

LOCKED R

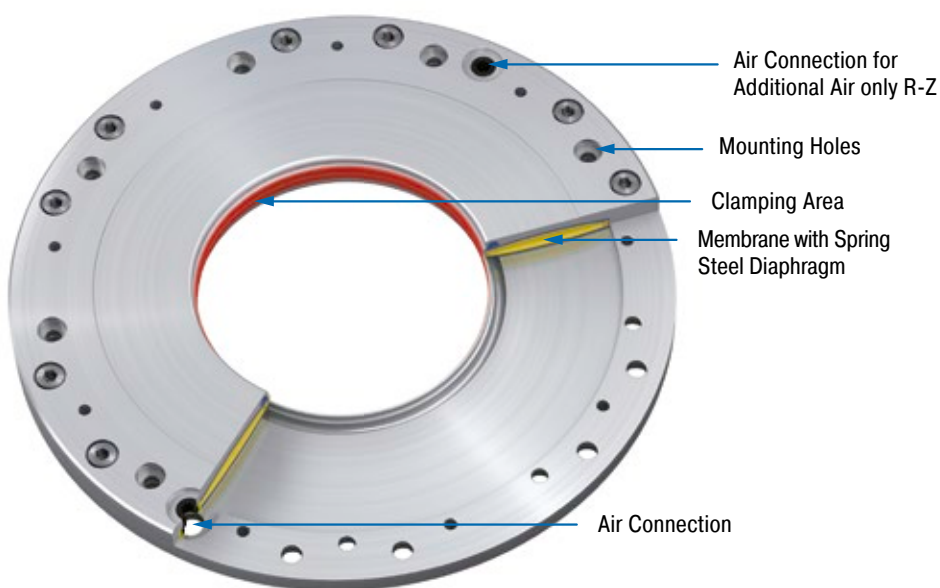
Strong holding force on the shaft

Pneumatic Rotational Clamping Holding torques 42 Nm to 4,680 Nm

Direct clamping on the shaft: Rotation motions are prevented by the ACE models LOCKED R. Their clamping elements are available for shaft diameters of 50 to 340 mm and ensure maximum holding forces.

The clamp is immediately applied by the diaphragm and spring-plate system when pressure is lost. Pneumatic quick-switch valves reduce the reaction times. The costs are low in comparison with hydraulic clamping systems. Their performance is, however, achieved or exceeded despite the compact and easy to assemble design. Special versions for YRT bearings as well as active clamping elements are additionally available. ACE recommends the use of the optional shaft flange as wear protection. The clamping force can be increased considerably by the use of the additional air function.

Models from the LOCKED R product family are used in mechanical engineering and customised machine tools.



Technical Data

Holding torques: 42 Nm to 4,680 Nm

Shaft diameter: Ø 50 mm to Ø 340 mm

Clamping cycles: 1,000,000

Mounting: In any position

Operating pressure: 4 bar (automotive) or 6 bar

Material: Outer body: Hardened fine-grain structural steel, inner bore ground

Pneumatic medium: Dried, filtered air

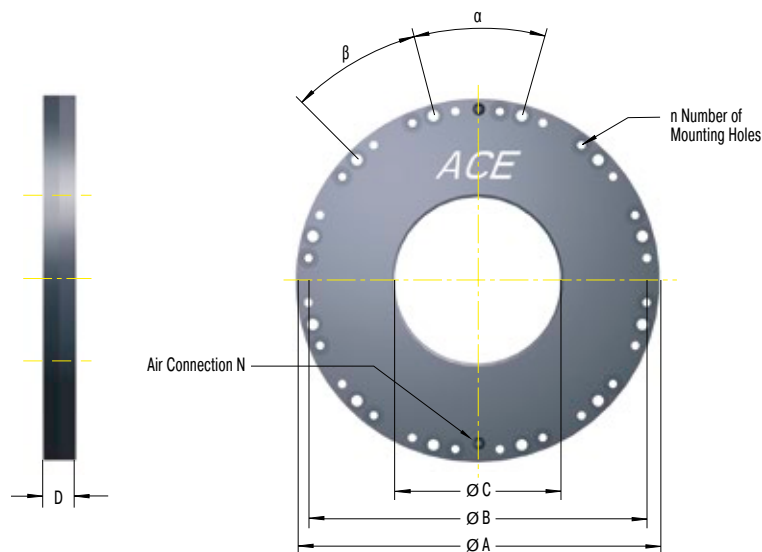
Operating temperature range: 10 °C to 45 °C

Application field: Drive shafts, Torque motors, Conveyor systems

Note: If requested installation drawings of the respective types are provided.

