



## **PNEUMATIC QUARTER TURN ACTUATOR**

**DOUBLE ACTING series RKP - RTP  
&  
SINGLE ACTING series RKPM - RTPM**

**SERVOVALVE spa**

Via Quasimodo 27 - 20010 S.STEFANO TICINO (MI)

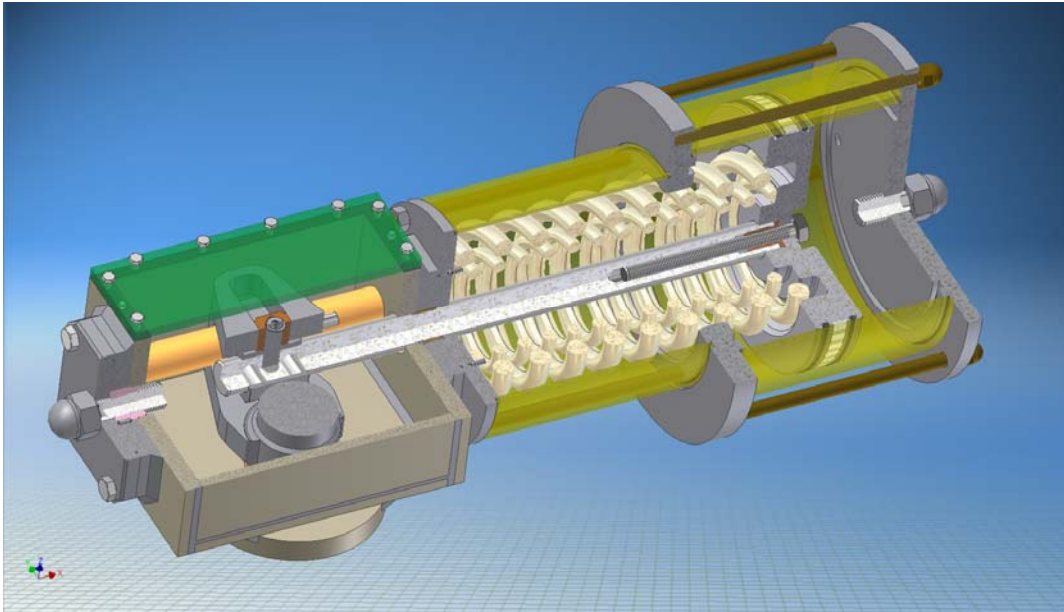
PHONE: 0039 - 029748461

FAX: 0039 - 0297484646

E-mail: [servovalve@servovalve.it](mailto:servovalve@servovalve.it)

# PNEUMATIC QUARTER TURN ACTUATOR SCOTCH-YOKE EXECUTION

SERIES **RKP - RTP**  
**RKPM – RTPM**



## TECHNICAL DESCRIPTION

The scotch yoke RKP-RTP & RKPM-RTPM pneumatic actuators have been designed for the transmission of high torque for quarter-turn rotation on the valve shaft, particular suited for ball or butterfly valve.

The scotch yoke mechanism provides to transform the linear thrust of a single (RKPM-RTPM) or double (RKP-RTP) acting cylinder in to quarter turn rotation exalting output torque at break and end valve position.

Scotch yoke is available in both execution :  
Symmetric – Series RTP-RTPM  
Canted – Series RKP-RKPM

In the RKPM-RTPM single acting actuator the spring cartridge is designed to allow the replacement of the springs in field with the utmost security and without disassembling the actuator from the valve.

Special safety stay-bolts allow to open the cartridge and take out the springs only after having completely discharged the spring thrust. After having replaced the springs the same safety stay-bolts preload the new spring and close the cartridge without special tools.

The design, engineering and materials used in construction ensure optimum performances in the heaviest work condition in every environment according to the international standard specifications.

## Technical features

All moving parts are totally enclosed in a weather-proof IP 66 housing, minimizing the possibility of injury to operating personnel and avoid ingress of dust inside actuator .

The housing is realized in fabricated carbon steel to reduce corrosion phenomenon and provide a heavy duty execution; chromium plated shaft is driven by special bushings to guarantee a perfect alignment, a uniform and smooth movement reducing friction and ensuring long life cycle.

Scotch yoke is complete of a second support bar to reduce at minimum transversal friction and assure a smooth and regular rotation avoiding any vibration and providing optimum performances and precise positioning even in the most critical control application.

The pneumatic cylinders are in chromium plated carbon steel to avoid environmental corrosion and to reduce the gaskets wear and stick-slip effects.

Field adjustable end travel-stop are available in both open and close directions to optimize the required valve stroke.

The central cover is equipped with a standard valve position indicator.

# PNEUMATIC QUARTER TURN ACTUATOR SCOTCH-YOKE EXECUTION

## SERIES **RKP - RTP** **RKPM - RTPM**

### Manual emergency handwheel

All series of actuators can be equipped with a manual emergency declutchable handwheel (RKPV-RTPV & RKPMV-RTPMV)

### Special execution

Actuators can be provided in execution without of standard materials for particular environmental working conditions (low or high temperature, aggressive medium, offshore service etc.).

### Test

Every detail has been designed and tested with care and checked during production process (from the receipt of the raw materials to final testing) against the strictest reliability criteria required under EN and ISO 9001 quality and safety standard.

### Service

The Servovalve personnel guarantees prompt assistance to the customer during the start up of the plant and its normal working life.

## TECHNICAL PERFORMANCE

### Pressure range

- minimum working pressure: 2.5 bar
- maximum working pressure: see technical sheet
- design pressure: 10,5 bar (available execution with higher design pressure )

### Angular stroke

- 90° +/-4°

### Environmental temperature range

- min: - 20°C
- max: + 80°C
- Available execution for lower environmental temperature ( up to -60°C )
- Available execution for higher environmental temperature

### Supply medium

- instrument air
- nitrogen or sweet natural gas
- Available out of standard execution for different medium supply

### Painting

Standard execution has surface protection with:

- sandblasting SIS SA 2 ½
- 1 coat epoxy primer
- 1 coat epoxy polyamidic

Different painting procedure available on request

### Dimensions, materials and coupling flange

For dimensions and technical performance see actuators torques table and technical sheets.

### Installation

RKP-RTP & RKPM-RTPM actuator can be assembled on the valve in every vertical or horizontal position.

### Certification

All finished actuators are tested and certified by the quality department before being released according to Servovalve quality system and procedures in compliance with ISO 9001 standard.

RKP-RTP & RKPM-RTPM actuators are according to European directives 97/23/CE (PED) and 94/9/CE (ATEX).

### Warning

The RKPM-RTPM actuator contains a preloaded spring, follow carefully the installation and servicing instruction in operating book for the disassembling.

