



# HYDRAULIC MOTOR REDUCTION UNIT GT25



Reduction Ratio 2.5:1

TYPE		GT25						
SIZE		130	160	200	250	300	400	500
DISPLACEMENT per OUTPUT rpm	cm <sup>3</sup>	355.0	402.5	502.5	625.0	825.0	1027.5	1310.0
	in <sup>3</sup>	21.5	24.5	30.75	38.0	50.5	62.75	80.0
MAX. OUTPUT SPEED	rpm cont.	290	250	250	200	152	120	96
	rpm int.	330	310	300	240	184	146	114
MAX. OUTPUT TORQUE Without Brake See notes	Nm cont.	937.5	1175	1475	1825	2375	2700	3075
	lbf.in cont.	8296.9	10398.7	13053.7	16151.2	21018.7	23895.0	27213.7
	Nm int.	1075	1400	1775	2200	2850	3150	3200
	lbf.in int.	9513.7	12390.0	15708.7	19470.0	25222.5	27877.5	28320.0
MAX. PRESSURE DROP Without Brake	bar cont.	200	200	200	200	200	180	150
	psi cont.	2900	2900	2900	2900	2900	2610	2175
	bar int.	240	240	240	240	240	210	180
	psi int.	3480	3480	3480	3480	3480	3045	2610
Max Pressure Drop With Brake	bar cont.	200	200	190	140	100	90	75
	bar int.	240	230	200	150	110	100	80
MAX. OIL FLOW	lpm cont.	100	100	125	125	125	125	125
	gpm cont.	22	22	27.5	27.5	27.5	27.5	27.5
	lpm int.	125	125	150	150	150	150	150
	gpm int.	27.5	27.5	33.0	33.0	33.0	33.0	33.0

**Note** Maximum continuous output torque 3200 Nm 28300 lbf.in without Brake  
Maximum continuous output torque 2825 Nm 25000 lbf.in with Brake

#### Spring applied pressure release

Static brake torque 10,000 lbf.in - 1130 Nm

Brake release pressure 450 psi - 31 bar

Maximum brake pressure 300 bar

Motor drain line must be used, back to tank without obstruction.

Maximum inlet pressure 3250 psi - 224 bar

Maximum pressure drop and speed must not be reached simultaneously.  
Intermittent operation may occur for 10% max. of every minute.

At speeds lower than 10 rpm please consult our Technical Department.  
Mineral based hydraulic fluids with anti-wear additives are recommended with a viscosity of 35 mm<sup>2</sup>/s at a temperature of 50°C.

Minimum recommended oil viscosity 13 mm<sup>2</sup>/s at operating temperature.  
Recommended oil cleanliness ISO 19/14 with a nominal filtration of 25 micron or better.

Where non-flammable fluids are to be used it is advisable to consult our Technical Department.

Ambient temperature should be between -30°C and +90°C.

Normal operating temperature should be between +30°C and +60°C.

Maximum operating temperature +85°C.

#### Motor / Brake Precautions

To ensure proper operation of the brake, a separate case drain back to tank must be used due to the possibility of return line pressure spikes. A simple schematic of a system utilizing a motor/ brake is shown in the symbol diagram.

To achieve proper brake release operation, it is necessary to bleed out any trapped air and fill brake release cavity and hoses before all connections are tightened.

It is advisable that the brake release port should be positioned as near the top of the unit in the installed position.

#### Caution

All Adan motor / brakes are intended to operate as static parking brakes, the system should be designed to bring the load to a stop before the brake is applied.

With large displacement motors it is possible for the motor to produce higher torques than the brake will hold, it is critical that the maximum system pressure is limited in these applications. It is vital that the system relief be set low enough to ensure the motor is not able to produce more torque than the brake can hold.

Failure to do so may result in serious injury or death.

*The policy of Adan Limited is one of continual development and the right is reserved to alter specifications without notice.*



