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QUANTIS - RHB

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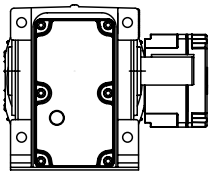
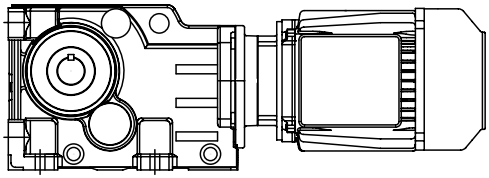
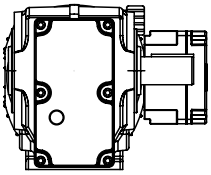
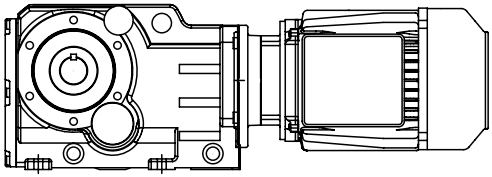
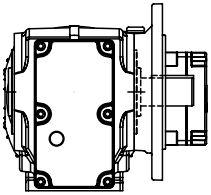
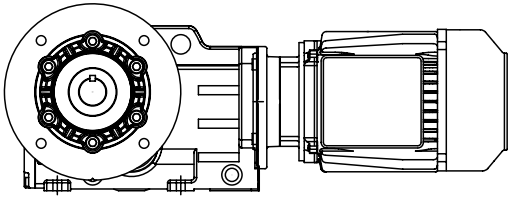
RHB MOUNTING OPTIONS

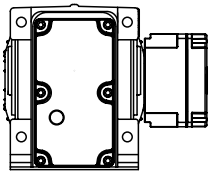
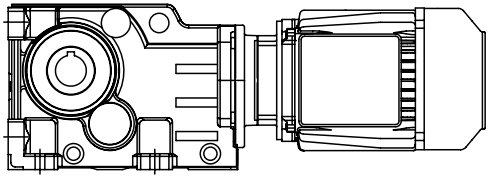
BB..3.../..S..
Right-Angle Helical Bevel
Foot Mounted
Triple Reduction
Solid Shaft

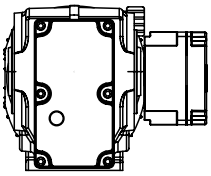
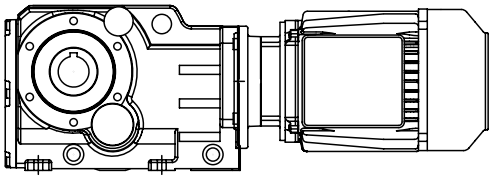
BF..3.../..S..B14.
Right-Angle Helical Bevel
B14 Flange Mounted
Triple Reduction
Solid Shaft

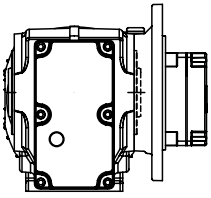
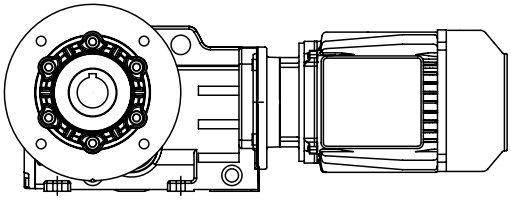
BF..3.../..S..B5.
Right-Angle Helical Bevel
B5 Flange Mounted
Triple Reduction
Solid Shaft

BB..3.../..H..
Right-Angle Helical Bevel
Foot Mounted
Triple Reduction
Hollow Shaft

BF..3.../..H..B14.
Right-Angle Helical Bevel
B14 Flange Mounted
Triple Reduction
Hollow Shaft

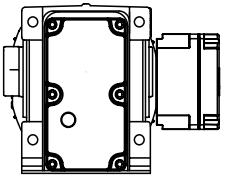



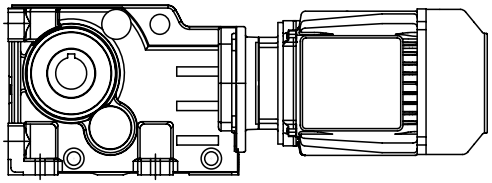
BF..3.../..H..B5.
Right-Angle Helical Bevel
B5 Flange Mounted
Triple Reduction
Hollow Shaft

MOUNTING POSITIONS PAGE RHB-11	SELECTION GEARMOTOR PAGE RHB-63	DIMENSIONS PAGE RHB-90	THERMAL RATINGS PAGE RHB-364

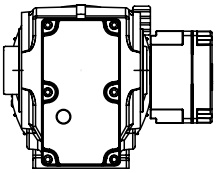
MOUNTING OPTIONS

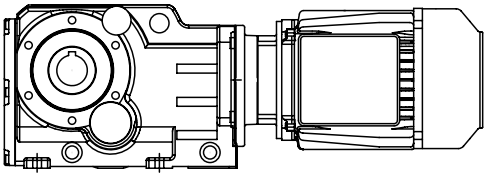
RHB MOUNTING OPTIONS



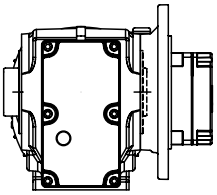


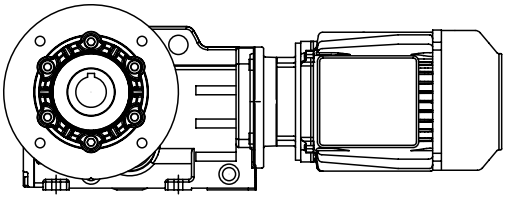
BB..3.../..C..
Right-Angle Helical Bevel
Foot Mounted
Triple Reduction
Shrink Disk



