

www.tmg-korea.com



tmg KOREA



tmg KOREA

THE BEST TECHNOLOGY & QUALITY

WORM GEAR ACTUATORS / BEVEL GEAR ACTUATOR



CEO'S MESSAGE

Business Introduction

TMG KOREA CORP., since its establishment in 2006, has been manufacturing industrial gear operators- BEVEL, WORM, SPUR and specialty products- for automated valves and other special needs.

TMG KOREA CORP. has been building a reputation for superior quality, workmanship and attention to details which result in the valve actuators, hand wheels and specialty products that consistently outperform and outlast the competing products.

TMG has become the byword for excellence in the field of valve -Butterfly, Ball, Globe, Gate and damper actuation products for the oil, gas, power, water and waste treatment industries worldwide. In addition, typical machining activities for manufacturing gear operators such as hobbing of worm gear teeth, the boring and keying of worm segments, broaching operations, drilling, tapping and others services are all performed in adherence to the strict tolerance policy and are completed in our own factory. This allows us to abide by the planned time schedules in order to meet prescribed delivery dates required from customers.

Assembled units are randomly selected and tested to ensure quality and customer satisfaction. Our exhaustive processing management & ERP system ensure that we are able to respond quickly and efficiently at local and international levels from the initial enquiries to supply & after-sale service.

We will never cease to pursue & develop the gear actuators of high performance & efficiency based on constant self-innovation to meet customers' requirements & expectations and lead the market by supplying top-notch products through technological challenge & innovation.

Sung-Kwang Kim / President

QUALITY OBJECTIVES

“Quality Assurance is the Hallmark of TMG KOREA CORP.”

01. Establishment of Quality Management System

02. Customer-Oriented Quality

03. Continuous Quality Improvement and Training

* All processes are based on ISO 9001:2015 Quality Standards.

COMPANY HISTORY

- 2006 ○ 07 Establishment of TMG KOREA CORP as a Gear Box Manufacturer.
- 2008 ○ 03 Received ISO 9001 (2008) Certificate from ABS Quality Evaluations.
○ 08 Received Certificate of Pattern for Automatic De-clutchable Worm Gear. (No. 10-0836363)
- 2009 ○ 06 Moved to New Factory.
○ 07 Designated as “Clean Workshop” from KOSH.
- 2010 ○ 05 Received Certificate of Venture Company (20100202214/KIBO).
- 2011 ○ 06 Received Certificate of Pattern for Dual Worm Gear Box. (No.10-0836868)
- 2012 ○ 09 Received Certificate of TMG KOREA CORP Research Branch Lab from KITP.
○ 12 Awarded a Youthful Enterpriser Prize from Korean Government.
○ 12 Certified as Promising Export Firm from SMBA, Korea.
- 2013 ○ 02 Recognized as “Company Specialized in Parts”.
○ 03 Recognized as Innobiz Enterprise from SMBA.
○ 05 CE Acquisition for Worm/Bevel gear actuator.
- 2014 ○ 04 Relocated to New Plant at Hwajeon Industrial Area.
○ 12 Participated in 2014 Valve World Expo in Dusseldorf.
- 2015 ○ 03 Recognized as 2015 Employment Excellent Company from Busan Metro City.
○ 04 Awarded Best Enterprise from Korean Government.
○ 05 Received Certification of CE-ATEX for Worm and Bevel Gear Box.
○ 07 Won the Grand prize of 2015 Busan Midsize Business person Awards.
- 2016 ○ 12 Participated in Valve world Expo 2016 in Dusseldorf, Germany in 2016.
- 2017 ○ 06 Participated in the Houston Valve Exhibition in the United States.
○ 10 Received ISO 9001(2015) Certificate from SGS Quality Evaluations
- 2018 ○ 02 Certified as Promising Export Firm in 2018 from SMBA, Korea.
○ 09 The registration of the patent for Motorized gearbox which includes a manual operation switching lever(Registration Number 1897151)
○ 11 Participated in Valve world Expo 2018 in Dusseldorf, Germany in 2018.
○ 12 Certified as a leading company for strategic industries in Busan Metropolitan City
- 2019 ○ 04 Certified a GOST-R (Conformity with standards established by the Russian Federation)
○ 12 Awarded Trade Promotion in 2019 from the Ministry of Trade, Industry and Energy
○ 12 Awarded Outstanding Export Performance (USD 3,000,000)
- 2020 ○ 01 Awarded Talent Development-oriented Small and Medium Enterprises selected by Ministry of SMEs and Startups
- 2021 ○ 12 SIL certificate received based on the FMEDA process
- 2022 ○ 02 Awarded Technology Innovation-oriented Small and medium Enterprises selected by Ministry of SMEs and Startups
○ 02 Designated as a Small Giant Company of Korea by Ministry of SMEs and Startups
- 2023 ○ 01 We expanded our factory and upgraded our facilities to enhance our manufacturing capabilities
○ 07 Awarded Outstanding Export Performance (USD 7,000,000)



CONTENTS

The Best Technology & Quality

CONTENTS

- | | |
|--------------------------------|---|
| 06 WORM GEAR ACTUATORS | 12 WORM GEAR ASSEMBLY |
| 07 BEVEL GEAR ACTUATORS | 13 WORM GEAR CONSTRUCTION |
| 08 TMG 3D MODELING VIEW | 14 BEVEL GEAR ASSEMBLY |
| 09 TMG 3D MODELING VIEW | 15 BEVEL GEAR CONSTRUCTION |
| 10 TMG 3D MODELING VIEW | 16 SPUR ASSEMBLY & CONSTRUCTION |
| 11 TMG PHOTOGRAPH VIEW | 17 SPUR DOUBLE ASSEMBLY & CONSTRUCTION |

TM-W SERIES

- | | |
|--|--|
| 18 WORM GEAR GENERAL | 27 WORM GEAR + WORM |
| 19 WORM GEAR + CHAIN WHEEL | 28 DECLUTCH GEAR GENERAL |
| 20 WORM GEAR MULTI TURN | 29 DECLUTCH GEAR + SPUR |
| 21 WORM GEAR TRAVELING | 30 DECLUTCH GEAR + SPUR DOUBLE |
| 22 WORM GEAR + SPUR | 31 DECLUTCH GEAR (FOR PNEUMATIC ACTUATOR) |
| 23 WORM GEAR + SPUR TWIN SHAFT | 32 DECLUTCH GEAR + SPUR (FOR PNEUMATIC ACTUATOR) |
| 24 WORM GEAR + SPUR DOUBLE | 33 DECLUTCH GEAR + SPUR DOUBLE (FOR PNEUMATIC ACTUATOR) |
| 25 WORM GEAR + SPUR DOUBLE TWIN SHAFT | |
| 26 WORM GEAR + BEVEL | |

TM-B SERIES

- | | |
|---|--|
| 34 BEVEL GEAR GENERAL | 47 BEVEL GEAR HEAVY DUTY + SPUR DOUBLE |
| 35 BEVEL GEAR + CHAIN WHEEL | 48 BEVEL GEAR HEAVY DUTY + SPUR DOUBLE TWIN SHAFT |
| 36 BEVEL GEAR + POSITION INDICATOR | 49 BEVEL GEAR HEAVY DUTY + BEVEL |
| 37 BEVEL GEAR + SPUR + POSITION INDICATOR | 50 BEVEL GEAR 3WAY |
| 38 BEVEL GEAR + SPUR | 41 BEVEL GEAR 3WAY + SPUR |
| 39 BEVEL GEAR + SPUR TWIN SHAFT | 52 BEVEL GEAR 3WAY + SPUR DOUBLE |
| 40 BEVEL GEAR + SPUR DOUBLE | 53 BEVEL GEAR 3WAY + BEVEL |
| 47 BEVEL GEAR + SPUR DOUBLE TWIN SHAFT | 54 BEVEL GEAR HEAVY DUTY + 3WAY |
| 42 BEVEL GEAR + SPUR DOUBLE + POSITION INDICATOR | 55 BEVEL GEAR HEAVY DUTY + 3WAY + SPUR |
| 43 BEVEL GEAR + BEVEL | 56 BEVEL GEAR HEAVY DUTY + 3WAY + SPUR DOUBLE |
| 44 BEVEL GEAR HEAVY DUTY | 57 BEVEL GEAR HEAVY DUTY + 3WAY + BEVEL |
| 45 BEVEL GEAR HEAVY DUTY + SPUR | 58 DUAL INPUT BEVEL GEAR |
| 46 BEVEL GEAR HEAVY DUTY + SPUR TWIN SHAFT | |

SPUR GEAR SERIES

- | | |
|--|---|
| 60 SPUR GEAR ASSEMBLY (V-TYPE) | 77 OPERATION DIRECTION |
| 61 SPUR GEAR CONSTRUCTION (V-TYPE) | 78 PERFORMING TEST RESULTS |
| 62 SPUR GEAR (V-TYPE) | 79 PERFORMING TEST RESULTS |
| 63 PLANETARY GEAR REDUCER | 80 PERFORMANCE TEST FOR IP 67/68 |
| 64 PLANETARY GEAR REDUCER | 81 PERFORMANCE TEST FOR IP 67/68 |
| 65 PLANETARY GEAR + DUAL INPUT SPEED | 82 TMG KOREA CORP |
| 66 PLANETARY GEAR + DUAL INPUT SPEED | 83 TMG KOREA CORP |
| 67 TORQUE LIMITER | 84 GREASE APPLICATIONS |
| 68 TORQUE LIMITER | 85 FORMULAS & CONVERSIONS |
| 69 FLANGE DIMENSION | 86 TM-WORM TECHNICAL DATA |
| 70 MOTORISED TYPE (MOV TYPE) | 100 TM-WORM TECHNICAL DATA |
| 71 HANDWHEEL DIMENSION | 101 TM-BEVEL TECHNICAL DATA |
| 72 BUSING | 106 TM-BEVEL TECHNICAL DATA |
| 73 SPECIFICATION FOR MOUNTING PATTERN & BUSHING | 107 TM-SPUR TECHNICAL DATA |
| 74 TWIN SHAFT ACTUATORS | 108 TM-SPUR TECHNICAL DATA |
| 75 POSITION INDICATOR & STEM PROTECTION | 109 TMG KOREA CERTIFICATION |
| 76 DECLUTCHABLE GEAR MANUAL | 110 PARTICIPATION IN EXHIBITIONS |

WORM GEAR ACTUATORS

For Ball, Butterfly Valve ETC.

TMG Worm Gear Series

Torque Range 321 Nm to 919,951 Nm. (237 Ft-lbs to 671,883 Ft-lbs)

Good Advantages with High Efficiency.

Built-in 90°, 180° and 360° Flexibility.

Stable Self-Locking Design.

Superior Gear Contact Ratio.

Bush direction is freely changeable through spline bushing type.



TMG Gear is suitable for IP65 grade.

***Option :** Upon request, TMG Gear can be suitable for IP67 and IP68 grades.
(IP 67: Can be submerged in water during short period of time.)



WORM GEAR GENERAL



WORM GEAR + SPUR



WORM GEAR + BEVEL



WORM GEAR + MOV FLANGE



DECLUTCH (WORM GEAR)



OVERRIDE DECLUTCHABLE (WORM GEAR)

BEVEL GEAR ACTUATORS

For Gate & Globe Valve TMG Bevel Gear Series

TMG Bevel Gear Series

Bevel Gears are used for Multiturn applications.

Both designs, rising and non-rising stems, are available as options.

Torque Range 248 Nm to 93,103 Nm. (183 Ft-lbs to 68,670 Ft-lbs)

Both manual and motorized types are available.



TMG Gear is suitable for IP65 grade.

***Option :** Upon request, TMG Gear can be suitable for IP67 and IP68 grades.
(IP 67: Can be submerged in water during short period of time.)



BEVEL GEAR GENERAL



BEVEL GEAR + SPUR



BEVEL GEAR + BEVEL



BEVEL GEAR + FLANGE



BEVEL GEAR + INDICATOR



3-WAY BEVEL GEAR

TMG 3D MODELING VIEW



WORM GEAR + TWIN SPUR



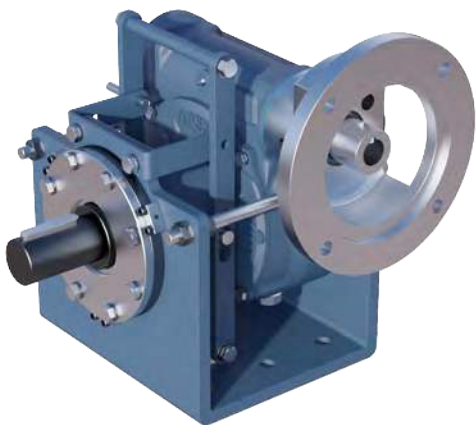
WORM GEAR + MITER



SPUR GEAR



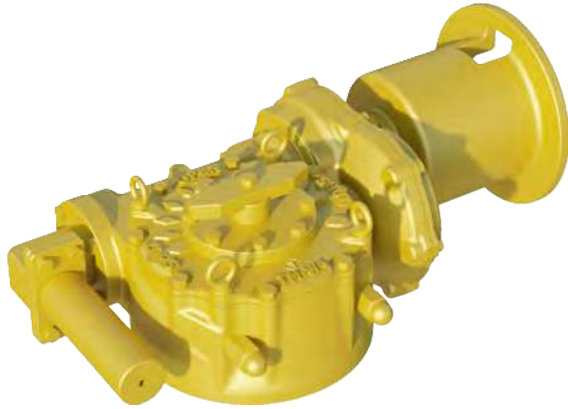
BEVEL INDICATOR + LIMITED S/W



DECLUTCH + MOTOR ADAPTER



DECLUTCHABLE WORM



SUB MARINE + WORM + ROV FLANGE



SUB MARINE + BEVEL + ROV FLANGE



BEVEL TWIN SHAFT



DECLUTCH PNEUMATIC



WORM + TORQUE LIMTER

TMG 3D MODELING VIEW

WORM GEAR

			
WORM GENERAL	WORM + M.O.V FLANGE	WORM + SPUR	WORM + SPUR DOUBLE

DECLUTCH GEAR

			
DECLUTCH GENERAL	DECLUTCH + SPUR	DECLUTCH PNEUMATIC	DECLUTCH PNEUMATIC + SPUR DOUBLE

BEVEL GEAR

			
BEVEL GENERAL	BEVEL + M.O.V FLANGE	BEVEL GEAR + SPUR	BEVEL GEAR + BEVEL
			
BEVEL HEAVY DUTY	BEVEL HEAVY DUTY + 3WAY	BEVEL HEAVY DUTY + SPUR DOUBLE	MITER GEAR

SPUR GEAR


SPUR GEAR] (V-TYPE)

TMG PHOTOGRAPH VIEW



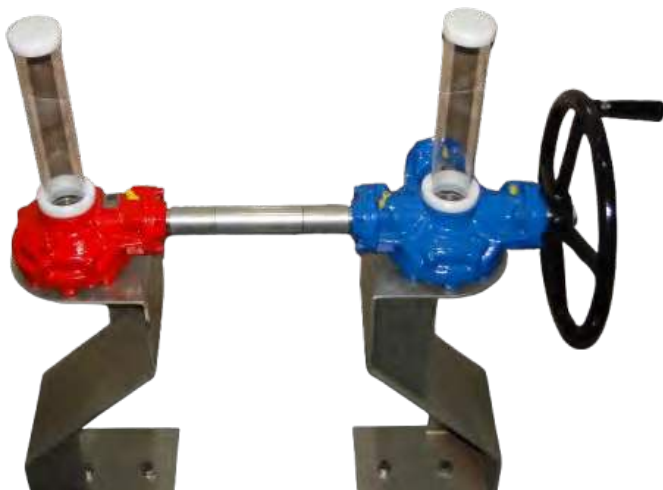
WORM + SPUR DOUBLE + M.O.V FLANGE



WORM + SPUR DOUBL + TRAVELING



SPUR GEAR] (V-TYPE)



BEVEL 3WAY + BEVEL WITH STEM COVER



BEVEL GEAR



BEVEL 3WAY + ROV SUB MARINE



BEVEL HEAVY DUTY

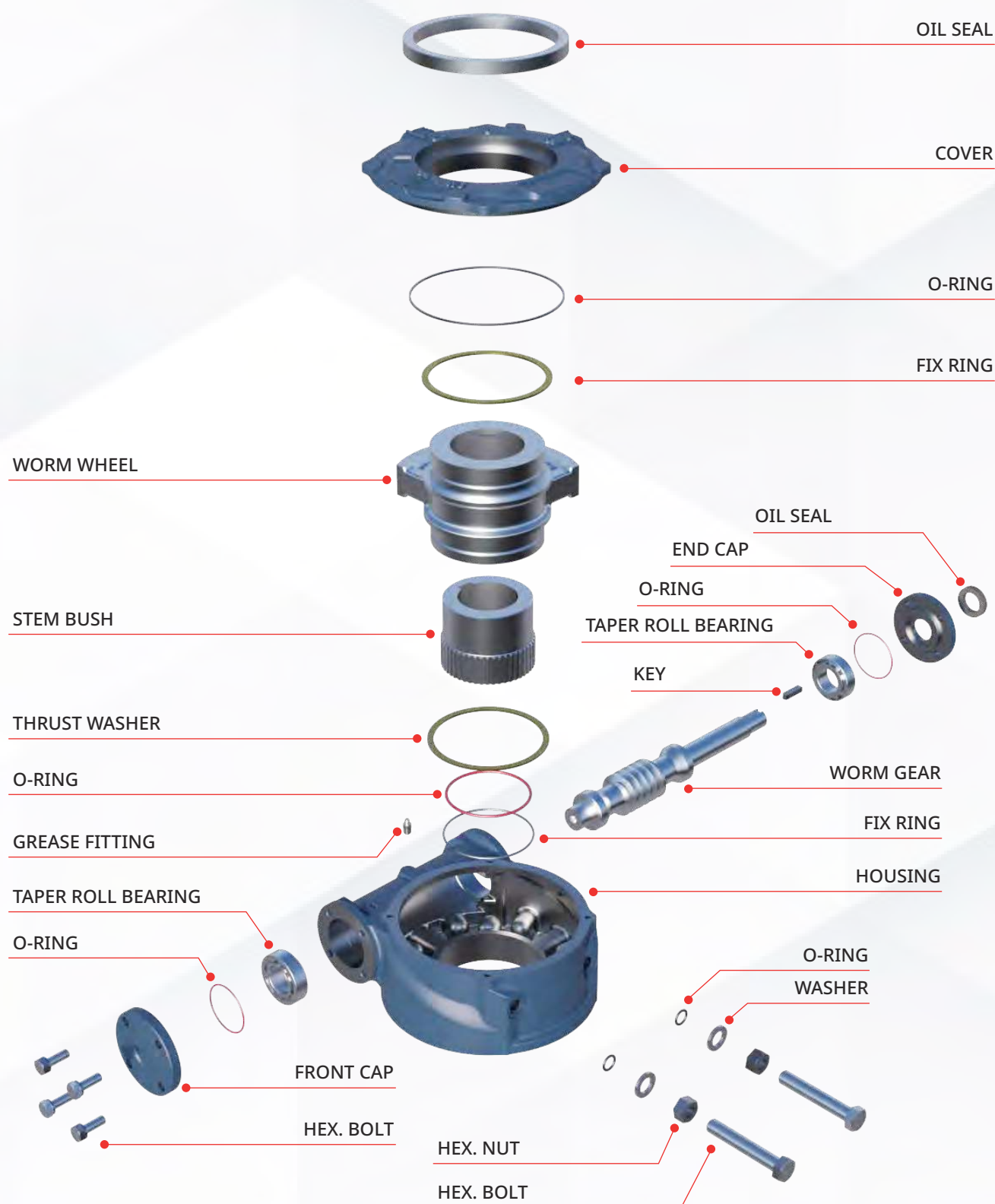


DECLUTCH + SPOOL VALVE

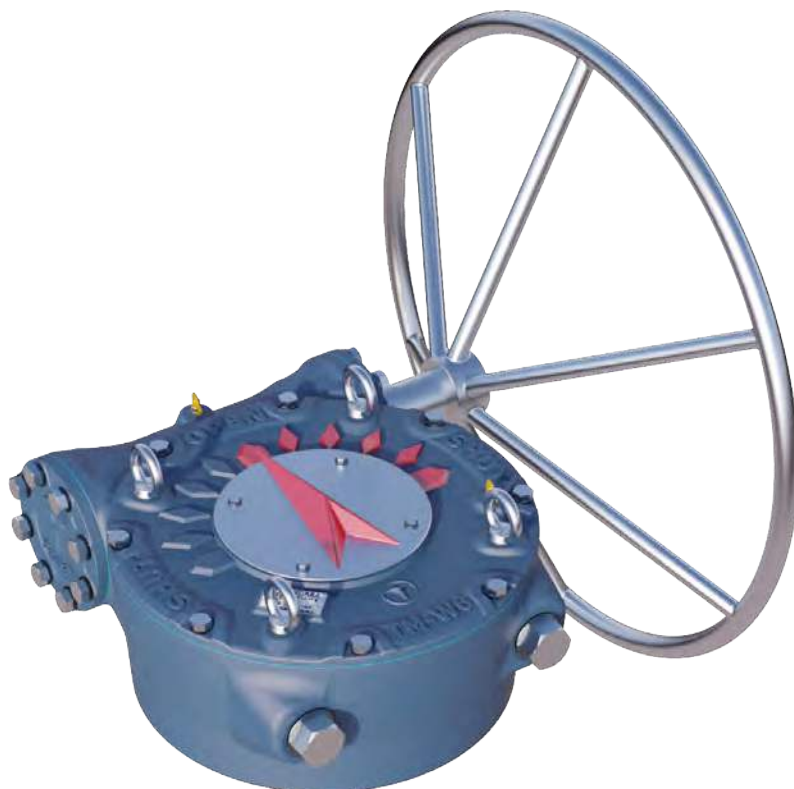


DECLUTCH + SPUR + BEVEL

WORM GEAR ASSEMBLY



WORM GEAR CONSTRUCTION



MATERIALS OF CONSTRUCTION

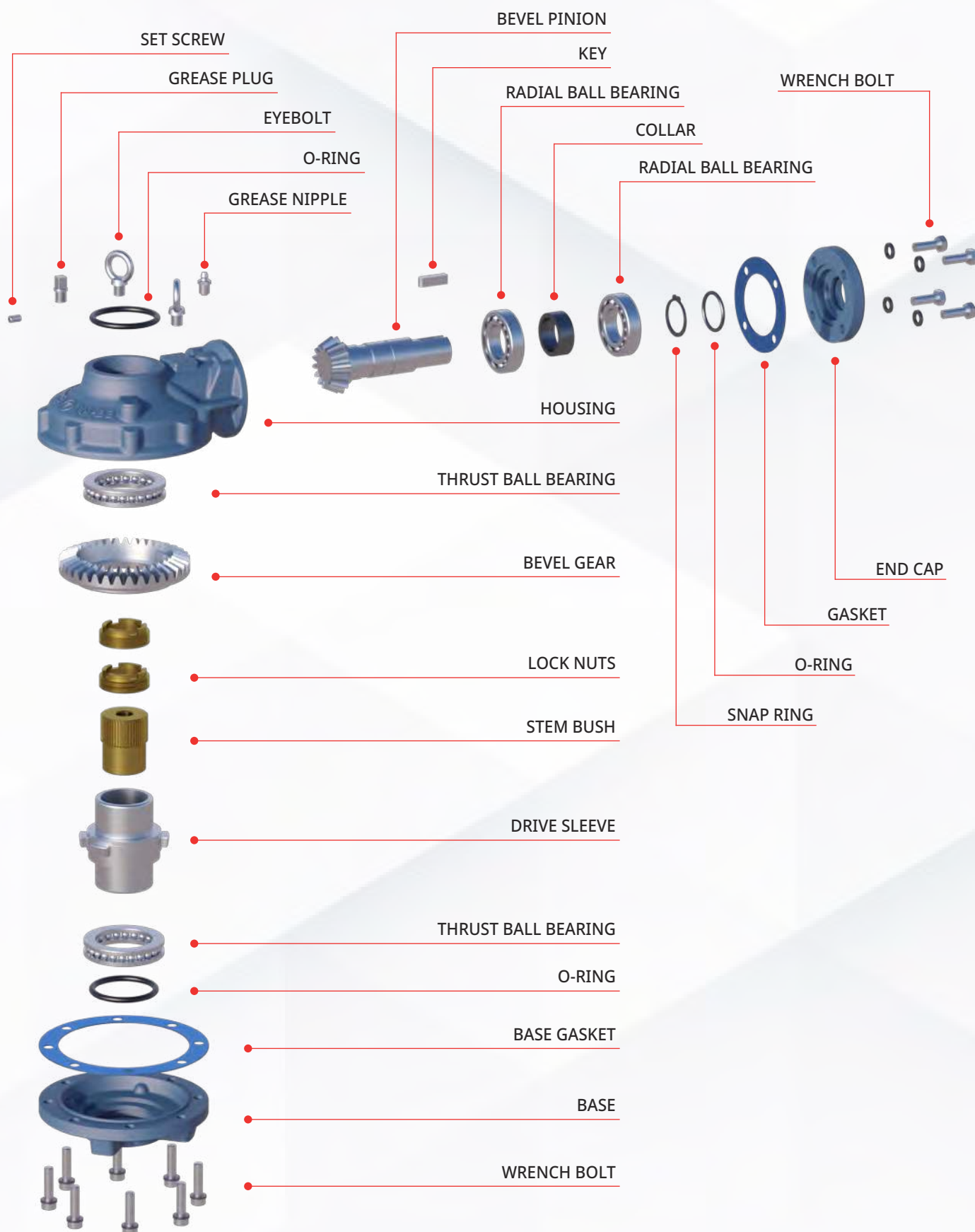
DESCRIPTION	MATERIAL			REMARK
	NAME	JIS	ASTM	
HOUSING	Ductile Iron	FCD-450	A536-65-45-12	
COVER	Ductile Iron	FCD-450	A536-65-45-12	
WORM	Carbon Steel	S45C	A576-1045	
WORM WHEEL	Ductile Iron	FCD-450	A536-65-45-12	
STEM BUSH	Ductile Iron	FCD-450	A536-65-45-12	
END CAP	Carbon Steel	S45C	A576-1045	Forging
INDICATOR PLATE	Carbon Steel	S20C+Zn	A286 GR.D	
THRUST WASHER	Carbon Steel	SS41	A286 GR.D	
FIX RING	Special Steel	SK5	W1-8	
TAPER ROLL BEARING	Special Steel	SUJ2	A295-52100	
GREASE FITTING	Carbon Steel	S20C + Zn	A576-1020	
KEY	Carbon Steel	S45C	A576-1045	
O-RING	Buna N	NBR		
GASKET	Non-asbestos			
HEX. NUT	Alloy Steel	SCM440	A322-4140	
HEX. BOLT	Alloy Steel	SCM440	A322-4140	

BASIC OPTION

- MAIN CASTING : HOUSING, COVER, CAP AS STAINLESS STEEL (SUS304 OR 316) OR SC480.
- WORM GEAR : ALUMINIUM BRONZE (ALBC3) OR HBSC3
- WORM SHAFT : ELECTRO & GALVANIZED COATING, NICKEL PLATING, COLORING AND ANODIZING.
- O-RING SEALING : VITON O-RING V75 GRADE
- HANDWHEEL : SUS304 OR 316 FABRICATED H/W UPON CUSTOMER REQUEST
TMG STANDARD GEARS ARE CLASSIFIED FOR NORMAL GROUND SERVICE

* Special specifications other than TMG standards are available upon request. Please contact us if you require any special specifications.

BEVEL GEAR ASSMEBLY



BEVEL GEAR CONSTRUCTION



MATERIALS OF CONSTRUCTION

DESCRIPTION	MATERIAL			REMARK
	NAME	JIS	ASTM	
HOUSING	Ductile Iron	FCD-450	A536-65-45-12	
BASE	Ductile Iron	FCD-450	A536-65-45-12	
BEVEL PINION	Carbon Steel	S45C	A576-1045	
BEVEL GEAR	Carbon Steel	S45C	A576-1045	
DRIVE SLEEVE	Ductile Iron	FCD-450	A536-65-45-12	
LOCK NUT	Carbon Steel	S45C	A576-1045	
DRIVE BUSH	Brass	HBsC3	B584-C86200	
END CAP	Ductile Iron	FCD-450	A536-65-45-12	
WRENCH BOLT	Alloy Steel	SCM440	A322-4140	
RADIAL BALL BEARING	Special Steel	SUJ2	A295-52100	
THRUST BALL BEARING	Special Steel	SUJ2	A295-52100	
PLUG BOLT	Carbon Steel	S20C	A307 GR.B	
O-RING	Buna N	NBR		
COLLAR	Steel Pipe	STPG	A53	
GREASE FITTING	Carbon Steel	S20C + Zn	A307 GR.B + Zn	
SET SCREW	Stainless Steel	SUS304	A276-304	
END CAP GASKET		Non-asbestos		
BASE GASKET		Non-asbestos		

BASIC OPTION

- MAIN CASTING : HOUSING, COVER, CAP AS STAINLESS STEEL (SUS304 OR 316) OR SC480.
- BEVEL SHAFT : ELECTRO & GAVANIZED COATING, NICKEL PLATING, COLORING AND ANODIZING.
- O-RING SEALING : VITON O-RING V75 GRADE
- HANDLE WHEEL : SUS304 OR 316 FABRICATED H/W UPON CUSTOMER REQUEST
TMG STANDARD GEARS ARE CLASSIFIED FOR NORMAL GROUND SERVICE,

* Special specifications other than TMG standards are available upon request. Please contact us if you require any special specifications.

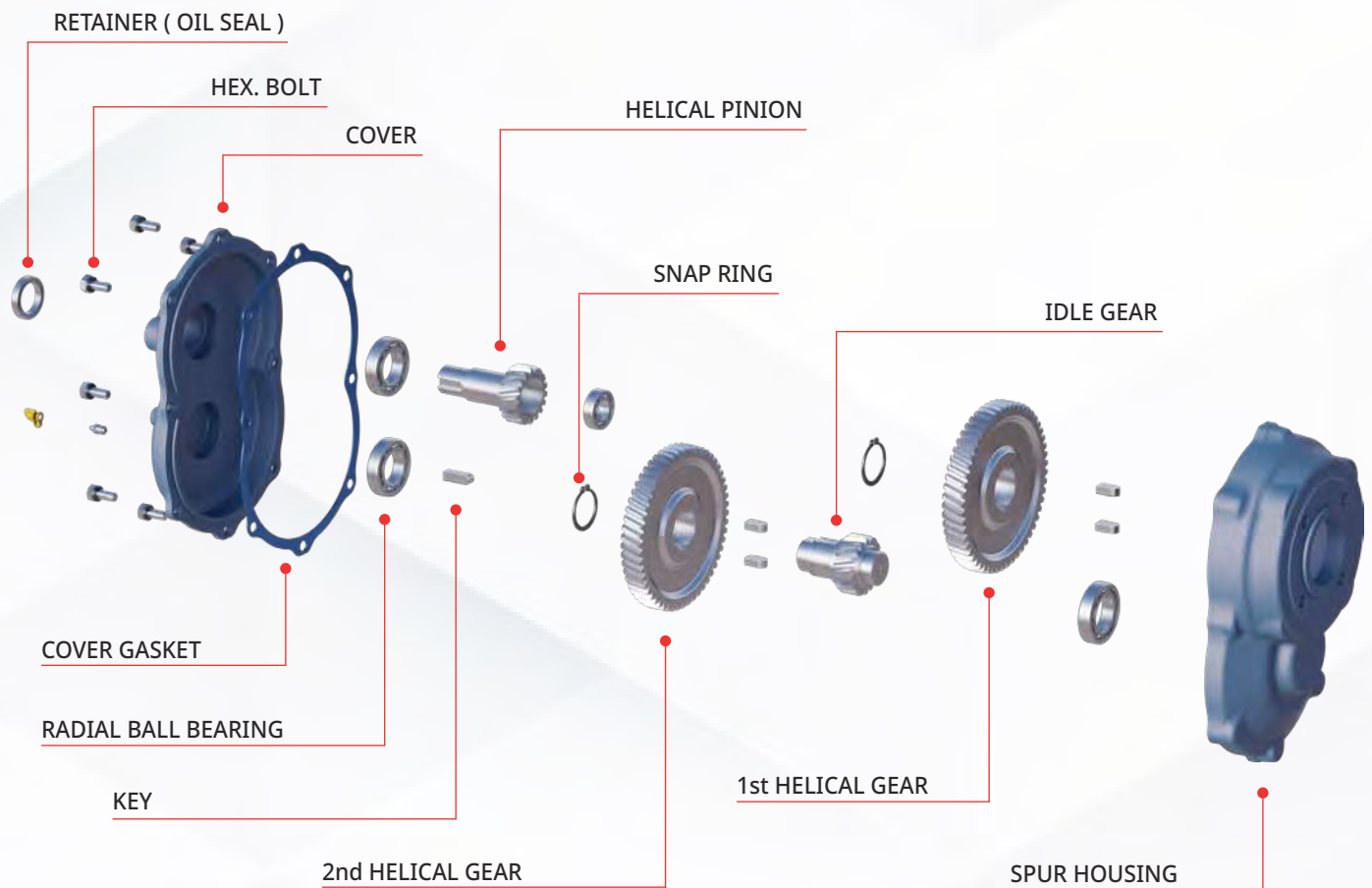
SPUR ASSEMBLY & CONSTRUCTION



MATERIALS OF CONSTRUCTION

DESCRIPTION	MATERIAL			REMARK
	NAME	JIS	ASTM	
HOUSING	Ductile Iron	FCD-450	A536-65-45-12	
COVER	Ductile Iron	FCD-450	A536-65-45-12	
HELICAL GEAR	Carbon Steel	S45C	A576-1045	
HELICAL PINION	Carbon Steel	S45C	A576-1045	
KEY	Carbon Steel	S45C	A576-1045	
RADIAL BALL BEARING	Special Steel	SUJ2	A295-52100	
SNAP RING	Carbon Steel	S45C	A576-1045	
GASKET	Non-asbestos			
RETAINER (OIL SEAL)	Buna N	NBR		
HEX. BOLT	Alloy Steel	SCM440	A322-4140	

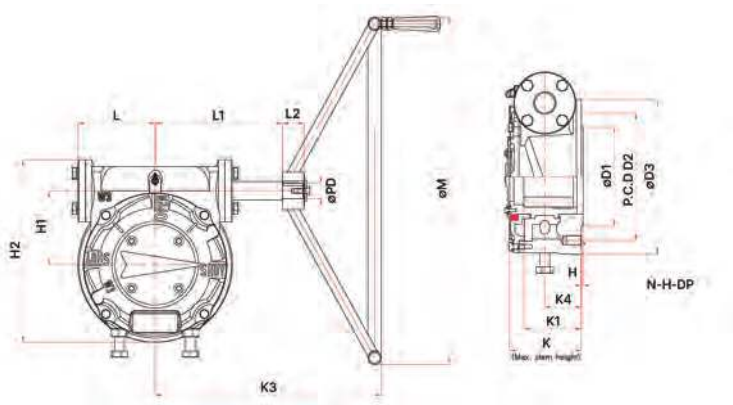
SPUR DOUBLE ASSEMBLY & CONSTRUCTION



MATERIALS OF CONSTRUCTION

DESCRIPTION	MATERIAL			REMARK
	NAME	JIS	ASTM	
HOUSING	Ductile Iron	FCD-450	A536-65-45-12	
COVER	Ductile Iron	FCD-450	A536-65-45-12	
1ST HELICAL GEAR	Carbon Steel	S45C	A576-1045	Froging
IDLE GEAR	Carbon Steel	S45C	A576-1045	
2ND HELICAL GEAR	Carbon Steel	S45C	A576-1045	Froging
HELICAL PINION	Carbon Steel	S45C	A576-1045	
KEY	Carbon Steel	S45C	A576-1045	
SNAP RING	Carbon Steel	S45C	A576-1045	
GASKET	Non-asbestos			
RETAINER (OIL SEAL)	Buna N	NBR		
HEX. BOLT	Alloy Steel	SCM440	A322-4140	

WORM GEAR GENERAL



DIMENSION

(Unit : mm)

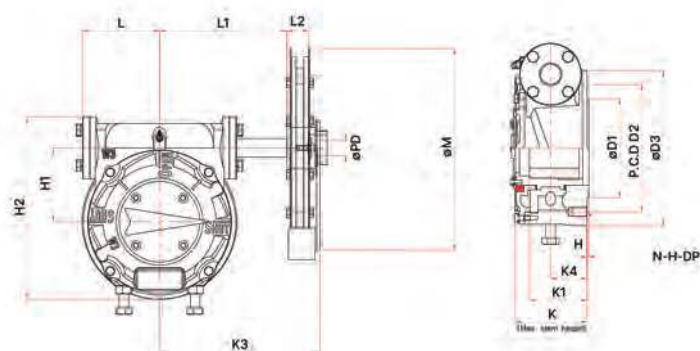
DIM MODEL	BASE PART							EXTERNAL								INPUT SHAFT PART			HAND WHEEL ØM
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K3	K4	L	L1	L2	ØPD	KEY	
				ØD2	N-H-DP														
TM-WT	A	F-07	-	70	4-M8-13	90	0	44	126.5	79	37	152.5	39	62	107	35	16	5x5	WH 160
TM-W5	A	F-10	70	102	4-M10-15	125	2	54.5	152	82	62.5	188	41	73	118	35	16	5x5	WH 250
TM-W0	A	F-12	85	125	4-M12-20	150	2	64.5	177.9	88.5	67.5	234	45	85	139	35	20	6x6	WH 300
TM-W1	A	F-14	100	140	4-M16-23	175	2	79	204.9	96	71.5	265.5	50	92.5	145.5	35	20	6x6	WH 400
TM-W2	A	F-16	130	165	4-M20-30	210	2	94.5	249.5	112.5	81.5	333	57	112	193	35	25	8x7	WH 500
TM-W3	B	F-20	160	205	8-M16-25	250	3	119	294	116	93	366.5	59	124.5	206.5	35	25	8x7	WH 560
TM-W3a	B	F-25	200	254	8-M16-27	300	3	129	329	121	99	370.7	69	129.5	210.7	35	25	8x7	WH 560
TM-W4	B	F-25	200	254	8-M16-27	300	3	144.5	364.5	163	107	372	83	155	212	35	30	10x8	WH 630
TM-W5	B	F-30	230	298	8-M20-35	350	3	184.5	434.5	174	125	414.5	92	187.5	244.5	35	30	10x8	WH 710
TM-W5a	B	F-30	230	298	8-M20-35	350	3	207	482	170	131	429.5	92	202.5	259.5	35	30	10x8	WH 710
TM-W6	B	F-35	260	356	8-M30-45	415	4	230	544.5	203	153	477.5	110	197	287.5	45	40	12x8	WH 800
TM-W7	B	F-40	300	406	8-M36-54	475	4	278	640.7	217	172.5	530	122	229.5	320	45	40	12x8	WH 900
TM-W7a	C	F-48	370	483	12-M36-54	560	4	310	737	255	217.5	577.5	130	303.4	347.5	45	40	12x8	WH 1000
TM-W8	C	F-48	370	483	12-M36-54	560	4	359.5	848	266	233	618.5	138	343.4	388.5	45	40	12x8	WH 1000
TM-W9	D	F-60	470	603	20-M36-55	686	4	429.5	977	257	240	665	139	358	435	45	40	12x8	WH 1000
TM-W10	D	F-60	470	603	20-M36-55	686	4	513	1176.1	315	244	793	163	473	563	45	40	12x8	WH 1000
TM-W11	D	F-80	670	813	20-M42-60	900	4	616.5	1397.5	339.5	324.5	893	160.5	573	663	45	40	12x8	WH 1000
TM-W12	D	F-80	670	813	20-M42-60	1000	5	730	1635	474	455	1180	260	643	950	45	40	12x8	WH 1000

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR 1/4 TURN WORM GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		M.A (±10%)	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT Kg
		Ø	N . m	Lbf . ft		N . m	Lbf . ft	Standard	Option	
TM-WT	32 : 1	Ø20 (6 x 6)	321.7	237.3	11.2	79.0	21.2	F-07 / F-05		5.0
TM-W5	34 : 1	Ø28 (8 x 7)	668.2	492.8	11.9	82.0	41.4	F-10	F-07	6.9
TM-W0	38 : 1	Ø36 (10 x 8)	1,019.0	751.6	13.3	104.0	56.5	F-12	F-10	11.5
TM-W1	40 : 1	Ø46 (14 x 9)	1,873.1	1,381.5	14.0	110.0	98.7	F-14	F-12, F-10	14.8
TM-W2	42 : 1	Ø65 (18 x 11)	3,170.6	2,338.5	14.7	127.0	159.1	F-16	F-14, F-12	24.1
TM-W3	48 : 1	Ø75 (20 x 12)	5,670.2	4,182.1	16.8	127.0	248.9	F-20	F-16	31.9
TM-W3a	52 : 1	Ø80 (22 x 14)	6,636.4	4,894.8	18.2	145.0	268.9	F-25	F-16	35.0
TM-W4	56 : 1	Ø95 (25 x 14)	9,079.5	6,696.7	19.6	163.0	341.7	F-25	F-20	57.5
TM-W5	60 : 1	Ø110 (32 x 18)	18,679.9	13,777.6	21.0	174.0	656.1	F-30	F-25, F-20	83.0
TM-W5a	62 : 1	Ø125 (32 x 18)	26,009.0	19,183.3	21.7	170.0	884.0	F-30	F-25	96.1
TM-W6	64 : 1	Ø140 (36 x 20)	29,951.2	22,090.9	22.4	204.0	986.2	F-35	F-30, F-25	149.1
TM-W7	68 : 1	Ø180 (45 x 25)	53,973.2	39,808.6	23.8	217.0	1,672.6	F-40	F-35, F-30	210.1
TM-W7a	66 : 1	Ø205 (50 x 28)	91,566.8	67,536.2	23.1	255.0	2,923.6	F-48	F-40, F-35	333.2
TM-W8	62 : 1	Ø225 (50 x 28)	116,875.7	86,203.1	21.7	267.0	3,972.5	F-48	F-40	434.1
TM-W9	62 : 1	Ø280 (63 x 32)	176,924.2	130,492.6	21.7	282.0	6,013.5	F-60	F-48	599.5
TM-W10	64 : 1	Ø320 (70 x 36)	275,173.0	202,957.2	22.4	320.0	9,060.6	F-60	-	876.7
TM-W11	68 : 1	Ø360 (80 x 40)	463,548.6	341,895.9	23.8	343.5	14,365.4	F-80	F-60	1,457.2
TM-W12	70 : 1	Ø400 (90 x 45)	700,000.0	516,293.5	24.5	370.0	21,073.2	F-80	F-60	2,250.0

WORM GEAR + CHAIN WHEEL



DIMENSION

(Unit : mm)

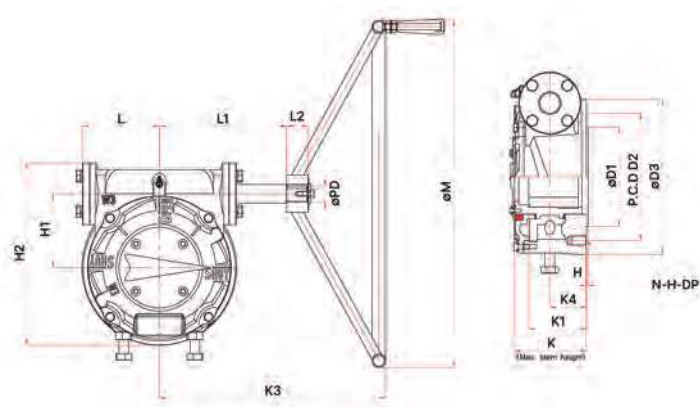
DIM MODEL	BASE PART							EXTERNAL								INPUT SHAFT PART			HAND WHEEL ØM
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K3	K4	L	L1	L2	ØPD	KEY	
				ØD2	N-H-DP														
TM-W0	A	F-12	85	125	4-M12-20	150	2	64.5	177.9	88.5	67.5	204	45	85	139	35	20	6x6	CW 200
TM-W1	A	F-14	100	140	4-M16-23	175	2	79	204.9	96	71.5	210.5	50	92.5	145.5	35	20	6x6	CW 200
TM-W2	A	F-16	130	165	4-M20-30	210	2	94.5	249.5	112.5	81.5	258	57	112	193	35	25	8x7	CW 300
TM-W3	B	F-20	160	205	8-M16-25	250	3	119	294	116	93	271.5	59	124.5	206.5	35	25	8x7	CW 300
TM-W3a	B	F-25	200	254	8-M16-27	300	3	129	329	121	99	275.7	69	129.5	210.7	35	25	8x7	CW 300
TM-W4	B	F-25	200	254	8-M16-27	300	3	144.5	364.5	163	107	277	83	155	212	35	30	10x8	CW 400
TM-W5	B	F-30	230	298	8-M20-35	350	3	184.5	434.5	174	125	309.5	92	187.5	244.5	35	30	10x8	CW 400
TM-W5a	B	F-30	230	298	8-M20-35	350	3	207	482	170	131	324.5	92	202.5	259.5	35	30	10x8	CW 400
TM-W6	B	F-35	260	356	8-M30-45	415	4	230	544.5	203	153	352.5	110	197	287.5	45	40	12x8	CW 500
TM-W7	B	F-40	300	406	8-M36-54	475	4	278	640.7	217	172.5	385	122	229.5	320	45	40	12x8	CW 500
TM-W7a	C	F-48	370	483	12-M36-54	560	4	310	737	255	217.5	412.5	130	303.4	347.5	45	40	12x8	CW 600
TM-W8	C	F-48	370	483	12-M36-54	560	4	359.5	848	266	233	453.5	138	343.4	388.5	45	40	12x8	CW 600
TM-W9	D	F-60	470	603	20-M36-55	686	4	429.5	977	257	240	500	139	358	435	45	40	12x8	CW 600
TM-W10	D	F-60	470	603	20-M36-55	686	4	513	1176.1	315	244	628	163	473	563	45	40	12x8	CW 600
TM-W11	D	F-80	670	813	20-M42-60	900	4	616.5	1397.5	339.5	324.5	728	160.5	573	663	45	40	12x8	CW 600
TM-W12	D	F-80	670	813	20-M42-60	1000	5	730	1635	474	455	1015	260	643	950	45	40	12x8	CW 600

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR 1/4 TRUN WORM GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		M.A (±10%)	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT Kg
		Ø	N . m	Lbf - ft		N . m	Lbf - ft	Standard	Option	
TM-W0	38 : 1	Ø36 (10 x 8)	1,019.0	751.6	13.3	76.6	56.5	F-12	F-10	15.1
TM-W1	40 : 1	Ø46 (14 x 9)	1,873.1	1,381.5	14.0	133.8	98.7	F-14	F-12, F-10	17.9
TM-W2	42 : 1	Ø65 (18 x 11)	3,170.6	2,338.5	14.7	215.7	159.1	F-16	F-14, F-12	28.9
TM-W3	48 : 1	Ø75 (20 x 12)	5,670.2	4,182.1	16.8	337.5	248.9	F-20	F-16	36.6
TM-W3a	52 : 1	Ø80 (22 x 14)	6,636.4	4,894.8	18.2	364.6	268.9	F-25	F-16	39.6
TM-W4	56 : 1	Ø95 (25 x 14)	9,079.5	6,696.7	19.6	463.2	341.6	F-25	F-20	68.4
TM-W5	60 : 1	Ø110 (32 x 18)	18,679.9	13,777.6	21.0	889.5	656.1	F-30	F-25, F-20	93.5
TM-W5a	62 : 1	Ø125 (32 x 18)	26,009.0	19,183.3	21.7	1,198.6	884.0	F-30	F-25	106.6
TM-W6	64 : 1	Ø140 (36 x 20)	29,951.2	22,090.9	22.4	1,337.1	986.2	F-35	F-30, F-25	160.8
TM-W7	68 : 1	Ø180 (45 x 25)	53,973.2	39,808.6	23.8	2,267.8	1,672.6	F-40	F-35, F-30	221.3
TM-W7a	66 : 1	Ø205 (50 x 28)	91,566.8	67,536.2	23.1	3,963.9	2,923.6	F-48	F-40, F-35	349.4
TM-W8	62 : 1	Ø225 (50 x 28)	116,875.7	86,203.1	21.7	5,386.0	3,972.5	F-48	F-40	450.3
TM-W9	62 : 1	Ø280 (63 x 32)	176,924.2	130,492.6	21.7	8,153.2	6,013.5	F-60	F-48	615.7
TM-W10	64 : 1	Ø320 (70 x 36)	275,173.0	202,957.2	22.4	12,284.5	9,060.6	F-60	-	892.9
TM-W11	68 : 1	Ø360 (80 x 40)	463,548.6	341,895.9	23.8	19,476.8	14,365.3	F-80	F-60	1,473.4
TM-W12	70 : 1	Ø400 (90 x 45)	700,000.0	516,293.5	24.5	28,571.4	21,073.2	F-80	F-60	2,275.0

