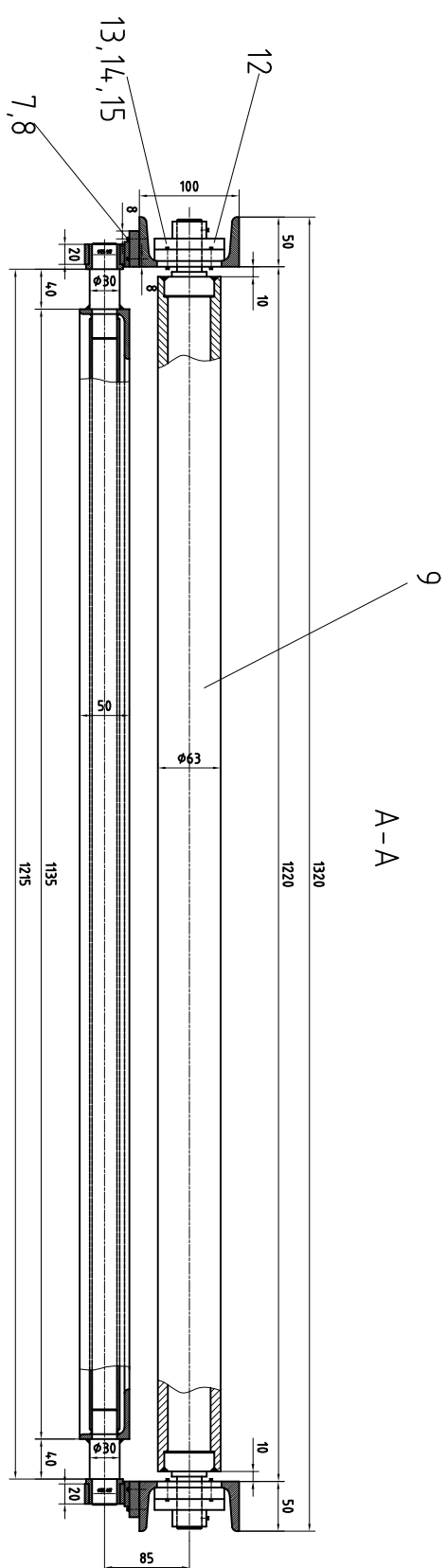
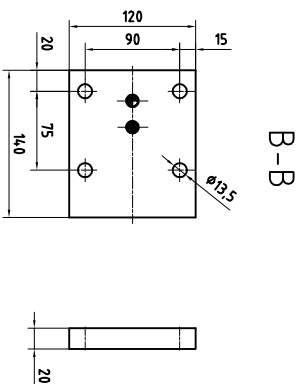
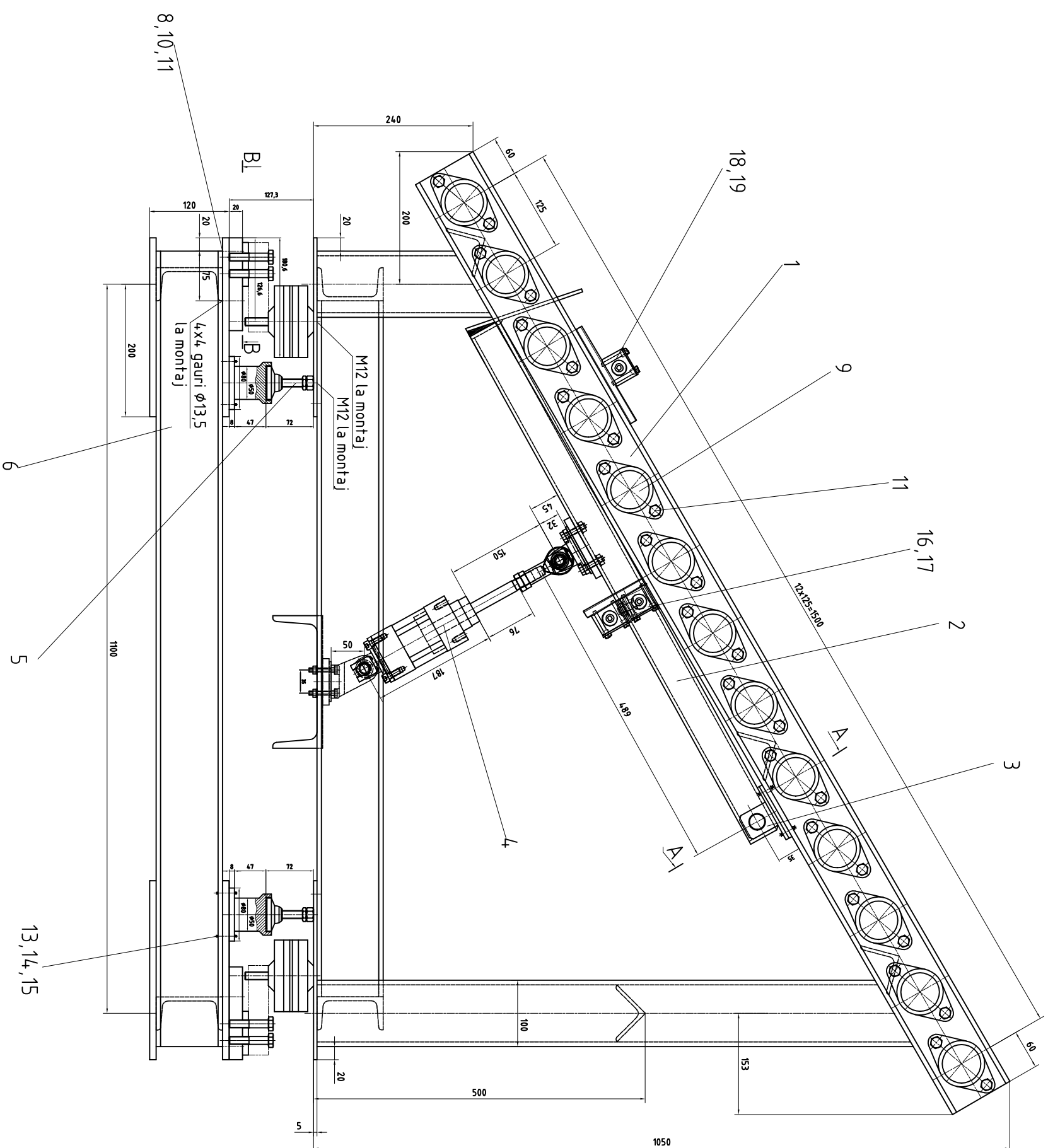
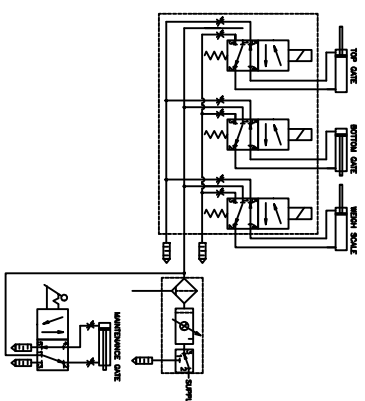




# Schema de functionare a cilindrului pneumatic



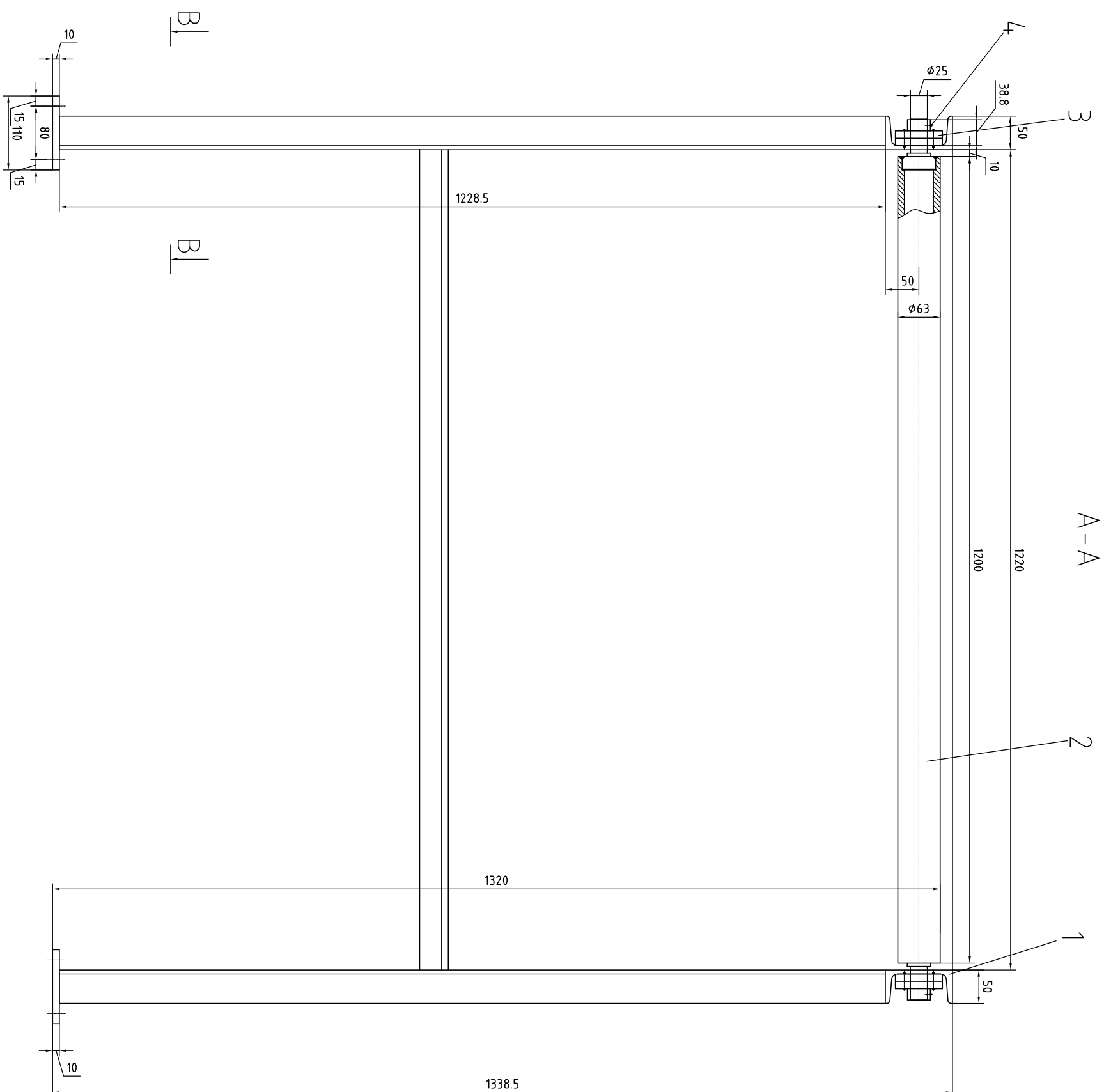
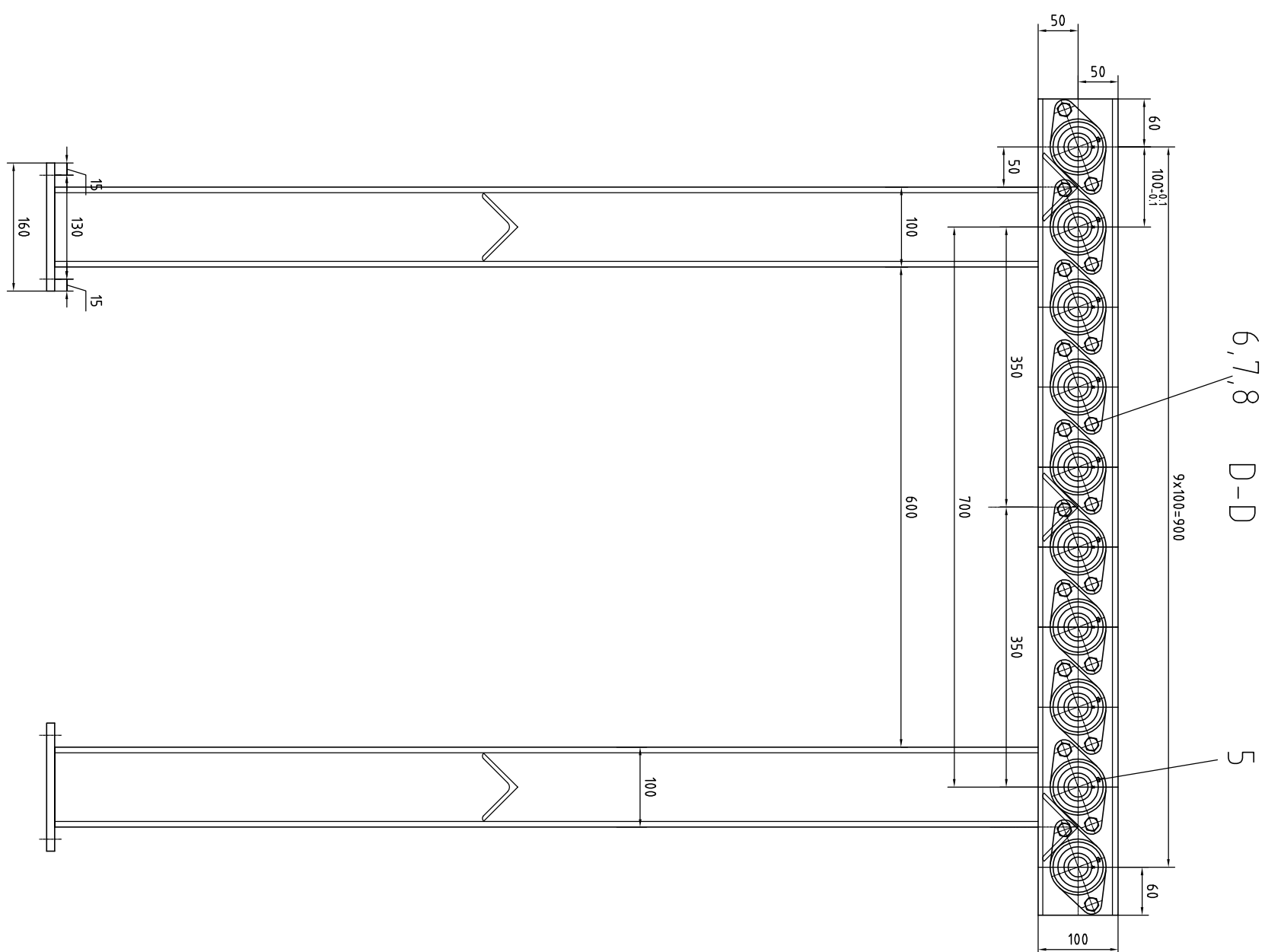
NOTA

