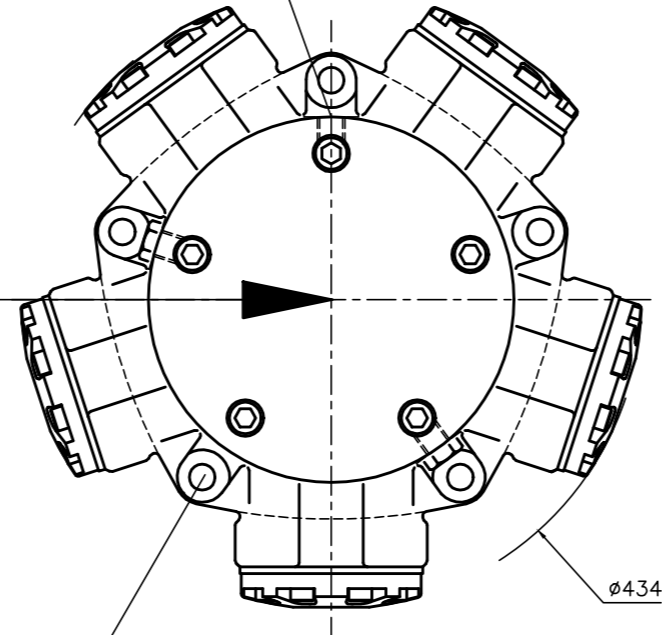


HMB045

VALVE HOUSINGS

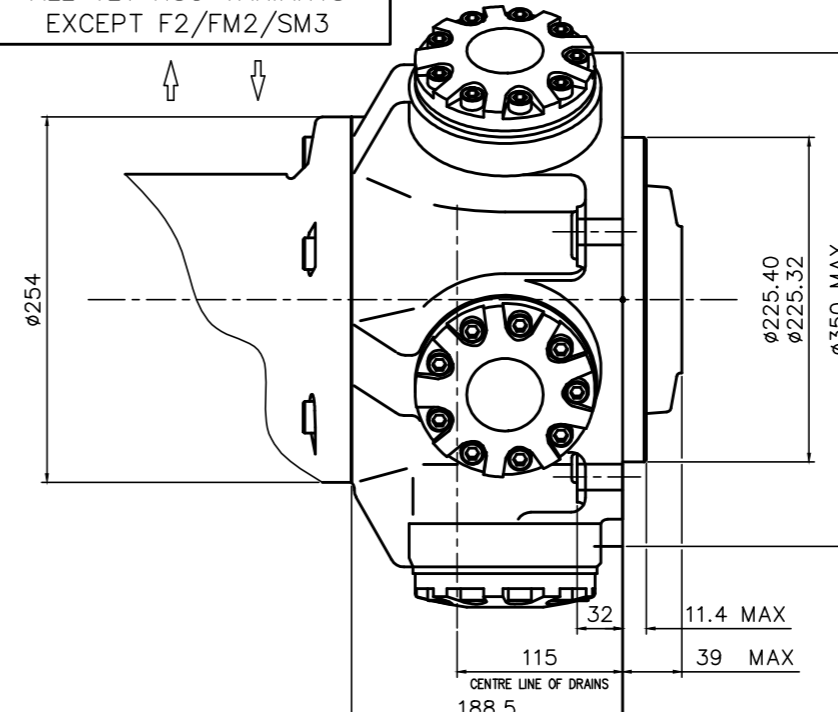
EXAMPLE FOR MODEL CODE -
HMB045/S/FM3/70

3/4"-16 UNF-2B DRAIN (CHOICE OF 3 POSITIONS)
(2 NORMALLY PLUGGED)
NOTE: - ENSURE ON INSTALLATION THAT DRAIN IS
TAKEN FROM ABOVE MOTOR CENTRELINE.
DO NOT EXCEED 12 DEPTH OF COUPLING
IN TO DRAIN PORT

