Dodge® gearboxes: identification without nameplates

First you must ID which product type your reducer is. A visual inspection is required and you can determine which of the following product types you have

SCXT: Page 2

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Maxum: Page 13

Magnagear: Page 14

Tigear-2: Page 17

Identifying SCXT

There are two requirements to determining what specific SCXT reducer you have. You will need to determine the size of the reducer and the ratio.

1. Size

The most efficient method to determining the reducer size is to measure the center distance between the input and output shaft. Measure the distance shown below and compare to **Table 1**. If your measurement matches a single reducer SCXT, you will already have your part number because single reduction SCXT has only one ratio option. You can always compare other measurements with the dimension sheets in the Torque-Arm Family catalogue

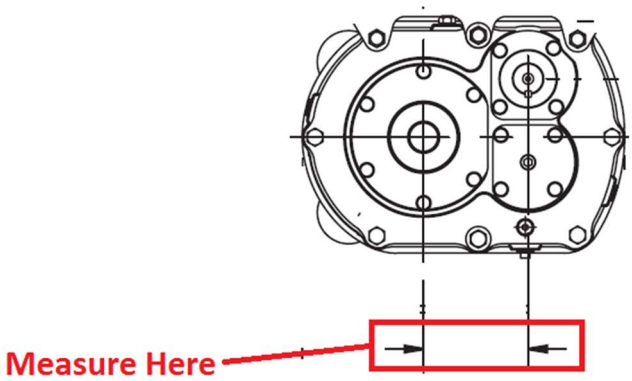


Table 1

Center Distance (inches)	Reducer Size	Part Number
3.27	SCXT 105	351165
3.18	SCXT 1 (Double Reduction)	Need ratio
3.86	SCXT 205	352218
3.77	SCXT 2 (Double Reduction)	Need Ratio
4.29	SCXT 305	253159
4.17	SCXT 3 (Double Reduction)	Need Ratio
4.88	SCXT 405	254208
4.79	SCXT 4 (Double Reduction)	Need Ratio
5.86	SCXT 505	255208
5.67	SCXT 5 (Double Reduction)	Need Ratio
6.89	SCXT 605	356285
6.73	SCXT 6 (Double Reduction)	Need Ratio
8.31	SCXT 705	356295
8.30	SCXT 7 (Double Reduction)	Need Ratio
9.50	SCXT 8 (Double Reduction)	Need Ratio

2. Ratio

To determine the ratio, you must rotate the input shaft and count the amount of turns it takes to get one full revolution on the output shaft. Rotate the shafts so the keyway on the output shaft is facing up and then turn the input shaft until the keyway returns to this position. Determining the ratio is another way to determine if the reducer is a single or double reduction.

Table 2

Ratio	Reducer	Part Number
5.62:1	SCXT 105	See Table 1
9.44:1	SCXT 109	241480
15.35:1	SCXT 115	351163
25.64:1	SCXT 125	351164
5.29:1	SCXT 205	See Table 1
9.25:1	SCXT 209	242480
14.10:1	SCXT 215	352065
23.46:1	SCXT 225	352066
5.60:1	SCXT 305	See Table 1
8.91:1	SCXT 309	243524
14.88:1	SCXT 315	243525
24.71:1	SCXT 325	243526
5.65:1	SCXT 405	See Table 1
9.67:1	SCXT 409	244549
15.13:1	SCXT 415	244550
24.38:1	SCXT 425	244551
5.67:1	SCXT 505	See Table 1
8.95:1	SCXT 509	245574
15.40:1	SCXT 515	245575
25.56:1	SCXT 525	245576
5.67:1	SCXT 605	See Table 1
9.20:1	SCXT 609	246480
15.33:1	SCXT 615	356057
24.13:1	SCXT 625	356058
5.36:1	SCXT 705	See Table 1
9.61:1	SCXT 709	247480
15.23:1	SCXT 715	356256
24.59:1	SCXT 725	356257
15.08:1	SCXT 815	248464
24.62	SCXT 825	248465

See the Torque-Arm Family catalog to find any accessory part numbers needed with the red

Identifying TA II

There are two requirements to determining what specific SCXT reducer you have. You will need to determine the size of the reducer and the ratio.

1. Size

The most efficient method to determining the reducer size is to measure the center distance between the input and output shaft. Measure the distance shown below and compare to **Table 3.** You can always compare other measurements with the dimension sheets in the Torque-Arm Family catalogue.