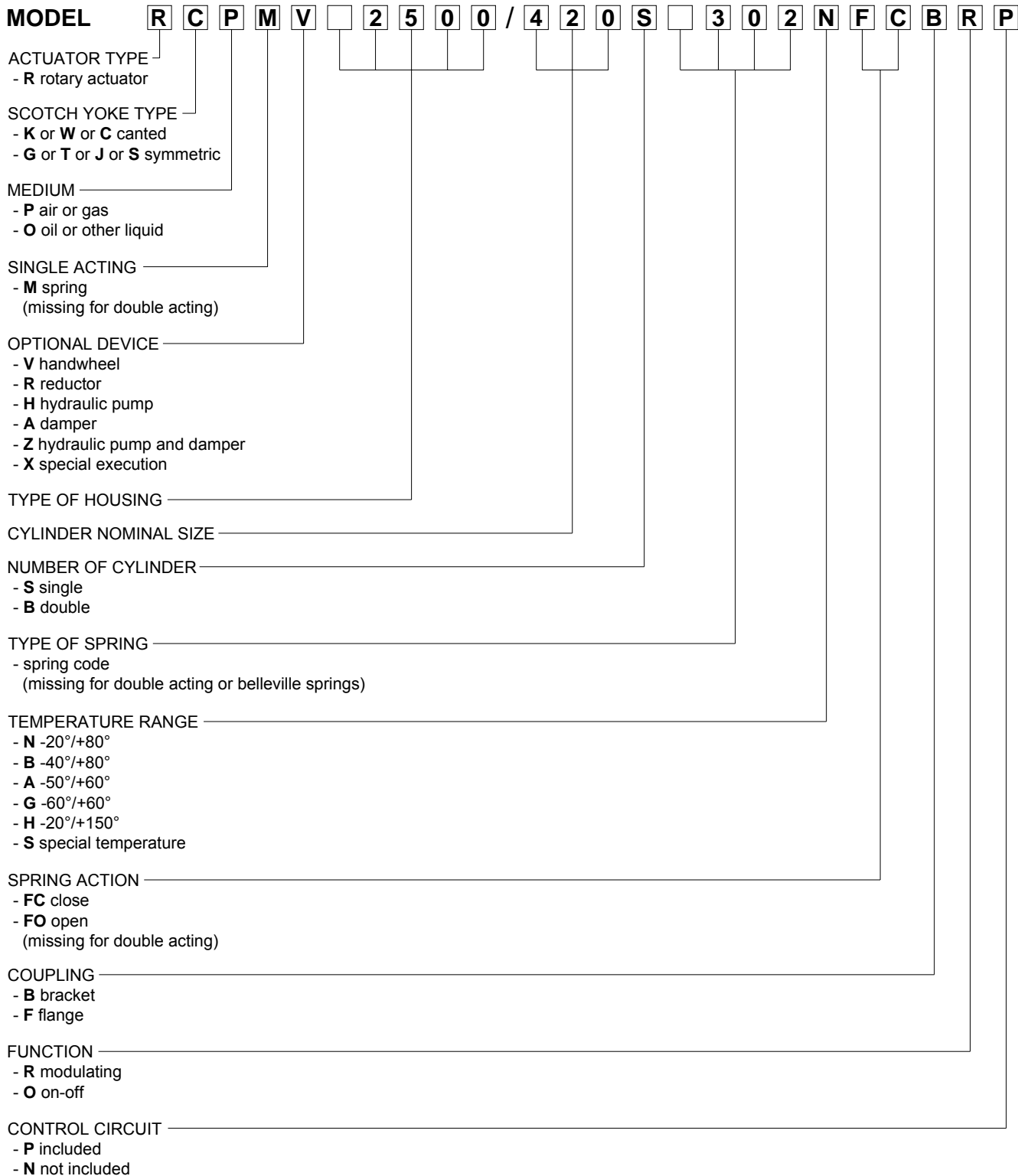
### Maintenance

The inner parts of the actuator are life-lubricated, therefore only replacement of the rubber gaskets may become necessary after a long working time as pointed out in the operating book.

# PNEUMATIC QUARTER TURN ACTUATOR SCOTCH-YOKE EXECUTION

SERIES **RK - RT**

## SCOTCH YOKE ACTUATOR CODE MODE



# PNEUMATIC QUARTER TURN ACTUATOR SCOTCH-YOKE EXECUTION

**ACTUATORS TORQUE - SYMMETRIC SKOTCH YOKE**

**SERIES RTP**

**Double Acting Symmetric**

**RTPM**

Model	3.5bar			4bar			5bar			5.5bar			6bar			MAX Work Press Bar	AIR Displ. Lt	Approx weight Kg
	Break	Run	End	Break	Run	End	Break	Run	End	Break	Run	End	Break	Run	End			
<b>RTP 210/160</b>																		
<b>OPEN</b>	595	355	595	680	405	680	850	505	850	930	555	930	1015	605	1015	10	2.5	110
<b>CLOSE</b>	565	335	565	645	385	645	805	480	805	890	530	890	970	535	970			
<b>RTP 210/200</b>																		
<b>OPEN</b>	925	555	925	1060	630	1060	1325	790	1325	1455	870	1455	1590	945	1590	8	4	120
<b>CLOSE</b>	900	535	900	1025	610	1025	1285	765	1285	1410	840	1410	1540	920	1540			
<b>RTP 510/250</b>																		
<b>OPEN</b>	1690	1005	1690	1930	1150	1930	2415	1440	2415	2655	1585	2655	2895	1725	2895	10	7	160
<b>CLOSE</b>	1655	990	1655	1895	1130	1895	1365	1410	1365	2605	1550	2605	2805	1670	2805			
<b>RTP 510/300</b>																		
<b>OPEN</b>	2435	1450	2435	2780	1660	2780	3475	2070	3475	3825	2280	3825	4170	2485	4170	7	10	175
<b>CLOSE</b>	2400	1430	2400	2475	1635	2475	3430	2045	3430	3770	2250	3770	4115	2455	4115			

**Single Acting Symmetric**

Model	Spring [Nm]			3.5bar			4bar			5bar			5.5bar			6bar			MAX Work Press Bar	AIR Displ. Lt	Approx weight Kg	
	BTC	RTC	ETC	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO				
<b>RTPM 210/160</b>	0Z01	190	85	100	490	265	400	575	315	485	745	415	655	830	470	740	915	520	825	10	2.5	120
	2Z01	205	95	115	475	255	385	560	305	470	730	410	640	815	460	725	900	510	810			
	4Z01	220	100	130	460	245	370	545	300	455	715	400	625	800	450	710	885	500	795			
	0Z02	440	195	235	355	140	155	440	195	235	610	300	405	695	350	490	780	400	575			
	2Z02	475	215	270	320	120	120	405	175	205	575	280	375	660	330	460	745	380	545			
	4Z02	510	235	305	290	85	85	375	150	170	545	255	340	625	310	425	710	360	510			
	0Z12	630	280	340	//	//	//	//	//	//	//	510	200	215	595	255	300	680	305	385		
	2Z12	680	310	390	//	//	//	//	//	//	//	460	165	165	545	225	250	630	275	335		
	4Z12	730	340	435	//	//	//	//	//	//	//	410	120	120	495	190	205	580	245	285		
	0Z03	815	360	440	//	//	//	//	//	//	//	//	//	//	//	//	//	580	205	205		
	2Z03	875	400	500	//	//	//	//	//	//	//	//	//	//	//	//	//	515	140	140		
	4Z03	940	435	565	//	//	//	//	//	//	//	//	//	//	//	//	//	455	80	80		
0Z13	1005	445	540	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//			
2Z13	1080	490	615	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//			
4Z13	1160	540	695	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//			
<b>RTPM 210/200</b>	0Z01	190	85	100	825	465	735	960	545	870	1225	700	1135	1355	780	1265	1490	860	1400	8	4	130
	2Z01	205	95	115	810	455	720	945	535	855	1210	695	1120	1340	770	1250	1475	850	1385			
	4Z01	220	100	130	795	445	705	930	525	840	1195	685	1105	1325	765	1235	1460	840	1370			
	0Z02	440	195	235	690	345	485	820	425	620	1085	585	885	1220	665	1015	1350	745	1150			
	2Z02	475	215	270	655	325	455	790	405	585	1055	565	850	1185	645	980	1320	725	1115			
	4Z02	510	235	305	620	305	420	755	385	550	1020	545	815	1150	625	950	1285	705	1080			
	0Z12	630	280	340	590	250	295	720	335	430	985	495	690	1120	575	825	1250	655	955			
	2Z12	680	310	390	540	220	245	670	305	380	935	465	645	1070	545	775	1200	625	910			
	4Z12	730	340	435	490	190	195	625	275	330	890	435	595	1020	515	725	1155	595	860			
	0Z03	815	360	440	//	//	//	620	235	245	885	405	510	1020	485	645	1150	565	775			
	2Z03	875	400	500	//	//	//	//	//	//	825	365	450	955	445	580	1090	530	715			
	4Z03	940	435	565	//	//	//	//	//	//	760	325	385	895	410	520	1025	490	650			
0Z13	1005	445	540	//	//	//	//	//	//	785	305	320	920	390	450	1050	470	585				
2Z13	1080	490	615	//	//	//	//	//	//	710	240	240	840	340	375	975	425	505				
4Z13	1160	540	695	//	//	//	//	//	//	//	//	//	765	290	295	895	375	430				
<b>RTPM 510/250</b>	0Y01	815	350	415	1275	630	875	1515	780	1115	2000	1065	1600	2240	1210	1840	2485	1355	2080	10	7	185
	2Y01	875	385	470	1220	600	820	1460	745	1060	1940	1035	1540	2185	1180	1785	2425	1320	2025			
	4Y01	930	420	530	1160	565	760	1400	710	1000	1885	1000	1485	2125	1145	1725	2370	1290	1970			
	0Y02	1135	490	575	1115	475	555	1355	625	800	1840	920	1280	2080	1065	1520	2320	1210	1765			
	2Y02	1215	535	655	1035	425	475	1275	575	720	1760	870	1200	2000	1015	1440	2240	1160	1685			
	4Y02	1295	585	735	955	370	395	1195	525	640	1680	820	1120	1920	965	1365	2160	1115	1605			
	0Y03	1605	690	815	//	//	//	1115	325	325	1600	685	810	1840	835	1050	2080	985	1290			
	2Y03	1720	760	930	//	//	//	//	//	//	1485	615	695	1725	765	940	1970	915	1180			
	4Y03	1830	830	1040	//	//	//	//	//	//	1375	540	585	1615	695	825	1855	845	1065			
	0Y12	1950	840	990	//	//	//	//	//	//	1425	465	465	1665	655	705	1905	810	950			
	2Y12	2085	925	1130	//	//	//	//	//	//	1285	330	330	1525	565	570	1770	725	810			
	4Y12	2225	1010	1265	//	//	//	//	//	//	1150	190	190	1390	435	435	1630	635	675			
0Y13	2420	1040	1230	//	//	//	//	//	//	//	//	//	//	//	//	1665	475	475				
2Y13	2590	1145	1400	//	//	//	//	//	//	//	//	//	//	//	//	1495	305	305				
4Y13	2760	1250	1570	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//				
<b>RTPM 510/300</b>	0Y01	815	350	415	2020	1080	1620	2365	1285	1965	3060	1705	2660	3410	1910	3010	3755	2120	3355	8	10	195
	2Y01	875	385	470	1960	1045	1560	2310	1255	1910	3005	1670	2605	3355	1875	2950	3700	2085	3300			
	4Y01	930	420	530	1905	1010	1505	2250	1220	1850	2950	1635	2545	3295	1840	2895	3645	2050	3240			
	0Y02	1135	490	575	1855	930	1300	2205	1140	1650	2900	1555	2345	3250	1765	2690	3595	1970	3040			
	2Y02	1215	535	655	1775	880	1220	2125	1090	1570	2820	1510	2265	3170	1715	2610	3515	1925	2960			
	4Y02	1295	585	735	1700	835	1140	2045	1045	1490	2740	1460	2185	3090	1670	2530	3435	1875	2880			
	0Y03	1605	690	815	1815	700	830	1965	915	1175	2860	1335	1870	3010	1545	2220	3355	1755	2565			
	2Y03	1720	760	930	1505	625	715	1850	845	1065	2550	1265	1760	2895	1475	2105	3245	1685	2455			
	4Y03	1830	830	1040	1390	555	605	1740	775	950	2435	1200	1645	2785	1410	1995	3130	1620	2340			
	0Y12	1950	840	990	1440	485	485	1790	735	830	2485	1170	1530	2835	138							

