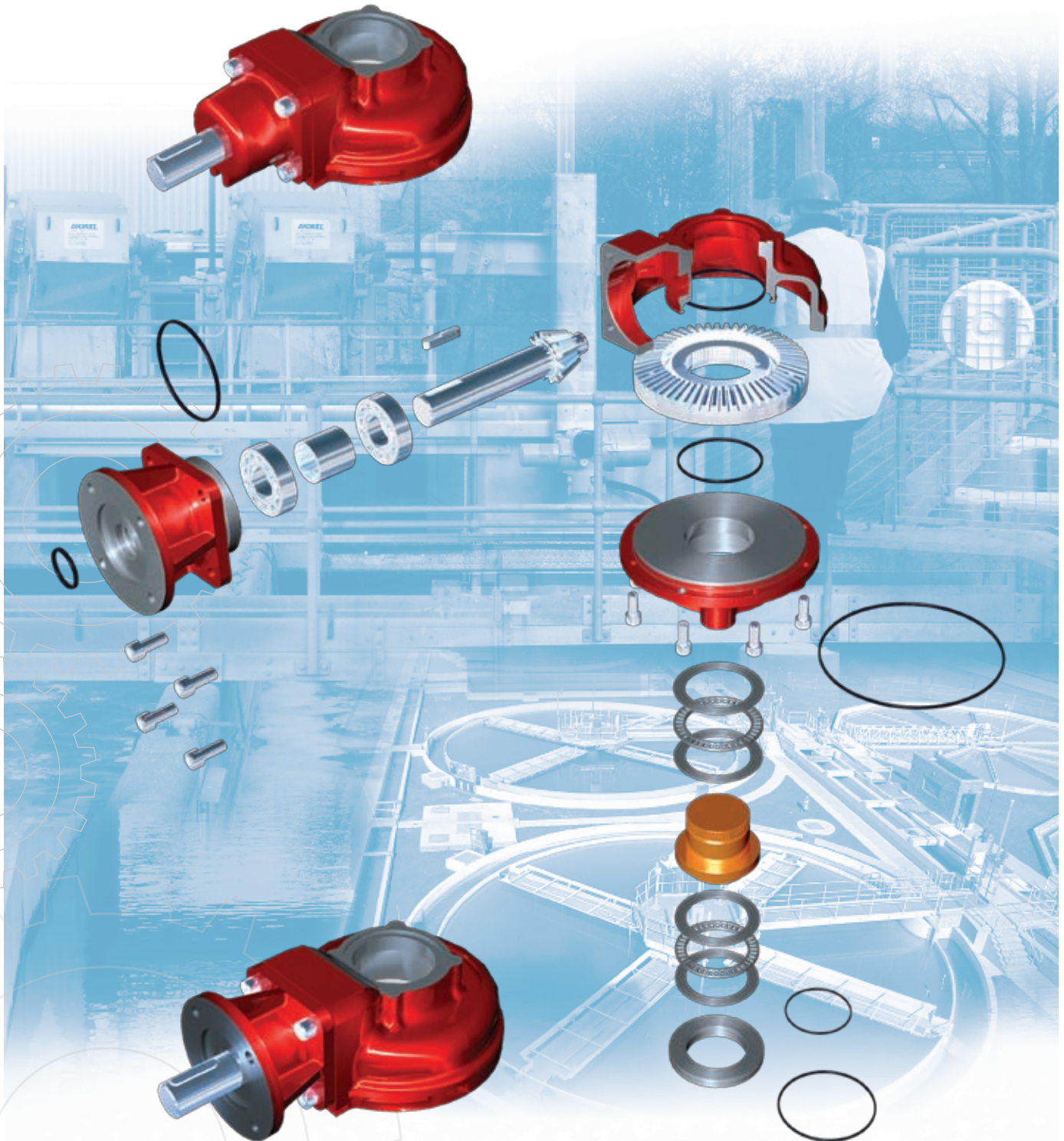


IB Multi-turn Gearbox Series

rotork[®]
Gears



Cast Iron Housing Gearboxes - IB Multi-turn Gear Series

IB Gearbox Series

IB Multi-turn Gearbox Series

Description

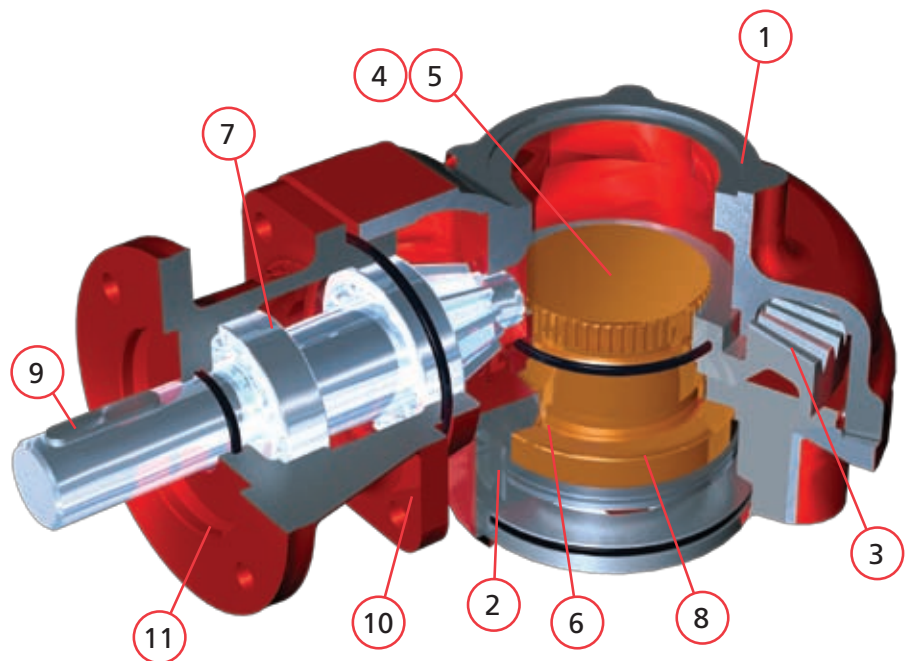
The IB Series of multi-turn operators has been designed with customer stocking in mind, and features a removable output sleeve to facilitate spindle machining.

Operating temperature normally ranges from -40 °C to 120 °C, although other temperature ranges are available on request.

Standard input (for actuation) and output flanges are to ISO 5211. However, equivalent standards such as MSS and DIN can be supplied.

Application

Rotork Gears series IB operators are Multi-turn devices intended for the operation of gate, globe, sluice and penstock valves. These gearboxes are suitable for manual and motorised applications.



Material specification for Rotork Gear IB series of BEVEL Gear Valve Operators.

Features

- Totally enclosed gearing
- Grease filled for life & fully sealed
- Comprehensive gear ratios
- Removable output sleeve
- Spur and bevel combinations available
- Input gear mounted on ball bearings

Options

- Through input shafts
- Auxiliary spur / bevel input reducers
