

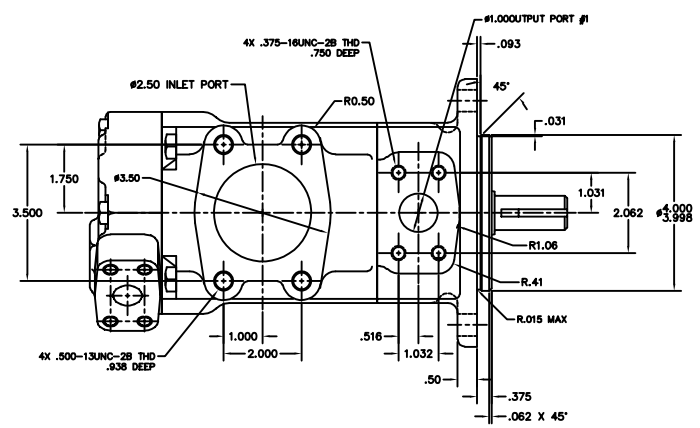
REV	DESCRIPTION	BY	CHK	DATE	ECN /MPS
B	REVISED AND REDRAWN ON AUTOCAD ADDED SHEET #2	RDD	G-SAYLES	13OCT94	0940519
C	(3G),(3D),(6F)ADDED PUMP AND SHAFT END VIEWS, 3 PLACES.	RB	KURICH	09FEB96	0960063
D	(3B),(5B)FOOT MOUNTING BRACKET ADDED	AM	AM	01/02/17	M102921

FLUID	MAX PRESSURE PSI		MAXIMUM SPEED RPM	MAXIMUM OIL TEMP.	INLET PRESSURE MAX/MIN
	SHAFT END	COVER END			
SAE 10W PETROLEUM OIL MEETING A.P.I. CLASSIFICATION MS OR ITS INDUSTRIAL EQUIVALENT	5 GPM	3000	1800	150F	*/5 IN Hg(VAC)
	11 GPM	2300			
	17 GPM	2000			
	21 GPM	2000			
SYNTHETIC FIRE RESISTANT FLUIDS	5 GPM	3000	1200	SEE NOTE	*/3 IN Hg(VAC)
	11 GPM	2300			
	17 GPM	2000			
	21 GPM	2000			
WATER GLYCOL FLUIDS	5 GPM	2000	1500	130F	*/5 IN Hg(VAC)
	11 GPM	1800			
	17 GPM	1800			
	21 GPM	1800			

NOTE: SYNTHETIC FLUIDS
MAXIMUM AND MINIMUM TEMPERATURES DEPEND ON MAINTAINING THE VISCOSITIES RECOMMENDED. SEE DATA SHEET (1-286-5)

* MAXIMUM INLET PRESSURE - ALL MODELS - 20 PSI

MAXIMUM SHAFT TORQUES
SHAFT #1 - THE OPERATING PRESSURE AT THE OUTLETS SHOULD BE SO BALANCED THAT THE COMBINED SHAFT TORQUE DOES NOT EXCEED 2800 LB-IN. OBTAIN TORQUE VALUES FOR BOTH RINGS FROM GRAPH.
SHAFT #66 - THE OPERATING PRESSURE AT THE OUTLETS SHOULD BE SO BALANCED THAT THE COMBINED SHAFT TORQUE DOES NOT EXCEED 3560 LB-IN. OBTAIN TORQUE VALUES FOR BOTH RINGS FROM GRAPH.



FOR THIS HIGH PERFORMANCE PRODUCT TO QUALIFY UNDER DANFOSS WARRANTY, IT IS TO BE USED ONLY IN CIRCUITS THAT ARE INITIALLY AND CONTINUOUSLY FILTERED TO 25 MICRONS OR LESS.

PUMP DRIVE - PUMP IS RECOMMENDED FOR DIRECT COAXIAL DRIVE. IF DRIVES IMPOSING RADIAL SHAFT LOADS ARE CONSIDERED CONSULT THE DANFOSS SALES REPRESENTATIVE.