WORM GEAR MULTI TURN



DIMENSION

(Unit : mm)

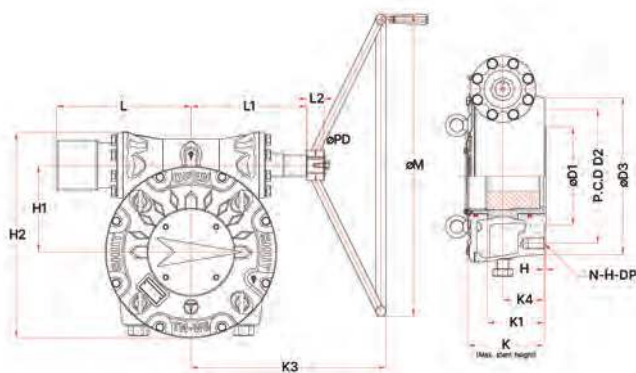
DIM MODEL	BASE PART							EXTERNAL								INPUT SHAFT PART			HAND WHEEL ØM
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K3	K4	L	L1	L2	ØPD	KEY	
				ØD2	N-H-DP														
TM-W0MT	A	F-12	85	125	4-M12-20	150	2	64.5	177.9	88.5	67.5	234	45	85	139	35	20	6x6	WH 300
TM-W1MT	A	F-14	100	140	4-M16-23	175	2	79	204.9	96	71.5	265.5	50	92.5	145.5	35	20	6x6	WH 400
TM-W2MT	A	F-16	130	165	4-M20-30	210	2	94.5	249.5	112.5	81.5	333	57	112	193	35	25	8x7	WH 500
TM-W3MT	B	F-20	160	205	8-M16-25	250	3	119	294	116	93	366.5	59	124.5	206.5	35	25	8x7	WH 560
TM-W3aMT	B	F-25	200	254	8-M16-27	300	3	129	329	121	99	370.7	69	129.5	210.7	35	25	8x7	WH 560
TM-W4MT	B	F-25	200	254	8-M16-27	300	3	144.5	364.5	163	107	372	83	155	212	35	30	10x8	WH 630
TM-W5MT	B	F-30	230	298	8-M20-35	350	3	184.5	434.5	174	125	414.5	92	187.5	244.5	35	30	10x8	WH 710
TM-W5aMT	B	F-30	230	298	8-M20-35	350	3	207	482	170	131	429.5	92	202.5	259.5	35	30	10x8	WH 710
TM-W6MT	B	F-35	260	356	8-M30-45	415	4	230	544.5	203	153	477.5	110	197	287.5	45	40	12x8	WH 800
TM-W7MT	B	F-40	300	406	8-M36-54	475	4	278	640.7	217	172.5	530	122	229.5	320	45	40	12x8	WH 900
TM-W7aMT	C	F-48	370	483	12-M36-54	560	4	310	737	255	217.5	577.5	130	303.4	347.5	45	40	12x8	WH 1000
TM-W8MT	C	F-48	370	483	12-M36-54	560	4	359.5	848	266	233	618.5	138	343.4	388.5	45	40	12x8	WH 1000
TM-W9MT	D	F-60	470	603	20-M36-55	686	4	429.5	977	257	240	665	139	358	435	45	40	12x8	WH 1000
TM-W10MT	D	F-60	470	603	20-M36-55	686	4	513	1176.1	315	244	793	163	473	563	45	40	12x8	WH 1000
TM-W11MT	D	F-80	670	813	20-M42-60	900	4	616.5	1397.5	339.5	324.5	893	160.5	573	663	45	40	12x8	WH 1000
TM-W12MT	D	F-80	670	813	20-M42-60	1000	5	730	1635	474	455	1180	260	643	950	45	40	12x8	WH 1000

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR MULTI TURN WORM GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
		Ø	N . m	Lbf - ft	(±10%)	N . m	Lbf - ft	Standard	Option	Kg
TM-W0MT	38 : 1	38 : 1	1,019.0	751.6	13.3	76.6	56.5	F-12	F-10	12.0
TM-W1MT	40 : 1	40 : 1	1,873.1	1,381.5	14.0	133.8	98.7	F-14	F-12, F-10	15.9
TM-W2MT	42 : 1	42 : 1	3,170.6	2,338.5	14.7	215.7	159.1	F-16	F-14, F-12	25.7
TM-W3MT	48 : 1	48 : 1	5,670.2	4,182.1	16.8	337.5	248.9	F-20	F-16	35.1
TM-W3aMT	52 : 1	52 : 1	6,636.4	4,894.8	18.2	364.6	268.9	F-25	F-16	42.6
TM-W4MT	56 : 1	56 : 1	9,079.5	6,696.7	19.6	463.2	341.6	F-25	F-20	64.3
TM-W5MT	60 : 1	60 : 1	18,679.9	13,777.6	21.0	889.5	656.1	F-30	F-25, F-20	97.9
TM-W5aMT	62 : 1	62 : 1	26,009.0	19,183.3	21.7	1,198.6	884.0	F-30	F-25	115.6
TM-W6MT	64 : 1	64 : 1	29,951.2	22,090.9	22.4	1,337.1	986.2	F-35	F-30, F-25	176.2
TM-W7MT	68 : 1	68 : 1	53,973.2	39,808.6	23.8	2,267.8	1,672.6	F-40	F-35, F-30	258.3
TM-W7aMT	66 : 1	66 : 1	91,566.8	67,536.2	23.1	3,963.9	2,923.6	F-48	F-40, F-35	410.8
TM-W8MT	62 : 1	62 : 1	116,875.7	86,203.1	21.7	5,386.0	3,972.5	F-48	F-40	534.0
TM-W9MT	62 : 1	62 : 1	176,924.2	130,492.6	21.7	8,153.2	6,013.5	F-60	F-48	730.9
TM-W10MT	64 : 1	64 : 1	275,173.0	202,957.2	22.4	12,284.5	9,060.6	F-60	-	1,121.2
TM-W11MT	68 : 1	68 : 1	463,548.6	341,895.9	23.8	19,476.8	14,365.3	F-80	F-60	1,871.8
TM-W12MT	70 : 1	70 : 1	700,000.0	516,293.5	24.5	28,571.4	21,073.2	F-80	F-60	2,700.0

WORM GEAR TRAVELING

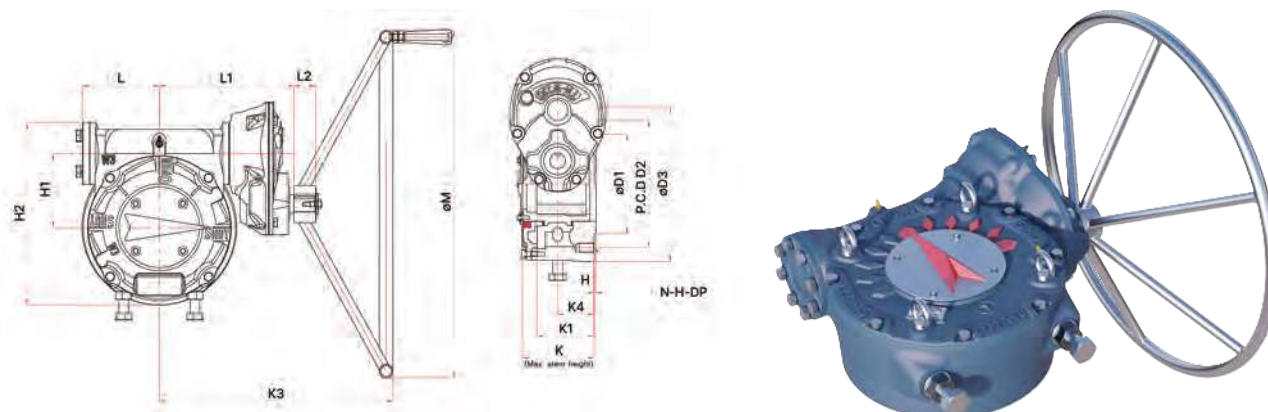


DIMENSION

(Unit : mm)

MODEL	DIM	BASE PART						EXTERNAL									INPUT SHAFT PART			HAND WHEEL	
		TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K3	K4	L (180°)	L (360°)	L1	L2	ØPD		KEY
					ØD2	N-H-DP														ØM	
TM-WSTR		A	F-10	70	102	4-M10-15	125	2	54.5	152	82	62.5	188	41	161	195	118	35	16	5x5	WH 250
TM-W0TR		A	F-12	85	125	4-M12-20	150	2	64.5	177.9	88.5	67.5	234	45	184	224	139	35	20	6x6	WH 300
TM-W1TR		A	F-14	100	140	4-M16-23	175	2	79	204.9	96	71.5	265.5	50	191	231	145.5	35	20	6x6	WH 400
TM-W2TR		A	F-16	130	165	4-M20-30	210	2	94.5	249.5	112.5	81.5	333	57	293	343	193	35	25	8x7	WH 500
TM-W3TR		B	F-20	160	205	8-M16-25	250	3	119	294	116	93	366.5	59	306	356	206.5	35	25	8x7	WH 560
TM-W3 TR		B	F-25	200	254	8-M16-27	300	3	129	329	121	99	370.7	69	307	357	210.7	35	25	8x7	WH 560
TM-W4TR		B	F-25	200	254	8-M16-27	300	3	144.5	364.5	163	107	372	83	308	378	212	35	30	10x8	WH 630
TM-W5TR		B	F-30	230	298	8-M20-35	350	3	184.5	434.5	174	125	414.5	92	343	418	244.5	35	30	10x8	WH 710
TM-W5αTR		B	F-30	230	298	8-M20-35	350	3	207	482	170	131	429.5	92	359	437	259.5	35	30	10x8	WH 710
TM-W6TR		B	F-35	260	356	8-M30-45	415	4	230	544.5	203	153	477.5	110	394	490	287.5	45	40	12x8	WH 800
TM-W7TR		B	F-40	300	406	8-M36-54	475	4	278	640.7	217	172.5	530	122	430	532	320	45	40	12x8	WH 900
TM-W7αTR		C	F-48	370	483	12-M36-54	560	4	310	737	255	217.5	577.5	130	504	603	347.5	45	40	12x8	WH 1000
TM-W8TR		C	F-48	370	483	12-M36-54	560	4	359.5	848	266	233	618.5	138	541	634	388.5	45	40	12x8	WH 1000
TM-W9TR		D	F-60	470	603	20-M36-55	686	4	429.5	977	257	240	665	139	588	681	435	45	40	12x8	WH 1000
TM-W10TR		D	F-60	470	603	20-M36-55	686	4	513	1176.1	315	244	793	163	636	732	563	45	40	12x8	WH 1000
TM-W11TR		D	F-80	670	813	20-M42-60	900	4	616.5	1397.5	339.5	324.5	893	160.5	786	888	663	45	40	12x8	WH 1000
TM-W12TR		D	F-80	670	813	20-M42-60	1000	5	730	1635	474	455	1180	260	820	925	950	45	40	12x8	WH 1000

WORM GEAR + SPUR



DIMENSION

(Unit : mm)

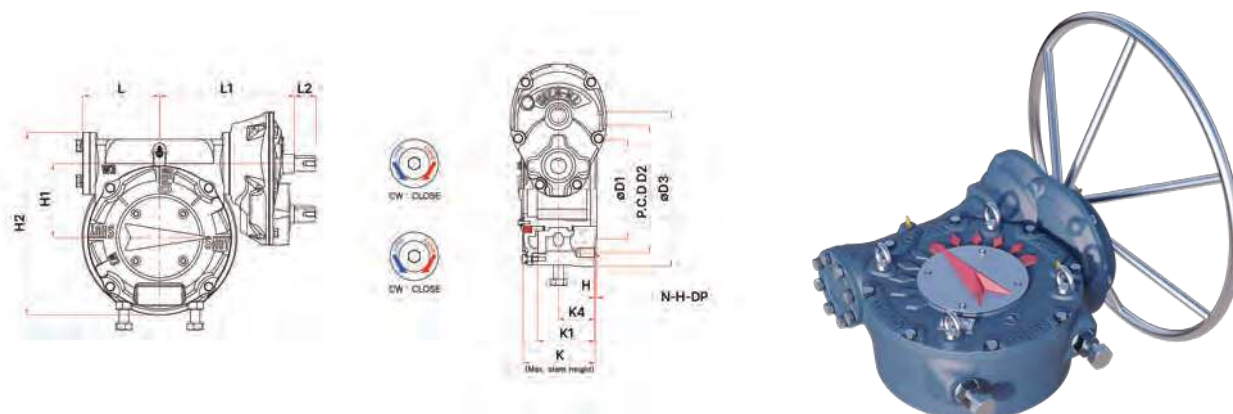
DIM MODEL	BASE PART							EXTERNAL								INPUT SHAFT PART			HAND WHEEL ØM
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K3	K4	L	L1	L2	ØPD	KEY	
				ØD2	N-H-DP														
TM-W0S	A	F-12	85	125	4-M12-20	150	2	64.5	177.9	88.5	67.5	257	45	85	162	35	20	6x6	WH 300
TM-W1S	A	F-14	100	140	4-M16-23	175	2	79	204.9	96	71.5	289.5	50	92.5	169.5	35	20	6x6	WH 400
TM-W2S	A	F-16	130	165	4-M20-30	210	2	94.5	249.5	112.5	81.5	346	57	112	206	35	25	8x7	WH 500
TM-W3S	B	F-20	160	205	8-M16-25	250	3	119	294	116	93	378.5	59	124.5	218.5	35	25	8x7	WH 560
TM-W3aS	B	F-25	200	254	8-M16-27	300	3	129	329	121	99	383.5	69	129.5	223.5	35	25	8x7	WH 560
TM-W4S	B	F-25	200	254	8-M16-27	300	3	144.5	364.5	163	107	429	83	155	269	35	30	10x8	WH 630
TM-W5S	B	F-30	230	298	8-M20-35	350	3	184.5	434.5	174	125	471.5	92	187.5	301.5	35	30	10x8	WH 710
TM-W5aS	B	F-30	230	298	8-M20-35	350	3	207	482	170	131	486.5	92	202.5	316.5	35	30	10x8	WH 710
TM-W6S	B	F-35	260	356	8-M30-45	415	4	230	544.5	203	153	544	110	197	354	45	40	12x8	WH 800
TM-W7S	B	F-40	300	406	8-M36-54	475	4	278	640.7	217	172.5	596.5	122	229.5	386.5	45	40	12x8	WH 900
TM-W7aS	C	F-48	370	483	12-M36-54	560	4	310	737	255	217.5	709.5	130	303.4	479.5	45	40	12x8	WH 1000
TM-W8S	C	F-48	370	483	12-M36-54	560	4	359.5	848	266	233	749.5	138	343.4	519.5	45	40	12x8	WH 1000
TM-W9S	D	F-60	470	603	20-M36-55	686	4	429.5	977	257	240	797	139	358	567	45	40	12x8	WH 1000
TM-W10S	D	F-60	470	603	20-M36-55	686	4	513	1176.1	315	244	910	163	473	680	45	40	12x8	WH 1000
TM-W11S	D	F-80	670	813	20-M42-60	900	4	616.5	1397.5	339.5	324.5	1010	160.5	573	780	45	40	12x8	WH 1000
TM-W12S	D	F-80	670	813	20-M42-60	1000	5	730	1635	474	455	1111	260	643	881	45	40	12x8	WH 1000

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR 1/4 TURN WORM GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
		Ø	N . m	Lbf - ft	(±10%)	N . m	Lbf - ft	Standard	Option	Kg
TM-W0S	76 : 1	Ø36 (10 x 8)	1,019.0	751.6	23.4	43.5	32.1	F-12	F-10	15.9
TM-W1S	80 : 1	Ø46 (14 x 9)	1,873.1	1,381.5	24.6	76.1	56.1	F-14	F-12, F-10	19.1
TM-W2S	105 : 1	Ø65 (18 x 11)	3,170.6	2,338.5	32.3	98.2	72.4	F-16	F-14, F-12	32.9
TM-W3S	120 : 1	Ø75 (20 x 12)	5,670.2	4,182.1	37.0	153.2	113.0	F-20	F-16	40.6
TM-W3aS	130 : 1	Ø80 (22 x 14)	6,636.4	4,894.8	40.0	165.9	122.4	F-25	F-16	43.5
TM-W4S	168 : 1	Ø95 (25 x 14)	9,079.5	6,696.7	51.7	175.6	129.5	F-25	F-20	73.7
TM-W5S	180 : 1	Ø110 (32 x 18)	18,679.9	13,777.6	55.4	337.2	248.7	F-30	F-25, F-20	99.1
TM-W5aS	186 : 1	Ø125 (32 x 18)	26,009.0	19,183.3	57.3	453.9	334.8	F-30	F-25	112.6
TM-W6S	256 : 1	Ø140 (36 x 20)	29,951.2	22,090.9	78.8	380.1	280.3	F-35	F-30, F-25	182.0
TM-W7S	272 : 1	Ø180 (45 x 25)	53,973.2	39,808.6	83.8	644.1	475.1	F-40	F-35, F-30	242.9
TM-W7aS	330 : 1	Ø205 (50 x 28)	91,566.8	67,536.2	101.6	901.2	664.7	F-48	F-40, F-35	394.8
TM-W8S	310 : 1	Ø225 (50 x 28)	116,875.7	86,203.1	95.5	1,223.8	902.6	F-48	F-40	495.2
TM-W9S	310 : 1	Ø280 (63 x 32)	176,924.2	130,492.6	95.5	1,852.6	1,366.4	F-60	F-48	660.5
TM-W10S	320 : 1	Ø320 (70 x 36)	275,173.0	202,957.2	98.6	2,790.8	2,058.4	F-60	-	990.2
TM-W11S	340 : 1	Ø360 (80 x 40)	463,548.6	341,895.9	104.7	4,427.4	3,265.5	F-80	F-60	1,569.4
TM-W12S	350 : 1	Ø400 (90 x 45)	700,000.0	516,293.5	107.8	6,493.5	4,789.4	F-80	F-60	2,350.0

WORM GEAR + SPUR TWIN SHAFT



DIMENSION

(Unit : mm)

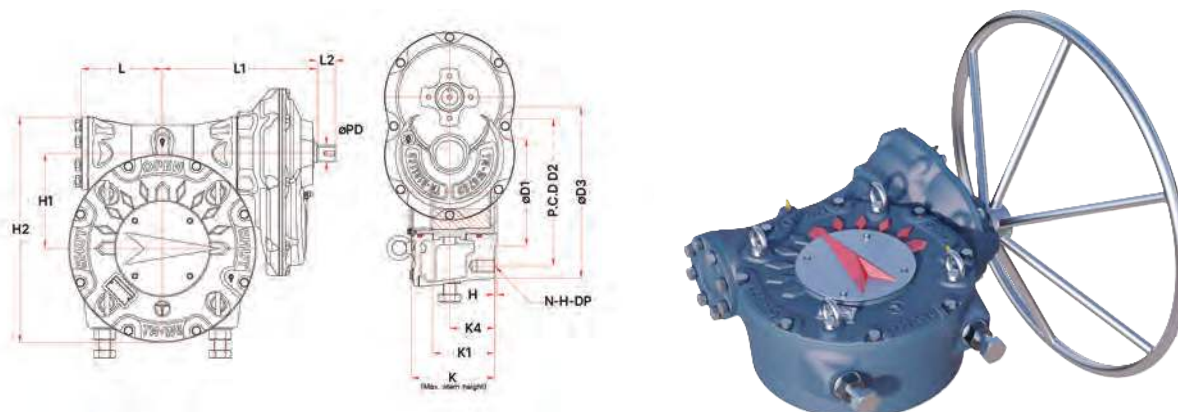
DIM MODEL	BASE PART							EXTERNAL								INPUT SHAFT PART			HAND WHEEL ØM
	TYPE	FLANGE	ØD1	PCD		ØD3	H	H1	H2	K	K1	K3	K4	L	L1	L2	ØPD	KEY	
				ØD2	N-H-DP														
TM-W0ST	A	F-12	85	125	4-M12-20	150	2	64.5	177.9	88.5	67.5	257	45	85	162	35	20	6x6	WH 300
TM-W1ST	A	F-14	100	140	4-M16-23	175	2	79	204.9	96	71.5	289.5	50	92.5	169.5	35	20	6x6	WH 400
TM-W2ST	A	F-16	130	165	4-M20-30	210	2	94.5	249.5	112.5	81.5	346	57	112	206	35	25	8x7	WH 500
TM-W3ST	B	F-20	160	205	8-M16-25	250	3	119	294	116	93	378.5	59	124.5	218.5	35	25	8x7	WH 560
TM-W3aST	B	F-25	200	254	8-M16-27	300	3	129	329	121	99	383.5	69	129.5	223.5	35	25	8x7	WH 560
TM-W4ST	B	F-25	200	254	8-M16-27	300	3	144.5	364.5	163	107	429	83	155	269	35	30	10x8	WH 630
TM-W5ST	B	F-30	230	298	8-M20-35	350	3	184.5	434.5	174	125	471.5	92	187.5	301.5	35	30	10x8	WH 710
TM-W5aST	B	F-30	230	298	8-M20-35	350	3	207	482	170	131	486.5	92	202.5	316.5	35	30	10x8	WH 710
TM-W6ST	B	F-35	260	356	8-M30-45	415	4	230	544.5	203	153	544	110	197	354	45	40	12x8	WH 800
TM-W7ST	B	F-40	300	406	8-M36-54	475	4	278	640.7	217	172.5	596.5	122	229.5	386.5	45	40	12x8	WH 900
TM-W7aST	C	F-48	370	483	12-M36-54	560	4	310	737	255	217.5	709.5	130	303.4	479.5	45	40	12x8	WH 1000
TM-W8ST	C	F-48	370	483	12-M36-54	560	4	359.5	848	266	233	749.5	138	343.4	519.5	45	40	12x8	WH 1000
TM-W9ST	D	F-60	470	603	20-M36-55	686	4	429.5	977	257	240	797	139	358	567	45	40	12x8	WH 1000
TM-W10ST	D	F-60	470	603	20-M36-55	686	4	513	1176.1	315	244	910	163	473	680	45	40	12x8	WH 1000
TM-W11ST	D	F-80	670	813	20-M42-60	900	4	616.5	1397.5	339.5	324.5	1010	160.5	573	780	45	40	12x8	WH 1000
TM-W12ST	D	F-80	670	813	20-M42-60	1000	5	730	1635	474	455	1111	260	643	881	45	40	12x8	WH 1000

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR 1/4 TURN WORM GEAR

DIM MODEL	GEAR RATIO		ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
	HIGH SPEED	LOW SPEED	Ø	N . m	Lbf - ft	(±10%)	N . m	Lbf - ft	Standard	Option	Kg
TM-W0ST	38 : 1	76 : 1	Ø36 (10 x 8)	1,019.0	751.6	23.4	43.5	32.1	F-12	F-10	16.2
TM-W1ST	40 : 1	80 : 1	Ø46 (14 x 9)	1,873.1	1,381.5	24.6	76.1	56.1	F-14	F-12, F-10	19.4
TM-W2ST	42 : 1	105 : 1	Ø65 (18 x 11)	3,170.6	2,338.5	32.3	98.2	72.4	F-16	F-14, F-12	33.5
TM-W3ST	48 : 1	120 : 1	Ø75 (20 x 12)	5,670.2	4,182.1	37.0	153.2	113.0	F-20	F-16	41.2
TM-W3aST	52 : 1	130 : 1	Ø80 (22 x 14)	6,636.4	4,894.8	40.0	165.9	122.4	F-25	F-16	44.1
TM-W4ST	56 : 1	168 : 1	Ø95 (25 x 14)	9,079.5	6,696.7	51.7	175.6	129.5	F-25	F-20	74.7
TM-W5ST	60 : 1	180 : 1	Ø110 (32 x 18)	18,679.9	13,777.6	55.4	337.2	248.7	F-30	F-25, F-20	100.1
TM-W5aST	62 : 1	186 : 1	Ø125 (32 x 18)	26,009.0	19,183.3	57.3	453.9	334.8	F-30	F-25	113.6
TM-W6ST	64 : 1	256 : 1	Ø140 (36 x 20)	29,951.2	22,090.9	78.8	380.1	280.3	F-35	F-30, F-25	183.4
TM-W7ST	68 : 1	272 : 1	Ø180 (45 x 25)	53,973.2	39,808.6	83.8	644.1	475.1	F-40	F-35, F-30	244.3
TM-W7aST	66 : 1	330 : 1	Ø205 (50 x 28)	91,566.8	67,536.2	101.6	901.2	664.7	F-48	F-40, F-35	396.6
TM-W8ST	62 : 1	310 : 1	Ø225 (50 x 28)	116,875.7	86,203.1	95.5	1,223.8	902.6	F-48	F-40	497.0
TM-W9ST	62 : 1	310 : 1	Ø280 (63 x 32)	176,924.2	130,492.6	95.5	1,852.6	1,366.4	F-60	F-48	662.3
TM-W10ST	64 : 1	320 : 1	Ø320 (70 x 36)	275,173.0	202,957.2	98.6	2,790.8	2,058.4	F-60	-	993.6
TM-W11ST	68 : 1	340 : 1	Ø360 (80 x 40)	463,548.6	341,895.9	104.7	4,427.4	3,265.5	F-80	F-60	1,572.8
TM-W12ST	72 : 1	432 : 1	Ø400 (90 x 45)	700,000.0	516,293.5	107.8	6,493.5	4,789.4	F-80	F-60	23,534.0

WORM GEAR + SPUR DOUBLE



DIMENSION

(Unit : mm)

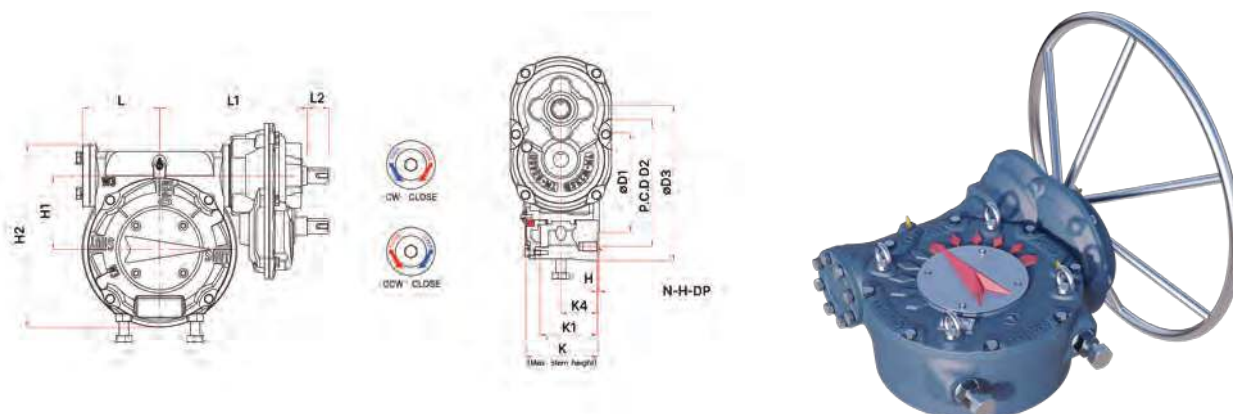
DIM MODEL	BASE PART							EXTERNAL								INPUT SHAFT PART			HAND WHEEL
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K3	K4	L	L1	L2	ØPD	KEY	
				ØD2	N-H-DP														ØM
TM-W0SD	A	F-12	85	125	4-M12-20	150	2	64.5	177.9	88.5	67.5	271	45	85	176	35	20	6x6	WH 300
TM-W1SD	A	F-14	100	140	4-M16-23	175	2	79	204.9	96	71.5	303.5	50	92.5	183.5	35	20	6x6	WH 400
TM-W2SD	A	F-16	130	165	4-M20-30	210	2	94.5	249.5	112.5	81.5	366	57	112	226	35	25	8x7	WH 500
TM-W3SD	B	F-20	160	205	8-M16-25	250	3	119	294	116	93	398.5	59	124.5	238.5	35	25	8x7	WH 560
TM-W3aSD	B	F-25	200	254	8-M16-27	300	3	129	329	121	99	403.5	69	129.5	243.5	35	25	8x7	WH 560
TM-W4SD	B	F-25	200	254	8-M16-27	300	3	144.5	364.5	163	107	450	83	155	290	35	30	10x8	WH 630
TM-W5SD	B	F-30	230	298	8-M20-35	350	3	184.5	434.5	174	125	492.5	92	187.5	322.5	35	30	10x8	WH 710
TM-W5aSD	B	F-30	230	298	8-M20-35	350	3	207	482	170	131	507.5	92	202.5	337.5	35	30	10x8	WH 710
TM-W6SD	B	F-35	260	356	8-M30-45	415	4	230	544.5	203	153	567	110	197	377	45	40	12x8	WH 800
TM-W7SD	B	F-40	300	406	8-M36-54	475	4	278	640.7	217	172.5	619.5	122	229.5	409.5	45	40	12x8	WH 900
TM-W7aSD	C	F-48	370	483	12-M36-54	560	4	310	737	255	217.5	711.5	130	303.4	481.5	45	40	12x8	WH 1000
TM-W8SD	C	F-48	370	483	12-M36-54	560	4	359.5	848	266	233	751.5	138	343.4	521.5	45	40	12x8	WH 1000
TM-W9SD	D	F-60	470	603	20-M36-55	686	4	429.5	977	257	240	799	139	358	569	45	40	12x8	WH 1000
TM-W10SD	D	F-60	470	603	20-M36-55	686	4	513	1176.1	315	244	910	163	473	680	45	40	12x8	WH 1000
TM-W11SD	D	F-80	670	813	20-M42-60	900	4	616.5	1397.5	339.5	324.5	1010	160.5	573	780	45	40	12x8	WH 1000
TM-W12SD	D	F-80	670	813	20-M42-60	1000	5	730	1635	474	455	1111	260	643	881	45	40	12x8	WH 1000

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR 1/4 TURN WORM GEAR

DIM MODEL	GEAR RATIO		ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
	HIGH SPEED	LOW SPEED	Ø	N . m	Lbf . ft	(±10%)	N . m	Lbf . ft	Standard	Option	Kg
TM-W0SD	76 : 1	152 : 1	Ø36 (10 x 8)	1,019.0	751.6	41.2	24.7	18.2	F-12	F-10	16.5
TM-W1SD	80 : 1	160 : 1	Ø46 (14 x 9)	1,873.1	1,381.5	43.4	43.2	31.9	F-14	F-12, F-10	19.8
TM-W2SD	105 : 1	262.5 : 1	Ø65 (18 x 11)	3,170.6	2,338.5	71.1	44.6	32.9	F-16	F-14, F-12	35.7
TM-W3SD	120 : 1	300 : 1	Ø75 (20 x 12)	5,670.2	4,182.1	81.3	69.7	51.4	F-20	F-16	43.4
TM-W3aSD	130 : 1	325 : 1	Ø80 (22 x 14)	6,636.4	4,894.8	88.1	75.3	55.5	F-25	F-16	46.3
TM-W4SD	168 : 1	504 : 1	Ø95 (25 x 14)	9,079.5	6,696.7	136.6	66.5	49.0	F-25	F-20	78.9
TM-W5SD	180 : 1	540 : 1	Ø110 (32 x 18)	18,679.9	13,777.6	146.4	127.6	94.1	F-30	F-25, F-20	104.4
TM-W5aSD	186 : 1	558 : 1	Ø125 (32 x 18)	26,009.0	19,183.3	151.2	172.0	126.9	F-30	F-25	117.8
TM-W6SD	256 : 1	1024 : 1	Ø140 (36 x 20)	29,951.2	22,090.9	277.5	107.9	79.6	F-35	F-30, F-25	193.7
TM-W7SD	272 : 1	1088 : 1	Ø180 (45 x 25)	53,973.2	39,808.6	294.9	183.0	135.0	F-40	F-35, F-30	254.6
TM-W7aSD	330 : 1	1650 : 1	Ø205 (50 x 28)	91,566.8	67,536.2	447.2	204.8	151.1	F-48	F-40, F-35	424.1
TM-W8SD	310 : 1	1550 : 1	Ø225 (50 x 28)	116,875.7	86,203.1	420.1	278.2	205.2	F-48	F-40	524.5
TM-W9SD	310 : 1	1550 : 1	Ø280 (63 x 32)	176,924.2	130,492.6	420.1	421.1	310.6	F-60	F-48	689.8
TM-W10SD	320 : 1	1600 : 1	Ø320 (70 x 36)	275,173.0	202,957.2	433.7	634.5	468.0	F-60	-	1,042.2
TM-W11SD	340 : 1	1700 : 1	Ø360 (80 x 40)	463,548.6	341,895.9	460.8	1,006.0	742.0	F-80	F-60	1,621.4
TM-W12SD	432 : 1	2592 : 1	Ø400 (90 x 45)	700,000.0	516,293.5	474.3	1,475.9	1,088.6	F-80	F-60	2,335.0

WORM GEAR + SPUR DOUBLE TWIN SHAFT



DIMENSION

(Unit : mm)

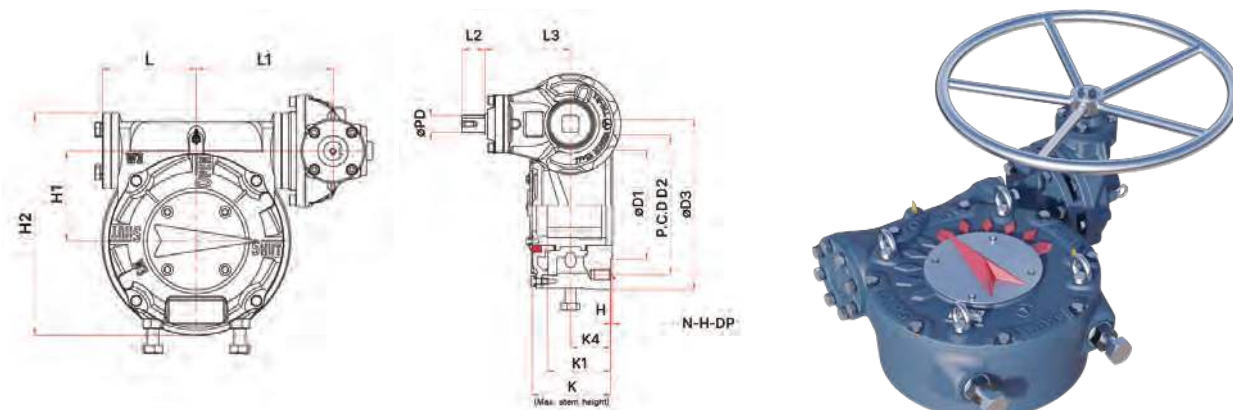
DIM MODEL	BASE PART							EXTERNAL								INPUT SHAFT PART			HAND WHEEL ØM
	TYPE	FLANGE	ØD1	PCD		ØD3	H	H1	H2	K	K1	K3	K4	L	L1	L2	ØPD	KEY	
				ØD2	N-H-DP														
TM-W0SDT	A	F-12	85	125	4-M12-20	150	2	64.5	177.9	88.5	67.5	271	45	85	176	35	20	6x6	WH 300
TM-W1SDT	A	F-14	100	140	4-M16-23	175	2	79	204.9	96	71.5	303.5	50	92.5	183.5	35	20	6x6	WH 400
TM-W2SDT	A	F-16	130	165	4-M20-30	210	2	94.5	249.5	112.5	81.5	366	57	112	226	35	25	8x7	WH 500
TM-W3SDT	B	F-20	160	205	8-M16-25	250	3	119	294	116	93	398.5	59	124.5	238.5	35	25	8x7	WH 560
TM-W3aSDT	B	F-25	200	254	8-M16-27	300	3	129	329	121	99	403.5	69	129.5	243.5	35	25	8x7	WH 560
TM-W4SDT	B	F-25	200	254	8-M16-27	300	3	144.5	364.5	163	107	450	83	155	290	35	30	10x8	WH 630
TM-W5SDT	B	F-30	230	298	8-M20-35	350	3	184.5	434.5	174	125	492.5	92	187.5	322.5	35	30	10x8	WH 710
TM-W5aSDT	B	F-30	230	298	8-M20-35	350	3	207	482	170	131	507.5	92	202.5	337.5	35	30	10x8	WH 710
TM-W6SDT	B	F-35	260	356	8-M30-45	415	4	230	544.5	203	153	567	110	197	377	45	40	12x8	WH 800
TM-W7SDT	B	F-40	300	406	8-M36-54	475	4	278	640.7	217	172.5	619.5	122	229.5	409.5	45	40	12x8	WH 900
TM-W7aSDT	C	F-48	370	483	12-M36-54	560	4	310	737	255	217.5	711.5	130	303.4	481.5	45	40	12x8	WH 1000
TM-W8SDT	C	F-48	370	483	12-M36-54	560	4	359.5	848	266	233	751.5	138	343.4	521.5	45	40	12x8	WH 1000
TM-W9SDT	D	F-60	470	603	20-M36-55	686	4	429.5	977	257	240	799	139	358	569	45	40	12x8	WH 1000
TM-W10SDT	D	F-60	470	603	20-M36-55	686	4	513	1176.1	315	244	910	163	473	680	45	40	12x8	WH 1000
TM-W11SDT	D	F-80	670	813	20-M42-60	900	4	616.5	1397.5	339.5	324.5	1010	160.5	573	780	45	40	12x8	WH 1000
TM-W12SDT	D	F-80	670	813	20-M42-60	1000	5	730	1635	474	455	1111	260	643	881	45	40	12x8	WH 1000

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR 1/4 TURN WORM GEAR

DIM MODEL	GEAR RATIO		ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
	HIGH SPEED	LOW SPEED	Ø	N . m	Lbf - ft	(±10%)	N . m	Lbf - ft	Standard	Option	Kg
TM-W0SDT	76 : 1	152 : 1	Ø36 (10 x 8)	1,019.0	751.6	41.2	24.7	18.2	F-12	F-10	16.7
TM-W1SDT	80 : 1	160 : 1	Ø46 (14 x 9)	1,873.1	1,381.5	43.4	43.2	31.9	F-14	F-12, F-10	19.9
TM-W2SDT	105 : 1	262.5 : 1	Ø65 (18 x 11)	3,170.6	2,338.5	71.1	44.6	32.9	F-16	F-14, F-12	36.0
TM-W3SDT	120 : 1	300 : 1	Ø75 (20 x 12)	5,670.2	4,182.1	81.3	69.7	51.4	F-20	F-16	43.7
TM-W3aSDT	130 : 1	325 : 1	Ø80 (22 x 14)	6,636.4	4,894.8	88.1	75.3	55.5	F-25	F-16	46.6
TM-W4SDT	168 : 1	504 : 1	Ø95 (25 x 14)	9,079.5	6,696.7	136.6	66.5	49.0	F-25	F-20	79.5
TM-W5SDT	180 : 1	540 : 1	Ø110 (32 x 18)	18,679.9	13,777.6	146.4	127.6	94.1	F-30	F-25, F-20	104.9
TM-W5aSDT	186 : 1	558 : 1	Ø125 (32 x 18)	26,009.0	19,183.3	151.2	172.0	126.9	F-30	F-25	118.4
TM-W6SDT	256 : 1	1024 : 1	Ø140 (36 x 20)	29,951.2	22,090.9	277.5	107.9	79.6	F-35	F-30, F-25	194.3
TM-W7SDT	272 : 1	1088 : 1	Ø180 (45 x 25)	53,973.2	39,808.6	294.9	183.0	135.0	F-40	F-35, F-30	255.2
TM-W7aSDT	330 : 1	1650 : 1	Ø205 (50 x 28)	91,566.8	67,536.2	447.2	204.8	151.1	F-48	F-40, F-35	425.2
TM-W8SDT	310 : 1	1550 : 1	Ø225 (50 x 28)	116,875.7	86,203.1	420.1	278.2	205.2	F-48	F-40	525.6
TM-W9SDT	310 : 1	1550 : 1	Ø280 (63 x 32)	176,924.2	130,492.6	420.1	421.1	310.6	F-60	F-48	690.9
TM-W10SDT	320 : 1	1600 : 1	Ø320 (70 x 36)	275,173.0	202,957.2	433.7	634.5	468.0	F-60	-	1,044.3
TM-W11SDT	340 : 1	1700 : 1	Ø360 (80 x 40)	463,548.6	341,895.9	460.8	1,006.0	742.0	F-80	F-60	1,623.5
TM-W12SDT	432 : 1	2592 : 1	Ø400 (90 x 45)	700,000.0	516,293.5	474.3	1,475.9	1,088.6	F-80	F-60	2,337.0

WORM GEAR + BEVEL



DIMENSION

(Unit : mm)

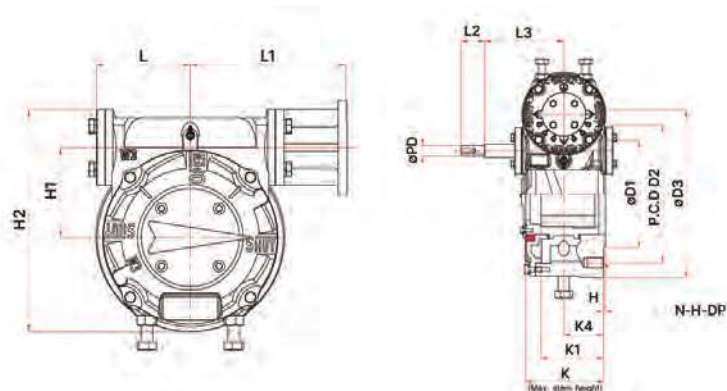
DIM MODEL	BASE PART							EXTERNAL								INPUT SHAFT PART			HAND WHEEL ØM
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K4	L	L1	L3	L2	ØPD	KEY	
				ØD2	N-H-DP														
TM-W0B	A	F-12	85	125	4-M12-20	150	2	64.5	177.9	88.5	67.5	45	85	139.5	161	35	25	8x7	BH 300
TM-W1B	A	F-14	100	140	4-M16-23	175	2	79	204.9	96	71.5	50	92.5	147	166	35	25	8x7	BH 300
TM-W2B	A	F-16	130	165	4-M20-30	210	2	94.5	249.5	112.5	81.5	57	112	168.5	185	35	25	8x7	BH 300
TM-W3B	B	F-20	160	205	8-M16-25	250	3	119	294	116	93	59	124.5	181	188	35	25	8x7	BH 300
TM-W3aB	B	F-25	200	254	8-M16-27	300	3	129	329	121	99	69	129.5	186	195	35	25	8x7	BH 300
TM-W4B	B	F-25	200	254	8-M16-27	300	3	144.5	364.5	163	107	83	155	211	242	35	30	10x8	BH 400
TM-W5B	B	F-30	230	298	8-M20-35	350	3	184.5	434.5	174	125	92	187.5	243.5	251	35	30	10x8	BH 400
TM-W5aB	B	F-30	230	298	8-M20-35	350	3	207	482	170	131	92	202.5	258.5	251	35	30	10x8	BH 630
TM-W6B	B	F-35	260	356	8-M30-45	415	4	230	544.5	203	153	110	197	395	308	35	30	10x8	BH 630
TM-W7B	B	F-40	300	406	8-M36-54	475	4	278	640.7	217	172.5	122	229.5	432.5	320	35	30	10x8	BH 630
TM-W7aB	C	F-48	370	483	12-M36-54	560	4	310	737	255	217.5	130	303.4	504.5	410	45	40	12x8	BH 800
TM-W8B	C	F-48	370	483	12-M36-54	560	4	359.5	848	266	233	138	343.4	543.5	418	45	40	12x8	BH 800
TM-W9B	D	F-60	470	603	20-M36-55	686	4	429.5	977	257	240	139	358	592	432	45	40	12x8	BH 800
TM-W10B	D	F-60	470	603	20-M36-55	686	4	513	1176.1	315	244	163	473	619	465	45	40	12x8	BH 800
TM-W11B	D	F-80	670	813	20-M42-60	900	4	616.5	1397.5	339.5	324.5	160.5	573	734	483.5	45	40	12x8	BH 900
TM-W12B	D	F-80	670	813	20-M42-60	1000	5	730	1635	474	455	260	643	780	630	60	50	16x10	BH 1000

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR 1/4 TURN WORM GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
		Ø	N . m	Lbf - ft	(±10%)	N . m	Lbf - ft	Standard	Option	Kg
TM-W0B	76 : 1	Ø36 (10 x 8)	1,019.0	751.6	25.3	40.3	29.7	F-12	F-10	19.6
TM-W1B	80 : 1	Ø46 (14 x 9)	1,873.1	1,381.5	26.6	70.4	51.9	F-14	F-12, F-10	22.4
TM-W2B	105 : 1	Ø65 (18 x 11)	3,170.6	2,338.5	34.9	90.8	67.0	F-16	F-14, F-12	33.5
TM-W3B	120 : 1	Ø75 (20 x 12)	5,670.2	4,182.1	39.9	142.1	104.8	F-20	F-16	41.3
TM-W3aB	130 : 1	Ø80 (22 x 14)	6,636.4	4,894.8	43.2	153.6	113.3	F-25	F-16	44.4
TM-W4B	196 : 1	Ø95 (25 x 14)	9,079.5	6,696.7	65.2	139.3	102.7	F-25	F-20	83.4
TM-W5B	210 : 1	Ø110 (32 x 18)	18,679.9	13,777.6	69.8	267.6	197.4	F-30	F-25, F-20	108.1
TM-W5aB	248 : 1	Ø125 (32 x 18)	26,009.0	19,183.3	82.5	315.3	232.6	F-30	F-25	141.8
TM-W6B	256 : 1	Ø140 (36 x 20)	29,951.2	22,090.9	85.1	352.0	259.6	F-35	F-30, F-25	185.8
TM-W7B	272 : 1	Ø180 (45 x 25)	53,973.2	39,808.6	90.4	597.0	440.3	F-40	F-35, F-30	246.7
TM-W7aB	363 : 1	Ø205 (50 x 28)	91,566.8	67,536.2	120.7	758.6	559.5	F-48	F-40, F-35	423.8
TM-W8B	341 : 1	Ø225 (50 x 28)	116,875.7	86,203.1	113.4	1,030.6	760.1	F-48	F-40	522.4
TM-W9B	341 : 1	Ø280 (63 x 32)	176,924.2	130,492.6	113.4	1,560.2	1,150.7	F-60	F-48	687.7
TM-W10B	384 : 1	Ø320 (70 x 36)	275,173.0	202,957.2	127.7	2,154.8	1,589.3	F-60	-	995.8
TM-W11B	442 : 1	Ø360 (80 x 40)	463,548.6	341,895.9	147.0	3,153.4	2,325.8	F-80	F-60	1,633.1
TM-W12B	490 : 1	Ø400 (90 x 45)	700,000.0	516,293.5	162.9	4,297.1	3,169.4	F-80	F-60	2,532.0

WORM GEAR + WORM



DIMENSION

(Unit : mm)