- Cilindru pneumatic tip DNC-63-76-PPV-A-R8, fabricatie FESTO

- Pozitia Detectorilor de proximitate si a Senzorilor fotoelectrici se va stabili la montaj

|      |                                     |                   |      |          |            |                |
|------|-------------------------------------|-------------------|------|----------|------------|----------------|
| 19   | Senzor talajefectiv                 | -                 | 1    | -        | EATON      | 0,1            |
| 18   | Senzor E38-30M250-CL                | -                 | 1    | -        | EATON      | 0,1            |
| 17   | Senzor E38-30M250-GA                | -                 | 4    | -        | EATON      | 0,2            |
| 16   | Senzor P80 P8X                      | -                 | 2    | -        | EATON      | 0,11           |
| 15   | Detector de Proximitate E37-LA 30A2 | -                 | 2    | -        | -          | 0,11           |
| 14   | Pultra M10                          | SR EN 4032        | 52   | Gr-6.8   | -          | -              |
| 13   | Solba M10                           | SR 7666-294       | 52   | OLC55A   | -          | 0,002          |
| 12   | Surb M10A35                         | SR EN 4017        | 52   | Gr-6.8   | -          | 0,028          |
| 11   | Corgos C105                         | Rulment 6V25K1UP  | 26   | -        | IMA        | 0,570          |
| 10   | Loop RCHT-25                        | SR EN 4017        | 16   | Gr-6.8   | -          | 0,048          |
| 9    | Surb M12A45                         | SR EN 4032        | 16   | Gr-6.8   | -          | 0,014          |
| 8    | Radio #65-1200                      | 193/2010-142      | 13   | -        | Ans.       | 14,300         |
| 7    | Solba M12                           | SR 7666-294       | 32   | OLC55A   | -          | 0,002          |
| 6    | Surb M12A35                         | SR EN 4017        | 16   | Gr-6.8   | -          | -              |
| 5    | Support eht                         | 193/2010-155      | 1    | -        | Ans.       | 77,000         |
| 4    | Sistem cantare                      | -                 | 1    | -        | -          | 15,000         |
| 3    | Cilindru pneumatic #65,76           | 193/2010-154      | 1    | -        | FESTO      | 8,000          |
| 2    | Lager #75                           | 193/2010-153      | 2    | -        | Ans.       | 0,500          |
| 1    | Cartru oscilant                     | 193/2010-152      | 1    | -        | Ans.       | 37,000         |
| 0    | Batu                                | 193/2010-151      | 1    | -        | -          | 164,000        |
| Poz. | Denumire                            | Nr desen sau STAS | Buc. | Material | Observatii | Masa<br>kg/buc |

|                                                    |              |                                              |  |
|----------------------------------------------------|--------------|----------------------------------------------|--|
| a. 4. Intr-o scrisoare post. 15.11.89, 1 Ian. 2011 |              | Data V.                                      |  |
| Protectat                                          | Uscat I.     |                                              |  |
| Duscat                                             | Uscat I.     |                                              |  |
| Verificat                                          | Data V.      |                                              |  |
| Cont. STAS                                         | Data V.      |                                              |  |
| Apod.                                              | Ing. Nedelcu |                                              |  |
| Masa netă: 500 kg                                  |              | 1:5                                          |  |
| Data: 04.12.2010                                   |              | 193/2010-U50 Rev.1                           |  |
| Procedeu SRL                                       |              | Printr. 193/2010 vol.2 am.1                  |  |
| GALATI                                             |              | SC LAFARGE CEMENT ROM DOVA SALTIANA Reduta   |  |
|                                                    |              | Instalatie de introducere envelopa in cupler |  |
|                                                    |              | CALE CU ROLE INCLINATA                       |  |
|                                                    |              | SI                                           |  |



NOTA:

Lagar cu flansa fabricatie „INA”  
tip RCJTY25, carcasa tip CJT06  
Lagar CYE25KRBB

| Poz. | Denumirea                 | Nr. desen sau STAS | Buc. | Material | Observatii | Masa<br>kg/buc |
|------|---------------------------|--------------------|------|----------|------------|----------------|
| 8    | Sabia M12                 | -                  | 40   | OLC55A   | -          | 0,004          |
| 7    | Plutita M12               | -                  | 40   | Gr.6     | -          | 0,0171         |
| 6    | Surub M12x40              | -                  | 40   | Gr.6.8   | -          | 0,048          |
| 5    | Ungaret UB 61/8"          | -                  | 20   | -        | -          | 0,010          |
| 4    | Surub 61/8"               | -                  | 20   | -        | -          | 0,010          |
| 3    | Legar cu fileasa RCJTV-25 | -                  | 20   | -        | INA        | 0,576          |
| 2    | Role Ø63 L=1200           | 193/2010-U42       | 10   | -        | -          | 14,300         |
| 1    | Betlu                     | 193/2010-U41       | 1    | -        | -          | 98,000         |

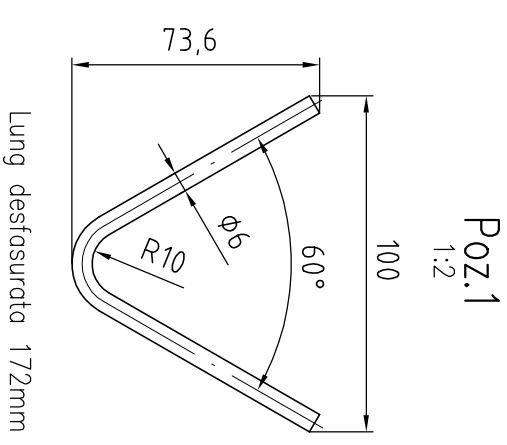
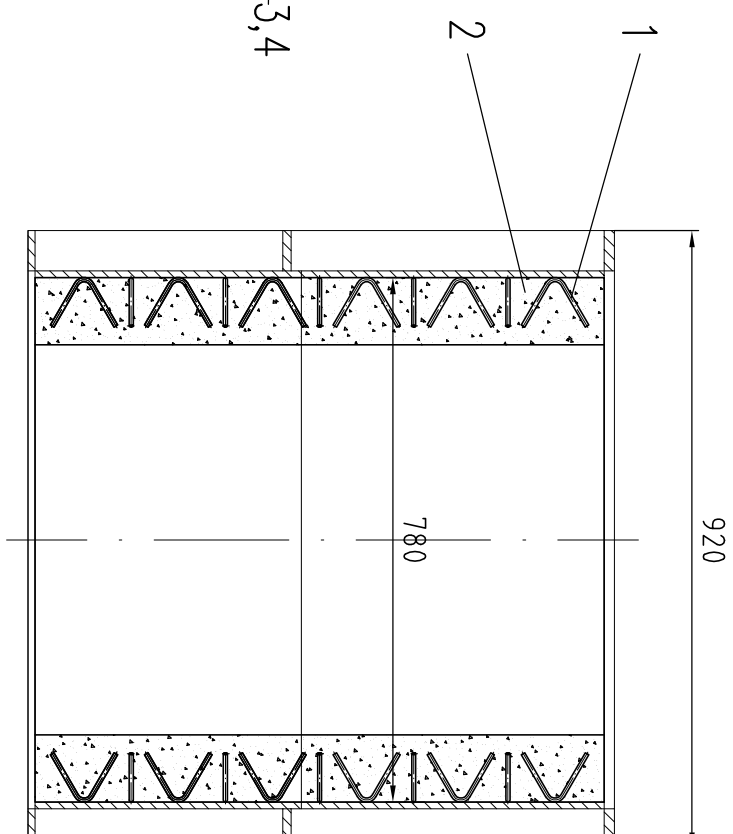
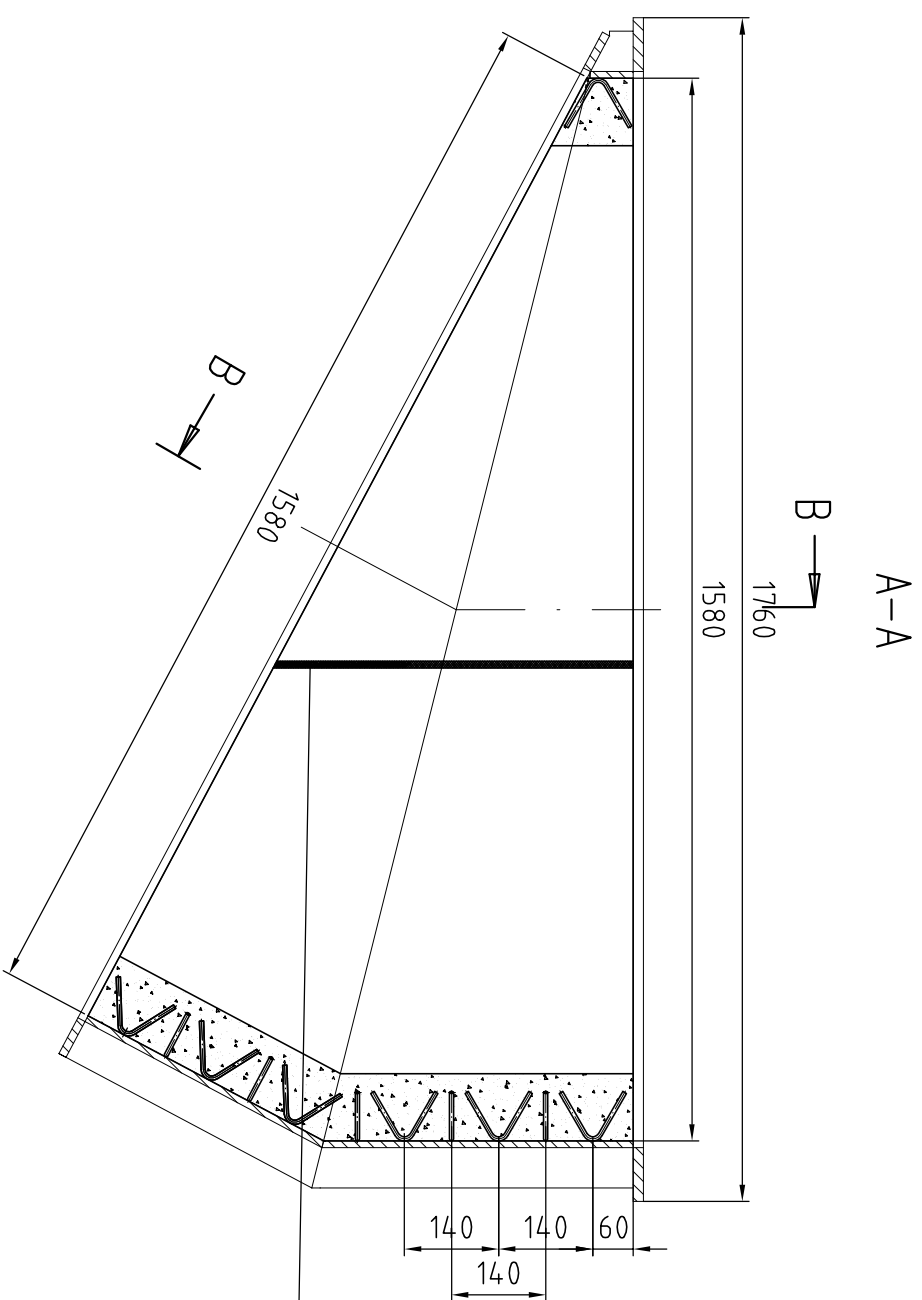
[illegible]

SC LAFARGE CIMENT (MOLDOVA) S.A. Uzina Rezina  
Instalatie de introducere anvelope in cuplor  
CALE CU ROLE LIBERE

