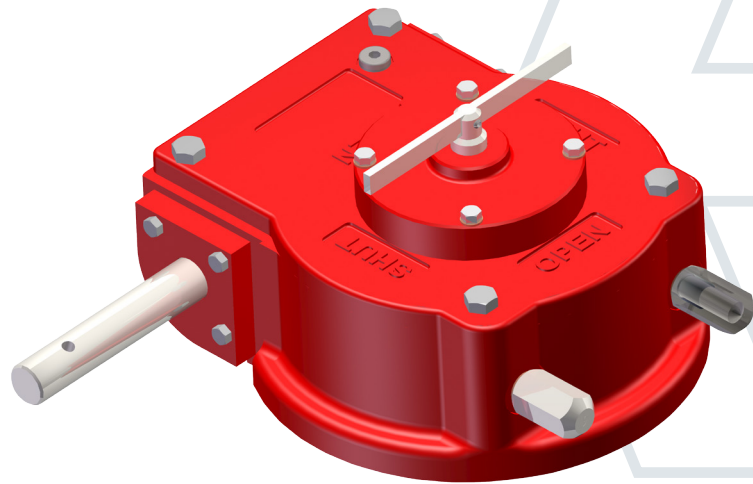


# rotork®

## 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 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 66 feet
- Temperature: -40 to +250 °F

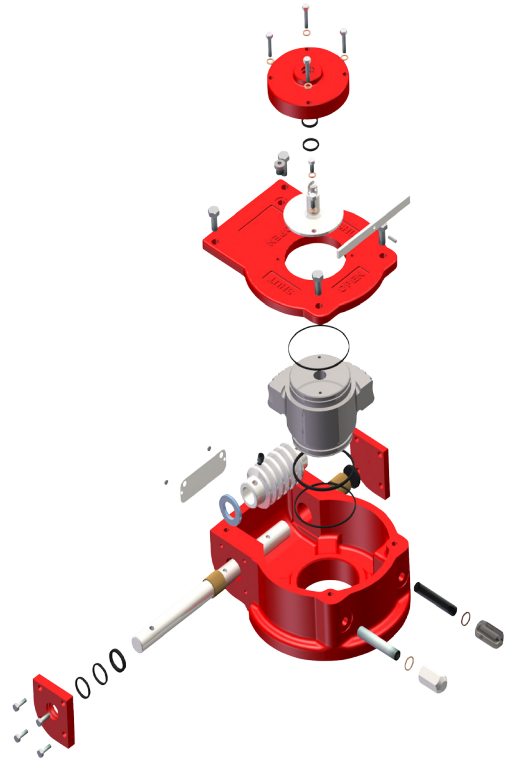
#### Options

- Padlockable Flange
- Limit switches
- High Temperature to +392 °F
- Low Temperature to -76 °F
- Chainwheels
- Flexible Extensions
- Various protective paints
- Grease Zerk and relief fittings

## AB-CS PR Quarter-turn

Type	Ratio	Torque (lbf.in)		M.A. ±15%	Max.Stem Height (in)	Weight (lbs)
		Output	Input			
AB210	37 : 1	2921	252	11.6	2.13	8 / *12
AB215	37 : 1	4425	381	11.6	2.13	8 / *12
AB550	34 : 1	8851	738	12	3.11	19 / *25
AB880	38 : 1	17702	1341	13.2	3.23	31 / *38
AB1250	55 : 1	28765	1514	19	3.58	49 / *61
AB1950	52 : 1	48679	2562	19	4.37 /*4.48	71 / *99
AB2000	109 : 1	39828	1207	33	4.37	53 / *60
AB1950/PR4	217 : 1	61955	939	66	4.37 /*4.48	85 / *115
AB3000/PR4	243 : 1	79657	983	81	4.76 /*4.84	108 / *123
AB3000/PR6	348 : 1	97358	918	106	4.76 /*4.84	112 / *126
AB6800/PR4	326 : 1	110634	1152	96	4.76 /*5.59	138 / *204
AB6800/PR6	468 : 1	150463	1075	140	4.76 /*5.59	142 / *208
A200/PR10	729 : 1	230120	1096	210	6.49	296
A250/PR10	729 : 1	283224	1259	225	6.65	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.



