

rotork®

Gears



AB-SS Quarter-turn Gear Series

The Rotork Gears Series 'AB-SS' quarter-turn gear operators are designed to withstand the harsh and highly corrosive challenges such as marine and chemical environments. All models in this series feature 316 grade stainless steel housing with a special dynamic sealing arrangement on the critical rotating position indicator. These gear operators are well suited for most industrial applications in chemical, cryogenic, power, O&G and waterworks.

Application

Rotork Gears series 'AB-SS' operators are quarter-turn devices intended for the operation of ball, plug and butterfly valves as well as power and process dampers. Stainless steel 316 handwheels are available in a variety of sizes for smooth and easy operation.

AB-SS

Stainless Steel Housing Gearboxes

Features

- Stainless steel SS316 housing
- Stainless steel SS316 input shaft
- Stainless steel SS316 stop bolt covers
- Stainless steel SS316 fasteners
- 11 models up to 26,000 Nm (230,119 lbf.in.) output
- Rugged construction
- Axial needle bearings
- Stroke: 0 - 90° ($\pm 5^\circ$ adjustable)

Options

- Padlockable flange
- Limit switches
- High temperature to +200 °C
- Low temperature to -60 °C
- Chainwheels
- Flexible extensions
- Firesafe to ISO 10497
- Bronze quadrant

Environmental Specification

- Enclosure: Sealed to IP68 for submerged applications up to depth 1 metre for 72 hours according to EN60529:1991/14.2.8
- Temperature: -40 to +120 °C (-40 to +250 °F)

AB-SS Series

Type	Ratio :1	Torque Nm (lbf.inch)		M.A. ±15%	Max stem height (mm)	Weight kg (lb)
		Output	Input			
AB210	37	330 (2921)	28.5 (252)	11.6	54	4 (8)
AB215	37	500 (4425)	43 (381)	11.6	54	4 (8)
AB550	34	1000 (8851)	83 (738)	12	79	10.5 (22.5)
AB880	38	2000 (17701)	152 (1341)	13.2	82	16 (35)
AB1250	55	3250 (28765)	171 (1514)	19	91	23 (51)
AB1950	52	5500 (48679)	289 (2562)	19	111	33.5 (74)
AB1950/PR4	217	7000 (61955)	106 (939)	66	111	42.2 (93)
AB6800	78	8400 (74346)	305 (2704)	27.5	121	60.5 (134)
AB6800/PR4	326	12500 (110634)	130 (1152)	96	121	77.2 (170)
AB6800/PR6	468	17000 (150463)	121 (1075)	140	121	78.9 (173.5)
A200/PR10	729	26000 (230120)	124 (1096)	210	165	157.4 (346)

The static safety factor is 1.5.

The published M.A. is achieved after a few cycles.

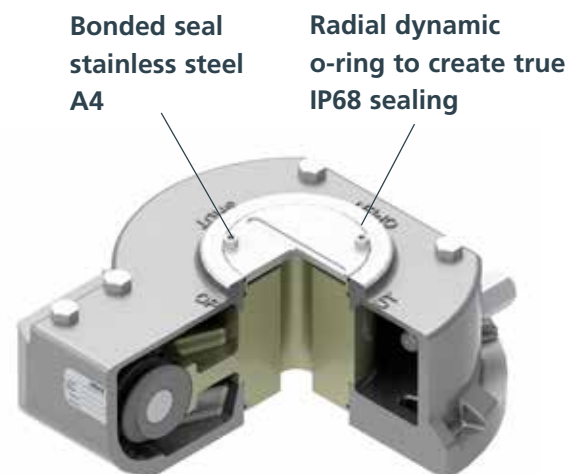
Type	Maximum dimensions (insert)						
	ØM	ØN	O	P	ØQ	R	S
AB210	32.15 (1.27)	20 (0.79)	25.6 (1.01)	6 (0.24)	22.2 (0.87)	17 (0.67)	17 (0.67)
AB215	32.15 (1.27)	20 (0.79)	25.6 (1.01)	6 (0.24)	22.2 (0.87)	17 (0.67)	17 (0.67)
AB550	45.3 (1.78)	30 (1.18)	36.6 (1.44)	8 (0.31)	36.2 (1.43)	27 (1.06)	27 (1.06)
AB880	60 (2.36)	44 (1.73)	50.6 (1.99)	12 (0.47)	48.2 (1.90)	36 (1.42)	36 (1.42)
AB1250	60 (2.36)	44 (1.73)	50.6 (1.99)	12 (0.47)	48.2 (1.90)	36 (1.42)	36 (1.42)
AB1950	TBC	TBC	TBC	TBC	TBC	TBC	TBC
AB1950/PR4	TBC	TBC	TBC	TBC	TBC	TBC	TBC

Inserts are not retained in the gearbox, please specify if required.