- Input flanges for motorisation
- Two speed spur input reducers
- High & low temperatures
- Padlockable handwheels
- Nuclear
- IP68
- Buried duty
- Raw sewage

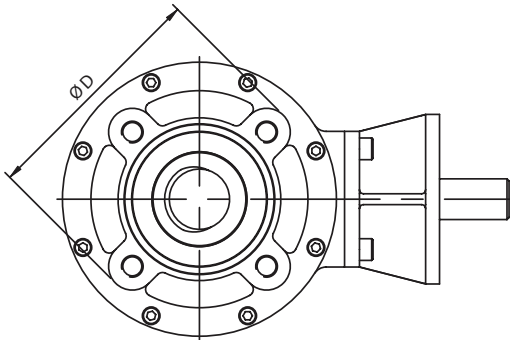
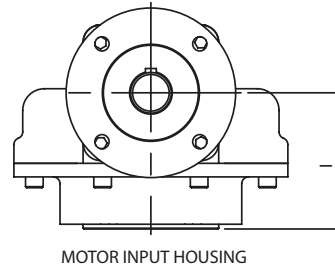
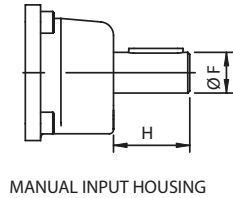
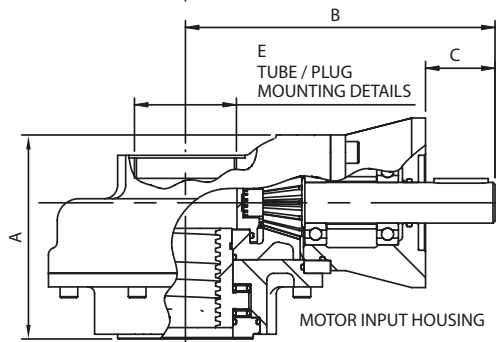
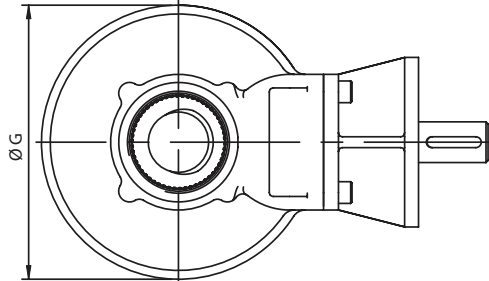
No.	Description	Material	UK Standard	USA Standard	DIN Standard
1	Gearcase	Cast Iron	BS1561 EN-GJL-250	ASTM A48 35B/40B	GG-25
2	Baseplate	SG Iron	BS1561 EN-GJS-450-10	ASTM A536 65-45-12	GGG-40
3	Gears	SG Iron Steel	BS1563 EN-GJS-700-2 BS970 605M36T	AISI/SAE 1010 or 4340	GGG-70
4	Output Sleeve A1	Steel	BS970 070M20	ASIS/SAE 1023	
5	Output Sleeve A2	Aluminium Bronze	BS1400 AB2	ASTM B505 C95800	
6	Seals	Nitrile Rubber			
7	Input Shaft bearings	Ball Bearings			
8	Output Thrust Bearings	Needle Roller Bearings (with the exception of output size 14 which has Roller Thrust Bearings).			
9	Input Shaft	Steel	BS970 605M36T BS970 817M40T	AISI/SAE 4340	42 MnMo 7 40NiCrMo 8 - 4
10	Fasteners	Steel	BS3692 & BS4168		
11	Input Housing	Cast Iron	BS1561 EN-GJL-250	ASTM A48 35B/40B	GG-25
	Grease	Renolit CL-X2			
	Finish	PE3 Grey Primer (other finishes available on request)			

