

QUOTATION NOTICE

Quotation Number	02 /22/P7/ITC&SR(SR)KDISC
Due date and time for receipt of quotations	16.08.2022 3 PM
Date and time for opening of quotations	17.08.2022 11 AM
Date up to which the rates are to remain firm for acceptance	28.02.2023
Designation and address of officer to whom the quotation is to be addressed	The Principal, College of Engineering Trivandrum, Thiruvananthapuram-16.
Superscription :Purchase of Reactors(2 Nos)	

Sealed quotations are invited for the supply of the materials specified in the list attached given below/overleaf. The rates quoted should be for the delivery of the articles at the places mentioned below the schedule. The necessary superscription, due date for the receipt of quotations, the date up to which the rates will have to remain firm for acceptance and the name and address of officer to whom the quotation is to be sent are noted above. Any quotation received after the time fixed on the due date is liable to be rejected. The maximum period required for delivery of the articles should also be mentioned. Quotations not stipulating period of firmness and with price variation clause and/or 'subject to prior sale' condition are liable to be rejected.

The acceptance of the quotations will be subject to the following conditions.

1. Withdrawal from the quotation after it is accepted or failure to supply within a specified time or according to specifications will entail cancellation of the order and purchases being made at the offers expenses from elsewhere, any loss incurred thereby being payable by the defaulting party. In such an event the Government reserves also the right to remove the defaulter's name from the list of Government suppliers permanently or for a specified number of years.
2. Samples, duly listed, should be forwarded if called for under separate cover and the unapproved samples got back as early as possible by the offers at their own expenses and the Government will in no case be liable for any expenses on account of the value of the samples or their transport charges, etc. In case, the samples are sent by railway, the railway receipt should be sent separately, and not along with the quotation since the quotation will be opened only on the appointed day and demurrage will have to be paid if the railway parcels are not cleared in time. Quotations for the supply of materials are liable to be rejected unless samples, if called for of the materials tendered for are forwarded. The approved samples may or may not be returned at the discretion of the undersigned. Samples sent by V.P.Post or "freight to pay" will not be accepted.
4. No representation for enhancement of price once accepted will be considered during the currency of the contract.
5. Any attempt on the part of tenderers or their agents to influence the Officers concerned in their favour by personal canvassing will disqualify the tenderers.
6. If any license or permit is required, tenderers must specify in their quotation and also state the authority to whom application to be made.
7. The quotation may be for the entire or part supplies. But the tenderers should be prepared to carry out such portion of the supplies included in their quotation as may be allotted to them.
8. In cases where a successful tenderer, after having made partial supplies fails to fulfill the contracts in full, all or any of the materials not supplied may, at the discretion of the Purchasing Officer be purchased by means of another tender/quotation or by negotiation or from the next higher tenderer who had offered to supply already and the loss, if any, caused to the Government shall thereby together with such sums as may be fixed by the Government towards damages be recovered from the defaulting tenderer
9. The prices quoted should be inclusive of all taxes, duties, cesses, installation charges etc., which are or may become payable by the contractor under existing or future laws or rules of the country of origin/supply or delivery the course of execution of the contract.
- 10.a) Ordinarily payments will be made only after the supplies are actually verified and taken to stock but in exceptional cases, payments against satisfactory shipping documents including certificates of Insurance will be made up to 90 per cent of the value of the materials at the discretion of Government. Bank charges incurred in connection with payment against documents through bank will be to the account of the contractor. The firms

will produce stamped pre-receipted invoices in all cases where payments(advance/final) for release of railway receipts/shipping documents are made through Banks. In exceptional cases where the stamped receipts of the firms are not received for the payments (in advance) the unstamped receipt of the Bank (i.e. counterfoils or pay-in-slips issued by the Bank alone may be accepted as a valid poor for the payment made. b)The tenderers shall quote also the percentage of rebate (discount) offered by them in case the payment is made promptly within fifteen days/within one month of taking delivery of stores.

