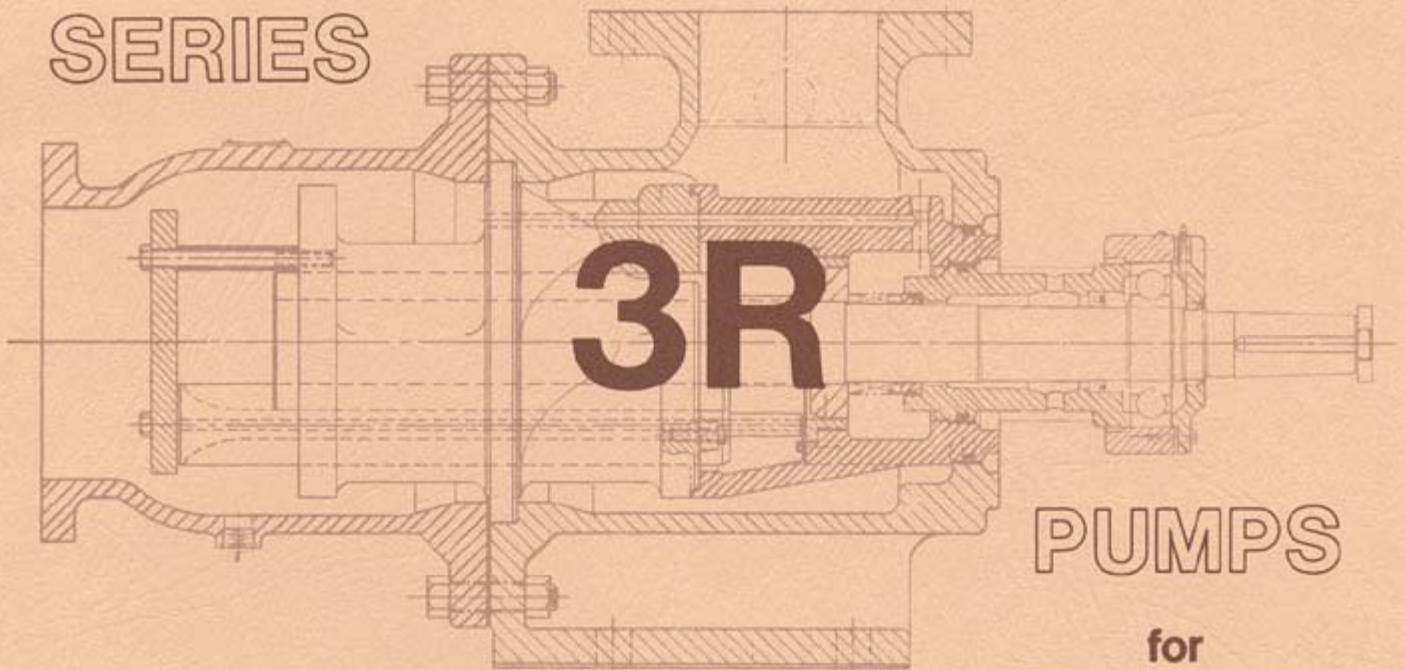




SERIES



PUMPS

for  
High-Capacity,  
Low-Pressure  
Service

## Benefits

**SIMPLE, RELIABLE CONSTRUCTION** — The unique design of only three moving parts ensures dependability and longer service life. The symmetrical arrangement of rotors eliminates radial bearing loads. The non-pulsating fluid flow eliminates cyclic stresses. The power rotor (center screw) does the work, while the idler rotors serve merely as sealing elements or stages. Rotors are in rolling contact, eliminating wear due to sliding friction; thus, minimizing pump wear, repair costs and pump downtime!

**VERSATILE** — Pump will handle a wide range of fluid viscosities resulting from temperature or system changes — no performance compromises necessary!

**MOUNTING OPTIONS** — Mounting arrangements can be either horizontal or vertical, foot or flange for maximum flexibility of system design.

**STEEL CASE OPTION** — Steel casing is available in all rotor sizes for critical applications such as flammable fluids in refinery service.

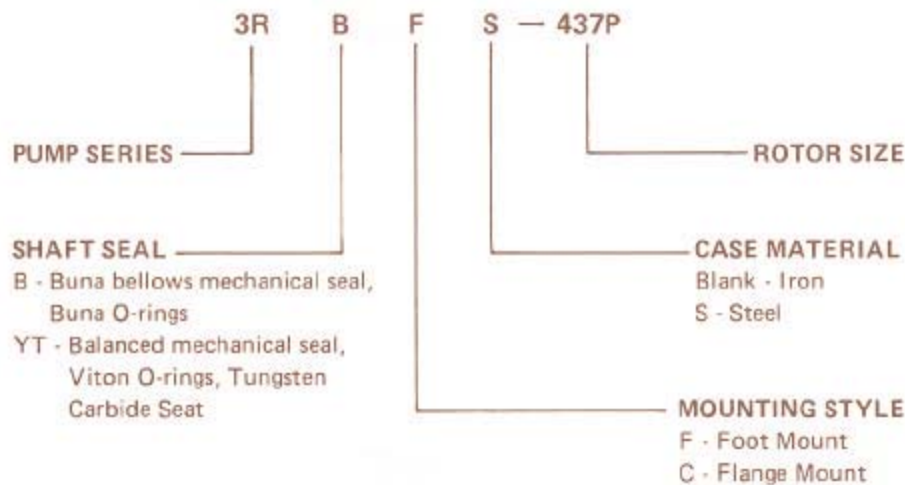
**QUIET OPERATION** — Noise levels below 75 db(A) SPL to meet the most demanding sound regulations.

**CARTRIDGE OPTION** — Pumping elements available in cartridge form for insertion in customer envelope.

**COMPLETELY FIELD REPAIRABLE** — Separate, non-wearing casing can be fitted with a new cartridge without removing the driver and discharge piping — less downtime and lower repair costs!

**EXPERIENCE** — Fifty years of screw pump manufacturing have resulted in optimum design techniques — pumps designed and engineered to do the job!

## Model Code



## Design Limits

Discharge Pressure: 300 PSIG

Maximum Speed:

Size	437P	462J	462M	462	550J	550M	550	630J	630M	630
Speed	1800	1800	1800	1800	1800	1800	1500	1800	1500	1200

Viscosity: 2.0 cst (33 SSU) Minimum  
 3000 SSU Maximum – Type B Mechanical Seal\* (Consider Cold Start Conditions.)  
 50,000 SSU Maximum – Type YT Mechanical Seal (Consult factory with applications above 50,000.)

Temperature: 0° to 180° – Type B Mechanical Seal\*  
 0° to 375° – Type YT Mechanical Seal

Suction: 30 PSIG Maximum

Drive: Direct Only

Rotation: Clockwise, facing pump shaft

Mounting: Horizontal foot, vertical and horizontal flange; vertical tank top

Filtration: Light fluids – 60 mesh  
 Heavy fluids – 1/16 to 1/8-inch

\*Type B mechanical seal not recommended for No. 6 fuel oil regardless of specified viscosity or temperature range.

## Basic Performance

RPM		ROTOR SIZE									
		437P	462J	462M	462	550J	550M	550	630J	630M	630
1750	GPM	410	454	527	610	776	901	—	1179	—	—
	BHP	87.8	97.4	112	127	164	188	—	246	—	—
	NIPR (PSI)	8.0	8.0	10.5	13.7	10.5	16.5	—	14.7	—	—
1150	GPM	255	282	326	381	487	564	656	745	864	1002
	BHP	55.8	61.9	71.5	81.1	104	120	136	156	181	205
	NIPR (PSI)	5.4	5.4	6.0	6.9	6.0	7.0	8.3	6.8	8.3	10.5
870	GPM	182	202	232	274	352	407	477	542	627	732
	BHP	41.5	46.0	53.3	60.6	77.4	89.6	102	116	135	153
	NIPR (PSI)	4.7	4.7	5.0	5.4	5.0	5.5	6.0	5.5	6.0	6.9

### RATING TABLES (Pages 2 through 11)

1. Maximum pressure allowed is the pressure directly above the last entry in a specified viscosity row.
2. Do not interpolate pressure/viscosity limits.

# 3R-437P

SPEED: 1750 RPM												
FLOW RATE – GPM												
VIS.	PRESSURE – PSI											
SSU	50	75	100	125	150	175	200	225	250	275	300	
33	410.1	400.6	392.5	385.4	379.0	373.1	367.7	362.5	357.6	353.0	348.6	
40	414.0	405.3	398.0	391.6	385.8	380.4	375.4	370.8	366.3	362.1	358.1	
60	421.1	414.0	408.0	402.8	398.0	393.6	389.6	385.8	382.2	378.7	375.4	
100	428.2	422.7	418.1	414.0	410.3	406.9	403.8	400.8	398.0	395.4	392.8	
200	435.3	431.4	428.2	425.3	422.7	420.3	418.1	416.0	414.0	412.1	410.3	
650	443.0	440.8	439.0	437.4	436.0	434.6	433.4	432.2	431.1	430.1	429.1	
1,000	444.8	443.1	441.6	440.3	439.2	438.1	437.1	436.2	435.3	434.5	433.6	
5,000	449.1	448.3	447.7	447.1	446.6	446.1	445.6	445.2	444.8	444.4	444.1	

INPUT POWER – BHP													
VIS.	PRESSURE – PSI												NIPR (PSI)
SSU	50	75	100	125	150	175	200	225	250	275	300		
200	21.8	28.4	35.0	41.6	48.2	54.8	61.4	68.0	74.6	81.2	87.8	8.0	
650	30.9	37.5	44.1	50.7	57.3	63.9	70.5	77.1	83.7	90.3	96.9	9.0	
1,000	36.4	43.0	49.6	56.2	62.8	69.4	76.0	82.6	89.2	95.8	102.4	10.0	
3,000	58.9	65.5	72.1	78.7	85.3	91.9	98.5	105.1	111.7	118.3	124.9	18.0	
5,000	75.9	82.5	89.1	95.7	102.3	108.9	115.5	122.1	128.7	135.3	141.9	----	
7,000	90.4	97.0	103.6	110.2	116.8	123.4	130.0	136.6	143.2	149.8	156.4	----	
10,000	109.4	116.0	122.6	129.2	135.8	142.4	149.0	155.6	162.2	168.8	175.4	----	