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

Gearbox IB Series

Input Flange Details

INPUT	FLANGE DIA. & THICKNESS	SHAFT DIA.	KEY DETAILS
F10 & FA10	Ø125 x 10	Ø20.00 - 0.05	6 x 6 x 40
F14 & FA14	Ø175 x 15	Ø30.00 - 0.05	8 x 7 x 40
F16 & FA16	Ø210 x 20	Ø40.00 - 0.05	12 x 8 x 55
F25 & FA25	Ø300 x 20	Ø50.00 - 0.05	14 x 9 x 55



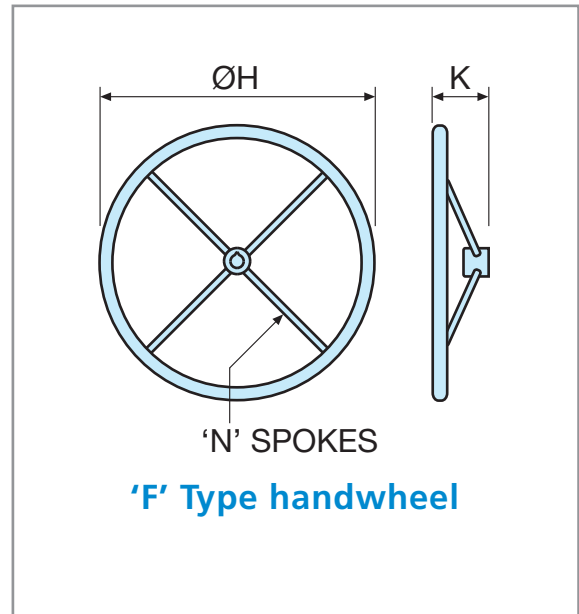
Gearbox	Max Bore Rectangular Key BS4235	Max Acme Thread (Inch)	Max Acme Thread (mm)	Weight (Kg)
IB2	40.0	1 3/4"	45	21
IB3	52.0	2 1/8"	55	25
IB4	40.0	1 3/4"	45	16
IB5	52.0	2 1/8"	55	20
IB6	52.0	2 1/8"	55	28
IB7	68.0	2 3/4"	73	35
IB8	68.0	2 3/4"	73	55
IB9	76.0	3 3/8"	86	70
IB10	76.0	3 3/8"	86	105
IB11	96.0	3 7/8"	100	125
IB12	96.0	3 7/8"	100	172
IB13	121.0	5"	127	200
IB14	130.0	5 7/8"	150	343