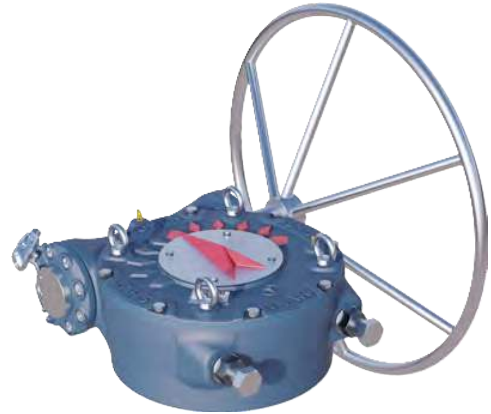
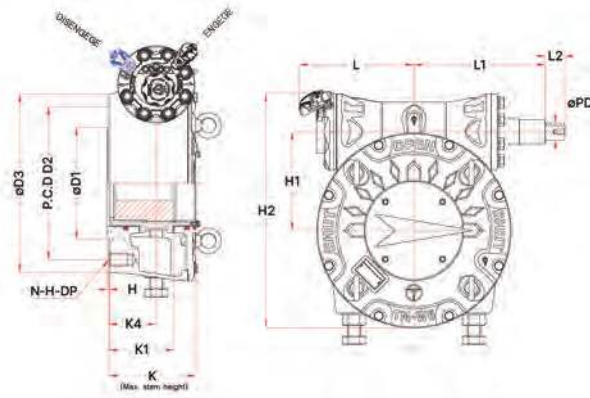
DIM MODEL	BASE PART							EXTERNAL								INPUT SHAFT PART			HAND WHEEL ØM
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K4	L	L1	L3	L2	ØPD	KEY	
				ØD2	N-H-DP														
TM-W0W	A	F-12	85	125	4-M12-20	150	2	64.5	177.9	88.5	67.5	271	45	85	163	35	16	5x5	WH 250
TM-W1W	A	F-14	100	140	4-M16-23	175	2	79	204.9	96	71.5	303.5	50	92.5	168	35	16	5x5	WH 250
TM-W2W	A	F-16	130	165	4-M20-30	210	2	94.5	249.5	112.5	81.5	366	57	112	175	35	16	5x5	WH 250
TM-W3W	B	F-20	160	205	8-M16-25	250	3	119	294	116	93	398.5	59	124.5	177	35	16	5x5	WH 250
TM-W3aW	B	F-25	200	254	8-M16-27	300	3	129	329	121	99	403.5	69	129.5	187	35	16	5x5	WH 250
TM-W4W	B	F-25	200	254	8-M16-27	300	3	144.5	364.5	163	107	450	83	155	222	35	20	6x6	WH 300
TM-W5W	B	F-30	230	298	8-M20-35	350	3	184.5	434.5	174	125	492.5	92	187.5	231	35	20	6x6	WH 300
TM-W5aW	B	F-30	230	298	8-M20-35	350	3	207	482	170	131	507.5	92	202.5	231	35	20	6x6	WH 400
TM-W6W	B	F-35	260	356	8-M30-45	415	4	230	544.5	203	153	567	110	197	255.5	35	20	6x6	WH 400
TM-W7W	B	F-40	300	406	8-M36-54	475	4	278	640.7	217	172.5	619.5	122	229.5	267.5	35	20	6x6	WH 400
TM-W7aW	C	F-48	370	483	12-M36-54	560	4	310	737	255	217.5	711.5	130	303.4	323	35	25	8x7	WH 500
TM-W8W	C	F-48	370	483	12-M36-54	560	4	359.5	848	266	233	751.5	138	343.4	331	35	25	8x7	WH 500
TM-W9W	D	F-60	470	603	20-M36-55	686	4	429.5	977	257	240	799	139	358	332	35	25	8x7	WH 500
TM-W10W	D	F-60	470	603	20-M36-55	686	4	513	1176.1	315	244	910	163	473	369.4	35	25	8x7	WH 560
TM-W11W	D	F-80	670	813	20-M42-60	900	4	616.5	1397.5	339.5	324.5	1010	160.5	573	367	35	25	8x7	WH 560
TM-W12W	D	F-80	670	813	20-M42-60	1000	5	730	1635	474	455	1111	260	643	466.5	35	25	8x7	WH 560

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR 1/4 TURN WORM GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
		Ø	N . m	Lbf - ft	(±10%)	N . m	Lbf - ft	Standard	Option	Kg
TM-W0W	1292 : 1	Ø36 (10 x 8)	1,019.0	751.6	158.3	6.4	4.7	F-12	F-10	12.0
TM-W1W	1360 : 1	Ø46 (14 x 9)	1,873.1	1,381.5	166.6	11.2	8.3	F-14	F-12, F-10	21.7
TM-W2W	1428 : 1	Ø65 (18 x 11)	3,170.6	2,338.5	174.9	18.1	13.3	F-16	F-14, F-12	30.7
TM-W3W	1632 : 1	Ø75 (20 x 12)	5,670.2	4,182.1	199.9	28.4	20.9	F-20	F-16	38.5
TM-W3aW	1768 : 1	Ø80 (22 x 14)	6,636.4	4,894.8	216.6	30.6	22.6	F-25	F-16	41.6
TM-W4W	2128 : 1	Ø95 (25 x 14)	9,079.5	6,696.7	260.7	34.8	25.7	F-25	F-20	70.8
TM-W5W	2280 : 1	Ø110 (32 x 18)	18,679.9	13,777.6	279.3	66.9	49.3	F-30	F-25, F-20	95.5
TM-W5aW	2480 : 1	Ø125 (32 x 18)	26,009.0	19,183.3	303.8	85.6	63.1	F-30	F-25	120.2
TM-W6W	2560 : 1	Ø140 (36 x 20)	29,951.2	22,090.9	313.6	95.5	70.4	F-35	F-30, F-25	164.2
TM-W7W	2720 : 1	Ø180 (45 x 25)	53,973.2	39,808.6	333.2	162.0	119.5	F-40	F-35, F-30	225.2
TM-W7aW	2772 : 1	Ø205 (50 x 28)	91,566.8	67,536.2	339.6	269.6	198.8	F-48	F-40, F-35	358.2
TM-W8W	2604 : 1	Ø225 (50 x 28)	116,875.7	86,203.1	319.0	366.4	270.2	F-48	F-40	456.7
TM-W9W	2604 : 1	Ø280 (63 x 32)	176,924.2	130,492.6	319.0	554.6	409.1	F-60	F-48	622.1
TM-W10W	3072 : 1	Ø320 (70 x 36)	275,173.0	202,957.2	376.3	731.3	539.4	F-60	-	905.4
TM-W11W	3264 : 1	Ø360 (80 x 40)	463,548.6	341,895.9	399.8	1,159.5	855.2	F-80	F-60	1,485.0
TM-W12W	3360 : 1	Ø400 (90 x 45)	700,000.0	516,293.5	411.6	1,700.7	1,254.4	F-80	F-60	2,285.0

DECLUTCH GEAR GENERAL



DIMENSION

(Unit : mm)

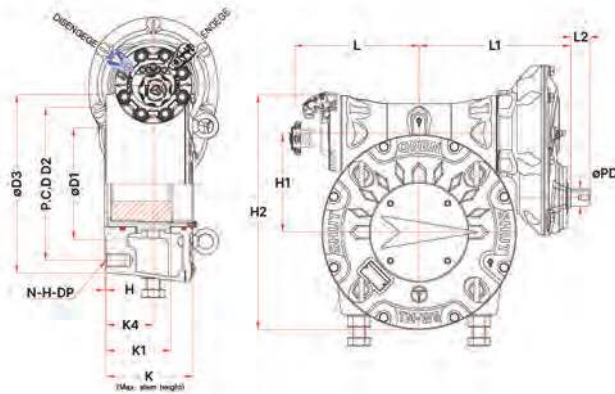
MODEL	DIM	BASE PART						EXTERNAL							INPUT SHAFT PART			HAND WHEEL ØM
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K3	L	L1	L2	ØPD	KEY	
				ØD2	N-H-DP													
TM-WTDC	A	F-07	-	70	4-M8-13	90	0	44	126.5	79	79	152.5	111.0	107	35	16	5x5	WH 160
TM-WSDC	A	F-10	70	102	4-M10-15	125	2	54.5	152	82	82	188	122.0	118	35	16	5x5	WH 250
TM-W0DC	A	F-12	85	125	4-M12-20	150	2	64.5	177.9	88.5	88.5	234	137.0	139	35	20	6x6	WH 300
TM-W1DC	A	F-14	100	140	4-M16-23	175	2	79	204.9	96	96	265.5	144.5	145.5	35	20	6x6	WH 400
TM-W2DC	A	F-16	130	165	4-M20-30	210	2	94.5	249.5	112.5	112.5	333	175.6	193	35	25	8x7	WH 500
TM-W3DC	B	F-20	160	205	8-M16-25	250	3	119	294	116	116	366.5	188.1	206.5	35	25	8x7	WH 560
TM-W3aDC	B	F-25	200	254	8-M16-27	300	3	129	329	121	121	370.7	188.1	210.7	35	25	8x7	WH 560
TM-W4DC	B	F-25	200	254	8-M16-27	300	3	144.5	364.5	163	163	372	243.0	212	35	30	10x8	WH 630
TM-W5DC	B	F-30	230	298	8-M20-35	350	3	184.5	434.5	174	174	414.5	275.5	244.5	35	30	10x8	WH 710
TM-W5aDC	B	F-30	230	298	8-M20-35	350	3	207	482	170	170	429.5	290.5	259.5	35	30	10x8	WH 710
TM-W6DC	B	F-35	260	356	8-M30-45	415	4	230	544.5	203	203	477.5	271.6	287.5	45	40	12x8	WH 800
TM-W7DC	B	F-40	300	406	8-M36-54	475	4	278	640.7	217	217	530	304.1	320	45	40	12x8	WH 900
TM-W7aDC	C	F-48	370	483	12-M36-54	560	4	310	737	255	255	577.5	390.1	347.5	45	40	12x8	WH 1000
TM-W8DC	C	F-48	370	483	12-M36-54	560	4	359.5	848	266	266	618.5	430.1	388.5	45	40	12x8	WH 1000

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR 1/4 TURN WORM GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
		Ø	N . m	Lbf - ft	(±10%)	N . m	Lbf - ft	Standard	Option	Kg
TM-WTDC	31 : 1	Ø20 (6 x 6)	294.7	217.4	10.9	27.0	19.9	F-07 / F-05		5.4
TM-WSDC	32 : 1	Ø28 (8 x 7)	557.7	411.3	11.2	49.8	36.7	F-10	F-07	7.2
TM-W0DC	36 : 1	Ø36 (10 x 8)	788.8	581.8	12.6	62.6	46.2	F-12	F-10	11.8
TM-W1DC	38 : 1	Ø46 (14 x 9)	1,479.2	1,091.0	13.3	111.2	82.0	F-14	F-12, F-10	15.2
TM-W2DC	41 : 1	Ø65 (18 x 11)	2,784.4	2,053.7	14.4	193.4	142.6	F-16	F-14, F-12	24.7
TM-W3DC	47 : 1	Ø75 (20 x 12)	4,856.2	3,581.7	16.5	294.3	217.1	F-20	F-16	32.5
TM-W3aDC	52 : 1	Ø80 (22 x 14)	5,832.7	4,302.0	18.2	320.5	236.4	F-25	F-16	35.6
TM-W4DC	54 : 1	Ø95 (25 x 14)	8,041.1	5,930.8	18.9	425.5	313.8	F-25	F-20	58.1
TM-W5DC	58 : 1	Ø110 (32 x 18)	16,649.8	12,280.3	20.3	820.2	604.9	F-30	F-25, F-20	83.6
TM-W5aDC	60 : 1	Ø125 (32 x 18)	23,276.0	17,167.5	21.0	1,108.4	817.5	F-30	F-25	96.7
TM-W6DC	62 : 1	Ø140 (36 x 20)	27,185.6	20,051.1	21.7	1,252.8	924.0	F-35	F-30, F-25	149.7
TM-W7DC	66 : 1	Ø180 (45 x 25)	43,875.1	32,360.6	23.1	1,899.4	1,400.9	F-40	F-35, F-30	210.7
TM-W7aDC	64 : 1	Ø205 (50 x 28)	69,274.2	51,094.0	22.4	3,092.6	2,281.0	F-48	F-40, F-35	333.8
TM-W8DC	60 : 1	Ø225 (50 x 28)	92,838.1	68,473.9	21.0	4,420.9	3,260.7	F-48	F-40	434.7

DECLUTCH GEAR + SPUR



DIMENSION

(Unit : mm)

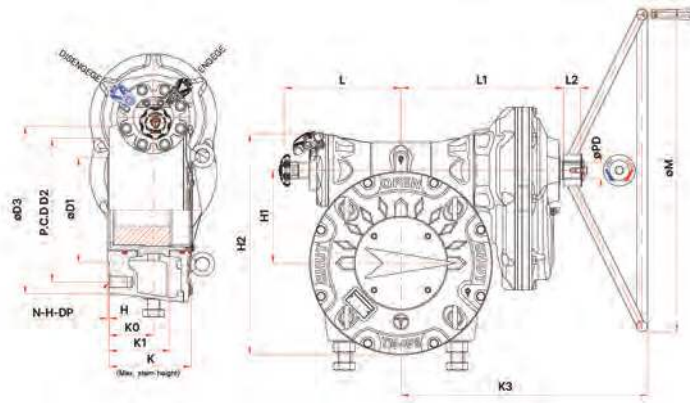
MODEL	DIM	BASE PART						EXTERNAL							INPUT SHAFT PART			HAND WHEEL ØM
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K3	L	L1	L2	ØPD	KEY	
				ØD2	N-H-DP													
TM-W0SDC	A	F-12	85	125	4-M12-20	150	2	64.5	177.9	88.5	65.5	257	166.0	162.0	35	20	6x6	WH 300
TM-W1SDC	A	F-14	100	140	4-M16-23	175	2	79.0	204.9	96.0	69.5	289.5	173.5	169.5	35	20	6x6	WH 400
TM-W2SDC	A	F-16	130	165	4-M20-30	210	2	94.5	249.5	112.5	79.5	346	191.0	206.0	35	25	8x7	WH 500
TM-W3SDC	B	F-20	160	205	8-M16-25	250	3	119.0	294.0	116.0	91.0	378.5	203.5	218.5	35	25	8x7	WH 560
TM-W3aSDC	B	F-25	200	254	8-M16-27	300	3	129.0	329.0	121.0	99.0	383.5	203.5	223.5	35	25	8x7	WH 560
TM-W4SDC	B	F-25	200	254	8-M16-27	300	3	144.5	364.5	163.0	129.0	429	267.0	269.0	35	30	10x8	WH 630
TM-W5SDC	B	F-30	230	298	8-M20-35	350	3	184.5	434.5	174.0	145.5	471.5	299.5	301.5	35	30	10x8	WH 710
TM-W5aSDC	B	F-30	230	298	8-M20-35	350	3	207.0	482.0	170.0	158.0	486.5	314.5	316.5	35	30	10x8	WH 710
TM-W6SDC	B	F-35	260	356	8-M30-45	415	4	230.0	544.5	203.0	172.0	544	304.0	354.0	45	40	12x8	WH 800
TM-W7SDC	B	F-40	300	406	8-M36-54	475	4	278.0	640.7	217.0	195.0	596.5	336.5	386.5	45	40	12x8	WH 900
TM-W7aSDC	C	F-48	370	483	12-M36-54	560	4	310.0	737.0	255.0	249.0	709.5	422.5	479.5	45	40	12x8	WH 1000
TM-W8SDC	C	F-48	370	483	12-M36-54	560	4	359.5	848.0	266.0	262.0	749.5	462.5	519.5	45	40	12x8	WH 1000

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR 1/4 TURN WORM GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		M.A (±10%)	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT Kg
		Ø	N . m	Lbf - ft		N . m	Lbf - ft	Standard	Option	
TM-W0SDC	64 : 1	Ø36 (10 x 8)	788.8	581.8	19.7	40.0	29.5	F-12	F-10	17.0
TM-W1SDC	67.6 : 1	Ø46 (14 x 9)	1,479.2	1,091.0	20.8	71.1	52.4	F-14	F-12, F-10	20.2
TM-W2SDC	86.3 : 1	Ø65 (18 x 11)	2,784.4	2,053.7	26.6	104.7	77.2	F-16	F-14, F-12	34.3
TM-W3SDC	98.9 : 1	Ø75 (20 x 12)	4,856.2	3,581.7	30.5	159.2	117.4	F-20	F-16	41.9
TM-W3aSDC	109.5 : 1	Ø80 (22 x 14)	5,832.7	4,302.0	33.7	173.1	127.7	F-25	F-16	44.9
TM-W4SDC	147 : 1	Ø95 (25 x 14)	8,041.1	5,930.8	45.3	177.5	130.9	F-25	F-20	75.8
TM-W5SDC	157.9 : 1	Ø110 (32 x 18)	16,649.8	12,280.3	48.6	342.6	252.7	F-30	F-25, F-20	101.3
TM-W5aSDC	163.3 : 1	Ø125 (32 x 18)	23,276.0	17,167.5	50.3	462.7	341.3	F-30	F-25	114.7
TM-W6SDC	220.4 : 1	Ø140 (36 x 20)	27,185.6	20,051.1	67.9	400.4	295.3	F-35	F-30, F-25	184.1
TM-W7SDC	234.7 : 1	Ø180 (45 x 25)	43,875.1	32,360.6	72.3	606.8	447.6	F-40	F-35, F-30	245.0
TM-W7aSDC	291.6 : 1	Ø205 (50 x 28)	69,274.2	51,094.0	89.8	771.4	569.0	F-48	F-40, F-35	396.9
TM-W8SDC	273.3 : 1	Ø225 (50 x 28)	92,838.1	68,473.9	84.2	1,102.6	813.2	F-48	F-40	497.3

DECLUTCH GEAR + SPUR DOUBLE



DIMENSION

(Unit : mm)

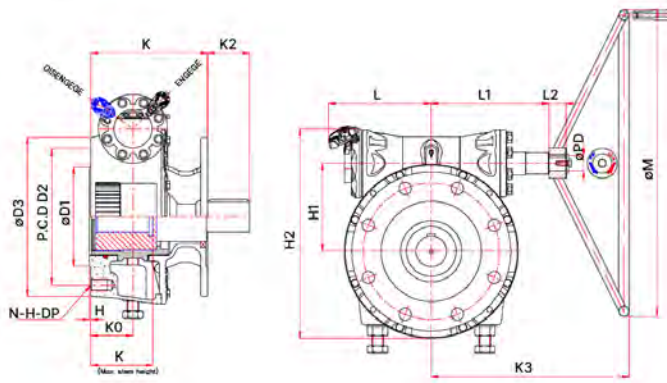
MODEL	DIM	BASE PART						EXTERNAL							INPUT SHAFT PART			HAND WHEEL ØM
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K3	L	L1	L2	ØPD	KEY	
				ØD2	N-H-DP													
TM-W0SDDC	A	F-12	85	125	4-M12-20	150	2	64.5	177.9	88.5	65.5	292.0	166.0	197.0	35	20	6x6	WH 300
TM-W1SDDC	A	F-14	100	140	4-M16-23	175	2	79.0	204.9	96.0	69.5	324.5	173.5	204.5	35	20	6x6	WH 400
TM-W2SDDC	A	F-16	130	165	4-M20-30	210	2	94.5	249.5	112.5	79.5	387.0	191.0	247.0	35	25	8x7	WH 500
TM-W3SDDC	B	F-20	160	205	8-M16-25	250	3	119.0	294.0	116.0	91.0	419.5	203.5	259.5	35	25	8x7	WH 560
TM-W3aSDDC	B	F-25	200	254	8-M16-27	300	3	129.0	329.0	121.0	99.0	424.5	203.5	264.5	35	25	8x7	WH 560
TM-W4SDDC	B	F-25	200	254	8-M16-27	300	3	144.5	364.5	163.0	129.0	471.0	267.0	311.0	35	30	10x8	WH 630
TM-W5SDDC	B	F-30	230	298	8-M20-35	350	3	184.5	434.5	174.0	145.5	513.5	299.5	343.5	35	30	10x8	WH 710
TM-W5aSDDC	B	F-30	230	298	8-M20-35	350	3	207.0	482.0	170.0	158.0	528.5	314.5	358.5	35	30	10x8	WH 710
TM-W6SDDC	B	F-35	260	356	8-M30-45	415	4	230.0	544.5	203.0	172.0	595.0	304.0	405.0	45	40	12x8	WH 800
TM-W7SDDC	B	F-40	300	406	8-M36-54	475	4	278.0	640.7	217.0	195.0	647.5	336.5	437.5	45	40	12x8	WH 900
TM-W7aSDDC	C	F-48	370	483	12-M36-54	560	4	310.0	737.0	255.0	249.0	741.5	422.5	511.5	45	40	12x8	WH 1000
TM-W8SDDC	C	F-48	370	483	12-M36-54	560	4	359.5	848.0	266.0	262.0	781.5	462.5	551.5	45	40	12x8	WH 1000

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR 1/4 TURN WORM GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		M.A (±10%)	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT Kg
		Ø	N . m	Lbf - ft		N . m	Lbf - ft	Standard	Option	
TM-W0SDDC	128 : 1	Ø36 (10 x 8)	788.8	581.8	34.7	22.7	16.7	F-12	F-10	19.6
TM-W1SDDC	135.1 : 1	Ø46 (14 x 9)	1,479.2	1,091.0	36.6	40.4	29.8	F-14	F-12, F-10	22.8
TM-W2SDDC	215.8 : 1	Ø65 (18 x 11)	2,784.4	2,053.7	58.5	47.6	35.1	F-16	F-14, F-12	40.3
TM-W3SDDC	247.4 : 1	Ø75 (20 x 12)	4,856.2	3,581.7	67.1	72.4	53.4	F-20	F-16	48.0
TM-W3aSDDC	273.7 : 1	Ø80 (22 x 14)	5,832.7	4,302.0	74.2	78.6	58.0	F-25	F-16	50.9
TM-W4SDDC	441 : 1	Ø95 (25 x 14)	8,041.1	5,930.8	119.5	67.3	49.6	F-25	F-20	86.9
TM-W5SDDC	473.7 : 1	Ø110 (32 x 18)	16,649.8	12,280.3	128.4	129.7	95.7	F-30	F-25, F-20	112.3
TM-W5aSDDC	490 : 1	Ø125 (32 x 18)	23,276.0	17,167.5	132.8	175.3	129.3	F-30	F-25	125.8
TM-W6SDDC	881.8 : 1	Ø140 (36 x 20)	27,185.6	20,051.1	239.0	113.7	83.9	F-35	F-30, F-25	207.6
TM-W7SDDC	938.7 : 1	Ø180 (45 x 25)	43,875.1	32,360.6	254.4	172.5	127.2	F-40	F-35, F-30	268.5
TM-W7aSDDC	1457.8 : 1	Ø205 (50 x 28)	69,274.2	51,094.0	395.1	175.3	129.3	F-48	F-40, F-35	446.0
TM-W8SDDC	1366.7 : 1	Ø225 (50 x 28)	92,838.1	68,473.9	370.4	250.6	184.8	F-48	F-40	546.4

DECLUTCH GEAR (FOR PNEUMATIC ACTUATOR)



DIMENSION

(Unit : mm)

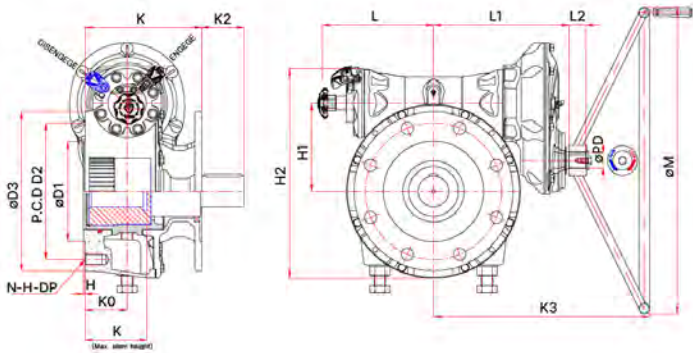
DIM MODEL	BASE PART							EXTERNAL								INPUT SHAFT PART			HAND WHEEL ØM
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K2	K3	L	L1	L2	ØPD	KEY	
				ØD2	N-H-DP														
TM-WTDCM	A	F-07	-	70	4-M8-13	90	0	44.0	126.5	115.0	46.0	25.0	152.5	111.0	107.0	35	16	5x5	WH 160
TM-WSDCM	A	F-10	70	102	4-M10-15	125	2	54.5	152.0	124.0	54.5	30.0	188.0	122.0	118.0	35	16	5x5	WH 250
TM-W0DCM	A	F-12	85	125	4-M12-20	150	2	64.5	177.9	161.5	60.5	30.0	234.0	137.0	139.0	35	20	6x6	WH 300
TM-W1DCM	A	F-14	100	140	4-M16-23	175	2	79.0	204.9	176.0	64.5	30.0	265.5	144.5	145.5	35	20	6x6	WH 400
TM-W2DCM	A	F-16	130	165	4-M20-30	210	2	94.5	249.5	197.0	74.5	50.0	333.0	175.6	193.0	35	25	8x7	WH 500
TM-W3DCM	B	F-20	160	205	8-M16-25	250	3	119.0	294.0	204.0	81.0	80.0	366.5	188.1	206.5	35	25	8x7	WH 560
TM-W3aDCM	B	F-25	200	254	8-M16-27	300	3	129.0	329.0	204.0	80.0	80.0	370.7	188.1	210.7	35	25	8x7	WH 560
TM-W4DCM	B	F-25	200	254	8-M16-27	300	3	144.5	364.5	246.0	119.0	80.0	372.0	243.0	212.0	35	30	10x8	WH 630
TM-W5DCM	B	F-30	230	298	8-M20-35	350	3	184.5	434.5	265.0	135.5	130.0	414.5	275.5	244.5	35	30	10x8	WH 710
TM-W5aDCM	B	F-30	230	298	8-M20-35	350	3	207.0	482.0	262.0	148.0	130.0	429.5	290.5	259.5	35	30	10x8	WH 710
TM-W6DCM	B	F-35	260	356	8-M30-45	415	4	230.0	544.5	305.0	162.0	160.0	477.5	271.6	287.5	45	40	12x8	WH 800
TM-W7DCM	B	F-40	300	406	8-M36-54	475	4	278.0	640.7	355.0	180.0	170.0	530.0	304.1	320.0	45	40	12x8	WH 900
TM-W7aDCM	C	F-48	370	483	12-M36-54	560	4	310.0	737.0	403.0	229.0	170.0	577.5	390.1	347.5	45	40	12x8	WH 1000
TM-W8DCM	C	F-48	370	483	12-M36-54	560	4	359.5	848.0	414.0	232.0	170.0	618.5	430.1	388.5	45	40	12x8	WH 1000

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR 1/4 TURN WORM GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
		Ø	N . m	Lbf - ft	(±10%)	N . m	Lbf - ft	Standard	Option	Kg
TM-WTDCM	31 : 1	Ø20 (6 x 6)	294.7	217.4	10.9	27.0	19.9	F-07 / F-05		6.0
TM-WSDCM	32 : 1	Ø28 (8 x 7)	557.7	411.3	11.2	49.8	36.7	F-10	F-07	8.8
TM-W0DCM	36 : 1	Ø36 (10 x 8)	788.8	581.8	12.6	62.6	46.2	F-12	F-10	14.8
TM-W1DCM	38 : 1	Ø46 (14 x 9)	1,479.2	1,091.0	13.3	111.2	82.0	F-14	F-12, F-10	20.3
TM-W2DCM	41 : 1	Ø65 (18 x 11)	2,784.4	2,053.7	14.4	193.4	142.6	F-16	F-14, F-12	32.6
TM-W3DCM	47 : 1	Ø75 (20 x 12)	4,856.2	3,581.7	16.5	294.3	217.1	F-20	F-16	44.6
TM-W3aDCM	52 : 1	Ø80 (22 x 14)	5,832.7	4,302.0	18.2	320.5	236.4	F-25	F-16	45.4
TM-W4DCM	54 : 1	Ø95 (25 x 14)	8,041.1	5,930.8	18.9	425.5	313.8	F-25	F-20	78.9
TM-W5DCM	58 : 1	Ø110 (32 x 18)	16,649.8	12,280.3	20.3	820.2	604.9	F-30	F-25, F-20	116.4
TM-W5aDCM	60 : 1	Ø125 (32 x 18)	23,276.0	17,167.5	21.0	1,108.4	817.5	F-30	F-25	127.4
TM-W6DCM	62 : 1	Ø140 (36 x 20)	27,185.6	20,051.1	21.7	1,252.8	924.0	F-35	F-30, F-25	208.9
TM-W7DCM	66 : 1	Ø180 (45 x 25)	43,875.1	32,360.6	23.1	1,899.4	1,400.9	F-40	F-35, F-30	313.8
TM-W7aDCM	64 : 1	Ø205 (50 x 28)	69,274.2	51,094.0	22.4	3,092.6	2,281.0	F-48	F-40, F-35	502.6
TM-W8DCM	60 : 1	Ø225 (50 x 28)	92,838.1	68,473.9	21.0	4,420.9	3,260.7	F-48	F-40	597.4

DECLUTCH GEAR + SPUR (FOR PNEUMATIC ACTUATOR)



DIMENSION

(Unit : mm)

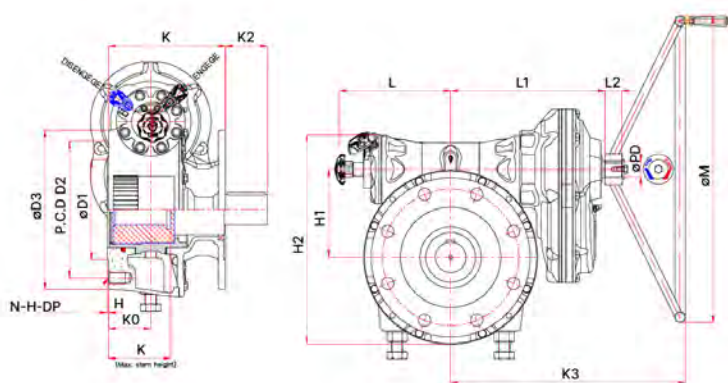
MODEL	DIM	BASE PART						EXTERNAL								INPUT SHAFT PART			HAND WHEEL ØM
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K2	K3	L	L1	L2	ØPD	KEY	
				ØD2	N-H-DP														
TM-W05DCM	A	F-12	85	125	4-M12-20	150	2	64.5	177.9	161.5	60.5	30	257	166	162	35	20	6x6	WH 300
TM-W15DCM	A	F-14	100	140	4-M16-23	175	2	79	204.9	176	64.5	30	289.5	173.5	169.5	35	20	6x6	WH 400
TM-W25DCM	A	F-16	130	165	4-M20-30	210	2	94.5	249.5	197	74.5	50	346	191	206	35	25	8x7	WH 500
TM-W35DCM	B	F-20	160	205	8-M16-25	250	3	119	294	204	81	80	378.5	203.5	218.5	35	25	8x7	WH 560
TM-W3aSDCM	B	F-25	200	254	8-M16-27	300	3	129	329	204	80	80	383.5	203.5	223.5	35	25	8x7	WH 560
TM-W45DCM	B	F-25	200	254	8-M16-27	300	3	144.5	364.5	246	119	80	429	267	269	35	30	10x8	WH 630
TM-W55DCM	B	F-30	230	298	8-M20-35	350	3	184.5	434.5	265	135.5	130	471.5	299.5	301.5	35	30	10x8	WH 710
TM-W5aSDCM	B	F-30	230	298	8-M20-35	350	3	207	482	262	148	130	486.5	314.5	316.5	35	30	10x8	WH 710
TM-W65DCM	B	F-35	260	356	8-M30-45	415	4	230	544.5	305	162	160	544	304	354	45	40	12x8	WH 800
TM-W75DCM	B	F-40	300	406	8-M36-54	475	4	278	640.7	355	180	170	596.5	336.5	386.5	45	40	12x8	WH 900
TM-W7aSDCM	C	F-48	370	483	12-M36-54	560	4	310	737	403	229	170	709.5	422.5	479.5	45	40	12x8	WH 1000
TM-W85DCM	C	F-48	370	483	12-M36-54	560	4	359.5	848	414	232	170	749.5	462.5	519.5	45	40	12x8	WH 1000

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR 1/4 TURN WORM GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
		Ø	N . m	Lbf - ft	(±10%)	N . m	Lbf - ft	Standard	Option	Kg
TM-W0SDCM	64 : 1	Ø36 (10 x 8)	788.8	581.8	19.7	40.0	29.5	F-12	F-10	20.0
TM-W1SDCM	67.6 : 1	Ø46 (14 x 9)	1,479.2	1,091.0	20.8	71.1	52.4	F-14	F-12, F-10	25.4
TM-W2SDCM	86.3 : 1	Ø65 (18 x 11)	2,784.4	2,053.7	26.6	104.7	77.2	F-16	F-14, F-12	42.2
TM-W3SDCM	98.9 : 1	Ø75 (20 x 12)	4,856.2	3,581.7	30.5	159.2	117.4	F-20	F-16	54.0
TM-W3aSDCM	109.5 : 1	Ø80 (22 x 14)	5,832.7	4,302.0	33.7	173.1	127.7	F-25	F-16	54.7
TM-W4SDCM	147 : 1	Ø95 (25 x 14)	8,041.1	5,930.8	45.3	177.5	130.9	F-25	F-20	96.7
TM-W5SDCM	157.9 : 1	Ø110 (32 x 18)	16,649.8	12,280.3	48.6	342.6	252.7	F-30	F-25, F-20	134.1
TM-W5aSDCM	163.3 : 1	Ø125 (32 x 18)	23,276.0	17,167.5	50.3	462.7	341.3	F-30	F-25	145.5
TM-W6SDCM	220.4 : 1	Ø140 (36 x 20)	27,185.6	20,051.1	67.9	400.4	295.3	F-35	F-30, F-25	243.2
TM-W7SDCM	234.7 : 1	Ø180 (45 x 25)	43,875.1	32,360.6	72.3	606.8	447.6	F-40	F-35, F-30	348.1
TM-W7aSDCM	291.6 : 1	Ø205 (50 x 28)	69,274.2	51,094.0	89.8	771.4	569.0	F-48	F-40, F-35	565.6
TM-W8SDCM	273.3 : 1	Ø225 (50 x 28)	92,838.1	68,473.9	84.2	1,102.6	813.2	F-48	F-40	660.0

DECLUTCH GEAR + SPUR DOUBLE (FOR PNEUMATIC ACTUATOR)



DIMENSION

(Unit : mm)

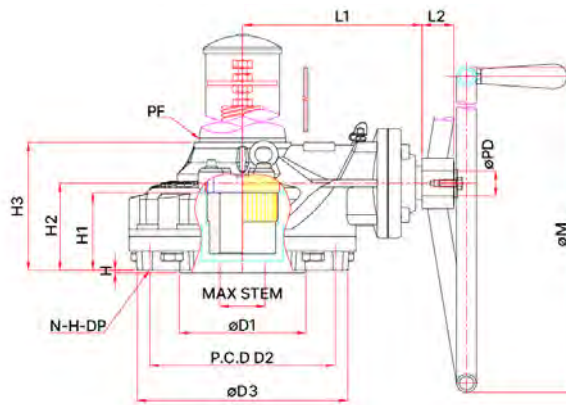
MODEL	DIM	BASE PART						EXTERNAL								INPUT SHAFT PART			HAND WHEEL ØM
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K2	K3	L	L1	L2	ØPD	KEY	
				ØD2	N-H-DP														
TM-W0SDDCM	A	F-12	85	125	4-M12-20	150	2	64.5	177.9	161.5	60.5	30	292	166	197	35	20	6x6	WH 300
TM-W1SDDCM	A	F-14	100	140	4-M16-23	175	2	79	204.9	176	64.5	30	324.5	173.5	204.5	35	20	6x6	WH 400
TM-W2SDDCM	A	F-16	130	165	4-M20-30	210	2	94.5	249.5	197	74.5	50	387	191	247	35	25	8x7	WH 500
TM-W3SDDCM	B	F-20	160	205	8-M16-25	250	3	119	294	204	81	80	419.5	203.5	259.5	35	25	8x7	WH 560
TM-W3aSDDCM	B	F-25	200	254	8-M16-27	300	3	129	329	204	80	80	424.5	203.5	264.5	35	25	8x7	WH 560
TM-W4SDDCM	B	F-25	200	254	8-M16-27	300	3	144.5	364.5	246	119	80	471	267	311	35	30	10x8	WH 630
TM-W5SDDCM	B	F-30	230	298	8-M20-35	350	3	184.5	434.5	265	135.5	130	513.5	299.5	343.5	35	30	10x8	WH 710
TM-W5aSDDCM	B	F-30	230	298	8-M20-35	350	3	207	482	262	148	130	528.5	314.5	358.5	35	30	10x8	WH 710
TM-W6SDDCM	B	F-35	260	356	8-M30-45	415	4	230	544.5	305	162	160	595	304	405	45	40	12x8	WH 800
TM-W7SDDCM	B	F-40	300	406	8-M36-54	475	4	278	640.7	355	180	170	647.5	336.5	437.5	45	40	12x8	WH 900
TM-W7aSDDCM	C	F-48	370	483	12-M36-54	560	4	310	737	403	229	170	741.5	422.5	511.5	45	40	12x8	WH 1000
TM-W8SDDCM	C	F-48	370	483	12-M36-54	560	4	359.5	848	414	232	170	781.5	462.5	551.5	45	40	12x8	WH 1000

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR 1/4 TURN WORM GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT Kg
		Ø	N . m	Lbf - ft	(±10%)	N . m	Lbf - ft	Standard	Option	
TM-W0SDDCM	128 : 1	Ø36 (10 x 8)	788.8	581.8	34.7	22.7	16.7	F-12	F-10	22.6
TM-W1SDDCM	135.1 : 1	Ø46 (14 x 9)	1,479.2	1,091.0	36.6	40.4	29.8	F-14	F-12, F-10	28.0
TM-W2SDDCM	215.8 : 1	Ø65 (18 x 11)	2,784.4	2,053.7	58.5	47.6	35.1	F-16	F-14, F-12	48.3
TM-W3SDDCM	247.4 : 1	Ø75 (20 x 12)	4,856.2	3,581.7	67.1	72.4	53.4	F-20	F-16	60.0
TM-W3aSDDCM	273.7 : 1	Ø80 (22 x 14)	5,832.7	4,302.0	74.2	78.6	58.0	F-25	F-16	60.8
TM-W4SDDCM	441 : 1	Ø95 (25 x 14)	8,041.1	5,930.8	119.5	67.3	49.6	F-25	F-20	107.7
TM-W5SDDCM	473.7 : 1	Ø110 (32 x 18)	16,649.8	12,280.3	128.4	129.7	95.7	F-30	F-25, F-20	145.2
TM-W5aSDDCM	490 : 1	Ø125 (32 x 18)	23,276.0	17,167.5	132.8	175.3	129.3	F-30	F-25	156.5
TM-W6SDDCM	881.8 : 1	Ø140 (36 x 20)	27,185.6	20,051.1	239.0	113.7	83.9	F-35	F-30, F-25	266.8
TM-W7SDDCM	938.7 : 1	Ø180 (45 x 25)	43,875.1	32,360.6	254.4	172.5	127.2	F-40	F-35, F-30	371.7
TM-W7aSDDCM	1457.8 : 1	Ø205 (50 x 28)	69,274.2	51,094.0	395.1	175.3	129.3	F-48	F-40, F-35	614.7
TM-W8SDDCM	1366.7 : 1	Ø225 (50 x 28)	92,838.1	68,473.9	370.4	250.6	184.8	F-48	F-40	709.1

BEVEL GEAR GENERAL



DIMENSION

(Unit : mm)

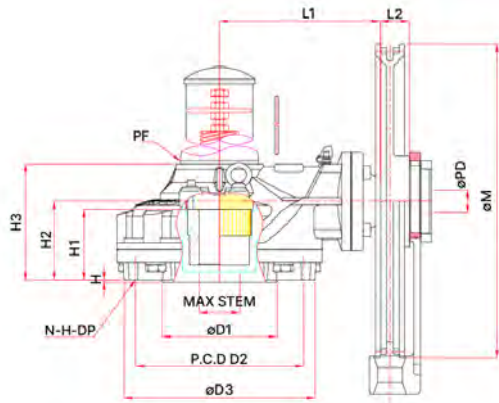
DIM MODEL	TYPE	FLANGE	ØD1	BASE PART			EXTERNAL				INPUT SHAFT PART				HANDLE WHEEL ØM	HAND WHEEL
				ØD2	P.C.D N-H-DP	ØD3	H	H1	H2	H3	L1	L2	ØPD	KEY		
TM-B1	A	F-10	70	102	4-M10-15	125	2	55	66.5	103	126	35	25	8X7	BH 300	PF 2"
TM-B2		F-12	85	125	4-M12-20	150	3	56	71.5	108	133				BH 400	PF 2 1/2"
TM-B3		F-14	100	140	4-M16-22	175		64	72	115	159				BH 500	PF 3"
TM-B4		F-16	130	165	4-M20-28	210		75	85	130	168	35	30	10X8	BH 630	PF 3"
TM-B5		F-20	140	205	8-M16-30	245	3	84	104	153	198				BH 710	PF 4"
TM-B6	B	F-25	200	254		300		97	111	165	220	45	40	12X8	BH 800	PF 2"
TM-B7		F-30	230	298	8-M20-35	350		120	141	203	280				BH 900	PF 6"
TM-B8		F-35	260	356	8-M30-40	410	4	129	150	216	302	60	50	16X10	BH 1000	PF 8"
TM-B9		F-35	260	356	8-M30-45	415	4	161	182	258	323				BH 1000	PF 8"
TM-B10		F-40	300	406	8-M36-55	475	3	175	201	284	370				BH 1000	P.C.D 345
TM-B11	C	F-48	370	483	12-M36-55	560	4	196	222	316	404	60	50	16X10	BH 1000	PF 8"
TM-B12							3	217	258	360	466				BH 1000	PF 10"
TM-B13	D	F-60	470	603	20-M36-55	686	5	245	296	416	587	60	50	16X10	BH 1000	P.C.D 345

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR MULTI TURN BEVEL GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		MAX. THRUST CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
		TW / Ø (KEY)	N . m	Lbf . ft	N	Lbf	(±10%)	N . m	Lbf . ft	Standard	Option	Kg
TM-B1	2.5 : 1	28 / Ø22 (8 X 7)	248.0	182.9	75,460.0	16,964.1	2.4	103.3	76.2	F-10	F-07	9.7
TM-B2	3 : 1	36 / Ø30 (8 X 7)	417.0	307.6	112,700.0	25,336.0	2.9	143.8	106.1	F-12	F-10	11.6
TM-B3	3.5 : 1	46 / Ø38 (10 X 8)	688.0	507.4	126,420.0	28,420.3	3.3	208.5	153.8	F-14	F-12	17.5
TM-B4	3.75 : 1	54 / Ø46 (14 X 9)	1,046.0	771.5	141,120.0	31,725.0	3.6	290.6	214.3	F-16	F-14	24.1
TM-B5	4 : 1	62 / Ø55 (16 X 10)	1,561.0	1,151.3	190,120.0	42,740.7	3.8	410.8	303.0	F-20	F-16	36.4
TM-B6	5 : 1	70 / Ø60 (18 X 11)	2,409.0	1,776.8	288,120.0	64,771.9	4.8	501.9	370.2	F-25	-	51.3
TM-B7	5.5 : 1	84 / Ø72 (20 X 12)	3,734.0	2,754.1	352,800.0	79,312.6	5.2	718.1	529.6	F-30	F-25	89.7
TM-B8	6 : 1	95 / Ø84 (22 X 14)	5,568.0	4,106.7	401,800.0	90,328.2	5.7	976.8	720.5	F-35	F-30, F-25	122.4
TM-B9	6.5 : 1	110 / Ø95 (25 X 14)	7,774.0	5,733.8	509,600.0	114,562.6	6.2	1,253.9	924.8	F-35	F-30	180.0
TM-B10	7 : 1	125 / Ø110 (28 X 16)	12,653.0	9,332.4	1,107,400.0	248,953.4	6.7	1,888.5	1,392.9	F-40	F-35	269.8
TM-B11	7.56 : 1	140 / Ø120 (32 X 18)	17,403.0	12,835.8	1,205,400.0	270,984.6	7.2	2,417.1	1,782.8	F-48	F-40, F-35	356.1
TM-B12	8 : 1	160 / Ø145 (36 X 20)	25,791.0	19,022.5	1,950,200.0	438,422.3	7.6	3,393.6	2,503.0	F-48	-	553.6
TM-B13	8 : 1	205 / Ø180 (45 X 25)	43,000.0	31,715.2	2,680,000.0	602,487.9	7.6	5,657.9	4,173.1	F-60	F-48	1,062.2

BEVEL GEAR + CHAIN WHEEL



DIMENSION

(Unit : mm)

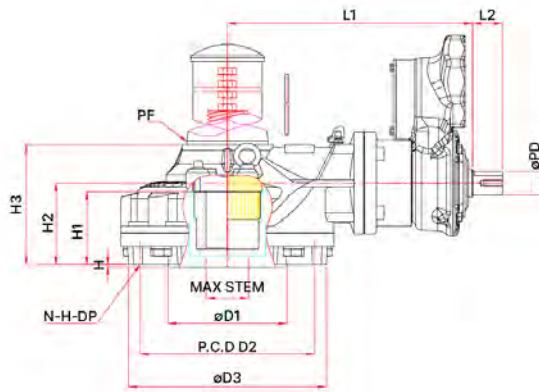
DIM MODEL	BASE PART						EXTERNAL				INPUT SHAFT PART			HANDLE WHEEL	HAND WHEEL						
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	H3	L1	L2	ØPD			KEY					
				ØD2	N-H-DP									ØM							
TM-B1	A	F-10	70	102	4-M10-15	125	2	55	66.5	103	126	35	25	8X7	CW 200	PF 2"					
TM-B2		F-12	85	125	4-M12-20	150		56	71.5	108	133										
TM-B3		F-14	100	140	4-M16-22	175	3	64	72	115	159						30	10X8	CW 300	PF 2 1/2"	
TM-B4		F-16	130	165	4-M20-28	210		75	85	130	168										
TM-B5		F-20	140	205	8-M16-30	245	3	84	104	153	198	35	30	10X8	CW 400	PF 3"					
TM-B6		F-25	200	254		300		97	111	165	220						45	40	12X8	CW 500	PF 4"
TM-B7	B	F-30	230	298		8-M20-35		350	120	141	203										
TM-B8		F-35	260	356	8-M30-40	410		129	150	216	302					PF 5"					
TM-B9		F-35	260	356	8-M30-45	415	4	161	182	258	323					PF 6"					
TM-B10		F-40	300	406	8-M36-55	475	3	175	201	284	370	60	50	16X10		PF 8"					
TM-B11	C	F-48	370	483	12-M36-55	560	4	196	222	316	404	60	50	16X10		PF 8"					
TM-B12							3	217	258	360	466						PF 10"				
TM-B13	D	F-60	470	603	20-M36-55	686	5	245	296	416	587	60	50	16X10		P.C.D 345					

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR MULTI TURN BEVEL GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		MAX. THRUST CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
		TW / Ø (KEY)	N . m	Lbf . ft	N	Lbf	(±10%)	N . m	Lbf . ft	Standard	Option	Kg
TM-B1	2.5 : 1	28 / Ø22 (8 X 7)	248.0	182.9	75,460.0	16,964.1	2.4	103.3	76.2	F-10	F-07	9.7
TM-B2	3 : 1	36 / Ø30 (8 X 7)	417.0	307.6	112,700.0	25,336.0	2.9	143.8	106.1	F-12	F-10	11.6
TM-B3	3.5 : 1	46 / Ø38 (10 X 8)	688.0	507.4	126,420.0	28,420.3	3.3	208.5	153.8	F-14	F-12	17.5
TM-B4	3.75 : 1	54 / Ø46 (14 X 9)	1,046.0	771.5	141,120.0	31,725.0	3.6	290.6	214.3	F-16	F-14	24.1
TM-B5	4 : 1	62 / Ø55 (16 X 10)	1,561.0	1,151.3	190,120.0	42,740.7	3.8	410.8	303.0	F-20	F-16	36.4
TM-B6	5 : 1	70 / Ø60 (18 X 11)	2,409.0	1,776.8	288,120.0	64,771.9	4.8	501.9	370.2	F-25	-	51.3
TM-B7	5.5 : 1	84 / Ø72 (20 X 12)	3,734.0	2,754.1	352,800.0	79,312.6	5.2	718.1	529.6	F-30	F-25	89.7
TM-B8	6 : 1	95 / Ø84 (22 X 14)	5,568.0	4,106.7	401,800.0	90,328.2	5.7	976.8	720.5	F-35	F-30, F-25	122.4
TM-B9	6.5 : 1	110 / Ø95 (25 X 14)	7,774.0	5,733.8	509,600.0	114,562.6	6.2	1,253.9	924.8	F-35	F-30	180.0
TM-B10	7 : 1	125 / Ø110 (28 X 16)	12,653.0	9,332.4	1,107,400.0	248,953.4	6.7	1,888.5	1,392.9	F-40	F-35	269.8
TM-B11	7.56 : 1	140 / Ø120 (32 X 18)	17,403.0	12,835.8	1,205,400.0	270,984.6	7.2	2,417.1	1,782.8	F-48	F-40, F-35	356.1
TM-B12	8 : 1	160 / Ø145 (36 X 20)	25,791.0	19,022.5	1,950,200.0	438,422.3	7.6	3,393.6	2,503.0	F-48	-	553.6
TM-B13	8 : 1	205 / Ø180 (45 X 25)	43,000.0	31,715.2	2,680,000.0	602,487.9	7.6	5,657.9	4,173.1	F-60	F-48	1,062.2

