

An ISO 9001, ISO 14001 & OHSAS 18001 Company



**C.R.I. FLUID SYSTEMS**

Pumping trust. Worldwide.



**WASTE WATER  
SUBMERSIBLE  
PUMPS - 60Hz**





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Pumping trust. Worldwide.

### **GLOBAL QUALITY IN THE AMERICAN CONTEXT**

To make a break and establish a presence in a highly competitive environment is always a challenge. A challenge that a company of C.R.I.'s stature is always open to. C.R.I. Fluid systems USA LLC has been set up with the express intention of serving the American market and is equipped at every level to provide complete solutions in the area of Water supply, Waste water treatment, Irrigation, Agriculture, Mining, Power, Building Services and Green Energy. It has its distribution facility in Elberton, Georgia and upcoming manufacturing facility in Texas. In fact, the company is committed to providing solutions specific to the American customer requirements by keeping its ear to the ground and going that extra mile to ensure that needs are met even before they arise. This proactive approach in offering country specific solutions has been a key factor in C.R.I.'s growth trajectory across the globe.

C.R.I. is a global player with a presence in over 120 countries across six continents.

C.R.I. is one among the few leaders in the Industry to produce 100% stainless steel pumps and it is a leading manufacturer of environment friendly water filled, rewindable motors. C.R.I. has extensive range of Industrial pumps that include End suction pumps, Slurry pumps, Chemical pumps, Waste water pumps, Split case pumps, Booster pumps etc.

Powered by technology and spirit of innovation, C.R.I. has always set the benchmark. when it comes to quality and performance C.R.I. has what it takes –experience, expertise, commitment and a clear vision – to be precursor of change, an innovator of new technologies and a standard bearer for quality.

### **Infrastructure**

The Infrastructure of C.R.I. is pretty comprehensive with state-of-the-art machineries and a high potential R&D wing, Total production area over 3.2 million SF, fully equipped with world class, Machineries with a manufacturing capacities of more than 3 Million pumps and motors per year and over 2300 product variants

Our production facilities are accredited with international quality certifications such as NSF, ISI, CE, UR, UL, TSE, ISO 9001, ISO 14001, and OHSAS 18001. Fludyn Advanced Technology Center, a state-of-the-art R&D wing of CRI has more than 100 qualified Engineers contributing to the success of CRI. It is recognized by the Ministry of science & Technology, Govt. of India. The R&D team always stays in tune with the changing scenario and seldom fails in coming up with outstanding solutions every time. Hypress -Fully mechanized and automated Foundry with state-of-the-art technology. Needless to say, behind this renowned growth lies the determined, innovative, enthusiastic and dedicated team work. and, of course, a flawlessly maintained value system too.





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### Vision, Mission and Values

To be the industry leader providing best - in - class fluid management solutions to individual and institutional customers and societies in our chosen markets.

We will achieve this through our dedicated efforts to enhance the welfare of all our stakeholders and by living by our values of **commitment, reliability and innovation.**

# CONTENTS



- Submersible Pump with Vortex Impeller

**GB** Series

**Upto 50 HP**

- Discharge Size  
**1 1/2" - 4"**

- Flow  
**Upto 70 lps**



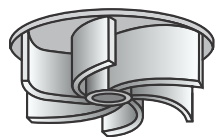
- Submersible Cutter & Grinder Pumps

**GT** Series

**Upto 7.5 HP**

- Discharge Size  
**1 1/2"**

- Flow  
**Upto 6.3 lps**



**Vortex:** vortex impeller suitable for lifting of sewage liquids, civil waste and industrial water containing solids and viscous materials, heavy muds raw or fermented sludge.

**Applications:** urban sewage plants, lifting water plants.



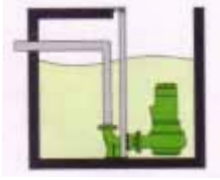
**Cutting Device:** cutting device is suitable to reduce solids into small pieces which are contained into liquids. This device permit the use of small pipes without risk of clogging.

