

SHIMPO

VRL-Series

ABLE

Planetary Servo Reducers



New Performance Leader

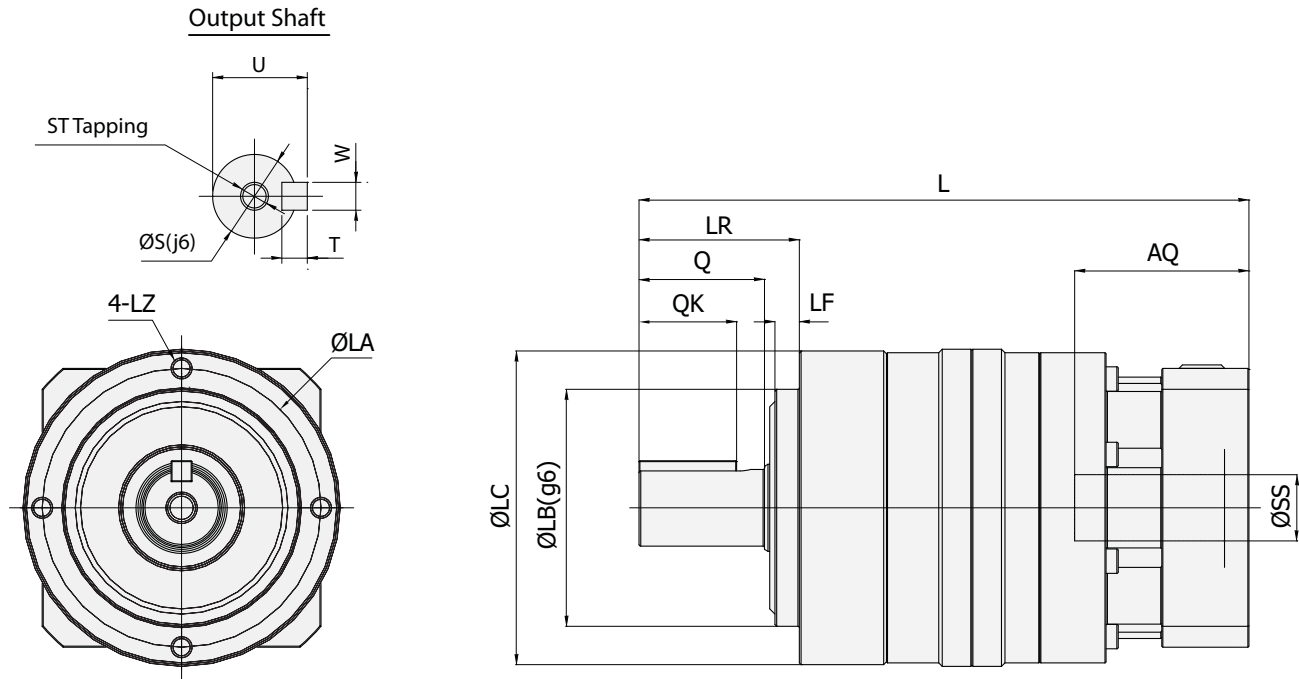
- Industry Standard Mounting Dimensions
- Thread-in Mounting Style
- Best-In-Class Backlash (≤ 5 arc-min)
- Ships in 48 hours
- Assembled in the USA

A *Nidec* Group Company

SHIMPO

All for dreams

VRL DIMENSIONS



Frame	Reduction	SS	LA	LB	LC	L	LR	LF	LZ	Q	QK	AQ	S	T	W	U	ST
070	Single	8	62	52	70	112	36	5	M5	28	22	32	16	5	5	18	M5
		14				35											
		19				50											
	Double	8				32											
		14				35											
090	Single	14	80	68	90	143	46	7	M6	36	28	35	22	6	6	24.5	M8
		19				50											
		28				67											
	Double	8				32											
		14				35											
		19				50											
120	Single	19	108	90	120	187	70	9	M8	58	45	50	32	8	10	35	M12
		28				67											
		38				82											
	Double	14				35											
		19				50											
		28				67											
155	Single	28	140	120	155	249	97	12	M10	82	65	67	40	8	12	43	M16
		38				82											
		48				118											
	Double	19				50											
		28				67											
		38				82											
205	Single	38	184	160	205	286.5	100	15	M12	82	65	82	55	10	16	59	M20
		48				118											
		65				122											
	Double	28				67											
		38				82											
		48				118											
235	Single	48	210	180	235	367.5	126	18	M16	105	85	118	75	12	20	79.5	M20
		65				122											
	Double	38				82											
		48				118											

Note 1: Depending on installed servo motor, the L dimension varies slightly.