On request: Special designs and customised solutions e.g. YRT bearing up to Ø 460 mm and shaft flange available on request.

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The calculation and selection of the most suitable clamping element should be carried out or be approved by ACE.

Complete details required when ordering

Operating pressure: 4 bar or 6 bar

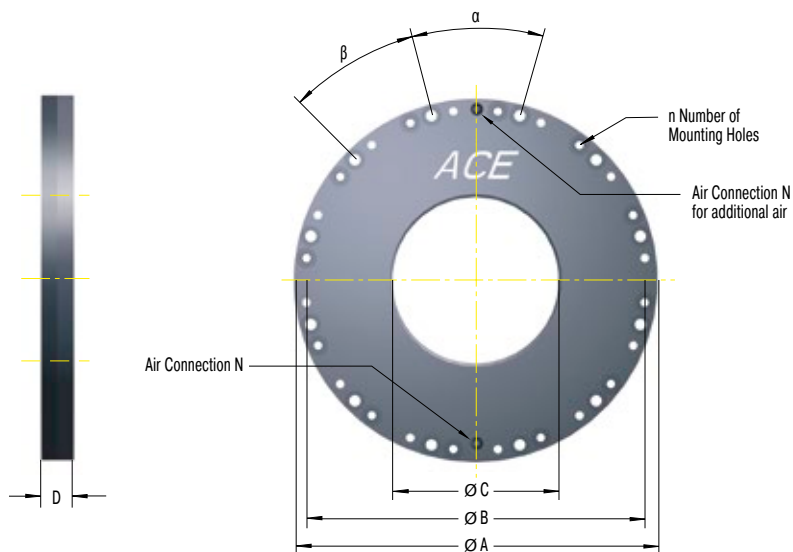
Ordering Example

Rotational Clamping **R80-6B**
 Shaft Nominal Diameter 80 mm
 6B = 6 bar Type
 4B = 4 bar Type

