



# FAIL SAFE HYDRAULIC MOTOR/BRAKE UNIT

## TYPE - MSB/MBSW

TYPE		MBS/MBSW SERIES							
MOTOR SIZE		75	100	125	150	200	250	300	400
DISPLACEMENT	cm <sup>3</sup>	81.8	101.3	126.3	161.0	201.2	251.2	315.9	400.4
	in <sup>3</sup>	4.91	5.00	7.72	9.85	12.31	15.36	19.32	24.49
MAX. SPEED	rpm cont.	810	750	600	450	375	300	240	190
	rpm int.	1000	900	720	560	450	360	285	230
MAX. TORQUE	Nm cont.	240	305	275	490	625	640	640	640
	lbf.in cont.	2120	2700	3320	4340	5531	5664	5664	5664
	Nm int.	310	390	490	600	640	640	640	640
	lbf.in int.	2740	3450	4340	5310	5664	5664	5664	5664
MAX. PRESSURE DROP	bar cont.	210	210	210	210	210	175	140	115
	psi int.	3050	3050	3050	3050	3050	2540	2030	1668
	bar int.	275	275	275	260	225	175	140	115
	psi int.	3990	3990	3990	3770	3260	2540	2030	1668
MAX. OIL FLOW	lpm cont.	65	75	75	75	75	75	75	75
	gpm cont.	14.3	16.5	16.5	16.5	16.5	16.5	16.5	16.5
	lpm int.	80	90	90	90	90	90	90	90
	gpm int.	17.6	19.8	19.8	19.8	19.8	19.8	19.8	19.8

**Spring applied pressure release**  
**Static brake torque 5600 lbf.in - 640 Nm**  
**Brake release pressure 550 psi - 39 bar**  
**Maximum brake pressure 300 bar**  
**Maximum drain line pressure 70 psi - 5 bar**  
**Motor drain line must be used if over this rating**

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

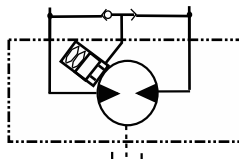
To ensure proper operation of the brake, a separate case drain back to tank must be used due to the possibility of return line pressure spikes. A simple schematic of a system utilizing a motor/ brake is shown in the diagram below.

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.

SYMBOL c/w MSV



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



**ADAN LIMITED**

RIVERSIDE IND. ESTATE BOSTON LINCOLNSHIRE ENGLAND

Tel: +44 (01205) 311500

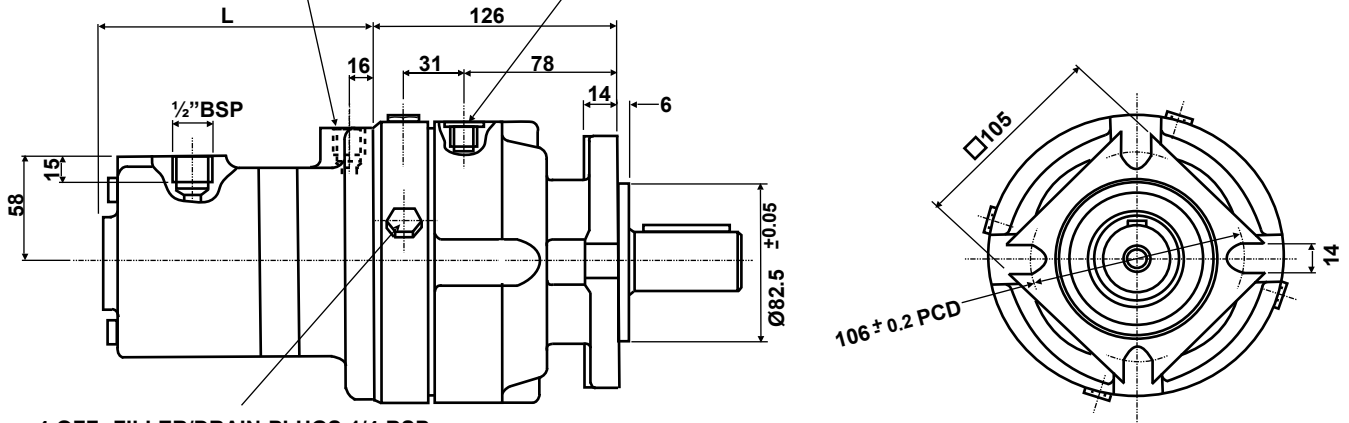
email: sales@adanltd.co.uk | website: www.adanltd.co.uk



**MBS**

MOTOR DRAIN PORT 1/4" BSP  
UNIT MUST BE DRAINED TO TANK  
IF RETURN PRESSURE EXCEEDS  
5 BAR BOTH MODELS.

