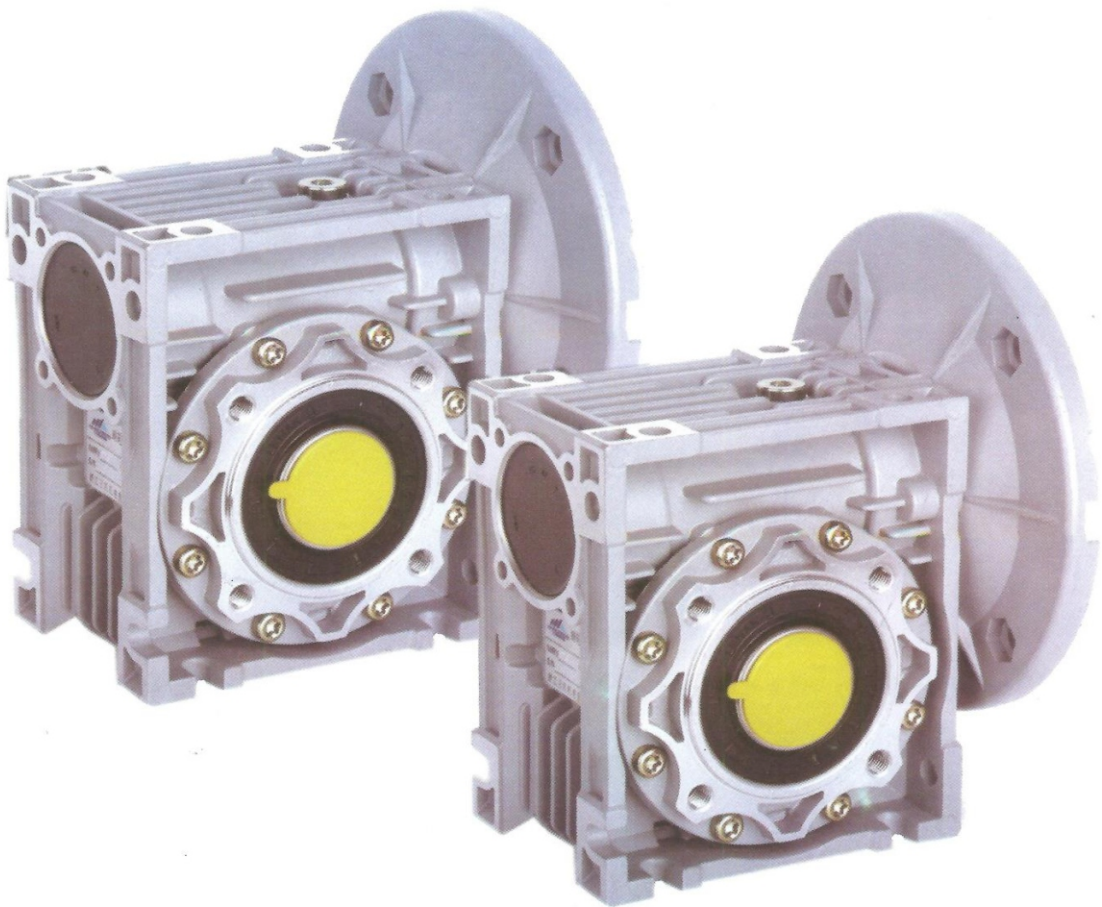


QUALITY DERIVE
FROM GATEEJ
REPUTATION COME ALONG



RV SERIES

WORM GEAR REDUCER



GATEEJ ENGINEERING Co.