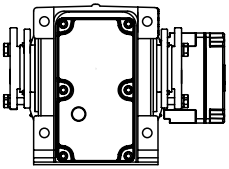


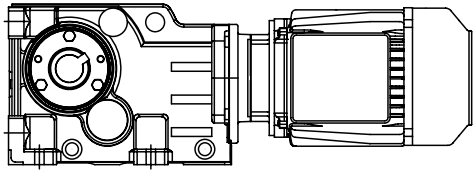
BF..3.../..C..B14
Right-Angle Helical Bevel
B14 Flange Mounted
Triple Reduction
Shrink Disk



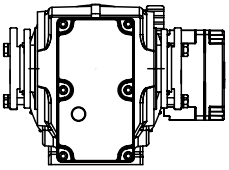


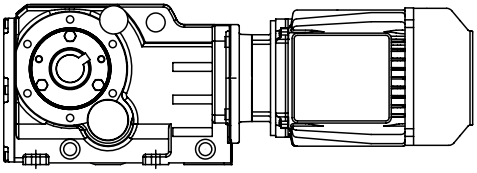
BF..3.../..C..B5
Right-Angle Helical Bevel
B5 Flange Mounted
Triple Reduction
Shrink Disk





BB..3.../..T..
Right-Angle Helical Bevel
Foot Mounted
Triple Reduction
Twin Tapered Bushing





BF..3.../..T..B14*
Right-Angle Helical Bevel
B14 Flange Mounted
Triple Reduction
Twin Tapered Bushing

* B5 flange is not usable when the unit utilizes the twin-tapered bushing option. This housing style may be used, however, the Torque Arm Bracket or Tie Rod Kit is required.

MOUNTING POSITIONS PAGE RHB-11	SELECTION GEARMOTOR PAGE RHB-63	DIMENSIONS PAGE RHB-90	THERMAL RATINGS PAGE RHB-364

DODGE®

RIGHT ANGLE HELICAL BEVEL C-FACE REDUCERS (RHB)

Ex:	1	2	3	4	5	6	7	/	8	9	9a	10	10a	10b	11	11a	11b	12	13	13a	13b
	B	F	38	3	L	N	56C	/	9.72	A1	A	H	I	1.250	-	-	-	K	-	-	-

1. PRODUCT TYPE
B = RHB

2. OUTPUT CONFIGURATION
B = Foot Mounted
F = Flange / Shaft Mounted

3. UNIT SIZE
38 48 68 88
108 128 148 168

4. STAGE OF REDUCTION
3 = Triple Reduction

5. INPUT CONFIGURATION
C = Clamp Collar
L = 3 Pc Coupling

6. MOTOR TYPE
N = Nema
I = IEC

7. MOTOR FRAME
NEMA

56C 140TC 180TC 210TC
250TC 280TC 320TC 360TC

IEC

71D 80D 90D 100D 112D 132D
160D 180D 200D 225D 250D

8. RATIO (Use Actual Ratios From Selection Pages)

RHB 38	5.65 - 179.13
RHB 48	7.22 - 169.53
RHB 68	5.36 - 243.72
RHB 88	5.54 - 302.38
RHB 108	7.68 - 307.24
RHB 128	7.10 - 295.38
RHB 148	4.83 - 306.08
RHB 168	6.61 - 287.95

9. MOUNTING POSITIONS (See page RHB-11)
A1 A2 A3
A4 A5 A6

9a. OUTPUT SHAFT POSITION
A B AB

10. OUTPUT SHAFT TYPE
S = Single Extension Solid Shaft
H = Straight Hollow Bore
T = Tapered Hollow Bore
D = Double Extension solid Shaft
C = Shrink Disk

10a. OUTPUT SHAFT DIMENSION
I = Inch
M = Metric

10b. OUTPUT SHAFT DIAMETER
Single / Double Extension Solid Shaft

	Std	Optional		
RHB 38	1.000”	1.375”	25mm	35mm
RHB 48	1.250”	1.625”	30mm	40mm
RHB 68	1.625”	2.000”	40mm	50mm
RHB 88	2.000”	2.750”	50mm	70mm
RHB 108	2.375”	3.1875”	60mm	80mm
RHB 128	2.875”	3.625”	70mm	90mm
RHB 148	3.625”	4.000”	90mm	100mm
RHB 168	4.375”	4.750”	110mm	120mm

Hollow Bore

	Std	Optional		
RHB 38	1.250”	--	30mm	--
RHB 48	1.375”	--	35mm	--
RHB 68	1.500”	1.4375”	40mm	45mm
RHB 88	2.000”	1.9375”	50mm	60mm
RHB 108	2.375”	2.4375”	60mm	70mm
RHB 128	2.750”	2.9375”	70mm	80mm
RHB 148	3.625”	3.4375”	80mm	90mm
RHB 168	4.000”	3.9375”	100mm	110mm

Shrink Disk

RHB 38	30mm	RHB 108	70mm
RHB 48	40mm	RHB 128	80mm
RHB 68	50mm	RHB 148	95mm
RHB 88	60mm	RHB 168	105mm

Tapered Hollow (See Pages RHB-350 - RHB-357)

(Continued on Next Page)

NOMENCLATURE

RIGHT ANGLE HELICAL BEVEL C-FACE REDUCERS (RHB)

Ex:	1	2	3	4	5	6	7	/	8	9	9a	10	10a	10b	11	11a	11b	12	13	13a	13b
	B	**F**	**38**	**3**	**L**	**N**	**56C**	/	**9.72**	**A1**	**A**	**H**	**I**	**1.250**	-	-	-	**K**	-	-	-

11. OUTPUT FLANGE TYPE (BF Style Housing)

B5
B14 (STD)