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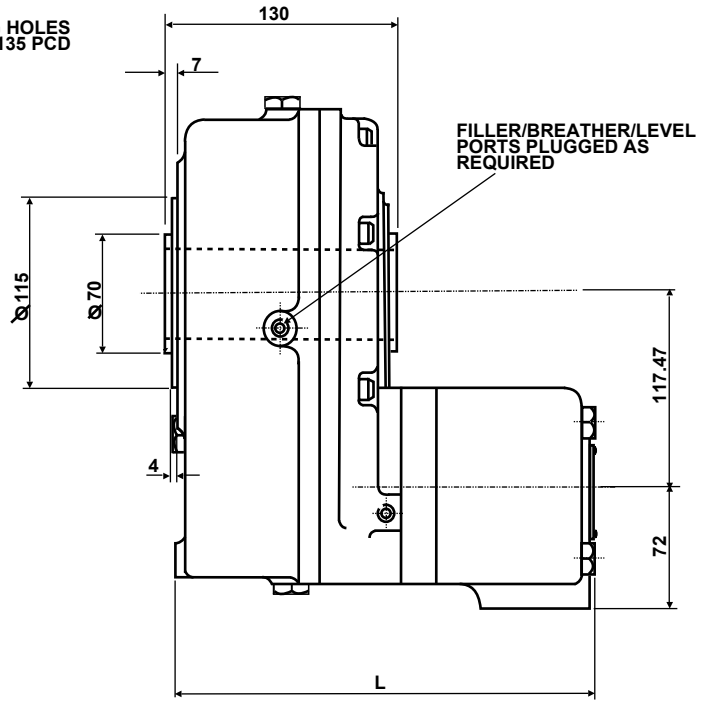
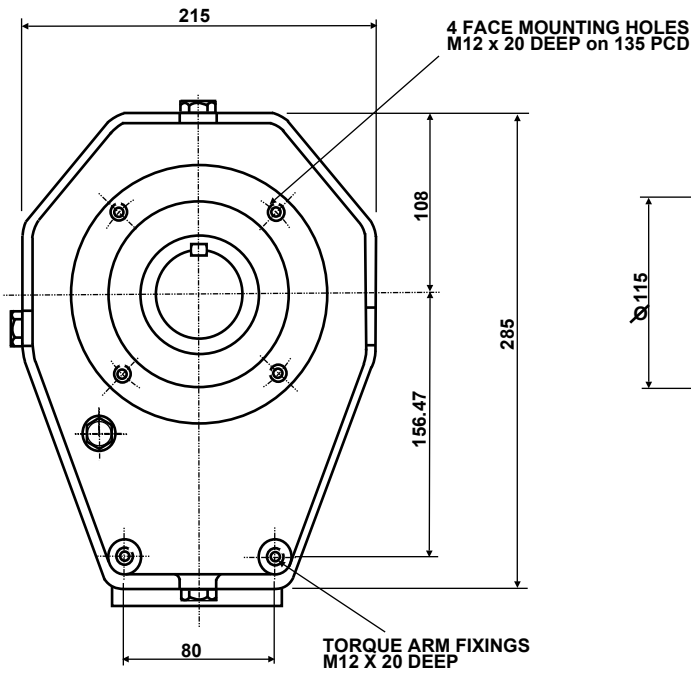
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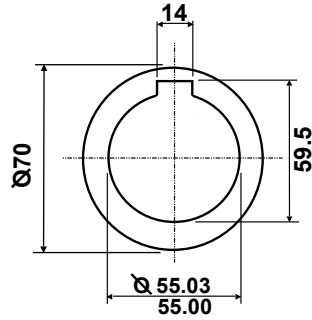
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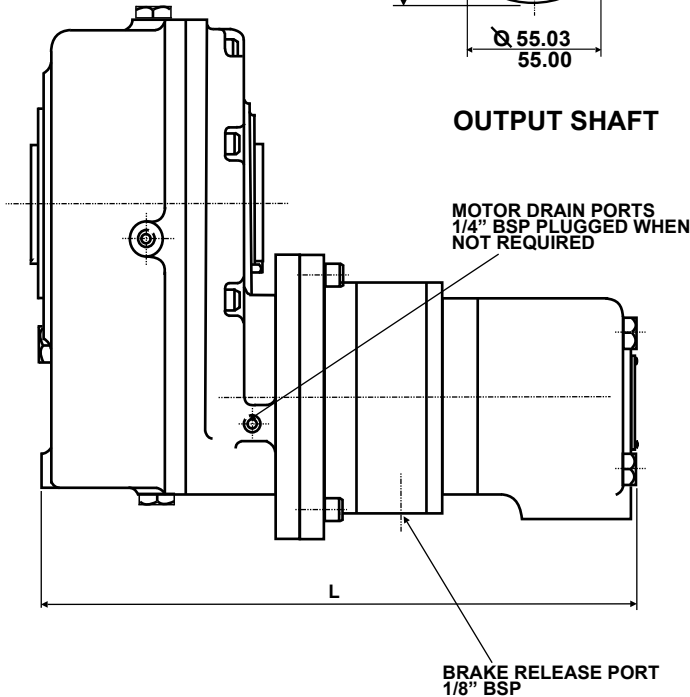
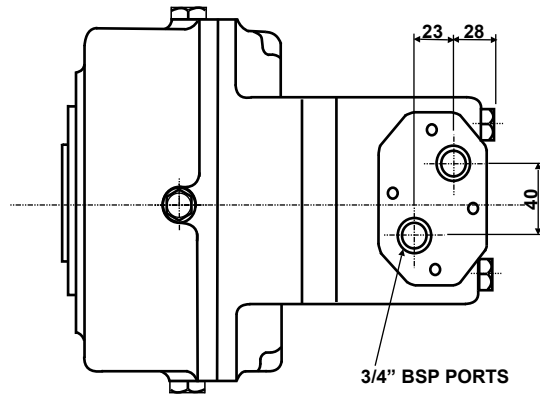
**GT25**



