

since 1906
albany
pump company ltd.

ACC SERIES

ANSI B 73.1 - END SUCTION
CHEMICAL PUMP



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ACC SERIES ANSI B73.1 / ASME B73.1

Albany ACC series are horizontal, end suction, single stage centre line discharge design which complies to ANSI B73.1/ ASME B73.1 standards. The ANSI B73.1 will ensure that other ANSI process pumps with similar sizes can be interchangeable. These pumps are specially designed to handle corrosive, abrasive or high temperature liquids etc. These pumps provide excellent performance for tough applications including pumping of acids (Sulphuric Acid, Hydrochloric Acid, Nitric Acid, Citric Acid, Acetic Acid, etc.) and all alkalis (Sodium Hydroxide, Calcium Hydroxide, etc.), brines, caustics, bleaches, sea water, high temperature liquids and a wide variety of waste liquids for a wide range of applications including chemical, petrochemical, hot oil, ethanol, food, sugar, pharmaceuticals, metal finishing, waste water/



effluent treatment, desalination and aquarium/aquaculture etc. These pumps are offered with semi-open type impellers fitted with flow inducing vane and balance hole to reduce high thrust and it is designed to give better performance even at high vapour pressure of the liquid. It can be offered with different type of material of construction as per liquid specifications. The ACC series are tailor made pump to ensure process reliability, high efficiency and low operating costs. At the same time, the spare parts inventory and costs are kept to a minimum by means of standardization and inter-changeability of spares among the ranges. These pumps are offered with back pull out design considering easy maintenance and repair. These pumps can also be offered with vertical execution type.