S. No. 38/2/16, Narhe, Ind Area,
Near PARI Co., Narhe, Pune - 411 041.

Tel.: 9120 - 24472745 Fax : 9120 - 24474673

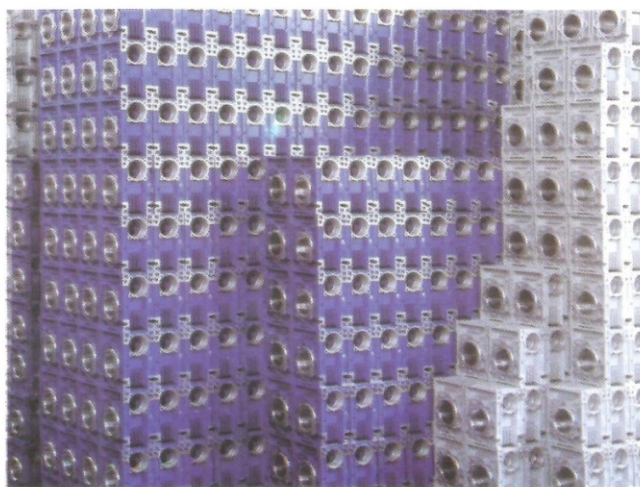
Mob.: 9371006011, 9422324104

Email : amod_71@yahoo.com / svaishamoayan@yahoo.com

◆ www.gateejgearedmotors.com ◆ www.gateej.com

PERFECTION IN EVERY LITTLE STEP & PROCESS

Gateej



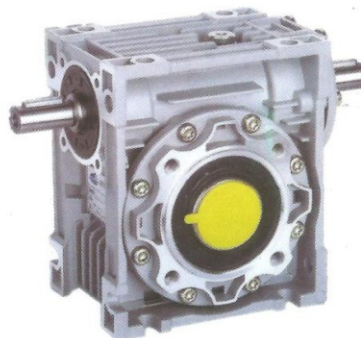
RV series worm reducers is the new product released by Gateej Engineering Co. and it is made from the technology of manufacturing and international advanced technology. The new worm reducers have the following outstanding advantages.

- The body adopts aluminium die cast and the case adopts advanced cubic structure. The Product owns advantages of good appearance, small volume, quick radiating, flexible mounting.
- The worm gear and the worm shaft is adopted precise process and precise match checking, insure the stable transmission, low temperature, low noise level, high efficiency and life.
- The input and output parts is adopt the treatment of precise smooth, insure no rusty. increase the quantity and its life.
- The reducers is adopted the high quantity bearing and seal to prevent leakages.

RV series is universally used, an ideal choice for modern industrial equipments to realize transmission and control at great speed reduction ratio.



NMRV
HOLLOW INPUT
HOLLOW OUTPUT



NRV
SOLID INPUT
HOLLOW OUTPUT



DRV
COMBINATION
GEAR BOX

1. PRODUCT CHARACTERISTIC

NMRV series are New-Generation Worm Gear Units Developed on the basis of innovation, Quality and Advanced Technology both at home and abroad.

Its main features are as follows:

1. Made of High-Quality Materials , Compact in size, light in weight and Rust proof.
2. Designed For Optimum output torque.
3. Smooth in running and low in noise, Suitable For Maintenance Free Operations
4. Excellent Radiating Characteristics and Heat Dissipation.
5. Attractive Appearance, Durable and long service life.
6. Housing: Die Cast Aluminum Alloy (Frame Size :25 to 90) and Cast Iron (110 to 150) .
7. Worm Shafts are made of High Quality Steel With Hardness Levels of 58 to 62 HRC and Profile Ground.



2. MODEL

Eg. NMRV 075 FA1 40 E DZ P80 B5 B3

1.	NMRV	Gearbox Type (Worm Series)
2.	075	Gearbox Size (25,30, 40, 50, 63, 75, 90, 110, 130, 150)
3.	Fa1	a. U - Universal Mounting (Foot) b. FA, FB, FC, FD, FE (1/2): Output flange and position
4.	40	Speed Ratio (I = 7.5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100)
5.	E	a. No mark means single extension worm shaft. b. E: Double extension worm shaft
6.	DZ	a. No mark means hollow output b. DZ (1/2): Single output shaft and position c. SZ: Double output shaft position code
7.	P80	a. Gearbox Input Frame for motor Mounting-P56, P63, P71, P80, P90, P100, P112, P132, P160 b. SI – Solid Input Shaft (No Motor Mounting Flange)
8.	B5/B14	Motor Mounting Frame Size
9.	B3	Gearbox Mounting Position- B3, B6, B7, B8, V5, V6

