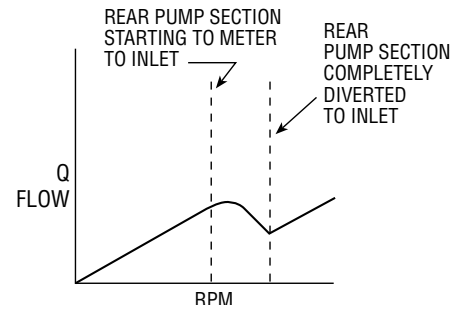
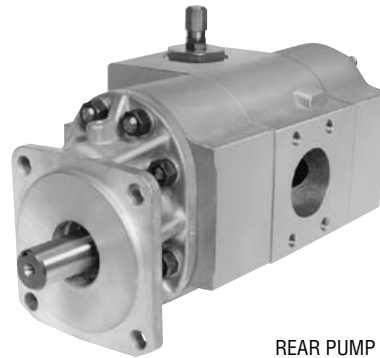


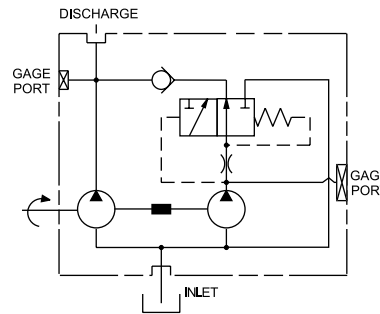
**Specifications
 for NST20 Series**

Description Flow-Sensitive Unloading Gear Pumps
 Combined Flow Range To 98 GPM Per Section (370.9 LTR.)
 Displacements... To 9.10 C.I.R Each Section (149.12 CC's/REV.)
 Maximum Pressure to 2500 PSI (172 BAR)
 Maximum Speed to 2500 RPM
 Rotation A or C
 Bearings Journal
 Construction Aluminum



Tandem Pump with Flow Sensitive Unloading Valve

At low pump speeds the flow from both pump sections is to the circuit. As speed increases, the rear pump section begins to bypass internally to the inlet of the front pump section. After approximately a 400 RPM spread, the rear pump is completely bypassing and only the flow of the front pump is to the circuit. The bypass set point is field adjustable within approximately ±200 RPM.



Performance Data Per Section

Pump Model	Section Size	Displacement/Revolution (Theoretical)					Maximum Pressure		Maximum Speed (RPM)
		US Gallons	Cubic Inches	Liters	Cubic Centimeters	Imperial Gallons	PSI	BAR	
NST20	150	.0131	3.02	.0496	49.849	.0108	2500	172	2500
NST20	200	.0175	4.04	.0662	66.204	.0146	2500	172	2500
NST20	250	.0219	5.06	.0829	82.909	.0182	2500	172	2500
NST20	300	.0262	6.05	.0992	99.142	.0218	2500	172	2500
NST20	350	.0306	7.07	.1158	115.857	.0255	2500	172	2500
NST20	400	.0350	8.08	.1325	132.408	.0292	2500	172	2500
NST20	450	.0394	9.10	.1491	149.123	.0328	2500	172	2500

All data based on SAE 10W oil at 150 F. Available with Viton® Seals.

CAUTION: "Inlet vacuum" should not exceed 5" Hg at normal operating speed and temperature. Operation of pumps in excess of 5" Hg requires factory approval.

