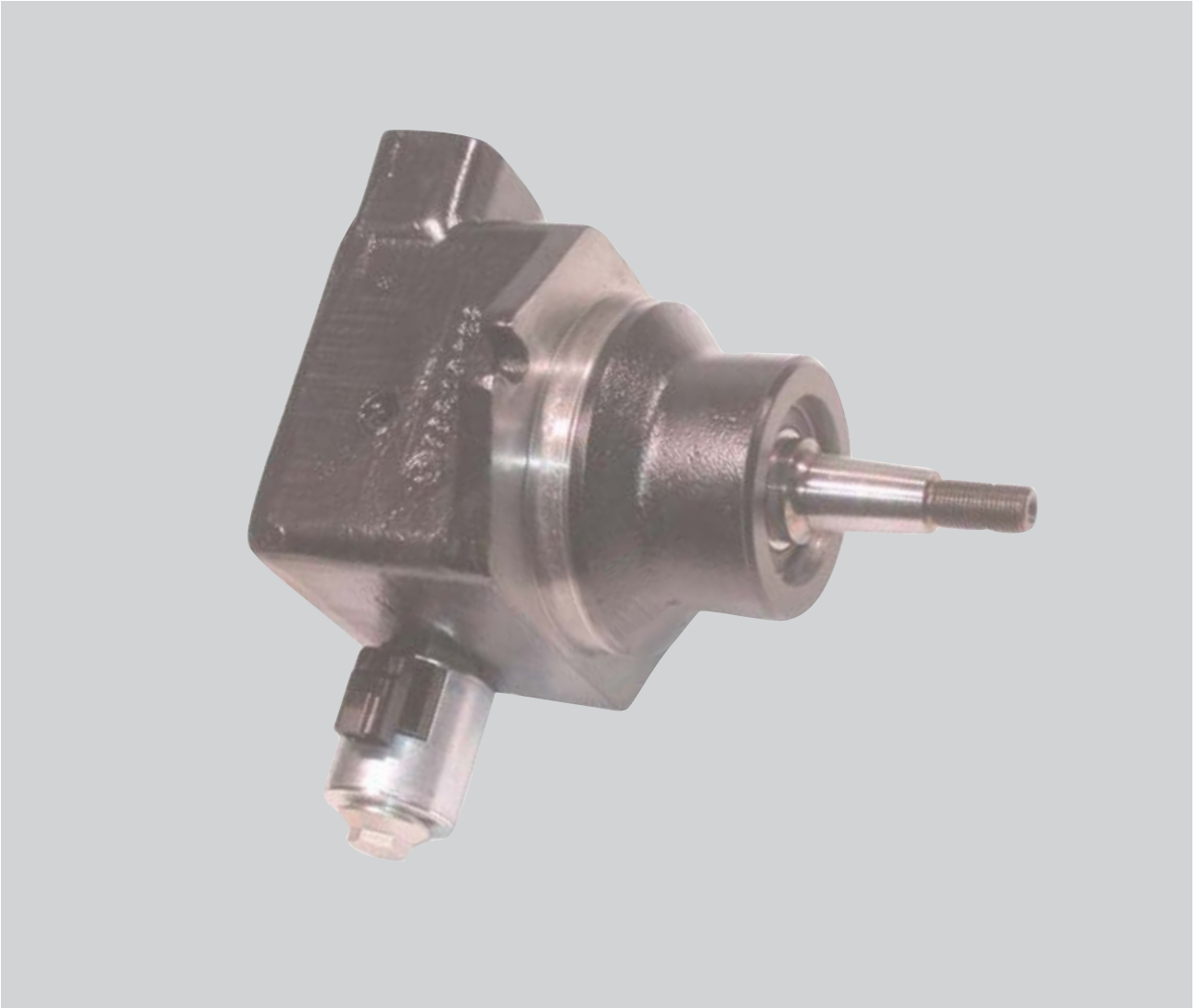




Vane motor high performance hydraulic series M5AF - M5AF1



Publ. 2 - AM1703 - B

01 / 2005 / FB

Replaces : 2 - AM1703 - A

L14 - 21703 - 2

DENISON Hydraulics

Model No.

