

**BLISSFIELD**  
FORWARD THINKING

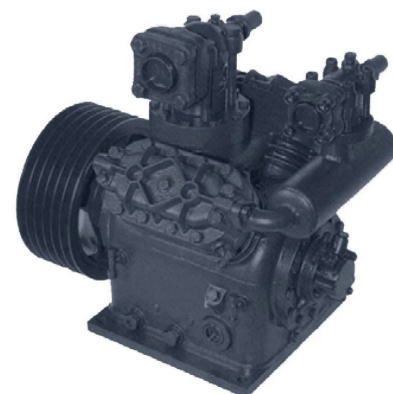
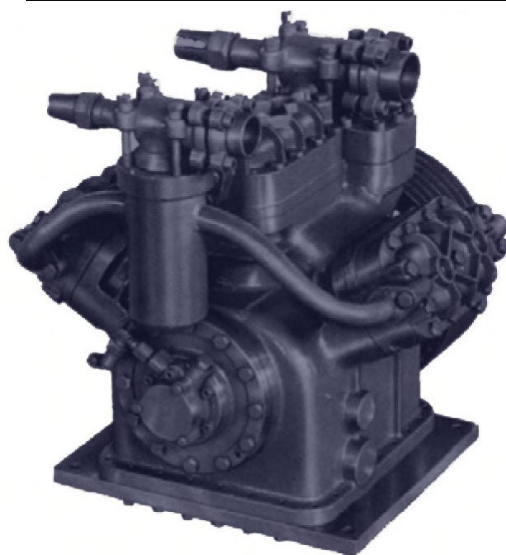
## DORIN BELT DRIVE COMPRESSORS

1/6 HP TO 60 HP

1.66 CU. IN TO 113.8 CU IN DISPLACEMENT



<b>Johnson Controls Model</b>	<b>DORIN Model</b>
RP-2200	2GVS
RSR-2222	2GVS
RP-4400	51VSM
RSR-4445	51VSM



## APPLICATION MANUAL

626 DEPOT STREET - BLISSFIELD, MI - 49228  
PHONE: (800) 427-0985 FAX: (517)486-2129  
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# CROSS REFERENCE CHART

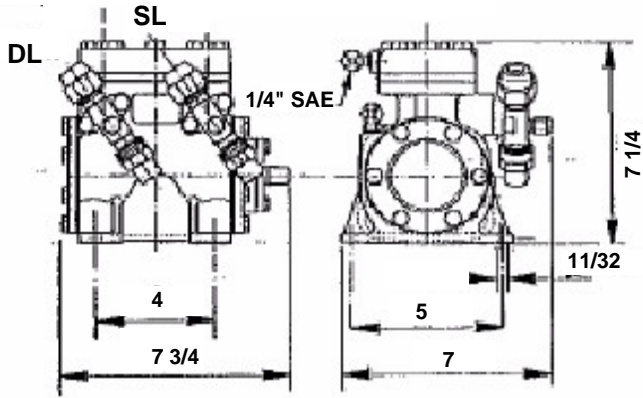
(For More Accurate Comparison See Capacity Charts)

HORSE POWER	FRICK BLUE COLD	TECUMSEH	OLD BLISSFIELD	NEW BLISSFIELD	BITZER
1/6 HP				2Q2	0
1/6 HP		1300	CB	2Q3	I
1/4 HP	16436	500	CA	2Q4	II
1/3 HP	16436	1000	CC, CD	2Q5	II
1/2 HP	16436	2300	CE	1HVS	II
3/4 - 1 1/2 HP	16055	HGC850	CG		
1 1/2 - 2 HP	16791			2GVS	III, IV
3 HP	16791	VFT	CH	3LVS	IV, 2T.2-K
3 HEAVY DUTY	16799	VFTL	CJ	3LVS	V
5 - 10 HP	16799	VFTL	CJ	41VSM	V, VI, 2N.2-K
7 1/2 - 15 HP	16799	RA	CK	51VSM	VI, VII, 4T.2K, 4P.2-K, 4N.2-K
10 - 30 HP		SA	CM	62VSC	VII, 4H.2-K, 4G.2-K, 4N.2-K
15 - 40 HP				67VS	6H.2-K, 6G.2-K
20 - 60 HP				80VS	6G.2-K

