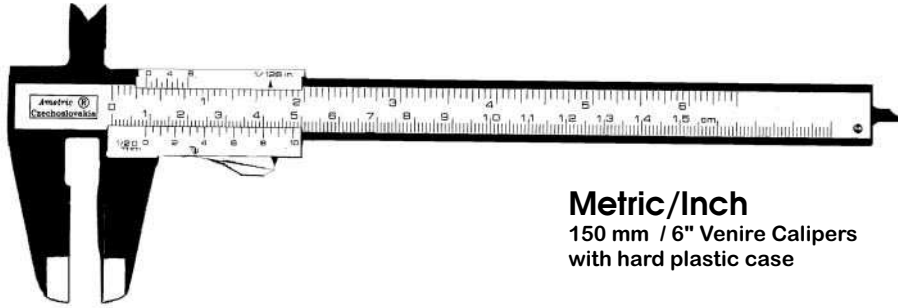
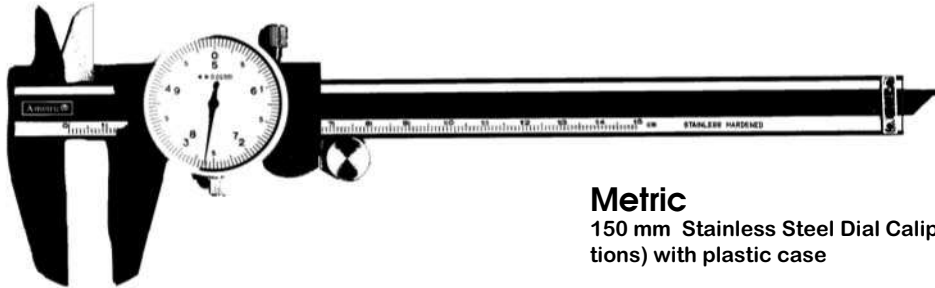


Special Tools



Metric/Inch

150 mm / 6" Venire Calipers
with hard plastic case



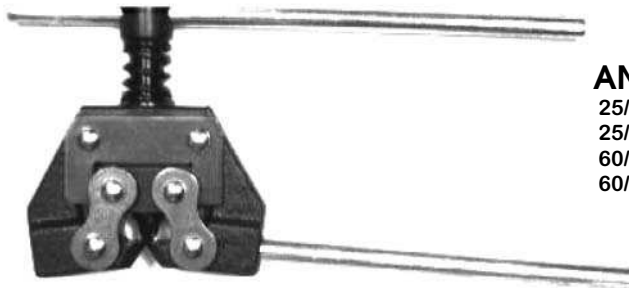
Metric

150 mm Stainless Steel Dial Calipers (0.05mm graduations) with plastic case



Metric/Inch

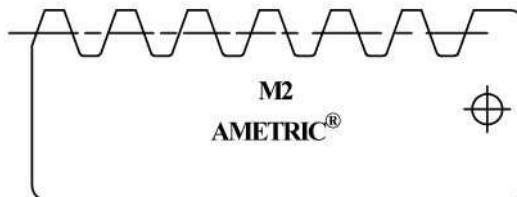
150 mm
Digital Calipers
with Plastic Case.



ANSI

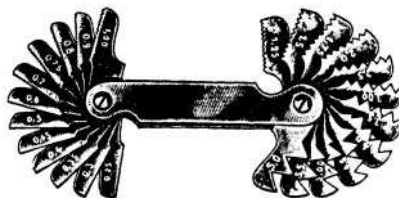
Metric

25/60	22 / 62 Chain Breaker
25/60	22/ 62 Replacement Tip
60/100	62/102 Chain Breaker
60/100	62/102 Replacement Tip



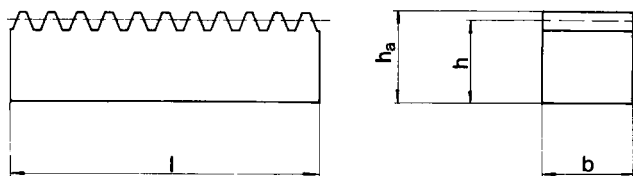
Gear Gage Set A Metric

Module 1, 1.25, 1.5, 1.75, 2, 2.25
2.5, 2.75, 3, 3.25, 3.5, 4, 5, 6
(14) gages



Thread Gage Set A Metric

Pitches 0.40, 0.45, 0.50, 0.60, 0.70, 0.75, 0.80,
1.00, 1.25, 1.50, 1.75, 2.00, 2.50, 3.00, 3.50,
4.00, 4.50, 5.00, 5.50, 6.00
(20) gages

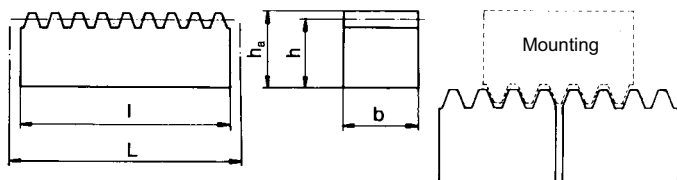


Metric Gear Racks

20° Pressure Angle DIN 782
Material: Steel 1.0503 (C45) AISI 1045
Tolerance: Overall ± 0.5 , Between Teeth ± 0.02

Part No.	Module	h_a	h	b	l	Weight kg
M1X250	1	15	14	15	250	0.412
M1X500	1	15	14	15	500	0.824
M1X1000	1	15	14	15	1,000	1.648
M1X2000	1	15	14	15	2,000	3.050
M1X2500	1	15	14	15	2,500	4.123
M1X3000	1	15	14	15	3,000	4.947
M1.5X500	1.5	17	15.5	17	500	1.035
M1.5X1000	1.5	17	15.5	17	1,000	2.070
M1.5X2000	1.5	17	15.5	17	2,000	3.830
M1.5X2500	1.5	17	15.5	17	2,500	5.175
M1.5X3000	1.5	17	15.5	17	3,000	6.210
M2X250	2	20	18	20	250	0.705
M2X500	2	20	18	20	500	1.410
M2X1000	2	20	18	20	1,000	2.820
M2X2000	2	20	18	20	2,000	5.115
M2X2500	2	20	18	20	2,500	7.050
M2X3000	2	20	18	20	3,000	8.460
M2.5X250	2.5	25	22.5	25	250	0.993
M2.5X500	2.5	25	22.5	25	500	1.990
M2.5X1000	2.5	25	22.5	25	1,000	3.970
M2.5X2000	2.5	25	22.5	25	2,000	7.350
M2.5X2500	2.5	25	22.5	25	2,500	9.925
M2.5X3000	2.5	25	22.5	25	3,000	11.910
M3X250	3	30	27	30	250	1.550
M3X500	3	30	27	30	500	3.100
M3X1000	3	30	27	30	1,000	6.200
M3X2000	3	30	27	30	2,000	11.470
M3X2500	3	30	27	30	2,500	15.500
M3X3000	3	30	27	30	3,000	18.600
M4X25X1000	4	25	21	25	1,000	5.167
M4X25X2000	4	25	21	25	2,000	10.333
M4X30X1000	4	30	26	30	1,000	6.100
M4X30X2000	4	30	26	30	2,000	11.700
M4X40X250	4	40	36	40	250	2.750
M4X40X500	4	40	36	40	500	5.500
M4X40X1000	4	40	36	40	1,000	11.000
M4X40X2000	4	40	36	40	2,000	20.350
M4X40X2500	4	40	36	40	2,500	27.500
M4X40X3000	4	40	36	40	3,000	33.000
M5X250	5	50	45	50	250	3.975
M5X500	5	50	45	50	500	7.950
M5X1000	5	50	45	50	1,000	15.900
M5X2000	5	50	45	50	2,000	29.415
M5X2500	5	50	45	50	2,500	39.750
M5X3000	5	50	45	50	3,000	47.700
M6X500	6	60	54	60	500	12.650
M6X1000	6	60	54	60	1,000	24.300
M6X2000	6	60	54	60	2,000	50.200
M6X2500	6	60	54	60	2,500	60.750
M6X3000	6	60	54	60	3,000	72.900
M8X500	8	80	72	80	500	21.400
M8X1000	8	80	72	80	1,000	42.700
M8X2000	8	80	72	80	2,000	85.400

Special modifications available upon request.



Metric Gear Racks

20° Pressure Angle DIN 782

Continuous Mounting - Material: Stainless Steel 1.4305 (AISI 3030)

Part No.	Module	Height h_a	h	Width b (h11)	Length L
SSM1X10X500	1	9.8-0.10	8.8-0.10	10	500
SSM1X10X1000	1	9.8-0.15	8.8-0.15	10	1,000
SSM1.5X15X500	1.5	14.8-0.10	13.3-0.10	15	500
SSM1.5X15X1000	1.5	14.8-0.15	13.3-0.15	15	1,000
SSM2X20X1000	2	19.75-0.15	17.75-0.15	20	1,000
SSM2X20X2000	2	19.75-0.25	17.75-0.25	20	2,000
SSM3X30X1000	3	29.75-0.20	26.75-0.20	30	1,000
SSM3X30X2000	3	29.75-0.30	26.75-0.30	30	2,000
SSM4X40X1000	4	39.70-0.20	35.70-0.20	40	1,000
SSM4X40X2000	4	39.70-0.30	35.70-0.30	40	2,000

Induction Hardened, Continuous Mounting

Part No.	Module	Teeth	Height h_a (- tol.)	h (- tol.)	b tol. h11	theor. L	I ($\pm$ tol.)	Weight kg
..M1X10X250	1	80	9.8 -0.10	8.8 -0.10	10	251.327	250.8 $\pm$ 0.5	0.17
..M1X10X500	1	159	9.8 -0.10	8.8 -0.10	10	499.513	499.0 $\pm$ 0.5	0.34
..M1X10X1000	1	318	9.8 -0.15	8.8 -0.15	10	999.026	998.5 $\pm$ 0.5	0.68
..M1.5X15X250	1.5	53	14.8 -0.10	13.3 -0.10	15	249.757	249.3 $\pm$ 0.5	0.39
..M1.5X15X500	1.5	106	14.8 -0.10	13.3 -0.10	15	499.513	499.1 $\pm$ 0.5	0.78
..M1.5X15X1000	1.5	212	14.8 -0.15	13.3 -0.15	15	999.026	998.6 $\pm$ 0.5	1.55
..M1.5X15X2000	1.5	424	14.8 -0.15	13.3 -0.15	15	1,998.053	1,997.6 $\pm$ 0.5	3.10
..M2X20X500	2	80	19.75 -0.10	17.75 -0.10	20	502.655	502.1 $\pm$ 0.5	1.40
..M2X20X1000	2	159	19.75 -0.15	17.75 -0.15	20	999.026	998.5 $\pm$ 0.5	2.80
..M2X20X2000	2	318	19.75 -0.25	17.75 -0.25	20	1,998.053	1,997.5 $\pm$ 0.5	5.60
..M2.5X25X500	2.5	64	24.75 -0.10	22.25 -0.10	25	502.655	502.1 $\pm$ 0.3	2.10
..M2.5X25X1000	2.5	127	24.75 -0.15	22.25 -0.15	25	997.456	996.9 $\pm$ 0.3	4.20
..M2.5X25X2000	2.5	255	24.75 -0.25	22.25 -0.25	25	2,002.765	2,002.3 $\pm$ 0.3	8.40
..M3X30X500	3	53	29.75 -0.10	26.75 -0.10	30	499.513	498.9 $\pm$ 0.5	3.10
..M3X30X1000	3	106	29.75 -0.20	26.75 -0.20	30	999.026	998.4 $\pm$ 0.5	6.20
..M3X30X2000	3	212	29.75 -0.30	26.75 -0.30	30	1,998.053	1,997.4 $\pm$ 0.5	12.40
..M4X40X500	4	40	39.70 -0.10	35.70 -0.10	40	502.655	501.9 $\pm$ 0.5	5.50
..M4X40X1000	4	80	39.70 -0.20	35.70 -0.20	40	1,005.313	1,004.6 $\pm$ 0.5	11.00
..M4X40X2000	4	159	39.70 -0.30	35.70 -0.30	40	1,998.053	1,997.3 $\pm$ 0.5	22.00
..M5X50X500	5	32	49.70 -0.10	44.70 -0.10	50	502.655	501.8 $\pm$ 0.6	8.60
..M5X50X1000	5	64	49.70 -0.20	44.70 -0.20	50	1,005.310	1,004.5 $\pm$ 0.6	17.20
..M5X50X2000	5	128	49.70 -0.30	44.70 -0.30	50	2,010.619	2,009.8 $\pm$ 0.6	34.40
..M6X60X500	6	27	59.65 -0.10	53.65 -0.10	60	508.938	508.0 $\pm$ 0.6	12.30
..M6X60X1000	6	53	59.65 -0.20	53.65 -0.20	60	999.026	998.1 $\pm$ 0.6	24.50
..M6X60X2000	6	106	59.65 -0.30	53.65 -0.30	60	1,998.053	1,997.2 $\pm$ 0.6	49.00
..M8X80X500	8	20	79.60 -0.30	71.60 -0.30	80	502.655	501.4 $\pm$ 0.7	21.40
..M8X80X1000	8	40	79.60 -0.40	71.60 -0.40	80	1,005.310	1,004.0 $\pm$ 0.7	42.70
..M8X80X2000	8	80	79.60 -0.50	71.60 -0.50	80	2,010.619	2,009.4 $\pm$ 0.7	85.40

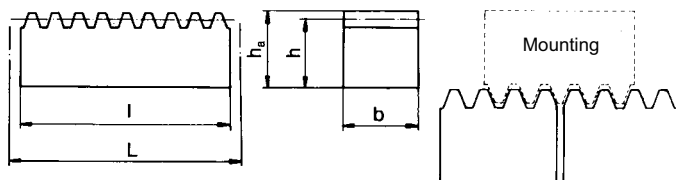
Note: Add the prefix of the part number CM.. for continuous mounting or HTC.. for induction hardened, continuous mounting type rack



American Metric® Corporation

GROUP: 030

1-030 - 80911

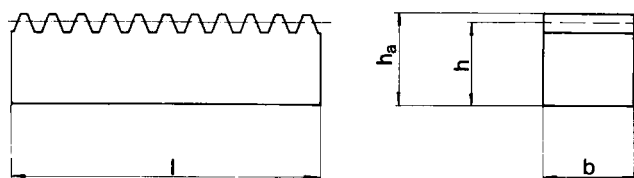


Metric Gear Racks

20° Pressure Angle DIN 782

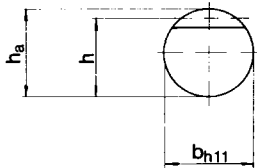
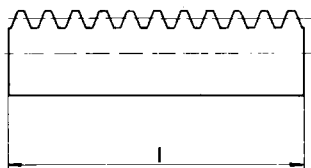
Material: Nylon P 6.6

Part No.	Module	Height h_a	h	Width b (h11)	Length L
NM1X10X250	1	10	9.0	10	250
NM1X10X500	1	10	9.0	10	500
NM1.5X15X250	1.5	15	13.5	15	250
NM1.5X15X500	1.5	15	13.5	15	500
NM2X20X500	2	20	18.0	20	500
NM2X20X1000	2	20	18.0	20	1000
NM2.5X25X500	2.5	25	22.5	25	500
NM2.5X25X1000	2.5	25	22.5	25	1000



Injection Molded - Material: Acetal Resin (Hostaform C)

Part No.	Module	h_a	h	b	l	Weight g
AM0.5X4.5X4X250	0.5	4.5	4	4	250	5
AM0.5X6X4X250	0.5	6	5.5	4	250	7
AM0.7X6.7X6X250	0.7	6.7	6	6	250	12
AM1X9X9X250	1.0	9	8	9	250	25
AM1.25X11X10X250	1.25	11	9.75	10	250	35
AM1.5X12X12X250	1.5	12	10.5	12	250	45
AM2X11X15.4X250	2.0	11	9.0	15.4	250	45
AM2.5X13X17X250	2.5	13	10.5	17	250	50
AM3X15X19.4X250	3.0	15	12	19.4	250	75



Metric Round Gear Racks

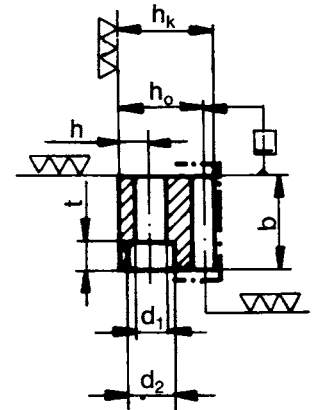
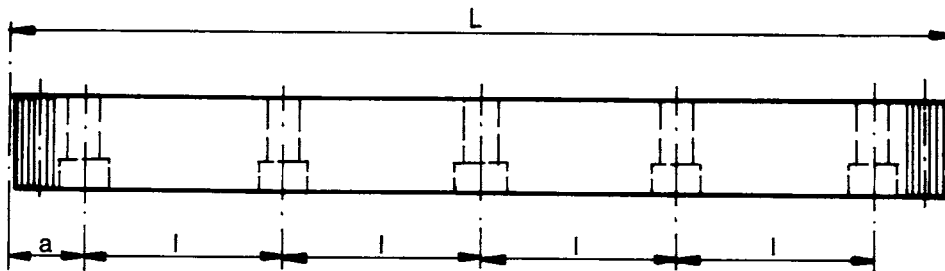
20° Pressure Angle DIN 782
Material: Steel 1.0503 (C45) AISI 1045

Part No.	Module	h_a (- tol.)	h (- tol.)	h_{h11}	l	Weight kg
RM1X250	1	9.80 -0.10	8.8 -0.10	10	250	0.14
RM1X500	1	9.80 -0.10	8.8 -0.10	10	500	0.27
RM1.5X250	1.5	14.80 -0.10	13.3 -0.10	15	250	0.31
RM1.5X500	1.5	14.80 -0.10	13.3 -0.10	15	500	0.61
RM1.5X1000	1.5	14.80 -0.15	13.3 -0.15	15	1,000	1.22
RM2X250	2	19.75 -0.10	17.75 -0.10	20	250	0.55
RM2X500	2	19.75 -0.10	17.75 -0.10	20	500	1.10
RM2X1000	2	19.75 -0.15	17.75 -0.15	20	1,000	2.20
RM2.5X250	2.5	24.75 -0.10	22.25 -0.10	25	250	0.83
RM2.5X500	2.5	24.75 -0.10	22.25 -0.10	25	500	1.65
RM2.5X1000	2.5	24.75 -0.15	22.25 -0.15	25	1,000	3.30
RM3X250	3	29.75 -0.10	26.75 -0.10	30	250	1.22
RM3X500	3	29.75 -0.10	26.75 -0.10	30	500	2.44
RM3X1000	3	29.75 -0.20	26.75 -0.20	30	1,000	4.80
RM4X250	4	39.70 -0.10	35.70 -0.10	40	250	2.16
RM4X500	4	39.70 -0.10	35.70 -0.10	40	500	4.32
RM4X1000	4	39.70 -0.20	35.70 -0.20	40	1,000	8.64
RM5X250	5	49.70 -0.10	44.70 -0.10	50	250	3.38
RM5X500	5	49.70 -0.10	44.70 -0.10	50	500	6.75
RM5X1000	5	49.70 -0.20	44.70 -0.20	50	1,000	13.50

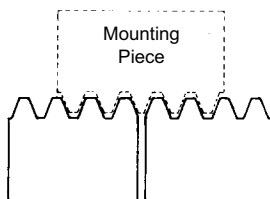
Gear Racks with Ground Teeth

Material: Steel 1.0503 (C45) AISI 1045

Hardness: 54 HRC Pressure Angle: 20°



Part No.	Module	L	Teeth	b	$h_{k(h11)}$	h_o	a	l	h	d_1	d_2	t	Weight kg
GHM2X24X1000	2	999	159	24	24	22	99.5	200	8	6.6	11	7	4.2
GHM3X29X1000	3	999	106	29	29	26	99.5	200	9	9	15	9	6.0
GHM4X39X1000	4	1,005	80	39	39	35	102.6	200	12	9	15	9	10.5

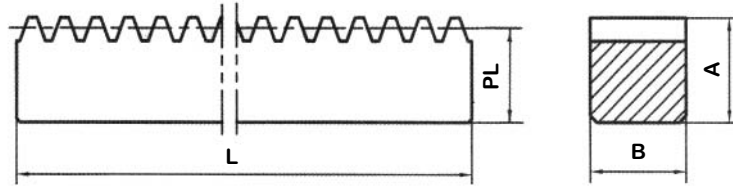


Mounting Pieces

Part No.	Module	L	Teeth	b
GHPM2	2	200	32	25
GHPM3	3	200	21	30
GHPM4	4	253	20	40

American Standard (ANSI) Gear Racks

Pressure Angle 14½° and 20° In Steel



Sample Part:
14R3x2
14.5=Degrees Pressure
Angle
3=Pitch
2=Length in Feet

14½° Pressure Angle

Part No.	DP	B	A	PL	Weight
14R3x2	3	3	1 1/2	1.167	24.0
14R3x4	3	3	1 1/2	1.167	48.0
14R3x6	3	3	1 1/2	1.167	72.0
14R4x2	4	2	1 1/2	1.250	17.4
14R4x4	4	2	1 1/2	1.250	34.8
14R4x6	4	2	1 1/2	1.250	52.2
14RA4x2	4	2	2	1.750	23.6
14RA4x4	4	2	2	1.750	47.2
14RA4x6	4	2	2	1.750	70.8
14R5x2	5	1 3/4	1 1/4	1.050	12.8
14R5x4	5	1 3/4	1 1/4	1.050	25.6
14R5x6	5	1 3/4	1 1/4	1.050	38.4
14RA5x2	5	1 3/4	1 1/2	1.300	16.0
14RA5x4	5	1 3/4	1 1/2	1.300	32.0
14RA5x6	5	1 3/4	1 1/2	1.300	48.0
14R6x2	6	1 1/2	1	0.833	8.6
14R6x4	6	1 1/2	1	0.833	17.2
14R6x6	6	1 1/2	1	0.833	25.8
14RA6x2	6	1 1/2	1 1/2	1.333	13.8
14RA6x4	6	1 1/2	1 1/2	1.333	27.6
14RA6x6	6	1 1/2	1 1/2	1.333	41.4
14R8x2	8	1 1/4	3/4	0.625	5.2
14R8x4	8	1 1/4	3/4	0.625	10.4
14R8x6	8	1 1/4	3/4	0.625	15.6
14RA8x2	8	1 1/4	1 1/4	1.125	9.8
14RA8x4	8	1 1/4	1 1/4	1.125	19.6
14RA8x6	8	1 1/4	1 1/4	1.125	29.4

14½° Pressure Angle

Part No.	DP	B	A	PL	Weight
14R10x2	10	1	5/8	0.525	3.6
14R10x4	10	1	5/8	0.525	7.2
14R10x6	10	1	5/8	0.525	10.8
14RA10x2	10	1	1	0.900	6.0
14RA10x4	10	1	1	0.900	12.0
14RA10x6	10	1	1	0.900	18.0
14R12x2	12	3/4	1/2	0.417	2.0
14R12x4	12	3/4	1/2	0.417	4.0
14R12x6	12	3/4	1/2	0.417	6.0
14RA12x2	12	3/4	3/4	0.667	3.4
14RA12x4	12	3/4	3/4	0.667	6.8
14RA12x6	12	3/4	3/4	0.667	10.2
14R16x2	16	5/16	5/16	0.250	0.50
14R16x4	16	5/16	5/16	0.250	1.00
14R16x6	16	5/16	5/16	0.250	1.50
14RA16x2	16	1/2	1/2	0.438	1.52
14RA16x4	16	1/2	1/2	0.438	3.04
14RA16x6	16	1/2	1/2	0.438	4.56
14R20x2	20	3/8	3/8	0.325	0.84
14R20x4	20	3/8	3/8	0.325	1.68
14R20x6	20	3/8	3/8	0.325	2.52
14R24x2	24	1/4	1/4	0.208	0.38
14R24x4	24	1/4	1/4	0.208	0.76
14R24x6	24	1/4	1/4	0.208	1.14

20° Pressure Angle

Part No.	DP	B	A	PL	Weight
20R3x2	3	3	1 1/2	1.167	24.0
20R3x4	3	3	1 1/2	1.167	48.0
20R3x6	3	3	1 1/2	1.167	72.0
20R4x2	4	2	1 1/2	1.250	17.4
20R4x4	4	2	1 1/2	1.250	34.8
20R4x6	4	2	1 1/2	1.250	52.2
20R5x2	5	1 3/4	1 1/4	1.050	12.8
20R5x4	5	1 3/4	1 1/4	1.050	25.6
20R5x6	5	1 3/4	1 1/4	1.050	38.4
20R6x2	6	1 1/2	1 1/2	1.333	13.8
20R6x4	6	1 1/2	1 1/2	1.333	27.6
20R6x6	6	1 1/2	1 1/2	1.333	41.4
20R8x2	8	1 1/4	1 1/4	1.125	9.8
20R8x4	8	1 1/4	1 1/4	1.125	19.6
20R8x6	8	1 1/4	1 1/4	1.125	29.4
20R10x2	10	1	1	0.900	6.0
20R10x4	10	1	1	0.900	12.0
20R10x6	10	1	1	0.900	18.0
20R12x2	12	3/4	3/4	0.667	3.4
20R12x4	12	3/4	3/4	0.667	6.8
20R12x6	12	3/4	3/4	0.667	10.2
20R16x2	16	3/8	3/8	0.438	1.52
20R16x4	16	3/8	3/8	0.438	3.04
20R16x6	16	3/8	3/8	0.438	4.56
20R20x2	20	1/4	1/4	0.325	0.84
20R20x4	20	1/4	1/4	0.325	1.68
20R20x6	20	1/4	1/4	0.325	2.52

Wide Face 20° Pressure Angle

Part No.	DP	B	A	PL	Weight
20WR4x2	4	3 1/2	2	1.750	41.0
20WR4x4	4	3 1/2	2	1.750	82.0
20WR4x6	4	3 1/2	2	1.750	123.0
20WR5x2	5	2 1/2	1 1/2	1.300	22.4
20WR5x4	5	2 1/2	1 1/2	1.300	44.8
20WR5x6	5	2 1/2	1 1/2	1.300	67.2
20WR6x2	6	2	1 1/4	1.333	17.0
20WR6x4	6	2	1 1/4	1.333	34.0
20WR6x6	6	2	1 1/4	1.333	51.0
20WR8x2	8	1 1/2	1 1/2	1.375	13.8
20WR8x4	8	1 1/2	1 1/2	1.375	27.6
20WR8x6	8	1 1/2	1 1/2	1.375	41.4
20WR10x2	10	1 1/4	1 1/4	1.150	9.0
20WR10x4	10	1 1/4	1 1/4	1.150	18.0
20WR10x6	10	1 1/4	1 1/4	1.150	27.0
20WR12x2	12	1	1	0.917	6.40
20WR12x4	12	1	1	0.917	12.8
20WR12x6	12	1	1	0.917	19.2
20WR16x2	16	3/4	3/4	0.688	3.4
20WR16x4	16	3/4	3/4	0.688	6.8
20WR16x6	16	3/4	3/4	0.688	10.2
20WR20x2	20	1/2	1/2	0.450	0.8
20WR20x4	20	1/2	1/2	0.450	1.6
20WR20x6	20	1/2	1/2	0.450	2.5

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

1.0 INTRODUCTION

Ametric® intends to boost its presence in the marketplace by drawing on its twin strengths of quality and an ongoing commitment to product improvement aimed at satisfying all our customer's needs. Our versatility allows us to satisfy requests for special reduction gears. Each unit is tested prior to shipping for optimum performance. All units are handcrafted by artisans in Italy.

1.1 SYMBOLS

P	= Power (RD)
P1	= Power (FRD)
Pu	= Output Power
i	= Gear Ratio
it	= Total Gear Ratio (for combined gears)
i1	= 1° Reduction Gear Ratio
i2	= 2° Reduction Gear Ratio
ic	= Gear Ratio with Pretorque
itc	= Total Gear Ratio with Pretorque
n1	= Input RPM
n2	= Output RPM
M1	= Output Twisting Moment (RD)
M1'	= Output Twisting Moment (FRD)
M2	= Twisting Moment Requested
Mc	= Twisting Moment Calculated
Rd	= Dynamic Efficiency
Rs	= Static Efficiency
FG	= Guarantee Factor
Fs	= Service Factor
CR	= Low-Speed Shaft Radial Load
CA	= Low-Speed Shaft Axial Load
CRV	= High-Speed Shaft Radial Load
CAV	= High-Speed Shaft Axial Load

1.2 UNITS OF MEASUREMENT

P	KW	
P1	KW	1KW = 1.36 HP
Pu	KW	
n1	RPM	
n2	RPM	
M1	Nm	
M2	Nm	1Nm = 0.1daNm
MC	Nm	1Nm = 0.1 Kgm
CR	N	
CA	N	1N = 0.1 daN
CRV	N	1N = 0.1 Kg
CAV	N	

1.3 POWER

P (KW) – Applicable input power relating to velocity n1, and to a service factor Fs = 1. (see reduction gear performance tables on page 32)

P1 (KW1) - Power applied to reduction gear set up with motor flange (FRD) according to unified standards.

Pu (KW) – Output power transmitted by reduction gear, calculated with:

$$Pu = P \times Rd \quad \text{or} \quad Pu = \frac{M1 \times n2}{9550}$$

1.4 GEAR RATIO

i – Value required to identify the reduction gear:

$$i = \frac{n1}{n2}$$

it – Total gear ratio for the combined reduction gear, given by:

$$it = i1 \times i2$$

i1 – Driving reduction gear ratio

i2 – Driven reduction gear ratio

ic – Pretorque reduction gear ratio

itc – Total reduction gear ratio of pretorque, given by:

$$itc = ic \times i$$

1.5 TWISTING MOMENT

M1 – Output torque transmitted by reduction gear (RD) with a uniform load with reference to input velocity n1, and output velocity n2, calculated with a service factor S = 1.

M1' - Output torque transmitted by reduction gear (FRD) with reference to the motor applied.

M2 – Torque required by the application; it must always be lower than the value of M1.

Mc – Torque value to be used to select the reduction gear, calculated as follows:

$$Mc = M2 \times Fs \text{ must be } < M1$$

The torque value Mc must be adjusted by the factor Ft, which is given by the combination ambient temperature and type of load:

$$Mc = M2 \times Fs \times Ft < M1$$

Temperature Factor Ft				
Type of Load	Ambient Temperature (C°)			
	20°	30°	40°	50°
Uniform Load	1	1.05	1.2	1.4
Load with Moderate Impact	1	1.03	1.15	1.32
Load with High Impact	1	1.01	1.08	1.22

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

1.6 EFFICIENCY

Rd – Dynamic efficiency determined by output power (Pu) and input power (P). Other factors determined in the Rd calculation are: rate of slide, type of lubrication and helix angle of gear mesh.

N.B. The optimal efficiency value is obtained after an initial running-in period.

Rs – Efficiency at time of reduction gear start-up, which varies according to the gear ratio. The choice of motor is therefore important, especially when intermittent applications are involved.

The values are shown in the performance table.

Type	Static Efficiency i														
	7	7.5	10	15	20	25	30	35	40	45	50	60	70	80	100
30		0.79	0.74	0.65	0.57		0.49		0.40		0.37	0.35	0.33	0.30	0.28
40		0.82	0.77	0.69	0.60		0.53		0.43		0.42	0.38	0.35	0.33	0.29
50		0.83	0.78	0.70	0.69		0.54		0.53		0.44	0.42	0.40	0.36	0.31
63	0.81		0.77	0.69	0.66	0.63	0.54	0.51	0.49	0.47	0.44	0.40	0.39	0.35	0.31
70	0.80		0.76	0.70	0.65	0.62	0.54	0.52	0.50	0.47	0.45	0.41	0.38	0.35	0.35
85	0.81		0.77	0.71	0.68	0.65	0.55	0.53	0.53	0.51	0.50	0.46	0.43	0.41	0.37

1.7 IRREVERSIBILITY

The reversibility of a reduction gear is determined by a high mesh angle (favoring low ratios), while irreversibility is determined by a low helix angle (high ratios 1/70, 1/80, 1/100), and also by the type of load and any impact.

Static irreversibility – This is the state in which it is not possible to have rotation of the low speed shaft. Only in particular conditions and when loads are subject to vibrations might a very slow return occur. The lower the value of Rs, the greater the irreversibility will be. Theoretically, the conditions are as follows:

Rs < 0.45 there is irreversibility
Rs 0.45-0.55 irreversibility uncertain
Rs > 0.55 there is reversibility

Dynamic irreversibility – This is the condition required to stop and therefore hold the load at the moment the drive action ceases. This is the most difficult condition to achieve because it is influenced by the efficiency Rd, by the rotation velocity and by possible vibrations that may be generated by the load. Theoretically, the following indications can be given:

Rd < 0.5 there is dynamic irreversibility
Rd > 0.5 there is dynamic reversibility

The table shows the degree of reversibility versus gear ratio.

NB – Since total irreversibility cannot be assured, the mechanism must be provided with an external braking action.

Type of Reversibility		RD – FRD					
		30	40	50	63	70	85
Total Reversibility	i		7.5	7.5	7	7	7
Good Dynamic and Static Reversibility with Rapid Return	i	7.5 10	10 15	10 15	10 15	10 15	10 15
Possible Dynamic Reversibility, Uncertain Static Irreversibility, Rapid Return with Vibrations	i	15 20 30	20 30	20 30 40	20-25 30-35 40	20-25 30-35 40-45	20-25 30-35 40-45 50
Dynamic Reversibility Virtually Zero, Static Irreversibility, Stop-Start Return with Vibrations	i	40 50 60	40-50 60 70	50-60 60 80	45-50 60-70 80	50-60 70 80	60 70 80
No Dynamic Reversibility, Static Irreversibility, No Return	i	70 80 100	80 100	100	100	100	100

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

1.8 SERVICE FACTOR

F_s – Value that takes into account the various operating states (start-up frequency, nature of load and duration) to which the reduction gear is subjected; the power ratings and twisting moments indicated in the reduction gear (RD) performance tables are nominal, i.e. valid for a service factor $F_s = 1$, and they correspond to the service factor given in the table, for reduction gears set up with motor flange (FRD).

Nature of Load	h/work	Start-Up Frequency/h							
		4	8	16	32	65	130	250	500
Uniform Load	<2	0.7	0.75	0.78	0.8	0.85	0.9	0.97	1.13
	2 ÷ 4	0.9	0.92	0.96	1	1.11	1.14	1.16	1.18
	4 ÷ 8	1	1.1	1.13	1.28	1.33	1.34	1.35	1.38
	8 ÷ 16	1.3	1.35	1.4	1.5	1.54	1.55	1.61	1.72
	16 ÷ 24	1.6	1.7	1.75	1.8	1.9	2	2.06	2.2
Small Overloads	<2	0.83	0.85	0.9	0.95	1	1.05	1.13	1.19
	2 ÷ 4	1	1.16	1.2	1.24	1.26	1.35	1.4	1.5
	4 ÷ 8	1.25	1.3	1.35	1.4	1.5	1.55	1.6	1.8
	8 ÷ 16	1.5	1.6	1.6	1.8	1.85	1.95	2	2.1
	16 ÷ 24	1.8	2	2.05	2.15	2.3	2.4	2.5	2.6
Major Overloads	<2	1	1	1	1.1	1.15	1.2	1.25	1.3
	2 ÷ 4	1.3	1.3	1.3	1.4	1.45	1.5	1.55	1.6
	4 ÷ 8	1.5	1.5	1.55	1.7	1.75	1.8	1.90	2
	8 ÷ 16	1.85	1.85	1.95	2.1	2.2	2.3	2.4	2.5
	16 ÷ 24	2.2	2.3	2.35	2.5	2.6	2.7	2.9	2.9

1.9 RADIAL LOAD (CR) and AXIAL LOAD (CA)

CR – Every type of transmission generates radial loads both in the input shaft (high speed) and in the output shaft (low speed). The values in the tables have been calculated for a force acting midway along the projecting shaft; for a load positioned at 1/3 of the length, increase the table values by 25%; for a load positioned at 2/3 of the length, reduce the values by 25%.

CA – The Axial Load values (CA for low speed shaft, CAV for high speed shaft) are 20% of the Radial Load values.

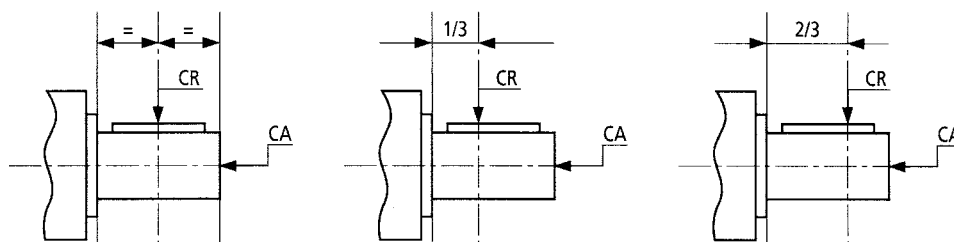
For shafts projecting at both ends, each end can support a load equal to 3/5 of the values shown in the table, provided they move in the same direction and have the same intensity.

We recommend that the chain wheel, gear or pulley be installed as close as possible to the shaft stop.

The values in the tables are expressed in daN.

Type	n2 (RPM) – (U/min)												
	200	187	140	93	70	56	47	40	35	30	23	17	14
30		70	78	88	92	99	104	108	115	122	130	144	148
40		98	106	116	130	141	152	160	165	173	190	195	215
50		129	147	164	188	198	205	211	222	233	258	287	308
63	181	190	204	235	263	285	295	312	327	343	383	400	443
70	197	207	221	256	284	309	320	342	362	381	424	443	495
85	248	259	275	312	348	379	393	421	442	460	521	538	592

Type	n1 (RPM) – (U/min)			
	1400	900	700	500
30	10	10	10	12
40	16	18	20	25
50	24	27	30	34
63	33	35	38	42
70	44	48	53	58
85	55	58	62	66



1.10 LUBRICATION

Our reduction gears are supplied life-lubricated with synthetic oil. However a plug is fitted for use if necessary. Unless specific requests are made, the type of oil used is “*TIVELA OIL SC 320*”.

1.11 INSTALLATION

It is important to secure the motor reduction gear so that vibrations are not transmitted during operation, because they are a source of noise and premature wear due to variable fatigue. With regard to continuous starts under load, we recommend that the motor be protected with thermal probes so that overheating due to overloads does not lead to coil meltdown.

1.12 PAINTING

Up to and including size 70, the reduction gears are made from aluminum and no painting of any kind is provided.

From size 85 up, the reduction gears are made from cast iron and painted.

For paint specification requests, please contact our Special Products Department.

1.13 MAINTENANCE

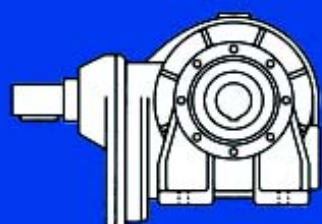
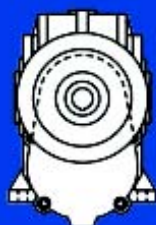
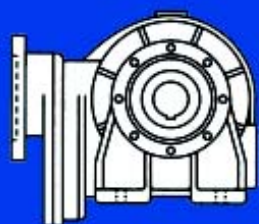
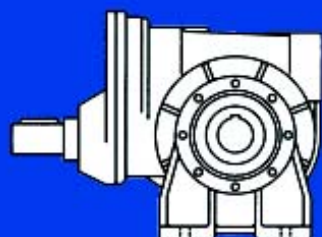
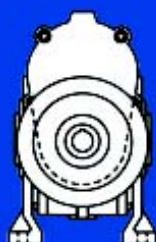
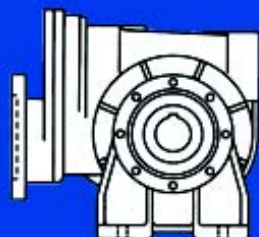
Since our reduction gears are supplied with life-lubricated synthetic oil, no particular maintenance is required apart from external cleaning. Do not use solvents for cleaning as they may damage the seal rings and gaskets.

1.14 TECHNICAL SPECIFICATIONS

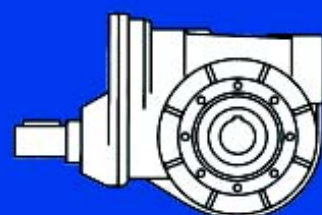
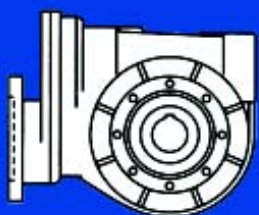
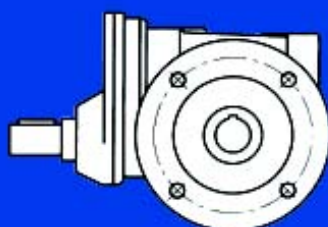
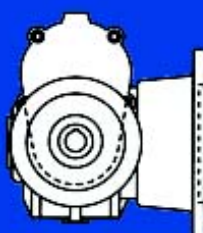
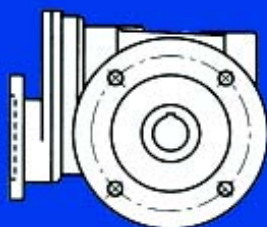
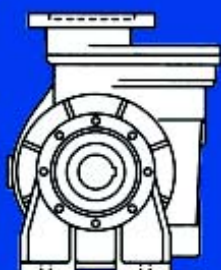
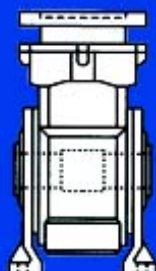
Technical specifications shown in this catalog are subject to change without notification. Please contact our customer service team for the most current information.

1.15 WARRANTY

There are no warranties, of merchantability, fitness for purpose, or express, that extend beyond the description contained herein. The parties agree that the buyer's sole exclusive remedy against the seller shall be repair or replacement of defective parts of goods. The buyer agrees that no other remedy, including, but not limited to, consequential and incidental damages, shall be available to him.



RD - FRD



WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

2.0 WORM GEARBOXES

AMETRIC® gearboxes are appreciated for their reliability and noise-free operation, which are crucial characteristics of a good product. This has been achieved by the systematic control of processes, from selecting the materials right through to assembly, every single phase of which is performed manually by trained personnel.

Up to and including size 70, the external parts (box, flanges, feet, etc.) are made from SGALSI 91 UNI 7369 aluminum. From size 85 up they are made from mechanical cast iron G20-UNI 5007.

•TRANSMISSION MECHANISM

Up to size 50, there are 11 gear ratios: for sizes 63, 70 and 85 there are 14 gear ratios (personalized gear ratios can be considered on request).

•WORM GEARS

Made from nickel-chrome-molybdenum steel and case hardened to obtain a specific surface hardness (ensuring long life and wear strength) and a tough, elastic core to withstand mechanical impact. **The profile is ground to an involute shape (Z1).**

•CROWN GEARS

Built with central hub in cast iron (G20-UNI 5007), onto which a bronze layer is cast (B14-UNI 1701).

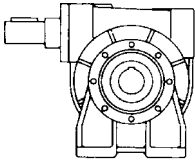
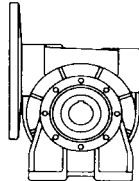
•BEARINGS

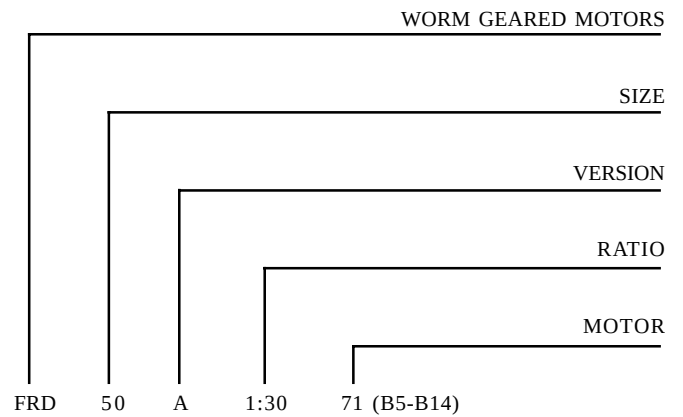
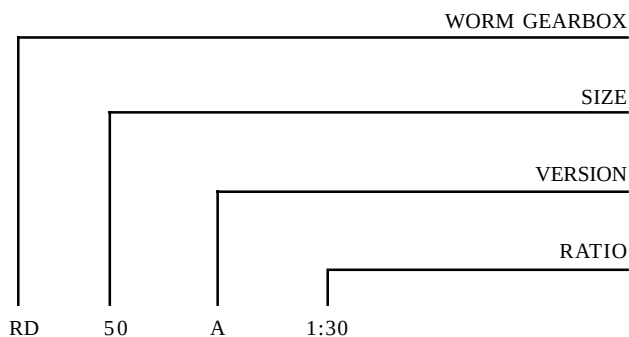
Ball type with wide face; from center distance 50 taper roller bearings are mounted on the high speed shaft (WORM GEAR).

•SEAL RINGS

Double lip seal rings are fitted on all types to ensure enhanced tightness.

2.1 SYMBOLS AND DESIGNATION

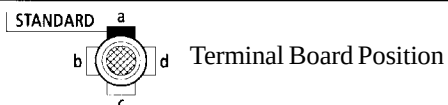
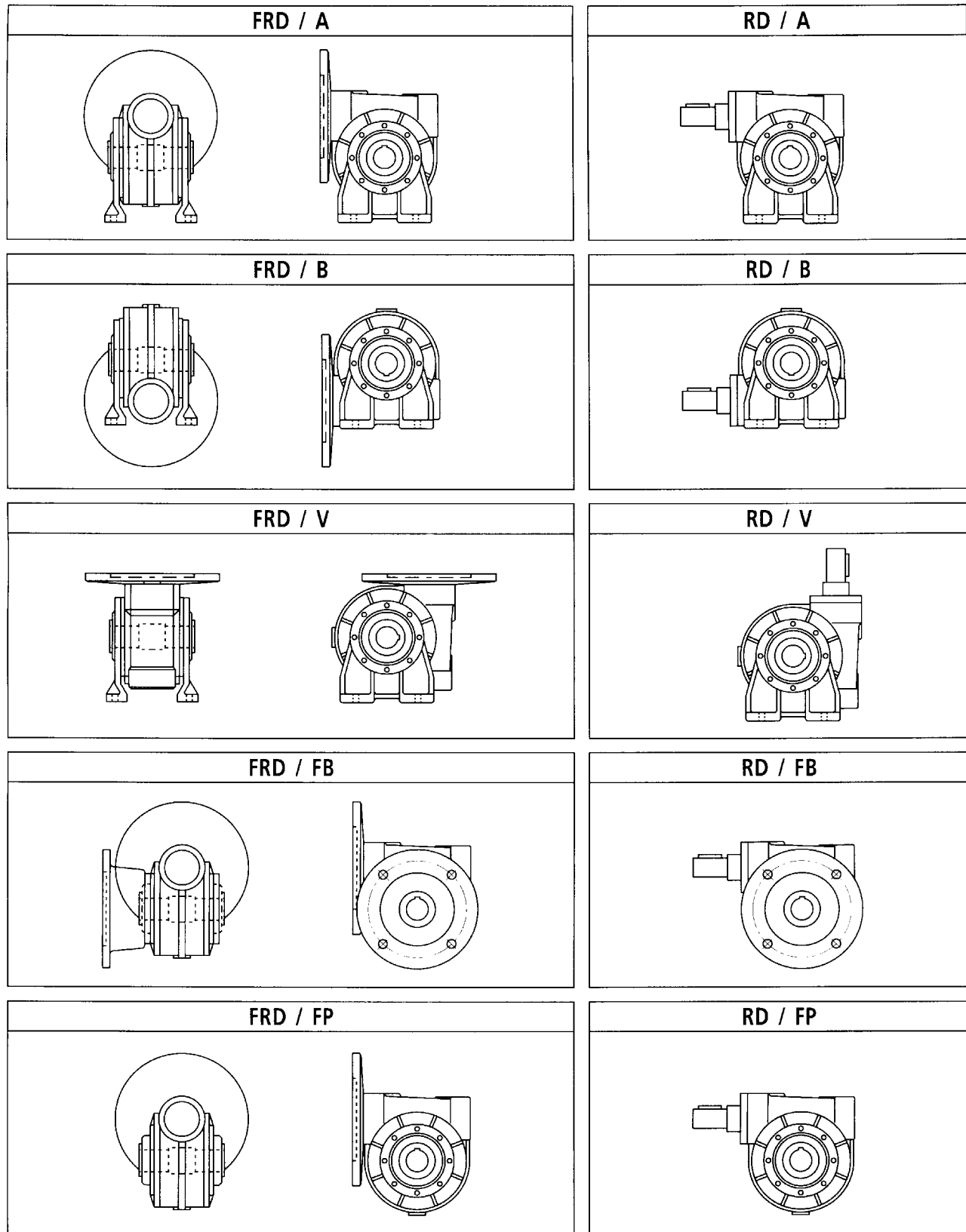
RD - WORM GEARBOXES	FRD - WORM GEARBOXES WITH MOTOR FLANGE
	



N.B. - Unless otherwise specified, the FB flange will be fitted as per the catalog.

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

2.2 VERSIONS



WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

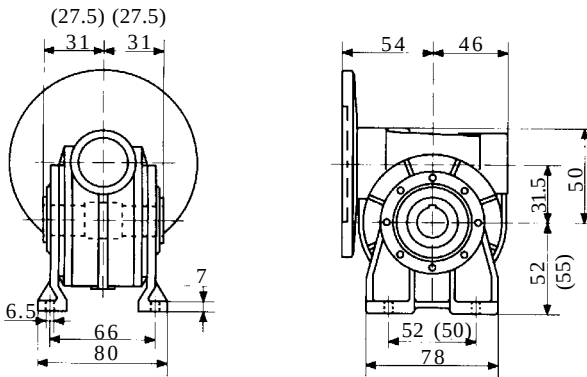
2.3 MOUNTING POSITIONS

A - A1					
AM		AL		AS	
AN		AR		AZ	
B - B1					
BM		BL		BS	
BN		BR		BZ	
V - V1					
VM		VL		VS	
VN		VR		VZ	
FB - FB6					
FBM		FBL		FBS	
FBN		FBR		FBZ	
FP - FP2					
FPM		FPL		FPS	
FPN		FPR		FPZ	

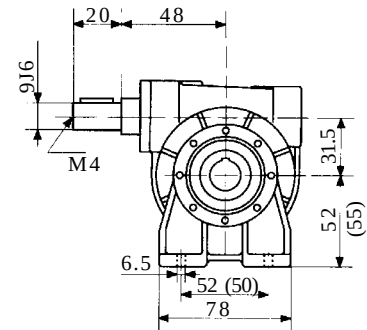
WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

2.4 DIMENSIONS

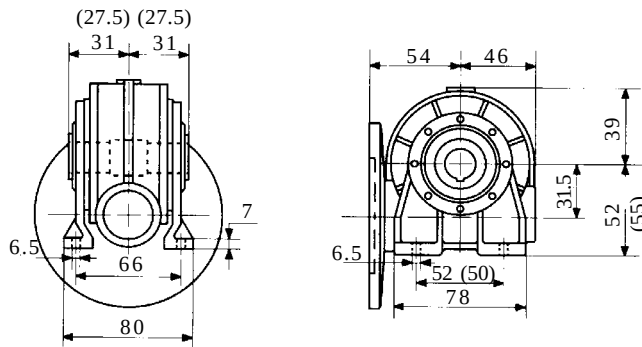
FRD 30/A (A1)



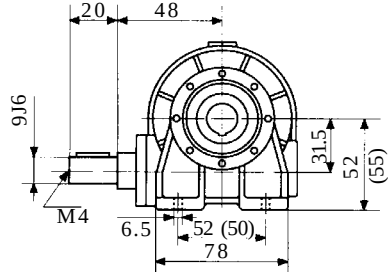
RD 30/A (A1)



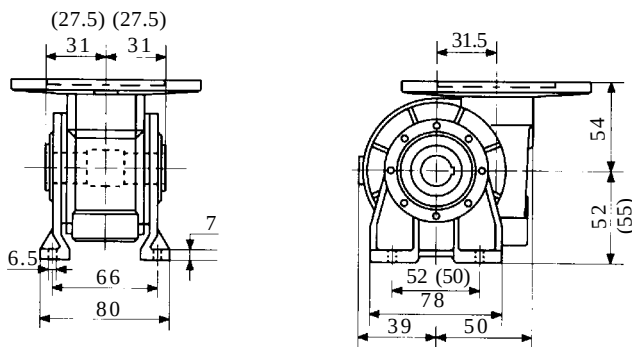
FRD 30/B (B1)



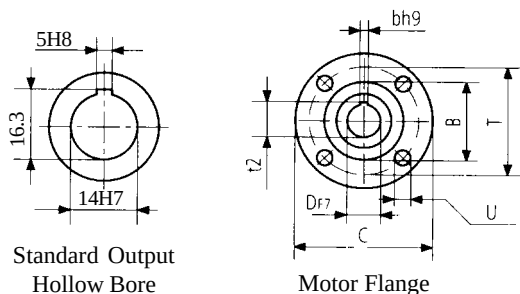
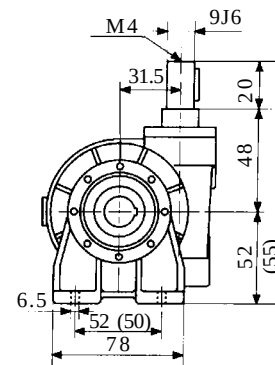
RD 30/B (B1)



FRD 30/V (V1)



RD 30/V (V1)

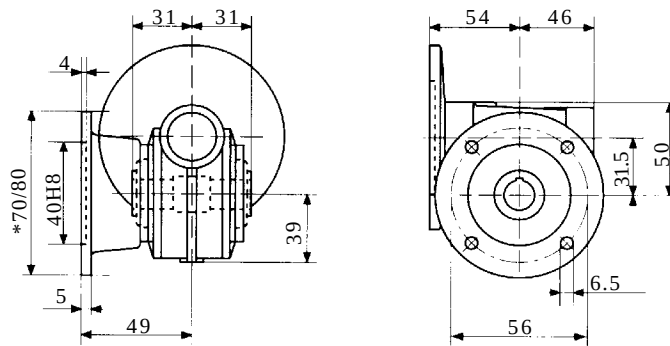


Motor Flange Dimensions

	A - B - V	C	B	T	U	Df7	bh9	t2:Q1
B5	56	120	80	100	7	9	3	10.4
	63	140	95	115	9.5	11	4	12.8
B14	56	80	50	65	5.5	9	3	10.4
	63	90	60	75	5.5	11	4	12.8

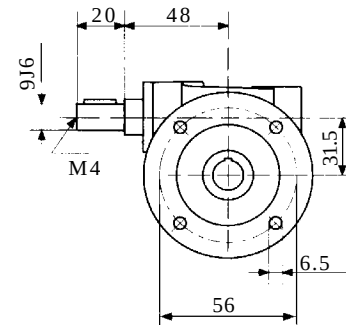
WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

FRD 30 FB

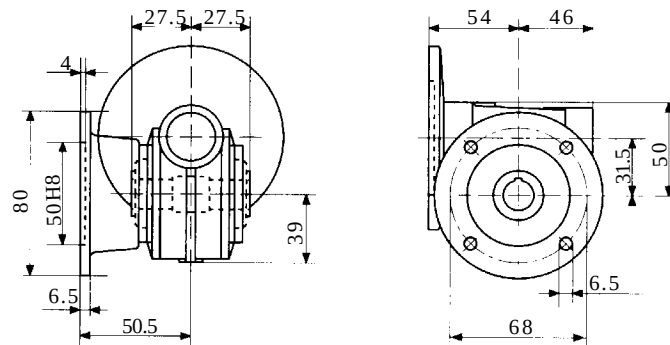


*by request

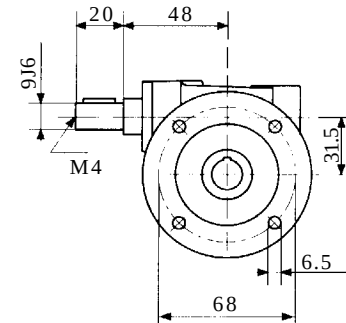
RD 30 FB



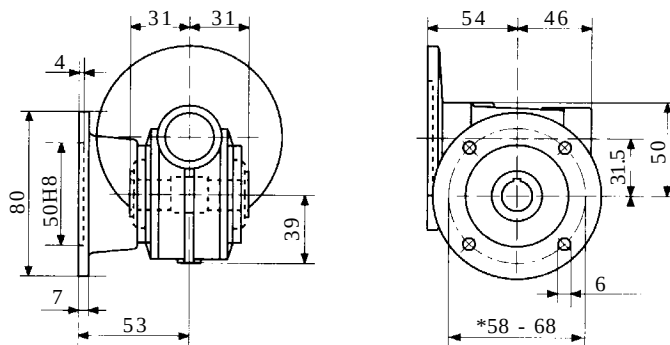
FRD 30 FB1



RD 30 FB1

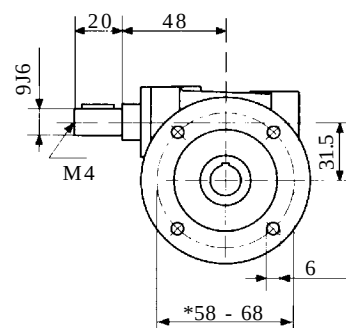


FRD 30 FB2

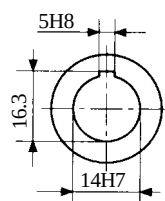


*slot

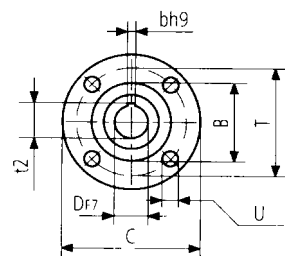
RD 30 FB2



*slot



Standard Output
Hollow Bore



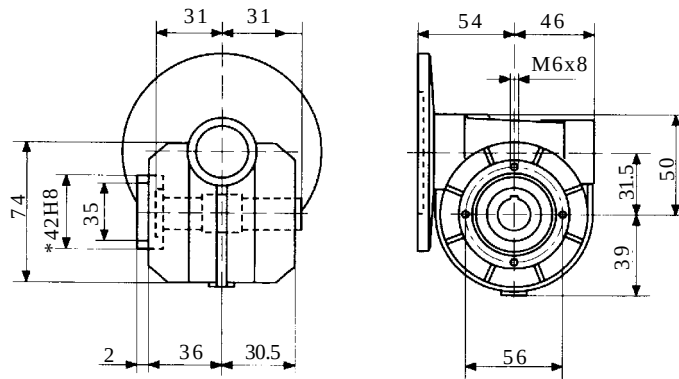
Motor Flange

Motor Flange Dimensions

	FB	C	B	T	U	Df7	bh9	t2 Q1
B5	56	120	80	100	7	9	3	10.4
	63	140	95	115	9.5	11	4	12.8
B14	56	80	50	65	5.5	9	3	10.4
	63	90	60	75	5.5	11	4	12.8

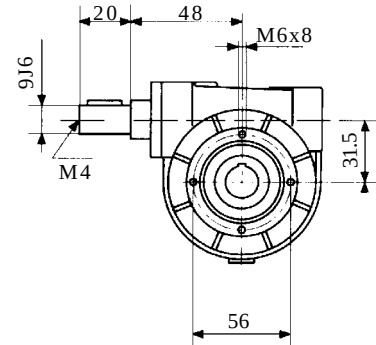
WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

FRD 30 FP

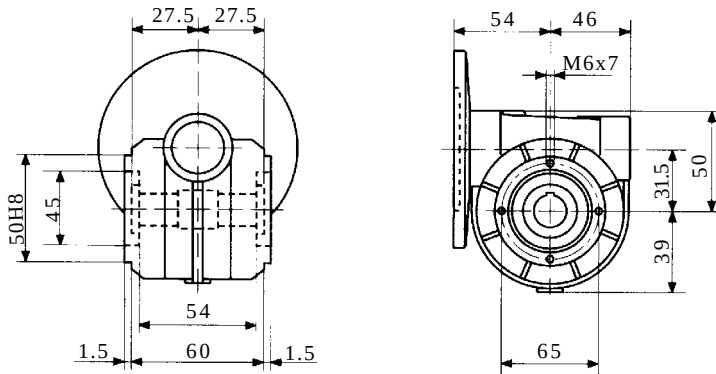


*Option 42H8 (female) Depth 6.5

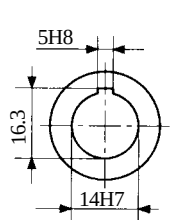
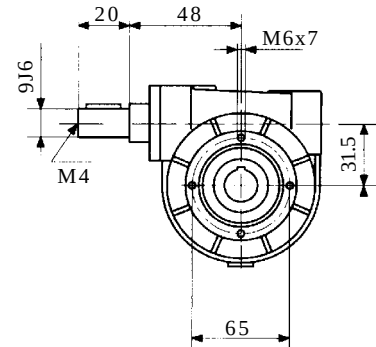
RD 30 FP



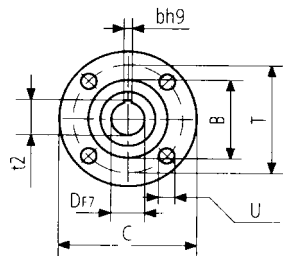
FRD 30 FP1



RD 30 FP1



Standard Output
Hollow Bore



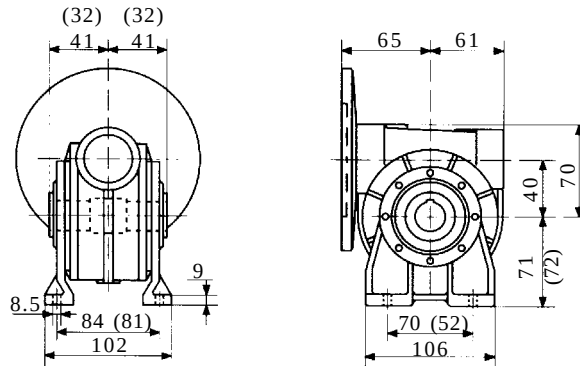
Motor Flange

Motor Flange Dimensions

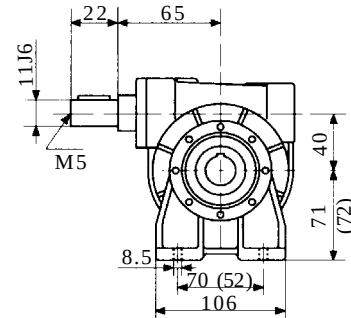
	FP	C	B	T	U	Df7	bh9	t2±0.1
B5	56	120	80	100	7	9	3	10.4
	63	140	95	115	9.5	11	4	12.8
B14	56	80	50	65	5.5	9	3	10.4
	63	90	60	75	5.5	11	4	12.8

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

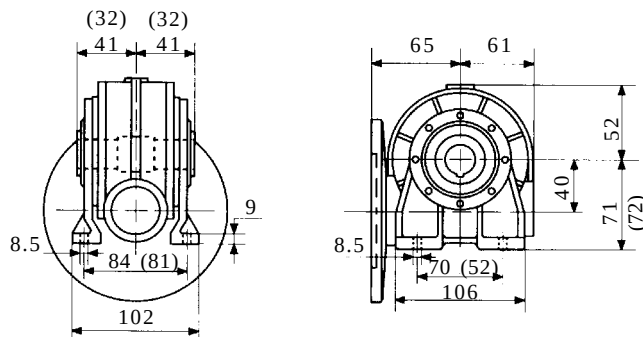
FRD 40/A (A1)



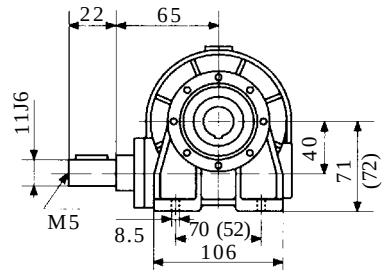
RD 40/A (A1)



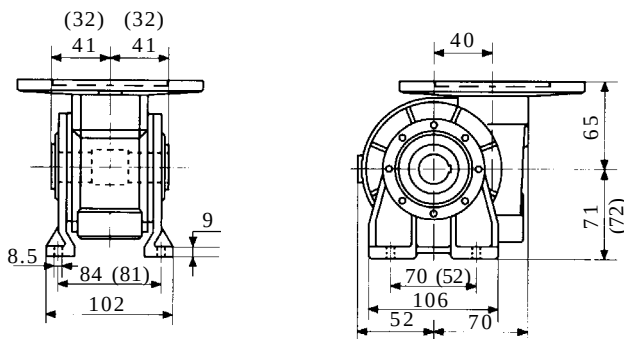
FRD 40/B (B1)



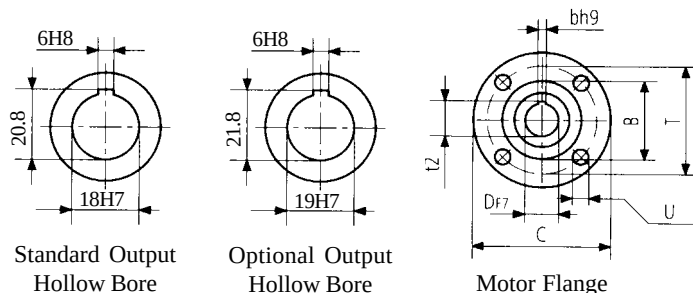
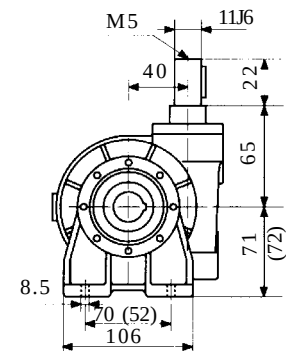
RD 40/B (B1)



FRD 40/V (V1)



RD 40/V (V1)



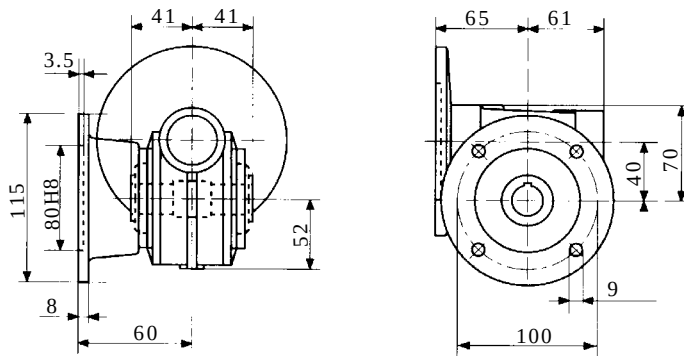
Motor Flange Dimensions

	A - B - V	C	B	T	U	Df7	bh9	t2°Q1
B5	56	120	80	100	7	9	3	10.4
	63	140	95	115	9.5	11	4	12.8
	71	160	110	130	9.5	14	5	16.3
B14	56*	80	50	65	5.5	9	3	10.4
	63	90	60	75	5.5	11	4	12.8
	71	105	70	85	7	14	5	16.3

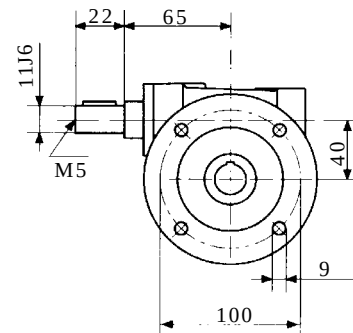
*See note on page 31.

