



Hydraulic Pump T7AS/T7ASW Series Vane Pumps

*Pressure up to 4350 PSI
Fixed Displacement from .35 to
2.44 in³/rev.*

*Catalogue HY29-0008/US
December 2005*



DENISON Hydraulics

GENERAL

Characteristics :
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T7AS

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MINIMUM & MAXIMUM SPEED, PRESSURE RATINGS

Size	Series	Theoretical Displacement Vi	Minimum Speed	Maximum Speed		Maximum pressure					
				HF-0, HF-1 HF-2	HF-3, HF-4	HF-0, HF-2		HF-1, HF-4		HF-3	
		in ³ /rev.	RPM	RPM	RPM	Int.	Cont.	Int.	Cont.	Int.	Cont.
						PSI	PSI	PSI	PSI	PSI	PSI
T7AS	B06	.35	600	3600	1800	4350	4000	3500	3000	2500	2000
	B10	.60									
	B11	.67									
	B13	.78									
	B17	1.05									
	B20	1.21									
	B22	1.37									
B25	1.52	3000	4000	3500							
T7ASW	B26	1.59	600	3600	1800	4350	4000	3500	3000	2500	2000
	B28	1.71									
	B30	1.83									
	B32	1.94									
	B34	2.07									
	B36	2.20									
	B40	2.44									

HF-0, HF-2 = Antiwear Petroleum Base
 HF-1 = Non Antiwear Petroleum Base
 HF-3 = Water in oil Emulsions
 HF-4 = Water Glycols

For further information or if the performance characteristics outlined above do not meet your particular requirements, please consult your local Parker Denison office.

MINIMUM ALLOWABLE INLET PRESSURE (PSI ABSOLUTE)

Cartridge		Speed RPM										Series
Size	Series	1200	1500	1800	2100	2200	2300	2500	2800	3000	3600	
T7AS	B06	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	B06
	B10											B10
	B11											B11
	B13											B13
	B17										12.8	B17
	B20											B20
	B22											B22
	B25											B25
T7ASW	B26	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	B26
	B28											B28
	B30											B30
	B32											B32
	B34										12.8	B34
	B36											B36
	B40											B40

Inlet pressure is measured at inlet flange with petroleum base fluids at viscosity between 60 and 300 SUS. The difference between inlet pressure at the pump flange and atmospheric pressure must not exceed 2.9 PSI to prevent aeration.

Multiply absolute pressure by 1,25 for HF-3, HF-4 fluids.
by 1,10 for ester or rapeseed base.

GENERAL CHARACTERISTICS

	Mounting standard	Weight without connector and bracket Lbs	Moment of inertia Lb.in ²	Suction	Pressure
T7AS	SAE J744 ISO/3019-1 SAE A	20.9	0.9	1" - SAE 4 bolts J518 - ISO/DIS 6162-1	3/4" - SAE 4 bolts J518 - ISO/DIS 6162-1
				SAE 16 - SAE threads 1" 5/16 - 12 UNF - 2B	SAE 12 - SAE threads 1" 1/16 - 12 UNF - 2B
				NPTF threads 1" 1/4 NPTF	NPTF threads 3/4" NPTF
				1" BSP	3/4" BSP
T7ASW	SAE J744 ISO/3019-1 SAE A	24.9	1.3	1" 1/4 - SAE 4 bolts J518 - ISO/DIS 6162-1	3/4" - SAE 4 bolts J518 - ISO/DIS 6162-1
				SAE 20 - SAE threads 1" 5/8 - 12 UNF - 2B	SAE 12 - SAE threads 1" 1/16 - 12 UNF - 2B
				NPTF threads 1" 1/4 NPTF	SAE 12 - SAE threads 1" 1/16 - 12 UNF - 2B
				1" 1/4 BSP	3/4" BSP

Model No.

T7AS - B17 - 1 R 00 - A 1 - 00 - ..