SPEED: 1150 RPM												
FLOW RATE – GPM												
VIS.	PRESSURE – PSI											
SSU	50	75	100	125	150	175	200	225	250	275	300	
33	254.9	245.4	237.4	230.3	223.9	218.0	212.5	-----	-----	-----	-----	
40	258.8	250.2	242.9	236.4	230.6	225.3	220.3	215.6	211.2	207.0	203.0	
60	265.9	258.8	252.9	247.6	242.9	238.5	234.4	230.6	227.0	223.6	220.3	
100	273.0	267.5	262.9	258.8	255.2	251.8	248.6	245.7	242.9	240.2	237.7	
200	280.1	276.3	273.0	270.1	267.5	265.1	262.9	260.8	258.8	256.9	255.2	
650	287.8	285.7	283.9	282.3	280.8	279.5	278.3	277.1	276.0	275.0	274.0	
1,000	289.7	287.9	286.5	285.2	284.0	283.0	282.0	281.0	280.1	279.3	278.5	
5,000	293.9	293.2	292.5	291.9	291.4	290.9	290.5	290.1	289.7	289.3	288.9	

INPUT POWER – BHP													
VIS.	PRESSURE – PSI												NIPR (PSI)
SSU	50	75	100	125	150	175	200	225	250	275	300		
200	12.4	16.7	21.1	25.4	29.8	34.1	38.4	42.8	47.1	51.4	55.8	5.4	
650	16.4	20.8	25.1	29.4	33.8	38.1	42.4	46.8	51.1	55.5	59.8	5.8	
1,000	18.8	23.1	27.5	31.8	36.1	40.5	44.8	49.1	53.5	57.8	62.2	6.0	
3,000	28.6	33.0	37.3	41.6	46.0	50.3	54.6	59.0	63.3	67.7	72.0	7.2	
5,000	36.0	40.4	44.7	49.0	53.4	57.7	62.1	66.4	70.7	75.1	79.4	8.6	
7,000	42.4	46.7	51.0	55.4	59.7	64.1	68.4	72.7	77.1	81.4	85.7	10.5	
10,000	50.7	55.0	59.4	63.7	68.0	72.4	76.7	81.0	85.4	89.7	94.1	14.0	

SPEED: 870 RPM												
FLOW RATE – GPM												
VIS.	PRESSURE – PSI											
SSU	50	75	100	125	150	175	200	225	250	275	300	
33	182.5	173.0	165.0	157.9	151.5	-----	-----	-----	-----	-----	-----	
40	186.4	177.8	170.5	164.0	158.2	152.8	147.9	143.2	138.8	134.6	130.5	
60	193.5	186.4	180.5	175.2	170.5	166.1	162.0	158.2	154.6	151.2	147.9	
100	200.6	195.1	190.5	186.4	182.7	179.4	176.2	173.3	170.5	167.8	165.3	
200	207.7	203.9	200.6	197.7	195.1	192.7	190.5	188.4	186.4	184.5	182.7	
650	216.4	213.3	211.4	209.9	208.4	207.1	205.8	204.7	203.6	202.5	201.5	
1,000	217.3	215.5	214.1	212.8	211.6	210.5	209.6	208.6	207.7	206.9	206.1	
5,000	221.5	220.8	220.1	219.5	219.0	218.5	218.1	217.7	217.3	216.9	216.5	

INPUT POWER – BHP													
VIS.	PRESSURE – PSI												NIPR (PSI)
SSU	50	75	100	125	150	175	200	225	250	275	300		
200	8.7	12.0	15.3	18.6	21.8	25.1	28.4	31.7	35.0	38.2	41.5	4.7	
650	11.0	14.3	17.6	20.9	24.2	27.4	30.7	34.0	37.3	40.6	43.8	4.8	
1,000	12.4	15.7	19.0	22.2	25.5	28.8	32.1	35.4	38.6	41.9	45.2	5.0	
3,000	18.1	21.3	24.6	27.9	31.2	34.5	37.7	41.0	44.3	47.6	50.9	5.6	
5,000	22.3	25.6	28.9	32.2	35.5	38.7	42.0	45.3	48.6	51.9	55.1	6.2	
7,000	26.0	29.3	32.5	35.8	39.1	42.4	45.7	49.0	52.2	55.5	58.8	6.8	
10,000	30.8	34.1	37.3	40.6	43.9	47.2	50.5	53.7	57.0	60.3	63.6	7.7	

# 3R-462J

## SPEED: 1750 RPM

### FLOW RATE – GPM

VIS. SSU	PRESSURE – PSI											
	50	75	100	125	150	175	200	225	250	275	300	
33	453.8	443.1	434.1	426.2	419.1	412.5	406.4	400.6	395.2	390.0	385.0	
40	458.1	448.5	440.3	433.1	426.6	420.6	415.1	409.8	404.9	400.2	395.7	
60	466.0	458.1	451.5	445.6	440.3	435.4	430.9	426.6	422.6	418.7	415.1	
100	474.0	467.8	462.7	458.1	454.0	450.2	446.7	443.4	440.3	437.3	434.5	
200	481.9	477.6	474.0	470.8	467.8	465.2	462.7	460.3	458.1	456.0	454.0	
650	490.5	488.1	486.1	484.3	482.7	481.2	479.8	478.5	477.3	476.1	475.0	
1,000	492.6	490.7	489.0	487.6	486.3	485.1	484.0	482.9	481.9	481.0	480.1	
5,000	497.4	496.5	495.8	495.1	494.5	494.0	493.5	493.0	492.6	492.2	491.8	

### INPUT POWER – BHP

VIS. SSU	PRESSURE – PSI											NIPR (PSI)
	50	75	100	125	150	175	200	225	250	275	300	
200	24.2	31.6	38.9	46.2	53.6	60.8	68.1	75.4	82.7	90.0	97.4	8.0
650	34.6	41.9	49.2	56.5	63.8	71.1	78.4	85.7	93.1	100.4	107.7	9.0
1,000	40.7	48.0	55.3	62.6	69.9	77.2	84.5	91.8	99.2	106.5	113.8	10.0
3,000	66.0	73.3	80.6	88.0	95.3	102.6	109.9	117.2	124.5	131.8	139.1	18.0
5,000	85.1	92.4	99.7	107.1	114.4	121.7	129.0	136.3	143.6	150.9	158.2	----
7,000	101.4	108.8	116.1	123.4	130.7	138.0	145.3	152.6	159.9	167.2	174.6	----
10,000	122.9	130.2	137.5	144.8	152.1	159.4	166.7	174.1	181.4	188.7	196.0	----

## SPEED: 1150 RPM

### FLOW RATE – GPM

VIS. SSU	PRESSURE – PSI											
	50	75	100	125	150	175	200	225	250	275	300	
33	281.9	271.3	262.3	254.4	247.2	240.6	234.5	228.8	-----	-----	-----	
40	286.3	276.6	268.4	261.3	254.8	248.8	243.2	238.0	233.0	228.3	223.8	
60	294.2	286.3	279.6	273.8	268.4	263.6	259.0	254.8	250.7	246.9	243.2	
100	302.1	296.0	290.8	286.3	282.2	278.4	274.9	271.6	268.4	265.5	262.6	
200	301.1	305.8	302.1	298.9	296.0	293.3	290.8	288.5	286.3	284.2	282.2	
650	318.7	318.3	314.3	312.5	310.9	309.4	308.0	306.7	305.5	304.3	303.2	
1,000	320.8	318.8	317.2	315.7	314.4	313.2	312.1	311.1	310.1	309.2	308.3	
5,000	325.5	324.6	323.9	323.3	322.7	322.2	321.7	321.2	320.8	320.3	319.9	

### INPUT POWER – BHP

VIS. SSU	PRESSURE – PSI											NIPR (PSI)
	50	75	100	125	150	175	200	225	250	275	300	
200	13.8	18.6	23.4	28.2	33.0	37.8	42.6	47.4	52.2	57.0	61.9	5.4
650	18.3	23.1	27.9	32.7	37.5	42.3	47.1	51.9	56.8	61.6	66.4	5.6
1,000	21.0	25.8	30.6	35.4	40.2	45.0	49.8	54.6	59.4	64.2	69.0	6.0
3,000	32.0	36.9	41.7	46.5	51.3	56.1	60.9	65.7	70.5	75.3	80.1	7.2
5,000	40.4	45.2	50.0	54.8	59.6	64.4	69.2	74.0	78.8	83.6	88.4	8.6
7,000	47.5	52.3	57.1	61.9	66.7	71.5	76.3	81.1	85.9	90.8	95.6	10.5
10,000	56.9	61.7	66.5	71.3	76.1	80.9	85.7	90.5	95.3	100.1	104.9	14.0

## SPEED: 870 RPM

### FLOW RATE – GPM

VIS. SSU	PRESSURE – PSI											
	50	75	100	125	150	175	200	225	250	275	300	
33	201.7	191.1	182.1	174.2	167.0	160.4	-----	-----	-----	-----	-----	
40	206.1	196.4	188.3	181.1	174.6	168.6	163.0	157.8	152.8	148.1	143.7	
60	214.0	206.1	199.4	193.6	188.3	183.4	178.8	174.6	170.5	166.7	163.0	
100	221.9	215.8	210.6	206.1	202.0	198.2	194.7	191.4	188.3	185.3	182.4	
200	229.9	225.6	221.9	218.7	215.8	213.1	210.6	208.3	206.1	204.0	202.0	
650	238.5	236.1	234.1	232.3	230.7	229.2	227.8	226.5	225.3	224.1	223.0	
1,000	240.6	238.6	237.0	235.6	234.3	233.1	231.9	230.9	229.9	229.0	228.1	
5,000	245.3	244.5	243.7	243.1	242.5	242.0	241.5	241.0	240.6	240.1	239.7	

### INPUT POWER – BHP

VIS. SSU	PRESSURE – PSI											NIPR (PSI)
	50	75	100	125	150	175	200	225	250	275	300	
200	9.7	13.3	17.0	20.6	24.2	27.9	31.5	35.1	38.8	42.4	46.0	4.7
650	12.3	15.9	19.6	23.2	26.8	30.5	34.1	37.7	41.4	45.0	48.6	4.8
1,000	13.8	17.5	21.1	24.7	28.4	32.0	35.6	39.3	42.9	46.5	50.2	4.9
3,000	20.2	23.8	27.5	31.1	34.7	38.4	42.0	45.6	49.3	52.9	56.5	5.5
5,000	25.0	28.6	32.3	35.9	39.6	43.2	46.8	50.5	54.1	57.7	61.4	6.2
7,000	29.1	32.8	36.4	40.0	43.7	47.3	50.9	54.6	58.2	61.8	65.5	6.8
10,000	34.5	38.2	41.8	45.4	49.1	52.7	56.3	60.0	63.6	67.2	70.9	7.8

