

## Annexure-A

Helicoflex Metal O-Rings (Spring Energized Type)

Sr.#	Description	Material / Spec	Qty. (Nos.)
1	Metal O-Ring Outside Diameter = 21.6 mm,made of Stainless Steel tube having (1.85 mm) cross section	Stainless Steel as per attached specification No. DNT003-SS001-TS-01/ 301 (Rev.1)(Annexure-C) (Sketches are attached at Annexure-D)	11
2	Metal O-Ring Outside Diameter = 42.4 mm,made of Stainless Steel tube having (2.2mm) cross section		11
3	Metal O-Ring Outside Diameter = 59.3 mm,made of Stainless Steel tube having (3 mm) cross section		11

**Note:**

Main Specifications for above mentioned O-rings are as following:

☐ Material of construction = Stainless steel

☐ Type of Seal: Helium Sealing (Pressure: Vacuum to 15 Psi), HN 200 (Spring Energized type), Jacketed with inner Lining

☐ Working Temperature : Cryogenic to 700°F (371°C)

☐ For further details please see attached Annexure "C"

☐ Manufacturer/Brand : Garlock Helicoflex or Equivalent

• Manufacturer certificate showing technical compliance to required specification have to be provided.

• Please also submit duly filled check list at Annexure B, along with quotation

## Annexure-B

### Check List

- |                                                                                                                                                                                                                                      |                          |                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|
| 1- All the technical details i.e Sealing parameters, required dimensions and load characteristics given in applicable specification no. DNT003-SS001-TS-01/ 301 (Annex.of tender documents) have been carefully read and understood. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2- Manufacturer certificate showing technical compliance to required specification will be provided.                                                                                                                                 | <input type="checkbox"/> | <input type="checkbox"/> |
| 3- Manufacturer's name/ brand and identification should be marked / tagged with O rings and these should be traceable to relevant Certificate.                                                                                       | <input type="checkbox"/> | <input type="checkbox"/> |
| 4- In case of offer of equivalent brand, it is certified that Offered O rings are technically equivalent to required brand.                                                                                                          | <input type="checkbox"/> | <input type="checkbox"/> |
| 5- Type of Seal is Helium Sealing (Pressure: Vacuum to 15 Psi)                                                                                                                                                                       | <input type="checkbox"/> | <input type="checkbox"/> |
| 6- Offered O -rings are suitable for working temperatures of Cryogenic to 700°F (371 Centigrade)                                                                                                                                     | <input type="checkbox"/> | <input type="checkbox"/> |
| 7- Offer/ quotation does not contain condition or requirement of " End user certificate" to be provided by the buyer.                                                                                                                | <input type="checkbox"/> | <input type="checkbox"/> |

### **Note:**

Please submit check list along with your quotation, after encircling either "Yes" or "No"