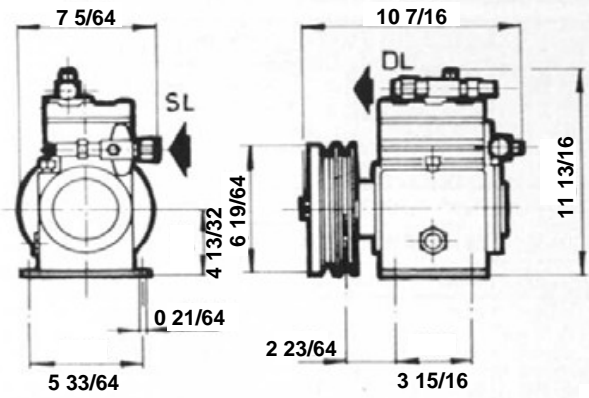
## SPECIFICATIONS

MODEL	HP	BORE	STROKE	MIN RPM	MAX RPM	CYL.	DISP.	SUCTION VALVE	DISCHARGE VALVE	OIL OZ.	WEIGHT LBS.	FLYWHEEL DIA. "IN"	BELT & GROOVES
2Q2	1/6 HP	1 1/2	15/32	500	1500	2	1.66	3/8" FLARE	3/8" FLARE	14	25	5.2	1A
2Q3	1/6 - 1/4 HP	1 1/2	19/32	500	1500	2	2.08	3/8" FLARE	3/8" FLARE	14	25	5.2	1A
2Q4	1/4 - 1/3 HP	1 1/2	3/4	500	1500	2	2.63	1/2" FLARE	1/2" FLARE	14	25	5.2	1A
2Q5	1/3 - 1/2 HP	1 1/2	15/16	500	1500	2	3.32	1/2" FLARE	1/2" FLARE	14	25	5.2	1A
1HVS	1/2 - 1 HP	1 49/64	15/16	500	1450	2	4.64	5/8" FLARE	1/2" FLARE	17	38	6.3	2A
2GVS	1 - 3 HP	2 23/64	1 3/16	500	1450	2	10.34	3/4" FLARE	5/8" FLARE	34	49	6.3	2A
3LVS	3 - 5 HP	2 13/32	2 23/64	500	1300	2	21.4	1 1/8" SF	3/4" FLARE	51	84	10.6	3A
41VSM/ 3B	5 - 10 HP	2 59/64	2 9/16	600	1300	2	34.17	1 3/8" SF	1 1/8" SF	91	209	12	3B
41VSM/ 4D	5 - 10 HP	2 59/64	2 9/16	600	1300	2	34.17	1 3/8" SF	1 1/8" SF	91	209	12	4D
51VSM	7 1/2 - 15 HP	3 15/32	3 5/64	600	1300	2	57.19	1 5/8" SF	1 3/8" SF	130	293	13.2	4B
62VSC/ 6B	10 - 30 HP	3 15/32	2 9/16	750	1750	4	75.97	1 5/8" SF	1 1/8" SF	169	386	12.2	6B
67VS	15 - 40 HP	3 5/16	2 9/16	750	1750	4	87.87	2 1/8" SF	1 3/8" SF	169	435	12.2	6B
80VS	20 - 60 HP	3 5/64	2 9/16	750	1750	4	113.8	2 1/8" SF	1 5/8" SF	203	516	12.2	6B