11.Any sum of money due and payable to the successful tenderer or contractor from Government shall be adjusted against any sum of money due to Government from him under any other contracts.

12.Payment will be made only after installation, demonstration and satisfactory performance.

13.Special conditions, if any, printed on the quotation sheets of the tenderer or attached with the tender will not be applicable to the contract.

Specification

Sl. No	Item	Quantity
1	<p>HR-01 20L PROTOTYPE(ref drawing: PR01-D-GG-00P1-101_R1)</p> <p>Specification:</p> <ul style="list-style-type: none"> • Material: mild steel ◦ Pipe/Shell : SA 106 Gr B or Equivalent ◦ Flanges: SA 105 Class# 150 or Equivalent ◦ Coupling : BSP thread , SA 105 or Equivalent ◦ Fasteners: SA 193 B7/SA 194 2H or Equivalent ◦ Gasket : SS316 spiral wound gasket, graphite filler, carbon steel inner ring and flexitallic outer ring. • Internal coating: Teflon 1mm • External coating: primer 50 micron • Testing: Hydrotest 4.5 bar <p>Delivery: DAP– Delivered @ College of Engineering, Trivandrum.</p>	01 No
2	<p>MR-02 5L PROTOTYPE (ref drawing: PR01-D-GG-00P1-100_R2)</p> <p>Specification:</p> <ul style="list-style-type: none"> • Material: mild steel ◦ Pipe/Shell : SA 106 Gr B or Equivalent ◦ Flanges: SA 105 Class# 150 or Equivalent ◦ Coupling : BSP thread SA 105 or Equivalent ◦ Fasteners: SA 193 B7/SA 194 2H or Equivalent ◦ Gasket : SS316 spiral wound gasket, graphite filler, carbon steel inner ring and flexitallic outer ring. • Internal coating: Teflon 1mm • External coating: primer 50 micron • Testing: Hydrotest 4.5 bar <p>Delivery: DAP – Delivered @ College of Engineering, Trivandrum.</p>	01 No

Terms and Conditions

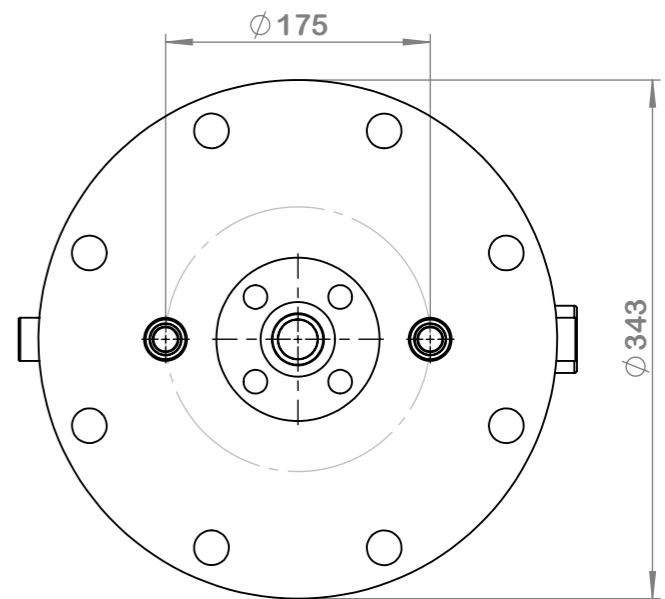
The following are to be supplied along with the tender/Quotation

1. The rates are inclusive of all the taxes,duties,Handling and delivery on site
2. Payment will be done after installation and successful performance of the equipment
3. The items have to be delivered at College of Engineering, Trivandrum
4. The item has to be supplied within 4 to 6 weeks from the date of receipt of this order