**Applications:** food industry, textile and agricultural irrigation

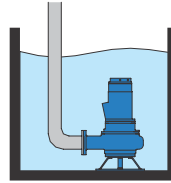
CONSTRUCTION MATERIALS	
• Pump housing	• Cast iron ASTM A48 No : 35
• Motor housing	• Cast iron ASTM A48 No : 35
• Impeller	• Cast iron ASTM A48 No : 35
• Cover	• Cast iron ASTM A48 No : 35
• Shaft	• Stainless steel AISI 420
• O-rings	Nitrile
• Cable	H07RNF
• Fasteners	AISI 304

APPLICATION LIMITS	
• Max. application temperature	• 104°F
• Service	• S1
• Max. starts per hour	• 20 times
• Max. immersion depth	• 65 feet
• pH liquid	• 6 - 12
• liquid viscosity	• 1 mm <sup>2</sup> /s
• liquid density	• 1 Kg/dm <sup>3</sup>
• Max. Acoustic pressure	• <70dB

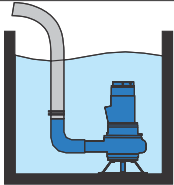
# Installation Types



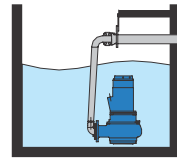
**1 V**  
Fixed installation with low level coupling type V



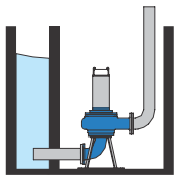
**2 F**  
Movable installation with base stand and connection for rigid pipe



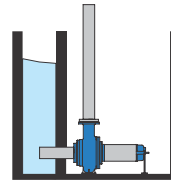
**3 G**  
Movable installation for flexible pipe



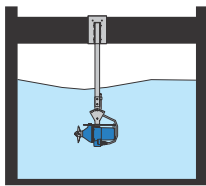
**4 H**  
Fixed installation with HK system



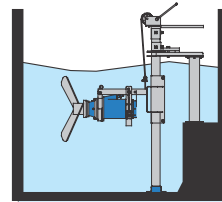
**5 C**  
Dry pit vertical installation for pumps with cooling jacket



**6 O**  
Dry pit horizontal installation for pumps with cooling jacket



**11 T**  
Fixed installation for mixers with adjustable lifting device



**12 P**  
Adjustable fixed installation with pole and winch

# Product Identification Code

**XX**    **XX-**    **XXX**    **XX-**    **XX**    **X**    **X**

**Series Name & impeller Type**  
 • **GB** - Curved Blade Vortex  
 • **GT** - Grinder Vortex  
 • **MD / TP** - Mixed With Propeller  
 • **GA** - Straight Blade Vortex  
 • **AG** - Agitator Voltex

**Kw /**  
 • **60 Hz** - 05 = 0.5, 10 = 1.0, 30 = 3.0, 300 = 30, A00 = 100 in HP  
 • **50 Hz** : 03 = 0.37, 15 = 1.5, 37 = 3.7, 450 = 45, A00 = 100 in kw

**Outlet Size in mm**  
 • **A** = 25  
 • **B** = 32  
 • **C** = 40  
 • **D** = 50  
 • **E** = 65  
 • **F** = 80  
 • **G** = 100  
 • **H** = 125  
 • **I** = 150  
 • **J** = 200  
 • **K** = 250  
 • **L** = 300  
 • **M** = 350  
 • **N** = 400  
 • **P** = 450

**Phase / Connection / Starting Method**  
 • **60 hz** = 3 = 1Ph, 3S-1 Ph with control panel with manual start, 4 = 3Ph / D.O.K, 6 = 3 Ph / S.D  
 • **50 Hz** = M - 1Ph, Ms - 1 Ph with control panel with manual start, T - 3 Ph / D.O.L, D - 3 Ph / S.D

**No. of Pole / Speed - Applicable Other Than 2 Pole Design**  
 • **60 Hz** = F = 4 Pole, S = 6 Pole, e = 8 Pole  
 • **50 hz** = 4 = 4 Pole, 6 = 6 Pole, 8 = 8 Pole

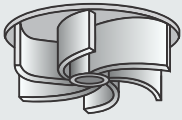
**Special Character**  
 • **R** - Reduced imp, **RR** - Further reduced, **3R** - low head  
 • **A** - Automatic with float switch, **HF** - High Flow.