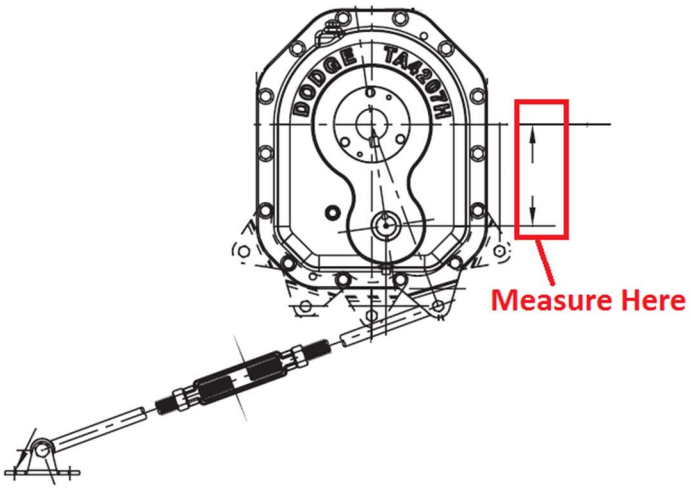


Table 3

Center Distance (inches)	Reducer Size
3.41	TA0107L
4.49	TA1107H
5.45	TA2115H
6.02	TA3203H
7.31	TA4207H
8.50	TA5215H
9.17	TA6307H
9.03	TA7315H
9.24	TA8407H
11.22	TA9415H
19.89	TA10507H
21.66	TA12608H

2. Ratio

To determine the ratio, you must rotate the input shaft and count the amount of turns it takes to get one full revolution on the output shaft. Rotate the shafts so the keyway on the output shaft is facing up and then turn the input shaft until the keyway returns to this position.

Table 4

Reducer	Ratio	Part Number
TA0107L05	5.20:1	900004
TA0107L09	9.00:1	900003
TA0107L15	14.93:1	900002
TA0107L25	25.09:1	900001
TA0107L31	30.94:1	900000
TA1107H05	5.00:1	901004
TA1107H09	8.99:1	901003
TA1107H15	14.91:1	901002
TA1107H25	25.06:1	901001
TA1107H31	30.91:1	901000
TA2115H05	5.20:1	902004
TA2115H09	9.10:1	902003
TA2115H15	15.62:1	902002
TA2115H25	25.07:1	902001
TA2115H33	33.33:1	902000
TA3203H05	4.91:1	903004
TA3203H09	9.23:1	903003
TA3203H15	15.07:1	903002
TA3203H25	24.95:1	903001
TA3203H32	32.45:1	903000
TA4207H05	5.00:1	904004
TA4207H09	9.23:1	904003
TA4207H15	15.00:1	904002
TA4207H25	25.13:1	904001
TA4207H40	39.11:1	904000
TA5215H05	5.11:1	905004
TA5215H09	9.18:1	905003
TA5215H15	14.92:1	905002
TA5215H25	25.00:1	905001
TA5215H40	38.91:1	905000
TA6307H05	4.94:1	906004
TA6307H09	9.22:1	906003
TA6307H15	15.45:1	906002
TA6307H25	24.87:1	906001
TA6307H40	38.32:1	906000

TA7315H05	5.19:1	907004
TA7315H09	9.72:1	907003
TA7315H15	14.91:1	907002
TA7315H25	24.84:1	907001
TA7315H40	39.66:1	907000
TA8407H15	15.12:1	908002
TA8407H25	24.97:1	908001
TA8407H40	39.67:1	908000
TA9415H15	15.10:1	909002
TA9415H25	25.44:1	909001
TA9415H40	39.41:1	909000
TA10507H15	15.09:1	910002
TA10507H25	25.18:1	910001
TA10507H40	39.68:1	910000
TA12608H15	14.79:1	912002
TA12608H25	25.03:1	912001
TA12608H40	38.19:1	912000

See the Torque-Arm Family catalog to find any accessory part numbers needed with the reducer.

Identifying TXT

There are three requirements to determine what specific TXT you have. You will need to determine the size, output shaft style, and ratio of the reducer.

1. Size

The most efficient method to determining the reducer size is to measure the center distance between the input and output shaft. Measure the distance shown below and compare to **Table 5**. You can always compare other measurements with the dimension sheets in the Torque-Arm Family catalogue.

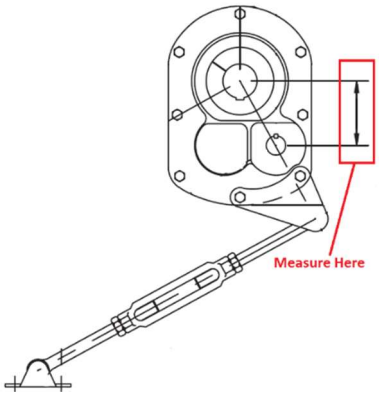


Table 5

Center Distance (inches)	Reducer Size
3.18	TXT 1 (Double Reduction)
3.27	TXT 1 (Single Reduction)
3.75	TXT 2 (Double Reduction)
3.86	TXT 2 (Single Reduction)
4.17	TXT 3 (Double Reduction)
4.29	TXT 3 (Single Reduction)
4.79	TXT 4 (Double Reduction)
4.88	TXT 4 (Single Reduction)
5.67	TXT 5 (Double Reduction)
5.86	TXT 5 (Single Reduction)
6.73	TXT 6 (Double Reduction)
6.89	TXT 6 (Single Reduction)
8.30	TXT 7
9.50	TXT 8 (Double Reduction)
9.64	TXT 8 (Single Reduction)
10.81	TXT 9 (Double Reduction)
10.97	TXT 9 (Single Reduction)
12.50	TXT 10
22.91	TXT 12
24.42	TDT 13
26.28	TDT 14
30.58	TDT 15

2. Output shaft style

TXT reducers can have either a straight hollow bore output shaft, or a tapered hollow bore output shaft. Visual inspections can determine the output style of the TXT reducer. Notable features of a straight hollow output is a output shaft with a constant diameter throughout the shaft. Also there are 3 through holes on each end of the hollow for set screws that mount the reducer to the shaft.