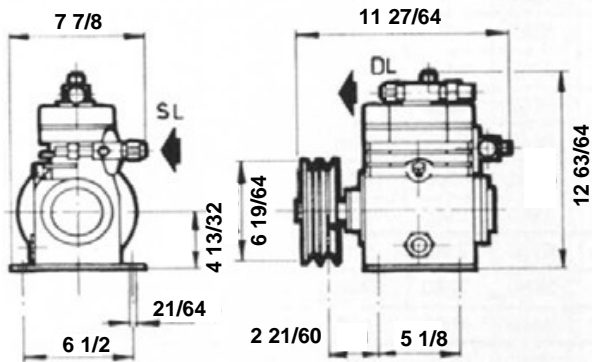
### 2Q2 THRU 5



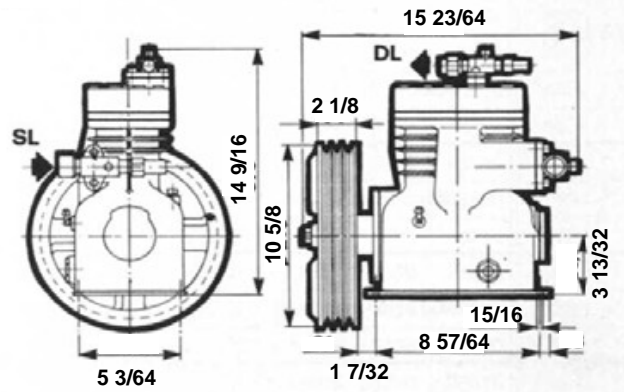
### 1HVS



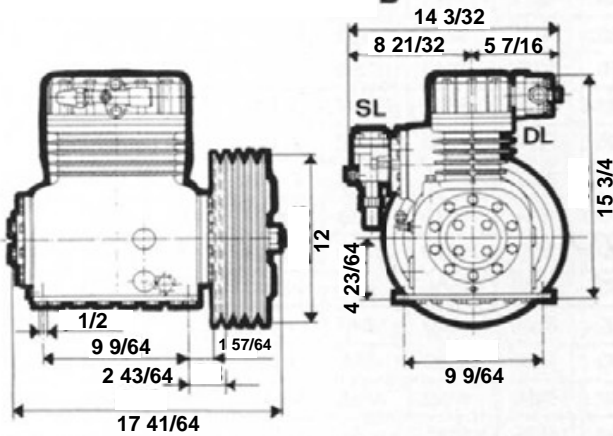
### 2GVS



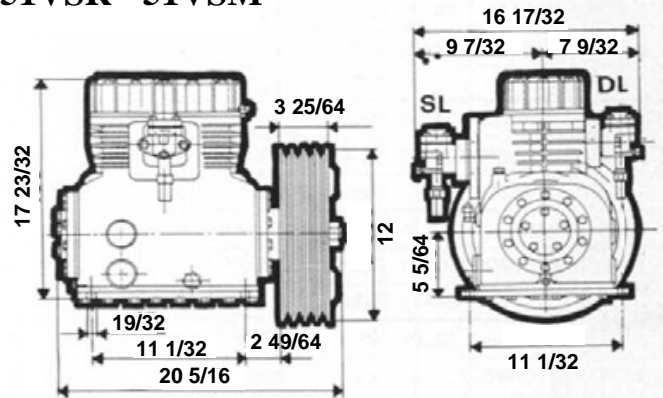
### 3LVS



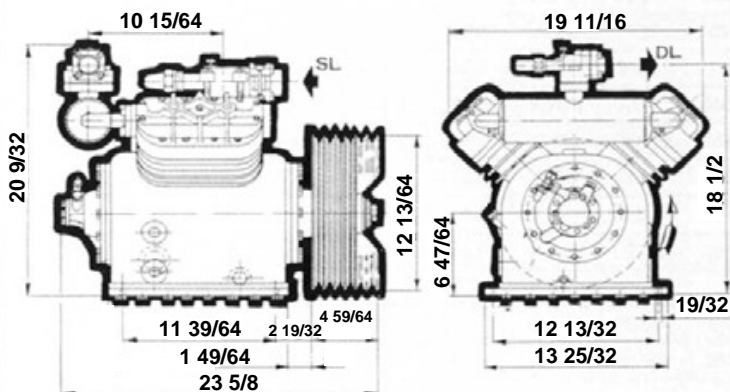
### 41 VSR - 41VSM/3B - 41VSM/4B



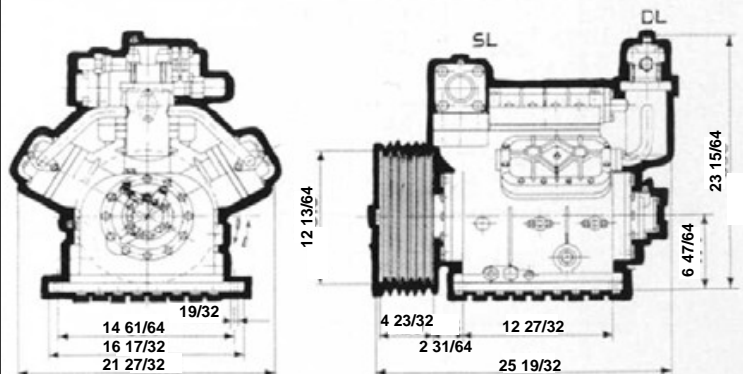
### 51VSR - 51VSM



### 62VS/4B - 67 VS/6B



### 80VS



# R22/R404 BTU/HOUR

MODEL	RPM	HP REQUIRED			TC °F	EVAPORATING TEMPERATURE °F									
		H	M	L		H		M			L				
						41	32	23	14	5	-4	-13	-22	-31	-40
2Q2	1000	0.33	0.33	0.25	86	5766	3845	3992	3275	2678	2132	1672	1296	989	716
		0.5	0.33	0.25	104	5289	4401	3617	2951	2388	1894	1467	1126	836	597
		0.5	0.5	0.33	122	4709	3924	3224	2627	2098	1655	1262	955	682	478
2Q3	1000	0.5	0.33	0.33	86	7199	6039	4981	4094	3344	2661	2098	1621	1228	904
		0.75	0.5	0.33	104	6619	5493	4504	3685	2985	2371	1842	1399	1041	751
		0.75	0.5	0.33	122	5903	4913	4026	3275	2627	2064	1586	1194	853	597
2Q4	1000	0.75	0.5	0.5	86	9144	7643	6346	5220	4231	3378	2661	2064	1552	1143
		0.75	0.5	0.5	104	8393	6960	5732	4674	3787	3002	2951	1774	1331	938
		1	0.75	0.5	122	7506	6244	5118	4163	3310	2610	2013	1501	1092	751
2Q5	1000	1	0.75	0.75	86	11498	9622	7984	6551	5323	4265	3361	2593	1962	1433
		1	0.75	0.75	104	10543	8769	7233	5903	4777	3787	2934	2252	1672	1194