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

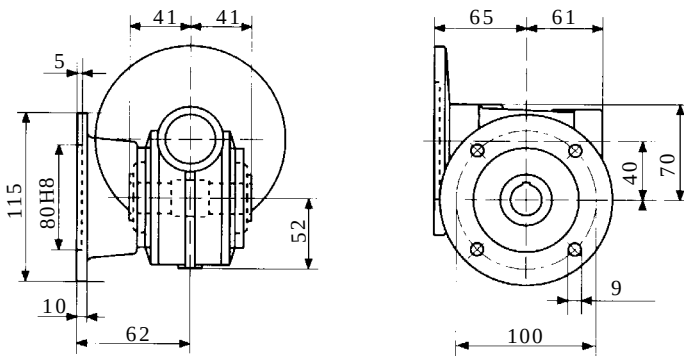
FRD 40 FB4



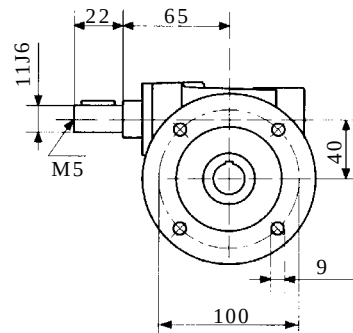
RD 40 FB4



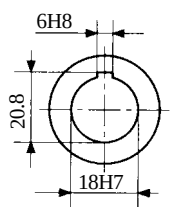
FRD 40 FB5



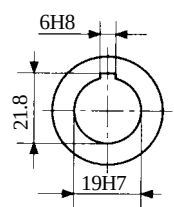
RD 40 FB5



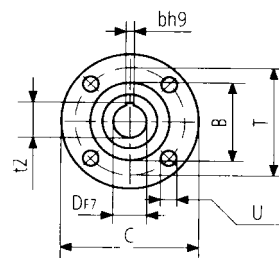
Motor Flange Dimensions



Standard Output
Hollow Bore



Optional Output
Hollow Bore



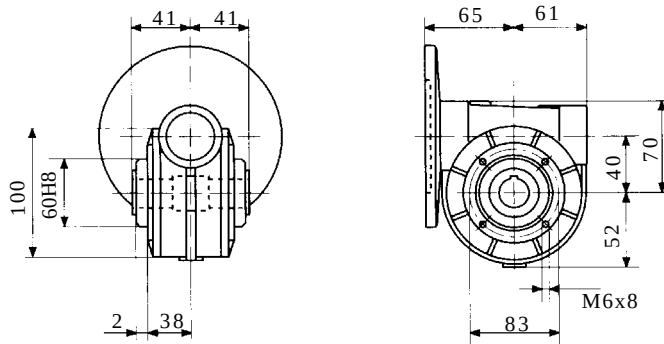
Motor Flange

	FB	C	B	T	U	Df7	bh9	t2:Q1
B5	56	120	80	100	7	9	3	10.4
	63	140	95	115	9.5	11	4	12.8
	71	160	110	130	9.5	14	5	16.3
B14	56*	80	50	65	5.5	9	3	10.4
	63	90	60	75	5.5	11	4	12.8
	71	105	70	85	7	14	5	16.3

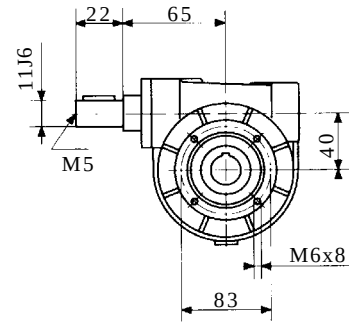
*See note on page 31.

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

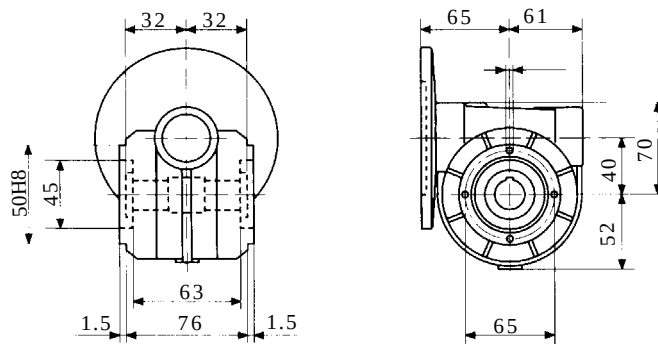
FRD 40 FP



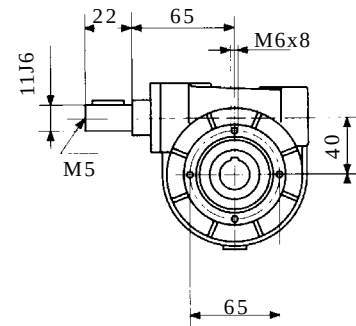
RD 40 FP



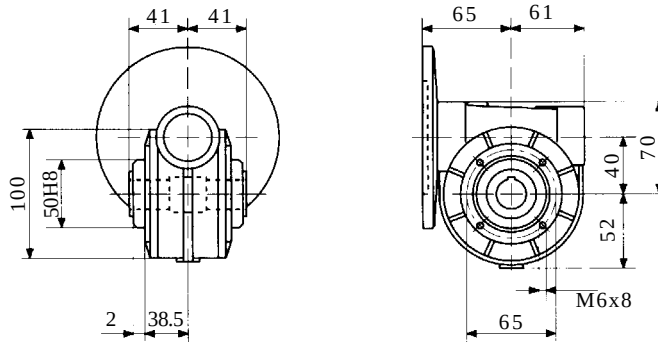
FRD 40 FP1



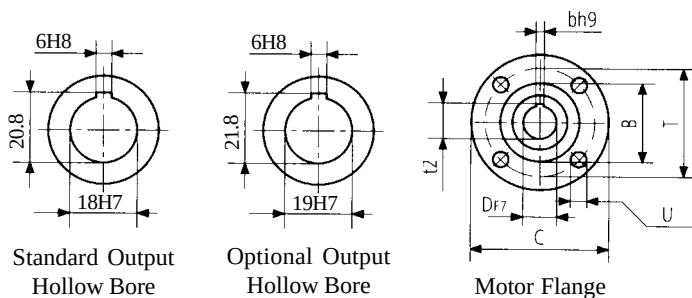
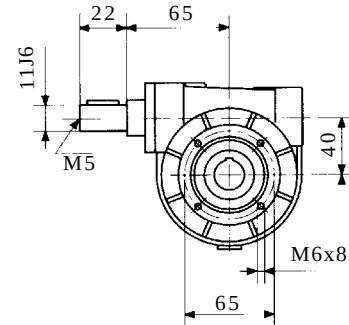
RD 40 FP1



FRD 40 FP2



RD 40 FP2



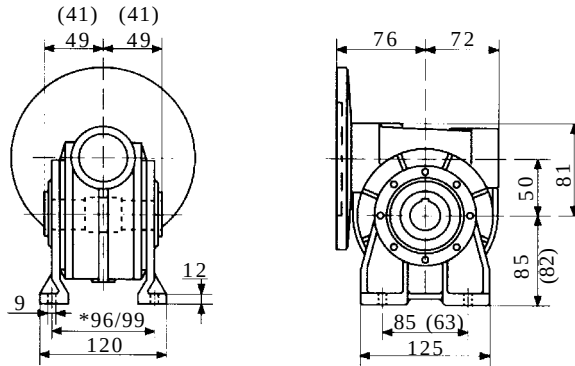
Motor Flange Dimensions

	FP	C	B	T	U	Df7	bh9	t2±0.1
B5	56	120	80	100	7	9	3	10.4
	63	140	95	115	9.5	11	4	12.8
	71	160	110	130	9.5	14	5	16.3
B14	56*	80	50	65	5.5	9	3	10.4
	63	90	60	75	5.5	11	4	12.8
	71	105	70	85	7	14	5	16.3

*See note on page 31.

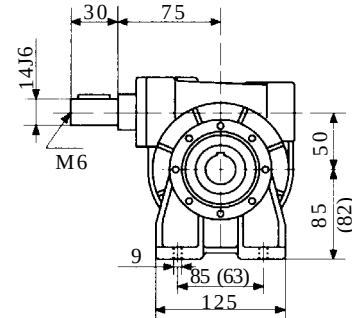
WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

FRD 50/A (A1)

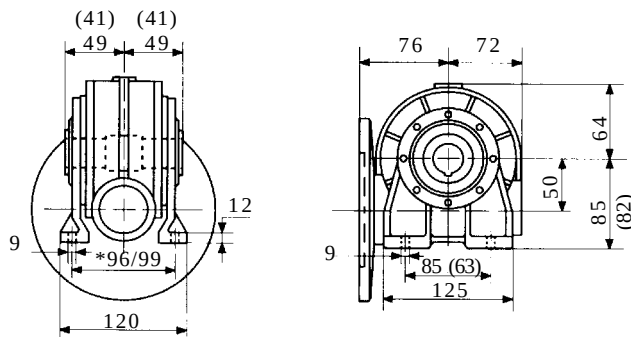


*Slot

RD 50/A (A1)

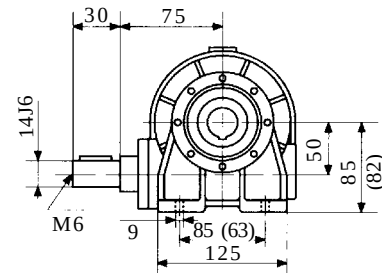


FRD 50/B (B1)

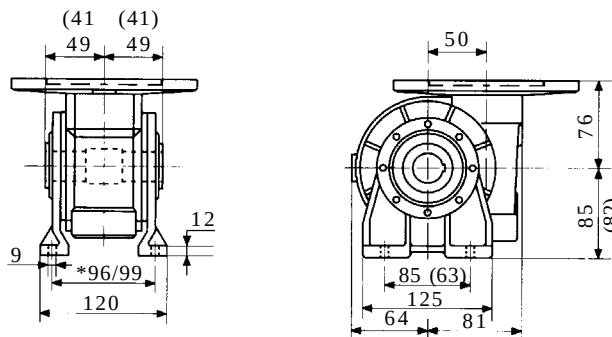


*Slot

RD 50/B (B1)

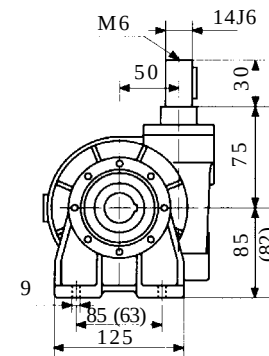


FRD 50/V (V1)



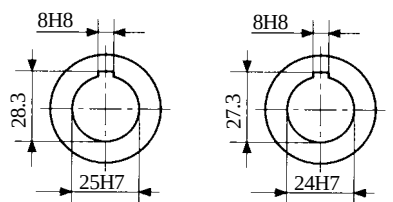
*Slot

RD 50/V (V1)



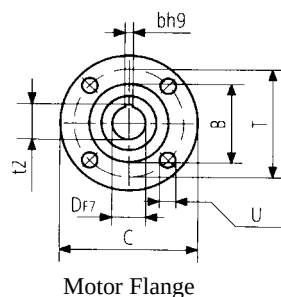
Motor Flange Dimensions

A - B - V	C	B	T	U	Df7	bh9	t2±0.1
B5	63	140	95	115	9.5	11	12.8
	71	160	110	130	9.5	14	16.3
	80	200	130	165	11.5	19	21.8
B14	63*	90	60	75	5.5	11	12.8
	71	105	70	85	7	14	16.3
	80	120	80	100	7	19	21.8



Standard Output
Hollow Bore

Optional Output
Hollow Bore

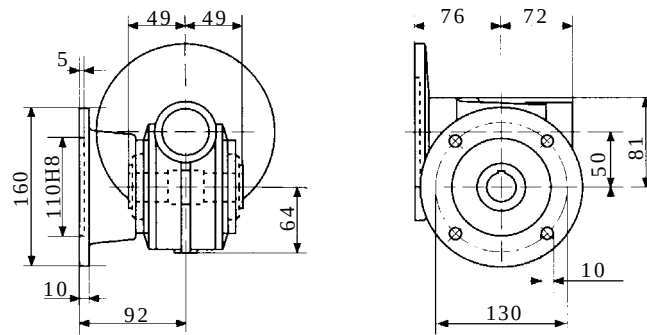


Motor Flange

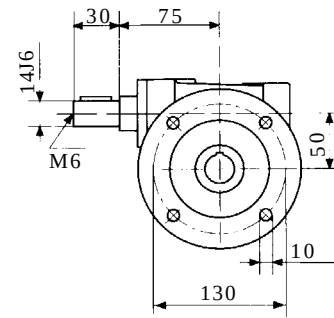
*See note on page 31.

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

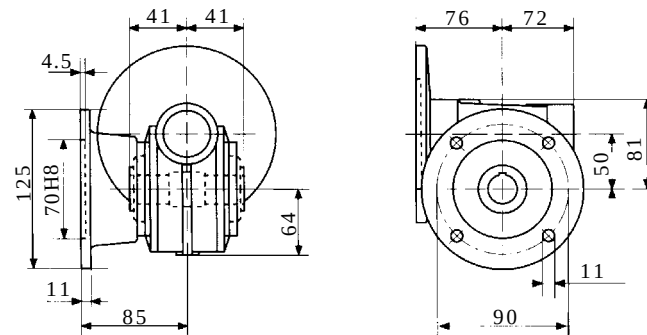
FRD 50 FB



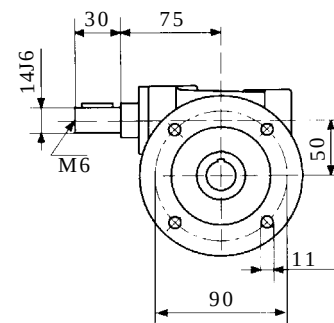
RD 50 FB



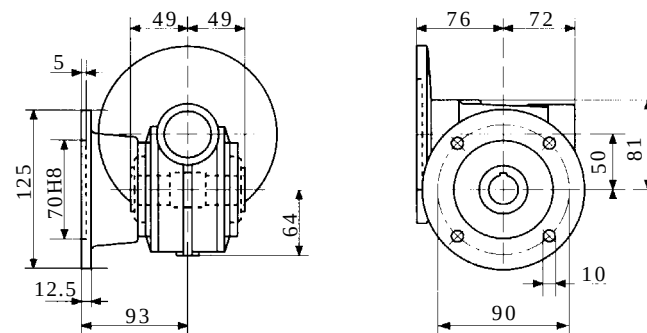
FRD 50 FB1



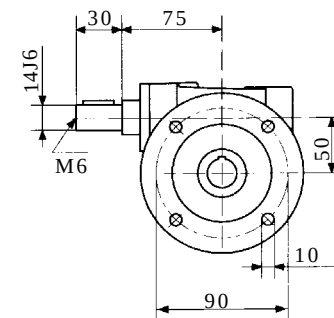
RD 50 FB1



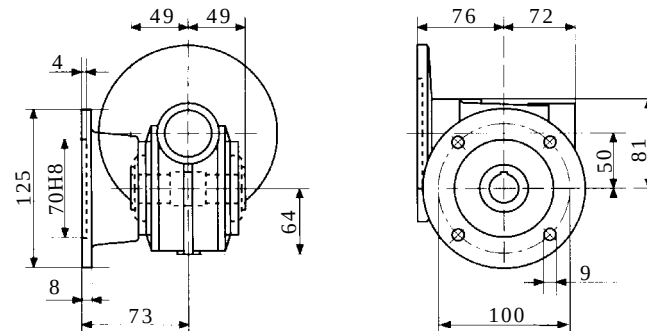
FRD 50 FB2



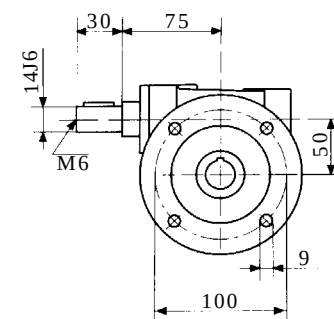
RD 50 FB2



FRD 50 FB3

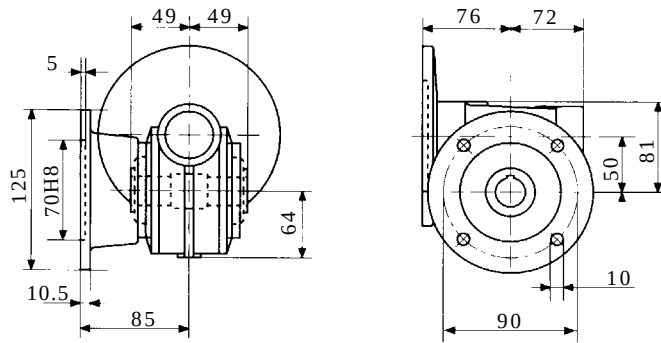


RD 50 FB3

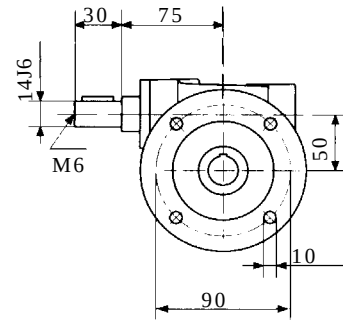


WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

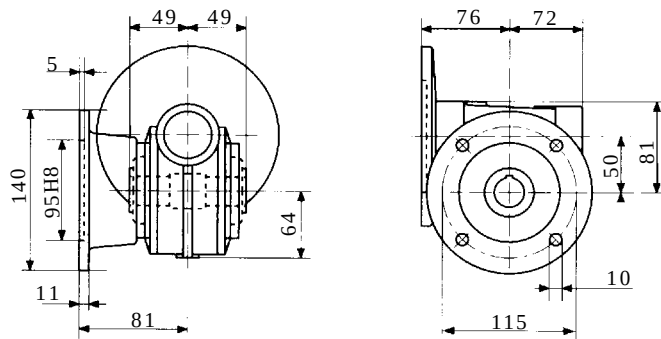
FRD 50 FB4



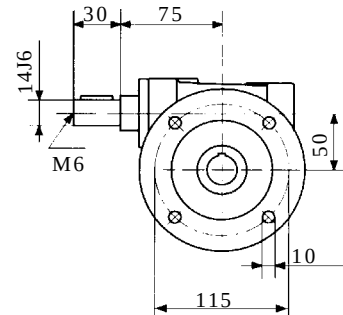
RD 50 FB4



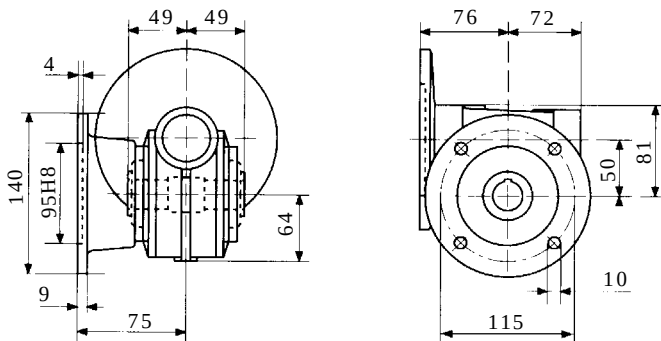
FRD 50 FB5



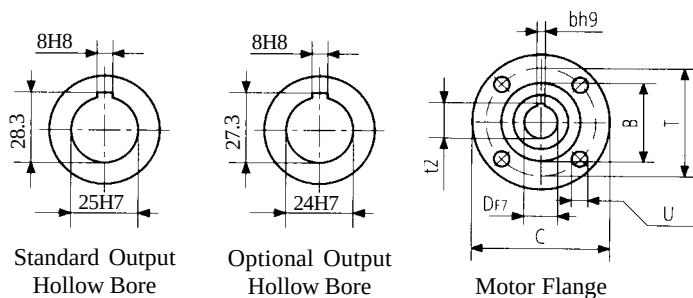
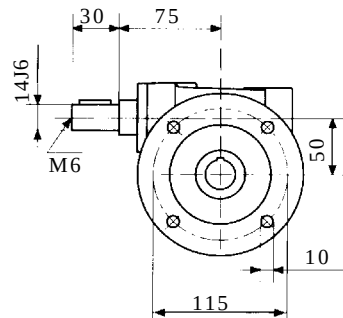
RD 50 FB5



FRD 50 FB6



RD 50 FB6



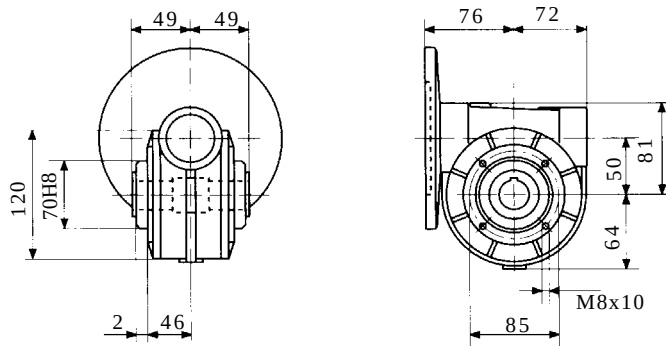
Motor Flange Dimensions

	FB	C	B	T	U	Df7	bh9	t2:Q1
B5	63	140	95	115	9.5	11	4	12.8
	71	160	110	130	9.5	14	5	16.3
	80	200	130	165	11.5	19	6	21.8
B14	63*	90	60	75	5.5	11	4	12.8
	71	105	70	85	7	14	5	16.3
	80	120	80	100	7	19	6	21.8

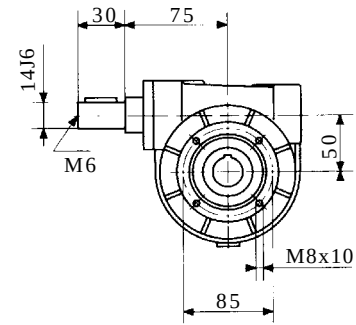
*See note on page 31.

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

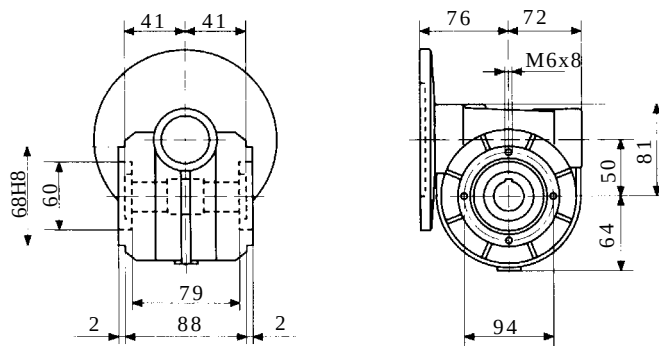
FRD 50 FP



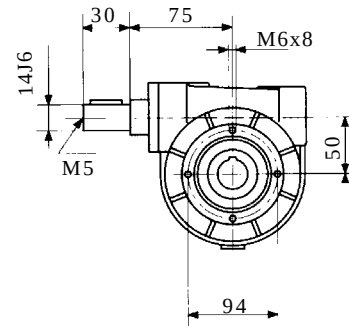
RD 50 FP



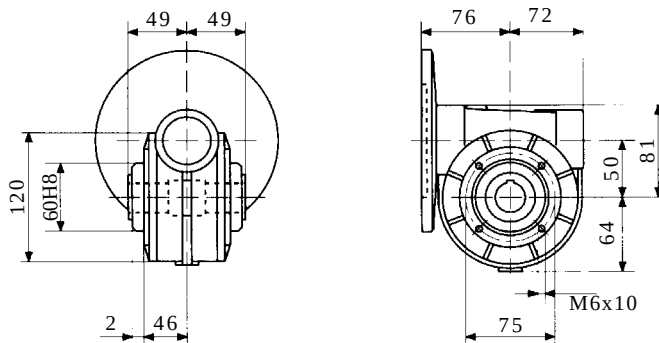
FRD 50 FP1



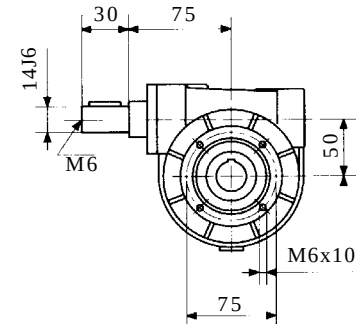
RD 50 FP1



FRD 50 FP2



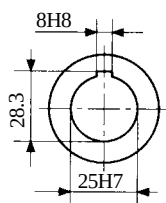
RD 50 FP2



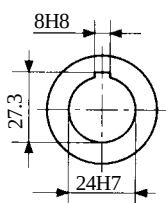
Motor Flange Dimensions

	FP	C	B	T	U	Df7	bh9	t2±Q1
B5	63	140	95	115	9.5	11	4	12.8
	71	160	110	130	9.5	14	5	16.3
	80	200	130	165	11.5	19	6	21.8
B14	63*	90	60	75	5.5	11	4	12.8
	71	105	70	85	7	14	5	16.3
	80	120	80	100	7	19	6	21.8

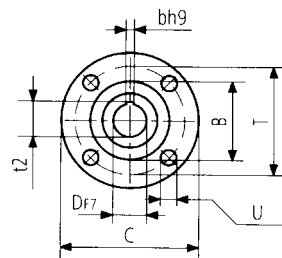
*See note on page 31.



Standard Output
Hollow Bore



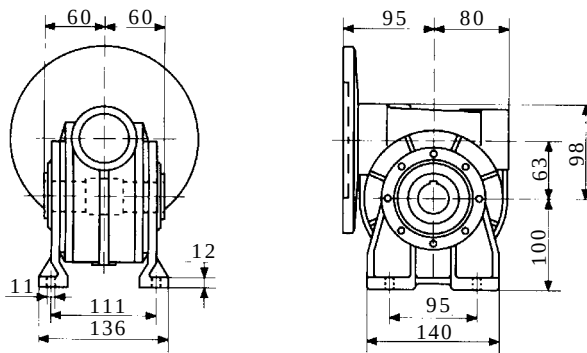
Optional Output
Hollow Bore



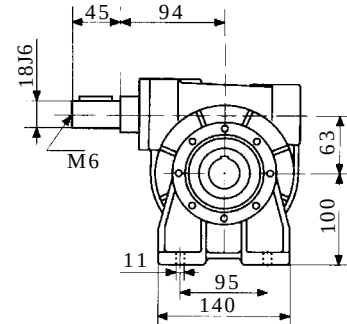
Motor Flange

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

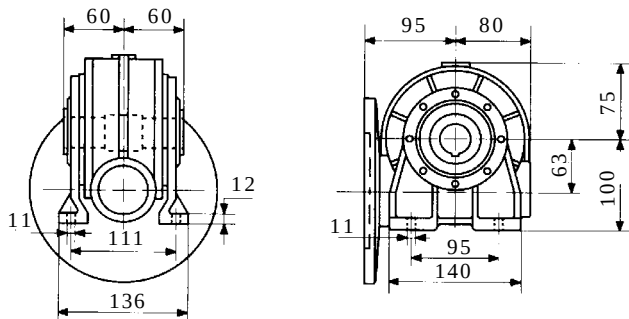
FRD 63/A



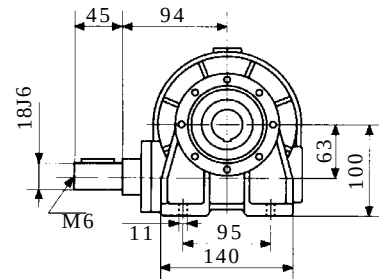
RD 63/A



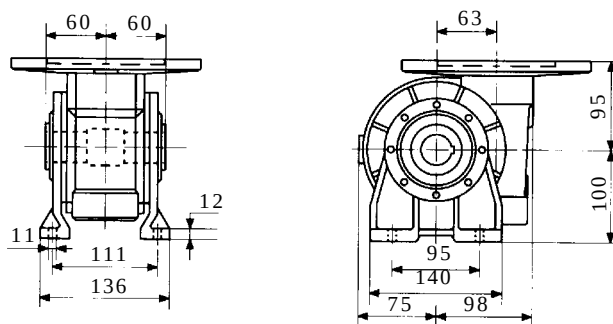
FRD 63/B



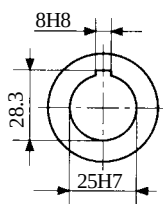
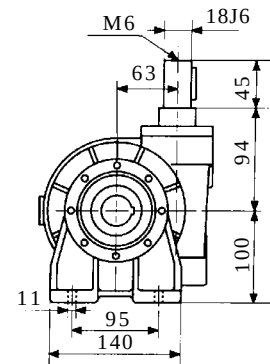
RD 63/B



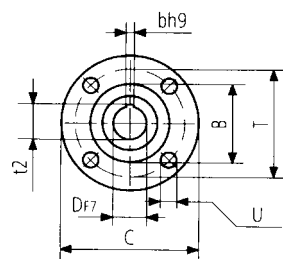
FRD 63/V



RD 63/V



Standard Output
Hollow Bore



Motor Flange

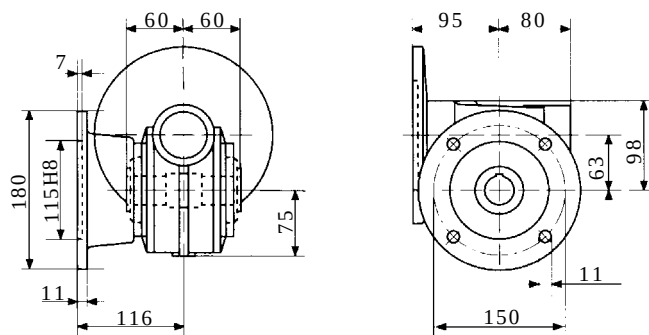
Motor Flange Dimensions

	A - B - V	C	B	T	U	Df7	bh9	t2 ^{Q1}
B5	70	160	110	130	9.5	14	5	16.3
	80	200	130	165	11.5	19	6	21.8
	90	200	130	165	11.5	24	8	27.3
B14	71*	105	70	85	7	14	5	16.3
	80	120	80	100	7	19	6	21.8
	90	140	95	115	8.5	24	8	27.3

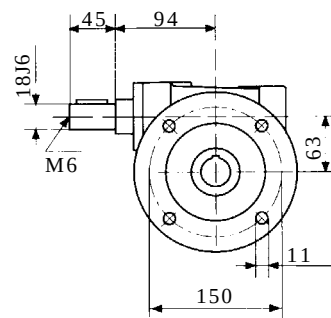
*See note on Page 31.

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

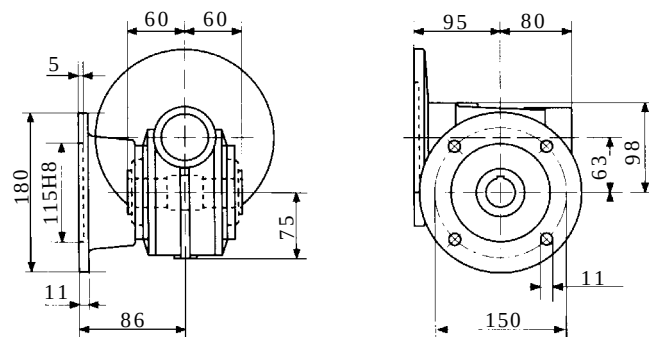
FRD 63 FB



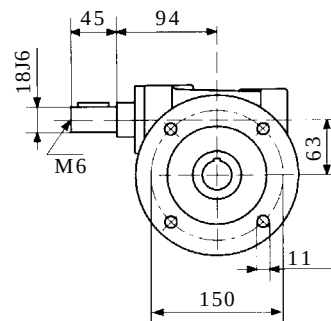
RD 63 FB



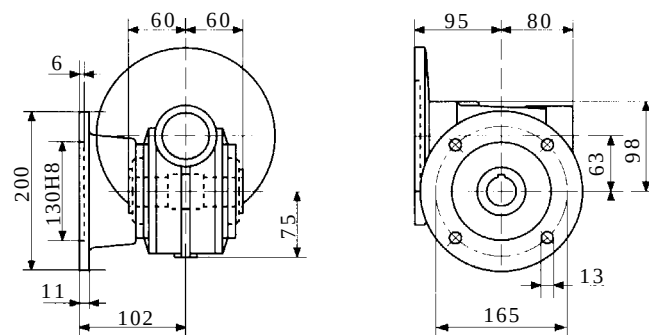
FRD 63 FB1



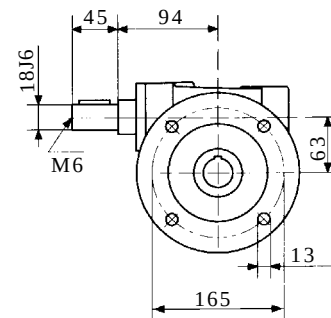
RD 63 FB1



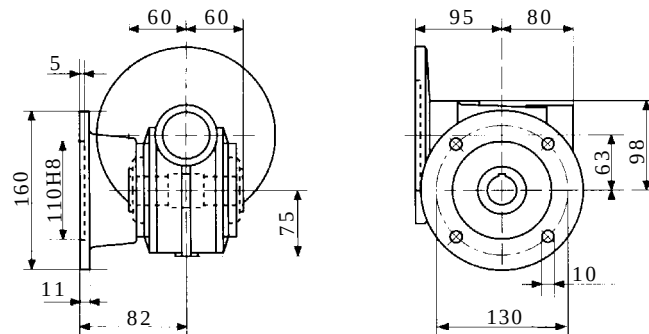
FRD 63 FB2



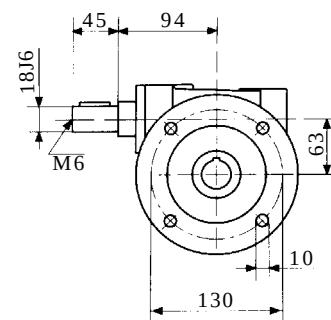
RD 63 FB2



FRD 63 FB3

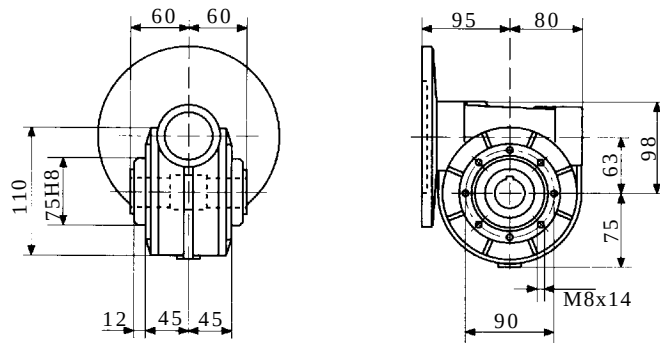


RD 63 FB3

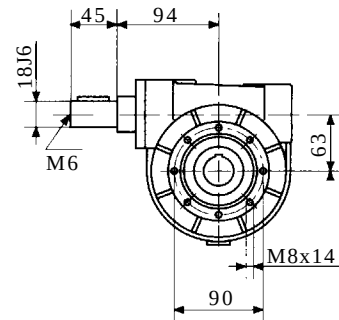


WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

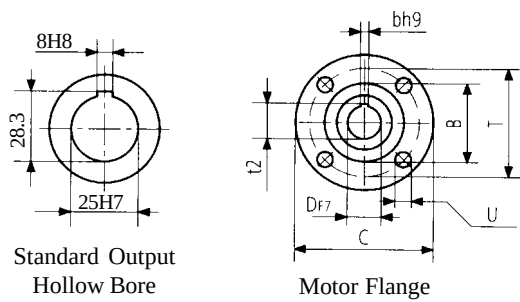
FRD 63 FP



RD 63 FP



Motor Flange Dimensions

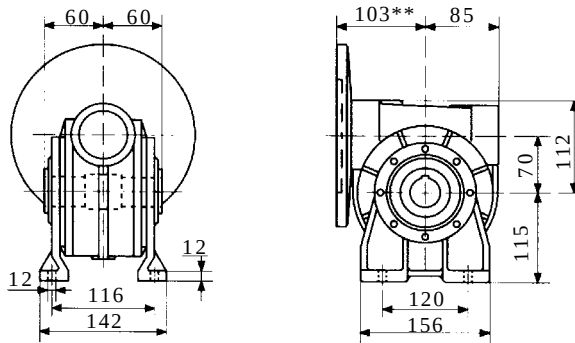


	FB-FP	C	B	T	U	Df7	bh9	t2°Q1
B5	71	160	110	130	9.5	14	5	16.3
	80	200	130	165	11.5	19	6	21.8
	90	200	130	165	11.5	24	8	27.3
B14	71*	105	70	85	7	14	5	16.3
	80	120	80	100	7	19	6	21.8
	90	140	95	115	8.5	24	8	27.3

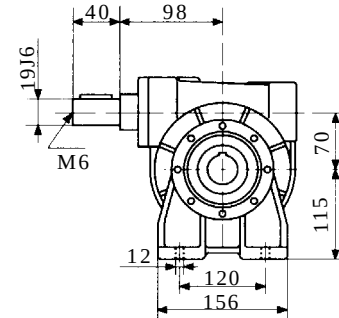
*See note on page 31.

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

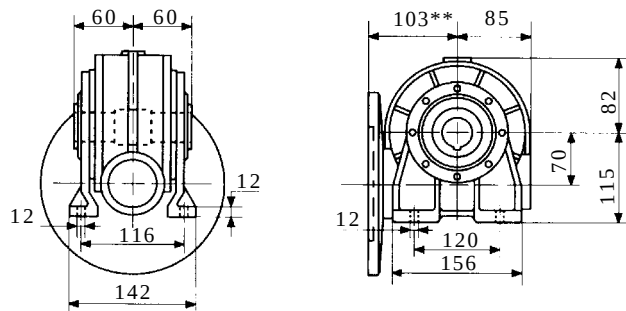
FRD 70/A



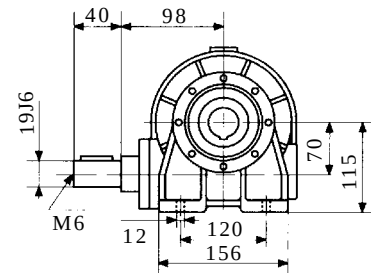
RD 70/A



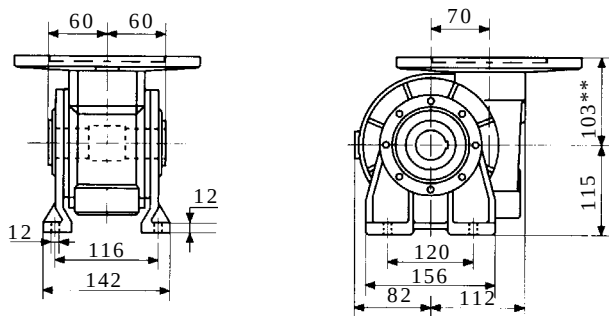
FRD 70/B



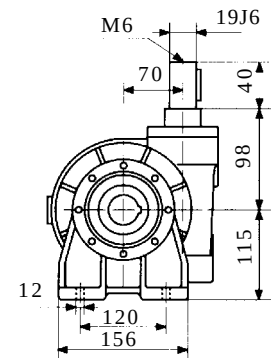
RD 70/B



FRD 70/V



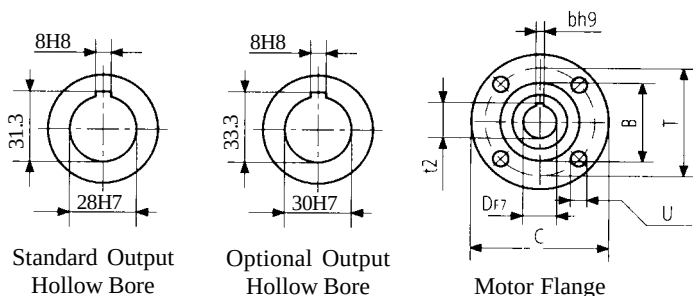
RD 70/V



Motor Flange Dimensions

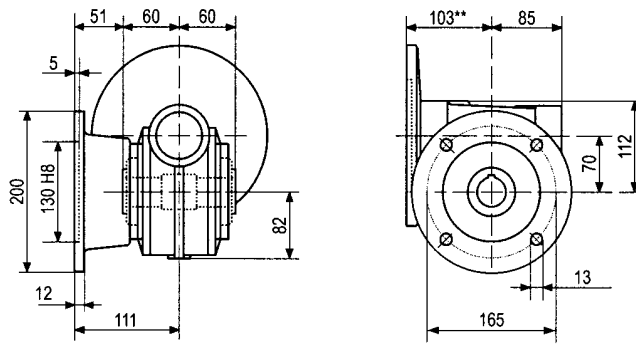
		A - B - V	C	B	T	U	Df7	bh9	t2°Q1		
B5		71	160	110	130	9.5	14	5	16.3		
		80	200	130	165	11.5	19	6	21.8		
		90	200	130	165	11.5	24	8	27.3		
		100	250	180	215	14	28	8	31.3	**108	
B14		80*	120	80	100	7	19	6	21.8		
		90	140	95	115	8.5	24	8	27.3		
		100	160	110	130	8.5	28	8	31.3	**108	

*See note on page 31.

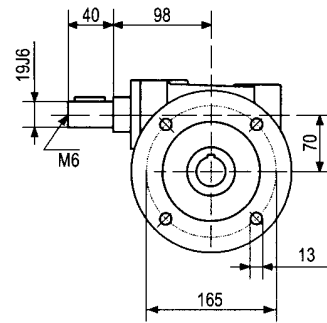


WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

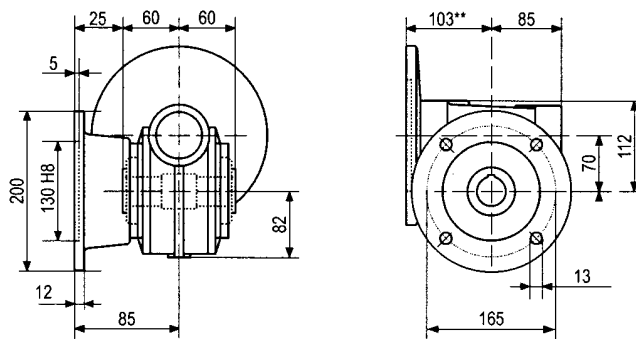
FRD 70 FB



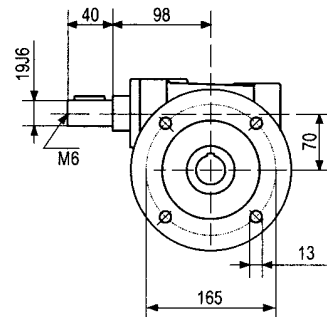
RD 70 FB



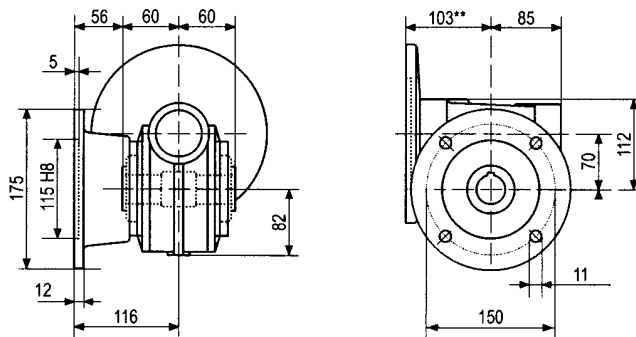
FRD 70 FB1



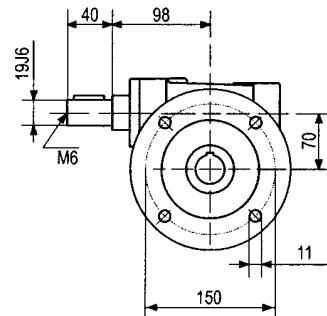
RD 70 FB1



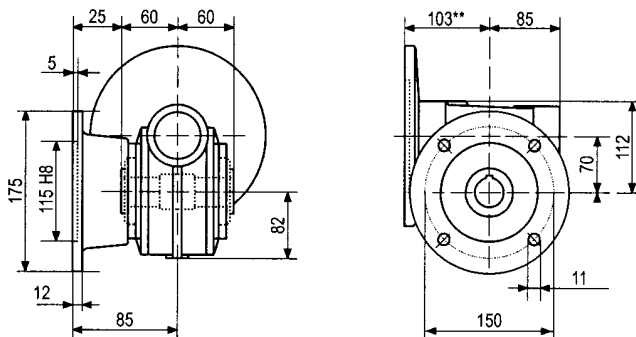
FRD 70 FB2



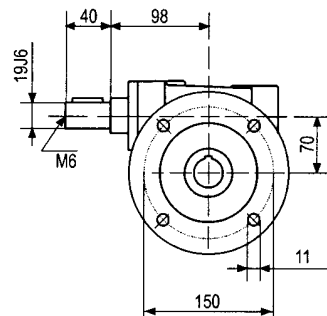
RD 70 FB2



FRD 70 FB3

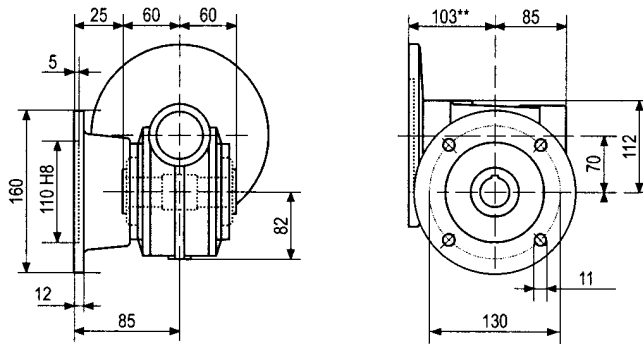


RD 70 FB3

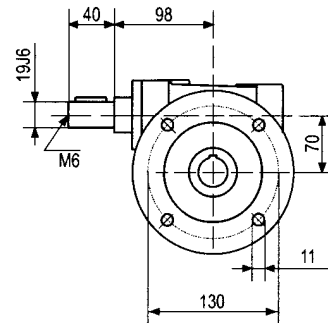


WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

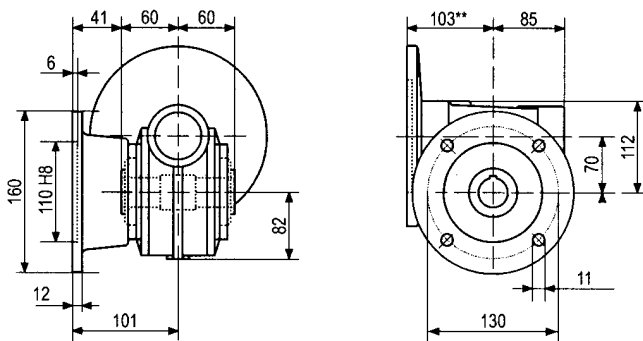
FRD 70 FB3A



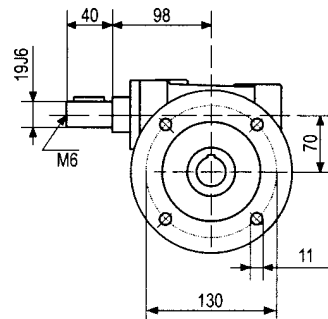
RD 70 FB3A



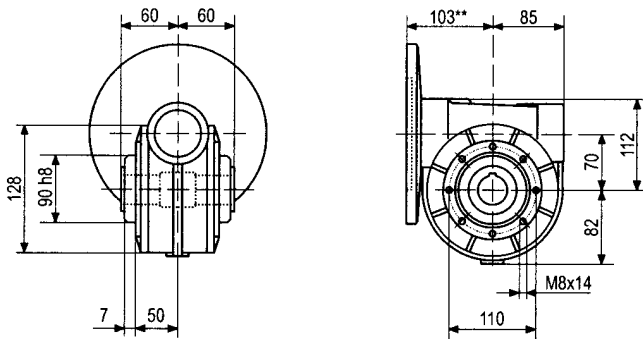
FRD 70 FB4



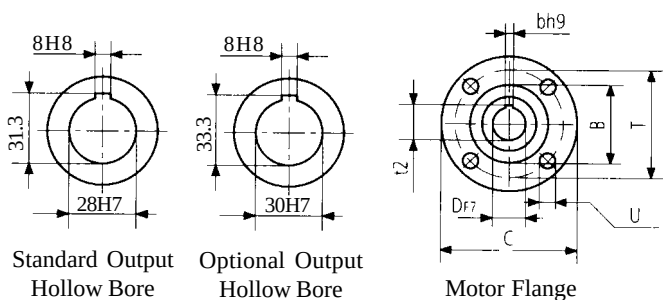
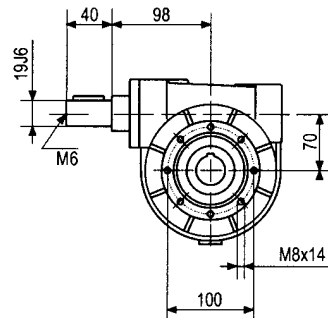
RD 70 FB4



FRD 70 FP



RD 70 FP



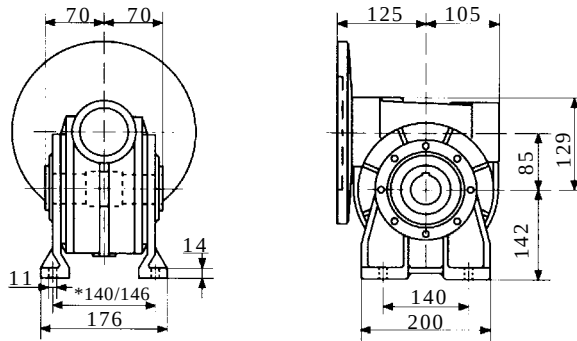
Motor Flange Dimensions

	FB-FP	C	B	T	U	Df7	bH9	12 ±0.1	
B5	71	160	110	130	9.5	14	5	16.3	
	80	200	130	165	11.5	19	6	21.8	
	90	200	130	165	11.5	24	8	27.3	
	100	250	180	215	14	28	8	31.3	**108
B14	80*	120	80	100	7	19	6	21.8	
	90	140	95	115	8.5	24	8	27.3	
	100	160	110	130	8.5	28	8	31.3	**108

*See note on page 31.

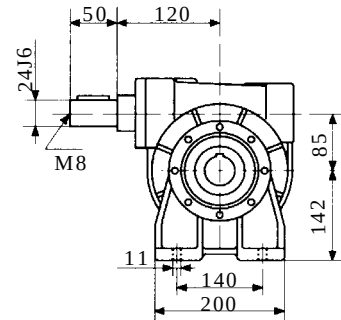
WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

FRD 85/A

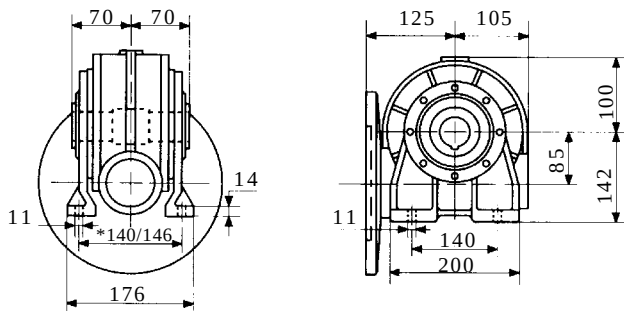


*Slot

RD 85/A

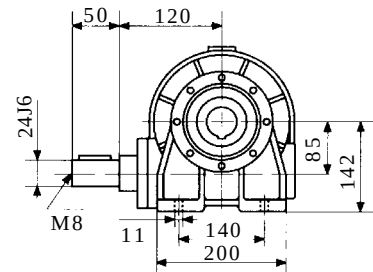


FRD 85/B

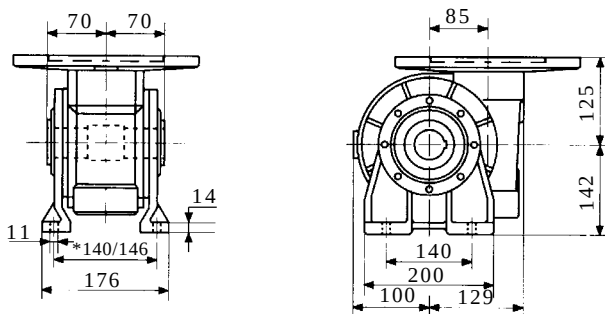


*Slot

RD 85/B

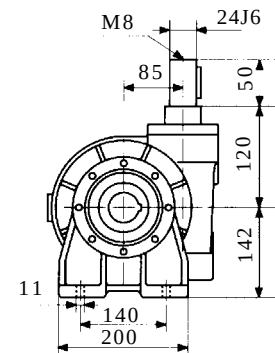


FRD 85/V

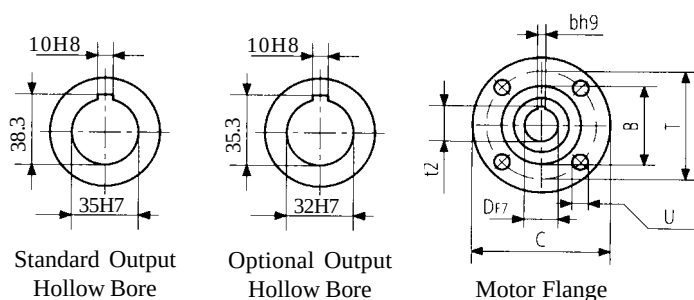


*Slot

RD 85/V



Motor Flange Dimensions

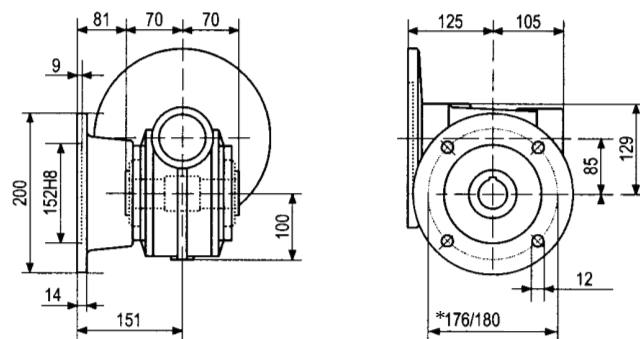


		A - B - V	C	B	T	U	Df7	bh9	t2±0.1
B5	71	160	110	130	9	14	5	16.3	
	80	200	130	165	12	19	6	21.8	
	90	200	130	165	12	24	8	27.3	
	100	250	180	215	14	28	8	31.3	
	112	250	180	215	14	28	8	31.3	
B14	80*	120	80	100	7	19	6	21.8	
	90	140	95	115	9	24	8	27.3	
	100	160	110	130	9	28	8	31.3	
	112	160	110	130	9	28	8	31.3	

*See note on page 31.

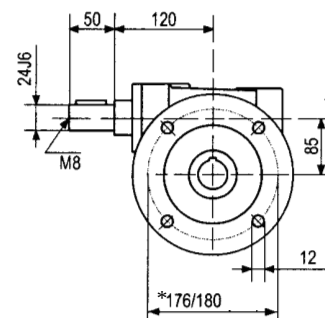
WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

FRD 85 FB



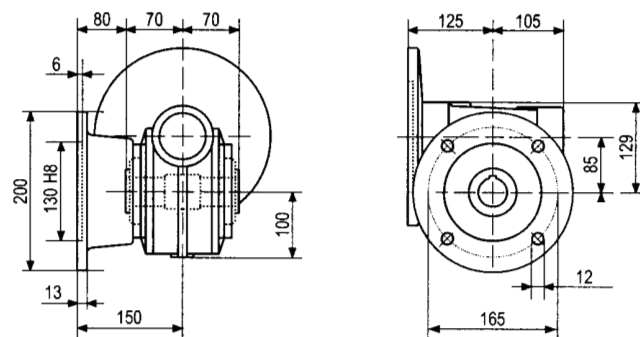
*Slot

RD 85 FB

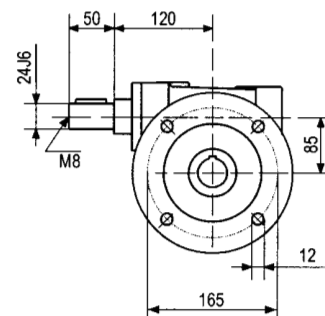


*Slot

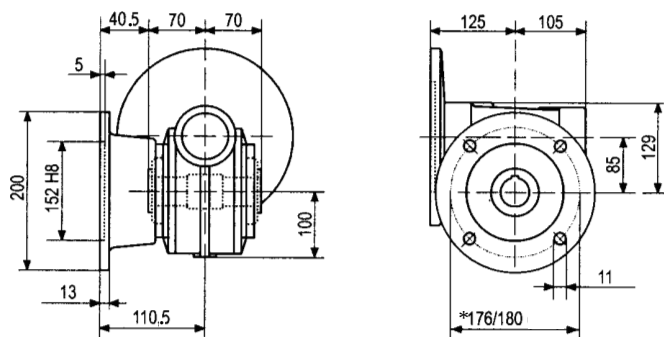
FRD 85 FBA



RD 85 FBA

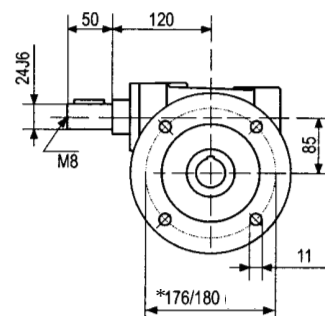


FRD 85 FB1



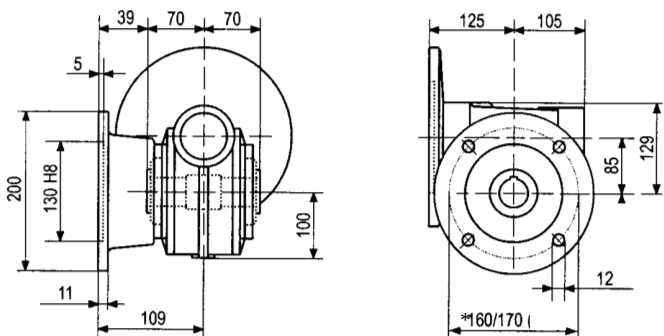
*Slot

RD 85 FB1



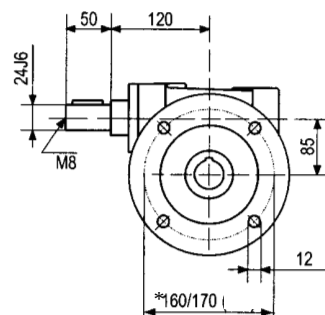
*Slot

FRD 85 FB1A



*Slot

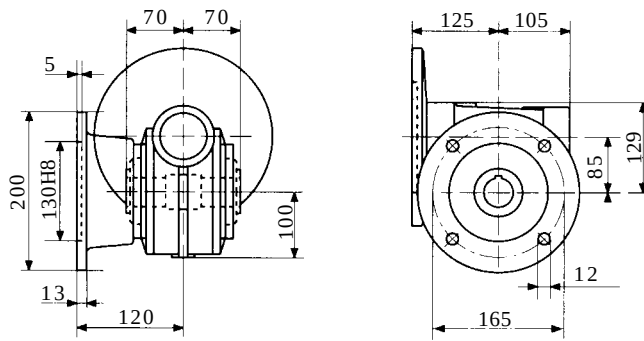
RD 85 FB1A



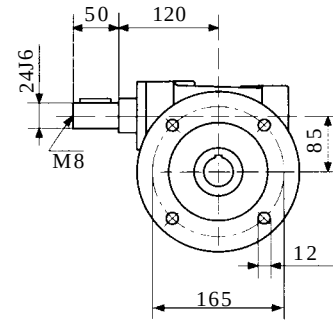
*Slot

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

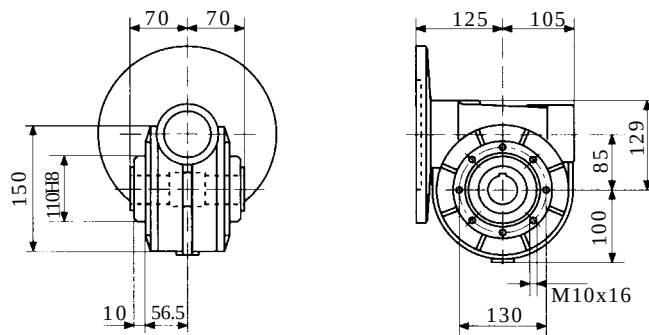
FRD 85 FB2



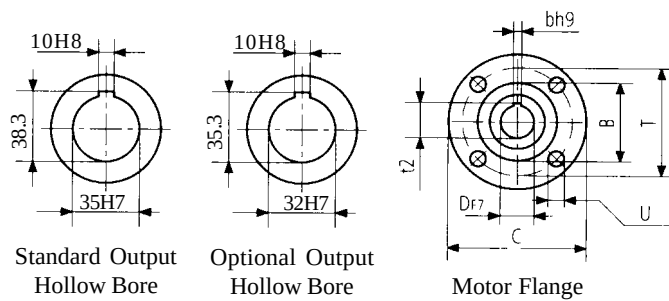
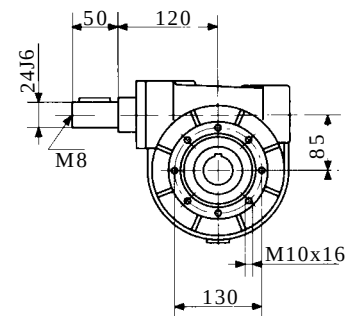
RD 85 FB2



FRD 85 FP



RD 85 FP



Motor Flange Dimensions

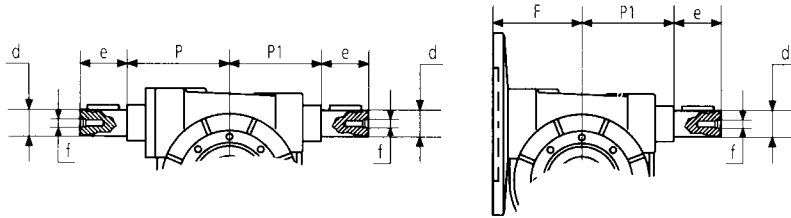
	FB - FP	C	B	T	U	Df7	bh9	t2±0.1
B5	71	160	110	130	9	14	5	16.3
	80	200	130	165	12	19	6	21.8
	90	200	130	165	12	24	8	27.3
	100	250	180	215	14	28	8	31.3
	112	250	180	215	14	28	8	31.3
B14	80*	120	80	100	7	19	6	21.8
	90	140	95	115	9	24	8	27.3
	100	160	110	130	9	28	8	31.3
	112	160	110	130	9	28	8	31.3

*See note on page 31.

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

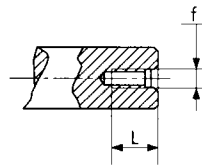
Execution with Worm Projecting at Both Ends (on request)

*with PAM 28/²⁵⁰/₁₆₀



	dj6	e	f	P	P1	F	
30	9	20	M4	48	48	54	
40	11	22	M5	65	65	65	
50	14	30	M6	75	75	76	
63	18	45	M6	94	85	95	
70	19	40	M6	98	90	103	*108
85	24	50	M8	120	110	125	

Dimension of Tapped



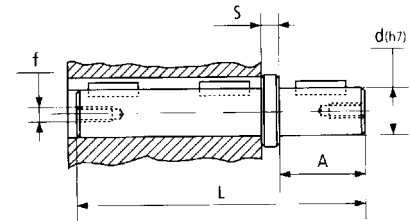
	worm		shaft	
	f	L	f	L
30	M4	12	M5	14
40	M5	14	M6	16
50	M6	16	M8	20
63	M6	16	M8	20
70	M6	16	M8	20
85	M8	20	M10	25

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

2.5 ACCESSORIES

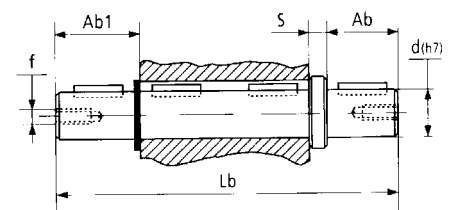
Single Low-Speed Shaft

	d(h7)	A	S	f	L
30	14	30	3	M6	93
40	19	40	5	M8	125
40	18	40	5	M8	107
50	24	50	5	M8	150
50	25	60	5	M8	155
63	25	60	5	M8	182
70	28	60	10	M8	187
70	30	60	10	M8	187
85	35	60	5	M10	200



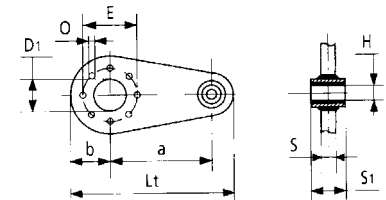
Double Low-Speed Shaft

	d(h7)	A	S	Ab1	f	L
30	14	30	2	31	M6	125
40	19	40	4	44	M8	170
40	18	40	4	44	M8	152
50	24	50	5	55	M8	208
50	25	60	5	65	M8	212
63	25	60	5	65	M8	250
70	28	60	5	65	M8	250
70	30	60	5	65	M8	250
85	35	60	5	65	M10	270



Torque Arm

	a	b	Lt	E	D1	O	S1	S	H
40	100	50	180	83	60	7	15	4	10
40*	100	50	180	65	50	7	15	4	10
50	100	55	190	85	70	9	15	4	10
50*	100	55	190	94	68	7	15	4	10
63	150	55	240	90	75	9	20	6	10
70	200	65	300	110	90	9	25	6	10
85	200	80	320	130	110	11	25	6	14



*By Request Only

2.6 POSSIBLE SET-UPS

*The flanges in B14 have the motor connection holes arranged on the axes. Check the dimensions for proper motor assembly.