BEVEL GEAR + POSITION INDICATOR



DIMENSION

(Unit : mm)

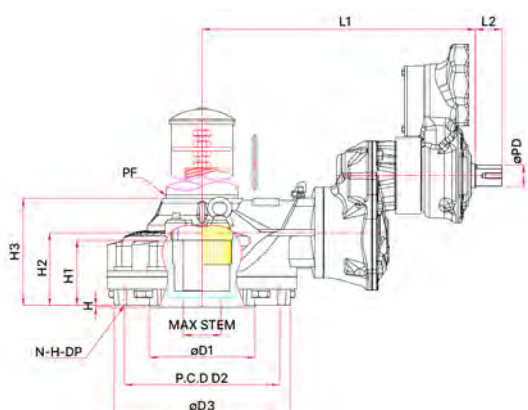
DIM MODEL	TYPE	FLANGE	BASE PART				EXTERNAL				INPUT SHAFT PART				HANDLE WHEEL ØM	HAND WHEEL
			ØD1	P.C.D ØD2	N-H-DP	ØD3	H	H1	H2	H3	L1	L2	ØPD	KEY		
TM-B1PI	A	F-10	70	102	4-M10-15	125	2	55	66.5	103	182	35	25	8X7	BH 300	PF 2"
TM-B2PI		F-12	85	125	4-M12-20	150	3	56	71.5	108	189		30	10X8	BH 400	PF 2 1/2"
TM-B3PI		F-14	100	140	4-M16-22	175		64	72	115	229				BH 500	PF 3"
TM-B4PI		F-16	130	165	4-M20-28	210		75	85	130	241	35	30	10X8	BH 630	PF 3"
TM-B5PI		F-20	140	205	8-M16-30	245	3	84	104	153	290				BH 710	PF 4"
TM-B6PI	B	F-25	200	254		300		97	111	165	312	45	40	12X8	BH 800	PF 5"
TM-B7PI		F-30	230	298	8-M20-35	350		120	141	203	364				BH 900	PF 6"
TM-B8PI		F-35	260	356	8-M30-40	410	4	129	150	216	385					
TM-B9PI		F-35	260	356	8-M30-45	415		161	182	258	414					

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR MULTI TURN BEVEL GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		MAX. THRUST CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
		TW / Ø (KEY)	N . m	Lbf . ft	N	Lbf	(±10%)	N . m	Lbf . ft	Standard	Option	Kg
TM-B1PI	2.5 : 1	28 / Ø22 (8 X 7)	248.0	182.9	75,460.0	16,964.1	2.4	103.3	76.2	F-10	F-07	15.2
TM-B2PI	3 : 1	36 / Ø30 (8 X 7)	417.0	307.6	112,700.0	25,336.0	2.9	143.8	106.1	F-12	F-10	17.3
TM-B3PI	3.5 : 1	46 / Ø38 (10 X 8)	688.0	507.4	126,420.0	28,420.3	3.3	208.5	153.8	F-14	F-12	24.9
TM-B4PI	3.75 : 1	54 / Ø46 (14 X 9)	1,046.0	771.5	141,120.0	31,725.0	3.6	290.6	214.3	F-16	F-14	31.6
TM-B5PI	4 : 1	62 / Ø55 (16 X 10)	1,561.0	1,151.3	190,120.0	42,740.7	3.8	410.8	303.0	F-20	F-16	44.5
TM-B6PI	5 : 1	70 / Ø60 (18 X 11)	2,409.0	1,776.8	288,120.0	64,771.9	4.8	501.9	370.2	F-25	-	60.1
TM-B7PI	5.5 : 1	84 / Ø72 (20 X 12)	3,734.0	2,754.1	352,800.0	79,312.6	5.2	718.1	529.6	F-30	F-25	100.0
TM-B8PI	6 : 1	95 / Ø84 (22 X 14)	5,568.0	4,106.7	401,800.0	90,328.2	5.7	976.8	720.5	F-35	F-30, F-25	132.7
TM-B9PI	6.5 : 1	110 / Ø95 (25 X 14)	7,774.0	5,733.8	509,600.0	114,562.6	6.2	1,253.9	924.8	F-35	F-30	190.3

BEVEL GEAR + SPUR + POSITION INDICATOR



DIMENSION

(Unit : mm)

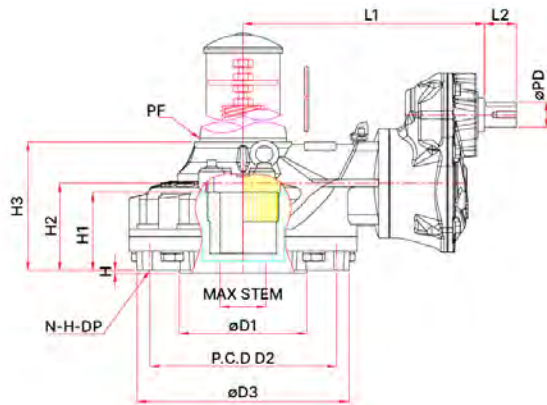
DIM MODEL	BASE PART							EXTERNAL				INPUT SHAFT PART			HANDLE WHEEL ØM	HAND WHEEL
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	H3	L1	L2	ØPD	KEY		
				ØD2	N-H-DP											
TM-B3SPI	A	F-14	100	140	4-M16-22	175	3	64	72	115	377	35	20	6X6	WH 300	PF 2 1/2"
TM-B4SPI		F-16	130	165	4-M20-28	210		75	85	130	386				WH 400	PF 3"
TM-B5SPI		F-20	140	205	8-M16-30	245	3	84	104	153	434	35	25	8X7	WH 500	PF 3"
TM-B6SPI		F-25	200	254		300		97	111	165	456				WH 560	PF 4"
TM-B7SPI	B	F-30	230	298	8-M20-35	350		120	141	203	505	35	30	10X8	WH 630	PF 5"
TM-B8SPI		F-35	260	356	8-M30-40	410		129	150	216	527				WH 710	PF 6"
TM-B9SPI		F-35	260	356	8-M30-45	415	4	161	182	258	557	45	40	12X8	WH 800	PF 8"
TM-B10SPI		F-40	300	406	8-M36-55	475	3	175	201	284	646				WH 900	PF 8"
TM-B11SPI	C	F-48	370	483	12-M36-55	560	4	196	222	316	680	45	40	12X8	WH 900	PF 8"
TM-B12SPI							3	217	258	360	836				WH 1000	PF 10"
TM-B13SPI	D	F-60	470	603	20-M36-55	686	5	245	296	416	927	45	40	12X8	WH 1000	P.C.D 345

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR MULTI TURN BEVEL GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		MAX. THRUST CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
		TW / Ø (KEY)	N . m	Lbf . ft	N	Lbf	(±10%)	N . m	Lbf . ft	Standard	Option	Kg
TM-B3SPI	7 : 1	46 / Ø38 (10 X 8)	688.0	507.4	126,420.0	28,420.3	5.9	116.6	86.0	F-14	F-12	29.0
TM-B4SPI	7.5 : 1	54 / Ø46 (14 X 9)	1,046.0	771.5	141,120.0	31,725.0	6.3	166.0	122.4	F-16	F-14	37.0
TM-B5SPI	10 : 1	62 / Ø55 (16 X 10)	1,561.0	1,151.3	190,120.0	42,740.7	8.4	185.8	137.0	F-20	F-16	47.0
TM-B6SPI	12.5 : 1	70 / Ø60 (18 X 11)	2,409.0	1,776.8	288,120.0	64,771.9	10.5	229.4	169.2	F-25	-	65.0
TM-B7SPI	16.5 : 1	84 / Ø72 (20 X 12)	3,734.0	2,754.1	352,800.0	79,312.6	16.1	231.9	171.0	F-30	F-25	102.0
TM-B8SPI	18.5 : 1	95 / Ø84 (22 X 14)	5,568.0	4,106.7	401,800.0	90,328.2	17.6	316.4	233.4	F-35	F-30, F-25	138.0
TM-B9SPI	19.5 : 1	110 / Ø95 (25 X 14)	7,774.0	5,733.8	509,600.0	114,562.6	19.1	407.0	300.2	F-35	F-30	190.0
TM-B10SPI	28 : 1	125 / Ø110 (28 X 16)	12,653.0	9,332.4	1,107,400.0	248,953.4	23.4	540.7	398.8	F-40	F-35	347.0
TM-B11SPI	30.2 : 1	140 / Ø120 (32 X 18)	17,403.0	12,835.8	1,205,400.0	270,984.6	25.2	690.6	509.4	F-48	F-40, F-35	435.0
TM-B12SPI	40 : 1	160 / Ø145 (36 X 20)	25,791.0	19,022.5	1,950,200.0	438,422.3	33.4	772.2	569.5	F-48	-	735.0
TM-B13SPI	40 : 1	205 / Ø180 (45 X 25)	43,000.0	31,715.2	2,680,000.0	602,487.9	33.4	1,287.4	949.5	F-60	F-48	1,008.0

BEVEL GEAR + SPUR



DIMENSION

(Unit : mm)

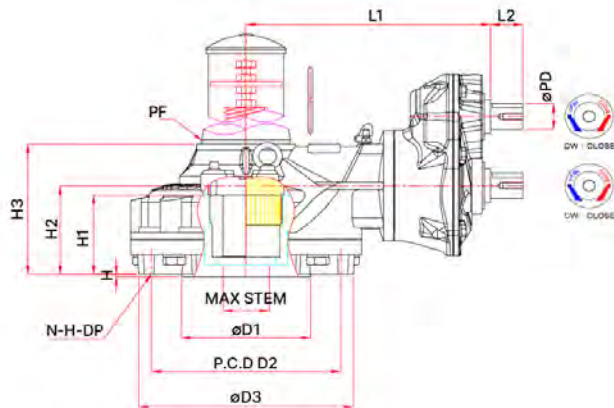
MODEL	DIM	BASE PART						EXTERNAL				INPUT SHAFT PART			HANDLE WHEEL	HAND WHEEL
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	H3	L1	L2	ØPD	KEY	ØM	
				ØD2	N-H-DP											
TM-B3S	A	F-14	100	140	4-M16-22	175	3	64	72	115	223	35	20	6X6	WH 300	PF 2 1/2"
TM-B4S		F-16	130	165	4-M20-28	210		75	85	130	232				WH 400	PF 3"
TM-B5S	B	F-20	140	205	8-M16-30	245	3	84	104	153	283	35	25	8X7	WH 500	PF 3"
TM-B6S		F-25	200	254		300		97	111	165	305				WH 560	PF 4"
TM-B7S		F-30	230	298	8-M20-35	350	120	141	203	354	35	30	10X8	WH 630	PF 5"	
TM-B8S		F-35	260	356	8-M30-40	410	129	150	216	376				WH 710	PF 6"	
TM-B9S		F-35	260	356	8-M30-45	415	4	161	182	258	406	WH 800	PF 8"			
TM-B10S		F-40	300	406	8-M36-55	475	3	175	201	284	485	45	40	12X8	WH 900	PF 8"
TM-B11S		C	F-48	370	483	12-M36-55	560	4	196	222	316	519	45	40	12X8	WH 1000
TM-B12S	3							217	258	360	674					
TM-B13S	D	F-60	470	603	20-M36-55	686	5	245	296	416	765	45	40	12X8		

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR MULTI TURN BEVEL GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		MAX. THRUST CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
		TW / Ø (KEY)	N . m	Lbf - ft	N	Lbf	(±10%)	N . m	Lbf - ft	Standard	Option	Kg
TM-B3S	7 : 1	46 / Ø38 (10 X 8)	688.0	507.4	126,420.0	28,420.3	5.9	116.6	86.0	F-14	F-12	19.6
TM-B4S	7.5 : 1	54 / Ø46 (14 X 9)	1,046.0	771.5	141,120.0	31,725.0	6.3	166.0	122.4	F-16	F-14	25.6
TM-B5S	10 : 1	62 / Ø55 (16 X 10)	1,561.0	1,151.3	190,120.0	42,740.7	8.4	185.8	137.0	F-20	F-16	42.1
TM-B6S	12.5 : 1	70 / Ø60 (18 X 11)	2,409.0	1,776.8	288,120.0	64,771.9	10.5	229.4	169.2	F-25	-	67.5
TM-B7S	16.5 : 1	84 / Ø72 (20 X 12)	3,734.0	2,754.1	352,800.0	79,312.6	16.1	231.9	171.0	F-30	F-25	100.1
TM-B8S	18.0 : 1	95 / Ø84 (22 X 14)	5,568.0	4,106.7	401,800.0	90,328.2	17.6	316.4	233.4	F-35	F-30, F-25	133.1
TM-B9S	19.5 : 1	110 / Ø95 (25 X 14)	7,774.0	5,733.8	509,600.0	114,562.6	19.1	407.0	300.2	F-35	F-30	207.3
TM-B10S	28 : 1	125 / Ø110 (28 X 16)	12,653.0	9,332.4	1,107,400.0	248,953.4	23.4	540.7	398.8	F-40	F-35	292.9
TM-B11S	30.2 : 1	140 / Ø120 (32 X 18)	17,403.0	12,835.8	1,205,400.0	270,984.6	25.2	690.6	509.4	F-48	F-40, F-35	379.7
TM-B12S	40 : 1	160 / Ø145 (36 X 20)	25,791.0	19,022.5	1,950,200.0	438,422.3	33.4	772.2	569.5	F-48	-	632.3
TM-B13S	40 : 1	205 / Ø180 (45 X 25)	43,000.0	31,715.2	2,680,000.0	602,487.9	33.4	1,287.4	949.5	F-60	F-48	1,174.5

BEVEL GEAR + SPUR TWIN SHAFT



DIMENSION

(Unit : mm)

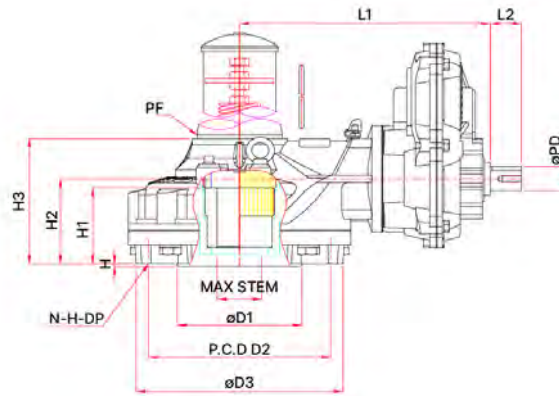
MODEL	DIM	BASE PART						EXTERNAL				INPUT SHAFT PART			HANDLE WHEEL ØM	HAND WHEEL	
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	H3	L1	L2	ØPD	KEY			
				ØD2	N-H-DP												
TM-B3ST	A	F-14	100	140	4-M16-22	175	2	64	72	115	223	35	20	8X7	WH 300	PF 2 1/2"	
TM-B4ST		F-16	130	165	4-M20-28	210		75	85	130	232				WH 400	PF 3"	
TM-B5ST		F-20	140	205	8-M16-30	245	3	84	104	153	283		35	25	10X8	WH 500	PF 3"
TM-B6ST		F-25	200	254		300		97	111	165	305					WH 560	PF 4"
TM-B7ST		F-30	230	298		8-M20-35		350	120	141	203					354	WH 630
TM-B8ST	B	F-35	260	356	8-M30-40	410		4	129	150	216	376	35	30	10X8	WH 710	PF 6"
TM-B9ST		F-35	260	356	8-M30-45	415	161		182	258	406						
TM-B10ST	C	F-40	300	406	8-M36-55	475	3	175	201	284	485	45	40	12X8	WH 800	PF 8"	
TM-B11ST		F-48	370	483	12-M36-55	560	4	196	222	316	519	45	40	12X8	WH 900	PF 8"	
TM-B12ST							3	217	258	360	674					PF 10"	
TM-B13ST	D	F-60	470	603	20-M36-55	686	5	245	296	416	765	45	40	12X8	WH 1000	P.C.D 345	

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR MULTI TURN BEVEL GEAR

DIM MODEL	GEAR RATIO		ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		MAX. THRUST CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
	HIGH SPEED	LOW SPEED	TW / Ø (KEY)	N . m	Lbf - ft	N	Lbf	(±10%)	N . m	Lbf - ft	Standard	Option	Kg
TM-B3ST	3.5 : 1	7:01	46 / Ø38 (10 X 8)	688.0	507.4	126,420.0	28,420.3	5.9	116.6	86.0	F-14	F-12	19.9
TM-B4ST	3.75 : 1	7.5 : 1	54 / Ø46 (14 X 9)	1,046.0	771.5	141,120.0	31,725.0	6.3	166.0	122.4	F-16	F-14	25.9
TM-B5ST	4 : 1	10 : 1	62 / Ø55 (16 X 10)	1,561.0	1,151.3	190,120.0	42,740.7	8.4	185.8	137.0	F-20	F-16	42.7
TM-B6ST	5 : 1	12.5 : 1	70 / Ø60 (18 X 11)	2,409.0	1,776.8	288,120.0	64,771.9	10.5	229.4	169.2	F-25	-	68.1
TM-B7ST	5.5 : 1	16.5 : 1	84 / Ø74 (20 X 12)	3,734.0	2,754.1	352,800.0	79,312.6	16.1	231.9	171.0	F-30	F-25	101.0
TM-B8ST	6 : 1	18.0 : 1	95 / Ø84 (22 X 14)	5,568.0	4,106.7	401,800.0	90,328.2	17.6	316.4	233.4	F-35	F-30, F-25	134.1
TM-B9ST	6.5 : 1	19.5 : 1	110 / Ø95 (25 X 14)	7,774.0	5,733.8	509,600.0	114,562.6	19.1	407.0	300.2	F-35	F-30	208.3
TM-B10ST	7 : 1	28 : 1	125 / Ø110 (28 X 16)	12,653.0	9,332.4	1,107,400.0	248,953.4	23.4	540.7	398.8	F-40	F-35	294.4
TM-B11ST	7.56 : 1	30.2 : 1	140 / Ø120 (32 X 18)	17,403.0	12,835.8	1,205,400.0	270,984.6	25.2	690.6	509.4	F-48	F-40, F-35	381.1
TM-B12ST	8 : 1	40 : 1	160 / Ø145 (36 X 20)	25,791.0	19,022.5	1,950,200.0	438,422.3	33.4	772.2	569.5	F-48	-	634.1
TM-B13ST	8 : 1	40 : 1	205 / Ø180 (45 X 25)	43,000.0	31,715.2	2,680,000.0	602,487.9	33.4	1,287.4	949.5	F-60	F-48	1,177.9

BEVEL GEAR + SPUR DOUBLE



DIMENSION

(Unit : mm)

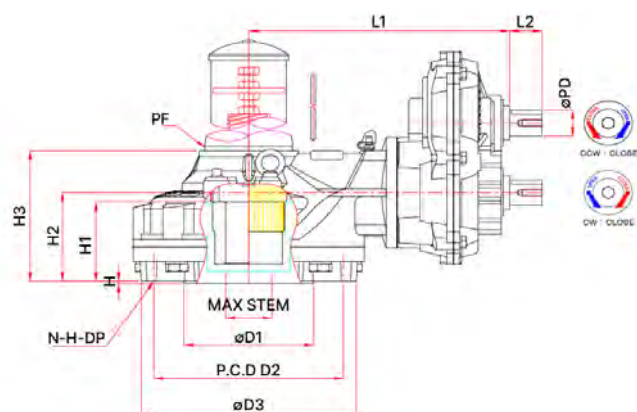
MODEL	DIM	BASE PART						EXTERNAL				INPUT SHAFT PART			HANDLE WHEEL	HAND WHEEL
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	H3	L1	L2	ØPD	KEY	ØM	
				ØD2	N-H-DP											
TM-B3SD	A	F-14	100	140	4-M16-22	175	3	64	72	115	223	35	20	6X6	WH 300	PF 2 1/2"
TM-B4SD		F-16	130	165	4-M20-28	210		75	85	130	232				WH 400	PF 3"
TM-B5SD		F-20	140	205	8-M16-30	245		84	104	153	283				WH 500	PF 3"
TM-B6SD	B	F-25	200	254		300	3	97	111	165	305	35	25	8X7	WH 560	PF 4"
TM-B7SD		F-30	230	298		8-M20-35		350	120	141	203				375	WH 630
TM-B8SD		C	F-35	260	356	8-M30-40		410	129	150	216	397	35	30	10X8	WH 710
TM-B9SD	F-35		260	356	8-M30-45	415	4	161	182	258	427	WH 800				PF 8"
TM-B10SD	F-40		300	406	8-M36-55	475	3	175	201	284	508	45				40
TM-B11SD	D	F-48	370	483	12-M36-55	560	4	196	222	316	542	45	40	12X8	WH 1000	P.C.D 345
TM-B12SD							3	217	258	360	674				WH 1000	P.C.D 345
TM-B13SD	D	F-60	470	603	20-M36-55	686	5	245	296	416	765	45	40	12X8	WH 1000	P.C.D 345

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR MULTI TURN BEVEL GEAR

DIM MODEL	GEAR RATIO		ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		MAX. THRUST CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
	HIGH SPEED	LOW SPEED	TW / Ø (KEY)	N . m	Lbf . ft	N	Lbf	(±10%)	N . m	Lbf . ft	Standard	Option	Kg
TM-B3SD	7 : 1	14:1	46 / Ø38 (10 X 8)	688.0	507.4	126,420.0	28,420.3	10.3	66.8	49.3	F-14	F-12	20.3
TM-B4SD	7.5 : 1	15:1	54 / Ø46 (14 X 9)	1,046.0	771.5	141,120.0	31,725.0	11.0	95.1	70.1	F-16	F-14	26.3
TM-B5SD	10 : 1	25:1	62 / Ø55 (16 X 10)	1,561.0	1,151.3	190,120.0	42,740.7	18.4	84.8	62.5	F-20	F-16	44.9
TM-B6SD	12.5 : 1	31.3:1	70 / Ø60 (18 X 11)	2,409.0	1,776.8	288,120.0	64,771.9	23.0	104.7	77.2	F-25	-	70.3
TM-B7SD	16.5 : 1	49.5:1	84 / Ø72 (20 X 12)	3,734.0	2,754.1	352,800.0	79,312.6	49.6	75.3	55.5	F-30	F-25	105.3
TM-B8SD	18.0 : 1	54:1	95 / Ø84 (22 X 14)	5,568.0	4,106.7	401,800.0	90,328.2	54.1	102.9	75.9	F-35	F-30, F-25	138.3
TM-B9SD	19.5 : 1	58.5:1	110 / Ø95 (25 X 14)	7,774.0	5,733.8	509,600.0	114,562.6	58.6	132.7	97.9	F-35	F-30	212.5
TM-B10SD	28 : 1	112:1	125 / Ø110 (28 X 16)	12,653.0	9,332.4	1,107,400.0	248,953.4	82.4	153.6	113.3	F-40	F-35	304.6
TM-B11SD	30.2 : 1	120.9:1	140 / Ø120 (32 X 18)	17,403.0	12,835.8	1,205,400.0	270,984.6	89.0	195.5	144.2	F-48	F-40, F-35	391.4
TM-B12SD	40 : 1	200:1	160 / Ø145 (36 X 20)	25,791.0	19,022.5	1,950,200.0	438,422.3	147.1	175.3	129.3	F-48	-	660.8
TM-B13SD	40 : 1	200:1	205 / Ø180 (45 X 25)	43,000.0	31,715.2	2,680,000.0	602,487.9	147.1	292.3	215.6	F-60	F-48	1,224.0

BEVEL GEAR + SPUR DOUBLE TWIN SHAFT



DIMENSION

(Unit : mm)

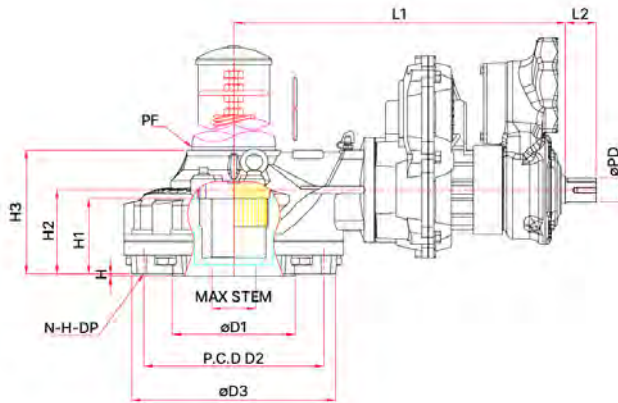
DIM MODEL	BASE PART							EXTERNAL				INPUT SHAFT PART			HANDLE WHEEL ØM	HAND WHEEL
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	H3	L1	L2	ØPD	KEY		
				ØD2	N-H-DP											
TM-B3SDT	A	F-14	100	140	4-M16-22	175	3	64	72	115	223	35	20	6X6	WH 300	PF 2 1/2"
TM-B4SDT		F-16	130	165	4-M20-28	210		75	85	130	232				WH 400	PF 3"
TM-B5SDT		F-20	140	205	8-M16-30	245	3	84	104	153	283	35	25	8X7	WH 500	PF 3"
TM-B6SDT		F-25	200	254		300		97	111	165	305				WH 560	PF 4"
TM-B7SDT	B	F-30	230	298	8-M20-35	350		120	141	203	375	35	30	10X8	WH 630	PF 5"
TM-B8SDT		F-35	260	356	8-M30-40	410		129	150	216	397				WH 710	PF 6"
TM-B9SDT		F-35	260	356	8-M30-45	415	4	161	182	258	427	45	40	12X8	WH 800	PF 8"
TM-B10SDT		F-40	300	406	8-M36-55	475	3	175	201	284	508				WH 900	PF 10"
TM-B11SDT	C	F-48	370	483	12-M36-55	560	4	196	222	316	542	45	40	12X8	WH 1000	P.C.D 345
TM-B12SDT							3	217	258	360	674				WH 1000	P.C.D 345
TM-B13SDT	D	F-60	470	603	20-M36-55	686	5	245	296	416	765	45	40	12X8	WH 1000	P.C.D 345

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR MULTI TURN BEVEL GEAR

DIM MODEL	GEAR RATIO		ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		MAX. THRUST CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
	HIGH SPEED	LOW SPEED	TW / Ø (KEY)	N . m	Lbf - ft	N	Lbf	(±10%)	N . m	Lbf - ft	Standard	Option	Kg
TM-B3SDT	7 : 1	14:1	46 / Ø38 (10 X 8)	688.0	507.4	126,420.0	28,420.3	10.3	66.8	49.3	F-14	F-12	20.3
TM-B4SDT	7.5 : 1	15:1	54 / Ø46 (14 X 9)	1,046.0	771.5	141,120.0	31,725.0	11.0	95.1	70.1	F-16	F-14	26.3
TM-B5SDT	10 : 1	25:1	62 / Ø55 (16 X 10)	1,561.0	1,151.3	190,120.0	42,740.7	18.4	84.8	62.5	F-20	F-16	44.9
TM-B6SDT	12.5 : 1	31.3:1	70 / Ø60 (18 X 11)	2,409.0	1,776.8	288,120.0	64,771.9	23.0	104.7	77.2	F-25	-	70.3
TM-B7SDT	16.5 : 1	49.5:1	84 / Ø74 (20 X 12)	3,734.0	2,754.1	352,800.0	79,312.6	49.6	75.3	55.5	F-30	F-25	105.3
TM-B8SDT	18.0 : 1	54:1	95 / Ø84 (22 X 14)	5,568.0	4,106.7	401,800.0	90,328.2	54.1	102.9	75.9	F-35	F-30, F-25	138.3
TM-B9SDT	19.5 : 1	58.5:1	110 / Ø95 (25 X 14)	7,774.0	5,733.8	509,600.0	114,562.6	58.6	132.7	97.9	F-35	F-30	212.5
TM-B10SDT	28 : 1	112:1	125 / Ø110 (28 X 16)	12,653.0	9,332.4	1,107,400.0	248,953.4	82.4	153.6	113.3	F-40	F-35	304.6
TM-B11SDT	30.2 : 1	120.9:1	140 / Ø120 (32 X 18)	17,403.0	12,835.8	1,205,400.0	270,984.6	89.0	195.5	144.2	F-48	F-40, F-35	391.4
TM-B12SDT	40 : 1	200:1	160 / Ø145 (36 X 20)	25,791.0	19,022.5	1,950,200.0	438,422.3	147.1	175.3	129.3	F-48	-	660.8
TM-B13SDT	40 : 1	200:1	205 / Ø180 (45 X 25)	43,000.0	31,715.2	2,680,000.0	602,487.9	147.1	292.3	215.6	F-60	F-48	1,224.0

BEVEL GEAR + SPUR DOUBLE + POSITION INDICATOR



DIMENSION

(Unit : mm)

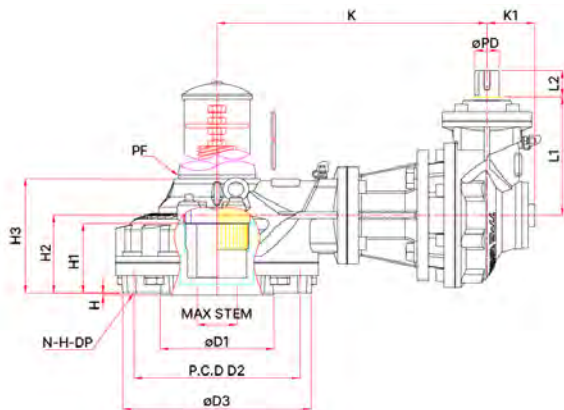
DIM MODEL	BASE PART						EXTERNAL				INPUT SHAFT PART			HANDLE WHEEL	HAND WHEEL	
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	H3	L1	L2	ØPD			KEY
				ØD2	N-H.DP									ØM		
TM-B3SDPI	A	F-14	100	140	4-M16-22	175	3	64	72	115	377	35	20	6X6	WH 300	PF 2 1/2"
TM-B4SDPI		F-16	130	165	4-M20-28	210		75	85	130	386				WH 400	PF 3"
TM-B5SDPI	B	F-20	140	205	8-M16-30	245	3	84	104	153	434	35	25	8X7	WH 500	PF 3"
TM-B6SDPI		F-25	200	254		300		97	111	165	456				WH 560	PF 4"
TM-B7SDPI		F-30	230	298		350		120	141	203	526				WH 630	PF 5"
TM-B8SDPI		F-35	260	356	8-M30-40	410	129	150	216	548	35	30	10X8	WH 710	PF 6"	
TM-B9SDPI		F-35	260	356	8-M30-45	415	4	161	182	258				578	WH 710	PF 6"
TM-B10SDPI		F-40	300	406	8-M36-55	475	3	175	201	284	669	45	40	12X8	WH 800	PF 8"
TM-B11SDPI	C	F-48	370	483	12-M36-55	560	4	196	222	316	703	45	40	12X8	WH 900	PF 8"
TM-B12SDPI							3	217	258	360	836				WH 900	PF 10"
TM-B13SDPI	D	F-60	470	603	20-M36-55	686	5	245	296	416	927	45	40	12X8	WH 1000	P.C.D 345

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR MULTI TURN BEVEL GEAR

DIM MODEL	GEAR RATIO		ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		MAX. THRUST CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
	HIGH SPEED	LOW SPEED	TW / Ø (KEY)	N . m	Lbf . ft	N	Lbf	(±10%)	N . m	Lbf . ft	Standard	Option	Kg
TM-B3SDPI	7 : 1	14:1	46 / Ø38 (10 X 8)	688.0	507.4	126,420.0	28,420.3	10.3	66.8	49.3	F-14	F-12	32.0
TM-B4SDPI	7.5 : 1	15:1	54 / Ø46 (14 X 9)	1,046.0	771.5	141,120.0	31,725.0	11.0	95.1	70.1	F-16	F-14	41.0
TM-B5SDPI	10 : 1	25:1	62 / Ø55 (16 X 10)	1,561.0	1,151.3	190,120.0	42,740.7	18.4	84.8	62.5	F-20	F-16	50.0
TM-B6SDPI	12.5 : 1	31.3:1	70 / Ø60 (18 X 11)	2,409.0	1,776.8	288,120.0	64,771.9	23.0	104.7	77.2	F-25	-	69.0
TM-B7SDPI	16.5 : 1	49.5:1	84 / Ø72 (20 X 12)	3,734.0	2,754.1	352,800.0	79,312.6	49.6	75.3	55.5	F-30	F-25	111.0
TM-B8SDPI	18.5 : 1	54:1	95 / Ø84 (22 X 14)	5,568.0	4,106.7	401,800.0	90,328.2	54.1	102.9	75.9	F-35	F-30, F-25	148.0
TM-B9SDPI	19.5 : 1	58.5:1	110 / Ø95 (25 X 14)	7,774.0	5,733.8	509,600.0	114,562.6	58.6	132.7	97.9	F-35	F-30	202.0
TM-B10SDPI	28 : 1	112:1	125 / Ø110 (28 X 16)	12,653.0	9,332.4	1,107,400.0	248,953.4	82.4	153.6	113.3	F-40	F-35	367.0
TM-B11SDPI	30.2 : 1	120.9:1	140 / Ø120 (32 X 18)	17,403.0	12,835.8	1,205,400.0	270,984.6	89.0	195.5	144.2	F-48	F-40, F-35	475.0
TM-B12SDPI	40 : 1	200:1	160 / Ø145 (36 X 20)	25,791.0	19,022.5	1,950,200.0	438,422.3	147.1	175.3	129.3	F-48	-	780.0
TM-B13SDPI	40 : 1	200:1	205 / Ø180 (45 X 25)	43,000.0	31,715.2	2,680,000.0	602,487.9	147.1	292.3	215.6	F-60	F-48	1,056.0

BEVEL GEAR + BEVEL



DIMENSION

(Unit : mm)

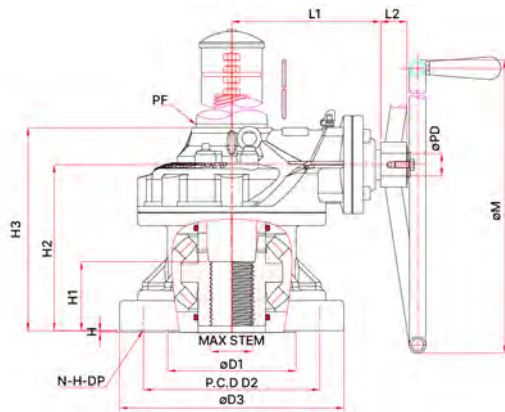
MODEL	DIM	BASE PART						EXTERNAL						INPUT SHAFT PART			HANDLE WHEEL	HAND WHEEL						
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	H3	K	K1	L1	L2	ØPD	KEY								
				ØD2	N-H-DP												ØM							
TM-B3B	A	F-14	100	140	4-M16-22	175	3	64	72	115	216.5	42.5	188	35	25	8X7	BH 300	PF 2 1/2"						
TM-B4B		F-16	130	165	4-M20-28	210		75	85	130	225.5		201				BH 300	PF 3"						
TM-B5B	B	F-20	140	205	8-M16-30	245	3	84	104	153	327.5	52.5	230	35	25	8X7	BH 300	PF 3"						
TM-B6B		F-25	200	254		300		97	111	165	354.5		244					BH 300	PF 4"					
TM-B7B		F-30	230	298	8-M20-35	350		120	141	203	409.5		274				BH 400	PF 5"						
TM-B8B		F-35	260	356	8-M30-40	410		129	150	216	433		59						309					
TM-B9B		F-35	260	356	8-M30-45	415		4	161	182	258		495					67	380	35	30	10X8	BH 630	PF 6"
TM-B10B		F-40	300	406	8-M36-55	475		3	175	201	284		491					74	421				BH 710	PF 8"
TM-B11B	C	F-48	370	483	12-M36-55	560	4	196	222	316	525	74	442	35	30	10X8	BH 710	PF 8"						
TM-B12B							3	217	258	360	612	82	538	45	40	12X8	BH 800	PF 10"						
TM-B13B	D	F-60	470	603	20-M36-55	686	5	245	296	416	732	86	598	45	40	12X8	BH 800	P.C.D 345						

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR MULTI TURN BEVEL GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		MAX. THRUST CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
		TW / Ø (KEY)	N . m	Lbf . ft	N	Lbf	(±10%)	N . m	Lbf . ft	Standard	Option	Kg
TM-B3B	7 : 1	46 / Ø38 (10 X 8)	688.0	507.4	126,420.0	28,420.3	6.3	109.2	80.5	F-14	F-12	23.9
TM-B4B	7.5 : 1	54 / Ø46 (14 X 9)	1,046.0	771.5	141,120.0	31,725.0	6.8	153.8	113.4	F-16	F-14	29.4
TM-B5B	10 : 1	62 / Ø55 (16 X 10)	1,561.0	1,151.3	190,120.0	42,740.7	9.0	173.4	127.9	F-20	F-16	42.4
TM-B6B	15 : 1	70 / Ø60 (18 X 11)	2,409.0	1,776.8	288,120.0	64,771.9	13.5	178.4	131.6	F-25	-	58.7
TM-B7B	16.5 : 1	84 / Ø72 (20 X 12)	3,734.0	2,754.1	352,800.0	79,312.6	14.9	250.6	184.8	F-30	F-25	94.2
TM-B8B	21 : 1	95 / Ø84 (22 X 14)	5,568.0	4,106.7	401,800.0	90,328.2	19.0	293.1	216.2	F-35	F-30, F-25	133.4
TM-B9B	26 : 1	110 / Ø95 (25 X 14)	7,774.0	5,733.8	509,600.0	114,562.6	23.5	330.8	244.0	F-35	F-30	209.6
TM-B10B	35 : 1	125 / Ø110 (28 X 16)	12,653.0	9,332.4	1,107,400.0	248,953.4	31.6	400.4	295.3	F-40	F-35	308.5
TM-B11B	37.8 : 1	140 / Ø120 (32 X 18)	17,403.0	12,835.8	1,205,400.0	270,984.6	34.1	510.4	376.5	F-48	F-40, F-35	394.7
TM-B12B	44 : 1	160 / Ø145 (36 X 20)	25,791.0	19,022.5	1,950,200.0	438,422.3	39.7	649.6	479.1	F-48	-	629.1
TM-B13B	48 : 1	205 / Ø180 (45 X 25)	43,000.0	31,715.2	2,680,000.0	602,487.9	43.3	993.1	732.5	F-60	F-48	1,170.1

BEVEL GEAR HEAVY DUTY



DIMENSION

(Unit : mm)

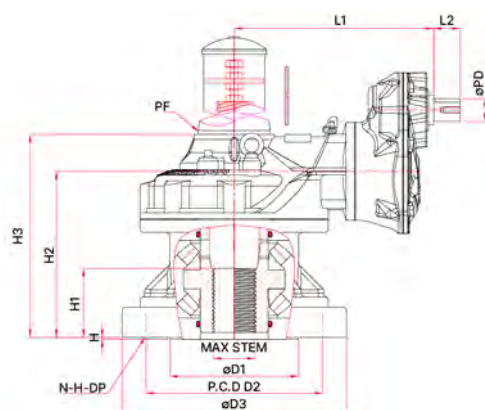
DIM MODEL	TYPE	FLANGE	BASE PART				EXTERNAL				INPUT SHAFT PART				HANDLE WHEEL ØM	HAND WHEEL
			ØD1	ØD2	N-H-DP	ØD3	H	H1	H2	H3	L1	L2	ØPD	KEY		
TM-B5H		F-25	200	254	8-M16-25	300		91	222	271	198				BH 630	PF 3"
TM-B6H		F-30	230	298	8-M20-30	350		106	256	310	220	35	30	10X8	BH 710	PF 4"
TM-B7H	B	F-35	260	356	8-M30-45	415	3	148	323	385	280				BH 800	PF 5"
TM-B8H		F-40	300	406	8-M36-45	475		150	347	413	302	45	40	12X8	BH 900	PF 6"
TM-B9H								164	375	451	323					
TM-B10H	C	F-48	370	483	12-M36-55	554	3	196	423	506	370	60	50	16X10	BH 1000	PF 8"
TM-B11H						560		210	475	569	404					PF 8"
TM-B12H								245	554	656	466					PF 10"
TM-B13H	D	F-60	470	603	20-M36-55	686	5	300	641	761	587	60	50	16X10	BH 1000	P.C.D 345

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR MULTI TURN BEVEL GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		MAX. THRUST CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
		TW / Ø (KEY)	N . m	Lbf - ft	N	Lbf	(±10%)	N . m	Lbf - ft	Standard	Option	Kg
TM-B5H	4 : 1	65 / Ø55 (16 X10)	2,341.5	1,727.0	1,080,000.0	242,793.6	3.8	616.2	454.5	F-25	F-20, F-16	62.4
TM-B6H	5 : 1	80 / Ø70 (20 X 12)	3,613.5	2,665.2	1,710,000.0	384,423.2	4.8	752.8	555.2	F-30	F-20	94.5
TM-B7H	5.5 : 1	95 / Ø82 (22 X 14)	5,601.0	4,131.1	2,450,000.0	550,781.8	5.2	1,077.1	794.4	F-35	F-30	175.7
TM-B8H	6 : 1	110 / Ø95 (25 X 14)	8,352.0	6,160.1	2,900,000.0	651,945.8	5.7	1,465.3	1,080.7	F-40	F-35, F-30	208.0
TM-B9H	6.5 : 1	130 / Ø115 (32 X 18)	11,661.0	8,600.7	3,500,000.0	786,831.2	6.2	1,880.8	1,387.2	F-40	F-35, F-25	300.5
TM-B10H	7 : 1	150 / Ø130 (36 X 20)	18,979.5	13,998.6	4,700,000.0	1,056,601.8	6.7	2,832.8	2,089.4	F-48	F-40	500.8
TM-B11H	7.56 : 1	170 / Ø150 (40 X 22)	26,104.5	19,253.7	5,200,000.0	1,169,006.3	7.2	3,625.6	2,674.1	F-48		662.6
TM-B12H	8 : 1	215 / Ø185 (45 X 25)	38,686.5	28,533.7	9,400,000.0	2,113,203.7	7.6	5,090.3	3,754.4	F-60		1,058.3
TM-B13H	8 : 1	240 / Ø215 (50 X 28)	64,500.0	47,572.8	9,400,000.0	4,019,713.4	7.6	8,486.8	6,259.5	F-60		1,684.0

BEVEL GEAR HEAVY DUTY + SPUR



DIMENSION

(Unit : mm)

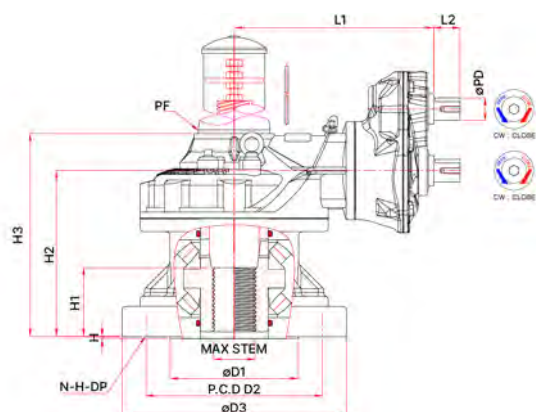
DIM MODEL	TYPE	FLANGE	ØD1	BASE PART			EXTERNAL				INPUT SHAFT PART				HANDLE WHEEL ØM	HAND WHEEL
				ØD2	N-H-DP	ØD3	H	H1	H2	H3	L1	L2	ØPD	KEY		
TM-B5SH		F-25	200	254	8-M16-25	300		91	222	271	283				WH 500	PF 3"
TM-B6SH		F-30	230	298	8-M20-30	350		106	256	310	305	35	25	8X7	WH 560	PF 4"
TM-B7SH	B	F-35	260	356	8-M30-45	415	3	148	323	385	354				WH 630	PF 5"
TM-B8SH		F-40	300	406	8-M36-45	475		150	347	413	376	35	30	10X8	WH 710	PF 6"
TM-B9SH								164	375	451	406				WH 710	PF 6"
TM-B10SH	C	F-48	370	483	12-M36-55	554	3	196	423	506	485	45	40	12X8	WH 800	PF 8"
TM-B11SH						560		210	475	569	519				WH 900	PF 8"
TM-B12SH	D	F-60	470	603	20-M36-55	686	5	245	554	656	674	45	40	12X8	WH 900	PF 10"
TM-B13SH								300	641	761	765				WH 1000	P.C.D 345

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR MULTI TURN BEVEL GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		MAX. THRUST CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
		TW / Ø (KEY)	N . m	Lbf - ft	N	Lbf	(±10%)	N . m	Lbf - ft	Standard	Option	Kg
TM-B5SH	10 : 1	65 / Ø55 (16 X 10)	2,341.5	1,727.0	1,080,000.0	242,793.6	8.4	278.8	205.6	F-25	F-20, F-16	72.6
TM-B6SH	12.5 : 1	80 / Ø70 (20 X 12)	3,613.5	2,665.2	1,710,000.0	384,423.2	10.5	344.1	253.8	F-30	F-20	104.9
TM-B7SH	16.5 : 1	95 / Ø82 (22 X 14)	5,601.0	4,131.1	2,450,000.0	550,781.8	13.8	405.9	299.4	F-35	F-30	194.7
TM-B8SH	18.0 : 1	110 / Ø95 (25 X 14)	8,352.0	6,160.1	2,900,000.0	651,945.8	15.0	556.8	410.7	F-40	F-35, F-30	227.8
TM-B9SH	19.5 : 1	130 / Ø115 (32 X 18)	11,661.0	8,600.7	3,500,000.0	786,831.2	16.3	715.4	527.7	F-40	F-35, F-25	322.4
TM-B10SH	28 : 1	150 / Ø130 (36 X 20)	18,979.5	13,998.6	4,700,000.0	1,056,601.8	23.4	811.1	598.2	F-48	F-40	543.6
TM-B11SH	30.2 : 1	170 / Ø150 (40 X 22)	26,104.5	19,253.7	5,200,000.0	1,169,006.3	25.2	1,035.9	764.0	F-48		709.0
TM-B12SH	40 : 1	215 / Ø185 (45 X 25)	38,686.5	28,533.7	7,650,000.0	1,719,788.1	33.4	1,158.3	854.3	F-60		1,136.1
TM-B13SH	40 : 1	240 / Ø215 (50 X 28)	64,500.0	47,572.8	9,400,000.0	2,113,203.7	33.4	1,931.1	1,424.3	F-60		1,830.3

BEVEL GEAR HEAVY DUTY + SPUR TWIN SHAFT



DIMENSION

(Unit : mm)

