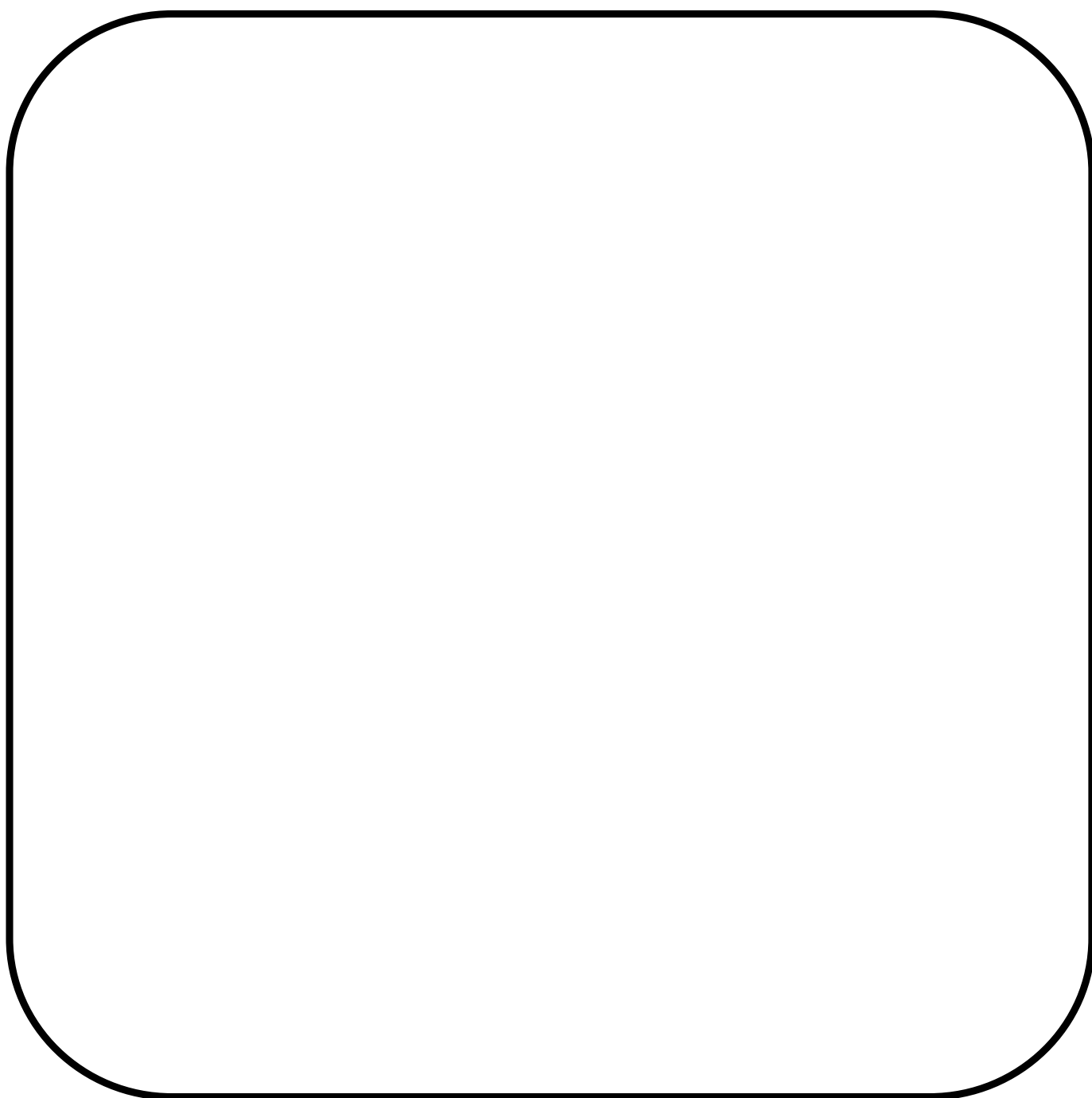


**KONUSNI  
ZATVARAČI**

**14**

**CONICAL  
VALVES**





## KONUSNI ZATVARAČI CONICAL VALVES

KZ

### PRIMENA

Konusni zatvarači su uređaji namenjeni za ugradnju na izlazu iz cevovoda. U zavisnosti od potrebe, konusni zatvarači obezbeđuju apsolutno zatvaranje protočnog preseka, vrše regulaciju protoka ili redukuju energiju izlaznog radnog fluida. Zahvaljujući ovim osobinama, konusni zatvarači su našli primenu na branama hidroelektrana, na mestima stalnog ispuštanja vode iz akumulacija, na mestima povremenog ispuštanja vode i tamo gde je ispuštanje vode u šemama kontrole plavljenja.