		B5 - B14						
	i	56	63	71	80	90	100	112
FRD 30	7.5÷80							
	100							
FRD 40	7.5÷50							
	40÷100	*						
FRD 50	7.5÷40							
	40÷80		*					
	100							
FRD 63	7÷35							
	40÷60			*				
	70÷100							
FRD 70	7÷15							
	20÷45				*			
	40÷80							
	100							
FRD 85	7÷35				*			
	40÷60							
	70÷100							

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

2.7 PERFORMANCE OF REDUCTION GEARS

RD 30						
i	n1	n2	M1	KW	HP	Rd
7.5	900	120	20.3	0.30	0.41	0.83
10		90	23.6	0.27	0.37	0.80
15		60	24.2	0.20	0.27	0.75
20		45	22.6	0.15	0.20	0.71
30		30	27.5	0.13	0.18	0.64
40		23	27.2	0.10	0.14	0.61
50		18	26.3	0.08	0.11	0.60
60		15	22.4	0.07	0.10	0.47
70		13	17.5	0.05	0.07	0.45

RD 30						
i	n1	n2	M1	KW	HP	Rd
7.5	1400	186	18	0.41	0.56	0.86
10		140	20	0.35	0.48	0.84
15		93	22	0.28	0.38	0.78
20		70	20	0.20	0.27	0.74
30		46	23	0.17	0.23	0.67
40		35	25	0.13	0.18	0.70
50		28	23	0.10	0.14	0.65
60		23	18	0.09	0.12	0.50
70		20	17	0.07	0.10	0.49
80		17	15	0.05	0.07	0.52
100		14	10	0.03	0.04	0.48

RD 30						
i	n1	n2	M1	KW	HP	Rd
7.5	2800	373	13.5	0.58	0.79	0.89
10		280	14	0.46	0.63	0.87
15		186	16.5	0.38	0.52	0.83
20		140	15.5	0.28	0.38	0.80
30		93	17.8	0.23	0.31	0.75
40		70	17.6	0.18	0.25	0.69
50		56	16.6	0.15	0.20	0.65
60		47	15	0.12	0.16	0.61
70		40	12.5	0.09	0.12	0.58
80		35	11.2	0.07	0.10	0.55
100		28	9.3	0.05	0.07	0.52

RD 40						
i	n1	n2	M1	KW	HP	Rd
7.5	900	120	51.3	0.75	1	0.86
10		90	39	0.54	0.7	0.83
15		60	56.6	0.45	0.6	0.79
20		45	47.1	0.30	0.4	0.74
30		30	59.3	0.27	0.36	0.69
40		23	60.2	0.23	0.3	0.63
50		18	64.4	0.20	0.27	0.60
60		15	50.8	0.14	0.19	0.56
70		13	48	0.12	0.16	0.54
80		11	41.6	0.10	0.13	0.50
100		9	35.8	0.08	0.10	0.45

RD 40						
i	n1	n2	M1	KW	HP	Rd
7.5	1400	186	41	0.95	1.23	0.88
10		140	35	0.60	0.82	0.85
15		93	44	0.52	0.71	0.82
20		70	38	0.35	0.48	0.78
30		46	48	0.32	0.44	0.72
40		35	45	0.25	0.34	0.65
50		28	46	0.22	0.30	0.60
60		23	41	0.17	0.23	0.58
70		20	34	0.14	0.19	0.50
80		17	31	0.12	0.16	0.48
100		14	32	0.10	0.14	0.45

RD 40						
i	n1	n2	M1	KW	HP	Rd
7.5	2800	373	29.3	1.30	1.7	0.90
10		280	24.5	0.83	1.1	0.87
15		186	29.3	0.70	0.9	0.85
20		140	29.4	0.50	0.7	0.82
30		93	35.9	0.43	0.6	0.78
40		70	30.7	0.33	0.4	0.75
50		56	37.7	0.30	0.41	0.72
60		47	31.3	0.23	0.3	0.68
70		40	23.3	0.18	0.2	0.65
80		35	24.1	0.14	0.19	0.62
100		28	22.9	0.12	0.16	0.56

RD 50						
i	n1	n2	M1	KW	HP	Rd
7.5	900	120	104.7	1.50	2.04	0.86
10		90	118.9	1.25	1.8	0.83
15		60	89.6	0.70	0.95	0.79
20		45	104.6	0.66	0.9	0.73
30		30	112.1	0.50	0.68	0.69
40		23	120.4	0.44	0.60	0.63
50		18	97.9	0.30	0.41	0.60
60		15	102.4	0.29	0.39	0.55
70		13	98.2	0.25	0.34	0.52
80		11	60.1	0.15	0.20	0.47
100		9	66.5	0.14	0.19	0.44

RD 50						
i	n1	n2	M1	KW	HP	Rd
7.5	1400	186	84	1.86	2.53	0.87
10		140	87	1.50	2.04	0.84
15		93	81	0.98	1.33	0.80
20		70	83	0.80	1.09	0.75
30		46	96	0.65	0.88	0.72
40		35	98	0.55	0.75	0.65
50		28	82	0.38	0.52	0.62
60		23	87	0.35	0.48	0.60
70		20	81	0.30	0.41	0.56
80		17	55	0.20	0.27	0.50
100		14	59	0.18	0.24	0.48

RD 50						
i	n1	n2	M1	KW	HP	Rd
7.5	2800	373	60.1	2.56	3.48	0.90
10		280	61.2	2	2.72	0.88
15		186	57.4	1.28	1.74	0.86
20		140	59.4	1.07	1.45	0.80
30		93	68.1	0.88	1.20	0.75
40		70	67.8	0.68	0.92	0.72
50		56	61.8	0.51	0.69	0.70
60		47	59.8	0.44	0.60	0.65
70		40	53.7	0.37	0.50	0.60
80		35	41.6	0.26	0.35	0.58
100		28	46.4	0.24	0.33	0.55

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

RD 63						
i	n1	n2	M1	KW	HP	Rd
7	900	128	156	2.4	3.3	0.87
10		90	162	1.80	2.4	0.85
15		60	150	1.15	1.5	0.82
20		45	148	0.88	1.2	0.79
25		36	165	0.82	1.1	0.76
30		30	160	0.70	0.9	0.72
35		26	165	0.66	0.8	0.68
40		23	153	0.56	0.75	0.66
45		20	150	0.50	0.7	0.63
50		18	127	0.40	0.5	0.60
60	1400	15	134	0.37	0.5	0.57
70		13	117	0.30	0.4	0.53
80		11	113	0.26	0.35	0.50
100		9	110	0.23	0.31	0.45

RD 63						
i	n1	n2	M1	KW	HP	Rd
7	1400	200	132	3.1	4.2	0.89
10		140	142	2.4	3.3	0.87
15		93	135	1.55	2.1	0.85
20		70	145	1.3	1.75	0.82
25		56	148	1.1	1.5	0.79
30		46	158	1	1.36	0.76
35		40	148	0.85	1.15	0.73
40		35	134	0.7	0.95	0.70
45		31	134	0.65	0.9	0.67
50		28	125	0.58	0.75	0.63
60	2800	23	121	0.48	0.63	0.61
70		20	115	0.43	0.58	0.56
80		17	118	0.39	0.53	0.54
100		14	106	0.32	0.43	0.48

RD 63						
i	n1	n2	M1	KW	HP	Rd
7	2800	400	99	4.6	6.2	0.90
10		280	103	3.4	4.6	0.89
15		186	105	2.35	3.2	0.87
20		140	103	1.8	2.4	0.84
25		112	112	1.6	2.2	0.82
30		93	106	1.3	1.7	0.79
35		80	106	1.15	1.5	0.77
40		70	106	1.05	1.42	0.74
45		62	105	0.95	1.30	0.72
50		56	93	0.8	1.1	0.68
60	1400	46	96	0.7	0.95	0.66
70		40	92	0.62	0.85	0.62
80		35	90	0.55	0.75	0.60
100		28	88	0.48	0.65	0.54

RD 70						
i	n1	n2	M1	KW	HP	Rd
7	900	128	188	2.9	3.9	0.87
10		90	219	2.4	3.3	0.86
15		60	225	1.7	2.3	0.83
20		45	221	1.3	1.75	0.80
25		36	225	1.1	1.5	0.77
30		30	229	1	1.36	0.72
35		26	219	0.85	1.15	0.70
40		23	209	0.75	1	0.67
45		20	202	0.65	0.90	0.65
50		18	197	0.60	0.82	0.62
60	1400	15	188	0.50	0.68	0.59
70		13	178	0.44	0.60	0.55
80		11	172	0.38	0.52	0.52
100		9	146	0.30	0.40	0.46

RD 70						
i	n1	n2	M1	KW	HP	Rd
7	1400	200	149	3.5	4.7	0.89
10		140	162	2.7	3.7	0.88
15		93	177	2	2.7	0.86
20		70	181	1.6	2.2	0.83
25		56	191	1.4	1.9	0.80
30		46	197	1.25	1.7	0.76
35		40	194	1.1	1.5	0.74
40		35	184	0.95	1.3	0.71
45		31	170	0.80	1.1	0.69
50		28	169	0.75	1	0.66
60	2800	23	167	0.65	0.90	0.62
70		20	158	0.57	0.77	0.58
80		17	154	0.50	0.68	0.55
100		14	127	0.38	0.50	0.49

RD 70						
i	n1	n2	M1	KW	HP	Rd
7	2800	400	123	5.75	7.8	0.90
10		280	137	4.5	6.1	0.89
15		186	152	3.4	4.6	0.87
20		140	145	2.5	3.4	0.85
25		112	154	1.8	2.5	0.83
30		93	146	1.8	2.5	0.79
35		80	143	1.55	2.1	0.77
40		70	153	1.5	2	0.75
45		62	146	1.3	1.77	0.73
50		56	141	1.15	1.56	0.72
60	1400	46	134	0.95	1.3	0.68
70		40	130	0.85	1.15	0.64
80		35	125	0.75	1	0.61
100		28	122	0.65	0.9	0.55

RD 85						
i	n1	n2	M1	KW	HP	Rd
7	900	128	276	4.25	5.78	0.87
10		90	292	3.2	4.35	0.86
15		60	337	2.55	3.47	0.83
20		45	306	1.8	2.45	0.80
25		36	331	1.6	2.2	0.78
30		30	367	1.6	2.2	0.72
35		26	339	1.3	1.8	0.71
40		23	349	1.2	1.6	0.70
45		20	357	1.1	1.5	0.68
50		18	362	1.05	1.4	0.65
60	1400	15	325	0.81	1.1	0.63
70		13	308	0.7	0.95	0.60
80		11	281	0.6	0.82	0.54
100		9	254	0.5	0.68	0.48

RD 85						
i	n1	n2	M1	KW	HP	Rd
7	1400	200	245	5.75	7.8	0.89
10		140	270	4.5	6.12	0.88
15		93	296	3.35	4.6	0.86
20		70	287	2.5	3.4	0.84
25		56	304	2.2	3	0.81
30		46	352	2.2	3	0.77
35		40	322	1.8	2.45	0.75
40		35	339	1.7	2.3	0.73
45		31	306	1.40	1.9	0.71
50		28	294	1.25	1.7	0.69
60	2800	23	292	1.05	1.4	0.67
70		20	281	0.92	1.2	0.64
80		17	296	0.85	1.1	0.62
100		14	257	0.70	0.9	0.54

RD 85						
i	n1	n2	M1	KW	HP	Rd
7	2800	400	185	8.6	11.7	0.90
10		280	199	6.55	8.9	0.89
15		186	221	4.95	6.7	0.87
20		140	205	3.5	4.75	0.86
25		112	229	3.2	4.35	0.84
30		93	247	3	4.1	0.80
35		80	255	2.7	3.7	0.79
40		70	273	2.6	3.5	0.77
45		62	236	2.04	2.8	0.75
50		56	227	1.8	2.45	0.74
60	1400	46	209	1.4	1.9	0.72
70		40	214	1.3	1.8	0.69
80		35	192	1.05	1.4	0.67
100		28	174	0.85	1.15	0.60

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

2.8 PERFORMANCE OF MOTOR REDUCTION GEARS

KW 0.09			HP 0.12			
i	n1	n2	M1'	FG	FRD	iEC
15	2800	186	4	4.2	30	56
20		140	5	3.1	"	"
30		93	7	2.5	"	"
40		70	8	2	"	"
50		56	10	1.67	"	"
30		93	7	4.7	40	"
40		70	9	3.7	"	"
50	1400	56	11	3.3	"	"
60		46	13	2.5	"	"
7.5		186	4	4.5	30	"
10		140	5	3.9	"	"
15		93	7	3.1	"	"
20		70	9	2.2	"	"
30		46	12	1.9	"	"
40	900	35	17	1.45	"	"
50		28	20	1.10	"	"
60		23	19	1	"	"
70		20	21	0.8	"	"
80		17	26	0.6	"	"
100		14	29	0.33	"	"
40		35	16	2.7	40	"
50	2800	28	18	2.4	"	"
60		23	22	1.9	"	"
70		20	22	1.5	"	"
80		17	24	1.3	"	"
100		14	28	1.1	"	"
7.5		120	6	3.3	30	63
10		90	8	3	"	"
15	900	60	11	2.2	"	"
20		45	13	1.7	"	"
30		30	18	1.4	"	"
20		45	14	3.3	40	"
30		30	20	3	"	"
40		23	24	2.5	"	"
50		18	29	2.2	"	"
60	2800	15	32	1.5	"	"
70		13	36	1.3	"	"
80		11	39	1.1	"	"
50		18	29	3.3	50	"
60		15	31	3.2	"	"
70		13	34	2.8	"	"
80		11	37	1.7	"	"
100		9	42	1.5	"	"

KW 0.12			HP 0.18			
i	n1	n2	M1'	FG	FRD	iEC
7.5	2800	373	3	4.8	30	56
10		280	4	3.8	"	"
15		186	5	3.17	"	"
20		140	7	2.3	"	"
30		93	9	1.9	"	"
40		70	11	1.5	"	"
40		70	12	2.7	40	"
50	1400	56	15	2.5	"	"
60		47	16	1.92	"	"
70		40	18	1.5	"	"
7.5		186	5	3.4	30	63
10		140	7	2.9	"	"
15		93	10	2.3	"	"
20		70	12	1.7	"	"
30	900	46	17	1.4	"	"
40		35	23	1.1	"	"
50		28	26	0.9	"	"
60		23	25	0.75	"	"
20		70	13	2.9	40	63
30		46	18	2.7	"	"
40		35	21	2.1	"	"
50	2800	28	24	1.8	"	"
60		23	29	1.4	"	"
70		20	29	1.2	"	"
80		17	31	1	"	"
50		28	25	3.2	50	"
60		23	30	2.9	"	"
70		20	32	2.5	"	"
80	900	17	34	1.67	"	"
100		14	39	1.5	"	"
7.5		120	8	2.5	30	"
10		90	10	2.2	"	"
15		60	14	1.7	"	"
20		45	18	1.25	"	"
30		30	24	1	"	"
15	900	60	15	3.75	40	"
20		45	19	2.5	"	"
30		30	26	2.2	"	"
40		23	31	1.9	"	"
50		18	38	1.7	"	"
60		15	43	1.17	"	"
80		11	49	1.25	50	"
100		9	56	1.17	"	"

KW 0.18			HP 0.25			
i	n1	n2	M1'	FG	FRD	iEC
7.5	2800	373	4	3.2	30	63
10		280	5	2.5	"	"
15		186	8	2.1	"	"
20		140	10	1.5	"	"
30		93	14	1.3	"	"
40		70	17	1	"	"
15		186	8	3.9	40	"
20	1400	140	10	2.8	"	"
30		93	14	2.4	"	"
40		70	18	1.8	"	"
50		56	22	1.7	"	"
60		47	25	1.3	"	"
70		40	28	1	"	"
60		47	24	2.4	50	"
70	900	40	26	2.1	"	"
7.5		186	8	2.3	30	63
10		140	10	1.9	"	"
15		93	15	1.5	"	"
20		70	18	1.1	"	"
30		47	25	1	"	"
15		93	15	2.9	40	"
20	2800	70	19	2	"	"
30		47	26	1.8	"	"
40		35	33	1.4	"	"
50		28	37	1.2	"	"
60		23	43	1	"	"
40		35	32	3	50	"
50	900	28	38	2.1	"	"
60		23	45	1.9	"	"
70		20	48	1.7	"	"
80		17	49	1.1	"	"
100		14	59	1	"	"
15		60	22	2.5	40	71
20	900	45	28	1.7	"	"
30		30	39	1.5	"	"
40		23	47	1.3	"	"
50		18	57	1.1	"	"
40		23	47	2.4	50	"
50		18	57	1.7	"	"
60		15	63	1.6	"	"
70	900	13	69	1.4	"	"
40		23	49	3.1	63	"
45		20	54	2.8	"	"
50		18	57	2.2	"	"
60		15	65	2.1	"	"
70		13	70	1.7	"	"
80		11	78	1.4	"	"
100	900	9	86	1.3	"	"
50		18	59	3.3	70	"
60		15	68	2.8	"	"
70		13	73	2.4	"	"
80		11	81	2.1	"	"
100		9	88	1.7	"	"
80		11	84	3.3	85	"
100		9	92	2.8	"	"

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

KW 0.25		HP 0.35				
i	n1	n2	M1'	FG	FRD	iEC
7.5	2800	373	6	2.3	30	63
10		280	7	1.85	"	"
15		186	11	1.5	"	"
20		140	14	1.12	"	"
30		93	19	0.9	"	"
10		280	8	3.3	40	"
15		186	11	2.8	"	"
20		140	14	2	"	"
30		93	20	1.7	"	"
40		70	25	1.3	"	"
50		56	30	1.2	"	"
60		47	34	0.9	"	"
40		70	24	2.7	50	"
50		56	30	2.1	"	"
60		47	34	1.8	"	"
70		40	36	1.5	"	"
7.5	1400	186	11	3.8	40	71
10		140	14	2.4	"	"
15		93	21	2.1	"	"
20		70	27	1.4	"	"
30		47	36	1.3	"	"
40		35	44	1	"	"
50		28	51	0.9	"	"
15		93	20	3.9	50	"
20		70	25	3.2	"	"
30		47	36	2.6	"	"
40		35	44	2.2	"	"
50		28	53	1.5	"	"
60		23	62	1.4	"	"
70		20	67	1.2	"	"
35		40	44	3.4	63	"
40	900	35	48	2.8	"	"
45		31	52	2.6	"	"
50		28	54	2.3	"	"
60		23	63	1.9	"	"
70		20	67	1.7	"	"
80		17	76	1.6	"	"
100		14	82	1.3	"	"
45		31	53	3.2	70	"
50		28	56	3	"	"
60		23	64	2.6	"	"
70		20	69	2.3	"	"
80		17	77	2	"	"
100		14	84	1.5	"	"
80		17	87	3.4	85	"
100		14	92	2.8	"	"
7.5	900	120	17	3	40	"
10		90	22	2.2	"	"
15		60	31	1.8	"	"
20		45	39	1.2	"	"
30		30	55	1.1	"	"
40		23	65	0.9	"	"
15		60	31	2.8	50	"
20		45	38	2.6	"	"
30		30	56	2	"	"
40		23	65	1.8	"	"
50		18	79	1.2	"	"
60		15	87	1.2	"	"
70		13	95	1	"	"
30		30	57	2.8	63	"
35		26	63	2.6	"	"
40		23	68	2.2	"	"
45		20	75	2	"	"
50		18	79	1.6	"	"
60		15	91	1.5	"	"
70		13	97	1.2	"	"

KW 0.25		HP 0.35				
i	n1	n2	M1'	FG	FRD	iEC
80	900	11	108	1	63	71
100		9	119	0.9	"	"
45		20	78	2.6	70	"
50		18	82	2.4	"	"
60		15	94	2	"	"
70		13	101	1.8	"	"
80		11	113	1.5	"	"
100		9	122	1.2	"	"
80		11	117	2.4	85	"
100		9	127	2	"	"

KW 0.37		HP 0.50				
i	n1	n2	M1'	FG	FRD	iEC
7.5	2800	373	9	3.5	40	71
10		280	11	2.2	"	"
15		186	16	1.9	"	"
20		140	21	1.35	"	"
30		93	29	1.2	"	"
40		70	38	0.9	"	"
20		140	20	2.9	50	"
30		93	28	2.4	"	"
40		70	36	1.8	"	"
50		56	44	1.4	"	"
60		47	49	1.2	"	"
20		140	21	4.8	63	"
25		112	26	4.3	"	"
30		93	30	3.5	"	"
35		80	34	3.1	"	"
40		70	37	2.8	"	"
7.5	1400	186	16	2.6	40	71
10		140	21	1.6	"	"
15		93	31	1.4	"	"
20		70	39	0.95	"	"
10		140	21	4	50	"
15		93	30	2.6	"	"
20		70	38	2.2	"	"
30		46	55	1.75	"	"
40		35	65	1.5	"	"
50		28	78	1.05	"	"
60		23	92	0.95	"	"
20		70	42	3.5	63	"
25		56	50	3	"	"
30		46	58	2.7	"	"
35		40	65	2.3	"	"
40		35	71	1.9	"	"
45	900	31	76	1.7	"	"
50		28	79	1.6	"	"
60		23	94	1.3	"	"
70		20	99	1.2	"	"
80		17	112	1.1	"	"
100		14	121	0.85	"	"
45		31	79	2.2	70	"
50		28	83	2	"	"
60		23	95	1.7	"	"
70		20	102	1.5	"	"
80		17	114	1.3	"	"
100		14	124	1	"	"
50		28	87	3.4	85	"
60		23	103	2.8	"	"
70		20	113	2.5	"	"
80		17	129	2.3	"	"
100		14	136	1.9	"	"

KW 0.37		HP 0.50				
i	n1	n2	M1'	FG	FRD	iEC
10	900	90	32	3.3	50	80
15		60	46	1.9	"	"
20		45	62	2.4	63	"
25		36	75	2.2	"	"
30		30	85	1.9	"	"
35		26	92	1.8	"	"
40		23	101	1.5	"	"
45		20	111	1.3	"	"
50		18	118	1.1	"	"
60		15	134	1	"	"
25		36	76	3	70	"
30		30	85	2.7	"	"
35		26	95	2.3	"	"
40		23	103	2	"	"
45		20	115	1.7	"	"
50		18	122	1.6	"	"
60	2800	15	139	1.35	"	"
70		13	150	1.2	"	"
80		11	167	1	"	"
50		18	127	2.8	85	"
60		15	148	2.2	"	"
70		13	163	1.9	"	"
80		11	173	1.6	"	"
100		9	188	1.35	"	"

KW 0.55		HP 0.75				
i	n1	n2	M1'	FG	FRD	iEC
7.5	2800	373	13	2.36	40	71
10		280	16	1.5	"	"
15		186	24	1.3	"	"
20		140	31	0.9	"	"
10		280	17	3.6	50	"
15		186	25	2.3	"	"
20		140	31	1.9	"	"
30		93	42	1.6	"	"
40		70	54	1.2	"	"
20		140	32	3.2	63	"
25		112	39	2.9	"	"
30		93	45	2.3	"	"
35		80	51	2.1	"	"
40		70	56	1.9	"	"
45		62	61	1.7	"	"
50		56	64	1.4	"	"
60	1400	46	75	1.3	"	"
25		112	39	3.2	70	"
30		93	45	3.2	"	"
35		80	51	2.8	"	"
40		70	57	2.7	"	"
45		62	62	2.3	"	"
50		56	68	2.1	"	"
60		46	78	1.7	"	"
70		40	84	1.5	"	"
60		46	82	2.5	85	"
70		40	91	2.4	"	"
7.5		186	25	3.4	50	80
10		140	32	2.7	"	"
15		93	45	1.8	"	"
20		70	56	1.5	"	"
30		46	80	1.2	"	"
40		35	98	1	"	"
15	900	93	48	2.8	63	"
20		70	62	2.4	"	"

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

KW 0.55		HP 0.75				
i	n1	n2	M1'	FG	FRD	iEC
25	1400	56	74	2	63	80
30		46	87	1.8	"	"
35		40	96	1.5	"	"
40		35	105	1.3	"	"
45		31	113	1.2	"	"
50		28	118	1.05	"	"
20		70	62	2.9	70	"
25		56	75	2.5	"	"
30		46	88	2.3	"	"
35		40	97	2	"	"
40		35	107	1.7	"	"
45		31	117	1.4	"	"
50		28	123	1.3	"	"
60		23	142	1.2	"	"
70		20	152	1	"	"
80		17	170	0.9	"	"
40	900	35	110	3.1	85	"
45		31	120	2.5	"	"
50		28	129	2.3	"	"
60		23	153	1.9	"	"
70		20	168	1.7	"	"
80		17	192	1.5	"	"
100		14	202	1.3	"	"
10		90	50	2.3	50	"
15		60	72	1.3	"	"
20		45	92	1.2	"	"
30		30	125	0.9	"	"
20		45	93	1.6	63	"
25		36	111	1.5	"	"
30		30	126	1.3	"	"
35		26	138	1.2	"	"
40		23	151	1	"	"
45		20	165	0.9	"	"
25	2800	36	112	2	70	"
30		30	126	1.8	"	"
35		26	141	1.5	"	"
40		23	153	1.4	"	"
45		20	171	1.2	"	"
50		18	181	1.1	"	"
60		15	206	0.9	"	"
20		45	94	3.3	85	"
25		36	114	2.9	"	"
30		30	126	2.9	"	"
35		26	143	2.4	"	"
40		23	160	2.2	"	"
45		20	178	2	"	"
50		18	190	1.9	"	"
60		15	220	1.5	"	"
70		13	242	1.3	"	"
80		11	258	1.1	"	"
100		9	280	0.9	"	"

KW 0.75		HP 1.00				
i	n1	n2	M1'	FG	FRD	iEC
7.5	2800	373	17	3.4	50	80
10		280	23	2.7	"	"
15		186	33	1.7	"	"
20		140	41	1.4	"	"
30		93	58	1.2	"	"
40		70	74	0.9	"	"
15		186	34	3.1	63	"
20		140	43	2.4	"	"
25		112	53	2.1	"	"
30		93	61	1.7	"	"

KW 0.75		HP 1.00				
i	n1	n2	M1'	FG	FRD	iEC
35	2800	80	69	1.5	63	80
40		70	76	1.4	"	"
45		62	83	1.3	"	"
50		56	87	1.1	"	"
25		112	53	2.4	70	"
30		93	61	2.4	"	"
35		80	69	2.1	"	"
40		70	77	2	"	"
45		62	84	1.7	"	"
50		56	92	1.5	"	"
60		46	106	1.3	"	"
70		40	115	1.1	"	"
50		56	95	2.4	85	"
60		46	112	1.9	"	"
70		40	124	1.7	"	"
80		35	137	1.4	"	"
7.5	1400	186	34	2.5	50	"
10		140	43	2	"	"
15		93	62	1.3	"	"
20		70	77	1	"	"
10		140	45	3.2	63	"
15		93	65	2.1	"	"
20		70	84	1.7	"	"
25		56	101	1.5	"	"
30		46	118	1.3	"	"
35		40	130	1.1	"	"
40		35	143	1	"	"
45		31	155	0.9	"	"
15		93	66	2.7	70	"
20		70	85	2.1	"	"
25		56	102	1.8	"	"
30		46	118	1.6	"	"
35	900	40	133	1.5	"	"
40		35	145	1.3	"	"
45		31	159	1.1	"	"
50		28	169	1	"	"
60		23	193	0.9	"	"
20		70	86	3.3	85	"
25		56	104	2.9	"	"
30		46	120	2.9	"	"
35		40	134	2.4	"	"
40		35	149	2.3	"	"
45		31	164	1.9	"	"
50		28	176	1.7	"	"
60		23	209	1.4	"	"
70		20	229	1.2	"	"
80		17	261	1.1	"	"
100		14	276	0.9	"	"
10	2800	90	67	2.4	63	90
15		60	98	1.5	"	"
20		45	125	1.2	"	"
25		36	151	1.1	"	"
30		30	172	0.9	"	"
15		60	99	2.3	70	"
20		45	127	1.7	"	"
25		36	153	1.5	"	"
30		30	172	1.3	"	"
35		26	193	1.1	"	"
40		23	209	1	"	"
20		45	128	2.4	85	"
25		36	155	2.1	"	"
30		30	172	2.1	"	"
35		26	195	1.7	"	"
40		23	218	1.6	"	"
45		20	243	1.5	"	"
50		18	259	1.4	"	"

KW 1.1		HP 1.5				
i	n1	n2	M1'	FG	FRD	iEC
7.5	2800	373	25	2.3	50	80
10		280	33	1.8	"	"
15		186	48	1.2	"	"
20		140	60	1	"	"
10		280	34	3.1	63	"
15		186	49	2.1	"	"
20		140	63	1.6	"	"
25		112	77	1.5	"	"
30		93	89	1.2	"	"
35		80	101	1.1	"	"
40		70	111	1	"	"
15		186	49	3.1	70	"
20		140	64	2.3	"	"
25		112	78	1.6	"	"
30		93	90	1.6	"	"
35	1400	80	102	1.4	"	"
40		70	113	1.4	"	"
45		62	124	1.2	"	"
50		56	135	1.05	"	"
20		140	65	3.2	85	"
25		112	79	2.9	"	"
30		93	91	2.7	"	"
35		80	104	2.5	"	"
40		70	116	2.4	"	"
45		62	127	1.8	"	"
50		56	139	1.6	"	"
60		46	165	1.3	"	"
7	900	200	47	2.8	63	90
10		140	65	2.2	"	"
15		93	96	1.4	"	"
20		70	123	1.2	"	"
25		56	148	1	"	"
7		200	47	3.2	70	"
10		140	66	2.5	"	"
15		93	97	1.8	"	"
20		70	125	1.5	"	"
25		56	150	1.3	"	"
30		46	174	1.1	"	"
35		40	194	1	"	"
40		35	213	0.9	"	"
15		93	97	3.1	85	"
20		70	126	2.3	"	"
25	2800	56	152	2	"	"
30		46	176	2	"	"
35		40	197	1.6	"	"
40		35	219	1.5	"	"
45		31	240	1.3	"	"
50		28	259	1.1	"	"
60		23	306	0.9	"	"
7	900	128	71	2.2	63	"
10		90	99	1.6	"	"
15		60	143	1	"	"
7		128	72	2.6	"	"
10		90	100	2.2	"	"
15		60	145	1.5	"	"
20		45	187	1.2	"	"
15		60	145	2.3	85	"
20		45	187	1.6	"	"
25		36	227	1.5	"	"
30		30	252	1.5	"	"
35		26	286	1.2	"	"
40		23	318	1.1	"	"
45		20	357	1	"	"

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

KW 1.5		HP 2.0				
i	n1	n2	M1'	FG	FRD	iEC
7	2800	400	32	3.1	63	90
10		280	45	2.3	"	"
15		186	66	1.6	"	"
20		140	86	1.2	"	"
25		112	105	1	"	"
10		280	46	3	70	"
15		186	67	2.3	"	"
20		140	87	1.7	"	"
25		112	106	1.2	"	"
30		93	122	1.2	"	"
35		80	138	1	"	"
15		186	67	3.3	85	"
20		140	88	2.4	"	"
25		112	108	2.1	"	"
30		93	123	2	"	"
35		80	142	1.8	"	"
40		70	158	1.7	"	"
45		62	173	1.4	"	"
50		56	189	1.2	"	"
7	1400	200	63	2.1	63	"
10		140	89	1.6	"	"
15		93	131	1	"	"
7		200	64	2.3	70	"
10		140	90	1.8	"	"
15		93	132	1.3	"	"
20		70	170	1	"	"
25		56	204	0.9	"	"
10		140	90	3	85	"
15		93	132	2.2	"	"
20		70	172	1.7	"	"
25		56	207	1.5	"	"
30		46	240	1.5	"	"
35		40	268	1.2	"	"
40		35	299	1.1	"	"
45		31	328	0.9	"	"
7	900	128	97	1.9	70	100
10		90	136	1.4	"	"
15		60	198	1	"	"
7		128	98	2.8	85	"
10		90	137	2.1	"	"
15		60	199	1.7	"	"
20		45	255	1.2	"	"
25		36	310	1	"	"
30		30	344	1	"	"

KW 1.85		HP 2.5				
i	n1	n2	M1'	FG	FRD	iEC
7	2800	400	39	2.5	63	90
10		280	56	1.8	"	"
15		186	82	1.3	"	"
20		140	106	1	"	"
7		400	40	3.1	70	"
10		280	56	2.4	"	"
15		186	83	1.8	"	"
20		140	107	1.3	"	"
25		112	131	1	"	"
30		93	150	0.9	"	"
15		186	83	2.7	85	"
20		140	109	1.9	"	"
25		112	133	1.7	"	"
30		93	152	1.6	"	"
35		80	175	1.5	"	"
40		70	194	1.4	"	"
7	1400	200	78	1.7	63	"
10		140	110	1.3	"	"
15		93	161	0.85	"	"
7		200	79	1.9	70	"
10		140	111	1.5	"	"
15		93	163	1.1	"	"
20		70	209	0.85	"	"
7		200	79	3.1	85	"
10		140	111	2.4	"	"
15		93	164	1.8	"	"
20		70	212	1.4	"	"
25		56	255	1.2	"	"
30		46	296	1.2	"	"
35		40	331	1	"	"
40		35	368	0.9	"	"
7	900	128	120	1.6	70	100
10		90	169	1.3	"	"
15		60	244	0.9	"	"
7		128	120	2.3	85	"
10		90	169	1.7	"	"
15		60	245	1.4	"	"
20		45	314	1	"	"
25		36	382	0.9	"	"
30		30	424	0.9	"	"

KW 2.2		HP 3.0				
i	n1	n2	M1'	FG	FRD	iEC
7	2800	400	47	2.1	63	90
10		280	66	1.5	"	"
15		186	98	1.1	"	"
7		400	47	2.6	70	"
10		280	66	2	"	"
15		186	98	1.5	"	"
20		140	128	1.1	"	"
10		280	67	3	85	"
15		186	99	2.2	"	"
20		140	129	1.6	"	"
25		112	157	1.5	"	"
30		93	181	1.4	"	"
35		80	207	1.2	"	"
7		200	93	1.6	70	100
10		140	132	1.2	"	"
15		93	194	0.9	"	"
7	1400	200	94	2.6	85	"
10		140	132	2	"	"
15		93	195	1.5	"	"
20		70	252	1.1	"	"
25		56	304	1	"	"
30		46	352	1	"	"
7		128	143	1.9	85	112
10		90	200	1.5	"	"
15		60	290	1.1	"	"

KW 3.0		HP 4.0				
i	n1	n2	M1'	FG	FRD	iEC
7	2800	400	64	1.9	70	100
10		280	91	1.5	"	"
15		186	134	1.1	"	"
7		400	65	2.9	85	"
10		280	91	2.2	"	"
15		186	134	1.7	"	"
20		140	176	1.2	"	"
25		112	215	1.1	"	"
30		93	247	1	"	"
7		200	127	1.2	70	"
10		140	180	0.9	"	"
7	1400	200	128	1.9	85	"
10		140	180	1.5	"	"
15		93	265	1.1	"	"

KW 4.0		HP 5.5				
i	n1	n2	M1'	FG	FRD	iEC
7	2800	400	86	2.1	85	112
10		280	121	1.6	"	"
15		186	178	1.2	"	"
7	1400	200	170	1.4	"	"
10		140	240	1.2	"	"
15		93	353	0.9	"	"

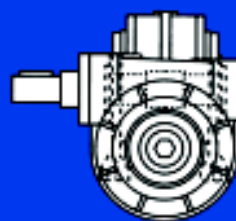
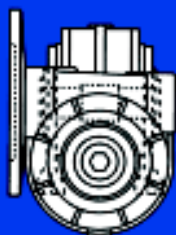
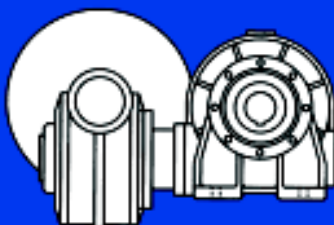
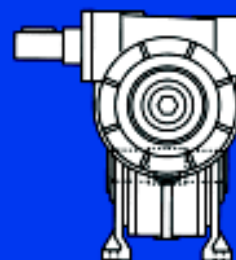
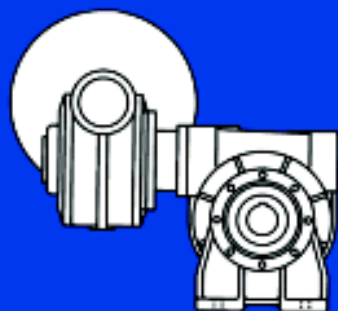
FRD GEARMOTORS PERFORMANCE (WITH MOTOR TYPE 56 - NEMA)

POWER		n1	ratio	n2	M1'	Fs	Gearbox Size		
HP	KW								
0.25	0.18	1700	80	21	41	1.1	50		
			100	17	49	1			
0.35	0.25		15	112	17	3.9	50		
			20	84	21	3.2			
			30	56	30	2.6			
			40	42	37	2.2			
			50	34	44	1.5			
			60	28	52	1.4			
			70	24	56	1.2			
			80	21	58	0.8			
			35	48	37	3.4	63		
			40	42	40	2.8			
			45	37	43	2.6			
			50	34	45	2.3			
			60	28	53	1.9			
			70	24	56	1.7			
			80	21	63	1.6			
			100	17	68	1.3			
			45	37	44	3.2	70		
			50	34	47	3			
			60	28	53	2.6			
			70	24	58	2.3			
			80	21	64	2			
			100	17	70	1.5			
					80	21	73	3.4	85
					100	17	77	2.8	

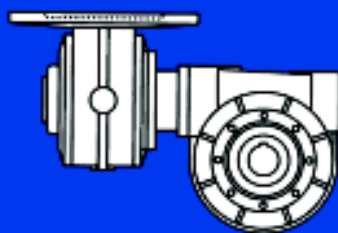
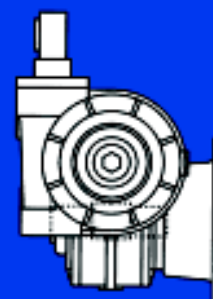
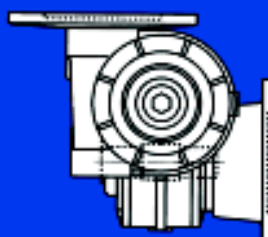
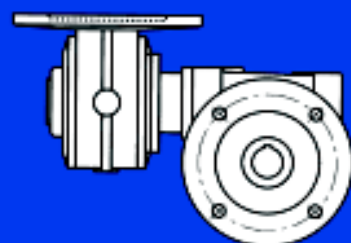
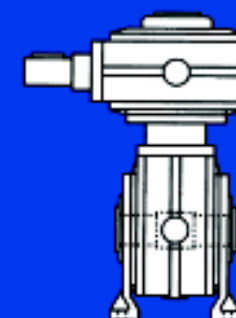
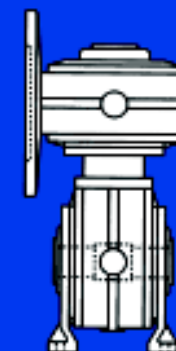
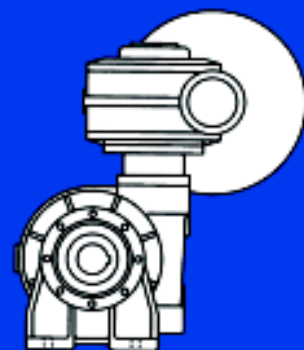
POWER		n1	ratio	n2	M1'	Fs	Gearbox Size
HP	KW						
0.50	0.37	1700	10	170	18	4	50
			15	112	25	2.6	
			20	84	32	2.2	
			30	56	46	1.75	
			40	42	54	1.5	
			50	34	65	1.05	
			60	28	77	0.95	
			20	84	35	3.5	63
			25	67	42	3	
			30	56	48	2.7	
			35	48	54	2.3	
			40	42	59	1.9	
			45	37	63	1.7	
			50	34	66	1.6	
			60	28	78	1.3	
			70	24	83	1.2	
			80	21	93	1.1	
			100	17	101	0.85	
			45	37	66	2.2	70
			50	34	69	2	
			60	28	79	1.7	
			70	24	85	1.5	
			80	21	95	1.3	

POWER		n1	ratio	n2	M1'	Fs	Gearbox Size
HP	KW						
0.50	0.37	1700	100	17	103	1	70
			50	34	73	3.4	
			60	28	86	2.8	
			70	24	94	2.5	
			80	21	108	2.3	
			100	17	113	1.9	

POWER		n1	ratio	n2	M1'	Fs	Gearbox Size
HP	KW						
0.75	0.55	1700	7.5	224	21	3.4	50
			10	170	27	2.7	
			15	112	38	1.8	
			20	84	47	1.5	
			30	56	68	1.2	
			40	48	82	1	
			15	112	40	2.8	63
			20	84	52	2.4	
			25	67	62	2	
			30	56	73	1.8	
			35	48	80	1.5	
			40	42	88	1.3	
			45	37	94	1.2	
			50	34	98	1.05	
			20	84	52	2.9	70
			25	67	63	2.5	
			30	56	73	2.3	
			35	48	81	2	
			40	42	89	1.7	
			45	37	98	1.4	
			50	34	103	1.3	
			60	28	118	1.2	
			70	24	127	1	
			80	21	142	0.9	
			40	42	92	3.1	85
			45	37	100	2.5	
			50	34	108	2.3	
			60	28	128	1.9	
			70	24	140	1.7	
			80	21	160	1.5	
			100	17	168	1.3	



CRD - CFRD

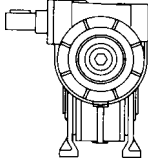
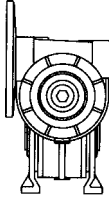


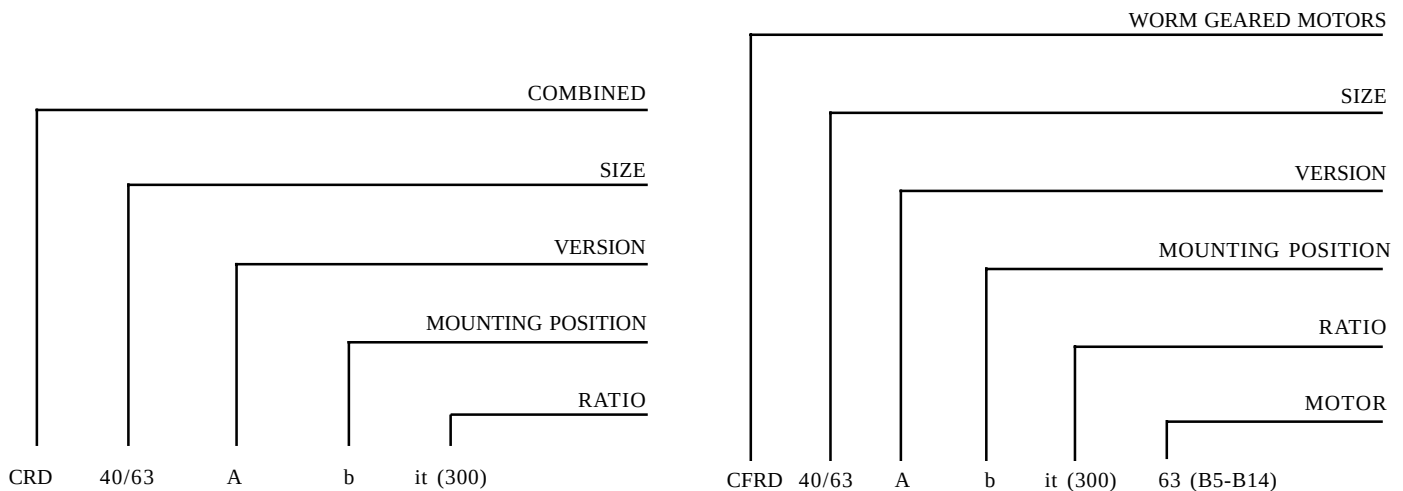
WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

3.0 COMBINED WORM GEARBOXES AND WORM GEAR MOTORS

The technical and structural characteristics are the same as those of the worm gearboxes. Product quality is the result of meticulous machining processes and specific controls during manufacture. Assembly is carried out by competent, quality-conscious personnel. Combinations and gear ratios not shown in the tables can also be obtained; it should be borne in mind that beyond certain ratios (2500 and over), the structural modulus of the worm gear plus crown gear pairing diminishes considerably, making a technical inspection necessary prior to proceeding with the application. Our Special Products Department is on hand to assist with any requirements.

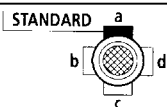
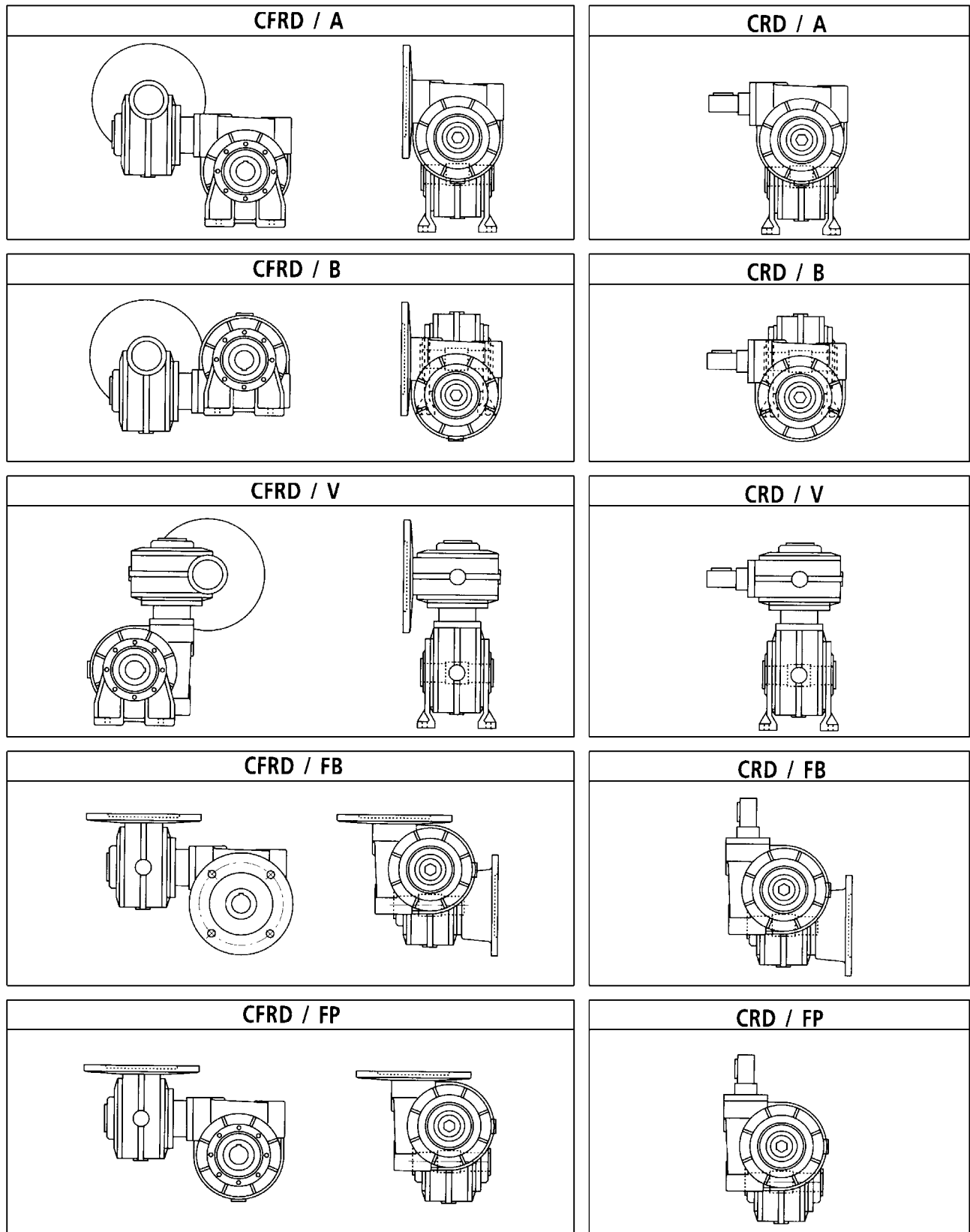
3.1 SYMBOLS AND DESIGNATION

CRD - COMBINED WORM SCREW REDUCTION GEARS	CFRD - COMBINED WORM SCREW REDUCTION GEARS WITH MOTOR FLANGE
	



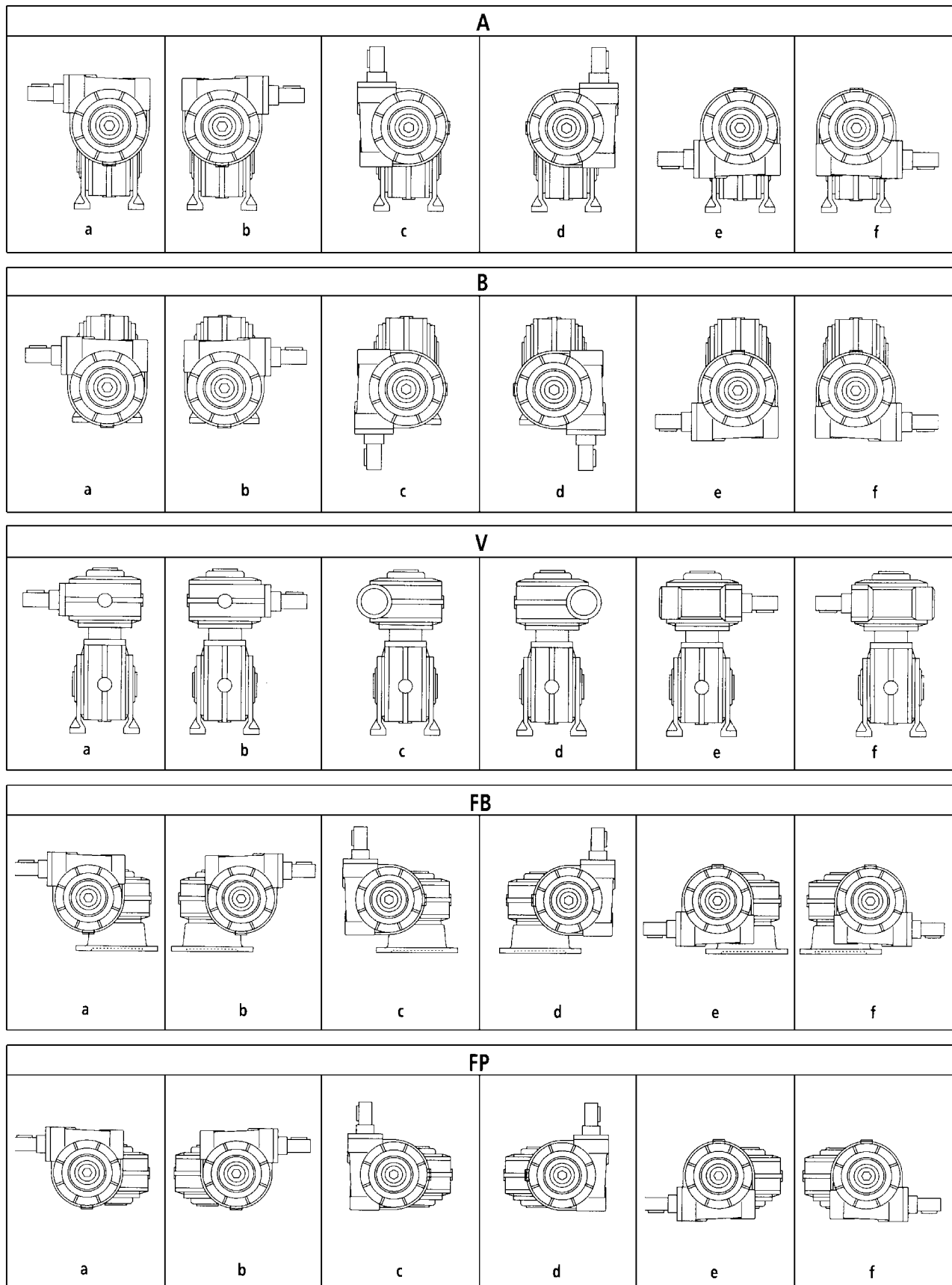
N.B. - Unless otherwise specified, the FB flange will be fitted as per the catalog.

3.2 VERSIONS



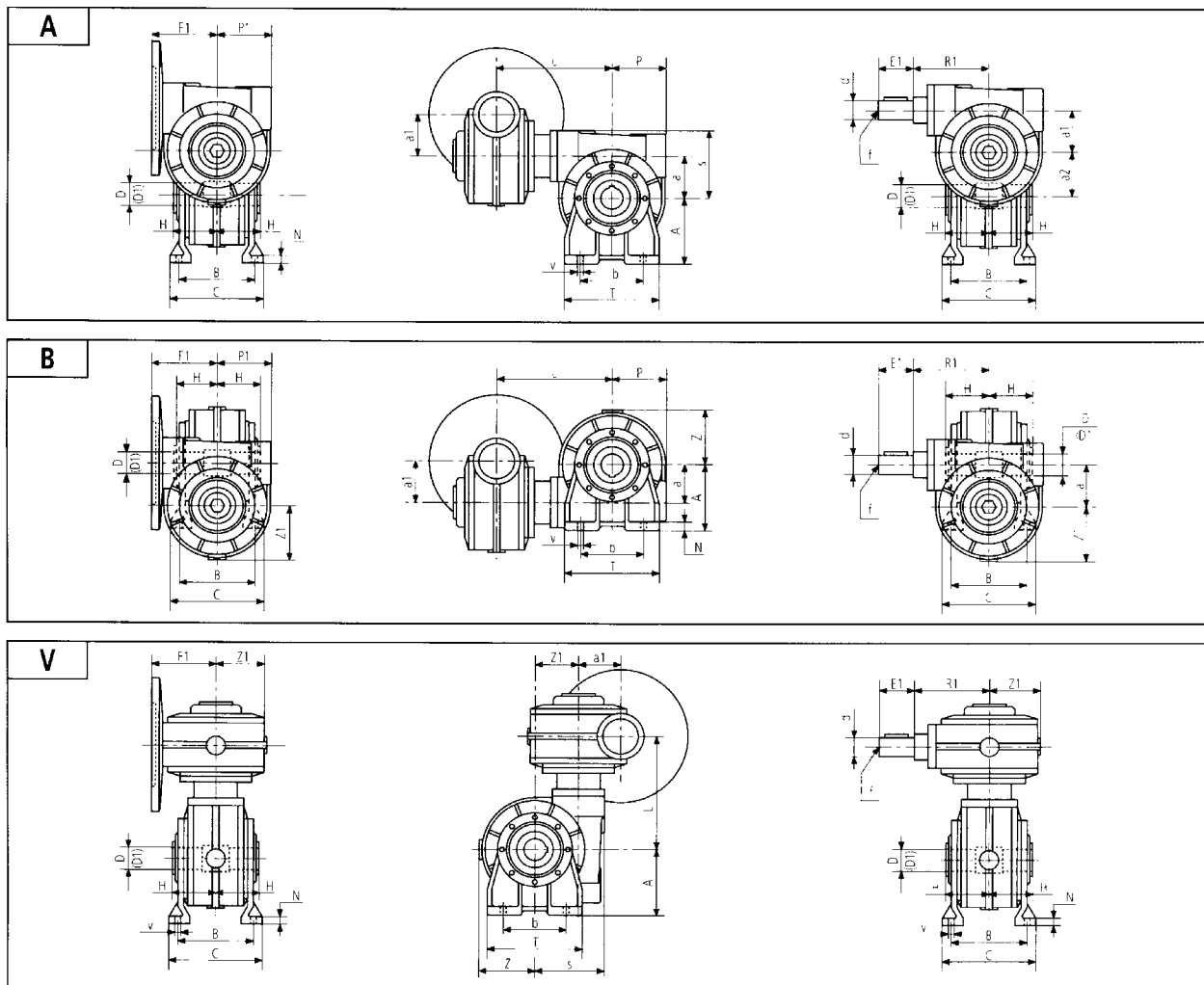
Terminal Board Position

3.3 MOUNTING POSITIONS



WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

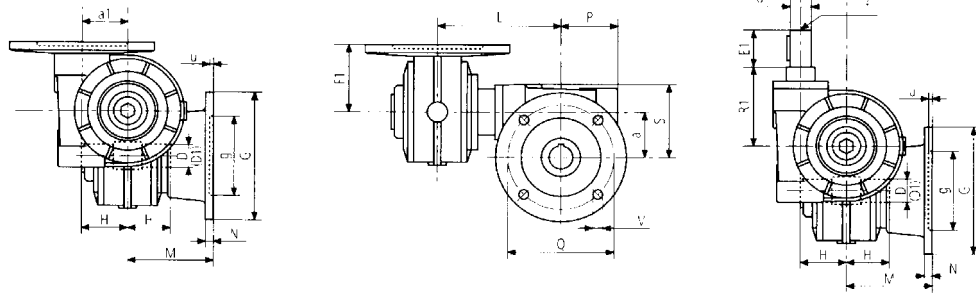
3.4 DIMENSIONS



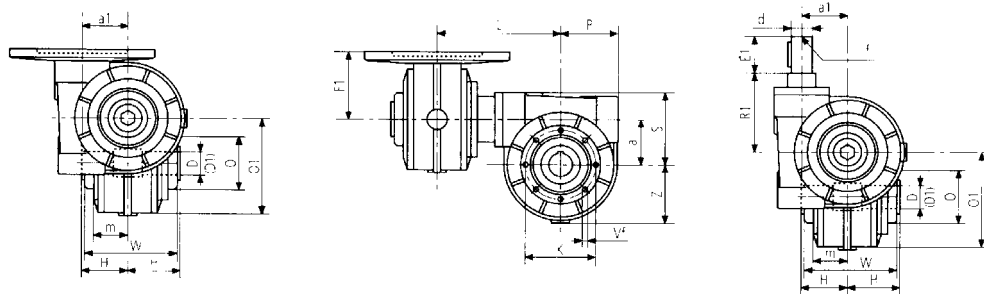
TYPE A-B-V													
	30/40	30/50	30/63	40/50	40/63	40/70	40/85	50/63	50/70	50/85	63/70	63/85	70/85
A	71	85	100	85	100	115	142	100	115	142	115	142	142
a	40	50	63	50	63	70	85	63	70	85	70	85	85
a1	31.5	31.5	31.5	40	40	40	40	50	50	50	63	63	70
a2	71.5	81.5	91.5	90	103	110	125	113	120	135	133	148	155
B	84	*96/99	111	*96/99	111	116	*140/146	111	116	*140/146	116	*140/146	*140/146
b	70	85	95	85	95	120	140	95	120	140	120	140	140
C	102	120	136	120	136	142	176	136	142	176	142	176	176
D1H7	18	25	—	25	—	30	32	—	30	32	30	32	32
DH7	19	24	25	24	25	28	35	25	28	35	28	35	35
dj6	9	9	9	11	11	11	11	14	14	14	18	18	19
E1	22	22	22	22	22	22	22	30	30	30	45	45	40
F1	54	54	54	65	65	65	65	76	76	76	95	95	103
f	M4	M4	M4	M5	M5	M5	M5	M6	M6	M6	M6	M6	M6
H	41	49	60	49	60	60	70	60	60	70	60	70	70
L	96	108	130	117	133	138	165	141	146	170	164	186	187
N	9	12	12	12	12	12	14	12	12	14	12	14	14
P	61	72	80	72	80	85	105	80	85	105	85	105	105
P1	46	46	46	61	61	61	61	72	72	72	80	80	85
R1	53	53	53	65	65	65	65	75	75	65	94	94	100
S	70	82	98	82	98	112	129	98	112	129	112	129	129
S1	50	50	50	70	70	70	70	82	82	82	98	98	112
T	106	125	140	125	140	156	200	140	156	200	156	200	200
V	8.5	9	11	9	11	12	12	11	12	12	12	12	12
Z	52	64	75	64	75	82	100	75	82	100	82	100	100
Z1	39	39	39	52	52	52	52	64	64	64	75	75	82

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

FB



FP



TYPE FB - FP

	30/40	30/50	30/63	40/50	40/63	40/70	40/85	50/63	50/70	50/85	63/70	63/85	70/85
a	40	50	63	50	63	70	85	63	70	85	70	85	85
a1	31.5	31.5	31.5	40	40	40	40	50	50	50	63	63	70
D1H7	18	25	—	25	—	30	32	—	30	32	30	32	32
DH7	19	24	25	24	25	28	35	25	28	35	28	35	35
dj6	9	9	9	11	11	11	11	14	14	14	18	18	19
E1	22	22	22	22	22	22	22	30	30	30	45	45	40
F1	54	54	54	65	65	65	65	76	76	76	95	95	103
f	M4	M4	M4	M5	M5	M5	M5	M6	M6	M6	M6	M6	M6
G	140	160	180	160	180	200	210	180	200	210	200	210	210
gH8	95	110	115	110	115	130	152	115	130	152	130	152	152
H	41	49	60	49	60	60	70	60	60	70	60	70	70
L	96	108	130	117	133	138	165	141	146	170	164	186	187
M	82	92	116	92	116	111	151	116	111	151	111	151	151
m	38	46	45	46	45	50	56.5	45	50	56.5	50	56.5	56.5
N	10	10	11	10	11	12	14	11	12	14	12	14	14
O	60	70	75	70	75	90	110	75	90	110	90	110	110
O1	100	120	110	120	110	128	150	110	128	150	128	150	150
P	61	72	80	72	80	85	105	80	85	105	85	105	105
Q	115	130	150	130	150	165	176	150	165	176	165	176	176
R1	53	53	53	65	65	65	65	75	75	75	94	94	100
S	70	82	98	82	98	112	129	98	112	129	112	129	129
u	5	5	7	5	7	5	6	7	5	6	5	6	6
V	9	10	11	10	11	13	12	11	13	12	13	12	12
Vf	M6	M8	M8	M8	M8	M8	M10	M8	M8	M10	M8	M10	M10
Z	52	64	75	64	75	82	100	75	82	100	82	100	100
K	83	85	90	85	90	110	130	90	110	130	110	130	130
W	80	92	114	92	114	114	133	114	114	133	114	133	133

TYPE FB1 - FB2 - FB3 - FB4 - FB5 - FB6

	30/40					30/50 - 40/50						30/63 40/63 50/63			40/70 50/70 63/70				40/85 50/85 63/85 70/85	
	FB1	FB2	FB3	FB4	FB5	FB1	FB2	FB3	FB4	FB5	FB6	FB1	FB2	FB3	FB1	FB2	FB3	FB4	FB1	FB2
G	110	115	110	115	115	125	125	125	140	140	125	180	200	160	200	175	160	160	160	200
gH8	60	60	60	80	80	70	70	70	95	95	70	115	130	110	130	115	110	110	110	130
M	60	60	69	60	62	85	93	73	75	81	85	85	102	82	85	116	85	101	100	120
N	8	8	17	8	10	10	11	8	10	11	9.5	11	11	11	12	12	12	12	13	13
Q	87	87	87	100	100	90	90	100	115	115	90	150	165	130	165	150	130	130	130	165
u	5	5	6	3.5	5	4.5	5	4	4	5	4.5	7	6	5	5	5	5	6	6	6
V	9	9	9	9	9	11	11	9	10	11	10	11	13	10	13	11	11	11	11	12

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

3.5 PERFORMANCE OF REDUCTION GEARS

CRD 30/40		it									
		150	225	300	450	600	900	1200	1500	2100	
n1 RPM	i1 x i2	7.5x20	7.5x30	10x30	15x30	20x30	30x30	40x30	50x30	70x30	
1400	n2	9.3	6.2	4.7	3.1	2.3	1.5	1.2	0.9	0.67	
	M1	62	65	65	65	65	65	65	65	62	
	KW	0.13	0.10	0.08	0.06	0.05	0.04	0.03	0.02	0.02	
	HP	0.18	0.13	0.11	0.08	0.07	0.05	0.04	0.03	0.03	
	Rd	0.45	0.41	0.39	0.35	0.33	0.28	0.28	0.28	0.23	

CRD 30/50		it									
		150	225	300	450	600	900	1200	1500	2100	2400
n1 RPM	i1 x i2	7.5x20	7.5x30	10x30	15x30	20x30	30x30	40x30	50x30	70x30	80x30
1400	n2	9.3	6.2	4.7	3.1	2.3	1.5	1.2	0.9	0.67	0.58
	M1	115	120	120	125	125	125	125	125	120	120
	KW	0.23	0.17	0.13	0.10	0.07	0.06	0.05	0.04	0.04	0.03
	HP	0.31	0.23	0.18	0.13	0.09	0.08	0.07	0.05	0.05	0.04
	Rd	0.49	0.47	0.46	0.42	0.44	0.35	0.35	0.29	0.23	0.21

CRD 30/63		it										
		150	200	250	300	375	500	700	900	1200	1800	2700
n1 RPM	i1 x i2	7.5x20	10x20	10x25	10x30	15x25	20x25	20x35	30x30	40x30	60x30	60x45
1400	n2	9.3	7	5.6	4.7	3.7	2.8	2	1.5	1.2	0.8	0.52
	M1	190	190	200	200	200	200	200	200	200	200	190
	KW	0.36	0.27	0.24	0.21	0.17	0.14	0.12	0.10	0.09	0.07	0.05
	HP	0.48	0.37	0.32	0.29	0.23	0.19	0.16	0.13	0.12	0.09	0.07
	Rd	0.52	0.52	0.49	0.46	0.45	0.42	0.35	0.31	0.27	0.25	0.22

CRD 40/50		it									
		150	225	300	450	600	900	1200	1500	2100	2400
n1 RPM	i1 x i2	7.5x20	7.5x30	10x30	15x30	20x30	30x30	40x30	50x30	70x30	80x30
1400	n2	9.3	6.2	4.7	3.1	2.3	1.5	1.2	0.9	0.67	0.58
	M1	135	140	140	140	140	150	140	140	130	130
	KW	0.24	0.17	0.13	0.10	0.07	0.06	0.05	0.04	0.03	0.03
	HP	0.32	0.23	0.18	0.13	0.09	0.08	0.07	0.05	0.04	0.04
	Rd	0.54	0.53	0.52	0.48	0.46	0.41	0.37	0.34	0.30	0.26

CRD 40/63		it										
		150	200	250	300	400	500	700	900	1200	1800	2700
n1 RPM	i1 x i2	7.5x20	10x20	10x25	10x30	20x20	20x25	20x35	30x30	40x30	60x30	60x45
1400	n2	9.3	7	5.6	4.7	3.5	2.8	2	1.5	1.2	0.8	0.52
	M1	230	230	240	240	240	250	250	260	250	240	220
	KW	0.37	0.3	0.26	0.23	0.18	0.16	0.13	0.10	0.09	0.06	0.05
	HP	0.5	0.4	0.35	0.31	0.24	0.22	0.17	0.13	0.12	0.08	0.07
	Rd	0.60	0.56	0.55	0.51	0.49	0.46	0.42	0.40	0.37	0.33	0.26

CRD 40/70		it										
		150	200	250	300	375	500	700	900	1200	1800	2700
n1 RPM	i1 x i2	7.5x20	10x20	10x25	10x30	15x25	20x25	20x35	30x30	40x30	60x30	60x45
1400	n2	9.3	7	5.6	4.7	3.7	2.8	2	1.5	1.2	0.8	0.52
	M1	300	310	310	315	315	315	310	310	310	310	280
	KW	0.48	0.38	0.31	0.30	0.25	0.20	0.16	0.12	0.10	0.07	0.06
	HP	0.65	0.51	0.42	0.40	0.33	0.27	0.21	0.16	0.14	0.10	0.07
	Rd	0.61	0.60	0.58	0.52	0.50	0.46	0.42	0.40	0.38	0.35	0.28

CRD 40/85		it										
		150	200	250	300	400	600	900	1200	1800	2700	3500
n1 RPM	i1 x i2	7.5x20	10x20	10x25	10x30	10x40	30x20	30x30	40x30	40x45	60x45	70x50
1400	n2	9.3	7	5.6	4.7	3.5	2.3	1.5	1.2	0.8	0.52	0.4
	M1	450	450	450	460	460	460	470	470	460	450	44
	KW	0.73	0.6	0.5	0.5	0.4	0.26	0.19	0.17	0.13	0.10	0.09
	HP	1	0.81	0.7	0.7	0.6	0.35	0.25	0.23	0.17	0.13	0.12
	Rd	0.60	0.55	0.52	0.46	0.42	0.43	0.40	0.35	0.30	0.26	0.21

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

CRD 50/63

		it										
		150	200	250	300	400	600	900	1500	2000	2700	3500
n1 RPM	i1 x i2	7.5x20	10x20	10x25	10x30	10x40	30x20	30x30	30x50	40x50	60x45	70x50
1400	n2	9.3	7	5.6	4.7	3.5	2.3	1.5	0.93	0.70	0.52	0.40
	M1	250	250	270	270	270	270	270	250	250	240	230
	KW	0.40	0.33	0.29	0.26	0.21	0.16	0.11	0.07	0.06	0.05	0.04
	HP	0.55	0.45	0.39	0.35	0.28	0.22	0.15	0.10	0.08	0.07	0.05
	Rd	0.60	0.56	0.55	0.51	0.48	0.42	0.39	0.34	0.29	0.26	0.22

CRD 50/70

		it										
		150	200	250	300	400	600	900	1500	2000	2700	3500
n1 RPM	i1 x i2	7.5x20	10x20	10x25	10x30	10x40	30x20	30x30	30x50	40x50	60x45	70x50
1400	n2	9.3	7	5.6	4.7	3.5	2.3	1.5	0.93	0.70	0.52	0.40
	M1	320	330	340	340	340	340	340	330	330	330	310
	KW	0.51	0.40	0.34	0.32	0.25	0.19	0.13	0.08	0.07	0.06	0.05
	HP	0.69	0.55	0.46	0.44	0.33	0.25	0.18	0.11	0.10	0.08	0.07
	Rd	0.61	0.60	0.58	0.52	0.50	0.44	0.41	0.39	0.35	0.29	0.25

CRD 50/85

		it										
		150	200	250	300	400	600	900	1500	2000	2700	3500
n1 RPM	i1 x i2	7.5x20	10x20	10x25	10x30	10x40	30x20	30x30	30x50	40x50	60x45	70x50
1400	n2	9.3	7	5.6	4.7	3.5	2.3	1.5	0.93	0.70	0.52	0.40
	M1	480	480	480	500	490	490	510	500	500	490	480
	KW	0.78	0.63	0.52	0.50	0.39	0.28	0.20	0.14	0.12	0.10	0.10
	HP	1.06	0.85	0.7	0.68	0.53	0.38	0.27	0.19	0.17	0.13	0.13
	Rd	0.60	0.56	0.52	0.50	0.46	0.42	0.40	0.35	0.30	0.26	0.21