11a. OUTPUT FLANGE DIAMETER

	B5 Flange	B14 Flange
RHB 38	160mm	120mm
RHB 48	200mm	132mm
RHB 68	250mm	150mm
RHB 88	300mm	190mm
RHB 108	350mm	245mm
RHB 128	450mm	295mm
RHB 148	450mm	335mm
RHB 168	550mm	400mm

11b. OUTPUT FLANGE POSITION

A B AB

12. TORQUE ARM OPTION (BF Style Housing)

K = Torque Arm Bracket
KR = Tie Rod Kit

13. SCREW CONVEYOR DRIVE (RHB 38 - 128 - BF Style Housing)

SCS = Screw Conveyor with Drive Shaft
SCN = Screw Conveyor - No Drive Shaft

13a. SCREW CONVEYOR DRIVE SHAFT DIAMETER

RHB 38	1.500”			
RHB 48	1.500”	2.000”		
RHB 68	1.500”	2.000”	2.4375”	
RHB 88	2.000”	2.4375”	3.000”	
RHB 108	2.000”	2.4375”	3.000”	
RHB 128	2.000”	2.4375”	3.000”	3.4375”

13b. SCREW CONVEYOR ADAPTER

S = Standard
XT = Harsh Duty

MOUNTING POSITIONS PAGE RHB-11	SELECTION REDUCER PAGE RHB-18	DIMENSIONS PAGE RHB-90	THERMAL RATINGS PAGE RHB-364

DODGE®

RIGHT ANGLE HELICAL BEVEL SEPARATE REDUCERS (RHB)

Ex:

1	2	3	4	5	6	7	/	8	9	9a	10	10a	10b	11	11a	11b	12	13	13a	13b
B	F	88	3	S	I	90	/	5.54	A4	-	T	I	1.9375	-	-	-	K	-	-	-

1. PRODUCT TYPE
B = RHB

2. OUTPUT CONFIGURATION
B = Foot Mounted
F = Flange / Shaft Mounted

3. UNIT SIZE
38 48 68 88
108 128 148 168

4. STAGE OF REDUCTION
3 = Triple Reduction

5. INPUT CONFIGURATION
S = Separate

6. INPUT SHAFT DIMENSION
I = Inch
M = Metric

7. SEPARATE GROUP
71 80 90 100 112
132 160 180 225 250

8. RATIO (Use Actual Ratios From Selection Pages)

RHB 38	5.65	-	179.13
RHB 48	7.22	-	169.53
RHB 68	5.36	-	243.72
RHB 88	5.54	-	302.38
RHB 108	7.68	-	307.24
RHB 128	7.10	-	295.38
RHB 148	4.83	-	306.08
RHB 168	6.61	-	287.95

9. MOUNTING POSITIONS (See page RHB-11)
A1 A2 A3
A4 A5 A6

9a. OUTPUT SHAFT POSITION
A B AB

10. OUTPUT SHAFT TYPE
S = Single Extension Solid Shaft
H = Straight Hollow Bore
T = Tapered Hollow Bore
D = Double Extension solid Shaft
C = Shrink Disk

10a. OUTPUT SHAFT DIMENSION
I = Inch
M = Metric

10b. OUTPUT SHAFT DIAMETER
Single / Double Extension Solid Shaft

	Std		Optional	
RHB 38	1.000”	1.375”	25mm	35mm
RHB 48	1.250”	1.625”	30mm	40mm
RHB 68	1.625”	2.000”	40mm	50mm
RHB 88	2.000”	2.750”	50mm	70mm
RHB 108	2.375”	3.1875”	60mm	80mm
RHB 128	2.875”	3.625”	70mm	90mm
RHB 148	3.625”	4.000”	90mm	100mm
RHB 168	4.375”	4.750”	110mm	120mm

Hollow Bore

	Std		Optional	
RHB 38	1.250”	--	30mm	--
RHB 48	1.375”	--	35mm	--
RHB 68	1.500”	1.4375”	40mm	45mm
RHB 88	2.000”	1.9375”	50mm	60mm
RHB 108	2.375”	2.4375”	60mm	70mm
RHB 128	2.750”	2.9375”	70mm	80mm
RHB 148	3.625”	3.4375”	80mm	90mm
RHB 168	4.000”	3.9375”	100mm	110mm

Shrink Disk

RHB 38	30mm	RHB 108	70mm
RHB 48	40mm	RHB 128	80mm
RHB 68	50mm	RHB 148	95mm
RHB 88	60mm	RHB 168	105mm

Tapered Hollow (See Pages RHB-350 - RHB-357)

(Continued on Next Page)

MOUNTING POSITIONS PAGE RHB-11	SELECTION REDUCER PAGE RHB-18	DIMENSIONS PAGE RHB-90	THERMAL RATINGS PAGE RHB-364

NOMENCLATURE

RIGHT ANGLE HELICAL BEVEL SEPARATE REDUCERS (RHB)

Ex:	1	2	3	4	5	6	7	/	8	9	9a	10	10a	10b	11	11a	11b	12	13	13a	13b
	B	**F**	**88**	**3**	**S**	**I**	**90**	**/**	**5.54**	**A4**	**-**	**T**	**I**	**1.9375**	**-**	**-**	**-**	**K**	**-**	**-**	**-**

11. OUTPUT FLANGE TYPE (BF Style Housing)

B5
B14 (STD)

11a. OUTPUT FLANGE DIAMETER

	B5 Flange	B14 Flange
RHB 38	160mm	120mm
RHB 48	200mm	132mm
RHB 68	250mm	150mm
RHB 88	300mm	190mm
RHB 108	350mm	245mm
RHB 128	450mm	295mm
RHB 148	450mm	335mm
RHB 168	550mm	400mm