T7AS series - SAE A 2 bolts
 Mounting flange J744

Displacement
 Volumetric displacement (in³/rev.)
 B06 = .35
 B10 = .60
 B11 = .67
 B13 = .78
 B17 = 1.05
 B20 = 1.21
 B22 = 1.37
 B25 = 1.52

Type of shaft T7AS
 1 = keyed (non SAE) .75 DIA
 3 = splined 16/32 (SAE B) 13 teeth
 4 = splined 16/32 (SAE A) 9 teeth

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

Modifications

Mounting w/connection variables

00 = 4 bolts SAE flanges (J518) UNC thread
 S = 1" SAE
 P = 3/4" SAE
 02 = SAE thread
 S = 1" 5/16 (SAE 16)
 P = 1" 1/16 (SAE 12)
 03 = NPTF thread
 S = 1" 1/4 NPTF
 P = 3/4" NPTF
 04 = BSP threads
 S = 1" BSP
 P = 3/4" BSP

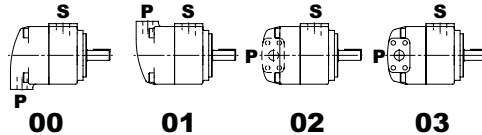
Seal class

1 = S1 BUNA N - 10.16 PSI max.
 (for mineral oil)
 5 = S5 VITON - 10.16 PSI max.
 (for mineral oil and fire resistant fluids)

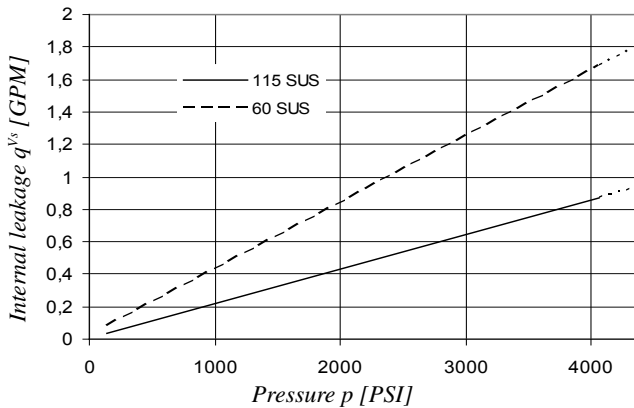
Design letter

Porting combination

00 = standard
 P = Pressure
 S = Suction

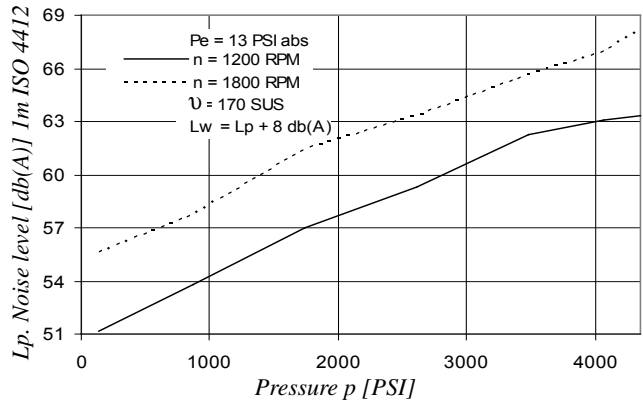


INTERNAL LEAKAGE (TYPICAL)

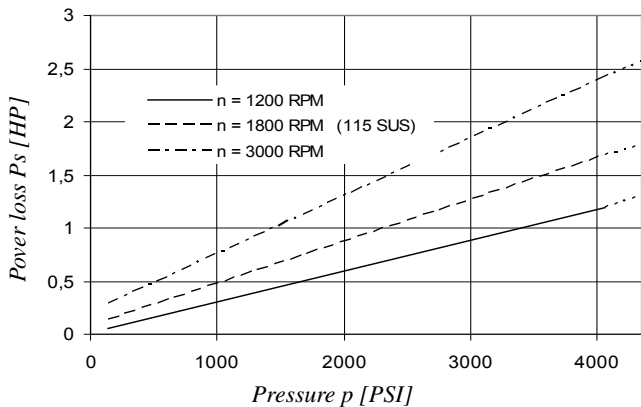


Do not operate pump more than 5 seconds at any speed or viscosity if internal leakage is higher than 50% of theoretical flow.