CRD 63/70

		it										
		140	200	250	300	400	500	700	900	1500	2000	3000
n1 RPM	i1 x i2	7x20	10x20	10x25	10x30	20x20	20x25	20x35	45x20	30x50	40x50	50x60
1400	n2	10	7	5.6	4.7	3.5	2.8	2	1.5	0.93	0.7	0.47
	M1	350	380	380	380	380	380	380	360	350	340	330
	KW	0.59	0.47	0.40	0.37	0.27	0.24	0.19	0.14	0.09	0.07	0.06
	HP	0.80	0.63	0.54	0.51	0.37	0.32	0.25	0.19	0.12	0.10	0.08
	Rd	0.62	0.60	0.54	0.50	0.51	0.47	0.42	0.40	0.39	0.35	0.28

CRD 63/85

		it										
		140	200	250	300	400	500	700	900	1500	2000	3000
n1 RPM	i1 x i2	7x20	10x20	10x25	10x30	20x20	20x25	20x35	45x20	30x50	40x50	50x60
1400	n2	10	7	5.6	4.7	3.5	2.8	2	1.5	0.93	0.7	0.47
	M1	520	530	530	530	530	530	530	520	530	520	510
	KW	0.88	0.69	0.60	0.53	0.40	0.34	0.26	0.20	0.14	0.12	0.10
	HP	1.19	0.94	0.81	0.72	0.54	0.47	0.36	0.27	0.19	0.16	0.13
	Rd	0.62	0.56	0.52	0.49	0.48	0.45	0.42	0.40	0.36	0.32	0.25

CRD 70/85

		it										
		140	200	250	300	400	500	700	900	1500	2000	3000
n1 RPM	i1 x i2	7x20	10x20	10x25	10x30	20x20	20x25	20x35	45x20	30x50	40x50	50x60
1400	n2	10	7	5.6	4.7	3.5	2.8	2	1.5	0.93	0.7	0.47
	M1	540	550	550	550	550	550	550	540	550	540	530
	KW	0.91	0.72	0.62	0.55	0.42	0.36	0.27	0.21	0.15	0.12	0.10
	HP	1.24	0.98	0.84	0.75	0.57	0.48	0.37	0.29	0.20	0.16	0.13
	Rd	0.62	0.56	0.52	0.49	0.48	0.45	0.42	0.40	0.36	0.32	0.25

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

3.6 PERFORMANCE OF MOTOR REDUCTION GEARS

KW 0.06		HP 0.08				
it	n1	n2	M1'	FG	CFRD	iEC
150	1400	9.3	28	2.2	30/40	56
225		6.2	38	1.7	"	"
300		4.7	47	1.3	"	"
450		3.1	65	1	"	"
600		2.3	82	0.9	"	"
225		6.2	44	2.8	30/50	"
300		4.7	56	2.2	"	"
450		3.1	78	1.7	"	"
600		2.3	110	1.2	"	"
900		1.5	134	1	"	"
300		4.7	56	3.5	30/63	"
375		3.7	70	2.8	"	"
500		2.8	86	2.3	"	"
700		2	100	2	"	"
900	1400	1.5	118	1.7	"	"
1200		1.2	129	1.5	"	"
1800		0.8	179	1.2	"	"
2700		0.52	242	0.9	"	"
500		2.8	94	3.3	40/70	"
700		2	120	2.7	"	"
900		1.5	153	2	"	"
1200		1.2	181	1.7	"	"
1800		0.8	251	1.2	"	"
2700		0.52	308	1	"	"
900		1.5	153	3.2	40/85	"
1200		1.2	167	2.8	"	"
1800		0.8	215	2.2	"	"
2700		0.52	286	1.7	"	"
3500		0.40	301	1.5	"	"

KW 0.09		HP 0.12				
it	n1	n2	M1'	FG	CFRD	iEC
150	1400	9.3	42	2.2	30/40	56
225		6.2	57	1.1	"	"
300		4.7	71	0.9	"	"
150		9.3	45	2.5	30/50	"
225		6.2	65	1.9	"	"
300		4.7	84	1.4	"	"
450		3.1	116	1.1	"	"
200		7	64	3	30/63	"
250		5.6	75	2.7	"	"
300		4.7	84	2.3	"	"
375		3.7	105	1.9	"	"
500		2.8	129	1.5	"	"
700		2	150	1.3	"	"
900		1.5	178	1.1	"	"
1200	1400	1.2	193	1	"	"
150		9.3	50	2.7	40/50	"
225		6.2	74	1.9	"	"
300		4.7	95	1.4	"	"
450		3.1	133	1.1	"	"
240		5.6	85	2.9	40/63	"
300		4.7	93	2.5	"	"
400		3.5	120	2	"	"
500		2.8	141	1.8	"	"
700		2	180	1.4	"	"
900		1.5	229	1.1	"	"
1200		1.2	265	1	"	"
375		3.7	116	2.8	40/70	"
500		2.8	141	2.2	"	"
700		2	180	1.8	"	"
900		1.5	229	1.3	"	"
1200		1.2	272	1.1	"	"
600	1400	2.3	161	2.9	40/85	"
900		1.5	229	2.1	"	"
1200		1.2	251	1.9	"	"
1800		0.8	322	1.4	"	"
2700		0.52	429	1.1	"	"
3500		0.4	451	1	"	"

KW 0.12		HP 0.18				
it	n1	n2	M1'	FG	CFRD	iEC
150	1400	9.3	60	1.9	30/50	63
225		6.2	87	1.4	"	"
300		4.7	112	1.1	"	"
150		9.3	64	3	30/63	"
200		7	85	2.2	"	"
250		5.6	100	2	"	"
300		4.7	112	1.7	"	"
375		3.7	139	1.4	"	"
500		2.8	172	1.2	"	"
700		2	200	1	"	"
150		9.3	67	2	40/50	"
225		6.2	98	1.4	"	"
300		4.7	127	1.1	"	"
150		9.3	74	3.1	40/63	"
200	1400	7	92	2.5	"	"
250		5.6	112	2.2	"	"
300		4.7	124	1.9	"	"
400		3.5	160	1.5	"	"
500		2.8	188	1.3	"	"
700		2	241	1.1	"	"
200		7	98	3.2	40/70	"
250		5.6	119	2.6	"	"
300		4.7	127	2.5	"	"
375		3.7	155	2.1	"	"
500		2.8	189	1.7	"	"
700		2	241	1.3	"	"
900		1.5	306	1	"	"
400	1400	3.5	138	3.3	40/85	"
600		2.3	214	2.2	"	"
900		1.5	306	1.6	"	"
1200		1.2	334	1.4	"	"
1800		0.8	430	1.1	"	"
150		9.3	74	3.3	50/63	"
200		7	92	2.7	"	"
250		5.6	113	2.4	"	"
300		4.7	125	2.2	"	"
400		3.5	157	1.7	"	"
600		2.3	209	1.3	"	"
900		1.5	298	0.9	"	"
200		7	98	3.3	50/70	"
250		5.6	119	2.8	"	"
300		4.7	127	2.7	"	"
400		3.5	164	2.1	"	"
600		2.3	219	1.6	"	"
900		1.5	313	1.1	"	"
400	1400	3.5	151	3.25	50/85	"
600		2.3	209	2.3	"	"
900		1.5	306	1.7	"	"
1500		0.93	431	1.2	"	"
2000		0.7	491	1	"	"
2700		0.52	573	0.85	"	"
3500		0.4	601	0.85	"	"

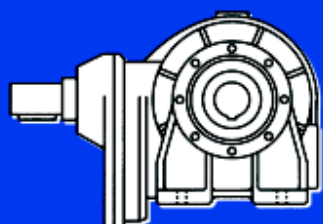
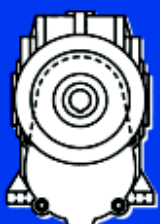
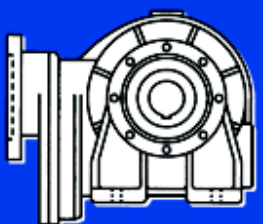
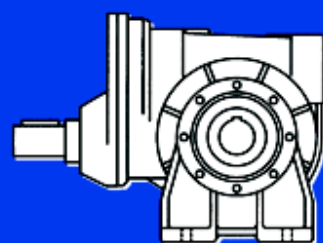
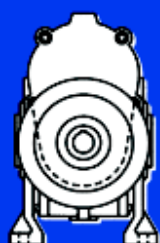
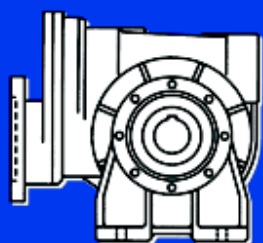
WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

KW 0.18		HP 0.25				
it	n1	n2	M1'	FG	CFRD	iEC
150	1400	9.3	90	1.3	30/50	63
225		6.2	130	0.9	"	"
150		9.3	96	2	30/63	"
200		7	128	1.5	"	"
250		5.6	150	1.3	"	"
300		4.7	168	1.2	"	"
375		3.7	209	0.9	"	"
150		9.3	100	1.3	40/50	"
225		6.2	147	0.9	"	"
150		9.3	111	2.1	40/63	"
200		7	138	1.7	"	"
250		5.6	169	1.4	"	"
300		4.7	187	1.3	"	"
400		3.5	241	1	"	"
150	1400	9.3	89	2.7	40/70	"
200		7	147	2.1	"	"
250		5.6	178	1.7	"	"
300		4.7	190	1.6	"	"
375		3.7	232	1.4	"	"
500		2.8	282	1.1	"	"
700		2	361	0.9	"	"
400		3.5	206	2.2	40/85	"
600		2.3	321	1.4	"	"
900		1.5	458	1.1	"	"
1200		1.2	501	0.9	"	"
150		9.3	111	2.2	50/63	"
200		7	137	1.8	"	"
250		5.6	169	1.6	"	"
300		4.7	186	1.4	"	"
400	1400	3.5	236	1.2	"	"
200		7	147	2.2	50/70	"
250		5.6	178	1.9	"	"
300		4.7	190	1.8	"	"
400		3.5	245	1.4	"	"
600		2.3	329	1.1	"	"
300		4.7	183	2.8	50/85	"
400		3.5	226	2.2	"	"
600		2.3	314	1.6	"	"
900		1.5	458	1.1	"	"

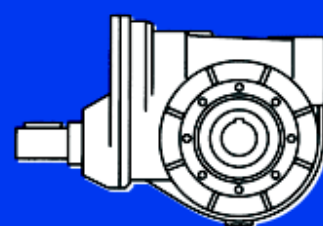
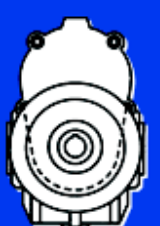
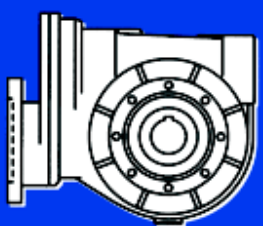
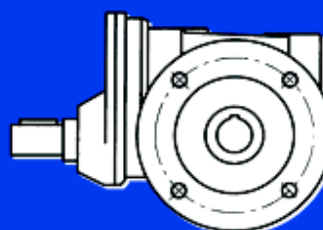
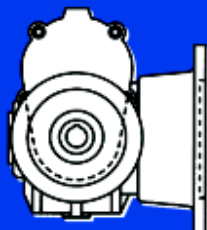
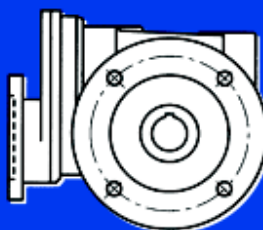
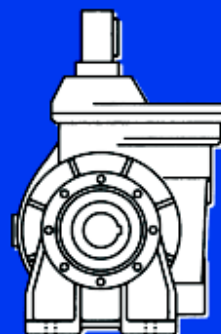
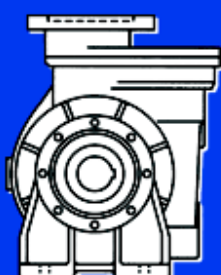
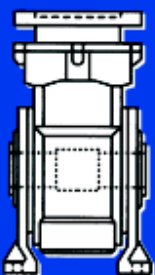
KW 0.25		HP 0.35				
it	n1	n2	M1'	FG	CFRD	iEC
150	1400	9.3	134	1.4	30/63	71
200		7	177	1.2	"	"
250		5.6	209	1	"	"
150		9.3	154	1.5	40/63	"
200		7	191	1.2	"	"
250		5.6	235	1	"	"
300		4.7	259	0.9	"	"
150		9.3	157	1.9	40/70	"
200		7	205	1.5	"	"
250		5.6	247	1.2	"	"
300		4.7	264	1.2	"	"
375		3.7	323	1	"	"
200		7	188	2.4	40/85	"
250		5.6	222	2	"	"
300	1400	4.7	234	2	"	"
400		3.5	287	1.6	"	"
600		2.3	446	1	"	"
150		9.3	154	1.6	50/63	"
200		7	191	1.3	"	"
250		5.6	235	1.2	"	"
300		4.7	259	1	"	"
150		9.3	156	2	50/70	"
200		7	205	1.6	"	"
250		5.6	247	1.4	"	"
300		4.7	264	1.3	"	"
400		3.5	341	1	"	"
200		7	191	2.5	50/85	"
250		5.6	222	2.1	"	"
300	1400	4.7	254	2	"	"
400		3.5	314	1.6	"	"
600		2.3	436	1.1	"	"
140		10	148	2.4	63/70	"
200		7	205	1.9	"	"
250		5.6	230	1.6	"	"
300		4.7	254	1.5	"	"
400		3.5	348	1.1	"	"
500		2.8	401	1	"	"
700		2	501	0.8	"	"
200		7	191	2.8	63/85	"
250		5.6	222	2.4	"	"
300		4.7	249	2.1	"	"
400		3.5	327	1.6	"	"
500		2.8	384	1.4	"	"
700	1400	2	501	1.1	"	"
900		1.5	637	0.8	"	"
200		7	191	2.9	70/85	"
250		5.6	222	2.5	"	"
300		4.7	249	2.2	"	"
400		3.5	327	1.7	"	"
500		2.8	384	1.4	"	"
700		2	501	1.1	"	"
900		1.5	637	0.85	"	"

KW 0.37		HP 0.50				
it	n1	n2	M1'	FG	CFRD	iEC
150	1400	9.3	232	1.3	40/70	71
200		7	303	1	"	"
150		9.3	228	2	40/85	"
200		7	278	1.6	"	"
250		5.6	328	1.4	"	"
300		4.7	346	1.4	"	"
400		3.5	424	1.1	"	"
150		9.3	228	1.1	50/63	"
200		7	283	0.9	"	"
150		9.3	232	1.4	50/70	"
200		7	303	1.1	"	"
250		5.6	366	0.9	"	"
150		9.3	228	2.1	50/85	"
200		7	283	1.7	"	"
250	1400	5.6	328	1.4	"	"
300		4.7	376	1.3	"	"
400		3.5	464	1.1	"	"
140		10	219	1.6	63/70	"
200		7	303	1.3	"	"
250		5.6	341	1.1	"	"
300		4.7	376	1	"	"
140		10	219	2.4	63/85	"
200		7	283	1.9	"	"
250		5.6	328	1.6	"	"
300		4.7	368	1.4	"	"
400		3.5	485	1.1	"	"
500		2.8	568	0.9	"	"
150		10	353	2.5	70/85	"
200	1400	7	283	1.9	"	"
250		5.6	328	1.7	"	"
300		4.7	368	1.5	"	"
400		3.5	485	1.1	"	"
500		2.8	568	1	"	"

KW 0.55		HP 0.75				
it	n1	n2	M1'	FG	CFRD	iEC
150	1400	9.3	339	1.3	40/85	80
200		7	413	1.1	"	"
250		5.6	488	0.9	"	"
150		9.3	339	1.4	50/85	"
200		7	420	1.15	"	"
250		5.6	488	0.95	"	"
300		4.7	559	0.9	"	"
140		10	326	1.1	63/70	"
140		10	326	1.6	63/85	"
200		7	420	1.3	"	"
250		5.6	488	1.1	"	"
300		4.7	584	0.95	"	"
140		10	326	1.7	70/85	"
200	1400	7	420	1.3	"	"
250		5.6	488	1.1	"	"
300		4.7	548	1	"	"



PRD - PFRD

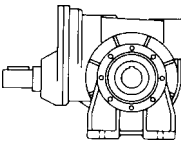
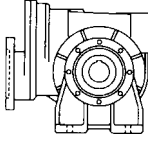


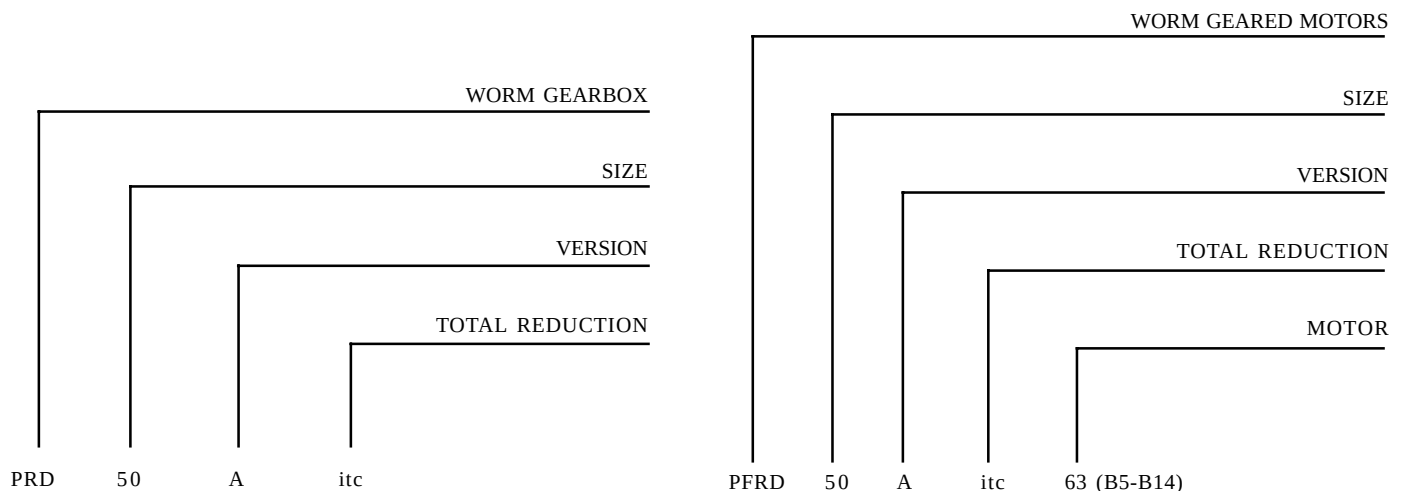
WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

4.0 WORM GEARBOXES AND WORM GEAR MOTORS WITH PRIMARY REDUCTION (2 HELICAL GEARS)

In this case too, the technical and structural characteristics are the same as those of the worm gearboxes and worm gear motors. We have adopted a structural system whereby we can supply a PAM type closed gear motor with primary reduction without having to supply the motor pre-mounted. The customer is free to choose the motor he wants, and to fit it in the same way as on a normal PAM gearbox. In the performance tables (PRD) only gear ratios from 1 to 3 are shown, though higher ratios can be provided on request.

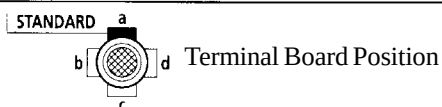
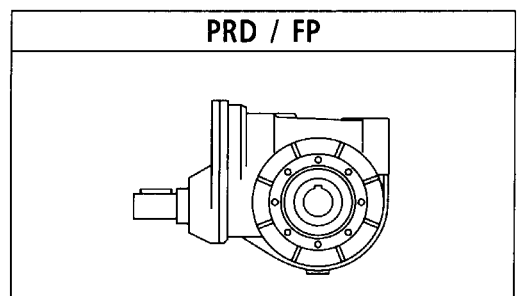
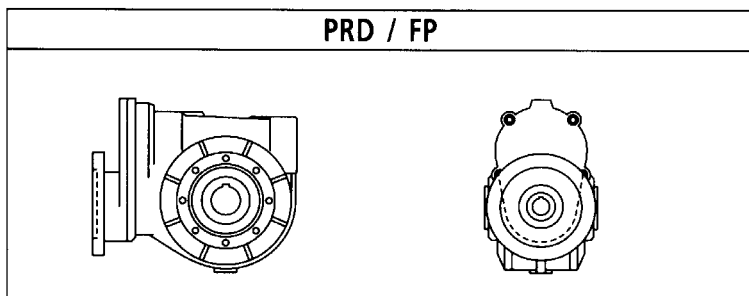
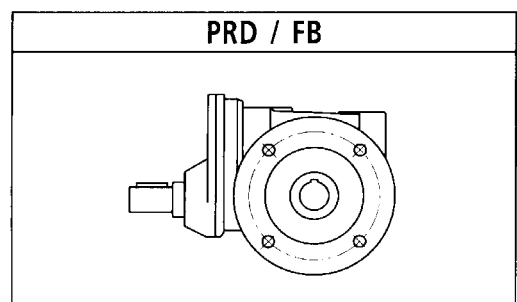
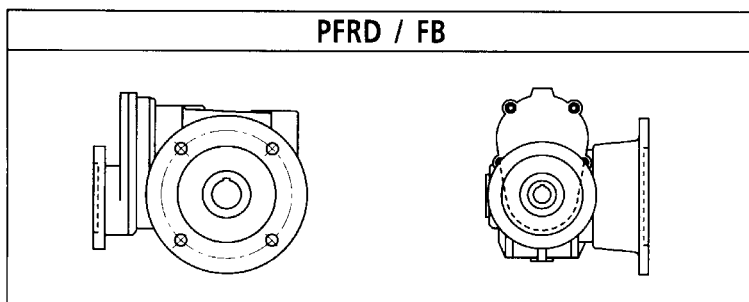
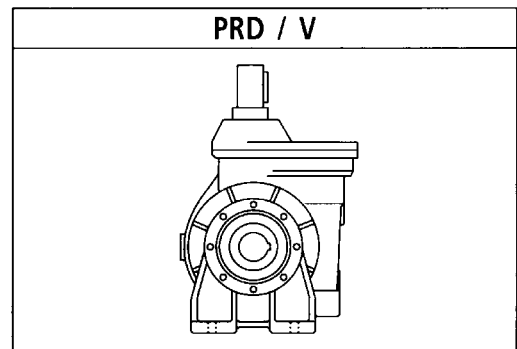
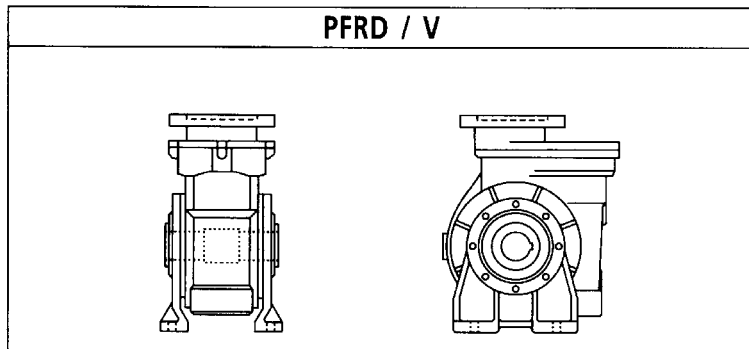
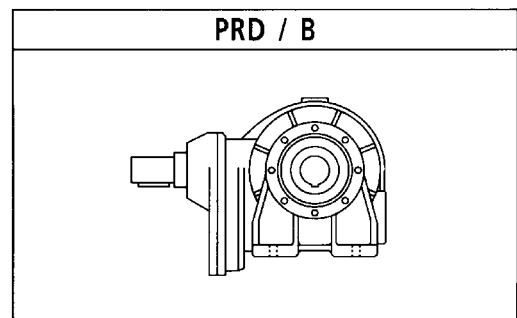
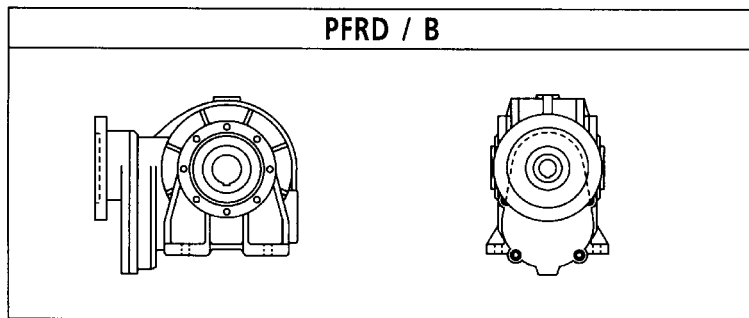
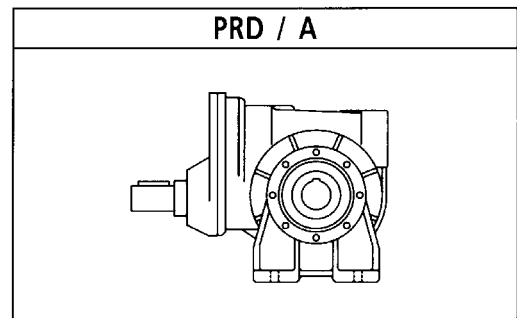
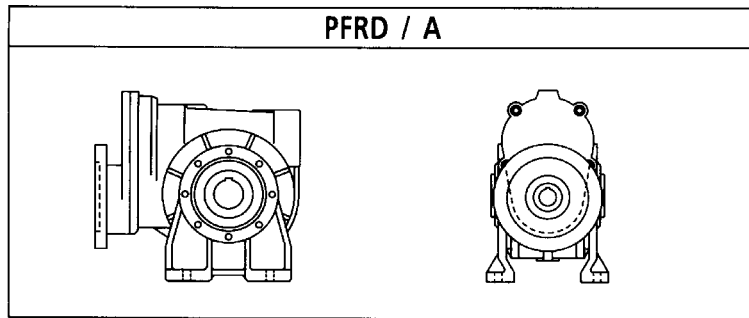
4.1 SYMBOLS AND DESIGNATION

PRD - WORM SCREW REDUCTION GEARS WITH PRIMARY REDUCTION	PFRD - WORM SCREW REDUCTION GEARS WITH PRIMARY REDUCTION AND MOTOR FLANGE
	



N.B. - Unless otherwise specified, the FB flange will be fitted as per the catalog.

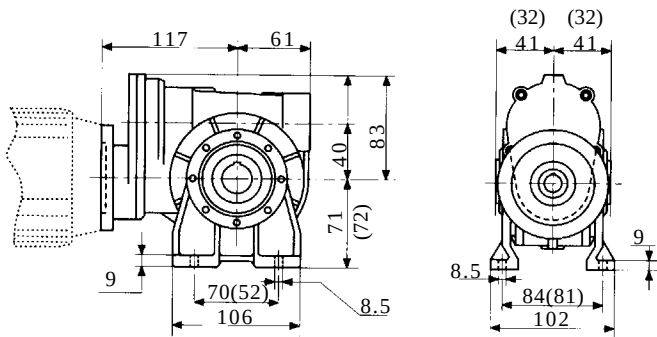
4.2 VERSIONS



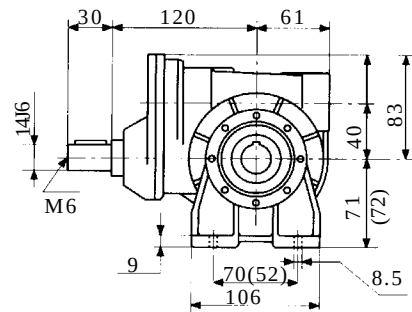
WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

4.3 DIMENSIONS

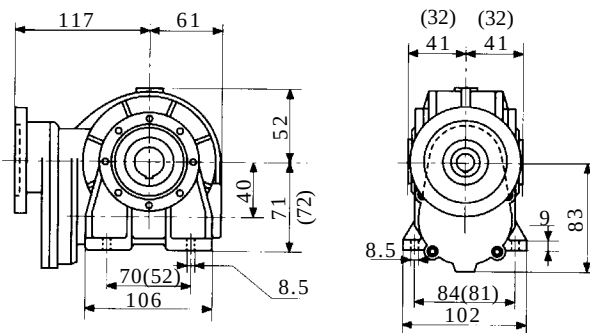
PFRD 40/A (A1)



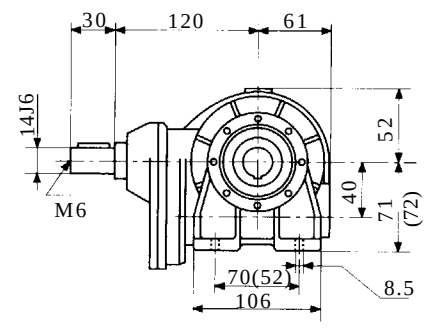
PRD 40/A (A1)



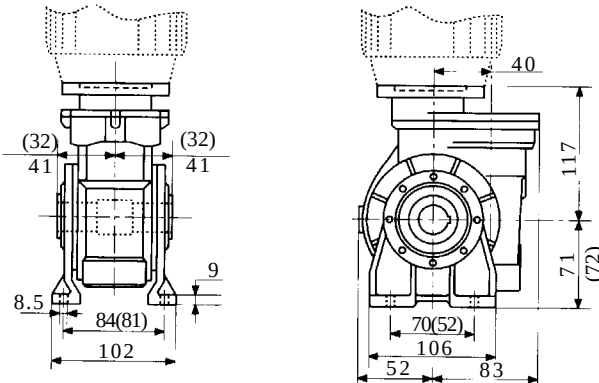
PFRD 40/B (B1)



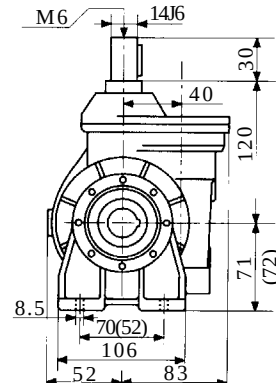
PRD 40/B (B1)



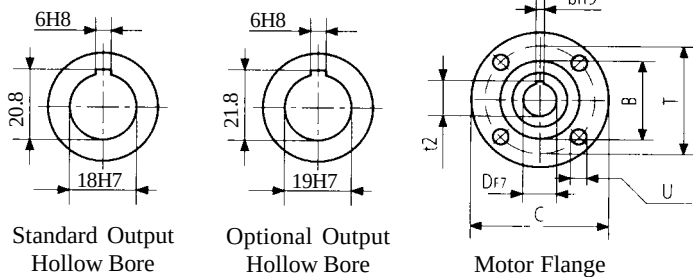
PFRD 40/V (V1)



PRD 40/V (V1)



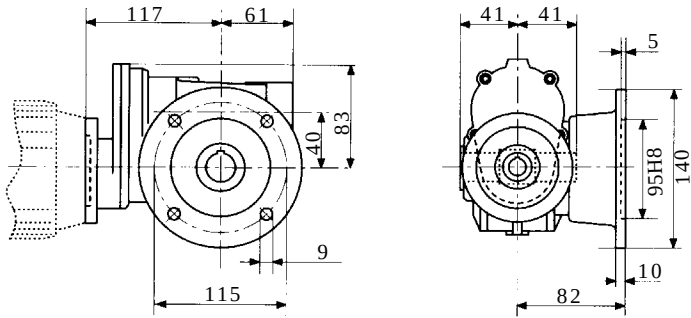
Motor Flange Dimensions



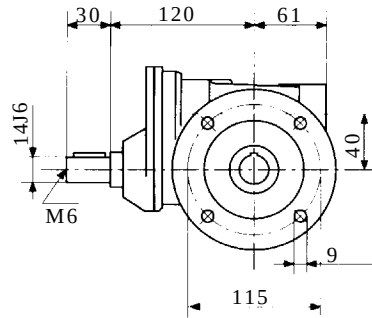
A - B - V		C	B	T	U	Df7	bh9	t2:Q1
B5	56	120	80	100	7	9	3	10.4
	63	140	95	115	9.5	11	4	12.8
B14	56	80	50	65	5.5	9	3	10.4
	63	90	60	75	5.5	11	4	12.8

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

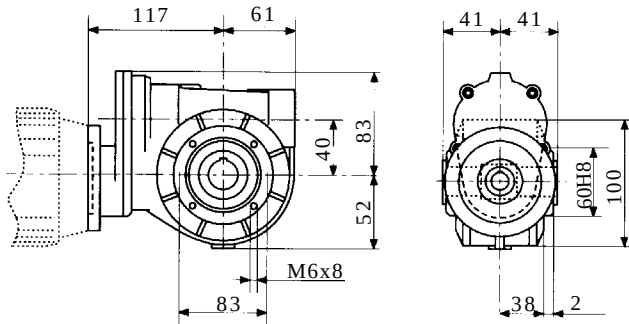
PFRD 40 FB



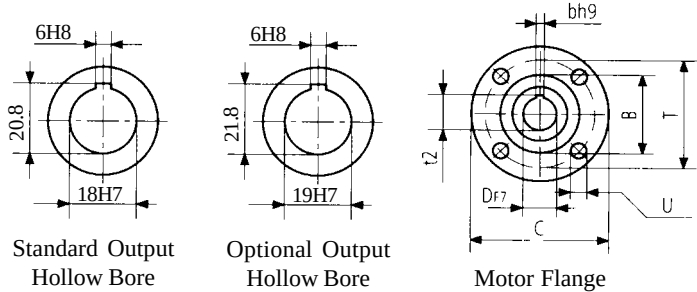
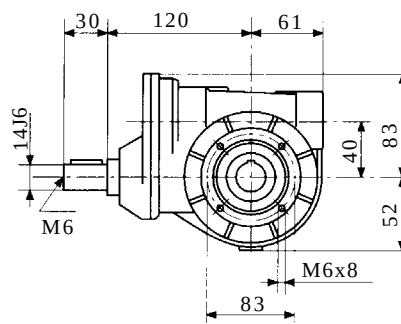
PRD 40 FB



PFRD 40 FP



PRD 40 FP



Standard Output
Hollow Bore

Optional Output
Hollow Bore

Motor Flange

Motor Flange Dimensions

	FB-FP	C	B	T	U	Df7	bh9	t2:Q1
B5	56	120	80	100	7	9	3	10.4
	63	140	95	115	9.5	11	4	12.8
B14	56	80	50	65	5.5	9	3	10.4
	63	90	60	75	5.5	11	4	12.8

For Flange FB1-FB2-FB3-FB4-FB5

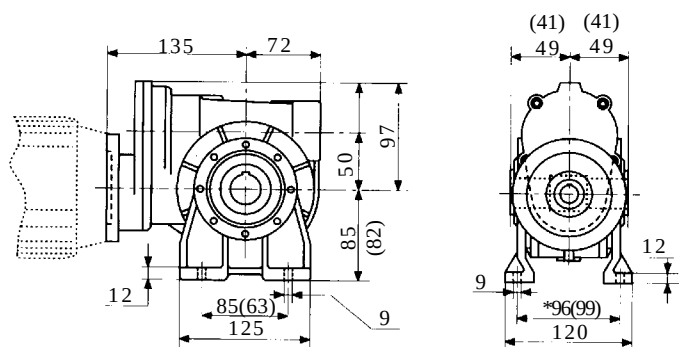
See dimensions on pages 14-15

For Flange FP1-FP2

See dimensions on page 16

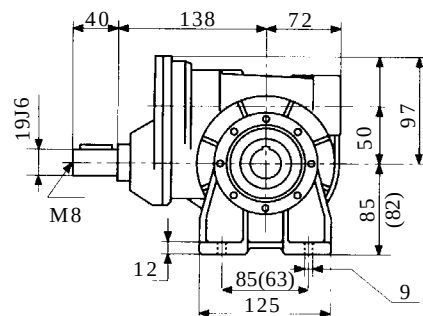
WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

PFRD 50/A (A1)

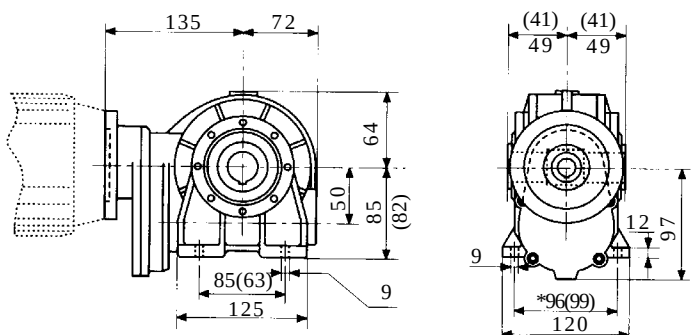


*slot

PRD 50/A (A1)

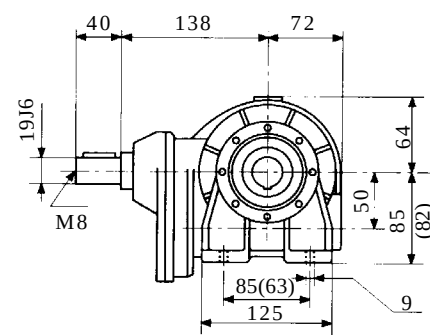


PFRD 50/B (B1)

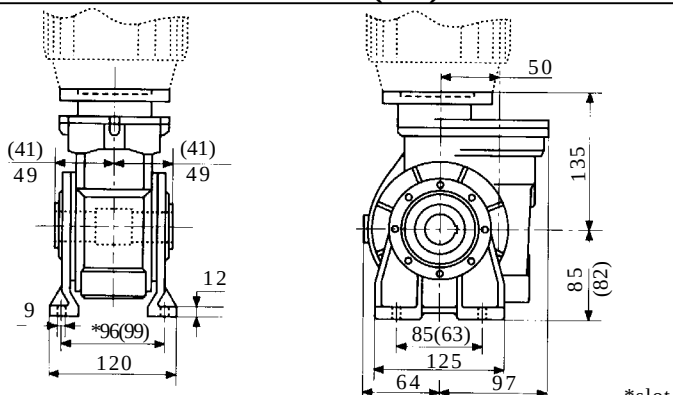


*slot

PRD 50/B (B1)

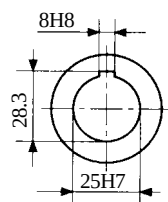
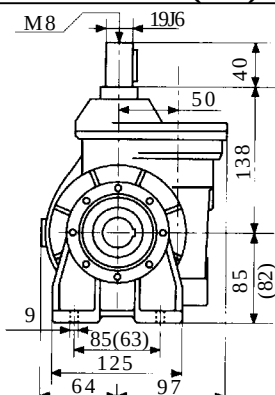


PFRD 50/V (V1)



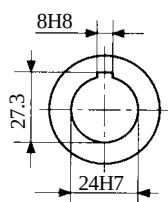
*slot

PRD 50/V (V1)

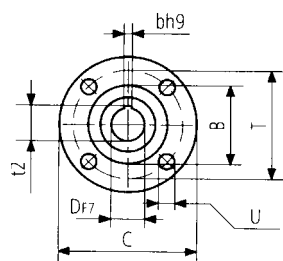


Standard Output

Hollow Bore



Optional Output
Hollow Bore



Motor Flange

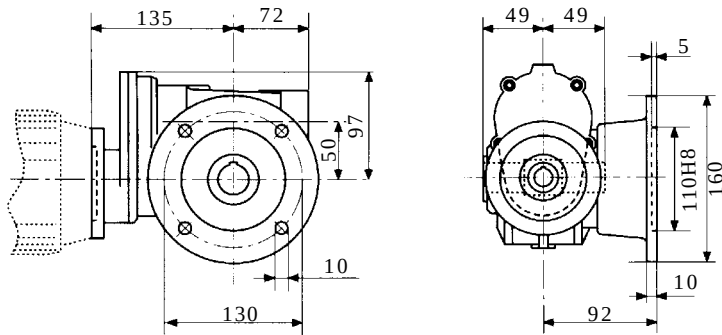
Motor Flange Dimensions

	A - B - V	C	B	T	U	Df7	bh9	t2.91
B5	63	140	95	115	9.5	11	4	12.8
	71	160	110	130	9.5	14	5	16.3

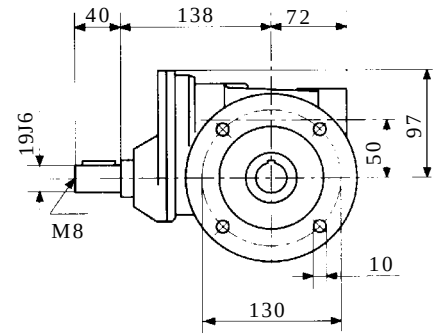
B14	63	90	60	75	5.5	11	4	12.8
	71	105	70	85	7	14	5	16.3

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

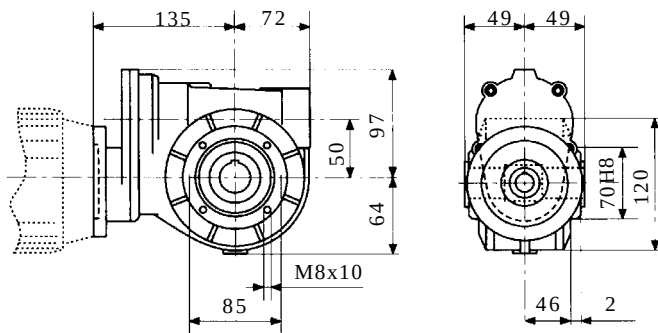
PFRD 50 FB



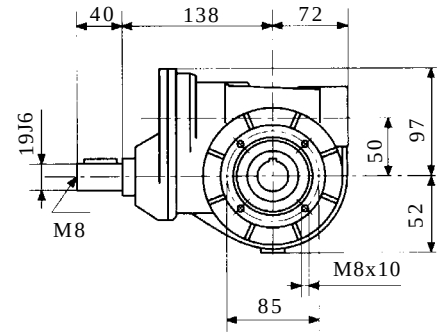
PRD 50 FB



PFRD 50 FP

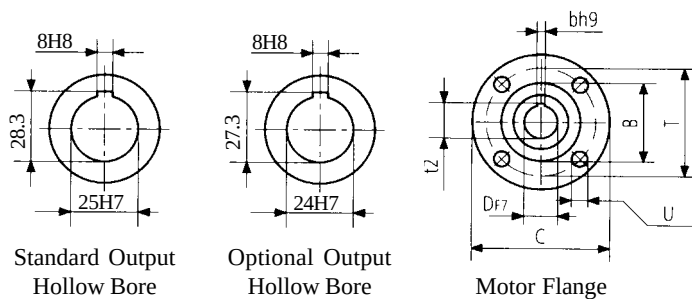


PRD 50 FP



Motor Flange Dimensions

	FB - FP	C	B	T	U	Df7	bh9	t2 Q1
B5	63	140	95	115	9.5	11	4	12.8
	71	160	110	130	9.5	14	5	16.3
B14	63	90	60	75	5.5	11	4	12.8
	71	105	70	85	7	14	5	16.3



For Flange FB1-FB2-FB3-FB4-FB5-FB6

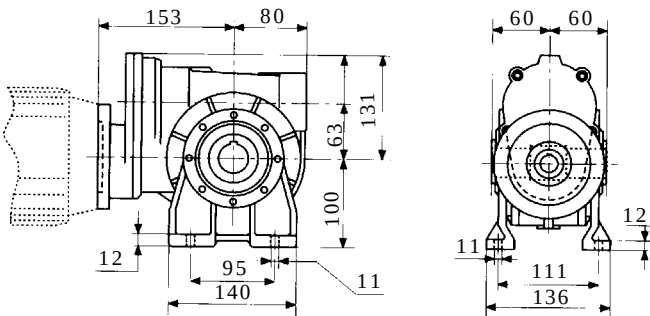
See dimensions on pages 18-19

For Flange FP1-FP2

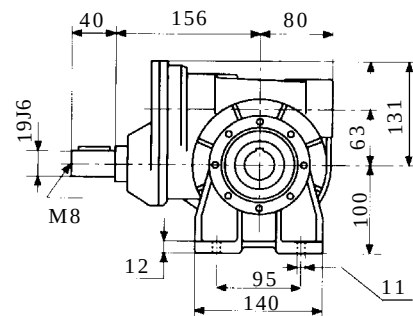
See dimensions on page 20

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

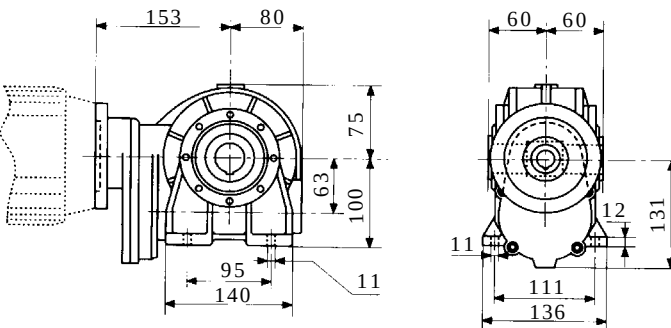
PFRD 63/A (A1)



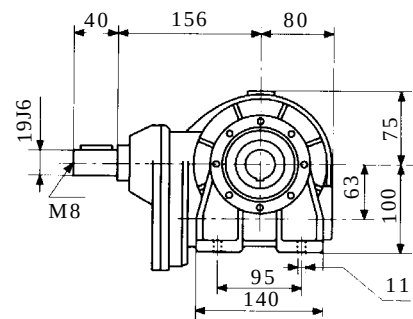
PRD 63/A (A1)



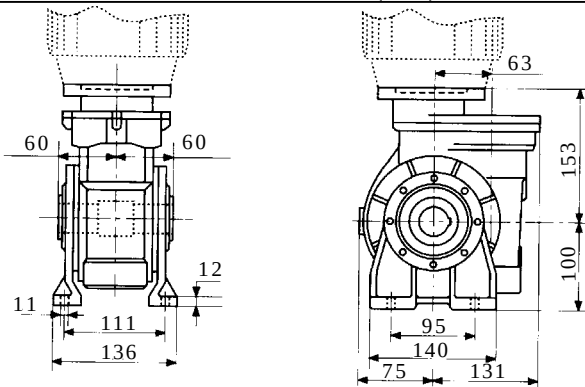
PFRD 63/B (B1)



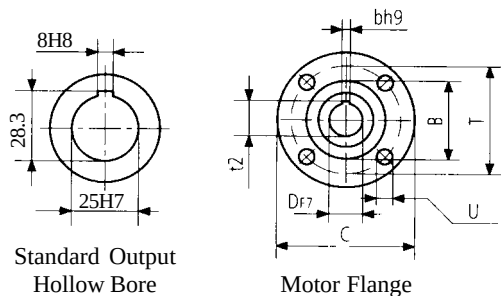
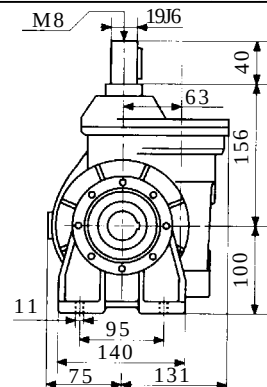
PRD 63/B (B1)



PFRD 63/V (V1)



PRD 63/V (V1)

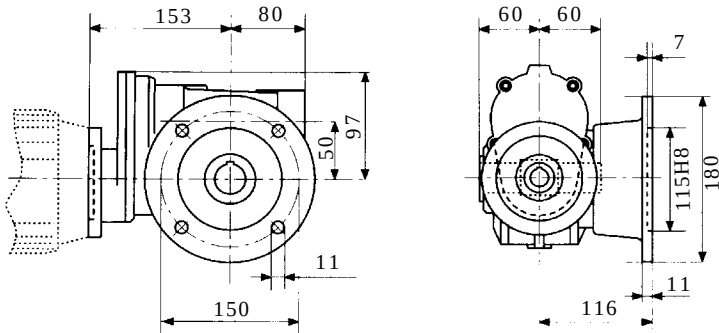


Motor Flange Dimensions

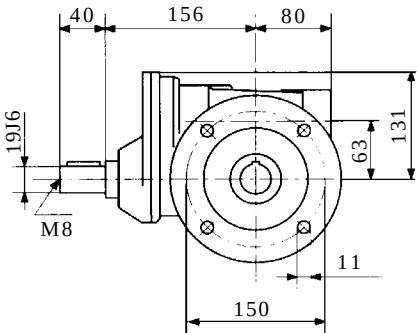
	A - B - V	C	B	T	U	Df7	bh9	t2 ^{Q1}
B5	71	160	110	130	9.5	14	5	16.3
B14	71	105	70	85	7	14	5	16.3
	80	120	80	100	7	19	6	21.8

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

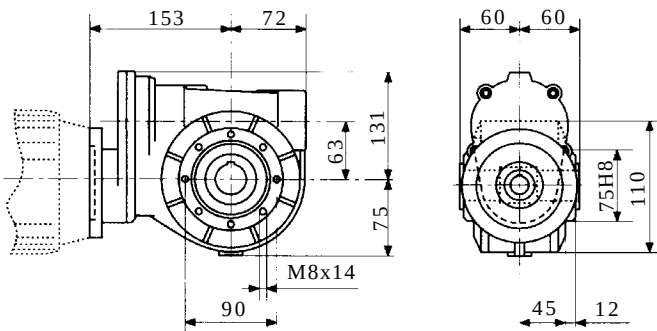
PFRD 63 FB



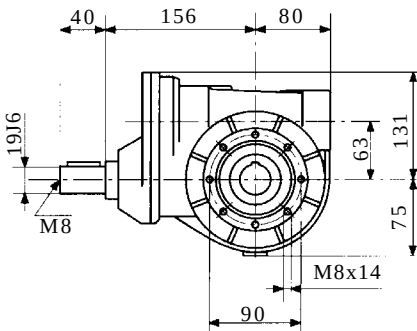
PRD 63 FB



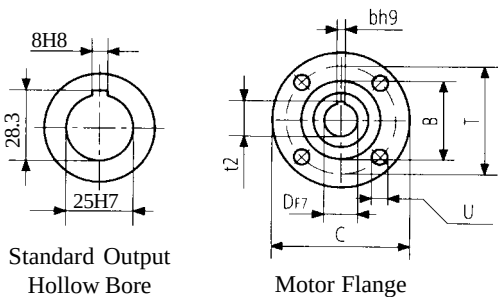
PFRD 63 FP



PRD 63 FP



Motor Flange Dimensions

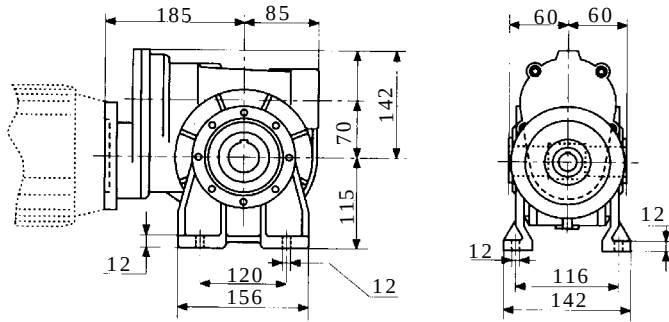


	FB-FP	C	B	T	U	Df7	bh9	t2 ^{Q1}
B5	71	160	110	130	9.5	14	5	16.3
B14	71	105	70	85	7	14	5	16.3
	80	120	80	100	7	19	6	21.8

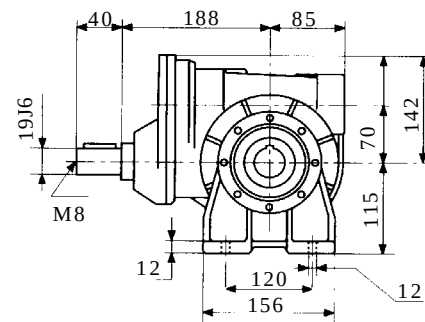
For Flange FB1-FB2-FB3
See dimensions on page 22

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

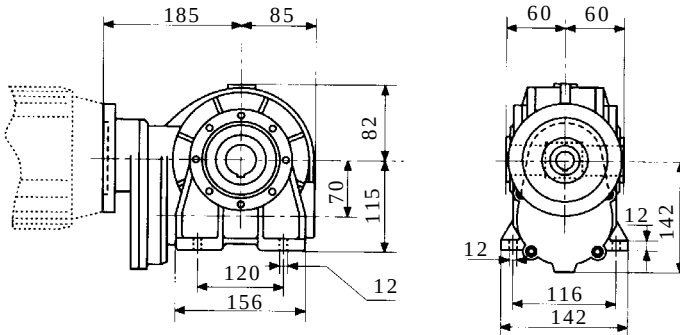
PFRD 70/A (A1)



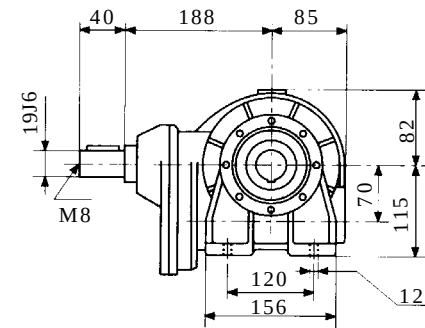
PRD 70/A (A1)



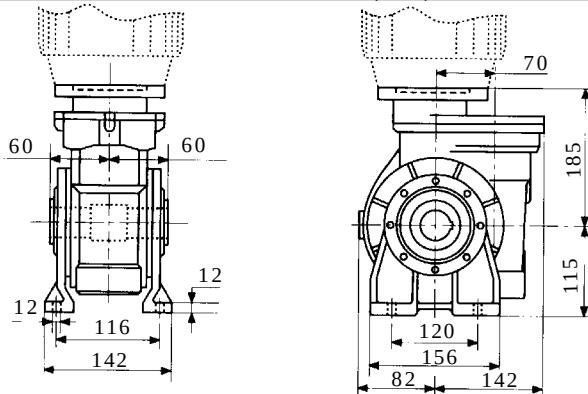
PFRD 70/B (B1)



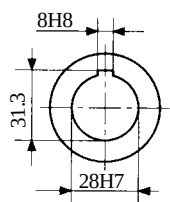
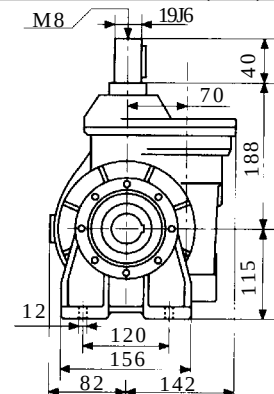
PRD 70/B (B1)



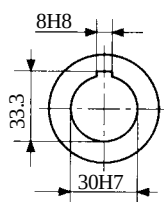
PFRD 70/V (V1)



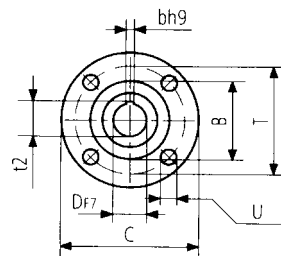
PRD 70/V (V1)



Standard Output
Hollow Bore



Optional Output
Hollow Bore



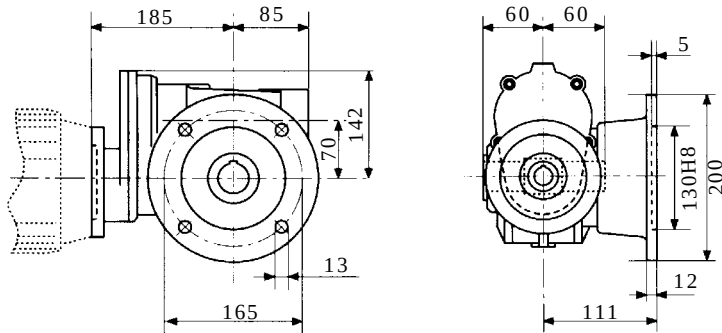
Motor Flange

Motor Flange Dimensions

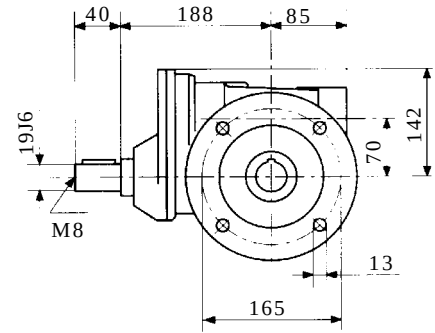
A - B - V	C	B	T	U	Df7	bh9	t2±Q1
71	160	110	130	9.5	14	5	16.3
80	200	130	165	11.5	19	6	21.8
90	200	130	165	11.5	24	8	27.3

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

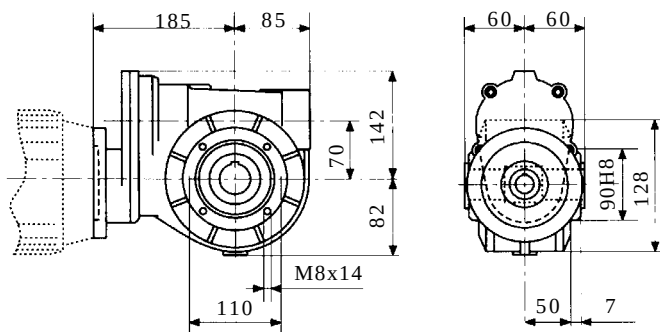
PFRD 70 FB



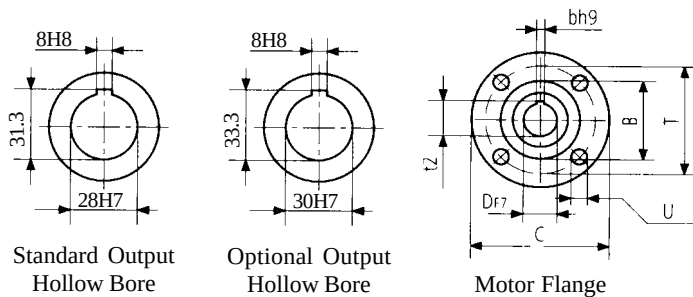
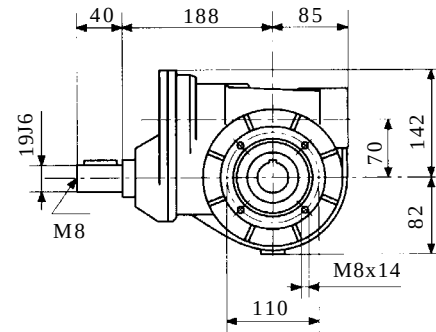
PRD 70 FB



PFRD 70 FP



PRD 70 FP



Motor Flange Dimensions

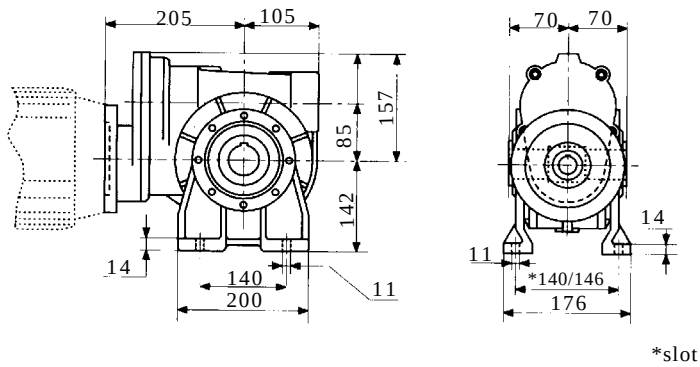
	FB - FP	C	B	T	U	Df7	bh9	t2:Q1
B5	71	160	110	130	9.5	14	5	16.3
	80	200	130	165	11.5	19	6	21.8
	90	200	130	165	11.5	24	8	27.3
B14	80	120	80	100	7	19	6	21.8
	90	140	95	115	8.5	24	8	27.3

For Flange FB1-FB2-FB3-FB3A-FB4

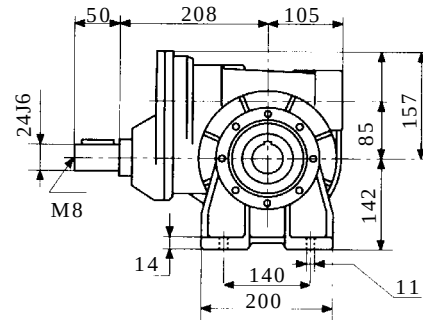
See dimensions on pages 25-26

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

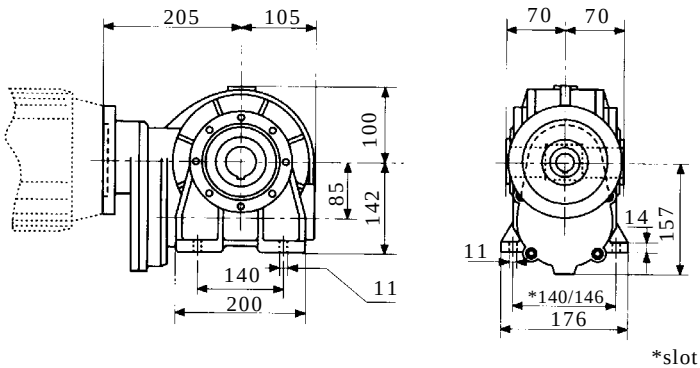
PFRD 85/A (A1)



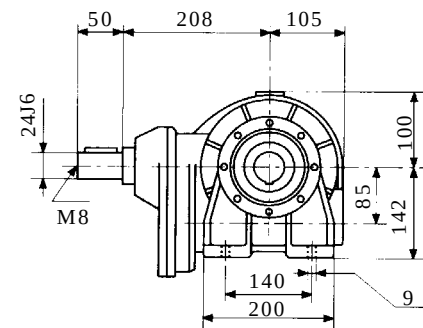
PRD 85/A (A1)



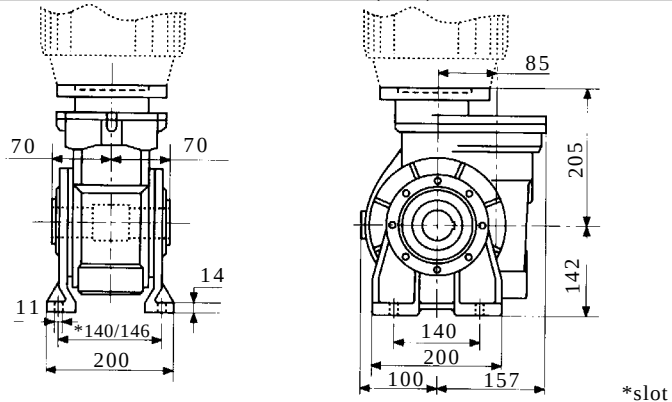
PFRD 85/B (B1)



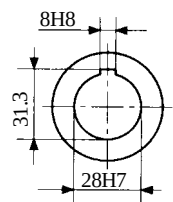
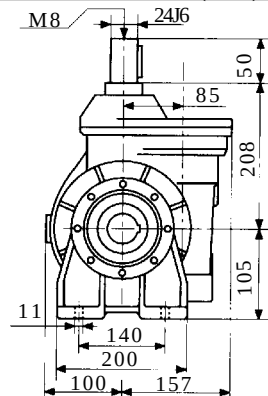
PRD 85/B (B1)



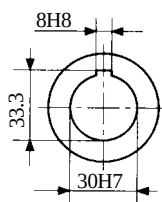
PFRD 85/V (V1)



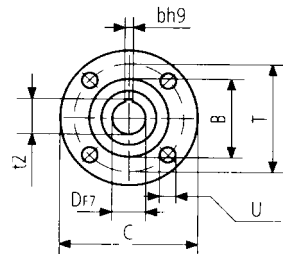
PRD 85/V (V1)



Standard Output
Hollow Bore



Optional Output
Hollow Bore



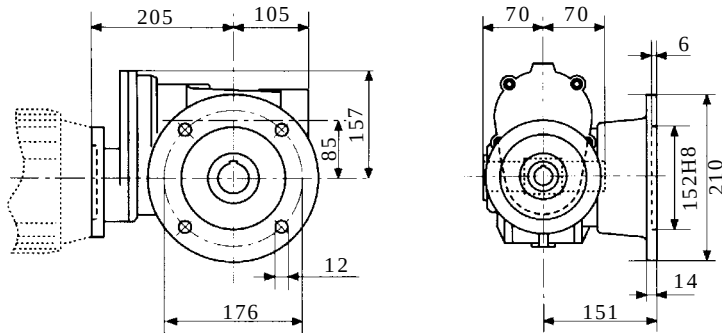
Motor Flange

Motor Flange Dimensions

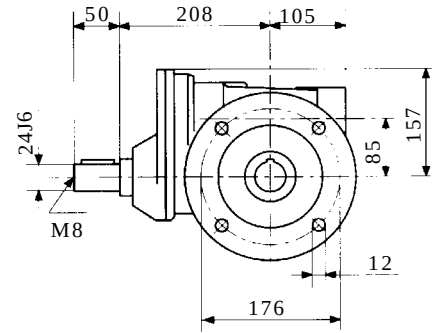
	A - B - V	C	B	T	U	Df7	bh9	t2±Q1
B5	71	160	110	130	9.5	14	5	16.3
	80	200	130	165	11.5	19	6	21.8
	90	200	130	165	11.5	24	8	27.3
B14	80	120	80	100	7	19	6	21.8
	90	140	95	115	8.5	24	8	27.3

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

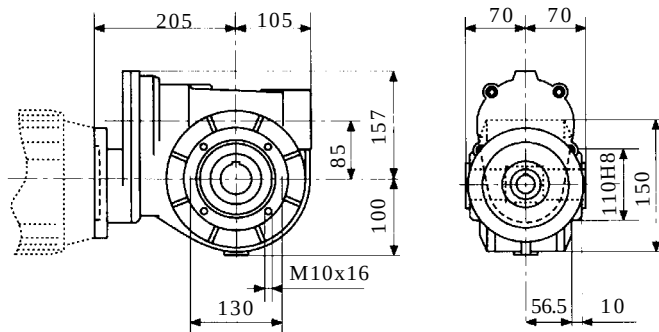
PFRD 85 FB



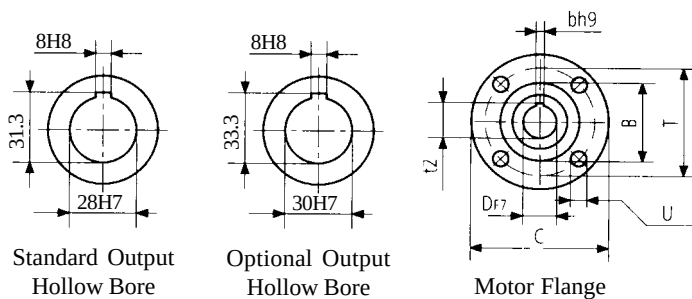
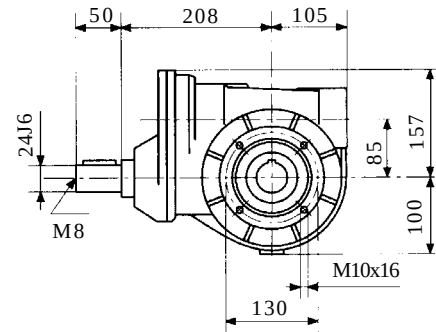
PRD 85 FB



PFRD 85 FP



PRD 85 FP



Motor Flange Dimensions

	FB - FP	C	B	T	U	Df7	bh9	t2:Q1
B5	71	160	110	130	9.5	14	5	16.3
	80	200	130	165	11.5	19	6	21.8
	90	200	130	165	11.5	24	8	27.3
B14	80	120	80	100	7	19	6	21.8
	90	140	95	115	8.5	24	8	27.3

For Flange FBA-FB1-FB1A-FB2

See dimensions on page 28-29

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

4.4 PERFORMANCE OF REDUCTION GEARS

PRD 40							
ic x i	itc	n1	n2	M1	KW	HP	Rd
3x15	45	1400	31	70	0.30	0.41	0.76
3x20	60		23.3	71	0.24	0.33	0.72
3x30	90		15.6	77	0.20	0.27	0.63
3x40	120		11.6	83	0.18	0.25	0.56
3x50	150		9.3	83	0.15	0.20	0.54
3x60	180		7.8	74	0.12	0.16	0.50
3x70	210		6.7	65	0.10	0.14	0.46
3x80	240		5.8	53	0.08	0.11	0.40
3x100	300		4.7	46	0.06	0.08	0.38

PRD 50							
ic x i	itc	n1	n2	M1	KW	HP	Rd
3x15	45	2800	62	87	0.72	0.98	0.78
3x20	60		46.7	85	0.57	0.78	0.73
3x30	90		31	93	0.46	0.62	0.66
3x40	120		23.3	89	0.35	0.47	0.62
3x50	150		18.7	90	0.30	0.40	0.59
3x60	180		15.6	82	0.25	0.34	0.54
3x70	210		13.3	70	0.20	0.27	0.49
3x80	240		11.7	60	0.16	0.22	0.46
3x100	300		9.3	60	0.14	0.19	0.42