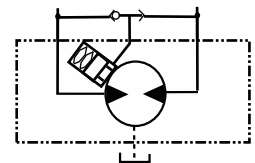
**GT25B**



**OUTPUT SHAFT**



**SYMBOL c/w MSV**

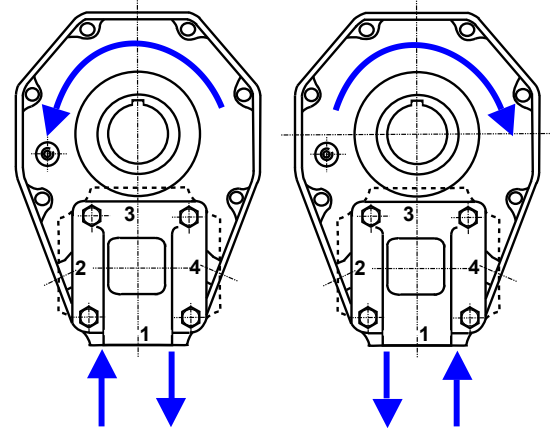
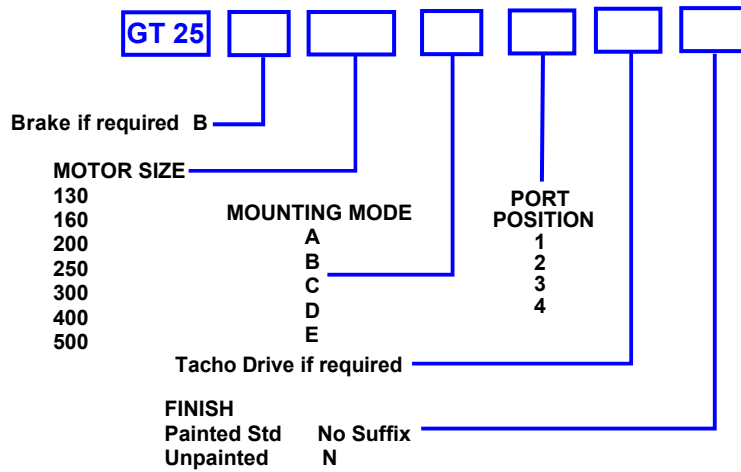


**For performance graphs see MT performance sheets**

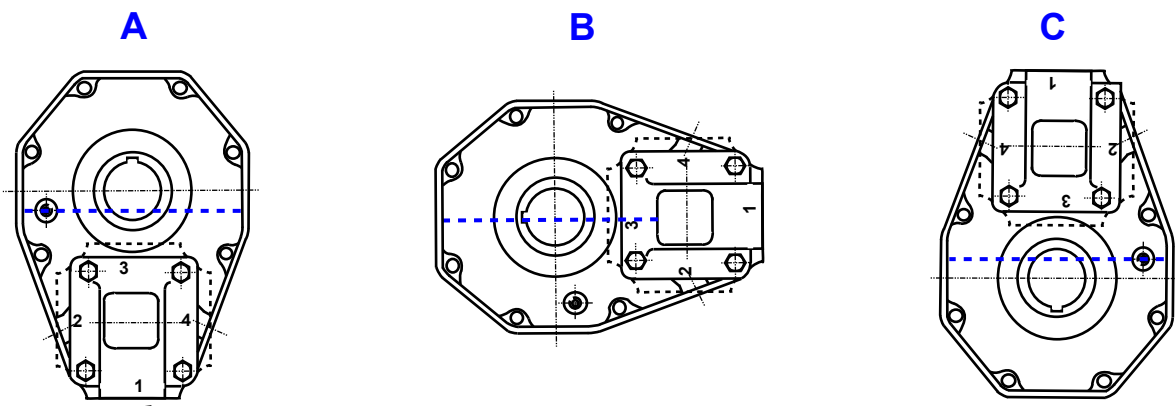
	SIZE	130	160	200	250	300	400	500
GT25 L	mm	229	232	237	243	253	263	277
GT25B L	mm	380	383	388	394	404	414	428
GT25 WEIGHT	kg	31.8	32.0	33.6	35.5	36.8	37.7	38.6
GT25B WEIGHT	kg	52.8	53.0	54.6	56.5	57.8	58.7	59.6