3. SELECTION & PERFORMANCE TABLE

GEAR BOX			SPEED RATIO										
			7.5	10	15	20	25	30	40	50	60	80	100
BOX SIZE	FR. SIZE	K.W.	N2 RPM (AT MOTOR SPEED N1 = 1400 RPM)										
			187	140	93	70	56	47	35	28	23	17.5	14
			OUTPUT TORQUE M2 (N-M)										
025	56	0.06	2.6	3.4	4.9	6.2		8.3	10	12	14		
030			2.6	3.4	4.7	6	7	8	9.7	11	13	14	
025	56	0.09	3.9	5.1	7.3	9.3	-	13	16				
030			3.9	5	7	8.8	10	12	14	17			
030	63	0.12	5.2	6.6	9.3	12	14	16	19	22			
040							17	21	25	28	33	38	
050										29	35	39	
030	63	0.18	7.7	10	14	18	20	24	16				
040					19	23	25	32	37	42			
050								33	39	43	52	59	
040	71	0.25	11	14	20	26	32	35	44				
050					27	32	36	46	54	60	72		
063									55	63	76	87	
075											80	94	
040	71	0.37	16	21	30	39	47	52					
050				21	31	39	47	54	68	80	89		
063								70	82	94	113	129	
075										97	119	139	
050	80	0.55	24	32	46	59	70	80					
063					60	72	82	104	122	140			
075								108	128	144	177	206	
090											189	221	
110											201	236	
050	80	0.75	33	43	62	80							
063					63	82	98	112	141				
075						101	117	147	174	196			
090									182	209	258	302	
110											274	322	
063	90	1.1	50	65	92	120	144	164					
075					95	122	148	171	216				
090									222	266	306		
110										278	324	402	473
130												408	480
063	90	1.5	68	88	126	164							
075				89	129	166	202	233					
090						170	207	239	303	363	417		
110									315	379	442	548	
130												557	655
075	100	2.2	99	131	189								
090			100	132	191	249	304	351					
110					255	311	356	462	555	648			
130								468	563	657	816		
150									570	657	816	960	
075	100	3.0	135	178	258								
090			137	180	261	340	414	479					
110					264	348	425	485	630	757			
130							430	491	638	767	896	1113	
150										778	896	1113	1310
075	112	4.0	180	237									
090			182	240	348	453							
110				240	352	463	566	647					
130							573	655	851	1023	1195		
150										1037	1195	1484	
110	132	5.5	250	330	484	638							
130				334	490	638	788	900	1171				
150						645	788	934	1171	1426	1643		
110			341	450	660								
130			345	455	668	870	1074	1228	1596				

150	132	7.5				880	1074	1274	1596				
150	160	11.0	512	675	990	1291	1576						
150	160	15	698	921	1351	1760							

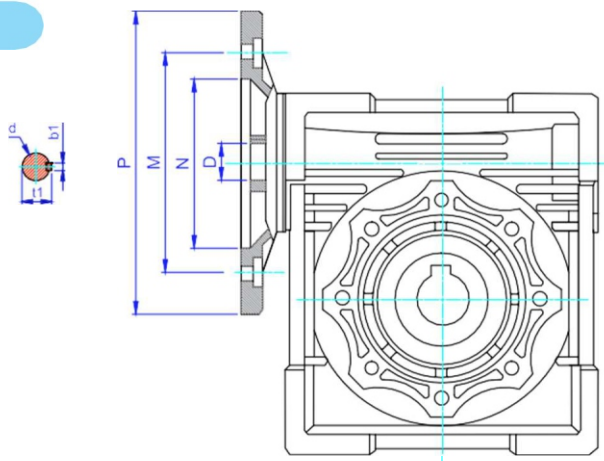
SERVICE FACTOR Fs –

The **SERVICE FACTOR** , is the numeric value describing Gear Box Service duty . It takes into consideration start/stop Frequency, Daily Operating Conditions , load Variations and Over load connected with Gear Box Application .

