

HELISEM[®] Mixers

VRG MODEL

DATA SHEET

The HELISEM[®] series offers 5 distinct models - VDA, VRP, VRH, VRG and FRH - with the VRG mounted with a SABRE propeller, to support a wide range of open or closed tank applications up to 10m (33ft) diameter (1800 m³ - 475000 gallons) and viscosities up to 1000 mPas (cP) at 1.3 specific gravity.

The VRG model is a gearmotor driven mixer equipped with the SABRE 10SG propeller with 3 blades. The SABRE propeller was specifically designed to deliver high and broad flow with minimal power consumption. This makes it ideal for large tanks or high mixing levels.

Powerful and compact, the VRG model provides high flow in a lightweight mixer with uncompromising results.

General Characteristics:

- Agitator with gearmotor
- Lower shaft provided with a SABRE impeller
- Rated power from 0.18 to 15 kW (0.25 to 20 HP)

Applications:

- Suspension of particles
- Difficult Dissolution
- Heat Transfer
- Chemical Reactions

Materials:

- Wetted Parts – Stainless steel 316L
- Painting PU: RAL 1018 on the drive system

Features & Benefits:

- Virtually no limitations from the process point of view
- Easy to install and maintain saving valuable manpower and resources
- All VRG mixers can rotate during emptying, filling and can be equipped with a frequency inverter

Mounting Options:

- Direct mounting to gearmotor
- Square baseplate
- Circular baseplate for ASME B16.5 tank flange

Electrical characteristics*:

- 50Hz 230V 1Phase
- 60Hz 230V 1 Phase
- 50Hz 400V 3Phase
- 60Hz 460V 3Phase

*Other voltage options available

Options:

- Upward or downward flow
- 1 or 2 impellers
- Coated wetted parts (Abcote on solid shaft only)