Distinct features of the tapered hollow shaft is a tapered diameter on each end that increases in size as you get closer to the ends of the shaft. Also each end of the shaft is a snap ring groove to mount the snap ring that holds the bushing kit's backing plate into position.

3. Ratio

To determine the ratio, you must rotate the input shaft and count the amount of turns it takes to get one full revolution on the output shaft. Rotate the shafts so the keyway on the output shaft is facing up and then turn the input shaft until the keyway returns to this position. See **Table 6** to determine the TXT part number after finding the size, output shaft style, and ratio.

Table 6

Reducer Size	Output Style	Ratio	Part Number
TXT 1	Tapered	5.62:1	241083
TXT 1	Tapered	9.44:1	241092
TXT 1	Tapered	15.35:1	241065
TXT 1	Tapered	25.64:1	241066
TXT 1	Straight	5.62:1	241087
TXT 1	Straight	9.44:1	241327
TXT 1	Straight	15.35:1	241073
TXT 1	Straight	25.64:1	241074
TXT 2	Tapered	5.29:1	242249
TXT 2	Tapered	9.25:1	242079
TXT 2	Tapered	14.10:1	242082
TXT 2	Tapered	23.46:1	242083
TXT 2	Straight	5.29:1	242253
TXT 2	Straight	9.25:1	242327
TXT 2	Straight	14.10:1	242090
TXT 2	Straight	23.46:1	242091
TXT 3	Tapered	5.60:1	253151
TXT 3	Tapered	8.91:1	243500
TXT 3	Tapered	14.88:1	243501
TXT 3	Tapered	24.71:1	243502
TXT 3	Straight	8.91:1	243512
TXT 3	Straight	14.88:1	243513
TXT 3	Straight	24.71:1	243514
TXT 4	Tapered	5.65:1	254200

TXT 4	Tapered	9.67:1	244525
TXT 4	Tapered	15.13:1	244526
TXT 4	Tapered	24.38:1	244527
TXT 4	Straight	5.65:1	254204
TXT 4	Straight	9.67:1	244537
TXT 4	Straight	15.13:1	244538
TXT 4	Straight	24.38:1	244539
TXT 5	Tapered	5.67:1	255200
TXT 5	Tapered	8.95:1	245550
TXT 5	Tapered	15.40:1	245551
TXT 5	Tapered	25.56:1	245552
TXT 5	Straight	5.67:1	255204
TXT 5	Straight	8.95:1	245562
TXT 5	Straight	15.40:1	245563
TXT 5	Straight	25.56:1	245564
TXT 6	Tapered	5.67:1	246380
TXT 6	Tapered	9.20:1	246149
TXT 6	Tapered	15.33:1	246150
TXT 6	Tapered	25.13:1	246151
TXT 6	Straight	5.67:1	246382
TXT 6	Straight	9.20:1	246327
TXT 6	Straight	15.33:1	246158
TXT 6	Straight	25.13:1	246159
TXT 7	Tapered	5.36:1	247285
TXT 7	Tapered	9.61:1	247159
TXT 7	Tapered	15.23:1	247160
TXT 7	Tapered	24.59:1	247161
TXT 7	Straight	5.36:1	247287
TXT 7	Straight	9.61:1	247327
TXT 7	Straight	15.23:1	247168
TXT 7	Straight	24.59:1	247169
TXT 8	Tapered	5.50:1	248275
TXT 8	Tapered	15.08:1	248279
TXT 8	Tapered	24.62:1	248280
TXT 8	Straight	5.50:1	248277
TXT 8	Straight	15.08:1	248283
TXT 8	Straight	24.62:1	248284
TXT 9	Tapered	5.38:1	249265
TXT 9	Tapered	15.12:1	249269
TXT 9	Tapered	25.66:1	249270
TXT 9	Straight	5.38:1	249267
TXT 9	Straight	15.12:1	249273

TXT 9	Straight	25.66:1	249274
TXT 10	Tapered	15.16:1	272600
TXT 10	Tapered	24.30:1	272601
TXT 10	Straight	15.16:1	272604
TXT 10	Straight	24.30:1	272605
TXT 12	Tapered	14.89:1	272615
TXT 12	Tapered	24.65:1	272617
TDT 13	Tapered	24.73:1	272250
TDT 14	Tapered	24.80:1	272150
TDT 15	Tapered	30.64:1	272370

Identifying MTA

There are three requirements to determine what specific MTA you have. You will need to determine the reducer size, input size, and ratio of the reducer.

1. Reducer Size

The most efficient method to determining the reducer size is to measure the overall length of the reducer. Measure the distance shown below and compare to Table 7. You can always compare other measurements with the dimension sheets in the Torque-Arm Family catalogue.