# 3R-462M

## SPEED: 1750 RPM

### FLOW RATE – GPM

VIS.	PRESSURE – PSI											
	SSU	50	75	100	125	150	175	200	225	250	275	300
33	526.7	513.6	502.6	492.9	484.1	476.1	468.6	461.5	-----	-----	-----	-----
40	532.0	520.1	510.1	501.3	493.4	486.0	479.2	472.8	466.8	461.0	455.5	-----
60	541.7	532.0	523.8	516.6	510.1	504.2	498.6	493.4	488.4	483.7	479.2	-----
100	551.4	543.9	537.6	532.0	527.0	522.3	518.0	514.0	510.1	506.5	503.0	-----
200	561.2	555.8	551.4	547.4	543.9	540.6	537.6	534.7	532.0	529.4	527.0	-----
650	571.7	568.7	566.2	564.1	562.1	560.3	558.6	557.0	555.5	554.1	552.7	-----
1,000	574.2	571.8	569.8	568.1	566.5	565.0	563.6	562.4	561.2	560.0	558.9	-----
5,000	580.0	579.0	578.1	577.3	576.6	575.9	575.3	574.7	574.2	573.7	573.2	-----

### INPUT POWER – BHP

VIS.	PRESSURE – PSI											NIPR (PSI)	
	SSU	50	75	100	125	150	175	200	225	250	275		300
200	26.7	35.2	43.7	52.3	60.8	69.3	77.9	86.4	94.9	103.4	112.0	120.5	-----
650	37.0	45.5	54.1	62.6	71.1	79.7	88.2	96.7	105.2	113.8	122.3	13.0	-----
1,000	43.1	51.6	60.2	68.7	77.2	85.8	94.3	102.8	111.3	119.9	128.4	14.5	-----
3,000	68.5	77.0	85.5	94.0	102.6	111.1	119.6	128.2	136.7	145.2	153.7	-----	-----
5,000	87.6	96.1	104.6	113.2	121.7	130.2	138.7	147.3	155.8	164.3	172.9	-----	-----
7,000	103.9	112.4	120.9	129.5	138.0	146.5	155.1	163.6	172.1	180.6	189.2	-----	-----
10,000	125.3	133.9	142.4	150.9	159.4	168.0	176.5	185.0	193.6	202.1	210.6	-----	-----

## SPEED: 1150 RPM

### FLOW RATE – GPM

VIS.	PRESSURE – PSI											
	SSU	50	75	100	125	150	175	200	225	250	275	300
33	326.2	313.1	302.1	292.4	283.7	-----	-----	-----	-----	-----	-----	-----
40	331.5	319.6	309.6	300.8	292.9	285.6	278.7	272.3	266.3	260.5	255.0	-----
60	341.2	331.5	323.3	316.1	309.6	303.7	298.1	292.9	287.9	283.2	278.7	-----
100	350.9	343.4	337.1	331.5	326.5	321.8	317.5	313.5	309.6	306.0	302.5	-----
200	360.7	355.4	350.9	347.0	343.4	340.1	337.1	334.2	331.5	328.9	326.5	-----
650	371.2	368.2	365.8	363.6	361.6	359.8	358.1	356.5	355.0	353.6	352.2	-----
1,000	373.7	371.3	369.3	367.6	366.0	364.5	363.2	361.9	360.7	359.5	358.4	-----
5,000	379.5	378.5	377.6	376.8	376.1	375.4	374.8	374.3	373.7	373.2	372.7	-----

### INPUT POWER – BHP

VIS.	PRESSURE – PSI											NIPR (PSI)	
	SSU	50	75	100	125	150	175	200	225	250	275		300
200	16.4	21.0	26.6	32.2	37.8	43.4	49.0	54.6	60.2	65.9	71.5	6.0	-----
650	19.9	25.5	31.1	36.7	42.3	47.9	53.5	59.2	64.8	70.4	76.0	6.5	-----
1,000	22.6	28.2	33.8	39.4	45.0	50.6	56.2	61.8	67.4	73.0	78.6	6.8	-----
3,000	33.7	39.3	44.9	50.5	56.1	61.7	67.3	72.9	78.5	84.1	89.7	8.8	-----
5,000	42.0	47.6	53.2	58.8	64.4	70.0	75.6	81.2	86.8	92.4	98.0	12.0	-----
7,000	49.1	54.7	60.3	65.9	71.5	77.1	82.7	88.3	94.0	99.6	105.2	17.0	-----
10,000	58.5	64.1	69.7	75.3	80.9	86.5	92.1	97.7	103.3	108.9	114.5	-----	-----

## SPEED: 870 RPM

### FLOW RATE – GPM

VIS.	PRESSURE – PSI											
	SSU	50	75	100	125	150	175	200	225	250	275	300
33	232.6	219.6	208.6	-----	-----	-----	-----	-----	-----	-----	-----	-----
40	237.9	226.1	216.1	207.3	199.3	192.0	185.2	178.8	-----	-----	-----	-----
60	247.6	237.9	229.8	222.6	216.1	210.1	204.5	199.3	194.4	189.7	185.2	-----
100	257.3	249.8	243.5	237.9	232.9	228.3	224.0	219.9	216.1	212.4	209.0	-----
200	267.1	261.8	257.3	253.4	249.8	246.6	243.5	240.6	237.9	235.4	232.9	-----
650	277.6	274.7	272.2	270.0	268.0	266.2	264.5	262.9	261.4	260.0	258.6	-----
1,000	280.2	277.8	275.8	274.0	272.4	271.0	269.6	268.3	267.1	266.0	264.9	-----
5,000	286.0	284.9	284.0	283.2	282.5	281.9	281.3	280.7	280.2	279.6	279.1	-----

### INPUT POWER – BHP

VIS.	PRESSURE – PSI											NIPR (PSI)	
	SSU	50	75	100	125	150	175	200	225	250	275		300
200	10.9	15.1	19.4	23.6	27.9	32.1	36.3	40.6	44.8	49.1	53.3	5.0	-----
650	13.5	17.7	22.0	26.2	30.5	34.7	38.9	43.2	47.4	51.7	55.9	5.2	-----
1,000	15.0	19.3	23.5	27.8	32.0	36.2	40.5	44.7	49.0	53.2	57.4	5.4	-----
3,000	21.4	25.7	29.9	34.1	38.4	42.6	46.9	51.1	55.3	59.6	63.8	6.2	-----
5,000	26.2	30.5	34.7	38.9	43.2	47.4	51.7	55.9	60.1	64.4	68.6	7.2	-----
7,000	30.3	34.6	38.8	43.1	47.3	51.5	55.8	60.0	64.3	68.5	72.7	8.2	-----
10,000	35.7	40.0	44.2	48.4	52.7	56.9	61.2	65.4	69.6	73.9	78.1	9.7	-----

# 3R-462

SPEED: 1750 RPM												
FLOW RATE – GPM												
VIS.	PRESSURE – PSI											
	SSU	50	75	100	125	150	175	200	225	250	275	300
33	610.2	597.1	586.1	576.4	567.7	559.6	552.1	-----	-----	-----	-----	-----
40	615.5	603.7	593.7	584.9	576.9	569.6	562.8	556.4	550.3	544.5	539.0	539.0
60	625.2	615.5	607.4	600.2	593.7	587.7	582.1	576.9	572.0	567.3	562.8	562.8
100	634.9	627.4	621.1	615.5	610.5	605.9	601.5	597.5	593.7	590.0	586.5	586.5
200	644.7	639.4	634.9	631.0	627.4	624.1	621.1	618.2	615.5	612.9	610.5	610.5
650	655.2	652.3	649.8	647.6	645.6	643.8	642.1	640.5	639.0	637.6	636.2	636.2
1,000	657.7	655.4	653.4	651.6	650.0	648.5	647.2	645.9	644.7	643.5	642.4	642.4
5,000	663.6	662.5	661.6	660.8	660.1	659.5	658.8	658.3	657.7	657.2	656.7	656.7

INPUT POWER – BHP													
VIS.	PRESSURE – PSI												NIPR (PSI)
	SSU	50	75	100	125	150	175	200	225	250	275	300	
200	29.1	38.9	48.6	58.4	68.1	77.9	87.6	97.4	107.1	116.8	126.6	14.5	
650	39.4	49.2	58.9	68.7	78.4	88.2	97.9	107.7	117.4	127.2	136.9	21.0	
1,000	45.5	55.3	65.0	74.8	84.5	94.3	104.0	113.8	123.5	133.3	143.0	30.0	
3,000	70.9	80.6	90.4	100.1	109.9	119.6	129.4	139.1	148.9	158.6	168.4	-----	
5,000	90.0	99.7	109.5	119.2	129.0	138.7	148.5	158.2	168.0	177.7	187.5	-----	
7,000	106.3	116.1	125.8	135.6	145.3	155.1	164.8	174.6	184.3	194.0	203.8	-----	
10,000	127.8	137.5	147.3	157.0	166.7	176.5	186.2	196.0	205.7	215.5	225.2	-----	

SPEED: 1150 RPM												
FLOW RATE – GPM												
VIS.	PRESSURE – PSI											
	SSU	50	75	100	125	150	175	200	225	250	275	300
33	381.1	368.0	357.0	347.3	-----	-----	-----	-----	-----	-----	-----	-----
40	386.4	374.5	364.5	355.7	347.8	340.4	333.6	327.2	321.2	-----	-----	-----
60	396.1	386.4	378.2	371.0	364.5	358.6	353.0	347.8	342.8	338.1	333.6	333.6
100	405.8	398.3	392.0	386.4	381.4	376.7	372.4	368.4	364.5	360.9	357.4	357.4
200	415.6	410.3	405.8	401.8	398.3	395.0	392.0	389.1	386.4	383.8	381.4	381.4
650	426.1	423.1	420.6	418.5	416.5	414.7	413.0	411.4	409.9	408.5	407.1	407.1
1,000	428.6	426.2	424.2	422.5	420.9	419.4	418.1	416.8	415.6	414.4	413.3	413.3
5,000	434.4	433.4	432.5	431.7	431.0	430.3	429.7	429.1	428.6	428.1	427.6	427.6

