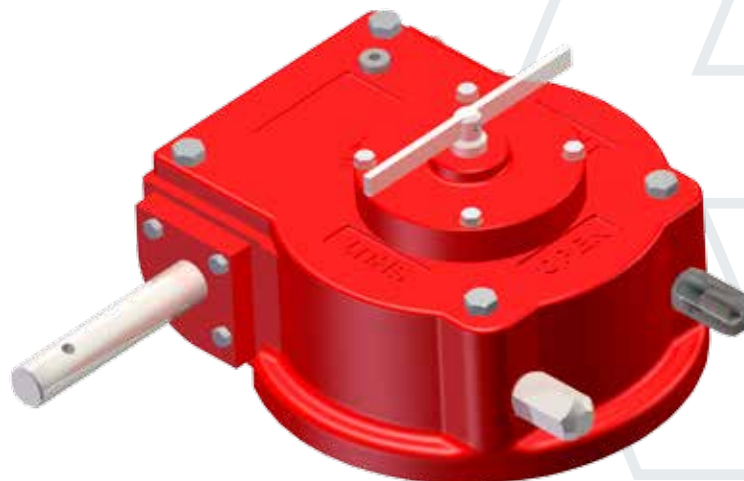


# rotork®

## Gears



## AB-CS PR Quarter-turn

Continuously Submerged and  
Corrosive Duty Gearboxes

### AB-CS PR Quarter-turn Gear Series

The Rotork Gears Series 'AB-CS PR' quarter-turn gear operators are rugged, industrial grade products designed to be continuously submerged in both clean and corrosive media.

All models in this series feature stainless steel 316 position indicators, input shafts and stop bolts covers. They also include a dual o ring protection. These gear operators are well suited for applications in chemical, power, waterworks, HVAC and most general industrial applications.

#### Application

Rotork Gears series 'AB-CS PR' operators are quarter-turn devices intended for the operation of ball, plug and butterfly valves as well as power and process dampers.

The handwheels are available in a variety of sizes for smooth and easy operation.

#### Features

- Cast iron housing
- 15 models up to 32.000 Nm (283.224 lbf.in.) output
- Rugged construction
- Axial needle bearings
- Stroke: 0 - 90° (± 5° adjustable)
- Dual O ring seals on quadrant
- Dual G plate seals
- Stainless steel 316 dual O ring position indicator
- All threads sealed with loctite 572
- 90% grease fill
- Primer painted

#### Environmental Specification

- Enclosure: IP68 water tight for continuous submergence to a depth of 20 metres
- Temperature: -40 to +120 °C (-40 to +250 °F)

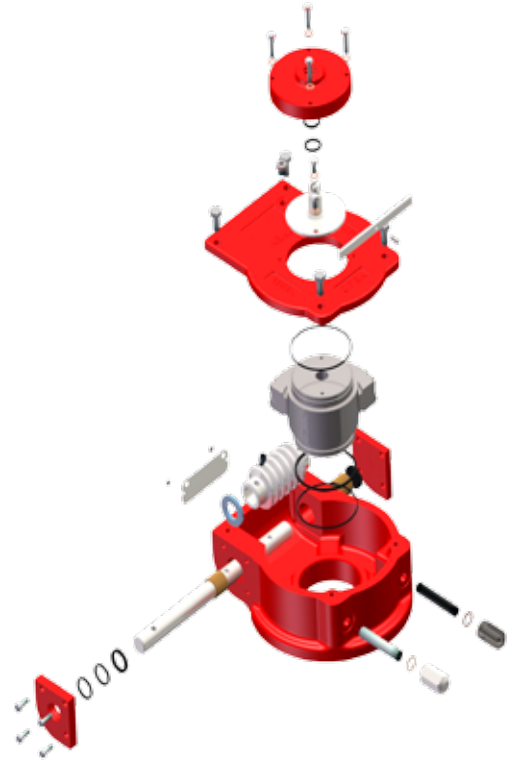
#### Options

- Padlockable Flange
- Limit switches
- High Temperature to +200 °C
- Low Temperature to -60 °C
- Chainwheels
- Flexible Extensions
- Various protective paints
- Grease Zerk and relief fittings