# PNEUMATIC QUARTER TURN ACTUATOR SCOTCH-YOKE EXECUTION

## ACTUATORS TORQUE – CANTED SCOTCH YOKE

## SERIES **RKP**

### Double Acting Canted

## **RKPM**

Model	3.5 bar			4bar			5bar			5.5bar			6bar			MAX Work Press Bar	AIR Displ. Lt	Approx weight kG
	Break	Run	End	Break	Run	End	Break	Run	End	Break	Run	End	Break	Run	End			
RKP 210/160																9	2.5	100
OPEN	780	355	490	895	405	560	1120	505	700	1230	555	770	1340	605	840			
CLOSE	465	335	745	530	385	850	665	480	1065	730	530	1170	795	575	1275			
RKP 210/200																6	4	110
OPEN	1220	555	765	1395	630	870	1745	790	1090	1920	870	1200	2095	945	1310			
CLOSE	740	535	1185	845	610	1355	1055	785	1695	1165	840	1860	1270	920	2030			
RKP 510/250																8	7	150
OPEN	2230	1005	1390	2545	1150	1590	3185	1440	1990	3500	1585	2185	3820	1725	2385			
CLOSE	1365	990	2185	1560	1130	2495	1950	1410	3120	2145	1550	3435	2340	1695	3745			
RKP 510/300																6	10	165
OPEN	3210	1450	2005	3665	1660	2290	4585	2070	2865	5040	2280	3150	5500	2485	3435			
CLOSE	1975	1430	3165	2260	1635	3615	2825	2045	4520	3105	2250	4975	3390	2455	5425			

### Single Acting Canted - Spring To Close

Model	Spring [Nm]			3.5bar			4bar			5bar			5.5bar			6bar			MAX Work Press Bar	AIR Displ. Lt	Approx weight kG	
	BTC	RTC	ETC	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO				
RKP 210/160	0Z01	160	95	135	650	255	330	760	305	400	985	410	535	1095	460	605	1205	510	675	10	2.5	120
	2Z01	175	100	155	630	250	315	740	300	385	965	400	525	1075	450	595	1190	500	665			
	4Z01	185	110	175	610	240	305	720	290	375	945	390	515	1055	440	580	1170	490	650			
	0Z02	370	215	315	470	120	120	580	175	190	805	280	330	915	330	400	1030	380	470	10	2.5	123
	2Z02	395	235	360	425	90	90	535	150	160	760	260	300	870	310	370	985	360	440			
	4Z02	425	255	400	//	//	//	490	130	135	715	235	275	825	290	340	940	340	410			
	0Z12	530	310	445	//	//	//	//	//	//	670	185	170	785	225	240	895	280	305	10	2.5	125
	2Z12	570	340	510	//	//	//	//	//	//	605	130	130	720	190	195	830	245	265			
	4Z12	610	370	575	//	//	//	//	//	//	//	//	//	655	155	155	765	215	225			
	0Z03	680	395	575	//	//	//	//	//	//	//	//	//	//	//	//	765	155	155	10	2.5	128
	2Z03	735	435	660	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//			
	4Z03	785	475	740	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//			
0Z13	845	490	710	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//	10	2.5	130
2Z13	905	540	815	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//				
4Z13	970	585	915	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//				
RKP 210/200	0Z01	160	95	135	1090	455	605	1265	535	710	1615	695	930	1785	770	1040	1960	850	1150	6	4	130
	2Z01	175	100	155	1070	445	590	1245	525	700	1595	685	920	1765	760	1025	1940	840	1135			
	4Z01	185	110	175	1050	440	580	1225	515	685	1575	675	905	1750	755	1015	1920	835	1125			
	0Z02	370	215	315	910	325	395	1085	405	505	1435	565	720	1610	645	830	1785	725	940	7	4	133
	2Z02	395	235	360	865	305	365	1040	385	475	1390	545	695	1565	625	800	1740	705	910			
	4Z02	425	255	400	820	285	340	995	365	445	1345	525	665	1520	605	775	1695	685	885			
	0Z12	530	310	445	775	220	235	950	305	340	1300	465	560	1475	545	670	1650	625	780	7	4	135
	2Z12	570	340	510	710	190	195	885	275	300	1235	435	520	1410	515	630	1585	595	740			
	4Z12	610	370	575	645	155	155	820	245	260	1170	405	480	1345	485	590	1520	565	700			
	0Z03	680	395	575	//	//	//	820	190	190	1170	365	410	1345	450	515	1520	530	625	8	4	138
	2Z03	735	435	660	//	//	//	735	140	140	1085	330	355	1260	410	465	1435	490	575			
	4Z03	785	475	740	//	//	//	//	//	//	1005	290	305	1180	370	415	1355	455	525			
0Z13	845	490	710	//	//	//	//	//	//	1035	250	250	1210	340	355	1385	425	465	8	4	140	
2Z13	905	540	815	//	//	//	//	//	//	935	185	185	1110	290	295	1280	375	400				
4Z13	970	585	915	//	//	//	//	//	//	//	//	//	1005	230	230	1180	325	340				
RKP 510/250	0Y01	685	390	545	1680	595	705	2000	740	905	2635	1030	1305	2955	1175	1500	3275	1315	1700	9	7	185
	2Y01	730	425	620	1605	560	660	1925	705	860	2560	995	1255	2880	1140	1455	3195	1285	1655			
	4Y01	780	460	700	1530	525	615	1850	670	810	2485	960	1210	2805	1105	1410	3120	1250	1605			
	0Y02	950	545	760	1470	415	440	1785	570	640	2425	865	1035	2740	1010	1235	3060	1155	1435	9	7	188
	2Y02	1020	595	865	1365	365	375	1680	520	575	2320	815	970	2635	960	1170	2955	1105	1370			
	4Y02	1085	640	970	1260	310	310	1575	470	505	2215	765	905	2530	910	1105	2850	1060	1300			
	0Y03	1350	770	1075	//	//	//	1470	245	245	2105	605	640	2425	755	840	2745	905	1040	10	7	196
	2Y03	1440	840	1225	//	//	//	1320	150	150	1960	530	550	2275	685	745	2595	835	945			
	4Y03	1535	910	1375	//	//	//	//	//	//	1810	455	455	2130	615	655	2445	765	850			
	0Y12	1635	935	1305	//	//	//	//	//	//	1875	350	350	2195	550	550	2510	710	750	10	7	198
	2Y12	1750	1020	1490	//	//	//	//	//	//	1695	240	240	2015	435	435	2330	620	635			
	4Y12	1860	1105	1670	//	//	//	//	//	//	//	//	//	1835	325	325	2150	525	525			
0Y13	2030	1160	1625	//	//	//	//	//	//	//	//	//	//	//	//	2195	355	355	10	7	205	
2Y13	2170	1265	1845	//	//	//	//	//	//	//	//	//	//	//	//	1970	215	215				
4Y13	2310	1370	2070	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//				
RKP 510/300	0Y01	685	390	545	2660	1040	1320	3120	1250	1605	4035	1665	2180	4495	1870	2465	4955	2080	2750	6	10	195
	2Y01	730	425	620	2585	1005	1270	3045	1215	1560	3960	1630	2130	4420	1835	2415	4880	2045	2705			
	4Y01	780	460	700	2510	970	1225	2970	1180	1510	3885	1595	2085	4345	1805	2370	4805	2010	2655			
	0Y02	950	545	760	2450	875	1050	2905	1085	1340	3825	1500	1910	4280	1710	2195	4740	1915	2485	6	10	198
	2Y02	1020	595	865	2345	825	985	2800	1035	1270	3720	1455	1845	4175	1660	2130	4635	1870	2415			
	4Y02	1085	640	970	2240	780	920	2695	990	1205	3615	1405	1780	4070	1615	2065	4530	1820	2350			
	0Y03	1350	770	1075	2130	615	655	2590	835	940	3505	1255	1515	3965	1465	1800	4425	1675	2085	7	10	206
	2Y03	1440	840	1225	1985	545	565	2440	765	850	3360	1190	1420	3815	1400	1710	4275	1610	1995			
	4Y03	1535	910	1375	1835	465	470	2295	695	755	3210	1120	1330	3670	1330	1615	4125	1540	1900			
	0Y12	1635	935	1305	1900	365	365	2360	635	655	3275	1075	1225	3735	1285	1510	4195	1495	1800	7	10	208
	2Y12	1750	1020	1490	1720	255	255	2180	540	540	3095	990	1115	3555	1200	1400	4015	1415	1685			
	4Y12	1860	1105	1670	//	//	//	2000	430	430	2915	905	1000	3375	1120	1285	3830	1330	1575			
0Y13	2030	1160	1625	//	//	//	2045	260	260	2960	805	830	3420	1025	1115	3875	1245	1405	7	10	215	
2Y13	2170	1265	1845	//	//	//	//	//	//	2735	690	690										