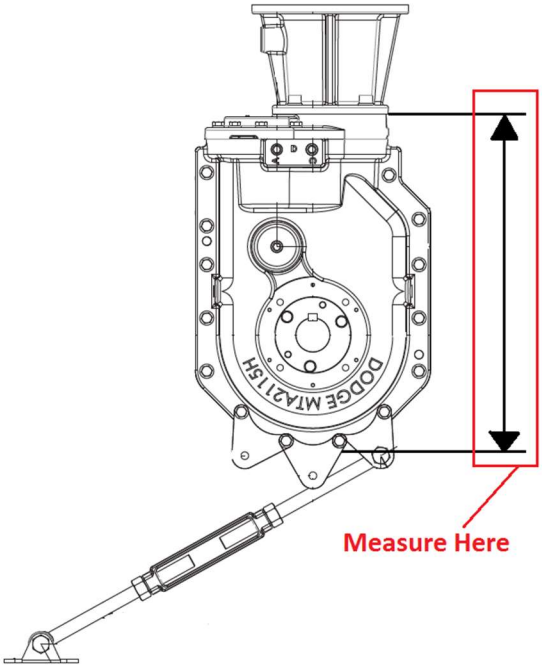


Table 7	
Overall Length (Inches)	Reducer Size
19.30	MTA 2
21.43	MTA 3
24.19	MTA 4
28.16	MTA 5
31.38	MTA 6
35.50	MTA 7
37.77	MTA 8

2. Input Size

The most efficient method to determining the input size is to measure the overall length of the input adapter. Measure the distance shown below and compare to **Table 8**. You can always compare other measurements with the dimension sheets in the Torque-Arm Family catalogue. If using a MTA gearmotor, you will need to determine the motor hp you need for your application to find the right MTA part number

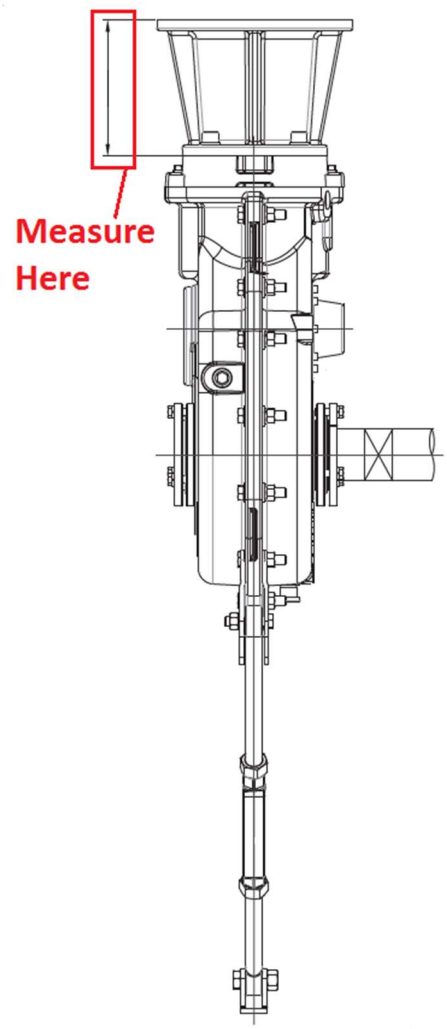


Table 8	
Overall Length (Inches)	Input Size
5.07	140 NEMA Motor Frame
6.03	180 NEMA Motor Frame
6.69	210 NEMA Motor Frame
7.31	250 NEMA Motor Frame
7.80	280 NEMA Motor Frame
6.43	280 TSC NEMA Motor Frame
8.48	320 NEMA Motor Frame
9.10	360 NEMA Motor Frame
6.98	320TSC/360TSC NEMA Motor Frame
10.51	405 NEMA Motor Frame
7.51	405TSC NEMA Motor Frame

3. Ratio

To determine the ratio, you must rotate the input shaft and count the amount of turns it takes to get one full revolution on the output shaft. Rotate the shafts so the keyway on the output shaft is facing up and then turn the input shaft until the keyway returns to this position. See pages G1-13 to G1-36 in the 2016 Torque-Arm Family Catalog to determine the part number of your MTA reducer based on the information you gathered ab

Identifying Maxum

There are two requirements to determine what specific Maxum you have. You will need to determine the reducer size and ratio of the reducer.

1. Reducer Size

The most efficient method to determining the reducer size is to measure the footprint of the reducer. Measure the distances shown below and compare to **Table 9**. If measuring the distance between the foot holes across the reducer housing is too difficult, you can measure from the foot hole to the center of the output shaft and then double the distance to find the distance between the feet because the output shaft is in the center of the reducer. You can always compare other measurements with the dimension sheets in the Maxum catalogue.