PRD 50							
ic x i	itc	n1	n2	M1	KW	HP	Rd
3x15	45	1400	31	90	0.39	0.53	0.75
3x20	60		23.3	89	0.31	0.42	0.70
3x30	90		15.6	97	0.26	0.35	0.61
3x40	120		11.6	101	0.22	0.30	0.56
3x50	150		9.3	98	0.18	0.25	0.53
3x60	180		7.8	86	0.14	0.19	0.50
3x70	210		6.7	80	0.12	0.16	0.47
3x80	240		5.8	65	0.09	0.12	0.44
3x100	300		4.7	65	0.08	0.11	0.40

PRD 50							
ic x i	itc	n1	n2	M1	KW	HP	Rd
3x15	45	900	20	104	0.30	0.40	0.73
3x20	60		15	117	0.27	0.36	0.68
3x30	90		10	116	0.20	0.27	0.61
3x40	120		7.5	121	0.17	0.23	0.56
3x50	150		6	105	0.13	0.18	0.51
3x60	180		5	98	0.11	0.15	0.47
3x70	210		4.3	93	0.10	0.13	0.42
3x80	240		3.8	69	0.07	0.09	0.39
3x100	300		3	67	0.06	0.08	0.35

PRD 63							
ic x i	itc	n1	n2	M1	KW	HP	Rd
3x15	45	2800	62	151	1.23	1.67	0.80
3x20	60		46.7	152	0.97	1.32	0.77
3x25	75		37	157	0.83	1.13	0.74
3x30	90		31	161	0.75	1	0.70
3x35	105		26.7	163	0.68	0.92	0.67
3x40	120		23.3	165	0.62	0.84	0.65
3x45	135		20.8	157	0.56	0.76	0.61
3x50	150		18.7	137	0.47	0.64	0.57
3x60	180		15.6	134	0.40	0.54	0.55
3x70	210		13.3	128	0.35	0.47	0.51

PRD 63							
ic x i	itc	n1	n2	M1	KW	HP	Rd
3x15	45	1400	31	175	0.74	1	0.77
3x20	60		23.3	188	0.62	0.84	0.74
3x25	75		18.7	192	0.53	0.72	0.71
3x30	90		15.6	202	0.50	0.68	0.66
3x35	105		13.3	203	0.44	0.60	0.64
3x40	120		11.6	192	0.39	0.53	0.60
3x45	135		10.4	181	0.34	0.46	0.58
3x50	150		9.3	169	0.30	0.40	0.55
3x60	180		7.8	159	0.25	0.34	0.52
3x70	210		6.7	146	0.21	0.28	0.49

PRD 63							
ic x i	itc	n1	n2	M1	KW	HP	Rd
3x15	45	900	20	193	0.54	0.73	0.75
3x20	60		15	201	0.44	0.60	0.72
3x25	75		12	208	0.38	0.52	0.69
3x30	90		10	222	0.37	0.50	0.63
3x35	105		8.6	206	0.31	0.42	0.60
3x40	120		7.5	199	0.27	0.36	0.58
3x45	135		6.7	192	0.25	0.34	0.54
3x50	150		6	175	0.22	0.30	0.50
3x60	180		5	170	0.19	0.26	0.47
3x70	210		4.3	156	0.16	0.22	0.44

PRD 70							
ic x i	itc	n1	n2	M1	KW	HP	Rd
3x15	45	2800	62	224	1.80	2.4	0.81
3x20	60		46.7	223	1.4	1.9	0.78
3x25	75		37	216	1.1	1.5	0.76
3x30	90		31	216	1	1.36	0.70
3x35	105		26.7	220	0.92	1.25	0.67
3x40	120		23.3	234	0.88	1.2	0.65
3x45	135		20.8	222	0.77	1.05	0.63
3x50	150		18.7	212	0.68	0.92	0.61
3x60	180		15.6	192	0.55	0.75	0.57
3x70	210		13.3	171	0.45	0.62	0.53

PRD 70							
ic x i	itc	n1	n2	M1	KW	HP	Rd
3x15	45	1400	31	276	1.15	1.56	0.78
3x20	60		23.3	276	0.90	1.22	0.75
3x25	75		18.7	276	0.75	1	0.72
3x30	90		15.6	287	0.70	0.95	0.67
3x35	105		13.3	285	0.62	0.84	0.64
3x40	120		11.6	276	0.55	0.75	0.61
3x45	135		10.4	234	0.44	0.60	0.58
3x50	150		9.3	230	0.40	0.55	0.56
3x60	180		7.8	227	0.35	0.48	0.53
3x70	210		6.7	198	0.29	0.40	0.48

PRD 70							
ic x i	itc	n1	n2	M1	KW	HP	Rd
3x15	45	900	20	308	0.85	1.16	0.76
3x20	60		15	307	0.66	0.9	0.73
3x25	75		12	306	0.55	0.75	0.70
3x30	90		10	306	0.50	0.68	0.64
3x35	105		8.6	305	0.45	0.61	0.61
3x40	120		7.5	295	0.40	0.54	0.58
3x45	135		6.7	279	0.35	0.48	0.56
3x50	150		6	270	0.32	0.44	0.53
3x60	180		5	257	0.27	0.37	0.50
3x70	210		4.3	255	0.25	0.34	0.46

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

PRD 85							
ic x i	itc	n1	n2	M1	KW	HP	Rd
3x15	45	2800	62	330	2.65	3.6	0.81
3x20	60		46.7	303	1.85	2.5	0.80
3x25	75		37	318	1.65	2.25	0.78
3x30	90		31	366	1.58	2.15	0.72
3x35	105		26.7	343	1.35	1.84	0.71
3x40	120		23.3	367	1.30	1.77	0.69
3x45	135		20.8	347	1.13	1.54	0.67
3x50	150		18.7	315	0.95	1.3	0.65
3x60	180		15.6	304	0.80	1.1	0.62
3x70	210		13.3	296	0.70	0.95	0.59
3x80	240		11.7	279	0.60	0.82	0.57
3x100	300		9.3	241	0.46	0.63	0.51

PRD 85							
ic x i	itc	n1	n2	M1	KW	HP	Rd
3x15	45	1400	31	401	1.65	2.25	0.79
3x20	60		23.3	395	1.25	1.70	0.77
3x25	75		18.7	397	1.05	1.40	0.74
3x30	90		15.6	416	1	1.36	0.68
3x35	105		13.3	403	0.85	1.16	0.66
3x40	120		11.6	400	0.76	1	0.64
3x45	135		10.4	387	0.68	0.92	0.62
3x50	150		9.3	369	0.60	0.82	0.60
3x60	180		7.8	355	0.50	0.68	0.58
3x70	210		6.7	323	0.42	0.57	0.54
3x80	240		5.8	310	0.37	0.50	0.51
3x100	300		4.7	300	0.32	0.43	0.46

PRD 85							
ic x i	itc	n1	n2	M1	KW	HP	Rd
3x15	45	900	20	417	1.15	1.56	0.76
3x20	60		15	424	0.9	1.22	0.74
3x25	75		12	424	0.75	1	0.71
3x30	90		10	440	0.72	0.98	0.64
3x35	105		8.6	433	0.62	0.84	0.63
3x40	120		7.5	426	0.54	0.73	0.62
3x45	135		6.7	419	0.49	0.67	0.60
3x50	150		6	408	0.45	0.61	0.57
3x60	180		5	392	0.38	0.52	0.54
3x70	210		4.3	355	0.32	0.43	0.50
3x80	240		3.8	323	0.28	0.38	0.46
3x100	300		3	310	0.25	0.34	0.39

4.5 PERFORMANCE OF MOTOR REDUCTION GEARS

KW 0.09				HP 0.12		
itc	n1	n2	M1'	FG	PFRD	iEC
90	1400	15.6	35	2.2	40	56
120		11.6	41	2	"	"
150		9.3	50	1.6	"	"
180		7.8	55	1.3	"	"
210		6.7	59	1.1	"	"
240		5.8	59	0.9	"	"
60	900	15	38	3	50	63
90		10	52	2.2	"	"
120		7.5	64	1.8	"	"
150		6	73	1.4	"	"
180		5	81	1.2	"	"
210		4.3	84	1.1	"	"
240		3.8	88	0.8	"	"

KW 0.12				HP 0.18		
itc	n1	n2	M1'	FG	PFRD	iEC
60	1400	23.3	35	2	40	63
90		15.6	46	1.7	"	"
120		11.6	55	1.5	"	"
150		9.3	66	1.25	"	"
180		7.8	73	1	"	"
210		6.7	78	0.85	"	"
45		31	28	3.2	50	"
60		23.3	35	2.6	"	"
90		15.6	45	2.1	"	"
120		11.6	55	1.8	"	"
150	900	9.3	66	1.5	"	"
180		7.8	74	1.2	"	"
210		6.7	80	1	"	"
45		20	42	2.5	50	63
60		15	52	2.2	"	"
90		10	70	1.7	"	"
120		7.5	85	1.4	"	"
150		6	97	1.1	"	"
180		5	108	0.9	"	"
210		4.3	112	0.8	"	"

KW 0.18				HP 0.25		
itc	n1	n2	M1'	FG	PFRD	iEC
120	2800	23.3	46	1.9	50	63
150		18.7	54	1.6	"	"
180		15.6	59	1.4	"	"
210		13.3	63	1.1	"	"
240		11.7	67	0.9	"	"
45		31	42	1.6	40	63
60	1400	23.3	53	1.3	"	"
90		15.6	69	1.1	"	"
120		11.6	83	1	"	"
45		31	41	2.2	50	"
60		23.3	52	1.7	"	"
90		15.6	67	1.4	"	"
120	900	11.6	83	1.2	"	"
150		9.3	98	1	"	"
45		20	63	1.6	50	71
60		15	78	1.5	"	"
90		10	105	1.1	"	"
120		7.5	128	0.9	"	"
60	900	15	83	2.4	63	"
75		12	98	2.1	"	"
90		10	108	2	"	"
105		8.6	120	1.7	"	"

KW 0.18				HP 0.25		
itc	n1	n2	M1'	FG	PFRD	iEC
120	900	7.5	133	1.5	63	71
135		6.7	138	1.4	"	"
150		6	143	1.2	"	"
180		5	161	1	"	"
210		4.3	176	0.9	"	"
75		12	100	3	70	"
90		10	110	2.8	"	"
105		8.6	122	2.5	"	"
120		7.5	133	2.2	"	"
135		6.7	144	1.9	"	"
150	900	6	152	1.7	"	"
180		5	172	1.5	"	"
210		4.3	184	1.4	"	"
240		3.8	194	1.2	"	"
300		3	218	1	"	"
120		7.5	142	3	85	"
135		6.7	154	2.7	"	"
150		6	163	2.5	"	"
180		5	186	2.1	"	"
210		4.3	200	1.8	"	"
240		3.8	208	1.6	"	"
300		3	223	1.4	"	"

WORM SCREW REDUCTION GEARS AND MOTOR REDUCTION GEARS

KW 0.25				HP 0.35		
itc	n1	n2	M1'	FG	PFRD	iEC
45	1400	31	57	1.6	50	71
60		23.3	71	1.2	"	"
90		15.6	93	1	"	"
120		11.6	115	0.9	"	"
45		31	59	3	63	"
60		23.3	75	2.5	"	"
75		18.7	90	2.1	"	"
90		15.6	101	2	"	"
105		13.3	114	1.8	"	"
120		11.6	123	1.6	"	"
135		10.4	133	1.4	"	"
150		9.3	141	1.2	"	"
180		7.8	159	1	"	"
75		18.7	92	3	70	"
90	900	15.6	102	2.8	"	"
105		13.3	115	2.5	"	"
120		11.6	125	2.2	"	"
135		10.4	133	1.8	"	"
150		9.3	144	1.6	"	"
180		7.8	162	1.4	"	"
210		6.7	171	1.2	"	"
240		5.8	185	1	"	"
120		11.6	132	3	85	"
135		10.4	142	2.7	"	"
150		9.3	154	2.4	"	"
180		7.8	177	2	"	"
210		6.7	192	1.7	"	"
240		5.8	210	1.5	"	"
300		4.7	233	1.3	"	"
45	900	20	89	2.1	63	71
60		15	114	1.8	"	"
75		12	137	1.5	"	"
90		10	150	1.5	"	"
105		8.6	166	1.2	"	"
120		7.5	184	1.1	"	"
135		6.7	192	1	"	"
45		20	91	3.4	70	"
60		15	116	2.6	"	"
75		12	139	2.2	"	"
90		10	153	2	"	"
105		8.6	169	1.8	"	"
120		7.5	185	1.6	"	"
135		6.7	199	1.4	"	"
150	900	6	210	1.3	"	"
180		5	238	1.1	"	"
210		4.3	255	1	"	"
240		3.8	270	0.9	"	"
120		7.5	197	2.1	85	"
135		6.7	213	2	"	"
150		6	227	1.8	"	"
180		5	257	1.5	"	"
210		4.3	277	1.3	"	"
240		3.8	289	1.1	"	"
300		3	310	1	"	"

KW 0.37				HP 0.50		
itc	n1	n2	M1'	FG	PFRD	iEC
45	1400	31	87	2	63	71
60		23.3	112	1.7	"	"
75		18.7	134	1.4	"	"
90		15.6	149	1.3	"	"
105		13.3	170	1.2	"	"
120		11.6	182	1	"	"
75		18.7	136	2	70	"
90		15.6	151	1.9	"	"
105		13.3	170	1.6	"	"
120		11.6	185	1.5	"	"
135		10.4	197	1.2	"	"
150		9.3	212	1.1	"	"
180		7.8	240	0.9	"	"
60		23.3	116	3.4	85	"
75	900	18.7	140	2.8	"	"
90		15.6	154	2.7	"	"
105		13.3	175	2.3	"	"
120		11.6	195	2	"	"
135		10.4	210	1.8	"	"
150		9.3	228	1.6	"	"
180		7.8	263	1.4	"	"
210		6.7	285	1.1	"	"
240		5.8	310	1	"	"
300		4.7	346	0.9	"	"
45	900	20	132	1.4	63	80
60		15	170	1.2	"	"
75		12	203	1	"	"
90		10	223	1	"	"
45		20	135	2.3	70	"
60		15	172	1.8	"	"
75		12	206	1.5	"	"
90		10	226	1.3	"	"
105		8.6	250	1.2	"	"
120		7.5	273	1.1	"	"
135		6.7	295	0.9	"	"
75		12	209	2	85	"
90		10	226	1.9	"	"
105		8.6	258	1.7	"	"
120		7.5	292	1.5	"	"
135	900	6.7	316	1.3	"	"
150		6	335	1.2	"	"
180		5	382	1	"	"

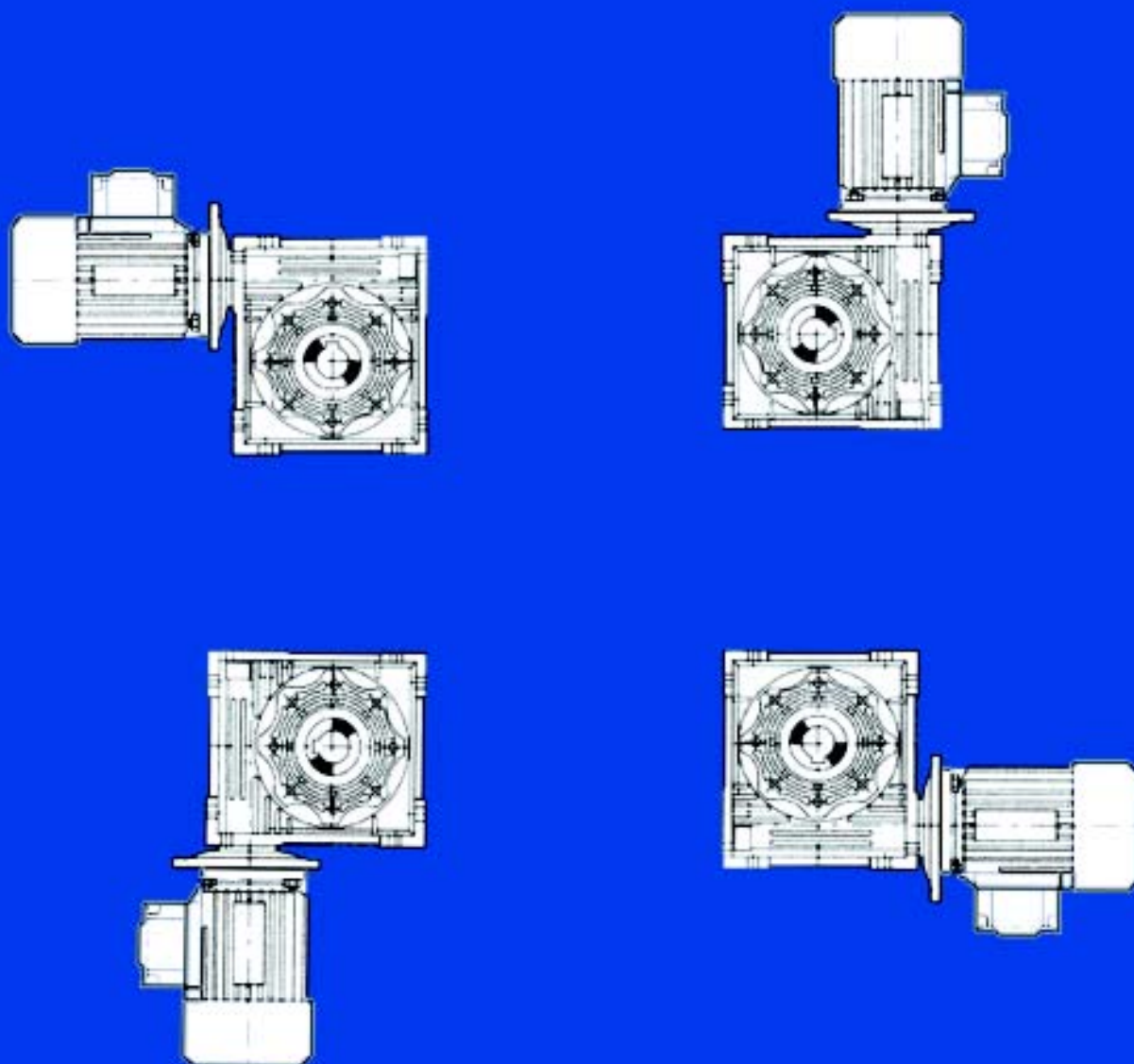
KW 0.55				HP 0.75		
itc	n1	n2	M1'	FG	PFRD	iEC
45	1400	31	132	2.1	70	80
60		23.3	169	1.6	"	"
75		18.7	202	1.4	"	"
90		15.6	225	1.3	"	"
105		13.3	252	1.1	"	"
120		11.6	276	1	"	"
45		31	134	3	85	"
60		23.3	173	2.3	"	"
75		18.7	208	1.9	"	"
90		15.6	229	1.8	"	"
105		13.3	260	1.5	"	"
120		11.6	290	1.4	"	"
135		10.4	313	1.2	"	"
150		9.3	339	1.1	"	"
180		7.8	390	0.9	"	"
45	900	20	199	1.5	70	"
60		15	255	1.2	"	"
75		12	306	1	"	"
90		10	336	0.9	"	"
45		20	200	2.1	85	"
60		15	259	1.6	"	"
75		12	311	1.4	"	"
90		10	336	1.3	"	"
105		8.6	385	1.1	"	"
120		7.5	434	1	"	"

KW 0.75				HP 1.00		
itc	n1	n2	M1'	FG	PFRD	iEC
45	1400	31	180	1.5	70	80
60		23.3	230	1.2	"	"
75		18.7	275	1	"	"
90		15.6	307	0.9	"	"
45		31	183	2.2	85	"
60		23.3	236	1.7	"	"
75		18.7	283	1.4	"	"
90		15.6	312	1.3	"	"
105		13.3	355	1.1	"	"
120		11.6	395	1	"	"
135		10.4	427	0.9	"	"
45	900	20	272	1.5	85	90
60		15	353	1.2	"	"
75		12	424	1	"	"

KW 1.1				HP 1.5		
itc	n1	n2	M1'	FG	PFRD	iEC
45	1400	31	264	1	70	90
45		31	268	1.5	85	"
60		23.3	347	1.2	"	"
75		18.7	416	1	"	"
90	1400	15.6	458	0.9	"	"

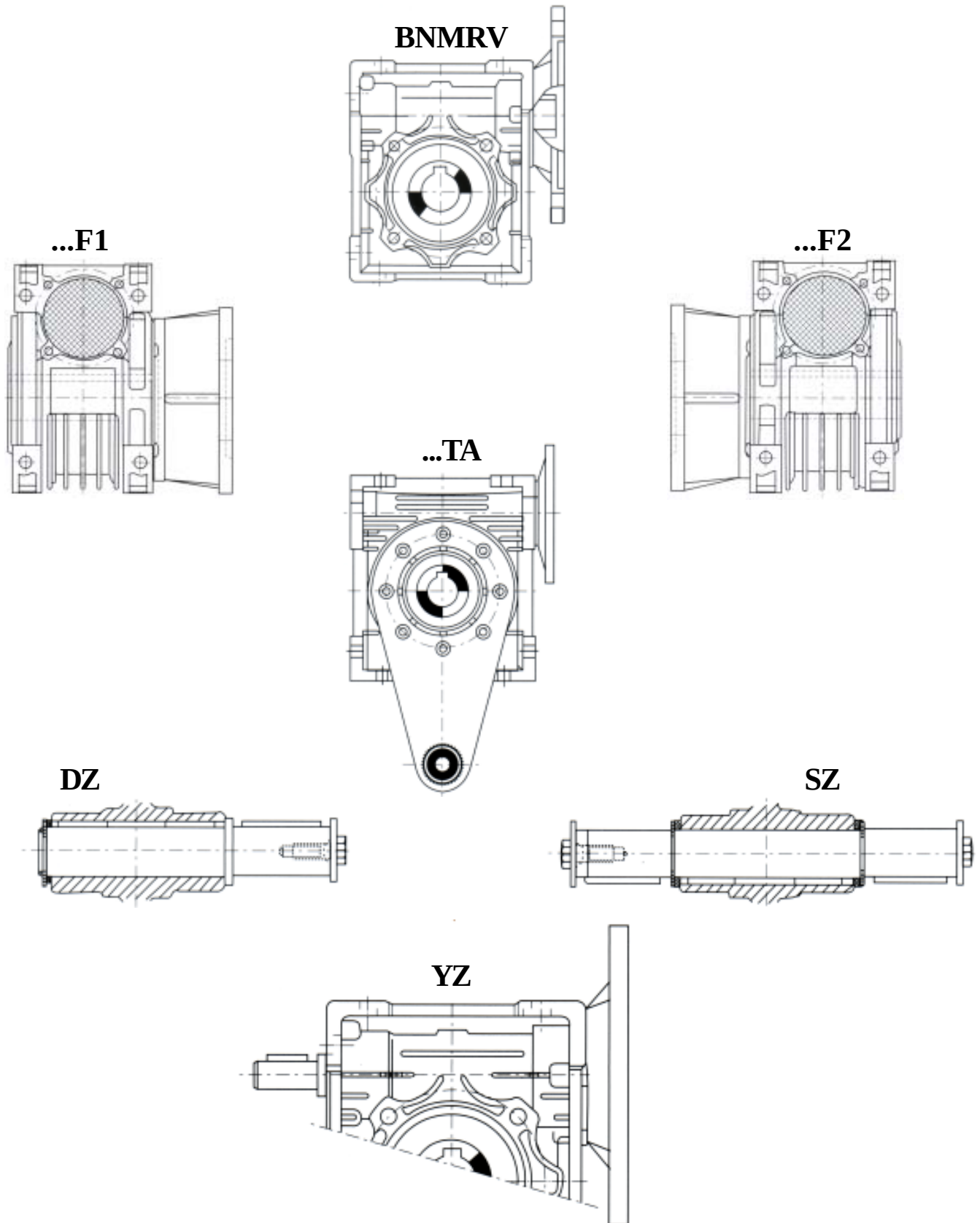
KW 1.5				HP 2.0		
itc	n1	n2	M1'	FG	PFRD	iEC
45	1400	31	365	1.1	85	90

UNIVERSAL MOUNT REDUCER



AMETRIC® UNIVERSAL MOUNT REDUCER

5.1 Mounting Types - Options



5.2 Using and Maintaining

Lubrication Type

Reference cencie of worm slide (m/s)	Lubrication Type
< 2.2	G-N680W (G-N460W)
>2.5-5	G-N320W
>5-12	G-N220W

No. of starts per hour <10

Nature of load generated by driven machine	Hours running per day		
	< 2	2~8	8~16
Uniform	sf = 0.8	sf = 1	sf = 1.25
Moderate shock	sf = 1	sf = 1.25	sf = 1.5
Heavy shock	sf = 1.25	sf = 1.5	sf = 1.75

No. of starts per hour >10

Nature of load generated by driven machine	Hours running per day		
	< 2	2~8	8~24
Uniform	sf = 1	sf = 1.25	sf = 1.75
Moderate shock	sf = 1.5	sf = 1.75	sf = 2
Heavy shock	sf = 1.75	sf = 2	sf = 2.25

- Do not apply pressure to output part and box when mounting it.
- When using for the first time, you must replace lubrication oil after running 400 hours. After this, replace lubrication oil per running 4000 hours.
- Keep coaxial degree and vertical degree in just level when conjoining reducer with other device.
- Keep plenty of lubrication oil in the reducer and check it often.
- When oil is low, add more lubrication oil. When oil looks bad, change lubrication oil.
- Reducer radiates heat more efficiently when kept clean.

AMETRIC® UNIVERSAL MOUNT REDUCER

5.3 Rating Table

Service Factor = 1

i		n2	n1 = 1400										
			25	30	40	50	63	75	90	110	130	150	185
7.5	KW1	187	0.25	0.41	0.90	1.58	2.84	4.06	6.3	10.4	16.1	25.8	39.1
	M2		11	18	40	71	128	185	290	480	750	1200	1740
10	KW1	140	0.21	0.32	0.69	1.23	2.19	3.25	5.11	8.57	13.5	20.2	30
	M2		12	18	40	72	130	195	310	520	820	1240	1800
15	KW1	93	0.15	0.23	0.48	0.88	1.65	2.30	4.09	6.48	10.3	13.9	21
	M2		12	18	40	74	140	200	360	570	920	1250	1760
20	KW1	70	0.12	0.18	0.37	0.68	1.22	1.88	3.10	4.83	7.76	11	19.6
	M2		12	18	39	73	135	210	355	560	910	1300	2270
25	KW1	56	-	0.18	0.30	0.54	0.98	1.47	2.43	4.12	6.49	8.4	13.8
	M2		-	21	38	70	130	200	340	590	930	1200	1950
30	KW1	47	0.09	0.15	0.31	0.57	1.06	1.48	2.57	3.90	6.35	7	14
	M2		13	20	45	84	160	230	410	630	1040	1200	2200
40	KW1	35	0.08	0.11	0.23	0.42	0.76	1.12	1.76	2.87	4.93	7.3	12.1
	M2		13	18	41	76	145	220	360	610	1050	1550	2570
50	KW1	28	0.06	0.09	0.81	0.34	0.60	0.89	1.38	2.35	3.83	5.4	9.3
	M2		11	17	39	73	135	210	340	600	980	1400	2370
60	KW1	23	0.04	0.08	0.15	0.28	0.51	0.75	1.13	1.9	3.05	4.2	7.6
	M2		10	16	36	68	130	200	320	560	900	1260	2270
80	KW1	18	-	0.05	0.12	0.22	0.39	0.58	0.83	1.34	2.26	3.1	5.6
	M2		-	13	33	65	122	190	285	490	840	1150	2100
100	KW1	14	-	-	0.09	0.16	0.34	0.48	0.67	1.07	1.70	2.29	4.1
	M2		-	-	29	55	118	180	270	460	740	1000	1810

Note: @ 1750 1.15 x Rating@1400

n1 = Input Speed (rpm)

n2 = Output Speed (rpm)

AMETRIC® UNIVERSAL MOUNT REDUCER

with 4 poles, 1400rpm motor

Type	i	n2	kw1	M2	Sf
25	7.5	186.7	0.09	4	2.8
	10	140	0.09	5	2.3
	15	93.3	0.09	7	1.6
	20	70	0.09	9	1.3
	30	46.7	0.09	12	1
	40	35	0.09	15	0.9
	50	28	0.06	12	0.9
	60	23.3	0.06	14	0.7

Type	i	n2	kw1	M2	Sf
50	7.5	186.7	1.5	68	1.5
	10	140	1.5	88	1.2
	15	93.3	1.5	126	0.9
	20	70	1.5	166	0.8
	25	56	1.1	146	0.9
	30	46.7	1.1	167	1
	40	35	1.1	207	0.7
	50	28	.55*	124	1.1
	60	23.3	.55*	140	0.9
	80	17.5	0.37	115	1.1
	100	14	0.37	129	0.9

Type	i	n2	kw1	M2	Sf
90	7.5	186.7	7.5	343	1.8
	10	140	7.5	453	1.5
	15	93.3	7.5	664	1.1
	20	70	7.5	864	0.8
	25	56	7.5	1074	0.8
	30	46.7	5.5	900	1.1
	40	35	5.5	1171	0.9
	50	28	5.5	1379	0.7
	60	23.3	4	1179	0.8
	80	17.5	2.2	816	1
	100	14	2.2	966	0.8

Type	i	n2	kw1	M2	Sf
30	7.5	186.7	0.18	7	1.9
	10	140	0.18	9	1.5
	15	93.3	0.18	13	1
	20	70	0.18	17	0.8
	25	56	0.18	21	1
	30	46.7	0.18	24	0.8
	40	35	0.12	19	0.9
	50	28	0.12	23	0.8
	60	23.3	0.09	19	0.9
	80	17.5	0.06	14	0.9

Type	i	n2	kw1	M2	Sf
63	7.5	186.7	4	182	1
	10	140	3	180	1.1
	15	93.3	3	261	0.8
	20	70	2.2	240	0.8
	25	56	1.5	205	1
	30	46.7	2.2	337	0.7
	40	35	1.1	216	1
	50	28	1.1	264	0.8
	60	23.3	1.1	279	0.7
	80	17.5	0.55	180	1
	100	14	0.55	206	0.9

Type	i	n2	kw1	M2	Sf
110	7.5	186.7	15	690	1.7
	10	140	15	870	1.4
	15	93.3	11	945	1.25
	20	70	11	1250	1
	25	56	7.5	1040	1.1
	30	46.7	7.5	1200	0.9
	40	35	7.5	1550	1
	50	28	5.5	1400	1
	60	23.3	4	1180	1
	80	17.5	3	1130	1
	100	14	2.2	975	1

Type	i	n2	kw1	M2	Sf
40	7.5	186.7	0.37	16	1.6
	10	140	0.37	27	1.3
	15	93.3	0.37	28	0.9
	20	70	0.37	39	1
	25	56	0.37	47	0.8
	30	46.7	0.37	53	0.8
	40	35	0.25	44	0.9
	50	28	0.22	47	0.8
	60	23.3	0.18	43	0.8
	80	17.5	0.12	34	1
	100	14	0.12	38	0.8

Type	i	n2	kw1	M2	Sf
75	7.5	186.7	4	180	1.3
	10	140	4	236	1.1
	15	93.3	4	342	0.9
	20	70	4	458	0.8
	25	56	3	420	0.8
	30	46.7	3	479	0.9
	40	35	2.2	433	0.8
	50	28	2.2	492	0.6
	60	23.3	1.5	424	0.8
	80	17.5	1.1	365	0.8
	100	14	0.75	302	0.9

Type	i	n2	kw1	M2	Sf
130	7.5	186.7	22	980	1.75
	10	140	22	1320	1.35
	15	93.3	18.5	1550	1.1
	20	70	18.5	2140	1
	25	56	11	1560	1.25
	30	46.7	11	1760	1.3
	40	35	11	2320	1.1
	50	28	7.5	1920	1.2
	60	23.3	7.5	2210	1
	80	17.5	5.5	2070	1
	100	14	4	1760	1

Type	i	n2	kw1	M2	Sf
150	7.5	186.7	0.75	33	1.7
	10	140	0.75	42	1.3
	15	93.3	0.75	58	1
	20	70	0.75	81	0.9
	25	56	0.55	71	1
	30	46.7	0.55	81	1
	40	35	0.55	101	0.8
	50	28	0.37	80	0.9
	60	23.3	0.37	89	0.8
	80	17.5	0.25	72	0.9
	100	14	0.18	60	0.9

Type	i	n2	kw1	M2	Sf
185	7.5	186.7	7.5	345	1.4
	10	140	7.5	455	1.1
	15	93.3	5.5	484	1.2
	20	70	5.5	638	0.8
	25	56	5.5	790	0.8
	30	46.7	4	647	0.9
	40	35	3	638	0.9
	50	28	3	767	0.8
	60	23.3	2.2	648	0.8
	80	17.5	1.5	548	0.8
	100	14	1.1	473	0.9

i = Nominal Ratio

n1 = Input Speed (rpm)

n2 = Output Speed (rpm)

kw1 = Motor Power

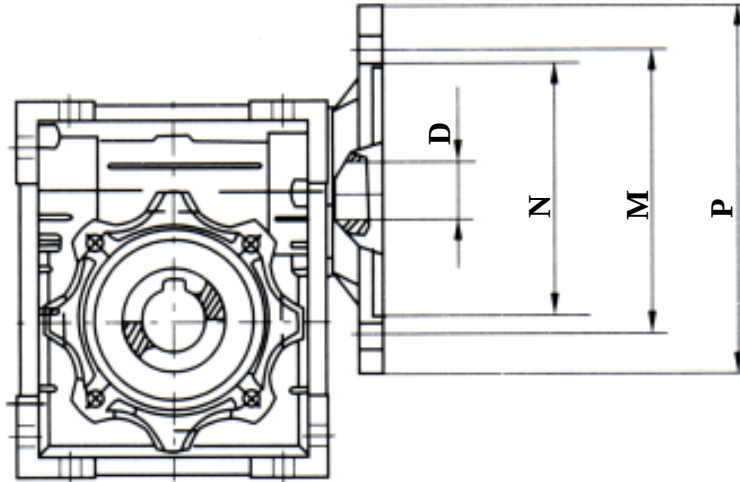
M2 = Output Torque (Nm)

sf = Service Factor

Note: @ 1750 1.15 x Rating@1400

AMETRIC® UNIVERSAL MOUNT REDUCER

5.4 Dimensions

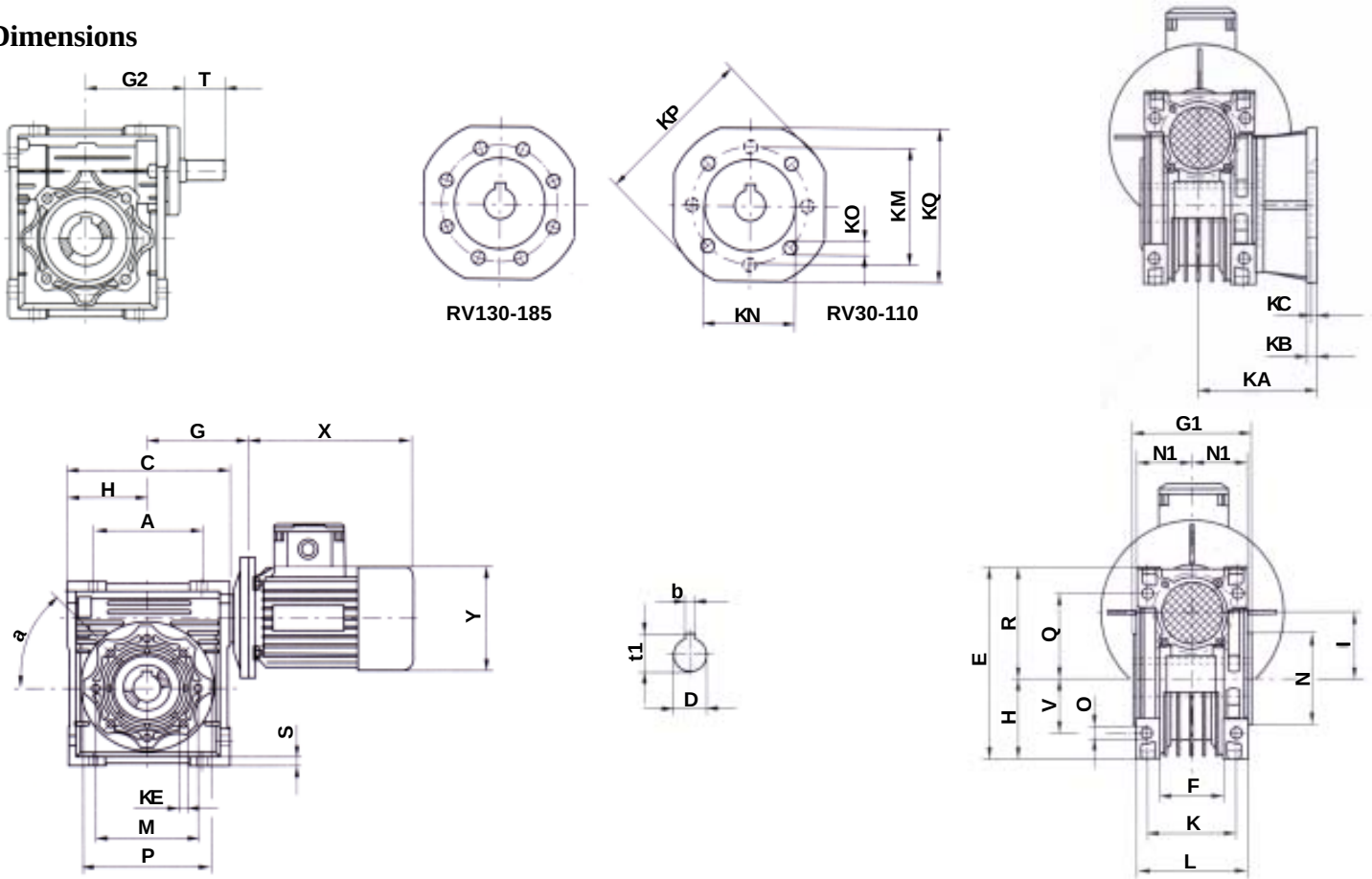


BNMRV IEC Motor Flange Dimensions

Type	Flange type	N	M	P	i/Nominal ratio										
					7.5	10	15	20	25	30	40	50	60	80	100
					D										
25	56B14	50	65	80	9	9	9	9	-	9	9	9	9	-	-
30	63B5	95	115	140	11	11	11	11	11	11	11	11	-	-	-
	63B14	60	75	90	11	11	11	11	11	11	11	11	-	-	-
	56B14	50	65	80	9	9	9	9	9	9	9	9	9	9	-
40	71B5	110	130	160	14	14	14	14	14	14	14	14	-	-	-
	63B5	95	115	140	11	11	11	11	11	11	11	11	11	11	11
50	80B5	130	165	200	19	19	19	19	19	19	19	-	-	-	-
	71B5	110	130	160	14	14	14	14	14	14	14	14	14	14	-
	63B5	95	115	140	-	-	-	-	-	-	11	11	11	11	11
63	90B35	130	165	200	24	24	24	24	24	24	24	-	-	-	-
	80B5	130	165	200	19	19	19	19	19	19	19	19	19	-	-
	71B5	110	130	160	-	-	-	-	-	-	14	14	14	14	14
75	100/112B35	180	215	250	28	28	28	28	-	28	-	-	-	-	-
	90B35	130	165	200	24	24	24	24	24	24	24	24	24	-	-
	80B5	130	165	200	-	-	-	-	-	-	19	19	19	19	19
90	100/112B35	180	215	250	28	28	28	28	28	28	28	28	-	-	-
	90B35	130	165	200	24	24	24	24	24	24	24	24	24	24	-
	80B5	130	165	200	-	-	-	-	-	-	19	19	19	19	19
110	132B35	230	265	300	38	38	38	38	38	-	-	-	-	-	-
	100/112B35	180	215	250	28	28	28	28	28	28	28	28	28	-	-
	90B35	130	165	200	-	-	-	-	24	24	24	24	24	24	24
130	132B35	230	265	300	38	38	38	38	38	38	38	38	-	-	-
	100/112B35	180	215	250	-	-	-	-	28	28	28	28	28	28	28
	90B35	130	165	200	-	-	-	-	-	-	24	24	24	24	24
150	160B35	250	300	350	42	42	42	42	-	-	-	-	-	-	-
	132B35	230	265	300	38	38	38	38	38	38	38	38	-	-	-
	100/112B35	180	215	250	28	28	28	28	28	28	28	28	28	28	28
185	180B35	250	300	350	48	48	48	48	-	-	-	-	-	-	-
	160B35	250	300	350	42	42	42	42	42	42	42	42	-	-	-
	132B35	230	265	300	38	38	38	38	38	38	38	38	38	38	38
	100/112B35	180	215	250	28	28	28	28	28	28	28	28	28	28	28

AMETRIC® UNIVERSAL MOUNT REDUCER

Dimensions



Type	Dimensions																		
	A	C	D (H7)	E	F	G	H	I	L	M	N (h8)	O	P	Q	R	S	T	V	K
30	54	80	14	97	32	55	40	30	56	65	54	6.5	75	44	57	5.5	20	27	44
40	70	101	18	121.5	43	70	50	40	71	75	60	6.5	87	55	71.5	6.5	23	35	60
50	80	121.5	25	145	49	80	60	50	85	85	70	8.5	100	64	84	7	30	40	70
63	100	147.5	25	174	67	95	72	63	103	95	80	8.5	110	80	102	8	40	50	85
75	120	174	28	205	72	112.5	86	75	113	115	95	11	140	93	119	10	50	60	90
90	140	208	35	238	72	130	103	90	130	130	110	13	160	102	135	11	50	70	100
110	170	252.5	42	294		160	127.5	110	142	165	130	14	200	125	167.5	15	60	85	115
130	200	292.5	45	335	79	180	147.5	130	155	215	180	16	250	140	187.5	15	80	100	120
150	240	340	50	400		210	170	150	185	215	180	18	250	180	230	18	80	120	145
185	310	412	60	472		248	207	185	220	265	230	22	300	213	265	25	80	155	175

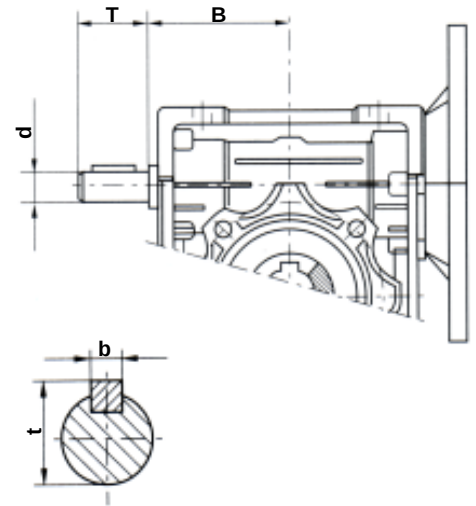
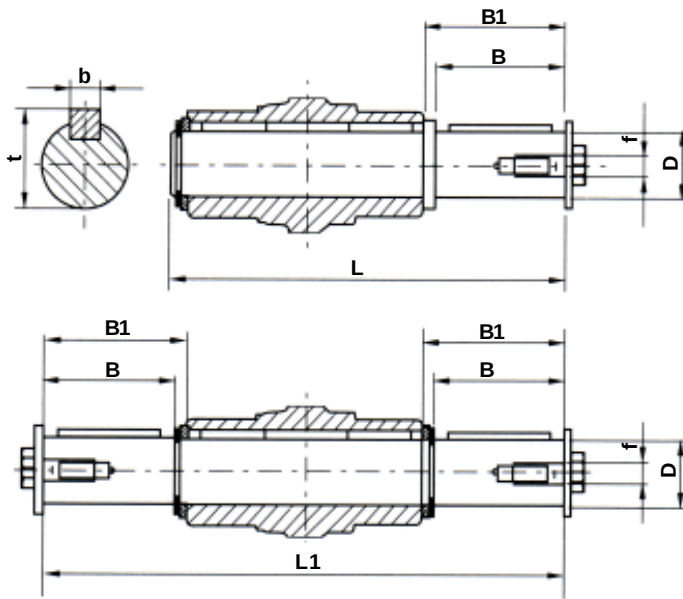
Dimensions																
Type	G1	G2	N1	KA	KB	KC	KE	a	KM	KN (H8)	KO	KP	b	t1	X	Y
30	63	51	29	54.5	6	4	M6X11 (n4)	0°	68	50	6.5 (4/90°)	80	5	16.3	See overall dimensions for electric motor.	
40	78	60	36.5	67	7	4	M6X8 (n4)	45°	87	60	9 (4/90°)	110	6	20.8		
50	92	74	43.5	90	9	5	M8X10 (n4)	45°	90	70	11 (4/90°)	125	8	28.3		
63	112	90	53	82	10	6	M8X14 (n8)	45°	150	115	11 (4/90°)	180	8	28.3		
75	120	105	57	111	13	6	M8X14 (n8)	45°	165	130	14 (4/90°)	200	8	31.3		
90	140	125	67	111	13	6	M10X18 (n8)	45°	175	152	14 (4/90°)	210	10	38.3		
110	155	142	74	139	15	6	M10X18 (n8)	45°	220	170	14 (8/90°)	270	12	45.3		
130	170	162	81	151.5	15	6	M12X20 (n8)	45°	255	180	16 (8/45°)	320	14	48.8		
150	200	210	96	155	15	7	M12X21 (n8)	45°	255	180	16 (8/45°)	320	14	53.8		
185	240	240	116	190	22	7	M16X25 (n8)	45°	350	280	22 (8/45°)	400	18	64.4		

Overall Dimensions for Electric Motor

	56		63		71		80		90		100		112	132		160		180	
(KW)	0.06	0.09	0.12	0.18	0.25	0.37	0.55	0.75	1.1	1.5	2.2	3	4	5.5	7.5	11	15	18.5	22
X	150		207		225		245		260	285	320		340	395	435	490	535	560	600
Y	120		130		145		165		175		205		230	270		325		360	

AMETRIC® UNIVERSAL MOUNT REDUCER

Dimensions



Single/Double Output Shaft

Type	D (h6)	B	B1	L	L1	f	b	t
25	11	23	25.5	81	101	-	4	12.5
30	14	30	32.5	102	128	M6	5	16
40	18	40	43	128	164	M6	6	20.5
50	25	50	53.5	153	199	M10	8	28
63	25	50	43.5	173	219	M10	8	28
75	28	60	63.5	192	247	M10	8	31
90	35	80	84	234	308	M12	10	38
110	42	80	84.5	249	324	M16	12	45
130	45	80	85	265	340	M16	14	48.5
150	50	102	110	324	420	M20	14	53.5
185	60	112	120	374	480	M20	18	64

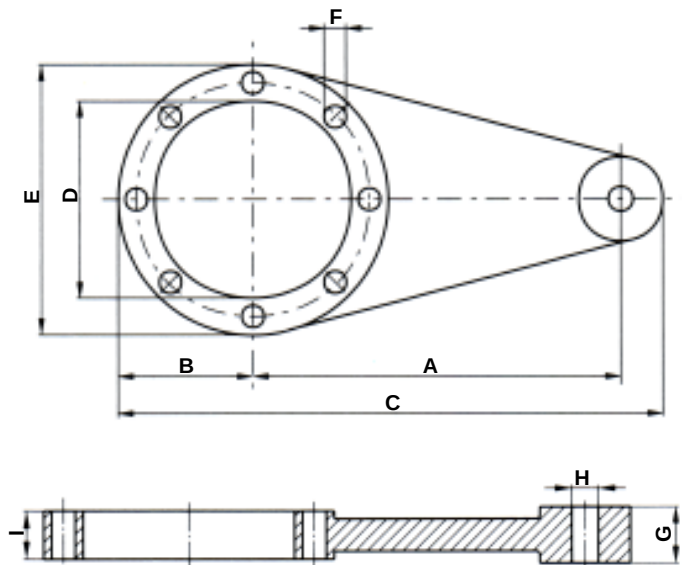
Extended Worm Shaft

Type	B	d (j6)	T	b	t
30	45	9	20	3	10.5
40	53	11	23	4	12.5
50	64	14	30	5	16
63	75	19	40	6	21.5
75	90	24	50	8	27
90	108	24	50	8	27
110	135	28	60	8	31
130	155	30	80	8	33
150	210	35	80	10	38
185	240	40	80	12	43

Speed is the same as electric motor.

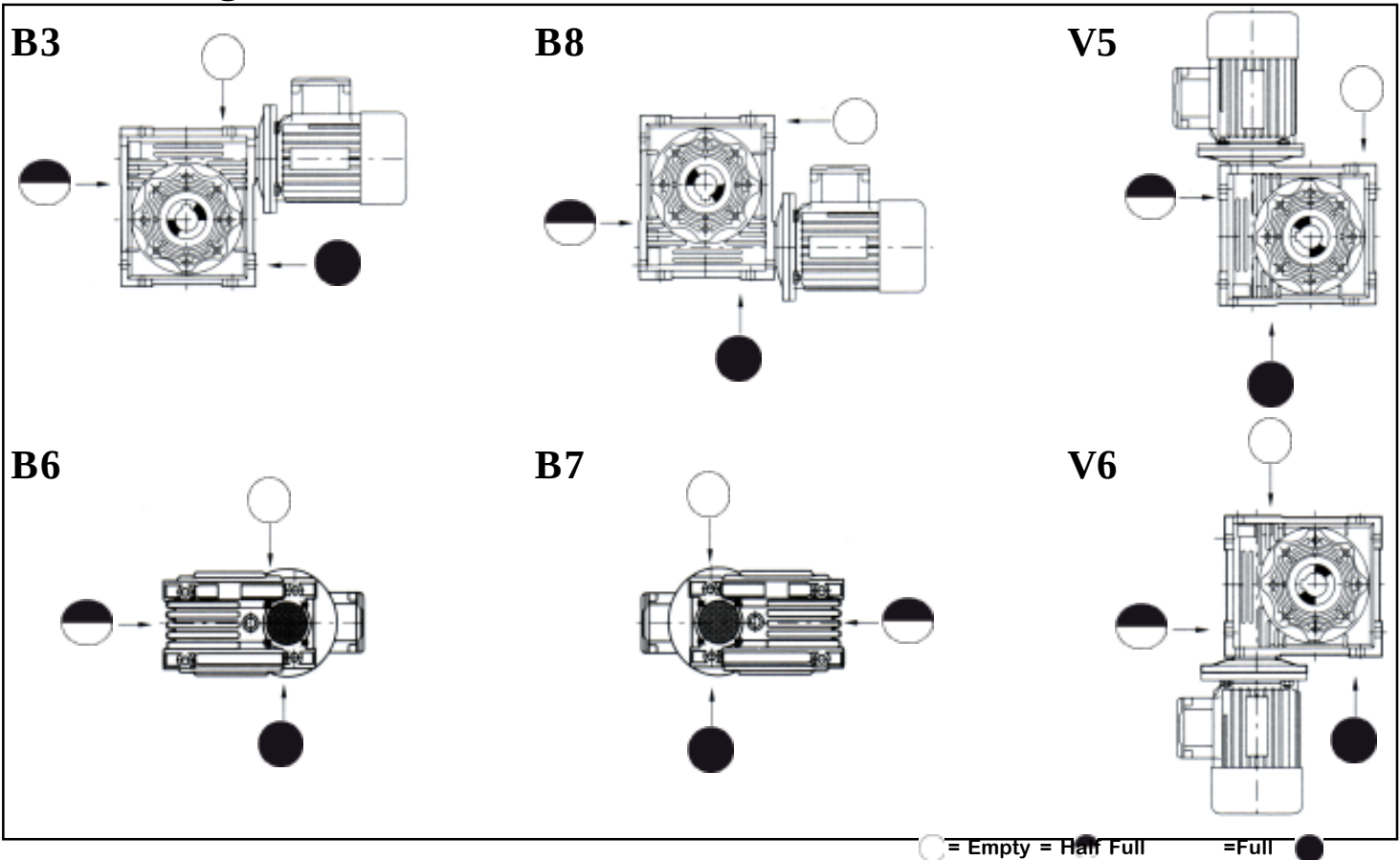
Torque Arms

Type	A	B	C	D	E	F	G	H	I
25	70	33	118	45	55	7	14	8	6
30	85	38	138	54	65	7	14	8	6
40	100	44	162	0	75	7	14	10	12
50	100	50	168	70	85	9	14	10	12
63	150	55	223	80	95	9	14	10	12
75	200	70	300	95	115	9	25	20	20
90	200	80	310	110	130	11	25	20	20
110	250	100	385	130	165	11	30	25	25
130	250	125	410	180	215	14	30	25	25
150	250	125	410	180	215	14	30	25	25
185	300	150	495	230	265	18	30	25	25

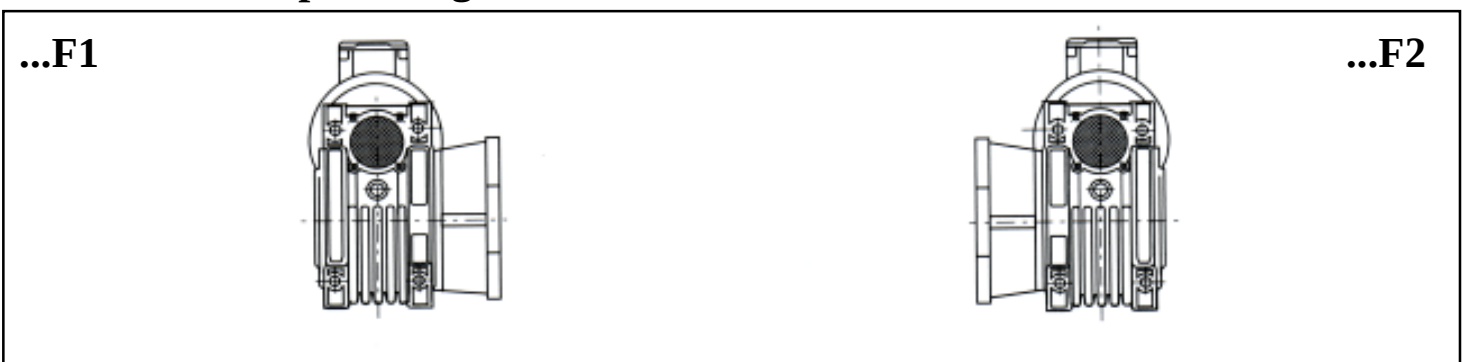


AMETRIC® UNIVERSAL MOUNT REDUCER

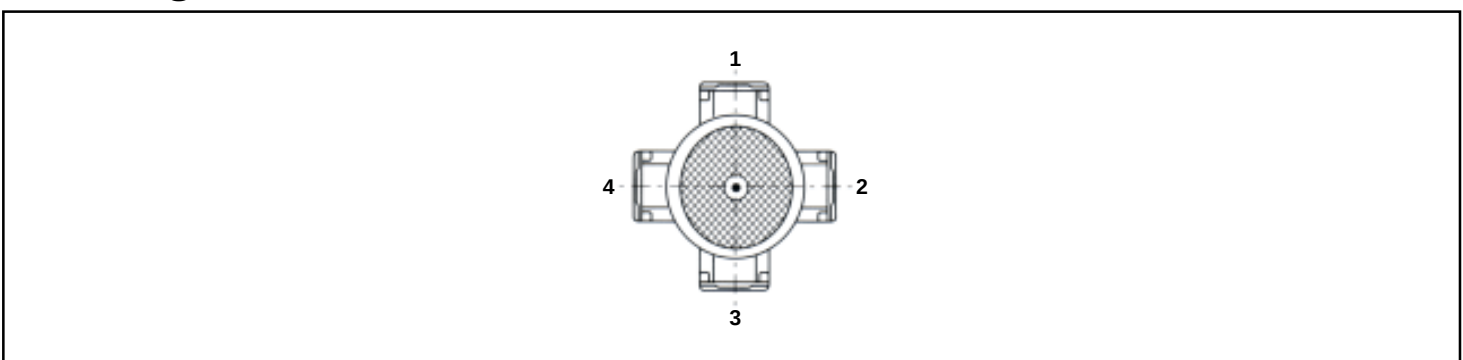
5.5 Mounting Positions



Positions of Output Flange "F"



Mounting Positions of Junction Box

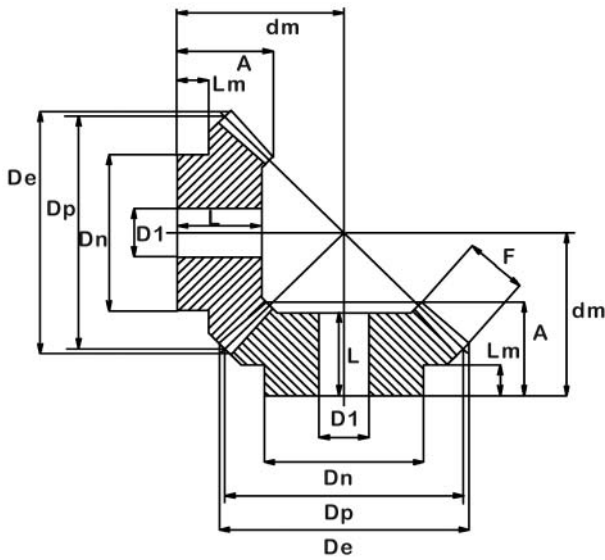


Metric Bevel Gear Sets

20 Degree Pressure Angle

Material: AISI 1040

Minimum Plain Bore



1:1 RATIO

MODULE	Teeth	De	Dp	A	F	Dn	D1 ±1 mm	dm	L	Lm
1.5	16	26.1	24.0	18	8	18	8	25.1	17	8.9
	20	32.1	30.0	20	8	22	10	28.7	18	9.8
	22	35.1	33.0	20	8	25	10	30.2	18	9.7
	25	39.6	37.5	23	8	28	10	35.4	21	12
	30	47.1	45.0	25	10	30	12	39.7	22.5	12
2	16	34.8	32.0	20	9	25	10	28.8	17	9.3
	20	42.8	40.0	25	12	32	10	35.7	22	12
	22	46.8	44.0	25	12	36	10	37.7	22	11.7
	25	52.8	50.0	28	14	40	12	42.3	25	12.3
	30	62.8	60.0	30	16	50	12	47.8	27	12.8
2.5	16	43.5	40.0	25.5	10	32	12	37.3	22	13.3
	20	53.5	50.0	30.5	12	40	12	45.9	27	16
	22	58.5	55.0	30.5	12	45	12	48.3	27	15.9
	25	66.0	62.5	33.5	15	50	15	53.0	30	16
	30	78.5	75.0	35.5	18	55	15	59.1	32	16
3	16	52.2	48.0	30	12	40	15	44.2	26	16.2
	20	64.2	60.0	35	18	45	15	51.1	31	13.6
	22	70.2	66.0	35	18	50	15	54.0	31	13
	25	79.2	75.0	38	20	55	15	60.1	34	16
	30	94.2	90.0	40	22	60	20	68.1	36	19
3.5	16	60.9	56.0	35.5	16	45	15	50.8	31	17.2
	20	74.9	70.0	40.5	22	55	15	58.6	36	19
	22	81.9	77.0	40.5	22	60	15	62.0	36	18
	25	92.4	87.5	43.5	26	65	20	67.5	39	18
	30	109.9	105.0	45.5	30	70	20	75.4	41	17
4	16	69.6	64.0	38	18	50	15	55.6	33	16.6
	20	85.6	80.0	43	25	60	18	63.8	38	18
	22	93.6	88.0	43	25	65	18	67.7	38	18
	25	105.6	100.0	45	28	70	20	73.5	40	18
	30	125.6	120.0	48	32	80	25	83.7	43	18
4.5	16	78.3	72.0	43	20	55	18	63.0	37	18.5
	20	96.3	90.0	48	28	65	20	71.5	42	18
	22	105.3	99.0	48	28	70	20	75.8	42	18
	25	118.8	112.5	50	32	75	20	81.8	44	18
	30	141.3	135.0	53	35	90	25	93.8	47	17
5	16	87.0	80.0	45.5	22	60	20	67.8	39	17.8
	20	107.1	100.0	50.5	30	70	20	77.3	44	18.5
	22	117.1	110.0	50.5	30	80	20	82.2	44	18.5
	25	132.1	125.0	54.5	35	90	20	90.2	48	18.5
	30	157.1	150.0	56.5	38	110	30	102.4	50	18

Ordering Example:

1.5M16/16

1.5M Module

16 Teeth

Metric Bevel Gear Sets

1:2 RATIO

MODULE	Teeth	De	Dp	A	F	Dn	D1 ±1 mm	dm	L	Lm
1.5	16	26.7	24	18.5	8	21	10	34.9	17	10.3
	32	49.3	48	20	8	32	12	27.5	17.5	10
2	16	35.6	32	23	10	27	10	45.4	21	12.2
	32	65.8	64	25	10	40	12	35.2	22	10
2.5	16	44.4	40	27.5	12	34	12	56.0	25	14.4
	32	82.2	80	30	12	50	15	43.0	26.5	15
3	16	53.4	48	28	15	40	15	61.6	25	11.6
	32	98.7	96	35	15	60	15	50.4	30.5	15
3.5	16	62.3	56	33.5	18	48	15	72.3	30.5	14.4
	32	115.1	112	40	18	70	20	57.7	35	19
4	16	71.1	64	36	20	50	20	80.8	32	13.4
	32	131.6	128	45	20	80	20	65.5	39.5	23
4.5	16	80.1	72	39.5	22	60	20	90.4	35	15.4
	32	148.0	144	50	22	80	25	73.2	43.5	24
5	16	88.9	80	50	25	60	20	106.1	45	21.1
	32	164.5	160	55	25	85	25	80.6	48	27

1:3 RATIO

1.5	16	26.9	24	22	12	20	10	46.3	21	9.7
	48	72.9	72	22	12	42	15	29.2	19	12
2	16	35.8	32	25.5	15	25	12	58.9	24	9.4
	48	97.3	96	26	15	50	15	35.9	22	13
2.5	16	44.7	40	28	18	33	14	70.4	26	9.2
	48	121.6	120	32	18	60	20	44.6	27	16
3	16	53.7	48	30	18	42	15	84.2	28	11.2
	48	145.9	144	38	18	65	20	54.1	32	19
3.5	16	62.6	56	36.5	22	48	15	98.8	34	13.4
	48	170.2	168	44	22	75	20	62.5	37	23
4	16	71.6	64	42	25	55	20	113.3	39	15.7
	48	194.5	192	50	25	85	22	71.2	42	27
4.5	16	80.6	72	53	28	60	20	133.4	50	23.4
	48	218.8	216	58	28	90	25	81.9	49	27
5	16	88.5	80	60	35	60	20	145.7	57	22.5
	48	243.1	240	65	35	100	28	90.5	55	35

1:4 RATIO

1.5	16	26.9	24	25	12	18	10	61.1	24	12.2
	64	96.7	96	25	12	60	15	33	22	13
2	16	35.9	32	24	15	25	12	73.1	23	8.5
	64	129.0	128	28	15	70	20	38.9	24	14
2.5	16	44.9	40	30.5	18	34	15	92.6	29	11.7
	64	161.2	160	35	18	80	20	48.8	30	16
3	16	53.8	48	32	20	40	15	108	30	11.1
	64	193.5	192	42	20	90	20	58.8	36	22
3.5	16	62.8	56	40	25	45	15	127.1	38	14
	64	225.7	224	50	25	100	25	69.3	43	22
4	16	71.7	64	50	30	50	20	148.2	48	18.5
	64	257.9	256	60	30	110	28	81.8	52	30
4.5	16	80.7	72	55	32	60	20	167.1	53	21.6
	64	290.1	288	65	32	120	30	89.8	57	35
5	16	89.7	80	60	35	65	20	185.1	58	23.2
	64	322.4	320	70	35	120	30	97.7	61	42



American Metric® Corporation

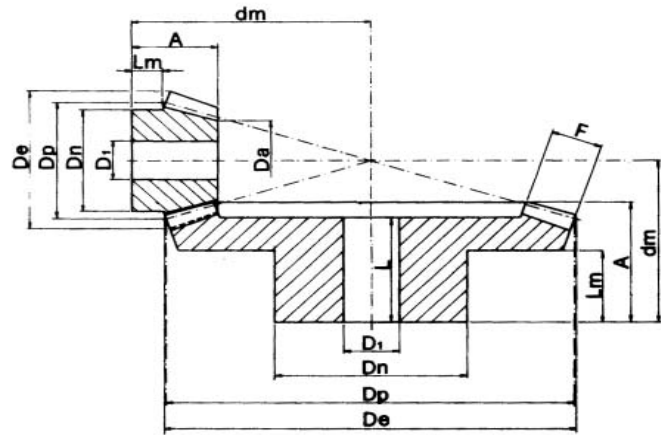
GROUP: 027

1-027 - 70411

Metric Bevel Gear Sets

TYPE B

20 Degree Pressure Angle
Material: C43 - UNI 7847



M	Z	De	Dp	A	F	Dn	D ₁	dm	Da	L	Lm
1	16	17.4	16.0	11.2	4	13.3	4	16	7		6.7
	19	20.4	19.0	11.8	4	15.3	4	18	11.5		6.6
	22	23.4	22.0	12.8	4.7	16.3	5	20	11.5		6.1
	26	27.4	26.0	13.3	5.5	20.3	5	22	14.5		7
1.5	30	31.4	30.0	16.0	6.4	20.3	5	26	17.5		8
	16	26.1	24.0	18.9	6	20.3	8	26	12		12.2
	19	30.6	28.5	21.3	7	20.3	8	30	14.5		11.6
	22	35.1	33.0	22.5	7.5	25.3	8	33	17		12.7
2	26	41.1	39.0	23.2	8.5	28.3	8	36	22		12
	30	47.1	45.0	27.2	10	30.0	12	42	26		12.1
	16	34.8	32.0	23.5	8	25.3	8	33	15.5		13.6
	19	40.8	38.0	24.2	9	25.3	8	36	19.5		12
2.5	22	46.8	44.0	27.9	10	30.3	10	42	23.5		14
	26	54.8	52.0	31.4	12	35.3	12	48	29		13.7
	30	62.8	60.0	34.1	13	40.3	12	54	36		17
	16	43.5	40.0	28.1	10	30.3	12	40	20		15.2
3	19	51.0	47.5	27.1	11	35.3	12	42	25		13
	22	58.5	55.0	30.1	12	45.3	12	48	31.5		15.7
	26	68.5	65.0	33.2	15	45.3	15	54	36.5		16
	30	78.5	75.0	39.0	16	50.3	15	64	45.5		20
3.5	16	52.2	48.0	31.7	12	40.3	12	46	23		18.1
	19	61.2	57.0	36.0	13	40.3	14	54	30		17.1
	22	70.2	66.0	36.9	15	50.3	15	58	36.5		17.1
	26	82.2	78.0	38.4	17	50.3	15	64	45.5		18
4	30	94.2	90.0	43.8	19	60.3	20	74	55		22
	16	60.9	56.0	36.4	14	45.3	15	53	27.5		19.8
	19	71.4	66.5	36.9	15	50.3	15	58	35.3		18
	22	81.9	77.0	39.1	17	55.3	15	64	43.5		18
4.5	26	95.9	91.0	42.2	20	60.3	20	72	52.3		20
	30	110.0	105.0	47.3	23	70.3	20	82	67	43	22
	16	69.7	64.0	44.3	15	50.3	15	64	32		25.1
	22	93.7	88.0	45.9	20	60.3	18	74	49		22
5	26	109.7	104.0	48.0	23	70.3	20	82	65	43	22
	30	125.7	120.0	54.2	26	80.3	25	94	76	49	25
	16	78.4	72.0	46.3	17.5	55.3	18	68	35.5		25
	22	105.3	99.0	50.1	22	70.3	20	82	56	25	25
5	26	123.3	117.0	53.2	25	75.3	20	92	68.1	45	25
	30	141.4	135.0	60.0	29	80.3	25	105	85	54	28
	16	87.1	80.0	48.9	18	60.3	20	74	42		25
	19	102.1	95.0	52.2	22	60.3	20	82	50		25
5	22	117.1	110.0	58.2	24	80.3	20	94	68	52	30
	26	137.1	130.0	62.7	29	80.3	20	105	82	57	30
	30	157.1	150.0	68.9	32	80.3	30	119	97	63	35