Note 2: For other input shaft dimensions, Bushing is installed into Input Shaft.

Note 3: Single reduction 3-10:1, Double reduction 15-100:1.

Note 4: Contact Shimpo for dimensional data for 050 frame sizes.

Note 5: Dimensions in mm.

Note 6: Also available in right angle.

VRL SPECIFICATIONS

Specification	Frame	070		090		120	
	Ratio	Single Reduction	Double Reduction	Single Reduction	Double Reduction	Single Reduction	Double Reduction
Nominal Output Torque	Nm	27	27	75	75	180	180
Maximum Output Torque	Nm	50	50	125	125	330	330
Emergency Stop Torque	Nm	100	100	250	250	625	625
Backlash	arc-min	5	5	5	5	5	5
Nominal Input Speed	rpm	3000	3000	3000	3000	3000	3000
Maximum Input Speed	rpm	6000	6000	6000	6000	6000	6000
Allowable Radial Load	N	640	1200	1200	2400	2000	4300
Allowable Thrust Load	N	530	1100	1600	2200	2500	3900
Weight	kg	1.5	1.7	3.5	4.0	7.8	8.7
Unit Life	hrs	20000	20000	20000	20000	20000	20000
Protection		IP65	IP65	IP65	IP65	IP65	IP65
Moment of Inertia	kgcm ²	Contact us for the details					

Speed Reduction Ratios	Single	3,4,5,6,7,8,9,10:1
	Double	15,16,20,25,28,30,35,40,45,50,60,70,80,90,100:1

Note: Contact Shimpo for specification data for 050 frame sizes.

Specification	Frame	155		205		235	
	Ratio	Single Reduction	Double Reduction	Single Reduction	Double Reduction	Single Reduction	Double Reduction
Nominal Output Torque	Nm	360	360	750	750	1500	1500
Maximum Output Torque	Nm	700	700	1400	1400	2300	2300
Emergency Stop Torque	Nm	1250	1250	2750	2750	5000	5000
Backlash	arc-min	5	5	5	5	5	5
Nominal Input Speed	rpm	2000	2000	1500	1500	1000	1000
Maximum Input Speed	rpm	4000	4000	3000	3000	2000	2000
Allowable Radial Load	N	4700	9100	15000	15000	15000	15000
Allowable Thrust Load	N	4100	8200	14000	14000	14000	14000
Weight	kg	16	18	39	40	55	57
Unit Life	hrs	20000	20000	20000	20000	20000	20000
Protection		IP65	IP65	IP65	IP65	IP65	IP65
Moment of Inertia	kgcm ²	Contact us for the details					

Speed Reduction Ratios	Single	3,4,5,6,7,8,9,10:1
	Double	15,16,20,25,28,30,35,40,45,50,60,70,80,90,100:1

Note: Contact Shimpo for specification data for 050 frame sizes.