11b. OUTPUT FLANGE POSITION

A B AB

12. TORQUE ARM OPTION (BF Style Housing)

K = Torque Arm Bracket
KR = Tie Rod Kit

13. SCREW CONVEYOR DRIVE (RHB 38 - 128 - BF Style Housing)

SCS = Screw Conveyor with Drive Shaft
SCN = Screw Conveyor - No Drive Shaft

13a. SCREW CONVEYOR DRIVE SHAFT DIAMETER

RHB 38	1.500”			
RHB 48	1.500”	2.000”		
RHB 68	1.500”	2.000”	2.4375”	
RHB 88	2.000”	2.4375”	3.000”	
RHB 108	2.000”	2.4375”	3.000”	
RHB 128	2.000”	2.4375”	3.000”	3.4375”

13b. SCREW CONVEYOR ADAPTER

S = Standard
XT = Harsh Duty

MOUNTING POSITIONS PAGE RHB-11	SELECTION REDUCER PAGE RHB-18	DIMENSIONS PAGE RHB-90	THERMAL RATINGS PAGE RHB-364

DODGE®

RIGHT ANGLE HELICAL BEVEL INTEGRAL GEARMOTORS (RHB)

Ex:	1	2	3	4	5	6	7	-	8	9	9a	10	10a	10b	11	11a	11b	12	13	13a	13b	14
	B	F	38	3	G	H	80F4	/	9.72	A1	A	S	I	1.000	B5	160MM	A	-	-	-	-	L8

1. PRODUCT TYPE
B = RHB

2. OUTPUT CONFIGURATION
B = Foot Mounted
F = Flange / Shaft Mounted

3. UNIT SIZE
38 48 68 88
108 128 148 168

4. STAGE OF REDUCTION
3 = Triple Reduction

5. INPUT CONFIGURATION
G = Integral Gearmotor

6. MOTOR TYPE
H = Horsepower

7. MOTOR FRAME

71C4	.25 Hp	90I4	2 Hp
71D4	.33 Hp	100J4	3 Hp
71E 4	.50 Hp	112L4	5 Hp
80F4	.75 Hp	132M4	7.5 Hp
80G4	1 Hp	132N4	10 Hp
90H4	1.5 Hp		

8. RATIO (Use Actual Ratios From Selection Pages)

RHB 38	5.65 - 179.13
RHB 48	7.22 - 169.53
RHB 68	5.36 - 243.72
RHB 88	5.54 - 302.68
RHB 108	7.68 - 307.24
RHB 128	7.10 - 295.38
RHB 148	4.83 - 306.08
RHB 168	6.61 - 287.95

9. MOUNTING POSITIONS (See page RHB-11)
A1 A2 A3
A4 A5 A6

9a. OUTPUT SHAFT POSITION
A B AB

10. OUTPUT SHAFT TYPE
S = Single Extension Solid Shaft
H = Straight Hollow Bore
T = Tapered Hollow Bore
D = Double Extension solid Shaft
C = Shrink Disk

10a. OUTPUT SHAFT DIMENSION
I = Inch
M = Metric

10b. OUTPUT SHAFT DIAMETER
Single / Double Extension Solid Shaft

	Std	Optional	
RHB 38	1.000”	1.375”	25mm 35mm
RHB 48	1.250”	1.625”	30mm 40mm
RHB 68	1.625”	2.000”	40mm 50mm
RHB 88	2.000”	2.750”	50mm 70mm
RHB 108	2.375”	3.1875”	60mm 80mm
RHB 128	2.875”	3.625”	70mm 90mm
RHB 148	3.625”	4.000”	90mm 100mm
RHB 168	4.375”	4.750”	110mm 120mm

Hollow Bore

	Std	Optional	
RHB 38	1.250”	--	30mm --
RHB 48	1.375”	--	35mm --
RHB 68	1.500”	1.4375”	40mm 45mm
RHB 88	2.000”	1.9375”	50mm 60mm
RHB 108	2.375”	2.4375”	60mm 70mm
RHB 128	2.750”	2.9375”	70mm 80mm
RHB 148	3.625”	3.4375”	80mm 90mm
RHB 168	4.000”	3.9375”	100mm 110mm

Shrink Disk

RHB 38	30mm	RHB 108	70mm
RHB 48	40mm	RHB 128	80mm
RHB 68	50mm	RHB 148	95mm
RHB 88	60mm	RHB 168	105mm

Tapered Hollow (See Pages RHB-350 - RHB-357)

(Continued on Next Page)

NOMENCLATURE

DODGE®

RIGHT ANGLE HELICAL BEVEL INTEGRAL GEARMOTORS (RHB)

Ex:	1	2	3	4	5	6	7	-	8	9	9a	10	10a	10b	11	11a	11b	12	13	13a	13b	14
	B	F	38	3	G	H	80F4	/	9.72	A1	A	S	I	1.000	B5	160MM	A	-	-	-	-	L8

11. OUTPUT FLANGE TYPE (BF Style Housing)

B5
B14 (STD)

11a. OUTPUT FLANGE DIAMETER (BF Style Housing)

	B5 Flange	B14 Flange
RHB 38	160mm	120mm
RHB 48	200mm	132mm
RHB 68	250mm	150mm
RHB 88	300mm	190mm
RHB 108	350mm	245mm
RHB 128	450mm	295mm
RHB 148	450mm	335mm
RHB 168	550mm	400mm

11b. OUTPUT FLANGE POSITION

A B AB

12. TORQUE ARM OPTION (BF Style Housing)

K = Torque Arm Bracket
KR = Tie Rod Kit

13. SCREW CONVEYOR DRIVE (RHB 38 - 128 - BF Style Housing)

SCS = Screw Conveyor with Drive Shaft
SCN = Screw Conveyor - No Drive Shaft

13a. SCREW CONVEYOR DRIVE SHAFT DIAMETER

RHB 38	1.500”			
RHB 48	1.500”	2.000”		
RHB 68	1.500”	2.000”	2.4375”	
RHB 88	2.000”	2.4375”	3.000”	
RHB 108	2.000”	2.4375”	3.000”	
RHB 128	2.000”	2.4375”	3.000”	3.4375”