# PNEUMATIC QUARTER TURN ACTUATOR SCOTCH-YOKE EXECUTION

ACTUATORS TORQUE – CANTED SCOTCH YOKE

SERIES **RKP**  
**RKPM**

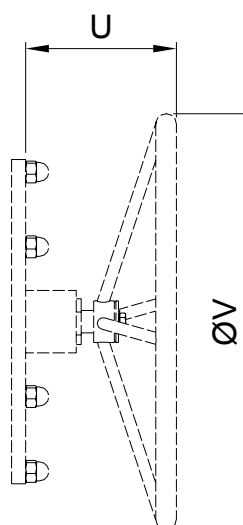
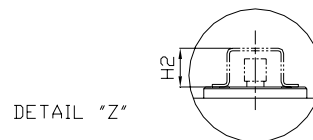
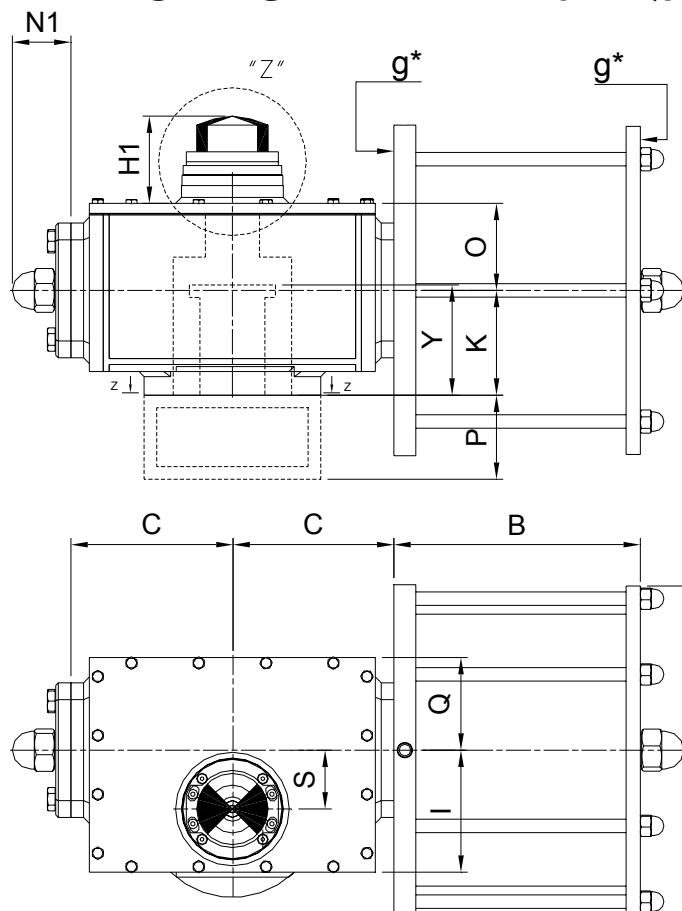
Single Acting Canted - Spring To Open