INPUT POWER – BHP													
VIS.	PRESSURE – PSI												NIPR (PSI)
	SSU	50	75	100	125	150	175	200	225	250	275	300	
200	17.0	23.4	29.8	36.2	42.6	49.0	55.4	61.9	68.3	74.7	81.1	6.8	
650	21.5	27.9	34.3	40.7	47.1	53.5	60.0	66.4	72.8	79.2	85.6	7.4	
1,000	24.2	30.6	37.0	43.4	49.8	56.2	62.6	69.0	75.4	81.8	88.2	8.0	
3,000	35.3	41.7	48.1	54.5	60.9	67.3	73.7	80.1	86.5	92.9	99.3	12.0	
5,000	43.6	50.0	56.4	62.8	69.2	75.6	82.0	88.4	94.8	101.2	107.6	18.0	
7,000	50.7	57.1	63.5	69.9	76.3	82.7	89.1	95.6	102.0	108.4	114.8	-----	
10,000	60.1	66.5	72.9	79.3	85.7	92.1	98.5	104.9	111.3	117.7	124.1	-----	

SPEED: 870 RPM												
FLOW RATE – GPM												
VIS.	PRESSURE – PSI											
	SSU	50	75	100	125	150	175	200	225	250	275	300
33	274.1	261.1	250.1	-----	-----	-----	-----	-----	-----	-----	-----	-----
40	279.5	267.6	257.6	248.8	240.8	233.5	226.7	-----	-----	-----	-----	-----
60	289.2	279.5	271.3	264.1	257.6	251.6	246.1	240.8	235.9	231.2	226.7	226.7
100	298.9	291.4	285.0	279.5	274.4	269.8	265.5	261.4	257.6	254.0	250.5	250.5
200	308.6	303.3	298.9	294.9	291.4	288.1	285.0	282.2	279.5	276.9	274.4	274.4
650	319.1	316.2	313.7	311.5	309.6	307.7	306.1	304.5	303.0	301.5	300.2	300.2
1,000	321.7	319.3	317.3	315.6	314.0	312.6	311.1	309.8	308.6	307.5	306.4	306.4
5,000	327.5	326.5	325.6	324.8	324.1	323.4	322.8	322.2	321.7	321.2	320.7	320.7

INPUT POWER – BHP													
VIS.	PRESSURE – PSI												NIPR (PSI)
	SSU	50	75	100	125	150	175	200	225	250	275	300	
200	12.1	17.0	21.8	26.7	31.5	36.3	41.2	46.0	50.9	55.7	60.6	5.4	
650	14.7	19.6	24.4	29.3	34.1	38.9	43.8	48.6	53.5	58.3	63.2	5.8	
1,000	16.2	21.1	25.9	30.8	35.6	40.5	45.3	50.2	55.0	59.9	64.7	6.0	
3,000	22.6	27.5	32.3	37.2	42.0	46.9	51.7	56.5	61.4	66.2	71.1	7.2	
5,000	27.4	32.3	37.1	42.0	46.8	51.7	56.5	61.4	66.2	71.0	75.9	8.6	
7,000	31.5	36.4	41.2	46.1	50.9	55.8	60.6	65.5	70.3	75.2	80.0	10.5	
10,000	36.9	41.8	46.6	51.5	56.3	61.2	66.0	70.9	75.7	80.6	85.4	14.0	

Refer to Rating Table Notes, page 1.

# 3R-550J

SPEED: 1750 RPM												
FLOW RATE – GPM												
VIS.	PRESSURE – PSI											
SSU	50	75	100	125	150	175	200	225	250	275	300	
33	775.8	760.8	748.0	736.8	726.7	717.4	708.8	700.6	692.9	685.6	678.6	
40	782.0	768.3	756.7	746.6	737.4	728.9	721.1	713.7	706.7	700.0	693.7	
60	793.2	782.0	772.6	764.2	756.7	749.8	743.4	737.4	731.7	726.2	721.1	
100	804.4	795.7	788.4	782.0	776.2	770.8	765.8	761.2	756.7	752.5	748.5	
200	815.7	809.5	804.4	799.8	795.7	791.9	788.4	785.1	782.0	779.0	776.2	
650	827.8	824.4	821.5	819.0	816.7	814.6	812.7	810.8	809.1	807.5	805.9	
1,000	830.7	828.0	825.7	823.6	821.8	820.1	818.5	817.1	815.7	814.3	813.1	
5,000	837.4	836.2	835.2	834.3	833.5	832.7	832.0	831.3	830.7	830.1	829.5	

INPUT POWER – BHP													
VIS.	PRESSURE – PSI												NIPR (PSI)
SSU	50	75	100	125	150	175	200	225	250	275	300		
200	40.8	53.1	65.4	77.7	89.9	102.2	114.5	126.8	139.1	151.4	163.7	10.5	
650	68.1	70.4	82.7	96.0	107.3	119.6	131.9	144.2	156.5	168.8	181.1	13.0	
1,000	68.4	80.7	93.0	105.3	117.6	129.9	142.2	154.5	166.7	179.0	191.3	15.5	
3,000	111.0	123.3	135.6	147.9	160.2	172.5	184.8	197.1	209.4	221.7	234.0	----	
5,000	143.2	165.5	167.8	180.0	192.3	204.6	216.9	229.2	241.5	253.8	266.1	----	
7,000	170.6	182.9	195.2	207.5	219.8	232.1	244.4	256.7	269.0	281.3	293.5	----	
10,000	206.7	219.0	231.2	243.5	255.8	268.1	280.4	292.7	305.0	317.3	329.6	----	

SPEED: 1150 RPM												
FLOW RATE – GPM												
VIS.	PRESSURE – PSI											
SSU	50	75	100	125	150	175	200	225	250	275	300	
33	486.8	471.8	459.0	447.9	437.7	428.4	419.8	-----	-----	-----	-----	
40	493.0	479.3	467.7	457.6	448.4	439.9	432.1	424.7	417.7	411.0	404.7	
60	504.2	493.0	483.6	475.3	467.7	460.8	454.4	448.4	442.7	437.2	432.1	
100	515.4	506.7	499.4	493.0	487.2	481.8	476.8	472.2	467.7	463.5	459.5	
200	526.7	520.5	515.4	510.8	506.7	502.9	499.4	496.1	493.0	490.0	487.2	
650	538.8	535.4	532.5	530.0	527.7	525.6	523.7	521.8	520.1	518.5	516.9	
1,000	541.7	539.0	536.7	534.6	532.8	531.1	529.5	528.1	526.7	525.3	524.1	
5,000	548.5	547.2	546.2	545.3	544.5	543.7	543.0	542.3	541.7	541.1	540.6	

INPUT POWER – BHP													
VIS.	PRESSURE – PSI												NIPR (PSI)
SSU	50	75	100	125	150	175	200	225	250	275	300		
200	23.2	31.3	39.4	47.5	55.5	63.6	71.7	79.8	87.9	95.9	104.0	6.0	
650	30.8	38.9	47.0	55.0	63.1	71.2	79.3	87.4	95.4	103.5	111.6	6.8	
1,000	35.3	43.4	51.4	59.5	67.6	75.7	83.8	91.8	99.9	108.0	116.1	7.0	
3,000	53.9	62.0	70.1	78.1	86.2	94.3	102.4	110.5	118.5	126.6	134.7	8.8	
5,000	67.9	75.0	84.1	92.2	100.2	108.3	116.4	124.5	132.6	140.6	148.7	12.0	
7,000	79.9	88.0	96.1	104.1	112.2	120.3	128.4	136.5	144.5	152.6	160.7	17.5	
10,000	95.6	103.7	111.8	119.9	128.0	136.0	144.1	152.2	160.3	168.4	176.4	----	

SPEED: 870 RPM												
FLOW RATE – GPM												
VIS.	PRESSURE – PSI											
SSU	50	75	100	125	150	175	200	225	250	275	300	
33	352.0	338.9	324.2	313.0	302.9	-----	-----	-----	-----	-----	-----	
40	358.1	344.4	332.9	322.7	313.5	305.1	297.2	289.8	282.8	276.2	269.8	
60	369.3	358.1	348.7	340.4	332.9	326.0	319.6	313.5	307.8	302.4	297.2	
100	380.5	371.9	364.6	358.1	352.3	347.0	342.0	337.3	332.9	328.7	324.7	
200	391.8	385.7	380.5	376.0	371.9	368.1	364.6	361.2	358.1	355.1	352.3	
650	403.9	400.5	397.7	395.1	392.9	390.8	388.8	387.0	385.2	383.6	382.0	
1,000	406.9	404.1	401.8	399.8	397.9	396.2	394.7	393.2	391.8	390.5	389.2	
5,000	413.6	412.4	411.3	410.4	409.6	408.8	408.1	407.5	406.9	406.3	405.7	

INPUT POWER – BHP													
VIS.	PRESSURE – PSI												NIPR (PSI)
SSU	50	75	100	125	150	175	200	225	250	275	300		
200	16.3	22.4	28.5	34.6	40.7	46.9	53.0	59.1	65.2	71.3	77.4	5.0	
650	20.7	26.8	32.9	39.0	45.1	51.2	57.3	63.5	69.6	75.7	81.8	5.3	
1,000	23.2	29.4	35.5	41.6	47.7	53.8	59.9	66.0	72.1	78.3	84.4	5.4	
3,000	34.0	40.1	46.2	52.3	58.4	64.5	70.7	76.8	82.9	89.0	95.1	6.4	
5,000	42.1	48.2	54.3	60.4	66.5	72.6	78.7	84.9	91.0	97.1	103.2	7.3	
7,000	49.0	55.1	61.2	67.3	73.4	79.5	85.6	91.8	97.9	104.0	110.1	8.3	
10,000	58.0	64.2	70.3	76.4	82.5	88.6	94.7	100.8	106.9	113.1	119.2	10.0	

# 3R-550M

SPEED: 1750 RPM												
FLOW RATE — GPM												
VIS.	PRESSURE — PSI											
	SSU	50	75	100	125	150	175	200	225	250	275	300
33	901.2	882.8	867.2	853.5	841.1	829.7	819.1	-----	-----	-----	-----	-----
40	908.8	892.0	877.9	865.4	854.1	843.8	834.2	825.1	816.5	808.4	800.6	-----
60	922.5	908.8	897.2	887.1	877.9	869.4	861.5	854.1	847.2	840.5	834.2	-----
100	936.2	925.6	916.6	908.8	901.6	895.1	889.0	883.3	877.9	872.7	867.8	-----
200	950.0	942.5	936.2	930.6	925.6	921.0	916.6	912.6	908.8	905.1	901.6	-----
650	964.9	960.7	957.2	954.1	951.3	948.8	946.4	944.1	942.0	940.0	938.0	-----
1,000	968.5	965.1	962.3	959.8	957.5	955.5	953.5	951.7	950.0	948.4	946.8	-----
5,000	976.7	975.2	973.9	972.8	971.8	970.9	970.0	969.2	968.5	967.7	967.0	-----