13b. SCREW CONVEYOR ADAPTER

S = Standard
XT = Harsh Duty

14. BRAKE

L4	(3 ft / lb)	L32	(24 ft / lb)
L8	(6 ft / lb)	L60	(44 ft / lb)
L16	(12 ft / lb)	L80	(59 ft / lb)

MOUNTING POSITIONS PAGE RHB-11	SELECTION GEARMOTOR PAGE RHB-63	DIMENSIONS PAGE RHB-96	THERMAL RATINGS PAGE RHB-364

RIGHT ANGLE HELICAL BEVEL C-FACE REDUCERS & INTEGRAL GEARMOTORS

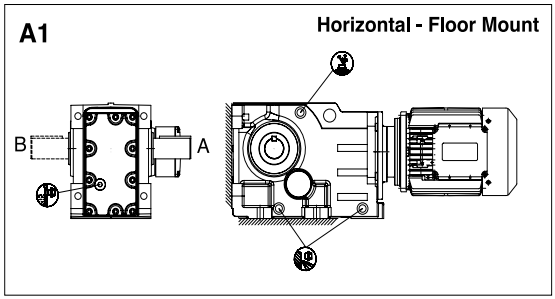
These mounting arrangements are for all output configurations and output shaft types **IMPORTANT! When ordering, please specify mounting position for correct oil quantity.** In cases of mounting position other than shown here with regard to the oil quantity, please reference the Incline Mounting page, QUANTIS-23, and contact Application Engineering.

NOTE: The oil volumes shown are approximate values and cannot be used to correctly set the reducer oil level - **ALWAYS** fill the reducer to the correct oil level plug and recheck in 1 week.

Oil level Ventilation Oil drain

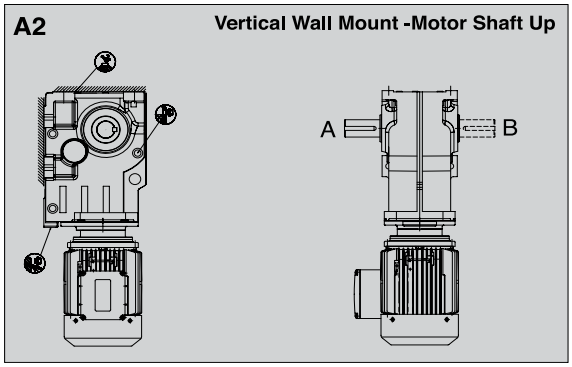
A1

Unit Size	Reduction Stage	Pints	Liters
38	3	1.0	0.5
48	3	1.5	0.7
68	3	2.7	1.3
88	3	4.7	2.2
108	3	11.7	5.5
128	3	17.5	8.3
148	3	31.2	14.8
168	3	45.8	21.7



A2

Unit Size	Reduction Stage	Pints	Liters
38	3	1.8	0.8
48	3	2.5	1.2
68	3	5.1	2.4
88	3	9.7	4.6
108	3	17.6	8.3
128	3	31.2	14.8
148	3	47.3	22.4
168	3	73.6	34.8



RHB 38 units are sealed for life and are furnished with only one plug for filling and draining.

NOTE: Shaded A2 Mounting is not a recommended mounting position due to the weight of oil on the high speed input seal.

NOMENCLATURE PAGE RHB-5	OVERHUNG LOADS PAGE RHB-16	SELECTION GEARMOTOR PAGE RHB-63	WEIGHTS PAGE RHB-372

MOUNTING POSITIONS

RIGHT ANGLE HELICAL BEVEL C-FACE REDUCERS & INTEGRAL GEARMOTORS

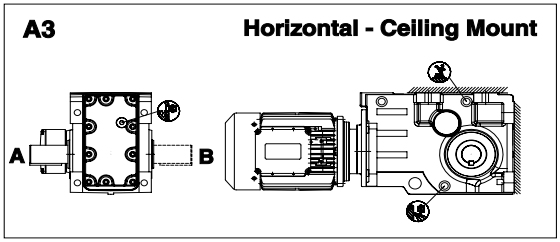
These mounting arrangements are for all output configurations and output shaft types **IMPORTANT! When ordering, please specify mounting position for correct oil quantity.** In cases of mounting position other than shown here with regard to the oil quantity, please reference the Incline Mounting page, QUANTIS-23, and contact Application Engineering.

NOTE: The oil volumes shown are approximate values and cannot be used to correctly set the reducer oil level - **ALWAYS** fill the reducer to the correct oil level plug and recheck in 1 week.

 Oil level  Ventilation  Oil drain

A3

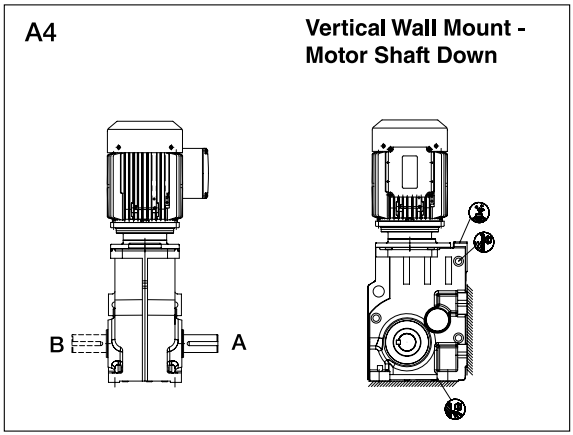
Unit Size	Reduction Stage	Pints	Liters
38	3	2.3	1.1
48	3	3.6	1.7
68	3	6.2	2.9
88	3	12.8	6.1
108	3	20.9	9.9
128	3	41.4	19.6
148	3	63.7	30.2
168	3	97.8	46.3



A4

Unit Size	Reduction Stage	Pints	Liters
38	3	3.1	1.5
48	3	4.9	2.3
68	3	8.2	3.9
88	3	16.3	7.7
108	3	29.3	13.9
128	3	53.7	25.4
148	3	86.7	41.0
168	3	132.3	62.6

RHB 38 units are sealed for life and are furnished with only one plug for filling and draining.