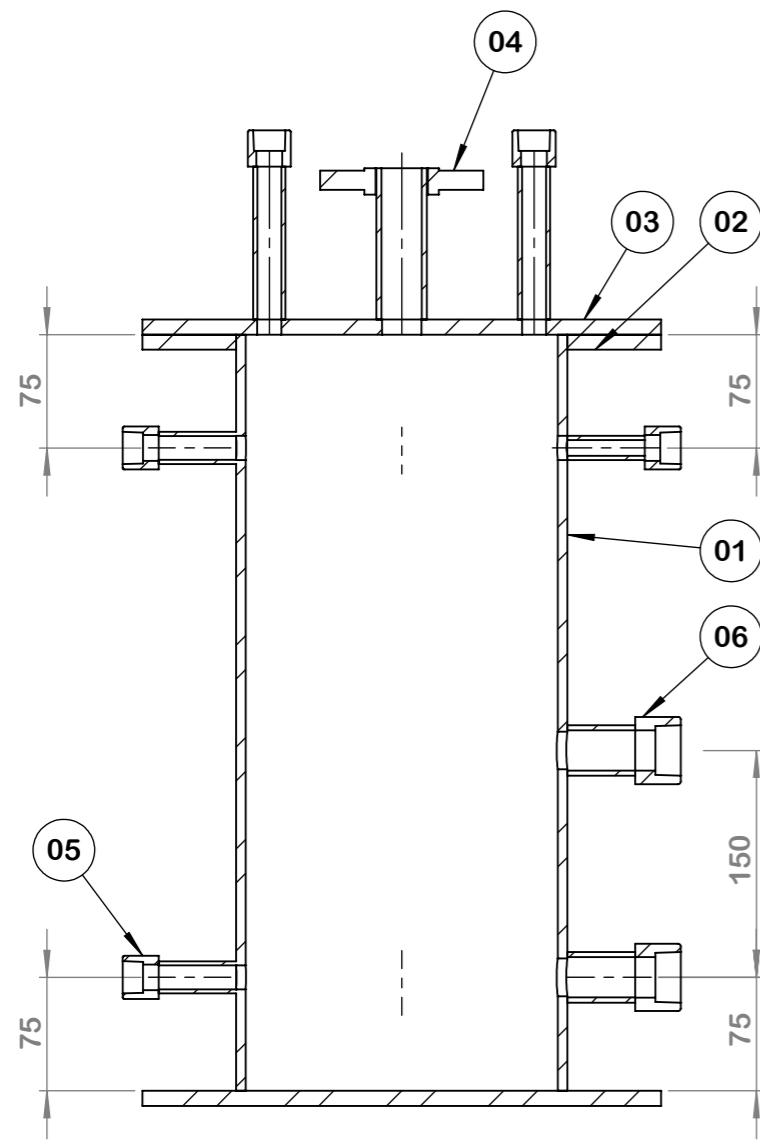
Principal

BILL OF MATERIALS				NOZZLES				
ITEM NO.	NAME	DESCRIPTION	QTY	TAG	DESCRIPTION	SPECIFICATION	MOC	QTY
01	SHELL	8" SCH 20 SEAMLESS PIPE, 500mm LG	1	N1	SUBSTRATE INLET	1" NB SCH 40 WITH ANSI 150# FLANGE	ASTM A 106 Gr B	1
02	FLANGE	8" ANSI SLIP-ON FLANGE, 10mm THK	1	N2	SUBSTRATE OUTLET	1" THREADED HALF COUPLING, CLASS 3000	ASTM A 106 Gr B	1
03	END FLANGE	8" ANSI BLIND FLANGE, 10mm THK	2	N3	SPARE NOZZLE	1" THREADED HALF COUPLING, CLASS 3000	ASTM A 106 Gr B	1
04	NOZZLE FLANGES	1" ANSI 150# SLIP-ON FLANGE	1	N4	GAS OUTLET	1/2" THREADED HALF COUPLING, CLASS 3000	ASTM A 106 Gr B	1
05	HALF COUPLING	1/2", THREADED, CLASS 3000	5	N5	TEMPERATURE MEASUREMENT	1/2" THREADED HALF COUPLING, CLASS 3000	ASTM A 234 B16	1
06	HALF COUPLING	1", THREADED, CLASS 3000	2	N6	pH MEASUREMENT	1/2" THREADED HALF COUPLING, CLASS 3000	ASTM A 234 B16	1
HR-01 20L PROTOTYPE SPECIFICATIONS				N7	PURGE NOZZLE	1/2" THREADED HALF COUPLING, CLASS 3000	ASTM A 234 B16	1
CAPACITY		20 L		N8	SPARE NOZZLE	1/2" THREADED HALF COUPLING, CLASS 3000	ASTM A 234 B16	1
FEED RATE		1.2 kg/day						
RESIDENCE TIME		1.5 days						
OPERATING TEMPERATURE		55 deg C						
PREFERRED OPERATING PRESSURE		1 bar						
MAXIMUM OPERATING PRESSURE		3 bar						