ADD "R" (RIGHT-HAND ROTATION) TO MODEL NUMBER FOR CLOCKWISE ROTATION
ADD "L" (LEFT-HAND ROTATION) TO MODEL NUMBER FOR COUNTER CLOCKWISE ROTATION
(ROTATION VIEWED FROM SHAFT END)

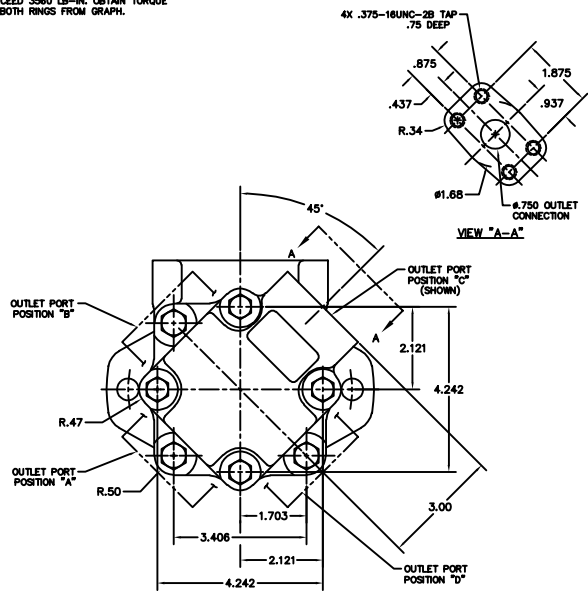
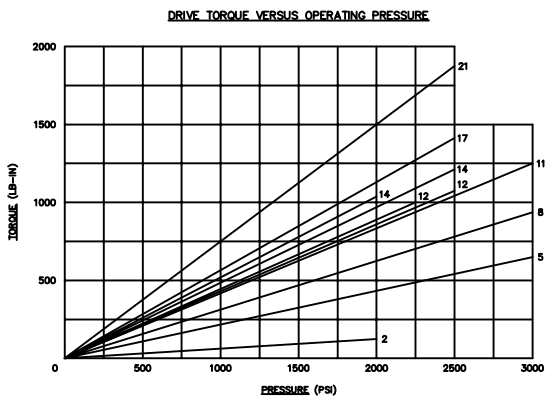
MAXIMUM SPEED RATINGS - ARE INFLUENCED BY SPECIFIC GRAVITY, VISCOSITY, AND SUCTION HEAD. PUMP SUCTON AND SPEED SHOULD BE RELATED SO THAT VACUUM AT PUMP INLET DOES NOT EXCEED RECOMMENDED RATINGS.

MINIMUM SPEED - 600RPM

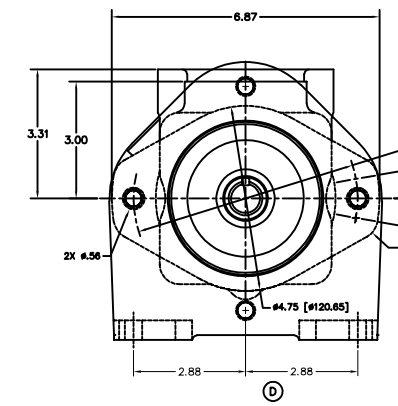
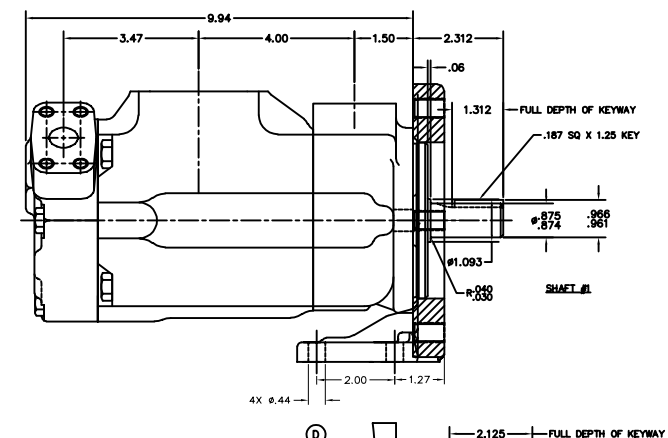
FLUIDS - PETROLEUM OILS - WITH VISCOSITY RANGE BETWEEN 13 cSt (70 SUS) AND 54 cSt (281 SUS)

WATER GLYCOL - WATER GLYCOLS AS PRODUCED BY RESPONSIBLE SOURCES FOR RATINGS GIVEN HEREIN ARE RECOMMENDED. SELECT FLUIDS WITH A VISCOSITY AS CLOSE AS POSSIBLE TO THAT OF PETROLEUM OIL DESCRIBED ABOVE.