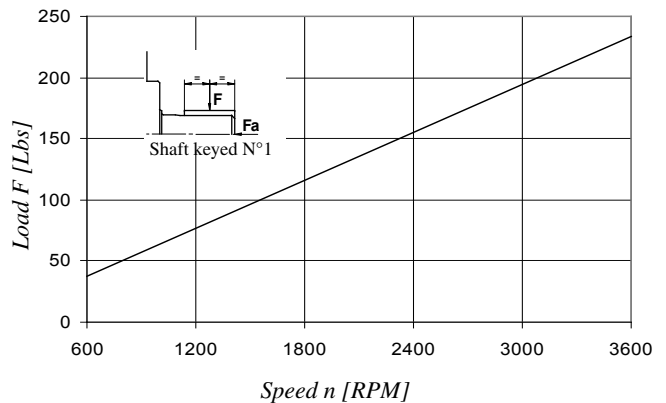
NOISE LEVEL (TYPICAL) - T7AS B20



POWER LOSS HYDROMECHANICAL (TYPICAL)

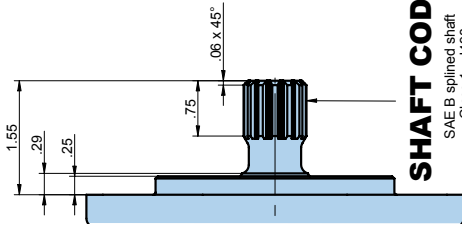
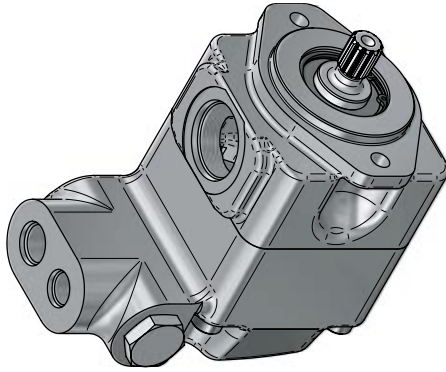


PERMISSIBLE RADIAL LOAD



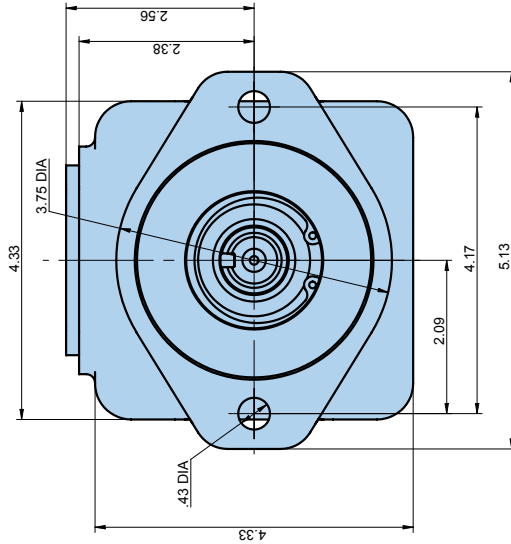
Maximum permissible axial load Fa = 135 Lbs

Option : with valve



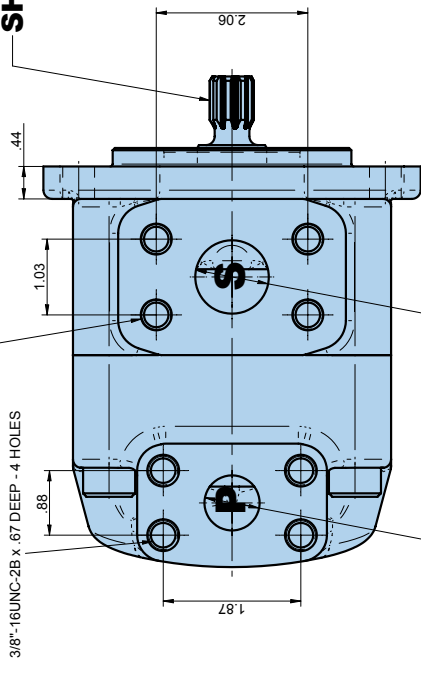
SHAFT CODE 3

SAE B splined shaft
Class 1 - J436
16/32 d.p. - 9 teeth
30° pressure angle
flat root side fit