NOMENCLATURE PAGE RHB-5	OVERHUNG LOADS PAGE RHB-16	SELECTION GEARMOTOR PAGE RHB-63	WEIGHTS PAGE RHB-372

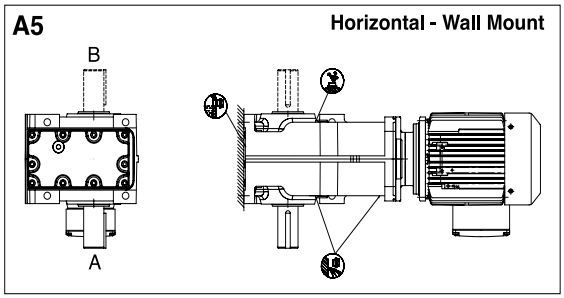
RIGHT ANGLE HELICAL BEVEL C-FACE REDUCERS & INTEGRAL GEARMOTORS

These mounting arrangements are for all output configurations and output shaft types **IMPORTANT! When ordering, please specify mounting position for correct oil quantity.** In cases of mounting position other than shown here with regard to the oil quantity, please reference the Incline Mounting page, QUANTIS-23, and contact Application Engineering.

NOTE: The oil volumes shown are approximate values and cannot be used to correctly set the reducer oil level - **ALWAYS** fill the reducer to the correct oil level plug and recheck in 1 week.

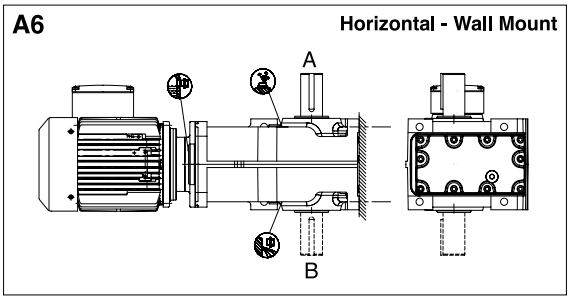
A5

Unit Size	Reduction Stage	Pints	Liters
38	3	2.1	1.0
48	3	3.3	1.6
68	3	5.9	2.8
88	3	10.7	5.1
108	3	19.7	9.3
128	3	36.9	17.6
148	3	54.9	26.0
168	3	86.9	41.1



A6

Unit Size	Reduction Stage	Pints	Liters
38	3	1.9	0.9
48	3	3.8	1.8
68	3	5.7	2.7
88	3	9.8	4.6
108	3	18.9	8.9
128	3	35.1	16.6
148	3	59.4	28.1
168	3	83.4	39.4



RHB 38 units are sealed for life and furnished with only one plug for filling and draining.

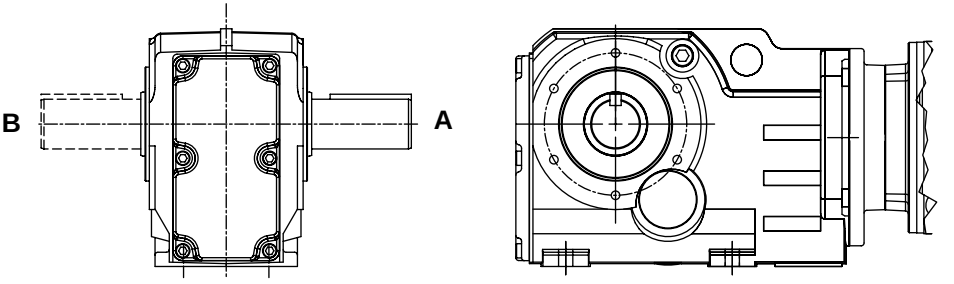
NOMENCLATURE PAGE RHB-5	OVERHUNG LOADS PAGE RHB-16	SELECTION GEARMOTOR PAGE RHB-63	WEIGHTS PAGE RHB-372

MOUNTING POSITIONS

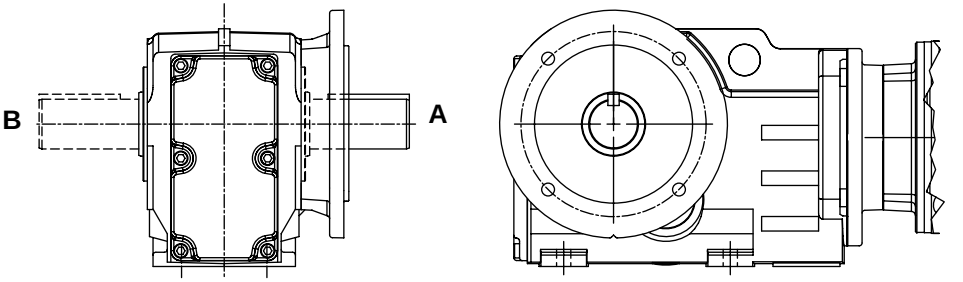
RHB FLANGE POSITIONS

RHB flanged housings are specified by part numbers beginning with BF. All flanged housings have a B14 flange with drilled and tapped holes machined into the housing on **both sides**. The B5 flange is an optional flange that can be bolted onto the B14 flange on either side of the housing. The B5 flange can not be used in combination with the tapered hollow bore output shaft due to the flange interfering with the twin tapered bushings. Flanged housings also have four drilled and tapped holes on the bottom of the reducer which are required for the optional tie rod kit or torque arm bracket.