Table 2.0 (Service Factor or Factor of safety) –Fs

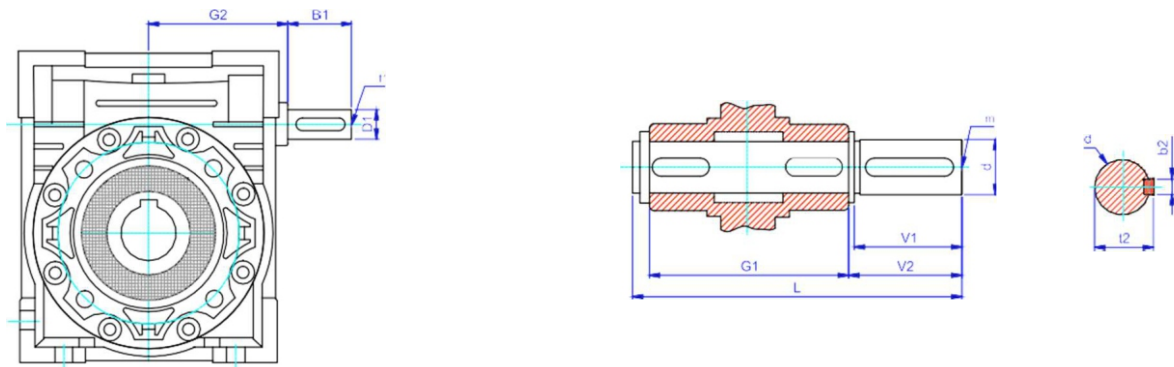
GEAR BOX			SPEED RATIO										
			7.5	10	15	20	25	30	40	50	60	80	100
BOX SIZE	FR. SIZE	K.W.	N2 RPM (AT MOTOR SPEED N1 = 1400 RPM)										
			187	140	93	70	56	47	35	28	23	17.5	14
			Safety Factor- Fs										
025	56	0.06	4.2	3.5	2.5	1.9		1.6	1.2	0.9	0.7		
030			7.0	5.4	3.9	3.1	3.1	2.5	1.9	1.5	1.3	0.9	
025	56	0.09	2.8	2.4	1.6	1.3	-	1.0	0.8				
030			4.7	3.6	2.6	2.0	2.1	1.7	1.2	1.0			
030	63	0.12	3.5	2.7	1.9	1.5	1.6	1.3	0.9	0.8			
040								2.7	1.9	1.6	1.3	1.0	0.8
050												2.3	1.9
030	63	0.18	2.3	1.8	1.3	1.0	1.0	0.8					
040						2.1	1.7	1.8	1.3	1.0	0.9		
050									2.3	1.9	1.6	1.2	0.9
040	71	0.25	3.6	2.8	2.0	1.5	1.2	1.3	0.9				
050						2.7	2.2	2.3	1.7	1.4	1.1	0.9	
063										2.4	2.0	1.6	1.4
075												2.4	1.9
040	71	0.37	2.5	1.9	1.3	1.0	0.8	0.9					
050				3.4	2.4	1.9	1.5	1.6	1.1	0.9	0.8		
063									2.1	1.6	1.4	1.1	0.9
075											2.1	1.6	1.3
050	80	0.55	2.9	2.3	1.6	1.2	1.0	1.1					
063						2.2	1.8	1.9	1.4	1.1	0.9		
075									2.0	1.6	1.4	1.1	0.9
090												1.5	1.2
110												2.6	2.0
050	80	0.75	2.1	1.7	1.2	0.9							
063					2.2	1.6	1.3	1.4	1.0				
075							2.0	2.0	1.5	1.2	1.0		
090										1.9	1.5	1.1	0.9
110												1.9	1.5
063	90	1.1	2.6	2.0	1.5	1.1	0.9	1.0					
075					2.1	1.7	1.3	1.3	1.0				
090									1.6	1.3	1.0		
110										2.4	1.9	1.3	1.0
130												2.1	1.5
063	90	1.5	1.9	1.5	1.1	0.8							
075				2.2	1.6	1.3	1.0	1.0					
090						2.1	1.6	1.7	1.2	0.9	0.8		
110									2.2	1.7	1.4	0.9	
130													1.5
075	100	2.2	1.9	1.5	1.1								
090			2.9	2.3	1.9	1.4	1.1	1.2					
110						2.5	2.2	2.0	1.5	1.2	1.0		
130									2.2	1.7	1.4	1.0	