Model	Spring [Nm]			3.5bar			4bar			5bar			5.5bar			6bar			MAX Work Press Bar	AIR Displ. Lt	Approx weight Kg		
	BTO	RTO	ETO	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC					
RKPM 210/160	0Z01	255	75	85	405	270	525	475	325	635	615	425	860	685	475	970	755	525	1085	10	2.5	120	
	2Z01	275	85	95	395	265	505	465	315	615	600	415	840	670	465	950	740	515	1065				
	4Z01	295	95	110	380	255	485	450	305	595	590	405	820	660	455	935	730	505	1045				
	0Z02	590	180	195	295	155	190	365	210	300	505	315	525	570	365	640	640	415	750	10	2.5	123	
		2Z02	635	200	225	//	//	//	335	190	260	475	295	480	545	345	595	615	395				705
		4Z02	680	220	250	//	//	//	305	170	215	445	275	435	515	325	550	585	375				660
	0Z12	850	255	280	//	//	//	//	//	//	420	225	270	490	275	380	560	330	490	10	2.5	125	
		2Z12	915	285	320	//	//	//	//	//	380	190	205	450	245	315	520	300	430				
		4Z12	980	315	360	//	//	//	//	//	//	//	//	410	215	250	480	270	365				
	0Z03	1090	330	360	//	//	//	//	//	//	//	//	//	405	135	135	475	240	250	10	2.5	128	
		2Z03	1175	370	410	//	//	//	//	//	//	//	//	//	//	//	425	165	165				
		4Z03	1255	410	465	//	//	//	//	//	//	//	//	//	//	//	//	//	//				
0Z13	1350	405	445	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//	10	2.5	130		
	2Z13	1450	455	510	//	//	//	//	//	//	//	//	//	//	//	//	//	//					
	4Z13	1555	505	570	//	//	//	//	//	//	//	//	//	//	//	//	//	//					
RKPM 210/200	0Z01	255	75	85	680	470	965	790	550	1140	1005	710	1490	1115	785	1665	1225	865	1840	7	4	130	
	2Z01	275	85	95	670	460	945	775	540	1120	995	700	1470	1105	780	1645	1215	855	1820				
	4Z01	295	95	110	655	455	925	765	535	1100	980	690	1450	1090	770	1625	1200	850	1800				
	0Z02	590	180	195	570	360	630	675	440	805	895	600	1155	1005	680	1330	1115	760	1505	8	4	133	
		2Z02	635	200	225	540	340	585	650	420	760	865	580	1110	975	660	1285	1085	740				1460
		4Z02	680	220	250	510	320	540	620	400	715	840	560	1065	950	640	1240	1055	720				1415
	0Z12	850	255	280	485	275	375	595	355	550	810	515	895	920	595	1070	1030	675	1245	8	4	135	
		2Z12	915	285	320	445	245	310	555	325	485	770	485	835	880	565	1005	990	645				1180
		4Z12	980	315	360	405	210	245	515	295	420	730	455	770	840	535	945	950	615				1120
	0Z03	1090	330	360	//	//	//	510	265	305	730	435	655	840	515	830	950	595	1005	9	4	138	
		2Z03	1175	370	410	//	//	460	220	220	680	395	570	785	475	745	895	555	920				
		4Z03	1255	410	465	//	//	//	//	//	//	625	355	490	735	435	665	845	520				840
0Z13	1350	405	445	//	//	//	//	//	//	645	340	395	755	425	570	865	505	745	10	4	140		
	2Z13	1450	455	510	//	//	//	//	//	585	290	295	690	375	470	800	460	645					
	4Z13	1555	505	570	//	//	//	//	//	//	//	//	630	325	365	735	410	540					
RKPM 510/250	0Y01	1095	320	340	1050	660	1130	1250	805	1450	1645	1095	2085	1845	1240	2405	2045	1385	2725	10	7	185	
	2Y01	1170	355	390	1005	625	1055	1200	775	1375	1600	1065	2010	1800	1205	2330	1995	1350	2650				
	4Y01	1245	390	435	955	595	980	1155	740	1300	1550	1030	1935	1750	1175	2255	1950	1315	2575				
	0Y02	1525	445	475	915	520	705	1115	665	1020	1515	960	1660	1610	1105	1975	1910	1250	2295	10	7	188	
		2Y02	1630	495	540	850	470	600	1050	620	915	1445	910	1555	1645	1055	1870	1845	1200				2190
		4Y02	1735	545	605	785	415	495	985	570	810	1380	865	1450	1580	1010	1765	1780	1155				2085
	0Y03	2160	630	670	//	//	//	920	390	390	1315	745	1025	1515	895	1345	1715	1045	1660	10	7	196	
		2Y03	2305	700	765	//	//	825	240	240	1225	675	875	1420	825	1195	1620	975	1515				
		4Y03	2455	770	860	//	//	//	//	//	//	1130	605	730	1330	755	1045	1530	905				1365
	0Y12	2620	765	815	//	//	//	//	//	//	1170	560	560	1370	730	880	1570	885	1200	10	7	198	
		2Y12	2800	850	930	//	//	//	//	//	1060	380	380	1260	645	700	1455	800	1020				
		4Y12	2980	935	1040	//	//	//	//	//	//	//	//	1145	520	520	1345	710	840				
0Y13	3255	950	1015	//	//	//	//	//	//	//	//	//	//	//	//	1370	565	565	10	7	205		
	2Y13	3480	1055	1155	//	//	//	//	//	//	//	//	//	//	//	1230	340	340					
	4Y13	3700	1160	1295	//	//	//	//	//	//	//	//	//	//	//	//	//	//					
RKPM 510/300	0Y01	1095	320	340	1660	1110	2110	1950	1315	2570	2520	1730	3485	2805	1940	3945	3095	2145	4405	7	10	195	
	2Y01	1170	355	390	1615	1075	2035	1900	1280	2495	2475	1700	3410	2760	1905	3870	3045	2115	4330				
	4Y01	1245	390	435	1570	1040	1960	1855	1250	2420	2425	1665	3335	2715	1870	3795	3000	2080	4255				
	0Y02	1525	445	475	1530	970	1685	1815	1180	2140	2390	1595	3060	2675	1805	3515	2960	2015	3975	7	10	198	
		2Y02	1630	495	540	1465	925	1580	1750	1130	2035	2320	1550	2955	2610	1755	3415	2895	1965				3870
		4Y02	1735	545	605	1400	875	1475	1685	1085	1935	2255	1500	2850	2545	1710	3310	2830	1920				3765
	0Y03	2160	630	670	1330	760	1050	1620	970	1510	2190	1395	2425	2475	1605	2885	2765	1810	3340	8	10	206	
		2Y03	2305	700	765	1240	690	900	1525	905	1360	2100	1325	2275	2385	1535	2735	2670	1745				3195
		4Y03	2455	770	860	1145	615	755	1430	835	1210	2005	1260	2130	2290	1465	2585	2575	1675				3045
	0Y12	2620	765	815	1185	585	590	1475	810	1045	2045	1240	1965	2330	1450	2420	2620	1660	2880	9	10	208	
		2Y12	2800	850	930	1075	405	405	1360	725	865	1935	1155	1785	2220	1370	2240	2505	1580				2700
		4Y12	2980	935	1040	//	//	//	1250	635	685	1820	1075	1600	2105	1285	2060	2395	1495				2520
0Y13	3255	950	1015	//	//	//	1275	415	415	1850	1025	1330	2135	1240	1790	2420	1450	2245	9	10	215		
	2Y13	3480	1055	1155	//	//	//	//	//	1710	915	1105	1995	1135	1565	2280	1350	2020					
	4Y13	3700	1160	1295	//	//	//	//	//	//	1570	805	880	1855	1030	1340	2140	1245				1800	

# PNEUMATIC QUARTER TURN ACTUATOR SCOTCH-YOKE EXECUTION

**DOUBLE ACTING** WITH HANDWHEEL ON REQUEST

TYPE **RKP - RTP**  
**RKPV - RTPV**



## ACTUATOR DIMENSIONS (mm)

	B	C	H1	H2	K	I	N1	O	Q	S	U	V	W	Y
RKP-RTP 210	268	172	55	45	119	147.5	69.5	125	100	60	190	500	□160	75
RKP-RTP 510	295	192	55	45	124.5	175	69.5	137.5	110	70	190	500	□160	100

## FLANGE DIMENSIONS (mm)

	D	n° x F	G	X	r	t	ISO
RKP-RTP 210	175	4 x M 16	140	45	26.3	14	F 14
RKP-RTP 510	210	4 x M 20	165	55	33.5	16	F 16

## ON REQUEST

MIN.	MAX.	Xmin	Xmax
F 12	F 14	25	50
F 12	F 16	40	60

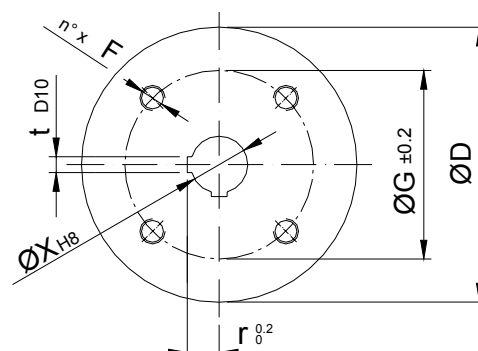
## CYLINDER DIAMETER (mm)

TYPE OF CYLINDER	160	200	250	300
DIMENSION "W"	Ø265	Ø265	Ø395	Ø395

"RKP" WITH HANDWHEEL = "RKPV"

- "g\*" - AIR INLET 1/2" NPT
- "H1" - STANDARD INDEX
- "H2" - MOUNTING KIT ACCORDING TO VDI-VDE 3845 (ON REQUEST)
- "P" - BRACKET ACCORDING TO CUSTOMER REQUIREMENT (ON REQUEST)