Dimensional Data

MOUNTING DIMENSIONS								
FRONT SECTION SIZE	REAR SECTION SIZE	CONN. SIZE	DISCHARGE FRONT SECTION HOLE DIA.	MOUNTING DIMENSIONS			SHIPPING WEIGHTS	
				A	B	C	lbs.	kgs.
20150	—150	1"	23.6 (.93)	91.4 (3.60)	179.5 (7.07)	322.0 (12.68)	56	20.9
	—200	1"	23.6 (.93)	91.4 (3.60)	179.5 (7.07)	343.9 (13.54)	57	21.3
	—250	1"	23.6 (.93)	91.4 (3.60)	179.5 (7.07)	353.8 (13.93)	58	21.7
	—300	1"	23.6 (.93)	91.4 (3.60)	179.5 (7.07)	361.1 (14.22)	60	22.4
	—350	1"	23.6 (.93)	91.4 (3.60)	179.5 (7.07)	351.2 (13.83)	62	23.1
	—400	1"	23.6 (.93)	91.4 (3.60)	179.5 (7.07)	358.3 (14.11)	64	23.9
	—450	1"	23.6 (.93)	91.4 (3.60)	179.5 (7.07)	365.7 (14.40)	66	24.6
20200	—150	1-1/2"	30.2 (1.19)	95.2 (3.75)	202.4 (7.97)	344.9 (13.58)	58	21.7
	—200	1-1/2"	30.2 (1.19)	95.2 (3.75)	202.4 (7.97)	366.7 (14.44)	59	22.0
	—250	1-1/2"	30.2 (1.19)	95.2 (3.75)	202.4 (7.97)	376.3 (14.83)	60	22.4
	—300	1-1/2"	30.2 (1.19)	95.2 (3.75)	202.4 (7.97)	383.7 (15.11)	62	23.1
	—350	1-1/2"	30.2 (1.19)	95.2 (3.75)	202.4 (7.97)	373.8 (14.72)	64	23.9
	—400	1-1/2"	30.2 (1.19)	95.2 (3.75)	202.4 (7.97)	381.0 (15.00)	66	24.6
	—450	1-1/2"	30.2 (1.19)	95.2 (3.75)	202.4 (7.97)	388.3 (15.29)	68	25.4
20250	—150	1-1/2"	30.2 (1.19)	101.6 (4.00)	209.5 (8.25)	352.0 (13.86)	59	21.7
	—200	1-1/2"	30.2 (1.19)	101.6 (4.00)	209.5 (8.25)	373.6 (14.71)	60	22.4
	—250	1-1/2"	30.2 (1.19)	101.6 (4.00)	209.5 (8.25)	383.7 (15.11)	62	23.1
	—300	1-1/2"	30.2 (1.19)	101.6 (4.00)	209.5 (8.25)	390.9 (15.39)	64	23.9
	—350	1-1/2"	30.2 (1.19)	101.6 (4.00)	209.5 (8.25)	381.0 (15.00)	66	24.6
	—400	1-1/2"	30.2 (1.19)	101.6 (4.00)	209.5 (8.25)	388.1 (15.28)	68	25.4
	—450	1-1/2"	30.2 (1.19)	101.6 (4.00)	209.5 (8.25)	395.4 (15.57)	70	26.1
20300	—150	1-1/2"	30.2 (1.19)	105.1 (4.14)	216.9 (8.54)	359.4 (14.15)	60	22.4
	—200	1-1/2"	30.2 (1.19)	105.1 (4.14)	216.9 (8.54)	381.0 (15.00)	64	23.9
	—250	1-1/2"	30.2 (1.19)	105.1 (4.14)	216.9 (8.54)	391.1 (15.40)	66	24.6
	—300	1-1/2"	30.2 (1.19)	105.1 (4.14)	216.9 (8.54)	398.2 (15.68)	68	25.4
	—350	1-1/2"	30.2 (1.19)	105.1 (4.14)	216.9 (8.54)	388.3 (15.29)	70	26.1
	—400	1-1/2"	30.2 (1.19)	105.1 (4.14)	216.9 (8.54)	395.4 (15.57)	72	26.9
	—450	1-1/2"	30.2 (1.19)	105.1 (4.14)	216.9 (8.54)	402.8 (15.86)	74	27.6
20350	—150	1-1/2"	30.2 (1.19)	110.4 (4.35)	224.0 (8.82)	366.5 (14.43)	62	23.1
	—200	1-1/2"	30.2 (1.19)	110.4 (4.35)	224.0 (8.82)	388.1 (15.28)	64	23.9
	—250	1-1/2"	30.2 (1.19)	110.4 (4.35)	224.0 (8.82)	398.2 (15.68)	66	24.6
	—300	1-1/2"	30.2 (1.19)	110.4 (4.35)	224.0 (8.82)	405.3 (15.96)	70	26.1
	—350	1-1/2"	30.2 (1.19)	110.4 (4.35)	224.0 (8.82)	395.4 (15.57)	72	26.9
	—400	1-1/2"	30.2 (1.19)	110.4 (4.35)	224.0 (8.82)	402.5 (15.85)	74	27.6
	—450	1-1/2"	30.2 (1.19)	110.4 (4.35)	224.0 (8.82)	409.9 (16.14)	76	28.4
20400	—150	1-1/2"	34.7 (1.37)	110.4 (4.35)	231.1 (9.10)	373.6 (14.71)	64	23.9
	—200	1-1/2"	34.7 (1.37)	110.4 (4.35)	231.1 (9.10)	395.2 (15.56)	66	24.6
	—250	1-1/2"	34.7 (1.37)	110.4 (4.35)	231.1 (9.10)	405.3 (15.96)	68	25.4
	—300	1-1/2"	34.7 (1.37)	110.4 (4.35)	231.1 (9.10)	412.4 (16.24)	70	26.1
	—350	1-1/2"	34.7 (1.37)	110.4 (4.35)	231.1 (9.10)	402.5 (15.85)	72	26.9
	—400	1-1/2"	34.7 (1.37)	110.4 (4.35)	231.1 (9.10)	409.7 (16.13)	76	28.4
	—450	1-1/2"	34.7 (1.37)	110.4 (4.35)	231.1 (9.10)	417.0 (16.42)	78	29.1
20450	—150	1-1/2"	34.7 (1.37)	118.3 (4.66)	238.5 (9.39)	381.0 (15.00)	66	24.6
	—200	1-1/2"	34.7 (1.37)	118.3 (4.66)	238.5 (9.39)	402.5 (15.85)	68	25.4
	—250	1-1/2"	34.7 (1.37)	118.3 (4.66)	238.5 (9.39)	412.7 (16.25)	70	26.1
	—300	1-1/2"	34.7 (1.37)	118.3 (4.66)	238.5 (9.39)	419.8 (16.53)	74	27.6
	—350	1-1/2"	34.7 (1.37)	118.3 (4.66)	238.5 (9.39)	409.9 (16.14)	76	28.4
	—400	1-1/2"	34.7 (1.37)	118.3 (4.66)	238.5 (9.39)	417.0 (16.42)	78	29.1
	—450	1-1/2"	34.7 (1.37)	118.3 (4.66)	238.5 (9.39)	424.4 (16.71)	80	29.9

SAE 4-BOLT CONNECTOR PORTS					
Size	F	G	H	J	K
1"	12.9 (.51)	26.1 (1.03)	26.1 (1.03)	52.3 (2.06)	3/8-16NC
1-1/2"	17.7 (.70)	35.5 (1.40)	34.7 (1.37)	69.8 (2.75)	1/2-13NC
2-1/2"	25.4 (1.00)	50.8 (2.00)	44.4 (1.75)	88.9 (3.50)	1/2-13NC



Dimensional Data

Inch equivalents for millimeter dimensions are shown in (**).