M5AF1 - 018 - 1 N 02 - A 1 - M 3 - ..

Series External drain * _____
 Series Internal drain * _____

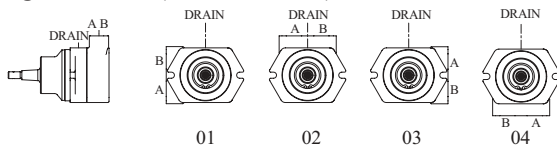
Displacement _____
 Volumetric displacement (in³/rev.)
 006 = .38
 010 = .61
 012 = .76
 016 = .98
 018 = 1.10
 025 = 1.52

Type of shaft _____
 1 = taper (non SAE)
 2 = keyed (non SAE)

Direction of rotation (view on shaft end) - M5AF - M5AF1 _____
 R = Clockwise
 L = Counter-clockwise

Direction of rotation (view on shaft end) - M5AF _____
 N = Bi-rotational

Porting combination (view on shaft end) _____



Modifications

Drain variables - M5AF
 2 = 9/16" SAE drain
 3 = M12 x 1,5 metric drain
Drain variables - M5AF1
 X = no drain connection

End cap variables - All motors except with proportional pressure relief valve *

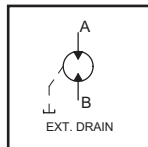
M = 4 bolts SAE flange J518 - Metric thread
 0 = 4 bolts SAE flange J518 - UNC thread
 Y = Metric threaded ports (ISO 6149) - M22 x 1,5
 W = SAE str. threaded ports - 1"1/16-12 UNF-2B
End cap variables - With proportional pressure relief valve (external drain & uni-rotational only) *
 with relief valve and uni-rotational version
 A = 4 bolts SAE flange J518 - Metric thread 210 bar
 B = 4 bolts SAE flange J518 - Metric thread 140 bar
 C = 4 bolts SAE flange J518 - Metric thread 70 bar
End cap variables : all uni-rotational motors have an internal check valve included. **

Seal class
 1 = S1 - BUNA N
 5 = S5 - VITON

Design letter

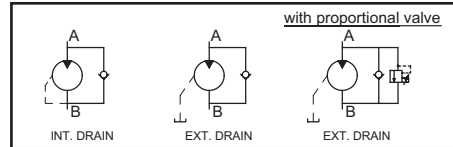
ROTATION = BI-ROTATIONAL (N)

View from shaft end :
 CW rotation A = inlet
 B = outlet
 CCW rotation A = outlet
 B = inlet