MOC			
	Pump Casing / agitator	Impeller	Motor housing
<b>C</b>	C.I	C.I	Cl
<b>U</b>	SS (304)	SS (304)	Cl
<b>S</b>	SS (304)	SS (304)	SS (304)
<b>R</b>	C.I	SS (316)	Cl
<b>M</b>	SS (316)	SS (316)	Cl
<b>N</b>	SS (316)	SS (316)	SS (316)

Impeller Type	
V - Vortex	C - Closed single channel
I - Closed multi channel	P- Mixer propeller

## Model Name & description

60 Hz : GB-CV44-E4, 4.4 HP, 60 Hz , 3Ph, 440V, 2 pole DOL Sewage submersible Pump



## SUBMERSIBLE PUMPS

### Vortex Impeller

#### GB Series

8 - 50 HP

Discharge size

1 1/2" - 4"

Max. solid passage in inches : 4"

#### GT Series

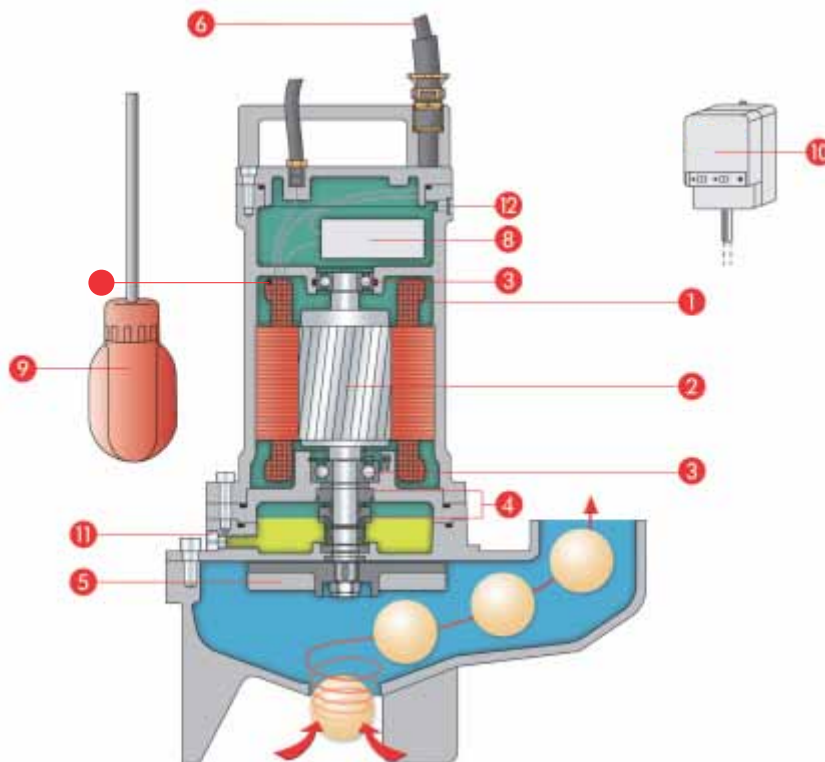
4 - 7.5 HP

Discharge size

1 1/2"

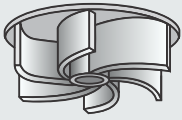
Max. solid passage in inches : 1/4"