### IZVOĐENJE

Konusne zatvarače izrađujemo sa nazivnim prečnicima DN 200 do DN 1200 (mm), nazivnih pritisaka do NP 16 (bar), temperature radnog fluida do 80 (°C) sa priključnim merama koje odgovaraju standardima JUS M.B6.011 i DIN 2501.

Konusni zatvarači izvedeni su u zavarenoj konstrukciji, oblikovani tako da svojom krutošću i ostalim svojim karakteristikama odgovore svim zahtevima uslova u eksploataciji. Cilindrično telo zatvarača na svojoj uzvodnoj strani ima prirubnicu za povezivanje sa cevovodom, dok je njegova suprotna strana oblikovana tako da prelazi u konus koji zajedno sa radijalnim rebrima formira prstenasti izlazni otvor.

Funkcije otvaranja, zatvaranja i regulacije protoka obavljaju se aksijalnim pomeranjem pokretnog cilindra čije je kretanje uslovljeno pogonskim mehanizmom, a koji u standardnom izvođenju može biti ručni ili elektro-mehanički.

Ovako izveden konusni zatvarač na svom izlazu formira ispusni mlaz vode u obliku divergentnog šupljeg konusa u kome se vrši potrebna redukcija kinetičke energije vodene struje.

Konusni zatvarači opremljeni su pogonskim sklopom koji se sastoji iz koničnog razdelnog reduktora, dva konična reduktora sa ulogom međuprenosnika i dva trapezna navojna para simetrično postavljena sa obe bočne strane zatvarača koji obezbeđuju funkciju samokočenja.

### MATERIJAL

Kućište konusnih zatvarača izrađujemo od konstrukcionih čelika zavarivanjem, a klizne površine omotača i rebara su od nerđajućeg čelika.

Pokretni cilindar izrađujemo od konstrukcionih čelika zavarivanjem, a klizna i prstenasta zaptivna površina su od nerđajućeg čelika.

Zaptivni prsten i pokretni zaptivač izrađujemo od EPDM-a.

### NARUČIVANJE

Naručivanje se vrši opisno kao što je naznačeno u opštim napomenama.

### APPLICATION

Conical valves are the units intended for fitting at the pipeline outlet. Depending on requirements, conical valves provide for absolute closing of the flow section, regulate the flow and reduce the energy of discharge operating fluid. Owing to these characteristics, conical valves are applied in the dams, at the points of constant discharge of water from accumulation lakes, at the points of temporary discharge of water and where discharge of water is included in the flood control schemes.

### FABRICATION

Conical valves are made with nominal diameters, ranging from DN 200 to DN 1200 (mm), and nominal pressures up to NP 16 (bar), operating temperatures up to 80(°C) with connection dimensions in accordance with JUS M.B6.011 and DIN 2501 Standard.

Conical valves are welded, shaped so as to meet all the requirements of exploitation conditions by their stiffness and other characteristics. On the upstream side, the valve cylindrical body has got a flange for connection to the pipeline, while its opposite side is shaped so as to transform into a cone that together with radial ribs forms a ring-shaped outlet opening.

The functions of opening, closing and flow regulation are performed by axial movement of the movable cylinder, the movement of which is conditioned by driving mechanism, that can be manual or electro-mechanical in standard fabrication.

Such fabricated conical valve forms a discharge jet of water at the outlet, in the form of a divergent hollow cone, within which a necessary reduction of the water stream kinetic energy takes place.

Conical valves are equipped with a drive assembly, comprising conical manifold reduction gear, two conical gear boxes having the role of inter transmission and two trapezoidal threaded pairs, positioned symmetrically on the both sides of the valve, performing the self-locking function.

### MATERIAL

The housing of conical valves is made of structural steels by welding; the sliding surfaces of the shell and the ribs are made of stainless steel.