## AB-CS PR Quarter-turn

Type	Ratio	Torque Nm (lbf.in)		M.A. ±15%	Max.Stem Height (mm)	Weight Kg (lbs)
		Output	Input			
AB210	37 : 1	330 (2921)	28 (252)	11.6	54	4 (8) / *6 (12)
AB215	37 : 1	500 (4425)	43 (381)	11.6	54	4 (8) / *6 (12)
AB550	34 : 1	1000 (8851)	83 (738)	12	79	9 (19) / *12 (25)
AB880	38 : 1	2000 (17702)	152 (1341)	13.2	82	14 (31) / *17 (38)
AB1250	55 : 1	3250 (28765)	171 (1514)	19	91	22 (49) / *28 (61)
AB1950	52 : 1	5500 (48679)	289 (2562)	19	111 /*114	32 (71) / *45 (99)
AB2000	109 : 1	4500 (39828)	136 (1207)	33	111	24 (53) / *27 (60)
AB1950/PR4	217 : 1	7000 (61955)	106 (939)	66	111 /*114	39 (85) / *52 (115)
AB3000/PR4	243 : 1	9000 (79657)	111 (983)	81	121 /*123	49 (108) / *55.7 (123)
AB3000/PR6	348 : 1	11000 (97358)	104 (918)	106	121 /*123	51 (112) / *57 (126)
AB6800/PR4	326 : 1	12500 (110634)	130 (1152)	96	121 /*142	62.5 (138) / *92.5 (204)
AB6800/PR6	468 : 1	17000 (150463)	121 (1075)	140	121 /*142	64.2 (142) / *94.2 (208)
A200/PR10	729 : 1	26000 (230120)	124 (1096)	210	165	134.4 (296)
A250/PR10	729 : 1	32000 (283224)	142 (1259)	225	169	219.4 (484)

\*Dimensions if the large base housing is used.  
The static safety factor is 1.5.  
The published M.A. is achieved after a few cycles.



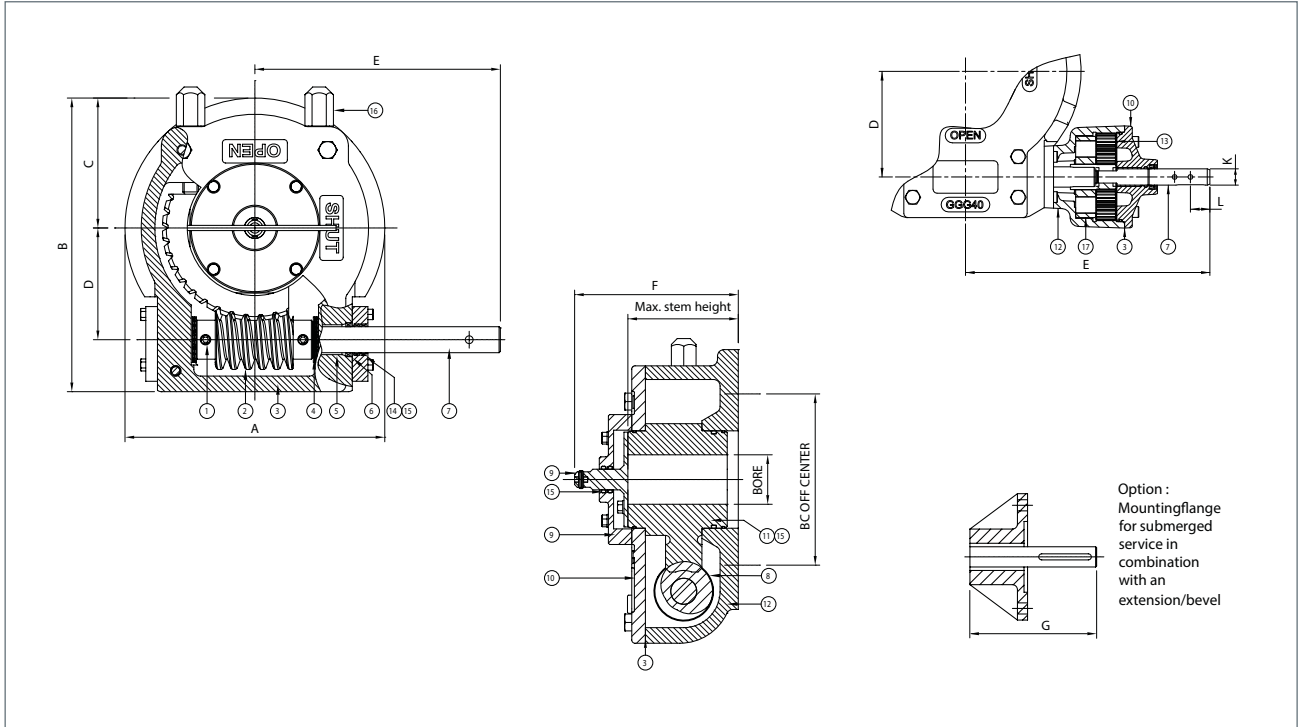
### Material specification for Rotork AB-CS PR Quarter-turn Gear Series