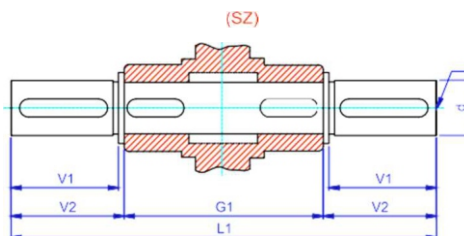
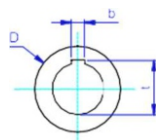
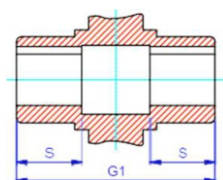
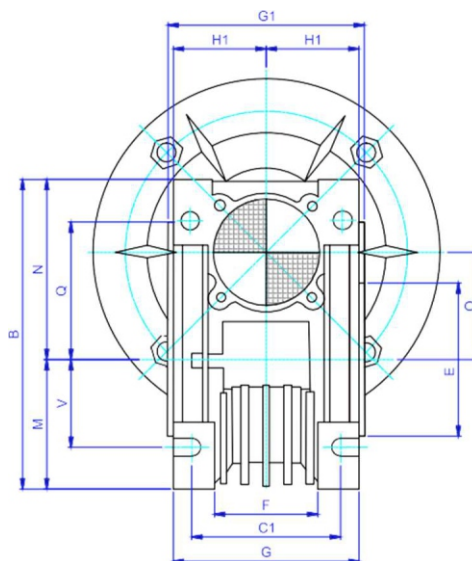
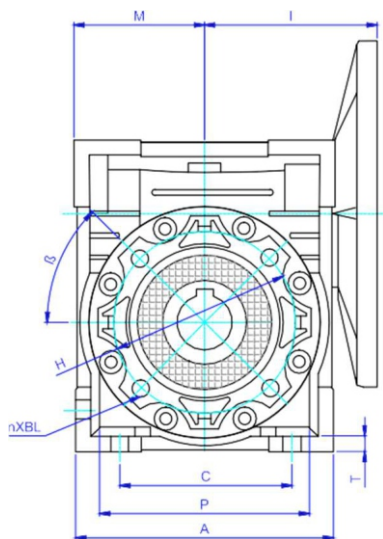
150										2.5	1.9	1.4	1.0
075	100	3.0	1.4	1.1	0.8								
090			2.1	1.7	1.4	1.0	0.8	0.9					
110					2.5	1.9	1.6	1.5	1.1	0.9			
130							2.2	2.1	1.6	1.3	1.0	0.8	
150										1.8	1.4	1.0	0.8
075	112	4.0	1.0	0.8									
090			1.6	1.3	1.0	0.8							
110				2.5	1.9	1.4	1.2	1.1					
130							1.6	1.6	1.2	1.0	0.8		
150										1.4	1.0	0.8	
110	132	5.5	2.2	1.8	1.4	1.0							
130				2.5	1.9	1.4	1.2	1.2	0.9				
150						2.0	1.5	1.3	1.3	1.0	0.8		
110	132	7.5	1.6	1.3	1.0								
130			2.2	1.8	1.4	1.0	0.9	0.8	0.7				
150						1.5	1.1	1.0	1.0				
150	160	11.0	2.3	1.8	1.3	1.0	0.8						
150	160	15	1.7	1.3	0.9	0.7							



	71B5	110	130	160	-	-	-	-	-	-	14	14	14	14	14
	71B14	70	85	105	-	-	-	-	-	-	-	-	-	-	-
075	110/112B5	180	215	250	28	28	28	-	-	-	-	-	-	-	-
	110/112B14	110	130	160	-	-	-	-	-	-	-	-	-	-	-
	90B5	130	165	200	24	24	24	24	24	24	24	-	-	-	-
	90B14	95	115	140	-	-	-	-	-	-	-	-	-	-	-
	80B5	130	165	200	-	-	-	19	19	19	19	19	19	19	19
	80B14	80	100	120	-	-	-	-	-	-	-	-	-	-	-
	71B5	110	130	160	-	-	-	-	-	-	-	14	14	14	14
090	110/112B5	180	215	250	28	28	28	28	28	28	-	-	-	-	-
	110/112B14	110	130	160	-	-	-	-	-	-	-	-	-	-	-
	90B5	130	165	200	24	24	24	24	24	24	24	24	24	-	-
	90B14	95	115	140	-	-	-	-	-	-	-	-	-	-	-
	80B5	130	165	200	-	-	-	-	-	-	19	19	19	19	19
	80B14	80	100	120	-	-	-	-	-	-	-	-	-	-	-
110	132B5	230	265	300	38	38	38	38	-	-	-	-	-	-	-
	100/112B5	180	215	250	28	28	28	28	28	28	28	28	28	-	-
	90B5	130	165	200	-	-	-	-	24	24	24	24	24	24	24
	80B5	130	165	200	-	-	-	-	-	-	-	-	-	19	19
130	132B5	230	265	300	38	38	38	38	38	38	38	-	-	-	-
	100/112B5	180	215	250	-	-	-	-	28	28	28	28	28	28	28
	90B5	130	165	200	-	-	-	-	-	-	-	-	-	24	24
150	160B5	250	300	350	42	42	42	42	42	-	-	-	-	-	-
	132B5	230	265	300	-	-	-	38	38	38	38	38	38	38	-
	100/112B5	180	215	250	-	-	-	-	-	-	-	-	-	28	28