INPUT POWER — BHP													
VIS.	PRESSURE — PSI												NIPR (PSI)
	SSU	50	75	100	125	150	175	200	225	250	275	300	
200	44.9	59.2	73.6	87.9	102.2	116.6	130.9	145.3	159.6	174.0	188.3	16.5	
650	62.2	76.6	90.9	105.3	119.6	134.0	148.3	162.6	177.0	191.3	205.7	27.0	
1,000	72.5	86.8	101.2	115.5	129.9	144.2	158.6	172.9	187.2	201.6	215.9	-----	
3,000	115.1	129.5	143.8	158.2	172.5	186.8	201.2	215.5	229.9	244.2	258.6	-----	
5,000	147.3	161.6	175.9	190.3	204.6	219.0	233.3	247.7	262.0	276.4	290.7	-----	
7,000	174.7	189.0	203.4	217.7	232.1	246.4	260.8	275.1	289.4	303.8	318.1	-----	
10,000	210.8	225.1	239.4	253.8	268.1	282.5	296.8	311.2	325.5	339.8	354.2	-----	

SPEED: 1150 RPM												
FLOW RATE — GPM												
VIS.	PRESSURE — PSI											
	SSU	50	75	100	125	150	175	200	225	250	275	300
33	584.1	545.6	530.0	516.3	-----	-----	-----	-----	-----	-----	-----	-----
40	571.6	554.8	540.7	528.2	517.0	506.6	497.0	487.9	479.4	471.2	-----	-----
60	585.3	571.6	560.1	549.9	540.7	532.2	524.4	517.0	510.0	503.3	497.0	-----
100	599.0	588.4	579.5	571.6	564.5	557.9	551.8	546.1	540.7	535.6	530.6	-----
200	612.9	605.4	599.0	593.5	588.4	583.8	579.5	575.4	571.6	568.0	564.5	-----
650	627.7	623.6	620.0	617.0	614.2	611.6	609.2	607.0	604.8	602.8	600.9	-----
1,000	631.3	627.9	625.1	622.6	620.4	618.3	616.4	614.6	612.9	611.2	609.7	-----
5,000	639.5	638.0	636.8	635.7	634.7	633.7	632.9	632.1	631.3	630.6	629.9	-----

INPUT POWER — BHP													
VIS.	PRESSURE — PSI												NIPR (PSI)
	SSU	50	75	100	125	150	175	200	225	250	275	300	
200	25.9	35.3	44.8	54.2	63.6	73.0	82.5	91.9	101.3	110.7	120.2	7.0	
650	33.5	42.9	52.4	61.8	71.2	80.6	90.1	99.5	108.9	118.3	127.8	7.8	
1,000	38.0	47.4	56.8	66.3	75.7	85.1	94.5	104.0	113.4	122.8	132.2	8.5	
3,000	56.6	66.0	75.4	84.9	94.3	103.7	113.1	122.6	132.0	141.4	150.8	13.0	
5,000	70.6	80.0	89.5	98.9	108.3	117.7	127.2	136.6	146.0	155.4	164.9	22.0	
7,000	82.6	92.0	101.4	110.9	120.3	129.7	139.2	148.6	158.0	167.4	176.9	-----	
10,000	98.3	107.8	117.2	126.6	136.0	145.5	154.9	164.3	173.7	183.2	192.6	-----	

SPEED: 870 RPM												
FLOW RATE — GPM												
VIS.	PRESSURE — PSI											
	SSU	50	75	100	125	150	175	200	225	250	275	300
33	406.7	388.3	372.7	-----	-----	-----	-----	-----	-----	-----	-----	-----
40	414.3	397.5	383.4	370.9	359.6	349.3	339.7	-----	-----	-----	-----	-----
60	428.0	414.3	402.7	392.6	383.4	374.9	367.0	359.6	352.7	346.0	339.7	-----
100	441.7	431.1	422.1	414.3	407.1	400.6	394.5	388.8	383.4	378.2	373.3	-----
200	455.5	448.0	441.7	436.1	431.1	426.5	422.1	418.1	414.3	410.6	407.1	-----
650	470.4	466.2	462.7	459.6	456.8	454.3	451.9	449.6	447.5	445.5	443.5	-----
1,000	474.0	470.6	467.8	465.3	463.0	461.0	459.0	457.2	455.5	453.9	452.3	-----
5,000	482.2	480.7	479.4	478.3	477.3	476.4	475.5	474.7	474.0	473.2	472.5	-----

INPUT POWER — BHP													
VIS.	PRESSURE — PSI												NIPR (PSI)
	SSU	50	75	100	125	150	175	200	225	250	275	300	
200	18.3	25.5	32.6	39.7	46.9	54.0	61.1	68.2	75.4	82.5	89.6	5.5	
650	22.7	29.8	37.0	44.1	51.2	58.4	65.5	72.6	79.8	86.9	94.0	5.8	
1,000	25.3	32.4	39.5	46.7	53.8	60.9	68.1	75.2	82.3	89.5	96.6	6.0	
3,000	36.0	43.1	50.3	57.4	64.5	71.7	78.8	85.9	93.1	100.2	107.3	7.4	
5,000	44.1	51.2	58.4	65.5	72.6	79.8	86.9	94.0	101.1	108.3	115.4	8.9	
7,000	51.0	58.1	65.3	72.4	79.5	86.7	93.8	100.9	108.1	115.2	122.3	11.0	
10,000	60.1	67.2	74.3	81.5	88.6	95.7	102.9	110.0	117.1	124.3	131.4	14.7	

Refer to Rating Table Notes, page 1.

# 3R-550

SPEED: 1150 RPM												
FLOW RATE – GPM												
VIS.	PRESSURE – PSI											
	50	75	100	125	150	175	200	225	250	275	300	
SSU												
33	656.4	637.9	622.4	608.7	-----	-----	-----	-----	-----	-----	-----	-----
40	663.9	647.2	633.0	620.6	609.3	598.9	589.3	580.3	571.7	-----	-----	-----
60	677.6	663.9	652.4	642.2	633.0	624.6	616.7	609.3	602.3	595.7	589.3	-----
100	691.3	680.7	671.8	663.9	656.8	650.3	644.2	638.4	633.0	627.9	622.9	-----
200	705.2	697.7	691.3	685.8	680.7	676.1	671.8	667.8	663.9	660.3	656.8	-----
650	720.0	715.9	712.4	709.3	706.5	703.9	701.5	699.3	697.2	695.1	693.2	-----
1,000	723.6	720.3	717.4	714.9	712.7	710.6	708.7	706.9	705.2	703.5	702.0	-----
5,000	731.9	730.4	729.1	728.0	727.0	726.1	725.2	724.4	723.6	722.9	722.2	-----

INPUT POWER – BHP													
VIS.	PRESSURE – PSI												NIPR (PSI)
	50	75	100	125	150	175	200	225	250	275	300		
SSU													
200	28.6	39.4	50.2	60.9	71.7	82.5	93.2	104.0	114.8	125.6	136.3	8.3	
650	36.2	47.0	57.7	68.5	79.3	90.1	100.8	111.6	122.4	133.1	143.9	9.5	
1,000	40.7	51.4	62.2	73.0	83.8	94.5	105.3	116.1	126.8	137.6	148.4	10.7	
3,000	59.3	70.1	80.8	91.6	102.4	113.1	123.9	134.7	145.5	156.2	167.0	20.5	
5,000	73.3	84.1	94.9	105.6	116.4	127.2	137.9	148.7	159.5	170.3	181.0	-----	
7,000	85.3	96.1	106.8	117.6	128.4	139.2	149.9	160.7	171.5	182.2	193.0	-----	
10,000	101.0	111.8	122.6	133.3	144.1	154.9	165.7	176.4	187.2	198.0	208.8	-----	

SPEED: 960 RPM												
FLOW RATE – GPM												
VIS.	PRESSURE – PSI											
	50	75	100	125	150	175	200	225	250	275	300	
SSU												
33	534.4	515.9	500.3	-----	-----	-----	-----	-----	-----	-----	-----	-----
40	541.9	525.1	511.0	498.5	487.3	476.9	467.3	-----	-----	-----	-----	-----
60	555.6	541.9	530.4	520.2	511.0	502.5	494.7	487.3	480.3	473.6	467.3	-----
100	569.3	558.7	549.8	541.9	534.8	528.2	522.1	516.4	511.0	506.8	500.9	-----
200	583.2	575.7	569.3	563.8	558.7	554.1	549.8	545.7	541.9	538.3	534.8	-----
650	598.0	593.8	590.3	587.3	584.5	581.9	579.5	577.3	575.1	573.1	571.2	-----
1,000	601.6	598.2	595.4	592.9	590.7	588.6	586.7	584.9	583.2	581.5	580.0	-----
5,000	609.8	608.3	607.1	606.0	605.0	604.0	603.2	602.4	601.6	600.9	600.2	-----

INPUT POWER – BHP													
VIS.	PRESSURE – PSI												NIPR (PSI)
	50	75	100	125	150	175	200	225	250	275	300		
SSU													
200	22.9	31.9	40.9	49.9	58.9	67.9	76.9	85.9	94.9	103.9	112.9	6.8	
650	28.2	37.2	46.2	55.2	64.2	73.2	82.2	91.2	100.2	109.2	118.2	7.4	
1,000	31.4	40.4	49.4	58.4	67.3	76.3	85.3	94.3	103.3	112.3	121.3	8.0	
3,000	44.4	53.4	62.4	71.4	80.4	89.4	98.4	107.4	116.3	125.3	134.3	12.0	
5,000	54.2	63.2	72.2	81.2	90.2	99.2	108.2	117.2	126.2	135.2	144.2	18.0	
7,000	62.6	71.6	80.6	89.6	98.6	107.6	116.6	125.6	134.6	143.6	152.5	-----	
10,000	73.6	82.6	91.6	100.6	109.6	118.6	127.6	136.6	145.6	154.6	163.6	-----	