Gearbox	Ratio	A	B	C	ØD	E	ØF -0.05	ØG	H	I	Input Options	Output Options
IB2	1:1	187	228	51	125	2.5" BSP or NPT	30	202	56	107	F10 & F14	F07 / F10
IB3	1:1	210	228	51	125	2.5" BSP or NPT	30	202	56	130	F10 & F14	F14
IB4	2, 3, 4 & 6:1	124	228	51	125	2.5" BSP or NPT	30	202	56	74	F10 & F14	F10
IB5	2, 3, 4 & 6:1	147	228	51	175	2.5" BSP or NPT	30	202	56	97	F10 & F14	F14
IB6	3, 4 & 6:1	152	251	51	175	3.5" BSP or NPT	30	260	56	102	F10 & F14	F14
IB7	3, 4 & 6:1	170	251	51	210	3.5" BSP or NPT	30	260	56	120	F10 & F14	F16
IB8	3, 4 & 6:1	191	332	60	210	4" BSP or NPT	30	320	65	130	F14, F16 & F25	F16
IB9	3, 4 & 6:1	197	332	60	300	4" BSP or NPT	30	320	65	136	F14 & F16	F25
IB10	4 & 6:1	216	377	60	300	5" BSP or NPT	30	412	65	155	F14, F16 & F25	F25
IB11	4 & 6:1	237	377	60	350	5" BSP or NPT	30	412	65	176	F14, F16 & F25	F30
IB12	6 & 8:1	238	432	60	350		50	520	65	176	F14, F16 & F25	F30
IB13	6 & 8:1	254	432	60	410		50	520	65	192	F14, F16 & F25	F35
IB14	6 & 8:1	366	432	60	476		50	520	65	304	F14, F16 & F25	F40

All dimensions in millimetres.

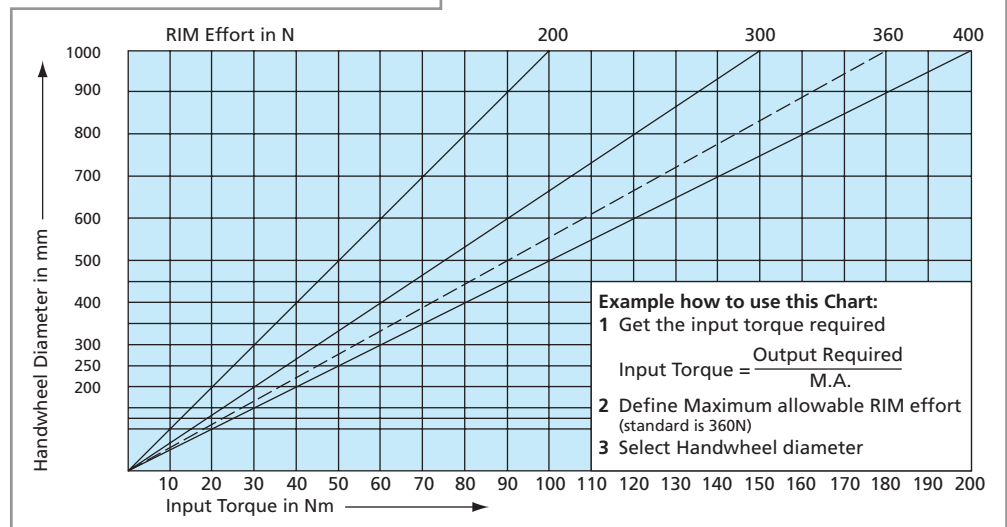
Gearbox Selection Chart

Gearbox	Nominal Ratio	Manual Output Torque (Nm)	Max Manual Thrust (KN)	Motorised Output Torque (Nm)	Max Motorised Thrust (KN)	Mechanical Advantage		
IB2	1	380	54	306	53	0.85		
IB3	1	380	178	306	177	0.85		
IB4	2	380	54	306	53	1.70		
IB4	3	4	850	54	678	53	2.55	3.40
IB4	6	680	54	542	53	5.10		
IB5	2	380	178	306	177	1.70		
IB5	3	4	850	178	678	177	2.55	3.40
IB5	6	680	178	542	177	5.10		
IB6	3	4	1700	178	1355	177	2.55	3.40
IB6	6	1355	178	1084	177	5.10		
IB7	3	4	1700	356	1355	266	2.55	3.40
IB7	6	1355	356	1084	266	5.10		
IB8	3	4	2550	356	2033	266	2.55	3.40
IB8	6	2033	356	1627	266	5.10		
IB9	3	4	2550	445	2033	355	2.55	3.40
IB9	6	2033	445	1627	355	5.10		
IB10	4	6	5423	445	4067	355	3.40	5.10
IB11	4	6	5423	670	4067	500	3.40	5.10
IB12	6	8	10846	670	8135	500	5.10	6.80
IB13	6	8	10846	1112	8135	834	5.10	6.80
IB14	6	8	10846	1557	8135	1320	5.10	6.80



Dimensions

Type	ØH	K	N
F200	200	75.5	3
F300	300	100.5	3
F400	400	100.5	4
F500	500	100.5	4
F600	600	100.5	4
F700	700	100.5	6
F800	800	100.5	6
F900	900	100.5	6
F1000	1000	100.5	6
F1100	1100	100.5	6
F1200	1200	100.5	8



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