**ORDERING CODE**

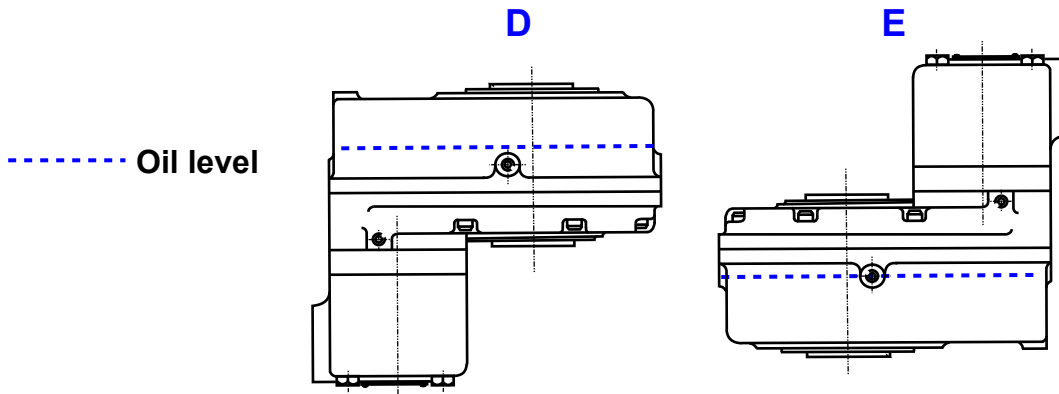
**SHAFT ROTATION**



**MOUNTING POSITIONS**



Please select port position 1, 2, 3 or 4



Note! All units are supplied dry.

Fill unit with EP oil with anti foaming additives before use. Select the grade appropriate to temperature from chart based on ISO 3448. It is recommended to replace the oil after the first 50 hours, then every 1000 hours or 6 months.

Fit breather in highest drain port.

Viscosity	Ambient Temperature °C
ISO VG 150	-10 > +30
ISO VG 220	+10 > +45
ISO VG 320	+30 > +60

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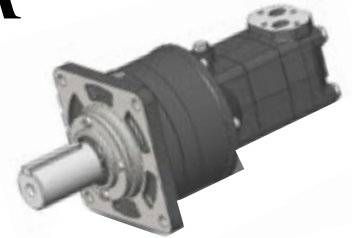
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# HYDRAULIC MOTOR REDUCTION UNIT MGF5 & MG5-T



Reduction Ratio 5:1

TYPE		MGF5-T/MGT5-T						
SIZE		130	160	200	250	300	400	500
DISPLACEMENT per OUTPUT rpm	cm <sup>3</sup>	710.0	805.0	1005.0	1250.0	1650.0	2055.0	2620.0
	in <sup>3</sup>	43.0	49.0	61.5	76.0	101.0	125.5	160.0
MAX. OUTPUT SPEED	rpm cont.	145	125	125	100	76	60	48
	rpm int.	165	150	150	120	92	73	57
MAX. OUTPUT TORQUE Without Brake See Notes	Nm cont.	1875	2350	2950	3650	4750	5400	6100
	lbf.in cont.	16593.7	20797.5	26107.5	32302.5	42037.5	47790.0	53985.0
	Nm int.	2350	2800	3550	4400	5700	6300	6850
MAX. PRESSURE DROP Without Brake	lbf.in int.	20797.7	24780.0	31417.5	38940.0	50445.0	55755.0	60622.5
	bar cont.	200	200	200	200	200	180	160
	psi cont.	2900	2900	2900	2900	2900	2610	2320
MAX. PRESSURE DROP With Brake	bar int.	240	240	240	240	240	210	180
	psi int.	3480	3480	3480	3480	3480	3045	2610
	bar cont.	200	200	200	200	200	180	145
MAX. OIL FLOW	psi cont.	2900	2900	2900	2900	2900	2610	2102
	bar int.	240	240	240	240	230	180	145
	psi int.	3480	3480	3480	3480	3335	2610	2102
MAX. OIL FLOW	lpm cont.	100	100	125	125	125	125	125
	gpm cont.	22	22	27.5	27.5	27.5	27.5	27.5
	lpm int.	125	125	150	150	150	150	150
	gpm int.	27.5	27.5	33.0	33.0	33.0	33.0	33.0

**Note** Maximum continuous output torque 6250Nm 55312 lbf.in without Brake Unit  
Maximum continuous output torque 5650Nm 50000 lbf.in with Brake Unit

#### Spring applied pressure release

Static brake torque 10,000 lbf.in - 1130 Nm

Brake release pressure 450 psi - 31 bar

Maximum brake pressure 300 bar

Motor drain line must be used, back to tank without obstruction.