No.	Description	Material	Notes
1	Set-screw	Carbon Steel	DIN915 / grade 12.9
2	Worm	Carbon Steel	C45 / AISI1045
3	Seal	Liquid seal	-
4	Needle-Bearing	AXK-AS	Hardened Steel
5	Bushing	E40	EGB
6	Oil-seal	Nitrile	NBR70
7	Shaft	Stainless Steel 316	AISI316 / For PR the material is F53 Super Duplex
8	Grease	Renolit CLX2	-
9	Position indicator	Stainless Steel 316	AISI316
10	Coverplate	Cast Iron	GG25 / ASTM A48-40
11	Quadrant	Ductile Iron	GGG40 / ASTM D60-40-18
11A	Quadrant 215CS	Ductile Iron	GGG50 / ASTM D70-50-05
12	Body	Cast Iron	GG25 / ASTM A48-40
13	Gear	Carbon Steel	C45 / AISI1045
14	G-plate	Carbon Steel	C45 / AISI1045
15	Seals / O-rings	Nitrile	NBR 70
16	W-nuts	Stainless Steel 316	AISI316
17	Carrier	Steel	EN8 / GB/T 699 GRADE 45

Ductile Iron housing available as option.

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

## Gearbox AB-CS PR Series



Type	A	B	C	D	E	F	G	ØK	L	Valve Connection BC acc. ISO 5211	Bore Max.	Max. Square Bore AF
AB210	102 (4,02)	127,5 (5,02)	48 (1,89)	52 (2,05)	159 (6,26)	94 (3,70)	146 (5,75)	15 (0,59)	14 (0,55)	F05-F07-F10	30 (1,18)	24 (0,94)
AB210 LB	150 (5,91)	155 (6,10)	75 (2,95)	52 (2,05)	159 (6,26)	94 (3,70)	NP	15 (0,59)	14 (0,55)	F12	30 (1,18)	24 (0,94)
AB215	102 (4,02)	127,5 (5,02)	48 (1,89)	52 (2,05)	159 (6,26)	94 (3,70)	146 (5,75)	15 (0,59)	14 (0,55)	F05-F07-F10	30 (1,18)	24 (0,94)
AB215 LB	150 (5,91)	155 (6,10)	75 (2,95)	52 (2,05)	159 (6,26)	94 (3,70)	NP	15 (0,59)	14 (0,55)	F12	30 (1,18)	24 (0,94)
AB550	138 (5,43)	174 (6,85)	69 (2,72)	71 (2,80)	201 (7,91)	118 (4,65)	170 (6,69)	20 (0,79)	24 (0,95)	F07-F10-F12-F14	45 (1,77)	38 (1,50)
AB550 LB	210 (8,27)	174 (6,85)	69 (2,72)	71 (2,80)	201 (7,91)	118 (4,65)	NP	20 (0,79)	24 (0,95)	F16	45 (1,77)	38 (1,50)
AB880	200 (7,87)	226 (8,90)	100 (3,94)	86 (3,39)	189 (7,44)	122 (4,80)	182 (7,17)	20 (0,79)	24 (0,95)	F10-F12-F14-F16	60 (2,36)	46 (1,81)
AB880 LB	260 (10,24)	256 (10,07)	130 (5,11)	86 (3,39)	189 (7,44)	122 (4,80)	NP	20 (0,79)	24 (0,95)	PCD 220 8 x M16	60 (2,36)	46 (1,81)
AB1250	220 (8,66)	258 (10,16)	110 (4,33)	104,5 (4,11)	230 (9,06)	134 (5,28)	200 (7,87)	20 (0,79)	24 (0,95)	F10-F12-F14-F16	65 (2,56)	50 (1,97)
AB1250 LB	285 (11,22)	291 (11,44)	143 (5,61)	104,5 (4,11)	230 (9,06)	134 (5,28)	NP	20 (0,79)	24 (0,95)	F25	65 (2,56)	50 (1,97)
AB1950	285 (11,22)	322,5 (12,70)	142,5 (5,61)	130 (5,12)	275 (10,83)	156 (6,14)	204 (8,03)	25 (0,98)	28 (1,10)	F12-F14-F16-F25	80 (3,15)	60 (2,36)
AB1950 LB	350 (13,8)	355 (14)	175 (6,9)	130 (5,12)	275 (10,83)	159 (6,26)	232 (9,13)	25 (0,98)	28 (1,10)	F30	80 (3,15)	60 (2,36)
AB2000	214 (8,44)	255 (10,04)	106 (4,17)	53 (2,09)	232 (9,13)	TBA	-	20 (0,79)	24 (0,95)	F12-F14-F16	80 (3,15)	60 (2,36)