## DETAIL Z-Z



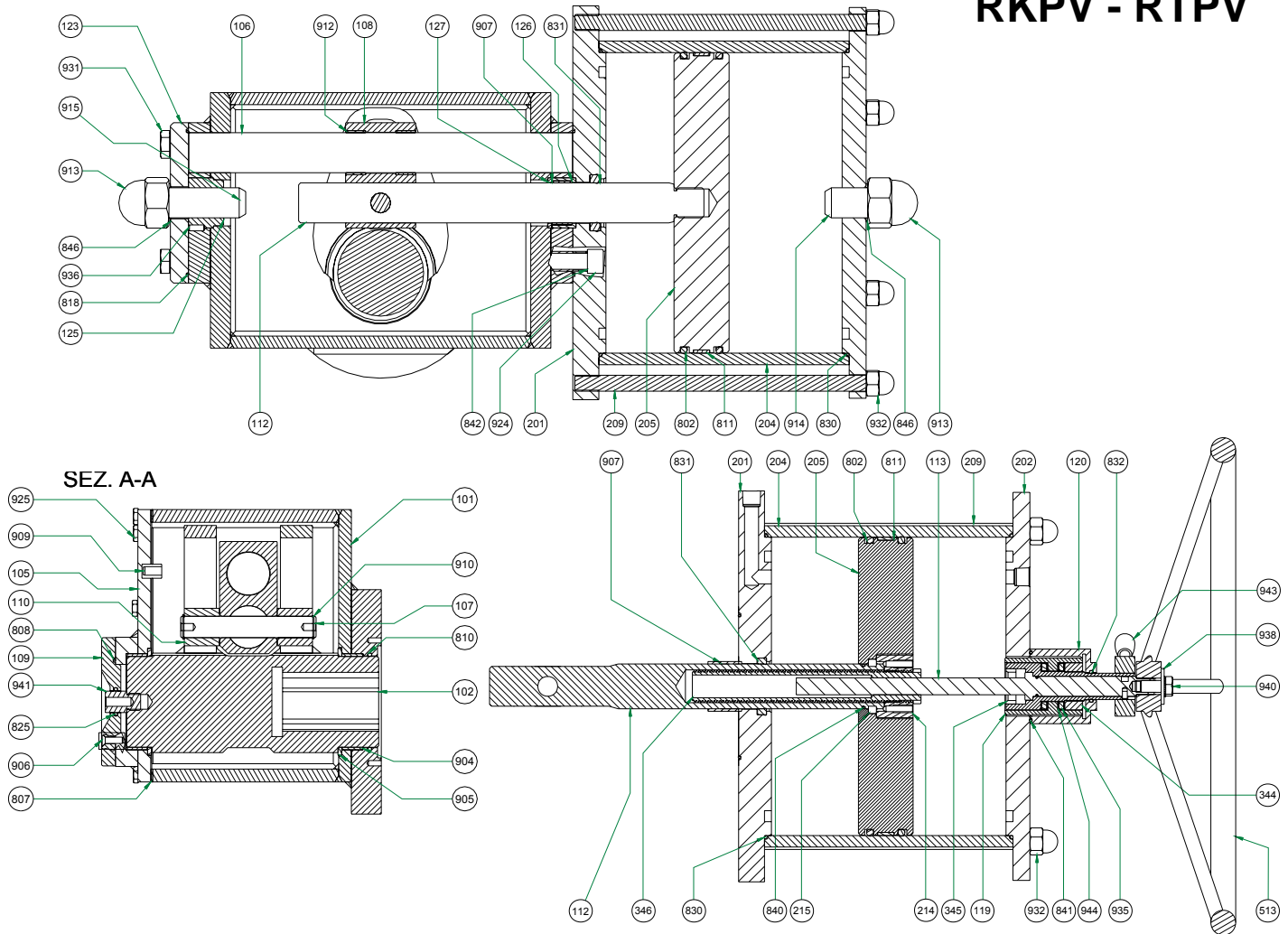
ON REQUEST ISO MALE SPIGOT



# PNEUMATIC QUARTER TURN ACTUATOR SCOTCH-YOKE EXECUTION

**DOUBLE ACTING** WITH HANDWHEEL ON REQUEST

TYPE **RKP - RTP**  
**RKPV - RTPV**



**POS. DESCRIPTION**

- 101 HOUSING
- 102 LINK
- 105 COVER
- 106 SHAFT
- 107 SHAFT
- 108 LINK JOINT
- 109 COVER
- 110 SLIDING RING
- 112 CHROM. SHAFT
- 113 SHAFT
- 119 STOP SCREW
- 120 CAP
- 123 HEAD
- 125 RING NUT
- 126 BUSHING
- 127 RING
- 201 HEAD
- 202 HEAD
- 204 CYLINDER (int. chr. plated)
- 205 PISTON
- 205 PISTON (EX. WITH HANDWHEEL)
- 209 STAY BOLT
- 214 RING NUT
- 215 RING
- 344 RING NUT
- 345 HANDWHEEL DEVICE
- 346 SHAFT
- 513 HANDWHEEL

**MATERIAL**

- S 275 JR EN 10025
- S 275 JR EN 10025
- S 275 JR EN 10025
- 42CrMo4 EN 10083/1
- 42CrMo4 EN 10083/1
- S 275 JR EN 10025
- S 275 JR EN 10025
- CuAl9Fe3 UNI 5723
- 42CrMo4 EN 10083/1
- 42CrMo4 EN 10083/1
- C40 EN 10083
- C40 EN 10083
- S 275 JR EN 10025
- 42 CRMO4 EN 10083/1
- C40 EN 10083
- C40 EN 10083
- P 355 NH EN 10028/3
- P 355 NH EN 10028/3
- E 355 EN 10297/1
- PA1Cu5.5PbBi UNI 6362
- S 275 JR EN 10025
- 42CrMo4 EN 10269
- C40 EN 10083
- 42CrMo4 EN 10083/1
- C40 EN 10083
- 42CrMo4 EN 10083/1
- 42CrMo4 EN 10083/1
- E 235 SR EN 10305/1

**POS. DESCRIPTION**

- 802 O-RING
- 807 COVER GASKET
- 808 O-RING
- 810 O-RING
- 811 PISTON DRIVE
- 818 O-RING
- 825 O-RING
- 830 O-RING
- 831 CSC
- 832 O-RING
- 840 O-RING
- 841 O-RING
- 842 BONDED SEAL
- 846 BONDED SEAL
- 904 BUSHING
- 905 RING
- 906 SCREW
- 907 BUSHING
- 909 PIN
- 910 SEEGER
- 912 BUSHING
- 913 NUT
- 914 STOP SCREW
- 915 STOP SCREW
- 925 SCREW
- 924 SCREW
- 931 SCREW
- 932 SCREW
- 935 BEARING
- 936 DOWEL
- 938 WASHER
- 940 SCREW
- 941 PIN
- 943 HANDWHEEL DEVICE
- 944 WASHER

**MATERIAL**

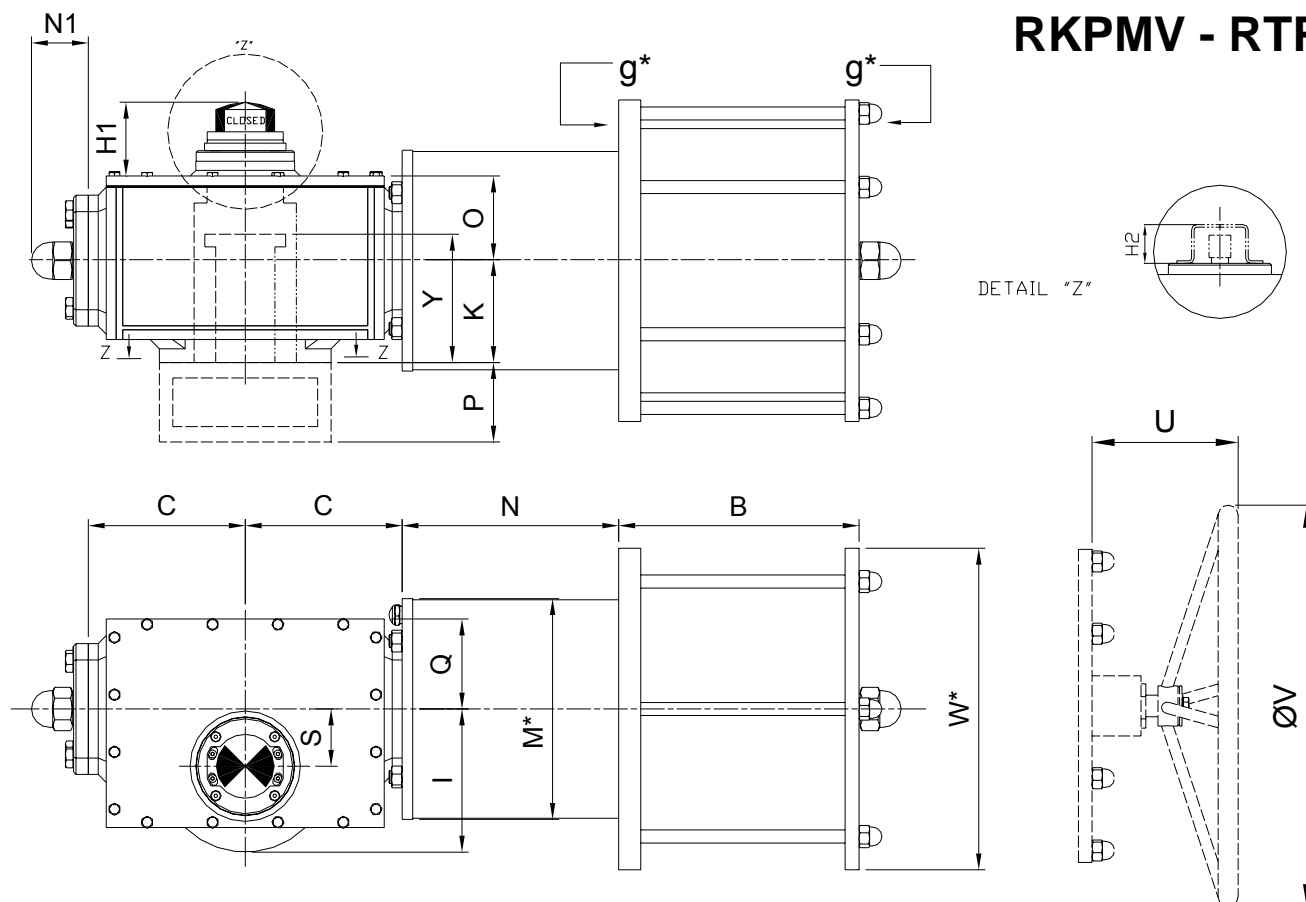
- N.B.R.
- N.B.R.
- N.B.R.
- N.B.R.
- PTFE+GRAPHITE
- N.B.R.
- N.B.R.
- N.B.R.
- N.B.R.
- N.B.R.
- N.B.R.
- N.B.R.
- N.B.R.
- N.B.R.
- N.B.R.
- STEEL/BRONZE/TEFLON
- OT 58 UNI 5705
- 8.8 EN 20898/1
- STEEL/BRONZE/TEFLON
- 8.8 EN 20898/1
- 8.8 EN 20898/1
- STEEL/BRONZE/TEFLON
- 8.8 EN 898/1
- AISI 316
- AISI 316
- 8.8 EN 20898/1
- 8.8 EN 20898/1
- 8.8 EN 20898/1
- 8.8 EN 20898/1
- 8.8 EN 20898/1
- 8.8 EN 20898/1
- 8.8 EN 20898/1
- 8.8 EN 20898/1
- AISI 316