		1	1	0.75	122	9451	7847	6449	5220	4197	3292	2525	1894	1365	955
1HVS	800	1	1	1	86	12530	10410	8810	7240	5840	4750	3690	2900	2290	1810
		1.5	1.5	1	104	11090	9250	7780	6280	5020	3960	2940	2220	1670	1260
		1.5	1.5	1	122	9590	8060	6660	5360	4300	3350	2390	1880	1470	1160
	1000	1.5	1.5	1.5	86	15670	12970	11030	9010	7340	5971	4580	3620	2870	2270
		2	2	1.5	104	13890	11500	9730	7820	6250	4950	3650	2780	2120	1610
		2	2	1.5	122	11980	10070	8330	6760	5360	4170	3000	2320	1790	1380
	1200	2	2	2	86	18810	15600	13250	11030	8784	7140	5530	4370	3450	2730
		3	3	2	104	16660	13890	11710	9420	7510	5940	4370	3350	2560	1950
		3	3	2	122	14400	12020	9940	8060	6450	5020	3620	2770	2120	1610
	1450	3	3	3	86	22670	18840	15940	13100	10550	8600	6560	5260	4220	3380
		3	3	3	104	20140	16760	14100	11370	9080	7200	5330	4030	3040	2290
		3	3	3	122	20100	14580	12050	9700	7790	6040	4340	3380	2630	2050
2GVS	800	3	2	2	86	27790	23000	19830	16080	13110	10510	7960	6420	5190	4200
		3	2.5	2	104	24610	20450	17270	13890	11130	8780	6450	4880	3690	2800
		3	2.5	2	122	21230	17720	14780	11920	9530	7440	5360	4170	3250	2530
	1000	3	3	2.5	86	34750	28770	24200	20040	16280	13110	9940	7960	6370	5110
		3.5	3	2.5	104	30750	25400	21440	17340	13890	10960	8060	6150	4680	3570
		3.5	3	2.5	122	26590	22150	18470	14780	11920	9290	6660	5160	4000	3090
	1200	4	4	3	86	41680	34540	29360	23830	19830	15870	11910	9590	7720	6210