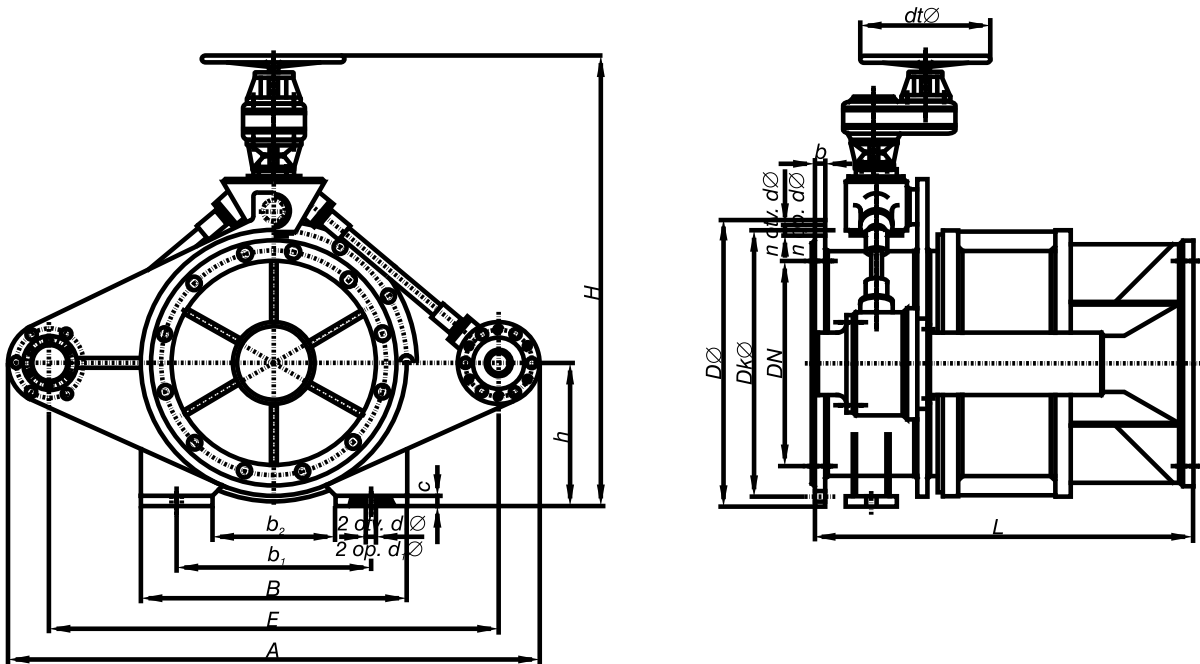
The movable cylinder is fabricated from structural steels by welding, and the sliding and ring-shaped sealing surface is made of stainless steel.

Sealing ring and movable gasket are made of EPDM.

### HOW TO ORDER

You can order as described in general notes.