Maximum inlet pressure 3250 psi - 224 bar

Maximum pressure drop and speed must not be reached simultaneously.

Intermittent operation may occur for 10% max. of every minute.

At speeds lower than 10 rpm please consult our Technical Department.

Mineral based hydraulic fluids with anti-wear additives are recommended with a viscosity of 35 mm<sup>2</sup>/s at a temperature of 50°C.

Minimum recommended oil viscosity 13 mm<sup>2</sup>/s at operating temperature.

Recommended oil cleanliness ISO 19/14 with a nominal filtration of 25 micron or better.

Where non-flammable fluids are to be used it is advisable to consult our Technical Department.

Ambient temperature should be between -30°C and +90°C.

Normal operating temperature should be between +30°C and +60°C.

Maximum operating temperature +85°C.

#### Motor / Brake Precautions

To ensure proper operation of the brake, a separate case drain back to tank must be used due to the possibility of return line pressure spikes. A simple schematic of a system utilizing a motor/ brake is shown in the diagram below.

To achieve proper brake release operation, it is necessary to bleed out any trapped air and fill brake release cavity and hoses before all connections are tightened.

It is advisable that the brake release port should be positioned as near the top of the unit in the installed position.

#### Caution

All Adan motor / brakes are intended to operate as static parking brakes, the system should be designed to bring the load to a stop before the brake is applied.

With large displacement motors it is possible for the motor to produce higher torques than the brake will hold, it is critical that the maximum system pressure is limited in these applications. It is vital that the system relief be set low enough to ensure the motor is not able to produce more torque than the brake can hold.

Failure to do so may result in serious injury or death.

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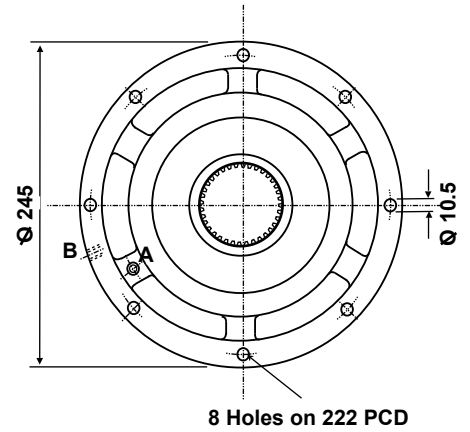
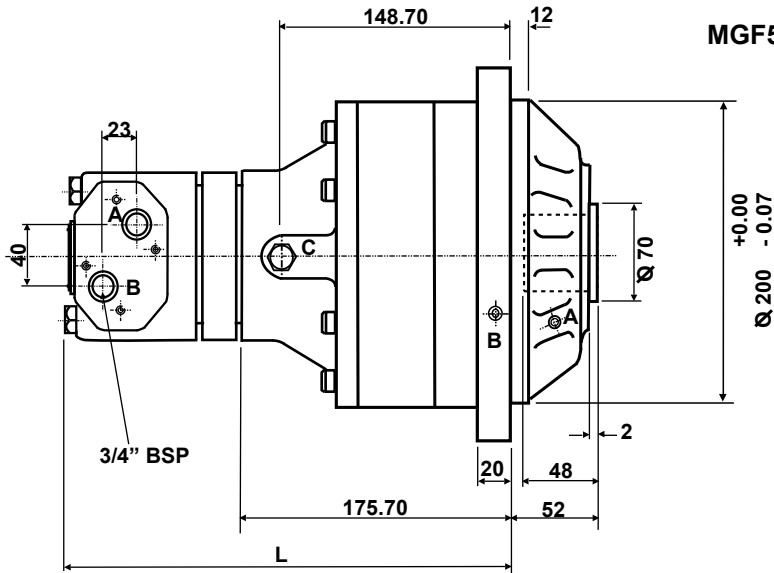
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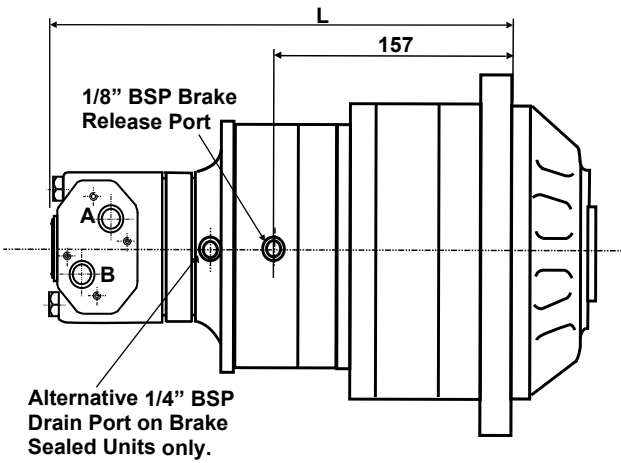
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**MGF5**