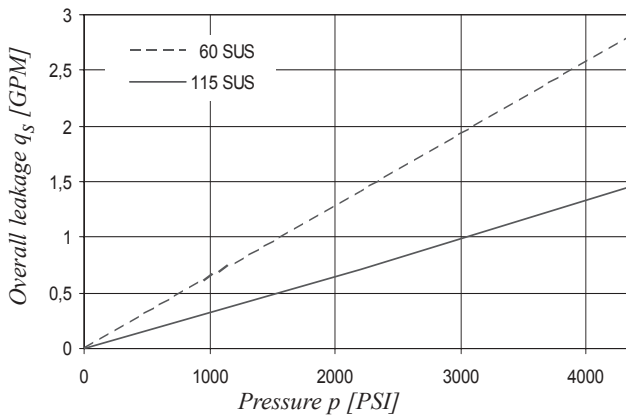


R OR L ROTATION (New rotation concept - patent pending)***

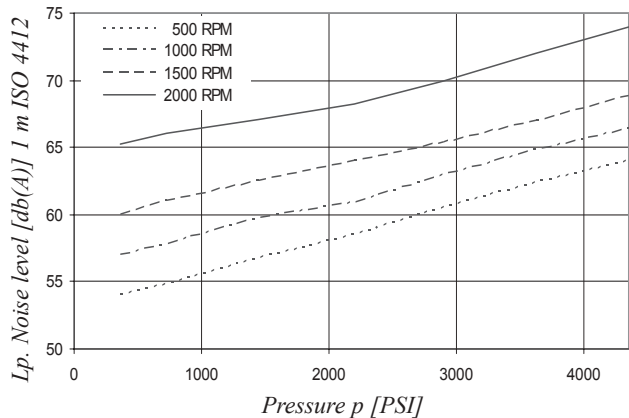
View from shaft end :
 CW & CCW rotations
 A = inlet
 B = outlet



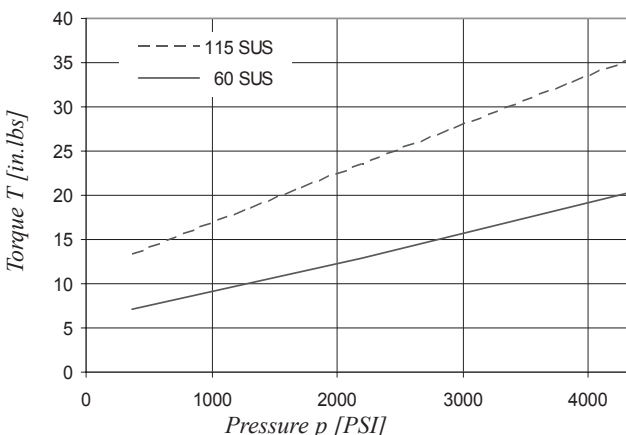
OVERALL LEAKAGE (internal + external)