● STANDARD SPARE PARTS

# PNEUMATIC QUARTER TURN ACTUATOR SCOTCH-YOKE EXECUTION

**SINGLE ACTING** WITH HANDWHEEL ON REQUEST

TYPE **RKPM - RTPM**  
**RKPMV - RTPMV**



## ACTUATOR DIMENSIONS (mm)

	B	C	H1	H2	K	I	N	N1	O	Q	S	U	V	Y
RKPM - RTPM 210	268	172	55	45	119	147.5	228	69.5	125	100	60	180	500	75
RKPM - RTPM 510	295	192	55	45	124.5	175	265	69.5	137.5	110	70	180	500	100

## FLANGE DIMENSIONS (mm)

	D	n° x F	G	X	r	t	ISO	ON REQUEST					
								MIN.	MAX.	Xmin	Xmax		
RKPM - RTPM 210	175	4 x M 16	140	40	23,3	12	F 14	F 12	F 14	25	45		
RKPM - RTPM 510	210	4 x M 20	165	55	31,8	16	F 16	F 12	F 16	40	60		

## CYLINDER DIAMETER (mm)

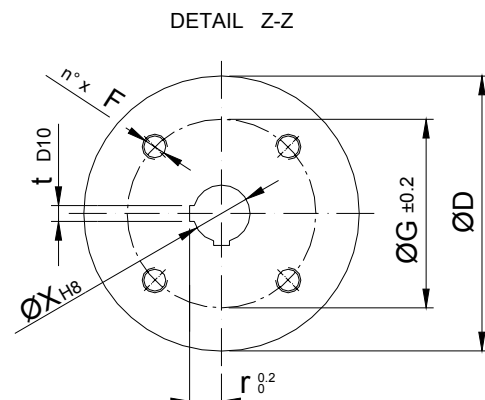
TYPE OF CYLINDER	160	200	250	300
DIMENSION "W"	Ø265	Ø265	Ø395	Ø395

## SPRING CARTRIDGE DIAMETER (mm)

DIMENSION "M" "210"	230
DIMENSION "M" "510"	265

"RKPM" WITH HANDWHEEL = "RKPMV"

- "g\*" - AIR INLET 1/2" NPT
- "H1" - STANDARD INDEX
- "H2" - MOUNTING KIT ACCORDING TO VDI-VDE 3845 (ON REQUEST)
- "P" - BRACKET ACCORDING TO CUSTOMER REQUIREMENT (ON REQUEST)

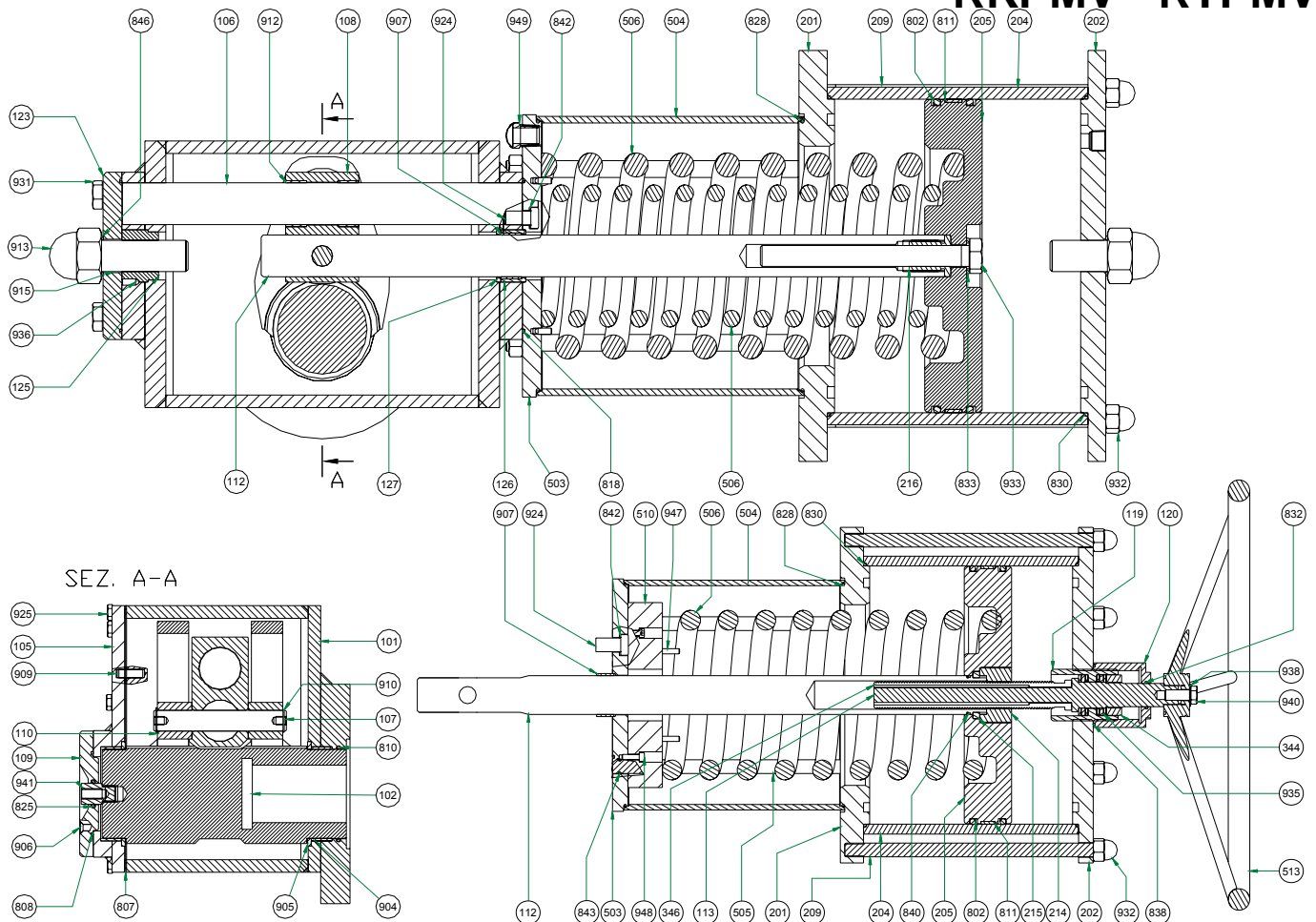


ON REQUEST ISO MALE SPIGOT

# PNEUMATIC QUARTER TURN ACTUATOR SCOTCH-YOKE EXECUTION

**SINGLE ACTING** WITH HANDWHEEL ON REQUEST

TYPE **RKPM - RTPM**  
**RKPMV - RTPMV**



**POS. DESCRIPTION**

101	HOUSING
102	LINK
105	COVER
106	SHAFT
107	SHAFT
108	LINK JOINT
109	COVER
110	SLIDING RING
112	CHROM. SHAFT
113	SHAFT
119	STOP SCREW
120	CAP
123	HEAD
125	RING NUT
126	BUSHING
127	RING
201	HEAD
202	HEAD
204	CYLINDER (int. chr. plated)
205	PISTON
205	PISTON (EX. WITH HANDWHEEL)
209	STAY BOLT
214	RING NUT
215	RING
216	SAFETY NUT
344	RING NUT
346	SHAFT
503	HEAD
504	TUBE
505	STAY BOLT
506	SPRING
510	SPACER
513	HANDWHEEL

**MATERIAL**

S 275 JR EN 10025
S 275 JR EN 10025
S 275 JR EN 10025
42CrMo4 EN 10083/1
42CrMo4 EN 10083/1
S 275 JR EN 10025
S 275 JR EN 10025
CuAl9Fe3 UNI 5723
42CrMo4 EN 10083/1
42CrMo4 EN 10083/1
C40 EN 10083
C40 EN 10083
P 355 NH EN 10028/3
P 355 NH EN 10028/3
E 355 EN 10297/1
PAICu5.5PbBi UNI 6362
S 275 JR EN 10025
42CrMo4 EN 10269
C40 EN 10083
42CrMo4 EN 10083/1
CuAl9Fe3 UNI 5723
C40 EN 10083
P 355 NH EN 10028/3
E 235 SR EN 10305/1
42CRMO4 EN 10083/1
51CrV4 EN 10089
EN-AW-6060 EN 573-3
E 235 SR EN 10305/1