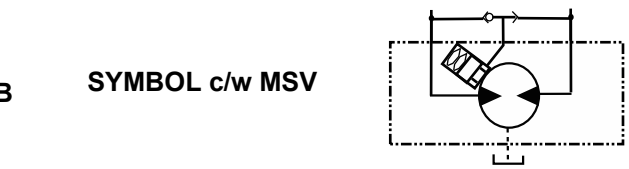
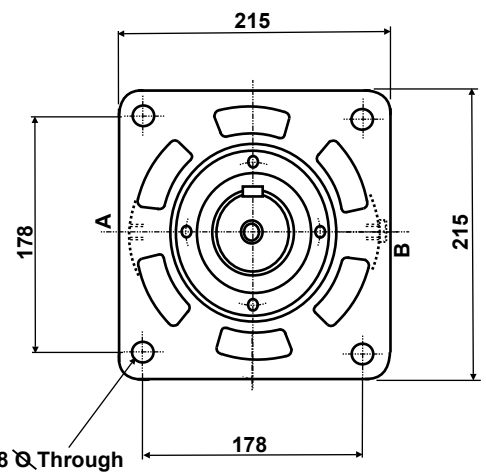
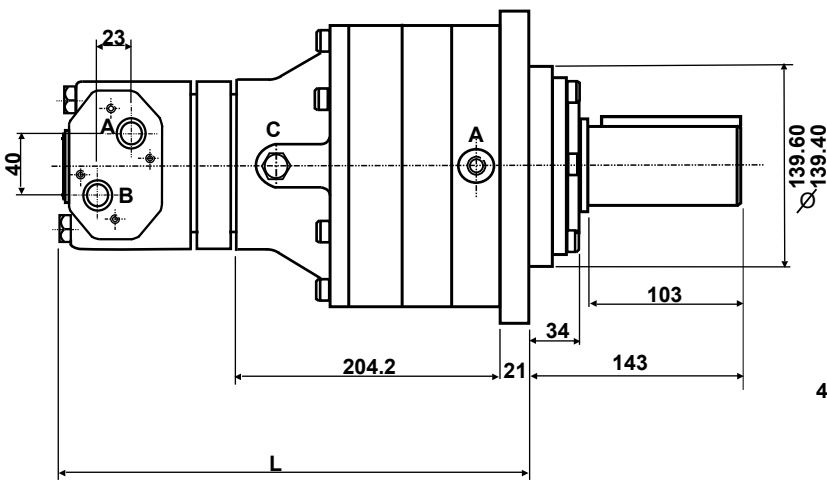
**MGF5-B**



Ports A,B & C alternative gearbox drain connections 1/8" BSP. Standard units supplied with one plug & transit plug. Sealed units one port plugged the other fitted with a breather. Port C is a motor drain connection only on standard units.

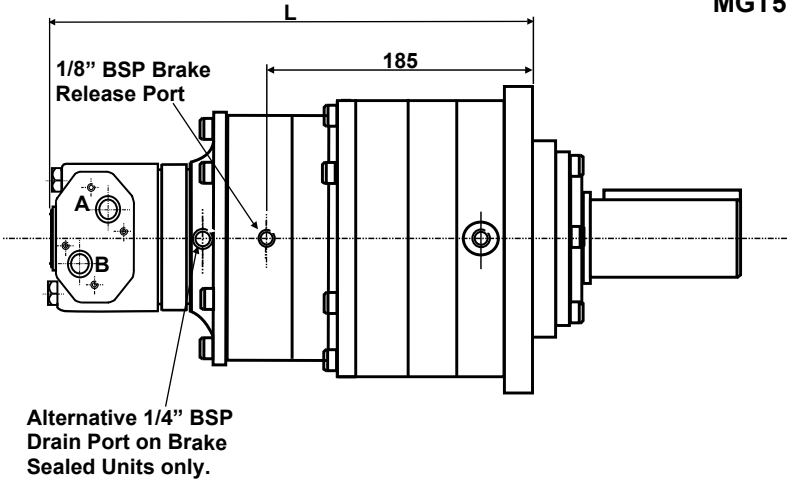
Gearbox unit available with multi-disc Fail safe brake. Static rating 10,000 lbf. In 1100 Nm Brake Release Pressure 450 psi 31 bar

**MGT5**



**MGT5-B**

**SYMBOL c/w MSV**



Ports A,B & C alternative gearbox drain connections 1/4" BSP. Standard units supplied with two plugs and a transit plug. Sealed units two ports plugged the other fitted with a breather. See overleaf for mounting details.