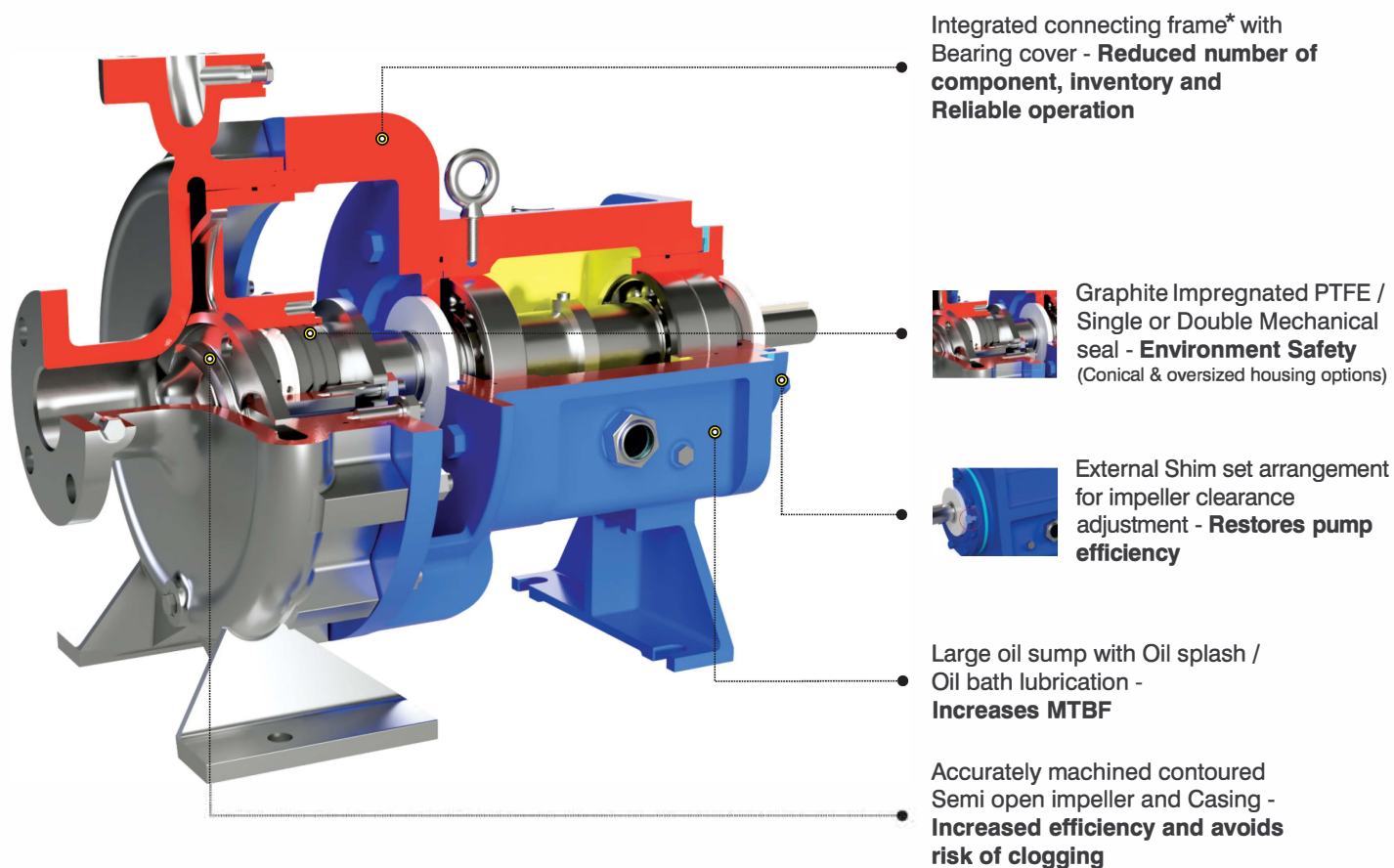
APPLICATIONS

- Power Generation
- Chemical & Petrochemical
- Oil & Gas
- Water, Sewage & Effluent Treatment Plants
- Desalination Plant
- Steel & Automotive Industries
- Paper and Pulp industries
- Semiconductor Industries
- Food processing, beverage & Dairy industries
- Sugar Industries
- Pharmaceuticals
- Dying & Paint Industries
- Mining
- Edible oil refinery and General Industries.

DESIGN FEATURES

- ASME / ANSI B73.1 standard (OH1)
- Back pull out design offered with semi open impeller
- Maximum inter-changeability of spares to reduce the inventory cost
- Balance relief hole on impeller to reduce the thrust
- Customized material of construction against specific requirement
- Lowest life cycle cost
- Jacketed casing for hot liquids
- Both mechanical seal and gland options

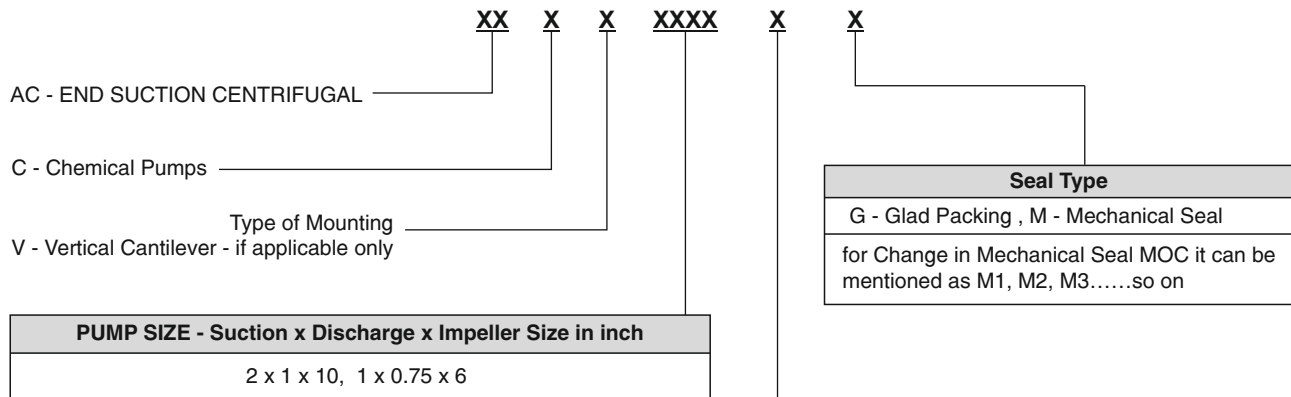
FEATURES & BENEFITS



- For low flow & head conditions, 7 sizes of ECG Low flow pumps available as per manufacturer standard
- Corrosion allowance as per ANSI B73.1 standard
- Cooling jackets for high temperature application
- Close coupled & Vertical sump configuration also available
- 21 pump sizes with 3 bearing frame assembly ensures spare parts interchangeability, reducing inventory cost