## Technical Features

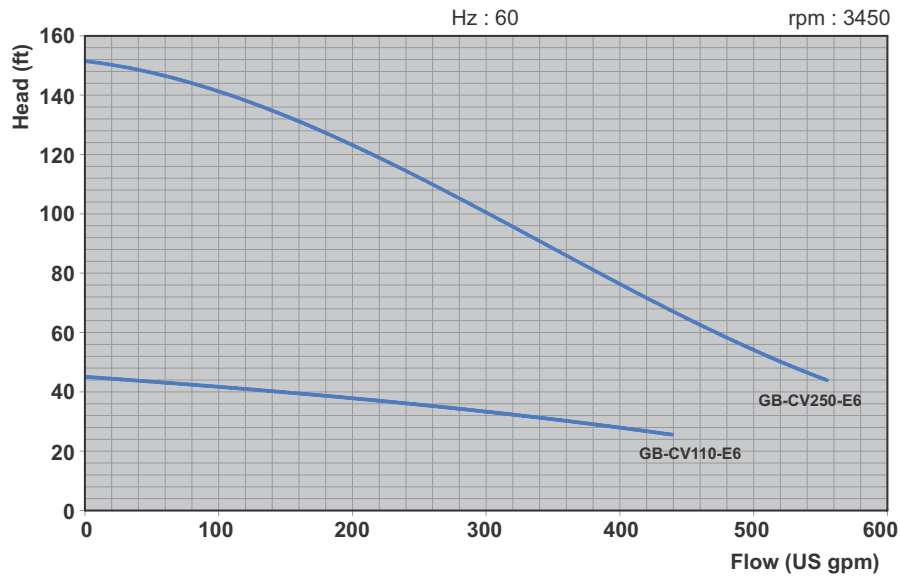


1. Fully submersible pressure tight electric motor  
Insulation class H. Protection degree IP 68  
Speed: 3450 rpm. Voltage: single-phase 1x230V-60 Hz  
Three-phase 230/460V, 60 Hz.
2. Shaft in stainless steel AISI 420
3. Double mechanical seal in oil chamber + radial lipseal  
Water side: silicon carbide/silicon carbide  
Motor side: graphite/alumina
4. Cast iron Vortex Impeller / Stainless Steel Cutter
5. Cable H07RNF
6. Thermal overload protector on request
7. Float switch regulator on request
8. Oil inspection plug
9. Air plug hole for the motor watertightness control





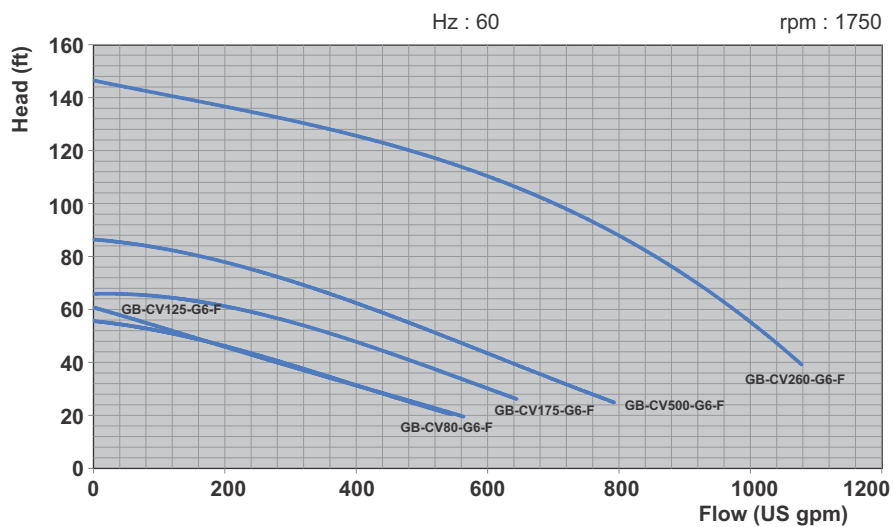
## PERFORMANCE CURVES



### GENERAL FEATURES

SN	Type	Rating	Frequency	Voltage	Current	Speed	DN	Ø	Weight	USGPM												
		HP	Hz	V	amps	rpm	in.	in.	kg	m <sup>3</sup> /hr	0	50	100	150	200	250	300	350	400	450	500	550
1	GB - CV110 - E6	11	60	230	28	3450	2½"	2½"	118	Head	42.6	40.8	38.5	37.0	37.0	33.1	31.0	28.4	23.3	-	-	-
2	GB - CV250 - E6	25	60	460	42	3450	2½"	2½"	176	in feet	47.5	143.7	137.6	128.0	128.0	109.0	97.1	86.0	74.0	61.7	50.0	38.0