Ratio 1:1

Ordering Example:
1.5M16/16B



American Metric® Corporation

Metric BEVEL GEAR SETS

TYPE B

20 Degree Pressure Angle

Material: C43 - UNI 7847

Ratio 1:2

Ordering Example:
1.5M15/30B

M	Z	De	Dp	A	F	Dn	D ₁	dm	Da	L	Lm
1	15	17.4	15.0	11.9	5	13.3	4	22	8		6.6
	30	30.6	30.0	15.1	5	20.3	5	20		14	9
1.5	15	26.1	22.5	21.1	9	20.3	8	35	11.5		12
	30	45.9	45.0	25.2	9	32.3	8	32		23	16
2	15	34.8	30.0	26	11.5	25.3	8	45	16		13.8
	30	61.2	60.0	29.8	11.5	40.3	12	39		27	18
2.5	15	43.5	37.5	31.8	15	32.3	12	55	20		16.2
	30	76.5	75.0	33.7	15	45.3	15	45		30	20
3	15	52.2	45.0	37.3	17	40.3	12	66	25		19.8
	30	91.8	90.0	42.1	17	55.3	15	56		38	25
3.5	15	60.9	52.5	46.1	20.5	45.3	15	79	28.5		24.7
	30	107.1	105.0	45	20.5	60.3	20	61		40	25
4	15	69.6	60.0	48.6	22.5	50.3	20	87	34		24.6
	30	122.3	120.0	57.3	22.5	80.3	20	76		52	35
4.5	15	78.3	67.5	51.4	26	60.3	20	94	37.5		24.7
	30	137.6	135.0	60.3	26	80.3	25	81		53	35
5	15	87	75.0	57.6	30	60.3	20	104	40		25.3
	30	152.9	150.0	62.5	30	80.3	25	85		56	35

Ratio 1:3

Ordering Example:
1.5M15/45B

M	Z	De	Dp	A	F	Dn	D ₁	dm	Da	L	Lm
1	15	17.7	15.0	16.6	7.1	13.3	4	32	8		9.3
	45	45.3	45.0	17.1	7.1	25.3	8	22		15	10
1.5	15	26.5	22.5	22.6	10.5	19.3	8	46	14		11.7
	45	68.1	67.5	29.6	10.5	45.3	14	37		27	20
2	15	35.4	30.0	28.9	14	25.3	8	60	18		14.2
	45	90.8	90.0	32.1	14	45.3	15	42		29	20
2.5	15	44.2	37.5	34.6	18	32.3	12	73	22.5		15.9
	45	113.4	112.5	39.7	18	60.3	20	52		36	25
3	15	53	45.0	41.3	21	40.3	15	88	28.5		19.7
	45	136.1	135.0	47.2	21	60.3	20	62		42.5	30
3.5	15	61.9	52.5	49.6	23.5	45.3	15	105	33.5		25.1
	45	158.8	157.5	54.4	23.5	80.3	20	72		49	35
4	15	70.7	60.0	54.3	27.5	50.3	20	117	38		25.4
	45	181.5	180.0	57.0	27.5	80.3	22	77		51	35
4.5	15	79.5	67.5	55.2	28.5	55.3	20	128	44		24.8
	45	204.2	202.5	63.9	28.5	90.3	25	87		57	40
5	15	88.4	75.0	65.3	33	60.3	20	145	47		30
	45	226.9	225.0	66.7	33	90.3	28	92		59	40

Ratio 1:4

Ordering Example:
1.5M15/60B

M	Z	De	Dp	A	F	Dn	D ₁	dm	Da	L	Lm
1	15	17.8	15.0	17.2	9.3	13.3	4	38	8		7.7
	60	60.3	60.0	17.1	9.3	30.3	8	22		15	10
1.5	15	26.7	22.5	23.0	11	20.3	8	57	15		11.7
	60	90.4	90.0	34	11	50.3	15	42		31	25
2	15	35.6	30.0	31	16	25.3	8	75	20		14.4
	60	120.6	120.0	37.6	16	60.3	16	48		34	25
2.5	15	44.5	37.5	38.1	19	32.3	14	94	25		18.4
	60	150.7	150.0	44.8	19	60.3	20	58		40	30
3	15	53.3	45.0	48.1	23	40.3	15	115	30		24.5
	60	180.8	180.0	53.2	23	80.3	20	69		48	35
3.5	15	62.2	52.5	52.1	26	45.3	15	131	36		25.1
	60	211.0	210.0	60.4	26	90.3	25	79		54	40
4	15	71.1	60.0	55.1	30	50.3	20	145	37.5		23.8
	60	241.1	240.0	60.8	30	90.3	28	82		53	40
4.5	15	79.9	67.5	59.1	34	60.3	20	160	45.2		24.1
	60	271.2	270.0	68.2	34	100.3	30	92		61	40
5	15	88.8	75.0	68.1	38	70.3	20	180	50.1		29.4
	60	301.3	300.0	73.5	38	110.3	30	100		66	40



American Metric® Corporation

GROUP: 027

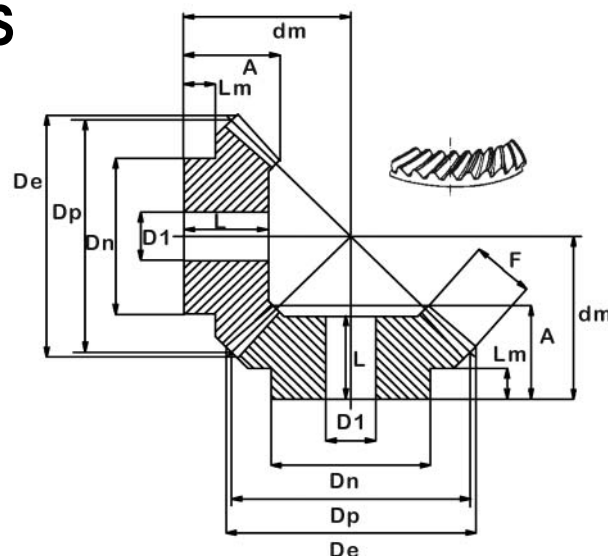
1-027 - 030324

METRIC SPIRAL BEVEL GEAR SETS

20 Degree Pressure Angle

Material: AISI 1040

Minimum Plain Bore



1:1 RATIO

MODULE	Teeth	De	Dp	A	F	Dn	D1±1 mm	dm	L	Lm
2	16	34.6	32.0	19.9	9	25	10	29	16.9	9.5
	20	42.6	40.0	24.9	12	32	10	36	21.7	12
	25	52.6	50.0	27.4	14	40	12	42	24.8	12
	30	62.6	60.0	29.9	16	50	12	48	26.9	13
2.5	16	43.2	40.0	24.8	10	32	12	37	21.8	13
	20	53.3	50.0	30.2	12	40	12	46	26.7	16
	25	65.8	62.5	33.2	15	50	15	53	29.9	16
	30	78.3	75.0	35.0	18	55	15	59	31.8	16
3	16	51.9	48.0	29.4	12	40	15	44	25.8	16
	20	63.9	60.0	34.5	18	45	15	51	30.7	13.5
	25	78.9	75.0	37.5	20	55	15	60	33.7	16
	30	93.9	90.0	39.5	22	60	20	68	35.8	19
3.5	16	60.2	56.0	34.1	14	45	15	51	29.5	17.5
	20	74.2	70.0	35.9	15	55	15	59	31.2	19
	25	91.7	87.5	43.6	26	65	20	68	38.7	18
	30	109.2	105.0	45.8	30	70	20	76	40.9	17
4	16	68.8	64.0	36.0	15	50	15	56	30.8	17
	20	84.8	80.0	37.5	17	60	18	64	32.5	18
	25	104.8	100.0	40.4	21	70	20	74	35.2	18
	30	124.8	120.0	43.2	25	80	25	84	38.1	16
4.5	16	77.4	72.0	39.3	15	55	18	63	33.5	18.5
	20	95.4	90.0	42.8	20	65	20	72	36.5	18
	25	117.9	112.5	45.0	25	75	20	82	39.0	18
	30	140.4	135.0	48.0	28	90	25	94	42.0	17
5	16	86.0	80.0	41.9	17	60	20	68	35.5	18
	20	106.0	100.0	44.7	21	70	20	78	37.7	18.5
	25	131.0	125.0	47.8	26	90	20	90	41.8	18.5
	30	156.0	150.0	52.5	32	110	30	103	45.7	18

Ordering Example:

2XM16/16

2XM Module

X Spiral

16 Teeth

Metric Spiral Bevel Gear Sets

1:2 RATIO

MODULE	Teeth	De	Dp	A	F	Dn	D1±1 mm	dm	L	Lm
2	16	36.6	32	22.5	10	27	10	45	21.0	11.7
	32	65.0	64	24.1	10	40	12	35	21.5	10
2.5	16	45.7	40	27.5	12	34	12	56	25.1	14.5
	32	81.3	80	29.2	12	50	15	43	25.9	15
3	16	54.1	48	28.4	15	40	15	62	25.2	12
	32	97.5	96	34.6	15	60	15	51	29.8	15
3.5	16	63.2	56	33.3	18	48	15	72	30.8	14
	32	113.8	112	39.1	18	70	20	58	34.1	19
4	16	72.2	64	36.2	20	50	20	81	32.2	13.5
	32	130.0	128	44.2	20	80	20	66	38.7	23
4.5	16	81.2	72	40.2	22	60	20	91	35.3	16
	32	146.2	144	49.2	22	80	25	74	42.4	24
5	16	90.2	80	50.0	25	60	20	106	45.3	21
	32	162.5	160	53.7	25	85	25	81	46.8	27

1:3 RATIO

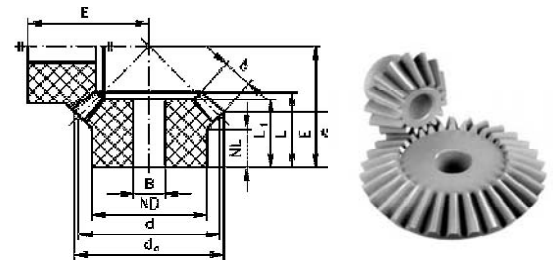
2	16	37.1	32	25.6	15	25	12	59	24	9.7
	48	96.6	96	25.2	15	50	15	36	21.4	13
2.5	16	46.4	40	27.7	18	33	14	70	26.2	8.9
	48	120.8	120	31.4	18	60	20	45	26.3	16
3	16	54.8	48	29.8	18	42	15	84	28.1	11
	48	145.0	144	36.6	18	65	20	54	31.1	19
3.5	16	64.0	56	36.8	22	48	15	99	33.9	13.6
	48	169.1	168	43.1	22	75	20	63	36	23
4	16	73.1	64	41.7	25	55	20	113	39.2	15.5
	48	193.3	192	49.2	25	85	22	72	40.9	27
4.5	16	82.2	72	53.7	28	60	20	134	50.2	24
	48	217.4	216	56.2	28	90	25	82	47.6	27
5	16	91.4	80	60.4	35	60	20	146	57.2	22.7
	48	241.6	240	63.6	35	100	28	91	53.6	35

1:4 RATIO

2	16	37.3	32	24	15	25	12	73	23.1	8.2
	64	128.5	128	27.2	15	70	20	39	23.3	14
2.5	16	46.7	40	31	18	34	15	93	29.1	12.2
	64	160.6	160	34.2	18	80	20	49	29.2	16
3	16	55.1	48	32.1	20	40	15	108	30.2	11
	64	192.7	192	40.9	20	90	20	59	35.1	22
3.5	16	64.3	56	40	25	45	15	127	38.2	13.6
	64	224.8	224	49.2	25	100	25	70	41.9	22
4	16	73.4	64	50	30	50	20	148	48.3	18.3
	64	256.9	256	58.6	30	110	28	82	50.8	30
4.5	16	82.6	72	55	32	60	20	167	53.2	21.5
	64	289.1	288	63.2	32	120	30	90	55.5	35
5	16	91.8	80	60.1	35	65	20	185	58.3	23.2
	64	321.2	320	68.1	35	120	30	98	59.4	42

METRIC Injection Molded Bevel Gears

Material: Acetal Resin (Hostaform C)



Bevel Gears

Part No.	Module	Ratio	Teeth	Outside Ø d _a	Pitch Ø d	Hub Ø ND	NL	L ₁	L	b	Bore Ø B	E	G	MD Ncm	Weight g
0.5AM16R1.1	0.5	1 : 1	16	8.7	8	7	6	8	8	2	3	10.5	6.6	0.9	0.3
1AM16R1.1	1.0	1 : 1	16	17.6	16	12	8	13.6	13.6	4.7	5	18.4	10.6	8.3	1.9
1AM30R1.1	1.0	1 : 1	30	31.4	30	15	7.4	12.9	15.3	7.4	6	24.8	10.8	58.0	5.9
1AM15R2.1	1.0	2 : 1	15	16.8	15	12.2	10.6	17	17	6.6	5	26.4	11.5	12.0	2.4
1AM30R2.1	1.0	2 : 1	30	31.1	30	18	9.1	14.8	16.2	6.6	8	20.9	13.6	12.0	6.3
1AM15R3.1	1.0	3 : 1	15	16.6	15	12.3	11	20.4	20.4	9.2	5	34.3	12.1	16.0	2.7
1AM45R3.1	1.0	3 : 1	45	46.1	45	23.4	9.6	16.5	18.2	9.2	10	22.7	15.7	16.0	16.0
1AM10R4.1	1.0	4 : 1	10	12	10	7.8	903	17.7	17.7	8.2	4	30.1	10.1	4.5	0.9
1AM40R4.1	1.0	4 : 1	40	40.8	40	23.4	10.8	15.7	17	8.2	10	20.1	15.1	4.5	12.6
1AM12R5.1	1.0	5 : 1	12	13.7	12	9.5	10	20.3	20.3	9.5	4	40.5	10.5	12.0	2.0
1AM60R5.1	1.0	5 : 1	60	60.4	60	20.5	11	15.5	17.4	9.5	10	21	15.4	12.0	17.0
1.5AM16R1.1	1.5	1 : 1	16	26.4	24	18.5	10	16.2	18.4	7	8	25.8	14.4	29.0	5.9
1.5AM15R2.1	1.5	2 : 1	15	25.4	22.5	17	11.5	22.8	22.8	10.5	8	35.8	13.8	43.0	7.5
1.5AM30R2.1	1.5	2 : 1	30	46.4	45	23.4	9.6	17.5	19.5	10.5	10	26.2	15.0	43.0	17.0
1.5AM15R3.1	1.5	3 : 1	15	25.1	22.5	17.2	12.5	26.8	26.8	14	8	47.9	13.5	64.0	8.5
1.5AM45R3.1	1.5	3 : 1	45	68.8	67.5	30.4	11.5	21.5	23	14	12	29.4	19.2	64.0	49.0
1.5AM10R4.1	1.5	4 : 1	10	18	15	11.3	10.9	23.5	23.5	12.3	5	41.7	11.7	17.0	3.0
1.5AM40R4.1	1.5	4 : 1	40	61.2	60	30.4	12.8	20	21.7	12.3	12	26.2	18.6	17.0	32.0
2AM16R1.1	2.0	1 : 1	16	34.9	32	21.9	9.6	18.3	21.2	10	10	30.4	14.9	73.0	10.4
2AM15R2.1	2.0	2 : 1	15	33.6	30	22.5	11.8	26	27	14.6	10	44.2	14.5	107.0	13.3
2AM30R2.1	2.0	2 : 1	30	62.2	60	30.2	11.8	22.6	24.2	14.6	12	32.6	18.5	107.0	41.0
2AM10R3.1	2.0	3 : 1	10	24	20	16.6	12	25	25	12.5	6	43.7	13.2	30.0	6.1
2AM30R3.1	2.0	3 : 1	30	61.7	60	30.3	11.5	20.2	22.5	12.5	12	28	19.0	30.0	38.0
2AM10R4.1	2.0	4 : 1	10	23.8	20	14.3	12.8	28.9	28.9	16.3	6	54	13.2	40.0	6.4
2AM40R4.1	2.0	4 : 1	40	81.5	80	36	16.6	24.7	27	16.3	18	32.5	23.1	40.0	65.0
2.5AM16R1.1	2.5	1 : 1	16	43.5	40	25.2	11.5	22.9	26.3	12.3	12	37	18.2	145.0	20.0
2.5AM15R2.1	2.5	2 : 1	15	42	37.5	26.5	13	29.6	31.2	17.3	12	53.3	16.4	209.0	23.6
2.5AM30R2.1	2.5	2 : 1	30	77.3	75	36.1	15	27.5	29.5	17.3	16	40.5	22.8	209.0	69.0
2.5AM10R3.1	2.5	3 : 1	10	29.7	25	18.8	13	28.8	28.8	15.7	8	52.4	14.1	60.0	10.2
2.5AM30R3.1	2.5	3 : 1	30	77.2	75	36.1	15.5	25.2	29	15.7	18	35.7	24.1	60.0	68.0
3AM16R1.1	3.0	1 : 1	16	52.3	48	28.8	13.2	25.8	29.2	13.8	14	43	20.6	250.0	32.0
3AM15R2.1	3.0	2 : 1	15	50.3	45	31.2	14.8	35	36.3	20.5	14	63.3	19.0	370.0	38.0
3AM30R2.1	3.0	2 : 1	30	93	90	45	19	34.2	37	20.5	18	49.5	29.2	370.0	129.0
3.5AM16R1.1	3.5	1 : 1	16	61.4	56	33.3	14.4	28.1	33.1	15.8	18	49.5	22.8	440.0	50.0

Note: Injection molded bevel gears sold individually, not as a set.

Sample Part:

0.5AM16R1.1

0.5 = Module

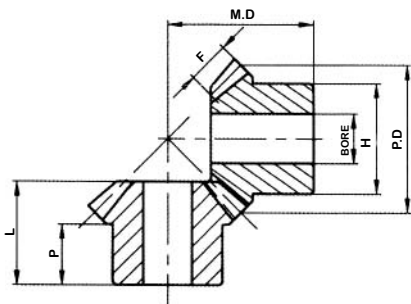
AM = Injection Molded

16 = No. Teeth

R1.1 = Ratio

American Standard (ANSI) MPB Steel Miter Gears

Pressure Angle 20°



Bored to Size Gears
Available in Standard ANSI
or Metric (ISO) Bores,
Keyways and (2) Setscrews

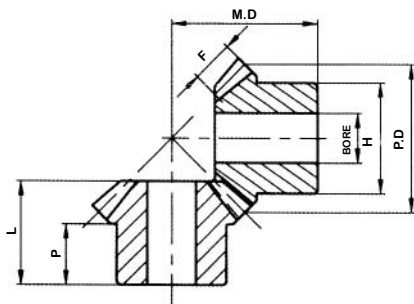


1:1 Steel - Plain Bore - Unhardened Teeth

Part No.	PD	OD	MD	Bore		Dimensions				Weight
				Stock	Max	F	L	P	H	
4DP24/24	6.00	6.36	5 1/2	1 1/2	2 3/8	1.330	3 9/16	1 15/16	4	14.50
4DP24/24A	6.00	6.36	5 1/2	1 3/4	2 3/8	1.330	3 9/16	1 15/16	4	14.00
4DP28/28	7.00	7.36	6	2	3	1.430	3 5/8	1 15/16	5	21.50
5DP25/25	5.00	5.29	4 5/8	1 3/8	2 1/4	1.100	3	1 3/4	3 1/2	8.80
5DP25/25A	5.00	5.29	4 5/8	1 1/2	2 1/4	1.100	3	1 3/4	3 1/2	8.40
5DP25/25B	5.00	5.29	4 5/8	1 3/4	2 1/4	1.100	3	1 3/4	3 1/2	7.80
6DP24/24	4.00	4.24	3 5/8	1 1/4	2	0.860	2 5/16	1 5/16	3	4.40
6DP24/24A	4.00	4.24	3 5/8	1 1/2	2	0.860	2 5/16	1 5/16	3	4.30
6DP27/27	4.50	4.74	4 1/8	1 1/4	2 3/16	0.960	2 5/8	1 1/2	3 1/4	6.30
6DP27/27A	4.50	4.74	4 1/8	1 1/2	2 3/16	0.960	2 5/8	1 1/2	3 1/4	5.90
8DP24/24	3.00	3.18	2 9/16	3/4	1	0.640	1 37/64	13/16	1 3/4	1.50
8DP24/24A	3.00	3.18	2 3/4	1	1 3/8	0.640	1 49/64	1	2 1/2	2.10
8DP24/24B	3.00	3.18	2 3/4	1 1/4	1 5/8	0.640	1 49/64	1	2 1/2	1.90
8DP28/28	3.50	3.68	3 1/4	1	1 5/8	0.750	2 3/32	1 1/4	2 1/2	2.90
8DP28/28A	3.50	3.68	3 1/4	1 3/16	1 5/8	0.750	2 3/32	1 1/4	2 1/2	2.80
8DP28/28B	3.50	3.68	3 1/4	1 1/4	1 5/8	0.750	2 3/32	1 1/4	2 1/2	2.60
8DP32/32	4.00	4.18	3 5/8	1	2	0.840	2 9/32	1 1/8	3	4.80
10DP20/20A	2.00	2.14	2	1/2	7/8	0.440	1 23/64	13/16	1 5/8	0.75
10DP20/20B	2.00	2.14	2	5/8	7/8	0.440	1 23/64	13/16	1 5/8	0.72
10DP20/20	2.00	2.14	2	3/4	7/8	0.440	1 23/64	13/16	1 5/8	0.67
10DP20/20C	2.00	2.14	2	7/8	7/8	0.440	1 23/64	13/16	1 5/8	0.58
10DP25/25	2.50	2.64	2 7/16	3/4	1 1/4	0.550	1 5/8	15/16	2	1.20
10DP25/25A	2.50	2.64	2 7/16	7/8	1 1/4	0.550	1 5/8	15/16	2	1.20
10DP25/25B	2.50	2.64	2 7/16	1	1 1/4	0.550	1 5/8	15/16	2	1.20
10DP30/30	3.00	3.14	2 3/4	3/4	1 5/8	0.640	1 3/4	1	2	1.80
12DP15/15	1.25	1.37	1 1/4	3/8	3/4	0.270	55/64	1/2	1	0.17
12DP15/15A	1.25	1.37	1 1/4	7/16	3/4	0.270	55/64	1/2	1	0.16
12DP15/15B	1.25	1.37	1 1/4	1/2	3/4	0.270	55/64	1/2	1	0.15
12DP18/18	1.50	1.62	1 1/2	1/2	7/8	0.320	1 1/64	5/8	1 1/4	0.30
12DP18/18A	1.50	1.62	1 1/2	5/8	7/8	0.320	1 1/64	5/8	1 1/4	0.25
12DP18/18	1.50	1.62	1 1/2	3/4	7/8	0.320	1 1/64	5/8	1 1/4	0.22
12DP21/21	1.75	1.87	1 3/4	1/2	1	0.390	1 3/16	11/16	1 3/8	0.45
12DP21/21A	1.75	1.87	1 3/4	9/16	1	0.390	1 3/16	11/16	1 3/8	0.45
12DP21/21B	1.75	1.87	1 3/4	5/8	1	0.390	1 3/16	11/16	1 3/8	0.43
12DP21/21C	1.75	1.87	1 3/4	3/4	1	0.390	1 3/16	11/16	1 3/8	0.38
12DP24/24	2.00	2.12	1 7/8	1/2	1	0.430	1 7/32	11/16	1 1/2	0.62
12DP30/30	2.50	2.62	2 5/16	5/8	1 1/4	0.540	1 31/64	27/32	1 3/4	1.10
14DP14/14A	1.00	1.11	1 1/16	3/8	5/8	0.190	47/64	1/2	7/8	0.10
14DP14/14	1.00	1.11	1 1/16	7/16	5/8	0.190	47/64	1/2	7/8	0.10
16DP12/12	0.75	0.84	13/16	5/16	7/16	0.160	37/64	3/8	5/8	0.10
16DP16/16	1.00	1.09	1 1/16	3/8	1/2	0.220	3/4	7/16	3/4	0.10
16DP20/20	1.25	1.34	1 1/4	7/16	5/8	0.270	27/32	1/2	1	0.20
16DP24/24	1.50	1.59	1 3/8	1/2	7/8	0.310	7/8	1/2	1	0.20
20DP20/20	1.00	1.07	1 1/8	3/8	5/8	0.230	13/16	1/2	3/4	0.10
20DP25/25	1.25	1.32	1 3/16	3/8	3/4	0.250	3/4	7/16	1	0.10
24DP24/24	1.00	1.06	29/32	1/4	1/2	0.200	9/16	9/32	5/8	0.10

American Standard (ANSI) MPB Steel Miter Gears

Pressure Angle 20°



Bored to Size Gears
Available in Standard ANSI
or Metric (ISO) Bores,
Keyways and (2) Setscrews



1:1

Steel - Plain Bore - Hardened Teeth

Part No.	PD	OD	MD	Bore		Dimensions				Weight
				Stock	Max	F	L	P	H	
4DPH24/24	6.00	6.36	5 1/2	1 1/2	2 3/8	1.330	3 9/16	1 15/16	4	14.50
4DPH24/24A	6.00	6.36	5 1/2	1 3/4	2 3/8	1.330	3 9/16	1 15/16	4	14.00
4DPH28/28	7.00	7.36	6	2	3	1.430	3 5/8	1 15/16	5	21.50
5DPH25/25	5.00	5.29	4 5/8	1 3/8	2 1/4	1.100	3	1 3/4	3 1/2	8.80
5DPH25/25A	5.00	5.29	4 5/8	1 1/2	2 1/4	1.100	3	1 3/4	3 1/2	8.40
5DPH25/25B	5.00	5.29	4 5/8	1 3/4	2 1/4	1.100	3	1 3/4	3 1/2	7.80
6DPH24/24	4.00	4.24	3 5/8	1 1/4	2	0.860	2 5/16	1 5/16	3	4.40
6DPH24/24A	4.00	4.24	3 5/8	1 1/2	2	0.860	2 5/16	1 5/16	3	4.30
6DPH27/27	4.50	4.74	4 1/8	1 1/4	2 3/16	0.960	2 5/8	1 1/2	3 1/4	6.30
6DPH27/27A	4.50	4.74	4 1/8	1 1/2	3/16	0.960	2 5/8	1 1/2	3 1/4	5.90
8DPH24/24	3.00	3.18	2 9/16	3/4	1	0.640	1 37/64	13/16	1 3/4	1.50
8DPH24/24A	3.00	3.18	2 3/4	1	1 3/8	0.640	1 49/64	1	2 1/2	2.10
8DPH24/24B	3.00	3.18	2 3/4	1 1/4	1 5/8	0.640	1 49/64	1	2 1/2	1.90
8DPH28/28	3.50	3.68	3 1/4	1	1 5/8	0.750	2 3/32	1 1/4	2 1/2	2.90
8DPH28/28A	3.50	3.68	3 1/4	1 3/16	1 5/8	0.750	2 3/32	1 1/4	2 1/2	2.80
8DPH28/28B	3.50	3.68	3 1/4	1 1/4	1 5/8	0.750	2 3/32	1 1/4	2 1/2	2.60
8DPH32/32	4.00	4.18	3 5/8	1	2	0.840	2 9/32	1 1/8	3	4.80
10DPH20/20A	2.00	2.14	2	1/2	7/8	0.440	1 23/64	13/16	1 5/8	0.75
10DPH20/20B	2.00	2.14	2	5/8	7/8	0.440	1 23/64	13/16	1 5/8	0.72
10DPH20/20	2.00	2.14	2	3/4	7/8	0.440	1 23/64	1 3/16	1 5/8	0.67
10DPH20/20C	2.00	2.14	2	7/8	7/8	0.440	1 23/64	1 3/16	1 5/8	0.58
10DPH25/25	2.50	2.64	2 7/16	3/4	1 1/4	0.550	1 5/8	15/16	2	1.20
10DPH25/25A	2.50	2.64	2 7/16	7/8	1 1/4	0.550	1 5/8	15/16	2	1.20
10DPH25/25B	2.50	2.64	2 7/16	1	1 1/4	0.550	1 5/8	15/16	2	1.20
10DPH30/30	3.00	3.14	2 3/4	3/4	1 5/8	0.640	1 3/4	1	2	1.80
12DPH15/15	1.25	1.37	1 1/4	3/8	3/4	0.270	55/64	1/2	1	0.17
12DPH15/15A	1.25	1.37	1 1/4	7/16	3/4	0.270	55/64	1/2	1	0.16
12DPH15/15B	1.25	1.37	1 1/4	1/2	3/4	0.270	55/64	1/2	1	0.15
12DPH18/18	1.50	1.62	1 1/2	1/2	7/8	0.320	1 1/64	5/8	1 1/4	0.30
12DPH18/18A	1.50	1.62	1 1/2	5/8	7/8	0.320	1 1/64	5/8	1 1/4	0.25
12DPH18/18B	1.50	1.62	1 1/2	3/4	7/8	0.320	1 1/64	5/8	1 1/4	0.22
12DPH21/21	1.75	1.87	1 3/4	1/2	1	0.390	1 3/16	11/16	1 3/8	0.45
12DPH21/21A	1.75	1.87	1 3/4	5/8	1	0.390	1 3/16	11/16	1 3/8	0.45
12DPH24/24	2.00	2.12	1 7/8	1/2	1	0.430	1 7/32	11/16	1 1/2	0.62
12DPH30/30	2.50	2.62	2 5/16	5/8	1 1/4	0.540	1 31/64	27/32	1 1/2	1.1
14DPH14/14	1.00	1.11	1 1/16	3/8	5/8	0.190	47/64	1/2	7/8	0.10
14DPH14/14A	1.00	1.1	1 1/16	7/16	5/8	0.190	47/64	1/2	7/8	0.10
16DPH15/15										
16DPH16/16	1.00	1.09	1 1/16	3/8	1/2	0.220	3/4	7/16	3/4	0.10
16DPH24/24	1.50	1.50	1 3/8	1/2	7/8	0.310	7/8	1/2	1	0.20
24DPH24/24	1.00	1.06	29/32	1/4	1/2	0.200	9/16	9/32	5/8	0.10

Ordering Example:

4DPH24/24A

4DP= 4 Diametrical Pitch

H= Hardened Teeth

24 = 1st Gear Number of Teeth

/24 = 2nd Gear Number of Teeth

A = Version



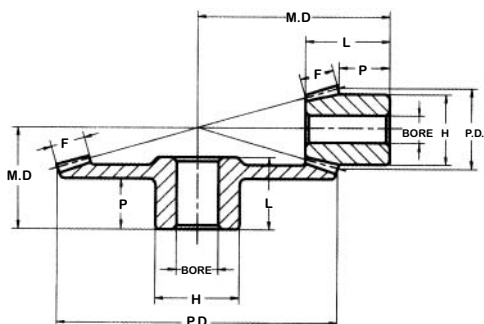
American Metric® Corporation

GROUP: 127

1-127-050103

American Standard (ANSI) MPB Steel Bevel Gears

Pressure Angle 20°



Bored to Size Gears
Available in Standard ANSI
or Metric (ISO) Bores,
Keyways and (2) Setscrews



1:3

Unhardened Steel Bevel Gears

Part No.	PD	OD	MD	Bore		Dimensions				Weight
				Stock	Max	F	L	P	H	
4DP14/42	10.50 3.50	10.59 4.17	4 7 1/4	1 1/8 1 1/8	2 1/4 1 13/16	1.420 1.420	2 11/16 3 27/64	1 1/2 1 15/16	3 3/4 3 1/4	26.4 7.0
5DP15/45	9.00 3.00	9.07 3.54	3 3/4 5 7/8	1 1/4 1	2 1/4 1 1/2	1.310 1.310	2 1/2 2 11/16	1 11/16 1 5/16	3 3/4 2 5/8	17.1 3.6
6DP15/45	7.50 2.50	7.56 2.94	3 5 1/4	1 1/8 5 1/4	2 1/4 1 1/4	1.070 1.070	2 1/8 2 9/16	1 1/4 1 7/16	3 1/4 2 1/8	10.6 2.3
8DP16/48	6.05 2.00	6.20 2.33	2 3/8 4 1/4	2 3/8 4 1/4	1 13/16 1	0.840 0.840	1 5/8 2 5/64	1 1 3/16	2 3/4 1 3/4	5.3 1.2
10DP20/60	6.00 2.00	6.04 2.27	2 3/4 4 3/8	2 3/4 4 3/8	2 1	0.780 0.780	1 29/32 2 5/32	1 3/8 1 5/16	3 1 3/4	6.3 1.2
12DP18/54	4.50 1.50	4.53 1.72	1 3/4 3	1 3/4 3	1 9/16	0.600 0.600	1 1/16 1 11/32	3/4 11/16	1 3/4 1 1/4	1.7 0.4
16DP16/48	3.00 1.00	3.02 1.17	1 5/16 2	1 5/16 2	13/16 7/16	0.420 0.420	7/8 59/64	9/16 15/32	1 1/2 7/8	0.8 0.1

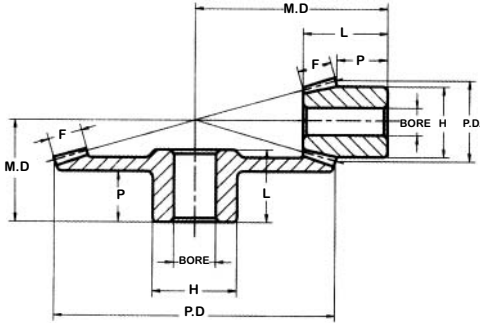
1:4

Unhardened Steel Bevel Gears

Part No.	PD	OD	MD	Bore		Dimensions				Weight
				Stock	Max	F	L	P	H	
4DP14/56	14.00 3.50	14.07 4.2	4 1/4 9	1 1/4 1 1/8	2 5/8 1 7/8	1.690 1.690	2 7/8 3 35/64	1 5/8 1 15/16	4 1/4 3 1/4	48.7 7.6
5DP15/60	12.00 3.00	12.05 3.56	3 3/4 7 1/2	1 1/4 1	2 3/8 1 4/7	1.700 1.700	2 5/8 3 13/64	1 9/16 1 7/16	4 3	31.2 5.0
6DP15/60	10.00 2.50	10.04 2.97	3 1/4 6 3/4	1 1/8 1	2 1/4 1 3/8	1.210 1.210	2 1/4 2 31/32	1 3/8 1 3/4	3 1/4 2 1/2	17.6 3.3
8DP16/64	8.00 2.00	8.03 2.35	2 3/4 5 1/4	1 7/8	1 13/16 1 1/8	0.840 0.840	1 7/8 2 3/32	1 1/4 1 7/32	2 3/4 1 7/8	9.7 1.3
8DP18/72	9.00 2.25	9.03 2.6	3 1/4 5 3/4	1 1/8 7/8	2 1 1/4	1.220 1.220	2 5/16 2 15/32	1 11/16 1 7/32	3 2 1/8	12.3 1.9
10DP15/60	6.00 1.50	6.03 1.78	2 1/4 3 7/8	7/8 5/8	1 5/8 3/4	0.720 0.720	1 5/8 1 33/64	1 1/8 27/32	2 1/2 1 7/16	4.6 0.6
12DP18/72	6.00 1.50	6.02 1.73	2 3 3/4	3/4 1/2	1 1/4 4/7	0.600 0.600	1 5/16 1 23/64	61/64 23/32	2 1 1/4	3.1 0.4
16DP16/64	4.00 1.00	4.02 1.17	1 3/8 2 1/2	5/8 1/2	1 3/8 5/8	0.480 0.480	57/64 63/64	9/16 15/32	2 1/4 13/16	1.6 0.1

American Standard (ANSI) MPB Steel Bevel Gears

Pressure Angle 20°



Bored to Size Gears
Available in Standard ANSI
or Metric (ISO) Bores,
Keyways and (2) Setscrews

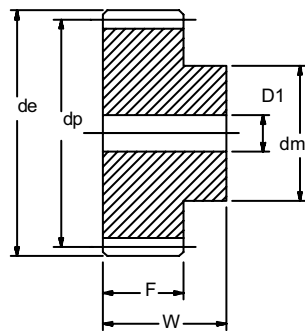


1:1.5 Unhardened Steel Bevel Gears

Part No.	PD	OD	MD	Bore		Dimensions				Weight
				Stock	Max	F	L	P	H	
10DP20/30	3.00 2.00	3.08 2.21	2 1/4 2 1/2	3/4 3/4	1 1/2 1 5/16	0.570 0.570	1 7/16 1 33/64	1 29/32	2 1/2 1 3/4	1.7 0.8
12DP18/27	2.25 1.50	2.32 1.67	1 3/4 1 7/8	1/2 1/2	13/16 9/16	0.410 0.410	1 1/8 1 1/8	25/32 21/32	1 1/2 1 1/4	0.6 0.2
16DP16/24	1.50 1.00	1.55 1.13	1 1/5 1 1/4	1/2 3/8	9/16 7/16	0.250 0.250	3/4 47/64	9/16 7/16	1 1/8 13/16	0.2 0.1

1:2 Unhardened Steel Bevel Gears

Part No.	PD	OD	MD	Bore		Dimensions				Weight
				Stock	Max	F	L	P	H	
3DP15/30	10.00 5.00	10.19 5.80	5 1/2 7 1/4	1 1/4 1 1/8	3 2	1.870 1.870	3 19/32 4 1/32	2 1 15/16	5 3 3/4	39.9 13.7
4DP16/32	8.00 4.00	8.10 4.60	4 1/4 6	1 1/8 1 1/8	2 1/4 1 7/8	1.400 1.400	2 11/16 3 11/32	1 9/16 1 13/16	3 3/4 3 1/4	17.6 7.5
5DP15/30	6.00 3.00	6.12 3.48	3 1/2 4 3/8	1 1/8 1	2 1/4 1 3/8	1.040 1.040	2 1/4 2 25/64	1 3/8 1 9/32	3 1/4 2 5/8	8.9 3.1
6DP18/36	6.00 3.00	6.10 3.42	3 1/2 4 3/4	1 1/8 1	2 1/4 1 7/16	1.060 1.060	2 1/4 2 49/64	1 1/2 1 9/32	3 1/4 2 1/2	8.4 3.4
6DP21/42	7.00 3.50	7.10 3.90	3 3/4 5	1 1/8 1	2 1/4 1 5/8	1.050 1.050	2 19/64 2 33/64	1 1/2 1 1/4	3 1/2 2 1/2	11.4 3.8
6DP24/48	8.00 4.00	8.10 4.40	3 7/16 5 7/16	1 1/8 1	2 1/4 1 3/4	1.170 1.170	1 57/64 2 35/64	1 1 1/4	3 1/4 2 5/8	11.8 4.9
8DP20/40	5.00 2.50	5.07 2.80	2 7/8 4	1 7/8	2 1 1/4	0.820 0.820	1 27/32 2 9/32	1 1/4 1 13/32	3 2 1/8	5.0 3.0
10DP20/40	4.00 2.00	4.06 2.24	2 1/2 3 1/8	7/8 3/4	2 15/16	0.710 0.710	1 11/16 1 51/64	1 3/16 1 1/16	3 1 3/4	3.7 0.9
10DP25/50	5.00 2.50	5.06 2.74	2 5/8 3 3/8	3/4 3/4	1 1/4 1 1/4	0.700 0.700	1 19/32 1 35/64	1 3/4	2 2	3.6 1.2
12DP18/36	3.00 1.50	3.05 1.70	1 1/2 2 1/4	5/8 1/2	1 5/16 5/8	0.460 0.460	7/8 1 13/64	1/2 11/16	1 7/16 1 1/4	1.4 0.4
12DP24/48	4.00 2.00	4.05 2.20	2 2 7/8	5/8 1/2	7/8 13/16	0.590 0.590	1 11/64 1 7/16	3/4 3/4	1 5/8 1 1/2	1.5 0.8
12DP14/28	2.00 1.00	2.04 1.17	1 3/8 1 5/8	1/2 1/2	7/8 1/2	0.350 0.350	15/16 31/32	21/32 9/16	1 5/8 1	0.5 0.1
16DP12/24	1.50 0.75	1.54 0.91	1 1 1/8	1/2 3/8	5/8 1/2	0.190 0.190	5/8 37/64	7/16 11/32	1 21/32	0.2 0.1
16DP16/32	2.00 1.00	2.04 1.15	1 3/16 1 1/2	1/2 3/8	3/8 7/16	0.350 0.350	49/64 37/32	1/2 7/16	1 1/8 13/16	0.2 0.1



Metric Nylon Gears

20° Pressure Angle

DIN 782

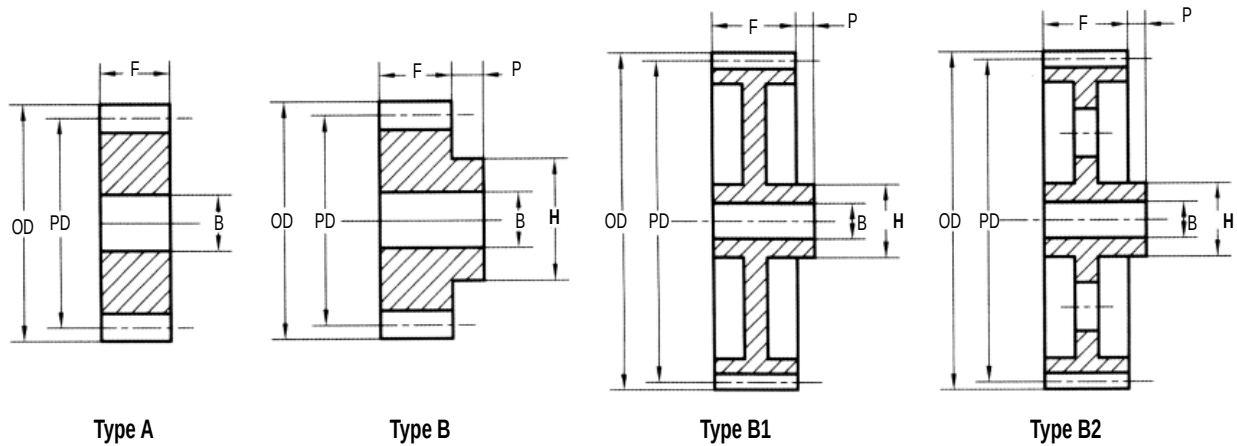
Material: Nylon P 6.6

Spur Gears

Part No.	Module	Teeth	Tooth Face F	Width W	Outside Ø de	Pitch Ø dp	Hub Ø dm	Bore Ø D1 ±1 mm	Weight kg
NM1B15	1	15	8	18	17.0	15.0	12	5	0.002
NM1B16	1	16	8	18	18.0	16.0	12	5	0.002
NM1B18	1	18	8	18	20.0	18.0	15	6	0.003
NM1B20	1	20	8	18	22.0	20.0	15	6	0.004
NM1B24	1	24	8	18	26.0	24.0	18	6	0.006
NM1B25	1	25	8	18	27.0	25.0	18	6	0.006
NM1.5B15	1.5	15	12	25	25.5	22.5	18	6	0.057
NM1.5B16	1.5	16	12	25	27.0	24.0	18	6	0.060
NM1.5B18	1.5	18	12	25	30.0	27.0	20	8	0.073
NM1.5B20	1.5	20	12	25	33.0	30.0	20	8	0.097
NM1.5B24	1.5	24	12	25	39.0	36.0	25	8	0.135
NM1.5B25	1.5	25	12	25	40.5	37.5	25	8	0.142
NM2B15	2	15	16	30	34.0	30.0	24	8	0.118
NM2B16	2	16	16	30	36.0	32.0	25	8	0.134
NM2B18	2	18	16	30	40.0	36.0	28	10	0.166
NM2B20	2	20	16	30	44.0	40.0	28	10	0.195
NM2B24	2	24	16	30	52.0	48.0	30	10	0.272
NM2B25	2	25	16	30	54.0	50.0	30	10	0.285
NM2.5B15	2.5	15	20	35	42.5	37.5	25	10	0.200
NM2.5B16	2.5	16	20	35	45.0	40.0	25	10	0.225
NM2.5B18	2.5	18	20	35	50.0	45.0	30	12	0.286
NM2.5B20	2.5	20	20	35	55.0	50.0	30	12	0.340
NM2.5B24	2.5	24	20	35	65.0	60.0	40	12	0.515
NM2.5B25	2.5	25	20	35	67.5	62.5	40	12	0.550

American Standard (ANSI) MPB Steel Spur Gears

Pressure Angle 14½°



3 DP - 3" Face

Part No.	Diameter		Type	Hubs			Weight (Lbs)
	OD	PD		H	F + P	B	
S311	4.333	3.666	A	-	3	1-5/16	12.00
S312	4.666	4.000	A	-	3	1-5/16	11.00
S313	5.000	4.333	A	-	3	1-5/16	10.70
S314	5.333	4.667	A	-	3	1-5/16	12.80
S315	5.666	5.000	A	-	3	1-5/16	14.80
S316	6.000	5.333	A	-	3	1-5/16	17.00
S317	6.333	5.666	A	-	3	1-5/16	19.50
S318	6.666	6.000	A	-	3	1-5/16	22.00
S319	7.000	6.333	A	-	3	1-5/16	27.40
S320	7.333	6.667	A	-	3	1-7/16	30.70
S321	7.666	7.000	A	-	3	1-7/16	48.20
S322	8.000	7.333	A	-	3	1-7/16	55.00
S324	8.666	8.000	B	5 1/2	4 1/4	1-7/16	74.50
S325	9.000	8.333	B	5 1/2	4 1/4	1-7/16	83.60
S328	10.000	9.333	B	6 1/4	4 1/4	1-7/16	98.00
S330	10.666	10.000	B	6 1/4	4 1/4	1-9/16	114.00
S332	11.333	10.666	B	6 1/4	4 3/4	1-9/16	119.00
S336	12.666	12.000	B	6 1/2	4 3/4	1-9/16	106.00

4 DP - 2" Face

Part No.	Diameter		Type	Hubs			Weight (Lbs)
	OD	PD		H	F + P	B	
S411	3.250	2.750	B	2 1/4	2 7/8	1-1/8	4.00
S412	3.500	3.000	B	2 1/4	2 7/8	1-1/8	3.90
S413	3.750	3.250	B	2 1/4	2 7/8	1-1/8	4.60
S414	4.000	3.500	B	2 3/4	2 7/8	1-1/8	5.70
S415	4.250	3.750	B	3	2 7/8	1-1/8	6.80
S416	4.500	4.000	B	3 1/4	2 7/8	1-1/8	8.00
S417	4.750	4.250	B	3 1/2	2 7/8	1-1/8	9.20
S418	5.000	4.500	B	3 3/4	2 7/8	1-1/8	10.40
S419	5.250	4.750	B	4	2 7/8	1-1/8	10.50
S420	5.500	5.000	B	4 1/4	2 7/8	1-1/8	13.40
S421	5.750	5.250	B	4 1/2	2 7/8	1-1/8	14.90
S422	6.000	5.500	B	4 3/4	2 7/8	1-1/8	16.50
S424	6.500	6.000	B	4 3/4	3 1/2	1-1/8	22.80
S426	7.000	6.500	B	4 3/4	3 1/2	1-1/8	24.80
S428	7.500	7.000	B	4 3/4	3 1/2	1-1/8	27.80
S430	8.000	7.500	B	4 3/4	3 1/2	1-1/4	31.00
S432	8.500	8.000	B	4 3/4	3 1/2	1-1/4	34.40
S436	9.500	9.000	B	4 3/4	3 1/2	1-1/4	41.70
S440	10.500	10.000	B	5 1/8	3 1/2	1-1/4	51.80
S442	11.000	10.500	B	5 1/8	3 1/2	1-1/4	56.00
S444	11.500	11.000	B	5 1/8	3 1/2	1-1/4	60.80
S445	-	-	-	-	-	1-1/4	-
S448	12.500	12.000	B	5 1/8	3 1/2	1-1/4	70.80

Sample Part:

S311

S = Steel

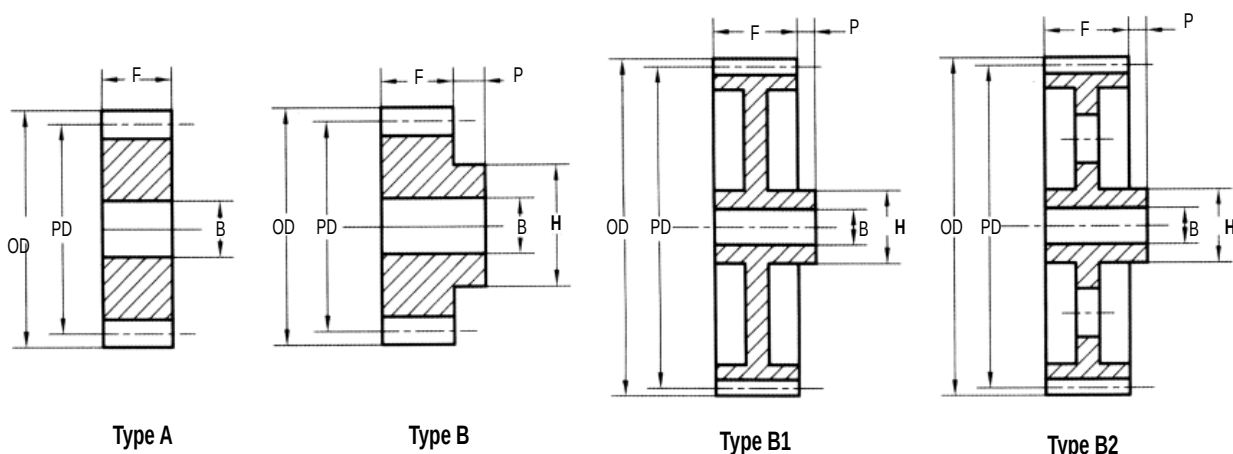
3 = Diametral Pitch

11 = No. Teeth

Bored to Size Gears
Available in Standard ANSI
or Metric (ISO) Bores,
Keyways and (2) Setscrews

American Standard (ANSI) MPB Steel Spur Gears

Pressure Angle 14½°



5 DP - 1 3/4" Face

Part No.	Diameter		Type	Hubs			Weight (Lbs)
	OD	PD		H	F + P	B	
S511	2.600	2.200	B	1 25/32	2 5/8	1-1/16	2.00
S512	2.800	2.400	B	1 25/32	2 5/8	1-1/16	2.00
S513	3.000	2.600	B	2	2 5/8	1-1/16	2.60
S514	3.200	2.800	B	2 3/16	2 5/8	1-1/16	3.10
S515	3.400	3.000	B	2 3/8	2 5/8	1-1/16	3.70
S516	3.600	3.200	B	2 19/32	2 5/8	1-1/16	4.50
S517	3.800	3.400	B	2 7/8	2 5/8	1-1/16	5.20
S518	4.000	3.600	B	3	2 5/8	1-1/16	5.90
S519	4.200	3.800	B	3 1/4	2 5/8	1-1/16	6.70
S520	4.400	4.000	B	3 3/8	2 5/8	1-1/16	7.50
S521	4.600	4.200	B	3 3/8	2 5/8	1-1/16	8.10
S522	4.800	4.400	B	3 3/8	2 5/8	1-1/16	8.80
S523	5.000	4.600	B	3 3/8	2 5/8	1-1/16	9.50
S524	5.200	4.800	B	3 3/8	3	1-1/16	11.00
S525	5.400	5.000	B	3 3/8	3	1-1/16	11.80
S526	5.600	5.200	B	3 3/8	3	1-1/16	12.90
S527	5.800	5.400	B	3 3/8	3	1-1/16	13.50
S528	6.000	5.600	B	3 3/8	3	1-1/16	14.30
S530	6.400	6.000	B	3 3/8	3	1-1/16	16.00
S532	6.800	6.400	B	4 1/4	3	1-1/16	18.00
S533	7.000	6.600	B	4 1/4	3	1-1/16	19.50
S535	7.400	7.000	B	4 1/4	3	1-3/16	22.80
S536	7.600	7.200	B	4 1/4	3	1-3/16	25.30
S539	8.200	7.800	B	4 1/4	3	1-3/16	26.90
S540	8.400	8.000	B	4 1/4	3	1-3/16	28.50
S542	8.800	8.400	B	4 5/8	3	1-3/16	33.00
S545	9.400	9.000	B	4 5/8	3	1-3/16	35.00
S548	10.000	9.500	B	4 3/4	3	1-3/16	39.50
S550	10.400	10.000	B	4 3/4	3	1-3/16	43.60
S552	10.800	10.400	B	4 3/4	3	1-3/16	46.70
S554	11.200	10.800	B	4 3/4	3	1-3/16	49.30
S555	11.400	11.000	B	4 3/4	3	1-3/16	52.00
S558	12.000	11.600	B	4 3/4	3	1-3/16	56.10
S560	12.400	12.000	B	4 3/4	3	1-3/16	60.90
S564	13.200	12.800	B	4 3/4	3	1-3/16	70.50
S570	14.400	14.000	B2	5	3	1-3/16	48.40
S580	16.400	16.000	B2	5	3	1-3/16	57.00

6 DP - 1 1/2" Face

Part No.	Diameter		Type	Hubs			Weight (Lbs)
	OD	PD		H	F + P	B	
S611	2.166	1.833	B	1 1/2	2 3/8	1	1.10
S612	2.333	2.000	B	1 1/2	2 3/8	1	1.10
S613	2.500	2.167	B	1 3/4	2 3/8	1	1.50
S614	2.666	2.333	B	1 13/16	2 3/8	1	1.80
S615	2.833	2.500	B	2	2 3/8	1	2.20
S616	3.000	2.666	B	2 5/32	2 3/8	1	2.60
S617	3.167	2.833	B	2 7/16	2 3/8	1	2.90
S618	3.333	3.000	B	2 1/2	2 3/8	1	3.50
S619	3.500	3.167	B	2 3/4	2 3/8	1	3.90
S620	3.666	3.333	B	2 27/32	2 3/8	1	4.60
S621	3.833	3.500	B	3	2 3/8	1	5.10
S622	4.000	3.666	B	3	2 3/8	1-1/8	5.50
S623	4.167	3.823	B	3	2 1/2	1-1/8	5.90
S624	4.333	4.000	B	3	2 1/2	1-1/8	6.50
S625	4.500	4.167	B	3	2 1/2	1-1/8	6.50
S626	4.666	4.330	B	3	2 1/2	1-1/8	6.80
S627	4.833	4.500	B	3	2 1/2	1-1/8	7.60
S628	5.000	4.666	B	3	2 1/2	1-1/8	8.30
S630	5.333	5.000	B	3 1/8	2 1/2	1-1/8	9.50
S632	5.666	5.333	B	3 1/8	2 1/2	1-1/8	10.70
S633	5.833	5.500	B	3 1/4	2 1/2	1-1/8	11.30
S635	6.167	5.833	B	3 1/4	2 1/2	1-1/8	12.20
S636	6.333	6.000	B	3 1/4	2 1/2	1-1/8	13.30
S639	6.833	6.500	B	4	2 1/2	1-1/8	16.60
S640	7.000	6.666	B	4	2 1/2	1-1/8	17.60
S642	7.333	7.000	B	4	2 1/2	1-1/8	18.90
S645	7.833	7.500	B	4	2 1/2	1-1/8	21.30
S648	8.333	8.000	B	4 1/8	2 1/2	1-1/8	24.30
S650	8.666	8.333	B	4 1/4	2 1/2	1-1/8	25.80
S652	9.000	8.666	B	4 1/4	2 1/2	1-1/8	27.90
S654	9.333	9.000	B	4 1/8	2 1/2	1-1/8	30.40
S655	9.500	9.166	B	4 3/8	2 1/2	1-1/8	31.80
S658	10.000	9.666	B	4 3/8	2 1/2	1-1/8	33.90
S660	10.333	10.000	B	4 3/8	2 3/4	1-1/4	34.30
S664	11.000	10.666	B	4 3/8	2 3/4	1-1/4	42.20
S666	11.333	11.000	B	4 3/8	2 3/4	1-1/4	50.00
S672	12.333	12.000	B	4 3/8	2 3/4	1-1/4	53.00

Sample Part:

S511

S = Steel

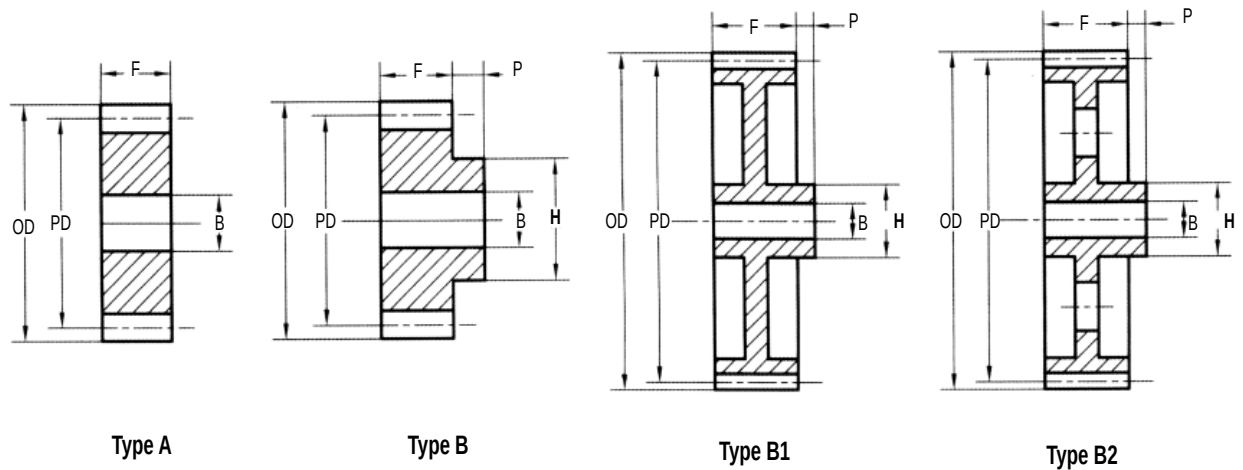
5 = Diametral Pitch

11 = No. Teeth

Bored to Size Gears
Available in Standard ANSI
or Metric (ISO) Bores,
Keyways and (2) Setscrews

American Standard (ANSI) MPB Steel Spur Gears

Pressure Angle 14½°



8 DP - 1 1/4" Face

Part No.	Diameter		Type	Hubs			Weight (Lbs)
	OD	PD		H	F + P	B	
S811	1.625	1.375	B	1 1/8	2	3/4	0.50
S812	1.750	1.500	B	1 1/8	2	3/4	0.50
S813	1.875	1.625	B	1 1/4	2	3/4	0.70
S814	2.000	1.750	B	1 3/8	2	3/4	0.90
S815	2.125	1.875	B	1 1/2	2	7/8	0.90
S816	2.250	2.000	B	1 5/8	2	7/8	1.10
S817	2.375	2.125	B	1 3/4	2	7/8	1.30
S818	2.500	2.250	B	1 7/8	2	7/8	1.60
S819	2.625	2.375	B	2	2	7/8	1.80
S820	2.750	2.500	B	2 1/8	2	7/8	2.00
S821	2.875	2.625	B	2 1/4	2	7/8	2.30
S822	3.000	2.750	B	2 3/8	2	7/8	2.60
S824	3.250	3.000	B	2 5/8	2 1/4	7/8	3.60
S825	3.375	3.125	B	2 5/8	2 1/4	7/8	3.80
S826	3.500	3.250	B	2 5/8	2 1/4	7/8	3.90
S828	3.750	3.500	B	2 5/8	2 1/4	7/8	4.40
S830	4.000	3.750	B	2 3/4	2 1/4	7/8	5.10
S832	4.250	4.000	B	2 7/8	2 1/4	1	5.60
S835	4.625	4.375	B	3	2 1/4	1	6.20
S836	4.750	4.500	B	3	2 1/4	1	7.00
S838	5.000	4.750	B	3	2 1/4	1	7.80
S840	5.250	5.000	B	3	2 1/4	1	8.30
S842	5.500	5.250	B	3	2 1/4	1	9.00
S844	5.750	5.500	B	3	2 1/4	1	9.70
S845	6.000	5.750	B	3	2 1/4	1	10.30
S848	6.250	6.000	B	3	2 1/4	1	11.30

10 DP - 1" Face

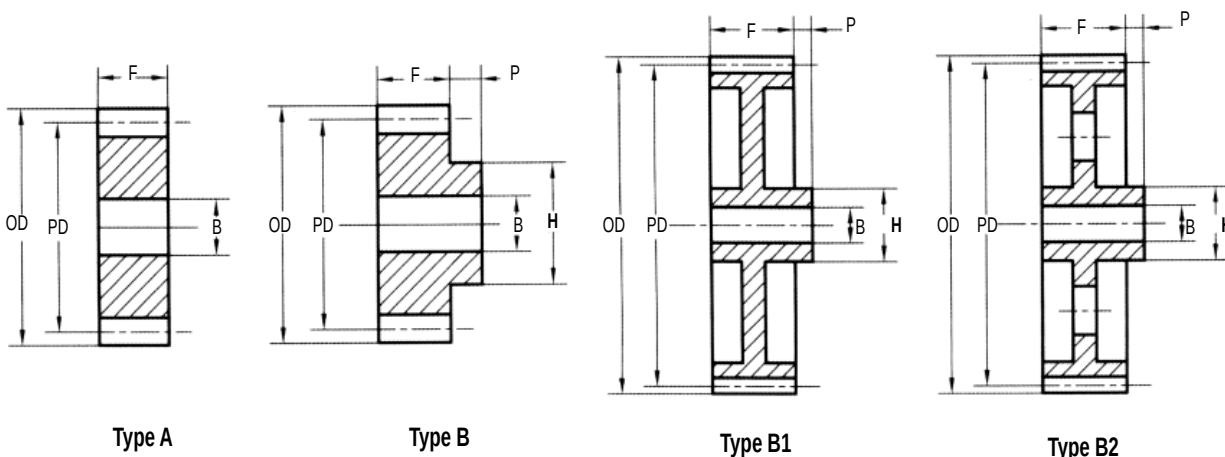
Part No.	Diameter		Type	Hubs			Weight (Lbs)
	OD	PD		H	F + P	B	
S1011	1.300	1.100	B	15/16	1 5/8	5/8	0.30
S1012	1.400	1.200	B	15/16	1 5/8	5/8	0.30
S1013	1.500	1.300	B	1	1 5/8	5/8	0.30
S1014	1.600	1.400	B	1 1/8	1 5/8	5/8	0.40
S1015	1.700	1.500	B	1 7/32	1 5/8	5/8	0.50
S1016	1.800	1.600	B	1 5/16	1 5/8	3/4	0.60
S1017	1.900	1.700	B	1 3/8	1 5/8	3/4	0.60
S1018	2.000	1.800	B	1 17/32	1 5/8	3/4	0.80
S1019	2.100	1.900	B	1 9/16	1 5/8	3/4	0.90
S1020	2.200	2.000	B	1 23/32	1 5/8	3/4	1.00
S1021	2.300	2.100	B	1 3/4	1 5/8	3/4	1.20
S1022	2.400	2.200	B	1 7/8	1 5/8	3/4	1.30
S1024	2.600	2.400	B	2 1/8	1 5/8	3/4	1.60
S1025	2.700	2.500	B	2 1/8	1 5/8	3/4	1.80
S1026	2.800	2.600	B	2 1/8	1 5/8	3/4	1.90
S1028	3.000	2.800	B	2 1/8	1 7/8	3/4	2.30
S1030	3.200	3.000	B	2 1/8	1 7/8	3/4	2.60
S1032	3.400	3.200	B	2 1/8	1 7/8	3/4	2.90
S1035	3.700	3.500	B	2 1/4	1 7/8	3/4	3.40
S1036	3.800	3.600	B	2 1/4	1 7/8	3/4	3.50
S1038	4.000	3.800	B	2 1/4	1 7/8	3/4	3.80
S1040	4.200	4.000	B	2 1/4	1 7/8	7/8	4.10
S1042	4.400	4.200	B	2 1/4	1 7/8	7/8	4.50
S1044	4.600	4.400	B	2 1/2	1 7/8	7/8	5.00
S1045	4.700	4.500	B	2 1/2	1 7/8	7/8	5.30
S1048	5.000	4.800	B	2 1/2	1 7/8	7/8	5.90
S1050	5.200	5.000	B	2 1/2	1 7/8	7/8	6.40
S1054	5.600	5.400	B	2 1/2	1 7/8	7/8	7.80
S1055	5.700	5.500	B	2 1/2	1 7/8	7/8	7.90
S1060	6.200	6.000	B	2 1/2	1 7/8	7/8	8.70

Sample Part:
S811
S = Steel
8 = Diametral Pitch
11 = No. Teeth

Bored to Size Gears
 Available in Standard ANSI
 or Metric (ISO) Bores,
 Keyways and (2) Setscrews

American Standard (ANSI) MPB Steel Spur Gears

Pressure Angle 14½°



12 DP - 3/4" Face

Part No.	Diameter		Type	Hubs			Weight (Lbs)
	OD	PD		H	F + P	B	
S1211	1.083	0.917	B	3/4	1 1/4	1/2	0.14
S1212	1.167	1.000	B	3/4	1 1/4	1/2	0.16
S1213	1.250	1.083	B	13/16	1 1/4	1/2	0.20
S1214	1.333	1.167	B	29/32	1 1/4	1/2	0.24
S1215	1.417	1.250	B	1	1 3/8	5/8	0.27
S1216	1.500	1.333	B	1 1/6	1 3/8	5/8	0.34
S1217	1.580	1.413	B	1 1/8	1 3/8	5/8	0.36
S1218	1.667	1.500	B	1 1/4	1 3/8	5/8	0.42
S1219	1.750	1.583	B	1 5/16	1 3/8	5/8	0.48
S1220	1.833	1.667	B	1 13/32	1 3/8	5/8	0.56
S1221	1.917	1.750	B	1 1/2	1 3/8	5/8	0.64
S1222	2.000	1.833	B	1 9/16	1 3/8	5/8	0.70
S1223	2.083	1.917	B	1 5/8	1 3/8	5/8	0.78
S1224	2.166	2.000	B	1 3/4	1 3/8	5/8	0.88
S1225	2.250	2.083	B	1 27/32	1 3/8	5/8	0.96
S1226	2.333	2.167	B	1 15/16	1 3/8	5/8	1.14
S1228	2.500	2.333	B	2 1/16	1 3/8	5/8	1.34
S1230	2.667	2.500	B	2 1/4	1 3/8	5/8	1.60
S1232	2.833	2.667	B	2 1/4	1 3/8	5/8	1.72
S1234	3.000	2.833	B	2 1/4	1 3/8	5/8	1.88
S1236	3.167	3.000	B	2 1/2	1 3/8	5/8	2.20
S1238	3.333	3.167	B	2 1/2	1 3/8	5/8	2.38
S1240	3.500	3.333	B	2 1/2	1 3/8	5/8	2.54
S1242	3.666	3.500	B	2 1/2	1 3/8	5/8	2.72
S1244	3.833	3.667	B	2 1/2	1 3/8	5/8	2.94
S1248	4.166	4.000	B	2 1/2	1 3/8	5/8	3.50
S1252	4.500	4.333	B	2 3/4	1 1/2	5/8	3.90
S1254	4.666	4.500	B	2 3/4	1 1/2	3/4	4.40
S1256	4.833	4.667	B	2 3/4	1 1/2	3/4	4.60
S1260	5.166	5.000	B	2 3/4	1 1/2	3/4	5.14
S1264	5.500	5.333	B	2 3/4	1 1/2	3/4	5.74
S1266	5.665	5.500	B	2 3/4	1 1/2	3/4	6.02
S1268	5.830	5.665	B	2 3/4	1 1/2	3/4	6.60
S1272	6.166	6.000	B	2 3/4	1 1/2	3/4	7.02