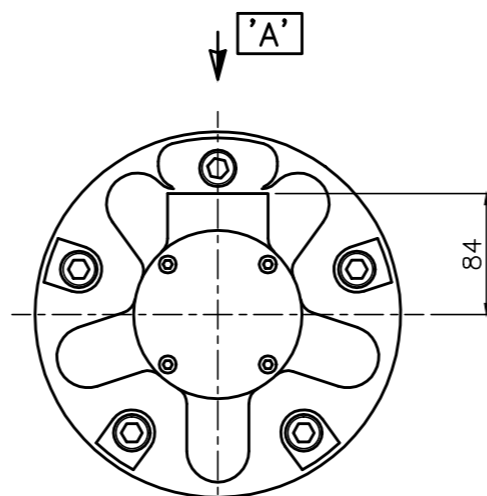
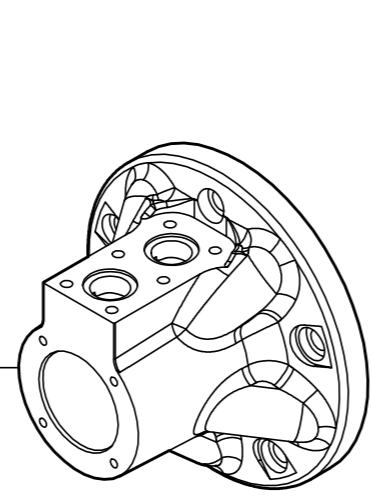


5 HOLES #18 EQUI-SPACED AS
SHOWN ON A [304.8] P.C.D. SPOTFACED
TO GIVE AN EFFECTIVE #38.
±0.15

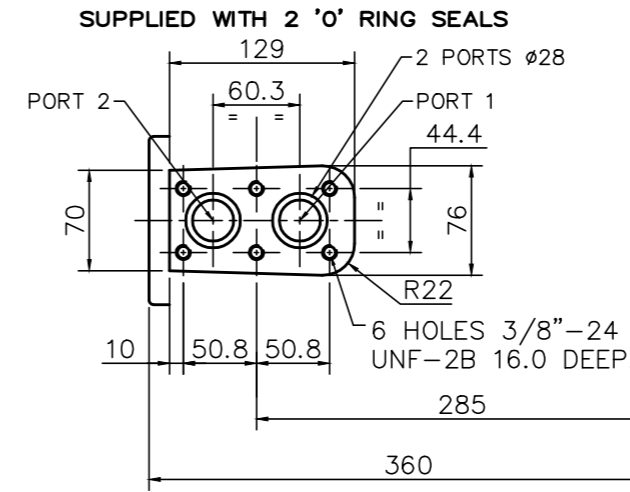
REVERSE PORT CONNECTIONS
FOR OPPOSITE DIRECTION OF
SHAFT ROTATION
FLOW DIRECTION FOR
ALL VLV HSG VARIANTS
EXCEPT F2/FM2/SM3



CLOCKWISE DIRECTION
OF ROTATION



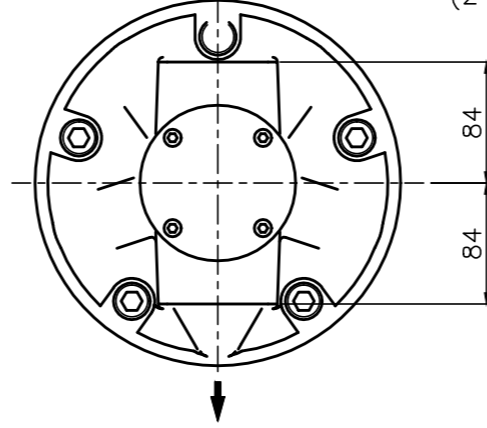
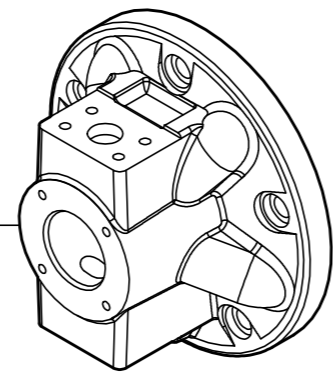
VIEWS ON ARROW 'A'



MOUNTING FACE

S03 -
3" VALVE HOUSING WITH
6-BOLT FLANGE

FLOW DIRECTIONS FOR
SHAFT ROTATION SHOWN.
REVERSE FLOW DIRECTIONS
FOR OPPOSITE ROTATION.

