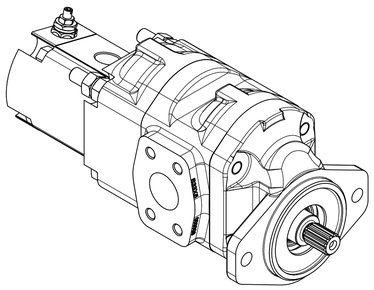
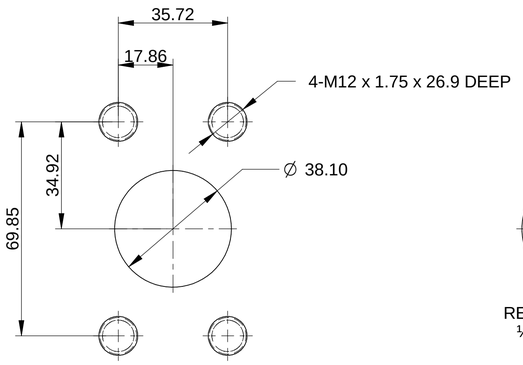
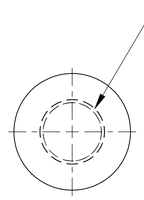
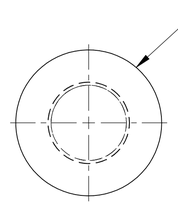




FRONT INLET PORT
1½" SAE SPLIT FLANGE
WITH METRIC THREAD
DETAIL 'A'
SCALE 1:1

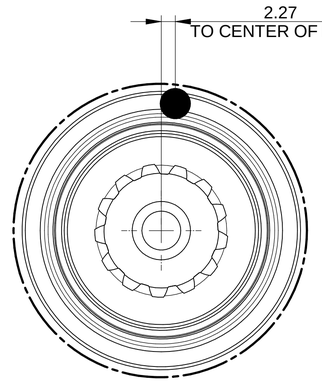


REAR OUTLET PORT
½" BSPP THREAD
DETAIL 'B'
SCALE 1:1



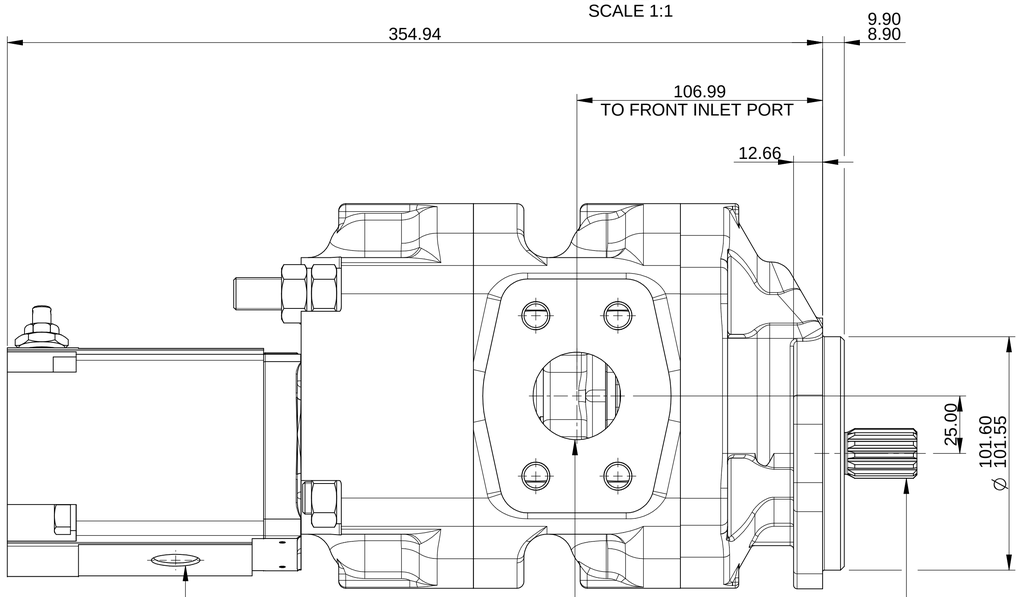
FRONT,INTERMEDIATE OUTLET PORTS
& REAR INLET PORT
¾" BSPP THREAD
DETAIL 'C'
SCALE 1:1