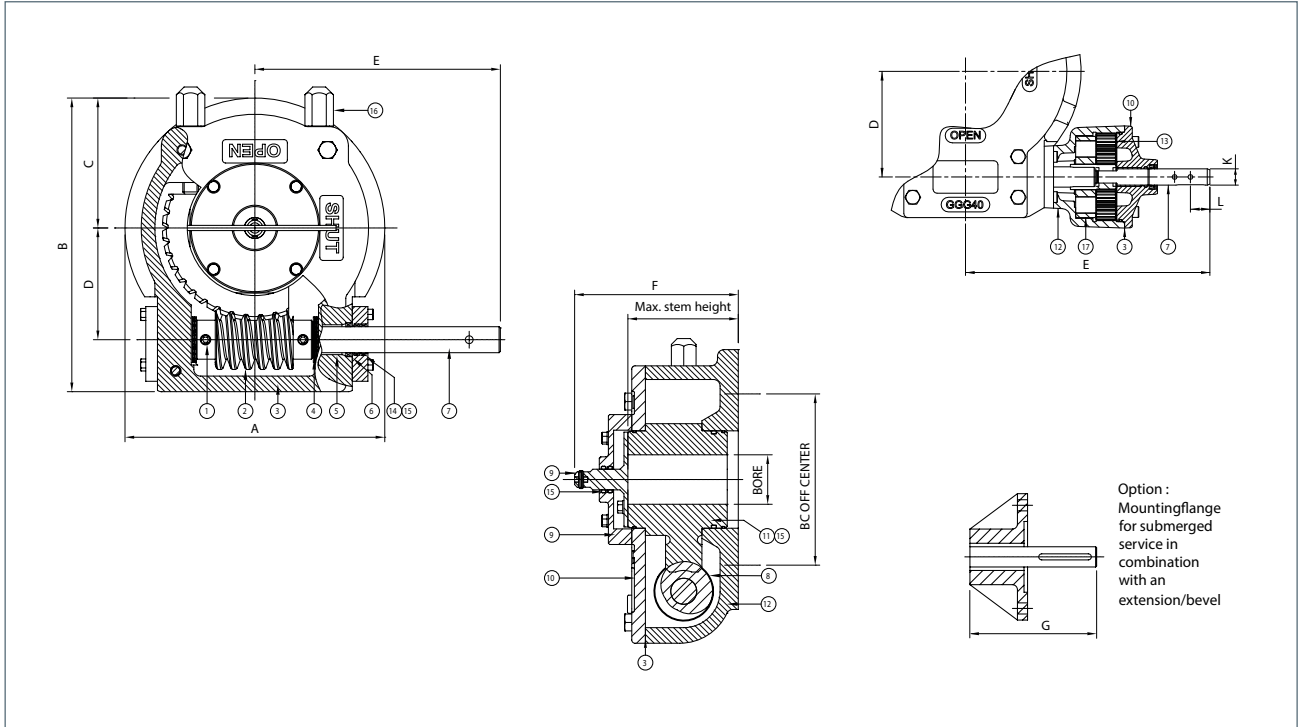
### Material specification for Rotork AB-CS PR Quarter-turn Gear Series

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	Bore Max.	Max. Square Bore AF
AB210	4,02	5,02	1,89	2,05	6,26	3,70	5,75	0,59	0,55	FA05-FA07-FA10	1,18	0,94
AB210 LB	5,91	6,10	2,95	2,05	6,26	3,70	NP	0,59	0,55	FA12	1,18	0,94
AB215	4,02	5,02	1,89	2,05	6,26	3,70	5,75	0,59	0,55	FA05-FA07-FA10	1,18	0,94
AB215 LB	5,91	6,10	2,95	2,05	6,26	3,70	NP	0,59	0,55	FA12	1,18	0,94
AB550	5,43	6,85	2,72	2,80	7,91	4,65	6,69	0,79	0,95	FA07-FA10-FA12-FA14	1,77	1,50
AB550 LB	8,27	6,85	2,72	2,80	7,91	4,65	NP	0,79	0,95	FA16	1,77	1,50
AB880	7,87	8,90	3,94	3,39	7,44	4,80	7,17	0,79	0,95	FA10-FA12-FA14-FA16	2,36	1,81
AB880 LB	10,24	10,07	5,11	3,39	7,44	4,80	NP	0,79	0,95	PCD 220 8 x M16	2,36	1,81
AB1250	8,66	10,16	4,33	4,11	9,06	5,28	7,87	0,79	0,95	FA10-FA12-FA14-FA16	2,56	1,97
AB1250 LB	11,22	11,44	5,61	4,11	9,06	5,28	NP	0,79	0,95	FA25	2,56	1,97
AB1950	11,22	12,70	5,61	5,12	10,83	6,14	8,03	0,98	1,10	FA12-FA14-FA16-FA25	3,15	2,36
AB1950 LB	13,8	14	6,9	5,12	10,83	6,26	9,13	0,98	1,10	FA30	3,15	2,36
AB2000	8,44	10,04	4,17	2,09	9,13	TBA	-	0,79	0,95	FA12-FA14-FA16	3,15	2,36
AB2000 LB	11,22	11,54	5,59	2,09	9,13	TBA	9,13	0,79	0,95	FA16-FA25	3,15	2,36
AB1950/PR4	11,22	12,70	5,6	5,12	11,85	6,14	11,85	0,79	0,95	FA12-FA14-FA16-FA25	3,15	2,36
AB1950LB/PR4	13,8	14	6,9	5,12	12,95	6,26	12,95	0,79	0,95	FA30	3,15	2,36
AB3000/PR4	11,52	13,25	5,58	5,51	12,36	6,69	12,36	0,79	0,95	FA16-FA25	3,94	2,95
AB3000LB/PR4	13,81	14,66	6,89	5,51	12,38	6,77	12,38	0,79	0,95	FA30	3,94	2,95
AB3000/PR6	11,52	13,25	5,58	5,51	12,36	6,69	12,36	0,79	0,95	FA16-FA25	3,94	2,95
AB3000LB/PR6	13,81	14,66	6,89	5,51	12,38	6,77	12,38	0,79	0,95	FA30	3,94	2,95
AB6800/PR4	14,57	16	6,69	7,17	13,94	6,93	13,94	0,79	0,95	FA16-FA25-FA30	3,94	2,95
AB6800BB/PR4	14,57	16	6,69	7,17	13,94	6,26	13,94	0,79	0,95	FA25-FA30	4,56	3,56
AB6800LB/PR4	16,34	17,52	8,17	7,17	13,94	7,68	13,94	0,79	0,95	FA35	3,94	2,95
AB6800BBLB/PR4	16,34	17,52	8,17	7,17	13,94	7,60	13,94	0,79	0,95	FA35	4,56	3,56
AB6800/PR6	14,57	16	6,69	7,17	13,94	6,93	13,94	0,79	0,95	FA16-FA25-FA30	3,94	2,95
AB6800BB/PR6	14,57	16	6,69	7,17	13,94	6,26	13,94	0,79	0,95	FA25-FA30	4,56	3,56
AB6800LB/PR6	16,34	17,52	8,17	7,17	13,94	7,68	13,94	0,79	0,95	FA35	3,94	2,95
AB6800BBLB/PR6	16,34	17,52	8,17	7,17	13,94	7,60	13,94	0,79	0,95	FA35	4,56	3,56
A200/PR10	17,32	19,35	8,17	8,22	14,74	8,27	14,74	0,79	0,95	FA25-FA30-FA35	6,29	4,52
A250/PR10	20,08	23	9,25	10,08	16,32	8,43	16,32	0,79	0,95	FA25-FA30-FA35-FA40	6,29	4,52