1 . NMRV -DIMENSIONS WITH INPUT FLANGE & SOLID INPUT



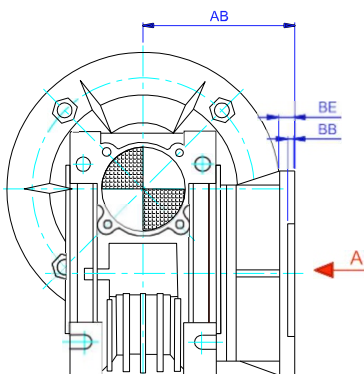
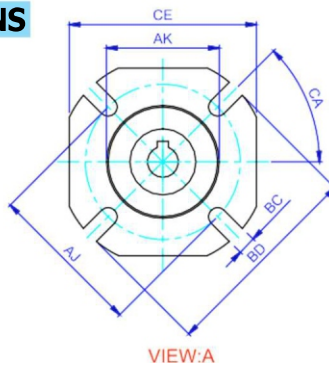


NMRV	A	B	B1	C	C1	D(H7) D	1(j6) D	Dm(j6)	E(h8)	F	G	G1	G2	H	H1	J	K	L	L1	M	N	O	P	Q
025	70	83	22	45	34	11	9	9	45	22	45	50	37	65	22.5	-	-	81	101	35	48	25	-	35.5
030	80	97	20	54	44	14	9	9	55	32	56	63	45	65	29	51	20	102	128	40	57	30	75	44
040	100	122	23	70	60	18(19)	11	11	60	43	71	78	53	75	36.5	60	23	128	164	50	71.5	40	87	55
050	120	144	30	80	70	25(24)	14	14	70	49	85	92	64	85	43.5	74	30	153	199	60	84	50	100	64
063	144	174	40	100	85	25(28)	19	19	80	67	103	112	75	95	53	90	40	173	219	72	102	63	110	80
075	172	205	50	120	90	28(35)	24	24	95	72	112	120	90	115	57	105	50	192	247	86	119	75	140	93
090	206	238	50	140	100	35(38)	24	24	110	74	130	140	108	130	67	125	50	234	309	103	135	90	160	102
110	255	295	60	170	115	42	28	28	130	-	144	155	135	165	74	142	60	149	324	128	167.5	110	200	125
130	293	335	80	200	120	45	30	30	180	-	155	170	155	215	81	162	80	165	340	147	187.5	130	250	140
150	340	400	80	240	145	50	35	35	180	-	185	200	175	215	96	195	80	197	374	170	230	150	250	180

NMRV	R	S	T	BL	β	b	bm	b1	b2	t	tm	t1	t2	d(h6)	f1	fm	m	V	V1	V2	Wt. in K. G.
025	6	17	5.0	-	10°	4	3	-	-	12.8	10.4	-	-	11	-	-	-	22.5	23	25.5	1.0
030	6.5	21	5.5	M6 X 11(n=1)	0°	5	3	3	5	16.3	10.2	10.2	16.0	14	-	-	M6	27	30	32.5	1.2
040	6.5	26	7	M6 x 8(n=4)	45°	6	4	4	6	20.8(21.8)	12.5	12.5	20.5	18	-	-	M6	35	40	43.0	2.3
050	8.5	30	7	M8 x 10(n=4)	45°	8	5	5	8	28.3(27.3)	16.0	16.0	28.0	25	M6	M6	M10	40	50	53.5	3.5