AB2000 LB	285 (11,22)	293 (11,54)	142 (5,59)	53 (2,09)	232 (9,13)	TBA	232 (9,13)	20 (0,79)	24 (0,95)	F16-F25	80 (3,15)	60 (2,36)
AB1950/PR4	285 (11,22)	322,5 (12,70)	142,5 (5,61)	130 (5,12)	301 (11,85)	156 (6,14)	301 (11,85)	20 (0,79)	24 (0,95)	F12-F14-F16-F25	80 (3,15)	60 (2,36)
AB1950LB/PR4	350 (13,8)	355 (14)	175 (6,9)	130 (5,12)	329 (12,95)	159 (6,26)	329 (12,95)	20 (0,79)	24 (0,95)	F30	80 (3,15)	60 (2,36)
AB3000/PR4	293 (11,52)	337 (13,25)	142 (5,58)	140 (5,51)	314 (12,36)	170 (6,69)	314 (12,36)	20 (0,79)	24 (0,95)	F16-F25	100 (3,94)	75 (2,95)
AB3000LB/PR4	351 (13,81)	372 (14,66)	175 (6,89)	140 (5,51)	314 (12,38)	172 (6,77)	314 (12,38)	20 (0,79)	24 (0,95)	F30	100 (3,94)	75 (2,95)
AB3000/PR6	293 (11,52)	337 (13,25)	142 (5,58)	140 (5,51)	314 (12,36)	170 (6,69)	314 (12,36)	20 (0,79)	24 (0,95)	F16-F25	100 (3,94)	75 (2,95)
AB3000LB/PR6	351 (13,81)	372 (14,66)	175 (6,89)	140 (5,51)	314 (12,38)	172 (6,77)	314 (12,38)	20 (0,79)	24 (0,95)	F30	100 (3,94)	75 (2,95)
AB6800/PR4	370 (14,57)	407 (16)	170 (6,69)	182 (7,17)	354 (13,94)	176 (6,93)	354 (13,94)	20 (0,79)	24 (0,95)	F16-F25-F30	100 (3,94)	75 (2,95)
AB6800BB/PR4	370 (14,57)	407 (16)	170 (6,69)	182 (7,17)	354 (13,94)	159 (6,26)	354 (13,94)	20 (0,79)	24 (0,95)	F25-F30	120 (4,56)	90 (3,56)
AB6800LB/PR4	415 (16,34)	445 (17,52)	207,5 (8,17)	182 (7,17)	354 (13,94)	195 (7,68)	354 (13,94)	20 (0,79)	24 (0,95)	F35	100 (3,94)	75 (2,95)
AB6800BBLB/PR4	415 (16,34)	445 (17,52)	207,5 (8,17)	182 (7,17)	354 (13,94)	193 (7,60)	354 (13,94)	20 (0,79)	24 (0,95)	F35	120 (4,56)	90 (3,56)
AB6800/PR6	370 (14,57)	407 (16)	170 (6,69)	182 (7,17)	354 (13,94)	176 (6,93)	354 (13,94)	20 (0,79)	24 (0,95)	F16-F25-F30	100 (3,94)	75 (2,95)
AB6800BB/PR6	370 (14,57)	407 (16)	170 (6,69)	182 (7,17)	354 (13,94)	159 (6,26)	354 (13,94)	20 (0,79)	24 (0,95)	F25-F30	120 (4,56)	90 (3,56)
AB6800LB/PR6	415 (16,34)	445 (17,52)	207,5 (8,17)	182 (7,17)	354 (13,94)	195 (7,68)	354 (13,94)	20 (0,79)	24 (0,95)	F35	100 (3,94)	75 (2,95)
AB6800BBLB/PR6	415 (16,34)	445 (17,52)	207,5 (8,17)	182 (7,17)	354 (13,94)	193 (7,60)	354 (13,94)	20 (0,79)	24 (0,95)	F35	120 (4,56)	90 (3,56)
A200/PR10	440 (17,32)	492 (19,35)	207,5 (8,17)	209 (8,22)	374,5 (14,74)	210 (8,27)	374,5 (14,74)	20 (0,79)	24 (0,95)	F25-F30-F35	160 (6,29)	115 (4,52)
A250/PR10	510 (20,08)	585 (23)	235 (9,25)	256 (10,08)	414,5 (16,32)	214 (8,43)	414,5 (16,32)	20 (0,79)	24 (0,95)	F25-F30-F35-F40	160 (6,29)	115 (4,52)

LB is large base housing. BB is Big Bore. NP means not possible with large base housing. FA Valve connection available. All dimensions in millimetres (inches).