Data: 26.010.2010





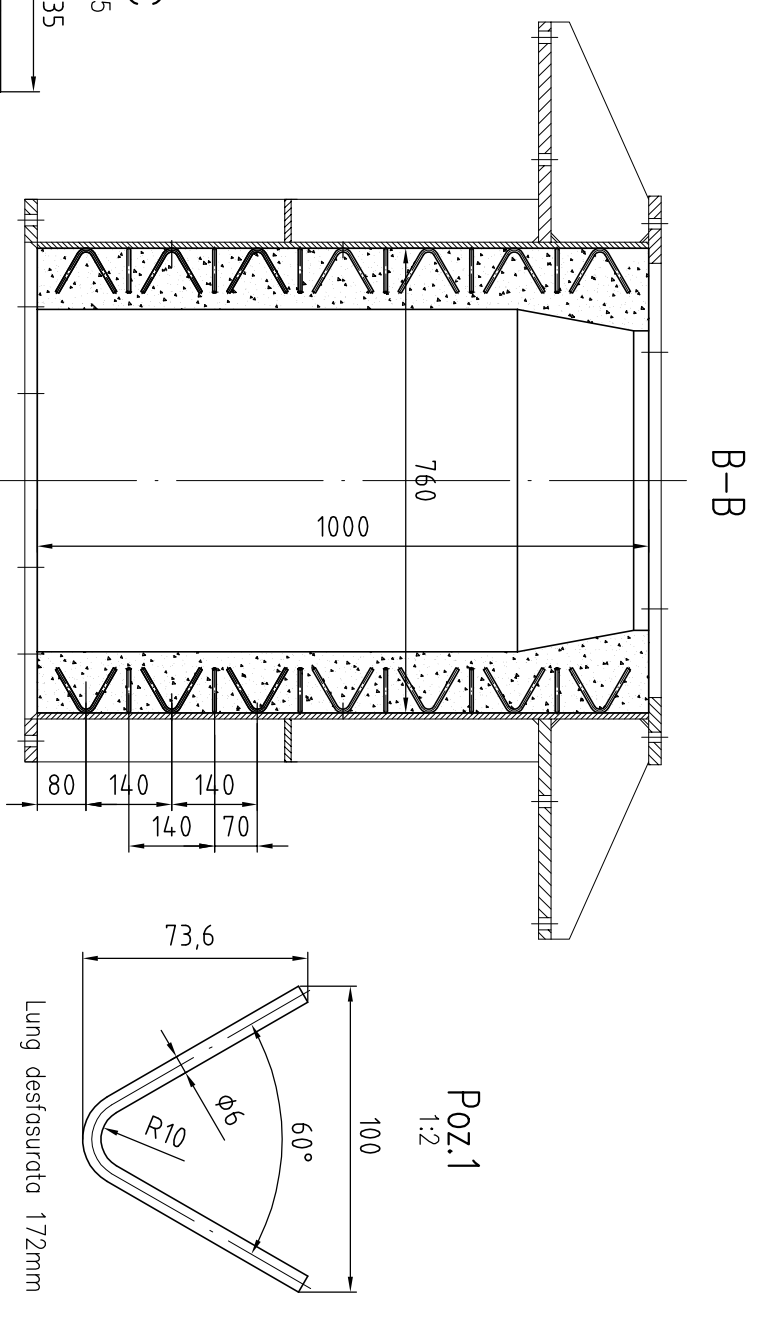
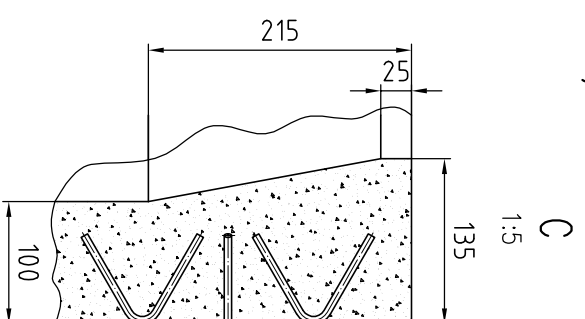
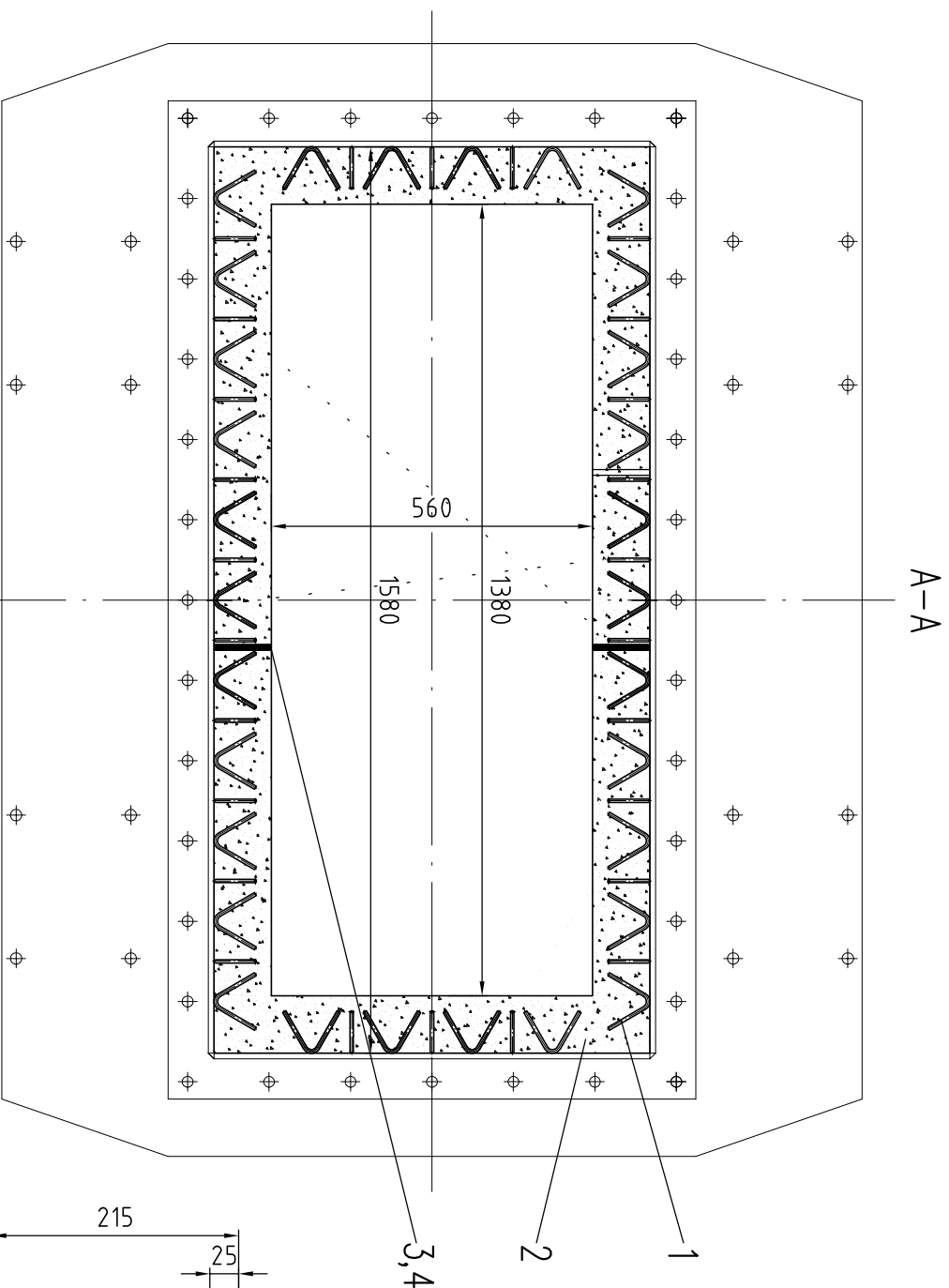


NOTA

- După fixarea prin sudura, agrafele se protejează prin bitumare
- Rosturile de dilatare se realizează prin amplasarea convenabilă a satlelor de fibra ceramica
- Distanța între două rosturi de dilatare este cca 1000mm
- Înaintea montării, satlele de fibra ceramica se învelesc cu folie de polietilena

Technical drawing of a reinforced concrete slab cross-section. The drawing shows a rectangular slab with a central void. The total width is 1580 mm and the total height is 1380 mm. The central void has a width of 580 mm and a height of 780 mm. The slab is reinforced with top and bottom bars, with stirrups in the corners. A section line A-A is indicated at the top and bottom. A note on the left indicates "rost dilatare 10mm" (expansion joint 10mm).

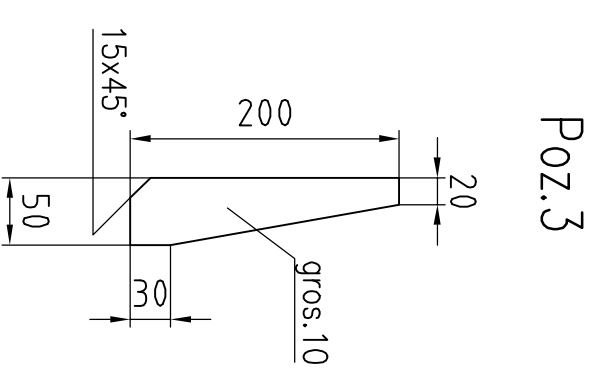
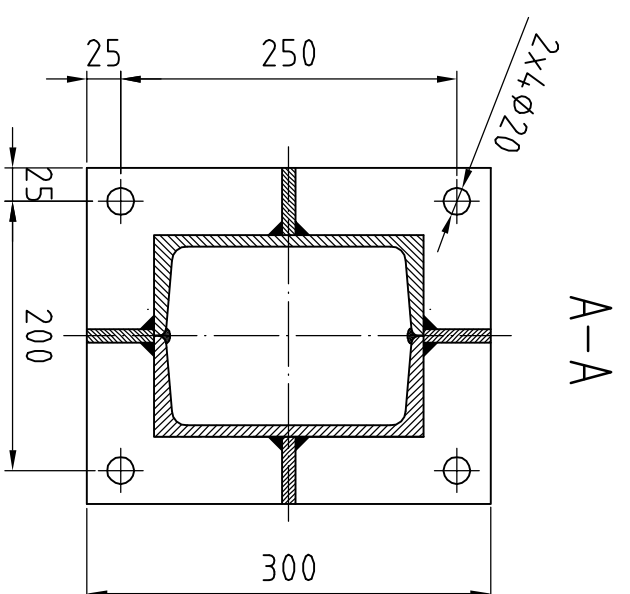
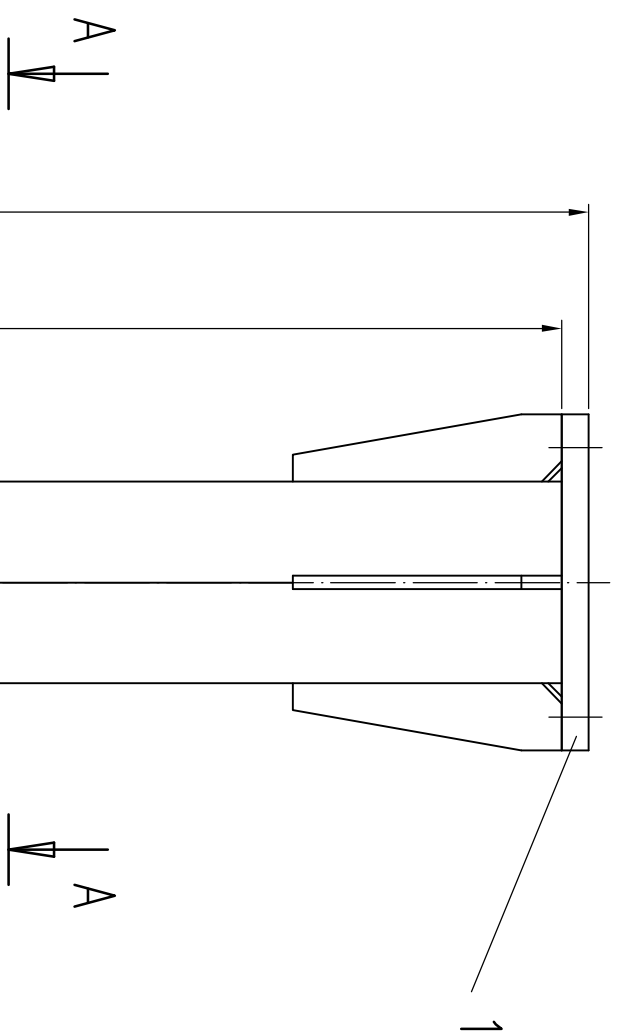
|                         |                   |                      |                                                                                                                                           |                              |            |        |
|-------------------------|-------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|------------|--------|
| —                       | Sudura            | —                    | —                                                                                                                                         | SR EN 499                    |            | 0,5    |
| 4                       | Foile protectie   | —                    | —                                                                                                                                         | folie polietilena            | 0,5mp      | 0,1    |
| 3                       | Fibra ceramica    | —                    | —                                                                                                                                         | saltă gros.10mm              | 0,2mp      | 0,5    |
| 2                       | Beton refractor   | —                    | —                                                                                                                                         | beton refractor BR 90        | 0,15mc     | 300    |
| 1                       | Agrafa ø6x172     | —                    | 130                                                                                                                                       | 10TiNiCr180                  |            | 0,04   |
| Poz                     | Denumirea         | Nr.desen sau STAS    | Buc                                                                                                                                       | Material                     | Observatii | kg/buc |
|                         |                   |                      |                                                                                                                                           |                              |            |        |
|                         |                   |                      |                                                                                                                                           |                              |            |        |
|                         |                   |                      |                                                                                                                                           |                              |            |        |
|                         |                   |                      |                                                                                                                                           |                              |            |        |
|                         |                   |                      |                                                                                                                                           |                              |            |        |
|                         | ing. T. Simionica |                      |                                                                                                                                           |                              |            |        |
| Desenat                 |                   | —                    |                                                                                                                                           |                              |            |        |
| Verificat               | ing. V. Dutu      |                      |                                                                                                                                           |                              |            |        |
| Contr. STAS             |                   |                      |                                                                                                                                           |                              |            |        |
| Aprobat                 | ing. P. Negulescu |                      |                                                                                                                                           |                              |            |        |
|                         |                   | Masa netă: 310 kg    |                                                                                                                                           | Pr.nr. 193/2010, vol.2, mp.3 |            |        |
| S.C. PROCESTEHNŌ S.R.L. |                   | 1:10                 | 193/2010—U23                                                                                                                              |                              |            |        |
| GALATI                  |                   | 1:2                  |                                                                                                                                           |                              |            |        |
|                         |                   | Data: noiembrie 2010 | SC LAFARGE CEMENT (MOLDOVA) SA, Uzina Rezina<br>Instalatie de introducere anvelope in cuplor<br>Izolatie refractara<br>Tronson inclinat 1 |                              |            |        |



NOTA

- Dupa fixarea prin sudura, agrafele se protejeaza prin bitumare
- Rosturile de dilatare se realizeaza prin amplasarea convenabila a saltetelor de fibra ceramica
- Distanța între două rosturi de dilatare este cca 1000mm
- Înaintea montării, saltetele de fibra ceramica se învelesc cu folie de polietilena