MILTON ROY
Mixing

At the heart of mixing

Single Impeller

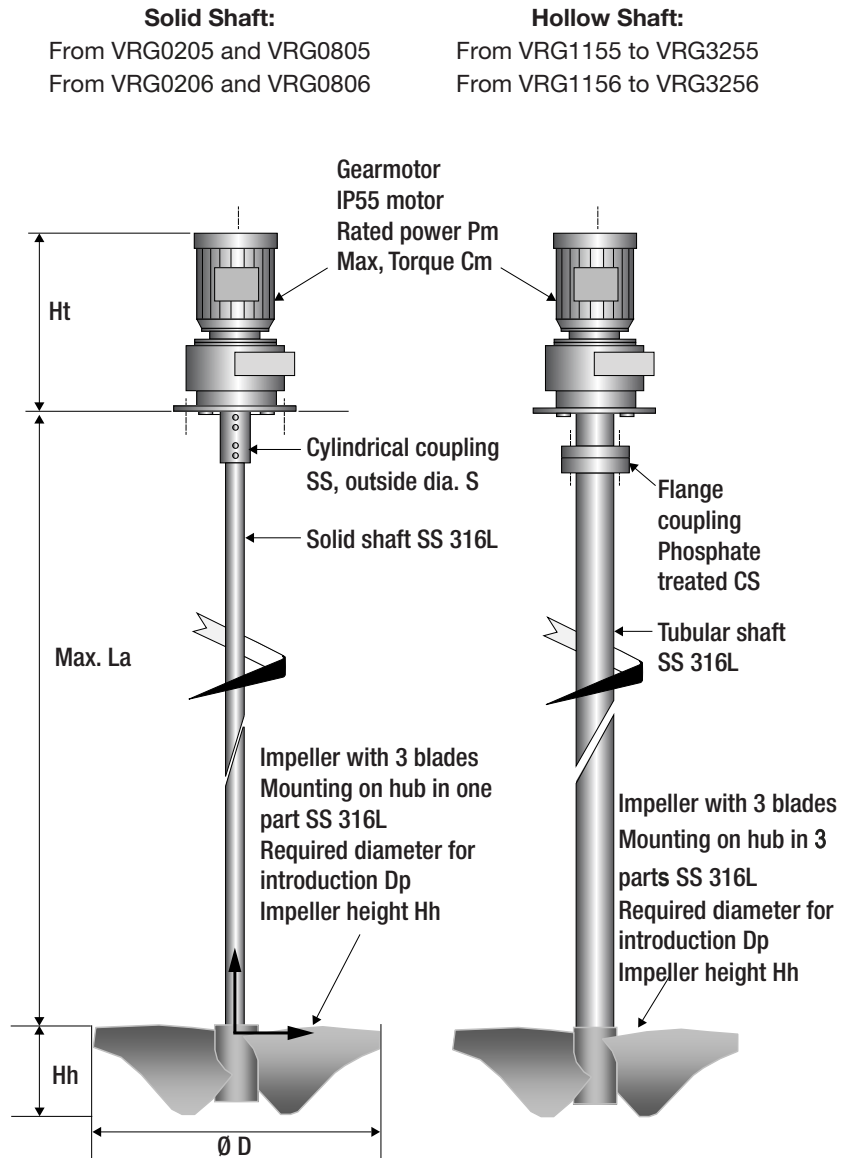
Single Impeller Dim.		50Hz (Metric)									60Hz IEC (Metric)									60Hz IEC (Imperial)									
VRG		0205	0305	0405	0555	0805	1155	1605	2255	3255	0206	0306	0406	0556	0806	1156	1606	2256	3256	0206	0306	0406	0556	0806	1156	1606	2256	3256	
D	mm (in)	200	300	400	550	800	1150	1600	2250	3250	200	300	400	550	800	1150	1600	2250	3250	7.9	11.8	15.7	21.7	31.5	45.3	63	88.6	128	
N	rpm	349	228	190	110	79	52	36	27	18	345	228	170	113	80	51	37	26	17	345	228	170	113	80	51	37	26	17	
Pm	kW (HP)	0.18	0.25	0.55	1.1	1.5	3	3	7.5	15	0.18	0.25	0.37	1.1	1.5	3	5.5	7.5	15	0.25	0.33	0.5	1.5	2	4	7.5	10	20	
Weight	kg (lbs)	13	15	29	57	80	226	453	885	2100	13	15	27	57	80	226	473	890	2100	29	33	60	126	176	498	1043	1962	4630	
Ht	mm (in)	333	359	390	460	528	650	722	832	1120	333	359	389	460	528	650	799	832	1120	13.1	14.1	15.3	18.1	20.8	25.6	31.5	32.8	44.1	
Hh	mm (in)	64	96	128	176	256	368	512	720	1040	64	96	128	176	256	368	512	720	1040	2.5	3.8	5	6.9	10.1	14.5	20.2	28.3	40.9	
Dp	mm (in)	200	300	400	550	800	510	710	990	1430	200	300	400	550	800	510	710	990	1430	7.9	11.8	15.7	21.7	31.5	20.1	28	39	56.3	
Flange		F130	F130	F130	F130	F130	F265	F300	F400	F500	F130	F130	F130	F130	F130	F265	F300	F400	F500	F130	F130	F130	F130	F130	F130	F265	F300	F400	F500
Sq. Plate (option)		P250	P250	P250	P250	P250	P400	P500	P600	P700	P250	P250	P250	P250	P250	P400	P500	P600	P700	P250	P250	P250	P250	P250	P250	P400	P500	P600	P700
Circ. Plate(option)		6"	6"	6"	6"	6"	12"	12"	18"	22"	6"	6"	6"	6"	6"	12"	12"	18"	22"	6"	6"	6"	6"	6"	6"	12"	12"	18"	22"
Max. La	mm (in)	1000	1100	1300	2100	2400	3750	5000	5800	6000	1000	1100	1300	2100	2350	3750	5000	5900	6000	39.4	43.3	51.2	82.7	92.5	147.6	196.9	232.3	236.2	
Min. La	mm (in)	300	350	400	500	700	950	1300	1700	2350	300	350	400	500	700	950	1300	1700	2350	11.8	13.8	15.7	19.7	27.6	37.4	51.2	66.9	92.5	

