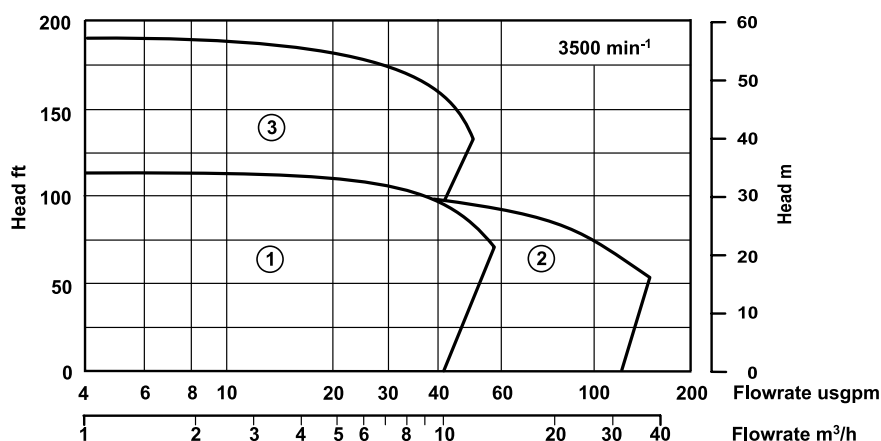


Technical Profile

Magnet drive, end suction, centrifugal pumps for general applications



Performance of the GT range



Pump model

	(Imperial)	(Metric)
1	1 x 1 x 5	25-25-125
2	2 x 1.5 x 5	50-40-125
3	1 x 1 x 6	25-25-160

Range capabilities

Model	Head	Flow	Temperature	Pressure	Viscosity Cst	Mounting
1x5x5	24 m 78 ft	11 m³/h 48 usgpm	-40 to +260°C -40 to +500°F	18.9 bar 275 psi	200	Close coupled (CC)
1x1x6	40 m 131 ft	10 m³/h 44 usgpm	-40 to +260°C -40 to +500°F	18.9 bar 275 psi	200	Close coupled (CC)
2x1.5x5	22 m 72 ft	30 m³/h 132 usgpm	-40 to +260°C -40 to +500°F	18.9 bar 275 psi	200	Close coupled (CC)
25-25-125	24 m 78 ft	11 m³/h 48 usgpm	-40 to +260°C -40 to +500°F	16 bar 232 psi	200	Close coupled (CC)
25-25-160	40 m 131 ft	10 m³/h 44 usgpm	-40 to +260°C -40 to +500°F	16 bar 232 psi	200	Close coupled (CC)
50-40-125	22 m 72 ft	30 m³/h 132 usgpm	-40 to +260°C -40 to +500°F	16 bar 232 psi	200	Close coupled (CC)

Product overview

The GT product is not constrained by any international dimensional or performance specifications.

The pumps are close coupled construction and can be supplied free standing or baseplate mounted. Prime mover specifications of all denominations can be catered for.

The pumps are offered with a range of Synchronous Magnet Drives rated to match prime mover performance.

All components are interchangeable and options exist to select either ANSI standard (imperial with the exception of the impeller fixing) or ISO standard fasteners.

The standard materials of construction are stainless steel with silicon carbide internal bearings.

Design range limits

The GT pump is designed to operate from -40°C up to +260°C, -40°F up to +500°F without the need for any ancillary cooling medium. Design working pressure is 18.9 bar, 275 psi.

Solids handling capability

The unit is capable of handling solids up to 5% w/w with 150 microns.