16 DP - 1/2" Face

Part No.	Diameter		Type	Hubs			Weight (Lbs)
	OD	PD		H	F + P	B	
S1611	0.813	0.687	B	9/16	15/16	3/8	0.06
S1612	0.875	0.750	B	9/16	15/16	3/8	0.06
S1613	0.937	0.812	B	5/8	15/16	3/8	0.08
S1614	1.000	0.875	B	11/16	15/16	3/8	0.08
S1615	1.062	0.937	B	3/4	15/16	1/2	0.10
S1616	1.125	1.000	B	13/16	15/16	1/2	0.12
S1617	1.187	1.062	B	7/8	15/16	1/2	0.14
S1618	1.250	1.125	B	15/16	15/16	1/2	0.16
S1619	1.312	1.187	B	1	15/16	1/2	0.20
S1620	1.375	1.250	B	1 1/16	15/16	1/2	0.22
S1621	1.438	1.312	B	1 1/8	15/16	1/2	0.24
S1622	1.500	1.375	B	1 3/16	15/16	1/2	0.28
S1623	1.562	1.437	B	1 1/4	15/16	1/2	0.32
S1624	1.625	1.500	B	1 5/16	15/16	1/2	0.34
S1625	1.688	1.562	B	1 3/8	15/16	1/2	0.42
S1626	1.750	1.625	B	1 7/16	15/16	1/2	0.49
S1628	1.875	1.750	B	1 1/2	1	1/2	0.52
S1630	2.000	1.875	B	1 5/8	1	1/2	0.60
S1632	2.125	2.000	B	1 3/4	1	1/2	0.70
S1634	2.250	2.125	B	1 7/8	1	1/2	0.80
S1636	2.375	2.250	B	2	1	1/2	0.92
S1638	2.500	2.375	B	2	1	1/2	0.98
S1640	2.626	2.500	B	2	1	1/2	1.10
S1642	2.750	2.626	B	2	1	1/2	1.20
S1644	2.875	2.750	B	2	1	1/2	1.30
S1648	3.125	3.000	B	2	1	1/2	1.40
S1652	3.375	3.250	B	2	1	1/2	1.50
S1654	3.500	3.375	B	2	1	1/2	1.60
S1656	3.625	3.500	B	2	1	1/2	1.70
S1660	3.875	3.750	B	2	1	1/2	1.90
S1664	4.125	4.000	B	2	1 1/8	5/8	2.20
S1666	4.250	4.125	B	2 1/4	1 1/8	5/8	2.50
S1668	4.375	4.250	B	2 1/4	1 1/8	5/8	2.70
S1672	4.625	4.500	B	2 1/4	1 1/8	5/8	2.80
S1680	5.125	5.000	B	2 1/4	1 1/8	5/8	3.40
S1684	5.375	5.250	B	2 1/4	1 1/8	5/8	3.60
S1688	5.625	5.500	B	2 1/4	1 1/8	5/8	3.90
S1696	6.125	6.000	B	2 1/4	1 1/8	5/8	4.60
S16102	-	-	-	-	-	5/8	-

Sample Part:

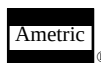
S1211

S = Steel

12 = Diametral Pitch

11 = No. Teeth

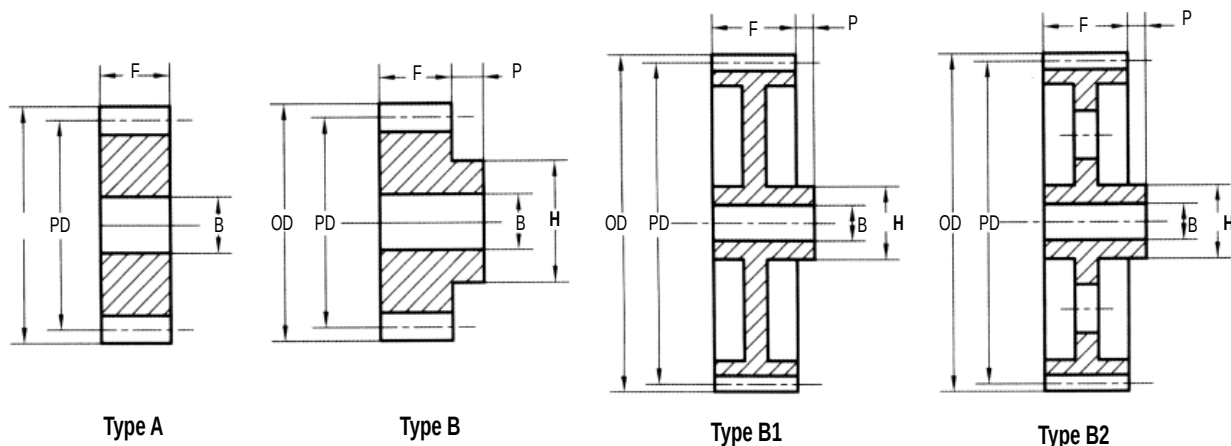
Bored to Size Gears
Available in Standard ANSI
or Metric (ISO) Bores,
Keyways and (2) Setscrews



American Metric® Corporation

American Standard (ANSI) MPB Steel Spur Gears

Pressure Angle 14½°



20 DP - 3/8" Face

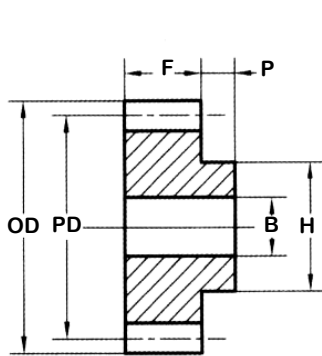
Part No.	Diameter		Type	Hubs			Weight (Lbs)
	OD	PD		H	F + P	B	
S2011	0.650	0.550	B	15/32	3/4	5/16	0.02
S2012	0.700	0.600	B	15/32	3/4	5/16	0.02
S2013	0.750	0.650	B	1/2	3/4	5/16	0.04
S2014	0.800	0.700	B	35/64	3/4	5/16	0.04
S2015	0.850	0.750	B	39/64	3/4	3/8	0.04
S2016	0.900	0.800	B	21/32	3/4	3/8	0.04
S2017	0.950	0.850	B	45/64	3/4	3/8	0.08
S2018	1.000	0.900	B	3/4	3/4	3/8	0.08
S2019	1.050	0.950	B	51/64	3/4	3/8	0.10
S2020	1.100	1.000	B	55/64	3/4	3/8	0.12
S2021	1.150	1.050	B	7/8	3/4	3/8	0.12
S2022	1.200	1.100	B	31/32	3/4	3/8	0.14
S2023	1.250	1.150	B	31/32	3/4	3/8	0.16
S2024	1.300	1.200	B	1 1/16	3/4	3/8	0.19
S2025	1.350	1.250	B	1 17/64	3/4	3/8	0.20
S2026	1.400	1.300	B	1 17/64	3/4	3/8	0.22
S2027	1.450	1.350	B	1 1/4	3/4	3/8	0.24
S2028	1.500	1.400	B	1 5/16	3/4	3/8	0.26
S2030	1.600	1.500	B	1 23/64	3/4	3/8	0.30
S2032	1.700	1.600	B	1 7/16	7/8	3/8	0.40
S2033	1.750	1.650	B	1 5/8	7/8	3/8	0.45
S2035	1.850	1.750	B	1 9/16	7/8	3/8	0.50
S2036	1.900	1.800	B	1 5/8	7/8	3/8	0.52
S2040	2.100	2.000	B	1 13/16	7/8	3/8	0.64
S2042	2.200	2.100	B	2	7/8	3/8	0.70
S2044	2.300	2.200	B	2	7/8	3/8	0.73
S2045	2.350	2.250	B	2	7/8	3/8	0.82
S2048	2.500	2.400	B	2	7/8	3/8	0.88
S2050	2.600	2.500	B	2	7/8	3/8	0.90
S2054	2.800	2.700	B	2	7/8	3/8	0.95
S2055	2.850	2.750	B	2	7/8	3/8	1.04
S2056	2.900	2.800	B	2	7/8	3/8	1.10
S2060	3.100	3.000	B	2	7/8	3/8	1.16
S2064	3.300	3.200	B	2	7/8	3/8	1.26
S2066	3.400	3.300	B	2	7/8	3/8	1.32
S2068	-	-	B	2	7/8	3/8	-
S2070	3.600	3.500	B	2	7/8	3/8	1.40
S2072	3.700	3.600	B	2-1/4	7/8	3/8	1.60
S2075	3.850	3.750	B	2-1/4	7/8	3/8	1.70
S2080	4.100	4.000	B	2-1/4	7/8	1/2	1.82
S2084	4.300	4.200	B	2-1/4	7/8	1/2	1.96
S2090	4.600	4.500	B	2-1/4	7/8	1/2	2.20
S2096	4.900	4.800	B	2-1/4	7/8	1/2	2.42
S20100	5.100	5.000	B	2-1/4	7/8	1/2	2.60
S20112	5.700	5.600	B	1-3/4	7/8	1/2	2.86
S20120	6.100	6.000	B	1-3/4	7/8	1/2	3.24
S20132	6.700	6.600	B	1-3/4	7/8	1/2	3.80

24 DP - 1/4" Face

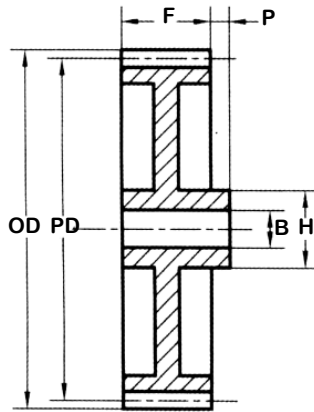
Part No.	Diameter		Type	Hubs			Weight (Lbs)
	OD	PD		H	F + P	B	
S2411	0.542	0.458	B	3/8	9/16	1/4	0.02
S2412	0.583	0.500	B	3/8	9/16	1/4	0.02
S2413	0.625	0.542	B	7/16	9/16	1/4	0.03
S2414	0.666	0.583	B	15/32	9/16	1/4	0.04
S2415	0.708	0.625	B	1/2	9/16	1/4	0.04
S2416	0.750	0.666	B	35/64	9/16	5/16	0.04
S2417	0.791	0.709	B	9/16	9/16	5/16	0.04
S2418	0.833	0.750	B	5/8	9/16	5/16	0.04
S2419	0.875	0.791	B	5/8	9/16	5/16	0.06
S2420	0.917	0.833	B	23/32	9/16	5/16	0.06
S2421	0.959	0.875	B	3/4	9/16	3/8	0.06
S2422	1.000	0.917	B	3/4	9/16	3/8	0.06
S2423	1.042	0.959	B	13/16	5/8	3/8	0.08
S2424	1.083	1.000	B	7/8	5/8	3/8	0.10
S2425	1.125	1.042	B	7/8	5/8	3/8	0.10
S2426	1.166	1.083	B	7/8	5/8	3/8	0.10
S2427	1.208	1.125	B	7/8	5/8	3/8	0.12
S2428	1.250	1.166	B	1	5/8	3/8	0.14
S2430	1.333	1.250	B	1	5/8	3/8	0.16
S2432	1.416	1.333	B	1 1/8	5/8	3/8	0.18
S2433	1.458	1.375	B	1 1/8	5/8	3/8	0.20
S2435	1.541	1.458	B	1 1/8	5/8	3/8	0.20
S2436	1.583	1.500	B	1 1/8	5/8	3/8	0.20
S2439	-	-	-	-	-	3/8	-
S2440	1.750	1.666	B	1 1/8	5/8	3/8	0.24
S2442	1.833	1.750	B	1 1/4	5/8	3/8	0.28
S2444	1.917	1.833	B	1 1/4	5/8	3/8	0.30
S2445	1.959	1.875	B	1 1/4	5/8	3/8	0.30
S2448	2.083	2.000	B	1 1/4	5/8	3/8	0.32
S2450	2.166	2.083	B	1 1/4	5/8	3/8	0.35
S2454	2.333	2.250	B	1 1/4	5/8	3/8	0.38
S2455	2.374	2.291	B	1 1/4	5/8	3/8	0.39
S2456	2.416	2.333	B	1 1/4	5/8	3/8	0.40
S2460	2.583	2.500	B	1 1/4	5/8	3/8	0.46
S2464	2.749	2.666	B	1 1/4	5/8	3/8	0.49
S2466	2.833	2.750	B	1 1/4	5/8	3/8	0.52
S2470	3.000	2.917	B	1 3/8	3/4	3/8	0.58
S2472	3.083	3.000	B	1 3/8	3/4	1/2	0.64
S2484	3.583	3.500	B	1 1/2	3/4	1/2	0.88
S2496	4.083	4.000	B	1 1/2	3/4	1/2	1.08
S24120	5.083	5.000	B	1 1/2	3/4	1/2	2.60
S24144	6.083	6.000	B	1 5/8	27/32	1/2	2.28

American Standard (ANSI) MPB Cast Iron Spur Gears

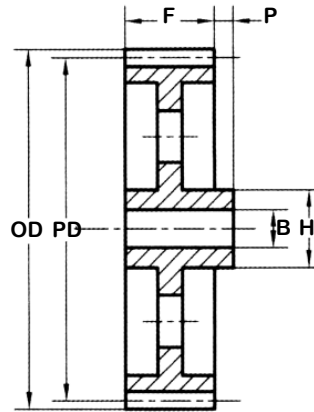
Pressure Angle 14½°



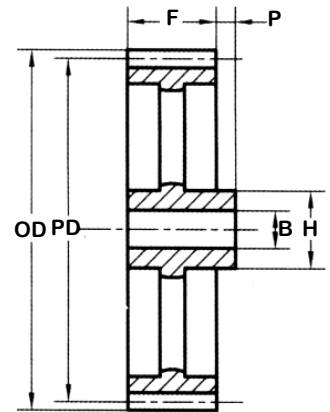
Type B



Type B1



Type B2



Type B3

3 DP - 3" Face

Part No.	Diameter		Type	Hubs			Weight (Lbs)
	OD	PD		H	F + P	B	
C340	14.000	13.333	B2	5 1/2	4 3/4	1 7/16	75.90
C342	14.666	14.000	B2	5 1/2	4 3/4	1 7/16	79.50
C344	15.333	14.666	B2	5 1/2	4 3/4	1 7/16	82.00
C348	16.666	16.000	B3	5 1/2	4 3/4	1 9/16	92.90
C354	18.666	18.000	B3	5 1/2	4 3/4	1 9/16	104.00
C356	19.333	18.666	B3	5 1/2	4 3/4	1 9/16	108.00
C360	20.666	20.000	B3	5 1/2	4 3/4	1 9/16	115.00
C364	22.000	21.333	B3	6	4 3/4	1 9/16	125.00
C372	24.666	24.000	B3	6	4 3/4	1 9/16	153.00
C380	27.333	26.666	B3	6	4 3/4	1 9/16	169.00
C384	28.666	28.000	B3	6	4 3/4	1 11/16	178.00
C388	30.000	29.333	B3	6	4 3/4	1 11/16	181.00
C396	32.666	32.000	B3	6	4 3/4	1 11/16	205.00
C3108	36.666	36.000	B3	6	4 3/4	1 11/16	228.00
C3120	40.000	40.666	B3	6 1/2	4 3/4	1 11/16	256.00

4 DP - 2" Face

Part No.	Diameter		Type	Hubs			Weight (Lbs)
	OD	PD		H	F + P	B	
C454	14.000	13.500	B3	4	3 1/2	1 1/4	44.70
C456	14.500	14.000	B3	4	3 1/2	1 1/4	46.70
C460	15.500	15.000	B3	4	3 1/2	1 1/4	49.50
C464	16.500	16.000	B3	4	3 1/2	1 1/4	54.50
C472	18.500	18.000	B3	4 1/2	3 1/2	1 1/4	63.00
C480	20.500	20.000	B3	4 1/2	3 1/2	1 3/8	72.00
C484	21.500	21.000	B3	4 1/2	3 1/2	1 3/8	73.00
C488	22.500	22.000	B3	4 1/2	3 3/4	1 3/8	75.00
C496	24.500	24.000	B3	4 1/2	3 3/4	1 3/8	86.00
C4108	27.500	27.000	B3	5	3 3/4	1 3/8	107.00
C4120	30.500	30.000	B3	5	3 3/4	1 3/8	115.00
C4144	19.250	36.000	B3	5 1/2	3 3/4	1 3/8	140.00

5 DP - 1 3/4" Face

Part No.	Diameter		Type	Hubs			Weight (Lbs)
	OD	PD		H	F + P	B	
C580	16.400	16.000	B3	4	3	1 3/16	40.80
C590	18.400	18.000	B3	4	3	1 3/16	45.40
C5100	20.400	20.000	B3	4 1/2	3 1/4	1 5/16	54.40
C5110	-	-	-	-	-	1 5/16	-
C5120	24.400	24.000	B3	4 3/4	3 1/4	1 5/16	56.10

6 DP - 1 1/2" Face

Part No.	Diameter		Type	Hubs			Weight (Lbs)
	OD	PD		H	F + P	B	
C658	10.000	9.666	B3	3 1/4	2 1/2	1 1/8	16.60
C660	10.333	10.000	B3	3 1/4	2 3/4	1 1/4	17.00
C664	11.000	10.666	B3	3 1/4	2 3/4	1 1/4	18.50
C666	11.333	11.000	B3	3 1/4	2 3/4	1 1/4	19.00
C672	12.333	12.000	B3	3 1/2	2 3/4	1 1/4	23.70
C684	14.333	14.000	B3	3 1/2	2 3/4	1 1/4	26.00
C696	16.333	16.000	B3	3 1/2	2 3/4	1 1/4	28.00
C6108	18.333	18.000	B3	3 3/4	2 3/4	1 1/4	32.00
C6120	20.333	20.000	B3	3 3/4	3	1 1/4	34.80
C6132	22.333	22.000	B3	3 3/4	3	1 1/4	43.40
C6144	24.333	24.000	B3	4	3	1 1/4	45.20

Sample Part:

C340

C = Cast Iron

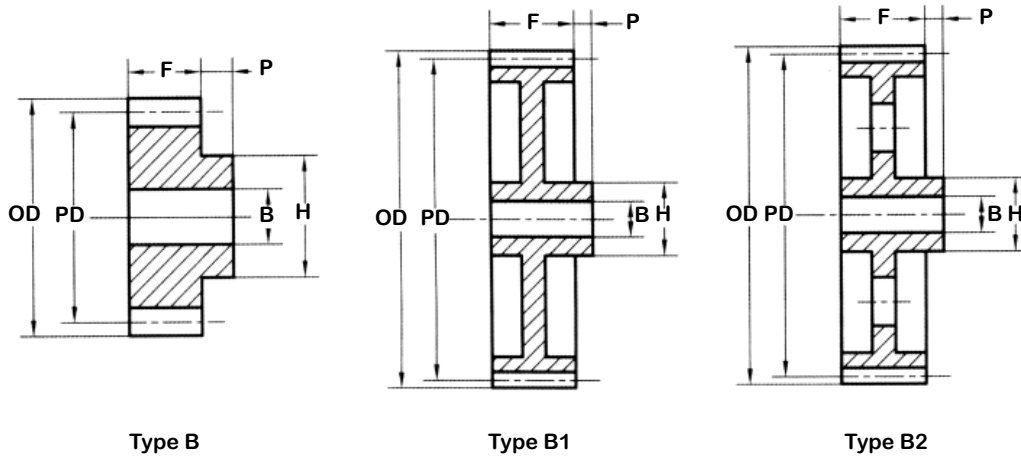
3 = Diametral Pitch

40 = No. Teeth

Bored to Size Gears
Available in Standard ANSI
or Metric (ISO) Bores,
Keyways and (2) Setscrews

American Standard (ANSI) MPB Steel Spur Gears

Pressure Angle 20°



4 DP - 3 1/2" Face

Part No.	Diameter		Type	Hubs			Weight (Lbs)
	OD	PD		H	F + P	B	
20S412	3.500	3.000	B	2 17/64	4 3/8	1-1/8	6.8
20S414	4.000	3.500	B	2 49/64	4 3/8	1-1/8	9.8
20S415	4.250	3.750	B	3 1/64	4 3/8	1-1/8	11.5
20S416	4.500	4.000	B	3 17/64	4 3/8	1-1/8	13.3
20S418	5.000	4.500	B	3 49/64	4 3/8	1-1/8	17.3
20S420	5.500	5.000	B	4 17/64	4 3/8	1-1/8	21.8
20S422	6.000	5.500	B	4 49/64	4 3/8	1-1/8	26.7
20S424	6.500	6.000	B	5	4 3/4	1-1/8	33.7
20S428	7.500	7.000	B	5	4 3/4	1-1/8	43.8
20S430	8.000	7.500	B	5	4 3/4	1-1/8	49.4
20S432	8.500	8.000	B	5	5	1-1/4	56.8
20S435	9.250	8.750	B	5	5	1-1/4	65.1
20S436	9.500	9.000	B	5	5	1-1/4	70.0
20S440	10.500	10.000	B	5 1/8	5	1-1/4	85.2
20S444	11.500	11.000	B	5 1/8	5	1-1/4	101.6
20S445	11.750	11.250	B	5 1/8	5	1-1/4	108.7
20S448	12.500	12.000	B	5 1/8	5	1-1/4	119.5
20S450	13.000	12.500	B	5 1/8	5	1-1/4	125.6
20S456	14.500	14.000	B1	5 1/2	5	1-1/4	96.9
20S460	15.500	15.000	B1	5 1/2	5	1-1/4	88.1
20S464	16.500	16.000	B1	5 1/2	5	1-1/4	86.9

5 DP - 2 1/2" Face

Part No.	Diameter		Type	Hubs			Weight (Lbs)
	OD	PD		H	F + P	B	
20S512	2.80	2.40	B	1 25/32	3 3/8	1-1/8	2.9
20S514	3.20	2.80	B	2 3/16	3 3/8	1-1/8	4.3
20S515	3.40	3.00	B	2 3/8	3 3/8	1-1/8	5.2
20S516	3.60	3.20	B	2 19/32	3 3/8	1-1/8	6.1
20S518	4.00	3.60	B	3	3 3/8	1-1/8	8.0
20S520	4.40	4.00	B	3 3/8	3 3/8	1-1/8	10.2
20S522	4.80	4.40	B	3 3/4	3 3/4	1-1/8	13.8
20S524	5.20	4.80	B	3 3/4	3 3/4	1-1/8	15.7
20S525	5.40	5.00	B	3 3/4	3 3/4	1-1/8	20.3
20S528	6.00	5.60	B	3 3/4	3 3/4	1-1/8	22.9
20S530	6.40	6.00	B	3 3/4	3 3/4	1-1/8	23.9
20S532	6.80	6.40	B	3 3/4	3 3/4	1-1/8	25.6
20S535	7.40	7.00	B	3 3/4	3 3/4	1-1/4	29.9
20S536	7.60	7.20	B	3 3/4	3 3/4	1-1/4	35.
20S540	8.40	8.00	B	3 3/4	3 3/4	1-1/4	38.2
20S544	9.20	8.80	B	3 3/4	3 3/4	1-1/4	43.5
20S545	9.40	9.00	B	3 3/4	3 3/4	1-1/4	47.7
20S548	10.00	9.60	B	3 3/4	3 3/4	1-1/4	55.1
20S550	10.40	10.00	B	4 5/8	3 3/4	1-1/4	60.3
20S556	11.60	11.20	B	4 5/8	3 3/4	1-1/4	75.8
20S560	12.40	12.00	B	4 5/8	3 3/4	1-1/4	84.7

Sample Part:

20S412

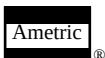
20 = Degrees Pressure Angle

S = Steel

4 = Diametral Pitch

12 = No. Teeth

Bored to Size Gears
Available in Standard ANSI
or Metric (ISO) Bores,
Keyways and (2) Setscrews



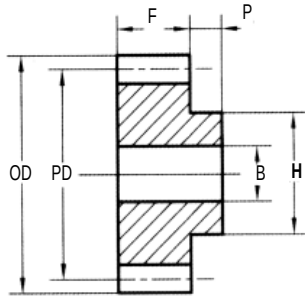
American Metric® Corporation

GROUP: 125

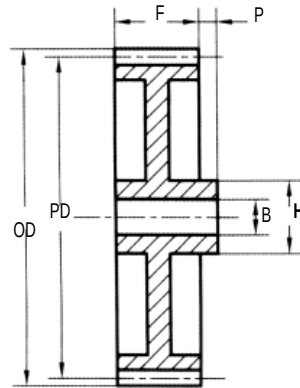
1-125-120803

American Standard (ANSI) MPB Steel Spur Gears

Pressure Angle 20°



Type B



Type B2

6 DP - 2" Face

Part No.	Diameter		Type	Hubs			Weight (Lbs)
	OD	PD		H	F + P	B	
20S611	2.333	2.000	B	1 1/2	2 7/8	1	1.6
20S612	2.333	2.000	B	1 1/2	2 7/8	1	1.6
20S614	2.666	2.333	B	1 13/16	2 7/8	1	2.4
20S615	2.833	2.500	B	2	2 7/8	1	2.9
20S616	3.000	2.666	B	2 1/8	2 7/8	1	3.4
20S618	3.333	3.000	B	2 1/2	2 7/8	1	4.6
20S619	3.500	3.167	B	2 5/8	2 7/8	1	5.1
20S620	3.666	3.333	B	2 3/4	2 7/8	1	5.9
20S621	3.833	3.500	B	3	2 7/8	1	6.6
20S622	4.000	3.666	B	3	2 7/8	1	7.5
20S624	4.333	4.000	B	3	2 7/8	1-1/8	8.1
20S626	4.666	4.333	B	3 1/2	2 7/8	1-1/8	9.5
20S627	4.833	4.500	B	3 1/2	2 7/8	1-1/8	10.6
20S628	5.000	4.666	B	3 1/2	2 7/8	1-1/8	12.0
20S630	5.333	5.000	B	4	2 7/8	1-1/8	13.4
20S632	5.666	5.333	B	4	2 7/8	1-1/8	15.5
20S633	5.833	5.500	B	4	3 1/2	1-1/8	17.8
20S636	6.333	6.000	B	4	3 1/2	1-1/8	20.4
20S640	7.000	6.666	B	4	3 1/2	1-1/8	22.5
20S642	7.333	7.000	B	4	3 1/2	1-1/8	26.2
20S644	7.666	7.333	B	4	3 1/2	1-1/8	29.5
20S648	8.333	8.000	B	4	3 1/2	1-1/8	32.8
20S654	9.333	9.000	B	4	3 1/2	1-1/8	40.4
20S660	10.333	10.000	B	4 5/8	3 1/2	1-1/4	50.0
20S664	11.000	10.666	B	4 5/8	3 1/2	1-1/4	56.5
20S672	12.333	12.000	B	4 5/8	3 1/2	1-1/4	70.0

8 DP - 1 1/2" Face

Part No.	Diameter		Type	Hubs			Weight (Lbs)
	OD	PD		H	F + P	B	
20S811	1.750	1.500	B	1 1/16	2 1/4	3/4	0.7
20S812	1.750	1.500	B	1 1/8	2 1/4	3/4	1.2
20S814	2.000	1.750	B	1 5/16	2 1/4	3/4	1.2
20S815	2.125	1.875	B	1 7/16	2 1/4	3/4	1.4
20S816	2.250	2.000	B	1 9/16	2 3/8	7/8	1.9
20S818	2.500	2.250	B	1 13/16	2 3/8	7/8	2.3
20S819	2.626	2.375	B	2	2 3/8	7/8	2.5
20S820	2.750	2.500	B	2 1/16	2 3/8	7/8	3.2
20S821	2.875	2.625	B	2 5/16	2 3/8	7/8	3.6
20S822	3.000	2.750	B	2 7/16	2 3/8	7/8	3.9
20S824	3.250	3.000	B	2 9/16	2 3/8	7/8	4.6
20S826	3.500	3.250	B	2 3/4	2 3/8	7/8	5.2
20S827	3.625	3.375	B	2 3/4	2 3/8	7/8	5.4
20S828	3.750	3.500	B	2 3/4	2 3/8	7/8	5.6
20S830	4.000	3.750	B	-	2 3/8	1	6.6
20S832	4.250	4.000	B	3 1/4	2 3/8	1	8.6
20S833	4.375	4.125	B	3 1/2	2 3/8	1	9.4
20S836	4.750	4.500	B	3 1/2	2 3/8	1	10.2
20S840	5.250	5.000	B	3 1/2	2 3/8	1	11.4
20S842	5.500	5.250	B	3 1/2	2 1/2	1	12.3
20S844	5.750	5.500	B	3 1/2	2 1/2	1	13.5
20S848	6.250	6.000	B	3 1/2	2 1/2	1	14.2

Sample Part:

20S611

20 = Degrees Pressure Angle

S = Steel

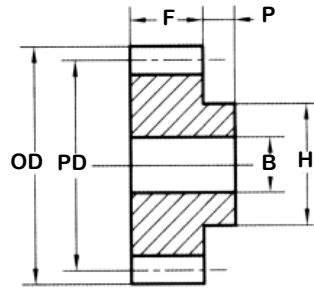
6 = Diametral Pitch

11 = No. Teeth

Bored to Size Gears
Available in Standard ANSI
or Metric (ISO) Bores,
Keyways and (2) Setscrews

American Standard (ANSI) MPB Steel Spur Gears

Pressure Angle 20°



Type B

10 DP - 1 1/4" Face

Part No.	Diameter		Type	Hubs			Weight (Lbs)
	OD	PD		H	F + P	B	
20S1012	1.40	1.20	B	29/32	1 7/8	5/8	0.40
20S1013	1.50	1.30	B	1	1 7/8	5/8	0.50
20S1014	1.60	1.40	B	1 7/64	1 7/8	3/4	0.60
20S1015	1.70	1.50	B	1 7/32	1 7/8	3/4	0.70
20S1016	1.80	1.60	B	1 5/16	1 7/8	3/4	0.80
20S1018	2.00	1.80	B	1 11/32	1 7/8	3/4	0.90
20S1019	2.10	1.90	B	1 9/16	1 7/8	3/4	1.10
20S1020	2.20	2.00	B	1 39/64	1 7/8	7/8	1.20
20S1021	2.30	2.10	B	1 3/4	1 7/8	7/8	1.30
20S1022	2.40	2.20	B	1 13/16	1 7/8	7/8	1.50
20S1024	2.60	2.40	B	2 1/64	1 7/8	7/8	1.80
20S1025	2.70	2.50	B	2 7/64	1 7/8	7/8	2.00
20S1026	2.80	2.60	B	2 1/8	1 7/8	7/8	2.20
20S1028	3.00	2.80	B	2 13/32	1 7/8	7/8	2.70
20S1030	3.20	3.00	B	2 1/2	1 7/8	7/8	3.40
20S1032	3.40	3.20	B	2 1/2	2 1/8	7/8	3.70
20S1035	3.70	3.50	B	2 1/2	2 1/8	1	4.20
20S1036	3.80	3.60	B	2 1/2	2 1/8	1	4.30
20S1040	4.20	4.00	B	3 1/2	2 1/8	1	6.40
20S1042	4.40	4.20	B	3 1/2	2 1/8	1	6.90
20S1045	4.70	4.50	B	3 1/2	2 1/8	1	7.50
20S1048	5.00	4.80	B	3 3/4	2 1/8	1	8.70
20S1050	5.20	5.00	B	4	2 1/8	1	9.90
20S1054	5.60	5.40	B	4	2 1/4	1	10.80
20S1055	5.70	5.50	B	4	2 1/4	1	11.50
20S1060	6.20	6.00	B	4	2 1/4	1	13.1

12 DP - 1" Face

Part No.	Diameter		Type	Hubs			Weight (Lbs)
	OD	PD		H	F + P	B	
20S1212	1.167	1.000	B	3/4	1 5/8	1/2	0.21
20S1213	1.250	1.083	B	13/16	1 5/8	5/8	0.21
20S1214	1.333	1.167	B	29/32	1 5/8	5/8	0.28
20S1215	1.417	1.250	B	63/64	1 5/8	5/8	0.34
20S1216	1.500	1.333	B	1 1/16	1 5/8	5/8	0.41
20S1218	1.667	1.500	B	1 1/4	1 5/8	3/4	0.51
20S1219	1.750	1.583	B	1 5/16	1 5/8	3/4	0.59
20S1220	1.833	1.667	B	1 5/16	1 5/8	3/4	0.65
20S1221	1.917	1.750	B	1 25/64	1 5/8	3/4	0.75
20S1222	2.000	1.833	B	1 9/16	1 5/8	3/4	0.88
20S1224	2.166	2.000	B	1 41/64	1 5/8	3/4	1.06
20S1225	2.250	2.083	B	1 13/16	1 5/8	3/4	1.22
20S1226	2.333	2.167	B	1 7/8	1 5/8	3/4	1.33
20S1228	2.500	2.333	B	2 1/16	1 5/8	3/4	1.60
20S1230	2.667	2.500	B	2 5/32	1 5/8	3/4	1.83
20S1232	2.833	2.667	B	2 1/4	1 5/8	3/4	2.08
20S1235	3.084	2.917	B	2 1/4	1 5/8	3/4	2.50
20S1236	3.167	3.000	B	2 1/2	1 7/8	3/4	2.98
20S1240	3.500	3.333	B	2 1/2	1 7/8	3/4	3.25
20S1242	3.666	3.500	B	2 1/2	1 7/8	7/8	3.71
20S1245	3.917	3.750	B	2 1/2	1 7/8	7/8	4.50
20S1248	4.166	4.000	B	3	1 7/8	7/8	4.99
20S1250	4.333	4.166	B	3 1/2	1 7/8	7/8	5.80
20S1254	4.666	4.500	B	3 1/2	1 7/8	7/8	6.51
20S1255	4.750	4.583	B	3 1/2	1 7/8	7/8	7.25
20S1260	5.166	5.000	B	3 1/2	1 7/8	7/8	7.63
20S1266	5.666	5.500	B	3 1/2	1 7/8	7/8	8.80
20S1272	6.166	6.000	B	3 1/2	1 7/8	7/8	10.08

Sample Part:

20S1012

20 = Degrees Pressure Angle

S = Steel

10 = Diametral Pitch

12 = No. Teeth

Bored to Size Gears
Available in Standard ANSI
or Metric (ISO) Bores,
Keyways and (2) Setscrews



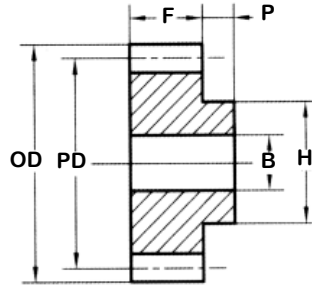
American Metric® Corporation

GROUP: 125

1-125-120803

American Standard (ANSI) MPB Steel Spur Gears

Pressure Angle 20°



Type B

16 DP - 3/4" Face

Part No.	Diameter		Type	Hubs			Weight (Lbs)
	OD	PD		H	F + P	B	
20S1612	0.875	0.750	B	9/16	1 1/4	3/8	0.09
20S1613	0.938	0.812	B	5/8	1 1/4	3/8	0.11
20S1614	1.000	0.875	B	11/16	1 1/4	3/8	0.14
20S1615	1.063	0.937	B	3/4	1 1/4	3/8	0.17
20S1616	1.125	1.000	B	13/16	1 1/4	1/2	0.17
20S1617	1.188	1.062	B	7/8	1 1/4	1/2	0.20
20S1618	1.250	1.125	B	15/16	1 1/4	1/2	0.24
20S1620	1.375	1.250	B	1 1/16	1 1/4	5/8	0.28
20S1621	1.438	1.312	B	1 1/8	1 1/4	5/8	0.32
20S1622	1.500	1.375	B	1 3/16	1 1/4	5/8	0.36
20S1624	1.625	1.500	B	1 5/16	1 1/4	5/8	0.46
20S1625	1.688	1.562	B	1 3/8	1 1/4	5/8	0.48
20S1626	1.750	1.625	B	1 7/16	1 1/4	5/8	0.56
20S1628	1.875	1.750	B	1 1/2	1 1/4	5/8	0.65
20S1630	2.000	1.875	B	1 5/8	1 1/4	5/8	0.77
20S1632	2.125	2.000	B	1 3/4	1 1/4	5/8	0.90
20S1635	2.312	2.187	B	2	1 1/4	5/8	1.10
20S1636	2.375	2.250	B	2	1 1/4	5/8	1.18
20S1640	2.625	2.500	B	2	1 3/8	5/8	1.48
20S1645	2.937	2.812	B	2	1 3/8	5/8	1.80
20S1648	3.125	3.000	B	2	1 3/8	5/8	1.94
20S1650	3.250	3.125	B	2	1 3/8	5/8	2.25
20S1656	3.625	3.500	B	2 1/2	1 3/8	5/8	2.79
20S1660	3.875	3.750	B	2 3/4	1 3/8	5/8	3.28
20S1664	4.125	4.000	B	2 3/4	1 1/2	3/4	3.74
20S1670	4.500	4.375	B	3	1 1/2	3/4	4.31
20S1672	4.625	4.500	B	3	1 1/2	3/4	4.64
20S1680	5.125	5.000	B	3 1/2	1 1/2	3/4	6.03
20S1684	5.375	5.250	B	3 1/2	1 1/2	3/4	6.46
20S1690	5.750	5.625	B	3 1/2	1 1/2	3/4	7.35
20S1695	6.125	6.000	B	3 1/2	1 1/2	3/4	7.86
20S16100	6.375	6.250	B	3 1/2	1 1/2	3/4	8.50
20S16104	6.250	6.500	B	3 1/2	1 1/2	3/4	8.91

20 DP - 1/2" Face

Part No.	Diameter		Type	Hubs			Weight (Lbs)
	OD	PD		H	F + P	B	
20S2012	0.700	0.600	B	15/32	15/16	5/16	0.04
20S2013	0.750	0.650	B	1/2	15/16	5/16	0.05
20S2014	0.800	0.700	B	35/64	15/16	5/16	0.06
20S2015	0.850	0.750	B	39/64	15/16	3/8	0.07
20S2016	0.900	0.800	B	21/32	15/16	3/8	0.08
20S2017	0.950	0.850	B	3/4	15/16	3/8	0.10
20S2018	1.000	0.900	B	3/4	15/16	3/8	0.12
20S2020	1.100	1.000	B	55/64	15/16	1/2	0.13
20S2021	1.150	1.05	B	7/8	15/16	1/2	0.15
20S2022	1.200	1.100	B	31/32	15/16	1/2	0.17
20S2024	1.300	1.200	B	1 1/16	15/16	1/2	0.22
20S2025	1.350	1.250	B	1 7/64	15/16	1/2	0.24
20S2026	1.400	1.300	B	1 3/16	15/16	1/2	0.28
20S2028	1.500	1.400	B	1 17/64	15/16	1/2	0.32
20S2030	1.600	1.500	B	1 23/64	15/16	1/2	0.38
20S2032	1.700	1.600	B	1 7/16	1	1/2	0.46
20S2035	1.850	1.750	B	1 9/16	1	1/2	0.56
20S2036	1.900	1.800	B	1 5/8	1	1/2	0.60
20S2040	2.100	2.000	B	1 13/16	1	1/2	0.76
20S2045	2.350	2.250	B	2	1	1/2	0.95
20S2048	2.500	2.400	B	2	1	1/2	1.08
20S2050	2.600	2.500	B	2	1	1/2	1.45
20S2056	2.900	2.800	B	2	1	1/2	1.68
20S2060	3.100	3.000	B	2 1/8	1	1/2	1.93
20S2064	3.300	3.200	B	2 1/8	1	1/2	1.96
20S2070	3.600	3.500	B	2 3/8	1	1/2	2.01
20S2072	3.700	3.600	B	2 3/8	1	1/2	2.35
20S2080	4.100	4.000	B	2 1/2	1 1/8	5/8	2.53
20S2084	4.300	4.200	B	2 1/2	1 1/8	5/8	2.82
20S2090	4.600	4.500	B	2 1/2	1 1/8	5/8	2.95
20S2095	4.900	4.800	B	2 1/2	1 1/8	5/8	3.10
20S20100	5.100	5.000	B	2 1/2	1 1/8	5/8	3.35
20S20104	5.300	5.200	B	2 1/2	1 1/8	5/8	3.95

Sample Part:

20S1660

20 = Degrees Pressure Angle

S = Steel

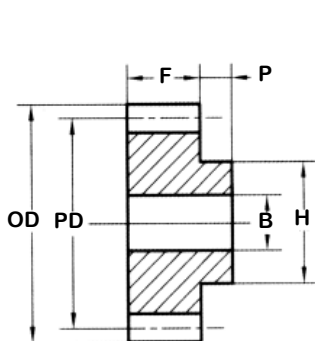
16 = Diametral Pitch

60 = No. Teeth

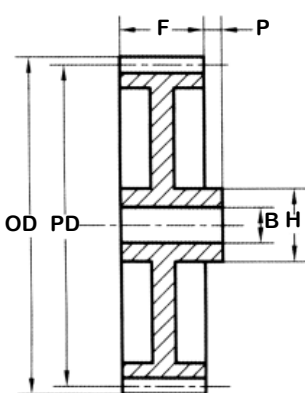
Bored to Size Gears
Available in Standard ANSI
or Metric (ISO) Bores,
Keyways and (2) Setscrews

American Standard (ANSI) MPB Cast Iron Spur Gears

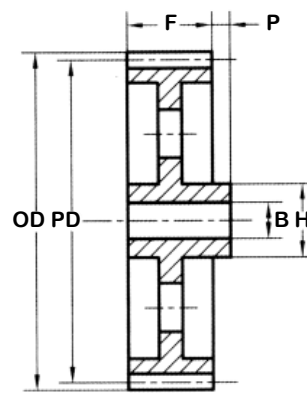
Pressure Angle 20°



Type B



Type B1



Type B2

4 DP - 3 1/2" Face

Part No.	Diameter		Type	Hubs			Weight (Lbs)
	OD	PD		H	F + P	B	
20C456	14.500	14.000	B1	5 1/2	5	1-1/4	96.9
20C460	15.500	15.000	B2	5 1/2	5	1-1/4	88.1
20C464	16.500	16.000	B2	5 1/2	5	1-1/4	86.9
20C470	18.000	17.500	B2	5 1/2	5	1-1/4	86.4
20C472	18.500	18.000	B2	5 1/2	5	1-1/4	86.5
20C480	20.500	20.000	B2	5 1/2	5	1-1/4	90.9

5 DP - 2 1/2" Face

Part No.	Diameter		Type	Hubs			Weight (Lbs)
	OD	PD		H	F + P	B	
20C564	13.20	12.80	B2	5	3 3/4	1-1/4	49.8
20C570	14.40	14.00	B2	5	3 3/4	1-3/16	51.6
20C572	14.80	14.40	B2	5	3 3/4	1-3/16	53.7
20C580	16.40	16.00	B2	5	3 3/4	1-3/16	55.8
20C590	18.40	18.00	B2	5	3 3/4	1-3/16	59.7
20C5100	20.40	20.00	B2	5 1/2	4	1-5/16	69.2
20C5110	22.40	22.00	B2	5 1/2	4	1-5/16	72.3
20C5120	24.40	24.00	B2	6	4	1-5/16	80.2

6 DP - 2" Face

Part	Diameter		Type	Hubs			Weight (Lbs)
	OD	PD		H	F + P	B	
20C684	14.333	14.000	B2	5	3 1/2	1-1/4	42.8
20C696	16.333	16.000	B2	5	3 1/2	1-1/4	46.0
20C6108	18.333	18.000	B2	5	3 1/2	1-1/4	48.8
20C6120	20.333	20.000	B2	5	3 1/2	1-1/4	51.3

Sample Part:

20C456

20 = Degrees Pressure Angle

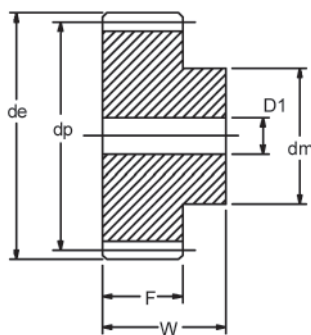
C = Cast Iron

4 = Diametral Pitch

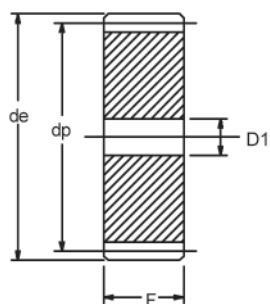
56 = No. Teeth

Bored to Size Gears
Available in Standard ANSI
or Metric (ISO) Bores,
Keyways and (2) Setscrews

Metric Steel Gears



Type B
Above Bold Horizontal Line)



Type A

(Below Bold Horizontal Line)

Full Width "W"

Module 1	= 25 mm
Module 1.5	= 30 mm
Module 2	= 35 mm
Module 2.5	= 45 (40) mm
Module 3	= 50 mm
Module 4	= 60 mm
Module 5	= 75 mm
Module 6	= 80 (75) mm
Module 8	= 95 mm

Tooth Face Width "F"

Module 1	= 15 mm
Module 1.5	= 17 mm
Module 2	= 20 mm
Module 2.5	= 25 mm
Module 3	= 30 mm
Module 4	= 40 mm
Module 5	= 50 mm
Module 6	= 60 (50) mm
Module 8	= 64 mm

Circular Pitch

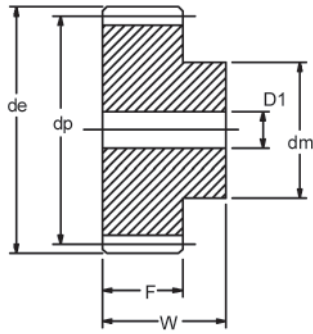
Module 1	= 3.142 mm
Module 1.5	= 4.712 mm
Module 2	= 6.283 mm
Module 2.5	= 7.854 mm
Module 3	= 9.425 mm
Module 4	= 12.566 mm
Module 5	= 15.708 mm
Module 6	= 18.850 mm
Module 8	= 25.13

Material: AISI C1040
20° pressure angle
D1 = ±1 mm

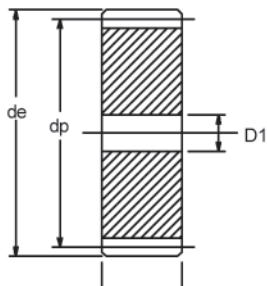
Teeth Z	Module 1					Module 1.5					Module 2				
	de	dp	dm	D1 ±1	kg	de	dp	dm	D1 ±1	kg	de	dp	dm	D1 ±1	kg
12	14	12	9	6	0.012	21.0	18.0	14	8	0.030	28	24	18	10	0.68
13	15	13	10	6	0.013	22.5	19.5	14-15	8	0.038	30	26	19-20	10	0.084
14	16	14	10-11	6	0.015	24.0	21.0	17-18	8	0.046	32	28	20-22	10	0.100
15	17	15	12	6	0.016	25.5	22.5	18	8	0.057	34	30	22-24	10	0.118
16	18	16	13	6	0.017	27.0	24.0	20	8	0.060	36	32	24-25	10	0.134
17	19	17	14	6-8	0.022	28.5	25.5	20	8	0.068	38	34	25	10-12	0.160
18	20	18	15	8	0.024	30.0	27.0	20	8-10	0.073	40	36	25	10-12	0.166
19	21	19	15	8	0.026	31.5	28.5	20	8-10	0.082	42	38	25	10-12	0.180
20	22	20	16	8	0.027	33.0	30.0	25	8-10	0.097	44	40	30	10-12	0.195
21	23	21	16	8	0.036	34.5	31.5	25	10	0.110	46	42	30	12-14	0.218
22	24	22	16-18	8	0.038	36.0	33.0	25	10	0.118	48	44	30	12-14	0.238
23	25	23	18	8	0.042	37.5	34.5	25	10	0.126	50	46	30	12-14	0.255
24	26	24	20	8-10	0.044	39.0	36.0	25	10-12	0.135	52	48	35	12-14	0.272
25	27	25	20	8-10	0.045	40.5	37.5	25	10-12	0.142	54	50	35	12-14	0.285
26	28	26	20	8-10		42.0	39.0	30	12		56	52	40	12-14	
27	29	27	20	8-10		43.5	40.5	30	12		58	54	40	12-14	
28	30	28	20	8-10	0.054	45.0	42.0	30	12	0.178	60	56	40	12-14	0.406
29	31	29	20	8-10		46.5	43.5	30	12		62	58	40	14	
30	32	30	20	8-10	0.059	48.0	45.0	30	12	0.195	64	60	40	14	0.448
31	33	31	25	8-10		49.5	46.5	35	12		66	62	45	14	
32	34	32	25	10		51.0	48.0	35	12		68	64	45	14	
33	35	33	25	10		52.5	49.5	35	12		70	66	45	14	
34	36	34	25	10		54.0	51.0	35	12		72	68	45	14	
35	37	35	25	10		55.5	52.5	35	12		74	70	45	14	
36	38	36	25	10	0.094	57.0	54.0	35	12	0.315	76	72	45	14	0.670
37	39	37	25	10		58.5	55.5	40	12-14		78	74	50	14-16	
38	40	38	25	10	0.098	60.0	57.0	40	12-14	0.348	80	76	50	14-16	0.710
39	41	39	25	10		61.5	58.5	40	12-14		82	78	50	14-16	
40	42	40	25	10	0.108	63.0	60.0	40	12-14	0.355	84	80	50	14-16	0.760
41	43	41	30	10		64.5	61.5	40-50	12-15		86	82	55-60	16	
42	44	42	30	10		66.0	63.0	50	12-15		88	84	55-60	16	
43	45	43	30	10		67.5	64.5	50	12-15		90	86	55-60	16	
44	46	44	30	10		69.0	66.0	50	12-15		92	88	60	16	
45	47	45	30	10	0.145	70.5	67.5	50	12-15	0.445	94	90	60	16	1.072
46	48	46	30	10		72.0	69.0	50	14-15		96	92	60	16	
47	49	47	30	10		73.5	70.5	50	14-15		98	94	60-70	16	
48	50	48	30	10	0.160	75.0	72.0	50	14-15	0.525	100	96	70	16	1.181
49	51	49	30	10		76.5	73.5	50	14-15		102	98	70	16	
50	52	50	30	12	0.185	78.0	75.0	50	14-15	0.560	104	100	70	16	1.351
51	53	51	40	12		79.5	76.5	60	14-15		106	102	70	16-20	
52	54	52	40	12	0.190	81.0	78.0	60	14-15	0.590	108	104	70	16-20	1.433
53	55	53	40	12		82.5	79.5	60	14-15		110	106	70	16-20	
54	56	54	40	12		84.0	81.0	60	14-15		112	108	70	16-20	
55	57	55	40	12		85.5	82.5	60	14-15		114	110	70	16-20	
56	58	56	40	12	0.210	87.0	84.0	60	15-16	0.660	116	112	70	16-20	1.606
57	59	57	40	12		88.5	85.5	60	15-16		118	114	70	16-20	
58	60	58	40	12		90.0	87.0	60	15-16		120	116	70	16-20	
59	61	59	40	12		91.5	88.5	60	15-16		122	118	70	16-20	
60	62	60	40	12	0.260	93.0	90.0	60	15-16	0.815	124	120	70	16-20	1.910
61	63	61	50	12		94.5	91.5	70	16-20		126	122	80	16-20	
62	64	62	50	12		96.0	93.0	70	16-20		128	124	80	16-20	
63	65	63	50	12		97.5	94.5	70	16-20		130	126	80	16-20	
64	66	64	50	12		99.0	96.0	70	16-20		132	128	80	16-20	
65	67	65	50	12		100.5	97.5	70	16-20		134	130	80	16-20	
66	68	66	50	12		102.0	99.0	70	16-20		136	132	80	16-20	
67	69	67	50	12		103.5	100.5	70	16-20		138	134	80	16-20	
68	70	68	50	12		105.0	102.0	70	16-20		140	136	80	16-20	
69	71	69	50	12		106.5	103.5	70	16-20		142	138	80	16-20	
70	72	70	50	12		108.0	105.0	70	16-20		144	140	80	16-20	
72	74	72	12			111.0	108.0	16-20			148	144	16-20		
75	77	75	12			115.5	112.5	16-20			154	150	20		
76	78	76	12	0.274		117.0	114.0	16-20	0.895		156	152	20	2.240	
80	82	80	12	0.298		123.0	120.0	16-20	1.031		164	160	20	2.474	
85	87	85	12			130.5	127.5	16-20			174	170	20		
90	92	90	12			138.0	135.0	16-20			184	180	20		
95	97	95	12	0.430		145.5	142.5	16-20	1.450		194	190	20	3.520	
100	102	100	12			153.0	150.0	16-20			204	200	20		
110	112	110	12			168.0	165.0	16-20			224	220	20		
114	116	114	12			174.0	171.0	16-20			232	228	20		
120	122	120	12	0.675		183.0	180.0	16-20	2.336		244	240	20	5.587	
127	129	127	12			193.5	190.5	16-20			258	254	20		

Note: dimensions with brackets are earlier designs

Metric Steel Gears



Type B
(Above Bold Horizontal Line)



Type A

(Below Bold Horizontal Line)

Full Width "W"

Module 1	= 25 mm
Module 1.5	= 30 mm
Module 2	= 35 mm
Module 2.5	= 45 (40) mm
Module 3	= 50 mm
Module 4	= 60 mm
Module 5	= 75 mm
Module 6	= 80 (75) mm
Module 8	= 95 mm

Tooth Face Width "F"

Module 1	= 15 mm
Module 1.5	= 17 mm
Module 2	= 20 mm
Module 2.5	= 25 mm
Module 3	= 30 mm
Module 4	= 40 mm
Module 5	= 50 mm
Module 6	= 60 (50) mm
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Circular Pitch

Module 1	= 3.142 mm
Module 1.5	= 4.712 mm
Module 2	= 6.283 mm
Module 2.5	= 7.854 mm
Module 3	= 9.425 mm
Module 4	= 12.566 mm
Module 5	= 15.708 mm
Module 6	= 18.850 mm
Module 8	= 25.13

Material: AISI C1040

20° pressure angle

D1 = ±1 mm

Teeth Z	Module 2.5					Module 3					Module 4				
	de	dp	dm	D1 ±1	kg	de	dp	dm	D1 ±1	kg	de	dp	dm	D1 ±1	kg
12	35.0	30.0	22	10	0.130	42	36	25-27	12	0.217	56	48	35	14-15	0.500
13	37.5	32.5	25	10	0.155	45	39	25-30	12	0.270	60	52	40	14-15	0.605
14	40.0	35.0	28	10	0.190	48	42	25-33	12	0.325	64	56	45	14-15	0.735
15	42.5	37.5	30	10	0.200	51	45	35	12-15	0.375	68	60	45	14-15	0.796
16	45.0	40.0	32	12	0.225	54	48	38	14-15	0.388	72	64	50	15-16	0.992
17	47.5	42.5	35	12	0.280	57	51	42	14-15	0.480	76	68	50	16-20	1.083
18	50.0	45.0	35	12	0.286	60	54	45	14-15	0.500	80	72	50	16-20	1.150
19	52.5	47.5	35	12	0.305	63	57	45	14-15	0.550	84	76	60	16-20	1.263
20	55.0	50.0	40	12-14	0.340	66	60	45	14-15	0.600	88	80	60	16-20	1.383
21	57.5	52.5	40	14	0.432	69	63	45	15-16	0.720	92	84	70	16-20	1.632
22	60.0	55.0	45	14	0.467	72	66	50	15-16	0.775	96	88	70	16-20	1.770
23	62.5	57.5	45	14	0.490	75	69	50	15-16	0.845	100	92	75	20	1.909
24	65.0	60.0	45	14	0.515	78	72	50	16	0.860	104	96	75	20	2.060
25	67.5	62.5	50	14	0.550	81	75	60	16	0.955	108	100	75	20	2.220
26	70.0	65.0	50	14-16		84	78	60	16		112	104	75	20	
27	72.5	67.5	50	14-16		87	81	60	16		116	108	75	20	
28	75.0	70.0	50	14-16	0.735	90	84	60	16	1.344	120	112	75	20	3.000
29	77.5	72.5	50	14-16		93	87	60	16		124	116	75	20	
30	80.0	75.0	55	14-16	0.860	96	90	60	16	1.450	128	120	75	20	3.290
31	82.5	77.5	55	16		99	93	60-70	16-20		132	124	80	20	
32	85.0	80.0	55	16		102	96	70	16-20		136	128	80	20	
33	87.5	82.5	55	16		105	99	70	16-20		140	132	80	20	
34	90.0	85.0	55	16		108	102	70	16-20		144	136	80	20	
35	92.5	87.5	60	16		111	105	70	16-20		148	140	80	20	
36	95.0	90.0	60	16	1.230	114	108	70	20	2.150	152	144	80	25	3.910
37	97.5	92.5	60	16		117	111	70-80	20						
38	100.0	95.0	60	16		120	114	80	20	2.329	160	152		25	4.400
39	102.5	97.5	60	16		123	117	80	20						
40	105.0	100.0	70	16-20	1.378	126	120	80	20	2.680	168	160		25	4.920
41	107.5	102.5	70	16-20		129	123	80-90	20						
42	110.0	105.0	70	16-20		132	126	80-90	20						
43	112.5	107.5	70	16-20		135	129	80-90	20						
44	115.0	110.0	70	16-20		138	132	90	20						
45	117.5	112.5	70	16-20	1.950	141	135	90	20	2.700	188	180		25	6.230
46	120.0	115.0	70	20		144	138	90	20						
47	122.5	117.5	80	20		147	141	90-100	20						
48	125.0	120.0	80	20	2.160	150	144	100	20	3.100	200	192		25	7.050
49	127.5	122.5	80	20											
50	130.0	125.0	80	20	2.400	156	150		20-25	3.364	208	200		25	7.700
51	132.5	127.5	80	20		162	156		20-25	3.510	216	208		25	8.270
52	135.0	130.0	90	20	2.560										
53	137.5	132.5	90	20											
54	140.0	135.0	90	20											
55	142.5	137.5	90	20		171	165		20-25		228	220		25	
56	145.0	140.0	100	20											
57	147.5	142.5	100	20		177	171		20-25		236	228		25	
58	150.0	145.0	100	20											
59	152.5	147.5	100	20											
60	155.0	150.0	100	20	2.900	186	180		20-25	4.840	248	240		25	11.060
61															
62															
63	162.5	157.5	100	20	3.045										
64															
65	167.5	162.5		20		201	195		20-25		268	260		25	
66															
67															
68															
69															
70	180.0	175.0		20		216	210		25		288	280		25	
72	185.0	180.0		20		222	216		25						
75	192.5	187.5		20		231	225		25		308	300		25	
76	195.0	190.0		20	4.363	234	228		25	7.813	312	304		25-30	17.800
80	205.0	200.0		25	4.839	246	240		25	8.600	328	320		25-30	19.800
85	217.5	212.5		25		261	255		25		348	340		25-30	
90	230.0	225.0		25		276	270		25		368	360		25-30	
95	242.5	237.5		25	6.852	291	285		25	12.290	388	380		25-30	28.100
100	255.0	250.0		25		306	300		25		408	400		25-30	
110	280.0	275.0		25		336	330		25		448	440		25-30	
114	290.0	285.0		25		348	342		25-30		464	456		25-30	
120	305.0	300.0		25		366	360		25-30						
127	322.5	317.5		25		387	381		25-30						

Note: dimensions with brackets are earlier designs

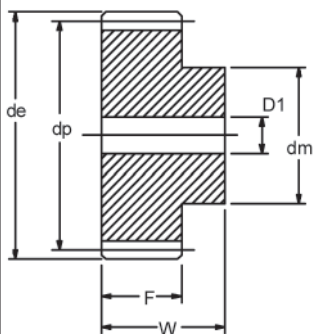
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GROUP: 025

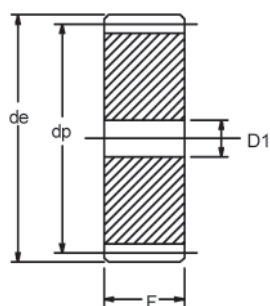


American Metric® Corporation

Metric Steel Gears



Type B
(Above Bold Horizontal Line)



Type A

(Below Bold Horizontal Line)

Full Width "W"

Module 1	= 25 mm
Module 1.5	= 30 mm
Module 2	= 35 mm
Module 2.5	= 45 (40) mm
Module 3	= 50 mm
Module 4	= 60 mm
Module 5	= 75 mm
Module 6	= 80 (75) mm
Module 8	= 95 mm

Tooth Face Width "F"

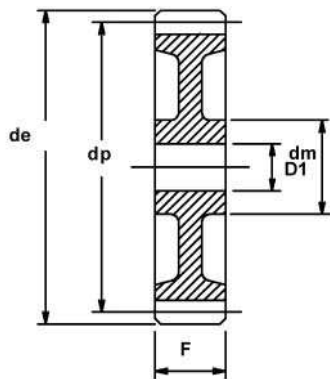
Module 1	= 15 mm
Module 1.5	= 17 mm
Module 2	= 20 mm
Module 2.5	= 25 mm
Module 3	= 30 mm
Module 4	= 40 mm
Module 5	= 50 mm
Module 6	= 60 (50) mm
Module 8	= 64 mm

Circular Pitch

Module 1	= 3.142 mm
Module 1.5	= 4.712 mm
Module 2	= 6.283 mm
Module 2.5	= 7.854 mm
Module 3	= 9.425 mm
Module 4	= 12.566 mm
Module 5	= 15.708 mm
Module 6	= 18.850 mm
Module 8	= 25.13 mm

Material: AISI C1040
20° pressure angle
D1 = ±1 mm

Teeth Z	Module 5					Module 6					Module 8																								
	de	dp	dm	D1 ±1	kg	de	dp	dm	D1 ±1	kg	de	dp	dm	D1 ±1	kg																				
12	70	60	45	16-20	0.99	84	72	54	20	1.70	136.0	120.0	80	25	7.24																				
13	75	65	50	16-20	1.22	90	78	60	20	2.03																									
14	80	70	55	20	1.45	102	90	70	20	2.56																									
15	85	75	60	20	1.50											108	96	75	20	3.16															
16	90	80	65	20	1.69																														
17	95	85	70	20	2.08	120	108	80	20	3.79	176.0	160.0	100	30	12.80																				
18	100	90	70	20	2.15																														
19	105	95	70	20	2.50																														
20	110	100	80	20	2.61	132	120	90	20	4.60																									
21	115	105	80	20	3.11																														
22	120	110	80	20-25	3.40																														
23	125	115	90	20-25	3.74	156	144	110	25	6.53	216.0	200.0	125	30	21.50																				
24	130	120	90	20-25	3.85																														
25	135	125	90	20-25	4.30																														
26	140	130	100	20-25	4.40	162	150	110	25	7.02																									
27	145	135	100	20-25	4.50																														
28	150	140	100	25	4.60	180	168		25	8.00																									
29	155	145	100-110	25	4.90																														
30	160	150	100-110	25	5.25						192	180		25	9.23						256.0	240		30	39.00										
31																																			
32	170	160		25																						204	192		25	12.23					
33																																			
34																																			
35	185	175		25																											222	210		25	16.61
36																																			
37																																			
38	200	190		25-30	8.50	240	228		25	14.80																									
39																																			
40	210	200		25-30	9.58						252	240		25	16.61																				
41																336	320		40	52.50															
42																																			
43																																			
44																																			
45	235	225		25-30	12.10																250	240		25-30	13.60										
46																																			
47																																			
48	250	240		25-30	13.60	260	250		30	15.00																									
49																																			
50	260	250		30	15.00						270	260		30	16.40																				
51																																			
52	270	260		30	16.40											285	275		30																
53																																			
54																																			
55	285	275		30																	295	285		30											
56																																			
57	295	285		30																						310	300		30	21.60					
58																																			
59																																			
60	310	300		30	21.60	335	325		30																										
61																																			
62																																			
63																																			
64																																			
65	335	325		30							360	350		30																					
66																																			
67																																			
68																																			
69																																			
70	360	350		30		385	375		30																										
72																																			
75	385	375		30												390	380		30																
76																																			
80	410	400		30	39.00																435	425		30											
85																																			
90	460	450		30							485	475		30	55.00																				
95	485	475		30	55.00																					510	500		30						
100	510	500		30																															
110	560	550		30																											580	570		30	
114																																			
120	580	570		30																															
127																																			



Metric Cast Iron Gears

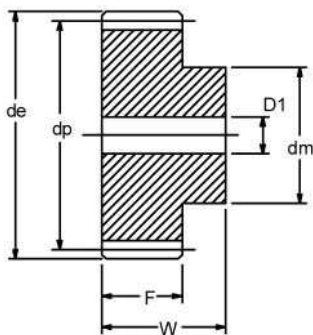
20° Pressure Angle

DIN 782

Material: Cast Iron GG22 (ASTM A159)

Part No.	Module	Teeth	Tooth Face F	Outside Ø de	Pitch Ø dp	Approx. Hub Ø dm	Approx. Bore Ø D1 ±1 mm
CM2A50	2	50	20	104	100	40	15
CM2A60	2	60	20	124	120	40	15
CM2A76	2	76	20	156	152	-	20
CM2A80	2	80	20	164	160	70	20
CM2A95	2	95	20	194	190	80	20
CM2A100	2	100	20	204	200	80	20
CM2A114	2	114	20	232	228	90	20
CM2.5A45	2.5	45	25	117.5	112.5	50	18
CM2.5A50	2.5	50	25	130.0	125.0	50	18
CM3A45	3	45	30	141	135	50	20
CM3A50	3	50	30	156	150	80	20
CM3A60	3	60	30	186	180	80	25
CM3A76	3	76	30	234	228	90	25
CM3A95	3	95	30	291	285	100	25
CM3A100	3	100	30	306	300	100	25
CM3A114	3	114	30	348	342	100	25
CM3.5A35	3.5	35	35	129.5	122.5	60	20
CM3.5A40	3.5	40	35	147.0	140.0	60	20
CM3.5A45	3.5	45	35	163.5	157.5	60	20
CM3.5A50	3.5	50	35	182	175.0	60	20
CM4A30	4	30	40	128	120	70	25
CM4A35	4	35	40	148	140	70	25
CM4A38	4	38	40	160	152	80	25
CM4A40	4	40	40	168	160	80	25
CM4A45	4	45	40	188	180	70	25
CM4A50	4	50	40	208	200	90	25
CM4A60	4	60	40	248	240	90	25
CM4A76	4	76	40	312	304	100	25
CM4A80	4	80	40	328	320	100	25
CM4A95	4	95	40	388	320	100	25
CM4A100	4	100	40	408	400	100	25
CM4A114	4	114	40	464	456	110	25
CM4.5A30	4.5	30	45	144.0	135.0	70	25
CM4.5A35	4.5	35	45	166.5	157.5	70	25
CM4.5A40	4.5	40	45	189.0	180.0	70	25
CM4.5A45	4.5	45	45	211.5	202.5	70	25
CM4.5A50	4.5	50	45	234.0	225.0	70	25
CM5A30	5	30	50	160	150	80	30
CM5A35	5	35	50	185	175	80	30
CM5A38	5	38	50	200	190	100	25
CM5A40	5	40	50	210	200	100	25
CM5A50	5	50	50	260	250	100	30
CM5A60	5	60	50	310	300	110	30
CM5A80	5	80	50	410	400	130	30
CM5A95	5	95	50	485	475	130	30