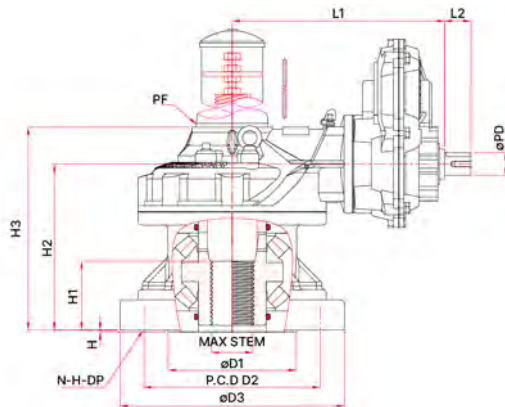
DIM MODEL	TYPE	FLANGE	ØD1	BASE PART			EXTERNAL				INPUT SHAFT PART				HANDLE WHEEL ØM	HAND WHEEL
				ØD2	N-H-DP	ØD3	H	H1	H2	H3	L1	L2	ØPD	KEY		
TM-B5SHT	B	F-25	200	254	8-M16-25	300		91	222	271	283				WH 500	PF 3"
TM-B6SHT	B	F-30	230	298	8-M20-30	350		106	256	310	305	35	25	10X8	WH 560	PF 4"
TM-B7SHT	B	F-35	260	356	8-M30-45	415	3	148	323	385	354				WH 630	PF 5"
TM-B8SHT	B	F-40	300	406	8-M36-45	475		150	347	413	376	35	30	10X8	WH 710	PF 6"
TM-B9SHT	B	F-40	300	406	8-M36-45	475		164	375	451	406				WH 710	PF 6"
TM-B10SHT	C	F-48	370	483	12-M36-55	554	3	196	423	506	485	45	40	12x8	WH 800	PF 8"
TM-B11SHT	C	F-48	370	483	12-M36-55	560	3	210	475	569	519	45	40	12x8	WH 900	PF 8"
TM-B12SHT	D	F-60	470	603	20-M36-55	686	5	245	554	656	674					PF 10"
TM-B13SHT	D	F-60	470	603	20-M36-55	686	5	300	641	761	765	45	40	12X8	BH 1000	P.C.D 345

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR MULTI TURN BEVEL GEAR

DIM MODEL	GEAR RATIO		ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		MAX. THRUST CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
	HIGH SPEED	LOW SPEED	TW / Ø (KEY)	N . m	Lbf . ft	N	Lbf	(±10%)	N . m	Lbf . ft	Standard	Option	Kg
TM-B5SHT	4 : 1	10 : 1	65 / Ø55 (16 X 10)	2,341.5	1,727.0	1,080,000.0	242,793.6	8.4	278.8	205.6	F-25	F-20, F-16	73.2
TM-B6SHT	5 : 1	12.5 : 1	80 / Ø70 (20 X 12)	3,613.5	2,665.2	1,710,000.0	384,423.2	10.5	344.1	253.8	F-30	F-20	105.5
TM-B7SHT	5.5 : 1	16.5 : 1	95 / Ø82 (22 X 14)	5,601.0	4,131.1	2,450,000.0	550,781.8	13.8	405.9	299.4	F-35	F-30	195.6
TM-B8SHT	6 : 1	18.0 : 1	110 / Ø95 (25 X 14)	8,352.0	6,160.1	2,900,000.0	651,945.8	15.0	556.8	410.7	F-40	F-35, F-30	228.8
TM-B9SHT	6.5 : 1	19.5 : 1	130 / Ø115 (32 X 18)	11,661.0	8,600.7	3,500,000.0	786,831.2	16.3	715.4	527.7	F-40	F-35, F-25	323.4
TM-B10SHT	7 : 1	28 : 1	150 / Ø130 (36 X 20)	18,979.5	13,998.6	4,700,000.0	1,056,601.8	23.4	811.1	598.2	F-48	F-40	545.1
TM-B11SHT	7.56 : 1	30.2 : 1	170 / Ø150 (40 X 22)	26,104.5	19,253.7	5,200,000.0	1,169,006.3	25.2	1,035.9	764.0	F-48		710.4
TM-B12SHT	8 : 1	40 : 1	215 / Ø185 (45 X 25)	38,686.5	28,533.7	7,650,000.0	1,719,788.1	33.4	1,158.3	854.3	F-60		1,137.9
TM-B13SHT	8 : 1	40 : 1	240 / Ø215 (50 X 28)	64,500.0	47,572.8	9,400,000.0	2,113,203.7	33.4	1,931.1	1,424.3	F-60		1,833.6

BEVEL GEAR HEAVY DUTY + SPUR DOUBLE



DIMENSION

(Unit : mm)

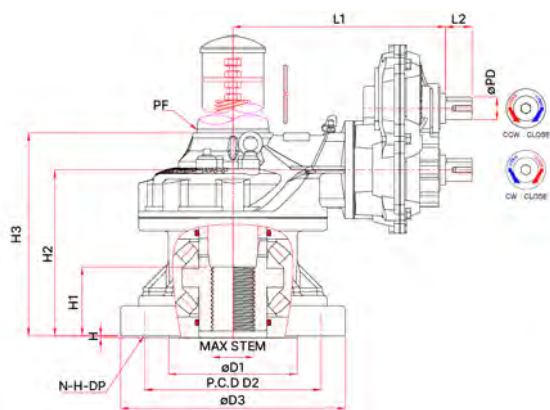
DIM MODEL	TYPE	FLANGE	ØD1	BASE PART			EXTERNAL				INPUT SHAFT PART			HANDLE WHEEL ØM	HAND WHEEL
				ØD2	N-H-DP	ØD3	H	H1	H2	H3	L1	L2	ØPD	KEY	
TM-B5SDH		F-25	200	254	8-M16-25	300		91	222	271	283			8X7	WH 500 PF 3"
TM-B6SDH		F-30	230	298	8-M20-30	350		106	256	310	305	35	25		WH 560 PF 4"
TM-B7SDH	B	F-35	260	356	8-M30-45	415	3	148	323	385	354			10X8	WH 630 PF 5"
TM-B8SDH		F-40	300	406	8-M36-45	475		150	347	413	376	35	30		WH 710 PF 6"
TM-B9SDH								164	375	451	406				WH 710 PF 6"
TM-B10SDH	C	F-48	370	483	12-M36-55	554	3	196	423	506	485	45	40	12X8	WH 800 PF 8"
TM-B11SDH						560		210	475	569	519	45	40	12X8	WH 900 PF 8"
TM-B12SDH								245	554	656	674				PF 10"
TM-B13SDH	D	F-60	470	603	20-M36-55	686	5	300	641	761	765	45	40	12X8	WH 1000 P.C.D 345

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR MULTI TURN BEVEL GEAR

DIM MODEL	GEAR RATIO		ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		MAX. THRUST CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
	HIGH SPEED	LOW SPEED	TW / Ø (KEY)	N . m	Lbf - ft	N	Lbf	(±10%)	N . m	Lbf - ft	Standard	Option	Kg
TM-B5SDH	10 : 1	25:1	65 / Ø55 (16 X 10)	2,341.5	1,727.0	1,080,000.0	242,793.6	18.4	127.3	93.9	F-25	F-20	75.5
TM-B6SDH	12.5 : 1	31.3:1	80 / Ø70 (20 X 12)	3,613.5	2,665.2	1,710,000.0	384,423.2	23.0	157.1	115.9	F-30	F-25	107.7
TM-B7SDH	16.5 : 1	49.5:1	95 / Ø82 (22 X 14)	5,601.0	4,131.1	2,450,000.0	550,781.8	36.4	153.9	113.5	F-35	F-30	199.9
TM-B8SDH	18.0 : 1	54:1	110 / Ø95 (25 X 14)	8,352.0	6,160.1	2,900,000.0	651,945.8	39.7	210.4	155.2	F-35	F-30	233.0
TM-B9SDH	19.5 : 1	58.5:1	130 / Ø115 (32 X 18)	11,661.0	8,600.7	3,500,000.0	786,831.2	43.0	271.2	200.0	F-40	F-35	327.6
TM-B10SDH	28 : 1	112:1	150 / Ø130 (36 X 20)	18,979.5	13,998.6	4,700,000.0	1,056,601.8	82.4	230.3	169.9	F-48	F-40	555.3
TM-B11SDH	30.2 : 1	120.9:1	170 / Ø150 (40 X 22)	26,104.5	19,253.7	5,200,000.0	1,169,006.3	89.0	293.3	216.3	F-48	-	720.7
TM-B12SDH	40 : 1	200:1	215 / Ø185 (45 X 25)	38,686.5	28,533.7	7,650,000.0	1,719,788.1	147.1	263.0	194.0	F-60	-	1,164.6
TM-B13SDH	40 : 1	200:1	240 / Ø215 (50 X 28)	64,500.0	47,572.8	9,400,000.0	2,113,203.7	147.1	438.5	323.4	F-60	-	1,879.7

BEVEL GEAR HEAVY DUTY + SPUR DOUBLE TWIN SHAFT



DIMENSION

(Unit : mm)

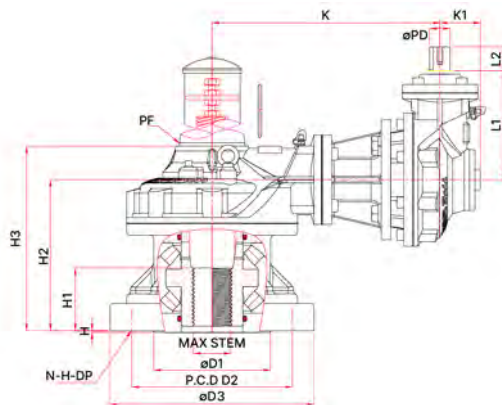
DIM MODEL	BASE PART						EXTERNAL				INPUT SHAFT PART			HANDLE WHEEL ØM	HAND WHEEL	
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	H3	L1	L2	ØPD			KEY
				ØD2	N-H-DP											
TM-B5SDHT		F-25	200	254	8-M16-25	300		91	222	271	283				WH 500	PF 3"
TM-B6SDHT		F-30	230	298	8-M20-30	350		106	256	310	305	35	25	8X7	WH 560	PF 4"
TM-B7SDHT	B	F-35	260	356	8-M30-45	415	3	148	323	385	375				WH 630	PF 5"
TM-B8SDHT		F-40	300	406	8-M36-45	475		150	347	413	397	35	30	10X8		
TM-B9SDHT								164	375	451	427				WH 710	PF 6"
TM-B10SDHT						554		196	423	506	508				WH 800	PF 8"
TM-B11SDHT	C	F-48	370	483	12-M36-55	560	3	210	475	569	542	45	40	12x8	WH 900	PF 8"
TM-B12SDHT								245	554	656	674				WH 900	PF 10"
TM-B13SDHT	D	F-60	470	603	20-M36-55	686	5	300	641	761	765	45	40	12X8	WH 1000	P.C.D 345

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR MULTI TURN BEVEL GEAR

DIM MODEL	GEAR RATIO		ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		MAX. THRUST CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
	HIGH SPEED	LOW SPEED	TW / Ø (KEY)	N . m	Lbf . ft	N	Lbf	(±10%)	N . m	Lbf . ft	Standard	Option	Kg
TM-B5SDHT	10 : 1	25:1	65 / Ø55 (16 X 10)	2,341.5	1,727.0	1,080,000.0	242,793.6	18.4	127.3	93.9	F-25	F-20	75.7
TM-B6SDHT	12.5 : 1	31.3:1	80 / Ø70 (20 X 12)	3,613.5	2,665.2	1,710,000.0	384,423.2	23.0	157.1	115.9	F-30	F-25	108.0
TM-B7SDHT	16.5 : 1	49.5:1	95 / Ø82 (22 X 14)	5,601.0	4,131.1	2,450,000.0	550,781.8	36.4	153.9	113.5	F-35	F-30	200.4
TM-B8SDHT	18.0 : 1	54:1	110 / Ø95 (25 X 14)	8,352.0	6,160.1	2,900,000.0	651,945.8	39.7	210.4	155.2	F-35	F-30	233.6
TM-B9SDHT	19.5 : 1	58.5:1	130 / Ø115 (32 X 18)	11,661.0	8,600.7	3,500,000.0	786,831.2	43.0	271.2	200.0	F-40	F-35	328.2
TM-B10SDHT	28 : 1	112:1	150 / Ø130 (36 X 20)	18,979.5	13,998.6	4,700,000.0	1,056,601.8	82.4	230.3	169.9	F-48	F-40	556.0
TM-B11SDHT	30.2 : 1	120.9:1	170 / Ø150 (40 X 22)	26,104.5	19,253.7	5,200,000.0	1,169,006.3	89.0	293.3	216.3	F-48	-	721.3
TM-B12SDHT	40 : 1	200:1	215 / Ø185 (45 X 25)	38,686.5	28,533.7	7,650,000.0	1,719,788.1	147.1	263.0	194.0	F-60	-	1,165.7
TM-B13SDHT	40 : 1	200:1	240 / Ø215 (50 X 28)	64,500.0	47,572.8	9,400,000.0	2,113,203.7	147.1	438.5	323.4	F-60	-	1,881.8

BEVEL GEAR HEAVY DUTY + BEVEL



DIMENSION

(Unit : mm)

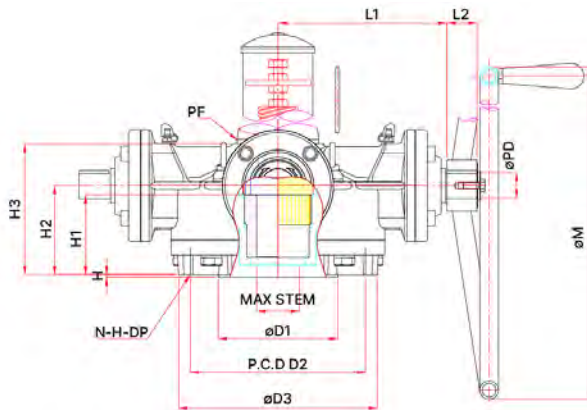
DIM MODEL	BASE PART					EXTERNAL							INPUT SHAFT PART			HANDLE WHEEL ØM	HAND WHEEL
	TYPE	FLANGE	ØD1	PC.D ØD2 N-H-DP	ØD3	H	H1	H2	H3	K	K1	L1	L2	ØPD	KEY		
TM-B5BH		F-25	200	254 8-M16-25	300		91	222	271	327.5		230					PF 3"
TM-B6BH		F-30	230	298 8-M20-30	350		106	256	310	354.5	52.5	244	35	25	8X7	BH 300	PF 4"
TM-B7BH	A	F-35	260	356 8-M30-45	415	3	148	323	385	409.5		274					PF 5"
TM-B8BH		F-40	300	406 8-M36-45	475		150	347	413	433	59	309		30	10X8	BH 400	
TM-B9BH							164	375	451	495	67	380	35			BH 630	PF 6"
TM-B10BH	B	F-48	370	483 12-M36-55	554	3	196	423	506	491	74	421				BH 710	PF 8"
TM-B11BH					560		210	475	569	525	74	442	35	30	10X8		PF 8"
TM-B12BH							245	554	656	612	82	538					PF 10"
TM-B13BH	C	F-60	470	603 20-M36-55	686	5	300	641	761	732	86	598	45	40	12X8	BH 800	P.C.D 345

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR MULTI TURN BEVEL GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		MAX. THRUST CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
		TW / Ø (KEY)	N . m	Lbf . ft	N	Lbf	(±10%)	N . m	Lbf . ft	Standard	Option	Kg
TM-B5BH	10 : 1	65 / Ø55 (16 X 10)	2,341.5	1,727.0	1,080,000.0	242,793.6	9.0	260.2	191.9	F-25	F-20, F-16	68.3
TM-B6BH	15 : 1	80 / Ø70 (20 X 12)	3,613.5	2,665.2	1,710,000.0	384,423.2	13.5	267.7	197.4	F-30	F-20	101.9
TM-B7BH	16.5 : 1	95 / Ø82 (22 X 14)	5,601.0	4,131.1	2,450,000.0	550,781.8	14.9	375.9	277.2	F-35	F-30	180.2
TM-B8BH	21 : 1	110 / Ø95 (25 X 14)	8,352.0	6,160.1	2,900,000.0	651,945.8	19.0	439.6	324.2	F-40	F-35, F-30	219.1
TM-B9BH	26 : 1	130 / Ø115 (32 X 18)	11,661.0	8,600.7	3,500,000.0	786,831.2	23.5	496.2	366.0	F-40	F-35, F-25	330.1
TM-B10BH	35 : 1	150 / Ø130 (36 X 20)	18,979.5	13,998.6	4,700,000.0	1,056,601.8	31.6	600.6	443.0	F-48	F-40	539.4
TM-B11BH	37.8 : 1	170 / Ø150 (40 X 22)	26,104.5	19,253.7	5,200,000.0	1,169,006.3	34.1	765.5	564.6	F-48		701.2
TM-B12BH	44 : 1	215 / Ø185 (45 X 25)	38,686.5	28,533.7	7,650,000.0	1,719,788.1	39.7	974.5	718.8	F-60		1,133.8
TM-B13BH	48 : 1	240 / Ø215 (50 X 28)	64,500.0	47,572.8	9,400,000.0	2,113,203.7	43.3	1,489.6	1,098.7	F-60		1,791.9

BEVEL GEAR 3WAY



DIMENSION

(Unit : mm)

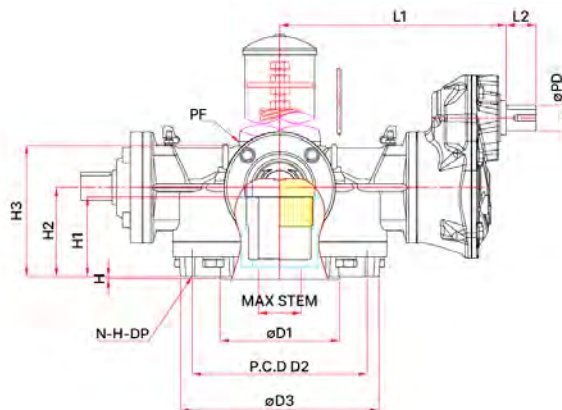
DIM MODEL	TYPE	FLANGE	BASE PART				EXTERNAL				INPUT SHAFT PART				HANDLE WHEEL ØM	HAND WHEEL
			ØD1	P.C.D	N-H-DP	ØD3	H	H1	H2	H3	L1	L2	ØPD	KEY		
TM-B3W	A	F-14	100	140	4-M16-22	175	3	64	72	115	159	35	30	10x8	BH 400	PF 2 1/2"
TM-B4W		F-16	130	165	4-M20-28	210		75	85	130	168				BH 500	PF 3"
TM-B5W		F-20	140	205	8-M16-30	245		84	104	153	198				BH 630	PF 3"
TM-B6W		F-25	200	254		300		97	111	165	220				BH 710	PF 4"
TM-B7W	B	F-30	230	298	8-M20-35	350	3	120	141	203	280	45	40	12x8	BH 800	PF 5"
TM-B8W		F-35	260	356	8-M30-40	410		129	150	216	302				BH 900	PF 6"
TM-B9W		F-35	260	356	8-M30-45	415	4	161	182	258	323				BH 900	PF 6"
TM-B10W		F-40	300	406	8-M36-55	475	3	175	201	284	370	60	50	16X10	BH 1000	PF 8"
TM-B11W	C	F-48	370	483	12-M36-55	560	4	196	222	316	404	60	50	16X10	BH 1000	PF 8"
TM-B12W							3	217	258	360	466				BH 1000	PF 10"
TM-B13W							3	217	258	360	466				BH 1000	PF 10"
TM-B13W	D	F-60	470	603	20-M36-55	686	5	245	296	416	587	60	50	16X10	BH 1000	P.C.D 345

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR MULTI TURN BEVEL GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		MAX. THRUST CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
		TW / Ø (KEY)	N . m	Lbf . ft	N	Lbf	(±10%)	N . m	Lbf . ft	Standard	Option	Kg
TM-B3W	3.5 : 1	46 / Ø38 (10 X 8)	688.0	507.4	126,420.0	28,420.3	3.3	208.5	153.8	F-14	F-12	25.0
TM-B4W	3.75 : 1	54 / Ø46 (14 X 9)	1,046.0	771.5	141,120.0	31,725.0	3.6	290.6	214.3	F-16	F-14	32.9
TM-B5W	4 : 1	62 / Ø55 (16 X 10)	1,561.0	1,151.3	190,120.0	42,740.7	3.8	410.8	303.0	F-20	F-16	49.8
TM-B6W	5 : 1	70 / Ø60 (18 X 11)	2,409.0	1,776.8	288,120.0	64,771.9	4.8	501.9	370.2	F-25	-	64.8
TM-B7W	5.5 : 1	84 / Ø72 (20 X 12)	3,734.0	2,754.1	352,800.0	79,312.6	5.2	718.1	529.6	F-30	F-25	114.7
TM-B8W	6 : 1	95 / Ø84 (22 X 14)	5,568.0	4,106.7	401,800.0	90,328.2	5.7	976.8	720.5	F-35	F-30, F-25	149.6
TM-B9W	6.5 : 1	110 / Ø95 (25 X 14)	7,774.0	5,733.8	509,600.0	114,562.6	6.2	1,253.9	924.8	F-35	F-30	211.7
TM-B10W	7 : 1	125 / Ø110 (28 X 16)	12,653.0	9,332.4	1,107,400.0	248,953.4	6.7	1,888.5	1,392.9	F-40	F-35	327.3
TM-B11W	7.56 : 1	140 / Ø120 (32 X 18)	17,403.0	12,835.8	1,205,400.0	270,984.6	7.2	2,417.1	1,782.8	F-48	F-40, F-35	405.0
TM-B12W	8 : 1	160 / Ø145 (36 X 20)	25,791.0	19,022.5	1,950,200.0	438,422.3	7.6	3,393.6	2,503.0	F-48	-	633.3
TM-B13W	8 : 1	205 / Ø180 (45 X 25)	43,000.0	31,715.2	2,680,000.0	602,487.9	7.6	5,657.9	4,173.1	F-60	F-48	1,176.4

BEVEL GEAR 3WAY + SPUR



DIMENSION

(Unit : mm)

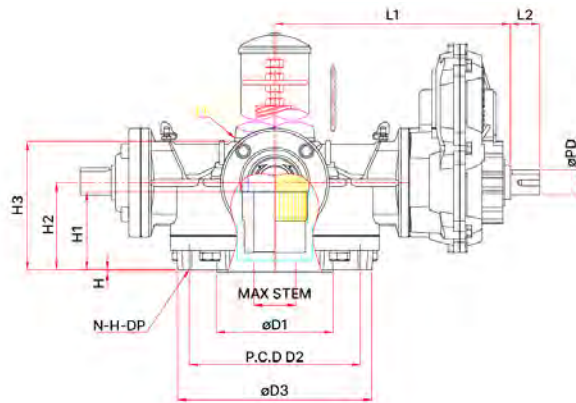
DIM MODEL	TYPE	FLANGE	ØD1	BASE PART			EXTERNAL				INPUT SHAFT PART				HANDLE WHEEL ØM	HAND WHEEL
				ØD2	N-H-DP	ØD3	H	H1	H2	H3	L1	L2	ØPD	KEY		
TM-B3SW	A	F-14	100	140	4-M16-22	175	3	64	72	115	223	35	20	6X6	WH 300	PF 2 1/2"
TM-B4SW		F-16	130	165	4-M20-28	210		75	85	130	232				WH 400	PF 3"
TM-B5SW		F-20	140	205	8-M16-30	245		84	104	153	283				WH 500	PF 3"
TM-B6SW	B	F-25	200	254	8-M20-35	300	3	97	111	165	305	35	25	8X7	WH 560	PF 4"
TM-B7SW		F-30	230	298	8-M30-40	350		120	141	203	354				WH 630	PF 5"
TM-B8SW		F-35	260	356	8-M30-45	410		129	150	216	376				WH 710	PF 6"
TM-B9SW	C	F-35	260	356	8-M36-55	475	4	161	182	258	406	45	40	12x8	WH 800	PF 8"
TM-B10SW		F-40	300	406	12-M36-55	560	3	175	201	284	485				WH 900	PF 10"
TM-B11SW		F-48	370	483	20-M36-55	686	5	245	296	416	765				WH 1000	P.C.D 345
TM-B12SW	D	F-60	470	603	20-M36-55	686	5	245	296	416	765	45	40	12x8	WH 1000	P.C.D 345
TM-B13SW																

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR MULTI TURN BEVEL GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		MAX. THRUST CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
		TW / Ø (KEY)	N . m	Lbf . ft	N	Lbf	(±10%)	N . m	Lbf . ft	Standard	Option	Kg
TM-B3SW	7 : 1	46 / Ø38 (10 X 8)	688.0	507.4	126,420.0	28,420.3	5.9	116.6	86.0	F-14	F-12	27.7
TM-B4SW	7.5 : 1	54 / Ø46 (14 X 9)	1,046.0	771.5	141,120.0	31,725.0	6.3	166.0	122.4	F-16	F-14	35.2
TM-B5SW	10 : 1	62 / Ø55 (16 X 10)	1,561.0	1,151.3	190,120.0	42,740.7	8.4	185.8	137.0	F-20	F-16	56.2
TM-B6SW	12.5 : 1	70 / Ø60 (18 X 11)	2,409.0	1,776.8	288,120.0	64,771.9	10.5	229.4	169.2	F-25	-	81.9
TM-B7SW	16.5 : 1	84 / Ø72 (20 X 12)	3,734.0	2,754.1	352,800.0	79,312.6	13.8	270.6	199.6	F-30	F-25	126.2
TM-B8SW	18.0 : 1	95 / Ø84 (22 X 14)	5,568.0	4,106.7	401,800.0	90,328.2	15.0	371.2	273.8	F-35	F-30, F-25	161.4
TM-B9SW	19.5 : 1	110 / Ø95 (25 X 14)	7,774.0	5,733.8	509,600.0	114,562.6	16.3	476.9	351.7	F-35	F-30	240.4
TM-B10SW	28 : 1	125 / Ø110 (28 X 16)	12,653.0	9,332.4	1,107,400.0	248,953.4	23.4	540.7	398.8	F-40	F-35	350.7
TM-B11SW	30.2 : 1	140 / Ø120 (32 X 18)	17,403.0	12,835.8	1,205,400.0	270,984.6	25.2	690.6	509.4	F-48	F-40, F-35	428.9
TM-B12SW	40 : 1	60 / Ø145 (36 X 20)	25,791.0	19,022.5	1,950,200.0	438,422.3	33.4	772.2	569.5	F-48	-	710.0
TM-B13SW	40 : 1	205 / Ø180 (45 X 25)	43,000.0	31,715.2	2,680,000.0	602,487.9	33.4	1,287.4	949.5	F-60	F-48	1,286.6

BEVEL GEAR 3WAY + SPUR DOUBLE



DIMENSION

(Unit : mm)

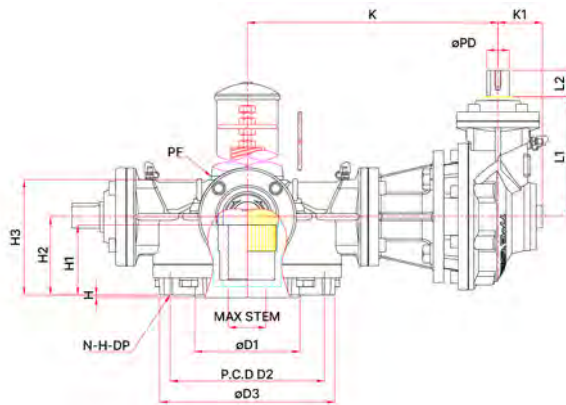
DIM MODEL	TYPE	FLANGE	ØD1	BASE PART			EXTERNAL				INPUT SHAFT PART				HANDLE WHEEL ØM	HAND WHEEL
				ØD2	N-H-DP	ØD3	H	H1	H2	H3	L1	L2	ØPD	KEY		
TM-B3SDW	A	F-14	100	140	4-M16-22	175	3	64	72	115	223	35	20	6x6	WH 300	PF 2 1/2"
TM-B4SDW		F-16	130	165	4-M20-28	210	3	75	85	130	232				WH 400	PF 3"
TM-B5SDW		F-20	140	205	8-M16-30	245		84	104	153	283				WH 500	PF 3"
TM-B6SDW	B	F-25	200	254		300	3	97	111	165	305	35	25	8x7	WH 560	PF 4"
TM-B7SDW		F-30	230	298		350		120	141	203	375				WH 630	PF 5"
TM-B8SDW		F-35	260	356	8-M30-40	410	4	129	150	216	397	35	30	10x8	WH 710	PF 6"
TM-B9SDW	C	F-35	260	356	8-M30-45	415		161	182	258	427				WH 800	PF 8"
TM-B10SDW		F-40	300	406	8-M36-55	475		175	201	284	508	45	40	12X10	WH 900	PF 8"
TM-B11SDW		F-48	370	483	12-M36-55	560	3	196	222	316	542				WH 900	PF 8"
TM-B12SDW	D	F-48	370	483	20-M36-55	560	3	217	258	360	674	45	40	12X10	WH 900	PF 10"
TM-B13SDW		F-60	470	603			5	245	296	416	765				WH 1000	P.C.D 345

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR MULTI TURN BEVEL GEAR

DIM MODEL	GEAR RATIO		ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		MAX. THRUST CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
	HIGH SPEED	LOW SPEED	TW / Ø (KEY)	N . m	Lbf . ft	N	Lbf	(±10%)	N . m	Lbf . ft	Standard	Option	Kg
TM-B3SDW	7 : 1	14 : 1	46 / Ø38 (10 X 8)	688.0	507.4	126,420.0	28,420.3	10.3	66.8	49.3	F-14	F-12	28.3
TM-B4SDW	7.5 : 1	15 : 1	54 / Ø46 (14 X 9)	1,046.0	771.5	141,120.0	31,725.0	11.0	95.1	70.1	F-16	F-14	35.8
TM-B5SDW	10 : 1	25 : 1	62 / Ø55 (16 X 10)	1,561.0	1,151.3	190,120.0	42,740.7	18.4	84.8	62.5	F-20	F-16	59.0
TM-B6SDW	12.5 : 1	31.3 : 1	70 / Ø60 (18 X 11)	2,409.0	1,776.8	288,120.0	64,771.9	23.0	104.7	77.2	F-25	-	84.7
TM-B7SDW	16.5 : 1	49.5 : 1	84 / Ø72 (20 X 12)	3,734.0	2,754.1	352,800.0	79,312.6	36.4	102.6	75.7	F-30	F-25	131.4
TM-B8SDW	18.0 : 1	54 : 1	95 / Ø84 (22 X 14)	5,568.0	4,106.7	401,800.0	90,328.2	39.7	140.3	103.5	F-35	F-30, F-25	166.6
TM-B9SDW	19.5 : 1	58.5 : 1	110 / Ø95 (25 X 14)	7,774.0	5,733.8	509,600.0	114,562.6	43.0	180.8	133.4	F-35	F-30	245.6
TM-B10SDW	28 : 1	112 : 1	125 / Ø110 (28 X 16)	12,653.0	9,332.4	1,107,400.0	248,953.4	82.4	153.6	113.3	F-40	F-35	362.4
TM-B11SDW	30.2 : 1	120.9 : 1	140 / Ø120 (32 X 18)	17,403.0	12,835.8	1,205,400.0	270,984.6	89.0	195.5	144.2	F-48	F-40, F-35	440.6
TM-B12SDW	40 : 1	200 : 1	160 / Ø145 (36 X 20)	25,791.0	19,022.5	1,950,200.0	438,422.3	147.1	175.3	129.3	F-48	-	738.5
TM-B13SDW	40 : 1	200 : 1	205 / Ø180 (45 X 25)	43,000.0	31,715.2	2,680,000.0	602,487.9	147.1	292.3	215.6	F-60	F-48	1,336.1

BEVEL GEAR 3WAY + BEVEL



DIMENSION

(Unit : mm)

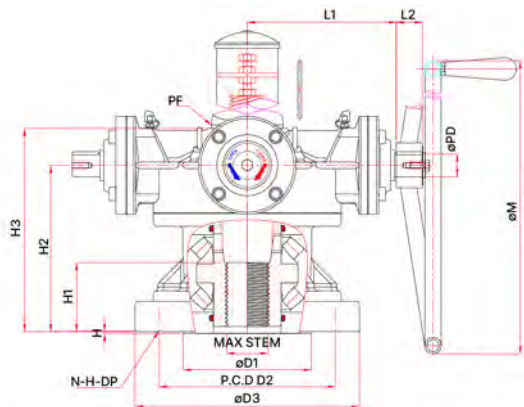
MODEL	DIM	BASE PART						EXTERNAL						INPUT SHAFT PART			HANDLE WHEEL ØM	HAND WHEEL							
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	H3	K	K1	L1	L2	ØPD	KEY									
				ØD2	N-H-DP																				
TM-B3BW	A	F-14	100	140	4-M16-22	175	3	64	72	115	216.5	42.5	188	35	25	8X7	BH 300	PF 2 1/2"							
TM-B4BW		F-16	130	165	4-M20-28	210		75	85	130	225.5		201					PF 3"							
TM-B5BW	B	F-20	140	205	8-M16-30	245	3	84	104	153	327.5	52.5	230	35	30	10X8	BH 300	PF 3"							
TM-B6BW		F-25	200	254		300		97	111	165	354.5		244					PF 4"							
TM-B7BW		F-30	230	298	8-M20-35	350		120	141	203	409.5		274					PF 5"							
TM-B8BW		F-35	260	356	8-M30-40	410		129	150	216	433		59						309	BH 400					
TM-B9BW		F-35	260	356	8-M30-45	415		4	161	182	258		495						67	380	35	30	10X8	BH 630	PF 6"
TM-B10BW		F-40	300	406	8-M36-55	475		3	175	201	284		491						74	421				BH 710	PF 8"
TM-B11BW	C	F-48	370	483	12-M36-55	560	4	196	222	316	525	74	442	35	30	10X8	BH 710	PF 8"							
TM-B12BW							3	217	258	360	612	82	538	45	40	12X8	BH 800	PF 10"							
TM-B13BW	D	F-60	470	603	20-M36-55	686	5	245	296	416	732	86	598	45	40	12X8	BH 800	P.C.D 345							

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR MULTI TURN BEVEL GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		MAX. THRUST CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
		TW / Ø (KEY)	N . m	Lbf . ft	N	Lbf	(±10%)	N . m	Lbf . ft	Standard	Option	Kg
TM-B3BW	7 : 1	46 / Ø38 (10 X 8)	688.0	507.4	126,420.0	28,420.3	6.3	109.2	80.5	F-14	F-12	31.2
TM-B4BW	7.5 : 1	54 / Ø46 (14 X 9)	1,046.0	771.5	141,120.0	31,725.0	6.8	153.8	113.4	F-16	F-14	38.0
TM-B5BW	10 : 1	62 / Ø55 (16 X 10)	1,561.0	1,151.3	190,120.0	42,740.7	9.0	173.4	127.9	F-20	F-16	55.5
TM-B6BW	15 : 1	70 / Ø60 (18 X 11)	2,409.0	1,776.8	288,120.0	64,771.9	13.5	178.4	131.6	F-25	-	72.0
TM-B7BW	16.5 : 1	84 / Ø72 (20 X 12)	3,734.0	2,754.1	352,800.0	79,312.6	14.9	250.6	184.8	F-30	F-25	118.8
TM-B8BW	21 : 1	95 / Ø84 (22 X 14)	5,568.0	4,106.7	401,800.0	90,328.2	19.0	293.1	216.2	F-35	F-30, F-25	160.2
TM-B9BW	26 : 1	110 / Ø95 (25 X 14)	7,774.0	5,733.8	509,600.0	114,562.6	23.5	330.8	244.0	F-35	F-30	240.8
TM-B10BW	35 : 1	125 / Ø110 (28 X 16)	12,653.0	9,332.4	1,107,400.0	248,953.4	31.6	400.4	295.3	F-40	F-35	364.8
TM-B11BW	37.8 : 1	140 / Ø120 (32 X 18)	17,403.0	12,835.8	1,205,400.0	270,984.6	34.1	510.4	376.5	F-48	F-40, F-35	442.5
TM-B12BW	44 : 1	160 / Ø145 (36 X 20)	25,791.0	19,022.5	1,950,200.0	438,422.3	39.7	649.6	479.1	F-48	-	707.3
TM-B13BW	48 : 1	205 / Ø180 (45 X 25)	43,000.0	31,715.2	2,680,000.0	602,487.9	43.3	993.1	732.5	F-60	F-48	1,282.6

BEVEL GEAR HEAVY DUTY + 3WAY



DIMENSION

(Unit : mm)

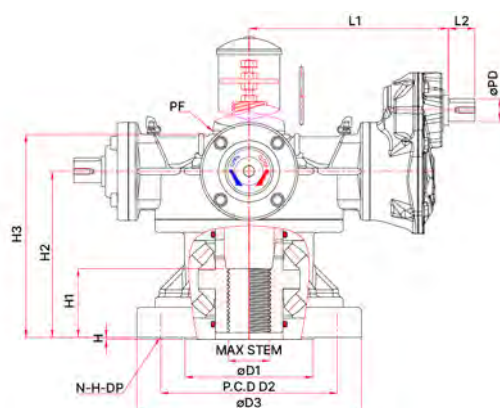
DIM MODEL	TYPE	FLANGE	BASE PART				EXTERNAL				INPUT SHAFT PART				HANDLE WHEEL ØM	HAND WHEEL
			ØD1	ØD2	N-H-DP	ØD3	H	H1	H2	H3	L1	L2	ØPD	KEY		
TM-B5HW		F-25	200	254	8-M16-25	300		91	222	271	198				BH 630	PF 3"
TM-B6HW		F-30	230	298	8-M2030	350		106	256	310	220	35	30	10x8	BH 710	PF 4"
TM-B7HW	B	F-35	260	356	8-M30-45	415	3	148	323	385	280				BH 800	PF 5"
TM-B8HW		F-40	300	406	8-M36-45	475		150	347	413	302	45	40	12X8	BH 900	PF 6"
TM-B9HW		F-40	300	406	8-M36-45	475		164	375	451	323				BH 900	PF 6"
TM-B10HW	C	F-48	483	370	12-M36-55	554	3	196	423	506	370	60	50	16X10	BH 1000	PF 8"
TM-B11HW		F-48	483	370	12-M36-55	560	3	210	475	569	404				BH 1000	PF 8"
TM-B12HW		F-60	470	603	20-M36-55	686	5	245	554	656	466	60	50	16X10	BH 1000	PF 10"
TM-B13HW	D	F-60	470	603	20-M36-55	686	5	300	641	761	587				BH 1000	P.C.D 345

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR MULTI TURN BEVEL GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		MAX. THRUST CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
		TW / Ø (KEY)	N . m	Lbf - ft	N	Lbf	(±10%)	N . m	Lbf - ft	Standard	Option	Kg
TM-B5HW	4 : 1	65 / Ø55 (16 X 10)	2,341.5	1,727.0	1,080,000.0	242,793.6	3.8	616.2	454.5	F-25	F-20, F-16	75.8
TM-B6HW	5 : 1	80 / Ø70 (20 X 12)	3,613.5	2,665.2	1,710,000.0	384,423.2	4.8	752.8	555.2	F-30	F-20	108.0
TM-B7HW	5.5 : 1	95 / Ø82 (22 X 14)	5,601.0	4,131.1	2,450,000.0	550,781.8	5.2	1,077.1	794.4	F-35	F-30	200.7
TM-B8HW	6 : 1	110 / Ø95 (25 X 14)	8,352.0	6,160.1	2,900,000.0	651,945.8	5.7	1,465.3	1,080.7	F-40	F-35, F-30	235.3
TM-B9HW	6.5 : 1	130 / Ø115 (32 X 18)	11,661.0	8,600.7	3,500,000.0	786,831.2	6.2	1,880.8	1,387.2	F-40	F-35, F-25	332.2
TM-B10HW	7 : 1	150 / Ø130 (36 X 20)	18,979.5	13,998.6	4,700,000.0	1,056,601.8	6.7	2,832.8	2,089.4	F-48	F-40	558.2
TM-B11HW	7.56 : 1	170 / Ø150 (40 X 22)	26,104.5	19,253.7	5,200,000.0	1,169,006.3	7.2	3,625.6	2,674.1	F-48		711.5
TM-B12HW	8 : 1	215 / Ø185 (45 X 25)	38,686.5	28,533.7	7,650,000.0	1,719,788.1	7.6	5,090.3	3,754.4	F-60		1,137.9
TM-B13HW	8 : 1	240 / Ø215 (50 X 28)	64,500.0	47,572.8	9,400,000.0	2,113,203.7	7.6	8,486.8	6,259.5	F-60		1,798.2

BEVEL GEAR HEAVY DUTY + 3WAY + SPUR



DIMENSION

(Unit : mm)

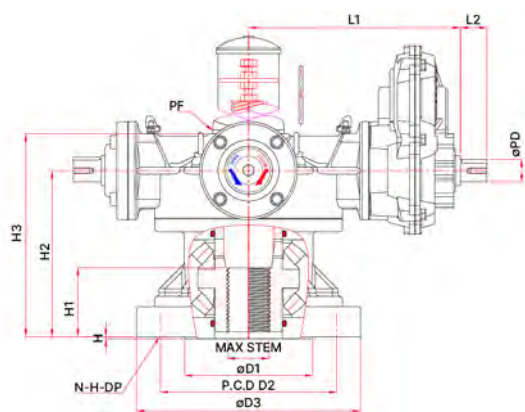
DIM MODEL	TYPE	FLANGE	ØD1	BASE PART			EXTERNAL				INPUT SHAFT PART				HANDLE WHEEL ØM	HAND WHEEL
				ØD2	N-H-DP	ØD3	H	H1	H2	H3	L1	L2	ØPD	KEY		
TM-B5SHW		F-25	200	254	8-M16-25	300		91	222	271	283				WH 500	PF 3"
TM-B6SHW		F-30	230	298	8-M2030	350		106	256	310	305	35	25	8X7	WH 560	PF 4"
TM-B7SHW	B	F-35	260	356	8-M30-45	415	3	148	323	385	354				WH 630	PF 5"
TM-B8SHW								150	347	413	376	35	30	10X8	WH 710	PF 6"
TM-B9SHW		F-40	300	406	8-M36-45	475		164	375	451	406				WH 710	PF 6"
TM-B10SHW	C	F-48	370	483	12-M36-55	554	3	196	423	506	485	45	40	12X8	WH 800	PF 8"
TM-B11SHW						560		210	475	569	519				WH 900	PF 8"
TM-B12SHW	D	F-60	470	603	20-M36-55	686	5	245	554	656	674	45	40	12x8	WH 900	PF 10"
TM-B13SHW								300	641	761	765				WH 1000	P.C.D 345

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR MULTI TURN BEVEL GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		MAX. THRUST CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
		TW / Ø (KEY)	N . m	Lbf - ft	N	Lbf	(±10%)	N . m	Lbf - ft	Standard	Option	Kg
TM-B5SHW	10 : 1	65 / Ø55 (16 X 10)	2,341.5	1,727.0	1,080,000.0	242,793.6	8.4	278.8	205.6	F-25	F-20, F-16	85.4
TM-B6SHW	12.5 : 1	80 / Ø70 (20 X 12)	3,613.5	2,665.2	1,710,000.0	384,423.2	10.5	344.1	253.8	F-30	F-20	118.0
TM-B7SHW	16.5 : 1	95 / Ø82 (22 X 14)	5,601.0	4,131.1	2,450,000.0	550,781.8	13.8	405.9	299.4	F-35	F-30	217.9
TM-B8SHW	18 : 1	110 / Ø95 (25 X 14)	8,352.0	6,160.1	2,900,000.0	651,945.8	15.0	556.8	410.7	F-40	F-35, F-30	253.3
TM-B9SHW	19.5 : 1	130 / Ø115 (32 X 18)	11,661.0	8,600.7	3,500,000.0	786,831.2	16.3	715.4	527.7	F-40	F-35, F-25	352.7
TM-B10SHW	28 : 1	150 / Ø130 (36 X 20)	18,979.5	13,998.6	4,700,000.0	1,056,601.8	23.4	811.1	598.2	F-48	F-40	597.5
TM-B11SHW	30.2 : 1	170 / Ø150 (40 X 22)	26,104.5	19,253.7	5,200,000.0	1,169,006.3	25.2	1,035.9	764.0	F-48		754.2
TM-B12SHW	40 : 1	215 / Ø185 (45 X 25)	38,686.5	28,533.7	7,650,000.0	1,719,788.1	33.4	1,158.3	854.3	F-60		1,208.2
TM-B13SHW	40 : 1	240 / Ø215 (50 X 28)	64,500.0	47,572.8	9,400,000.0	2,113,203.7	33.4	1,931.1	1,424.3	F-60		1,933.5

BEVEL GEAR HEAVY DUTY + 3WAY + SPUR DOUBLE



DIMENSION

(Unit : mm)

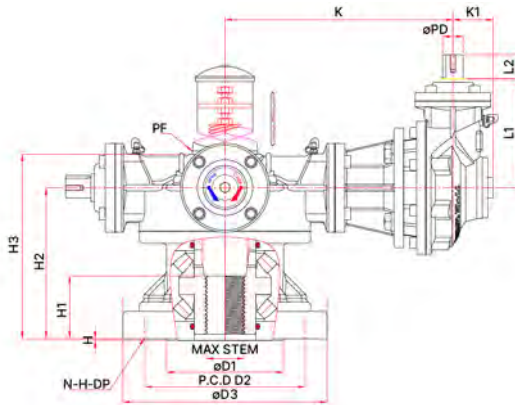
DIM MODEL	TYPE	FLANGE	ØD1	BASE PART			EXTERNAL				INPUT SHAFT PART				HANDLE WHEEL ØM	HAND WHEEL
				ØD2	N-H-DP	ØD3	H	H1	H2	H3	L1	L2	ØPD	KEY		
TM-B5SDHW		F-25	200	254	8-M16-25	300		91	222	271	283				WH 500	PF 3"
TM-B6SDHW		F-30	230	298	8-M2030	350		106	256	310	305	35	25	8x7	WH 560	PF 4"
TM-B7SDHW	B	F-35	260	356	8-M30-45	415	3	148	323	385	375				WH 630	PF 5"
TM-B8SDHW		F-40	300	406	8-M36-45	475		150	347	413	397	35	30	10X8	WH 710	PF 6"
TM-B9SDHW		F-40	300	406	8-M36-45	475		164	375	451	427				WH 710	PF 6"
TM-B10SDHW		F-48	483	370	12-M36-55	554	3	196	423	506	508	45	40	12X8	WH 800	PF 8"
TM-B11SDHW		F-48	483	370	12-M36-55	560	3	210	475	569	542				WH 900	PF 8"
TM-B12SDHW		F-60	470	603	20-M36-55	686	5	245	554	656	674				WH 900	PF 10"
TM-B13SDHW		F-60	470	603	20-M36-55	686	5	300	641	761	765	45	40	12X8	WH 1000	P.C.D 345

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR MULTI TURN BEVEL GEAR

DIM MODEL	GEAR RATIO		ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		MAX. THRUST CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
	HIGH SPEED	LOW SPEED	TW / Ø (KEY)	N . m	Lbf - ft	N	Lbf	(±10%)	N . m	Lbf - ft	Standard	Option	Kg
TM-B5SDHW	10 : 1	25:1	65 / Ø55 (16 X 10)	2,341.5	1,727.0	1,080,000.0	242,793.6	18.4	127.3	93.9	F-25	F-20	82.5
TM-B6SDHW	12.5 : 1	31.3:1	80 / Ø70 (20 X 12)	3,613.5	2,665.2	1,710,000.0	384,423.2	23.0	157.1	115.9	F-30	F-25	115.4
TM-B7SDHW	16.5 : 1	49.5:1	95 / Ø82 (22 X 14)	5,601.0	4,131.1	2,450,000.0	550,781.8	36.4	153.9	113.5	F-35	F-30	213.9
TM-B8SDHW	18.0 : 1	54:1	110 / Ø95 (25 X 14)	8,352.0	6,160.1	2,900,000.0	651,945.8	39.7	210.4	155.2	F-35	F-30	248.0
TM-B9SDHW	19.5 : 1	58.5:1	130 / Ø115 (32 X 18)	11,661.0	8,600.7	3,500,000.0	786,831.2	43.0	271.2	200.0	F-40	F-35	344.2
TM-B10SDHW	28 : 1	112:1	150 / Ø130 (36 X 20)	18,979.5	13,998.6	4,700,000.0	1,056,601.8	82.4	230.3	169.9	F-48	F-40	580.1
TM-B11SDHW	30.2 : 1	120.9:1	170 / Ø150 (40 X 22)	26,104.5	19,253.7	5,200,000.0	1,169,006.3	89.0	293.3	216.3	F-48	-	746.5
TM-B12SDHW	40 : 1	200:1	215 / Ø185 (45 X 25)	38,686.5	28,533.7	7,650,000.0	1,719,788.1	147.1	263.0	194.0	F-60	-	1,202.5
TM-B13SDHW	40 : 1	200:1	240 / Ø215 (50 X 28)	64,500.0	47,572.8	9,400,000.0	2,113,203.7	147.1	438.5	323.4	F-60	-	1,936.7