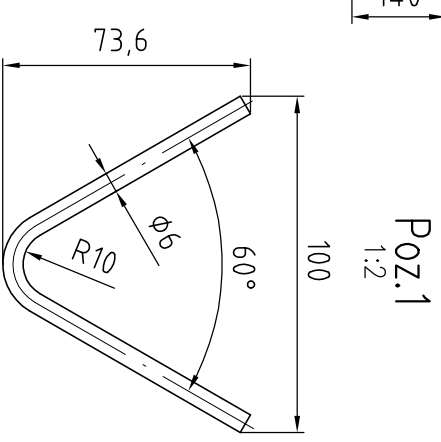
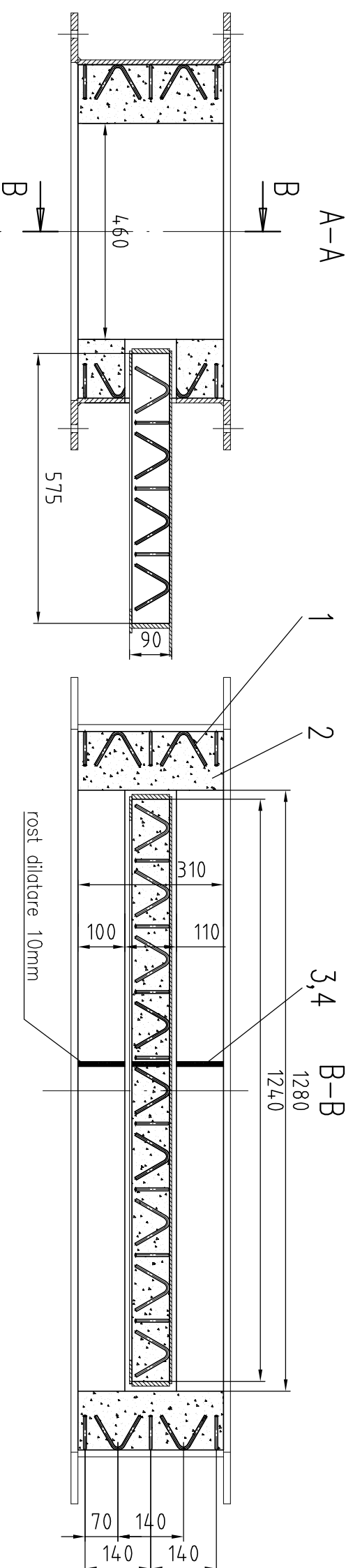
[illegible][illegible]



NOTA

- Rugozitate generala 25
- Muchiile ascutite se tesesc 0,5x45
- Constructie realizata cu structura de rezistenta si etansa
- Sudurile necotate vor fi  $\nabla$  a si 11a ( $\alpha=0,7$  grosimea tablei celei mai subtiri)
- Dupa asamblarea prin sudura ansamblul se va detensiona

[illegible]



Lung desfasurata 172mm

NOTA

- Dupa fixarea prin sudura, agrafele se protejeaza prin bitumare
- Rosturile de dilatare se realizeaza prin amplasarea convenabila a saltelelor de fibra ceramica
- Distanța între două rosturi de dilatare este cca 1000mm
- Inaintea montării, saltelele de fibra ceramica se invelesc cu folie de polietilena

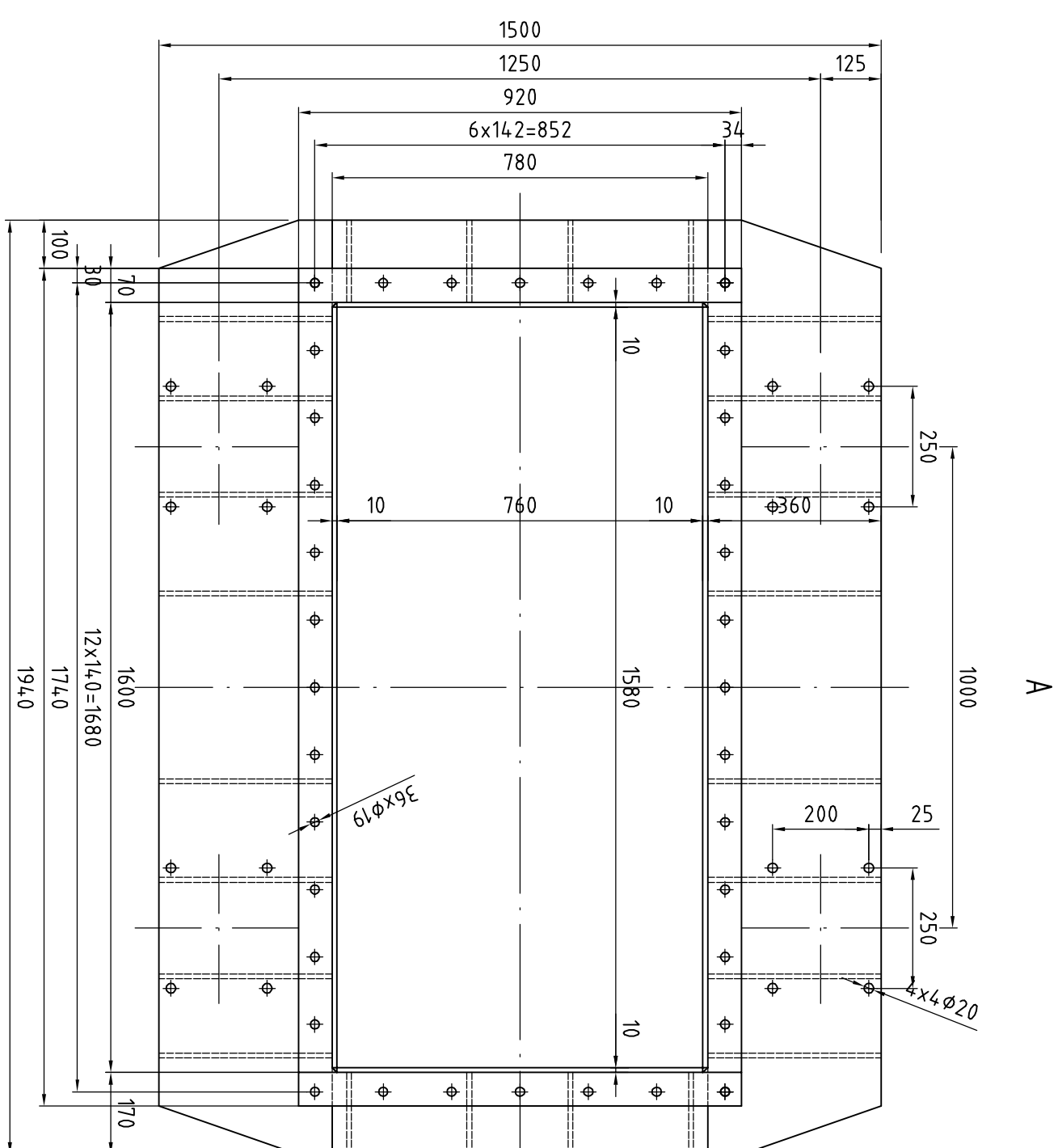
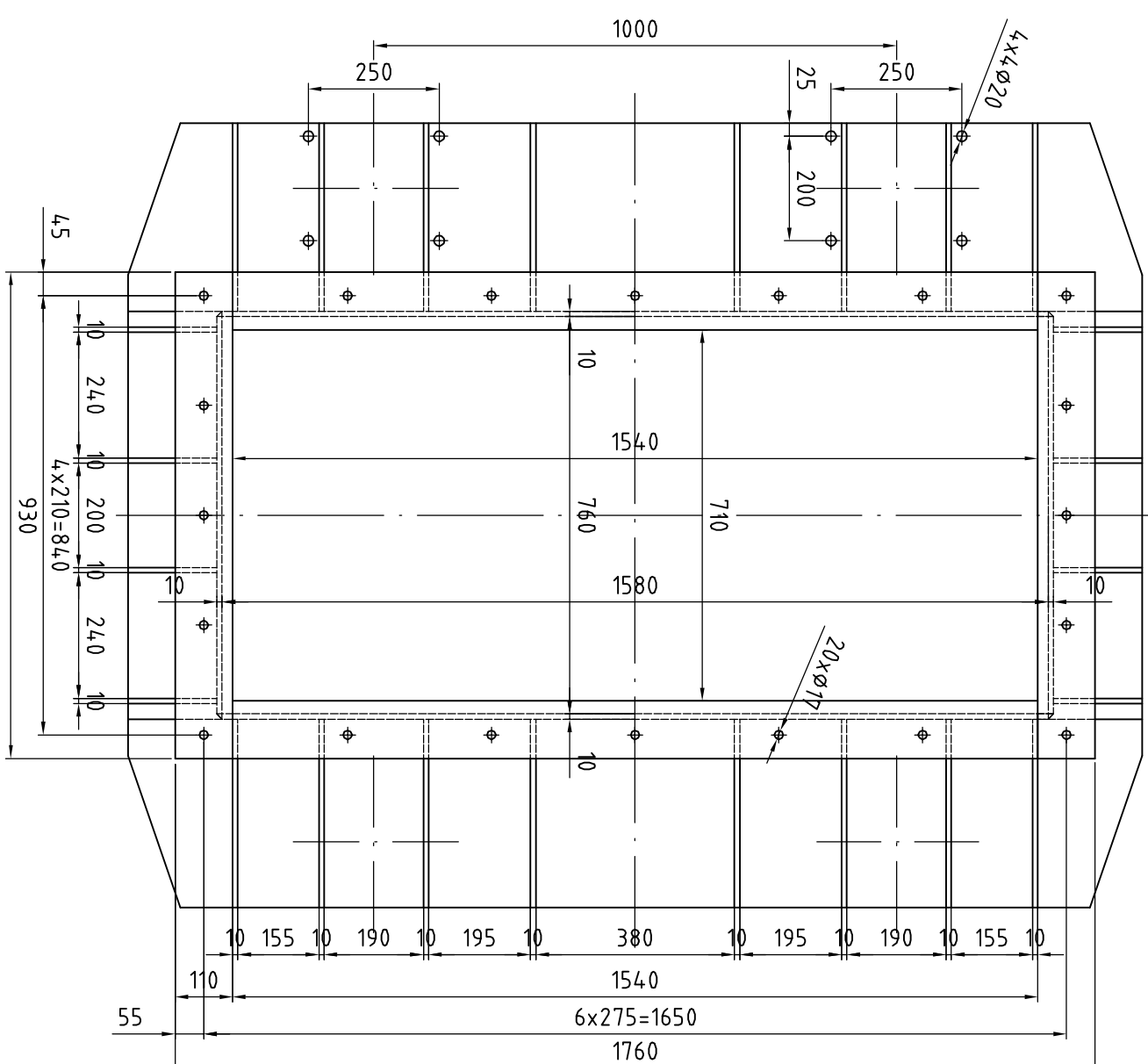
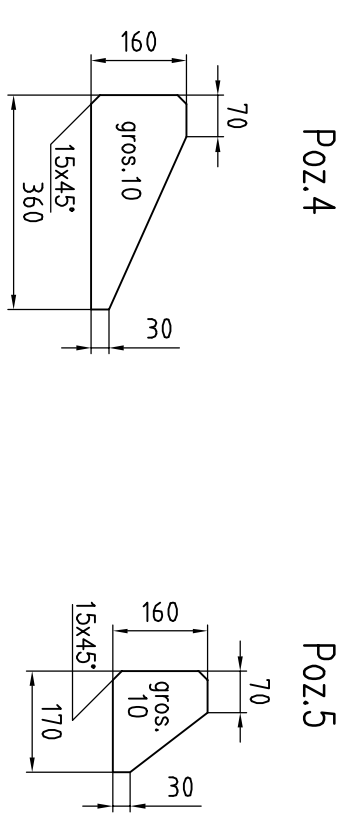
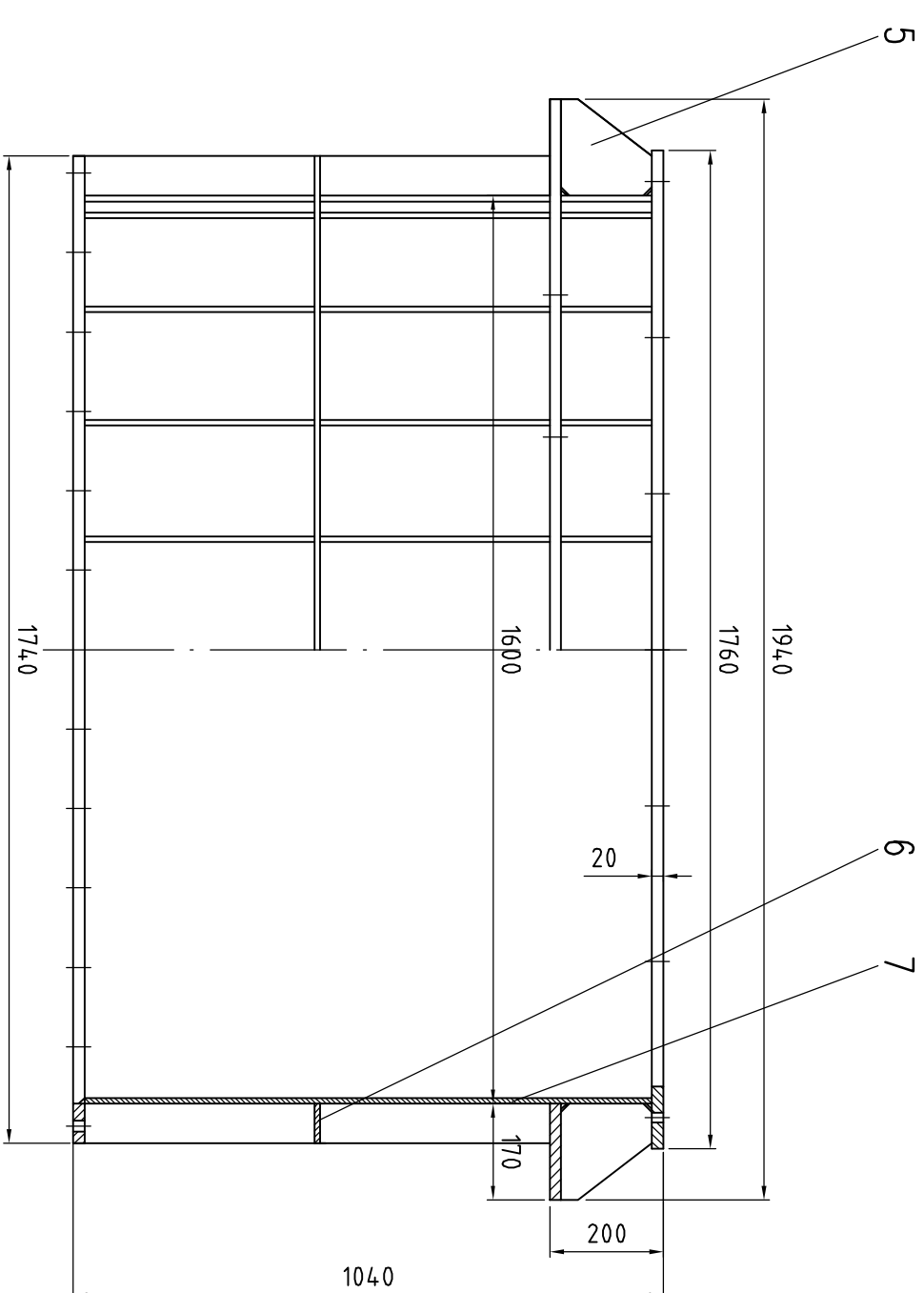
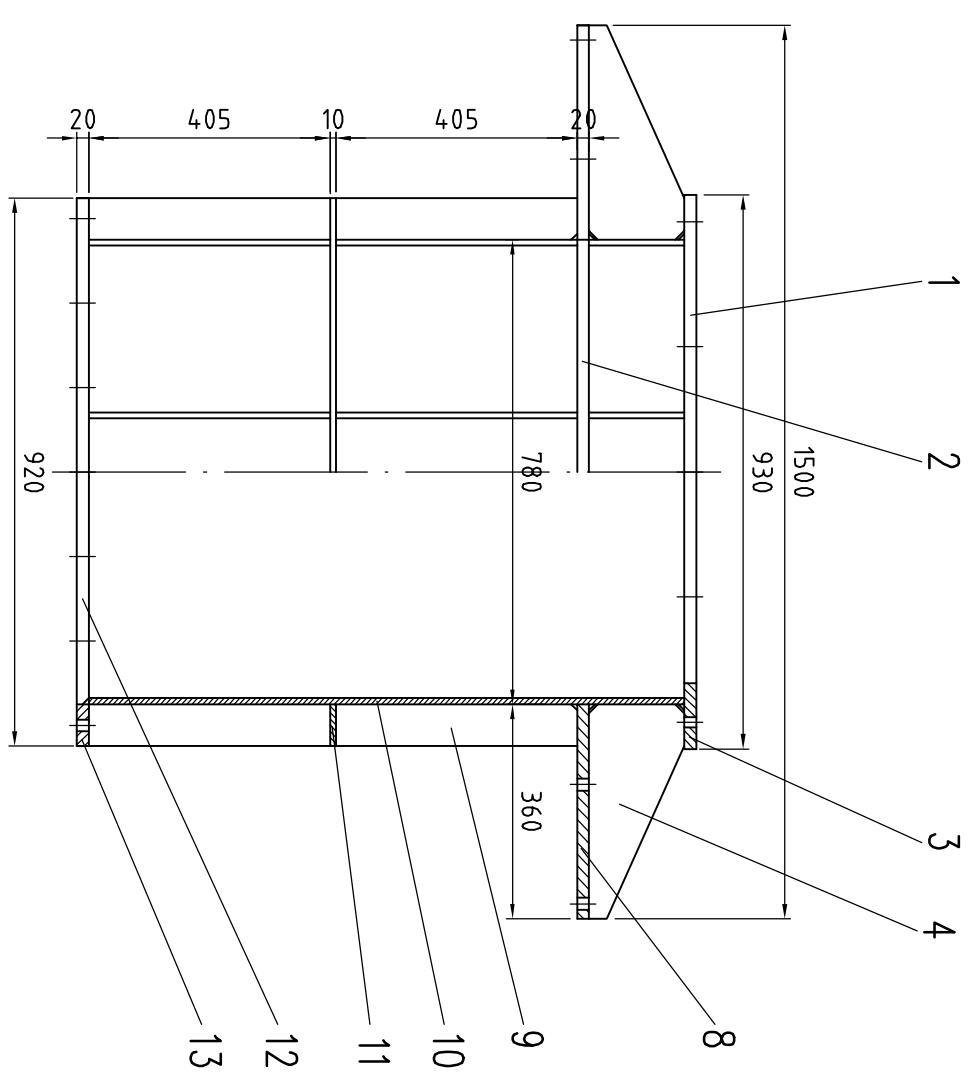
|     |                 |                   |     |                      |            |        |
|-----|-----------------|-------------------|-----|----------------------|------------|--------|
| —   | Sudura          | —                 | —   | SR EN 499            |            | 0,8    |
| 4   | Folie protectie | —                 | —   | folie<br>polietilena | 0,5mp      | 0,1    |
| 3   | Fibra ceramica  | —                 | —   | saltea<br>gros.10mm  | 0,1mp      | 0,5    |
| 2   | Beton refractar | —                 | —   | beton<br>BR 90       | 0,2mc      | 400    |
| 1   | Agrafa ø6x172   | —                 | —   | 205 10TiNiCr180      |            | 0,04   |
| Poz | Denumirea       | Nr.desen sau STAS | Buc | Material             | Observatii | kg/buc |