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VRB-Series

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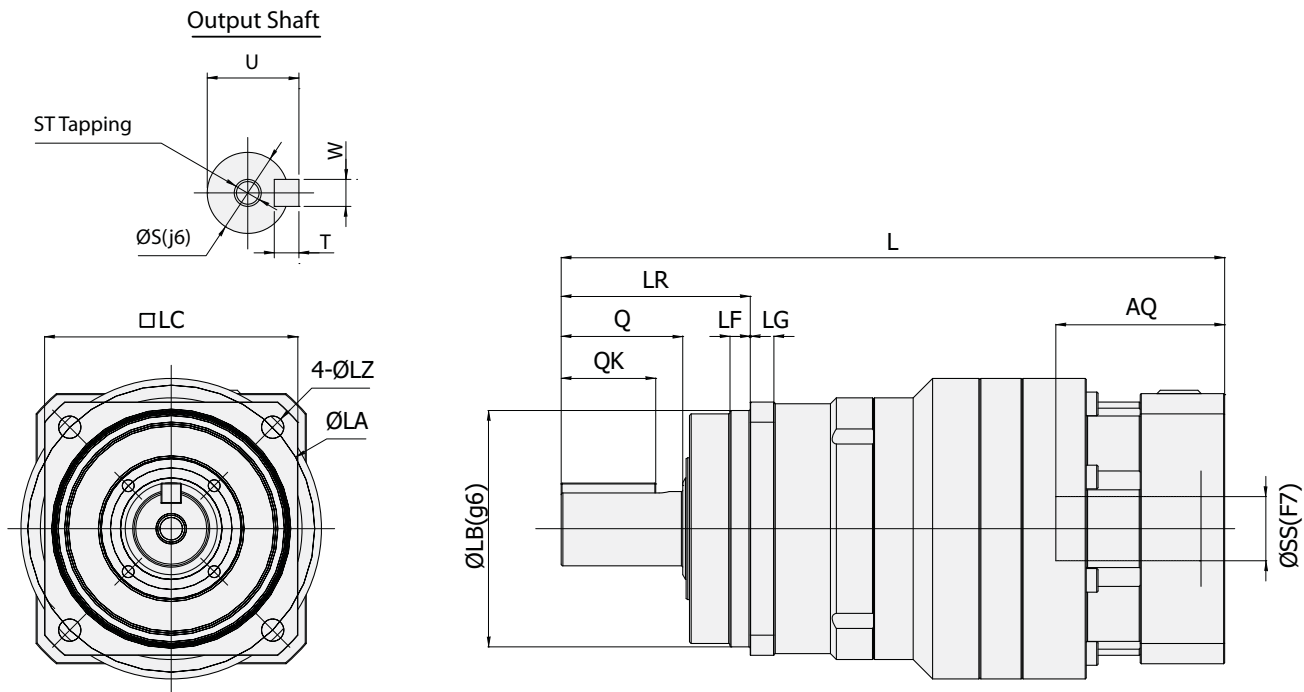
- Industry Standard Mounting Dimensions
- Thru-bolt Mounting Style
- Best-In-Class Backlash (≤ 3 arc-min)
- Ships in 48 hours
- Assembled in the USA

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VRB DIMENSIONS



Frame	Reduction	SS	LA	LB	LC	L	LR	LF	LG	LZ	Q	QK	AQ	S	T	W	U	ST
060	Single	8	70	50	60	112	37	6	6	5.5	28	22	32	16	5	5	18	M5
		14				35												
		19				50												
	Double	8				32												
		14				35												
		19				50												
090	Single	14	100	80	90	143	48	9	8	6.6	36	28	35	22	6	6	24.5	M8
		19				50												
		28				67												
	Double	8				32												
		14				35												
		19				50												
115	Single	19	130	110	115	187	65	4	10	9	58	45	50	32	8	10	35	M12
		28				67												
		38				82												
	Double	14				35												
		19				50												
		28				67												
140	Single	28	165	130	140	249	97	12	12	11	82	65	67	40	8	12	43	M16
		38				82												
		48				118												
	Double	19				50												
		28				67												
		38				82												
180	Single	38	215	160	180	286.5	105	20	15	13.5	82	65	82	55	10	16	59	M20
		48				98												
		65				122												
	Double	28				67												
		38				82												
		48				98												
220	Single	48	250	180	220	367.5	138	30	20	17	105	85	98	75	12	20	79.5	M20
		65				122												
	Double	38				77												
		48				98												

- Note 1: Depending on installed servo motor, the L dimension varies slightly.
 Note 2: For other input shaft dimensions, Bushing is installed into Input Shaft.
 Note 3: Single reduction 3-10:1, Double reduction 15-100:1.
 Note 4: Contact Shimpo for dimensional data for 042 and 240 frame sizes.
 Note 5: Dimensions in mm.
 Note 6: Also available in right angle.