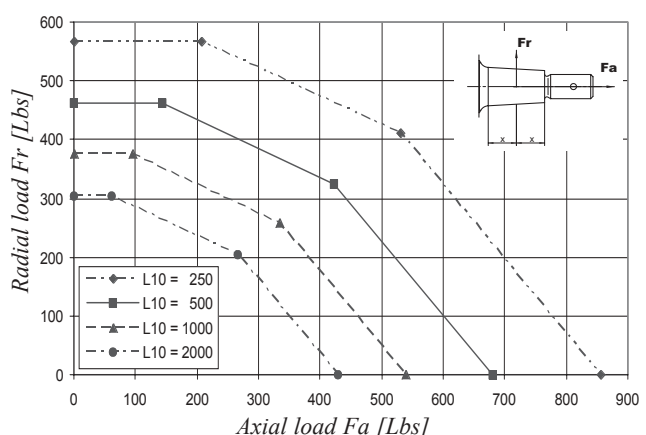
NOISE LEVEL - M5AF - 025



TORQUE LOSS



PERMISSIBLE AXIAL AND RADIAL LOADS

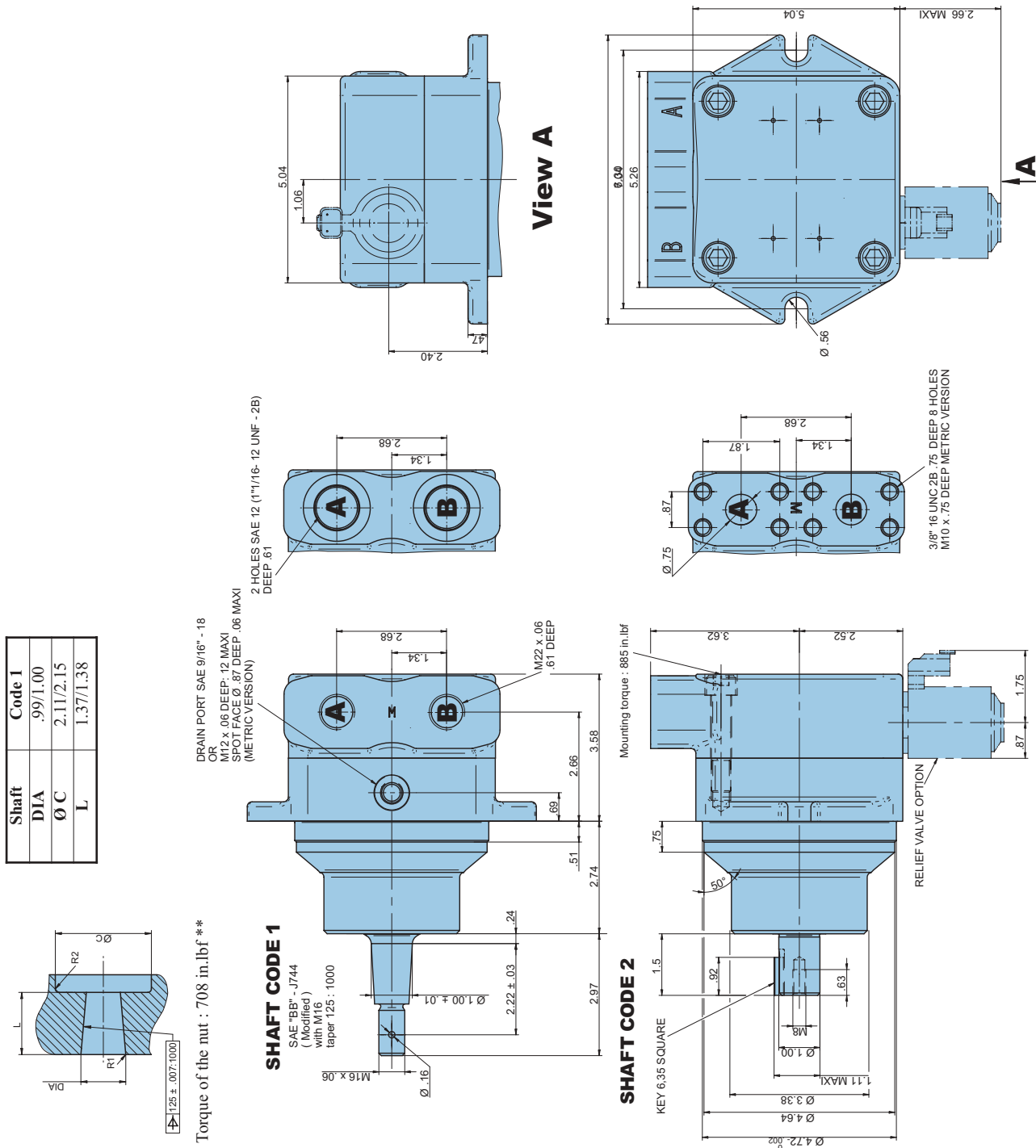


* If working in series or for other end cap variables, please contact DENISON Hydraulics.

** For the anti-cavitation check valve to work properly, please see chart page 3.

*** L or R rotation is a new internal concept : A is always "in" and B always "out".

L10 = Theoretical lifetime [10⁶ rev.]



PERFORMANCES : PRESSURE & SPEED

Displacement	006	010	012	016	018	025
Pressure max (PSI)			4350			4060
Speed max (RPM)			4000			2500

MINIMUM REPLENISHMENT PRESSURE (BAR ABSOLUTE AT THE B PORT) for M5AF with an internal check valve *

Flow (GPM)	1.32	2.64	5.28	7.93	10.57	13.21	15.85
Mini pressure (PSI)	18.87	26.12	36.28	43.54	60.96	89.98	130.62

* 15.85 GPM is the maximum flow allowed through the internal check valve.

** This torque is for a steel coupling and a nut of at least grade 8.8 quality. It is compulsory to install a castle nut and cotter pin for right-hand rotation - bi-rotational.