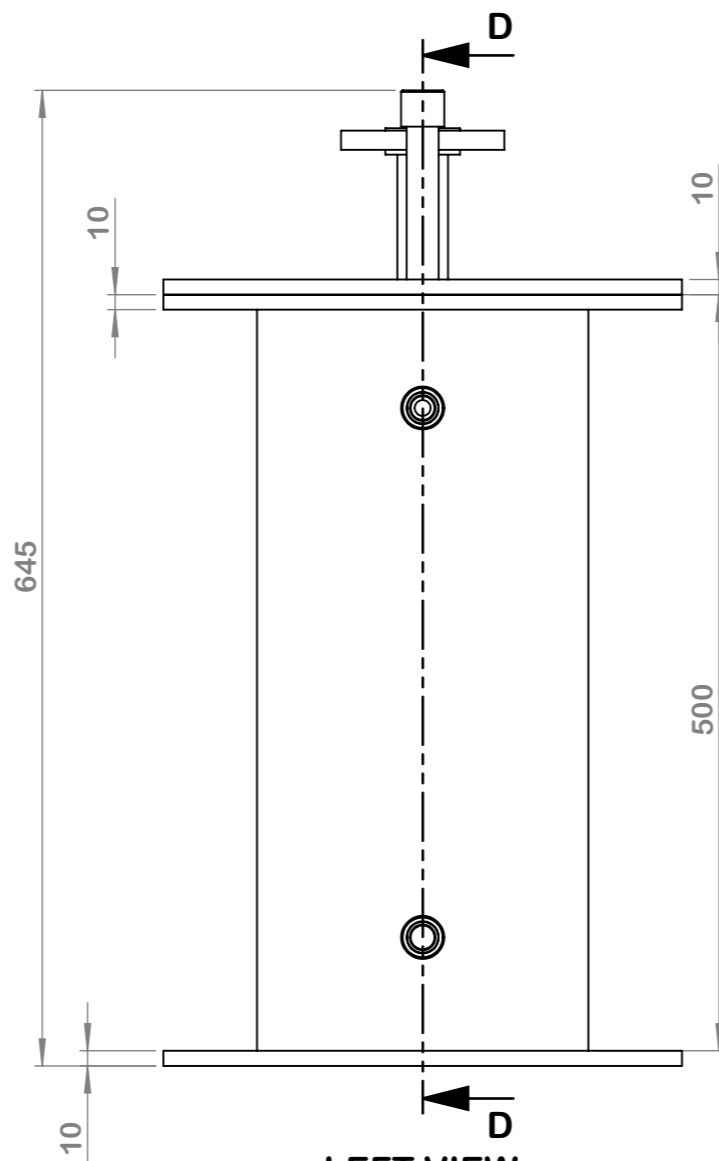
NOTES:
- MOC - MILD STEEL WITH TEFLON COATING