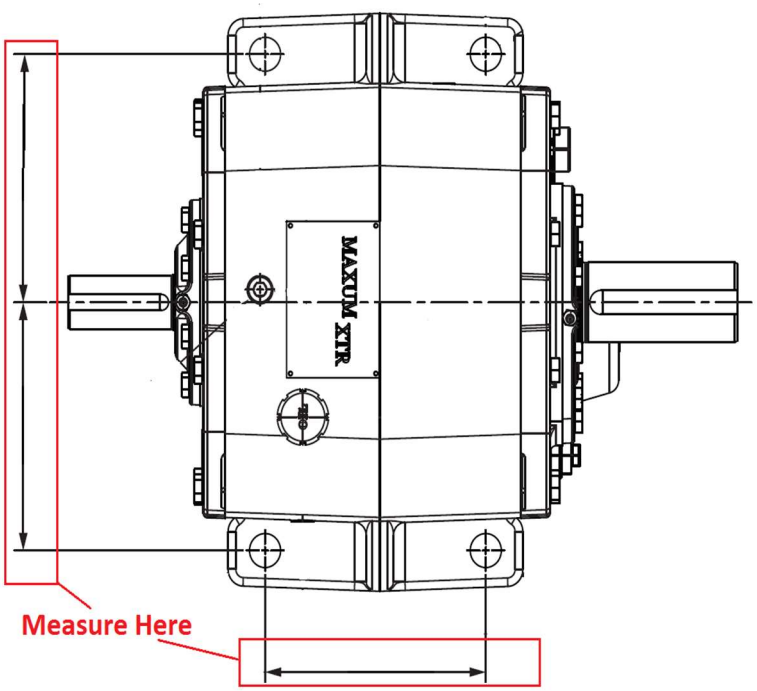


Table 9

Footprint (Inches)	Reducer Size
14.60 x 7.10	50
16.40 x 10.00	60
18.60 x 11.30	70
20.40 x 13.20	80
22.80 x 14.30	90
24.40 x 14.96	100
26.20 x 17.28	110
28.88 x 18.80	120
30.40 x 19.30	130

2. Ratio

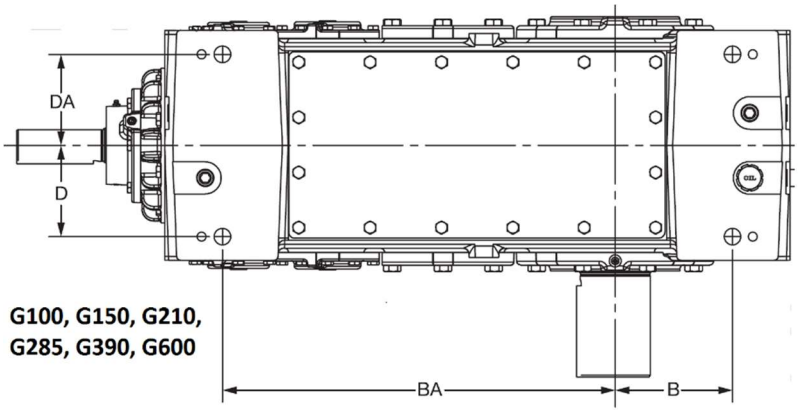
To determine the ratio, you must rotate the input shaft and count the amount of turns it takes to get one full revolution on the output shaft. Rotate the shafts so the keyway on the output shaft is facing up and then turn the input shaft until the keyway returns to this position. See the Maxum catalog to determine the Maxum part number after finding the size, and ratio.

Identifying Magnagear

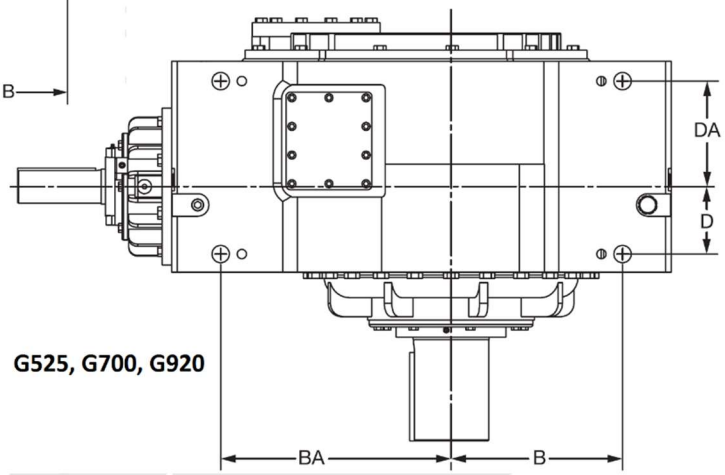
There are five requirements to determine what specific Magnagear you have. You will need to determine the reducer size, the gearbox style, the ratio, the output style, and if the reducer has a backstop or not.