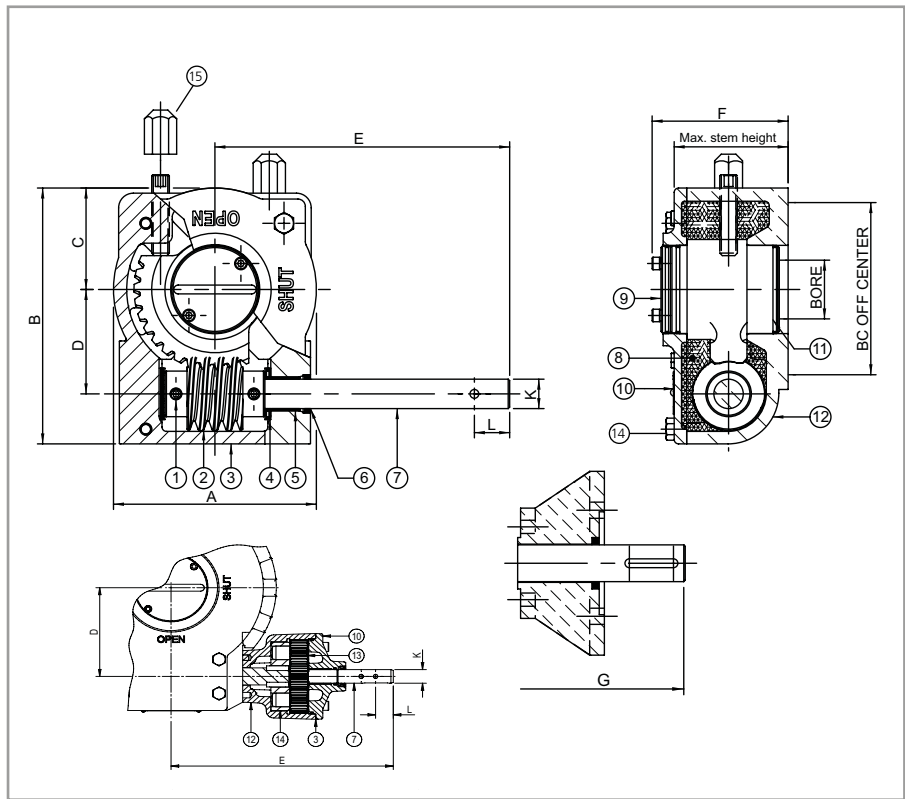
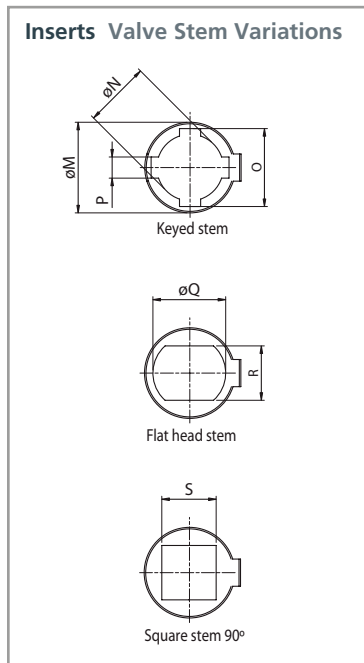
Material specification for Rotork AB-SS Quarter-turn Gear Series

No	Description	Material	Notes
1	Set screw	Carbon Steel	DIN915 / Grade 12.9
2	Worm	Carbon Steel	C45 / AISI1045
3	Gasket	Liquid seal	-
4	Needle bearing	AXK / AS	-
5	Bushing	P10, P14	PAP
6	Oilseal	Nitrile	-
7	Shaft	Stainless steel	AISI316
7A	Shaft PR	Super duplex	UNS S32760
8	Grease	Renolit CLX2	-
9	Position indicator	Stainless steel	AISI316
10	Coverplate	Stainless steel	CF8M / ASTM 351-2000
11	Quadrant	Ductile iron	GGG40 / ASTM D60-40-18
11A	Quadrant AB215	Ductile iron	GGG50 / ASTM D70-50-05
12	Body	Stainless steel	CF8M / ASTM 351-2000
13	Gear	Carbon Steel	C45 / AISI1045
14	Fasteners	Stainless steel	A4
15	Stop bolt covers	Stainless steel	AISI316