BRAKE PILOT PORT 1/4" BSP

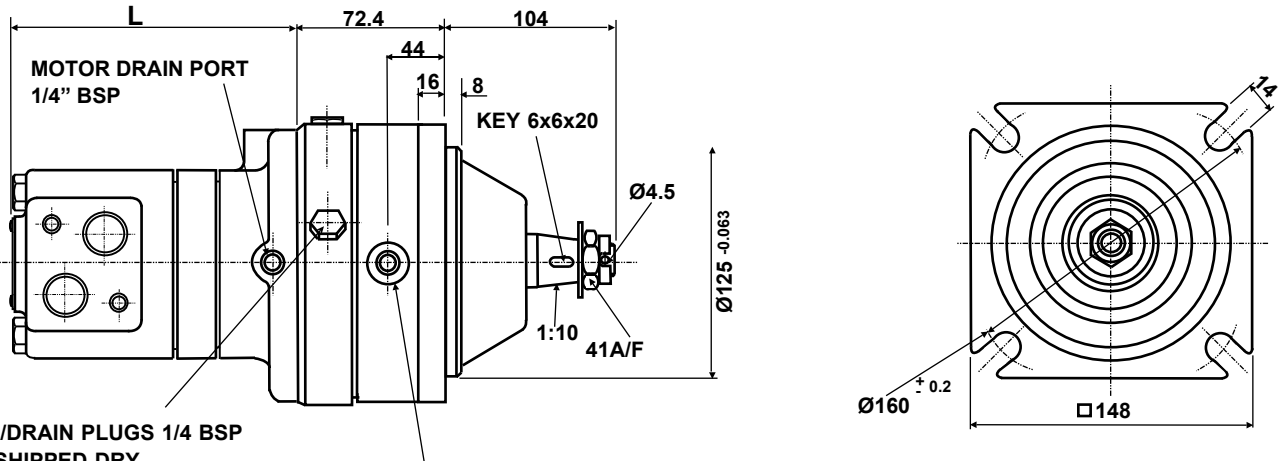


4 OFF: FILLER/DRAIN PLUGS 1/4 BSP

NOTE! UNIT SHIPPED DRY  
FILL WITH 50-120 cc HYDRAULIC OIL  
BEFORE USE.  
FIT BREATHER IN HIGHEST POINT

MBS		75	100	125	150	200	250	300	400
DIM L	mm	261.5	264.5	269.5	275.5	278.5	291.5	302.5	316.5
WEIGHT	kgs	18.5	18.7	19.0	19.4	19.9	20.5	21.2	22.0

**MBSW**



4 OFF: FILLER/DRAIN PLUGS 1/4 BSP  
NOTE! UNIT SHIPPED DRY  
FILL WITH 50-120cc HYDRAULIC OIL  
BEFORE USE. (FIT BREATHER IN  
HIGHEST PORT)

BRAKE RELEASE PORT 1/4" BSP

MBSW		75	100	125	150	200	250	300	400
DIM L	mm	207.9	210.9	215.9	221.9	224.9	237.9	248.9	262.9
WEIGHT	kgs	17.5	17.7	18.0	18.4	18.9	19.5	20.2	21.0

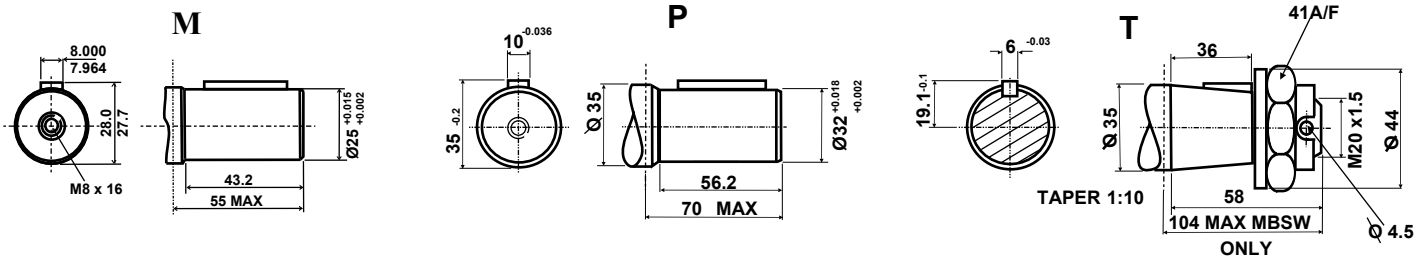
The policy of Adan Limited is one of continual development and the right is reserved to alter specifications without notice.



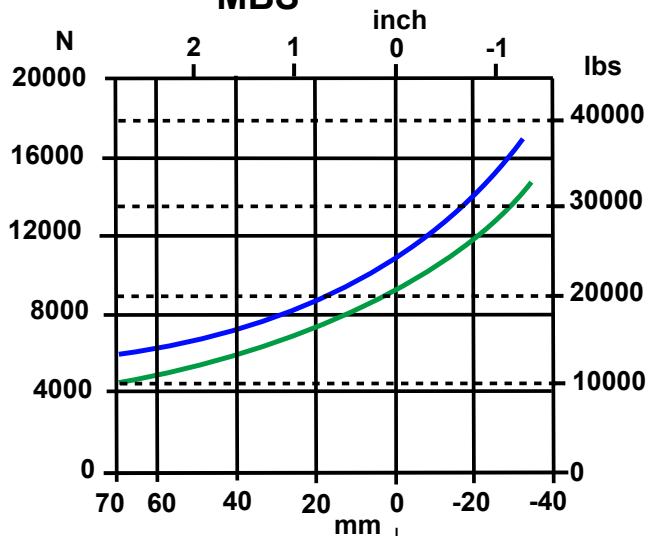
**ADAN LIMITED**  
RIVERSIDE IND. ESTATE BOSTON LINCOLNSHIRE ENGLAND  
Tel: +44 (0)1205 311500  
email: sales@adanltd.co.uk | website: www.adanltd.co.uk