Performance and Dimensions

TYPES	Holding torque Nm	Operating pressure bar	A mm	B mm	C opened mm	Shaft Diameter mm	D mm	N	n	α °	β °	Weight kg
R50-4B	42	4	145	134	50+0.03/+0.05	50-0.01/-0.025	15	M5	8	45	45	1.7
R50-6B	60	6	145	134	50+0.03/+0.05	50-0.01/-0.025	15	M5	8	45	45	1.7
R60-4B	59	4	155	144	60+0.03/+0.05	60-0.01/-0.025	15	M5	8	45	45	1.9
R60-6B	84	6	155	144	60+0.03/+0.05	60-0.01/-0.025	15	M5	8	45	45	1.9
R70-4B	80	4	165	154	70+0.03/+0.05	70-0.01/-0.025	15	M5	12	30	30	2.1
R70-6B	114	6	165	154	70+0.03/+0.05	70-0.01/-0.025	15	M5	12	30	30	2.1
R80-4B	105	4	175	164	80+0.03/+0.05	80-0.01/-0.025	15	M5	12	30	30	2.3
R80-6B	150	6	175	164	80+0.03/+0.05	80-0.01/-0.025	15	M5	12	30	30	2.3
R90-4B	132	4	185	174	90+0.03/+0.05	90-0.01/-0.025	15	M5	12	30	30	2.5
R90-6B	189	6	185	174	90+0.03/+0.05	90-0.01/-0.025	15	M5	12	30	30	2.5
R100-4B	168	4	228	210	100+0.04/+0.06	100-0.01/-0.025	16	G1/8	12	40	20	4.1
R100-6B	240	6	228	210	100+0.04/+0.06	100-0.01/-0.025	16	G1/8	12	40	20	4.1
R120-4B	235	4	248	230	120+0.04/+0.06	120-0.01/-0.025	16	G1/8	12	40	20	4.6
R120-6B	336	6	248	230	120+0.04/+0.06	120-0.01/-0.025	16	G1/8	12	40	20	4.6
R140-4B	319	4	268	250	140+0.04/+0.06	140-0.01/-0.025	16	G1/8	12	40	20	5.1
R140-6B	456	6	268	250	140+0.04/+0.06	140-0.01/-0.025	16	G1/8	12	40	20	5.1
R160-4B	420	4	288	270	160+0.04/+0.06	160-0.01/-0.025	16	G1/8	12	40	20	5.6
R160-6B	600	6	288	270	160+0.04/+0.06	160-0.01/-0.025	16	G1/8	12	40	20	5.6
R180-4B	525	4	308	290	180+0.04/+0.06	180-0.01/-0.025	20	G1/8	16	30	15	7.7
R180-6B	750	6	308	290	180+0.04/+0.06	180-0.01/-0.025	20	G1/8	16	30	15	7.7
R200-4B	651	4	328	310	200+0.05/+0.07	200-0.01/-0.03	20	G1/8	16	30	15	8.3
R200-6B	930	6	328	310	200+0.05/+0.07	200-0.01/-0.03	20	G1/8	16	30	15	8.3
R220-4B	777	4	348	330	220+0.05/+0.07	220-0.01/-0.03	20	G1/8	16	30	15	8.9
R220-6B	1,110	6	348	330	220+0.05/+0.07	220-0.01/-0.03	20	G1/8	16	30	15	8.9
R240-4B	945	4	368	350	240+0.05/+0.07	240-0.01/-0.03	20	G1/8	24	20	10	9.5
R240-6B	1,350	6	368	350	240+0.05/+0.07	240-0.01/-0.03	20	G1/8	24	20	10	9.5
R260-4B	1,092	4	388	370	260+0.05/+0.07	260-0.01/-0.03	22	G1/8	24	20	10	11.2
R260-6B	1,560	6	388	370	260+0.05/+0.07	260-0.01/-0.03	22	G1/8	24	20	10	11.2
R280-4B	1,260	4	408	390	280+0.05/+0.07	280-0.01/-0.03	22	G1/8	24	20	10	11.9
R280-6B	1,800	6	408	390	280+0.05/+0.07	280-0.01/-0.03	22	G1/8	24	20	10	11.9
R300-4B	1,470	4	428	410	300+0.05/+0.07	300-0.01/-0.03	22	G1/8	24	20	10	12.6
R300-6B	2,100	6	428	410	300+0.05/+0.07	300-0.01/-0.03	22	G1/8	24	20	10	12.6
R320-4B	1,638	4	448	430	320+0.05/+0.07	320-0.01/-0.03	22	G1/8	24	20	10	13.1
R320-6B	2,340	6	448	430	320+0.05/+0.07	320-0.01/-0.03	22	G1/8	24	20	10	13.1
R340-4B	1,806	4	468	450	340+0.05/+0.07	340-0.01/-0.03	22	G1/8	24	20	10	14.0
R340-6B	2,580	6	468	450	340+0.05/+0.07	340-0.01/-0.03	22	G1/8	24	20	10	14.0

R-Z



The calculation and selection of the most suitable clamping element should be carried out or be approved by ACE.

Complete details required when ordering

Operating pressure: 4 bar or 6 bar

Ordering Example

Rotational Clamping _____
 Shaft Nominal Diameter 80 mm _____
 Z = Increased Force with Additional Air _____
 6B = 6 bar Type _____
 4B = 4 bar Type _____