1. Reducer Size

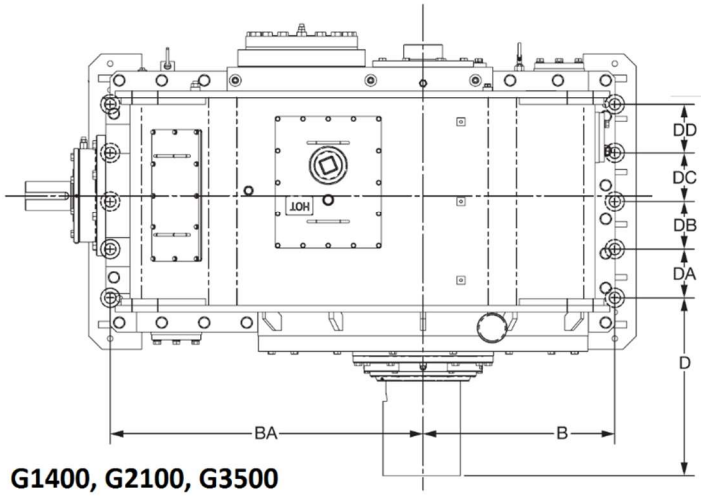
The most efficient method to determining the reducer size is to measure the footprint of the reducer. Measure the distances shown below and compare to **Table 10**.



G100, G150, G210, G285, G390, G600



G525, G700, G920



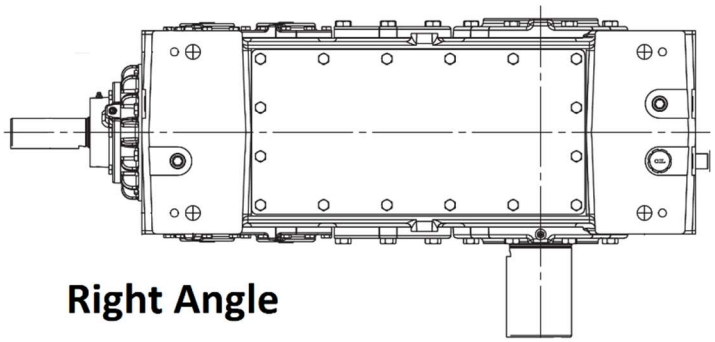
G1400, G2100, G3500

Table 10				
G100, G150, G210, G285, G390, G525, G600, G700, G920				
B (Inches)	BA (Inches)	D (Inches)	DA (Inches)	Reducer Size
6.88	22.40	5.38	5.38	G100
7.25	24.27	5.62	5.62	G150
8.00	28.00	5.75	5.75	G210
8.63	30.06	6.50	6.50	G285
9.80	31.88	7.50	7.50	G390
15.25	20.50	6.00	9.38	G525
11.82	36.18	8.63	8.63	G600
17.13	23.50	7.00	10.00	G700
19.44	24.50	7.91	10.25	G920

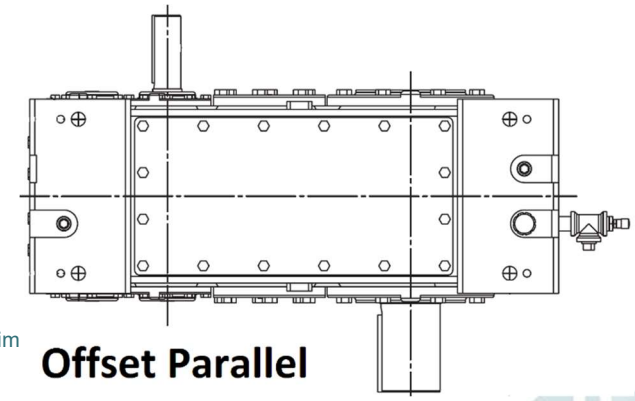
G1400, G2100, G3500				
B (Inches)	BA (Inches)	D (Inches)	DA, DB, DC, DD (Inches)	Reducer Size
25.59	41.93	23.48	7.78	G1400
28.42	46.39	26.32	7.20	G2100
33.58	50.28	32.63	9.06	G3500

2. Gearbox Style

There are two styles available for Magnagear, right angle and offset parallel. You can visually determine the gearbox style. You can compare the images below with your reducer to confirm the style.



Right Angle



Offset Parallel

3. Ratio

To determine the ratio, you must rotate the input shaft and count the amount of turns it takes to get one full revolution on the output shaft. Rotate the shafts so the keyway on the output shaft is facing up and then turn the input shaft until the keyway returns to this position.

4. Output Style

You can visually inspect your gearbox to determine the output style. Magnagear has two output options, solid output or hollow output. Solid output will have a solid shaft coming out of the gearbox, while hollow output will have a hollow bore that goes through the gearbox and will have a bushing kit.

5. Backstop

A backstop will restrict the reducer to rotating in one direction. To know if your reducer has a backstop, attempt to rotate the output shaft in both directions. If the reducer can only rotate in one direction, this is a Magnagear reducer with a backstop. Once you have found all the necessary information, you can determine the part number from the Magnagear Catalog.

Identifying Tigear-2

There are up to seven requirements to determine what specific Tigear-2 you have. You will need to determine the reducer size, the input style and size, the ratio, the output style, and the protection level.

1. Reducer Size

The most efficient method to determine the size of the reducer is to measure the footprint. Measure the distance shown below and compare to **Table 11**.