VRB SPECIFICATIONS

Specification	Frame	060		090		115	
	Ratio	Single Reduction	Double Reduction	Single Reduction	Double Reduction	Single Reduction	Double Reduction
Nominal Output Torque	Nm	27	27	75	75	180	180
Maximum Output Torque	Nm	50	50	125	125	330	330
Emergency Stop Torque	Nm	100	100	250	250	625	625
Backlash	arc-min	3	3	3	3	3	3
Nominal Input Speed	rpm	3000	3000	3000	3000	3000	3000
Maximum Input Speed	rpm	6000	6000	6000	6000	6000	6000
Allowable Radial Load	N	640	1200	1200	2400	2000	4300
Allowable Thrust Load	N	530	1100	1600	2200	2500	3900
Weight	kg	1.4	1.6	3.7	4.2	8.0	8.9
Unit Life	hrs	20000	20000	20000	20000	20000	20000
Protection		IP65	IP65	IP65	IP65	IP65	IP65
Moment of Inertia	kgcm ²	Contact us for the details					

Speed Reduction Ratios	Single	3,4,5,6,7,8,9,10:1
	Double	15,16,20,25,28,30,35,40,45,50,60,70,80,90,100:1

Note: Contact Shimpo for dimensional data for 042 and 240 frame sizes.

Specification	Frame	140		180		220	
	Ratio	Single Reduction	Double Reduction	Single Reduction	Double Reduction	Single Reduction	Double Reduction
Nominal Output Torque	Nm	360	360	750	750	1500	1500
Maximum Output Torque	Nm	700	700	1400	1400	2300	2300
Emergency Stop Torque	Nm	1250	1250	2750	2750	5000	5000
Backlash	arc-min	3	3	3	3	3	3
Nominal Input Speed	rpm	2000	2000	1500	1500	1000	1000
Maximum Input Speed	rpm	4000	4000	3000	3000	2000	2000
Allowable Radial Load	N	4700	9100	15000	15000	15000	15000
Allowable Thrust Load	N	4100	8200	14000	14000	14000	14000
Weight	kg	16	17	36	37	53	54
Unit Life	hrs	20000	20000	20000	20000	20000	20000
Protection		IP65	IP65	IP65	IP65	IP65	IP65
Moment of Inertia	kgcm ²	Contact us for the details					

Speed Reduction Ratios	Single	3,4,5,6,7,8,9,10:1
	Double	15,16,20,25,28,30,35,40,45,50,60,70,80,90,100:1

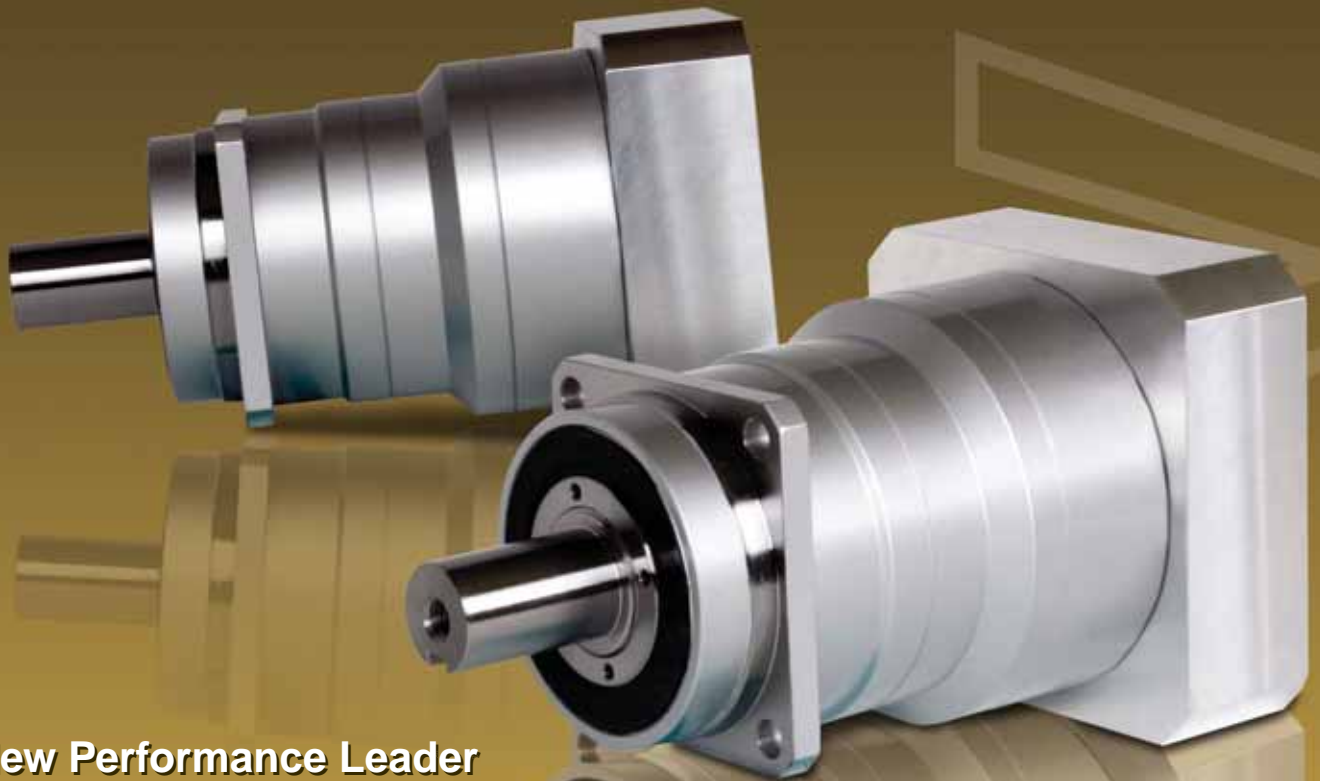
Note: Contact Shimpo for dimensional data for 042 and 240 frame sizes.