[illegible]

S.C. PROCESTEHO S.R.L.  
GALATI

|      |                      |
|------|----------------------|
| 1:10 | Data: noiembrie 2010 |
| 1:2  |                      |

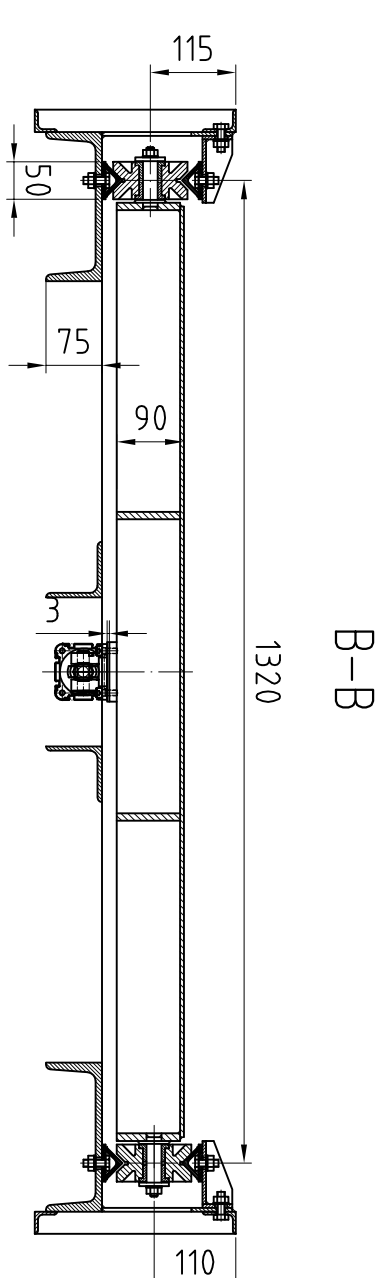
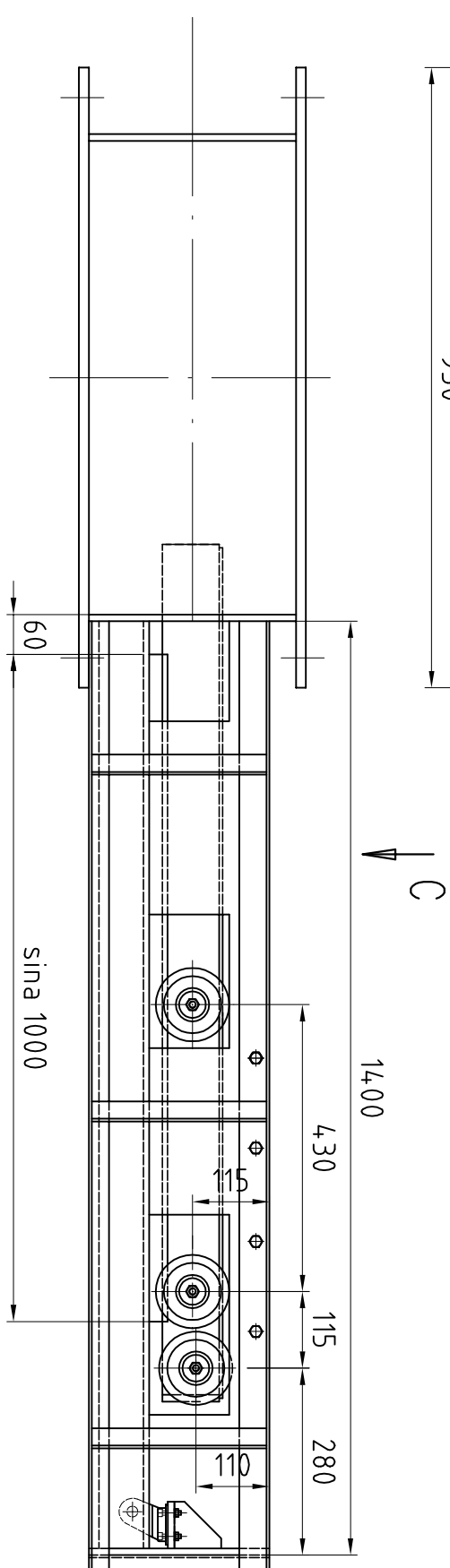
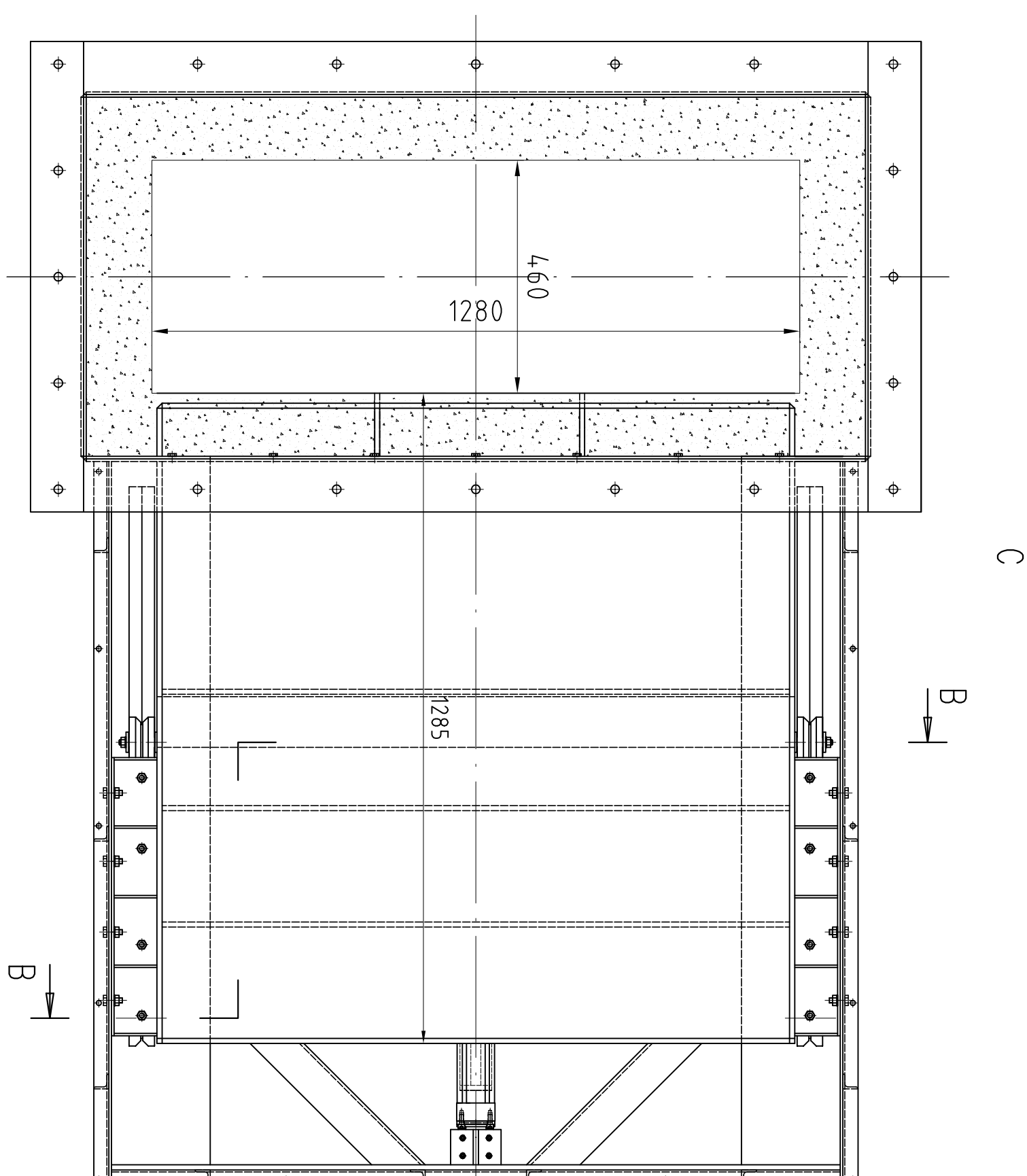
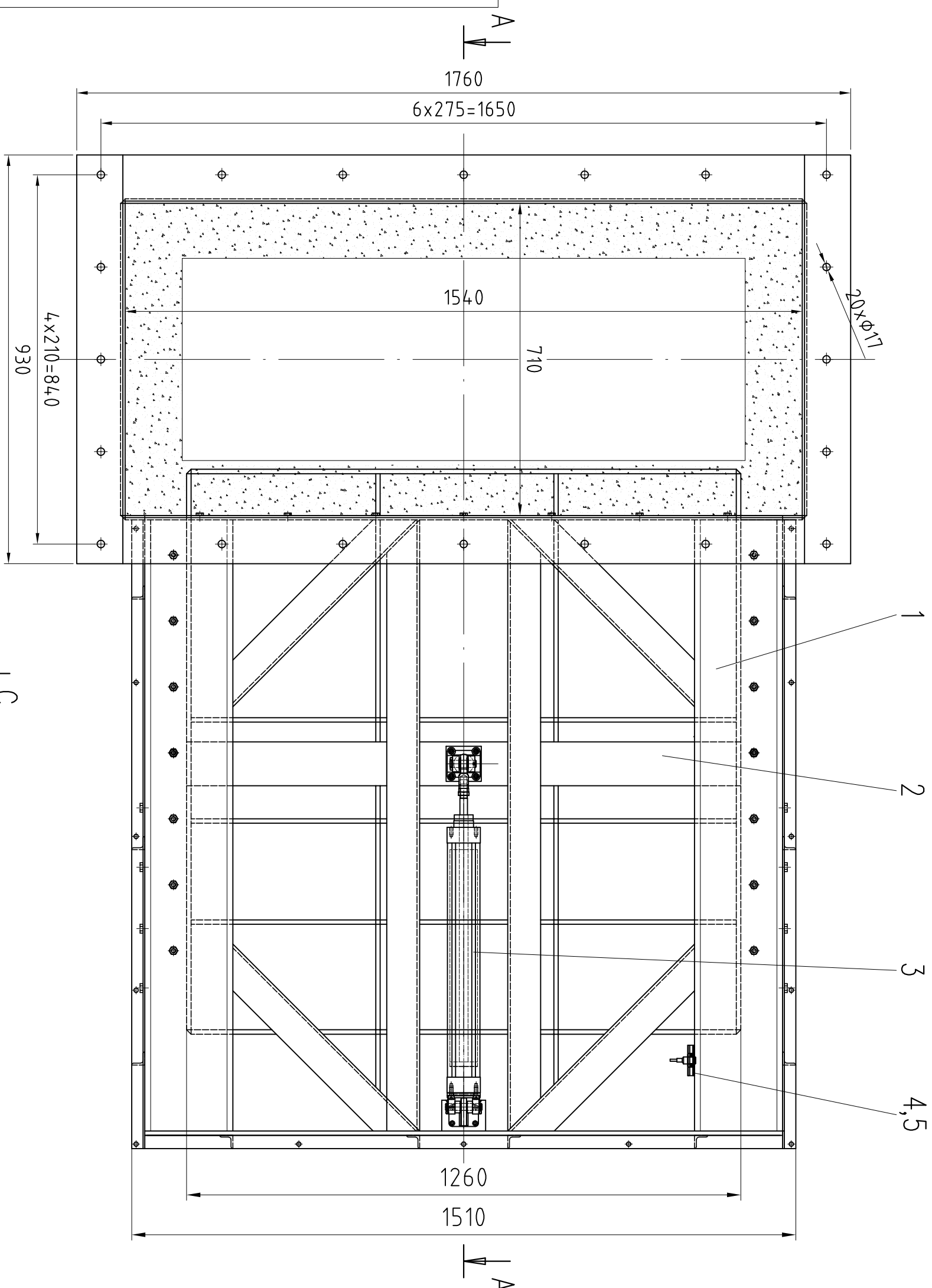
SC LAFARGE CEMENT (MOLDOVA) SA. Uzina Rezina  
Instalatie de introducere anvelope in cuptor  
Izolatie refractara  
Inchizator cu setar