BEVEL GEAR HEAVY DUTY + 3WAY + BEVEL



DIMENSION

(Unit : mm)

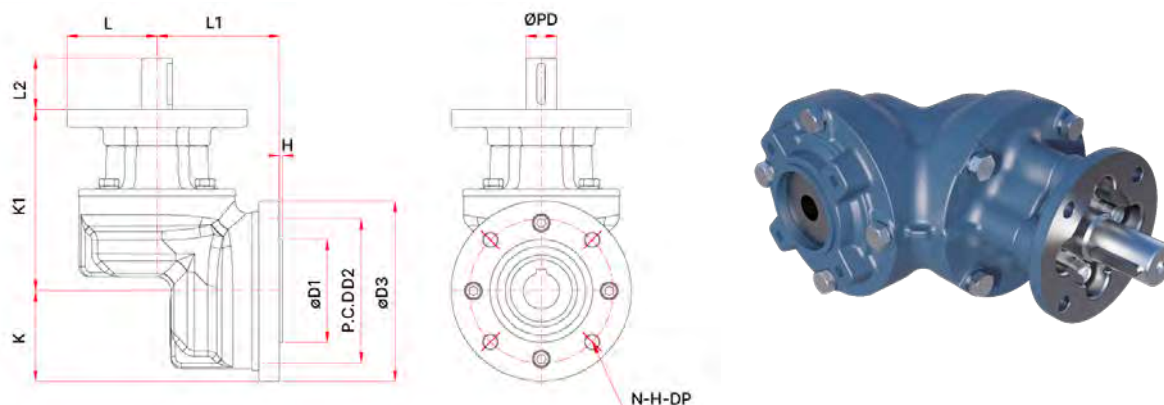
DIM MODEL	BASE PART					EXTERNAL							INPUT SHAFT PART			HANDLE WHEEL ØM	HAND WHEEL
	TYPE	FLANGE	ØD1	PC.D ØD2 N-H-DP	ØD3	H	H1	H2	H3	K	K1	L1	L2	ØPD	KEY		
TM-B5BHW		F-25	200	254 8-M16-25	300		91	222	271	327.5		230					PF 3"
TM-B6BHW		F-30	230	298 8-M2030	350		106	256	310	354.5	52.5	244	35	25	8X7	BH 300	PF 4"
TM-B7BHW	B	F-35	260	356 8-M30-45	415	3	148	323	385	409.5		274					PF 5"
TM-B8BHW		F-40	300	406 8-M36-45	475		150	347	413	433	59	309				BH 400	
TM-B9BHW							164	375	451	495	67	380	35	30	10X8	BH 630	PF 6"
TM-B10BHW	C	F-48	370	483 12-M36-55	554	3	196	423	506	491	74	421					PF 8"
TM-B11BHW					560		210	475	569	525	74	442	35	30	10X8	BH 710	PF 8"
TM-B12BHW							245	554	656	612	82	538					PF 10"
TM-B13BHW	D	F-60	470	603 20-M36-55	686	5	300	641	761	732	86	598	35	30	10X8	BH 800	P.C.D 345

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR MULTI TURN BEVEL GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		MAX. THRUST CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN		WEIGHT
		TW / Ø (KEY)	N . m	Lbf - ft	N	Lbf	(±10%)	N . m	Lbf - ft	Standard	Option	Kg
TM-B5BHW	10 : 1	65 / Ø55 (16 X 10)	2,341.5	1,727.0	1,080,000.0	242,793.6	9.0	260.2	191.9	F-25	F-20, F-16	81.5
TM-B6BHW	15 : 1	80 / Ø70 (20 X 12)	3,613.5	2,665.2	1,710,000.0	384,423.2	13.5	267.7	197.4	F-30	F-20	115.2
TM-B7BHW	16.5 : 1	95 / Ø82 (22 X 14)	5,601.0	4,131.1	2,450,000.0	550,781.8	14.9	375.9	277.2	F-35	F-30	204.7
TM-B8BHW	21 : 1	110 / Ø95 (25 X 14)	8,352.0	6,160.1	2,900,000.0	651,945.8	19.0	439.6	324.2	F-40	F-35, F-30	245.8
TM-B9BHW	26 : 1	130 / Ø115 (32 X 18)	11,661.0	8,600.7	3,500,000.0	786,831.2	23.5	496.2	366.0	F-40	F-35, F-25	361.3
TM-B10BHW	35 : 1	150 / Ø130 (36 X 20)	18,979.5	13,998.6	4,700,000.0	1,056,601.8	31.6	600.6	443.0	F-48	F-40	595.7
TM-B11BHW	37.8 : 1	170 / Ø150 (40 X 22)	26,104.5	19,253.7	5,200,000.0	1,169,006.3	34.1	765.5	564.6	F-48		749.0
TM-B12BHW	44 : 1	215 / Ø185 (45 X 25)	38,686.5	28,533.7	7,650,000.0	1,719,788.1	39.7	974.5	718.8	F-60		1,212.0
TM-B13BHW	48 : 1	240 / Ø215 (50 X 28)	64,500.0	47,572.8	9,400,000.0	2,113,203.7	43.3	1,489.6	1,098.7	F-60		1,904.4

MITER GEAR



DIMENSION

(Unit : mm)

DIM MODEL	BASE PART						EXTERNAL					INPUT SHAT PART			
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	K	K1	L	L1	L2	MAX ØPD	KEY
TM-MITER F10	A	F-10	70	102	4-M10-15	125	3	60	75.7	176	62.5	119	50	30	10X8
TM-MITER F14		F-14	100	140	4-M16-25	175	3	70	87.5	176	87.5	129	50	30	10X8

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR MULTI TURN BEVEL GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MOV MOUNT PATTERN	MAX. TORQUE CAPACITY		WEIGHT
				N · m	Lbf · ft	
TM-MITER F10	1 : 1	Ø35 (10 X 8)	F-10	247	182	17.8
TM-MITER F14	1 : 1	Ø35 (10 X 8)	F-14	247	182	20.4

VALVE ASSEMBLY



WORM GEAR(M.O.V)



WORM GEAR(Limit Switch)

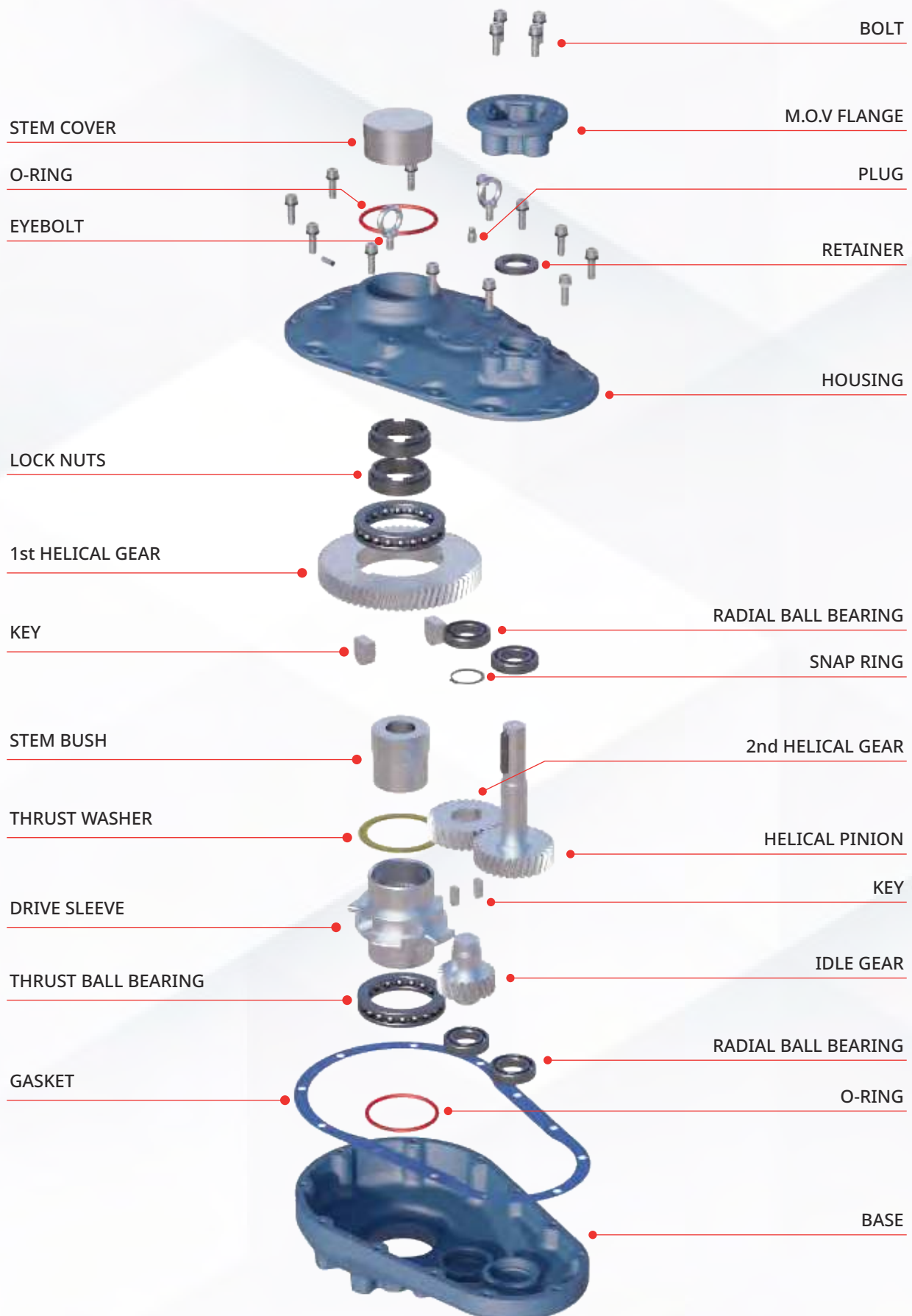


WORM GEAR(Chin Wheel)



WORM GEAR(M.O.V)

SPUR GEAR ASSEMBLY (V-TYPE)



SPUR GEAR CONSTRUCTION (V-TYPE)



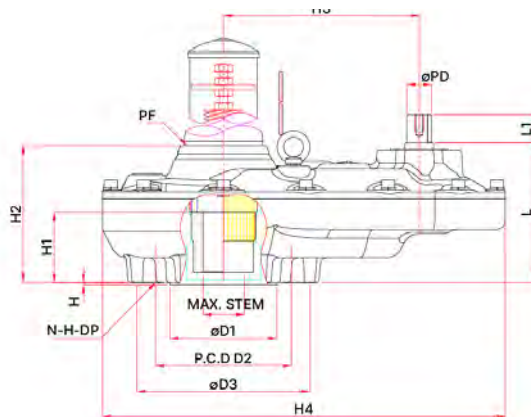
MATERIALS OF CONSTRUCTION

(Unit : mm)

	NO.	DESCRIPTION	MATERIAL			REMARK
			NAME	JIS	ASTM	
S T A N D A R D	01	Housing	Ductile Iron	FCD-450	A536-65-45-12	
	02	Base	Ductile Iron	FCD-450	A536-65-45-12	
	03	Drive Sleeve	Ductile Iron	FCD-450	A536-65-45-12	
	04	1st Helical Gear	Carbon Steel	S45C	A576-1045	
	05	1st Idle Gear	Carbon Steel	S45C	A576-1045	
	06	2nd Helical Gear	Carbon Steel	S45C	A576-1045	
	07	2nd Helical Pinion	Carbon Steel	S45C	A576-1045	
	08	Drive Bush	Carbon Steel	S45C	A576-1045	
	09	Lock Nuts	Carbon Steel	S45C	A576-1045	
	10	Thrust Ball Bearing	Special Steel	SUJ2	A295-52100	
	11	Radial Ball Bearing	Special Steel	SUJ2	A295-52100	
	12	Snap Ring	Special Steel	SK5	W1-8	
	13	Drive Sleeve Key	Carbon Steel	S45C	A576-1045	
	14	Idle Gear Key	Carbon Steel	S45C	A576-1045	
	15	Wrench Bolt	Alloy Steel	SCM440	A322-4140	
	16	Bolt	Alloy Steel	SCM440	A322-4140	
	17	Plug	Carbon Steel	S20C	A307 GR.B	
	18	O-Ring	Buna n	NBR		
	19	Thrust Washer	Carbon Steel	SS41	A283 GR.D	
	20	Set Screw	Stainless Steel	SUS304	A276-304	
	21	Gasket	Nonasbestos			
	22	M.O.V Flange	Ductile Iron	FCD-450	A536-65-45-12	
	23	Stem Cover	Steel Pipe	STPG	A53	
	24	Retainer	Buna n	NBR		
	25	Eye Bolt	Carbon Steel	S20C + Zn	A307 GR.B + Zn	
O P T I O N	OP-01.	Stem Nut	Bronze	HBsC3	B584-C86200	
	OP-02.	Hand Wheel	Steel Pipe	STPG	A53	
	OP-03.	Key	Carbon Steel	S45C	A576-1045	
	OP-04.	Name Plate	Aluminum			
	OP-05.	Washer	Carbon Steel	SS41	A283 GR.D	
	OP-06.	HEX.Bolt (S/W)	Alloy Steel	SUS304	A276-304	
	OP-07.	Indicator Bolt	Carbon Steel	S20C	A307 GR.B	
	OP-08.	HEX. Nut	Carbon Steel	S20C	A307 GR.B	
	OP-09.	Indicator Bolt	Plastic			

Special specifications other than TMG standards are available upon request.
Please contact us if you require any special specifications

SPUR GEAR (V-TYPE)



DIMENSION

(Unit : mm)

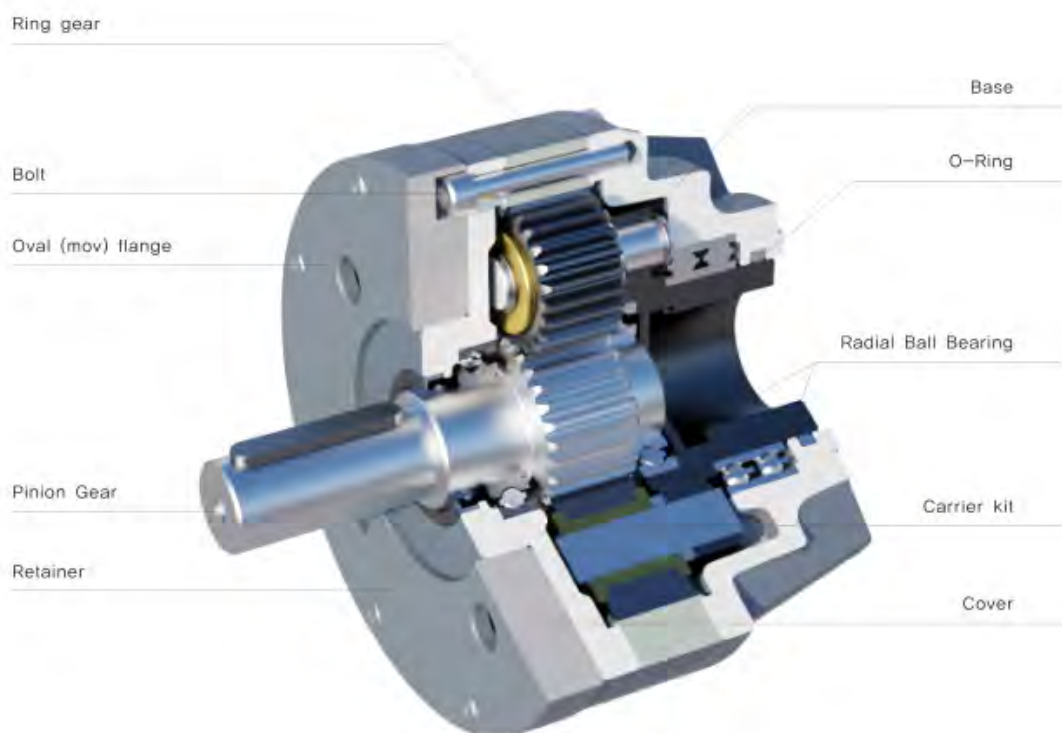
MODEL	DIM	BASE PART						EXTERNAL					INPUT SHAFT PART			HANDLE WHEEL ØM	HAND WHEEL
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	H3	H4	L	L1	ØPD	KEY		
				ØD2	N-H-DP												
TM-V10	A	F-16	130	165	4-M20-25	210	2	75	127	197.9	392.5	142	35	25	8X7	BH 300	PF 1/2"
TM-V15		F-20	160	205	8-M16-25	255	3	84	166	237.6	489.1	180	35	25	8X7	BH 300	PF 3"
TM-V30		F-25	200	254	8-M16-26	300	3	101	167	299	597	204	35	30	10X8	BH 400	PF 4"
TM-V45	B	F-30	230	298	8-M20-35	365	3	130	213	335.5	690.5	249	35	30	10X8	BH 400	PF 5"
TM-V60		F-40	300	406	8-M36-54	475	4	175	284	372.7	815.2	298.5	45	40	12X8	BH 800	PF 8"
TM-V75		F-40	300	406	8-M36-54	475	4	175	284	447.2	949.7	298.5	45	40	12X8	BH 800	PF 8"
TM-V90	C	F-48	370	483	12-M36-54	560	4	196	316	479.8	1042.3	322	45	40	12X8	BH 800	PF 8"

The specification and image of these products can be changed without prior notice.

SPECIFICATION FOR MULTI TURN BEVEL GEAR

DIM MODEL	GEAR RATIO		ALLOWABLE MAX. STEM		MAX. TORQUE CAPACITY		MAX. INPUT TORQUE		WEIGHT
	MIN	MAX	TW	KEY	Lbf · ft	N · m	Lbf	N	Kg
TM-V10	1 : 1	10 : 1	54	Ø46 (14 X 9)	737.5	1,000	28,550.0	127,000	19
TM-V15	1 : 1	10 : 1	62	Ø55 (16 X 10)	1,143.2	1,550	31,725.0	141,120	32
TM-V30	1 : 1	10 : 1	70	Ø60 (18 X 11)	2,197.9	2,980	62,973.0	280,120	65
TM-V45	1 : 1	10 : 1	84	Ø72 (22 X 14)	4,078.7	5,530	89,923.0	400,000	125
TM-V60	1 : 1	12 : 1	125	Ø110 (28 X 16)	8,113.2	11,000	337,213.4	1,500,000	250
TM-V75	1 : 1	16 : 1	125	Ø110 (28 X 16)	10,325.9	14,000	519,308.6	2,310,000	300
TM-V90	1 : 1	17 : 1	140	Ø120 (32 X 18)	13,276.1	18,000	562,022.3	2,500,000	400

PLANETARY GEAR REDUCER



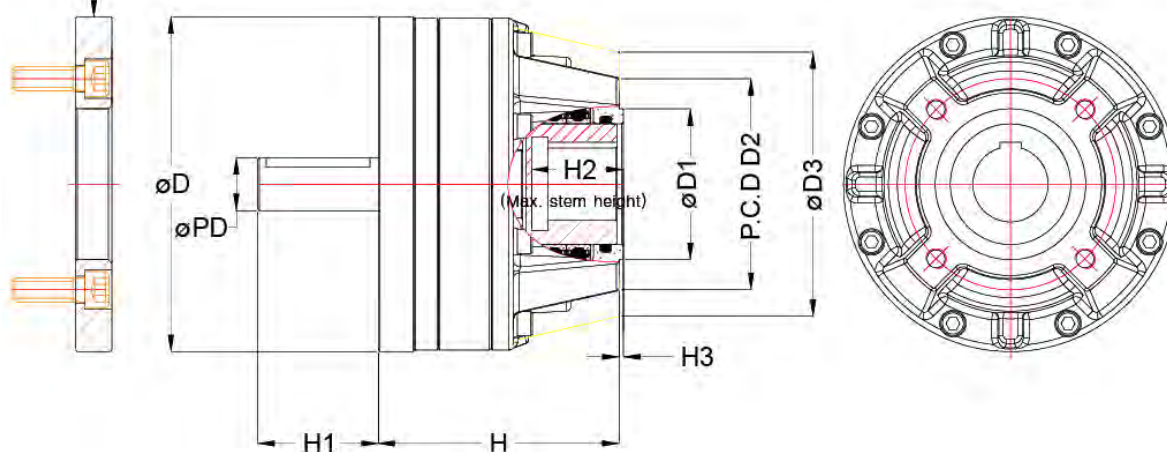
MATERIALS OF CONSTRUCTION

NO.	DESCRIPTION	MATERIAL			REMARK
		NAME	JIS	ASTM	
01	Cover	Ductile Iron	FCD-450	A536-65-45-12	
02	Base	Ductile Iron	FCD-450	A536-65-45-12	
03	Ring gear	Carbon Steel	S45C	A576-1045	
04	Pinion Gear	Carbon Steel	S45C	A576-1045	
05	Carrier kit	Carbon Steel	S45C	A576-1045	
06	Oval (mov) flange	Carbon Steel	S45C	A576-1045	
07	Retainer	Buna N	NBR		
08	Radial Ball Bearing	Special Steel	SUJ2	A295-52100	
09	O-Ring	Buna N	NBR		
10	Bolt	Alloy Steel	SCM440	A322-4140	

PLANETARY GEAR REDUCER



FLANGE DIMENSION
ISO 5201/1



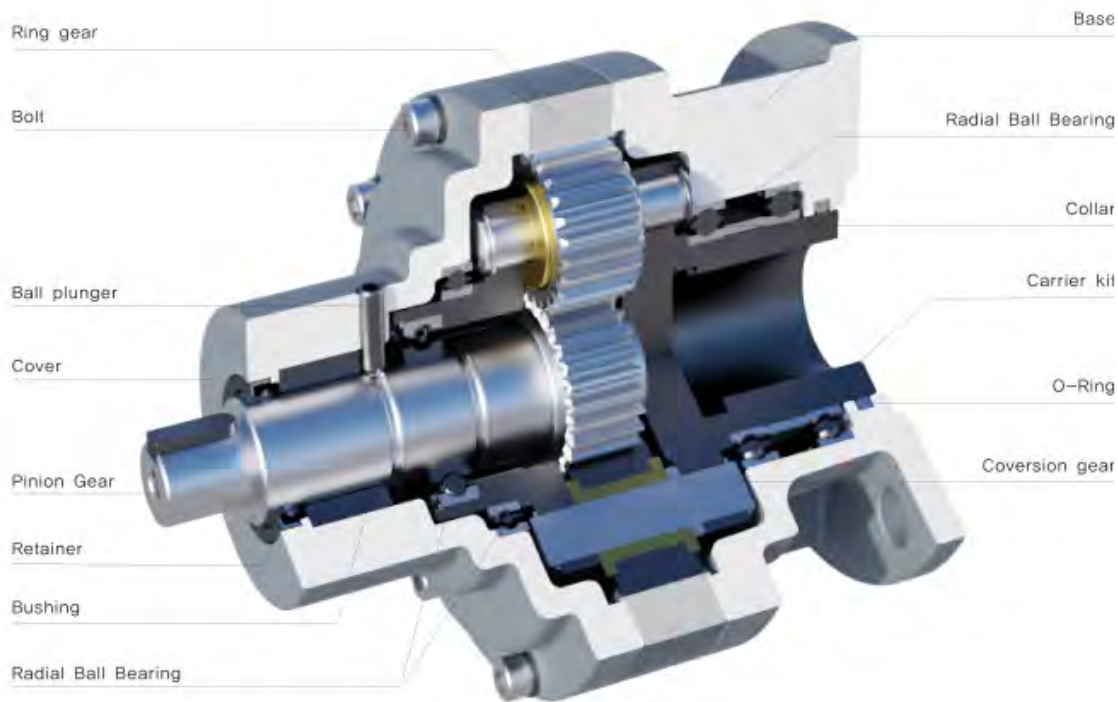
DIMENSION

(Unit : mm)

DIM MODEL	BASE PART								EXTERNAL			ALLOWABLE MAX. STEM			GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		WEIGHT
	TYPE	FLANGE STAND OPTION		ØD1	P.C.D ØD2 N-H-DP		ØD3	H3	H	H2	ØD	H1	MAX ØPD	KEY		Ø	N . m	Lbf . ft	
TM-PR10	A	F-10	F-07		70	102									4-Ø10-18	125	3	117	45
TM-PR12	A	F-12	F-10	85	125	4-Ø12-20	150	3	128	48	Ø220	50	Ø35	10x8	3.6 : 1	Ø40 (12x8)	885.1	885.1	23.0
TM-PR14	A	F-14 / F-12		100	140	4-Ø16-25	175	3	160	58	Ø220	50	Ø45	12x8	3.6 : 1	Ø50 (14x9)	1327.6	1327.6	30.0
TM-PR16	A	F-16 / F-14		130	165	4-Ø20-30	210	3	177	68	Ø270	70	Ø45	12x8	4.0 : 1	Ø60 (18x11)	2065.2	2065.2	44.0
TM-PR25	B	F-25	F-20	200	254	4-Ø10-18	300	3	194	78	Ø300	80	Ø50	14x9	5.0 : 1	Ø70 (20x12)	3540.3	3540.3	64.0

The specification and image of these products can be changed without prior notice.

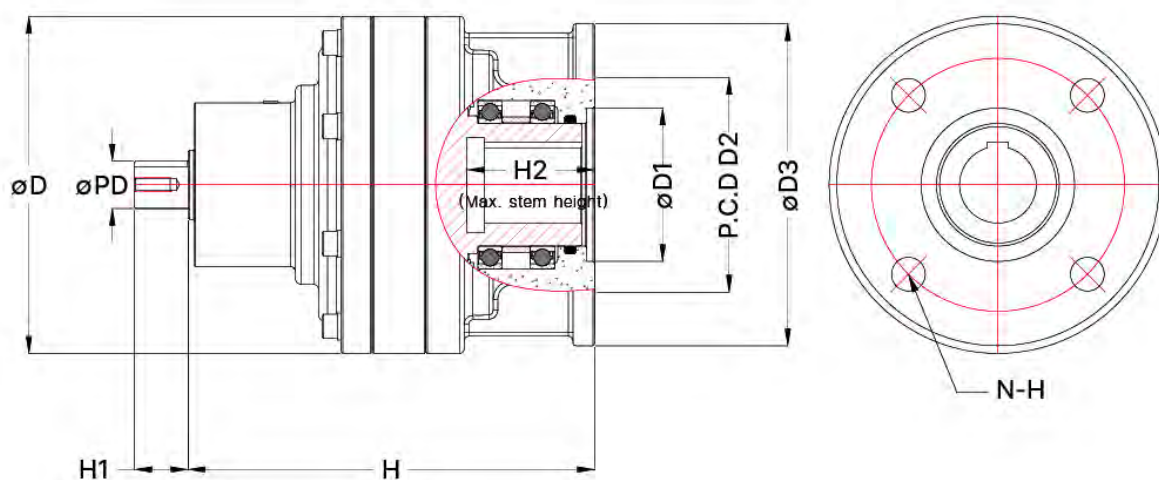
PLANETARY GEAR REDUCER DUAL INPUT SPEED



PART LIST & MATERIAL

NO.	DESCRIPTION	MATERIAL			REMARK
		NAME	JIS	ASTM	
01	Cover	Ductile Iron	FCD-450	A536-65-45-12	
02	Base	Ductile Iron	FCD-450	A536-65-45-12	
03	Ring gear	Carbon Steel	S45C	A576-1045	
04	Pinion Gear	Carbon Steel	S45C	A576-1045	
05	Carrier kit	Carbon Steel	S45C	A576-1045	
06	Conversion gear	Carbon Steel	S45C	A576-1045	
07	Ball plunger	Carbon Steel	S45C	A576-1045	
08	Bushing	Carbon Steel	S45C	A576-1045	
09	Retainer	Buna N	NBR		
10	Radial Ball Bearing	Special Steel	SUJ2	A295-52100	
11	O-Ring	Buna N	NBR		
12	Collar	Steel Pipe	STPG	A53	
13	Bolt	Alloy Steel	SCM440	A322-4140	

PLANETARY GEAR REDUCER DUAL INPUT SPEED



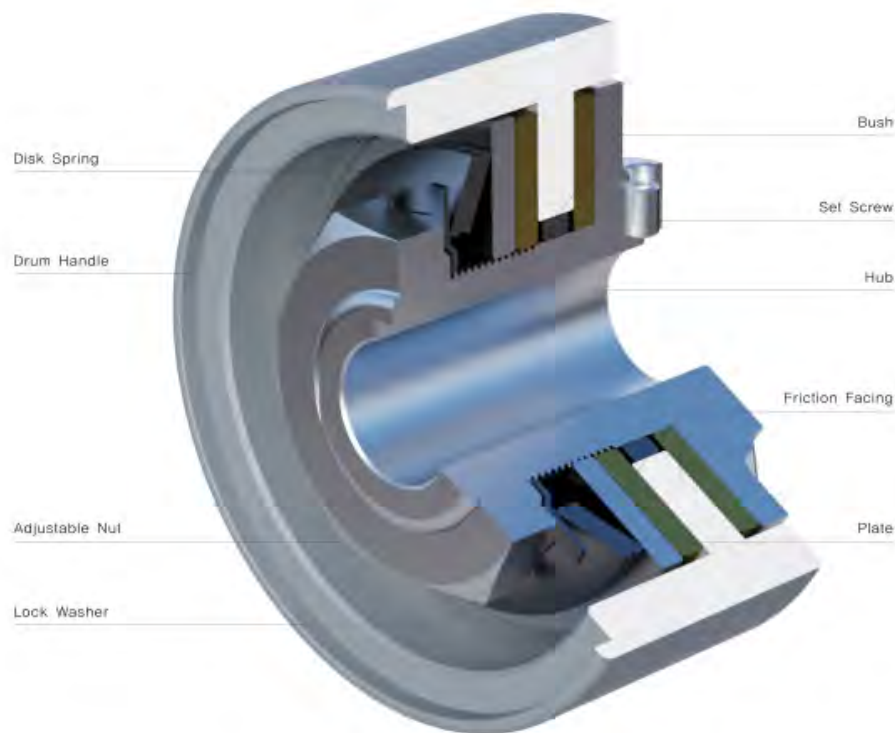
DIMENSION

(Unit : mm)

MODEL	DIM	BASE PART						EXTERNAL			INPUT SHAT PART			HANDLE WHEEL	GEAR RATIO		ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		WEIGHT
	TYPE	FLANGE		ØD1	P.C.D		ØD3	H	H2	ØD	H1	ØPD	KEY		ØM	PRIMARY		SECOND	Ø (KEY)	
TM-DS10	A	F-10	F-07		70	102								4-Ø11		125	167	50	Ø220	35
TM-DS12	A	F-12	F-10	85	125	4-Ø14	150	178	53	Ø220	35	Ø25	8x7	300	1 : 1	3.6 : 1	Ø40 (12x8)	1200	885.1	25.0
TM-DS14	A	F-14 / F-12		100	140	4-Ø18	175	210	63	Ø220	35	Ø25	8x7	300	1 : 1	3.6 : 1	Ø50 (14x9)	1800	1327.6	33.0
TM-DS16	A	F-16 / F-14		130	165	4-Ø22	210	237	78	Ø270	35	Ø30	10x8	500	1 : 1	4.0 : 1	Ø60 (18x11)	2800	2065.2	48.0
TM-DS25	B	F-25	F-20	200	254	4-Ø18	300	264	88	Ø300	35	Ø30	10x8	630	1 : 1	5.0 : 1	Ø70 (20x12)	4800	3540.3	70.0

The specification and image of these products can be changed without prior notice.

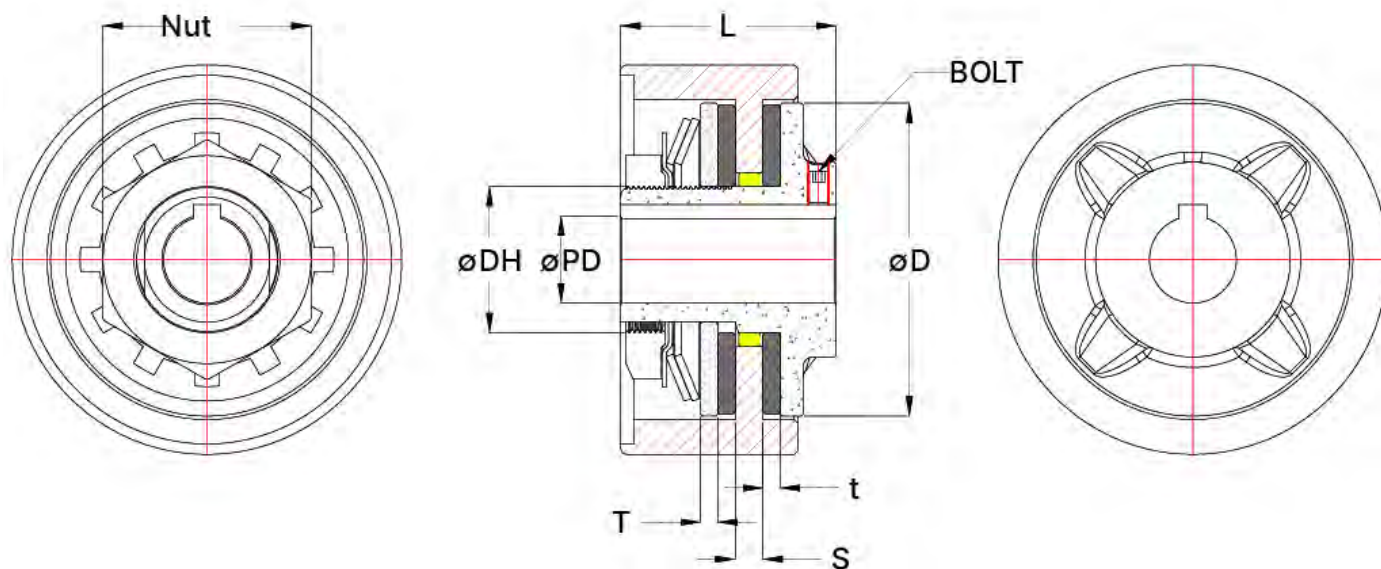
TORQUE LIMITER



MATERIALS OF CONSTRUCTION

NO.	DESCRIPTION	MATERIAL			REMARK
		NAME	JIS	ASTM	
01	Drum Handle	Carbon Steel	S45C	A576-1045	
02	Hub	Ductile Iron	FCD-450	A536-65-45-12	
03	Friction Facing		Lining		
04	Bush	Brass	HBSC3	B584-C86400	
05	Plate	Carbon Steel	S45C	A576-1045	
06	Disk Spring	Carbon Steel	SK5	A681	
07	Adjustable Nut	Carbon Steel	S45C	A576-1045	
08	Set Screw	Carbon Steel	S45C	A576-1045	
09	Lock Washer	Carbon Steel	S45C	A576-1045	

TORQUE LIMITER



DIMENSION

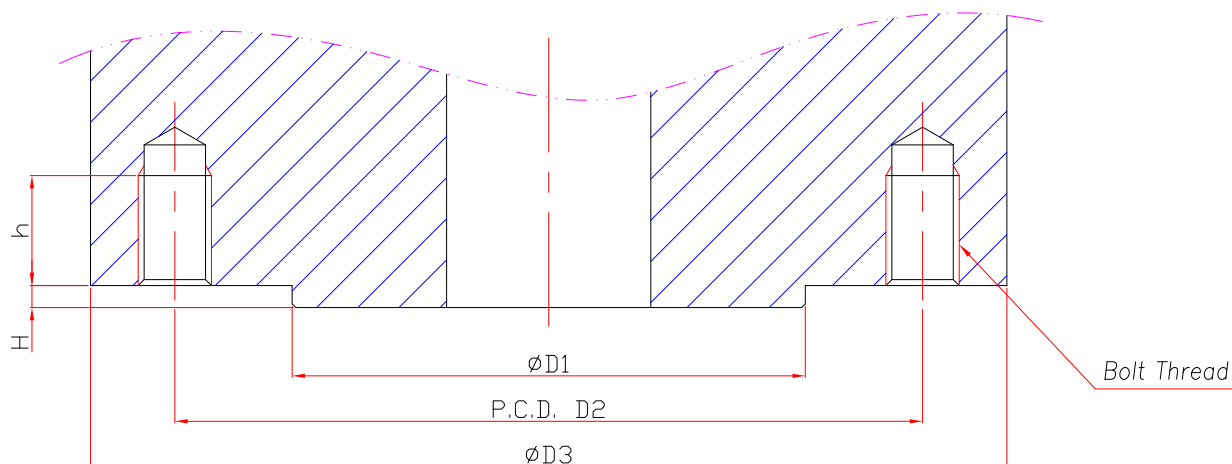
(Unit : mm)

DIM MODEL	ALLOWABLE MAX. STEM		INPUT SHAT PART						조절 너트	고정 나사	MAX. TORQUE CAPACITY		WEIGHT
	MAX ØPD	KEY	D	D.H	L	T	t	S	Nut	Bolt	N . m	Lbf - ft	Kg
TM-TL150	Ø25	10x8	92	42	62	7	4	16	M42x1.5	M6	150	110.6	1.2
TM-TL200	Ø40	12x8	127	65	79	8	4	16	M65x1.5	M8	200	147.5	3.5
TM-TL400	Ø40	12x8	127	65	79	8	4	16	M65x1.5	M8	400	295	3.5
TM-TL550	Ø60	18x11	182	95	100	10	4	29	M95x2.0	M10	550	405.7	8.4
TM-TL1000	Ø60	18x11	182	95	100	10	4	29	M95x2.0	M10	1000	737.6	8.4

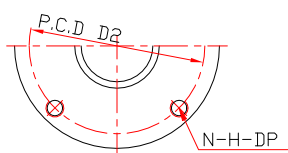
The specification and image of these products can be changed without prior notice.

FLANGE DIMENSIONS

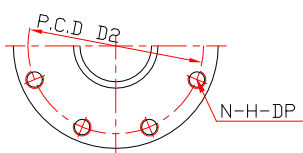
FLANGE DIMENSIONS (ISO 5210/1)



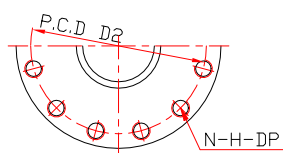
WORM Series Mounting Base



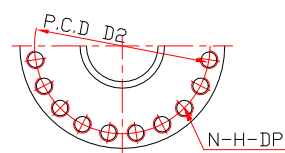
Mounting Base Type "A"



Mounting Base Type "B"

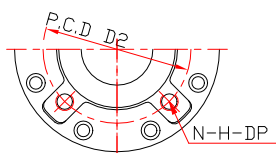


Mounting Base Type "C"

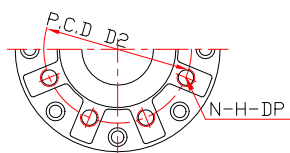


Mounting Base Type "D"

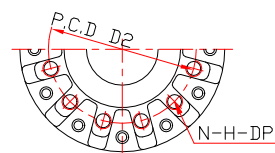
BEVEL Series Mounting Base



Mounting Base Type "A"



Mounting Base Type "B"



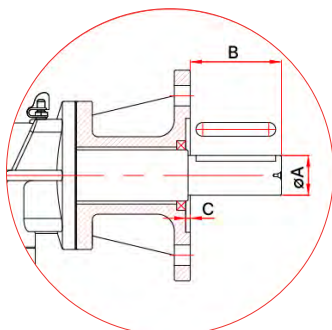
Mounting Base Type "C"

DIMENSION

FLANGE TYPE	ISO 5201/1 MOUNTING FLANGE						
	ØD1	P.C.D. D2	ØD3	H.max.	Bolt Thread		h.min
F - 05	35	50	65	3	M6	1/4"-20 UNC	9
F - 07	55	70	90		M8	5/16"-18 UNC	12
F - 10	70	102	125		M10	3/8"-16 UNC	15
F - 12	85	125	150	4	M12	1/2"-13 UNC	18
F - 14	100	140	175		M16	5/8"-11 UNC	24
F - 16	130	165	210		M20	3/4"-10 UNC	30
F - 19		190.5		5	M16	5/8"-11 UNC	24
F - 20	160	205	255		M16	5/8"-11 UNC	24
F - 25	200	254	300		M16	5/8"-11 UNC	24
F - 30	230	298	350	8	M20	3/4"-10 UNC	30
F - 35	260	356	415		M30	1"-8 UNC	45
F - 40	300	406	475		M36	1 1/4"- 7 UNC	54
F - 48	370	483	560	8	M36	1 1/4"- 7 UNC	54
F - 60	470	603	686		M36	1 1/4"- 7 UNC	54
F - 80	670	813	900		M42	1 3/4"- 5 UNC	60

MOTORIZED TYPE (M.O.V.TYPE)

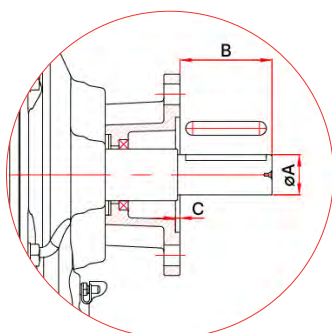
Flange for mounting a multi-turn actuator The flange sizes are according to EN ISO 5210 (optional DIN 3210)
TMG Gear can also be operated manually with a handwheel.



GENERAL TYPE

GENERAL TYPE WORM GEAR		FLANGE TYPE F-10			F-14	F-16
		MAX ØA	B	C	C	C
WTM	WSM	Ø20	50	4	5	6
W0M	W1M	Ø30	50	4	5	6
W2M	W3M	Ø30	50	4	5	6
	W3aM	Ø30	50	4	5	6
W4M	W5M	Ø45	70	4	5	6
	W5aM	Ø45	70	4	5	6
W6M	W7M	Ø60	70	4	5	6
	W7aM	Ø80	80	4	5	6
W8M	W9M	Ø80	80	4	5	6
W10M	W11M	Ø100	80	4	5	6

GENERAL TYPE BEVEL GEAR		FLANGE TYPE F-10			F-14	F-16
		MAX ØA	B	C	C	C
B1M	B2M	Ø30	50	4	5	6
B3M	B4M	Ø35	50	4	5	6
B5M	B6M	Ø40	50	4	5	6
B7M	B8M	Ø45	70	4	5	6
B9M		Ø50	80	4	5	6
B10M	B11M	Ø55	80	4	5	6
B12M	B13M	Ø65	80	4	5	6



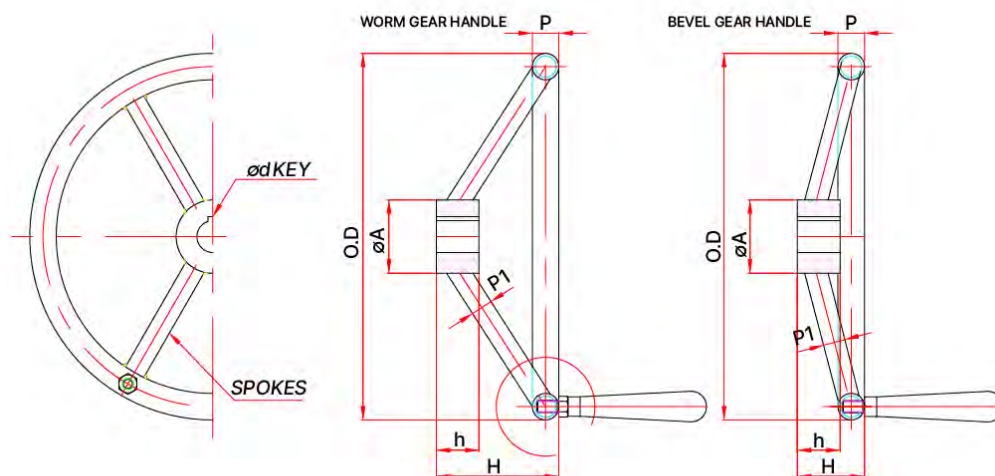
SPUR TYPE

SPUR TYPE WORM GEAR		FLANGE TYPE F-10			F-14	F-16
		MAX ØA	B	C	C	C
WT	WS	-	-	-	-	-
W0S, SD	W1S, SD	Ø25	50	4	5	6
W2S, SD	W3S, SD	Ø30	50	4	5	6
	W3aM	Ø30	50	4	5	6
W4S, SD	W5M	Ø35	80	4	5	6
	W5aM	Ø35	80	4	5	6
W6S, SD	W7M	Ø45	80	4	5	6
	W7aM	Ø45	80	4	5	6
W8S, SD	W9S, SD	Ø45	80	4	5	6
W10S, SD	W11S, SD	Ø55	100	4	5	6

SPUR TYPE BEVEL GEAR		FLANGE TYPE F-10			F-14	F-16
		MAX ØA	B	C	C	C
B1S, SD	B2S, SD	-	-	-	-	-
B3S, SD	B4S, SD	Ø25	50	4	5	6
B5S, SD	B6S, SD	Ø30	50	4	5	6
B7S, SD	B8S, SD	Ø35	80	4	5	6
B9S, SD		Ø35	80	4	5	6
B10S, SD	B11S, SD	Ø45	80	4	5	6
B12S, SD	B13S, SD	Ø45	80	4	5	6

ØD	Ø12-Ø17	Ø17-Ø22	Ø22-Ø30	Ø30-Ø38	Ø38-Ø44	Ø44-Ø50	Ø50-Ø58	Ø58-Ø65	Ø65-Ø75
KEY	5x5	6x6	8x7	10x8	12x8	14x9	16x10	18x11	20x12

HANDWHEEL DIMENSION



GENERAL HANDLE



AIR WRENCH



HEXAGON ADAPTER



Φ32 SQUARE NUT

DIMENSION

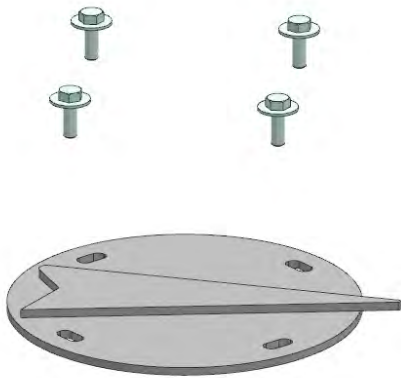
NO.	WORM DIMENSION										
	H	A	B	h	P	P1	Ød	KEY	d2	NUT	N-SPOKES
Ø160	45	43	22	35	-	-	Ø16	5 x 5	-	-	4
Ø250	70	50	-	35	10A	8A	Ø16	5 x 5	Ø10	M8	3
Ø300	95	50	-	35	10A	8A	Ø20	6 x 6	Ø10	M8	3
Ø400	120	50	-	35	10A	8A	Ø20	6 x 6	Ø10	M8	5
Ø500	140	60	-	35	15A	10A	Ø25	8 x 7	Ø14	M10	5
Ø560	160	60	-	35	15A	10A	Ø25	8 x 7	Ø14	M10	5
Ø630	160	60	-	35	15A	10A	Ø30	10 x 8	Ø14	M12	5
Ø710	170	70	-	35	15A	10A	Ø30	10 x 8	Ø14	M12	5
Ø800	190	80	-	45	20A	15A	Ø40	12 x 8	Ø14	M12	6
Ø900	210	80	-	45	20A	15A	Ø40	12 x 8	Ø14	M12	6
Ø1000	230	80	-	45	20A	15A	Ø40	12 x 8	Ø14	M12	6

NO.	BEVEL DIMENSION										
	H	A	B	h	P	P1	Ød	KEY	d2	NUT	N-SPOKES
Ø300	70	60	-	35	15A	10A	Ø25	8 x 7	Ø12	M10	4
Ø400	90	70	-	35	15A	10A	Ø30	10 x 8	Ø14	M12	4
Ø500	90	70	-	35	20A	15A	Ø30	10 x 8	Ø14	M12	5
Ø630	110	70	-	35	20A	15A	Ø30	10 x 8	Ø14	M12	5
Ø710	110	70	-	35	20A	15A	Ø30	10 x 8	Ø14	M12	5
Ø800	130	80	-	45	20A	15A	Ø40	12 x 8	Ø14	M12	6
Ø900	130	80	-	45	20A	15A	Ø40	12 x 8	Ø14	M12	6
Ø1000	130	80	-	45	25A	20A	Ø50	16 x 10	Ø14	M12	6

BUSHING

Bushing type

The separate bushing enables easier mounting of the gearbox to the valve. Upon request, the bushing can be supplied with a suitable hole. The bushing with bore and key is to be placed on the valve shaft and secured against axial movement. Then the gearbox can be mounted to the valve flange.