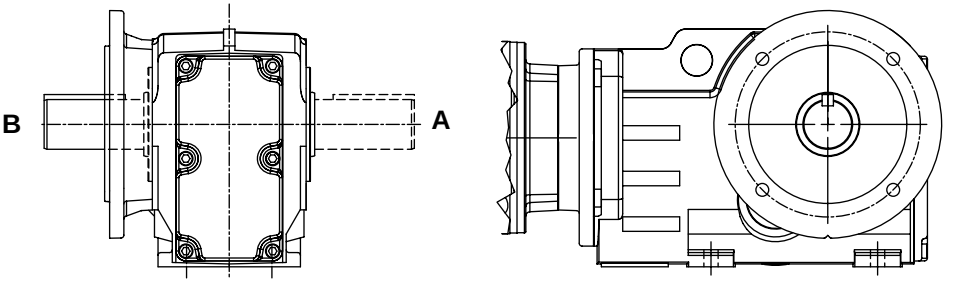
B14 OUTPUT FLANGE - BOTH A AND B SIDE



OPTIONAL B5 OUTPUT FLANGE - A SIDE



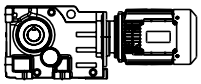
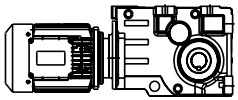
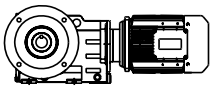
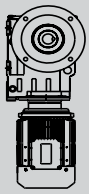
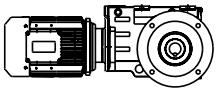
OPTIONAL B5 OUTPUT FLANGE - B SIDE

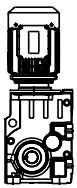
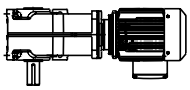
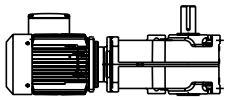
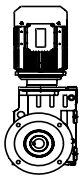
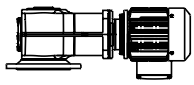
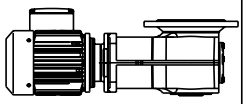


NOMENCLATURE PAGE RHB-5	OVERHUNG LOADS PAGE RHB-16	SELECTION GEARMOTOR PAGE RHB-63	WEIGHTS PAGE RHB-372

MOUNTING POSITIONS

TABLE OF OLD VS. NEW MOUNTING POSITIONS

	A1	A2	A3
RHB (BB)	B3 B6-01 	B6 B8-01 	B8 
RHB (BF)	B5-01 H-01 	B5 H-04 	B5-03 H-02 

	A4	A5	A6
RHB (BB)	B3-01 B6-02 	V5 V5-01 	V6 V6-01 
RHB (BF)	B5-02 H-03 	V1 H-05 	V1-01 H-06 

Shaded A2 mounting is not a recommended mounting position due to the weight of oil on the high speed input seal.

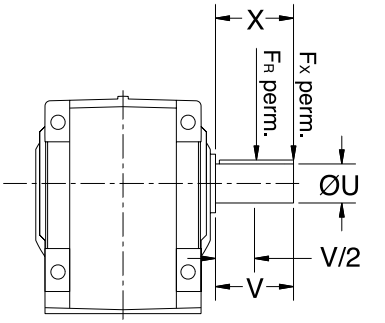
NOMENCLATURE PAGE RHB-5	OVERHUNG LOADS PAGE RHB-16	SELECTION GEARMOTOR PAGE RHB-63	WEIGHTS PAGE RHB-372

OVERHUNG LOADS

DODGE®

SOLID OUTPUT SHAFT
RHB GEARMOTORS AND REDUCERS

Permissible Overhung Loads at Service Factor SF = 10



1. Calculation based on bearing life

$$F_{x\ perm.\ 1} = F_{R\ perm} \frac{y}{z + x} \quad [lb_f]$$

2. Calculation based on mechanical strength

$$F_{x\ perm.\ 2} = \frac{a}{x} \quad [lb_f]$$

The data in the table below lists the permissible output shaft overhung load (OHL) when the load is located at mid shaft. To calculate the permissible OHL when the load is located at other positions, use the formulas above along with the data below.

Both equations 1 and 2 must be used to determine if the bearing or shaft strength limits the OHL. Limit the OHL to the lower of the 2 calculations.

						FR perm. in (lbf) for x=u for output speeds n2 in min-1							
Type (Stages)	y in/mm	z in/mm	a Lb-in / kNmm	u in/mm	v in/mm	<= 16	<= 25	<= 40	<= 63	<= 100	<= 160	<= 250	<= 400
B_38	**4.80** 122 5.20 132	**3.82** 97 3.82 97	**1390** 157 1735 196	**1.000** 25 1.375 35	**1.97** 50 2.76 70	1730	1429	1150	926	726	617	620	589
						1599	1321	1063	856	671	570	573	544
B_48	**5.94** 151 6.34 161	**4.76** 121 4.76 121	**2222** 251 2726 308	**1.250** 30 1.625 40	**2.36** 60 3.15 80	2419	1983	1591	1266	1149	1110	1032	935
						2269	1860	1492	1187	1078	1041	968	877
B_68	**7.48** 190 7.87 200	**5.91** 150 5.91 150	**3939** 445 6028 681	**1.625** 40 2.000 50	**3.15** 80 3.94 100	6506	5569	4717	4098	3769	3399	3048	2698
						6150	5264	4459	3873	3562	3213	2881	2550
B_88	**8.86** 225 9.65 245	**6.89** 175 6.89 175	**8886** 1004 15321 1731	**2.000** 50 2.750 70	**3.94** 100 5.51 140	10936	9358	7913	6722	6200	5633	5073	4505
						9966	8528	7211	6126	5650	5133	4623	4105
B_108	**10.31** 262 11.1 282	**7.95** 202 7.95 202	**13197** 1491 24464 2764	**2.375** 60 3.188 80	**4.72** 120 6.69 170	13336	11326	9501	8196	7688	7046	6377	5683
						12304	10450	8766	7562	7093	6501	5884	5243
B_128	**12.99** 330 13.78 350	**10.24** 260 10.24 260	**19039** 2151 30288 3422	**2.875** 70 3.625 90	**5.51** 140 6.69 170	22350	19106	16159	13651	12342	11339	10282	9185
						20968	17925	15160	12807	11579	10638	9646	8617
B_148	**15.67** 398 16.06 408	**12.13** 308 12.13 308	**46158** 5215 40148 4536	**3.625** 90 4.000 100	**6.69** 170 8.27 210	21381	18035	14996	12561	11951	11162	10246	9207
						20816	17559	14600	12229	11635	10867	9975	8964
B_168	**18.56** 472 18.98 482	**14.23** 362 14.23 362	**82058** 9271 63763 7204	**4.375** 110 4.750 120	**8.27** 210 8.27 210	32783	27792	23263	19423	17607	16566	15278	13774
						32045	27166	22739	18986	17210	16193	14934	13464