STANDARDS REQUIRED		
STANDARD	TITLE	QTY



DETAIL K
2:1

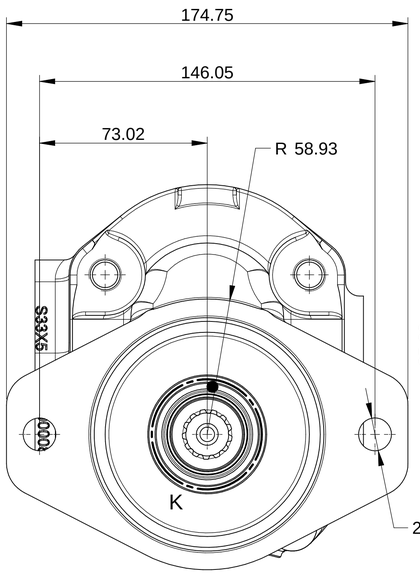
ROTATION

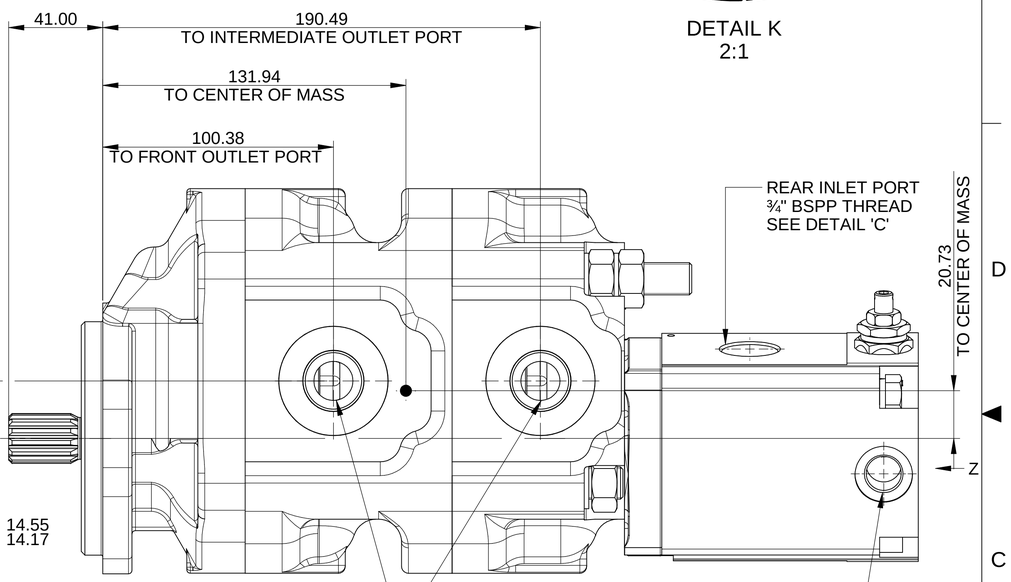


REAR OUTLET PORT
1/2" BSPP THREAD
DETAIL 'B'

FRONT INLET PORT
1 ½" SAE S/F (METRIC THREAD)
SEE DETAIL 'A'

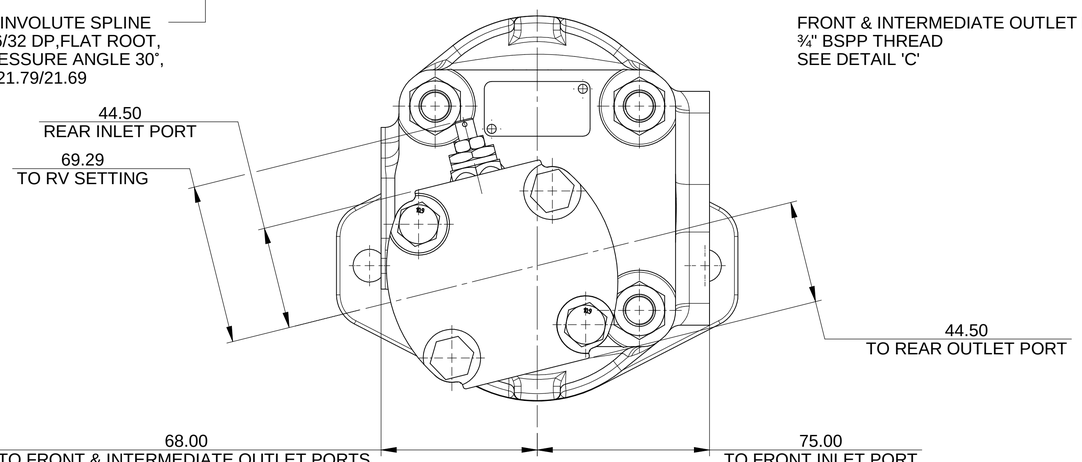
SAE (B) 7/8" INVOLUTE SPLINE
13 TEETH,16/32 DP,FLAT ROOT,
SIDE FIT,PRESSURE ANGLE 30˚,
MAJOR DIA 21.79/21.69