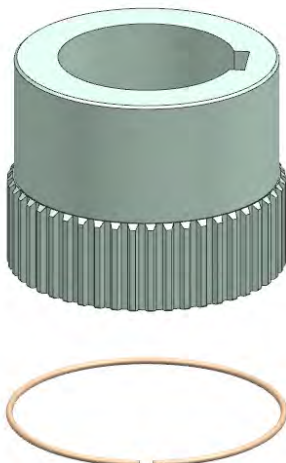
INDICATOR PLATE

1. Decide the position of indicator within the slot clearance with four bolts
2. Designate the definite position by fix pin after setting up open & close



WORM GEAR

1. Stem bush type enables the key way rotation to be changeable.



STEM BUSH

2. When the bush is inserted in the worm gear, make sure that groove of worm gear and key of bush match. If they do not match, the position may not be proper.

FIX SPRING

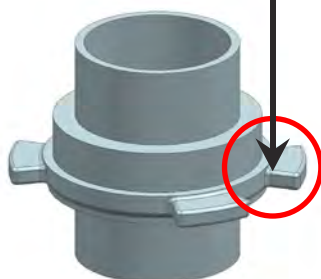
3. Place the fix spring by using screw driver or stick after combining the worm gear and the bush.

FEATURES OF BEVEL GEAR ASSEMBLY

Bevel Gears are available with :

"Fix Type (No-Lost Motion)" or "Hammer Blow Type(Lost Motion)"

BEVEL MOV

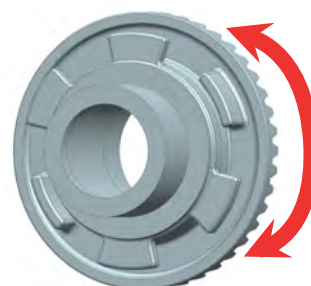
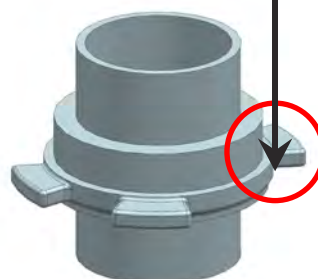


FIX TYPE

No-Lost Motion

This type eliminates the gap in the lug drive between the Bevel Gear and Drive Sleeve. It is the preferred method for Electric Actuators having positioning control capability.

MANUAL TYPE



HAMMER BLOW TYPE

Lost Motion (Hammer Blow)

This type eliminates the gap in the lug drive between the Bevel Gear and Drive Sleeve Enabling a momentary impact. It is the preferred method for all Manual operation and for Electric Actuators of Wedge Gates and Globe Valves.

TWIN SHAFT TYPE GEAR ACTUATORS



o Higher Ratio Input

- For use under higher pressure.

o Lower Ratio Input

- For use under lower pressure.

TWIN SHAFT (SPUR)



o Lower Ratio Input

- For use under lower pressure.

o Higher Ratio Input

- For use under higher pressure.

TWIN SHAFT (SPUR DOUBLE)

POSITION INDICATOR & STEM PROTECTION

POSITION INDICATOR



WATERPROOF (IP68 GRADE)

STEM PROTECTION (STEM COVER & STEM CAP)

Stem cover will be provided with required length.
The required length for stem cover should be informed to TMG.



A TYPE
(SLOT)

B TYPE
(NON-SLOT)

C TYPE
(GAUGE)

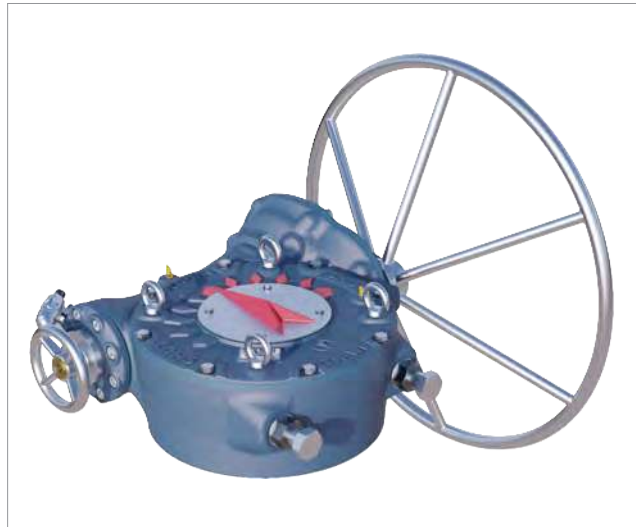
D TYPE
(POLYCARBONATE)

E TYPE
(STEM CAP)

INDICATOR

***PI (Position Indicator) and Stem protection are available upon request as options.**

DECLUTCHABLE GEAR MANUAL



DC LEVER OPERATION MANUAL



DC LEVER OVERVIEW

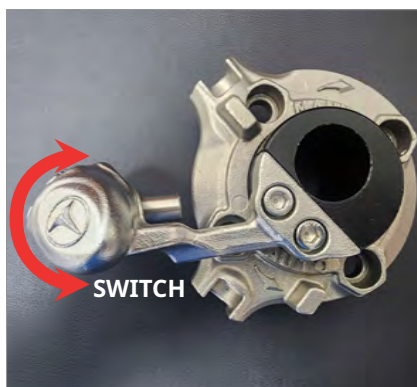


GEAR ALIGNMENT KNOB



MANUAL OPERATION

1. PRESS BUTTON & PULL UP THE LEVER.



MANUAL / AUTO

MANUAL ↔ Auto



AUTOMATIC OPERATION

2. PRESS BUTTON & PUSH DOWN THE LEVER.

CAUTION!

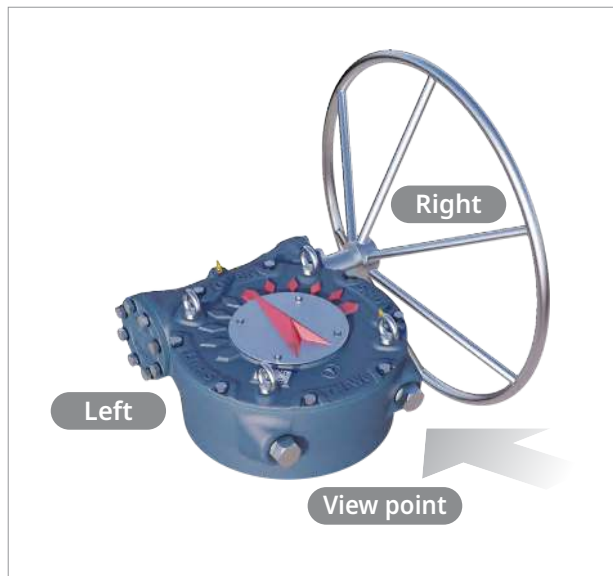
"Use the hand-wheel or the gear alignment knob to align the gear when the lever is not working properly."

OPERATING DIRECTION

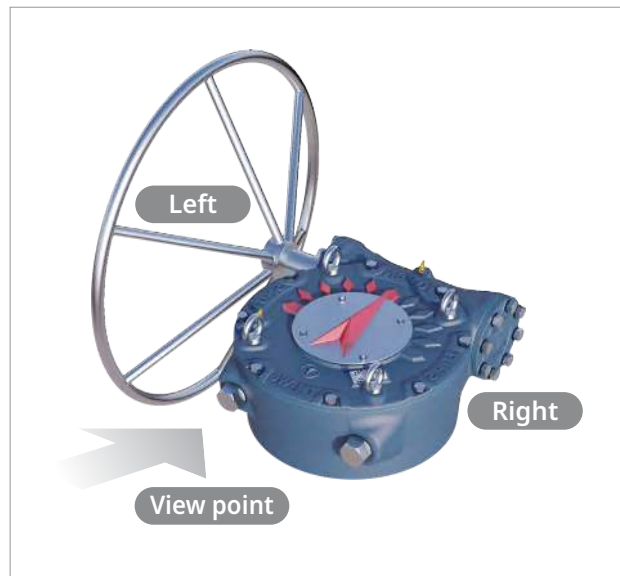
CW	Clock Wise
CCW	Counter Clock Wise
RC	Right Input - Clock Wise
RCC	Right Input - Counter Clock Wise
LC	Left Input - Clock Wise
LCC	Left Input - Counter Clock Wise

Operation Direction

Operation For Right Input



Operation For Left Input



1. Right Input

CW input - CW output is common standard
Operating position "RC" TMG Standard



2. Right input

CW input - CCW output Operation position
"RCC"



3. Left Input

CW input - CW output Operating position
"LC"



4. Left Input

CW input - CCW output Operating position
"LCC"



PERFORMING TEST RESULTS

VIBRATION AGING TEST (FOR NLEAR GENERATION)

시험 성적서



한국조선해양기자재연구원

부산광역시 영도구 해양로 435 (우 49111)
Tel 051-400-5000, Fax 051-400-5091

시험성적서 번호

KOMERI-0602-17T3654

http://www.komeri.re.kr

Korea
Marine Equipment
Research Institute



1. 신청자

- 회사명 : 티엠지코리아
- 주소 : 부산광역시 강서구 화전산단2로 99
- 접수일자 : 2017. 11. 14

2. 시험대상품

- 시료명 : 디클러차 기어박스
- 모델명 : TM-W0_2_4_6SDDCM
- 제품번호 : -

3. 시험규격 : 신청자 요구사항 (IEEE 382-1996, S Vibration aging test 참조)

4. 성적서 용도 : 과제제출용

5. 시험기간 : 2017. 11. 21

6. 시험환경 : 온도 (20.7 ± 2.3) °C , 습도 (42 ± 6) % R.H.

7. 시험결과 : 적합

이 성적서 위의 내용은 시험의뢰인에 의해 제공된 시료에 한하며, 용도 이외의 사용을 금합니다

확인	시험실무자	기술책임자
성명 : 이 병 욱	성명 : 백 세 용	

· 본 시험성적서의 시험결과는 신청인이 제공한 시험대상품에 한하며, 한국조선해양기자재연구원장의 사전 서면승인 없이 성적서의 전부 또는 일부를 복사하여 사용할 수 없음.

발급일 : 2017. 12. 05



(재)한국조선해양기자재연구원장 (인)



X-Axis Installation



Y-Axis Installation



Z-Axis Installation

PERFORMING TEST RESULTS

TEST RESULTS OF EARTHQUAKE PROOF (FOR NUCLEAR GENERATION)

Test Report



Korea Marine Equipment Research Institute
24-20, Nokonsandan 335-ro, Gangseo-gu, Busan 46754, Republic of Korea
 Tel: +82-51-400-5200, Fax: +82-51-400-5210

Report No. :
 KOMERI-0306-2IT5070(E) <http://www.komeri.re.kr>

Korea Marine Equipment Research Institute



1. Applicant

- Company Name : TMG KOREA
- Address : 99, Hwajeonsandan 2-ro, Gangseo-gu, Busan, Korea

2. Equipment under Test

- Name of Product : Worm Gearbox
- Model : TM-W-SD
- Serial No. : TM-W8SD ROV

3. Test Standards : Test method provided by applicant

4. Test Period : 2022. 01. 13

5. Test Site : ☐ Permanent Testing Lab ☒ On Site Testing
(Address: KEUMHA NAVAL TECHNOLOGY CO., LTD. 42, Beombang 3-ro 30beon-gil, Gangseo-gu, Busan, Republic of Korea)

6. Test Result : Max. 4174 bar



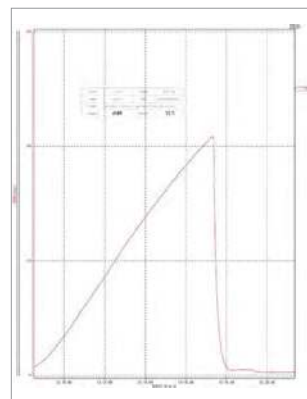
Note 1. The information of the sample(s) in this test report is provided by the applicant. And you can check website (www.gib.go.kr) to verify the authenticity of the certificate.
 Note 2. The result shown in this test report are only limited in to the samples provided by the applicant and do not guarantee the quality of all products of the applicant.
 Note 3. This test report shall be used only within the purpose of its defined use and shall not be used for public relation, advertisement and lawsuit.

Affirmation	Tested by	Technical Manager
	Name : Sang-Jin LEE (Signature)	Name : Dong-Geon KIM (Signature)

This test report is unrelated to KS Q ISO/IEC 17025 and KOLAS accreditation.

Date of issue : 2022. 02. 21.

The President of Korea Marine Equipment Research Institute (Signature)



TMG TEST PERFORMANCE FOR IP67/68

1. TEST PROCEDURE

1.1 TEST FOR INGRESS PROTECTION -IP6X-

- This examination retractsair that become 80 times of bulk of specimen tank that abstraction is tested doing not exceed 60 bulks per time inside tank repeatedly.

1.2 TEST FOR INGRESS PROTECTION -IPX8-

- The test is made by completely continuous immersing the enclosure in water as specified by the manufacture so hat the following conditions are satisfied.
 - The lowest point of enclosures is located 1000mm below the surface of the water.
 - The duration of the test is 24 hours.

2. TEST RESULT

2.1 TEST FOR INGRESS PROTECTION -IP6X-

- The protection is satisfactory.

2.2 TEST FOR INGRESS PROTECTION -IPX8-

- The protection is satisfactory.

Test Report



Korea Marine Equipment
Research Institute

24-20, Noksansandan 335-ro, Gangseo-gu, Busan 46754, Republic of Korea
Tel +82-51-400-5200, Fax +82-51-400-5210

Report No. :

KOMERI-0314-24T2088(E)

<http://www.komeri.re.kr>

Korea
Marine Equipment
Research Institute



1. Applicant

- Company Name : TMG KOREA
- Address : 99, Hwajeonsandan 2-ro, Gangseo-gu, Busan, Korea

2. Equipment under Test

- Name of Product : GEAR BOX
- Model : TM-W0S/TM-W1S/TM-W2S/TM-W3S/TM-W3 a SD/TM-W8SD
- Serial No. : -

3. Test Standards : Applicant Requirement

4. Test Period : 2024. 07. 11 ~ 2024. 07. 17

5. Test Site : ☒ Permanent Testing Lab ☐ On Site Testing (Address : 24-20, Noksansandan 335-ro, Gangseo-gu, Busan 46754, Republic of Korea)

6. Test Result : Conformity

Note 1. The information of the sample(s) in this test report is provided by the applicant. And you can check website (www.g4bgo.kr) to verify the authenticity of the certificate.
Note 2. The result shown in this test report are only limited in to the samples provided by the applicant and do not guarantee the quality of all products of the applicant.
Note 3. This test report shall be used only within the purpose of its defined use and shall not be used for public relation, advertisement and lawsuit.

Affirmation	Tested by		Technical Manager	
	Name :	Sang-Jin LEE	Name :	Myeong-Gwan HAN

This test report is unrelated to KS Q ISO/IEC 17025 and KOLAS accreditation.

Date of issue : 2024. 08. 12.

The President of Korea Marine Equipment Research Institute

TMG TEST PERFORMANCE FOR IP67/68



TMG KOREA CORP.

TMG KOREA CORP QUARTER-TURN GEAR BOX INSTALLATION & OPERATION INSTRUCTIONS

Installation Tips:

All TMG KOREA CORP gear operators and accessories have a maximum design torque rating which they are intended to transmit with the inclusion of a safety factor. When designing mounting kits, torque transmission devices or specifying mounting hardware, the gear operators maximum output torque rating should be considered. Whether mounting directly to a valve flange or using intermediate mounting kits, TMG KOREA CORP recommends using grade 5 or higher bolts with locking washers. TMG KOREA CORP recommends not using our equipment in areas where they may be subjected to high temperatures, corrosive atmospheres, or high pressures without prior knowledge of TMG KOREA CORP or unless originally designed for that purpose. Doing so may affect the product warranty.

Installation:

Prior to assembly, please ensure that the drive nut has been machined to the correct dimensions and that mounting bolt patterns match either the valve mounting flange or the mounting kit being used. The following steps should be taken to install a TMG KOREA CORP manual quarter-turn gear operator. TMG KOREA CORP recommends gear operator mounting take place on a test stand with the valve in the closed position. These instructions assume the valve operates in the CW(Clockwise) direction to close.

01. Check to ensure that the valve and gear operator are in the same position. If the positions do not correspond, rotate the gear operator (or actuators) handwheel either clockwise or counterclockwise until the correct position is achieved.
02. For applications where the valve stem includes a keyway, install the key in the valve stem making sure that it is fully seated in the keyway.
03. The operators travel stops have been visually set at the factory to 90 degrees of travel. This setting may not correspond to actual application settings. Loosen the travel stop lock nut on each side of the operator and rotate the travel stop bolt counterclockwise about six turns to allow the worm and worm gear to rotate without making contact.
04. Before installing the operator, liberally grease the valve stem and operator bore. This will reduce the possibility of corrosion between these two components.
05. Align the gear operator with the valve stem and lower into position on to either the valve flange or mounting kit.
06. Ensure all mounting bolts have been fastened correctly and tightened sufficiently.
07. Rotate the handwheel until the valve is in the closed position, visually checking the disc, ball or plug position.
08. Rotate the closed side travel stop bolt clockwise until you feel that it has just come into contact with the worm wheel.
09. Tighten the travel stop lock nut against the housing. The closed side stop is now set.
10. Rotate the operator handwheel counterclockwise moving the valve from the closed to the open position checking to ensure the operator turns smoothly throughout the complete cycle. Visually verify that the full open position has been achieved.
11. Rotate the open side travel stop bolt clockwise until you feel that it has just come into contact with the worm wheel.
12. Tighten the travel stop lock nut against the housing. The open side is now set.
13. Rotate the valve from closed to open several times to confirm proper operation.

Operation:

Once the valve and gear operator assembly has been installed, operation of quarter-turn manual gear operators is very simple. Assuming a clockwise to close valve as in the assembly instructions, rotating the handwheel clockwise will result in the valve moving towards its closed position. Reversing rotation of the handwheel, counterclockwise, will result in counterclockwise rotation of the output and the valve moving towards its open position. General Maintenance Manual

GENERAL MAINTENANCE MANUAL

Scope:

It is the purpose of this document to provide general storage and maintenance instructions for all TMG KOREA CORP quarter-turn and multi-turn products.

- **A. Storage:**

For best results, TMG KOREA CORP operators should be stored in a clean, dry area in their respective shipping containers. If operators are stored in high humidity areas, steps should be taken to reduce the amount of moisture the units will be exposed to. All input shafts are plated to prevent corrosion, but if gear operators are to be stored for a long period of time, input shafts and all mounting surfaces should be lightly greased to prevent corrosion.

- **B. Maintenance:**

01. Prior to installation, perform a visual inspection to ensure gearbox has not sustained any damage during transport.

02. If the gearbox is to be used infrequently, it is recommended that a partial stroke test be performed minimum once every 6 months. Performing this test will ensure the longevity of your equipment is maintained and that it is in operable condition in the event of an emergency.

03. Ensure all bolts are tightened to specification every 6 months. This applies to fasteners between both the gearbox and actuator (if applicable), and between the gearbox and valve.

04. Ensure paint is in good condition and has not been damaged or peeled off. Peeling paint can cause corrosion or rusting and shorten the life of the gearbox.

05. It is recommended that the grease be replaced according to the below schedule of operating frequency:

- Rare operation: 10 to 12 years.
- Normal frequency operation: 6 to 8 years.
- Frequent operation: 4 to 6 years.

* Check for grease leakage and recharge grease if required.

Safety Instruction:

01. Proper Usage: Unauthorized changes, additions and modifications which can reduce reliability and safety are not permitted.

02. User Obligations: The user must ensure to have all persons involved in the installation, operation, maintenance and repair of gearbox read and understand the operation instructions and comply with them at all times.

GREASE APPLICATIONS FOR VARIOUS ENVIRONMENTS

C. Lubrication :

If for any reason, lubrication replacement is necessary, TMG KOREA recommends replacement of that lubrication with : TMG KOREA Standard Grease Specification :

NLGI Grade :

Lithum Grease, Grease Base : Polyurea Complex Color : Black
Anti - Wear EP Additives : Yes

Dropping Point :

ASM D2265 280Deg (60Deg) / 350Deg (100Deg C)
4 Ball Wear KG Load ASTM 2596 : 400(0.42) Timken OK Load Lbs. ASTM 2509 : 60
Base Oil Viscosity @100Deg.F.Sus : 899 Base Oil Viscosity @ 210Deg. F. Sus : 80
Base Oil Viscosity Index(min) ASTM D2270 : 150Pour Point ASTM D97 : 5Deg. (-15Deg C)

D. Spare Parts :

TMG KOREA warrrnty's work performed by the factory trained personnel only.
Please consult the factory to arrange assistance.

Temperature Range For GREASE APPLICATION.		
HIGHEST TEMPERATURE	-25°C ~ 300°C	-13°F ~ 572°F
HIGH TEMPERATURE	-30°C ~ 200°C	-22°F ~ 392°F
LOW TEMPERATURE	-40°C ~ 180°C	-40°F ~ 356°F
LOWEST TEMPERATURE	-70°C ~ 180°C	-94°F ~ 356°F

TRANSFORMATION	TRANSFORMATION
CELSIUS To Fahrenheit	$^{\circ}\text{F} = ^{\circ}\text{C} \times 1.8 + 32$
Fahrenheit To CELSIUS	$^{\circ}\text{C} = (^{\circ}\text{F} - 32) / 1.8$

TRANSFORMATION
1. SILICONE GREASE
2. ECO GREASE
3. FOOD GREASE
4. INCOMBUSTIBILITY GREASE



Ambient temperatures

* The Gearbox is suitable for operation at an ambient temperature range of -20°C~+80°C

FORMULAS & CONVERSIONS

- **MECHANICAL ADVANTAGE** = OUTPUT TORQUE / INPUT TORQUE
= (GEAR RATIO X EFFICIENCY %) / 100
- **EFFICIENCY (%)** = OUTPUT TORQUE X 100 / (INPUT TORQUE X GEAR RATIO)
- **OUTPUT TORQUE (N.m)** = INPUT TORQUE X MECHANICAL ADVANTAGE
- **INPUT TORQUE (N.m)** = OUTPUT TORQUE / MECHANICAL ADVANTAGE

- **GEAR RATIO** = NUMBER OF TURNS OF INPUT / NUMBER OF TURNS OF OUTPUT
- **NUMBER OF TURNS TO CLOSE** = GEAR RATIO / 4 (QUARTER TURN GEAR BOX)

- **HANDWHEEL RIM EFFORT (N)** = INPUT TORQUE X 2 (N.m) / HANDWHEEL DIAMETER (m)
- **HANDWHEEL DIAMETER (m)** = INPUT TORQUE X 2 (N.m) / HANDWHEEL RIM EFFORT (N)

- **OPERATING TIME (SEC)** = RATIO X 60 / RPM (360°)
- **OPERATING TIME (SEC)** = (RATIO X 60 / RPM) / 4 (QUARTER TURN GEAR BOX)
- **OPERATING TIME (SEC)** = (RATIO X 60 / RPM) X VALVE OPERATING TURNS (MULTI TURN GEAR BOX)

TM-W TECHNICAL DATA

TECHNICAL DATA FOR TMG WORM GEAR

[illegible]**REMARK**

- RATIO IS ADJUSTABLE
- Max Output Torque $\pm 10\%$

TM-W TECHNICAL DATA

TECHNICAL DATA FOR TMG WORM GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN	
		Ø	N . m	Lbf - ft	(±10%)	N . m	Lbf - ft	Standard	Option
TM-W4	56 : 1	Ø95 (25 x 14)	9,079.5	6,696.7	19.6	463.2	341.7	F-25	F-20
TM-W4S	168 : 1	Ø95 (25 x 14)	9,079.5	6,696.7	51.7	175.6	129.5	F-25	F-20
TM-W4ST	56 : 1 / 168 : 1	Ø95 (25 x 14)	9,079.5	6,696.7	51.7	175.6	129.5	F-25	F-20
TM-W4SD	504 : 1	Ø95 (25 x 14)	9,079.5	6,696.7	136.6	66.5	49.0	F-25	F-20
TM-W4SDT	168 : 1 / 504 : 1	Ø95 (25 x 14)	9,079.5	6,696.7	136.6	66.5	49.0	F-25	F-20
TM-W4W	2128 : 1	Ø95 (25 x 14)	9,079.5	6,696.7	260.7	34.8	25.7	F-25	F-20
TM-W4B	196 : 1	Ø95 (25 x 14)	9,079.5	6,696.7	65.2	139.3	102.7	F-25	F-20
TM-W5	60 : 1	Ø110 (32 x 18)	18,679.9	13,777.6	21.0	889.5	656.1	F-30	F-25, F-20
TM-W5S	180 : 1	Ø110 (32 x 18)	18,679.9	13,777.6	55.4	337.2	248.7	F-30	F-25, F-20
TM-W5ST	60 : 1 / 180 : 1	Ø110 (32 x 18)	18,679.9	13,777.6	55.4	337.2	248.7	F-30	F-25, F-20
TM-W5SD	540 : 1	Ø110 (32 x 18)	18,679.9	13,777.6	146.4	127.6	94.1	F-30	F-25, F-20
TM-W5SDT	180 : 1 / 540 : 1	Ø110 (32 x 18)	18,679.9	13,777.6	146.4	127.6	94.1	F-30	F-25, F-20
TM-W5W	2280 : 1	Ø110 (32 x 18)	18,679.9	13,777.6	279.3	66.9	49.3	F-30	F-25, F-20
TM-W5B	210 : 1	Ø110 (32 x 18)	18,679.9	13,777.6	69.8	267.6	197.4	F-30	F-25, F-20
TM-W5A	62 : 1	Ø125 (32 x 18)	26,009.0	19,183.3	21.7	1,198.6	884.0	F-30	F-25
TM-W5AS	186 : 1	Ø125 (32 x 18)	26,009.0	19,183.3	57.3	453.9	334.8	F-30	F-25
TM-W5AST	62 : 1 / 186 : 1	Ø125 (32 x 18)	26,009.0	19,183.3	57.3	453.9	334.8	F-30	F-25
TM-W5ASD	558 : 1	Ø125 (32 x 18)	26,009.0	19,183.3	151.2	172.0	126.9	F-30	F-25
TM-W5ASDT	186 : 1 / 558 : 1	Ø125 (32 x 18)	26,009.0	19,183.3	151.2	172.0	126.9	F-30	F-25
TM-W5AW	2480 : 1	Ø125 (32 x 18)	26,009.0	19,183.3	303.8	85.6	63.1	F-30	F-25
TM-W5AB	248 : 1	Ø125 (32 x 18)	26,009.0	19,183.3	82.5	315.3	232.6	F-30	F-25
TM-W6	64 : 1	Ø140 (36 x 20)	29,951.2	22,090.9	22.4	1,337.1	986.2	F-35	F-30, F-25
TM-W6S	256 : 1	Ø140 (36 x 20)	29,951.2	22,090.9	78.8	380.1	280.3	F-35	F-30, F-25
TM-W6ST	64 : 1 / 256 : 1	Ø140 (36 x 20)	29,951.2	22,090.9	78.8	380.1	280.3	F-35	F-30, F-25
TM-W6SD	1024 : 1	Ø140 (36 x 20)	29,951.2	22,090.9	277.5	107.9	79.6	F-35	F-30, F-25
TM-W6SDT	256 : 1 / 1024 : 1	Ø140 (36 x 20)	29,951.2	22,090.9	277.5	107.9	79.6	F-35	F-30, F-25
TM-W6W	2560 : 1	Ø140 (36 x 20)	29,951.2	22,090.9	313.6	95.5	70.4	F-35	F-30, F-25
TM-W6B	256 : 1	Ø140 (36 x 20)	29,951.2	22,090.9	85.1	352.0	259.6	F-35	F-30, F-25
TM-W7	68 : 1	Ø180 (45 x 25)	53,973.2	39,808.6	23.8	2,267.8	1,672.6	F-40	F-35, F-30
TM-W7S	272 : 1	Ø180 (45 x 25)	53,973.2	39,808.6	83.8	644.1	475.1	F-40	F-35, F-30
TM-W7ST	68 : 1 / 272 : 1	Ø180 (45 x 25)	53,973.2	39,808.6	83.8	644.1	475.1	F-40	F-35, F-30
TM-W7SD	1088 : 1	Ø180 (45 x 25)	53,973.2	39,808.6	294.9	183.0	135.0	F-40	F-35, F-30
TM-W7SDT	272 : 1 / 1088 : 1	Ø180 (45 x 25)	53,973.2	39,808.6	294.9	183.0	135.0	F-40	F-35, F-30
TM-W7W	2720 : 1	Ø180 (45 x 25)	53,973.2	39,808.6	333.2	162.0	119.5	F-40	F-35, F-30
TM-W7B	272 : 1	Ø180 (45 x 25)	53,973.2	39,808.6	90.4	597.0	440.3	F-40	F-35, F-30
TM-W7A	66 : 1	Ø205 (50 x 28)	91,566.8	67,536.2	23.1	3,963.9	2,923.6	F-48	F-40, F-35
TM-W7AS	330 : 1	Ø205 (50 x 28)	91,566.8	67,536.2	101.6	901.2	664.7	F-48	F-40, F-35
TM-W7AST	66 : 1 / 330 : 1	Ø205 (50 x 28)	91,566.8	67,536.2	101.6	901.2	664.7	F-48	F-40, F-35
TM-W7ASD	1650 : 1	Ø205 (50 x 28)	91,566.8	67,536.2	447.2	204.8	151.1	F-48	F-40, F-35
TM-W7ASDT	330 : 1 / 1650 : 1	Ø205 (50 x 28)	91,566.8	67,536.2	447.2	204.8	151.1	F-48	F-40, F-35
TM-W7AW	2772 : 1	Ø205 (50 x 28)	91,566.8	67,536.2	339.6	269.6	198.8	F-48	F-40, F-35
TM-W7AB	363 : 1	Ø205 (50 x 28)	91,566.8	67,536.2	120.7	758.6	559.5	F-48	F-40, F-35

REMARK

- RATIO IS ADJUSTABLE
- Max Output Torque $\pm 10\%$

TM-W TECHNICAL DATA

TECHNICAL DATA FOR TMG WORM GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN	
		Ø	N . m	Lbf - ft	(±10%)	N . m	Lbf - ft	Standard	Option
TM-W8	62 : 1	Ø225 (50 x 28)	116,875.7	86,203.1	21.7	5,386.0	3,972.5	F-48	F-40
TM-W8S	310 : 1	Ø225 (50 x 28)	116,875.7	86,203.1	95.5	1,223.8	902.6	F-48	F-40
TM-W8ST	62 : 1 / 310 : 1	Ø225 (50 x 28)	116,875.7	86,203.1	95.5	1,223.8	902.6	F-48	F-40
TM-W8SD	1550 : 1	Ø225 (50 x 28)	116,875.7	86,203.1	420.1	278.2	205.2	F-48	F-40
TM-W8SDT	310 : 1 / 1550 : 1	Ø225 (50 x 28)	116,875.7	86,203.1	420.1	278.2	205.2	F-48	F-40
TM-W8W	2604 : 1	Ø225 (50 x 28)	116,875.7	86,203.1	319.0	366.4	270.2	F-48	F-40
TM-W8B	341 : 1	Ø225 (50 x 28)	116,875.7	86,203.1	113.4	1,030.6	760.1	F-48	F-40
TM-W9	62 : 1	Ø280 (63 x 32)	176,924.2	130,492.6	21.7	8,153.2	6,013.5	F-60	F-48
TM-W9S	310 : 1	Ø280 (63 x 32)	176,924.2	130,492.6	95.5	1,852.6	1,366.4	F-60	F-48
TM-W9ST	62 : 1 / 310 : 1	Ø280 (63 x 32)	176,924.2	130,492.6	95.5	1,852.6	1,366.4	F-60	F-48
TM-W9SD	1550 : 1	Ø280 (63 x 32)	176,924.2	130,492.6	420.1	421.1	310.6	F-60	F-48
TM-W9SDT	310 : 1 / 1550 : 1	Ø280 (63 x 32)	176,924.2	130,492.6	420.1	421.1	310.6	F-60	F-48
TM-W9W	2604 : 1	Ø280 (63 x 32)	176,924.2	130,492.6	319.0	554.6	409.1	F-60	F-48
TM-W9B	341 : 1	Ø280 (63 x 32)	176,924.2	130,492.6	113.4	1,560.2	1,150.7	F-60	F-48
TM-W10	64 : 1	Ø320 (70 x 36)	275,173.0	202,957.2	22.4	12,284.5	9,060.6	F-60	
TM-W10S	320 : 1	Ø320 (70 x 36)	275,173.0	202,957.2	98.6	2,790.8	2,058.4	F-60	
TM-W10ST	64 : 1 / 320 : 1	Ø320 (70 x 36)	275,173.0	202,957.2	98.6	2,790.8	2,058.4	F-60	
TM-W10SD	1600 : 1	Ø320 (70 x 36)	275,173.0	202,957.2	433.7	634.5	468.0	F-60	
TM-W10SDT	320 : 1 / 1600 : 1	Ø320 (70 x 36)	275,173.0	202,957.2	433.7	634.5	468.0	F-60	
TM-W10W	3072 : 1	Ø320 (70 x 36)	275,173.0	202,957.2	376.3	731.3	539.4	F-60	
TM-W10B	384 : 1	Ø320 (70 x 36)	275,173.0	202,957.2	127.7	2,154.8	1,589.3	F-60	
TM-W11	68 : 1	Ø360 (80 x 40)	463,548.6	341,895.9	23.8	19,476.8	14,365.4	F-80	F-60
TM-W11S	340 : 1	Ø360 (80 x 40)	463,548.6	341,895.9	104.7	4,427.4	3,265.5	F-80	F-60
TM-W11ST	68 : 1 / 340 : 1	Ø360 (80 x 40)	463,548.6	341,895.9	104.7	4,427.4	3,265.5	F-80	F-60
TM-W11SD	1700 : 1	Ø360 (80 x 40)	463,548.6	341,895.9	460.8	1,006.0	742.0	F-80	F-60
TM-W11SDT	340 : 1 / 1700 : 1	Ø360 (80 x 40)	463,548.6	341,895.9	460.8	1,006.0	742.0	F-80	F-60
TM-W11W	3264 : 1	Ø360 (80 x 40)	463,548.6	341,895.9	399.8	1,159.5	855.2	F-80	F-60
TM-W11B	442 : 1	Ø360 (80 x 40)	463,548.6	341,895.9	147.0	3,153.4	2,325.8	F-80	F-60
TM-W12	70 : 1	Ø400 (90 x 45)	700,000.0	516,293.5	24.5	28,571.4	21,073.2	F-80	F-60
TM-W12S	350 : 1	Ø400 (90 x 45)	700,000.0	516,293.5	107.8	6,493.5	4,789.4	F-80	F-60
TM-W12ST	70 : 1 / 350 : 1	Ø400 (90 x 45)	700,000.0	516,293.5	107.8	6,493.5	4,789.4	F-80	F-60
TM-W12SD	1750 : 1	Ø400 (90 x 45)	700,000.0	516,293.5	474.3	1,475.9	1,088.6	F-80	F-60
TM-W12SDT	350 : 1 / 1750 : 1	Ø400 (90 x 45)	700,000.0	516,293.5	474.3	1,475.9	1,088.6	F-80	F-60
TM-W12W	3360 : 1	Ø400 (90 x 45)	700,000.0	516,293.5	411.6	1,700.7	1,254.4	F-80	F-60
TM-W12B	490 : 1	Ø400 (90 x 45)	700,000.0	516,293.5	162.9	4,297.1	3,169.4	F-80	F-60
</									

REMARK

- RATIO IS ADJUSTABLE
- Max Output Torque $\pm 10\%$

TM-W TECHNICAL DATA

TECHNICAL DATA FOR TMG WORM GEAR

DIM	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN	
MODEL		Ø	N . m	Lbf - ft	(±10%)	N . m	Lbf - ft	Standard	Option
TM-WTDC	31 : 1	Ø20 (6 x 6)	294.7	217.4	10.9	27.0	19.9	/	0
TM-WSDC	32 : 1	Ø28 (8 x 7)	557.7	411.3	11.2	49.8	36.7	F-10	F-07
TM-W0DC	36 : 1	Ø36 (10 x 8)	788.8	581.8	12.6	62.6	46.2	F-12	F-10
TM-W0SDC	64 : 1	Ø36 (10 x 8)	788.8	581.8	19.7	40.0	29.5	F-12	F-10
TM-W0SDDC	128 : 1	Ø36 (10 x 8)	788.8	581.8	34.7	22.7	16.7	F-12	F-10
TM-W1DC	38 : 1	Ø46 (14 x 9)	1,479.2	1,091.0	13.3	111.2	82.0	F-14	
TM-W1SDC	67.6 : 1	Ø50 (14 x 9)	1,479.2	1,091.0	20.8	71.1	52.4	F-14	
TM-W1SDDC	135.1 : 1	Ø46 (14 x 9)	1,479.2	1,091.0	36.6	40.4	29.8	F-14	
TM-W2DC	41 : 1	Ø65 (18 x 11)	2,784.4	2,053.7	14.4	193.4	142.6	F-16	
TM-W2SDC	86.3 : 1	Ø65 (18 x 11)	2,784.4	2,053.7	26.6	104.7	77.2	F-16	
TM-W2SDDC	215.8 : 1	Ø65 (18 x 11)	2,784.4	2,053.7	58.5	47.6	35.1	F-16	
TM-W3DC	47 : 1	Ø75 (20 x 12)	4,856.2	3,581.7	16.5	294.3	217.1	F-20	F-16
TM-W3SDC	98.9 : 1	Ø75 (20 x 12)	4,856.2	3,581.7	30.5	159.2	117.4	F-20	F-16
TM-W3SDDC	247.4 : 1	Ø75 (20 x 12)	4,856.2	3,581.7	67.1	72.4	53.4	F-20	F-16
TM-W3ADC	52 : 1	Ø80 (22 x 14)	5,832.7	4,302.0	18.2	320.5	236.4	F-25	F-16
TM-W3ASDC	109.5 : 1	Ø80 (22 x 14)	5,832.7	4,302.0	33.7	173.1	127.7	F-25	F-16
TM-W3ASDDC	273.7 : 1	Ø80 (22 x 14)	5,832.7	4,302.0	74.2	78.6	58.0	F-25	F-16
TM-W4DC	54 : 1	Ø95 (25 x 14)	8,041.1	5,930.8	18.9	425.5	313.8	F-25	F-20
TM-W4SDC	147 : 1	Ø95 (25 x 14)	8,041.1	5,930.8	45.3	177.5	130.9	F-25	F-20
TM-W4SDDC	441 : 1	Ø95 (25 x 14)	8,041.1	5,930.8	119.5	67.3	49.6	F-25	F-20
TM-W5DC	58 : 1	Ø110 (32 x 18)	16,649.8	12,280.3	20.3	820.2	604.9	F-30	F-25, F-20
TM-W5SDC	157.9 : 1	Ø110 (32 x 18)	16,649.8	12,280.3	48.6	342.6	252.7	F-30	F-25, F-20
TM-W5SDDC	473.7 : 1	Ø110 (32 x 18)	16,649.8	12,280.3	128.4	129.7	95.7	F-30	F-25, F-20
TM-W5ADC	60 : 1	Ø125 (32 x 18)	23,276.0	17,167.5	21.0	1,108.4	817.5	F-30	F-25
TM-W5ASDC	163.3 : 1	Ø125 (32 x 18)	23,276.0	17,167.5	50.3	462.7	341.3	F-30	F-25
TM-W5ASDDC	490 : 1	Ø125 (32 x 18)	23,276.0	17,167.5	132.8	175.3	129.3	F-30	F-25
TM-W6DC	62 : 1	Ø140 (36 x 20)	27,185.6	20,051.1	21.7	1,252.8	924.0	F-35	F-30, F-25
TM-W6SDC	220.4 : 1	Ø140 (36 x 20)	27,185.6	20,051.1	67.9	400.4	295.3	F-35	F-30, F-25
TM-W6SDDC	881.8 : 1	Ø140 (36 x 20)	27,185.6	20,051.1	239.0	113.7	83.9	F-35	F-30, F-25
TM-W7DC	66 : 1	Ø180 (45 x 25)	43,875.1	32,360.6	23.1	1,899.4	1,400.9	F-40	
TM-W7SDC	234.7 : 1	Ø180 (45 x 25)	43,875.1	32,360.6	72.3	606.8	447.6	F-40	
TM-W7SDDC	938.7 : 1	Ø180 (45 x 25)	43,875.1	32,360.6	254.4	172.5	127.2	F-40	
TM-W7ADC	64 : 1	Ø205 (50 x 28)	69,274.2	51,094.0	22.4	3,092.6	2,281.0	F-48	F-40, F-35
TM-W7ASDC	291.6 : 1	Ø205 (50 x 28)	69,274.2	51,094.0	89.8	771.4	569.0	F-48	F-40, F-35
TM-W7ASDDC	1457.8 : 1	Ø205 (50 x 28)	69,274.2	51,094.0	395.1	175.3	129.3	F-48	F-40, F-35
TM-W8DC	60 : 1	Ø225 (50 x 28)	92,838.1	68,473.9	21.0	4,420.9	3,260.7	F-48	F-40
TM-W8SDC	273.3 : 1	Ø225 (50 x 28)	92,838.1	68,473.9	84.2	1,102.6	813.2	F-48	F-40
TM-W8SDDC	1366.7 : 1	Ø225 (50 x 28)	92,838.1	68,473.9	370.4	250.6	184.8	F-48	F-40

REMARK

- RATIO IS ADJUSTABLE
- Max Output Torque $\pm 10\%$

TM-W TECHNICAL DATA

TECHNICAL DATA FOR TMG WORM GEAR

DIM MODEL	SPUR DOUBLE GEAR RATIO	MAX. TORQUE CAPACITY		M.A	MAX. INPUT TORQUE	
		N . m	Lbf - ft	(±10%)	N . m	Lbf - ft
TM-W0SD	152 : 1	1,019.0	751.6	41.2	24.7	18.2
	140 : 1	1,019.0	751.6	37.9	26.9	19.8
	129.2 : 1	1,019.0	751.6	35.0	29.1	21.5
	119.4 : 1	1,019.0	751.6	32.4	31.5	23.2
	110.5 : 1	1,019.0	751.6	29.9	34.0	25.1
	102.4 : 1	1,019.0	751.6	27.8	36.7	27.1
	95 : 1	1,019.0	751.6	25.7	39.6	29.2
	88.2 : 1	1,019.0	751.6	23.9	42.6	31.4
	81.8 : 1	1,019.0	751.6	22.2	46.0	33.9
	76 : 1	1,019.0	751.6	20.6	49.5	36.5
TM-W1SD	160 : 1	1,873.1	1,381.5	43.4	43.2	31.9
	147.4 : 1	1,873.1	1,381.5	40.0	46.9	34.6
	136 : 1	1,873.1	1,381.5	36.9	50.8	37.5
	125.7 : 1	1,873.1	1,381.5	34.1	55.0	40.6
	116.4 : 1	1,873.1	1,381.5	31.5	59.4	43.8
	107.8 : 1	1,873.1	1,381.5	29.2	64.1	47.3
	100 : 1	1,873.1	1,381.5	27.1	69.1	51.0
	92.8 : 1	1,873.1	1,381.5	25.2	74.5	54.9
	86.2 : 1	1,873.1	1,381.5	23.4	80.2	59.1
	80 : 1	1,873.1	1,381.5	21.7	86.4	63.7
TM-W2SD	262.5 : 1	3,170.6	2,338.5	71.1	44.6	32.9
	243.2 : 1	3,170.6	2,338.5	65.9	48.1	35.5
	225.8 : 1	3,170.6	2,338.5	61.2	51.8	38.2
	210 : 1	3,170.6	2,338.5	56.9	55.7	41.1
	195.7 : 1	3,170.6	2,338.5	53.0	59.8	44.1
	182.6 : 1	3,170.6	2,338.5	49.5	64.1	47.3
	170.6 : 1	3,170.6	2,338.5	46.2	68.6	50.6
	159.6 : 1	3,170.6	2,338.5	43.3	73.3	54.1
	149.4 : 1	3,170.6	2,338.5	40.5	78.3	57.8
	140 : 1	3,170.6	2,338.5	37.9	83.6	61.6
	131.3 : 1	3,170.6	2,338.5	35.6	89.1	65.7
	123.1 : 1	3,170.6	2,338.5	33.4	95.0	70.1
	115.5 : 1	3,170.6	2,338.5	31.3	101.3	74.7
	108.4 : 1	3,170.6	2,338.5	29.4	107.9	79.6
	101.7 : 1	3,170.6	2,338.5	27.6	115.0	84.8
TM-W3SD	300 : 1	5,670.2	4,182.1	81.3	69.7	51.4
	277.9 : 1	5,670.2	4,182.1	75.3	75.3	55.5
	258 : 1	5,670.2	4,182.1	69.9	81.1	59.8
	240 : 1	5,670.2	4,182.1	65.0	87.2	64.3
	223.6 : 1	5,670.2	4,182.1	60.6	93.6	69.0
	208.7 : 1	5,670.2	4,182.1	56.6	100.2	73.9
	195 : 1	5,670.2	4,182.1	52.9	107.3	79.1
	182.4 : 1	5,670.2	4,182.1	49.4	114.7	84.6
	170.8 : 1	5,670.2	4,182.1	46.3	122.5	90.3
	160 : 1	5,670.2	4,182.1	43.4	130.8	96.4
	150 : 1	5,670.2	4,182.1	40.7	139.5	102.9
	140.7 : 1	5,670.2	4,182.1	38.1	148.7	109.7
	132 : 1	5,670.2	4,182.1	35.8	158.5	116.9
	123.9 : 1	5,670.2	4,182.1	33.6	168.8	124.5
	116.3 : 1	5,670.2	4,182.1	31.5	179.9	132.7

