**Metal Forming Lab**

****

**HYDRAULIC PRESS (Deep Drawing Test Setup)**

Make: J. RAGRAU INSTRUMENTS

Specifications:

|  |  |
| --- | --- |
| Capacity | 40T |
| Usable range | 35T |
| Displacement | 500 mm |
| Stroke length | 400 mm |
| Holding pressure | Up to 50 bar |
| Working pressure | Up to 100 bar |
| Daylight | 600 mm |
| Working area | 600 x 600 mm |
| Power pack motor | 7.5 h.p |

****

**HYDRAULIC COMPRESSION TESTING MACHINE**

Make : HEICO

Model : 2000kN

Specifications:

|  |  |
| --- | --- |
| Capacity | 2000 kN |
| Vertical Clearance | 800mm |
| Travel of the Ram | 100mm |
| Platen Size | 250 mm square |
| HYDRAULIC POWER PACK | |
| Flow of the pump | 10LPM |
| Motor capacity | 5 H.P. |
| Capacity of the tank | 100litres |
| Operating pressure | 200 Bars |
| Noise Level | Less than 70dB |



**DIGITAL HAND OPERATED BULGE TESTING SYSTEM**

Make : J. RAGRAU INSTRUMENTS



**SHEARING MACHINE**

**MAKE** : VIVEK

**MODEL** : VUS 7

**Specifications :**

|  |  |
| --- | --- |
| Cutting Capacity (MS) Length x Thickness | 1525 X 4 mm |
| Stroke per minute | 50 |
| Table height | 800 mm |
| Table width | 400 mm |
| Front gauge | 600 mm |
| Rear gauge | 750 mm |
| Blade length x width x thickness | 1525x63x18 mm |
| Motor capacity | 3.7kW |



**MECHANICAL PRESS**

**MAKE** : VIVEK

**MODEL** : **VPP – 3 (C-Type)**

**Specifications:**

|  |  |
| --- | --- |
| Capacity | 30 Ton |
| Stroke adjustment | 63 mm |
| Length and width bed | 522X381 mm |
| Distance bed to ram | 254 mm |
| Stroke per min. (s.g.) | 45 |
| Stroke per min. (d.g.) | 40 |
| Floor to top of bed | 890 mm |
| Motor capacity | 2.2 kW |



**Hydraulic Deep Drawing Press (200 TON)**

**with SCADA Software**

Make: Flowmech.

**Year:2023**

Specifications:

|  |  |
| --- | --- |
| Type of the press | Pillar type (Down Stroke) |
| Total capacity of the press | 200 + 60 TON |
| Main ram capacity | 200 TON |
| Blank holder ram capacity | 60 TON |
| Main cylinder stroke | 700 mm |
| Blank holder ram stroke | 400 mm |
| Day light gap from main cylinder | 1200 mm |
| Bed size | 1000 X 1000 mm |
| Approaching speed | 4-5 mm/s |
| Punch speed | 0.1 – 1 mm/s |
| Return speed | 5-6 mm/s |
| T-slots size | T-20 |



**Three Zone Spilt Furnace**

Make: Karthik **Instrumentation**

**Year:2023**

Specifications:



|  |  |
| --- | --- |
| Heating Chamber | 500 x 600 mm (Diameter x Height) |
| Outer Dimension | 800 x 800 x 740mm (Length x Width x height) |
| Power Rating | 25 kW |
| Operating Temp Max. | 1000oC |
| Rate of Heating | 900oC within 90 minutes |
| Uniformity | 4°C on stable Ideal conditions |
| Power supply | 440 VAC, 40 Amps per phase |
| Sensor | Type ‘K’ Mineral insulated Thermocouple |