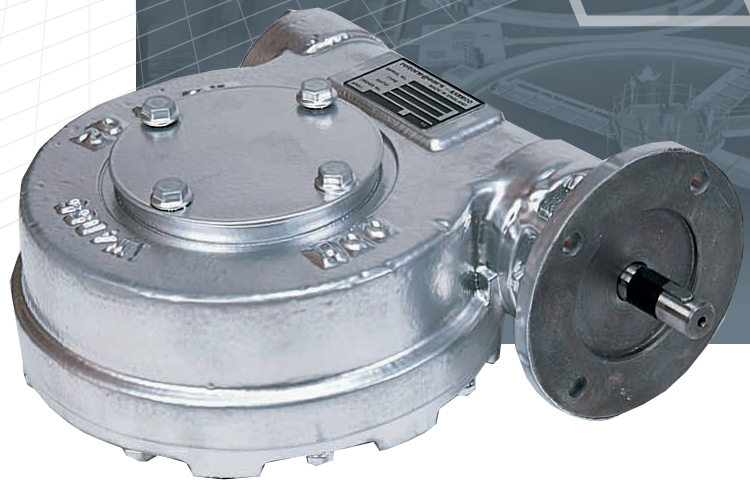


rotork®

Gears

MTW Series

Multi-Turn Worm Gearbox



MTW Multi-Turn Worm Gear Series

MTW range multi-turn worm gear operators are designed to suit valves, dampers and gates requiring irreversibility which is provided by worm gears.

MTW range can be used for multi-turn or part-turn with a travelling nut for operation other than 90 degrees. They feature a full 360 degree output gear without stops which means they are ideally suited for applications where the high ratio of a worm gear is desired but multiple turns are needed.

Typical applications include dampers and river gates. A wide selection of sizes with output torques going up to 162,000 Nm and ratios up to 5760:1 means they are also ideally suited for large high pressure valves where the thrust is taken within the valve.

Features

- Hardened and ground worm shaft.
- Aluminium bronze worm wheel.
- Special grease.
- Totally enclosed gearing.
- Grease filled for life & fully sealed.
- Removable output sleeve.
- Finished with grey primer.

Environmental Specification

- Enclosure: IP67 standard, IP68 optional.
- Temperature: -10 °C to 120 °C.

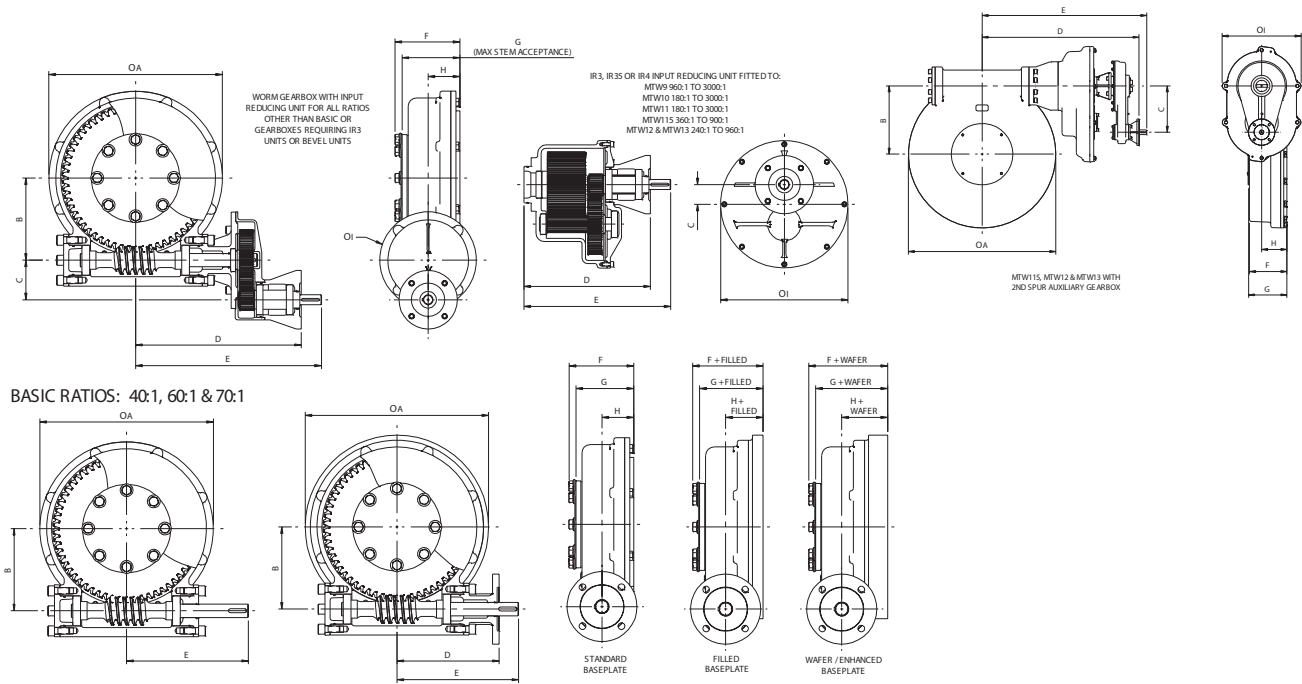
Options

- All types of environment.
- Submersible, buried service, marinised.
- ATEX.
- Limit Switches.
- Lever Arms.
- Flexible Extensions.
- Travel nut.
- Low temperature to -60 °C.