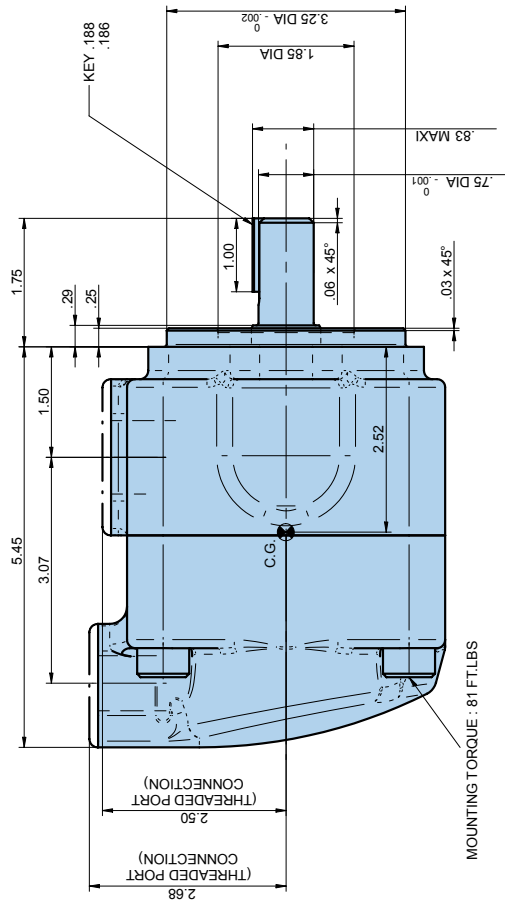
SHAFT CODE 4

SAE A spline shaft
Class 1 - J498
16/32 d.p. - 9 teeth
30° pressure angle
flat root side fit



SUCTION A DIA

PRESSURE B DIA



SHAFT CODE 1

Keyed (non SAE)

Code	00	02	03	04
A	1.00 DIA	SAE # 16 1" 5/16 - 12 UNF - 2B	1" 1/14 NPTF	1" BSP
B	.75 DIA	SAE # 12 1" 1/16 - 12 UNF - 2B	3/4" NPTF	3/4" BSP

Shaft torque limits [in ³ /rev. x PSI]	
Shaft	V _i x p max.
1	7713
3	7713
4	5793



If inlet velocity > 6.23 ft/s, please contact Parker Denison.

Model No.

T7ASW - B32 - 1 R 00 - A 1 - 00 - ..

T7ASW series - SAE A 2 bolts
 Mounting flange J744

Displacement
 Volumetric displacement (in³/rev.)
 B26 = 1.59
 B28 = 1.71
 B30 = 1.83
 B32 = 1.94
 B34 = 2.07
 B36 = 2.20
 B40 = 2.44

Type of shaft T7ASW
 1 = keyed (non SAE) .75 DIA
 3 = splined 16/32 (SAE B) 13 teeth
 4 = splined 16/32 (non SAE) 11 teeth

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

Modifications

Mounting w/connection variables

00 = 4 bolts SAE flanges (J518) UNC threads
 S = 1"1/4 SAE
 P = 3/4" SAE
 02 = SAE thread
 S = 1"5/8 (SAE 20)
 P = 1"1/16 (SAE 12)
 03 = NPTF & SAE threads
 S = 1"1/4 NPTF
 P = 1"1/16 (SAE 12)
 04 = BSP threads
 S = 1"1/4 BSP
 P = 3/4" BSP

Seal class

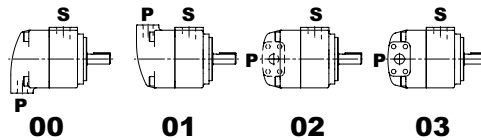
1 = S1 BUNA N - 10.16 PSI max.
 (for mineral oil)