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



AB-SS 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)	68.5 (2.70)	146 (5.75)	15 (0.59)	14 (0.55)	F05-F07-F10	30 (1.18)	24 (0.94)
AB215	102 (4.02)	127.5 (5.02)	48 (1.89)	52 (2.05)	159 (6.26)	68.5 (2.70)	146 (5.75)	15 (0.59)	14 (0.55)	F05-F07-F10	30 (1.18)	24 (0.94)
AB550	138 (5.43)	174 (6.85)	69 (2.72)	71 (2.80)	201 (7.91)	92.5 (3.64)	170 (6.69)	20 (0.79)	24 (0.95)	F07-F10-F12-F14	45 (1.77)	38 (1.50)
AB880	200 (7.87)	226 (8.90)	100 (3.94)	86 (3.39)	189 (7.44)	97.5 (3.83)	182 (7.17)	20 (0.79)	24 (0.95)	F10-F12-F14-F16	60 (2.36)	46 (1.81)
AB1250	220 (8.66)	258 (10.16)	110 (4.33)	104.5 (4.11)	230 (9.06)	106.5 (3.83)	200 (7.87)	20 (0.79)	24 (0.95)	F10-F12-F14-F16	65 (2.56)	50 (1.97)
AB1950	285 (11.22)	322.5 (12.70)	142.5 (5.62)	130 (5.12)	275 (10.83)	129 (5.08)	204 (8.03)	25 (0.98)	28 (1.10)	F12-F14-F16-F25	80 (3.15)	60 (2.36)
AB1950/PR4	285 (11.22)	322.5 (12.70)	142.5 (5.62)	130 (5.12)	301 (11.85)	129 (5.08)	301 (11.85)	20 (0.79)	24 (0.95)	F12-F14-F16-F25	80 (3.15)	60 (2.36)
AB6800	370 (14.57)	407 (16)	170 (6.69)	182 (7.17)	300 (11.81)	143.5 (5.65)	257 (10.12)	25 (0.98)	28 (1.10)	F16-F25-F30	100 (3.94)	75 (2.95)
AB6800/PR4	370 (14.57)	407 (16)	170 (6.69)	182 (7.17)	354 (13.94)	143.5 (5.65)	354 (13.94)	20 (0.79)	24 (0.95)	F16-F25-F30	100 (3.94)	75 (2.95)
AB6800/PR6	370 (14.57)	407 (16)	170 (6.69)	182 (7.17)	354 (13.94)	143.5 (5.65)	354 (13.94)	20 (0.79)	24 (0.95)	F16-F25-F30	100 (3.94)	75 (2.95)
A200/PR10	440 (17.32)	648.5 (25.53)	207.5 (8.17)	209 (8.22)	374.5 (14.74)	459 (18.07)	374.5 (14.74)	20 (0.79)	24 (0.95)	F25-F30-F35	160 (6.29)	115 (4.52)

FA Valve connection available. All dimensions in millimetres, unless otherwise stated.

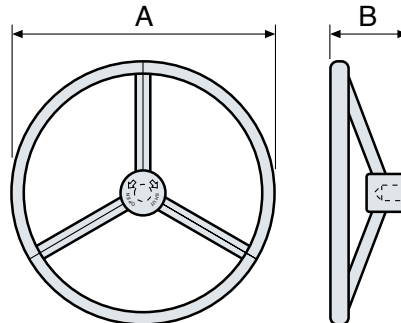
Handwheel Selection Chart

Input Torque

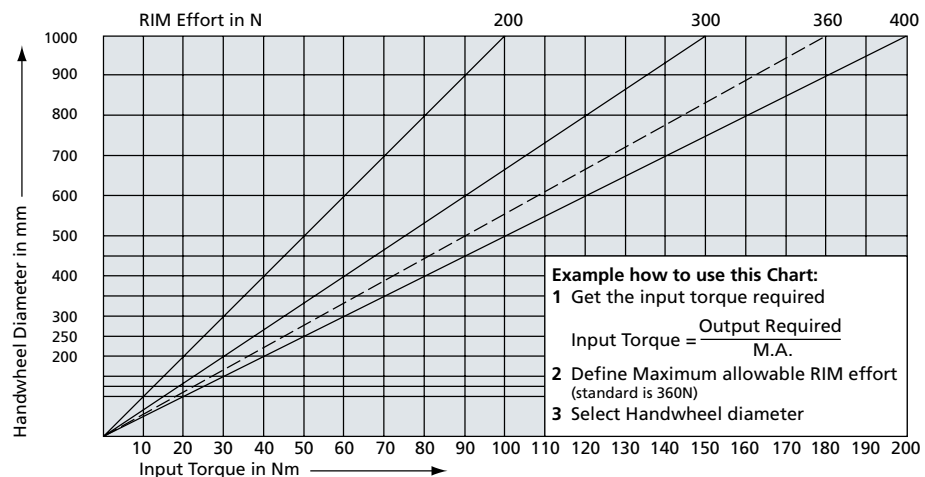
Type	M.A. ± 15%
AB210	11.6
AB215	11.6
AB550	12
AB880	13.2
AB1250	19
AB1950	19
AB1950/PR4	66
AB6800	27.5
AB6800/PR4	96
AB6800/PR6	140
A200/PR10	210

Dimensions

Type	A	B
SS200	Ø200 (8")	80 (3,15")
SS250	Ø250 (10")	110 (4,33")
SS300	Ø300 (12")	115 (4,53")
SS400	Ø400 (16")	130 (5,12")
SS500	Ø500 (20")	150 (5,91")
SS600	Ø600 (24")	150 (5,91")
SS700	Ø700 (28")	150 (5,91")
SS800	Ø800 (32")	150 (5,91")
SS900	Ø900 (36")	160 (6,30")
SS1000	Ø1000 (40")	160 (6,30")



SS series handwheel



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