GENERAL INFORMATION

MODEL IDENTIFICATION



Description	Material of Construction							
Casing	SS 316	SS 316	SS 304	SS 304	SS 316 L	CS (WCB)	CI	CI
Impeller	SS 316	SS 316	SS 304	SS 304	SS 316 L	CS (WCB)	CF8	CF8M
Stuffing box & Gland	SS 316	SS 316	SS 304	SS 304	SS 316 L	CS (WCB)	CI	CI
Shaft	SS 316	EN 8	SS 316	EN 8	SS 316 L	EN 8	EN 8	EN 8
shaft sleeve	SS 316	SS 316	SS 316	SS 316	SS 316	SS 316	SS 410	SS 410
Bearing Housing & Connecting Frame	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron
Type of material of construction	N	M	S	T	L	W	C	F

TECHNICAL SPECIFICATIONS

Power	: upto 200 hp
Flow	: upto 4491 usgpm
Head	: upto 656 ft
Max. Liquid Temperature Max.	: upto 500° F*
Operating Pressure Solid	: upto 232 psi**
Handling Size	: upto 2 inch

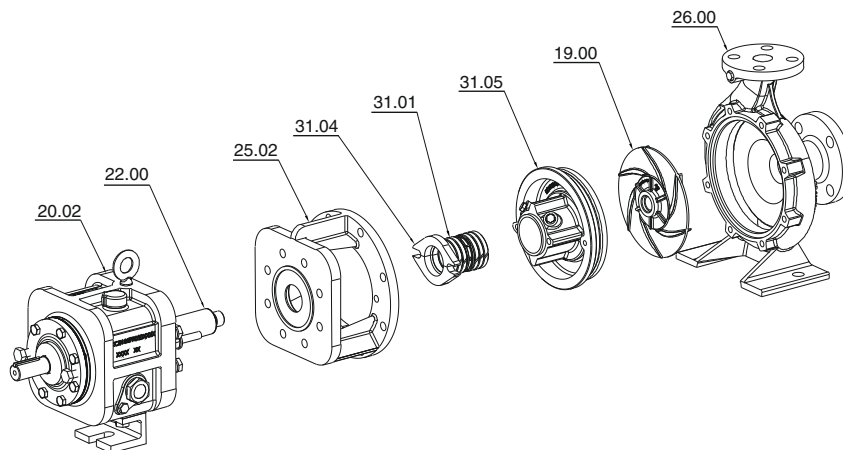
Note:

* For additional specifications contact manufacturer

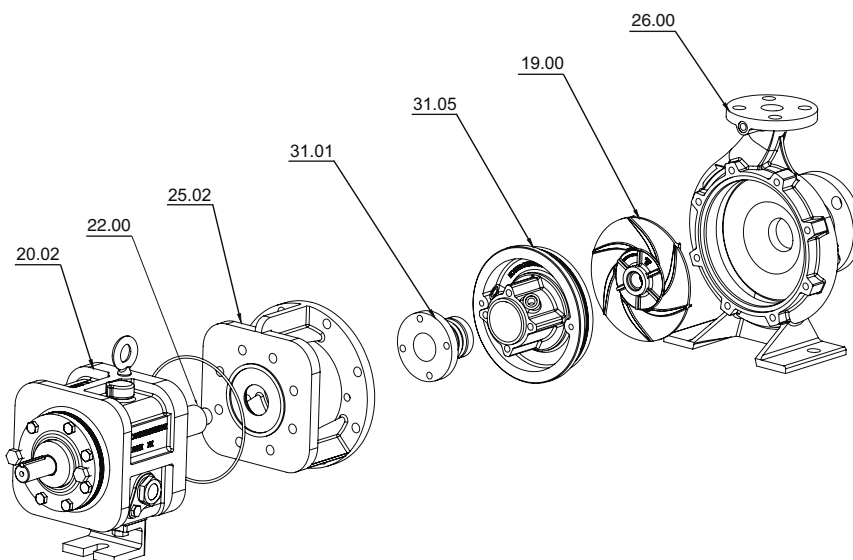
** Counter flanges provided > 16 bar/ 232 psi