Options

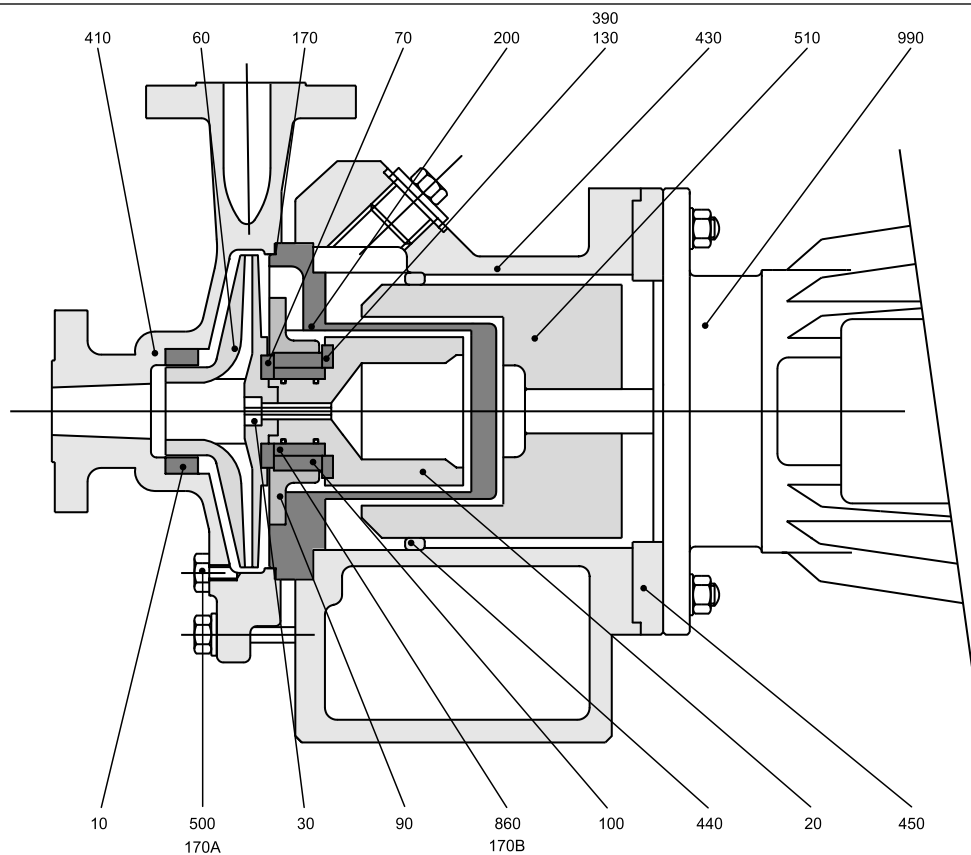
Materials of construction

Wetted parts Alloy 20, C
Gasket PTFE

Other options

Casing drains flanged or screwed
Jacketed pump casing
Large range of pump protection

Construction of GT pumps



10	Neck Ring [Front]	316 Stainless Steel
20	Shaft / Inner Magnet Ring	316 Stainless Steel
30	Impeller Fixing	316 Stainless Steel
60	Impeller	316 Stainless Steel
70	Front Thrust Washer	Alpha SiC
90	Bush Holder	316 Stainless Steel
100	Bush	Alpha SiC
130	Thrust Pad	Alpha SiC
170	Casing Gasket	CSF
170A	Drain Gasket [Optional]	CSF
170B	'O' Ring	Viton A
200	Containment Shroud/Shell	316L Stainless Steel
390	Support Gasket	Exfol. Graphite
410	Casing	316 Stainless Steel
430	Coupling Housing	SG Iron
440	Coupling Hsg. Bump Ring	Phos. Bronze
450	Motor Adaptor	Carbon Steel
500	Pump Drain [Optional]	316 Stainless Steel
510	Outer Magnet Ring	Carbon Steel
860	Bearing Sleeve	Alpha SiC
990	Electric Motor	Proprietary
****	Fixings Kit	

Flanges and Connections

Casing

Suction and discharge flanges are designed in accordance with the following relevant standards:

ANSI B16.5

Class 150 + 300

Machined with 1.5mm (0.06") high raised face having a continuous spiral groove.

BS4504

PN16/40

Machined with 1.5mm (0.06") high raised face having a continuous spiral groove.