LB is large base housing. BB is Big Bore. NP means not possible with large base housing. All dimensions in inches.

Keeping the World Flowing

Continuously Submerged and  
Corrosive Duty Gearboxes

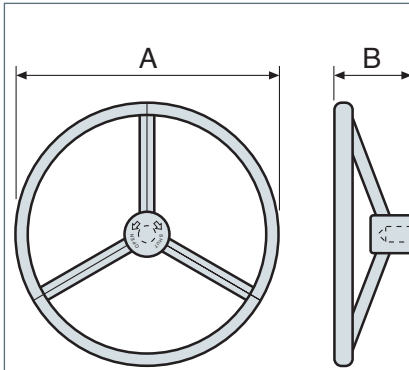
## Handwheel Selection Chart

### Input Torque

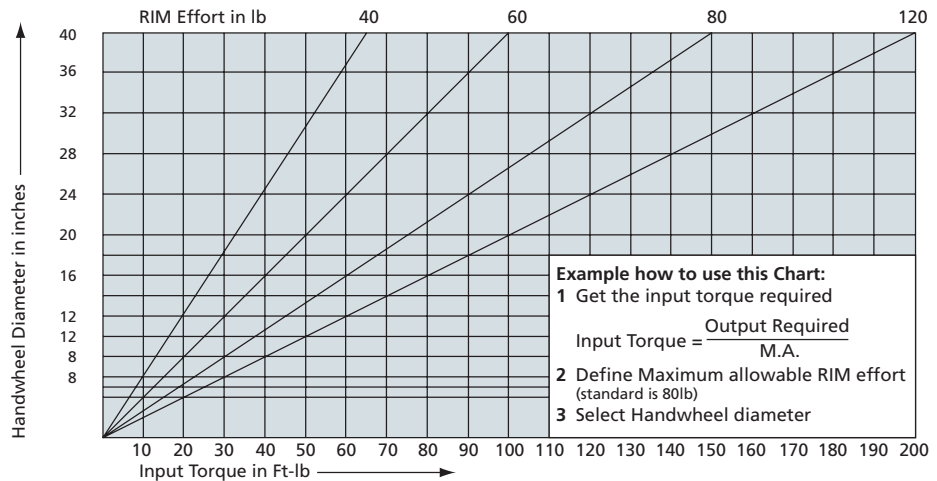
Type	M.A. ± 15%
AB210	11.6
AB215	11.6
AB550	12
AB880	13.2
AB1250	19
AB1950	19
AB2000	33
AB1950/PR4	66
AB3000/PR4	81
AB3000/PR6	106
AB6800/PR4	96
AB6800/PR6	140
A200/PR10	210
A250/PR10	225

### Dimensions

Type	A	B
SG200	Ø8"	3,15"
SG250	Ø10"	4,33"
SG300	Ø12"	4,53"
SG350	Ø14"	4,72"
SG400	Ø16"	5,12"
SG450	Ø18"	5,91"
SG500	Ø20"	5,91"
SG600	Ø24"	5,91"
SG700	Ø28"	5,91"
SG800	Ø32"	5,91"
SG900	Ø36"	6,30"
SG1000	Ø40"	6,30"



SG series handwheel



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