SYNTHETIC FIRE RESISTANT FLUIDS - PHOSPHATE ESTERS, CHLORINATED HYDROCARBONS, AND BLENDS AS PRODUCED BY RESPONSIBLE SOURCES FOR RATINGS GIVEN HEREIN ARE RECOMMENDED. SELECT FLUIDS WITH A VISCOSITY AS CLOSE AS POSSIBLE TO THAT OF PETROLEUM OIL DESCRIBED ABOVE. MAXIMUM SPECIFIC GRAVITY OF 1.3 IS SUGGESTED. THE FLUIDS MUST BE COMPATIBLE WITH PUMP SEALS OF FLUOROCARBON ELASTOMERS (I.E. VITON, ETC.). TO OBTAIN PUMPS EQUIPPED FOR OPERATION WITH SYNTHETIC FIRE RESISTANT FLUIDS, ADD THE PREFIX "F" TO THE MODEL NUMBER.
EXAMPLE: F3-2520VA**1**22***



OUTLET PORTS MAY BE ASSEMBLED IN ANY ONE OF FOUR POSITIONS WITH RESPECT TO INLET CONNECTION AND INDICATED IN MODEL NUMBER.
EXAMPLE: 2520V*A**1**22***



2520V---**22* IS FLANGE MOUNTING
2520V---F**22* IS FOOT MOUNTING

ADD "R" (RIGHT-HAND ROTATION) TO MODEL NUMBER FOR CLOCKWISE ROTATION
ADD "L" (LEFT-HAND ROTATION) TO MODEL NUMBER FOR COUNTER CLOCKWISE ROTATION
(ROTATION VIEWED FROM SHAFT END)
(EXAMPLE ***-22-L)

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. MILLIMETERS (INCHES)

TOLERANCES

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS (INCHES)

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DRAWING BASED ON ASME Y14.5-2009