		5.5	4	3	104	34750	30580	25810	28020	16660	13140	9660	7340	5570	4240
		5.5	4	3	122	31920	26760	22150	17720	14300	11160	8020	6180	44770	3670
	1450	5.5	4	3	86	50280	41640	35910	29080	23720	19050	14410	11610	9360	7550
		5.5	5.5	4	104	44540	37000	31270	25160	20140	15910	11680	8840	6690	5070
		5.5	5.5	4	122	38400	32050	26760	21570	17240	13450	9700	7550	5870	4580
3LVS	800	4	4	3	86	57170	47650	38500	30960	24440	19490	14540	10690	7850	5770
		5.5	4	3	104	48910	40960	32940	26590	20820	16080	11370	8430	6250	4650
			5.5	4	122			26970	22900	17170	13350	9560	6280	4130	2720
	1000	5.5	5.5	4	86	69730	58160	46970	37720	29770	23720	17720	13010	9560	7020
		7.5	5.5	4	104	61130	49970	40170	32430	25400	19630	13860	10240	7560	5580
			7.5	5.5	122			33720	28640	21470	16690	11950	7850	5160	3380
	1200	7.5	5.5	5.5	86	83550	69660	56390	45260	35740	28470	21230	15600	11470	8430
		10	7.5	5.5	104	73350	59940	48200	38910	30480	23520	16590	12290	9120	6760
		60		5.5	122						20040	14340	9420	6180	4070
	1300	7.5	7.5	5.5	86	92730	77270	62460	50210	39630	31570	23590	17310	12700	9320
		10	10	7.5	104	79420	66420	53420	43110	33760	26080	18430	13660	10110	7480
				10	122						21640	15500	10170	6690	4410

1 INTERNAL PRESSURE RELIEF VALVE AVAILABLE ON REQUEST  
 REQUIRED HORSEPOWER CALCULATED WITH A MAXIMUM AMBIENT TEMPERATURE OF 95 °F