50 Hz Single Impeller

TYPE	Model	Shaft length (mm)
VRG0205	VRG0205S100	1000
VRG0205	VRG0205S30	300
VRG0305	VRG0305S110	1100
VRG0305	VRG0305S35	350
VRG0405	VRG0405S130	1300
VRG0405	VRG0405S40	400
VRG0555	VRG0555S210	2100
VRG0555	VRG0555S50	500
VRG0805	VRG0805S240	2400
VRG0805	VRG0805S70	700
VRG1155	VRG1155S375	3750
VRG1155	VRG1155S95	950
VRG1605	VRG1605S500	5000
VRG1605	VRG1605S130	1300
VRG2255	VRG2255S580	5800
VRG2255	VRG2255S170	1700
VRG3255	VRG3255S600	6000
VRG3255	VRG3255S235	2350

60 Hz Single Impeller

TYPE	Model	Shaft length (mm)	Shaft length (in)
VRG0206	VRG0206S100	1000	39.4
VRG0206	VRG0206S30	300	11.8
VRG0306	VRG0306S110	1100	43.3
VRG0306	VRG0306S35	350	13.8
VRG0406	VRG0406S130	1300	51.2
VRG0406	VRG0406S40	400	15.7
VRG0556	VRG0556S210	2100	82.7
VRG0556	VRG0556S50	500	19.7
VRG0806	VRG0806S235	2350	92.5
VRG0806	VRG0806S70	700	27.6
VRG1156	VRG1156S375	3750	147.6
VRG1156	VRG1156S95	950	37.4
VRG1606	VRG1606S500	5000	196.9
VRG1606	VRG1606S130	1300	51.2
VRG2256	VRG2256S590	5900	232.3
VRG2256	VRG2256S170	1700	66.9
VRG3256	VRG3256S600	6000	236.2
VRG3256	VRG3256S235	2350	92.5



Dual Impeller

Dual Impeller Dim.		50Hz (Metric)									60Hz IEC (Metric)									60Hz IEC (Imperial)								
VR2G		0205	0305	0405	0555	0805	1155	1605	2255	3255	0206	0306	0406	0556	0806	1156	1606	2256	3256	0206	0306	0406	0556	0806	1156	1606	2256	3256
D	mm (in)	200	300	400	550	800	1150	1600	2250	3250	200	300	400	550	800	1150	1600	2250	3250	7.9	11.8	15.7	21.7	31.5	45.3	63	88.6	128
N	rpm	280	186	125	92	62	42	31	21	14	248	170	134	90	62	42	30	22	13	248	170	134	90	62	42	30	22	13
Pm	kW (HP)	0.18	0.25	0.55	0.75	1.5	2.2	4	7.5	15	0.18	0.37	0.55	0.55	1.5	2.2	4	7.5	15	0.25	0.5	0.75	0.75	2	3	5.5	10	20
Weight	kg (lbs)	13	17	34	57	145	330	660	1428	2706	13	18	34	53	146	273	660	1428	2706	29	40	75	117	322	602	1455	3148	5966
Ht	mm (in)	333	359	390	459	549	595	748	832	1120	333	389	390	414	549	595	748	832	1120	13.1	15.3	15.4	16.3	21.6	23.4	29.4	32.8	44.1
Hh	mm (in)	64	96	128	176	256	368	512	720	1040	64	96	128	176	256	368	512	720	1040	2.5	3.8	5	6.9	10.1	14.5	20.2	28.3	40.9
Dp	mm (in)	200	300	400	550	360	510	710	990	1430	200	300	400	550	360	510	710	990	1430	7.9	11.8	15.7	21.7	14.2	20.1	28	39	56.3
Flange		F130	F130	F130	F130	F215	F265	F400	F400	F500	F130	F130	F130	F130	F215	F265	F400	F400	F500	F130	F130	F130	F130	F215	F265	F400	F400	F500
Sq. Plate (option)		P250	P250	P250	P250	P350	P400	P600	P600	P700	P250	P250	P250	P250	P350	P400	P600	P600	P700	P250	P250	P250	P250	P350	P400	P600	P600	P700
Circ. Plate(option)		6"	6"	6"	6"	10"	12"	18"	18"	22"	6"	6"	6"	6"	10"	12"	18"	18"	22"	6"	6"	6"	6"	10"	12"	18"	18"	22"
Max. La	mm (in)	1000	1200	1500	2200	3250	4650	6000	6000	6000	1000	1200	1500	2200	3250	4500	6000	6000	6000	39.4	47.2	59.1	86.6	128	177.2	236.2	236.2	236.2
Min. La	mm (in)	500	650	800	1050	1500	2100	2900	3950	5600	500	650	800	1050	1500	2100	2900	3950	5600	19.7	25.6	31.5	41.3	59.1	82.7	114.2	155.5	220.5
Hd	mm (in)	200	300	400	550	800	1150	1600	2250	3250	200	300	400	550	800	1150	1600	2250	3250	7.9	11.8	15.7	21.7	31.5	45.3	63	88.6	128