Redefining Flow Control

rotork® Gears

MTW Dimensions



Gearbox	Ratio	ØA	B	C	D	E	F	G	H	ØI	Weight (Kg)
MTW3	40,70	170	76		118	158	86	73	45		11
MTW4	40,70	218	102		142	182	106	93	50		22
MTW4	80,120,140,160,210,280	218	102	64	269	320	106	93	50	190	30
MTW4	200,240,350,420	218	102	96	291	342	106	93	50	248	35
MTW5	40,70	285	136		186	236	134	120	65		45
MTW5	80,120,140,160,210,280	285	136	64	313	364	134	120	65	190	53
MTW5	200,240,350,420	285	136	96	335	386	134	120	65	248	58
MTW6	70	375	178		186, 196 for F10/FA10	236	147	130	70		68
MTW6	140,210,280	375	178	64	313	364	147	130	70	190	79
MTW6	350,420	375	178	96	342	393	147	130	70	248	84
MTW7	60	450	210		270	329	181	160	87		120
MTW7	120,180,240,360	450	210	119	460	521	181	160	87	290	152
MTW7	480,540,720	450	210	179	469	530	181	160	87	408	162
MTW8	60	520	246		306	365	194	170	95		180
MTW8	120,180,240,360	520	246	119	496	557	194	170	95	290	212
MTW8	480,540,720	520	246	179	505	566	194	170	95	408	222
MTW9	60	596	279		371	481	206	182	100		220
MTW9	180,240,360,540,720	596	279	179	568	631	206	182	100	408	262
MTW9	960,1080,1440,2160,2347,2520,2940	596	279	59	605	666	206	182	100	382	290
MTW10	60	735	343		397	507	222	200	110		330
MTW10	180,240,360,540,720,960,1080,1440,2160,2347,2520,2940	735	343	59	631	692	222	200	110	382	408
MTW11	60	795	381		414	524	222	200	110		520
MTW11	180,240,360,540,720,960,1080,1440,2160,2347,2520,2940	795	381	59	648	709	222	200	110	382	570
MTW12	60	972	450		460	610	252	246	166		1050
MTW12	240,360,480,610,720,960,1290,1530,1820,2040,2490,2880,3640,3940,4320,5760	972	450	450	851	1039	252	246	166	520	1360
MTW13	60	972	450		460	610	252	246	166		1050
MTW13	240,360,480,610,720,960,1290,1530,1820,2040,2490,2880,3640,3940,4320,5760	972	450	450	851	1039	252	246	166	520	1360

All dimensions in millimetres.

Redefining Flow Control

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Material specification for MTW Multi-turn Worm Gearbox

Component	Material	UK Standard
Gearcase (MTW3 to MTW8)	Cast Iron	BS1452 grade 250
Gearcase (MTW9 - MTW13)	SG Iron	BS2789 grade 420/12
Baseplate	Cast Iron	BS1452 grade 250
End cap	Cast Iron or Steel	BS1452 grade 250 or BS970 grade 070M20
Actuator Flange	Cast Iron or SG Iron	BS1561 EN-GJL-250 or BS1563 EN-GJS-400-15
Indicator Plate	Steel	BS970 grade 070M20
Wormwheel	Aluminium Bronze	BS1400 grade AB2
Wormshaft	Steel	BS970 grade 045M10
O Rings	Synthetic Rubber	
Fixing Screws	HT Steel	BS3692 and BS4168
Worm Shaft Bearings	Angular Contact Ball Bearings	
Output Sleeve (MTW3 to MTW5)	Steel	BS970 grade 070M20
Output Sleeve (MTW6 to MTW9)	Steel	BS970 grade 080M40
Output Sleeve (MTW10 to MTW11)	Steel	BS970 grade 070M55
Grease	Renolit Eplith 00	

Mounting Options

Gearbox	Max Bore Rectangle Key BS4235	Max Square Bore AF	ISO Flange Standard Baseplate	ISO Flange Filled Baseplate	ISO Flange Wafer Baseplate	Filled Baseplate Thickness	Wafer Baseplate Thickness
MTW3	45.0	36.0	F10 - F12	F14	F10 - F12 - F14 - F16	12	26
MTW4	64.0	51.0	F12- F14	-	F12 - F14 - F16	-	25
MTW5	76.0	62.0	F14 - F16	F14 - F16 - F25	F16 - F25	10	36
MTW6	102.0	83.3	F16 - F25	F16 - F25 - F30	F16 - F30	0	23
MTW7	136.0	108.8	F25 - F30	F25 - F30	F25 - F30 - F35	10	31
MTW8	157.0	122.9	F25 - F30 - F35	F25 - F30 - F35	F40 - F48	0	38
MTW9	178.0	132.1	F30 - F35 - F40	F30 - F35 - F40	F48	0	27
MTW10	203.0	152.6	F35 - F40	F35 - F40 - F48	F40 - F48 - F60	0	32
MTW11	203.0	142.0	F30 - F35- F40 - F48	F40 - F48 - F60	-	0	-
MTW12	305.0	229.0	F40 - F48 - F60	-	-	-	-
MTW13	305.0	229.0	F40 - F48 - F60	-	-	-	-

Note: Because of the company's policy of continuous improvement, Rotork Gears reserves the right to change specification details without prior notice.