# R22/R404 BTU/HOUR

MODEL	RPM	HP REQUIRED			TC °F	EVAPORATING TEMPERATURE °F									
						H		M			L				
		H	M	L		41	32	23	14	5	-4	-13	-22	-31	-40
41VSM	1000	10	10	7.5	86	119250	98430	79870	64000	50830	39700	30000	22390	16400	10650
		10	10	7.5	104	106000	85570	68740	55090	43660	32390	24300	17480	12560	9010
		10	10	10	122	88130	73830	58740	47650	37310	27790	19660	13900	9800	6930
	1200	10	10	10	86	143110	118130	95840	76800	60990	47650	36010	26870	19250	12770
		15	15	10	104	127170	102430	83500	66110	52390	38880	29150	20960	15060	10820
		15	15	15	122	105740	88600	70480	57030	44780	33350	23590	15330	10820	7650
51VSM	800	15	15	15	86	157200	130820	106690	85120	68910	53660	40650	30350	21780	14440
		20	15	15	104	142870	113660	91440	73040	59220	43830	33010	23280	16420	11570
		20	20	15	122	119390	99730	79080	63520	50650	37610	26520	18710	13180	9290
	1000	15	15	15	86	196490	163520	133380	106390	86150	67070	50820	37920	27200	18060
		20	15	15	104	178600	142090	114300	91300	74030	54780	41270	29080	20480	14410
		20	20	20	122	149250	124650	98840	79390	63310	47000	33140	23380	16490	11610
	1200	20	20	20	86	235770	196220	160070	127650	103380	80480	60990	45500	32630	21680
		25	20	20	104	214340	170520	137170	109560	88840	65740	49530	34880	24580	17310
		25	25	20	122	179120	149560	118600	95260	75980	56390	39770	28020	19730	13890
62VS	1200	25	25	20	86	322260	267850	216450	174130	138330	107720	82020	60210	42940	29150
		30	25	20	104	291300	231100	185530	149730	117480	90480	65740	47170	33860	24300
		40	30	20	122	242150	202460	160450	129560	97000	75500	53690	38140	27140	
	1 1450	30	25	20	86	392970	326660	263960	212360	168710	131370	100040	73420	52390	35530
		30	30	20	104	355260	281810	226250	182600	143280	110000	80170	57550	41300	29630
		40	40	25	122	295330	246900	195670	157990	118300	92090	65500	46590	33140	
	1 1750	40	30	30	86	475500	395260	319390	256970	204130	158950	121030	88840	63380	43010
			40	25	104	429870	340990	273760	220930	173350	133520	97000	69630	49970	35870
					122										
67VS	1 1450	40	40	30	86	451300	379080	306420	248880	197270	155600	117890	86930	52700	42460
		50	40	30	104	408060	327070	261980	213930	167890	130580	94850	67890	48570	34750
		60	50	30	122	339390	286590	227030	184950	138540	109150	77410	48060	29830	
	1 1750	50	50	40	86	546080	458670	370750	277240	238710	188260	142630	105190	75870	51370
		60	50	40	104	493760	395700	316970	258840	203140	157990	114750	82150	58810	42090
				50	122						132050	93660	66420	47100	33420
80VS	1 1450	50	40	40	86	564820	474710	383420	311200	247270	194510	148060	108780	78200	53180
		60	50	40	104	510860	409220	328640	267920	209970	163520	118670	85330	61340	44100
		60	50	40	122	424710	358430	284200	231810	173450	136560	96860	68710	48740	34580
	1 1750	60	50	50	86	683420	574410	463930	376560	299180	235360	179150	131610	94610	64340
		75	60	50	104	618160	495160	397650	324170	254070	197850	143590	103250	74240	53380
		60	50	122			343890	280480	209870	165230	117210	83140	58980	41850	

## OIL CHART

MODEL	REFRIGERANT	OIL TYPE	VISCOSITY AT 104°F	OIL BRAND
2Q2 41VSM	HCFC (R22)	MINERAL	32 CST	SUNISO 3GS, ZEROL 150, CAPELLA S32, SHELL 22-12, CASROL ZL 32
	HCF (R134A-R404A-R407C-R507)	POE	32 CST	MOBILE EAL ARTIC 32, ICI EMKARATE RL 32 S, CASTROL ICEMATIC SW 326, SUNISO SL 32, DEA SEZ 32, CPI CP-2933
51VS 62VS 67VS 80VS	HCFC (R22)	MINERAL	46 CST	SUNISO 4GS, ZEROL 200 TD, CAPELLA 46, FUCHS RENISO 46
	HCF (R134A-R404A-R407C-R507)	POE	46 CST	MOBILE EAL ARTIC 46, ICI EMKARATE 46 S, CASTROL ICEMATIC SW 46, SUNISO SL 46, DEA SEZ 46, CPI CP-2947