**POS. DESCRIPTION**

● 802	O-RING	N.B.R.
● 807	COVER GASKET	N.B.R.
● 808	O-RING	N.B.R.
● 810	O-RING	N.B.R.
● 811	PISTON DRIVE	PTFE+GRAPHITE
● 818	O-RING	N.B.R.
● 825	O-RING	N.B.R.
● 828	O-RING	N.B.R.
● 830	O-RING	N.B.R.
● 833	O-RING	N.B.R.
● 838	O-RING	N.B.R.
● 840	O-RING	N.B.R.
● 842	BONDED SEAL	N.B.R.
● 843	O-RING	N.B.R.
● 846	BONDED SEAL	N.B.R.
● 904	BUSHING	STEEL/BRONZE/TEFLON
● 905	RING	OT 58 UNI 5705
● 906	SCREW	8.8 EN 898/1
● 907	BUSHING	STEEL/BRONZE/TEFLON
● 909	PIN	8.8 EN 898/1
● 910	SEEGER	8.8 EN 20898/1
● 912	BUSHING	STEEL/BRONZE/TEFLON
● 913	NUT	8.8 EN 898/1
● 915	STOP SCREW	AISI 316
● 924	SCREW	8.8 EN 20898/1
● 925	SCREW	8.8 EN 20898/1
● 931	SCREW	8.8 EN 20898/1
● 932	NUT	8.8 EN 20898/1
● 933	SCREW	8.8 EN 20898/1
● 935	BEARING	8.8 EN 20898/1
● 936	DOWEL	8.8 EN 20898/1
● 938	WASHER	8.8 EN 20898/1
● 940	SCREW	8.8 EN 20898/1
● 941	PIN	AISI 316
● 947	DOWEL	8.8 EN 20898/1
● 948	SCREW	8.8 EN 20898/1
● 949	SILENCER	BRASS

● standard spare parts

# PNEUMATIC QUARTER TURN ACTUATOR SCOTCH-YOKE EXECUTION

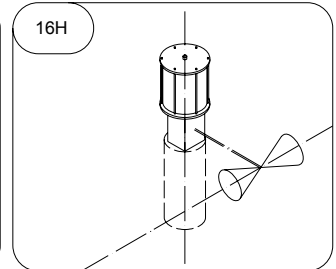
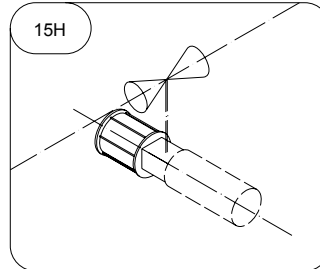
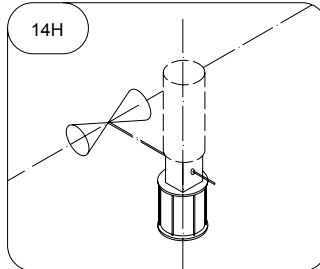
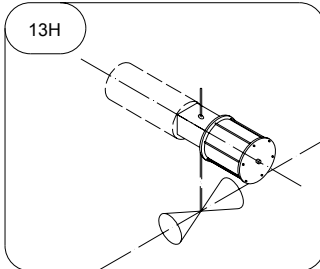
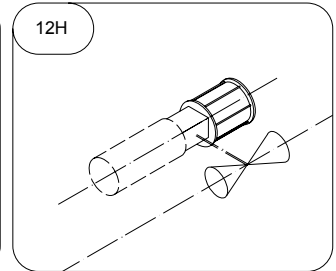
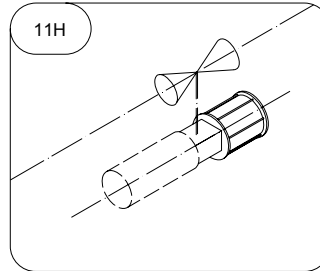
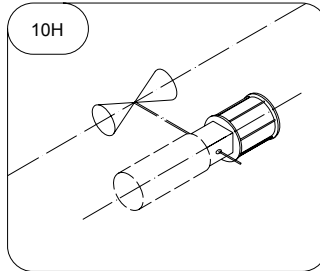
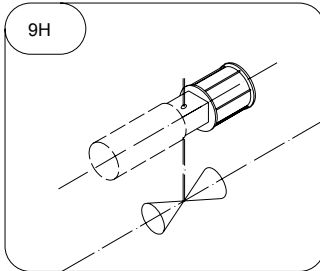
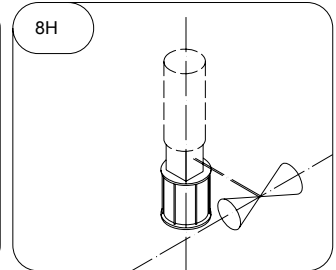
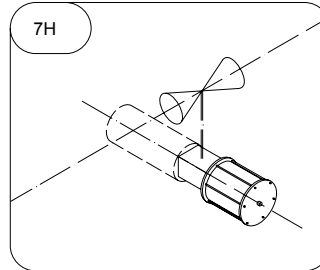
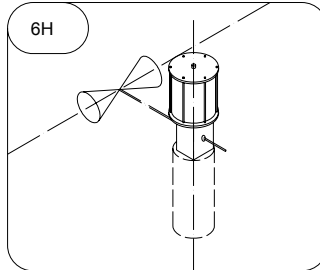
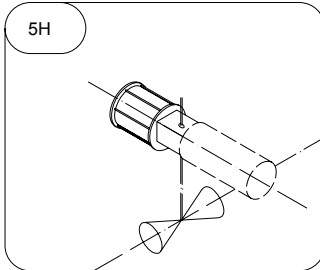
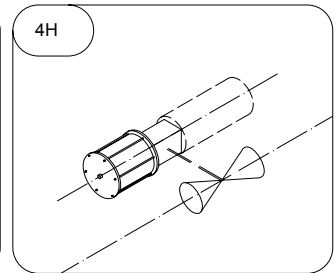
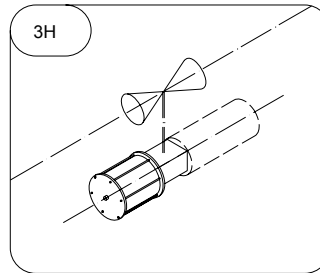
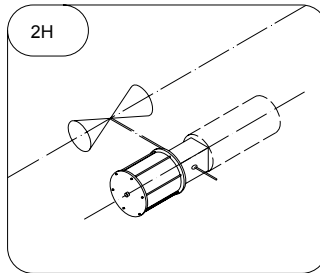
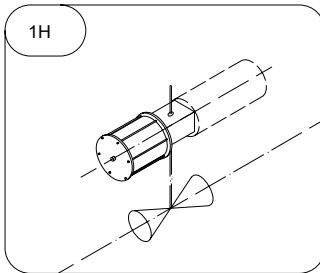
## ACTUATOR MOUNTING POSITIONS

VALVE BOTTOM  
ACTUATOR ABOVE

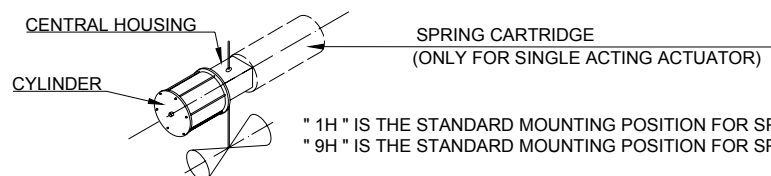
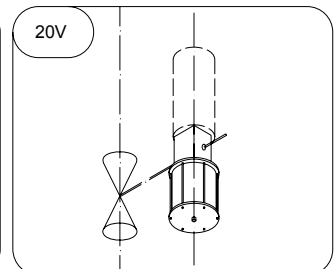
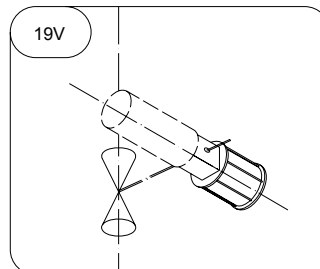
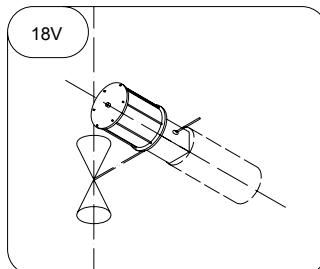
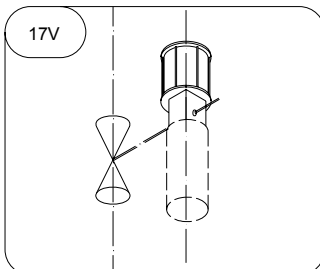
VALVE LEFT SIDE

VALVE ABOVE  
ACTUATOR BOTTOM

VALVE RIGHT SIDE



VALVE VERTICAL PIPE



" 1H " IS THE STANDARD MOUNTING POSITION FOR SPRING TO OPEN.  
" 9H " IS THE STANDARD MOUNTING POSITION FOR SPRING TO CLOSE.