|     |                      |                   |     |           |            |        |
|-----|----------------------|-------------------|-----|-----------|------------|--------|
| –   | Sudura               | –                 | –   | SR EN 499 |            | 9,6    |
| 13  | Rama 20x70x1600      | –                 | 2   | S355J2G3  |            | 17,6   |
| 12  | Rama 20x70x920       | –                 | 2   | S355J2G3  |            | 10,1   |
| 11  | Rama 10x70x1600      | –                 | 2   | S355J2G3  |            | 8,8    |
| 10  | Perete 10x1000x1580  | –                 | 2   | S355J2G3  |            | 117    |
| 9   | Intaritura 10x70x405 | –                 | 24  | S355J2G3  |            | 2,3    |
| 8   | Rama 20x360x1940     | –                 | 2   | S355J2G3  |            | 110    |
| 7   | Perete 10x1000x760   | –                 | 2   | S355J2G3  |            | 60     |
| 6   | Intaritura 10x70x920 | –                 | 2   | S355J2G3  |            | 5,1    |
| 5   | Nervura              | –                 | 8   | S355J2G3  |            | 1,3    |
| 4   | Nervura              | –                 | 16  | S355J2G3  |            | 3,4    |
| 3   | Rama 20x110x1540     | –                 | 2   | S355J2G3  |            | 27,1   |
| 2   | Rama 20x170x1600     | –                 | 2   | S355J2G3  |            | 20,8   |
| 1   | Rama 20x110x930      | –                 | 2   | S355J2G3  |            | 16,4   |
| Poz | Denumirea            | Nr.desen sau STAS | Buc | Material  | Observatii | kg/buc |

NOTA

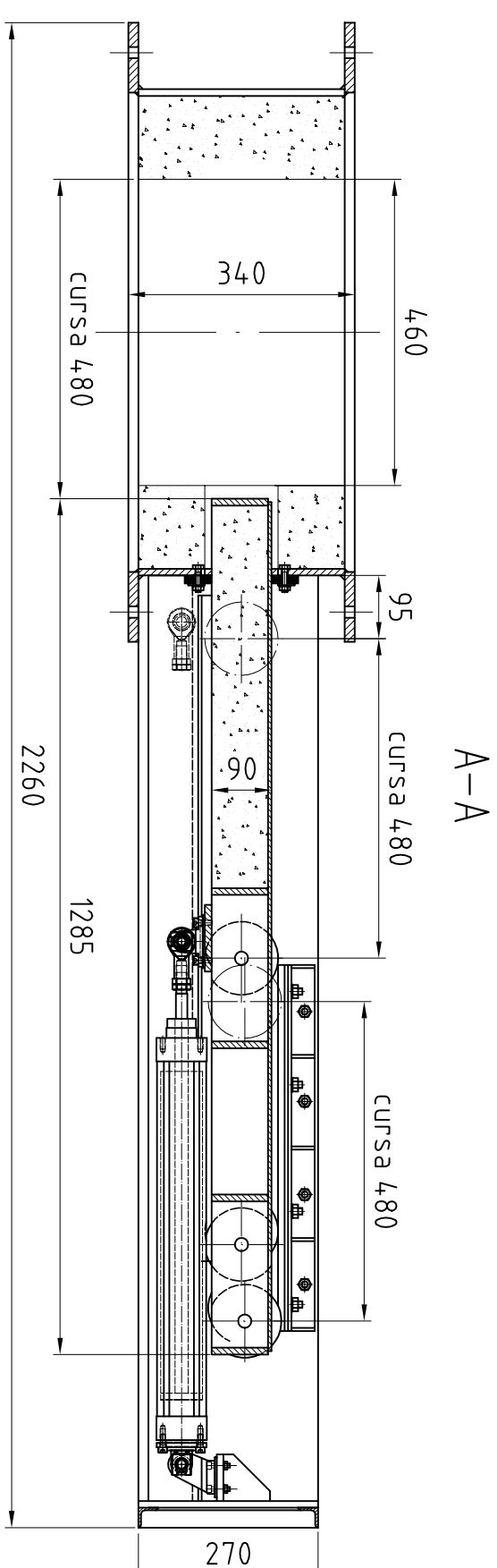
- Rugozitate generala 25
- Muchiile ascuțite se tesesc 0,5x45
- Construcție realizată cu structura de rezistență și etanșă
- Sudurile necutate vor fi  $\nabla$  a și 11a ( $\alpha=0,7$  grosimea tablei celei mai subțiri)
- Dupa asamblarea prin sudura ansamblul se va detensiona



NOTA

– Pozitia Detectorilor de proximitate se va stabili la montaj

|     |                                         |                   |     |          |            |          |
|-----|-----------------------------------------|-------------------|-----|----------|------------|----------|
| 5   | Supor montaj<br>SW4 ppd PAS             | -                 | 2   | -        | EATON      | 0,2-     |
| 4   | Detector de proximitate<br>E57-LAL 30A2 | -                 | 2   | -        | EATON      | 0,1-     |
| 3   | Cilindru pneumatic                      | 193/2010-U14      | 1   | -        |            | 10       |
| 2   | Sertar                                  | 193/2010-U08      | 1   | -        |            | 200      |
| 1   | Chidaj sertar                           | 193/2010-U02      | 1   | -        |            | 345      |
| Poz | Denumirea                               | Nr.desen sau STAS | Buc | Material | Observatii | kg/bucuc |

[illegible]

## **FISA TEHNICA PT 03/05.12.2010**

### **Compensator de dilatare**

- 1.Lungime totala compensator : 300 mm
- 2.Temperatura de lucru : maxim 1100 °C
- 3.Capacitatea maxima de compensare : 4 mm
- 4.Flansele compensatorului se vor executa din otel marca S355 J2 G3( OL 52 4 K)
5. Presiunea de lucru : 0÷10 mm CA
6. Flansele utilajelor intre care se va monta compensatorul : conform desenului anexat.
7. Compensatorul va fi livrat cu tablele de protectie termica la interior sudate numai in partea superioara, inclusiv cu agrafele pentru turnarea betonului refractar sudate de aceste table( conform desenului anexat ).

## A N T E M A S U R A T O A R E

pentru lucrarile de m o n t a j

la obiectul : SC LAFARGE CIMENT (MOLDOVA) SA Uzina Rezina

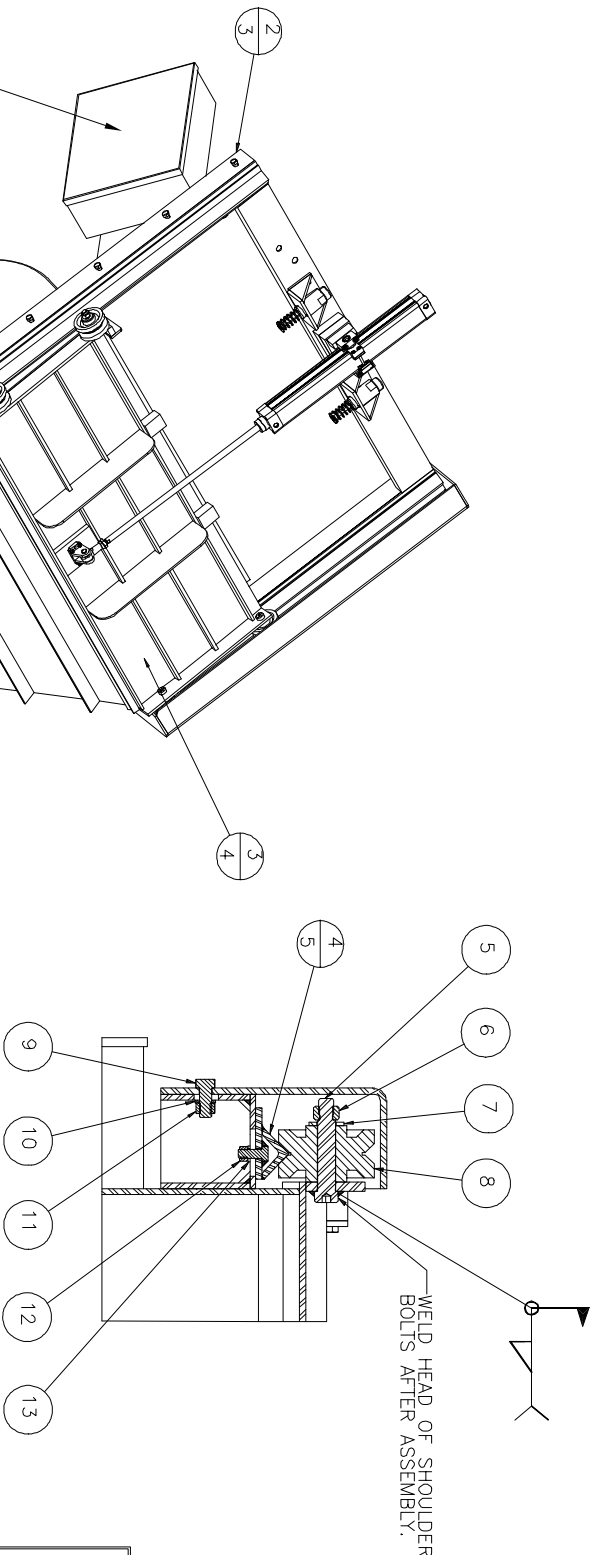
INVESTITIA : Instalatie de introducere anvelope in cuptor