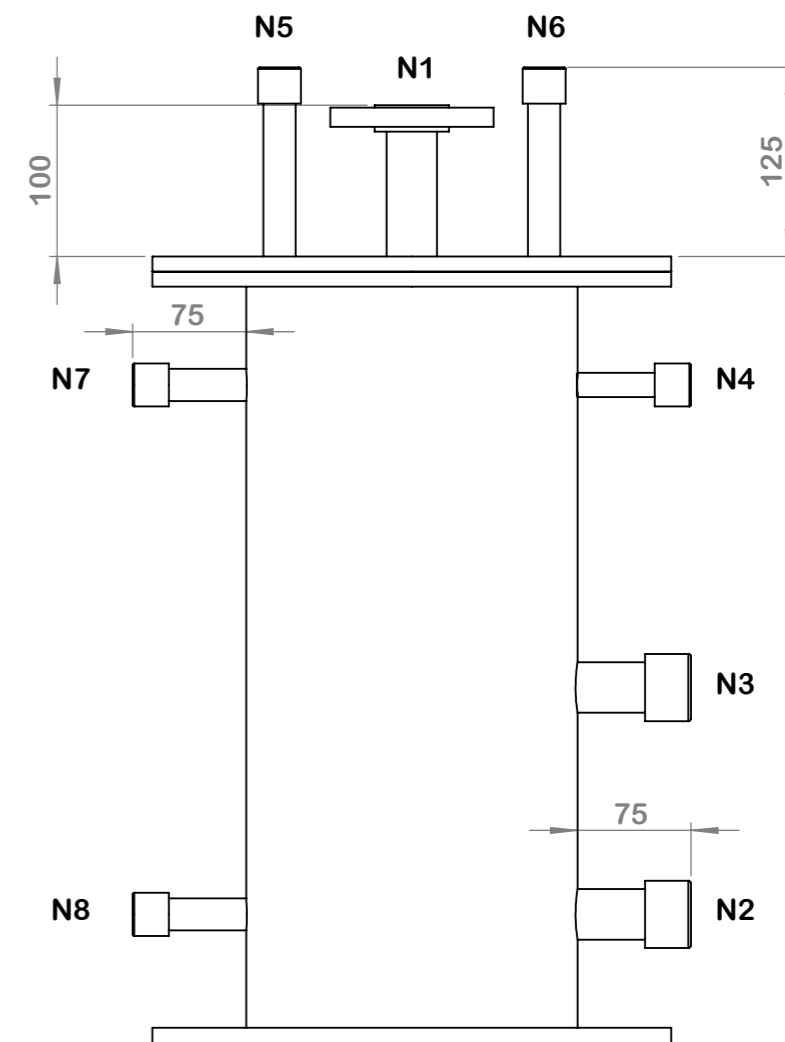
TOP VIEW



SECTION D-D



LEFT VIEW



FRONT VIEW



SURFACE FINISH:
TOLERANCES:
LINEAR:
ANGULAR:

FINISH: DEBURR AND BREAK SHARP EDGES
WEIGHT: 37
MOC: MS, TEFLON COATING

DO NOT SCALE DRAWING
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS WEIGHT IN KGS.

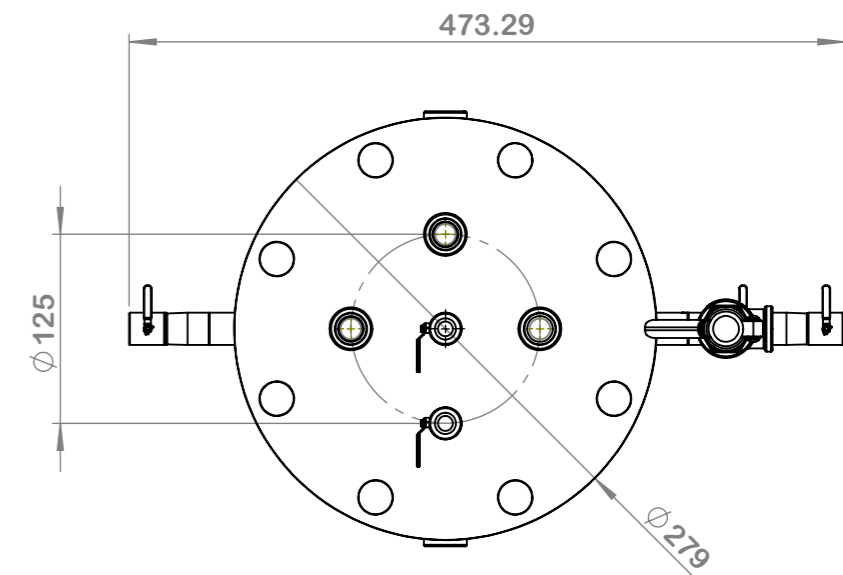
	NAME	DATE
DRAWN	AG	07 July 2022
CHK'D	AB	07 July 2022
APP'V'D	VS	07 July 2022

