

KULOVÉ VENTILY III.

790060

SIMPLE EFFECT PNEUMATIC ACTUATOR IN ALUMINIUM NICKEL - 90 °

- ENAW 6063 T6 extruded Aluminium Body, inside surface finish Ra=0,4-0,6 and treatment of Nickel plating.
- ENAB 46100 T6 die-casted Aluminium alloy Pistons, 15 micron Anodizing.
- ENAB 46100 T6 die-casted Aluminium alloy Covers Nickel plating.
- Carbon steel Shaft, 20 micron nickel-plated.
- Screws in Stainless Steel AISI 304 (A2).
- Seals in nitrile nubber NBR.
- Bearings in low friction acetal resin LAT-LUB.
- Pre-compressed Spring Cartridges.
- Standard grease: High performances syntetic grease.



- Double lower drilling for valve fastening and centering, according to ISO 5211-DIN 3337 Standards.
- Double square lower female shaft key (starlike), according to ISO 5211-DIN 3337 Standards for assembly on valves with square key on line (0°) and diagonal key (45°).
- Solenoid connections according to NAMUR VDI/VDE-3845 Standards.
- Top drilling for accessories fastening, and upper shaft end according to NAMUR VDI/VDE-3845 Standards.
- 3D position indicator.
- Aluminium adhesive nameplates, with progressive serial number punched.
- Lubrification guaranteed for min. 1.000.000 operations.
- Running test and 100% seal test carried out with electronic equipment and certification of each individual product.
- According to ATEX 2014/34/UE Standard for explosive environment; STANDARD version actuator: II 2GD c Tmax = 95°C.
- According to EN 15714-3 design and manufacture standard requirements.

USE:

AIR SUPPLY: Dry or lubricated filtered compressed air.
 TEMPERATURE RANGE: -20° +80°C (-4 +175°F).
 FEEDING PRESSURE: 8 bar/120 psi - CONTINUOUS 10 bar/142 psi - MAXIMUM.
 TURNING ROTATION RANGE: +/- 5°.
 STANDARD ROTATION: counterclockwise.

COMPANY WITH
QUALITY SYSTEM
CERTIFIED BY DNV
= ISO 9001 =



NICHELATURA CHIMICA

La nichelatura chimica e' un processo di deposito senza utilizzo di elettricit  che permette di ottenere strati di nickel di spessore estremamente uniforme anche su spigoli, fori ciechi, filetti e canali. Durante il processo produttivo il nickel viene combinato con fosforo in percentuali variabili fino al 12% (alto fosforo) il pi  pregiato. La durezza superficiale ottenibile   dell'ordine di 400-480 HV (45-55 HRC).

Migliore resistenza all'abrasione, alla corrosione, durezza superficiale, estetica simile all'acciaio INOX, resistenza ad alcali e detersivi.

ELECTROLESS NICKEL-PLATING

Chemical nickel-plating is an electroless coating process that gives nickel layers at extremely constant thickness also on sharp angles, blind-holes, threads and grooves recess. During the process, nickel is combined with phosphor at a percentage of 12% (high-phospor). The obtained surface hardness is about 400-480 HV (45-55 HRC).

Best friction and corrosion resistance, best surface hardness, best external appearance similar to S.S., increased resistance to alkali and detergents in sanitary and food applications.

	DESCRIZIONE / DESCRIPTION				UTILIZZO / APPLICATION FIELD
	Corpo / Body	Coperchi / Covers	Pistoni / Pistons	Pignone / Shaft	
	Nichelatura chimica alto fosforo (12%) High phosphorous nickel-plating (12%)	Nichelatura chimica alto fosforo (12%) High phosphorous nickel-plating (12%)	Ossidazione Anodica Anodizing	Nichelatura chimica alto fosforo (12%) High phosphorous nickel-plating (12%)	Industria, uso generale Industry, general use Soda caustica Caustic soda Detersivi Detergents Deboli soluzioni alcaline Low alkaline solutions
Colore / Colour	Acciaio lucido / Polished steel	Acciaio lucido / Polished steel	Bruno / Brown	Acciaio lucido / Polished steel	
Spessore / Thickness	20 �	20 �	15 �	20 �	