EXPLODED VIEW

GLAND PACKING CONSTRUCTION



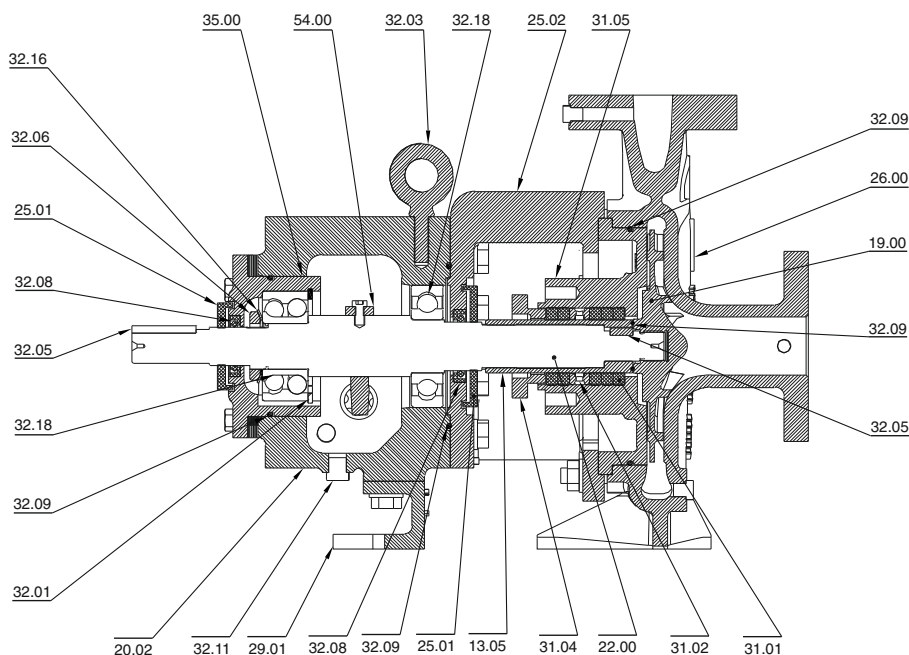
MECHANICAL SEAL CONSTRUCTION



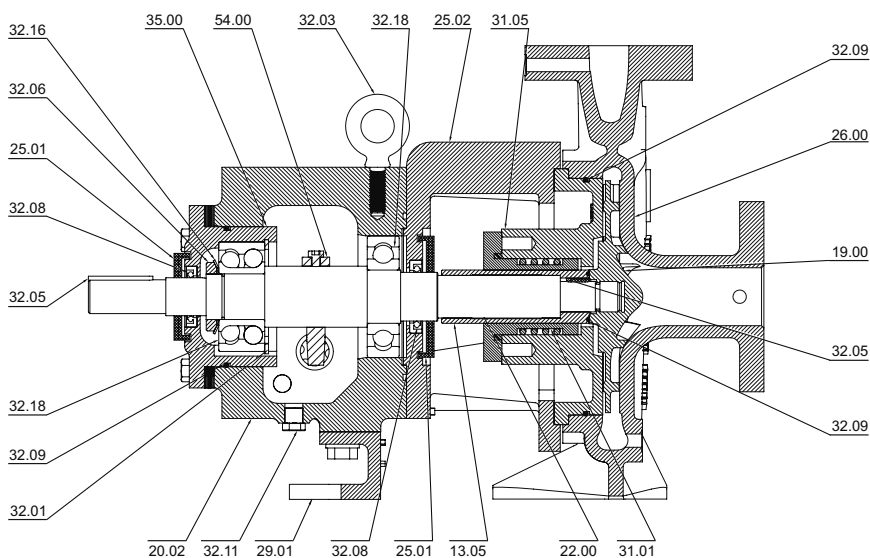
PART NO	PART NAME
26.00	CASING
19.00	IMPELLER
31.05	STUFFING BOX
31.01	PACKING / MECHANICAL SEAL
25.02	CONNECTING FRAME
20.02	BEARING FRAME
22.00	PUMP SHAFT
31.04	GLAND

CROSS SECTIONAL DRAWING

GLAND PACKING CONSTRUCTION

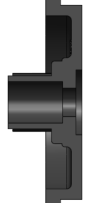
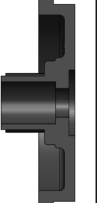
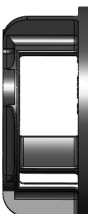
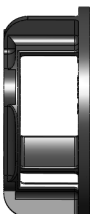