Note: "A" type gears without hub



Metric Induction Hardened Gears

20° Pressure Angle

DIN 782

Material: Steel 1.0503 (C45) AISI 1045

Standard Wide Face

Spur Gears

Part No.	Module	Teeth	Tooth Face F	Width W	Outside Ø de	Pitch Ø dp	Hub Ø dm	Bore Ø D1 ±1 mm	Weight kg
HTM1B15	1	15	15	25	17.0	15.0	12	5	0.016
HTM1B20	1	20	15	25	22.0	20.0	16	6	0.027
HTM1B25	1	25	15	25	27.0	25.0	20	6	0.045
HTM1B30	1	30	15	25	32.0	30.0	20	8	0.059
HTM1B40	1	40	15	25	42.0	40.0	25	8	0.108
HTM1B60	1	60	15	25	62.0	60.0	40	10	0.260
HTM1.5B15	1.5	15	17	30	25.5	22.5	18	6	0.057
HTM1.5B20	1.5	20	17	30	33.0	30.0	25	8	0.097
HTM1.5B25	1.5	25	17	30	40.5	37.5	25	8	0.142
HTM1.5B30	1.5	30	17	30	48.0	45.0	30	10	0.195
HTM1.5B40	1.5	40	17	30	63.0	60.0	40	10	0.355
HTM1.5B60	1.5	60	17	30	93.0	90.0	60	12	0.815
HTM2B15	2	15	20	35	34.0	30.0	24	8	0.118
HTM2B20	2	20	20	35	44.0	40.0	30	10	0.195
HTM2B25	2	25	20	35	54.0	50.0	35	10	0.285
HTM2B30	2	30	20	35	64.0	60.0	40	12	0.448
HTM2B40	2	40	20	35	84.0	80.0	50	12	0.760
HTM2B60	2	60	20	35	124.0	120.0	70	15	1.910
HTM2.5B15	2.5	15	25	45	42.5	37.5	30	10	0.200
HTM2.5B20	2.5	20	25	45	55.0	50.0	40	12	0.340
HTM2.5B25	2.5	25	25	45	67.5	62.5	50	12	0.550
HTM2.5B30	2.5	30	25	45	80.0	75.0	55	15	0.860
HTM2.5B40	2.5	40	25	45	105.0	100.0	70	15	1.500
HTM2.5B60	2.5	60	25	45	155.0	150.0	100	20	3.410
HTM3B15	3	15	30	50	51.0	45.0	35	12	0.375
HTM3B20	3	20	30	50	66.0	60.0	45	15	0.600
HTM3B25	3	25	30	50	81.0	75.0	60	15	0.955
HTM3B30	3	30	30	50	96.0	90.0	60	20	1.450
HTM3B40	3	40	30	50	126.0	120.0	80	20	2.680
HTM3A60	3	60	30	-	186.0	180.0	-	25	4.840
HTM4B15	4	15	40	60	68.0	60.0	45	15	0.796
HTM4B20	4	20	40	60	88.0	80.0	60	20	1.383
HTM4B25	4	25	40	60	108.0	100.0	75	20	2.220
HTM4B30	4	30	40	60	128.0	120.0	75	25	3.290
HTM4A40	4	40	40	-	168.0	160.0	-	25	4.920
HTM4A60	4	60	40	-	248.0	240.0	-	30	11.060
HTM5B15	5	15	50	75	85.0	75.0	60	20	1.50
HTM5B20	5	20	50	75	110.0	100.0	80	25	2.61
HTM5B25	5	25	50	75	135.0	125.0	90	25	4.30
HTM5A30	5	30	50	-	160.0	150.0	-	30	5.25
HTM5A40	5	40	50	-	210.0	200.0	-	30	9.58
HTM5A60	5	60	50	-	310.0	300.0	-	40	21.60
						90.0	-	25	2.56
HTM6B15	6	15	50	75	102.0				
HTM6B20	6	20	50	75	132.0	120.0	70	25	4.60
HTM6B25	6	25	50	75	162.0	150.0	90	30	7.02
HTM6A30	6	30	50	-	192.0	180.0	-	30	9.23
HTM6A40	6	40	50	-	252.0	240.0	-	30	16.61
HTM6A60	6	60	50	-	372.0	360.0	-	40	37.70
HTM8B15	8	15	64	95	136.0	120.0	80	25	7.24
HTM8B20	8	20	64	95	176.0	160.0	100	30	12.80
HTM8B25	8	25	64	95	216.0	200.0	125	30	21.50
HTM8A30	8	30	64	-	256.0	240.0	-	30	39.00
HTM8A40	8	40	64	-	336.0	320.0	-	40	52.50
HTM8A60	8	60	64	-	496.0	480.0	-	50	72.50

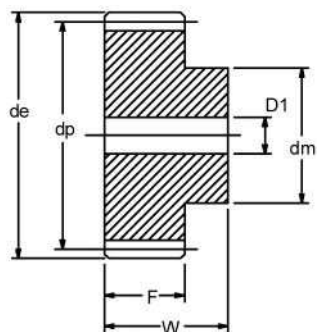
Note: "A" type gears with out hub



American Metric® Corporation

GROUP: 025

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Metric Induction Hardened Gears

20° Pressure Angle

DIN 782

Material: Steel 1.0503 (C45) AISI 1045

Special Narrow Face

Spur Gears

Part No.	Module	Teeth	Tooth Face F	Width W	Outside Ø de	Pitch Ø dp	Hub Ø dm	Bore Ø D1 ±1 mm	Weight kg
HTM1B15F8	1	15	8	18	17.0	15.0	12	5	0.016
HTM1B20F8	1	20	8	18	22.0	20.0	15	6	0.027
HTM1B25F8	1	25	8	18	27.0	25.0	18	6	0.045
HTM1B30F8	1	30	8	18	32.0	30.0	20	8	0.059
HTM1B40F8	1	40	8	18	42.0	40.0	25	8	0.108
HTM1B60F8	1	60	8	18	62.0	60.0	40	10	0.260
HTM1.5B15F12	1.5	15	12	25	25.5	22.5	18	6	0.057
HTM1.5B20F12	1.5	20	12	25	33.0	30.0	20	8	0.097
HTM1.5B25F12	1.5	25	12	25	40.5	37.5	25	8	0.142
HTM1.5B30F12	1.5	30	12	25	48.0	45.0	30	10	0.195
HTM1.5B40F12	1.5	40	12	25	63.0	60.0	40	10	0.355
HTM1.5B60F12	1.5	60	12	25	93.0	90.0	60	12	0.815
HTM2B15F16	2	15	16	30	34.0	30.0	24	8	0.118
HTM2B20F16	2	20	16	30	44.0	40.0	28	10	0.195
HTM2B25F16	2	25	16	30	54.0	50.0	30	10	0.285
HTM2B30F16	2	30	16	30	64.0	60.0	40	12	0.448
HTM2B40F16	2	40	16	30	84.0	80.0	50	12	0.760
HTM2B60F16	2	60	16	30	124.0	120.0	80	15	1.910
HTM2.5B15F20	2.5	15	20	35	42.5	37.5	25	10	0.200
HTM2.5B20F20	2.5	20	20	35	55.0	50.0	30	12	0.340
HTM2.5B25F20	2.5	25	20	35	67.5	62.5	40	12	0.550
HTM2.5B30F20	2.5	30	20	35	80.0	75.0	50	15	0.860
HTM2.5B40F20	2.5	40	20	35	105.0	100.0	60	15	1.500
HTM2.5B60F20	2.5	60	20	35	155.0	150.0	90	20	3.410
HTM3B15F25	3	15	25	40	51.0	45.0	30	12	0.375
HTM3B20F25	3	20	25	40	66.0	60.0	40	15	0.600
HTM3B25F25	3	25	25	40	81.0	75.0	50	15	0.955
HTM3B30F25	3	30	25	40	96.0	90.0	60	20	1.450
HTM3B40F25	3	40	25	40	126.0	120.0	80	20	2.680
HTM3A60F25	3	60	25	-	186.0	180.0	-	25	4.840
HTM4B15F32	4	15	32	50	68.0	60.0	45	15	0.796
HTM4B20F32	4	20	32	50	88.0	80.0	50	20	1.383
HTM4B25F32	4	25	32	50	108.0	100.0	60	20	2.220
HTM4B30F32	4	30	32	50	128.0	120.0	80	25	3.290
HTM4A40F32	4	40	32	-	168.0	160.0	-	25	4.920
HTM4A60F32	4	60	32	-	248.0	240.0	-	30	11.060
HTM5B15F40	5	15	40	60	85.0	75.0	50	20	1.50
HTM5B20F40	5	20	40	60	110.0	100.0	70	25	2.61
HTM5B25F40	5	25	40	60	135.0	125.0	80	25	4.30
HTM5A30F40	5	30	40	-	160.0	150.0	-	30	5.25
HTM5A40F40	5	40	40	-	210.0	200.0	-	30	9.58
HTM5A60F40	5	60	40	-	310.0	300.0	-	40	21.60
HTM6B15F48	6	15	48	70	102.0	90.0	60	25	2.56
HTM6B20F48	6	20	48	70	132.0	120.0	70	25	4.60
HTM6B25F48	6	25	48	70	162.0	150.0	80	30	7.02
HTM6A30F48	6	30	48	-	192.0	180.0	-	30	9.23
HTM6A40F48	6	40	48	-	252.0	240.0	-	30	16.61
HTM6A60F48	6	60	48	-	372.0	360.0	-	40	37.70
HTM8B15F64	8	15	64	95	136.0	120.0	80	25	7.24
HTM8B20F64	8	20	64	95	176.0	160.0	100	30	12.80
HTM8B25F64	8	25	64	95	216.0	200.0	125	30	21.50
HTM8A30F64	8	30	64	-	256.0	240.0	-	30	39.00
HTM8A40F64	8	40	64	-	336.0	320.0	-	40	52.50
HTM8A60F64	8	60	64	-	496.0	480.0	-	50	72.50

Note: "A" type gears with out hub

Part No. Example: HTM3B15F25

HT = Hardened Teeth 15 = Teeth

M3 = 3 Module F25 = 25mm Tooth Face

B = with HVB

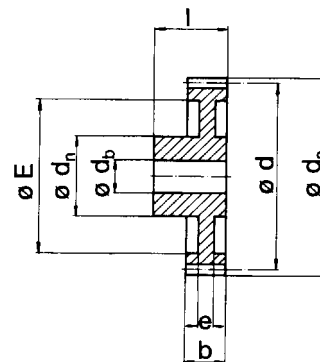


American Metric® Corporation

Metric Injection Molded Gears

20° Pressure Angle DIN 782

Material: Acetal Resin (Hostaform C)



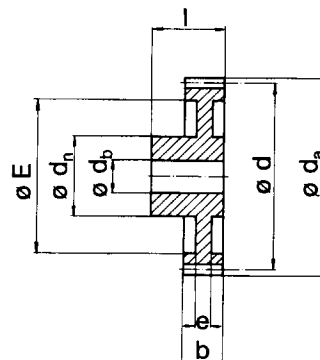
Module 0.5 Spur Gears

Part No.	Teeth	Outside Ø d _a	Pitch Ø d	Hub Ø d _h	Bore Ø d _b ±1 mm	e	Ø E	b	l	Weight g
AM0.5B12	12	7.0	6.0	4	2	-	-	3	7	0.7
AM0.5B13	13	7.5	6.5	4	2	-	-	3	7	0.8
AM0.5B14	14	8.0	7.0	5	2	-	-	3	7	1
AM0.5B15	15	8.5	7.5	6	3	-	-	3	10	1
AM0.5B16	16	9.0	8.0	6	3	-	-	3	10	1
AM0.5B17	17	9.5	8.5	8	3	-	-	3	10	1
AM0.5B18	18	10.0	9.0	8	4	-	-	3	10	1
AM0.5B19	19	10.5	9.5	8	4	-	-	3	10	2
AM0.5B20	20	11.0	10.0	8	4	-	-	3	10	2
AM0.5B21	21	11.5	10.5	8	4	-	-	3	10	2
AM0.5B22	22	12.0	11.0	10	4	-	-	3	10	2
AM0.5B23	23	12.5	11.5	10	4	-	-	3	10	2
AM0.5B24	24	13.0	12.0	10	4	-	-	3	10	2
AM0.5B25	25	13.5	12.5	10	4	-	-	3	10	2
AM0.5B26	26	14.0	13.0	10	4	-	-	3	10	2
AM0.5B27	27	14.5	13.5	10	4	-	-	3	10	3
AM0.5B28	28	15.0	14.0	10	4	-	-	3	10	3
AM0.5B30	30	16.0	15.0	12	4	-	-	3	10	3
AM0.5B32	32	17.0	16.0	12	4	2	11.0	3	10	3
AM0.5B35	35	18.5	17.5	12	4	2	12.5	3	10	3
AM0.5B36	36	19.0	18.0	12	4	2	13.0	3	10	3
AM0.5B38	38	20.0	19.0	12	4	2	13.5	3	10	3
AM0.5B40	40	21.0	20.0	12	4	2	14.0	3	10	3
AM0.5B42	42	22.0	21.0	12	4	2	16.0	3	10	3
AM0.5B45	45	23.5	22.5	12	4	2	18.5	3	10	4
AM0.5B48	48	25.0	24.0	15	6	2	19.0	3	10	4
AM0.5B50	50	26.0	25.0	15	6	2	20.0	3	10	4
AM0.5B52	52	27.0	26.0	15	6	2	21.0	3	10	4
AM0.5B54	54	28.0	27.0	15	6	2	22.0	3	10	4
AM0.5B55	55	28.5	27.5	15	6	2	23.0	3	10	4
AM0.5B56	56	29.0	28.0	15	6	2	23.0	3	10	4
AM0.5B60	60	31.0	30.0	15	6	2	24.0	3	10	5
AM0.5B64	64	33.0	32.0	15	6	2	25.0	3	10	5
AM0.5B65	65	33.5	32.5	15	6	2	27.0	3	10	5
AM0.5B70	70	36.0	35.0	15	6	2	29.0	3	10	5
AM0.5B72	72	37.0	36.0	15	6	2	30.0	3	10	6
AM0.5B75	75	38.5	37.5	15	6	2	33.0	3	10	6
AM0.5B80	80	41.0	40.0	15	6	2	36.0	3	10	6
AM0.5B90	90	46.0	45.0	15	6	2	39.0	3	10	6
AM0.5B96	96	49.0	48.0	15	6	2	42.0	3	10	7
AM0.5B100	100	51.0	50.0	15	6	2	44.0	3	10	8
AM0.5B120	120	61.0	60.0	15	6	2	54.0	3	10	10

Metric Injection Molded Gears

20° Pressure Angle DIN 782

Material: Acetal Resin (Hostaform C)



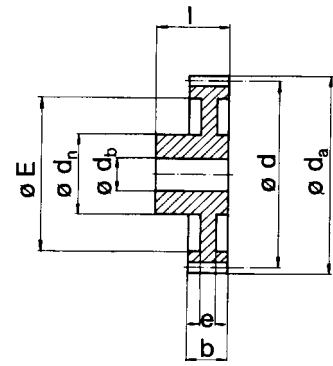
Module 0.7 Spur Gears

Part No.	Teeth	Outside Ø d_a	Pitch Ø d	Hub Ø d_h	Bore Ø $d_b \pm 1 \text{ mm}$	e	Ø E	b	l	Weight g
AM0.7B12	12	9.8	8.4	6	3	-	-	6	15	1
AM0.7B13	13	10.5	9.1	6	3	-	-	6	15	1
AM0.7B14	14	11.2	9.8	6	3	-	-	6	15	2
AM0.7B15	15	11.9	10.5	6	3	-	-	6	15	2
AM0.7B16	16	12.6	11.2	9	4	-	-	6	15	2
AM0.7B17	17	13.3	11.9	9	4	-	-	6	15	2
AM0.7B18	18	14.0	12.6	9	4	-	-	6	15	3
AM0.7B19	19	14.7	13.3	9	4	-	-	6	15	3
AM0.7B20	20	15.4	14.0	9	4	-	-	6	15	3
AM0.7B21	21	16.1	14.7	9	4	-	-	6	15	3
AM0.7B22	22	16.8	15.4	9	4	-	-	6	15	3
AM0.7B23	23	17.5	16.1	9	4	-	-	6	15	3
AM0.7B24	24	18.2	16.8	9	4	3	13.5	6	15	4
AM0.7B25	25	18.9	17.5	9	6	3	13.5	6	15	4
AM0.7B26	26	19.6	18.2	9	6	3	13.5	6	15	4
AM0.7B27	27	20.3	18.9	9	6	3	13.5	6	15	4
AM0.7B28	28	21.0	19.6	9	6	3	13.5	6	15	5
AM0.7B30	30	22.4	21.0	12	6	3	16.0	6	15	5
AM0.7B32	32	23.8	22.4	12	6	3	16.0	6	15	5
AM0.7B35	35	25.9	24.5	15	6	3	19.0	6	15	6
AM0.7B36	36	26.6	25.2	15	6	3	19.0	6	15	6
AM0.7B38	38	28.0	26.6	15	6	3	21.5	6	15	7
AM0.7B40	40	29.4	28.0	15	6	3	21.5	6	15	7
AM0.7B42	42	30.8	29.4	18	6	2	24.5	6	15	8
AM0.7B45	45	32.9	31.5	18	6	2	24.5	6	15	8
AM0.7B48	48	35.0	33.6	18	8	2	24.5	6	15	9
AM0.7B50	50	36.4	35.0	18	8	2	28.0	6	15	9
AM0.7B52	52	37.8	36.4	18	8	2	28.0	6	15	10
AM0.7B54	54	39.2	37.8	18	8	2	28.0	6	15	10
AM0.7B55	55	39.9	38.5	18	8	2	31.0	6	15	11
AM0.7B56	56	40.6	39.2	18	8	2	31.0	6	15	11
AM0.7B60	60	43.4	42.0	18	8	2	31.0	6	15	12
AM0.7B64	64	46.2	44.8	18	8	2	37.5	6	15	12
AM0.7B65	65	46.9	45.5	18	8	2	37.5	6	15	13
AM0.7B70	70	50.4	49.0	18	8	2	37.5	6	15	14
AM0.7B72	72	51.8	50.4	18	8	2	37.5	6	15	16
AM0.7B75	75	53.9	52.5	18	10	2	37.5	6	15	17
AM0.7B80	80	57.4	56.0	21	10	2	47.0	6	15	18
AM0.7B90	90	64.4	63.0	21	10	2	56.5	6	15	19
AM0.7B96	96	68.6	67.2	21	10	2	56.5	6	15	20
AM0.7B100	100	71.4	70.0	21	10	2	56.5	6	15	22
AM0.7B120	120	85.4	84.0	21	10	2	77.0	6	15	25

Metric Injection Molded Gears

20° Pressure Angle DIN 782

Material: Acetal Resin (Hostaform C)



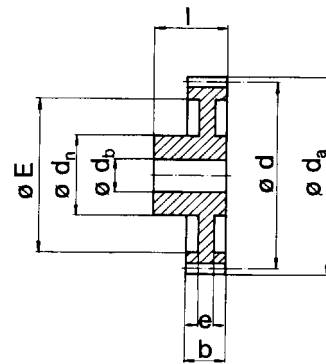
Module 1.0 Spur Gears

Part No.	Teeth	Outside Ø d _a	Pitch Ø d	Hub Ø d _h	Bore Ø d _b ±1 mm	e	Ø E	b	l	Weight g
AM1B12	12	14	12	9	4	-	-	9	17	1.8
AM1B13	13	15	13	9	4	-	-	9	17	1.9
AM1B14	14	16	14	9	4	-	-	9	17	2.2
AM1B15	15	17	15	9	4	-	-	9	17	2.5
AM1B16	16	18	16	9	4	-	-	9	17	2.8
AM1B17	17	19	17	9	4	-	-	9	17	3.0
AM1B18	18	20	18	9	4	6.0	13.5	9	17	3.2
AM1B19	19	21	19	9	4	6.0	13.5	9	17	3.5
AM1B20	20	22	20	9	4	6.0	13.5	9	17	3.9
AM1B21	21	23	21	12	5	6.0	16.0	9	17	4.7
AM1B22	22	24	22	12	5	6.0	16.0	9	17	5.1
AM1B23	23	25	23	12	5	6.0	16.0	9	17	5.6
AM1B24	24	26	24	15	6	6.0	19.0	9	18	6.6
AM1B25	25	27	25	15	6	6.0	19.0	9	18	7.2
AM1B26	26	28	26	15	6	6.0	19.0	9	18	7.7
AM1B27	27	29	27	15	6	6.0	19.0	9	18	8.1
AM1B28	28	30	28	15	6	6.0	22.0	9	18	8.4
AM1B30	30	32	30	15	6	6.0	22.0	9	18	9.4
AM1B32	32	34	32	18	6	4.6	24.5	9	18	11.3
AM1B35	35	37	35	18	8	4.6	24.5	9	18	12.7
AM1B36	36	38	36	18	8	4.6	28.0	9	18	12.6
AM1B38	38	40	38	18	8	4.6	28.0	9	18	14.0
AM1B40	40	42	40	18	8	4.6	28.0	9	18	15.6
AM1B42	42	44	42	18	8	4.6	37.0	9	18	14.0
AM1B45	45	47	45	18	8	4.6	37.0	9	18	17.0
AM1B48	48	50	48	18	8	4.6	37.0	9	18	19.8
AM1B50	50	52	50	18	8	4.6	37.0	9	18	21.6
AM1B52	52	54	52	21	8	4.6	47.0	9	18	21.4
AM1B54	54	56	54	21	8	4.6	47.0	9	18	23.5
AM1B55	55	57	55	21	8	4.6	47.0	9	18	24.7
AM1B56	56	58	56	21	8	4.6	47.0	9	18	25.9
AM1B58	58	60	58	21	8	4.6	47.0	9	18	26.8
AM1B60	60	62	60	21	8	4.6	47.0	9	18	30.5
AM1B64	64	66	64	21	10	4.6	57.0	9	18	29.8
AM1B65	65	67	65	21	10	4.6	57.0	9	18	31.0
AM1B70	70	72	70	21	10	4.6	57.0	9	18	37.7
AM1B72	72	74	72	21	10	4.6	67.0	9	18	33.8
AM1B75	75	77	75	21	10	4.6	67.0	9	18	39.1
AM1B80	80	82	80	21	10	4.6	67.0	9	18	46.5
AM1B85	85	87	85	21	10	4.6	77.0	9	18	48.7
AM1B90	90	92	90	21	10	4.6	77.0	9	18	57.5
AM1B100	100	102	100	24	12	4.6	87.0	9	18	95.1
AM1B110	110	112	110	24	12	4.6	97.0	9	18	82.5
AM1B120	120	122	120	24	12	4.6	107.0	9	18	95.2
AM1B130	130	132	130	24	12	4.6	115.0	9	18	109.3
AM1B140	140	142	140	24	12	4.6	125.0	9	18	127.1

Metric Injection Molded Gears

20° Pressure Angle DIN 782

Material: Acetal Resin (Hostaform C)



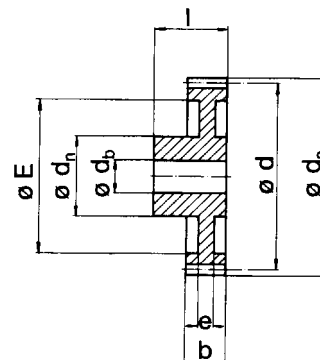
Module 1.25 Spur Gears

Part No.	Teeth	Outside Ø d_a	Pitch Ø d	Hub Ø d_n	Bore Ø $d_b \pm 1 \text{ mm}$	e	Ø E	b	l	Weight g
AM1.25B12	12	17.50	15.00	9	5	-	-	10	19	3
AM1.25B13	13	18.75	16.25	9	5	-	-	10	19	3
AM1.25B14	14	20.00	17.50	9	5	-	-	10	19	4
AM1.25B15	15	21.25	18.75	9	5	7.0	13.5	10	19	4
AM1.25B16	16	22.50	20.00	9	5	7.0	13.5	10	19	5
AM1.25B17	17	23.75	21.25	9	5	7.0	13.5	10	19	6
AM1.25B18	18	25.00	22.50	12	5	7.0	16.0	10	19	7
AM1.25B19	19	26.25	23.75	12	5	7.0	16.0	10	19	8
AM1.25B20	20	27.50	25.00	12	5	7.0	16.0	10	19	8
AM1.25B21	21	28.75	26.25	15	6	7.0	19.0	10	19	9
AM1.25B22	22	30.00	27.50	15	6	7.0	19.0	10	19	10
AM1.25B23	23	31.25	28.75	15	6	7.0	19.0	10	19	11
AM1.25B24	24	32.50	30.00	15	6	7.0	21.5	10	19	12
AM1.25B25	25	33.75	31.25	15	6	7.0	21.5	10	19	13
AM1.25B26	26	35.00	32.50	18	6	5.5	24.0	10	19	15
AM1.25B27	27	36.25	33.75	18	6	5.5	24.0	10	19	16
AM1.25B28	28	37.50	35.00	18	8	5.5	24.0	10	19	18
AM1.25B30	30	40.00	37.50	18	8	5.5	28.0	10	19	19
AM1.25B32	32	42.50	40.00	18	8	5.5	28.0	10	19	20
AM1.25B35	35	46.25	43.75	18	8	5.5	28.0	10	19	21
AM1.25B36	36	47.50	45.00	18	8	5.5	37.5	10	19	23
AM1.25B38	38	50.00	47.50	18	8	5.5	37.5	10	19	24
AM1.25B40	40	52.50	50.00	18	8	5.5	37.5	10	19	25
AM1.25B42	42	55.00	52.50	18	8	5.5	37.5	10	19	27
AM1.25B45	45	58.75	56.25	21	8	5.5	47.5	10	19	30
AM1.25B48	48	62.50	60.00	21	8	5.5	47.5	10	19	34
AM1.25B50	50	65.00	62.50	21	8	5.5	47.5	10	19	38
AM1.25B52	52	67.50	65.00	21	10	5.5	57.0	10	19	42
AM1.25B54	54	70.00	67.50	21	10	5.5	57.0	10	19	46
AM1.25B55	55	71.25	68.75	21	10	5.5	57.0	10	19	49
AM1.25B56	56	72.50	70.00	21	10	5.5	57.0	10	19	52
AM1.25B60	60	77.50	75.00	21	10	5.5	67.0	10	19	55
AM1.25B64	64	82.50	80.00	21	10	5.5	67.0	10	19	63
AM1.25B65	65	83.75	81.25	21	10	5.5	67.0	10	19	70
AM1.25B70	70	90.00	87.50	21	10	5.5	77.0	10	19	75
AM1.25B75	75	96.25	93.75	21	10	5.5	77.0	10	19	80

Metric Injection Molded Gears

20° Pressure Angle DIN 782

Material: Acetal Resin (Hostaform C)



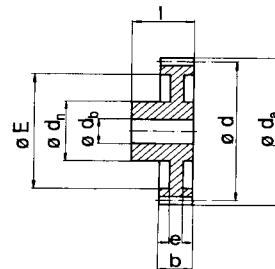
Module 1.5 Spur Gears

Part No.	Teeth	Outside Ø d_a	Pitch Ø d	Hub Ø d_h	Bore Ø $d_b \pm 1 \text{ mm}$	e	Ø E	b	l	Weight g
AM1.5B12	12	21.0	18.0	14	6	-	-	12	23	5.6
AM1.5B13	13	22.5	19.5	14	6	-	-	12	23	6.3
AM1.5B14	14	24.0	21.0	14	6	-	-	12	23	7.1
AM1.5B15	15	25.5	22.5	14	6	-	-	12	23	7.8
AM1.5B16	16	27.0	24.0	14	6	-	-	12	23	8.7
AM1.5B17	17	28.5	25.5	14	6	-	-	12	23	9.7
AM1.5B18	18	30.0	27.0	17	8	-	-	12	23	10.9
AM1.5B19	19	31.5	28.5	17	8	-	-	12	23	11.9
AM1.5B20	20	33.0	30.0	17	8	-	-	12	23	12.9
AM1.5B21	21	34.5	31.5	17	8	5	23	12	23	13.0
AM1.5B22	22	36.0	33.0	17	8	5	23	12	23	14.3
AM1.5B23	23	37.5	34.5	17	8	5	23	12	23	15.5
AM1.5B24	24	39.0	36.0	19	8	5	27	12	23	16.8
AM1.5B25	25	40.5	37.5	19	8	5	27	12	23	18.3
AM1.5B26	26	42.0	39.0	19	8	5	27	12	23	19.9
AM1.5B27	27	43.5	40.5	19	8	5	27	12	23	21.6
AM1.5B28	28	45.0	42.0	19	8	5	27	12	23	23.3
AM1.5B30	30	48.0	45.0	24	10	5	35	12	23	26.1
AM1.5B32	32	51.0	48.0	24	10	5	35	12	23	29.9
AM1.5B35	35	55.5	52.5	24	10	5	43	12	23	31.2
AM1.5B36	36	57.0	54.0	24	10	5	43	12	23	33.0
AM1.5B38	38	60.0	57.0	24	10	5	43	12	23	37.7
AM1.5B40	40	63.0	60.0	24	10	5	50	12	23	37.4
AM1.5B42	42	66.0	63.0	24	10	5	50	12	23	42.3
AM1.5B45	45	70.5	67.5	24	10	5	50	12	23	49.4
AM1.5B48	48	75.0	72.0	24	10	5	50	12	23	57.2
AM1.5B50	50	78.0	75.0	27	12	5	65	12	23	53.1
AM1.5B52	52	81.0	78.0	27	12	5	65	12	23	58.9
AM1.5B54	54	84.0	81.0	27	12	5	65	12	23	64.8
AM1.5B55	55	85.5	82.5	27	12	5	65	12	23	67.9
AM1.5B60	60	93.0	90.0	27	12	5	65	12	23	83.9
AM1.5B70	70	108	105.0	30	12	5	90	14	23	97.7
AM1.5B80	80	123	120.0	30	12	5	106	14	23	119.6
AM1.5B90	90	138	135.0	30	12	5	118	14	23	149.8

Metric Injection Molded Gears

20° Pressure Angle DIN 782

Material: Acetal Resin (Hostaform C)



Module 2.0 Spur Gears

Part No.	Teeth	Outside Ø _{da}	Pitch Ø _d	Hub Ø _{dn}	Bore Ø _{db ±1 mm}	e	Ø E	b	l	Weight g
AM2B12	12	28	24	18.5	8	-	-	15	27	11.6
AM2B13	13	30	26	18.5	8	-	-	15	27	12.9
AM2B14	14	32	28	18.5	8	-	-	15	27	14.6
AM2B15	15	34	30	18.5	8	-	-	15	27	16.4
AM2B16	16	36	32	17.5	8	6	23	15	27	16.4
AM2B17	17	38	34	17.5	8	6	25	15	27	17.9
AM2B18	18	40	36	17.5	8	6	26	15	27	19.3
AM2B19	19	42	38	17.5	8	6	28	15	27	21.2
AM2B20	20	44	40	20	10	6	29	15	27	24.1
AM2B21	21	46	42	20	10	6	29	15	27	26.7
AM2B22	22	48	44	20	10	6	29	15	27	29.3
AM2B23	23	50	46	20	10	6	36	15	27	32.1
AM2B24	24	52	48	24	10	6	36	15	27	38.7
AM2B25	25	54	50	24	10	6	36	15	27	38.4
AM2B26	26	56	52	24	10	6	40	15	27	38.8
AM2B27	27	58	54	24	10	6	40	15	27	42.1
AM2B28	28	60	56	24	10	6	40	15	27	42.2
AM2B30	30	64	60	24	10	6	46	15	27	50.6
AM2B32	32	68	64	26	10	6	46	15	27	58.6
AM2B35	35	74	70	26	12	6	56	15	27	60.9
AM2B36	36	76	72	26	12	6	56	15	27	65.5
AM2B38	38	80	76	26	12	6	64	15	27	63.9
AM2B40	40	84	80	26	12	6	64	15	27	77.0
AM2B42	42	88	84	26	12	6	64	15	27	87.7
AM2B45	45	94	90	30	14	6	70	15	27	100.6
AM2B48	48	100	96	30	14	6	76	15	27	114.7
AM2B50	50	104	100	30	14	6	80	15	27	116.7
AM2B55	55	114	110	30	14	6	90	15	27	134.8
AM2B60	60	124	120	30	14	6	100	15	27	153.8
AM2B70	70	144	140	30	14	6	110	15	27	195.7

Module 3.0 Spur Gears

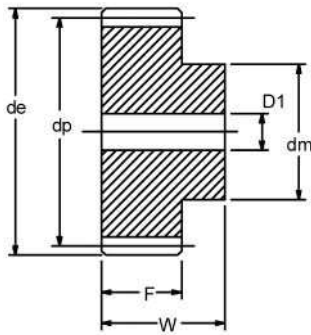
Part No.	Teeth	Outside Ø _{da}	Pitch Ø _d	Hub Ø _{dn}	Bore Ø _{db ±1 mm}	e	Ø E	b	l	Weight g
AM3B12	12	42	36	24	12	-	-	19	34	30.2
AM3B13	13	45	39	24	12	-	-	19	34	34.6
AM3B14	14	48	42	24	12	-	-	19	34	39.1
AM3B15	15	51	45	24	12	8	30	19	34	43.1
AM3B16	16	54	48	24	12	8	30	19	34	49.1
AM3B17	17	57	51	24	12	8	30	19	34	54.5
AM3B18	18	60	54	24	12	8	38	19	34	51.7
AM3B19	19	63	57	24	12	8	38	19	34	63.7
AM3B20	20	66	60	24	12	8	38	19	34	69.7
AM3B21	21	69	63	24	12	8	45	19	34	70.2
AM3B22	22	72	66	24	12	8	45	19	34	78.8
AM3B23	23	75	69	24	12	8	52	19	34	79.4
AM3B24	24	78	72	24	12	8	52	19	34	86.9
AM3B25	25	81	75	28	14	8	58	19	34	93.2
AM3B26	26	84	78	28	14	8	58	19	34	102.2
AM3B27	27	87	81	28	14	8	58	19	34	110.9
AM3B28	28	90	84	28	14	8	68	19	34	108.6
AM3B30	30	96	90	28	14	8	68	19	34	129.8
AM3B32	32	102	96	32	16	8	71	19	34	149.9
AM3B33	33	105	99	32	16	8	71	19	34	161.7
AM3B35	35	111	105	32	16	8	80	19	34	169.8
AM3B38	38	120	114	32	16	8	89	19	34	195.5
AM3B40	40	126	120	32	16	8	95	19	34	208.5
AM3B45	45	141	135	32	16	8	110	19	34	255.0

Metric Stainless Steel Gears

20° Pressure Angle

DIN 782

Material: Stainless Steel 1.4305 (AISI 303)



Spur Gears

Part No.	Module	Teeth	Tooth Face F	Width W	Outside Ø de	Pitch Ø dp	Hub Ø dm	Bore Ø D1 ±1 mm	Weight kg
SSM1B15	1	15	8	18	17.0	15.0	12	5	0.016
SSM1B20	1	20	8	18	22.0	20.0	15	6	0.027
SSM1B25	1	25	8	18	27.0	25.0	18	6	0.045
SSM1B30	1	30	8	18	32.0	30.0	20	8	0.059
SSM1B40	1	40	8	18	42.0	40.0	25	8	0.108
SSM1B60	1	60	8	18	62.0	60.0	40	10	0.260
SSM1.5B15	1.5	15	12	25	25.5	22.5	18	6	0.057
SSM1.5B20	1.5	20	12	25	33.0	30.0	20	8	0.097
SSM1.5B25	1.5	25	12	25	40.5	37.5	25	8	0.142
SSM1.5B30	1.5	30	12	25	48.0	45.0	30	10	0.195
SSM1.5B40	1.5	40	12	25	63.0	60.0	40	10	0.355
SSM1.5B60	1.5	60	12	25	93.0	90.0	60	12	0.815
SSM2B15	2	15	16	30	34.0	30.0	24	8	0.118
SSM2B20	2	20	16	30	44.0	40.0	28	10	0.195
SSM2B25	2	25	16	30	54.0	50.0	30	10	0.285
SSM2B30	2	30	16	30	64.0	60.0	40	12	0.448
SSM2B40	2	40	16	30	84.0	80.0	50	12	0.760
SSM2B60	2	60	16	30	124.0	120.0	80	15	1.910
SSM3B15	3	15	25	40	51.0	45.0	30	12	0.375
SSM3B20	3	20	25	40	66.0	60.0	40	15	0.600
SSM3B25	3	25	25	40	81.0	75.0	50	15	0.955
SSM3B30	3	30	25	40	96.0	90.0	60	20	1.450
SSM3B40	3	40	25	40	126.0	120.0	80	20	2.980
SSM3A60	3	60	25	—	186.0	180.0	—	25	4.840
SSM4B15	4	15	32	50	68.0	60.0	45	15	0.796
SSM4B20	4	20	32	50	88.0	80.0	50	20	1.383
SSM4B25	4	25	32	50	108.0	100.0	60	20	2.220
SSM4B30	4	30	32	50	128.0	120.0	80	25	3.290
SSM4A40	4	40	32	—	168.0	160.0	—	25	4.920
SSM4A60	4	60	32	—	248.0	240.0	—	30	11.060

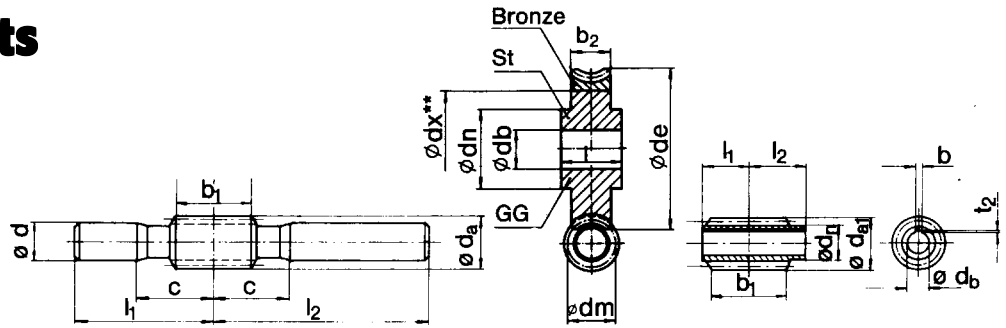
Note: "A" type gears with out hub.

Note: "B" type gears with hub.

Worm Gear Units

DIN 3975/3976

Right Hand



Worm Shaft (Material: 16 MnCr 5/ AISI 5115)

50 mm Center Distance

Part No.	Ratio	Module	Threads	dm	d _a	d	c	l ₁	l ₂	b ₁	Weight kg
WS50x2.5x4x26.5	7.25:1	2.5	4	26.5	31.5	22	33	65	115	34	0.574
WS50x2x4x22.4	9.50:1	2	4	22.4	26.4	22	30	65	115	32	0.523
WS50x1.6x4x23	12.00:1	1.6	4	23	26.2	22	30	65	115	28	0.532
WS50x2.5x2x26.5	14.50:1	2.5	2	26.5	31.5	22	30	65	115	34	0.576
WS50x2x2x22.4	19.00:1	2	2	22.4	26.4	22	30	65	115	32	0.523
WS50x1.6x2x23	24.00:1	1.6	2	23	26.2	22	30	65	115	28	0.532
WS50x2.5x1x26.5	29.00:1	2.5	1	26.5	31.5	22	30	65	115	34	0.576
WS50x2x1x22.4	38.00:1	2	1	22.4	26.4	22	30	65	115	32	0.523
WS50x1.6x1x23	48.00:1	1.6	1	23	26.2	22	30	65	115	28	0.532
WS50x1.25x1x22.4	62.00:1	1.25	1	22.4	24.9	22	25	65	115	25	0.528
WS50x1x1x18	82.00:1	1	1	18	20	20.5	25	65	115	22	0.430

Note: WS = unhardened; WHS = hardened (shaft extensions are soft for machining)

Worm Gear

Part No.	Ratio	Module	Threads	Teeth	d _e	d _n	d _b	dx	b ₂	l	Weight kg	Weight kg
WG50x2.5x4x29	7.25:1	2.5	4	29	82	50	20	52	20	26	0.755	0.656
WG50x2x4x38	9.50:1	2	4	38	84	50	20	59	18	26	0.790	0.688
WG50x1.6x4x48	12.00:1	1.6	4	48	82	50	20	59	16	26	0.733	0.636
WG50x2.5x2x29	14.50:1	2.5	2	29	82	50	20	52	20	26	0.755	0.656
WG50x2x2x38	19.00:1	2	2	38	84	50	20	59	18	26	0.790	0.688
WG50x1.6x2x48	24.00:1	1.6	2	48	82	50	20	59	16	26	0.733	0.636
WG50x2.5x1x29	29.00:1	2.5	1	29	82	50	20	52	20	26	0.755	0.656
WG50x2x1x38	38.00:1	2	1	38	84	50	20	59	18	26	0.790	0.688
WG50x1.6x1x48	48.00:1	1.6	1	48	82	50	20	59	16	26	0.733	0.636
WG50x1.25x1x62	62.00:1	1.25	1	62	82	50	15	61	16	22	0.776	0.676
WG50x1x1x82	82.00:1	1	1	82	84.9	50	15	66	14	22	0.734	0.638

Note: WGB = brass worm gear; WGC = cast worm gear

Bored Worm (Material: C 45/ AISI 1045)

Part No.	Ratio	Module	Threads	dm	d _a	d _n	d _b	b	t ₂	l ₁	l ₂	b ₁	Weight kg
W50x2.5x4x26.5	7.25:1	2.5	4	26.5	31.5	20	12	4	1.8	19.5	27.5	34	0.137
W50x2x4x22.4	9.50:1	2	4	22.4	26.4	17	10	3	1.4	18.5	24.5	32	0.091
W50x1.6x4x23	12.00:1	1.6	4	23	26.2	18.5	12	4	1.8	16.0	24.0	28	0.080
W50x2.5x2x26.5	14.50:1	2.5	2	26.5	31.5	20	12	4	1.8	19.5	27.5	34	0.137
W50x2x2x22.4	19.00:1	2	2	22.4	26.4	17	10	3	1.4	18.5	24.5	32	0.091
W50x1.6x2x23	24.00:1	1.6	2	23	26.2	18.5	12	4	1.8	16.0	24.0	28	0.080
W50x2.5x1x26.5	29.00:1	2.5	1	26.5	31.5	20	12	4	1.8	19.5	27.5	34	0.137
W50x2x1x22.4	38.00:1	2	1	22.4	26.4	17	10	3	1.4	18.5	24.5	32	0.091
W50x1.6x1x23	48.00:1	1.6	1	23	26.2	18.5	12	4	1.8	16.0	24.0	28	0.080
W50x1.25x1x22.4	62.00:1	1.25	1	22.4	24.9	19	12	4	1.8	14.5	22.5	25	0.070
W50x1x1x18	82.00:1	1	1	18	20	15	10	3	1.4	12.5	18.5	22	0.037

Note: Bored and keyed to DIN 6885

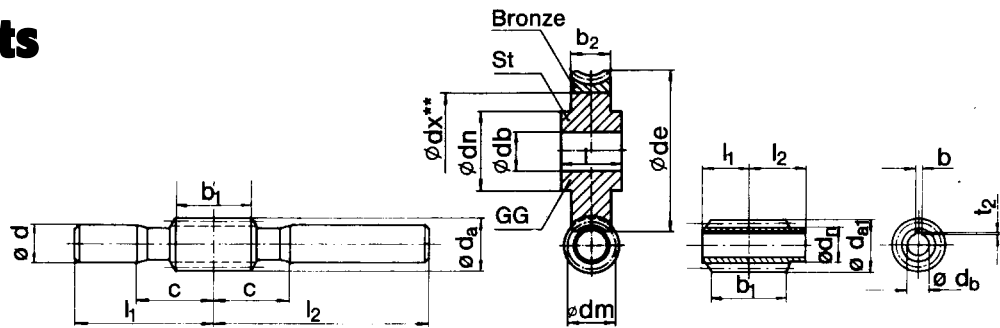


American Metric® Corporation

Worm Gear Units

DIN 3975/3976

Right Hand



Worm Shaft (Material: 16 MnCr 5/ AISI 5115)

63 mm Center Distance

Part No.	Ratio	Module	Threads	d_m	d_a	d	c	l_1	l_2	b_1	Weight kg
WS63x3.15x4x33.5	7.25:1	3.15	4	33.5	39.8	27	40	75	135	40	1.03
WS63x2.5x4x26.5	9.75:1	2.5	4	26.5	31.5	27	40	75	135	40	0.888
WS63x2x4x28	12.25:1	2	4	28	32	27	35	75	135	32	0.931
WS63x3.15x2x33.5	14.50:1	3.15	2	33.5	39.8	27	35	75	135	40	1.04
WS63x2.5x2x26.5	19.50:1	2.5	2	26.5	31.5	27	35	75	135	40	0.900
WS63x2x2x28	24.50:1	2	2	28	32	27	35	75	135	32	0.931
WS63x3.15x1x33.5	29.00:1	3.15	1	33.5	39.8	27	35	75	135	40	1.04
WS63x2.5x1x26.5	39.00:1	2.5	1	26.5	31.5	27	35	75	135	40	0.900
WS63x2x1x28	49.00:1	2	1	28	32	27	35	75	135	32	0.931
WS63x1.6x1x28	61.00:1	1.6	1	28	31.2	27	30	75	135	30	0.935
WS63x1.25x1x22.4	83.00:1	1.25	1	22.4	24.9	25.5	25	75	135	25	0.789

Note: WS = unhardened; WHS = hardened (shaft extensions are soft for machining)

Worm Gear

Part No.	Ratio	Module	Threads	Teeth	d_e	d_n	d_b	dx	b_2	l	Weight kg	Weight kg
WG63x3.15x4x29	7.25:1	3.15	4	29	102	60	25	68	26	32	1.50	1.31
WG63x2.5x4x39	9.75:1	2.5	4	39	107	60	25	78	22	32	1.57	1.36
WG63x2x4x49	12.25:1	2	4	49	104	60	25	80	20	32	1.44	1.25
WG63x3.15x2x29	14.50:1	3.15	2	29	102	60	25	68	26	32	1.50	1.31
WG63x2.5x2x39	19.50:1	2.5	2	39	107	60	25	78	22	32	1.57	1.36
WG63x2x2x49	24.50:1	2	2	49	104	60	25	80	20	32	1.44	1.25
WG63x3.15x1x29	29.00:1	3.15	1	29	102	60	25	68	26	32	1.50	1.31
WG63x2.5x1x39	39.00:1	2.5	1	39	107	60	25	78	22	32	1.57	1.36
WG63x2x1x49	49.00:1	2	1	49	104	60	25	80	20	32	1.44	1.25
WG63x1.6x1x61	61.00:1	1.6	1	61	104	60	20	81	20	32	1.48	1.29
WG63x1.25x1x83	83.00:1	1.25	1	83	107.4	60	20	87	16	26	1.32	1.15

Note: WGB = brass worm gear; WGC = cast worm gear

Bored Worm (Material: C 45/ AISI 1045)

Part No.	Ratio	Module	Threads	d_m	d_a	d_n	d_b	b	t_2	l_1	l_2	b_1	Weight kg
W63x3.15x4x33.5	7.25:1	3.15	4	33.5	39.8	25	16	5	2.3	23	33	40	0.248
W63x2.5x4x26.5	9.75:1	2.5	4	26.5	31.5	20	12	4	1.8	22.5	30.5	40	0.158
W63x2x4x28	12.25:1	2	4	28	32	22.5	14	5	2.3	18.5	28.5	32	0.144
W63x3.15x2x33.5	14.50:1	3.15	2	33.5	39.8	25	16	5	2.3	23	33	40	0.248
W63x2.5x2x26.5	19.50:1	2.5	2	26.5	31.5	20	12	4	1.8	22.5	30.5	40	0.158
W63x2x2x28	24.50:1	2	2	28	32	22.5	14	5	2.3	18.5	28.5	32	0.144
W63x3.15x1x33.5	29.00:1	3.15	1	33.5	39.8	25	16	5	2.3	23	33	40	0.248
W63x2.5x1x26.5	39.00:1	2.5	1	26.5	31.5	20	12	4	1.8	22.5	30.5	40	0.158
W63x2x1x28	49.00:1	2	1	28	32	22.5	14	5	2.3	18.5	28.5	32	0.144
W63x1.6x1x28	61.00:1	1.6	1	28	31.2	23.5	16	5	2.3	17	27	30	0.123
W63x1.25x1x22.4	83.00:1	1.25	1	22.4	24.9	19	12	4	1.8	14.5	22.5	25	0.070

Note: Bored and keyed to DIN 6885



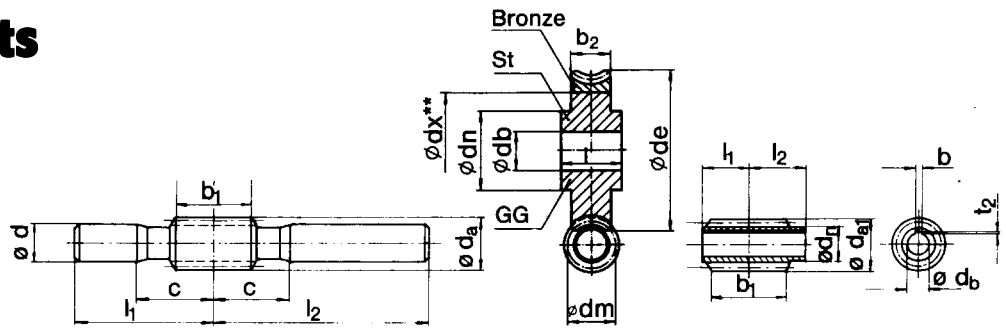
American Metric® Corporation

1-028 - 70414

Worm Gear Units

DIN 3975/3976

Right Hand



Worm Shaft (Material: 16 MnCr 5/ AISI 5115)

80 mm Center Distance

Part No.	Ratio	Module	Threads	d_m	d_a	d	c	l_1	l_2	b_1	Weight kg
WS80x4x4x40	7.5:1	4	4	40	48	32	50	90	170	50	1.81
WS80x3.15x4x33.5	10.0:1	3.15	4	33.5	39.8	32	46	90	170	46	1.61
WS80x2.5x4x33.5	12.5:1	2.5	4	33.5	38.5	32	42	90	170	46	1.63
WS80x4x2x40	15.0:1	4	2	40	48	32	42	90	170	50	1.82
WS80x3.15x2x33.5	20.0:1	3.15	2	33.5	39.8	32	42	90	170	46	1.61
WS80x2.5x2x33.5	25.0:1	2.5	2	33.5	38.5	32	42	90	170	46	1.63
WS80x4x1x40	30.0:1	4	1	40	48	32	42	90	170	50	1.82
WS80x3.15x1x33.5	40.0:1	3.15	1	33.5	39.8	32	42	90	170	46	1.61
WS80x2.5x1x33.5	50.0:1	2.5	1	33.5	38.5	32	42	90	170	46	1.63
WS80x2x1x35.5	62.0:1	2	1	35.5	39.5	32	35	90	170	38	1.67
WS80x1.6x1x28	82.0:1	1.6	1	28	31.2	30.5	35	90	170	36	1.42

Note: WS = unhardened; WHS = hardened (shaft extensions are soft for machining)

Worm Gear

Part No.	Ratio	Module	Threads	Teeth	d_o	d_n	d_b	dx	b_2	l	Weight kg	Weight kg
WG80x4x4x30	7.5:1	4	4	30	132	70	30	94	32	40	3.10	2.70
WG80x3.15x4x40	10.0:1	3.15	4	40	136	70	30	103	28	40	2.99	2.61
WG80x2.5x4x50	12.5:1	2.5	4	50	134	70	30	105	26	40	2.93	2.55
WG80x4x2x30	15.0:1	4	2	30	132	70	30	94	32	40	3.10	2.70
WG80x3.15x2x40	20.0:1	3.15	2	40	136	70	30	103	28	40	2.99	2.61
WG80x2.5x2x50	25.0:1	2.5	2	50	134	70	30	105	26	40	2.93	2.55
WG80x4x1x30	30.0:1	4	1	30	132	70	30	94	32	40	3.10	2.70
WG80x3.15x1x40	40.0:1	3.15	1	40	136	70	30	103	38	40	2.99	2.61
WG80x2.5x1x50	50.0:1	2.5	1	50	134	70	30	105	26	40	2.93	2.55
WG80x2x1x62	62.0:1	2	1	62	131	70	30	106	24	40	2.70	2.35
WG80x1.6x1x82	82.0:1	1.6	1	82	137	70	30	114	18	40	2.48	2.16

Note: WGB = brass worm gear; WGC = cast worm gear

Bored Worm (Material: C 45/ AISI 1045)

Part No.	Ratio	Module	Threads	d_m	d_a	d_n	d_b	b	t_2	l_1	l_2	b_1	Weight kg
W80x4x4x30	7.5:1	4	4	40	48	30	20	6	2.8	29.0	39.0	50	0.429
W80x3.15x4x40	10.0:1	3.15	4	33.5	39.8	25	16	5	2.3	26.0	36.0	46	0.280
W80x2.5x4x50	12.5:1	2.5	4	33.5	38.5	27	18	6	2.8	25.5	37.5	46	0.266
W80x4x2x30	15.0:1	4	2	40	48	30	20	6	2.8	29.0	39.0	50	0.429
W80x3.15x2x40	20.0:1	3.15	2	33.5	39.8	25	16	5	2.3	26.0	36.0	46	0.280
W80x2.5x2x50	25.0:1	2.5	2	33.5	38.5	27	18	6	2.8	25.5	37.5	46	0.266
W80x4x1x30	30.0:1	4	1	40	48	30	20	6	2.8	29.0	39.0	50	0.429
W80x3.15x1x40	40.0:1	3.15	1	33.5	39.8	25	16	5	2.3	26.0	36.0	46	0.280
W80x2.5x1x50	50.0:1	2.5	1	33.5	38.5	27	18	6	2.8	25.5	37.5	46	0.266
W80x2x1x62	62.0:1	2	1	35.5	39.5	30	20	6	2.8	21.5	33.5	38	0.249
W80x1.6x1x82	82.0:1	1.6	1	28	31.2	23.5	16	5	2.3	20.0	30.0	36	0.143

Note: Bored and keyed to DIN 6885

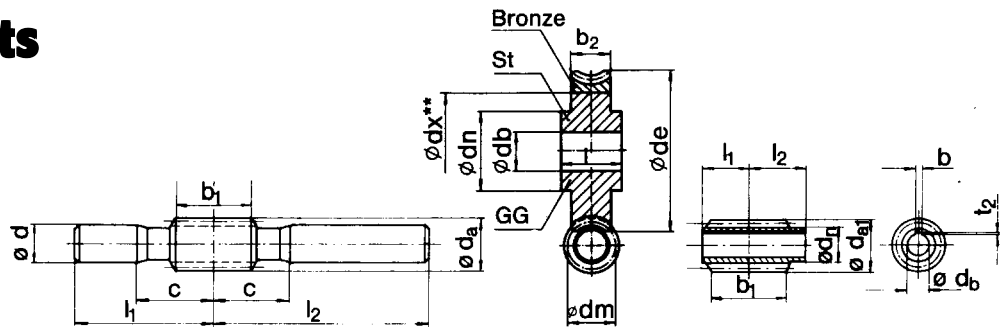


American Metric® Corporation

Worm Gear Units

DIN 3975/3976

Right Hand



Worm Shaft (Material: 16 MnCr 5/ AISI 5115)

100 mm Center Distance

Part No.	Ratio	Module	Threads	d_m	d_a	d	c	l_1	l_2	b_1	Weight kg
WS100x5x4x50	7.5:1	5	4	50	60	37	40	130	220	60	3.39
WS100x4x4x40	10.0:1	4	4	40	48	37	54	130	220	54	2.94
WS100x3.15x4x42.5	12.5:1	3.15	4	42.5	48.8	37	45	130	220	50	3.07
WS100x5x2x50	15.0:1	5	2	50	60	37	40	130	220	60	3.39
WS100x4x2x40	20.0:1	4	2	40	48	37	45	130	220	54	2.98
WS100x3.15x2x42.5	25.0:1	3.15	2	42.5	48.8	37	45	130	220	50	3.07
WS100x5x1x50	30.0:1	5	1	50	60	37	40	130	220	60	3.39
WS100x4x1x40	40.0:1	4	1	40	48	37	45	130	220	54	2.98
WS100x3.15x1x42.5	50.0:1	3.15	1	42.5	48.8	37	45	130	220	50	3.07
WS100x2.5x1x42.5	62.0:1	2.5	1	42.5	47.5	37	40	130	220	45	3.07
WS100x2x1x35.5	82.0:1	2	1	35.5	39.5	37	40	130	220	42	2.88

Note: WS = unhardened; WHS = hardened (shaft extensions are soft for machining)

Worm Gear

Part No.	Ratio	Module	Threads	Teeth	d_e	d_n	d_b	dx	b_2	l	Weight kg	Weight kg
WG100x5x4x30	7.5:1	5	4	30	165	85	40	120	40	50	5.98	5.20
WG100x4x4x40	10.0:1	4	4	40	172	85	40	134	34	50	6.06	5.29
WG100x3.15x4x50	12.5:1	3.15	4	50	167	85	40	134	32	50	5.65	4.93
WG100x5x2x30	15.0:1	5	2	30	165	85	40	120	40	50	5.98	5.20
WG100x4x2x40	20.0:1	4	2	40	172	85	40	134	34	50	6.06	5.29
WG100x3.15x2x50	25.0:1	3.15	2	50	167	85	40	134	32	50	5.65	4.93
WG100x5x1x30	30.0:1	5	1	30	165	85	40	120	40	50	5.98	5.20
WG100x4x1x40	40.0:1	4	1	40	172	85	40	134	34	50	6.06	5.29
WG100x3.15x1x50	50.0:1	3.15	1	50	167	85	40	134	32	50	5.65	4.93
WG100x2.5x1x63	62.0:1	2.5	1	63	165	85	40	137	28	50	5.16	4.50
WG100x2x1x82	82.0:1	2	1	82	170.5	85	40	146	24	50	5.07	4.41

Note: WGB = brass worm gear; WGC = cast worm gear

Bored Worm (Material: C 45/ AISI 1045)

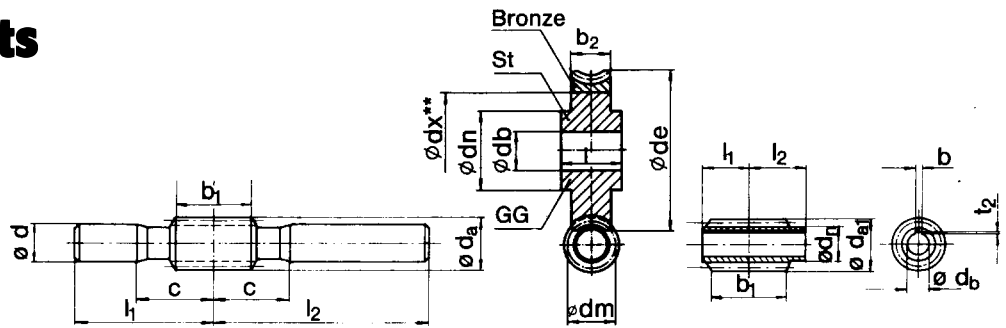
Part No.	Ratio	Module	Threads	d_m	d_a	d_n	d_b	b	t_2	l_1	l_2	b_1	Weight kg
W100x5x4x50	7.5:1	5	4	50	60	37.5	26	8	3.3	35	50	60	0.776
W100x4x4x40	10.0:1	4	4	40	48	30	20	6	2.8	31	42	54	0.451
W100x3.15x4x52.5	12.5:1	3.15	4	42.5	48.8	34.5	24	8	3.3	28	44	50	0.450
W100x5x2x50	15.0:1	5	2	50	60	37.5	26	8	3.3	35	50	60	0.776
W100x4x2x40	20.0:1	4	2	40	48	30	20	6	2.8	31	42	54	0.451
W100x3.15x2x42.5	25.0:1	3.15	2	42.5	48.8	34.5	24	8	3.3	28	44	50	0.450
W100x5x1x50	30.0:1	5	1	50	60	37.5	26	8	3.3	35	50	60	0.776
W100x4x1x40	40.0:1	4	1	40	48	30	20	6	2.8	31	42	54	0.451
W100x3.15x1x42.5	50.0:1	3.15	1	42.5	48.8	34.5	24	8	3.3	28	44	50	0.450
W100x2.5x1x42.5	62.0:1	2.5	1	42.5	47.5	35.5	26	8	3.3	25	41	45	0.385
W100x2x1x35.5	82.0:1	2	1	35.5	39.5	30	20	6	2.8	23.5	35.5	42	0.270

Note: Bored and keywayed to DIN 6885

Worm Gear Units

DIN 3975/3976

Right Hand



Worm Shaft (Material: 16 MnCr 5/ AISI 5115)

125 mm Center Distance

Part No.	Ratio	Module	Threads	dm	d _a	d	c	l ₁	l ₂	b ₁	Weight kg
WS125x6.3x4x63	7.25:1	6.3	4	63	75.6	47.5	50	150	250	86	6.52
WS125x5x4x50	10.00:1	5	4	50	60	50	68	150	250	69	5.89
WS125x4x4x50	12.50:1	4	4	50	58	50	56	150	250	60	6.02
WS125x6.3x2x63	14.50:1	6.3	2	63	75.6	50	68	150	250	86	6.91
WS125x5x2x50	20.00:1	5	2	50	60	50	56	150	250	69	5.99
WS125x4x2x50	25.00:1	4	2	50	58	50	56	150	250	60	6.02
WS125x6.3x1x63	29.00:1	6.3	1	63	75.6	50	62	150	250	86	6.89
WS125x5x1x50	40.00:1	5	1	50	60	50	56	150	250	69	5.99
WS125x4x1x50	50.00:1	4	1	50	58	50	56	150	250	60	6.02
WS125x3.15x1x53	62.00:1	3.15	1	53	59.3	50	50	150	250	60	6.19
WS125x2.5x1x42.5	83.00:1	2.5	1	42.5	47.5	47	50	150	250	50	5.18

Note: WS = unhardened; WHS = hardened (shaft extensions are soft for machining)

Worm Gear

Part No.	Ratio	Module	Threads	Teeth	d _a	d _n	d _b	dx	b ₂	l	Weight kg	Weight kg
WG125x6.3x4x29	7.25:1	6.3	4	29	206	100	50	148	50	60	11.33	9.87
WG125x5x4x40	10.00:1	5	4	40	215	100	50	170	40	60	11.05	9.61
WG125x4x4x50	12.50:1	4	4	50	212	100	50	174	34	60	10.25	8.93
WG125x6.3x2x29	14.50:1	6.3	2	29	206	100	50	148	50	60	11.33	9.87
WG125x5x2x40	20.00:1	5	2	40	215	100	50	170	40	60	11.05	9.61
WG125x4x2x50	25.00:1	4	2	50	212	100	50	174	34	60	10.25	8.93
WG125x6.3x1x29	29.00:1	6.3	1	29	206	100	50	148	50	60	11.33	9.87
WG125x5x1x40	40.00:1	5	1	40	215	100	50	170	40	60	11.05	9.61
WG125x4x1x50	50.00:1	4	1	50	212	100	50	174	34	60	10.25	8.93
WG125x3.15x1x62	62.00:1	3.15	1	62	206.5	100	50	174	34	60	9.55	8.32
WG125x2.5x1x83	83.00:1	2.5	1	83	215	100	50	186	28	60	9.19	7.95

Note: WGB = brass worm gear; WGC = cast worm gear

Bored Worm (Material: C 45/ AISI 1045)

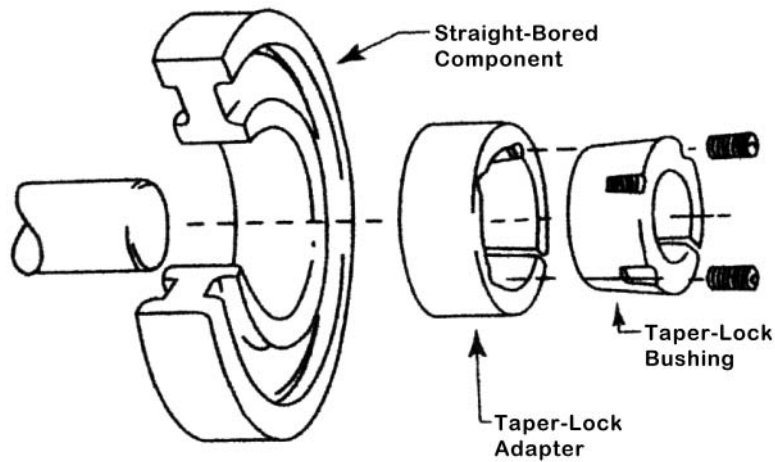
Part No.	Ratio	Module	Threads	dm	d _a	d _n	d _b	b	t ₂	l ₁	l ₂	b ₁	Weight kg
W125x6.3x4x63	7.25:1	6.3	4	63	75.6	47	32	10	3.3	49.0	68.0	86	1.78
W125x5x4x50	10.00:1	5	4	50	60	37	26	8	3.3	39.5	54.5	69	0.882
W125x4x4x50	12.50:1	4	4	50	58	40	30	8	3.3	34.0	50.0	60	0.675
W125x6.3x2x63	14.50:1	6.3	2	63	75.6	47	32	10	3.3	49.0	68.0	86	1.78
W125x5x2x50	20.00:1	5	2	50	60	37	26	8	3.3	39.5	54.5	69	0.882
W125x4x2x50	25.00:1	4	2	50	58	40	30	8	3.3	34.0	50.0	60	0.675
W125x6.3x1x63	29.00:1	6.3	1	63	75.6	47	32	10	3.3	49.0	68.0	86	1.78
W125x5x1x50	40.00:1	5	1	50	60	37	26	8	3.3	39.5	54.5	69	0.882
W125x4x1x50	50.00:1	4	1	50	58	40	30	8	3.3	34.0	50.0	60	0.675
W125x3.15x1x53	62.00:1	3.15	1	53	59.3	45	32	10	3.3	33.0	53.0	60	0.813
W125x2.5x1x42.5	83.00:1	2.5	1	42.5	47.5	36	26	8	3.3	27.5	43.5	50	0.419

Note: Bored and keyed to DIN 6885



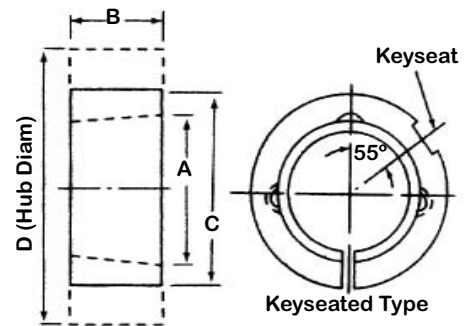
American Metric® Corporation

Steel Locking Ring Adaptor for Taper Bushing



Locking Ring Adaptor for Taper Bushings have the advantage of only require moderate tolerance straight-through bore and keyseat, thereby eliminating the precision machining required to produce a seat for a Taper Bushing.

The Locking Ring Adaptor is split with a gap so when the Taper Bushing is tightened the Locking Ring Adaptor expands to "seat" against the straight-through bore while clamping tightly on the shaft.



Part No.	A	B	C	D	Keyseat	Wt./Lbs.
TBA 1215B-S	1 7/8	1 1/2	2 3/8	3 1/4	1/4 x 1/8	0.7
TBA 1615B-S	2 1/4	1 1/2	2 3/4	3 1/2	3/8 x 1/8	0.9
TBA 2517B-S-ANSI	3 3/8	1 3/4	4 1/8	5	5/8 x 1/8	2.2
TBA 2517B-S-BSW	-	-	-	-	-	-
TBA 2525B-S-ANSI	3 3/8	2 1/2	4 1/8	5	5/8 x 1/8	3.2
TBA 2525B-S-BSW	-	-	-	-	-	-
TBA 3030B-S	4 1/4	3	5 1/8	6 1/4	3/4 x 3/16	5.8
TBA 3535B-S-ANSI	5	3 1/2	6 1/4	7 7/8	7/8 x 3/16	11.3
TBA 3535B-S-BSW	-	-	-	-	-	-
TBA 4040B-S	5 3/4	4	7 1/4	9 3/8	1 x 3/16	17.3
TBA 4545B-S	6 3/8	4 1/2	7 7/8	10 1/4	1 x 3/16	21.9