50 Hz Dual Impeller

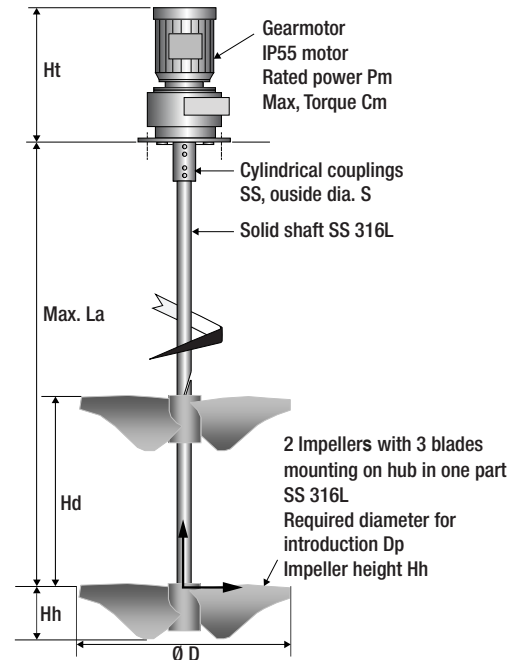
TYPE	Model	Shaft length (mm)
VR2G0205	VR2G0205S100	1000
VR2G0205	VR2G0205S50	500
VR2G0305	VR2G0305S120	1200
VR2G0305	VR2G0305S65	650
VR2G0405	VR2G0405S150	1500
VR2G0405	VR2G0405S80	800
VR2G0555	VR2G0555S220	2200
VR2G0555	VR2G0555S105	1050
VR2G0805	VR2G0805S325	3250
VR2G0805	VR2G0805S150	1500
VR2G1155	VR2G1155S465	4650
VR2G1155	VR2G1155S210	2100
VR2G1605	VR2G1605S600	6000
VR2G1605	VR2G1605S290	2900
VR2G2255	VR2G2255S600	6000
VR2G2255	VR2G2255S395	3950
VR2G3255	VR2G3255S600	6000
VR2G3255	VR2G3255S560	5600

60 Hz Dual Impeller

TYPE	Model	Shaft length (mm)	Shaft length (in)
VR2G0206	VR2G0206S100	1000	39.4
VR2G0206	VR2G0206S50	500	19.7
VR2G0306	VR2G0306S120	1200	47.2
VR2G0306	VR2G0306S65	650	25.6
VR2G0406	VR2G0406S150	1500	59.1
VR2G0406	VR2G0406S80	800	31.5
VR2G0556	VR2G0556S220	2200	86.6
VR2G0556	VR2G0556S105	1050	41.3
VR2G0806	VR2G0806S325	3250	128
VR2G0806	VR2G0806S150	1500	59.1
VR2G1156	VR2G1156S450	4500	177.2
VR2G1156	VR2G1156S210	2100	82.7
VR2G1606	VR2G1606S600	6000	236.2
VR2G1606	VR2G1606S290	2900	114.2
VR2G2256	VR2G2256S600	6000	236.2
VR2G2256	VR2G2256S395	3950	155.5
VR2G3256	VR2G3256S600	6000	236.2
VR2G3256	VR2G3256S560	5600	220.5