MECHANICAL SEAL CONSTRUCTION

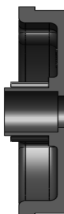
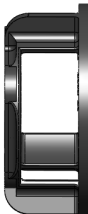


Part No	Part Name
32.11	Plug
20.02	Bearing Frame
32.01	Circlip
32.18	Bearing
32.06	Lock Nut
32.16	Washer
35.00	Bearing Housing
54.00	Thrower
32.03	Eye Bolt
25.02	Connecting Frame
31.05	Stuffing Box
32.09	O-Ring
26.00	Casing
19.00	Impeller
32.05	Key
31.01	Packing / Mechanical Seal
31.02	Lantern Ring
22.00	Pump Shaft
31.04	Gland
13.05	Sleeve
25.01	Deflector
32.08	Oil Seal
29.01	Frame Support

INTERCHANGEABILITY CHART

PART NAME	1.5 x 1 x 6 (40 x 25 x 150)	3 x 1.5 x 6 (80 x 40 x 150)	3 x 2 x 6 (80 x 50 x 150)	1.5 x 1 x 8 (40 x 25 x 200)	3 x 1.5 x 8 (80 x 40 x 200)	2 x 1 x 10 (50 x 25 x 250)	3 x 1.5 x 8.5 (80 x 40 x 215)	3 x 2 x 8.5 (80 x 50 x 215)	4 x 3 x 8.5 (100 x 80 x 215)	6 x 4 x 8.5 (150 x 100 x 215)
CASING										
IMPELLER										
STUFFING BOX										
CONNECTING FRAME										
BEARING FRAME ASSEMBLY										

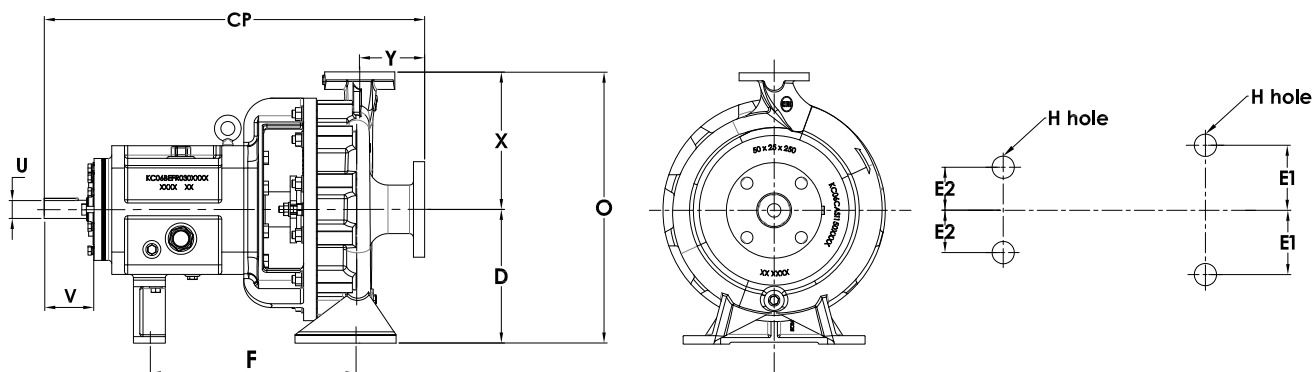
INTERCHANGEABILITY CHART

PART NAME	3 x 1.5 x 11 (80 x 40 x 280)	3 x 2 x 11 (80 x 50 x 280)	4 x 3 x 11 (100 x 80 x 280)	3 x 1.5 x 13 (80 x 40 x 330)	3 x 2 x 13 (80 x 50 x 330)	4 x 3 x 13 (100 x 80 x 330)	6 x 4 x 13 (150 x 100 x 330)	8 x 6 x 13 (200 x 150 x 330)	8 x 6 x 15 (200 x 150 x 380)	10 x 8 x 13 (250 x 200 x 330)	10 x 8 x 15 (250 x 200 x 380)
CASING											
IMPELLER											
STUFFING BOX											
CONNECTING FRAME											
BEARING FRAME ASSEMBLY											