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VRS-Series

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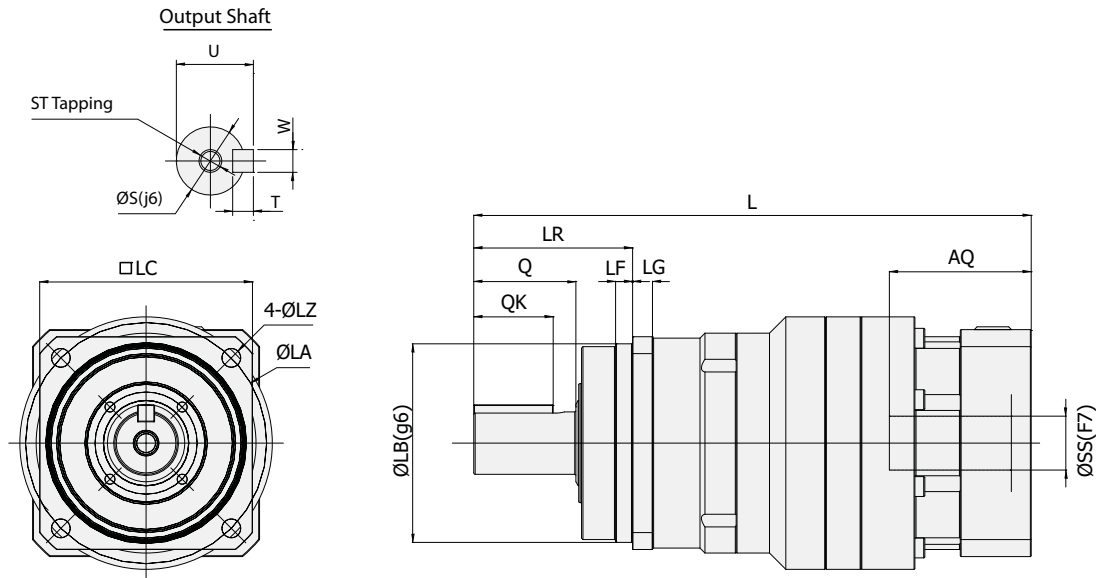
- Industry Standard Mounting Dimensions
- Thru-bolt Mounting Style
- Best-In-Class Backlash (≤ 3 arc-min)
- Highest Radial and Axial Load Ratings
- Ships in 48 hours
- Assembled in the USA