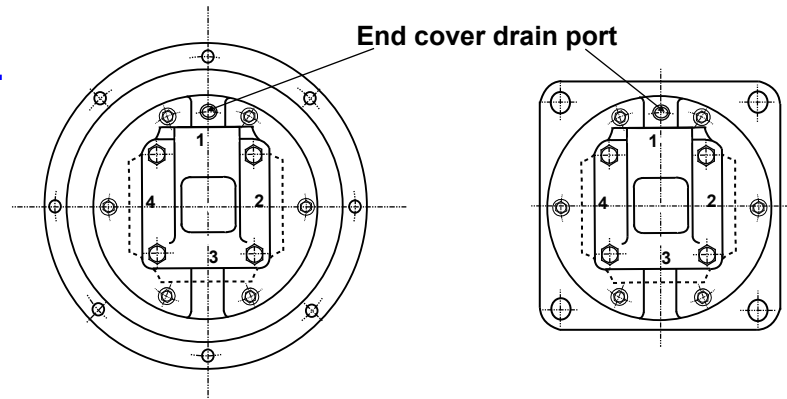
Gearbox unit available with multi-disc Fail safe brake. Static rating 10,000 lbf. In 1100 Nm Brake Release Pressure 450 psi 31 bar

Alternative 1/4" BSP Drain Port on Brake Sealed Units only.

	SIZE	130	160	200	250	300	400	500
MGF5 L	mm	269.5	272.5	277.5	283.5	293.5	303.5	317.5
MGF5 WEIGHT	kg	49.3	49.8	50.3	50.8	51.8	52.8	54.3
MGF5B L	mm	344	347	352	358	368	378	392
MGF5B WEIGHT	kg	69.3	69.8	70.3	70.8	71.8	72.8	74.3
MGT5 L	mm	301.5	304.5	309.5	315.5	325.5	335.5	349.5
MGT5 WEIGHT	kg	44.3	44.8	45.3	45.8	46.8	47.8	49.3
MGT5B L	mm	357.5	351.5	356.5	362.5	372.5	382.5	396.5
MGT5B WEIGHT	kg	64.3	64.8	65.3	65.8	66.8	67.8	69.3

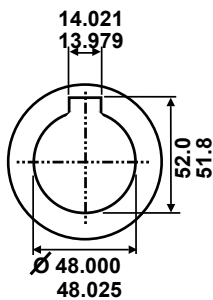
**MOTOR PORT POSITIONS**

Please note with OCV Valve fitted in position 1, the end cover drain port will be positioned 180° from the position shown.

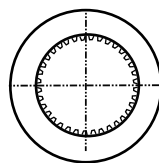
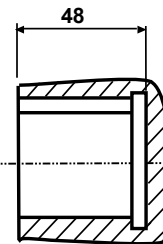


**SHAFT VARIANTS**

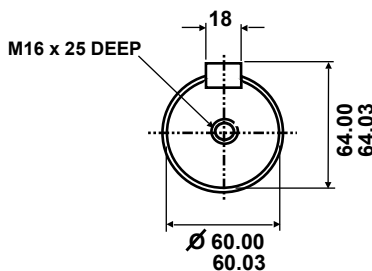
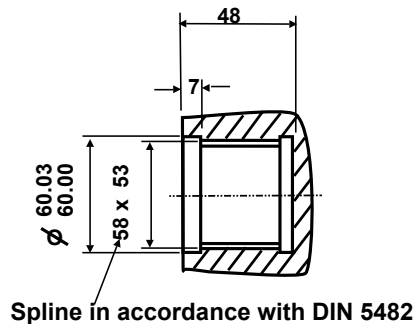
**MG5-T SERIES**