DETAILS OF STANDARD COMPONENTS

SHAFT AND BEARING DATA	FRAME SIZE		
	I	II	III
SHAFT DIAMETER (mm)			
At Coupling	Ø 22.23	Ø 28.58	Ø 60.33
At 'NDE' Bearings	Ø 35	Ø 55	Ø 85
At 'DE' Bearings	Ø 30	Ø 45	Ø 75
Between bearings	Ø 40.13	Ø 60	Ø 92.1
Under Sleeve	Ø 27.97	Ø 45	Ø 60
Stuffing Box Details			
Shaft sleeve OD	Ø 35	Ø 55	Ø 70
Stuffing Box Bore Diameter	Ø 50.5	Ø 74.5	Ø 94.5
Stuffing Box Depth	57	67	91
SHAFT LENGTHS (mm)			
Impeller end of shaft to 'NDE' Bearing	165.95	218.25	297
Between bearings	67.4	128.75	172
'DE' Bearing. To Coupling end	116	150	247.5
BEARINGS			
'NDE'	6307	6311	6317
'DE'	3306	7309 (2 Bearings back to back)	3315
KEYWAY AT COUPLING (mm)			
Width	4.76	6.35	15.88
Depth	2.38	3.18	9.15
Length	40	50	90
SHAFT THREAD AT IMPELLER	M20X1.5 RH	M24X2 RH	M45X1.5 RH

MOUNTING DIMENSION - PUMP



Pump Size in inch (mm)	Flange Dim. in mm		Dimension in mm										
	Suction	Delivery	CP	D	ZE 1	ZE 2	F	H	X	Y	O	V	U (Dia.)
1.5 x 1 x 6 (40 x 25 x 150)	40	25	445	133	152	0	184	16	165	102	298	51	22.23
3 x 1.5 x 6 (80 x 40 x 150)	80	40	445	133	152	0	184	16	165	102	298	51	22.23
3 x 2 x 6 (80 x 50 x 150)	80	50	445	133	152	0	184	16	165	102	298	51	22.23
1.5 x 1 x 8 (40 x 25 x 200)	40	25	445	133	152	0	184	16	165	102	298	51	22.23
3 x 1.5 x 8 (80 x 40 x 200)	80	40	445	133	248	0	184	16	165	102	298	51	22.23
2 x 1 x 10 (50 x 25 x 250)	50	25	597	210	248	184	318	16	216	102	425	67	28.58
3 x 1.5 x 8.5 (80 x 40 x 215)	80	40	597	210	248	184	318	16	216	102	425	67	28.58
3 x 2 x 8.5 (80 x 50 x 215)	80	50	597	210	248	184	318	16	242	102	450	67	28.58
4 x 3 x 8.5 (100 x 80 x 215)	100	80	597	210	248	184	318	16	280	102	490	67	28.58
6 x 4 x 8.5 (150 x 100 x 215)	150	100	597	210	248	184	318	16	280	102	490	67	28.58
3 x 1.5 x 11 (80 x 40 x 280)	80	40	597	254	248	184	318	16	267	102	520	67	28.58
3 x 2 x 11 (80 x 50 x 280)	80	50	597	254	248	184	318	16	292	102	546	67	28.58
4 x 3 x 11 (100 x 80 x 280)	100	80	597	254	248	184	318	16	318	102	571	67	28.58
3 x 1.5 x 13 (80 x 40 x 330)	80	40	597	254	248	184	318	16	266	102	520	67	28.58
3 x 2 x 13 (80 x 50 x 330)	80	50	597	254	248	184	318	16	292	102	546	67	28.58
4 x 3 x 13 (100 x 80 x 330)	100	80	597	254	248	184	318	16	318	102	572	67	28.58
6 x 4 x 13 (150 x 100 x 330)	150	100	597	254	248	184	318	16	343	102	597	67	28.58
8 x 6 x 13 (200 x 150 x 330)	200	150	860	368	406	229	476	22	406	152	775	102	60.33
8 x 6 x 15 (200 x 150 x 380)	200	150	860	368	406	229	476	22	457	152	826	102	60.33
10 x 8 x 13 (250 x 200 x 330)	250	200	860	368	406	229	476	22	483	152	851	102	60.33
10 x 8 x 15 (250 x 200 x 380)	250	200	860	368	406	229	476	22	483	152	851	102	60.33