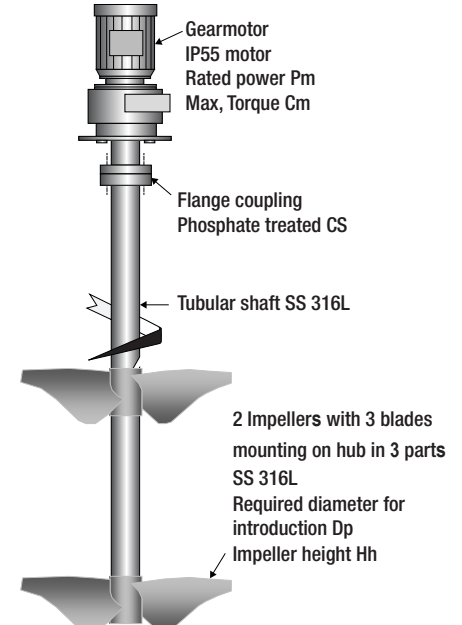
Solid Shaft:

From VR2G0205 to VR2G0555
From VR2G0206 to VR2G0556



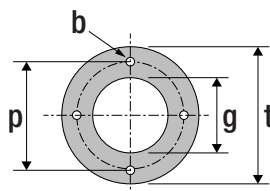
Hollow Shaft:

From VR2G0805 to VR2G3255
From VR2G0806 to VR2G3256



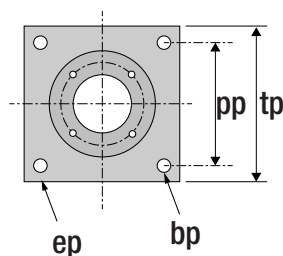
Mounting:

Gear Flange



Type	Metric (mm)							Imperial (in)						
	F130	F165	F215	F265	F300	F400	F500	F130	F165	F215	F265	F300	F400	F500
b	9	11	13.5	13.5	17.5	17.5	17.5	0.35	0.43	0.53	0.53	0.69	0.69	0.69
t	160	200	250	300	350	450	550	6.3	7.87	9.84	11.81	13.78	17.72	21.65
p	130	165	215	265	300	400	500	5.12	6.5	8.46	10.43	11.81	15.75	19.69
g	110	130	180	230	250	350	450	4.33	5.12	7.09	9.06	9.84	13.78	17.72
e	10	12	15	16	20	22	25	0.39	0.47	0.59	0.63	0.71	0.87	0.98

Square Support Plate (optional)



Type	Metric (mm)						Imperial (in)					
	P250	P350	P400	P500	P600	P700	P250	P350	P400	P500	P600	P700
bp	14	14	16	18	18	22	0.55	0.55	0.63	0.71	0.71	0.87
pp	190	280	320	420	500	600	7.48	11.02	12.6	16.54	19.69	23.62
tp	250	350	400	500	600	700	9.84	13.78	15.75	19.68	23.62	27.56
ep	15	15	15	20	20	25	0.59	0.59	0.59	0.79	0.79	0.98

ASME B16.5 150# FF Baseplate (optional)

Type	Metric (mm)						Imperial (in)					
	6"	8"	10"	12"	18"	22"	6"	8"	10"	12"	18"	22"
Outside Diameter	279	343	406	483	635	749	11	13.5	16	19	25	29.5
Diameter of Circle of Holes	241	299	362	432	578	692	9.5	11.75	14.25	17	22.75	27.25
Bolt Hole Diameter	22	22	25	25	32	35	0.88	0.88	1	1	1.25	1.38
Number of Holes	8	8	12	12	16	20	8	8	12	12	16	20

Ingersoll Rand Inc. (NYSE:IR), driven by an entrepreneurial spirit and ownership mindset, is committed to helping make life better. We provide innovative and mission-critical industrial, energy, medical and specialty vehicle products and services across 40+ respected brands designed to excel in even the most complex and harsh conditions where downtime is especially costly. Our employees connect to customers for life by delivering proven expertise, productivity and efficiency improvements. For more information, visit www.IRCO.com.



HELISEM is a registered tradename of Milton Roy

© 2018 Milton Roy, All Rights Reserved

miltonroy.com

miltonroymixing.com

Literature# MRMVRG 10/22