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ACTUATOR TYPE	N° OF SPRINGS PER SIDE OF PISTON	3 BAR		4 BAR		5 BAR		6 BAR		7 BAR		8 BAR		SPRING STROKE	CODE	
		0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°			
AP 042 4 Molle <i>4 Spring</i>	3	-	-	-	-	7,1	4,1	9,3	6,3	11,5	8,5	13,7	10,7	6,8	3,8	<u>790060 80740</u>
	4	-	-	-	-	-	-	8,1	4,1	10,2	6,2	12,4	8,4	9,0	5,0	
AP 050 6 Molle <i>6 Spring</i>	3	5,7	3,5	8,9	6,6	12,0	9,6	15,1	12,7	18,1	15,7	21,2	18,8	5,7	3,5	<u>790060 81060</u>
	4			7,7	4,7	10,8	7,7	13,9	10,8	16,9	13,8	20,0	16,9	7,7	4,7	
	5					9,6	5,8	12,7	8,9	15,7	11,9	18,8	15,0	9,6	5,8	
	6					8,4	3,9	11,5	7,0	14,5	10,0	17,6	13,1	11,5	7,0	
AP 063 6 Molle <i>6 Spring</i>	3	9,4	6,3	14,9	11,7	20,4	17,2	25,9	22,7	31,4	28,2	36,9	33,7	10,2	7,2	<u>790060 81660</u>
	4			12,3	8,3	17,8	13,8	23,3	19,3	28,8	24,8	34,3	30,3	13,7	9,7	
	5					15,4	10,4	20,9	15,9	26,4	21,4	31,9	26,9	17,1	12,1	
	6					13,0	7,0	18,5	12,5	24,0	18,0	29,5	23,5	20,5	14,5	
AP 075 6 Molle <i>6 Spring</i>	3	22,5	12,6	34,2	24,4	46,0	36,1	57,7	47,8	69,4	59,5	81,1	71,2	22,5	12,6	<u>790060 82060</u>
	4			30,0	16,9	41,8	28,6	53,5	40,3	65,2	52,0	76,9	63,7	30,0	16,9	
	5					37,6	21,1	49,3	32,8	61,0	44,5	72,7	56,2	37,6	21,1	
	6					33,4	13,6	45,1	25,3	56,8	37,0	68,5	48,7	45,1	25,3	
AP 085 6 Molle <i>6 Spring</i>	3	34,5	18,9	52,4	36,7	70,2	54,5	88,0	72,3	106	90,1	124	108	34,5	18,9	<u>790060 82560</u>
	4			46,1	25,2	63,9	43,0	81,7	60,8	99,5	78,6	117	96	46,1	25,2	
	5					57,6	31,5	75,4	49,3	93,2	67,1	111	84,9	57,6	31,5	
	6					51,5	20,0	69,1	37,8	86,9	55,6	105	73,4	69,1	37,8	
AP 100 6 Molle <i>6 Spring</i>	3	53,2	30,0	80,9	57,7	109	85,4	136	113	164	141	192	169	53,2	30,0	<u>790060 83060</u>
	4			70,9	40,0	98,7	67,7	126	95,4	154	123	182	151	70,9	40,0	
	5					88,7	50,0	116	77,7	144	105	172	133	88,7	50,0	
	6					78,7	32,2	106	60,0	134	87,7	162	115	106	60,0	
AP 115 6 Molle <i>6 Spring</i>	3	84,3	53,0	130	98,8	176	145	222	190	267	236	313	282	84,3	53,0	<u>790060 83560</u>
	4			112	70,7	158	116	204	162	250	208	295	254	112	70,7	
	5					140	88	186	134	232	180	278	226	140	88,3	
	6					123	60	169	106	214	152	260	197	169	106	
AP 125 6 Molle <i>6 Spring</i>	3	117	63,7	177	124	237	184	298	244	358	304	418	364	117	63,7	<u>790060 84060</u>
	4			156	85,0	216	145	276	205	336	265	396	326	156	85,0	
	5					195	106	255	166	315	227	375	287	195	106	
	6					173	67,4	234	128	294	188	354	248	234	128	
AP 145 6 Molle <i>6 Spring</i>	3	158	92,0	245	179	332	265	418	352	505	439	592	526	158	102	<u>790060 84560</u>
	4			211	123	298	210	384	269	471	383	558	470	224	136	
	5					264	154	350	240	437	327	524	414	280	170	
	6					230	98	316	184	403	271	490	358	336	204	
AP 160 6 Molle <i>6 Spring</i>	3	222	133	341	251	459	369	577	488	696	606	814	724	222	132	<u>790060 85060</u>
	4			297	177	415	295	533	414	652	532	770	650	297	177	
	5					371	221	489	339	607	458	726	576	371	221	
	6					327	147	445	265	563	384	681	502	445	265	
AP 180 6 Molle <i>6 Spring</i>	3	288	191	448	351	607	510	767	670	927	830	1068	989	288	191	<u>790060 85560</u>
	4			384	255	544	414	703	574	863	734	1022	893	384	255	
	5					480	318	640	478	792	638	959	797	480	318	
	6					416	222	576	382	736	542	895	701	576	382	