SPEED: 870 RPM												
FLOW RATE – GPM												
VIS.	PRESSURE – PSI											
	50	75	100	125	150	175	200	225	250	275	300	
SSU												
33	476.6	458.1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
40	484.1	467.3	453.2	440.7	429.5	419.1	-----	-----	-----	-----	-----	-----
60	497.8	484.1	472.6	462.4	453.2	444.7	436.9	429.5	422.5	415.8	409.5	-----
100	511.5	500.9	492.0	484.1	477.0	470.4	464.3	458.6	453.2	448.1	443.1	-----
200	525.4	517.9	511.5	506.0	500.9	496.3	492.0	487.9	484.1	480.5	477.0	-----
650	540.2	538.1	532.5	529.5	526.7	524.1	521.7	519.5	517.3	515.3	513.4	-----
1,000	543.8	540.4	537.6	535.1	532.9	530.8	528.9	527.1	525.4	523.7	522.2	-----
5,000	552.0	550.5	549.3	548.2	547.2	546.2	545.4	544.6	543.8	543.1	542.4	-----

INPUT POWER – BHP													
VIS.	PRESSURE – PSI												NIPR (PSI)
	50	75	100	125	150	175	200	225	250	275	300		
SSU													
200	20.4	28.5	36.7	44.8	53.0	61.1	69.3	77.4	85.6	93.7	101.9	6.0	
650	24.7	32.9	41.0	49.2	57.3	65.5	73.6	81.8	89.9	98.1	106.2	6.6	
1,000	27.3	35.5	43.6	51.8	59.9	68.1	76.2	84.4	92.5	100.7	108.8	7.0	
3,000	38.1	46.2	54.4	62.5	70.7	78.8	87.0	95.1	103.2	111.4	119.5	8.8	
5,000	46.1	54.3	62.4	70.6	78.7	86.9	95.0	103.2	111.3	119.5	127.6	12.0	
7,000	53.0	61.2	69.3	77.5	85.6	93.8	101.9	110.1	118.2	126.4	134.5	17.5	
10,000	62.1	70.3	78.4	86.6	94.7	102.9	111.0	119.2	127.3	135.5	143.6	-----	

# 3R-630J

SPEED: 1750 RPM												
FLOW RATE – GPM												
VIS. SSU	PRESSURE – PSI											
	50	75	100	125	150	175	200	225	250	275	300	
33	1178.8	1159.0	1142.3	1127.7	1114.4	1102.2	1090.8	1080.1	1070.0	1060.4	1051.2	
40	1186.9	1168.9	1153.8	1140.4	1128.4	1117.3	1106.9	1097.2	1088.1	1079.3	1071.0	
60	1201.5	1186.9	1174.5	1163.6	1153.8	1144.7	1136.3	1128.4	1120.9	1113.7	1106.9	
100	1216.2	1204.9	1195.3	1186.9	1179.2	1172.2	1165.7	1159.6	1153.8	1148.2	1143.0	
200	1231.1	1223.0	1216.2	1210.3	1204.9	1199.9	1195.3	1191.0	1186.9	1183.0	1179.2	
650	1247.0	1242.5	1238.8	1235.4	1232.5	1229.7	1227.1	1224.7	1222.5	1220.3	1218.2	
1,000	1250.8	1247.2	1244.2	1241.5	1239.1	1236.9	1234.8	1232.9	1231.1	1229.3	1227.6	
5,000	1259.7	1258.0	1256.7	1255.5	1254.4	1253.4	1252.5	1251.6	1250.8	1250.0	1249.3	

INPUT POWER – BHP												
VIS. SSU	PRESSURE – PSI											NIPR (PSI)
	50	75	100	125	150	175	200	225	250	275	300	
200	61.3	79.8	98.2	116.7	135.2	153.7	172.1	190.6	209.1	227.6	246.0	14.7
650	87.4	105.9	124.3	142.8	161.3	179.8	198.3	216.7	235.2	253.7	272.2	23.0
1,000	102.8	121.3	139.7	158.2	176.7	195.2	213.7	232.1	250.6	269.1	287.6	----
3,000	166.9	185.3	203.8	222.3	240.8	259.3	277.7	296.2	314.7	333.2	351.6	----
5,000	215.2	233.6	252.1	270.6	289.1	307.5	326.0	344.5	363.0	381.5	399.9	----
7,000	256.4	274.9	293.4	311.8	330.3	348.8	367.3	385.7	404.2	422.7	441.2	----
10,000	310.6	329.1	347.5	366.0	384.5	403.0	421.5	439.9	458.4	476.9	495.4	----

SPEED: 1150 RPM												
FLOW RATE – GPM												
VIS. SSU	PRESSURE – PSI											
	50	75	100	125	150	175	200	225	250	275	300	
33	744.5	724.7	708.0	693.3	680.0	667.8	656.5	645.8	635.7	626.1	-----	
40	752.5	734.6	719.4	706.1	694.0	682.9	672.6	662.9	653.7	645.0	636.7	
60	767.2	752.5	740.2	729.3	719.4	710.4	701.9	694.0	686.5	679.4	672.6	
100	781.9	770.6	761.0	752.5	744.9	737.9	731.4	725.2	719.4	713.9	708.6	
200	796.7	788.7	781.9	775.9	770.6	765.6	761.0	756.8	752.5	748.6	744.9	
650	812.8	808.2	804.4	801.1	798.1	795.4	792.8	790.4	788.1	786.0	783.9	
1,000	816.5	812.9	809.9	807.2	804.8	802.6	800.5	798.6	796.7	795.0	793.3	
5,000	825.3	823.7	822.4	821.2	820.1	819.1	818.2	817.3	816.5	815.7	815.0	

INPUT POWER – BHP												
VIS. SSU	PRESSURE – PSI											NIPR (PSI)
	50	75	100	125	150	175	200	225	250	275	300	
200	34.9	47.0	59.2	71.3	83.5	95.6	107.8	119.9	132.0	144.2	156.3	6.8
650	46.3	58.4	70.6	82.7	94.9	107.0	119.2	131.3	143.4	155.6	167.7	7.5
1,000	53.0	65.2	77.3	89.5	101.6	113.7	125.9	138.0	150.2	162.3	174.4	8.1
3,000	81.0	93.1	105.3	117.4	129.6	141.7	153.9	166.0	178.1	190.3	202.4	12.0
5,000	102.1	114.2	126.4	138.5	150.7	162.8	174.9	187.1	199.2	211.4	223.5	19.0
7,000	120.1	132.2	144.4	156.5	168.7	180.8	192.9	205.1	217.2	229.4	241.5	----
10,000	143.7	155.9	168.0	180.2	192.3	204.5	216.6	228.7	240.9	253.0	265.2	----

SPEED: 870 RPM												
FLOW RATE – GPM												
VIS. SSU	PRESSURE – PSI											
	50	75	100	125	150	175	200	225	250	275	300	
33	541.8	522.0	505.3	490.6	477.4	465.1	443.8	-----	-----	-----	-----	
40	549.8	531.9	516.7	503.4	491.3	480.2	469.9	460.2	451.0	442.3	434.0	
60	564.5	549.8	537.5	526.6	516.7	507.7	499.2	491.3	483.8	476.7	469.9	
100	579.2	567.9	558.3	549.8	542.2	535.2	528.7	522.5	516.7	511.2	505.9	
200	594.0	586.0	579.2	573.3	567.9	562.9	558.3	553.9	549.8	545.9	542.2	
650	610.0	605.5	601.7	598.4	595.4	592.7	590.1	587.7	585.4	583.3	581.2	
1,000	613.8	610.2	607.2	604.5	602.1	599.9	597.8	595.9	594.0	592.3	590.6	
5,000	622.8	621.0	619.7	618.5	617.4	616.4	615.5	614.6	613.8	613.0	612.3	

INPUT POWER – BHP												
VIS. SSU	PRESSURE – PSI											NIPR (PSI)
	50	75	100	125	150	175	200	225	250	275	300	
200	24.5	33.7	42.9	52.1	61.2	70.4	79.6	88.8	98.0	107.2	116.4	5.5
650	31.1	40.3	49.4	58.6	67.8	77.0	86.2	95.4	104.6	113.7	122.9	5.8
1,000	34.9	44.1	53.3	62.5	71.7	80.9	90.1	99.2	108.4	117.6	126.8	6.0
3,000	51.1	60.3	69.4	78.6	87.8	97.0	106.2	115.4	124.6	133.7	142.9	7.4
5,000	63.2	72.4	81.6	90.8	100.0	109.2	118.3	127.5	136.7	145.9	155.1	9.0
7,000	73.6	82.8	92.0	101.2	110.3	119.5	128.7	137.9	147.1	156.3	165.5	11.0
10,000	87.2	96.4	105.6	114.8	124.0	133.2	142.4	151.5	160.7	169.9	179.1	14.7

Refer to Rating Table Notes, page 1.

# 3R-630M

SPEED: 1150 RPM												
FLOW RATE – GPM												
VIS.	PRESSURE – PSI											
SSU	50	75	100	125	150	175	200	225	250	275	300	
33	863.4	839.2	818.8	800.8	784.5	769.6	-----	-----	-----	-----	-----	-----
40	873.3	851.3	832.8	816.4	801.6	788.1	775.4	763.5	752.3	741.6	731.4	
60	891.3	873.3	858.2	844.8	832.8	821.7	811.3	801.6	792.5	783.8	776.4	
100	909.3	895.4	883.7	873.3	864.0	855.4	847.4	839.9	832.8	826.0	819.6	
200	927.4	917.6	909.3	902.0	895.4	889.3	883.7	878.3	873.3	868.5	864.0	
650	946.9	941.5	936.9	932.8	929.1	925.8	922.6	919.7	916.9	914.3	911.7	
1,000	951.6	947.2	943.5	940.3	937.3	934.6	932.1	929.7	927.4	925.3	923.3	
5,000	962.5	960.5	958.8	957.4	956.0	954.8	953.7	952.6	951.6	950.7	949.8	

INPUT POWER – BHP													
VIS.	PRESSURE – PSI												NIPR
SSU	50	75	100	125	150	175	200	225	250	275	300	(PSI)	
200	39.0	53.1	67.3	81.4	95.6	109.8	123.9	138.1	152.3	166.4	180.6	8.3	
650	50.3	64.5	78.7	92.8	107.0	121.2	135.3	149.5	163.7	177.8	192.0	9.5	
1,000	57.1	71.2	85.4	99.6	113.7	127.9	142.1	156.2	170.4	184.6	198.7	10.7	
3,000	85.1	99.2	113.4	127.5	141.7	155.9	170.0	184.2	198.4	212.5	226.7	20.5	
5,000	106.1	120.3	134.5	148.6	162.8	177.0	191.1	205.3	219.5	233.6	247.8	----	
7,000	124.1	138.3	152.5	166.6	180.8	195.0	209.1	223.3	237.5	251.6	265.8	----	
10,000	147.8	162.0	176.1	190.3	204.5	218.6	232.8	247.0	261.1	275.3	289.5	----	