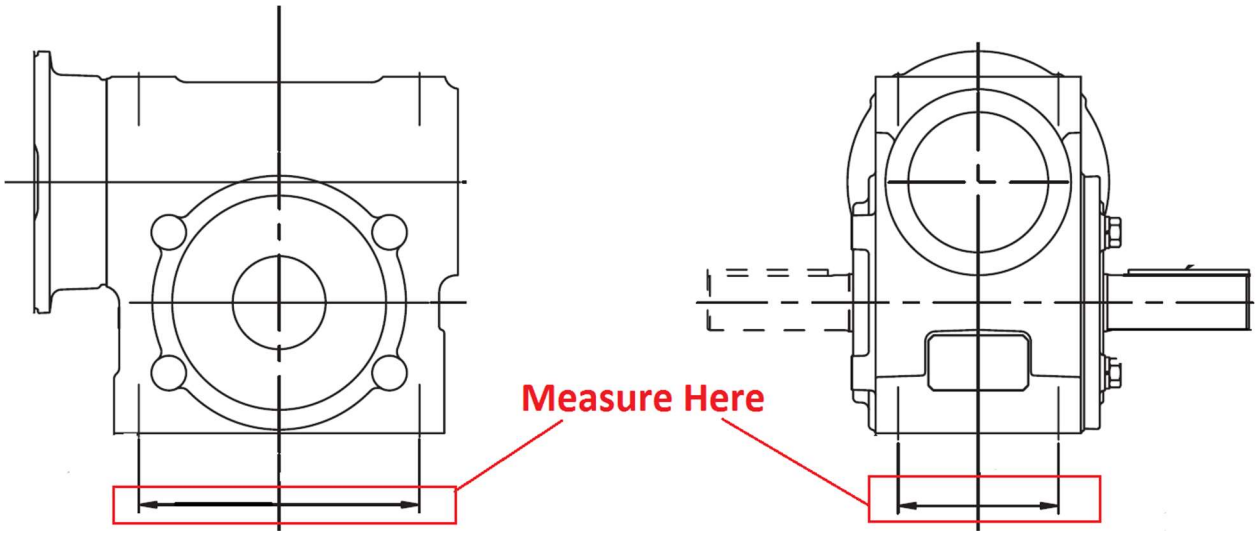
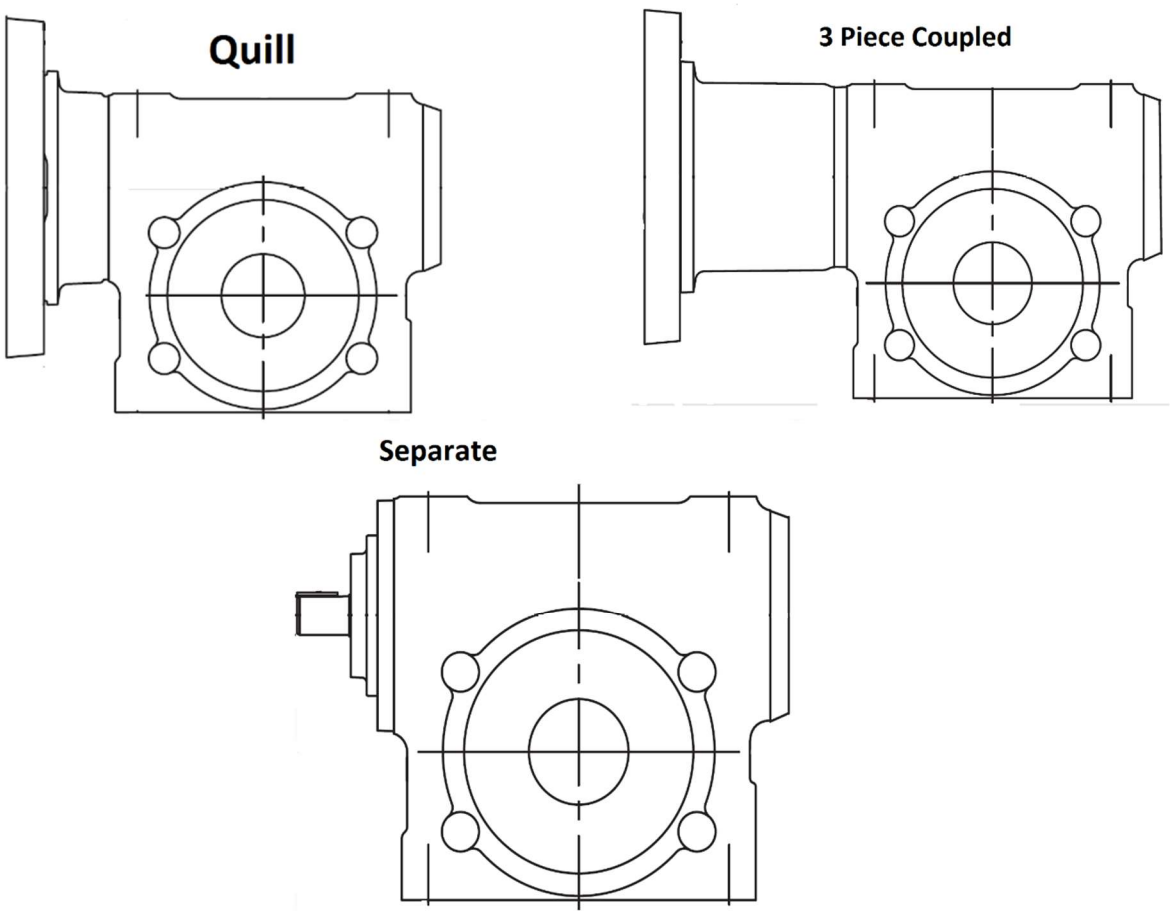