Signature / Stamp of Supplier

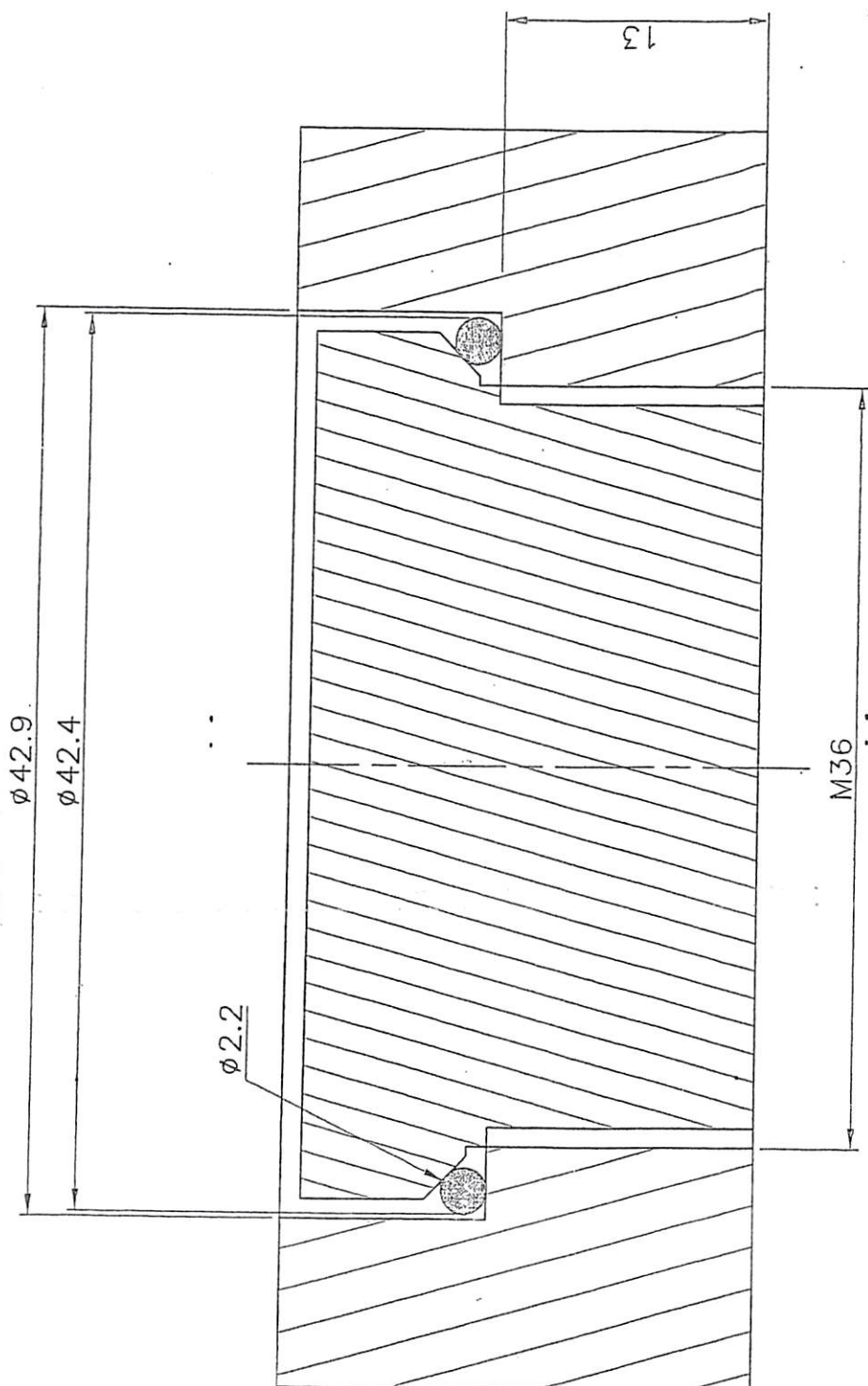


**TECHNICAL SPECIFICATIONS  
OF  
METAL O-RING**

**Code Calculated Loads:**

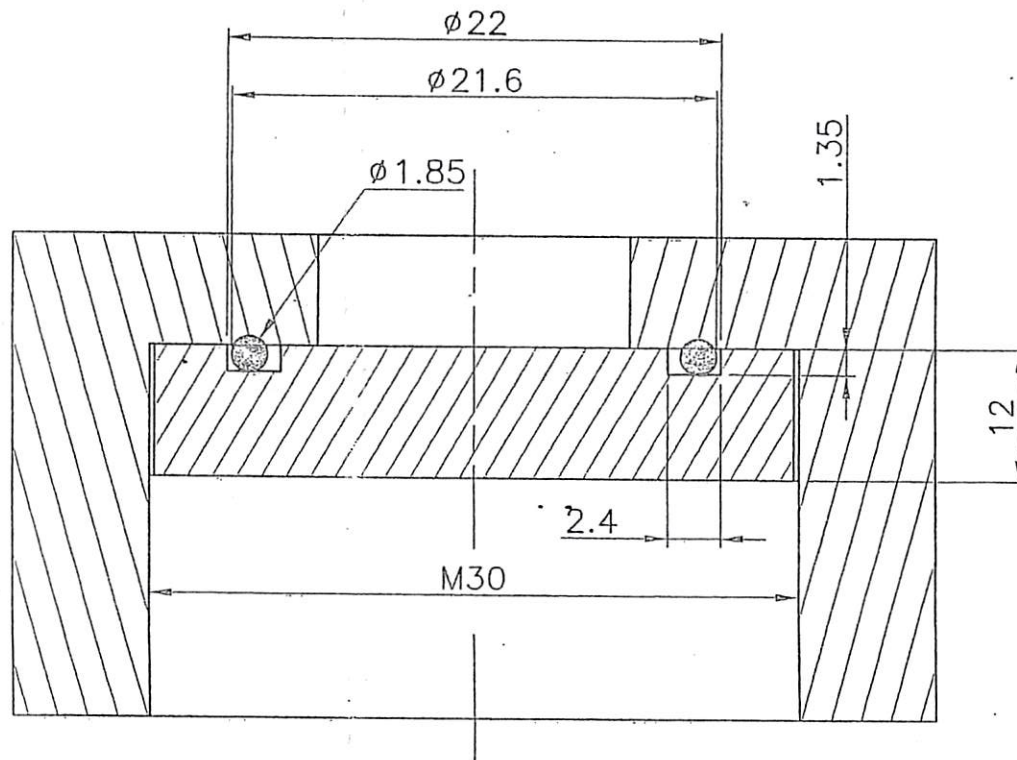
S. #	O-ring Cross section Diameter	Operating Load	Hydrostatic Force	Min. Service Load	Min. Tightening Load to apply on Bolt
1.	1.85 mm	5339 lbs	8.5 lbs	22.1 lbs	30.6 lbs
2.	2.2 mm	13485 lbs	32.86 lbs	48 lbs	80.871 lbs
3.	3 mm	24034 lbs	64 lbs	70 lbs	134 lbs