TITLE:	DWG NO.	SHEET 1 OF 1	SCALE:1:5
HR-01 20L PROTOTYPE	PR01-D-GG-00P1-101_R1		
A3			
REV: 01			

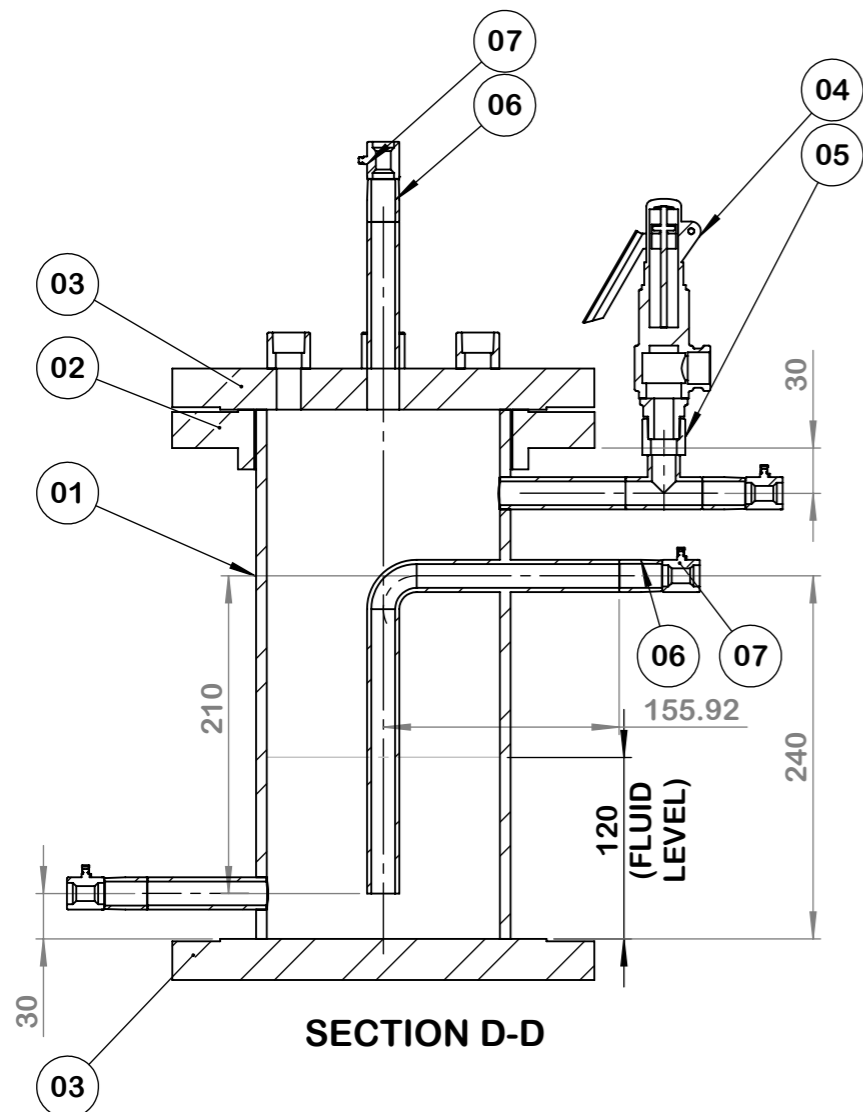
BILL OF MATERIALS			
ITEM NO.	NAME	DESCRIPTION	QTY
01	SHELL	6" SCH 40 SEAMLESS PIPE, 350mm LG	1
02	FLANGE	6" ANSI 150# SLIP-ON FLANGE	1
03	END FLANGE	6" ANSI 150# BLIND FLANGE	2
04	PRESSURE RELIEF VALVE	1/2" PRV, SET PRESSURE-10 BAR	1
05	HALF COUPLING	1/2", THREADED, CLASS 3000	6
06	WELD NIPPLE	1/2", SCH 40	5
07	BALL VALVE	1/2", PRESSURE RATING 10 BAR	5