Design letter

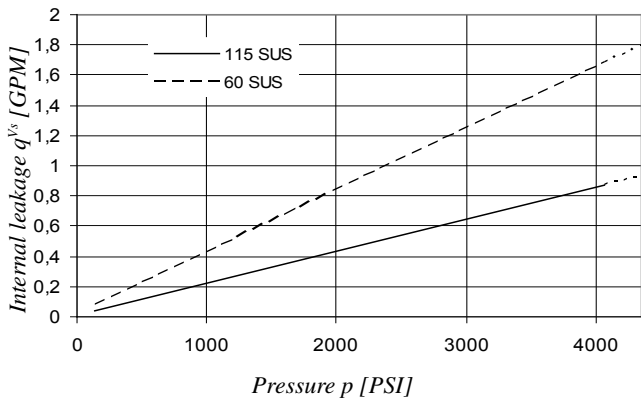
Porting combination

00 = standard

P = Pressure
 S = Suction

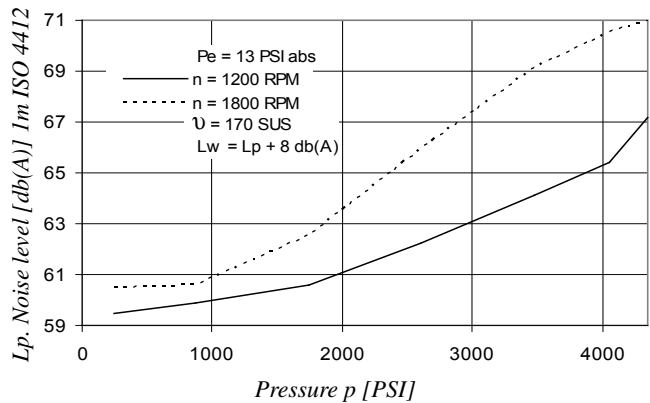


INTERNAL LEAKAGE (TYPICAL)

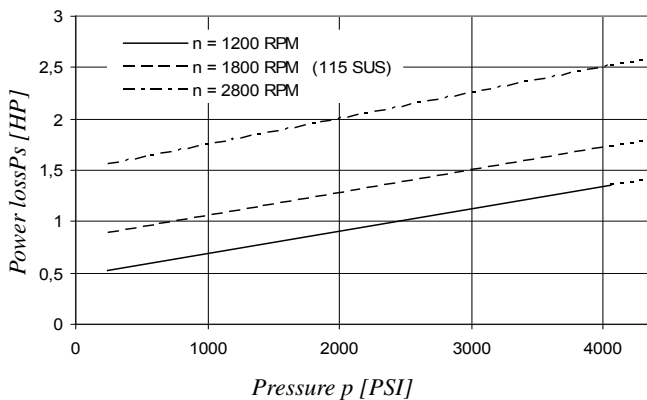


Do not operate pump more than 5 seconds at any speed or viscosity if internal leakage is higher than 50% of theoretical flow.

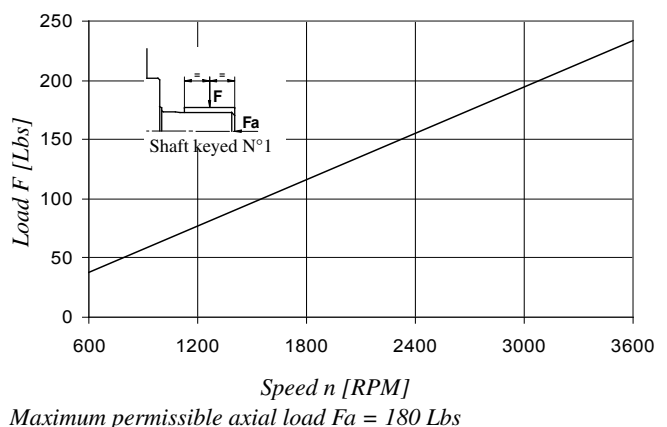
NOISE LEVEL (TYPICAL) - T7ASW B28



POWER LOSS HYDROMECHANICAL (TYPICAL)