# R134A/R12 BTU/HR

MODEL	RPM	C. INCH	HP REQUIRED			CONDENSING TEMPERATURE 104°F							
						EVAPORATING TEMPERATURE °F							
						H			M			L	
			H	M	L	50	41	32	23	14	5	-4	
2Q2	800	1.66	0.5	0.33	0.25	3330	2730	2238	1802	1446	1119	860	
	1000		0.5	0.33	0.25	4163	3412	2798	2252	1808	1406	1078	
2Q3	800	2.08	0.75	0.5	0.33	4176	3439	2811	2262	1802	1406	1078	
	1000		0.75	0.5	0.33	520	4299	3514	2832	2252	1757	1348	
2Q4	800	2.63	0.75	0.5	0.5	5295	4340	3576	3866	2293	1788	1378	
	1000		0.75	0.5	0.5	6619	5425	4470	3583	2866	2235	1723	
2Q5	800	3.32	1	0.75	0.75	6660	5486	4479	3630	2866	2252	1720	
	1000		1	0.75	0.75	8325	6858	5596	4538	3583	2815	2150	
1HVS	800	4.64	1	0.75	0.5	9660	7910	6320	4990	3860	2920	2150	
	1000		1.5	1	0.75	12090	9880	7900	6230	4830	3660	2700	
	1200		1.5	1.5	0.75	14470	11860	9470	7480	5790	4390	3230	
	1450		2	1.5	1	17530	14340	11450	9030	7000	5290	3910	
2GVS	800	10.34	3	2	1	22140	17940	14420	11440	8840	6690	4940	
	1000		3	2	1.5	27670	22430	18020	14300	11060	8370	6160	
	1200		4	3	1.5	33210	26920	21640	17150	13260	10040	7410	
	1450		4	3	2	40110	32510	26130	20740	16040	12140	8980	
3LVS	800	21.4	5.5	4	3	43210	35430	28260	22270	17290	13080	9610	
	1000		5.5	4	3	54010	44270	35260	27840	21610	16350	12020	
	1200			5.5	4				33420	25940	19610	14420	
41VSM	800	34.17	7.5	5.5	4	72730	58910	47360	37360	29010	21980	16180	
	1000		10	7.5	5.5	90920	73640	59200	46690	36270	27480	20210	
	1200			10	5.5	109100	88360	71040	56040	43520	32970	24270	
51VSM	800	57.91	15	10	7.5	124540	101470	81620	64050	49780	37750	27820	
	1000		20	15	10	155690	126850	102030	80050	62220	47190	34780	
	1200		20	15	10	186810	152200	122440	96080	74680	56620	41730	
62VS	1000	75.97	20	15	10	188130	152920	123360	97020	75050	56560	41640	
	1200		25	20	15	225750	183500	148040	116420	90070	67870	49970	
	1450		30	25	15	272780	221730	178880	140670	108830	82000	60380	
	1750			25	20				169780	131350	96590	72870	
67VS	1000	87.87	25	20	15	228780	187260	149630	117920	91510	69240	50840	
	1200		30	20	15	274530	224710	179560	141510	109800	83080	61010	
	1450		40	25	20	331730	271520	216970	170990	132680	100400	73720	
	1750		40	30	25	400360	327700	261850	206370	160140	121160	88960	
80VS	1000	113.8	30	25	15	296280	242510	193790	152720	118500	89680	65840	
	1200		40	25	20	355550	291030	232550	183280	142200	107610	79010	
	1450		50	30	25	429610	351640	280990	221450	171850	130040	95480	
	1750			40	30				267270	207390	156930	115230	

MODELS 41VSM THROUGH 80VS HAVE AVAILABLE CRANKCASE HEATERS AND DIRECT DRIVE COUPLERS.

MOUNTING KITS ARE AVAILABLE TO ALLOW BLISSFIELD/DORIN COMPRESSORS TO MOUNT ON THE SAME FOOT PRINTS AS THE OLDER STYLE BLISSFIELD COMPRESSORS BEING REPLACED.