										)											
063	8.5	36	8	M8 x 14(n=8)	45°	8	6	6	8	28.3(31.3))	21.5	21.5	28.0	25	M6	M6	M10	50	50	53.5	6.2
075	11	40	10	M8 x 14(n=8)	45°	8(10)	8	8	8	31.3(38.3))	27.0	27.0	31.0	28	M8	M8	M10	60	60	63.5	9.0
090	13	45	11	M10 x 18(n=8)	45°	10	8	8	10	38.3(41.3))	27.0	27.0	38.0	35	M8	M8	M12	70	80	84.5	13.0
110	14	50	14	M10 x 18(n=8)	45°	12	8	8	12	45.3	31.0	31.0	45.0	42	M10	M10	M16	85	80	84.5	35.0
130	16	60	15	M12 x 21(n=8)	45°	14	8	8	14	48.8	33.0	33.0	48.5	45	M10	M10	M16	100	80	85.0	48.0
150	18	72.5	18	M12 x 21(n=8)	45°	14	10	10	14	53.8	38.0	38.0	53.5	50	M12	M12	M16	120	82	87.0	84.0

1.NMRV- OUTPUT FLANGE DIMENSIONS



NMRV		025	030	040	050	063	075	090	110	130	150
FA	AB	45	54.5	67	90	82	111	111	139	152	155
	BE	6	6	7	9	10	13	13	15	15	15
	BB	2.5	4	4	5	6	6	6	6	6	6
	AK	40	50	60	70	115	130	152	170	180	180
	AJ	55	68	75	85	150	165	175	230	255	255
	BC	6.5(n=4)	6.5(n=4)	9(n=4)	11(n=4)	11(n=4)	14(n=4)	14(n=4)	14(n=8)	16(n=8)	16(n=8)
	BD	75	80	110	125	180	200	210	280	320	320
	CE	70	70	95	110	142	170	200	280	290	290
	CA	45°	45°	45°	45°	45°	45°	45°	45°	45°	22.5°
FB	AB		-	97	120	112	-	122	-	-	-
	BE		-	7	9	10	-	18	-	-	-
	BB		-	4	5	6	-	6	-	-	-
	AK		-	60	70	115	-	180	-	-	-
	AJ		-	75	85	150	-	215	-	-	-
	BC		-	9(n=4)	11(n=4)	11(n=4)	-	14(n=4)	-	-	-
	BD		-	110	125	180	-	250	-	-	-
	CE		-	95	110	142	-	-	-	-	-

	CA		-	45°	45°	45°	-	45°	-	-	-
FC	AB		-	80	89	93	-	110	-	-	-
	BE		-	9	10	10	-	17	-	-	-
	BB		-	5	5	5	-	6	-	-	-
	AK		-	95	110	130	-	130	-	-	-
	AJ		-	115	130	165	-	165	-	-	-
	BC		-	9.5(n=4)	9.5(n=4)	11(n=4)	-	11(n=4)	-	-	-
	BD		-	140	160	200	-	200	-	-	-
	CE		-	45°	45°	45°	-	45°	-	-	-
FD	AB		-	58	72	107	-	151	-	-	-
	BE		-	12	14.5	10	-	13	-	-	-
	BB		-	5	5	5	-	6	-	-	-
	AK		-	80	95	130	-	152	-	-	-
	AJ		-	100	115	165	-	175	-	-	-
	BC		-	9(n=4)	11(n=4)	11(n=4)	-	14(n=4)	-	-	-
	BD		-	120	140	200	-	210	-	-	-
	CE		-	45°	45°	45°	-	45°	-	-	-
FE	AB		-	-	-	80.5	-	-	-	-	-
	BE		-	-	-	16.5	-	-	-	-	-
	BB		-	-	-	5	-	-	-	-	-
	AK		-	-	-	110	-	-	-	-	-
	AJ		-	-	-	130	-	-	-	-	-
	BC		-	-	-	11(n=4)	-	-	-	-	-
	BD		-	-	-	160	-	-	-	-	-
	CE		-	-	-	45°	-	-	-	-	-



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