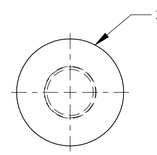


FRONT & INTERMEDIATE OUTLET PORTS
¾" BSPP THREAD
SEE DETAIL 'C'

DRAIN PORT
3/8" BSPP THREAD
SEE DETAIL 'D'

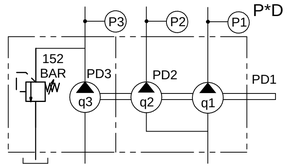


VIEW Z



DRAIN PORT
3/8" BSPP THREAD
DETAIL 'D'
SCALE 1:1

MODEL 181708	DISPLACEMENT CM³/REV	SPEED (RPM)		PRESSURE (BAR)	
		RATED	PEAK	RATED	PEAK
FRONT PUMP X5023	23.0	2500	3000	250	280
INTERMEDIATE PUMP X5023	23.0	2500	3000	250	280
REAR PUMP 2SPA19	19.5	2500	3000	210	230



P*D = PRESSURE * DISPLACEMENT = TORQUE LIMIT

P* = OUTLET PRESSURE BAR
q* = PUMP DISPLACEMENT CC/REV

PD1 = P1 q1 + P2 q2 + P3 q3 <= 14226
PD2 = P2 q2 <= 21250
PD3 = P3 q3 <= 4000

NOTES:
1. ● REPRESENTS CENTER OF MASS
2. ROTARY MOMENT OF INERTIA 625.478 kg-mm²

GEOMETRIC TOLERANCE SYMBOLS

CONCENTRICITY · PROFILE OF A SURFACE · SYMMETRY · ANGULARITY · STRAIGHTNESS · SQUARENESS · FLATNESS · PARALLELISM · ROUNDNESS · POSITION · CYLINDRICITY · RUN OUT · PROFILE OF A LINE · DATUM

DO NOT SCALE DRAWING - IF IN DOUT ASK

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ISSUE	ZONE	ECN	CATEGORY	DATE	BY	CHK
B	A2	N/A	N/A	30.06.23	KV	JAS
A	NEW	ISSUE	N/A	28.10.13	KHS	JAS

DESCRIPTION: X1A50235023A2019-181708-1A

DRN	DATE	MATERIAL
KHS	28.10.13	
CHK	DATE	TREATMENT
JAS	21.06.18	
APPD	DATE	
PG	21.06.18	

WEIGHT: 26.1 kg

PROJECT REFERENCE:

1. UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETRES.
2. TOL. ON MACHINING DIMENSIONS : ± .25 mm.
   TOL. ON 3 DECIMAL PLACE DIMENSIONS : ± .10 mm.
   TOL. ON ANGULAR DIMENSIONS : ± 30 mins.
3. REMOVE SHARP CORNERS AND BURRS ON MACHINED SURFACES .13/.25 mm x 45° CHAMFERS.
4. ALL TAPPED HOLES TO BE CHAMFERED 90° TO MAJOR DIAMETER.
5. M/C SURFACES TO BE 3.2 µ M. (ROUGHNESS N8) UNLESS OTHERWISE STATED.

THIRD ANGLE PROJECTION

HYDRECO
POOLE - DORSET - ENGLAND

PRODUCT TYPE	SCALE	DRAWING SIZE	SHEET No
Gear Pump - X5	3:4	A1	SHT 1 OF 1

PART NUMBER	ISSUE
J181708	B