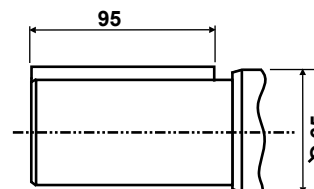
**MGF5  
KEYED SHAFT DETAIL**



**MGF5  
SPLINED SHAFT DETAIL**



**MGT5  
MALE SHAFT DETAIL**



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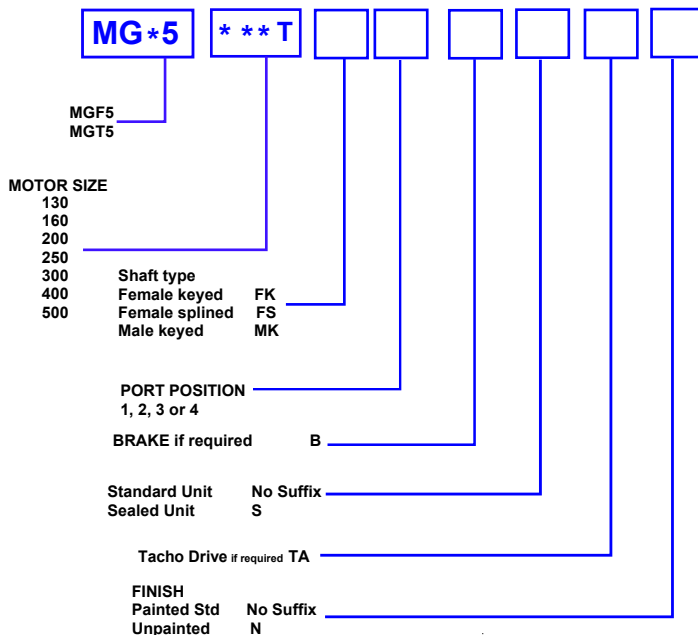
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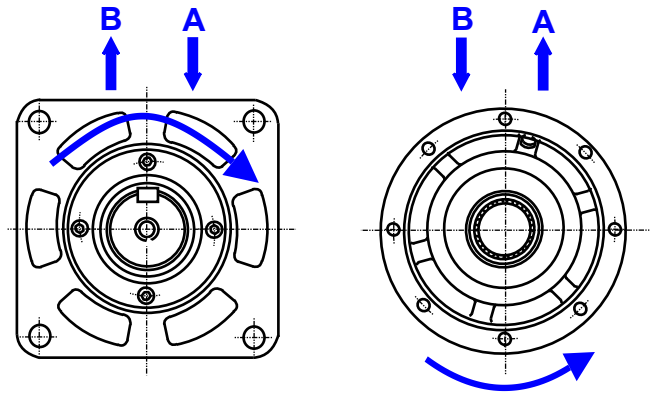




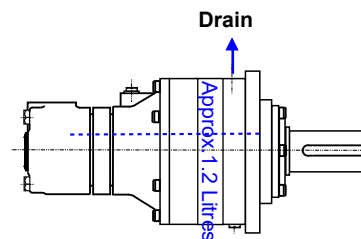
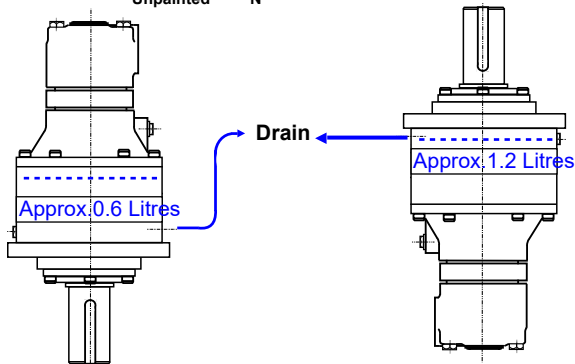
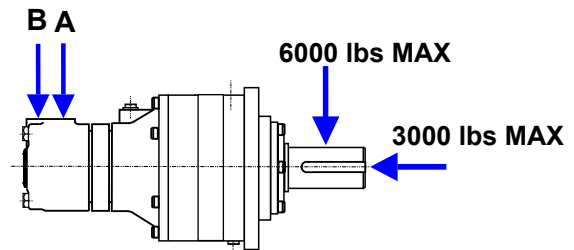
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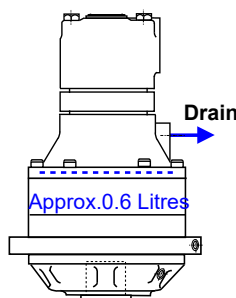
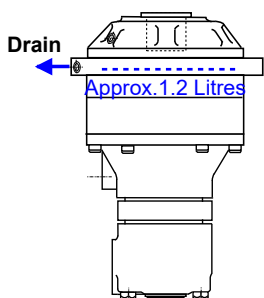
SHAFT ROTATION



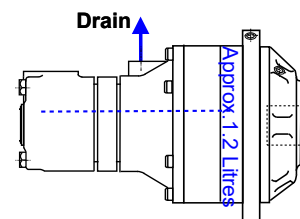
MALE SHAFT LOADINGS



MOUNTING POSITIONS



----- Oil level



All unsealed units must be drained to tank from the highest point as shown.

Sealed units fill with EP oil with anti foaming additives before use. Select the grade appropriate to temperature from chart based on ISO 3448. It is recommended to replace the oil after the first 50 hours, then every 1000 hours or 6 months.

Fit breather in highest drain port.

Viscosity	Ambient Temperature °C
ISO VG 150	-10 > +30
ISO VG 220	+10 > +45
ISO VG 320	+30 > +60

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