SPEED: 960 RPM												
FLOW RATE – GPM												
VIS.	PRESSURE – PSI											
SSU	50	75	100	125	150	175	200	225	250	275	300	
33	703.0	678.7	658.3	640.3	624.1	-----	-----	-----	-----	-----	-----	-----
40	712.9	690.9	672.3	656.0	641.2	627.6	615.0	603.1	591.8	581.2	571.0	
60	730.8	712.9	697.7	684.4	672.3	661.2	650.9	641.2	632.0	623.3	615.0	
100	748.8	734.9	723.2	712.9	703.5	694.9	686.9	679.4	672.3	665.5	659.1	
200	767.0	757.1	748.8	741.5	734.9	728.8	723.2	717.9	712.9	708.1	703.5	
650	786.5	781.0	776.4	772.4	768.7	765.3	762.2	759.2	756.4	753.8	751.3	
1,000	791.2	786.8	783.1	779.8	776.8	774.1	771.6	769.2	767.0	764.8	762.8	
5,000	802.0	800.0	798.4	796.9	795.6	794.4	793.2	792.2	791.2	790.2	789.3	

INPUT POWER – BHP													
VIS.	PRESSURE – PSI												NIPR
SSU	50	75	100	125	150	175	200	225	250	275	300	(PSI)	
200	31.1	42.9	54.7	66.6	78.4	90.2	102.0	113.9	125.7	137.5	149.3	6.8	
650	39.1	50.9	62.7	74.5	86.4	98.2	110.0	121.8	133.7	145.5	157.3	7.4	
1,000	43.8	55.6	67.4	79.3	91.1	102.9	114.7	126.6	138.4	150.2	162.0	8.0	
3,000	63.4	75.2	87.0	98.8	110.7	122.5	134.7	146.1	158.0	169.8	181.6	12.0	
5,000	78.1	89.9	101.8	113.6	125.4	137.2	149.1	160.9	172.7	184.6	196.4	18.0	
7,000	90.7	102.6	114.4	126.2	138.0	149.9	161.7	173.5	185.3	197.2	209.0	----	
10,000	107.3	119.1	130.9	142.8	154.6	166.4	178.2	190.1	201.9	213.7	225.5	----	

SPEED: 870 RPM												
FLOW RATE – GPM												
VIS.	PRESSURE – PSI											
SSU	50	75	100	125	150	175	200	225	250	275	300	
33	627.0	602.7	582.3	564.3	-----	-----	-----	-----	-----	-----	-----	-----
40	636.8	614.8	596.3	580.0	565.2	551.6	538.9	527.1	515.8	505.2	-----	
60	654.8	636.8	621.7	608.4	596.3	585.2	574.9	565.2	556.0	547.3	538.9	
100	672.8	658.9	647.2	636.8	627.5	618.9	610.9	603.4	596.3	589.5	583.1	
200	691.0	681.1	672.8	665.5	658.9	652.8	647.2	641.9	636.8	632.1	627.5	
650	710.5	705.0	700.4	696.3	692.7	689.3	686.2	683.2	680.4	677.8	675.3	
1,000	715.2	710.8	707.1	703.8	700.8	698.1	695.6	693.2	691.0	688.8	686.8	
5,000	726.0	724.0	722.4	720.9	719.6	718.4	717.2	716.2	715.2	714.2	713.3	

INPUT POWER – BHP													
VIS.	PRESSURE – PSI												NIPR
SSU	50	75	100	125	150	175	200	225	250	275	300	(PSI)	
200	27.6	38.3	49.0	59.7	70.4	81.1	91.9	102.6	113.3	124.0	134.7	6.0	
650	34.1	44.8	55.6	66.3	77.0	87.7	98.4	109.1	119.9	130.6	141.3	6.6	
1,000	38.0	48.7	59.4	70.2	80.9	91.6	102.3	113.0	123.7	134.5	145.2	7.0	
3,000	54.1	64.8	75.6	86.3	97.0	107.7	118.4	129.1	139.9	150.6	161.3	8.8	
5,000	66.3	77.0	87.7	98.4	109.2	119.9	130.6	141.3	152.0	162.7	173.5	12.0	
7,000	76.7	87.4	98.1	108.8	119.5	130.2	141.0	151.7	162.4	173.1	183.8	17.5	
10,000	90.3	101.0	111.7	122.5	133.2	143.9	154.6	165.3	176.0	186.8	197.5	----	

# 3R-630

SPEED: 1150 RPM												
FLOW RATE – GPM												
VIS.	PRESSURE – PSI											
	SSU	50	75	100	125	150	175	200	225	250	275	300
33	1002.2	978.0	957.5	939.5	923.3	-----	-----	-----	-----	-----	-----	-----
40	1012.1	990.1	971.5	955.2	940.4	926.8	914.2	902.3	891.1	880.4	870.2	-----
60	1030.0	1012.1	996.9	983.6	971.5	960.4	950.1	940.4	931.2	922.5	914.2	-----
100	1048.0	1034.1	1022.4	1012.1	1002.7	994.1	986.1	978.6	971.5	964.8	958.3	-----
200	1066.2	1056.3	1048.0	1040.7	1034.1	1028.1	1022.4	1017.1	1012.1	1007.3	1002.7	-----
650	1085.7	1080.2	1075.6	1071.6	1067.9	1064.5	1061.4	1058.4	1055.7	1053.0	1050.5	-----
1,000	1090.4	1086.0	1082.3	1079.0	1076.0	1073.3	1070.8	1068.4	1066.2	1064.0	1062.0	-----
5,000	1101.2	1099.2	1097.6	1096.1	1094.8	1093.6	1092.4	1091.4	1090.4	1089.4	1088.5	-----

INPUT POWER – BHP													
VIS.	PRESSURE – PSI											NIPR (PSI)	
	SSU	50	75	100	125	150	175	200	225	250	275		300
200	43.0	59.2	75.4	91.6	107.8	123.9	140.1	156.3	172.5	188.7	204.9	204.9	10.5
650	54.4	70.6	86.8	103.0	119.2	135.3	151.5	167.7	183.9	200.1	216.3	216.3	13.0
1,000	61.1	77.3	93.5	109.7	125.9	142.1	158.3	174.4	190.6	206.8	223.0	223.0	15.5
3,000	89.1	105.3	121.5	137.7	153.9	170.0	186.2	202.4	218.6	234.8	251.0	251.0	-----
5,000	110.2	126.4	142.6	158.7	174.9	191.1	207.3	223.5	239.7	255.9	272.1	272.1	-----
7,000	128.2	144.4	160.6	176.8	192.9	209.1	225.3	241.5	257.7	273.9	290.1	290.1	-----
10,000	151.8	168.0	184.2	200.4	216.6	232.8	249.0	265.2	281.4	297.5	313.7	313.7	-----

SPEED: 960 RPM												
FLOW RATE – GPM												
VIS.	PRESSURE – PSI											
	SSU	50	75	100	125	150	175	200	225	250	275	300
33	818.8	794.6	774.1	756.2	-----	-----	-----	-----	-----	-----	-----	-----
40	828.7	806.7	788.1	771.8	757.0	743.4	730.8	718.9	707.7	-----	-----	-----
60	846.6	828.7	813.5	800.2	788.1	777.0	766.7	757.0	747.8	739.1	730.8	-----
100	864.7	850.7	839.0	828.7	819.3	810.7	802.7	795.2	788.1	781.4	774.9	-----
200	882.8	873.0	864.7	857.3	850.7	844.7	839.0	833.7	828.7	823.9	819.3	-----
650	902.3	896.8	892.2	888.2	884.5	881.1	878.0	875.1	872.3	869.6	867.1	-----
1,000	907.0	902.6	898.6	895.6	892.7	889.9	887.4	885.0	882.8	880.7	878.6	-----
5,000	917.8	915.8	914.2	912.7	911.4	910.2	909.1	908.0	907.0	906.0	905.1	-----

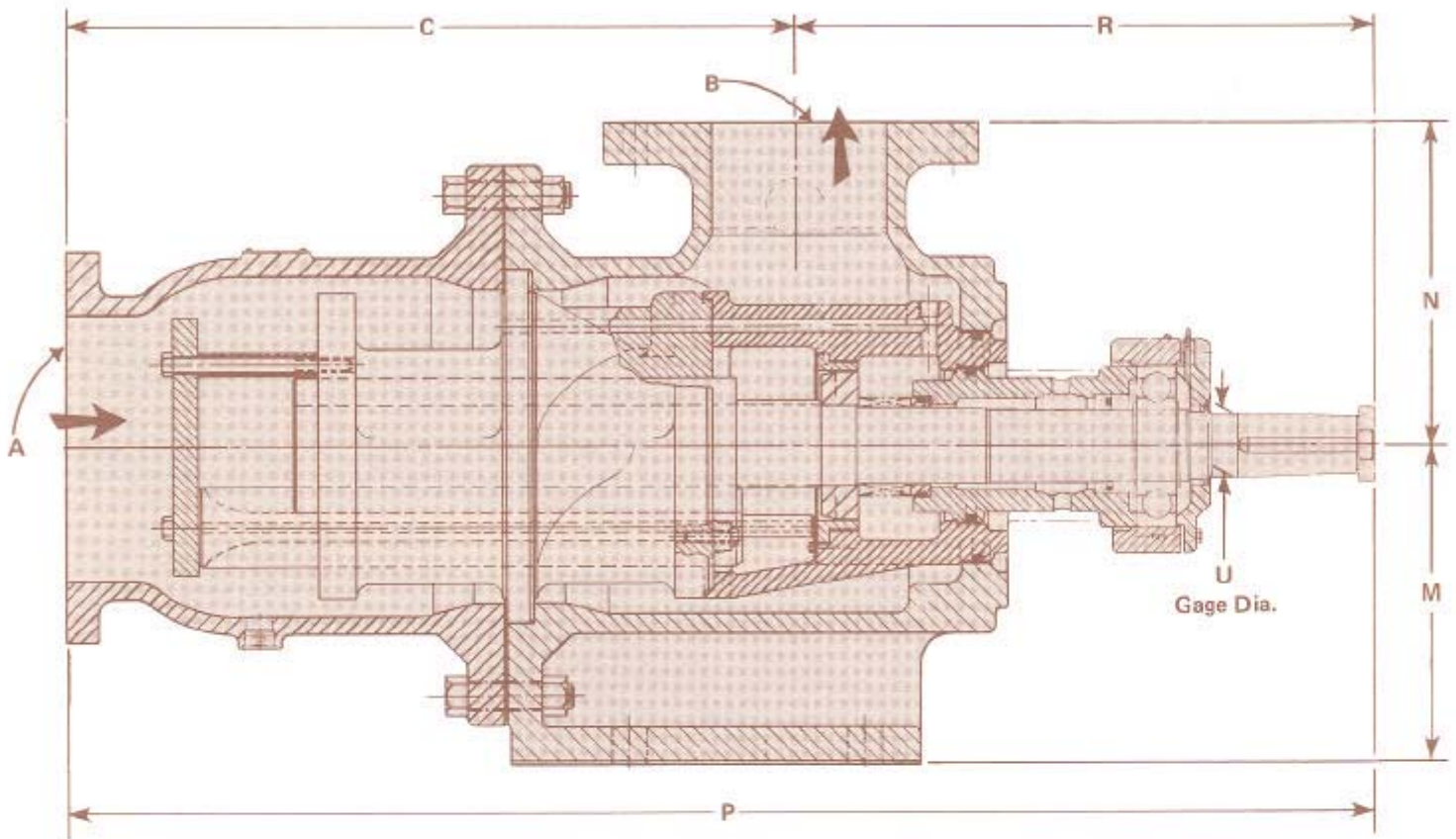
INPUT POWER – BHP													
VIS.	PRESSURE – PSI											NIPR (PSI)	
	SSU	50	75	100	125	150	175	200	225	250	275		300
200	34.5	48.0	61.5	75.0	88.5	102.0	115.6	129.1	142.6	156.1	169.6	169.6	8.0
650	42.4	56.0	69.5	83.0	96.5	110.0	123.5	137.0	150.6	164.1	177.6	177.6	9.0
1,000	47.2	60.7	74.2	87.7	101.2	114.7	128.2	141.8	155.3	168.8	182.3	182.3	10.0
3,000	66.7	80.3	93.8	107.3	120.8	134.3	147.8	161.3	174.9	188.4	201.9	201.9	18.0
5,000	81.5	95.0	108.5	122.0	135.6	149.1	162.6	176.1	189.6	203.1	216.6	216.6	-----
7,000	94.1	107.6	121.1	134.7	148.2	161.7	175.2	188.7	202.2	215.7	229.3	229.3	-----
10,000	110.7	124.2	137.7	151.2	164.7	178.2	191.8	205.3	218.8	232.3	245.8	245.8	-----