MR-02 10L PROTOTYPE SPECIFICATIONS	
CAPACITY	10 L
FEED RATE	1.2 kg/day
RESIDENCE TIME	1.5 days
OPERATING TEMPERATURE	37 deg C
PREFERRED OPERATING PRESSURE	7 bar
MAXIMUM OPERATING PRESSURE	10 bar
GAS OUTPUT	Max 0.1 Nm ³ /day

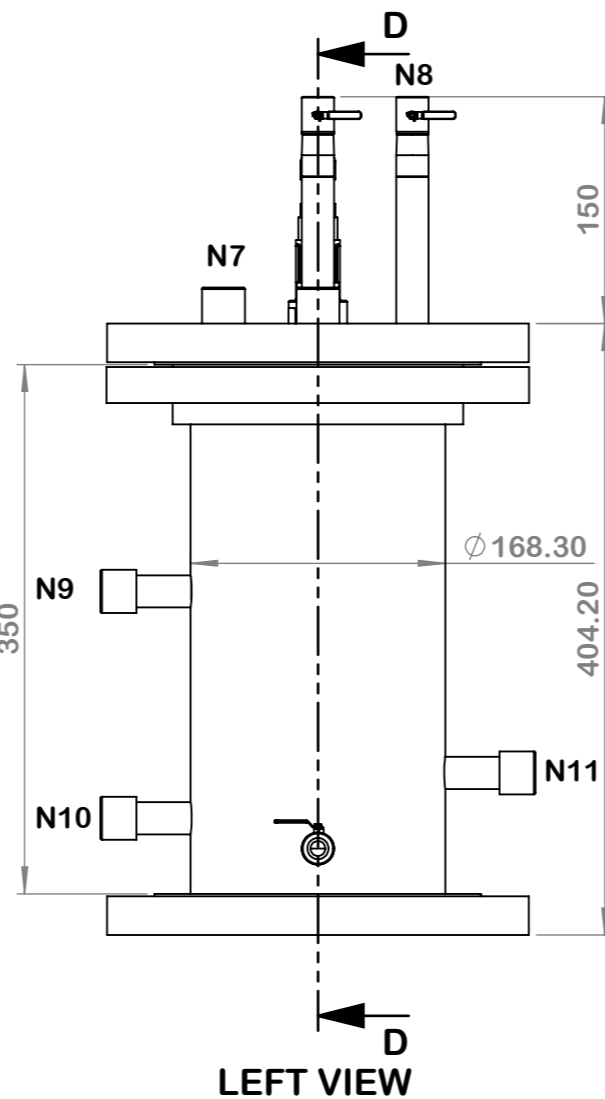
NOZZLES				
TAG	DESCRIPTION	SPECIFICATION	MOC	QTY
N1	FEED INLET	1/2" NB SCH 40	ASTM A 106 Gr B	1
N2	FEED OUTLET	1/2" NB SCH 40	ASTM A 106 Gr B	1
N3	GAS OUTLET	1/2" NB SCH 40	ASTM A 106 Gr B	1
N4	WATER INLET	1/2" NB SCH 40	ASTM A 106 Gr B	1
N5, N6, N7	INSTRUMENT NOZZLES	1/2" THREADED HALF COUPLING, CLASS 3000	ASTM A 234 B16	3
N8	GAS INLET	1/2" NB SCH 40	ASTM A 234 B16	1
N9, N10	TEMPERATURE MEASUREMENT	1/2" THREADED HALF COUPLING, CLASS 3000	ASTM A 234 B16	2
N11	pH MEASUREMENT	1/2" THREADED HALF COUPLING, CLASS 3000	ASTM A 234 B16	1