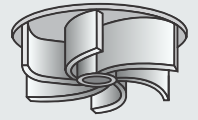
## PERFORMANCE CURVES



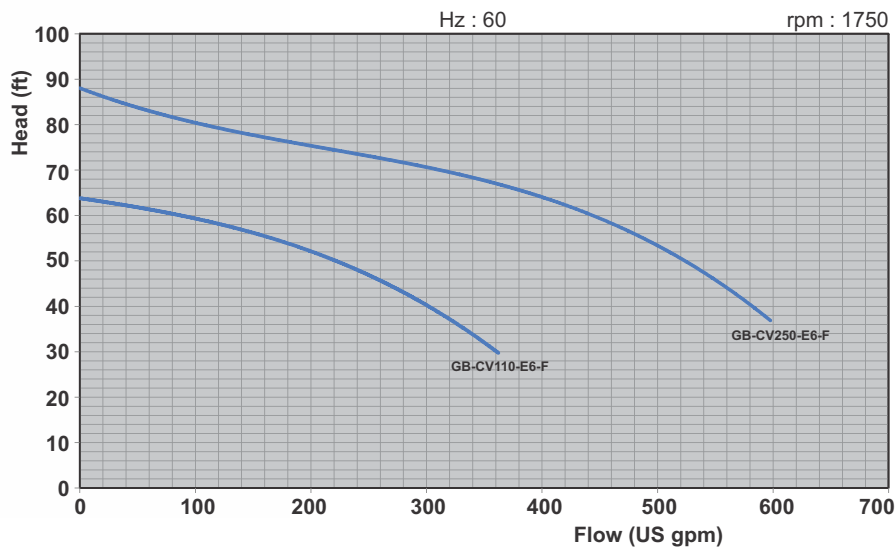
### GENERAL FEATURES

SN	Type	Rating	Frequency	Voltage	Current	Speed	DN	Ø	Weight	USGPM												
		HP	Hz	V	amps	rpm	in	in	kg	m <sup>3</sup> /hr	0	100	200	300	400	500	600	700	800	900	1000	1100
1.	GB - CV80 - G6 - F	8	60	230	22	1750	4"	4"	118	Head in feet	56.1	52.2	45.9	39.0	32.2	24.6	-	-	-	-	-	-
2.	GB - CV125 - G6 - F	12.5	60	230	33	1750	4"	4"	126		61.0	54.1	46.6	39.4	32.2	24.6	20.0	-	-	-	-	-
3.	GB - CV175 - G6 - F	17.5	60	460	22	1750	4"	4"	186		65.9	65.0	61.0	45.1	47.9	40.0	29.9	-	-	-	-	-
4.	GB - CV260 - G6 - F	26	60	460	26	1750	4"	4"	251		86.0	83.7	78.1	68.9	62.0	53.2	44.0	34.1	24.0	-	-	-
5.	GB - CV500 - G6 - F	50	60	460	62	1750	4"	4"	340		146.7	142.1	136.2	131.6	126.0	118.1	109.9	100.1	87.9	73.2	55.1	40.0

# GB Series

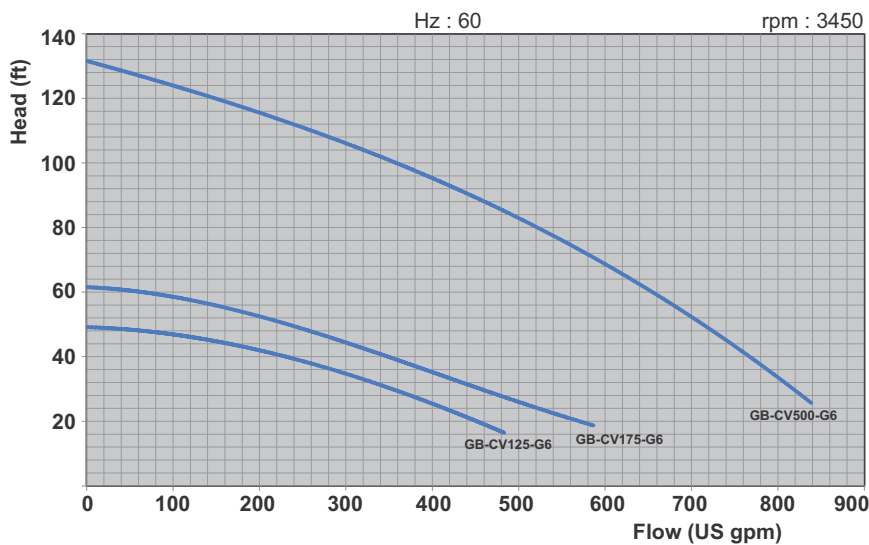


## PERFORMANCE CURVES

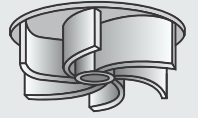


GENERAL FEATURES										PERFORMANCES														
SN	Type	Rating	Frequency	Voltage	Current	Speed	DN	Ø	Weight	USGPM	0	50	100	150	200	250	300	350	400	450	500	550	600	
		HP	Hz	V	amps	rpm	in	in	kg		m <sup>3</sup> /hr	in feet	88.0	84.0	80.4	78.1	75.5	72.8	70.5	67.6	64.0	59.1	53.2	45.9
1.	GB - CV110 - E6 - F	11	60	230	24	1750	2½"	2½"	118	Head	64.0	62.0	59.4	56.1	51.8	46.9	40.4	30.0	-	-	-	-	-	-
2.	GB - CV250 - E6 - F	25	60	460	28	1750	2½"	2½"	176	Head	88.0	84.0	80.4	78.1	75.5	72.8	70.5	67.6	64.0	59.1	53.2	45.9	37.1	