A *Nidec* Group Company

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All for dreams

VRS DIMENSIONS



Frame	Reduction	SS	LA	LB	LC	L	LR	LF	LG	LZ	Q	QK	AQ	S	T	W	U	ST
060	Single	8	68	60	60	132	48	5	6	5.5	28	22	32	16	5	5	18	M5
		14				135							35					
		19				150							50					
	Double	8				151							32					
		14				156							35					
075	Single	14	85	70	75	164.5	56	6	7	6.6	36	28	35	22	6	6	24.5	M8
		19				174.5							50					
		28				191.5							67					
	Double	8				181.5							32					
		14				186.5							35					
		19				196.5							50					
100	Single	19	120	90	100	213.5	88	8	10	9	58	45	50	32	8	10	35	M12
		28				230.5							67					
		38				251.5							82					
	Double	14				231							35					
		19				241							50					
		28				258							67					
140	Single	28	165	130	140	274	112	10	12	11	82	65	67	40	8	12	43	M16
		38				289							82					
		48				330							118					
	Double	19				291.5							50					
		28				308.5							67					
		38				323.5							82					
180	Single	38	215	160	180	315.5	112	12	15	13.5	82	65	82	55	10	16	59	M20
		48				351.5							118					
		65				363							122					
	Double	28				345							67					
		38				360							82					
		48				396							118					
210	Single	48	250	180	210	414	143	15	17	17	105	85	118	75	12	20	79.5	M20
		65				418							122					
	Double	38				413							77					
		48				449							118					
240	Single	65	290	200	240	465.5	170	20	20	17	130	105	122	85	14	22	90	M20
	Double	48				516							118					

- Note 1: Depending on installed servo motor, the L dimension varies slightly.
 Note 2: For other input shaft dimensions, bushing is installed into input shaft.
 Note 3: Single reduction 3-10:1, Double reduction 15-100:1.
 Note 4: Contact Shimpo for dimensional data for 042 frame sizes.
 Note 5: Dimensions in mm.
 Note 6: Also available in right angle.

VRS SPECIFICATIONS

Specification	Frame	060		075		100		140	
	Ratio	Single Reduction	Double Reduction	Single Reduction	Double Reduction	Single Reduction	Double Reduction	Single Reduction	Double Reduction
Nominal Output Torque	Nm	27	27	75	75	180	180	360	360
Maximum Output Torque	Nm	50	50	125	125	330	330	700	700
Emergency Stop Torque	Nm	100	100	250	250	625	625	1250	1250
Backlash	arc-min	3	3	3	3	3	3	3	3
Nominal Input Speed	rpm	3000	3000	3000	3000	3000	3000	2000	2000
Maximum Input Speed	rpm	6000	6000	6000	6000	6000	6000	4000	4000
Allowable Radial Load	N	2400	3000	3300	3900	4900	6300	9700	10000
Allowable Thrust Load	N	2700	2700	4300	3900	7000	6300	9000	9000
Weight	kg	1.6	1.8	3.4	3.8	8.1	8.8	17	19
Unit Life	hrs	20000	20000	20000	20000	20000	20000	20000	20000
Protection		IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65
Moment of Inertia	kgcm ²	Contact us for the details							

Speed Reduction Ratios	Single	3,4,5,6,7,8,9,10:1
	Double	15,16,20,25,28,30,35,40,45,50,60,70,80,90,100:1

Note: Contact Shimpo for specification data for 042 frame sizes.

Specification	Frame	180		210		240	
	Ratio	Single Reduction	Double Reduction	Single Reduction	Double Reduction	Single Reduction	Double Reduction
Nominal Output Torque	Nm	750	750	1500	1500	2400	2400
Maximum Output Torque	Nm	1400	1400	2300	2300	3700	3700
Emergency Stop Torque	Nm	2750	2750	5000	5000	8000	8000
Backlash	arc-min	3	3	3	3	3	3
Nominal Input Speed	rpm	1500	1500	1000	1000	1000	1000
Maximum Input Speed	rpm	3000	3000	2000	2000	2000	2000
Allowable Radial Load	N	19000	19000	24000	22000	30000	27000
Allowable Thrust Load	N	17000	17000	22000	22000	30000	27000
Weight	kg	39	39	59	60	85	89
Unit Life	hrs	20000	20000	20000	20000	20000	20000
Protection		IP65	IP65	IP65	IP65	IP65	IP65
Moment of Inertia	kgcm ²	Contact us for the details					

Speed Reduction Ratios	Single	3,4,5,6,7,8,9,10:1
	Double	15,16,20,25,28,30,35,40,45,50,60,70,80,90,100:1

Note: Contact Shimpo for specification data for 042 frame sizes.