DATE: 07 JUL 90
CHECKED: CARDINALW
BY/DATE: 07 JUL 90

UNSPECIFIED DIMENSIONS ARE IN INCHES
BY/DATE: 30 JAN 91

UNSPECIFIED DIMENSIONS ARE IN MILLIMETERS
BY/DATE: --

J SIZE DO NOT SCALE

MATERIAL/HEAT TREAT: --

TITLE: INSTALLATION - INDUSTRIAL INTRA-VANE DOUBLE PUMP

NUMBER: 02-102787

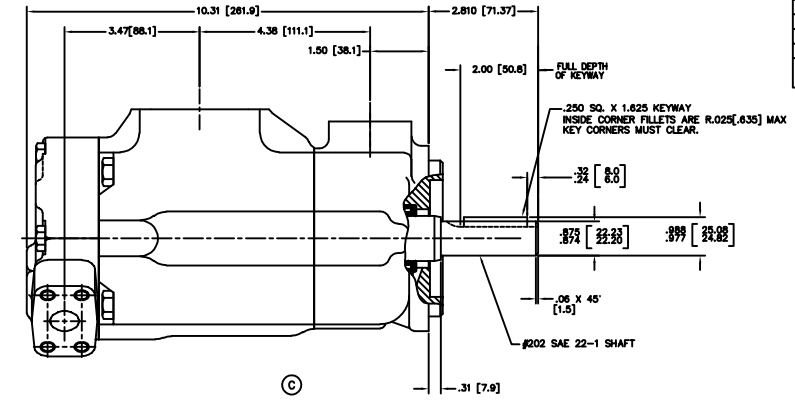
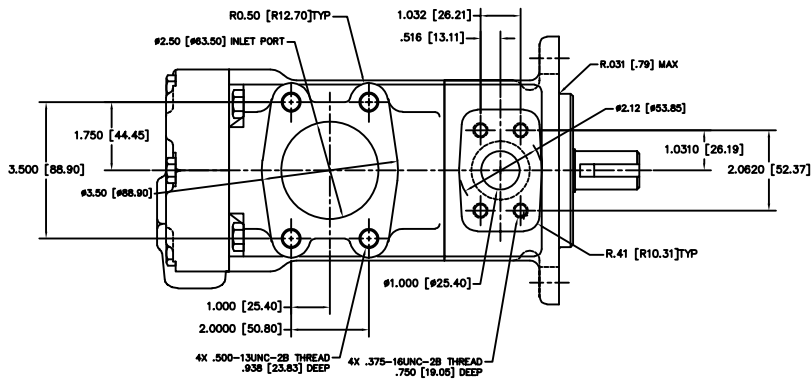
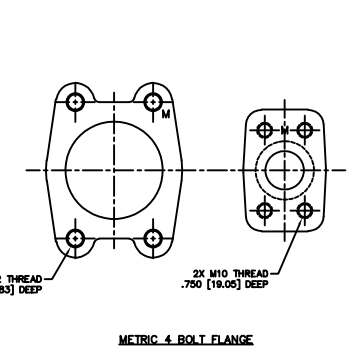
SCALE: 1/1 SHEET 1 OF 2

Danfoss

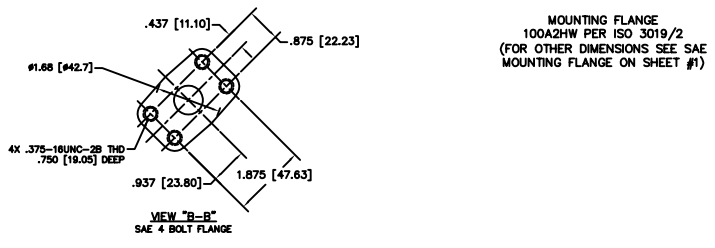
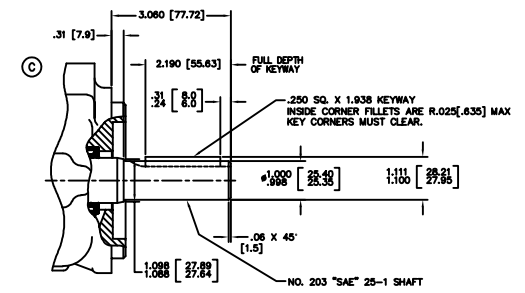
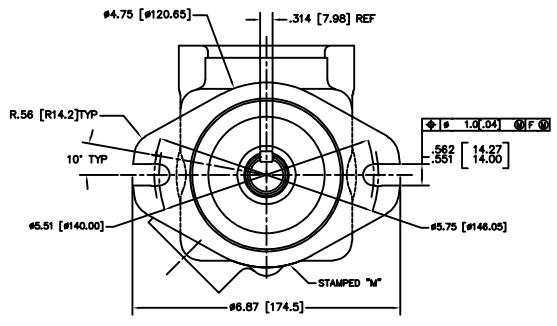
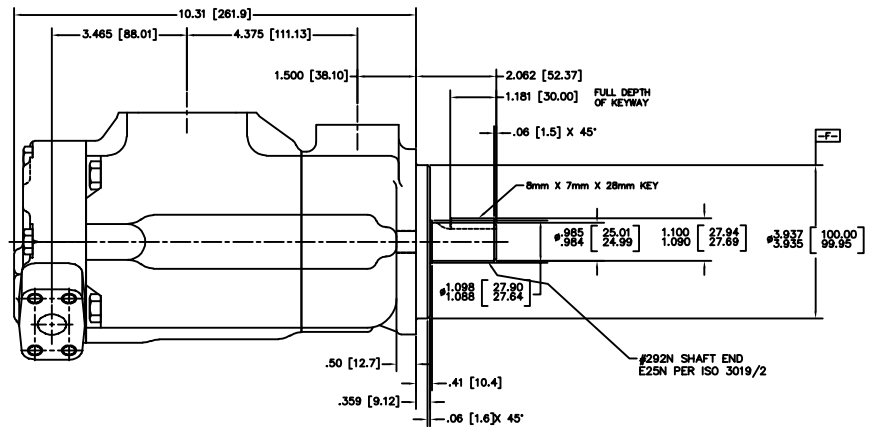
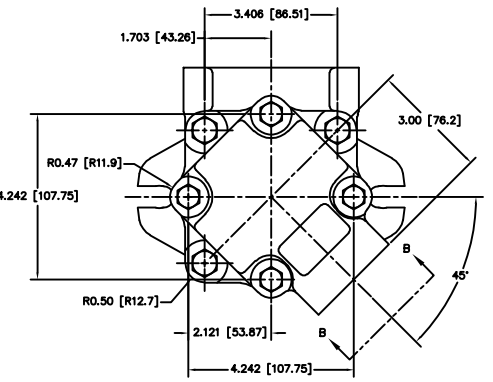
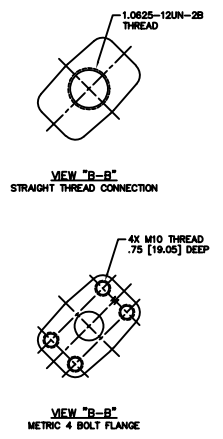
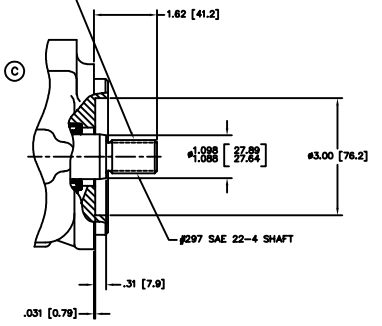
2 GPM	12 GPM
5 GPM	14 GPM
8 GPM	17 GPM
11 GPM	21 GPM
12 GPM	
14 GPM	