SPEED: 870 RPM												
FLOW RATE – GPM												
VIS.	PRESSURE – PSI											
	SSU	50	75	100	125	150	175	200	225	250	275	300
33	731.9	707.7	687.3	-----	-----	-----	-----	-----	-----	-----	-----	-----
40	741.8	719.8	701.3	684.9	670.1	656.6	643.9	632.0	-----	-----	-----	-----
60	759.8	741.8	726.7	713.3	701.3	690.2	679.8	670.1	661.0	652.2	643.9	-----
100	777.8	763.9	752.1	741.8	732.5	723.9	715.9	708.4	701.3	694.5	688.0	-----
200	795.9	786.1	777.8	770.5	763.9	757.8	752.1	746.8	741.8	737.0	732.5	-----
650	816.4	810.0	805.4	801.3	797.6	794.3	791.1	788.2	785.4	782.8	780.2	-----
1,000	820.1	815.7	812.0	808.7	805.8	803.1	800.5	798.2	795.9	793.8	791.7	-----
5,000	831.0	829.0	827.3	825.9	824.5	823.3	822.2	821.1	820.1	819.2	818.3	-----

INPUT POWER – BHP													
VIS.	PRESSURE – PSI											NIPR (PSI)	
	SSU	50	75	100	125	150	175	200	225	250	275		300
200	30.6	42.9	55.1	67.4	79.6	91.9	104.1	116.4	128.6	140.8	153.1	153.1	6.9
650	37.2	49.4	61.7	73.9	86.2	98.4	110.7	122.9	135.2	147.4	159.7	159.7	7.6
1,000	41.1	53.3	65.6	77.8	90.1	102.3	114.6	126.8	139.0	151.3	163.5	163.5	8.2
3,000	57.2	69.4	81.7	93.9	106.2	118.4	130.7	142.9	155.2	167.4	179.7	179.7	12.3
5,000	69.3	81.6	93.8	106.1	118.3	130.6	142.8	155.1	167.3	179.6	191.8	191.8	20.0
7,000	79.7	92.0	104.2	116.5	128.7	141.0	153.2	165.5	177.7	190.0	202.2	202.2	-----
10,000	93.4	105.6	117.9	130.1	142.4	154.6	166.9	179.1	191.3	203.6	215.8	215.8	-----

## Typical Design



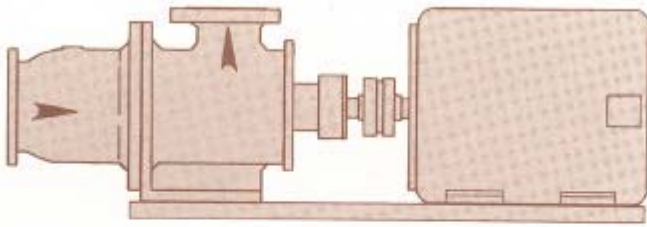
Rotor Size	A	B	C	M	N	P	R	U	Width (Dia.)	Wt. (Lbs.)
437P, 462J, 462M, 462	8	6	26-5/16	10-3/4	11	44-3/4	18-7/16	2-1/4	19	1095
550J, 550M, 550	8	6	33-13/16	12	12	59-1/8	25-5/16	3	21	1310
630J, 630M, 630	10	8	34-13/16	13-1/2	13-1/2	61-3/4	26-1/2	3-3/8	23-1/2	1525

## Typical Materials of Construction

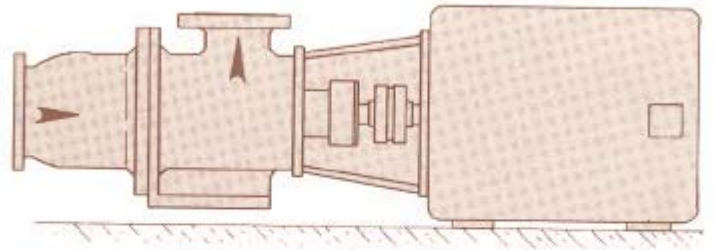
CASE	Iron or Steel
ROTOR HOUSING	Iron
POWER ROTOR	Steel
IDLER ROTORS	Iron
GASKETS	Plant Fiber

NOTE: Pump internals are completely free of copper and copper-bearing alloys.

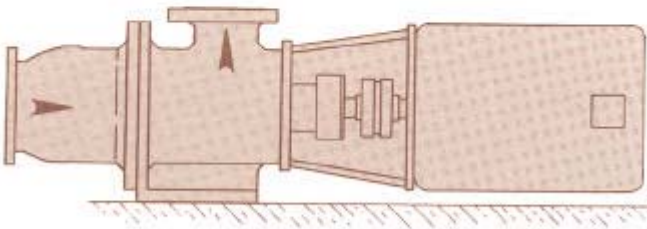
# Installation Arrangements



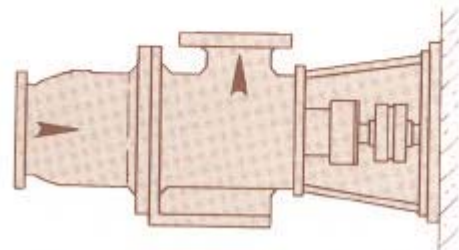
HORIZONTAL BASEPLATE MOUNT



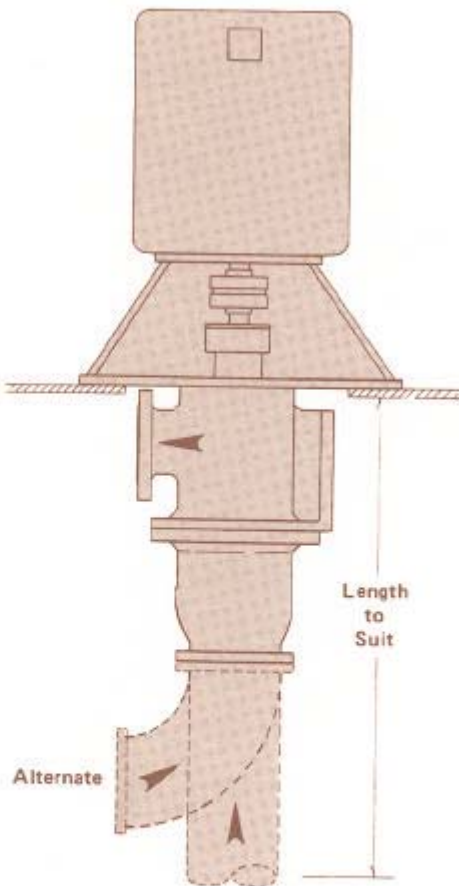
HORIZONTAL FACE MOUNT  
TO FOOT-MOUNTED MOTOR



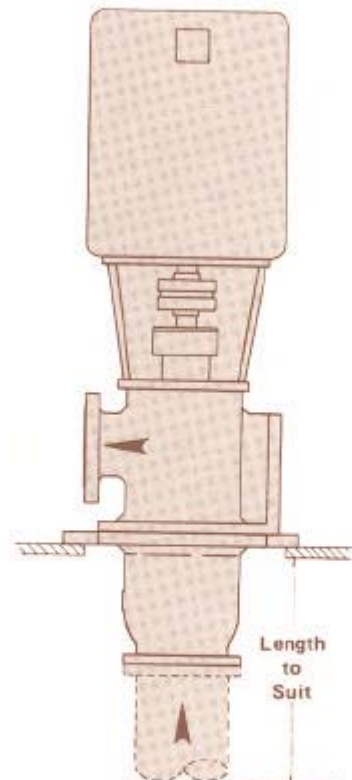
HORIZONTAL FOOT MOUNT  
TO "C" FACE MOTOR



HORIZONTAL FLANGE MOUNT  
TO ROTATING MACHINE



VERTICAL TANK MOUNT  
(Discharge Below Tank)



VERTICAL TANK MOUNT  
(Discharge Above Tank).



A Member of the  
COLFAX PUMP GROUP

**Imo Pump**  
1710 Airport Road  
PO Box 5020  
Monroe, NC  
28111.5020  
USA  
  
tel +1 (704) 289 6511  
fax +1 (704) 289 9273  
E-mail  
Imo.Pump@ColfaxCorp.com  
Internet  
<http://www.imo-pump.com>



ALLWEILER



HOUTTUIN



IMO PUMP



WARREN



Quality Management System