*Direction of rotation with view on output shaft. To convert lbf to Newtons (N), multiply by 4.448.
Bold - standard shaft cw - clockwise ccw - counter clockwise
Heavy duty bearings are standard on size 68 and above. Heavy duty bearings are not available for size 38 and 48.

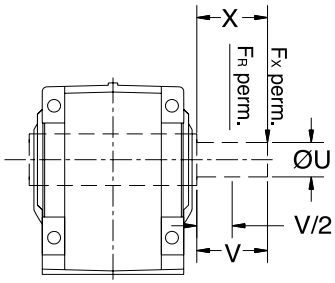
NOMENCLATURE PAGE RHB-5	MOUNTING POSITIONS PAGE RHB-11	SELECTION GEARMOTOR PAGE RHB-63	WEIGHTS PAGE RHB-372

OVERHUNG LOADS

DODGE®

HOLLOW OUTPUT SHAFT
RHB GEARMOTORS AND REDUCERS

Permissible Overhung Loads at Service Factor SF = 10



1. Calculation based on bearing life

$$F_{x\ perm.\ 1} = F_{R\ perm} \frac{y}{z + x} \quad [lb_f]$$

The data in the table below lists the permissible output shaft overhung load (OHL) when the load is located at mid shaft. To calculate the permissible OHL when the load is located at other positions, use the formula above along with the data below.

Type (Stages)	y in/mm	z in/mm	u in/mm	v in/mm	FR perm. in (lbf) for x=u for output speeds n2 in min-1 <= 16	<= 25	<= 40	<= 63	<= 100	<= 160	<= 250	<= 400
B_38	**5.20** 132	**3.82** 97	**1.250** 30	**2.76** 70	1730	1429	1150	926	726	617	620	589
B_48	**5.94** 151	**4.76** 121	**1.375** 35	**2.76** 70	2419	1983	1591	1266	1149	1110	1032	935
B_68	**7.48** 190 7.87 200	**5.91** 150 5.91 150	**1.500** 40 1.4375 45	**3.15** 80 3.94 100	2355 2237	1872 1778	1447 1375	1209 1149	1255 1192	1214 1153	1129 1073	1021 970
B_68 **◆ HD**	**7.48** 190 7.87 200	**5.91** 150 5.91 150	**1.500** 40 1.4375 45	**3.15** 80 3.94 100	6506 6150	5569 5261	4717 4459	4098 3873	3769 3562	3399 3213	3048 2881	2698 2550
B_88	**8.56** 225 9.65 245	**6.89** 175 6.89 175	**2.000** 50 1.9375 60	**3.94** 100 5.51 140	3612 3317	2862 2628	2177 1999	1641 1507	1774 1629	1783 1637	1696 1558	1556 1429
B_88 **◆ HD**	**8.56** 225 9.65 245	**6.89** 175 6.89 175	**2.000** 50 1.9375 60	**3.94** 100 5.51 140	10936 9966	9358 8528	7913 7211	6722 6126	6200 5650	5633 5133	5073 4623	4505 4105
B_108	**10.71** 272 11.30 287	**7.95** 202 7.95 202	**2.375** 60 2.4375 70	**5.51** 140 6.69 170	13336 12304	11326 10450	9501 8766	8196 7562	7688 7093	7046 6501	6377 5884	5683 5243
B_128	**13.58** 345 13.58 345	**10.24** 260 10.24 260	**2.750** 70 2.9375 80	**6.69** 170 6.69 170	22350 20968	19106 17925	16159 15160	13651 12807	12342 11579	11339 10638	10282 9646	9185 8617
B_148	**15.47** 393 16.26 413	**12.13** 308 12.13 308	**3.625** 80 3.4375 90	**6.69** 170 8.27 210	21381 20816	18035 17559	14996 14600	12561 12229	11951 11635	11162 10867	10246 9975	9207 8964
B_168	**18.37** 467 18.37 467	**14.23** 362 14.23 362	**4.000** 100 3.9375 110	**8.27** 210 8.27 210	32783 32045	27792 27166	23263 22739	19423 18986	17607 17210	16566 16193	15278 14934	13774 13464

*Direction of rotation with view on output shaft. To convert lbf to Newtons (N), multiply by 4.448.
Bold - standard shaft cw - clockwise ccw - counter clockwise
◆ = Heavy Duty bearing option. For sizes 68 and 88 with hollow bore only. Sizes 38 and 48 have no heavy duty option. Sizes 108, 128, 148 and 168 have heavy duty bearings as standard.

NOMENCLATURE PAGE RHB-5	MOUNTING POSITIONS PAGE RHB-11	SELECTION GEARMOTOR PAGE RHB-63	WEIGHTS PAGE RHB-372