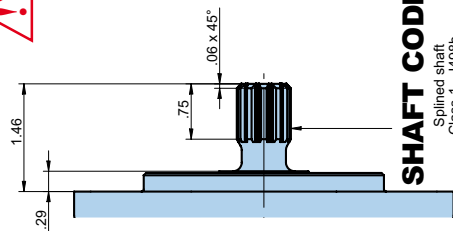
PERMISSIBLE RADIAL LOAD



Maximum permissible axial load Fa = 180 Lbs

Code	00	02	03	04
A	1.25 DIA 1" 5/16 - 12 UNF - 2B	SAE # 16 1" 1/4 NPTF -	1" 1/4 NPTF -	1" 1/4 BSP
B	.75 DIA 1" 1/16 - 12 UNF - 2B	SAE # 12 1" 1/16 - 12 UNF - 2B	SAE # 12 1" 1/16 - 12 UNF - 2B	3/4" BSP

! If inlet velocity > 6.23 ft/s, please contact Parker Denison.

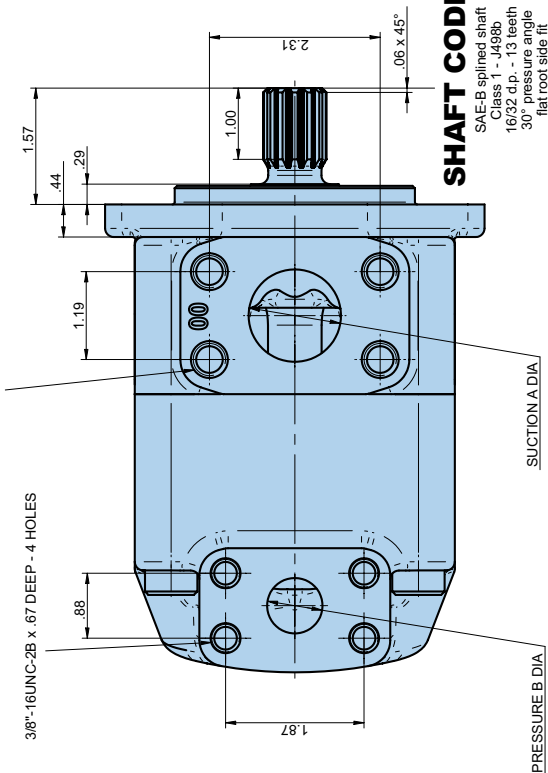


SHAFT CODE 4

Splined shaft
Class 1 - J498b
16/32 d.p. - 11 teeth
30° pressure angle
flat root side fit

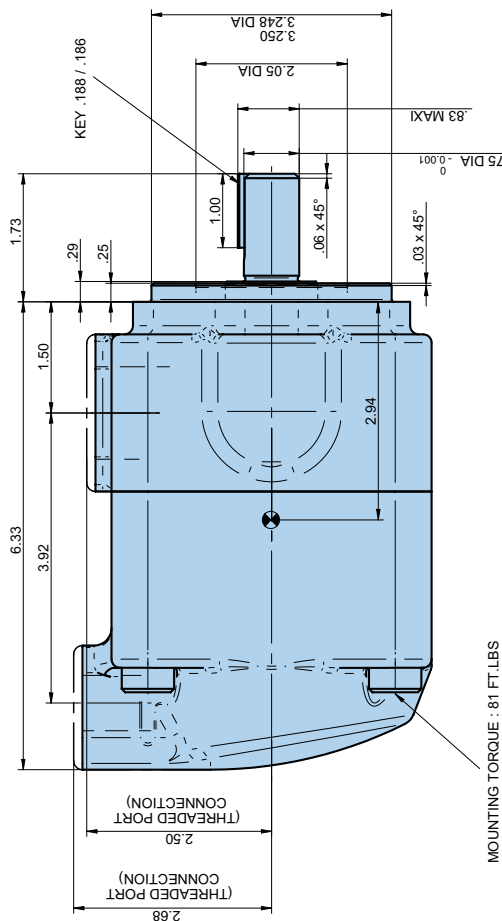
Shaft torque limits [in³/rev. x PSI]

Shaft	Vi x p max.
1	16390
3	16390
4	11198



SHAFT CODE 3

SAE-B splined shaft
Class 1 - J498b
16/32 d.p. - 13 teeth
30° pressure angle
flat root side fit



SHAFT CODE 1

(KEYED NO SAE)



WARNING

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

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Catalogue HY29-0008/US
PDF 01/06

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