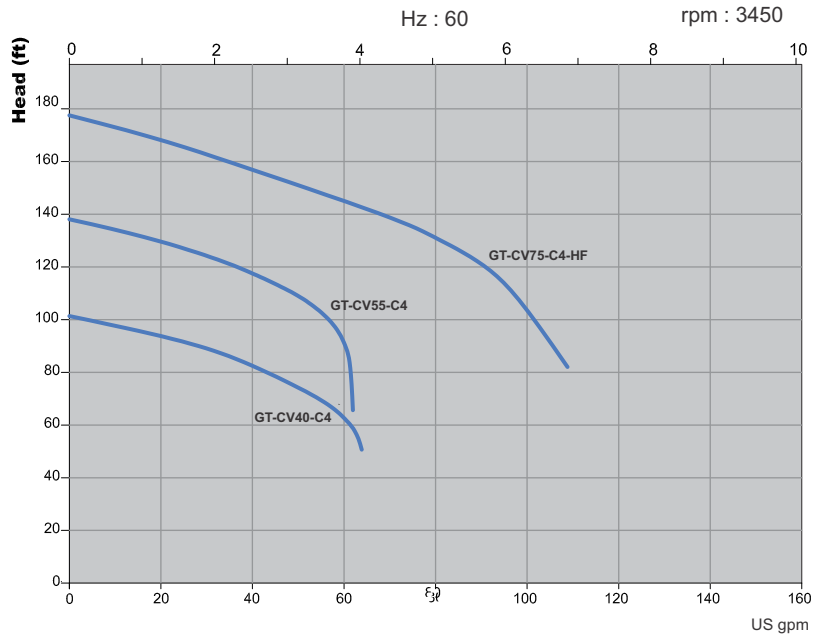
## PERFORMANCE CURVES



GENERAL FEATURES										PERFORMANCES																		
SN	Type	Rating	Frequency	Voltage	Current	Speed	DN	Ø	Weight	USGPM	0	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850
		HP	Hz	V	amps	rpm	in	in	Kg		m <sup>3</sup> /hr	ft	49.0	48.0	47.0	45.0	42.0	38.5	34.5	30.0	25.0	20.0	-	-	-	-	-	-
1.	GB-CV125-G6	12.5	60	230	38	3450	4"	4"	240	H	49.0	48.0	47.0	45.0	42.0	38.5	34.5	30.0	25.0	20.0	-	-	-	-	-	-	-	-
2.	GB-CV175-G6	17.5	60	460	25	3450	4"	4"	330	ft	61.5	60.5	58.5	56.0	52.5	49.0	44.5	40.0	35.5	31.0	26.0	22.0	-	-	-	-	-	
3.	GB-CV500-G6	50	60	460	65	3450	4"	4"	368	ft	132.0	128.0	124.0	120.0	116.0	110.5	106.0	101.5	95.5	89.5	83.0	76.0	69.0	60.0	52.0	43.0	34.0	25.0



## PERFORMANCE CURVES



GENERAL FEATURES										PERFORMANCES											
SN	Type	Rating	Frequency	Voltage	Current	Speed	DN	Ø	Weight	USGPM	0	10	20	30	40	50	60	70	80	90	100
		HP	Hz	V	amps	rpm	in	in	Kg	m <sup>3</sup> /hr	0	2.2	4.5	6.8	9	11.3	13.6	15.8	18.1	20.4	22.7
1.	GT-CV40-C4	4	60	230	4.6	3450	1½	¼"	48	Head in feet	100.04	97.74	93.48	87.9	82	74.46	61.66	-	-	-	-
2.	GT-CV55-C4	5.5	60	230	6.5	3450	1½	¼"	52.6		137.1	133.82	129.56	123.98	117.42	108.9	91.84	-	-	-	-
3.	GT-CV75-C4-HF	7.5	60	230	11.5	3450	1½	¼"	63		176.46	173.18	167.28	163.02	156.13	150.88	144.32	139.4	131.2	119.72	103.32