Proiect nr. 193/2010, Vol. 1

| Nr. crt. | Incadrare         | Denumire si caracteristici tehnice                                                                                                                                                                                                                                                                             | UM | Cantitate | Pret unitar | Pret unitar demontari | Valoare în EURO |
|----------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----------|-------------|-----------------------|-----------------|
| 1        | M1M02B            | Demontarea utilajelor montate intre platformele +33950 si +30550                                                                                                                                                                                                                                               | t  | 3.000     |             |                       |                 |
| 2        | M1C11B            | Montare cale cu role neactionata                                                                                                                                                                                                                                                                               | t  | 0.255     |             |                       |                 |
| 3        | M1C13A            | Montare cale cu role actionata si cale cu role inclinata (440 + 500 = 940kg)                                                                                                                                                                                                                                   | t  | 0.940     |             |                       |                 |
| 4        | M1C19A            | Montare inchizator superior, inchizator inferior si inchizator pentru mentenanta (700 + 1800 + 965 = 3465kg)                                                                                                                                                                                                   | t  | 3.465     |             |                       |                 |
| 5        | M1G12             | Montare tronson de legatura si stalpi de sustinere [(930 + 920) + 4 x 210 = 2690kg]                                                                                                                                                                                                                            | t  | 2.690     |             |                       |                 |
| 6        | M1G20D (asimilat) | Montare compensator de dilatare                                                                                                                                                                                                                                                                                | t  | 0.500     |             |                       |                 |
| 7        | IzA01D1           | Pregatirea suprafetelor de metal prin curatire cu peria de sarma                                                                                                                                                                                                                                               | t  | 6.000     |             |                       |                 |
| 8        | IzD1A1            | Vopsirea anticoroziva pentru clasa de agresivitate a medilui 3m, cu : doua straturi grund epoxidic cu Zn seria 302-un strat la executant si un strat la montaj, doua straturi vopsea intermediara epoxidica seria 302 la montaj, RAL 7015 pentru transportoarele cu role si RAL 7031 pentru restul utilajelor. | t  | 6.000     |             |                       |                 |
| 9        | TRAO2 AO5         | Transport utilaje de la depozit                                                                                                                                                                                                                                                                                | t  | 7.850     |             |                       |                 |
|          |                   |                                                                                                                                                                                                                                                                                                                |    |           |             |                       |                 |

Sef proiect  
ing. P. Negulescu

Intocmit  
ing. Gh. Dragomir



SECTION B-B  
SCALE 1 : 4

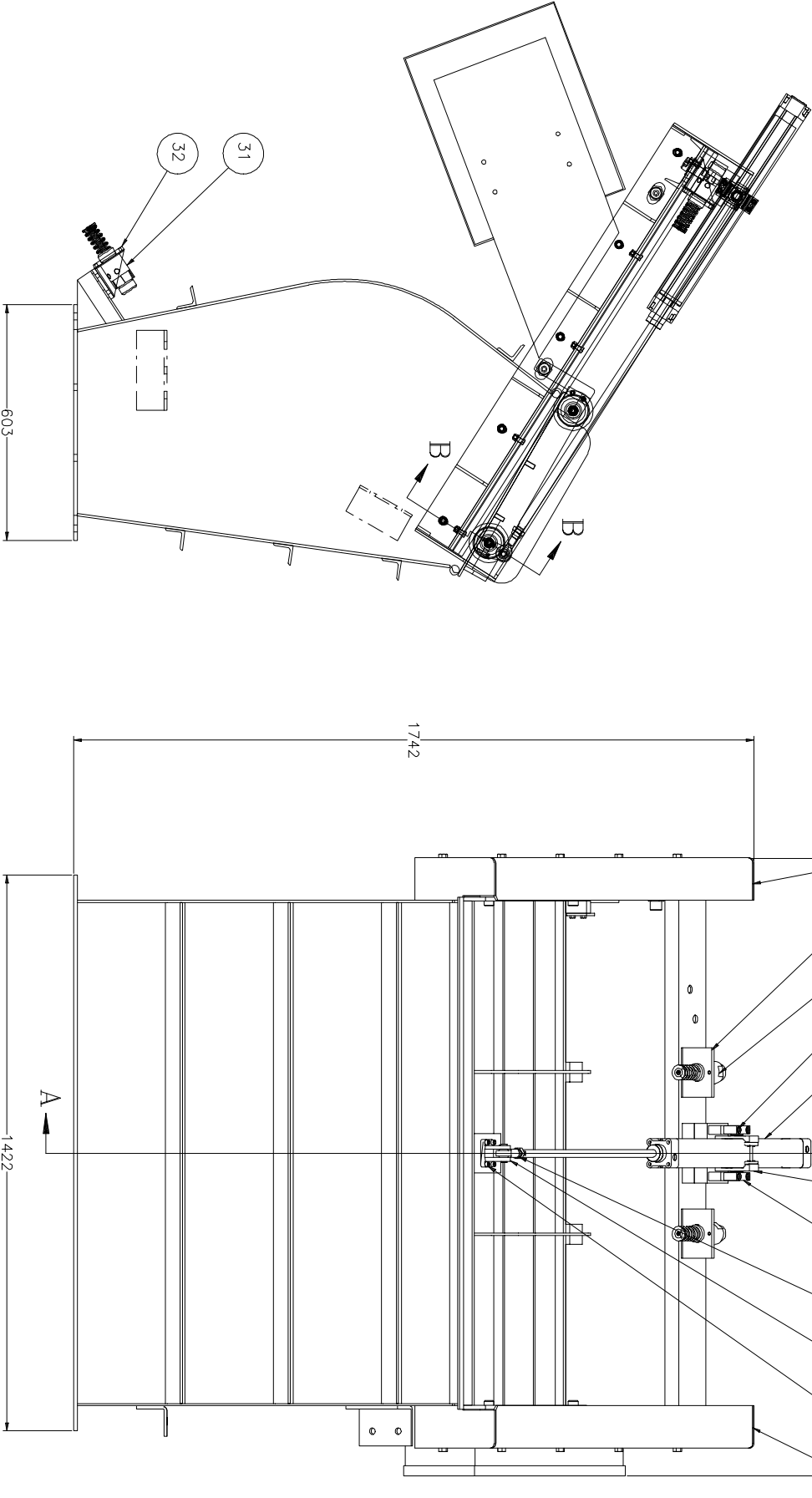
DRAWING APPROVAL  
☐ APPROVED  
☐ APPROVED WITH CHANGES AS MARKED  
☐ RE-SUBMIT WITH CHANGES AS MARKED  
DATE: \_\_\_\_\_  
SIGNATURE: \_\_\_\_\_

RECOMMENDED \_\_\_\_\_  
OR TELEMECHINIC  
EQUIVLENT

| ITEM | QTY | DESCRIPTION                              | MATERIAL                    |
|------|-----|------------------------------------------|-----------------------------|
| 1    | 1   | TOP CHUTE                                | WELDMENT                    |
| 2    | 1   | TOP GATE TRACK                           | WELDMENT                    |
| 3    | 1   | TOP GATE DOOR                            | WELDMENT                    |
| 4    | 2   | GUIDE TRACK                              | WELDMENT                    |
| 5    | 4   | Ø 3/4" X 3" LG. SHOULDER SCR             |                             |
| 6    | 4   | 5/8-11 HEX NUT                           |                             |
| 7    | 4   | 3/4" FLAT WASHER                         |                             |
| 8    | 4   | DURABLE ROLLER WHEEL                     | VG40UT84                    |
| 9    | 10  | 1/2-13 X 1 1/4" HHCS                     |                             |
| 10   | 10  | 1/2" LOCK WASHER                         |                             |
| 11   | 10  | 1/2-13 HEX NUT                           |                             |
| 12   | 10  | 3/8-16 HEX NUT                           |                             |
| 13   | 10  | 3/8" LOCK WASHER                         |                             |
| 14   | 1   | WHEEL COVER LH                           | WELDMENT                    |
| 15   | 4   | 3/8-16 X 1 3/4" SHCS                     |                             |
| 16   | 1   | FESTO AIR CYLINDER (163398)              | DNC-63-533-PPV-A-76K8-S6-R3 |
| 17   | 1   | FESTO MID TRUINNION MOUNT (163528)       | ZNCM-63/80                  |
| 18   | 2   | FESTO MID TRUINNION SUPPORT BLKS (32961) | LNZG-63/0                   |
| 19   | 1   | FESTO CYLINDER ROD EYE (9263)            | SGS-M16x1.5                 |
| 20   | 1   | FESTO ROD EYE CLEVIS (31764)             | LBG-63                      |
| 21   | 1   | WHEEL COVER RH                           | WELDMENT                    |
| 22   | 2   | 5/16-18 X 3/4" HHCS                      |                             |
| 23   | 1   | PROX FLAG                                | SEE DETAIL                  |
| 24   | 1   | IBC ROD BOOT                             |                             |
| 25   | 1   | TRUINNION MOUNT BASE                     | WELDMENT                    |
| 26   | 1   | 1" FLAT WASHER                           |                             |
| 27   | 1   | Ø 1" X 2" LG. SHOULDER SCR               |                             |
| 28   | 2   | CUTLER-HAMMER PROX SENSOR                | E57-LAL30A2                 |
| 29   | 4   | 5/16-18 X 1" SHCS                        |                             |
| 30   | 1   | SAGINAW ENCLOSURE                        | SCE-20C116ALP               |
| 31   | 4   | ENERTROL SHOCK                           | SALD 3/4X2P                 |
| 32   | 4   | ENERTROL SHOCK MOUNT                     | 3136-31015                  |

NOTE:

1. ALL FASTENERS TO BE GRADE 8 YELLOW ZINC PLATED UNLESS OTHERWISE NOTED.
2. ALL STRUCTURAL HARDWARE TO BE A-325 GALVANIZED PLATED.
3. TOTAL WEIGHT 700 Kg



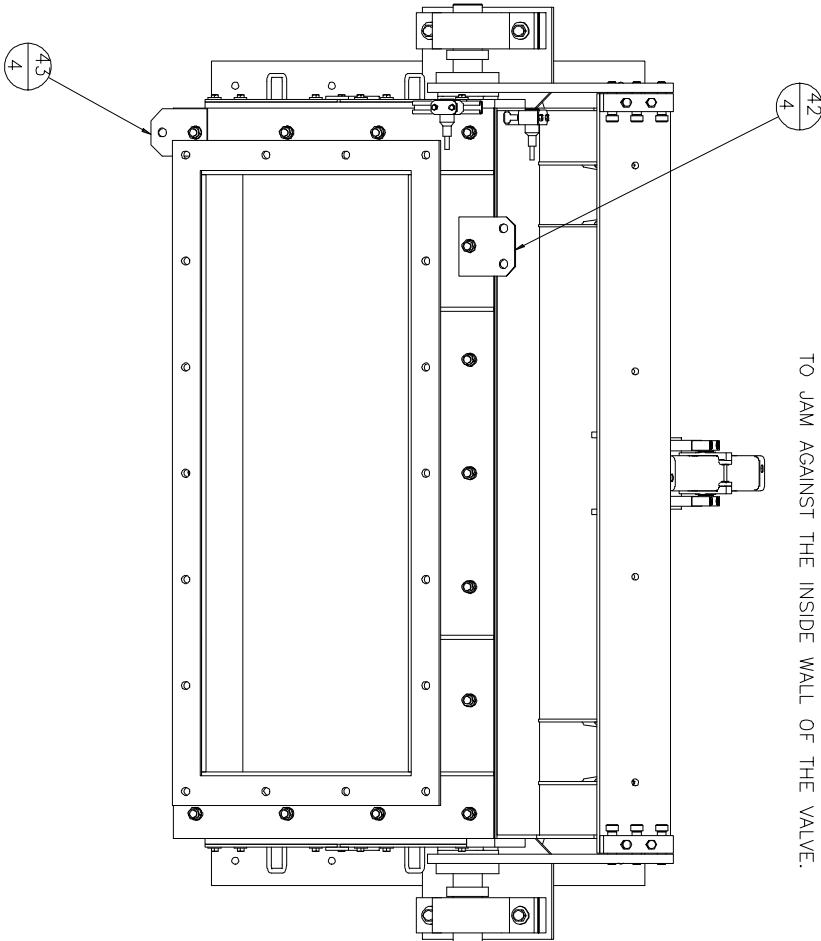
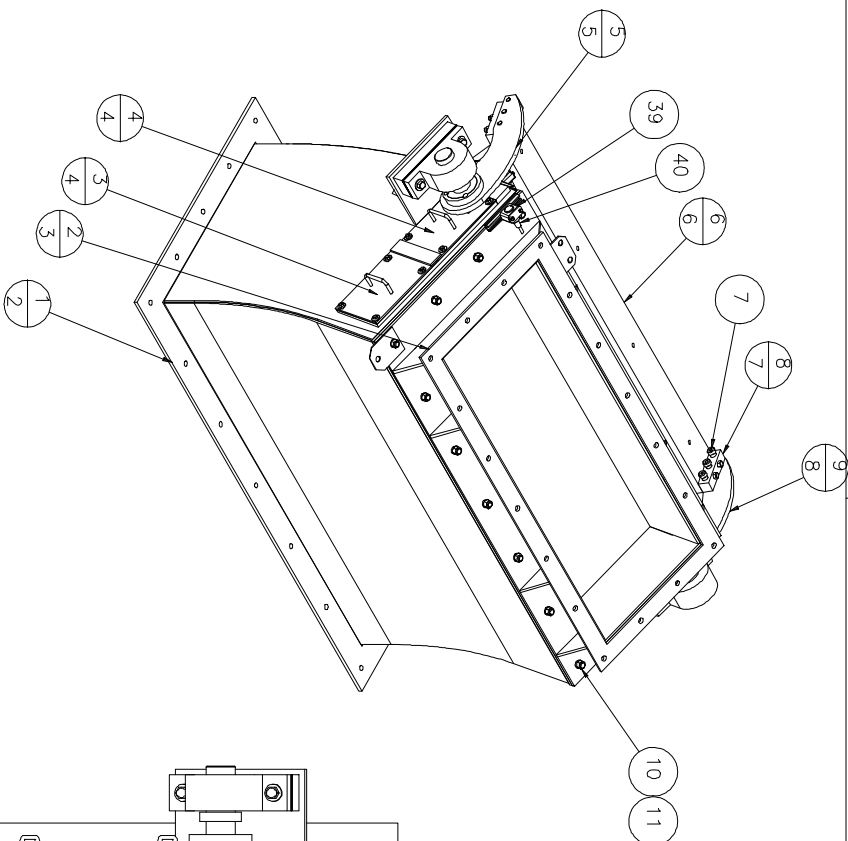
SECTION A-A

| REV. NO.                                    | DATE | BY         | DESCRIPTION      |
|---------------------------------------------|------|------------|------------------|
|                                             |      |            |                  |
| TITLE<br>AIRLOCK VALVE<br>TOP GATE ASSEMBLY |      |            |                  |
| DRAWN BY A.BOWMAN                           |      | SCALE 1:8  | DATE 2/17/09     |
| CHECKED BY                                  |      | APPROVED   | PROJECT#         |
| DWG. NO.                                    |      | AFS-TG-001 | SHEET NO. 1 OF 1 |

**AFS** technology  
Alternative fuel systems engineered for industry

4060 Gibson Drive  
Tipp City, Ohio 45371  
USA

- IMPORTANT STARTUP INSTRUCTIONS:
1. PRIOR TO APPLYING HEAT TO GATE, LOOSEN SHAFT COLLARS (ITEM #22) ON BOTH SIDES OF GATE SHAFT.
  2. MAKE SURE GATE IS CENTERED IN VALVE BY MEASURING SHAFT EXTENSIONS. IF NECESSARY, TAP SHAFT ENDS WITH WOOD BLOCK AND HAMMER TO CENTER GATE.
  3. AFTER EQUIPMENT IS TO MAXIMUM OPERATING TEMPERATURE, MOVE SHAFT COLLARS TO 1/8" FROM BEARING AND TIGHTEN.
- THIS PROCEDURE IS TO PREVENT THE GATE FROM MOVING Laterally Side-to-Side AND COMPENSATING FOR THE THERMAL EXPANSION OF THE GATE SHAFT. FAILURE TO DO THIS PROCEDURE CAN RESULT IN DAMAGING THE GRAPHITE BEARINGS AND CAUSING THE GATE TO JAM AGAINST THE INSIDE WALL OF THE VALVE.