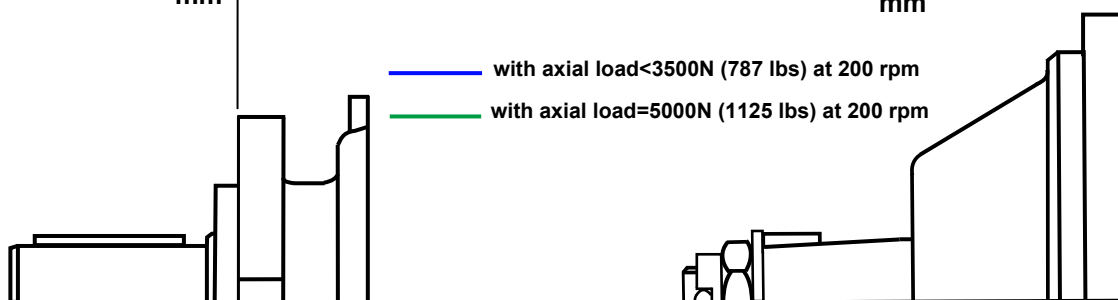
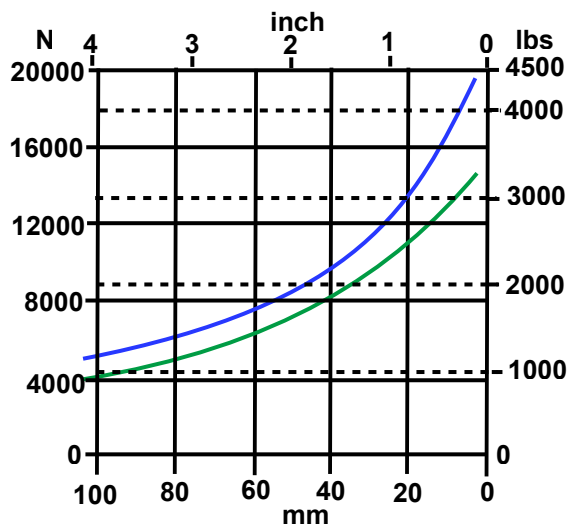
# SHAFT OPTIONS



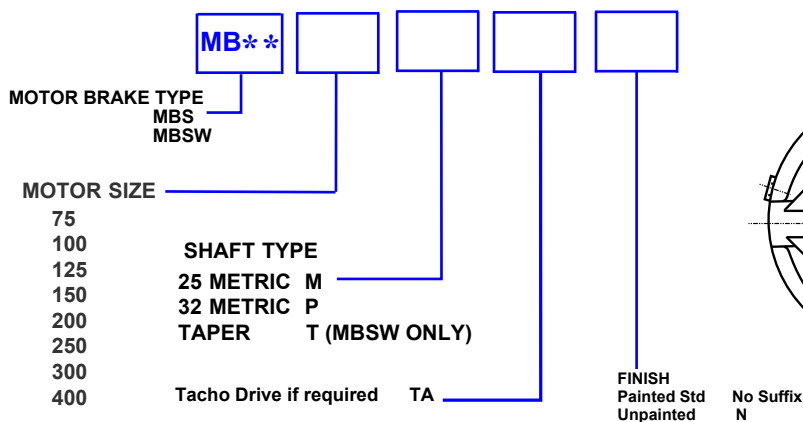
## SHAFT LOADING MBS



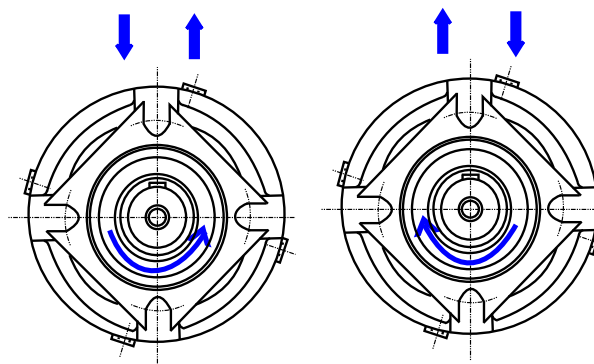
## SHAFT LOADING MBSW



## ORDERING CODE



## SHAFT ROTATION



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



**ADAN LIMITED**  
 RIVERSIDE IND. ESTATE BOSTON LINCOLNSHIRE ENGLAND  
 Tel: +44 (01205) 311500  
 email: sales@adanltd.co.uk | website: www.adanltd.co.uk