ANNEXURE - D (1/3)



NOTES:

1. Load refer to annexure C.

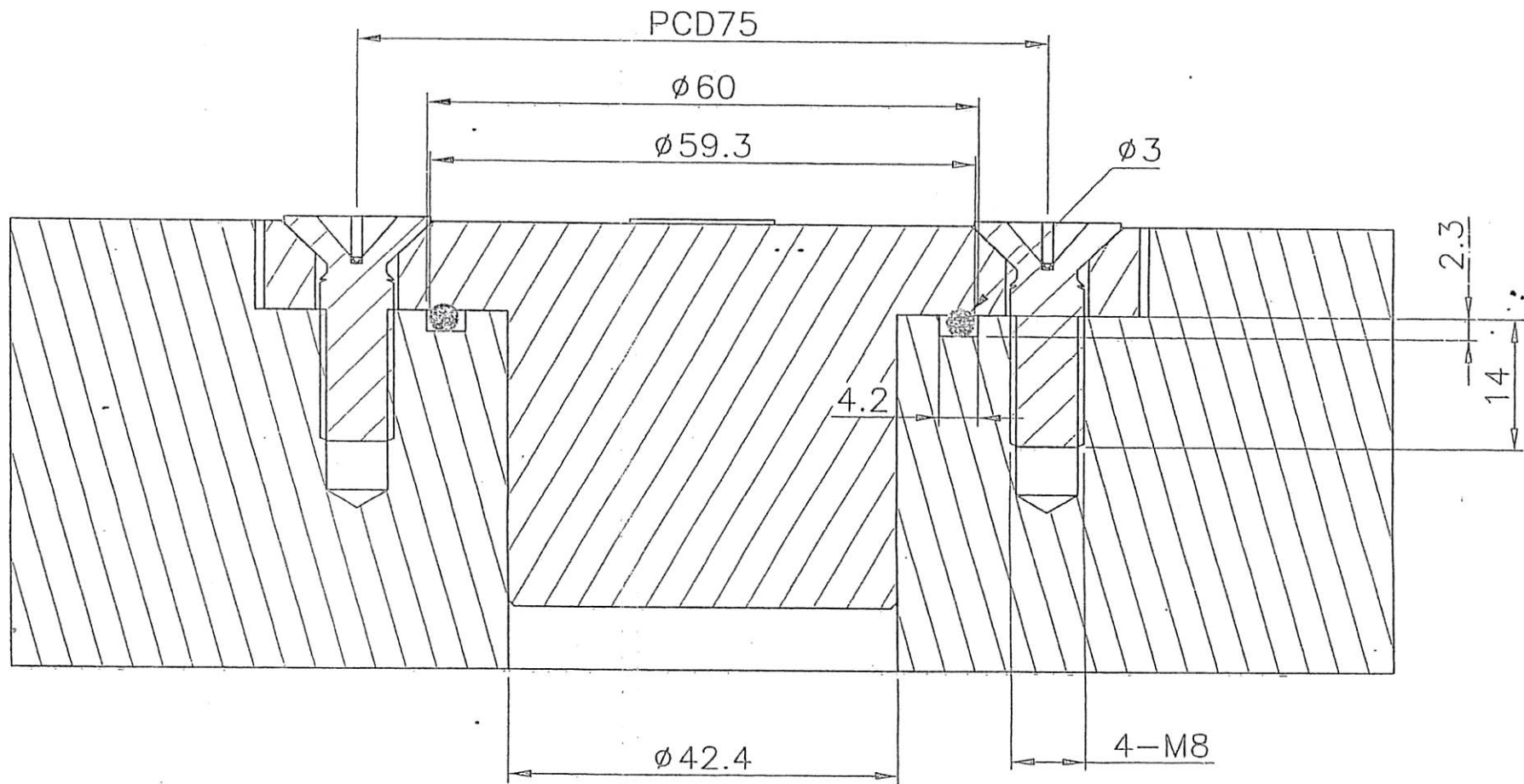


#### NOTES:

1. Load refer to annexure C, page 10.

ANNEXURE-D (2/3)





**NOTES:**

1. Load refer to annexure C

ANNEXURE-D (3/3)