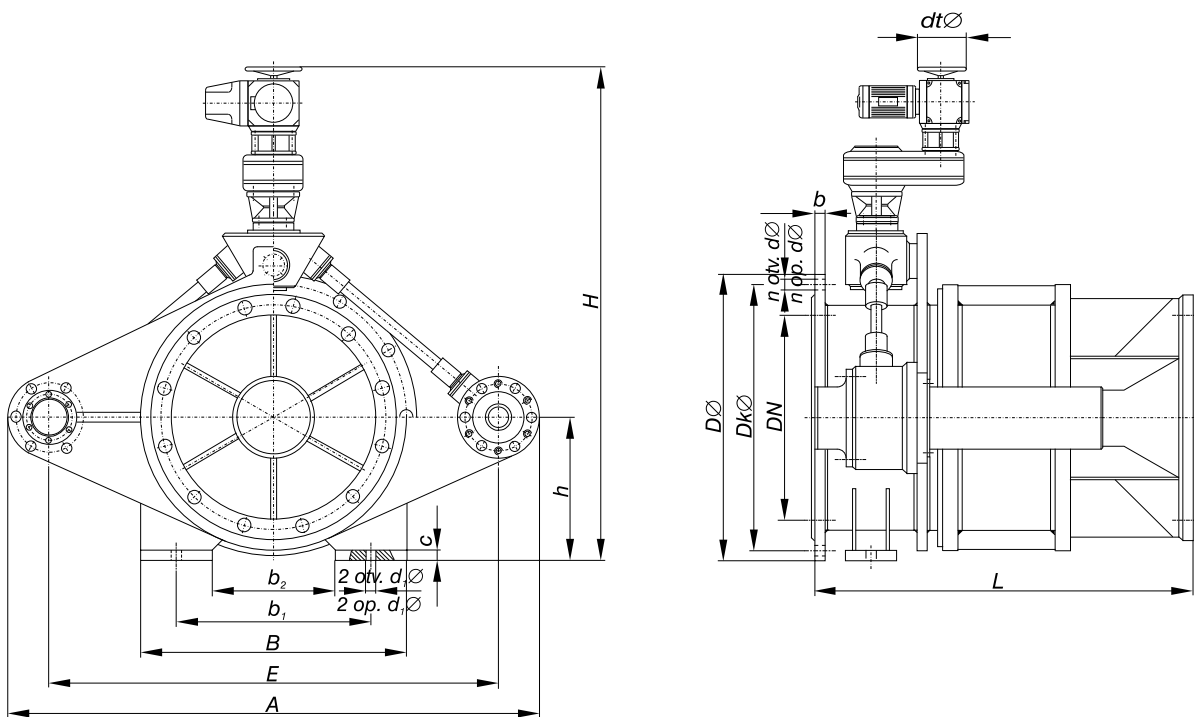
## RUČNI POGON - MANUAL DRIVE



14

DN	DØ	DkØ	A	E	H	L	h	B	b <sub>1</sub>	b <sub>2</sub>	c	d <sub>1</sub> Ø	dtØ	b	n	dØ
200	340	295	1150	750	700	550							160	24	8	22
250	395	350	1200	800	750	600							200	26	12	22
300	445	400	1250	850	850	650							200	26	12	22
350	505	460	1300	900	950	750							200	26	16	22
400	565	515	1350	950	1000	800							200	26	16	26
450	615	565	1400	1000	1100	900							200	26	20	26
500	670	620	1450	1100	1150	1000	370	500	370	200	20	26	320	28	20	26
600	780	725	1550	1200	1200	1150	430	600	450	240	20	30	320	28	20	30
700	895	840	1650	1300	1300	1300	470	750	630	470	25	30	450	30	24	30
800	1015	950	1750	1400	1400	1450	520	850	720	500	25	33	450	32	24	33
900	1115	1050	1850	1500	1500	1550	570	900	750	500	25	33	450	34	28	33
1000	1230	1160	1950	1600	1600	1650	640	1000	800	580	25	36	450	34	28	36
1100	1340	1270	2050	1700	1700	1750	690	1100	850	510	30	36	450	36	32	36
1200	1455	1380	2200	1850	1800	1850	750	1200	900	560	30	39	450	38	32	39

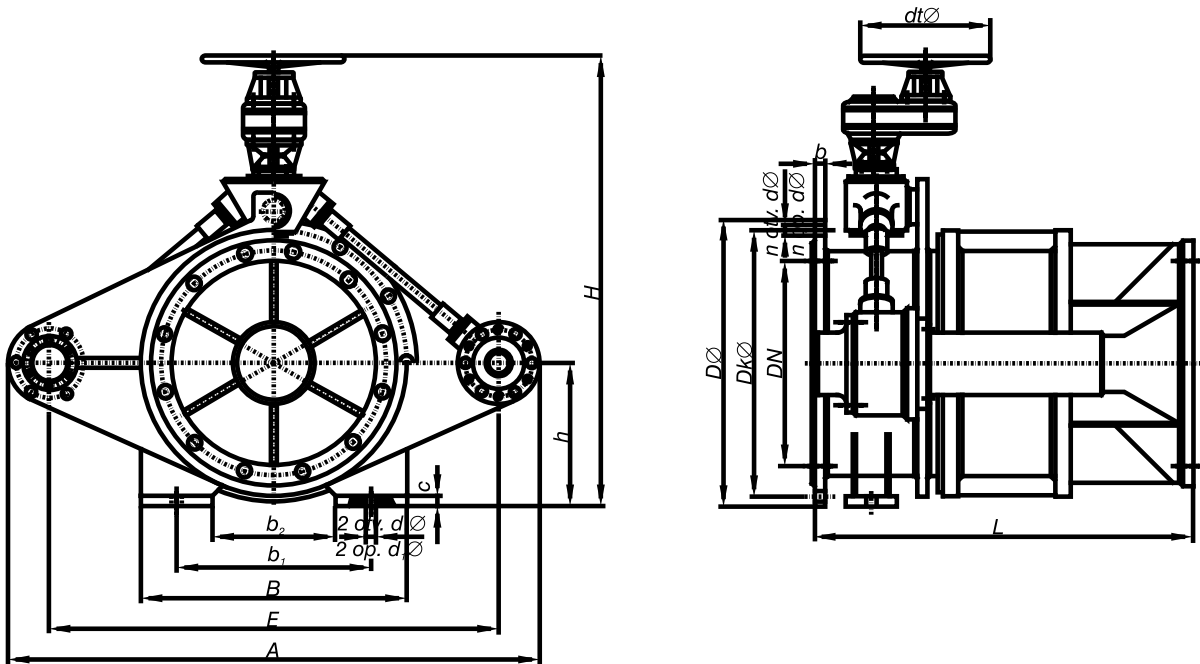
### ELEKTRO-MEHANIČKI POGON - ELECTRO-MECHANICAL DRIVE