REV	DESCRIPTION	BY	CHK	DATE	ECN /MPS
D	SEE SHEET 1 FOR REVISION	--	--	--	--

EXTERNAL INVOLUTE SPLINE			
ANSI B92.1a - 1978			
.2125	PITCH DIA.	.7038	BASE DIA.
FLAT ROOT		SIDE FIT	
13	TEETH	16	32 PITCH
13 TEETH		16	32 PITCH
30.000	MAX. CHORDAL ADD.	30.000	MAX. CHORDAL ADD.
.508	MAX. MIN.	.748	MAX. MIN.
.258	MAX. MIN.	.7715	MAX. MIN.



MOUNTING FLANGE
PER 101-2 SAE J-744 OCT 83
(FOR OTHER DIMENSIONS SEE SHEET 1)



REVIEWED FOR CLASSIFICATION PER ESP-042			
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES MILLIMETERS		DRAWING BASED ON ASME Y14.5-2009	
TOLERANCES		THE REPRODUCTION, DISTRIBUTION AND UTILIZATION OF THIS DOCUMENT, AS WELL AS THE COMMUNICATION OF ITS CONTENTS TO OTHERS WITHOUT EXPLICIT AUTHORIZATION IS PROHIBITED. OFFENDERS WILL BE HELD LIABLE FOR THE PAYMENT OF DAMAGES. ALL RIGHTS RESERVED IN THE EVENT OF THE GRANT OF A PATENT, UTILITY MODEL OR DESIGN (PER ISO 10010)	
X .001			
XX .005			
XXX .010			
4 .020			
UNSPECIFIED RADIUS ARE	ENGR BY/DATE 30 JAN 91	TITLE INSTALLATION - INDUSTRIAL INTRA-VANE DOUBLE PUMP	
UNSPECIFIED DRAFT ANGLES ARE	30°	NUMBER 02-102787	
J SIZE	DO NOT SCALE	SCALE 1/1 SHEET 2 OF 2	