DIN 2543/2545

PN16/40

Machined with a 2mm high raised face with a continuous spiral groove. (Note: these flanges are identical to BS 4504 PN40.)

Flange Loadings

Allowable flange loadings imposed by pipework are in accordance with Table 2 of API 610 8th edition and exceed the values in ISO 5199 Annex C.

Drain Connections

The following drain options are available:

Standard:

No drain, boss left undrilled.

Option 1:

1/8" BSP drain plug fitted with fully trapped gasket.

Option 2:

3/8" NPT plug.

Option 3:

1/2" flanged drain rated to the casing flanges.

Gauge Connections:

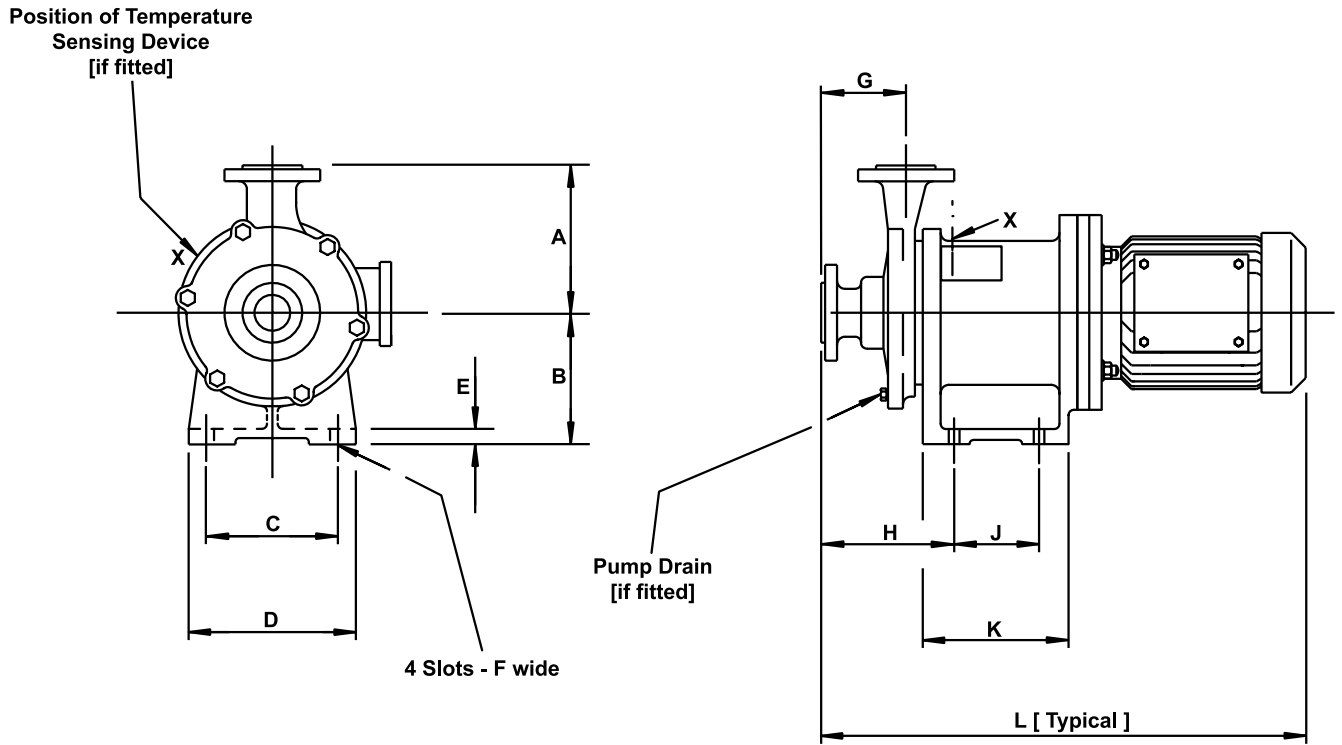
No provision for gauge connection bosses has been made on this range.