14

DN	D $\varnothing$	Dk $\varnothing$	A	E	H	L	h	B	b <sub>1</sub>	b <sub>2</sub>	c	d <sub>1</sub> $\varnothing$	dt $\varnothing$	b	n	d $\varnothing$
200	340	295	1150	750	850	550							160	24	8	22
250	395	350	1200	800	900	600							200	26	12	22
300	445	400	1250	850	1000	650							200	26	12	22
350	505	460	1300	900	1100	750							200	26	16	22
400	565	515	1350	950	1150	800							200	26	16	26
450	615	565	1400	1000	1245	900							200	26	20	26
500	670	620	1450	1100	1345	1000	370	500	370	200	20	26	320	28	20	26
600	780	725	1550	1200	1500	1150	430	600	450	240	20	30	320	28	20	30
700	895	840	1650	1300	1590	1300	470	750	630	470	25	30	450	30	24	30
800	1015	950	1750	1400	1690	1450	520	850	720	500	25	33	450	32	24	33
900	1115	1050	1850	1500	1800	1550	570	900	750	500	25	33	450	34	28	33
1000	1230	1160	1950	1600	1910	1650	640	1000	800	580	25	36	450	34	28	36
1100	1340	1270	2050	1700	2000	1750	690	1100	850	510	30	36	450	36	32	36
1200	1455	1380	2200	1850	2250	1850	750	1200	900	560	30	39	450	38	32	39