DRAWING APPROVAL

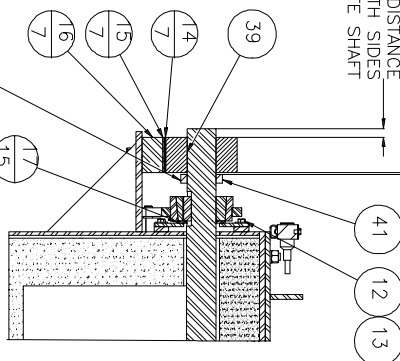
☐ APPROVED WITH CHANGES AS MARKED

☐ RE-SUBMIT WITH CHANGES AS MARKED

DATE: \_\_\_\_\_

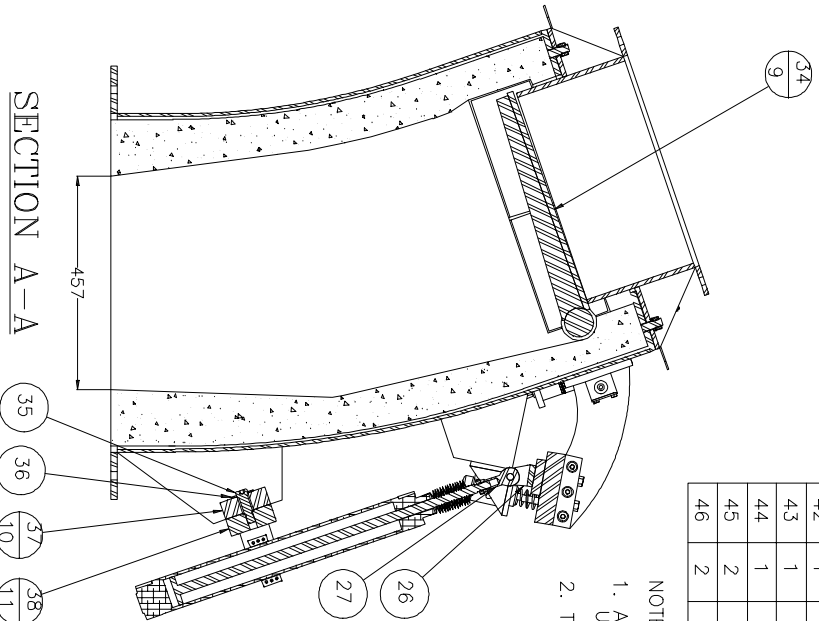
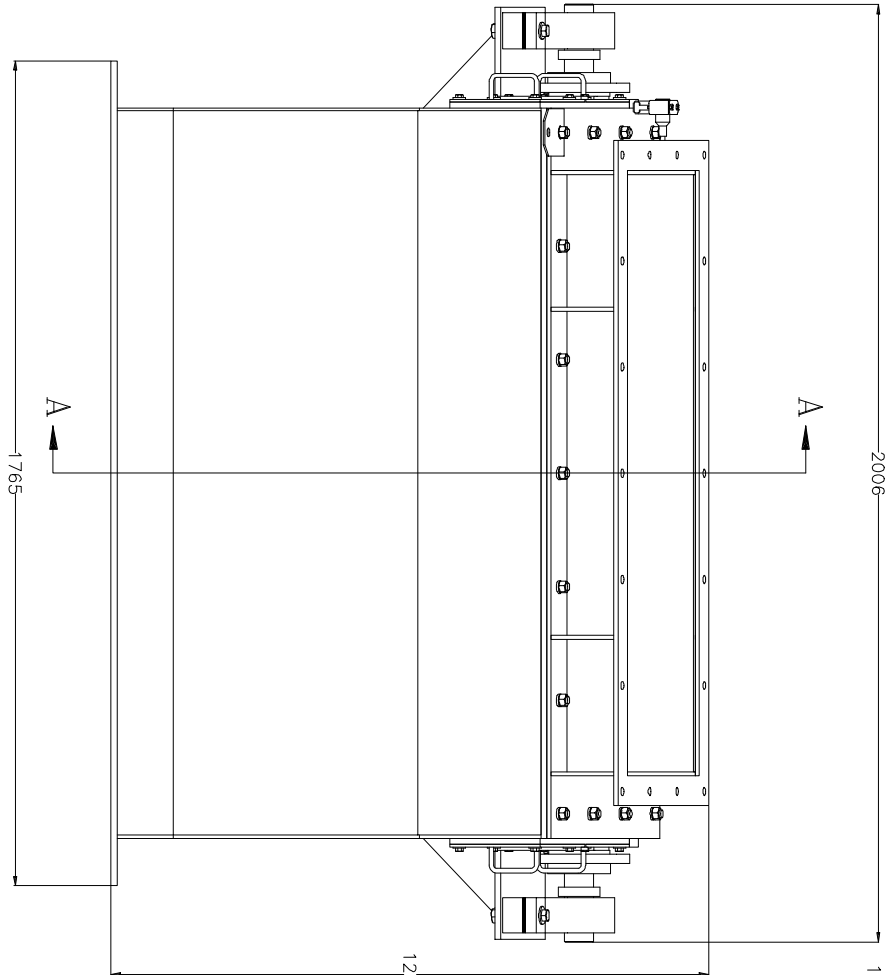
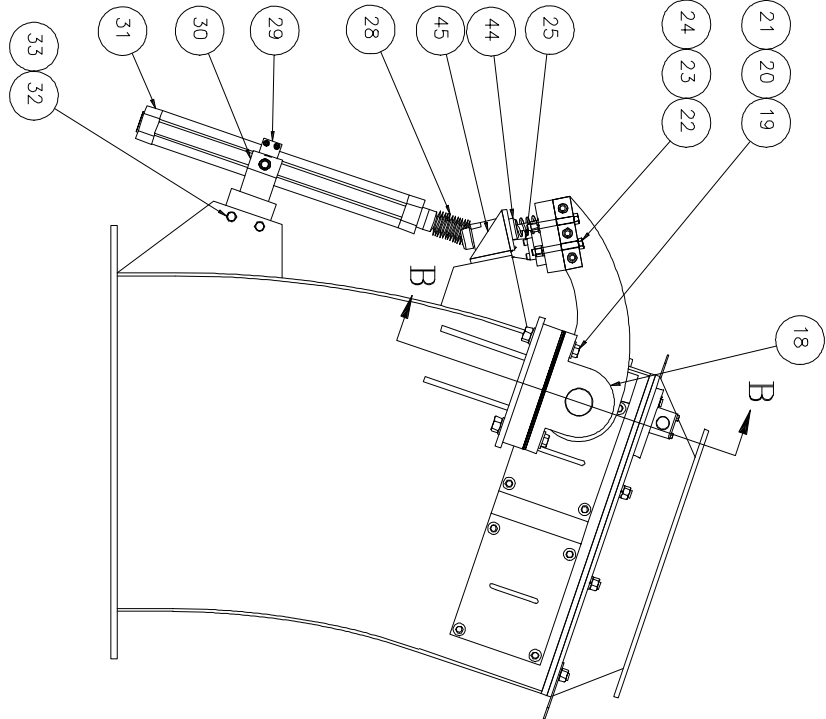
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3. ADJUST TO 3 AFTER EQUIPMENT HAS REACHED MAX OPERATING TEMPERATURE
2. INSURE THERE IS EQUAL DISTANCE ON BOTH SIDES OF GATE SHAFT



1. LOOSEN PRIOR TO KILN HEATING

SECTION B-B



SECTION A-A

| ITEM | QTY | DESCRIPTION                        | MATERIAL                    |
|------|-----|------------------------------------|-----------------------------|
| 1    | 1   | BOTTOM CHAMBER                     | WELDMENT                    |
| 2    | 1   | BOTTOM CHAMBER INSERT              | WELDMENT                    |
| 3    | 2   | BACK PLUG                          | WELDMENT                    |
| 4    | 2   | FRONT PLUG                         | WELDMENT                    |
| 5    | 1   | PIVOT ARM RH                       | WELDMENT                    |
| 6    | 1   | LEVER ARM TIE BAR                  | WELDMENT                    |
| 7    | 6   | Ø 3/4" X 2" LG SHLDR SCR           | -                           |
| 8    | 2   | ARM SLIDING BLOCK                  | SEE DTAIL                   |
| 9    | 1   | PIVOT ARM LH                       | WELDMENT                    |
| 10   | 18  | 5/8-11 HEX NUT                     | -                           |
| 11   | 18  | 5/8 LOCK WASHER                    | -                           |
| 12   | 16  | 3/8-16 X 3/4" HHCS                 | -                           |
| 13   | 16  | 3/8 LOCK WASHER                    | -                           |
| 14   | 4   | SHIM 1/16"                         | SEE DETAIL                  |
| 15   | 2   | SHIM 1/8"                          | SEE DETAIL                  |
| 16   |     |                                    |                             |
| 17   | 2   | WASHER                             | SEE DETAIL                  |
| 18   | 2   | GRAPHALLOY BEARING Ø 2 7/16"       | 448-1332-212                |
| 19   | 4   | 3/4-10 X 5" HHCS                   |                             |
| 20   | 4   | 3/4" LOCK WASHER                   |                             |
| 21   |     |                                    |                             |
| 22   |     |                                    |                             |
| 23   | 4   | 1/2" LOCK WASHER                   |                             |
| 24   | 4   | 1/2-13 HEX NUT                     |                             |
| 25   | 4   | 5/16-18 X 1" HHCS                  |                             |
| 26   |     |                                    |                             |
| 27   | 1   | CYLINDER ROD EYE (9263)            | SGS-M16x1.5                 |
| 28   | 1   | ROD BOOT                           |                             |
| 29   | 1   | MID TRUNNION MOUNT (163528)        | ZNCM-63                     |
| 30   | 2   | MID TRUNNION SUPPORT BLKS (329611) | LNZG-63-80                  |
| 31   | 1   | FESTO AIR CYLINDER                 | DNC-63-508-PPV-A-76K8-S6-R3 |
| 32   | 4   | 1/2-13 X 1 1/4" HHCS               |                             |
| 33   | 4   | 1/2" LOCK WASHER                   |                             |
| 34   | 1   | BOTTOM GATE WELDMENT               | WELDMENT                    |
| 35   | 1   | Ø 1" X 1 3/4" LG SHLDR SCR         |                             |
| 36   | 1   | 3/4" WASHER                        |                             |
| 37   | 1   | TRUNNION MOUNT BLOCK               | SEE DETAIL                  |
| 38   | 1   | TRUNNION BASE                      | SEE DETAIL                  |
| 39   | 2   | 5/8" X 5/8" 2" KEY UNDERSIZE       | KEYSTOCK                    |
| 40   | 2   | STAUFF MOUNTING BRACKET            | SM4300PPDPAS                |
| 41   | 2   | CUTLER HAMMER PROX                 | E-57LAL30A2                 |
| 42   | 1   | MCMASTERCARR SPLIT CLAMP COLLAR    | 6436K81                     |
| 43   | 1   | BULK HEAD BRKT DOUBLE              | SEE DETAIL                  |
| 44   | 1   | BULK HEAD BRKT SINGLE              | SEE DETAIL                  |
| 45   | 2   | ENERTROL SHOCK                     | SALD 3/4X2P                 |
| 46   | 2   | ENERTROL SHOCK MOUNT               | 3136-31015                  |

- NOTE:
1. ALL FASTENERS TO BE GRADE 8 YELLOW ZINC PLATED UNLESS OTHERWISE NOTED.
  2. TOTAL WEIGHT 1800 Kg

| REV. NO.                                                                                                                                                                                                                                                                                                                                                               | DATE | BY                                                | DESCRIPTION      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------------------------------------------------|------------------|
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| Alternative Fuel Systems engineered for Industry                                                                                                                                                                                                                                                                                                                       |      |                                                   |                  |
| TITLE<br>AIRLOCK VALVE<br>BOTTOM GATE ASSEMBLY                                                                                                                                                                                                                                                                                                                         |      | SCALE 1:8                                         | DATE 2/17/09     |
| DRAWN BY A.BOWMAN                                                                                                                                                                                                                                                                                                                                                      |      | APPROVED                                          | PROJECT#         |
| CHECKED BY                                                                                                                                                                                                                                                                                                                                                             |      |                                                   |                  |
| DWG. NO. AFS-BG-001                                                                                                                                                                                                                                                                                                                                                    |      |                                                   | SHEET NO. 1 OF 1 |