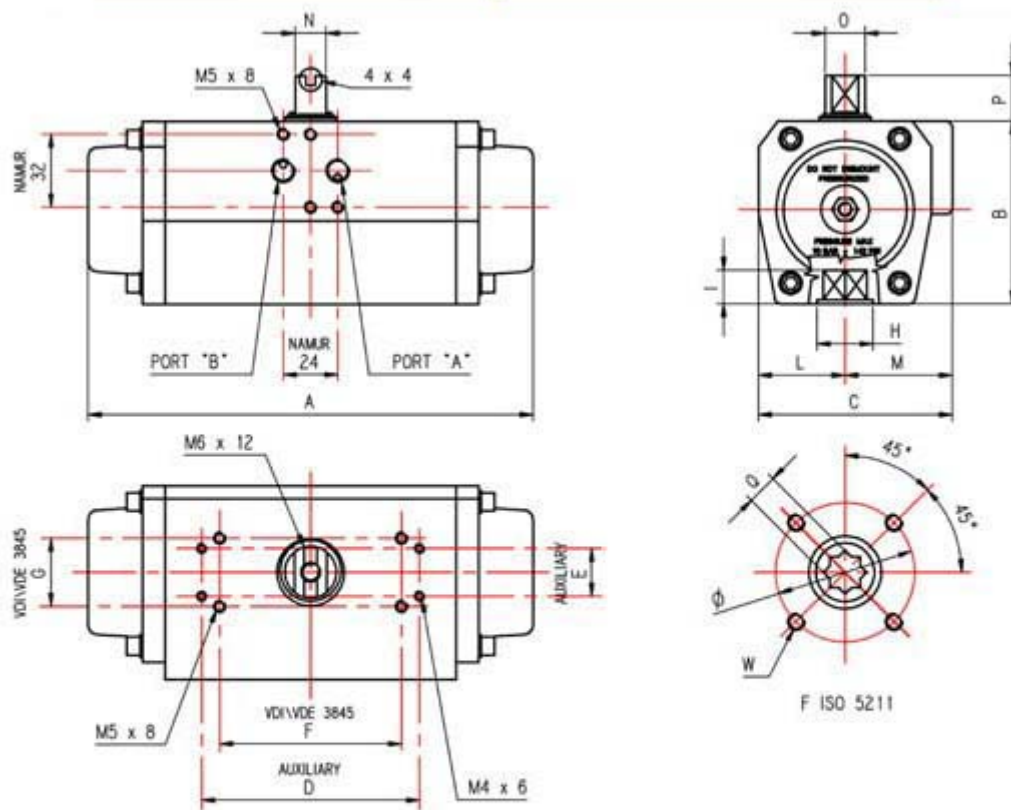
Note:

Valor in Newtonmeter

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DIMENSIONI – Misure Europee in millimetri

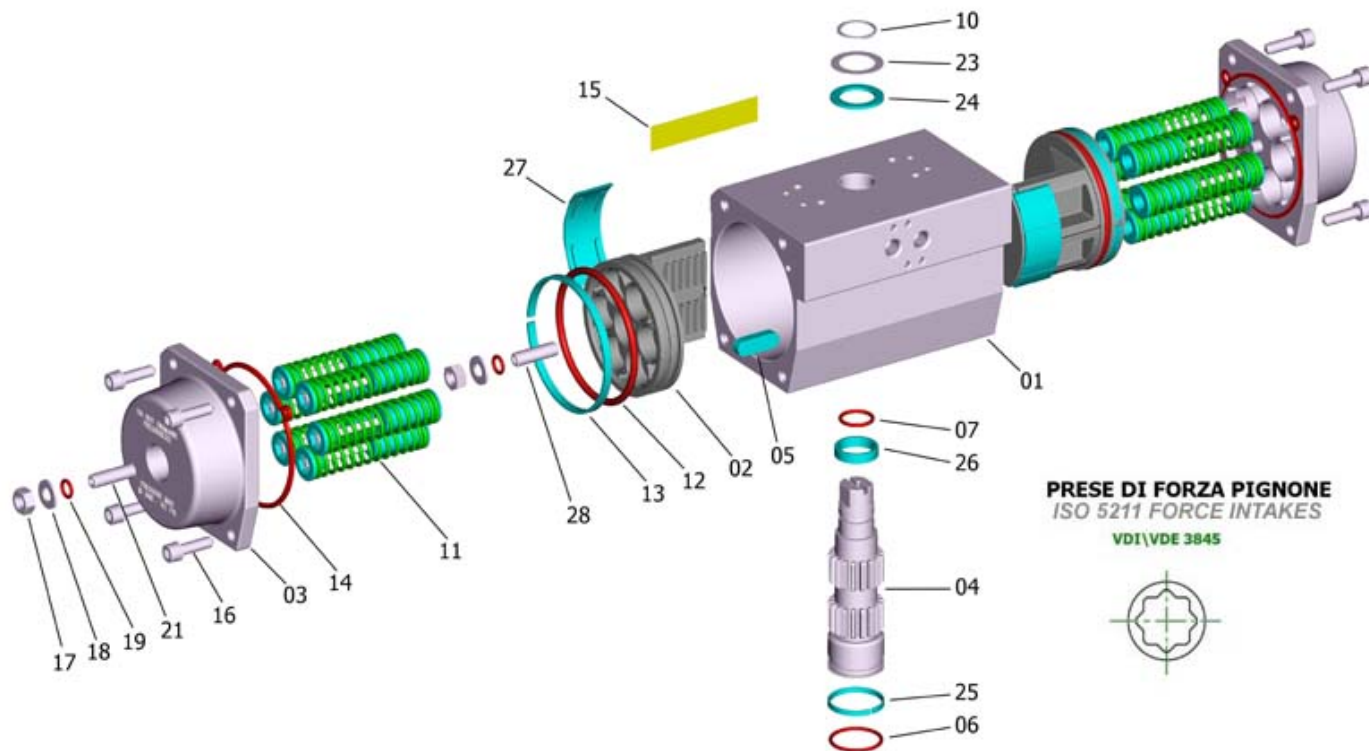
DIMENSIONS - European sizes in millimetres