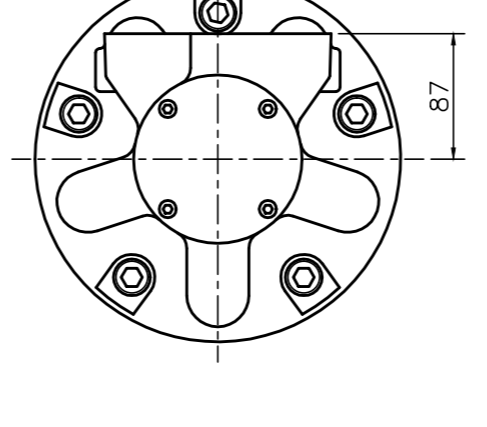
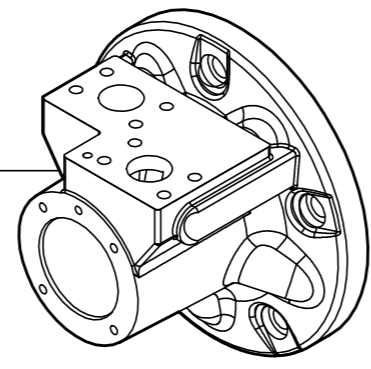


1" CODE 61
S.A.E. PORTS
(2 POSITIONS)

2x4 HOLES, SEE TABLE
FOR THREAD SIZES

F2/FM2 -
2 1/4" VALVE HOUSING WITH
1" SAE 4-BOLT FLANGES

PORT FLANGE BOLT TAPPING SIZE -
F2: 3/8"-16 UNC-2B X 22 FULL THREAD DEPTH
FM2: M10 X P1.5 X 22 FULL THREAD DEPTH

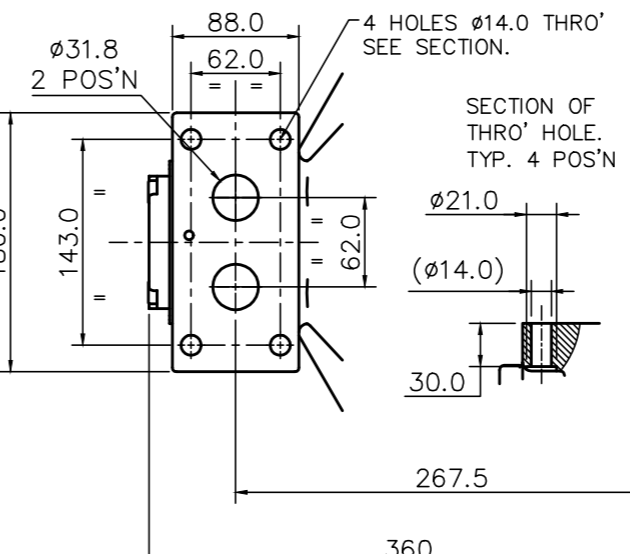
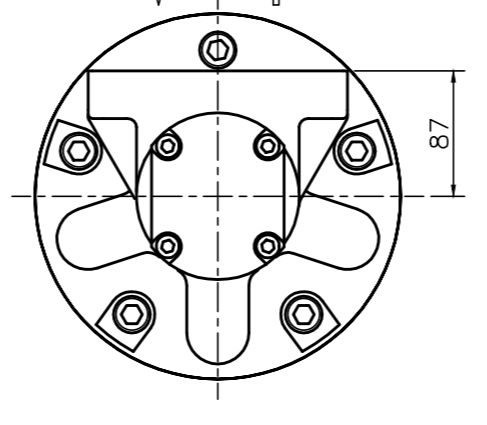
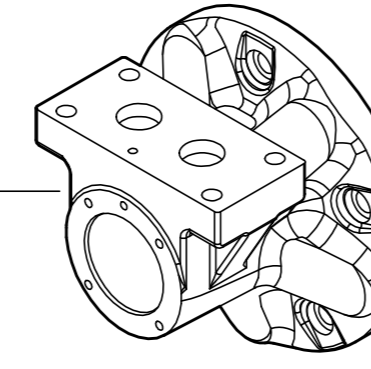


