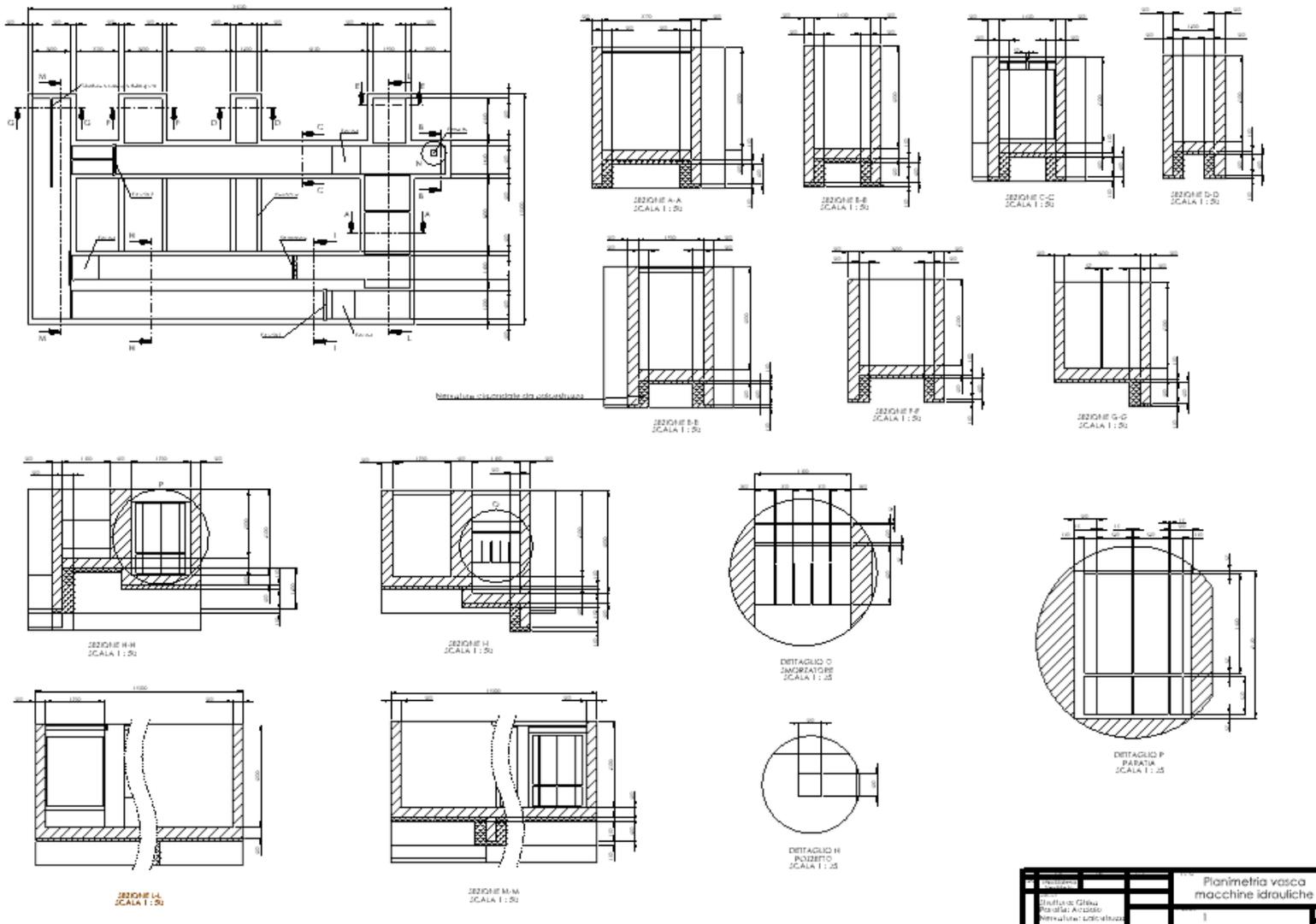


SEZIONE H-H  
SCALA 1 : 50

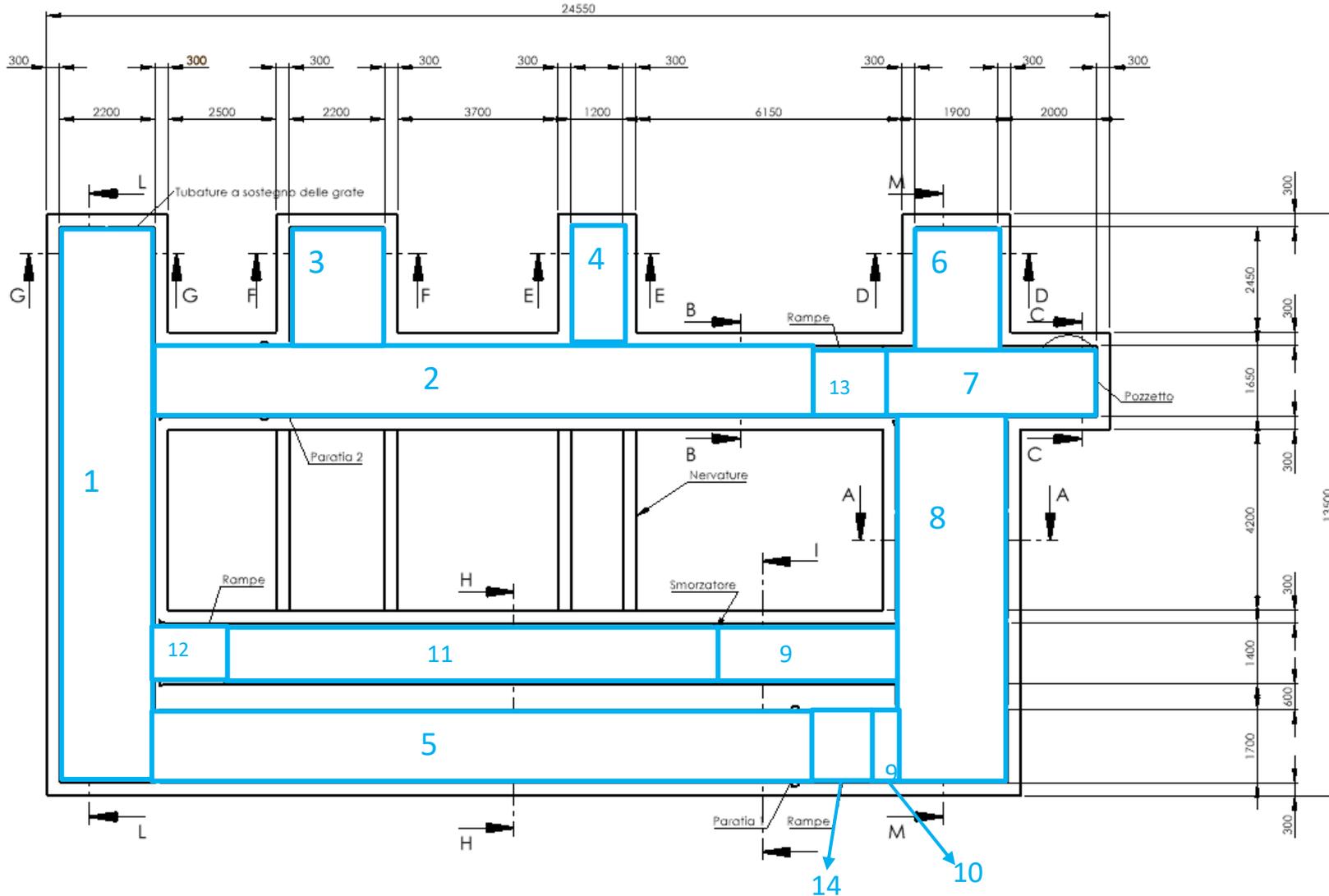
*Discordanze tra quote*



*Rampe, pozzetto, travi e tubature*



*Planimetria totale*



$Vol_{tot}$  circa 319 m<sup>3</sup>