Features and user benefits of the GT Pump range

- **Seal/less design** - total product containment - ideal for hydrocarbon, petrochemical, toxic, aggressive, hot, crystallising and valuable product.
- Modular/Interchangeable high efficiency wet end, designed to ensure maximum flow/head coverage across all GT product range.
- Modular/Interchangeable high efficiency magnetic couplings.
- Choice of various metallic materials of construction.
- One casing/containment shroud/shell design
- Casing gasket fully confined to eliminate 'Blowout' risk.
- Various suction and discharge flange connection options.
- Maximum interchangeability exists between spare parts for the entire range.
- Cartridge assemblies allowing fast replacement of the rotating element.
- Internationally approved pressure vessel standard: ASME VIII code.

Overall benefits to the user

- Ease of application
- Low capital cost
- Design ensures safe, leak free operation
- Low running costs
- Minimal spares holding
- Minimal downtime/fast maintenance
- Maximises on-line process time



Pump size	A	B	C	D	E	F	G	H	J	K	Motor Frame	L
1x1x5	160/6.3"	150/ 5.9"	150/5.9"	195/7.7"	15/0.6"	14/0.55"	85/3.35	144/5.7"	80/3.15"	147/5.8"	80	540/21.25"
1x1x6	160/6.3"	150/ 5.9"	150/5.9"	195/7.7"	15/0.6"	14/0.55"	105/4.13	164/6.5"	80/3.15"	147/5.8"	90S	560/22"
2x1.5x5	160/6.3"	150/ 5.9"	150/5.9"	195/7.7"	15/0.6"	14/0.55"	110/4.33	171/6.7"	80/3.15"	147/5.8"	90L	584/23"
											100L	650/25.6"
25-25-125	160/6.3"	150/ 5.9"	150/5.9"	195/7.7"	15/0.6"	14/0.55"	85/3.35	144/5.7"	80/3.15"	147/5.8"	112M	650/25.6"
25-25-160	160/6.3"	150/ 5.9"	150/5.9"	195/7.7"	15/0.6"	14/0.55"	105/4.13	164/6.5"	80/3.15"	147/5.8"	132S	700/27.5"
50-40-125	160/6.3"	150/ 5.9"	150/5.9"	195/7.7"	15/0.6"	14/0.55"	110/4.33	171/6.7"	80/3.15"	147/5.8"	143	570/22.5"
											145	570/22.5"
											182	625/24.5"
											184	670/26.4"
											213	700/27.5"
											215	745/29.3"

Dimensions shown are metric/imperial (inches).

Pressure limits

All parts are to be rated to the pressures shown below at 38°C (100°F)

Flange standard	Design pressure		
	316 St St	Alloy 20	Alloy C
ANSI B16.5 Class 150 + 300	1.89 N/mm2 275 psi	1.59 N/mm2 230 psi	2.00 N/mm2 290 psi
BS 4504 PN 16 + PN40	1.60 N/mm2 232 psi	1.52 N/mm2 220 psi	1.60 N/mm2 232 psi
DIN 2543/2545 PN16 + PN40	1.60 N/mm2 232 psi	1.52 N/mm2 220 psi	1.60 N/mm2 232 psi

Component	Hydrostatic test value		
	316 St St	Alloy 20	Alloy C
Casing (ANSI 150 lb)	2.93N/mm2 425 psi	2.41 N/mm2 350 psi	3.10 N/mm2 450 psi
Casing (PN 16)	2.40 N/mm2 348 psi	2.30 N/mm2 333 psi	2.40 N/mm2 348 psi
Containment Shroud/Shell	2.93 N/mm2 425 psi	2.41 N/mm2 350 psi	3.10 N/mm2 450 psi

Temperature limits

Standard Range -40°C to +150°C (-40°F to +300°F)

Option -40°C to +260°C (40°F to +500°F)

For sub zero temperatures a suitable sealing compound (Loctite Multi Gasket or similar) is used to prevent the Ingress of moisture into the coupling housing between the containment shroud/shell, coupling/bearing and motor adaptor assembly interface.



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