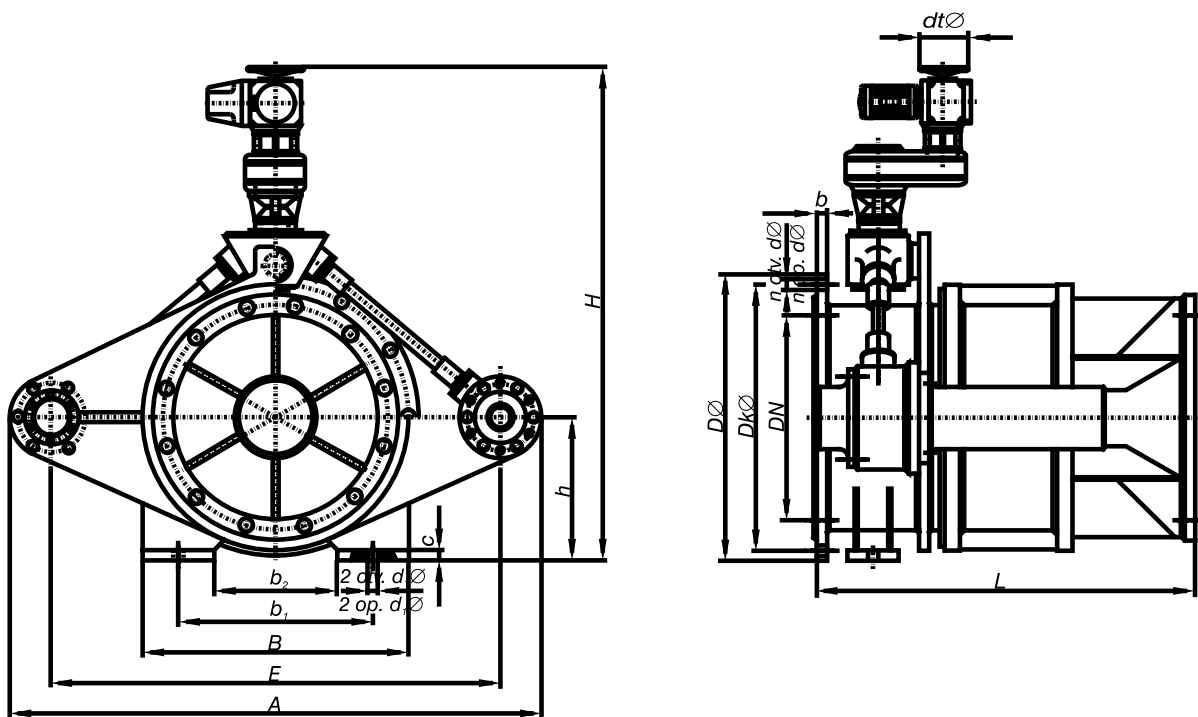
## RUČNI POGON - MANUAL DRIVE



14

DN	DØ	DkØ	A	E	H	L	h	B	b <sub>1</sub>	b <sub>2</sub>	c	d <sub>1</sub> Ø	dtØ	b	n	dØ
200	340	295	1150	750	700	550							160	24	12	22
250	405	355	1200	800	750	600							200	26	12	26
300	460	410	1250	850	850	650							200	28	12	26
350	520	470	1300	900	950	750							200	30	16	26
400	580	525	1350	950	1000	800							320	32	16	30
450	640	585	1400	1000	1100	900							320	34	20	30
500	715	650	1450	1100	1150	1000	370	500	370	200	25	26	450	34	20	33
600	840	770	1550	1200	1200	1150	430	600	450	240	25	30	450	36	20	36
700	910	840	1650	1300	1300	1300	470	750	630	470	30	30	450	36	24	36
800	1025	950	1750	1400	1400	1450	520	850	720	500	30	33	450	38	24	39
900	1125	1050	1850	1500	1500	1550	570	900	750	500	30	33	450	40	28	39
1000	1255	1170	1950	1600	1600	1650	640	1000	800	550	35	36	450	42	28	42
1100	1355	1270	2050	1700	1700	1750	690	1100	850	510	35	36	450	44	32	44
1200	1485	1390	2200	1850	1800	1850	750	1200	900	560	35	39	450	48	32	48

## ELEKTRO-MEHANIČKI POGON - ELECTRO-MECHANICAL DRIVE



14

DN	D $\varnothing$	Dk $\varnothing$	A	E	H	L	h	B	b <sub>1</sub>	b <sub>2</sub>	c	d <sub>1</sub> $\varnothing$	dt $\varnothing$	b	n	d $\varnothing$
200	340	295	1150	750	850	550							160	24	12	22
250	405	355	1200	800	900	600							200	26	12	26
300	460	410	1250	850	1000	650							200	28	12	26
350	520	470	1300	900	1100	750							200	30	16	26
400	580	525	1350	950	1150	800							320	32	16	30
450	640	585	1400	1000	1275	900							320	34	20	30
500	715	650	1450	1100	1345	1000	370	500	370	200	25	26	450	34	20	33
600	840	770	1550	1200	1500	1150	430	600	450	240	25	30	450	36	20	36
700	910	840	1650	1300	1590	1300	470	700	630	470	30	30	450	36	24	36
800	1025	950	1750	1400	1690	1450	520	800	720	500	30	33	450	38	24	39
900	1125	1050	1850	1500	1800	1550	570	900	750	500	30	33	450	40	28	39
1000	1255	1170	1950	1600	1910	1650	640	1000	800	550	35	36	450	42	28	42
1100	1355	1270	2050	1700	2000	1750	690	1100	850	510	35	36	450	44	32	44
1200	1485	1390	2200	1850	2250	1850	750	1200	900	560	35	39	450	48	32	48