Table 11	
Footprint (Inches)	Reducer Size
3.25 x 2.00	13
3.50 x 2.25	15
4.19 x 2.75	17
5.00 x 2.88	20
5.00 x 2.88	23
6.38 x 3.38	26
7.00 x 4.00	30
7.50 x 4.00	32
7.50 x 4.00	35
8.50 x 4.75	38
8.50 x 5.00	40
11.00 x 5.81	47

Sizes 20 & 23, and 32 & 35 have the same footprints, so you can determine your reducer size by the center distance between the input and output shafts. Size 20 Tigear has a 2" CD, 23 has a 2.31" CD, 32 has a 3" CD, and 35 has a 3.5" CD.

2. Input

There are 3 different input styles Tigear-2 offers. You can visually determine which input style you have. The quill input has a short adapter with a hollow input shaft designed for a c-face motor. The 3 piece coupled input has a long bell housing adapter with a solid shaft and 3 piece jaw coupling designed for a c-face motor. The separate input has a solid shaft on the input without an adapter. You can compare your reducer to the images below.



If you have a Quill or 3 Piece coupled input, you will need to determine the input size. To most efficient method to determine the input size is to measure the input bore diameter for the Quill input, or the motor hub bore diameter on the jaw coupling for the 3 piece coupled input. Compare your measurement with Table 12 below.

Table 12	
Bore Diameter (Inches)	Input Size
0.626	56C
0.876	140TC
1.126	180TC
1.376	210TC
1.626	250TC

3. Ratio

To determine the ratio, you must rotate the input shaft and count the amount of turns it takes to get one full revolution on the output shaft. Rotate the shafts so the keyway on the output shaft is facing up and then turn the input shaft until the keyway returns to this position.

4. Output Style

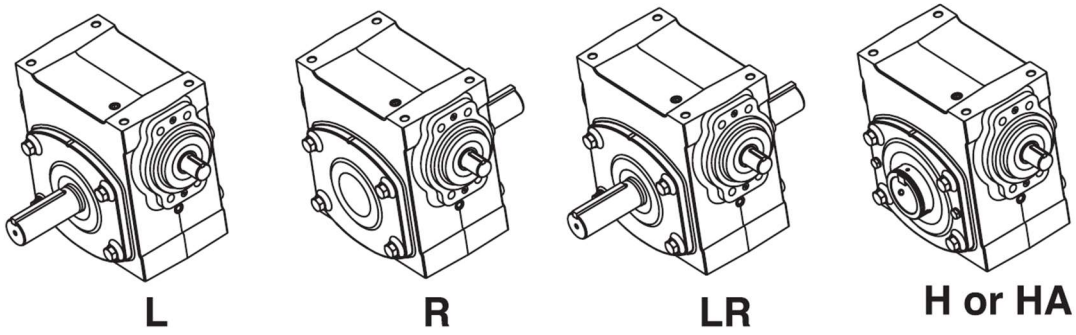
You can visually inspect your gearbox to determine the output style. Tigear-2 has two output options, solid output or hollow output. Solid output will have a solid shaft coming out of the gearbox, while hollow output will have a hollow bore that goes through the gearbox. You may also get a bushing kit with a hollow output Tigear-2 if your shaft has a different diameter than the reducer's output bore.

If you have a solid output Tigear-2, you will need to determine what side the output shaft is coming out of the reducer. To do this, you view the reducer from the input side and determine visually if the shaft comes out of the left, right, or both sides of the reducer.

If you are using a hollow shaft reducer, sizes 20, 23, and 26 have two possible bore sizes. You will need to measure the bore diameter to determine if you have a standard hollow or alternative hollow output. See **table 13**.

Table 13		
Reducer Size	Bore Size	Standard or Alternative
20	1.2515	Standard
20	1.189	Alternative
23	1.439	Standard
23	1.5015	Alternative
26	1.439	Standard
26	1.689	Alternative

OUTPUT SHAFT CONFIGURATIONS



5. Protection Level.

There are three protection levels available for Tigear-2. Standard, EZ Kleen, and Ultra Kleen. You can visually determine what protection level you have through several distinct features between the different protection levels.

A few distinct features that standard Tigear-2 reducers have you can inspect are below.

-Green paint on the reducer housing.

-One piece standard output seal.

A few distinct features that EZ Kleen Tigear-2 reducers have you can inspect are below.

-White or stainless steel color epoxy paint on the reducer housing.

-Two piece harsh duty output seal.

A few distinct features that Ultra Kleen Tigear-2 reducers have you can inspect are below.

-Rounded design all stainless steel housing.

-Two piece harsh duty output seal.