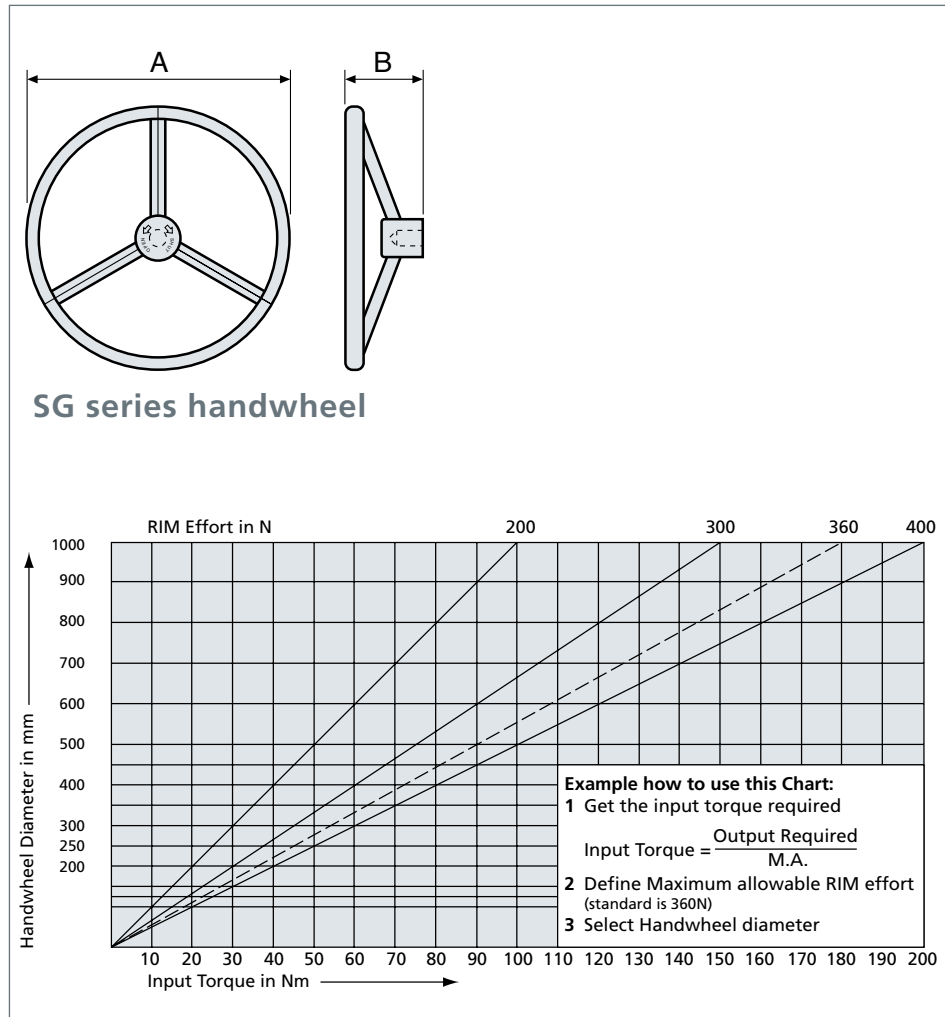
Keeping the World Flowing

Continuously Submerged and  
Corrosive Duty Gearboxes

## Handwheel Selection Chart

### Input Torque

Type	M.A. ± 15%
AB210	11.6
AB215	11.6
AB550	12
AB880	13.2
AB1250	19
AB1950	19
AB2000	33
AB1950/PR4	66
AB3000/PR4	81
AB3000/PR6	106
AB6800/PR4	96
AB6800/PR6	140
A200/PR10	210
A250/PR10	225



### Dimensions

Type	A	B
SG200	Ø200 (8")	80 (3,15")
SG250	Ø250 (10")	110 (4,33")
SG300	Ø300 (12")	115 (4,53")
SG350	Ø350 (14")	120 (4,72")
SG400	Ø400 (16")	130 (5,12")
SG450	Ø450 (18")	150 (5,91")
SG500	Ø500 (20")	150 (5,91")
SG600	Ø600 (24")	150 (5,91")
SG700	Ø700 (28")	150 (5,91")
SG800	Ø800 (32")	150 (5,91")
SG900	Ø900 (36")	160 (6,30")
SG1000	Ø1000 (40")	160 (6,30")

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