POSIZIONE POSITION	F ISO 5211					
	F03	F03/05	F05	F05/07	F07/10	F10/12
Ø (W)	36 (M5x8)	36 (M5x8) 50 (M6x9)	50 (M6x9)	50 (M6x9) 70 (M8x12)	70 (M8x12) 102 (M10x15)	102 (M10x15) 125 (M12x18)
H	25 escluso AP 032	25	35	35 (AP085=40)	55	AP145 = 70 AP160 = 75 AP180 = 85

POSITION	AP 032	AP 042	AP 050	AP 063	AP 075	AP 085	AP 100	AP 115	AP 125	AP 145	AP 160	AP 180
A-90°	117	160	138	155,5	210	228	280,5	310	362	390	462	474
B	45	57	67	83	100	110	125	142	155	175	196	220
C	48	60,5	75	86	94	104	120	134	141	163	176	196
D x E	-	-	-	-	105 x 22	105 x 22	105 x 22	139 x 22	139 x 22	139 x 22	139 x 22	139 x 22
F x G	50 x 25	80 x 30	80 x 30	80 x 30	80 x 30	80 x 30	80 x 30	130 x 30	130 x 30	130 x 30	130 x 30	130 x 30
L	22,5	27	33,5	38	42,5	49	55	63,5	69,5	80	88	98
M	25,5	33,5	41,5	48	51,5	55	65	70,5	71,5	83	88	98
Port.A-Port.B DIN259	1/8" GAS	1/8" GAS	1/8" GAS	1/4" GAS	1/4" GAS	1/4" GAS	1/4" GAS	1/4" GAS	1/4" GAS	1/4" GAS	1/4" GAS	1/4" GAS
N x O	8 x 12	8 x 12	8 x 12	14 x 18	14 x 18	14 x 18	14 x 18	27 x 36	27 x 36	27 x 36	27 x 36	32 x 42
P	20	20	20	20	20	20	20	30	30	30	50	50
Q x I	9 x 10	9 x 10	9 x 10	14 x 16	17 x 20	17 x 20	22 x 25	22 x 25	22 x 25	27 x 30	27 x 30	27 x 30
F.ISO 5211	F03	F03 / 05	F03 / 05 F05	F03 / 05	F05 / 07	F05 / 07	F07 / 10	F07 / 10	F07 / 10	F10 / 12	F10 / 12	F10 / 12

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Pos.	Denomination	Pcs	Mat.
1	Body	1	ENAW 6063 T6
2	Piston	2	ENAB 46100 T6
3	Cover	2	ENAB 46100 T6
4	Shaft	1	ASTM A105
5 *	Antiejection key	2	Resina Acetalica - Acetalic resin
6 *	Lower shaft O-Ring	1	NBR
7 *	Upper shaft O-Ring	1	NBR
10 *	Seeger ring	1	Acciaio per molle -Spring steel
11	Spring cartridge	12	Acciaio per molle -Spring steel
12 *	Piston O-Ring	2	NBR
13 *	Piston head bearing	2	Resina Acetalica - Acetalic resin
14 *	Cover gasket	2	NBR
15	Nameplate	1	Alluminio - Aluminium
16	Cover fastening screw	8	AISI 304 (A2)
17	Nut	4	AISI 304 (A2)
18	Washer	4	AISI 304 (A2)
19 *	O-Ring	4	NBR
21	Cover dowel	2	AISI 304 (A2)
23 *	Shaft thrust washer	1	AISI 304 (A2)
24 *	Antifriction washer	1	Resina Acetalica - Acetalic resin
25 *	Lower shaft pilot ring	1	Resina Acetalica - Acetalic resin
26 *	Upper shaft pilot ring	1	Resina Acetalica - Acetalic resin
27 *	Piston bearing	2	Resina Acetalica - Acetalic resin
28	Piston dowel	2	AISI 304 (A2)
* SPARE PARTS SET			