1 1/4" CODE 61
S.A.E. PORTS
(3000 SERIES)

8 HOLES, SEE TABLE
FOR THREAD SIZES

F3/FM3 -
3" VALVE HOUSING WITH
1 1/4" SAE 4-BOLT FLANGES

PORT FLANGE BOLT TAPPING SIZE -
F3: 7/16"-14 UNC-2B X 27 FULL THREAD DEPTH
FM3: M12 X P1.75 X 27 FULL THREAD DEPTH



SM3 -
3" VALVE HOUSING WITH 4 THRO' HOLES FOR
MOUNTING A MANIFOLD BOLTED FROM BENEATH.

SHAFTS

EXAMPLE FOR MODEL CODE -
HMB045/P/50- MONOBLOCK
HMB045/P/FM3/70- 2 PART BUILD

SPLINE DATA

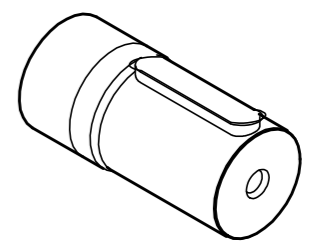
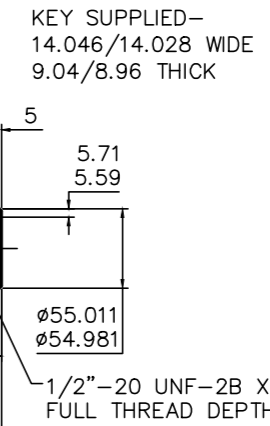
'S'
TO BS 3550 (ANSI B92.1 CLASS 5)
FLAT ROOT SIDE FIT, CLASS 1
PRESSURE ANGLE 30°
NUMBER OF TEETH 17
PITCH 8/16
MAJOR DIAMETER 56.41/56.29
FORM DIAMETER 50.703
MINOR DIAMETER 50.06/49.60
PIN DIAMETER 6.096
DIAMETER OVER PINS 62.984/62.931

'Z'
DIN 5480 W55 x 3 x 17 x 7h

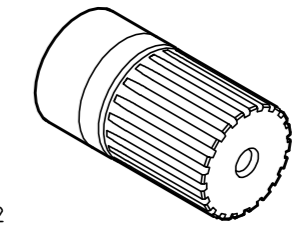
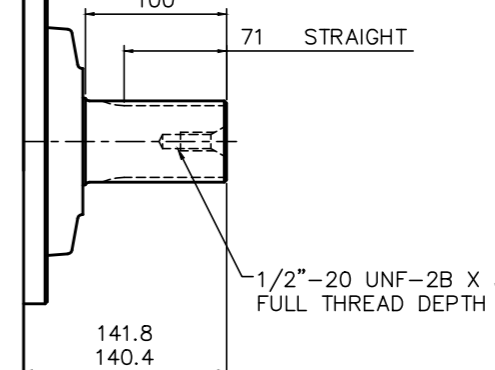
'Z2'
DIN 5480 W60 x 3 x 18 x 7h

'Q'
INTERNAL SPLINE TO BS 3550
FLAT ROOT SIDE FIT
PRESSURE ANGLE 30°
NUMBER OF TEETH 21
PITCH 12/24
MAJOR DIAMETER 46.566/46.896
FORM DIAMETER 46.144
MINOR DIAMETER 42.334/42.461
PIN DIAMETER 3.658
PIN FLATTENED TO 3.556
DIM'N BETWEEN PINS 39.169/39.103

'p'



'S', 'Z' & 'Z2'



'Q'