R80-Z-6B

Performance and Dimensions

TYPES	Holding torque Nm	Operating pressure bar	A mm	B mm	C opened mm	Shaft Diameter mm	D mm	N	n	α °	β °	Weight kg
R50-Z-4B	76	4	145	134	50+0.03/+0.05	50-0.01/-0.025	15	M5	8	45	45	1.7
R50-Z-6B	108	6	145	134	50+0.03/+0.05	50-0.01/-0.025	15	M5	8	45	45	1.7
R60-Z-4B	107	4	155	144	60+0.03/+0.05	60-0.01/-0.025	15	M5	8	45	45	1.9
R60-Z-6B	153	6	155	144	60+0.03/+0.05	60-0.01/-0.025	15	M5	8	45	45	1.9
R70-Z-4B	147	4	165	154	70+0.03/+0.05	70-0.01/-0.025	15	M5	12	30	30	2.1
R70-Z-6B	210	6	165	154	70+0.03/+0.05	70-0.01/-0.025	15	M5	12	30	30	2.1
R80-Z-4B	189	4	175	164	80+0.03/+0.05	80-0.01/-0.025	15	M5	12	30	30	2.3
R80-Z-6B	270	6	175	164	80+0.03/+0.05	80-0.01/-0.025	15	M5	12	30	30	2.3
R90-Z-4B	239	4	185	174	90+0.03/+0.05	90-0.01/-0.025	15	M5	12	30	30	2.5
R90-Z-6B	342	6	185	174	90+0.03/+0.05	90-0.01/-0.025	15	M5	12	30	30	2.5
R100-Z-4B	294	4	228	210	100+0.04/+0.06	100-0.01/-0.025	16	G1/8	12	40	20	4.1
R100-Z-6B	420	6	228	210	100+0.04/+0.06	100-0.01/-0.025	16	G1/8	12	40	20	4.1
R120-Z-4B	420	4	248	230	120+0.04/+0.06	120-0.01/-0.025	16	G1/8	12	40	20	4.6
R120-Z-6B	600	6	248	230	120+0.04/+0.06	120-0.01/-0.025	16	G1/8	12	40	20	4.6
R140-Z-4B	588	4	268	250	140+0.04/+0.06	140-0.01/-0.025	16	G1/8	12	40	20	5.1
R140-Z-6B	840	6	268	250	140+0.04/+0.06	140-0.01/-0.025	16	G1/8	12	40	20	5.1
R160-Z-4B	756	4	288	270	160+0.04/+0.06	160-0.01/-0.025	16	G1/8	12	40	20	5.6
R160-Z-6B	1,080	6	288	270	160+0.04/+0.06	160-0.01/-0.025	16	G1/8	12	40	20	5.6
R180-Z-4B	966	4	308	290	180+0.04/+0.06	180-0.01/-0.025	20	G1/8	16	30	15	7.7
R180-Z-6B	1,380	6	308	290	180+0.04/+0.06	180-0.01/-0.025	20	G1/8	16	30	15	7.7
R200-Z-4B	1,176	4	328	310	200+0.05/+0.07	200-0.01/-0.03	20	G1/8	16	30	15	8.3
R200-Z-6B	1,680	6	328	310	200+0.05/+0.07	200-0.01/-0.03	20	G1/8	16	30	15	8.3
R220-Z-4B	1,428	4	348	330	220+0.05/+0.07	220-0.01/-0.03	20	G1/8	16	30	15	8.9
R220-Z-6B	2,040	6	348	330	220+0.05/+0.07	220-0.01/-0.03	20	G1/8	16	30	15	8.9
R240-Z-4B	1,680	4	368	350	240+0.05/+0.07	240-0.01/-0.03	20	G1/8	24	20	10	8.9
R240-Z-6B	2,400	6	368	350	240+0.05/+0.07	240-0.01/-0.03	20	G1/8	24	20	10	8.9
R260-Z-4B	1,974	4	388	370	260+0.05/+0.07	260-0.01/-0.03	22	G1/8	24	20	10	11.2
R260-Z-6B	2,820	6	388	370	260+0.05/+0.07	260-0.01/-0.03	22	G1/8	24	20	10	11.2
R280-Z-4B	2,268	4	408	390	280+0.05/+0.07	280-0.01/-0.03	22	G1/8	24	20	10	11.9
R280-Z-6B	3,240	6	408	390	280+0.05/+0.07	280-0.01/-0.03	22	G1/8	24	20	10	11.9
R300-Z-4B	2,604	4	428	410	300+0.05/+0.07	300-0.01/-0.03	22	G1/8	24	20	10	12.6
R300-Z-6B	3,720	6	428	410	300+0.05/+0.07	300-0.01/-0.03	22	G1/8	24	20	10	12.6
R320-Z-4B	2,940	4	448	430	320+0.05/+0.07	320-0.01/-0.03	22	G1/8	24	20	10	13.1
R320-Z-6B	4,200	6	448	430	320+0.05/+0.07	320-0.01/-0.03	22	G1/8	24	20	10	13.1
R340-Z-4B	3,276	4	468	450	340+0.05/+0.07	340-0.01/-0.03	22	G1/8	24	20	10	14.0
R340-Z-6B	4,680	6	468	450	340+0.05/+0.07	340-0.01/-0.03	22	G1/8	24	20	10	14.0