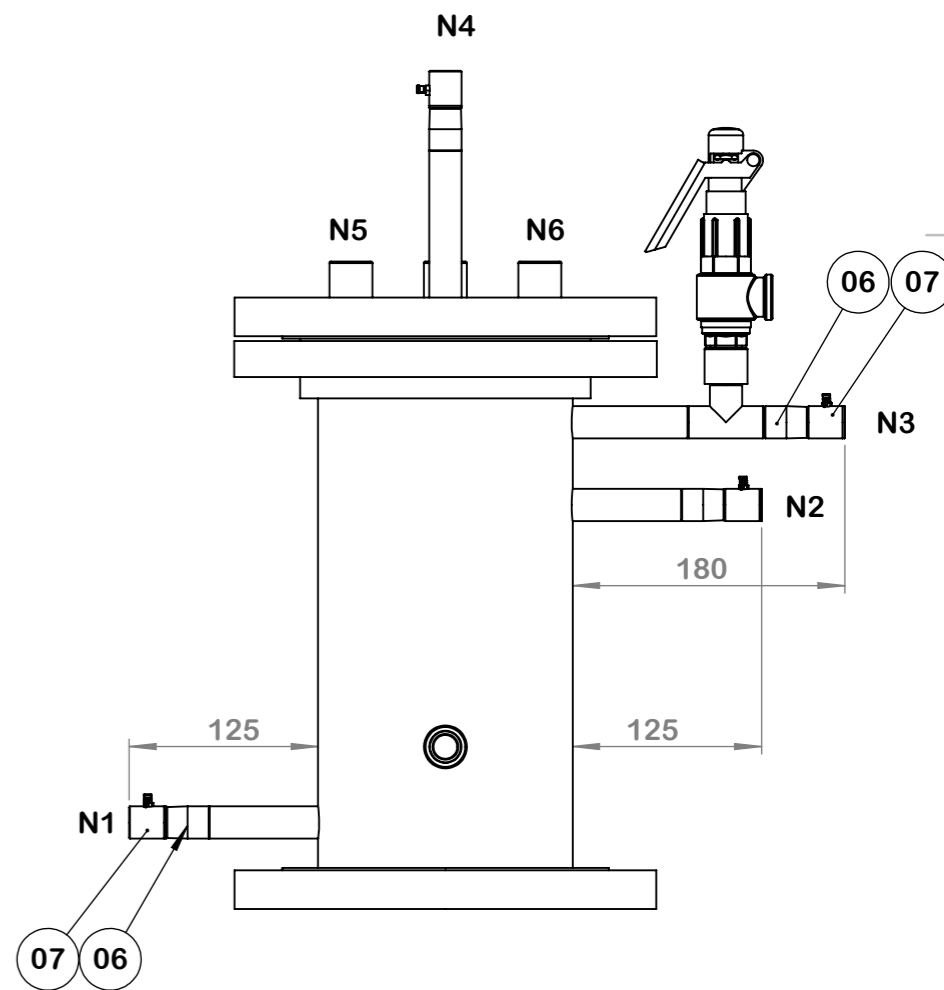
TOP VIEW



SECTION D-D



LEFT VIEW



FRONT VIEW

esylys
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SURFACE FINISH:
TOLERANCES:
LINEAR:
ANGULAR:

FINISH: DEBURR AND BREAK SHARP EDGES

WEIGHT: 44
MOC: MS, TEFLON COATING

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UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS WEIGHT IN KGS.

	NAME	DATE
DRAWN	AG	19 June 2022
CHK'D	AB	19 June 2022
APP'VD	VS	19 June 2022

TITLE:
DWG NO.

MR-02 5L PROTOTYPE

PR01-D-GG-00P1-100_R2

SHEET 1 OF 1

A3
REV: 02
SCALE: 1:5