REMARK

- RATIO IS ADJUSTABLE
- Max Output Torque ±10%

TM-W TECHNICAL DATA

TECHNICAL DATA FOR TMG WORM GEAR

[illegible]**REMARK**

- RATIO IS ADJUSTABLE
- Max Output Torque $\pm 10\%$

TM-W TECHNICAL DATA

TECHNICAL DATA FOR TMG WORM GEAR

[illegible]**REMARK**

- RATIO IS ADJUSTABLE
- Max Output Torque $\pm 10\%$

TM-W TECHNICAL DATA

TECHNICAL DATA FOR TMG WORM GEAR

[illegible]**REMARK**

- RATIO IS ADJUSTABLE
- Max Output Torque $\pm 10\%$

TM-W TECHNICAL DATA

TECHNICAL DATA FOR TMG WORM GEAR

[illegible]**REMARK**

- RATIO IS ADJUSTABLE
- Max Output Torque $\pm 10\%$

TM-W TECHNICAL DATA

TECHNICAL DATA FOR TMG WORM GEAR

[illegible]**REMARK**

- RATIO IS ADJUSTABLE
- Max Output Torque $\pm 10\%$

TM-W TECHNICAL DATA

TECHNICAL DATA FOR TMG WORM GEAR

DIM MODEL	SPUR DOUBLE GEAR RATIO	MAX. TORQUE CAPACITY		M.A	MAX. INPUT TORQUE	
		N . m	Lbf - ft	(±10%)	N . m	Lbf - ft
TM-W8SD	1550 : 1	116,875.7	86,203.1	420.1	278.2	205.2
	1452.1 : 1	116,875.7	86,203.1	393.6	297.0	219.0
	1364 : 1	116,875.7	86,203.1	369.7	316.1	233.2
	1284.3 : 1	116,875.7	86,203.1	348.1	335.8	247.6
	1211.8 : 1	116,875.7	86,203.1	328.4	355.8	262.5
	1145.7 : 1	116,875.7	86,203.1	310.5	376.4	277.6
	1085 : 1	116,875.7	86,203.1	294.1	397.4	293.1
	1029.2 : 1	116,875.7	86,203.1	279.0	419.0	309.0
	977.7 : 1	116,875.7	86,203.1	265.0	441.0	325.3
	930 : 1	116,875.7	86,203.1	252.1	463.7	342.0
	885.7 : 1	116,875.7	86,203.1	240.1	486.9	359.1
	844.5 : 1	116,875.7	86,203.1	228.9	510.6	376.6
	806 : 1	116,875.7	86,203.1	218.5	535.0	394.6
	770 : 1	116,875.7	86,203.1	208.7	560.0	413.0
	736.3 : 1	116,875.7	86,203.1	199.6	585.6	432.0
	704.5 : 1	116,875.7	86,203.1	190.9	612.1	451.4
	674.7 : 1	116,875.7	86,203.1	182.9	639.1	471.4
	646.6 : 1	116,875.7	86,203.1	175.3	666.9	491.9
	620 : 1	116,875.7	86,203.1	168.0	695.5	513.0
	594.9 : 1	116,875.7	86,203.1	161.2	724.8	534.6
	571.1 : 1	116,875.7	86,203.1	154.8	755.1	556.9
	548.5 : 1	116,875.7	86,203.1	148.7	786.2	579.8
	527 : 1	116,875.7	86,203.1	142.8	818.2	603.5
	506.6 : 1	116,875.7	86,203.1	137.3	851.2	627.8
	487.1 : 1	116,875.7	86,203.1	132.0	885.3	652.9
	468.6 : 1	116,875.7	86,203.1	127.0	920.2	678.7
	450.9 : 1	116,875.7	86,203.1	122.2	956.3	705.4
	434 : 1	116,875.7	86,203.1	117.6	993.6	732.8
	417.8 : 1	116,875.7	86,203.1	113.2	1,032.1	761.2
	402.3 : 1	116,875.7	86,203.1	109.0	1,071.9	790.6
	387.5 : 1	116,875.7	86,203.1	105.0	1,112.8	820.8
	373.3 : 1	116,875.7	86,203.1	101.2	1,155.1	852.0
	359.6 : 1	116,875.7	86,203.1	97.5	1,199.1	884.4
	346.5 : 1	116,875.7	86,203.1	93.9	1,244.5	917.9
	333.8 : 1	116,875.7	86,203.1	90.5	1,291.8	952.8
	321.7 : 1	116,875.7	86,203.1	87.2	1,340.4	988.6
	310 : 1	116,875.7	86,203.1	84.0	1,391.0	1,026.0

REMARK

- RATIO IS ADJUSTABLE
- Max Output Torque ±10%

TM-W TECHNICAL DATA

TECHNICAL DATA FOR TMG WORM GEAR

[illegible]**REMARK**

- RATIO IS ADJUSTABLE
- Max Output Torque $\pm 10\%$

TM-W TECHNICAL DATA

TECHNICAL DATA FOR TMG WORM GEAR

DIM MODEL	SPUR DOUBLE GEAR RATIO	MAX. TORQUE CAPACITY		M.A	MAX. INPUT TORQUE	
		N . m	Lbf - ft	(±10%)	N . m	Lbf - ft
TM-W10SD	1600 : 1	275,173.0	202,957.2	433.7	634.5	468.0
	1498.9 : 1	275,173.0	202,957.2	406.3	677.3	499.6
	1408 : 1	275,173.0	202,957.2	381.6	721.1	531.8
	1325.7 : 1	275,173.0	202,957.2	359.3	765.8	564.8
	1250.9 : 1	275,173.0	202,957.2	339.0	811.6	598.6
	1182.6 : 1	275,173.0	202,957.2	320.5	858.5	633.2
	1120 : 1	275,173.0	202,957.2	303.6	906.5	668.6
	1062.4 : 1	275,173.0	202,957.2	288.0	955.6	704.8
	1009.2 : 1	275,173.0	202,957.2	273.5	1,006.0	742.0
	960 : 1	275,173.0	202,957.2	260.2	1,057.6	780.0
	914.3 : 1	275,173.0	202,957.2	247.8	1,110.4	819.0
	871.7 : 1	275,173.0	202,957.2	236.3	1,164.7	859.0
	832 : 1	275,173.0	202,957.2	225.5	1,220.3	900.0
	794.8 : 1	275,173.0	202,957.2	215.4	1,277.4	942.1
	760 : 1	275,173.0	202,957.2	206.0	1,335.9	985.3
	727.3 : 1	275,173.0	202,957.2	197.1	1,395.9	1,029.6
	696.5 : 1	275,173.0	202,957.2	188.8	1,457.6	1,075.1
	667.4 : 1	275,173.0	202,957.2	180.9	1,521.2	1,122.0
	640 : 1	275,173.0	202,957.2	173.5	1,586.3	1,170.0
	614.1 : 1	275,173.0	202,957.2	166.4	1,653.2	1,219.4
	589.5 : 1	275,173.0	202,957.2	159.8	1,722.2	1,270.2
	566.2 : 1	275,173.0	202,957.2	153.5	1,793.1	1,322.5
	544 : 1	275,173.0	202,957.2	147.4	1,866.3	1,376.5
	522.9 : 1	275,173.0	202,957.2	141.7	1,941.6	1,432.0
	502.9 : 1	275,173.0	202,957.2	136.3	2,018.8	1,489.0
	483.7 : 1	275,173.0	202,957.2	131.1	2,098.9	1,548.1
	465.5 : 1	275,173.0	202,957.2	126.2	2,181.0	1,608.6
	448 : 1	275,173.0	202,957.2	121.4	2,266.2	1,671.4
	431.3 : 1	275,173.0	202,957.2	116.9	2,353.9	1,736.2
	415.3 : 1	275,173.0	202,957.2	112.6	2,444.6	1,803.1
	400 : 1	275,173.0	202,957.2	108.4	2,538.1	1,872.0
	385.3 : 1	275,173.0	202,957.2	104.4	2,635.0	1,943.4
	371.2 : 1	275,173.0	202,957.2	100.6	2,735.0	2,017.3
	357.6 : 1	275,173.0	202,957.2	96.9	2,839.1	2,094.0
	344.6 : 1	275,173.0	202,957.2	93.4	2,946.2	2,173.0
	332.1 : 1	275,173.0	202,957.2	90.0	3,057.1	2,254.8
	320 : 1	275,173.0	202,957.2	86.7	3,172.7	2,340.0

REMARK

- RATIO IS ADJUSTABLE
- Max Output Torque ±10%

TM-W TECHNICAL DATA

TECHNICAL DATA FOR TMG WORM GEAR

[illegible]**REMARK**

- RATIO IS ADJUSTABLE
- Max Output Torque $\pm 10\%$

TM-W TECHNICAL DATA

TECHNICAL DATA FOR TMG WORM GEAR

DIM MODEL	SPUR DOUBLE GEAR RATIO	MAX. TORQUE CAPACITY		M.A	MAX. INPUT TORQUE	
		N . m	Lbf - ft	(±10%)	N . m	Lbf - ft
TM-W12SD	1750 : 1	700,000.0	516,293.5	683.0	1,024.9	755.9
	1639.5 : 1	700,000.0	516,293.5	444.4	1,575.3	1,161.9
	1540 : 1	700,000.0	516,293.5	417.4	1,677.0	1,236.9
	1450 : 1	700,000.0	516,293.5	393.0	1,781.1	1,313.7
	1368.2 : 1	700,000.0	516,293.5	370.8	1,887.6	1,392.2
	1293.5 : 1	700,000.0	516,293.5	350.6	1,996.6	1,472.6
	1225 : 1	700,000.0	516,293.5	332.0	2,108.3	1,555.0
	1162 : 1	700,000.0	516,293.5	314.9	2,222.6	1,639.3
	1103.8 : 1	700,000.0	516,293.5	299.2	2,339.8	1,725.7
	1050 : 1	700,000.0	516,293.5	284.6	2,459.7	1,814.2
	1000 : 1	700,000.0	516,293.5	271.0	2,582.6	1,904.9
	953.4 : 1	700,000.0	516,293.5	258.4	2,708.9	1,998.0
	910 : 1	700,000.0	516,293.5	246.6	2,838.1	2,093.3
	869.4 : 1	700,000.0	516,293.5	235.6	2,970.6	2,191.0
	831.3 : 1	700,000.0	516,293.5	225.3	3,106.8	2,291.4
	795.5 : 1	700,000.0	516,293.5	215.6	3,246.6	2,394.5
	761.8 : 1	700,000.0	516,293.5	206.5	3,390.2	2,500.5
	730 : 1	700,000.0	516,293.5	197.9	3,537.9	2,609.4
	700 : 1	700,000.0	516,293.5	189.7	3,689.5	2,721.2
	671.6 : 1	700,000.0	516,293.5	182.0	3,845.5	2,836.3
	644.7 : 1	700,000.0	516,293.5	174.7	4,006.0	2,954.6
	619.2 : 1	700,000.0	516,293.5	167.8	4,170.9	3,076.3
	595 : 1	700,000.0	516,293.5	161.3	4,340.6	3,201.4
	572 : 1	700,000.0	516,293.5	155.0	4,515.1	3,330.2
	550 : 1	700,000.0	516,293.5	149.1	4,695.7	3,463.4
	529.1 : 1	700,000.0	516,293.5	143.4	4,881.2	3,600.2
	509.1 : 1	700,000.0	516,293.5	138.0	5,073.0	3,741.6
	490 : 1	700,000.0	516,293.5	132.8	5,270.7	3,887.5
	471.7 : 1	700,000.0	516,293.5	127.8	5,475.2	4,038.3
	454.3 : 1	700,000.0	516,293.5	123.1	5,684.9	4,193.0
	437.5 : 1	700,000.0	516,293.5	118.6	5,903.2	4,354.0
	421.4 : 1	700,000.0	516,293.5	114.2	6,128.7	4,520.3
	406 : 1	700,000.0	516,293.5	110.0	6,361.2	4,691.8
	391.2 : 1	700,000.0	516,293.5	106.0	6,601.9	4,869.3
	376.9 : 1	700,000.0	516,293.5	102.2	6,852.3	5,054.0
	363.2 : 1	700,000.0	516,293.5	98.4	7,110.8	5,244.7
	350 : 1	700,000.0	516,293.5	94.9	7,379.0	5,442.5
	337.3 : 1	700,000.0	516,293.5	91.4	7,656.8	5,647.4
	325 : 1	700,000.0	516,293.5	88.1	7,946.6	5,861.1
	313.2 : 1	700,000.0	516,293.5	84.9	8,246.0	6,081.9
	301.7 : 1	700,000.0	516,293.5	81.8	8,560.3	6,313.8
	290.7 : 1	700,000.0	516,293.5	78.8	8,884.2	6,552.7
	280 : 1	700,000.0	516,293.5	75.9	9,223.7	6,803.1
	269.7 : 1	700,000.0	516,293.5	73.1	9,576.0	7,062.9
	259.7 : 1	700,000.0	516,293.5	70.4	9,944.7	7,334.9
	250 : 1	700,000.0	516,293.5	67.8	10,330.6	7,619.4

REMARK

- RATIO IS ADJUSTABLE
- Max Output Torque ±10%

TM-B TECHNICAL DATA

TECHNICAL DATA FOR TMG BEVEL GEAR

[illegible]**REMARK**

- RATIO IS ADJUSTABLE
- Max Output Torque $\pm 10\%$

TM-B TECHNICAL DATA

TECHNICAL DATA FOR TMG BEVEL GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		MAX. THRUST CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN	
		TW / Ø (KEY)	N .m	Lbf .ft	N	Lbf	(±10%)	N . m	Lbf . ft	Standard	Option
TM-B5	4 : 1	62 / Ø55 (16 x 10)	1,561.0	1,151.3	190,120.0	42,740.7	3.8	410.8	303.0	F-20	F-16
TM-B5S	10 : 1	62 / Ø55 (16 x 10)	1,561.0	1,151.3	190,120.0	42,740.7	8.4	185.8	137.0	F-20	F-16
TM-B5ST	4 : 1 / 10 : 1	62 / Ø55 (16 x 10)	1,561.0	1,151.3	190,120.0	42,740.7	8.4	185.8	137.0	F-20	F-16
TM-B5SD	10 : 1 / 25 : 1	62 / Ø55 (16 x 10)	1,561.0	1,151.3	190,120.0	42,740.7	18.4	84.8	62.5	F-20	F-16
TM-B5SDT	10 : 1 / 25 : 1	62 / Ø55 (16 x 10)	1,561.0	1,151.3	190,120.0	42,740.7	18.4	84.8	62.5	F-20	F-16
TM-B5B	10 : 1	62 / Ø55 (16 x 10)	1,561.0	1,151.3	190,120.0	42,740.7	9.0	173.4	127.9	F-20	F-16
TM-B5W	4 : 1	62 / Ø55 (16 x 10)	1,561.0	1,151.3	190,120.0	42,740.7	3.8	410.8	303.0	F-20	F-16
TM-B5SW	10 : 1	62 / Ø55 (16 x 10)	1,561.0	1,151.3	190,120.0	42,740.7	8.4	185.8	137.0	F-20	F-16
TM-B5SDW	10 : 1 / 25 : 1	62 / Ø55 (16 x 10)	1,561.0	1,151.3	190,120.0	42,740.7	18.4	84.8	62.5	F-20	F-16
TM-B5BW	10 : 1	62 / Ø55 (16 x 10)	1,561.0	1,151.3	190,120.0	42,740.7	9.0	173.4	127.9	F-20	F-16
TM-B5H	4 : 1	65 / Ø55 (16 X 10)	2,341.5	1,727.0	1,080,000.0	242,793.6	3.8	616.2	454.5	F-25	F-20, F-16
TM-B5SH	10 : 1	65 / Ø55 (16 X 10)	2,341.5	1,727.0	1,080,000.0	242,793.6	8.4	278.8	205.6	F-25	F-20, F-16
TM-B5SHT	4 : 1 / 10 : 1	65 / Ø55 (16 X 10)	2,341.5	1,727.0	1,080,000.0	242,793.6	8.4	278.8	205.6	F-25	F-20, F-16
TM-B5SDH	10 : 1 / 25:1	65 / Ø55 (16 X 10)	2,341.5	1,727.0	1,080,000.0	242,793.6	18.4	127.3	93.9	F-25	F-20, F-16
TM-B5SDHT	10 : 1 / 25:1	65 / Ø55 (16 X 10)	2,341.5	1,727.0	1,080,000.0	242,793.6	18.4	127.3	93.9	F-25	F-20, F-16
TM-B5BH	10 : 1	65 / Ø55 (16 X 10)	2,341.5	1,727.0	1,080,000.0	242,793.6	9.0	260.2	191.9	F-25	F-20, F-16
TM-B5HW	4 : 1	65 / Ø55 (16 X 10)	2,341.5	1,727.0	1,080,000.0	242,793.6	3.8	616.2	454.5	F-25	F-20, F-16
TM-B5SHW	10 : 1	65 / Ø55 (16 X 10)	2,341.5	1,727.0	1,080,000.0	242,793.6	8.4	278.8	205.6	F-25	F-20, F-16
TM-B5SDHW	10 : 1 / 25:1	65 / Ø55 (16 X 10)	2,341.5	1,727.0	1,080,000.0	242,793.6	18.4	127.3	93.9	F-25	F-20, F-16
TM-B5BHW	10 : 1	65 / Ø55 (16 X 10)	2,341.5	1,727.0	1,080,000.0	242,793.6	9.0	260.2	191.9	F-25	F-20, F-16
TM-B6	5 : 1	70 / Ø65 (18 x 11)	2,409.0	1,776.8	288,120.0	64,771.9	4.8	501.9	370.2	F-25	-
TM-B6S	12.5 : 1	70 / Ø65 (18 x 11)	2,409.0	1,776.8	288,120.0	64,771.9	10.5	229.4	169.2	F-25	-
TM-B6ST	5 : 1 / 12.5 : 1	70 / Ø65 (18 x 11)	2,409.0	1,776.8	288,120.0	64,771.9	10.5	229.4	169.2	F-25	-
TM-B6SD	12.5 : 1 / 31.3 : 1	70 / Ø65 (18 x 11)	2,409.0	1,776.8	288,120.0	64,771.9	23.0	104.7	77.2	F-25	-
TM-B6SDT	12.5 : 1 / 31.3 : 1	70 / Ø65 (18 x 11)	2,409.0	1,776.8	288,120.0	64,771.9	23.0	104.7	77.2	F-25	-
TM-B6B	15 : 1	70 / Ø65 (18 x 11)	2,409.0	1,776.8	288,120.0	64,771.9	13.5	178.4	131.6	F-25	-
TM-B6W	5 : 1	70 / Ø65 (18 x 11)	2,409.0	1,776.8	288,120.0	64,771.9	4.8	501.9	370.2	F-25	-
TM-B6SW	12.5 : 1	70 / Ø65 (18 x 11)	2,409.0	1,776.8	288,120.0	64,771.9	10.5	229.4	169.2	F-25	-
TM-B6SDW	12.5 : 1 / 31.3 : 1	70 / Ø65 (18 x 11)	2,409.0	1,776.8	288,120.0	64,771.9	23.0	104.7	77.2	F-25	-
TM-B6BW	15 : 1	70 / Ø65 (18 x 11)	2,409.0	1,776.8	288,120.0	64,771.9	13.5	178.4	131.6	F-25	-
TM-B6H	5 : 1	80 / Ø70 (20 X 12)	3,613.5	2,665.2	1,710,000.0	384,423.2	4.8	752.8	555.2	F-30	F-25
TM-B6SH	12.5 : 1	80 / Ø70 (20 X 12)	3,613.5	2,665.2	1,710,000.0	384,423.2	10.5	344.1	253.8	F-30	F-25
TM-B6SHT	5 : 1 / 12.5 : 1	80 / Ø70 (20 X 12)	3,613.5	2,665.2	1,710,000.0	384,423.2	10.5	344.1	253.8	F-30	F-25
TM-B6SDH	12.5 : 1 / 31.3:1	80 / Ø70 (20 X 12)	3,613.5	2,665.2	1,710,000.0	384,423.2	23.0	157.1	115.9	F-30	F-25
TM-B6SDHT	12.5 : 1 / 31.3:1	80 / Ø70 (20 X 12)	3,613.5	2,665.2	1,710,000.0	384,423.2	23.0	157.1	115.9	F-30	F-25
TM-B6BH	15 : 1	80 / Ø70 (20 X 12)	3,613.5	2,665.2	1,710,000.0	384,423.2	13.5	267.7	197.4	F-30	F-25
TM-B6HW	5 : 1	80 / Ø70 (20 X 12)	3,613.5	2,665.2	1,710,000.0	384,423.2	4.8	752.8	555.2	F-30	F-25
TM-B6SHW	12.5 : 1	80 / Ø70 (20 X 12)	3,613.5	2,665.2	1,710,000.0	384,423.2	10.5	344.1	253.8	F-30	F-25
TM-B6SDHW	12.5 : 1 / 31.3:1	80 / Ø70 (20 X 12)	3,613.5	2,665.2	1,710,000.0	384,423.2	23.0	157.1	115.9	F-30	F-25
TM-B6BHW	15 : 1	80 / Ø70 (20 X 12)	3,613.5	2,665.2	1,710,000.0	384,423.2	13.5	267.7	197.4	F-30	F-25
								</			

REMARK

- RATIO IS ADJUSTABLE
- Max Output Torque $\pm 10\%$

TM-B TECHNICAL DATA

TECHNICAL DATA FOR TMG BEVEL GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		MAX. THRUST CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN	
		TW / Ø (KEY)	N .m	Lbf . ft	N	Lbf	(±10%)	N . m	Lbf . ft	Standard	Option
TM-B7	5.5 : 1	84 / Ø80 (22 x 14)	3,734.0	2,754.1	352,800.0	79,312.6	5.2	718.1	529.6	F-30	F-25
TM-B7S	16.5 : 1	84 / Ø80 (22 x 14)	3,734.0	2,754.1	352,800.0	79,312.6	13.8	270.6	199.6	F-30	F-25
TM-B7ST	5.5 : 1 / 16.5 : 1	84 / Ø80 (22 x 14)	3,734.0	2,754.1	352,800.0	79,312.6	13.8	270.6	199.6	F-30	F-25
TM-B7SD	16.5 : 1 / 49.5 : 1	84 / Ø80 (22 x 14)	3,734.0	2,754.1	352,800.0	79,312.6	36.4	102.6	75.7	F-30	F-25
TM-B7SDT	16.5 : 1 / 49.5 : 1	84 / Ø80 (22 x 14)	3,734.0	2,754.1	352,800.0	79,312.6	36.4	102.6	75.7	F-30	F-25
TM-B7B	16.5 : 1	84 / Ø80 (22 x 14)	3,734.0	2,754.1	352,800.0	79,312.6	14.9	250.6	184.8	F-30	F-25
TM-B7W	5.5 : 1	84 / Ø80 (22 x 14)	3,734.0	2,754.1	352,800.0	79,312.6	5.2	718.1	529.6	F-30	F-25
TM-B7SW	16.5 : 1	84 / Ø80 (22 x 14)	3,734.0	2,754.1	352,800.0	79,312.6	13.8	270.6	199.6	F-30	F-25
TM-B7SDW	16.5 : 1 / 49.5 : 1	84 / Ø80 (22 x 14)	3,734.0	2,754.1	352,800.0	79,312.6	36.4	102.6	75.7	F-30	F-25
TM-B7BW	16.5 : 1	84 / Ø80 (22 x 14)	3,734.0	2,754.1	352,800.0	79,312.6	14.9	250.6	184.8	F-30	F-25
TM-B7H	5.5 : 1	95 / Ø82 (22 X 14)	5,601.0	4,131.1	2,450,000.0	550,781.8	5.2	1,077.1	794.4	F-35	F-30
TM-B7SH	16.5 : 1	95 / Ø82 (22 X 14)	5,601.0	4,131.1	2,450,000.0	550,781.8	13.8	405.9	299.4	F-35	F-30
TM-B7SHT	5.5 : 1 / 16.5 : 1	95 / Ø82 (22 X 14)	5,601.0	4,131.1	2,450,000.0	550,781.8	13.8	405.9	299.4	F-35	F-30
TM-B7SDH	16.5 : 1 / 49.5:1	95 / Ø82 (22 X 14)	5,601.0	4,131.1	2,450,000.0	550,781.8	36.4	153.9	113.5	F-35	F-30
TM-B7SDHT	16.5 : 1 / 49.5:1	95 / Ø82 (22 X 14)	5,601.0	4,131.1	2,450,000.0	550,781.8	36.4	153.9	113.5	F-35	F-30
TM-B7BH	16.5 : 1	95 / Ø82 (22 X 14)	5,601.0	4,131.1	2,450,000.0	550,781.8	14.9	375.9	277.2	F-35	F-30
TM-B7HW	5.5 : 1	95 / Ø82 (22 X 14)	5,601.0	4,131.1	2,450,000.0	550,781.8	5.2	1,077.1	794.4	F-35	F-30
TM-B7SHW	16.5 : 1	95 / Ø82 (22 X 14)	5,601.0	4,131.1	2,450,000.0	550,781.8	13.8	405.9	299.4	F-35	F-30
TM-B7SDHW	16.5 : 1 / 49.5:1	95 / Ø82 (22 X 14)	5,601.0	4,131.1	2,450,000.0	550,781.8	36.4	153.9	113.5	F-35	F-30
TM-B7BHW	16.5 : 1	95 / Ø82 (22 X 14)	5,601.0	4,131.1	2,450,000.0	550,781.8	14.9	375.9	277.2	F-35	F-30
TM-B8	6 : 1	95 / Ø90 (22 x 14)	5,568.0	4,106.7	401,800.0	90,328.2	5.7	976.8	720.5	F-35	F-30, F-25
TM-B8S	18 : 1	95 / Ø90 (22 x 14)	5,568.0	4,106.7	401,800.0	90,328.2	15.0	371.2	273.8	F-35	F-30, F-25
TM-B8ST	6 : 1 / 18 : 1	95 / Ø90 (22 x 14)	5,568.0	4,106.7	401,800.0	90,328.2	15.0	371.2	273.8	F-35	F-30, F-25
TM-B8SD	18.0 : 1 / 54 : 1	95 / Ø90 (22 x 14)	5,568.0	4,106.7	401,800.0	90,328.2	39.7	140.3	103.5	F-35	F-30, F-25
TM-B8SDT	18.0 : 1 / 54 : 1	95 / Ø90 (22 x 14)	5,568.0	4,106.7	401,800.0	90,328.2	39.7	140.3	103.5	F-35	F-30, F-25
TM-B8B	21 : 1	95 / Ø90 (22 x 14)	5,568.0	4,106.7	401,800.0	90,328.2	19.0	293.1	216.2	F-35	F-30, F-25
TM-B8W	6 : 1	95 / Ø90 (22 x 14)	5,568.0	4,106.7	401,800.0	90,328.2	5.7	976.8	720.5	F-35	F-30, F-25
TM-B8SW	18.0 : 1	95 / Ø90 (22 x 14)	5,568.0	4,106.7	401,800.0	90,328.2	15.0	371.2	273.8	F-35	F-30, F-25
TM-B8SDW	18.0 : 1 / 54 : 1	95 / Ø90 (22 x 14)	5,568.0	4,106.7	401,800.0	90,328.2	39.7	140.3	103.5	F-35	F-30, F-25
TM-B8BW	21 : 1	95 / Ø90 (22 x 14)	5,568.0	4,106.7	401,800.0	90,328.2	19.0	293.1	216.2	F-35	F-30, F-25
TM-B8H	6 : 1	110 / Ø95 (25 X 14)	8,352.0	6,160.1	2,900,000.0	651,945.8	5.7	1,465.3	1,080.7	F-40	F-35, F-30
TM-B8SH	18.0 : 1	110 / Ø95 (25 X 14)	8,352.0	6,160.1	2,900,000.0	651,945.8	15.0	556.8	410.7	F-40	F-35, F-30
TM-B8SHT	6 : 1 / 18.0 : 1	110 / Ø95 (25 X 14)	8,352.0	6,160.1	2,900,000.0	651,945.8	15.0	556.8	410.7	F-40	F-35, F-30
TM-B8SDH	18.0 : 1 / 54:1	110 / Ø95 (25 X 14)	8,352.0	6,160.1	2,900,000.0	651,945.8	39.7	210.4	155.2	F-40	F-35, F-30
TM-B8SDHT	18.0 : 1 / 54:1	110 / Ø95 (25 X 14)	8,352.0	6,160.1	2,900,000.0	651,945.8	39.7	210.4	155.2	F-40	F-35, F-30
TM-B8BH	21 : 1	110 / Ø95 (25 X 14)	8,352.0	6,160.1	2,900,000.0	651,945.8	19.0	439.6	324.2	F-40	F-35, F-30
TM-B8HW	6 : 1	110 / Ø95 (25 X 14)	8,352.0	6,160.1	2,900,000.0	651,945.8	5.7	1,465.3	1,080.7	F-40	F-35, F-30
TM-B8SHW	18 : 1	110 / Ø95 (25 X 14)	8,352.0	6,160.1	2,900,000.0	651,945.8	15.0	556.8	410.7	F-40	F-35, F-30
TM-B8SDHW	18.0 : 1 / 54:1	110 / Ø95 (25 X 14)	8,352.0	6,160.1	2,900,000.0	651,945.8	39.7	210.4	155.2	F-40	F-35, F-30
TM-B8BHW	21 : 1	110 / Ø95 (25 X 14)	8,352.0	6,160.1	2,900,000.0	651,945.8	19.0	439.6	324.2	F-40	F-35, F-30
								</			

REMARK

- RATIO IS ADJUSTABLE
- Max Output Torque $\pm 10\%$

TM-B TECHNICAL DATA

TECHNICAL DATA FOR TMG BEVEL GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		MAX. THRUST CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN	
		TW / Ø (KEY)	N .m	Lbf - ft	N	Lbf	(±10%)	N .m	Lbf - ft	Standard	Option
TM-B9	6.5 : 1	110 / Ø95 (25 x 14)	7,774.0	5,733.8	509,600.0	114,562.6	6.2	1,253.9	924.8	F-35	F-30
TM-B9S	19.5 : 1	110 / Ø95 (25 x 14)	7,774.0	5,733.8	509,600.0	114,562.6	16.3	476.9	351.7	F-35	F-30
TM-B9ST	6.5 : 1 / 19.5 : 1	110 / Ø95 (25 x 14)	7,774.0	5,733.8	509,600.0	114,562.6	16.3	476.9	351.7	F-35	F-30
TM-B9SD	19.5 : 1 / 58.5 : 1	110 / Ø95 (25 x 14)	7,774.0	5,733.8	509,600.0	114,562.6	43.0	180.8	133.4	F-35	F-30
TM-B9SDT	19.5 : 1 / 58.5 : 1	110 / Ø95 (25 x 14)	7,774.0	5,733.8	509,600.0	114,562.6	43.0	180.8	133.4	F-35	F-30
TM-B9B	26 : 1	110 / Ø95 (25 x 14)	7,774.0	5,733.8	509,600.0	114,562.6	23.5	330.8	244.0	F-35	F-30
TM-B9W	6.5 : 1	110 / Ø95 (25 x 14)	7,774.0	5,733.8	509,600.0	114,562.6	6.2	1,253.9	924.8	F-35	F-30
TM-B9SW	19.5 : 1	110 / Ø95 (25 x 14)	7,774.0	5,733.8	509,600.0	114,562.6	16.3	476.9	351.7	F-35	F-30
TM-B9SDW	19.5 : 1 / 58.5 : 1	110 / Ø95 (25 x 14)	7,774.0	5,733.8	509,600.0	114,562.6	43.0	180.8	133.4	F-35	F-30
TM-B9BW	26 : 1	110 / Ø95 (25 x 14)	7,774.0	5,733.8	509,600.0	114,562.6	23.5	330.8	244.0	F-35	F-30
TM-B9H	6.5 : 1	130 / Ø115 (32 X 18)	11,661.0	8,600.7	3,500,000.0	786,831.2	6.2	1,880.8	1,387.2	F-40	F-35, F-25
TM-B9SH	19.5 : 1	130 / Ø115 (32 X 18)	11,661.0	8,600.7	3,500,000.0	786,831.2	16.3	715.4	527.7	F-40	F-35, F-25
TM-B9SHT	6.5 : 1 / 19.5 : 1	130 / Ø115 (32 X 18)	11,661.0	8,600.7	3,500,000.0	786,831.2	16.3	715.4	527.7	F-40	F-35, F-25
TM-B9SDH	19.5 : 1 / 58.5:1	130 / Ø115 (32 X 18)	11,661.0	8,600.7	3,500,000.0	786,831.2	43.0	271.2	200.0	F-40	F-35, F-25
TM-B9SDHT	19.5 : 1 / 58.5:1	130 / Ø115 (32 X 18)	11,661.0	8,600.7	3,500,000.0	786,831.2	43.0	271.2	200.0	F-40	F-35, F-25
TM-B9BH	26 : 1	130 / Ø115 (32 X 18)	11,661.0	8,600.7	3,500,000.0	786,831.2	23.5	496.2	366.0	F-40	F-35, F-25
TM-B9HW	6.5 : 1	130 / Ø115 (32 X 18)	11,661.0	8,600.7	3,500,000.0	786,831.2	6.2	1,880.8	1,387.2	F-40	F-35, F-25
TM-B9SHW	19.5 : 1	130 / Ø115 (32 X 18)	11,661.0	8,600.7	3,500,000.0	786,831.2	16.3	715.4	527.7	F-40	F-35, F-25
TM-B9SDHW	19.5 : 1 / 58.5:1	130 / Ø115 (32 X 18)	11,661.0	8,600.7	3,500,000.0	786,831.2	43.0	271.2	200.0	F-40	F-35, F-25
TM-B9BHW	26 : 1	130 / Ø115 (32 X 18)	11,661.0	8,600.7	3,500,000.0	786,831.2	23.5	496.2	366.0	F-40	F-35, F-25
TM-B10	7 : 1	125 / Ø110 (28 x 16)	12,653.0	9,332.4	1,107,400.0	248,953.4	6.7	1,888.5	1,392.9	F-40	F-35
TM-B10S	28 : 1	125 / Ø110 (28 x 16)	12,653.0	9,332.4	1,107,400.0	248,953.4	23.4	540.7	398.8	F-40	F-35
TM-B10ST	7 : 1 / 28 : 1	125 / Ø110 (28 x 16)	12,653.0	9,332.4	1,107,400.0	248,953.4	23.4	540.7	398.8	F-40	F-35
TM-B10SD	28 : 1 / 112 : 1	125 / Ø110 (28 x 16)	12,653.0	9,332.4	1,107,400.0	248,953.4	82.4	153.6	113.3	F-40	F-35
TM-B10SDT	28 : 1 / 112 : 1	125 / Ø110 (28 x 16)	12,653.0	9,332.4	1,107,400.0	248,953.4	82.4	153.6	113.3	F-40	F-35
TM-B10B	35 : 1	125 / Ø110 (28 x 16)	12,653.0	9,332.4	1,107,400.0	248,953.4	31.6	400.4	295.3	F-40	F-35

REMARK

- RATIO IS ADJUSTABLE
- Max Output Torque $\pm 10\%$

TM-B TECHNICAL DATA

TECHNICAL DATA FOR TMG BEVEL GEAR

DIM MODEL	GEAR RATIO	ALLOWABLE MAX. STEM	MAX. TORQUE CAPACITY		MAX. THRUST CAPACITY		M.A	MAX. INPUT TORQUE		MOUNT PATTERN	
		TW / Ø (KEY)	N .m	Lbf - ft	N	Lbf	(±10%)	N .m	Lbf - ft	Standard	Option
TM-B11	7.56 : 1	140 / Ø120 (32 x 18)	17,403.0	12,835.8	1,205,400.0	270,984.6	7.2	2,417.1	1,782.8	F-48	F-40, F-35
TM-B11S	30.2 : 1	140 / Ø120 (32 x 18)	17,403.0	12,835.8	1,205,400.0	270,984.6	25.2	690.6	509.4	F-48	F-40, F-35
TM-B11ST	7.56 : 1 / 30.2 : 1	140 / Ø120 (32 x 18)	17,403.0	12,835.8	1,205,400.0	270,984.6	25.2	690.6	509.4	F-48	F-40, F-35
TM-B11SD	30.2 : 1 / 120.9 : 1	140 / Ø120 (32 x 18)	17,403.0	12,835.8	1,205,400.0	270,984.6	89.0	195.5	144.2	F-48	F-40, F-35
TM-B11SDT	30.2 : 1 / 120.9 : 1	140 / Ø120 (32 x 18)	17,403.0	12,835.8	1,205,400.0	270,984.6	89.0	195.5	144.2	F-48	F-40, F-35
TM-B11B	37.8 : 1	140 / Ø120 (32 x 18)	17,403.0	12,835.8	1,205,400.0	270,984.6	34.1	510.4	376.5	F-48	F-40, F-35
TM-B11W	7.56 : 1	140 / Ø120 (32 x 18)	17,403.0	12,835.8	1,205,400.0	270,984.6	7.2	2,417.1	1,782.8	F-48	F-40, F-35
TM-B11SW	30.2 : 1	140 / Ø120 (32 x 18)	17,403.0	12,835.8	1,205,400.0	270,984.6	25.2	690.6	509.4	F-48	F-40, F-35
TM-B11SDW	30.2 : 1 / 120.9 : 1	140 / Ø120 (32 x 18)	17,403.0	12,835.8	1,205,400.0	270,984.6	89.0	195.5	144.2	F-48	F-40, F-35
TM-B11BW	37.8 : 1	140 / Ø120 (32 x 18)	17,403.0	12,835.8	1,205,400.0	270,984.6	34.1	510.4	376.5	F-48	F-40, F-35
TM-B11H	7.56 : 1	170 / Ø150 (40 X 22)	26,104.5	19,253.7	5,200,000.0	1,169,006.3	7.2	3,625.6	2,674.1	F-48	-
TM-B11SH	30.2 : 1	170 / Ø150 (40 X 22)	26,104.5	19,253.7	5,200,000.0	1,169,006.3	25.2	1,035.9	764.0	F-48	-
TM-B11SHT	7.56 : 1 / 30.2 : 1	170 / Ø150 (40 X 22)	26,104.5	19,253.7	5,200,000.0	1,169,006.3	25.2	1,035.9	764.0	F-48	-
TM-B11SDH	30.2 : 1 / 120.9:1	170 / Ø150 (40 X 22)	26,104.5	19,253.7	5,200,000.0	1,169,006.3	89.0	293.3	216.3	F-48	-
TM-B11SDHT	30.2 : 1 / 120.9:1	170 / Ø150 (40 X 22)	26,104.5	19,253.7	5,200,000.0	1,169,006.3	89.0	293.3	216.3	F-48	-
TM-B11BH	37.8 : 1	170 / Ø150 (40 X 22)	26,104.5	19,253.7	5,200,000.0	1,169,006.3	34.1	765.5	564.6	F-48	-
TM-B11HW	7.56 : 1	170 / Ø150 (40 X 22)	26,104.5	19,253.7	5,200,000.0	1,169,006.3	7.2	3,625.6	2,674.1	F-48	-
TM-B11SHW	30.2 : 1	170 / Ø150 (40 X 22)	26,104.5	19,253.7	5,200,000.0	1,169,006.3	25.2	1,035.9	764.0	F-48	-
TM-B11SDHW	30.2 : 1 / 120.9:1	170 / Ø150 (40 X 22)	26,104.5	19,253.7	5,200,000.0	1,169,006.3	89.0	293.3	216.3	F-48	-
TM-B11BHW	37.8 : 1	170 / Ø150 (40 X 22)	26,104.5	19,253.7	5,200,000.0	1,169,006.3	34.1	765.5	564.6	F-48	-
TM-B12	8 : 1	160 / Ø145 (36 x 20)	25,791.0	19,022.5	1,950,200.0	438,422.3	7.6	3,393.6	2,503.0	F-48	-
TM-B12S	40 : 1	160 / Ø145 (36 x 20)	25,791.0	19,022.5	1,950,200.0	438,422.3	33.4	772.2	569.5	F-48	-
TM-B12ST	8 : 1 / 40 : 1	160 / Ø145 (36 x 20)	25,791.0	19,022.5	1,950,200.0	438,422.3	33.4	772.2	569.5	F-48	-
TM-B12SD	40 : 1 / 200 : 1	160 / Ø145 (36 x 20)	25,791.0	19,022.5	1,950,200.0	438,422.3	147.1	175.3	129.3	F-48	-
TM-B12SDT	40 : 1 / 200 : 1	160 / Ø145 (36 x 20)	25,791.0	19,022.5	1,950,200.0	438,422.3	147.1	175.3	129.3	F-48	-
TM-B12B	44 : 1	160 / Ø145 (36 x 20)	25,791.0	19,022.5	1,950,200.0	438,422.3	39.7	649.6	479.1	F-48	-
TM-B12W	8 : 1	160 / Ø145 (36 x 20)	25,791.0	19,022.5	1,950,200.0	438,422.3	7.6	3,393.6	2,503.0	F-48	-
TM-B12SW	40 : 1	160 / Ø145 (36 x 20)	25,791.0	19,022.5	1,950,200.0	438,422.3	33.4	772.2	569.5	F-48	-
TM-B12SDW	40 : 1 / 200 : 1	160 / Ø145 (36 x 20)	25,791.0	19,022.5	1,950,200.0	438,422.3	147.1	175.3	129.3	F-48	-
TM-B12BW	44 : 1	160 / Ø145 (36 x 20)	25,791.0	19,022.5	1,950,200.0	438,422.3	39.7	649.6	479.1	F-48	-
TM-B12H	8 : 1	215 / Ø185 (45 X 25)	38,686.5	28,533.7	7,650,000.0	1,719,788.1	7.6	5,090.3	3,754.4	F-60	-
TM-B12SH	40 : 1	215 / Ø185 (45 X 25)	38,686.5	28,533.7	7,650,000.0	1,719,788.1	33.4	1,158.3	854.3	F-60	-
TM-B12SHT	8 : 1 / 40 : 1	215 / Ø185 (45 X 25)	38,686.5	28,533.7	7,650,000.0	1,719,788.1	33.4	1,158.3	854.3	F-60	-
TM-B12SDH	40 : 1 / 200:1	215 / Ø185 (45 X 25)	38,686.5	28,533.7	7,650,000.0	1,719,788.1	147.1	263.0	194.0	F-60	-
TM-B12SDHT	40 : 1 / 200:1	215 / Ø185 (45 X 25)	38,686.5	28,533.7	7,650,000.0	1,719,788.1	147.1	263.0	194.0	F-60	-
TM-B12BH	44 : 1	215 / Ø185 (45 X 25)	38,686.5	28,533.7	7,650,000.0	1,719,788.1	39.7	974.5	718.8	F-60	-
TM-B12HW	8 : 1	215 / Ø185 (45 X 25)	38,686.5	28,533.7	7,650,000.0	1,719,788.1	7.6	5,090.3	3,754.4	F-60	-
TM-B12SHW	40 : 1	215 / Ø185 (45 X 25)	38,686.5	28,533.7	7,650,000.0	1,719,788.1	33.4	1,158.3	854.3	F-60	-
TM-B12SDHW	40 : 1 / 200:1	215 / Ø185 (45 X 25)	38,686.5	28,533.7	7,650,000.0	1,719,788.1	147.1	263.0	194.0	F-60	-
TM-B12BHW	44 : 1	215 / Ø185 (45 X 25)	38,686.5	28,533.7	7,650,000.0	1,719,788.1	39.7	974.5	718.8	F-60	-

REMARK

- RATIO IS ADJUSTABLE
- Max Output Torque $\pm 10\%$

TM-B TECHNICAL DATA

TECHNICAL DATA FOR TMG BEVEL GEAR

[illegible]**REMARK**

- RATIO IS ADJUSTABLE
- Max Output Torque $\pm 10\%$

TM-SPUR GEAR TECHNICAL DATA

TECHNICAL DATA FOR TMG SPUR GEAR

DIM MODEL	RATIO	MAX. TORQUE CAPACITY		MAX. THRUST CAPACITY		M.A	MAX. INPUT TORQUE		BORE DIAMETER (STEM MAX.)			MOUNT PATTERN
		N . m	Lbf - ft	N	Lbf	(±10%)	N . m	Lbf - ft	Ø	KEY	TW	Standard
TM-V10	10 : 1	1000	737.5	127000	28550	7.7	129.1	95.2	46	14x9	54	F-16
	9 : 1					7.0	143.5	105.8				
	8 : 1					6.2	161.4	119.0				
	7 : 1					5.4	184.5	136.1				
	6 : 1					4.6	215.2	158.7				
	5 : 1					3.9	258.3	190.5				
	4 : 1					3.1	322.8	238.1				
	3 : 1					2.3	430.4	317.5				
TM-V15	10 : 1	1550	1143.2	141120	31725.04	7.7	200.2	147.6	55	16x10	55	F-20
	9 : 1					7.0	222.4	164.0				
	8 : 1					6.2	250.2	184.5				
	7 : 1					5.4	285.9	210.9				
	6 : 1					4.6	333.6	246.0				
	5 : 1					3.9	400.3	295.2				
	4 : 1					3.1	500.4	369.1				
	3 : 1					2.3	667.2	492.1				
TM-V30	10 : 1	2980	2197.9	280120	62973	7.7	384.8	283.8	60	18x11	70	F-25
	9 : 1					7.0	427.6	315.4				
	8 : 1					6.2	481.0	354.8				
	7 : 1					5.4	549.7	405.5				
	6 : 1					4.6	641.4	473.0				
	5 : 1					3.9	769.6	567.6				
	4 : 1					3.1	962.0	709.5				
	3 : 1					2.3	1282.7	946.1				
TM-V45	10 : 1	5530	4078.7	400000	89923	7.7	714.1	526.7	72	22x14	84	F-30
	9 : 1					7.0	793.4	585.2				
	8 : 1					6.2	892.6	658.4				
	7 : 1					5.4	1020.1	752.4				
	6 : 1					4.6	1190.2	877.8				
	5 : 1					3.9	1428.2	1053.4				
	4 : 1					3.1	1785.3	1316.7				
	3 : 1					2.3	2380.3	1755.6				
TM-V60	12 : 1	11000	8113.2	1500000	337213.4	9.3	1183.7	873.1	110	28x16	125	F-40
	11 : 1					8.5	1291.3	952.4				
	10 : 1					7.7	1420.5	1047.7				
	9 : 1					7.0	1578.3	1164.1				
	8 : 1					6.2	1775.6	1309.6				
	7 : 1					5.4	2029.2	1496.7				
	6 : 1					4.6	2367.4	1746.1				
	5 : 1					3.9	2840.9	2095.4				
	4 : 1					3.1	3551.1	2619.2				
	3 : 1					2.3	4734.8	3492.3				

REMARK

- RATIO IS ADJUSTABLE
- Max Output Torque ±10%

TM-SPUR GEAR TECHNICAL DATA

TECHNICAL DATA FOR TMG SPUR GEAR

[illegible]**REMARK**

- RATIO IS ADJUSTABLE
- Max Output Torque $\pm 10\%$

TMG KOREA CERTIFICATION



CE-ATEX FOR WORM GEAR BOX



CE-ATEX FOR BEVEL GEAR BOX



CE-ATEX FOR DECLUTCH



WORM GEAR BOX FOR ACTUATOR



BEVEL GEAR BOX FOR ACTUATOR



UNDERWRITERS LABORATORIES INC



CERTIFICATE OF PATENT



CERTIFICATE OF PATENT

PARTICIPATION IN EXHIBITIONS

HUSTON EXPO 2017

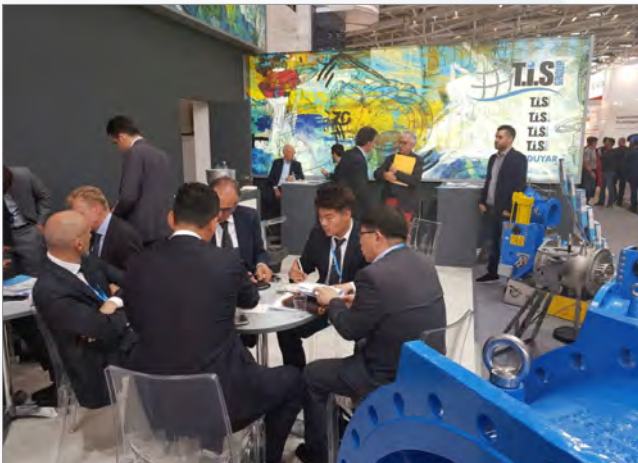
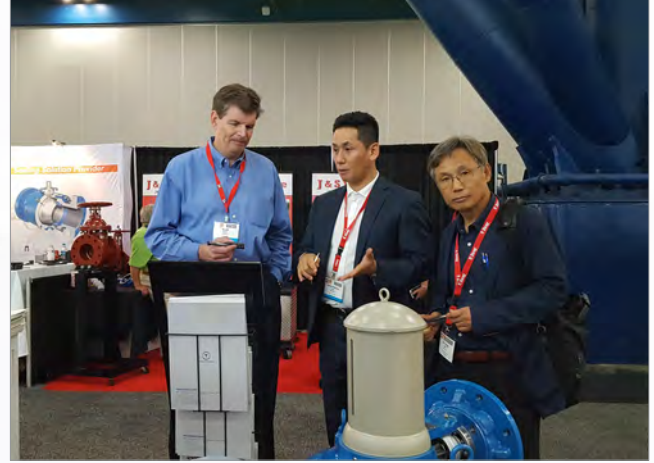


HUSTON EXPO 2018



VALVE WORLD EXPO 2022





***TMG**, We've Been Manufacturing With Industrial Gear Operators, Bevel, Worm,
Spur And Specialty Products For Us With Automated Valves & Whatever User Want.*



TEL. +82-51)832-1551 | FAX. +82-51)832-1552

99, HWAJEON SANDAN 2-RO, GANGSEO-GU, BUSAN, KOREA

